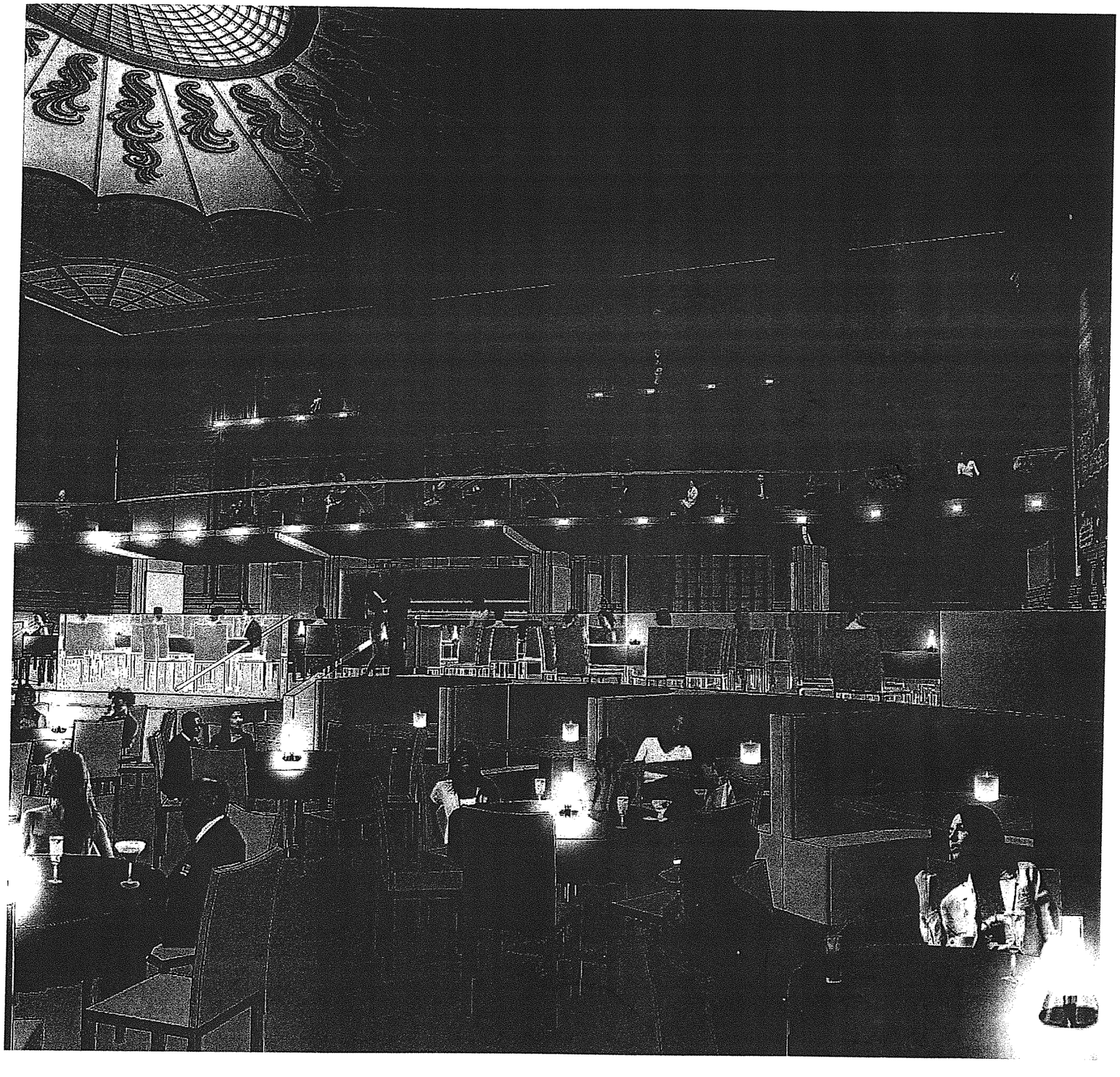

Feasibility Study of the Royal Theater for Universal Companies

January 17, 2007

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Figure 1: Front Elevation of Royal Theater

CONDITIONS ASSESSMENT

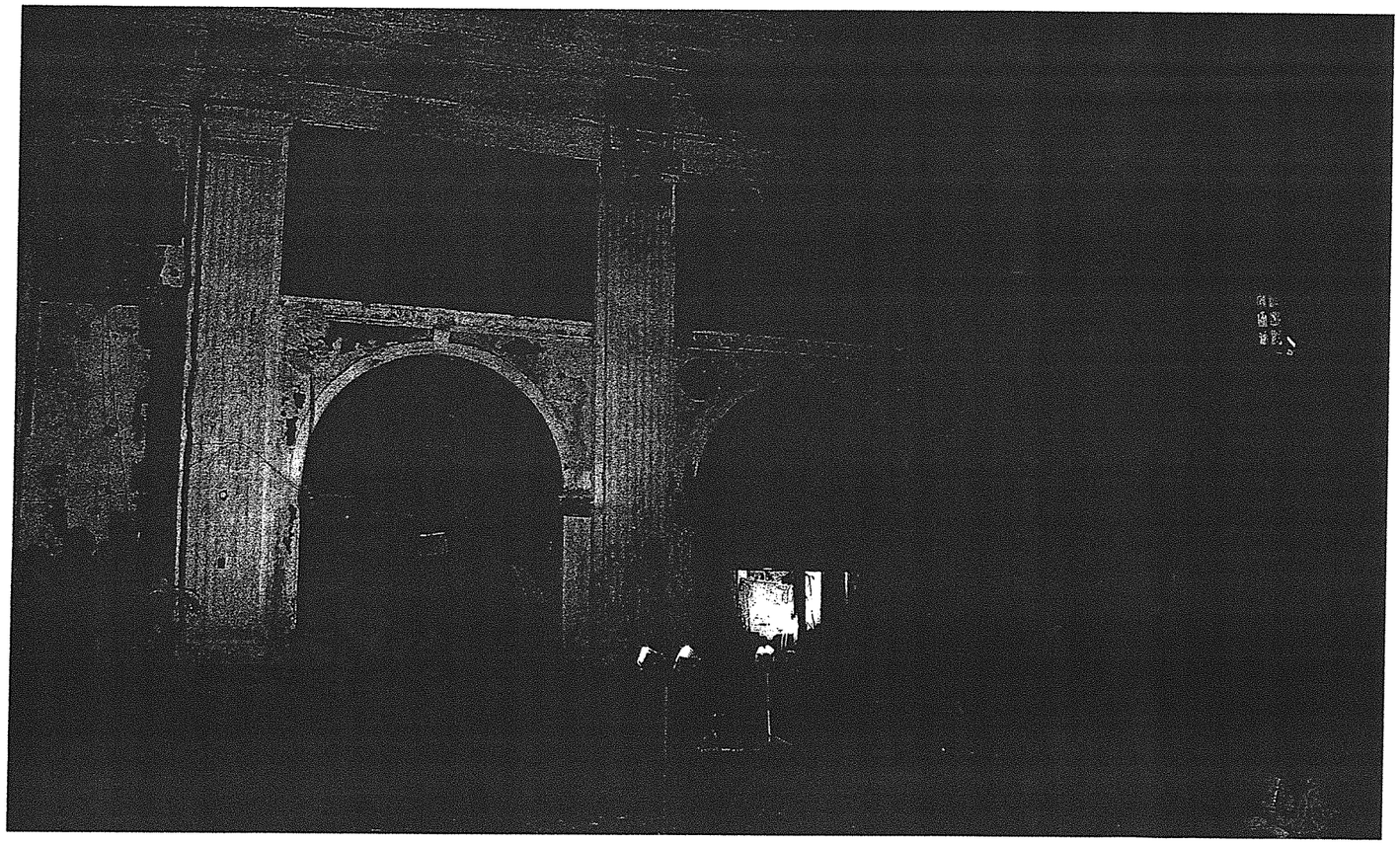


Figure 2: Interior of Theater

Architectural

The Royal Theater stands on the south side of the 1500 block of South Street, in the midst of two and three story rowhouses, many of which were converted to commercial use on the ground floor in the last half of the 20th century. The building is eighty feet along South Street and extends the full depth of the block to Kater Street. The Theater was constructed in 1919 and opened in May 1920. The theater was designed by Philadelphia architect, Frank E. Hahn for one of the principal developers of South Street, Abraham Wax.

The building is a steel frame with masonry cladding. The South Street facade is the most decorative. It was developed along classical lines and constructed of red brick with terra cotta cornice, terra cotta pilasters, a granite base and terra cotta keystones. There are also two low-relief tondos which depict the Three Graces and three iron balconies on the second floor. There were five pairs of doors along South Street. The other three elevations are constructed only of red brick masonry with no ornament. There are four sets of doors along each of the side elevations and four sets of doors which exit to Kater Street. The roof is a gambrel-shaped vault with deep gutters along the East and West elevations. The gambrel is capped with terra cotta coping tiles.

The building floor plan can be divided into quarters with one-quarter housing the functions that support the theater and three-quarters being the theater. The front section which parallels South Street is a three-story structure with a full basement. The basement contained the public toilet rooms and a mechanical/electrical room, the lobby and ticket booth were on the main floor, offices and a projection booth on the second floor and a mechanical space filled with ductwork serving the theater on the third floor. Access to the roof was via a straight ladder from the third floor at the front of the building. The third floor also provided access to the attic space over the Auditorium, between the concrete slab of the ceiling and concrete roof slab. The original plan showed a skylight over this front section of the building.

There were three entrances from the lobby into the theater. The theater at the rear of the site was a two-story space with ornamental plaster ceilings applied to the concrete slab and plaster walls attached to the brick masonry. The floor was a mosaic tile. There was a small stage at the front framed with two columns. There were three seating sections with seats to accommodate 1125 persons. There was no balcony. The theater had a sloped concrete slab on grade to provide for proper site lines. There was no back of house support spaces. It is documented that major black artist such as Bessie Smith, Cab Calloway, Pearl Bailey all performed at the Royal Theater.

Existing Conditions

The building closed as a theater in 1970 or 1971. In 1993, a report reviewing the existing conditions documented extensive damage from long-term neglect. The report states that there was extensive damage of the building fabric from water infiltration along the east and west walls and considerable vegetation growth that extended inside and outside the building. The report says that there had also been some vandalism in the building. In addition to damage from water infiltration, the vegetation had caused some displacement of the southeast corner of the building.

The building was acquired by the Preservation Alliance in the 1990's and was then acquired by Universal Companies in August 2000. There is a Façade Easement for the South Street Façade in an agreement between Universal Community Home and the Preservation Alliance for Greater Philadelphia. Prior to the acquisition of the property by Universal Community Home, there had been masonry repointing completed on the South Street elevation and the southeast corner of the building had been reconstructed. The openings along South Street were infilled with painted plywood. After the acquisition, there has been some removal of damaged materials from the interior of the building and the plain painted plywood has been repainted with a mural celebrating the history of the building by the Mural Arts Project of Philadelphia.

Observations on the Exterior

The exterior of the building is in good condition along South Street and fair condition on the other three elevations .The masonry wall along South Street has been repointed and the majority of the terra cotta appears to be in good condition with the exception of the lower eight feet of terra cotta pilasters that were painted. The terra cotta cornice is discolored but appears to be in good condition, the iron balconies also appear to be in good condition. The side and rear masonry are missing a majority of the mortar and there are areas where the face brick is missing. The top sections of the brick walls are covered with invasive vegetation that grows from the inside of the building out through the gutter and brick wall and over the top of the parapet walls. There are also smaller vines and plants that are causing damage to the masonry wall. The door openings located in the east and west walls have been secured with unpainted plywood.

The rear wall along Kater Street is also missing mortar from the joints and there are areas where the brick is missing. The four openings from the theater have all been infilled with concrete block and sections of the wall along the southeast and southwest corners have received a cementitious coating and some sections of the masonry wall have been painted.

The roof membrane over the Auditorium is missing on over half of the concrete slab. The trees and debris in the gutters are so extensive that the gutters are not working. The terra cotta coping tiles appear to be in good condition with only a few tiles that are cracked or missing.

There is an existing chimney on the roof that is in very poor condition and will need immediate attention.

Observations on the Interior

The interior of the building has suffered from severe water infiltration and lack of heat. The interior finishes have fallen off of most of the interior walls. There is some ornamental plaster adjacent to the door openings between the lobby and the theater. The plaster ceiling in the Auditorium which is attached to a concrete slab is partially in place but large sections are missing and will require replacement. There are large piles of debris throughout the building. As noted in the Exterior section, the invasive vegetation is visible on the interior of the building along both the east and west walls. The interior finishes along the stairs to the basement have detached from the walls. The existing cast iron boiler, existing ductwork and two phase electrical transformer located in the basement can not be re-used. The equipment on the roof is also no longer functioning. There are some remains of a mosaic tile floor in the theater. There is building material debris, old furniture, files, etc. in all the rooms on the second and third floor of the building. There was a fire on the second floor which did damage to the second and third floor as well as the roof framing system.

Conclusions

As the first stabilization project, it is recommended that all the invasive vegetation from the masonry walls, interior and exterior including the gutters be removed. The gutters should be cleaned of all building debris materials. It may also be necessary that the top section of the masonry wall be dismantled and reconstructed in order to insure that the extensive vegetation is totally removed. The masonry walls along the east and west sides as well as Kater Street should be repointed 100% and all missing brick should be replaced in-kind. The mortar mix should be determined by analysis of the existing mortar material. The abandoned light fixture junction boxes and electrical conduits should all be removed and the masonry walls repaired in these areas. The plywood at the door openings should be extended to provide a closer fit to the opening in order to provide better security and a better weather protection for the building. The crack in the masonry wall along the east side close to Kater Street should be repaired. The window openings along the east and west elevations that are not currently filled with plywood should be infilled in order to secure the building.
The existing brick chimney should either be dismantled to the top of the terra cotta coping tiles or protected by enclosing the chimney with plywood secured with metal straps.

In addition, the plaster ceiling in the Auditorium should be sounded and all unsound plaster should be removed. The interior face of the exterior masonry wall should be 100% repointed. All debris and abandoned equipment should be removed from the building.

Structural

Masonry Walls

The existing structure consists of brick masonry exterior load bearing walls with brick masonry piers and an interior brick masonry load bearing wall at the lobby area. The load bearing walls consist of 4 wythes of brick.
With the exception of the front wall, the remainder of the exterior walls shows signification signs of deterioration and distress, particularly the top 9 feet of the east and west walls. The top portion of the east and west walls will likely need to be completely rebuilt.
It also appears that all of the exterior mortar joints, with the exception of the front wall, will require 100% repointing with minor repointing on the front wall.
A significant portion of the interior mortar joints will also require repointing, approximately Localized areas of interior deterioration and distress to the masonry walls will need to be repaired.
Depending on the results of office analysis, installation of additional wall ties may be needed to anchor the wythes of the walls together.
Since the masonry walls provide the lateral resistance for the building, investigation into the rehabilitation code will be required to determine if upgrades to the lateral resisting system of the building are required. If upgrading the existing walls to current seismic codes is required, installation of a reinforced gunite wall along portions of the interior masonry walls may be needed.

Roof and Floor Framing:

The roof structure is accessible from the mechanical space on the third floor. The gambrel shaped roof trusses support the concrete/plaster ceiling on the bottom chord and the concrete deck on the sloping chords of the trusses. The trusses are spaced at approximately 15 feet on center and span the full 80 feet
The capacity of the floor and roof framing will need to be determined. From initial observations, it appears likely that the capacity is sufficient. However, signs of deterioration in some of the structural members were observed.
Further investigation will be required to determine the extent using a high reach along with openings in the existing theater ceiling to survey the members.
Significant deterioration was observed at the roof purlins. It is likely reinforcement or repairs will be required.
Localized deterioration of the roof trusses may exist and require repair. This may require replacement or reinforcement of portions of the trusses.
Based on the distress to the masonry at the top portions of the east and west walls, we are concerned about the condition of the truss bearing. Further investigation of this condition is required. It is recommended that the bearing points beneath the trusses should be reconstructed.
Due to an apparent existing fire on the floor levels above the lobby, the existing wood framing at the roof has experience significant deterioration and distress. The wood framing will need to be removed and replaced with a new structure.

Roof and Supported Floor Slabs:

A survey of the existing concrete roof and floor slab is also recommended. Due to the long exposure to the weather, a top and bottom survey of all the slabs is recommended to locate areas of delamination.
From the initial observations, it appears that the existing slabs are in relatively good condition and will likely only need localized patching.

Foundations and Slab on Grade:

A sinkhole was observed at the slab on grade at the theater floor near the stage. This portion of the existing slab on grade has settled significantly.
Due to the above observation, a geotechnical investigation is recommended. The investigation will determine the condition of the existing subgrade under the slab, the likely cause of the sinkhole and the condition of the existing wall foundations. The investigation will likely include removal of portions of the existing slab on grade, cores of the slab, test pits and test borings.

Conclusions:

The building structure is suffering from water penetration and is in the need of immediate repairs to stabilize the existing structure. We recommend that the repairs be started within

the next calendar year before the existing building experiences another freeze thaw weather cycle.

Other alternatives to repairing the existing structure would include stabilizing and repairing the front wall and removing and rebuilding the remainder of the theater structure. The lobby portion of the walls/structure could also be stabilized and repaired along with the front wall. This may help eliminate any exterior stabilization structure and contain all stabilization reinforcing to the interior of the building.

Mechanical

The mechanical systems have been abandoned. There is a steam boiler, steam condensate sump and water-cooled water chiller located in the basement mechanical room. Condenser water piping is routed out the west wall of the mechanical room. The piping goes up the exterior side of the wall to the cooling tower on the roof. Chilled water piping is routed up to an air-handling unit located in an Attic mechanical room. The air-handling unit supplies ductwork that is routed through the Attic above the theater. The ductwork, piping and equipment have not been used for years and cannot be reused or repaired. The existing chimney is in poor condition. A new flue should be installed. There is adequate space for new equipment but provisions must be made for boiler combustion air and outdoor air for ventilation.

