

2017-08-10

City of Denton

No. 1730

**Old Denton City Hall
(City Hall West)
Preliminary Rehabilitation
Assessment Report
Denton, Texas**

This report includes a brief historical summary and architectural description. The building evaluation focuses on exterior and interior conditions with related recommendations for rehabilitation.



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Historical Overview and Project Purpose

The City of Denton experienced rapid growth in the first two decades of the 20th-century. In 1927, the city accepted plans for a new city hall to replace the previous building, constructed in 1894. Designed by the Fort Worth firm of Van Slyke and Woodruff, the building is in the Spanish Renaissance style and is two stories with a basement. The building faces east and is in a "T"-plan. Historically the east block of the building housed the administrative offices of the city while the rear el contained the municipal auditorium on the upper floors with the firehouse below. The east section is arranged as a piano nobile, with the first floor raised slightly above a half basement. The rear el is more-conventionally arranged, with the first floor at grade and lacking a basement. The auditorium is 1 ½ stories in volume. This arrangement creates a variety of disparate floor levels inside.

The primary exterior materials are scratch-faced buff brick with limestone trim and embellishments. Hipped roofs are the primary form, but the building features two east-facing gables adding weight and interest to the primary façade. Roofs are of red clay tile with accent colors. At the center of the east façade, the entry bay is topped by a belfry which historically housed the fire-bell. Fenestration on the building is regular and was originally 9/9, wood double-hung sash in the east section, with larger 15/15 windows in the rear el. Large, multi-light bay doors once served the fire department at the rear el.



Historic postcard image of the Old Denton City Hall.

A view inside the balcony area of the auditorium prior to major renovations.



Inside, the building has concrete floors of reddish-brown with black perimeter bands and base. Walls and ceilings are sand-finished hard cement plaster. The formal entry retains two original decorative pendant lights with stenciled globes providing insight as to the original lighting scheme. The main staircase that once led from this entry to the auditorium has been removed, but the dramatic arched rotunda ceiling above remains intact, though concealed. The once-spacious auditorium has an arched, beamed-ceiling with scrolled brackets at the terminal ends of the beams. The balcony and stage areas are partially intact but obscured by original materials.

The old Denton City Hall has undergone several major renovations in an effort to keep it in a state of utility for the city. The most extensive of these and the most destructive to the original design was that conducted in the 1980s to provide space for the Denton Police Department. The project resulted in the removal of most of the balcony and stage areas of the auditorium, the subdivision of the original fire department, the removal of the primary grand stair, the general reorganization of spaces, and the construction of additions on both the north and south elevations. The additions house elevators to serve the various floors of the building, with the south addition also housing additional office space. Additional but less destructive modifications were made in 1995 and 2001.

Currently vacant, the old Denton City Hall remains in good condition overall, although most of the original finishes are hidden behind modern construction. The building is a Recorded Texas Historic Landmark (RTHL, 2015). As such, any work performed on the exterior is subject to review and permitting through the Texas Historical Commission (THC). The purpose of this report is to provide general information regarding the condition of the building and its suitability for rehabilitation.

Its status as an RTHL makes the building eligible for the State Historic Preservation Tax Credit Program. This program provides assistance to building owners in the rehabilitation of historic structures in the form of franchise tax or insurance tax credits. Non-profits and other owners not subject to these taxes may sell the credits to those who do. The credits can be applied to most hard and soft costs with the exception of site work and FF&E. These credits can be used to recapture up to 25% of qualified expenditures.

Building Conditions

Architectural

Exterior

Brick- The primary exterior material is scratch-faced buff brick.

The brick was found to be in good condition with some general biological staining. Brick used at the north and south additions and as infill where doors and windows have been infilled is a close match, but slightly lighter than the original.

It is recommended that the brick be cleaned with a restoration cleaner designed for that purpose. The use of abrasive or high-pressure water blasting should be avoided.

Limestone – Cream-colored limestone is used for trim and decorative elements.



**Southeast oblique
(Architexas, 2017)**

Typical masonry conditions at north elevation. Masonry needs cleaning. Brick infill at bay door location is evident. (Architexas 2017)



The limestone was found to be in good condition with minor biological staining. Limestone installed as part of past modifications closely matches the original.

It is recommended that the stone be carefully cleaned with a limestone restoration cleaner designed for that purpose. The use of abrasive or high-pressure water blasting should be avoided.

Mortar – The building has light-colored mortar. The mortar was not tested as part of this evaluation.

Mortar on the building was found to be in good condition.

Upon cleaning, the mortar should be spot checked for areas of loss or erosion. In these areas, repoint mortar joints as necessary with a mortar matching the original in composition, color, tooling and texture.

Roof – The building has a blended red clay, barrel-tile roof with blue accents.

The roof was found to be in good condition. According to city staff, the roof was repaired relatively recently with new underlayment and the original roof tiles reinstalled. Tile used at additions in a good match and largely indistinguishable from the original.

The roof should be thoroughly inspected as part of any rehabilitation project and on a semi-annual basis.

Doors – Historically the building featured a variety of door types of wood or steel with multi-light glazing. Only the $\frac{3}{4}$ single-light glazed doors at the primary entry remain. The remainder of the doors is contemporary aluminum storefront.

Doors are in good condition.

It is recommended that the original doors at the east entry and the associated frame and transom be restored. At all other entries, new doors that are compatible with the historic design are recommended.

Bay-doors – The fire-truck bays were originally wood paneled, articulated overhead doors. The upper three rows of panels were glazed with six lights per row. The doors featured a limestone header detail. The bay doors have been removed and the opening infilled with brick.

Left: Typical exterior door at the northwest facade. Right: Typical replacement windows at the auditorium level.
(Architexas 2017)



The preferred approach would be the re-opening of the bay-door locations and the installation of compatible infill resembling the original door units. The openings may also be used for compatibly-designed entry/storefront locations.

Windows – The windows were originally wood-double-hung windows with multi-light sashes. The windows on the east block of the building were originally 9/9, while at the rear el they were typically 15/15. Arched windows at the auditorium also included multi-light transoms. All of the windows have been replaced with 1/1 wood units with insulated glass or infilled entirely.

The windows are of inferior quality and are in fair to poor condition. Most of the windows on the rear el have been removed and the openings infilled.

It is recommended that the windows be replaced with new units that match the original in profile, sight lines, and number of lights. Metal-clad windows may be appropriate if the appearance can be made to closely-match the original. Where additions are retained, their windows should be of compatible design but vary slightly from the original building.

Additions – The building has additions on the north and south. The smaller north addition houses an elevator. The larger south addition also houses offices. The entrances to the additions feature enframed decorative plaster accents with arched tops, mimicking the original architecture. Wall brick, limestone and clay-tile roofing closely matches the original construction.

The additions are in fair condition but the plaster ornamentation is failing. These plaster elements are also not architecturally-compatible. Inside, the walls of the additions are generally CMU block.

Further study of the additions is recommended to determine if their retention is necessary to accommodate elevators and other upgrades. If retained, they should be improved to be more compatible with the original building. If removed, windows and other openings that were infilled in the 1980s should be

reopened and new doors and windows installed that match the original design.

Site and Landscaping – The paving and landscaping around the building appear to be contemporary overall but are of a compatible design and well maintained.

Site conditions were found to be good overall. The north side of the building lacks a sidewalk.

Site upgrades will be necessary when rehabilitation occurs to ensure the design is cohesive and properly serves the building and meets accessibility codes. However, these modifications should be relatively limited.

View of the south facade showing the original building at right and the addition at left. If the addition is retained, the architectural details should be improved. (Architexas 2017)



View of typical site conditions on the east side of the building. Site conditions are generally good. (Architexas 2017)



Interior

Walls – Original walls are 2 to 2.5-inches thick and are of hard plaster, presumably over metal studs and lath. In almost all cases, original walls have been furred out with conventional framing and drywall to allow for the integration of infrastructure. New partition walls are of conventional framing with drywall.

Original walls could not be fully assessed due to overlying materials. It appears that the majority of original walls remain in place, though covered. Some damage to the walls can be expected

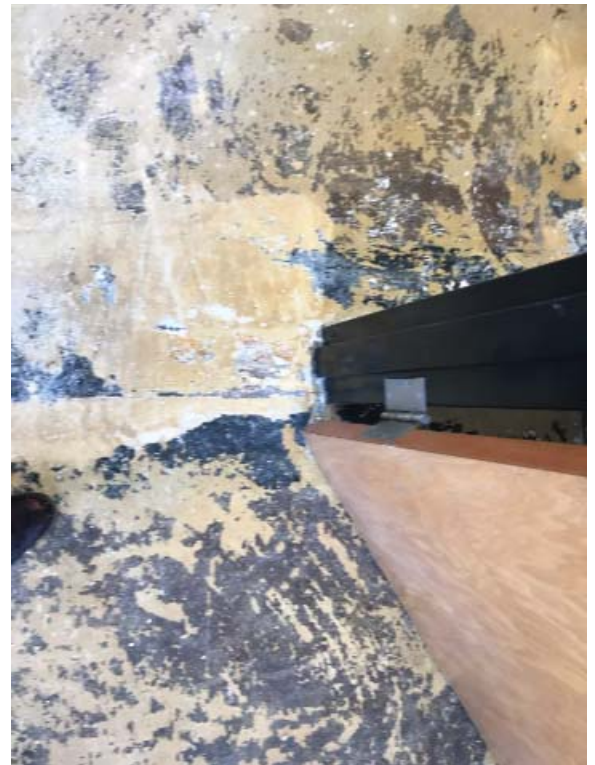
It is recommended that all existing contemporary walls be removed for examination of the underlying original walls for restoration. Where walls must be furred for the integration of infrastructure, it should occur on the office side of the wall, leaving the original corridor side of the wall exposed. In subdivided areas such as the fire station, removal of the existing non-historic walls will allow for reprogramming and compatible finish-out of these spaces. Rehabilitated walls should have the original sand finish and paint color restored. New walls should have a compatible new finish to differentiate them from original walls.

Floors – Floors in the main building were of tinted concrete with a main body color of reddish-brown and border and base of black. The original flooring material of the auditorium is not known but may have been of wood or concrete. Flooring in the fire station is presumed to have been concrete. All floors are covered with contemporary materials of VCT or carpet.

Floors appear to be in fair condition though a full assessment was difficult.

Future rehabilitation work should include the removal of contemporary floor coverings and the restoration of the original floor materials. In secondary spaces, the use of carpet or other flooring materials is appropriate. The use of area rugs in offices is encouraged.

Ceilings – Original ceilings are of hard, sand-finished plaster on lath but office ceilings at the second floor have been removed entirely. The arched auditorium ceiling remains intact. Most of the building now has suspended acoustical tile ceilings obscuring the conditions above. In the fire station section of the build-



Left: Typical original interior wall with steel studs, plaster and lath.
Right: The original concrete floor colors are visible under a layer of mastic: black at the center of the photo and reddish-brown at the bottom.
(Architexas 2017)

View of the primary lobby at the main entrance. (Architexas 2017)



ing the concrete painted concrete structure that was the original ceiling is now covered with suspended acoustical ceilings.

Ceilings that remain are in fair to poor condition with damage from the installation of utilities and suspended ceilings. Office ceilings on the second floor have been removed entirely.

Remove all contemporary ceilings to expose underlying conditions. Restore historic ceilings to original finish and color. Install new ceilings at the second floor to match the original ceilings. In corridors and the auditorium, investigate to determine if special finishes are present. Where it is necessary to provide chases and fur-downs for infrastructure, this should be done on the office side of walls and in secondary spaces with the original ceilings in corridors and other primary spaces preserved wherever possible. In the fire station area, the most appropriate ceiling finish will depend on the chosen program. However, the exposed structure of the original station is preferred.

Main stair – The building originally featured a wide main stair leading from the primary entry lobby to the auditorium. The stair passes under the building's double height arched rotunda, now concealed behind suspended ceilings.

The concrete stair was removed in the 1980s renovations.

The original stair should be reconstructed as part of rehabilitation work and the lobby/rotunda restored.

Auditorium – The original auditorium was a double-height space with an arched, beamed ceiling, a large balcony, and a theatrical stage.

Modifications to the building in the 1980s included the removal of much of the balcony and the stage area. A floor was added within the space to create additional offices for the police department. The walls, ceiling and beams of the auditorium remain largely intact. It is presumed that the floor of the auditorium was fully or partially raked but this could not be confirmed. The floor is covered with contemporary materials and could not be evaluated. An important consideration in this area is that the floor levels in the auditorium wing of the building do not align with the office wing. This creates accessibility issues that are challenging, particularly in the area of the auditorium where the second floor was added. This floor is not accessible, rendering it unusable for most functions.

