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October 15, 2013
File: 193802472

Attention: Honorable Mayor and City Council Members
City of Eveleth
413 Pierce Street
Eveleth, MN 55734

Dear Honorable Mayor and City Council Members,

Reference: Eveleth City Auditorium Renovation – Phase II – Facility Plan

A. Project History

The Eveleth City Auditorium was constructed in 1912 by A. Roberts and Sons and opened in November of 1912. This building, with its' auditorium, dining hall and kitchen was utilized as a community facility for numerous types of events until 1963, when other venues opened in neighboring cities that offered larger and more modern amenities. Since that time, the building has been leased to several different companies for various types of production/processing/fabrication.

In 2005, some scenes in the movie "North Country" were filmed in the auditorium.

In 2006, the City of Eveleth Auditorium Remodel Study was prepared by Architectural Resources, Inc. The written portion of this study is included as **Appendix A**.

B. PHASE I

The City of Eveleth began Phase I of the City Auditorium Renovation Project in 2012. Work on Phase I of the project is expected to be completed in August of 2013.

Phase I includes:

1. ADA Building Access (includes new entrance stair and ramp to main south building entrance, modifying the main entrance vestibule to align with the main floor level, and new stair from the existing auditorium west exit doors)
2. Repair, test, and re-certify the Fire Sprinkler System throughout the building.
3. Hazardous Materials Abatement (Including asbestos insulation and peeling lead-based paint)
4. Building Egress Improvements, and
5. Upgrading Emergency and Exit Lighting

C. PHASE II

Phase II work includes:

1. Wall and ceiling repair and painting (the City of Eveleth received a grant of 104 gallons of paint from the Valspar Corporation for this project),
2. Install lighting in main floor auditorium, upgrade electrical and lighting throughout the building,
3. Construct ADA compliant men's and women's restrooms, and
4. Heating system repairs and/or upgrades.

The first step in Phase II is this Facility Plan. Within this report we will identify the Phase II project needs, evaluate options for Phase II improvements including preliminary plans and opinion of probable construction costs, and provide recommendations for each of the Phase II project items.

EXTERIOR BUILDING ENVELOPE STABILIZATION / RESTORATION

Before we recommend moving forward with any of the work items listed above, we need to request consideration of items identified in the 2006 City of Eveleth Auditorium Remodel Study as needing attention which have not yet been addressed. Specifically, these include:

1. Roofing system replacement:

The existing built-up roofing is now 7 years older than when the 2006 study was prepared and the recommendation at that time was to replace the entire roofing system. Refer to the photos in **Appendix B** showing the current roofing condition. Specific issues observed during our on-site field verification visit of August 22 and 23, 2013 include:

- a. The clay coping tiles are cracked and/or the mortar is failing.
- b. The galvanized metal parapet flashing is falling off the parapet.
- c. The roof drains are protected with wire baskets, not integral strainers.
- d. The overflow scuppers show signs of water leaking around the edges.
- e. The roll roofing area between the Auditorium and the Fire Station is curling, indicative of being at the end of its' life.

2. Face brick tuckpointing and/or covering of walls:

- a. The face brick between roof levels is the softer brick and is in dire need of tuckpointing and/or covering with a more durable material. Mortar joints are open and several areas have large cracks.
- b. Due to the current level of face brick deterioration at the roof and around the building where the softer face brick was installed, we believe tuckpointing would not be in the best interest of the City of Eveleth. We therefore recommend covering the softer face brick with 2" extruded polystyrene insulation and installing a synthetic plaster system over the insulation.

If the roofing system is not replaced and the exterior face brick are not tuckpointed and/or covered, any work done inside the building may be damaged and/or destroyed due to water intrusion.

Opinion of Probable Construction Costs:

Roofing System replacement (8,443 SF)	\$164,640.00
This includes full roofing membrane system coverage of the east and west parapet walls above the mezzanine level and above the auditorium, south parapet wall above the auditorium, and all parapet walls above the stage; new prefinished metal coping system on all parapet walls	
Face Brick tuckpointing of wall areas above roofs only (910 SF)	\$10,660.00
This includes the north face of the south wall, south face of the wall above the balcony, south face of the wall at the stage and the east wall above the Fire Station	
Install EIFS (Exterior Insulation and Finish System) (910 SF)	\$10,965.00
This includes the north face of the south wall, south face of the wall above the balcony, south face of the wall at the stage and the east wall above the Fire Station	

ITEM NO. 1: WALL AND CEILING REPAIR AND PAINTING

LOBBY 102

The original ceiling in Lobby 102 is plaster at 10'-10" above finish floor. An acoustical tile ceiling has been installed at 9'-0".

We recommend removing the acoustical ceiling tile and grid, repair all ceiling grid attachment points in the plaster ceiling, clean the plaster ceiling, and paint.

Opinion of Probable Construction Costs:

Remove existing acoustical tile and suspended grid	\$450.00
Repair plaster walls and ceiling suspended grid connection points	\$3,750.00
Paint walls	\$750.00
Paint ceiling	\$550.00
TOTAL	\$5,425.00

AUDITORIUM 115

The original ceiling in Auditorium 115 is plaster. The plaster ceiling slopes up from the perimeter walls to 12 recessed panels that contained pendant light fixtures and supply air diffusers. The light fixtures have been removed and are no longer located anywhere in the building. The supply air diffusers have been covered with particle board. When the movie "North Country" set up in the Auditorium, they installed four (4) rows of Unistrut channels suspended with rods and cables from the roof trusses above the plaster ceiling.

We recommend removing the Unistrut channels, rods and cables. All penetrations through the plaster ceiling will require repair. Several areas of ceiling in this room have some water damage and will require skim coating to repair them to match adjacent sound plaster areas.