Electrical

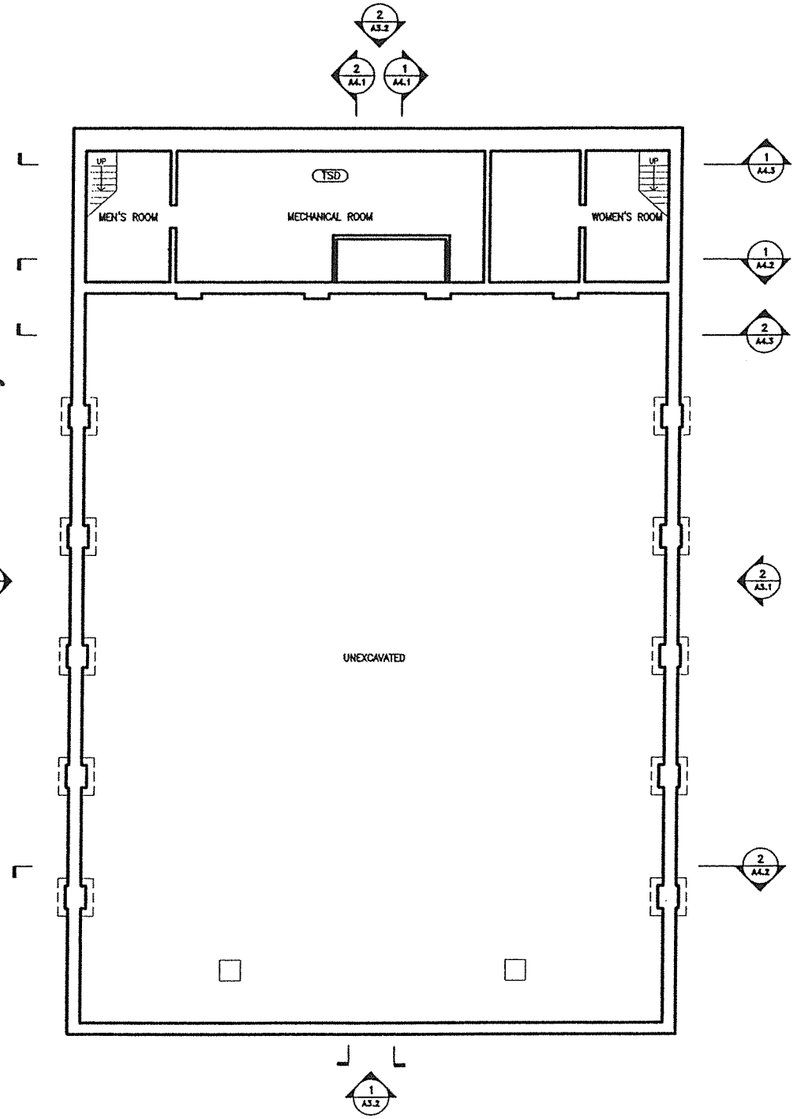
The electric system has also have been abandoned. A five-wire two-phase electrical service has been terminated in a manhole in South Street by PECO. The wiring enters the building below grade in the northeast corner of the basement electrical room. The room also contains a transformer. The transformer has been vandalized and may have leaked PCBs. This will need to be checked. The electrical equipment and wiring which have not been used for years, cannot be reused or repaired. There is adequate space for new equipment but we will need to check with PECO to determine if three-phase power is available.

Plumbing

A 3/4 diameter pipe providing water service enters the building in the basement mechanical room. The service is terminated there. We believe all exposed copper pipes have been removed. The sanitary sewer system runs below the basement floor and out to a combined storm/sanitary main in South Street. Cast iron sanitary vents are routed up the north wall of the Theater seating area and terminate above the roof. Storm water from the roof is collected by two large gutters located along the east and west walls. The gutters are drained by cast iron rainwater conductors. We believe the conductors run down the brick encased column enclosures and are collected under the theater floor and run to a combined sewer in South Street. The existing storm, sanitary and vent piping has past its expected life and will need to be replaced. We will need to obtain drawings of the utilities in the street from the Philadelphia Streets Department.

Stabilization Recommendations

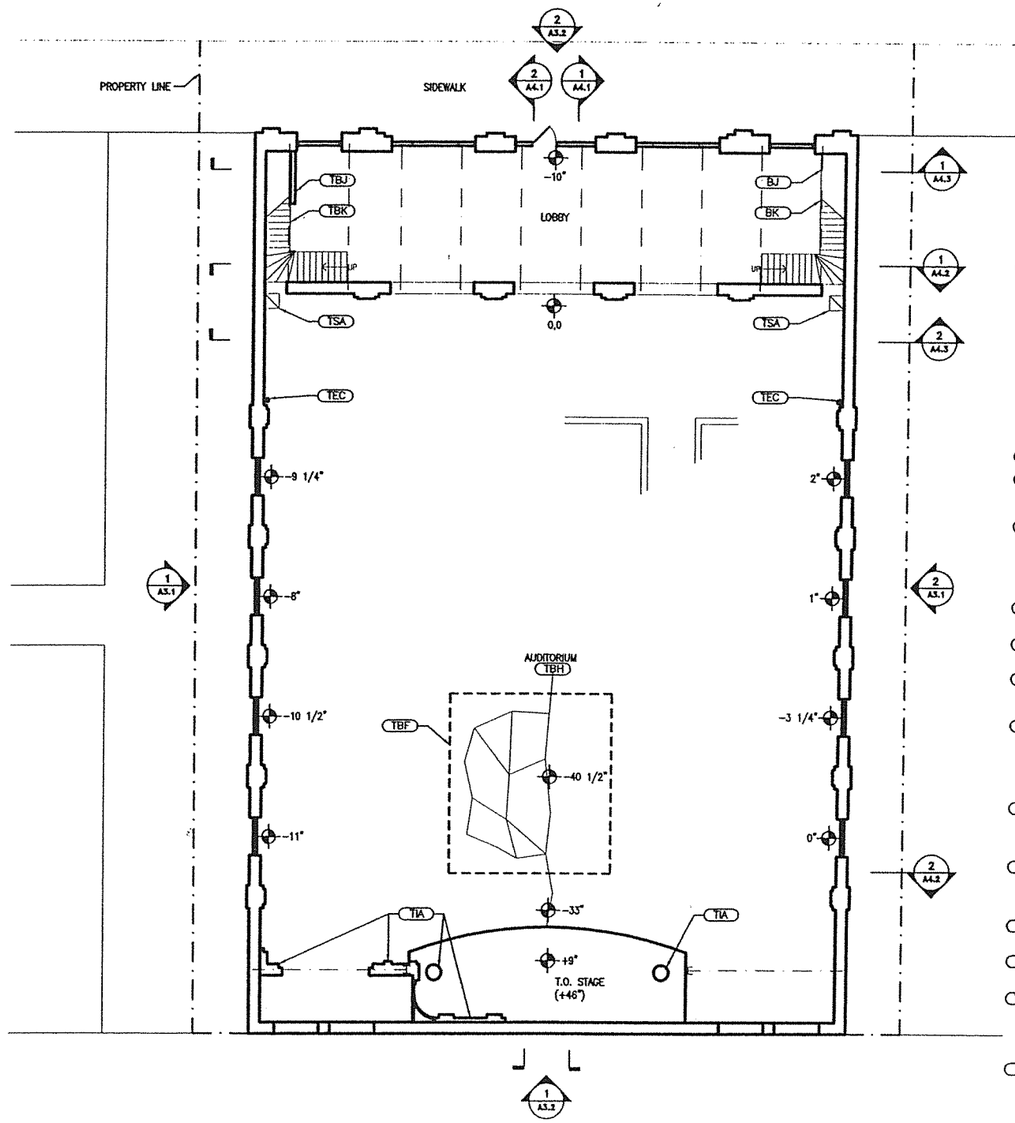
It is recommended that a temporary roof membrane be installed over the concrete slab and extended into the gutters. If possibly, the existing rain water conductors would be cleaned and re-used or if necessary new temporary rain water conductors installed that empty on grade. It is recommended that after the emergency stabilization work has been completed that a contractor install a gas fired temporary heating source. This will allow for maintaining a minimal temperature in the building and the contractor to start the clean up work over the winter months. It is also recommended that a temporary electrical service be installed in the building. This temporary electrical service which would be single phase service could be used by a contractor to complete the construction phase of the project and provide power for temporary lighting that would allow the clean up work to take place. This lighting would be more extensive than the limited temporary lighting currently provided in the building.



1 BASEMENT PLAN
SCALE : 1" = 20'-0"

N

SOUTH STREET



KATER STREET

2 FIRST FLOOR PLAN
SCALE : 1" = 20'-0"

N

BUILDING TREATMENTS:

- TBA INSTALL TEMPORARY SHORING FOR DAMAGED CAUSED BY FIRE.
- TBB REMOVE DAMAGED CONCRETE. INSTALL TEMPORARY WOOD SHORING TO STABILIZE WALL.
- TBE REBUILD TRUSS BEARING PLATES WITH MASONRY.
- TBF GEOTECHNICAL INVESTIGATION REQUIRED TO DETERMINE TREATMENT OF SLAB. INSTALL PLYWOOD BARRIERS AROUND DAMAGED SLAB.
- TBG REMOVE ALL PLANT GROWTH. REMOVE THE TOP 30 COURSES OF BRICK AND REBUILD WALL WITH NEW BRICK TO MATCH EXISTING IN COLOR, SIZE, AND TEXTURE FOR FULL LENGTH OF AUDITORIUM WALL.
- TBH SOUND CONCRETE SLAB.
- TBI DISMANTLE AND REBUILD CHIMNEY WITH BRICK TO MATCH EXISTING IN COLOR, SIZE, AND TEXTURE.
- TBJ DISMANTLE DETERIORATED WALL.
- TBK REMOVE ALL DEBRIS AND SOUND CONCRETE STAIRS.
- G REMOVE GRAFFITI.
- REMOVE TREES. DISMANTLE AND RECONSTRUCT BRICK WALL FOR THE FULL DEPTH AND WIDTH.

INTEGRITY OF BUILDING ENVELOPE

- TEA INSTALL NEW EPDM ROOF.
- TEB REMOVE ALL PLANT GROWTH AND DEBRIS FROM GUTTERS. LINE WITH NEW MEMBRANE.
- TEC CLEAN AND REPAIR EXISTING RAINWATER CONDUCTORS DOWN TO CITY STORM WATER SYSTEM. TEST RAINWATER CONDUCTORS FOR WATERTIGHTNESS AFTER CLEANING.
- TED REPOINT WITH HISTORIC MORTARS.
- TEE REPLACE/RECONSTRUCT BRICK WALL.
- TEF INSTALL WOOD FRAMING AND PAINTED PLYWOOD IN MASONRY OPENING.
- TEG REMOVE PLANT GROWTH; ROOTS, VINES, ETC. AREA SHOWN SHADED:
- TEH SECURE EXISTING PLYWOOD IN OPENING. ELEMINATE ANY GAPS BETWEEN PLYWOOD AND MASONRY OPENING.
- TEJ REPAIR CRACK WITH NEW BRICK AND REINFORCE WALL.

BUILDING SYSTEMS

- TSA REMOVE EXISTING DUCTWORK AND DEBRIS.
- TSB REMOVE ELECTRIC CONDUIT/FIXTURE.
- TSD REMOVE EXISTING BOILER AND 2 PHASE ELECTRICAL TRANSFORMER.

INTERIOR FINISHES

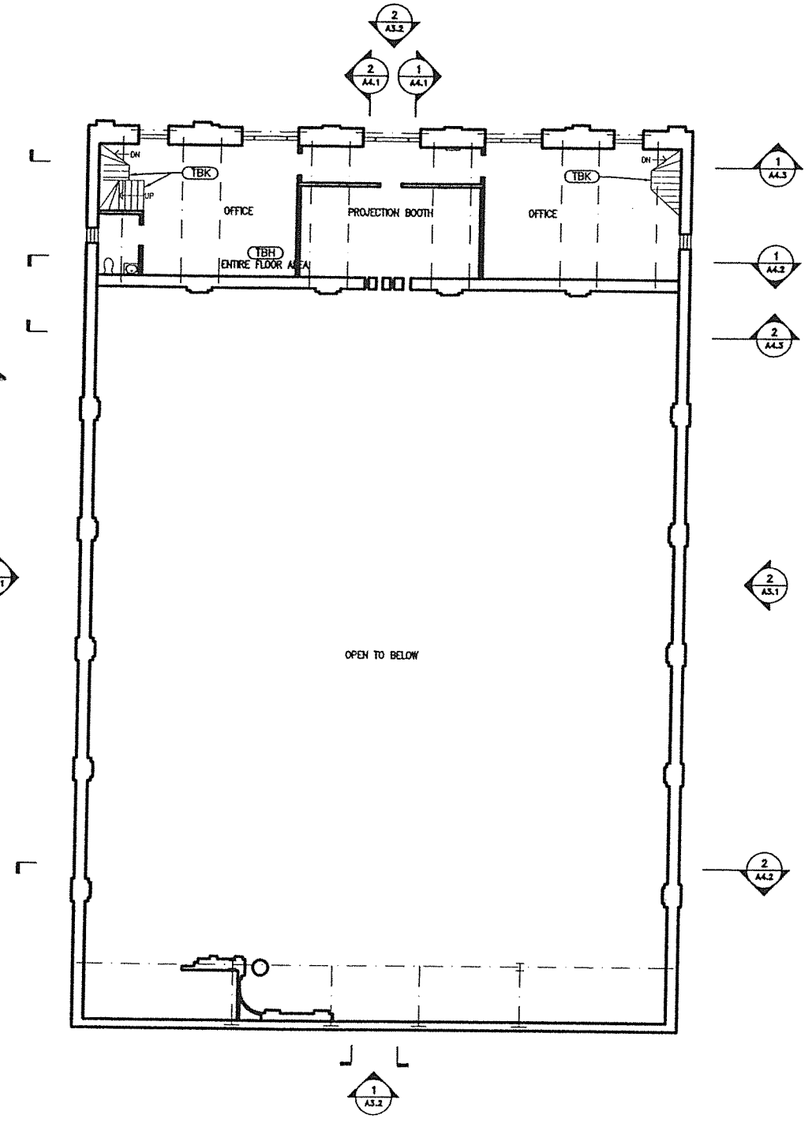
- TIA SOUND ALL PLASTER WORK REMAINING. REMOVE ALL LOOSE MATERIAL.

VITETTA

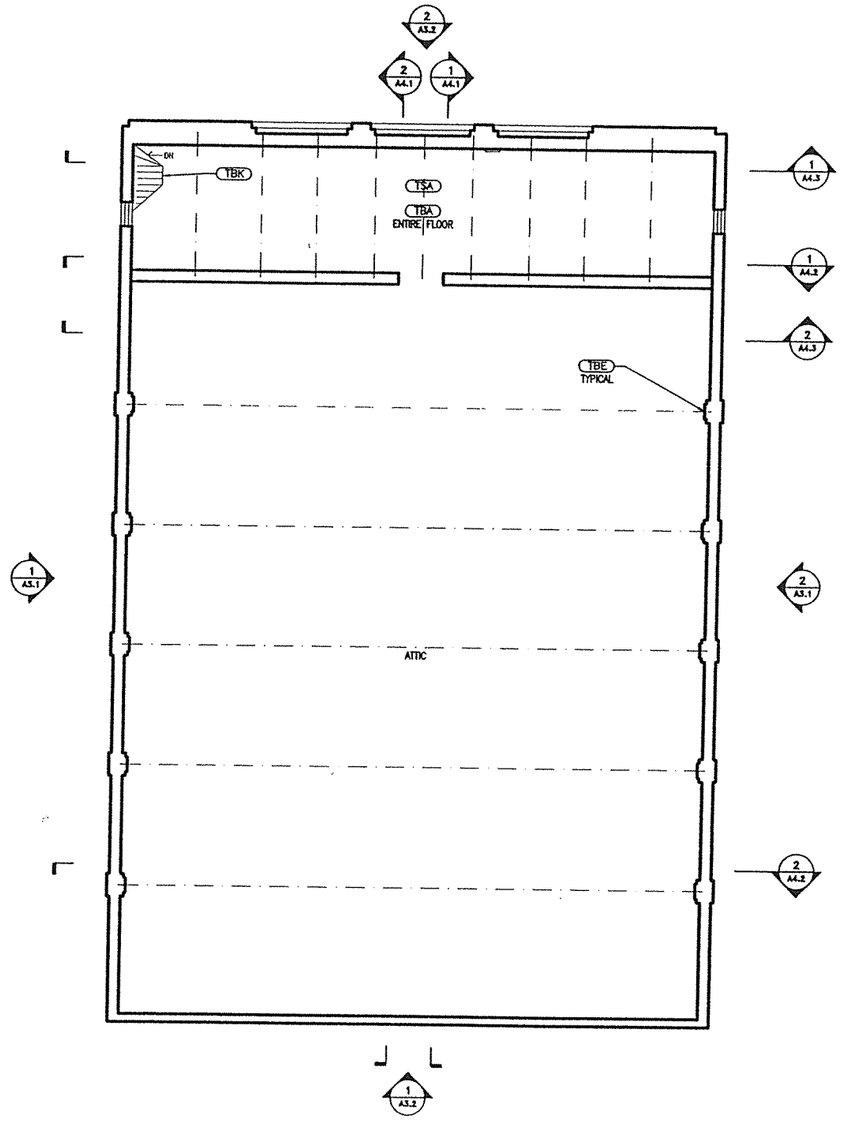
Royal Theater

0 5 10 20
SCALE: 1/20" = 1'-0"
January 17, 2007

N



1 SECOND FLOOR PLAN
SCALE : 1" = 20'-0"



2 THIRD FLOOR PLAN
SCALE : 1" = 20'-0"

BUILDING TREATMENTS:

- TBA INSTALL TEMPORARY SHORING FOR DAMAGED CAUSED BY FIRE.
- TBB REMOVE DAMAGED CONCRETE. INSTALL TEMPORARY WOOD SHORING TO STABILIZE WALL.
- TBE REBUILD TRUSS BEARING PLATES WITH MASONRY.
- TBF GEOTECHNICAL INVESTIGATION REQUIRED TO DETERMINE TREATMENT OF SLAB. INSTALL PLYWOOD BARRIERS AROUND DAMAGED SLAB.
- TBG REMOVE ALL PLANT GROWTH. REMOVE THE TOP 30 COURSES OF BRICK AND REBUILD WALL WITH NEW BRICK TO MATCH EXISTING IN COLOR, SIZE, AND TEXTURE FOR FULL LENGTH OF AUDITORIUM WALL.
- TBH SOUND CONCRETE SLAB.
- TBI DISMANTLE AND REBUILD CHIMNEY WITH BRICK TO MATCH EXISTING IN COLOR, SIZE, AND TEXTURE.
- TBJ DISMANTLE DETERIORATED WALL.
- TBK REMOVE ALL DEBRIS AND SOUND CONCRETE STAIRS.
- G REMOVE GRAFFITI.
- REMOVE TREES. DISMANTLE AND RECONSTRUCT BRICK WALL FOR THE FULL DEPTH AND WIDTH.