Partial view of the beamed ceiling at the auditorium. The floor in this image was added in the 1980s. (Architexas 2017)



It is recommended that the modifications to the auditorium be reversed and the space restored to its original configuration and finish. Accessibility can be achieved to the main floor of the auditorium with a new elevator connecting the primary entry lobby to the auditorium.

Paint and ornamentation – While the original paint and other finishes could not be observed, it is likely the building had a decorative paint scheme, particularly in the auditorium and primary corridors. It is recommended that a finish analysis be conducted by a qualified conservator to establish the characteristics of the building's ornamentation. These finishes should be restored wherever possible, with special emphasis on public spaces.

Vaults – The building originally had several concrete vaults with heavy steel doors.

All but one of the vaults has been removed. Where vaults were removed, sections of the upper walls remain and are now hidden behind suspended ceilings. The single remaining vault is in good condition, but the vault door has been over-painted, obscuring the original decorative finish.

The single remaining vault should be retained and the original vault door restored by a qualified conservator. Where vaults have been removed, it is recommended that the original floor-plan be restored. This can be accomplished with contemporary framing and drywall and will be more cost effective than attempting to remove the fragments of heavy concrete walls that remains.

There is one original vault door in the building. (Architexas 2017)



Mechanical, Electrical and Plumbing Systems

The Mechanical, Electrical and Plumbing systems at the Old Denton City Hall include some modern infrastructure that may be reused in a future building rehabilitation. The systems were inspected with this in mind. It should be assumed that all of these systems will require considerable reconfiguration and modification to conform with the requirements of a building rehabilitation, but that many primary components may be retained and reused. These systems were inspected by ARJO Engineers, Inc. of Dallas and their comments adapted for this section. The official engineering report is contained in the appendix of this document.

Mechanical Systems - The HVAC hydronic system is for VAV cooling only with electrical perimeter heating zones. A 60 ton, R-22, air cooled chiller supplies chilled water to air handler on the top floor. The chiller was salvaged from another building several years ago. It appears to be operating acceptably but is approximately 15 years old and, in our opinion, is not of adequate capacity to service a fully occupied building. Any renovation should plan on replacing the machine with a new 90 ton machine.

The air handler on the top floor was installed in approximately 1980 and is beyond its normally expected life. It is currently leaking and, with any renovation, should be replaced with a new 36,000 CFM air handler.

The return air system is somewhat suspect. There is no obvious return air chase and it was reported that some of the walls were used for return air. A renovation would require the system be addressed. The VAV terminal boxes on the exterior were reported and appeared to be in good condition.

Two chilled water pumps circulate HVAC cooling water between the air handler and the chiller. The pumps appear to be in good condition.

There is an energy management system to turn equipment on/off. Controls are pneumatic and electric.



Existing mechanical unit at the southwest corner of the building. If feasible, the mechanical equipment should be placed remotely or screened. (Architexas 2017)

Recommendations for the mechanical systems include:

1. Replace the 60 Ton Chiller with a 90 Ton Chiller.
2. Replace the Air Handler on the top floor.
3. Develop the Return Air System for the building.

Electrical Systems - The building is fed by one 300 KVA pad mounted electric utility company transformer. There is an 18 KW back-up generator that supplies required emergency power. The electrical feed from the utility company transformer serves a distribution panel in the basement. The distribution panel feeds panels in the basement and two levels above.

The distribution panel is labeled 'MAINS'. It is 277/480 volt, 600 amps. This panel has six fused switches, each is a service disconnect. 'MAINS' service panels 'HEB', 'HCD' and 'HCF'. The distribution panel also serves two elevators and a chiller.

Panel 'HAB' located adjacent the distribution panel is 277/480 volts, 100 amps, main lugs only with 42 total spaces. This panel feeds a 30 KVA transformer which serves panel 'LAB'. Panel 'LAB' is 120/208 volts with a 100 amp main breaker and 24 spaces. Panel 'LAB' sub-feeds adjacent panel. Label was not legible. This panel was 120/208 volts with a 100 amp main breaker and has 20 spaces.

Panel 'EH' located in the basement and is 277/480 volts, 225 amp main lugs only with 20 space and feeds transformer 'EL'. The transformer is 15 KVA and serves panel 'EL'. Panel 'EL' is 120/208 volts with a 60 amp main circuit breaker and has 27 spaces. Panel 'EH' is fed from normal power and emergency power via an 18 KW generator located in the basement and an automatic transfer switch.

Panel 'HCD' is located on the first level and is 277/480 volts, 225 amps main lugs only. This panel has 38 spaces and feeds transformer 'LCD'. The transformer is 15 KVA and serves panel 'LCD'. Panel 'LCD' is 120/208 volts with a 60 amp main circuit breaker.

Panel 'HEF' is located on the second level and is 277/480 volts, 225 amps main lugs only. This panel has 42 spaces and feeds transformer 'LEF'. The transformer is 15 KVA and serves panel 'LEF'. Panel 'LEF' is 120/208 volts with a 60 amp main circuit breaker.

Lighting throughout the building is mostly fluorescent with some incandescent mixed in. The incandescent lights selected to remain could be retrofitted with LED replacement lamps. The fluorescent lights will need to be replaced with LED fixtures.

The fire alarm system is an addressable Silent Knight system that will be adequate to serve the new design.

Recommendations for the electrical system include:

1. The electric service and distribution may be adequate. However, if the heating is converted to gas the electric service would be adequate. There is currently gas service to the building
2. The building is using fluorescent and incandescent lighting fixtures. The fluorescent fixtures should be replaced with LED and the incandescent fixtures should be reused. Retrofit the incandescent fixtures with LED replacement lamps.

Plumbing - The domestic water piping appears to be copper. Sewer piping appears to be cast iron. Storm piping is accomplished by exterior downspouts that are discharged at grade. Natural gas is supplied in steel piping to the emergency generator.

Water closets are tank type Lavatories are both countertop and wall mounted. A renovation would require restrooms to be modified for handicap accessibility a 50 gallon 9KW electric water heater is located in the 2nd floor.

There appears to be some ground water under the building as water was seen going into a sump in the basement.

Life Safety and Code Compliance

The building's inherent historic design will not allow full compliance with current contemporary life safety/building codes. The renovations that have taken place over time have improved the life safety but the current design does not meet life safety/building codes. Local building code officials and the fire marshal will need to be involved in any planned rehabilitation to significantly improve the life safety condition of the building. There are means to improve the life safety of the building while preserving the historical integrity of the building through clarity in the egress paths, installation of an upgraded early detection and alarm system and maintaining the fire suppression (sprinkler) system. The building's status as a RTHL allows some flexibility in the interpretation of the building codes to meet life safety and accessibility compliance.

The building is currently-equipped with a fire sprinkler system and fire alarm. The fire water riser enters the building in the basement where the fire water riser is located.

The system had an inspection tag dated December, 2016.

Recommendations for the life safety systems include:

1. The emergency generator appears to be adequate to serve the buildings' egress and exiting lights.
2. The fire alarm control panel appears to be adequate to serve the re-design for this building.

Accessibility

The original multi-level arrangement of the building creates a challenge for full accessibility to each space. Currently this is partially achieved with the addition of two elevators in the 1980's renovation. Even with these additions, total accessibility was not achieved to each floor. The elevators do not meet the current size requirements as well.

A complete rehabilitation project should improve the compliance to meet the accessibility requirements and upgrade the men and women's toilets to provide compliance. New elevators should be installed to meet the space requirements and in locations that maximize the accessibility to the primary spaces in the building.

Hazardous Materials

A full hazardous materials survey was not available at the time of the building inspection. Prior to any work being performed on the building, The City of Denton should commission a full environmental assessment to identify the presence of hazardous materials.

Building Rehabilitation Options

Three options have been initially-identified for rehabilitation of the Old Denton City Hall. All three options would include restoration of the building exterior, upgrades to building systems, and improvements to meet safety and accessibility codes.

Option 1 would include an exterior restoration and reversal of most past changes to the building. Primary interior spaces would be restored with the exception of the fire station area on the first floor which would be converted to office space.

Option 2 is similar to Option 1, but would further enhance the auditorium and adjoining spaces for multi-purpose and event use. This would include adapting the fire station area to prefunction or banquet facilities.

Option 3 would retain and improve modifications made to the building in the 1980s while improving the function of the building for city use.



Option #1

Complete restoration of the exterior and interior to the original design as close as possible that will meet all local building codes and accessibility requirements.

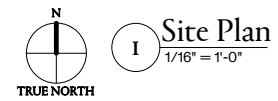
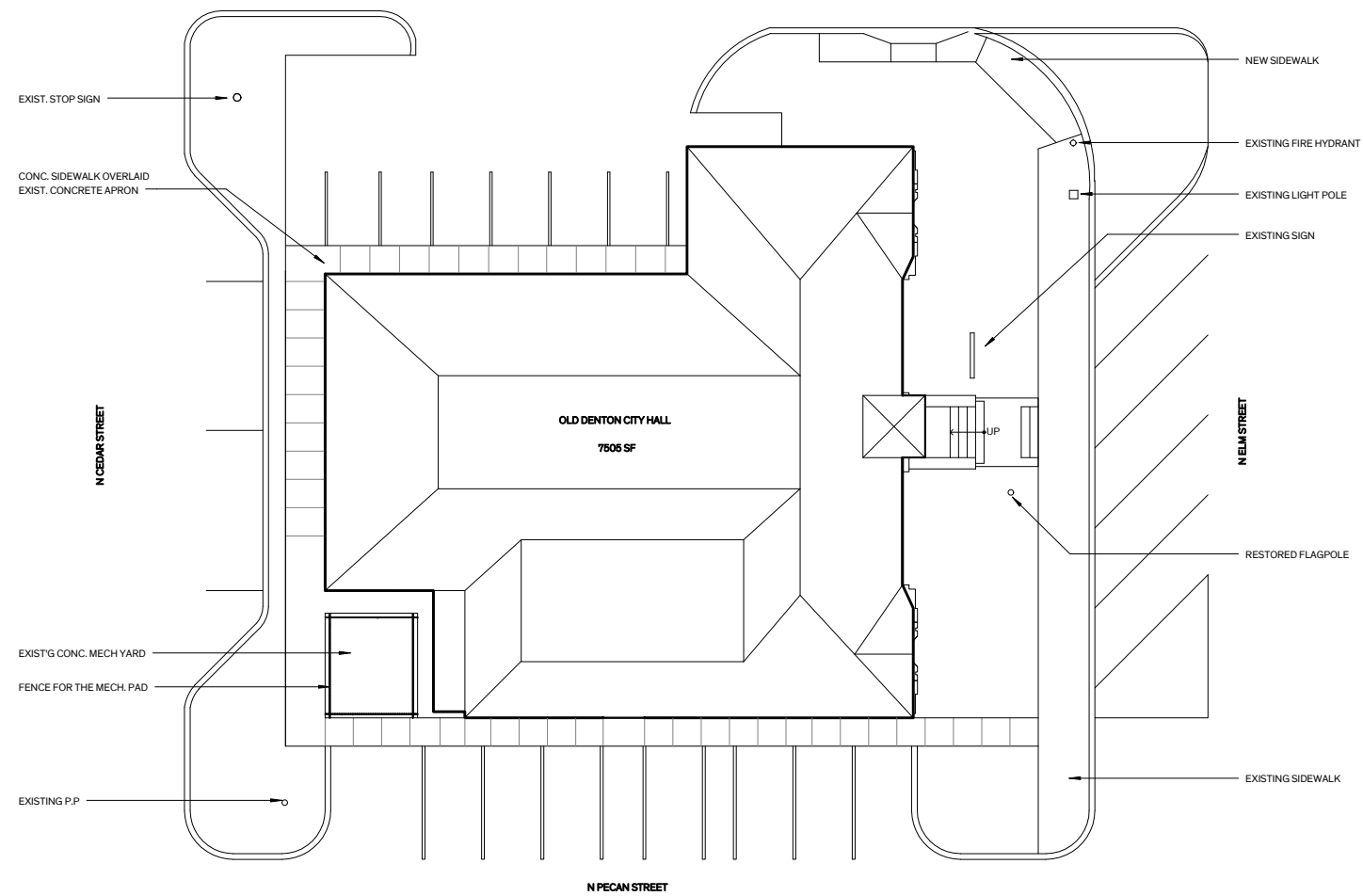
This option removes the renovation work of the 1980 conversion to a Police Station reversing the use to city hall or related city offices. The original area for the fire department will be available for additional city offices. To meet accessibility standards and building codes, a complete and accurate restoration is not possible.