Opinion of Probable Construction Costs:

Remove existing Unistrut channels, rods and cables	\$6,000.00
Repair plaster walls	\$5,000.00
Restore painted murals	\$15,000.00

Repair plaster ceilings	\$7,500.00
Paint walls (2 coats, sprayed)	\$3,350.00
Paint ceiling (2 coats, sprayed, dry fall paint)	\$3,500.00
TOTAL	\$40,350.00

ITEM NO. 2: LIGHTING AND ELECTRICAL SYSTEMS UPGRADES

POWER

Service Equipment:

The facility is served by two separate 280Y/120volt, 3 phase, 4 wire electric services. There is one overhead service drop from the Minnesota Power transformer pole to the building. Inside the building the service is split to two meters / services. One service is 400amp and the other is 200amp. There is no need to have two separate metered services to this facility. Also the service equipment needs to be upgraded to provide the quantity of circuits required for the proposed new HVAC equipment. The ampacity of the new service is proposed to be 800amp for this report. Once the design is performed for all new Phase 2 equipment this size may possibly be reduced to 600amp. The new service would also be large enough to accommodate the future elevator and other future loads such as kitchen equipment, theatrical lighting, and additional office spaces. Note, removing one meter from the facility will eliminate one monthly base charge for the electrical bill. These basic charges are \$10.50 per month, per meter.

Panel boards:

There are six (6) existing circuit breaker panel boards in the facility as follows:

Name	Size	Circuits	Location	Condition	Recommendation
LP-1	400A, 3 phase	42	Stage 116	Fair	Replace
LP-2	200A, 3 phase	42	Stage 116	Good	Reuse
LP-1A	100A, 1 phase	20	Room 207	Good	Reuse
LP-1B	100A, 1 phase	24	Mens 111	Poor	Replace
LP-1C	200A, 1 phase	20	Mech 007	Poor	Replace
LP-3	200A, 3 phase	30	Kitchen 012	Poor	Remove

LP-1 and LP-2 are the main panels for each service. LP-1 is older but is in fair condition and uses GE circuit breakers which are readily available, therefore it could be retained. However, as explained above, additional circuits will be needed for the Phase 2 HVAC equipment therefore we propose this panel be replaced. The new panel would be 600 or 800amp and would be set up to sub-feed LP-2 so the facility will have only one service. LP-2 is in new condition. LP-1A is located on the mezzanine and is in new condition. LP-1B is in poor condition with a make shift cover. It is also in a location that interferes with the construction of the new bathrooms therefore it needs to be replaced. LP-1C very old and of a manufacturer (Kinney) who's circuit breakers are not readily available. This panel should also be replaced, however if Phase 2 work does not require any new circuits out of this panel, it can be left as is until the lower level renovation occurs. LP-3 is in poor condition and should be removed. Most of its circuits are not active anymore. Any active circuits could be picked up by LP-1 and LP-2, until the lower level renovation occurs.

Receptacles:

The quantity and location of convenience receptacles located throughout the facility appear to be in logical locations. Prior to actual design of any renovations to the facility, the existing receptacles should each be tested with a circuit tester to determine if the receptacle and associated wiring is functional. The tester will also assist in determining if the receptacles are wired and grounded properly. We anticipate most of the receptacles in the auditorium will be reused. Due to the new layout of the lobby and restrooms, we anticipate most of those receptacles will be replaced.

HVAC circuits:

New electrical distribution equipment (circuit breakers, conduit, wire, motor starters) and controls will be provided for all new HVAC equipment.

Conduit and Wire:

Due to the age of the facility we anticipate the most of the wiring inside the facility will be replaced. Most of the existing conduit will be reused where possible.

LIGHTING

Auditorium:

The auditorium lights proposed as part of this report are compact fluorescent or LED recessed can lights. These lights provide the most cost effective way to light the auditorium, and since they are recessed they would not detract from the overall aesthetics of the building. These lights are identified as type "C" on drawing E202 in **Appendix C**.

Optional lights for this area are as follows:

Option 1:

Large pendant lights could be used in lieu of the recessed can lights. The ceiling has a pattern of 12 squares in it. The center of these squares is where the original lights were installed (see photo below). The lights were large (i.e. 4 to 5 foot diameter) chain hung bowl lights. The cost to reproduce custom replicas of the lights could be as high as \$10,000 to \$15,000 per light. Similar looking commercially available lights of this size range from \$2,000 to \$8,000 per light. These lights are identified as type "A" on drawing E202 in **Appendix C**. There is a great range of quality and aesthetics of these commercially available lights. If it is desired to pursue this option we would recommend obtaining samples of the lights and have them temporarily installed to assist in the selection of the fixture.

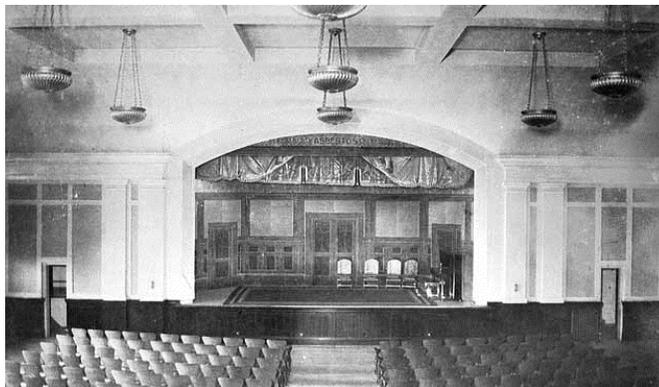


Photo of Original Chain Hung lights in Auditorium

Option 2:

The original design of the facility included open incandescent fixtures recessed in the cove area that goes around the entire perimeter of the auditorium. These lights would have provided accent lighting for the area, especially highlighting the unique character of the ceiling and room. They may also have been used to provide low level lighting during live performances. These lights are no longer in working condition. In order to replicate this accent lighting, we propose fluorescent strip lights would replace the non-functioning incandescent lights. These lights would be dimmable to allow flexibility of use. These lights are identified as type "E" on drawing E202 in **Appendix C**. The cost for these lights and the associated conduit, wire, and controls is \$8,000 to \$10,000.

Lobby / Vestibule:

The proposed lobby and vestibule lights are pendant mounted lights with white globes. The intent of these fixtures is to match the existing fixtures that are located in the Mezzanine level. These lights are identified as type "F" on drawing E202 in Appendix C. Note, if the option of the large chain hung bowl lights is chosen, consideration could be given to finding smaller chain hung bowl lights for the lobby and vestibule.

Restrooms:

The restrooms will have 2' x 2' acoustical tile (suspended ceilings). The proposed fixture for these rooms would be 2' x 4' or 2' x 2' recessed troffers. These lights are identified as type "G" on drawing E202 in Appendix C.

Mezzanine Level:

The rooms on the mezzanine level will have surface mount fluorescent fixtures with wrap around acrylic lenses or recessed troffers depended on the type of ceiling and the room use selected for this area.