INTEGRITY OF BUILDING ENVELOPE

- TEA INSTALL NEW EPDM ROOF.
- TEB REMOVE ALL PLANT GROWTH AND DEBRIS FROM GUTTERS. LINE WITH NEW MEMBRANE.
- TEC CLEAN AND REPAIR EXISTING RAINWATER CONDUCTORS DOWN TO CITY STORM WATER SYSTEM. TEST RAINWATER CONDUCTORS FOR WATERTIGHTNESS AFTER CLEANING.
- TED REPOINT WITH HISTORIC MORTARS.
- TEE REPLACE/RECONSTRUCT BRICK WALL.
- TEF INSTALL WOOD FRAMING AND PAINTED PLYWOOD IN MASONRY OPENING.
- TEG REMOVE PLANT GROWTH; ROOTS, VINES, ETC. AREA SHOWN SHADED:
- TEH SECURE EXISTING PLYWOOD IN OPENING. ELEMINATE ANY GAPS BETWEEN PLYWOOD AND MASONRY OPENING.
- TEJ REPAIR CRACK WITH NEW BRICK AND REINFORCE WALL.

BUILDING SYSTEMS

- TSA REMOVE EXISTING DUCTWORK AND DEBRIS.
- TSB REMOVE ELECTRIC CONDUIT/FIXTURE.
- TSD REMOVE EXISTING BOILER AND 2 PHASE ELECTRICAL TRANSFORMER.

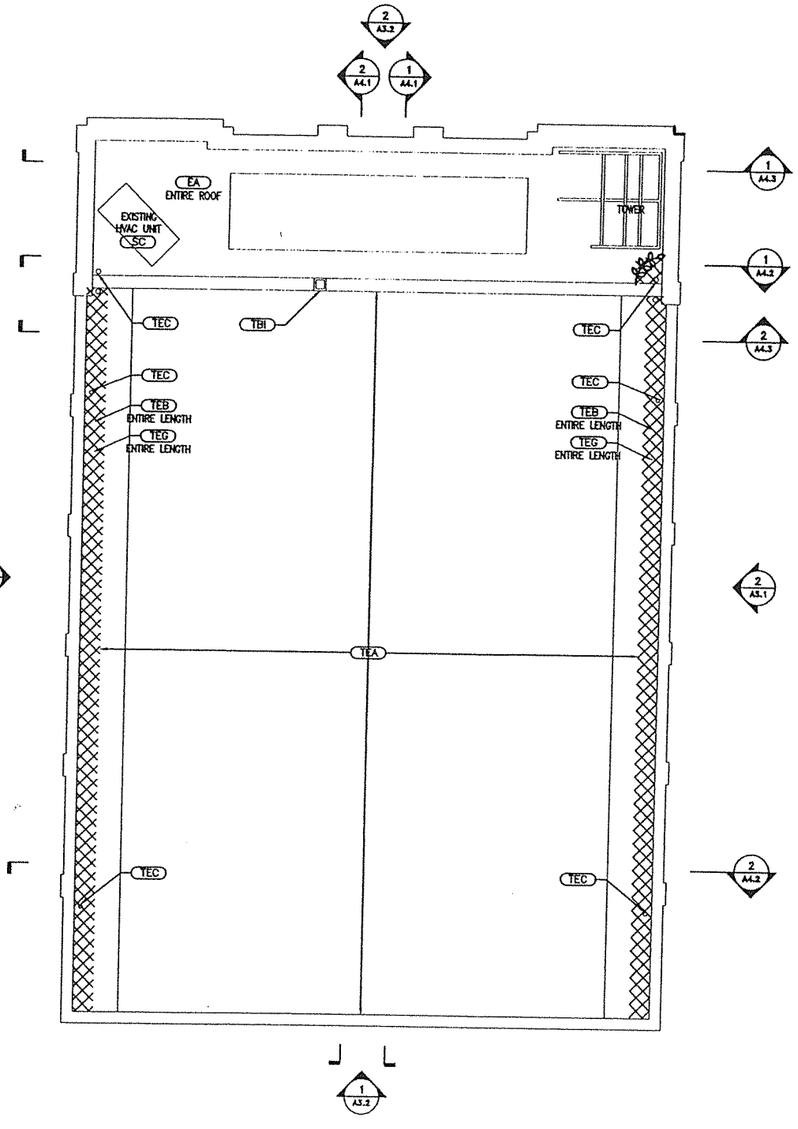
- INTERIOR FINISHES

- TIA SOUND ALL PLASTER WORK REMAINING. REMOVE ALL LOOSE MATERIAL.

VITETTA

Royal Theater

SCALE: 1/20" = 1'-0"
January 17, 2007



1 ROOF PLAN
SCALE : 1" = 20'-0"

N

BUILDING TREATMENTS:

TBA INSTALL TEMPORARY SHORING FOR DAMAGED CAUSED BY FIRE.

TBB REMOVE DAMAGED CONCRETE. INSTALL TEMPORARY WOOD SHORING TO STABILIZE WALL.

TBE REBUILD TRUSS BEARING PLATES WITH MASONRY.

TBF GEOTECHNICAL INVESTIGATION REQUIRED TO DETERMINE TREATMENT OF SLAB. INSTALL PLYWOOD BARRIERS AROUND DAMAGED SLAB.

TBG REMOVE ALL PLANT GROWTH. REMOVE THE TOP 30 COURSES OF BRICK AND REBUILD WALL WITH NEW BRICK TO MATCH EXISTING IN COLOR, SIZE, AND TEXTURE FOR FULL LENGTH OF AUDITORIUM WALL.

TBH SOUND CONCRETE SLAB.

TBI DISMANTLE AND REBUILD CHIMNEY WITH BRICK TO MATCH EXISTING IN COLOR, SIZE, AND TEXTURE.

TBJ DISMANTLE DETERIORATED WALL.

TBK REMOVE ALL DEBRIS AND SOUND CONCRETE STAIRS.

G REMOVE GRAFFITI.

REMOVE TREES. DISMANTLE AND RECONSTRUCT BRICK WALL FOR THE FULL DEPTH AND WIDTH.

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TEB REMOVE ALL PLANT GROWTH AND DEBRIS FROM GUTTERS. LINE WITH NEW MEMBRANE.

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BUILDING SYSTEMS

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TSB REMOVE ELECTRIC CONDUIT/FIXTURE.

TSD REMOVE EXISTING BOILER AND 2 PHASE ELECTRICAL TRANSFORMER.

INTERIOR FINISHES

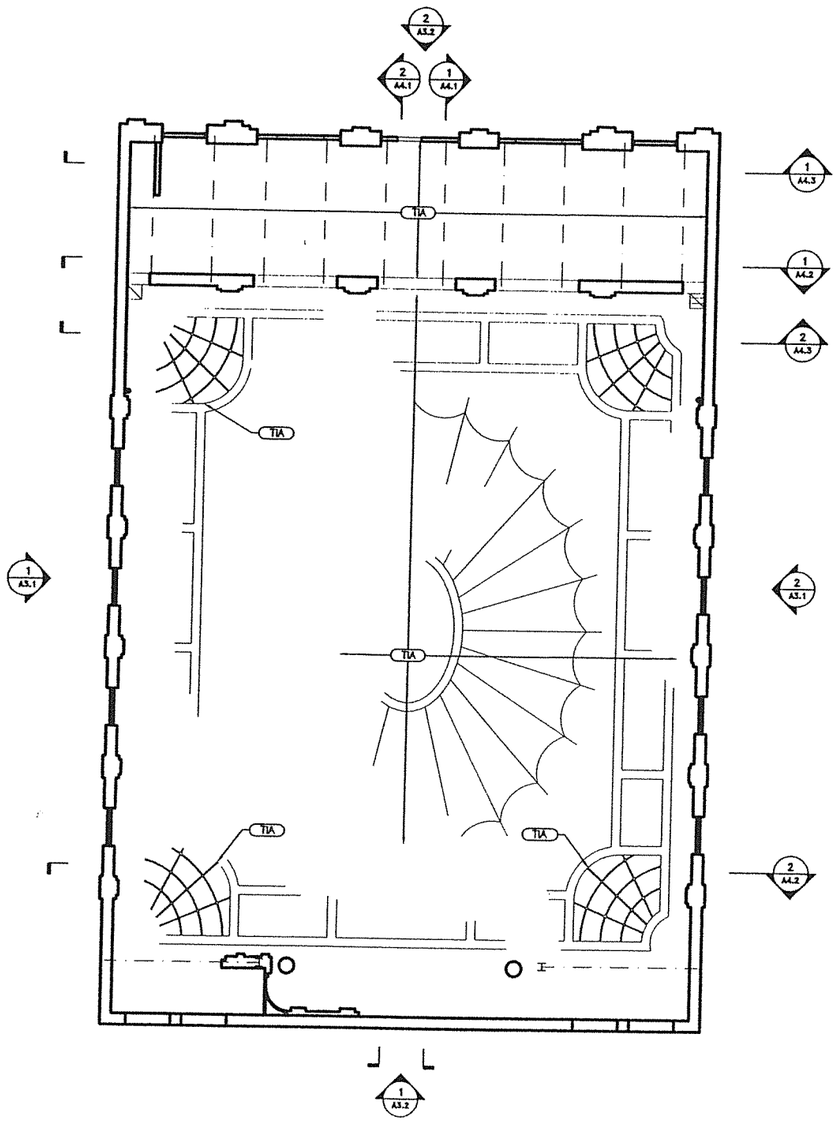
TIA SOUND ALL PLASTER WORK REMAINING. REMOVE ALL LOOSE MATERIAL.

VITETTA

Royal Theater

0 5' 10' 20'
SCALE: 1/20" = 1'-0"
January 17, 2007

N



1 FIRST FLOOR REFLECTED CEILING PLAN
SCALE : 1" = 20'-0"

N

BUILDING TREATMENTS:

T8A INSTALL TEMPORARY SHORING FOR DAMAGED CAUSED BY FIRE.

T8B REMOVE DAMAGED CONCRETE. INSTALL TEMPORARY WOOD SHORING TO STABILIZE WALL.

T8E REBUILD TRUSS BEARING PLATES WITH MASONRY.

T8F GEOTECHNICAL INVESTIGATION REQUIRED TO DETERMINE TREATMENT OF SLAB. INSTALL PLYWOOD BARRIERS AROUND DAMAGED SLAB.

T8G REMOVE ALL PLANT GROWTH. REMOVE THE TOP 30 COURSES OF BRICK AND REBUILD WALL WITH NEW BRICK TO MATCH EXISTING IN COLOR, SIZE, AND TEXTURE FOR FULL LENGTH OF AUDITORIUM WALL.

T8H SOUND CONCRETE SLAB.

T8I DISMANTLE AND REBUILD CHIMNEY WITH BRICK TO MATCH EXISTING IN COLOR, SIZE, AND TEXTURE.

T8J DISMANTLE DETERIORATED WALL.

T8K REMOVE ALL DEBRIS AND SOUND CONCRETE STAIRS.

G REMOVE GRAFFITI.

REMOVE TREES. DISMANTLE AND RECONSTRUCT BRICK WALL FOR THE FULL DEPTH AND WIDTH.

INTEGRITY OF BUILDING ENVELOPE

T8A INSTALL NEW EPDM ROOF.

T8B REMOVE ALL PLANT GROWTH AND DEBRIS FROM GUTTERS. LINE WITH NEW MEMBRANE.

T8C CLEAN AND REPAIR EXISTING RAINWATER CONDUCTORS DOWN TO CITY STORM WATER SYSTEM. TEST RAINWATER CONDUCTORS FOR WATERTIGHTNESS AFTER CLEANING.

T8D REPOINT WITH HISTORIC MORTARS.

T8E REPLACE/RECONSTRUCT BRICK WALL.

T8F INSTALL WOOD FRAMING AND PAINTED PLYWOOD IN MASONRY OPENING.

T8G REMOVE PLANT GROWTH; ROOTS, VINES, ETC. AREA SHOWN SHADED:

T8H SECURE EXISTING PLYWOOD IN OPENING. ELIMINATE ANY GAPS BETWEEN PLYWOOD AND MASONRY OPENING.

T8J REPAIR CRACK WITH NEW BRICK AND REINFORCE WALL.

BUILDING SYSTEMS

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T8B REMOVE ELECTRIC CONDUIT/FIXTURE.

T8D REMOVE EXISTING BOILER AND 2 PHASE ELECTRICAL TRANSFORMER.

INTERIOR FINISHES

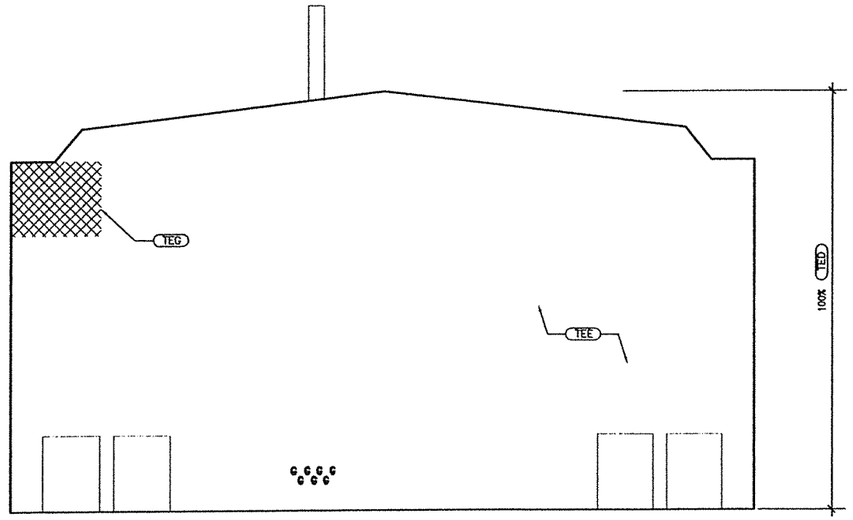
T1A SOUND ALL PLASTER WORK REMAINING. REMOVE ALL LOOSE MATERIAL.

VITETTA

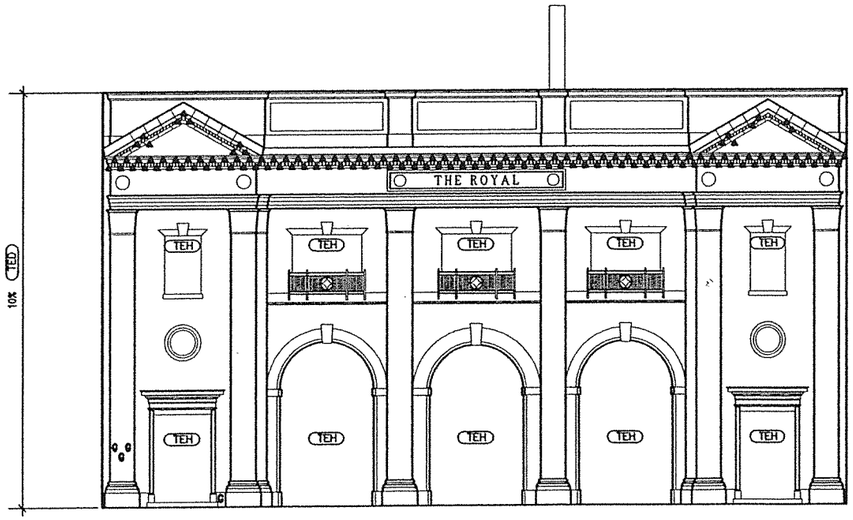
Royal Theater

0 5' 10' 20'
SCALE: 1/20" = 1'-0"
January 17, 2007

N



1 SOUTH ELEVATION
SCALE : 1/16" = 1'-0"



2 NORTH ELEVATION
SCALE : 1/16" = 1'-0"

BUILDING TREATMENTS:

TBA INSTALL TEMPORARY SHORING FOR DAMAGED CAUSED BY FIRE.

TBB REMOVE DAMAGED CONCRETE. INSTALL TEMPORARY WOOD SHORING TO STABILIZE WALL.

TBE REBUILD TRUSS BEARING PLATES WITH MASONRY.

TBF GEOTECHNICAL INVESTIGATION REQUIRED TO DETERMINE TREATMENT OF SLAB. INSTALL PLYWOOD BARRIERS AROUND DAMAGED SLAB.

