# NEVADA COMMISSION FOR CULTURAL CENTERS & HISTORIC PRESERVATION (CCCHP)
# GRANT APPLICATION

NEVADA STATE HISTORIC PRESERVATION OFFICE — *SHPO Use Only*
Initials: CC Received: 4.29.24
Postmarked: N/A Delivery Svc: Hand Delivered

**APPLICATION COVER PAGE** This unaltered form must be submitted as the cover page for the application. Do not staple or bind application documents.

Grant Cycle Year(s) 2023-2024

Applicant Organization: Storey County
EIN (Taxpayer Identification Number): 88-6000134
Mailing Address: 26 South B Street PO Box 7
City: Virginia City County: NV ZIP: 89440
Project Contact: Sara Sturtz Title: Grants Manager
Daytime Phone: 775-350-9473 Evening Phone: NA
Fax: NA - please email Email: ssturtz@storeycounty.org

Historic Property Name: Piper's Opera House Date Built: 1885
Property Owner Name and Address: Storey County; see above address
Project Address: 12 North B Street
City: Virginia City County: Storey ZIP: 89440
Property Insured: ■ Yes; please enclose one copy of policy ☐ No; please explain:

Project Title: Piper's Opera House Front Door Restoration Project
Project Type: ■ Rehabilitation/Construction ☐ Planning/Construction
☐ Architectural/Engineering Study/Construction

Project Synopsis (Brief):

Storey County will contract with Central Sierra Construction Inc (CSCI) to restore 12 existing wood doors on front (east) elevation of the Opera House and restore the five windows on the south wall of Piper's Opera House. CSCI will remove doors and windows from the site and transport to CSCI's shop for restoration work. Door hardware will be replaced as needed. CSCI has estimated that this project will take 10 weeks to complete and the County is ready to begin the project. The proposed start date is reflective of when the County believes the SHPO will be able to obligate the funds and can easily be modified, especially if the weather conditions do not allow for work. Thank you for your time and consideration.

Proposed Start Date: 11/31/24

Proposed End Date: 3/31/25

**Project Budget Summary:**

| | |
|---|---|
| **Amount Requested:** | **$107,375.00** |
| Proposed Match: | |
| Cash: | $20,000.00 |
| In-Kind/Donations: | |
| **Total Project Budget:** | **$127,375.00** |
| If Applicable, Minimum Amount Requested | $107,375.00 |

**Applicant's Authorized Signature***

Name: Sara Sturtz

Title: Grants Manager

Date: 4/29/2024

***Sign in blue or black ink. Application packets without original signatures will be considered incomplete.**

NEVADA COMMISSION FOR CULTURAL
CENTERS & HISTORIC PRESERVATION (CCCHP)

**GRANT APPLICATION**

NEVADA
**STATE HISTORIC PRESERVATION OFFICE**

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APPLICATION COVER PAGE Cont.

## Handbook Verification Form

- ▣ I HAVE READ THE CCCHP GRANT HANDBOOK, AND
- ▣ I HAVE COMPLETED THIS CCCHP GRANT APPLICATION, AND
- ▣ I CERTIFY THE INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

**Applicant's Authorized Signature***

Name: Sara Sturtz

Title: Grants Manager

Date: 4/29/2024

***Sign in blue or black ink. Application packets without original signatures will be considered incomplete.**

# NEVADA COMMISSION FOR CULTURAL CENTERS & HISTORIC PRESERVATION (CCCHP)

# GRANT APPLICATION

NEVADA
**STATE HISTORIC PRESERVATION OFFICE**

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APPLICATION COVER PAGE Cont.

## Application Checklist

**Directions:** Assemble the application in the following order and initial in blue or black ink on the lines to confirm that each of the required components are included in the application package.

### 1. Cover Pages

_____ **Application Cover Page**

_____ **Handbook Verification Form**

_____ **Application Checklist**

### 2. Project Narrative

_____ **A. Questions** (No more than 5 pages)

_____ **B. Supplemental Material**

_____ **A paragraph (200 words maximum) describing the current or intended future use of the property and cultural center programming.**

_____ **County Assessor print out showing the current owner of the property with the APN number**

_____ **Photographs of all exterior elevations with views and all major rooms and project rooms, identified and keyed to a site plan**

_____ **Organization's information including:**

- Articles of incorporation, mission statement, length of time established, and history
- A list of current board members
- Long-range plan including information on how frequently the plan is updated
- **If applicable:**
- A list of activities for the past fiscal year
- A detailed report on current CCCHP grant status as well as the outcome of previous CCCHP grants
- A current list (last three years) of all grants and additional funding, including amounts the organization has or will receive

### 3. Budget

_____ **Detailed Budget**

- Completed Budget Form
- Attached itemized lists and/or contractor quotes that break down labor and material costs

_____ **Audit**

- Most recent audit for the organization. If there is no audit, provide an explanation of why an audit was not completed and how bookkeeping is managed.

_____ **Insurance**

- Proof of insurance for the property or a justification for why there is no insurance

_____ **Resumes**

- All principal professionals involved in planning, design and management of the proposed project

_____ **Initial to confirm that the applicant understands that applications lacking any of the required information listed above are ineligible for review by the Commission.**

**CCCHP Grant FY23/24 Grant Application – Piper's Opera House Front Doors**

**2.A – Questions**

## 1. Project Description:

- What building(s), prehistoric feature, historic feature, or culturally significant feature are you restoring/rehabilitating?
    - **The 12 front doors and frames/transoms at the front entry (east elevation) of Piper's Opera House and the five windows on the south wall of Piper's Opera House.**

- What is the historical significance of the property?
    - **Piper's Opera House is in Virginia City, which earned its place on the map after the discovery of gold in 1859. Shortly after, a mining boom gave Virginia City the title of "The Richest Place on Earth." Throughout the following decades people came from all over the world to earn their chance of striking it rich. Silver was the predominant ore body that was mined, with gold being a consequential side mineral. Through its riches, Comstock, which is comprised of Virginia City, Gold Hill, Silver City, and parts of Dayton, contributed to billions of dollars being injected into the National economy. In the late 1800's the mining boom slowed and Virginia City, which had seen populations of up to 25,000 people, lost many of its residents. Subsequent mining booms occurred over the next decades and briefly people would flock once again to the region, but never in the amount as the first big boom of the 1860s and 1870s.**

      **Throughout the rise and fall of the residential population, Virginia City managed to remain entrenched on the hillside of Mt. Davidson. In the 1960's Virginia City once again was put in the spotlight with the arrival of the television show, "Bonanza". Since then, tourism has been as important to the towns success as mining had once been. Annually one million people visit Virginia City, and the number continues to grow. Registered as a National Historic Landmark and listed on the National Register of Historic Places, historic structures, such as Piper's Opera House, are vital to the County's tourism.**

      **The current Piper's Opera House was constructed in 1885, after two other iterations of the Opera House were burned to the ground (Great Fire of 1875 and another fire in 1883). At its height, the Opera House was one of the finest theater houses in the Western United States. The theater attracted many famous performers such as but not limited to Buffalo Bill, Maude Adams, Edwin Booth, and Al Jolson.**

**The Opera House was condemned in 1920 and reopened as a museum in the 1940s. After undergoing significant renovations by Louise Zimmer Driggs (Piper's great granddaughter), the Opera House reopened in the 1970s and was an active theater through the mid-1980s. The theatre was once again forced to close its doors in the mid-1980s; however, under new ownership, the Opera House was able to open again as a museum in 1999. Today the Opera House is a fully functioning Performing Arts Theater.**

- How do you propose to restore/rehabilitate it?
  - **Our Public Works department and contractor Central Sierra Construction, Inc. (CSCI) met with the Comstock Preservation and History Officer (Kristen Brown) to discuss the best approach for the rehabilitation of the front doors and the south wall windows at Piper's. Kristen explained that the doors and windows can be restored through a specific epoxy material (Advance Repair Technology) and molding/hardware for the doors can be replaced with like materials where needed. After this meeting, CSCI provided a cost estimate[1] that has been included in this application (Attachment A). Storey County will consult with Kristen Brown and Carla Cloud throughout the restoration process to ensure work meets the *Secretary of the Interior Standards for Rehabilitation*.**

- Who will be doing the work?
  - **Storey County currently has a bid from CSCI for all the materials and labor for this project.**

- What is the timeline for the project?
  - **CSCI estimates a total of 10 weeks for the project. Storey County estimates it may take ~12 weeks (dependent on weather).**

- Who holds title to the property?
  - **Storey County**

## 2. Building Use/Community Involvement:

- How and by whom will the facility be used?
  - **Piper's Opera House is a Performing Arts Center that is open to the public. It hosts theatrical performances, concerts, non-profit events, and more to the community and visitors year-round.**

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[1] Please note that the cost estimate CSCI provided for the windows includes restoring eight windows and this application only includes the restoration of the south wall windows, as SHPO has notified Storey County staff it is critical to get the windows restored within this current construction season. The County does plan to restore all eight windows as soon as feasible and will continue to pursue funding and grant opportunities. If the County is awarded CCCHP funds, and there are funds available for all eight windows, please let us know.

- Who will be responsible for management of the building and its programs/activities?
    - **Storey County and the Virginia City Tourism Commission (department within the County) will be responsible for the management of the building and its programs/activities.**

- How has the community been involved in your project?
    - **The continual preservation of Piper's Opera House is a collective goal of the community and Piper's Opera House is within the Comstock Historic District. This project was brought to the County's attention through the 2020 amended Historic Structures Report (Attachment B) and the Public Works department, who conduct routine inspections of the historic resources in our County.**

- How will the community continue to be involved in your project?
    - **The community will not be directly involved with the project. The County will work with a contractor that has technical expertise working with historic buildings. The community will be able to use the front entry doors when they visit Piper's Opera House after the project is complete.**

- How will the community continue to be involved in the use of the building?
    - **The door and window rehabilitation project will ensure the continued use of this historic building. As mentioned above, Piper's Opera House is open to the public. It hosts theatrical performances, concerts, non-profit events, and more to the community and visitors year-round.**

- How are your restoration/rehabilitation plans related to the uses of the building?
    - **The rehabilitation of the doors and south wall windows will help Storey County preserve the historic features of this building. Additionally, as the front entry doors are the main entrance to the building, they are one of the first features of the building that the casual observer notices.**

- What importance to tourism (cultural or otherwise) will the facility have?
    - **One million people visit Virginia City annually, and historic buildings such as Piper's Opera House attract a lot of attention as many of the tourists' main activities are visiting and photographing the historic buildings. Additionally, as stated above, the Opera House hosts theatrical performances, concerts, non-profit events, and more to the community and visitors year-round. These year-round events make the Opera House a vital cultural center for the Comstock.**

## 3. Project Support/Financial:

- What specific contributions (cash, land, labor, materials, etc) have been provided toward the project from the community and/or other sources?
    - **Currently, the Storey County Public Works Building and Grounds Manager (B&G Manager) and the Grants Manager have provided their staff time for this project. The B&G Manager has assessed the need to restore the doors, solicited bids, met with the Comstock Preservation and History Officer on the project, and reviewed the proposed work with the contractor. The Grants Manager has compiled the CCCHP grant application.**

- What grants and additional funding (last three years), including amounts, has the organization received or will receive for this project?
    - **Although Piper's Opera House has numerous rehabilitation and maintenance projects that need to be completed in the future, the County believes that we will be able to complete the proposed project in its entirety with the requested funds from CCCHP.**

- What additional contributions are projected to complete the project?
    - **Storey County Staff (B&G Manager and Grants Manager) will dedicate staff time to ensuring the successful completion of this project. Storey County will also provide a $20,000 cash match to ensure the successful completion of this project.**

- How will your facility sustain itself financially in the future?
    - **Storey County will continue to sustain itself through current means of revenue generated by business, property, and sales tax; licensing fees and permits; and through grant funding for the preservation of its historic buildings.**

- Please provide evidence that you can implement the project and maintain a viable program in the future.
    - **Storey County has received numerous grant awards through SHPO for the rehabilitation and maintenance of Piper's Opera House and have successfully completed the awarded grant projects. The successful completion of these projects demonstrates that County employees are knowledgeable of County endeavors, including the preservation of its historic structures, and can maintain a viable program in the future.**

## 4. Planning:

- If your project includes planning, please describe the process.

- **A 2020 amended Historic Structures Report (HSR) for Piper's Opera House (Attachment B) provided the County with the preservation and maintenance needs of the building.**

- Who will participate in the planning?
  - **The need for this project was previously identified in the 2020 amended HSR.**

- Who will coordinate it?
  - **The need for this project was previously identified in the 2020 amended HSR.**

- How will the community be involved?
  - **The need for this project was previously identified in the 2020 amended HSR.**

- If your project is based on previous planning, please describe.
  - **The need for this project was previously identified in the 2020 amended HSR.**

**CCCHP Grant FY23/24 Grant Application – Piper's Opera House Project**

**2.B.1 – Paragraph describing use of property and cultural center programming**

The current Piper's Opera House was constructed in 1885, after two other iterations of the Opera House were burned to the ground (Great Fire of 1875 and another fire in 1883). At its height, the Opera House was one of the finest theater houses in the Western United States. The theater attracted many famous performers such as Buffalo Bill, Maude Adams, Edwin Booth, and Al Jolson.

Today Piper's Opera House is still a fully functioning performing art theater. The Opera House hosts numerous cultural programs such as, but not limited to, theatrical performances, comedy shows, concerts, non-profit events, and dances. These year-round events make the Opera House a vital cultural center for the Comstock.

**CCCHP Grant FY23/24 Grant Application – Piper's Opera House Project**

**2.B.2 – County Assessor Print out**

Property Information

| | | | |
|---|---|---|---|
| **Parcel ID** | 001-082-14 | **Parcel Acreage** | 0.2200 |
| **Tax Year** | 2024 | **Assessed Value** | 206,920 |
| **Land Use Group** | COM | **Tax Rate** | 0.0000 |
| **Land Use** | 400 - General Commercial | **Tax Cap** | High Cap |
| **Zoning** | CR | **Tax Cap Returned** | |
| **Tax District** | 010 | **Total Tax Fiscal Year (2024 - 2025)** | $0.00 |
| **Site Address** | 12 N B ST VIRGINIA CITY | **Total Unpaid All Years** | $0.00 |
| **Neighborhood** | VCMP - Virginia City Mid Town Public | | Pay Taxes |

Assessments

| Taxable Value | Land | Building | Per. Property | Totals |
|---|---|---|---|---|
| **Residential** | 0 | 0 | 0 | **0** |
| **Com / Ind.** | 0 | 0 | 0 | **0** |
| **Agricultural** | 0 | 0 | 0 | **0** |
| **Exempt** | 58,560 | 532,639 | 0 | **591,199** |
| **Pers. Exempt** | | | | **0** |
| **Total** | **0** | **0** | **0** | **0** |

| Assessed Value | Land | Building | Per. Property | Totals |
|---|---|---|---|---|
| **Residential** | 0 | 0 | 0 | **0** |
| **Com / Ind.** | 0 | 0 | 0 | **0** |
| **Agricultural** | 0 | 0 | 0 | **0** |
| **Exempt** | 20,496 | 186,424 | 0 | **206,920** |
| **Pers. Exempt** | | | | **0** |
| **Total** | **0** | **0** | **0** | **0** |

| | New Land | New Const. | New P.P. |
|---|---|---|---|
| **Residential** | 0 | 0 | 0 |
| **Com / Ind.** | 0 | 0 | 0 |
| **Agricultural** | 0 | 0 | 0 |
| **Exempt** | 0 | 0 | 0 |
| **Totals** | 0 | 0 | 0 |

Assessor Descriptions

| Year | Assessor Descriptions | Subdivision | Section | Township | Range | Block & Lot |
|---|---|---|---|---|---|---|
| | **Current Year 2024** | | | | | |
| 2024 | PARCEL MAP ID : LOT : BLOCK : 83 L17-22, BLK 83, RNG A TOWN : VIRGINIA CITY | | | | | |

No Billing Information

## Payment History

| Fiscal Year | Total Due | Total Paid | Amount Unpaid |
|---|---|---|---|
| (2017 - 2018) | $2,328.97 | $2,328.97 | $0.00 |
| (2016 - 2017) | $5,110.09 | $5,110.09 | $0.00 |
| (2015 - 2016) | $5,057.82 | $5,057.82 | $0.00 |
| (2014 - 2015) | $601.81 | $601.81 | $0.00 |
| (2013 - 2014) | $4,020.44 | $4,020.44 | $0.00 |

Show 2 More (2)

## Related Names

**CURRENT OWNER FOR 2024 (2024 - 2025)**

**Name** STOREY COUNTY
**Mailing Address** PO BOX 176 VIRGINIA CITY, NV, 89440
**Status** Current

No Personal Property

Structure 1 of 2

Structure 2 of 2

## Sales History

| Year | Document # | Document Type | Sale Date | Sold By | Sold To | Price |
|---|---|---|---|---|---|---|
| 2017 | 126900 | GRANT BARGAIN SALE DEED | 12/20/2017 | STOREY COUNTY SCHOOL DISTRICT | STOREY COUNTY | $300,500 |
| 2014 | 119867 | GRANT BARGAIN SALE DEED | 1/22/2014 | PIPERS OPERA HOUSE PROGRAMS INC | STOREY COUNTY SCHOOL DISTRICT | $282,310 |

No Genealogy

No Taxing Bodies Information

## Disclaimer

Storey County presents the information on this web site as a service to the public. We have tried to ensure that the information contained in this electronic document is accurate. Storey County makes no warranty or guarantee concerning the accuracy or reliability of the content at this site or any other sites to which we link. Determining the accuracy and reliability of this information is the responsibility of the user. Storey County shall not be liable for errors contained herein or for any damages in connection with the use of the information contained herein. Due to data update schedules, the information on this web site may not reflect the most recent changes to property information.

For questions about property assessment information please contact 775-847-0961


Photo Points for Piper's – 2.B.3 Photographs
CCCHP FY23/24 Grant Application
Legend
Photo
Photo 4
Photo 3
Photos 5-12
Photo 1
Photos 13-16
Photos 17-19
Photo 2
Google Earth
100 ft

**CCCHP Grant Application – Piper's Opera House Front Doors**
**2.B.3 – Photographs**


Photo 1: East elevation (front entrance) of Piper's Opera House

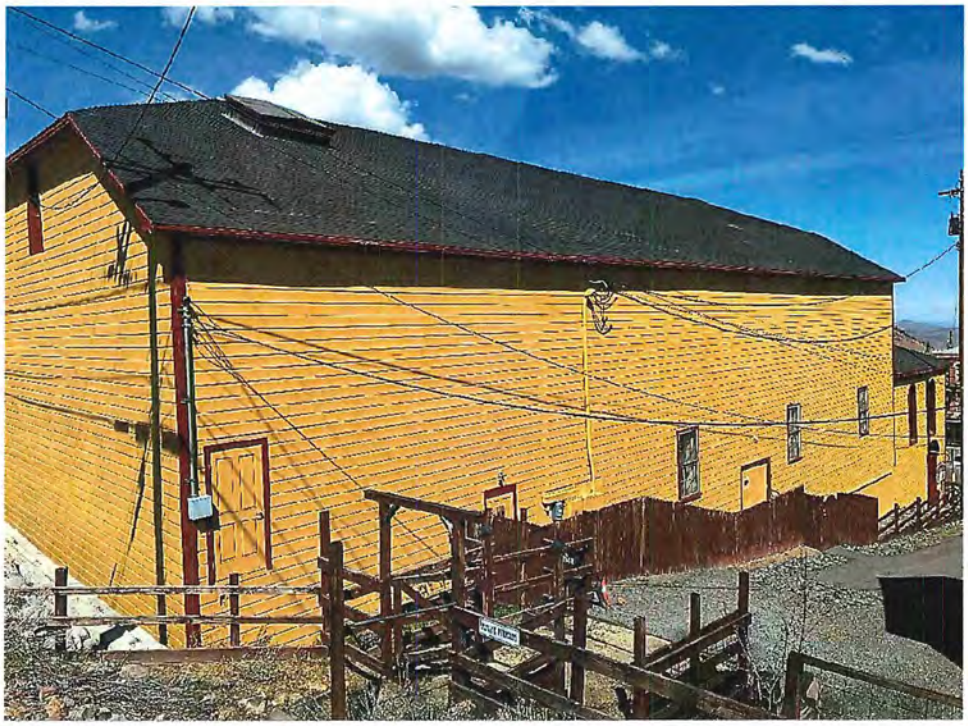

Photo 2: South elevation

PLEASE NOTE: ADDITIONAL PHOTOS, INCLUDING THE INTERIOR ARE INCLUDED IN **ATTACHMENT B (HSR REPORT)**

**CCCHP Grant Application – Piper's Opera House Front Doors**
**2.B.3 – Photographs**

Photo 3: West elevation

Photo 4: North elevation

**CCCHP Grant Application – Piper's Opera House Front Doors**
**2.B.3 – Photographs**

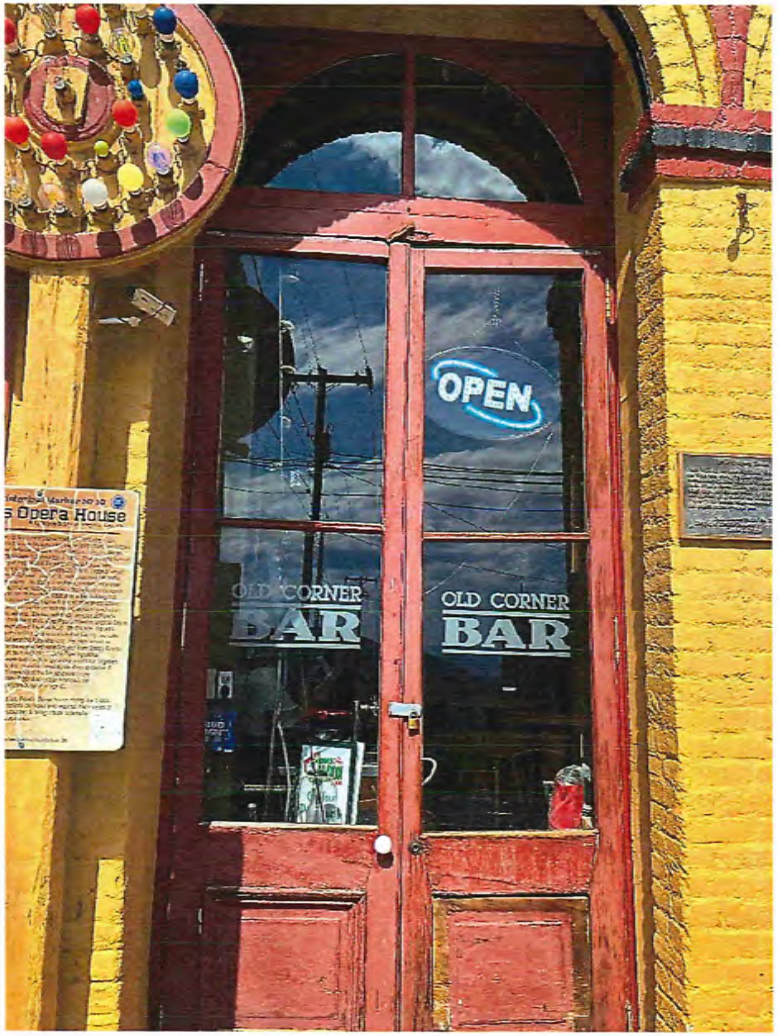


Photo 5: East elevation –2 of 12 doors to be restored
**(doors are presented here from the south to north)**

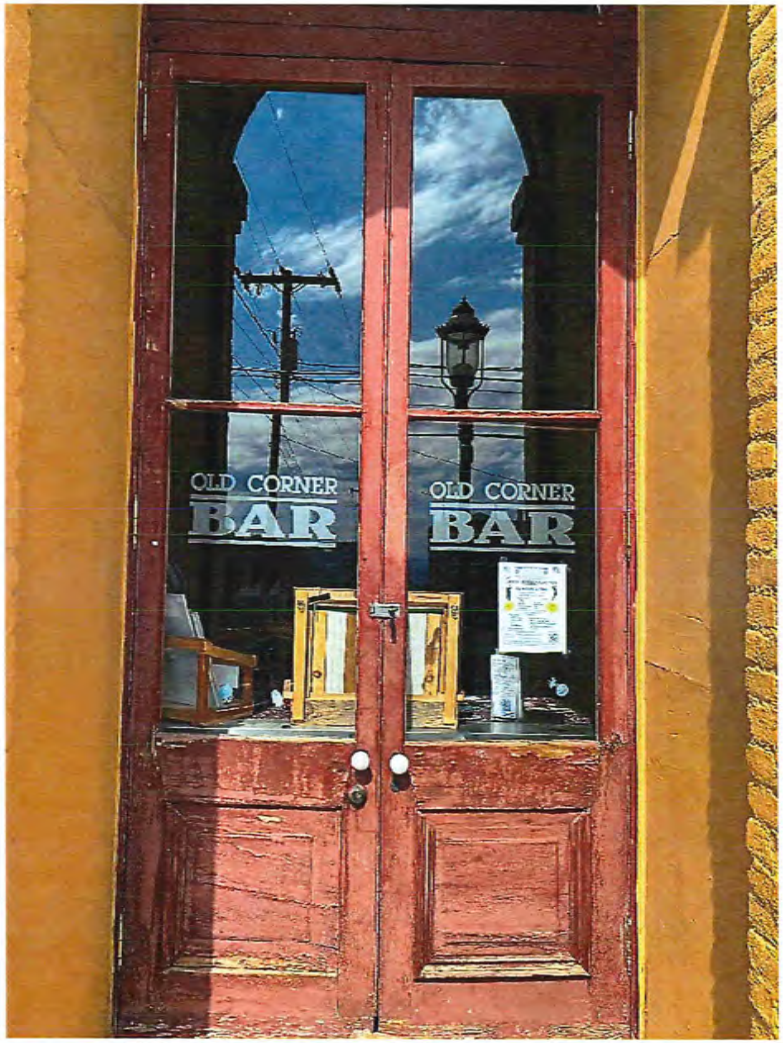


Photo 6: East elevation – 4 of 12 doors to be restored

**CCCHP Grant Application – Piper's Opera House Front Doors**
**2.B.3 – Photographs**


Photo 7: East elevation – 6 of 12 doors to be restored

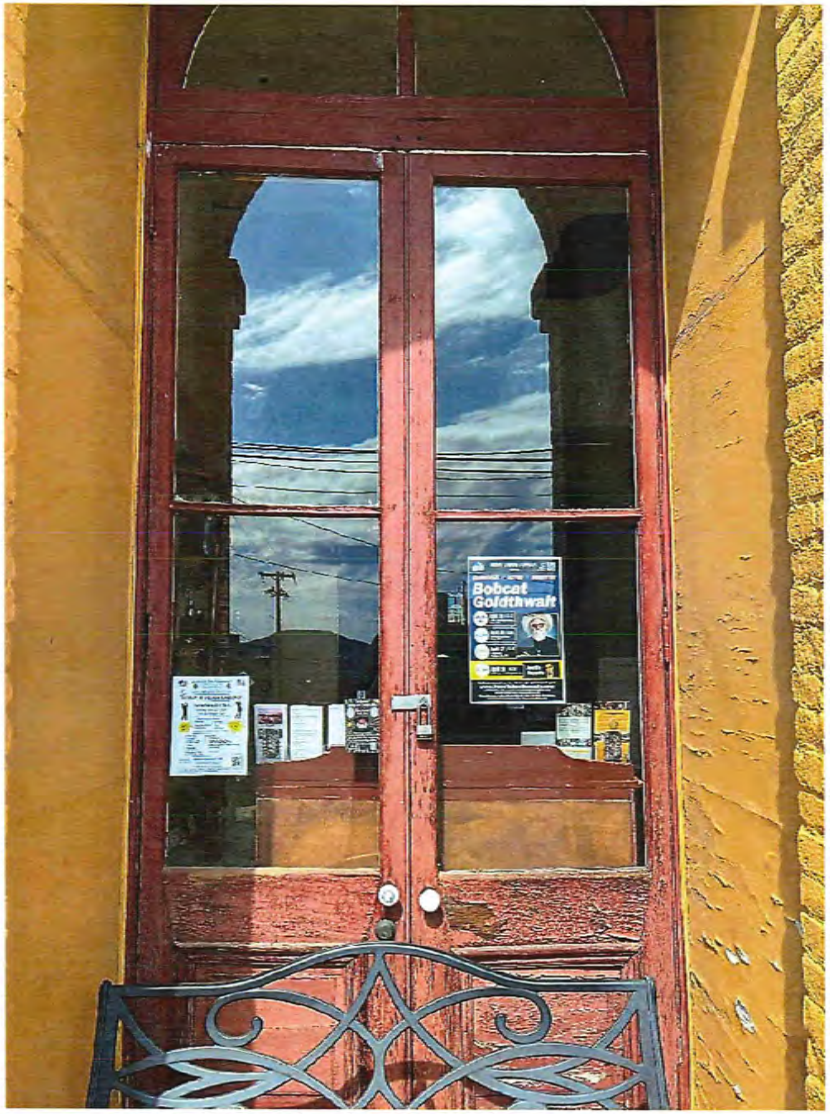


Photo 8: East elevation – 8 of 12 doors to be restored

**CCCHP Grant Application – Piper's Opera House Front Doors**
**2.B.3 – Photographs**

Photo 9: East elevation – Close up – 8 of 12 doors to be restored

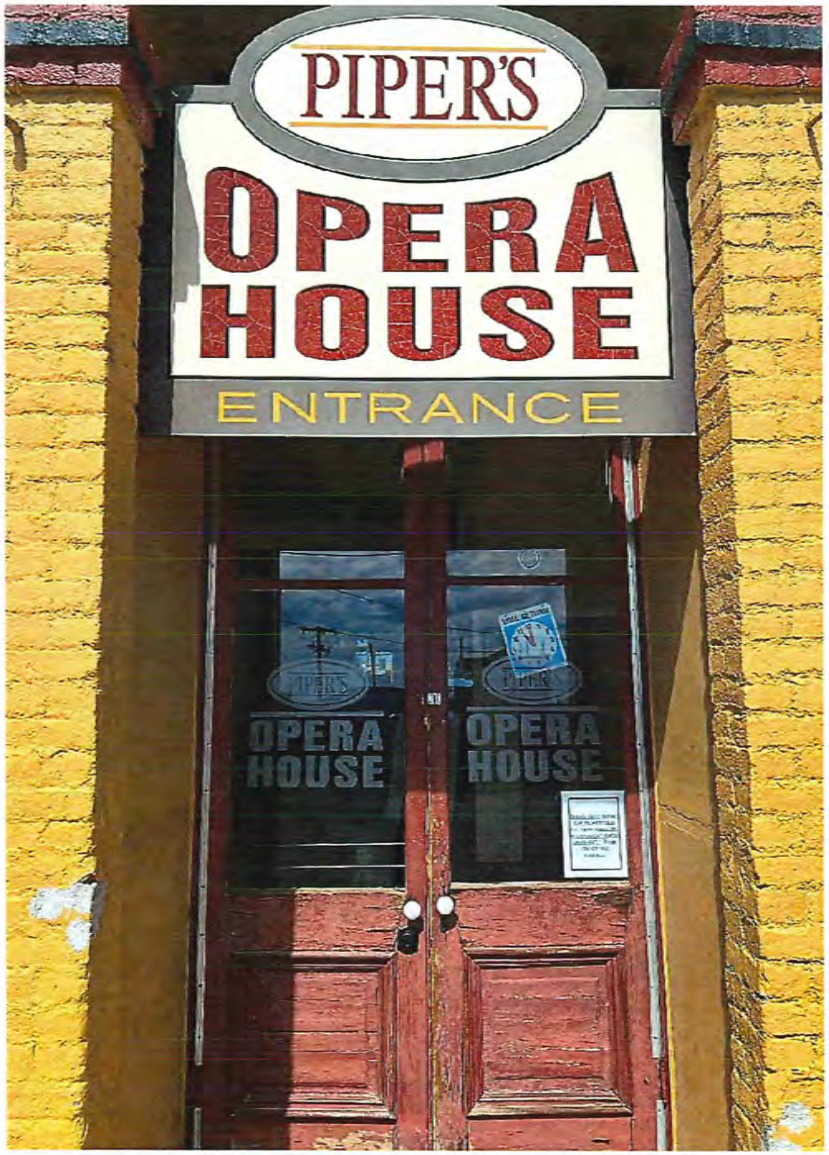


Photo 10: East elevation – 10 of 12 doors to be restored

**CCCHP Grant Application – Piper's Opera House Front Doors**
**2.B.3 – Photographs**


Photo 11: East elevation – Close up – 10 of 12 doors to be restored

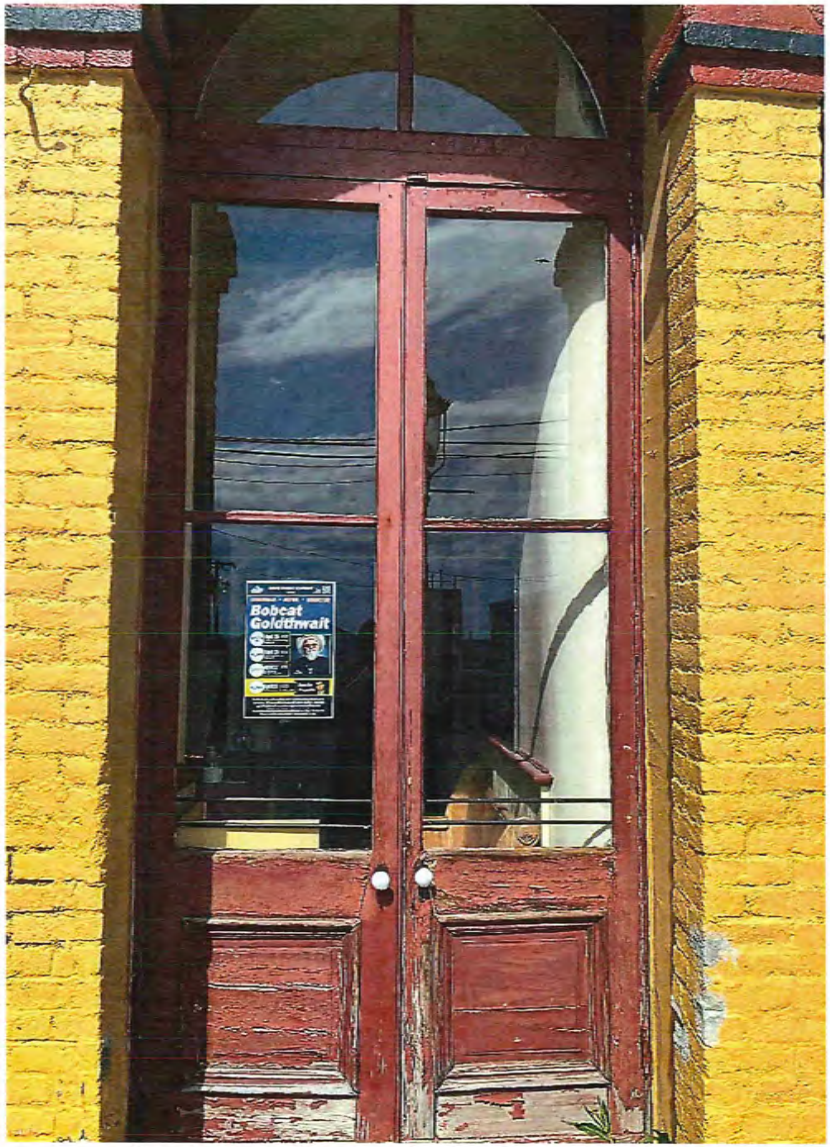


Photo 12: East elevation – 12 of 12 doors to be restored

**CCCHP Grant Application – Piper's Opera House Front Doors**
**2.B.3 – Photographs**

Photo 13: Overview of the three south wall windows over ballroom

Photo 14: Window 1 of 5 **(windows are presented here from the west to east)**

**CCCHP Grant Application – Piper's Opera House Front Doors**
**2.B.3 – Photographs**

Photo 15: Window 2 of 5

Photo 16: Window 3 of 5

**CCCHP Grant Application – Piper's Opera House Front Doors**
**2.B.3 – Photographs**

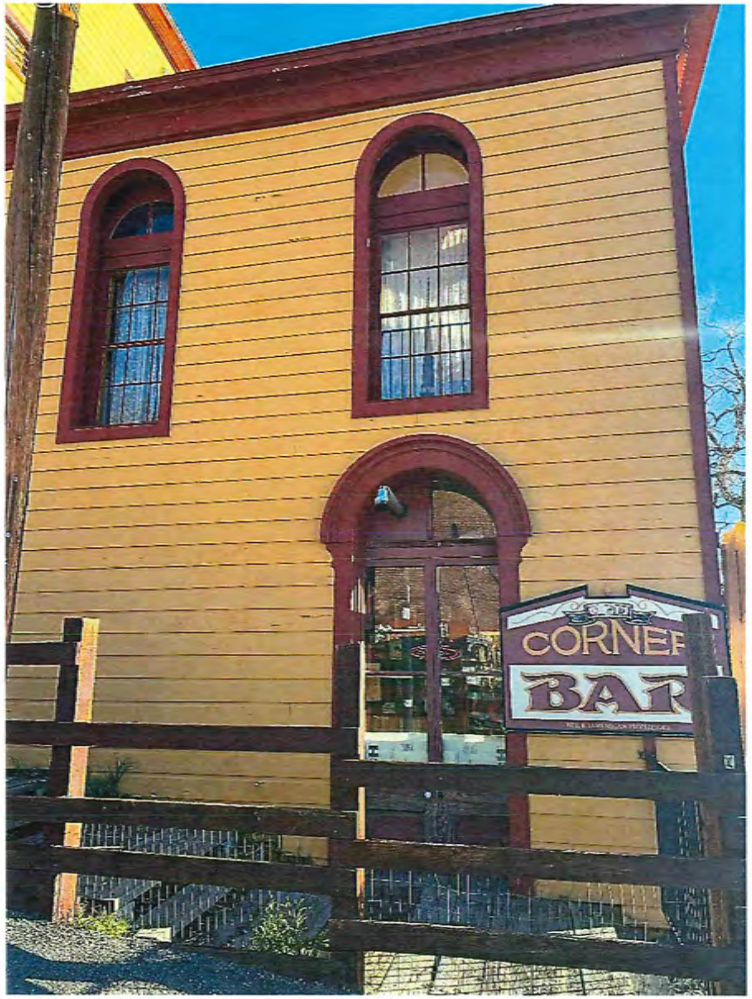


Photo 17: Overview of two south wall windows over Corner Bar

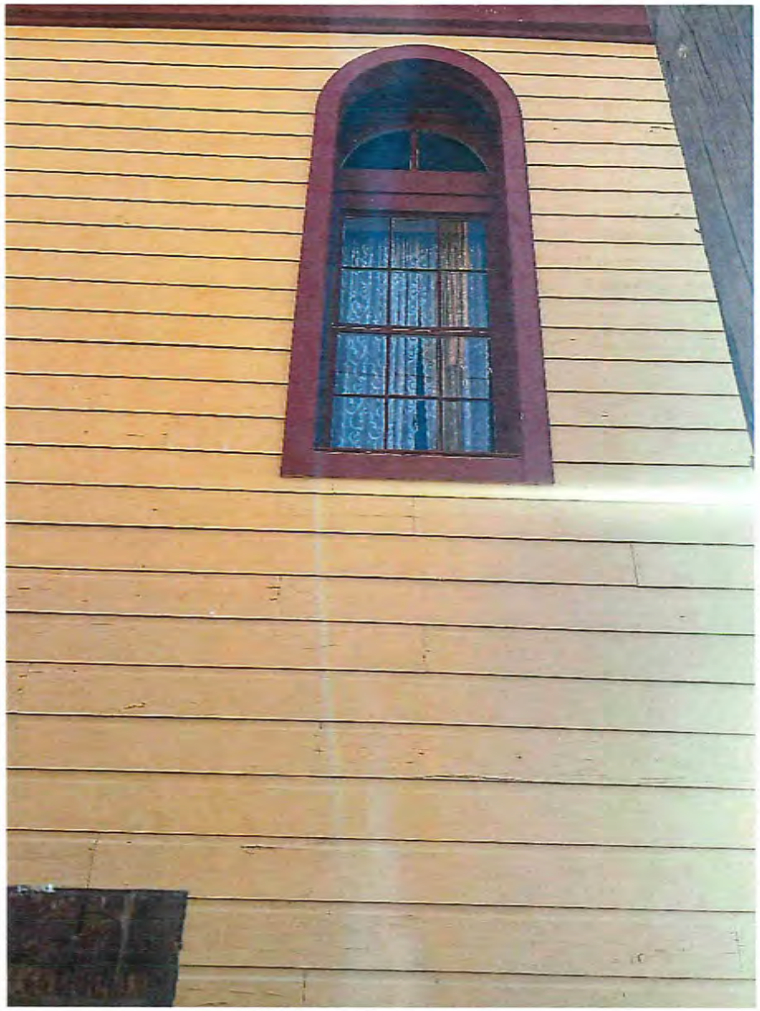

Photo 18: Window 4 of 5

**CCCHP Grant Application – Piper's Opera House Front Doors**
**2.B.3 – Photographs**

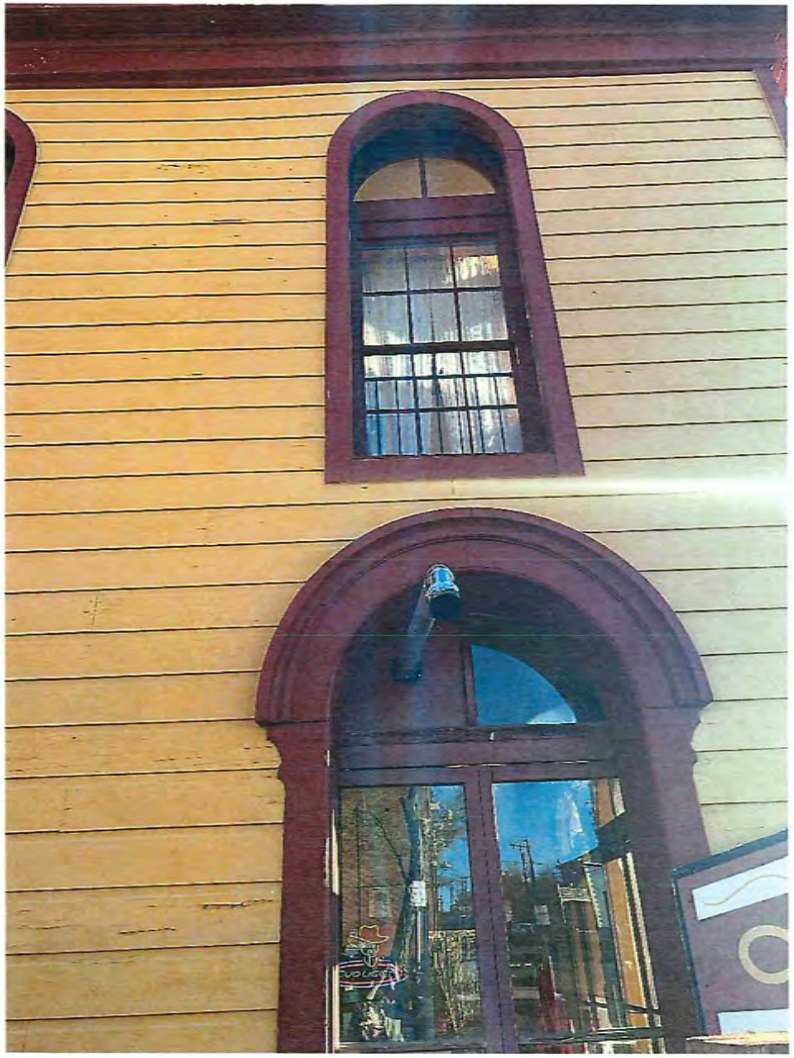

Photo 19: Window 5 of 5

**CCCHP Grant FY23/24 Grant Application – Piper's Opera House Project**

**2.B.4– Organization Information**

1. **Storey County Mission Statement:**
   From the first discovery of gold in 1859, through the silver mining boom in the 1860s and 70s, to this day, Storey County claimed its place on the map and is firmly entrenched in the importance of U.S. History. Established as a county in 1861, Storey was recognized as a National Historic Landmark in 1961 and then listed on the National Register of Historic Places (Comstock Historic District).

   Annually Virginia City sees one million visitors and tourism is vital to the county's stability and growth. Preservation of the historic structures is a high priority, ensuring that future generations may be able to enjoy and learn of the Historic Comstock Lode.

   The County is also home to the Tahoe-Reno Industrial Center (TRIC), which is the largest industrial center of its kind in the world. The continued growth and prosperity of the TRIC, contributes to the rich history of Storey County.

   As such, Storey County's mission is the welfare of its residents and visitors through historic preservation and industrial growth which has made the county famous.

2. **Storey County Board of Commissioners:**
   - Julian "Jay" Carmona, Chairman
   - Clay Mitchell, Vice Chairman
   - Lance Gilman, Commissioner

3. **Long Range Plan:**
   - The published Capital Improvement Plan (CIP) is included as **Attachment C**. The CIP shows the projects that the Boad of Commissioners has approved for Piper's Opera House (highlighted in yellow in Attachment C).
     - The 2020 amended HSR report contains a multitude of vital preservation projects for Piper's that will cumulatively cost upwards of $20 million or more. As the County is within the Comstock Historic District, but does not have a historic preservation specialist position, we recognize the need to include the SHPO/Comstock Historic District Commission in the future for the long-range planning of Piper's. The County believes this collaboration will help us prioritize the preservation needs of the building and the County will be able to better incorporate important preservation projects for Piper's into the County's CIP (taking into consideration available funding).

4. **Activities for the past fiscal year**
   Piper's Opera House has hosted numerous events this past fiscal year. Some of them are coordinated and hosted by the Virginia City Tourism Commission (VCTC), and others are room rentals managed by VCTC. These activities are listed below:
   - Bingo Nights (third Thursday of each month)

- Guided Tours
- Concerts
- Dances/Balls
- Musicals and Plays
- Lectures
- Full Moon Investigations
- Comedy Nights
- Non-profit events (dances, fundraisers, etc.)

5. **Current and Previous CCCHP Grant Status for Piper's Opera House**
    - As part of the research for the 2020 amended Historic Structures Report (HSR) for Piper's Opera House, the County and Dube Group Architecture found that Piper's Opera House received approximately 15 grants from the Commission for Cultural Affairs (now known as CCCHP) from 1995-2009. Please see **Attachment D**.
        - Storey County has closed out all previous CCCHP grants for Piper's Opera House.
        - Please note that the building was sold to the School District in 2014. Then the County purchased it from the School District in 2017.

6. **Past funding and future funding**
    - **Past funding:** The County has not received grant funding in the last three years for Piper's Opera House
        - The County received a Historic Preservation Fund (HPF) grant for the amended 2020 Historic Structures Report (Attachment A) for Piper's Opera House.
    - **Future funding:** The County used the 2020 amended Historic Structures Report for Piper's Opera House (Appendix 1, pgs. 4-5) to submit a federal appropriation request for $1 million to rehabilitate the west wall.
        - *Project Summary*: Stabilize A Street, install a retaining wall between A Street and Piper's Opera House, install a French Drain to redirect spring and ground water, and stabilize the building's west wall.
        - For this request, the County expects to be notified in September 2024. However, as this is a federal appropriation request, the timeline is subject to change. The County will continue to dedicate both capital improvement funds and grant funds to the preservation and maintenance of Piper's Opera House.

# 2.0 | LIST OF PRIOR GRANTS 1995 – 2009

Piper's Opera House
List of Prior Grants
1995 - 2009

| Grant Cycle | Covenant Expires | Grant Award | Scope of Work |
|---|---|---|---|
| CCA-95-15 | | $375,000.00 | Purchase of Piper's Opera House |
| CCA-97-15 | | $200,000.00 | Structural reinforcement; plumbing; fire sprinkler installation; electrical work; general work on the building; 1st year's mortgage payment of $35,000.00; Supervisory coordination; mobilization; warranties & bonds; demolition; earthwork; concrete; rough carpentry & material; fire protection; fire alarm system; profit & overhead; mortgage interest; grants administrator; insurance; architectural; sewer connection; electrical; acoustical consultant; sanihut |
| CCA-99-15 | | $200,000.00 | USDA loan repayment; heating system installation (hot water boiler system which will be for basic needs but designed so it can be added on to in future to complete the system; administrative costs; roof R-38 insulation; debris box (for the old wood removed from the side of the building); ADA bathrooms (One male & one female W/C that meets ADA standards on auditorium level); redwood siding & R-19 insulation (North wall & possibly west wall will receive new redwood siding); electrical work (rerun some minor runs of electrical that is not in conduit & put into conduit) |
| CCA-00-15 | | $199,940.00 | Replacement of exterior siding on west, north, & east walls, to include removal of old siding, insulation, replacement redwood siding, priming & painting; restoration & replacement of front entry doors, to include 12 doors, jambs, hardware & glass; mortgage payment; upgrade electrical system; contingency fund. May have also included bathrooms. |
| CCA-01-15 | | $245,000.00 | ADA elevator; carriage house retrofit/elevator preparation; attic restoration; electrical upgrade; exterior restoration; front facade restoration; fire & safety requirements; grants management; HVAC; ADA fire ramp; Excavation; Kitchen (Bar); Office (prop room); restrooms; mortgage |
| ***32-01-ML-1163 (SAT grant)*** | | $400,000.00 | Production of Historic Structures Report or Preservation Plan; property repair to include installation of an ADA elevator; painting, restoration of the historic 1877 brick façade, and excavation and stabilization of the area beneath the auditorium floor |
| CCA-02-15 | 12/31/2023 | $284,250.00 | Will support renovation, repair & rebuilding of existing doors; brick façade stabilization work; reinforce doorway pilasters; rebuild missing historic windows; repair/replace siding on carriage house; repair arched windows & frames; repoint/repair brick; painting; new cupola on existing roof. (The following items appear to have been removed via a scope of work amendment: restoration of B street balcony; general conditions; O&P; escalation; design contingency; construction contingency; grant administration) |

Piper's Opera House
List of Prior Grants
1995 - 2009

| Grant Cycle | Covenant Expires | Grant Award | Scope of Work |
|---|---|---|---|
| CCA-03-15 | | $75,000.00 | Administration activities in executing the grant work; repair facade finish (bricks are to be scraped, brushed, sealed & painted); windows & doors are to be scraped, prepared & painted; trim is to be scraped, prepared & painted; restoration of "Target" sign & mounted back in original position; structural engineering design work for ground floor support for the east auditorium wall, east end of the auditorium floor, & other ground level support for the east end of the ground floor; construction of ground level supports; concrete floor work on the ground level corner bar lobby including floor heating. May have also included removal of c. 1960s muslin and applying fire retardent to walls and balcony. |
| CCA-04-13 | 12/31/2025 | $127,000.00 | Administration; contract/labor; engineering/architecture; materials & supplies. The report states that the following was done: curtain drain, sewer plumbing for saloon/kitchen/restrooms, preparation for concrete subfloor; steel reinforcement of burnt floor support beams, pouring concrete, installing hydronics, installing wooden floor. The grant report states that approximately $40,000 of the $127,000 was used for the completion of CCA-03 grant work, namely the plywood on the east auditorium wall and the installation of tension rods on the wall support beam. |
| CCA-05-18 | 12/31/2025 | $299,000.00 | Restore entry foyer & bar; straighten the main stairs; complete gallery; ground level excavations with dressing rooms; restrooms & bar on ground level |
| CCA-06-19 and CCA-06-29 | 12/31/2027 | $204,000.00 | **06-19 ($200,000)**--Will support completion of the entryway; saloon hydronics & flooring; complete northside aceess; ground level excavations; steel work; concrete floor; partition wall; administration & engineering & architecture **06-29 ($4,000)**--Saloon reconstruction |
| CCA-07-28 | 12/31/2058 | $120,000.00 | North door work: door & concrete foundation; excavate back wall of restroom; place sewer lines; pour concrete floor; lay down sleepers & hydronics & sub flooring; build partition walls; install electrical & plumbing in the walls & ceiling; sheetrock, spackle & paint walls; install flooring, maple in hallway, tile in restrooms; install restroom fixtures; install drainage in dirt floor |

Piper's Opera House
List of Prior Grants
1995 - 2009

| Grant Cycle | Covenant Expires | Grant Award | Scope of Work |
|---|---|---|---|
| CCA-08-19 | 12/31/2059 | $110,000.00 | Preserve south exterior: scrape & caulk; prime & paint body & trim (oil based); lift rental; preserve 7 double doors/windows; restore 7 thresholds, carriage hourse upper windows; carriage exit doorway, SE original balcony; replicate original cupola; Complete front half of saloon: ceilings, walls, floor, electrical; Hallway to N. door: ceiling, boiler room & W. walls, N. door wall; Elevator hallway/gift shop: ceiling, walls, carriage house interior doorway; Auditorium level stairway: mopboard, chair rail, ceiling, walls, stair treads, soffet repair, & finish trim; travel: six (6) round trips from Virginia City to Carson City--per month for 18 months. |
| CCA-09-20 | 12/31/2060 | $126,000.00 | Architectural Services (recording existing conditions; design work for bathroom, fire exit corridor, north double doors, loading dock & construction drawings); Architectural Services (historic finishes analysis of interior); Engineering Services (baseline structural report to include main floor support & foundation, roof trusses & existing balcony, review of strengthening plans, review of "bulge" northwest wall, "A" Street retaining wall/soil failure); Electrical Engineering Services (record of existing conditions, evaluation of existing conditions, suggested remedies for code compliance); Contracting Services (record & locate all previous work completed at Piper's within five years, drawings, structural elements--elevation/survey records, stability/movement records, boiler room operating & safety procedures, labeling & safety signage, boiler repairs & system update; Construct Loading Ramp (exterior north side); Finish Stair Lobby; Finish Fire Corridor; Complete Bathrooms & Exit Corridors; Structural Repairs; Boiler Upgrades |

# NEVADA COMMISSION FOR CULTURAL CENTERS & HISTORIC PRESERVATION (CCCHP)

## GRANT APPLICATION

NEVADA
STATE HISTORIC
PRESERVATION OFFICE

### APPLICATION BUDGET

**APPLICANT:** Storey County

**1. Personnel:** CCCHP Grant funds cannot be used to compensate personnel. Match is limited to work related to the grant project.

| | Position Title | Hours | Hourly Rate (HR) | Does HR include fringe benefits? | % of HR that is fringe benefit | Amount of fringe benefit | Match (Non-CCCHP Grant) |
|---|---|---|---|---|---|---|---|
| a. | | | | | | | $ 0.00 |
| b. | | | | | | | $ 0.00 |
| c. | | | | | | | $ 0.00 |
| d. | | | | | | | $ 0.00 |
| e. | | | | | | | $ 0.00 |
| f. | | | | | | | $ 0.00 |
| g. | | | | | | | $ 0.00 |
| h. | | | | | | | $ 0.00 |
| i. | | | | | | | $ 0.00 |
| j. | | | | | | | $ 0.00 |
| | | | | | | Sub-total: | $ 0.00 |

**2. Travel:** CCCHP Grant funds only cover travel for contracted service providers. This can be companies or individuals. Travel expenses must follow U.S. General Service Administration (GSA) rates.

| | Contracted service provider | Match | CCCHP Grant | Total Amount |
|---|---|---|---|---|
| a. | | | | $ 0.00 |
| b. | | | | $ 0.00 |
| c. | | | | $ 0.00 |
| d. | | | | $ 0.00 |
| e. | | | | $ 0.00 |
| f. | | | | $ 0.00 |
| g. | | | | $ 0.00 |
| h. | | | | $ 0.00 |
| i. | | | | $ 0.00 |
| j. | | | | $ 0.00 |
| | Sub-total: | $ 0.00 | $ 0.00 | $ 0.00 |

# NEVADA COMMISSION FOR CULTURAL CENTERS & HISTORIC PRESERVATION (CCCHP)

NEVADA
**STATE HISTORIC PRESERVATION OFFICE**

# GRANT APPLICATION

**APPLICATION BUDGET Cont.**

**APPLICANT:** Storey County

**3. Contractual Services:** Attach itemized lists or contractor quotes showing the breakdown of materials and labor costs for all proposed work items. If contractor is billing travel use travel section to record costs.
***When listing materials, break out by type *When listing labor, define specific activities.**

| | | Type of Material or Specific Activity | Match | CCCHP Grant | Total Amount |
|---|---|---|---|---|---|
| *1.* | *AB Roofers* | | | | |
| | *Roofing Labor* | *Install* | *$1,000* | *$2,000* | *$3,000* |
| | *Roofing Materials* | *Shingles* | *$0* | *$5,600* | *$5,600* |
| 1. | Central Sierra Construction, Inc. | | | | $ 0.00 |
| | Restore Existing Doors | restoring 12 wooden doors (see bid for full specifics) | $20,000.00 | $20,600.00 | $ 40,600.00 |
| | Frame/Transom Labor | labor costs for restoring frames/transoms | | $ 36,300.00 | $ 36,300.00 |
| | Restoration Materials | epoxy (Advance Repair Technology), replicated moldings | | $ 6,000.00 | $ 6,000.00 |
| | Replacement Hardware | replace door hardware as needed for operational doors | | $ 3,000.00 | $ 3,000.00 |
| | Painting | painting for restored doors and frames/transom | | $ 3,000.00 | $ 3,000.00 |
| | Misc. Materials | any other materials needed for restoration work | | $ 3,100.00 | $ 3,100.00 |
| | Restore wood windows | restoring 5 windows (see bid for full specifics) | | $ 17,812.50 | $ 17,812.50 |
| | Frame restoration | labor costs for restoration | | $ 13,500.00 | $ 13,500.00 |
| | Painting | painting of restored windows | | $ 4,062.50 | $ 4,062.50 |
| | | | | | $ 0.00 |
| | | | | | $ 0.00 |
| | | | | | $ 0.00 |
| | | | | | $ 0.00 |
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| | | | | | $ 0.00 |
| | | | | | $ 0.00 |
| | | | | | $ 0.00 |
| | | | | | $ 0.00 |
| | | **Sub-total** | $20,000.00 | $107,375.00 | $127,375.00 |

# NEVADA COMMISSION FOR CULTURAL CENTERS & HISTORIC PRESERVATION (CCCHP)

## GRANT APPLICATION

NEVADA
STATE HISTORIC
PRESERVATION OFFICE

APPLICATION BUDGET Cont.

APPLICANT: Storey County

**4. Operating: List estimated operating expenses relating to the proposed project.**
Note: CCCHP Grant funds cannot be used for administrative costs.

| | | # of | Rate | Flat Rate | Match | CCCHP Grant | Total Amount |
|---|---|---|---|---|---|---|---|
| a. | Photocopying | | | | | | $ 0.00 |
| b. | Film and Processing | | | | | | $ 0.00 |
| c. | Maps | | | | | | $ 0.00 |
| d. | Postage | | | | | | $ 0.00 |
| e. | Telephone | | | | | | $ 0.00 |
| f. | Utilities | | | | | | $ 0.00 |
| g. | Supplies (specify) | | | | | | |
| | | | | | | | $ 0.00 |
| | | | | | | | $ 0.00 |
| | | | | | | | $ 0.00 |
| | | | | | | | $ 0.00 |
| | | | | | | | $ 0.00 |
| h. | Other (specify) | | | | | | |
| | | | | | | | $ 0.00 |
| | | | | | | | $ 0.00 |
| | | | | Sub-total: | $ 0.00 | $ 0.00 | $ 0.00 |

**5. Other (please specify or attach detailed budget):**

| | | Rate | Match | CCCHP Grant | Total Amount |
|---|---|---|---|---|---|
| a. | | | | | $ 0.00 |
| b. | | | | | $ 0.00 |
| c. | | | | | $ 0.00 |
| d. | | | | | $ 0.00 |
| e. | | | | | $ 0.00 |
| f. | | | | | $ 0.00 |
| g. | | | | | $ 0.00 |
| h. | | | | | $ 0.00 |
| i. | | | | | $ 0.00 |
| | | Sub-total | $ 0.00 | $ 0.00 | $ 0.00 |

# NEVADA COMMISSION FOR CULTURAL CENTERS & HISTORIC PRESERVATION (CCCHP)

## GRANT APPLICATION

NEVADA
STATE HISTORIC
PRESERVATION OFFICE

**APPLICATION BUDGET Cont.**

**APPLICANT:** Storey County

**6. Section #1- 5 Subtotals:**

| | | Match | CCCHP Grant | Total Amounts |
|---|---|---|---|---|
| 1. | Personnel | $ 0.00 | | $ 0.00 |
| 2. | Travel | $ 0.00 | $ 0.00 | $ 0.00 |
| 3. | Contractual Services | $20,000.00 | $107,375.00 | $ 127,375.00 |
| 4. | Operating | $ 0.00 | $ 0.00 | $ 0.00 |
| 5. | Other | $ 0.00 | $ 0.00 | $ 0.00 |
| | Sub-total | $20,000.00 | $107,375.00 | $ 127,375.00 |

**7. Requested CCCHP Grant Total:** $107,375.00

**8. Potential Match:** $20,000.00

**9. Proposed Project Costs Grand Total:** $ 127,375.00

**Note:** For assistance with completing the budget, please refer to the CCCHP Grant Handbook.

Topics

- ■ Match
- ■ Procurement of Goods, Services, & Contracts

Forms

- ■ Value of Donated Material
- ■ Value of Donated Equipment
- ■ Value of Donated Labor

*Central Sierra Construction, Inc.*

**2551 Precision Drive Suite C Minden, NV 89423**

**775 267-2943 NV LIC # 23444B**

**4-19-2024**

## PIPERS OPERA HOUSE BALL ROOM WINDOW RESTORATION

## LINE ITEM SUMMARY

| | |
|---|---|
| Restore 8 Wood Windows | $28,500.00 |
| Frame Restoration | $21,600.00 |
| Painting | $6,500.00 |
| **TOTAL BID** | **$56,600.00** |

**CLARIFICATIONS:** No off-hour wages. No permit fees.

**Restore 8 Wood Windows -** Includes restoration of 8 existing wood window assemblies. 3@ South wall-Ball Room, 3@ North wall-Ball Room, 2@ South side Front living space rooms. Remove and transport 16 individual sash assemblies to CSCI shop for full restoration including milling of missing and deteriorated wood parts. Other restoration work with Advanced Repair Technology products.

**Labor-** Includes all labor needed for the restoration of existing frames to accept restored window sash assemblies.

**Painting-** Includes painting of restored windows and restored frames.

**Attachment A**


*Central Sierra Construction, Inc.*

2551 Precision Drive Suite C Minden, NV 89423

775 267-2943 NV LIC # 23444B


4-19-2024

## PIPERS OPERA HOUSE FRONT DOOR RESTORATION

## LINE ITEM SUMMARY

| | |
|---|---|
| Restore Existing Doors | $40.600.00 |
| Frame/Transom Labor | $36,300.00 |
| Restoration Materials | $6,000.00 |
| Replacement Hardware | $3,000.00 |
| Painting | $3,000.00 |
| Misc. Materials | $3,100.00 |
| **TOTAL BID** | **$92,000.00** |

**CLARIFICATIONS:** No off-hour wages. No permit fees.

**Restore Existing Doors-** Includes restoration of 12 existing wood doors on front (east) elevation of the Opera House. Doors to be removed from site and transported to CSCI's shop for restoration work there, probably 4 at a time.

**Labor-** Includes all labor needed for the restoration of existing frames and transoms to accept restored doors. New threshold and installation of any new replacement hardware.

**Restoration Materials-** Includes all epoxy restoration materials (Advance Repair Technology) needed to restore existing frames and transoms. Also any needed replicated moldings for missing components

**Replacement Hardware-** Includes a budget to replace door hardware as needed for operational doors.

**Painting-** Includes painting of restored doors and restored frames and transoms.

**Misc. Materials-** Includes any needed misc. materials for the restoration work.

**Timeline of work.**

| | |
|---|---|
| Remove and restore doors at CSCI shop | 4 weeks |
| On site replacement/restoration work | 6 weeks |
| **Total time for project** | **10 weeks** |

# PIPER'S OPERA HOUSE

## AMENDMENT TO THE HISTORIC STRUCTURES REPORT


Prepared for:
Storey County

Prepared by:
Pete Dubé, NCARB, AIA, Historical Architect
Paul Ferrari, P.E., Civil Engineer
Sean Frey, P.E., Mechanical Engineer
Ed Gansberg, Electrical Designer

Dubé Group Architecture
458 Court Street
Reno, NV 89501

September 28, 2020

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# C EXECUTIVE SUMMARY

### 1.0 Amendment Purpose and Scope

In March of 2020, Dubé Group Architecture (DGA) was retained by Storey County to prepare the following Amendment to the Historic Structures Report for Piper's Opera House, located at 12 North B Street, Virginia City, NV. This document is intended to update the existing conditions and recommendations contained in the Historic Structures Report prepared by van Dijk Westlake Reed Leskosky in 2002.

The amendment process was necessitated due to the passage of time and change of ownership of the property. When the original report was prepared, Piper's Opera House was owned and managed by Piper's Opera House Programs, Inc., who subsequently sold the property to the Storey County School District in January 2014. In 2017, the property was acquired by Storey County and is managed by the Virginia City Tourism Commission. Piper's Opera House Programs, Inc., continues to provide oversight and is a 501c3 non-profit organization focusing on grants and fundraising.

### 2.0 Research to Prepare Amendment

Research included a review of documents and plans provided by private and public archives including the State Historic Preservation Office, Comstock Historic District Commission, Piper's Opera House, and Storey County.

- Review of van Dijk Westlake Reed Leskosky's Historic Structures Report and Preservation Plan. Volume One includes the investigation, documentation, analysis and recommendations for the rehabilitation and restoration of the Piper's Opera House. Volume Two includes the Geotechnical Report, Survey and Civil Concept Drawings, Structural Concept Drawings, Cost Estimate Detail and Narratives.

- Research to locate the previous grant products (drawings, reports, etc.) from the fourteen Commission for Cultural Affairs (CCA) grants received between 1995-2009 in order to assess and evaluate what was actually constructed as well as existing conditions of that work.

- Field surveys consisting of detailed but non-destructive building investigations to assess the resource.

### 3.0 Major Findings

#### Plumbing

The existing plumbing system is adequate having been upgraded in 1999.

Proposed treatment recommendations include adding a backflow preventer and pressure reducing valve at the water main.

**Heating, Ventilation, and Air Conditioning**

The existing propane-fired, fin tube boiler feeds a hydronic loop that serves a radiant floor heating system on the basement level (B Street) and is connected to multiple hydronic fan coils distributed throughout the facility. These fan coils are noisy during operation and cannot be used during performances. There is no direct ventilation as required by current code. There is no cooling with the exception of a portable air conditioner at the stage and an electric package window unit in the tech office.

Proposed treatment recommendations include replacement of fan coils with radiant floor heating in the auditorium, natural ventilation and evaporative cooling.

**Electrical**

The existing electrical service is 120/208 volts, 3-phase, 4 wire, 400 amps disconnect switch, fed overhead from an NV Energy power pole. This service then distributes to 5 interior panels.

Proposed treatment recommendations include upgrading the service to accommodate future plans, replacement of keyless sockets with appropriate light fixtures, new emergency building generator, and upgrading illumination levels including emergency egress lighting.

**Structural and Seismic**

Overall, the current structural condition of the building is relatively sound due to timely and appropriate response to structural deficiencies that occurred since 1997, including structural stabilization of the east and south facades of the 1863 brick building, strengthening of the auditorium floor, and structural repairs to columns and trusses. These actions to remedy structural deficiencies prevented what could have been catastrophic collapses.

Proposed treatment recommendations include roof truss support, wall column buckling, column repair at the basement level main lobby, additional auditorium floor support, water seepage from A Street, and balcony framing and support.

**Architectural**

The building is in good condition overall, having undergone numerous renovations including repair / rehabilitation of entry doors and windows, replacement of siding and roofing, insulated building envelope, new accessible restrooms, tenant improvements to the Carriage House, lobbies on the Basement level and auditorium level, and the Old Corner Bar.

Proposed treatment recommendations include building egress from basement, accessible means of egress from auditorium, catering kitchen, completing stairs from auditorium to balcony, preservation of the balcony, and reconstructing the hipped roof ventilator.

# D INTRODUCTION

### 1.0 Architectural / Engineering Evaluation and Documentation Methodology

An architectural / engineering evaluation of the building was conducted by the project team starting June 2020 and continuing through the end of August 2020 consisting of detailed but non-destructive building investigations to assess the resource. Each discipline reviewed the appropriate section of the Piper's Opera House Historic Structures Report and Preservation Plan (van Dijk et al., 2002) and existing building plans detailing work funded wholly or partially by CCA and other preservation grants in context with actual work completed in the field. The following building systems were investigated:

- Plumbing
- Fire Protection
- Heating, Ventilation, and Air Conditioning (HVAC)
- Electrical and Communications
- Structural and Seismic
- Architectural
- Building Accessibility
- Building Code Review

### 2.0 Funding

The Amendment to the Historic Structures Report for Piper's Opera House has been financed in whole or in part with federal funds through a Historic Preservation Fund matching grant-in-aid from the National Park Service, U.S. Department of Interior, and administered by the Nevada Department of Conservation and Natural Resources, State Historic Preservation Office.

The contents and opinions, however, do not necessarily reflect the views or policies of the United States Department of the Interior or the State Historic Preservation Office.

This program receives federal financial assistance for identification and protection of historic properties.

Under Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, and the Age Discrimination Act of 1975, as amended, the U.S. Department of the Interior prohibits discrimination on the basis of race, color, national origin, disability or age in its federally assisted programs.

If you believe you have been discriminated against in any program, activity, or facility as described above, or if you desire further information, please write to:

CHIEF, OFFICE OF EQUAL OPPORTUNITY PROGRAMS
UNITED STATES DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE
1201 EYE STREET, NW, WASHINGTON, DC 20005

## 3.0 Acknowledgements

This report is the result of cross-discipline collaboration and is made possible through the involvement of the following team members:

**Storey County**
Austin Osborne, County Manager, on behalf of the Board of County Commissioners
Lara Mather
Mike Northan
Whitney Brunson
Joe Curtis

**State Historic Preservation Office**
Rebecca Lynn Palmer, State Historic Preservation Officer
Robin K. Reed
Carla Hitchcock
Kristen N. Brown

**Comstock Historic District Commission**
Michael A "Bert" Bedeau

**Dube Group Architecture**
Peter R. Dubé, NCARB, AIA | *historical architect*

**PF Consultants LLC**
Paul Ferrari, P.E. | *civil engineer*

**SGF Engineering**
Sean Frey, P.E. | *mechanical engineer*

**Dinter Engineering Company**
Tim Prockish, P.E. | *electrical engineer*
Ed Gansberg | *electrical designer*

Special thanks to the following individuals for graciously sharing drawing files from their archives:

J.P. Copoulos, Architect
Melvyn Green and Associates
DLR Group (successor firm to van Dijk Westlake Reed Leskosky)

# E DOCUMENTATION AND CHRONOLOGY OF RECENT WORK

## 1.0 Improvements to Piper's Opera House 1995 - 2002

We were tasked with locating plans and reports for Work funded through CCA grants during the period 1995 through 2009. We were able to track down a number of drawings prepared by consultants over the years. However, some drawings disappeared, consultants have retired or gone out of business, and much of the Work appears to have been completed or installed without drawings.

We have included a bibliography of construction documents that we collected in the Appendices. It was difficult to definitively assign plans to specific grant cycles because the plans did not list the grant cycle on the cover sheet or title block, and often the improvements spanned multiple grant cycles.

To the best of our abilities, we have made every effort to verify completion of the Work through physical inspections - short of destructive demolition – and, where possible, we have attempted to cross-reference the Work with building plans and grant cycles.

The substantive upgrades below were listed as "Recent Work" and considered either completed or ongoing in the 2002 Historic Structures Report. If we were unable to verify something because either there were no plans, or perhaps the Work was covered up and not visible without destructive demolition, we noted those exceptions.

- **Fire Sprinkler and Fire Alarm System – 1999**

  Funded by CCA-97-15, the fire sprinkler system was included in construction documents titled **Phase One Restoration of Piper's Opera House** issued by JP Copoulos Architect (1998). The mechanical engineer was Peterson & Associates, Ltd., and the Index to Drawings included fire protection drawings although we were unable to locate copies to compare design to what was installed. However, the systems are operational and have recently been inspected and tagged by authorities having jurisdiction (AHJ).

  The Work has been completed (with exception noted).

- **New Roof Decking and Sheathing – 1999**

  Funded by CCA-97-15. In a phone conversation with John Copoulos, he recalled having to issue repair plans to mitigate undisclosed structural deficiencies shortly after close of escrow. Structural repairs to a wood column and cracked roof beam, inspection and repair of deteriorated sheathing, new felt, new cedar shingles and flashing for the entire roof (including 1863 building) comprised the construction documents titled **Reroof of Piper's Opera House** issued by JP Copoulos Architect (1997). We were able to confirm plywood sheathing but the structural repairs are covered up with new siding and we were unable to verify.

  The Work has been completed (with exception noted).

- **New roof structure and plywood decking over the front (1863) building - 1999**

  Funded by CCA-97-15, this Work was included in construction documents titled **Phase One Restoration of Piper's Opera House** issued by JP Copoulos Architect (1998). Structural drawings call for new roof framing and plywood sheathing. The structural engineer, Mel Green, provided photos taken during construction which we used to verify the Work. Additionally, there are exposed areas in the attic where insulation batts are missing and plywood is visible from the underside of the roof.

  The Work has been completed.

- **New Stair at Lobby – 1999**

  Funded by CCA-97-15, this Work was included in construction documents titled **Phase One Restoration of Piper's Opera House** issued by JP Copoulos Architect (1998). However, as constructed, the B-Street level stair does not match the construction documents. Our research yielded multiple references to funding sources for stairs, along with different configurations.

  The Work has been completed (with exception noted).

- **New Heating System and Exhaust Fan in Attic – 1999**

  We were unable to locate plans but did find a reference to **Phase Two-A Heating, Specifications** submitted by JP Copoulos Architect on July 26, 1999 to NV SHPO for review and comment and we believe these plans showed the heating system throughout the building including the exhaust fan in the attic and attic insulation.

  The exhaust fan is located in the attic on the east elevation. The switch that operates the fan is located in the kitchenette on the auditorium level we confirmed operation.

  The heating system is comprised of a propane-fired boiler, associated piping, and fin tube / fan heaters, located in the attic, auditorium, kitchenette, and hallways.

  The Work has been completed.

- **New Exterior Siding – 1999**

  Funded by CCA-99-15 and CCA-00-15 and included in construction documents titled **Phase Two-B Siding for Piper's Opera House** issued by JP Copoulos Architect (1999). The plans included removing and replacing existing siding with new 1x12 redwood siding over vapor barrier over 5/8" gypsum board over ½" plywood sheathing with R-19 batt insulation in stud cavities.

We are unable to determine whether any of the walls are protected by gypsum board without destructive demolition.

The Work has been completed (with exception noted).

- **Quick-change restrooms on stage – 2000**

We were unable to locate any drawings, nor match the Work to a particular grant although possibly CCA-00-15. There are two small spaces stage left against the northwest corner. The larger space includes a lavatory, water closet, and shower stall. The smaller space includes a wall-mounted laundry sink a sheet metal patch on the floor where a water closet was roughed-in at one time but has since been removed.

The Work has been completed (with exception noted).

- **Structural shear walls in the lobby/carriage house space 2001**

The only structural modifications to the lobby/carriage housed during the period 1995 – 2002 consist of new interior footings and structural shear walls (see construction documents titled **Phase One Restoration of Piper's Opera House** issued by JP Copoulos Architect (1998)). The structural plans included new footings and structural shear walls. Because the improvements have been covered up, we are unable to verify this work has been completed.

Modifications post-2002 to present are detailed in Appendix 1.0 Structural Report.

- **ADA compliant, accessible restrooms at the auditorium level 2001**

Funded by CCA-99-15 (and possibly CCA-00-15) and included in construction documents titled **Phase One Restoration of Piper's Opera House** issued by JP Copoulos Architect (1998). The drawings indicate two unisex accessible restrooms in the general vicinity of the current restrooms but does not match as-built conditions, and in fact, the restrooms as constructed are not accessible.

The Work does not match the plans and the current restrooms on the auditorium level are not accessible.

- **New exit doors, exterior stairways and landings 2001**

  Funded by CCA-01-15 and included in construction documents titled **Phase One Restoration of Piper's Opera House** issued by JP Copoulos Architect (1998). A double door was added at stage left on the north side and a single door was added as an exit out of the upper balcony on the north side with new exterior stairs and landing to grade. The plans indicated a new exit door with new exterior stairs and landing to grade on the south side upper balcony which was never installed.

  The Work has been completed (with exception noted).

- **Modifications to the roof framing and balcony support structure 2001 — on going**

  The only modifications to the roof framing during the period 1995 – 2002 that we were able to confirm were plans to repair a cracked beam (see New Roof Decking and Sheathing – 1999 above) and additional framing in the 1863 building (see New roof structure and plywood decking over the front (1863) building – 1999 above).

  We were unable to verify any modifications to balcony support structure during that same time period. As noted in Section E Investigation and Evaluation of Systems, Part 6.0 Architectural Building Interior- Balcony, there is no evidence to support the notion that the balcony was ever modified for occupancy.

  Modifications post-2002 to present are detailed in Appendix 1.0 Structural Report.

- **Elevator — 2002 — on going**

  Funded by CCA-01-15 and 32-01-ML-1163 (SAT grant) and included in construction documents titled **Elevator for Piper's Opera House** issued by JP Copoulos Architect (2001) and **Elevator Shop Drawings** issued by AMLIFT International on behalf of High Sierra Elevator (2002). The scope of work included installation of a new 2100 lb, 2-stop passenger elevator in a new rated shaft enclosure and a new elevator machine room located remotely.

  The Work has been completed.

## 2.0 Improvements to Piper's Opera House 2002 - 2011

The following construction documents were prepared between 2002 and 2011 following completion of the historic structures report.

- **Piper's Opera House Façade Stabilization 2002**

  Funded by CCA 02-15 and 32-01-ML-1163 (SAT grant), the construction documents were issued by van Dijk Westlake Architects. The scope of work included shoring of the 1877 façade with installation of a new concrete rigid frame (typical east and south elevation), new shiplap siding, and repair / reconstruction of heavy brick deterioration and repointing. The plans indicated all doors and windows to be refurbished by Owner. Based on quarterly progress report filed by director Howard Bennett, all work was completed per plans.

- **A Historic Restoration for Piper's Opera House 2006**

  Funded by CCA-05-18, the construction documents were issued by Anthony Smith Architecture. The scope of work included new wider stairs connecting the first and second levels, new plaster finish and bead board wainscoting, new wood plank flooring, and structural improvements including new concrete footings, tube steel columns and wide flange beams to strengthen the floor. The work was completed per plans.

- **Theater Modernization 2008**

  Drawings prepared by Flex-A-Lite West, a former Reno-based theater design company. The scope of work included new pipe grid to support curtain tracks and lighting, new valance, borders, and legs, raceways for lighting circuit distribution, light ladders, and associated wiring. The work appears to have been completed.

- **Piper's Opera House Electrical Asbuilt 2010**

  Funded by CCA-09-20, the as-built plans were prepared by Construction Design Services. The scope of work included documenting existing conditions, evaluation of existing conditions, and suggested remedies for code compliance. We were able to locate the as-built plans which documented the existing conditions but did not obtain information regarding evaluation and suggested remedies.

- **Loading Dock and Driveway Improvements to the Piper's Opera House 2011**

  Funded by CCA-09-20, the construction documents were issued by Dubé Group Architecture. The scope of work included a new concrete landing with snow melt system and a new paved driveway. The driveway has not been completed.

- **Restroom Improvements to the Piper's Opera House 2011**

  Funded by CCA-09-20, the construction documents were issued by Dubé Group Architecture. The scope of work included design of partially completed accessible restrooms. The work has been completed.

For additional structural improvements including emergency repairs post 2002, please see Appendix 1.0 Structural Report.

# F INVESTIGATION AND EVALUATION OF SYSTEMS

## 1.0 Plumbing

The plumbing domestic water, waste and propane systems seem to adequately serve the building. The original structure had minimal if any plumbing within. These systems have been upgraded over time to meet current code requirements. The most recent major upgrades were in 1999 when a new 2" cold water service and 4" main sewer line was added to serve the building.

The 2" domestic cold-water main enters the building on the north side and rises up in the fire alarm room, just west of the elevator. There is no backflow prevention between the water service and the building, so one is suggested to be added. There is no pressure reducing valve on the water main so one is suggested to be added to reduce the strain on the piping, valves and fixtures within the facility. Both devices (the backflow preventer and PRV) can be added in line with each other and within a 2'x2' vertical area along the exterior wall at the existing riser, below the fire alarm panels. It appears that all the piping was replaced copper with some smaller PEX piping at various locations.

Electric water heaters serve the point of use areas such as the kitchen, first floor restrooms & bar and the restroom/shower at the backstage area.

The 4" sewer main was added on the north side of building. Its exact route is not documented, but a sewer cleanout can be seen on the north side of wood sidewalk at the front of the building.

The heating system's fuel source is now propane, which feeds a single boiler. Two propane tanks are located on the north side of the building, at the second-floor level. The piping is routed on north face of building to boiler room. A regulator is installed just outside of the boiler room.

*Photo 1 Propane Storage Tanks on north side of Piper's Opera House*

The kitchen is proposed to be renovated to a warming kitchen to serve events at the facility. The proposed plumbing equipment is a 3-compartment sink. This sink will require large volumes of hot water which will require an upgraded water heater (at least 60-gallon capacity with 60 MBH heating input). It is suggested to provide a new gas-fired water heater in the northwest first-floor storage area and serve the bar and adjacent restrooms and renovated kitchen. This water heater, at approximately 32" diameter by 60" tall, could reside to the east of the double doors at the loading dock. The water heater requires 36" clear in front and 18" on each side for service clearance and should be set on a housekeeping pad.

### 2.0 Fire Protection

The Piper's Opera House did not include any provisions for fire protection of the structure as witnessed by the three fires that occurred during the early days of this building's lifespan. In 1999 a wet fire sprinkler system was added to the structure. A fire department connection and post indicator valve are located outside on the northeast corner of the property. The service entrance is on the first floor of the north side, just to the west of the elevator. This riser is 4" in size and connected to the fire alarm system via a flow switch. The system serves all levels of the building including the attic space. This system has an incoming water pressure of 130 PSIG and adequately serves the building. The only modifications necessary to the system would be because of any remodels. Annual inspections of the system are required by the fire code to ensure it is in proper working order.

*Photo 2 Fire Department Connection and Post Indicator*

*Photo 3 Fire Riser and Domestic Water Riser*

### 3.0 Heating, Ventilation, and Air Conditioning (HVAC)

Piper's Opera House was originally heated by four wood burning stoves and utilized a natural ventilation system with the heat being relieved through the hipped roof ventilator. The stoves are no longer being utilized. The ventilator was installed in 1885 and collapsed circa 1950's. It was later removed. This feature is to be recreated and can be utilized to provide natural ventilation as originally designed.

The current HVAC system includes a propane-fired, fin tube boiler that feeds a hydronic loop and various point of use heating and cooling systems. The boiler and associated system were installed in 1999. This heated water loop serves a radiant floor heating system on the first level (B Street) at the main entry. The hydronic system is distributed around the facility and is connected to multiple hydronic fan coils located in the following rooms: first floor corridor, two in the auditorium, and kitchen. These fan coils are noisy during operation and unable to be used during performances. A snowmelt loop was added at the loading area on the north side of the building; it covers the full width north to south and extends 12' from the west retaining wall. There is no observable snowmelt sensor, so it is assumed to be manually operated. Heating for the bar is provided by an electric duct heater and the pellet stove. The electric duct heater is located in the ceiling is connected to ceiling-mounted registers. The stage has a portable air conditioner and tech office on the balcony level has an electric packaged terminal heat pump located in the window for heating and cooling. There is no direct ventilation in the facility; this is now a code requirement and should be added with the new systems. The restrooms all have ceiling-mounted exhaust fans; most operate, but some may need to be replaced. Two 5'x8' smoke vents have been installed at the stage ceiling/roof for relief in case of a fire on the stage. A large 7,000 CFM exhaust fan has been added at the east side of the attic and pull hot air from the spaces below to ventilate the facility. This fan provides little, but some relief during mildly hot days.

*Photo 4 Boiler and Hydronic Equipment*

The appendix to the previous Historic Structure Report proposed the use of hydronic heat and distribute to terminal devices for delivery of heat through air to each space. The actual type of heater was noted to be subject to discussion and agreement for each room depending on practical and aesthetic factors. This approach is still the most viable approach for heating the facility. Radiant floor heating should be entertained for the auditorium

*Photo 5 Existing Ventilation Shaft from Auditorium*

*Photo 6 Exhaust Fan in Attic*

spaces and other rooms on that level. Please refer to that appendix for details of the system. The current fan coils should be removed in the auditorium due to noise but could remain in the other spaces if desired.

In addition to utilizing a hydronic heating, it is proposed to use natural ventilation and evaporative cooling for cooling of the facility. Evaporative coolers or recirculating makeup air units with hydronic heat could be added in the attic to serve the auditorium level spaces. These units could be installed through the fire vents above the stage or through the 3'x7' door on the west gable end of the roof/attic. Intake air for either system would be through new sidewall louvers (approximately 4' wide x 6' tall), located on any side of the building that could be made of wood to resemble the building's current style. The evaporative cooler or makeup air unit's air distribution could be through ceiling diffusers located above the stage and auditorium.

The hipped roof ventilator could be retrofitted with actuated damper to open and relieve the air from the auditorium which would follow the original cooling concept for the building. This system would utilize the existing ventilation shaft that routes from the auditorium and stops in the attic. This shaft would have to be extended up to the hipped roof ventilator.

*Photo 7 Heater above Old Corner Bar ceiling*

The existing 7,000 CFM exhaust fan should remain and be interlocked to operate with the evaporative cooler or makeup air unit.

The evaporative unit would be approximately 4'x6'x4' tall and weigh as much as 1,200 pounds. The makeup air unit would be about 3.5'x9'4' tall and weigh up to 1,600 pounds. Structural supports would be required for either system along with platforms for service. A path along the roof trusses would be required to access the equipment from the east side of the attic where the access hatch resides.

An evaporative cooler could be added at the B Street level storage room, ducted in from the north, and be distributed to the entire level for cooling. Intake air would be through new sidewall louver that could be made of wood to resemble the building's current style.

## 4.0 Electrical and Communications

### Electrical Service

The existing electrical service is on the exterior south side of the building. The service is 120/208 volts, 3-phase, 4 wire, 400 amps disconnect switch, fed overhead from an NV Energy power pole at the southeast corner of the building on "B" Street. This service then distributes to the interior panels. This service currently seems adequate for the limited power usage of the building, but any major added power requirements will probably require the service to be upgraded. An electrical load study should be done first to determine the power loads of the existing building.

*Photo 8 Existing 120/208 volts, 3 phase, 4 wire, 400 amp electrical service on south auditorium elevation*

Over the years there have been a couple of proposals to upgrade this service but were not done. Upgrading this service would require a new underground service line from the existing power pole to a pad mounted NV Energy transformer and new switchgear to replace the existing service, such as is shown in the 1999 proposed work from Barrett Engineering. However, that project was for a 1200-amp service to accommodate a future building addition.

We recommend upgrading the service to 600 amps, 120/208volts, 3 phase, 4 wire. This service will need to be set south of the existing building walkway. To allow the building to possibly be used as an Emergency Operations Center, we recommend including an emergency generator to the service. This generator would be approximately 210Kw and would be placed on a concrete pad along with the new electrical service south of the building. It would include an automatic transfer switch.

*Photo 9 Existing electrical overhead service from power pole at B Street*

There are 5 interior panels to serve areas of the building: Panel A-Stage; Panel (B) - serving kitchen; Panel in the shop; Panel on the 3rd floor in the hallway (Office and Hallway); Panel in the Bar.

None of these panels have a nameplate on them; only identified by pen handwriting. We recommend that phenolic nameplates be provided for these panels. Three of these panels- A (Stage), Kitchen, and Shop- do not have written or typed panel schedules; just handwritten notes in pen or pencil along the face of the panels. These should be updated with typed panel schedules and the circuits verified. There are also limited spares or spaces on these panels so adding circuits to these will need to be verified for availability. The proposed upgrades for the Kitchenette would require that panel to be replaced as there are no additional spare circuit breakers. The panel could be set in the existing location of the west wall but some repairs to the conduits and conductors would be included in that work as well as finishing the wall board.

There is no emergency power in the building, including to the elevator, so any emergency power needs would have to be provided by batteries, unless a new generator is added to the electrical service.

The Balcony is provided with some electrical boxes and conduits to provide 120-volt power outlets on the Balcony. Extension cords and cable are laying along parts of the Balcony floor that make for tripping hazards for someone trying to walk in the Balcony. Additional power outlets should be provided to minimize or eliminate these cords and cables.

*Photo 10 Extension cords and cables lying about in the balcony*

**Lighting**

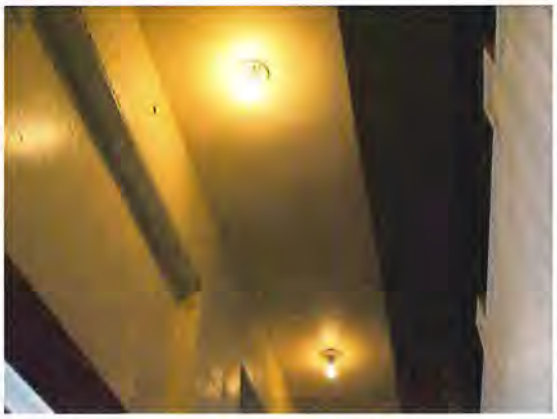


*Photo 11 Keyless sockets with exposed CFL lamps*

The interior lighting has tried to maintain the historic look of the building in the Auditorium and the Chandeliers in the Entry Lobby. The Lobby, Stairs, and Kitchen lights have been replaced with keyless sockets using compact fluorescent screw-in lamps. These fixtures do not have a shade on them, and the fluorescent lamp is exposed. The public hallway fixtures are wall sconces like the Auditorium lights and the Restrooms and back of house spaces are using fluorescent light sources. Consideration should be given to replacing the keyless sockets with appropriate light fixtures with shades/lenses and usage of current LED light sources. The First Floor Lobby has an exit

light at the doors and an emergency over the door into the Auditorium. This emergency though might not be adequate to provide code required egress lighting in this space.

A walkthrough of the entire Building might be needed with the power turned off to measure the lighting levels provided by the emergency lighting units and inadequate areas recorded in order to establish all areas that might need additional units.

The Auditorium has a chandelier in the middle of the room and wall sconces on the north and south walls. These lights do not appear to provide adequate lighting for some functions and so string lighting cords are strung from the balconies, apparently to supplement lighting levels. These string lights are plugged into extension cords on the Balcony, which are strewn about the Balcony and could be tripping hazards for someone maneuvering in the Balcony. A permanent solution to the lighting levels should be considered under a separate contract. This could include investigating if the existing lights can be retrofitted with new LED lamps that might provide better illumination for those fixtures; but they probably will not still be adequate for higher illumination levels.


*Photo 12 No emergency light at Main Entrance*

*Photo 13*

*Photo 14 Auditorium – string lights hung from Balcony*

The Lobby out of the Auditorium has only one emergency light and has no light at the landing to the Stair. There is a blank plate in the ceiling that appears to be an outlet for what was a light fixture.

The Balcony is provided with similar wall sconces as the Auditorium. Most of them are operating but a few of them are missing shades and lamps. These lights do not provide adequate lighting levels if the Balcony were to become an occupied level, so additional lighting would need to be addressed. There is no emergency or

exit lights on the Balcony so these too would need to be added for occupancy.

*Photo 15 Balcony wall sconce lights*

*Photo 16 Balcony stage lights and pipe rigging*

A stage lighting system was installed in 2008 that includes piping and lights on the north and south sides of the Balcony. The lighting control console is also located in the Balcony to provide a good view of the Stage. This location is at the bottom of the Stairs down to the lower row of the Balcony and would be in the way for people to occupy the Balcony.

The Third Floor Stair mid-landing ceiling has a blank plate that appears to be an outlet for what was a light fixture. This Stair is not well lighted and additional lights should be addressed. There also is not any exit or emergency lighting on this floor. The light switch for this area is located over the edge of the Stair railing and difficult to reach. This should be relocated to an accessible location on the Stair landing.

The new proposed Basement egress will need to be provided with exit lights and emergency lights to meet Code required illumination levels.

### Fire Alarm/Security

The building is provided with an addressable fire alarm system by Fire-Lite Alarms. The fire alarm panel is in the Fire Riser Room. The system provides supervision of the fire sprinkler system flow and tamper switches and fire alarm audio/visual devices are provided throughout the building and appear to be adequately provided for alerting Building Occupants in case of an alarm. Smoke detectors are provided in the Lobby areas of the elevator to provide recall operations. The system with a voice evacuation feature. The system has been recently inspected and tagged in compliance with the State Fire Marshal.

This panel also supervises motion detectors throughout the building that provide protection for the structure.


*Photo 17 Existing Fire Alarm panel in Fire Riser Room*

### Telephone

The existing telephone backboard is located on the Third Floor in a storage area outside of the Office and seems to be adequate for the existing devices and outlets in the Office.

## 5.0 Structural and Seismic

See Appendix 1.0 Structural Report

## 6.0 Architectural

### Building Exterior

#### Roofing

The roofing system was replaced in its entirety in 1999, funded by CCA-97-15 and included in construction documents titled **Reroof of Piper's Opera House** issued by JP Copoulos Architect (1997) and **Phase One Restoration of Piper's Opera House** issued by JP Copoulos Architect (1998). The plans called out for a new roof consisting of cedar shingles over felt and included replacement of deteriorated sheathing with approved sheathing along with new z-flashing. A new roof hatch, 36" x 30" was installed along with two fire vents, 60" x 96". The plans called out repairs to soffit boards, crown molding, fascia, and miscellaneous trim.

Attics are generally required to be ventilated to allow heat and moisture to escape, and there is an equation in the building code to determine net free ventilation area. Best practice is to locate half of the vents on the lower portion of the roof, typically at eaves or soffits, and the balance on the higher portion of the roof, typically at or near the ridge.

There are round soffit vents at the north and south eaves of the auditorium roof but we were unable to locate additional vents on the higher portion of the roof. We recommend a continuous ridge vent and a ventilated underlayment such as Cedar Breather in the next re-roof.

We also recommend a Class A fire retardation in the future, given the significance of the resource, which consists of shingles treated with Class B fire retardant combined with a fire retardant cap sheet underlay. We were unable to verify the roof covering classification of the existing shingles.

The roof system appears to be in good condition and should last another 10 years given an average lifespan of 30 years. The smoke vents are interconnected with the fire alarm system and open automatically upon detection of smoke or heat on the stage. We were unable to test the fire vents but assume that is part of an annual inspection by the local authorities having jurisdiction (AHJ).

The roof hatch is accessed via a ladder attached to the north wall at stage left. The distance from the stage floor to the landing platform above is just over 20 feet, less than the 24 feet trigger for an OSHA-approved safety ladder. However, the ladder should be secured to the wall in several locations where it is loose. The rungs are well-worn over the years several should be retained for interpretation and replaced with like kind rungs to prevent injury.

There has been discussion in the past about reconstructing the hip roof ventilator (cupola) on the east slope of the upper roof. As noted in the HSR, "A ventilation shaft was placed above the balcony. The shaft extended through the attic area, opening directly into an exterior ventilator. This feature had louvers on all sides, and a shallow hip roof. The rooftop element has been removed, but its size and appearance is sufficiently documented in photographs and in the roof framing to enable accurate reconstruction". If the ventilator is reconstructed, it could be incorporated into a new exhaust air system as discussed in Section F Part 3.0 HVAC.

*Photo 18 Hip roof ventilator, circa 1939*

*Photo 19 View looking south from A Street. Roof hatch visible lower left, smoke vent upper right*

*Photo 20 View looking north from A Street. Smoke vent visible over stage right.*


*Photo 21 View looking northwest from B Street. Shiplap siding covering brick on south elevation of 1863 building. Flue coming out of arched window vents pellet stove used to heat Old Corner Bar. Seven doors with archways and eight second level windows (facing south and east) were refurbished in 2003. Note high window facing east in upper balcony.*

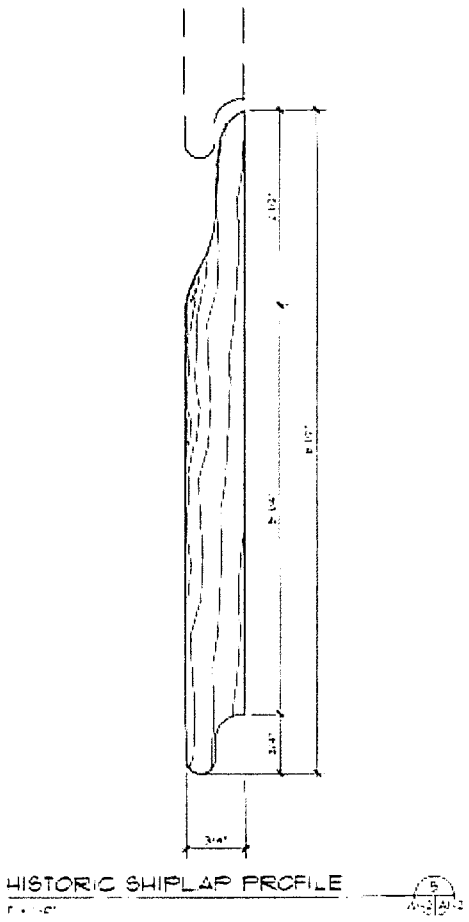
*Photo 22 View from B Street looking south. Note eight openings – window in tech office, three windows in auditorium, basement egress doors (visible beyond retaining wall), 1970s oversize egress doors, upper balcony egress door, and stage egress doors (far right in photo)*


*Photo 23 View from B Street looking due west.*

**Siding**

**1863 Brick Building**

The brick veneer was noted in the HSR as "severely deteriorated and in danger of partial collapse". Proposed treatment included pinning brick façade to new interior concrete wall, repairs including replacement of missing brick, and repointing.




The 1877 brick façade (1863 brick building) was pinned to a new interior concrete rigid frame, typical on the east and south elevations. New wood siding matching the historic shiplap profile was installed on the south elevation (and on the north and east elevations of the adjoining Carriage House) in 2003, funded by CCA-01-15, 32-01-ML-1163 (Save America's Treasures grant), and CCA 02-15 and included in construction documents titled **Piper's Opera House Façade Stabilization** issued by van Dijk Westlake Architects (2002).

Additional items included:

- Historic balcony hangers to be salvaged and returned to owner
- New redwood drop cove shiplap siding to match historic profile at south elevation over original brick using new mechanical fasteners and wood blocking
- Repair / reconstruct area of heavy brick deterioration on B Street elevation
- Repoint and rebuild entire brick column and capitol on B Street elevation
- Provide new surface mounted j-box at historic light locations on B Street elevation

The brickwork on the east elevation appears to be in fair condition and generally should not require repointing for another 10 to 12 years, given an average lifespan of 30 years. The new shiplap siding installed over furring strips to cover the brickwork on the south elevation appears to be in good condition, as does the shiplap siding on the north elevation.

The surface mounted j-boxes have not been installed per the note on the plans and the wiring is taped and dangling.

The van Dijk Westlake Reed Leskosky drawings indicated columns and capitols were to be rebuilt and repointed. However, there has been recent damage particularly near the base of the columns flanking main entry to Old Corner Saloon and Piper's Opera House.


*Photo 24 Damaged brick column on B Street façade at entry to Old Corner Saloon*

It is unclear if the damage is caused by humans or nature – seasonal rain and snow cascading from the roof and bouncing off the boardwalk onto the brick and possibly causing spalling. Regardless, the damaged columns should be repaired by removing loose material and setting salvaged brick if possible.

**1883 Auditorium Building**

New shiplap siding was installed on the north, south, east and west elevations of the auditorium building by 2001, funded by CCA-99-15 and CCA-00-15 and included in construction documents titled **Phase Two-B Siding for Piper's Opera House** issued by JP Copoulos Architect (1999).

The plans included removing and replacing existing siding with new 1x12 redwood siding over vapor barrier over 5/8" gypsum board over ½" plywood sheathing with R-19 batt insulation in stud cavities. The addition of 5/8" gypsum board is interesting, since the plans do not limit the application solely to the south auditorium wall, which would require a one-hour fire resistive rating due to its location on the property line and the fact that the building encroaches roughly 9 feet over into the A Street right of way on the west wall. We are unable to confirm whether the gypsum board was installed on the south wall and whether the east, west, and north walls are similarly protected without destructive demolition.

The shiplap siding is in good condition and was recently repainted (2016). Northern Nevada's dry climate, hot sun, and seasonal temperature swings are tough on painted wood surfaces, which require repainting every 7 to 10 years.

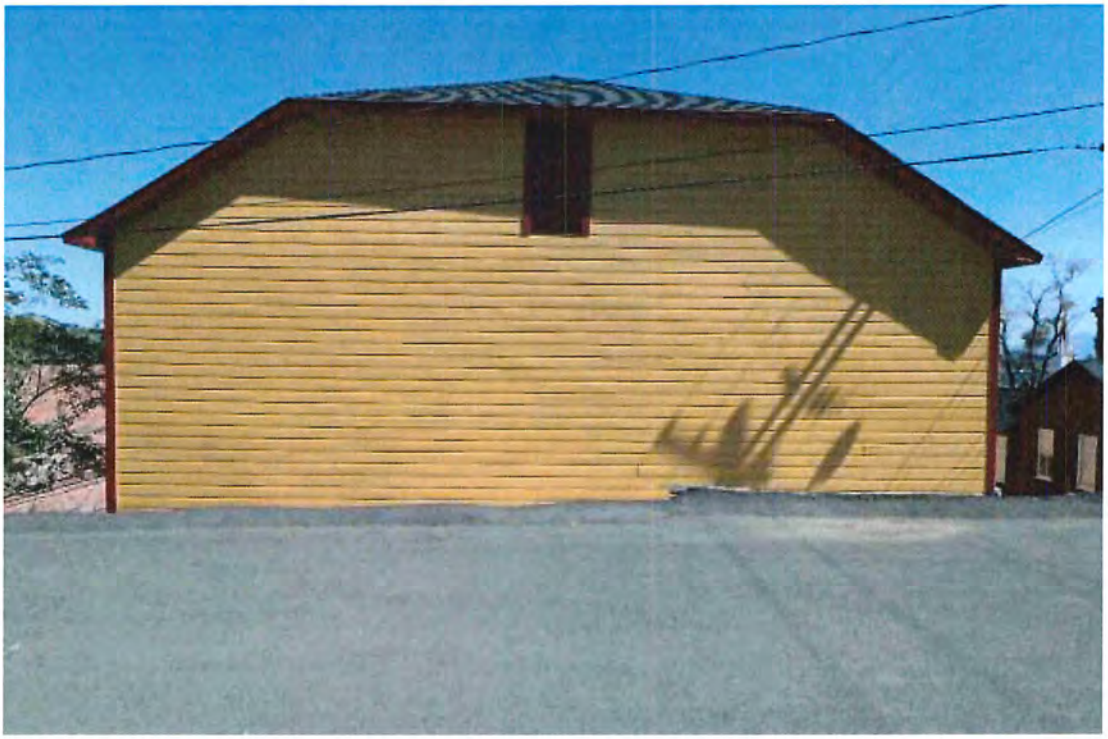


*Photo 25 West elevation from A Street looking east. Door above stage provides additional attic access. Siding was replaced over new plywood sheathing.*

## Metal Elements

*Photo 26 Four cast iron piers visible in photo to right. Pier at north end appears to support adjoining building which has been demolished*

### Cast Iron Piers

Four cast iron piers flanking two arched entry ways on the Carriage House east elevation are visible in exterior photographs of the dilapidated conditions taken in 1939 or 1940 (Library of Congress) as shown in photo to the left. The piers were identified as notable, in good condition, and with a high preservation priority.

Two cast iron piers have been fastened in place, primed, and painted. They are in good condition. The remaining two piers are displayed in the corridor alcove on the basement level and should be retained on site for interpretive purposes.

*Photo 27 Note missing finials*

### Railings

Approximately 22 lineal feet of wrought iron railing was installed on top of the tall retaining wall around the loading dock and service driveway which was cut into the north slope of Piper's Opera House in 2007.

The wrought iron railing is in good condition except for 10 missing finials, which should be replaced.

*Photo 28 Exterior stairs from new exit at north balcony*

**Wood Elements**

**Stairs**

New exterior stairs and landing were specified for the auditorium building, funded by CCA-99-15 and CCA-00-15 and included in construction documents titled **Phase Two-B Siding for Piper's Opera House** issued by JP Copoulos Architect (1999).

The unpainted wood exterior stairs that serves the egress door from the upper balcony and the double doors from the stage (both openings were cut into the north side of Piper's Opera House around 1998) are deteriorating, as noted in the Structural Report, and should be replaced with new wood stairs and treated with linseed oil.

*Photo 29 New exit at north balcony and stage left with staircase and landing constructed 1999*

**Windows and doors**

**1863 Brick Building**

Funded by CCA-02-15 and CCA-03-15 and included in construction documents titled **Piper's Opera House Façade Stabilization** issued by van Dijk Westlake Architects (2002), seven entry doors in the 1863 brick building were refurbished in 2003, including arched transoms. Eight windows (6 facing east and 2 facing south on the second floor were called out "to be refurbished / rebuilt from historic stock or new to match. Removal, storage, renovation, and installation by Owner".

In mid-2015, six windows facing east and one facing south (1862 brick building) were inadvertently removed and replaced with modern reproduction windows in violation of recorded covenants. Fortunately, the original windows were still intact and were able to be restored reinstalled in 2017 after discovery. 14 window sashes were restored and painted, including epoxy filling and rebuilding, milling of new wood parts as required, and replacement of broken glass with 1/8-inch clear historical glass. The windows are in good condition.

The doors are in fair to poor condition. It is recommended they be refurbished and re-painted. There is an immediate need for maintenance repairs - some of the hardware needs to be re-attached.

*Photo 30 Main entry doors at B Street. Screws missing at door know escutcheons. Paint peeling.*

The carriage house double doors and transoms were not rebuilt. One of the archways is flanked by cast iron piers and the doors are visible, although in poor condition and inoperable; there is a plywood panel covering the transom. The other archway has been completely covered and the opening obscured with shiplap siding installed and painted to match the second floor. It is recommended that the extant doorway be refurbished including double doors with arched transom.


*Photo 31 Carriage House doors. Note the cast iron piers. Doors are in poor condition and arch obscured by plywood panel*

**1883 Auditorium Building**

The doors – and some of the openings – are contemporary. Flush metal double doors (extra wide 42" leaf) with panic / crash bars exit the auditorium on both the south and north elevations; these doors were installed in the 1970s. The doors appear to be in good condition.

The flush metal double door was added at stage left on the north side and a four panel single door was added as an exit out of the upper balcony on the north side with new exterior stairs and landing to grade, funded by CCA-01-15 and included in construction documents titled **Phase One Restoration of Piper's Opera House** issued by JP Copoulos Architect (1998). The doors appear to be in good condition, although we were unable to unlock the upstairs balcony door to verify egress.

The flush metal double egress door at basement level that opens out onto the concrete pad at the loading dock was cut through 30 inch thick concrete wall in 2007. The door appears to be in good condition.

*Photo 32 Exterior mounted 1 over 1 storm window, typical of three on south side and three on north side. Note deteriorating condition of window sashes beyond.*

There are three windows on both the south and north elevations. The six over six single hung windows are in fair condition. A storm window is located on the exterior side of each window and are attached by screws into the trim.

We recommend the storm windows be removed for repairs and the sash windows be refurbished including replacing any damaged or missing panes with "restoration glass". Wood window components should be repaired and the entire assembly repainted prior to reinstallation of storm windows.

**Building Interior**

**Basement**

The B Street level has undergone significant improvements between 2003 and 2011 including the build out of the Old Corner Bar, a new passenger elevator, accessible restrooms, new fire exit, and completion of the main lobby and stairs.

**Old Corner Bar**
The Old Corner Bar occupies roughly 1,275 SF and is prominently located on the southeast corner of the 1863 brick building. Formerly a workshop, the tenant improvements were completed in 2008 and the spacious saloon features a custom bar and painted canvas walls. The service area includes storage and a cool vintage walk-in cooler, which was apparently donated. The tavern shares accessible men's and women's restrooms with Piper's Opera House. The mop sink is located in a closet inside the men's restroom.

**Lobby**
The wall separating the Old Corner Bar and the main lobby was constructed as part of improvements in construction documents titled **Phase One Restoration of Piper's Opera House** issued by JP Copoulos Architect (1998). The lobby renovations were completed in 2007 and include maple flooring over hydronic tubes, plastered and painted walls above bead board wainscoting, and a wood ceiling.

**Carriage House**
Two arched openings in the original 1863 brick building connect the main lobby to the Carriage House. Due to a grade change, the lobby floor slopes down to meet the lower finish floor elevation at the corridor. The corridor provides access to the workshop, fire alarm, elevator, and an office currently being constructed for the director.

The passenger elevator was constructed based on construction documents titled **Elevator for Piper's Opera House** issued by JP Copoulos Architect (2001) **and Elevator Shop Drawings** issued by AMLIFT International on behalf of High Sierra Elevator (2002) and funded by CCA-99-15 (and possibly CCA-00-15). The 2-stop hydraulic holeless elevator has a 2,100 pound load capacity. The hoistway is a one-hour shaft. The cab size and call buttons meet accessibility requirements.

The elevator machine room is located remotely and is accessed through the workshop. The machine room contains a controller and submersible pump unit. We were unable to verify an independent ventilation system. Because the room does not abut the hoistway enclosure, is located in a building less than four stories above grade plane, and because it is not a fire service access elevator, the machine room is not required to have fire rated construction.

**Accessible Restrooms**
Accessible restrooms were completed in 2011 based on construction documents titled **Restroom Improvements to the Piper's Opera House** issued by Dubé Group Architecture (2011) and funded by CCA-09-20. The men's restroom is equipped with one lavatory, one mop sink, and two water closets. The women's restroom is equipped with two lavatories and two water closets. The restrooms, which were generally constructed to plans, meet accessibility requirements.

*Photo 33 B Street lobby looking west. Walls are plastered and painted with bead board wainscoting and cap. Wood ceiling with soffits to hide piping. Wood column in middle of photo leaning. Stairs complete. New maple flooring over hydronic heating tubes. New director's office visible through archway.*


*Photo 34 B Street lobby looking east to B Street. Main entry doors with arched transoms.*

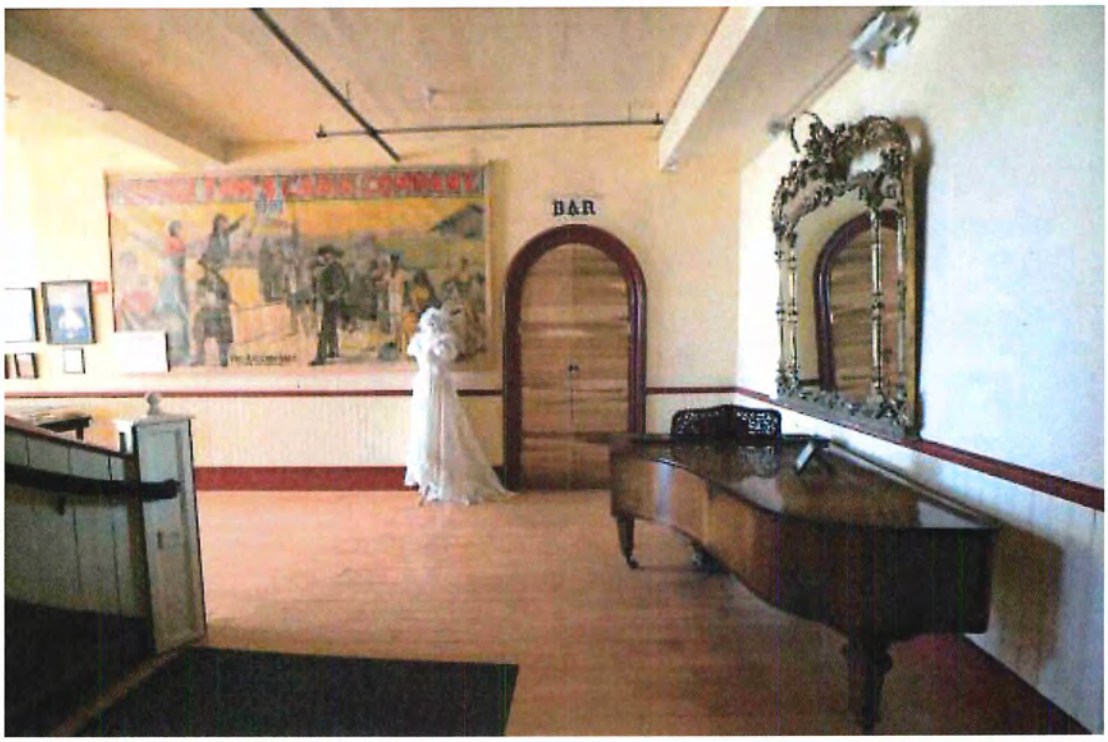



*Photo 35 B Street lobby looking south. Double doors are required second exit from Old Corner Bar.*

*Photo 36 B Street Lobby looking north. Access to second exit to left in photo. Arched opening in original 1863 brick building leads to corridor through Carriage House. Elevator beyond.*

**Required Means of Egress**

A second required means of egress out of the basement was cut into the north side of Piper's Opera House in 2008, which required substantial excavation of the existing slope and saw-cutting a new opening through 30 inch thick reinforced concrete. A pair of doors with panic hardware swings in the direction of travel onto a concrete landing. A gravel driveway extends east to the edge of existing paving at B Street.

We were unable to locate any plans for the excavation, retaining wall, or the new concrete piers flanking the new opening. Construction documents titled **Loading Dock and Driveway Improvements to the Piper's Opera House** issued by Dubé Group Architecture (2011) specified a new concrete landing consisting of 6 inch thick fiberglass reinforced concrete (min. 4000 psi @ 28 days) over four inch Type 2 compacted aggregate base, snowmelt system, and 3 inches of AC over 6 inch compacted aggregate bae for the driveway. The concrete landing with snowmelt was installed but the driveway is not paved. Work was funded by CCA-09-20.

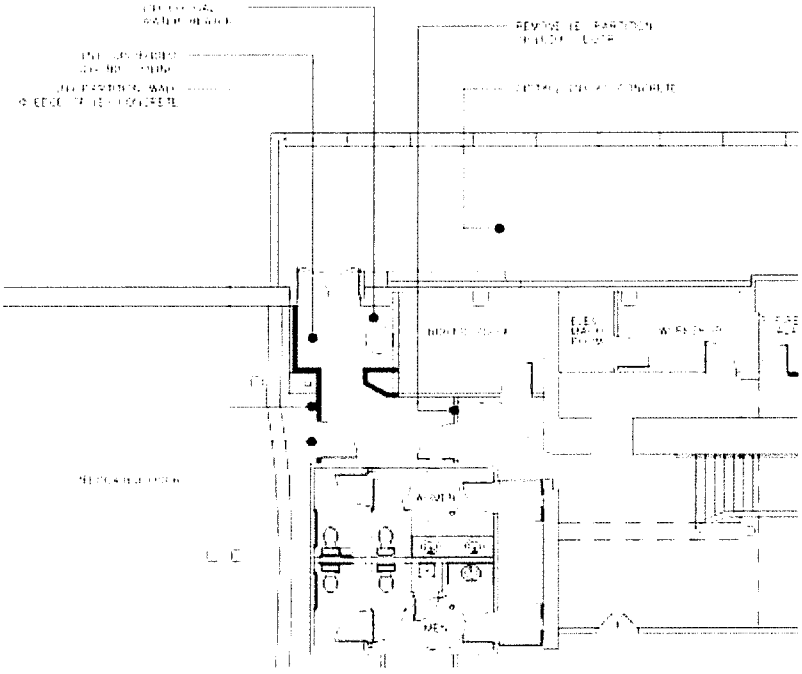


*Figure 1 Proposed basement egress plan at north side of Piper's Opera House*

The exit path to the north door is continues through a 42" wide swinging door and partition wall that spans between the women's restroom and boiler room. The exit sign in the main lobby that appeared in earlier photographs has been removed. Once past the swinging door, the exit path is cluttered with stored materials.

The existing partition wall and door spanning between the boiler room and Women's restroom should be removed along with stored material and the space enclosed with partition walls and ceiling to complete the exit path to the out-swinging doors at the loading dock. The existing 42" wide door can be relocated to provide access to the crawlspace. The driveway should be paved to B Street (approximately 1,000 SF).

The proposed interior work occurs in an area that has little remaining fabric, which is limited to floor joists, supporting members, and brick piers; similarly, the proposed exterior work is limited to new a/c paving on previously excavated site.

*Photo 37 Excavation at north side for access to double egress doors. Existing concrete pad with snow melt system. Pour new 3 inches of a/c pavement over 6 inches of compacted aggregate base from edge of concrete pad to B Street*

*Photo 38 View of double egress doors looking north. Note blocked exit. New partition wall will align with the footing supporting the column.*

**Auditorium Level**

**Lobby**

The second level of the 1863 brick building has undergone significant improvements since completion of the HSR. The lobby received new wood flooring, plaster finish on walls and ceilings, and bead board wainscoting. The grand staircase is now complete and finished about midway up to the landing between the auditorium and balcony levels.

The second story façade windows were identified in the HSR as being in fair to poor condition with high preservation priority. The windows were salvaged from other local buildings in 1883, following the fire. As noted above, the windows have been repaired and are in good condition.

The south wall of the auditorium lobby dates to at least 1877 and the salvaged lumber sheathing has been left exposed above the wainscot. The ticket window and gun check window are intact.

**Bridal Room and Catering Kitchen**

There are two rooms on the south end of the 1863 building which served as the administrative office for the theater after 1885: the Bridal Room and kitchenette. Piper's Opera House is a wedding venue and the Bridal Room functions as the dressing room for the bride.

Storey County would like to upgrade the existing kitchenette to facilitate catered events including weddings, and staff would like a setup similar to the Historic Fourth Ward School. It will be used to hold and serve cold, frozen, and warm food catered by outside vendors. No food will be prepared onsite, eliminating the need for exhaust hoods and grease interceptors.

*Photo 39 Looking east at auditorium lobby landing. Grills were added for fall protection. Salvaged lumber exposed above wainscot.*

*Photo 40 Decorative grill visible at landing above. Note keyless sockets with exposed bulbs.*

*Photo 41 Auditorium lobby looking west. Door at left into Bridal Room; note two steps. Wainscoting, flooring, and wall and ceiling finishes complete. Stairs down to B Street level and up to balcony level. Folding doors at auditorium visible in background*

*Photo 42 Bridal Room looking south. Door at right into kitchenette. Wood floors retained in former theater office*

*Photo 43 View of existing kitchenette looking west. Auditorium visible through open doorway. Exposed wall sheathed in salvaged lumber shown on right side of photo should be protected in place and left exposed for interpretation or covered with fabric and new wall paper attached. Electrical subpanel to right of doorway. Fan coil unit for heating in kitchenette and adjoining Bridal Room. New flooring overlaid on existing wood floors*

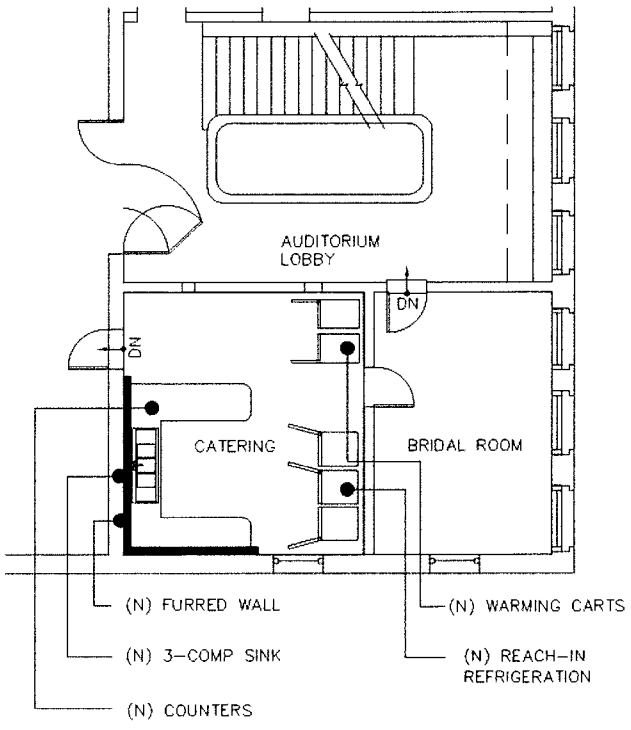
The kitchenette occupies a room roughly 16' x 18' measured from interior face of the walls with a ceiling height of roughly 11'-6" above finished floor. There is a two compartment sink set into an L-shaped plastic laminate countertop with laminated base cabinets, a microwave, two residential refrigerators with freezer compartments, and a couple of café tables.

The north wall exposed sheathing, shown in Photo 39 is part of the historic fabric and should be protected in place. That wall, which separates the kitchenette from the Auditorium lobby, has two openings, a ticket window and a weapons check window. Both are character defining features and should be protected in place.

The floor level of the kitchenette (and the adjoining Bridal Room) is approximately 16 inches higher than the auditorium and lobby. There are two steps up into the kitchenette through an existing 32" wide opening, all of which poses a challenge when remodeling because equipment must be sized to fit through the existing doorway.

The flooring in the kitchen is a contemporary vinyl in a simulated wood look which could be retained or replaced with a similar product as part of the remodel. The gypsum board ceiling should be patched and new light fixtures installed.

The new catering kitchen will consist of a U-shaped countertop with base cabinets and upper cabinets. The countertop should be solid surface or stainless steel with a stainless steel commercial three compartment sink with dual drain boards.




Equipment includes two warming carts, one reach-in freezer, and two reach-in refrigerators; all equipment will be NSF certified and on casters.

Additional equipment could include countertop microwave and commercial coffee maker.

A new 60-gallon hot water heater and upgraded electrical sub-panel to replace the existing panel are necessary to accommodate the new catering kitchen and these improvements are discussed in the plumbing and electrical sections elsewhere in this report.

*Figure 2 Proposed catering kitchen layout*


*Photo 44 Auditorium level single occupancy restroom. Does not meet accessibility standards*

*Photo 45 Auditorium level Men's Restroom. One lavatory, three urinals, and one water closet. As configured, single occupancy restroom while water closet in use. Does not meet accessibility standards as currently configured. Door is too narrow into restroom.*

*Photo 46 Auditorium level looking east. Original 1863 brick wall visible in arched opening.*

**Carriage House**

The north half of the second story (Carriage House), formerly John Piper's apartment, has been extensively modified over the years with the addition of new restrooms and an elevator, and the finishes including flooring, walls and ceilings are contemporary.

The single occupant restroom is accessed of the hallway through a 36-inch wide door and consists of a lavatory, water closet, and fire sprinkler standpipe. It does not meet the clear floor area requirements for accessibility nor does it appear feasible.

The Men's Restroom is accessed through a 28-inch wide door and consists of a lavatory, three urinals, and a water closet with urinal-type partitions, rendering it a single occupant restroom if the water closet is being utilized. The Men's Restroom does not meet the clear floor area requirements for accessibility as currently configured although it is possible with conversion to single occupancy, nor does it meet the door width requirement. Sight lines into the Men's Restroom and single occupant restroom are poor.

The Women's Restroom, located at the end of the narrow hallway, is accessed through a 28-inch wide door and consists of three water closets in private compartments and a single lavatory. Although the space is tight, there is some degree of privacy. This restroom is not accessible as currently configured although it is possible with conversion to single occupancy, nor does it meet the door width requirement.

There is a loft above the single use restroom used for storage and another one above the Men's Restroom where the water heater is located which are accessed through a sidewall door. The lofts are sheet rocked, fire-taped, and sprinklered.

**Auditorium**

As noted in the HSR, ""The audience chamber and staging remain virtually intact from the 1885 completion. The proscenium arch, box seats, wainscoting around the perimeter of the walls, the face plates of the balcony, and the window frames are all original material." The treatment recommendations were "all wood elements to be retained, patched where essential, and repainted. Colors to be determined by conservator and forensic paint analysis". We were unable to determine if a paint analysis was completed.

*Photo 47 "Sunburner" gasolier intact. Painted plywood floor installed 2007 covers 1907 maple floor. In 2004, underside of balcony and walls sprayed with fire retardand and covered in fire-retardant muslin. Wood elements in good condition.*

In 1907, a maple floor was installed over the original floorboards (circa 1884), and the recommended treatment was to "repair and restore 1907 floor with view panels to 1884 flooring". In early 2007, HBO rented the space and set up a sound stage, covering the maple floor with two layers of 1-inch thick plywood painted black, which remains in place today. The top layer is attached with screws but we were unable to determine how the bottom layer is attached and whether there is any damage to the underlying historic fabric.

To accommodate the future hydronic radiant heating system, the painted plywood should be removed and a new floor installed consisting of 3/4" plywood sleepers to support tubes overlaid with 3/8" plywood subfloor and topped with a floating wood floor. The entire assembly should be less than 2 inches thick and will match the existing finish floor elevation.

*Photo 48 1907 maple flooring visible in foreground. In 2007, HBO set up production studio and added 2 layers of plywood, painted black, over maple flooring. Note beveled transistion strip painted yellow. Maple flooring appears to be in fair to good condition.*

*Photo 49 View from stage right looking at auditorium chamber. Typical table and chair layout. Note stage lighting on balcony*

In 2004, possibly funded by CCA-03-15, the water-damaged 1960s muslin (or possibly canvas) was removed from the underside of the balcony and wood walls. The exposed wood surfaces were treated with "FLAMORT-WC", which the manufacturer described as "a non-toxic, water-base, fire retardant coating, and then covered with muslin sprayed with flame retardant (possibly manufactured by Rose Brand Textile Fabrics). The flame retardancy has an expected lifetime of at least one (1) year and recommends annual testing.

*Photo 50 View of exposed lath under balcony at north side above door to stage and boxes. Unit heater visible to right in photo.*

**Opera Boxes**

The opera boxes are original and in fair condition. The wall paper remains intact but is substantially covered with red felt; the floors have been covered with contemporary carpeting. Valances and drapery drops are contemporary. Access to each of the lower boxes is through a narrow doorway and up five steps. There is another steep, narrow stairway leading to each of the upper boxes from the stage and a secondary access through the balcony. As noted in the HSR, "Limited access from the rear. Not viable for contemporary seating" and we concur with this statement unless the AHJ is willing to allow the boxes to be occupied as a non-conforming use. The remaining treatment recommendations noted in van Dijk Westlake Reed Leskosky report are still valid.

*Photo 51 Stairs to opera boxes at stage left*

*Photo 52 View of stage and auditorium chamber from lower opera box at stage left. Existing wood elements in fair condition.*

**Storage**

Storey County will continue to utilize the auditorium for plays, meetings, celebrations, and similar group functions. Depending on the function, it could be set up for sit down meals, arranged conference style for meetings and seminars, or theater style for performances of up 300 spectators. Tables and chairs are currently stored stacked up against the wall when not in use. Padded folding chairs are stacked onto mobile carts which can be moved to the side. Standard plastic folding tables, 2 feet by 6 feet, are simply stacked, leaning against the wall.

To prevent damage, provide a cleaner look, and offer more flexible use of the space, the county would like to find a long term solution for storing tables and chairs.

It was discussed adding an enclosure at the basement level north side concrete landing but we don't recommend that location for several reasons. First, the north door serves as the second exit from the basement level and there is insufficient area to enclose a room and still maintain egress width. As shown in Figure 3, the storage area footprint would be roughly 250 square feet.

Second, it would be difficult to maneuver carts through hallways into and out of the elevator while subjecting wall finishes to potential damage.

Until a long-term storage solution can be found, we recommend the county purchase mobile carts to store tables.

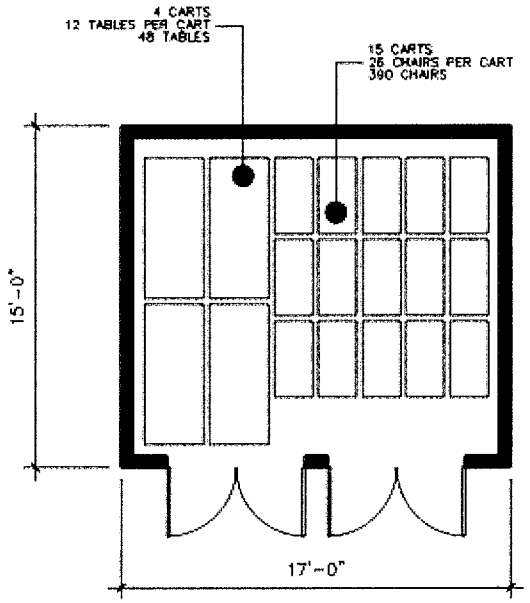



*Figure 3 Minimum area requirements for table and chair Storage*

**Accessible Means of Egress**

As discussed in Section 8.0 Building Code Review, the elevator cannot be used as part of an accessible means of egress without standby power. The south-facing exit doors swing out onto a level landing at grade, which is technically in the public way since the adjoining property is owned by the county. If the gate separating the two properties is removed or equipped with a panic device, the AHJ has the authority to make a determination that this would meet the intent of the code.

The north-facing exit doors swing out onto a level landing with two steps down to grade. This could be reconfigured as shown in Figure 4 to include a deeper landing with a switchback ramp to grade. The ramp is held back 4 feet from the building for a snow drop area. In lieu of continuing a ramp down to B Street (public way) which has been proposed in the past, a safe dispersal area could be maintained on the north lot.

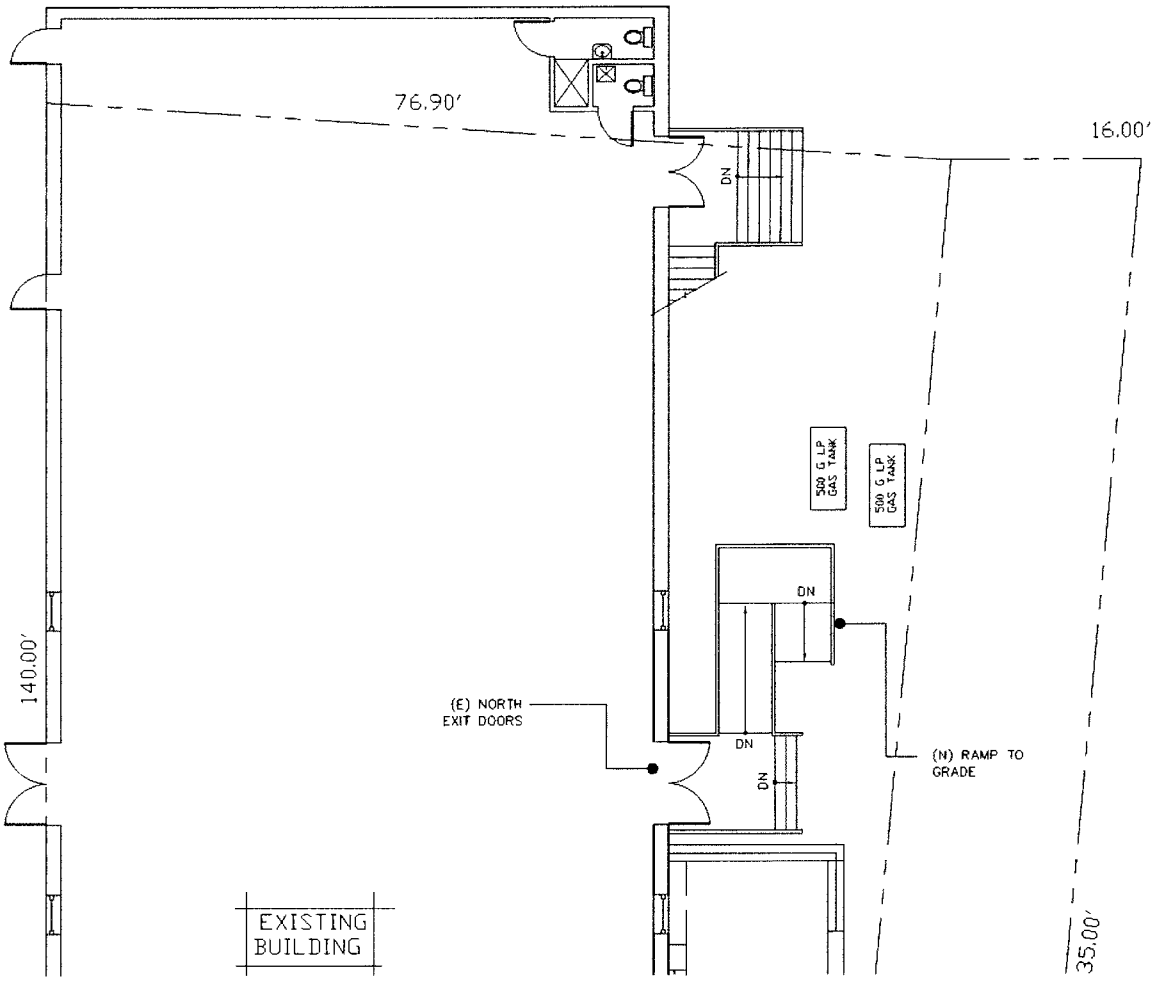



*Figure 4 Proposed accessible means of egress from north exit doors to safe dispersal area*

*Photo 53 South exit from auditorium*

*Photo 54 North exit from auditorium*

**Stage**

Treatment recommendations for the stage included documenting, inventorying, and removing scenery flats and gas control panel, and preserving for display. Scenery guide racks were in good condition, and recommendations included replacing support ropes, realigning rails, and tightening connections. The stage rigging components were in fair to extremely poor condition and it was recommended to refurbish for light duty if possible or remove and preserve for display. The wood grid floor above the stage was in fair condition, and it was recommended to repair, refurbish, and reinforce for continued use.

The staging area has been upgraded with new draperies, lighting, and sound systems. The remaining treatment recommendations noted in van Dijk Westlake Reed Leskosky report are still valid.

*Photo 55 View of stage with curtains and valances*

*Photo 56 40-channel digital live mixer rack installed stage right*

*Photo 57 view from stage right. Stairs on right go up to balcony, stairs to left go down to auditorium. Stage exit door facing south. Note electrical panels to left of door.*

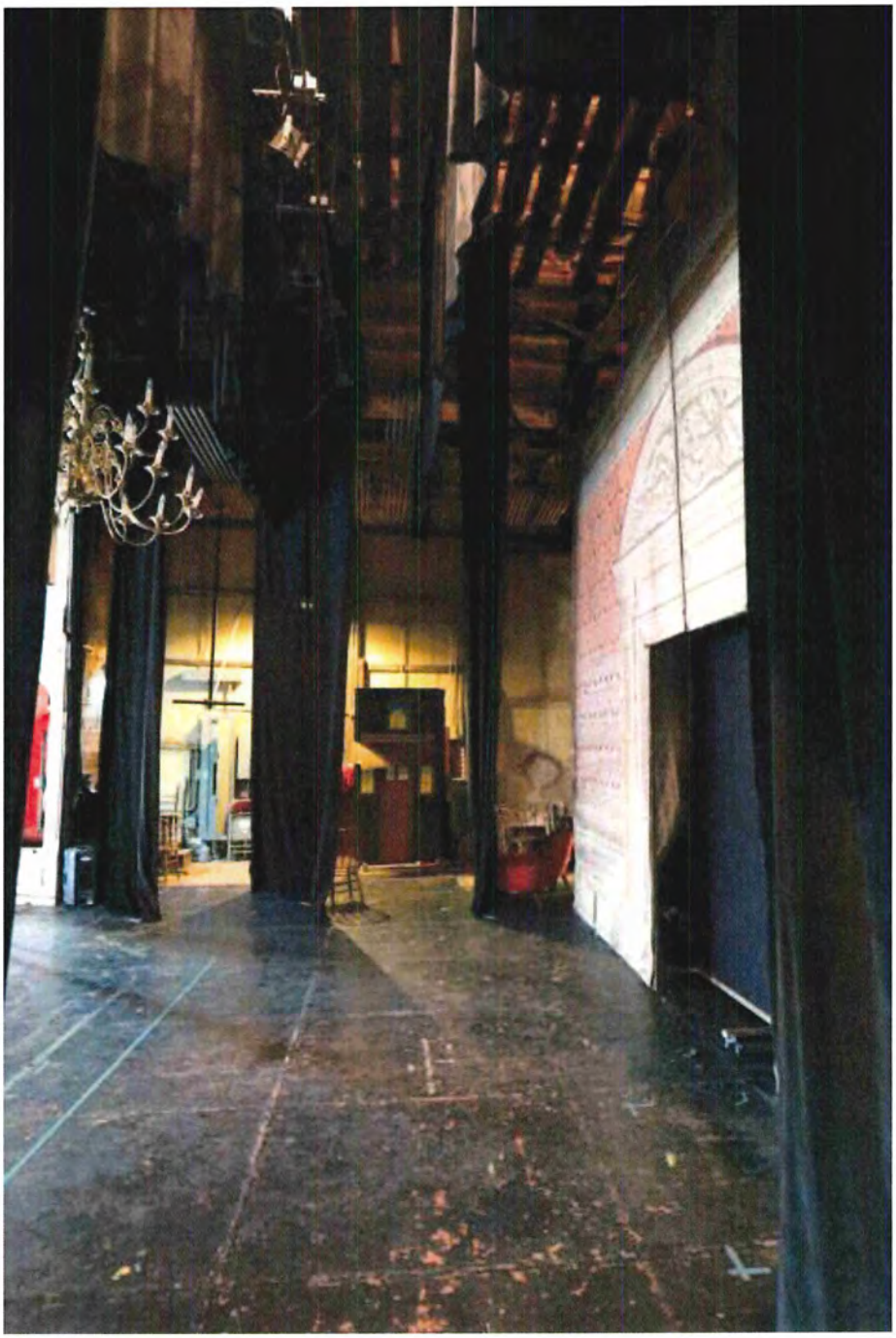


*Photo 58 View from stage left looking south. Note light through floor boards of loft area in attic above stage.*

**Lobby Staircase to Balcony**

Currently, the grand staircase is partially completed from the auditorium level to the balcony level and should be finished to match existing hand rails, half-round bannister cap, bead board wainscoting, and flooring including pre-molded slip-resistant vinyl treads and risers. Materials stored on the landing and stairs should be removed. The iron grill work obtained from the International Hotel that was across the street from Piper's Opera House was repurposed in 2007 as the guardrail, shown clamped in Photo 58, and should be welded after verifying it can resist a concentrated load of 200 pounds (it might be necessary to strengthen the connections to the floor deck). Lighting and life safety components including horn / strobes are required and exposed gypsum board surfaces above wainscoting should be textured and painted to match adjacent finishes.

*Photo 59 Existing stairs complete with handrails on both sides of stairs; half-round bannister cap, bead board wainscoting, and vinyl treads and risers*


*Photo 60 View looking east of partially completed stairs to balcony level.*

*Photo 61 View of landing to balcony level. Note clamp at guardrail.*

*Photo 62 Unfinished stairs to balcony level. Door to current VCTC office shown at right on intermediate landing*

**Balcony**

The balcony itself has not undergone the treatment recommendations contained in the HSR, which noted the condition as "good", and went on to state "support beams for balcony have been replaced and occupancy is approved". We reached out to representatives at both engineering firms that worked on Piper's (Mel Green and Paul Ferrari) to confirm neither firm designed any improvements or were otherwise aware of any improvements by others and concluded that statement is incorrect. There is no evidence that new support beams were engineered or installed. As noted in Appendix 1.0 Structural Report, the balcony would need to be analyzed and upgraded structurally as required to meet today's full code live and dead load in order to protect the health, safety, and welfare of the occupants.

The balcony is currently used by technicians to control sound and lighting and for storage of props and chairs. If the county intends to occupy the balcony, significant and irreversible modifications to the historic fabric would be required unless the AHJ agrees to waive code requirements for rise and run of stepped aisles, handrails and guardrails, aisle widths, and exiting. Here are some of our concerns:

*Photo 63 balcony light fixture missing glass shade and bulb*

- The stair risers vary from 7-1/2" to 10-3/4" and the treads vary from 10-1/4" to 12"; code allows an 8-inch rise maximum and 12-inch run minimum with little to no variation in the same plane.

- The balcony face plates extend 16 inches vertically beyond the deck to act as a guardrail; an extension would be required to meet minimum sightline-constrained guardrail height of 26 inches in front of the pews and 36 inches at the end of aisles, in addition to 36 inch high handrails in the center of aisles.

- A 36-inch wide exit door and exterior stairs were added on the north side in 1999. Access from the balcony to the exit discharge is through a narrow intervening doorway (28-inch wide). The aisle width varies from 17 – 22 inches instead of the minimum 36 inches required.

- Another exit door and exterior stairs would be required on the south side.

Some pews are missing, there are loose and missing pieces of wainscot, floor boards are damaged or missing, and the guardrail cap is damaged in areas. Missing wood elements should be custom milled and loose pieces reattached. The tattered remains of carpet runner on the main stairs could be removed for display and replaced with like kind material. Missing lamp shades should be replaced and all lights inspected.

*Photo 64 View of north balcony looking west toward doorway which exits behind upper opera box. Boards should be reattached to wainscot and missing pieces custom milled.*

*Photo 65 Stairs descend from main balcony entrance to right in photo. Pew bottom missing. Note damaged guardrail cap left of rod supporting balcony*

**Attic**

The attic is accessed through a pull-down ladder just inside and to the right of the main entry to the balcony level. The opening size is 22.5" x 54" and the attic lights are controlled by a switch on the side of the opening before you step onto a wooden platform. There is an exhaust fan on casters that ventilates the auditorium and is discussed in detail in Section E Part 3.0 Heating, Ventilation, and Air Conditioning, along with the round ventilation shaft.

*Photo 66 Attic access via pull down ladder*

The attic is protected with fire sprinklers; there is a hydronic fan coil in the southeast corner that we believe was installed prior to insulating the attic. The sidewalls have been insulated with R-19 batts and the roof rafters are insulated with R-38 batts, making the attic part of the insulated and heated building envelope.

In addition to three penetrations through the roof, including a roof access hatch and two smoke vents, the attic can be accessed from the outside through a new door that was installed in the west elevation gable end (see Photo 11). The smoke vents and the door could provide access in the future to install equipment in the attic as discussed in Section 3.0 HVAC.

The stage rigging components including the wood grid floor pictured below will need to be repaired and reinforced for continued use and to support new HVAC equipment such as the evaporative cooler.

Photo 67 View of ladder access from platfrom in attic. Note location of light switch


Photo 68 Kraft-faced fiberglass batt insulation at walls (R19) and roof (R38). Note plywood sheathing

*Photo 69 View of loft area above stage taken from ladder platform looking south.*

*Photo 70 View of loft area looking southwest. Note door in middle center of photo – this is the door in the west gable end visible from A Street.*

**7.0 Building Accessibility**

As of March 15, 2012, all newly constructed or altered State and local government facilities must follow the requirements of the 2010 ADA Standards for Accessible Design, including Title II regulations at 28 CFR 35.151 and the 2004 ADAAG at 36 CFR part 1191, appendices B and D.

In addition to federal regulations, IBC Section 3411.9 requires accessibility in historic buildings that undergo alterations or a change in occupancy except where it is deemed technically infeasible by the governing authority. If compliance with the requirements for accessible routes, entrances or toilet rooms would threaten or destroy the historic significance of the facility, the following minimum alternatives requirements must be met:

- At least one accessible route from a site arrival point to an accessible entrance shall be provided
- An accessible route from an accessible entrance to public spaces on the level of the accessible entrance shall be provided
- At least one main entrance shall be accessible with appropriate signage
- Where toilet rooms are provided, at least one accessible family or assisted-use toilet room shall be provided

Providing accessibility including accessible means of egress in a historic building on a steeply sloping site is challenging at best, and technically infeasible in some instances. We recommend sitting down with local authorities to discuss compliance with regards to the auditorium.

For the purpose of this report, we have not attempted to make the balcony level accessible.

We noted the following deficiencies:

Basement:

- The basement level, which is the primary entrance / exit into the building, is generally accessible at grade from B Street. As noted in Section 8.0 Building Code Review, the path of travel through the lobby to the exit discharge doors opening onto the loading dock would need to be accessible since it is a required exit.
- The accessible restrooms are located in the basement and were designed to be shared between the Old Corner Bar and Piper's Opera House. When only the bar is open for business, the gate is locked on the Piper's side; conversely, the gate can be locked on the bar side if it is closed during events at Piper's. In reality, it looks like the bar is storing supplies and stock in the hallway, preventing use from Piper's side. This should be remedied.
- Accessible restrooms need an ADA Compliant International Symbol of Accessibility (ISA) sign and non-accessible restrooms need directional signage

- The finished floor of the B Street lobby is several inches higher than the adjoining Carriage House. Access to the elevator (and future director's office) is through two arched openings in the 1863 brick building. To accommodate the height difference, the floors are sloped in the archways, varying from 6.5% to 12.5% across a 44-inch run. The steeper slopes are allowable under the International Existing Building Code (IEBC). However, handrails on both sides of ramps are required.

Auditorium:

- The elevator connects the basement and auditorium levels, and does meet the minimum requirements for an accessible passenger elevator set forth in the 2010 ADA Standards for Accessible Design. However, as noted below in Section 8.0 Building Code Review, the elevator is not considered part of an accessible means of egress because it does not comply with standby power requirements. In the event the elevator is rendered inoperable, we would need to provide an accessible route from the auditorium to the public way.

**8.0 Building Code Review**

Piper's Opera House is afforded special recognition by virtue of its listing both individually and as a contributing resource on the National Register of Historic Places. However, such listing does not preclude conformance with life safety and accessibility requirement and any future improvements to the facility will be affected by code-based legal constraints, including state statutes, adopted model building codes, and federal accessibility requirements.

The forgoing analysis is intended to review basic code requirements and is not exhaustive nor assumes changes in use or occupancy. The analysis is taken from the 2018 Edition of the International Building Code (IBC) and encompasses Chapter 3, Occupancy Classification and Use; Chapter 4, Special Detailed Requirements based on Occupancy and Use; Chapter 5, General Building Heights and Areas; Chapter 6, Types of Construction; Chapter 9, Fire Protection and Life Safety Systems; Chapter 10, Means of Egress; Chapter 11, Accessibility; and Chapter 29, Plumbing Systems. Additional analysis includes the 2018 Edition of the International Existing Building Code (IEBC), Chapter 12, Historic Buildings.

**OCCUPANCY CLASSIFICATION AND USE**

The Old Corner Bar, a private business, leases roughly 1,275 SF of the southeast portion of the basement level at B Street and is considered a Group A-2 occupancy (taverns and bars).

Virginia City Tourism Commission's on-site manager currently occupies a small office on the balcony level but pending completion of a new office being constructed at the northeast corner of the Carriage House, roughly 200 SF, is considered a Group B occupancy (business).

The main auditorium can be rented by private individuals and community groups to host weddings, receptions, memorial services, lectures, plays, and other similar functions and is considered a Group A-2 occupancy (banquet halls).