Stage:

The stage area proposed lights are pendant mounted cylinder lights. These lights are identified as type "D" on drawing E202 in Appendix C. If this area is eventually used for live performances, theatrical lighting would need to be evaluated.

Lower level:

The rooms on the lower level will have surface mount fluorescent fixtures with wrap around acrylic lenses or recessed troffers depended on the type of ceiling and the room use selected for this area.

Exterior:

The existing exterior lights will remain as is, except for the lights at the main entrance (south side). The original lights in this location are surface mounted fixtures with a white globe (see photo below). The proposed new fixtures are identified as type "B" on drawing E202 in **Appendix C**. These lights were selected to match the existing fixtures.

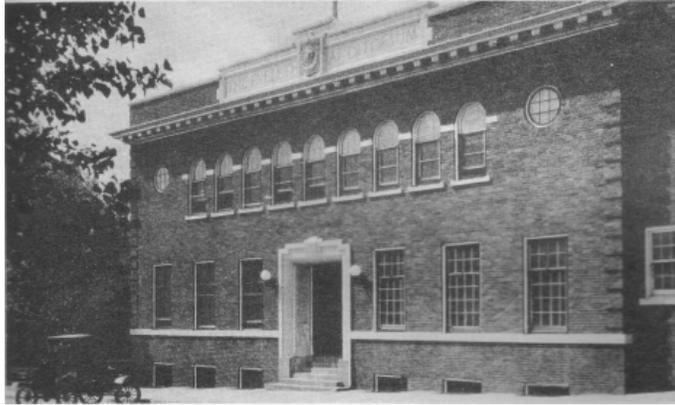


Photo of Original Exterior lights at Main (south) Entrance

OPINION OF PROBABLE CONSTRUCTION COSTS FOR LIGHTING AND ELECTRICAL UPGRADES:

Item A: Auditorium and all main level front (south) areas:	\$136,000.00
This includes all new lighting and majority of new electrical for the Auditorium, Vestibule, Lobby, Men's and Women's restrooms, and related hallways. This also includes new electric service equipment, demolition, panel boards, exterior lights (2) at the main entrance, and mechanical equipment wiring and control. Auditorium lighting included in this cost is just the recessed can lights.	
Item B: Mezzanine level, Stage, and the entire lower level:	\$85,000.00
This includes all new lighting and majority of new electrical for the Mezzanine Level, Stage, and complete lower level. It also includes all required electrical for the elevator and future kitchen. This cost does not include any special theatrical lighting.	
Item C: Optional Chain Hung bowl lights for Auditorium:	\$24,000 to \$180,000
Item D: Cove lights for Auditorium:	\$10,000.00

ITEM NO. 3: CONSTRUCT ADA COMPLIANT MEN'S AND WOMEN'S RESTROOMS

BUILDING ACCESSIBILITY

The 2006 City of Eveleth Auditorium Remodel Study prepared by ARI indicates a total occupancy load for this building as being 1,196. Based on the building use and size of the spaces, this number is accurate. Unfortunately, the available exit width will not accommodate this occupant load.

LOWER LEVEL – EXISTING EXIT WIDTH

The lower level of this building currently has two means of egress with a total exit width capacity to accommodate 366 occupants.

The first is stair up to the main south entrance. This stair is 4'-11" wide which, based on the current Building Code egress requirements, will accommodate 196 occupants.

The second is the stair from the Kitchen to the exit door in the north wall. This stair is 5'-3" wide which, based on the current Building Code egress requirements, will accommodate 210 occupants. However, the door at the top of the stairs is only 34" wide which, based on the current Building Code egress requirements, will only accommodate 170 occupants.

MAIN LEVEL – EXISTING EXIT WIDTH

The main level of this building currently has two means of egress with a total exit width capacity to accommodate 560 occupants.

The first is the pair of doors at the main south entrance. This pair of doors provides a total egress width of 6'-0" which, based on the current Building Code egress requirements, will accommodate 360 occupants. The width of the stairs (4'-0") and width of the ramp (4'-0") at the main south entrance provide a total egress width of 8'-0" which, based on the current Building Code egress requirements, will accommodate 360 occupants.

The second is the pair of doors in the west wall of Auditorium 115. This pair of doors provides a total egress width of 5'-0" which, based on the current Building Code egress requirements, will accommodate 300 persons. However, the width of the stair at this pair of doors is also 5'-0" which, based on the current Building Code egress requirements, will only accommodate 200 occupants.

MEZZANINE LEVEL – EXISTING EXIT WIDTH

The mezzanine level of this building currently has two means of egress with a total exit width capacity to accommodate 336 occupants.

The first is stair at the west side of the building going down to Lobby 102. This stair is 3'-11" wide which, based on the current Building Code egress requirements, will accommodate 156 occupants.

The second is the stair at the east side of the building that exits directly onto the exterior sidewalk on Jackson Street. This stair is 4'-9" wide which, based on the current Building Code egress requirements, will accommodate 190 occupants. However, the door at the bottom of the stairs is only 36" wide which, based on the current Building Code egress requirements, will only accommodate 180 occupants.

POTENTIAL ADDITIONAL EXIT WIDTH

An additional pair of doors could be added in the west wall of Auditorium 115 as shown on the original 1912 drawings prepared by Anthony Puck. With this additional 5'-0" wide exit width and new stairs at 5'-0" wide, the total exit width capacity of the main level could be increased by an additional 200 occupants, raising the total main level occupant load to 760.

Please note that the current exiting will not allow lower, main and mezzanine levels of this building to be fully occupied at the same time. Maximum occupant load signs will need to be posted on the main and lower levels to inform building occupants.

CONSTRUCT ADA COMPLIANT MEN’S AND WOMEN’S RESTROOMS – MAIN LEVEL

Refer to Sheet A102 in **Appendix C** for the proposed layout of the new Men’s and Women’s ADA compliant restrooms on the Main Level of this building.

The restrooms have been designed to accommodate the current building occupant load for the main level per the current exit width plus the future addition of new exit doors in the west wall of the Auditorium 115 as recommended above.