TBG REMOVE ALL PLANT GROWTH. REMOVE THE TOP 30 COURSES OF BRICK AND REBUILD WALL WITH NEW BRICK TO MATCH EXISTING IN COLOR, SIZE, AND TEXTURE FOR FULL LENGTH OF AUDITORIUM WALL.

TBH SOUND CONCRETE SLAB.

TBI DISMANTLE AND REBUILD CHIMNEY WITH BRICK TO MATCH EXISTING IN COLOR, SIZE, AND TEXTURE.

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G REMOVE GRAFFITI.

REMOVE TREES. DISMANTLE AND RECONSTRUCT BRICK WALL FOR THE FULL DEPTH AND WIDTH.

INTEGRITY OF BUILDING ENVELOPE

TEA INSTALL NEW EPDM ROOF.

TEB REMOVE ALL PLANT GROWTH AND DEBRIS FROM GUTTERS. LINE WITH NEW MEMBRANE.

TEC CLEAN AND REPAIR EXISTING RAINWATER CONDUCTORS DOWN TO CITY STORM WATER SYSTEM. TEST RAINWATER CONDUCTORS FOR WATERTIGHTNESS AFTER CLEANING.

TED REPOINT WITH HISTORIC MORTARS.

TEE REPLACE/RECONSTRUCT BRICK WALL.

TEF INSTALL WOOD FRAMING AND PAINTED PLYWOOD IN MASONRY OPENING.

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TEJ REPAIR CRACK WITH NEW BRICK AND REINFORCE WALL.

BUILDING SYSTEMS

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TSB REMOVE ELECTRIC CONDUIT/FIXTURE.

TSD REMOVE EXISTING BOILER AND 2 PHASE ELECTRICAL TRANSFORMER.

INTERIOR FINISHES

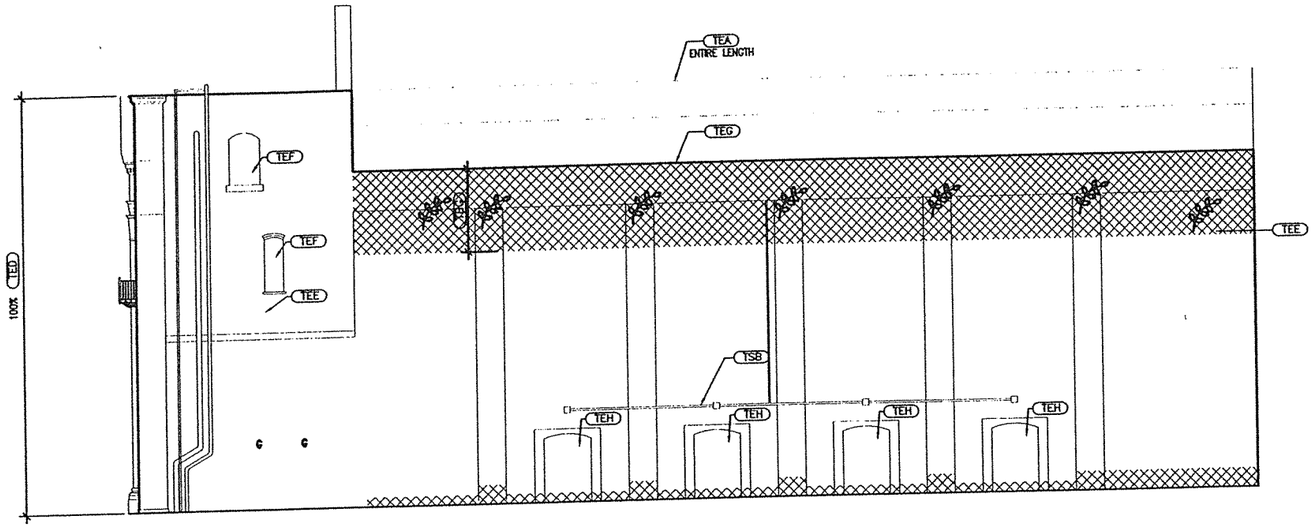
TIA SOUND ALL PLASTER WORK REMAINING. REMOVE ALL LOOSE MATERIAL.

VITETTA

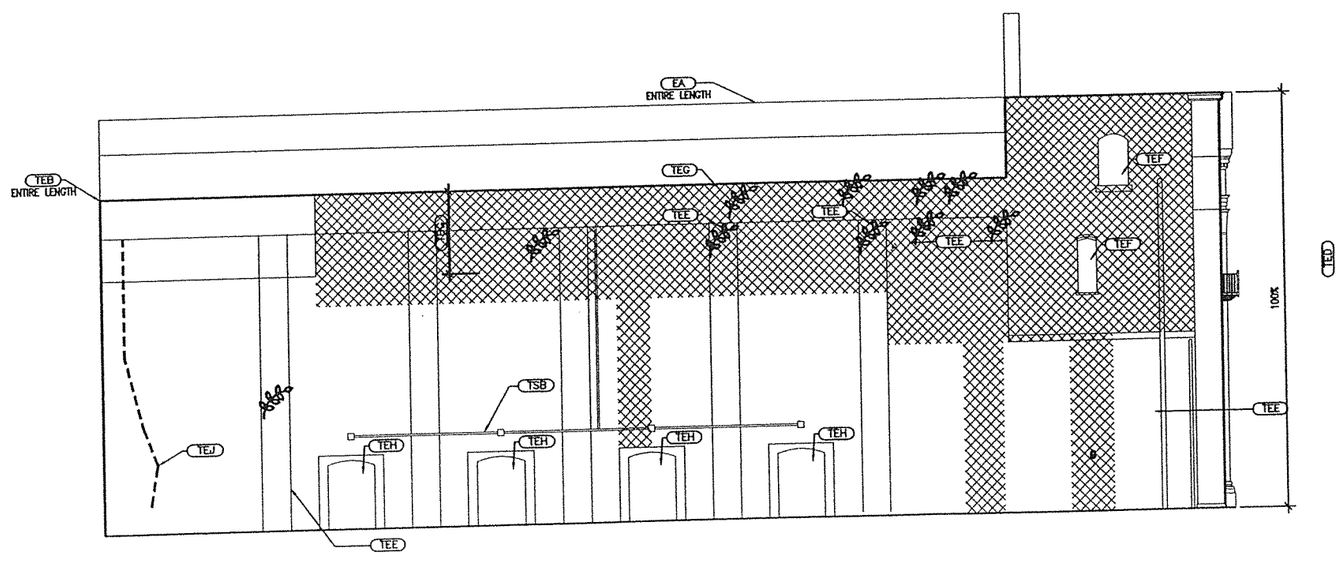
Royal Theater

0 4' 8' 16'
SCALE: 1/16" = 1'-0"
January 17, 2007

N



1 WEST ELEVATION
SCALE : 1/16" = 1'-0"



2 EAST ELEVATION
SCALE : 1/16" = 1'-0"

BUILDING TREATMENTS:

TBA INSTALL TEMPORARY SHORING FOR DAMAGED CAUSED BY FIRE.

TBB REMOVE DAMAGED CONCRETE. INSTALL TEMPORARY WOOD SHORING TO STABILIZE WALL.

TBE REBUILD TRUSS BEARING PLATES WITH MASONRY.

TBF GEOTECHNICAL INVESTIGATION REQUIRED TO DETERMINE TREATMENT OF SLAB. INSTALL PLYWOOD BARRIERS AROUND DAMAGED SLAB.

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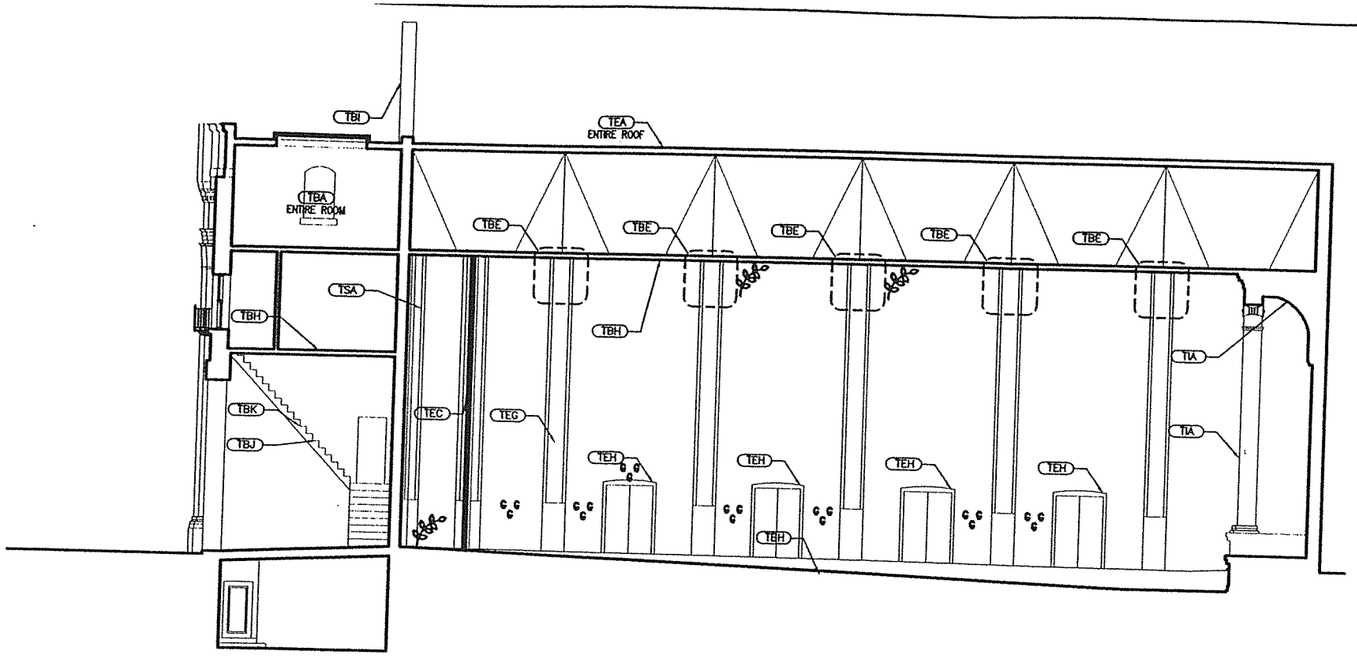
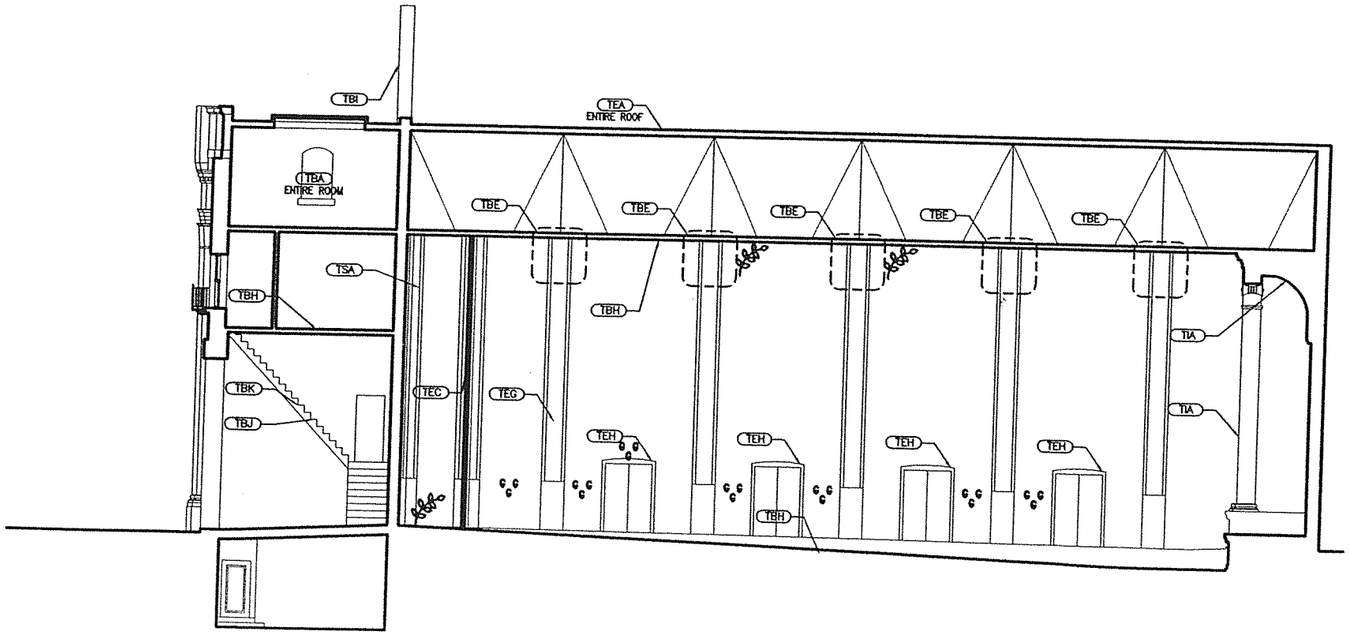


1 LONGITUDINAL SECTION LOOKING EAST
SCALE : 1/16" = 1'-0"



2 LONGITUDINAL SECTION LOOKING WEST
SCALE : 1/16" = 1'-0"

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(TBE) REBUILD TRUSS BEARING PLATES WITH MASONRY.

(TBF) GEOTECHNICAL INVESTIGATION REQUIRED TO DETERMINE TREATMENT OF SLAB. INSTALL PLYWOOD BARRIERS AROUND DAMAGED SLAB.

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(TBH) SOUND CONCRETE SLAB.

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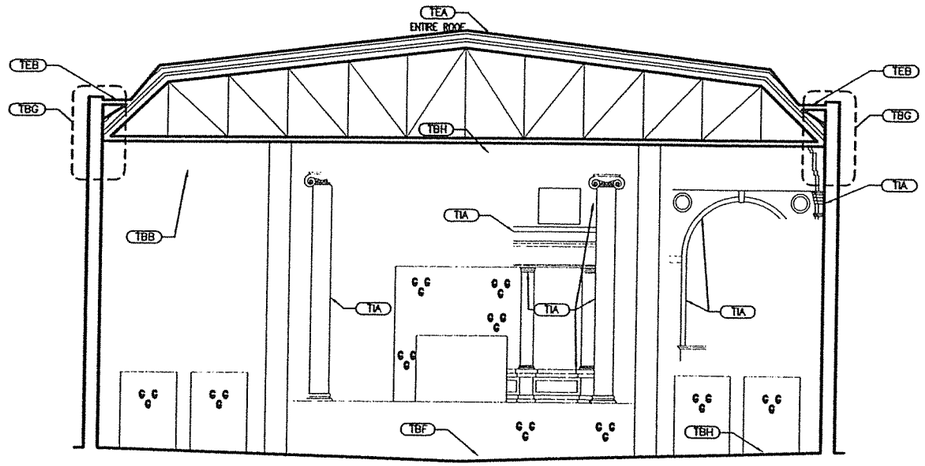
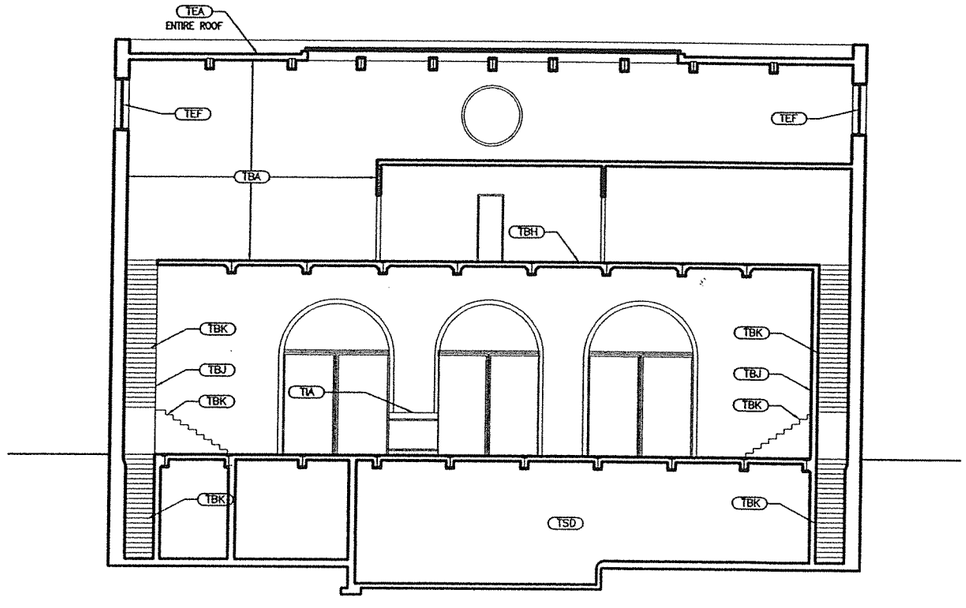