The following chart summarizes the area, use, occupancy and number of occupants:

**Area and Occupancy – Piper's Opera House**

| Space | Area (SF | Use | Occupancy | Occupant Load (SF/Occupant) | Number of Occupants |
|---|---|---|---|---|---|
| Old Corner Bar | 1275 | Assembly | A-2 | 15 | 85 |
| Future Office | 160 | Business | B | 150 | 2 |
| Women's Restroom | 164 | | | | |
| Men's Restroom | 166 | | | | |
| Boiler Room | 157 | | | | |
| Elevator Mach. Room | 55 | | | | |
| Workshop | 110 | | | | |
| Fire Alarm | 68 | | | | |
| Lobby | 848 | Assembly | A-2 | 7 | 121 |
| Circulation, etc. | 937 | | | | |
| | | | | | |
| **Basement Total** | **3940 SF** | - | - | - | **208** |
| | | | | | |
| Bridal Room | 270 | Business | B | 150 | 2 |
| Catering | 340 | Business | B | 150 | 3 |
| Unisex Restroom | 56 | | | | |
| Men's Restroom | 70 | | | | |
| Women's Restroom | 125 | | | | |
| Auditorium | 4100 | Assembly | A-2 | Per SC Fire Dept. | 360 |
| Opera Box (stage left) | 48 | Assembly | A-2 | 15 | 4 |
| Opera Box (stage right) | 48 | Assembly | A-2 | 15 | 4 |
| Stage | 1490 | | | 15 | 100 |
| Dressing Rooms | 90 | | | | |
| Circulation, etc. | 1155 | | | | |
| | | | | | |
| **First Floor Total** | **7792 SF** | - | - | - | **473** |
| | | | | | |
| Balconies | 2168 | Assembly | A-2 | Fixed Seating | 200 |
| Opera Box (stage left) | 60 | | A-2 | 15 | 4 |
| Opera Box (stage right) | 60 | | A-2 | 15 | 4 |
| Storage | 147 | | | | |
| Circulation, etc. | 378 | | | | |
| | | | | | |
| **Second Floor Total** | **2813 SF** | - | - | - | **208** |
| | | | | | |
| **Building Total** | **14565 SF** | - | - | - | **889** |
| | | | | | |

**SPECIAL DETAILED REQUIREMENTS BASED ON OCCUPANCY AND USE**

The stage in Piper's Opera House exceeds 1,000 SF in area and is required to have fire sprinklers and emergency ventilation consisting of two or more roof vents which open automatically by approved heat-activated devices and with an aggregate clear opening area of not less than 5% of the area of the stage.

The stage is approximately 1490 SF x 5% = 74.5 SF net ventilation required, which was met in the 1997 Reroof with the installation of two vents, 5' x 8' each.

**GENERAL BUILDING HEIGHTS AND AREAS**

Piper's Opera House is considered a two-story building with a walk-out basement at B Street. Based on a sprinklered, multiple story, Type V-B, A-2 occupancy, the following allowable heights, number of stories, and areas are permitted by the code:

| | |
|---|---|
| Allowable Building Height: | 60' |
| Actual Building Height: | 45' *as measured from story above grade plane* |
| Allowable Number of Stories: | 2 |
| Actual Number of Stories: | 2 *plus basement* |
| Allowable Building Area: | 18000 SF |
| Actual Building Area: | 14565 SF |

**TYPE OF CONSTRUCTION**

The wood-frame building is considered Type V-B construction, wherein the structural elements, exterior walls, and interior walls are of any material – combustible or noncombustible – permitted by code. However, the south auditorium wall would require a one-hour fire resistive rating due to its location on the property line. Interestingly, the west wall of the auditorium encroaches 9'-0" +/- into the A Street right of way, and we would recommend that the west and a portion of the north wall have a one-hour fire resistive rating (see also discussion regarding siding).

**MEANS OF EGRESS**

Based on the occupant loads, a minimum of two exits are required from each floor. Rooms or spaces with more than more than 49 occupants are required to have two exits, which affects the Old Corner Bar saloon area and the auditorium. An occupant load of more than 500 would trigger the requirement for a third exit, but we calculated the auditorium load at 473. Exit doors must be placed a distance apart equal to not less than one-half the length of the maximum overall diagonal dimension of the building or space served. Exit doors serving an occupancy greater than 50 are required to be out-swinging in the direction of travel and discharge directly to the exterior of the building. The exit discharge must be on grade or provide direct access to grade via an accessible ramp.

We noted the following deficiencies:

Basement: The double doors that open onto the loading dock were intended to be the second exit from this level. The stored materials located between the exit doors and the intermediate partition wall should be removed and exit signs and emergency lighting installed. The Old Corner Bar, with an assembly occupancy of 85, also requires two exits including exit signs. The double doors that swing into the main lobby should remain unlocked during business hours.

Auditorium Level: this level does not have two accessible means of egress and is discussed in depth in Section 7.0 Building Accessibility above. It is important to note that the passenger elevator cannot be used as a component of a required means of egress because it does not comply with the emergency power requirement.

Balcony Level: Not less than two means of egress shall be provided, with one from each side of every balconies, galleries or press boxes having a seating capacity of 50 or more. There is 300 lineal feet of balcony benches, which can seat 200 people (1 per 18"). There is a main exit at the east side and an exit was constructed on the north side circa 1999. However, a new exit will be required on the south side prior to occupying the balcony.

**PLUMBING FIXTURES**

IBC Table 2902.1 provides the minimum number of plumbing fixtures required based on the type of occupancy and number of occupants. To determine the occupant load for each sex, the building total occupant load must be divided in half and separate facilities provided for each sex.

**Minimum Number of Required Plumbing Fixtures**

| Occupancy | Toilet Male | Toilet Female | Lavatory Male | Lavatory Female | Other |
|---|---|---|---|---|---|
| Old Corner Bar Assembly A-2 85 occupants | 1 per 40 occupants | 1 per 40 occupants | 1 per 75 occupants | 1 per 75 occupants | 1 drinking fountain 1 service sink |
| **Subtotal** | **1.06** | **1.06** | **0.57** | **0.57** | **1 each** |
| | | | | | |
| Without Balcony Assembly A-2 589 occupants | 1 per 75 occupants | 1 per 75 occupants | 1 per 200 occupants | 1 per 200 occupants | 1 drinking fountain 1 service sink |
| **Subtotal** | **3.92** | **3.92** | **1.47** | **1.47** | **1 each** |
| | | | | | |
| With Balcony Assembly A-2 797 occupants | 1 per 75 occupants | 1 per 75 occupants | 1 per 200 occupants | 1 per 200 occupants | 1 drinking fountain 1 service sink |
| **Subtotal** | **5.31** | **5.31** | **1.99** | **1.99** | n/a |
| | | | | | |
| VCTC Business B 7 occupants | 1 per 25 for the first 50 and 1 per 50 for the remainder exceeding 50 | 1 per 25 for the first 50 and 1 per 50 for the remainder exceeding 50 | 1 per 40 for the first 80 and 1 per 80 for the remainder exceeding 80 | 1 per 40 for the first 80 and 1 per 80 for the remainder exceeding 80 | 1 drinking fountain 1 service sink |
| **Subtotal** | **0.14** | **0.14** | **0.09** | **0.09** | n/a |
| | | | | | |
| **Total without balcony** | 5.12 or **6** | 5.12 or **6** | 2.13 or **3** | 2.13 or **3** | **2** |
| | | | | | |
| **Total with balcony** | 6.51 **7** | 6.51 **7** | 2.65 or **3** | 2.65 or **3** | **2** |
| | | | | | |
| **Existing** | **7** 4 toilets 3 urinals* | **6** | **3** | **4** | **No DF 2 SS** |
| | | | | | |
| **Deficit with balcony** | | **1** | | | **2 DF** |

** Per IPC Section 424.2, Assembly Occupancies may substitute up to 67% of required water closets*

# G RECOMMENDATIONS FOR TREATMENT

### 1.0 Plumbing

- Install backflow prevention device
- Install pressure reducing valve
- 60-gallon capacity water heater to serve catering kitchen and saloon

### 2.0 Fire Protection

- Annual inspections

### 3.0 Heating, Ventilation, and Air Conditioning (HVAC)

- Provide direct ventilation per code
- Verify operation of restroom exhaust fans
- Hydronic heating
- Evaporative cooling

### 4.0 Electrical and Communications

- Upgrade electrical service to 600A
- Emergency building generator
- Additional power receptacles at balcony
- Replace keyless sockets with appropriate light fixtures
- Add emergency egress lighting
- Replace kitchenette panel with larger panel, more circuit breakers

### 5.0 Structural and Seismic

- Roof truss support
- Wall column buckling
- Column at entry
- West wall of the building / water infiltration / drainage
- Balcony framing and support ("full use" option)

## 6.0 Architectural

### Building Exterior

### Roofing

- Annual inspection of roofing system to correct defects in shingles, roof penetrations, fascia, and soffit

### Siding

- Annual inspection to correct defects in paint, joints, brickwork, or siding to prevent water intrusion
- Repair damaged brick on B Street façade

### Metal Elements

- Replace missing finials
- Annual inspection to verify paint condition

### Wood Elements

- Remove and replace exit stairway and landing on north side
- New exit stairway on the south side if balcony will be occupied ("full use" option)
- Reconstruct hip roof ventilator

### Windows and Doors

- Refurbish (7) entry doors on 1863 Brick Building at B-Street
- Refurbish / rebuild Carriage House doors with arched entryway
- Refurbish (6) windows including storm windows at south and north elevations of 1883 Auditorium Building

**Building Interior**

**Basement**

- Building egress
- Handrails at arched openings

**Auditorium Level**

- Catering Kitchen
- New wood floor assembly to support hydronic heating
- Annual testing for flame retardancy
- Table and chair storage
- Accessible means of egress (ramp)
- Repair / refurbish ladder to landing platform above stage

**Balcony**

- Complete stairs to Balcony Level
- Repair / refurbish flooring, pews, wainscoting ("as-exists" option)

**Attic**

- Repair / reinforce wood grid floor

# H PHASING AND COSTS

## 1.0 Phasing

Preservation and restoration recommendations are presented as a phased approach to allow Storey County to allocate funding judiciously based on the most pressing life safety needs. We have grouped repairs into three categories or phases:

**Priority I**: Life Safety, including but not limited to structural stabilization and egress

**Priority II**: Repairs, including but not limited to repointing, changing out fixtures, repair or replacement of missing or damaged historic fabric

**Priority III**: Improvements, including but not limited to evaporative cooling, catering kitchen, upgraded electrical

## 2.0 Costs

We have provided a range of costs from low to high for each item on the next page. The items are presented in order of importance for Priority 1 but there is no sequential order of importance within the remaining two priority groups.

| Priority | Item | Task | Estimated Cost Range | |
|---|---|---|---|---|
| I | 1 | Lobby Column | $ 30,000.00 | $ 50,000.00 |
| | 2 | Roof Truss Support | $ 80,000.00 | $ 120,000.00 |
| | 3 | Wall Columns | $ 8,000.00 | $ 8,000.00 |
| | 4 | Add emergency egress lighting | $ 5,000.00 | $ 7,000.00 |
| | 5 | Basement level building egress (interior) | $ 15,000.00 | $ 17,500.00 |
| | 6 | Pave loading dock to B Street | $ 3,100.00 | $ 4,500.00 |
| | 7 | Additional power receptacles at balcony | $ 2,000.00 | $ 5,000.00 |
| | 8 | Install backflow preventer | $ 2,500.00 | $ 4,000.00 |
| | 9 | Install pressure reducing valve | $ 500.00 | $ 1,000.00 |
| | 10 | Accessible ramp from north side auditorium | $ 12,000.00 | $ 15,000.00 |
| | | **Priority 1 Subtotal** | **$ 158,100.00** | **$ 232,000.00** |
| II | 11 | West building wall / water infiltration | $ 337,500.00 | $ 405,000.00 |
| | 12 | A Street roadway improvements | $ 750,000.00 | $ 850,000.00 |
| | 13 | Complete stairs to balcony | $ 8,500.00 | $ 12,500.00 |
| | 14 | Balcony repairs "as-exists" option | $ 15,000.00 | $ 20,000.00 |
| | 15 | Restroom exhaust fans | $ 2,500.00 | $ 5,000.00 |
| | 16 | Repoint / repair mortar & brick at Old Corner Bar | $ 3,500.00 | $ 7,000.00 |
| | 17 | Replace missing finials | $ 500.00 | $ 500.00 |
| | 18 | Refurbish (7) front entry doors | $ 105,000.00 | $ 126,000.00 |
| | 19 | Replace exterior egress stairs north side | $ 8,500.00 | $ 12,500.00 |
| | 20 | Refurbish ladder | $ 2,500.00 | $ 3,500.00 |
| | | **Priority 2 Subtotal** | **$ 1,233,500.00** | **$ 1,442,000.00** |
| III | 21 | Add 60-gallon capacity water heater | $ 5,000.00 | $ 8,000.00 |
| | 22 | Add auditorium hydronic heating | $ 120,000.00 | $ 140,000.00 |
| | 23 | Add auditorium evaporative cooling | $ 50,000.00 | $ 70,000.00 |
| | 21 | Add direct ventilation | $ 35,000.00 | $ 60,000.00 |
| | 25 | Reconstruct hipped roof ventilator | $ 4,000.00 | $ 5,500.00 |
| | 26 | Additional framing for evaporative cooling | $ 75,000.00 | $ 80,000.00 |
| | 27 | Upgrade electrical service to 600A | $ 20,000.00 | $ 40,000.00 |
| | 28 | New catering kitchen | $ 35,000.00 | $ 50,000.00 |
| | 29 | Upgrade kitchenette panel size | $ 7,000.00 | $ 10,000.00 |
| | 30 | Prep (2) openings for Carriage House doors | $ 20,000.00 | $ 30,000.00 |
| | 31 | Reburbish / rebuild (2) Carriage House doors | $ 36,000.00 | $ 40,000.00 |
| | 32 | Add emergency generator | $ 50,000.00 | $ 75,000.00 |
| | 33 | Balcony repairs "full use" option | $ 200,000.00 | $ 250,000.00 |
| | 34 | Add exterior egress stairs south side balcony | $ 9,000.00 | $ 13,500.00 |
| | | **Priority 3 Subtotal** | **$ 666,000.00** | **$ 872,000.00** |
| | | **Subtotal Net Construction Costs** | **$ 2,057,600.00** | **$ 2,546,000.00** |
| | | **Gross Construction (+ 35% for General Conditions)** | **$ 2,777,760.00** | **$ 3,437,100.00** |
| | | **Add for balcony "full use" option** | **$ 249,750.00** | **$ 310,500.00** |

# I APPENDICES

1.0 Structural Report
2.0 List of Prior Grants 1995 – 2009
3.0 Bibliography of Record Drawings 1995 – 2009
Historic American Buildings Survey Piper's Opera House
Reroof of Piper's Opera House
Phase One Restoration of Piper's Opera House
Phase 2-b Siding for Piper's Opera House
Elevator for Piper's Opera House
Elevator Shop Drawings
Piper's Opera House Façade Stabilization
A Historic Restoration for Piper's Opera House
Theater Renovation
Piper's Opera House Electrical Asbuilt
Loading Dock and Driveway Improvements to the Piper's Opera House
Restroom Improvements to the Piper's Opera House
4.0 Plans

# 1.0 | STRUCTURAL REPORT

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| SUBJECT | PAGE NUMBER |
|---|---|

PF Consultants LLC
Consulting Engineers
P.O. Box 1369 Verdi, Nevada 89439
775-771-1720

April 20, 2020
PF#4-15-20

Dube Group Architects
458 Court Street
Reno, Nevada 89501

Attention: Pete Dube, President

Subject: Amendment to Historic Structures Report for Piper's Opera House, Virginia City, Nevada Structural Engineering Aspects.

Dear Pete,

The following report is the structural component of the *2020 Amendment to Historic Structures Report for Piper's Opera House, Virginia City, Nevada.* In order to properly develop and understand the structural aspect of the report, it is necessary to understand how the building was integrated into the steeply sloped site between B and A Streets, as well as how the building was constructed. The following Background Section will provide a baseline of understanding by reviewing the past structural retrofits, emergency structural repairs, and previous structural studies.

As an engineer, I have been involved in the structural stability of Piper's Opera House for the past twenty years. During that span of time, I have engineered over five major structural repairs/retrofits of the building structure, including emergency structural repair as well as many more minor actions. After the pertinent background information has been presented, I will review the structural configuration of the building, and the major structural activities that I have performed on the building: Front (east) and South Wall Stabilization (October, 2001), Auditorium Floor Strengthening and New Entry Stairway (2005 budget projects), Roof Trusses and Framing, Wall Framing/Roof Truss Support. The preceding aspects will be buttressed by supplemental information gathered from field site visits. I will then develop a conceptual structural retrofit/repair concept for the future use of the building. This conceptual structural retrofit/repair concept for the future use of the building will provide a basis for budgetary planning and a prioritized structural life/safety retrofit for the future use of the building.

## BACKGROUND

**Historic Topographical Considerations for Siting the Building.**

The architectural concept of the Piper's Opera House building was dictated by the topography of Virginia City. The building is located on an east to west 30' upslope from B Street to A Street. This slope necessitated a "stepped", multi-level floor plan to accommodate the elevation change.

**Ground floor.** The first floor plan (ground floor entrance at B Street) includes the "Corner Bar" (at the southeast corner), the main entrance lobby and stairway at the center of the building, and the "carriage" house at the northeast corner of the building. The ground floor is cut level back into the existing slope of the site approximately 56 feet to maintain the grade for the ground level and the ground floor uses. At that point, a dirt slope extends upward to a crawl space that supports the second floor (main auditorium floor) structure. The crawlspace height decreases from 5'- 6' at the top of the slope to approximately 3' to the north under the front of the stage.

**Second floor.** The stairway at the center of the building at the ground floor provides access to the main (second floor) auditorium level. The majority of the main auditorium level is supported by brick piers extending from the ground level of the crawlspace to the bottom of beams supporting the auditorium floor.

**Balcony & attic.** The main stairway continues up from the auditorium level to the balcony level which provides access to the two balcony "wings" bordering along the north and south walls. From the balcony level, a ladder accesses the attic level roof trusses and framing.

**Structural Construction of the Building.**

The construction concept of Piper's Opera House was typical of the Comstock heyday. It was intended to be constructed as quickly as possible to be able to perform its intended function; it was never designed and constructed with the intention that the building last well over a century. With this consideration, the building structure is in remarkable condition for a building entering its second century. The construction of the building will be related in the following paragraphs, beginning with the roof structure.

**Roof trusses and framing.** The roof framing structure consists of a hand-cut and fit heavy timber construction, which along with steel tension tie rods, comprises a rudimentary "truss" member that spans 53' at approximately 8' on-center (see plate S-1, cross-section B-B, page 2a). The gambrel shaped roof ridge is constructed by infill stud framing members that extend from the top of the horizontal top truss chord to the roof ridge. The "truss" is not like a modern engineered truss, in which triangular section comprise the structural load resisting path of the member. Of particular concern is the geometric configuration where the top and bottom chord of the "truss" are supported by the vertical wood column in the wall. The preferred configuration of this joint is to have the centerline of the diagonal top chord and the bottom chord to intersect at a point over the top of the supporting column. Instead, the diagonal top chord stops short of the column by approximately 2' from the supporting column where the diagonal member load is transferred to the lower chord member. This configuration results in half of the total load on the truss diagonal having to be transferred via the 2' offset to the supporting column causing bending in the bottom chord of the truss. By definition, truss

PIPER'S OPERA HOUSE
ROOF TRUSS & WALL STRENGTHENING
VIRGINIA CITY, NEVADA
STRUCTURAL PLAN & DETAILS
FERRARI SHIELDS & ASSOCIATES
S-1
FLOOR PLAN
(E) BLDG.
CROSS-SECTION B-B
ROOF COLUMN SECTION
(E) MEZZANINE SUPPORT
(E) CO.
HSS 3"x3"x5/16" E.S.
(E) DEFLECTED MD CO.

2a

members are supposed to be subject to only axial tension or compression loads. The 2' offset of the load transfer creates a bending moment couple in the bottom chord, in addition to the tension force that the lower chord is also carrying. This condition causes a significant increase in the tension/bending stresses in the lower chord, and has proven to be problematic, as will be explained in the *Roof Truss Repair* section of this document.

**Balcony.** The balcony framing joists are supported by a perimeter beam at the interior edge of the balcony and the exterior wall at the other end. The perimeter beam at the edge of the balcony is supported by vertical steel tension rods. The tension rod load is transferred to a horizontal beam in the attic that is resting on top of the lower chord, spanning between the "trusses". The wrought iron tension rods are anchored by a steel plate at the bottom of the balcony beam, and extend upward through a hole in the bottom of the balcony beam through a hole in the upper beam at the trusses where the rod is also anchored by a steel bearing plate. The rods are anchored at both ends by a steel plate and a nut (see plate S-1, page 2a).

**Wall framing.** The height of the auditorium wall is approximately 30'. For the majority of the length of the building, the wall is buttressed at mid height by the balcony framing. Each of the roof trusses is supported by an 8"x8" wood column. Because of the 30' wall height, the column has to be butt spliced (end to end) at the midheight (see plate S-1, page 2a). Although the splice is stabilized by wood side members, this splice is problematic, and a source of structural instability, as will be explained later.

**Second floor (auditorium) framing.** As previously stated, the second floor framing over the crawlspace is supported by brick piers. The inclusion of a 10" diameter x 6" high coiled wrought iron springs between the floor framing beam and the top of the supporting brick piers provide a "sprung" floor system. This system provided a "forgivness" and damping of floor vibrations caused by activities such as dances.

**East (front) brick wall façade.** The east (front) wall of the building is composed of unreinforced, two-story, brick masonry. The mortar is a slacked lime mortar that has no inherent tension/structural capability. The brick lintels, over the ground floor entrance openings and windows were constructed by stacking brick upon a horizontal steel fire door that served as the structural support for the opening. The entire east brick wall is "leaning" outward, over 4" away from the building at the top of the wall.

**West (rear) wall.** The west (rear) wall of the structure is a wood framed wall. The back of the building is situated on a plateau in the hillside against the slope that extends upwards and supports A Street.

**Structural Engineering and Construction Considerations.**

It is important to remember that the Opera House construction delineated above is not indicative of shoddy construction or workmanship. To the contrary, the carpentry was very well done, and performed by workmen who installed the intricate square-set wood timbering in the depths of the Comstock mines. The construction of the building is indicative of the "state-of-the-art" in construction and engineering practices prevalent over one hundred and twenty years ago. However, the 1870's engineering state-of-the-art was not versed in seismic load path engineering. Furthermore, the construction materials and techniques in common practice then did not provide a consistent level of

quality and/or performance; these considerations will be addressed in the following paragraphs.

**Unreinforced brick masonry.** The unreinforced brick masonry comprising the two story front entry façade at the east wall is a specific example of construction materials that are extremely problematic in areas such as Virginia City that are subject to potentially large earthquakes. The bricks themselves are not fully fired, and have a soft interior. However, the mortar bedding the bricks in not a cementitious mortar; cement mixed into the mortar is the ingredient that provides the mortar with engineered strength to create a unified structural component. The mortar in the front wall consists of sand, lime, and water (slacked lime mortar). The lime mortar is suitable for bedding the soft, partially fired brick of the Comstock, but it does not provide any structural strength to the wall assembly that would be necessary to resist earthquake forces. In particular, earthquake forces tend to create a "pull away" force where the wall is peeled away from the building and causes structural collapse. In its current status, the wall is, indeed, pulled away from the building approximately 4" to the east at the top of the wall.

**Existing capability of Piper's to resist seismic forces.** As was outlined in preceding paragraphs, the 1870's engineering state-of-the-art was not versed in lateral seismic load path engineering. However, that does not imply that the building has no inherent lateral load resistance capabilities. Historic materials and construction have been found to have a certain degree of capability to resist lateral loads. For typical buildings similar to the Opera House, a lateral load system consists of a horizontal roof/floor diaphragm spanning between vertical "shearwalls" that transfer the lateral load forces contributed by the roof/floor diaphragm to the ground, where they are resisted.

In the longitudinal (east/west) direction, the long, mostly solid north and south wood framed walls of the building provide enough length that the unit in-plane shear stress in the walls is very low, and thus not a concern, especially since the walls have been sheathed with plywood. Also, the fact that the building is cut into the slope helps to stiffen the building.

In the transverse direction (north/south), there are few structural shearwalls that were capable of providing a lateral load resisting system for the building. The front unreinforced brick masonry wall was in a state of instability and not capable of providing any lateral load capacity. The west wall of the lobby, east (rear) wall of the auditorium, was a plank-sheathed full height (2 story) high wall. This wall provided some lateral load capability for the building. The next transverse wall capable of providing lateral load capacity if the rear (west) wall of the building at A Street.

A lateral load system need to be in place for both the longitudinal and transverse axis of the building.

**Building site considerations.**

There are two main concerns regarding the siting of the building in the hillside: the slope of the hillside (A Street) sloughing against the rear wall of the building, and a subterranean spring that runs through the crawlspace of the building.

The fill slope supporting A Street to the west of the building has sloughed downhill over the years and is building up and impacting the west wood wall of the building. If it continues, it could affect the structural stability of the wall.

A subterranean spring flows from the cut slope at A Street down under the crawlspace of the building, and exits under the southeast corner of the Corner Bar; this

can cause structural problems to the building. The spring should be intercepted at the A Street cut and integrated into a french drain which would by-pass the building.

## MAJOR PREVIOUS STRUCTURAL DEFICIENCY REPAIRS

As noted in the introduction of this report, as an engineer, I have been involved in the structural stability of Piper's Opera House for the past twenty years. During that span of time, I have engineered over five major structural repairs/retrofits of the building structure, including emergency structural repair as well as many more minor actions.

The major structural retrofits will be presented. The structural deficiency that was corrected will be identified, the structural repair plans/concept will be presented (where applicable construction documents will be presented in appendices), and the percent of completion will be indicated. The repair concepts, are presented in the following paragraphs:

**Front (east) and South Wall Stabilization Lobby Shearwall (October, 2001).**

**Structural deficiency:** The east and south walls of the building are composed of unreinforced, two-story, brick masonry. The mortar is a slacked lime mortar that has no inherent tension/structural capability. The entire east brick wall was "leaning" outward, over 4" away from the building at the top of the wall. The immediate structural problem was that of the ultimate stability of the wall; the 4" outward lean could have eventually progressed to the point where the entire front wall could have collapsed. Also, the front brick wall was very susceptible from collapse due to out-of-plane and perpendicular seismic forces from earthquakes. Likewise, the south wall also exhibited the same weaknesses as the front wall.

**Repair concept (see Appendix A for construction documents):** The front (east) wall of the Opera House is the historic face of the building. As such, it was of utmost importance that the architectural characteristic of the wall be retained in any structural repair concept, while integrating appropriate structural capability into the wall. This was accomplished by initially providing extensive shoring of the east and south walls; the shoring was designed so that access to critical portions of the walls that were designated for reconstruction could be easily accessed. With the shoring in place, the 12"x20" existing brick pilasters at the interior face of the wall were removed, to be replaced with similar dimensioned reinforced concrete (see section B-B/SD-2, Appendix A). This kept two wythes of the outside face brick in place. The exterior face brick wythes of the wall were reinforced by the insertion of *Dur-O-Wall* friction pins drilled into the back of the face brick and the opposite ends of the pins anchored in the new concrete pilaster (see detail B-B/SD-2, Appendix A). The new friction pins enhanced the stability of the exterior brick wythes, while the new concrete frame provided both in-plane and out-of-plane strength, essentially re-building the walls from within to a capable structural system while maintaining the historic integrity of the exterior of the building. The extent of the new reinforced concrete frame is shown on sheets S-4, 5 Appendix A. The 4" lean of the front wall to the east (away from the building) was maintained, since trying to re-plumb the front wall would have caused considerable damage to the wall. However, the new reinforced concrete frame was capable of

providing structural integrity to the wall in-place with the 4" deflection. Further stability for the new concrete wall was provided by tying the new concrete structure into the roof diaphragm structure, assuring both out-of-plane and in-plane lateral forces can be resisted (see details DD/SD-2 and KK/SD-2 Appendix A). The integration of the new reinforced concrete frame (covered with plaster similar to the original condition) into the fabric of the existing historic east wall was performed in such a manner that the historic visage of the wall was maintained while the structural deficiencies inherent in the original construction were remedied. Also, the west lobby wall, adjacent to the auditorium was sheathed with plywood to develop added north/south seismic capability.

**Percent completion:** The front wall stabilization and strengthening and the west lobby wall shear sheathing were completed 100% in accordance with the plans presented in Appendix A.

**Auditorium Floor Strengthening and New Entry Stairway (2005 budget projects).**

**Structural deficiency:** The existing brick pilaster piers supporting the main auditorium floor framing suffered significant deterioration which compromised their structural integrity to support the main floor framing. Compounding the structural instability was the fact that many of the brick piers were supported on the sloping grade of the cut slope. The sloped ground was compromised when ground water seeping through the grade caused the brick piers supporting the floor framing to become unstable.

**Repair concept (see Appendix B for construction documents):** In February, 1998, a floor repair/strengthening was undertaken for the first (eastern) 40' of the existing floor (J.P. Copolous Architect plans, Appendix E). The scope of work extended from the east wall of the building to the east wall of the auditorium; also included were foundation and wall to floor attachments.

The 2005 Ferrari Shields budget project was designed to address the brick pilaster deterioration supporting the floor framing in the auditorium at gridlines 2, 3, 4 (see sheet S-1, Appendix B). The cut bank slope was sloughing, causing structural distress in the brick pilasters. Because of the slope instability, the existing brick pilaster foundation at grid 3 had to be abandoned. In order to accomplish this, new concrete foundations were constructed at the top (gridline 4) and the bottom (gridline 2) of the slope. New, 20' long, structural steel "C" channels were "sistered" on each side of the existing 10"x10"x10'-0" long wood beam supporting the auditorium floor framing (see detail 112/SD-1, and sheet 1/1, Appendix B, and page 6a respectively). The new steel beams span 20' from the new concrete footing at the top of the slope to the new concrete footing at the bottom of the slope, by-passing the failing brick pilaster at the mid slope (gridline 3). This concept addressed the distressed pilaster footings at gridlines 2, 3, and 4. New beams/footings (5 total) were constructed across the entire width of the building (gridlines B, C, D, E, F, G).

As part of the 2005 budget projects, a new, wider-width stairway was constructed. Also included in this phase of repair was the installation of a large gravel drainage trench, adjacent to the bottom of the cut slope, to collect and channel ground water seepage away from the ground floor of the building, especially the Corner Bar at the southeast corner. The ground water seepage has had a deleterious effect on the

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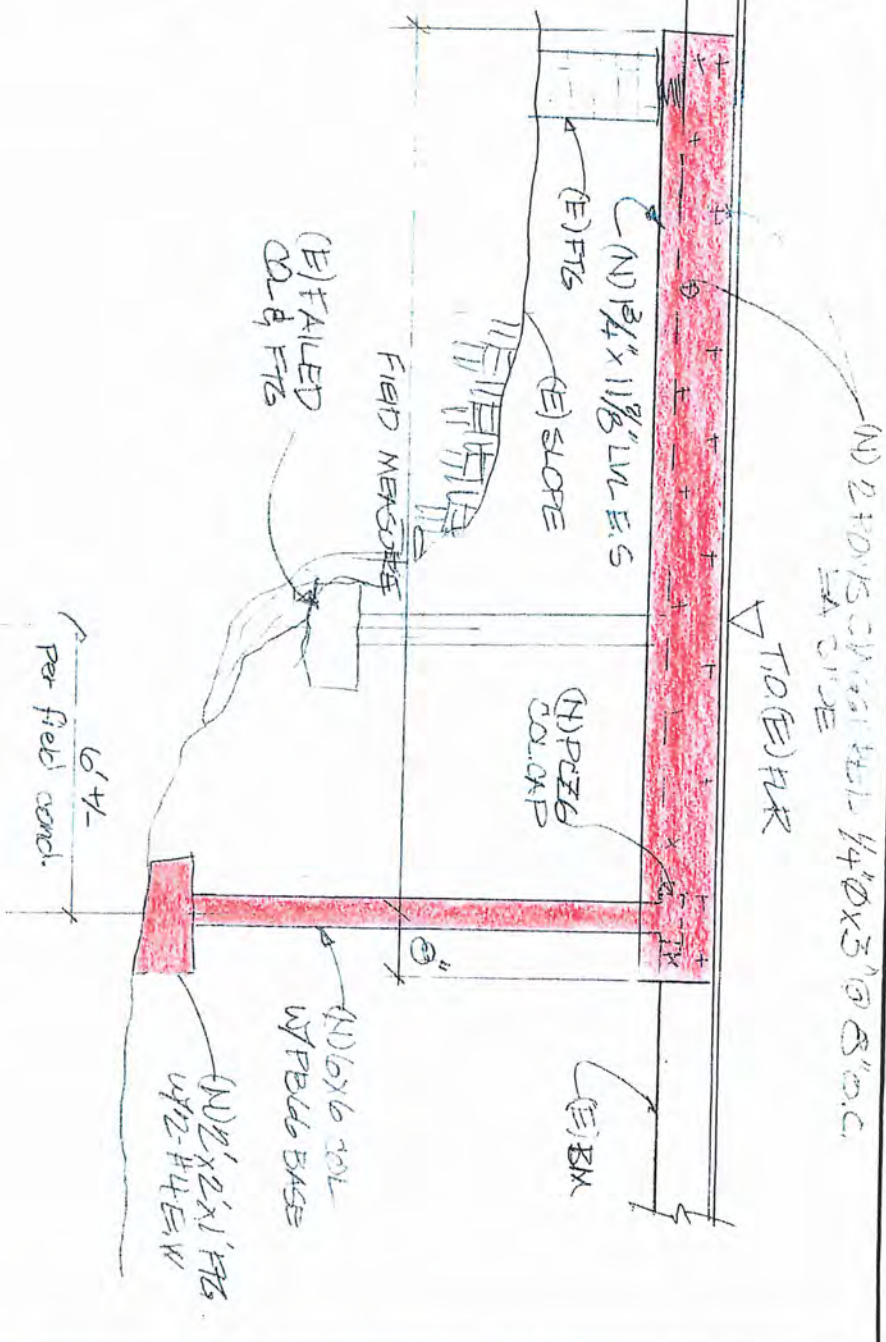
PROJECT PIPER'S OPERA HOUSE
STRUCTURAL REPAIR of FAILED BASEMENT FOOTING
MADE BY [illegible] DATE _____ JOB NO. _____

SHEET 1 OF 1

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stability of the cut slope and the brick pilaster foundations. The location of the drainage trench is shown on sheet S-1, Appendix B.

**Percent completion:** The auditorium floor strengthening, new stairway, and new gravel drainage trench were completed 100% in accordance with the plans presented in Appendices B, E.

**Roof Trusses and Framing.**

**Structural deficiency:** The roof framing structure consists of a hand-cut and fit heavy timber construction, which along with steel tension tie rods, comprises a rudimentary "truss" member that spans 53' at approximately 8' on-center (see plate S-1, cross-section B-B, Appendix C). As stated earlier in the *Structural construction of the Building*, page 2, "Of particular concern is the geometric configuration where the top and bottom chord of the "truss" are supported by the vertical wood column in the wall. The preferred configuration of this joint is to have the centerline of the diagonal top chord and the bottom chord to intersect at a point over the top of the supporting column. Instead, the diagonal top chord stops short of the column and the column supporting the lower chord of the truss is offset by 2' short of the column." This configuration induces bending stress in the lower chord of the truss, which should only be subject to axial tension forces. The resulting increased bending stress in the lower chord resulted in an axial cracking failure of the wood lower chord (see photo 1, Appendix C). This structural failure was first noted in 2006. Several truss locations were repaired with plywood layers on each side of the connection (see photo 2, Appendix C) or, in the more severe cases, steel angles (see photos 1, 2 Appendix C).

**Repair Concept (see Appendix C):** In December, 22-28, 2016, a critical failure of this condition, that could cause a catastrophic failure, was noted at the north support of truss #4; the bottom chord of the truss had severe longitudinal cracking (see photo 1, Appendix C). On January 6, 2017, I prepared a report regarding the cause of the failure and a method of repair (see January 6, 2017 P&F Consulting report, Appendix C). Plates 1, 2 of the January 6, 2017 P&F consulting report present repair plans for the cracked beam; photo 3, plates 1, 2 A; Appendix C shows this repair in the as-installed condition.

**Percent completion:** The severely cracked lower chord at truss 1 north has been repaired. Also, three other locations have been strengthened with the plywood "sistering" as shown in photo 2 Appendix C. However, there are twelve other locations that should also be strengthened; this criteria will be addressed in the Discussion section of this report.

**North Wall Column Bucking, Roof Truss #4 Support.**

Each of the roof trusses is supported by an 8"x8" wood column; because of the 30' wall height, the column had to be butt spliced (end to end) at the midheight (see plate S-1, Appendix D). In early 2010, the north column of truss #4 began showing a buckling at the column butt splice. Over intervening months, the condition worsened, the column butt splice began "kneeing", buckling outward, over 9" at the mid height of the wall. Because the situation was stability based, and not based on internal member strength, the condition required immediate attention in order to prevent a catastrophic

structural collapse. This condition was also noticed and repaired at truss #2, north wall, in 1997 by Copoulos/Green (Appendix E).

**Structural deficiency:** The potential column buckling is a stability concern for life/safety. If the column buckling passes its metastable position, the column will fail, and the roof truss and roof framing it supports will suffer a catastrophic collapse that severely damages the building and causes a significant life/safety concern for building occupants.

**Repair Concept (see Appendix D):** In December, 2010, I prepared a set of repair plans to rectify the column instability (see sheets S-1, SD-1, appendix D). The "kneed" column was first stabilized with a midheight diagonal brace at the exterior. Once the column was stabilized, it was reinforced by "sistering" a HSS 3"x7"x5/16" steel tube column, full height, on each side of the wood column (see sheets S-1 and SD-1, and photos 1, 2, 3, Appendix D).

**Percent completion:** The distress condition at truss #4 north wall was repaired 100% according to the repair documents presented in Appendix D.

**Balcony Framing and Support.** As was stated in the *balcony section* of the *Structural Construction of the Building* on page 2, the balcony framing joists are supported by a perimeter beam at the edge of the balcony and the exterior wall at the other end. The perimeter beam at the edge of the balcony is supported by vertical wrought iron tension rods, which in turn, are supported by a roof beam spanning between the roof trusses. The balcony extends along both the north and south walls, along with seating at the rear auditorium wall. The only access to the balcony seating is via a set of stairs up from the main auditorium access. The balcony "wings" have two rows of tiered bench seating, while the rear has 3 tiers. The seating areas are very problematic for actual use; the knee space is very limited and the slope of the balcony is severe.

**Structural deficiency:** Per current building code, the vertical live load a balcony must support is 100 pounds per square foot (psf). Because of its historic construction, the Piper's balcony is not capable of meeting that life/safety criteria. The load path for the balcony includes tension rods suspended from roof framing to support half the balcony load; the tie rods are wrought iron, which is a very brittle steel and is subject to fracture under load which will cause a catastrophic collapse. Additionally, the wrought iron tension rods are anchored at the bottom of the balcony beam and at the top of the roof beam with small steel plates, secured with a nut that are intended to spread the load reaction from the rods onto the wood beams. However, some of these plate are of insufficient area to safely distribute the historic balcony loading, and are pulling into the wood, which eventually could be a structural problem.

**Repair Concept.** The entire balcony structure would have to be re-engineered and the existing load path members strengthened to accommodate the required (and expected) live load of people. Additionally, in order to reuse the balcony for future activities, additional emergency fire exits would have to be constructed at the west end of each balcony wing at the north and south walls. The emergency exits would have to exit to the outside of a building, and would require an exterior stairway to grade.

The feasibility of opening the balcony seating to use will be discussed in the Discussion and Recommendation sections of this report.

**Percent completion: (Not applicable).** During the repair of the buckled wall column at truss #4 north wall, some remedial actions were undertaken on the balcony framing while the canvas covering of the wall and balcony was removed for the column repair. The repair basically involved using metal connectors to attach the balcony floor joists to the perimeter balcony beam; this was undertaken when it was noticed that some of the nailing from the floor joist into the perimeter beam had pulled away and were in danger of failure. Other than that emergency repair to the joist/beam connection, no additional structural retrofit work was done to enhance or stabilize the existing condition of the balcony structural capability.

**West Wall of the Building.** As denoted in the *Building Site Considerations"* section of this report, page 4, the rear of the building was set back into a cut slope at the west. "A" Street. There is an approximate 30 foot elevation difference between the ground floor level of Piper's and the A Street elevation; the east edge of A Street pavement is approximately 15 feet from the west wall of Piper's. The east edge of the pavement at A Street has exhibited slope instability, and the width of the east traffic lane has been reduced due to sloughing of the dirt slope supporting the roadway. As the slope sloughs, the dirt moves downhill where it can pile up against the west wall of Piper's.

**Structural deficiency.** The structural deficiency created by this condition is twofold: the instability of the A Street slope endangers both the west wall of Piper's as well as the stability of A Street itself. As the dirt sloughed from the slope moves downhill, it builds up against the west wall framing. The accumulation of dirt against the wall introduces a horizontal bending force into the wall studs. With unabated soil build up, a bending moment in the studs is created that can cause a structural failure of the wall studs. Furthermore, continued sloughing of the slope supporting A Street could cause a complete slope failure where a significant portion of the roadway is demolished and moves downhill against the west wall of Piper's. This slope failure could have enough kinetic energy that its impact against the west wall of the building could have a catastrophic effect, causing a building collapse from the front of the stage to the rear wall of the building.

**Repair Concept.** The repair concept for the structural deficiency explained in the paragraph above is not incorporated into the building itself, but is external to the structure. In order to stabilize the slope above the building, and supporting A Street, a new wall retaining and supporting A Street must be constructed to alleviate the danger to Piper's. The water infiltration/drainage at the west wall (presented in the following paragraph) is also a comingled deficiency consideration.

**Percent completion: 0%** - no consideration of this deficient condition has been undertaken to rectify the slope instability.

**Water Infiltration/Drainage at the West Wall of the Building.** During the 2005 budget structural retrofit (see page 6), substantial amount of subterranean water flow was noticed emanating from the cut slope to the west. The amount of water appeared to be related to a subterranean spring fed by water higher up mount Davidson. The amount of water flow destabilized the slope supporting the auditorium floor (see Auditorium Floor Strengthening, page 6) requiring structural retrofit. The volume of water infiltrating the crawl space of the building was so high that a gravel drainage

trench had.to be constructed to collect the seepage and channel it away from the building (see sheet S-1, Appendix B). The water accumulation was particularly high at the Corner Bar at the southeast corner of the building.

**Structural deficiency.** Flowing ground water in, around, and beneath a building is a cause for concern, as was evidenced in the deterioration of the existing brick pilasters supporting the auditorium floor at the crawl space slope. The groundwater flow is endemic to the building site, and, although it varies in intensity by each year's rainfall, the condition will not go away. If unresolved the cumulative nature of this condition can cause significant deterioration and structural distress in future years. This condition can be most critical at the bottom of the west wall, at the cut of the ground slope, where the cut slope intersects the groundwater flow line. The buildup of groundwater behind the wall and foundation can cause wood deterioration and foundation instability.

**Repair Concept.** The appropriate repair concept to intercept and redirect the ground water around the building is the installation of a "french" infiltration/intercept drain at the west wall of the building, adjacent to and below the foundation level. The drain, with the perforated pipe installed in a gravel-filled trench can be used to collect and divert the water from the west wall, around the building, where it will slope to "daylight" into above ground drainage channels at the north and south sides of the building. The infiltration/intercept trench can be constructed in coordination with the retaining wall stabilizing the A Street slope, as mentioned above.

**Percent completion: 0%** - no consideration of this deficient condition has been undertaken to rectify the groundwater infiltration into the building.

## MISCELLANEOUS STRUCTURAL CONDITIONS

The following paragraphs will discuss miscellaneous structural condition that need to be discussed, specifically, the column in the entry lobby near the stairway, and the north balcony exit stairs.

**Column at the Entry Lobby.** The existing 10"x10" column at grid lines 1.5/D.25, sheet S-1, Appendix B supports a large portion of the auditorium floor framing.

**Structural deficiency.** The existing 10"x10" wood column is bending to the south approximately 6" at the top. Typically, a column is only loaded axially. However, when the top of the column is offset (leaning) over the bottom of the column, a secondary bending moment stress, characterized as a "P*delta" bending moment where "P" is the axial load, and "delta" is the offset or lean of the column. The bending moment not only results in additional stress that the column was not designed to withstand, but the column lean causes a structural instability which can engender a catastrophic collapse of all structure the column is supporting when the "tipping point" of lean is reached.

**Repair Concept.** .The existing column has taken a permanent, curve. In order to correct the metastable position, it will be necessary to install temporary column shoring at each side of the leaning column and then using hydraulic jacks, lift the structure until the existing column loading can be transferred to a new column installed adjacent to the existing column, It may be necessary to construct a new concrete

foundation for the column, as well as structural connection hardware at the top and bottom of the column. When the new column is installed and secured, the temporary jacking columns can be removed.

**Percent completion: 0%** - no consideration of this deficient condition has been undertaken to rectify the lean and instability of the existing column.

**North Balcony Exit Stairs.** An exit stairway structure has been constructed at the north wall of the building, balcony level, near the stage.

**Structural deficiency.** The entire stairway structure, including the guardrail have been poorly constructed. It is unclear if the stairway structure had structural engineering and construction plans prepared. The construction appears to be poor, particularly at the critical guardrails.

**Repair Concept.** The actual need for the stairway structure is questionable, and would not be needed if the balcony is not used as an occupyable space. If it is decided the stairway is needed, the existing stairway structure should be torn down and reconstructed properly.

**Percent completion: 0%** - no consideration of this deficient condition has been undertaken to rectify the deficient stairway structure.

## DISCUSSION

This section will discuss structural deficiencies addressed in the MAJOR PREVIOUS STRUCTURAL REPAIRS/RETROFITS and the MISCELLANEOUS STRUCTURAL CONDITIONS sections, specifically"

- Front (east) and South Wall Stabilization
- Auditorium Floor Strengthening & new Entry Stairway
- Roof Truss Framing
- Wall Framing/Roof Truss Support
- Balcony Framing and Support
- West wall of the Building
- Water Infiltration/Drainage at the west wall of the Building
- Column at the Entry Lobby
- North Balcony Exit Stairs

The significance of the structural deficiencies with regard to life/safety and the continued use of the building will be addressed in its relative order of importance in terms of retrofit and repair/retrofit concepts. An associated, general budget to accomplish the work will also be estimated.

**Front (east) and South Wall Stabilization.** The front wall stabilization was perhaps the most significant repair that was needed in terms of immediate life/safety considerations. Anytime structural stability is in question, the structure is in a metastable condition, that is, it is relatively "stable" under the existing conditions, but if a small change occurs in the existing conditions, the structure could collapse. The May, 2002 structural strengthening of the wall (see Appendix A) not only strengthened the

wall for vertical loads, and in-plane and out-of-plane lateral forces, but it also stabilized the 4" outward lean of the wall while not changing the historic appearance of the exterior or interior appearance of the wall. **This structural deficiency has been completely eliminated, and no further action is required.**

**Auditorium Floor Strengthening & new Entry Stairway.** The February, 2006 structural retrofit and strengthening of the auditorium floor framing from gridlines 1.3 to 4 (see Appendix B, sheet, S-1), has eliminated the major concern regarding the deterioration of the existing brick pilasters supporting the auditorium floor framing at the dirt slope of the crawlspace. However, the stability of the dirt cut slope in the crawl space supporting the brick pilasters could be adversely affected by subterranean ground water seepage through the face of the slope. The competence of the brick pilaster should be periodically reviewed and repaired as needed. It should be noted that this condition can be aggravated by the infiltration of subterranean ground water

**Roof Truss Framing.** The structural deficiency resulting from the geometry of the offset of the top chord from the bottom chord and the column is both a structural strength and stability issue. In this regard, this is one of the most dangerous conditions that exist in the building because of the potential for a catastrophic collapse that can occur without warning. As was noted in my January 6, 2017 "*Review of roof truss deficiencies at Pipers Opera House*" Appendix C, the truss member cracking distress was noted in several other locations, as well as the north truss #4. This potential distress condition is endemic to the design and construction of the trusses and possess potential structural problems for the future that are of primary concern. **Of all of the structural deficiencies identified in this report, this condition is paramount to be addressed.**

There are approximately 14 of these truss/column connection conditions that have not been addressed. For the most of these conditions, a 1 1/8" plywood plate can be installed on each side of the truss/column connection per photo 3, Appendix C. As was noted in my January 6th report, page 2, "...an inventory of the condition of each truss should be undertaken". An annual observation of the trusses should be undertaken and compared to the baseline observation to detect any changes. Most likely, a majority of the trusses have not suffered cracking that could lead to failure. However, as a preemptive action, all of the non-damaged truss/column connections should be reinforced; the plywood gusset repair method could be used for these locations. For the remainder of the conditions, where cracking is evident, the more expensive triangular steel support (plate 1, 2, and photos 1, 2, appendix C) must be used. Because these retrofits are not easily installed in the attic space of the building, construction will be more costly. **Therefore, a budget allowance of between $80,000 to $120,000 should be set aside.**

**North Wall Column Bucking, Roof Truss #4 Support.** Like the roof truss condition, the potential column buckling at the north and south walls is life/safety stability issue. However, in the century plus that the building has stood, only two condition, both at the north wall, occurred. Although this is a critical condition, it appears that the likelihood of a critical occurrence is relatively small. Therefore, a

survey of the both the north and south walls at the midheight column splice should be undertaken as a baseline to determine existing location of the columns. An annual inspection of the north and south wall should be undertaken visually to ascertain if movement has occurred. If it appears that movement has occurred, a new survey should be taken at that location and compared to the baseline survey; If there is evidence of movement, the condition should be repaired similar to the plans in Appendix D. **Therefore, a budget allowance of $8,000 should be set aside for the baseline wall survey.**

**Balcony Framing and Support.** The projected utilization of the balcony in the future plans of Piper's will directly affect the structural scope of retrofit that must be undertaken, and therefore, the overall cost of retrofit. The two divergent courses of use are: 1). leave the balcony "as exists", and use it only as a historic aspect of the building that is not utilized for public occupancy (except for miscellaneous activities, such a lighting, historical tours, etc.); or, 2). retrofit the balcony to current code requirements and utilize the seating to add to the capacity of the theater. The two preceding options have very different cost parameters.

**1). "As exists" option:** With this option, the balcony is not upgraded structurally for full code occupancy, and, as such, requires no structural upgrade and therefore encounters little associated expense. With this option, the balcony would be repaired as needed to return it to its original configuration. The balcony would not be utilized for occupancy seating, but would be viewed as an example of the original balcony configuration and could be viewed as a historic artifact of the original intent of the building. The structural costs for the "as exists" alternative would be as follows:

**Structurally,** the only criteria would be to repair the existing balcony construction as needed to reflect its original construction. Several areas of missing or damaged framing members exist in both the floor and the walls of the balcony. The repair work would be relatively minimal. **The structural cost for the "as exists" option 1 would be relatively minimal and be limited to basically maintenance items and carpentry. An allowance of $15,000 to $20,000 should cover the scope of work for this item.**

**2). "Full use" retrofit option:** This option would entail the structural and architectural upgrade of the balcony in order to have a code-conforming structure that could be used for full occupancy seating. In order to accomplish this, structural and architectural aspects must be incorporated into a current code-conforming balcony.

**Architectural**, a new exterior exit stairway must be installed at the south wall, and the existing, deficient stairway at the north wall has to be demolished and rebuilt in order to qualify for exiting from the balcony.

**Structural,** in order to upgrade the balcony for the full code live and dead load, the entire balcony structure must be analyzed and upgraded structurally as required. Specifically, the balcony perimeter beams must be reinforced, the vertical tension rods, and the roof beam supporting the tension rods must be reinforced/replaced. The steel bearing plates attaching the vertical tension rods at the top and bottom beams must be removed and replaced with properly sized plates to prevent the tension rods from pulling through the top and bottom beams. However, the most significant problem is the vertical tension rods. The rods are wrought iron, and as such, have a low allowable

tension stress. As such, the code vertical and dead load are of a magnitude that the diameter of the rods and their spacing are not adequate to support the code loads of the balcony. Therefore, either the historic, existing tension rods have to be removed and replaced with steel rods, or additional rods have to be retrofit into the existing configuration. This would alter the historic configuration of the balcony. **The "full use" option 2 would require a substantial retrofit cost that would result in only a marginal benefit of additional seating that may never be needed; therefore, I do not believe the retrofit option for full use is viable, however, should the decision be made to open the balcony to full use, a budget of $200,000 to $250,000 should be set aside (the estimate includes the construction of emergency exit stairways at the north and south walls).**

**West Wall of the Building.** This structural consideration, unlike all of the preceding structural deficiencies, is not related to the building itself, but is an outside factor that is not under the control of the building itself. As denoted in the *Building Site Considerations* section of this report, page 4, the rear of the building was set back into a cut slope at the west. "A" Street. There is an approximate 30 foot elevation difference from the ground floor level of Piper's and the A Street elevation; the east edge of A Street pavement is approximately 15 feet from the west wall of Piper's. The east edge of the pavement at A Street has exhibited slope instability, and the width of the east (north bound traffic lane) has been reduced due to sloughing of the dirt slope supporting the roadway. As the slope sloughs, the dirt moves downhill where it can pile up against the west wall of Piper's". Although this is not an imminent threat, the continued instability of the cut lope below A Street can become a significant structural concern. If the cut slope fails and moves downhill, it can impact the west wall framing and cause a failure of the wall.

Unlike the other potential structural concerns within the building itself, this condition cannot be directly addressed by Piper's itself. The failure of the cut slope extends into the Storey County right-of-way beneath A Street. As such, it is likely that the stability of A Street will have to be addressed by Storey County Public Works. Any effort to independently stabilize the cut slope at the toe of the slope could destabilize the entire height of the slope. **Because of the question of jurisdiction of the site, a repair cost will not be estimated.**

**Water Infiltration/Drainage at the West Wall of the Building.** As was noted in the *Auditorium Floor Strengthening* repair section, page 6, the existence of ground water seepage was noted in the cut face of the dirt slope in the crawlspace when the auditorium floor was strengthened. As a result, a gravel collection area was installed to aid in the transport of water from that area of the crawlspace. However, the gravel collection area was not intended to be a remedy for the groundwater seepage, but merely an aid to remove and prevent water from collecting. The proximate cause of the water seepage into the crawlspace is related to the *Topographical Considerations for Siting the Building*, as explained in that section in page 2 of this report. When the building was sited into a cut slope in the existing topography to the west of the building, a subterranean aquifer was exposed, which is the source of the ground water seepage noted in the crawlspace.

In order to intercept and redirect the aquifer seepage around the building, a "french" drain (a gravel filled trench with a perforated PVC pipe) should be installed below foundation grade at the west wall of the building and the intercept pipe directed around the building to daylight grade. **However, the french drain cannot be installed without destabilizing the already unstable cut slope supporting A Street. Any remedial action to install the french drain must be paired with and part of the stabilization of A Street (see preceding paragraph).**

**Column at the Entry Lobby.** As was indicated in the *MISCELLANEOUS STRUCTURAL CONDITIONS* section, page 10, the column lean creates a stability concern which is dangerous, since the condition could give no advanced warning of failure, but could cause a catastrophic failure without any notice, causing a significant life/safety concern. Per the repair concept listed on page 10, the column need to be re-plumbed. In order to accomplish this, once the column contributing structure is jacked up, the bottom of the column should be leveled with the top, and a new concrete footing constructed. **The cost for this repair construction should range between $30,000 and $50,000.**

**North Balcony Exit Stairs.** The current structural condition of the north balcony exit stairs is an unsafe condition. The guardrails are not properly attached to provide proper code-compliance, and the stairway structure itself is questionable. This item, in itself, should not be subject to repair consideration. In its current state, with the balcony not under consideration for occupancy, the exit stairway is not required. To save funds that can be better utilized to correct serious structural consideration, the exit door of the stairway should be barricaded, and the stairway abandoned in place. If, it is decided to retrofit the balcony into a fully code conforming structure, new exit stairways will have to be constructed. **The cost of the new exit stairways is already included in the cost estimate for the balcony "full use" retrofit, page 13.**

## CONCLUSIONS

The future use of the Piper's Opera House as a gathering facility which requires a high level of structural life/safety capability. Overall, the current structural condition of the building is relatively sound, due to the timely and appropriate response to structural deficiencies that occurred since 1997, particularly:

- J.D. Copolous July, 1997 NORTH WALL COLUMN/BEAM REPAIR
- J.D. Copolous February, 1998 FLOOR REPAIR
- Ferrari Shields May 14, 2002 Front (EAST ) WALL STRENGTHENING/REPAIR
- Ferrari Shields May, 2005 BUDGET PROJECTS – AUDITORIUM FLOOR STRENTHENING & NEW ENTRY STAIR
- Ferrari Shields December 2010 ROOF TRUSS STRENGTHENING/REPAIR
- Ferrari Shields December, 2010 ROOF TRUSS & NORTH COLUMN STRENGTHENING/REPAIR

These actions to remedy structural deficiencies, particularly the front wall, the roof trusses, and the north wall column buckling, kept the building intact and prevented what could have been catastrophic collapses that could have destroyed or severely damaged the building. With these timely actions helping to provide a competent structural baseline for the building, a roadmap for future, necessary structural actions to be undertaken to increase the structural capability and safety of the building can be developed. The needed sequence of structural strengthening projects will be listed below; it is based upon the potential for structural life/safety problems that the condition has the potential to create. These recommendations will help to secure a solid structural future for the building for many years of use. The following conclusions and recommendations will be made with that context in mind.

**1). Column at the Entry Lobby. This condition should be repaired as soon as possible and be the first item addressed; because the column is leaning severely, it has the potential to have a stability failure which can be unanticipated and unpredictable, resulting in an unacceptable life/safety concern.**

**2.) Roof Truss Support.** The structural deficiency resulting from the geometry of the offset of the top chord from the bottom chord and the column is both a structural strength and stability issue. In this regard, this is one of the most dangerous conditions that exist in the building because of the potential for a catastrophic collapse that can occur without warning. As was noted in my January 6, 2017 "*Review of roof truss deficiencies at Pipers Opera House*" Appendix C, the truss member cracking distress was noted in several other locations, as well as the north truss #4. This potential distress condition is endemic to the design and construction of the trusses and possess potential structural problems for the future that are of primary concern. This condition has the potential to provide an on-going source of potential failure with structural consequences. **There are approximately fourteen conditions remaining that have this potential. Preventative action would be to install heavy plywood "sistering" on each die of the joint that would provide structural strengthening to the condition (see photo.3, Appendix C). Also, an annual observation of the general truss construction/connections should be undertaken and compared to the baseline observation to detect any changes.**

**3.) Wall Column Bucking.** The column splice in the north and south wall is a universal support condition at every roof truss column support location. In the past history of the building, only two of these conditions have buckled and needed to be repaired. However, the condition is critical, since if it fails, it will cause a catastrophic collapse of the roof truss it supports. The columns buttressed by the balcony are less likely to experience a problem than the columns that are clear spanning. Therefore, as stated in the DISCUSSION SECTION of this report: "a survey of the both the north and south walls at the midheight column splice should be undertaken as a baseline to determine existing location of the columns. An annual inspection of the north and south wall should be undertaken visually to ascertain if movement has occurred. If it appears that movement has occurred, a new survey should be taken at that location and compared to the baseline survey; if there is evidence of movement, the condition should

be repaired similar to the plans in Appendix D". **The baseline survey should be undertaken immediately.**

**4.) Auditorium Floor Support.** The auditorium floor is generally structurally sound. The degradation of the pilasters on the cut slope at gridline 3 has been eliminated by the Ferrari Shields 2005 retrofit which installed new 20' long, structural steel "C" channels were "sistered" on each side of the existing 10"x10"x10'-0" long wood beam supporting the auditorium floor framing (see detail 112/SD-1, and sheet 1/1, Appendix B, and page 6a respectively). However, continued groundwater seepage through the cut bank and into the crawlspace could cause deterioration in other brick pilasters. This condition is tied to both the cut slope at the west wall at A Street, as well as ground water seepage from the cut. **Until the A Street cut slope condition is addressed and corrected, periodic inspections of the brick pilasters in the crawlspace supporting the auditorium floor framing should be undertaken.**

**5.) West Wall of the Building/ Water Infiltration/Drainage.** These two items are intertwined, and must be addressed as a single unit. The water seepage into the crawlspace of the building from the A Street cut is not immediately threatening to the structural stability of the building. However, an extremely wet winter could change the current conditions for the worse, and require some immediate attention. There is no way that the infiltration condition can be addressed without consideration to the A Street slope stability concern.

At present the slope stability of the A Street cut does not pose an imminent concern for the structural stability of the building. The worst case scenario would occur if a major slope failure occurs that causes the entire shear circle of the slope to fail and slide down to the west wall. If this occurs, structural damage or complete destruction of the west wall and any ancillary structure could occur.

Although the preceding concerns are not the most likely structural failures to occur, they should none the less, be given proper attention to eliminate or reduce the possibility for the long-term structural benefit of the building. As was stated in the *DISCUSSION SECTION*, the A Street cut slope should be discussed in conjunction with the Storey County Public Works Department to stabilize A Street. The retaining wall can be a stacked large concrete block wall, similar to the wall at the loading dock, or any other concrete type structure that can modified with an architectural finish that would simulate rock or block construction.

**6.) Balcony Framing and Support.** Of all the structural deficiencies noted in the building, the balcony is the one item that any strengthening is discretionary. As was stated in the *Balcony Framing and Support* section on page 13, two options were presented, 1.) leave the balcony in the "as exists" condition; or, 2) upgrade the balcony for a code conforming 100psf live load.

**As-exists option.** Under the "as-exists" option, the balcony would essentially be refurbished to its original configuration, providing a historic "snapshot" of the balcony usage. The refurbished balcony could be used for historical tours of small groups of people with no expenditure and no disruption of the historic fabric of the balcony. Also, the balcony could be used for lighting and audio uses.

**Code conforming 100psf option.** If the second option is pursued, a significant cost for the retrofit will be incurred. To accomplish the live load upgrade for the balcony, the following tasks will need to be accomplished:

- the existing deficient north balcony stairway must demolished and rebuilt.
- a new stairway must be constructed at the south end of the balcony;
- the balcony must be shored and the existing wrought iron tie rods must be removed and replaced with steel rods.
- the historic canvas fabric covering the bottom of the balcony must be removed to allow access to structural members.
- the existing north and south balcony perimeter beams must be removed and replaced with an appropriately engineered beam for the upgraded live loading.
- the north and south balcony tie rod support beams at the roof trusses must be reinforced for the upgraded live loading.
- new connection hardware must be installed to properly connect the existing balcony joists to the perimeter beam
- new canvas must be installed at the bottom of the balcony.

**Repair cost options.** The cost for the preceding scope of work could be $250,000. The balcony seating is steeply sloped "bench" style seating with limited knee space and uncomfortable seat backs. At most, the balcony could provide marginal seating for an additional 30 people. The cost to provide the additional balcony seating would be approximately $8,333/seat. This is a high incremental cost for seating capacity that may only be marginally if ever, needed.

**Therefore, it is recommended that the "as exists" option for the balcony be adopted If the $250,000 is raised, it would be better spent on other needed aspects outlined previously; in any event, the balcony upgrade should be the last item addressed.**

## RECOMMENDATIONS

Based on the results of my twenty year association with the building and field observations, the following recommendations for the structural stability future of the building are as follows:

1.) The stabilization and repair of the front entry lobby column by the stairs should be addressed as soon as possible, since it possess a structural stability concern.
2.) The approximately fourteen remaining unrepaired truss/column support conditions are a structural life/safety stability concern that should be addressed. Preventative action would be to install heavy plywood "sistering" on each die of the joint that would provide structural strengthening to the condition (see photo.3, Appendix C). Also, an annual observation of the general truss construction/connections should be undertaken and compared to the baseline observation to detect any changes.

3.) A baseline survey of the midheight of the north and south walls should be undertaken. The survey will allow a quantitative comparison of any column buckling should the appearance require.

4.) Upgrading the structural capacity of the existing balcony framing to support the code-required 100psf live load would be very costly and result in only a small number of usable seats. **It is recommended that option 2 – the "as-exists" option be used. This option would return the balcony to its historic appearance and be suitable for tours at a very cost-effective amount, saving between $185,000 to $230,000.**

5.) The stairway at the north wall should be demolished and the exit door secured.

6.) West Wall of the Building/ Water Infiltration/Drainage are two items are intertwined, and must be addressed as a single unit. The water seepage into the crawlspace of the building from the A Street cut is not immediately threatening to the structural stability of the building. However, an extremely wet winter could change the current conditions for the worse, and require some immediate attention. There is no way that the infiltration condition can be addressed without consideration to the A Street slope stability concern. Piper's Opera House and Storey county Public Works should begin discussion regarding the unstable existing conditions.

7.) The roof structure can be modified to support the proposed new HVAC units.

## Project Cost Estimates for Structural Repair Recommendations

***Based on the preceding conclusions, the estimated cost range for the structural recommendations that will help to secure a solid structural future for the building are as follows:***

| | Option 1 | Option 2 |
|---|---|---|
| • strengthen roof truss/column connection: | $80,000 - $120,000 | $80,000 - $120,000 |
| • baseline survey for wall column buckling | $ 8,000 - $ 8,000 | $ 8,000 - $ 8,000 |
| • balcony "as-exists" option | $15,000 $20,000 | N/A |
| • balcony "full use" option | N/A | $200,000 $250,000 |
| • column at entry lobby | $30,000 - $50,000 | $30,000 - $ 50,000 |
| **TOTAL** | **$133,000 - $198,000** | **$318,000 - $428,000** |
| • west building wall/water infiltration drainage | TBD TBD | TBD TBD |

If you have any questions, or require any further assistance, please do not hesitate to contact me.

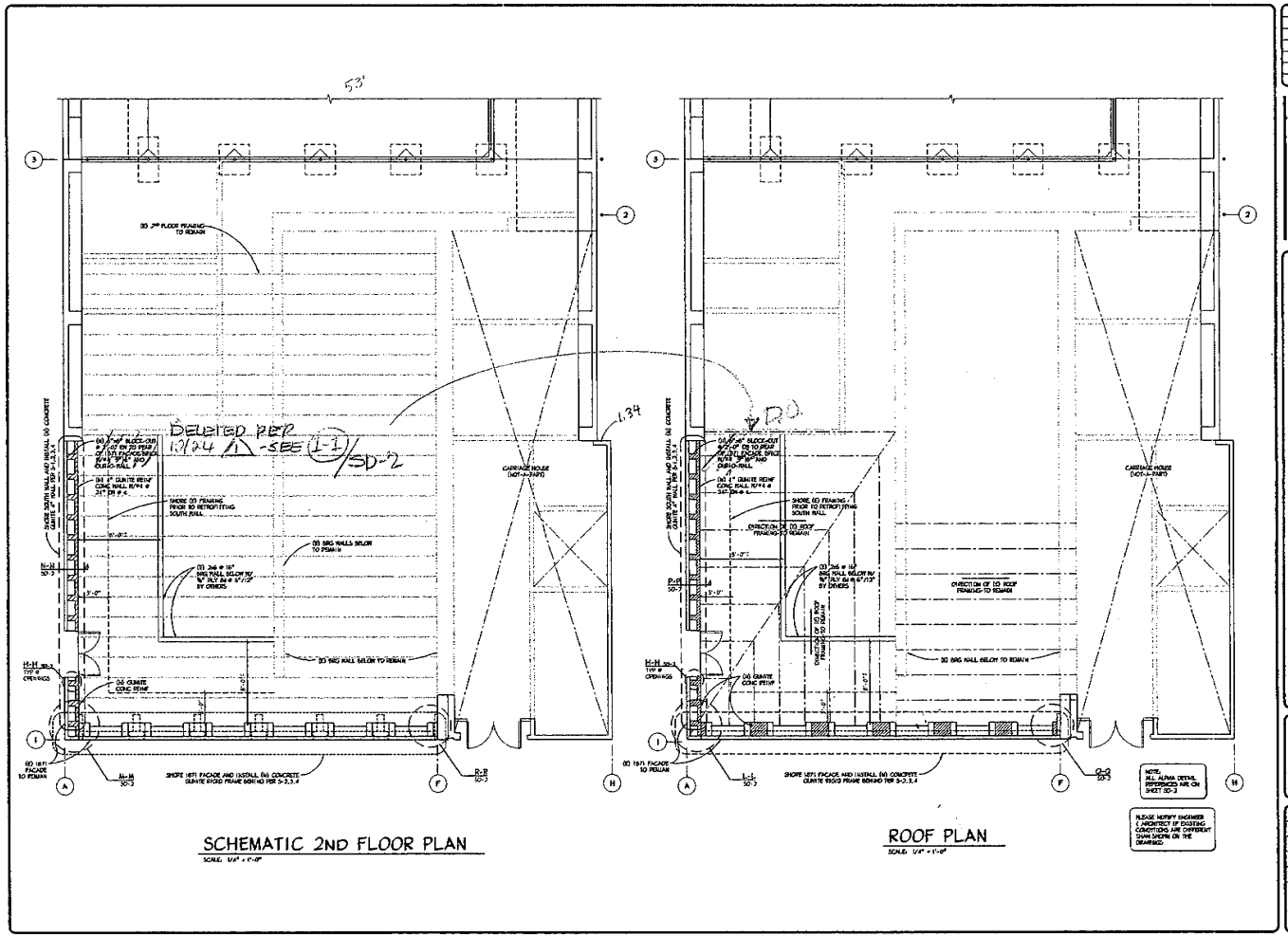
Sincerely,

Paul A. Ferrari, P.E.

# APPENDIX A

**FRONT (EAST) WALL STRENGTHENING/REPAIR**

**Ferrari Shields Construction documents dated May 14, 2002, sheets S-1 through SD-2**

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775-851-8866
ferrarishields@sbcglobal.net

PIPER'S OPERA HOUSE
FACADE
RENO, NEVADA
SHEET TITLE: SCHEMATIC 2ND FLOOR PLAN & ROOF PLAN

DRAWN: DAS
CHECKED: RAF
DATE: 5/31/02
SCALE: 1/4" = 1'-0"
JOB NO: 0403
SHEET: S-1
OF SHEETS

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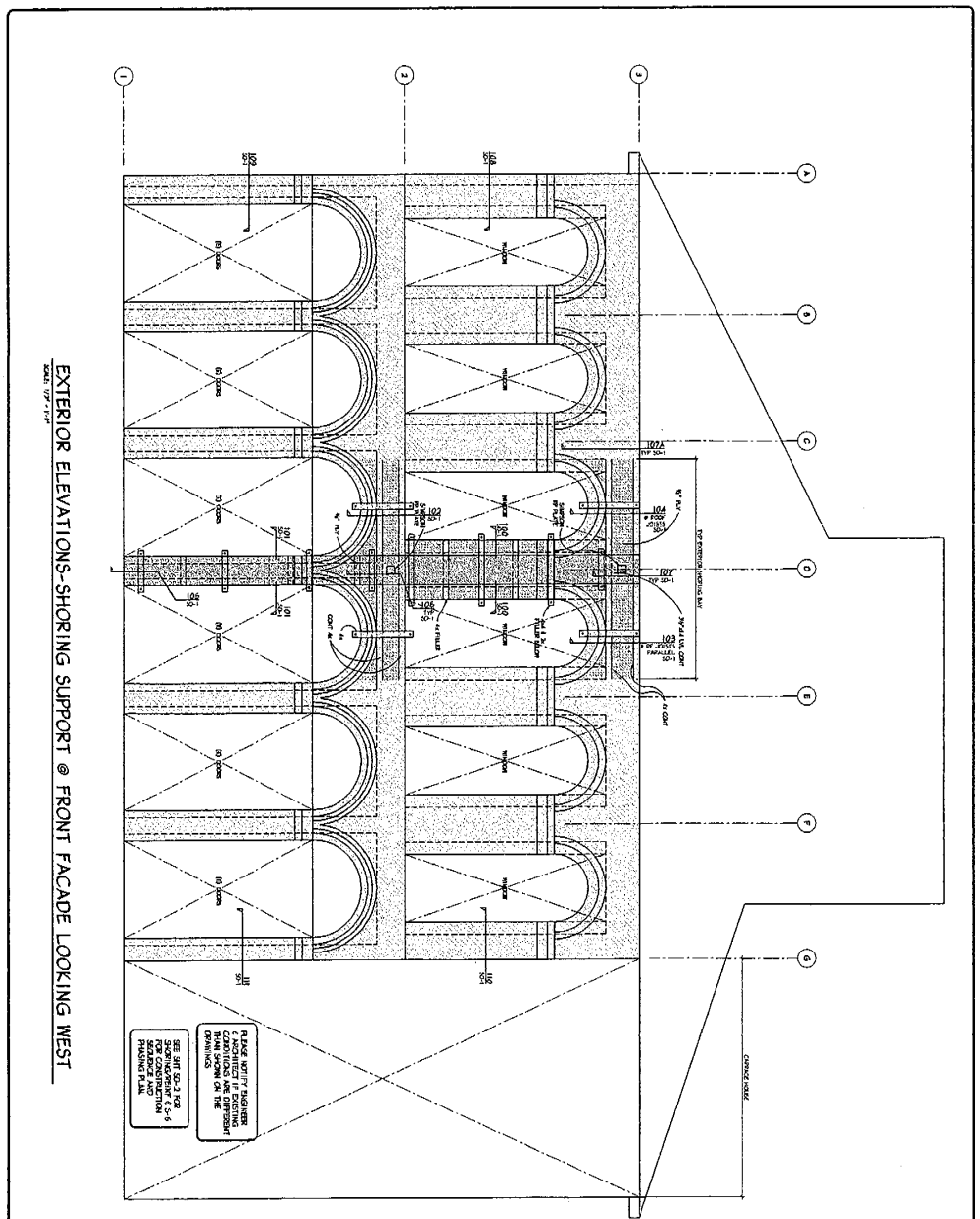


EXTERIOR ELEVATIONS-SHORING SUPPORT @ FRONT FACADE LOOKING WEST

SCALE: 1/2" = 1'-0"

PIPER'S OPERA HOUSE
FACADE
RENO, NEVADA

SHEET TITLE: EXTERIOR ELEVATION-SHORING SUPPORT @ FRONT FACADE WALL

S-2

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admin@ferrarishields.com

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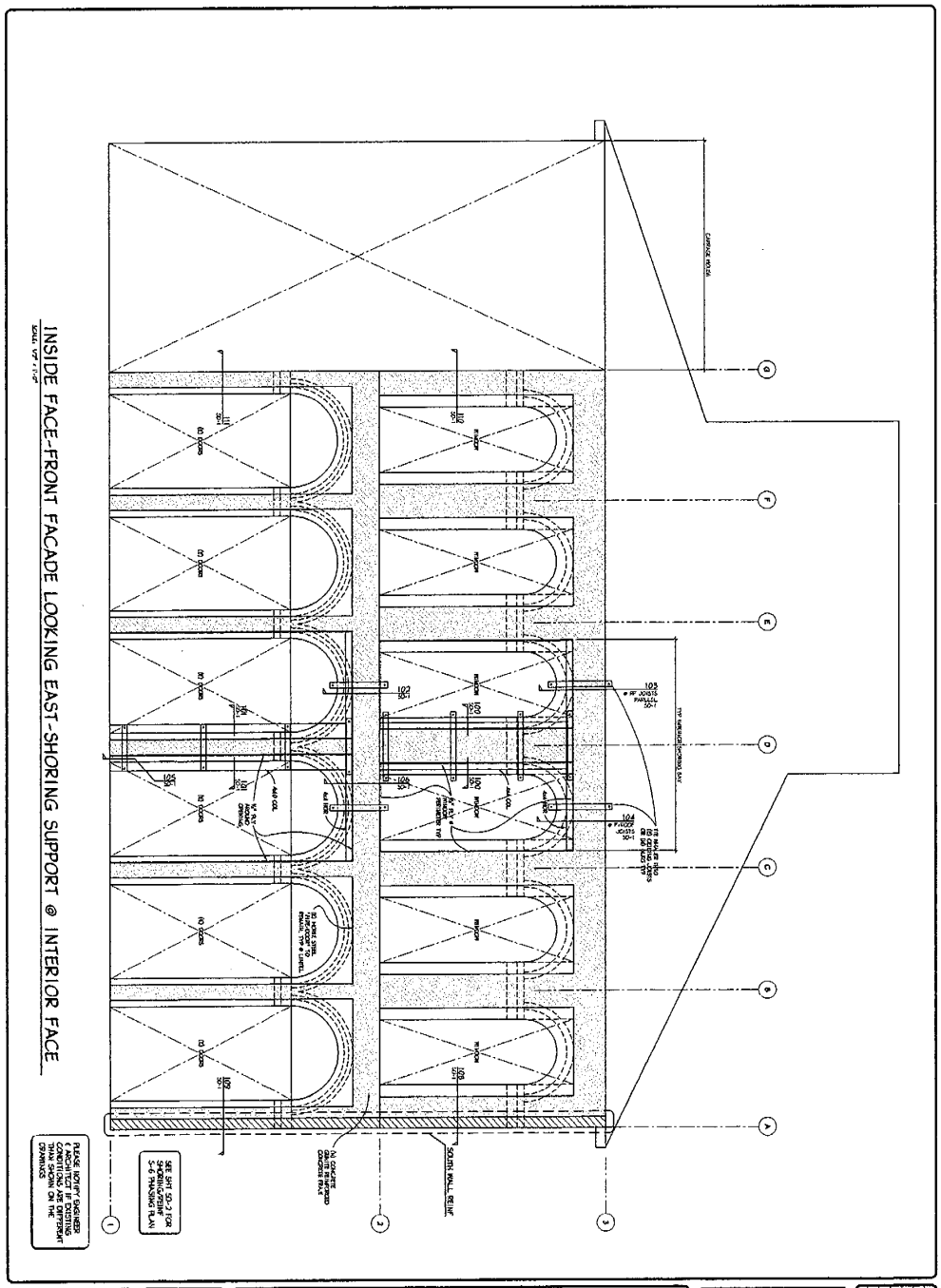

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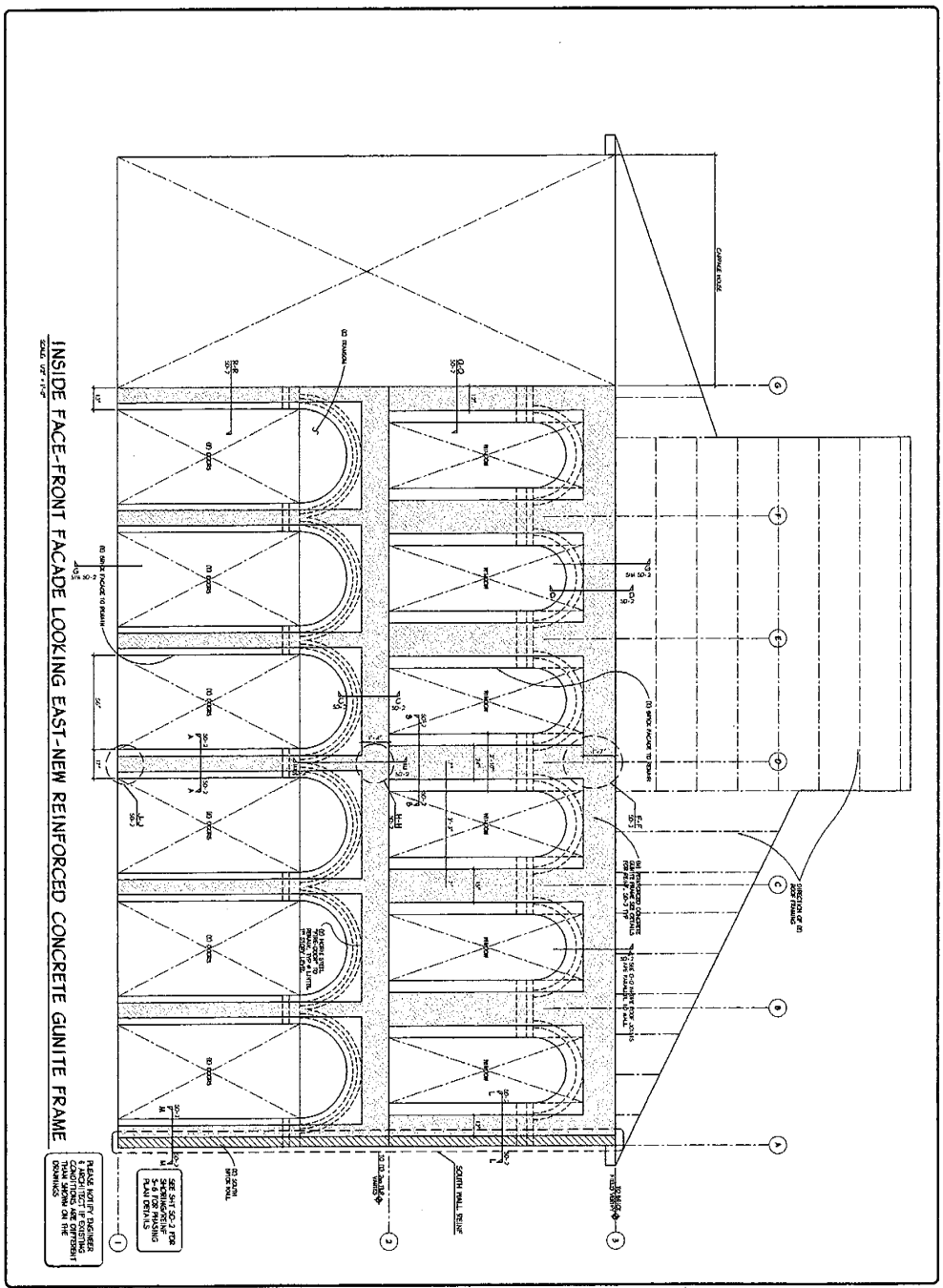


PIPER'S OPERA HOUSE
FACADE
RENO, NEVADA

SHEET TITLE: INTERIOR ELEVATION NEW CONCRETE FRAME @ FRONT FACADE WALL

S-4

FERRARI SHIELDS & ASSOCIATES
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ssm@ferrarishields.com

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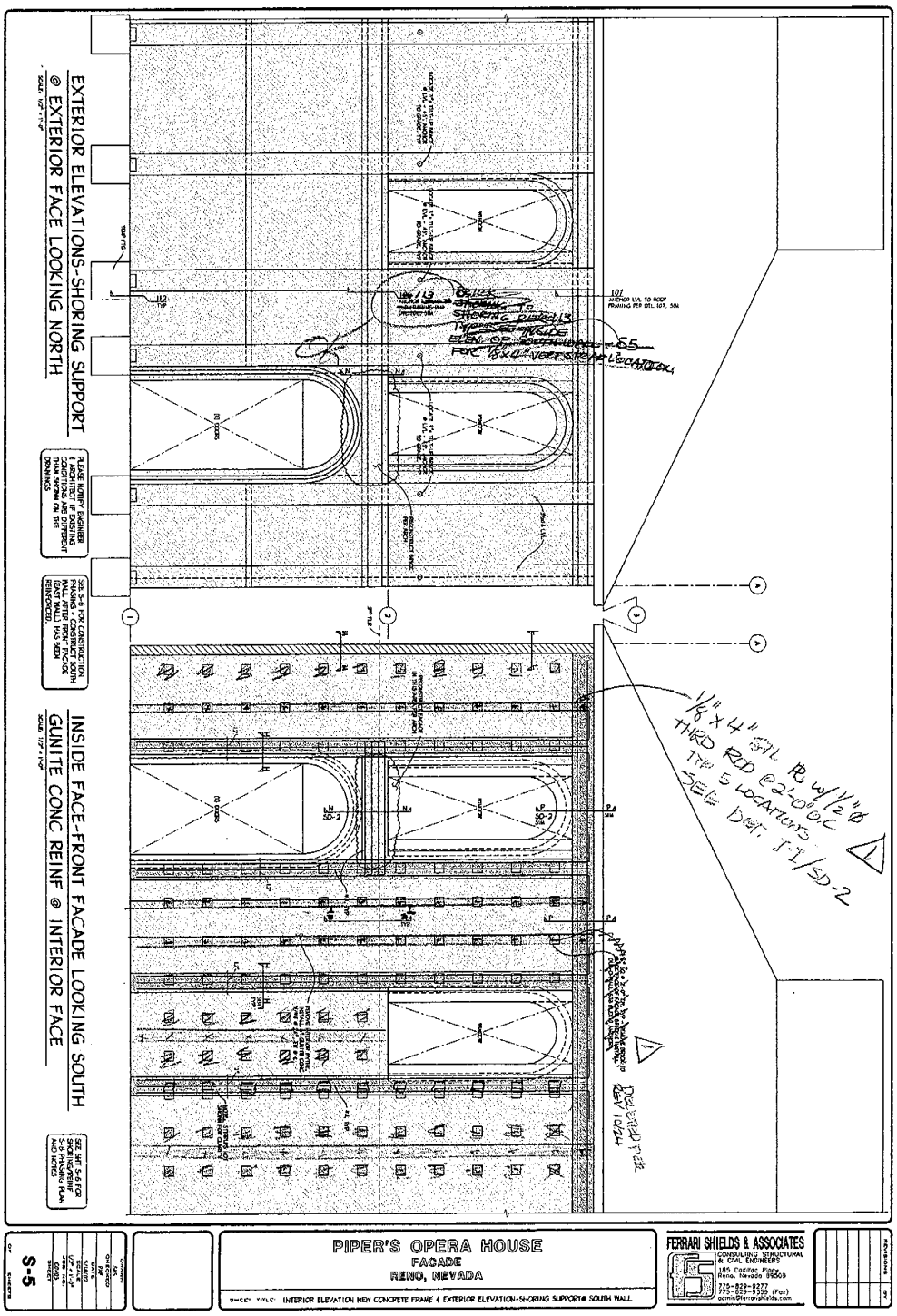



| | | | |
|---|---|---|---|
| S-5 | | PIPER'S OPERA HOUSE FACADE RENO, NEVADA | FERRARI SHIELDS & ASSOCIATES CONSULTING STRUCTURAL & CIVIL ENGINEERS 185 Cashill Blvd. Reno, Nevada 89509 775-826-8277 775-826-9339 (Fax) admin@ferrarishields.com |

SHEET TITLE: INTERIOR ELEVATION NEW CONCRETE FRAME & EXTERIOR ELEVATION-SHORING SUPPORT@ SOUTH WALL

SHORING/CONSTRUCTION SEQUENCE:

Front Facade (west wall):

1.) The front, 1877 facade at the west wall shall be reconstructed first; the south wall shall follow.

2.) The front facade shall be shored and reconstructed in three phases, as outlined in the phasing diagram on sheet S-6 of the plans.

3.) Install shoring/bracing as indicated on sheets S-2, 3, 4, and SD-1, prior to removing any of the existing construction. For example, the phasing diagram on sheet S-6 indicates that the first day of construction is to begin with shoring installed in openings between bays G-F, and F-E, as well as column shoring/bracing at grids G, F, and E.

4.) Brace all vertical LVL beams at the east wall grids A through G and the entire south wall with 2" diameter pipe (Telespar) braces securely anchored to both the LVL (at 3' above the second floor level) and to the ground at 45 degree angle. Also install the floor and roof ties shown on detail GS/SD-2.

5.) Remove brick per phase plan shown on sheet S-6. Carefully remove and store the brick for future use.

6.) Install veneer ties, architectural membrane, and concrete frame reinforcing per sheet SD-2.

7.) Gunite the vertical wall columns per the construction phasing plan.

8.) Remove phase 2 brick, per sheet S-6, at the roof and second floor beam areas.

9.) Install veneer ties, architectural membrane, and concrete frame reinforcing per sheet SD-2.

10.) Gunite the horizontal wall beams per the construction phasing plan.

11.) Repeat steps 3 through 10 until the front facade is completed.

South Wall:

12.) Begin the reconstruction of the south wall by providing the roof and floor shoring and bracing as shown on sheet S-5

12.) Remove, reinforce, and gunite the roof beam shown on S-4.

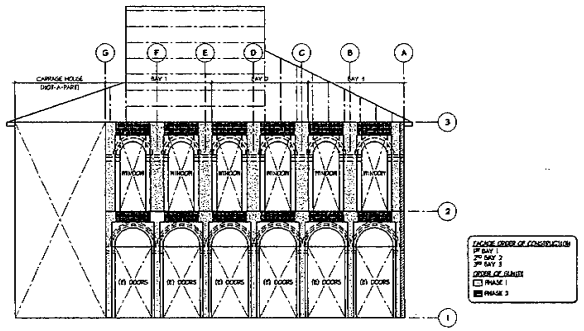
1 14.) Remove the interior wythe of brick at the vertical column notch and interior square opening. INSTALL 1/4"x4" STL-R

15.) Install the reinforcing, veneer anchors, and other hardware in area 1 per plans and details.

16.) Gunite area 1.

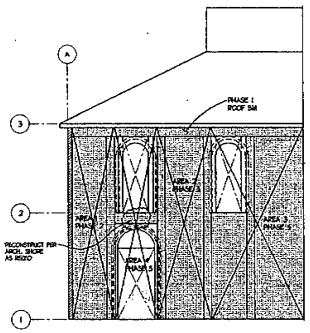
17.) Repeat steps 12 and 14 through 16 for areas 2 and 3.

1 18 Remove shoring @ F.F. & exterior face - reinstall Simpson RP-6 & tighten nut




PHASES OF CONSTRUCTION

SCALE: 3/16" = 1'-0" FRONT FACADE (EAST WALL) SHOWN LOOKING OUT




SOUTH WALL
PHASE OF CONSTRUCTION

SCALE: 3/16" = 1'-0" SOUTH LOOKING OUT

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PIPER'S OPERA HOUSE
FACADE
RENO, NEVADA

SHEET TITLE: FRAME REINFORCING CONSTRUCTION SEQUENCING AND PHASING PLAN

DRAWN: GAS
CHECKED: RHF
DATE: 5/14/02
SCALE: 3/16" = 1'-0"
JOB NO.: 0403
SHEET: S-6
OF SHEETS

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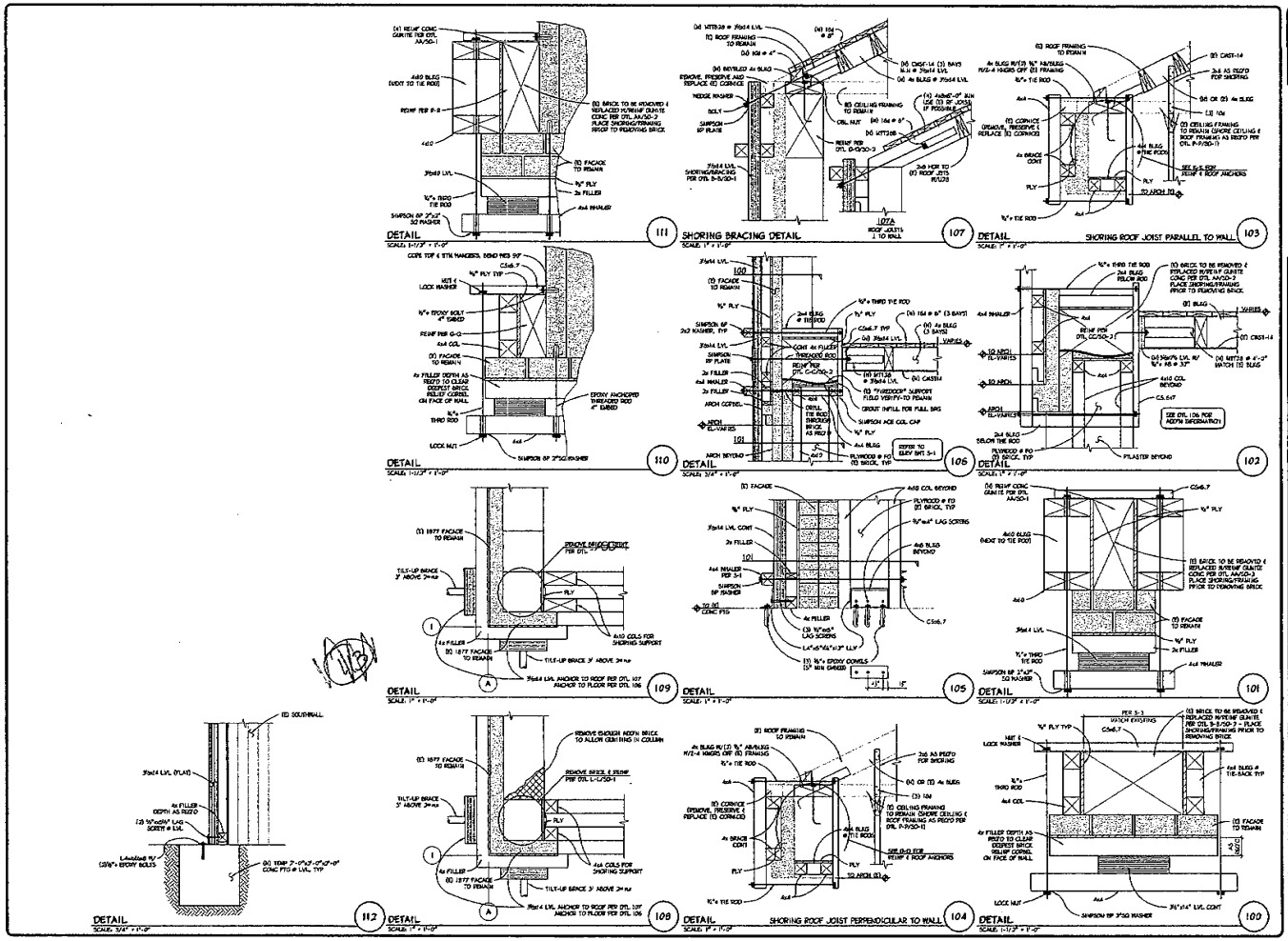


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PIPER'S OPERA HOUSE
FACADE
RENO, NEVADA

SHEET TITLE: STRUCTURAL SHORING DETAILS

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| CHECKED | RJF |
| DATE | 5/14/02 |
| SCALE | AS SHOWN |
| JOB NO. | C0403 |
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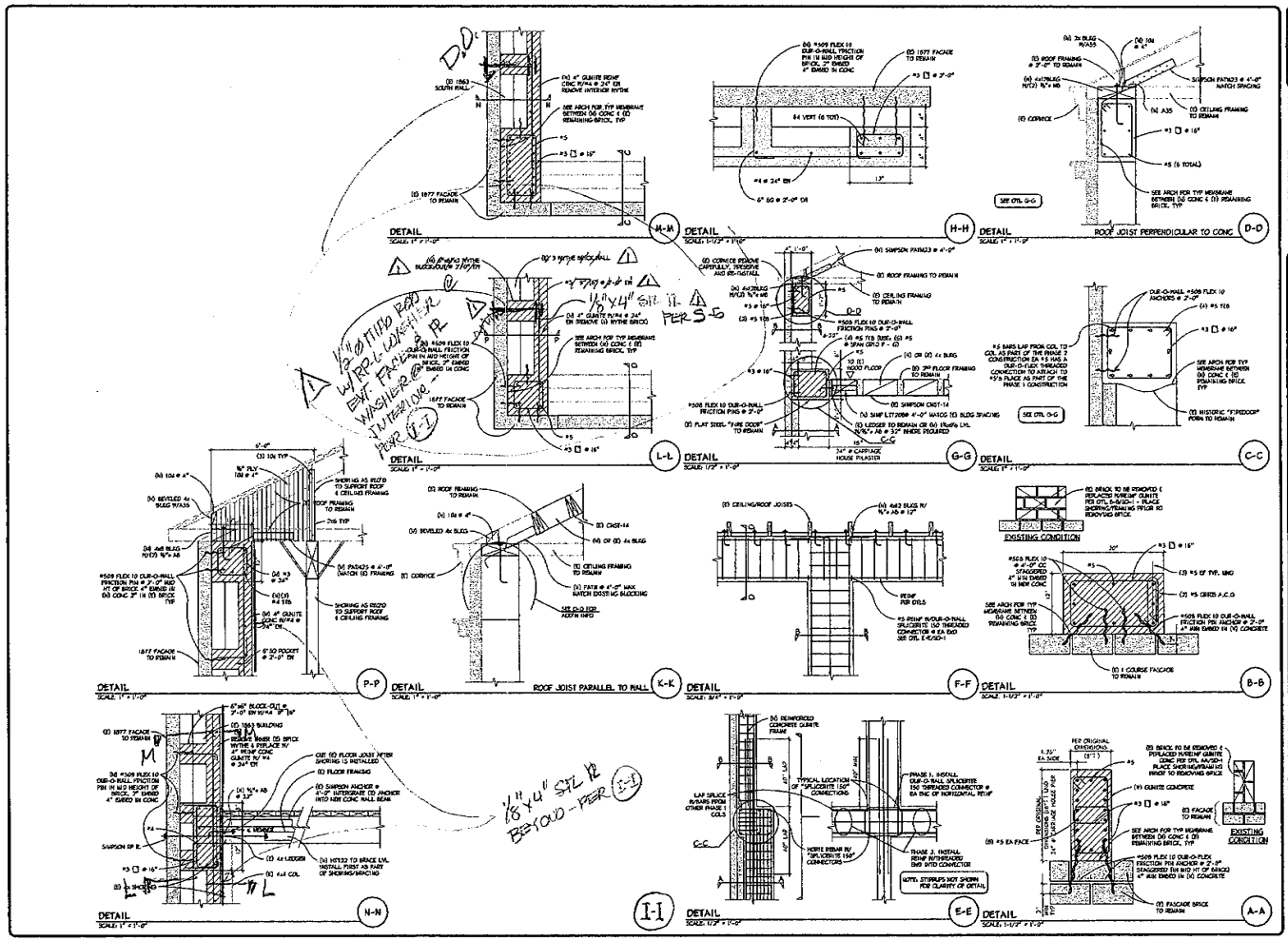


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# PIPER'S OPERA HOUSE
## FACADE
## RENO, NEVADA

SHEET TITLE: STRUCTURAL DETAILS REINF FOR GUNITE CONCRETE FRAME

DRAWN: BAS
CHECKED: RJF
DATE: 5/14/02
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OF SHEETS

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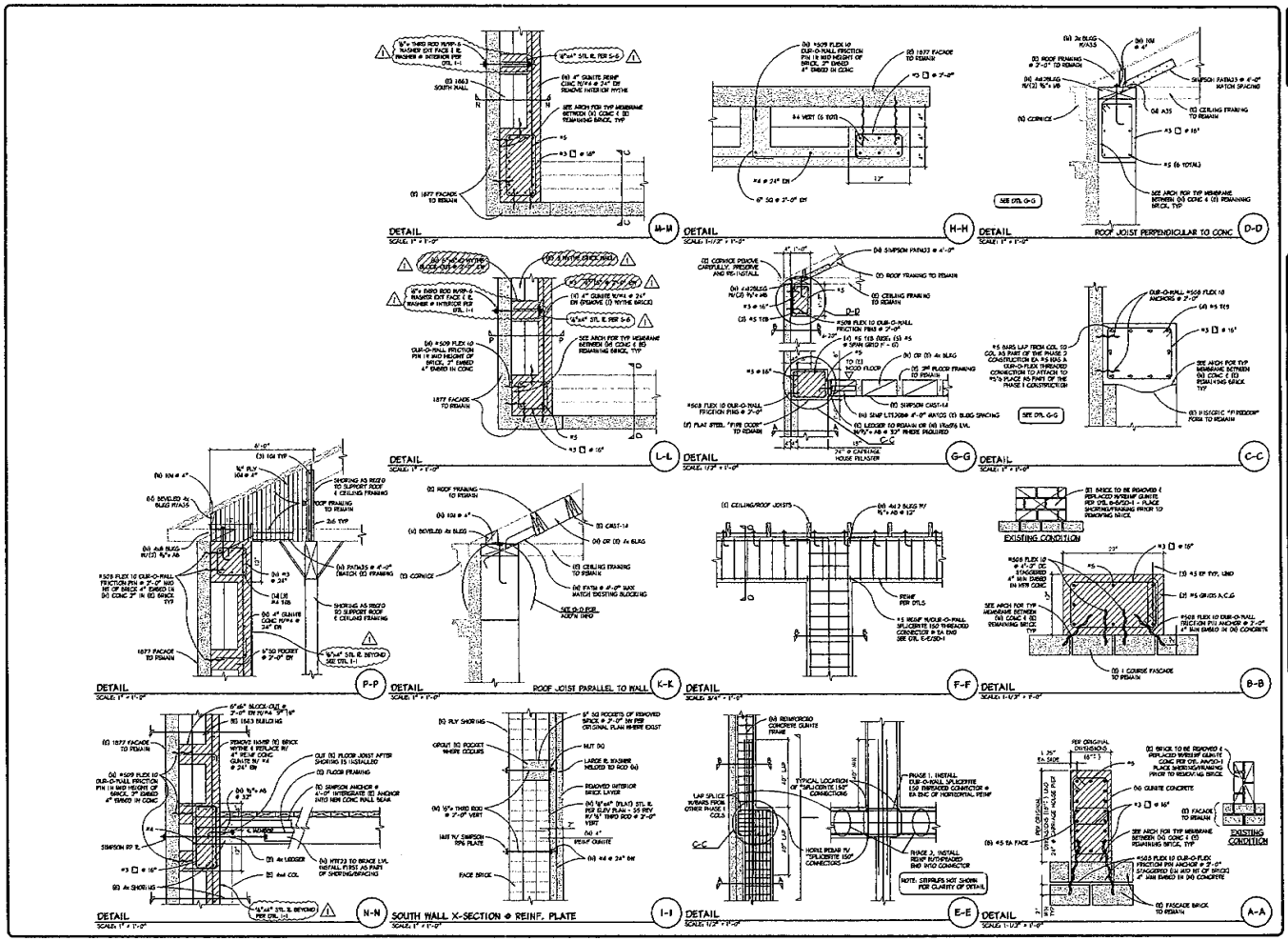


| REVISIONS | BY |
|---|---|
| 10/24/03 | FMF |

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ferrarishields@msn.com

# PIPER'S OPERA HOUSE
## FACADE
## REMOVE/REPLACE

SHEET TITLE: STRUCTURAL DETAILS REINF FOR GUNITE CONCRETE FRAME

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| CHECKED | FMF |
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| SHEET | SD-2 |
| OF | SHEETS |

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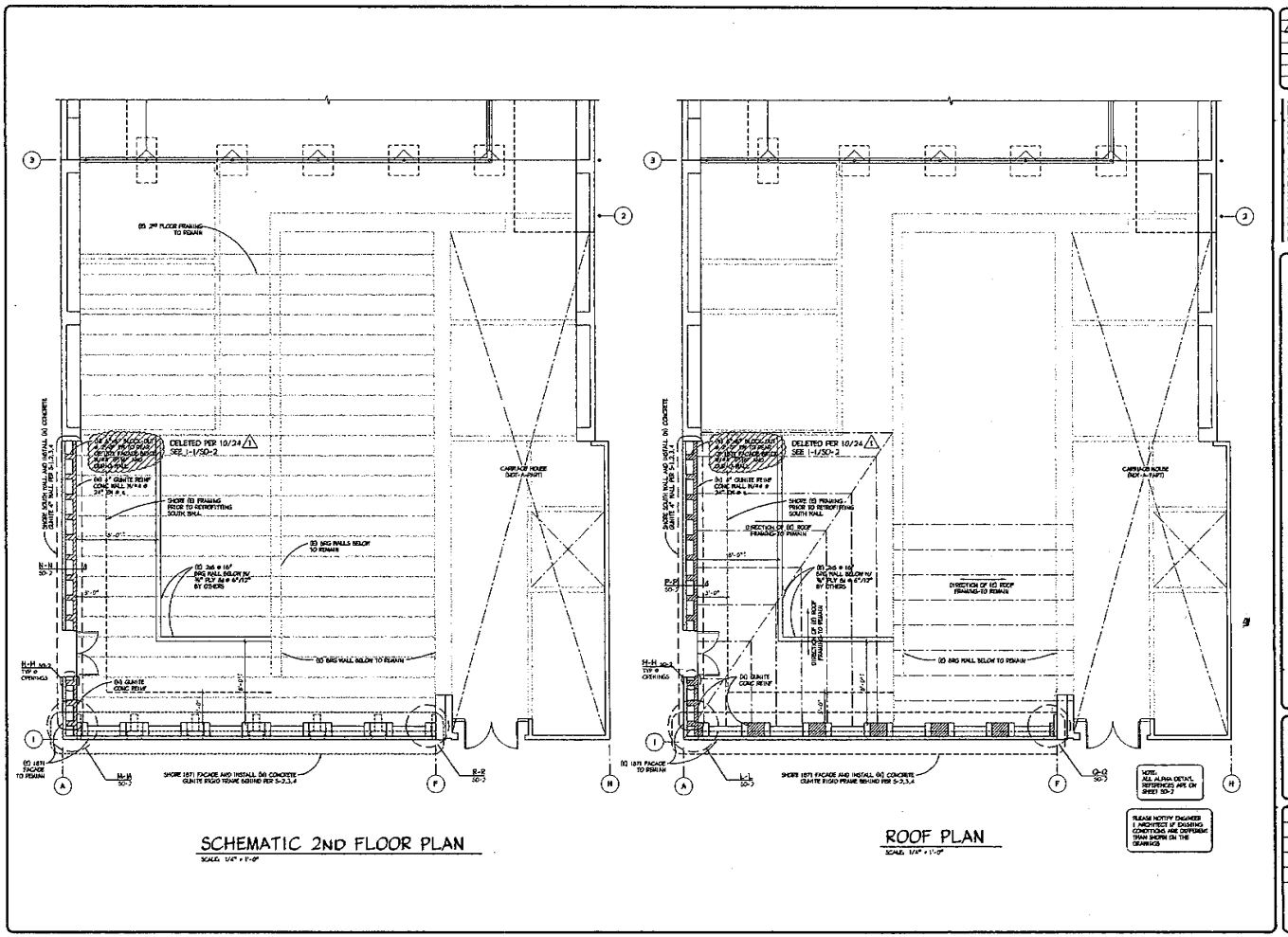


| REVISIONS | BY |
|---|---|
| 1 10/24/02 | PAF |


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775-826-3937
pam@fermanshields.com


# PIPER'S OPERA HOUSE
## FACADE
## RENO, NEVADA

SHEET TITLE: SCHEMATIC 2ND FLOOR PLAN & ROOF PLAN

| | |
|---|---|
| DRAWN | SAS |
| CHECKED | PAF |
| DATE | 5/14/02 |
| SCALE | 1/4" = 1'-0" |
| JOB NO. | C0403 |
| SHEET | S-1 |
| OF | SHEETS |

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**ENGINEERING/CONSTRUCTION SEQUENCE:**

Front Facade (west wall):

1.) The front, 1879 facade at the east wall shall be reconstructed first; the south wall shall follow.

2.) The front facade shall be shored and reconstructed in three phases, as outlined in the phasing diagram on sheet S-6 of the plans.

3.) Install shoring/bracing as indicated on sheets S-2, 3, 4, and SB-3, prior to removing any of the existing construction. For example, the phasing diagram on sheet S-6 indicates that the first bay of construction is to begin with shoring installed in openings between bays G-F, and F-E, as well as cantilever shoring/bracing at grids G, F, and E.

4.) Brace all vertical tie beams at the west wall grids A through G and the entire south wall with 3" diameter pipe "tilt-up" braces securely anchored to both the S.W. (at 3' above the second floor level) and to the ground at a 45 degree angle. Also, install the floor and roof ties shown in detail GD/SB-2.

5.) Remove brick per phase plan shown on sheet S-6. Carefully remove and store the brick for future use.

6.) Install veneer ties, architectural membrane, and concrete frame reinforcing per sheet SB-2.

7.) Gunite the vertical wall columns per the construction phasing plan.

8.) Remove phase 2 brick, per sheet S-6, at the roof and second floor beam areas.

9.) Install veneer ties, architectural membrane, and concrete frame reinforcing per sheet SB-2.

10.) Gunite the horizontal wall beams per the construction phasing plan.

11.) Repeat steps 3 through 10 until the front facade is completed.

South Wall:

12.) Begin the reconstruction of the south wall by providing the roof and floor shoring and bracing as shown on sheet S-5.

13.) Remove, reinforce, and gunite the roof beam shown on S-6.

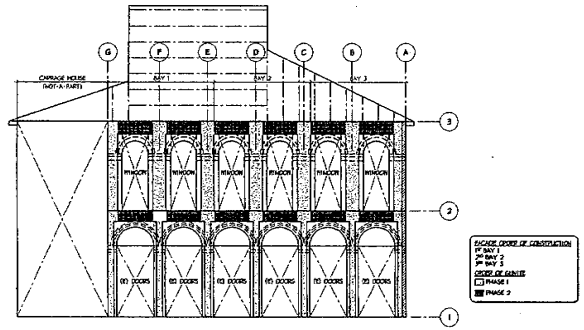
⚠1 14.) Remove the interior wythe of brick & the vertical column notch. Install 1/8"ø" all t.

15.) Install the reinforcing, veneer anchors, and other hardware in area 1 per plans and details.

16.) Gunite area 1.

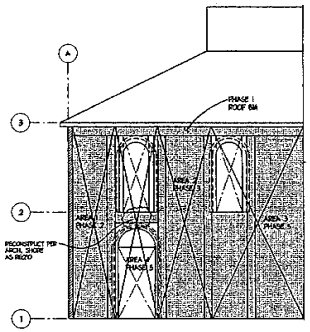
17.) Repeat steps 12 and 14 through 16 for areas 2 and 3.

⚠1 18.) Remove shoring ply 8 exterior face - reinstall Simpson BP-6 & tighten nut.




## PHASES OF CONSTRUCTION

SCALE: 3/16" = 1'-0" — FROM FACADE (EAST WALL) INSIDE LOOKING OUT




## SOUTH WALL PHASE OF CONSTRUCTION

SCALE: 3/16" = 1'-0" — INSIDE LOOKING OUT

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|---|---|
| ⚠1 10/24/01 | PAF |


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# PIPER'S OPERA HOUSE
## FACADE
## RENO, NEVADA

SHEET TITLE: FRAME REINFORCING CONSTRUCTION SEQUENCING AND PHASING PLAN

| | |
|---|---|
| DRAWN | SAS |
| CHECKED | PAF |
| DATE | 5/14/03 |
| SCALE | 3/16" = 1'-0" |
| JOB NO. | CD403 |
| SHEET | S-6 |
| OF | SHEETS |

# APPENDIX B

**2005 BUDGET PROJECTS – AUDITORIUM FLOOR STRENGTHENING & NEW ENTRY STAIR**
**Ferrari Shields Construction documents dated May 20, 2005, sheets SN-1 through SD-3**

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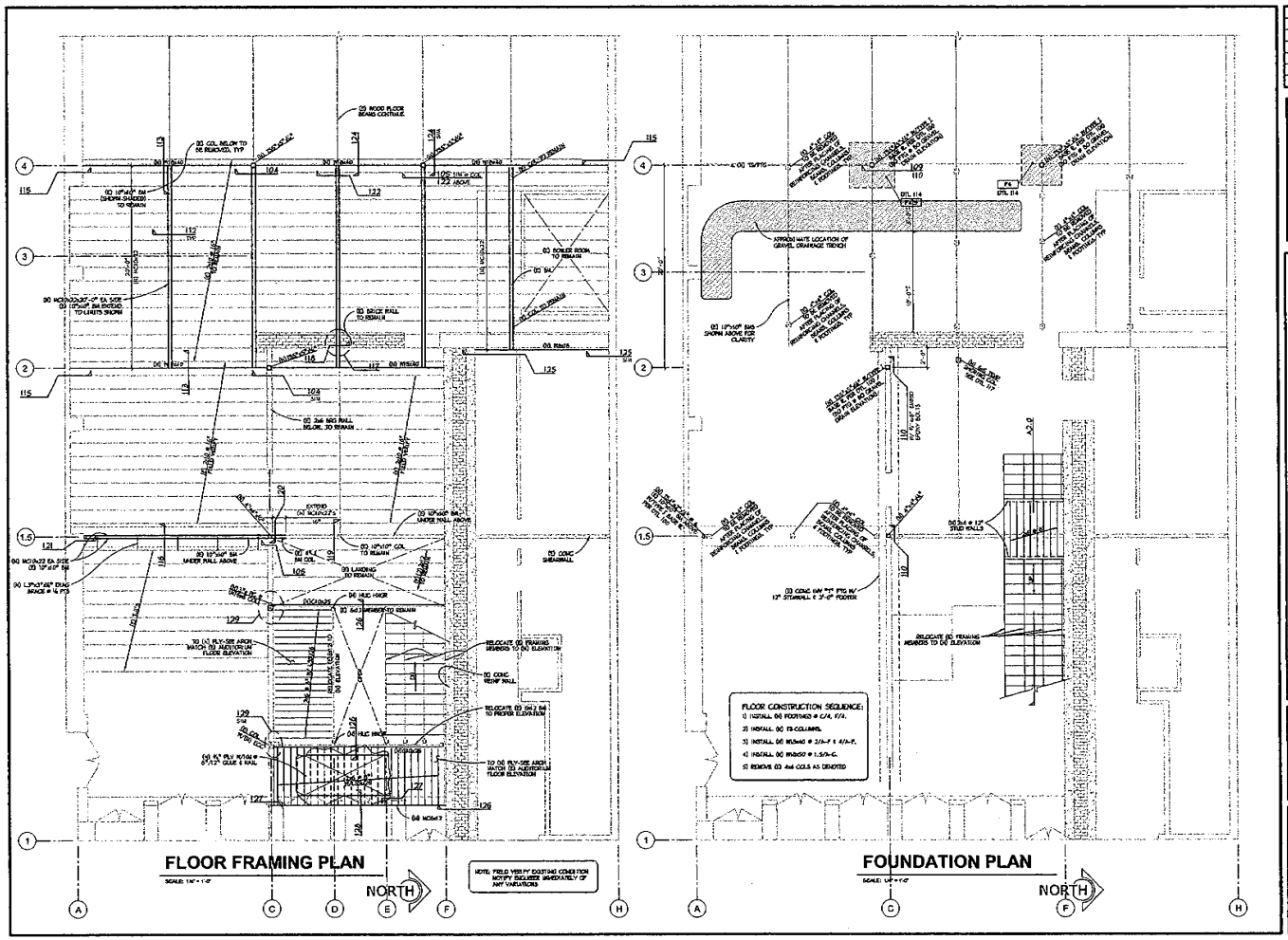

NOTE: FIELD VERIFY EXISTING CONDITION NOTIFY ENGINEER IMMEDIATELY OF ANY VARIATIONS

FLOOR CONSTRUCTION SEQUENCE:

1) INSTALL (N) FOOTINGS @ C/4, F/4.

2) INSTALL (N) TS COLUMNS.

3) INSTALL (N) W12x40 @ 2/A-F & 4/A-F.

4) INSTALL (N) W10x50 @ 1.5/A-G.

5) REMOVE (E) 4x4 COLS AS DENOTED

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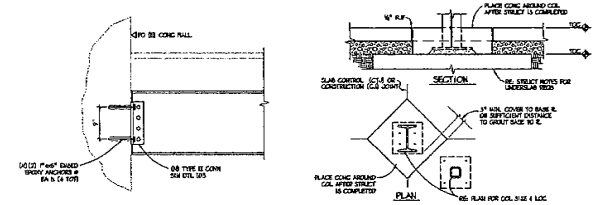
# PIPER'S OPERA HOUSE
## 2005 BUDGET PROJECTS & NEW ENTRY STAIR
## RENO, NEVADA

SHEET TITLE: FLOOR FRAMING PLAN/NEW STAIRWAY PLAN

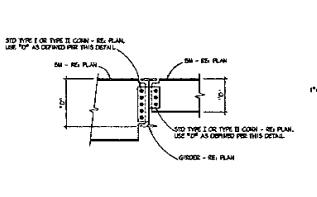
DRAWN
EAS
CHECKED
PAF
DATE
3-30-05/2-27-06
SCALE
1/4" = 1'-0"
JOB NO.
05846-00728
SHEET
S-1



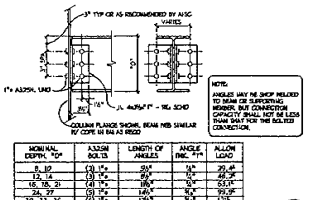
DETAIL — 115



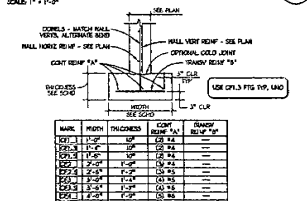
STD - ISOL JT @ INT COL — 111



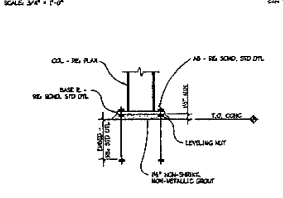
STD - BM TO GIRDER CONN — 107



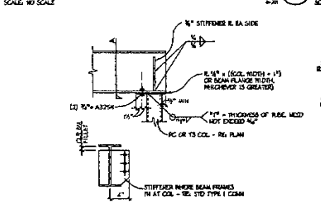
STD - DBL ANGLE SHEAR CONN (TYPE II CONN) — 103



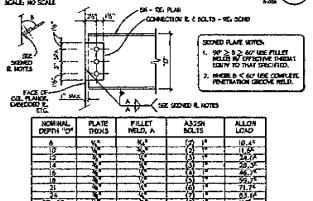
CONTINUOUS WALL FOOTING SCHEDULE — 114



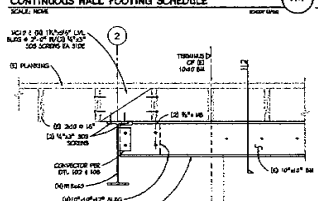
STD - GROUT UNDER BASE PLATE — 110



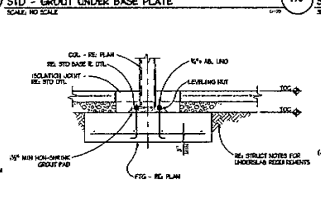
STD - BEAM TO COLUMN CONN — 106



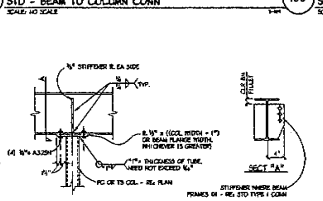
STD - SINGLE-PLATE SHEAR CONN (TYPE I) — 102



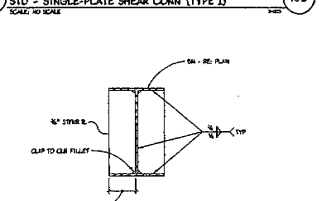
DETAIL — 113



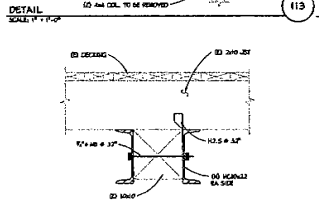
STD - ISOL COL FTG — 109



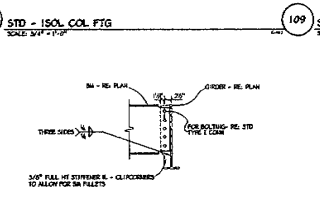
STD - BEAM TO COLUMN CONN — 105



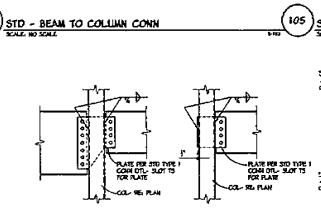
STD - FULL HEIGHT WEB STIFFENER — 101



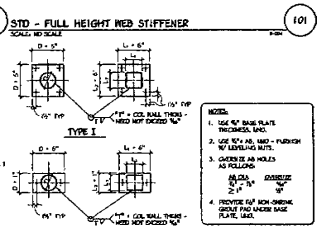
DETAIL — 112



STD - BEAM TO SPANDREL CONNECTION — 108



STD - BEAM TO TS COLUMN CONN — 104



STD - PC & TS COL BASE PLATE — 100

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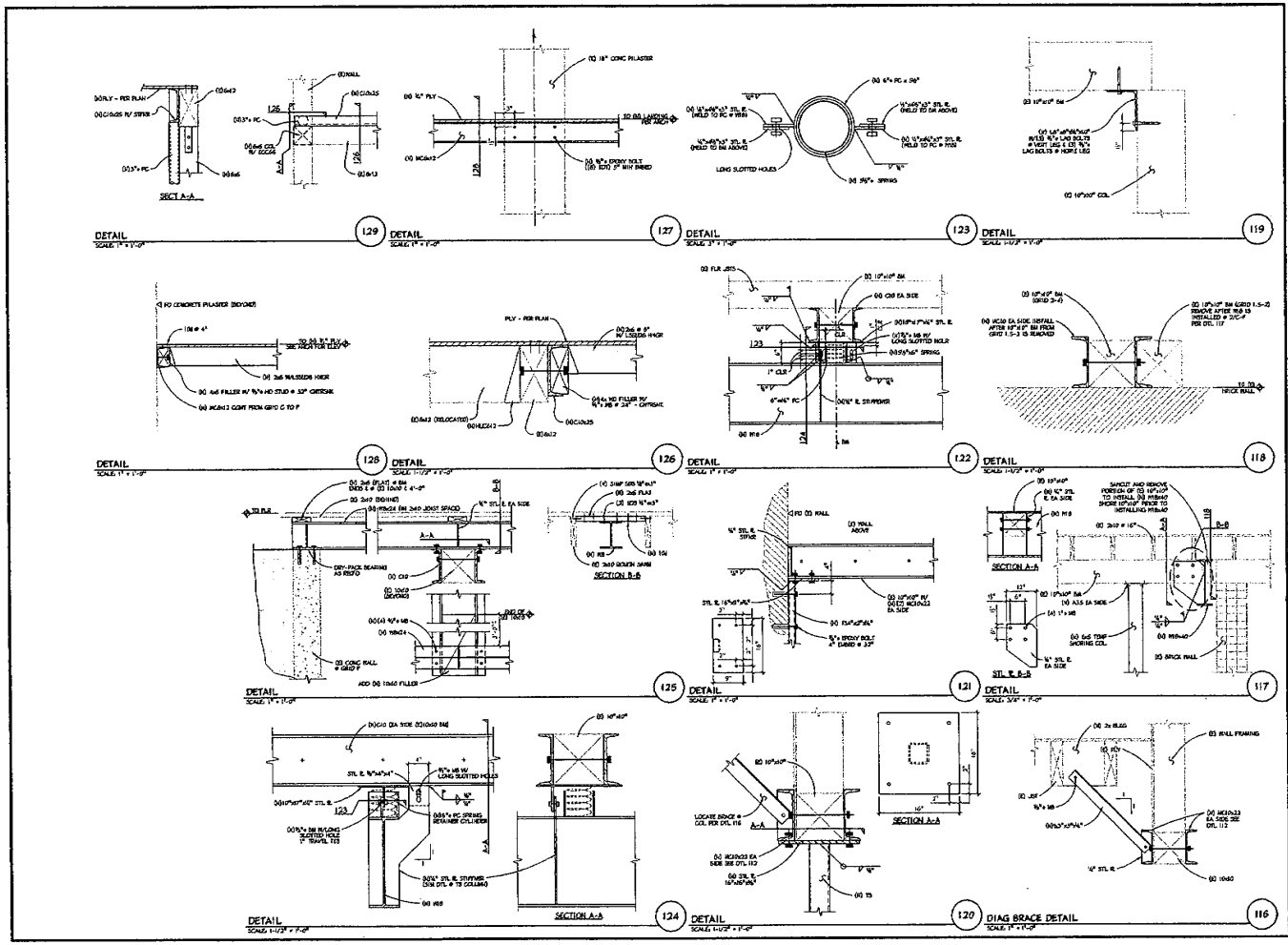
CIVIL STRUCTURAL
MECHANICAL ELECTRICAL
PLUMBING
185 Clayton Street
Reno, Nevada 89502
775-828-1232 (tel)
775-828-1235 (fax)
www.fsaengineers.com

**PIPER'S OPERA HOUSE**
2005 BUDGET PROJECTS & NEW ENTRY STAIR
RENO, NEVADA

SHEET TITLE: STRUCTURAL DETAILS

DRAWN: SAS
CHECKED: FAF
DATE: 9-29-2005 (07-06)
PROJECT: AS SHOWN
HOR'L SCALE:
PLOTTED:
SHEET #: SD-1

H:\2005\05846 - Pipers Opera 2005 Budget Projects\05846-DTL5.dwg, SD-1, 4/3/2006 10:55:50 AM, HP DesignJet 1050C printer.pc3





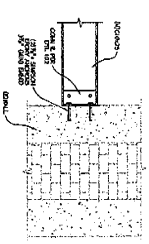

FORMAN SHIELDS & ASSOCIATES
STRUCTURAL
CIVIL ENGINEERS
Reno, Nevada 89509
775-329-2277
775-329-2277 (Fax)
www.formanshields.com

| REVISIONS | BY |
|---|---|
| | |

PIPER'S OPERA HOUSE
2005 BUDGET PROJECTS & NEW ENTRY STAIR
RENO, NEVADA

SHEET TITLE: STRUCTURAL DETAILS

| | |
|---|---|
| DRAWN | SAS |
| CHECKED | RAF |
| DATE | 1-25-06/3-31-06 |
| SCALE | AS SHOWN |
| JOB NO. | 05946/06828 |
| SHEET | SD-2 |




DETAIL
SCALE: 1"=1'-0"

(3C)

SD-3

# PIPER'S OPERA HOUSE
## 2005 BUDGET PROJECTS & NEW ENTRY STAIR
## RENO, NEVADA

SHEET TITLE: STRUCTURAL DETAILS

FERRARI SHIELDS & ASSOCIATES
CONSULTING STRUCTURAL & CIVIL ENGINEERS
185 Cashill Blvd.
Reno, Nevada 89509
775-828-9277
775-828-9259 (Fax)
www.ferrarishields.com

# APPENDIX C

**ROOF TRUSS STRENGTHENING/REPAIR**

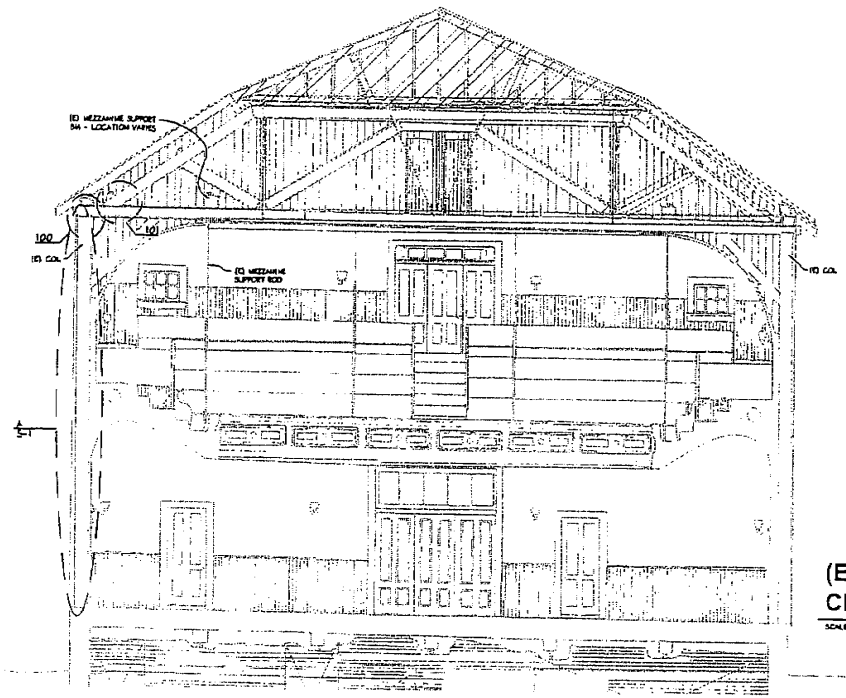
**Ferrari Shields Construction documents dated December 28, 2010, sheet S-1**

**P&F Consulting report dated January 6, 2017, plates 1, 2**

**Photo 1: view of cracked bottom truss chord and steel triangular repair plate**

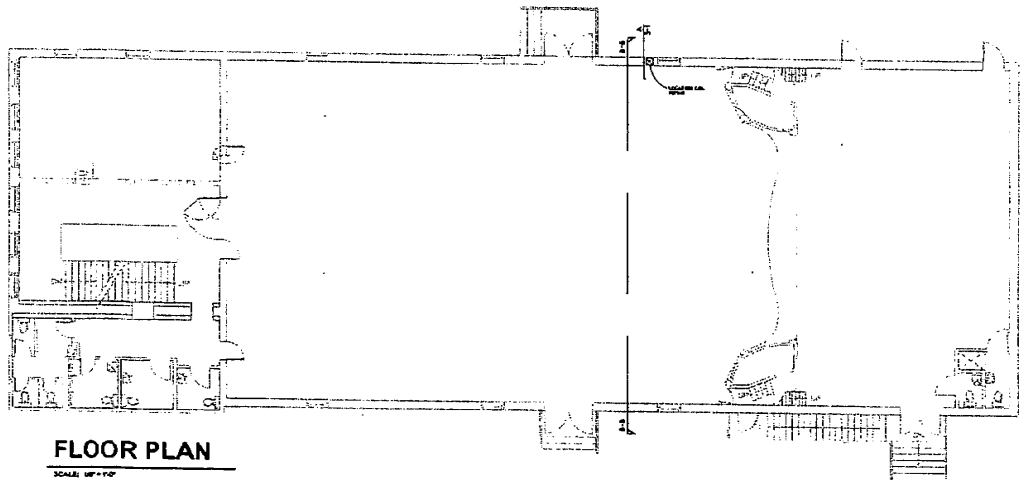
**Photo 2: view of steel repair plate being installed**

**Photo 3: view of a similar truss failure repaired with plywood gussets**



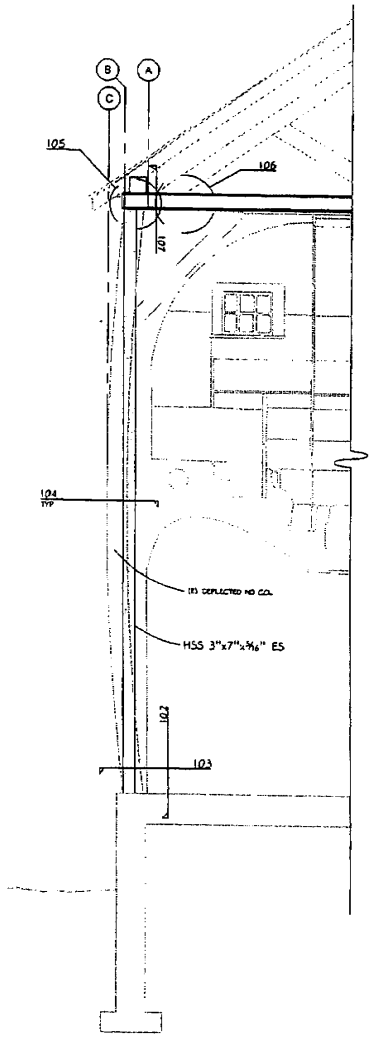

## (E) BLDG. CROSS-SECTION B-B

SCALE: 1/4" = 1'-0"



## FLOOR PLAN

SCALE: 1/8" = 1'-0"




## ROOF COLUMN SECTION (A)

SCALE: 3/8" = 1'-0"

| REVISIONS | BY |
|---|---|
| | |

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Consulting Structural and Civil Engineers
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Reno, Nevada 89500
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775-828-9330 (fax)
www.ferrarishields.com

# PIPER'S OPERA HOUSE

ROOF TRUSS & WALL STRENGTHENING

VIRGINIA CITY, NEVADA

SHEET TITLE: STRUCTURAL PLAN & DETAILS

| | |
|---|---|
| DRAWN | |
| CHECKED | |
| DATE | 12/23/09 |
| SCALE | 1/8" = 1'-0" |
| JOB NO. | 10169 |
| SHEET | S-1 |

P&F Consultants
Consulting Civil Engineers
520 Edison Way
Reno, Nevada

# Memo

**To** Pat Whitten
Storey County Manager
P.O. Box 176
Virginia City, Nevada

**From** Paul Ferrari, P.E.

**January 6, 2017**

**Project** Piper's Opera House

**Subject** Review of roof truss deficiencies at Pipers Opera House

Pat, per our previous discussions, this memo will highlight the structural conditions of the roof trusses, balcony framing, and general construction at Piper's Opera House.

## BACKGROUND

Most recently (December 22-28, 2016) an emergency stabilization and subsequent strengthening of the north support at truss #1 was successfully concluded. The emergency stabilization of this support was necessitated by the original geometry of the way the trusses were constructed. A similar deficiencies were noted and repaired approximately 5 years ago. The proximate cause of the observed deficiency at the roof truss support is the asymmetric loading configuration where the vertical reaction of the final roof diagonal is offset from the supporting column by approximately 4'. This asymmetric condition results in the vertical reaction of the roof diagonal truss being supported perpendicularly on the bottom chord member of the truss instead of being supported in direct compression on the vertical column supporting the truss. As a result of the asymmetric support, the vertical load on the bottom member of the truss, 4' from the supporting column initiates a vertical couple on the member, resulting in an unintended bending moment on the member (see the design deficiency graphically presented in Appendix A, page 1). This bending moment causes a horizontal failure cracking in the bottom chord truss member (see photo 1). The "cleanness" of the crack in the bottom chord member at truss 1 north indicates that the failure is a relatively recent occurrence and represents an active deficiency condition that is endemic to the design of the roof trusses. If left unattended, this cracking can result in a failure of the truss up to and including a catastrophic failure of the truss.

An emergency stabilization, utilizing a steel triangular gusset was installed at truss 1 north (see photo 1). Subsequently, horizontal steel channel "splints" were installed on each side of the bottom chord to correct the deficiency permanently (see photo 2). This offset, asymmetric condition exists at both the north and south truss supports, and is a typical detail; however, the distress seems more prevalent at the truss supports at the north side of the building. Several other similar distress conditions at the north wall have been repaired (see photo 3).

775-771-1720 paul@pf-consulting.org

## DISCUSSION

The roof trusses at Piper's are constructed and engineered using 19th Century technology and construction methods. The trusses are constructed with excellent carpentry skills, and the structure has performed well for over 135 years. However, the inherent structural engineering deficiencies in the trusses, especially the offset top chord, are starting to manifest themselves and the structural integrity is beginning to be compromised. Also, the roof truss construction is beginning to suffer from truss member warping, rotation, and deflection. These degenerate conditions can be critical, since they can cause stability failures, which can be sudden and serious. Some of the large wood truss members have twisted, rotated, and split due to shrinkage and checking.

It was also noted that some of the main columns on the north wall of the building are bowing outward. Several of the columns have experienced a deflection that required a structural repair to stabilize the column from a buckling failure (see photo 3).

The condition of the balcony framing is also suspect. The stringers supporting the balcony extend from the supporting wall out to support on a perimeter beam supported by tie rods dropped down from, and supported by the roof trusses. As constructed, the balcony stringers are only "toe-nailed" to the supporting perimeter beam, which is insufficient for any expected code loading. Also, the tie rods are drilled through the perimeter beam; the perimeter beam is supported onto the tie rods by a horizontal steel plate washer. In many cases, the plate washer is not large enough, and has been pulled into the beam. The eventual support for the balcony tie rods is provided by transfer into the roof trusses, which is questionable for the new code loads required for the balcony.

## CONCLUSIONS and RECOMMENDATIONS

Overall, the condition of the roof trusses at Piper's Opera House is stable, but subject to deterioration. The offset top chord condition will continue to be a significant structural problem that will get worse with age. However, this condition can be corrected and strengthened as several trusses have already been retrofit to correct deteriorated situations that endangered structural stability. In order to ascertain the existing condition of the trusses, an inventory of the condition of each truss, particularly the north and south offset condition should be undertaken. This inventory will serve as both a baseline to quantify any deterioration of the trusses' structural condition, as well as an action plan to identify structural problems that will require immediate attention.

The possibility of re-opening the use of the balcony is problematic. The deficiencies of the balcony structure itself need to be repaired, as iterated in the Discussion section above. However, half of the balcony load is ultimately supported by the roof trusses. The current structural condition of the roof trusses makes it difficult consider adding the significant balcony live load to the trusses. If the roof trusses are retrofit to mitigate observed deficient conditions, it may be feasible; alternatively, the balcony load could be supported by a new, independent support system.

If you have any questions, please do not hesitate to contact me.