Per the Building Code Review shown on Sheet G002 in **Appendix C**, this building is an Assembly Group A-3 Occupancy. Chapter 29 of the IBC, 2006 Edition, requires the following plumbing fixture counts:

Male: Water Closets: 1 per 125; Lavatories: 1 per 200; Drinking Fountain: 1 per 500
Female: Water Closets: 1 per 65; Lavatories: 1 per 200; Drinking Fountain: 1 per 500

Per the layout on Sheet A102, the following plumbing fixtures have been provided:

Male: 3 Water Closets, 2 Urinals, 3 Lavatories, 1 Drinking Fountain = 625 occupants
Female: 6 Water Closets, 4 Lavatories, 1 Drinking Fountain = 390 occupants

Chapter 29 of the IBC, 2006 Edition, indicates the building occupant load shall be split 50/50 between males and females when calculating the number of required plumbing fixtures. Thus, the proposed restroom layout shown on Sheet A102 will accommodate an occupant load of 780.

Women’s Restroom: 284 SF	\$120,700.00
Men’s Restroom: 237 SF	\$100,725.00
Janitor’s Closet: 32 SF	\$8,000.00
TOTAL	\$229,425.00

Refer to Sheet A101 in **Appendix C** for the proposed layout of the new Men’s and Women’s ADA compliant restrooms on the Lower Level of this building.

The restrooms on the lower level have been designed to accommodate the current building occupant load for the lower level per the current available exit width for 366 occupants.

PROVIDE HYDRAULIC ELEVATOR FOR ACCESSIBILITY TO LOWER AND MEZZANINE LEVELS

Refer to Sheet A101, A102, and A103 in **Appendix C** for the proposed layout of a new holeless hydraulic passenger elevator. 2,500 lb. capacity; 100 fpm; 3 stops; standard finishes.

Holeless Hydraulic Elevator	\$73,550.00
Elevator hoistway (includes 4'-0" deep pit, framing modifications at first, mezzanine, and roof levels for hoistway and hoistway overrun)	<u>\$78,750.00</u>
TOTAL	\$152,300.00

ITEM NO. 4: HEATING SYSTEMS REPAIRS AND UPGRADES

HEATING

EXISTING AUDITORIUM HEATING SYSTEM

Two forced air furnaces have been installed in the Auditorium, and will need to be removed to return the auditorium to full functionality. Only one of the furnaces is believed to be functional at this time and could be used for temporary heat during the renovation.

EXISTING FRONT LOBBY AND DINING ROOM HEATING SYSTEM

The boiler is located in the former Kitchen area. This location is not conducive to a fully operational, fully occupied building. The boiler has an input rating of 330,000 Btu per hour (330 MBH) and will produce about 270 MBH of useable heat. The condition of this boiler was not tested and it appears that some control work may be necessary to make the boiler functional again. It is expected that with servicing, proper maintenance and water treatment it could provide 5 or more years of service before needing replacement. With its low capacity, it could provide heat during the construction process and become one of the boilers in a modular boiler plant system. The piping system that distributes the water to the radiators and other heaters is in-place, but many pipes are disconnected and will have to be reconnected for an operational system. Additional zone controls and isolation valves should be added as part of the reconnection work.

REQUIREMENTS

A fully operational facility including ventilation loads for 760 occupants will require a 1,500 MBH boiler plant, and associated pumps specialties and controls. For fire code compliance, it may be desirable to install a multiple boiler plant, such that each boiler is less than 400,000 Btu/hr input. This reduces the requirements for fire resistive wall construction associated with the boiler room. A modular, 5 or 6 boiler arrangement could provide redundant capacity except at full load conditions. Full load conditions include heating the ventilation air for a fully occupied building and offsetting conduction and infiltration losses when the outside air temperature is near 20 degrees below zero (F). The boiler plant could include one high efficiency condensing boiler for operation at mild weather conditions and for times when the building occupancy is low.

It may be desirable to locate the heating plant in an area that improves utilization of the former kitchen area. Spaces in the northeast quadrant of the lower level may be suitable for the new boiler room.

PUMPS

The existing pump may be reused for circulating water through the 330 MBH boiler and for construction heating purposes. A new, primary/secondary pumping system is recommended for the facility. This arrangement improves system efficiency and provides better temperature control

compared to the primary pump arrangement presently installed. New heating pumps, air separator, expansion tanks and controls would most likely be installed in the new boiler room.

VENTILATION

Mechanical ventilation is required by the current building codes for the auditorium and dining room spaces if they are to be functional and occupied.

The existing ventilation system was installed when the building was constructed in 1912 or shortly thereafter. The system consists of several separate components, some may be reused, but most should be replaced.

FANS

Several components of each fan system need to be checked for serviceability before a definitive statement could be made regarding reuse. These components include the wiring, motor starter, motor and motor bearings, drive belt and guard, fan bearings, fan shaft, fan blades and duct connections. Testing and any required repairs will eat into the savings associated with reuse of the hundred year old fans. Therefore, we recommend replacement of the fans as part of the comprehensive building renovation. Fans will be part of new air handling units proposed for the renovation.

AIR SHAFTS

Two ventilation air shafts are located at the northeast corner of the building. Air is brought in through the north shaft, via a second story louver, and drawn through an air washer. The air shafts are serviceable and may be reused. A new air intake louver is recommended, because the existing louver area may not be large enough for the current ventilation code required airflows at maximum building occupancy. The south air shaft is used for relief air, and may continue to be used for this purpose.

AIR WASHER

The air washer is a precursor to modern air conditioning. It uses the evaporative cooling effect of a water mist to cool the air delivered to the supply fans. The discharge from the air washer is drawn to either of two supply air fans. An adjustable damper modulates the amount of air delivered to either fan system. . It is not recommended to reuse the air washer, spray pump or existing fans as a long term solution. Dampers are also installed to control the return and relief air quantities. Actuators and linkages for the dampers are not installed and need to be provided. The ballroom ventilation system should be separate from and operate independent of the Auditorium system. Reuse of the dampers may not be practical for the separate air handling system scenario. It is expected that new air handling systems will be installed to serve the existing air distribution systems. New systems will also be required to serve the stage, mezzanine spaces and the lower level and main level areas located beneath the mezzanine.

MECHANICAL COOLING

Providing mechanical air conditioning was not identified as a program requirement and has been excluded from this study.

DUCTWORK

There are two supply duct systems served by the air washer. Each has a separate supply fan located under the stage, downstream of the air washer. The larger fan and duct system serves the auditorium through ductwork located at the back of the stage and above the auditorium ceiling. The smaller fan and duct system serves the lower level Ballroom. With duct cleaning, some patching and repairs, the supply and return duct systems could be suitable to be reused as part of the renovation. This is dependent on accepting the limitations of the existing air delivery arrangement.