1 SECTION LOOKING SOUTH AT STAGE
SCALE : 1/16" = 1'-0"



2 SECTION LOOKING SOUTH AT LOBBY
SCALE : 1/16" = 1'-0"

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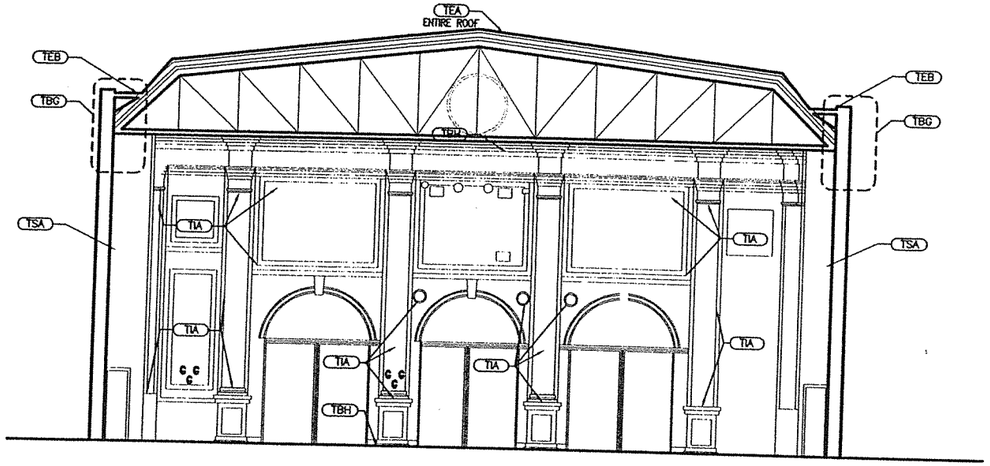
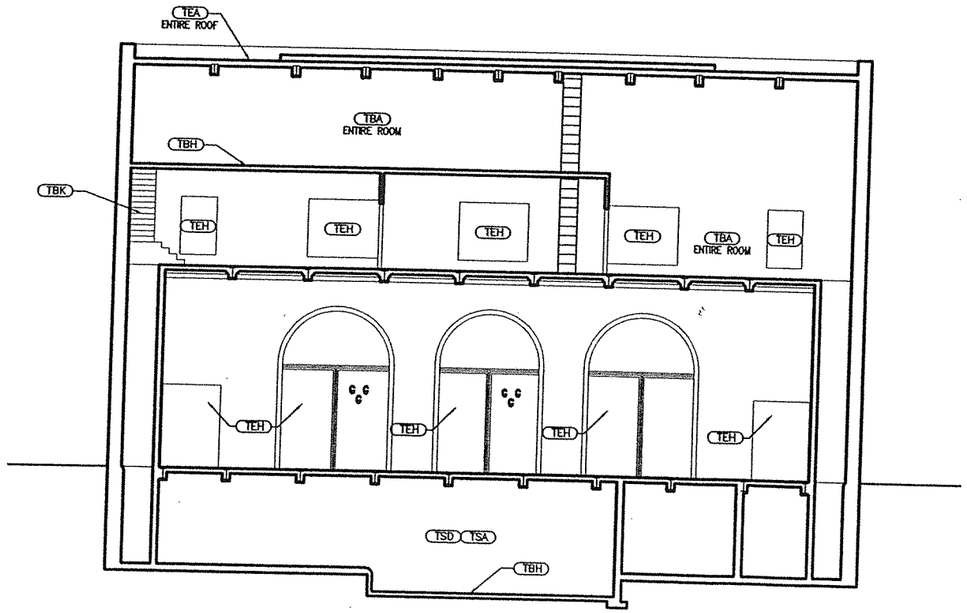


1 SECTION LOOKING NORTH TO BACK OF AUDITORIUM
SCALE : 1/16" = 1'-0"



2 SECTION LOOKING SOUTH IN LOBBY
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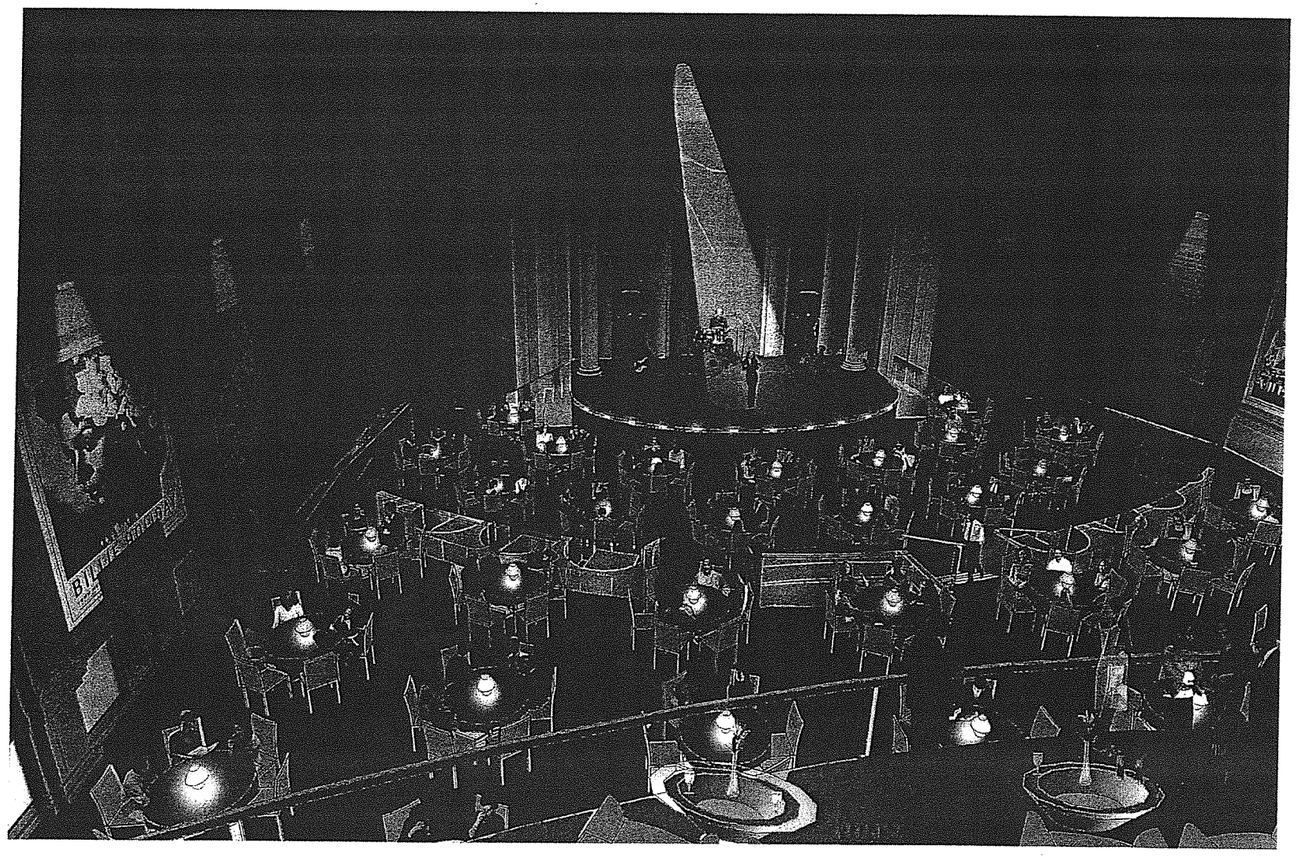
FEASABILITY STUDY



Concept Design

Architectural

The goal of the renovation of the Royal Theater is to restore the existing building's architectural features while incorporating the requirements for a modern performance venue within this historic building. In addition to the renovation of the existing building, two new buildings are proposed, one on either side of the existing building to provide support spaces for this new state of the art performance venue on South Street.

Existing Building

The theater's main entrance will be maintained on South Street under a new marquee. The lobby will be renovated to receive a new centrally located ticket booth which will be an Art-Deco inspired metal and glass enclosure. The other new features in the lobby will be a glass enclosed elevator with a stair wrapping around it connecting all levels of the building on the west side and a stair on the east wall providing a second means of egress from the new mezzanine VIP lounge and meeting space.

The main theater's renovation would include restoring the existing architectural features. The decorative plaster ceiling would be restored along with the plaster pilasters along the east and west walls and the free-standing plaster columns and entablature surrounding the stage. Changes are proposed to the slope of the existing floor to allow for functional improvements of the room that will increase the flexibility of the space and allow the space to be served by the adjoining spaces. The sloped floor which will be leveled to create a two-tiered space connected with stairs and accessible ramps. This two-tiered space will provide for better sightlines to the stage. The space can be outfitted with free-standing tables and chairs or a more traditional auditorium seating arrangement. The free-standing tables and chairs can also be assembled in a multitude of configurations depending upon the type of gathering scheduled in the space and can accommodate approximately 250 persons. The auditorium seating layout can accommodate 510 persons. It is proposed to demolish the existing stage to allow for the construction of a more generous stage that is able to accommodate a performance group of three to five persons with all of their instruments and modern day equipment. A new centrally located sound booth will be positioned in the performance space to administer state of the art audio/visual support.

It is proposed that a new mezzanine level be added in the performance venue for several reasons. It will create a special place with an incredible vantage point of the stage and provide increased seating capacity for both table and chair or auditorium layout. Although it will be a modern intervention, the proposed form harkens back to Art Deco influences. The mezzanine will be supported by a steel structure that will be enclosed with wood and aluminum to give a presence as one enters the performance venue. The two–tier VIP mezzanine lounge will accommodate approximately 25 persons at tables and chairs or 109 persons in an auditorium seating layout. The cantilevered structure stands along the back of the theater, freestanding so that the existing restored walls of the room are seen as separate entities.

It is proposed that the second floor of the existing building be designed for a VIP lounge and dining space to accommodate over twenty persons with new balconies that puncture through the wall of the performance space and allow a second location with an overlook of the stage.

The third floor of the existing building will be re-used as a mechanical space.

New Construction

It is proposed that two new buildings be constructed; one on either side of the existing building that can accommodate support facilities for the Royal Theater. The western property lot is approximately twenty three feet wide and would serve three functions. It would house the dressing rooms and other associated back of house spaces in the basement and the rear half of the first floor. The front half of the first floor can be used as a retail space with a direct connection provided to the performance venue. This commercial space can be used as the location for direct sales of merchandise as well as direct marketing opportunities for the performers appearing at the Royal Theater. The shop can also be used to sell other theater related merchandise, video recordings and compact discs. The two floors above could be used as commercial space, recording studios, meetings rooms, offices or other supports spaces for the theater. An elevator would connect to all levels and there is also an alley connection to Kater Street on the first floor. The typical wall construction in this building would be metal studs covered with gypsum board.

The eastern property would be occupied by a multi-leveled dining establishment. The basement would be used as the banquet kitchen, locker rooms for the wait staff and a mechanical room for the complex. This kitchen would supply food for a new restaurant and catered gatherings in the main theater. To circulate the food efficiently throughout, a dual dumb waiter has been incorporated into the design along with a passenger elevator. The first floor of this property has been designed as a bar/lounge space with a small satellite kitchen for prepping food and managing soiled dishes. The thirty foot long curved bar and the adjacent curved seating areas provide room for pre-concert and post concert gatherings.

The mezzanine and the second floor level can accommodate a main dining area or additional VIP dining/meeting locations. Facing north, this space will have magnificent views of the city's skyline. In the first scheme, an exterior dining experience has been shown. The second scheme incorporates more VIP balconies overlooking the main performance stage.

Structural

Based on our initial observations and investigations, it appears that the existing building consists of unreinforced brick load bearing masonry walls with brick masonry piers supporting steel framing and concrete slabs at the existing ceiling and roof levels. The limited historical documentation suggests that there are existing steel columns encased within the brick masonry piers; however, our limited visual inspection could not confirm this construction. It is recommended that since the existing structure is currently hidden by existing interior finishes and brick masonry that exploratory investigations of the existing structure be undertaken as the next step to determine both the condition and details of the existing framing system. It is possible that the existing structure has experienced considerable structural distress due to water infiltration and lack of maintenance. As a result portions of the existing structure may require significant repairs.

Existing Building

The existing building consists of two distinct areas; a high bay theater portion and a three story lobby portion adjacent to South Street. At the theater portion, the bearing walls and/or steel columns encased in masonry support steel roof trusses spaced approximately 15 feet on center with steel purlins supporting a concrete roof slab. The bottom chords of the steel trusses also support a concrete attic floor slab that serves as the structure for the plaster ceiling of the theater. The floor of the theater is a concrete slab on grade. At the three story lobby portion of the existing structure, the roof consists of steel wide flange beams supported by the masonry walls. The roof steel supports a concrete roof slab. Several existing openings in the concrete roof slab have been infilled with wood framing and wood decking. The existing third, second and first floor framing consists of steel wide flange beams encased in concrete supported by the masonry walls. The concrete encased steel beams support a concrete floor slab.

A complete survey investigation and existing structural capacity analysis of the existing structure, including walls, slabs, floor and roof structure will be required as a next step to determine the extent of repair and reinforcing required. The following suggested repairs are based on our observations and will need to be confirmed by further exploratory investigations in order to define a scope of repair work for a contractor.

For purposes of a construction estimate, we would include the following scope of repairs in a construction estimate:

Roof Framing: We estimated that 25% of the auditorium concrete roof slab will have full depth repairs at localized areas of distress. The slab repair extent will be confirmed by investigation and testing of the slab. It is anticipated that 25% of the existing purlins will be reinforced in place with steel plates or alternatively with the addition of new supplemental steel purlins. Approximately 10% of the members of the existing roof trusses will be reinforced at the localized areas of distress/deterioration. It is anticipated that all of the existing roof truss bearing ends will need to be reinforced/repaired. The concrete attic ceiling slab above the theater will have full depth repairs at localized areas of distress over an estimated 25% of the slab area. The southeast corner of the attic slab shall be totally replaced due to severe distress and deterioration. It is anticipated that 25% of the existing roof steel will be reinforced at localized areas of distress/deterioration. The existing wood framed areas of the roof will be removed and replaced with new steel wide flange beams with metal roof deck.

Floor Framing:

It is proposed that the existing third floor of the lobby portion will become a new mechanical floor and will likely require new framing to support the mechanical loads. The existing framing will be evaluated to reuse as much as practical. If repaired, new framing will consist of steel wide flange beams spaced at 10 feet on center supporting a 6 inch thick concrete slab of 3 inches of normal weight concrete over 20-gage 3-inch composite metal deck. The beams will bear on the existing masonry walls.

At the second floor, an estimated 25% area of the lobby concrete floor slabs will be repaired with full depth replacment at localized areas of deterioration and distress. The existing floor beams will be reinforced/repaired at localized areas of distress/deterioration including patching of approximately 30% of the spalled concrete beam encasement. New infill steel beams and a concrete floor slab cantilevering out beyond the existing interior masonry bearing wall will be added within the existing 2nd floor framing to support the proposed new balconies in the main auditorium.

The proposed new mezzanine in the existing building will likely consist of a 6-inch thick concrete slab of 3 inches of normal weight concrete over 20-gage 3-inch composite metal deck. Steel beams spaced at approximately 10 feet on center shall support this slab. The steel beams will have shear studs to develop composite action with the concrete slab. The floor framing will be supported on steel wide flange girders and columns. The mezzanine structure will be independent of the existing building structure separated with expansion joints. The columns and beams will be rigidly connected with moment connections to provide stability.

The existing first floor concrete slab in the auditorium has experienced significant settlement in the front section near the stage. It is anticipated that because of the existing settlement and proposed revision to the floor elevations the existing slab will be replaced with a new slab on grade. The new slabs on grade which will be at 2 levels to accommodate the new site lines will be constructed as conventional "slabs on grade" which derive adequate support from the subgrade below. Modifications to the existing subgrade at the replaced slab areas will be required through partial fill and compaction. A geotechnical investigation including cores of the existing slab, test pits and test borings will be required to determine the cause of the settlement as well as the required subgrade repairs. The "slabs on grade" shall be concrete reinforced with fiber reinforcing and welded wire fabric and will have a minimum thickness of 5 inches over 6 inches of drainage fill and a vapor retarder. Control joints will be provided as required reducing the potential for shrinkage cracks.

Foundations

The existing drawings indicate the east and west masonry walls of the existing building are supported on a masonry foundation wall and concrete spread footing. The depth and size of the existing footings will be confirmed through test pits during the geotechnical investigations. To accommodate the proposed basments under the new additions, the entire width of the foundation walls will need to be underpinned with concrete to a depth estimated at approximately nine feet below existing finish grade.

Bearing Walls

Based on our observations, the top ten feet of the east and west masonry walls will need to be completely rebuilt. The exterior mortar joints with the exception of the front wall require 100% repointing. The interior mortar joints will also require 100% repointing. All localized areas of interior deterioration and distress to the masonry walls (approximately 20%) will be repaired by removal and replacement of the brick masonry. Also, installation of wall ties is required to anchor the wythes of the walls together. The ties would be

spaced at 24" on center vertically and 36" on center horizontally. New steel lintels will be installed at the proposed new openings in the existing masonry walls.

Lateral Load System

The existing masonry walls provide the lateral resistance for the building. Further analysis is required to determine the extent of upgrades to the lateral resisting system to meet current seismic codes. However, since the walls are constructed of unreinforced brick masonry which provides limited seismic resistance, it is anticipated the existing walls will require installation of a 6 to 8 inches thick reinforced gunite wall on the interior of the existing wall.

New Additions

The reuse plan for the existing theater proposes two additions one on each side of the existing building. We anticipate that these additions will be independent structures constructed of steel framing and separated from the existing structure with expansion joints. The proposed steel framing construction will consist of steel wide flange columns supporting steel wide flange beams and concrete slab on metal deck. The roof framing will likely consist of steel wide flange beams with a metal deck.

Roof Framing

The structure for the low slope roof system of the two additions is proposed to be constructed of a 3-inch metal roof deck supported by steel beams spaced at 10 feet on center. The roof framing shall be supported on steel wide flange girders and columns. The roof beams will slope to provide drainage. Additional framing will be provided to support the new roof top HVAC units.

Floor Framing

The structure for the supported floors is anticipated to consist of a 6-inch thick concrete slab of 3 inches of normal weight concrete over 20-gage 3-inch composite metal deck. Steel beams spaced at approximately 10 feet on center shall support this slab. The steel beams will have shear studs to develop composite action with the concrete slab. The floor framing will be supported on steel wide flange girders and columns.

Both of the new additions will have full basement constructed as a slab on grade. The conventional "slabs on grade" derive adequate support from the subgrade below. Modifications to the existing subgrade will be required through partial fill and compaction. The "slabs on grade" shall be concrete reinforced with fiber reinforcing and a minimum thickness of 5 inches over 6 inches of drainage fill and a vapor retarder. Control joints will be provided as required reducing the potential for shrinkage cracks.