Sincerely,

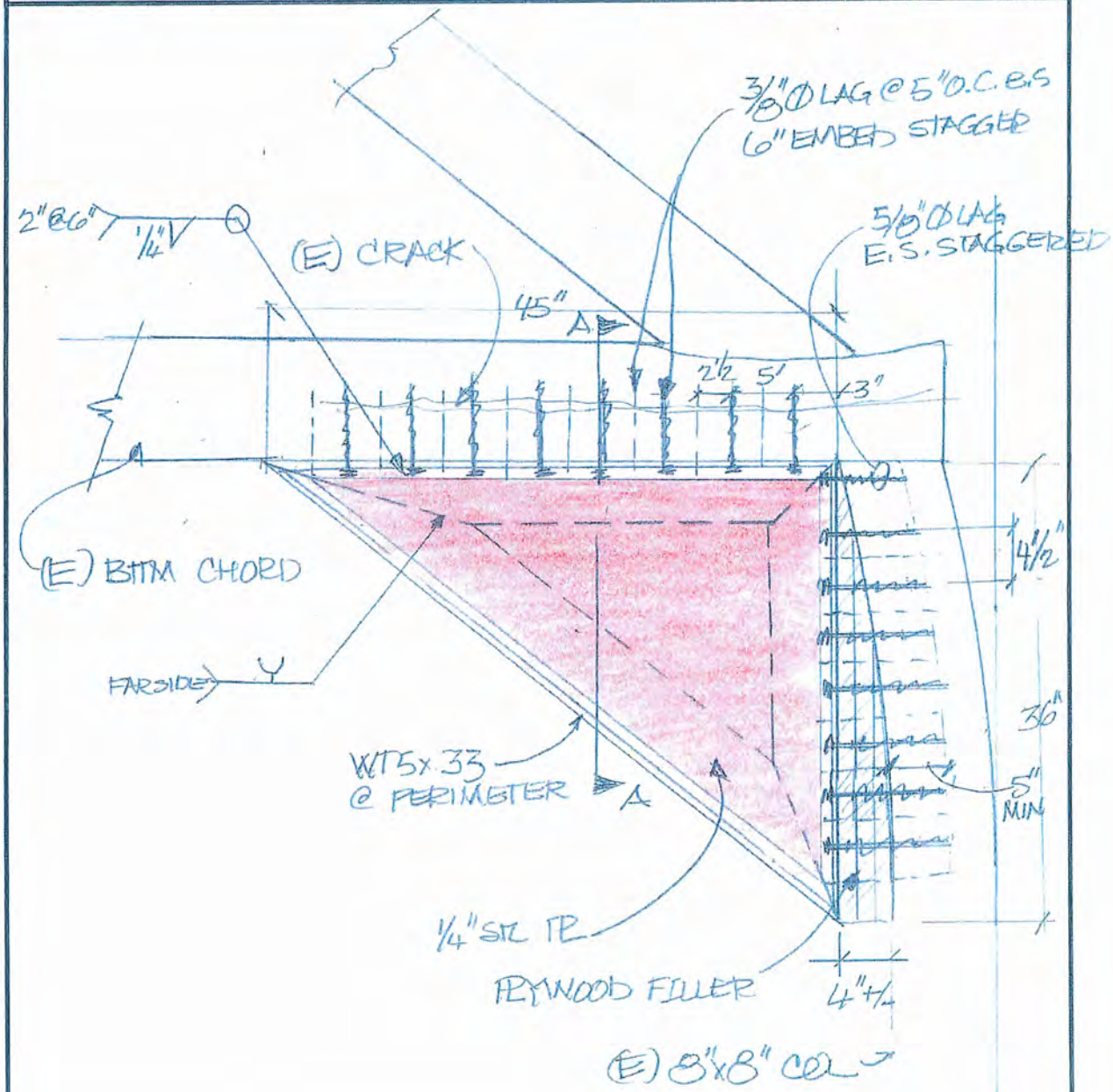
PROFESSIONAL ENGINEER-STATE OF NEVADA
PAUL A. FERRARI
No. 4245

Paul A. Ferrari, P.E.

exp 6/30/07

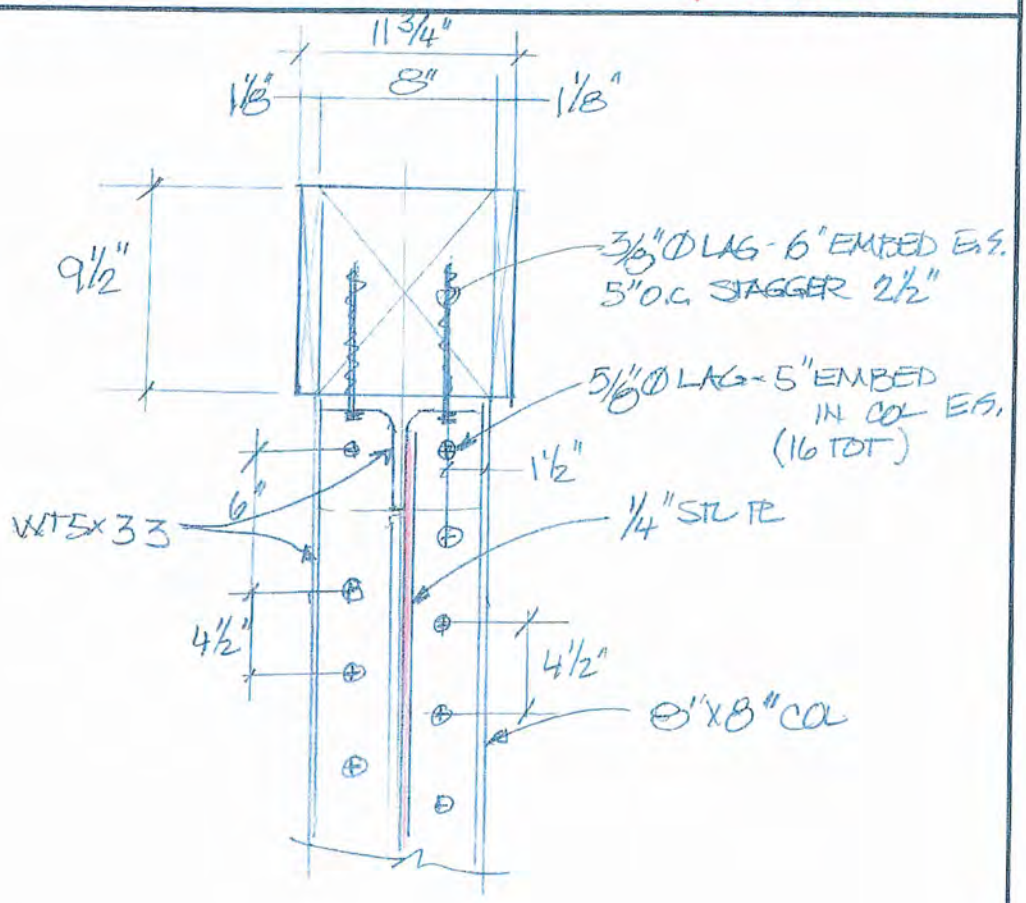
PEZONELLA FERRARI
PF
CONSULTING LLC
520 EDISON WAY RENO, NEVADA 775 856-5566

# PLATE 1



PEZONELLA FERRARI
CONSULTING LLC
520 EDISON WAY RENO, NEVADA 775 856-5566

# PLATE 2




A-A


Photo 1: racked/split bottom truss member and triangular steel repair gusset

Photo 2: Fully repaired steel truss/column connection detail


Photo 3: Plywood "sistering" repair concept for truss/column connection detail

# APPENDIX D

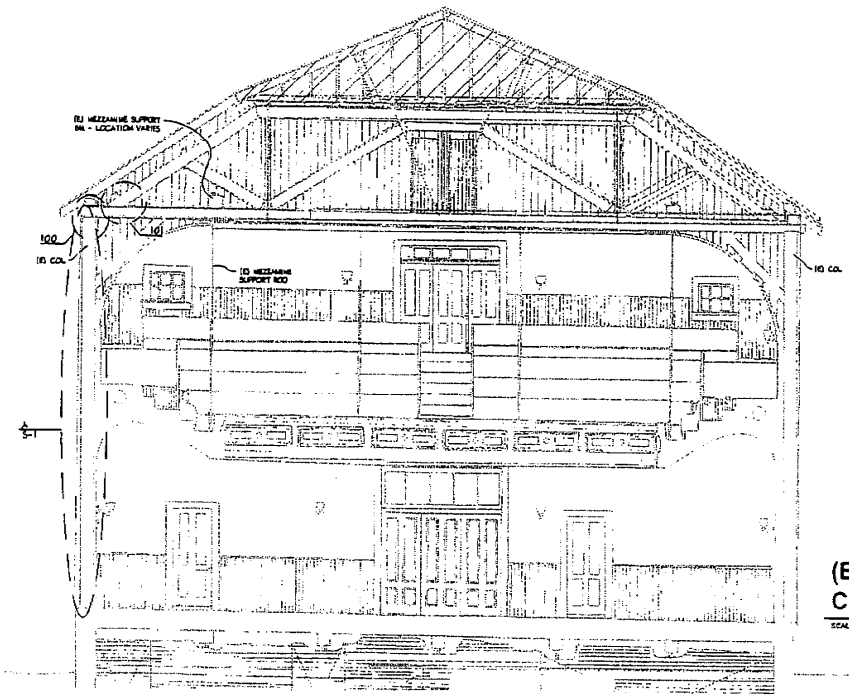
**ROOF TRUSS & NORTH WALL COLUMN STRENGTHENING/REPAIR**

**Ferrari Shields Construction documents dated December 28, 2010, sheets S-1, SD-1**

**Photo 1: view of top of strengthened column with plywood truss gusset**

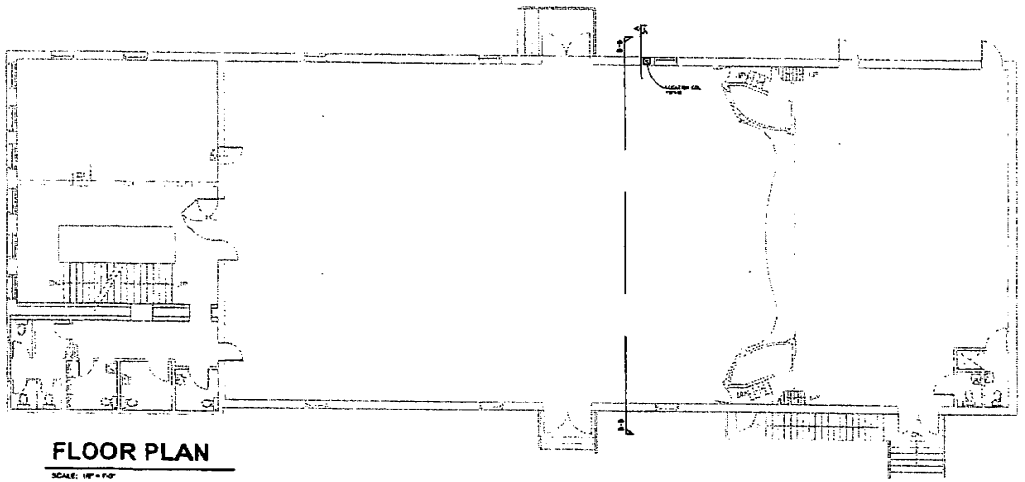
**Photo 2: view of top of column with strengthening steel tube columns and truss/column connection**

**Photo 3: view of column with midheight bracing at column failure**



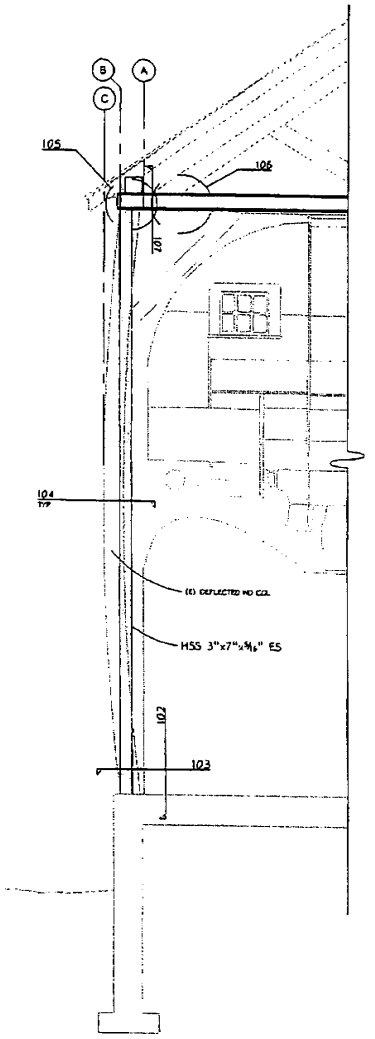

## (E) BLDG. CROSS-SECTION B-B

SCALE: 1/4" = 1'-0"



## FLOOR PLAN

SCALE: 1/8" = 1'-0"




## ROOF COLUMN SECTION (A)

SCALE: 3/8" = 1'-0"

| REVISIONS | BY |
|---|---|
| | |

FERRARI SHIELDS & ASSOCIATES
Timothy Shields (CA Engineer)
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Reno, Nevada 89506
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775-829-9338 (fax)
www.ferrarishields.com

# PIPER'S OPERA HOUSE

ROOF TRUSS & WALL STRENGTHENING
VIRGINIA CITY, NEVADA

SHEET TITLE: STRUCTURAL PLAN & DETAILS

| | |
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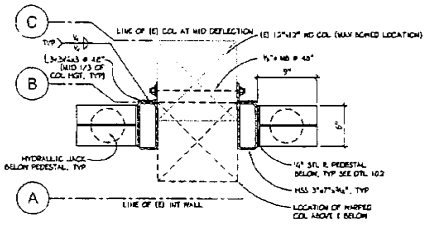
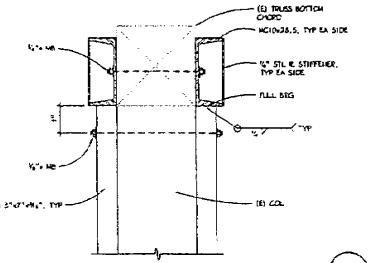
| DRAWN | |
| CHECKED | |
| DATE | 12/30/2015 |
| SCALE | 1/8" = 1'-0" |
| JOB NO. | 1560 |
| SHEET | S-1 |




NOTE: SEE DTL 102 FOR FABRICATION & WELDING INFORMATION

DETAIL (APPROX MID-HEIGHT OF COLUMN) 104

SCALE: 1-1/2" = 1'-0"




DETAIL 107

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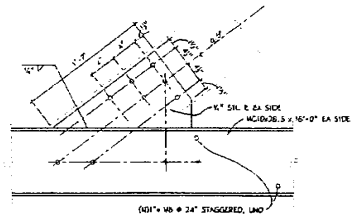
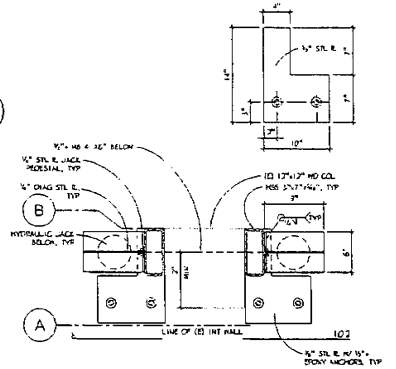



DETAIL 106

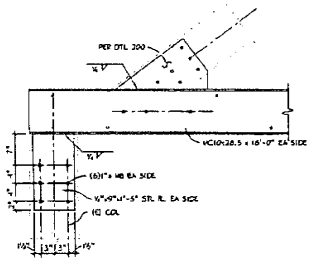
SCALE: 1-1/2" = 1'-0"




NOTE: SEE DTL 103 FOR FABRICATION & WELDING INFORMATION

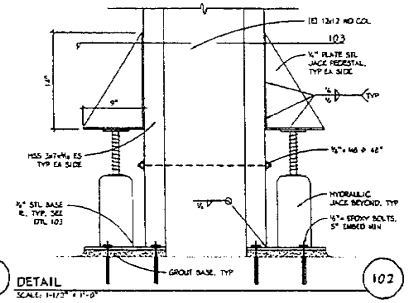
DETAIL (@ BASE OF COLUMN) 103

SCALE: 1-1/2" = 1'-0"




DETAIL 105

SCALE: 1" = 1'-0"




DETAIL 102

SCALE: 1-1/2" = 1'-0"

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| | |

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# PIPER'S OPERA HOUSE

## ROOF TRUSS & WALL STRENGTHENING

VIRGINIA CITY, NEVADA

SHEET TITLE: STRUCTURAL DETAILS

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| DRAWN | |
| CHECKED | |
| DATE | 12/28/2010 |
| SCALE | AS NOTED |
| JOB NO. | 1040 |
| SHEET | SD-1 |


Photo 1: view of top of strengthened column with plywood truss gusset


Photo 2: view of top of column with strengthening steel tube columns and truss/column connection


Photo 3: view of column with midheight bracing at column failure

# APPENDIX E

**J.D. Copolous July, 1997 NORTH WALL COLUMN/BEAM REPAIR DOCUMENTS S-1, S-2**
**J.D. Copolous February, 1998 FLOOR REPAIR CONSTRUCTION DOCUMENTS S-1 – S-6**

# GENERAL NOTES

## GENERAL REQUIREMENTS

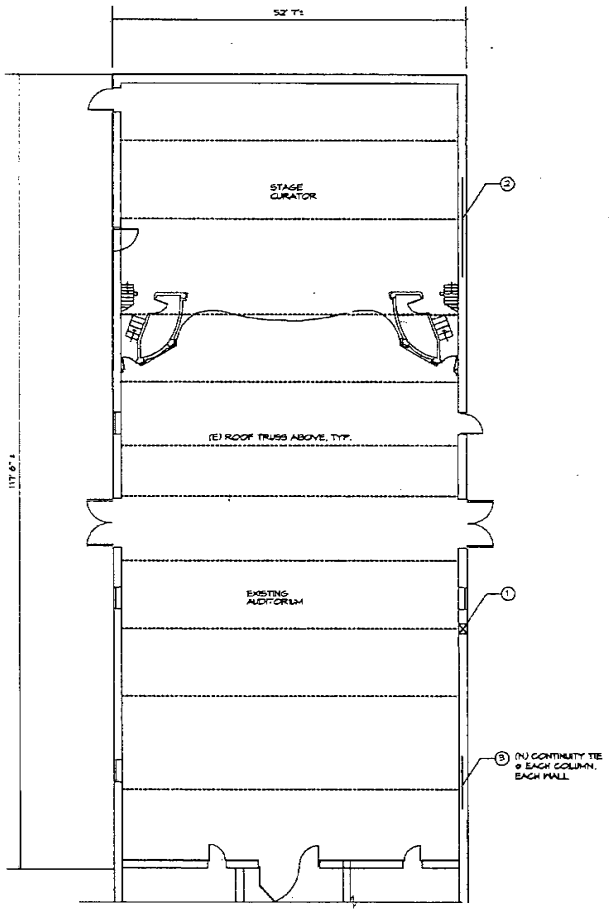
1. All materials and workmanship shall conform to the requirements of both local and 1994 Uniform Building Code (U.B.C.) standards
2. Contractor shall check and verify all dimensions and conditions on the job site and report any errors, omissions or possible discrepancies to the engineer prior to proceeding with the work.
3. Dimensions shown on the plans shall take precedence over scale of drawings.
4. Typical details and notes shall apply unless shown otherwise on the plans.
5. Where "continuous inspection" is required on the plans, a special inspector, approved by and responsible to the engineer and building department, shall be employed by the owner.
6. The contractor shall provide safe and adequate braces and connections to support the component parts of the structure until the structure itself (including the floor and roof diaphragms) is complete enough to adequately support itself.
7. Where reference is made to various test standards for materials, such standards shall be the latest edition and/or addendum.
8. Construction safety provisions in accordance with Chapter 33 of the Uniform Building Code shall be provided and approved by the Building Department.
9. The stamped set of plans and specifications shall be kept on the job site in an accessible location and shall be available to authorized representatives of the Building Department. There shall be no deviation from the approved plans and specifications without official approval from the Building Department. All work is designed to the minimum building standards or better

## STRUCTURAL AND MISCELLANEOUS STEEL

1. All structural steel shall conform to ASTM A-36-87 and shall be fabricated and erected in accordance with the A.I.S.C. Specifications for the design, fabrication and erection of structural steel for buildings, latest edition.
2. All structural tubing shall conform to ASTM A-500 Grade B or ASTM A-501.
3. Bolts and nuts shall conform to ASTM A-307, u.n.o.
4. All welding shall be performed in the shop of a licensed fabricator approved by the engineer or with continuous inspection by a special inspector
5. All welding is to comply with A.W.S. Standards and is to be done by welders certified for the type of welding to be performed as required by the Building Department.
6. All welding is to be done by electric arc process with E70XX electrodes.
7. Holes for bolts in structural steel shall be drilled or punched. Burning of holes shall not be permitted

## LUMBER/NAILING

1. Structural Lumber
   A. General: All structural lumber shall be stress graded Douglas Fir.
   B. Grading:
      1. All joists, rafters, beams, girders, posts, and braces shall be No. 1 Douglas Fir and better.
      2. All studs, struts, sills, and plates shall be No. 2 Douglas Fir or better.
   C. All wood in direct contact with concrete or masonry, if within 48" of the nearest ground, shall be pressure treated wood or foundation grade redwood.
2. All plywood shall be Douglas Fir CD-X or C-D, C-C structural II (U.N.O.) conforming to Product Standards PS-1-74 with Exterior Glue and shall be stamped by an approved fabricator.
3. Installed Blocking: Bottom of blocking shall be installed exactly flush with bottom of joists or rafters so that steel straps and other steel connectors shall be installed straight with no bend in the steel connectors.
4. All nails to be common wire nails. Where splitting occurs, pre-drill holes. Machine nailing to be permitted upon continued demonstration of suitable nailing, nails shall not be driven more than 1/16" below surface of plywood. Under-driven nails to be hand driven flush to plywood surface.
5. Nail penetration for plywood diaphragms shall be 1 1/2" into blocking, near misses to be re-nailed
6. Pre-drilling is required for all wood screws larger than #10.
7. Framing hangers, post caps and bases, and other connectors shall be as manufactured by HARLEN Company or an approved equal.
8. Cut washers shall be placed under heads and nuts of all bolts and under heads of lag bolts.




NORTH

AUDITORIUM LEVEL PLAN

SCALE: 1/8" = 1'0"

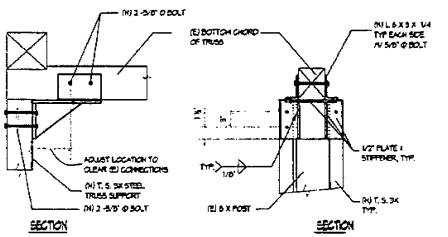
REGISTERED PROFESSIONAL ENGINEER JOHN P. COPOULOS STATE OF NEVADA

FEASIBILITY PLAN for
PIPER'S OPERA HOUSE
VIRGINIA CITY, NEVADA

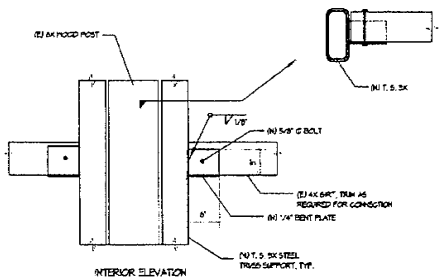
SCALE: 1/8"=1'-0"
JOB: 9702
DATE: July 1997
DRAWN: JPC


J.P. COPOULOS ARCHITECT
P.O. BOX 2317
CARSON CITY
NEVADA
89702
702-885-7107


S*1

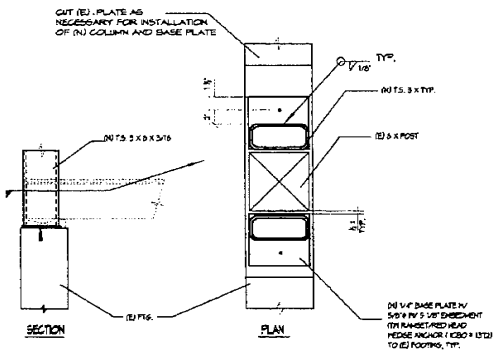



TRUSS SUPPORT DETAIL 1



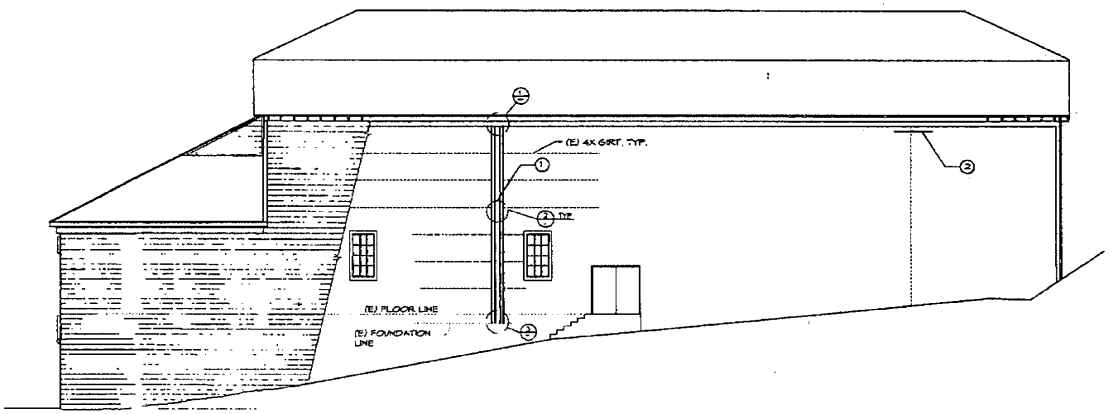

INTERIOR ELEVATION

GIRT CONNECTION 2



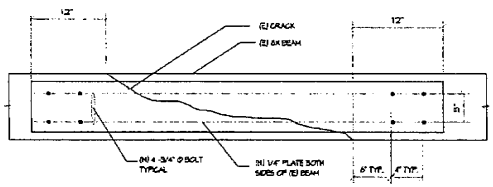

COLUMN BASE DETAIL 3

HEAD OFF JOIST IF NECESSARY. USE HU HANGER

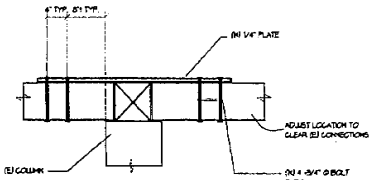



NORTH ELEVATION

SCALE: 1/8" = 1'-0"




BEAM REPAIR DETAIL 4




TIE DETAIL 5

## STRUCTURAL REPAIRS

1. COLUMN REPAIR PROCEDURE

CONTRACTOR SHALL SUBMIT PROCEDURE FOR INSTALLATION OF NEW STEEL SUPPORTS AND REPAIR OF EXISTING COLUMN TO ARCHITECT FOR REVIEW AS A MINIMUM THE SUBMITTAL SHALL INCLUDE:

1. SHORE EXISTING TRUSS - PROVIDE DETAILS FOR SUPPORT OF TRUSS DURING COLUMN REPAIR WORK.
2. JACKING THE COLUMN INTO ITS ORIGINAL POSITION TO REMOVE THE BUCKLE AND TO PLUMB THE COLUMN.
3. SUPPORT FOR THE EXISTING FLOOR JOISTS DURING ANY REQUIRED JOIST HEADER CONSTRUCTION.
4. INSTALLATION OF NEW STEEL COLUMNS TO SUPPORT THE EXISTING TRUSS.
5. INSTALLATION OF NEW TRUSS SUPPORT AND ANCHORAGE PER DETAILS 1 AND 3.

OTHER WORK REQUIRED, BUT NOT LIMITED TO.

6. REMOVE EXISTING SIDING AND BATTS AS REQUIRED TO PERFORM THE WORK AND STORAGE OF THE SIDING AND BATTS FOR REINSTALLATION
7. CONNECTION OF EXISTING GIRTS TO NEW STEEL COLUMNS PER DETAIL 2.
8. REINSTALL EXISTING SIDING AND BATTS

2. ROOF BEAM REPAIR PROCEDURE

1. REMOVE ROOF SHEATHING AS REQUIRED TO REPAIR BEAM.
2. PLACE NEW STEEL PLATES ON EACH SIDE OF BEAM AND INSTALL BOLTS PER DETAIL 4.
3. REPLACE SHEATHING AS REQUIRED.

3. NEW CONTINUITY TIES

1. REMOVE ROOF SHEATHING AS REQUIRED FOR INSTALLATION.
2. INSTALL NEW STEEL TIES ACROSS EACH COLUMN PER DETAIL 5.
3. REPLACE SHEATHING AS REQUIRED.


ELEVATION AND DETAILS

PHASE ONE RESTORATION OF PIPER'S OPERA HOUSE
VIRGINIA CITY, NEVADA

| | |
|---|---|
| SCALE: | 1/8"=1'-0" |
| JOB: | 97124 |
| DATE: | July 1997 |
| DRAWN: | SH |

J.P. COPOULOS ARCHITECT
P.O. BOX 2517
CARSON CITY
NEVADA
89702
702-885-7807

S*2

# GENERAL NOTES

## GENERAL REQUIREMENTS

1. All materials and workmanship shall conform to the requirements of both local and 1994 Uniform Building Code (UBC) standards.
2. Contractor shall check and verify all dimensions and conditions on the job site and report any errors, omissions or possible discrepancies to the engineer prior to proceeding with the work.
3. Dimensions shown on the plans shall have precedence over scale of drawings.
4. Typical details and notes shall apply unless shown otherwise on the plans.
5. Where "continuous inspection" is required on the plans, a special inspector, approved by and responsible to the engineer and building department, shall be employed by the owner.
6. The contractor shall provide safe and adequate braces and connections to support the component parts of the structure until the structure itself (including the floor and roof diaphragms) is complete enough to adequately support itself.
7. Where reference is made to various test standards for materials, such standards shall be the latest edition and/or addendum.
8. Construction safety provisions in accordance with Chapter 33 of the Uniform Building Code shall be provided and approved by the Building Department.
9. The stamped set of plans and specifications shall be kept on the job site in an accessible location and shall be available to authorized representatives of the Building Department. There shall be no deviation from the approved plans and specifications without official approval from the Building Department. All work is designed to the minimum building standards or better.

## STRUCTURAL AND MISCELLANEOUS STEEL

1. All structural steel shall conform to ASTM A-36-67 and shall be fabricated and erected in accordance with the AISC Specifications for the design, fabrication and erection of structural steel for buildings, latest edition.
2. All structural tubing shall conform to ASTM A-500, Grade B or ASTM A-501.
3. Bolts and nuts shall conform to ASTM A-307, U.N.O.
4. All welding shall be performed in the shop of a licensed fabricator approved by the engineer or with continuous inspection by a special inspector.
5. All welding is to comply with A.W.S. Standards and is to be done by welders certified for the type of welding to be performed as required by the Building Department.
6. All welding is to be done by electric arc process with E7002 electrodes.
7. Holes for bolts in structural steel shall be drilled or punched. Burning of holes shall not be permitted.

## LUMBER/NAILING

1. Structural Lumber:
   A. General: All structural lumber shall be stress graded Douglas Fir.
   B. Grading
      1. All posts, rafters, beams, girders, posts, and braces shall be No. 1 Douglas Fir and better.
      2. All studs, struts, sills, and plates shall be No. 2 Douglas Fir or better.
   C. All wood in direct contact with concrete or masonry, if within 18" of the nearest ground, shall be pressure treated wood or foundation grade redwood.
2. All plywood shall be Douglas Fir CD-ex or C-D, C-C structural II APA(B) conforming to Product Standards PS-1-74 with Interior Glue and shall be stamped by an approved fabricator.
3. Installed Blocking: Bottom of blocking shall be installed exactly flush with bottom of joists or rafters so that steel straps and other steel connectors shall be installed straight with no bend in the steel connectors.
4. All nails to be common wire nails. Where splitting occurs, pre-drill holes. Machine nailing to be permitted upon continued demonstration of suitable nailing. Nails shall not be driven more than 1/16 below surface of plywood. Under-driven nails to be hand driven flush to plywood surface.
5. Nail penetration for plywood diaphragms shall be 1 1/2" into blocking, rear nailers to be removed.
6. Pre-drilling is required for all wood screws larger than #10.
7. Framing hangers, post caps and bases, and other connectors shall be as manufactured by SIMPSON Company or an approved equal.
8. Cut washers shall be placed under heads and nuts of all bolts and under heads of lag bolts.

## UNREINFORCED MASONRY (U.R.M.)

1. Anchor bolts shall be Covert Injection Adhesive (ICBO Evaluation Report No. 4846).
2. Anchor Bolt Substitution: Other products may be substituted for specified anchor bolt products; any substitution shall be an ICBO approved product and subject to the approval of the design engineer. The size and spacing of all anchor bolts shall remain the same when an alternate product is used.
3. Continuous inspection by a Registered Deputy Inspector is required for installation of all epoxy anchors.
4. Five percent of all tension or combination anchors shall be tension tested to a minimum of 3000 lbs. for 5 minutes.
5. All anchor bolts embedded in existing brick walls shall conform to the following:
   A. Drilling shall be done with electric rotary drill.
   B. Drilled holes shall be cleaned as recommended by anchor bolt manufacturer.
   C. Bolts shall be placed 6" away from the vertical boundaries of the joist pockets.
   D. Test bolts by torque testing as follows:
      3/4"ø bolts - 60 ft-lbs.
6. Impact type tools shall not be used on any existing masonry buildings. Workmanship shall evidence delicacy to existing construction.
7. Masonry walls in area of work having deteriorated mortar joints shall be properly pointed. Such work shall be done according to UBC Standard No. 24-9.
8. Before applying concrete or mortar to existing masonry the following must be done:
   A. Clean and brush all contact areas to fresh surface.
   B. Remove loose bricks and reset sure with cement mortar.
   C. Saturate masonry surface to reduce absorption.

## CONCRETE

1. Concrete shall be a 5 sack per cubic yard minimum mixture. All concrete and grout shall be grade C and attain a minimum strength of f'c=3000 psi U.N.O. at 28 days. Special inspection by a registered deputy building inspector is required for all concrete with f'c > 2500 psi.
2. All concrete shall be regular weight hard rock type concrete unless noted otherwise. Aggregates shall conform to ASTM C-33.
3. Cement shall conform to ASTM C-150 (Type II) unless alkaline soils are present.
4. Concrete shall be maintained in a moist condition for a minimum of 5 days after placement. Alternate methods of curing may be accepted.
5. Concrete shall not free-fall more than 6 feet. Use tremie or pump.
6. Prior to placing concrete, reinforcing steel and embedded items shall be in place and well secured in position.
7. Sleeves not specifically shown on the drawing shall be located by the trades involved and the locations reviewed by the engineer before concrete is placed. Check with all trades to ensure proper placement of openings, sleeves, curbs, etc. relating to work.
8. All grout head anchors in existing concrete shall be ITW/RAMSET RED HEAD Stud Anchors (ICBO Evaluation Report No. 1372).

## REINFORCING STEEL

1. Reinforcing steel shall be deformed steel conforming to the requirements of A.S.T.M. A-615, GRADE 40.
2. Detailing, fabrication and erection of reinforcing bars shall conform to A.C.I. "Manual of Standard Practice for Detailing Reinforced Concrete Structures", the most recent edition.
3. Welded wire fabric shall conform to A.S.T.M. A-82 and A-185. Lap 1 1/2 spaces (9" minimum).
4. All welding is to comply with A.W.S. Standards and is to be done by welders certified for the type of welding to be performed as required by the Department of Building and Safety.
5. E7002 electrodes shall be used to weld reinforcing bars. In addition to the requirements of ASTM 615, a report shall be provided by the reinforcing manufacturer to verify that material properties are those necessary for conformance with welding procedures specified in A.W.S. D1.4 "Structural Welding Code - Reinforcing Steel". In lieu of supplying a supplemental report, bars conforming to ASTM A-706 may be used.
6. Concrete protection for reinforcement shall be at least equal to the diameter of the bars. Minimum cover for cast in place concrete shall be as follows:
   A. Placed against earth: 3 in.
   B. Placed against formed concrete: 2 in.
   C. Slabs on grade (from top of slab): 1 in.
7. Bars shall be clean of mud, grease or other material likely to spoil bond. Bends shall be made cold.
8. Minimum lap, U.N.O. on the plans, shall be 48 bar diameters.
9. All grade 40 reinforcement shall be clearly marked to differentiate it from grade 60 reinforcement if both are concurrently on the job.

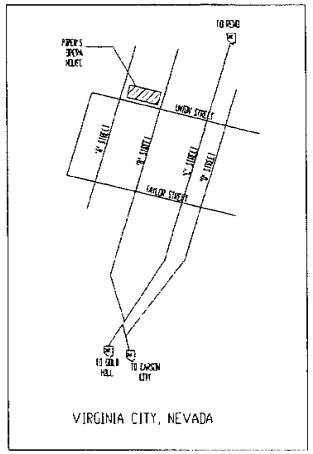
| INDEX TO DRAWINGS | |
|---|---|
| S-1 | GENERAL NOTES, SITE PLAN, VICINITY MAP, AND SHEET INDEX |
| S-2 | FRAMING AND FOUNDATION PLAN |
| S-3 | AUDITORIUM AND BALCONY LEVEL FRAMING PLAN, DETAILS |
| S-4 | SECTION AND DETAILS |
| S-5 | SECTION AND DETAILS |
| | |
| | |

## DRAWING SYMBOLS

- EXTERIOR ELEVATION
- SECTION
- DATUM POINT
- NORTH ARROW

## MATERIAL INDICATIONS

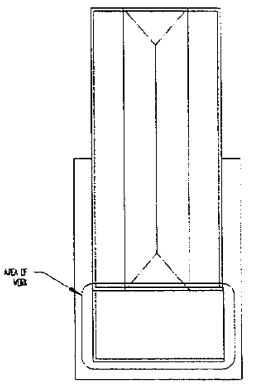
- WOOD (CONSTRUCTION)
- WOOD (BLOCKING)
- MASONRY
- CONCRETE
- EARTH




VIRGINIA CITY, NEVADA

VICINITY MAP
SCALE: NOE

NORTH




SITE MAP
SCALE: 1/27 = 1'-0"

NORTH

BID SET
AS BUILT VERSION

GENERAL NOTES, VICINITY MAP, SITE MAP, AND SHEET INDEX

CONSTRUCTION PLAN for
PIPER'S OPERA HOUSE
VIRGINIA CITY, NEVADA

SCALE: 1/8"=1'-0"
JOB: 9729
DATE: February 1998
DRAWN: MJC


J.P. COPOULOS
ARCHITECT ©
P.O. BOX 2917
CARSON CITY
NEVADA
89702
702-885-7307


S-1

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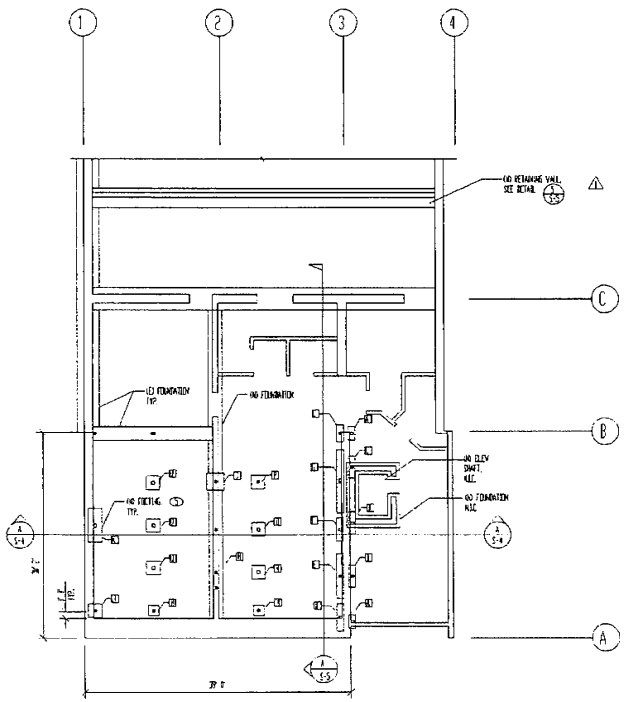
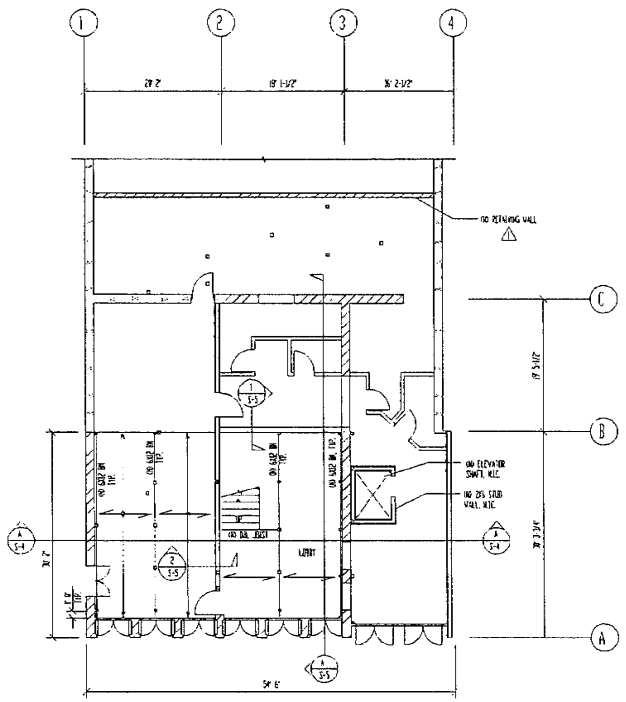



PARTIAL FOUNDATION PLAN

SCALE: 1/8" = 1'-0"




"B" STREET LEVEL FRAMING PLAN

SCALE: 1/8" = 1'-0"

NORTH

INDICATES (N) 2X12 FLOOR JOIST @ 16" O.C. W/ SIMPSON LUS28 HANGER, TYP. U.N.O.

INDICATES (N) 4X6 POST, TYP. U.N.O.

NOTE: SEE "B" STREET LEVEL FLOOR PLAN #A1 FOR TILE FRAMING PLAN ON SHEET 2 FOR BALANCE OF INFORMATION

## REVISED FOOTING SCHEDULE

NOTE: REPLACE FOOTING 2'-9" NON BEARING GRADE BEARING EARTH

| MARK | SIZE LENGTH | SIZE WIDTH | THICKNESS | REINFORCING STEEL | NOTES |
|---|---|---|---|---|---|
| A | 2'-3" | 1'-8" | 12" | #5 @ 6'-6" O.C. | |
| B | 3'-3" | 1'-8" | 12" | #5 @ 6'-6" O.C. | |
| C | 3'-3" | 1'-8" | 12" | #5 @ 6'-6" O.C. | |
| D | 4'-8" | 2'-8" | 12" | #5 @ 6'-6" O.C. | |
| E | 6'-6" | 5'-0" | 12" | #5 @ 6'-6" O.C. | |
| F | 3'-6" | 1'-8" | 12" | #4 @ 6'-6" O.C. | |
| G | 9'-3" | 1'-8" | 12" | #5 @ 6'-6" O.C. | |
| H | 4'-8" | 2'-8" | 12" | #5 @ 6'-6" O.C. | |
| I | 2'-8" | 2'-8" | 12" | #4 @ 12" O.C. | |
| J | 2'-8" | 1'-8" | 12" | #5 @ 6'-6" O.C. | |
| K | 5'-0" | 2'-8" | 12" | #4 @ 12" O.C. | |
| L | 2'-6" | 1'-8" | 12" | #5 @ 6'-6" O.C. | |
| M | 1'-6" | 1'-6" | 12" | #5 @ 6'-6" O.C. | |
| N | 2'-8" | 2'-8" | 12" | #4 @ 12" O.C. | |
| O | 2'-8" | 2'-8" | 12" | #4 @ 12" O.C. | |
| P | 2'-8" | 2'-8" | 12" | #4 @ 12" O.C. | |
| Q | 2'-8" | 2'-8" | 12" | #4 @ 12" O.C. | |

stud wall and foundation p

## WORK ITEM DESCRIPTION

1. Remove existing brick wall and construct new 2 x 6 stud wall and foundation.
   A. Shore (E) 2nd Floor and stud wall above as required.
   B. Remove brick wall, slowly.
   C. Remove (E) footing.
   D. Construct (N) concrete foundation per detail on sheet S-5.
   E. Construct (N) 2x6 @ 16" o.c. stud wall
2. Keep (E) beam and post in place. Level and integrate into (N) stud wall. New footing and stud wall per detail
3. Remove (E) floor joists. Construct (N) floor joists.
4. Use 3/4 5x12 beam that contains no split longer than 6'
5. Chip out (E) brick footing as required. Construct (N) concrete footing per detail
6. Shear wall/HSS/24" STRUC I Plywood w/ 7"@6" o.c. edge 7"@12" o.c. field
7. Cut new opening in (E) brick wall per detail typ.
8. Existing column, shore (E) floor above, then remove (E) column and footing as directed.
9. Use (N) 5x12 beam that contains no split
10. Use (N) 5x12 Douglas Fir-Larch Select Structural beam that contains no split greater than 6'

BID SET

1 REVISION 4/15/99 BY MJE

2 REVISION 7/8/99 BY MJE

CONSTRUCTION PLAN for PIPER'S OPERA HOUSE VIRGINIA CITY, NEVADA

FLOOR, FRAMING AND FOUNDATION PLAN

| | |
|---|---|
| SCALE | 1/8"=1'-0" |
| JOB | 9729 |
| DATE | February 1999 |
| DRAWN | MJE |

J.P. COPOULOS ARCHITECT ©
P.O. BOX 2547
CARSON CITY
NEVADA
89702
702-885-7907

S#2

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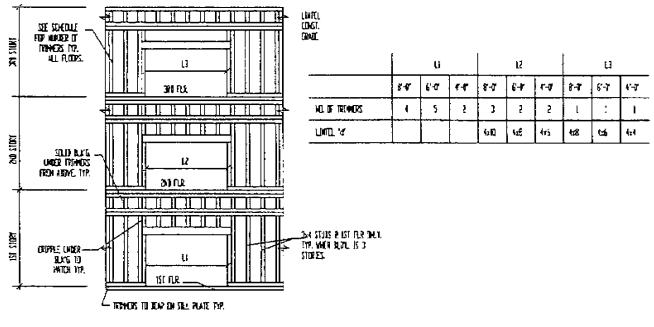
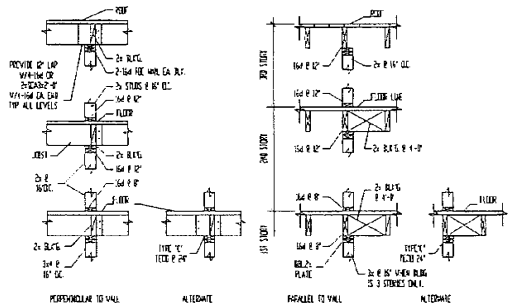



| | L1 | | | L2 | | | L3 | | |
|---|---|---|---|---|---|---|---|---|---|
| | 8'-0" | 6'-0" | 4'-0" | 8'-0" | 6'-0" | 4'-0" | 8'-0" | 6'-0" | 4'-0" |
| NO. OF TRIMMERS | 4 | 5 | 2 | 3 | 2 | 2 | 1 | 1 | 1 |
| LINTEL "A" | | | | 6x10 | 6x8 | 4x6 | 6x8 | 6x6 | 4x4 |

NOTE: THIS DETAIL TO BE USED AT BEARING WALL ONLY WHEN NOT SPECIFIED ON DRAWINGS

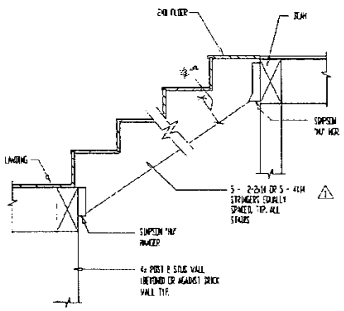
LINTELS AND TRIMMERS

SCALE: NONE

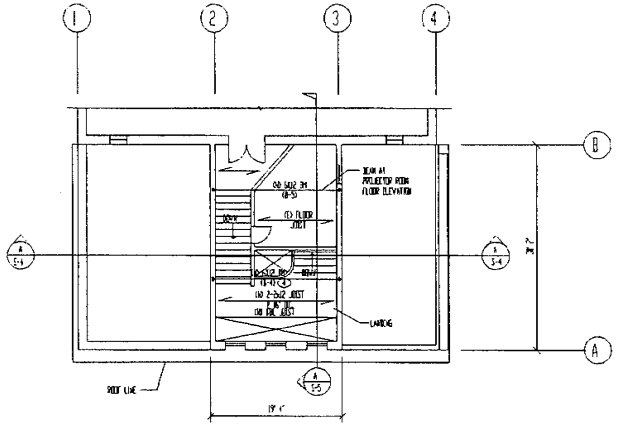



TYP JOIST TO STUD WALL CONN

SCALE: NONE




TYPICAL STAIR DETAIL



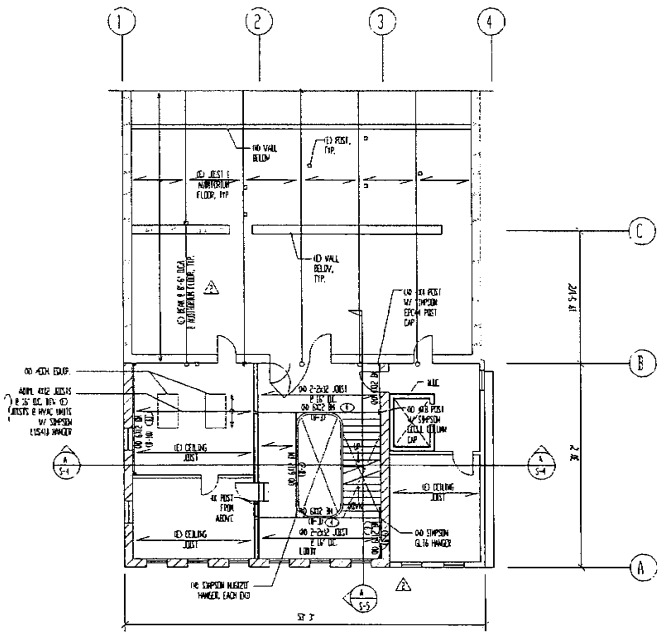

BALCONY LEVEL FRAMING PLAN

SCALE: 1/8" = 1'-0"

INDICATES (N) 2x12 FLOOR JOIST @ 16" O.C. W/ SIMPSON LUS26 HANGER, TYP. U.N.O.

| SEISMIC ANCHOR BOLT SCHEDULE @ BALCONY LEVEL | | | | |
|---|---|---|---|---|
| GRID | FROM GRID | TO GRID | BOLT SPACING O.C. | REF. DETAIL |
| 3 | A | B | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

NOTES:
1. FIRST BOLT SHALL BE INSTALLED 6" MAX @ 2'-0" FROM INSIDE FACE OF ADJACENT WALL




AUDITORIUM LEVEL FRAMING PLAN @ LOBBY AND ATTIC FRAMING PLAN

SCALE: 1/8" = 1'-0"

INDICATES (N) 2x12 FLOOR JOIST @ 16" O.C. W/ SIMPSON LUS26 HANGER, TYP. U.N.O.

| SEISMIC ANCHOR BOLT SCHEDULE @ AUDITORIUM LEVEL | | | | |
|---|---|---|---|---|
| GRID | FROM GRID | TO GRID | BOLT SPACING O.C. | REF. DETAIL |
| A | 1 | 2 | | |
| 1 | A | B | | |
| 3 | A | B | | |
| | | | | |
| | | | | |
| | | | | |

NOTES:
1. FIRST BOLT SHALL BE INSTALLED 6" MAX @ 2'-0" FROM INSIDE FACE OF ADJACENT WALL

BID SET

1 REVISION 4/15/20 BY AGE

2 REVISION 10/15 BY AGE

AUDITORIUM AND BALCONY LEVEL FRAMING PLANS, DETAILS

CONSTRUCTION PLAN for

PIPER'S OPERA HOUSE

VIRGINIA CITY, NEVADA

SCALE: 1/8"=1'-0"

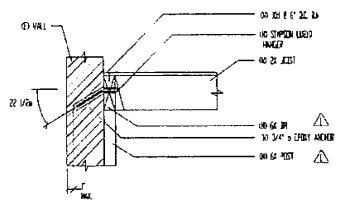
JOB: 19029

DATE: February 2020

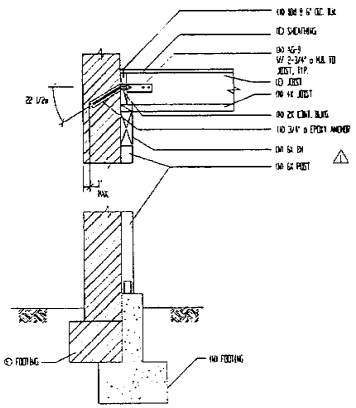
DRAWN: AGE

J.P. COPOULOS ARCHITECT ©
P.O. BOX 2517
CARSON CITY
NEVADA
89702
702-885-7907

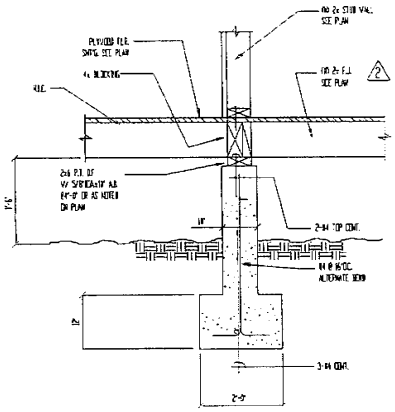
S3



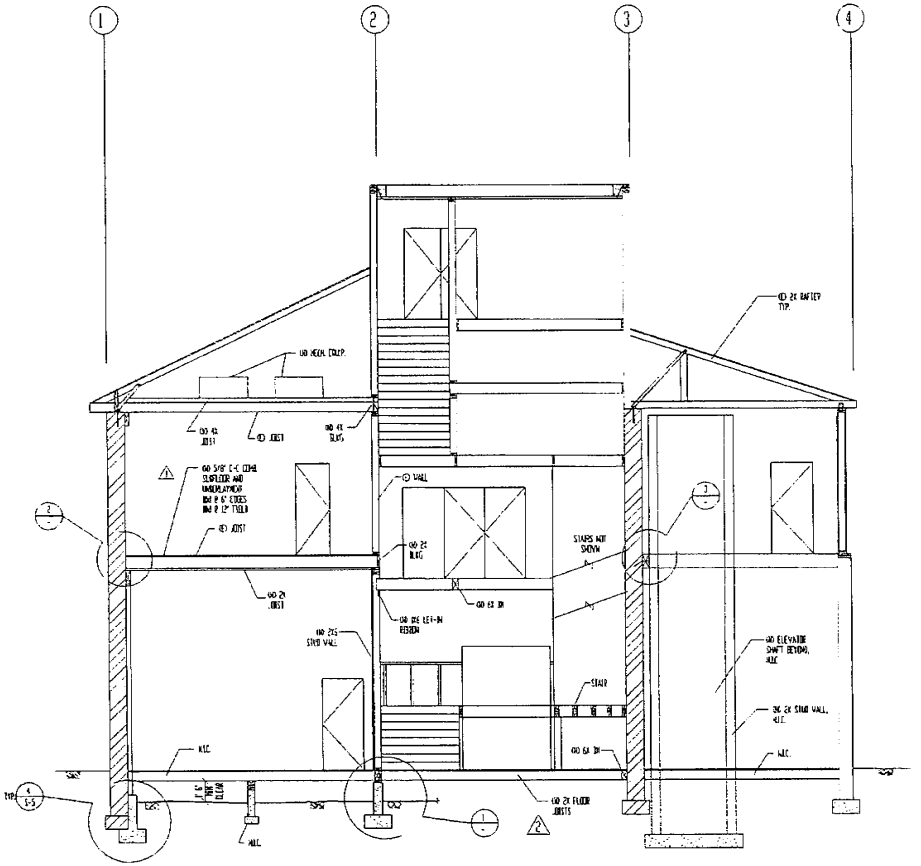
COMBINATION ANCHOR DETAIL
JOIST PERP TO WALL — 3



COMBINATION ANCHOR DETAIL
JOIST PERP TO WALL — 2



FOUNDATION DETAIL — 1



SECTION
SCALE: 1/4" = 1'-0" — A

BID SET

REVISION 4/15/98
JP ADC

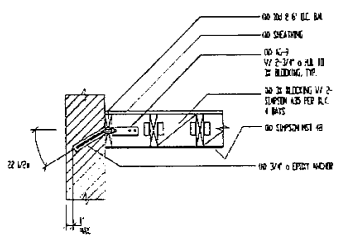
CONSTRUCTION PLAN for
PIPER'S OPERA HOUSE
VIRGINIA CITY, NEVADA

SECTION AND DETAILS

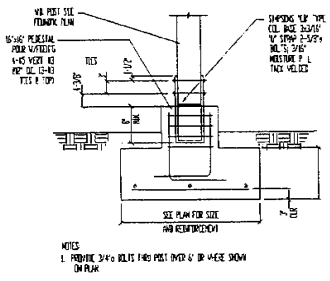
SCALE: 1/4"=1'-0"
JOB: 9729
DATE: February 1998
DRAWN: ADC

J.P. COPOULOS
ARCHITECT ©
P.O. BOX 2517
CARSON CITY
NEVADA
89702
702-885-7907

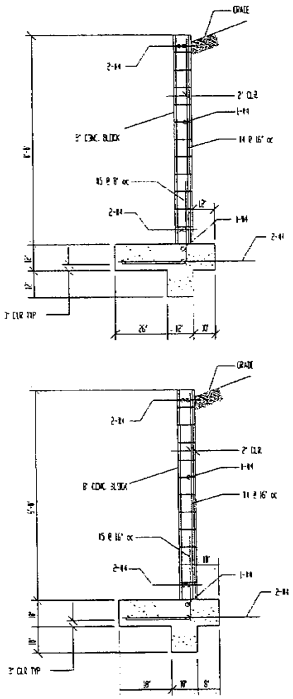
S#4



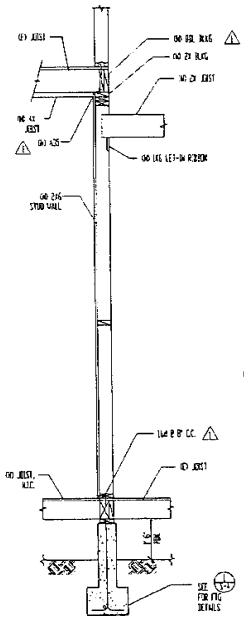
COMBINATION ANCHOR DETAIL
JOIST PARALLEL TO WALL — 5



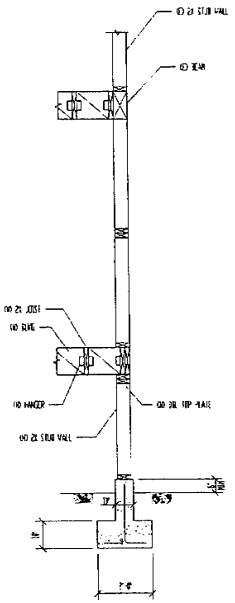
TYPICAL POST FOOTING — 4



RETAINING WALL DETAILS — 3
NO SCALE



WALL SECTION — 2
SCALE: 1/2" = 1'-0"



WALL SECTION — 1
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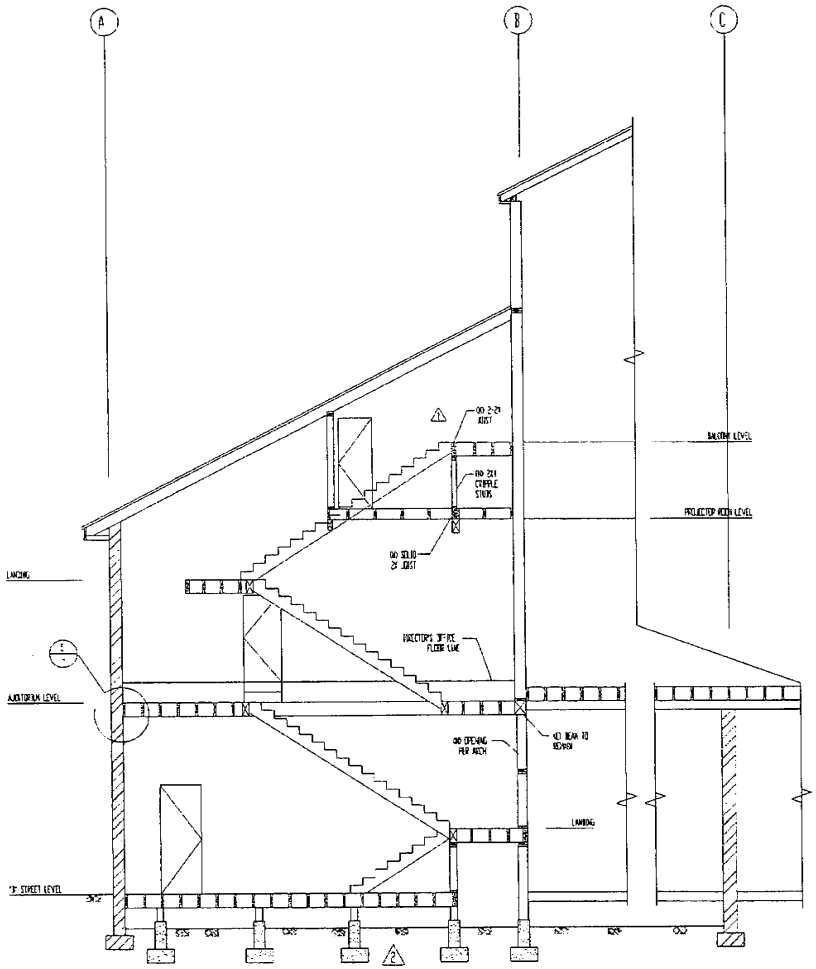

SECTION — A
SCALE: 1/4" = 1'-0"

BID SET

1 REVISION 4/15/98 BY AJK

SECTION AND DETAILS

CONSTRUCTION PLAN for
PIPER'S OPERA HOUSE
VIRGINIA CITY, NEVADA

| | |
|---|---|
| SCALE | 1/8"=1'-0" |
| JOB | 9729 |
| DATE | February 1998 |
| DRAWN | AJK |

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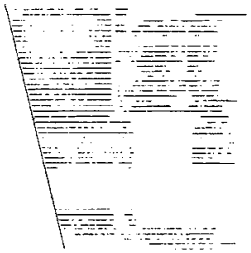
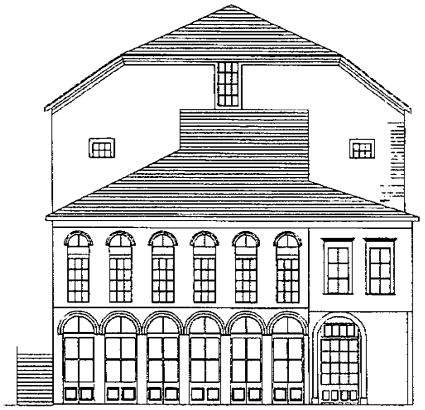
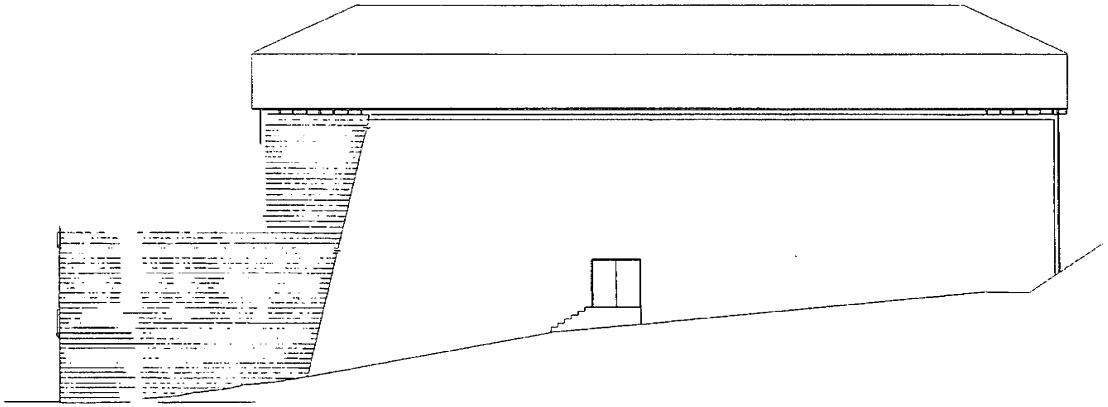
ARCHITECT
P.O. BOX 2967
CARSON CITY
NEVADA
89702
702-885-7907

S-5

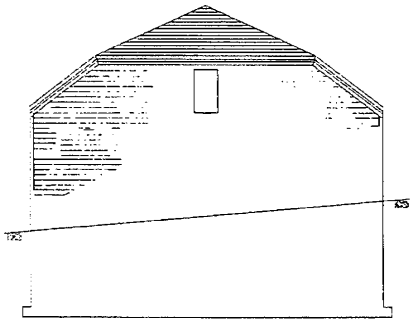




EAST ELEVATION
SCALE: 1/4" = 1'-0"



NORTH ELEVATION
SCALE: 1/8" = 1'-0"



WEST ELEVATION
SCALE: 1/4" = 1'-0"

ELEVATIONS

CONSTRUCTION PLAN for
PIPER'S OPERA HOUSE
VIRGINIA CITY,
NEVADA

| | |
|---|---|
| SCALE: | 1/2"=1'-0" |
| JOB | 1729 |
| DATE | February 1998 |
| DRAWN | LB |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ARCHITECT ©
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702-885-7997


S*6

# 3.0 | BIBLIOGRAPHY OF RECORD DRAWINGS 1995 – 2009

Piper's Opera House
Bibliography of Record Drawings
1995 - 2009

## 1997

**Reroof of Piper's Opera House**
J.P. Copoulos Architect (architecture)
Melvyn Green & Associates, Inc. (structural engineering)

Architectural Scope of Work:

- Remove and replace roofing with new cedar shingles over new felt
- Inspect sheathing for defects, repair as required with 1x12, ¾" CDX plywood, or other approved sheathing material to match thickness
- Install new z-flashing
- Repair or replace 1x4 T&G soffit boards
- Install new continuous soffit strip vent
- Repair or replace crown molding, fascia, misc. trim
- Install new roof hatch, 36" x 30", primed and painted
- Install (2) acoustical fire vents, 60" x 96"

Structural Scope of Work:

- Repair (1) existing 8x wood column with new steel columns and connections to 4x girts
- Repair (1) existing cracked roof beam with new steel plates on each side
- Add continuity ties across each column on every wall

## 1998

**Phase One Restoration of Piper's Opera House**
J.P. Copoulos Architect (architecture)
Melvyn Green & Associates, Inc. (structural engineering)
Peterson & Associates, Ltd. (mechanical engineering) - ***missing***
Barrett Engineering, Inc. (electrical engineering)

Architectural Scope of Work:

- Remove and replace main interior stairs
- Remove and replace walls and columns in Corner Bar and Lobby
- Demo miscellaneous interior non-bearing partition walls on second floor at former apartment in 1863 brick building and carriage house
- Add exterior egress stairs from balconies, one each at north and south sides
- Cut in new pair of exit doors from stage on north side
- Install new sump pump in basement
- New ADA restrooms on Auditorium level, typical of 2
- Install temporary ramp from north auditorium exit doors to B Street

Structural Scope of Work:

- Remove interior brick wall and construct new 2x6 stud wall and foundation between Lobby and Corner Bar
- New footings, beams, and floor joists in Corner Bar
- New floor framing at auditorium and balcony level Lobby

Plumbing Scope of Work:

- Install new 4" sewer lateral - ***shown on architectural***
- Install new 2" water service line - ***shown on architectural***
- Index to Drawings references basement and first floor plumbing plans - ***missing***

Life Safety Scope of Work:

- Install new 4" fire sprinkler line with post indicator valve and new fire riser inside building in closet - ***shown on architectural***
- Install new sprinkler heads – concealed heads in locations - ***shown on architectural***
- Index to Drawings references fire protection sheets - ***missing***

Electrical Scope of Work:

- Install new 1000 amp switchboard and 225 KVA transformer at south elevation
- New 15 AMP circuit – light switch, ceiling mounted fixture, and Broan exhaust fan per single use restroom at auditorium level, typical of two restrooms

**1999**

**Phase Two-B Siding for Piper's Opera House**
J.P. Copoulos Architect (architecture)

Architectural Scope of Work:

- Remove existing exterior siding at 1885 building
- Install new 2x4 studs at 24" o.c. vertically between existing 4x6 purlins
- Install new R-19 insulation batts
- Install new 1x12 horizontal lap siding over vapor barrier over 5/8" gyp.bd. over ½" plywood
- Remove and replace (1) door on west wall and (2) doors on south wall
- ***Notes roof insulation under separate contract***

Electrical Scope of Work:

- Rewire (10) existing wall mount lights back to electrical panel - ***shown on architectural***
- Add (11) new 110v outlets - ***shown on architectural***

## 2001

**Elevator for Piper's Opera House**
J.P. Copoulos Architect (architecture)

Architectural Scope of Work:

- Install new elevator in one-hour rated shaft
- New elevator equipment room
- New fire sprinkler riser enclosure
- ***References structural drawings for pit details – missing***
- ***What about electrical drawings?***

**Elevator Shop Drawings**
AMLIFT International on behalf of High Sierra Elevator (specialty contractor)

Scope of Work:

- Installation of new 2100 lb, 2-stop passenger elevator
- New hoistway
- New elevator equipment room

## 2002

**Piper's Opera House Façade Stabilization**
van Dijk Westlake Architects (architecture)
Ferrari Shields & Associates (structural engineering)

Architectural Scope of Work:

- Historic balcony hangers to be salvaged and returned to owner
- All doors and windows to be refurbished / rebuilt from historic stock or new to match (by owner)
- New redwood drop cove shiplap siding to match historic profile at south elevation over original brick using new mechanical fasteners and wood blocking
- Repair / reconstruct area of heavy brick deterioration on B Street elevation
- Repoint and rebuild entire brick column and capitol on B Street elevation

Structural Scope of Work:

- Shore 1877 Façade and install new concrete rigid frame, typical east and south elevations

Electrical Scope of Work:

- Provide new surface mounted j-box at historic light locations on B Street elevation – ***shown on architectural***

Piper's Opera House
Bibliography of Record Drawings
1995 - 2009

## 2006

**A Historic Restoration for Piper's Opera House**
Anthony Smith Architecture (architecture)
Ferrari Shields & Associates (structural engineering)

Architectural Scope of Work:

- Install new stairs in Lobby connecting first and second level (balcony access shown as future)
- New plaster finish at existing masonry and concrete walls
- New beadboard finish on existing 2x walls, new stairs pony wall, and ceiling
- New wood plank flooring

Structural Scope of Work:

- New concrete footings, tube steel columns, and wide flange beams to support framing

## 2008

**Theater Modernization**
Flex-a-Lite West (specialty contractor)

Scope of Work:

- New curtains and canvas drop
- Curtain tracks
- Pipe supports, grid, raceways, etc.
- Lighting

## 2010

**Piper's Opera House Electrical Asbuilt**
Construction Design Services, Inc. (electrical engineering)

Electrical Scope of Work:

- Document existing conditions
- Evaluation of existing conditions
- Suggested remedies for code compliance

Piper's Opera House
Bibliography of Record Drawings
1995 - 2009

**2011**

**Restroom Improvements to the Piper's Opera House**
Dubé Group Architecture (architecture)

Architectural Scope of Work:

- Complete partially constructed accessible public restrooms, allowing dual access from Corner Bar and Piper's Opera House via gate-controlled corridor

Plumbing Scope of Work:

- Install new and owner-supplied fixtures – ***shown on architectural***

Mechanical Scope of Work:

- Reconfigure new and existing HVAC ductwork and registers - ***shown on architectural***
- Reconfigure and add new exhaust fans - ***shown on architectural***

Life Safety Scope of Work:

- Reconfigure and add new sprinkler heads - ***shown on architectural***

Electrical Scope of Work:

- Install new light fixtures and power receptacles - ***shown on architectural***

**Loading Dock and Driveway Improvements to the Piper's Opera House**
Dubé Group Architecture (architecture)

Civil Scope of Work:

- Provide new concrete landing (9'-9" x 11'-10") and ac driveway (65'-0" x 11'-10") consisting of 3 inch ac over 6 inch compacted aggregate base, pipe bollards, and traffic-rated boxes - ***shown on architectural***

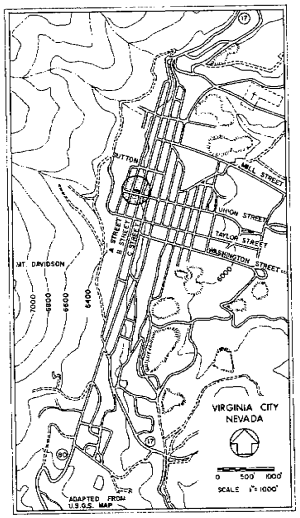
Electrical Scope of Work:

- Install new exterior snowmelt system under concrete landing - ***shown on architectural***

# 4.0 | PLANS

Historic American Buildings Survey Piper's Opera House
Reroof of Piper's Opera House
Phase One Restoration of Piper's Opera House
Phase 2-b Siding for Piper's Opera House
Elevator for Piper's Opera House
Elevator Shop Drawings
Piper's Opera House Façade Stabilization
A Historic Restoration for Piper's Opera House
Theater Renovation
Piper's Opera House Electrical Asbuilt
Loading Dock and Driveway Improvements to the Piper's Opera House
Restroom Improvements to the Piper's Opera House
Piper's Opera House Existing Conditions

THIS PROJECT WAS UNDERTAKEN BY THE HISTORIC AMERICAN BUILDINGS SURVEY IN COOPERATION WITH THE NEVADA STATE PARK SYSTEM. UNDER THE DIRECTION OF JOHN POPPELIERS, CHIEF OF HABS, THE PROJECT WAS COMPLETED DURING THE SUMMER OF 1973 AT THE HISTORIC AMERICAN BUILDINGS SURVEY FIELD OFFICE, CARSON CITY, NEVADA, BY ROBERT L. HARTWIG (HARVARD UNIVERSITY), PROJECT SUPERVISOR; AND STUDENT ASSISTANT ARCHITECTS JOHN T. McCREERY (UNIVERSITY OF UTAH), ROBERT P. MIZELL (UNIVERSITY OF FLORIDA), AND JACK W. SCHAFER (UNIVERSITY OF CINCINNATI).



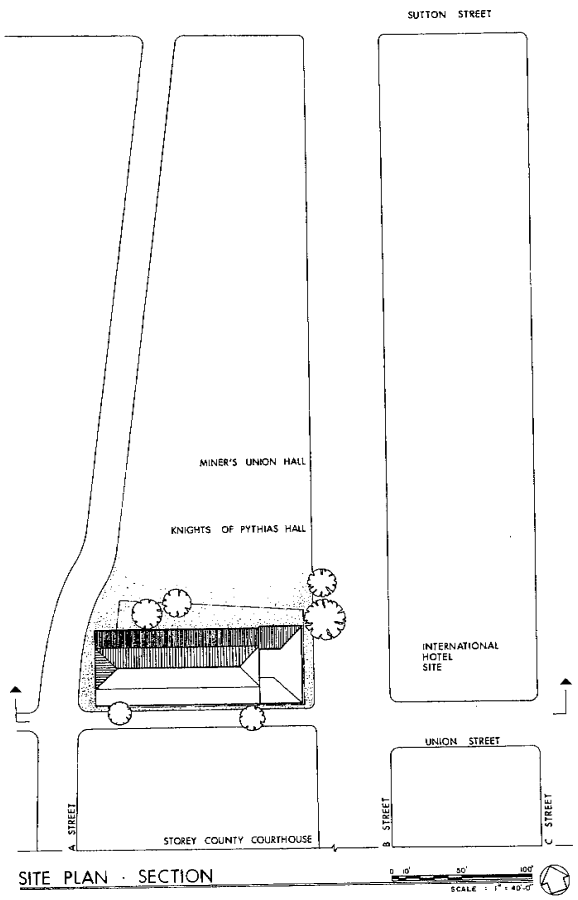

PIPER'S OPERA HOUSE IS ONE OF THE BIRTHPLACES OF AMERICAN STAGE IN THE WEST.

THE FIRST LARGE VIRGINIA CITY THEATRE WAS TOPLIFFE'S ON C STREET, BUILT IN 1862. TOM MAGUIRE'S D STREET THEATRE FOLLOWED THE NEXT YEAR, AND IT WAS PURCHASED BY JOHN PIPER IN 1868. DESTROYED BY FIRE IN 1875, HE REBUILT ON B STREET. THIS SECOND THEATRE OPENED ON JANUARY 8, 1878. THE DRESS CIRCLE, PARQUET, AND GALLERY SEATED 900. IT, TOO, BURNED FOLLOWING A MASKED BALL, ON FEBRUARY 13, 1883.

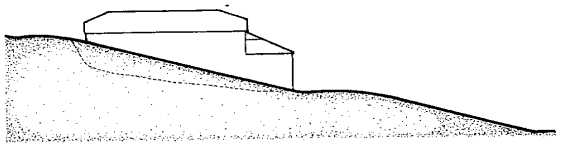
OPENING IN 1885, THE THIRD HAS MUSLIN SURFACED WALLS, ONCE WALLPAPERED, A SPRING SUPPORTED FLOOR, AND A RAKE STAGE. ELIZABETHAN STRAPWORK DESIGNS DECORATE THE PROSCENIUM ARCH, HIGHLIGHTED WITH GEORGE PIPER'S PORTRAIT OF WILLIAM SHAKESPEARE. TWO-TIERED BOXES FLANK THE STAGE AND A SUSPENDED BACONY SURROUNDS THE PARQUET.

PERFORMERS APPEARING AT PIPER'S INCLUDED MAUDE ADAMS, LILY LANGTRY, EDWIN BOOTH, HENRY WARD BEECHER, JOSEPH JEFFERSON, HELEN MODJESKA, ENRICO CARUSO, LILLIAN RUSSELL, E. H. SOUTHERN, HOUDINI, MARIE DRESSLER, MARK TWAIN, MAY ROBSON, FAY TEMPLETON, LOLA MONTEZ. DAVID BELASCO WAS STAGE MANAGER IN THE EARLY DAYS OF HIS CAREER.

PRODUCTIONS RANGED FROM SHAKESPEARE, WITH "HAMLET" MOST OFTEN PRESENTED, TO BALLET, MINSTRAL SHOWS, MUSICALS AND MELODRAMAS. POLITICAL AND SOCIAL MEETINGS HELD IN PIPER'S INCLUDE RAFFLES, LECTURES, POLITICAL DEBATES, AND RELIGIOUS SERVICES. OTHER ENTERTAINMENT FILLING THE HALL IN THE 19TH CENTURY WERE DANCES, BEARFIGHTS, AND WRESTLING MATCHES. BETWEEN 1907 AND ITS CLOSING IN 1929, MOVIES, ROLLER SKATING AND BASKETBALL GAMES WERE HELD IN THE THEATRE.




SITE PLAN · SECTION



# PIPER'S OPERA HOUSE

B STREET AT UNION STREET, VIRGINIA CITY, STOREY COUNTY, NEVADA

HISTORIC AMERICAN BUILDINGS SURVEY
SHEET 1 OF 7 SHEETS

SURVEY NO. NEV 15-7

HABS

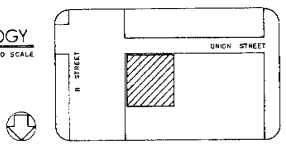
DRAWN BY JOHN T. McCREERY

CARSON CITY PROJECT, 1973
OFFICE OF ARCHEOLOGY & HISTORIC PRESERVATION
NATIONAL PARK SERVICE
UNITED STATES DEPARTMENT OF THE INTERIOR

TRIM LINE

## BUILDING CHRONOLOGY

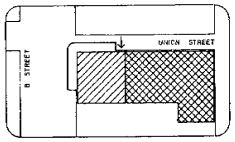
NO SCALE




PRE-1875 VIRGINIA CITY FIRE

OPERA HOUSE ON D STREET AT UNION, BUILT IN 1863 BY TOM MAGUIRE, PURCHASED BY JOHN PIPER IN 1868

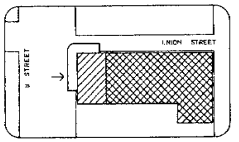
COMMERCIAL PROPERTY ON B STREET IS OWNED BY PIPER FAMILY.




1878-1883 THEATRE FIRE

OPERA HOUSE RE-BUILT ON B STREET, BEHIND COMMERCIAL BUILDINGS. MAJOR ENTRANCE IS ON UNION STREET.

COMMERCIAL BUILDINGS IN FRONT INCLUDE THEATRE OFFICES, BAR, AND APARTMENT.

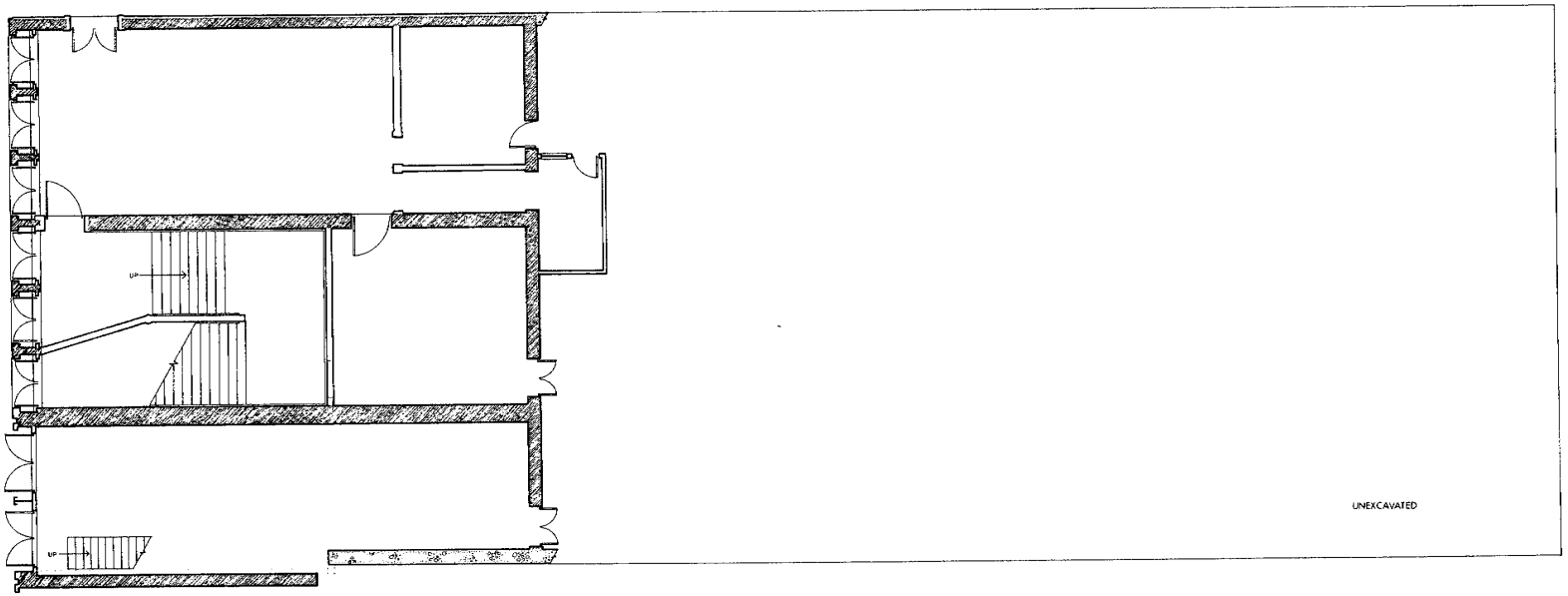



1883-1973 PRESENT

OPERA HOUSE RE-BUILT ON SAME SITE. HOWEVER, FLOORS ARE LOWERED, AND THEATRE IS EXTENDED 20 FEET INTO THE SURVIVING COMMERCIAL BUILDINGS.

COMMERCIAL BUILDINGS ALTERED TO ACCOMMODATE THEATRE'S NEW MAJOR ENTRANCE ON B STREET.

BALCONY PORCH REMOVED 1917; DRESSING ROOMS, 1962.




GROUND PLAN

SCALE: 3/16" = 1'-0"

DRAWN BY: ROBERT L. HARTWIG
CARSON CITY PROJECT, 1973
OFFICE OF ARCHEOLOGY & HISTORIC PRESERVATION
UNDER DIRECTION OF THE NATIONAL PARK SERVICE
UNITED STATES DEPARTMENT OF THE INTERIOR

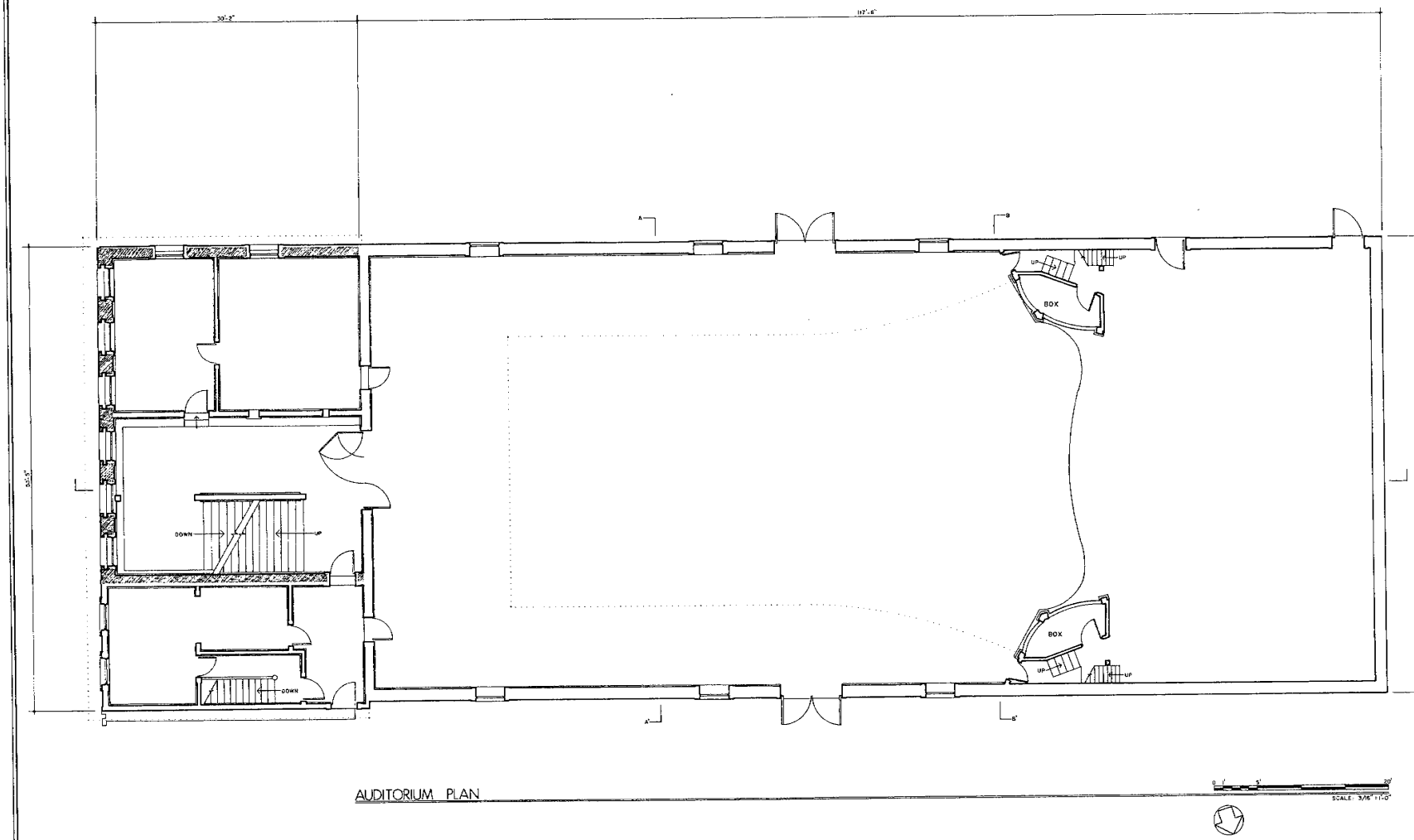
NAME AND LOCATION OF STRUCTURE
PIPER'S OPERA HOUSE
B STREET AT UNION STREET, VIRGINIA CITY, STOREY COUNTY, NEVADA

SURVEY NO. NEV 13-7

HISTORIC AMERICAN BUILDINGS SURVEY
SHEET 2 OF 7 SHEETS

TRIM LINE

TRIM LINE




AUDITORIUM PLAN

0 1' 5' 10'
SCALE: 3/16" = 1'-0"

DRAWN BY: ROBERT L. MATTHEI
CARSON CITY PROJECT, 1972
OFFICE OF ARCHEOLOGY & HISTORIC PRESERVATION
UNDER DIRECTION OF THE NATIONAL PARK SERVICE
UNITED STATES DEPARTMENT OF THE INTERIOR

NAME AND LOCATION OF STRUCTURE
PIPER'S OPERA HOUSE
B STREET AT UNION STREET, VIRGINIA CITY, STOREY COUNTY, NEVADA

SURVEY NO. NEV 15-7

HISTORIC AMERICAN BUILDINGS SURVEY
SHEET 9 OF 7 SHEETS

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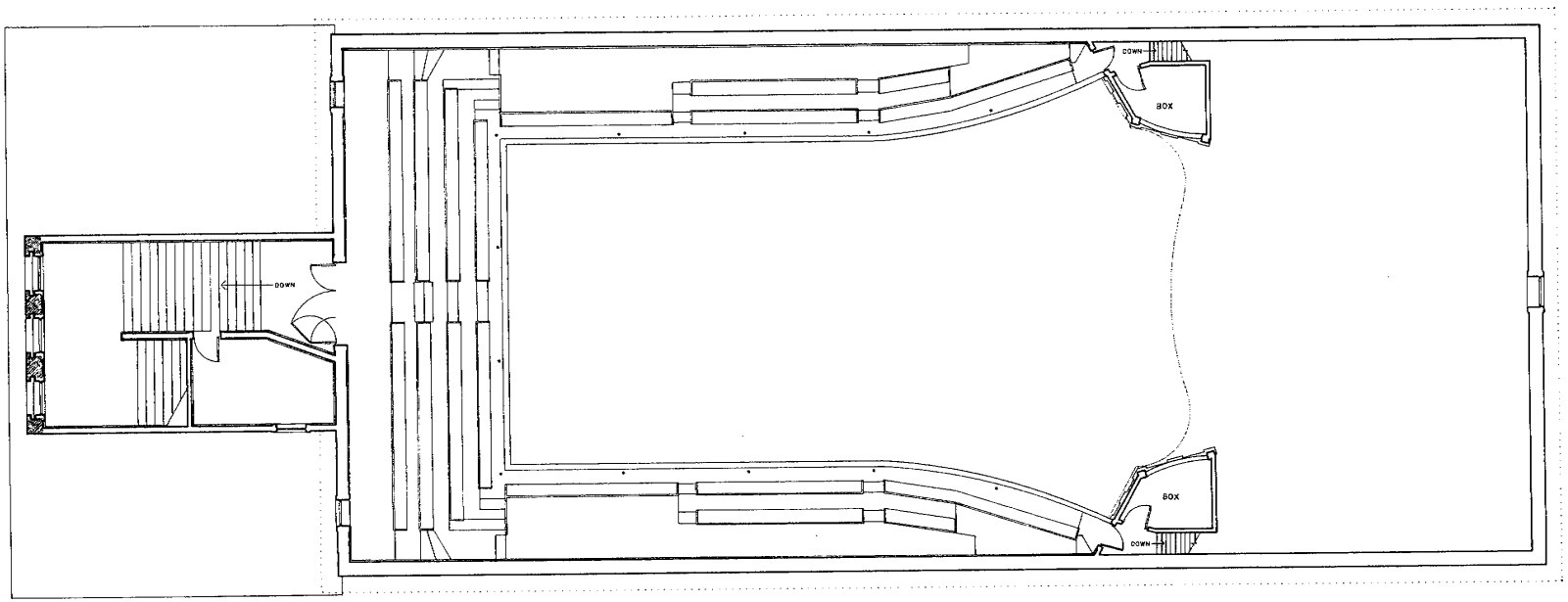


BALCONY PLAN

0 1' 5' 20'
SCALE: 3/16"=1'-0"

NAME AND LOCATION OF STRUCTURE
PIPER'S OPERA HOUSE
B STREET AT UNION STREET, VIRGINIA CITY, STOREY COUNTY, NEVADA

SURVEY NO. NEV 15-7

HISTORIC AMERICAN BUILDINGS SURVEY
SHEET 4 OF 7 SHEETS

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NATIONAL PARK SERVICE

TRIM LINE

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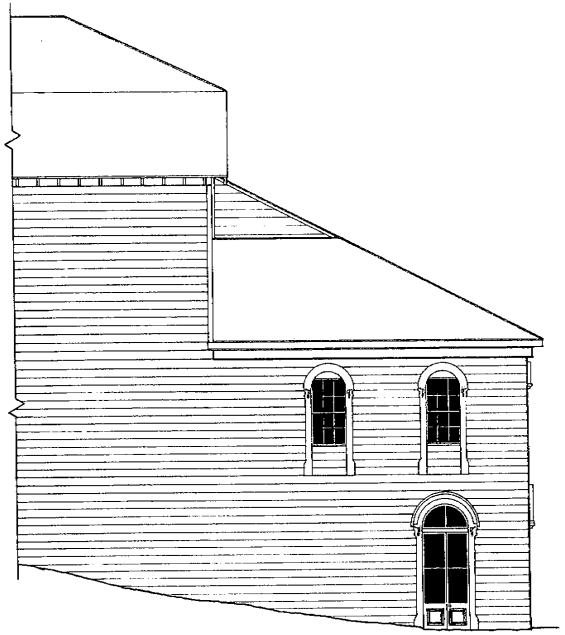
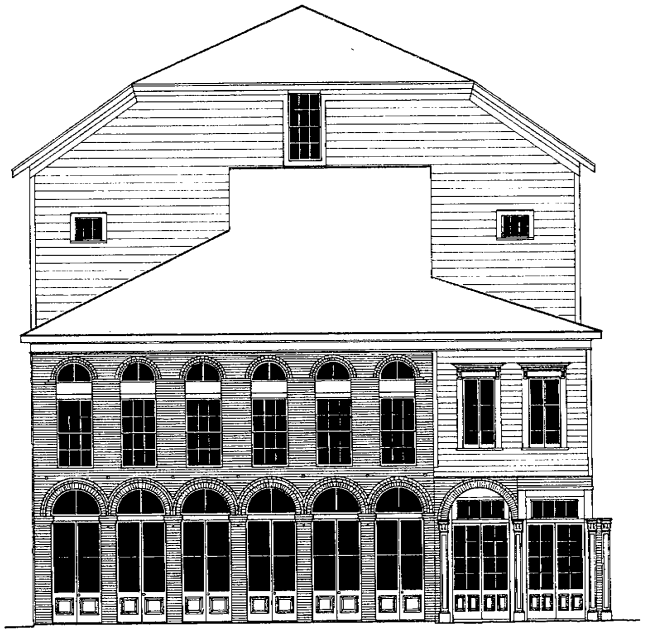


PARTIAL SOUTH ELEVATION WITH RESTORED OPENINGS



EAST (FRONT) ELEVATION WITH RESTORED OPENINGS

# ELEVATIONS

0' 5' 15'
SCALE: 3/16" = 1'-0"

NAME AND LOCATION OF STRUCTURE:
PIPER'S OPERA HOUSE
B STREET AT UNION STREET, VIRGINIA CITY, STOREY COUNTY, NEVADA

SURVEY NO.
NEV 15-7

HISTORIC AMERICAN BUILDINGS SURVEY
SHEET 5 OF 7 SHEETS

DRAWN BY: ROBERT L. HASTING

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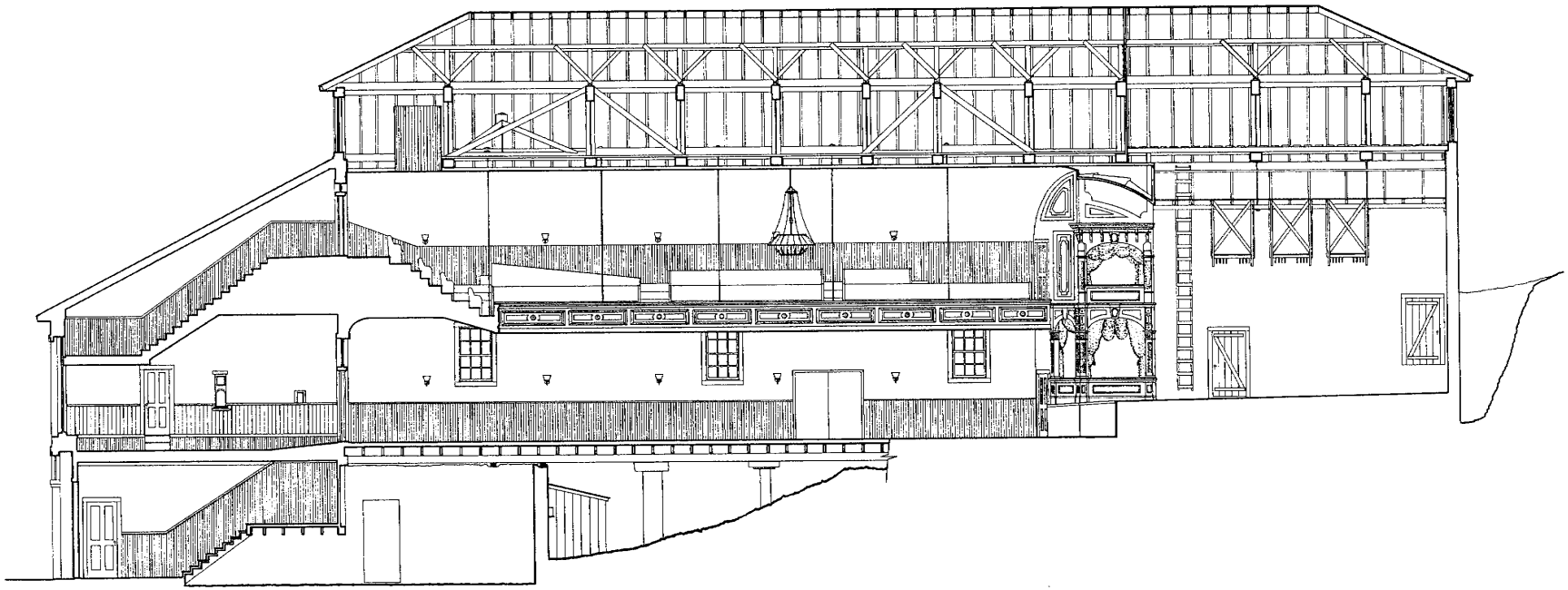
UNITED STATES DEPARTMENT OF THE INTERIOR

CARSON CITY PROJECT, 1973

TRIM LINE

TRIM LINE



LONGITUDINAL SECTION

SCALE: 3/16"= 1'-0"

NAME AND LOCATION OF STRUCTURE
PIPER'S OPERA HOUSE
B STREET AT UNION STREET, VIRGINIA CITY, STOREY COUNTY, NEVADA

SURVEY NO. NEV 15-7

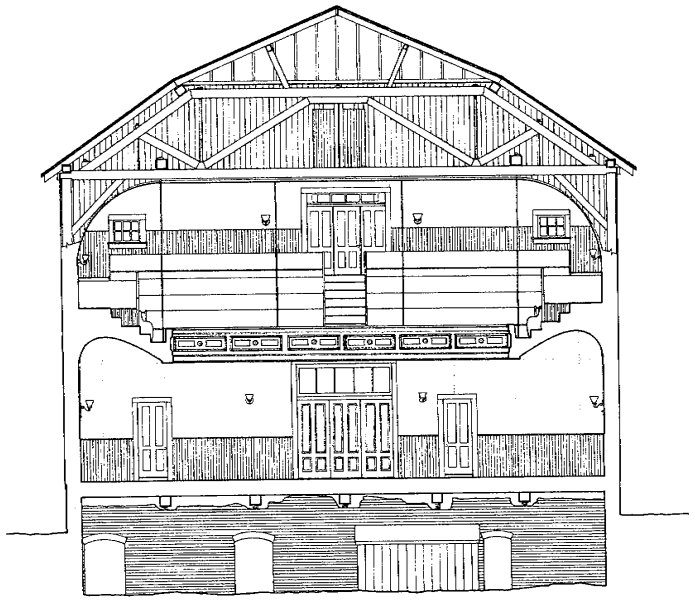
HISTORIC AMERICAN BUILDINGS SURVEY
SHEET 6 OF 7 SHEETS

DRAWN BY: ROBERT MIZELL

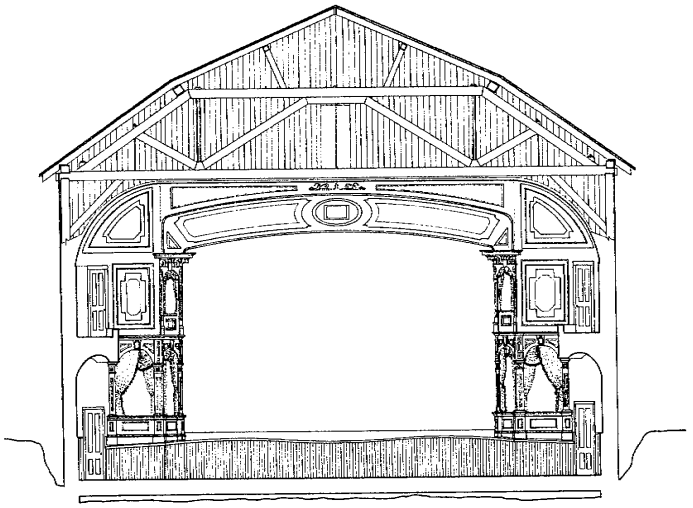
OFFICE OF ARCHEOLOGY & HISTORIC PRESERVATION
HISTORIC AMERICAN BUILDINGS SURVEY
UNITED STATES DEPARTMENT OF THE INTERIOR

TRIM LINE

TRIM LINE



SECTION A-A



SECTION B-B

TRANSVERSE SECTIONS

SCALE: 3/16"=1'-0"

NAME AND LOCATION OF STRUCTURE

PIPER'S OPERA HOUSE

B STREET AT UNION STREET, VIRGINIA CITY, STOREY COUNTY, NEVADA

SURVEY NO. NEV 15-7

HISTORIC AMERICAN BUILDINGS SURVEY SHEET 7 OF 7 SHEETS

DRAWN BY: JACK W. SCHAFER

CARSON CITY PROJECT, 1973

OFFICE OF ARCHEOLOGY & HISTORIC PRESERVATION

HISTORIC AMERICAN BUILDINGS SURVEY

UNITED STATES DEPARTMENT OF THE INTERIOR

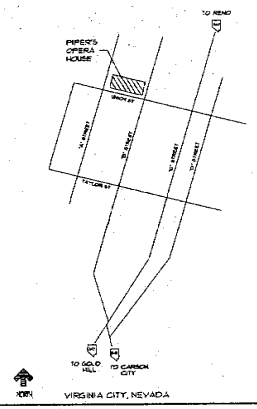
TRIM LINE

## ARCHITECTURAL DRAWINGS

A-1 COVER SHEET
A-2 ROOF PLAN, DETAILS
A-3 ELEVATIONS
A-4 ELEVATIONS
A-5 BUILDING SECTIONS

## STRUCTURAL DRAWINGS

S1 ROOF PLAN, GENERAL NOTES
S2 DETAILS, NORTH ELEVATION




INDEX TO DRAWINGS | 15 | 15

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CALL BEFORE YOU DIG.

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UNDERGROUND SERVICE ALERT (USA)

254001

SERVICE ALERT NO SCALE | 14 | 14

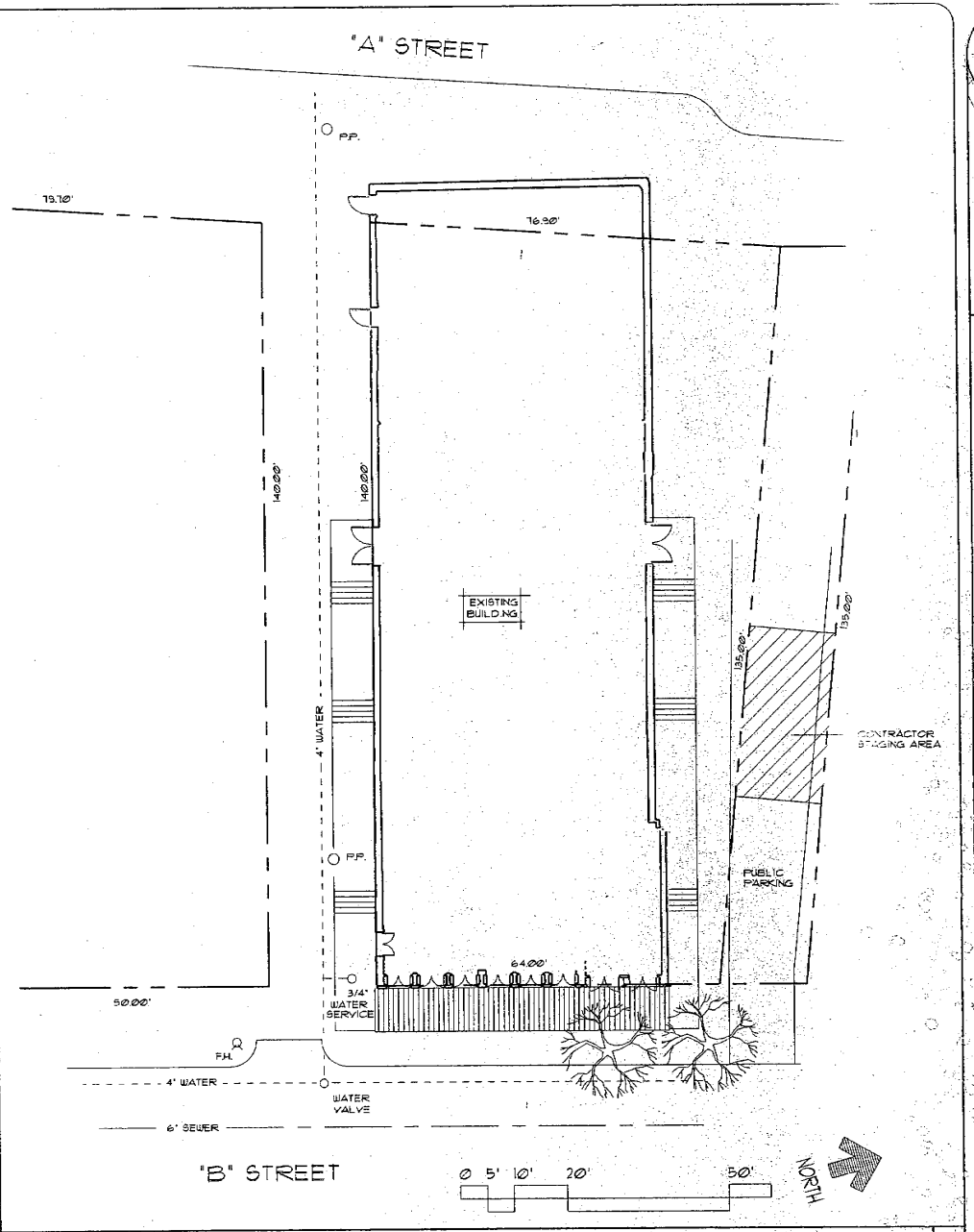
## CODE DATA

| | |
|---|---|
| OCCUPANCY CLASSIFICATION | A2, B |
| OCCUPANT LOAD | 364 |
| TYPE OF CONSTRUCTION | V-1HR |
| FIRE SPRINKLERS IN LIEU OF 1HR CONST. | |
| LOCATION ON PROPERTY | OPEN ALL SIDES |
| TOTAL FLOOR AREA | 11,774 SF. |
| HEIGHT | 58'-0" |
| NUMBER OF STORIES | TW/W BASEMENT |

# REROOF OF PIPER'S OPERA HOUSE


MELVYN GREEN & ASSOCIATED INC.
21301 HAWTHORNE BOULEVARD SUITE 250
TORRANCE, CALIFORNIA 90503
310-792-9292

J.P. COPOULOS ARCHITECT ©
P.O. BOX 2511
CARSON CITY, NV 89702
702-885-7907


13 SITE PLAN 1"=10'-0" 1

REROOF
PIPER'S OPERA HOUSE
VIRGINIA CITY, NEVADA

SEP 1, 1997

Local Fire Marshall Requirements

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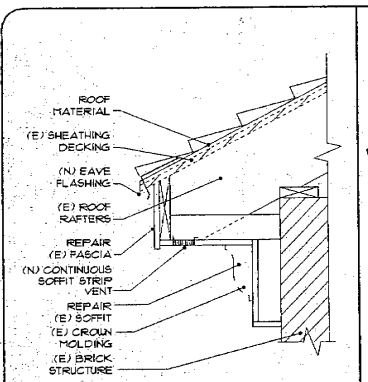
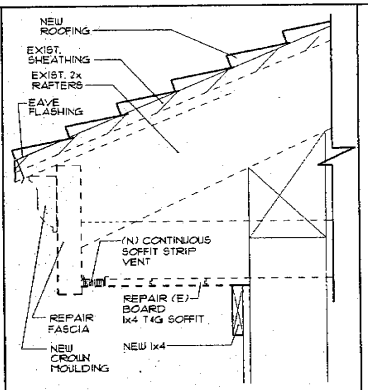
702-885-7907

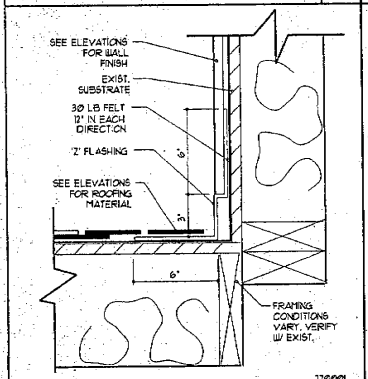
A-1



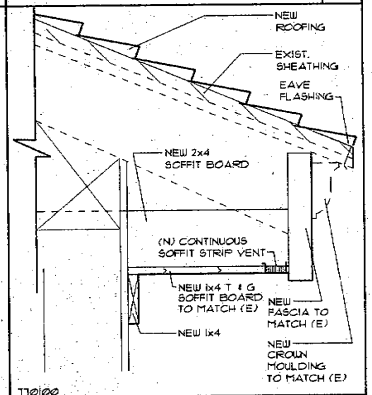

EAVE DETAIL 1½"=1'-0" | 15



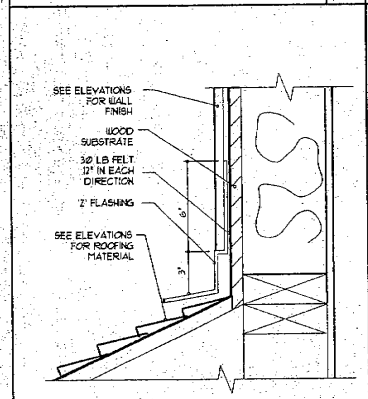

EAVE DETAIL 3"=1'-0" | 12



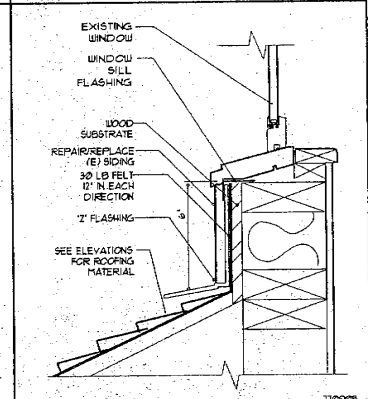

'Z' FLASHING 3"=1'-0" | 14



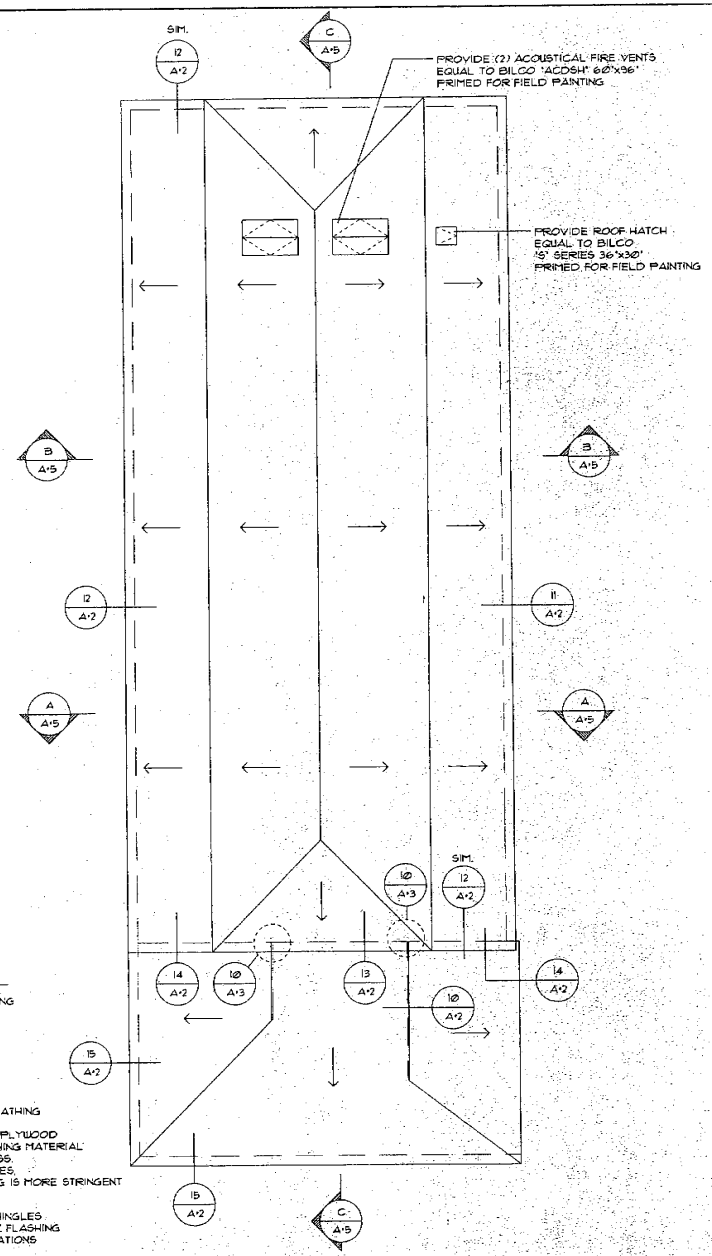

EAVE DETAIL 3"=1'-0" | 11




'Z' FLASHING 3"=1'-0" | 13




'Z' FLASHING 3"=1'-0" | 10




## GENERAL NOTES

1. COMPLETELY REMOVE ROOFING DOWN TO SHEATHING
2. INSPECT SHEATHING FOR DEFECTS. REPAIR SHEATING AS PER NOTE 3
3. REPAIR ROOF SHEATHING AS FOLLOWS:
   REMOVE DETERIORATED SHEATHING TO NEXT ROOF JOIST
   REPLACE WITH 1x12, 3/4" CDX PLYWOOD OR OTHER APROVED SHEATHING MATERIAL TO MATCH EXISTING THICKNESS.
   NAILING TO BE 10d @ 6" EDGES, 12" FIELD. IF EXISTING NAILING IS MORE STRINGENT MATCH EXISTING.
4. INSTALL NEW FELT, CEDAR SHINGLES ROOFING, EAVE FLASHING & Z FLASHING AS PER DETAILS & SPECIFICATIONS

ROOF PLAN 1/8"=1'-0" | 1

JOHN P. COPOULOS REGISTERED 1613 ARCHITECT STATE OF NEVADA

# REROOF PIPER'S OPERA HOUSE

VIRGINIA CITY NEVADA

SEP. 15 1997

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NEVADA
89702
702-885-1801

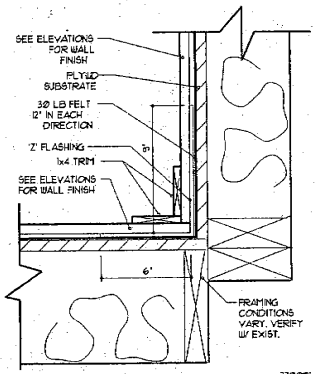
A•2

15

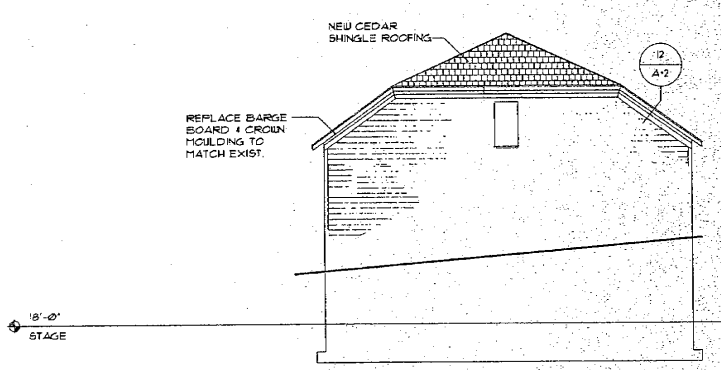
12

14

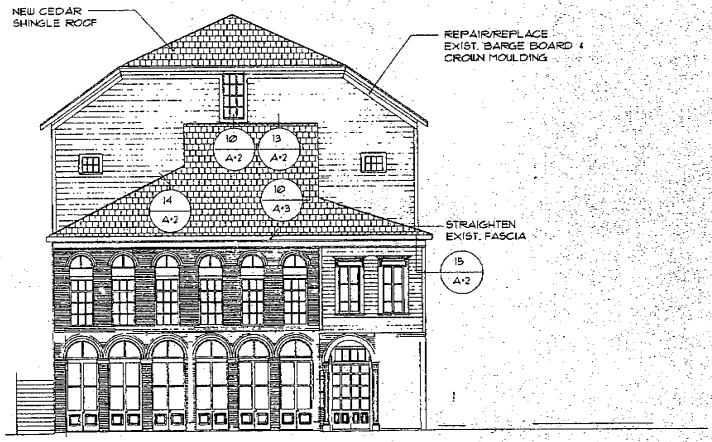
11




13 'Z' FLASHING 3"=1'-Ø"




WEST ELEVATION 1/8"=1'-Ø" 2




10 EAST ELEVATION 1/8"=1'-Ø" 1

REROOF
PIPER'S OPERA HOUSE
VIRGINIA CITY
NEVADA

SEP. 15 1997

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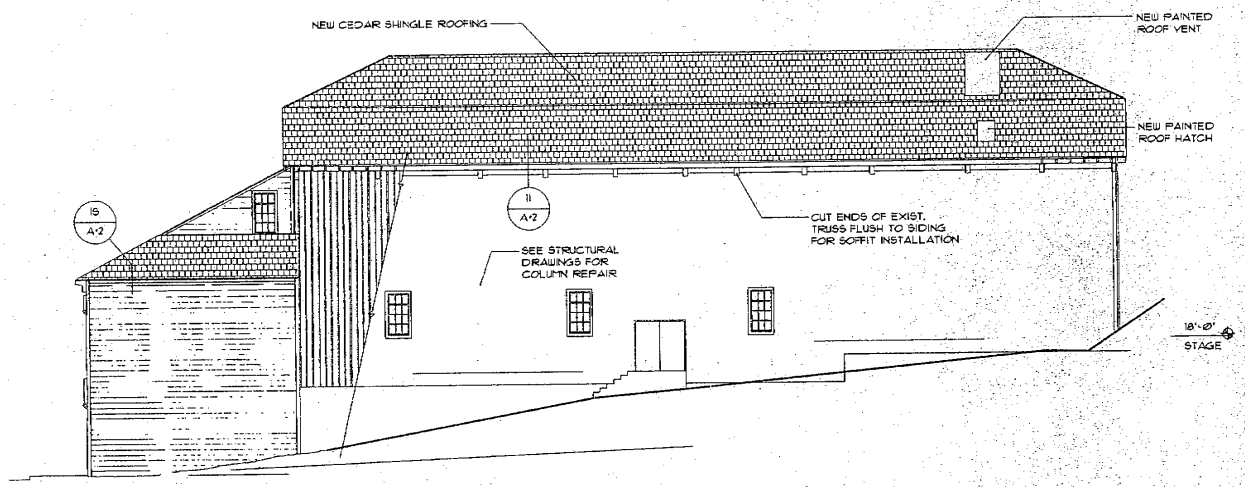
ARCHITECT
P.O. BOX 2511
CARSON CITY
NEVADA
89702
(702) 885-1207

A-3

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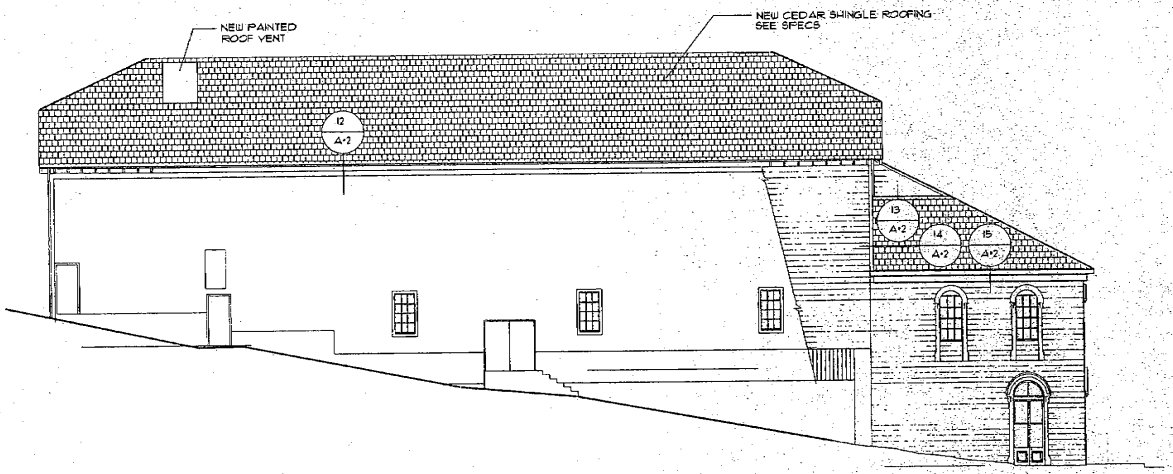
NORTH ELEVATION 1/8"=1'-0" 2




14

13 SOUTH ELEVATION 1/8"=1'-0" 1

JOHN P. COPOULOS REGISTERED 1918 ARCHITECT STATE OF NEVADA

REROOF OPERA HOUSE
VIRGINIA CITY NEVADA

SEP 15 1997

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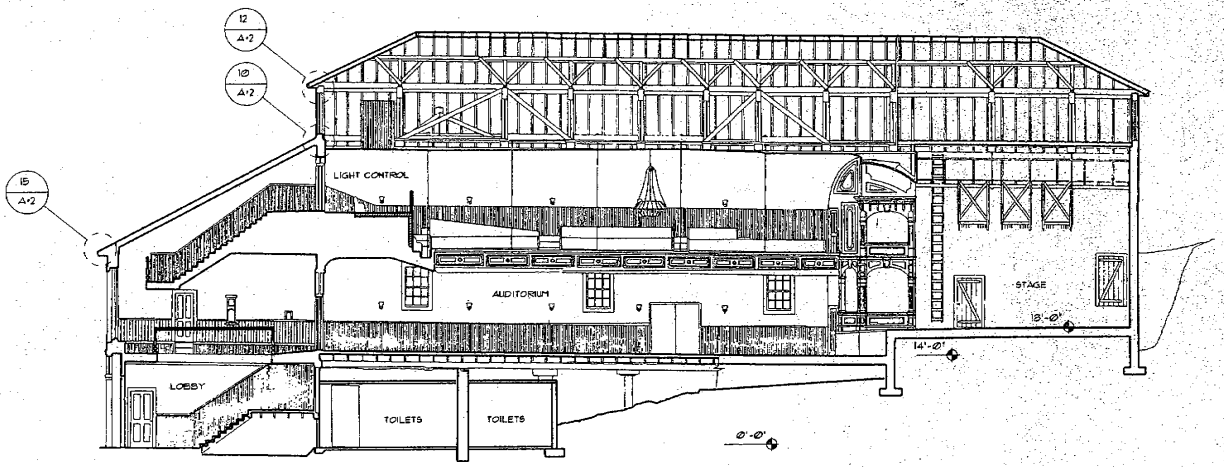
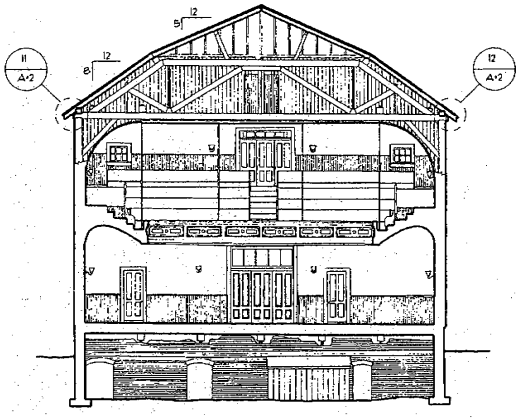
A-4



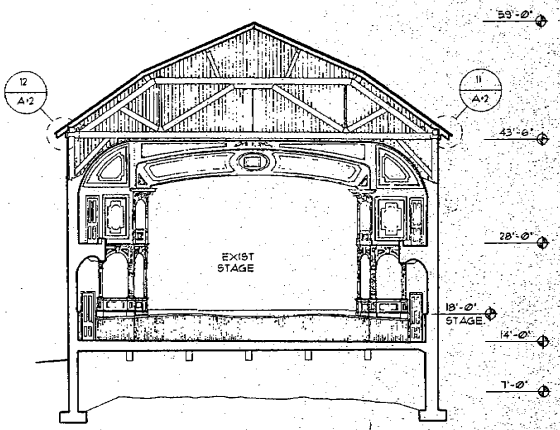

15

BUILDING SECTION "C-C" 1/8"=1'-0" 2

14




13 BUILDING SECTION "A-A" 1/8"=1'-0" 10




BUILDING SECTION "B-B" 1/8"=1'-0" 1

JOHN P. COPOULOS REGISTERED 1913 ARCHITECT STATE OF NEVADA

REROOF
OPERA HOUSE
VIRGINIA CITY
NEVADA

SEP 15 1997

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A-5

# GENERAL NOTES

## GENERAL REQUIREMENTS

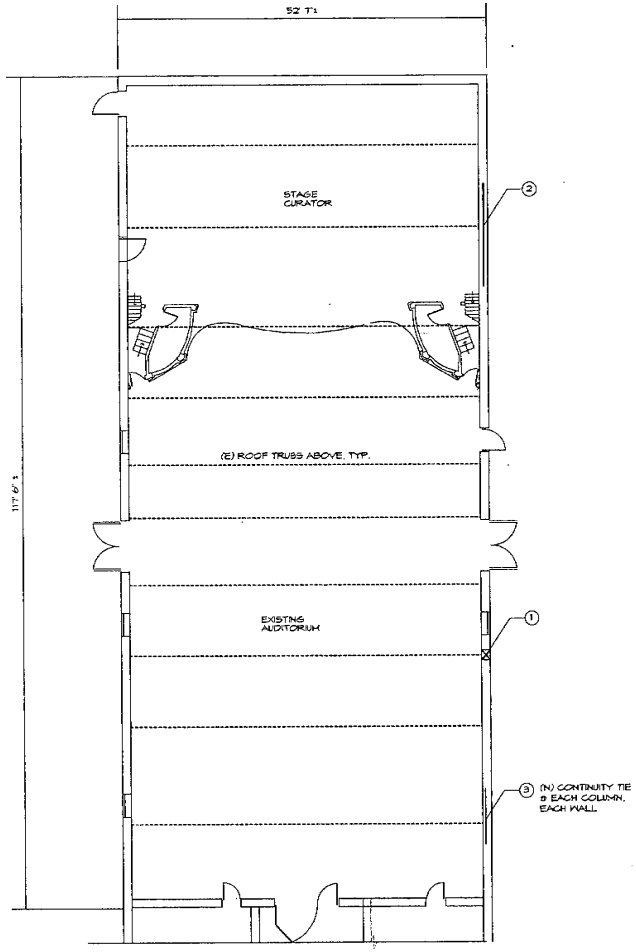
1. All materials and workmanship shall conform to the requirements of both local and 1994 Uniform Building Code (U.B.C.) standards.
2. Contractor shall check and verify all dimensions and conditions on the job site and report any errors, omissions or possible discrepancies to the engineer prior to proceeding with the work.
3. Dimensions shown on the plans shall take precedence over scale of drawings.
4. Typical details and notes shall apply unless shown otherwise on the plans.
5. Where "continuous inspection" is required on the plans, a special inspector, approved by and responsible to the engineer and building department, shall be employed by the owner.
6. The contractor shall provide safe and adequate braces and connections to support the component parts of the structure until the structure itself (including the floor and roof diaphragms) is complete enough to adequately support itself.
7. Where reference is made to various test standards for materials, such standards shall be the latest edition and/or addendum.
8. Construction safety provisions in accordance with Chapter 33 of the Uniform Building Code shall be provided and approved by the Building Department.
9. The stamped set of plans and specifications shall be kept on the job site in an accessible location and shall be available to authorized representatives of the Building Department. There shall be no deviation from the approved plans and specifications without official approval from the Building Department. All work is designed to the minimum building standards or better

## STRUCTURAL AND MISCELLANEOUS STEEL

1. All structural steel shall conform to ASTM A-36-87 and shall be fabricated and erected in accordance with the A.I.S.C. Specifications for the design, fabrication and erection of structural steel for buildings, latest edition.
2. All structural tubing shall conform to ASTM A-500, Grade B or ASTM A-501.
3. Bolts and nuts shall conform to ASTM A-307, u.n.o.
4. All welding shall be performed in the shop of a licensed fabricator approved by the engineer or with continuous inspection by a special inspector.
5. All welding is to comply with A.W.S. Standards and is to be done by welders certified for the type of welding to be performed as required by the Building Department.
6. All welding is to be done by electric arc process with E70XX electrodes.
7. Holes for bolts in structural steel shall be drilled or punched. Burning of holes shall not be permitted.

## LUMBER/NAILING

1. Structural Lumber:
   A. General: All structural lumber shall be stress graded Douglas Fir
   B. Grading:
      1. All joists, rafters, beams, girders, posts, and braces shall be No. 1 Douglas Fir and better.
      2. All studs, struts, sills, and plates shall be No. 2 Douglas Fir or better.
   C. All wood in direct contact with concrete or masonry, if within 48" of the nearest ground, shall be pressure treated wood or foundation grade redwood.
2. All plywood shall be Douglas Fir CD-X or C-D, C-C structural II (U.N.O.) conforming to Product Standards PS-1-74 with Exterior Glue and shall be stamped by an approved fabricator
3. Installed Blocking: Bottom of blocking shall be installed exactly flush with bottom of joists on rafters so that steel straps and other steel connectors shall be installed straight with no bend in the steel connectors.
4. All nails to be common wire nails. Where splitting occurs, pre-drill holes. Machine nailing to be permitted upon continued demonstration of suitable nailing, nails shall not be driven more than 1/16"below surface of plywood. Under-driven nails to be hand driven flush to plywood surface.
5. Nail penetration for plywood diaphragms shall be 1 1/2" into blocking, near misses to be re-nailed.
6. Pre-drilling is required for all wood screws larger than #10.
7. Framing hangers, post caps and bases, and other connectors shall be as manufactured by HARLEN Company or an approved equal.
8. Cut washers shall be placed under heads and nuts of all bolts and under heads of lag bolts




NORTH

AUDITORIUM LEVEL PLAN

SCALE: 1/8" = 1'0"

REGISTERED PROFESSIONAL ENGINEER
JOHN P. COPOULOS
No. 3586
STRUCTURAL
STATE OF NEVADA

FEASIBILITY PLAN for
PIPER'S OPERA HOUSE
VIRGINIA CITY, NEVADA

| | |
|---|---|
| SCALE: | 1/8"=1'-0" |
| JOB: | 97124 |
| DATE: | JULY 1997 |
| DRAWN: | SM |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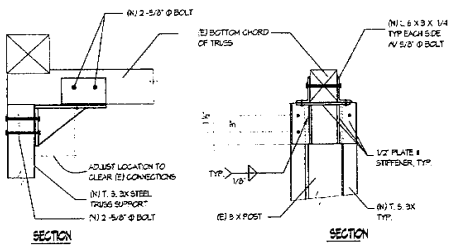
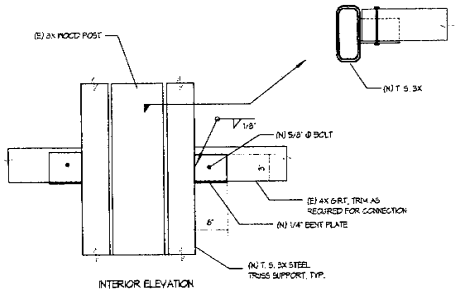
P.O. BOX 2917
CARSON CITY
NEVADA
89702
703-885-7907


S*1

Job Number 97124 Date plotted Friday 9/5/97

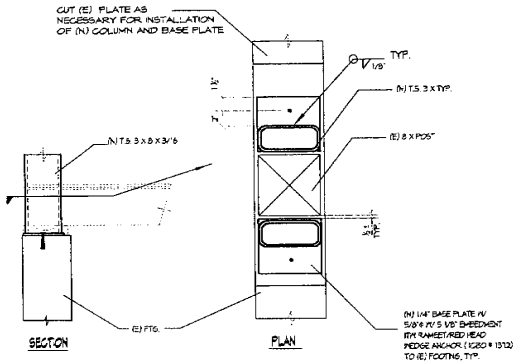



TRUSS SUPPORT DETAIL 1



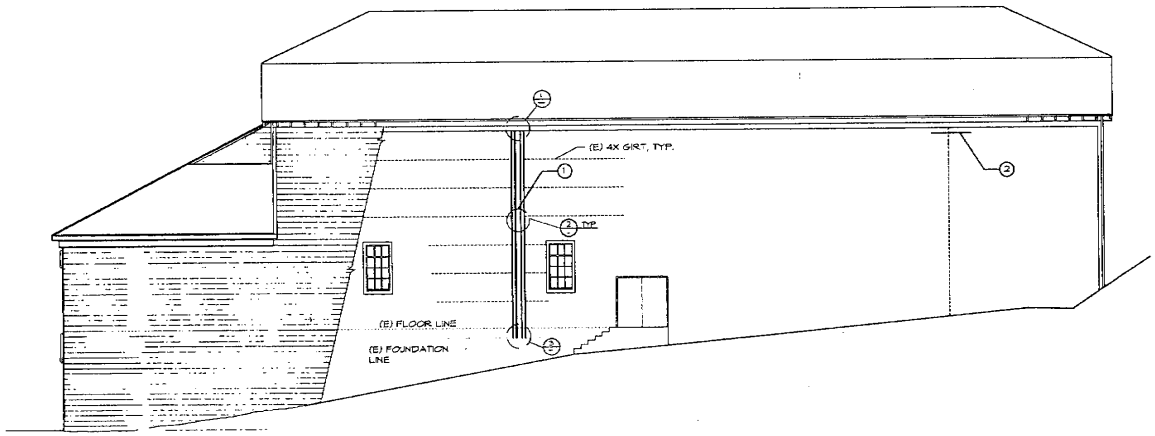

INTERIOR ELEVATION

GIRT CONNECTION 2



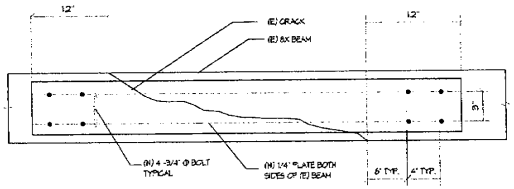

COLUMN BASE DETAIL 3

HEAD OFF JOIST IF NECESSARY, USE HU HANGER

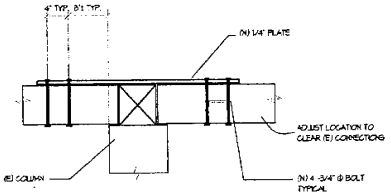



NORTH ELEVATION

SCALE: 1/8" = 1'-0"




BEAM REPAIR DETAIL 4




TIE DETAIL 5

## STRUCTURAL REPAIRS

(1) COLUMN REPAIR PROCEDURE

CONTRACTOR SHALL SUBMIT PROCEDURE FOR INSTALLATION OF NEW STEEL SUPPORTS AND REPAIR OF EXISTING COLUMN TO ARCHITECT FOR REVIEW. AS A MINIMUM THE SUBMITTAL SHALL INCLUDE:
1. SHORE EXISTING TRUSS - PROVIDE DETAILS FOR SUPPORT OF TRUSS DURING COLUMN REPAIR WORK.
2. JACKING THE COLUMN INTO ITS ORIGINAL POSITION TO REMOVE THE BUCKLE AND TO PLUMB THE COLUMN.
3. SUPPORT FOR THE EXISTING FLOOR JOISTS DURING ANY REQUIRED JOIST HEADER CONSTRUCTION.
4. INSTALLATION OF NEW STEEL COLUMNS TO SUPPORT THE EXISTING TRUSS.
5. INSTALLATION OF NEW TRUSS SUPPORT AND ANCHORAGE PER DETAILS 1 AND 3.
OTHER WORK REQUIRED, BUT NOT LIMITED TO:
6. REMOVE EXISTING SIDING AND BATTS AS REQUIRED TO PERFORM THE WORK AND STORAGE OF THE SIDING AND BATTS FOR REINSTALLATION
7. CONNECTION OF EXISTING GIRTS TO NEW STEEL COLUMNS PER DETAIL 2.
8. REINSTALL EXISTING SIDING AND BATTS

(2) ROOF BEAM REPAIR PROCEDURE

1. REMOVE ROOF SHEATHING AS REQUIRED TO REPAIR BEAM.
2. PLACE NEW STEEL PLATES ON EACH SIDE OF BEAM AND INSTALL BOLTS PER DETAIL 4.
3. REPLACE SHEATHING AS REQUIRED.

(3) NEW CONTINUITY TIES

1. REMOVE ROOF SHEATHING AS REQUIRED FOR INSTALLATION.
2. INSTALL NEW STEEL TIES ACROSS EACH COLUMN PER DETAIL 5.
3. REPLACE SHEATHING AS REQUIRED.


ELEVATION AND DETAILS

PHASE ONE RESTORATION OF
# PIPER'S OPERA HOUSE
VIRGINIA CITY, NEVADA

| | |
|---|---|
| SCALE: | 1/8"=1'-0" |
| JOB: | 97129 |
| DATE: | July 1997 |
| DRAWN: | SH |

J.P. COPOULOS ARCHITECT
P.O. BOX 2517
CARSON CITY
NEVADA
89702
702-885-7907

S*2

Job Number: 97129 Date plotted: Friday 6:59P

## SITE DRAWINGS

A*1 COVER SHEET, SITE PLAN, UTILITY PLAN
A*1a UTILITY DETAILS

## ARCHITECTURAL DRAWINGS

A*2 "B" STREET DEMOLITION PLAN, DEMOLITION SCHEDULE
A*3 AUDITORIUM DEMOLITION PLAN, DEMOLITION SCHEDULE
A*4 BALCONY DEMOLITION PLAN, DEMOLITION SCHEDULE
A*5 "B" STREET FLOOR PLAN, DOOR SCHEDULE, DOOR TYPES
A*6 AUDITORIUM FLOOR PLAN, WINDOW SCHEDULE, WINDOW TYPES, TOILET DETAILS
A*7 BALCONY FLOOR PLAN, DOOR DETAILS
A*8 "B" STREET REFLECTED CEILING PLAN
A*9 AUDITORIUM REFLECTED CEILING PLAN
A*10 BALCONY REFLECTED CEILING PLAN
A*11 ENLARGED STAIR PLAN, ENLARGED STAIR SECTION, DETAILS
A*12 ELEVATIONS, DOOR DETAILS
A*13 ELEVATIONS
A*14 BUILDING SECTIONS, WALL SECTION

## STRUCTURAL DRAWINGS

S1 GENERAL NOTES, SITE PLAN, VICINITY MAP, SHEET INDEX
S2 "B" STREET LEVEL FRAMING AND FOUNDATION PLAN
S3 AUDITORIUM AND BALCONY LEVEL FRAMING PLAN, ROOF PLN
S4 SECTION AND DETAILS
S5 SECTION AND DETAILS

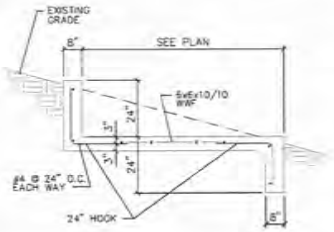
## MECHANICAL DRAWINGS

P0.1 PLUMBING NOTES, SCHEDULES, LEGEND AND ABBREVIATIONS
P2.1 BASEMENT LEVEL PLUMBING PLAN
P2.2 FIRST FLOOR PLUMBING PLAN
FP.1 BASEMENT LEVEL FIRE PROTECTION
FP.2 FIRST FLOOR FIRE PROTECTION
FP.3 SECOND FLOOR FIRE PROTECTION

## ELECTRICAL DRAWINGS

E1 "B" STREET ELECTRICAL PLAN, AUDITORIUM TOILET ELECTRICAL PLAN
E2 NOT USED
E3 NOT USED
E4 SINGLE LINE DIAGRAM

## INDEX TO DRAWINGS




RETAINING WALL/PAD 1/2"=1'-0" 14


## LOCATION MAP

| | | |
|---|---|---|
| OCCUPANCY CLASSIFICATION | | A-2, B |
| OCCUPANT LOAD | | 964 |
| TYPE OF CONSTRUCTION | | V- 1 HR |
| SPRINKLERS IN LIEU OF 1 HR CONSTRUCTION | | |
| LOCATION ON PROPERTY | | OPEN 3 SIDES |
| EXISITING AREA | 11,774 S.F. | |
| FUTURE ADDITION | 4,402 S.F. | |
| TOTAL FLOOR AREA | | 16,176 S.F. |
| HEIGHT | | 58'-0" |
| NUMBER OF STORIES | | TWO W/ BASEMENT |

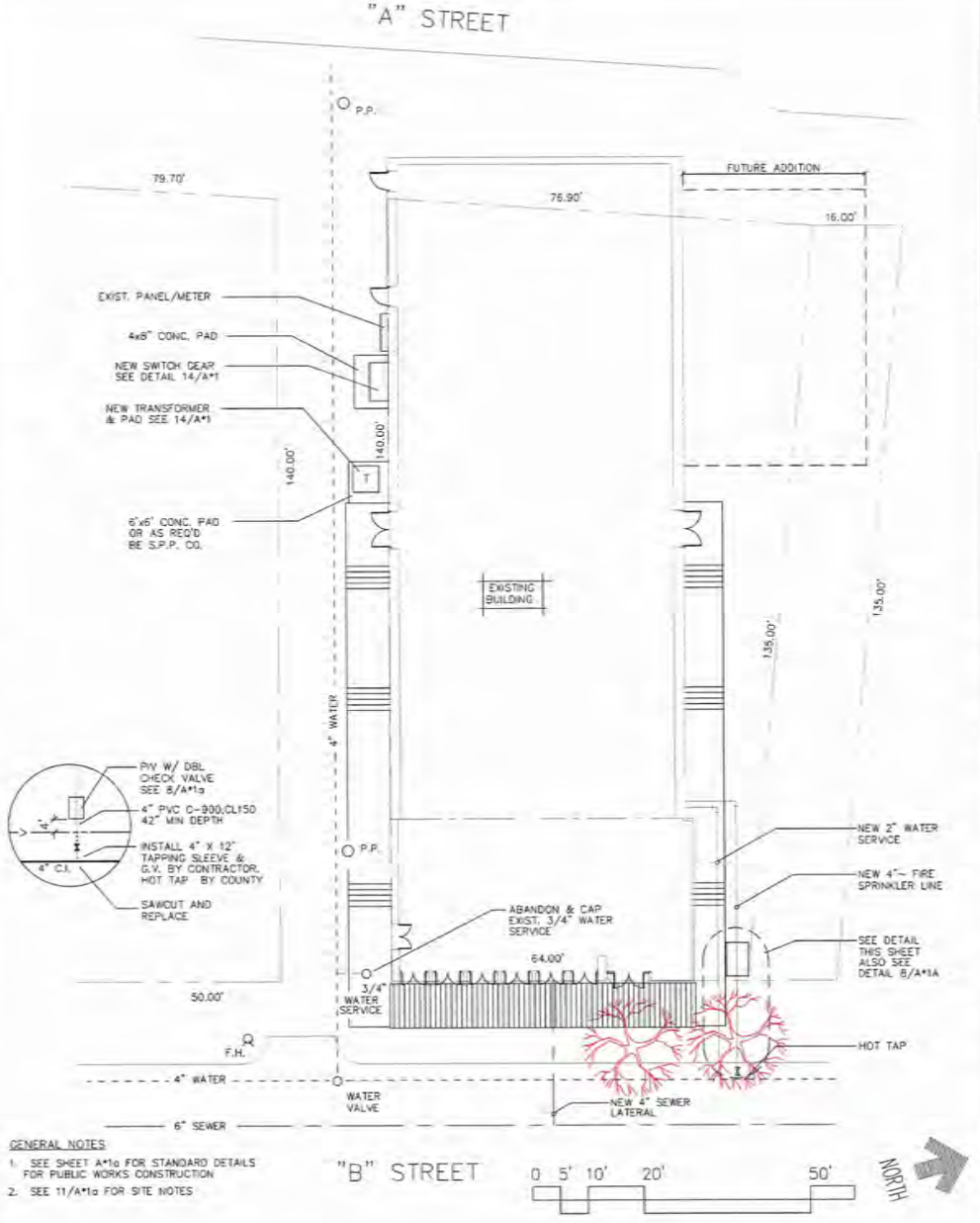
PHASE ONE RESTORATION OF PIPER'S OPERA HOUSE


MELVYN GREEN & ASSOCIATES
21307 HAWTHORNE BLVD #250
TORRENCE, CALIFORNIA 90503
310- 792-9252

PETERSON & ASSOCIATES, LTD.
6170 RIDGEVIEW COURT, SUITE C
RENO, NV 89509
702-826-6333

J.P. COPOULOS ARCHITECT ©
P.O. BOX 2517
CARSON CITY, NV 89702
702-885-7907

BARRETT ENGINEERING, INC.
P.O. BOX 3090
CARSON CITY, NV 89702
702-882-8222


GENERAL NOTES

1. SEE SHEET A*1a FOR STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION
2. SEE 11/A*1a FOR SITE NOTES

13 SITE PLAN 1"=10'-0" 1

RESTORATION of PIPER'S OPERA HOUSE
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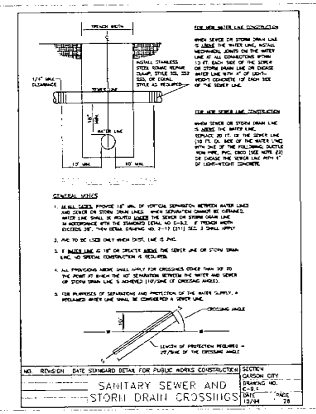
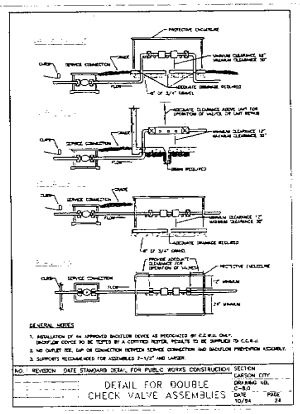
A1



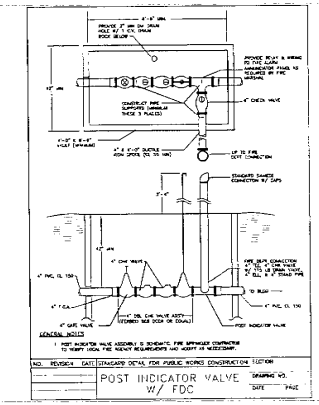
SANITARY SEWER AND STORM DRAIN CROSSINGS



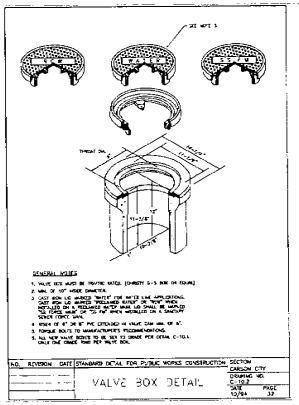
DETAIL FOR DOUBLE CHECK VALVE ASSEMBLIES

## SITE NOTES

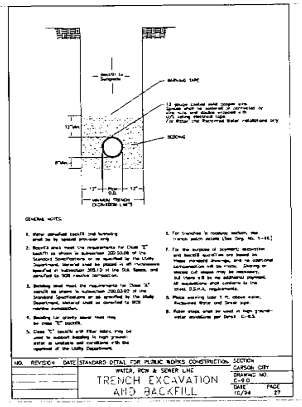
1. ALL WORK SHALL CONFORM TO STOREY COUNTY CODES "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION", AND STANDARD DETAILS (HEREIN REFERRED TO AS "STD. DETAILS"). IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE FAMILIAR WITH ABOVE STANDARDS AND CODES AT ALL TIMES.
2. ALL TRAFFIC CONTROL AND BARRACADING WITHIN THE STOREY COUNTY RIGHT-OF-WAY SHALL CONFORM TO SECTION 330 OF THE STANDARD SPECIFICATIONS AND PART VI OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION. NO STREET CLOSURES WILL BE ALLOWED WITHOUT PRIOR APPROVAL OF A TRAFFIC CONTROL PLAN BY STOREY COUNTY.
3. CALL UNDERGROUND SERVICE ALERT 48 HRS PRIOR TO START OF CONSTRUCTION 1-800-227-2600
4. PIPES AND STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED FROM A SEARCH OF AVAILABLE RECORDS. ANY EXISTING UTILITIES SHOWN ARE FOR THE CONTRACTOR'S REFERENCE ONLY. THE ARCHITECT DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE LOCATION NOR THE EXISTENCE OR NON-EXISTENCE OF ANY UNDERGROUND UTILITY, PIPE OR STRUCTURE WITHIN THE LIMITS OF THE PROJECT.



POST INDICATOR VALVE W/ FDC



VALVE BOX DETAIL



TRENCH EXCAVATION AND BACKFILL

| TYPE | 90^ BEND | 45^ BEND | 11 1/4" OR 22 1/2" BEND | TEE OR DEAD END | CROSS W/ PLUG | TEE W/ PLUG |
|---|---|---|---|---|---|---|
| TYP. INSTALLATION | | | | | | |

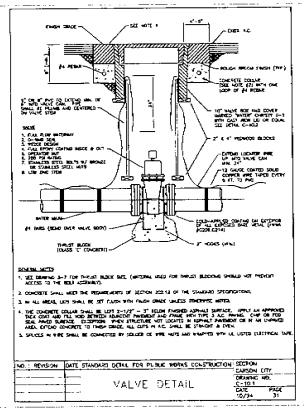
THRUST BLOCK BEARING AREA (SQ. FT.)

| PIPE SIZE | TYPE OF FITTING | 90^ BEND | 45^ BEND | 11 1/4" – 12 1/2" BEND | TEE OR DEAD END | TEE W/ PLUG | CROSS W/ PLUG |
|---|---|---|---|---|---|---|---|
| | 4" | 2 | 1 | 1 | 2 | 2 | 2 |
| | 6" | 4 | 4 | 2 | 4 | 4 | 4 |

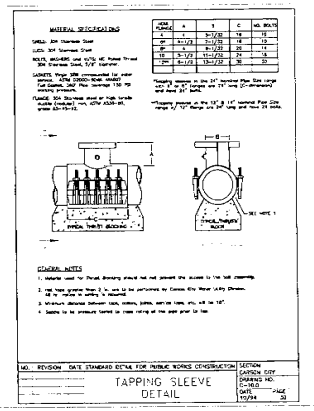
NOTES:
1. THRUST BLOCKS TO BE CONSTRUCTED OF CLASS "C" CONCRETE.
2. AREAS GIVEN ARE FOR CLASS 150 PIPE AT TEST PRESSURE OF 150 P.S.I., WITH 2000 P.S.F. BEARING CAPACITY. INSTALLATIONS USING DIFFERENT PIPE, TEST PRESSURES, AND/ OR SOIL TYPES SHOULD ADJUST AREAS ACCORDINGLY, SUBJECT TO APPROVAL OF ENGINEER.
3. BLOCKS TO BE POURED AGAINST UNDISTURBED SOIL.
4. JOINTS AND FACE OF PLUGS TO BE KEPT CLEAR OF CONCRETE.

255004

13 TYPICAL THRUST BLOCK BEARING AREAS NO SCALE



VALVE DETAIL



TAPPING SLEEVE DETAIL

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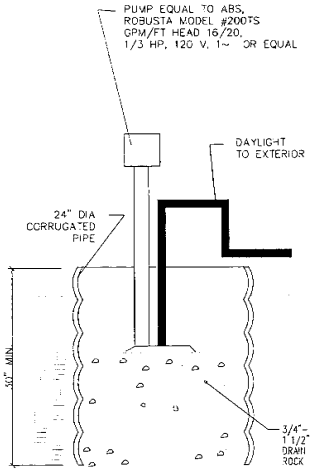
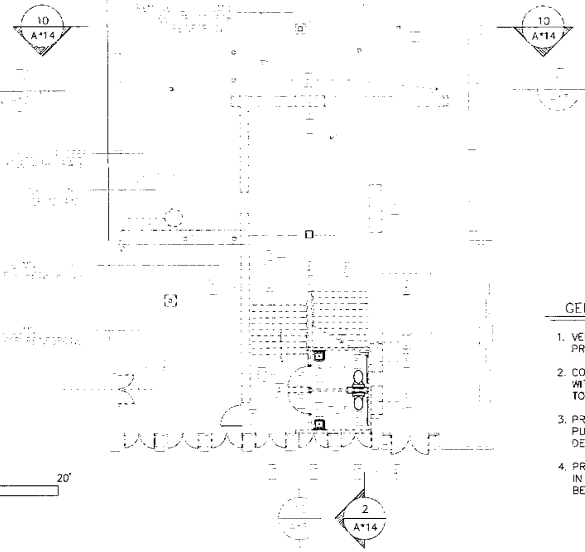



15 SUMP PIT 1 1/2"=1'-0" 12


14 11

| ITEM | REMOVAL BY: CONTRACTOR | OWNER | REMOVE FROM SITE | SALVAGE TO OWNER | REUSE IN REMODEL | ITEM TO REMAIN IN PLACE PROTECT FROM DAMAGE | REMOVE AND REPLACE FOR NEW CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| (1) BRICK WALLS | * | | * | | | | |
| (2) STAIRS | * | | * | | | | |
| (3) FLOORING/FRAMING | * | | * | | | | |
| (4) WOOD STUD WALL | * | | * | | | | |
| (5) TOILETS | * | | * | | | | |
| (6) SINK | * | | * | | | | |
| (7) DOOR/HARDWARE | * | | | * | | | |
| (8) DIRT/DEBRIS | * | | * | | | | |
| (8) COLUMN | * | | | * | | | |

| ITEM | REMOVAL BY: CONTRACTOR | OWNER | REMOVE FROM SITE | SALVAGE TO OWNER | REUSE IN REMODEL | ITEM TO REMAIN IN PLACE PROTECT FROM DAMAGE | REMOVE AND REPLACE FOR NEW CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| (9) EXIST. WATER SERVICE | * | | * | | | | |
| (10) CANVAS WALL COVERING | * | | | | | * | |
| (11) BASE | | | | | | | |
| (12) WAINSCOT | * | | * | | | | |
| (13) BALCONY SEAT BOARDS | * | | | | | | * |
| (14) BENCH | | | | | | | |
| (15) FLOOR SHEATHING | * | | * | | | | |
| (16) WOOD TRIMMED ARCH | * | | | * | | | |
| (17) DOORS | * | | | | * | | |
| (18) WAINSCOT/BASE/TRIM | * | | | * | | | |

10 "B" STREET DEMOLITION PLAN 1/8"=1'-0" 1

GENERAL NOTES

1. VERIFY ALL UTILITY INFORMATION PRIOR TO START OF DEMOLITION
2. COORDINATE DEMOLITION WORK WITH OWNER. PROVIDE PROTECTION TO EXISTING SURFACES TO REMAIN
3. PROVIDE BARRACADES TO PROTECT PUBLIC FROM ADJACENT DEMOLITION
4. PROVIDE SHORING WHERE EXISTING BEARING IN BEING REMOVED UNTIL NEW STRUCTURAL BEARING IS IN PLACE.