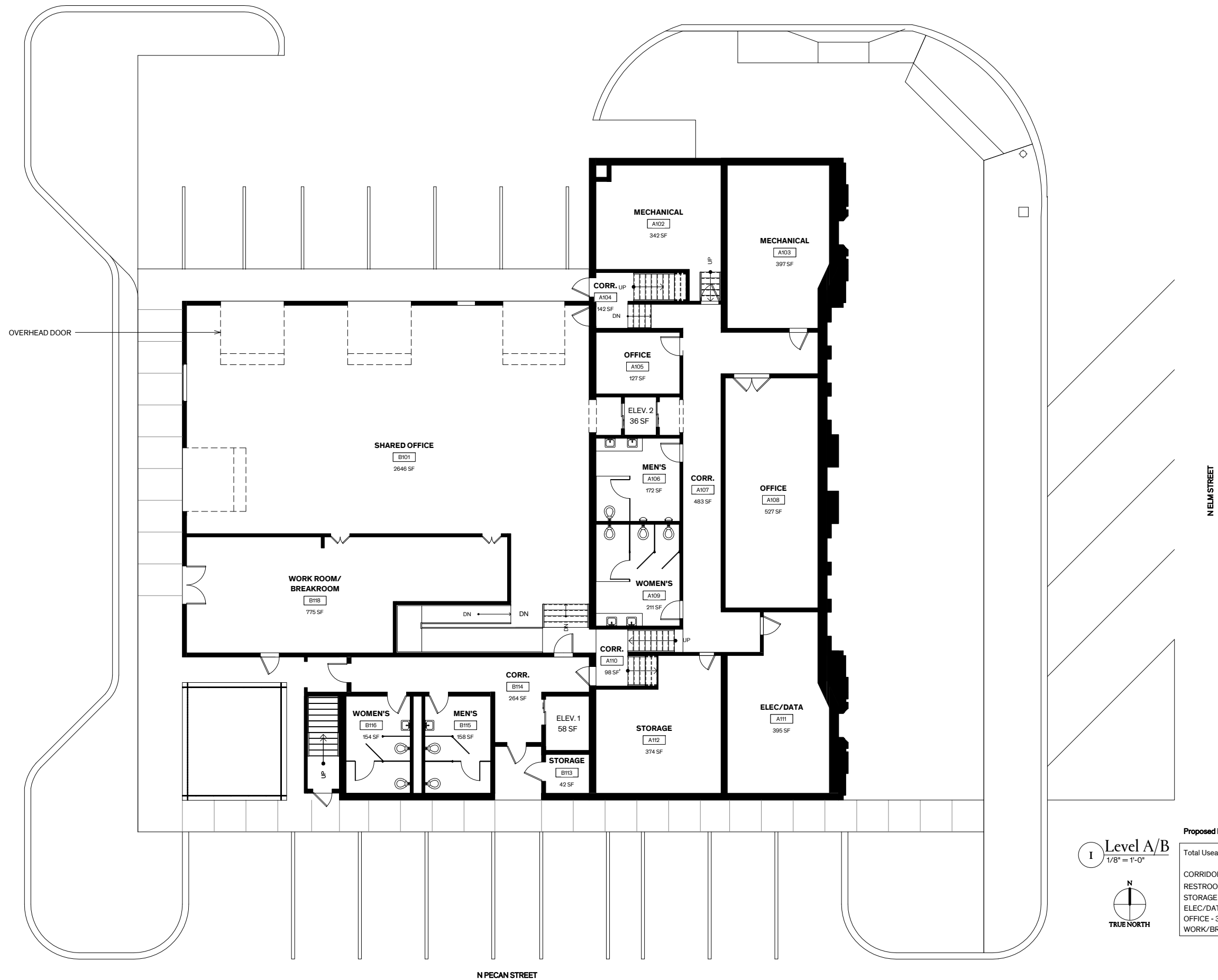
The scope includes:

1. Demolish north elevator addition
2. Restore exterior masonry, new windows and bell in the tower
3. Restore the original ground level truck room -provide ramped connection to the south elevator/ bathroom addition. New exterior doors and windows to match original design. Optional reconstruction of the original Dormitory wall.
4. Rehabilitate the south elevator addition. Add new elevator (multiple stops to provide accessibility standards)
5. Add new multiple stop elevator to allow accessibility to the auditorium and old fire truck area and basement level
6. Modify the existing egress stair in the southwest corner of the Auditorium to the exterior for added emergency
7. Rehabilitate offices on each floor
8. Restore the original Auditorium
 - Demolish added floors/infill
 - Reconstruct missing balcony extension to match original design
 - Reconstruct stage area to match original design
 - Reconstruct the grand stairs from the entry with arched ceiling above
 - New windows on the north to match original design
 - Concrete floor with pattern to match original design
 - New auditorium seating
 - Install replicated historic pendant lights
 - New supplemental lighting/sound system
 - Restore original finishes
9. New HVAC system (per narrative)
10. New lighting throughout
11. New exterior lighting for building and site
12. Rework the fire suppression system with new alarm system

Option #1

Estimated Project Budget	\$5,352,430.00
Construction Cost Estimate	\$4,622,430.00
Site work	
Exterior Restoration	
Interior Adaptive Construction	
FF& E	\$ 250,000.00
Soft Costs	
A/E Fees and Expenses	\$ 480,000.00



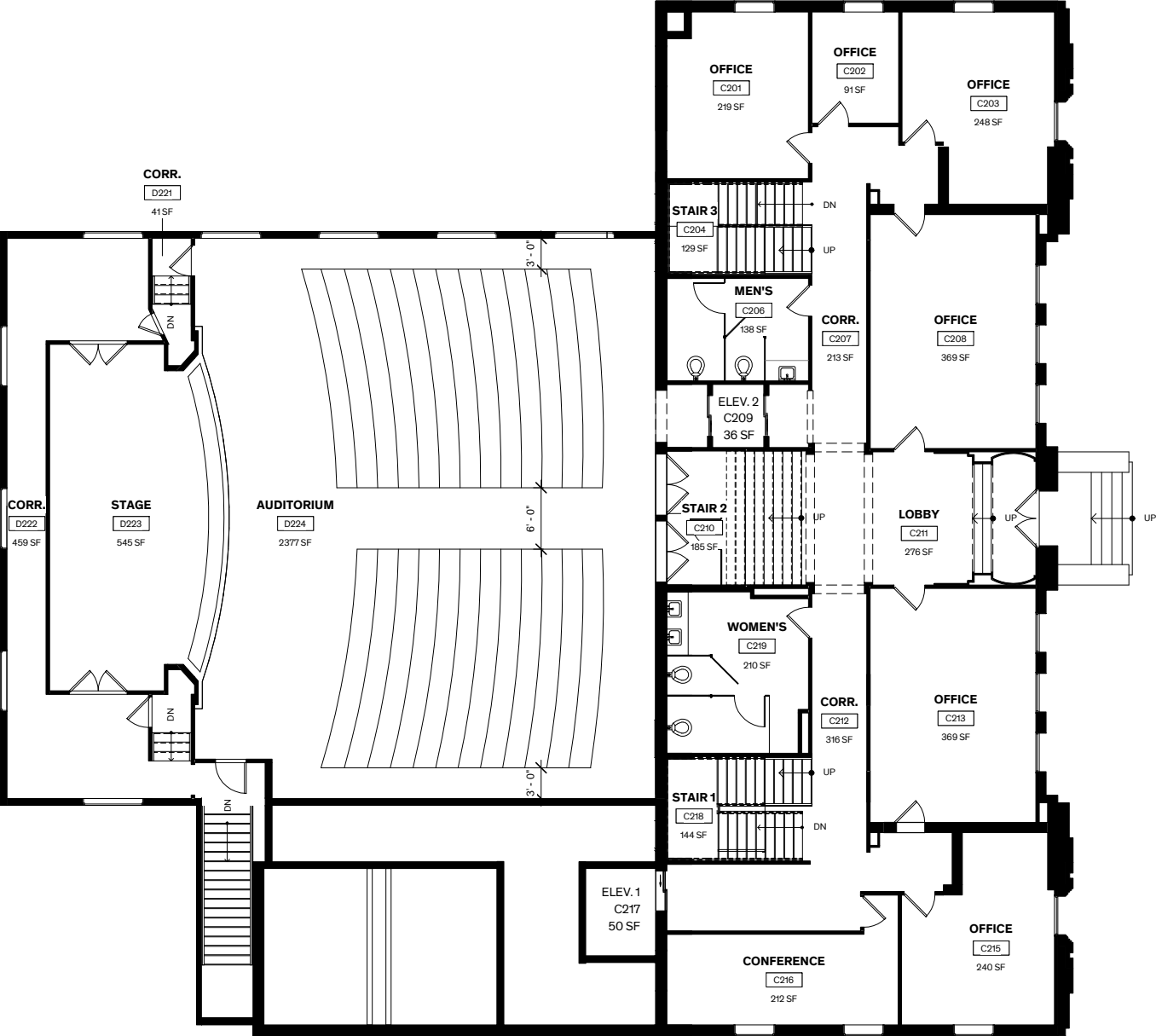


I Level A/B
 1/8" = 1'-0"

TRUE NORTH

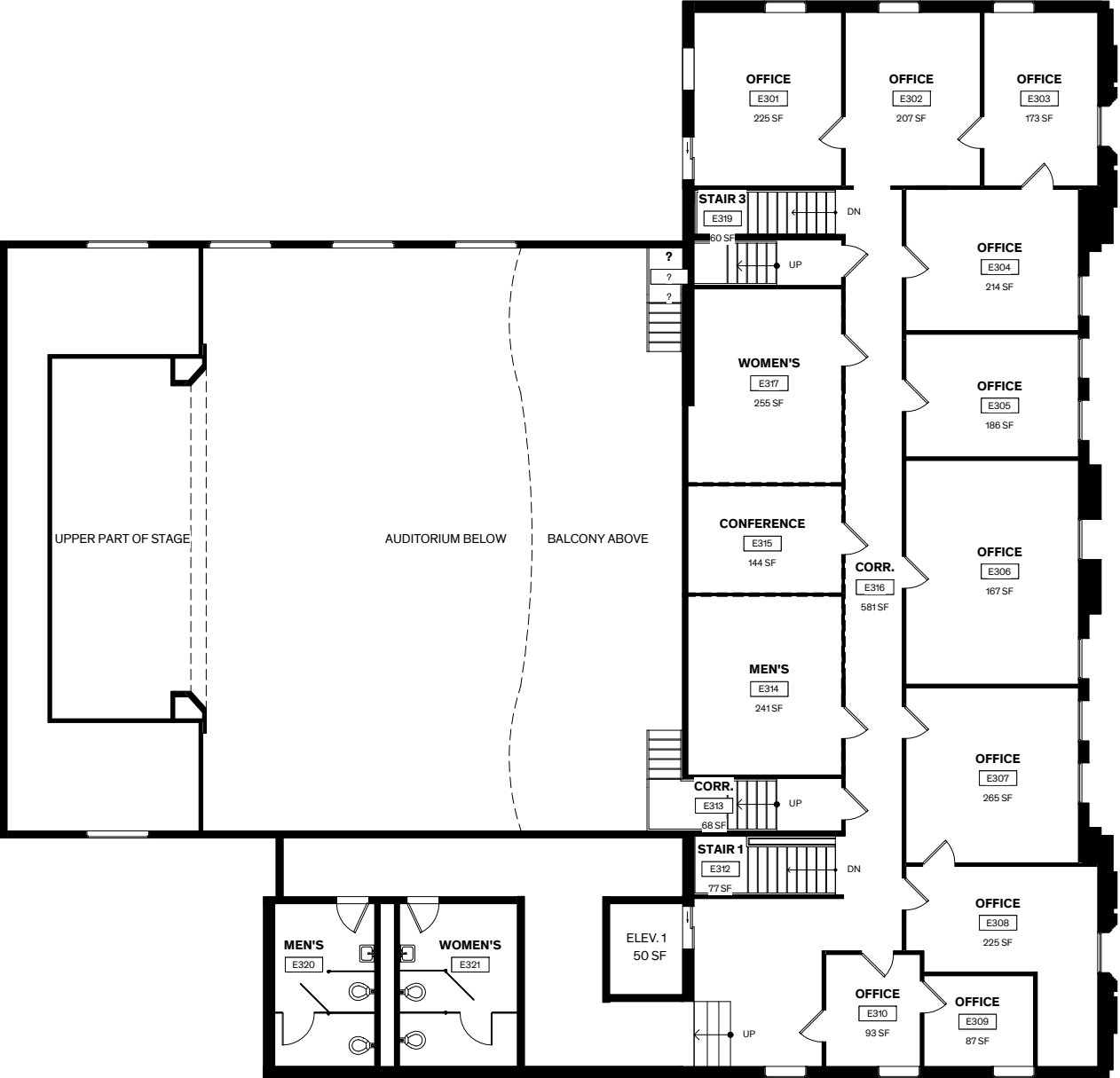
Proposed Level A/B - Total Floor Area 8426 SF