New supply diffusers and registers will be required, unless the original devices are found, determined to provide acceptable performance, are reinstalled and balanced. New systems will be required to serve the stage, mezzanine spaces and the lower level and main level areas located beneath the mezzanine.

EXHAUST

Toilet exhaust systems will be replaced as part of the restroom renovation. Power roof ventilators are the recommended fan selection to maintain the exhaust ductwork at a negative pressure within the building.

OPINION OF PROBABLE CONSTRUCTION COSTS FOR HEATING AND VENTILATING WORK

We believe the renovation can be accomplished in phases, allowing more of the building to be useable as each phase is completed. Our opinion of probable cost is broken out by various areas of the building as follows:

Auditorium: \$120,000

This may be the first area to be renovated for use and as such, we have included costs associated with the required toilet ventilation and boiler plant equipment to maintain temperature and ventilation requirements for an occupant load of 760. We included costs for the following equipment:

- Air Handling unit (10,000 CFM capacity, fit into space under the stage).
- A three boiler arrangement for the boiler plant with space allocated for future expansion.
- Boiler piping connections and controls for existing heaters and radiation elements.

Dining Room: \$55,000

This may be the second area to be renovated for use and as such, we have included costs associated with the required lower level toilet ventilation and additional boilers to increase plant capacity for total building occupant load of 760 people. We included costs for the following equipment:

- Air Handling unit (5,000 CFM capacity, fit into space under the stage).
- Two boilers added to an existing plant, with space allocated for future expansion.

Stage and Lower Level north spaces: \$35,000.00

These spaces could be upgraded to provide ventilation for minimal occupancy, but does not include ventilation for kitchen appliances, dishwashing or other process loads. This is not likely to be the first area to be renovated for use so the costs are for an incremental increase to the boiler plant capacity. We included costs for the following equipment:

- Air Handling unit (3,000 CFM capacity), fit into space at the back of the stage.
- An additional boiler and associated piping and controls with space allocated for future expansion.

Front of the House: Mezzanine Level and Lower level spaces not previously renovated	\$35,000.00
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This would provide heat and ventilation for an increase in occupant load of 50 people, but does not include ventilation for process loads or any special humidification for archives. This is not likely to be the first area to be renovated for use so the costs are for an incremental increase to the boiler plant capacity. We included costs for the following equipment:

- Air Handling unit (3,000 CFM capacity), located in a room on the mezzanine level.
- An additional boiler and associated piping and controls.

SUMMARY OF COSTS

EXTERIOR BUILDING ENVELOPE STABILIZATION / RESTORATION

Roofing System replacement (8,443 SF)	\$164,640.00
Face Brick tuckpointing of wall areas above roofs only (910 SF)	\$10,660.00
Install EIFS (Exterior Insulation and Finish System) (910 SF)	\$10,965.00

ITEM NO. 1: WALL AND CEILING REPAIR AND PAINTING

Lobby 102	\$5,425.00
Auditorium 115	\$40,350.00

ITEM NO. 2: LIGHTING AND ELECTRICAL SYSTEMS UPGRADES

Item A: Auditorium and all main level front (south) areas:	\$136,000.00
Item B: Mezzanine level, Stage, and the entire lower level:	\$85,000.00
Item C: Optional Chain Hung bowl lights for Auditorium:	\$24,000 to \$180,000
Item D: Cove lights for Auditorium:	\$10,000.00

ITEM NO. 3: CONSTRUCT ADA COMPLIANT MEN'S AND WOMEN'S RESTROOMS

Women's Restroom, Men's Restroom, Janitor's Closet	\$229,425.00
Holeless Hydraulic Elevator and Hoistway	\$152,300.00

ITEM NO. 4: HEATING SYSTEMS REPAIRS AND UPGRADES

Auditorium:	\$120,000
Dining Room:	\$55,000
Stage and Lower Level north spaces:	\$35,000.00
Front of the House: Mezzanine Level and Lower level spaces not previously renovated	\$35,000.00

Each of the Phase II items defined within this Facility Plan and listed under the Summary of Costs above has been investigated, researched and opinion of probable construction costs prepared based on the directive to establish the scope and costs to make the main level of this building useable.

As you can see in the information included within this Facility Plan, the building needs to be considered as a whole and certain aspects of this study require work beyond the main level in order for the main level of this building to be useable.

We look forward to working with the Eveleth City Auditorium committee to discuss the information contained in this Facility Plan and determine the best approach to implementing the work scope defined above that fits the current budget parameters to keep this project moving forward and bringing this building back to life for the City of Eveleth and the surrounding communities.

Regards,

STANTEC CONSULTING SERVICES INC.

A handwritten signature in black ink, appearing to read "Bruce P. Paulson", with a stylized flourish at the end.

Bruce P. Paulson, AIA
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Attachment: Appendix A, Appendix B

c. Michael Wiskow, Chuck Oehrlein, David Lindahl

pb document2

APPENDIX A

CITY OF EVELETH AUDITORIUM REMODEL STUDY ARCHITECTURAL RESOURCES, INC. JUNE 1, 2006

NARRATIVE

The following study was conducted to assess the extent of remodeling required to renovate this facility to current standards and codes for possible use as a community center or similar facility.

Original building plans indicate the project was designed for construction in July of 1923.

Building Structure - The original building documents describe the construction as follows:

Walls -Wall construction consists of masonry bearing walls, 1'-4" thick that vary in height from 32 to 46 feet tall.

Floors -

1. The main floor construction is supported on 5" steel "H" columns at 11'-6" on center carrying 15" deep, 60 lbs/lf I-beams spanning 24'-0" feet. The balance of the main floor construction is 2x10 wood joists at 16" on center spanning 11'-6".
2. The second floor level located in the southern 24'-0" of the building is framed with 2x14 joists at 16" on center spanning 23'-0".
3. The galley space above the main auditorium is framed with 4x8 fir joists at 24" on center, supported on the south with a masonry bearing wall and hung from the auditorium roof trusses with an 8x10 fir beam and 1-1/4" diameter steel rods at approximately 12'-6" on center.