RESTORATION of PIPER'S OPERA HOUSE
VIRGINIA CITY, NEVADA

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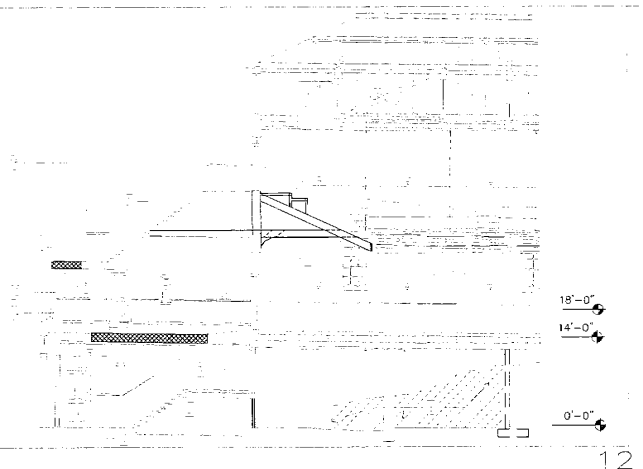
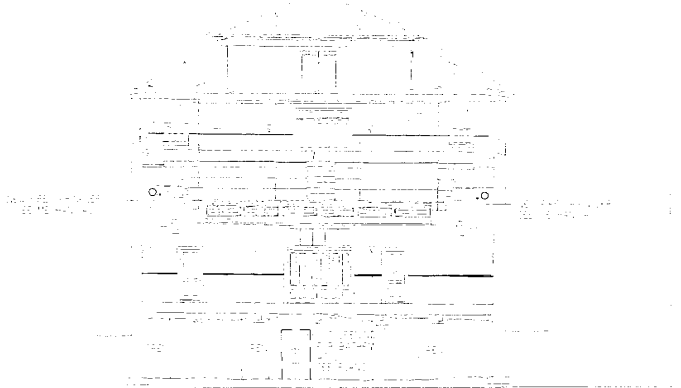


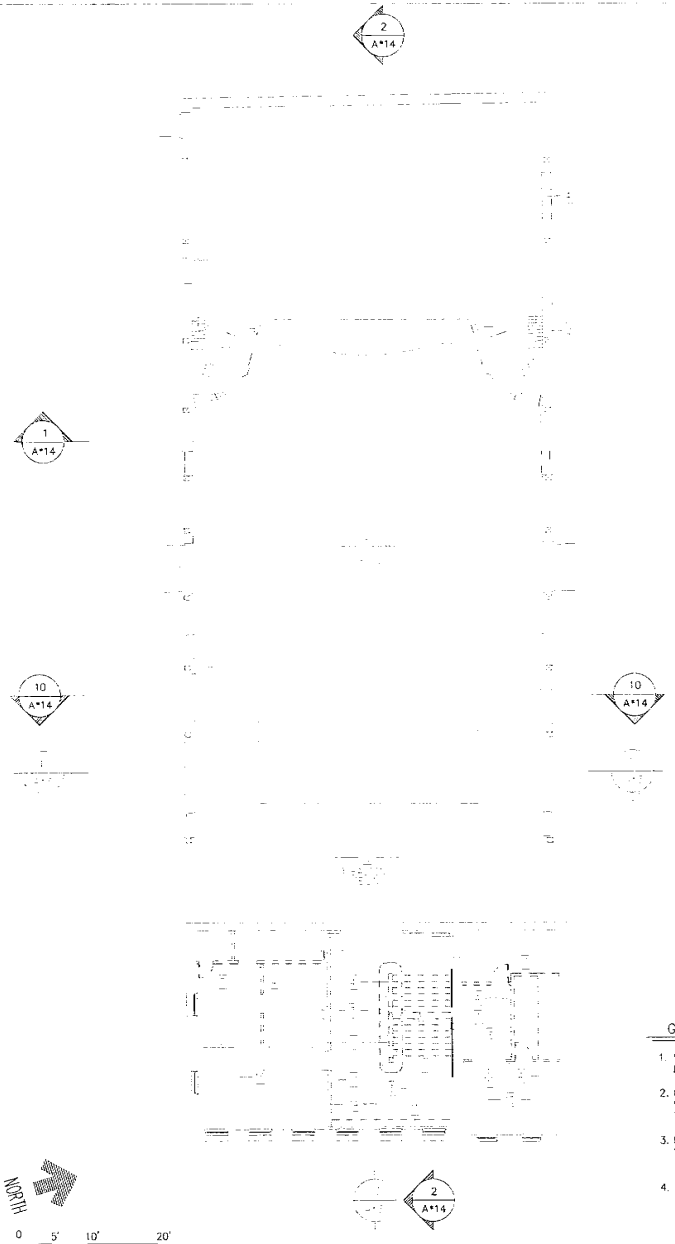

12



11

| ITEM | REMOVAL BY CONTRACTOR | OWNER | REMOVE FROM SITE | SALVAGE TO OWNER | REUSE IN REMODEL | ITEM TO REMAIN IN PLACE PROTECT FROM DAMAGE | REMOVE AND REPLACE FOR NEW CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| (1) BRICK WALLS | * | * | | | | | |
| (2) STAIRS | * | * | | | | | |
| (3) FLOORING/FRAMING | * | * | | | | | |
| (4) WOOD STUD WALL | * | * | | | | | |
| (5) TOILETS | * | * | | | | | |
| (6) SINK | * | * | | | | | |
| (7) DOOR/HARDWARE | * | | * | | | | |
| (8) DIRT/DEBRIS | * | * | | | | | |
| (8.1) COLUMN | * | | * | | | | |

| ITEM | REMOVAL BY CONTRACTOR | OWNER | REMOVE FROM SITE | SALVAGE TO OWNER | REUSE IN REMODEL | ITEM TO REMAIN IN PLACE PROTECT FROM DAMAGE | REMOVE AND REPLACE FOR NEW CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| (9) EXIST. WATER SERVICE | * | | * | | | | |
| (10) CANVAS WALL COVERING | * | | | | | | * |
| (11) BASE | * | | | | | | |
| (12) WAINSCOT | * | | * | | | | |
| (13) BALCONY SEAT BOARDS | * | | | | | | * |
| (14) BENCH | | | | | | | |
| (15) FLOOR SHEATHING | * | | * | | | | |
| (16) WOOD TRIMMED ARCH | * | | | * | | | |
| (17) DOORS | * | | | | * | | |
| (18) WAINSCOT/BASE/TRIM | * | | | * | | | |




AUDITORIUM DEMOLITION PLAN

1/8"=1'-0" 1

## GENERAL NOTES

1. VERIFY ALL UTILITY INFORMATION PRIOR TO START OF DEMOLITION
2. COORDINATE DEMOLITION WORK WITH OWNER. PROVIDE PROTECTION TO EXISTING SURFACES TO REMAIN
3. PROVIDE BARRACADES TO PROTECT PUBLIC FROM ADJACENT DEMOLITION
4. PROVIDE SHORING WHERE EXISTING BEARING IN BEING REMOVED UNTIL NEW STRUCTURAL BEARING IS IN PLACE.

RESTORATION of
# PIPER'S OPERA HOUSE
VIRGINIA CITY, NEVADA

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P.O. BOX 2517
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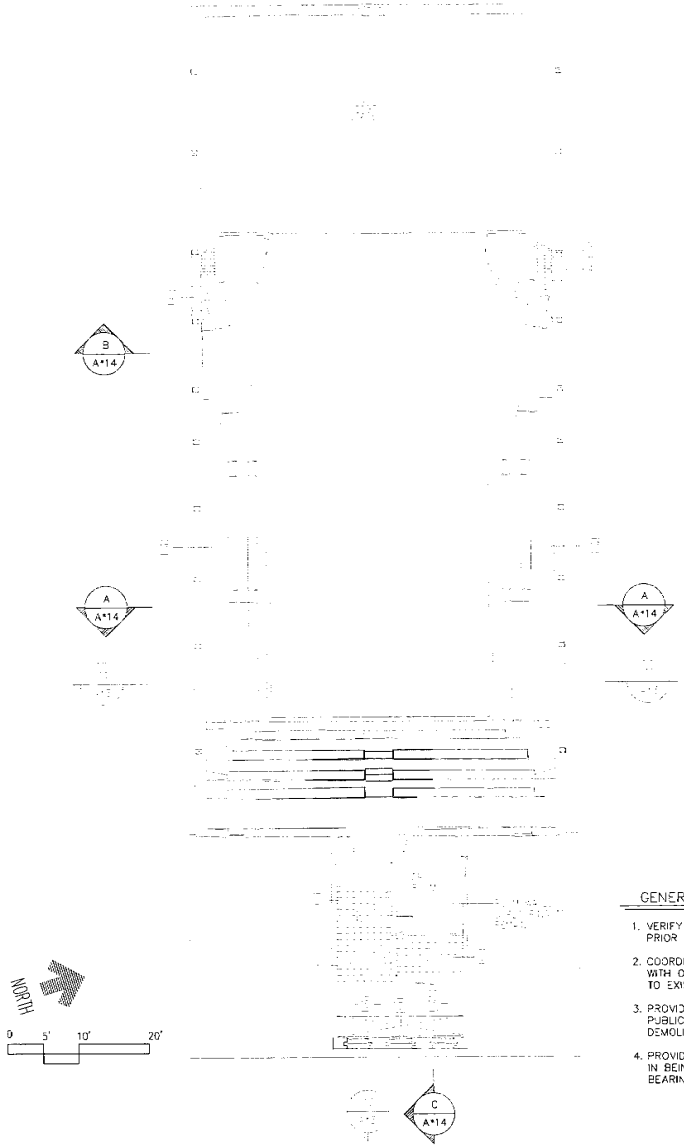
NEVADA
89702
702-885-7907

15 12

14 11

| ITEM | REMOVAL BY: CONTRACTOR | REMOVAL BY: OWNER | REMOVE FROM SITE | SALVAGE TO OWNER | REUSE IN REMODEL | ITEM TO REMAIN IN PLACE PROTECT FROM DAMAGE | REMOVE AND REPLACE FOR NEW CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| (1) BRICK WALLS | | | | | | | |
| (2) STAIRS | | | | | | | |
| (3) FLOORING/FRAMING | | | | | | | |
| (4) WOOD STUD WALL | | | | | | | |
| (5) TOILETS | | | | | | | |
| (6) SINK | | | | | | | |
| (7) DOOR/HARDWARE | | | | | | | |
| (8) DIRT/DEBRIS | | | | | | | |
| (8.) COLUMN | | | | | | | |

| ITEM | REMOVAL BY: CONTRACTOR | REMOVAL BY: OWNER | REMOVE FROM SITE | SALVAGE TO OWNER | REUSE IN REMODEL | ITEM TO REMAIN IN PLACE PROTECT FROM DAMAGE | REMOVE AND REPLACE FOR NEW CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| (9) EXIST. WATER SERVICE | | | | | | | |
| (10) CANVAS WALL COVERING | | | | | | | |
| (11) BASE | | | | | | | |
| (12) WAINSCOT | | | | | | | |
| (13) BALCONY SEAT BOARDS | | | | | | | |
| (14) BENCH | | | | | | | |
| (15) FLOOR SHEATHING | | | | | | | |
| (16) WOOD TRIMMED ARCH | | | | | | | |
| (17) DOORS | | | | | | | |
| (18) WAINSCOT/BASE/TRIM | | | | | | | |




10 BALCONY DEMOLITION PLAN

1/8"=1'-0" 1

GENERAL NOTES

1. VERIFY ALL UTILITY INFORMATION PRIOR TO START OF DEMOLITION
2. COORDINATE DEMOLITION WORK WITH OWNER. PROVIDE PROTECTION TO EXISTING SURFACES TO REMAIN
3. PROVIDE BARRACADES TO PROTECT PUBLIC FROM ADJACENT DEMOLITION
4. PROVIDE SHORING WHERE EXISTING BEARING IN BEING REMOVED UNTIL NEW STRUCTURAL BEARING IS IN PLACE.

RESTORATION of
PIPER'S OPERA HOUSE
VIRGINIA CITY, NEVADA

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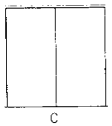
| DOOR NO. | DOOR SIZE W | H | T | DOOR TYPE | DOOR GLASS | FRAME TYPE | FRAME DETAIL HEAD | JAMB | THRESH | FIRE RATING | SET NO | HARDWARE CLOSER | PANIC BAR | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3° | 8° | E | D | — | WD | 3/A*7 | 3/A*7 | — | — | 1 | — | — | REFURBISH EXISTING |
| 2 | 5° | 10° | E | B | — | WD | 6/A*7 | 7/A*7 | 5/A*7 | — | 2 | ● | — | REFURBISH EXISTING |
| 3 | 5° | 10° | E | B | — | WD | 6/A*7 | 7/A*7 | 5/A*7 | — | 3 | — | — | REFURBISH EXISTING |
| 4 | 5° | 10° | E | B | — | WD | 6/A*7 | 7/A*7 | 5/A*7 | — | 3 | — | — | REFURBISH EXISTING |
| 5 | 3° | 7° | 1 3/4 | D | — | WD | 3/A*7 SIM. | 3/A*7 | — | — | 4 | — | — | — |
| 6 | 3° | 7° | 1 3/4 | D | — | WD | 3/A*7 SIM. | 3/A*7 | — | — | 4 | — | — | — |
| 7 | 3° | 7° | 1 3/4 | D | — | WD | 3/A*7 SIM. | 3/A*7 | — | — | 4 | — | — | — |
| 8 | 3° | 7° | 1 3/4 | C | — | HM | 2/A*7 SIM. | 2/A*7 | 10/A*12 | 1 HOUR | 5 | — | — | PAIR |
| 9 | 3° | 7° | 1 3/4 | D | — | WD | 11/A*12 | 12/A*12 | 10/A*12 | — | 6 | — | — | — |
| 10 | 3° | 7° | 1 3/4 | D | — | WD | 11/A*12 | 12/A*12 | 10/A*12 | — | 6 | — | — | — |
| 11 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 12 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 13 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

A
SOLID CORE WOOD RAISED PANEL EXISTING TO BE REFURBISHED

B
EXISTING TO BE REFURBISHED



C
HOLLOW METAL PAIR

D
SOLID CORE WOOD RAISED PANEL MATCH EXIST.

## DOOR TYPES

11

| FINISH KEY | FLOOR | BASE | WALLS | CEILING | REMARKS |
|---|---|---|---|---|---|
| A | UNFINISHED | | | | EXISTING TO REMAIN |
| B | SHEET VINYL | 6" SHEET VINYL COVE | GYPSUM BOARD | GYPSUM BOARD | EPOXY PAINT |

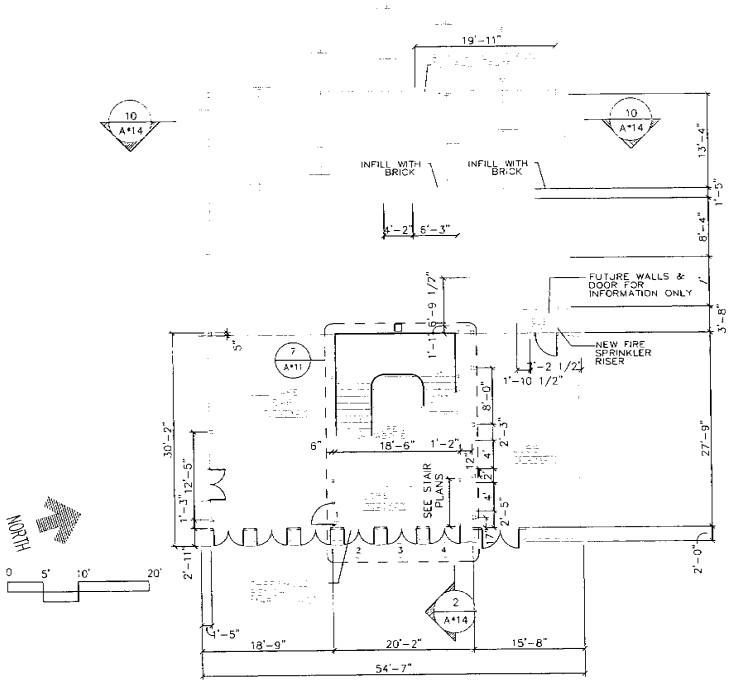
## WALL LEGEND

- EXISTING CONSTRUCTION
- 2 X 6 WOOD STUDS @ 16" O.C. 5/8" GYPSUM BOARD STAIR SIDE
- 2 X 4 WOOD STUDS @ 16" O.C. W/ R-11 INSUL. 5/8" GYPSUM BOARD EACH SIDE
- 8" CMU RETAINING WALL

ROOM NUMBER / CEILING HEIGHT / ROOM FINISH

100220

ROOM FINISH LEGEND 12


10 "B" STREET FLOOR PLAN

1/8"=1'-0"

### GENERAL NOTES

1. PATCH TO MATCH ALL SURFACES DAMAGED FROM DEMOLITION AND REMODEL WORK TO PROVIDE FINISHED APPEARANCE.
2. VERIFY ALL DIMENSIONS, REPORT ANY DISCREPANCIES TO THE ARCHITECT.

100609

RESTORATION of
PIPER'S OPERA HOUSE
VIRGINIA CITY, NEVADA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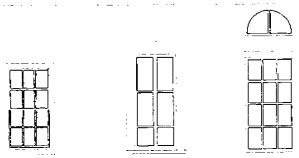
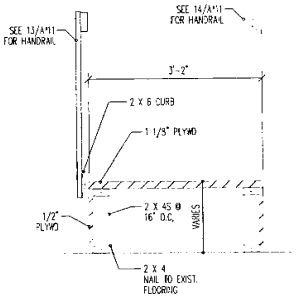
| SYMBOL | SIZE W | SIZE H | M'FGR | DETAIL HEAD | DETAIL JAMB | DETAIL SILL | GLASS |
|---|---|---|---|---|---|---|---|
| A | 3'-6" | 5'-8" | EXIST. | | | | |
| B | 3'-6" | 6'-6" | EXIST. | | | | |
| C | 3'-6" | 6'-6" | EXIST. | | | | |

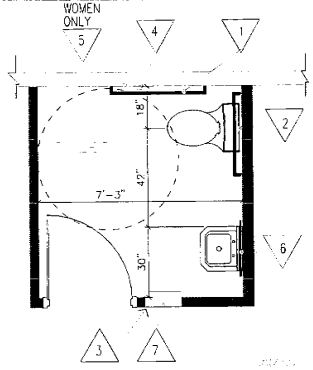


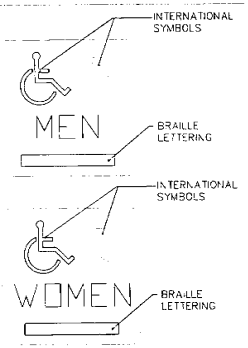

200101

WINDOW TYPES 1/4" = 1'-0"




15 TEMP RAMP 1"=1'-0"



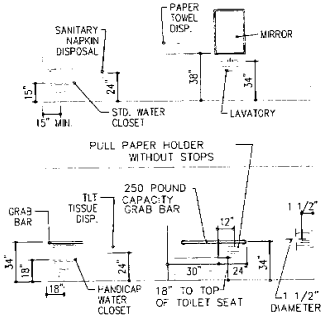

100202

ENLARGED TOILET 1/2"=1'-0"

14 HANDICAP SIGNS NO SCALE

SEE 10/A*6 FOR MTG HGTS

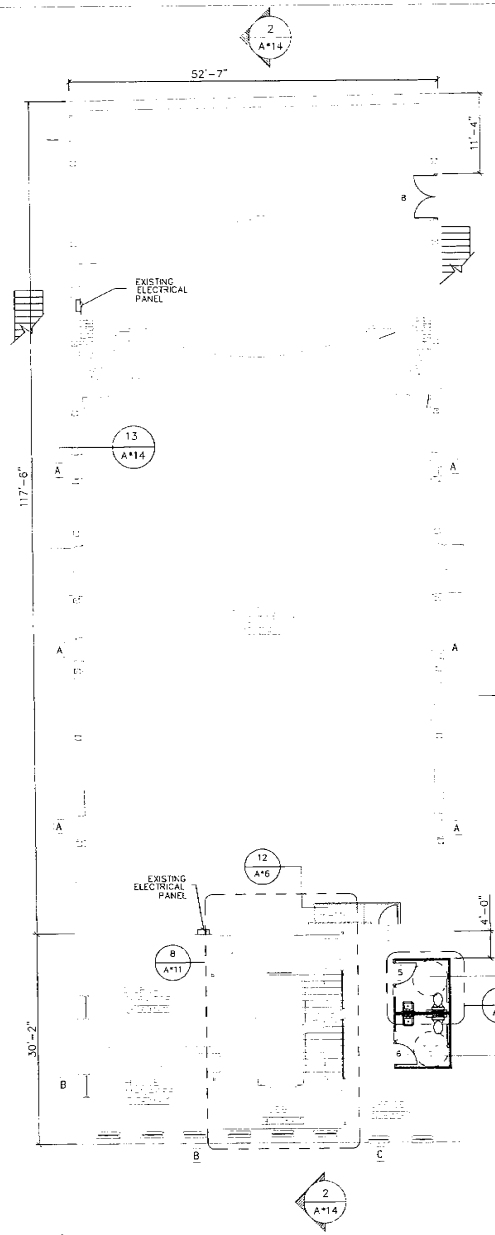
1. 48" GRAB BAR
2. 36" GRAB BAR
3. SIGN SEE 11/A*6
4. TOILET PAPER DISPENSER
5. SANITARY NAPKIN DISPOSAL
6. 24" X 36" MIRROR
7. RECESSED TRASH & PAPER TOWEL DISPENSER




100201

100016

13 MOUNTING HEIGHTS 1/4"=1'-0"




10 AUDITORIUM FLOOR PLAN 1/8"=1'-0"

| FINISH KEY | FLOOR | BASE | WALLS | CEILING | REMARKS |
|---|---|---|---|---|---|
| A | UNFINISHED | | | | EXISTING TO REMAIN |
| B | SHEET VINYL | 6" SHEET VINYL COVE | GYPSUM BOARD | GYPSUM BOARD | EPOXY PAINT |

ROOM NUMBER, CEILING HEIGHT, ROOM FINISH KEY

100220

ROOM FINISH LEGEND

WALL LEGEND

- EXISTING CONSTRUCTION
- 2 X 6 WOOD STUDS @ 16" O.C. 5/8" GYPSUM BOARD STAIR SIDE
- 2 X 4 WOOD STUDS @ 16" O.C. W/ R-11 INSUL. 5/8" GYPSUM BOARD EACH SIDE
- 8" CMU RETAINING WALL

GENERAL NOTES

1. PATCH TO MATCH ALL SURFACES DAMAGED FROM DEMOLITION AND REMODEL WORK TO PROVIDE FINISHED APPEARANCE.
2. VERIFY ALL DIMENSIONS, REPORT ANY DISCREPANCIES TO THE ARCHITECT.

100200

RESTORATION of PIPER'S OPERA HOUSE
VIRGINIA CITY, NEVADA

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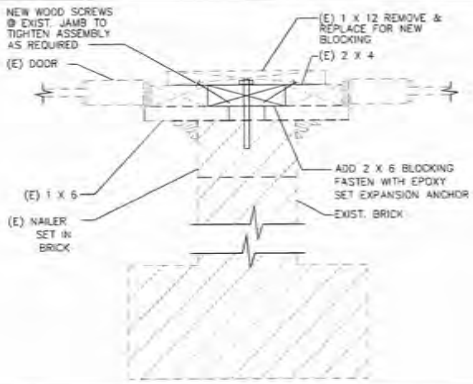
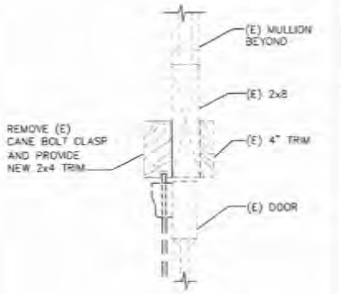
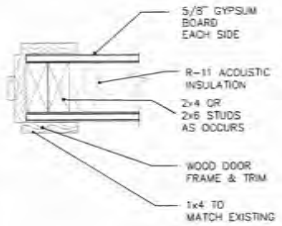



DOOR JAMB 3"=1'-0" 4

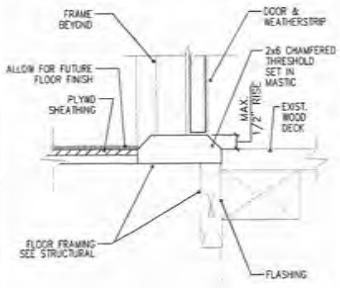



DOOR HEAD 3"=1'-0" 6

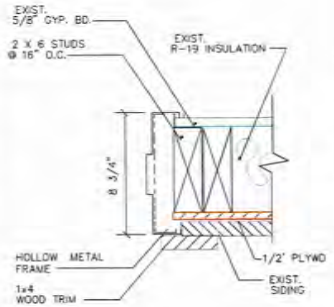



820018

DOOR JAMB (HEAD SIMILAR) 3"=1'-0" 3




THRESHOLD 3"=1'-0" 5

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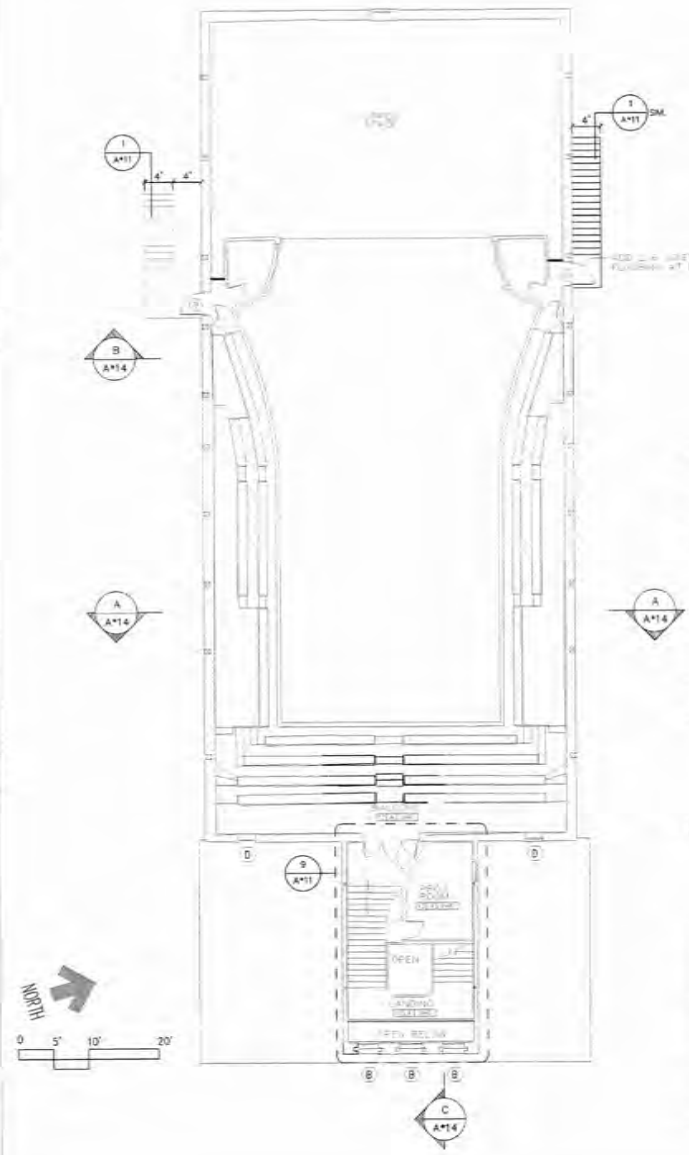
DOOR JAMB (HEAD SIMILAR) 3"=1" 2




BALCONY FLOOR PLAN 1/8"=1'-0" 1

| FINISH KEY | FLOOR | BASE | WALLS | CEILING | REMARKS |
|---|---|---|---|---|---|
| A | —— U N F I N I S H E D —— | | | | EXISTING TO REMAIN |
| B | SHEET VINYL | 6" SHEET VINYL COVE | GYPSUM BOARD | GYPSUM BOARD | EPOXY PAINT |

ROOM NUMBER / CEILING HEIGHT / ROOM FINISH KEY

100220

ROOM FINISH LEGEND

WALL LEGEND

- EXISTING CONSTRUCTION
- 2 X 6 WOOD STUDS @ 16" O.C. 5/8" GYPSUM BOARD STAIR SIDE
- 2 X 4 WOOD STUDS @ 16" O.C. W/ R-11 INSUL. 5/8" GYPSUM BOARD EACH SIDE
- 8" CMU RETAINING WALL

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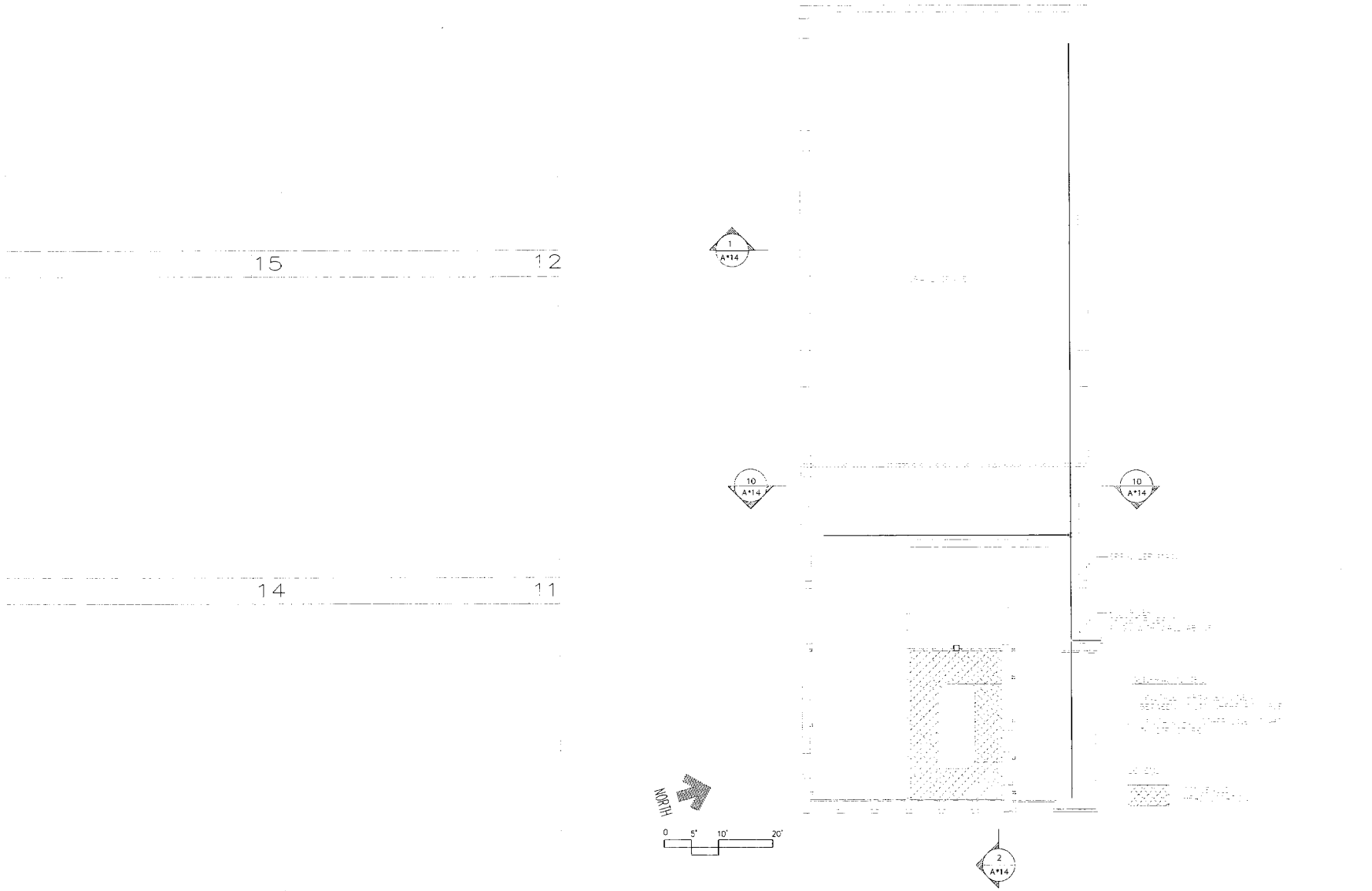
A-7




"B" STREET REFLECTED CEILING PLAN

1/8"=1'-0"

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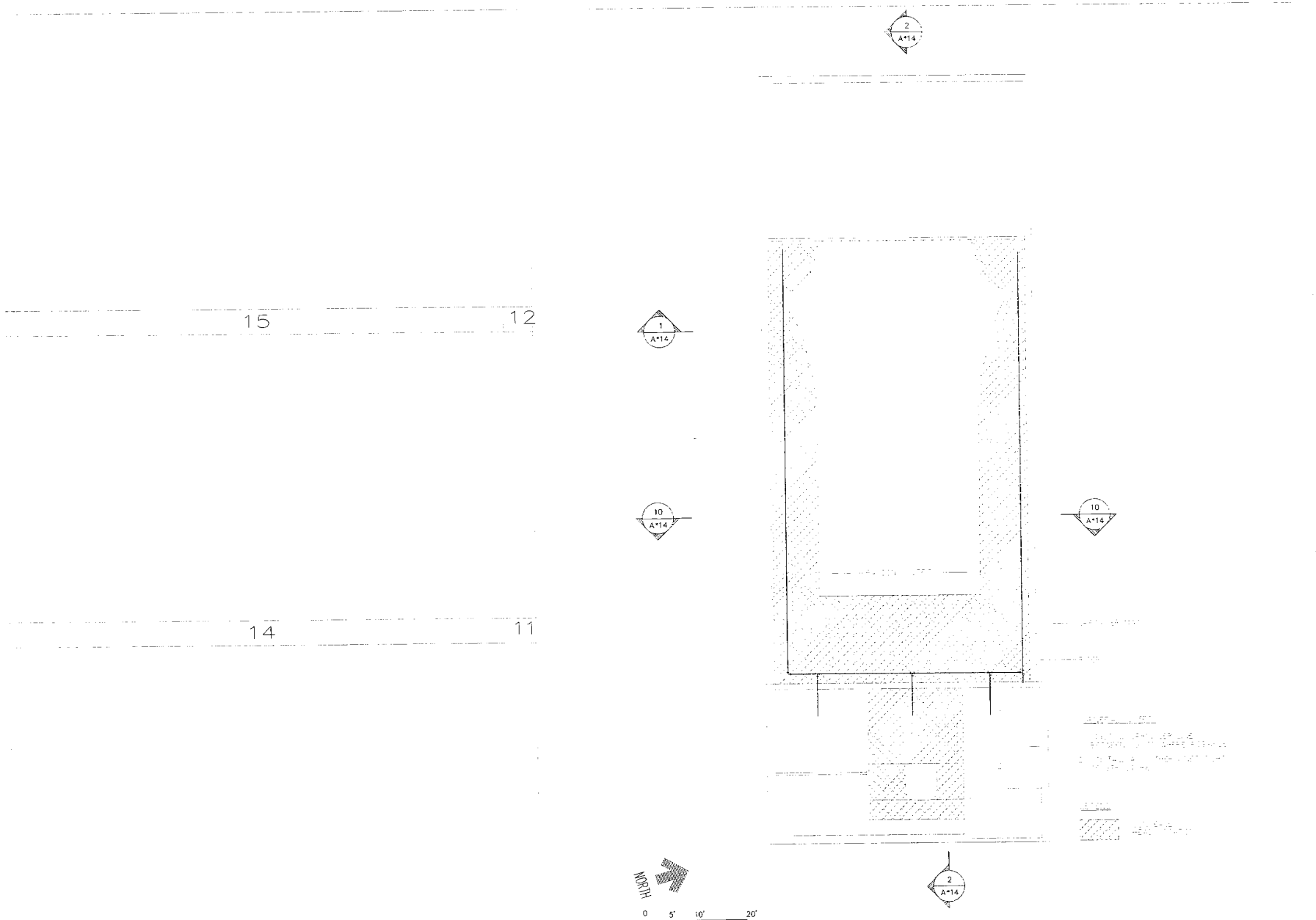


10 AUDITORIUM REFLECTED CEILING PLAN

1/8"=1'-0" 1

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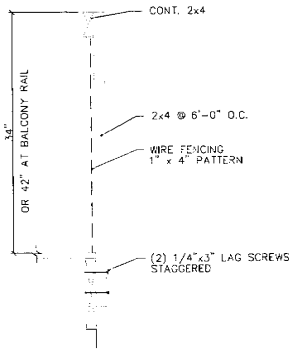
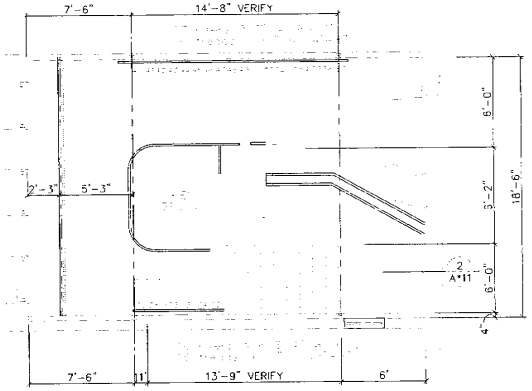
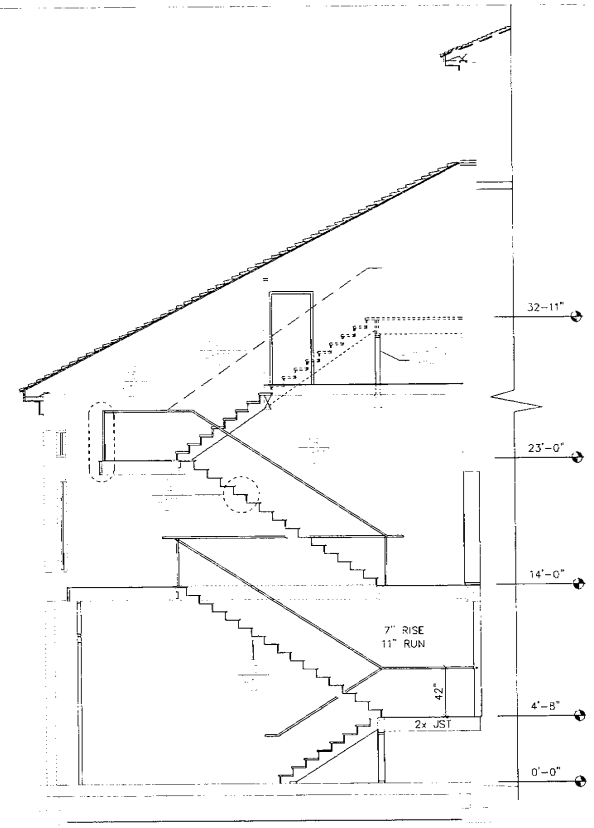
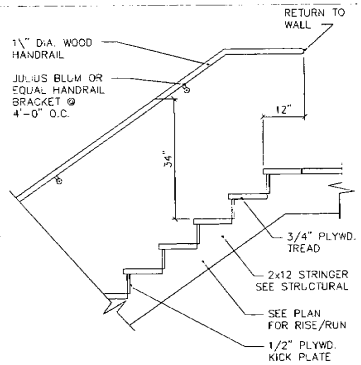



BALUSTRADE 1 1/2"=1'-0" 15



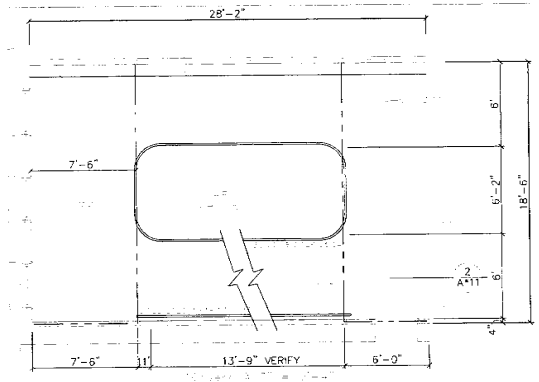

STAIR PLAN 1/4"=1'-0" 9



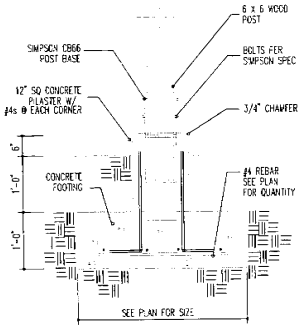

600020

HANDRAIL DTL 3/4"=1'-0" 14




STAIR PLAN 1/4"=1'-0" 8

STAIR SECTION 1/4"=1'-0" 2

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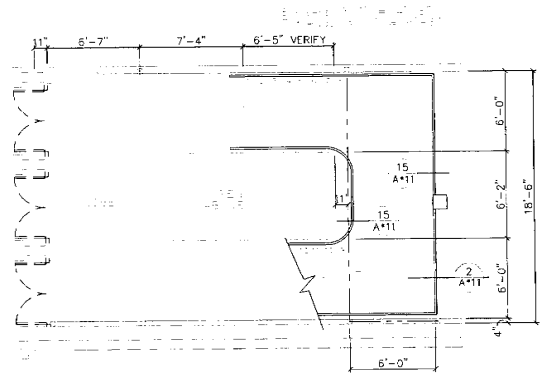


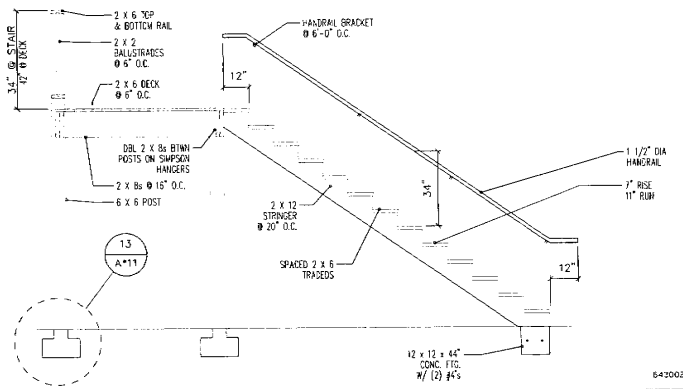


642002

COLUMN FTG. 1"=1'-0" 13

STAIR PLAN 1/4"=1'-0" 7

EXTERIOR STAIR SECTION 1/2"=1'-0" 1

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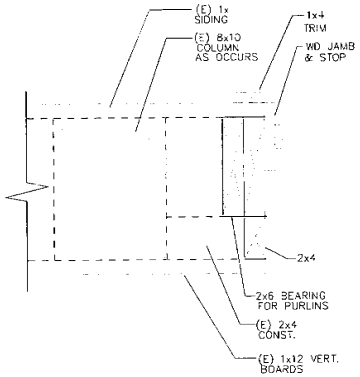
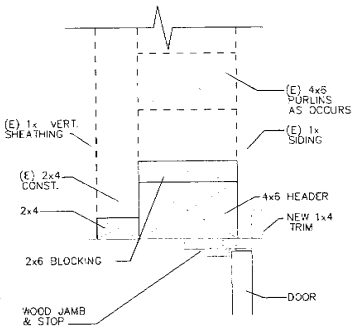



15 DOOR JAMB 3"=1'-0" 12

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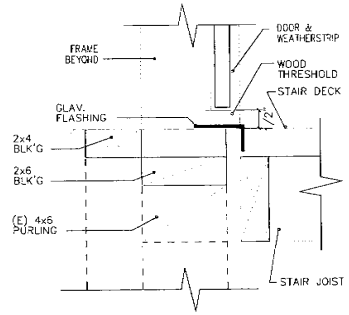
14 DOOR HEAD 3"=1'-0" 11

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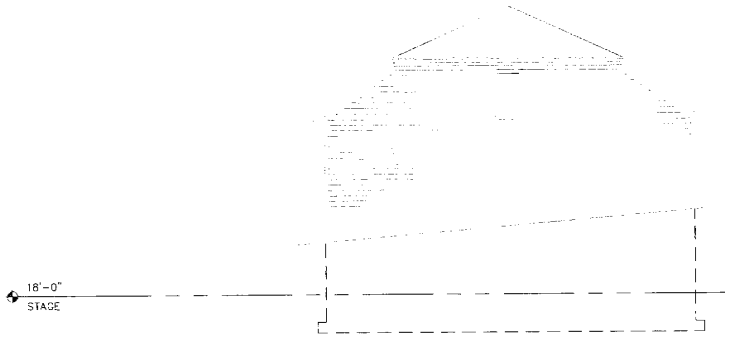
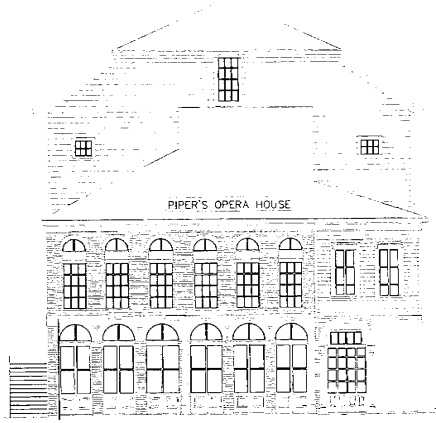
13 DOOR SILL 3"=1'-0" 10




WEST ELEVATION 1/8"=1'-0" 2




EAST ELEVATION 1/8"=1'-0" 1

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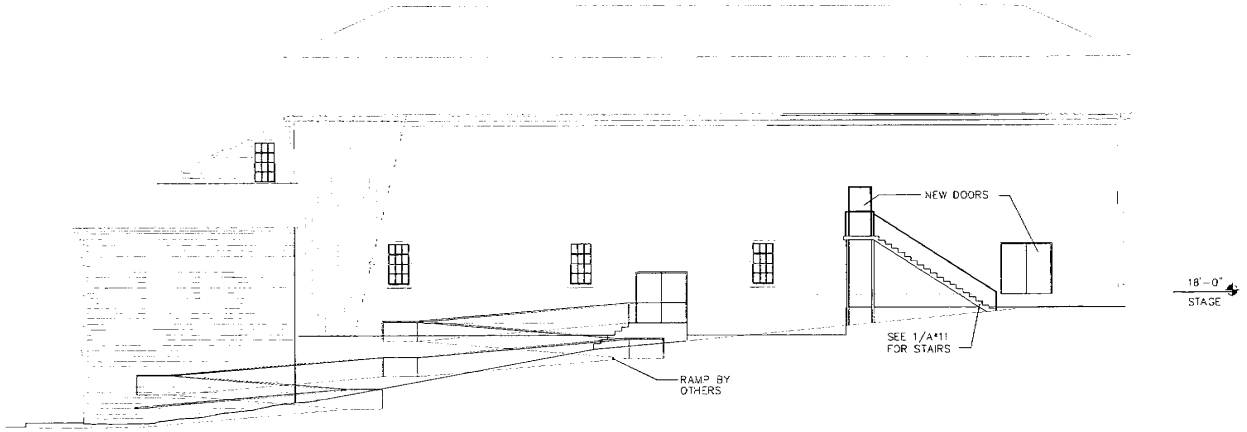
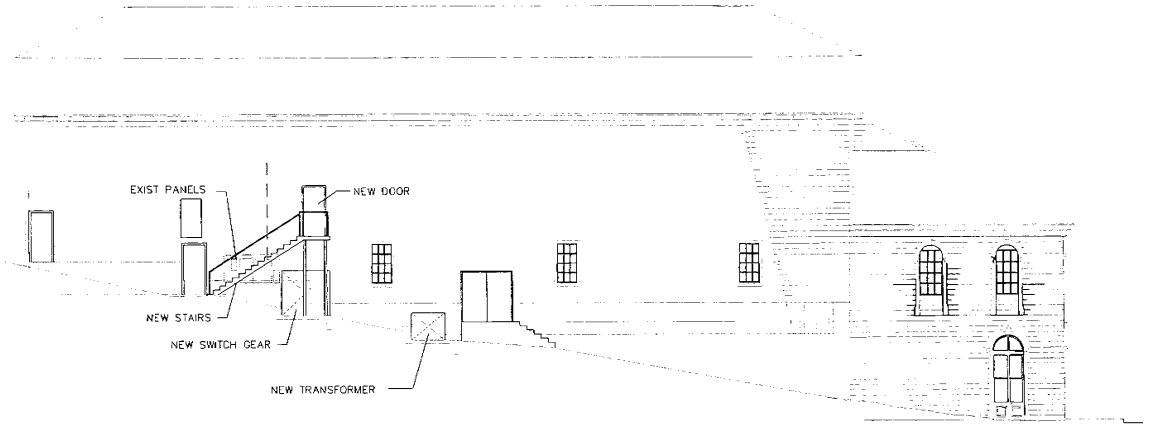



NORTH ELEVATION 1/8"=1'-0" 2

14




13 SOUTH ELEVATION 1/8"=1'-0" 1

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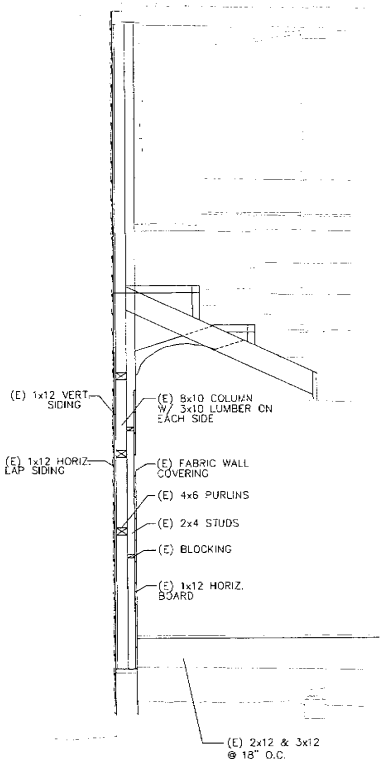
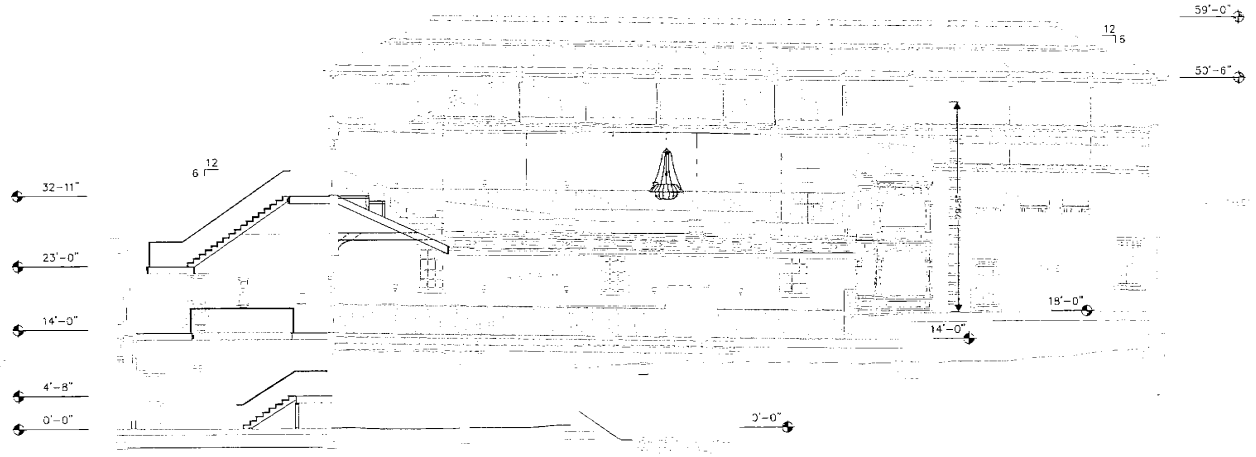
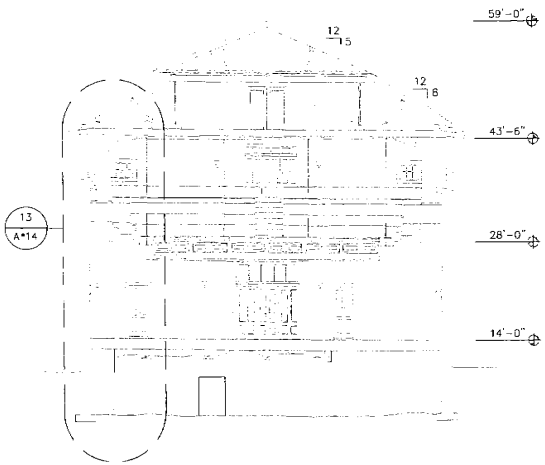



WALL SECTION



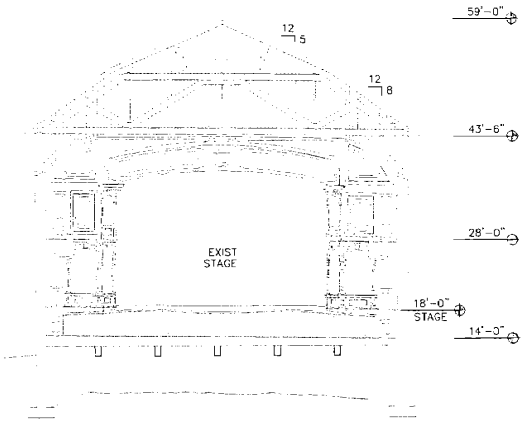

BUILDING SECTION "C-C"

3/8"=1'-0" 3




BUILDING SECTION "A-A"

1/8"=1'-0" 2




BUILDING SECTION "B-B"

1/8"=1'-0" 1

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# GENERAL NOTES

## GENERAL REQUIREMENTS

1. All materials and workmanship shall conform to the requirements of both local and 1994 Uniform Building Code (UBC) standards
2. Contractor shall check and verify all dimensions and conditions on the job site and report any errors, omissions or possible discrepancies to the engineer prior to processing with the work
3. Dimensions shown on the plans shall take precedence over scale of drawings.
4. Typical details and notes shall apply unless shown otherwise on the plans
5. Where "continuous inspection" is required on the plans, a special inspector, approved by and responsible to the engineer and Building department, shall be employed by the owner
6. The contractor shall provide safe and adequate braces and connections to support the component parts of the structure until the structure itself including the floor and roof diaphragms is complete enough to adequately support itself
7. Where reference is made to various test standards for materials, such standards shall be the latest edition and/or addendum
8. Construction safety provisions in accordance with Chapter 33 of the Uniform Building Code shall be provided and approved by the Building Department
9. The stamped set of plans and specifications shall be kept on the job site in an accessible location and shall be available to authorized representatives of the Building Department. There shall be no deviation from the approved plans and specifications without official approval from the Building Department. All work is designed to the minimum building standards or better.

## STRUCTURAL AND MISCELLANEOUS STEEL

1. All structural steel shall conform to ASTM A-36-97 and shall be fabricated and erected in accordance with the AISC Specifications for the design, fabrication and erection of structural steel for buildings, latest edition
2. All structural tubing shall conform to ASTM A-500, Grade B or ASTM A-501
3. Bolts and nuts shall conform to ASTM A-307, U.N.O.
4. All welding shall be performed in the shop of a licensed fabricator approved by the engineer or with continuous inspection by a special inspector
5. All welding is to comply with A.W.S. Standards and is to be done by welders certified for the type of welding to be performed as required by the Building Department
6. All welding is to be done by electric arc process with E70XX electrodes
7. Holes for bolts in structural steel shall be drilled or punched. Burning of holes shall not be permitted.

## LUMBER/NAILING

1. Structural Lumber
   - A. General: All structural lumber shall be stress graded Douglas Fir.
   - B. Grading
     1. All joists, rafters, beams, girders, posts, and braces shall be No. 1 Douglas Fir and better
     2. All studs, struts, sills, and plates shall be No. 2 Douglas Fir or better.
   - C. All wood in direct contact with concrete or masonry, if within 48" of the nearest ground, shall be pressure treated wood or foundation grade redwood.
2. All plywood shall be Douglas Fir 2-X or C-D, C-C structural II (UNO) conforming to Product Standards PS-1-74 with Exterior Glue and shall be stamped by an approved fabricator.
3. Installed Blocking: Bottom of blocking shall be installed exactly flush with bottom of joists or rafters so that steel straps and other steel connectors shall be installed straight with no bend in the steel connectors.
4. All nails to be common wire nails. Where splitting occurs, pre-drill holes. Machine nailing to be permitted upon continued demonstration of suitable nailing, nails shall not be driven more than 1/16"below surface of plywood. Under-driven nails to be hand driven flush to plywood surface.
5. No. penetration for plywood diaphragms shall be 1 1/2" into blocking, near misses to be re-nailed
6. Pre-drilling is required for all wood screws larger than #10.
7. Framing hangers, post caps and bases, and other connectors shall be as manufactured by HARDEN Company or an approved equa.
8. Cut washers shall be placed under heads and nuts of all bolts and under heads of lag bolts.

## UNREINFORCED MASONRY (U.R.M.)

1. Anchor bolts shall be Covert Injection Adhesive (ICBO Evaluation Report No. 4946)
2. Anchor Bolt Substitution: Other products may be suestituted for specified anchor bolt products. Any substitution shall be an ICBO approved product and subject to the approval of the design engineer. The size and spacing of all anchor bolts shall remain the same even an alternate product is used
3. Continuous inspection by a Registered Deputy Inspector is required for installation of all epoxy anchors
4. Five percent of all tension or combination anchors shall be tension tested to a minimum of 3026 lbs for 3 minutes
5. All anchor bolts embedded in existing brick walls shall conform to the following
   - A. Drilling shall be done with electric rotary drill
   - B. Drilled holes shall be cleaned as recommended by anchor bolt manufacturer.
   - C. Bolts shall be placed 6" away from the vertical boundaries of the joist pockets
   - D. Test bolts by torque testing as follows
     - 3/4"ø bolts - 50 ft-lbs
6. Impact type tools shall not be used on any existing masonry buildings. Workmanship shall minimize damage to existing construction
7. Masonry walls in area of work having deteriorated mortar joints shall be properly pointed. Such work shall be done according to U.B.C. Standard No. 24-9
8. Before applying concrete or mortar to existing masonry the following must be done:
   - A. Clean and brush all contact areas to fresh surface.
   - B. Remove loose bricks and reset same with cement mortar.
   - C. Saturate masonry surface to reduce absorption.

## CONCRETE

1. Concrete shall be a 5 sack per cubic yard minimum mixture. All concrete and grout shall be grade C and obtain a minimum strength of f'c=3000 psi (UNO) at 28 days. Special inspection by a registered deputy building inspector is required for all concrete with f'c > 2500 psi
2. All concrete shall be regular weight Portland rock type concrete unless noted otherwise. Aggregates shall conform to ASTM C-33
3. Cement shall conform to ASTM C-150 (Type II) unless alkaline soils are present
4. Concrete shall be maintained in a moist condition for a minimum of 5 days after placement. Alternate methods of curing may be accepted
5. Concrete shall not free-fall more than 5 feet. Use trenie or pump
6. Prior to placing concrete, reinforcing steel and embedded items shall be in place and well secured in position
7. Sleeves not specifically shown on the drawing shall be located by the trades involved and the locations reviewed by the engineer before concrete is placed. Check with all trades to ensure proper placement of openings, sleeves, curbs, etc. relating to work
8. All rod head anchors in existing concrete shall be "HYDRASET #19 HEAD Stud Anchors (ICBO Evaluation Report No. 1372)

## REINFORCING STEEL

1. Reinforcing steel shall be deformed steel conforming to the requirements of A.S.T.M. A-615, GRADE 40
2. Detailing, fabrication and erection of reinforcing bars shall conform to A.C.I. "Manual of Standard Practice for Detailing Reinforced Concrete Structures", the most recent edition.
3. Welded wire fabric shall conform to A.S.T.M. A-82 and A-185. Lap 1 1/2 spaces (9" minimum)
4. All welding is to comply with A.W.S. Standards and is to be done by welders certified for the type of welding to be performed as required by the Department of Building and Safety.
5. E90XX electrodes shall be used to weld reinforcing bars. In addition to the requirements of ASTM 615, a report shall be provided by the reinforcing manufacturer to verify that material properties are those necessary for conformance with welding procedures specified in A.W.S. D1.4 "Structural Welding Code - Reinforcing Steel". In lieu of supplying a supplemental report, bars conforming to ASTM A-706 may be used.
6. Concrete protection for reinforcement shall be at least equal to the diameter of the bars. Minimum cover for cast in place concrete shall be as follows:
   - A. Placed against earth: 3 in.
   - B. Placed against forms below grade: 2 in.
   - C. Slabs on grade (from top of slab): 1 in.
7. Bars shall be clear of rust, grease or other material likely to repel bond. Bends shall be made cold.
8. Minimum lap, U.N.O. on the plans, shall be 40 bar diameters.
9. All grade 40 reinforcement shall be clearly marked to differentiate it from grade 60 reinforcement if both are concurrently on the job

## INDEX TO DRAWINGS

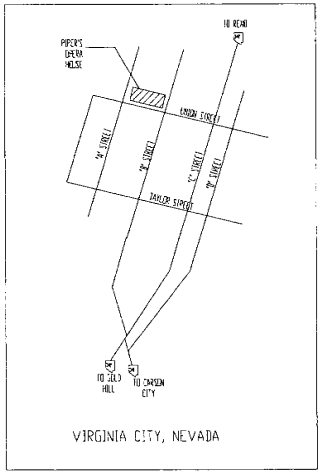


## DRAWING SYMBOLS

- INTERIOR ELEVATION
- SECTION
- DATUM POINT
- NORTH ARROW

## MATERIAL INDICATIONS

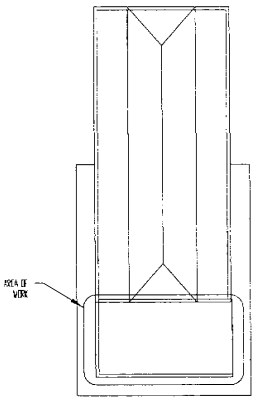
- WOOD (CONTINUOUS)
- WOOD BLOCKING
- MASONRY
- CONCRETE
- EARTH




VIRGINIA CITY, NEVADA

VICINITY MAP
SCALE: NONE

NORTH




SITE MAP
SCALE: 1/20" = 1'-0"

NORTH

BID SET
Δ REVISION 10/5/98
BY AJK

GENERAL NOTES, VICINITY MAP, SITE MAP, AND SHEET INDEX

CONSTRUCTION PLAN for
PIPER'S OPERA HOUSE
VIRGINIA CITY, NEVADA

| | |
|---|---|
| SCALE: | 1/8"=1'-0" |
| JOB | 9709 |
| DATE: | February 1998 |
| DRAWN | AJK |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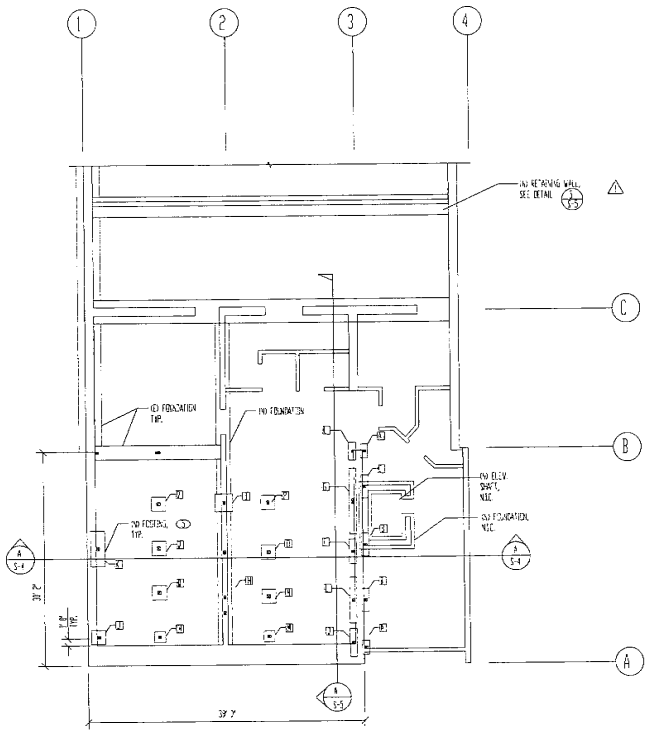
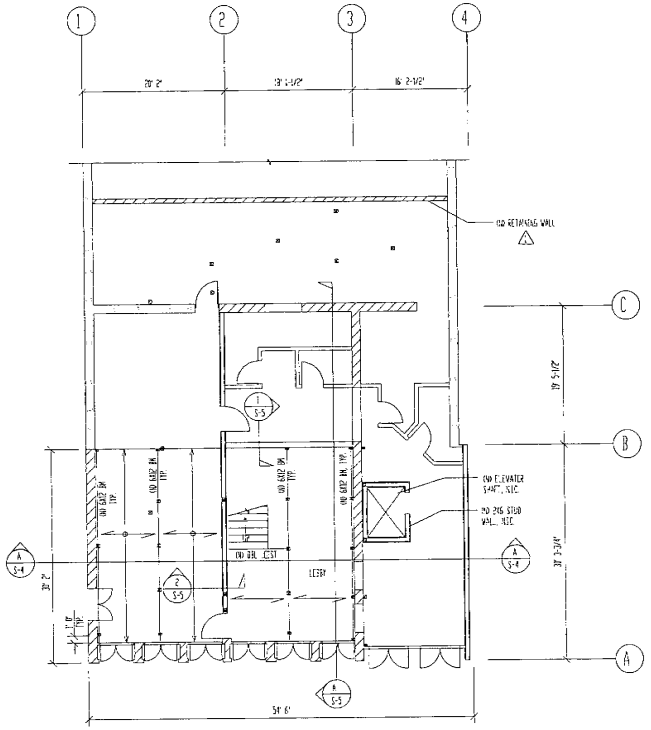
S#1




PARTIAL FOUNDATION PLAN

SCALE: 1/8" = 1'-0"




"B" STREET LEVEL FRAMING PLAN

SCALE: 1/8" = 1'-0"

INDICATES (N) 2X12 FLOOR JOIST @ 16" OC. W/ SIMPSON LSU26 HANGER, TYP. (UNO)

INDICATES (N) 4X6 POST, TYP. (UNO)

NOTE: SEE "B" STREET LEVEL FLOOR PLAN AND ROOF FRAMING PLAN ON SHEET 2 FOR BALANCE OF INFORMATION

## REVISED FOOTING SCHEDULE

NOTE: PLACE FOOTING 2'-0" MIN. INTO UNDISTURBED EARTH

| MARK | SIZE LENGTH | SIZE WIDTH | THICKNESS | REINFORCING STEEL | NOTES |
|---|---|---|---|---|---|
| A | 2'-0" | 1'-0" | 12" | #5 @ 5'-0" O.C. | |
| B | 3'-3" | 1'-0" | 12" | #5 @ 6'-0" O.C. | |
| C | 3'-3" | 1'-3" | 12" | #5 @ 6'-0" O.C. | |
| D | 4'-0" | 1'-0" | 12" | #5 @ 5'-0" O.C. | |
| E | 5'-6" | 1'-0" | 12" | #5 @ 6'-0" O.C. | |
| F | 3'-6" | 1'-3" | 12" | #5 @ 6'-0" O.C. | |
| G | 3'-3" | 1'-0" | 12" | #5 @ 5'-0" O.C. | |
| H | 4'-0" | 1'-0" | 12" | #5 @ 6'-0" O.C. | |
| I | 2'-6" | 2'-6" | 12" | #4 @ 12" O.C. | |
| J | 2'-5" | 1'-6" | 12" | #5 @ 5'-0" O.C. | |
| K | 5'-0" | 2'-0" | 12" | #4 @ 12" O.C. | |
| L | 2'-6" | 1'-3" | 12" | #5 @ 5'-0" O.C. | |
| M | 1'-6" | 1'-6" | 12" | #5 @ 6'-0" O.C. | |
| N | 2'-3" | 2'-3" | 12" | #4 @ 12" O.C. | |
| O | 2'-0" | 2'-3" | 12" | #4 @ 12" O.C. | |
| P | 2'-0" | 2'-0" | 12" | #4 @ 12" O.C. | |
| Q | 2'-0" | 2'-0" | 12" | #4 @ 12" O.C. | |

stud wall and foundation.

WORK ITEM DESCRIPTION

1. Remove existing brick wall and construct new 2 x 6 stud wall and foundation.
   A. Shore (E) 2nd floor and stud wall above as required.
   B. Remove brick and stone.
   C. Remove (E) footing.
   D. Construct CIP concrete foundation per detail on sheet S5-4
   E. Construct (N) 2x6 @ 16" oc stud wall
2. Keep (E) beam and post in place. Level and integrate into (N) stud wall. New footing and stud wall per detail
3. Remove (E) floor joists. Construct (N) floor joists.
4. Use (N) 6x12 beam that contains no splice longer than 6'.
5. Chip out (E) brick footing as required. Construct (N) concrete footing per detail
6. Shear wall 15/32" STRUC I Plywood w/ 7"10d @ 4" oc. nailing 7"10d @ 12" oc. field
7. Cut new opening in (E) brick wall per detail typ.
8. Existing column, ignore (E) floor above, then remove (E) column and footing as directed
9. Use (N) 6x12 beam that contains no splice.
10. Use (N) 6x12 Douglas Fir-Larch Ponderosa Select Structural beam that contains no splice greater than 6'

BID SET

1 REVISION 4/15/98 BY AJK

2 REVISION 2/1/98 BY AJK

FLOOR, FRAMING AND FOUNDATION PLAN

CONSTRUCTION PLAN for

PIPER'S OPERA HOUSE

VIRGINIA CITY, NEVADA

| | |
|---|---|
| SCALE | 1/8"=1'-0" |
| JOB | 97129 |
| DATE | February 1998 |
| DRAWN | AJK |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NEVADA
89702
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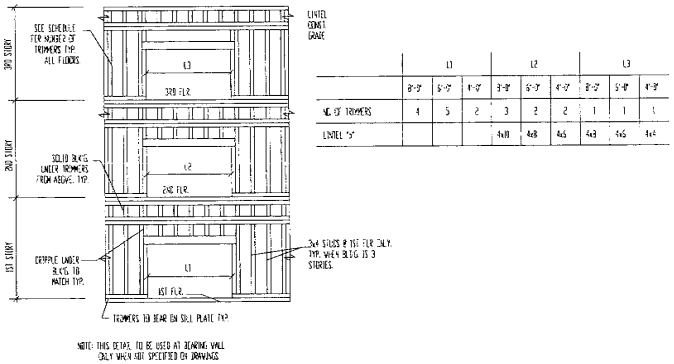
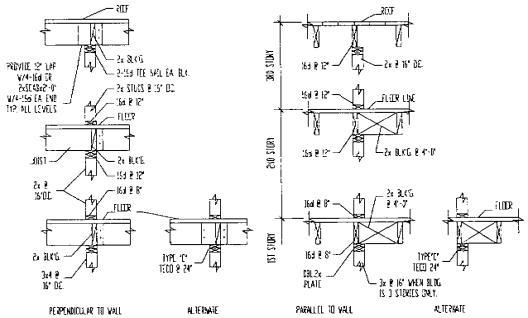



| | L1 | | | L2 | | | L3 | | |
|---|---|---|---|---|---|---|---|---|---|
| | 8'-0" | 5'-0" | 4'-0" | 8'-0" | 5'-0" | 4'-0" | 8'-0" | 5'-0" | 4'-0" |
| NO. OF TRIMMERS | 4 | 5 | 2 | 3 | 2 | 2 | 1 | 1 | 1 |
| LINTEL "S" | | | | 4x10 | 4x8 | 4x6 | 4x8 | 4x6 | 4x4 |

NOTE: THIS DETAIL TO BE USED AT BEARING WALL ONLY WHEN NOT SPECIFIED ON DRAWINGS.

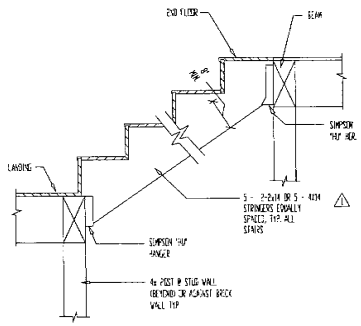
## LINTELS AND TRIMMERS

SCALE: NONE

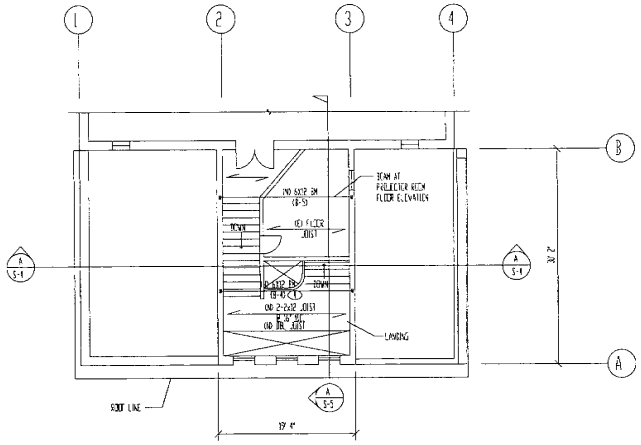



## TYP. JOIST TO STUD WALL CONN.

SCALE: NONE




## TYPICAL STAIR DETAIL




## BALCONY LEVEL FRAMING PLAN

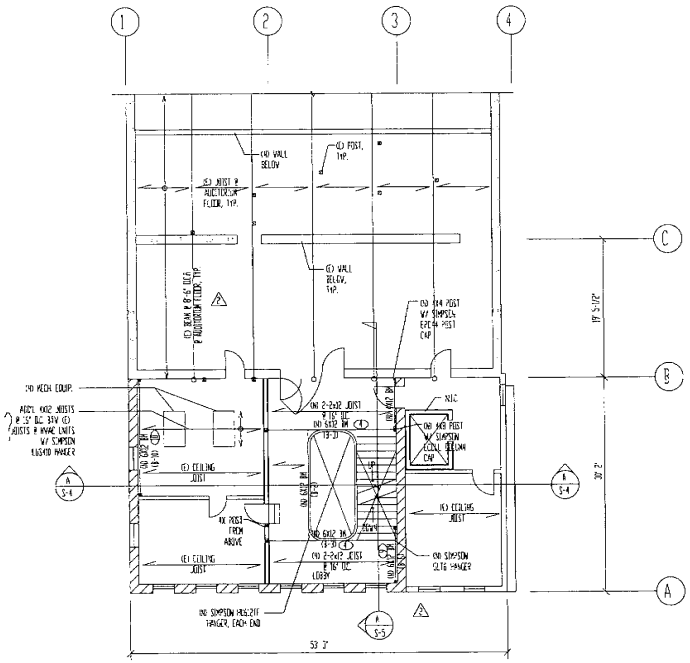
SCALE: 1/8" = 1'-0"

INDICATES (N) 2X12 FLOOR JOIST @ 16" OC. W/ SIMPSON LU212 HANGER, TYP. U.N.O.

NORTH

| SEISMIC ANCHOR BOLT SCHEDULE @ BALCONY LEVEL | | | | |
|---|---|---|---|---|
| GRID | FROM GRID | TO GRID | BOLT SPACING O.C. | REF. DETAIL |
| 3 | A | B | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

NOTES
1. FIRST BOLT SHALL BE INSTALLED 6" MAX. AT 2'-0" FROM INSIDE EDGE OF PLANTER WALL.




## AUDITORIUM LEVEL FRAMING PLAN @ LOBBY AND ATTIC FRAMING PLAN

SCALE: 1/8" = 1'-0"

INDICATES (N) 2X12 FLOOR JOIST @ 16" O.C. W/ SIMPSON LU210 HANGER, TYP. U.N.O.

NORTH

| SEISMIC ANCHOR BOLT SCHEDULE @ AUDITORIUM LEVEL | | | | |
|---|---|---|---|---|
| GRID | FROM GRID | TO GRID | BOLT SPACING O.C. | REF. DETAIL |
| A | 1 | 3 | | |
| 1 | A | B | | |
| 3 | A | B | | |
| | | | | |
| | | | | |
| | | | | |

NOTES
1. FIRST BOLT SHALL BE INSTALLED 6" MAX. AT 2'-0" FROM INSIDE EDGE OF PLANTER WALL.

BID SET

1 REVISION 4/15/08 BY ASC
2 REVISION 10/98 BY ASC

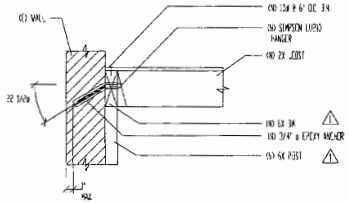
AUDITORIUM AND BALCONY LEVEL FRAMING PLANS, DETAILS

CONSTRUCTION PLAN For
PIPER'S OPERA HOUSE
VIRGINIA CITY, NEVADA

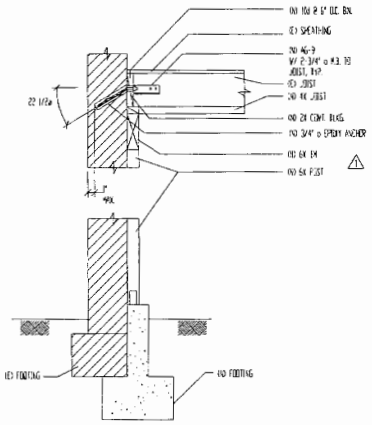
SCALE: 1/8"=1'-0"
JOB: 9729
DATE: February 1998
DRAWN: ASC


J.P. COPOULOS ARCHITECT
P.O. BOX 2317
CARSON CITY
NEVADA
89702
702-883-7907

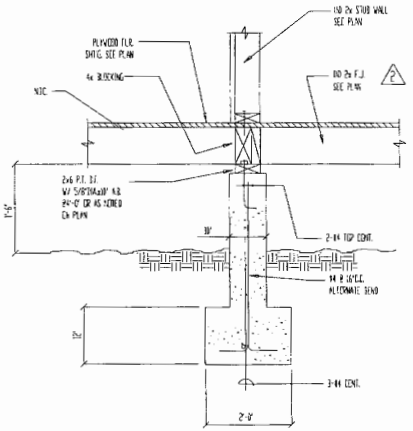

S-3



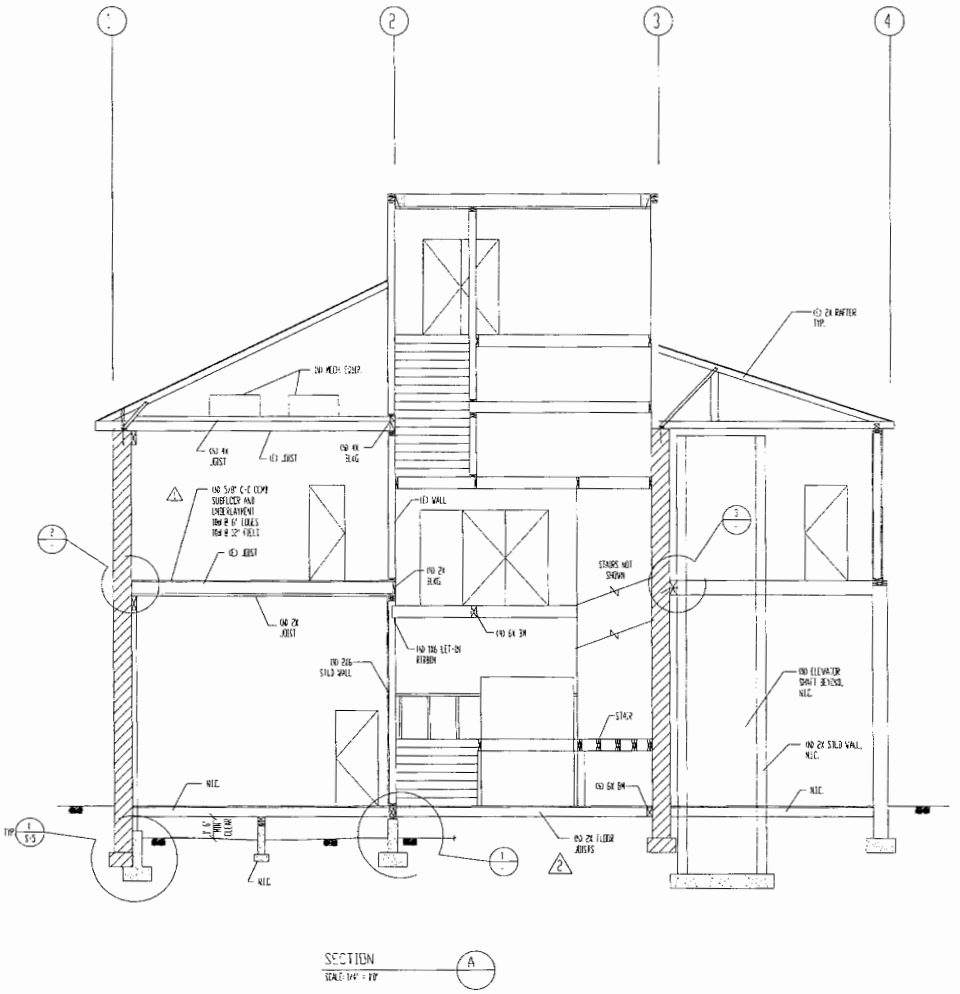

COMBINATION ANCHOR DETAIL
JOIST PERP TO WALL — 3




COMBINATION ANCHOR DETAIL
JOIST PERP TO WALL — 2




FOUNDATION DETAIL — 1




SECTION
SCALE: 1/4" = 1'0" — A

BID SET

1 REVISION 4/15/19 BY AJC

CONSTRUCTION PLAN for
PIPER'S OPERA HOUSE
VIRGINIA CITY, NEVADA

SECTION AND DETAILS

SCALE: 1/4"=1'-0"
JOB: 19123
DATE: February 1958
DRAWN: AJC

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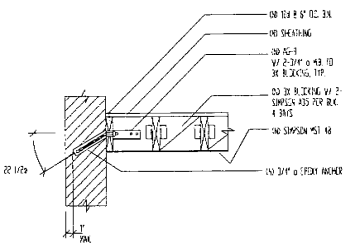
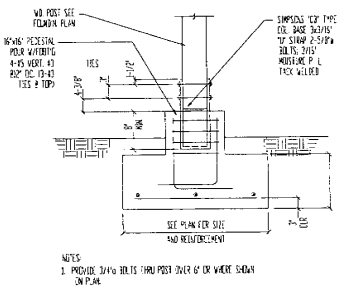
NEVADA
89702
702-885-7907

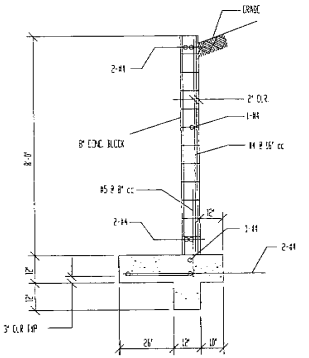
S*4

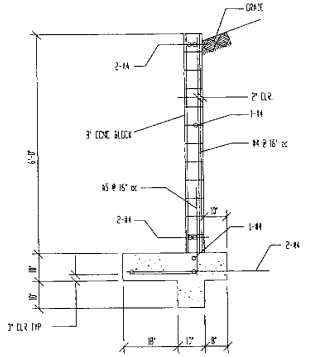



COMBINATION ANCHOR DETAIL
JOIST PARALLEL TO WALL — 5

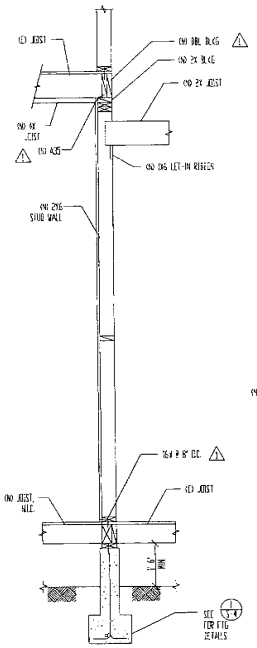



TYPICAL POST FOOTING — 4

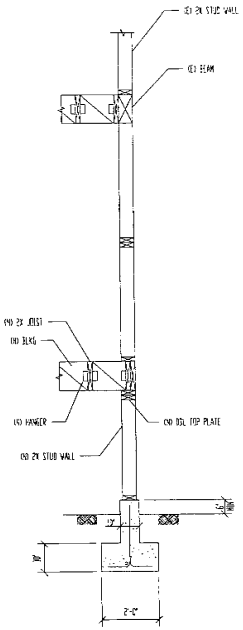


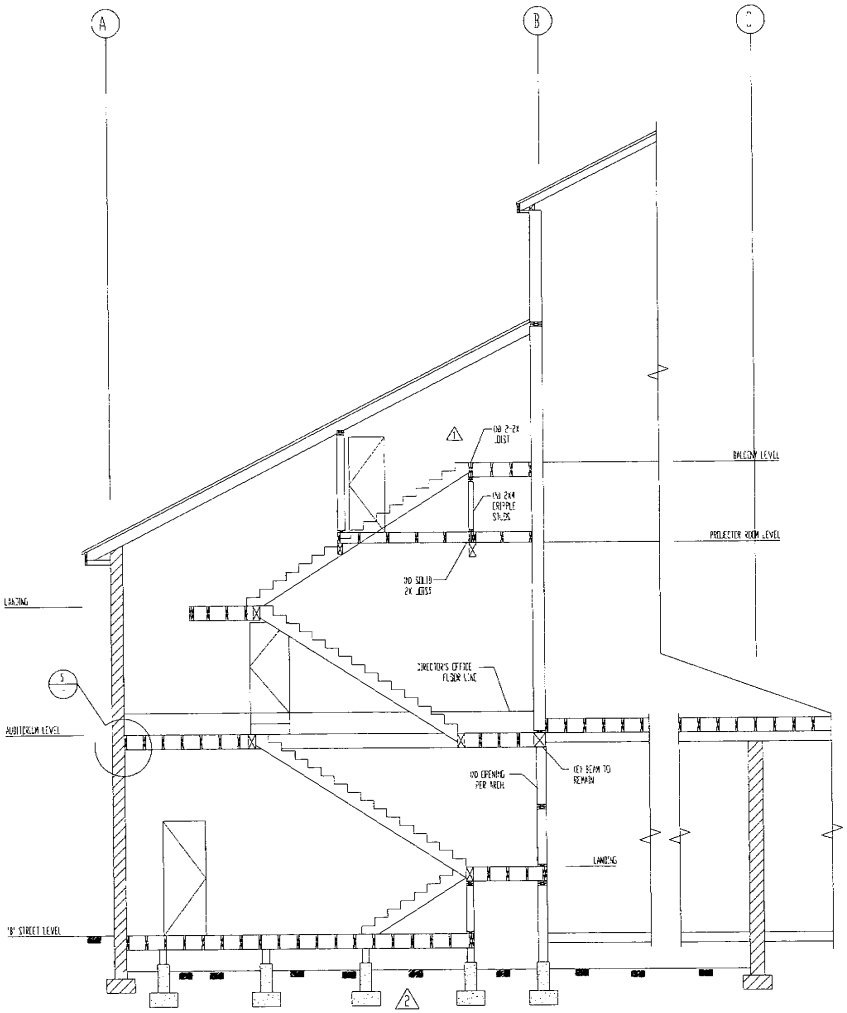

⚠ RETAINING WALL DETAILS — 3
NO SCALE




WALL SECTION — 2
SCALE: 1/2" = 1'-0"




WALL SECTION — 1
SCALE: 1/2" = 1'-0"




SECTION
SCALE 1/4" = 1'-0" — A

BID SET

⚠ REVISION 4/15/98 BY A.K.

SECTION AND DETAILS

CONSTRUCTION PLAN for
PIPER'S OPERA HOUSE
VIRGINIA CITY, NEVADA

| | |
|---|---|
| SCALE | 1/8"-1'-0" |
| JOB | 9729 |
| DATE | February 1998 |
| DRAWN | MK |

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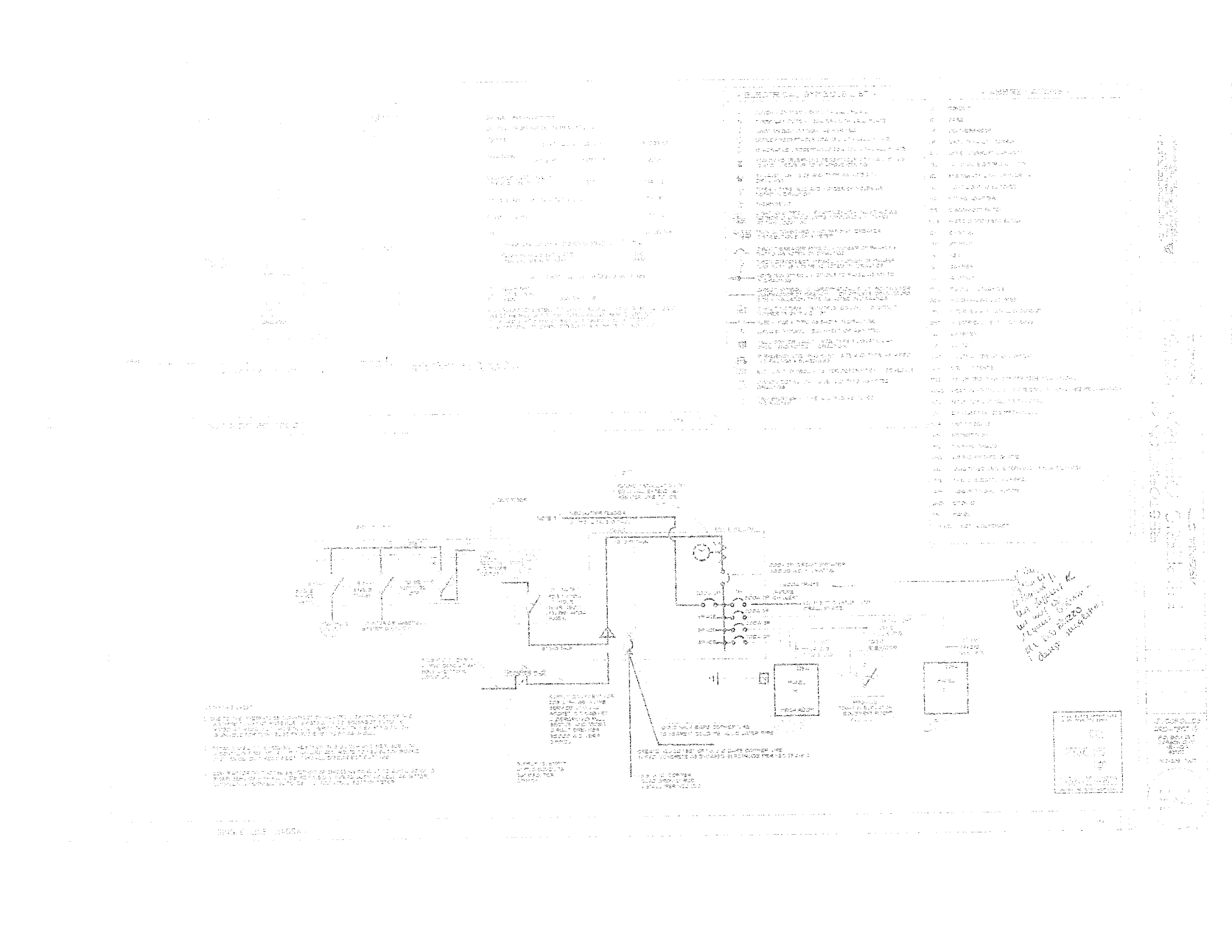
S#5



ARCHITECTURAL DRAWINGS

A*1 COVER SHEET
A*2 AUDITORIUM LEVEL PLAN, DOOR SCHEDULE AND TYPE
A*3 ELEVATIONS, DETAILS
A*4 ELEVATIONS
A*5 BUILDING SECTIONS AND WALL SECTION


INDEX TO DRAWINGS | 15 | 15

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UNDERGROUND SERVICE ALERT (USA)

254001

CODE DATA

| | |
|---|---|
| OCCUPANCY CLASSIFICATION | A2, B |
| OCCUPANT LOAD | 964 |
| TYPE OF CONSTRUCTION | V-1HR |
| FIRE SPRINKLERS IN LIEU OF 1HR CONST. | |
| LOCATION ON PROPERTY | OPEN ALL SIDES |
| TOTAL FLOOR AREA | 11,774 S.F. |
| HEIGHT | 58'-0" |
| NUMBER OF STORIES | TWO/W BASEMENT |

SERVICE ALERT NO SCALE | 14 | 14

# PHASE TWO-B SIDING for PIPER'S OPERA HOUSE VIRGINIA CITY, NEVADA

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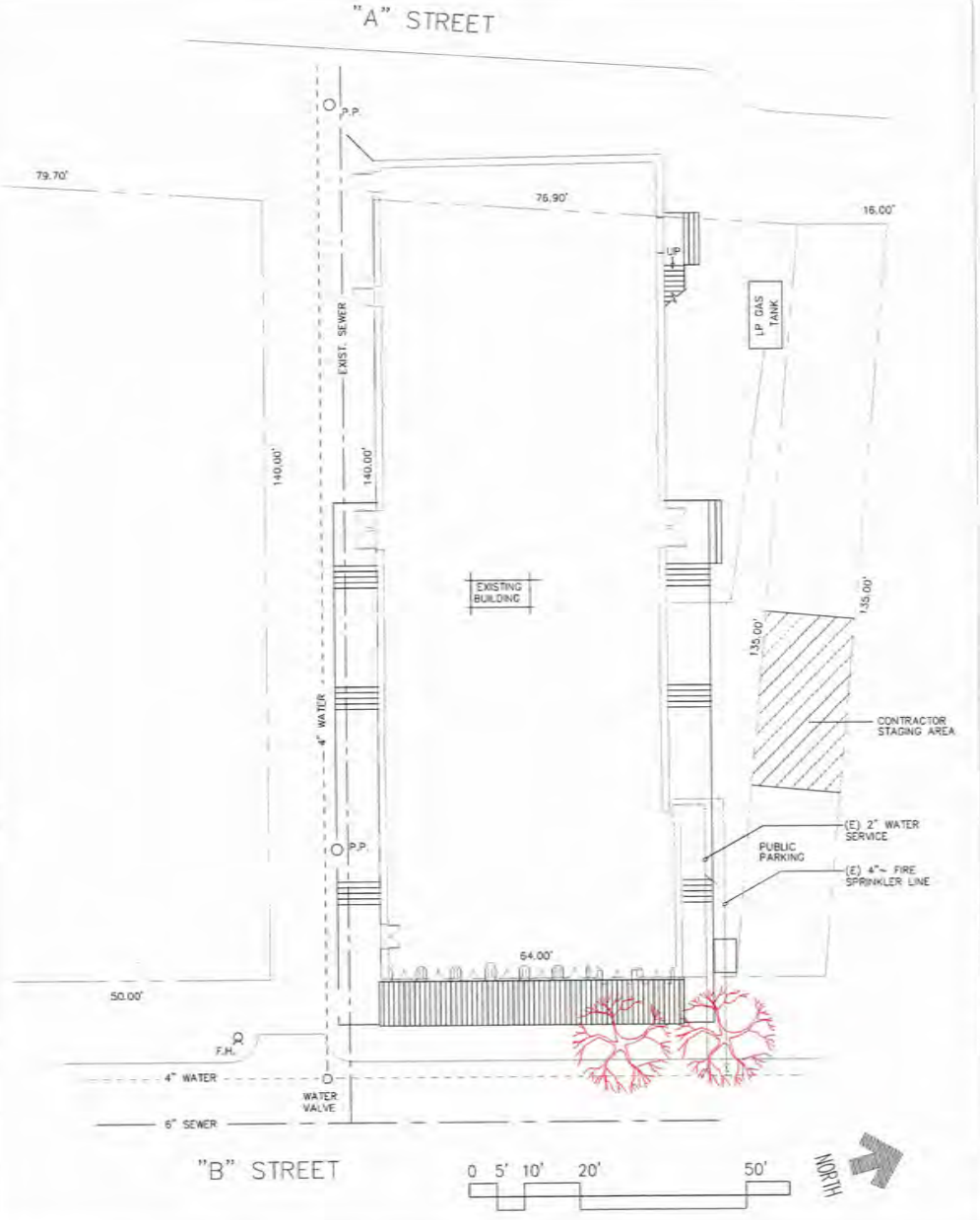


13 SITE PLAN 1"=10'-0" | 1

PHASE 2 B - SIDING for PIPER'S OPERA HOUSE
VIRGINIA CITY, NEVADA

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A*1

| DOOR NO. | DOOR SIZE W | H | T | TYPE | GLASS | FRAME TYPE | DETAIL HEAD | JAMB | THRESH | FIRE RATING | HARDWARE SET NO | CLOSER | PANIC BAR | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3° | 7° | 1 3/4 | A | -- | WD | 11/A*2 | 13/A*2 | 10/A*2 | -- | 1 | ● | ● | REMOVE (E) DOOR |
| 2 | 3° | 7° | 1 3/4 | A | -- | WD | 11/A*2 | 13/A*2 | 10/A*2 | -- | 2 | | | REMOVE (E) DOOR |
| 3 | 3° | 7° | 1 3/4 | A | -- | WD | 11/A*2 | 13/A*2 | | -- | | | | REMOVE (E) DOOR |

A
SOLID CORE WOOD RAISED PANEL MATCH EXIST.

B00001

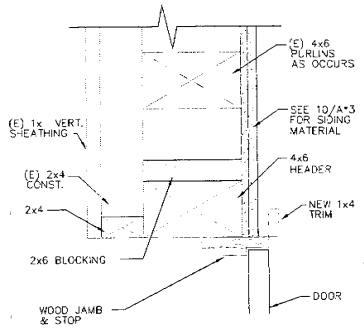
1. 1 1/2 PAIR BUTTS
CLOSER LCN 330 SERIES
PANIC BAR (VON DUPRIN 8827L SERIES)
WEATHERSTRIP 313 & 316
THRESHOLD 2180AK

FINISH :
POLISHED BRASS (US3)

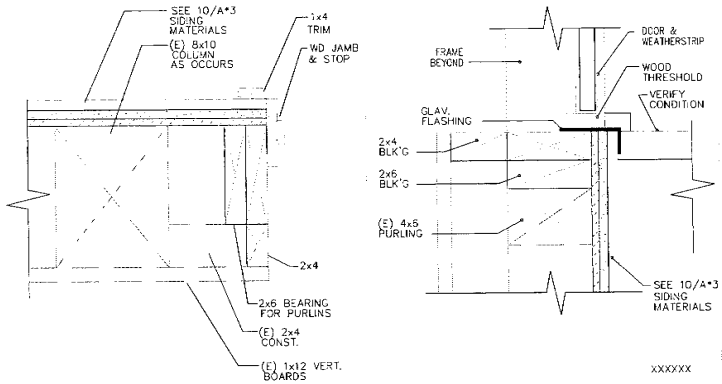
LATCHSET:
SCHLAGE ATHENS SERIES D
W/ CIRCULAR LATCH PLATE

2. 1 1/2 PAIR BUTTS
LATCHSET D70PD
WEATHERSTRIP 313 & 316
THRESHOLD 2180AK

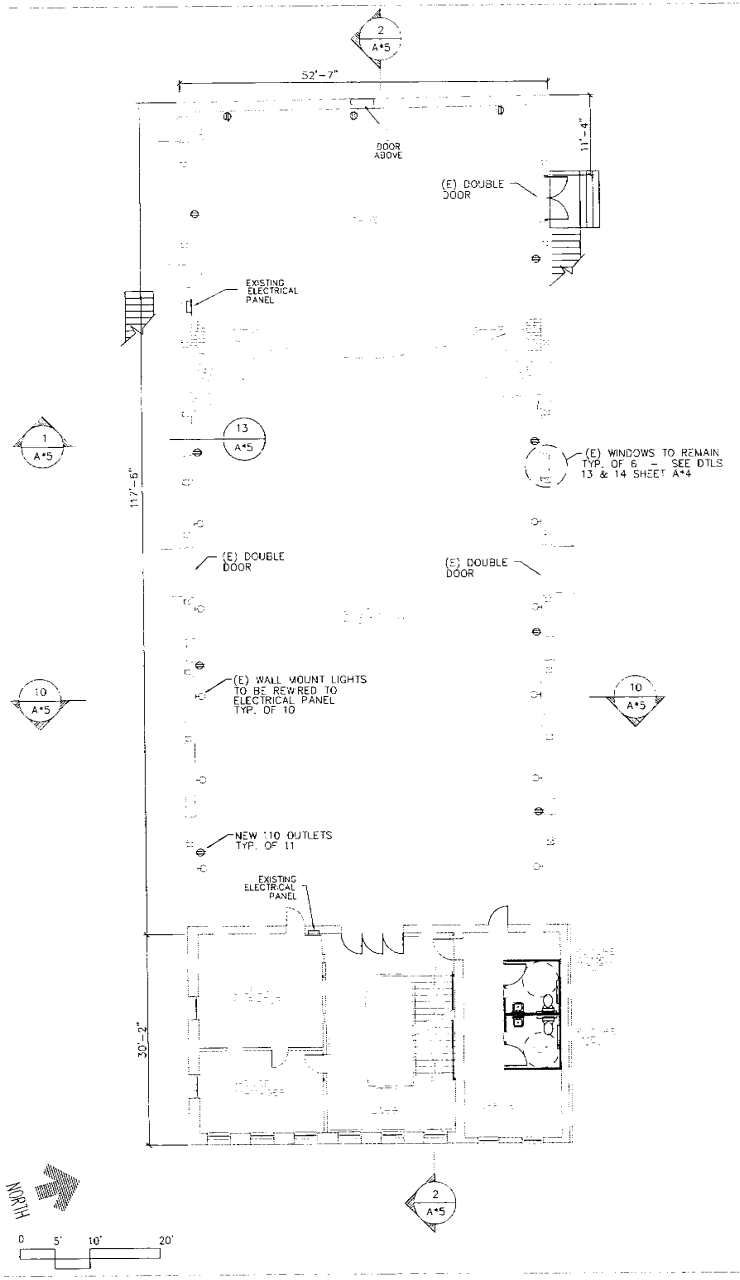
DOOR TYPES 1/4"=1'-0" HARDWARE SETS 12




14 DOOR HEAD 3"=1'-0" 11




DOOR JAMB 3"=1'-0" 13 DOOR SILL 3"=1'-0"




10 AUDITORIUM LEVEL PLAN 1/8"=1'-0" 1

PHASE 2 B - SIDING for
PIPER'S OPERA HOUSE
VIRGINIA CITY, NEVADA

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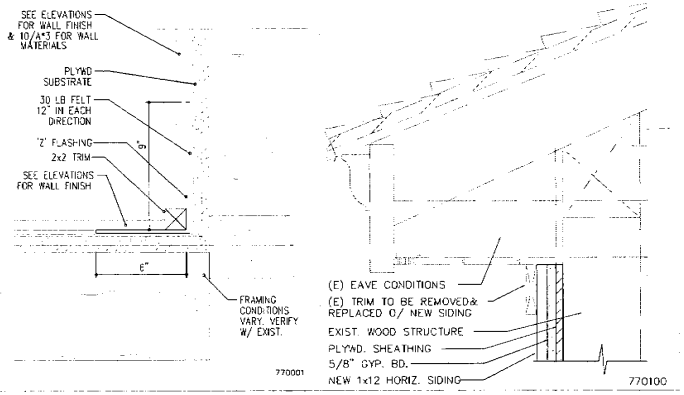
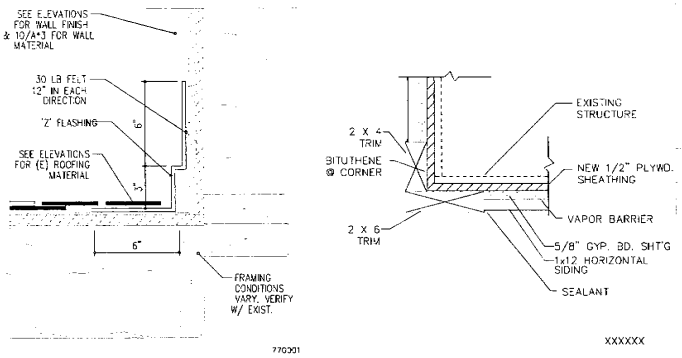
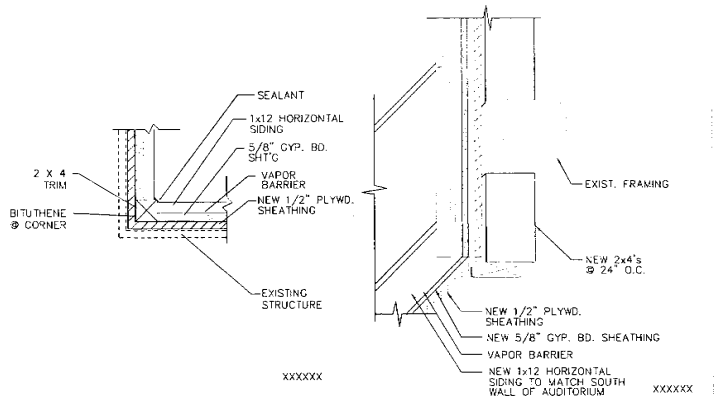


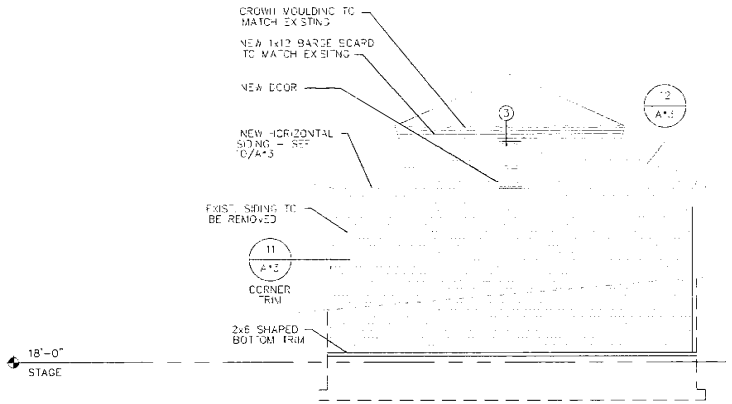

'Z' FLASHING 3"=1'-0" 15 EAVE DETAIL 3"=1'-0" 12



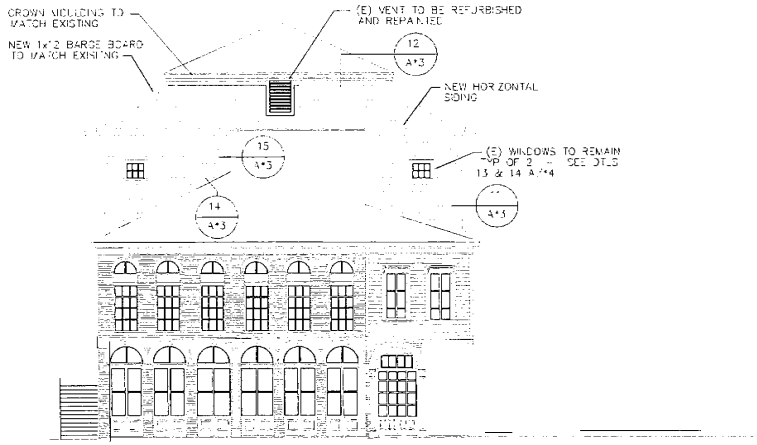

'Z' FLASHING 3"=1'-0" 14 CORNER TRIM 3"=1'-0" 11




CORNER TRIM 1 1/2"=1'-0" 13 WALL MATERIALS 3"=1'-0" 10




WEST ELEVATION 1/8"=1'-0" 2




EAST ELEVATION 1/8"=1'-0" 1

PHASE 2 B - SIDING for
PIPER'S OPERA HOUSE
VIRGINIA CITY, NEVADA

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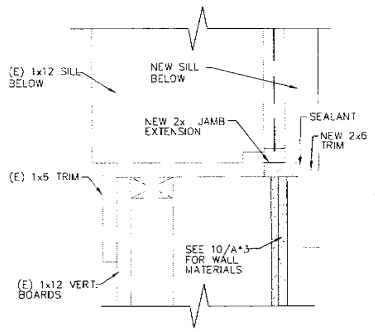
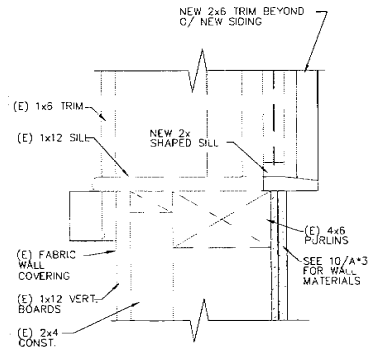
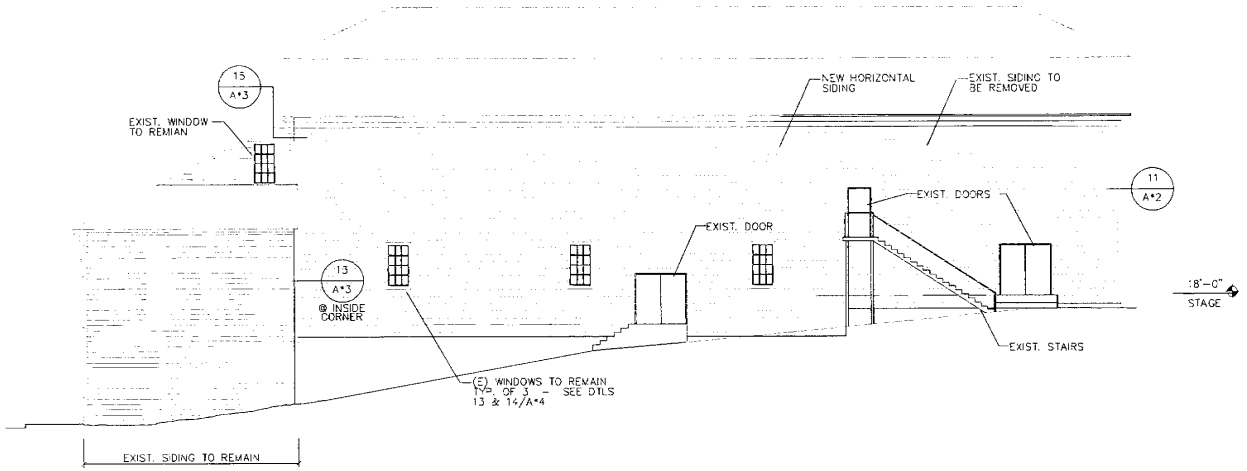
15



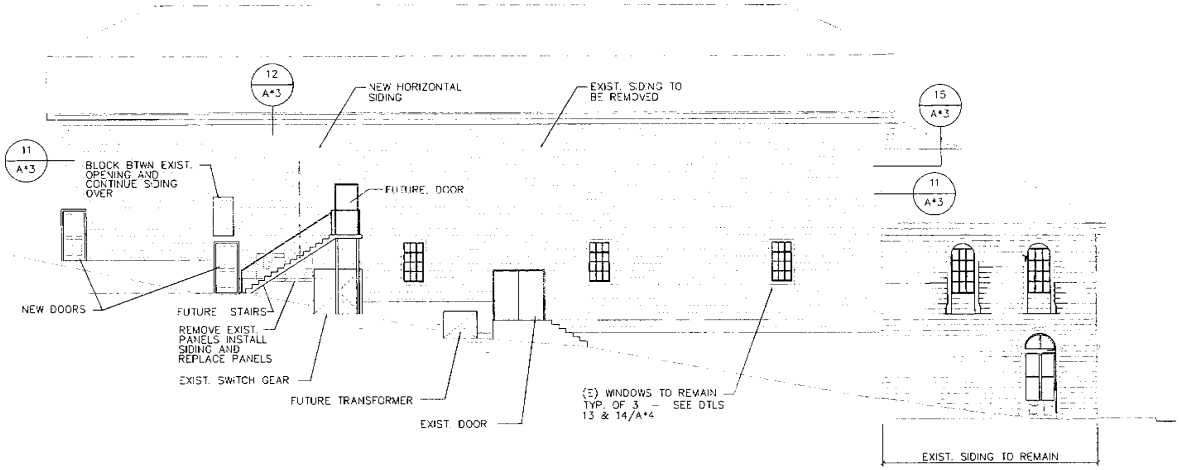

WINDOW JAMB 3"=1'-0" 14




WINDOW SILL 3"=1'-0" 13




NORTH ELEVATION 1/8"=1'-0" 2




SOUTH ELEVATION 1/8"=1'-0" 1

PHASE 2 B - SIDING for
PIPER'S OPERA HOUSE
VIRGINIA CITY, NEVADA

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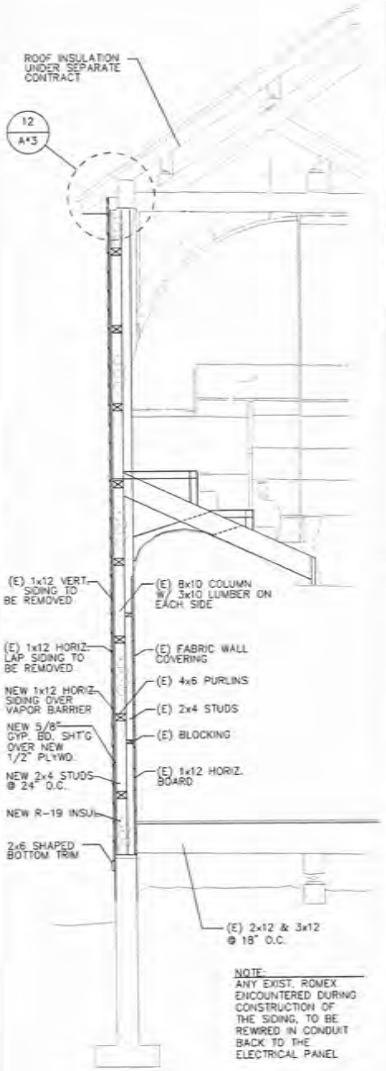
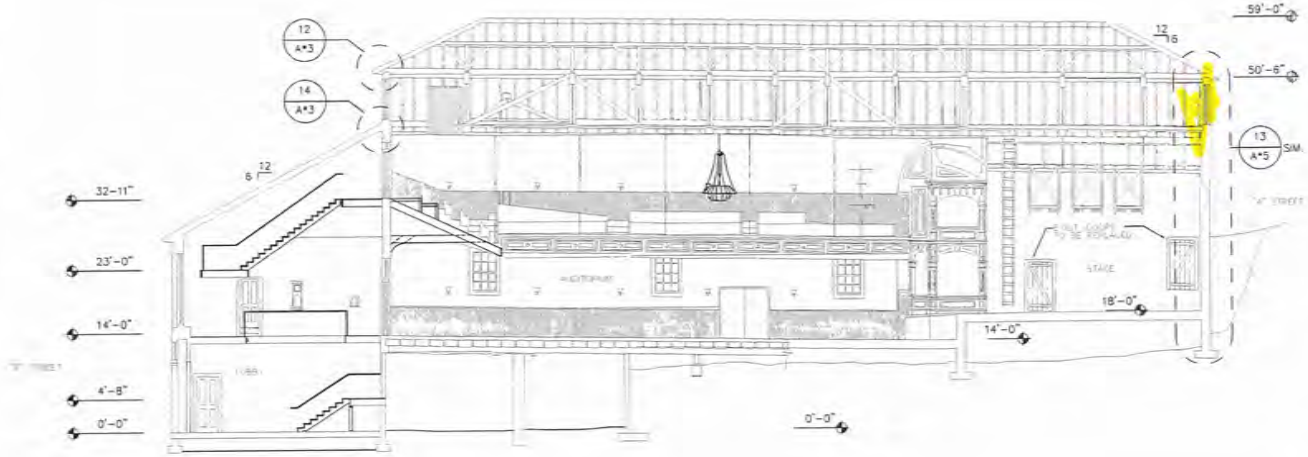
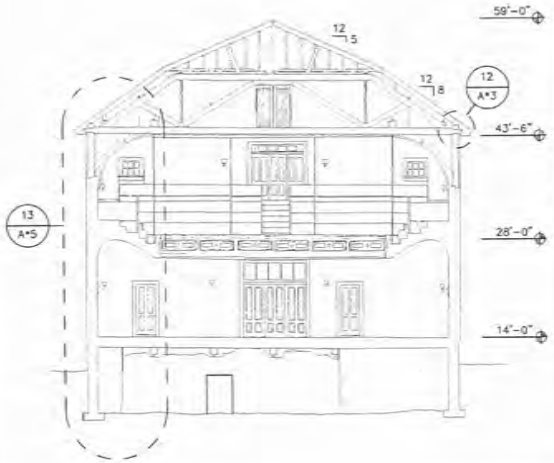


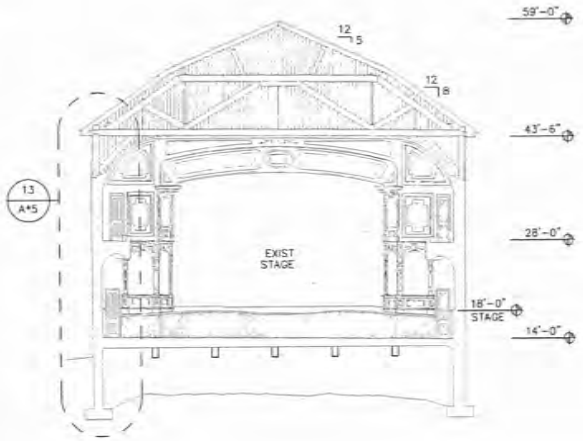

WALL SECTION 3/8"=1'-0" | 13




BUILDING SECTION "C-C" 1/8"=1'-0" | 2




BUILDING SECTION "A-A" 1/8"=1'-0" | 10



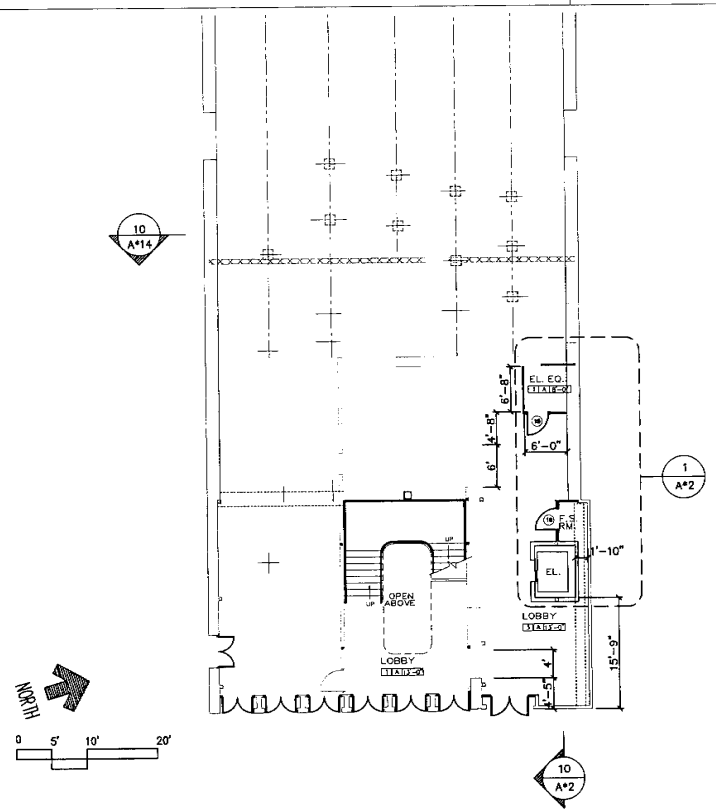

BUILDING SECTION "B-B" 1/8"=1'-0" | 1

PHASE 2 B - SIDING for
PIPER'S OPERA HOUSE
VIRGINIA CITY, NEVADA

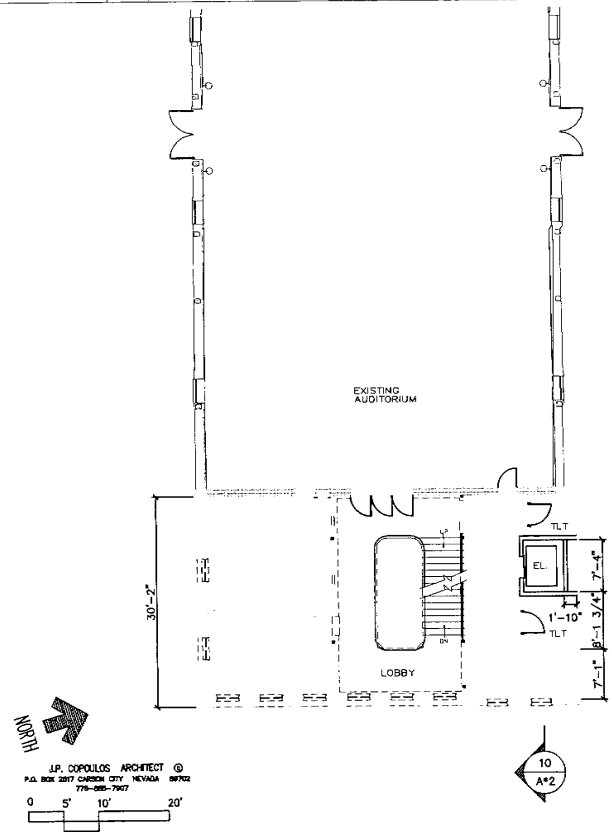
J.P. COPOULOS ARCHITECT ©
P.O. BOX 2517
CARSON CITY
NEVADA
89702
775-885-7907

A1.5

9 6 3




FIRST FLOOR PLAN 1/8"=1'-0"




10 SECOND FLOOR PLAN 1/8"=1'-0" 1

ELEVATOR for
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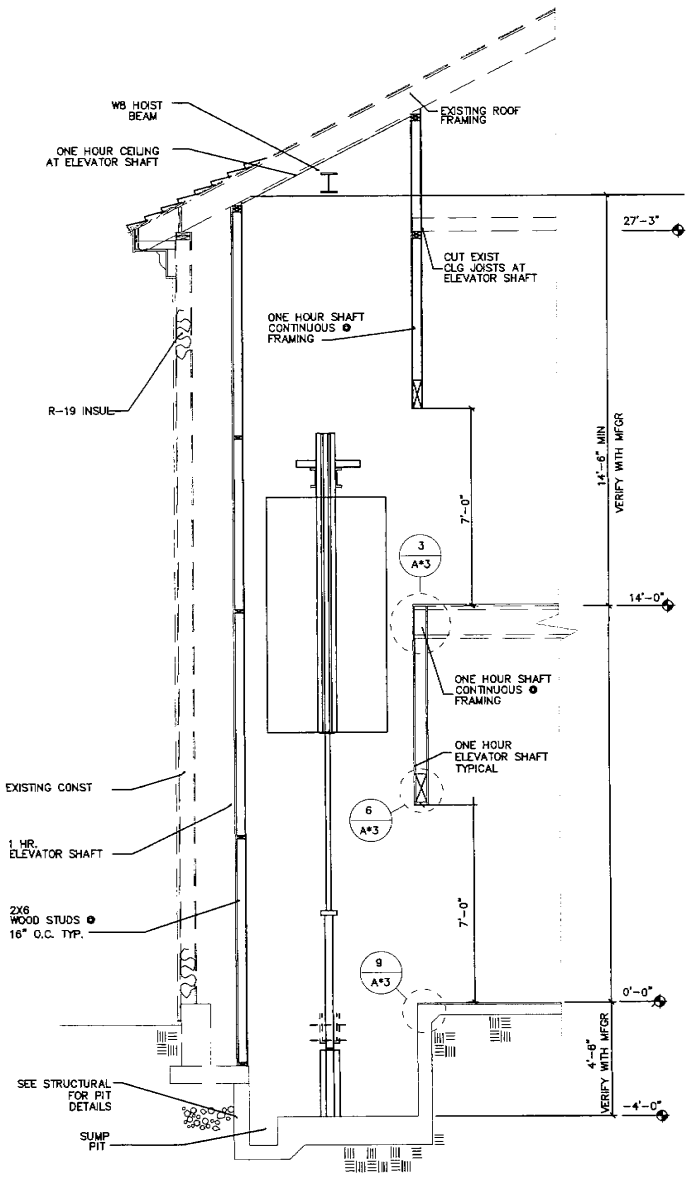
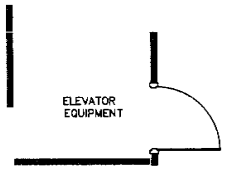
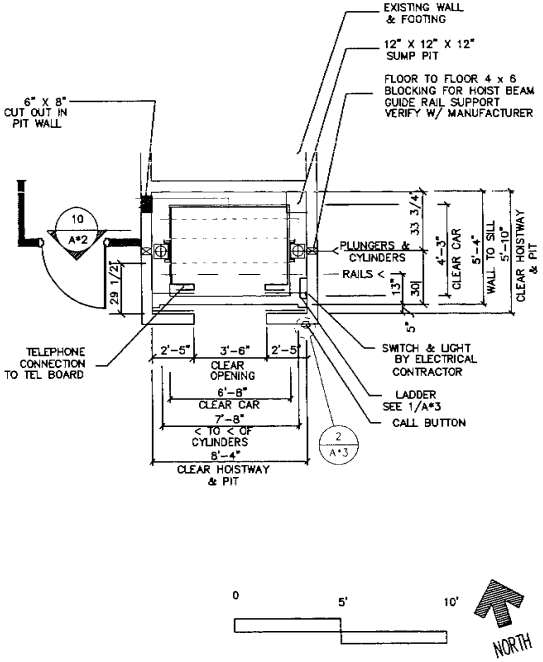
A*1




ELEVATOR SECTION 1/2"=1'-0"

9 6 3




ENLARGED ELEVATOR PLAN 3/8"=1'-0"

ELEVATOR for
PIPER'S OPERA HOUSE
VIRGINIA CITY NEVADA

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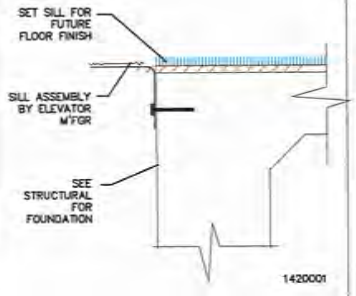
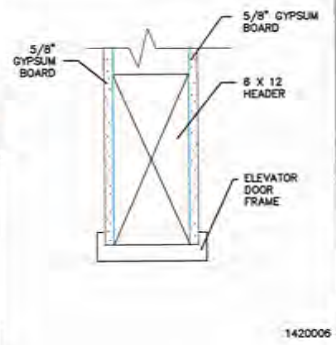
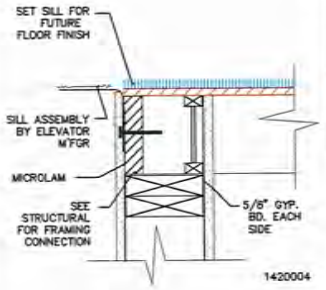
A*2



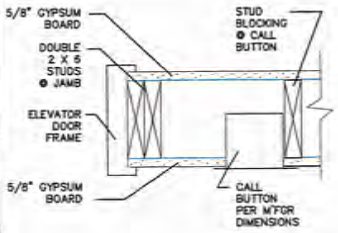

ELEVATOR SILL 3"=1'-0" 9



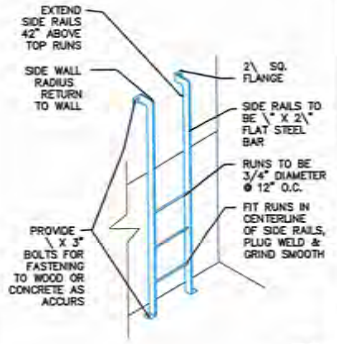

ELEVATOR HEAD 3"=1'-0" 6




ELEVATOR SILL 3"=1'-0" 3




ELEVATOR JAMB 3"=1'-0" 2




LADDER 1/2"=1'-0" 1

10

4

ELEVATOR for
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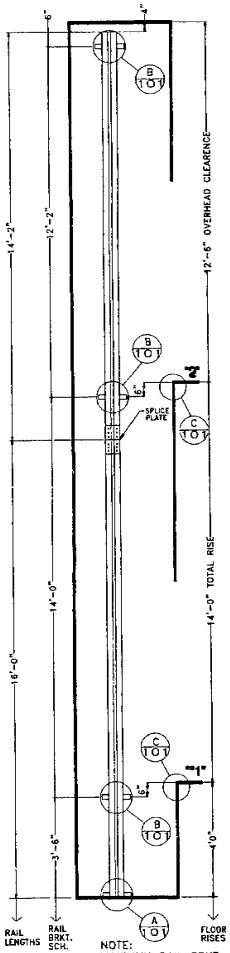
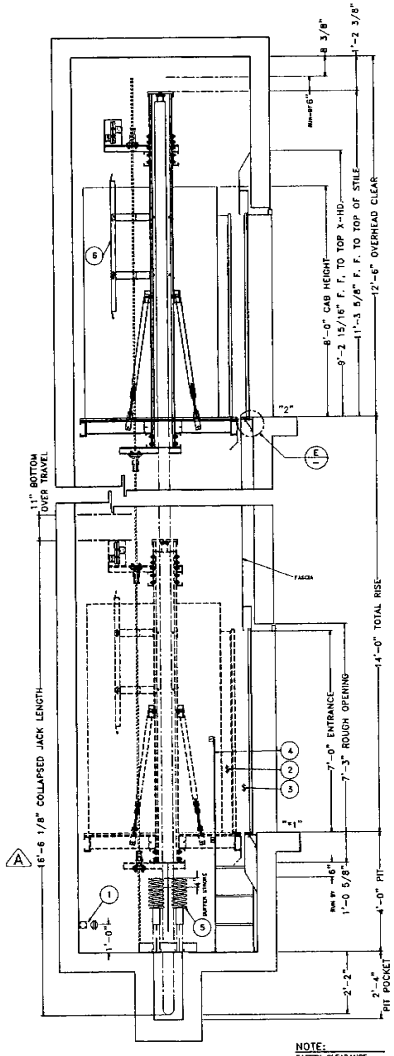
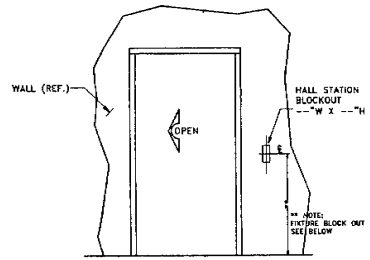
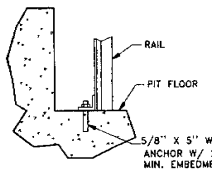
A*3



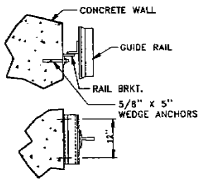

## RAIL SCHEDULE



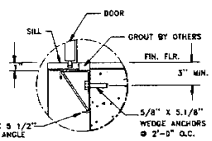



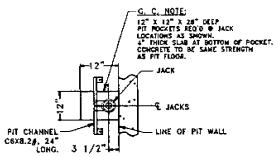

A/101 RAIL BRACKET (PIT FLOOR)



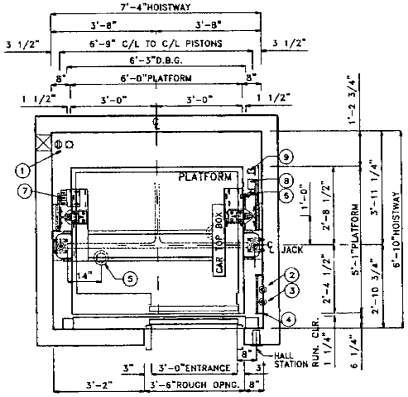

B/101 RAIL BRACKET ( CONCRETE )




C/101 SILL ATTACHMENT ( CONCRETE )




D/101 PIT POCKET & PIT CHANNEL ( DETAIL )

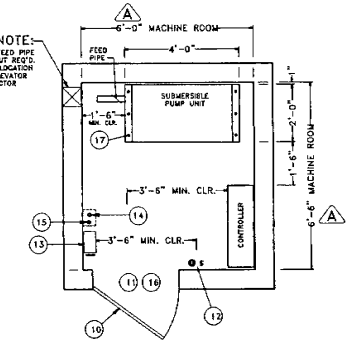



## HOISTWAY PLAN VIEW

(1) PIT LIGHT & CONV. OUTLET-12" ABOVE PIT FLOOR
(2) LIGHT SWITCH-24" ABOVE LOWEST LANDING (NOT BY AMLIFT)
(3) PIT SWITCH WALL MOUNTED 18" MAX. ABOVE OR BELOW THE LOWEST LANDING.
(4) PIT LADDER
(5) SPRING BUFFERS LOCATED ON PIT FLOOR (2) REQ'D A
(6) CAR CAM
(7) VANE W/MAG. SWS.
(8) GUTTER & LIMIT SWITCHES START AT 39 1/2" MIN. AT FIRST LANDING
(9) CABLE HANGER

NOTE: ONLY ELEVATOR RELATED EQUIPMENT ALLOWED IN THE HOISTWAY AND MACHINE ROOM. SPECIFICALLY PIPES AND DUCTS NOT SERVING THE ELEVATOR ARE PROHIBITED.

1- ITEMS 6,8, & 9 CAN BE SWITCHED WITH ITEM 7. DUE TO THE LOCATION OF MACHINE ROOM.




## MACHINE ROOM LAYOUT

LOCATION: REMOTE (35'-0")

(1) 3'-0" X 6'-8" DOOR SELF-CLOSING & LOCKING (BY OTHERS)
(2) MACHINE ROOM FLOOR TO BE 3,000 P.S.I. CONCRETE.
(3) LIGHT SWITCH, LIGHT & CONV. OUTLET. (BY OTHERS)
(4) DISCONNECT & FUSING FOR 25 H.P. MOTOR. (BY OTHERS)
(5) 120 VAC LIGHT SUPPLY ( DEDICATED CIRCUIT ). ( FIELD VERIFY LOCATION ) (BY OTHERS)
(6) TELEPHONE SUPPLY (BY OTHERS) ( FIELD VERIFY LOCATION)
(10) DO NOT USE ALUMINUM WIRE FOR INTERCONNECT FROM DISCONNECT SWITCH TO ELEVATOR CONTROLLER.
(12) PUMP UNIT TIE-DOWN WITH (6) 5/8"-11NC PHILLIP. HEAD STAINLESS STEEL ANCHORS.

NOTE: MACHINE ROOM TO HAVE 7'-0" MIN. CLR. OVERHEAD.

## NOTES

1.- TOTAL DOWN LOAD IMPOSED ON THE BUILDING STRUCTURE BY THE ELEVATOR SYSTEM= 6502 LBS

2.- THE HORIZONTAL LOADS IMPOSED ON THE BUILDING STRUCTURE AT THE ELEVATOR SYSTEM ENTRANCES= 563 LBS

3.- FOR HORIZONTAL LOADS IMPOSED ON THE BUILDING STRUCTURE @ RAIL BRACKETS LOCATIONS SEE SEISMIC RAIL REACTIONS. THIS SHEET

## SPECIFICATION & DATA

| | | | |
|---|---|---|---|
| SERVICE: | PASSENGER | HYDRAULIC JACK | |
| CAB TYPE: | 300-SHELL | PLUNGER LENGTH: (A) | 16'- 0 7/8" |
| CAB HEIGHT: | 8'0" | PLUNGER O.D. | 5" |
| TYPE.: | HOLESS | PLUNGER WALL: | 1/4" |
| CAPACITY.: | 2100# | PISTON AREA: | 7.069 |
| CAR SPEED UP/DN (FPM): | 100 | NUMBER OF SECTIONS: | 1 PIECE (A) |
| TRAVEL: | 14'-0" | CYLINDER O.D.: | 4 1/2" |
| OPENINGS: | 2 IN LINE | CYLINDER WALL: | SCH-40 |
| POWER SUPPLY: | 208V/3/60HZ | CYLINDER LENGTH: | 15'-10 1/2" |
| MOTOR STARTER: | Y-DELTA | TOP OVER TRAVEL: | 6" |
| CONTROL TYPE: | SIMPLEX S/C | BOTTOM OVER TRAVEL: | 11" |
| PLATFORM THICKNESS: | 5 5/8" | POWER UNIT | |
| DOOR OPERATOR: (G.A.L) | MOD | PUMP: | D3SIC-187 |
| FLOOR COVERING THCK. | 3/4" | TYPE: | SUBMERSIBLE |
| X-HEAD SIZE: | 6Q X 14 GA | MACHINE HEAT RELEASE | 9550 |
| STILE SIZE: | 9.5F X 11GA | G.P.M.: | 73 |
| PLANK SIZE: | 6Q X 14GA | TOTAL REQ'D OIL: | 81 |
| CAR GUIDE RAILS: | 15 lb | MOTOR HORSEPOWER: | 25 |
| CAR GUIDE SHOES: | 8165S | FULL LOAD AMPS: | 76 |
| WEIGHTS (LBS) | | STARTING AMPS: | 137 |
| HWY. DOOR: | 183 | VALVE TYPE: | LC4-VE2 |
| CAB DOOR: | 148 | VALVE SIZE: | 2" |
| PISTON WEIGHT: | 118 | FEED PIPE SIZE(SCH 80) | 2" |
| MISCELLANEOUS WEIGHTS: | * | BUFFER: | 2" |
| CAR WEIGHT: | 2760 | BUFFERS | |
| GROSS WEIGHT: | 4860 | TYPE: | (2) SPRING |
| ESTIMATED PRESSURES | | STROKE: | 4" |
| MIN. PRESSURE: (PSI) | 212 | RATING: | 8540 |
| WORKING PRESSURE: (PSI) | 397 | | |

| OPTIONS | | | |
|---|---|---|---|
| AUX. CAR OPERATING PANEL | *1 | HANDICAP REQUIREMENTS: | Y |
| CAR POSITION INDICATOR (C.P.I.): | Y | OIL ISOLATION COUPLING | N |
| CAR DIRECTION INDICATOR (C.D.I.): | Y | PIT SHUT OFF VALVE: (A) | N |
| HALL POSITION INDICATOR (H.P.I.): | N | MACHINE ROOM SHUT OFF VALVE: | Y |
| SINGLE HALL RISER | Y | SEISMIC CONSTRUCTION: | N |
| HALL LANTERN: | N | RUPTURE VALVE. ( SDSMIC ) | Y |
| FIRE SERVICE: PH I ( X ) PH II (X) | Y | OIL COOLER | N |
| MAIN FLOOR: (*1) | Y | JAM HEATER | N |
| ALTERNATE FLOOR: (*2) | N | PRESSURE SW | Y |

RELATED WORK BY OTHERS

THE FOLLOWING TO BE PROVIDED BY OWNER AND/OR GENERAL CONTRACTOR.

- LEGAL HOISTWAY OF PROPER SIZE, PLUMB WITHIN 1" PER 100', AND PIT OF PROPER DEPTH.
- SUITABLE MACHINE ROOM WITH LEGAL ACCESS & CLEARANCES, PROPERLY HEATED & VENTILATED, TEMPERATURE NOT TO EXCEED 40 C (104 F) PER CODE, RECOMMEND TEMPERATURE NOT TO EXCEED 35 C (95 F)
- TRENCHING & BACK FILL IF THE OIL FEED LINE IS RUN UNDERGROUND FROM PIT TO MACHINE ROOM. THE FLOOR OF TRENCH SHOULD NOT BE POURED WITH CONCRETE UNLESS OTHER PROVISION HAS BEEN MADE WITH ELEVATOR CONTRACTOR.
- SUPPORTS FOR RAIL FASTENINGS AT HYDRAILS WHERE SPECIFIED BY ELEVATOR CONTRACTOR, INCLUDING SEPARATOR BEAMS BETWEEN HOISTWAYS.
- ROUGH OPENINGS FOR ELEVATOR ENTRANCES IN FRONT WALLS, AS INDICATED BY ELEVATOR CONTRACTORS DRAWINGS. IF ALL FLOORS OR, OPTIONALLY THE FRONT WALL SHALL NOT BE ERECTED UNTIL THE ENTRANCES HAVE BEEN SET IN PLACE.
- HOISTWAY GUARDS & BARRICADES DURING THE TIME OF EQUIPMENT INSTALLATION.
- ALL NECESSARY SLEEVES & THE SETTING OF SAME AS REQUIRED BY ELEVATOR CONTRACTOR.
- VENTING OF HOISTWAY AS REQUIRED BY GOVERNING CODE.
- SILL SUPPORTS, INCLUDING GROUTING, AFTER SILLS ARE IN PLACE.
- ALL SCREENS, RAILINGS, FENCES, STEPS & LADDERS IF REQUIRED.
- ALL CUTTING THROUGH WALLS, FLOORS OR ANYTHING ELSE WITH REPAIRS, GROUTING, PATCHING & PAINTING MADE NECESSARY BY SUCH CUTTING OR CHANGES.
- TEMPORARY POWER (208V/30A MINIMUM REQUIRED) FOR OPERATION OF TEMPORARY HOIST & TOOLS VERIFY WITH ELEVATOR CONTRACTOR
- 3 POLE FUSED MAIN LINE SWITCH IN MACHINE ROOM FOR EACH ELEVATOR WITH FEEDERS CONNECTED TO EACH CONTROLLER.
- LIGHTS, LIGHT SWITCH & CONVENIENCE OUTLETS IN ELEVATOR MACHINE ROOM
- 120V-10-30 AMP SERVICE & TELEPHONE OUTLET FOR EACH ELEVATOR CONNECTED TO CONTROLLER(S) IN ELEVATOR MACHINE ROOM FOR CAR LIGHTS & ACCESSORIES.
- PROVIDE A LIGHT, LIGHT SWITCH & CONVENIENCE OUTLET IN THE ELEVATOR PIT WHERE REQUIRED.
- ALL OTHER EQUIPMENT NECESSARY & NOT OTHERWISE CALLED FOR IN THE ELEVATOR CONTRACT.

SEISMIC RAIL REACTIONS

| | |
|---|---|
| R1= | 1258 |
| R2= | 629 |

R2 R1

BUFFER REACTIONS

CAR= 5490

(EACH BUFFER)

REVISIONS

| REV | DATE: | DRAWN BY: | DESCRIPTION |
|---|---|---|---|
| A | 10-31-21 | MCHR | MADE CORRECTION AS SHOWN |

AMLIFT INTERNATIONAL, INC.

| | |
|---|---|
| JOB NAME: | PIPERS OPERA HOUSE |
| JOB NO. | 0106955-1 |
| DRAWN BY: | MCHR |
| ADDRESS | VIRGINIA CITY, NV |
| CHK'D BY: | JLS 08-14-01 |
| CONTRACTOR: | HIGH SIERRA ELEVATOR |
| PRELIM.: | 08-08-01 |
| ARCH/ENG. | |
| FINAL | |
| FILE NO. | |
| CUSTOMER APPROVED SIGNATURE: | |

DWG. TITLE: HOISTWAY AND ELEVATIONS 2100# SS/RH

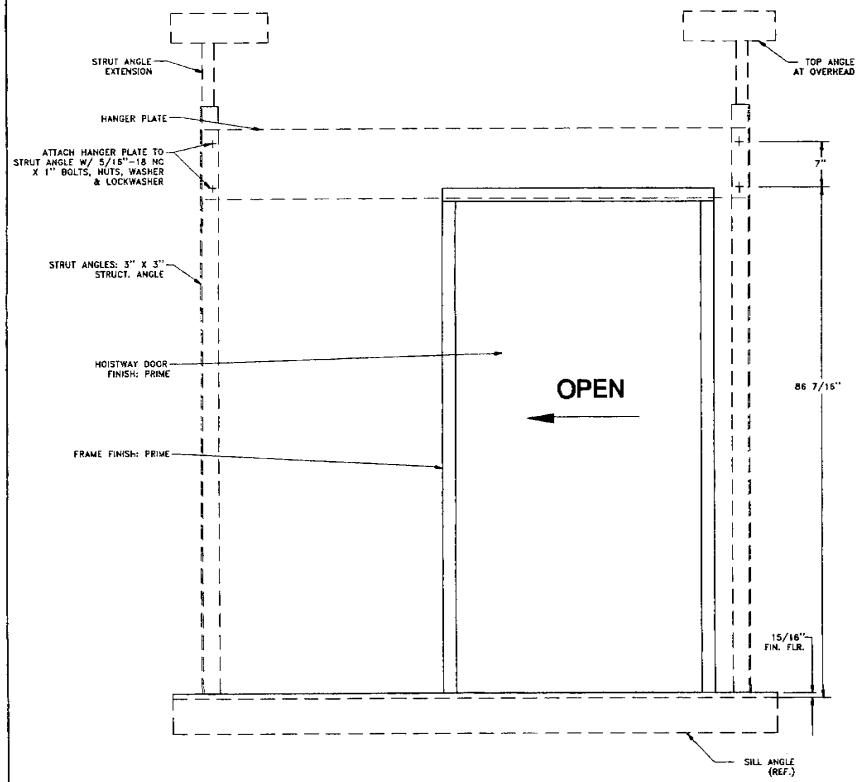
FINAL DRAWING

THIS SHOP DRAWING HAS APPROVED BY CONTRACTOR FOR BID PURPOSES ONLY. NO CHANGES MADE AFTER APPROVAL WILL RESULT IN ADDITIONAL COST AND COMPLETION TIME.

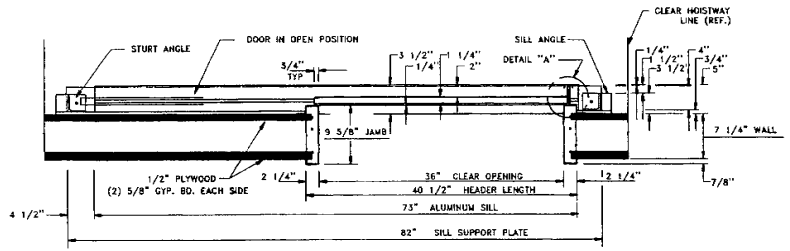
- [ ] FOR APPROVAL
- [ ] REVISED FOR APPROVAL
- [X] FINAL DISTRIBUTION
- [ ] REVISED FINAL DISTRIBUTION

| SIZE: | DRAWING NO: |
|---|---|
| C | 0106955-101 |
| SCALE | REV. |
| NONE | A |

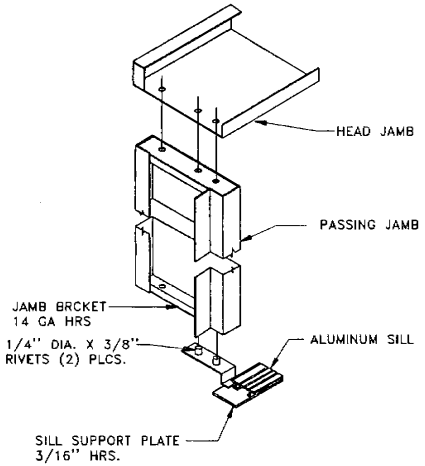
ARCHITECT/CONTRACTOR STAMP

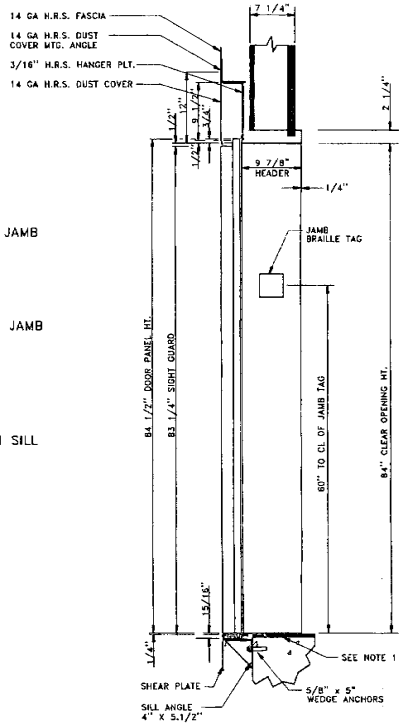



## ENTRANCE ELEVATION

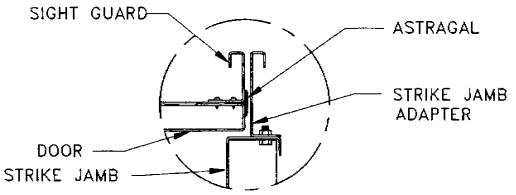



## ENTRANCE PLAN VIEW




## SECTION THRU




## DETAIL "A"

## NOTES:

1. GROUTING AS REQUIRED BY OTHERS.
2. (2) ASSEMBLYS REQUIRED

FRAME FINISH: PRIME
DOOR FINISH: PRIME

| REVISIONS | | | |
|---|---|---|---|
| REV | DATE: | DRAWN BY: | DESCRIPTION |
| | | | |

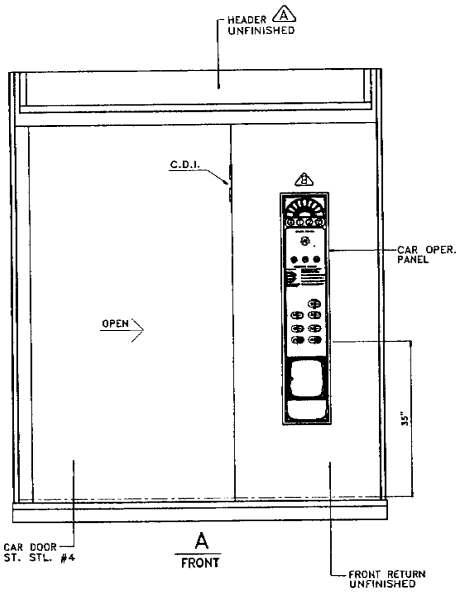
AMLIFT INTERNATIONAL, INC.

| | |
|---|---|
| JOB NAME: PIPERS OPERA HOUSE | |
| JOB NO.: 0106955-1 | DRAWN BY: MCHR |
| ADDRESS: VIRGINIA CITY, NV | CHKD BY: JLS 08-14-01 |
| CONTRACTOR: HIGH SIERRA ELEVATOR | PRELIM.: 08-01-01 |
| ARCH/ENG.: | FINAL: |
| FILE NO.: | CUSTOMER APPROVED SIGNATURE: |
| ENG. NAME: ENTRANCE SS/RH 3'-0" x 7'-0" DW | |

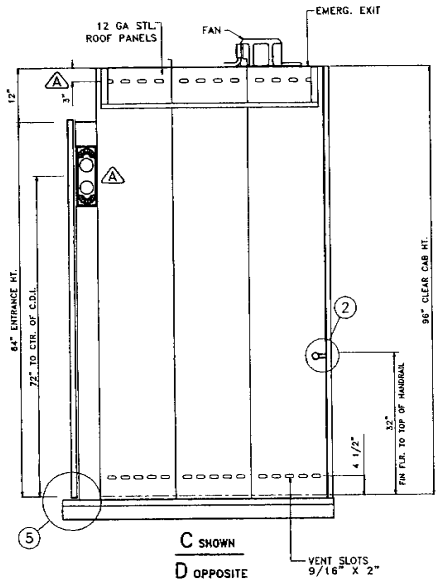
**FINAL DRAWING**
THIS SHOP DRAWING HAS APPROVED ON EQUIPMENT HAS BEEN RELEASED FOR FABRICATION. ANY CHANGES MADE AFTER APPROVAL WILL RESULT IN ADDITIONAL COST AND COMPLETION TIME.