Total Useable Area - 6000 SF
CORRIDORS - 1210 SF
RESTROOMS - 695 SF
STORAGE - 570 SF
ELEC/DATA - 395 SF
OFFICE - 3320 SF
WORK/BREAK ROOM- 775 SF



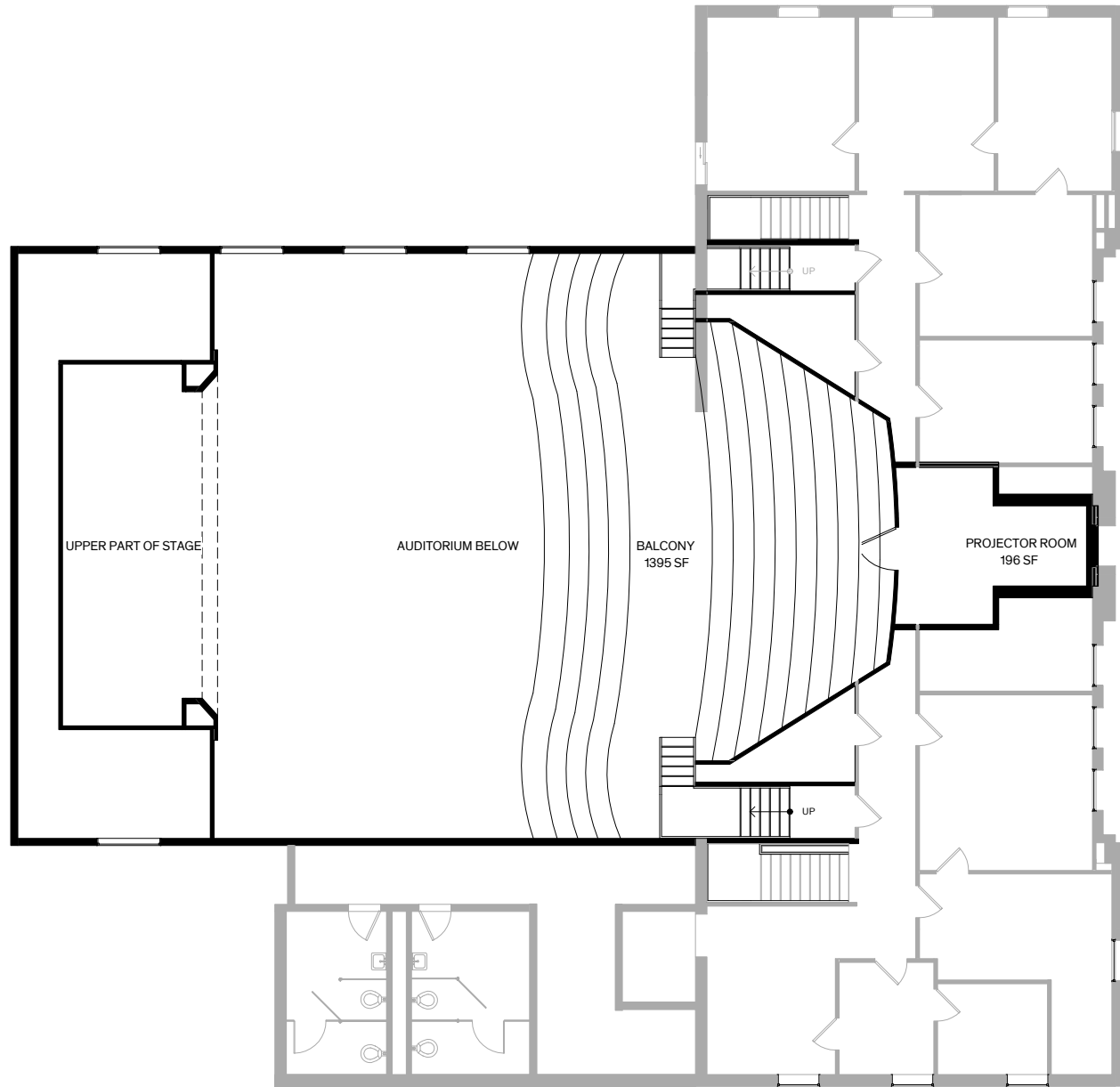
I Floor Levels C/D
1/8" = 1'-0"

Proposed Level C - Total Floor Area 3922 SF	
Total Useable Area - 3440 SF	
CORRIDORS - 1073 SF	
OFFICES - 1525 SF	
CONFERENCE - 212 SF	
RESTROOMS - 335 SF	
Proposed Level D - Total Floor Area 3584 SF	
Total Useable Area - 3405 SF	
CORRIDORS - 595 SF	
AUDITORIUM - 2377 SF	
STAGE - 545 SF	



Proposed Level E - Total Floor Area 3922 SF

Total Useable Area - 3536 SF
CORRIDORS - 670 SF
OFFICES - 2222 SF
RESTROOMS - 500 SF
CONFERENCE - 145 SF



I Level F
1/8" = 1'-0"

Proposed Level F - 1680 SF

Total Useable Area - 1590 SF

BALCONY - 1395 SF

PROJECTOR ROOM - 196 SF

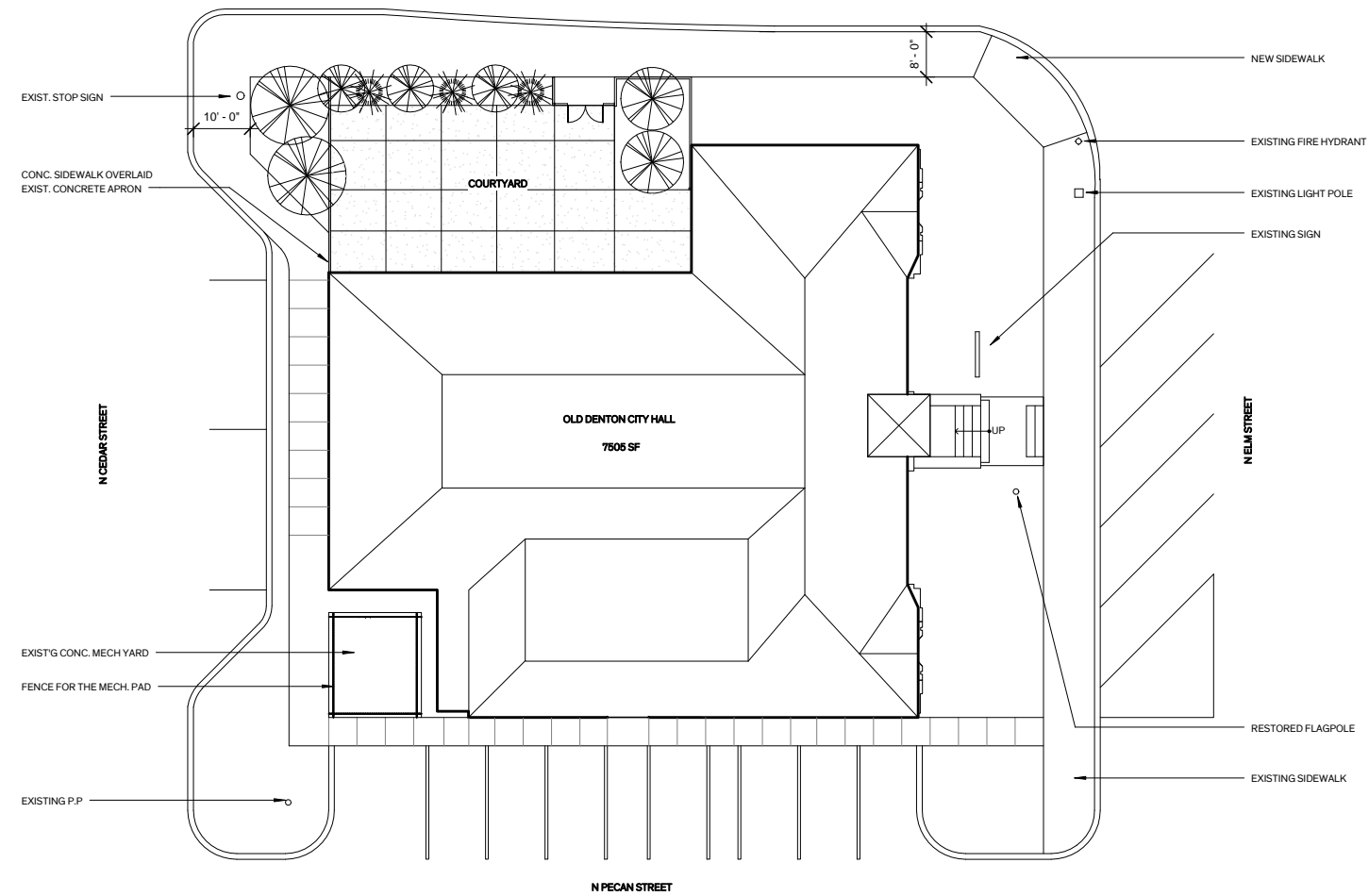
Option #2



Rehabilitation of the building with the restoration of the exterior and an adaptive use strategy for the interior to accommodate complimentary new use.

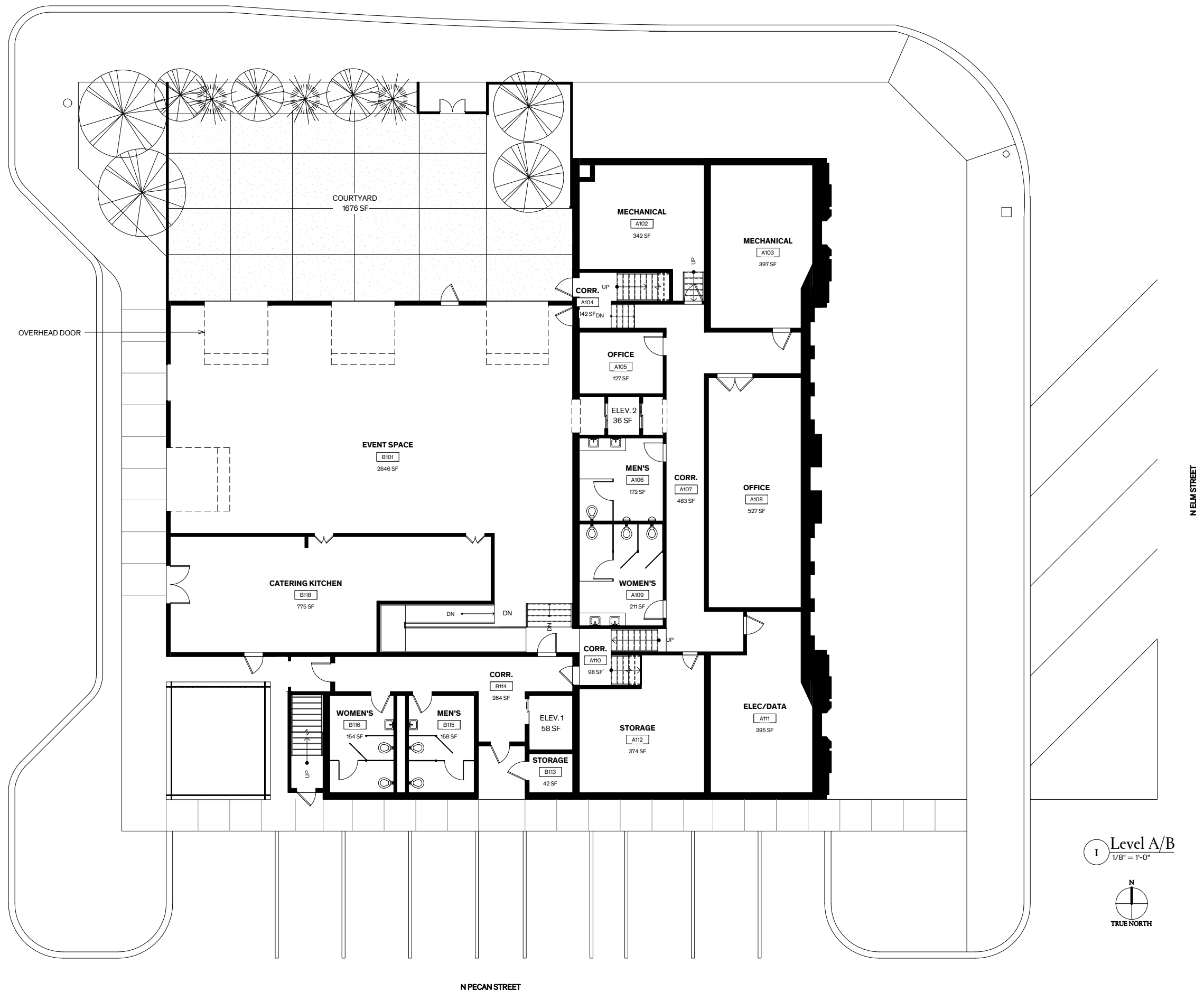
The potential use can be an adaption to a multi-purpose use that can be for a community meeting facility, event space and small theater uses. The scope of work is similar to Option #1. The offices can be for city and/ or nonprofit users. The auditorium can be a small performance hall and the original fire station area can be an event /reception space seating approximately 150 for banquets or a small theater. The event space can open to a garden area on the north side.