Roofs - The roof structure is divided into three segments:

1. The south 24'-0" of the building is framed with 2x12 fir rafters at 16" on center with 2x6 ceiling joists at 16" on center hung from the 2x12's. This roof is pitched to internal roof drains.
2. The main auditorium is framed with five (5) steel trusses (approximately 6'-6" deep) at 12'-0" on center spanning 62'-0". Spanning between the trusses are 2x8 rafters at 16" on center pitched to internal roof drains.
3. Above the stage, the roof is constructed of 2x12's at 16" on center spanning 23'-0" and sloped to holes in a parapet wall draining the water onto the main auditorium roof. *NOTE: There is one roof drain on this roof that drains internally with one overflow scupper adjacent to the roof drain.*

CODE REVIEW

The following code review is based upon the 2000 International Building Code. This code is the code currently adopted by the State of Minnesota for structures such as this.

1. Proposed Occupancy Classification -

A-3 Assembly uses intended for worship, recreation or amusement and other assembly uses not classified elsewhere in Group A, including, but not limited to:

- Arts Galleries
- Auditoriums
- Churches
- Community Halls
- Dance Halls
- Exhibition Halls
- Gymnasiums
- Lecture Halls
- Libraries
- Museums
- Pool and Billiard Parlors

Reference IBC Section 303

2. Area and Height Limitations -

602.3 Type III. Type III construction is that type of construction in which the exterior walls are of non-combustible materials and the interior building elements are of any material permitted by this code. Fire-retardant-treated wood framing complying with Section 2303.2 shall be permitted within exterior wall assemblies of a 2-hour rating or less.

- Basic Allowable Area – 9,500 sf (2 stories maximum)
- Allowable Area Increase - 75% open space at perimeter
= 9,500 sf + [(9,500 X 43.3) + 100] + [(9,500 X 200) + 100]
= 9,500 sf + 4,114 + 19,000
= 9,500 sf + 23,114 sf
= 32,614 sf total allowable area

**Actual Area= 17,558 sf

Reference IBC Sections - Table 503, Section 602.3

3. Rated Construction/Fire Protection-Approved Automatic Sprinkler System used for allowable area increases.

Reference IBC Section 903.2.1.4

4. Means of Egress/Occupant Load -

a. Occupancy - Lower Level

- Assembly- Unconcentrated (Tables & Chairs) $15 \text{ sf/occ} \times 3,150 \text{ sf} = 210 \text{ occ}$
- Kitchens – Commercial $200 \text{ sf/occ} \times 792 \text{ sf} = 4 \text{ occ}$
- Accessory - Storage, Mechanical Equipment $300 \text{ sf/occ} \times 3,300 \text{ sf} = \underline{11 \text{ occ}}$
 $= 225 \text{ occ}$

b. Occupancy - Main Level

- Assembly - Concentrated (Standing) $5 \text{ sf/occ} \times 4,215 \text{ sf} = 843 \text{ occ}$
- Offices $100 \text{ sf/occ} \times 575 \text{ sf} = 6 \text{ occ}$
- Accessory Areas $300 \text{ sf/occ} \times 1,060 \text{ sf} = \underline{4 \text{ occ}}$
 $= 290/853 \text{ occ}$

c. Occupancy- Upper Level

- Assembly – Concentrated $5 \text{ sf/occ} \times 512 = 102 \text{ occ}$
- Offices $100 \text{ sf/occ} \times 1,632 = \underline{16 \text{ occ}}$
 $= 118 \text{ occ}$

d. Total Occupancy - 1,196

e. Therefore -

- Two exits are required from each level.
- Exit widths shall total:
 - Basement- 42" wide stair, 36" wide door
 - Main Level - 7'2" wide each
 - Upper Level - 42" wide stair, 36" wide door

5. Accessibility -

- a. Handicapped accessibility should be maintained at all levels. (Reference State Building Code Section 1341.0405, Item A)
- b. HC toilet facilities shall be made available at no more than one level above or below the main area of usage. (Reference IBC Section 2902.6)

6. Minimum Plumbing Fixtures - (Assembly Occupancy: Halls)

- a. 1,196 Occupants
 - Males - 5 fixtures, 3 sinks, 1 drinking fountain
 - Females- 9 fixtures, 3 sinks, 1 drinking fountain
- b. 633 Occupants
 - Males - 3 fixtures, 2 sinks, 1 drinking fountain
 - Females- 5 fixtures, 2 sinks, 1 drinking fountain

Reference IBC Chapter 29, Table 2902.1, Section 2902

HAZARDOUS MATERIALS ASSESSMENT

NTS was commissioned by the EDA to conduct a lead-based paint and asbestos inspection report for this facility.

The report was completed March 30, 2006. The full report is not contained in this document.

Both lead-painted surfaces and asbestos-containing pipe insulation were discovered; the extent of which is outlined in the NTS report.

SCOPE OF PROPOSED WORK

The following scope of work is recommended based upon our review of the building.

1. Accessibility -
 - a. Accessible parking spaces will need to be calculated and identified.
 - b. Accessible building entrance will need to be established. ARI proposes an accessible entrance be added to the west from the parking lot.
 - c. A new elevation should be installed with access to all levels.
 - d. A lift to the stage level will need to be constructed to maintain accessibility to all levels of the facility.
 - e. Existing restrooms should be modified or relocated as required to conform with the guidelines set by the ADA and will include a total of five men's water closets and three men's lavatories as well as nine women's water closets and three women's lavatories as required by code based on the building's total occupancy.
2. Exterior Envelope -
 - a. Structure - The building is structurally sound in its current condition.
 - b. Roof- The existing roof is a built-up system. The age of this system is unknown.
 - 1) Total reroof is recommended. All of approximately 8,000 square feet of existing roof material will be removed down to the existing roof deck. New roof to consist of a new vapor barrier, R-35±rigid insulation in layers and a new 60-mil reinforced EPDM glue-down membrane.
 - 2) New parapet cap and wall flashing should be installed.
 - 3) Roof drains and scuppers will be repaired or replaced as required.
 - 4) All roof penetrations will be reflashed to prevent further water infiltration.
 - c. Windows and Doors- Most of the windows have been replaced with aluminum framed units of reasonable quality. Most of the doors should be replaced as a part of a renovation project.
 - d. Tuckpointing- The south face of the building is in good condition and was spot repaired and spot tuckpointed in 2003.

The north and west sides of the building were also spot repaired in 2003; however, they are built of a soft brick and consideration could be given to additional tuckpointing, or covering these walls with a material that would extend the life of the wall.