☐ FOR APPROVAL
☐ REVISED FOR APPROVAL
☒ FINAL DISTRIBUTION
☐ REVISED FINAL DISTRIBUTION

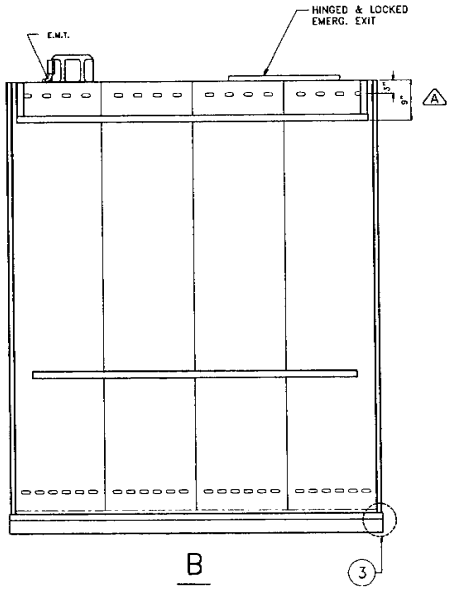
SIZE: C | DRAWING NO.: 0106955-201
SCALE: NONE | REV.:



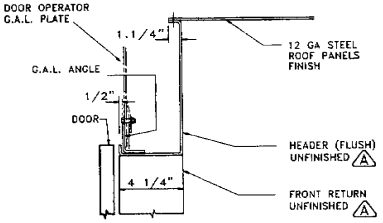

A
FRONT



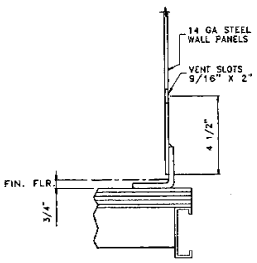

C SHOWN
D OPPOSITE



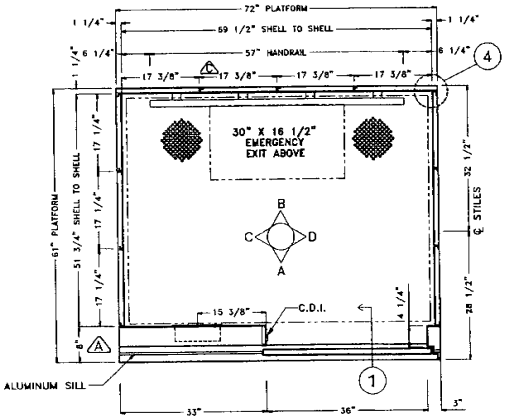

B
REAR



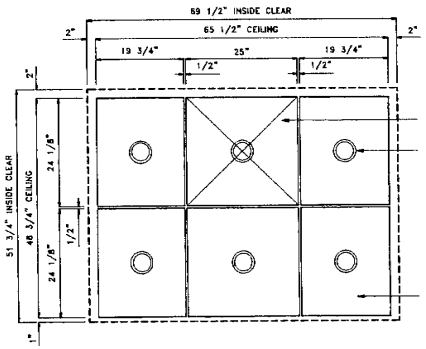

(1) HEADER SECTION



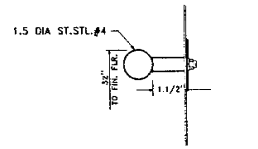

(3) BASE DETAIL (A)



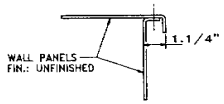

CAB PLAN VIEW
(1) CAB ASSEMBLY REQ'D. TOTAL



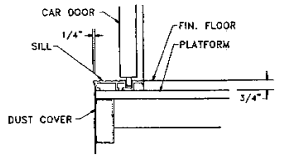

REFLECTED CEILING
TYPE 600 (A)




(2) HANDRAIL DETAIL




(4) CORNER DETAIL




(5) SILL DETAIL (A)

NOTES:
1.- CAB EXTERIOR TO RECEIVE SOUND DEADENING MASTIC. (A)
2.- CAB VENTILATION AREA PROVIDED= 176 sq. in
3.- ELEVATOR CAB COMPLIES WITH ANSI ASME A17.1 SECTION 204.2 INCLUDING FIRE RATING.

| CAB INTERIOR FINISHES | |
|---|---|
| WALL PANELS | 14 GA. HRS (UNFINISHED) |
| HANDRAIL | ST. STL. #4 |
| BASE | N/A |
| FRONT RETURN | (UNFINISHED) |
| HEADER | (UNFINISHED) |
| CAR DOORS | ST. STL. #4 |
| CEILING | TYPE 600 (UNFINISHED) |
| **ACCESSORIES** | **TYPE** |
| CAR OPER. PANEL | ST. STL. #4 |
| CAR POSITION INDICATOR | ST. STL. #4 |
| CAR DIRECTION INDICATOR | ST. STL. #4 |
| GRILLE | Y |
| SERVICE CABINET | N/A |
| PAD HOOKS | N/A |
| DOOR PROTECTION | INFRA-RED DOOR DETECTOR |
| FAN | 2-SPEED STD. |
| EST. CAB WEIGHT | |

| REVISIONS | | | |
|---|---|---|---|
| REV. | DATE: | DRAWN BY: | DESCRIPTION |
| A | 10-31-01 | MCHR | MADE CORRECTION AS SHOWN |
| B | 02-24-02 | MCHR | DELETE CAR POSITION INDICATOR |
| C | 05-02-02 | MCHR | CHANGE PANEL DIMENSION |

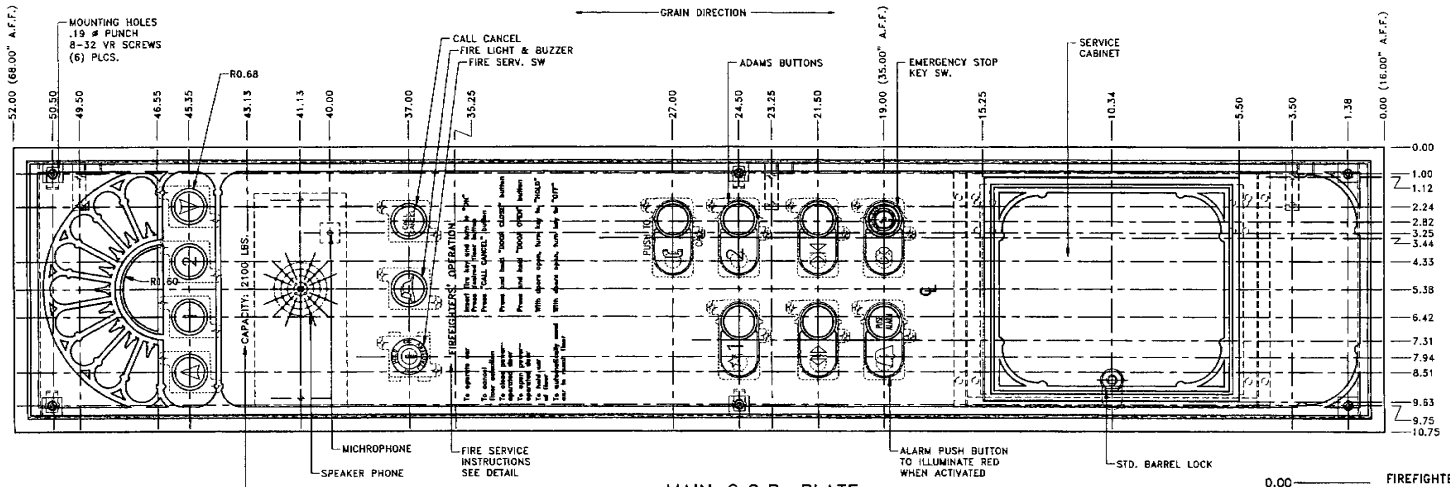
AMLIFT INTERNATIONAL, INC.

| | |
|---|---|
| JOB NAME: | PIPERS OPERA HOUSE |
| JOB NO. | 0106955-1 |
| DRAWN BY: | MCHR |
| ADDRESS: | VIRGINIA CITY, NV |
| CHKD BY: | JLS 08-14-01 |
| CONTRACTOR: | HIGH SIERRA ELEVATOR |
| PRELIM. | 08-01-01 |
| ARCH/ENG. | |
| FINAL | 04-22-02 |
| TYPE NO. | |
| CUSTOMER APPROVED SIGNATURE | |
| CNG. MADE: | CAB 300 SS/RH 2100 LBS. |

FINAL DRAWING
THIS PRINT CERTIFIES THAT APPROVED CAB EQUIPMENT HAS BEEN RELEASED FOR FABRICATION. NOT CHANGES MADE AFTER APPROVAL WILL RESULT IN ADDITIONAL COST AND COMPLETION TIME.

☐ FOR APPROVAL
☐ REVISED FOR APPROVAL
☒ FINAL DISTRIBUTION
☐ REVISED FINAL DISTRIBUTION

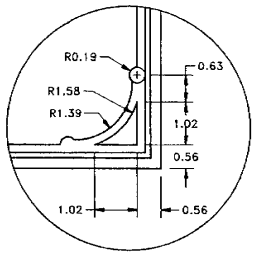
| | |
|---|---|
| SIZE | C |
| DRAWING NO. | 0106955-301 |
| SCALE | NONE |
| REV. | C |




## MAIN C.O.P. PLATE

QTY. (1) REQ'D. R/H HINGES AS SHOWN

BOX SIZE: 9.75"X 51.00"X 3.50"
CUT OUT: BOX SIZE + 1/8"
FINISH: BRONZE #4
(A) MAT.: 0.125" THICK.



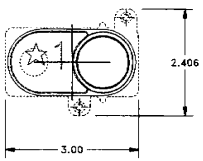

DETAIL "A"

FIREFIGHTERS' OPERATION

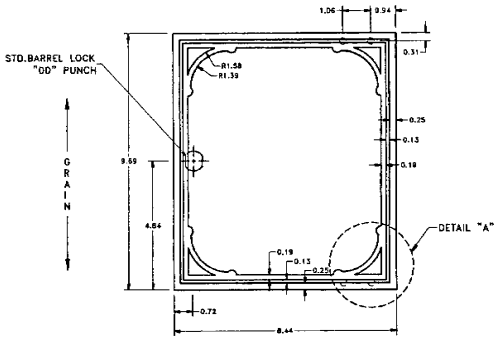
| | | |
|---|---|---|
| 0.00 | | |
| 0.51 | To operate car | Insert fire key and turn to "ON" |
| 0.79 | | Press desired floor button |
| 1.17 | To cancel | Press "CALL CANCEL" button |
| 1.46 | floor selection | |
| 1.86 | To close power- | Press and hold "DOOR CLOSE" button |
| 2.14 | operated door | |
| 2.53 | To open power- | Press and hold "DOOR OPEN" button |
| 2.81 | operated door | |
| 3.21 | To hold car | With doors open, turn key to "HOLD" |
| 3.49 | at floor | |
| 3.85 | To automatically send | With doors open, turn key to "OFF" |
| 4.18 | car to recall floor | |

ANSI ('98) PHASE II FIRE INSTRUCTIONS
ENGRAVE HELVETICA MEDIUM
RED PAINT INFILL
A 0.25" HIGH
B 0.11" HIGH

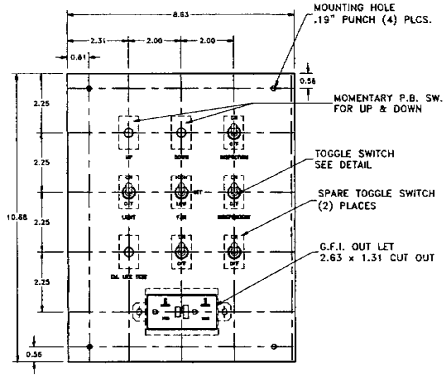
NOTE:
SPECIAL HEIGHT IN
ENGRAVE FIRE PHASE II




"CLASSIC" PUSHBUTTON BASE
OVERALL SIZE



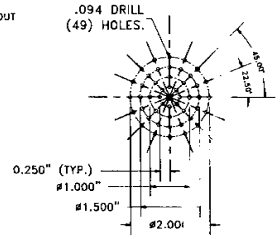

SERVICE DOOR
(1) REQUIRED



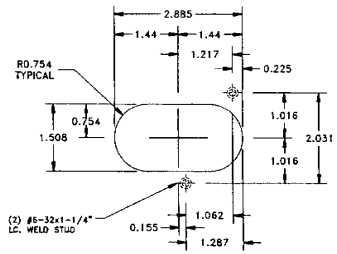

SERVICE PLATE

SERVICE PLATE TO CONTAIN:
1.- INSPECTION SW.
2.- IND. SERV. SW.
3.- LIGHT SW.
4.- FAN 2/SP. SW.
5.- UP SW.
6.- DOWN SW.
7.- 2 SPARE SWS.
8.- EM. LITE TEST SW.

NOTES:
MATERIAL: 0.065" THICK.
FINISH: BRONZE #4
TOLERANCE: ± .03
SHEAR ALL EDGES DOWN.




2"ø GRILLE / TAIL




"CLASSIC" PUSHBUTTON
CUTOUT AND STUD DETAILS

| REVISIONS | | | |
|---|---|---|---|
| REV | DATE: | DRAWN BY: | DESCRIPTION |
| A | 05-02-02 | MCHR | CHANGE MATERIAL FINISH |

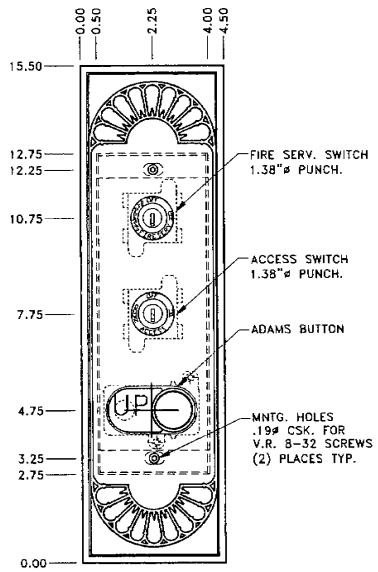
AMLIFT INTERNATIONAL, INC.

| | |
|---|---|
| JOB NAME: | PIPERS OPERA HOUSE |
| JOB NO. | 0106955-1 |
| DRAWN BY: | MCHR |
| ADDRESS: | VIRGINIA CITY, NV |
| DATE: | AS OF 05-14-01 |
| CONTRACTOR: | HIGH SIERRA ELEVATOR |
| PROJECT: | 08-03-01 |
| APPROVED: | |
| FINAL: | 04-22-02 |
| FILE NO. | |
| CUSTOMER APPROVED & DATED: | |
| DRG. TITLE: | CONTROL OPERATIN PANEL ( C.O.P ) |

FINAL DRAWING
THIS SHOP DRAWING HAS BEEN APPROVED ON BEHALF OF THE CONTRACTOR BY THE PERSON WHOSE NAME APPEARS BELOW. ANY DEVIATIONS FROM THE CONTRACT DOCUMENTS ARE NOTED. CONTRACT NOT COMPLETED YET.

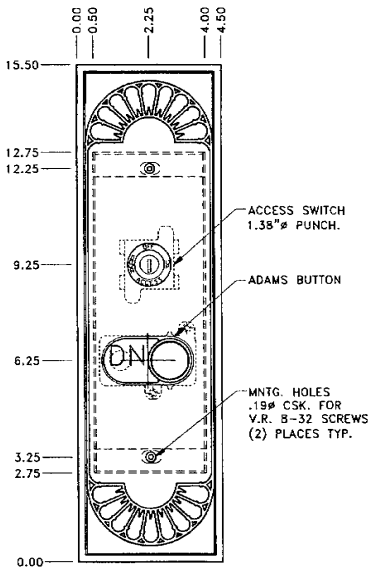
CHECK APPROVAL
REVISED FOR APPROVAL
FINAL CORRECTION
REVISED FOR CONSTRUCTION

| | | |
|---|---|---|
| SIZE | DRAWING NO. | |
| C | 0106955-451 | |
| SCALE | NONE | REV. A |



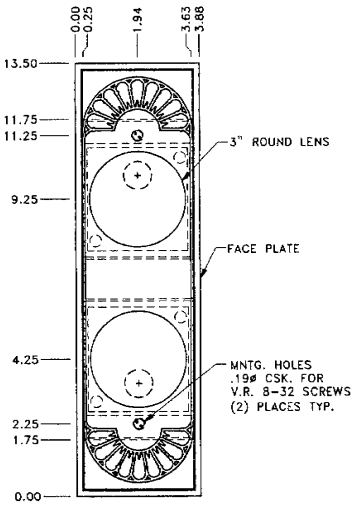

**TERMINAL HALL STATION "UP" W/ ACCESS SW. & FIRE SERV. SW.**

**(1) REQUIRED**
**@ "1" FLOOR**
**BOX: 3.50" x 10.00" x 3.50"**



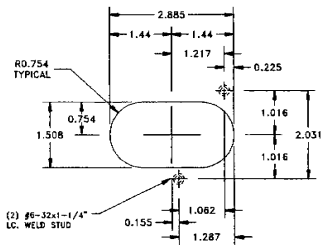

**TERMINAL HALL STATION "DOWN" W/ ACCESS KEY SWITCH**

**(1) REQUIRED**
**@ "2" FLOOR**
**BOX: 3.50" x 10.00" x 3.50"**




**CAR LANTERN (C.D.I.)**

**(1) REQUIRED**
**BOX: 3.38" x 10.00" x 3.50"**




**"CLASSIC" PUSHBUTTON CUTOUT AND STUD DETAILS**

**(A) FINISH: BRONZE #4**
**(B) MAT.: 0.125" THICK.**

| REVISIONS | | | |
|---|---|---|---|
| REV | DATE: | DRAWN BY: | DESCRIPTION |
| A | 04-25-02 | MCHR | CHANGE PLATE FINISH |
| B | 05-02-02 | MCHR | CHANGE MATERIAL FINISH |

AMLIFT INTERNATIONAL, INC.

| | | | |
|---|---|---|---|
| JOB NAME: | PIPERS OPERA HOUSE | | |
| JOB NO. | 0106955-1 | DRAWN BY: | MCHR |
| ADDRESS: | VIRGINIA CITY, NV | CHKD BY: | JLS 08-14-01 |
| CONTRACTOR: | HIGH SIERRA ELEVATOR | PRELIM. | 08-03-01 |
| ARCH/ENG. | | FINAL | 04-22-02 |
| FILE NO. | | CUSTOMER APPROVAL SIGNATURE | |
| DWG. NAME: | HALL STATION | | |

**FINAL DRAWING**
THIS SHOP DRAWING HAS BEEN APPROVED BY CUSTOMER EXACTLY AS SHOWN. RELEASED FOR FABRICATION. ANY CHANGES MADE AFTER APPROVAL WILL RESULT IN ADDITIONAL COST AND COMPLETION TIME.

☐ FOR APPROVAL
☐ REVISED FOR APPROVAL
☒ FINAL DISTRIBUTION
☐ REVISED FINAL DISTRIBUTION

| SIZE: | DRAWING NO. | |
|---|---|---|
| C | 0106955-452 | |
| SCALE | NONE | REV. B |

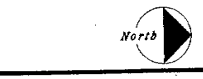
# Piper's Opera House
# Facade Stabilization

## Architectural Abbreviations

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ABV | ABOVE FINISHED FLOOR | E | EAST | LIN.DIFF. | LINEAR DIFFUSER | RFG | ROOFING |
| ACOUST. | ACOUSTIC | EWC | ELECTRIC WATER COOLER | LIQ. | LIQUID LEVEL | RG | ROOM OPENING |
| ACOUST. | ACOUSTICAL | ELEC. | ELECTRICAL | L.L.H. | LIVE LOAD | R.S. | ROOM SIDE |
| ACP | ACOUSTICAL CEILING PANEL | ELECT. | ELECTRICAL | L.L.V. | LONG LEG VERTICAL | RSC. | ROUGH SAW CEDAR |
| ACT | ACOUSTICAL CEILING TILE | ELEV. | ELEVATION | L.P. | LOW POINT | | @ |
| ARC | ACOUSTICAL WALL CARPET | ELEV. | ELEVATOR | | M | SCH | SCHEDULE |
| AWF | ACOUSTICAL WALL FABRIC | EMER. | EMERGENCY | MACH. | MACHINE | SECT. | SECTION |
| AWP | ACOUSTICAL WALL PANEL | EM | EPOXY MASTIC | MAINT. | MAINTENANCE | SHTG. | SHEATHING |
| ADD'N | ADDITION | EQ. | EQUAL | MTD. | MANUFACTURED | SH | SHELF |
| A/C | AIR CONDITIONING | EQ. | EQUIPMENT | MAR. | MARBLE | SHT. | SHEET |
| AHU | AIR HANDLING UNIT | EQUIP. | EQUIPMENT | MFR. | MARBLE TILE | SHV | SHORT LEG VERTICAL |
| ALT. | ALTERNATE | EXIST. | EXISTING | MK. | MARK | SIM. | SIMILAR |
| AL. | ALUMINUM | EXTR. | EXTRUDED, EXTRUSION | MB. | MARKER BOARD | SPR. | SINGLE PLY ROOFING |
| ALUM. | ALUMINUM | EXP. | EXPANSION | MEMT. | MASONRY | SL. GL. OR GLZ'G | SLIDING GLASS DOOR |
| ANOD. | ANODIZED | EXP. | EXPANSION BOLT | MO. | MASONRY OPENING | SP. | SOLID PARTITION |
| ANC. | ANCHOR BOLT | EB. | EXPANSION BOLT | MATL. | MATERIAL | SAP. | SOUND ABSORPTIVE PANELS |
| L | ANGLE | EXP. JT. | EXPANSION JOINT | MAX. | MAXIMUM | S. | SPACE |
| APPROX. | APPROXIMATE | EXIST. | EXISTING CONSTRUCTION | MECH. | MECHANICAL | SPEC'S | SPECIAL EDITIONS |
| ARCH. | ARCHITECT | EXT. | EXTERIOR | MC. | MEDICINE CHEST | | SPECIFICATIONS |
| ASP. | ASPHALT | EXT.I. | EXTERIOR INSULATION AND FINISH SYSTEM | MED. | MEDIUM | SQ. | SQUARE |
| ASPH. | ASPHALT | | F | MTG. | METAL | SF | SQUARE FEET |
| ASSY. | ASSEMBLY | FAC. | FABRIC WALL COVERING | | MINERAL FILLED THERMOPLASTIC | SQ.FT. | SQUARE FEET |
| @ | AT, ABOVE, AROUND | FAB. | FABRIC WALL SYSTEM | | MIRRORED MATERIAL | SW | SEAM AND WARMIN |
| AUTO. | AUTOMATIC | FRT. | FIRE | | | S.S. | STAINLESS STEEL |
| AW. | AWNING | FAD. | REPLACE INTAKE DIMENSION | FT. | MINUTE | STD. | STANDARD |
| | B | FAD. | REPLACE INTAKE DIMENSION | FTG. | MISCELLANEOUS | ST. | STEEL |
| B.A.C. | BACK | FF. | FINISH FLOOR | FTG. | MOD-ED | | STEEL CHANNEL |
| BAL. | BALCONY | FG. | FIELD GLUED | MTD. | MOUNTED | SJ. | STEEL JOIST |
| BATT. | BATTERY | FH. | FINISH | MTG. | MOUNTING | S. | STONE |
| BATH. | BATHROOM | FG. | FINISH GRADE | | N | STK. | STOCK |
| BT. | BEAM | FDC. | FIRE DEPARTMENT VALVE | NF. | NAILING FINISH | STOR. | STORAGE |
| B.B. | BEDROOM | FE. | FIRE EXTINGUISHER | NOM. | NOMINAL | STRUCT. | STRUCTURAL |
| BF. | BENCH MARK | FEC. | FIRE EXTINGUISHER CABINET | N. | NORTH | SUSP. | SUSPENDED ACOUSTICAL GRID |
| BLK. | BLOCK | FA. | FIRE ALARM | N.A. | NOT APPLICABLE | SYS. | SURFACE ONE SIDE |
| BLKG. | BLOCKING | FP. | FIREPROOF | N.C. | NOT IN CONTRACT | S.B. | SURFACE THREE SIDES |
| BD. | BOARD | FR. | FIREPROOFING | N.S. | NOT TO SCALE | S.S. | SURFACE TWO SIDES |
| BK.SH. | BOOK SHELVES | FIX. | FIXTURE | NO. | NUMBER | SUSP. | SUSPENDED |
| BOTT. | BOTTOM | FLASH. | FLASHING | | O | SUSP. | SUSPEN |
| BRKT. | BRACKET | FLUOR. | FLUORESCENT | OH. | OFFICE | SYM. | SYMMETRICAL |
| BR. | BRICK | FO. | FOLD OUT | OC. | ON CENTER | | T |
| B.C. | BROOM CLOSET | FD. | FLOOR DRAIN | OPNG. | OPENING | TG. | TACKBOARD |
| BLDG. | BUILDING | FLR. | FLOOR FINISH | OPP. | OPPOSITE | TEL. | TELEPHONE |
| BLT.-UP | BUILT-UP ROOF | FLOOR. | FLOOR OPENING | OAL. | OVERALL | T.O. | TELEVISION |
| | C | FOF. | FOOT | OMTD. | OMITTED | TEMP. | TEMPERED |
| CAB. | CABINET | FTG. | FOOTING | OPP. | ORNAMENTAL PAINT | TERR. | TERRAZZO |
| C. | CAMPER | FDN. | FOUNDATION | O.D. | OVERFLOW DRAIN | TGW. | TONGUE GUARD STAINLESS STEEL |
| CAPT. | CAMPER | FRMG. | FRAMING | O.S. | OVERHEAD SPRINKLER | TGR. | TONGUE GROOVED STEEL |
| CANT. | CANTILEVER | FURN. | FURNACE | OVH. | OVERHANG | TFRMD. | TOWNHOUSE |
| CPT. | CARPET | | G | OVH. | OVERHEAD | TP. | TOP |
| CS. | CAST IRON | GA. | GAUGE | OFE. | OWNER FURNISHED EQUIPMENT, CONTRACTOR INSTALLED | T.O.S. | TOILET TISSUE DISPENSER |
| CSK. | CASE WORK | GALV. | GALVANIZED | | P | T.T.G. | TONGUE AND GROOVE |
| CLG. | CEILING | GYP. | GYPSUM | PAT. | PATTERN | T.O.S. | TOP OF SLAB |
| CPT. | CENTER | GL. | GLASS | | PAINT | T.O.S.L. | TOP OF STEEL |
| CL. | CENTER LINE | GLS. | GLASS BLOCK | P. | PAINT, ADJ. TO PLASTIC, PICKET TO PATCH | TRD. | TREAD |
| CER. | CERAMIC | GLB. | GRAB BAR | PCT. | PAINTED | TYP. | TYPICAL |
| CT. | CERAMIC TILE | GR. | GRADE | PTD. | PAIR | | U |
| C.O. | CLEAN OUT OR CASED OPENING | GFI. | GROUND FAULT CIRCUIT INTERRUPTER | PR. | PANEL | UC. | UNDER CABINET |
| CLO. | CLOSET | GWB. | GYPSUM WALL BOARD | PNL. | PANEL WORK, ORNAMENTAL | UCR. | UNDER COUNTER |
| CLG. | CLOSING | GWB. | GYPSUM | PTDN. | PARTITION | UCR. | UNDER COUNTER REFRIGERATOR |
| CSTL. | COLUMN | GYP. BD. | GYPSUM BOARD | PSC. | PEDESTRIAN TROPIC COUNTING | UNFIN. | UNFINISHED |
| COMP. | COMPOSITE BUILDING PANELS | | H | PERF. | PERFORATED | UNO. | UNLESS NOTED OTHERWISE |
| CONC. | CONCRETE | HB. | HAND RAIL | PCS. | PIECES | | V |
| CTR. | CONCRETE MASONRY UNIT | HDR. | HARDBOARD | PL. | PLASTIC LAMINATE | VAC. | VACUUM |
| CONST. | CONSTRUCTION | HD. BD. | HARDBOARD | PLAST. | PLASTIC LAMINATE | VB. | VANITY BUNDLE |
| CONT. | CONTINUOUS | HDD. | HEADED | PLAS. | PLASTIC ON PLASTER | VTR. | VENEER |
| CONTR. | CONTRACTOR | HTG. | HEATING, VENTILATING, AND AIR CONDITIONING | PLAS. | PLASTER | VP. | VENEER PANELING |
| C.J. | CONTROL JOINT | HGT. | HEIGHT | PSF. | POUNDS PER SQUARE FOOT | VP. | VENEER PLASTER |
| COR. | CORNER | HT. | HEIGHT | PSI. | POUNDS PER SQUARE INCH | VERT. | VERIFY IN FIELD |
| COR. | CORNER GUARD | HPHC. | HIGH PERFORMANCE ARCHITECTURAL COATING | PC. | PRECAST CONCRETE | VERT. | VERTICAL |
| CORR. | CORRIDOR | HP. | HIGH POINT | PC. CONC. | PRECAST CONCRETE | VEST. | VESTIBULE |
| CTR. | COUNTER | HC. | HOLLOW CORE | PREFAB. | PREFABRICATED | VCT. | VINYL COMPOSITION TILE |
| CSMK. | COUNTERSINK METAL SCREW | HM. | HOLLOW METAL | PR. | PRESSURE | VWC. | VINYL WALL COVERING |
| CSWS. | COUNTERSINK WOOD SCREW | HORIZ. | HORIZONTAL | PREFIN. | PREFINISHED | | W |
| CRS. | COURSES | HR. | HOSE RACK | PRESS. | PRESSURE PLATE | WAT. | WALK-OFF MAT |
| CC. | CURBLESS CAPTURE | HOSP. | HOSPITAL | PREL. SUB. | PRELIMINARY SUBMITTAL | WSR. | WALL SUPPORT RAIL |
| | D | HOWD. | HOT AND COLD HOSE BIBB | | PRELIMINARY SUBMITTAL | W.CAB. | WALL CABINET |
| DL. | DEAD LOAD | HR. | HOUR | PROT. | PROTECTION | WC. | WALL CARPET |
| DET. | DETAIL | | I | QTY. | QUANTITY | WP. | WALL PROTECTION |
| DIA. | DIAMETER | H. | INCH | QT. | QUARRY TILE | WR. | WATER CLOSET |
| DTL. | DIMENSION | INFO. | INFORMATION | | R | WH. | WATER HEATER |
| DTL. | DIMENSION | I.D. | INSIDE DIAMETER | R. | RADIUS | WRGB. | WATER RESISTANT GYPSUM BOARD |
| DO. | DITTO | INS. | INSULATED | RCWD. | REDWOOD | WP. | WEATHER PROOF |
| DR. | DOOR | INSUL. | INSULATION | REINF. | REINFORCE | WWM. | WELDED WIRE MESH |
| DP. | DOOR PROTECTOR | IN. | INTERNAL RESILIENT BASE | REINF. | REINFORCED | W.F. | WELDED WIRE FABRIC |
| DH. | DOUBLE HUNG | INT. | INTERIOR | REINF. | REINFORCING | W. | WIDE |
| DN. | DOWN | | J | REINF. | REINFORCING BAR | W. | WINDOW |
| D. | DRINKING FOUNTAIN | JAN. | JANITOR | REQ'D. | REQUIRED | WDW. | WOOD |
| DWR. | DRAWER | JT. | JOINT | RES. | RESILIENT BASE | WDW. | WINDOW |
| DWG. | DRAWING | JST. | JOIST | RM. | RESILIENT SHEET FLOORING | W.O. | WINDOW OPENING |
| DSP. | DRINKING FOUNTAIN | | L | R.A. | RETURN AIR | W. | WITH |
| DWR. | DRAWING | LAB. | LABORATORY | REV. | REVISION | W.O. | WITHOUT |
| DF. | DRINKING FOUNTAIN | LAM. | LAMINATE | R. | RISERS | WDW. | WOOD |
| DWR. | DWR LOCATOR | L.G. | LAMINATE GRADE | R.S.B. | ROD AND SHELF | W.P. | WOOD PANELING |
| | E | LAV. | LAVATORY | RD. | ROOF DRAIN | WP. | WORK POINT |
| EA. | EACH | LT. | LIGHT | | | | |

## General Notes

## Location Plan




## Project Description

B STREET AND UNION STREET FACADE STABILIZATION AND RESTORATION OF PIPER'S OPERA HOUSE.

## Architectural Symbol Legend

| SYMBOL | DESCRIPTION |
|---|---|
| | NEW WALL |
| | EXISTING WALL |
| | DEMOLITION |
| | 1 HOUR RATED WALL |
| | 2 HOUR RATED WALL |
| | 3 HOUR RATED WALL |
| | SHORE PARTITION |
| | CONTRACT LIMIT LINE |
| | COLUMN CENTER LINE |
| A 1 | NEW COLUMN CENTER LINE |
| 4 A1.2 | SHEET WHERE CUT |
| 1 A1.2 2 A1.2 | ELEVATION FLAG |
| 1 A1.2 2 A1.2 | SHEET WHERE APPEARS |
| 1 A1.2 2 A1.2 | BUILDING SECTION CUT |
| 1 A1.2 | WALL SECTION CUT |
| 16 1 A1.2 | DETAIL CUT |
| | SHEET WHERE APPEARS (TYPICAL) |
| | SHEET WHERE CUT (TYPICAL) |
| X | DETAIL FLAG NUMBER |
| | DASHED LINE AROUND AREA DETAILED |
| TOILET ROOM 1-0001 | ROOM NAME AND NUMBER PLAN SYMBOL |
| M001 | EQUIPMENT SYMBOL |
| A | WALL TYPE PLAN SYMBOL |
| 3068 | DOOR NUMBER PLAN SYMBOL |
| 1 | WINDOW OR GLASS TYPE SYMBOL |
| 1 | NOTE REFERENCE SYMBOL |

## Code References

APPLICABLE BUILDING CODE:

1994 UNIFORM BUILDING CODE

HANDICAP CODE & GUIDELINES:

1991 AMERICAN DISABILITIES ACT (ADA)
(ARS) SECTION 41-1492 ET SEQ ARIZONANS WITH DISABILITIES ACT

## Architectural Drawings



## Civil Drawings



## Structural Drawings



| Issued / Revised | | |
|---|---|---|
| No. | Date | Description |
| 1 | 08.15.02 | CITY SUBMITTAL |

00067

## Design Team


**Owner**
*Piper's Opera House Programs Inc.*
*Contact: Howard Bennett*
*Drawer J* 775.847.0433
*Virginia City, Nevada 89440*

**Architect**
*van Dijk Pace Westlake Architects*
*One East Camelback Road, Suite 690*
*Phoenix, Arizona 85012* 602.212.0451

**Structural Engineer**
*Ferrari Shields & Associates*
*185 Cadillac Place*
*Reno, Nevada 89509* 928.726.2646


*Piper's Opera House*
*Facade Stabilization*

*Commission # 22002*


*van Dijk Westlake Reed Leskosky*
*Architects*

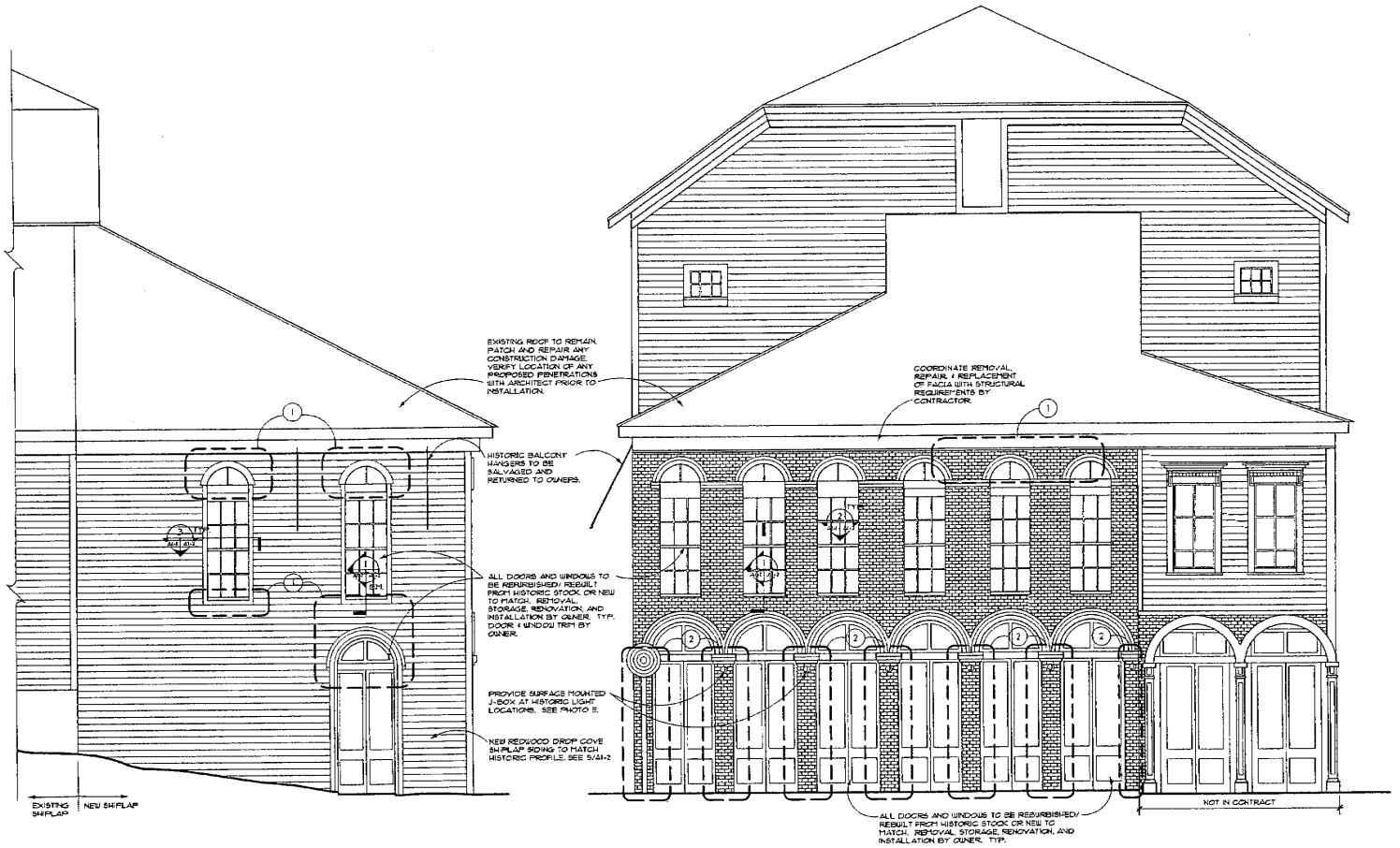
*One East Camelback Road*
*Suite 690*
*Phoenix, Arizona 85012*
*602 212-0451*
*www.vwrl.com*


AUG 22 2002

*Facade Stabiliztion*
*Cover*

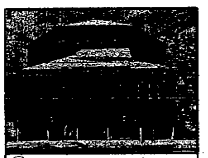
PAUL E. WESTLAKE JR. REGISTERED No. 3838 ARCHITECT STATE OF NEVADA

SD
A1-0

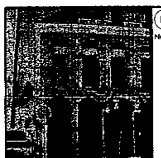



NORTH ELEVATION
1/4" = 1'-0"
1 A1-1 | A1-1

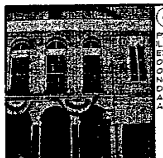
WEST ELEVATION
1/4" = 1'-0"
2 A1-1 | A1-1



A PHOTO ILLUSTRATES EXISTING FACADE OF PIPER'S OPERA HOUSE.



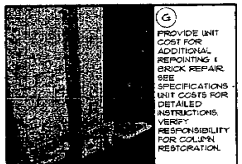
B NOTES



C PHOTO ILLUSTRATES EXISTING FACADE OF PIPER'S OPERA HOUSE. NOTE HEAVILY DETERIORATED AREA OF BRICKS ABOVE WINDOWS.

D NOT USED

E PHOTO ILLUSTRATES LOCATIONS FOR HISTORIC LIGHTING.



G PROVIDE UNIT COST FOR ADDITIONAL REPOINTING & BRICK REPAIR. SEE SPECIFICATIONS - UNIT COSTS FOR DETAILED INSTRUCTIONS. VERIFY RESPONSIBILITY FOR COLUMN RESTORATION.

*Issued / Revised*

| No. | Date | Description |
|---|---|---|
| 1 | 08.15.02 | CITY SUBMITTAL |

## *General Notes:*

A THE OWNER WILL REMOVE, RESTORE/RECREATE & REINSTALL ALL DOORS, WINDOWS, & FRAMES. CONTRACTOR TO COORDINATE WITH OWNER.

B A WOOD STUD & PLYWOOD WALL WILL BE INSTALLED 8'-0" BEHIND THE EL STREET FACADE AND THE PORTION OF THE SOUTH WALL INCLUDED IN THIS CONTRACT. THIS WILL BE THE CONTRACTOR'S CONSTRUCTION ZONE.

C THIS FACILITY WILL REMAIN FULLY UTILIZED & OPERATIONAL DURING CONSTRUCTION. COORDINATE ALL CONTRACTOR OPERATIONS, SAFEGUARDS, & CLOSURES WITH THE OWNER. MAINTAIN THE SAFETY & SECURITY OF THE PUBLIC, STAFF, & USERS OF THE FACILITY.

D NOTE THAT THIS IS A HISTORIC BUILDING OF NATIONAL LANDMARK IMPORTANCE. EXTREME CARE SHOULD BE TAKEN TO ENSURE THAT NO DAMAGE OCCURS TO THE HISTORIC FABRIC. SHOULD DAMAGE OCCUR, NOTIFY ARCHITECT IMMEDIATELY AND DO NOT PROCEED WITH REPAIRS WITHOUT EXPLICIT WRITTEN DIRECTIONS FROM THE ARCHITECT.

E PROVIDE UNIT COST FOR ADDITIONAL REPOINTING & BRICK REPAIR. SEE SPECIFICATIONS - UNIT COSTS FOR DETAILED INSTRUCTIONS.

F UTILIZE SALVAGED BRICK FROM STRUCTURAL STABILIZATION WORK UNDER THIS CONTRACT.

G REMOVE DAMAGED BRICK AND REPLACE IF CHIPS OR SPALLING IS GREATER THAN TWO INCHES LONG OR ½" DEEP.

## *Key Notes:*

1. AREA OF HEAVY BRICK DETERIORATION MAY REQUIRE COMPLETE RECONSTRUCTION. UTILIZED SALVAGED BRICKS TO FULL EXTENT POSSIBLE.
2. REPOINT AND REBUILD ENTIRE COLUMN AND CAPITOL.

# *Piper's Opera House Facade Stabilization*

*Commission # 22002*

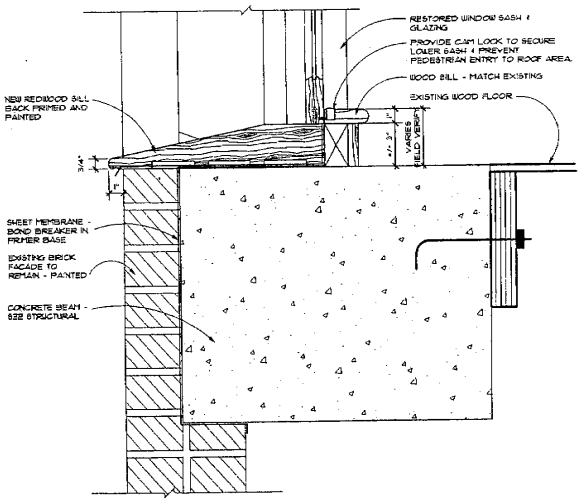
*van Dijk Westlake Reed Leskosky*
*Architects*

*One East Camelback Road*
*Suite 690*
*Phoenix, Arizona 85012*
*602 212-0451*
*www.vwrl.com*

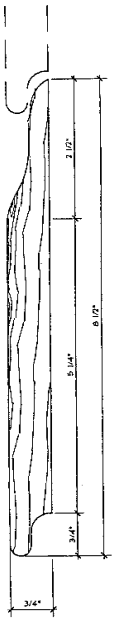
*Facade Stabiliztion Elevations*


*SD*

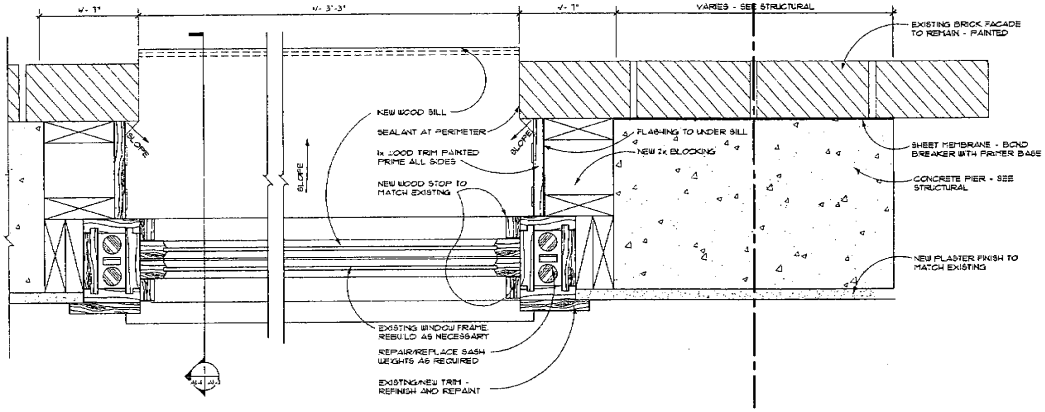
*A1-1*



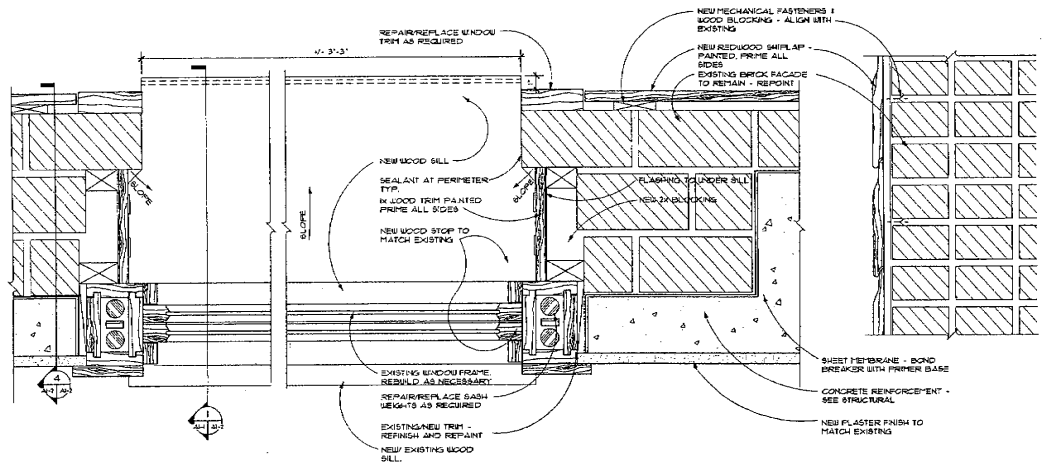

SECTION DETAIL - WINDOW SILL
3" = 1'-0" (1 / A1-1 | A1-2)




HISTORIC SHIPLAP PROFILE
1" = 1'-0" (5 / A1-2 | A1-2)




PLAN DETAIL - WINDOW JAMB
3" = 1'-0" (2 / A1-1 | A1-2)




PLAN DETAIL - WINDOW JAMB
3" = 1'-0" (3 / A1-1 | A1-2)

SECTION DETAIL - SHIPLAP
3" = 1'-0" (4 / A1-1 | A1-2)



*Issued / Revised*

| No. | Date | Description |
|---|---|---|
| 1 | 08.15.02 | CITY SUBMITTAL |

*General Notes:*

A WINDOWS, FRAMES, AND SILLS BY OWNER.

B PLASTER FINISH BY OWNER.

C BRICK WORK, SHEET MEMBRANE, CONCRETE & REBAR BY CONTRACTOR.

D REDWOOD SHIPLAP SIDING, TRIM & BRICK PAINTING BY CONTRACTOR.

*Piper's Opera House*
*Facade Stabilization*

*Commission # 22002*

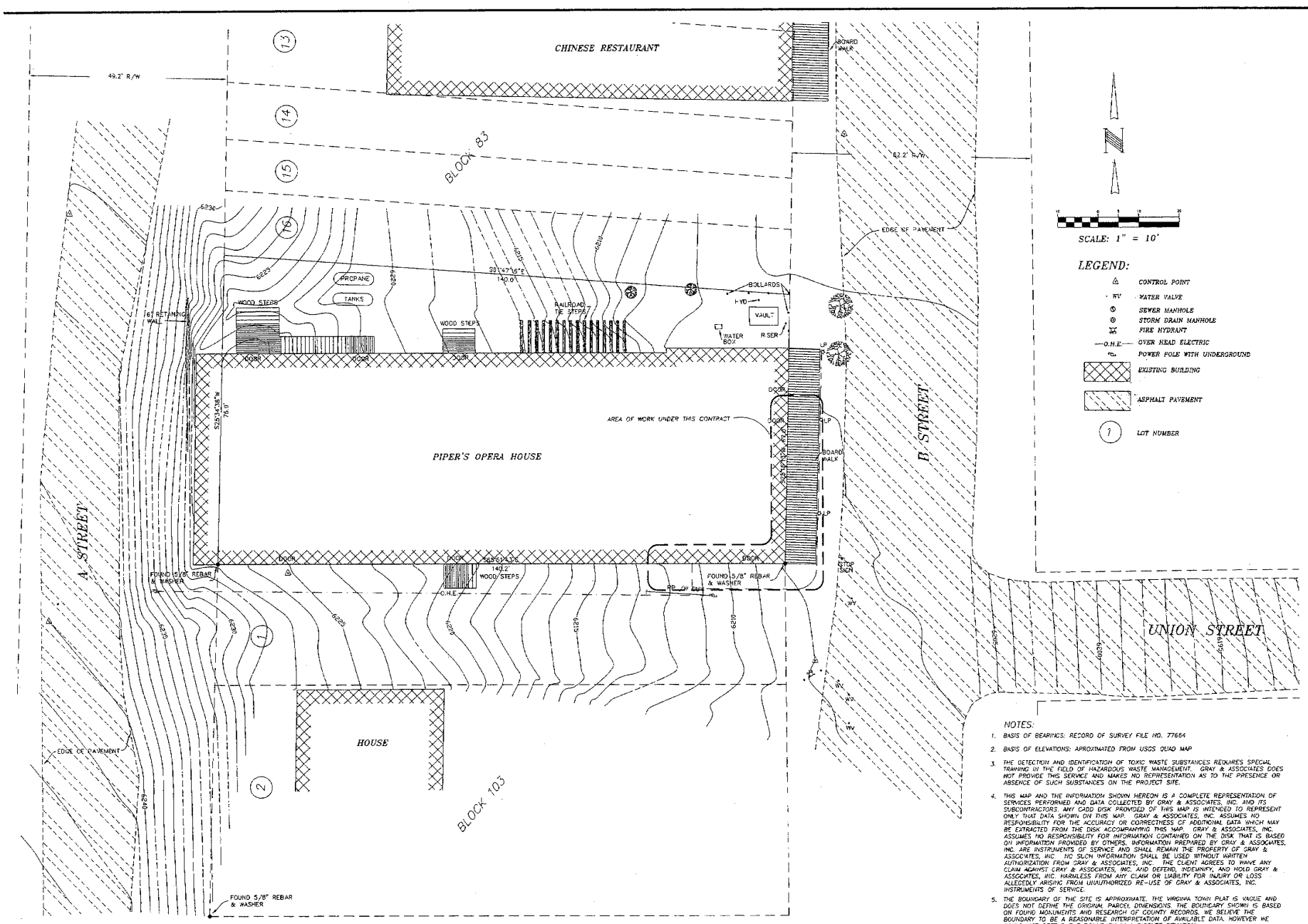
*van Dijk Westlake Reed Leskosky*
*Architects*

*One East Camelback Road*
*Suite 690*
*Phoenix, Arizona 85012*
*602 212-0451*
*www.vwrl.com*

*Facade Stabilization Details*

PAUL E. WESTLAKE REGISTERED No. 3939 ARCHITECT STATE OF NEVADA

A1-2




NOTES:

1. BASIS OF BEARINGS: RECORD OF SURVEY FILE NO. 77664
2. BASIS OF ELEVATIONS: APROXIMATED FROM USGS QUAD MAP
3. THE DETECTION AND IDENTIFICATION OF TOXIC WASTE SUBSTANCES REQUIRES SPECIAL TRAINING IN THE FIELD OF HAZARDOUS WASTE MANAGEMENT. GRAY & ASSOCIATES DOES NOT PROVIDE THIS SERVICE AND MAKES NO REPRESENTATION AS TO THE PRESENCE OR ABSENCE OF SUCH SUBSTANCES ON THE PROJECT SITE.
4. THIS MAP AND THE INFORMATION SHOWN HEREON IS A COMPLETE REPRESENTATION OF SERVICES PERFORMED AND DATA COLLECTED BY GRAY & ASSOCIATES, INC. AND ITS SUBCONTRACTORS. ANY CADD DISK PROVIDED OF THIS MAP IS INTENDED TO REPRESENT ONLY THAT DATA SHOWN ON THIS MAP. GRAY & ASSOCIATES, INC. ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR CORRECTNESS OF ADDITIONAL DATA WHICH MAY BE EXTRACTED FROM THE DISK ACCOMPANYING THIS MAP. GRAY & ASSOCIATES, INC. ASSUMES NO RESPONSIBILITY FOR INFORMATION CONTAINED ON THE DISK THAT IS BASED ON INFORMATION PROVIDED BY OTHERS. INFORMATION PREPARED BY GRAY & ASSOCIATES, INC. ARE INSTRUMENTS OF SERVICE AND SHALL REMAIN THE PROPERTY OF GRAY & ASSOCIATES, INC. NO SUCH INFORMATION SHALL BE USED WITHOUT WRITTEN AUTHORIZATION FROM GRAY & ASSOCIATES, INC. THE CLIENT AGREES TO WAIVE ANY CLAIM AGAINST GRAY & ASSOCIATES, INC. AND DEFEND, INDEMNIFY, AND HOLD GRAY & ASSOCIATES, INC. HARMLESS FROM ANY CLAIM OR LIABILITY FOR INJURY OR LOSS ALLEGEDLY ARISING FROM UNAUTHORIZED RE-USE OF GRAY & ASSOCIATES, INC. INSTRUMENTS OF SERVICE.
5. THE BOUNDARY OF THE SITE IS APPROXIMATE. THE VIRGINIA TOWN PLAT IS VAGUE AND DOES NOT DEFINE THE ORIGINAL PARCEL DIMENSIONS. THE BOUNDARY SHOWN IS BASED ON FOUND MONUMENTS AND RESEARCH OF COUNTY RECORDS. WE BELIEVE THE BOUNDARY TO BE A REASONABLE INTERPRETATION OF AVAILABLE DATA. HOWEVER WE COULD NOT DEFEND THE BOUNDARY IN A DISPUTE SITUATION.

Gray & Associates INC
CIVIL ENGINEERS • PLANNERS • SURVEYORS
(775) 329-3911 • 130 Vista Street Reno, Nevada 89509 • (775) 329-8907 Fax • mail@grayassociates.net

VanDijk, Westlake Reed
PIPER'S OPERA HOUSE
TOPOGRAPHIC SURVEY
STOREY COUNTY - NEVADA

| BY | REVISIONS | DATE |
|---|---|---|
| | | |

CLIENT No.: 9003
JOB No.: 02034
DRAWN BY: AC
CHECKED BY: MH
DATE: 04/02/2002
SHEET No.
C-1
OF ONE

STRUCTURAL NOTES

1. GENERAL

1.1. Promptly report any discrepancy found among the Drawings, Specifications, these Structural Notes, and the site conditions to the Architect, who shall correct such discrepancy in writing. Any work done by the Contractor after the discovery of such discrepancy is at the Contractor's own risk. Verify and coordinate the dimensions among all drawings prior to proceeding with any work or fabrication.

1.2. Do not scale working dimensions from the plans, sections or details.

1.3. Field verify all dimensions. Pay particular attention to approximate dimensions marked with the symbol ±.

1.4. Construction or details for elements or portions of the work not specifically shown shall be similar to construction or details shown.

1.5. Standard details and schedules apply to the work in general and may not be specifically referenced on the plans. Determine where each standard detail or schedule applies prior to proceeding with the work. Promptly notify the Architect/Engineer if conditions are found which are not specifically detailed and for which no standard detail or schedule applies.

1.6. Notes and details specifically indicated on the plans take precedence over these Notes.

1.7. Where the Specifications and these Notes or the plans conflict, use the more restrictive criteria, unless directed otherwise by the Architect or Engineer.

1.8. Check and coordinate with architectural plans for items to be embedded in concrete.

1.9. Submit shop drawings of all fabricated items for review prior to fabrication. SHOP DRAWINGS SUBMITTED TO THE ENGINEER SHALL CONSIST OF (1) PRINT AND (1) REPRODUCIBLE. The print will be retained for our records. Once received by our office, there is a minimum ten working-day turn-around time for review of shop drawings.

Submittals not approved and stamped by the Contractor will be cause for rejection without action.

Include erection and fabrication drawings in shop drawing submittals. DO NOT INCLUDE ANY REPRODUCTIONS OF THE CONTRACT DOCUMENTS IN THE SHOP DRAWINGS.

1.10. Modifications or substitutions in the design, material, equipment or products specified may be considered provided a written request, subject to review, is submitted to the Engineer prior to its use or inclusion in any shop drawing.

1.11. Provide and maintain adequate erection shoring and bracing as required for stability and protection of the structure during all phases of construction. Site Observations by the Engineer do not include inspection of shoring, bracing, or other elements pertaining to the means or method of construction. The Contractor is responsible for the installation of all required cribbing, sheathing and shoring.

2. DESIGN AND CONSTRUCTION (UBC Ch 16)

2.1. All design, materials and workmanship shall be in accordance with the following:

2.1.1. 1997 Edition of the Uniform Building Code for Building conservation (UCBC) as amended and adopted by the governing code agency or Building Official.

2.1.2. Other codes as specified herein and in the contract documents. All codes and standards shall be the most current edition as of the date of these drawings.

2.2. An ICBO Evaluation Service report or a CABO National Evaluation Report is required for all manufactured materials that are not covered by an appropriate Section in the UBC.

The ICBO-ES report shall indicate the allowable design loads, acceptable applications and installation requirements. Materials requiring ICBO-ES reports include, but are not limited to the following:

| | |
|---|---|
| Expansion Anchors (EB) | Adhesive Anchoring Systems |
| Non-shrink Grout | Mechanical Couplers For Rebar |
| Framing Hardware | Design Loads: |

2.2.1. Roof Snow Load — N/A

2.2.2. Floors, Stairs, Corridors and Lobbies — 100 psf
All other areas (reducible) — 80 psf
Partitions (with reducible load of 80 psf or less) — 20 psf
Mechanical rooms — 125 psf
Mezzanine level — 50 psf
Catwalks — 40 psf

2.2.3. Wind Load — 85 mph, Exposure C
Net wind uplift — 12 psf

2.2.4. Seismic — Zone 4, Rw=5.5, Ca=0.36, I=1.0
Partition load included in W — 5 psf for roofs
10 psf for floors.

3. REINFORCED CONCRETE (UBC Ch 19)

3.1. All Concrete work and materials shall conform to ACI 318 and ACI 301.

Bar supports, detailing, placing, etc., shall comply with the provisions and recommendations contained in the "Manual of Standard Practice" by the Concrete Reinforcing Steel Institute.

3.2. Concrete properties and composition shall be as follows:

| Property | Class E |
|---|---|
| 28-day f'c (1) | 4000 psi |
| Slump, max. | 3" |
| Unit wt (2) | 145 pcf |
| Shrinkage(4) | .0625 |
| Min. Cement | NR |

(1) 6% for 3/4" max. aggregate, 7% for 1/2" max. aggregate.
(2) Aggregate per UBC 1903.3.
(3) Shrinkage at 28 days for dry curing per ASTM C-157 (NR = no requirement).
(4) ASTM C150, C595, or C1157, as appropriate.

Class A: Foundations, UNO
Class B: Interior slabs on grade
Class C: Concrete exposed to weather, exterior slabs on grade, foundation walls, exterior walls, etc.
Class D: Concrete slabs on steel deck
Class E: Concrete above grade, walls, columns, beams, etc., UNO

3.3. The slumps indicated above are for unplasticized concrete. Larger slumps may be attained through the use of a superplasticizer.

3.4. Admixtures for concrete shall comply with UBC 1903.6.

3.5. Evaluation and acceptance of concrete shall conform with UBC 1905.6. In addition to the two cylinders required, make two additional cylinders (total of four for each test). One cylinder shall be tested at 7 days.

If the 7-day break is less than 60% of the specified 28-day strength, the Contractor shall investigate and make any corrections or changes as necessary to ensure future concrete will reach the specified strength.

If the average of the 28-day strengths is below the acceptable limits, test the fourth cylinder at 56 days.

3.6. Prior to placing concrete, approval shall be obtained from the Engineer or local building agency for sleeves, openings, or other attachments not shown on the drawings.

3.7. Use the following cover on reinforcement in cast-in-place concrete, unless noted otherwise on the drawings:

| | |
|---|---|
| 3" | Concrete cast against and permanently exposed to earth. |
| 2" | Concrete exposed to earth or weather: #6 bars or larger. |
| 1-1/2" | Concrete exposed to earth or weather; #5 bars and smaller. |
| 3/4" | Concrete not exposed to weather or in contact with ground: #11 bar and smaller. |
| 1-1/2" | Concrete not exposed to weather or in contact with ground: #14 & #18 bars. |
| 1-1/2" | Beams, columns and pilasters; cover over ties. |
| 3/4" | Slabs and walls formed above grade not exposed to weather. |
| 1-1/2" | Clear to top for reinforcement in slabs-on-grade. |

3.8. Provide standard hooks per UBC 1907.1, unless detailed otherwise.

3.9. Use 1" or (1) bar diameter, whichever is greater, minimum clear distance between parallel reinforcing bars, including spliced bars. For bundled bars, use an effective diameter, based on the total area of the bundle, to establish the required clearance.

3.10. Provide lap splices, welded splices, mechanical connections, and development of standard hooks as specified in UBC 1912. Make lap splices only at the locations shown on the drawings, as indicated in these Notes, or as approved in advance by the Engineer.

For normal weight concrete, use the minimum lap splice lengths listed below, but not less than 24", unless detailed otherwise:

| Bar Size | Top Bars | Other Bars |
|---|---|---|
| #3 - #6 | (74) Bar Dia. | (57) Bar Dia. |
| #7 - #11 | (93) Bar Dia. | (71) Bar Dia. |

"Top bars" are horizontal bars with more than 12" of concrete cast below the bars.

Lap splice lengths listed above apply only when the clear distance between bars, including lapped reinforcement, is (2) bar diameters or greater and clear cover is not less than (1) bar diameter. When the clear distance between bars is less than (2) bar diameters or the clear cover is less than (1) bar diameter, increase the splice length by 50%.

3.11. Provide 3/4" chamfer on all exposed corners of concrete.

3.12. Roughen the existing concrete surface at the interface of construction joints to an amplitude of approximately 1/4", except where a key is specifically indicated or where the use of a bond breaker is indicated. Immediately before new concrete is placed, thoroughly wet the interface surface and remove any standing water.

The Contractor shall locate, subject to the approval of the Engineer, construction joints not shown on the plans. Locate such joints to least impair the strength of the structure.

3.13. For walls, do not exceed a maximum length of 40'-0" in any continuous pour (between vertical construction joints).

The maximum length of concrete placement may be extended to 60'-0", provided control joints are placed at a maximum spacing of 30'-0".

3.14. Where new concrete is deposited against concrete that is greater than 28 days old, thoroughly clean existing surfaces of laitance and foreign material and saturate with water. Remove all standing water prior to placement of new concrete. Roughen the existing surface to an amplitude of 1/4".

3.15. Securely tie all reinforcement before placing concrete.

4. REINFORCEMENT (UBC Ch 19)

4.1. Reinforcement shall conform to UBC 1903.5 and ASTM A615 and A706. Welded Wire Fabric shall conform to UBC 1903.5 and ASTM A185.

4.2. Use A615, Grade 60 reinforcement for concrete, UNO.

4.3. Use plastic or plastic-coated chairs or spacers where spacers rest on exposed surfaces.

4.4. Bend reinforcing steel cold, unless directed otherwise by the Engineer.

4.5. Submit reinforcing steel shop drawings in accordance with Section 1 of these Notes. Indicate size and placement of reinforcement, splices, details and locations of embedded items on such shop drawings.

4.6. Promptly notify the Engineer if conditions arise where there are insufficient minimum clear distances or where construction problems related to congestion are encountered.

5. CONNECTIONS TO CONCRETE AND CONCRETE INSERTS (UBC Ch 19)

5.1. Hot-dip galvanize all inserts and plates embedded in concrete and permanently exposed to weather after fabrication, unless noted otherwise.

5.2. Use Bar-O-Nail Splicer-ite 150 threaded connectors, or equal, at mechanical splices. Mechanical splices shall develop 125% of the specified yield strength of the reinforcement.

5.3. Use wedge and expansion anchors as manufactured by Hilti, or an approved equal. Install according to the Manufacturer's printed instructions.

5.4. Reinforcement welded to embedded plates shall meet the following:

5.4.1. Bars shall be ASTM A706, Grade 60, unless noted otherwise. All bars not welded to existing embedded plates shall be shop welded. Test all bars by tapping with a 20# hammer and test 30% of the bars welded in the field by bending through an angle of 15 degrees.

5.4.2. Deformed Bar Anchors (DBA) shall be type SL2 as manufactured by TRW-Nelson. Installation shall conform to the Manufacturer's printed instructions. Test all DBAs by tapping with a 20# hammer and test 30% of the DBAs welded in the field by bending through an angle of 15 degrees. The surface of steel to be welded shall be clean and dry and shall not be painted nor galvanized.

5.5. Epoxy grout reinforcing dowels and threaded rod (ASTM A325, unless noted otherwise) using using Simpson SET adhesive system per ICBO Report ER-3229, Covert CIA-Set 7000 adhesive system per ICBO Report ER-4846 or Rensel/ReadHead EPCON adhesive system per ICBO Report ER-4205. Alternate anchorage systems require written pre-approval of the Engineer. Install according to the Manufacturer's printed instructions.

5.6. Install Hilti HIT adhesive anchors in concrete with HIT HY-150 or C-100 adhesive per ICBO Report ER-5193 for HY-150 adhesive, ICBO Report ER-4015 for C-100 adhesive, and the Manufacturer's printed instructions.

5.7. Install Simpson SET adhesive anchors in concrete per ICBO Report ER-5279 and the Manufacturer's printed instructions.

6. BRICK MASONRY (UBC Ch 21)

6.1. See Architectural Specifications for repointing of existing brick masonry, as well as for reconstruction of brick masonry.

7. SAWN LUMBER, TIMBER, AND MANUFACTURED WOOD PRODUCTS (UBC Ch 23)

7.1. For sawn lumber, use Douglas Fir-Larch per UBC Ch 23, Div III (NDS-91 Table 4A and 4D), of the following minimum grades, unless noted otherwise on the plans:

| Description | Grade | Allowable Stress (Includes Size Factor) |
|---|---|---|
| 2x4 Studs | No. 2 | Fb = 1313 psi |
| 2x6, 4x6 & 6x8 | No. 2 | Fc = 1137 psi |
| 2x8 | No. 2 | Fb = 1050 psi |
| Beams and Stringers | No. 1 | Fb = 1350 psi |
| Post and Timbers | No. 1 | Fc = 1000 psi |

Use pressure treated Douglas Fir-Larch No. 2 for sole plates and wood within 6" of earth.

7.2. Use prefabricated plywood web joists as manufactured by Trus-Joist, and of the type and size indicated on the plans. Substitute products from other manufacturers require prior written approval from the Engineer.

Design for the loads given in Section 2.3 of these Notes, unless noted otherwise on the plans.

7.3. Use Microllam (LVL) and Parallam (PSL) beams and TimberStrand (LSL) beams, studs and rim boards as manufactured by Trus-Joist, of the type and size indicated on the plans, and with the following minimum properties:

| Description | Flexural Stress | Modulus of Elasticity |
|---|---|---|
| Microllam (LVL) | Fb = 2600 psi | E = 1900 ksi |
| Parallam (PSL) | Fb = 2900 psi | E = 2000 ksi |
| TimberStrand (LSL) | Fb = 1700 psi | E = 1300 ksi |

Blocking, stiffeners and hangers are the responsibility of the Manufacturer, unless specifically indicated on the plans.

Substitute products from other manufacturers require prior written approval from the Engineer.

7.4. Structural Glued Laminated Timbers (glulam) shall comply with UBC 2316, ANSI/AITC A190.1 and AITC 117. Use Douglas Fir-Larch combinations as follows, unless noted otherwise:

Simple Spans — DF-24F/V4
Cantilever Spans — DF-24F/V8
Continuous Spans — DF-24F/V8

7.5. Attach sole plates using 5/8" dia. anchor bolts at 32" maximum, unless noted otherwise. Use 12" bolt length for 3x or 4x plates, 10" bolt length for 2x plates. Each anchor bolt shall be equipped with a minimum 2"x2"x3/16" plate washer.

7.6. As used in these Structural Notes and in the Plans and Details, "plywood" refers to "wood structural panels" as defined in Section 2302 of the Uniform Building Code. Plywood, oriented strand board (OSB), and waferboard may be freely substituted for each other at the Contractor's option, provide such products meet the APA Ratings indicated elsewhere in these Notes.

Note that particleboard is not included in the definition of wood structural panels, and may not be used as such.

7.7. Plywood sheathing nailing for shear walls and diaphragms is indicated on the drawings or in these Notes. We use the following abbreviations to designate nailing in details and schedules:

| | | |
|---|---|---|
| BN | Boundary nailing. | Typical to all blocking over walls and elements indicated to act as chords. |
| CN | Continuous edge nailing. | Nailing of plywood panel edges where the edges of consecutive panels fall on the same framing member. Unless noted otherwise, CN shall be the same as EN. |
| EN | Edge nailing. | Nailing to supported plywood panel edges. |
| FN | Field nailing. | Nailing to interior supports. |

7.8. Plywood roof sheathing shall be APA C-D Span Rated panels, Exposure 1, as follows:

Thickness: 5/8"; Span Index: 32/16
Minimum nailing as follows: Bd. BN=6", EN=6", FN=12"

7.9. Plywood wall sheathing shall be APA rated sheathing, Exposure 1, as follows:

Thickness: 15/32"
Minimum nailing as follows: Bd. BN=6", EN=6", FN=12"

Provide 2x blocking along all edges not supported by studs.

7.10. Floor sheathing shall be STURD-I-FLOOR, as follows:

Thickness: 3/4"
Minimum Nailing: 10d, BN=6", EN=6", FN=10"

Nail with 10d ring or screw-shank nails and glue to supports. Apply glue as recommended by APA and the Manufacturer.

7.11. Lay plywood for floors and roofs with face grain perpendicular to joists and with end joints staggered. Where panels are less than 24" wide, block all edges.

7.12. For wood to wood nailed connections, use spacing and edge distances of (11) diameters and (6) diameters, respectively, or as required to avoid splitting the wood.

7.13. Where required to avoid splitting, pre-drill holes with a drill bit diameter equal to the next smaller nail diameter.

7.14. Where nails will be exposed to weather, use zinc coated, aluminum alloy wire, or stainless steel nails conforming to UBC 2316.3.

7.15. For members resisting wind or seismic loads, use common nails only; box nails and sinkers (GVS) nails are not acceptable unless approved in writing by the Engineer. Members resisting wind or seismic loads include, but are not limited to, roof and floor diaphragm sheathing nailing, shearwall sheathing nailing, diaphragm and shearwall blocking and bracing, shearwall plate nailing, gable bracing and blocking, and splices in double top plates.

7.16. Use the following minimum Nailing Schedule (Note: This schedule is more restrictive than that contained in UBC Table 23-II-B-1):

| | |
|---|---|
| Joist to sill or girder, toenail | (2) 10d |
| Bridging to joist, toenail each end | (2) 10d |
| Sole plate to joist or blocking, face nail | 16d @ 12" |
| Top plate to stud, end nail | (2) 16d |
| Stud to sole plate, toenail | (4) 8d |
| or end nail | (2) 16d |
| Doubled studs, face nail | 16d @ 16" |
| Doubled top plates, face nail | 16d @ 12" |
| Continuous header, two pieces along each edge | 16d @ 12" |
| Ceiling joist to plate, toenail | (3) 8d |
| Continuous header to stud, toenail | (4) 8d |
| Joists, laps over partitions, face nail | (3) 16d |
| Ceiling joists to parallel rafters, face nails | (3) 16d |
| Rafters, Joists to plate, toenail | (3) 10d |
| Built-up corner studs | 16d @ 16" |
| Built-up beams, each side, staggered | 16d @ 8" |
| Blocking over bearing walls to top of sill plate | (3) 16d @ ea block |

The quantities and spacings listed are for common nails; except for members resisting wind or seismic loads, 16d Sinkers (16d GVS) may be substituted at the same quantities and spacings as specified above.

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PIPER'S OPERA HOUSE
FACADE
RENO, NEVADA

SHEET TITLE: STRUCTURAL NOTES

DRAWN: SAS
CHECKED: PAF
DATE: 5/14/03
SCALE: NONE
JOB NO.: C0403
SHEET: SN-1
OF SHEETS

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7.17. Provide H1 or H2.5 ties for all rafters, roof trusses or roof joists, unless noted otherwise.

7.18. All rough framing shall conform to the UBC, specifically section 2320.

7.19. Use framing hardware as manufactured by Simpson Strong-Tie or United Steel Products (USP), and of the type and size indicated on the plans. Install as recommended by the Manufacturer. Where hardware can be specified with different size fasteners, use the largest fastener, unless noted otherwise.

Alternate hardware requires Engineer's approval prior to installation. Submit proposed equivalent and ICBO ES Report for each alternate item. Contractor/Installer assumes full liability resulting from the use of non-approved framing hardware including, but not limited to, product and entire system performance.

7.20. Where holddowns are indicated at ends of shear walls, nail the sheathing to the member to which the holddown is connected. Use the same nailing specified for plywood panel edges.

7.21. All detailing, fabrication, and erection of glulam members shall be according to AITC Specifications. Give special care to the protection of glulam members that are to be exposed to weather.

7.22. Give special attention to the bearing surfaces of columns to ensure that members fit tightly and that interfacing surfaces are true.

7.23. Use ASTM A307 Machine Bolts and use washers where bolt head or nut bears on wood. Drill holes 1/32" to 1/16" larger in diameter than the bolt.

Where bolts are shown countersunk into plates, nailers and ledgers, do not exceed 1" countersink depth.

7.24. Use ASTM A307 or ASTM A36 Lag Screws and use washers where head bears on wood. Drill lead holes as follows:

| Lag Dia. | Lead Hole Dia. |
|---|---|
| 3/8" | 11/64" |
| 1/2" | 15/64" |
| 5/8" | 5/16" |
| 3/4" | 13/32" |

7.25. For non-bearing interior walls on concrete slabs-on-grade, shoot sole plates to the floor using 2-1/2" long by 0.145" diameter powder actuated pins, spaced 6" from ends and at 32" maximum elsewhere. Install according to the Manufacturer's printed instructions.

7.26. Prefabricated Roof Trusses are the responsibility of the Truss Manufacturer. The Manufacturer shall submit truss calculations and erection drawings indicating the location of each truss type, and showing any temporary bracing, in accordance with Truss Plate Institute recommendations.

ALL TRUSS HANGERS AND OTHER RELATED HARDWARE NOT SPECIFICALLY INDICATED ON THE PLANS SHALL BE DESIGNED AND PROVIDED BY THE MANUFACTURER.

Metal plate connectors and inspection of truss Manufacturer shall comply with UBC Ch 23, Div V. The minimum plate size for connection of two members shall be 2"x3" and the minimum plate size for connections with three or more members shall be 3"x4"; no exceptions will be made.

Design for the loads given in Section 2.3 of these Notes, unless noted otherwise on the plans.

7.27. Where multiple joists, rafters or trusses in diaphragms and multiple studs in shear walls are required and plywood edges fall at the interface of the members, connect the multiple members together as required to transfer diaphragm shear.

Connect 2x framing members by nailing with 16d nails at the same spacing as the edge nailing required for the plywood sheathing. Stagger the nailing to prevent splitting the wood.

For manufactured trusses and joists, the Manufacturer shall engineer and detail connections. Where diaphragm shear is not specified, assume the shear to be equal to the shear capacity specified in the appropriate UBC Table, 23-II-H or 23-II-I-1, for the plywood grade, thickness, and nailing.

MISCELLANEOUS

SPECIAL INSPECTION (UBC Ch 17)

Provide for special inspection in compliance with UBC 1701 as follows:

9.1. Concrete:

9.1.1. Special inspection is required for concrete walls and columns.

9.2. Bolts installed in concrete: Special inspection is not required for anchor bolts, except where specifically noted on the plans.

9.3. Adhesive anchor bolts: Special inspection is required for adhesive anchor bolts. For Simpson SET anchors, conduct special inspection per ICBO Report ER-5279, Sec. 2.6. for other products, refer to the appropriate ICBO Evaluation Report.

9.4. Special moment-resisting concrete frames: Special inspection as required by UBC 1701.5, Item 3.

9.5. Reinforcing steel:

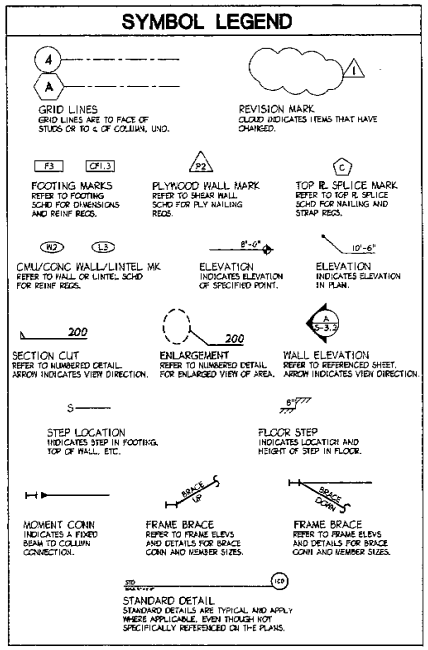
9.5.1. Special inspection is required for placement of reinforcing steel where special inspection is required for concrete.

9.6. Shotcrete/Gunite: Special inspection is required per UBC 1701.5, Item 12 and UBC 1924.10 and 1924.11.

STRUCTURAL ABBREVIATIONS

| | | | | | |
|---|---|---|---|---|---|
| AB | Anchor Bolt (ASTM A307 or A36) | GA | Gage | R | Radius |
| ADDL | Additional | GALV | Galvanized | RC | Reinforced Concrete |
| ADJ | Adjacent | GLB | Glulam Beam | REF | Refer to... |
| AFF | Above Finish Floor | GLC | Glulam Column | RECT | Rectangular |
| AGGR | Aggregate | GRB | Grade Beam | REINF | Reinforcement |
| ALT | Alternate | GRD | Grade | REQD | Required |
| ANC | Anchor | GRT | Grout | REQS | Requirements |
| APPD | Approved | GRTG | Grating | RET | Return |
| APPROX | Approximate | GVL | Gravel | REV | Reversed |
| ARCH | Architectural | GYP | Gypsum | RO | Rough Opening |
| BC | Bottom Chord | (H) | Horizontal Reinforcement | SCHD | Schedule |
| BLDG | Building | HDR | Header | SECT | Section |
| BLK | Block | HK | Hook | SEIS | Seismic |
| BLKG | Blocking | HNGR | Hanger | SF | Square Feet |
| BM | Beam | HORIZ | Horizontal | SHT | Sheet |
| BN | Boundary Nailing | HP | High Point | SHTG | Sheathing |
| B.O. | Bottom of... | HSA | Headed Stud Anchor | SIM | Similar |
| BOD | Bottom of Deck | HT | Height | SIMP | Simpson Strong-Tie |
| BOF | Bottom of Footing | HVAC | Heating, Ventilating & Air Conditioning | SOG | Slab-on-Grade |
| BRG | Bearing | | | SP | Spiral |
| BTN | Bottom | ID | Inside Diameter | SPA | Spacing |
| BTWN | Between | IF | Inside Face | SPECS | Specified |
| | | IN | Inches | SPECS | Specifications |
| (Con) | Concen (n = Lumber Amount) | INT | Interior | SPF | Spruce-Pine-Fir |
| C-C | Center-to-Center | | | SQ | Square |
| CALCS | Calculations | JST | Joist | SSH | Short Slotted Holes |
| CIP | Cast-in-Place | JT | Joint | SSJ | Seismic Separation Joint |
| CJ | Construction Joint | | | SST | Stainless Steel |
| CL | Centerline | K | Kip (1000 Lbs) | STD | Standard |
| CLR | Clear | KSF | Kips per Square Foot | STFNR | Stiffener |
| CMU | Concrete Masonry Unit | KSI | Kips per Square Inch | STGRD | Staggered |
| CN | Continuous Edge Nailing | | | STL | Steel |
| COL | Column | LAM | Laminated | STR | Straight |
| CONC | Concrete | LAT | Lateral | STRUCT | Structural |
| CONN | Connection | LBS | Pounds | SUPP | Support |
| CONSTR | Construction | LLH | Long Leg Horizontal | S/W | Shear Wall |
| CONT | Continuous | LLV | Long Leg Vertical | SYMM | Symmetrical |
| CTJ | Control Joint | LNTL | Lintel | | |
| CTR | Center | LONGIT | Longitudinal | T&B | Top and Bottom |
| CU | Cubic | LS | Lag Screw | TC | Top Chord |
| | | LSH | Long Slotted Hole | THK | Thick |
| d | Penny (Nail Size) | LSL | Laminated Strand Lumber (Fineerstrand) | THKND | Thickened |
| DBA | Deformed Bar Anchor | LVL | Laminated Veneer Lumber (Microllan) | THKNS | Thickness |
| DBL | Double | LWC | Lightweight Concrete | THRD | Threaded |
| DCTJ | Doweled Control Joint | | | THRU | Through |
| DCTL | Deflection | MANUF | Manufactured | TJI | Wood "I" Joist |
| DEPR | Depressed | MAS | Masonry | T.O. | Top of... |
| DF-L | Douglas Fir-Larch | MAX | Maximum | TOB | Top of Beam |
| DIA | Diameter | MB | Machine Bolt (ASTM A307) | TOC | Top of Concrete |
| DIAG | Diagonal | MBR | Member | TOD | Top of Deck |
| DIAPH | Diaphragm | MECH | Mechanical | TOF | Top of Footing |
| DIM | Dimension | MEMB | Membrane | TOS | Top of Steel |
| DIR | Direction | MFR | Manufacturer | TOW | Top of Wall |
| DN | Down | MIN | Minimum | TRANS | Transverse |
| do | Ditto | MO | Masonry Opening | TS | Steel Tube |
| DTL | Detail | MTL | Metal | TYP | Typical |
| DWG | Drawing | | | | |
| DVL | Dowel | (N) | New Construction | UBC | Uniform Building Code |
| | | NIC | Not In Contract | UNO | Unless Noted Otherwise |
| (E) | Existing Construction | NO or # | Number | UTIL | Utility |
| EA | Each | NOM | Nominal | | |
| EB | Expansion Bolt | NTS | Not To Scale | (V) | Vertical Reinforcement |
| EF | Each Face | | | VB | Vapor Barrier |
| EJ | Expansion Joint | OC | On Center | VERT | Vertical |
| EL | Elevation | OF | Outside Face | | |
| EMBD | Embed, Embedment | O-O | Out-to-Out | W/ | With |
| EN | Edge Nailing | OPNG | Opening | W/O | Without |
| ENGR | Engineer | OPP | Opposite | WB | Wood |
| E.O. | Edge of... | | | WF | Wide Flange |
| EOD | Edge of Deck | PART | Partition | WP | Waterproof |
| EOS | Edge of Slab | PC | Pipe Column | WP | Work Point |
| EQ | Equal | P/C | Precast Concrete | WS | Waterstop |
| EQPMT | Equipment | PCF | Pounds per Cubic Foot | WWF | Welded Wire Fabric |
| ES | Each Side | PEN | Penetration | | |
| EW | Each Way | PIL | Pilaster | | |
| EXP | Expansion | P.J.F | Premolded Joint Filler | | |
| EXT | Exterior | PL | Plate | | |
| | | PLAS | Plaster | | |
| (Fan) | Drag Force, T or C (n = Design Force) | PLY | Plywood | | |
| FAB | Fabricate | PNL | Panel | | |
| FD | Floor Drain | PSF | Pounds per Square Foot | | |
| FDN | Foundation | PSI | Pounds per Square Inch | | |
| FF | Finish Floor | PSL | Parallel Strand Lumber (Parallam) | | |
| FLR | Floor | PT | Pressure Treated | | |
| FN | Field Nailing | | | | |
| F.O. | Face of... | | | | |
| FOC | Face of Concrete | | | | |
| FRC | Fiber Reinforced Concrete | | | | |
| FRMG | Framing | | | | |
| FT | Feet | | | | |
| FTG | Footing | | | | |
| FV | Field Verify | | | | |

## SYMBOL LEGEND

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PIPER'S OPERA HOUSE
FACADE
RENO, NEVADA

SHEET TITLE: STRUCTURAL NOTES, ABBREVIATIONS & SYMBOL LEGEND

| | |
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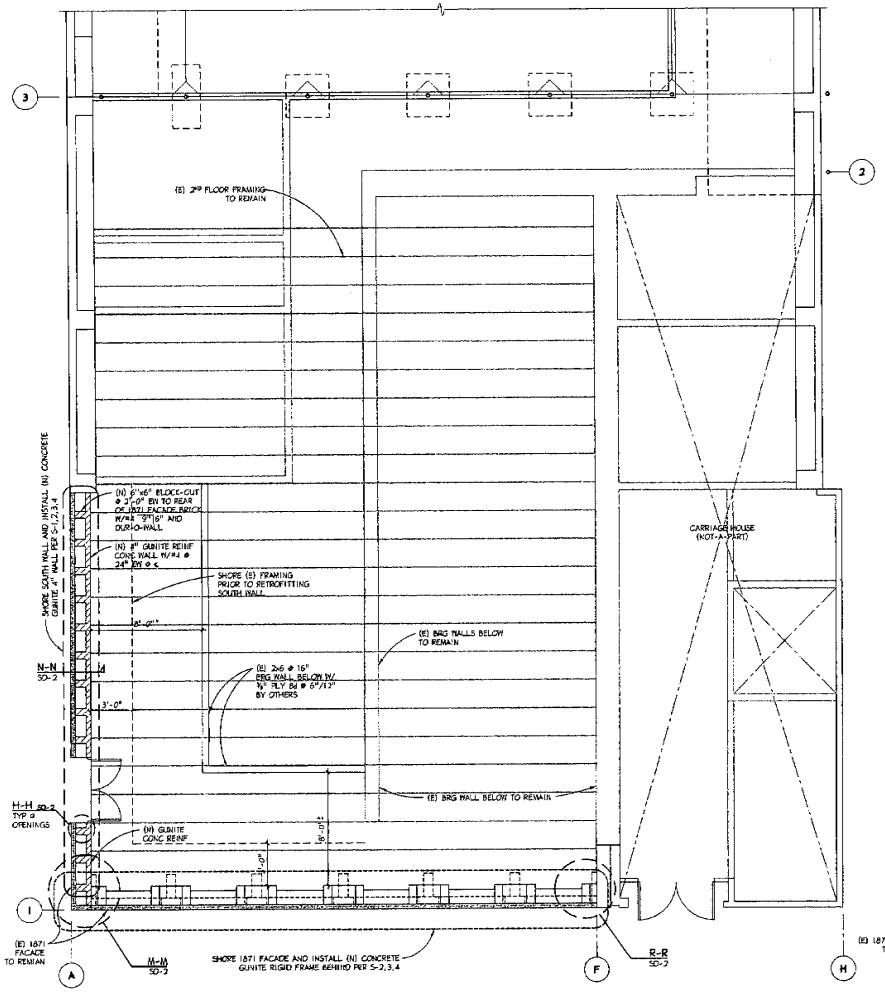
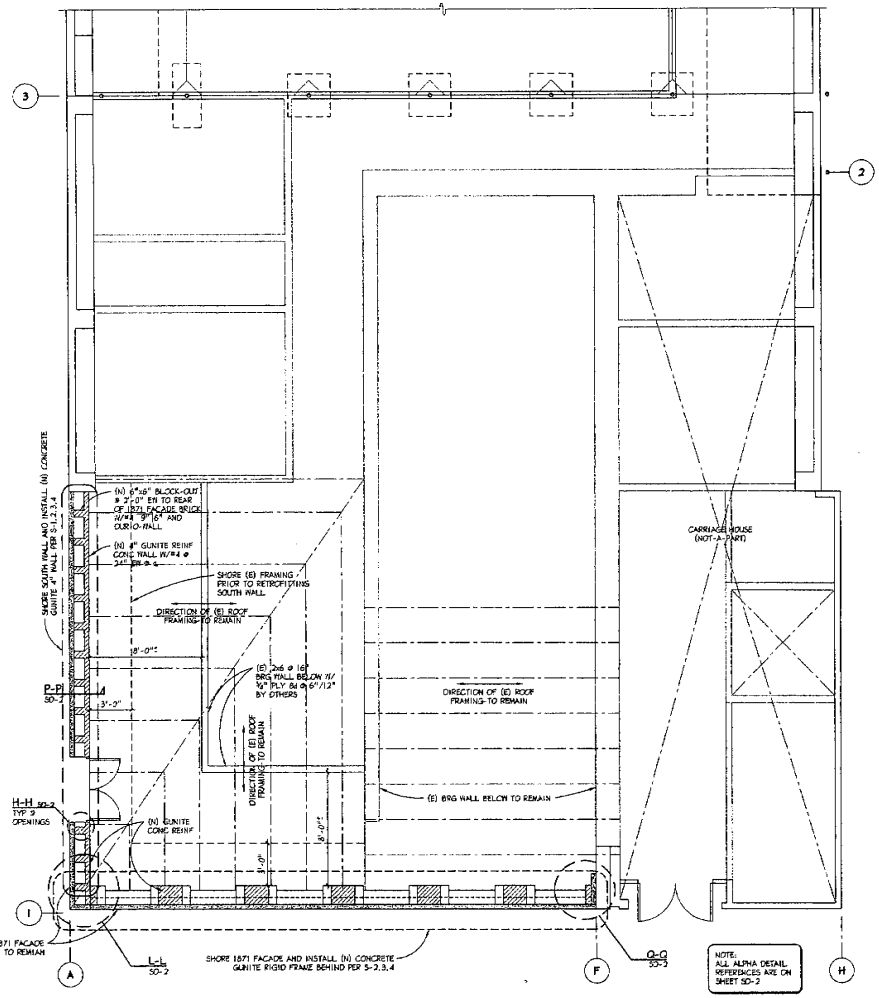
| DRAWN | SAS |
| CHECKED | PAF |
| DATE | 5/13/02 |
| SCALE | NONE |
| JOB NO. | 02403 |
| SHEET | SN-2 |
| OF | SHEETS |




## SCHEMATIC 2ND FLOOR PLAN

SCALE: 1/4" = 1'-0"




## ROOF PLAN

SCALE: 1/4" = 1'-0"

NOTE:
ALL ALPHA DETAIL REFERENCES ARE ON SHEET S0-2

PLEASE NOTIFY ENGINEER & ARCHITECT IF EXISTING CONDITIONS ARE DIFFERENT THAN SHOWN ON THE DRAWINGS

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# PIPER'S OPERA HOUSE
FACADE
RENO, NEVADA

SHEET TITLE: SCHEMATIC 2ND FLOOR PLAN & ROOF PLAN

| | |
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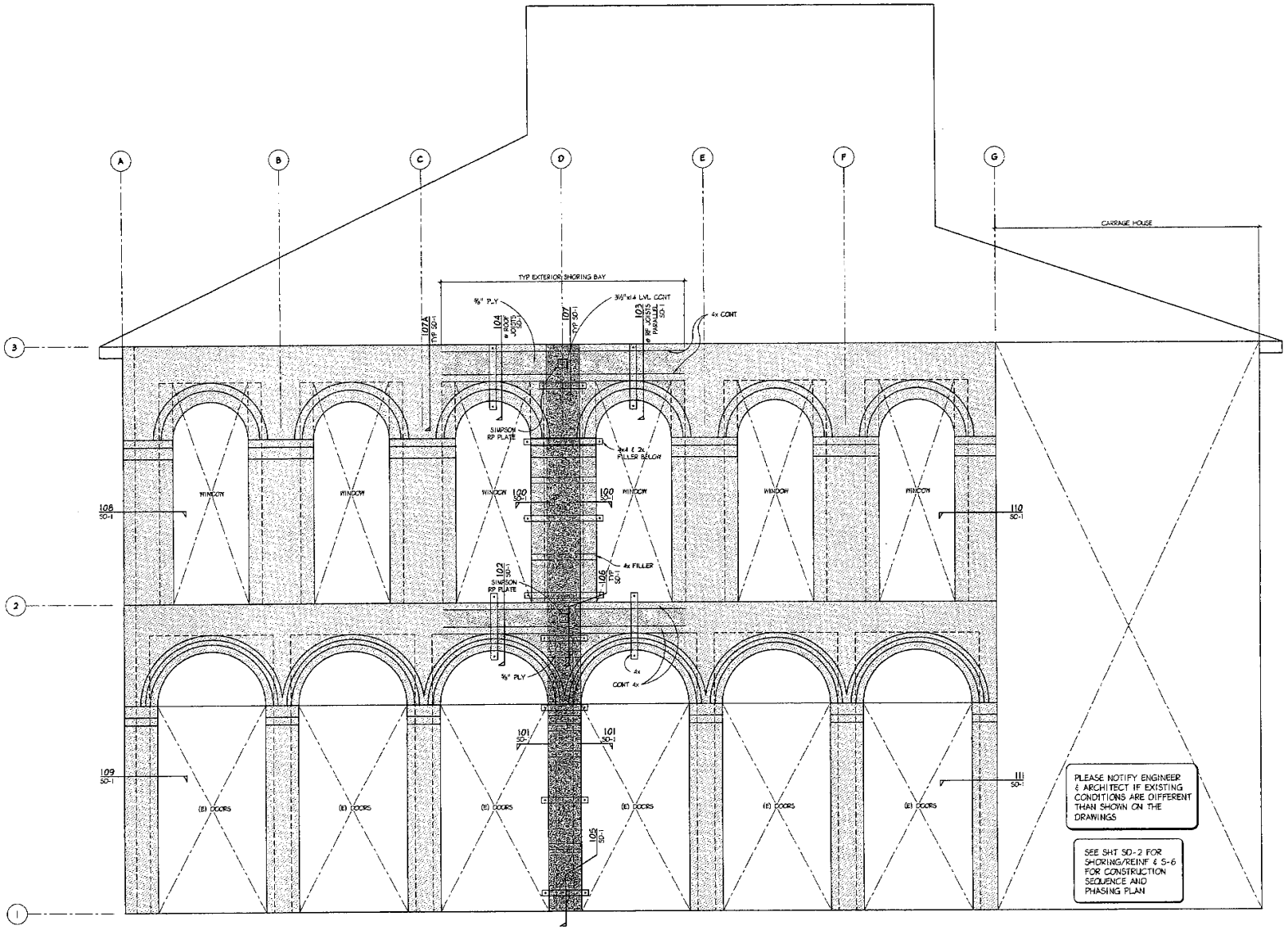
| DRAWN | SAS |
| CHECKED | PAF |
| DATE | 5/14/02 |
| SCALE | 1/4" = 1'-0" |
| JOB NO. | 02403 |
| SHEET | S-1 |
| OF | SHEETS |




## EXTERIOR ELEVATIONS-SHORING SUPPORT @ FRONT FACADE LOOKING WEST

SCALE: 1/2" = 1'-0"

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PIPER'S OPERA HOUSE
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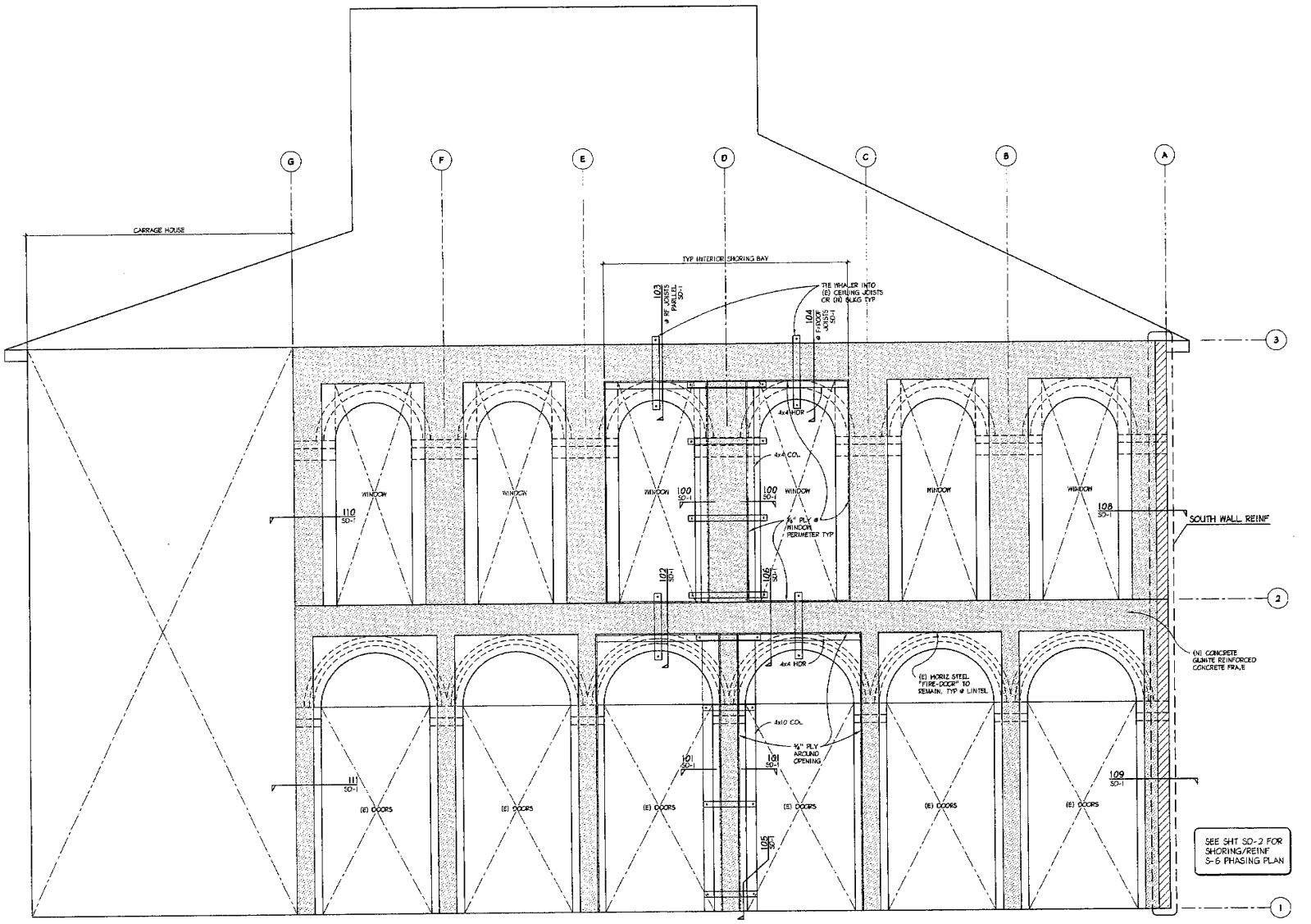
SHEET TITLE: EXTERIOR ELEVATION-SHORING SUPPORT @ FRONT FACADE WALL

| | |
|---|---|
| DRAWN | SAS |
| CHECKED | PAF |
| DATE | 5/14/02 |
| SCALE | 1/2" = 1'-0" |
| JOB NO. | 00403 |
| SHEET | S-2 |
| OF | SHEETS |




## INSIDE FACE-FRONT FACADE LOOKING EAST-SHORING SUPPORT @ INTERIOR FACE

SCALE: 1/2" = 1'-0"

| REVISIONS | BY |
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# PIPER'S OPERA HOUSE
FACADE
RENO, NEVADA

SHEET TITLE: INSIDE FACE-FRONT FACADE LOOKING EAST-SHORING SUPPORT @ FRONT FACADE WALL

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| DRAWN | SAS |
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| DATE | 5/14/02 |
| SCALE | 1/2" = 1'-0" |
| JOB NO. | C0403 |
| SHEET | S-3 |
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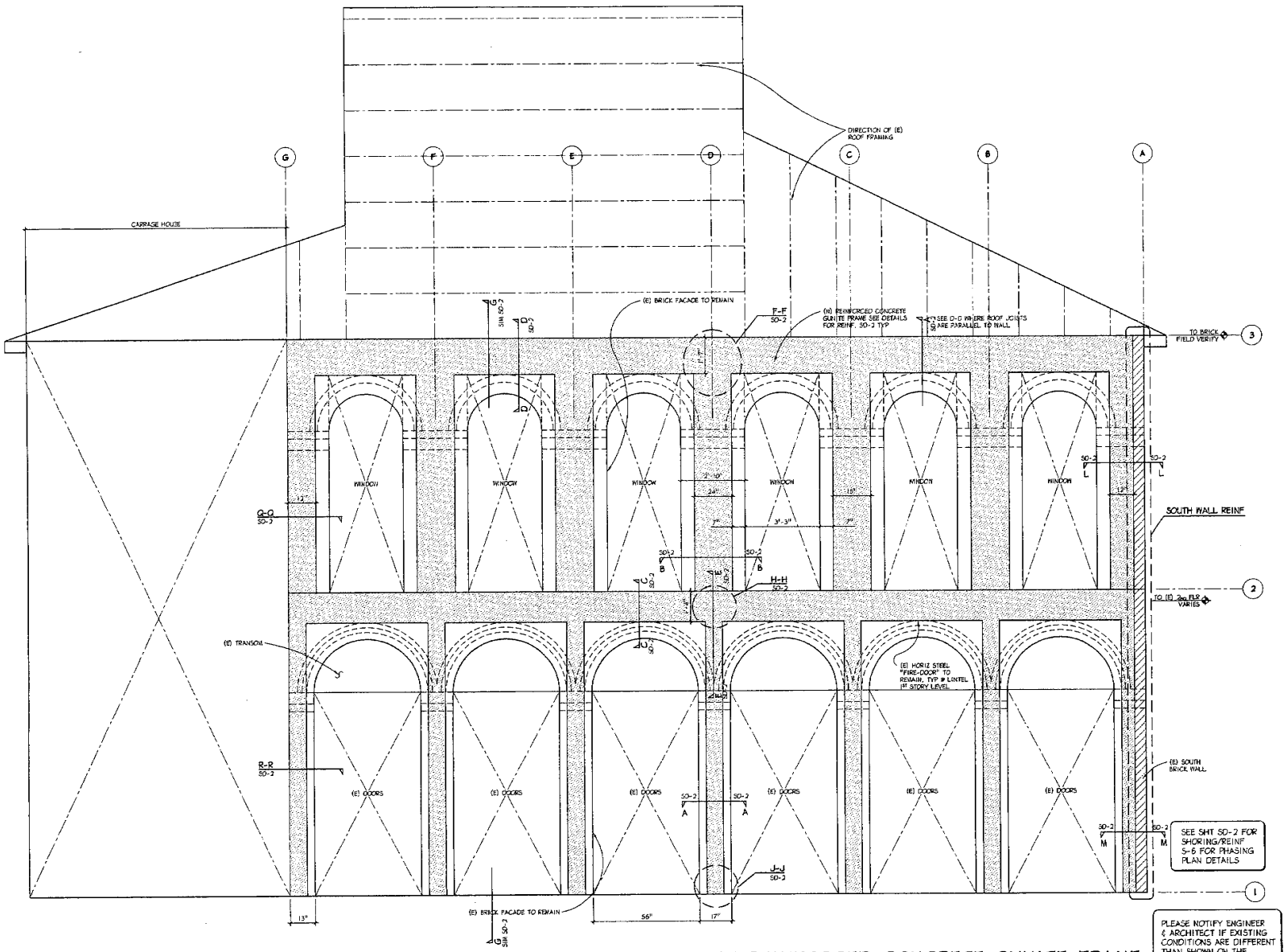


## INSIDE FACE-FRONT FACADE LOOKING EAST-NEW REINFORCED CONCRETE GUNITE FRAME

SCALE: 1/2" = 1'-0"

PLEASE NOTIFY ENGINEER & ARCHITECT IF EXISTING CONDITIONS ARE DIFFERENT THAN SHOWN ON THE DRAWINGS

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# PIPER'S OPERA HOUSE
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SHEET TITLE: INTERIOR ELEVATION NEW CONCRETE FRAME @ FRONT FACADE WALL

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| DRAWN | SAS |
| CHECKED | PAF |
| DATE | 5/14/02 |
| SCALE | 1/2" = 1'-0" |
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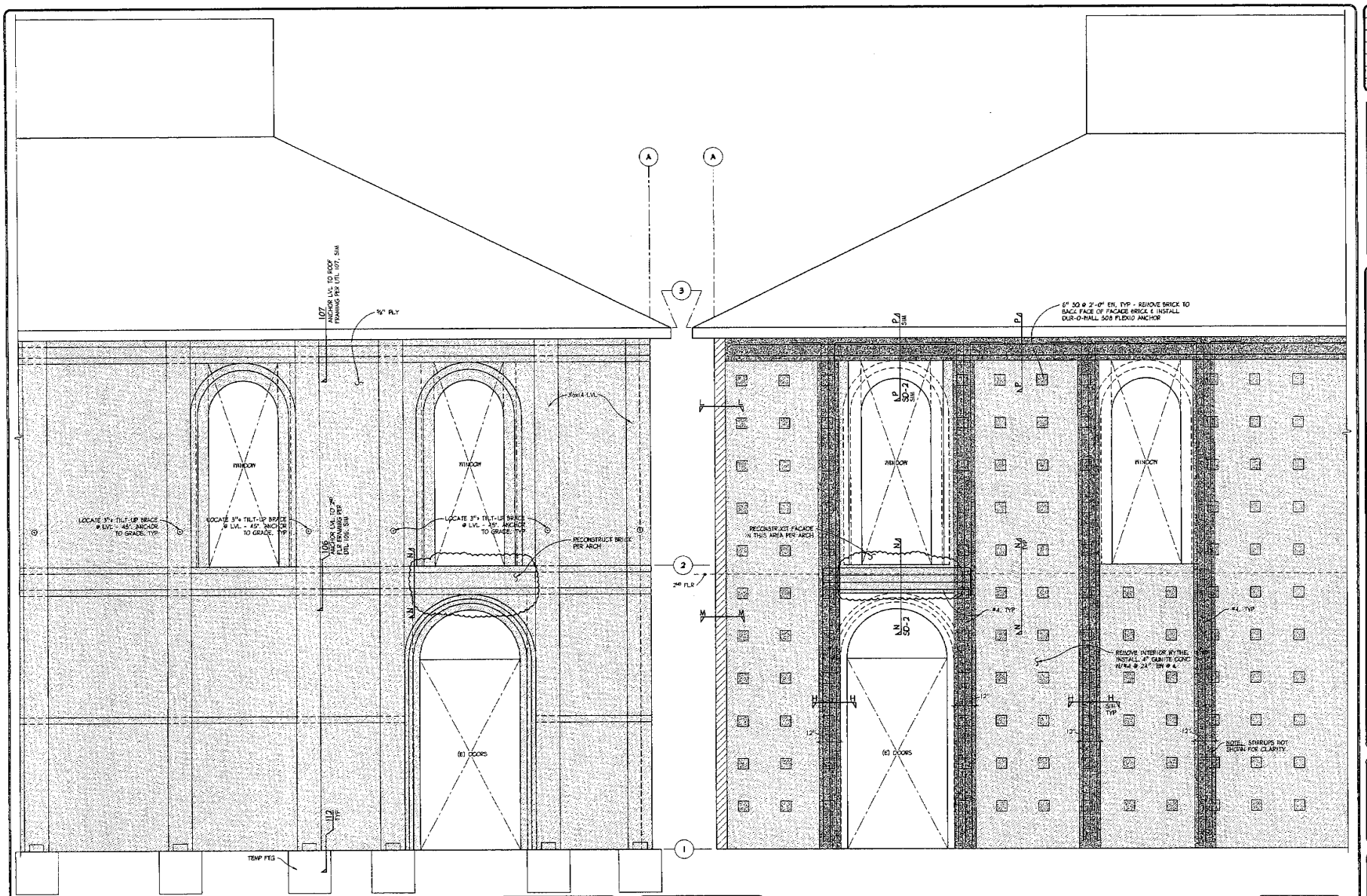
| SHEET | S-4 |
| OF | SHEETS |




## EXTERIOR ELEVATIONS-SHORING SUPPORT @ EXTERIOR FACE LOOKING NORTH

SCALE: 1/2" = 1'-0"

PLEASE NOTIFY ENGINEER & ARCHITECT IF EXISTING CONDITIONS ARE DIFFERENT THAN SHOWN ON THE DRAWINGS

SEE S-6 FOR CONSTRUCTION PHASING - CONSTRUCT SOUTH WALL AFTER FRONT FACADE (EAST WALL) HAS BEEN REINFORCED.

## INSIDE FACE-FRONT FACADE LOOKING SOUTH GUNITE CONC REINF @ INTERIOR FACE

SCALE: 1/2" = 1'-0"

SEE SHT S-6 FOR SHORING/REINF S-6 PHASING PLAN AND NOTES

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# PIPER'S OPERA HOUSE
## FACADE
## RENO, NEVADA

SHEET TITLE: INTERIOR ELEVATION NEW CONCRETE FRAME & EXTERIOR ELEVATION-SHORING SUPPORT@ SOUTH WALL

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| DRAWN | SAS |
| CHECKED | PAF |
| DATE | 5/14/02 |
| SCALE | 1/2" = 1'-0" |
| JOB NO. | C0403 |
| SHEET | S-5 |
| OF | SHEETS |

SHORING/CONSTRUCTION SEQUENCE:

Front Facade (east wall):

1.) The front, 1877 facade at the east wall shall be reconstructed first; the south wall shall follow.

2.) The front facade shall be shored and reconstructed in three phases, as outlined in the phasing diagram on sheet S-6 of the plans.

3.) Install shoring/bracing as indicated on sheets S-2, 3, 4, and SD-1, prior to removing any of the existing construction. For example, the phasing diagram on sheet S-6 indicates that the first bay of construction is to begin with shoring installed in openings between bays G-F, and F-E, as well as column shoring/bracing at grids G, F, and E.

4.) Brace all vertical LVL beams at the east wall grids A through G one the entire south wall with 2" diameter pipe "tilt-up" braces securely anchored to both the LVL (at 3' above the second floor level) and to the ground at a 45 degree angle. Also, install the floor and roof ties shown in detail GG/SD-2.

5.) Remove brick per phase plan shown on sheet S-6. Carefully remove and store the brick for future use.

6.) Install veneer ties, architectural membrane, and concrete frame reinforcing per sheet SD-2.

7.) Gunite the vertical wall columns per the construction phasing plan.

8.) Remove phase 2 brick, per sheet S-6, at the roof and second floor beam areas.

9.) Install veneer ties, architectural membrane, and concrete frame reinforcing per sheet SD-2.

10.) Gunite the horizontal wall beams per the construction phasing plan.

11.) Repeat steps 3 through 10 until the front façade is completed.

South Wall:

12.) Begin the reconstruction of the south wall by providing the roof and floor shoring and bracing as shown on sheet S-3

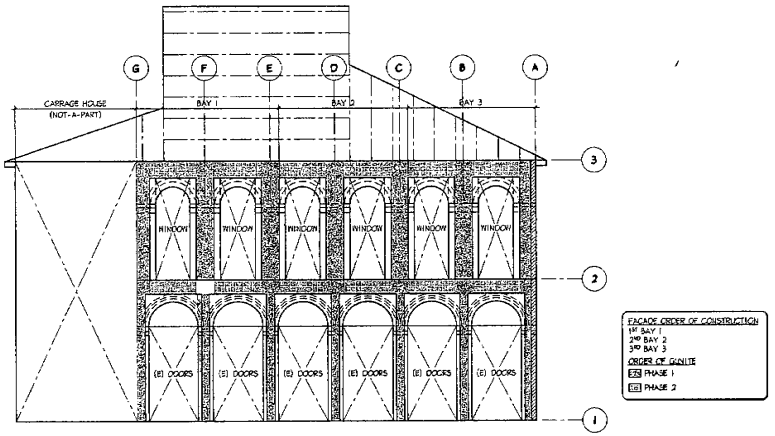
13.) Remove, reinforce, and gunite the roof beam shown on S-6.

14.) Remove the interior wythe of brick, the vertical column match, and the 6' square "keys" in area 1.

15.) Install the reinforcing, veneer anchors, and other hardware in area 1 per plans and details.

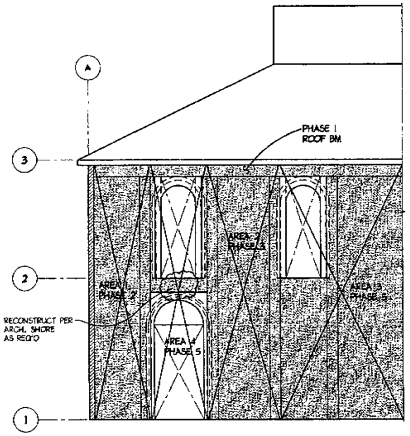
16.) Gunite area 1.

17.) Repeat steps 12 and 14 through 16 for areas 2 and 3.




## PHASES OF CONSTRUCTION

SCALE: 3/16" = 1'-0" — FRONT FACADE (EAST WALL) INSIDE LOOKING OUT




## SOUTH WALL PHASE OF CONSTRUCTION

SCALE: 3/16" = 1'-0" — INSIDE LOOKING OUT

| REVISIONS | BY |
|---|---|
| | |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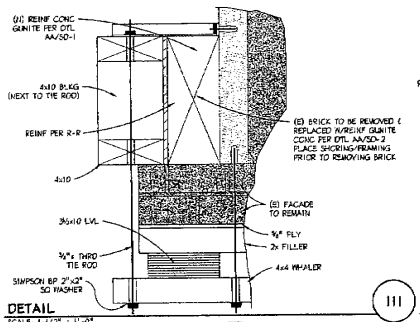
# PIPER'S OPERA HOUSE
## FACADE
## RENO, NEVADA

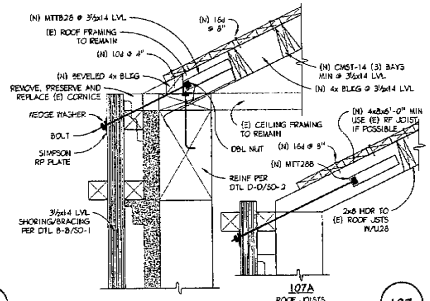
SHEET TITLE: FRAME REINFORCING CONSTRUCTION SEQUENCING AND PHASING PLAN

| | |
|---|---|
| DRAWN | SAS |
| CHECKED | PAF |
| DATE | 5/14/03 |
| SCALE | 3/16" = 1'-0" |
| JOB NO. | 02403 |
| SHEET | S-6 |
| OF | SHEETS |



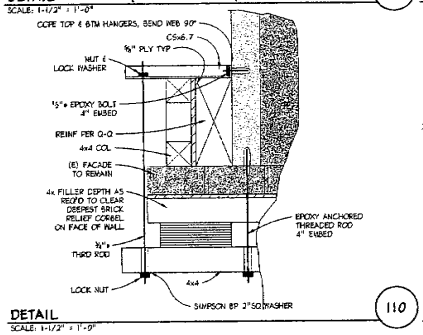

DETAIL
SCALE: 1-1/2" = 1'-0"

111




SHORING BRACING DETAIL
SCALE: 1" = 1'-0"

107




DETAIL
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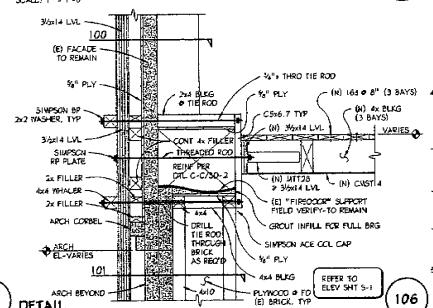


DETAIL
SCALE: 3/4" = 1'-0"

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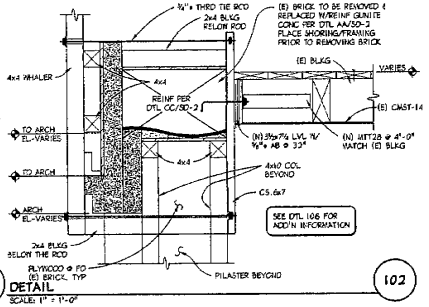


DETAIL
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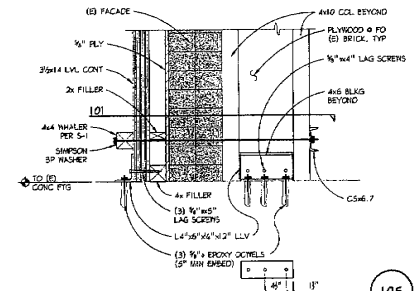
102

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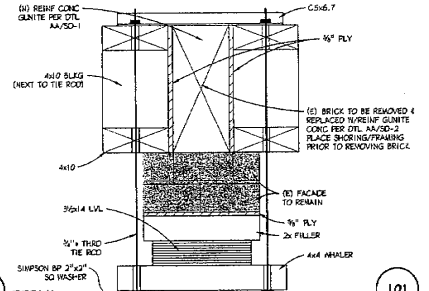


DETAIL
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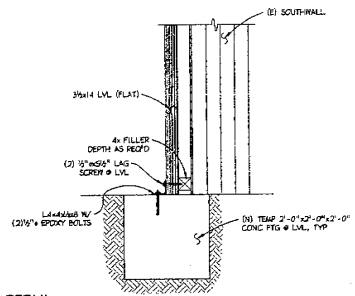


DETAIL
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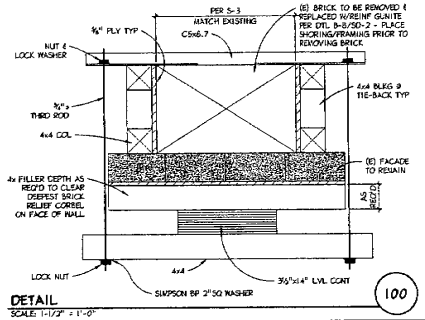
112




DETAIL
SCALE: 1-1/2" = 1'-0"

100

| REVISIONS | BY |
|---|---|
| | |

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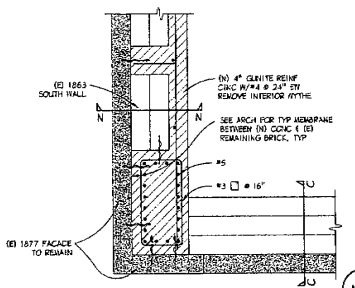
PIPER'S OPERA HOUSE
FACADE
RENO, NEVADA

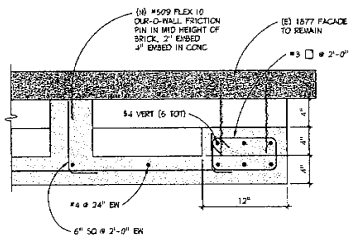
SHEET TITLE: STRUCTURAL SHORING DETAILS

| | |
|---|---|
| DRAWN | SAS |
| CHECKED | PAF |
| DATE | 5/14/02 |
| SCALE | AS SHOWN |
| JOB NO. | C0403 |
| SHEET | SD-1 |
| OF | SHEETS |




DETAIL
SCALE: 1" = 1'-0"

M-M




DETAIL
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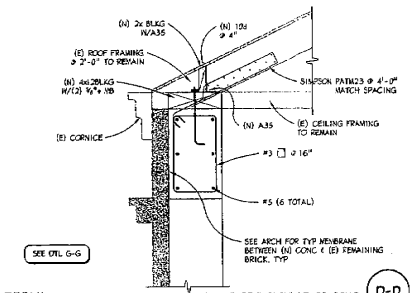
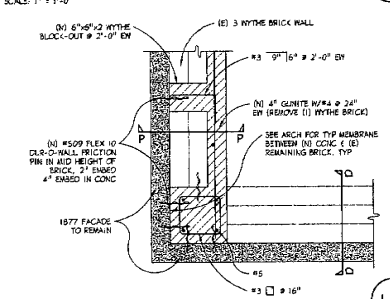
H-H




DETAIL
SCALE: 1" = 1'-0"

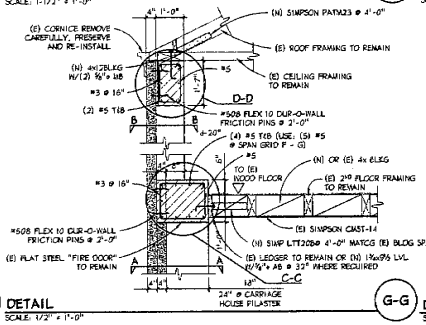
ROOF JOIST PERPENDICULAR TO CONC

D-D




DETAIL
SCALE: 1" = 1'-0"

L-L




DETAIL
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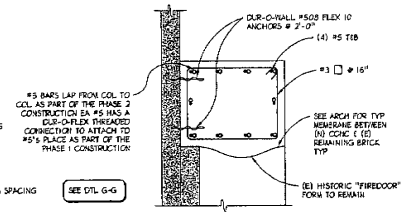
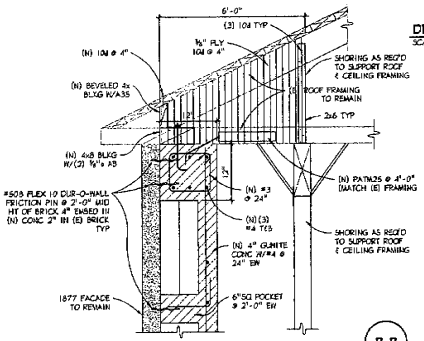
G-G



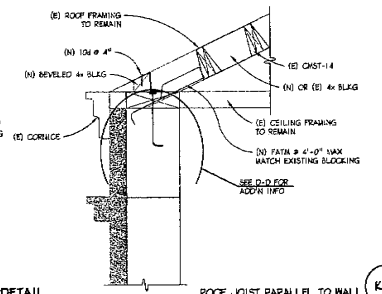

DETAIL
SCALE: 1" = 1'-0"

C-C




DETAIL
SCALE: 1" = 1'-0"

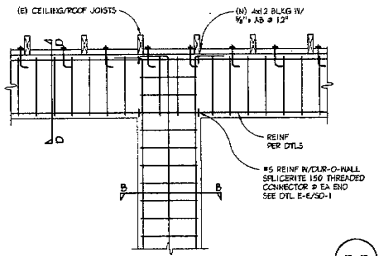
P-P




DETAIL
SCALE: 1" = 1'-0"

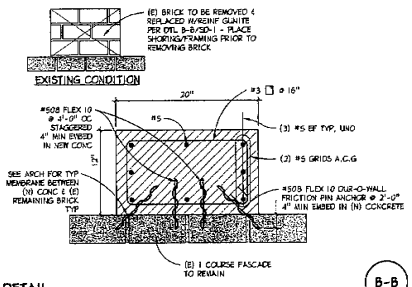
ROOF JOIST PARALLEL TO WALL

K-K



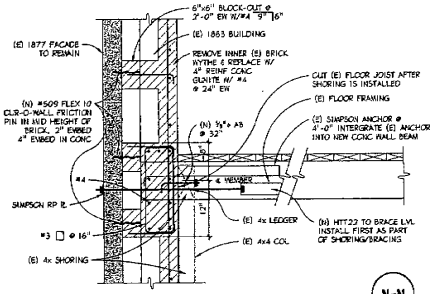

DETAIL
SCALE: 3/4" = 1'-0"

F-F



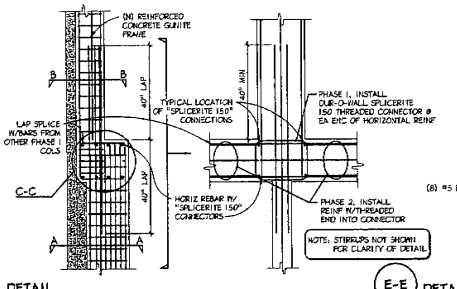

DETAIL
SCALE: 1-1/2" = 1'-0"

B-B



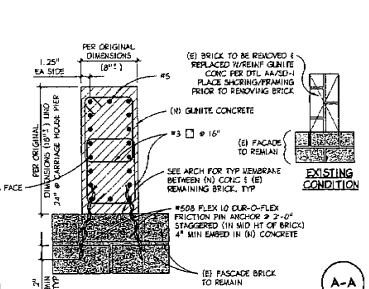

DETAIL
SCALE: 1" = 1'-0"

N-N




DETAIL
SCALE: 1/2" = 1'-0"

E-E




DETAIL
SCALE: 1-1/2" = 1'-0"

A-A

| REVISIONS | BY |
|---|---|
| | |

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PIPER'S OPERA HOUSE
FACADE
RENO, NEVADA

SHEET TITLE: STRUCTURAL DETAILS REINF FOR GUNITE CONCRETE FRAME

| | |
|---|---|
| DRAWN | SRS |
| CHECKED | PAF |
| DATE | 5/14/02 |
| SCALE | AS SHOWN |
| JOB NO. | 02403 |
| SHEET | SD-2 |
| OF | SHEETS |

# a historic restoration for
# piper's opera house
## b street
## virginia city, nv

### design team

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Fax (775) 333-6775

**structural**

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Reno, NV 89509
(775) 829-9227
Fax (775) 829-9359

### sheet index



### project information

| | |
|---|---|
| **building code:** | 2003 International Building Code |
| **address:** | B Street, Virginia City, Nevada |
| **fire sprinklered:** | Yes |
| **construction type:** | V - B |
| **occupancy group:** | A-1 (Assembly) |



plan review 3.6.06


anthony smith architecture
960 sandhill road, suite 201
reno, nv 89521
p 775.333.6773


NEVADA REGISTERED ARCHITECT No. 2840 MAR 06 2006 STATE OF NEVADA




a historic restoration for
piper's opera house
b street
virginia city, nv


revisions

| | |
|---|---|
| drawn: | acs / sjp |
| checked: | sjp |
| date: | march 6, 2006 |
| scale: | as noted |
| project no: | 0543 |

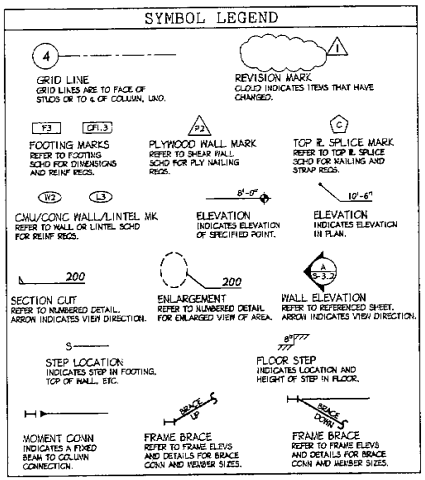
cover sheet

**A0.1**

STRUCTURAL ABBREVIATIONS

| | | | |
|---|---|---|---|
| AB | Anchor Bolt (ASTM A307 or A36) | LAM | Laminated |
| ADDL | Additional | LAT | Lateral |
| ADJ | Adjacent | LBS | Pounds |
| AFF | Above Finish Floor | LLH | Long Leg Horizontal |
| AGGR | Aggregate | LLV | Long Leg Vertical |
| ALT | Alternate | LNTL | Lintel |
| ANC | Anchor | LONGIT | Longitudinal |
| APPD | Approved | LS | Lag Screw |
| APPROX | Approximate | LSB | Long Slotted Hole |
| ARCH | Architectural | LSL | Laminated Strand Lumber (Timberstrand) |
| | | LVL | Laminated Veneer Lumber (Microllam) |
| BC | Bottom Chord | LWC | Lightweight Concrete |
| BLDG | Building | MANUF | Manufactured |
| BLK | Block | MAS | Masonry |
| BLKG | Blocking | MAX | Maximum |
| BM | Beam | MB | Machine Bolt (ASTM A307) |
| BN | Boundary Nailing | MBR | Member |
| B.O. | Bottom of... | MECH | Mechanical |
| BOD | Bottom of Deck | MEMB | Membrane |
| BOF | Bottom of Footing | MFR | Manufacturer |
| BRG | Bearing | MIN | Minimum |
| BTM | Bottom | MO | Masonry Opening |
| BTWN | Between | MTL | Metal |
| (C=n) | Camber (n = Camber Amount) | (N) | New Construction |
| C-C | Center-to-Center | NIC | Not In Contract |
| CALCS | Calculations | NO or # | Number |
| CIP | Cast-in-Place | NOM | Nominal |
| CJ | Construction Joint | NTS | Not To Scale |
| CL | Centerline | | |
| CLR | Clear | OC | On Center |
| CMU | Concrete Masonry Unit | OF | Outside Face |
| CN | Continuous Edge Nailing | O-O | Out-to-Out |
| COL | Column | OPNG | Opening |
| CONC | Concrete | OPP | Opposite |
| CONN | Connection | | |
| CONSTR | Construction | PART | Partition |
| CONT | Continuous | PC | Pipe Column |
| CTJ | Control Joint | P/C | Precast Concrete |
| CTR | Center | PCF | Pounds per Cubic Foot |
| CU | Cubic | PEN | Penetration |
| | | PIL | Pilaster |
| d | Penny (Nail Size) | PJF | Premolded Joint Filler |
| DBA | Deformed Bar Anchor | PL | Plate |
| DBL | Double | PLAS | Plaster |
| DCTJ | Doweled Control Joint | PLY | Plywood |
| DEFL | Deflection | PNL | Panel |
| DEPR | Depressed | PSF | Pounds per Square Foot |
| DF-L | Douglas Fir-Larch | PSI | Pounds per Square Inch |
| DIA | Diameter | PSL | Parallel Strand Lumber (Parallam) |
| DIAG | Diagonal | PT | Pressure Treated |
| DIAPH | Diaphragm | | |
| DIM | Dimension | R | Radius |
| DIR | Direction | RC | Reinforced Concrete |
| DN | Down | RE: | Refer to... |
| do | Ditto | RECT | Rectangular |
| DTL | Detail | REINF | Reinforcement |
| DWG | Drawing | REQD | Required |
| DWL | Dowel | REQTS | Requirements |
| | | RET | Return |
| (E) | Existing Construction | REV | Reversed |
| EA | Each | RO | Rough Opening |
| EB | Expansion Bolt | | |
| EF | Each Face | SCHD | Schedule |
| EJ | Expansion Joint | SECT | Section |
| EL | Elevation | SEIS | Seismic |
| EMBD | Embed, Embedment | SF | Square Feet |
| EN | Edge Nailing | SHT | Sheet |
| ENGR | Engineer | SHTG | Sheathing |
| E.O. | Edge of... | SIM | Similar |
| EOD | Edge of Deck | SIMP | Simpson Strong-Tie |
| EOS | Edge of Slab | SOG | Slab-on-Grade |
| EQ | Equal | SP | Spiral |
| EQPMT | Equipment | SPA | Spacing |
| ES | Each Side | SPECD | Specified |
| EW | Each Way | SPECS | Specifications |
| EXP | Expansion | SPF | Spruce-Pine-Fir |
| EXT | Exterior | SQ | Square |
| | | SSH | Short Slotted Holes |
| FAB | Fabricate | SSJ | Seismic Separation Joint |
| FD | Floor Drain | SST | Stainless Steel |
| FDN | Foundation | STD | Standard |
| FF | Finish Floor | STIFFNR | Stiffener |
| FLR | Floor | STAGRD | Staggered |
| FN | Field Nailing | STL | Steel |
| F.O. | Face of... | STR | Straight |
| FOC | Face of Concrete | STRUCT | Structural |
| FRC | Fiber Reinforced Concrete | SUPP | Support |
| FRMG | Framing | S/W | Shear Wall |
| FT | Feet | SYMM | Symetrical |
| FTG | Footing | | |
| FV | Field Verify | T&B | Top and Bottom |
| | | TC | Top Chord |
| GA | Gage | THK | Thick |
| GALV | Galvanized | THKND | Thickened |
| GLB | Glulam Beam | THKNS | Thickness |
| GLC | Glulam Column | THRD | Threaded |
| GRB | Grade Beam | THRU | Through |
| GRD | Grade | TJI | Wood "I" Joist |
| GT | Grout | T.O. | Top of... |
| GRTG | Grating | TOB | Top of Beam |
| GVL | Gravel | TOC | Top of Concrete |
| GYP | Gypsum | TOD | Top of Deck |
| | | TOF | Top of Footing |
| (H) | Horizontal Reinforcement | TOS | Top of Steel |
| HDR | Header | TOW | Top of Wall |
| HK | Hook | TRANS | Transverse |
| HNGR | Hanger | TS | Steel Tube |
| HORIZ | Horizontal | TYP | Typical |
| HP | High Point | | |
| HSA | Headed Stud Anchor | UBC | Uniform Building Code |
| HT | Height | UNO | Unless Noted Otherwise |
| HVAC | Heating, Ventilating & Air Conditioning | UTIL | Utility |
| ID | Inside Diameter | (V) | Vertical Reinforcement |
| IF | Inside Face | VB | Vapor Barrier |
| IN | Inches | VERT | Vertical |
| INT | Interior | | |
| | | W/ | With |
| JST | Joist | W/O | Without |
| JT | Joint | WD | Wood |
| | | WF | Wide Flange |
| K | Kip (1000 Lbs) | WP | Waterproof |
| KSF | Kips per Square Foot | WP | Work Point |
| KSI | Kips per Square Inch | WS | Waterstop |
| | | WWF | Welded Wire Fabric |

## SYMBOL LEGEND




STRUCTURAL NOTES

1. GENERAL

1.1. BIDDER'S WARRANTY. By the act of submitting a bid for the proposed contract, the Contractor warrants:

1.1.1. That the Contractor and all subcontractors he intends to use have carefully and thoroughly reviewed the drawings and the Structural Notes and have found them to be sufficient for the purpose intended;

1.1.2. That the Contractor has carefully examined the site of the work and from his own investigations has satisfied himself as to the nature and location of the work; as to the character, quality, quantities of material, and difficulties to be encountered; as to the extent of equipment and other facilities needed for the performance of the work; and as to general and local conditions, and other items that may in any way affect the work or its performance;

1.1.3. That the Contractor and all workers he intends to use are skilled and experienced in the type of construction represented by the drawings and documents bid upon;

1.1.4. That neither the Contractor nor any of his employees, agents, intended suppliers, or subcontractors have relied upon any verbal representations allegedly authorized or unauthorized from the Owner or his employees or agents, including the Architect or Engineers, in assembling the bid figures;

1.1.5. That the Contractor and all subcontractors he intends to use, including agents and suppliers, are aware of and acknowledge that close coordination among architectural, electrical, mechanical, and structural drawings are required for:

1.1.5.1. Determination of all column locations and sizes;

1.1.5.2. Determination of top of floor, top of steel, wall plate, and top of beam elevations; and

1.1.5.3. Verification of all dimensions.

Further, that the Contractor and all subcontractors he intends to use, including agents and suppliers, have considered the above in the preparation of their bids, and have included moneys therefore. This requirement supersedes any contained in the AISC "Manual of Steel Construction"; and

1.1.6. That the bid figure is based solely upon the construction contract documents and properly issued written representations.

1.2. Promptly report any discrepancy found among the Drawings, Specifications, these Structural Notes, and the site conditions to the Architect, who shall correct such discrepancy in writing. Any work done by the Contractor after the discovery of such discrepancy is at the Contractor's own risk. Verify and coordinate the dimensions among all drawings prior to proceeding with any work or fabrication.

1.3. Do not scale working dimensions from the plans, sections or details.

1.4. Field verify all dimensions. Pay particular attention to approximate dimensions marked with the symbol ±.

1.5. Construction or details for elements or portions of the work not specifically shown shall be similar to construction or details shown.

1.6. Standard details and schedules (100-series) apply to the work in general and may not be specifically referenced on the plans. Determine where each standard detail or schedule applies prior to proceeding with the work. Promptly notify the Architect/Engineer if conditions are found which are not specifically detailed and for which no standard detail or schedule applies.

1.7. Notes and details specifically indicated on the plans take precedence over these Notes.

1.8. Where the Specifications and these Notes or the plans conflict, use the more restrictive criteria, unless directed otherwise by the Architect or Engineer.

1.9. Check and coordinate with electrical and mechanical contractors for blockouts, conduits, pipe sleeves, embedded items, etc., to be embedded in concrete, as well as openings in the structure for mechanical and electrical installations.

1.10. Submit shop drawings of all fabricated items for review prior to fabrication. A registered Professional Engineer, licensed to practice in the state in which the construction is located, shall seal all shop drawings for Contractor-designed elements. Submit sealed calculations for elements or systems requiring engineering design.

SHOP DRAWINGS SUBMITTED TO THE ENGINEER SHALL CONSIST OF (1) PRINT AND (1) REPRODUCIBLE. The print will be retained for our records. Once received by our office, there is a minimum ten working-day turn-around time for review of shop drawings.

Submittals not approved and stamped by the Contractor will be cause for rejection without action.

Include erection and fabrication drawings in shop drawing submittals. DO NOT INCLUDE ANY REPRODUCTIONS OF THE CONTRACT DOCUMENTS IN THE SHOP DRAWINGS.

1.11. Modifications or substitutions in the design, material, equipment or products specified may be considered provided a written request, subject to review, is submitted to the Engineer prior to its use or inclusion in any shop drawing.

1.12. Provide and maintain adequate erection shoring and bracing as required for stability and protection of the structure during all phases of construction. Site Observations by the Engineer do not include inspection of shoring, bracing, or other elements pertaining to the means or method of construction. The Contractor is responsible for the design and installation of all required cribbing, sheathing and shoring.

2. DESIGN AND CONSTRUCTION [IBC Ch 16]

2.1. All design, materials and workmanship shall be in accordance with the following:

2.1.1. 2003 International Building Code (IBC), as amended and adopted by the governing code agency or Building Official.

2.1.2. Other codes as specified herein and in the contract documents. All codes and standards shall be the most current edition as of the date of these drawings.

2.1.3. Pre-manufactured systems, including, but not limited to, prefabricated roof trusses and steel open web joists and girders, the Manufacturer shall establish the location of the Project and shall design all components in accordance with all codes and standards adopted by the governing code agency or Building Official.

2.2. An ICC Evaluation Service report (or legacy ICBO or HER report) is required for all manufactured materials that are not covered by an appropriate section in the IBC.

The ICC-ES report shall indicate the allowable design loads, acceptable applications and installation requirements. Materials requiring ICC-ES reports include, but are not limited to the following:

Adhesive Anchoring Systems
Non-shrink Grout
Framing Hardware

2.3. Design Loads:

| | | |
|---|---|---|
| 2.3.1. | Ground Snow Load, Pg<br>Roof Snow Load, Pf | 72 psf, Ce = 1.0, Ct = 1.0, Is = 1.0<br>50 psf |
| 2.3.2. | Floors<br>Floor dead load<br>Stairs, Corridors and Lobbies | 100 psf<br>40 psf<br>100 psf |
| 2.3.3. | Wind Load<br>Components and Cladding<br>Net Wind Uplift | 105 mph (3s), Exp. C, Iw = 1.0<br>22.8 psf<br>12 psf |
| 2.3.4. | Seismic<br>Site Class<br>Seismic Design Category<br>Partition Load included in W | Ss = 1.35g, S1 = 0.49g, Ie = 1.0<br>D<br>D<br>5 psf for roofs<br>10 psf for floors. |

3. FOUNDATIONS [IBC Ch 18]

3.1. Foundations and retaining systems were designed for the following values:

| Element | Design Value | Increase for Seismic/Wind |
|---|---|---|
| Isolated footings | 3000 psf | 33% |
| Continuous footings | 3000 psf | 33% |
| Min. depth of footing: | | |
| Adj. to Exterior Grade | 24" Min | |
| Int. Grade/Slab | 12" Min | |

3.2. Before commencing any earthwork, verify locations of all underground utilities or structures and do not perform any work that will damage or interfere with utilities or structures.

3.3. Footing excavations shall be neat and true, with all loose material and standing water removed before footing concrete is placed.

3.4. Provide for proper de-watering of excavations from surface water, ground water, seepage, etc.

3.5. Earth forms may be used for footings only where the soil is firm and stable and the concrete will not be exposed. Concrete surfaces within 6" of finished grade are considered exposed surfaces. Where earth forms are used, the excavation shall be at least 2" wider than specified.

3.6. Place all foundations on firm, undisturbed earth. Fill holes due to removal of large rocks or over-excavation with concrete.

3.7. Place all loose soil and fill, including backfill behind walls, in 6" lifts and compact to at least 90% of maximum density.

4. REINFORCED CONCRETE [IBC Ch 19]

4.1. All Concrete work and materials shall conform to IBC Ch. 19, ACI 318 and ACI 301.

Bar supports, detailing, placing, etc., shall comply with the provisions and recommendations contained in the "Manual of Standard Practice" by the Concrete Reinforcing Steel Institute.

4.2. Concrete properties and composition shall be as follows:

| Property | Class A | Class B | Class C | Class D | Class E |
|---|---|---|---|---|---|
| 28-day f'c(1) | (3000 psi) | (3500 psi) | 3000 psi | 3500 psi | 3000 psi |
| Slump, max. | 3" | 4" | 4" | 3" | 3" |
| W/C | 0.58 | 0.5 | 0.45 | 0.58 | 0.55 |
| Air, +/-1% | 0% | 3% | 6% (2) | 0% | 0% |
| Unit Wt.(3) | 145 pcf | 145 pcf | 145 pcf | 126 pcf | 145 pcf |
| Shrinkage(4) | NR | 0.00095 | NR | NR | 0.00095 |
| Cement(5) | Type II | Type II | Type II | Type II | Type II |
| Min. Cement | NR | NR | 520 pcy | NR | NR |

(1) Foundation design for concrete enclosed in () is based on a compressive strength of 2500 psi, and does not require special inspection per IBC 1704.
(2) 6% for 1/4" max. aggregate, 7% for 1/2" max. aggregate.
(3) Aggregate per IBC 1903.3.
(4) Shrinkage at 28 days (in./in.) per ASTM C-157 (NR = no requirement).
(5) ASTM C150, C595, or C1157, as appropriate.

Class A: Foundations, UNO
Class B: Interior slabs on grade
Class C: Concrete exposed to weather, exterior slabs-on-grade, foundation walls, exterior walls, etc.
Class D: Concrete slabs on steel deck
Class E: Concrete above grade, walls, columns, beams, etc., UNO

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# PIPER'S OPERA HOUSE
## 2005 BUDGET PROJECTS & NEW ENDTRY STAIR
## RENO, NEVADA

SHEET TITLE: STRUCTURAL ABBREVIATIONS, SYMBOL LEGEND & STRUCTURAL NOTES

PLANS PREPARED BY: CIVIL
DATE: 6.4245 EXP:
MAR 6 2006 JUN 30 200

| | |
|---|---|
| DRAWN | SAS |
| CHECKED | PAF |
| DATE | 5-20-052-27-06 |
| SCALE | NONE |
| JOB NO. | 0584606923 |
| SHEET | SN-1 |

4.3. The slumps indicated above are for unplasticized concrete. Larger slumps may be attained through the use of a superplasticizer.

4.4. Admixtures for concrete shall comply with IBC 1905.6 and ACI 318, Sec. 3.6.

4.5. Evaluation and acceptance of concrete shall conform with ACI 318, Sec. 5.6. In addition to the two cylinders required, make two additional cylinders (total of four for each test). One cylinder shall be tested at 7 days.

If the 7-day break is less than 80% of the specified 28-day strength, the Contractor shall investigate and make any corrections or changes as necessary to ensure future concrete will reach the specified strength.

If the average of the two 28-day strengths is below the acceptable limits, test the fourth cylinder at 56 days.

4.6. Prior to placing concrete, approval shall be obtained from the Engineer or local building agency for sleeves, openings, or other attachments not shown on the drawings.

4.7. Use the following cover on reinforcement in cast-in-place concrete, unless noted otherwise on the drawings:

| | |
|---|---|
| 3" | Concrete cast against and permanently exposed to earth. |
| 2" | Concrete exposed to earth or weather, #6 bars or larger. |
| 1-1/2" | Concrete exposed to earth or weather, #5 bars and smaller. |
| 3/4" | Concrete not exposed to weather or in contact with ground, #11 bar and smaller. |
| 1-1/2" | Concrete not exposed to weather or in contact with ground, #14 & #18 bars. |
| 1-1/2" | Beams, columns and pilasters, cover over ties. |
| 3/4" | Slabs and walls formed above grade not exposed to weather. |
| 1-1/2" | Clear to top for reinforcement in slabs-on-grade. |

4.8. Concrete walls shall be reinforced as follows unless detailed otherwise (this reinforcement does not apply to basement walls or retaining walls; advise the Engineer if reinforcement is not specified):

| Wall Thkns | Reinf Location | Horizontal Bars | Vertical Bars |
|---|---|---|---|
| 6" | Center of Wall | #4 @ 18" | #4 @ 18" |
| 8" | Center of Wall | #5 @ 15" | #5 @ 16" |
| 10" | Each Face | #4 @ 16" | #4 @ 18" |
| 12" | Each Face | #4 @ 16" | #4 @ 18" |

4.9. Provide matching foundation dowels for all vertical bars, unless detailed otherwise.

4.10. Provide standard hooks per IBC 1907.1 and ACI 318, Sec. 7.1, unless detailed otherwise.

4.11. Use 1" or (1) bar diameter, whichever is greater, minimum clear distance between parallel reinforcing bars, including spliced bars. For bundled bars, use an effective diameter, based on the total area of the bundle, to establish the required clearance.