Foundations

A geotechnical investigation consisting of approximately 8 to 10 borings and several test pits at the proposed additions will be required to obtain information for the foundation design. It is anticipated that the additions will be founded on a shallow system of continuous wall footings and spread footings. The foundations shall be reinforced concrete spread footings with a minimum thickness of 12 inches. Wall footings will be a minimum of 24 inches wide. It is anticipated that the foundation walls for the below grade areas will consist of reinforced concrete. The foundation walls will be designed as basement walls braced by the first floor concrete slab. It is likely that perimeter foundation drains and subsurface slab drainage will be required at the exterior walls of the below grade areas.

Lateral Load System

The lateral loads (wind and seismic) are anticipated to be resisted by Type FR (fully restrained) ordinary steel moment frames and or concentric steel braced frames. The location of the braced and moments frames will be coordinated with the interior planning of the additions. The concrete slabs and metal roof deck will serve as a diaphragm to distribute the lateral forces to the moment and braced frames.

Mechanical

Building System

The Royal Theater will be heated by two modular, gas-fired, hot water boilers located in a basement boiler room. An Air-cooled Chiller will provide chilled water for air conditioning. A chilled water heat exchange will be mounted in the third floor mechanical room and the compressor-condensing unit will be mounted on the roof. Hot water and chilled water will be disturbed to Air Handling units located throughout the building. The Stage Control and Equipment room will be cooled by a direct expansion ductless split system. Hot water and chilled water meters will be provided, if required so heating and cooling consumption of each tenant are recorded. Ductwork will be used to distribute conditioned air from the air handling units throughout the building. All equipment will be controlled automatically through a centrally located, state-of-the-art building automation, which will coordinate all equipment to run as efficiently and effectively as possible.

Humidity Control

The humidity in the Theater will be controlled to a minimum of 35% and a maximum of 60%, all year round. During the summer, the air conditioning process will remove moisture from the air in the restaurant, dressing rooms and offices, but the humidity will not be controlled

Noise

Noise will be maintained at or below an NC level of 20 in the theater and NC 30 in all other areas. Sound levels will be measured using ARI Standards 260 and 885. Rooftop air-handling units will be mounted on vibration isolators on the roofs of the two new buildings and be provided with sound barriers as required to meet the specified NC levels.

Supply Air Quality

Supply air will be filtered through ASHRAE 30% efficiency disposable pleated media. Outdoor air intakes will be located not less than 10 ft. from exhaust air outlets, and at a maximum distance from other sources of contaminants, such as plumbing vents and vehicular exhaust.

Ductwork

All ductwork will be constructed and installed in accordance with SMACNA standards. All supply and outside air ductwork will be insulated. The Theater supply and return air ductwork will be acoustically lined.

Hot Water Heating System

Two 24 Horse Power Modular, gas-fired, hot water boilers will be installed to provide hot water to air handling units, variable air volume terminal reheat coils, cabinet propeller unit heaters, and finned tube radiation. Each boiler is sized at provide 60% of the total required capacity. The heated hot water will be circulated through the boiler modules using one primary pump per module. Hot water will be circulated throughout the building using one variable speed secondary pump and one standby pump. The piping system will use two-way control valves. Combustion air for the boilers will be provided with a variable speed

combustion air fan. Each boiler breaching will tie-in to one stack and connects to a boiler flue exhaust fan. The boiler flue and combustion air will be routed up a new chase to the roof.

Chilled Water System

One 155 ton air cooled chiller variable speed chiller will be installed to provide chilled water to air handling units. The chiller is sized at 100% of the total required capacity. One variable speed primary pump and one standby pump will pump chilled water through the chiller. The pumps will be located in the third floor mechanical room. Chilled water will be distributed to the air handling units through black iron pipe. The piping system will use two-way control valves.

Air-Handling Equipment

Theater

The theater will be heated, cooled, and ventilated by a 12,000 CFM variable air volume, air-handling unit located in the penthouse. The supply air ductwork will be installed in the existing attic space and supply diffusers mounted above the ceiling will be connected to the existing openings in the ceiling of the theater. Return air registers will be placed low in the Theater and ducted up to the air handling unit located in the 3rd floor mechanical room. Theater control room will be cooled by a two ton direct expansion ductless split system.

Restaurant, Kitchen and First Floor Areas

The restaurant, kitchen and other first floor areas will be heated and cooled, by a 14,000 CFM variable air volume air-handling unit located in the third floor mechanical room. Each dining area and the kitchen will be provided with individual temperature control through fan-powered variable air volume boxes with hot water reheat coils. The kitchen will be provided with a Class I exhaust system for the ovens and range and a Class II system for the dishwasher. The exhaust system will be ducted to roof mounted exhaust fans.

Manager, Guard and Dressing Rooms

The manager offices, guard area and dressing rooms will be heated, cooled, and ventilated by three 700 CFM blower coil units. Each area will be provided with individual temperature controls.

Retail Space

The retail area will be heated, cooled, and ventilated by one 700 CFM blower coil units. This area will be provided with individual temperature controls.

Not Designed Office Space

These areas will be heated, cooled, and ventilated by four 700 CFM blower coil units. Each floor will be provided with individual temperature controls.

Toilet Exhaust Systems

Three toilet exhaust system will be provide, one for the Restaurant toilet rooms , one for the Manager Guard area toilet rooms and one for the Theater toilet rooms. The exhaust systems will be roof mounted.

Miscellaneous Areas

The mechanical room and elevator machine room will be heated and exhausted as required to meet current building codes.

Controls

An open protocol direct digital control (DDC) building automation system (BAS) will be installed. The BAS will monitor temperatures and equipment operation to optimize energy utilization. The BAS will turn on the necessary equipment for morning start up, cycle the equipment as necessary to maintain space temperatures and turn equipment off at night. The system will also maintain unoccupied space temperatures and allow for data logging of building system operation and temperature.

Electrical

Based on the estimated design loads required for a new performance venue, a new 1000KVA, 480/277 Volt 3 Phase 4 wire service terminating in new service entrance equipment located in the basement of new addition. The facility would have one overall utility meter and the ability to have owner provided sub-metering to determine individual tenant usage, if desired. PECO will require a sixteen foot by sixteen foot vault in the basement for this new electrical service with access from the outside (street) and internal access to allow for installation and maintenance of the transformer.

Power Distribution System

Theater mechanical equipment will be serviced by one 480 volt 3 phase transformer fed from an HVAC power panel located in the basement electrical room. There will also be a 120/208 volt 3 phase House Power Panel fed from a dry type transformer located in the basement. There will be a 480/277 volt panel and a local dry type transformer for 120/208 Volt equipment located in basement of each of the buildings (three tenant spaces). All mechanical equipment to service the tenant spaces will be connected to panels serving those areas. In addition to the above, there will need to be power distribution panels and transformers as described in the theatrical section of this report.

Lighting System

General Lighting

The public theater spaces would utilize incandescent lighting to provide for level control, dimming, and color rendition. These fixtures would be controlled as described in the theatrical section of this report. The office spaces would utilize fluorescent fixtures with energy saving lamps and electronic ballasts. These fixtures would be recessed and use a prismatic acrylic lens and be switched locally. Utility and Storage Spaces would utilize fluorescent fixtures with energy saving lamps and electronic ballasts. These fixtures would be open type industrial units with lamp sleeves and be switched locally. Kitchen Spaces would utilize fluorescent fixtures with energy saving lamps and electronic ballasts. These fixtures would be enclosed and gasketed recessed units and be switched locally. Stage Lighting and dimming would be designed as described in the theatrical section of this report

Emergency Lighting/Power

The most cost effective method of providing emergency lighting would be to furnish in the non-public spaces, emergency battery packs and self contained battery powered exit signs. This type of system would provide instantaneous illumination in cases where the power is lost during an event. The public spaces and the theater itself would utilize battery powered heads with battery packs mounted in non-public areas. This method would provide no power back-up for heating systems or kitchen refrigeration. If back up power is required for systems other than emergency lighting a roof mounted natural gas fired generator is an alternative that needs to be further investigated. The reason for further investigation is that there is insufficient gas pressure at the building to run the generator without a booster pump.

Fire Alarm System

A fully addressable, electrically supervised fire alarm system that includes a battery back up is recommended. Hard-wired smoke detectors, heat detectors and manual pull stations will be provided. The system should include duct mounted smoke detectors and flow and tamper alarms for the sprinkler system and connection to the kitchen hood suppression systems.

Sound Reinforcement System

The sound reinforcement system will be provided as described in the theatrical section of this report.

Data/Telecommunication Systems

The design for the data/telecommunication system would include all equipment, materials, cabling and devices in connection with the installation of a complete data/telecommunications network. The system type, topography and performance will be designed to specifically address the needs and requirements of the users of the building. At the minimum the design criteria applied in the application of data/telecommunications systems for this building would include both structured cabling and wireless technologies. The network integration for these technologies will be provided based on local area network (LAN) 10/100 Ethernet configuration, employing a star topography utilizing a balanced Category-6 structured cabling system. The data/tele-communications design will be based on one communications outlet per desk/cash register location. Each data drop selected for an individual data outlet will reflect the needs of the given space in accordance with the user requirements. The telecommunications system will be standard POTS lines dedicated to each respective tenant space connected individually to the PSTN in order to provide direct billing access for each tenant space. The project documentation for these systems shall specify all required cabling, conduits/raceways cable trays, equipment, distribution racks and all appurtenances necessary for a complete fully tested and certified data telecommunications infrastructure in accordance with all requirements of the owner's intended use. Budgetary costs based on the above description shall be estimated at $1.80 per square foot.

Security System

All security alarm and surveillance systems shall be design and provided in accordance with owner's requirements based on the use and occupancy of the facility. At the minimum the systems to be considered would include intrusion detection, access door control, and video surveillance.

A closed-circuit television surveillance system (CCTV) will be provided and shall consist of all necessary components to provide the proper video operation, viewing, and digital recording, of all cameras throughout the interior and exterior of the facility. The system will employ various color camera technologies appropriate for the area and type of surveillance required at each location. All exterior cameras will provide overall surveillance of parking lots, and perimeter entrances.
Interior cameras will provide overall surveillance through the application of pre-programmed camera views, and/or automatic camera tours of all entrances, restricted access spaces, cash registers, as well as strategically located intersections and paths of egress. Monitoring and recording equipment will be located is a secured location away from public scrutiny. The installation and deployment of all cameras will be strategically located in order to maximize camera coverage as described, while minimizing the number of cameras necessary. Budgetary costs based on the above description shall be estimated at approximately $1.00 per square foot.

Access Control System

An access control system will be provided that will allow the capability for all authorized individuals to gain access to the building and restricted areas within the facility through the use of personalized photo identification badges, utilizing proximity access card technology located at selected entrances and interior doors. All identification badges will be capable of being issued through the use of photo identification software, integrated with the access control central processor. In addition to containing a personal photo identification of the individual, the badge will also contain encrypted information utilizing smart chip technology granting access to all areas authorized by the badge holder. All photo identification badges

will communicate with HID-type readers, and utilize either proximity and/or biometric technologies appropriate to the location. Selected perimeter doors, interior doors and high assets spaces will be provided with proximity card readers, electric locking mechanisms, and request to exit devices, in order to provide proper control and access by authorized personnel. Budgetary costs based on the above description shall be estimated at approximately $1.25 per square foot.

Intrusion Alarms

An intrusion detection system will be provided at all exterior perimeter doors as well as selected interior doors. The intrusion detection system will be fully integrated with both the Access Control and CCTV Surveillance systems. All exterior doors, as well all designated high risk areas such as offices, ticket sales, selected interior doors, as well as all utility and roof access hatches will be wired and protected against forced entry or intrusion. The intrusion detection system will permit the users to selectively isolate areas or portions of the building during off-peak hours and alert system operators of any intrusion or violation to these areas. This function and/or capability is known as "Partition Arming". As an added level of protection, dual technology detectors will also be provided at strategically located intersections and paths of egress throughout the building in order provide a level of trap protection against intrusion or unauthorized entry. Duress or Hold-up alarms will be provided at strategically located areas such as cashier, ticket sales and offices. Budgetary costs based on the above description shall be estimated at approximately $0.50 per square foot.

Plumbing

There will need to be a new water service installed in the building with new piping throughout the existing building and the two new additions. This new ¾" water service will enter the building in the basement mechanical room. There will need to be new cast iron stormwater downspouts installed from the roof of the existing building to new underground stormwater piping that will connect to existing stormwater lines in Kater and/ or South Streets. All new vent piping will need to be installed in the building.

Theatrical Systems Electrical Power Requirements and HVAC Load Estimates

There will be all new theatrical and sound systems required to support this new performance venue. The following describes what is required for each of these systems.

Electrical Power Loads (Lighting and Machinery)

Introduction

Electrical loads are estimated maximum demand excluding starting loads. Loads are given in HP for motors and in kW for other equipment. Amperage is indicated where industry standards exist. Performance related equipment will be idle much of the time, but during periods of high activity most of it will be in use simultaneously. Diversities between various systems are noted where applicable.

Theatrical and House architectural Lighting Dimmed Lighting Transformer (TLD)

There will be a transformer dedicated to theatrical lighting and the house architectural lighting dimmers for the Theatre. The transformer should be a Delta - Wye transformer, with a K13 rating to accommodate the high harmonics created by electronic dimming equipment. The transformer should be a 480V primary with secondary at 120V with four 2% taps on the primary (1 above and 3 below) in order to allow for providing up to 133-volts to the dimmer racks to compensate for voltage losses in dimmer chokes and long branch-circuit loads. This transformer should not feed any lighting panels other than the main dimmed lighting panelboard TLD-1. The final size of the transformer will be determined during the design phase.
Note: Per NEC requirements, neutral feeds to solid state dimmers must be sized as current carrying conductors. In certain situations in 3-phase systems odd (triplen) harmonics result in neutral feeder currents that can exceed line current by 1.73 times. Neutrals are typically oversized (200%) or doubled to accommodate this condition.

Dimmed Power Panels (TLD)

PANELBOARD TLD - 1

Location: Dimmer room
Purpose: Theatrical and house architectural lighting dimmers
Notes: Feed from Transformer TLD. Appropriate fault current protection to be determined during the design phase.

Theatrical and House Lighting Dimmers

Location: Dimmer Room
Supply Size: 290 kW
Configuration: 120/208-volt 3-phase 4-wire & equipment ground conductor,
(1) 1200-amp feed with circuit protection for dimming racks 1-2 internally bussed; 600-amp feed with circuit protection for house light dimming rack 3.
Notes: Total dimmer capacity is substantially larger than required supply. Diversity is taken at each dimmer rack, as well as main switchboard. House light dimming is included within the production dimming. House light loading can not be determined until the design phase.
Three-phase sensing circuit breaker for house lighting dimmer rack will be included in dimmer rack auxiliary bay.
Provide emergency power via Emergency Lighting Transfer Switches for the Theatre to selected House lighting dimmers as required. Emergency Lighting transfer switch shall comply with NFPA110, UL 1008 and is included in the production lighting system.

Production Lighting General Purpose Panels

The following panels are distributed throughout the theatre's technical support spaces to provide general service power for 120V and 208 theatrical lighting equipment and controls. These panels are fed from the main building switchboard. Panel sizes reflect theatrical lighting equipment only.

Panelboard TLR-1

Location: Dimmer room
Purpose: Panel for low voltage relay controlled house lighting fixtures and nondimed theatrical lighting receptacles.
Configuration: 120/208-volt 3-phase 4-wire & equipment ground, (1) 100-amp, 24-space panel feeding Low Voltage Relays Intelligent Lighting Controls *LightMaster 8* (with DMX Add-On Board), Electronic Theatre Controls *Smartswitch* or Strand Lighting relay panels supplied under Section 11064 and centrally controlled through the theatrical lighting system).
Notes: Final circuit quantities and panel ratings to be developed during design phases.
Relay control includes house lighting metal halide work lights and fluorescent accents, and backstage fluorescent work light.
Architectural lighting fixtures and circuitry designed during the design phase.

Panelboard PLG-1

Location: Offstage electrical closet
Configuration: 120-volt and 208-volt 3-phase, 4-wire & ground, 70-amp, 12 branch spaces
Purpose: Provides feeds to stage lighting receptacles.

Panelboard PLG-2

Location: FOH electrical closet
Configuration: 120/208-volt single-phase, 3-wire & equipment ground, 70-amp panel, 12 branch spaces (4 single pole circuits).
Purpose: Provides general feeds to 120-volt lighting systems. Control power receptacles only. It is advantageous to feed this panel from a power source being utilized for computer and related data purposes in the building.

Company Switches

Company switches are fused/circuit breaker protected disconnects to allow the temporary installation of production equipment in the Theatre. A certain amount of diversity *between* the installed system and company switches is assumed. This equipment is specified as part of the Division 16 work. Company Switches should be fed from the building main switchboard. If it is practical these switches can be fed from local panelboards.

Theatrical Lighting Company Switches

Company Switch Receptacle TLG-CS-1

Location: Stage
Purpose: Portable lighting equipment
Configuration: 120/208-volt 3-phase 4-wire & equipment ground 100-amp electrically interlocked pin and sleeve receptacle (provided with mating connector).
Hubbell EI5100R9W Receptacle and 5100P9WM4 Plug
Diversity: Not more than 30% simultaneous use with installed dimming system

Company Switch Receptacle TLG-CS-2

Location: Balcony
Purpose: Portable lighting equipment
Configuration: 120/208-volt 3-phase 4-wire & equipment ground 60-amp electrically interlocked pin and sleeve receptacle (provided with mating connector).
Hubbell EI560R9W Receptacle and 5100P9WM4 Plug
Diversity: Not more than 30% simultaneous use with installed dimming system

HVAC Loads (Lighting)

Introduction

Heat loads are estimates based on the expected use of the various performance-related systems. Personnel loads are not included. All information is based on design information currently available, and is provided to allow design parameters for the air handling system to be calculated. Heat loads will vary based on the exact equipment chosen. Occupant loads for theatres are as defined in the drawings. Theatrical lighting is the principle source of heat loads for the stage and seating area. Two estimates for productions are given. The "Peak" figures are based on requirements for bright lighting states and major lighting effects lasting no more than 15 minutes. The "Average" figures are based on an average load over an entire production lasting approximately 2-3 hours.