Option #2

Estimated Project Budget	\$5,698,956.00
Construction Cost Estimate	\$ 4,868,956.00
Site work	
Exterior Restoration	
Interior Adaptive Construction	
FF&E	\$ 350,000.00
Soft Costs	
A/E Fees and Expenses	\$ 480,000.00





Site Plan
 1/16" = 1'-0"



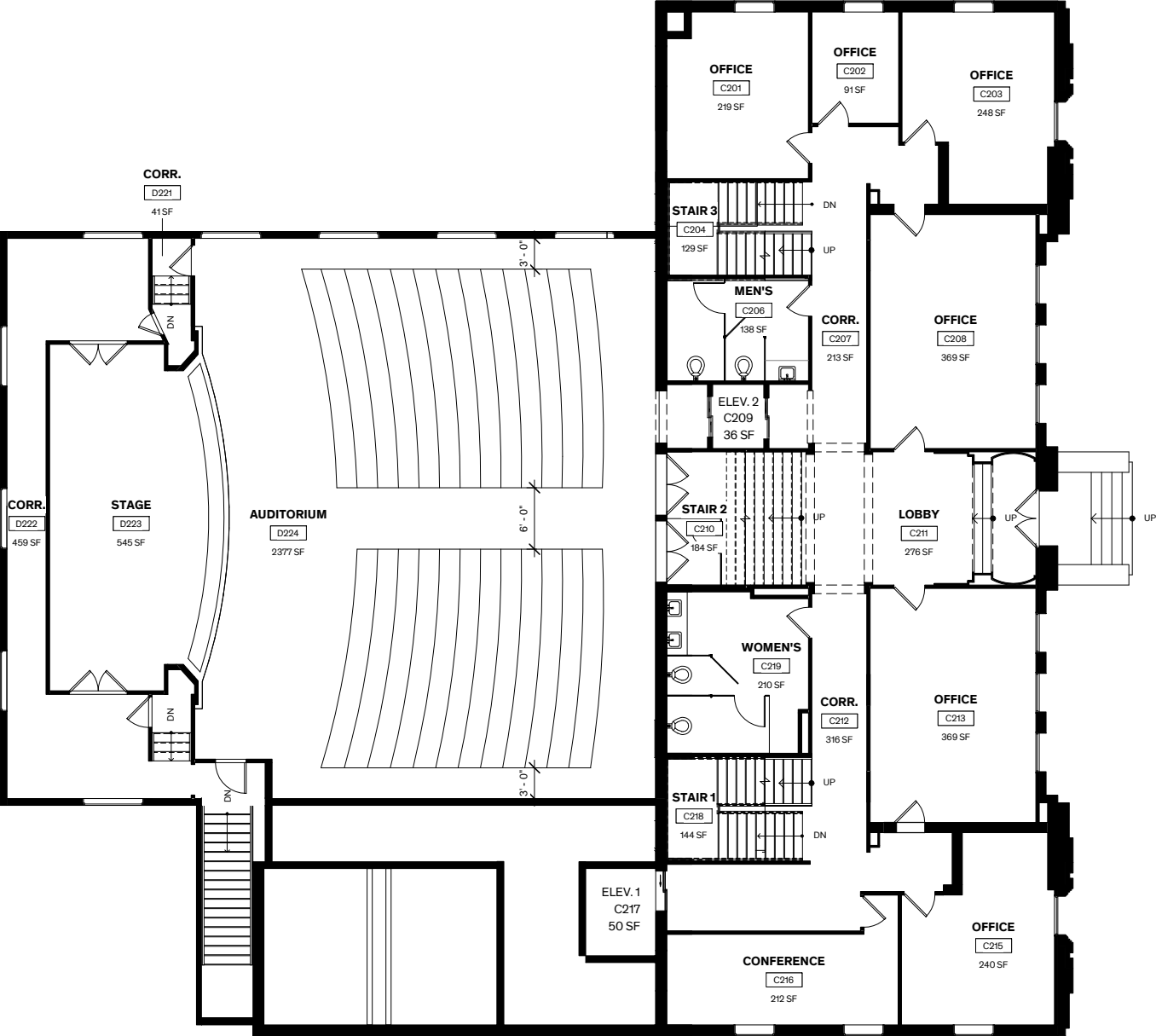
I Level A/B
1/8" = 1'-0"

N
TRUE NORTH

Proposed Level A/B - Total Floor Area 8426 SF

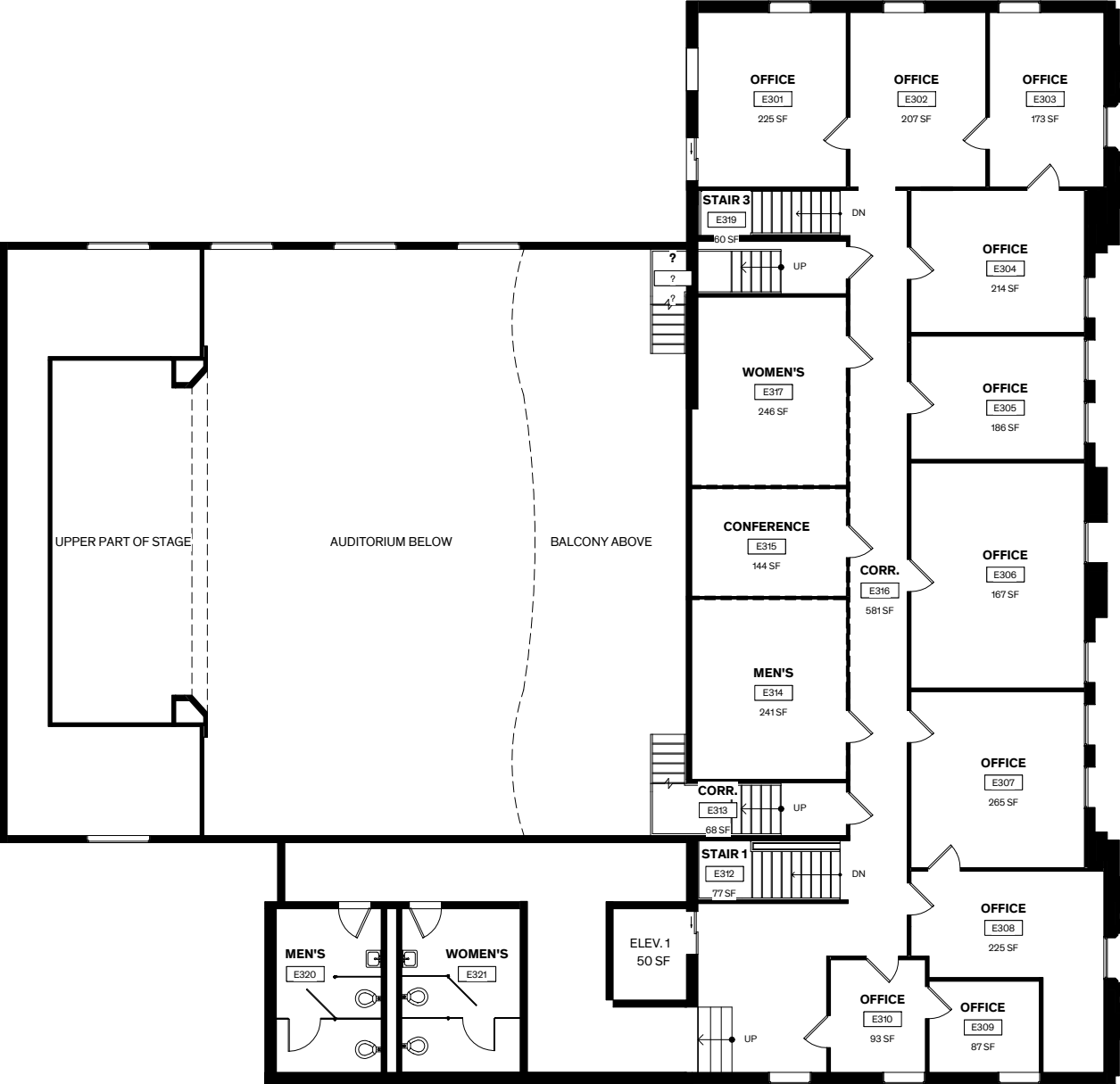
Total Useable Area - 6600 SF

CORRIDORS - 1035 SF
RESTROOMS - 695 SF
STORAGE - 570 SF
ELEC/DATA - 395 SF
OFFICE - 655 SF
EVENT SPACE - 2646 SF
CATERING KITCHEN - 775 SF
COURTYARD - 1676 SF



I Floor Levels C/D
1/8" = 1'-0"

Proposed Level C - Total Floor Area 3922 SF	
Total Useable Area - 3440 SF	
CORRIDORS - 1073 SF	
OFFICES - 1425 SF	
CONFERENCE - 212 SF	
RESTROOMS - 340 SF	
Proposed Level D - Total Floor Area 3584 SF	
Total Useable Area - 3405 SF	
CORRIDORS - 595 SF	
AUDITORIUM - 2377 SF	
STAGE - 545 SF	

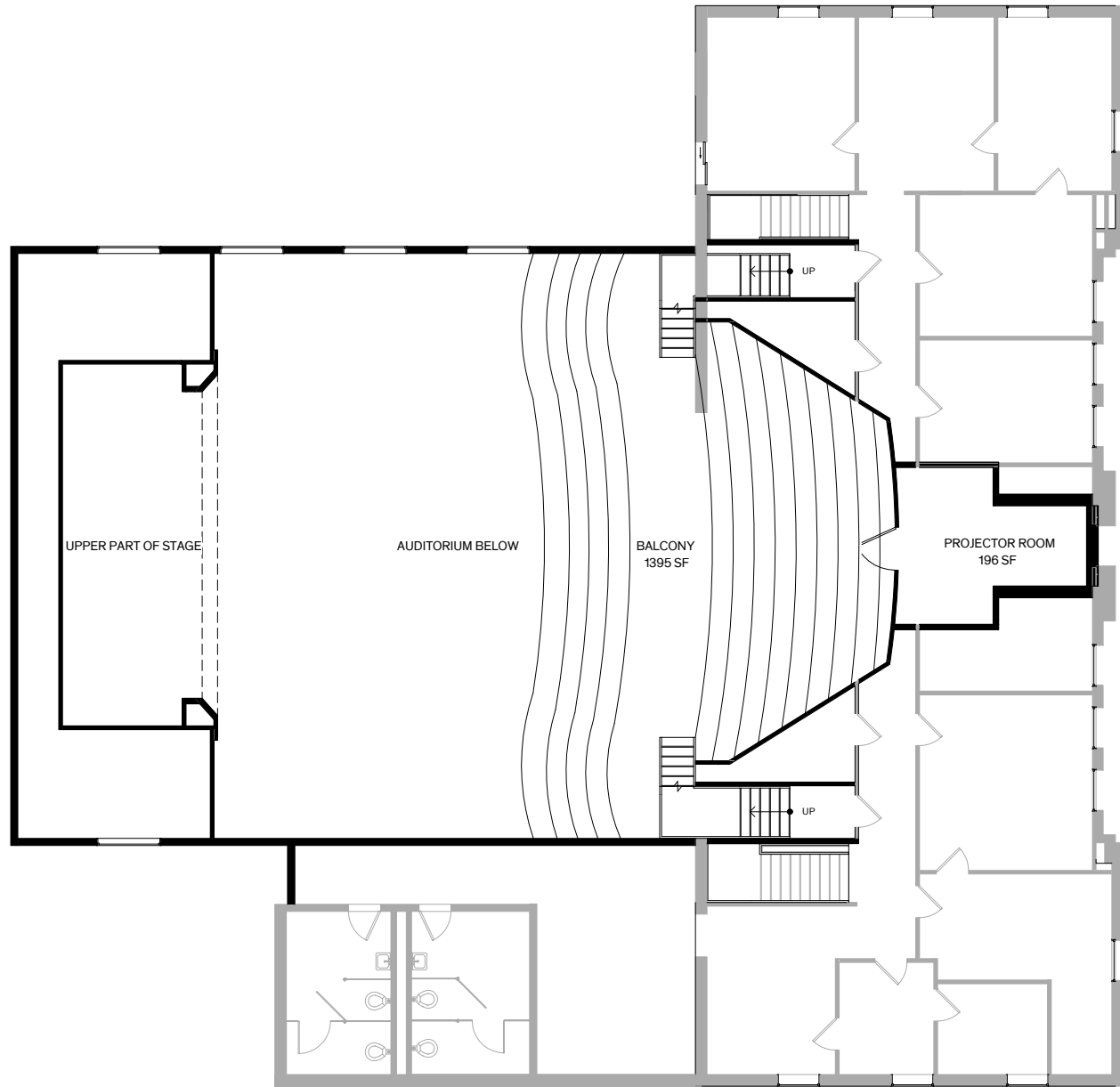


I Floor Level E
1/8" = 1'-0"

Proposed Level E - Total Floor Area 3922 SF

Total Useable Area - 3536 SF

CORRIDORS - 670 SF
OFFICES - 2222 SF
RESTROOMS - 500 SF
CONFERENCE - 145 SF



I Level F
1/8" = 1'-0"

Proposed Level F - 1680 SF

Total Useable Area - 1590 SF
BALCONY - 1395 SF
PROJECTOR ROOM - 196 SF

Option#3

Restoration of the exterior and renovation of the interior to meet the minimum requirements of life safety and accessibility.