4.12. Provide lap splices, welded splices, mechanical connections, and development of standard hooks as specified in ACI 318, Ch. 12. Make lap splices only at the locations shown on the drawings, as indicated in these Notes, or as approved in advance by the Engineer.

For normal weight concrete, use the minimum lap splice lengths listed below, but not less than 24", unless detailed otherwise:

| Bar Size | Top Bars | Other Bars |
|---|---|---|
| #3 - #6 | (74) Bar Dia. | (57) Bar Dia. |
| #7 - #11 | (93) Bar Dia. | (71) Bar Dia. |

"Top bars" are horizontal bars with more than 12" of fresh concrete cast below the bars.

Lap splice lengths listed above apply only when the clear distance between bars, including lapped reinforcement, is (2) bar diameters or greater and clear cover is not less than (1) bar diameter. When the clear distance between bars is less than (2) bar diameters or the clear cover is less than (1) bar diameter, increase the splice length by 50%.

4.13. Provide 3/4" chamfer on all exposed corners of concrete, unless shown otherwise on Architectural details.

4.14. Roughen the existing concrete surface at the interface of construction joints to an amplitude of approximately 1/4", except where a key is specifically indicated or where the use of a bond breaker is indicated. Immediately before new concrete is placed, thoroughly wet the interface surface and remove any standing water.

4.15. Where new concrete is deposited against concrete that is greater than 28 days old, thoroughly clean existing surfaces of laitance and foreign material and saturate with water. Remove all standing water prior to placement of new concrete. Roughen the existing surface to an amplitude of 1/4".

4.16. Securely tie all reinforcement before placing concrete.

5. REINFORCEMENT [IBC Ch 19]

5.1. Reinforcement shall conform to IBC 1903.5, ACI 318, Sec. 3.5, and ASTM A615 and A706. Welded Wire Fabric shall conform to IBC 1903.5, ACI 318, Sec. 3.5, and ASTM A185.

5.2. Use A615, Grade 60 reinforcement for concrete, UNO.

5.3. Bend reinforcing steel cold, unless directed otherwise by the Engineer.

5.4. Promptly notify the Engineer if conditions arise where there are insufficient minimum clear distances or where construction problems related to congestion are encountered.

6. CONNECTIONS TO CONCRETE AND CONCRETE INSERTS [IBC Ch 19]

6.1. Epoxy grout reinforcing dowels and threaded rod (ASTM A36, unless noted otherwise) using Simpson SET adhesive system per ICBO Report ER-5279, Covers CIA-Def T000 adhesive system per ICBO Report ER-4846, Hilti HIT HY-150 adhesive system per ICC-ES Report ER-5193, or Ramset/ReadHead EPCON adhesive system per ICBO Report ER-4285. Alternate anchorage systems require written pre-approval of the Engineer. Install according to the Manufacturer's printed instructions.

6.2. Install Simpson SET adhesive anchors in concrete per ICBO Report ER-5279 and the Manufacturer's printed instructions.

6.3. Install Hilti HIT adhesive anchors in concrete with HIT HY-150 adhesive per ICC-ES Report ER-5193 and the Manufacturer's printed instructions.

6.4. Use wedge and expansion anchors as manufactured by Simpson or Hilti, or an approved equal. Install according to the Manufacturer's printed instructions.

7. STRUCTURAL STEEL [IBC Ch 22]

7.1. Structural steel detailing, fabrication, and erection shall conform to IBC Ch. 22 and AISC "Code of Standard Practice for Steel Buildings and Bridges."

7.2. Wide Flange shapes ("W", "WT") shall be ASTM A992 (Fy = 50 ksi); where ASTM A992 is not available, ASTM A36/A572 Dual Certification (Fy = 50 ksi) may be substituted. Channel and Angle shapes ("C", "MC", "L", "LL") shall be ASTM A36/A572 Dual Certification (Fy = 50 ksi). Plates, bars, and other miscellaneous shapes may be ASTM A36 (Fy = 36 ksi).

Structural tubing (TS) shall be ASTM A500, Grade B (Fy = 46 ksi).

Pipe columns shall be ASTM A53, Grade B, Type E or S (Fy = 35 ksi).

7.3. Bolts indicated as machine bolts (MB) or anchor bolts (AB) shall be ASTM A307. Threaded rod shall be ASTM A36.

7.4. Welding shall conform to AWS Structural Welding Code-Steel (AWS D1.1). Certified welders shall perform all welding.

Use E7018 electrodes (E6018 at light-gauge steel studs) with a minimum Charpy V-Notch toughness (CVN) of 20 ft-lb at 0°F.

At complete penetration welds, backing bars shall be removed and welds repaired on both sides with filled welds.

7.5. Headed stud anchors (HSA) shall be Type S3L, by TRW-Nelson, or approved equal. Where not noted, use 3/4" diameter studs. Structural steel to receive HSA's shall be free from paint or painted with primer that allows welding of studs. Install according to the Manufacturer's printed instructions.

7.6. Base plate holes for anchor bolts may be oversized as follows:

| Anchor Bolt Dia. | Hole Size |
|---|---|
| 3/4" - 7/8" | 5/16" Oversized |
| 1" - 2" | 1/2" Oversized |
| Over 2" | 1" Oversized |

7.7. Use non-metallic, non-shrink grout under base plates. Install according to the Manufacturer's printed instructions.

8. SAWN LUMBER, TIMBER, AND MANUFACTURED WOOD PRODUCTS [IBC Ch 23]

8.1. All rough framing shall conform to the requirements of IBC Ch. 23 and the 2001 "National Design Standard for Wood Construction."

8.2. For sawn lumber, use Douglas Fir-Larch per 2001 "National Design Standard for Wood Construction," Tables 4A and 4D, of the following minimum grades, unless noted otherwise on the plans:

| Description | Grade | Allowable Stress | Mod. of Elasticity |
|---|---|---|---|
| 2x and 4x | No. 2 | Fb = 900 psi | E = 1600 ksi |
| Beams and Stringers | No. 1 | Fb = 1350 psi | E = 1600 ksi |
| Post and Timbers | No. 1 | Fc = 1000 psi | E = 1600 ksi |

Use pressure-treated Douglas Fir-Larch No. 2 for sill plates and wood within 6" of earth. (Note: Special framing hardware requirements apply when using pressure-treated lumber. See framing hardware note below.)

8.3. Use prefabricated plywood web joists as manufactured by Trus Joist, and of the type and size indicated on the plans. Substitute products from other manufacturers require prior written approval from the Engineer.

Design for the loads given in Section 2.3 of these Notes, unless noted otherwise on the plans.

8.4. Use Microlam (LVL) and Parallam (PSL) beams and TimberStrand (LSL) beams, studs and rim boards as manufactured by Trus Joist, of the type and size indicated on the plans, and with the following minimum properties:

| Description | Allowable Stress | Mod. of Elasticity |
|---|---|---|
| Microlam (LVL) | Fb = 2600 psi | E = 1900 ksi |
| Parallam (PSL) | Fb = 2900 psi | E = 2000 ksi |
| TimberStrand (LSL) | Fb = 1700 psi | E = 1300 ksi |

Blocking, stiffeners and hangers are the responsibility of the Manufacturer, unless specifically indicated on the plans.

Substitute products from other manufacturers require prior written approval from the Engineer.

8.5. Structural Glued Laminated Timbers (glulam) shall comply with ANSI/AITC A190.1 and ASTM D 3737. Use Douglas Fir-Larch combinations as follows, unless noted otherwise:

| | |
|---|---|
| Simple Spans | DF-24F/V4 |
| Cantilever Spans | DF-24F/V8 |
| Continuous Spans | DF-24F/V8 |

8.6. Plywood sheathing nailing for shear walls and diaphragms is indicated on the drawings or in these Notes. The following abbreviations are used to designate nailing in details and schedules:

| | | |
|---|---|---|
| BN | Boundary nailing | Typical to all blocking over walls and elements indicated to act as chords. |
| CN | Continuous edge nailing | Nailing of plywood panel edges where the edges of consecutive panels fall on the same framing member. Unless noted otherwise, CN shall be the same as EN. |
| EN | Edge nailing | Nailing to supported plywood panel edges. |
| FN | Field nailing | Nailing to interior supports. |

8.7. Wall sheathing shall be APA rated sheathing, Exposure 1, as follows:

Min. Thickness: 15/32" Plywood
Minimum Nailing: 8d, BN=6", EN=6", FN=12"

Oriented strand board (OSB) SHALL NOT BE USED in place of plywood for wall sheathing.

Provide 2x blocking along all edges not supported by studs.

8.8. Roof sheathing shall be APA C-D Span Rated panels, Exposure 1, as follows:

Min. Thickness: 19/32" or 5/8" Plywood; Span Index: 32/16
Minimum Nailing: 8d, BN=6", EN=6", FN=12"

Oriented strand board (OSB) meeting the requirements for "wood structural panels" as defined in IBC 2302 may be substituted for plywood roof sheathing, provided such product also meets the required APA Rating.

Note that particleboard is not included in the definition of wood structural panels, and may not be used as such.

8.9. Floor sheathing shall be STURD-I-FLOOR, as follows:

Thickness: 3/4"
Minimum Nailing: 10d, BN=6", EN=6", FN=10"

Nail with 10d ring or screw-shank nails and glue to supports. Apply glue as recommended by APA and the glue Manufacturer.

8.10. Lay plywood for floors and roofs with face grain perpendicular to joists and with end joints staggered. Where panels are less than 24" wide, block all edges.

8.11. Attach sill plates using 5/8" dia. anchor bolts at 32" maximum, unless noted otherwise. Use 12" bolt length for 3x or 4x plates, 10" bolt length for 2x plates. Each anchor bolt shall be equipped with a minimum 2" x 2" x 3/16" plate washer (Simpson BPS/8-2, or equivalent).

Each separate length of sill plate shall be attached with a minimum of (2) of the specified anchor bolts. Such bolts are in addition to any bolts used for holddown anchorage.

8.12. For wood to wood nailed connections, use spacing and edge distances of (11) diameters and (6) diameters, respectively, or as required to avoid splitting the wood.

8.13. Where required to avoid splitting, pre-drill holes with a drill bit diameter equal to the next smaller nail diameter.

8.14. Where nails will be exposed to weather, use zinc coated, aluminum alloy wire, or stainless steel nails conforming to IBC 2304.9.

8.15. For members resisting wind or seismic loads, use common nails only; box nails and sinkers (CVS) nails are not acceptable unless approved in writing by the Engineer. Members resisting wind or seismic loads include, but are not limited to: roof and floor diaphragm sheathing nailing, shearwall sheathing nailing, diaphragm and shearwall blocking and bracing, shearwall plate nailing, gable bracing and blocking, and splices in double top plates.

8.16. Use the following minimum Nailing Schedule (Note: This schedule is more restrictive than that contained in IBC Table 2304.9.1):

| | |
|---|---|
| Joist to sill or girder, toenail | (3) 10d |
| Bridging to joist, toenail each end | (2) 10d |
| Sole plate to joist or blocking, face nail | 16d @ 12" |
| Top plate to stud, end nail | (2) 16d |
| Stud to sole plate, toenail | (4) 8d |
| or end nail | (2) 16d |
| Doubled studs, face nail | 16d @ 16" |
| Doubled top plates, face nail | 16d @ 12" |
| Continuous header, two pieces, along each edge | 16d @ 12" |
| Ceiling joist to plate, toenail | (3) 8d |
| Continuous header to stud, toenail | (4) 8d |
| Joists, laps over partitions, face nail | (3) 16d |
| Ceiling joists to parallel rafters, face nails | (3) 16d |
| Rafters, Joists to plate, toenail | (3) 10d |
| Blocking between joists or rafters to top plate or sill plate, toenail | (3) 16d @ ea block |
| Rim joist to top plate or sill plate, toenail | 10d @ 6" |
| Built-up corner studs | 16d @ 16" |
| Built-up beams, each side, staggered | 16d @ 8" |

The quantities and spacings listed are for common nails; except for members resisting wind or seismic loads, 16d Sinkers (16d SVS) may be substituted at the same quantities and spacings as specified above.

8.17. Provide H1, H2.5 or H2.5A ties for all rafters, roof trusses or roof joists, unless noted otherwise.

8.18. Use framing hardware as manufactured by Simpson Strong-Tie or United Steel Products (USP), and of the type and size indicated on the plans. Install as recommended by the Manufacturer. Where hardware can be specified with different size fasteners, use the largest fastener, unless noted otherwise.

Alternate hardware requires Engineer's approval prior to installation. Submit proposed equivalent and ICC-ES Report for each alternate item. Contractor/Installer assumes full liability resulting from the use of non-approved framing hardware including, but not limited to, product and framing system performance.

Framing hardware shall be hot-dip galvanized (G60 minimum coating) or painted. Hardware in contact with pressure-treated lumber shall be hot-dip galvanized (G90 minimum coating). Hardware in contact with lumber pressure-treated with Alkaline Copper Quat (ACQ-C, ACQ-D or ACQ-B Carbonate), Copper Azole (CBA-A or CA-B), or BBZ (DOT) shall be hot-dip galvanized (G185 minimum coating) or stainless steel. Hardware in contact with lumber pressure-treated with Ammoniacal Copper Zinc Arsenate (ACZA) or other products containing an amaonia carrier shall be stainless steel.

8.19. Where holddowns are indicated at ends of shear walls, nail the sheathing to the member to which the holddown is connected. Use the same nailing specified for plywood panel edges.

8.20. All detailing, fabrication, and erection of glulam members shall be according to AITC Specifications. Give special care to the protection of glulam members that are to be exposed to weather.

8.21. Give special attention to the bearing surfaces of columns to ensure that members fit tightly and that interfacing surfaces are true.

8.22. Use ASTM A307 Machine Bolts and use washers where bolt head or nut bears on wood. Drill holes 1/32" to 1/16" larger in diameter than the bolt.

Where bolts are shown countersunk into plates, nailers and ledgers, do not exceed 1" countersink depth.

8.23. Use ASTM A307 or ASTM A36 Lag Screws and use washers where head bears on wood. Drill lead holes as follows:

| Lg Dia. | Lead Hole Dia. |
|---|---|
| 3/8" | 11/64" |
| 1/2" | 15/64" |
| 5/8" | 5/16" |
| 3/4" | 13/32" |

8.24. For non-bearing interior walls on concrete slabs-on-grade, shoot sole plates to the floor using 2-1/2" long by 0.145" diameter powder-actuated pins, spaced 6" from ends and at 32" maximum elsewhere. Install according to the Manufacturer's printed instructions.

8.25. Where multiple joists, rafters or trusses in diaphragms and multiple studs in shear walls are required and plywood edges fall at the interface of the members, connect the multiple members together as required to transfer diaphragm shear.

Connect 2x framing members by nailing with 16d nails at the same spacing as the edge nailing required for the plywood sheathing. Stagger the nailing to prevent splitting the wood.

For manufactured trusses and joists, the Manufacturer shall engineer and detail connections. Where diaphragm shear is not specified, assume the shear to be equal to the shear capacity specified in IBC Table 2306.3.1 or Table 2306.3.2, as appropriate, for the plywood grade, thickness, and nailing.

9. MISCELLANEOUS

9.1. Install and anchor mechanical, plumbing and electrical equipment, including ducts, pipes and conduits, to the structure in accordance with IBC 1621. Submit shop drawings for review to the Mechanical or Electrical Engineer, respectively. The Contractor shall provide any additional structural supports required within the floor or roof structure. Isolators, fasteners or any other element providing stability for equipment require an ICC-ES report or an equivalent testing report, showing the product to be capable of transmitting Code required forces.

10. SPECIAL INSPECTION [IBC Ch 17]

Provide for special inspection in compliance with IBC 1704 as follows:

10.1. Concrete: Special inspection is not required for foundations; design is based on a concrete compressive strength of 2500 psi

10.2. Bolts Installed in Concrete: Special inspection is not required for anchor bolts, except where specifically noted on the plans.

10.3. Adhesive Anchor Bolts: Special inspection is required for adhesive anchor bolts. For Simpson SET anchors, conduct special inspection per ICBO Report ER-5279, Sec. 2.6. For other products, refer to the appropriate ICC-ES Report.

10.4. Welding: Continuous special inspection is required for all structural welding, including reinforcing steel, except inspection may be periodic for:

10.4.1. Single-pass fillet welds not exceeding 5/16" in size.

10.4.2. Headed stud anchor (HSA) welding.

Special inspection is not required for welding done in an approved fabricator's shop per IBC 1704.2.2, subject to approval of the building department having jurisdiction

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# PIPER'S OPERA HOUSE
## 2005 BUDGET PROJECTS & NEW ENDTRY STAIR
## RENO, NEVADA

SHEET TITLE: STRUCTURAL NOTES

REGISTERED PROFESSIONAL ENGINEER — No. 4245 — STATE OF NEVADA — DATE: — EXP:

MAR 6 2006 JUN 30 2007

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| DRAWN | SAS |
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| DATE | 5-20-05&2-27-06 |
| SCALE | NONE |
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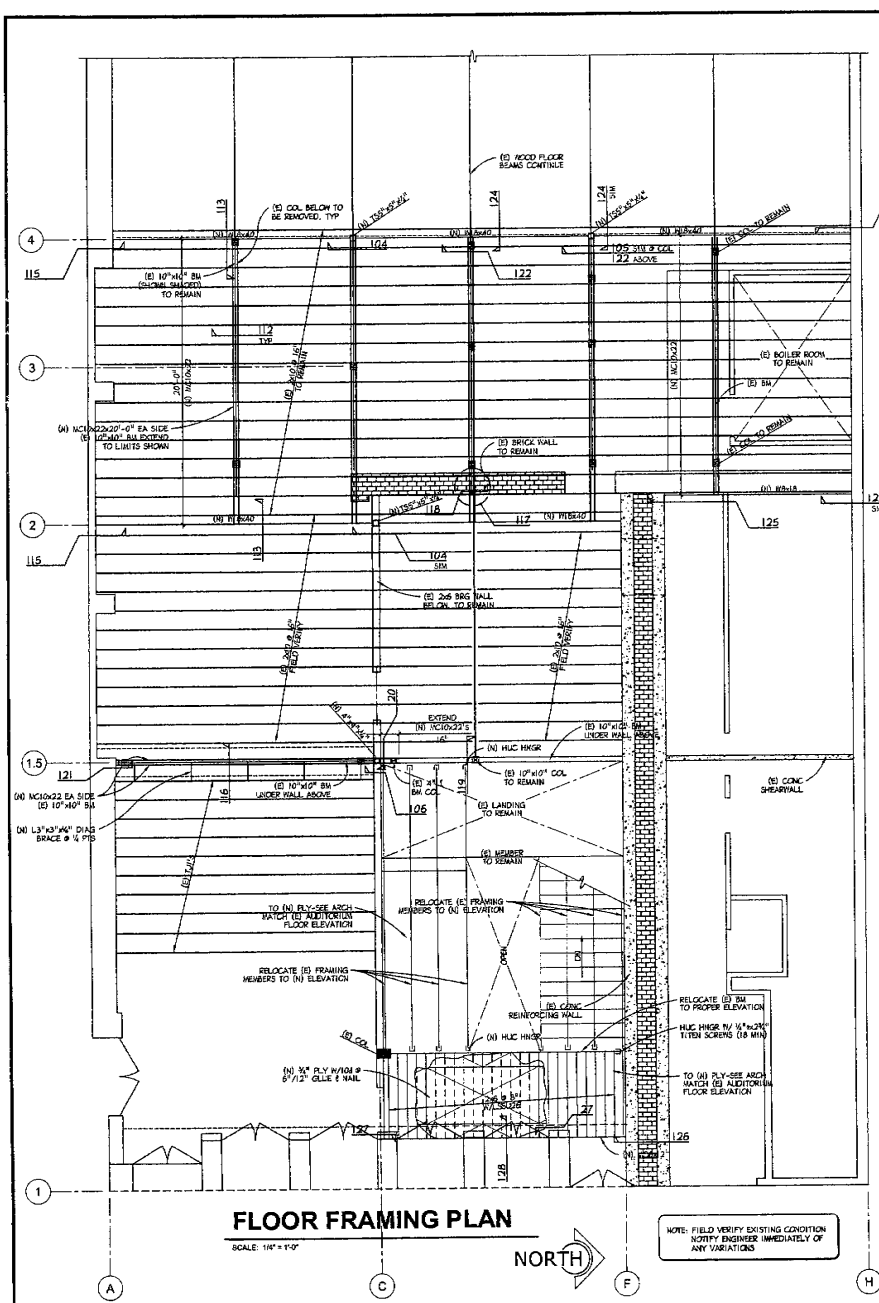


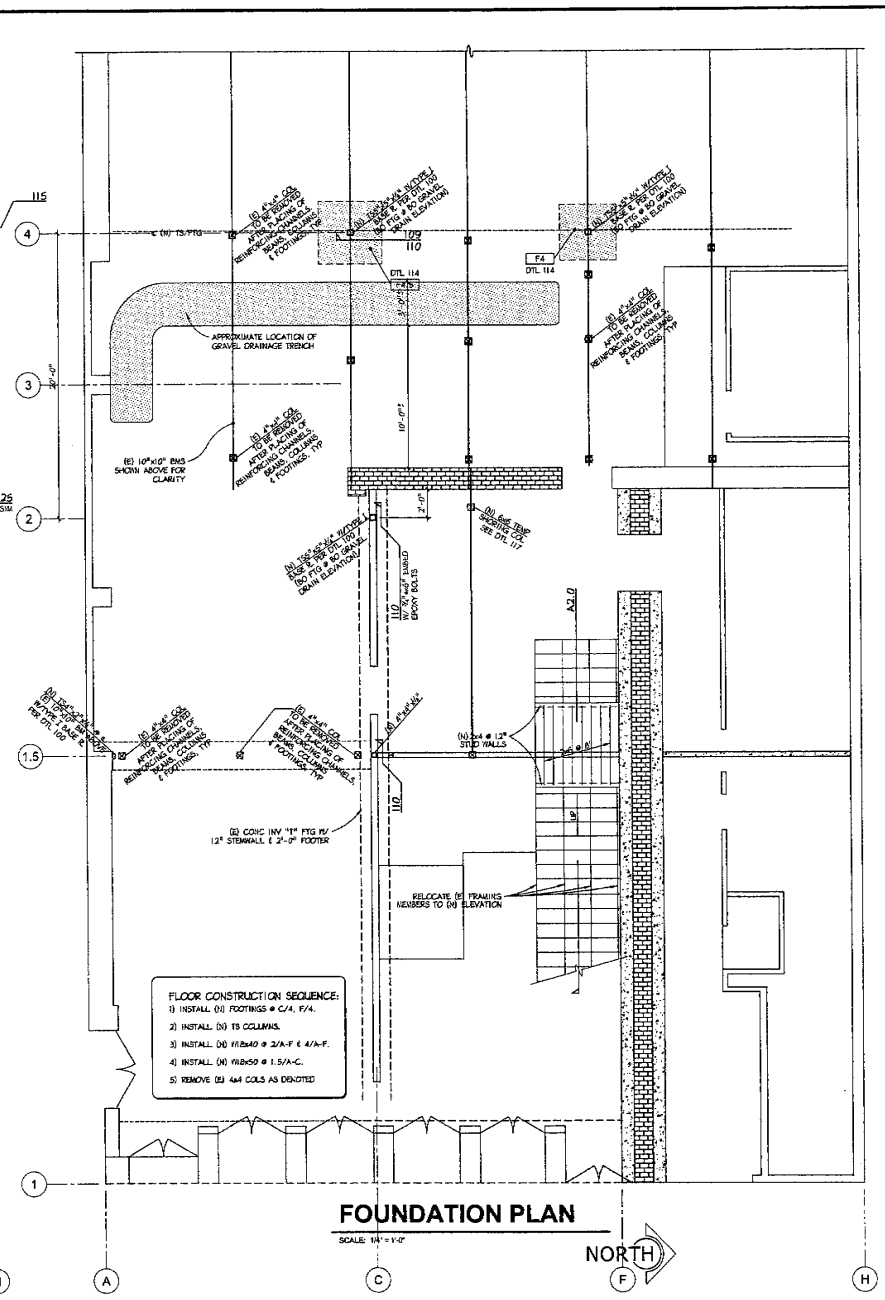


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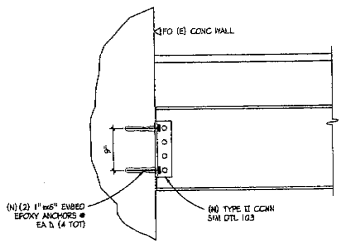
# PIPER'S OPERA HOUSE
## 2005 BUDGET PROJECTS & NEW ENDTRY STAIR
## RENO, NEVADA

SHEET TITLE: FLOOR FRAMING PLAN/NEW STAIRWAY PLAN

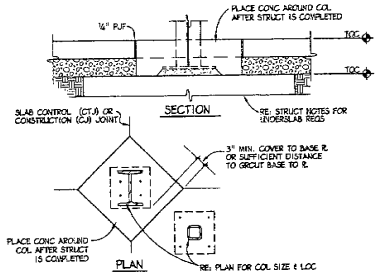
PROFESSIONAL ENGINEER — PAUL F. FERRARI — CIVIL — STATE OF NEVADA — No. 4245
DATE: JUN 3 0 2006

| DRAWN |
|---|
| SAS |
| CHECKED |
| PAF |
| DATE |
| 6-20-05/2-27-06 |
| SCALE |
| 1/4" = 1'-0" |
| JOB NO. |
| 05546/05929 |
| SHEET |
| S-1 |

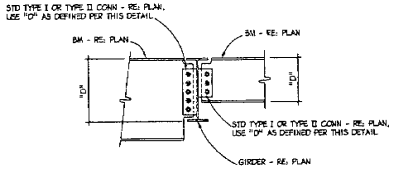



DETAIL
SCALE: 1" = 1'-0"

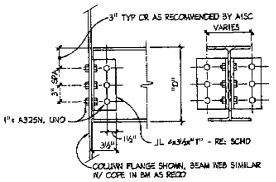
115 STD - ISOL JT @ INT COL
SCALE: 3/4" = 1'-0"




111 STD - BM TO GIRDER CONN
SCALE: NO SCALE



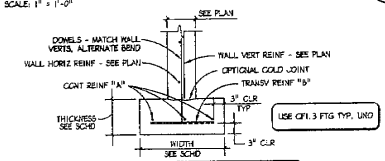

107 STD - DBL ANGLE SHEAR CONN (TYPE II CONN)
SCALE: NO SCALE




NOTE:
ANGLES MAY BE SHOP WELDED TO BEAM OR SUPPORTING MEMBER, BUT CONNECTION CAPACITY SHALL NOT BE LESS THAN THAT FOR THE BOLTED CONNECTION.

| NOMINAL DEPTH, "D" | A325N BOLTS | LENGTH OF ANGLES | ANGLE THK, "t" | ALLOW LOAD |
|---|---|---|---|---|
| 8, 10 | (2) 1"ø | 5½" | ¼" | 29.4K |
| 12, 14 | (3) 1"ø | 8½" | ¼" | 46.2K |
| 16, 18, 21 | (4) 1"ø | 11½" | ¼" | 63.1K |
| 24, 27 | (5) 1"ø | 14½" | 5/16" | 99.9K |
| 30, 33, 36 | (6) 1"ø | 17½" | 5/16" | 121K |

103

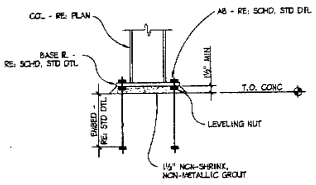



| MARK | WIDTH | THICKNESS | CONT REINF "A" | TRANSV REINF "B" |
|---|---|---|---|---|
| CF1 | 1'-0" | 10" | (2) #4 | — |
| CF1.5 | 1'-4" | 10" | (2) #4 | — |
| CF1.5 | 1'-0" | 10" | (2) #4 | — |
| CF2 | 2'-0" | 1'-0" | (3) #4 | — |
| CF2.5 | 2'-6" | 1'-2" | (3) #5 | — |
| CF3 | 3'-0" | 1'-4" | (4) #5 | — |
| CF3.5 | 3'-6" | 1'-7" | (4) #6 | — |
| CF4 | 4'-0" | 1'-9" | (5) #6 | — |
| CF5 | 5'-0" | 1'-8" | (5) #6 | #4 @ 12" |
| CF6 | 6'-0" | 1'-8" | (6) #6 | #5 @ 14" |

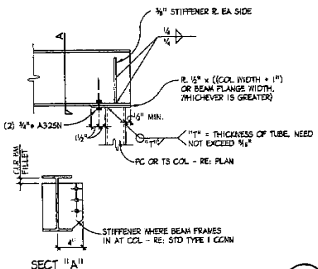
FOOTINGS DESIGNED FOR A MAXIMUM OF 3000 PSF SOIL PRESSURE.

CONTINUOUS WALL FOOTING SCHEDULE
SCALE: NONE

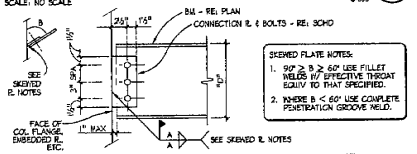
114 STD - GROUT UNDER BASE PLATE
SCALE: NO SCALE




110 STD - BEAM TO COLUMN CONN
SCALE: NO SCALE



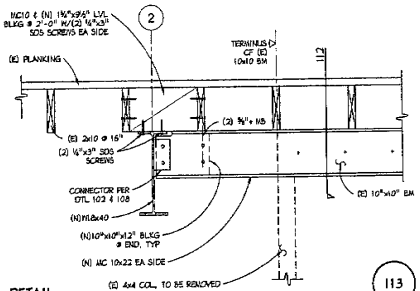

106 STD - SINGLE-PLATE SHEAR CONN (TYPE I)
SCALE: NO SCALE




SKEWED PLATE NOTES:
1. 90° ≥ B ≥ 60° USE FILLET WELDS W/ EFFECTIVE THROAT EQUIV TO THAT SPECIFIED.
2. WHERE B < 60° USE COMPLETE PENETRATION GROOVE WELD.

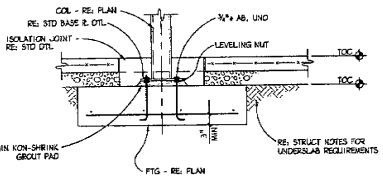
| NOMINAL DEPTH "D" | PLATE THKNS | FILLET WELD, A | A325N BOLTS | ALLOW LOAD |
|---|---|---|---|---|
| 8 | ¼" | 5/16" | (2) 1" | 10.4K |
| 10 | ¼" | 5/16" | (2) 1" | 11.8K |
| 12 | 5/16" | ¼" | (3) 1" | 24.6K |
| 14 | 5/16" | ¼" | (3) 1" | 28.3K |
| 16 | 5/16" | ¼" | (4) 1" | 46.7K |
| 18 | 5/16" | ¼" | (5) 1" | 59.7K |
| 21 | ⅜" | ¼" | (6) 1" | 71.7K |
| 24 | ⅜" | ¼" | (7) 1" | 83.6K |
| 27, 30 | ½" | 5/16" | (8) 1" | 104K |
| 33 | ½" | 5/16" | (9) 1" | 120K |
| 36 | ½" | 5/16" | (10) 1" | 129K |

102

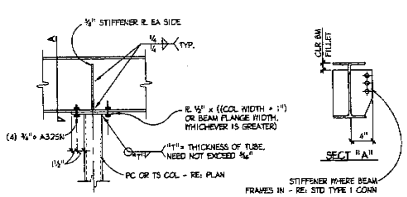



DETAIL
SCALE: 1" = 1'-0"

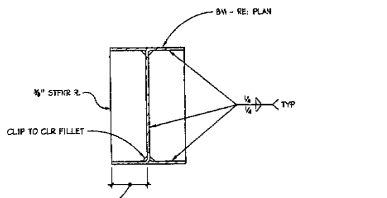
113 STD - ISOL COL FTG
SCALE: 3/4" = 1'-0"



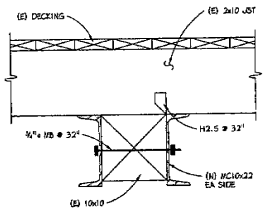

109 STD - BEAM TO COLUMN CONN
SCALE: NO SCALE




105 STD - BEAM TO COLUMN CONN
SCALE: NO SCALE

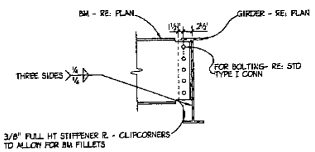



101 STD - FULL HEIGHT WEB STIFFENER
SCALE: NO SCALE

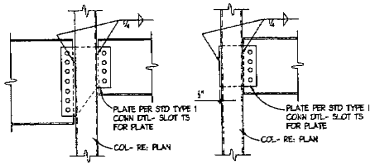



DETAIL
SCALE: 1-1/2" = 1'-0"

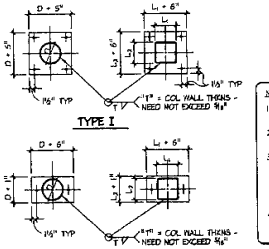
112 STD - BEAM TO SPANDREL CONNECTION
SCALE: NO SCALE




108 STD - BEAM TO TS COLUMN CONN
SCALE: NO SCALE




104 STD - PC & TS COL BASE PLATE
SCALE: NO SCALE




NOTES:
1. USE ⅝" BASE PLATE THICKNESS, UNO.
2. USE ¾"ø AB, UNO - FURNISH W/ LEVELING NUTS.
3. OVERSIZE AB HOLES AS FOLLOWS:

| AB DIA | OVERSIZE |
|---|---|
| ⅝" - ⅞" | ⅛" |
| ≥ 1" | ¼" |

4. PROVIDE 1½" NON-SHRINK GROUT PAD UNDER BASE PLATE, UNO.

100 STD - PC & TS COL BASE PLATE
SCALE: NO SCALE

| REVISIONS | BY |
|---|---|
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| | |

FERRARI SHIELDS & ASSOCIATES
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Reno, Nevada 89509
775 - 823 - 3559 (Fax)
www.ferrarishields.com

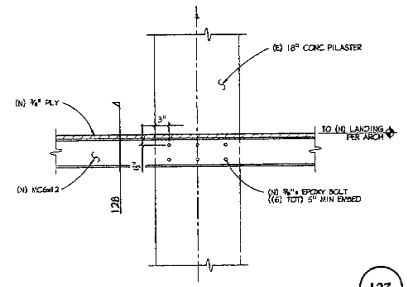
# PIPER'S OPERA HOUSE
## 2005 BUDGET PROJECTS & NEW ENDTRY STAIR
## RENO, NEVADA

SHEET TITLE: STRUCTURAL DETAILS

PAUL A. FERRARI, No. 4245, STATE OF NEVADA, REGISTERED PROFESSIONAL ENGINEER
DATE: 6 2006 JUN 3 0 2007 EXP:

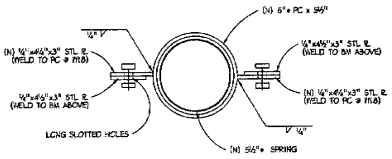
| | |
|---|---|
| DRAWN | BAB |
| CHECKED | PAF |
| DATE | 5-26-6-(52-27-06 |
| SCALE | AS SHOWN |
| JOB NO. | 0504505923 |
| SHEET | SD-1 |

H:\2005\05046 - Piper's Opera 2005 Budget Projects\PS\04-07 S.E.dwg, SD-1, 7/6/2006 1:25:26 PM



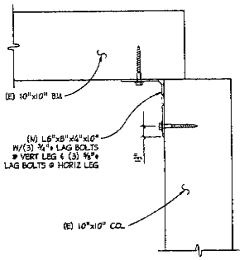

DETAIL
SCALE: 1" = 1'-0"

127



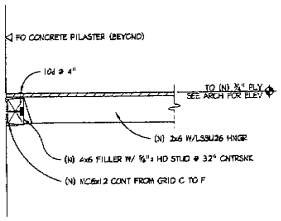

DETAIL
SCALE: 3" = 1'-0"

123



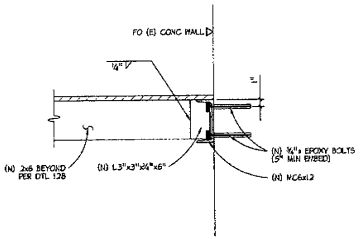

DETAIL
SCALE: 1-1/2" = 1'-0"

119



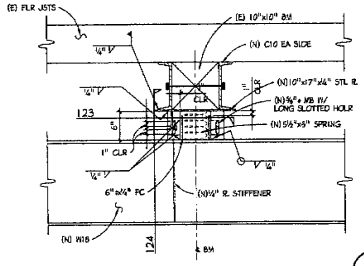

DETAIL
SCALE: 1" = 1'-0"

128



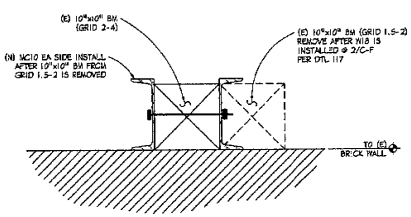

DETAIL
SCALE: 1-1/2" = 1'-0"

126



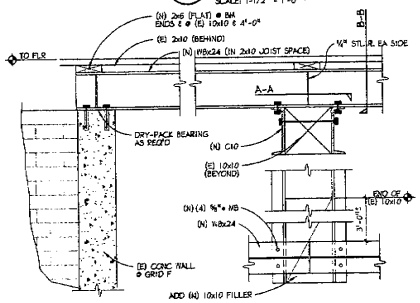

DETAIL
SCALE: 1" = 1'-0"

122



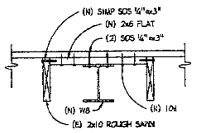

DETAIL
SCALE: 1-1/2" = 1'-0"

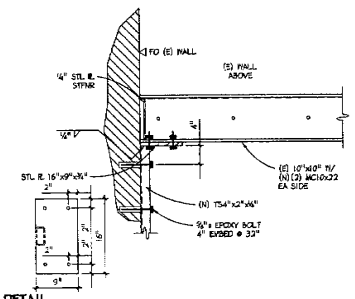
118




DETAIL
SCALE: 1" = 1'-0"

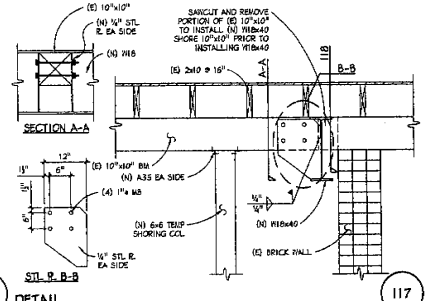
125



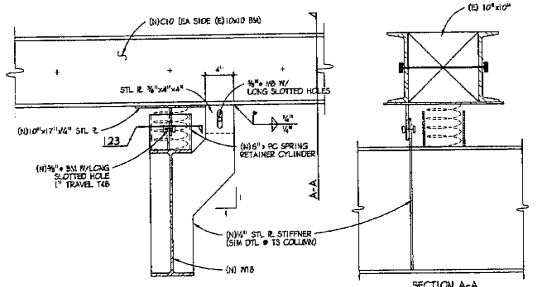

DETAIL
SCALE: 1" = 1'-0"

121



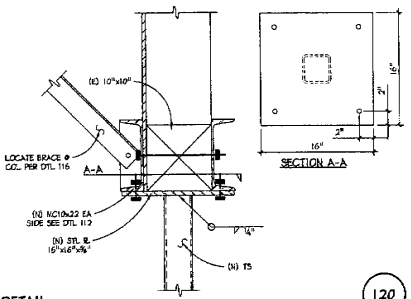

DETAIL
SCALE: 3/4" = 1'-0"

117



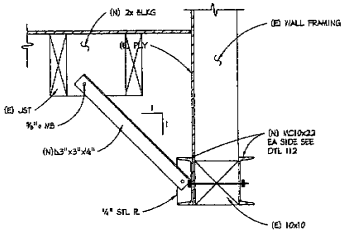

DETAIL
SCALE: 1-1/2" = 1'-0"

124




DETAIL
SCALE: 1-1/2" = 1'-0"

120




DIAG BRACE DETAIL
SCALE: 1" = 1'-0"

116

| REVISIONS | BY |
|---|---|
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| | |

FERRARI SHIELDS & ASSOCIATES
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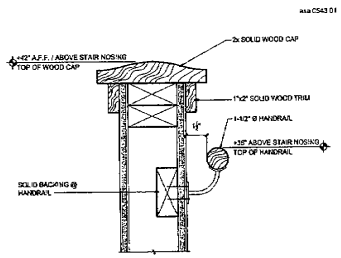
# PIPER'S OPERA HOUSE
## 2005 BUDGET PROJECTS & NEW ENDTRY STAIR
## RENO, NEVADA

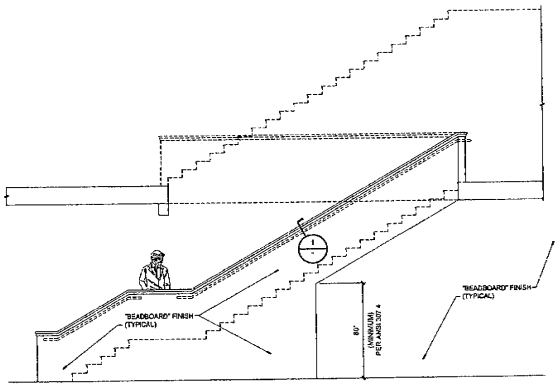
SHEET TITLE: STRUCTURAL DETAILS

PAUL FERRARI — No. 4245 — CIVIL — STATE OF NEVADA — PROFESSIONAL ENGINEER
DATE: MAR 6 2006 EXP: JUN 30 2007

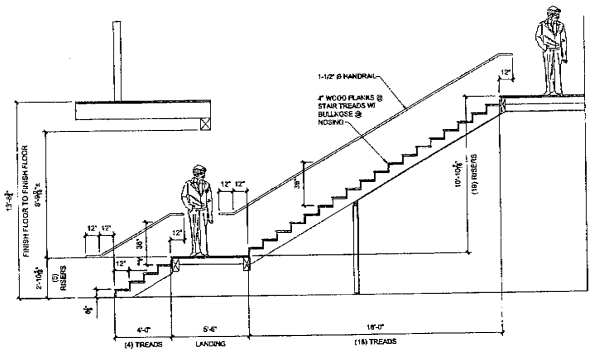
| | |
|---|---|
| DRAWN | SAS |
| CHECKED | PAF |
| DATE | 5-20-05/2-27-06 |
| SCALE | AS SHOWN |
| JOB NO. | 05345/03929 |
| SHEET | SD-2 |



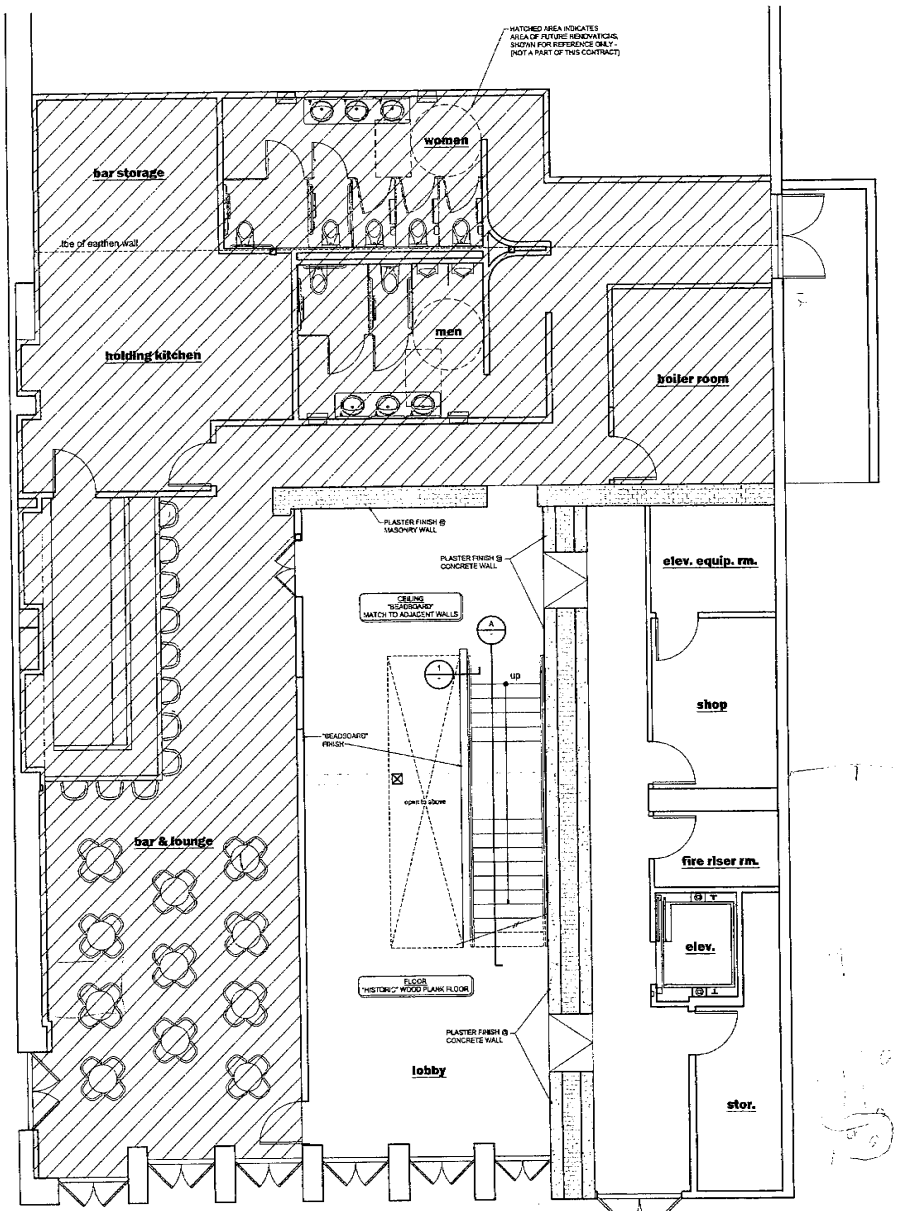

**1** section
wood cap & trim @ stair 3"=1'-0"




**B** elevation @ stair
1/4"=1'-0"




**A** cross section @ stair
coordinate all dimensions & components w/ structural prior to construction 1/4"=1'-0"




**ground level floor plan**
1/4"=1'-0"

anthony smith architecture
1900 pioneer road, suite 201
reno, nv 89521
p 775.333.9773 f 775.333.9776

plan review 3.6.06



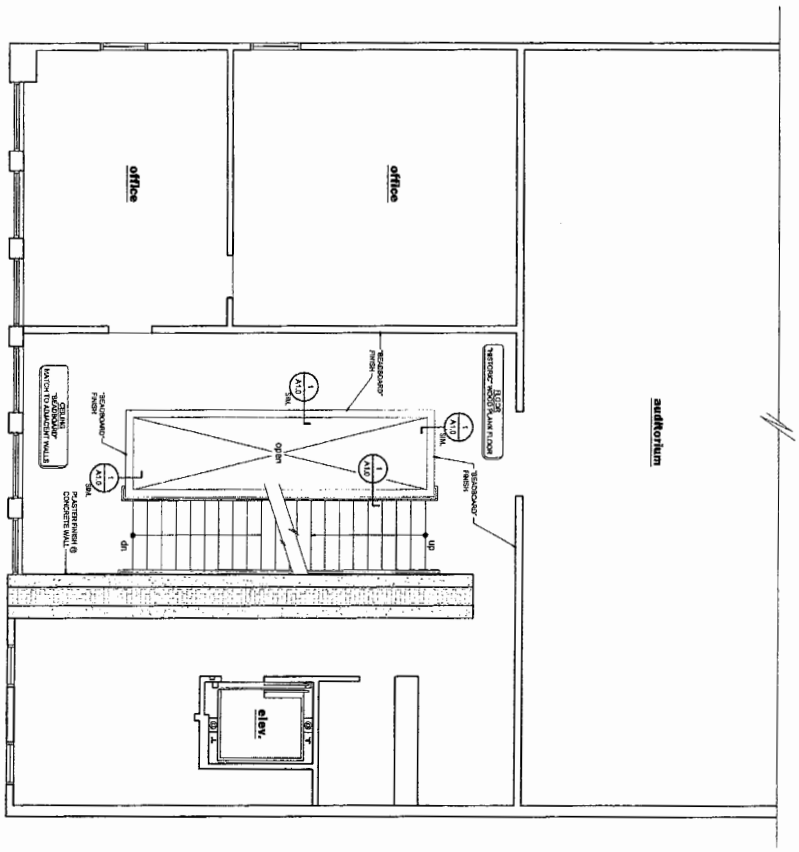

a historic restoration for
# piper's opera house
b street
virginia city, nv

revisions

| | |
|---|---|
| drawn: | acs / sjs |
| checked: | sjs |
| date: | march 6, 2006 |
| scale: | as noted |
| project no: | 0543 |

ground level floor plan

**A1.0**




second level floor plan

1/4"=1'-0"

second level floor plan

A2.0

| | |
|---|---|
| drawn: | ccs / slp |
| checked: | slp |
| date: | march 6, 2006 |
| scale: | as noted |
| project no: | 0543 |

revisions

a historic restoration for
**piper's opera house**
b street
virginia city, nv

plan review 3.6.06

anthony smith architecture
960 sandhill road, suite 201
reno, nv 89521
p 775.333.8779 tonyarc@earthlink.com f 775.333.8775

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ISO 9001 Certified

# PIPER'S OPERA HOUSE
# VIRGINIA CITY, NEVADA
# THEATRE MODERNIZATION

## ALLOWABLE BATTEN LOADS

| Span between lift lines | | 8' | 9' | 10' | 11' | 12' |
|---|---|---|---|---|---|---|
| **1-1/4" Schedule 40 Pipe** 2.27 Lb/Ft | | | | | | |
| Uniform load at 1/3 of yield[1] | (lbs/ft) | 35 | 28 | 22 | 18 | 15 |
| Uniform load at 1/360 deflection[2] | (lbs/ft) | 31 | 22 | 16 | 12 | 9 |
| Point load at 1/3 of yield[3] | (lbs) | 119 | 107 | 96 | 88 | 82 |
| Point load at 1/360 deflection[4] | (lbs) | 82 | 65 | 52 | 43 | 36 |
| **1-1/2" Schedule 40 Pipe** 2.72 Lb/Ft | | | | | | |
| Uniform load at 1/3 of yield[1] | (lbs/ft) | 49 | 39 | 31 | 25 | 24 |
| Uniform load at 1/360 deflection[2] | (lbs/ft) | 49 | 34 | 25 | 19 | 15 |
| Point load at 1/3 of yield[3] | (lbs) | 165 | 147 | 133 | 121 | 112 |
| Point load at 1/360 deflection[4] | (lbs) | 130 | 103 | 83 | 69 | 58 |
| **1-1/2" Schedule 80 Pipe** 3.63 Lb/Ft | | | | | | |
| Uniform load at 1/3 of yield[1] | (lbs/ft) | 62 | 48 | 39 | 32 | 26 |
| Uniform load at 1/360 deflection[2] | (lbs/ft) | 62 | 43 | 32 | 24 | 18 |
| Point load at 1/3 of yield[3] | (lbs) | 209 | 186 | 169 | 154 | 142 |
| Point load at 1/360 deflection[4] | (lbs) | 164 | 130 | 105 | 87 | 73 |
| **2" Schedule 40 Pipe** 3.65 Lb/Ft | | | | | | |
| Uniform load at 1/3 of yield[1] | (lbs/ft) | 86 | 67 | 54 | 44 | 37 |
| Uniform load at 1/360 deflection[2] | (lbs/ft) | 105 | 74 | 54 | 41 | 31 |
| Point load at 1/3 of yield[3] | (lbs) | 283 | 253 | 228 | 208 | 192 |
| Point load at 1/360 deflection[4] | (lbs) | 279 | 221 | 179 | 148 | 124 |

(1) Allowable load in pounds per foot of batten at 1/3 of yield.
(2) Allowable uniform load with a maximum deflection of 1/360 between pickup lines.
(3) Maximum concentrated load in pounds at midpoint between pickup lines at 1/3 yield.
(4) Concentrated load at midpoint between pickup lines with deflection of 1/360.

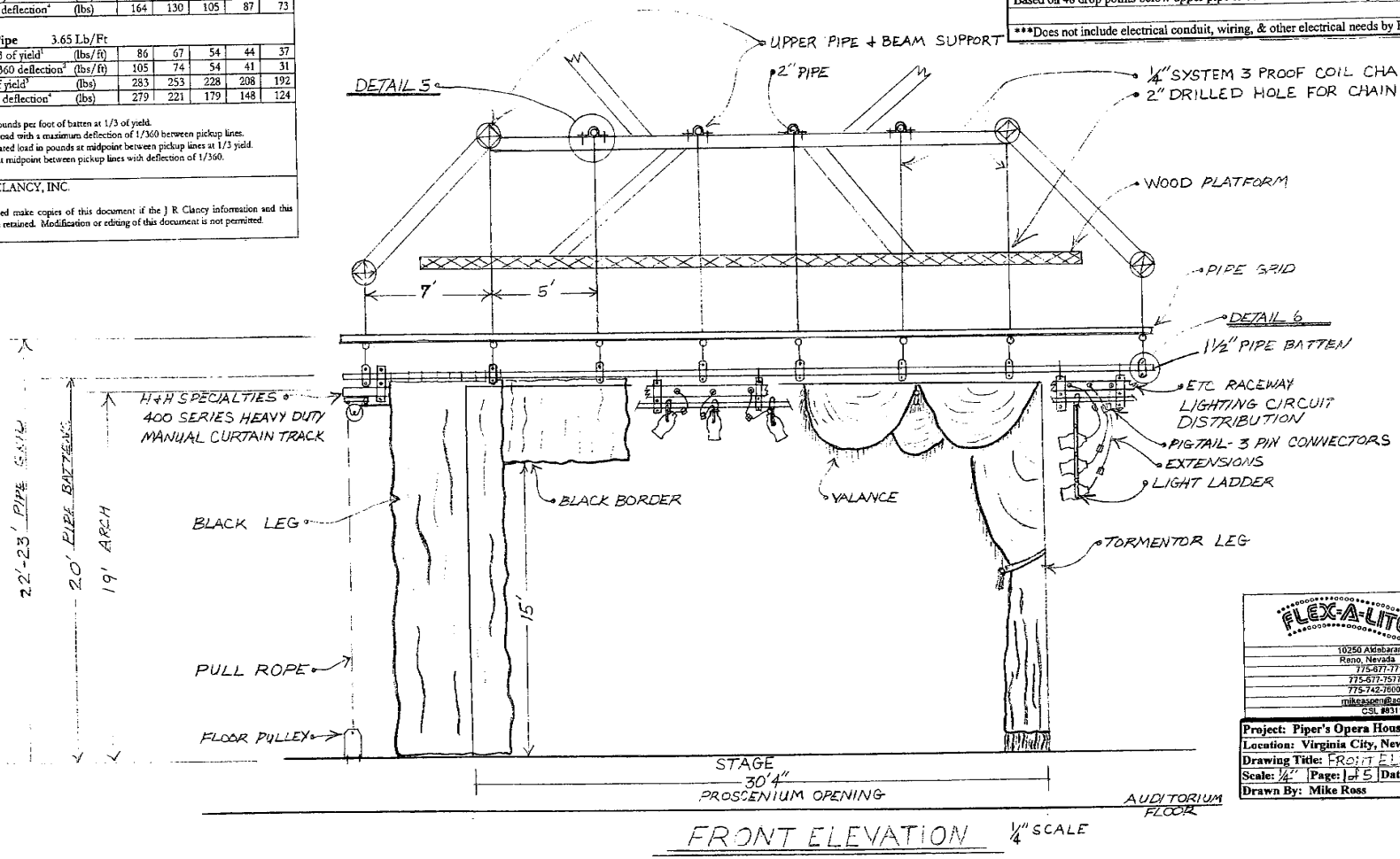


**PIPER'S OPERA HOUSE--Weights**

| Item | Qty. | Unit Wt. lbs. | Total Wt.-lbs. |
|---|---|---|---|
| ETC Source Four Ellipsoidals--lighting instrument | 60 | 14.0 | 840 |
| ETC Parnels--lighting instrument | 20 | 7.5 | 150 |
| ETC Parnel EA--lighting instrument | 20 | 8.0 | 160 |
| Selecon 4' Cyc Lights | 8 | 31.0 | 248 |
| ETC 6' Connector Strips--lighting circuit distribution | 12 | 60.0 | 720 |
| ETC 14' Connector Strips--lighting circuit distribution | 2 | 140.0 | 280 |
| ETC Pigtail Boxes for light ladders | 10 | 20.0 | 200 |
| Misc. Cables | | | 20 |
| 2" Upper Pipe Supports--sch. 40 | 112' | 3.7 | 408 |
| 1 1/2" Sch. 40 black pipe for raceways 5 X 42'= | 210' | 1.7 | 570 |
| 1 1/2" Pipe Grid--sch. 40 | 476' | 2.7 | 1,290 |
| 1 1/2" Pipe Clamps | 50 | | 30 |
| Misc. nuts, bolts, shackles, | | | 50 |
| H & H Specialties--3 curtain tracks, 400 series | | | 300 |
| 1/4" System 3 Proof Coil Chain | 800' | 1.4 | 1,104 |
| Old Time Advertising Canvas Drop | 1 | | 60 |
| Alt Curtains (excepte valance & tormento legs) | | | 1,050 |
| **GRAND TOTAL WEIGHT:** | | | **7,480** |

Based on Grand Total Weight of 7,480 lbs.
1,260 sq. ft. grid = 5.94 lbs./sq. ft. Grand Total
Distributed weight below Upper Pipe & Beams 7,072 lbs.
Based on 48 drop points below upper pipe & beams =147 lbs. ea. drop point

***Does not include electrical conduit, wiring, & other electrical needs by Electrical Contractor




FRONT ELEVATION ¼" SCALE

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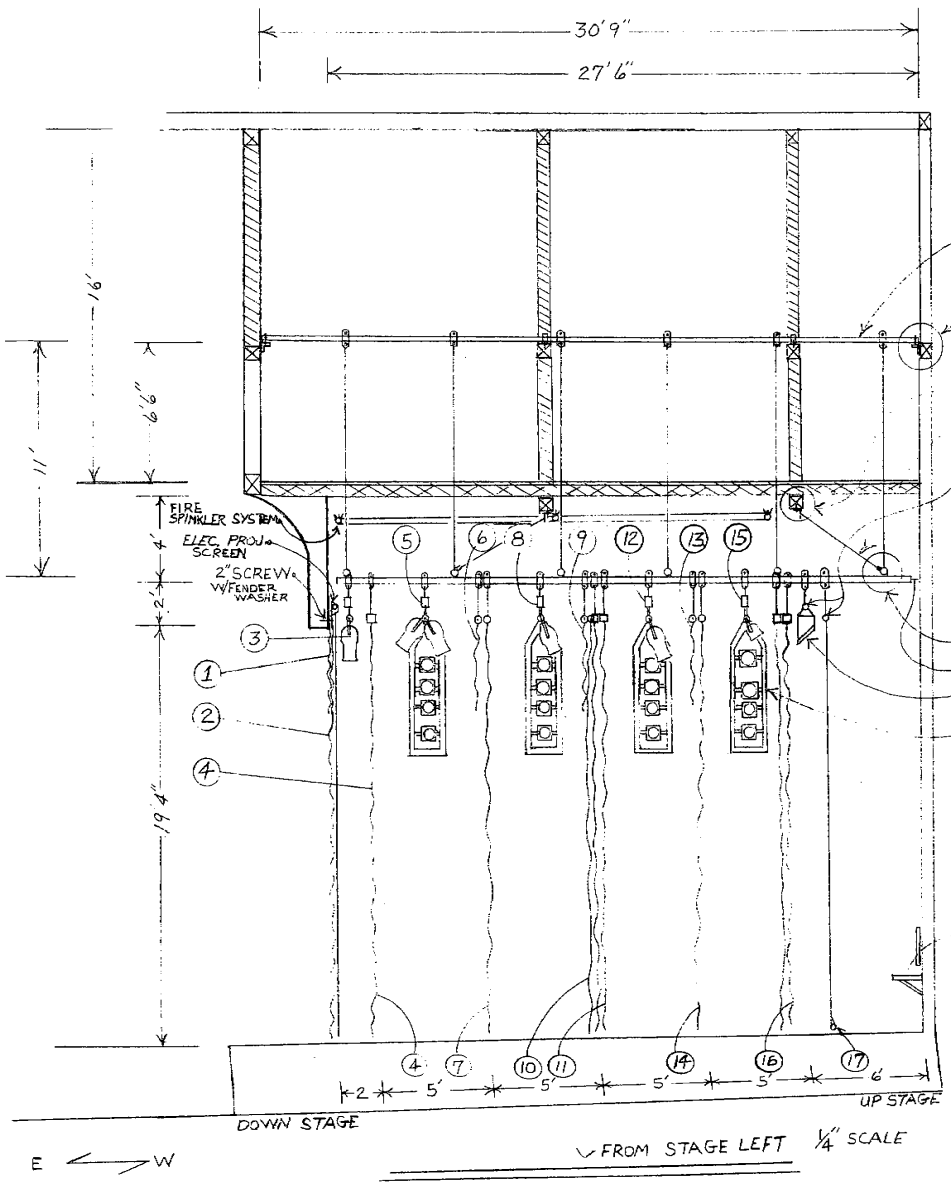
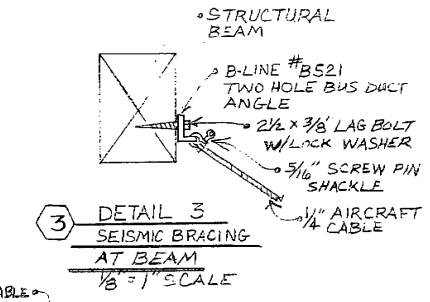
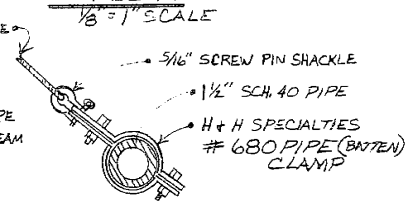
10250 Aldabaran Drive
Reno, Nevada 89506
775-677-7711
775-677-7577 fax
775-742-7600 cell
mikeaspen@aol.com
CSL #8311

**Project:** Piper's Opera House Theatre Renovation
**Location:** Virginia City, Nevada
**Drawing Title:** FRONT ELEVATION
**Scale:** ¼" **Page:** 5 of 5 **Date:** JUNE 1 2008
**Drawn By:** Mike Ross




3 DETAIL 3
SEISMIC BRACING AT BEAM
⅛" = 1" SCALE




4 DETAIL 4
SEISMIC BRACING AT PIPE
3/16" = 1" SCALE

| SIDE ELEVATION | |
|---|---|
| 1 | Valance |
| 2 | Tormentor Leg |
| 3 | #1 Electric |
| 4 | Grand Drape |
| 5 | #2 Electric |
| 6 | #1 Border |
| 7 | #1 Leg |
| 8 | #3 Electric |
| 9 | #2 Border |
| 10 | #2 Leg |
| 11 | Mid Stage Traveller |
| 12 | #4 Electric |
| 13 | #3 Border |
| 14 | #3 Leg |
| 15 | #5 Electric |
| 16 | Up Stage Traveller |
| 17 | Old Time Advertising Canvas Drop |
| | |

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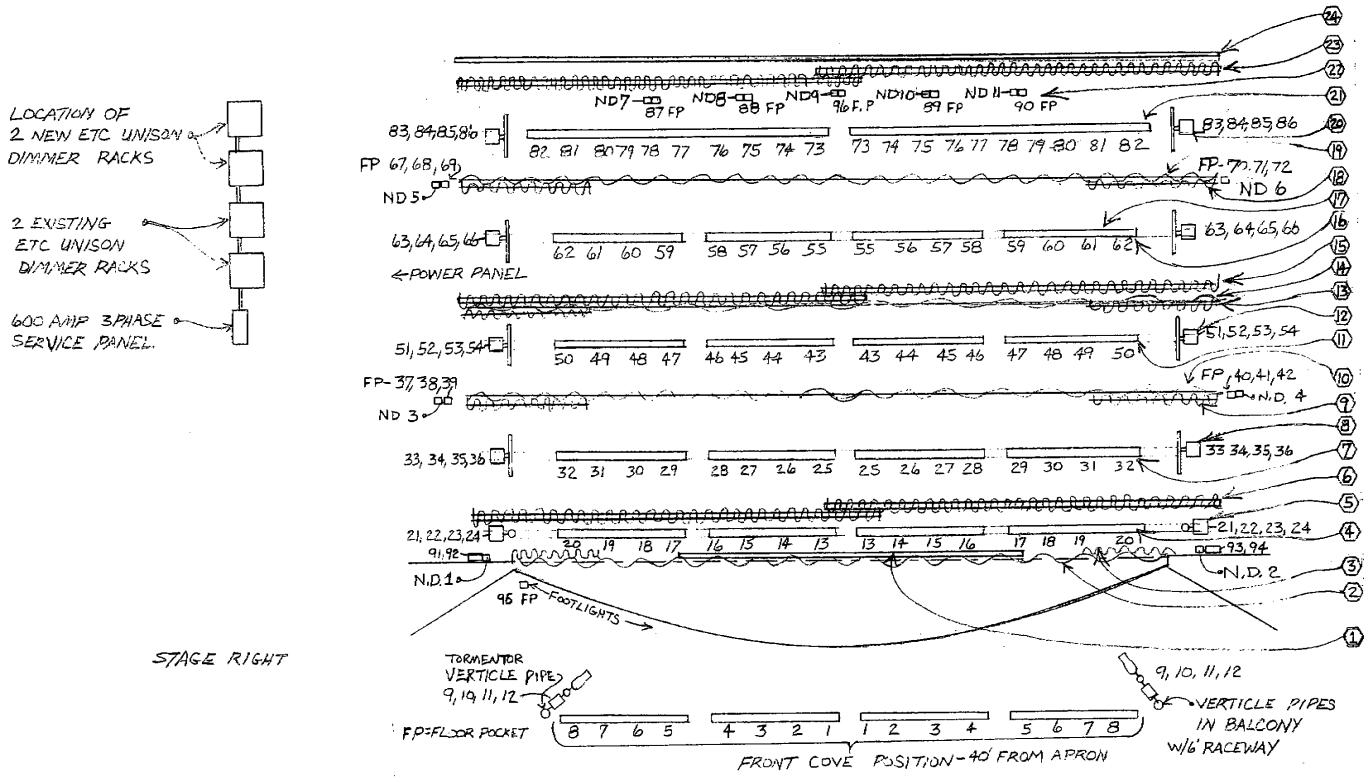
| | | |
|---|---|---|
| Project: Piper's Opera House Theatre Renovation | | |
| Location: Virginia City, Nevada | | |
| Drawing Title: SIDE ELEVATION | | |
| Scale: ¼" | Page: 2 of 5 | Date: JUNE 5, 2008 |
| Drawn By: Mike Ross | | |




| LIGHTING CIRCUITS & DRAPERY LAYOUT | |
|---|---|
| 1 | Electric Projection Screen 16'h X 16'w |
| 2 | Valance |
| 3 | Tormentor Legs |
| 4 | #1 Electrics |
| 5 | #1 Light Ladder/Pipe |
| 6 | Grand Drape |
| 7 | #2 Electrics |
| 8 | #2 Light Ladder |
| 9 | #1 Leg |
| 10 | #1 Border |
| 11 | #3 Electrics |
| 12 | #3 Light Ladder |
| 13 | #2 Leg |
| 14 | #2 Border |
| 15 | Mid Stage Traveller |
| 16 | #4 Electrics |
| 17 | #4 Light Ladder |
| 18 | #3 Leg |
| 19 | #3 Border |
| 20 | #5 Light Ladder |
| 21 | #5 Electrics |
| 22 | Floor Pockets |
| 23 | Upstage Black Traveller |
| 24 | Old Time Advertising Canvas Drop |
| | |
| FP | Floor Pockets |
| ND | Non Dim Circuits |

## LIGHTING CIRCUITS + DRAPERY LAYOUT 1/4"

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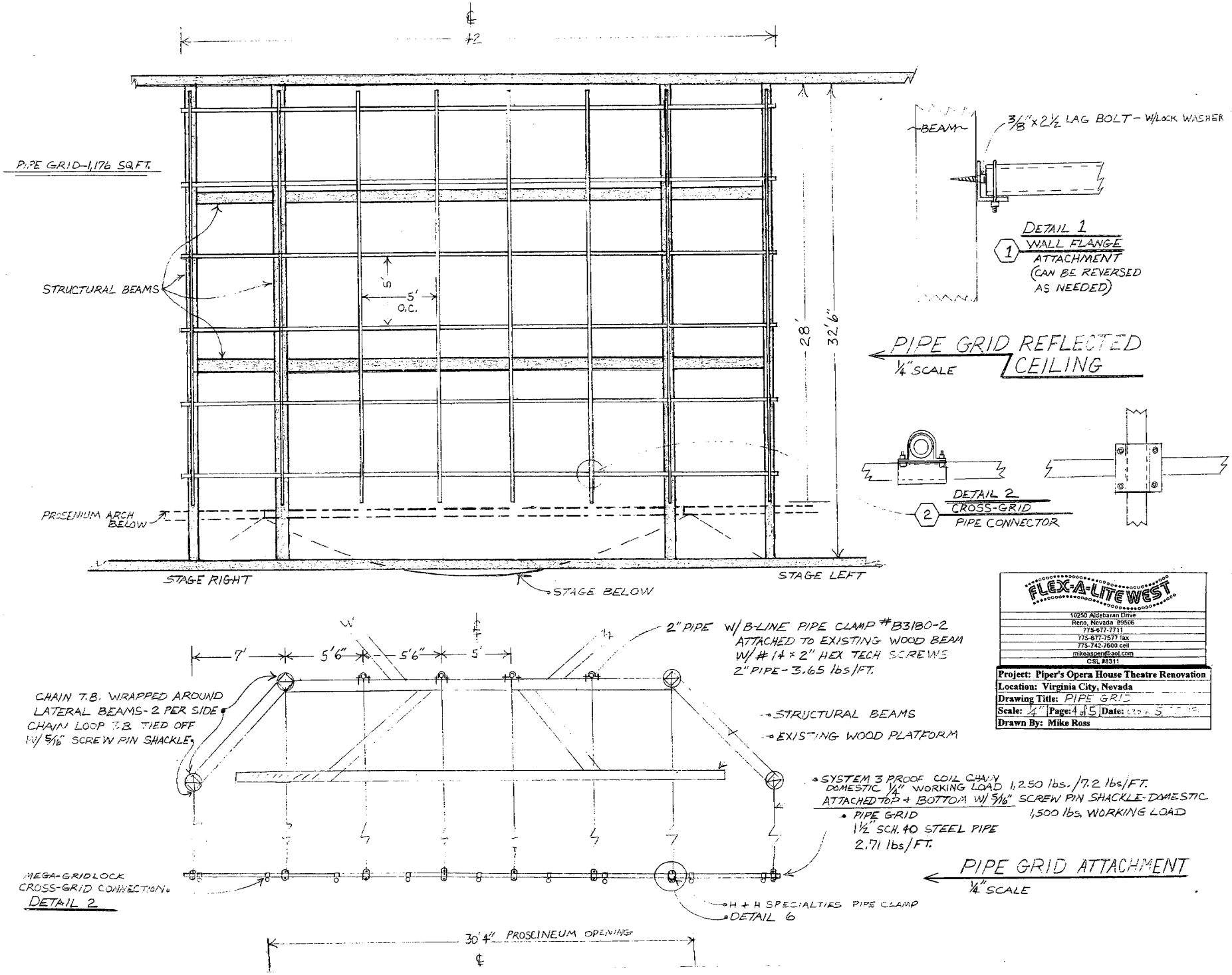
| | |
|---|---|
| **Project:** | **Piper's Opera House Theatre Renovation** |
| **Location:** | **Virginia City, Nevada** |
| **Drawing Title:** | LIGHTING CIRCUITS + DRAPERIES |
| **Scale:** 1/4" | **Page:** 3 of 5 **Date:** JUNE 16, 2008 |
| **Drawn By:** | **Mike Ross** |





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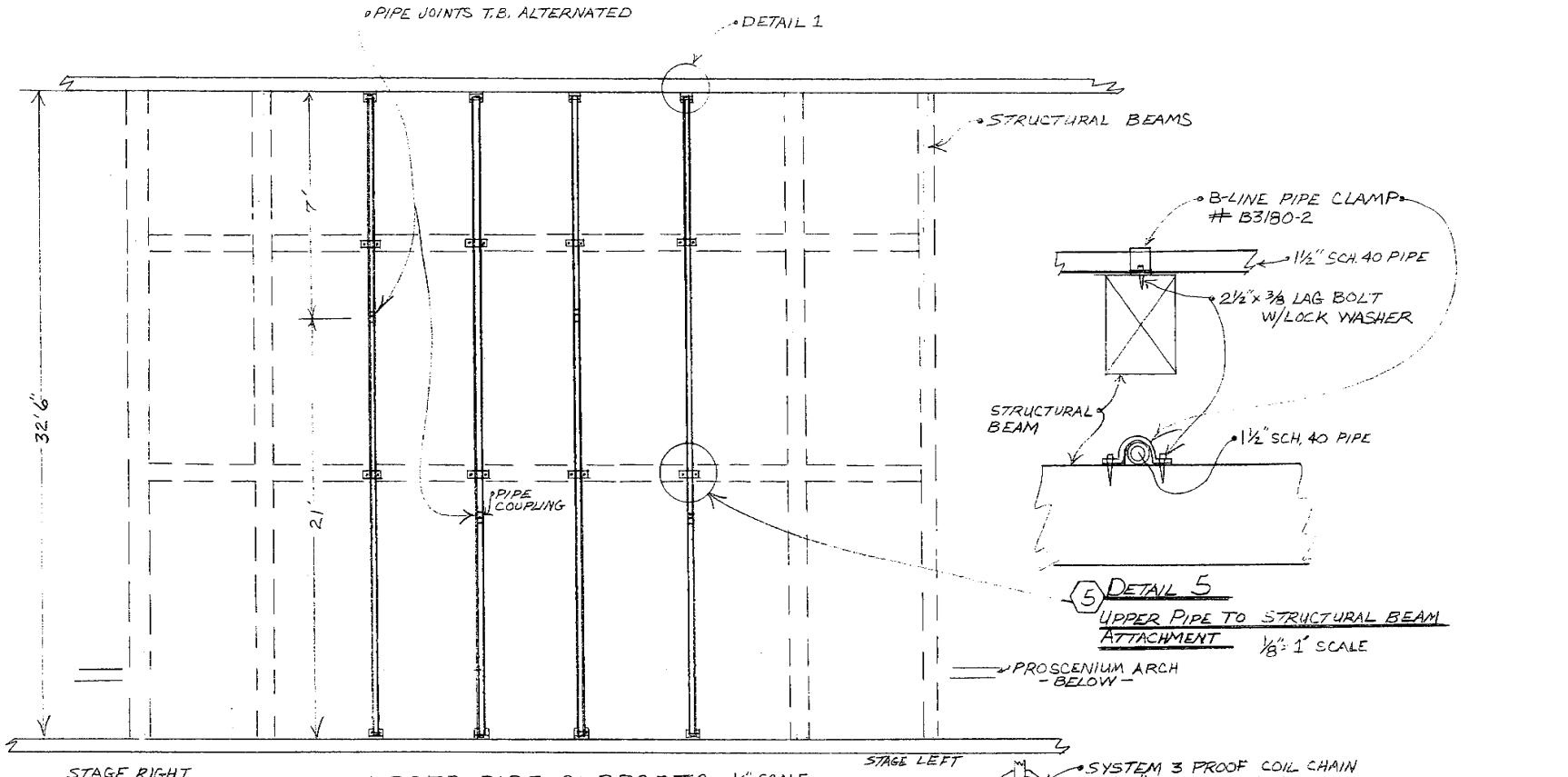
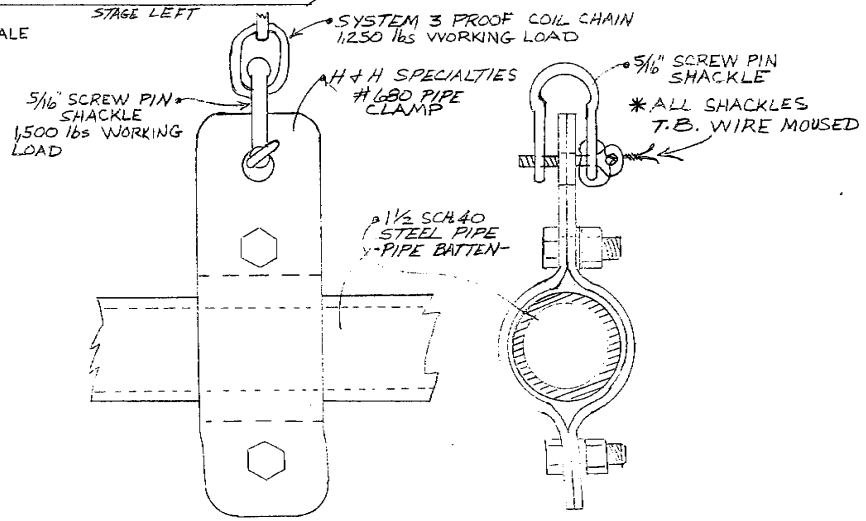
| | |
|---|---|
| **Project:** | Piper's Opera House Theatre Renovation |
| **Location:** | Virginia City, Nevada |
| **Drawing Title:** | PIPE GRID |
| **Scale:** | ¼" **Page:** 4 of 5 **Date:** |
| **Drawn By:** | Mike Ross |




5 DETAIL 5
UPPER PIPE TO STRUCTURAL BEAM ATTACHMENT ⅛" = 1' SCALE

## UPPER PIPE SUPPORTS ¼" SCALE




6 DEAIL 6
PIPE CLAMP

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| | |
|---|---|
| Project: | Piper's Opera House Theatre Renovation |
| Location: | Virginia City, Nevada |
| Drawing Title: | UPPER PIPE SUPPORTS |
| Scale: ¼" | Page: 5 of 5 Date: JUNE 5, 2008 |
| Drawn By: | Mike Ross |

# SPECIFICATIONS

1. EXAMINATION OF BIDDING DOCUMENTS/CONTRACTOR RESPONSIBILITY

   A. EACH BIDDER SHALL EXAMINE THE BIDDING DOCUMENTS CAREFULLY AND NOT LATER THAN SEVEN DAYS PRIOR TO THE DATE OF RECEIPT OF BIDS, SHALL MAKE WRITTEN REQUEST TO THE ARCHITECT FOR INTERPRETATION OR CORRECTION OF ANY DISCREPANCIES, AMBIGUITY, INCONSISTENCY, OR ERROR THEREIN WHICH MAYBE DISCOVERED. ANY INTERPRETATION OR CORRECTION WILL BE ISSUED AS AN ADDENDUM BY THE ARCHITECT. ONLY A WRITTEN INTERPRETATION OR CORRECTION BY ADDENDUM SHALL BE BINDING. NO BIDDER SHALL RELY UPON INTERPRETATIONS OR CORRECTIONS GIVEN BY ANY OTHER METHOD. IF DISCREPANCIES, AMBIGUITY, INCONSISTENCY, OR ERROR ARE NOT COVERED BY ADDENDUM OR WRITTEN DIRECTIVE, CONTRACTOR SHALL INCLUDE IN THEIR BID, LABOR, MATERIALS AND METHODS OF CONSTRUCTION RESULTING IN HIGHER COST. AFTER AWARD OF CONTRACT, NO ALLOWANCE OR EXTRA COMPENSATION WILL BE MADE IN BEHALF OF THE CONTRACTOR DUE TO HIS FAILURE TO MAKE THE WRITTEN REQUESTS AS DESCRIBED ABOVE.

   B. THE PERSON SUBMITTING THE REQUEST WILL BE RESPONSIBLE FOR IT'S PROMPT DELIVERY. FAILURE TO REQUEST CLARIFICATION OF ANY INADEQUACY OMISSION OR CONFLICT WILL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY. THE SIGNING OF THE CONTRACT WILL BE CONSIDERED IMPLICITLY DENOTING THAT THE CONTRACTOR HAS A THOROUGH COMPREHENSION OF THE FULL INTENT AND SCOPE OF THE WORKING DRAWINGS AND SPECIFICATIONS.

   C. THIS PROJECT REQUIRES A VERY HIGH LEVEL OF COORDINATION AND COOPERATION WITH OWNER, ARCHITECT, OTHER TRADES, VENDORS, AND SPECIALTY CONTRACTORS. THIS CONTRACTOR SHALL OBTAIN AND STUDY SHOP DRAWINGS OF ALL ELECTRICALLY-CONNECTED EQUIPMENT AND SHALL ADJUST POINTS OF CONNECTION, LOCATIONS, AND MOUNTING HEIGHTS PRIOR TO ROUGH-IN.

   D. THE ARCHITECTURAL, CIVIL, MECHANICAL, AND INTERIOR DRAWINGS CONTAIN DETAILED DESCRIPTIONS, CIRCUITING, AND CONNECTION REQUIREMENTS WHICH ARE PART OF DIVISION 16 RESPONSIBILITIES. THE ELECTRICAL CONTRACTOR SHOULD NOT SUBMIT BIDS ON THIS PROJECT BEFORE REVIEWING ALL PROJECT DRAWINGS, SPECIFICATIONS, AND ADDENDA.

   E. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, ACCESSORIES, ETC., NECESSARY TO ACCOMPLISH A COMPLETE ELECTRICAL SYSTEM IN ACCORDANCE WITH THE DRAWINGS, SPECIFICATIONS, AND GENERAL NOTES. THIS SHALL ALSO INCLUDE ALL CONDUIT, CIRCUITING, AND EQUIPMENT HOOK-UP THAT IS SHOWN ON THE MECHANICAL DRAWINGS BUT THAT MAY NOT NECESSARILY BE SHOWN ON THE ELECTRICAL DRAWINGS.

2. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS TO ESTABLISH A STANDARD OF QUALITY. THE ENGINEER RESERVES THE RIGHT TO VERBALLY APPROVE METHODS AND MATERIALS NOT REFLECTED HEREIN.

3. CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH ALL EXISTING AND PROPOSED CONDITIONS WHICH MAY AFFECT THE COURSE OF THEIR WORK, PRIOR TO SUBMITTING A BID ON THIS PROJECT. NO EXTRAS WILL BE ALLOWED FOR FAILURE TO COMPLY WITH THIS REQUIREMENT.

4. VERIFY EXACT LOCATIONS OF EXISTING AND NEW UNDERGROUND UTILITIES, PIPING, AND RACEWAY SYSTEMS PRIOR TO TRENCHING. PROVIDE NECESSARY TRENCHING, BACKFILL EXCAVATION SUPPORTS, SERVICE FEEDERS (CONDUIT AND/OR WIRE), PULLSHOVES, TRANSFORMER PADS, SAWCUTTING, AND PATCHING, CONCRETE/PAVING, ETC. AS REQUIRED. CONTRACTOR SHALL VERIFY WITH THE UTILITY CO. EXACT SIZE OF SERVICE TRANSFORMER AND PAD PRIOR TO THE START OF THE PROJECT. BACKFILL TRENCHES TO 90% COMPACTION AND PATCH TO MATCH EXISTING. CONTRACTOR SHALL OBTAIN AND VERIFY EXACT UTILITY CO. DRAWINGS AND REQUIREMENTS PRIOR TO COMMENCING WORK ON THE UNDERGROUND.

5. WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST ADOPTED 'IBC', 'IFC', AND 'NEC' CODES AND ORDINANCES.

6. DO NOT SCALE DRAWINGS. VERIFY DIMENSIONS IN THE FIELD PRIOR TO COMMENCEMENT OF WORK.

7. OWNER TO OBTAIN AND PAY FOR ALL BUILDING AND WORKING PERMITS AND INSPECTION FEES REQUIRED FOR THIS PROJECT.

8. PROPOSED SUBSTITUTIONS OF ELECTRICAL EQUIPMENT OR REQUEST FOR "OR EQUAL" OR "APPROVED EQUAL" LISTING SHALL BE SUBMITTED TO ARCHITECT NOT LESS THAN TEN (10) WORKING DAYS PRIOR TO BID. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

9. PROVIDE RECORD DRAWINGS TO THE ARCHITECT. DRAWINGS SHALL INCLUDE ALL ADDENDUM ITEMS, CHANGE ORDERS, ALTERATIONS, REROUTINGS, ETC.

10. CONTRACTOR'S FAILURE TO ORDER OR RELEASE ORDER FOR MATERIALS AND/OR EQUIPMENT WILL NOT BE ACCEPTED AS A REASON TO SUBSTITUTE ALTERNATE MATERIALS, EQUIPMENT, OR INSTALLATION METHODS.

11. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING EQUIPMENT WHICH IS DAMAGED DUE TO INCORRECT FIELD WIRING OR FACTORY WIRING IN EQUIPMENT PROVIDED UNDER THIS SECTION.

12. SYSTEMS SHALL BE TESTED FOR PROPER OPERATION. IF TESTS SHOW THAT WORK IS DEFECTIVE CONTRACTOR SHALL MAKE CORRECTIONS NECESSARY AT NO COST TO OWNER.

13. IDENTIFY ALL EQUIPMENT, SWITCHBOARD CIRCUITS, AND ELECTRICALLY CONNECTED EQUIPMENT WITH ENGRAVED NAMEPLATES. NAMEPLATES SHALL BE FASTENED WITH A MINIMUM OF TWO (2) SCREWS. PANEL DIRECTORIES SHALL BE TYPED.

14. PANELS SHALL HAVE FLUSH MONO-PLAT TRIM, PIANO HINGED DOORS, COVER WITH LOCKABLE MASTER-KEYED FLUSH CATCHES, AND BOLT-ON CIRCUIT BREAKERS. FLUSH MOUNTED PANELS SHALL HAVE EMPTY CONDUITS STUBBED TO ACCESSIBLE ATTIC SPACE (1) 1" CONDUIT FOR EACH (4) 5P-ARE/SPACE CIRCUITS.

15. ALL CIRCUITING SHALL BE IN CONDUIT. EMT WITH DIE-CAST SET-SCREW FITTINGS MAY BE USED IN DRY, PROTECTED INTERIOR LOCATIONS. PVC SCHEDULE 40 WITH UNRAPPED RIGID ELBOWS AND RISERS SHALL BE USED IN CONCRETE, BELOW GRADE, THROUGH-GRADE TRANSITIONS, AND STUB-UPS. RGS OR IMC SHALL BE USED IN ALL AREAS SUBJECT TO WEATHER OR MECHANICAL DAMAGE. ALL CIRCUITING SHALL BE CONCEALED, WHERE CONCEALMENT IS PRACTICAL, AND WITH THE SPECIFIC APPROVAL OF THE OWNER. SURFACE RACEWAY AND OUTLETS MAY BE INSTALLED AND FINISHED TO MATCH ADJACENT SURFACES. WHERE CONCEALED, METAL-CLAD CABLE (TYPE MC) MAY BE USED, HOWEVER THE HOMERUN FROM FIRST OUTLET TO PANEL MUST BE IN EMT, PVC, OR RIGID CONDUIT. TYPE ENT RACEWAY IS NOT ALLOWED. CONNECT RECESSED AND SUSPENDED LIGHT FIXTURES, MOTORIZED, AND VIBRATING EQUIPMENT WITH STEEL FLEX. ALL EMPTY CONDUIT SHALL HAVE PULL CORD.

16. WIRE SHALL BE COPPER, 75 DEGREE C RATED FOR GENERAL USE. FOR HID FIXTURES AND WIRING WITHIN 3 INCHES OF FLUORESCENT BALLAST WIRE SHALL BE COPPER MIN. 90 DEGREE C RATED. SIZES INDICATED ARE FOR INSTALLATION IN A MAXIMUM 30 DEGREE C AMBIENT. CONDUCTOR AMPACITY SHALL BE DERATED FOR HIGHER AMBIENT INSTALLATIONS.

17. FUSES AND CIRCUIT BREAKERS SHALL BE SIZED PER ACTUAL NAMEPLATE OF EQUIPMENT SERVED. CIRCUIT BREAKERS SHALL BE RATED FOR THEIR RESPECTIVE APPLICATION (MOTOR CIRCUIT PROTECTOR, GROUND FAULT, CIRCUIT INTERRUPTER, ARC FAULT, CIRCUIT INTERRUPTER, ETC.). FUSES SHALL BE DUAL-ELEMENT, CURRENT-LIMITING, AND SHALL BE INTERCHANGEABLE BETWEEN FRAME SIZES WITH STANDARD FACTORY FUSE REDUCERS.

18. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND OF "SPECIFICATION GRADE". SERVICE EQUIPMENT SHALL BE FACTORY-ASSEMBLED, 'UL' APPROVED COMMERCIAL GRADE, AND CONFIGURED PER SERVING UTILITY STANDARDS. PANELBOARDS SHALL HAVE BOLT-ON CIRCUIT BREAKERS UNLESS OTHERWISE NOTED. WIRING DEVICES SHALL BE "SPECIFICATION GRADE" WITH NYLON PLATES AND IVORY IN COLOR UNLESS OTHERWISE NOTED. RAISED STEEL BOX COVERS MAY BE USED IN UTILITY AREAS.

19. SUBMIT SIX COPIES OF FACTORY SHOP DRAWINGS FOR ALL LIGHTING FIXTURES, SWITCHGEAR, PANELS, MOTOR CONTROL WIRING DEVICES, ETC. PROPOSED FOR THIS PROJECT. PROPOSED SUBSTITUTIONS SHALL BE EQUAL OR SUPERIOR TO SPECIFIED ITEMS IN ALL RESPECTS. DETERMINATION OF EQUALITY REST SOLELY WITH THE ENGINEER.

20. INDICATED LOCATIONS OF ALL OUTLETS AND EQUIPMENT ARE SUBJECT TO CHANGE. SHIFT, RELOCATE, OR RECONFIGURE ANY OUTLET, EQUIPMENT, OR CONNECTION POINT UP TO 10 FEET AS DIRECTED BY ENGINEER PRIOR TO WALLS BEING COVERED UP AT NO ADDED COST.

21. EMERGENCY LIGHTING HAS BEEN SHOWN WITH THE INTENT OF COMPLIANCE TO THE CURRENT 'IBC' CODE. VERIFY COMPLIANCE WITH BUILDING INSPECTOR AND ADVISE IF ADDITIONAL EMERGENCY LIGHTING IS REQUIRED. NOTIFICATION SHALL BE TIMELY IN ORDER TO MEET ALL SCHEDULES. CONNECT EXIT SIGNS TO NEAREST AVAILABLE UNSWITCHED EMERGENCY/STAND-BY LIGHTING CIRCUIT WITHIN THAT AREA.

22. INDICATED LAYOUTS, LAMP SELECTIONS, AND AIMING OF LIGHTING SYSTEM IS SUBJECT TO FIELD ADJUSTMENT. CONTRACTOR SHALL ADJUST, REPOSITION, AND RELAMP THE LIGHTING SYSTEM AS DIRECTED UNTIL THE ARCHITECT IS SATISFIED WITH RESULTS.

23. ALL PENETRATED FIRE RATED SURFACES SHALL BE FIRE SEALED WITH APPROVED 'UL' LISTED SEALANTS AND SUBJECT TO SUBMITTAL APPROVAL. DO NOT EXCEED MAXIMUM ALLOWABLE SURFACE PENETRATIONS DEPENDING ON RATING OF SURFACES. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS TO DETERMINE WHERE PENETRATIONS THROUGH FIRE RATED SURFACES OCCUR. ALL OUTLET OR JUNCTION BOXES INSTALLED IN FIRE RATED CEILINGS OR WALLS SHALL HAVE 'UL' LISTED "PUTTY PADS" INSTALLED ON THEM PRIOR TO COVERING UP WALLS. "PUTTY PADS" ARE SUBJECT TO SUBMITTAL APPROVAL.

24. THE FIRE ALARM SYSTEM IS DESIGN-BUILD. THE FIRE ALARM CONTRACTOR SHALL PROVIDE A COMPLETE FIRE ALARM SYSTEM IN FULL COMPLIANCE WITH LOCAL, STATE, AND ADA REQUIREMENTS. THESE DRAWINGS DO NOT INDICATE DEVICES, OUTLETS, CONNECTIONS, AND CIRCUITRY NECESSARY FOR A COMPLETE FIRE ALARM SYSTEM CONTROL PANEL SHALL INCLUDE INTEGRAL STANDBY BATTERIES, CHARGER, AND MUNICIPAL TIE MODULE OR AGENCY APPROVED ALARM COMMUNICATOR CONNECTED TO FIRE TELEPHONE SYSTEM (CONNECTION AND MONITORING CHARGES BY OWNER). CONTRACTOR SHALL INCLUDE AS REQUIRED, BUT NOT LIMITED TO, THE FOLLOWING: 1.) DOOR HOLD-OPEN 2.) HOOK-UP TO DUCT DETECTORS ON ALL UNITS RATED 2,000 CFM OR GREATER 3.) ALL FIRE/SMOKE DAMPERS AS NEEDED OR REQUIRED 4.) PULL STATIONS 5.) IONIZATION OR SMOKE DETECTORS IN HALLWAYS 6.) HORN/STROBES 7.) FLOW AND TAMPER SWITCHES 8.) ANNUNCIATOR PANEL 9.) EVACUATION CALL SYSTEM WITH SPEAKERS. PROVIDE FIRE MARSHAL APPROVED SHOP DRAWINGS TO THE ENGINEER FOR REFERENCE ONLY PRIOR TO COMMENCEMENT OF ROUGH-IN. PROVIDE COMPLETE SYSTEM TESTING UPON COMPLETION OF INSTALLATION AND PRIOR TO FIELD ACCEPTANCE BY OWNER.

25. NON-METALLIC AND FLEXIBLE METAL CONDUITS SHALL HAVE A CODE SIZED COPPER GROUNDING CONDUCTOR. INCREASE CONDUIT SIZE AS REQUIRED. FLEXIBLE METAL CONDUIT SHALL NOT EXCEED 6'-0" IN LENGTH.

26. BOXES FOR TELEPHONE, T.V., COMPUTER WIRING DEVICES, ETC. SHALL BE MINIMUM 4" SQUARE.

27. IN ADDITION TO EQUIPMENT, POWER FEEDERS, AND CONNECTIONS INDICATED ON THE ELECTRICAL DRAWINGS, PROVIDE 120 VOLT CONTROL POWER CONNECTIONS TO SMOKE/FIRE DAMPERS, VAV BOXES, TEMPERATURE CONTROL PANELS, DOOR HOLDING/LATCHING DEVICES, ETC., AS INDICATED IN THE MECHANICAL DRAWINGS AND SPECIFICATIONS.

28. SEE LIGHTING FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION PERTAINING TO FIXTURES, BALLASTS, AND LAMPS.

29. FINAL CONNECTIONS TO EQUIPMENT SHALL BE PER MANUFACTURER'S APPROVED WIRING DIAGRAMS, DETAILS, AND INSTRUCTIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE MATERIALS AND EQUIPMENT COMPATIBLE WITH EQUIPMENT ACTUALLY SUPPLIED. USE FLEXIBLE CONDUIT FOR CONNECTIONS TO EQUIPMENT THAT VIBRATES, IE. THE LAST 18 INCHES TO 3 FEET TO MOTORS OR TRANSFORMERS.

30. USE STRANDED WIRE FOR MOTOR CONNECTIONS, CONTROL WIRING, TRANSFORMER CONNECTIONS, AND WIRE SIZES LARGER THAN #10 AWG.

31. THE COMPLETE ELECTRICAL SYSTEM, AND ALL PORTIONS THEREOF, SHALL BE GUARANTEED TO BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE. PROMPTLY REMEDY SUCH DEFECTS AND ANY SUBSEQUENT DAMAGE CAUSED BY THE DEFECTS OR REPAIR THEREOF AT NO EXPENSE TO THE OWNER. LIGHT BULBS ARE EXEMPT FROM THIS GUARANTEE BUT SHALL BE NEW AND UNUSED AT TIME OF FINAL ACCEPTANCE.

# DRAWING SCHEDULE

| SHEET NUMBER | SHEET TITLE | ORIGINAL ISSUE DATE: 10/7/2010 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|---|
| E0.1 | SYMBOLS LIST, SPECIFICATIONS, AND DRAWING INDEX | ● | | | | |
| E0.2 | PANEL SCHEDULES | ● | | | | |
| | | | | | | |
| E1 | FIRST FLOOR AS-BUILT PLAN | ● | | | | |
| E2 | SECOND FLOOR AS-BUILT PLAN | ● | | | | |
| E3 | THIRD FLOOR AS-BUILT PLAN | ● | | | | |
| | | | | | | |
| | TOTAL SHEETS THIS ISSUE | 5 | | | | |

# ELECTRICAL SYMBOL LIST

NOTE: THIS IS A TYPICAL MASTER SCHEDULE. NOT ALL SYMBOLS SHOWN MAY BE INDICATED ON THE DRAWINGS.

- DUPLEX RECEPTACLE
- DUPLEX RECEPTACLE - HALF SWITCHED (TOP HALF)
- DUPLEX RECEPTACLE W/ INTEGRAL GFCI CIRCUITRY
- DUPLEX RECEPTACLE W/ ISOLATED GROUND (ORANGE FACE) NEMA 5362-G
- DOUBLE-DUPLEX RECEPTACLE
- SPECIAL RECEPTACLE - SEE ADDITIONAL SYMBOLS
- CLOCK OUTLET
- TELEPHONE OUTLET / VOICE/DATA OUTLET
- DATA OUTLET / TELEVISION OUTLET
- FLUORESCENT FIXTURE - RECESSED
- FLUORESCENT FIXTURE - SURFACE
- FLUORESCENT FIXTURE - OPEN STRIP
- INCANDESCENT, H.I.D. OR MINI-FLUORESCENT - SURFACE MOUNT
- INCANDESCENT, H.I.D. OR MINI-FLUORESCENT - WALL BRACKET
- INCANDESCENT, H.I.D., FLUORESCENT/ RECESSED
- INCANDESCENT, H.I.D. OR MINI-FLUORESCENT - WALL WASH
- LOW VOLTAGE INCAND. FIXTURE
- CHANDELIER (PROVIDE SIX STRUCTURAL BACKING)
- FAN (PROVIDE SIX STRUCTURAL BACKING)
- SPOTLIGHT - J-BOX OR TRACK MOUNTED. TRACK LENGTH AS AS INDICATED
- POLE OR POST - ARM OR TOP MOUNTED CUT-OFF LUMINAIRE
- TWO-LAMP BATTERY PACK - WALL MOUNTED AT 7'-0" BELOW CEILING UON. (UNSWITCHED CKT.)
- EXIT LIGHT - FACES AND ARROWS AS INDICATED, UNIVERSAL MOUNTING, UNSWITCHED - MOUNTING HEIGHT AS SHOWN.
- EXIT LIGHT - LOW LEVEL - 6'-0" AFF TO BOTTOM 4" FIN. OFF DOOR FRAME
- EXIT LIGHT - LOW LEVEL - 6'-0" AFF TO BOTTOM 4" FIN. OFF DOOR FRAME SIDE
- $S_E$ FIXTURE, EQUIPMENT ON EMERGENCY (EPS) OR NIGHT LIGHT (NL) CIRCUIT
- WIRING DEVICE AT +18" TO CENTER LINE UON (PER ADA)
- $S_{ETC}$ DEVICES MOUNTED IN MULTIPLE UNDER COMMON COVER - MAXIMUM HEIGHT ON WALLS - +48" TO TOP UON (PER ADA)
- DEVICES MOUNTED IN OR ABOVE BACKSPLASH - MAXIMUM HEIGHT ON WALLS - +48" TO TOP UON (PER ADA)
- WIRING DEVICE (MULTI-COMPARTMENT FLUSH FLOOR MOUNTED UON
- $S_{S_2S_3}$ SWITCHES AT +48" TO TOP UON (PER ADA)
- $S$ SINGLE POLE SWITCH
- $S_2$ DOUBLE POLE SWITCH
- $S_3$ THREE WAY SWITCH
- $S_4$ FOUR WAY SWITCH
- $S_X$ SWITCH ON EMERGENCY CIRCUIT
- $S^1$ MOTION SENSOR SWITCH
- $S_P$ SWITCH WITH PILOT TOGGLE (CONFIRM LIGHTED POSITION)
- $S_K$ KEY OPERATED SWITCH
- D SLIDER-TYPE DIMMER (WATTAGE RATING AS REQUIRED)
- $S_M$ MANUAL MOTOR STARTER - POLES AND HEATERS AS REQUIRED
- $S_{HC}$ MOMENTARY - CONTACT SWITCH - SPDT CTR. OFF UON
- $\nabla_C$ INTERCOM OUTLET
- TV CAMERA AT CEILING UON
- MICROPHONE OUTLET +18" UON
- VOLUME CONTROL OUTLET +48" TO TOP UON
- SPEAKER OUTLET - 8" COAXIAL W/ BACK BOX AND GRILLE
- THERMOSTAT OUTLET AT +54" TO TOP UON (PER ADA)
- MOTOR OUTLET (NUMBER = HORSEPOWER)
- EXHAUST FAN OUTLET (FRACTIONAL HORSEPOWER)
- PHOTOELECTRIC SWITCH
- SHUNT TRIP STATION
- MECHANICAL EQUIPMENT DESIGNATION
- LIGHTING FIXTURE DESIGNATION. TYPE, QUANTITY, AND MISCELLANEOUS INFORMATION. SEE LIGHT FIXTURE SCHEDULE FOR WATTAGE, LAMPING, MANUFACTURER AND DESCRIPTION
- SWITCHGEAR
- PANELBOARD - SURFACE MOUNTED
- PANELBOARD - FLUSH MOUNTED
- TRANSFORMER
- CONTROL STATION AT +48" TO TOP UON (PER ADA)
- RELAY
- CONTACTOR WITH INTEGRAL HOA SELECTOR UON.
- MAGNETIC STARTER
- DISCONNECT SWITCH - FUSIBLE, FUSE PER NAME PLATE. N=NON-FUSED
- COMBINATION STARTER + D.S.CONNECT
- SINGLE-PHASE MOTOR CONTROL ASSEMBLY W/ H-P. RATED SWITCH AND POWER RELAY
- PULLBOX - SIZE AND LOCATION AS REQUIRED
- JUNCTION BOX - SIZE PER NEC REQUIREMENTS
- SEAL-OFF
- SHEET NOTE DESIGNATION
- FEEDER DESIGNATION
- SIGNAL CIRCUITING DESIGNATION - (1) UNSHIELDED PAIR, (1) SHIELDED PAIR, (1) COAXIAL, 3-FIBER PAIR)
- CIRCUITING IN WALL OR ABOVE CEILING
- CIRCUITING IN FLOOR OR BELOW GRADE
- TICS - NO. OF WIRES - IF MORE THAN TWO
  - GROUND WIRE
  - + ISOLATED GROUND WIRE
  - + NEUTRAL WIRE
- HOMERUN TO PANEL
- OH — OVERHEAD SERVICE
- P — PRIMARY
- T — TELEPHONE
- STUB - OUT
- N — NEON LIGHTING
- SL — STREET LIGHT
- S — SECONDARY
- TV — TELEVISION
- CIRCUITING UP OR DOWN
- COPPER GROUND - SIZE PER PLANS
- PLUG MOLD SURFACE RACEWAY SYSTEM WITH OUTLETS (6'-0" O.C. UON) MOUNTED ABOVE BACKSPLASH UON.
- J-REFOLD SURFACE RACEWAY
- TELEPOWER POLE
- FIRE ALARM EQUIPMENT
- AFF — ABOVE FINISH FLOOR
- AFG — ABOVE FINISH GROUND
- WP — WEATHER PROOF (NEMA 3)
- WT — WATERTIGHT (SUBMERSIBLE)
- F — FUSE (DUAL-ELEMENT, TIME DELAY)
- NF — NON-FUSED
- HOA — HAND-OFF-AUTOMATIC
- (E) — EXISTING
- (X) — EXISTING TO BE REMOVED
- (R/R) — REMOVE AND RELOCATE
- C — CONDUIT (WITH PULL CORD IF OTHERWISE EMPTY)
- NL — NIGHT LIGHT
- RGS — RIGID GALVANIZED STEEL
- NIC — NOT IN CONTRACT
- UON — UNLESS OTHERWISE NOTED
- FDO — FURNISHED BY OTHERS
- EMG — EMERGENCY
- UNSW — UNSWITCHED
- 208/3 — 30 AMP / 3 POLE (RESPRESENTATIVE)
- HP — HORSEPOWER


construction design services, inc.
2500 SOUTH HIGHLAND DRIVE, SUITE 200
LAS VEGAS, NEVADA 89106
PHONE: 702-369-4800 FAX: 702-369-4801


PIPER'S OPERA HOUSE
STOREY COUNTY - NEVADA

| BY | DATE | REVISIONS |
|---|---|---|
| | | |

SHEET TITLE: SYMBOLS LIST, SPECIFICATIONS, AND DRAWING INDEX

JOB No.: 10-143

DRAWN BY: DC

CHECKED BY: MP/AG

DATE: 9/7/2010

SHEET No.

E0.1

LOCATION: STAGE LEFT — NEMA RATING: ⊥

| TYPE | DIRECTORY | LOAD | BKR | CIR | CIR | BKR | LOAD | DIRECTORY | TYPE |
|---|---|---|---|---|---|---|---|---|---|
| | EMERGENCY LIGHTS | | 20 | 1 | 2 | 20 | | STAGE LEFT UPPER BAY | |
| | ATTIC LIGHT | | 20 | 3 | 4 | 60 | | | |
| | FRONT STAGE RIGHT | | 20 | 5 | 6 | | | DIMMER SWITCH | |
| | FRONT STAGE LEFT | | 20 | 7 | 8 | 3 | | | |
| | BACK STAGE SPOT | | 20 | 9 | 10 | 30 | | RECEPT | |
| | PERIMETER WORK LIGHT | | 20 | 11 | 12 | 30 | | RESTROOM RECEPT | |
| | SPARE (NOT USED) | | 100 | 13 | 14 | 20 | | RECEPT | |
| | | | 3 | 15 | 16 | 30 | | | |
| | CENTER WORK LIGHTS | | 20 | 17 | 18 | 20 | | RECEPT | |
| | RECEPTS | | 20 | 19 | 20 | 40 | | | |
| | RECEPTS | | 20 | 21 | 22 | 2 | | | |
| | RECEPTS | | 20 | 23 | 24 | 30 | | HEATER RECEPT | |
| | RECEPTS | | 20 | 25 | 26 | 20 | | | |
| | RECEPTS | | 20 | 27 | 28 | 20 | | | |
| | RECEPTS | | 20 | 29 | 30 | 20 | | RECEPT | |
| | RECEPTS | | 20 | 31 | 32 | 20 | | RECEPT | |
| | RECEPTS | | 20 | 33 | 34 | 20 | | NORTH EMERGENCY | |
| | SPARE (NOT USED) | | 20 | 35 | 36 | 30 | | | |
| | SPARE (NOT USED) | | 20 | 37 | 38 | 30 | | | |
| | SPARE (NOT USED) | | 20 | 39 | 40 | 30 | | STAGE | |
| | SPACE | — | — | 41 | 42 | 30 | | NORTH EXIT | |

VOLTS: ◉ 208/120V, 3ø, 4W ☐ 480/277V, 3ø, 4W
AMPS: ☐ 125A ☐ 225A ◉ 400A ☐ _____
MAIN: ☐ MLO ☐ MCB ☐ DB. LUGS ☐
BUS: ☐ ALUMINUM ☐ COPPER
MTD: ☐ FLUSH ◉ SURFACE
DOOR: ◉ STANDARD ☐ DOOR IN DOOR

PHASE A LOAD: _____ KVA ( _____ A)
PHASE B LOAD: _____ KVA ( _____ A)
PHASE C LOAD: _____ KVA ( _____ A)
TOTAL CONNECTED LOAD: _____ KVA ( _____ A)
NEUTRAL BUS: 100% GROUND BUS: STD.
AIC RATING: ☐ 10K ☐ 14K ☐ 22K ◉ _____

"B"

LOCATION: SHOP — NEMA RATING: ⊥

| TYPE | DIRECTORY | LOAD | BKR | CIR | CIR | BKR | LOAD | DIRECTORY | TYPE |
|---|---|---|---|---|---|---|---|---|---|
| | | | 20 | 1 | 2 | 100 | | | |
| | LOBBY LIGHTS | | 20 | 3 | 4 | 2 | | | |
| | LOBBY RECEPTS | | 20 | 5 | 6 | 30 | | ALARM | |
| | LOBBY PUMP | | 20 | 7 | 8 | 30 | | | |
| | LOBBY EXIT SIGNS | | 20 | 9 | 10 | 30 | | | |
| | FLOW VALVE | | 20 | 11 | 12 | 30 | | WORKSHOP LIGHTS | |
| | BOILER | | 20 | 13 | 14 | 30 | | | |
| | | | 20 | 15 | 16 | 30 | | | |
| | | | 20 | 17 | 18 | 30 | | ELEVATOR SUMP PUMP | |
| | | | 100 | 19 | 20 | 30 | | ELEVATOR LIGHTS | |
| | ELEVATOR | | | 21 | 22 | 30 | | ELEVATOR MACHINE ROOM/HALL HEATER | ¶ |
| | | | 3 | 23 | 24 | 40 | | | |
| | ELEVATOR CAB | | 30 | 25 | 26 | | | TEMP. BAR & BATH | |
| | BAR 18hr. COOLER | | 30 | 27 | 28 | 3 | | | |
| | BOILER PUMP HOT LOOP | | 30 | 29 | 30 | 30 | | RECEPT | |
| | BAR SUMP PUMP | | 30 | 31 | 32 | | | SPACE | |
| | BAR, BATH, BOILER, EXIT SIGNS | | 30 | 33 | 34 | | | SPACE | |
| | EMPTY (NOT USED) | | 30 | 35 | 36 | | | SPACE | |
| | SPARE | | 20 | 37 | 38 | | | SPACE | |
| | SPACE | | | 39 | 40 | 50 | | WELDER | |
| | SPACE | | | 41 | 42 | 2 | | | |

VOLTS: ◉ 208/120V, 3ø, 4W ☐ 480/277V, 3ø, 4W
AMPS: ☐ 125A ◉ 225A ☐ 400A ☐ _____
MAIN: ☐ MLO ☐ MCB ☐ DB. LUGS ☐
BUS: ☐ ALUMINUM ☐ COPPER
MTD: ☐ FLUSH ◉ SURFACE
DOOR: ◉ STANDARD ☐ DOOR IN DOOR

PHASE A LOAD: _____ KVA ( _____ A)
PHASE B LOAD: _____ KVA ( _____ A)
PHASE C LOAD: _____ KVA ( _____ A)
TOTAL CONNECTED LOAD: _____ KVA ( _____ A)
NEUTRAL BUS: 100% GROUND BUS: STD.
AIC RATING: ☐ 10K ☐ 14K ☐ 22K ◉ _____

"SHOP"

¶ - FUTURE (BAR HALLWAY LIGHTS + RECEPTS)

LOCATION: BALCONY AREA — NEMA RATING: ⊥

| TYPE | DIRECTORY | LOAD | BKR | CIR | CIR | BKR | LOAD | DIRECTORY | TYPE |
|---|---|---|---|---|---|---|---|---|---|
| | OFFICE LIGHTS | | 20 | 1 | 2 | 20 | | NORTH WEST RECEPTS | |
| | SOUTH WALL RECEPTS | | 20 | 3 | 4 | 20 | | STAIR LIGHTS | |
| | EAST WALL RECEPTS | | 20 | 5 | 6 | 30 | — | SPARE | |
| | NORTH WEST RECEPTS | | 20 | 7 | 8 | 30 | | ATTIC PULLDOWN LIGHT 50 CONTACTOR | |
| | ATTIC BLOWER | | 30 | 9 | 10 | 30 | | STAIR RECEPT BELOW THIS PANEL | |
| | | | 2 | 11 | 12 | 10 | — | SPARE | |
| | | | | 13 | 14 | | | | |
| | | | | 15 | 16 | | | | |
| | | | | 17 | 18 | | | | |
| | | | | 19 | 20 | | | | |
| | | | | 21 | 22 | | | | |
| | | | | 23 | 24 | | | | |
| | | | | 25 | 26 | | | | |
| | | | | 27 | 28 | | | | |
| | | | | 29 | 30 | | | | |
| | | | | 31 | 32 | | | | |
| | | | | 33 | 34 | | | | |
| | | | | 35 | 36 | | | | |
| | | | | 37 | 38 | | | | |
| | | | | 39 | 40 | | | | |
| | | | | 41 | 42 | | | | |

VOLTS: ◉ 208/120V, 3ø, 4W ☐ 480/277V, 3ø, 4W
AMPS: ☐ 125A ◉ 225A ☐ 400A ☐ _____
MAIN: ☐ MLO ☐ MCB ☐ DB. LUGS ☐
BUS: ☐ ALUMINUM ☐ COPPER
MTD: ☐ FLUSH ◉ SURFACE
DOOR: ◉ STANDARD ☐ DOOR IN DOOR

PHASE A LOAD: _____ KVA ( _____ A)
PHASE B LOAD: _____ KVA ( _____ A)
PHASE C LOAD: _____ KVA ( _____ A)
TOTAL CONNECTED LOAD: _____ KVA ( _____ A)
NEUTRAL BUS: 100% GROUND BUS: STD.
AIC RATING: ☐ 10K ☐ 14K ☐ 22K ◉ _____

"OFFICE & HALLWAY"

LOCATION: BAR — NEMA RATING: ⊥

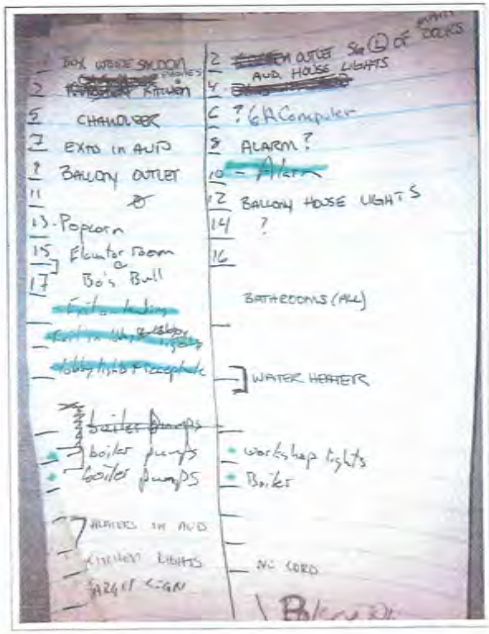
| TYPE | DIRECTORY | LOAD | BKR | CIR | CIR | BKR | LOAD | DIRECTORY | TYPE |
|---|---|---|---|---|---|---|---|---|---|
| | 35hr. COOLER | | 30 | 1 | 2 | 20 | — | SPARE | |
| | | | | | | 20 | — | SPARE | |
| | 18hr. COOLER ICE MACHINE | | | 3 | 4 | 20 | | | |
| | | | 2 | | | | | | |
| | | | 20 | 5 | 6 | 20 | | RESTROOM HALL LIGHTS | |
| | BAR STORE ROOM LIGHTS | | 20 | 7 | 8 | 20 | | FAN ABOVE DOOR | |
| | | | | | | 20 | | 18hr. COOLER | |
| | SPARE | — | 20 | 9 | 10 | 20 | | RESTROOM LIGHTS - ALL | |
| | | | | | | 20 | | RESTROOM RECEPTS | GFI |
| | SPACE | — | — | 11 | 12 | 20 | | BAR RECEPTS | GFI |
| | | | | | | 20 | | BAR RECEPTS | GFI |
| | | | | | | 20 | | FAN HEAT FRONT BAR | |

VOLTS: ☐ 240/120V, 1ø, 3W ☐
AMPS: ☐ 125A ☐ 200A ☐ 400A ☐ _____
MAIN: ☐ MLO ☐ MCB ☐ DB. LUGS ☐ _____
BUS: ☐ ALUMINUM ☐ COPPER
MTD: ☐ FLUSH ☐ SURFACE
DOOR: ☐ STANDARD ☐ DOOR IN DOOR

PHASE A LOAD: _____ KVA ( _____ A)
PHASE B LOAD: _____ KVA ( _____ A)
TOTAL CONNECTED LOAD: _____ KVA ( _____ A)
NEUTRAL BUS: _____ GROUND BUS: _____
AIC RATING: ☐ 10K ☐ 14K ☐ 22K ◉ _____

"D"


"PANEL A" - IN KITCHEN
ALTERNATE 1




"PANEL A" - IN KITCHEN
ALTERNATE 2

NOTE - BOTH PANEL DIRECTORIES WERE IN PANEL DOOR.

Construction Design Services, inc.
ELECTRICAL ENGINEERING
130 WEST ELEVADO DRIVE RENO, NV 89511
phone: 775.852.8811 fax: 775.852.8833

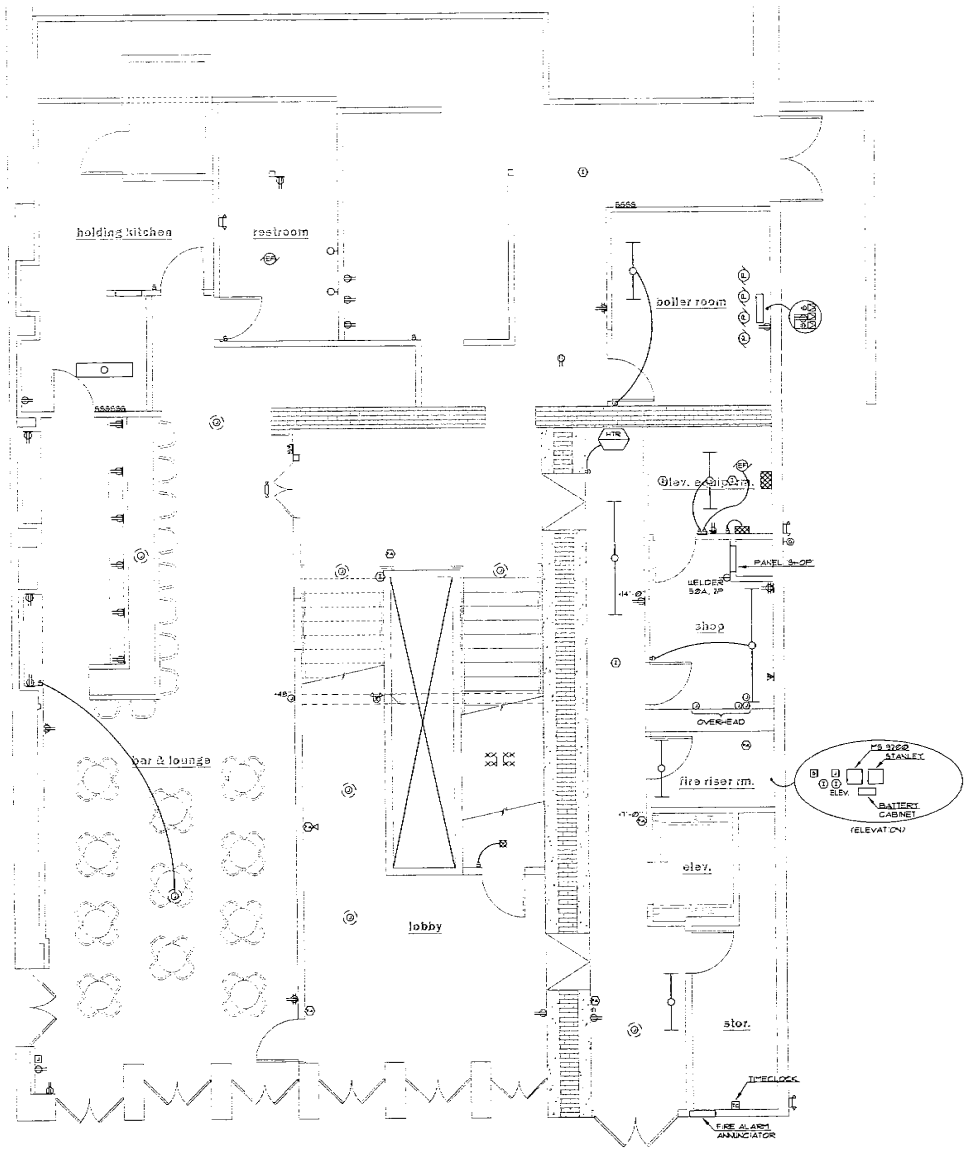
PIPER'S OPERA HOUSE
STOREY COUNTY - NEVADA

| NO. | DATE | REVISION | BY |
|---|---|---|---|

SHEET TITLE: PANEL SCHEDULES

JOB No.: 10-042
DRAWN BY: DC
CHECKED BY: MP/AG
DATE: 8/3/2010

SHEET No.
E0.2




A1 FIRST FLOOR AS-BUILT PLAN

1/4" = 1'-0"

NORTH

Construction Design Services, inc.

ELECTRICAL ENGINEERING

PIPER'S OPERA HOUSE
STOREY COUNTY - NEVADA

| NO. | DESCRIPTION | DATE | BY |
|---|---|---|---|
| | | | |

SHEET TITLE:
FIRST FLOOR
AS-BUILT PLAN

JOB No.: 10-143

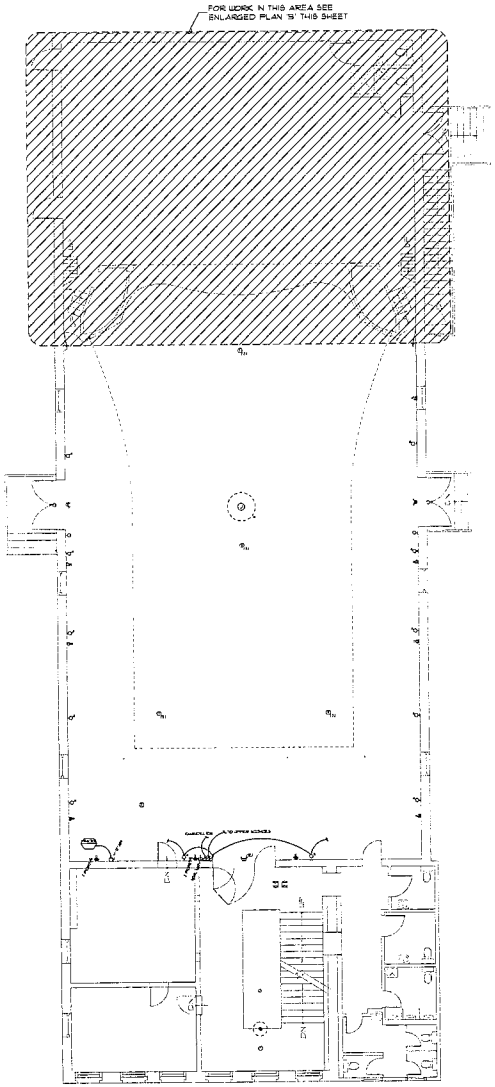
DRAWN BY: DG

CHECKED BY: MD/AC

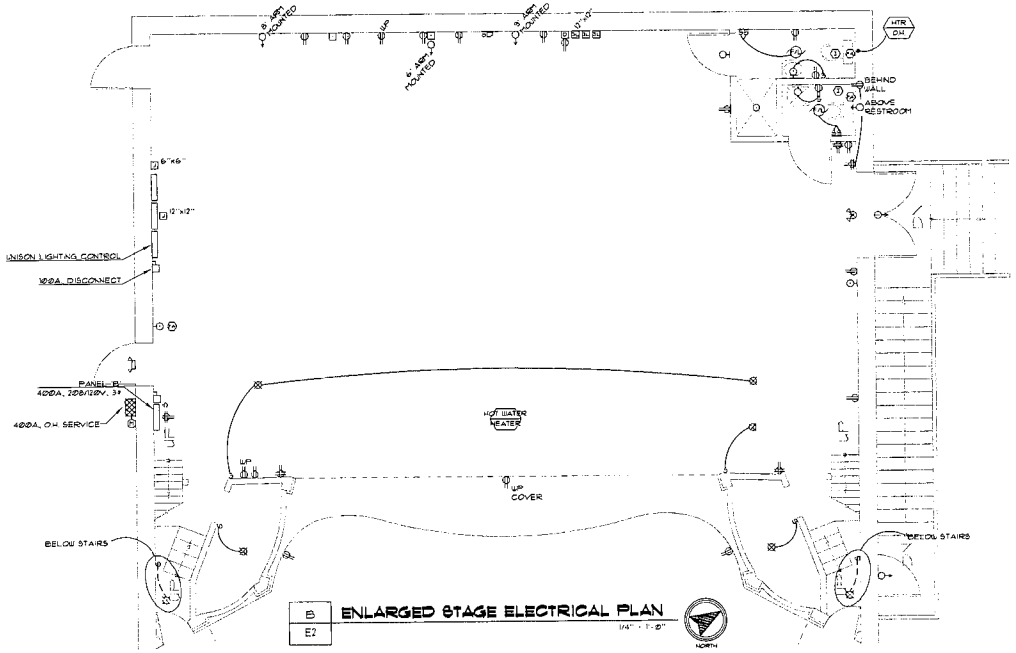
DATE: 2/7/2010

SHEET No.

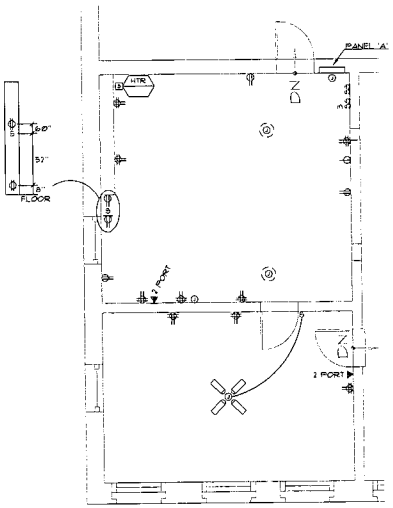
E1



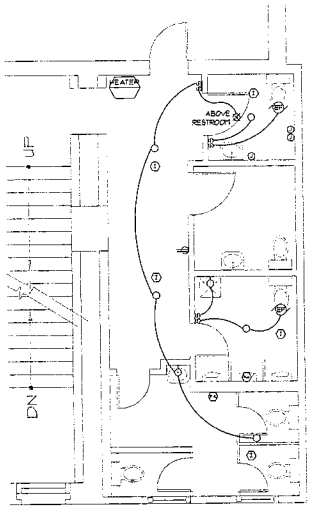

A E2 **ELECTRICAL OVERALL PLAN**
1/8" = 1'-0"




B E2 **ENLARGED STAGE ELECTRICAL PLAN**
1/4" = 1'-0"




C E2 **ENLARGED KITCHEN ELECTRICAL PLAN**
1/4" = 1'-0"




D E2 **ENLARGED RESTROOM ELECTRICAL PLAN**
1/4" = 1'-0"

construction design civics, inc.
BRUCE D. LEONARD
STRUCTURAL ENGINEER
Phone: (775) 246-8611

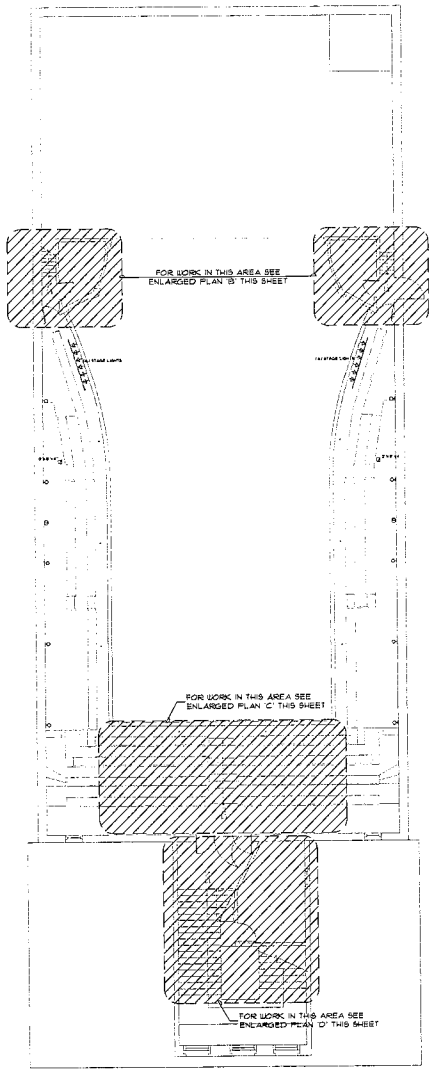
# PIPER'S OPERA HOUSE
## STOREY COUNTY – NEVADA

| BY | DATE | REVISIONS |
|---|---|---|
| | | |

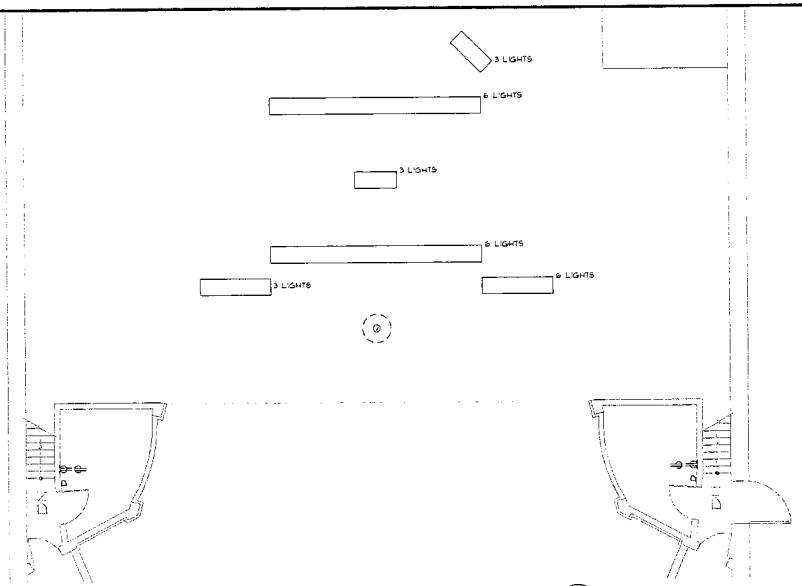
SHEET TITLE:
SECOND FLOOR
AS-BUILTS

JOB No.: 10-143
DRAWN BY: BD
CHECKED BY: MP/AG
DATE: 9/7/2010

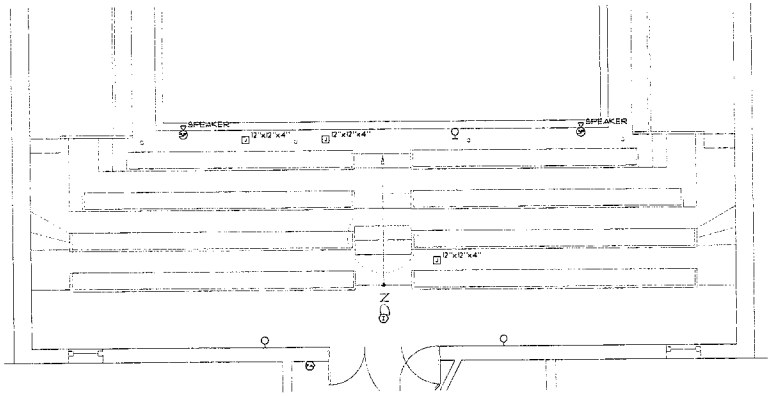
SHEET No.
E2




A / E3 THIRD FLOOR ELECTRICAL OVERALL PLAN 1/8" = 1'-0"

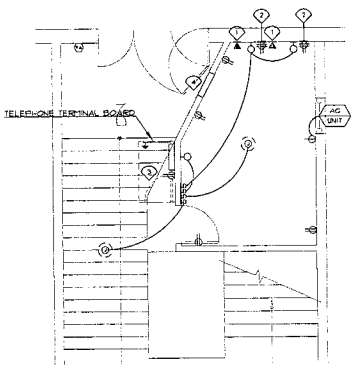



B / E3 ENLARGED STAGE ELECTRICAL PLAN 1/4" = 1'-0"




C / E3 ENLARGED BALCONY ELECTRICAL PLAN 1/4" = 1'-0"

1. 2 PORT MOUNTED +/-36" AFF.
2. MOUNTED +/-36" AFF.
3. SEE STORAGE AREA BELOW STAIRS.
4. EXTERIOR ELECTRICAL PANEL




D / E3 THIRD FLOOR ENLARGED OFFICE ELECTRICAL PLAN 1/4" = 1'-0"

Construction Design Services, inc.

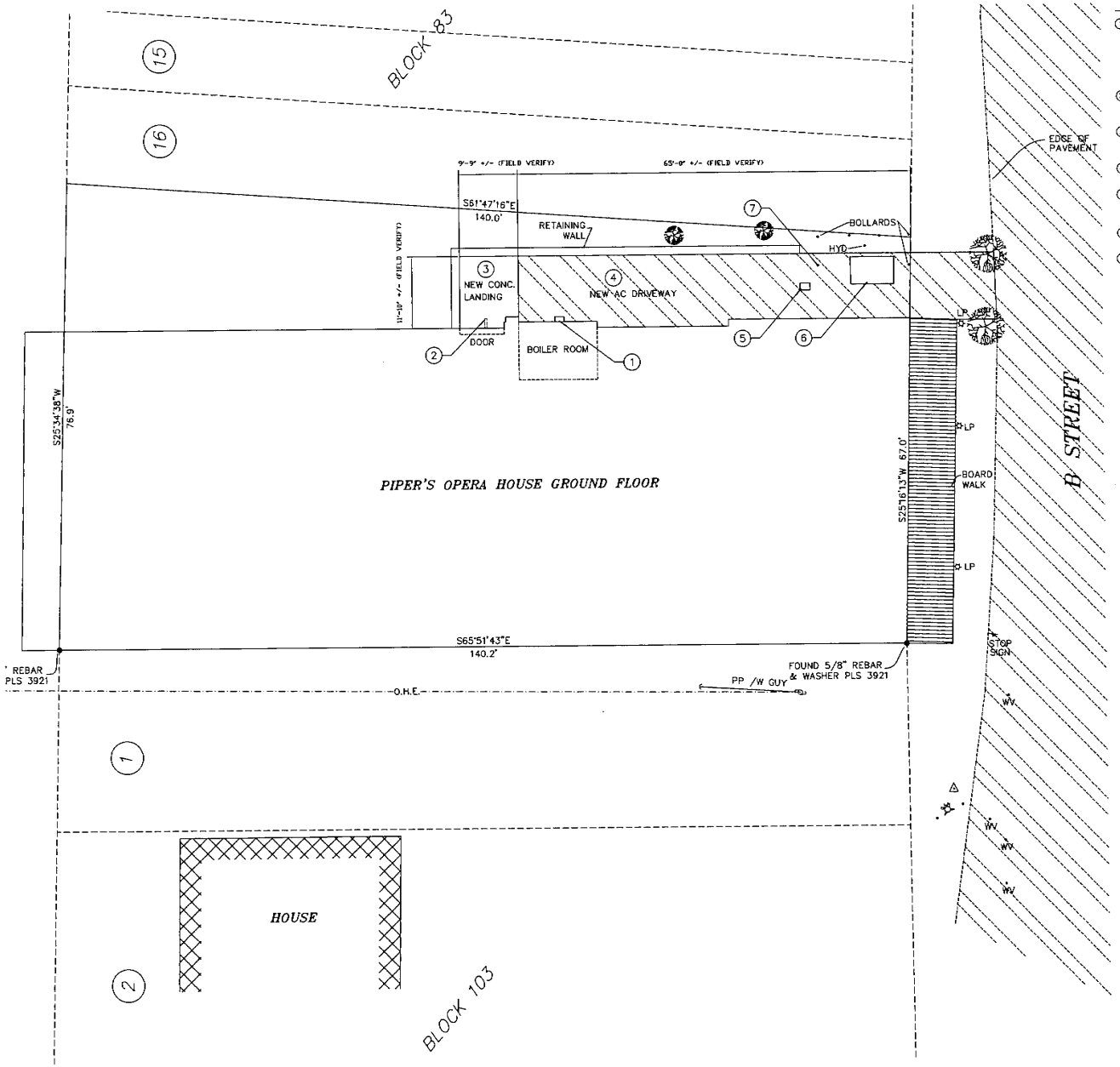
PIPER'S OPERA HOUSE
STOREY COUNTY – NEVADA

| BY | REVISIONS | DATE |
|---|---|---|

SHEET TITLE:
THIRD FLOOR AS-BUILTS

JOB No.: 10-143
DRAWN BY: DG
CHECKED BY: MP/AG
DATE: 9/7/2010

SHEET No.
E3




## sheet notes

1. PROVIDE EXTERIOR SNOWMELT SYSTEM (FOR NEW CONCRETE LANDING) THAT AUTOMATICALLY ACTIVATES WHEN PRECIPITATION IS DETECTED AND TEMPERATURES ARE BELOW 39 DEGREES FAHRENHEIT. SYSTEM COMPONENTS INCLUDE THERMOSTAT (MOUNTED IN APPROVED METAL BOX SUPPLIED BY MANUFACTURER) AND EMBEDDED SENSOR THAT DETECTS MOISTURE AND TEMPERATURE. ELEKTRA MODEL ETO2 AS MANUFACTURED BY OJ ELECTRONICS OR APPROVED EQUIVALENT
2. POINT OF CONNECTION FOR EXTERIOR SNOWMELT SYSTEM AT NEW CONCRETE LANDING. TIE TUBING INTO EXISTING HYDRONIC HEATING SYSTEM AT EXISTING BOILER ROOM
3. 6 INCH THICK FIBERGLASS-REINFORCED CONCRETE SLAB (MIN. 4,000 PSI @28 DAYS) OVER FOUR INCH TYPE 2 CLASS B COMPACTED AGGREGATE BASE PER STOREY COUNTY REQUIREMENTS (APPROX. 115 SF)
4. THREE INCH THICK AC OVER 6 INCH COMPACTED AGGREGATE BASE PER STOREY COUNTY REQUIREMENTS (APPROX. 875 SF)
5. REMOVE AND REPLACE EXISTING WATER BOX WITH NEW TRAFFIC RATED VAULT AS APPROVED BY STOREY COUNTY WATER SYSTEM (PH 775-847-0958)
6. EXISTING VAULT TO REMAIN
7. NEW CONCRETE-FILLED PIPE BOLLARD PAINTED TO MATCH EXISTING

## general notes

NEW CONCRETE LANDING SHALL FINISH FLUSH WITH GROUND FLOOR FINISH FLOOR LEVEL. SLOPE LANDING AND NEW AC DRIVEWAY AWAY FROM BUILDING AND TOWARD B STREET

N

*SCALE: 1/8" = 1'-0"*

dubé group
ARCHITECTURE



loading dock & driveway improvements to

Piper's Opera House
12 B Street
Virginia City, Nevada 89440

site plan

c1.0

## standard abbreviations

| | | | |
|---|---|---|---|
| A.C. | Asphalt Concrete | INT. | Interior |
| ACOUS. | Acoustical | INV. | Invert |
| ADDTN. | Addition | | |
| ADJ. | Adjustable or Adjacent | JT. | Joint |
| A.F.F. | Above Finish Floor | JTS. | Joints |
| AGGR. | Aggregate | LAM. | Laminated |
| A.T. | Allowance | LAV. | Lavatory |
| ALUM. | Aluminum | LB. | Pound |
| ASB. | Asbestos | LBL. | Label |
| AUTO. | Automatic | LTG. | Lighting |
| @ | At | | |
| | | MATL. | Material |
| | | MAX. | Maximum |
| BD. | Board | MECH. | Mechanical |
| BLDG. | Building | MET. | Metal |
| BLKG. | Blocking | MFR. | Manufacturer |
| BM. | Beam | MH. | Manhole |
| BOT. | Bottom | MIN. | Minimum |
| BR. | Bronze | MISC. | Miscellaneous |
| BRG. | Bearing | M.P.H. | Miles Per Hour |
| BTWN. | Between | MTD. | Mounted |
| CAB. | Cabinet | N. | North |
| C.B. | Concrete Block | (N). | New |
| CEM. | Cement | N.I.C. | Not in Contract |
| CER. | Ceramic | NO. | Number |
| C.F.M. | Cubic Feet per Minute | NOM. | Nominal |
| CJ. | Castiron | NT. | Net |
| C.J. | Control Joint | N.T.S. | Not to Scale |
| CLG. | Ceiling | | |
| CLR. | Clear | O/ | Over |
| C.M.U. | Concrete Masonry Unit | O.C. | On Center |
| COL. | Column | O.D. | Outside Diameter |
| COMP. | Composition | O.H. | Opposite Hand |
| CONC. | Concrete | O.L. | Occupant Load |
| CONN. | Connection | OPNG. | Opening |
| CONST. | Construction | O.S.B. | Oriented Strand Board |
| CONT. | Continuous; | OVHNG. | Overhang |
| COOLING | Cooling | | |
| CT. | Ceramic Tile | PL. | Plate or Property Line |
| CTR. | Counter | PART. | Partition or Partial |
| CTSK. | Countersink | PL. | Plan |
| C.W. | Cold Water | PLAS. | Plaster |
| ℄ | Centerline | PLAY. | Plastic Laminate |
| | | PLMG. | Plumbing |
| D | Depth | PLWD. | Plywood |
| DBL. | Double | P.O.C. | Point of Connection |
| DET. | Detail | PROP. | Property |
| DESC. | Description | P.S.F. | Pounds Per Square Foot |
| D.F. | Douglas Fir | PT. | Point |
| D.F. | Drinking fountain | PWR. | Power |
| DIM. | Dimension | | |
| DIST. | Distance | R. | Riser |
| DN. | Down | RAD. | Radius |
| DR. | Door | RD. | Roof Drain |
| DRWG. | Drawing | R.C.P. | Reflected Ceiling Plan |
| DS | Down spout | REC. | Recessed |
| D | Diameter | REDWD. | Redwood |
| | | REF. | Reference |
| E | East | REFL. | Reflected |
| (E) | Existing | REINF. | Reinforcing |
| EA. | Each | REQ'D. | Required |
| ELEC. | Electrical | RM. | Room |
| ELEV. | Elevation | R.O. | Rough Opening |
| EQ. | Equal | R.S. | Rough Sawn or Resawn |
| EQPT. | Equipment | | |
| E.W. | Each Way | S. | South |
| E.W.C. | Electric Water Cooler | S.A.R. | Supply Air Register |
| E.W.H. | Electric Water Heater | SCHED. | Schedule |
| EXH. | Exhaust | SEP. | Separation |
| EXP. | Exposed | SERV. | Service |
| EXP. JT. | Expansion Joint | SF. | Square Feet |
| EXT. | Exterior | SHT. | Sheet |
| | | S.G. | Safety Glass |
| FD. | Floor Drain | SIM. | Similar |
| FEC. | Fire Extinguisher Cabinet | SL. | Slope |
| F.F. | Finished Floor | SPEC. | Specification(s) |
| F.F.E. | Finish Floor Elevation | SPL. | Splash |
| FFHB. | Frost Free Hose Bibb | S.S. | Sanitary Sewer |
| FG. | Finish Grade | STL. | Steel |
| FIN. | Finish | STOR. | Storage |
| FLR. | Floor | STR. | Stair |
| F.O. | Floor Opening | STRUCT. | Structural |
| F.O.S. | Face of Studs | SURF. | Surface |
| FTG. | Footing | SYM. | Symbol |
| GA. | Gage/Gauge | T. | Tread |
| GAL. | Gallon | T.I. | Top of Item |
| GALV. | Galvanized | TEL. | Telephone |
| G.I. | Galvanized Iron | THK. | Thick |
| GL. | Glass | TPO. | Thermoplastic Polyolefin |
| GLB. | Glulam Beam | T.S. | Tube Section |
| GP. | Gross | T.W. | Top of Wall |
| GSF. | Gross Square Foot | TYP. | Typical |
| GYP. BD. | Gypsum Board | | |
| | | U.N.O. | Unless Noted Otherwise |
| H. | High | VAC. | Vacuum |
| HARD BD. | Hardboard | VAR. | Varies |
| H.B. | Hose Bibb | VCT. | Vinyl Composition Tile |
| H.C. | Handicap | V.B. | Vinyl Base |
| HDWE. | Hardware | VER. | Verify |
| H.M. | Hollow Metal | VERT. | Vertical |
| HORIZ. | Horizontal | VTR. | Vent Thru. Roof |
| HR. | Hour | | |
| HT. | Height | W. | Width or West |
| HTR. | Heater | W/ | With |
| HVAC. | Heating, Ventilating & Air Conditioning | W/o. | Without |
| | | WD. | Wood |
| I.B.C. | International Building Code | W.H. | Water Heater |
| | | WIND. | Window |
| I.D. | Inside Diameter | | |
| I.E. | Invert Elevation | XFMR. | Transformer |
| INSUL. | Insulation | | |

## project notes

The Scope of Work is to complete the restroom improvements at Piper's Opera House, 12 B Street, Virginia City, Nevada 89440. Currently, the men's restroom is accessed through the leased tenant space (a tavern) and does not meet federal accessibility requirements. The women's restroom is a shell space with some perimeter framing (walls only) and rough-in electrical and plumbing. As a result, the single operable men's restroom functions as a unisex facility for patrons of the tavern and visitors to Piper's Opera House.

Construction will occur in two phases. During the first phase, the men's restroom will remain fully operational and continue to function as the unisex facility for guests during build-out of the women's restroom shell. Once the women's restroom and adjacent corridor areas are complete, the second phase of construction will consist of improvements to the men's restroom.

Both the tavern and Piper's Opera House will be occupied and open for business during construction. Construction activities shall not interfere nor impede business, traffic or general operations of the facility. Piper's Opera House is listed on the National Register of Historic Places and the Contractor(s) shall endeavor to conduct all Work with the greatest care possible to preserve and protect this national treasure.

Piper's Opera House maintains a list of materials supplied by the Owner that are to be used in the project. Wherever possible, existing elements, fixtures, or features are to remain or be re-used in the remodel. All work shall be in conformance with applicable federal, state and local codes and ordinances.