3. Interior Spaces-

- a. Lower Level- The lower level of the building needs extensive renovation to convert it to a public facility.

There is enough space to construct a commercial or catering-type kitchen and a room that could accommodate approximately 250 people seated comfortably at tables.

- b. Main Level - The walls of the main auditorium were repainted during the filming of the movie "North Country." The ceiling paint is peeling and has been tested as lead containing.

The original wood floor is in need of some patching and a complete refinishing.

The lobby has had a suspended ceiling installed and is in need of a fair amount of renovation.

ARI proposes that the renovation on this level include a new building entrance and public restroom facilities.

- c. Upper Level - The upper level would be best suited for development into meeting rooms and/or office space.

The balcony overlooking the main auditorium needs additional study to determine maximum structural capacity and exit requirements required by code.

- d. Mechanical Systems - The mechanical systems in this building need extensive renovation or complete replacement

- 1) Heating System- The lower level was heated during the winter months; however, this system is in poor condition. The main level was heated with furnaces set up temporarily and is in need of a complete renovation.
- 2) Ventilation System- The building does not currently have a functioning ventilation system, which will be required by code with a renovation.
- 3) Plumbing System- The plumbing system is partially functional but will require extensive rework and the addition of new toilet facilities.
- 4) Sprinkler System- The building is currently sprinkled; however, the system would require renovation and recertification.

- e. Electrical Systems -

- 1) Power Systems -

Existing - The power systems are a mix of old and new. Some replacement panels and additions have been added to accommodate various building uses; however, a reworking of the electrical power system should be part of the building's renovation.

Proposed-A new electrical service and distribution system. The new system would include a new service entrance, main distribution, feeders, distribution panels, branch circuit and outlets.

- 2) Lighting Systems -
Existing - The lighting system is a mix of fluorescent lighting in the lower level main space and incandescent fixtures in others. Many spaces do not have operable light fixtures.
Proposed-A new lighting system consisting of fixtures, switches, conduit and wire.

- 3) Emergency and Exit Lights -
Existing- The existing emergency and exit lights do not meet code as there are not enough of them. The existing devices have exceeded their useful life.
Proposed - New exit and emergency lighting including new wire and conduit systems.

PROPOSED PROJECT BUDGET

The full extent of a project budget should be developed once the final scope of the project is determined. ARI has developed the following budget with a range that assumes a functional code compliant renovation. The additional expenditures would add features, quality of finishes and attention to a historic renovation.

A.	General Construction (17,558 sf)	\$1,400,000.00 to \$2,195,000.00 \$80.00 to \$125.00 per sf
B.	Mechanical Construction	\$525,000.00 to \$875,000.00 \$30.00 to \$50.00 per sf
C.	Electrical Construction	\$245,000.00 to \$385,000.00 \$14.00 to \$22.00 per sf
D.	Hazardous Materials Abatement	\$20,000.00* Based upon known hazards identified in the report.
E.	Kitchen Equipment	\$50,000.00 to \$150,000.00
F.	SUBTOTAL	\$2,240,000.00 to \$3,625,000.00
G.	Contingency/Fees/Testing	\$225,000.00 to \$350,000.00
H.	TOTAL PROJECTED BUDGET	\$2,465,000.00 to \$3,975,000.00

As a comparison, to replace this facility with a like building, ARI projects a budget of approximately \$250.00 per square foot or more...total budget = \$5,000,000.00