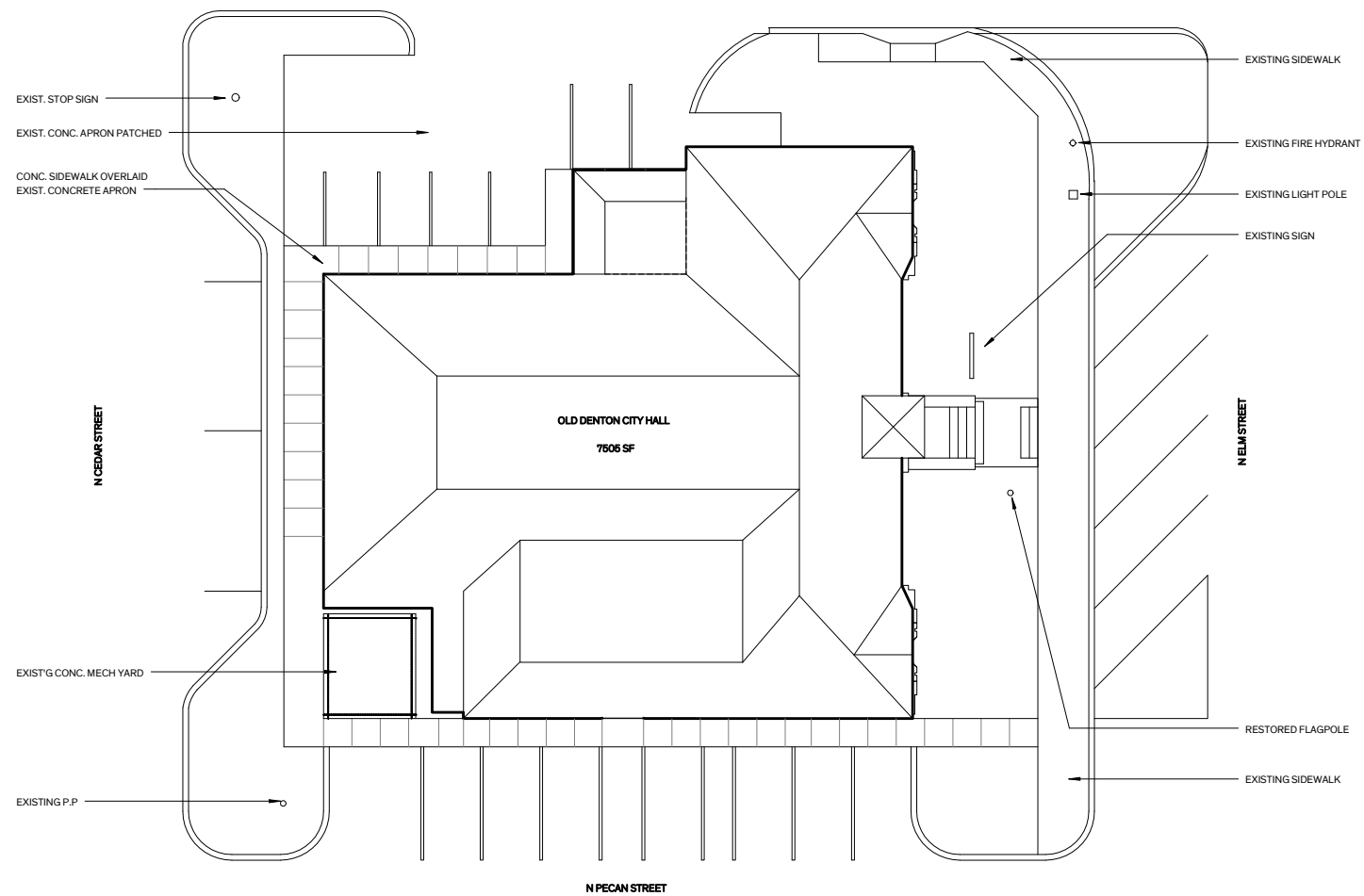
This option is a minimal approach to restore the exterior to the greatest extent possible while leaving the 1980's interior and exterior renovations.

This scope of work includes:

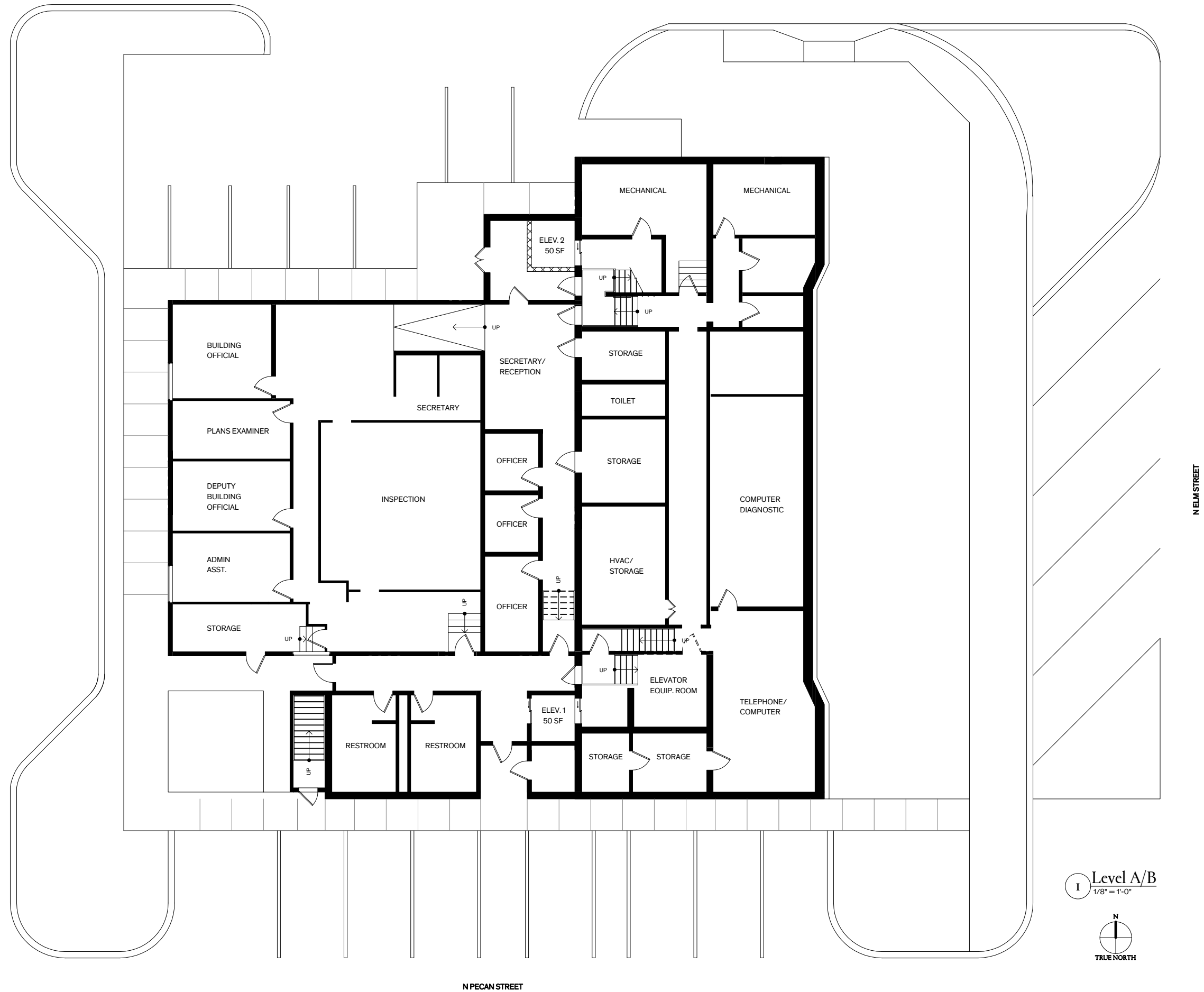
1. Restore exterior masonry and new windows
2. Rehabilitate the south and north elevator additions. Add new elevators(multiple stops to provide accessibility standards)
3. Modify the existing egress stair in the southwest corner of the Auditorium to the exterior for added emergency
4. Rehabilitate construct offices on each floor for new programed use
5. New HVAC system (per narrative)
6. New lighting (LED) throughout
7. Rework the fire suppression system and add emergency egress (exit) lights
8. Rehabilitate interior finishes
9. Upgrade all bathrooms and other plumbing systems to meet local codes

Option #3

Estimated Project Budget	\$ 3,775,176.00
Construction Cost Estimate	\$ 3,315,176.00
Site work	
Exterior Restoration	
Interior Renovation Construction	
FF& E	\$ 120,000.00
Soft Costs	
A/E Fees and Expenses	\$ 340,000.00