PLUMBING FIXTURE SCHEDULE

| SYMBOL | MANUFACTURER & MFGR NUMBER | TRIM | REMARKS |
|---|---|---|---|
| WC1 | WATER CLOSET, FLOOR MOUNTED, TANK TYPE "KOHLER" K-3713/K3713-RA | SEAT: "STRONGHOLD" ELONGATED OPEN FRONT LESS COVER w/ SUPPLY FITTINGS | ADA COMPLIANT WITH LEVER HANDLE ON APPROACH SIDE |
| WC2 | WATER CLOSET, EXISTING, TO BE RELOCATED | | |
| WC3 | WATER CLOSET, EXISTING, TO REMAIN | | |
| LV1 | LAVATORY, COUNTER MOUNTED SELF RIMMING, VITREOUS CHINA, "TOTO" LT909.4 | FAUCET: "KOHLER" K-15182-P, POP UP DRAIN, P-TRAP AND SUPPLIES | ADA-COMPLIANT WITH PIPE WRAPS |
| SK1 | SINK, UTILITY, EXISTING TO BE RELOCATED | | |

## project directory

owner: piper's opera house
12 b street | virginia city, nevada 89440
p | 775.847.0433

architect: dubé group architecture
458 court street | reno, nevada 89501
p | 775.323.1001 f | 775.323.2220

contractor:

## index to drawings



## project title

# restroom improvements to the Piper's Opera House

## 12 B Street, Virginia City, Nevada 89440

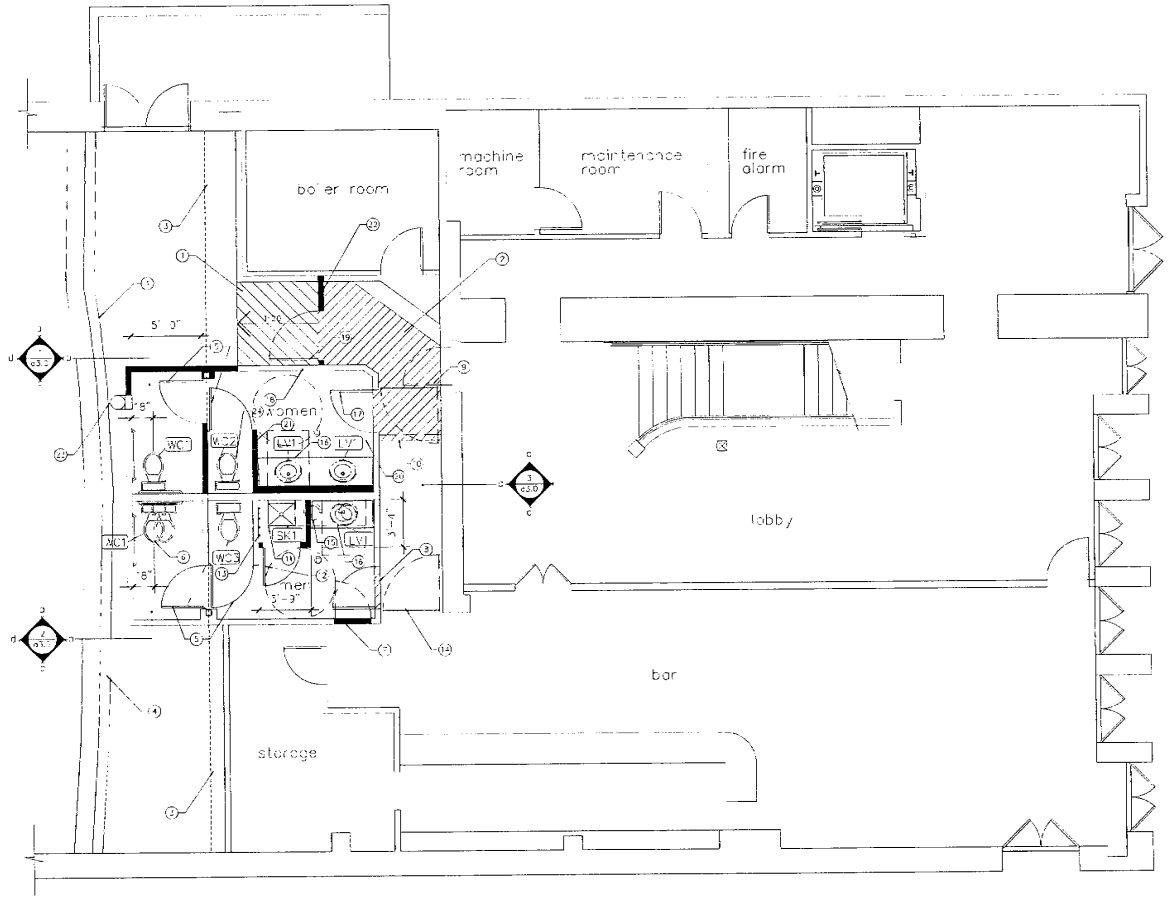
dubé group
ARCHITECTURE



restroom improvements to
Piper's Opera House
12 B Street
Virginia City, Nevada 89440

title sheet

t1.0




a restroom floor plan

SCALE:1/4" = 1'-0"

NORTH

## sheet notes

1. PLYWOOD RAMP (MAXIMUM SLOPE NOT TO EXCEED 1:20)
2. AREA OF NEW WOOD FLOORING TO MATCH EXISTING
3. LINE OF EXISTING STRUCTURAL SUPPORT BEAM (ABOVE)
4. EXISTING EDGE OF EXCAVATION
5. PROVIDE NEW PLASTIC LAMINATE TOILET PARTITION DOORS - REMOVE EXISTING DOOR AND HARDWARE WHERE OCCURS
6. REMOVE EXISTING WATERCLOSET AND SALVAGE FOR RE-USE (SEE SHEET NOTE 24 A1.0). SAWCUT FLOOR TO EXTEND AND RELOCATE CLOSET FLANGE AS INDICATED. PATCH CONCRETE SLAB AND RE-TILE TO MATCH EXISTING ADJACENT SURFACES
7. REMOVE EXISTING DOOR AND INFILL OPENING WITH NEW STUDS AND 5/8" TYPE 'X' GYPBOARD BOTH SIDES AND WOOD WAINSCOT ON BOTH SIDES TO MATCH EXISTING
8. SAWCUT WALL AT NEW OPENING FOR NEW 3'-0" WIDE BY 6'-8" HIGH FOUR PANEL WOOD DOOR W/ CLOSER. FINISH THRESHOLD TO MATCH EXISTING HALLWAY FLOORING
9. REMOVE EXISTING DOOR AND FRAME, INCLUDING NON-HISTORIC TILE
10. REMOVE EXISTING WALL
11. CONNECT OWNER SUPPLIED THIRTY SINK IN NEW CLOSET. PROVIDE FRP PANELS FLOOR TO CEILING (ON THREE SIDES) OVER 5/8" GREENBOARD OVER 2x4 WOOD STUDS
12. NEW 2'-8" WIDE BY 6'-8" HIGH FOUR PANEL WOOD DOOR W/ MORTISED DEADBOLT. UNDERCUT DOOR TO ALLOW WATER RUNOFF FROM MOP HOLDER TO EXISTING FLOOR DRAIN
13. MOP HOLDER
14. CUSTOM WROUGHT IRON SECURITY GATE, PAINTED (TYPICAL OF 2)
15. REMOVE EXISTING SINK (SALVAGE)
16. ADA-COMPLIANT SELF RIMMING LAVATORY SET IN NEW 24" DEEP PLASTIC LAMINATE COUNTERTOP W/ 24" WIDE BY 48" DEEP CLEAR FLOOR SPACE CENTERED ON FIXTURE. PROVIDE 4" BACK AND SIDE SPLASHES AND UNDERCOUNTER FIXTURE PROTECTIVE WRAP. MOUNT ACCESSIBLE LAVATORY AT 34" TO TOP OF RIM, MAXIMUM
17. PROVIDE 3'-0" WIDE BY 6'-8" HIGH FOUR PANEL WOOD DOOR W/ CLOSER IN EXISTING OPENING
18. FINISH EXISTING WOOD FRAME WALLS TO ENCLOSE NEW RESTROOM AND CORRIDOR WITH NEW STUDS AND 5/8"TYPE 'X' GYPBOARD BOTH SIDES AND WOOD WAINSCOT ON COMMON SIDE TO MATCH EXISTING
19. 3'-0" WIDE BY 6'-8" HIGH FOUR PANEL WOOD DOOR
20. INSTALL OWNER-SUPPLIED CERAMIC TILE FLOORING, THINSET METHOD, TO MATCH ADJACENT RESTROOM
21. FULL HEIGHT WALL PARTITIONS - 5/8" TYPE 'X' GYPBOARD BOTH SIDES OVER 2x WOOD STUDS - FINISH TO MATCH ADJACENT RESTROOM WALLS
22. NEW PARTITION WALL - 5/8" TYPE 'X' GYPBOARD BOTH SIDES OF 2x WOOD STUDS. PROVIDE WOOD WAINSCOT CORRIDOR SIDE TO MATCH EXISTING - TERMINATE AT INTERSECTION WITH BOILER ROOM WALL
23. 6x12 REGISTER - CONNECT TO EXISTING FLEXIBLE HVAC DUCTING TO MATCH EXISTING ADJACENT RESTROOM
24. RELOCATED WATERCLOSET (SEE SHEET NOTE 6/A1.0)

dubé group
ARCHITECTURE

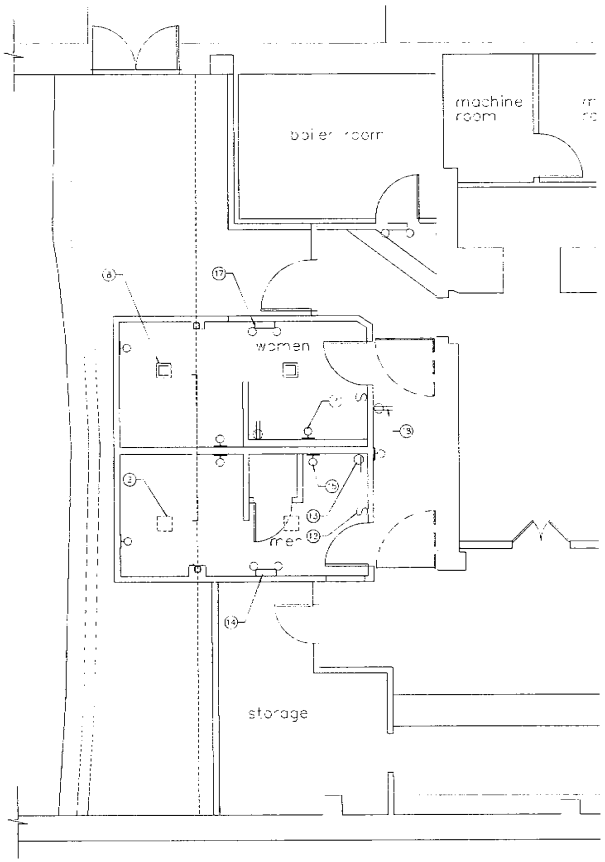


restroom improvements to

Piper's Opera House
128 F Street
Virginia City, Nevada 89440

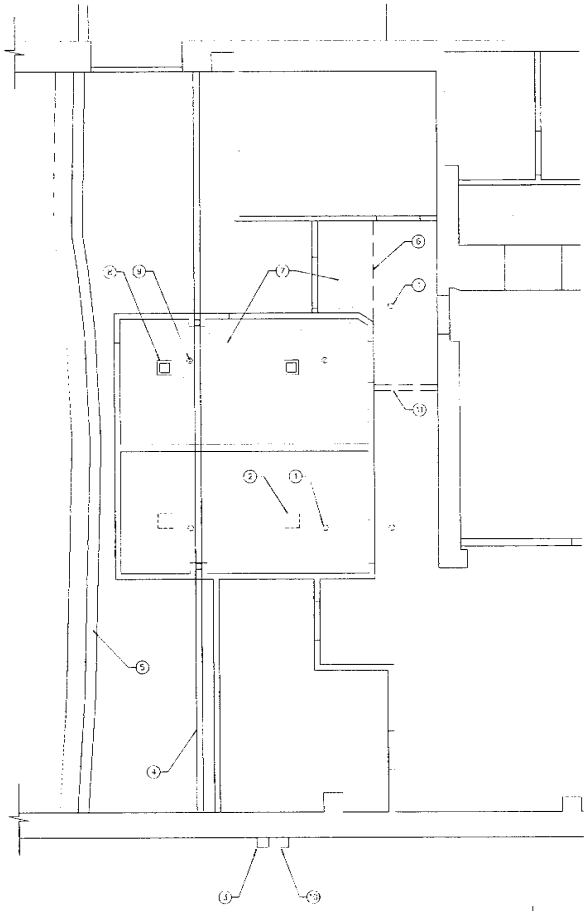
restroom floor plan

a1.0




b schematic power & lighting plan

SCALE:1/4" = 1'-0"



a partial reflected ceiling plan

SCALE:1/4" = 1'-0"

## sheet notes

1. EXISTING FIRE SPRINKLER HEAD
2. EXISTING EXHAUST FAN (TYP. OF 2)
3. EXISTING EXHAUST FAN SIDEWALL VENT
4. LINE OF EXISTING STRUCTURAL STEEL SUPPORT BEAM
5. EXISTING EDGE OF EXCAVATION (BELOW)
6. EXISTING EDGE OF CEILING
7. 5/8" TYPE 'X' CEILING BOARD OVER 2x WOOD FRAMING SPACED TO MATCH EXISTING RESTROOM CEILING
8. NEW RESTROOM EXHAUST FAN (TYP. OF 2) w/ METAL FLEXIBLE DUCTING TO MATCH EXISTING
9. NEW FIRE SPRINKLER DROP (TYP. OF 2)
10. NEW EXHAUST FAN SIDEWALL VENT TO MATCH EXISTING
11. PATCH EXISTING CEILING AS REQUIRED. FINISH TO MATCH ADJACENT SURFACES
12. LIGHT SWITCH - MOUNT @ 44" MAXIMUM A.F.F.
13. GFCI DUPLEX RECEPTACLE - MOUNT ABOVE COUNTER @ 44" MAXIMUM A.F.F.
14. EXISTING EMERGENCY LIGHT FIXTURE TO REMAIN
15. EXISTING SURFACE MOUNTED LIGHT SCONCE (TYPICAL OF 3) - ADJUST LOCATION AS REQUIRED
16. INSTALL SWITCH-SUPPLIED SURFACE MOUNTED LIGHT SCONCE (TYPICAL OF 5)
17. EMERGENCY LIGHT FIXTURE (TYPICAL OF 2) - VERIFY LOCATION AND QUANTITIES WITH STOREY COUNTY BUILDING INSPECTOR
18. DUPLEX RECEPTACLE - MOUNT @ 18" A.F.F.

dubé group
ARCHITECTURE



project

restroom improvements to

Piper's Opera House

128 Street

Virginia City, Nevada 89440

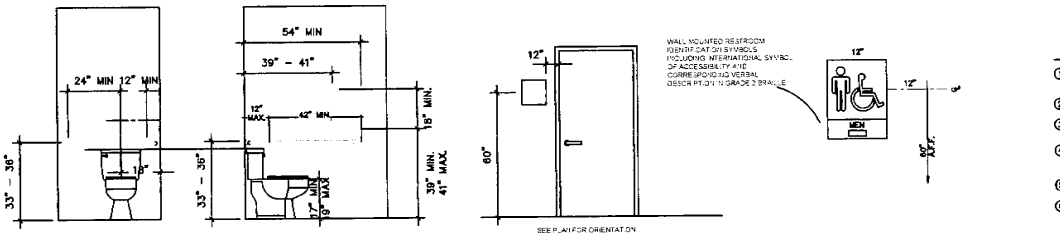
| | |
|---|---|
| issue date | August 2013 |
| scale | 1/4" = 1'-0" |
| drawn by | DG |
| checked by | DG |
| revisions | |

sheet title

# partial reflected ceiling plan / schematic power & lighting plan

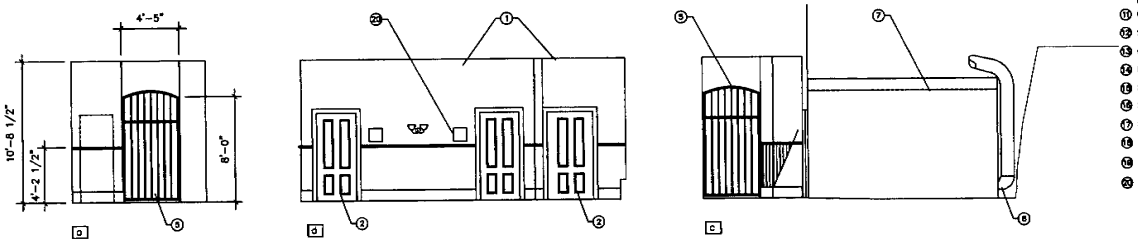
sheet number

# a2.0



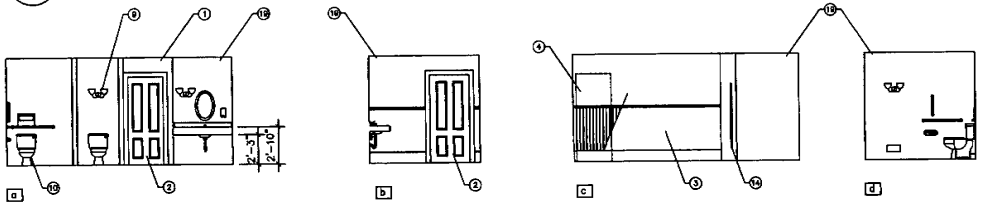

4 a3.0 accessible mounting heights

SCALE: N.T.S.



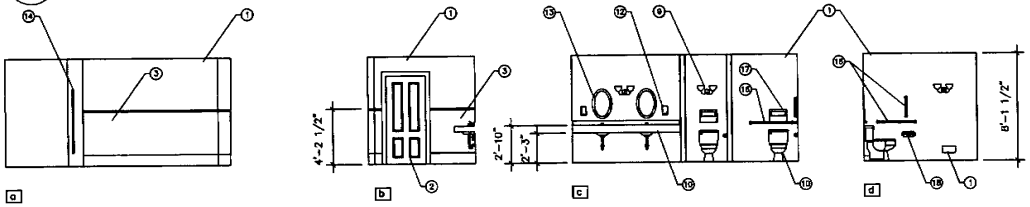

3 a3.0 corridor interior elevations

SCALE: 1/4" = 1'-0"




2 a3.0 men's restroom interior elevations

SCALE: 1/4" = 1'-0"




1 a3.0 women's restroom interior elevations

SCALE: 1/4" = 1'-0"

## sheet notes

1. 5/8" TYPE 'C' GYPSUM BOARD OVER NEW OR EXISTING 2x WOOD STUDS. PROVIDE MOISTURE RESISTANT BOARD IN LOCATIONS WHERE REQUIRED BY CODE
2. 4 PANEL WOOD DOOR AND CASING FINISHED TO MATCH EXISTING
3. EXTEND WOOD BASE, WAINSCOT, AND CHAIR RAIL MOLDING IN LOCATIONS INDICATED – FINISH TO MATCH EXISTING
4. REMOVE EXISTING DOOR AND INFILL DOORWAY WITH NEW STUDS AND 5/8" TYPE 'X' GYPSUM BOARD BOTH SIDES AND WOOD WAINSCOT BOTH SIDES TO MATCH EXISTING
5. CUSTOM WROUGHT IRON SECURITY GATE, PAINTED (TYPICAL OF 2)
6. ADA–COMPLIANT SELF RIMMING LAVATORY SET IN NEW 24" DEEP PLASTIC LAMINATE COUNTERTOP w/ 36" WIDE BY 48" DEEP CLEAR FLOOR SPACE CENTERED ON FIXTURE. PROVIDE 4" BACK AND SIDE SPLASHES AND UNDERCOUNTER FIXTURE PROTECTIVE WRAP. MOUNT ACCESSIBLE LAVATORY AT 34" TO TOP OF RIM, MAXIMUM
7. LINE OF CEILING IN RESTROOM
8. CONNECT EXISTING FLEXIBLE HVAC DUCTING TO NEW 6x12 REGISTER TO MATCH EXISTING ADJACENT RESTROOM
9. SURFACE MOUNTED LIGHT SCONCE
10. SEE FLOOR PLAN AND PLUMBING FIXTURE SCHEDULE FOR NEW, EXISTING, AND RELOCATED FIXTURES
11. 6x12 REGISTER
12. SOAP DISPENSER – MOUNT @ 44" A.F.F.
13. OVAL MIRROR (TYP. OF 3)
14. PLASTIC LAMINATE TOILET PARTITION DOOR
15. SANITARY NAPKIN DISPOSAL
16. STAINLESS STEEL GRAB BARS – SEE DETAIL 4/A3.0
17. SEAT COVER DISPENSER
18. TOILET PAPER DISPENSER
19. PATCH AND OR REPAIR EXISTING WALLS AS REQUIRED – RE–PAINT TO MATCH EXISTING AND BLEND WITH NEW CONSTRUCTION
20. ACCESSIBLE RESTROOM SIGN – SEE DETAIL 4/A3.0

dubé group

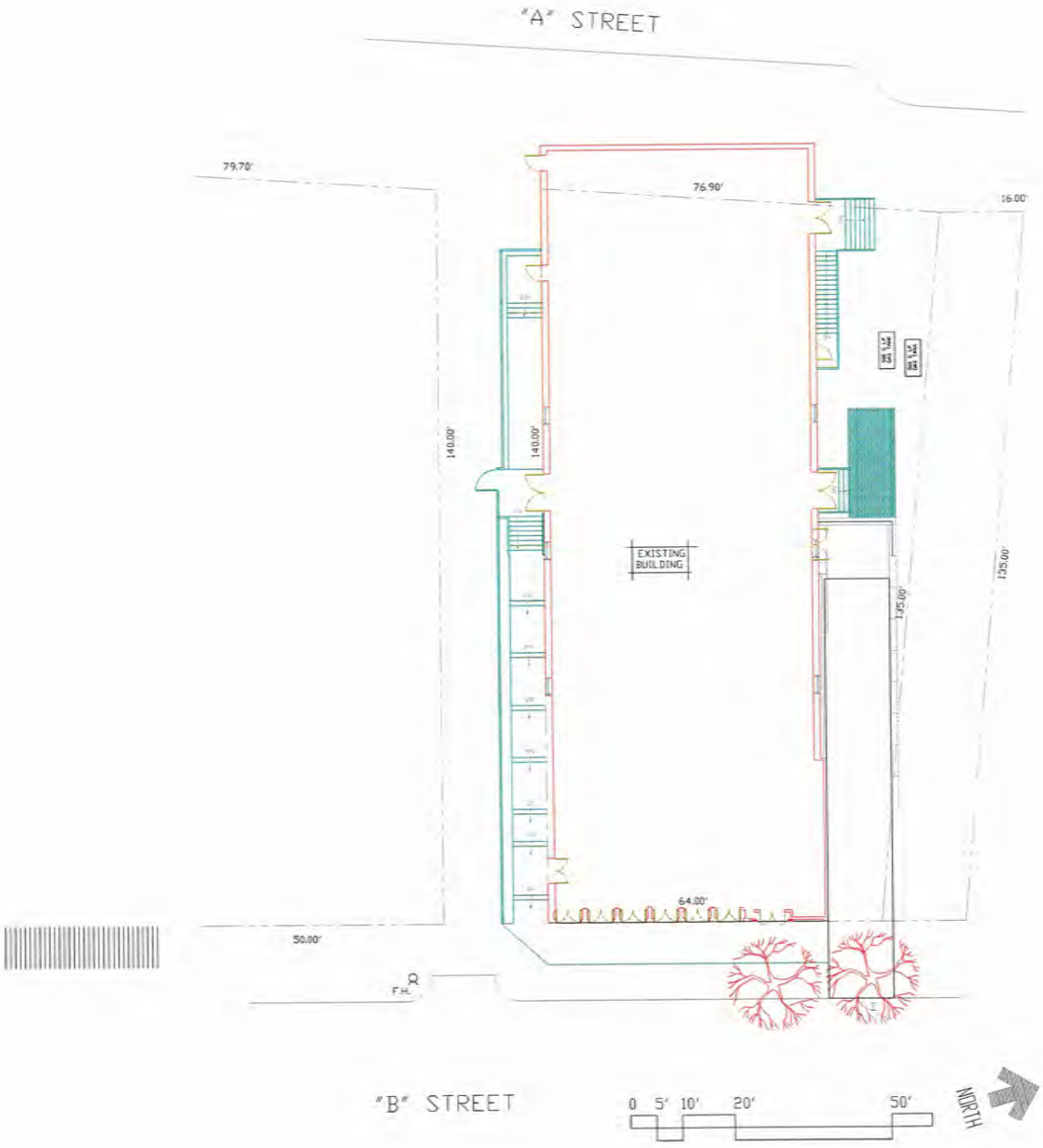


restroom improvements to

Piper's Opera House
12 B Street
Virginia City, Nevada 89440

interior elevations / accessible mounting heights

a3.0




dubé group
ARCHITECTURE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f ( ) [illegible]




project title

Piper's Opera House
12 B Street
Virginia City, Nevada 89440

job number [illegible]
date [illegible]
drawn by [illegible]
checked by [illegible]
revisions [illegible]

sheet description

site plan

sheet number

AS1.0

dubé group
ARCHITECTURE



project title

Piper's Opera House
12 B Street
Virginia City, Nevada 89440

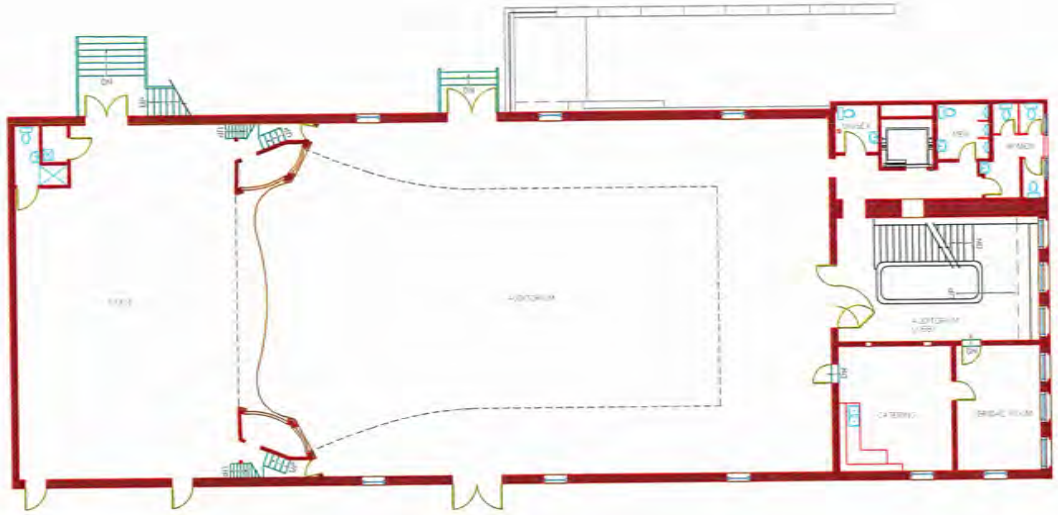
| | |
|---|---|
| job number | 19-0830 |
| date | September 28, 2020 |
| drawing by | dgd |
| checked by | jwd |
| revisions | |

sheet description

B Street level
floor plan

sheet number

a1.0



dubé group
ARCHITECTURE



project title

Piper's Opera House
12 B Street
Virginia City, Nevada 89440

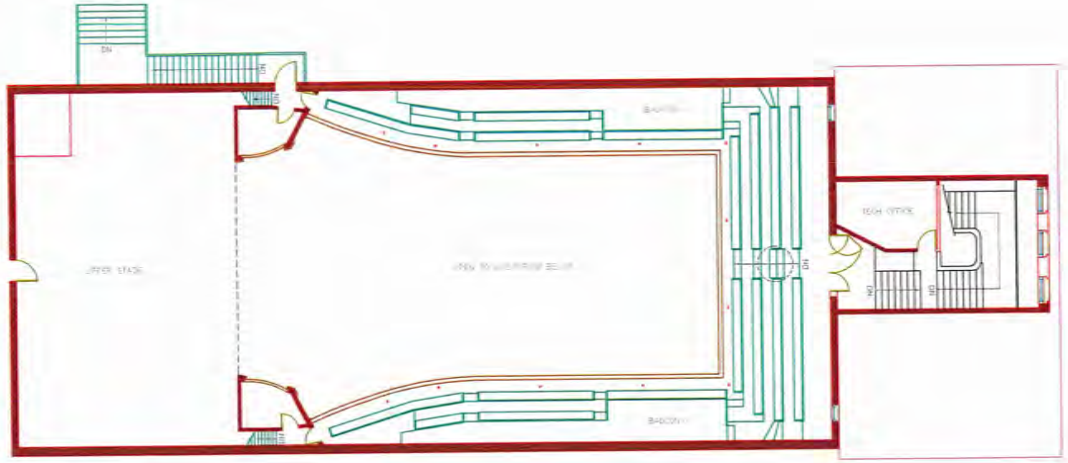
| | |
|---|---|
| job number | 0550 |
| date | september 28, 2005 |
| drawn by | DMH |
| checked by | DHD |
| revisions | |

sheet description

auditorium level
floor plan

sheet number

a2.0



dubé group
ARCHITECTURE



project title

Piper's Opera House
12 B Street
Virginia City, Nevada 89440

job number
date
drawn by
checked by
revisions

sheet description

balcony level
floor plan

sheet number

a3.0

**Attachment C**

# Storey County Capital Improvement Plan *DRAFT*

**02/07/23 BOCC APPROVED**

**NOTES:**

**Items shown for 2025-2028 are subject to anticipated revenues from commerce and economic development activity at TRI-Center.**

**DRAFT TALKING PAPER SUBJECT TO CHANGE AND PUBLIC DISCUSSION.**

**The following is a plan for anticipated future capital improvements. This is not a budget, and the items listed have not necessarily been obligated.**

**This CIP may be adjusted each year to align with actual revenues, obligations, community needs, available grants, and other conditions.**

## CAPITAL IMPROVEMENT PROJECTS

### 2023 Projects

| | Dept. Managing Project | Fund | Fiscal Year Target | Fiscal Year Target if Grants Secured | Total Estimate County Expense | Estimated Grant Funding | Project Location | Short Name | Description | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| | CR | Grant | 23 | Grant 23 | $ 2,500,000 | $ 2,500,000 | LW | LW Sr and Comm. Center | Lockwood senior and community center with new - PROJECT WILL SPAN INTO FY 24/25 | Designing now. 2023 Appropriations |
| | JC | Capital | 23 | | $ 225,000 | | VC | Justice Ct Parking Phase I | Improve parking (gravel), bollards, and lighting at Justice Court; add driveway to West South Street | |
| | Planning | Planning | 23 | | $ 5,000 | | County | PC with GIS Capability | Add PC with Geographic Information Systems (Esri GIS Arc-Info) capability to move some GIS in-house | |
| | PW | Capital | 23 | | $ 120,000 | | TRI | Com. Dev. Office | Convert Switch Conference Room to Community Development office; including HVAC, lighting, and ceiling | |
| | PW | Capital | 23 | | $ 1,000 | | TRI | Door Lettering | Community Development and Business Development office door lettering | |
| | PW | Capital | 23 | | $ 30,000 | | VC | CH Window Safety Film | Film on Courthouse glass for safety and seismic | |
| | PW | Capital | 23 | | $ 20,000 | | TRI | TRI Monument Signs | "Storey County" monument signs at entrances to TRI-Center | |
| | PW | Capital | 23 | | $ 5,000 | | TRI | McCarran Complex Letters | Change lettering on McCarran Complex to be more visible and appropriate | |
| | PW | Capital | 23 | | $ 3,000 | | TRI | McCarran Complex Sign | Add free-standing sign at McCarran Complex | |
| | PW | Capital | 23 | Grant 23 | $ - | $ 100,000 | VC | Courthouse Electrical | Replace Courthouse electrical | SHPO Grant - no match |
| | PW | Capital | 23 | | $ 30,000 | | VC | Courthouse Fence Repair | Repair and replace portions of Courthouse wrought iron fence. Mold then foundary. Most cost is mold. | Mold can be reused in future |
| | PW | Facilities | 23 | | $ 500,000 | | VC | NSP Park Conversion CCI | Park Services requires park to replace park taken by Community Chest building in VC | |
| | PW | Infrastructure | 23 | ARPA 23 | $ 600,000 | $ 800,900 | VC | Water B Str Project w ARPA | B Street water line project with ARPA funds | ARPA Funds |
| | PW | Infrastructure | 23 | | $ 82,213 | | VC | Water Tank Upgrades | Repair and seal water tanks. See 2022/23 infrastructure Ordinance | |
| | PW | Capital | 23 | | $ 600,000 | | VCH | VCH Fire Bays | VCH fire bays allow existing building to be converted to community center. Re-bid from FY2022. | Will span over multiple FYs |
| | PW | Maintenance | 23 | | $ 400,000 | | TRI | Re-Roof TRI 75 | Reroof and roof improvements on Fire Station 75 McCarran complex | Maintenance or infrastructure? |
| | | | | | | | | | | |
| | | | **2023 Project TOTALS:** | | **$ 5,961,213** | **$ 3,400,900** | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

### 2023 Equipment & Vehicles

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Building | Equip. Acq. | 23 | | $ 50,000 | $ - | Building | GMC Inspector Pickup | Per draft GSA with Redwood Materials | Pending |
| | Building | Equip. Acq. | 23 | | $ 50,000 | $ - | Buiding | GMC Inspector Pickup | Per draft GSA with Redwood Materials | Pending |
| | SCSC | Equip. Acq. | 23 | | $ 35,000 | $ - | LW | SUV / Minivan | Passenger vehicle to transport DV Advocates, Counselors, and Staff for Senior Services | SCSC restructure |
| | PW | Equip. Acq. | 23 | | $ 50,000 | $ - | PW | Sander | Sander gantry granes for summer sander hanging and storage | |
| | PW | Equip. Acq. | 23 | | $ 120,000 | $ - | PW | Small Town Plow | Small Town Plow for steep and narrow streets of Virginia City | Not purchased in '22 per budget. |
| | PW | Equip. Acq. | 23 | | $ 70,000 | $ - | PW | GMC Buildings/Gnds. | GMC 4-door diesel w. utility bed for buildings/grounds. Needs to pull weight | |
| | PW | Equip. Acq. | 23 | | $ 60,000 | $ - | PW | GMC Buildings/Gnds. | GMC 3/4 ton long-bed gas pickup with shell for water and sewer | |
| | PW | Equip. Acq. | 23 | | $ 650,000 | $ - | PW | Vactor Truck (south) | Replace worn Vactor Truck to serve south end of Storey County (VC, GH, VCH, MT) | |
| | SO | Equip. Acq. | 23 | | $ 50,000 | $ - | SO | Patrol Vehicle Rotation | Patrol vehicle per three-year rotation. Some funds recovered with auctioning out replaced vehicle | |
| | SO | Equip. Acq. | 23 | | $ 50,000 | $ - | SO | Patrol Vehicle Rotation | Patrol vehicle per three-year rotation. Some funds recovered with auctioning out replaced vehicle | |
| | SO | Equip. Acq. | 23 | | $ 50,000 | $ - | SO | Patrol Vehicle Rotation | Patrol vehicle per three-year rotation. Some funds recovered with auctioning out replaced vehicle | |
| | VCTC | Equip. Acq. | 23 | | $ 20,000 | $ - | VCTC | UTV VCTC | UTV with pickup bed for Fairgrounds and event work for tourism | |
| | VCTC | Equip. Acq. | 23 | | $ 50,000 | $ - | VCTC | GMC SUV or PU | 7-passenger SUV (GMC Yukon) or crew-cab half-ton pickup for staff trips and field work and towing | |
| | VCTC | Equip. Acq. | 23 | | $ 200,000 | $ - | VCTC | Shuttle w. ADA Expansion | Shuttle for VC and TRI-Center uses | |
| | | | | | | | | | | |

# Storey County Capital Improvement Plan *DRAFT*

| | Dept. Managing Project | Fund | Fiscal Year Target | Fiscal Year Target if Grants Secured | Total Estimate County Expense | Estimated Grant Funding | Project Location | Short Name | Description | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2023 Equipment & Vehicles TOTALS: | | | | $ 1,505,000 | $ - | | | | |
| | | | | | | | | | | |
| **2023 Plans & Studies** | | | | | | | | | | |
| | | | | | | 0 | | | | |
| | | | | | | 0 | | | | |
| | | | | | $ - | | | | | |
| | 2023 Plans & Studies TOTALS: | | | | $ - | | | | | |
| | | | | | | | | | | |
| **2024 Projects** | | | | | | | | | | |
| | PW | Capital | 24 | | $ 75,000 | $ - | County | Courthouse Security | Add security elements to county courthouse | |
| | FD | Capital | 24 | Grant 24 | $ - | $ 650,000 | VCH | VCH Dorms for Fuels Crew | Add dorm rooms for Fire fuels reduction and other fire crews at VC Highlands | Paid for by NV Energy grant possible |
| | FD | Capital | 24 | Grant 24 | $ 3,750,000 | $ 3,750,000 | VC | Fire Station 71 Rebuild | Replace Fire Station 71 with new bays, offices, dorms, and training facilities | 2023 Appropriations CDS Grant |
| | FD | Capital | 24 | | $ 78,000 | $ - | VCH | Connect Fire Station 72 Bay | Connection between Fire Station 72 VCH and new fire apparatus bays built on or about FY2023 | |
| | CR | Grant | 24 | Grant 24 | $ 747,000 | $ 615,000 | VC | Fairgrounds Upgrade | Add ADA restrooms, Water hookups, electrical hookups, remodel existing ticket booth, grade/pave Fairgrounds | 2023 Appropriations CDS Grant |
| | FD | Capital | 24 | | $ 50,000 | | VCH | Fire Station 72 Siding | Replace bad exterior siding on Fire Station 72 VCH | |
| | FD | Capital | 24 | | $ 5,000 | | TRI | Fire Station 75 Bedrooms | Finish bedrooms/dorms buildout inside Fire Station 75 | |
| | FD | Capital | 24 | | $ 32,000 | | VC | Fire Station 71 Exhaust | Exhaust system Fire Station 71 VC | |
| | IT | IT | 24 | | $ 1,000 | | LW | LW Fiber to Rainbow B | Microwave connection from county tower to Rainbow Bend HOA Clubhouse | Pending eligibility and desire |
| | IT | IT | 24 | | $ 1,000 | | LW | LW Fiber to LCC | Microwave connection from county tower to Lockwood Community Corporation Office | Pending eligibility and desire |
| | IT | IT | 24 | | $ 1,000 | | LW | LW Fiber to CGID | Microwave connection from county tower to Canyon General Improvement District | Pending eligibility and desire |
| | IT | IT | 24 | | $ 500,000 | | County | Region Fiber Link IT | 10-year revamp of the Quad-County, Dispatch, Radio network system. | |
| | IT | IT | 24 | | $ 10,000 | | LW | LW Microwave Tower | Tower behind SO substation to facilitate microwave internect connections throughout Lockwood | Easement w. LCC near done |
| | IT | IT/Capital | 24 | | $ 65,000 | | LW | LW Fiber/Wireless Link | Tower and microwave link between SO Substation, Station 74, LWSC, and to Rainbow and LCC Buildings | |
| | PW | Capital | 24 | | $ 50,000 | | MT | MTCC Outdoor Reader Boar | Replace Mark Twain Comm Center message board with size needed to display events at Mark Twain Center. | |
| | PW | Capital | 24 | | $ 25,000 | | MT | MTCC Outdoor Lighting | Install commercial exterior light fixtures around all 4 sides of Mark Twain Community Center | |
| | PW | Facilities | 24 | | $ 100,000 | | County | NPS Park Conversion | NPS park conversion from Community Chest land improvements. Park location currently undetermined. | |
| | PW | Rail | 24 | | $ 50,000 | | GH | GH Depot ADA Ramp | GH add ramp to GH Freight Depot to connect to train for passengers | .25 cent sales V&T Rail Fund used |
| | PW/VCTC | Rail | 24 | | $ 150,000 | | VC | VC Depot ADA | ADA improvements to VC Freight Depot (ADA lift, rails, restrooms, etc.) | .25 cent sales V&T Rail Fund used |
| | PW | Roads | 24 | | $ 50,000 | | LW | Lockwood Tower Rd Pt 2 | LW LLC Tower Road Upper Part - Tar seal upper pavement, grade and base turnaround, stabilize slope at top | |
| | PW | Water | 24 | | $ 90,000 | | VC | Five Mile Res. Security | Add cameras to Five Mile Reservoir | No available funding in Water |
| | SO | Infra/Capital | 24 | | $ 500,000 | | LW | LW SO Substation Phase 1 | Replace SO Lockwood substation with new modular building. Add county staff office for community access | Preparing now |
| | PW | Roads | 24 | | $ 100,000 | $ - | VC | Cemetery east access | Culvert and dirt road over drainage at southeast corner of cemetery for access per MOU with CCF | |
| | PW | Build/Grounds | 24 | | $ 100,000 | $ - | VC | Comm. Dev. Generator | Connect Community Development to Public Works facility generator system | |
| | PW | Infrastructure | 24 | | $ 210,000 | $ - | VC | Sewer Payments | See 2023/24 Infrastructure Ordinance | |
| | PW | Infrastructure | 24 | | $ 100,000 | $ - | VC | Hillside Tank Piping | Main line piping to go directly into 2 Hillside Tanks eliminating possibility of bypassing | NDEP/Farr West recommended |
| | PW | Infrastructure | 24 | | $ 200,000 | $ - | VC | Water SCADA 2 Pumps | 2 VFD drives and controls into the SCADA for the 2 finished water pumps | |
| | PW | Infrastructure | 24 | | $ 75,000 | $ - | VC | Influent Effluent Valves | Replace DeZurik effluent and influent valves. Mutilple sizes. | |
| | PW | Infrastructure | 24 | | $ 85,000 | $ - | VC | Water Tank Upgrades | Repair and seal VC water tanks. See 2023/24 Infrastructure Ordinance | |
| | PW | Infra/Roads | 24 | | $ 350,000 | $ - | County | Road Projects Countywide | Countywide road rehabilitation projects per Farr West CIP report. See 2023/24 Infrastructure Ordinance | |
| | PW | Infrastructure | 24 | | $ 150,000 | $ - | LW | LW SO Substation Phase 2 | Sheriff's substation at Lockwood, phase 2. See 2023/24 Infrastructure Ordinance | Project to cross years 23/24 |
| | PW | Capital | 24 | | $ 75,000 | | MT | MT Mailbox Plaza | Consolidated mailbox plaza on Mark Twain Community Center grounds | |
| | PW | Infrastructure | 24 | | $ 200,000 | $ - | VC | Widen F Street at RR Statio | Widen F Street including filling side to accommodate RR passenger area. Possible RR Fund ?? | Partial VTRR Fund??? |
| | PW | Capital | 24 | | $ 500,000 | | TRI | SO Substation 75 | SO substation at Station 75 | |
| | PW | Roads | 24 | | $ 450,000 | $ - | VC | Realign Toll Rd at CCI | Realign the west end of Toll Road so it matches county property. Work with Community Chest. | Survey needed |
| | VCTC/Rail | Rail | 24 | | $ 300,000 | $ - | VC | VC Depot Roof | VC new roof on VC Freight Depot | .25 cent sales V&T Rail Fund used |

# Storey County Capital Improvement Plan *DRAFT*

| | Dept. Managing Project | Fund | Fiscal Year Target | Fiscal Year Target if Grants Secured | Total Estimate County Expense | Estimated Grant Funding | Project Location | Short Name | Description | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| | VCTC/PW | Rail | 24 | | $ 250,000 | | VC | VC Depot Paving | Pave parking area around VC Freight Depot | .25 cent sales V&T Rail Fund used |
| | VCTC | Roads | 24 | | $ 50,000 | | VC | Fairgounds Traffic | Install traffic calming devices on I and L Streets to slow Fairgrounds vehicles in residential areas | |
| | VCTC | VCTC | 24 | | $ 130,000 | | VC | VCTC Center Design | Design new VCTC Visitors' Center at the Black and Howell site | Unless moving to DA/SO office |
| | | | | | | | | | | |
| | | | **2024 Project TOTALS:** | | **$ 9,655,000** | **$ 5,015,000** | | | | |
| | | | | | | | | | | |
| **2024 Equipment & Vehicles** | | | | | | | | | | |
| | CM | Equip. Acq. | 24 | | $ 60,000 | | CM | GMC 7-Passenger SUV | SUV per 2022 vehicle rotation with Community Development and Economic Developent Officer | |
| | PW | Equip. Acq. | 24 | | $ 20,000 | | PW | Light Plant w. Solar | Portable construction light plant w. solar array | |
| | SO | Equip. Acq. | 24 | | $ 50,000 | | SO | Patrol Vehicle Rotation | Patrol vehicle per three-year rotation. Some funds recovered with auctioning out replaced vehicle | |
| | SO | Equip. Acq. | 24 | | $ 50,000 | | SO | Patrol Vehicle Rotation | Patrol vehicle per three-year rotation. Some funds recovered with auctioning out replaced vehicle | |
| | SO | Equip. Acq. | 24 | | $ 50,000 | | SO | Patrol Vehicle Rotation | Patrol vehicle per three-year rotation. Some funds recovered with auctioning out replaced vehicle | |
| | | | | | | | | | | |
| | | **2024 Equipment & Vehicles TOTALS:** | | | **$ 230,000** | **$ -** | | | | |
| | | | | | | | | | | |
| **2024 Plans & Studies** | | | | | | | | | | |
| | PW | Roads | 24 | | $ 100,000 | | County | Update Roads Rehab CIP | Farr West update to countywide road rehabilitation plan | |
| | CM | County Mgr. | 24 | | $ 100,000 | | County | Regional Impact Study 2.0 | Follow up to 1.0 fiscal impact study, and respond to legislative inquiries related to regional fiscal impacts | |
| | Plan | Planning | 24 | | $ 100,000 | | County | Master Plan Update | 5-Year Storey County Master Plan Update consultation and technical assistance | |
| | CM | County Mgr. | 24 | | $ 5,000 | $ - | County | Strategic Plan | Continue working on strategic plan. To be completed Srping 2023 (FY23) | 75% done. Winter '21 complete. |
| | CM | County Mgr. | 24 | | $ 50,000 | $ - | County | Water Master Plan | South/Central county water master plan with Farr West Engineering | |
| | Plan | Planning | 24 | | $ 50,000 | $ - | County | Road Abandon Study | Study and report to determine what roads may be considered for possible future abandonment | |
| | Plan | Planning | 24 | Grant 22 | $ 63,000 | $ 190,000 | LW | N. Long Valley Creek Study | Drainage study for lower Long Valley Creek at and around Lockwood | Grant match to TRFMA. |
| | Plan/VCTC | Planning?VCT | 24 | | $ 50,000 | $ - | VC | VC Parking Study | Update to 1992 Parking Study for Virginia City. ((What is the status on this happening FY23?)) | |
| | Plan | Planning | 24 | | $ 5,000 | | VC | VC Drainage Study | Study to evaluate drainage needs for Six Mile Canyon including NDEP/FEMA/EPA CERCLA mercury | EPA very difficult to overcome |
| | | | | | | | | | | |
| | | **2024 Plans & Studies TOTALS:** | | | **$ 523,000** | **$ 190,000** | | | | |
| | | | | | | | | | | |
| **2025 Projects** | | | | | | | | | | |
| | CD | Capital | 25 | | $ 50,000 | | VC | Comm. Dev. ADA | Improve ADA compliance at Community Development (doors, hallway, restroom, stoop) | |
| | CD | Capital | 25 | | $ 50,000 | | VC | Comm. Dev. Bumps. | Add bollards and bumpers to Community Development parking area | |
| | CD | Capital | 25 | | $ 75,000 | | VC | Comm. Dev. Mud | Add mudroom/cold air entry to main entrance to Community Development office | |
| | DC | Capital | 25 | | $ 250,000 | | VC | CH ADA Restrooms | Retrofit Storey County Courthouse with ADA restrooms, jury ADA accessibility, and related retrofits | |
| | Dispatch | Capital | 25 | | $ 200,000 | | VC | Dispatch Security | Safety, security, and efficiency improvements to Dispatch Center building and grounds | |
| | EM | Capital | 25 | | $ 1,500,000 | | VC | EOC | Emergency Operation Center located at or near 911 State Route 341 | Alternative to school buildings |
| | FD | Capital | 25 | | $ 5,500,000 | | MT | Fire Station 73 Replace | New fire station at Mark Twain | |
| | FD | Capital | 25 | | $ 7,500,000 | | TRI | Fire Station 75 | New fire station 75 - move out of current station | |
| | FD | Capital | 25 | | $ 1,000,000 | | LW | Land for Fire Station 74 | Purchase land for relocation of Fire Station 74 Lockwood. Land out of FEMA floodplain but in Lockwood | |
| | IT | Capital | 25 | | $ 120,000 | | County | LAN | Network devices, LANs, storage, and communications | |
| | JC | Capital | 25 | | $ 150,000 | | VC | Justice Ct Parking Phase II | Pave and improve parking lot at Justice Court | |
| | MTCC | Capital | 25 | | $ 150,000 | | MT | MT Comm. Electrical | Upgrade electrical and breakers at Mark Twain Community Center | |
| | MTCC | Capital | 25 | | $ 50,000 | | MT | MT Comm. Roof | Check metal roof and make necessary repairs | Maintenance or infrastructure? |
| | MTCC | Capital | 25 | | $ 250,000 | | MT | MT Comm. Fire Bay | Add separate building for fire apparatus so MTCC can expand into existing occupied bay area | |
| | MTCC | Capital | 25 | | $ 25,000 | | MT | MT. Comm Lights | Install exterior lighting and parking lot lighting around Mark Twain Community Center | |
| | MTCC | Capital | 25 | | $ 100,000 | | MT | MT. Comm Trees | Add landscaping, trees, and irrigation around the Mark Twain Community Center | |

# Storey County Capital Improvement Plan *DRAFT*

| | Dept. Managing Project | Fund | Fiscal Year Target | Fiscal Year Target if Grants Secured | Total Estimate County Expense | Estimated Grant Funding | Project Location | Short Name | Description | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| | MTCC | Capital | 25 | | $ 200,000 | | MT | MT. Comm Repave | Repave parking lot at Mark Twain Community Center | |
| | Plan | Capital/Roads | 25 | Grant 28 | $ 200,000 | $ 10,000,000 | VC | VC/6 Mile Flood Implemen | Implement Six Mile Drainage Project - From Master Drainage Plan Started in 2022 | 200k county match per CWSD |
| | PW | Infrastructure | 24 | | $ 5,000,000 | | VC | School Building Buy Ph. 1 | Purchase VCMS and HG Elementary school buildings for county admin offices and comm. chambers | Pending SCSD land and K12. |
| | PW | Capital | 25 | | $ 100,000 | | VC | Generator VCSC | Generator for VC Senior Center facility | |
| | PW | Capital | 25 | | $ 100,000 | | VC | Generator SMAC | Generator for Saint Mary's Art Center | |
| | PW | Capital | 25 | | $ 100,000 | | VC | Generator Fourth Ward | Generator for Fourth Ward School | |
| | PW | Capital | 25 | | $ 15,000 | | VC | Generator GH Train Depot | Generator for Gold Hill Train Depot | |
| | PW | Capital | 25 | | $ 15,000 | | VC | Generator VC Train Depot | Generator for VC Train Depot for fire sprinkler heating | |
| | PW | Capital | 25 | | $ 100,000 | | VC | Generator SC Justice Court | Generator for Storey County Justice Court and IT offices | |
| | PW | Capital | 25 | | $ 100,000 | | GH | Generator GH Sewer | Generator for Gold Hill wastewater treatment plant | |
| | PW | Capital | 25 | | $ 100,000 | | VC | Generator Comptroller | Generator connect comptroller's office to Courthouse | |
| | PW | Capital | 25 | | $ 200,000 | | MT | MT Comm. Center | Retrofit Mark Twain Community Center to better facilitate events, food closet, and senior services | |
| | PW | Capital | 25 | | $ 75,000 | | VC | Water Filters | Replace water filter media. Anthracite coal, green sand, aggregate, and poly beads | |
| | PW | Capital | 25 | | $ 150,000 | | LW | LW Dog Park | Construct dog park near Louise Peri Park in Lockwood | |
| | PW | Capital | 25 | | $ 200,000 | | VC | CH Generator Replace | Replace Courthouse backup generator and related equipment. | |
| | PW | Capital | 25 | | $ 300,000 | | VC | Fuel Tanks at PW | Replace double-lined fuel tank at Public Works shop | |
| | PW | Capital | 25 | | $ 150,000 | | VC | VC Dog Park | Construct dog park near Miner's Park or other location as appropriate | |
| | PW | Facilities | 25 | | $ 150,000 | | MT | MT Dog Park | Construct dog park near Mark Twain Community Park | |
| | PW | Infrastructure | 25 | | $ 700,000 | | VC | Water Treat Pre-Tank | VC water plan replace open bodies with tank | |
| | PW | Infrastructure | 25 | | $ 150,000 | | VC | Water Plant Valves | Replace Limitorque Control Packs for the influent and effluent valves at sewer treatment plant | |
| | PW | Capital | 25 | | $ 120,000 | | VC-GH | Phase I Bike/Ped Lane GH | Phase I-Grade and gravel bike/ped path between Gold Hill and VC (Fourth Ward to Greiner's historic way) | Seek recreation grants |
| | PW | Infrastructure | 25 | | $ 150,000 | | VCH | VCH Comm. Center | (Phase 2) VCH community center building retrofit restrooms, etc. (Construction after Fire Station 72 Bays) | Pending Station 72 bays |
| | PW | Infrastructure | 25 | | $ 230,000 | | VC | Washington St. Stairs | Replace wood stairs at Washington Street between C and D Streets | |
| | PW | Infra/Capital | 25 | | $ 4,000,000 | | VC | County Swimming Pool | Rehabilitate 1964 Storey County Swimming Pool with updated and compliant facility | |
| | PW | Infra/Capital | 25 | | $ 500,000 | | VC | VC Transfer Station Move | Relocate waste transfer station to accommodate school expansions | Alternative A |
| | PW | Infra/Capital | 25 | | $ 150,000 | | VC | VC Transfer Station Screen | Screen, wall off, and reposition transfer station to accommodate and accompany school expansion | Alternative B |
| | PW | Infrastructure | 25 | | $ 300,000 | | VCH | VCH Community Center | Highlands community center building upgrades - completed after fire bays are constructed | |
| | PW | Infrastructure | 25 | | $ 85,000 | | VC | Water Tank Upgrades | Repair and seal of VC water tanks. See 2023/24 Infrastructure Ordinance. | |
| | PW | Infra/Roads | 25 | | $ 705,000 | | County | Road Projects Countywide | Countywide road rehabilitation projects per Farr West CIP report. See 23/24 Infrastructure Ordinance | 50/50 Infrastructure/Roads |
| | PW | Infrastructure | 25 | | $ 1,500,000 | | TRI | Pittsburgh to Ireland | Finish Pittsburgh west segement connecting it to Ireland. Note drainage improvements | |
| | PW | Infrastructure | 25 | | $ 1,000,000 | | TRI | Pittsburgh Drainage | Correct culverts and drainage way beneath Pittsburgh Drive west segment | |
| | PW | Roads | 25 | | $ 1,000,000 | | TRI | Sydney Cul-De-Sac | Correct cul-de-sac at Sydney Drive to remove GID building and drainages. Add south-to-north drainage | Reconveyance needed |
| | PW | Roads | 25 | | $ 2,000,000 | | VCH | Cartwright | Cartwright Road widening, shoulder improvements, and drainage reconstruction | |
| | PW | Roads | 25 | | $ 500,000 | | MT | Culverts Sam Clemens N | Bridge on Sam Clemens over existing north high-water crossing | |
| | PW | Roads | 25 | | $ 500,000 | | MT | Culverts Sam Clemens S | Bridge on Sam Clemens over existing south high-water crossing | |
| | PW | Roads | 25 | | $ 2,000,000 | | VCH | Lousetown | Lousetown Road widening, shoulder improvements, and drainage reconstruction | |
| | PW | Water | 25 | | $ 3,000,000 | | VC | B and Union St. Water Line | B and Union Street Water Mains (10-inch PVC Main, 8-inch PVC main, Meters and Service, Traffic Control. | Engineering report done Jan '22 |
| | PW | Water | 25 | | $ 3,000,000 | | VC | Flowery, D to Silver Water | Flowery between C and D, running south on D to Silver, east on Silver to E Street, and Noyes St to Silver. | |
| | PW | Water | 25 | | $ 900,000 | | SC | Silver City Tank | Replace Silver City Water Tank | Engineering report done Jan '22 |
| | PW | Water | 25 | | $ 900,000 | | VC | Taylor Tank | Replace Taylor Water Tank | Engineering report done Jan '22 |
| | PW | Water | 25 | | $ 6,000,000 | | VC | VC Water Distribution Line | Replace water distribution lines in Virginia City | |
| | PW | Water | 25 | | $ 4,000,000 | | GH | GH Water Distribution Line | Replace water distribution lines in Gold Hill | See draft water plan |
| | Recorder | Capital | 25 | | $ 1,000,000 | | County | Archive Building | Document archive building that is secure, temperature controlled | |
| | VCTC | Roads/Rail | 25 | | $ 400,000 | | VC | Fairgounds Rd. RR | Realign, correct, and properly signal RR crossing at Fairgrounds Road and F Street | .25 cent sales V&T Rail Fund? |
| | VCTC | VCTC | 25 | | $ 500,000 | | VC | Restrooms C Street | Add public restrooms at vacant lot between Zephas and Liberty Engine 1 | One of four alternatives |

# Storey County Capital Improvement Plan *DRAFT*

| | Dept. Managing Project | Fund | Fiscal Year Target | Fiscal Year Target if Grants Secured | Total Estimate County Expense | Estimated Grant Funding | Project Location | Short Name | Description | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| Pending | VCTC | VCTC | 25 | | $ 3,000,000 | | VC | VCTC Center Build | Build new VCTC Visitors' Center at the Black and Howell site (corner of C and Taylor) owned by county | Explore other alternatives too |
| | | | | | | | | | | |
| | | | 2025 Project TOTALS: | | $ 62,515,000 | $ 10,000,000 | | | | |
| | | | | | | | | | | |
| | | | | | | | | 2025 Equipment & Vehicles | | |
| | PW | Equip. Acq. | 25 | | $ 250,000 | | PW | Water Truck | Water truck. Currently must switch out water tank with plow hardware each season. | |
| | PW | Equip. Acq. | 25 | | $ 330,000 | | PW | Road Sweeper | Street sweeper truck | |
| | PW | Equip. Acq. | 25 | | $ 200,000 | | PW | Short-Frame Plow | Peterbuilt heavy truck plow and sander to replace International plow | |
| | PW | Equip. Acq. | 25 | | $ 300,000 | | PW | Peterbuilt Dump Truck | Dump Truck. Replace current Kenworth. | |
| | PW | Equip. Acq. | 25 | | $ 200,000 | | PW | 1 Ton Contractor Truck | F-550/5500 Diesel contractor body one-ton truck | |
| | PW | Equip. Acq. | 25 | | $ 50,000 | | PW | Forklift | 10,000 lbs. forklift | |
| | PW | Equip. Acq. | 25 | | $ 150,000 | | PW | Skippy Tractor | John Deere Skippy loader box grader tractor | |
| | PW | Equip. Acq. | 25 | | $ 100,000 | | PW | Road Kick Broom | Road Kick Off Broom | |
| | PW | Equip. Acq. | 25 | | $ 20,000 | | PW | Light Plant w. Solar | Portable light plant w. solar array for construction project lighthing | |
| | PW | Equip. Acq. | 25 | | $ 60,000 | | PW | GMC Buildings/Gnds. | GMC 3/4 ton long-bed gas pickup with shell for water and sewer | |
| | PW | Equip. Acq. | 25 | | $ 70,000 | | PW | GMC Buildings/Gnds. | GMC 4-door diesel w. utility bed for buildings/grounds. Needs to pull weight. | |
| | PW | Equip. Acq. | 25 | | $ 350,000 | | PW | Motor Grader | John Deere Motor Grader | |
| | Sherif | Equip. Acq. | 25 | | $ 250,000 | | SO | Mobile EOC | Mobile emergency operations center. | |
| | Sheriff | Equip. Acq. | 25 | | $ 50,000 | | SO | Patrol Vehicle Rotation | Patrol vehicle per three-year rotation. Some funds recovered with auctioning out replaced vehicle. | |
| | Sheriff | Equip. Acq. | 25 | | $ 50,000 | | SO | Patrol Vehicle Rotation | Patrol vehicle per three-year rotation. Some funds recovered with auctioning out replaced vehicle. | |
| | Sheriff | Equip. Acq. | 25 | | $ 50,000 | | SO | Patrol Vehicle Rotation | Patrol vehicle per three-year rotation. Some funds recovered with auctioning out replaced vehicle. | |
| | | | | | | | | | | |
| | | 2024 Equipment & Vehicles TOTALS: | | | $ 2,480,000 | $ - | | | | |
| | | | | | | | | | | |
| | | | | | | | | 2026 Projects | | |
| | FD | Capital | 26 | | $ 1,250,000 | | VCH | Station 72 Fuel Mgt Quarter | Living quarters for fire crew and fire fuels and seasonal crews at VCH | |
| | FD | Capital | 26 | | $ 2,500,000 | | County | Fire Training Tower North | FD Training Tower North District (LW, PR, TRI) | |
| | FD | Capital | 26 | | $ 7,500,000 | | Fire | LW Fire Station 74 Move | Move Fire Station 74 Lockwood out of FEMA Floodplain | When Patrick is developed |
| | Plan | Planning | 26 | | $ 20,000 | $ 100,000 | TRI | TRI Drainage Study | Study to evaluate drainage needs for Tahoe-Reno Industrial Center on county-owned roads and parcels | For county-owned ROW only |
| | PW | Capital | 26 | | $ 100,000 | | LW | Fuel Tanks at PW LW | Replace double-lined fuel tank at Lockwood Fire Station 74 | |
| | PW | Capital | 26 | | $ 100,000 | | TRI | Fuel Tanks at PW TRI | Replace double-lined fuel tank at TRI-Center Station 75 | |
| | PW | Capital | 26 | | $ 100,000 | | VCH | VCH Mailbox Plaza | Reconstruct and expand snow shelter mailbox plaza at Highlands | |
| | PW | Capital | 26 | | $ 1,500,000 | | VC | PW Fire Truck Shop | Expand service shop to accommodate fire apparatus and large commercial vehicles | Need meeting to discuss possible locati |
| | PW | Capital | 26 | | $ 1,000,000 | | MT | MT Park Space | Develop space between MT Park and MTCC with seating, shade, barbecues, and usable space | |
| | PW | Capital | 26 | | $ 240,000 | | VC/GH | PhaseII Bike/Ped Lane GH. | Phase II-Pave bike/pedestrian route between Gold Hill and VC historic route | Seek recreation grants |
| | PW | Roads | 26 | | $ 150,000 | | TRI | TRI Waltham Bus Stop | Covered transit bus shelter and bus stop staging at Waltham Way location | |
| | PW | Roads | 26 | | $ 150,000 | | TRI | TRI Electric Bus Stop | Covered transit bus shelter and bus stop staging on Electric Avenue | |
| | PW | Roads | 26 | | $ 150,000 | | TRI | TRI USA Bus Stop | Covered transit bus shelter and bus stop staging on USA, Peru, or Sydney | |
| | PW | Roads | 26 | | $ 150,000 | | TRI | TRI Venice Bus Stop | Covered transit bus shelter and bus stop staging on Venice, Denmark, or Pittsburgh | |
| | PW | Infrastructure | 26 | | $ 85,000 | | VC | Water Tank Upgrades | Repair and seal VC water tanks. See 23/24 Infrastructure Ordinance | |
| | PW | Infra/Roads | 26 | | $ 476,000 | | County | Road Projects Countywide | Countywide road rehabilitation projects per Farr West CIP report. See 23/24 Infrastructure Ordinance | 50/50 Infrastructure/Roads |
| | PW | Infra/Capital | 26 | | $ 4,000,000 | | VC/MT | Bridge at Six Mile Cyn | New and wider bridge over Six Mile Canyon Creek in Six Mile Canyon Road | |
| | PW | Rail | 26 | | $ 200,000 | | GH | Gold Hill Depot Paint | Paint exterior of Gold Hill V&T Depot | .25 cent sales V&T Rail Fund |
| | PW | Rail | 26 | | $ 200,000 | | VC | VC Depot Paint | Paint exterior of VC V&T Depot | .25 cent sales V&T Rail Fund |
| | PW | Infrastructure | 24 | | $ 5,000,000 | | VC | School Building Buy Ph. 2 | Purchase VCMS and HG Elementary school buildings for county admin offices and comm. chambers. | Pending SCSD land and K12. Phase 2 |

# Storey County Capital Improvement Plan *DRAFT*

| | Dept. Managing Project | Fund | Fiscal Year Target | Fiscal Year Target if Grants Secured | Total Estimate County Expense | Estimated Grant Funding | Project Location | Short Name | Description | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| | PW | Rail | 26 | | $ 20,000 | | GH | Survey GH Depot Land | Survey and reconsolidate land in and around Gold Hill Freight Depot for parking and staging | |
| | PW | Roads | 26 | | $ 50,000 | | VC | SR 341 Retain Wall | Reconstruct retaining wall adjacent to residence on north end of SR 341 in Virginia City | NDOT conversation to continue |
| | PW | Roads | 26 | | $ 3,000,000 | | VC | Pave all VC dirt roads | Road expansion and paving in Virginia City to facilitate building on existing platted lots | Affordable housing |
| | PW | Water | 26 | | $ 1,440,000 | | VC/GH | Divide Tank | Replace Divide Water Tank - Why if each year we repair and seal the tanks/ Where will this go? | Engineering report done Jan '22 |
| | PW | Water | 26 | | $ 1,253,000 | | VC | Hillside to Divide Main | 12-inch PVC Water Main Hillside Tanks to Divide Tank. (12-inch PVC Main, Engineering, etc.) | |
| | PW | Water | 26 | | $ 2,640,000 | | SC/GH | Silver City Water Main | 8-inch PVC PRV water main between Gold Hill and Silver City to the Silver City Water Tank | |
| | PW | Water | 26 | | $ 720,000 | | VC | Five Mile Res. Wall | Wall surrounding Five Mile Reservoir | |
| | PW | Water | 26 | | $ 360,000 | | VC | Water Treat Plant Wall | Wall abutting south of water treatment center ponds | |
| | VCTC | Capital | 26 | | $ 10,000,000 | | VC | Convention Center | Convention center for VCTC, county, companies, etc., conferences and conventions | |
| | Piper's | Capital | 26 | | $ 405,000 | | VC | Piper's Wall Structure | West building wall/water infiltration | See Historic Structures Report |
| | PW | Roads | 26 | | $ 850,000 | | VC | Piper's Road Improve | A Street Roadway improvements | See Historic Structures Report |
| | Piper's | Capital | 26 | | $ 50,000 | | VC | Piper's Repairs | Complete stairs to balcony. Balcony repairs "as-exists", Restroom exhaust fans, Replace missing finials | See Historic Structures Report |
| | Piper's | Capital | 26 | | $ 162,500 | | VC | Piper's Exterior | Repaint/repair brick & mortar at Old Corner Bar, Refurbish 7 front doors, Replace exterior egress stairs North s | See Historic Structures Report |
| | | | | | | | | | | |
| | | | **2026 Project TOTALS:** | | **$ 45,821,500** | **$ 100,000** | | | | |
| | | | | | | | | | | |
| | | | | | | | | **2026 Plans & Studies** | | |
| | Plan | Cty Mgr. | 26 | | $ 20,000 | | VCH/VC | VCH/Comstock Nat. Gas | Farr West study of natural gas transmission and distribution for Highlands and Comstock - Move later??? | Start with 15% study feasibility |
| | Plan | Planning | 24 | | $ 5,000 | $ - | GH | GH Drainage Study | Study to evaluate drainage needs for Gold Canyon, Gold Hill, American Flat including NDEP/FEMA/EPA | |
| | Plan | Water | 26 | | $ 20,000 | | County | VCH Water Plan | Update 2022 Water Master Plan for VCH water distribution system. | |
| | | | | | | | | | | |
| | | | **2026 Plans & Studies TOTALS:** | | **$ 45,000** | **$ -** | | | | |
| | | | | | | | | | | |
| | | | | | | | | **2026 Equipment & Vehicles** | | |
| | CD | Equip. Acq. | 26 | | $ 40,000 | | CD | Pickup CD | Replace current vehicle per rotation schedule | |
| | PW | Equip. Acq. | 26 | | $ 300,000 | | PW | Peterbuilt Dump Truck | Dump Truck | |
| | PW | Equip. Acq. | 26 | | $ 150,000 | | PW | Service Truck | Service F550/5500 chassis with service body | |
| | PW | Equip. Acq. | 26 | | $ 230,000 | | PW | John Deere Loader | John Deere Loader to replace TRI Center loader | Some recovery at auction |
| | PW | Equip. Acq. | 26 | | $ 200,000 | | PW | Service Truck w. Crane | Service Truck Diesel with Crane Body | |
| | PW | Equip. Acq. | 26 | | $ 200,000 | | PW | 1 Ton Contractor Truck | F550/5500 Diesel contractor body one-ton truck | |
| | PW | Equip. Acq. | 26 | | $ 250,000 | | PW | Dump Truck | Replace Ford L9000 Dump Truck with new 10-wheel dump truck | |
| | SO | Equip. Acq. | 26 | | $ 50,000 | | SO | Patrol Vehicle Rotation | Patrol vehicle per three-year rotation. Some funds recovered with auctioning out replaced vehicle. | |
| | SO | Equip. Acq. | 26 | | $ 50,000 | | SO | Patrol Vehicle Rotation | Patrol vehicle per three-year rotation. Some funds recovered with auctioning out replaced vehicle. | |
| | SO | Equip. Acq. | 26 | | $ 50,000 | | SO | Patrol Vehicle Rotation | Patrol vehicle per three-year rotation. Some funds recovered with auctioning out replaced vehicle. | |
| | | | | | | | | | | |
| | | | **2026 Equipment & Vehicles TOTALS:** | | **$ 1,520,000** | **$ -** | | | | |
| | | | | | | | | | | |
| | | | | | | | | **2027 Projects** | | |
| | FD | Infrastructure | 27 | | $ 650,000 | | County | Reserve Fire Apparatus Sto | Add fire apparatus storage building for reserve firefighters - Where? | |
| | FD | Infrastructure | 27 | | $ 7,500,000 | | TRI | Add Fire Station 77 TRI N. | Add Fire Station 77 at TRI per ISO rating to access south TRI area near Lyon-Storey Line | Possible shared Storey-Lyon Facility |
| | IT | Capital | 27 | | $ 100,000 | | County | Security Key Fobs | Countywide key fob entrance security system | |
| | PW | Capital | 27 | | $ 1,800,000 | | VC | CH Earthquake Retro. | Earthquake retrofit of County Courthouse | See Historic Structures Report |
| | PW | Capital | 27 | | $ 100,000 | | VC | Seismic VC Sr Center | Earthquake retrofit VC Senior Center | |
| | PW | Capital | | | $ 5,000,000 | | VC | VC Senior Center | Replace or expand VC Senior Center serving Highlands and Comstock. | |
| | PW | Capital | 27 | | $ 12,000 | | MT | MT BMX Comp Track | BMX freestyle bicycle competition track | Requested by resident |

# Storey County Capital Improvement Plan *DRAFT*

| | Dept. Managing Project | Fund | Fiscal Year Target | Fiscal Year Target if Grants Secured | Total Estimate County Expense | Estimated Grant Funding | Project Location | Short Name | Description | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| | PW | Capital | 27 | | $ 180,000 | | MT | MT Skateboard Park | Skateboard Park Mark Twain | Location TBD |
| | PW | Capital | 27 | | $ 180,000 | | VC/GH | VC Skateboard Park | Skateboard Park Virginia City or Gold Hill | Location TBD |
| | PW | Capital | 27 | | $ 180,000 | | LW | LW Skateboard Park | Skateboard Park Lockwood | Location TBD |
| | PW | Infrastructure | 27 | | $ 85,000 | | VC | Water Tank Upgrades | Repair and seal VC water tanks. See 23/24 Infrastructure Ordinance. | |
| | PW | Infra/Roads | 27 | | $ 5,100,000 | | County | Road Projects Countywide | Countywide road rehabilitation projects per Farr West CIP report. See 23/24 Infrastructure Ordinance. | 25/75 Infrastructure/Roads |
| | PW | Infrastructure | 27 | | $ 1,200,000 | | GH | GH Sewer Lines | Replace sewer lines in Gold Hill | Plan needed |
| | PW | Infra/Capital | 27 | | $ 1,800,000 | | VC | Seismic retro St. Mary's | Earthquake retrofit of Saint Mary's Art Center (old hospital) | Estimate needed |
| | PW | Infra/Capital | 27 | | $ 1,800,000 | | VC | Seismic retro Fourth Wd. | Earthquake retrofit of Fourth Ward Schoool | Estimate needed |
| | PW | Infra/Capital | 27 | | $ 1,800,000 | | VC | Seismic retro Piper's | Earthquake retrofit of Piper's Opera House | Estimate needed |
| | PW | Infra/Capital | 27 | | $ 75,000 | | LW | LW School Bus Stop Cover | Covered snow shelter for school students at SCSD designated bus stop | School district location |
| | PW | Infra/Capital | 27 | | $ 75,000 | | VC | VC School Bus Stop Cover | Covered snow shelter for school students at SCSD designated bus stop | School district location |
| | PW | Infra/Capital | 27 | | $ 75,000 | | MT | MT School Bus Stop Cover | Covered snow shelter for school students at SCSD designated bus stop | School district location |
| | PW | Infra/Capital | 27 | | $ 75,000 | | VCH | VCH School Bus Stop Cove | Covered snow shelter for school students at SCSD designated bus stop | School district location |
| | PW | Pipers | 27 | | $ 600,000 | | VC | Piper's Structural Retro | Retrofit Piper's Opera House structural integrity, ADA access, interior improvements, retaining wall, etc. | |
| | PW | Roads | 27 | | $ 100,000 | | VC | Boardwalk Ext./Ped Trail | Pedestrian trail paved between Fourth Ward School and Virginia City Motel and Justice Court. | |
| | PW | Rail | 27 | | $ 150,000 | | GH | GH Depot Parking | Improve Gold Hill Freight Depot area for parking and vehicle staging | |
| | VCTC/PW | Rail | 27 | | $ 200,000 | | GH | GH Depot Parking Pave | Pave parking area around Gold Hill Freight Depot | Mapping needed |
| | VCTC | Capital | 27 | | $ 250,000 | | VC | Taylor St. Stairs | Replace historic Taylor Street stairs from C to B Street | Engineering complete. Ready |
| | VCTC | Pipers | 27 | | $ 250,000 | | County | Piper's Electrical | Upgrade service to 600A, Add emergency generator | See Historic Structures Report |
| | VCTC | Pipers | 27 | | $ 60,000 | | County | Piper's Kitchen | | See Historic Structures Report |
| | | | | | | | | | | |
| | | **2027 Project TOTALS:** | | | **$ 29,397,000** | **$ -** | | | | |
| | | | | | | | | | | |
| **2027 Equipment & Vehicles** | | | | | | | | | | |
| | PW | Equip. Acq. | 27 | | $ 130,000 | | PW | Service Truck | Service F550/5500 chassis with service body | |
| | PW | Equip. Acq. | 27 | | $ 250,000 | | PW | 5 Yard AWD Dump Truck | Five yard all-wheel-drive dump truck with plow prep. | |
| | PW | Equip. Acq. | 27 | | $ 300,000 | | PW | Tractor Trailer | Peterbuilt Truck and RGN Transport Trailer. | |
| | PW | Equip. Acq. | 27 | | $ 650,000 | | PW | Vactor Truck (north) | New Vactor Truck to serve north end of Storey County (LW, TRI, PR) | |
| | SO | Equip. Acq | 27 | | $ 50,000 | | SO | Patrol Vehicle Rotation | Patrol vehicle per three-year rotation. Some funds recovered with auctioning out replaced vehicle. | |
| | SO | Equip. Acq | 27 | | $ 50,000 | | SO | Patrol Vehicle Rotation | Patrol vehicle per three-year rotation. Some funds recovered with auctioning out replaced vehicle. | |
| | SO | Equip. Acq | 27 | | $ 50,000 | | SO | Patrol Vehicle Rotation | Patrol vehicle per three-year rotation. Some funds recovered with auctioning out replaced vehicle. | |
| | | | | | | | | | | |
| | | **2027 Equipment & Vehicles TOTALS:** | | | **$ 1,480,000** | **$ -** | | | | |
| | | | | | | | | | | |
| **2027 Plans & Studies** | | | | | | | | | | |
| | PW | Roads | 27 | | $ 100,000 | | County | Roads CIP VC | Update Roads CIP to widen, straighten, shoulder, and upgrade county roads countywide | Roads CIP done by Farr West. |
| | | | | | | | | | | |
| | | **2027 Plans & Studies TOTALS:** | | | **$ 100,000** | **$ -** | | | | |
| | | | | | | | | | | |
| **2028 Projects** | | | | | | | | | | |
| | DC | District Court | 28 | Grant 28 | $ 20,000,000 | $ 4,000,000 | County | First District Courthouse | New First District Court per upcoming First District Court orders for modern and secure court facilities | |
| | FD | Capital | 28 | | $ 7,500,000 | | VCH | Fire Station 72 VCH | Replace dated fire station at VCH | |
| | FD | Capital | 28 | | $ 7,500,000 | | PR | Fire Station 76 PR | Dependent on planned unit development status at PR | |
| | FD | Capital | 28 | | $ 2,500,000 | | County | Fire Training Tower | South District Training Tower (VC, VCH, MT) | |
| | PW | Facilities | 28 | | $ 500,000 | | VCH | County Horse Shelter | Wild horse rescue center in at VCH run by VRWPA or other qualified non-profit | Location TBD |

# Storey County Capital Improvement Plan *DRAFT*

| | Dept. Managing Project | Fund | Fiscal Year Target | Fiscal Year Target if Grants Secured | Total Estimate County Expense | Estimated Grant Funding | Project Location | Short Name | Description | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| | Fire | Infrastructure | 28 | Grant 28 | $ 700,000 | $ 3,500,000 | VCH | Replace Fire Station 72 VCH | Replace Fire Station 72 VCH with larger building and sleeping quarters to meet area needs | |
| | Plan | Infrastructure | 28 | | $ 500,000 | | LW | LCC Gas Lines | Replace gas distribution lines throughout LCC. Allow NV Energy to connect LCC to new LW natural gas utility | Discovery Phase Assess now |
| | Plan | Infrastructure/C | 28 | Grant 25 | $ 200,000 | $ 10,000,000 | MT | Mark Twain Drainage | Implement DVAMP master plan including drainage, detention basins, easements, culverts, etc. | Lyon match, CWSD too, plan done |
| | Plan/PW | Capital | 28 | | $ 360,000 | | VC | East C St. Boardwalk | Replace wooden sidewalk along west edge of C Street between SO office and Fourth Ward School | "Main Streets" funding? |
| | Plan/PW | Capital | 28 | | $ 600,000 | | VC | West. C. St. Boardwalk | Sidewalk along east shoulder of C Street between SO office and Fourth Ward School | "Main Streets" funding? |
| | PW | Capital | 28 | | $ 500,000 | | TRI | TRI Admin. Offices | Develop TRI Government Center to accommodate all remote county offices for north access | Painted Rock PUD service too |
| | PW | Capital | 28 | | $ 2,000,000 | | MT | Regional Fire Train Center | Add fire and emergency training site near Mark Twain Community Center | |
| | PW | Capital | 28 | | $ 700,000 | | LW | LW Riverwalk | Riverwalk, shade, etc., between Menizes and Rainbow Bend to access by all Lockwood residents | |
| | PW | Capital | 28 | | $ 2,000,000 | | VC | VC South Entrance Rest St | Develop south entrance to VC with restrooms, parking, and visitor information kiosks | |
| | PW | Capital | 28 | | $ 4,000,000 | | VC | Swimming Pool Cover | Cover new swimming pool to become indoor facility and year-round service | |
| | PW | General | 28 | | $ 1,000,000 | | LW | LW Land Acquire Washoe | Acquire vacant land north of Rainbow Bend | Request land swap from Washoe |
| | PW | Infrastructure | 28 | | $ 10,000,000 | | PR | Bridge at Painted Rock | Replace existing Painted Rock Bridge over Truckee River. | |
| | PW | Infrastructure | 28 | | $ 2,000,000 | | LW | Bridge at Rainbow Bend | New and wider bridge over Long Valley Creek in Rainbow Bend at Avenue of the Colors | Tie in with LW Flood Project |
| | PW | Infrastructure | 28 | | $ 2,000,000 | | LW | Bridge at Peri Ranch Rd | New and wider bridge over Long Valley Creek into Peri Ranch Road at the Lockwood Community Corp | |
| | PW | Infrastructure | 28 | | $ 2,000,000 | | LW | Bridge at southern LCC Rd | New and wider bridge over Long Valley Creek into (( )) at the Lockwood Community Corp | |
| | PW | Infrastructure | 28 | | $ 2,500,000 | | GH | Gold Hill Sewer Expansion | Expand Gold Hill wastewater facility (x2) to facilitate new residential/commercial construction | Affordable housing |
| | PW | Roads | 28 | | $ 500,000 | | VCH | Long Valley Rd Improve | Long Valley Road improvements, drainage reconstruction, and paving. First 2 miles from Lousetown. | |
| | PW | Roads | 28 | | $ 1,000,000 | | LW | Peri Ranch Rd. west | Widen, improve, and separate from residential units Peri Ranch Road from comm center to Canyon Way | Pending alignment by Leporie |
| | PW | Roads | 28 | | $ 2,000,000 | | VC | C Street Fix from NDOT | Drainage, shoulder, curb, retaining walls, and structural repairs on C Street | Per NDOT relinquishment |
| | PW | Roads | 28 | | $ 240,000 | | VC | Boardwalk North (west) | Boardwalk/sidewalk west side of C Street from Sutton to Carson Street | Main Streets funding? |
| | PW | Roads | 28 | | $ 240,000 | | VC | Boardwalk North (east) | Boardwalk/sidewalk east side of C Street from Sutton to Carson Street (bridge over Marsh park lot) | Main Streets funding? |
| | PW | Roads | 28 | | $ 360,000 | | VC | Boardwalk North Bridge | Boardwalk/sidewalk east side of C Street bridge/overhang over lower parking lot segment | Main Streets funding? |
| | SO | Jail-Justice | 28 | Grant 28 | $ 15,000,000 | $ 3,000,000 | VC | Jail-Justice Complex | Replace VC jail facility due to safety and security | |
| | VCTC | Pipers | 28 | | $ 363,000 | | VC | Piper's HVAC/Plumbing | Add 60 gallon h20 heater, auditorium hydronic heating and evaporative cooling, direct ventilation, roof ventilati | See Historic Structures Report |
| | VCTC | Pipers | 28 | | $ 70,000 | | VC | Piper's Carriage House | Prep 2 opening for Carriage house doors, refurbish/rebuild 2 carriage house doors | See Historic Structures Report |
| | VCTC | Pipers | 28 | | $ 250,000 | | VC | Piper's Balcony | Balcony repairs "full use" option | |
| | VCTC | VCTC | 28 | Grant 28 | $ 1,000,000 | $ 200,000 | VC | Inclinator F to C Street | Inclinator from VC Freight Depot (multi-modal transit hub) to C Street | Estimate needed |
| | | | | | | | | | | |
| | | **2027 Project TOTALS:** | | | **$ 90,083,000** | **$ 20,700,000** | | | | |
| | | | | | | | | | | |
| | | | | | | | | **2028 Equipment & Vehicles** | | |
| | CD | Equip. Acq. | 28 | | $ 50,000 | | CD | Pickup CD | Replace current vehicle per rotation schedule | |
| | CD | Equip. Acq. | 28 | | $ 50,000 | | CD | Pickup CD | Replace current vehicle per rotation schedule | |
| | CM | Equip. Acq. | 28 | | $ 50,000 | | CM | Staff Vehicle | Replace current vehicle per rotatron schedule and anticipated mileage | |
| | Dispatch | Equip. Acq. | 28 | | $ 50,000 | | Dispatch | Staff Vehicle | Replace current vehicle per rotation schedule and anticipated mileage | |
| | IT | Equip. Acq. | 28 | | $ 50,000 | | IT | Staff Vehicle | Replace current vehicle per rotation schedule and anticipated mileage | |
| | PW | Equip. Acq. | 28 | | $ 50,000 | | PW | Staff Vehicle | Replace current vehicle per rotatron schedule and anticipated mileage | |
| | SCSC | Equip. Acq. | 28 | | $ 50,000 | | SCSC | Staff Vehicle | Replace current vehicle per rotation schedule and anticipated mileage | |
| | SO | Equip. Acq. | 28 | | $ 50,000 | | SO | Patrol Vehicle Rotation | Patrol vehicle per three-year rotation. Some funds recovered with auctioning out replaced vehicle. | |
| | SO | Equip. Acq. | 28 | | $ 50,000 | | SO | Patrol Vehicle Rotation | Patrol vehicle per three-year rotation. Some funds recovered with auctioning out replaced vehicle. | |
| | SO | Equip. Acq. | 28 | | $ 50,000 | | SO | Patrol Vehicle Rotation | Patrol vehicle per three-year rotation. Some funds recovered with auctioning out replaced vehicle. | |
| | VCTC | Equip. Acq. | 28 | | $ 50,000 | | VCTC | Staff Vehicle | Replace current vehicle per rotation schedule and anticipated mileage | |
| | | | | | | | | | | |
| | | **2028 Equipment & Vehicles TOTALS:** | | | **$ 550,000** | **$ -** | | | | |

# Storey County Capital Improvement Plan *DRAFT*

| | Dept. Managing Project | Fund | Fiscal Year Target | Fiscal Year Target if Grants Secured | Total Estimate County Expense | Estimated Grant Funding | Project Location | Short Name | Description | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **2028 Plans & Studies** | | | | | | | | | | |
| | Plan | Planning | 28 | | $ 100,000 | | County | Master Plan Update | 10-Year Storey County Master Plan Update consultation and technical assistance. | |
| | | | | | | | | | | |
| | | **2028 Plans & Studies TOTALS:** | | | **$ 100,000** | **$ -** | | | | |
| | | | | | | | | | | |
| **2029 Projects** | | | | | | | | | | |
| | PW | Capital | 29 | | $ 12,000,000 | | County | Regional Animal Shelter | Regional animal center for small and large animals (Coordinate with Lyon and other counties) | |
| | PW | Capital | 29 | | $ 2,000,000 | | VCH | Petroglyphs Ranger Stn. | Develop ranger station, tourism center, parking, restrooms, etc. to open and protect Petroglyphs site | |
| | PW | Capital | 29 | | $ 500,000 | | VC | VCTC Visitors' Center | Occupy and rehabilitate existing DA/Sheriff Office into VCTC Visitors' Center. Per moving to school build. | |
| | PW | Capital | 29 | | $ 100,000 | | LW | LW Amphitheater | Construct outdoor amphitheater in Lockwood near Louise Peri Park | |
| | PW | Capital | 29 | | $ 100,000 | | VC | VC Amphitheater | Construct outdoor amphitheater in VC near Miner's Park and Community Chest | |
| | PW | Capital | 29 | | $ 100,000 | | MT | MT Amphitheater | Construct outdoor amphitheater in Mark Twain in gap between park and Community Center | |
| | PW | Capital | 29 | | $ 100,000 | | VCH | VCH Amphitheater | Construct outdoor amphitheater in Highlands on land between Community Center and Lousetown Rd | |
| | PW | Capital | 29 | | $ 1,000,000 | | VC | School Admin Building TI | Retrofits to move administrative offices to E Street schools when school moves to K12 facility | Courthouse remain court |
| | PW | Capital | 29 | | $ 200,000 | | VC | School Admin Building TI | Retrofits to create board/commission chambers at existing school gym when move occurs | Community chambers |
| | PW | Capital | 29 | | $ 4,000,000 | | VC | Divide Reservoir Park | Add recreation facilities (benches, barbecues, fishing dock, etc.) to Divide Reservoir for public use | 2016 Master Plan supported |
| | PW | Capital | 29 | | $ 1,000,000 | | MT | Entrance Kiosk and Impv. | Community information bulletin kiosk, parking, benches, lighting, and improvements | |
| | PW | Capital | 29 | | $ 1,000,000 | | LW | Entrance Kiosk and Impv. | Community information bulletin kiosk, parking, benches, lighting, and improvements | |
| | PW | Capital | 29 | | $ 1,000,000 | | VCH | Entrance Kiosk and Impv. | Community information bulletin kiosk, parking, benches, lighting, and improvements | |
| | PW | Capital | 29 | | $ 1,000,000 | | VC | Entrance Kiosk and Impv. | Community information bulletin kiosk, parking, benches, lighting, and improvements | |
| | PW | Capital | 29 | | $ 1,000,000 | | TRI | Entrance Kiosk and Impv. | Community information bulletin kiosk, parking, benches, lighting, and improvements | |
| | PW | Capital | 29 | | $ 4,000,000 | | TRI | TRI Justice Center | Add justice complex to TRI (Court, jail, administration, SO substation, other offices and facilities) | |
| | PW | Capital | 29 | | $ 10,000,000 | | Unknown | Ice Skating Rink | Ice Skating Rink per request at community town hall. Location TBD | Requested at Town Hall 2021 |
| | PW | Infrastructure | 29 | | $ 80,000,000 | | VCH | Water Transmission to VCH | Water transmission line from VC to Highlands | See Water Master Plan 2022 |
| | PW | Infrastructure | 29 | | $ 12,000,000 | | VC | Parallel Siphon Comstock | Parallel siphon I580 to Five Mile Res. For Comstock Buildout 1,086 gpm 12 inch main, 6" air release valves | See Water Master Plan 2022 |
| | PW | Infrastructure | 29 | | $ 2,400,000 | | VC | Upgrade Water Capacity | WTP Capacity Upgrade, Comstock Buildout 1.5 MGD capacity | See Water Master Plan 2022 |
| | PW | Infrastructure | 29 | | $ 127,000,000 | $ 25,400,000 | VC | Water to Highlands | Water transmission, capacity storage, treatment, and distribution to Highlands | 2022 Water Master Plan. Explore funds |
| | PW | Infrastructure | 29 | | $ 5,000,000 | | VC | VC Power Lines Undergnd | Underground power lines in downtown Virginia City area | Subject to community desire. |
| | PW | Infrastructure | 29 | | $ 80,000,000 | | VCH | VCH Natual Gas Trans. | Natural Gas transmission lines from north county to Highlands and Comstock | NV Energy projet pending. Explore fun |
| | PW | Infrastructure | 29 | | $ 26,000,000 | $ 5,200,000 | MT | Water to Mark Twain | Water transmission, capacity storage, treatment, and distribution to Mark Twain Estates | See Water Master Plan 2022 |
| | PW | Infrastructure | 29 | | $ 50,000,000 | | VCH | VCH Natural Gas Distrib. | Natural Gas distribution lines from new main to residences and businesses in VCH and Comstock | NV Energy projet pending. Explore fun |
| | PW | Infrastructure | 29 | | $ 80,000,000 | | VC | VC Natural Gas Trans. | Natual Gas transmission line from south county to Virginia Cith and Gold Hill | NV Energy projet pending. Explore fun |
| | PW | Infrastructure | 29 | | $ 50,000,000 | | VC | VC Natural Gas Distrib. | Natual gas distribution line from new main to residences and businesses in VC and Gold Hill | NV Energy projet pending. Explore fun |
| | PW | Roads | 29 | | $ 5,000,000 | | VCH | Lousetown-341 Intersection | Improve access and egress at Lousetown and SR 341 intersection | |
| | PW | Roads | 29 | | $ 5,000,000 | | VC | B Street Widen/Parking | Widen B Street between Taylor and Sutton. Provide angled parking for visitors and residents. | Design subject to community. |
| | PW | Roads | 29 | | $ 5,000,000 | | VC | D Street Widen/Parking | Widen and straighten D and/or E Streets for angled parking, loop circulation, and C Street avoidance | Design subject to community. |
| | PW | Roads | 29 | | $ 2,000,000 | | VC | C Street Parking/Amend | Amend traffic patterns on C Street around improvements to B, D, and E Streets | Design subject to community. |
| | PW | Roads | 29 | | $ 10,000,000 | | LW | LW Ramp Improvement | Widen and improve safety on Canyon Way ramp approaching I-80 interchange | Subject to Washoe land swap |
| | | | | | | | | | | |
| | | **2029 Project TOTALS:** | | | **$ 578,500,000** | **$ 30,600,000** | | | | |
| | | | | | | | | | | |
| | | | | | | | | | **Notes and Abbreviations** | |
| | | **CIP TOTALS:** | | | **$ 830,065,713** | **$ 66,415,000** | | | CM = County Manager | |
| | | | | | | | | | CR = Community Relations | |
| | | | | | | | | | DC = District Court | |

# Storey County Capital Improvement Plan *DRAFT*

| | Dept. Managing Project | Fund | Fiscal Year Target | Fiscal Year Target if Grants Secured | Total Estimate County Expense | Estimated Grant Funding | Project Location | Short Name | Description | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Fire = Fire District used countywide | |
| | | | | | | | | | GH = Gold Hill | |
| | | | | | | | | | LW = Lockwood | |
| | | | | | | | | | MT = Mark Twain | |
| | | | | | | | | | PR = Painted Rock | |
| | | | | | | | | | PW = Public Works | |
| | | | | | | | | | SC = Silver City | |
| | | | | | | | | | SCSC = Storey County Senior Center | |
| | | | | | | | | | SCSD = Storey County School District | |
| | | | | | | | | | SO = Sheriff's Office | |
| | | | | | | | | | TRI = Tahoe-Reno Industrial Center or McCarran | |
| | | | | | | | | | VC = Virginia City | |
| | | | | | | | | | VCTC = Uses for the purpose of supporting tourism economic development. | |
| | | | | | | | | | VCH = Highlands | |
| | | | | | | | | | | |
| | | | | | | | | | *Road maintenance included in existing Roads CIP and is not included in this document. | |
| | | | | | | | | | *2020-2024 CIP are included in the existing board approved CIP and may not be listed in this document. | |
| | | | | | | | | | *Storey County School District items are in review now. | |
| | | | | | | | | | *Painted Rock PUD development, unless stated, is not included in the above estimates. | |
| | | | | | | | | | *Some items in 2030 will need substantial potential funding exploration. | |

# Audit Report
# STOREY COUNTY, NEVADA
# June 30, 2022

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**FINANCIAL SECTION**

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DiPietro & Thornton
CERTIFIED PUBLIC ACCOUNTANTS

Joseph F. Costanza, CPA
Scott A. Westover, CPA
Theresa M. Westover, CPA

Of Counsel
John F. DiPietro, CPA
Randall D. Thornton, CPA

## INDEPENDENT AUDITOR'S REPORT

To the Honorable Board of County Commissioners
Storey County, Nevada

**Report on the Financial Statements**

We have audited the accompanying financial statements of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information of Storey County, Nevada as of and for the year ended June 30, 2022, and the related notes to the financial statements, which collectively comprise the Storey County, Nevada's basic financial statements as listed in the table of contents.

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities, business-type activities, each major fund, and the aggregate remaining fund information of Storey County, Nevada, as of June 30, 2022, and the respective changes in financial position, and where applicable, cash flows, thereof and the respective budgetary comparisons for the General Fund and the Regional Streets and Highway Fund for the year then ended in conformity with accounting principles generally accepted in the United States of America.

***Basis for Opinions on Each Major Federal Program***

We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of Storey County, Nevada and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

**Responsibilities of Management for the Financial Statements**

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Storey County, Nevada ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

### *Auditor's Responsibilities for the Audit of the Financial Statements*

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with generally accepted auditing standards and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.



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In performing an audit in accordance with generally accepted auditing standards and *Government Auditing Standards*, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Storey County, Nevada's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Storey County, Nevada's ability to continue as a going concern for a reasonable period of time.

Exercise professional judgment and maintain professional skepticism throughout the audit.

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Storey County, Nevada's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Storey County, Nevada's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

***Required Supplemental Information***

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, on pages 4 through 10 and the schedules of other post-employment benefits and the County's proportionate share of the net pension liability and defined benefit plan contributions on pages 90-92 be presented to supplement the basic financial statements. Such information is the responsibility of management, and although not a part of the basic financial statements, is required by Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriated operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquires, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

*Supplementary Information*

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the Storey County, Nevada's basic financial statements. The budgetary comparison financial statements for the major capital projects fund, combining and individual nonmajor fund financial statements, and schedule of expenditures of federal awards, as required by Title 2 U.S. Code of Federal Regulations Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the combining and individual nonmajor fund financial statements and the schedule of expenditures of federal awards are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

**Other Reporting Required by Government Auditing Standards**

In accordance with Government Auditing Standards, we have also issued a report dated November 30, 2022, on our consideration of Storey County, Nevada's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of Storey County, Nevada's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with Government Auditing Standards in considering Storey County, Nevada's internal control over financial reporting and compliance.

Reno, NV
December 20, 2022

As management of Storey County, State of Nevada, we offer readers of Storey County's financial statements this overview and analysis of Storey County for the fiscal year ended June 30, 2022.

FINANCIAL HIGHLIGHTS

- The government wide net position at the close of the 2022 fiscal year was $45,157,984 which was a increase from 2021 in the amount of $14,202,289. This represents $26,882,029 governmental activities and $18,275,955 in Business type activities
- The assets of Storey County exceeded its liabilities by $47,630,037
- The primary revenue sources for the County for governmental activities were $20,347,868 of property taxes, $8,925,398 of consolidated taxes, and $1,168,182 of capital contributions and grants.
- The government wide expenses were $30,479,628. The greatest expenses were in the General government function $11,321,937 and the Public Safety function in the amount of $14,663,332.
- At the close of the fiscal year the general fund balance was $28,468,540 an increase from the previous year in the amount of $5,564,494. Combined governmental funds closed fiscal year 2022 with combined balance of $53,208,353.
- Storey County's bonded debt at June 30, 2022 was $10,992,118 which was $9,595,293 in revenue bonds of the County's Enterprise Funds, and $1,396,825 bond of the Storey County Fire Protection District.

OVERVIEW OF THE FINANCIAL STATEMENTS

This discussion and analysis are intended to serve as an introduction to Storey County's basic financial statements. These basic financial statements include (1) government-wide financial statements (2) fund financial statements, and (3) notes to the financial statements. This report also contains supplementary information in addition to the basic financial statements themselves.

**Government-Wide Financial Statements.** The government-wide statements are designed to provide readers with a broad overview of Storey County's finances in a manner similar to private-sector business.

The Statement of Net Position is information on all of Storey County's assets and liabilities, with the difference between the two reported as net assets. Over time, increases and decreases in net assets may serve as an indicator to show if the financial position of Storey County is improving or declining.

The Statement of Activities notes information as to how the government's net assets changed during the last fiscal year. All changes in net assets are reported as soon as the event causing the change occurs, regardless of the timing of related cash flows. Revenues and expenses are reported for some items that result in cash flows in future periods, (e.g., uncollected taxes, earned and unused vacation and sick leave).

The government-wide financial statements distinguish functions of Storey County that are mainly supported by taxes and intergovernmental revenues (government activities) from other functions that recover their costs through user fees and charges (business type activities). The governmental activities of Storey County included general government, public safety, roads and streets, judicial and, culture and recreation, and community support. The business activities (enterprise funds) are the water and sewer.

The government-wide financial statements can be found in this report on pages 12 and 13.

**Fund Financial Statements.** Funds are groupings of related accounts and is used to maintain control over resources segregated for specific activities or purpose. Storey County uses fund accounting to ensure compliance with state and federal finance related requirements. The fund types of Storey County are as follows: governmental; enterprise; and fiduciary.

**Governmental Funds.** Governmental funds are used to account for the functions reported as governmental activities, in the government-wide financial statements. Unlike the Government-Wide Financial Statements, governmental fund statements focus on near term inflows of expendable resources and on balances of expendable resources at the end of the fiscal year. This information helps with decisions as to near term financing needs.

The focus of governmental funds is narrower than the government-wide financial statements. It is useful to compare the information for governmental funds with similar information for governmental activities in government-wide financial statements. By doing so, readers will better understand the long-term impact of governments near-term financing decisions. The governmental fund Balance Sheet and governmental fund Statement of Revenues, Expenditures, and Changes in Fund Balances allow this comparison between governmental funds and activities.

Storey County has twenty-three governmental funds. Financial information is stated separately in the governmental fund Balance Sheet and in the governmental Statement of Revenues, Expenditures, and Changes in Fund Balances, for the general fund and five other funds considered major funds. Data from the other seventeen governmental funds are combined. Individual fund data for non-major governmental funds are reported in combining statements in this report.

Storey County adopts an annual budget for each of its governmental and propriety funds. A budgetary comparison statement has been provided for all funds to show compliance with the budget.

The governmental funds financial statements can be found in this report on pages 15 through 30.

**Proprietary funds.** Storey County operates two enterprise (proprietary) funds; the Water Fund and the Sewer Fund which supply services in Virginia City and Gold Hill. These funds are reported as business type activities, reported in the government-wide financial statements..

Enterprise funds are presented on pages 32 through 33.

**Fiduciary funds.** Fiduciary funds are used to account for resources held for other entities. Fiduciary funds are not reflected in the government-wide financial statements as the resources of these funds are not available to support Storey County. The cash basis of accounting is used for fiduciary funds

Fiduciary fund financial statements can be found in this report on page 34.

**Notes to the financial statements.** The notes in this report provide additional information necessary for a full understanding of the information provided in the government-wide financial statements. The notes can be found on pages 35 through 59.

**Other information.** In addition to the basic financial statements and accompanying notes, this report also presents certain supplementary information, including budget to actual comparison data. These schedules test compliance with budgetary constraints and management directive to enhance accountability at the fund and function level. This information may be found on pages

## GOVERNMENT-WIDE FINANCIAL ANALYSIS

A significant portion of the County's net position, $38,299,000, reflects the amount invested in capital assets (e.g. land and easements, structures and improvements, infrastructure, and equipment), less any related debt used to acquire those assets. The County uses these capital assets to provide services to citizens; consequently, these assets are not available for future spending. Although the County's investment in capital assets is reported net of related debt, it should be noted that the resources needed to repay this debt must be provided from other sources, since the capital assets themselves cannot be used to liquidate these liabilities.

The restricted portion of the County's net position, $402,000, represents resources that are subject to external restrictions (statutory, bond covenants or granting agency) on how they may be used.

The unrestricted portion of the County's net position due to governmental activities is 6,457,000 primarily due to the classification of long-term pension liabilities to the unrestricted category. These liabilities are required by new accounting standards in order to communicate to potential lenders and the public the potential liability the County bears for future pension expense. These liabilities accumulate over decades as part of the County's employment agreements and the timing for their translation into current year expense is not subject to precise projection.

*For more detailed information, see the government-wide Statements of Net Position and Notes to the Financial Statements.

STOREY COUNTY, NEVADA
NET POSITION

| | Governmental Activities June 30, 2022 | Business Type Activities June 30, 2022 | Total June 30, 2022 | Total June 30, 2021 |
|---|---|---|---|---|
| Current and Other Assets | $ 58,809,000 | $ 1,838,000 | $ 60,647,000 | $ 51,138,000 |
| Capital Assets | 54,768,000 | 26,570,000 | 81,338,000 | 83,315,000 |
| Total Assets | $ 113,577,000 | $ 28,408,000 | $ 141,985,000 | $ 134,453,000 |
| Deferred Outflows | $ 18,368,000 | $ 263,000 | $ 18,631,000 | $ 13,732,000 |
| Long Term Liabilities Outstanding | $ 80,308,000 | $ 9,966,000 | $ 90,274,000 | $ 100,299,000 |
| Current Liabilities | 3,980,000 | 111,000 | 4,091,000 | 6,359,000 |
| Total Liabilities | $ 84,288,000 | $ 10,077,000 | $ 94,365,000 | $ 106,658,000 |
| Deferred Inflows | $ 20,775,000 | $ 318,000 | $ 21,093,000 | $ 10,571,000 |
| Net Position | | | | |
| Invested in Capital Assets, Net of Related Debt | $ 21,324,000 | $ 16,975,000 | $ 38,299,000 | $ 32,799,000 |
| Restricted | 143,000 | 259,000 | 402,000 | 402,000 |
| Unrestricted | 5,415,000 | 1,042,000 | 6,457,000 | (2,245,000) |
| Total Net Position | $ 26,882,000 | $ 18,276,000 | $ 45,158,000 | $ 30,956,000 |

STOREY COUNTY, NEVADA
CHANGES IN NET POSITION

At the end of 2022 fiscal year Storey County reports a positive balance in net position for both the government activities and business-type activities. This is true for the prior fiscal year.

Storey County's overall net position increased $14,202,000 compared to a $2,682,000 increase in the prior year. The governmental activities net position increased by $14,295,000 and the Business-type activities decreased $93,000. The details of the changes are noted in the following table:

| | Governmental Activities June 30, 2022 | Business Type Activities June 30, 2022 | Total June 30, 2022 | Total June 30, 2021 |
|---|---|---|---|---|
| REVENUES: | | | | |
| Program Revenues: | | | | |
| Charges for Services | $ 11,122,000 | $ 1,105,000 | $ 12,227,000 | $ 6,927,000 |
| Operating Grants and Contributions | 388,000 | - | 388,000 | 961,000 |
| Capital Grants and Contributions | - | 1,168,000 | 1,168,000 | 954,000 |
| General Revenues: | | | | |
| Taxes | 20,348,000 | - | 20,348,000 | 19,142,000 |
| Intergovernmental | 8,925,000 | - | 8,925,000 | 6,127,000 |
| Interest Earnings | (1,135,000) | - | (1,135,000) | (13,000) |
| Bond Proceeds | - | - | - | - |
| Other | 2,411,000 | 121,000 | 2,532,000 | 1,704,000 |
| Total Revenues | 42,059,000 | 2,394,000 | 44,453,000 | 35,802,000 |
| EXPENSES: | | | | |
| General Government | 14,846,000 | - | 14,846,000 | 15,547,000 |
| Public Safety | 8,823,000 | - | 8,823,000 | 11,861,000 |
| Judicial | 1,476,000 | - | 1,476,000 | 399,000 |
| Health and Welfare | 290,000 | - | 290,000 | 259,000 |
| Culture and Recreation | 411,000 | - | 411,000 | 402,000 |
| Community Support | 1,316,000 | - | 1,316,000 | 1,325,000 |
| Highways and Streets | 602,000 | - | 602,000 | 1,870,000 |
| Intergovernmental | - | - | - | - |
| Water and Sewer | - | 2,487,000 | 2,487,000 | 1,457,000 |
| Total Expenses | 27,764,000 | 2,487,000 | 30,251,000 | 33,120,000 |
| Changes in Net Position | 14,295,000 | (93,000) | 14,202,000 | 2,682,000 |
| Net Position - July 1 | 12,587,000 | 18,369,000 | 30,956,000 | 28,274,000 |
| Net Position - June 30 | $ 26,882,000 | $ 18,276,000 | $ 45,158,000 | $ 30,956,000 |

FINANCIAL ANALYSIS OF THE GOVERNMENT FUNDS. As noted earlier, Storey County uses fund accounting to ensure and demonstrate compliance with finance related legal requirements.

At the end of the fiscal year, Storey County's governmental funds reported a combined ending fund balance of $53,208,353, an increase of $10,497,652 from the prior year.

**General Fund.** The General Fund is the chief operating fund of the County. At the end of the current fiscal year, the fund balance was $28,468,540 and increase of $5,5564,494 from the prior year.

Expenditures increase was $655,869 : General government expenditures increased by $474,863 Judicial expenditures increased by $188,827 , and Public Safety decreased by $22,658. All increases are primarily due to increases in salary and benefit increases in various departments and union organizations.

**Road fund.** The Road Fund has an ending fund balance at the close of the current year of $1,721,993 a decrease of $930,110. Revenues increased 42% during the year due to the gas and SCCRT tax. Expense decreased 53% primarily due to a decrease in capital road projects.

**474 Fire Protection District Fund.** The Fire Protection District Fund has a fund balance at the end of the fiscal year of $4,673,622. This is an increase of $2,548,950. Revenues increased 47% primarily due to Tesla payments, Ad Valorem and Intergovernmental Funding. and Expenses increased 10% primarily due to increases in salaries and benefits

**Budgetary Highlights Fiscal Year ending June 30. 2022.**

The budget statements reflect a comparison budgeted revenues and expenditures to the actual for the year ending June 30, 2022. The budget statements were prepared from the final budget as filed with the Nevada Department of Taxation. Augmentations and line item transfers were made during the year as approved by the Storey County Commissioners.

The General Fund revenues were more than expectations by $5,685,568 leaving a fund balance of $28,468,540 General Fund information can be found on pages 21 through 25.

**Capital Assets.** Storey County's investment in capital assets for its governmental and business type activities as of June 30, 2022 amount to $81,338,000 (net accumulated depreciation). This investment in capital assets includes land, buildings, and Water/Sewer systems, improvements, machinery and equipment, park facilities, roads, and bridges.

STOREY COUNTY NEVADA
CAPITAL ASSETS
JUNE 30, 2022

| | Governmental Activities June 30, 2022 | Business Type Activities June 30, 2022 | Total June 30, 2022 |
|---|---|---|---|
| Land | $ 811,000 | $ - | $ 811,000 |
| Antique Furniture | 75,000 | - | 75,000 |
| Construction in Process | 2,931,000 | 14,793,000 | 17,724,000 |
| Leased assets | 56,000 | - | 56,000 |
| Buildings and Improvements | 8,888,000 | - | 8,888,000 |
| Improvements other than Buildings | 34,905,000 | - | 34,905,000 |
| Machinery and Equipment | 7,102,000 | - | 7,102,000 |
| Sewer and Water systems | - | 11,777,000 | 11,777,000 |
| Total | $ 54,768,000 | $ 26,570,000 | $ 81,338,000 |

**Long Term Debt.** The following table represents the long term debt of the county for June 30, 2022 and June 30, 2021:

STOREY COUNTY NEVADA
LONG TERM DEBT
JUNE 30, 2022 AND 2021

| | Balance June 30, 2022 | Balance June 30, 2021 |
|---|---|---|
| Governmental | | |
| Virginia City Rail Bond-Series 2010A | - | 448,000 |
| Virginia City Rail Bond-Series 2010B | - | 443,000 |
| Storey County Fire District USDA Loan | 1,396,825 | 1,485,008 |
| Leases payable | 53,750 | 71,976 |
| Compensated Absences | 779,093 | 766,643 |
| TRI-Construction repayment | 40,842,347 | 38,342,347 |
| Business Type Activities | | |
| Water Revenue Bonds | 3,054,906 | 3,118,716 |
| Sewer Revenue Bonds | 6,540,387 | 6,678,842 |

**Economic Factors and Next Year's Budget**

The County reviews and includes a variety of economic related statistics in the development and monitoring the operating and capital budgets. Long and short-term plans are annually reviewed and updated to aid in the development the County's budgets, including a 5-10 year plan for the County's Capital Improvement Projects. The assumptions used in the plans are reviewed by the County Commissioners as background for decisions regarding the revenue projections and cost allocations.

The County's practice of budgeting conservatively on revenues and liberally on expenditures has resulted in a strong, fiscally responsible government. Storey County Board of Commissioners approved the 2020-2021 in May and this was approved by Nevada Dept of Taxation. The financial projections continue to include the growth of the Tahoe Regional Industrial Park which has a substantial impact on both the revenue and expenditures of the County. TRI has a significant impact on the financial stability of Storey County, however with current abatements the expenditures continue to rise without equal financial support of the area.

In FY23 Storey County will enter into negotiations with the Sheriff's union and the Fire District will enter into negotiations with the Fire Fighter Association #4227.

The County is anxiously waiting on finalization on several grants from the Federal government. If approved these grants will help fund several projects in the County's CIP, including, the Lockwood Community Center, the Lockwood Sheriff substation, the Virginia City Fire Station, upgrades to the Virginia City fairgrounds, and upgrades to the Virginia City Justice Center parking lot.

The 2022-2023 Capital Improvement Plan include:

Water system upgrades: B Street water line, water tank rehabilitation

Continuing necessary internet infrastructure County wide, Radio/Cell towers, and various road projects County wide

New Lockwood Senior/Community Ctr- Currently in planning stages and expected to break ground sometime in the next fiscal year

Mark Twain Community Center outdoor lighting and new message board

Upgrades to the McCarren Center County offices

New siding on Fire Station 72

Request for Information

This financial report is designed to provide a general overview of Storey County's finances for all those with an interest in the government's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to Storey County Comptroller's Office, 10 South B Street, Virginia City, Nevada 89440.

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**STOREY COUNTY, NEVADA**
**STATEMENT OF NET POSITION**
**JUNE 30, 2022**

| | PRIMARY GOVERNMENT | | | COMPONET UNIT |
|---|---|---|---|---|
| | GOVERNMENTAL ACTIVITIES | BUSINESS-TYPE ACTIVITIES | TOTAL | TRI GID |
| ASSETS | | | | |
| Cash and investments | $ 54,612,581 | $ 1,738,246 | $ 56,350,827 | $ 5,352,129 |
| Accounts receivables (net allowance) | 2,364,178 | 98,885 | 2,463,063 | 454,146 |
| Taxes receivable | 332,057 | - | 332,057 | - |
| Insurance receivable | - | - | - | 723,670 |
| Prepaid expenses | 52,078 | - | 52,078 | 96,519 |
| Inventory | 11,809 | - | 11,809 | - |
| Lease receivable | 1,121,580 | - | 1,121,580 | 301,068 |
| Due from V&T Railroad | 314,669 | - | 314,669 | - |
| Capital assets - nondepreciable | | | | - |
| Land | 810,921 | - | 810,921 | 503,231 |
| Water rights | - | - | - | 52,414,363 |
| Antique furniture | 75,000 | - | 75,000 | - |
| Construction in progress | 2,930,806 | 14,793,141 | 17,723,947 | - |
| Capital assets - net of accumulated depreciation | | | | - |
| Leased assets | 56,141 | - | 56,141 | - |
| Buildings and improvements | 8,887,817 | - | 8,887,817 | - |
| Improvements other than buildings | 34,905,489 | - | 34,905,489 | - |
| Utility system | - | 11,776,958 | 11,776,958 | 56,332,094 |
| Machinery and equipment | 7,102,093 | - | 7,102,093 | - |
| Total Assets | $ 113,577,219 | $ 28,407,230 | $ 141,984,449 | $ 116,177,220 |
| DEFERRED OUTFLOWS OF RESOURCES | | | | |
| Deferred outflows-OPEB | $ 8,119,144 | $ - | $ 8,119,144 | $ - |
| Deferred outflows-pension | 10,248,977 | 262,794 | 10,511,771 | 960,529 |
| Total Deferred Outflows of Resources | $ 18,368,121 | $ 262,794 | $ 18,630,915 | $ 960,529 |
| LIABILITIES | | | | |
| Accounts payable and other current liabilities | $ 3,980,433 | $ 110,802 | $ 4,091,235 | $ 328,465 |
| Non-current liabilities | | | | |
| Bonds, Lease, Notes payable - due within one year | 109,224 | - | 109,224 | - |
| - due in more than one year | 33,278,934 | 9,595,294 | 42,874,228 | - |
| Compensated absences - due in more than one year | 778,272 | - | 778,272 | - |
| Net OPEB obligation | 31,698,789 | - | 31,698,789 | - |
| Net pension liability | 14,442,347 | 370,317 | 14,812,664 | 511,184 |
| Total Liabilities | $ 84,287,999 | $ 10,076,413 | $ 94,364,412 | $ 839,649 |
| DEFERRED INFLOWS OF RESOURCES | | | | |
| Deferred inflows-lease receivable | $ 1,092,030 | $ - | $ 1,092,030 | $ 295,787 |
| Deferred inflows-OPEB | 7,294,689 | - | 7,294,689 | - |
| Deferred inflows-pension | 12,388,593 | 317,656 | 12,706,249 | 420,708 |
| Total Deferred Inflows of Resources | $ 20,775,312 | $ 317,656 | $ 21,092,968 | $ 716,495 |
| NET POSITION | | | | |
| Restricted reserve | $ 142,640 | $ 259,034 | $ 401,674 | - |
| Invested in capital assets - net of related debt | 21,323,968 | 16,974,805 | 38,298,773 | 109,249,688 |
| Unrestricted | 5,415,421 | 1,042,116 | 6,457,537 | 6,331,917 |
| Total Net Position | $ 26,882,029 | $ 18,275,955 | $ 45,157,984 | $ 115,581,605 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**STATEMENT OF ACTIVITIES**
**FOR THE YEAR ENDED JUNE 30, 2022**

| FUNCTIONS/PROGRAMS | EXPENSES | PROGRAM REVENUES: CHARGES FOR SERVICES | PROGRAM REVENUES: OPERATING GRANTS AND CONTRIBUTIONS | PROGRAM REVENUES: CAPITAL GRANTS AND CONTRIBUTIONS |
|---|---|---|---|---|
| Primary government: | | | | |
| Governmental activities: | | | | |
| General government | $ 14,845,380 | $ 7,978,835 | $ - | $ - |
| Public safety | 8,822,900 | 2,824,427 | 387,624 | - |
| Judicial | 1,476,334 | 58,331 | - | - |
| Health and welfare | 289,878 | - | - | - |
| Culture and recreation | 411,367 | 23,329 | - | - |
| Community support | 1,316,414 | - | - | - |
| Highways and streets | 601,638 | 237,752 | - | - |
| Intergovernmental | - | - | - | - |
| Total Governmental Activities | 27,763,911 | 11,122,674 | 387,624 | - |
| Business type activities: | | | | |
| Water | 552,903 | 652,958 | - | 354,939 |
| Sewer | 821,843 | 452,150 | - | 813,243 |
| Total Business-Type Activities | 1,374,746 | 1,105,108 | - | 1,168,182 |
| Total Primary Government | $ 29,138,657 | $ 12,227,782 | $ 387,624 | $ 1,168,182 |
| Component Unit: | | | | |
| TRI General Improvement District | $ 3,469,224 | $ 4,321,418 | $ - | $ - |
| Total Component Unit | $ 3,469,224 | $ 4,321,418 | $ - | $ - |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**STATEMENT OF ACTIVITIES**
**FOR THE YEAR ENDED JUNE 30, 2022**

| FUNCTIONS/PROGRAMS | NET (EXPENSE)REVENUE AND CHANGES IN NET POSITION | | | |
|---|---|---|---|---|
| | PRIMARY GOVERNMENT | | | COMPONET UNIT |
| | GOVERNMENTAL ACTIVITIES | BUSINESS TYPE ACTIVITIES | TOTAL | TRI GID |
| Primary government: | | | | |
| Governmental activities: | | | | |
| General government | $ (6,866,545) | $ - | $ (6,866,545) | |
| Public safety | (5,610,849) | - | (5,610,849) | |
| Judicial | (1,418,003) | - | (1,418,003) | |
| Health and welfare | (289,878) | - | (289,878) | |
| Culture and recreation | (388,038) | - | (388,038) | |
| Community support | (1,316,414) | - | (1,316,414) | |
| Highways and streets | (363,886) | - | (363,886) | |
| Intergovernmental | - | - | - | |
| Total Governmental Activities | (16,253,613) | - | (16,253,613) | |
| Business type activities: | | | | |
| Water | - | (230,026) | (230,026) | |
| Sewer | - | (1,151,976) | (1,151,976) | |
| Total Business-Type Activities | - | (1,382,002) | (1,382,002) | |
| Total Primary Government | (16,253,613) | (1,382,002) | (17,635,615) | |
| Component Unit: | | | | |
| TRI General Improvement District | | | | $ 852,194 |
| Total Component Unit | | | | 852,194 |
| General revenues: | | | | |
| Property taxes | 20,347,868 | - | 20,347,868 | - |
| Various state collected pass-through revenues | 8,925,398 | - | 8,925,398 | - |
| Investment earnings | (1,135,311) | 103,238 | (1,032,073) | 5,800 |
| Bond proceeds | - | - | - | - |
| Miscellaneous revenue | 2,411,129 | 17,400 | 2,428,529 | 320,174 |
| Capital contributions and grants | - | 1,168,182 | 1,168,182 | 205,740 |
| Total General Revenues | 30,549,084 | 1,288,820 | 31,837,904 | 531,714 |
| Change in Net Position | 14,295,471 | (93,182) | 14,202,289 | 1,383,908 |
| Net Position, July 1 | 12,586,558 | 18,369,137 | 30,955,695 | 114,197,697 |
| Net Position, June 30 | $ 26,882,029 | $ 18,275,955 | $ 45,157,984 | $ 115,581,605 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**GOVERNMENTAL FUNDS**
**BALANCE SHEET**
**JUNE 30, 2022**

| | GENERAL | ROAD FUND | 474 FIRE PROTECTION DISTRICT FUND | TRI-PAYBACK FUND | USDA BOND FUND |
|---|---|---|---|---|---|
| ASSETS | | | | | |
| Cash | $ 30,199,375 | $ 1,533,396 | $ 4,457,413 | $ 1,487,278 | $ 29,726 |
| Accounts receivable (net allowance) | 736,719 | 223,834 | 883,167 | 85,124 | - |
| Taxes receivable | 247,576 | - | 76,097 | - | - |
| Prepaid expenses | 11,078 | - | - | - | - |
| Lease receivable | 1,121,580 | | | | |
| Due from V&T road | 314,669 | - | - | - | - |
| Inventory | - | - | - | - | - |
| Total Assets | $ 32,630,997 | $ 1,757,230 | $ 5,416,677 | $ 1,572,402 | $ 29,726 |
| LIABILITIES AND FUND BALANCES | | | | | |
| Liabilities | | | | | |
| Accounts payable | $ 887,377 | $ 19,425 | $ 51,828 | $ - | $ - |
| Accrued expenses and deposits | 337,305 | 15,812 | 210,404 | - | - |
| Unearned income | - | - | - | - | - |
| Account payable - Tesla | 1,799,987 | - | - | - | - |
| Total Liabilities | 3,024,669 | 35,237 | 262,232 | - | - |
| DEFERRED INFLOWS OF RESOURCES | | | | | |
| Unavailable resources property taxes | 45,758 | - | 480,823 | - | - |
| Deferred lease income | 1,092,030 | - | - | - | - |
| | 1,137,788 | - | 480,823 | - | - |
| FUND BALANCES | | | | | |
| Nonspendable | 11,078 | - | - | - | - |
| Reserved - debt service | - | - | 142,640 | - | - |
| Unassigned reported in: | | | - | | |
| General fund | 28,457,462 | - | - | - | - |
| Capital projects funds | - | - | - | - | - |
| Special revenue funds | - | 1,721,993 | 4,530,982 | 1,572,402 | 29,726 |
| Total Fund Balances | 28,468,540 | 1,721,993 | 4,673,622 | 1,572,402 | 29,726 |
| Total Liabilities, Deferred Inflows of Resources and Fund Balances | $ 32,630,997 | $ 1,757,230 | $ 5,416,677 | $ 1,572,402 | $ 29,726 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**BALANCE SHEET**
**GOVERNMENTAL FUNDS**
**JUNE 30, 2022**

| | VCTC FUND | OTHER GOVERNMENTAL FUNDS | TOTAL GOVERNMENTAL FUNDS |
|---|---|---|---|
| ASSETS | | | |
| Cash | $ 1,288,722 | $ 15,616,671 | $ 54,612,581 |
| Accounts receivable (net allowance) | 145,021 | 290,313 | 2,364,178 |
| Taxes receivable | - | 8,384 | 332,057 |
| Prepaid expenses | 40,000 | 1,000 | 52,078 |
| Lease receivable | - | - | 1,121,580 |
| Due from V&T road | - | - | 314,669 |
| Inventory | 11,809 | - | 11,809 |
| Total Assets | $ 1,485,552 | $ 15,916,368 | $ 58,808,952 |
| LIABILITIES AND FUND BALANCES | | | |
| Liabilities | | | |
| Accounts payable | $ 43,833 | $ 569,024 | $ 1,571,487 |
| Accrued expenses and deposits | 13,528 | - | 577,049 |
| Unearned income | 9,000 | 22,910 | 31,910 |
| Account payable - Tesla | - | - | 1,799,987 |
| Total Liabilities | 66,361 | 591,934 | 3,980,433 |
| DEFERRED INFLOWS OF RESOURCES | | | |
| Unavailable resources property taxes | - | 1,555 | 528,136 |
| Deferred lease income | - | - | 1,092,030 |
| | - | 1,555 | 1,620,166 |
| FUND BALANCES | | | |
| Nonspendable | 51,809 | - | 62,887 |
| Reserved - debt service | - | - | 142,640 |
| Unassigned reported in: | | | |
| General fund | 1,367,382 | - | 29,824,844 |
| Capital projects funds | - | 7,903,513 | 7,903,513 |
| Special revenue funds | - | 7,419,366 | 15,274,469 |
| Total Fund Balances | 1,419,191 | 15,322,879 | 53,208,353 |
| Total Liabilities, Deferred Inflows of Resources and Fund Balances | $ 1,485,552 | $ 15,916,368 | $ 58,808,952 |

The notes to the financial statements are an integral part of this statement

STOREY COUNTY, NEVADA
RECONCILIATION OF GOVERNMENTAL FUNDS BALANCE SHEET
TO THE STATEMENT OF NET POSITION
JUNE 30, 2022

| | | |
|---|---|---|
| Total Fund Balance - government funds - page 16 | $ | 53,208,353 |
| Amounts reported for governmental activities in the statement of net assets are different because: | | |
| Capital assets net of related depreciation are not reported in the Governmental Funds financial statements because they are not current financial resources, but they are reported in the statement of net assets | | 54,768,267 |
| Deferred outflows of resources for OPEB | | 8,119,144 |
| Deferred outflows of resources for pensions | | 10,248,977 |
| Property taxes receivable that are note available to pay current period expenditures and therefore are reported as unearned in the funds | | 528,136 |
| Long term liabilities are not due and payable in the current period and therefore are not reported in the funds. | | (33,388,158) |
| Pension liabilities are not due and payable in the current period and therefore not reported in funds | | (46,141,136) |
| Compensated absences are not due and payable in the current period and therefore are not reported in the funds. | | (778,272) |
| Deferred inflows of resources for OPEB | | (7,294,689) |
| Deferred inflows of resources for pensions | | (12,388,593) |
| Total Net Position - governmental activities - page 12 | $ | 26,882,029 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES**
**GOVERNMENTAL FUNDS**
**FOR THE YEAR ENDED JUNE 30, 2022**

| | GENERAL | ROAD FUND | 474 FIRE PROTECTION DISTRICT FUND | TRI-PAYBACK FUND | USDA BOND FUND |
|---|---|---|---|---|---|
| REVENUES | | | | | |
| Taxes | $ 14,586,167 | $ - | $ 4,466,424 | $ - | $ - |
| Licenses and permits | 4,315,289 | - | - | - | - |
| Intergovernmental | 2,784,013 | 1,344,577 | 1,747,355 | - | - |
| Charges for services | 2,542,046 | 237,752 | 2,900,545 | - | - |
| Fines and forfeitures | 213,866 | - | - | - | - |
| Equipment sales | - | 18,571 | | | |
| Miscellaneous | (830,986) | 19,080 | 755,815 | 259,312 | - |
| Total Revenues | 23,610,395 | 1,619,980 | 9,870,139 | 259,312 | - |
| EXPENDITURES | | | | | |
| Current: | | | | | |
| General government | 5,549,248 | - | - | 2,404,764 | - |
| Public safety | 5,947,730 | - | 6,896,049 | - | - |
| Judicial | 1,458,868 | - | - | - | - |
| Health and welfare | 123,904 | - | - | - | - |
| Culture and recreation | 115,955 | - | - | - | - |
| Community service | 1,243,816 | - | - | - | - |
| Highways and streets | - | 1,089,870 | - | - | - |
| Intergovernmental | - | - | - | - | - |
| Total Expenditures | 14,439,521 | 1,089,870 | 6,896,049 | 2,404,764 | - |
| Excess (Deficiency) of Revenues over Expenditures | 9,170,874 | 530,110 | 2,974,090 | (2,145,452) | - |
| OTHER FINANCING SOURCES (USES) | | | | | |
| Transfers in | - | 400,000 | - | 1,308,500 | 142,640 |
| Transfers out | (3,588,000) | - | (425,140) | - | - |
| Transfers to proprietary funds | - | - | - | - | 357,636 |
| Federal grants | - | - | - | - | - |
| Loan (payments) proceeds | (18,380) | - | - | - | (290,383) |
| Bond proceeds | - | - | - | - | - |
| Bond interest | - | - | - | - | (209,884) |
| Total Other Financing Sources (Uses) | (3,606,380) | 400,000 | (425,140) | 1,308,500 | 9 |
| Net Change in Fund Balance | 5,564,494 | 930,110 | 2,548,950 | (836,952) | 9 |
| Fund Balance, July 1 | 22,904,046 | 791,883 | 2,124,672 | 2,409,354 | 29,717 |
| Fund Balance, June 30 | $ 28,468,540 | $ 1,721,993 | $ 4,673,622 | $ 1,572,402 | $ 29,726 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES**
**GOVERNMENTAL FUNDS**
**FOR THE YEAR ENDED JUNE 30, 2022**

| | VCTC FUND | OTHER GOVERNMENTAL FUNDS | TOTAL GOVERNMENTAL FUNDS |
|---|---|---|---|
| REVENUES | | | |
| Taxes | $ - | $ 1,402,826 | $ 20,455,417 |
| Licenses and permits | 51,201 | - | 4,366,490 |
| Intergovernmental | 1,238,430 | 1,912,061 | 9,026,436 |
| Charges for services | 551,961 | 333,252 | 6,565,556 |
| Fines and forfeitures | - | 52,880 | 266,746 |
| Equipment sales | - | - | 18,571 |
| Miscellaneous | 110,781 | 1,023,000 | 1,337,002 |
| Total Revenues | 1,952,373 | 4,724,019 | 42,036,218 |
| EXPENDITURES | | | |
| Current: | | | |
| General government | 1,535,782 | 1,832,143 | 11,321,937 |
| Public safety | - | 1,819,553 | 14,663,332 |
| Judicial | - | 25,760 | 1,484,628 |
| Health and welfare | - | 165,974 | 289,878 |
| Culture and recreation | - | 270,212 | 386,167 |
| Community service | - | - | 1,243,816 |
| Highways and streets | - | - | 1,089,870 |
| Intergovernmental | - | - | - |
| Total Expenditures | 1,535,782 | 4,113,642 | 30,479,628 |
| Excess (Deficiency) of Revenues over Expenditures | 416,591 | 610,377 | 11,556,590 |
| OTHER FINANCING SOURCES (USES) | | | |
| Transfers in | - | 55,000 | 1,906,140 |
| Transfers out | - | 2,107,000 | (1,906,140) |
| Transfers to proprietary funds | - | - | 357,636 |
| Federal Grants | - | - | - |
| Loan (payments) proceeds | - | (897,927) | (1,206,690) |
| Bond proceeds | - | - | - |
| Bond interest | - | - | (209,884) |
| Total Other Financing Sources (Uses) | - | 1,264,073 | (1,058,938) |
| Net Change in Fund Balance | 416,591 | 1,874,450 | 10,497,652 |
| Fund Balance, July 1 | 1,002,600 | 13,448,429 | 42,710,701 |
| Fund Balance, June 30 | $ 1,419,191 | $ 15,322,879 | $ 53,208,353 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**RECONCILIATION OF THE STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES OF GOVERNMENTAL FUNDS TO THE STATEMENT OF ACTIVITIES**
**FOR THE YEAR ENDED JUNE 30, 2022**

| | | |
|---|---|---|
| Net change in fund balances - governmental funds, page 19 | $ | 10,497,652 |
| Amounts reported for governmental activities in the statement of activities are different because: | | |
| Capital outlays to purchase capital assets are reported in governmental funds as expenditures. However, those costs are shown in the statement of net assets and allocated over their estimated useful lives as depreciation expense in the statement of activities. This is the amount by which capital outlays exceeded depreciation. | | (1,535,478) |
| Net long-term receipts and payments reported in governmental funds as expenditures | | 7,402,173 |
| Compensated absences are reported as expenses in the statement of activities but do not require the use of current financial resources and therefore are not reported as expenditures in governmental funds | | (11,629) |
| Revenue from taxes in the statement of activities that does not provide current financial resources is not reported as revenue in the funds | | 102,919 |
| Total OPEB benefits are reported as expenses in the statement of activities but do not require the use of current financial resources and therefore are not reported as expenditures in governmental funds | | (3,499,437) |
| Total pension benefits are reported as expenses in the statement of activities but do not require the use of current financial resources and therefore are not reported as expenditures in governmental funds | | 1,339,271 |
| Change in net assets of governmental activities, page 14 | $ | 14,295,471 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**GENERAL FUND**
**STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES**
**BUDGET AND ACTUAL**
**FOR THE YEAR ENDED JUNE 30, 2022**

| REVENUES | ORIGINAL BUDGETED AMOUNTS | FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|---|
| Taxes: | | | | |
| Property | $ 12,189,843 | $ 12,189,843 | $ 14,547,654 | $ 2,357,811 |
| Youth services | 32,613 | 32,613 | 38,513 | 5,900 |
| Total Taxes | 12,222,456 | 12,222,456 | 14,586,167 | 2,363,711 |
| Licenses and Permits | | | | |
| Merchandise licenses | 218,450 | 218,450 | 285,963 | 67,513 |
| County gaming licenses | 3,000 | 3,000 | 2,790 | (210) |
| Utility licenses | 400,000 | 400,000 | 758,265 | 358,265 |
| Franchise tax | 350,000 | 350,000 | 437,944 | 87,944 |
| Building permits and study | 499,780 | 499,780 | 2,830,327 | 2,330,547 |
| Total Licenses and Permits | 1,471,230 | 1,471,230 | 4,315,289 | 2,844,059 |
| Intergovernmental | | | | |
| Federal and state grants | - | - | 14,739 | 14,739 |
| Payment in lieu of taxes | 30,000 | 30,000 | 42,508 | 12,508 |
| State shared revenues | | | | |
| Cigarette tax | 11,627 | 11,627 | 11,597 | (30) |
| Liquor tax | 4,834 | 4,834 | 6,394 | 1,560 |
| Gaming licenses | 105,000 | 105,000 | 115,173 | 10,173 |
| Basic CCRT | 693,224 | 693,224 | 917,178 | 223,954 |
| Supplemental CCRT | 741,833 | 741,833 | 980,540 | 238,707 |
| Motor vehicle privilege tax | 281,254 | 281,254 | 424,819 | 143,565 |
| Real property transfer tax | 147,553 | 147,553 | 271,065 | 123,512 |
| Total Intergovernmental | 2,015,325 | 2,015,325 | 2,784,013 | 768,688 |
| Charges for Services | | | | |
| Clerk fees | 31,100 | 31,100 | 47,674 | 16,574 |
| Recorder fees | 54,500 | 54,500 | 60,543 | 6,043 |
| Assessor fees/commissions | 150,000 | 150,000 | 600,081 | 450,081 |
| Building department fees | 6,500 | 6,500 | 18,619 | 12,119 |
| District court fees | 16,500 | 16,500 | 22,035 | 5,535 |
| Justice court fees | 14,400 | 14,400 | 36,296 | 21,896 |
| Sheriffs fees | 39,300 | 39,300 | 72,266 | 32,966 |
| Swimming pool admissions/lessons | - | - | 18,679 | 18,679 |
| Park facilities fees | - | - | 1,400 | 1,400 |
| Import tonnage fees | 700,000 | 700,000 | 828,117 | 128,117 |
| IT fees | 26,000 | 26,000 | 32,718 | 6,718 |
| Other fees - Tesla | 770,966 | 770,966 | 803,618 | 32,652 |
| BIA housing | 55,000 | 55,000 | - | (55,000) |
| Total Charges for Services | 1,864,266 | 1,864,266 | 2,542,046 | 677,780 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**GENERAL FUND**
**STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES**
**BUDGET AND ACTUAL**
**FOR THE YEAR ENDED JUNE 30, 2022**

| | ORIGINAL BUDGETED AMOUNTS | FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|---|
| REVENUES (cont'd.) | | | | |
| Fines and Forfeits: | | | | |
| District fine | 300 | 300 | - | (300) |
| Juvenile fines/assessments | 2,400 | 2,400 | 2,928 | 528 |
| Chemical analysis fees | 1,000 | 1,000 | 3,003 | 2,003 |
| Jail Court Fines | 120,000 | 120,000 | 207,935 | 87,935 |
| Total Fines and Forfeits | 123,700 | 123,700 | 213,866 | 90,166 |
| Miscellaneous: | | | | |
| Rents | 60,000 | 60,000 | 109,666 | 49,666 |
| Penalties -taxes | 82,000 | 82,000 | 157,585 | 75,585 |
| Penalties - business licenses | 750 | 750 | 11,015 | 10,265 |
| Investment earnings | 56,000 | 56,000 | (1,227,393) | (1,283,393) |
| Tax settlement and sales | - | - | - | - |
| Other | 29,100 | 29,100 | 118,141 | 89,041 |
| Total Miscellaneous | 227,850 | 227,850 | (830,986) | (1,058,836) |
| Total Revenues | 17,924,827 | 17,924,827 | 23,610,395 | 5,685,568 |
| EXPENDITURES | | | | |
| General Government | | | | |
| Commissioners: | | | | |
| Salaries and wages | 334,850 | 334,850 | 291,550 | 43,300 |
| Employee benefits | 202,348 | 202,348 | 163,277 | 39,071 |
| Services and supplies | 758,181 | 758,181 | 607,124 | 151,057 |
| Capital outlay | - | - | - | - |
| | 1,295,379 | 1,295,379 | 1,061,951 | 233,428 |
| Clerk Treasurer: | | | | - |
| Salaries and wages | 244,215 | 244,215 | 235,431 | 8,784 |
| Employee benefits | 161,927 | 161,927 | 127,832 | 34,095 |
| Services and supplies | 180,165 | 280,165 | 172,687 | 107,478 |
| Capital outlay | - | - | 2,584 | (2,584) |
| | 586,307 | 686,307 | 538,534 | 147,773 |
| Recorder: | | | | |
| Salaries and wages | 168,334 | 168,334 | 147,957 | 20,377 |
| Employee benefits | 94,362 | 94,362 | 71,914 | 22,448 |
| Services and supplies | 47,900 | 47,900 | 29,090 | 18,810 |
| Capital outlay | - | - | - | - |
| | 310,596 | 310,596 | 248,961 | 61,635 |
| Assessor: | | | | - |
| Salaries and wages | 241,749 | 241,749 | 202,531 | 39,218 |
| Employee benefits | 156,668 | 156,668 | 104,127 | 52,541 |
| Services and supplies | 87,710 | 87,710 | 68,563 | 19,147 |
| Capital outlay | - | - | - | - |
| | 486,127 | 486,127 | 375,221 | 110,906 |
| Administrative: | | | | - |
| Salaries and wages | 185,458 | 210,458 | 200,632 | 9,826 |
| Employee benefits | 280,838 | 280,838 | 256,708 | 24,130 |
| Services and supplies | 297,410 | 297,410 | 121,803 | 175,607 |
| Capital outlay | - | - | - | - |
| | 763,706 | 788,706 | 579,143 | 209,563 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**GENERAL FUND**
**STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES**
**BUDGET AND ACTUAL**
**FOR THE YEAR ENDED JUNE 30, 2022**

| | ORIGINAL BUDGETED AMOUNTS | FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|---|
| EXPENDITURES | | | | |
| General Government (contd.) | | | | |
| Building and Grounds: | | | | |
| Salaries and wages | 254,206 | 254,206 | 242,868 | 11,338 |
| Employee benefits | 142,859 | 142,859 | 133,662 | 9,197 |
| Services and supplies | 283,394 | 323,394 | 316,282 | 7,112 |
| Capital outlay | 6,000 | 6,000 | - | 6,000 |
| | 686,459 | 726,459 | 692,812 | 33,647 |
| Service: | | | | |
| Salaries and wages | 247,703 | 247,703 | 228,142 | 19,561 |
| Employee benefits | 143,890 | 143,890 | 119,380 | 24,510 |
| Services and supplies | 86,740 | 86,740 | 87,580 | (840) |
| Capital outlay | 20,000 | 20,000 | 18,850 | 1,150 |
| | 498,333 | 498,333 | 453,952 | 44,381 |
| Information technology: | | | | |
| Salaries and wages | 371,787 | 371,787 | 353,632 | 18,155 |
| Employees benefits | 243,001 | 243,001 | 202,502 | 40,499 |
| Services and supplies | 391,950 | 391,950 | 308,193 | 83,757 |
| Capital outlay | 19,380 | 19,380 | 12,480 | 6,900 |
| | 1,026,118 | 1,026,118 | 876,807 | 149,311 |
| Comptroller: | | | | |
| Salaries and wages | 239,012 | 239,012 | 238,040 | 972 |
| Employee benefits | 148,144 | 148,144 | 139,221 | 8,923 |
| Services and supplies | 123,925 | 123,925 | 103,505 | 20,420 |
| Capital outlay | - | - | - | - |
| | 511,081 | 511,081 | 480,766 | 30,315 |
| Planning Commission: | | | | |
| Salaries and wages | 214,141 | 214,141 | 151,994 | 62,147 |
| Employee benefits | 114,146 | 114,146 | 78,327 | 35,819 |
| Services and supplies | 162,100 | 162,100 | 10,780 | 151,320 |
| | 490,387 | 490,387 | 241,101 | 249,286 |
| Total General Government | 6,654,493 | 6,819,493 | 5,549,248 | 1,270,245 |
| Judicial: | | | | |
| District Attorney: | | | | |
| Salaries and wages | 406,756 | 406,756 | 398,470 | 8,286 |
| Employee benefits | 216,312 | 216,312 | 198,126 | 18,186 |
| Services and supplies | 419,750 | 419,750 | 207,061 | 212,689 |
| Capital outlay | - | - | - | - |
| | 1,042,818 | 1,042,818 | 803,657 | 239,161 |
| District Court: | | | | |
| Services and supplies | 195,565 | 217,565 | 214,602 | 2,963 |
| | 195,565 | 217,565 | 214,602 | 2,963 |

The notes to the financial statements are an integral part of this statement

STOREY COUNTY, NEVADA
GENERAL FUND
STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
BUDGET AND ACTUAL
FOR THE YEAR ENDED JUNE 30, 2022

| | ORIGINAL BUDGETED AMOUNTS | FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|---|
| EXPENDITURES | | | | |
| Judicial (contd.) | | | | |
| Justice of the Peace: | | | | |
| Salaries and wages | 282,517 | 282,517 | 266,945 | 15,572 |
| Employee benefits | 170,724 | 170,724 | 140,426 | 30,298 |
| Services and supplies | 47,600 | 47,600 | 33,238 | 14,362 |
| Capital outlay | - | - | - | - |
| | 500,841 | 500,841 | 440,609 | 60,232 |
| Total Judicial | 1,739,224 | 1,761,224 | 1,458,868 | 302,356 |
| Pubic Safety: | | | | |
| Sheriff: | | | | |
| Salaries and wages | 2,544,331 | 2,544,331 | 2,208,229 | 336,102 |
| Employee benefits | 1,748,951 | 1,748,951 | 1,358,797 | 390,154 |
| Services and supplies | 549,085 | 549,085 | 529,539 | 19,546 |
| Capital outlay | - | - | - | - |
| | 4,842,367 | 4,842,367 | 4,096,565 | 745,802 |
| Communications | | | | |
| Salaries and wages | 705,654 | 705,654 | 654,289 | 51,365 |
| Employee benefits | 358,974 | 358,974 | 325,383 | 33,591 |
| Services and supplies | 153,130 | 153,130 | 123,370 | 29,760 |
| Capital outlay | 5,000 | 5,000 | 4,498 | 502 |
| | 1,222,758 | 1,222,758 | 1,107,540 | 115,218 |
| Emergency Management: | | | | |
| Salaries and wages | 76,050 | 76,050 | 58,909 | 17,141 |
| Employee benefits | 34,065 | 34,065 | 20,654 | 13,411 |
| Services and supplies | 67,350 | 67,350 | 57,725 | 9,625 |
| Capital outlay | - | - | - | - |
| | 177,465 | 177,465 | 137,288 | 40,177 |
| Community Development | | | | |
| Salaries and wages | 537,428 | 537,428 | 357,435 | 179,993 |
| Employee benefits | 296,887 | 296,887 | 165,144 | 131,743 |
| Services and supplies | 149,953 | 149,953 | 83,758 | 66,195 |
| Capital outlay | - | - | - | - |
| | 984,268 | 984,268 | 606,337 | 377,931 |
| Total Public Safety | 7,226,858 | 7,226,858 | 5,947,730 | 1,279,128 |
| Health and Human Service | | | | |
| Salaries and wages | 4,574 | 9,574 | 8,608 | 966 |
| Employee benefits | 2,642 | 5,642 | 5,161 | 481 |
| Services and supplies | 160,387 | 160,387 | 110,135 | 50,252 |
| Total Health and Human Services | 167,603 | 175,603 | 123,904 | 51,699 |
| Culture and Recreation: | | | | |
| Swimming Pools and Parks | | | | |
| Salaries and wages | 77,560 | 77,560 | 70,517 | 7,043 |
| Employee benefits | 21,453 | 21,453 | 17,157 | 4,296 |
| Services and supplies | 35,472 | 35,472 | 28,281 | 7,191 |
| Capital outlay | - | - | - | - |
| Total Culture and Recreation | 134,485 | 134,485 | 115,955 | 18,530 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**GENERAL FUND**
**STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES**
**BUDGET AND ACTUAL**
**FOR THE YEAR ENDED JUNE 30, 2022**

| | ORIGINAL BUDGETED AMOUNTS | FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|---|
| Community Support | | | | |
| Salaries and wages | 152,400 | 152,400 | 126,938 | 25,462 |
| Employee benefits | 54,395 | 54,395 | 52,013 | 2,382 |
| Services and supplies | 1,152,870 | 1,152,870 | 1,064,865 | 88,005 |
| Total Community Support | 1,359,665 | 1,359,665 | 1,243,816 | 115,849 |
| Debt Service: | | | | |
| Principle | - | - | 18,226 | (18,226) |
| Interest | - | - | 154 | (154) |
| Total Debt Service | - | - | 18,380 | (18,380) |
| Total Expenditures | 17,282,328 | 17,477,328 | 14,457,901 | 3,019,427 |
| Excess (Deficiency) of Revenue over Expenditures | 642,499 | 447,499 | 9,152,494 | 8,704,995 |
| OTHER FINANCING SOURCES (USES) | | | | |
| Transfers out | (3,633,000) | (3,633,000) | (3,588,000) | 45,000 |
| Contingency | (518,470) | (423,470) | - | 423,470 |
| Total Other Financing Sources (Uses) | (4,151,470) | (4,056,470) | (3,588,000) | 468,470 |
| Net Change in Fund Balance | (3,508,971) | (3,608,971) | 5,564,494 | 9,173,465 |
| Fund Balance, July 1 | 18,313,471 | 18,313,471 | 22,904,046 | 4,590,575 |
| Fund Balance, June 30 | $ 14,804,500 | $ 14,704,500 | $ 28,468,540 | $ 13,764,040 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**ROADS FUND**
**STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES**
**BUDGET AND ACTUAL**
**FOR THE YEAR ENDED JUNE 30, 2022**

| | ORIGINAL BUDGETED AMOUNTS | FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|---|
| REVENUE | | | | |
| Intergovernmental | | | | |
| Gasoline tax | $ 401,132 | $ 401,132 | $ 650,775 | $ 249,643 |
| Supplemental CCRT | 469,827 | 469,827 | 693,802 | 223,975 |
| Charges for services | | | | |
| Import tonnage fees | 225,000 | 225,000 | 233,572 | 8,572 |
| Excavation | 1,000 | 1,000 | 4,180 | 3,180 |
| Other revenue | | | | |
| Interest | 36,000 | 36,000 | 16,999 | (19,001) |
| Equipment sales | - | - | 18,571 | 18,571 |
| Miscellaneous | - | - | 2,081 | 2,081 |
| Total Revenue | 1,132,959 | 1,132,959 | 1,619,980 | 487,021 |
| EXPENDITURES | | | | |
| Highways and Strects | | | | |
| Salaries and wages | 376,642 | 384,742 | 379,420 | 5,322 |
| Employec benefits | 211,460 | 239,460 | 232,652 | 6,808 |
| Services and supplies | 224,408 | 224,408 | 188,750 | 35,658 |
| Capital outlay | 1,008,604 | 972,504 | 289,048 | 683,456 |
| Total Expenditures | 1,821,114 | 1,821,114 | 1,089,870 | 731,244 |
| Excess (Deficiency) of Revenues over Expenditures | (688,155) | (688,155) | 530,110 | 1,218,265 |
| OTHER FINANCING SOURCES (USES) | | | | |
| Transfers in | 400,000 | 400,000 | 400,000 | - |
| Fund Balance, July 1 | 481,040 | 481,040 | 791,883 | 310,843 |
| Fund Balance, June 30 | $ 192,885 | $ 192,885 | $ 1,721,993 | $ 1,529,108 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**474 FIRE PROTECTION DISTRICT FUND**
**STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES**
**BUDGET AND ACTUAL**
**FOR THE YEAR ENDED JUNE 30, 2022**

| | ORIGINAL BUDGETED AMOUNTS | FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|---|
| REVENUE | | | | |
| Taxes | | | | |
| Property | $ 3,407,219 | $ 3,407,219 | $ 4,466,424 | $ 1,059,205 |
| Intergovernmental revenues | | | | |
| Supplemental CCRT | 1,261,115 | 1,261,115 | 1,747,355 | 486,240 |
| Charges for services | | | | |
| Fire/ambulance fees | 356,000 | 356,000 | 450,869 | 94,869 |
| Transport/accident recovery | 25,000 | 25,000 | 358,694 | 333,694 |
| Other fees-Tesla | 2,178,151 | 2,178,151 | 2,089,678 | (88,473) |
| Special events | 5,000 | 5,000 | 1,304 | (3,696) |
| Other revenue | | | | |
| Interest income | 61,000 | 61,000 | 44,075 | (16,925) |
| Miscellaneous - other | 300 | 300 | 711,740 | 711,440 |
| Total Revenues | 7,293,785 | 7,293,785 | 9,870,139 | 2,576,354 |
| EXPENDITURES | | | | |
| Public Safety | | | | |
| Salaries and wages | 4,022,653 | 4,162,653 | 4,145,279 | 17,374 |
| Employee benefits | 2,116,283 | 2,116,283 | 1,974,895 | 141,388 |
| Services and supplies | 720,640 | 720,640 | 724,284 | (3,644) |
| Capital outlay | 44,538 | 51,638 | 51,591 | 47 |
| Contingency | - | - | - | - |
| Total Expenditures | 6,904,114 | 7,051,214 | 6,896,049 | 155,165 |
| Excess (Deficiency) of Revenue over Expenditures | 389,671 | 242,571 | 2,974,090 | 2,731,519 |
| OTHER FINANCING SOURCES (USES) | | | | |
| Contingency | (209,463) | (4,363) | - | 4,363 |
| Transfers | (425,139) | (425,140) | (425,140) | - |
| Total Other Financing Sources (Uses) | (634,602) | (429,503) | (425,140) | 4,363 |
| Excess (Deficiency) of Revenue and Other Financing Sources (Uses) over Expenditures | (244,931) | (186,932) | 2,548,950 | 2,735,882 |
| Fund Balance, July 1 | 780,911 | 780,911 | 2,124,672 | 1,343,761 |
| Fund Balance, June 30 | $ 535,980 | $ 593,979 | $ 4,673,622 | $ 4,079,643 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**TRI PAYBACK FUND**
**STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES**
**BUDGET AND ACTUAL**
**FOR THE YEAR ENDED JUNE 30, 2022**

| | ORIGINAL AND FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|
| REVENUES | | | |
| Intergovernmental | | | |
| 474 Fire District | $ 248,000 | $ 259,312 | $ (11,312) |
| EXPENDITURES | | | |
| General Government | | | |
| Tri Payback | 3,000,000 | 2,404,764 | 595,236 |
| Excess (Deficiency) of Revenue over Expenditures | (2,752,000) | (2,145,452) | (606,548) |
| OTHER FINANCING SOURCES (USES) | | | |
| Transfers in | 1,026,000 | 1,308,500 | (282,500) |
| Excess (Deficiency) of Revenue and Other Financing Sources (Uses) over Expenditures | (1,726,000) | (836,952) | (889,048) |
| Fund Balance, July 1 | 2,409,354 | 2,409,354 | - |
| Fund Balance, June 30 | $ 683,354 | $ 1,572,402 | $ 889,048 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**USDA BOND FUND**
**STATEMENT OF REVENUES, EXPENDITURES**
**AND CHANGES IN FUND BALANCES**
**BUDGET AND ACTUAL**
**FOR THE YEAR ENDED JUNE 30, 2022**

| | ORIGINAL AND FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|
| REVENUES | | | |
| Intergovernmental | | | |
| Grants | $ - | $ - | $ - |
| Bonds | - | - | - |
| Miscellaneous revenue | - | - | - |
| Total revenues | - | - | - |
| EXPENDITURES | | | |
| Public safety | | | |
| Capital outlay | - | - | - |
| Excess (Deficiency) of Revenue over Expenditures | - | - | - |
| OTHER FINANCING SOURCES (USES) | | | |
| Bond proceeds | - | - | - |
| Debt service | (290,382) | (290,383) | 1 |
| Interest | (209,884) | (209,884) | - |
| Transfer in | 500,286 | 500,276 | 10 |
| Excess (Deficiency) of Revenue and Other Financing Sources (Uses) over Expenditures | 20 | 9 | (1) |
| Fund Balance, July 1 | 5,247,507 | 29,717 | (5,217,790) |
| Fund Balance, June 30 | $ 5,247,527 | $ 29,726 | $ (5,217,791) |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**VIRGINIA CITY TOURISM COMMISSION FUND**
**STATEMENT OF REVENUES, EXPENDITURES**
**AND CHANGES IN FUND BALANCES**
**BUDGET AND ACTUAL**
**FOR THE YEAR ENDED JUNE 30, 2022**

| | ORIGINAL BUDGETED AMOUNTS | FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|---|
| REVENUES | | | | |
| Licenses and permits | | | | |
| Licenses - permits | $ 42,000 | $ 42,000 | $ 51,201 | $ 9,201 |
| Intergovernmental | | | | |
| Grant revenue | 22,000 | 22,000 | - | (22,000) |
| State licenses | 2,000 | 2,000 | 2,027 | 27 |
| Room tax | 315,000 | 315,000 | 484,143 | 169,143 |
| Tourism tax | 500,000 | 500,000 | 752,260 | 252,260 |
| Charges for services | | | | |
| Special events | 308,800 | 308,800 | 403,875 | 95,075 |
| CAP service charge (net) | 110,000 | 110,000 | 148,086 | 38,086 |
| Miscellaneous | | | | |
| Interest | 1,500 | 1,500 | 170 | (1,330) |
| Contributions | 5,000 | 5,000 | 6,349 | 1,349 |
| Miscellaneous | 99,700 | 99,700 | 104,262 | 4,562 |
| Total Revenues | 1,406,000 | 1,406,000 | 1,952,373 | 546,373 |
| EXPENDITURES | | | | |
| General government | | | | |
| Salaries and wages | 307,135 | 337,135 | 328,650 | 8,485 |
| Benefits | 139,153 | 154,153 | 136,755 | 17,398 |
| Services and supplies | 932,779 | 932,779 | 965,016 | (32,237) |
| Capital outlay | 326,000 | 281,000 | 105,361 | 175,639 |
| Total Expenditures | 1,705,067 | 1,705,067 | 1,535,782 | 169,285 |
| Excess (Deficiency) of Revenues over Expenditures | (299,067) | (299,067) | 416,591 | 715,658 |
| Fund Balance, July 1 | 771,474 | 771,474 | 1,002,600 | 231,126 |
| Fund Balance, June 30 | $ 472,407 | $ 472,407 | $ 1,419,191 | $ 946,784 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**PROPRIETARY FUNDS**
**STATEMENT OF NET POSITION**
**JUNE 30, 2022**

| | BUSINESS-TYPE ENTERPRISE FUNDS | | |
|---|---|---|---|
| | WATER SYSTEM | VIRGINIA DIVIDE SEWER | TOTAL |
| ASSETS | | | |
| Current Assets | | | |
| Cash | $ 1,537,894 | $ 200,352 | $ 1,738,246 |
| Accounts receivable (net allowance) | 51,994 | 46,891 | 98,885 |
| Total Current Assets | 1,589,888 | 247,243 | 1,837,131 |
| Noncurrent Assets | | | |
| Capital assets - net of accumulated depreciation | 8,156,657 | 18,413,442 | 26,570,099 |
| Total Assets | $ 9,746,545 | $ 18,660,685 | $ 28,407,230 |
| DEFERRED OUTFLOWS OF RESOURCES | | | |
| Deferred outflows-pension | $ 147,429 | $ 115,365 | $ 262,794 |
| LIABILITIES | | | |
| Current Liabilities | | | |
| Accounts payable | $ 49,096 | $ 12,988 | $ 62,084 |
| Refundable deposits | 23,795 | - | 23,795 |
| Due to general fund | - | - | - |
| Bonds payable - current portion | - | | - |
| Accrued expenses | 13,345 | 11,578 | 24,923 |
| Total Current Liabilities | 86,236 | 24,566 | 110,802 |
| Long Term Liabilities | | | |
| Bonds payable - net of current portion | 3,054,906 | 6,540,388 | 9,595,294 |
| Net pension liability | 301,115 | 69,202 | 370,317 |
| Total Long Term Liabilities | 3,356,021 | 6,609,590 | 9,965,611 |
| Total Liabilities | 3,442,257 | 6,634,156 | 10,076,413 |
| DEFERRED INFLOWS OF RESOURCES | | | |
| Deferred inflows-pension | $ 173,958 | $ 143,698 | $ 317,656 |
| NET POSITION | | | |
| Restricted reserve | 139,365 | 119,669 | 259,034 |
| Reserved - short lived assets replacement | - | 56,271 | 56,271 |
| Invested in capital assets - net of related debt | 5,101,751 | 11,873,054 | 16,974,805 |
| Unassigned | 1,036,643 | (50,798) | 985,845 |
| Total Net Position | $ 6,277,759 | $ 11,998,196 | $ 18,275,955 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**PROPRIETARY FUNDS**
**STATEMENT OF REVENUES, EXPENDITURES,**
**AND CHANGES IN FUND BALANCES**
**FOR THE YEAR ENDED JUNE 30, 2022**

| | BUSINESS-TYPE ENTERPRISE FUNDS | | |
|---|---|---|---|
| | WATER SYSTEM | VIRGINIA DIVIDE SEWER | TOTAL |
| OPERATING REVENUES | | | |
| Charges for services | $ 652,958 | $ 452,150 | $ 1,105,108 |
| OPERATING EXPENSES | | | |
| Salaries and wages | 138,230 | 138,758 | 276,988 |
| Benefits | 46,863 | 43,585 | 90,448 |
| Services and supplies | 263,509 | 15,934 | 279,443 |
| Capital outlay | - | - | - |
| Depreciation | 104,301 | 502,962 | 607,263 |
| Total Operating Expense | 552,903 | 701,239 | 1,254,142 |
| Operating Income (Loss) | 100,055 | (249,089) | (149,034) |
| NONOPERATING REVENUES (EXPENSES) | | | |
| Rent and miscellaneous | 12,000 | - | 12,000 |
| Interest income | 37,485 | 65,753 | 103,238 |
| Interest expense | - | (120,604) | (120,604) |
| Miscellaneous | 5,400 | - | 5,400 |
| Capital outlay | (330,081) | (782,283) | (1,112,364) |
| Grants and capital contributions | 354,939 | 813,243 | 1,168,182 |
| Total Nonoperating Revenues (Expenses) | 79,743 | (23,891) | 55,852 |
| Change in net position | 179,798 | (272,980) | (93,182) |
| Net Position, July 1 | 6,097,961 | 12,271,176 | 18,369,137 |
| Net Position, June 30 | $ 6,277,759 | $ 11,998,196 | $ 18,275,955 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**PROPRIETARY FUNDS**
**STATEMENT OF CASH FLOWS**
**FOR THE YEAR ENDED JUNE 30, 2022**

| | BUSINESS-TYPE ENTERPRISE FUNDS | | |
|---|---|---|---|
| | WATER SYSTEM | VIRGINIA DIVIDE SEWER | TOTAL |
| CASH FLOWS FROM OPERATING ACTIVITIES | | | |
| Cash Inflows | | | |
| Sales of water/sewer fees | $ 660,529 | $ 444,454 | $ 1,104,983 |
| Miscellaneous income | 5,400 | - | 5,400 |
| Cash Outflows | | | |
| Salaries and wages | (140,425) | (137,064) | (277,489) |
| Benefits | (51,745) | (46,318) | (98,063) |
| Services and supplies | (240,003) | (7,663) | (247,666) |
| Net Cash Provided (Used) by Operating Activities | 233,756 | 253,409 | 487,165 |
| CASH FLOWS FROM NON-CAPITAL FINANCING ACTIVITIES | | | |
| Cash Inflows | | | |
| Rent | 12,000 | - | 12,000 |
| Customer deposits | 150 | - | 150 |
| Capital outlay | - | (782,283) | (782,283) |
| Net Cash Provided (Used) by Non-Capital Financing Activities | 12,150 | (782,283) | (770,133) |
| CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES | | | |
| Cash Inflows | | | |
| Other Revenue | - | - | - |
| Capital contributions | 354,939 | 813,243 | 1,168,182 |
| Transfer from funds | - | - | - |
| Debt service | - | - | - |
| Cash Outflows | | | |
| Capital outlay and grant match | - | - | (138,455) |
| Debt service | (63,810) | (138,455) | (184,414) |
| Interest expense | - | (120,604) | - |
| Net Cash Provided (Used) by Capital and Related Financing Activities | 291,129 | 554,184 | 845,313 |
| CASH FLOWS FROM INVESTING ACTIVITIES | | | |
| Cash Inflows | | | |
| Interest earnings | 37,485 | 65,753 | 103,238 |
| Net Increase (Decrease) in Cash | 574,520 | 91,063 | 665,583 |
| Cash, July 1 | 1,418,308 | 213,338 | 1,631,646 |
| Cash, June 30 | $ 1,992,828 | $ 304,401 | $ 2,297,229 |

The notes to the financial statements are an integral part of this statement

STOREY COUNTY, NEVADA
STATEMENT OF FIDUCIARY NET POSITION-FIDUCIARY FUNDS
FIDUCIARY FUNDS
JUNE 30, 2022

| | CUSTODIAL FUNDS |
|---|---|
| ASSETS | |
| Cash and cash equivalents | $ 346,625 |
| Taxes receivable for other governments | $ 268,439 |
| Total Assets | $ 615,064 |
| LIABILITIES | |
| Accounts payable and other liabilities | $ 375,815 |
| Due to other governments | 239,249 |
| Total Liabilities | 615,064 |
| Net Position | - |
| Total Liabilities and Net Position | $ 239,249 |

CASH FLOWS FROM NON-CAPITAL
STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FIDUCIARY FUNDS
JUNE 30, 2022

| | CUSTODIAL FUNDS |
|---|---|
| Additions | |
| Taxes and fees collected for other governments | $ 10,404,046 |
| Deductions | |
| Payments of taxes and fees to other governments or organizations/individuals | $ 10,404,046 |
| Net Position, Beginning of Year | $ - |
| Net Position, End of Year | $ - |

The notes to the financial statements are an integral part of this statement

## I. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

### A. REPORTING ENTITY

Storey County, Nevada, a local government created under the provisions of Nevada Revised Statutes 243.110, is governed by an elected three-member board of commissioners. As required by generally accepted accounting principles, these financial statements present the government and its component units, entities for which the government is considered to be financially accountable. Blended component units, although legally separate entities, are in substance, part of the government's operations and so data from these units are combined with data of the primary government.