Theatre

Equipment Peak Loads	58 kW
Stage:	38 kW
Auditorium:	20 kW
Equipment Average Loads	29 kW
Stage:	19 kW
Auditorium:	10 kW

Dimmer Room

Equipment HVAC Load	9 kW
Occupant Load:	0 persons
Notes:	Maximum ambient temperature of 24 degrees Celsius. Maximum 60% relative humidity.

SOUND SYSTEMS

Introduction

This section of the report lists the expected electrical power and HVAC loads of the Sound, Video and Communication (SVC) Systems. SVC Systems equipment will be idle much of the time, but during periods of high activity most of it will be used simultaneously. Electrical power loads are given in kW. Loads given are anticipated maximum demands, including anticipated diversities within each system. Additional diversities between the various systems are noted where applicable. Any code required de-ratings or start-up loads are not included in the loads given. Amperage is indicated where industry standards exist. Otherwise, conversion to amps and determination of wiring and protection during the design phase. The following details electrical power requirements and information regarding the Sound, Video and Communication (SVC) Systems. All SVC systems circuits must be fed from an isolated technical ground (I. G.) dedicated to the SVC systems.

SVC Systems Isolation Transformer

Dedicated isolated technical ground power must be provided for all SVC Systems. An isolation transformer must be dedicated to the SVC System power distribution system including company switch disconnects. The electrical engineer will work with the sound engineer to determine the final size of the transformer. The transformer should be a Delta - Wye transformer, with a K13 rating. The transformer shall be a 480-volt primary with secondary 120/208 with four 2% taps (1 above and 3 below) in order to compensate for voltage losses and long branch circuit loads. This transformer should not feed any other panels or systems.

SVC System Electrical Power Loads

Distribution Panel SC-1

Location: Main Electrical Room
Purpose: Power to all SVC Systems technical power panels & SVC Systems "Company Switches & Receptacles."
Supply Size: 47.5 kW (100% of supply to technical power panels, plus 25% of supply for the SVC Systems "Company Switches & Receptacles").
Configuration: Distribution panel @ 120/208 volt 3-phase 4-wire & equipment ground & "SVC system" isolated technical ground fed from dedicated isolation transformer.
Distribution: SVC Systems technical power panels SC-1A and SVC Systems "Company Switches & Receptacles" disconnect CO-SVC-1 sized as noted under "Company Switches & Receptacles" below.
Notes:
Must feed only SVC Systems technical power panels and "company switches." No exceptions.
Must have insulated bus for "SVC Systems" isolated technical ground.
Distribution panel will distribute the "SVC Systems" isolated technical ground to technical power panels SC-1A, and company switches CO-SVC-1 & CO-SVC-2.
Include one (1) spare circuit breaker (size to be determined), and 25% additional "space" in distribution panel for future breakers.

Technical Power Panel SC-1A

Location: Amplifier Room
Purpose: Sound, Video & Communication System equipment racks
Supply Size: 42.3 kW (80% of maximum connectable load)
Configuration: 125-Amp Technical power panel @ 120/208 volt 3-phase, 4-wire & equipment ground & "SVC Systems" isolated technical ground.
Distribution:
Phase "A": 4 - 20 amp IG circuits to SVC equipment located in the equipment rack in the sound booth (approximate). 4- 20 amp IG circuits to powered loudspeaker circuits located above the stage, stage left.
Phase "B": 2 - 20 amp IG circuits to wall receptacles in the control position. 4- 20 amp IG circuits to wall receptacles in the stage area.
Phase "B" + "C": 1- 208V/30A IG circuit to video projector location.
Phase "C": 4- 20 amp IG circuits to powered loudspeaker circuits located above the stage, center. 4- 20 amp IG circuits to powered loudspeaker circuits located above the stage, stage right.
Notes: Technical power panel SC-1A is not loaded to full capacity. The remainder of circuits which can be distributed from this technical power panel are intended for future equipment.
An insulated bus is required for "SVC Systems" isolated technical ground, bonded to the "SVC Systems" isolated technical ground busbar in Distribution Panel SC-1.
Must feed only SVC Systems equipment. No exceptions.
All SVC Systems circuits & receptacles will have "SVC system" isolated technical grounds. -All SVC Systems circuits & receptacles must be isolated technical from building safety ground.
Include 10% spare 20 amp branch circuit breakers (minimum of 1), and 25% additional space in technical power panel for future breakers.

Company Switches and Receptacles

Company Switch CO-SVC-1

Location: Stage, located with other theatre systems company switches
Purpose: Portable SVC equipment
Configuration: 1 - safety switch @ 100 amp, 120/208-volt 3-phase 4-wire & equipment ground.
Notes: Power must be fed from Distribution Panel SC-1.
Include an insulated ground bus for "SVC Systems" isolated technical ground. "SVC Systems" ground must be fed from Distribution Panel SC-1, in addition to a standard safety ground bus, clearly labeled.
SVC Systems Company switches are 120/208 volts, with 3-phase, 4-wire feeds & equipment grounds, configured in a fashion consistent with that as laid out by the theatre consultant for lighting system company switches. The company switches will also require an insulated busbar for the "SVC Systems" isolated technical ground connection.

Simultaneous use of company switches and permanent equipment must be anticipated.
Provide LEX Products PowerGate Company Switch, DBM Series or equal.

HVAC LOADS (SVC)

Heat loads vary tremendously in equipment and control areas, depending on usage. Electronic control equipment is very sensitive to temperatures and humidities above specified working ranges. The equipment and rooms housing SVC equipment must be maintained at an ambient temperature of approximately 75-degrees F, at a maximum 60% relative humidity, even during periods when the majority of the building is not in use.
Two estimates for equipment heat loads are given. "Average" figures are based on the average current drawn over an entire performance lasting two to three hours. "Peak" figures are based on the current drawn for brightly illuminated scenes or very loud amplification levels, which last no more than 30 minutes. Projected heat loads from the SVC Systems equipment are based on electrical and heat loading data for power amplifiers, by far the largest heat producers of any of the performance equipment.
Projected "Average" and "Peak" occupancy numbers are also given, based on the minimum and maximum number of personnel expected to use these spaces during theatrical presentations.

The equipment and racks associated with the SVC system are all contained in the same zone and should be considered part of the overall load in the audience chamber.

Auditorium (at high level from amplifiers)

Equipment Load		
Average	4,000 BTU	1.2 kW
Peak	8,000 BTU	2.4 kW

Sound control position (located within the room floor level)

Equipment Load	Average	2,000 BTU	0.6 kW
Occupant Load	Average	1 people	
Peak	2 people		

SVC Systems Isolated Ground Technical Power

Dedicated isolated technical ground power must be provided for all SVC Systems.
The integrity of the isolated technical ground starts at the connection to the earth itself. The ground connection must be at a point that provides a very low-impedance, noise-free path to the earth. It is often possible to use incoming water mains or building steel as the ground connection, but sometimes ground rods must be driven into the earth. Since the Isolated Ground will be used as the safety ground for all sound-system related equipment, it must meet all electrical codes for such use.
Once the clean ground source-point has been established, it must be tied to a ground distribution system that is bonded to the building safety ground at one point. The ground source-point is connected by insulated wire to each local circuit breaker panel that serves audio equipment. The ground connections must be insulated from all other grounds. The feeds to the technical power breaker panels should be in a "star" configuration and should not loop from one panel to the next panel.
At each breaker panel the technical isolated ground is brought to a barrier buss, which is insulated from the panel itself. The green safety ground wires from each duplex outlet are brought to this buss. The white neutral lines from the duplexes are brought to the standard neutral buss in the panel. All duplex receptacles must isolated-ground type, where the technical isolated ground screw-terminal is insulated from the conduit safety ground mounting strap. Care is required to prevent accidental ties between technical ground and other grounds. The safety ground on SVC System equipment is tied to chassis and the chassis is bolted to the equipment rack. This requires that the equipment racks not be connected to any ground other than the isolated technical ground. This includes all incoming metal conduits to the equipment racks. Other device and connector panel backboxes are bonded to the conduit safety ground. The electrical contractor provides and installs all of the empty SVC conduit, power feeders, clean power units, breaker panels, duplex outlets, isolated technical ground system, etc. required for the SVC Systems. The SVC contractor is responsible, as far as power and ground are concerned, for providing all of the power receptacles and grounding busbars within the equipment racks (power and grounds within the racks are usually shop-fabricated before the racks are delivered to the job site). The electrical contractor must then provide the power conduit and wiring, and terminate all AC power feeds to these equipment racks. The Technical Power & Grounding system described in this section is illustrated in the diagram appended to the end of this report.

SVC Systems Conduit Material and Separation

The following tables shall be used to determine acceptable material type for conduit. It also defines required separation between conduits serving Sound, Video and Communication Systems circuits and those serving circuits of different signal types or electrical levels. The wire groupings listed may be used to determine the allowable combining of various signal types in a given conduit.

SVC SYSTEMS Wiring/Conduit Groups

Unless specifically noted otherwise, the following wiring/conduit groups shall be served by ferrous metal conduit regardless of the installation condition or location, and regardless of other sections, paragraphs, or drawings in the Contract Documents allowing use of non-ferrous conduit.

SVC Wiring Group	Description of Wiring
Group A	Microphone-level audio circuits below -30 dBu, 20 to 20KHz.
Group B	Line level audio, -30 dBu to +24 dBu, 20 to 20KHz.
Group C	Baseband and composite video, 1 volt peak-to-peak into 75 ohms 0 to 10 MHz; color subcarrier, 0 to 4 volts peak-to-peak into 75 ohms, 3.57 to 4.43 MHz; video synchronization and switching pulses, 4 volts peak-to-peak into 75 ohms; communications (intercom) level, up to 48 volts, 20 to 20KHz.
Group D	Loudspeaker-level audio circuits, greater than +24 dBu, 20 to 20KHz, including low-impedance type (up to 25 volts) and high-impedance type (up to 70.7 volts).
Group E	Spare empty conduit system for future SVC Systems circuits.

Separation of Conduits

Conduits serving circuits for Sound, Video and Communication Systems wiring groups shall be separated from each other according to the following table:

SVC Wiring Group	Group A	Group B	Group C	Group D	Group E
Group A	Adjacent	6"	12"	12"	6"
Group B	6"	Adjacent	12"	12"	Adjacent
Group C	12"	12"	Adjacent	6"	12"
Group D	12"	12"	6"	Adjacent	12"
Group E	6"	Adjacent	12"	12"	Adjacent

Conduits serving Sound, Video and Communication Systems wiring groups shall be separated from conduits serving other uses according to the following table:

Wiring Group in Conduit	Group A	Group B	Group C	Group D	Group E
Electronic Dimmer-Controlled Lighting or Other Electronically Switched Power Services	36"	12"	12"	6"	12"
Convenience Outlet Power	12"	6"	6"	Adjacent	6"

Service					
All Other Power Services	18"	6"	6"	Adjacent	6"

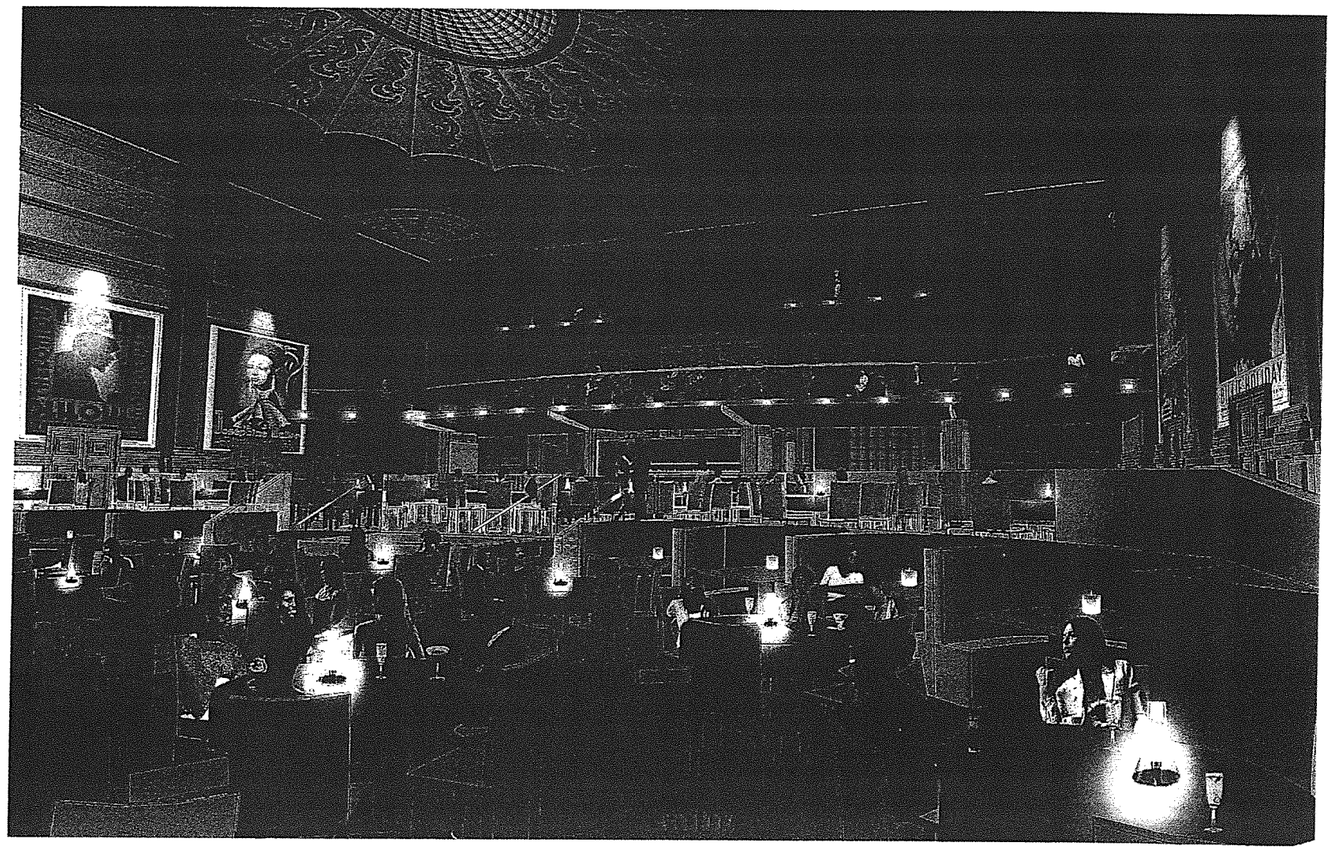
Additional SVC Systems Conditions

1. Conduits may cross at 90 degrees +/- 30 degrees without regard to type of service or conduit material.
2. When unavoidable, these restrictions may be waived when parallel run is less than 10-feet.
3. Unusually heavy current demands (such as required for service, load-center, or transformer feeders) may require greater conduit separation.

ACOUSTICAL SYSTEMS

There will need to be acoustical treatment designed to separate the performance venue from the adjacent spaces, both the restaurant and the back of house support spaces. There will also need to be acoustical treatments to the walls, floor and ceiling of the theater in order to enhance the Audience experience. The third acoustical treatments will be required in the restaurant and meeting rooms in order to isolate sound within as well as allow for private conversations to occur. The concepts for these acoustical treatments will be determined in the next phase of the design.

CONCEPT DESIGNS



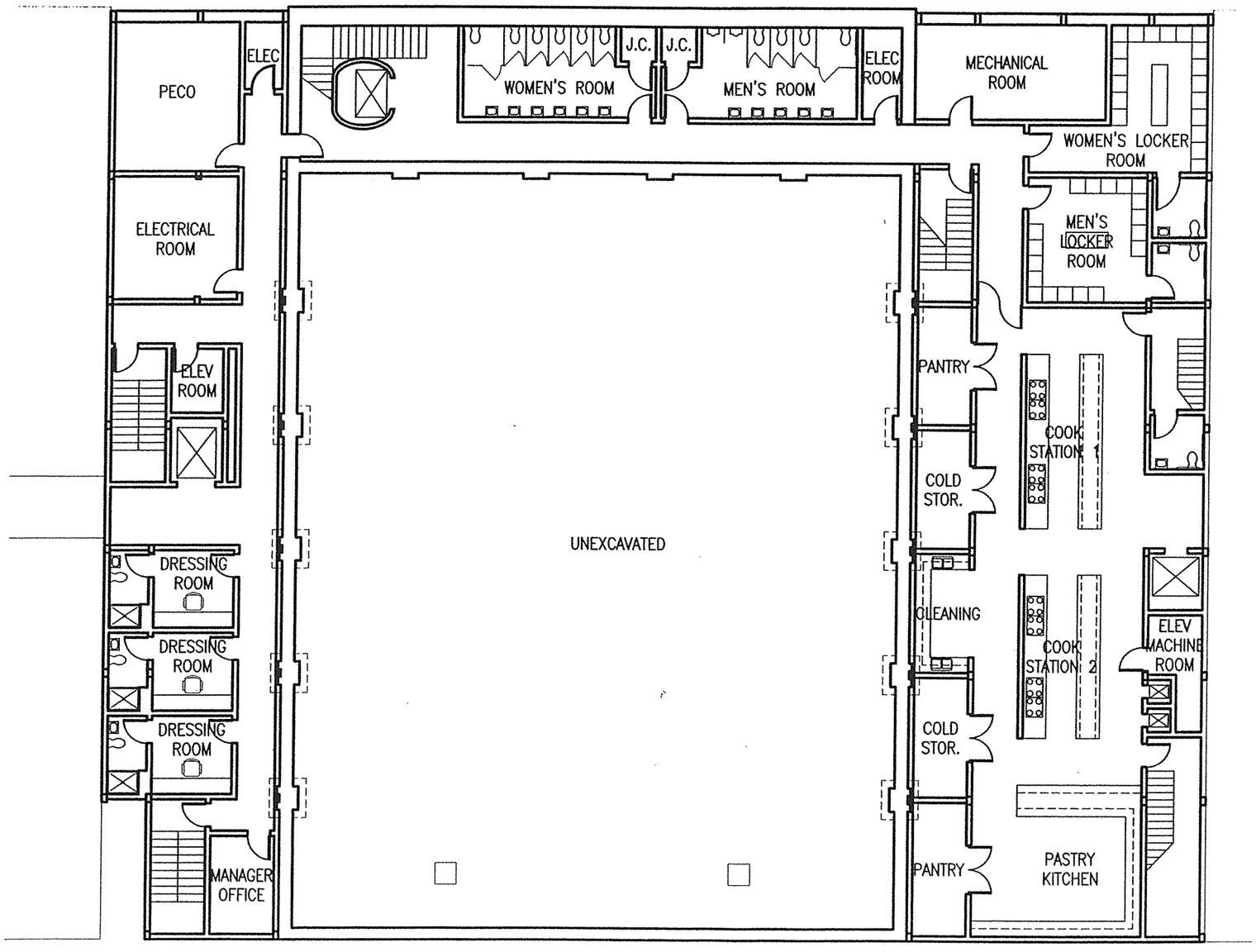
VITETTA has included two concept designs for the Royal Theater.