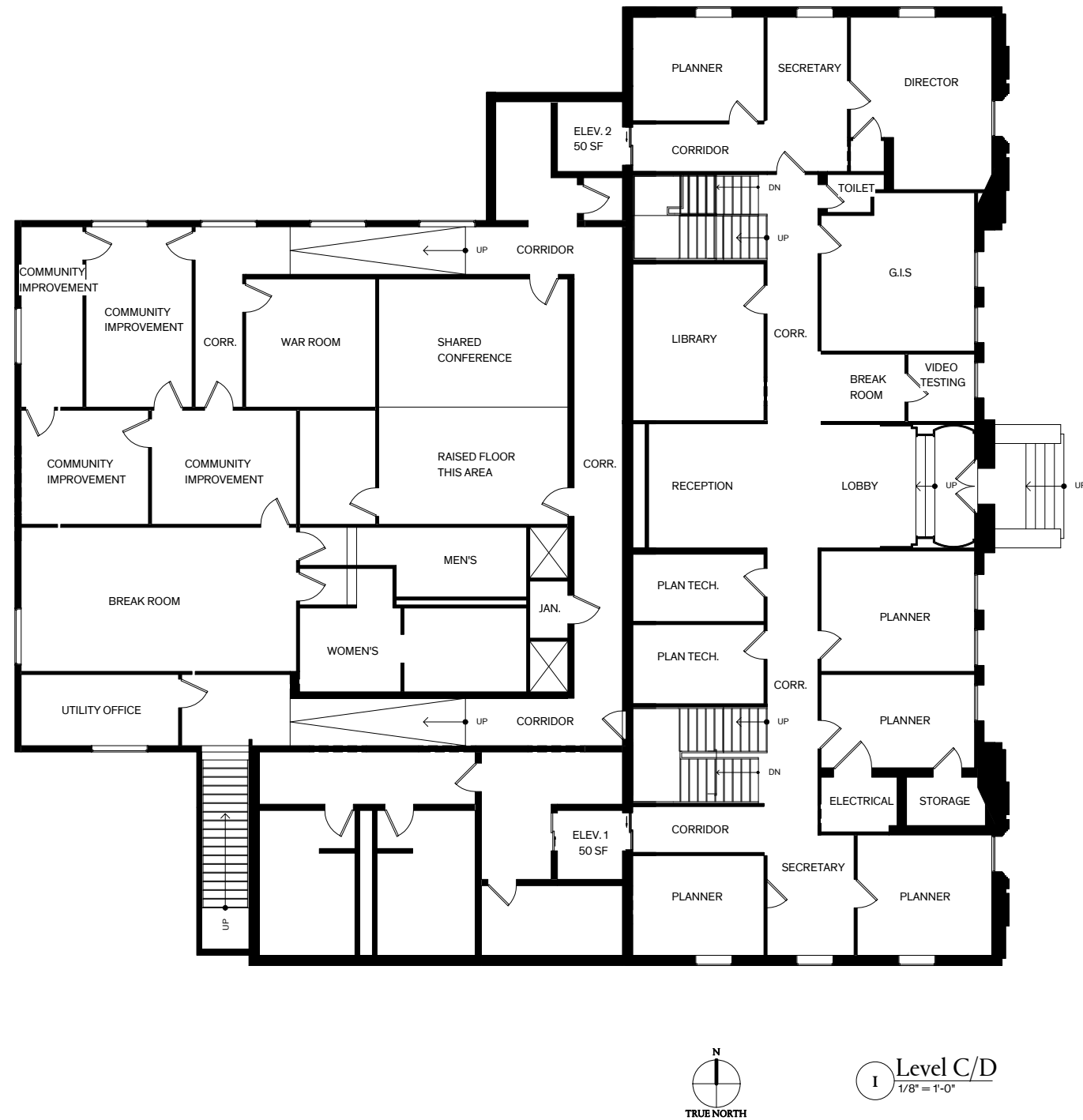


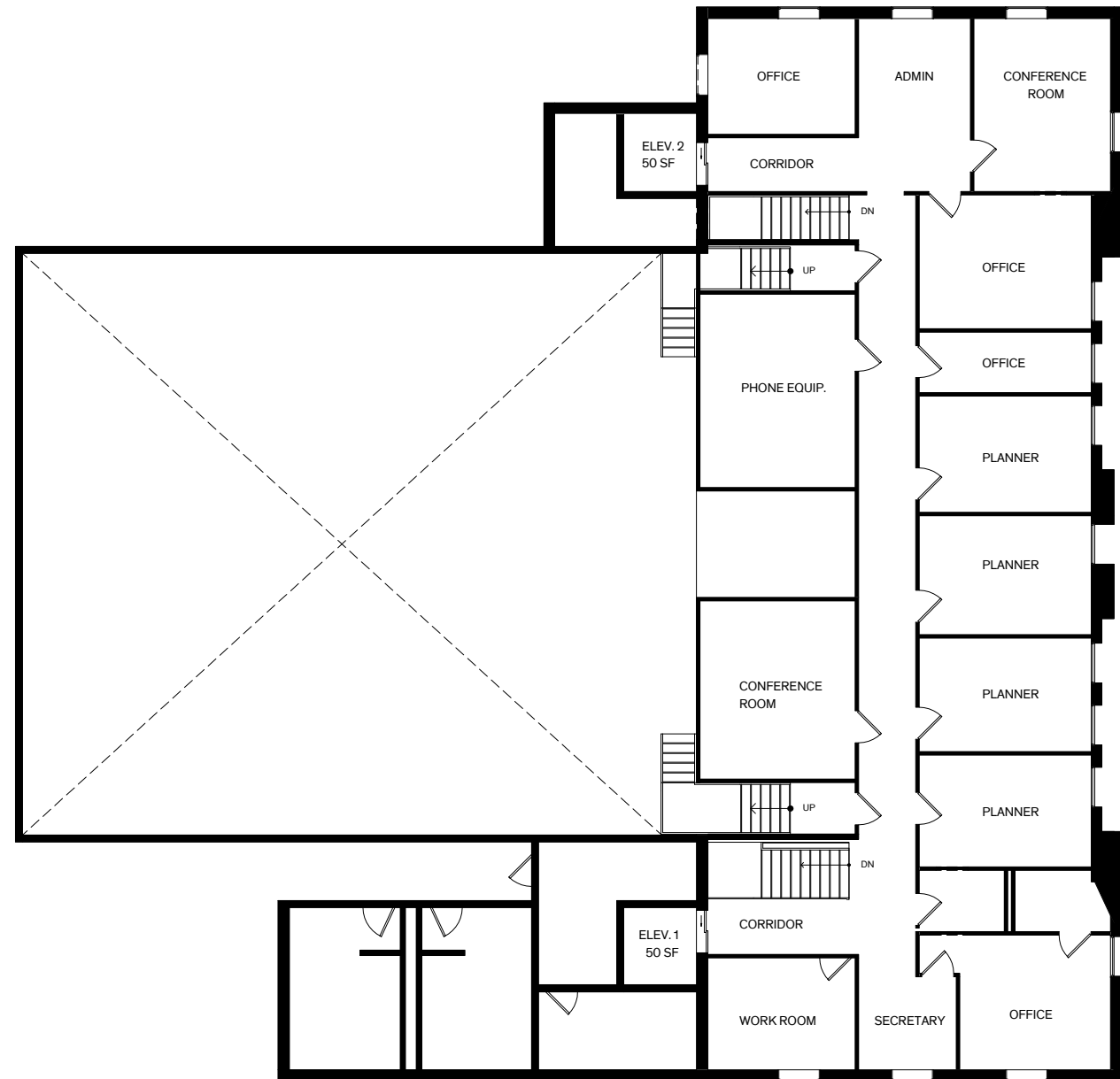
I Site Plan
1/16" = 1'-0"



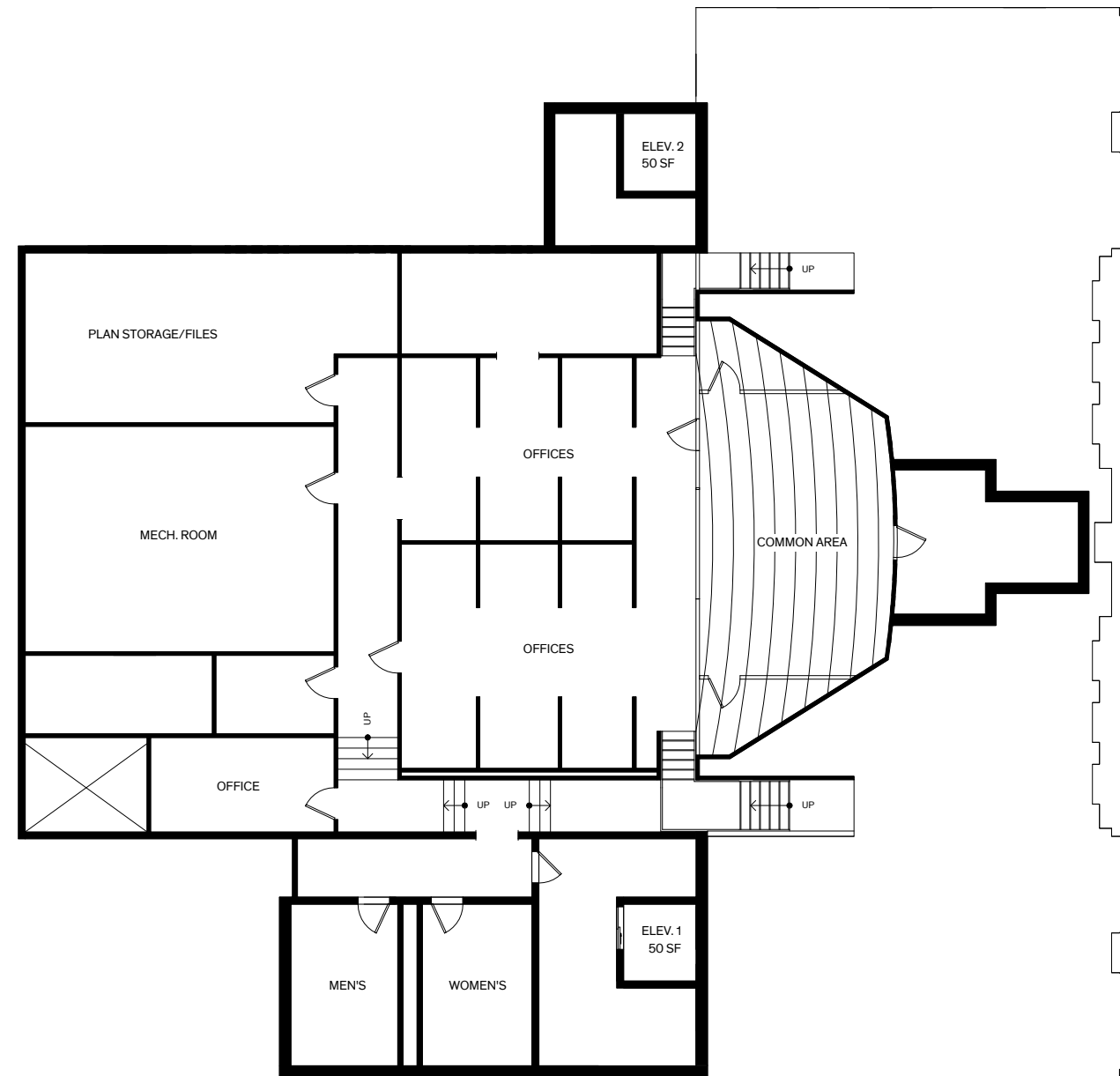
I Level A/B
1/8" = 1'-0"







Level E
1/8" = 1'-0"



I Level F
1/8" = 1'-0"

State Historic Preservation Tax credits

The state tax credit program provides a 25% historic franchise or insurance tax credit based on the qualified rehabilitation expenditures. To qualify for the 25% tax credit for historic buildings, the rehabilitation must be approved as meeting *The Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings*.

Benefit and Financial Requirements

The owner is eligible to recapture 25% of the total qualifying rehabilitation costs in the form of franchise tax credits. There is a five year recapture period and the credits may be sold or transferred.

Qualifying rehabilitation expenditures must exceed \$5,000.00. Qualifying expenditures generally include all hard and soft costs associated with the rehabilitation with the exception of building acquisition, additions, FF&E and site work.

An owner may receive the state tax credits in successive applications for any fiscal year after 2014 if the cost threshold and other program requirements are met. As such, a large project may be broken into phases, effectively extending the recapture period.

Upon completion of a certified rehabilitation under the state program there are no additional regulatory or review requirements.

Eligibility

For participation in the program, the subject building must be listed as a state landmark or national landmark or be determined eligible to be listed.

Process

The state tax credit process is handled in three parts. The *Part A: Evaluation of Significance* application establishes whether the building currently is listed on the National Register of Historic Places, is designated a Recorded Texas Historic Landmark or State Archaeological Landmark, or if it is eligible for listing. If the building is not yet listed but is found to be eligible, the tax credit project may be undertaken while the designation process is pursued.

The *Part B: Description of Rehabilitation* describes the existing conditions of the property and the proposed scope of work. Photographs must be provided, which fully describe the building and clearly show the condition of all major character-defining features of the building prior to the start of work. The proposed work is evaluated by THC staff for its conformance to the Standards.

The *Part C: Request for Certification of Completed Work* is submitted upon completion of the project and documents that the work was completed as proposed and in accordance with the Standards. Once the THC determines that the completed work meets the Standards, a Certificate of Eligibility for the state historic tax credit is provided to the owner. This certificate must be presented to the Texas Office of the Comptroller to receive the state tax credits.

Appendix

OLD CITY HALL - DENTON

DENTON, TEXAS

**MECHANICAL, ELECTRICAL, PLUMBING AND FIRE/LIFE SAFETY
SURVEY REPORT**

ARJO PROJECT NO. 5751

AUGUST 2017



**THE SEAL APPEARING ON THIS
DOCUMENT WAS AUTHORIZED
BY BILL HOWSE, P.E. #27230
AUGUST 3, 2017**



**THE SEAL APPEARING ON THIS
DOCUMENT WAS AUTHORIZED
BY JAMES H. BAILEY, JR., P.E.
#62360 AUGUST 3, 2017**

SUBMITTED TO:

**ARCHITEXAS
1907 MARILLA.
SECOND FLOOR
HOUSTON, TEXAS 77095**

SUBMITTED BY:

**ARJO ENGINEERS, INC.
5501 LBJ FREEWAY
SUITE 435
DALLAS, TEXAS 75240**

PROPERTY CONDITION ASSESSMENT
OLD CITY HALL - DENTON
DENTON, TEXAS

MECHANICAL, ELECTRICAL, PLUMBING AND FIRE/LIFE SAFETY SYSTEMS

Mechanical Systems

The HVAC hydronic system is for VAV cooling only with electrical perimeter heating zones. A 60 ton, R-22, air cooled chiller supplies chilled water to air handler on the top floor. The chiller was salvaged from another building several years ago. It appears to be operating acceptably but is approximately 15 years old and, in our opinion, is not of adequate capacity to service a fully occupied building. Any renovation should plan on replacing the machine with a new 90 ton machine.

The air handler on the top floor was installed in approximately 1980 and is beyond its normally expected life. It is currently leaking and, with any renovation, should be replaced with a new 36,000 CFM air handler.

The return air system is somewhat suspect. There is no obvious return air chase and it was reported that some of the walls were used for return air. A renovation would require the system be addressed. The VAV terminal boxes on the exterior were reported and appeared to be in good condition.

Two chilled water pumps circulate HVAC cooling water between the air handler and the chiller. The pumps appear to be in good condition.

There is an energy management system to turn equipment on/off. Controls are pneumatic and electric.