*Blended Component Units* - The Virginia Divide Sewer Improvement District is under the direct oversight of the Storey County Board of Commissioners. The rates for users charges and bond issuance authorizations are approved by the County Commissioners, and the legal liability for the Virginia Divide Sewer District's debt remains with Storey County. The District is reported as an enterprise fund.

Effective July 1, 2014, the Storey County Fire Protection District 474 was created by the Storey County Board of Commissioners. This entity supersedes the Fire, and Fire District Special Revenue Funds. The governing body of the new Fire Protection District 474 is the Board of Fire Commissioners and it can impose its will and will be reported as a Special Revenue Fund.

The Board of County Commissioners directly appoints the governing board of the Virginia City Tourism Commission (VCTC). The county personnel provide essentially all services, accounting, budgeting and other record keeping for the commission. The VCTC has elected to be reported as a major fund (Special Revenue) in the County financial statements.

TRI General Improvement District(TRI GID) is a discretely presented component unit. Storey Count's Board of Commissioners is also the board for TRI GID, and thus could impose their will on TRI GID. However, the County does not have a financial benefit or burden relationship with TRI GID.

Excluded from the reporting entity - Storey County Schools, Storey County Senior Center, and Canyon General Improvement District.

These potential component units have separate elected or appointed boards and provide services to residents, generally within the geographic boundaries of the government. These potential component units are excluded from the reporting entity because the government does not have the ability to exercise influence over their daily operations, approve budgets, or provide funding.

### B. GOVERNMENT-WIDE AND FUND FINANCIAL STATEMENTS

The government-wide financial statements (i.e., the Statement of Net Position and the Statement of Activities) report information on all of the nonfiduciary activities of the primary government and its component units. For the most part the effect of interfund activity has been removed from these statements. *Governmental activities,* which normally are supported by taxes and intergovernmental revenues, are reported, separately from *business-type activities,* which rely to a significant extent on fees and charges for support.

The statement of activities demonstrates the degrees to which the direct expenses of a given function or segment are offset by program revenues. *Direct expenses* are those that are clearly identifiable with a specific function or segment. *Program revenues* include 1) charges to customers or applicants who purchase, use, or directly benefit from goods, services, or privileges provided by a given function or segment and 2) grants and contributions that are restricted to meeting the operational or capital requirements of a particular function or segment. Taxes and other items not properly included among program revenues are reported instead as general revenues.

## C. MEASUREMENT FOCUS, BASIS OF ACCOUNTING, AND FINANCIAL STATEMENT PRESENTATION

The government-wide financial statements are reported using the economic resources measurement focus and the accrual basis of accounting, as are proprietary fund and fiduciary fund financial statements. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows. Property taxes are recognized as revenue in the year for which they are levied. Grants and similar items are recognized as revenue as soon as all eligibility requirements imposed by the provider have been met.

Governmental fund financial statements are reported using the current financial resources measurement focus and the modified accrual basis of accounting. Revenues are recognized as soon as they are both measurable and available. Gross receipts and sales taxes are considered "measurable when in the hands of intermediary collecting agents or governments." Revenues are considered available when they are collectible within the current period or soon enough thereafter to pay liabilities of the current period. For this purpose, the county considers revenues to be available if they are collected within 60 days after the end of the current fiscal period. Anticipated refunds of taxes are recorded as liabilities and reductions of revenue when they are measurable and the payment seems certain. Expenditures are generally recorded when a liability is incurred, as under accrual accounting. However, debt service expenditures, as well as expenditures related to compensated absences and claims and judgments, are recorded only when payment is due.

Property taxes, franchise taxes, licenses, and interest associated with the current fiscal period are all considered to be susceptible to accrual and so have been recognized as revenues of the current fiscal period. All other revenue items are considered to be measurable and available only when cash is received by the County.

The government reports the following major governmental funds:

The *General Fund* is the County's primary operating fund. It accounts for all financial resources of the general government, except those required to be accounted for in another fund.

The *Fire Protection District 474 Special Revenue Fund* accounts for money received primarily from intergovernmental sources. Expenditures are for County fire protection including the purchase of machinery and equipment to provide such services.

The *Tri Payback Fund* accounts for monies which shall be required to be paid back to the developers of the Tahoe-Reno Industrial Center as detailed in Note XV.

The *Road Special Revenue Fund* accounts for money received primarily from gasoline taxes and other intergovernmental sources. Expenditures are for the construction and maintenance of County roads and bridges and other road related infrastructure and the purchase of machinery and equipment required to do such work. (Elected to be reported as a major fund.)

The *USDA Bond Special Revenue Fund* accounts for money received from USDA Bonds to improve water and waste disposal in Storey County and purchase additional fire and ambulance equipment for the Fire Protection District 474.

The *Virginia City Tourism Commission Special Revenue Fund* promotes tourism for Storey County and Virginia City through advertising and promotion of special events and attractions located within the County. (Elected to be reported as a major fund.)

The government reports the following major proprietary funds:

The *Water System Fund* accounts for the activities of the Virginia City/Gold Hill water distribution system.

The *Virginia Divide Sewer System Fund* accounts for the operations of the sewage treatment plant, pumping stations, and collection systems.

As a general rule, the effect of inter-fund activity has been eliminated from the government-wide financial statements. Exceptions to this general rule are charges between the government's water and sewer functions. Eliminations of these charges would distort the direct costs and program revenues reported for the various functions concerned.

Amounts reported as *Program Revenues* include 1) charges to customers or applicants for goods, services, or privileges provided; 2) operating grants and contributions; and 3) capital grants and contributions. Internally dedicated resources are reported as *General Revenues* rather than as program revenues. Likewise, general revenues include all taxes.

Proprietary funds distinguish operating revenues and expenses from non-operating items. Operating revenues and expenses generally result from providing services or producing and delivering goods in connection with the proprietary funds' principal ongoing operations. Revenues and expenses not meeting this definition are reported as non-operating revenues and expenses.

## D. ASSETS, LIABILITIES, AND NET ASSETS OR EQUITY

### 1. DEPOSITS AND INVESTMENTS

The government's cash and cash equivalents are considered to be cash on hand, demand deposits, short term investments with original maturities of three months or less from the date of acquisition, and the State Treasurer's investment pool. Investments are reported at fair value.

### 2. RECEIVABLES AND PAYABLES

Activity between funds that is representative of lending/borrowing arrangements outstanding at the end of the fiscal year is referred to as "due to/from other funds."

All trade receivables are shown net of an allowance for uncollectible. No allowance is recorded for property tax receivables. Property taxes are levied as of July 1 on property values assessed on the same date. The tax levy may be paid in four installments by the third Monday in August and the first Monday in October, January, and March. There is a ten day grace period allowed for each installment. Penalties and interest are assessed on all delinquent collections. Liens are filed on the property at one year's delinquency.

### 3. INVENTORIES AND PREPAID ITEMS

No inventories are maintained by the government for either operating or office supplies. These items are recorded as expenditures when purchased, rather than when consumed. The VCTC maintains an inventory of resale souvenir items which are presented at cost.

Certain payments to vendors reflect costs applicable to future accounting periods and are recorded as prepaid items.

### 4. RESTRICTED ASSETS AND RESERVED FUNDS

At June 30, 2022, the County had the following restricted fund balances: a) 474 Fire Protection District Fund - $142,640; b) Virginia Divide Sewer Improvement District - $119,669; and c) Water System Fund - $139,365.

5. CAPITAL ASSETS

Capital assets, which include property, plant, equipment, and infrastructure (i.e., roads, bridges, sidewalks, storm drains, and similar items), are reported in the applicable governmental or business-type activities columns in the government-wide financial statements. Capital assets are defined by the government as assets with an initial, individual cost of more than $2,500 (amount not rounded) and an estimated useful life in excess of two years. Such assets are recorded at historical cost or estimated historical cost if purchased or constructed. Donated capital assets are recorded at estimated fair market value at the date of donation.

The cost or normal maintenance and repairs that do not add to the value of the asset or materially extend assets lives are not capitalized.

| Asset | Years |
|---|---|
| Public and System Infrastructure | 20-100 |
| Vehicles | 5-10 |
| Office Equipment | 5-10 |
| Equipment | 10-20 |
| Buildings | 75-100 |
| Building Improvements | 35-50 |
| Computer Equipment | 5 |
| Furniture and Fixtures | 7-10 |

6. COMPENSATED ABSENCE

It is the government's policy to permit employees to accumulate earned but unused vacation and sick pay benefits. Vested or accumulated vacation pay that is expected to be liquidated with expendable available financial resources is reported as expenditure and a fund liability of the fund that will pay it. Amounts of vested or accumulated vacation pay that are not expected to be liquidated with expendable available financial resources are reported as long term debt. No expenditure is reported for these amounts. No liability is recorded for non-vesting accumulating rights to receive sick pay benefits. However a liability is recognized for that portion of accumulated sick leave benefits that is required to be paid upon termination. All employees with a minimum accrued sick leave of 360 hours to a maximum of 960 hours (except for fire department – no maximum) shall be paid at retirement or termination of service, other than involuntary termination as follows:

| Years of Continuous Service | Other Employees Rate of Pay | Fire Department Rate of Pay |
|---|---|---|
| 5 years but less than 10 years | 12.5¢ on the Dollar | 20.0¢ on the Dollar |
| 10 years but less than 15 years | 25.0¢ on the Dollar | |
| 10 years but less than 20 years | | 35.0¢ on the Dollar |
| 15 years but less than 20 years | 40.0¢ on the Dollar | |
| 20 years or more | 50.0¢ on the Dollar | 50.0¢ on the Dollar |

The maximum sick leave paid upon termination shall be $5,000 for all employees except law enforcement and firemen

Payment for Sick Leave at Termination: Upon an employee's end of service through PERS retirement or termination from service (other than involuntary termination) with total accrued hours of three hundred sixty (360) or more, the Employee shall be paid for unused sick leave at the following rate:

a. 10 to 15 years of service shall be paid at a rate of 20% of their base rate of pay for each hour, not to exceed $2,500 cash or $3,125 toward the purchase of PERS.

b. 15 to 20 years of service shall be paid at a rate of 40% of their base rate of pay for each hour, not to exceed $3,500 cash or $4,375 toward the purchase of PERS.

c. More than 20 years of service shall be paid at a rate of 60% of their base rate of pay for each hour, not to exceed $5,000 cash or $6,250 toward the purchase of PERS.

7. DEFERRED OUTFLOWS/INFLOWS OF RESOURCES

In addition to assets, the Statement of Net Position and the Balance Sheet will sometimes report a separate section for deferred outflows of resources. This separate financial statement element represents a consumption of net position that applies to a future period(s) and will not be recognized as an outflow of resources (expense/expenditure) until then. The County reports an amount related to pensions on the government-wide financial statements.

In addition to liabilities, the Statement of Net Position and the Balance Sheet will sometimes report a separate section for deferred inflows of resources. This separate financial statement element represents an acquisition of net position that applies to a future period(s) and will not be recognized as an inflow of resources (revenue) until that time. The County reports amounts related to pensions on the government wide financial statement. These amounts are deferred and recognized as an inflow of resources in the period that the amounts become available.

8. LONG-TERM OBLIGATIONS

In the government-wide financial statements, and proprietary fund types in the fund financial statements, long-term debt and other long-term obligations are reported as liabilities in the governmental activities, business-type activities, or proprietary fund type statement of net assets.

The County currently has no long term bonds payable in the governmental funds. The revenue bonds reported in the proprietary fund types incurred no bond premiums or discounts and therefore have no deferred charges or amortization.

The County has a long-term obligation relating to the Tahoe-Reno Industrial Center (TRI) – see Note XVII for details.

9. NET POSITION

In the government-wide and proprietary fund financial statements, net position is reported as net investment in capital assets, restricted, or unrestricted. Net position is reported as restricted when constraints placed on it are either imposed by external parties (such as creditors, grantors, contributors or other governments) or imposed by law through a constitutional provision or enabling legislation.

10. FUND BALANCE

Fund balances of the governmental funds are classified in accordance with GASB Statement No. 54, *Fund Balance Reporting and Governmental Fund Type Definitions,* as follows:

Nonspendable fund balances include items that cannot be spent, such as amounts that are not in a spendable form (for example, inventories and prepaid items) and amounts that are legally or contractually required to remain intact, such as a permanent fund principal balance.

Restricted fund balances have constraints placed upon the use of the resources either by external parties (such as creditors, grantors, contributors or other governments) or imposed by law through a constitutional provision or enabling legislation.

Committed fund balances can be used only for specific purposes pursuant to constraints imposed by an ordinance of the County Commission, which is the County's highest level of decision-making authority. These constraints remain binding unless removed or changed in the same manner used to create the constraints.

11. ESTIMATES

Timely preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates that affect reported amounts. Accordingly, these estimates may require revision in future periods. Significant estimates include compensated absences, pension and other postemployment benefits, collectability of receivables, and useful lives of capital assets.

## II. STEWARDSHIP, COMPLIANCE, AND ACCOUNTABILITY

### A. BUDGETARY INFORMATION

Annual budgets are adopted on a basis consistent with generally accepted accounting principles for all governmental funds.

The County follows these procedures in establishing the budgetary date reflected in the financial statements:

1. Prior to April 15, the County budget officer submits to the County Commissioners the tentative operating budgets for the fiscal years commencing the following July 1. The operating budgets include proposed expenditures and the means of financing them.

2. The tentative budgets are filed with the State Department of Taxation by April 15.

3. A public hearing is conducted at the County Court House to obtain taxpayers comments (3rd Monday in May).

4. The final budgets are adopted and filed with the State Department of Taxation. Final budgets must be certified by a majority of all members of the governing body. The final budgets must be adopted on or before June 1.

5. Budget amounts may be transferred within funds if the governing body is advised and the action is recorded in the official minutes of the next meeting. Revisions that alter the total expenditures of any fund must be approved by the County Commissioners. Budget revisions must also be filed with the State Department of Taxation.

6. Budgets for the General, Special Revenues, Debt Service, Proprietary, and Capital Projects Funds are adopted on a basis consistent with generally accepted accounting principles (GAAP).

7. Budget augmentations were prepared for the general, various special revenue funds and enterprise funds during the fiscal year ended June 30, 2022

8. All budget appropriations lapse at the end of each fiscal year.

In accordance with state statute, actual expenditures may not exceed budgetary appropriations of the various governmental programs of the General Fund or total appropriations of the Special Revenue and Capital Projects Funds, except as expressly authorized by law.

## B. EXCESS EXPENDITURES OVER APPROPRIATIONS

For the year ended June 30, 2022, expenditures exceeded appropriations as follows:

| | Expenditures | Appropriations |
|---|---|---|
| Indigent Accident Special Revenue Fund | $ 122,671 | $ 116,000 |
| Virginia City Rail Capital Projects Fund | 270,212 | 250,000 |
| Water System Enterprise Fund | 552,903 | 572,587 |
| Virginia Divide Sewer Improvement District | 701,239 | 325,421 |

## C. COMPLIANCE – NRS 354.624

Storey County has two enterprise funds: The Water System Enterprise Fund and the Virginia-Divide Sewer Improvement District Enterprise Fund. Storey County also maintains agency funds as follows: State of Nevada Fund Storey County School District Fund, Storey County School District Debt Service Fund. The County maintains no internal service funds, self-insurance funds, or funds whose balance is required by law to be used for a specific purpose other than the payment of compensation to a bargaining unit as defined in NRS 288.028 or carried forward to the succeeding fiscal year in any designated amount.

All enterprise and agency funds maintained by Storey County:

a) are being used in accordance with NRS 354.624.
b) are being administered in accordance with generally accepted accounting procedures.
c) all reserves in the funds are reasonable and necessary to carry out the purposes of the funds.
d) reflect the sources of revenues available for the fund during the fiscal year – including transfers from other funds.
e) are following the statutory and regulatory requirements applicable to the funds
f) reflect the balance and retained earnings of the funds.

Storey County has $401,674 restricted and reserved in all funds.

## III. CASH AND INVESTMENTS

In accordance with Nevada Revised Statues (NRS), the County's cash is deposited with insured banks and those deposits that are not within the limits of insurance must be secured by collateral. At year end, the County's carrying amount of deposits was $6,563,968 and the bank balance was $6,592,604. The difference between the carrying amount and bank balance results from outstanding checks and deposits not yet reflected in the bank records

Custodial Risk- All deposits are subject to custodial credit risk, which is the risk that the County's deposits may not be returned to it in the event of a bank failure. Bank balances were covered by Federal Depository Insurance, the Securities Investor Protection Corporation, collateral held by the County's agent in the County's name or by collateral held by depositories in the name of the Nevada Collateral Pool, and were not exposed to custodial credit risk. The County does not have a formal policy relating to custodial credit risk, but follows NRS. According to NRS 356.020, all monies deposited by a county treasurer that are not within the limits of insurance provided by an instrumentality of the United States must be secured by collateral composed of the same types of securities allowed for investments which are identified below. The County participates in the State of Nevada Collateral Pool which requires depositories to maintain as collateral acceptable securities having a fair market value of at least 102 percent of the amount of the uninsured balances of the public money held by the depository. Under NRS 356.360, the State Treasurer manages and monitors all collateral for all public monies deposited by members of the pool.

Interest Rate Risk- Interest rate risk is the risk of possible reduction in the value of a security, especially a bond, resulting from a rise in interest rates. As noted above, the County does not have a formal investment policy that limits investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates beyond those specified in the statute. The County restricts notes, bonds, and other unconditional obligations at the time of purchase to have a remaining term to maturity of not more than 10 years as described by Nevada state law.

Credit Risk- NRS allows investments in obligations of the U.S. Treasury and U.S. agencies, municipal bonds issued by local governments of the State, corporate bonds rated "A" or better by a nationally recognized rating service, commercial paper rated "A-1," "P-1" or better by a nationally recognized rating service, repurchase agreements, certificates of deposit, money market mutual funds rated "AAA" by a nationally recognized rating service or other securities in which banking institutions may legally invest.

| At June 30, 2022, the County's investments are rated as follows | | Reported Fair Value | Quality Rating |
|---|---|---|---|
| Money Market Mutual Fund | $ | 318,218 | AAA |
| Certificates of Deposit | | 401,733 | AA- |
| Certificates of Deposit | | 221,160 | A+ |
| Certificates of Deposit | | 718,645 | A |
| Certificates of Deposit | | 667,148 | AA- |
| Certificates of Deposit | | 730,948 | A- |
| Certificates of Deposit-fdic guaranteed | | 4,818,444 | Unrated |
| Us Treasury Securities | | 15,563,778 | AAA |
| US Agency Bonds | | 6,476,098 | AAA |
| US Agency Bonds | | 159,121 | A |
| Corporate Bonds | | 1,615,037 | A+ |
| Corporate Bonds | | 6,019,910 | A |
| Corporate Bonds | | 299,403 | A- |
| Corporate Bonds | | 1,232,792 | AA- |
| Corporate Bonds | | 680,642 | Unrated |
| State of Nevada Local Investment Pool | | 2,483,629 | Unrated |
| | $ | 42,406,706 | |

The County categorizes the fair value measurements of its investments based on the hierarchy established by generally accepts accounting principles. The fair value hierarchy, which has three levels, is based on the valuation inputs used to measure an asset's fair value:

Level 1- Inputs are quoted prices in active markets for identical assets
Level 2- Inputs are significant other observable inputs
Level 3- Inputs are significant unobservable inputs

The County does not have any investments that are measured using Level 3 inputs

Cash and investments are categorized by fund type as follows:

| | |
|---|---|
| Governmental funds | $ 54,612,581 |
| Proprietary funds | 1,738,246 |
| Custodial funds | 346,625 |
| Component Unit | 5,352,129 |
| | $ 62,049,581 |

As of June 30, 2022, the County had the following recurring fair value measurements below:

| | | Fair Value Measurements Using | |
|---|---|---|---|
| Investment Type | Total | Level 1 Inputs | Level 2 Inputs |
| Money Market Mutual Fund | $ 318,218 | $ 318,218 | $ - |
| Certificates of Deposit | 7,558,078 | 7,558,078 | - |
| Us Treasury Securities | 15,563,778 | 15,563,778 | - |
| US Agency Bonds | 6,635,219 | 6,635,219 | - |
| Corporate Bonds | 9,847,784 | - | 9,847,784 |
| Total investments by fair value level | $ 39,923,077 | $ 30,075,293 | $ 9,847,784 |
| Investments not required to be measured at fair value | | | |
| State of Nevada Investment Pool | 2,483,629 | | |
| Total Investments | $ 42,406,706 | | |

At year end the County had the following investments and maturities

| | | Investment Maturities in Years | | |
|---|---|---|---|---|
| Investment Type | Total | Less Than 1 | 1-5 | More than 5 years |
| Money Market Mutual Fund | $ 318,218 | $ 318,218 | $ - | - |
| Certificates of Deposit | 7,558,078 | 3,960,088 | 3,597,990 | |
| Us Treasury Securities | 15,563,778 | 2,954,855 | 12,608,923 | |
| US Agency Bonds | 6,635,219 | | 1,057,834 | 5,577,385 |
| Corporate Bonds | 9,847,784 | 1,889,956 | 7,957,828 | |
| State of Nevada Investment Pool | 2,483,629 | 2,483,629 | - | - |
| Total Investments | 42,406,706 | $ 11,606,746 | $ 25,222,575 | $ 5,577,385 |
| Total cash and cash equivalents | 19,584,799 | | | |
| Total cash, cash equivalents and investments | $ 62,049,581 | | | |

## IV. RECEIVABLES

Receivables as of year-end for the government's individual major funds and non-major funds in the aggregate, including the applicable allowances for uncollectible accounts, are as follows:

| | General | Roads | 474 Fire District | Tri Payback | VCTC | Non-Major Funds | Proprietary Funds | Total |
|---|---|---|---|---|---|---|---|---|
| Receivables: | | | | | | | | |
| Taxes | $ 247,576 | $ - | $ 76,097 | $ - | $ - | $ 8,384 | $ - | $ 332,057 |
| Accounts | 736,719 | 223,834 | 883,167 | 85,124 | 145,021 | 290,313 | 98,886 | 2,463,064 |
| Gross Receivables | 984,295 | 223,834 | 959,264 | 85,124 | 145,021 | 298,697 | 98,886 | 2,795,121 |

The delinquent taxes receivable account represents the past three years of uncollected tax levies. No allowance for uncollectible has been recorded by the County. Taxes received after 60 days of the year end are recorded as deferred revenue.

Accounts receivable include intergovernmental receivables. All accounts receivable, with the exception of the enterprise fund, were collected within a 60 day period, therefore no allowance for uncollectible was recorded in those funds.

Governmental funds report *deferred revenue* in connection with receivables for revenues that are not considered to be available to liquidate liabilities of the current period. At the end of the current fiscal year the various components of *deferred revenue* reported in the governmental funds were as follows:

| | |
|---|---|
| General Fund-Delinquent property taxes receivable: | $ 45,758 |
| 454 Fire District Fund-Delinquent property taxes receivable: | 14,099 |
| 454 Fire District Fund-Ambulance receivable | 466,724 |
| Non-major funds-Delinquent property taxes receivable: | 1,555 |
| Total | $ 528,136 |

## V. INTER-FUND ASSETS/LIABILITIES

Interfund transfers are used to (1) move revenues from the fund that statute or budget requires to collect them to the fund that statute or budget requires to expend them or, (2) move receipts restricted to debt service from the funds collecting the receipts to the Debt Service Fund as debt service payments become due or, (3) use unrestricted revenues collected in the General Fund to finance various programs accounted for in other funds in accordance with budgetary authorizations.

The following are transfers that meet one of the three descriptions above:

| From | To | |
|---|---|---|
| General Fund | Roads Fund | $ 400,000 |
| General Fund | TRI Payback | 1,000,000 |
| General Fund | Emergency Mitigation | 78,000 |
| General Fund | Pipers | 110,000 |
| General Fund | Capital Projects | 2,000,000 |
| Fire District 474 | TRI Payback | 282,000 |
| Fire District 474 | USDA | 142,640 |
| Virginia Divide Sewer | USDA | 259,068 |
| Water System | usa | 98,568 |
| Equipment Acquisition | TRI Payback | 26,000 |
| Mutual Aid | Fire District 474 | 500,000 |
| Fire District 474 | Fire Emergency | 42,859 |
| Fire District 474 | Stabilization | 407,141 |
| Fire District 474 | Fire Grant | 50,000 |

## VI. PROPERTY TAXES

Property taxes attach as an enforceable lien as of July 1. The tax is levied for the fiscal year beginning July 1 after the Nevada Tax Commission has certified the combined tax rate for the County on May 25.

Taxes on the property are due on the third Monday in July. Taxes may be paid in quarterly installments, due on the third Monday of July and the first Monday in October, January, and March. Penalties are added if the installments are not made within ten (10) days of the due date.

## VII. CONTINGENT LIABILITIES

The County receives grant funds from Federal and State agencies. The grant programs are subject to audit by agents of the granting authority. The purpose of the audits is to ensure compliance with conditions precedent to the granting of the funds. Management does not anticipate any liability in the event of an audit.

## VIII. RISK MANAGEMENT

Storey County is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. Storey County has joined together with other counties in the state to form Nevada Public Agency Insurance Pool, a public entity risk pool currently operating as a common risk management and insurance program for 41 governmental entities. The county pays an annual premium to Ingalls and Associates for its general insurance coverage through PENCO. The Agreement for Formation of the NPAIP program provides that NPAIP will be self-sustaining through member premiums and will reinsure through commercial companies for claims in excess of $500,000 for Property and Crime and $150,000 for Casualty for each insured event.

The County continues to carry commercial insurance for all other risks or loss, including workers' compensation and employee health and accident insurance. Settled claims resulting from these risks have not exceeded commercial insurance coverage in any of the past three fiscal years.

## IX. CAPITAL ASSETS

| | Beginning Balance | Increases | Decreases | Ending Balance |
|---|---|---|---|---|
| Primary Government | | | | |
| Governmental Activities | | | | |
| Capital Assets not being depreciated | | | | |
| Land | $ 810,921 | $ - | $ - | $ 810,921 |
| Antique Furniture | 75,000 | - | - | 75,000 |
| Construction in progress | 3,769,420 | 183,080 | 1,021,694 | 2,930,806 |
| Total Capital Assets not being depreciated | 4,655,341 | 183,080 | 1,021,694 | 3,816,727 |
| Capital Assets being depreciated | | | | |
| Leased assets | $ 71,976 | $ - | $ - | $ 71,976 |
| Buildings | 12,840,363 | - | - | 12,840,363 |
| Improvements other than buildings | 49,810,005 | 653,562 | - | 50,463,567 |
| Machinery and equipment | 17,515,862 | 1,588,682 | 59,813 | 19,044,731 |
| Total Capital Assets being depreciated | 80,238,206 | 2,242,244 | 59,813 | 82,420,637 |
| Less accumulated depreciation for: | | | | |
| Leased assets amortization | - | 15,835 | - | 15,835 |
| Buildings | 3,685,488 | 267,058 | - | 3,952,546 |
| Improvements other than buildings | 14,150,217 | 1,407,861 | - | 15,558,078 |
| Machinery and equipment | 10,754,097 | 1,248,354 | 59,813 | 11,942,638 |
| Total accumulated depreciation | 28,589,802 | 2,923,273 | 59,813 | 31,453,262 |
| Governmental activities capital assets - net | $ 56,303,745 | $ (497,949) | $ 1,021,694 | $ 54,784,102 |
| Business type activities | | | | |
| Capital Assets not being depreciated | | | | |
| Construction in progress | $ 4,635,056 | $ - | $ 972,529 | $ 3,662,527 |
| Capital assets being depreciated | | | | |
| Water and sewer system | 26,578,621 | 972,529 | - | 27,551,150 |
| Machinery and equipment | 726,987 | - | - | 726,987 |
| Total Capital assets being depreciated | 27,305,608 | 972,529 | - | 28,278,137 |
| Less accumulated depreciation for: | | | | |
| Water and sewer systems | 4,220,986 | 582,950 | - | 4,803,936 |
| Machinery and equipment | 636,485 | 14,896 | - | 651,381 |
| Total accumulated depreciation | 4,857,471 | 597,846 | - | 5,455,317 |
| Business type activities capital assets - net | $ 27,083,193 | $ 374,683 | $ 972,529 | $ 26,485,347 |

| Net capital assets at June 30,2022, for the discretley presented component unit were: | TRI GID |
|---|---|
| Net Capital assets | |
| Capital assets not being depreciated | $ 52,917,594 |
| Capital assets being depreciated | 56,332,094 |
| Capital assets Net | $ 109,249,688 |

Depreciation expense was charged to functions programs of the primary government as follows:

| | |
|---|---|
| Governmental activities: | |
| General government | $ 1,992,630 |
| Public safety | 658,034 |
| Highways and streets, including depreciation of general infrastructure assets | 165,330 |
| Judicial | 9,481 |
| Community support | 72,598 |
| Culture and recreation | 25,200 |
| Total depreciation expense - Governmental activities | $ 2,923,273 |
| | |
| Business type activities: | |
| Water | $ 94,884 |
| Sewer | 502,962 |
| Total depreciation expense - Business type activities | $ 597,846 |

## X. LONG-TERM OBLIGATIONS

The following is a summary of the Long-Term Obligations of the County:

| | Date Issue | Maturity Date | Original Note/issue | Interest Rate | Balance 6/30/2022 |
|---|---|---|---|---|---|
| Revenue Bonds | | | | | |
| Governmental | | | | | |
| Virginia City Rail Bond-Series 2010A | 12/28/2010 | 12/1/2027 | $ 890,000 | 8.000% | $ - |
| Virginia City Rail Bond-Series 2010B | 12/28/2010 | 12/1/2027 | 859,000 | 5.000% | - |
| Storey County Fire District USDA Loan | 1/8/2015 | 7/8/2034 | 2,000,000 | 3.750% | 1,396,825 |
| | | | 2,000,000 | | $ 1,396,825 |
| Business Type Activities | | | | | |
| Sewer Revenue Bonds | 5/20/2015 | 5/12/2055 | 3,002,000 | 2.500% | 2,663,305 |
| Sewer Revenue Bonds | 12/20/2016 | 12/20/2056 | 4,058,000 | 1.375% | 3,623,157 |
| Sewer Revenue Bonds | 9/23/2020 | 9/23/2060 | 264,000 | 1.125% | 253,925 |
| Water Revenue Bond | 9/23/2020 | 9/23/2060 | 2,126,000 | 1.125% | 2,051,463 |
| Water Revenue Bond | 9/23/2020 | 9/23/2060 | 701,001 | 1.125% | 674,080 |
| Water Revenue Bond | 9/23/2020 | 9/23/2060 | 344,000 | 1.125% | 329,363 |
| | | | $ 10,495,001 | | $ 9,595,293 |

The following represents the current activity in the Long-Term Obligations of the County:

| | Balance 6/30/2021 | Additions | Retired | Balance 6/30/2022 | Principle Due 22-23 |
|---|---|---|---|---|---|
| Revenue Bonds | | | | | |
| Governmental | | | | | |
| Virginia City Rail Bond-Series 2010A | $ 448,000 | $ - | $ 448,000 | $ - | $ - |
| Virginia City Rail Bond-Series 2010B | 443,000 | - | 443,000 | - | - |
| Storey County Fire District USDA Loan | 1,485,008 | - | 88,183 | 1,396,825 | 91,536 |
| | $ 2,376,008 | $ - | $ 979,183 | $ 1,396,825 | $ 91,536 |
| Business Type Activities | | | | | |
| Sewer Revenue Bonds | $ 2,714,903 | $ - | $ 51,598 | $ 2,663,305 | $ 52,902 |
| Sewer Revenue Bonds | 3,704,695 | | 81,538 | 3,623,157 | 82,666 |
| Sewer Revenue Bonds | 259,244 | - | 5,319 | 253,925 | 5,379 |
| Water Revenue Bond | 2,094,207 | | 42,744 | 2,051,463 | 43,227 |
| Water Revenue Bond | 688,202 | | 14,122 | 674,080 | 14,282 |
| Water Revenue Bond | 336,307 | - | 6,944 | 329,363 | 7,023 |
| | $ 9,797,558 | $ - | $ 202,265 | $ 9,595,293 | $ 205,479 |
| Leases-Body cameras | $ 71,976 | $ - | $ 18,226 | $ 53,750 | $ 17,688 |
| Long-Term Liabilities | | | | | |
| Compensated Absences | $ 766,643 | $ 11,629 | $ - | $ 778,272 | $ - |
| TRI-Construction repayment | 38,342,347 | - | 6,404,764 | 31,937,583 | - |
| | $ 39,108,990 | $ 11,629 | $ 6,404,764 | $ 32,715,855 | $ - |

The annual requirements to amortize the outstanding revenue bonds are as follows:

| Year Ended June 30 | Governmental Activities Principal | Governmental Activities Interest | Business Type Activities Principal | Business Type Activities Interest |
|---|---|---|---|---|
| 2023 | $ 91,536 | $ 51,104 | $ 205,479 | $ 152,147 |
| 2024 | 95,017 | 47,623 | 208,343 | 149,283 |
| 2025 | 98,631 | 44,009 | 212,075 | 145,552 |
| 2026 | 102,382 | 40,258 | 215,465 | 142,161 |
| 2027 | 106,276 | 36,364 | 218,916 | 138,710 |
| 2028-2032 | 595,168 | 118,032 | 1,147,847 | 640,283 |
| 2033-2037 | 307,815 | 14,665 | 1,244,385 | 543,746 |
| 2038-2042 | - | - | 1,349,706 | 438,424 |
| 2043-2047 | - | - | 1,465,156 | 322,974 |
| 2048-2052 | - | - | 1,591,753 | 196,378 |
| 2053-2057 | - | - | 1,408,104 | 66,368 |
| 2058-2062 | - | - | 328,064 | 5,974 |
| Total | $ 1,396,825 | $ 352,055 | $ 9,595,293 | $ 2,942,000 |

| Year Ended June 30 | Leases Principal | Leases Interest |
|---|---|---|
| 2023 | $ 17,688 | $ 692 |
| 2024 | 17,916 | 464 |
| 2025 | 18,146 | 234 |
| Total | 53,750 | 40,258 |

## X1. SEGMENT INFORMATION – PROPRIETARY FUNDS

Summary information for the Proprietary funds is presented below:

| | Water Fund | Virginia Divide Sewer Fund |
|---|---|---|
| CONDENSED STATEMENT OF NET ASSETS | | |
| ASSETS | | |
| Current assets | $ 1,589,888 | $ 247,243 |
| Capital assets (net accumulated depreciation) | 8,156,657 | 18,413,442 |
| Total Assets | 9,746,545 | 18,660,685 |
| DEFERRED OUTFLOWS OF RESOURCES | | |
| Deferred outflows-pension | 147,429 | 115,365 |
| LIABILITIES | | |
| Current liabilities | 86,236 | 24,566 |
| Non-current liabilities | 3,356,021 | 6,609,590 |
| Total Liabilities | 3,442,257 | 6,634,156 |
| DEFERRED INFLOWS OF RESOURCES | | |
| Deferred inflows-pension | 173,958 | 143,698 |
| NET POSITION | | |
| Restricted reserve | 139,365 | 119,669 |
| Reserved - Short lived asset replacement | - | 56,271 |
| Invested in capital assets - net of related debt | 5,101,751 | 11,873,054 |
| Unrestricted | 1,036,643 | (50,798) |
| Total Net Position | $ 6,277,759 | $ 11,998,196 |
| CONDENSED STATEMENT OF REVENUES AND EXPENSES | | |
| Operating revenue | $ 652,958 | $ 452,150 |
| Depreciation | (104,301) | (502,962) |
| Other operating expenses | (448,602) | (198,277) |
| Operating income (loss) | 100,055 | (249,089) |
| Non-operating revenues (expenses) | | |
| Rent and miscellaneous | 12,000 | - |
| Interest income | 37,485 | 65,753 |
| Interest expense | - | (120,604) |
| Miscellaneous | 5,400 | - |
| Transfers from capital projects funds | 62,806 | 210,097 |
| Grants and capital contributions | 354,939 | 813,243 |
| Change in net assets | $ 572,685 | $ 719,400 |
| CONDENSED STATEMENTS OF CASH FLOWS | | |
| Net cash provided (used) by | | |
| Operating activities | $ 233,756 | $ 253,409 |
| Non-capital financing activities | 12,150 | (782,283) |
| Capital and related financing activities | 291,129 | 554,184 |
| Investing Activities | 37,485 | 65,753 |
| Net increase (decrease) in cash | 574,520 | 91,063 |
| Cash - beginning | 1,418,308 | 213,338 |
| Cash - ending | $ 1,992,828 | $ 304,401 |

## XII. DEFINED BENEFITS PLAN

General Information about the Pension Plan

*Plan Description*: All permanent, full-time employees are provided pensions through the Public Employees Retirement Plan (PERS). The plan is a multiple-employer defined benefit pension plan administered by the Public Employees' Retirement System of Nevada. Chapter 286 of the Nevada Revised Statutes (NRS) establishes a governing board, appointed by the Governor, that is responsible for managing the System, including arranging for a biennial actuarial valuation and adoption of actuarial tables and formulas prepared and recommended by the actuary.

*Benefits Provided*: Benefits, as required by the Nevada Revised Statutes (NRS or statute), are determined by the number of years of accredited service at time of retirement and the member's highest average compensation in any 36 consecutive months with special provisions for members entering the System on or after January 1, 2010. Benefit payments to which participants or their beneficiaries may be entitled under the plan include pension benefits, disability benefits, and survivor benefits.

Monthly Benefit allowances for members are computed at 2.5% of average compensation for each accredited year of service prior to July 1, 2001. For service earned on and after July 1, 2001, this multiplier is 2.67% of average compensation. For members entering the System on or after January 1, 2010, there is a 2.5% multiplier. The System offers several alternatives to the unmodified service retirement allowance which, in general, allow the retired employee to accept a reduced service retirement allowance payable monthly during his or her lifetime and various optional monthly payments to a named beneficiary after his or her death. Post-retirement increases are provided by the authority of NRS 286.575-.579

Regular members are eligible for retirement at age 65 with five years of service, at age 60 with ten years of service, or at any age with thirty years of service. Regular members entering the System on or after January 1, 2010, are eligible for retirement at age 65 with five years of service, at age 62 with ten years of service, or at any age with thirty years of service.

Police/Fire members are eligible for retirement at age 65 with five years of service, at age 55 with ten years of service, at age 50 with twenty years of service, or at any age with twenty-five years of service. Police/Fire members entering the System on or after January 1, 2010, are eligible for retirement at age 65 with five years of service, at age 60 with ten years of service, at age 50 with twenty years of service, or at any age with thirty years of service. Only service performed in a position as a police officer or firefighter may be counted towards eligibility for retirement as Police/Fire accredited service.

The normal ceiling limitation on monthly benefit allowances is 75% of average compensation. However, a member who has an effective date of membership before July 1, 1985, is entitled to a benefit of up to 90% of average compensation. Both Regular and Police/Fire members become fully vested as to benefits upon completion of five years of service.

*Contributions*: The authority for establishing and amending the obligation to make contributions, and member contribution rates, is set by statute. The contribution rates are based on biennial actuarial valuations and expected to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. New hires in agencies which did not elect the Employer-Pay Contribution (EPC) plan prior to July 1, 1983, have the option of selecting one of two contribution plans. One plan provides for matching employee and employer contributions, while the other plan provides for employer-pay contributions only. Under the matching Employee/Employer Contribution plan a member may, upon termination of service for which contribution is required, withdraw employee contributions which have been credited to their account. All membership rights and active service credit in the System are canceled upon withdrawal of contributions from the member's account. If EPC was elected, the member cannot convert to the Employee/Employer Contribution plan.

The County's contributions to the plan totaled $1,855,184 for the year ended June 30, 2022

Pension Liabilities, Expense, and Deferred Outflows/ Inflows of Resources Related to Pensions

At June 30, 2022, the County reported a liability of $14,812,664 for its proportionate share of the net pension liability. The net pension liability was measured as of June 30, 2021, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. The County's proportion of the plan's net pension liability was based on the County's combined employer and member contributions to the pension plan relative to the contributions of all participating entities for the year ended June 30, 2021. At June 30, 2021, the County's proportion share was .16244% in year 2021, while year 2020 was .15285%.

For the year ended June 30, 2022, the County recognized pension expense of $394,961. At June 30, 2022, the County reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

| | Deferred Outflows of Resources | Deferred Inflows of Resources |
|---|---|---|
| Difference between expected and actual experience | $ 1,640,793 | $ 104,247 |
| Changes is assumptions or other inputs | 4,918,060 | - |
| Net difference between projected and actual earnings on pension plan investments | - | 12,086,662 |
| Changes in the employer's proportion and differences between the employer's contributions and the employer's proportionate contributions | 2,097,734 | 515,340 |
| County contributions subsequent to the measurement date | 1,855,184 | - |
| | $ 10,511,771 | $ 12,706,249 |

Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

| | |
|---|---|
| 2023 | $ (1,464,109) |
| 2024 | (1,674,103) |
| 2025 | (1,718,158) |
| 2026 | (1,592,098) |
| 2027 | 1,140,592 |
| 2028 | 1,103,697 |
| Thereafter | 154,517 |
| | $ (4,049,662) |

In addition, $1,855,184 is reported as deferred outflows of resources related to pensions and represents County's contributions subsequent to the measurement date. The amount will be recognized as a reduction of the net pension liability in the year ended June 30, 2022.

*Actuarial Assumptions*: When measuring the total pension liability, GASB uses the same actuarial cost method, all actuarial assumptions, and the same type of discount rate as PERS uses for funding.

The total pension liability in the June 30, 2021, actuarial valuation was determined using the following actuarial assumptions applied to all periods included in the measurement:

| | |
|---|---|
| Inflation Rate | 2.50% |
| Investment Rate of Return | 7.25% |
| Productivity Pay Increases | 0.5% |
| Projected Salary Increases | Regular: 4.20% to 9.10%, depending on service<br>Police/Fire: 4.60% to 14.5%, depending on service<br>Rates include inflation and productivity increases |
| Other Assumptions | Same as those used in the June 30, 2021 funding actuarial valuation |

The Board evaluates and establishes expected real rates of return (expected returns, net of investment expenses and inflation) for each asset class. The Board reviews these capital market expectations annually. The PERS' current long-term geometric expected real rates of return for each asset class included in the plan's investment portfolio as of June 30, 2021, are included in the following table:

| Asset Class | Target Allocation | Long-Term Geometric Expected Real Rate of Return* |
|---|---|---|
| Domestic Equity | 42% | 5.50% |
| International Equity | 18% | 5.5 |
| Domestic Fixed Income | 28% | .75 |
| Private Markets | 12% | 6.65 |

*As of June 30, 2021, PERS' long-term inflation assumption was 2.50%.

*Discount Rate* : The discount rate used to measure the total pension liability was 7.25% as of June 30, 2021. The projection of cash flows used to determine the discount rate assumed plan contributions will be made in amounts

consistent with statutory provisions and recognizing the plan's current funding policy and cost-sharing mechanism between employers and members. For this purpose, all contributions that are intended to fund benefits for all plan members and their beneficiaries are included, except that project contributions that are intended to fund the service costs for future plan members and their beneficiaries are not included.

*Sensitivity of the County's Proportionate Share of the Net Pension Liability to Changes in the Discount Rate* : The following presents the County's proportionate share of the net pension liability calculated using the discount rate of 7.25%, as well as what the County's proportionate share of the net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (6.25%) or 1 percentage point higher (8.25%) than the current rate:

| 1% Decrease (6.25%) | Discount Rate (7.25%) | 1% Increase (8.25%) |
|---|---|---|
| $ 29,492,977 | $ 14,812,664 | $ 2,703,925 |

*Additional Information* : Additional information supporting the Schedule of Employer Allocations and the Schedule of Pension Amounts by Employer is located in the PERS Comprehensive Annual Financial Report (CAFR) available on the PERS website at www.nvpers.org under Quick Links – Publications.

**Discretely Presented Componet Untis**

At June 30, 2022, the Componet unit reported a liability of $511,184 for its proportionate share of the net pension liability. The net pension liability was measured as of June 30, 2021, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. The Componet units's proportion of the plan's net pension liability was based on the County's combined employer and member contributions to the pension plan relative to the contributions of all participating entities for the year ended June 30, 2021. At June 30, 2021, the County's proportion share was .00561% in year 2021, while year 2020 was .00240%.

For the year ended June 30, 2022, TRIGID recognized pension expense of $115,455. At June 30, 2022, TRIGID reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

| | Deferred Outflows of Resources | Deferred Inflows of Resources |
|---|---|---|
| Difference between expected and actual experience | $ 56,624 | $ 3,598 |
| Changes is assumptions or other inputs | 169,722 | - |
| Net difference between projected and actual earnings on pension plan investments | - | 417,110 |
| Changes in the employer's proportion and differences between the employer's contributions and the employer's proportionate contributions | 591,129 | - |
| TRIGID contributions subsequent to the measurement date | 143,054 | - |
| | $ 960,529 | $ 420,708 |

The following presents the net pension liability of TRIGID as of June 30, 2022 calculated using the discount rate of 7.25%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage point lower(7.25%) or 1 percentage point higher(8.25%) than the discount rate

| 1% Decrease (6.25%) | Discount Rate (7.25%) | 1% Increase (8.25%) |
|---|---|---|
| $ 1,018,564 | $ 511,184 | $ 93,382 |

Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

| | |
|---|---|
| 2023 | $ 63,625 |
| 2024 | 63,625 |
| 2025 | 63,625 |
| 2026 | 67,863 |
| 2027 | 123,326 |
| 2028 | 14,703 |
| Thereafter | 396,767 |

## XIII. POST-EMPLOYMENT BENEFITS OTHER THAN PENSIONS (OPEB):

The County recognizes two different health programs for retirees. Retirees had the option to participate in the County's regular health insurance plan or to join the Nevada Public Employees' Benefits Plan (PEBP). Each plan includes medical, dental and vision benefits for the retiree and the ability for the retiree to cover their spouse at their own cost. The legislature eliminated the option to join PEBP for County employees who retire after November 29, 2008.

Retirees may choose to stay on the County's regular health insurance plan. The retiree is required to pay the full amount of their coverage. However, the coverage rates are the same regardless of age, so the County contributes an implicit subsidy for retirees. The County renegotiates their health insurance plan on a regular basis, and may make plan modifications on rates or coverages accordingly

The County contributes to PEBP, an agent multiple employer defined healthcare plan. PEBP is administered by State and established pursuant to NRS 287.023. This plan is subject to amendment by the State of Nevada each biennium when the legislature is in session. Local governments are required to pay the same portion of cost of coverage for those persons joining PEBP that the State of Nevada pays for those persons retired from state service who have continued to participate in the plan

Storey County's total OBEB liability of $31,698,789 was measured as of June 30, 2022, and was determined by an actuarial valuation as of that date.

Actuarial assumptions and other inputs. The total OBEP liability in the June 30, 2020 actuarial valuation was determined using the following actuarial assumptions and other inputs, applied to all periods included in the measurement, unless other wise specified:

| | |
|---|---|
| Inflation | 2.50% |
| Salary Increases | 3.00% |
| Discount rate | 2.16% |

The discount rate was based on the applicable municipal bond index

Mortality rates were based on MacLeod Watts Scale 2020

Changes in Total OPEB Liability

| | PEBP | County | Total |
|---|---|---|---|
| Balance 6/30/21 | $ 502,414 | $ 27,225,688 | $ 27,728,102 |
| Changes for the year | | | |
| Service Cost | - | 3,253,831 | $ 3,253,831 |
| Interest | 10,857 | 670,635 | $ 681,492 |
| Changes of benefit terms | - | - | $ - |
| Differences between expected and actual experience | - | - | - |
| Changes in assumptions or other inputs | 2,946 | 322,862 | $ 325,808 |
| Benefit Payments | (22,334) | (268,110) | $ (290,444) |
| Net changes | $ (8,531) | $ 3,979,218 | $ 3,970,687 |
| Balance 6/30/22 | $ 493,883 | $ 31,204,906 | $ 31,698,789 |

*Sensitivity of the County's Proportionate Share of the OPEB Liability to Changes in the Discount Rate* : The following presents the County's proportionate share of the net pension liability calculated using the discount rate of 2.16%, as well as what the County's proportionate share of the net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (1.16%) or 1 percentage point higher (3.16%) than tbe current rate:

| | 1% Decrease (1.16%) | Discount Rate (2.16%) | 1% Increase (3.16%) |
|---|---|---|---|
| Net OPEB liability | $ 39,259,346 | $ 31,698,789 | $ 25,949,737 |

*Sensitivity of the County's Proportionate Share of the OPEB Liability to Changes in the Healthcare Cost Trend Rate* :

| | 1% Decrease | Discount Rate Current Trend | 1% Increase |
|---|---|---|---|
| Net OPEB liability | $ 25,038,087 | $ 31,698,789 | $ 40,833,591 |

For the year ended June 30, 2022, the County recognized OPEB expense of $23,812,799. At June 30, 2022 the County reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources

| | Deferred Outflows of Resources | Deferred Inflows of Resources |
|---|---|---|
| Changes of assumptions or other inputs | $ 7,805,782 | $ 1,986,323 |
| Difference between expected and actual experience | - | 5,308,366 |
| Deferred contributions | 313,362 | - |
| Total | $ 8,119,144 | $ 7,294,689 |

Amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows

| | |
|---|---|
| 2023 | $ (125,470) |
| 2024 | (125,470) |
| 2025 | (125,470) |
| 2026 | (125,470) |
| 2027 | (125,470) |
| Thereafter | 1,138,443 |
| | $ 511,093 |

## XIV. RELATED PARTY

The County utilizes a marketing and public relations company, RAD Strategies, whose sole owner is married to the Director of Tourism. Safe guards have been put in to make sure the transactions are transparent. The VCTC board continues to hear and approve the payments in its annual budget. All monthly retainers fees and sent directly to the County Manager for approval before payment.

During the year ended June 30, 2022 the County paid the RAD Strategies $86,912.

## XV. TAHOE-RENO INDUSTRIAL CENTER

On February 2, 2000, Storey County, Nevada entered into a development agreement with the Tahoe-Reno Industrial Center LLC along with DP Operating Partnership, LP for the purposes of completing structures, including grading, infrastructure, and all public facilities related to the property owned by TRI, which consists of approximately 102,000 acres, of which approximately 9,000 acres is zoned for industrial usage within Storey County. The development agreement represents the commitment between Storey County and TRI to fund the capital infrastructure costs and local community services required by the project.

According to the agreements, TRI is responsible for the construction of the project public infrastructure, which shall be dedicated to and maintained by Storey County. Such infrastructure includes streets, sidewalks and streetlights, flood control, drainage channels, storm drains, basins, and other related facilities and County building complexes including fire stations, police stations, public works maintenance yards, and administrative offices. The County is not responsible for the construction, operation, and maintenance of the project private infrastructure such as community water and sewer facilities, railroad track and related facilities, landscaping of common areas, or private trails and parks and other property not dedicated to the County. The County is responsible for separately recording certain revenue and expenses directly attributable to the TRI project, approving reimbursable costs, and determining the net annual revenue reimbursement to TRI.

The agreements establish a revenue threshold that represents the annual fiscal year in which the TRI net revenue exceeds $5,000,000. The revenue threshold must be met before any reimbursements are made to TRI for project related infrastructure costs. Once the revenue threshold is met, the County is responsible for reimbursing TRI for approved project vouchers up to 35% of annual net revenue. Such reimbursements are also limited to 5% of the project assessed valuation at the end of each year. The revenue threshold has been met.

The term of this agreement shall commence upon the effective date and shall expire fifty (50) years after the effective date, unless extended by written amendment executed by the County and Developer. A special revenue fund was established as of July 1, 2009, to provide payment to our TRI partners. A payment of $2,500,000 was made by the TRI Payback Fund during the fiscal year.

Future allocations into the TRI Payback Fund will be a percentage of revenues directly attributed to TRI to include property taxes, business licenses, permits, inspection fees, and real property transfer taxes.

## XVI. TESLA MOTORS

On September 11, 2014, the Nevada State Legislature passed unanimously Senate Bill 1 which gave Tesla Motors $1.25 billion dollars in tax abatements in exchange for Tesla investing $3.5 billion dollars in the state within the first 10 years of the agreement. Under Section 13-3, transferable credits will be approved:

(a) In the amount of $12,500 for each qualified employee, up to a maximum of 6,000 qualified employees.
(b) In the amount equal to 5% of the first $1 billion of new capital investment in this State made collectively by the participants in the qualified project.
(c) In an amount equal to 2.8% of the next $2.5 billion on new capital investment in this State made collectively by the participants in the qualified project.

Section 15-2 provides abatement of 100% for the following:

(a) For property taxes, for a duration of not more than 10 years after the date of which application is submitted and in an amount that equals the amount of the property taxes that would otherwise be owed by each participant for the qualified project;

(b) For employer excise taxes, be for a duration of not more than 10 years after the date on which the application is submitted and in an amount that equals the amount of the employer excise taxes that would otherwise be owed by each participant for employees employed by the participant for the qualified project; and

(c) For local sales and use tax, be for a duration of not more than 20 years after the date on which the application is submitted and in an amount that equals the amount of the local sales and use taxes that would otherwise be owed by each participant in the qualified project.

Under Section 25-36, the governing body of a county or city in which a qualified project is or is expected to be located to create an economic diversification district that includes with its boundaries the qualified project.

Section 35 notes "the governing body of the municipality may enter into an agreement with one or more of the owners of any interest in the property within a district, pursuant to which that owner would agree to make payments to the municipality or to another local government that provides services in the district, or to both, to defray, in whole or in part, the cost of local governmental services during the term of the use of any money pledged pursuant to Section 31 of this act. Such an agreement must specify the amount to be paid by the owner of the property interest, which may be stated as a specified amount per year or as an amount based upon any formula upon which the municipality and owner agree."

Subsequently, Ordinance No. 14-260 creating the Storey County Economic Diversification District No. 1 was signed by the County Commissioners on December 2, 2014, and Ordinance 15-263 providing partial abatements of permitting or licensing fees was signed by the County Commissioners was passed on June 16, 2015. Additional provisions of Senate Bill 1 also provided the ability to "abate" partially or in full permit fees and business license fees within the Economic Diversification District. Tesla and the County mutually negotiated a partial abatement of permit fees but no business license fees. These actions were codified into Ordinance 15-263. See separate schedule relating to additional tax abatements.

## XVII. Leases

Storey County implemented "GASB 87 – Leases" in the fiscal year ended June 30, 2022. There was no restatement of fund balance required. Storey County has five material leases, with four having Storey County as lessor and one having Storey County has the lessee. All leases are accounted for in the General Fund. The County is a party to various other immaterial leases, which are not required to be disclosed in the financial statements

Verizon Cell Tower Site Lease

Storey County leases property for a cell tower site to Mobilitie Investment, LLC. The lease is a five-year lease, which commenced on October 1, 2008, with four optional five-year renewals and the final renewal term expiring on October 1, 2033. The monthly payment by increases by three percent upon each year. The County estimates that the lease will continue until October 1, 2033

Monthly lease payments were $2,407 as of July 1, 2021 with an increase to $2,479 in November 2021. Total lease payments received were $27,055 for the fiscal year 2022. The lease payment has been amortized over the life of the lease including the optional renewals and lease payment increases with imputed interest at 1.28%. A lease receivable asset and the corresponding deferred inflow of resources at June 30, 2022 was $372,878 and $365,824, respectively. Interest income of $4,520 was recognized in regards to this lease payment in the fiscal year ended June 30, 2022.

AT&T Cell Tower Site Lease

Storey County leases property for a cell tower site to New Cingular Wireless PSC, LLC. The lease is a five-year lease, which commenced on March 1, 2021, with four optional five-year renewals and the final renewal term expiring on March 1, 2046. The monthly payment by increases by three percent upon each year. The County estimates that the lease will continue until March 1, 2046

Monthly lease payments were $1,900 as of July 1, 2021 with an increase to $1,957 in April 2022. Total lease payments received were $22,971 for the fiscal year 2022. The lease payment has been amortized over the life of the lease including the optional renewals and lease payment increases with imputed interest at 1.28%. A lease receivable asset and the corresponding deferred inflow of resources at June 30, 2022 was $679,643 and $657,512, respectively. Interest income of $8,059 was recognized in regards to this lease payment in the fiscal year ended June 30, 2022.

Corner Bar Lease

Storey County leases property to VC Ponderosa Saloon LLC. The lease is a three-year lease, which commenced on January 1, 2019, with an optional two-year renewal and the final renewal term expiring on December 31, 2023. The monthly payment is $1,800. The County estimates that the lease will continue until December 31, 2023

Monthly lease payments were $1,800 as of July 1, 2021. Total lease payments received were $21,600 for the fiscal year 2022. The lease payment has been amortized over the life of the lease including the optional renewals and lease payment increases with imputed interest at 1.28%. A lease receivable asset and the corresponding deferred inflow of resources at June 30, 2022 was $32,074 and $31,904, respectively. Interest income of $500 was recognized in regards to this lease payment in the fiscal year ended June 30, 2022.

## XVII. Leases

Corner Bar Lease

Storey County leases property to Divide LLC. The lease is a two-year lease, which commenced on August 6, 2020, with an optional two-year renewal and the final renewal term expiring on August 6, 2024. The monthly payment is $1,500. The County estimates that the lease will continue until August 6, 2024

Monthly lease payments were $1,500 as of July 1, 2021. Total lease payments received were $18,000 for the fiscal year 2022. The lease payment has been amortized over the life of the lease including the optional renewals and lease payment increases with imputed interest at 1.28%. A lease receivable asset and the corresponding deferred inflow of resources at June 30, 2022 was $36,985 and $36,790, respectively. Interest income of $536 was recognized in regards to this lease payment in the fiscal year ended June 30, 2022.

Body Camera Lease

Storey County leases body worn cameras from FEI-Lenslock, Inc.. The lease is a five-year lease, which commenced on September 1, 2020, with an optional one-year renewal. The annual payment is $18,380. The County estimates that the lease will continue until August 31, 2025.

Annual lease payments were $18,380 as of July 1, 2021. Total lease payments received were $18,380 for the fiscal year 2022. The lease payment has been amortized over the life of the lease including the optional renewals and lease payment increases with imputed interest at 1.28%. A lease payable and the corresponding capital assets at June 30, 2022 was $53,750 and $56142, respectively. Interest expense of $154 was recognized in regards to this lease payment in the fiscal year ended June 30, 2022.

**Discretely Presented Componet Untis**

TRIGID leases property for a cell tower site to Verizon Wireless. The lease is a five-year lease, which commenced on November 1, 2017, with four optional five-year renewals and the final renewal term expiring on November 1, 2042. The monthly payment by increases by three percent upon each year. The County estimates that the lease will continue until March 1, 2046

Monthly lease payments were $1,050 as of July 1, 2021 with an increase to $1,078 in April 2022. Total lease payments received were $12,791 for the fiscal year 2022. The lease payment has been amortized over the life of the lease including the optional renewals and lease payment increases with imputed interest at 1.28%. A lease receivable asset and the corresponding deferred inflow of resources at June 30, 2022 was $301,068 and $295,787, respectively. Interest income of $9,206 was recognized in regards to this lease payment in the fiscal year ended June 30, 2022.

## XVIII Subsequent Event

After several years of litigation in the bankruptcy matter, in April 2022 a settlement conference was conducted by a sitting Bankruptcy Judge. Storey actively paiiicipated in the settlement process. A settlement was reached between and among Storey, the Bankruptcy Estate and the Purchasers. As of June 30, 2022, the terms of the settlement had been agreed upon; however, it was not approved by the Bankruptcy Court until after June 30, 2022. The Settlement required a payment by Storey County in the amount of $75,000, which payment was made after June 30, 2022.

## XIX. TAX ABATEMENTS

Storey County has agreements with businesses within the Industrial Park for property tax, sales tax. plan review and permit fee abatement agreements. These agreements range from 5 years to 20 years depending on the individual abatement. The following is a list of those abatements.

**State of Nevada Governor's Office on Economic Development (GOED)**
Chapter 271B of the Nevada Revised Statutes created on Economic Diversification District for which Storey County is a participant. Tesla filed as a Lead participant within the Statue and was granted full abatements on Property Tax for 10 years and Sales and Use Tax for 20 years. The effect of this abatement is as follows:

**PERSONAL PROPERTY TAX**

| ASSESSED VALUE | ABATEMENT | TOTAL ABATEMENT |
|---|---|---|
| $872,836,012 | 100% | $872,836,012 |

**REAL PROPERTY TAX**

| ASSESSED VALUE | ABATEMENT | TOTAL ABATEMENT |
|---|---|---|
| $212,762,006 | 100% | $212,762,006 |

In addition, GOED has permitted several companies to abate a certain portion of their personal and Real Property

**PERSONAL PROPERTY TAX**

| ASSESSED VALUE | ABATEMENT | TOTAL ABATEMENT |
|---|---|---|
| $13,246,887 | 64% | $8,470,413 |

**REAL PROPERTY TAX**

| ASSESSED VALUE | ABATEMENT | TOTAL ABATEMENT |
|---|---|---|
| $421,963 | 50% | $210,981 |

**Nevada Governor's Office of Energy (GOE)**
The GOE administers the green building tax abatement program based on criteria set forth in the LEED of Green Globes rating system and certification from the U.S. Green Building Council. This abatement if as follows:

**LEED ABATEMENTS**

**PRE-ABATEMENT**

| TAX AMOUNT | ABATEMENT | TOTAL ABATEMENT |
|---|---|---|
| $284,165 | 18% | $49,151 |

**STOREY COUNTY, NEVADA**
**COMBINING BALANCE SHEET**
**NONMAJOR GOVERNMENTAL FUNDS**
**JUNE 30, 2022**

| | SPECIAL REVENUE | | | | | | |
|---|---|---|---|---|---|---|---|
| | EQUIPMENT ACQUISITION | JUSTICE COURT | DRUG COURT | INDIGENT MEDICAL | PARK TAX | MUTUAL AID | EMERGENCY MITIGATION |
| ASSETS | | | | | | | |
| Cash | $ 3,484,187 | $ 233,697 | $ 50 | $ 562,760 | $ 92,243 | $ 1,000,141 | $ 493,288 |
| Property taxes receivable | 6,986 | - | - | 1,398 | - | - | - |
| Accounts receivable | - | - | - | - | - | - | - |
| Prepaid expenses | - | - | - | - | - | - | - |
| Total Assets | $ 3,491,173 | $ 233,697 | $ 50 | $ 564,158 | $ 92,243 | $ 1,000,141 | $ 493,288 |
| LIABILITIES | | | | | | | |
| Accounts payable | $ 110,591 | $ 186,983 | $ 20 | $ 2,880 | $ - | $ 9,502 | $ 19 |
| Unearned revenue | - | - | - | - | - | - | - |
| Total Liabilities | $ 110,591 | $ 186,983 | $ 20 | $ 2,880 | $ - | $ 9,502 | $ 19 |
| DEFERRED INFLOWS OF RESOURCES | | | | | | | |
| Unavailable resources property taxes | $ 260 | $ - | $ - | $ 1,295 | $ - | $ - | $ - |
| FUND BALANCE | | | | | | | |
| Nonspendable | - | - | - | - | - | - | - |
| Unassigned | 3,380,322 | 46,714 | 30 | 559,983 | 92,243 | 990,639 | 493,269 |
| Total Fund Balance | 3,380,322 | 46,714 | 30 | 559,983 | 92,243 | 990,639 | 493,269 |
| Total Liabilities, Deferred Inflows of Resources and Fund Balances | $ 3,491,173 | $ 233,697 | $ 50 | $ 564,158 | $ 92,243 | $ 1,000,141 | $ 493,288 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**COMBINING BALANCE SHEET**
**NONMAJOR GOVERNMENTAL FUNDS**
**JUNE 30, 2022**

| | SPECIAL REVENUE | | | | | | |
|---|---|---|---|---|---|---|---|
| | INDIGENT ACCIDENT | TECHNOLOGY | FEDERAL AND STATE GRANTS | FIRE EMERGENCY | STABILIATION FUND | GENERIC MARKER TESTING FUND | PIPER'S OPERA HOUSE |
| ASSETS | | | | | | | |
| Cash | $ 94,023 | $ 456,130 | $ 72,219 | 250,000 | $ 1,000,000 | $ 78,655 | $ 139,637 |
| Property taxes receivable | - | - | - | - | - | - | - |
| Accounts receivable | - | - | - | - | - | - | - |
| Prepaid expenses | - | - | - | - | - | - | 1,000 |
| Total Assets | $ 94,023 | $ 456,130 | $ 72,219 | $ 250,000 | $ 1,000,000 | $ 78,655 | $ 140,637 |
| LIABILITIES | | | | | | | |
| Accounts payable | $ 20,402 | $ 3,310 | $ 160 | $ - | $ - | $ 318 | 8,968 |
| Unearned revenue | - | - | - | - | - | - | 22,910 |
| Total Liabilities | 20,402 | 3,310 | 160 | - | - | 318 | 31,878 |
| DEFERRED INFLOWS OF RESOURCES | | | | | | | |
| Unavailable resources property taxes | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| FUND BALANCE | | | | | | | |
| Nonspendable | - | - | - | - | - | - | - |
| Unassigned | 73,621 | 452,820 | 72,059 | 250,000 | 1,000,000 | 78,337 | 108,759 |
| Total Fund Balance | 73,621 | 452,820 | 72,059 | 250,000 | 1,000,000 | 78,337 | 108,759 |
| Total Liabilities, Deferred Inflows of Resources and Fund Balances | $ 94,023 | $ 456,130 | $ 72,219 | $ 250,000 | $ 1,000,000 | $ 78,655 | $ 140,637 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**COMBINING BALANCE SHEET**
**NONMAJOR GOVERNMENTAL FUNDS**
**JUNE 30, 2022**

| | SPECTIAL REVENUE | CAPITAL PROJECTS | | | | |
|---|---|---|---|---|---|---|
| | FIRE GRANTS | CAPITAL PROJECTS | INFRASTRUCTURE FUND | VIRGINIA CITY RAIL PROJECT | FIRE CAP PROJECTS | TOTAL |
| ASSETS | | | | | | |
| Cash | $ 46,441 | $ 2,797,192 | $ 2,493,271 | $ 1,662,535 | $ 660,202 | $ 15,616,671 |
| Property taxes receivable | - | - | - | - | - | 8,384 |
| Accounts receivable | - | - | 145,292 | 145,021 | - | 290,313 |
| Prepaid expenses | - | - | - | - | - | 1,000 |
| Total Assets | $ 46,441 | $ 2,797,192 | $ 2,638,563 | $ 1,807,556 | $ 660,202 | $ 15,916,368 |
| LIABILITIES | | | | | | |
| Accounts payable | $ 37,881 | $ 35,365 | $ 148,238 | $ 3,848 | $ 539 | $ 569,024 |
| Unearned revenue | - | - | - | - | - | 22,910 |
| Total Liabilities | $ 37,881 | $ 35,365 | $ 148,238 | $ 3,848 | $ 539 | $ 591,934 |
| DEFERRED INFLOWS OF RESOURCES | | | | | | |
| Unavailable resources property taxes | $ - | $ - | $ - | $ - | $ - | $ 1,555 |
| FUND BALANCE | | | | | | |
| Nonspendable | - | - | - | - | - | - |
| Unassigned | 8,560 | 2,761,827 | 2,490,325 | 1,803,708 | 659,663 | 15,322,879 |
| Total Fund Balance | 8,560 | 2,761,827 | 2,490,325 | 1,803,708 | 659,663 | 15,322,879 |
| Total Liabilities, Deferred Inflows of Resources and Fund Balances | $ 46,441 | $ 2,797,192 | $ 2,638,563 | $ 1,807,556 | $ 660,202 | $ 15,916,368 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**COMBINING STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE**
**NONMAJOR GOVERNMENTAL FUNDS**
**FOR THE YEAR ENDED JUNE 30, 2022**

| | SPECIAL REVENUE | | | | | | |
|---|---|---|---|---|---|---|---|
| | EQUIPMENT ACQUISITION | JUSTICE COURT | DRUG COURT | INDIGENT MEDICAL | PARK TAX | MUTUAL AID | EMERGENCY MITIGATION |
| REVENUE | | | | | | | |
| Taxes | $ 411,100 | $ - | $ - | $ 84,660 | $ - | $ - | $ - |
| Intergovernmental | - | - | - | - | - | - | - |
| Charges for services | - | - | - | - | 3,250 | - | - |
| Fine and forfeitures | - | 41,356 | 440 | - | - | - | - |
| Other revenues | 75,494 | - | - | - | 468 | 406,936 | 412,302 |
| Total Revenues | 486,594 | 41,356 | 440 | 84,660 | 3,718 | 406,936 | 412,302 |
| EXPENDITURES | | | | | | | |
| Current | | | | | | | - |
| General government | 234,919 | - | - | - | - | - | - |
| Public safety | - | - | - | - | - | 464,669 | 30,576 |
| Judicial | - | 21,121 | 440 | - | - | - | - |
| Culture and recreation | - | - | - | - | - | - | - |
| Welfare | - | - | - | 43,303 | - | - | - |
| Intergovernmental | - | - | - | - | - | - | - |
| Total Expenditures | 234,919 | 21,121 | 440 | 43,303 | - | 464,669 | 30,576 |
| Excess (deficiency) of revenues over expenditures | 251,675 | 20,235 | - | 41,357 | 3,718 | (57,733) | 381,726 |
| OTHER FINANCIAL SOURCES (USES) | | | | | | | |
| Transfers | (26,000) | - | - | - | - | (500,000) | 78,000 |
| Transfers to proprietary funds | | | | | | | |
| Debt service | - | - | - | - | - | - | - |
| Bond proceeds | - | - | - | - | - | - | - |
| Total Other Financing Sources (Uses) | (26,000) | - | - | - | - | (500,000) | 78,000 |
| Excess (deficiency) of revenue and other Financing Sources (Uses) over Expenditures | 225,675 | 20,235 | - | 41,357 | 3,718 | (557,733) | 459,726 |
| Fund Balance, July 1 | 3,154,647 | 26,479 | 30 | 518,626 | 88,525 | 1,548,372 | 33,543 |
| Fund Balance, June 30 | $ 3,380,322 | $ 46,714 | $ 30 | $ 559,983 | $ 92,243 | $ 990,639 | $ 493,269 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**COMBINING STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE**
**NONMAJOR GOVERNMENTAL FUNDS**
**FOR THE YEAR ENDED JUNE 30, 2022**

| | SPECIAL REVENUE | | | | | | |
|---|---|---|---|---|---|---|---|
| | INDIGENT ACCIDENT | TECHNOLOGY | FEDERAL AND STATE GRANTS | FIRE EMERGENCY | STABILIATION FUND | GENERIC MARKER TESTING FUND | PIPER'S OPERA HOUSE |
| REVENUE | | | | | | | |
| Taxes | $ 128,377 | $ - | $ - | $ - | $ - | $ - | $ - |
| Intergovernmental | - | - | 101,038 | - | - | - | 3,000 |
| Charges for services | - | 220,112 | - | - | - | - | 109,890 |
| Fine and forfeitures | - | - | - | - | - | 11,084 | - |
| Other revenues | - | 2,318 | - | - | - | - | 22,460 |
| Total Revenues | 128,377 | 222,430 | 101,038 | - | - | 11,084 | 135,350 |
| EXPENDITURES | | | | | | | |
| Current | | | | | | | |
| General government | - | 65,567 | - | - | - | - | 223,307 |
| Public safety | - | - | 133,711 | - | - | - | - |
| Judicial | - | - | - | - | - | 4,199 | - |
| Culture and recreation | - | - | - | - | - | - | - |
| Welfare | 122,671 | - | - | - | - | - | - |
| Intergovernmental | - | - | - | - | - | - | - |
| Total Expenditures | 122,671 | 65,567 | 133,711 | - | - | 4,199 | 223,307 |
| Excess (deficiency) of revenues over expenditures | 5,706 | 156,863 | (32,673) | - | - | 6,885 | (87,957) |
| OTHER FINANCIAL SOURCES (USES) | | | | | | | |
| Transfers | - | - | - | 42,859 | - | - | 110,000 |
| Transfers to proprietary funds | - | - | - | - | - | - | - |
| Debt service | - | - | - | - | - | - | - |
| Bond proceeds | - | - | - | - | - | - | - |
| Total Other Financing Sources (Uses) | - | - | - | 42,859 | - | - | 110,000 |
| Excess (deficiency) of revenue and other financing Sources (Uses) over Expenditures | 5,706 | 156,863 | (32,673) | 42,859 | - | 6,885 | 22,043 |
| Fund Balance, July 1 | 67,915 | 295,957 | 104,732 | 207,141 | 1,000,000 | 71,452 | 86,716 |
| Fund Balance, June 30 | $ 73,621 | $ 452,820 | $ 72,059 | $ 250,000 | $ 1,000,000 | $ 78,337 | $ 108,759 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**COMBINING STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE**
**NONMAJOR GOVERNMENTAL FUNDS**
**FOR THE YEAR ENDED JUNE 30, 2022**

| | SPECIAL REVENUE | CAPITAL PROJECTS | | | | |
|---|---|---|---|---|---|---|
| | FIRE GRANTS | CAPITAL PROJECTS | INFRASTRUCTURE FUND | VIRGINIA CITY RAIL PROJECT | FIRE CAP PROJECTS | TOTAL |
| REVENUE | | | | | | |
| Taxes | $ - | $ - | $ - | $ 778,689 | $ - | $ 1,402,826 |
| Intergovernmental | 1,055,473 | - | 752,550 | - | - | 1,912,061 |
| Charges for services | - | - | - | - | - | 333,252 |
| Fine and forfeitures | - | - | - | - | - | 52,880 |
| Other revenues | - | 93,733 | - | - | 9,289 | 1,023,000 |
| Total Revenues | 1,055,473 | 93,733 | 752,550 | 778,689 | 9,289 | 4,724,019 |
| EXPENDITURES | | | | | | |
| Current | | | | | | |
| General government | - | 781,255 | 527,095 | - | - | 1,832,143 |
| Public safety | 1,096,913 | - | - | - | 93,684 | 1,819,553 |
| Judicial | - | - | - | - | - | 25,760 |
| Culture and recreation | - | - | - | 270,212 | - | 270,212 |
| Welfare | - | - | - | - | - | 165,974 |
| Intergovernmental | - | - | - | - | - | - |
| Total Expenditures | 1,096,913 | 781,255 | 527,095 | 270,212 | 93,684 | 4,113,642 |
| Excess (deficiency) of revenues over expenditures | (41,440) | (687,522) | 225,455 | 508,477 | (84,395) | 610,377 |
| OTHER FINANCIAL SOURCES (USES) | | | | | | |
| Transfers | 50,000 | 2,000,000 | - | - | 407,141 | 2,162,000 |
| Transfers to proprietary funds | - | - | - | - | - | - |
| Debt service | - | - | - | (897,927) | - | (897,927) |
| Bond proceeds | - | - | - | - | - | - |
| Total Other Financing Sources (Uses) | 50,000 | 2,000,000 | - | (897,927) | 407,141 | 1,264,073 |
| Excess (deficiency) of revenue and other financing Sources (Uses) over Expenditures | 8,560 | 1,312,478 | 225,455 | (389,450) | 322,746 | 1,874,450 |
| Fund Balance, July 1 | - | 1,449,349 | 2,264,870 | 2,193,158 | 336,917 | 13,448,429 |
| Fund Balance, June 30 | $ 8,560 | $ 2,761,827 | $ 2,490,325 | $ 1,803,708 | $ 659,663 | $ 15,322,879 |

The notes to the financial statements are an integral part of this statement

STOREY COUNTY, NEVADA
EQUIPMENT ACQUISITION SPECIAL REVENUE FUND
STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE
BUDGET AND ACTUAL
FOR THE YEAR ENDED JUNE 30, 2022

| | ORIGINAL AND FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|
| REVENUE | | | |
| Taxes | | | |
| Property taxes | $ 324,922 | $ 411,100 | $ 86,178 |
| Other revenues | | | |
| Equipment sales | | 20,586 | |
| Insurance claims | | 36,145 | |
| Interest | 3,700 | 18,763 | 15,063 |
| Total Revenues | 328,622 | 486,594 | 101,241 |
| EXPENDITURES | | | |
| General government | | | |
| Capital outlay | 257,720 | 234,919 | 22,801 |
| Total Expenditures | 257,720 | 234,919 | 22,801 |
| Excess (Deficiency) of Revenues over Expenditures | 70,902 | 251,675 | 180,773 |
| OTHER FINANCING SOURCES (USES) | | | |
| Transfer out - Tri Payback | (26,000) | (26,000) | - |
| Excess (Deficiency) of Revenues and Other Financing Sources (Uses) over Expenditures | 44,902 | 225,675 | 180,773 |
| Fund Balance, July 1 | 2,995,329 | 3,154,647 | 159,318 |
| Fund Balance, June 30 | $ 3,040,231 | $ 3,380,322 | $ 340,091 |

The notes to the financial statements are an integral part of this statement

STOREY COUNTY, NEVADA
JUSTICE COURT SPECIAL REVENUE FUND
STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE
BUDGET AND ACTUAL
FOR THE YEAR ENDED JUNE 30, 2022

| | ORIGINAL AND FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|
| REVENUE | | | |
| Fines | | | |
| Justice court fines | $ 67,000 | $ 41,356 | $ (25,644) |
| EXPENDITURES | | | |
| Judicial | | | |
| Services and supplies | 68,500 | 21,121 | 47,379 |
| Capital outlay | - | - | - |
| Total Expenditures | 68,500 | 21,121 | 47,379 |
| Excess (Deficiency) of Revenues over Expenditures | (1,500) | 20,235 | 21,735 |
| Fund Balance, July 1 | 19,969 | 26,479 | 6,510 |
| Fund Balance, June 30 | $ 18,469 | $ 46,714 | $ 28,245 |

The notes to the financial statements are an integral part of this statement

STOREY COUNTY, NEVADA
DRUG COURT SPECIAL REVENUE FUND
STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE
BUDGET AND ACTUAL
FOR THE YEAR ENDED JUNE 30, 2022

| | ORIGINAL AND FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|
| REVENUE | | | |
| Fines and forfeits | | | |
| Drug court fees | $ 400 | $ 440 | $ 40 |
| EXPENDITURES | | | |
| Judicial | | | |
| Services and supplies | 400 | 440 | (40) |
| Excess (Deficiency) of Revenues over Expenditures | - | - | - |
| Fund Balance, July 1 | 30 | 30 | - |
| Fund Balance, June 30 | $ 30 | $ 30 | $ - |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**INDIGENT MEDICAL SPECIAL REVENUE FUND**
**STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE**
**BUDGET AND ACTUAL**
**FOR THE YEAR ENDED JUNE 30, 2022**

| | ORIGINAL AND FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|
| REVENUE | | | |
| Taxes | | | |
| Property taxes | $ 65,164 | $ 84,660 | $ 19,496 |
| EXPENDITURES | | | |
| Welfare | | | |
| Services and supplies | 200,000 | 43,303 | 156,697 |
| Excess (Deficiency) of Revenues over Expenditures | (134,836) | 41,357 | 176,193 |
| Fund Balance, July 1 | 390,300 | 518,626 | 128,326 |
| Fund Balance, June 30 | $ 255,464 | $ 559,983 | $ 304,519 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**PARK TAX SPECIAL REVENUE FUND**
**STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE**
**BUDGET AND ACTUAL**
**FOR THE YEAR ENDED JUNE 30, 2022**

| | ORIGINAL AND FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|
| REVENUE | | | |
| Charges for services | | | |
| Park fees | $ 1,500 | $ 3,250 | $ 1,750 |
| Other revenues | | | |
| Interest | 100 | 468 | 368 |
| Total Revenues | 1,600 | 3,718 | 2,118 |
| EXPENDITURES | | | |
| Culture and recreation | | | |
| Services and supplies | 15,000 | - | 15,000 |
| Excess (Deficiency) of Revenues over Expenditures | (13,400) | 3,718 | 17,118 |
| Fund Balance, July 1 | 85,737 | 88,525 | 2,788 |
| Fund Balance, June 30 | $ 72,337 | $ 92,243 | $ 19,906 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**MUTUAL AID SPECIAL REVENUE FUND**
**STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE**
**BUDGET AND ACTUAL**
**FOR THE YEAR ENDED JUNE 30, 2022**

| | ORIGINAL BUDGETED AMOUNTS | FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|---|
| REVENUE | | | | |
| Other revenues | | | | |
| Fire suppression | $ 485,600 | $ 485,600 | $ 406,936 | $ (78,664) |
| Total Revenues | 485,600 | 485,600 | 406,936 | (78,664) |
| EXPENDITURES | | | | |
| Public safety | | | | |
| Salaries and wages | 345,000 | 345,000 | 294,055 | 50,945 |
| Benefits | 30,300 | 88,300 | 76,957 | 11,343 |
| Services and supplies | 75,800 | 75,800 | 71,481 | 4,319 |
| Capital outlay | 34,500 | 34,500 | 22,176 | 12,324 |
| Total Expenditures | 485,600 | 543,600 | 464,669 | 78,931 |
| Excess (Deficiency) of Revenues over Expenditures | - | (58,000) | (57,733) | 267 |
| OTHER FINANCING SOURCES (USES) | | | | |
| Transfers out | (500,000) | (500,000) | (500,000) | - |
| Excess(Deficiency) of Revenues and Other Financing Sources (Uses) over Expenditures | (500,000) | (558,000) | (557,733) | 267 |
| Fund Balance, July 1 | 1,179,240 | 1,179,240 | 1,548,372 | 369,132 |
| Fund Balance, June 30 | $ 679,240 | $ 621,240 | $ 990,639 | $ 311,399 |

The notes to the financial statements are an integral part of this statement

STOREY COUNTY, NEVADA
EMERGENCY MITIGATION SPECIAL REVENUE FUND
STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE
BUDGET AND ACTUAL
FOR THE YEAR ENDED JUNE 30, 2022

| | ORIGINAL AND FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|
| REVENUE | | | |
| Grants | $ - | $ 412,302 | $ 412,302 |
| EXPENDITURES | | | |
| Public Safety | | | |
| Services and supplies | 78,000 | 30,576 | 47,424 |
| Excess (Deficiency) of Revenues over Expenditures | (78,000) | 381,726 | 459,726 |
| OTHER FINANCING SOURCES (USES) | | | |
| Transfers in | 78,000 | 78,000 | - |
| Excess(Deficiency) of Revenues and Other Financing Sources (Uses) over Expenditures | - | 459,726 | 459,726 |
| Fund Balance, July 1 | 31,194 | 33,543 | 2,349 |
| Fund Balance, June 30 | $ 31,194 | $ 493,269 | $ 462,075 |

The notes to the financial statements are an integral part of this statement

STOREY COUNTY, NEVADA
INDIGENT ACCIDENT SPECIAL REVENUE FUND
STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE
BUDGET AND ACTUAL
FOR THE YEAR ENDED JUNE 30, 2022

| | ORIGINAL BUDGETED AMOUNTS | FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|---|
| REVENUE | | | | |
| Taxes | | | | |
| Property taxes | $ 89,297 | $ 89,297 | $ 128,377 | $ 39,080 |
| EXPENDITURES | | | | |
| Welfare | | | | |
| Services and supplies | 80,000 | 116,000 | 122,671 | (6,671) |
| Excess (Deficiency) of Revenues over Expenditures | 9,297 | (26,703) | 5,706 | 32,409 |
| Fund Balance, July 1 | 26,802 | 26,802 | 67,915 | 41,113 |
| Fund Balance, June 30 | $ 36,099 | $ 99 | $ 73,621 | $ 73,522 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**TECHNOLOGY SPECIAL REVENUE FUND**
**STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE**
**BUDGET AND ACTUAL**
**FOR THE YEAR ENDED JUNE 30, 2022**

| | ORIGINAL AND FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|
| REVENUE | | | |
| Charges for services | | | |
| Technology fees | $ 57,100 | $ 220,112 | $ 163,012 |
| Other revenues | | | |
| Interest income | - | 2,318 | 2,318 |
| Total Revenues | 57,100 | 222,430 | 165,330 |
| EXPENDITURES | | | |
| General government | | | |
| Services and supplies | 105,000 | 65,567 | 39,433 |
| Excess (Deficiency) of Revenues over Expenditures | (47,900) | 156,863 | 204,763 |
| Fund Balance, July 1 | 196,343 | 295,957 | 99,614 |
| Fund Balance, June 30 | $ 148,443 | $ 452,820 | $ 304,377 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**FEDERAL/STATE GRANT SPECIAL REVENUE FUND**
**STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE**
**BUDGET AND ACTUAL**
**FOR THE YEAR ENDED JUNE 30, 2022**

| | FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|
| REVENUE | | | |
| Intergovernmental | | | |
| Federal grants | $ 136,227 | $ 41,461 | $ (94,766) |
| State grants | 256,591 | 59,577 | (197,014) |
| Total Revenues | 392,818 | 101,038 | (291,780) |
| EXPENDITURES | | | |
| Culture and recreation | | | |
| Services and supplies | - | - | - |
| Public safety | | | |
| Salaries and wages | - | - | - |
| Employee benefits | - | - | - |
| Services and supplies | 496,724 | 133,711 | 363,013 |
| Intergovernmental - State | | | |
| Services and supplies | - | - | - |
| Total Expenditures | 496,724 | 133,711 | 363,013 |
| Excess (Deficiency) of Revenues over Expenditures | (103,906) | (32,673) | 71,233 |
| Fund Balance, July 1 | 119,625 | 104,732 | (14,893) |
| Fund Balance, June 30 | $ 15,719 | $ 72,059 | $ 56,340 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**FIRE EMERGENCY SPECIAL REVENUE FUND**
**STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE**
**BUDGET AND ACTUAL**
**FOR THE YEAR ENDED JUNE 30, 2022**

| | ORIGINAL AND FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|
| REVENUE | | | |
| Charges for services | $ - | $ - | $ - |
| EXPENDITURES | | | |
| Public Safety | | | |
| Services and supplies | 250,000 | - | 250,000 |
| Excess (Deficiency) of Revenues over Expenditures | (250,000) | - | 250,000 |
| OTHER FINANCING SOURCES (USES) | | | |
| Transfers in | 42,859 | 42,859 | 78,000 |
| Excess(Deficiency) of Revenues and Other Financing Sources (Uses) over Expenditures | (207,141) | 42,859 | 328,000 |
| Fund Balance, July 1 | 207,141 | 207,141 | - |
| Fund Balance, June 30 | $ - | $ 250,000 | $ 250,000 |

The notes to the financial statements are an integral part of this statement

STOREY COUNTY, NEVADA
STABILIZATION SPECIAL REVENUE FUND
STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE
BUDGET AND ACTUAL
FOR THE YEAR ENDED JUNE 30, 2022

| | ORIGINAL AND FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|
| REVENUE | | | |
| None | $ - | $ - | $ - |
| EXPENDITURES | | | |
| Capital outlay | 400,000 | - | 400,000 |
| Excess (Deficiency) of Revenues over Expenditures | (400,000) | - | 400,000 |
| Fund Balance, July 1 | 600,000 | 1,000,000 | 400,000 |
| Fund Balance, June 30 | $ 200,000 | $ 1,000,000 | $ 800,000 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**GENETIC MARKER TESTING SPECIAL REVENUE FUND**
**STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE**
**BUDGET AND ACTUAL**
**FOR THE YEAR ENDED JUNE 30, 2022**

| | ORIGINAL AND FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|
| REVENUE | | | |
| Fines and forfeitures | $ 11,100 | $ 11,084 | $ (16) |
| EXPENDITURES | | | |
| Judicial | | | |
| Services and supplies | 6,000 | 4,199 | 1,801 |
| Excess (Deficiency) of Revenues over Expenditures | 5,100 | 6,885 | 1,785 |
| Fund Balance, July 1 | 65,655 | 71,452 | 5,797 |
| Fund Balance, June 30 | $ 70,755 | $ 78,337 | $ 7,582 |

The notes to the financial statements are an integral part of this statement

STOREY COUNTY, NEVADA
PIPER'S OPERA HOUSE
STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE
BUDGET AND ACTUAL
FOR THE YEAR ENDED JUNE 30, 2022

| | ORIGINAL AND FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|
| REVENUE | | | |
| Intergovernmental | | | |
| State grants | $ 10,000 | $ 3,000 | $ (7,000) |
| Charges for services | | | |
| Cap ticket sales | 122,000 | 109,890 | (12,110) |
| Other revenues | | | |
| Contributions | 1,000 | 2,026 | 1,026 |
| Rents | 20,000 | 20,350 | 350 |
| Merchandise sales | 3,000 | 84 | (2,916) |
| Total Revenues | 156,000 | 135,350 | (20,650) |
| EXPENDITURES | | | |
| General government | | | |
| Salaries and wages | 109,343 | 85,651 | 23,692 |
| Employee benefits | 51,091 | 40,320 | 10,771 |
| Services and supplies | 121,223 | 97,336 | 23,887 |
| Capital outlay | - | - | - |
| Total Expenditures | 281,657 | 223,307 | 58,350 |
| Excess (Deficiency) of Revenues over Expenditures | (125,657) | (87,957) | 37,700 |
| OTHER FINANCING SOURCES (USES) | | | |
| Transfers in | 110,000 | 110,000 | - |
| Excess(Deficiency) of Revenues and Other Financing Sources (Uses) over Expenditures | (15,657) | 22,043 | (37,700) |
| Fund Balance, July 1 | 31,272 | 86,716 | 55,444 |
| Fund Balance, June 30 | $ 15,615 | $ 108,759 | $ 93,144 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**FIRE GRANT SPECIAL REVENUE FUND**
**STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE**
**BUDGET AND ACTUAL**
**FOR THE YEAR ENDED JUNE 30, 2022**

| | ORIGINAL BUDGETED AMOUNTS | FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|---|
| REVENUE | | | | |
| Intergovernmental | | | | |
| Federal grants | $ 74,950 | $ 74,950 | $ - | $ (74,950) |
| State grants | 267,188 | 267,188 | 65,633 | (201,555) |
| Total Revenues | 342,138 | 342,138 | 65,633 | (276,505) |
| EXPENDITURES | | | | |
| Public safety | | | | |
| Salaries and wages | 300,876 | 406,876 | 365,921 | 40,955 |
| Employee benefits | 170,581 | 223,581 | 189,550 | 34,031 |
| Services and supplies | 781,860 | 377,860 | 297,375 | 80,485 |
| Capital outlay | - | 245,000 | 244,067 | 933 |
| Total Expenditures | 1,253,317 | 1,253,317 | 1,096,913 | 156,404 |
| Excess (Deficiency) of Revenues over Expenditures | (911,179) | (911,179) | (1,031,280) | (120,101) |
| OTHER FINANCING SOURCES (USES) | | | | |
| Other grants | 883,487 | 883,487 | 989,840 | 106,353 |
| Transfers in | 50,000 | 50,000 | 50,000 | - |
| Excess(Deficiency) of Revenues and Other Financing Sources (Uses) over Expenditures | 22,308 | 22,308 | 8,560 | (13,748) |
| Fund Balance, July 1 | - | - | - | - |
| Fund Balance, June 30 | $ 22,308 | $ 22,308 | $ 8,560 | $ (120,101) |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**CAPITAL PROJECTS FUND**
**STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE**
**BUDGET AND ACTUAL**
**FOR THE YEAR ENDED JUNE 30, 2022**

| | ORIGINAL AND FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|
| REVENUE | | | |
| Capital outlay reimbursement | $ 93,000 | $ 93,733 | $ 733 |
| Other | - | - | - |
| Total revenue | 93,000 | 93,733 | 733 |
| EXPENDITURES | | | |
| General Government | | | |
| Capital outlay | 1,876,000 | 781,255 | 1,094,745 |
| Debt service | - | - | - |
| Interest expense | - | - | - |
| Total Expenditures | 1,876,000 | 781,255 | 1,094,745 |
| Excess (Deficiency) of Revenues over Expenditures | (1,783,000) | (687,522) | (1,094,012) |
| OTHER FINANCING SOURCES (USES) | | | |
| Transfers to proprietary funds | - | - | - |
| Infrastructure capital projects fund | - | - | - |
| Roads fund | - | - | - |
| General government - Other | 2,000,000 | 2,000,000 | - |
| Excess (Deficiency) of Revenues and Other Financing Sources (Uses) over Expenditures | 217,000 | 1,312,478 | 1,095,478 |
| Fund Balance, July 1 | 1,946,033 | 1,449,349 | (496,684) |
| Fund Balance, June 30 | $ 2,163,033 | $ 2,761,827 | $ 598,794 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**INFRASTRUCTURE CAPITAL PROJECTS FUND**
**STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE**
**BUDGET AND ACTUAL**
**FOR THE YEAR ENDED JUNE 30, 2022**

| | ORIGINAL AND FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|
| REVENUE | | | |
| Intergovernmental | | | |
| 1/4% Optional sales tax | $ 500,000 | $ 752,550 | $ 252,550 |
| Other revenues | | | |
| Interest income | - | - | 3,801 |
| Total Revenues | 500,000 | 752,550 | 88,200 |
| EXPENDITURES | | | |
| General government | | | |
| Capital outlay | 1,219,228 | 527,095 | 692,133 |
| Excess (Deficiency) of Revenues over Expenditures | (719,228) | 225,455 | 944,683 |
| OTHER FINANCING SOURCES (USES) | | | |
| Transfers to Capital projects funds | - | - | - |
| Excess (Deficiency) of Revenues and Other Financing Sources (Uses) over Expenditures | (719,228) | 225,455 | 944,683 |
| Fund Balance, July 1 | 2,193,804 | 2,264,870 | 71,066 |
| Fund Balance, June 30 | $ 1,474,576 | $ 2,490,325 | $ 1,015,749 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**VIRGINIA CITY RAIL CAPITAL PROJECTS FUND**
**STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE**
**BUDGET AND ACTUAL**
**FOR THE YEAR ENDED JUNE 30, 2022**

| | ORIGINAL AND FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|
| REVENUE | | | |
| VC rail tax | $ 350,000 | $ 778,689 | $ 428,689 |
| EXPENDITURES | | | |
| Culture and Recreation | | | |
| Capital outlay | - | 20,212 | (20,212) |
| Interlock support | 250,000 | 250,000 | - |
| Excess (Deficiency) of Revenues over Expenditures | 100,000 | 508,477 | 448,901 |
| OTHER FINANCING SOURCES (USES) | | | |
| Bond proceeds | - | - | - |
| Debt service | | | |
| Principal | (891,000) | (891,000) | - |
| Interest | (2,416) | (6,927) | 4,511 |
| Excess (Deficiency) of Revenues and Other Financing Sources (Uses) over Expenditures | (793,416) | (389,450) | 453,412 |
| Fund Balance, July 1 | 1,909,824 | 2,193,158 | 283,334 |
| Fund Balance, June 30 | $ 1,116,408 | $ 1,803,708 | $ 687,300 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**FIRE CAPITAL PROJECT FUND**
**STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE**
**BUDGET AND ACTUAL**
**FOR THE YEAR ENDED JUNE 30, 2022**

| | ORIGINAL AND FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|
| REVENUE | | | |
| Federal grants | $ - | $ - | $ - |
| Other revenues | | | |
| Interest | 12,500 | 9,289 | |
| | 12,500 | 9,289 | - |
| EXPENDITURES | | | |
| Capital outlay | 366,514 | 93,684 | 272,830 |
| Excess (Deficiency) of Revenues over Expenditures | (354,014) | (84,395) | (272,830) |
| OTHER FINANCING SOURCES (USES) | | | |
| Transfers in | 407,141 | 407,141 | - |
| Excess(Deficiency) of Revenues and Other Financing Sources (Uses) over Expenditures | 53,127 | 322,746 | 269,619 |
| Fund Balance, July 1 | 346,530 | 336,917 | (9,613) |
| Fund Balance, June 30 | $ 399,657 | $ 659,663 | $ 260,006 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**WATER SYSTEM ENTERPRISE FUND**
**STATEMENT OF REVENUE AND EXPENSE**
**BUDGET AND ACTUAL**
**FOR THE YEAR ENDED JUNE 30, 2022**

| | ORIGINAL AND FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|
| OPERATING REVNUES | | | |
| Sales of water | $ 591,000 | $ 652,958 | $ 61,958 |
| OPERATING EXPENSES | | | |
| Salaries and wages | 169,455 | 138,230 | 31,225 |
| Benefits | 78,192 | 46,863 | 31,329 |
| Services and supplies | 324,940 | 263,509 | 61,431 |
| Capital outlay | - | - | - |
| Depreciation | - | 104,301 | (104,301) |
| Total operating expenses | 572,587 | 552,903 | 19,684 |
| Operating income (loss) | 18,413 | 100,055 | 81,642 |
| NON-OPERATING REVENUE (EXPENSES) | | | |
| Interest earnings | 78,000 | 37,485 | (40,515) |
| Rents | 12,000 | 12,000 | - |
| Interest Expense | - | - | - |
| Miscellaneous | - | 5,400 | 5,400 |
| Transfers out | (98,568) | - | 98,568 |
| Capital outlay | | (330,081) | (330,081) |
| Grants and capital contributions | 9,100 | 354,939 | 345,839 |
| Net Income (loss) | $ 18,945 | $ 179,798 | $ 160,853 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**WATER SYSTEM ENTERPRISE FUND**
**STATEMENT OF CASH FLOWS**
**FOR THE YEAR ENDED JUNE 30, 2022**

| | ORIGINAL AND FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|
| CASH FLOWS FROM OPERATING ACTIVITIES | | | |
| Cash In flows | | | |
| Sales of water | $ 492,300 | $ 660,529 | $ 168,229 |
| Miscellaneous income | - | 5,400 | 5,400 |
| Cash Out flows | | | |
| Salaries and wages | (169,455) | (140,425) | 29,030 |
| Benefits | (78,192) | (51,745) | 26,447 |
| Services and supplies | (324,948) | (240,003) | 84,945 |
| Net Cash Provided by Operating Activities | (80,295) | 233,756 | 314,051 |
| CASH FLOWS FROM NON-CAPITAL FINANCING ACTIVITIES | | | |
| Cash In flows | | | |
| Rent | 12,000 | 12,000 | - |
| Capital outlay | - | - | - |
| Customer deposits | - | 150 | 150 |
| Net Cash Provided by Non Capital Financing Activities | 12,000 | 12,150 | 150 |
| CASH FLOWS FROM CAPITAL AND RELATED ACTIVITIES | | | |
| Cash In flows | | | |
| Grants | 9,100 | 354,939 | 345,839 |
| Debt service | - | - | - |
| Transfer from funds | - | - | - |
| Cash Out flows | | | |
| Capital outlay | - | - | - |
| Debt service | (98,568) | (63,810) | 34,758 |
| Interfund loan | - | - | - |
| Interest expense | - | - | - |
| Net Cash (Used) by Capital Related Activities | (89,468) | 291,129 | 380,597 |
| CASH FLOWS FROM INVESTING ACTIVITIES | | | |
| Interest earnings | 78,000 | 37,485 | (40,515) |
| Net Increase (Decrease) in Cash | (79,763) | 574,520 | 654,283 |
| Cash, July 1 | 1,689,221 | 1,418,308 | (270,913) |
| Cash, June 30 | $ 1,609,458 | $ 1,992,828 | $ 383,370 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**VIRGINIA DIVIDE SEWER IMPROVEMENT DISTRICT ENTERPRISE FUND**
**STATEMENT OF REVENUE AND EXPENSE**
**BUDGET AND ACTUAL**
**FOR THE YEAR ENDED JUNE 30, 2022**

| | ORIGINAL BUDGETED AMOUNTS | FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|---|
| OPERATING REVNUES | | | | |
| Sales of water | $ 433,900 | $ 433,900 | $ 452,150 | $ 18,250 |
| OPERATING EXPENSES | | | | |
| Salaries and wages | 133,136 | 143,636 | 138,758 | 4,878 |
| Benefits | 80,073 | 80,073 | 43,585 | 36,488 |
| Services and supplies | 112,212 | 101,712 | 15,934 | 85,778 |
| Capital Outlay | - | - | - | - |
| Depreciation | - | - | 502,962 | (502,962) |
| Total operating expenses | 325,421 | 325,421 | 701,239 | (375,818) |
| Operating income (loss) | 108,479 | 108,479 | (249,089) | (357,568) |
| NON-OPERATING REVENUE (EXPENSES) | | | | |
| Interest income | (120,613) | (120,613) | 65,753 | 186,366 |
| Interest expense | 26,800 | 26,800 | (120,604) | (147,404) |
| Transfer from capital projects | - | - | - | - |
| Transfer to USDA | - | - | - | - |
| Grants and contributions | 600,000 | 600,000 | 813,243 | 213,243 |
| Capital outlay | (600,000) | (600,000) | (782,283) | (182,283) |
| Other income | - | - | - | - |
| Net Income (loss) | $ 14,666 | $ 14,666 | $ (272,980) | $ (287,646) |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**VIRGINIA DIVIDE SEWER IMPROVEMENT DISTRICT ENTERPRISE FUND**
**STATEMENT OF CASH FLOWS**
**FOR THE YEAR ENDED JUNE 30, 2022**

| | ORIGINAL BUDGETED AMOUNTS | FINAL BUDGETED AMOUNTS | ACTUAL AMOUNTS | VARIANCE TO FINAL BUDGET |
|---|---|---|---|---|
| CASH FLOWS FROM OPERATING ACTIVITIES | | | | |
| Cash In flows | | | | |
| Sewer Fees | $ 433,900 | $ 433,900 | $ 444,454 | $ 10,554 |
| Cash Out flows | | | | |
| Salaries and wages | (133,136) | (143,636) | (137,064) | 6,572 |
| Benefits | (80,073) | (80,073) | (46,318) | 33,755 |
| Services and supplies | (112,212) | (101,712) | (7,663) | 94,049 |
| Net Cash Provided by Operating Activities | 108,479 | 108,479 | 253,409 | 144,930 |
| CASH FLOWS FROM NON-CAPITAL FINANCING ACTIVITIES | | | | |
| Cash In flows | | | | |
| Bonds | 600,000 | 600,000 | - | (600,000) |
| Cash Out flows | | | | |
| Capital outlay | (600,000) | (600,000) | (782,283) | (182,283) |
| Net Cash (Used) by Non Capital Financing Activities | - | - | (782,283) | (782,283) |
| CASH FLOWS FROM CAPITAL AND RELATED ACTIVITIES | | | | |
| Cash In flows | | | | |
| Other income | | | | |
| Grants | - | - | 813,243 | 813,243 |
| Debt service | - | - | - | - |
| Cash Out flows | | | | |
| Debt service | (120,613) | (120,613) | (138,455) | (17,842) |
| Interest expense | (138,445) | (138,445) | (120,604) | 17,841 |
| Net Cash (Used) by Capital Related Activities | (259,058) | (259,058) | 554,184 | 813,242 |
| CASH FLOWS FROM INVESTING ACTIVITIES | | | | |
| Transfers from general | | | - | - |
| Interest earnings | 26,800 | 26,800 | 65,753 | 38,953 |
| Net Cash Provided by Capital Related Activities | 26,800 | 26,800 | 65,753 | 38,953 |
| Net Increase (Decrease) in Cash | (123,779) | (123,779) | 91,063 | 214,842 |
| Cash, July 1 | (33,367) | (33,367) | 213,338 | 246,705 |
| Cash, June 30 | $ (157,146) | $ (157,146) | $ 304,401 | $ 461,547 |

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**SCHEDULE OF CHANGES IN THE TOTAL OPEB LIABILITY AND RELATED RATIOS**
**JUNE 30, 2022**

| Total OPEB liability | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|
| Service cost | $ 2,020,652 | $ 1,753,249 | $ 1,837,336 | $ 2,098,098 | $ 3,253,831 |
| Interest | 586,141 | 711,366 | 703,321 | 772,012 | 681,492 |
| Changes of benefit terms | - | 1,281,228 | - | - | - |
| Differences between expected and actual experience | - | (4,548,724) | - | (3,100,780) | - |
| Changes of assumptions or other inputs | (2,542,189) | (1,038,960) | 1,285,244 | 8,214,844 | 325,808.00 |
| Benefit payments | (208,173) | (214,872) | (226,280) | (305,190) | (290,444) |
| Net change in total OPEB liability | $ (143,569) | $ (2,056,713) | $ 3,599,621 | $ 7,678,984 | $ 3,970,687 |
| Total OPEB liability-beginning | $ 18,649,779 | $ 18,506,210 | $ 16,449,497 | $ 20,049,118 | $ 27,728,102 |
| Total OPEB liability-ending | $ 18,506,210 | $ 16,449,497 | $ 20,049,118 | $ 27,728,102 | $ 31,698,789 |
| Covered-employee payroll | $ 9,590,509 | $ 9,394,062 | $ 9,894,669 | $ 10,382,380 | 11451225 |
| Total OPEB liability as a percentage of covered-employee payroll | 192.96% | 175.11% | 202.63% | 267.07% | 276.82% |

GASB Statement No. 75 requires ten years of information to be presented in this table. However, until 10 years of data is compiled, the County will present information only for those years for which information is available.

STOREY COUNTY, NEVADA
SCHEDULE OF COUNTY'S SHARE OF NET PENSION LIABILITY
PUBLIC EMPLOYEES' RETIREMENT SYSTEM OF NEVADA
JUNE 30, 2022

| | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 |
|---|---|---|---|---|---|---|---|---|
| County's portion of the net pension liability | 0.162% | 0.153% | 0.151% | 0.147% | 0.145% | 0.145% | 0.132% | 0.129% |
| County's proportionate share of the net pension liability | $ 14,812,664 | $ 21,288,635 | $ 20,642,315 | $ 19,998,860 | $ 20,601,898 | $ 19,511,455 | $ 15,126,431 | $ 16,929,912 |
| County's covered-employee payroll | $ 9,466,969 | $ 8,824,757 | $ 8,676,437 | $ 7,947,637 | $ 8,207,871 | $ 7,299,918 | $ 6,354,233 | $ 6,040,606 |
| County's proportionate share of the net pension liability as a percentage of its covered-employee payroll | 156.47% | 241.24% | 237.91% | 251.63% | 251.00% | 267.28% | 238.05% | 280.27% |
| Plan fiduciary net position as a percentage of the total net pension liability | 86.51% | 77.04% | 76.46% | 75.24% | 74.40% | 72.20% | 75.10% | 76.30% |

GASB Statement No. 68 requires ten years of information to be presented in this table. However, until 10 years of data is compiled, the County will present information only for those years for which information is available.

The notes to the financial statements are an integral part of this statement

**STOREY COUNTY, NEVADA**
**SCHEDULE OF COUNTY'S CONTRIBUTIONS - PUBLIC EMPLOYEES' RETIREMENT SYSTEM OF NEVADA**
**JUNE 30, 2022**

| | 2022 | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Statutorily required contribution | $ 1,855,184 | $ 1,696,329 | $ 1,553,718 | $ 1,568,057 | $ 1,360,192 | $ 1,390,646 | $ 1,229,299 | $ 1,018,739 |
| Contributions in relation to the statutorily required contrib | $ (1,855,184) | $ (1,696,329) | $ (1,553,718) | $ (1,568,057) | $ (1,360,192) | $ (1,390,646) | $ (1,229,299) | $ (1,018,739) |
| Contribution (deficiency) excess | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| County's covered-employee payroll | 10230470 | $ 9,466,969 | $ 8,824,757 | $ 8,676,437 | $ 7,947,637 | $ 8,207,871 | $ 7,299,918 | $ 6,354,233 |
| Contributions as a percentage of covered-employee payroll | 18.13% | 17.92% | 17.61% | 18.07% | 17.11% | 16.94% | 16.84% | 16.03% |

GASB Statement No. 68 requires ten years of information to be presented in this table. However, until 10 years of data is compiled, the County will present information only for those years for which information is available.

DiPietro & Thornton
CERTIFIED PUBLIC ACCOUNTANTS

Joseph F. Costanza, CPA
Scott A. Westover, CPA
Theresa M. Westover, CPA

Of Counsel
John F. DiPietro, CPA
Randall D. Thornton, CPA

## REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

To the Honorable Board of Commissioners
Storey County, Nevada

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States, the financial statements of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information of Storey County, Nevada, as of and for the year ended June 30, 2022, and the related notes to the financial statements, which collectively comprise the Storey County's basic financial statements and have issued our report thereon dated December 20, 2022.

### Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered Storey County, Nevada's internal control over financial reporting (internal control) to determine the audit procedures that are appropriated in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of Storey County, Nevada's internal control. Accordingly, we do not express an opinion on the effectiveness of the Storey County, Nevada's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over financial reporting was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that were not identified. We did identify certain deficiencies in internal control, described in the accompanying schedule of findings and questioned costs that we consider to be significant deficiencies.

### Compliance and Other Matters

As part of obtaining reasonable assurance about whether Storey County, Nevada's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts and grants agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance that are required to be reported under Government Auditing Standards.

### Storey County's Response to Findings

Storey County, Nevada's response to the finding identified in our audit is described in the accompanying schedule of findings and questioned costs. Storey County, Nevada's response was not subjected to the auditing procedures applied in the audit of the financial statements and, accordingly, we express no opinion on it.



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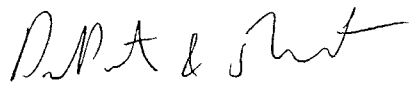
**Purpose of this Report**

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with Government Auditing Standards in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.



Reno, Nevada
December 20, 2022

DiPietro & Thornton
CERTIFIED PUBLIC ACCOUNTANTS

Joseph F. Costanza, CPA
Scott A. Westover, CPA
Theresa M. Westover, CPA

Of Counsel
John F. DiPietro, CPA
Randall D. Thornton, CPA

**INDEPENDENT AUDITOR'S REPORT ON COMPLIANCE FOR EACH MAJOR PROGRAM AND ON INTERNAL CONTROL OVER COMPLIANCE REQUIRED BY UNIFORM GUIDANCE**

To the Honorable Board of Commissioners
Storey County, Nevada

***Report on Compliance of Each Major Federal Program Opinion of***

***Each Major Federal Program***

We have audited Story County, Nevada's compliance with the types of compliance requirements described in the *OMB Compliance Supplement* that could have a direct and material effect on each of Story County, Nevada's major federal programs for the year ended June 30, 2022. Story County, Nevada's major federal programs are identified in the summary of auditor's results section of the accompanying schedule of findings and questioned costs.

In our opinion, Story County, Nevada, complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended June 30, 2022.

***Basis for Opinion on Each Major Federal Program***

We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the audit requirements of Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Our responsibilities under those standards and the Uniform Guidance are further described in the Auditor's Responsibilities for the Audit of Compliance section of our report.

We are required to be independent of Story County, Nevada and to meet our other ethical responsibilities, in accordance with relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion on compliance for each major federal program. Our audit does not provide a legal determination of Story County, Nevada's compliance with the compliance requirements referred to above.

***Responsibilities of Management for Compliance***

Management is responsible for compliance with the requirements referred to above and for the design, implementation, and maintenance of effective internal control over compliance with the requirements of laws, statutes, regulations, rules, and provisions of contracts or grant agreements applicable to Story County's federal programs.

***Auditor's Responsibilities for the Audit of Compliance***

Our objectives are to obtain reasonable assurance about whether material noncompliance with the compliance requirements referred to above occurred, whether due to fraud or error, and express an opinion on Story County, Nevada's compliance based on our audit. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with generally accepted auditing standards, *Government Auditing Standards*, and the Uniform Guidance will always detect material noncompliance when it exists. The risk of not detecting materialnoncompliance resulting from fraud is higher than for that resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Noncompliance with the compliance requirements referred to above is considered material if there is a substantial likelihood that, individually or in the aggregate, it would influence the judgment made by a reasonable user of the report on compliance about Story County, Nevada's compliance with the requirements of each major federal program as a whole.

In performing an audit in accordance with generally accepted auditing standards, *Government Auditing Standards*, and the Uniform Guidance, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material noncompliance, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding Story County, Nevada's compliance with the compliance requirements referred to above and performing such other procedures as we considered necessary in the circumstances.
- Obtain an understanding of Story County, Nevada's internal control over compliance relevant to the audit in order to design audit procedures that are appropriate in the circumstances and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of Story



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County, Nevada's internal control over compliance. Accordingly, no such opinion is expressed.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and any significant deficiencies and material weaknesses in internal control over compliance that we identified during the audit.

**Report on Internal Control over Compliance**

A *deficiency in internal control over compliance* exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. A *material weakness in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the Auditor's Responsibilities for the Audit of Compliance section above and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies in internal control over compliance. Given these limitations, during our audit we did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses, as defined above. However, material weaknesses or significant deficiencies in internal control over compliance may exist that were not identified.

Our audit was not designed for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, no such opinion is expressed.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

Reno, Nevada
December 20, 2022

STOREY COUNTY, NEVADA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS
FOR THE YEAR ENDED JUNE 30, 2022

| Federal Grantor/Program/Grant Description | Federal CFDA Number | Pass-Through Entity Identifying Number | Expenditures |
|---|---|---|---|
| US Department of Agriculture | | | |
| Water and Waste Disposal System for Rural Communities | 10.760 | N/A | $ 813,244 |
| Water and Waste Disposal System for Rural Communities | 10.760 | N/A | 354,939 |
| US Department of the Interior | | | |
| Direct Funding | | | |
| Historic Preservation Fund Grants-In-Aid | 15.904 | HPF NV-20-10015 | 33,880 |
| U.S. Department of Housing and Urban Development | | | |
| Community Development Block Grants | 14.228 | CDBG-CVR2 20/PS/37 | 1,470 |
| U.S. Department of Transportation | | | |
| Passed through Nevada State Emergency Response Commission | | | |
| Interagency Hazardous Materials Public Sector Training and Planning Grants | 20.703 | 22-HMEP-15-01 | 6,638 |
| US Department of Homeland Security | | | |
| Direct Funding | | | |
| Staffing for Adequate Fire and Emergency Response | 97.083 | N/A | 330,896 |
| Passed Through State of Nevada Department of Public Safety | | | |
| Emergency Management Performance Grant | 97.042 | EMPG FFY 21 | 14,739 |
| Total Federal Financial Assistance | | | $ 1,555,806 |

STOREY COUNTY, NEVADA
NOTES TO SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS
FOR THE YEAR ENDED JUNE 30, 2022

**Note A- Basis of Presentation**

The accompanying schedule of expenditures of federal awards (the Schedule) includes the federal award activity of Storey County under programs of the federal government for the year ending June 30, 2022. The information in this Schedule is presented in accordance with the requirements of Title 2 U.S. Code of Federal Regulations Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Because the Schedule present only a selected portion of the operations of Storey County, it is not intended to and does not present the financial position, changes in net position, or cash flows of Storey County.

**Note B- Summary of Significant Accounting Policies**

Expenditures reported on the Schedule are reported on the modified accrual basis of accounting. Such expenditures are recognized following, as applicable, either the cost principles in OMB Circular A-87, Cost Principles for Audits of State, Local, and Indian Tribal Governments, or the cost principles contained in the Uniform Guidance wherein certain types of expenditures are not allowed or are limited as reimbursement. When applicable, negative amount shown on the Schedule represent adjustments or credits made in the normal course of business as expenditures in prior years.

Indirect Costs

The County has elected not to use the 10-percent de minimis indirect cost rate allowed under the Uniform Guidance

**Note C- Subrecipients**

Storey County did not pass any federal awards received to any other government or not-for profit agencies.

**Note D - Loans with Continuing Compliance Requirement**

Outstanding federally-funded program loans with a continuing compliance requirement, carried balance as of June 30, 2022 as follows:

| CFDA | Program Title | | Loan Balance |
|---|---|---|---|
| 10.760 | Water and Waste Disposal System for Rural Communities | $ | 2,051,463 |
| 10.760 | Water and Waste Disposal System for Rural Communities | $ | 674,080 |
| 10.760 | Water and Waste Disposal System for Rural Communities | $ | 329,363 |
| 10.760 | Water and Waste Disposal System for Rural Communities | $ | 253,925 |

**Note E – Matching Requirements**

Certain Federal programs require Storey County to contribute non-Federal funds (matching funds) to support the Federally Funded programs. Storey County has met its matching requirements. The Schedule does not include the expenditure for non-Federal matching funds.

STOREY COUNTY, NEVADA
SCHEDULE OF FINDINGS AND QUESTIONS COSTS
FOR THE YEAR ENDED JUNE 30, 2022

## A. Summary of Auditors Results

*Financial Statements*

| | |
|---|---|
| Type of report the auditor issued on whether the financial Statements audited were prepare in accordance with GAAP: | Unmodified |
| Internal control over financial reporting: | |
| Material weakness identified? | Yes |
| Significant deficiency identified? | Yes |
| Noncompliance material to financial statements noted? | No |

*Federal awards*

| | |
|---|---|
| Internal control over major federal programs: | |
| Material weakness identified? | No |
| Significant deficiency identified? | No |
| Type of auditor's report issued on compliance for major programs | Unmodified |
| Any audit findings disclosed that are required to be reported in accordance with 2 CFR 200.516(a) | No |

Identification of major federal programs:

| CFDA # | Name of Federal Program or Cluster |
|---|---|
| 10.76 | Water and Waste Disposal System for Rural Communities |

| | |
|---|---|
| Dollar threshold used to distinguish between type A and type B programs | $ 750,000 |
| Auditee qualified as low-risk auditee | No |

## B. Financial Statement Findings

Findings Relating to The Financial Statements Reported in Accordance with GAGAS

2022-A Report Preparation
Material Weakness

| | |
|---|---|
| Criteria | Management of Storey County is responsible for establishing, and maintaining an effective system of internal control over financial reporting. One of the key components of an effective system, of internal control is to provide the finance staff with adequate resources available to prepare the financial, statements in accordance with generally accepted accounting principles. |
| Condition | In the process of completing our audit, we were requested to draft the financial statements, assist with the conversion of fund financial statements to government-wide statements, and prepare the accompanying notes, to the financial statements. |
| Cause | Given the daily responsibilities of management,, the resources of time, and, training necessary to prepare the County's financial statements in accordance with generally accepted accounting principles are not available. As a result the County has chosen to contract with Dipietro and Thornton to prepare the financial statements. This circumstance is not unusual in an organization of this size; due to time constraints of management and costs associated with compliance of the standards. However, management has not implemented sufficient procedures to capture the necessary information needed for the financial, statements and related disclosures to be prepared in all material respects. |
| Effect | The County's financial records required audit adjustments in order for the financial statements to be in, accordance with GAAP. Internally prepared financial information may not be accurate and full disclosure financial statements may not be available as timely as they would be if prepared by County personnel. |
| Recommendation | We recommend County staff continue to obtain training in the preparation of the financial statements and related financial statement disclosures in order to gain the knowledge needed to prepare the financial statements and related financial statement disclosures in all material respects. |
| Views of Responsible Officials | Management agrees with this finding |

## B. Financial Statement Findings

Findings Relating to The Financial Statements Reported in Accordance with GAGAS

2022-B F Absent or inadequate controls over the safeguarding of assets
Significant Deficiency

| | |
|---|---|
| Criteria | Facilitating the negotiation and execution of contracts and agreements to safeguard the County's assets |
| Condition | During our audit we identified a lease that was not being charged at the proper amount. The County had not charged cell phone company the proper amounts due according to the lease. |
| Cause | Storey County did not have adequate controls in place to ensure the correct amounts were charged for the leases. |
| Effect | Failure of controls over safeguarding assets can result in loss, damage or misappropriation |
| Recommendation | We recommend that the county revisit all leases on a yearly basis to make sure all increases contained in the lease are applied |
| Views of Responsible Officials | Management agrees with this finding |

STOREY COUNTY, NEVADA
STATUS OF PRIOR YEAR FINDINGS AND QUESTIONED COSTS
FOR THE YEAR ENDED JUNE 30, 2022

A Findings relating to The Financial Statements Reported in Accordance with GAGAS

1 2021-A

We recommended that the County put in procedures to close the books each month on a timely basis

This was implemented during the year

2 2021-B

We recommended County staff continue to obtain training in the preparation of the financial statements and related financial statement disclosures in order to gain the knowledge needed to prepare the financial statements and related financial statement disclosures in all material respects.

This was not implemented and is included in the current year finding 2021-B

B. Findings and Questioned Costs- Major Federal Award Program Audit

No audit findings were reported

# CERTIFICATE OF COVERAGE

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE FORMS ISSUED TO THE COVERED MEMBER

| AGENT | DATE OF ISSUANCE |
|---|---|
| Nevada Risk Pooling, Inc.<br>201 S Roop St, Suite 102<br>Carson City, NV 89701 | 04/22/2024 |
| **COVERED MEMBER** | **COVERAGE TO MEMBER PROVIDED BY AGREEMENT WITH:** |
| Storey County | Nevada Public Agency Insurance Pool<br>201 S. Roop St., Suite 102<br>Carson City, NV 89701-4790<br>A POOL FORMED PURSUANT TO THE INTERLOCAL COOPERATION ACT CHAPTER 277 OF THE NEVADA REVISED STATUTES |

COVERAGES:

THIS IS TO CERTIFY THAT THE COVERAGES IN EFFECT AS LISTED BELOW HAVE BEEN ISSUED TO THE POOL MEMBER NAMED ABOVE FOR THE TIME PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE OF COVERAGE MAY BE ISSUED OR MAY PERTAIN. THE COVERAGE AFFORDED BY THE COVERAGE FORMS DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH FORMS.

| TYPE OF COVERAGE | COVERAGE FORM NUMBER | EFFECTIVE DATE | EXPIRATION DATE | LIMIT |
|---|---|---|---|---|
| LIABILITY INCLUDING AUTO LIABILITY, LAW ENFORCEMENT LIABILITY AND WRONGFUL ACTS LIABILITY | NPAIP20232024 | 7/1/2023 | 7/1/2024 | $1,000,000 |
| PROPERTY INCLUDING ALL REAL AND PERSONAL PROPERTY, AUTOMOBILES, AND EQUIPMENT | NPAIP20232024 | 7/1/2023 | 7/1/2024 | $4,126,190 |
| OTHER | | | | |
| ADDITIONAL ASSURED per Section I.2 of POOL COVERAGE FORM: | | | | |

DESCRIPTION OF OPERATIONS\LOCATIONS\VEHICLES\SPECIAL ITEMS

Proof of Coverage for Piper's, which has a value of $4,126,190. Storey County has a $5,000 Maintenance Deductible.

| CERTIFICATE HOLDER | CANCELLATION: |
|---|---|
| Proof of Coverage | SHOULD ANY OF THE ABOVE DESCRIBED COVERAGE FORMS BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE PROVISIONS OF THE FORMS. |

AUTHORIZED REPRESENTATIVE _____

# Sara Sturtz, M.A.

Reno, NV sturtzsara@gmail.com 775-340-5192

**Employment History:**

2024 **Grants Manger, Storey County, Virginia City, Nevada**

- Manage all aspects of federal and state grants administered within the County.
- Manage grant project timelines, work-plans, milestone tracking, deliverable schedules, and reporting requirements.
- Research, monitor and coordinate fiscal compliance activities; maintain respective compliance requirements.
- Review funding requests and coordinate the review process, as needed.
- Develop, monitor and maintain grant project tracking systems to ensure timely preparation of grant reimbursement remittances and compliance with grant requirements.
- Provide guidance to the Department/Offices or programs to include fiscal guidance, technical assistance and training to the Departments/Offices in the preparation of grant applications and in the development and implementation of proper procedures to ensure grant compliance and accountability systems; monitor the implementation of grant funded projects located throughout the County.
- Work closely with the program staff to monitor expenditures, payments, and reports to ensure both the grant and subgrants stay on budget.
- Assists in all audit requirements for the County and sub-grantees.
- Conducts grant contract monitoring for County and sub-grantees.
- Manage the county support to nonprofits and county owned historic buildings.
- Prepare and submit Certificates of Appropriateness to the Comstock Historic District for all County owned buildings.
- Prepare and submit Section 106 Reviews and Covenants Reviews to the SHPO
- Identify grant funding needs and research and maintain information on available federal, state, local and private grant funding sources to maximize funding opportunities available to the County; coordinate with federal, state, local and private agency officials to ensure the County's awareness of possible grant funding sources for new and on-going projects.
- Prepare grant applications and recommendations for new funding sources in conjunction with needs assessments and program evaluations, to better achieve Department/Office program goals and objectives.

2023 **Grants and Projects Analyst II, Nevada Division of State Parks, Carson City**

- Develop, implement, assess, monitor, control, and review federal grant-in-aid projects and programs administered by State agencies and assist recipients in evaluating program effectiveness.
- Develop and maintain procedural manuals, applications, agreements, outreach materials, tracking forms, and financial spreadsheets for the Recreational Trails Program (RTP) and Land and Water Conservation Fund (LWCF) grant programs.
- Provide technical assistance to interested parties regarding the RTP and LWCF programs including project specifications, the application process, program regulations, and grant management software.
- Conduct inspections of RTP and LWCF projects to determine adherence to scopes of work detailed in signed agreements, request and review reimbursements and quarterly reports from grantees.
- Ensure that projects are in compliance with 2 CFR Part 200, the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA), in coordination with the Federal Highway Administration (FHWA), Nevada Department of Transportation (NDOT), and National Park Service (NPS).
- Assist in the development of grant program policy, strategy, and schedules.

- Assist in planning and delivery of annual advisory committee meetings; and research, compose, and implement required management documents including Programmatic Agreements (PA), Memorandum of Agreements (MOAs), and the State Comprehensive Outdoor Recreation Plan.

2021-2023 **Review & Compliance Archaeologist, State Historic Preservation Office, Carson City**

- Recommended to state and federal agencies the kind and intensity of archaeological surveys, historic contexts, and background studies to be conducted.
- Reviewed and provided comments on archaeological survey reports prepared in the State of Nevada to ensure they meet federal and state standards (Section 106 of the NHPA, NRS 383.121, etc.).
- Determined the adequacy of documentation for evaluation of cultural resources discovered.
- Recommended whether or not to concur with federal agency determinations of significance and project related effects regarding Section 106 and NRS 383.
- Provided advice and technical assistance to state and federal agencies regarding the treatment and stewardship of cultural resources and historic properties.
- Educated the public on preservation issues.
- Coordinated with other state and federal agencies to set standards for report writing, evaluation, stewardship, and mitigation of cultural resources.

2020-2021 **Associate Archaeologist, ASM Affiliates, Reno**

- Coordinated and facilitated fieldwork and prepared technical reports.
- Supervised field staff and prepared coherent field notes and forms, collected field data, conducted archival and record searches, and produced site forms.
- Assisted the lab supervisor in laboratory processing, cataloging, and analysis.

2018-2020 **Community Engagement Assistant, Fourth Ward School Museum, Virginia City**

- Assisted the Executive Director with fundraising, donor development, marketing and development of the museum, museum programs, and special events.
- Assisted with leading, coordinating, and scheduling school and group tours.

2015-2018 **Programs Coordinator, Terry Lee Wells Nevada Discovery Museum, Reno**

- Main point of contact for The Discovery's financial assistance program and educational programs including seasonal camps, field trips, overnights, and family science nights at The Discovery
- Managed the application process, application review, allocation of funds, tracking, and reporting for the financial assistance program
- Assisted development officers in grant writing for the financial assistance program
- Assisted the Museum Manager with training of employees on policies and procedures and act as the incident commander during emergencies

**Education:**

M.A. 2020/Anthropology/UNR **Thesis Title:** *A Natural and Cultural History of Leonard Rockshelter, NV*
B.A. 2016/Anthropology, Archaeology, Minors: Museum Studies, Historic Preservation/UNR

**Additional Training:**

2023 Grant Management Training , Grant Management USA
2022 Access 2016 Training Part 1 and 2, New Horizons
2022 Section 106 Agreements, Advisory Council on Historic Preservation
2021 Section 106 Essentials, Advisory Council on Historic Preservation

# Sara Sturtz, M.A.

**Reno, NV sturtzsara@gmail.com 775-340-5192**

**Professional Memberships:**
Former Comstock Historic District Commission/Board Member
Great Basin Anthropological Association/Member
Nevada Archaeological Association/Member

**Awards/Commendations:**
2019–2020 Herbert E. Splatt Scholarship, University of Nevada, Reno
2018 Research Scholarship, Am-Arcs of Nevada

**Presentations and Publications:**
Smith, Geoffrey M., ***Sara N. Sturtz***, Anna J. Camp, Kenneth D. Adams, Elizabeth Kallenbach ,Richard L. Rosencrance, and Richard E. Hughes
2022 Leonard Rockshelter Revisited: Evaluating a 70-Year-Old Claim of a Late Pleistocene Human Occupation in the Western Great Basin, *American Antiquity,* 1-18. doi:10.1017/aaq.2022.40

Sturtz, Sara N.
2021 The Natural and Cultural History of Leonard Rockshelter, NV. Presented for The Archaeological Conservancy 2021 Spring Virtual Lecture Series, Virtual Format.

Sturtz, Sara N., and Geoffrey M. Smith
2021 Renewed Investigations at Leonard Rockshelter. Presented at the 86th annual meeting of the Society for American Archaeology, Virtual Format.

Sturtz, Sara N., Geoffrey M. Smith, Nicole George, Derek Reaux, and Richard Rosencrance
2019 Leonard Rockshelter: Evaluating a 70-Year-Old Claim of a Clovis-Era Occupation. Presented at the annual meeting for the Nevada Archaeological Association, Elko, Nevada.

Sturtz, Sara N., Geoffrey M. Smith, Nicole George, Derek Reaux, and Richard Rosencrance
2018 Revisiting Leonard Rockshelter to Evaluate a 70-Year-Old Clain of a Clovis-Era Occupation. Presented at the 36th Great Basin Anthropological Conference, Salt Lake City, Utah.

# Jason Wierzbicki

Sun Valley, NV | 775-229-9920 | fishntime27@hotmail.com

## Summary

A seasoned Public Works Director with over 15 years of experience in supervising jobs from beginning to end and who can also effectively communicate with all trades and other construction professionals and departments to execute construction project plans and crews in a safe and timely manner for the duration of the construction task.

## Education

**Lathrop High Vocational Tech** **Aug '87-May '91**

**Electrical, building framing, concrete, sheetrock, mud, tape, texture, finish carpentry, roofing, flooring, Plumbing, welding, and fabrication.**

## Experience

**Storey County Public Works, Director** **Dec '07-Present**

**Started as Facilities Maintenance Coordinator,**
**Planned, ordered materials, and executed full remodels along with new construction of county facilities from concrete through finish.**

**Promoted to Road Supervisor along with Facilities Maintenance Coordinator,**
**Organized and executed various road projects including patching, paving, and crack sealing along with the facilities duties.**

**Promoted to Assistant Public Works Director,**
**Planned projects in Roads, Water, Sewer, Service, Parks, and B&G. Was responsible for day-to-day operations and communicating jobs to each department's supervisors.**

**Appointed to Public Works Director,**
**Planning, execute, directing staff, budgeting, day to day operations, code compliance, certifications, work in the office and in the field as needed for projects.**