APPENDIX B

APPENDIX B



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5



Photo 6

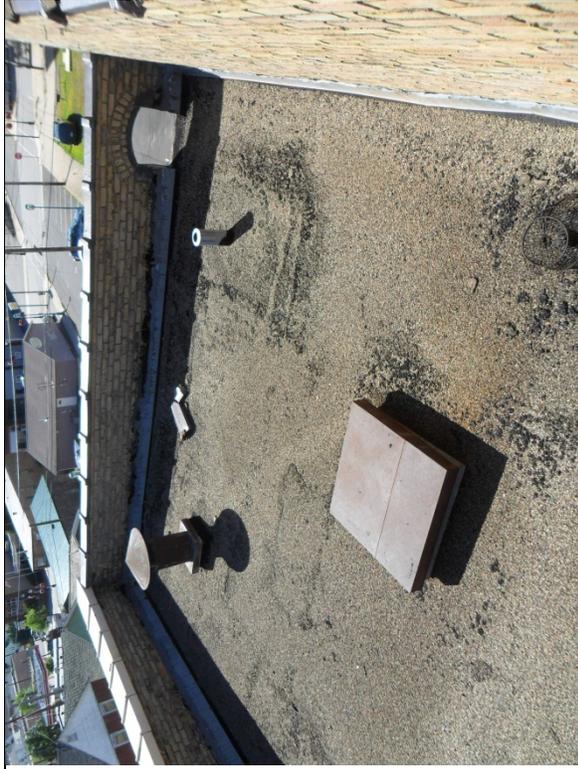


Photo 7



Photo 8



Photo 9



Photo 10

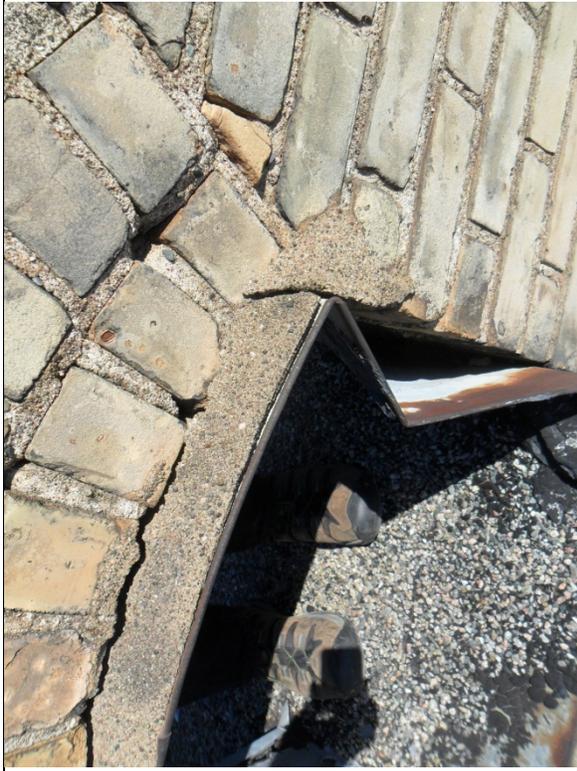


Photo 11



Photo 12

APPENDIX B



Photo 13



Photo 14



Photo 15

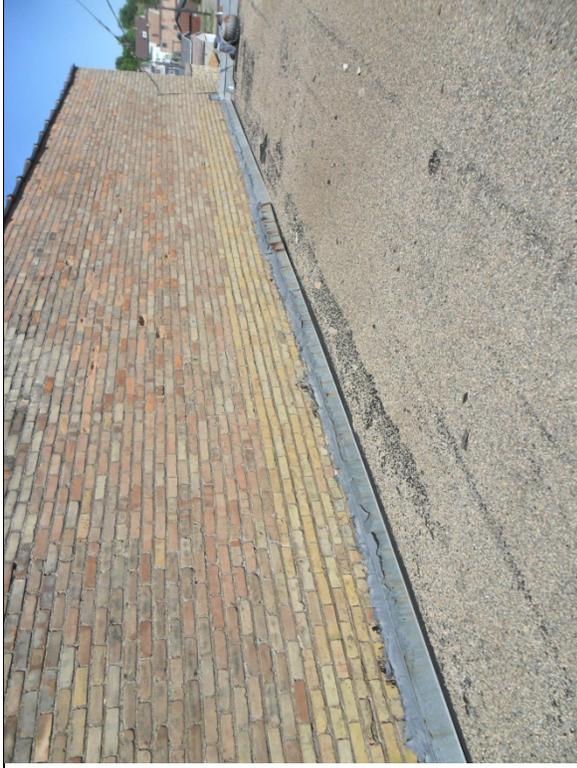


Photo 16



Photo 17



Photo 18



Photo 19

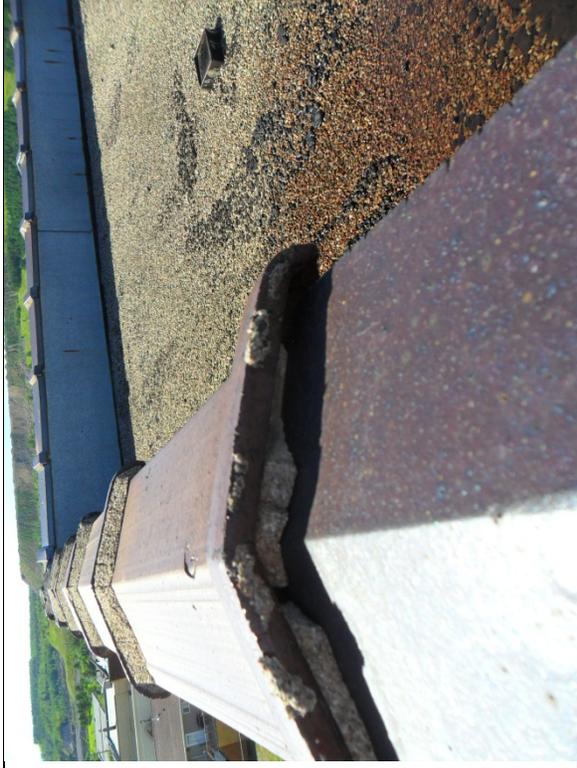


Photo 20



Photo 21



Photo 22



Photo 23



Photo 24



Photo 25



Photo 26

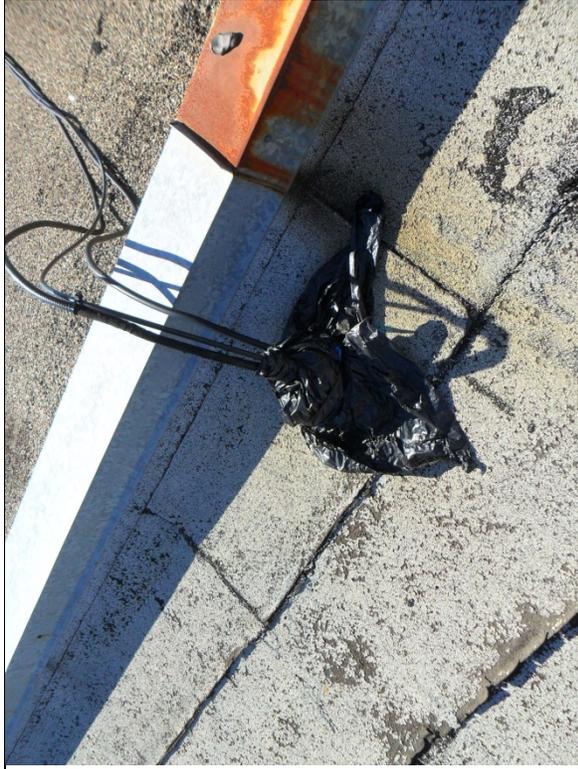


Photo 27

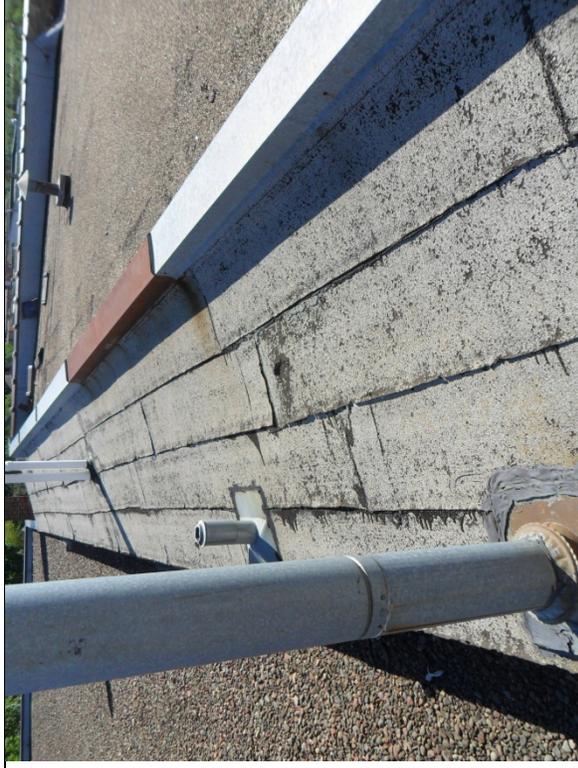


Photo 28



Photo 29



Photo 30



Photo 31

APPENDIX C