Scheme 1

There are two alternatives on the first scheme which show tables and chairs in a performance venue. Both seating plans can accommodate approximately 250 persons in the theater. There are additional seats shown at the bar. The design can accommodate 25 persons in the VIP mezzanine and 20 persons on the second floor VIP lounge/dining room. The building to the east of the auditorium has been designed as a multi-story bar and restaurant. The restaurant can accommodate 102 persons on the main floor, 60 persons on the mezzanine and 108 persons on the second floor.

Scheme 2

The second scheme shows the main performance venue with auditorium seating. The room can accommodate 510 persons with an additional 109 person in the mezzanine VIP lounge. The design also changes the use of the second floor from a restaurant to a VIP private dining room with two additional balconies overlooking the main stage of the performance venue.



BASEMENT

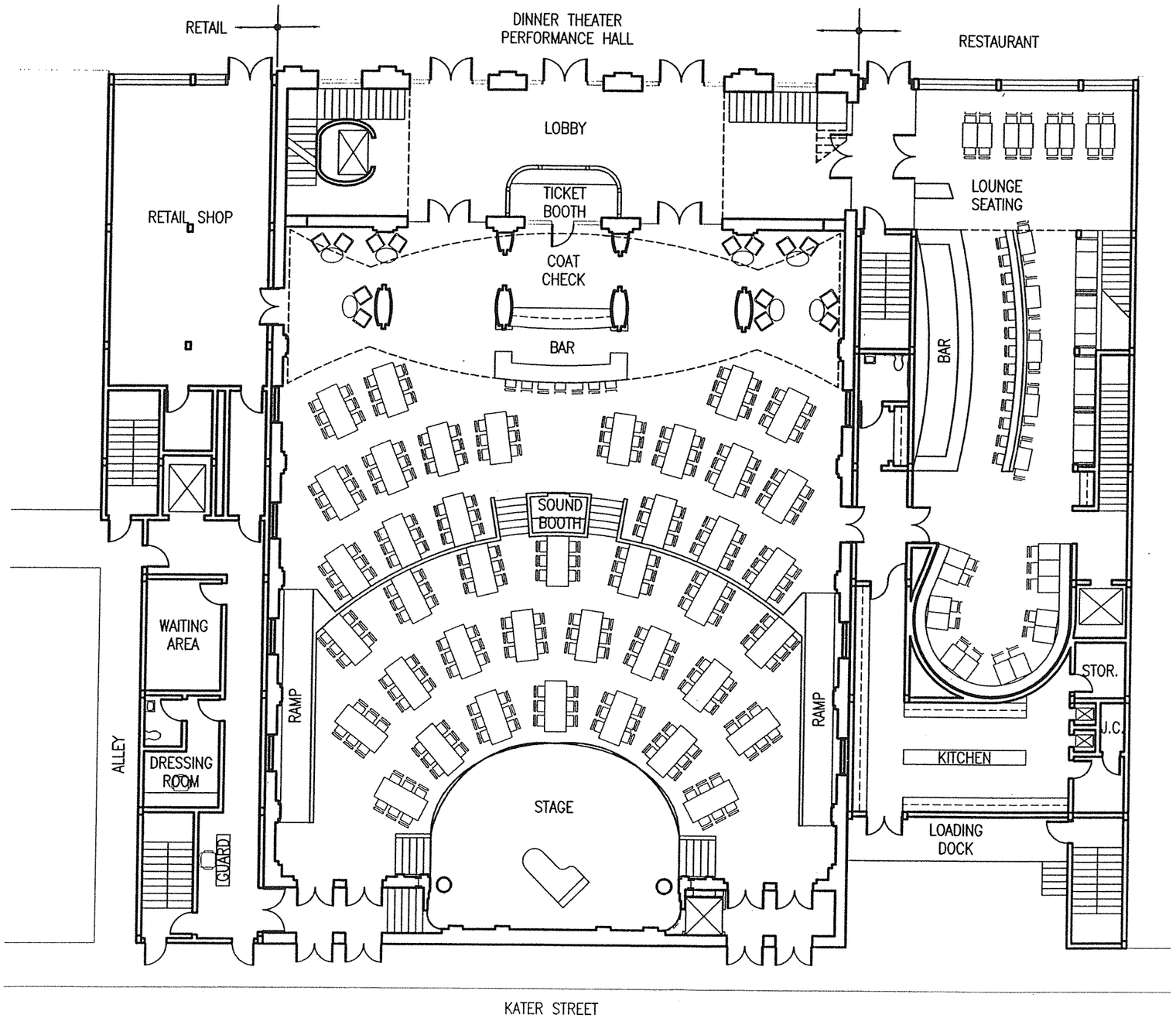
VITETTA

Royal Theater

SCALE: 1/16" = 1'-0"

January 17, 2007

N



FIRST FLOOR – SCHEME B

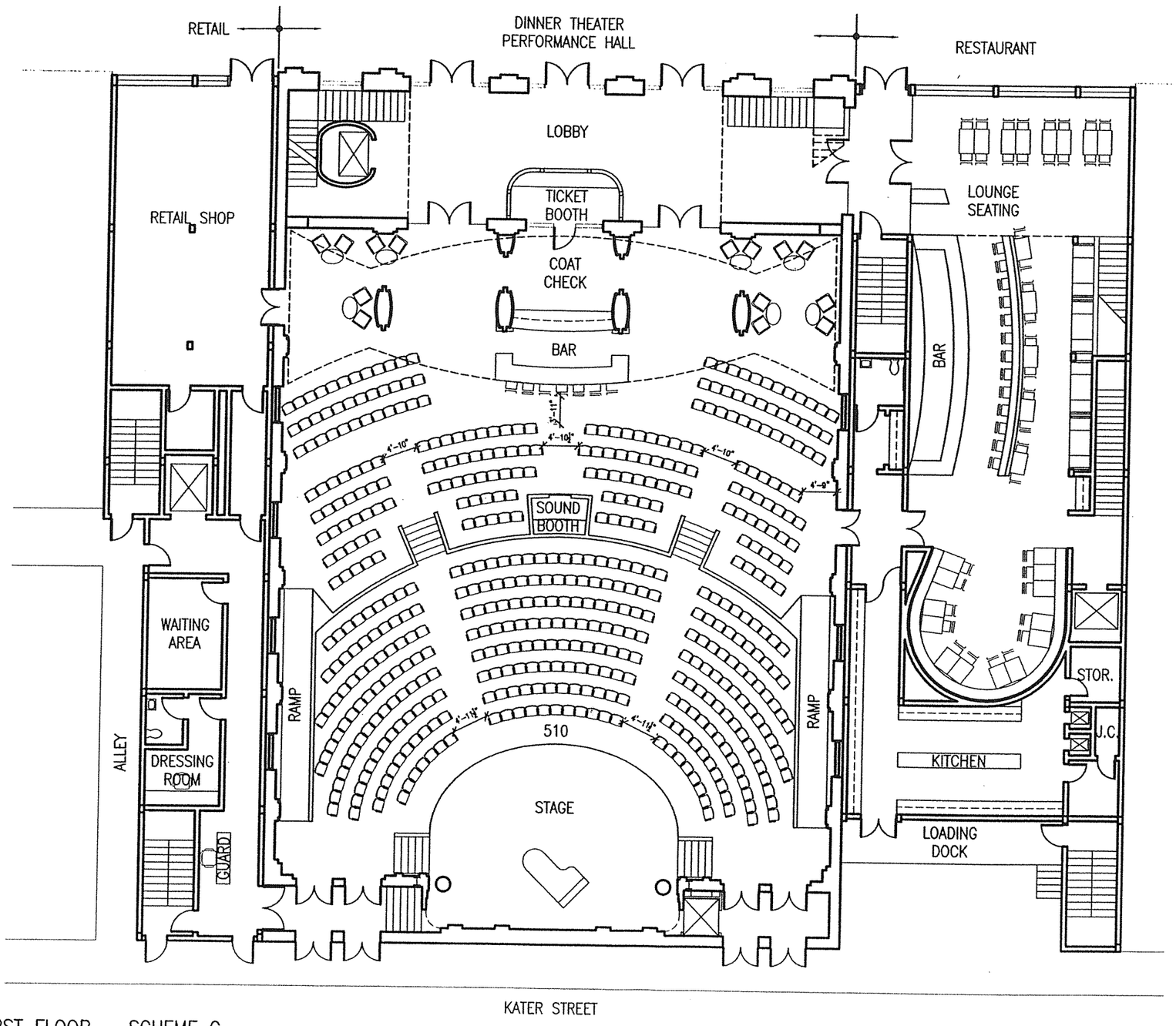
VITETTA

Royal Theater

SCALE: 1/16" = 1'-0"

January 17, 2007

N



FIRST FLOOR – SCHEME C

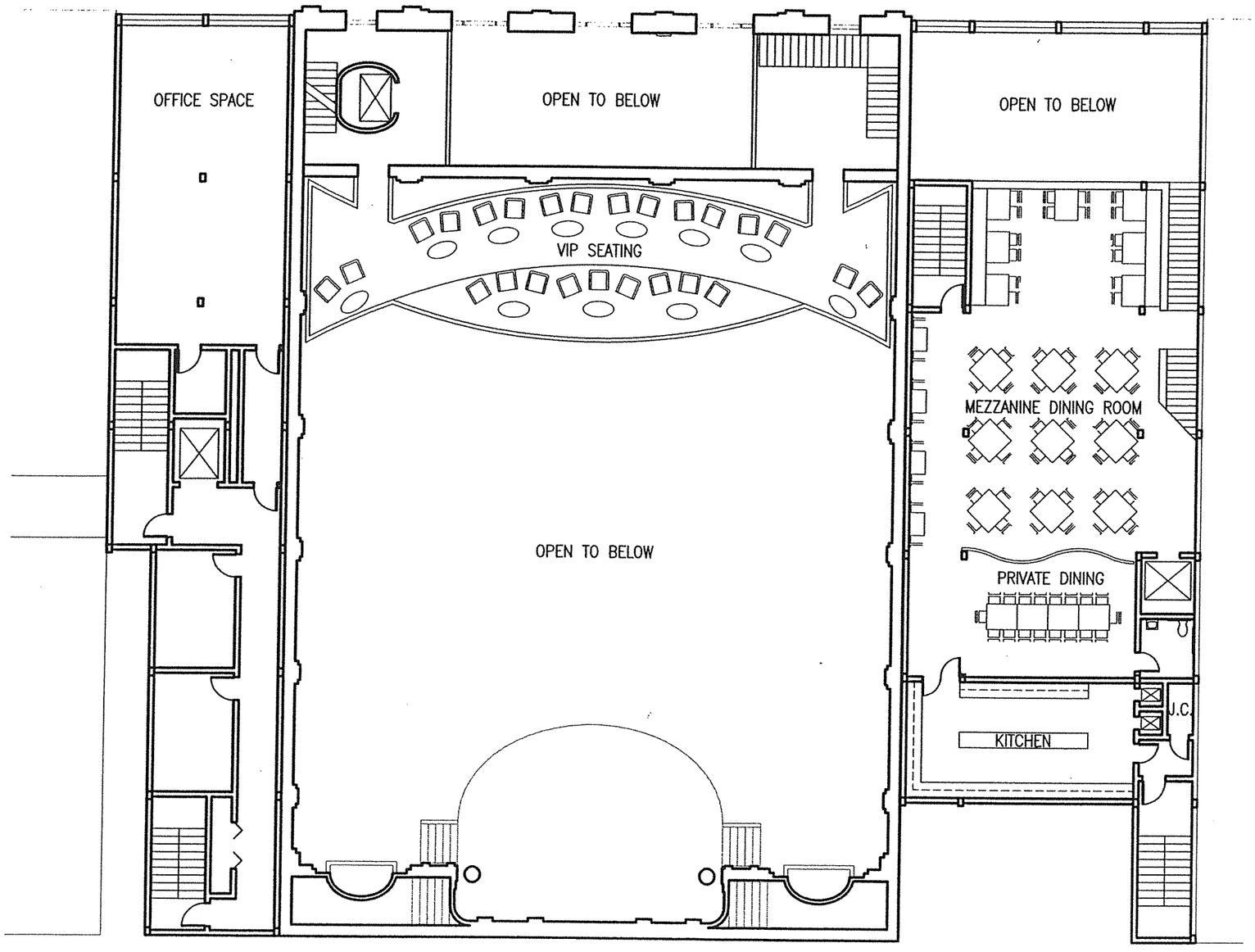
VITETTA

Royal Theater

SCALE: 1/16" = 1'-0"

January 17, 2007

N



MEZZANINE

VITETTA

Royal Theater

0 4' 8' 16'
SCALE: 1/16" = 1'-0"
January 17, 2007

N

HISTORIC PRESERVATION REPORT

The Federal "Rehabilitation Investment Tax Credit"

The Federal Rehabilitation Tax Credit (RTC) encourages the preservation and reuse of the nation's built environment by offering federal tax credits to the owner's of historic properties. The tax credits represent a dollar for dollar reduction of federal taxes owed for a credit equal to 20% of the cost of rehabilitation. The 20% rehabilitation tax credit applies to rehabilitation that the Secretary of Interior designates as a certified rehabilitation of a certified historic commercial structure. The National Park Service reviews the rehabilitation project for conformance with the "Secretary of the Interior's Standards for Rehabilitation" and issues a certification decision. The entire project is reviewed including related demolition and new construction and is certified or approved only if the overall rehabilitation project meets the Standards. A certified rehabilitation is approved by the NPS as being consistent with the historic character of the property. While some alterations to a historic property may be required for an efficient use, the project must not damage, destroy or cover materials or features, whether interior or exterior that helps to define the building's historic character. Utilizing the federal RTC is essentially a three-step process governed by regulations and procedures of the National Park Service (NPS) and the Internal Revenue Service (IRS). Part 1 is a 2-page form that is titled "Evaluation of Significance". Part 2 is a multi-page form that requires one to describe the project and include photographs of the "before "conditions .and Part 3 is a Request for Certification of the Completed Work with photographs of the completed work. It is strongly encouraged that one applies prior to the start of the work. The tax credits are not issued until the project has been completed. The forms with all documentation must be submitted as each phase of the project proceeds.

In addition to complying with The Secretary of Interiors Standards, a project must also meet the following basic tax requirements of the Internal Revenue Code.

1. The building must be depreciable.
2. The rehabilitation must be substantial. This means that during a 24-month period as selected by the taxpayer, rehabilitation expenditures must exceed the greater of $5000 or the adjusted basis of the building and its structural components. The adjusted basis is generally the purchase price, minus the cost of land plus improvements already made minus depreciation already taken. Once the substantial rehabilitation test is met all qualified expenditures, including those incurred outside of the measuring period qualify for credit.
3. The project can be phased except that a 60-month measuring period applies. The phase rule is available only if the following criteria have been met:
   a) A set of architectural plans and specifications outlines and defines the work of all phases
   b) The plans are completed before the physical rehab work begins
   c) It can reasonable be expected that all phases will be completed.
   d) The property must be placed back in service. The rehabilitation tax credit is generally allowed in the taxable year that the property is placed in service

e) The building must be a certified historic structure

f) Qualified rehabilitation expenditures include costs associated with work undertaken on the historic building as well as architectural and engineering fees, site survey fees\legal expenses, development fees and other construction related costs, is such costs are added to the basis of the property and determined to be reasonable and related to services performed. They do not include costs of acquiring or finishing the building, new additions that expand the existing building, new construction or parking lots, sidewalks, landscaping or other facilities related to the building.

If the building is owned by a not for profit entity, the project may still apply for the Federal Rehab Tax Credits by forming a Limited Partnership or a Limited Liability Corporation where by the Non-profit owns one-half of one percent ownership and the For-profit, who will be using the tax credits, owns 99.5% of the buildings. The legal agreement for this Limited Partnership or Limited Liability Corporation would be in effect for the period of the rehabilitation work plus a five year recapture period after the work has been completed and certified by the National Park Service. Then once the rehabilitation is complete, the Non-profit can only occupy up to 35% of the building.