Electrical Systems

The building is fed by one 300 KVA pad mounted electric utility company transformer. There is an 18 KW back-up generator that supplies required emergency power. The electrical feed from the utility company transformer serves a distribution panel in the basement. The distribution panel feeds panels in the basement and two levels above.

PROPERTY CONDITION ASSESSMENT
OLD CITY HALL - DENTON
DENTON, TEXAS

The distribution panel is labeled 'MAINS'. It is 277/480 volt, 600 amps. This panel has six fused switches, each is a service disconnect. 'MAINS' service panels 'HEB', 'HCD' and 'HCF'. The distribution panel also serves two elevators and a chiller.

Panel 'HAB' located adjacent the distribution panel is 277/480 volts, 100 amps, main lugs only with 42 total spaces. This panel feeds a 30 KVA transformer with serves panel 'LAB'. Panel 'LAB' is 120/208 volts with a 100 amp main breaker and 24 spaces. Panel 'LAB' sub-feeds adjacent panel. Label was not legible. This panel was 120/208 volts with a 100 amp main breaker and has 20 spaces.

Panel 'EH' located in the basement and is 277/480 volts, 225 amp main lugs only with 20 space and feeds transformer 'EL'. The transformer is 15 KVA and serves panel 'EL'. Panel 'EL' is 120/208 volts with a 60 amp main circuit breaker and has 27 spaces. Panel 'EH' is fed from normal power and emergency power via an 18 KW generator located in the basement and an automatic transfer switch.

Panel 'HCD' is located on the first level and is 277/480 volts, 225 amps main lugs only. This panel has 38 spaces and feeds transformer 'LCD'. The transformer is 15 KVA and serves panel 'LCD'. Panel 'LCD' is 120/208 volts with a 60 amp main circuit breaker.

Panel 'HEF' is located on the second level and is 277/480 volts, 225 amps main lugs only. This panel has 42 spaces and feeds transformer 'LEF'. The transformer is 15 KVA and serves panel 'LEF'. Panel 'LEF' is 120/208 volts with a 60 amp main circuit breaker.

PROPERTY CONDITION ASSESSMENT
OLD CITY HALL - DENTON
DENTON, TEXAS

Electrical Systems Continued

Lighting throughout the building is mostly fluorescent with some incandescent mixed in. The incandescent lights selected to remain could be retrofitted with LED replacement lamps. The fluorescent lights will need to be replaced with LED fixtures.

The fire alarm system is an addressable Silent Knight system that will be adequate to serve the new design.

Plumbing Systems

The domestic water piping appears to be copper. Sewer piping appears to be cast iron. Storm piping is accomplished by exterior downspouts that are discharged at grade. Natural gas is supplied in steel piping to the emergency generator.

Water closets are tank type Lavatories are both countertop and wall mounted. A renovation would require restrooms to be modified for handicap accessibility a 50 gallon 9KW electric water heater is located in the 2nd floor. There appears to be some ground water under the building as water was seen going into a sump in the basement

Life Safety

The building is equipped with a fire sprinkler system and fire alarm. The fire water riser enters the building in the basement where the fire water riser is located. The system had an inspection tag dated December, 2016.

PROPERTY CONDITION ASSESSMENT
OLD CITY HALL - DENTON
DENTON, TEXAS

Opinions of Repairs and Recommendations

1. Replace the 60 Ton Chiller with a 90 Ton Chiller.
2. Replace the Air Handler on the top floor.
3. Develop the Return Air System for the building.
4. The electric service and distribution may be adequate. However, if the heating is converted to gas the electric service would be adequate. There is currently gas service to the building
5. The building is using fluorescent and incandescent lighting fixtures. The fluorescent fixtures should be replaced with LED and the incandescent fixtures should be reused. Retrofit the incandescent fixtures with LED replacement lamps.
6. The emergency generator appears to be adequate to serve the buildings' egress and exiting lights.
7. The fire alarm control panel appears to be adequate to serve the re-design for this building.



1. 60 Ton Trane Air Cooled Chiller.



2. Chilled Water Piping.



3. York Air Handling Unit on Top Floor.



4. Return Air Opening in Floor.



5. Chilled Water Pumps in Mechanical Room.



6. Air Compressor for Pneumatic Controls.



7. Controls for Air Handler.



8. Typical Ceiling Fixtures.



9. Utility Company Switch and Transformer for Building.



10. Main Switchgear in Basement.



11. Typical Electrical Panel in Basement.



12. Telephone Panel in Basement.



13. Restroom Fixtures on 2nd Floor.



14. Typical Tank Water Closet.



15. 50 Gallon Electric Water Heater on 1st Floor.



16. Gas Fired Emergency Generator in Basement.



17. Fire Alarm Panel in Basement.



18. Fire Sprinkler Riser in Basement.



Group	Phase	Item	Description	Takeoff Quantity	Labor Cost/Unit	Labor Amount	Material Cost/Unit	Material Amount	Sub Cost/Unit	Sub Amount	Other Cost/Unit	Other Amount	Total Amount
01.000			GENERAL REQUIREMENTS										
	01.310		PROJECT MANAGEMENT										
		2000	Project manager (50%)	9.00 mo	9,500.00 /mo	85,500	-	-	-	-	-	-	85,500
		2005	Project superintendent	18.00 mo	7,500.00 /mo	135,000	-	-	-	-	-	-	135,000
	01.520		CONSTRUCTION FACILITIES										
		1005	Project office	18.00 mo	-	-	-	-	-	-	350.00 /mo	6,300	6,300
		1050	Storage trailers	18.00 mo	-	-	-	-	-	-	280.00 /mo	5,040	5,040
		1060	Portable toilets	18.00 mo	-	-	-	-	-	-	240.00 /mo	4,320	4,320
	01.540		CONSTRUCTION AIDS										
		1017	Phone/fax/internet	18.00 mo	-	-	-	-	-	-	350.00 /mo	6,300	6,300
		1025	Copies/blue prints	1.00 ls	-	-	-	-	-	-	825.00 /ls	825	825
		1050	Dumpsters	12.00 ea	-	-	-	-	-	-	500.00 /ea	6,000	6,000
		9010	Equipment rental (lifts/scaffolding)	1.00 ls	-	-	-	-	7,200.00 /ls	7,200	-	-	7,200
	01.560		TEMP BARRIERS & ENCLOSURE										
		9000	Construction fencing	1.00 ls	-	-	-	-	1,760.00 /ls	1,760	-	-	1,760
	01.580		PROJECT IDENTIFICATION										
		1000	Project sign	1.00 ea	-	-	-	-	750.00 /ea	750	-	-	750
	01.740		CLEANING										
		2010	Final cleaning	1.00 ls	4,800.00 /ls	4,800	-	-	-	-	-	-	4,800
02.000			SITE CONSTRUCTION										
	02.220		DEMOLITION										
		9040	Demolition	1.00 ls	-	-	-	-	215,000.00 /ls	215,000	-	-	215,000
	02.930		EXTERIOR PLANTS										
		9001	Restore landscaping	1.00 ls	-	-	-	-	6,500.00 /ls	6,500	-	-	6,500
03.000			CONCRETE WORK										
	03.300		CAST-IN-PLACE CONCRETE										
		9000	Exterior concrete (ramps/stair repairs)	1.00 ls	-	-	-	-	26,200.00 /ls	26,200	-	-	26,200
		9001	Interior concrete stairs/ramps/trenches	1.00 ls	-	-	-	-	92,800.00 /ls	92,800	-	-	92,800
04.000			MASONRY										
	04.220		CONCRETE MASONRY UNITS										
		9000	New elevator shafts	1.00 ls	-	-	-	-	75,000.00 /ls	75,000	-	-	75,000
	04.900		MASONRY RESTORATION										
		9000	Exterior masonry cleaning/restoration	1.00 ls	-	-	-	-	28,250.00 /ls	28,250	-	-	28,250
		9005	Masonry openings for overhead doors	1.00 ls	-	-	-	-	27,500.00 /ls	27,500	-	-	27,500
05.000			METALS										
	05.120		STRUCTURAL STEEL										
		9000	Structural steel	1.00 ls	-	-	-	-	158,000.00 /ls	158,000	-	-	158,000
	05.520		HANDRAILS & RAILINGS										
		4010	Exterior metal railings	1.00 ls	-	-	-	-	6,200.00 /ls	6,200	-	-	6,200
		9000	Interior metal railings	1.00 ls	-	-	-	-	19,600.00 /ls	19,600	-	-	19,600



Group	Phase	Item	Description	Takeoff Quantity	Labor Cost/Unit	Labor Amount	Material Cost/Unit	Material Amount	Sub Cost/Unit	Sub Amount	Other Cost/Unit	Other Amount	Total Amount
	05.550		STAIR TREADS AND NOSING										
		4000	Stair nosings	1.00 ls	-	-			12,700.00 /ls	12,700	-	-	12,700
06.000			WOOD AND PLASTICS										
	06.100		ROUGH CARPENTRY										
		9000	Rough carpentry (framing at stage/balcony)	1.00 ls	-	-	-	-	64,600.00 /ls	64,600	-	-	64,600
	06.200		FINISH CARPENTRY										
		9000	Finish carpentry (trim/millwork/railings/etc.)	1.00 ls	-	-	-	-	71,000.00 /ls	71,000	-	-	71,000
	06.910		WOOD RESTORATION-CLEANING										
		9000	Misc. repairs/new bell at Bell Tower	1.00 ls	-	-	-	-	13,600.00 /ls	13,600	-	-	13,600
07.000			THERMAL/MOISTURE PROTECT										
	07.490		ROOFING										
		9000	Roof/gutter/downspout repairs	1.00 ls	-	-	-	-	27,500.00 /ls	27,500	-	-	27,500
08.000			DOORS & WINDOWS										
	08.050		DOORS										
		9000	New doors/hardware	1.00 ls	-	-	-	-	112,400.00 /ls	112,400	-	-	112,400
	08.190		METAL DOOR RESTORATION										
		9000	Restoration/repair of existing entry doors	1.00 ls	-	-	-	-	8,500.00 /ls	8,500	-	-	8,500
	08.360		OVERHEAD DOORS										
		9000	OH doors	1.00 ls	-	-	-	-	23,300.00 /ls	23,300	-	-	23,300
	08.500		WINDOWS										
		9000	New wood windows	1.00 ls	-	-	-	-	188,000.00 /ls	188,000	-	-	188,000
09.000			FINISHES										
	09.260		GYPSUM BOARD ASSEMBLIES										
		9000	Drywall/framing/ceilings	1.00 ls	-	-	-	-	187,000.00 /ls	187,000	-	-	187,000
	09.280		PLASTER RESTORATION										
		9000	Plaster restoration	1.00 ls	-	-	-	-	32,000.00 /ls	32,000	-	-	32,000
	09.300		TILE										
		9000	Tile (restroom floors/walls and main entry)	1.00 ls	-	-	-	-	45,700.00 /ls	45,700	-	-	45,700
	09.545		SPECIALTY CEILINGS										
		9000	Vaulted ceiling	1.00 ls	-	-	-	-	17,200.00 /ls	17,200	-	-	17,200
	09.620		SPECIALTY FLOORING										
		9000	Decorative concrete overlay in Auditorium	1.00 ls	-	-	-	-	42,300.00 /ls	42,300	-	-	42,300
	09.640		WOOD FLOORING										
		9005	New wood flooring (balcony and stage)	1.00 ls	-	-	-	-	33,200.00 /ls	33,200	-	-	33,200
	09.680		CARPET										
		9010	Carpet/VCT (offices/event space/etc.)	1.00 ls	-	-	-	-	68,900.00 /ls	68,900	-	-	68,900



Group	Phase	Item	Description	Takeoff Quantity	Labor Cost/Unit	Labor Amount	Material Cost/Unit	Material Amount	Sub Cost/Unit	Sub Amount	Other Cost/Unit	Other Amount	Total Amount
	09.900		PAINTS AND COATINGS										
		9000	Paint/finishes	1.00 ls	-	-	-	-	148,200.00 /ls	148,200	-	-	148,200
10.000			SPECIALTIES										
	10.050		SPECIALTIES										
		9020	Acoustical upgrades for Auditorium	1.00 ls	-	-	-	-	36,200.00 /ls	36,200	-	-	36,200
	10.400		IDENTIFICATION DEVICES										
		9001	Signage	1.00 ls	-	-	-	-	3,600.00 /ls	3,600	-	-	3,600
	10.520		FIRE PROTECTION										
		9000	Fire extinguisher/cabinets	1.00 ls	-	-	-	-	2,800.00 /ls	2,800	-	-	2,800
	10.810		TOILET ACCESSORIES										
		9000	Toilet partitions/accessories	1.00 ls	-	-	-	-	7,500.00 /ls	7,500	-	-	7,500
11.000			EQUIPMENT										
	11.130		AUDIO-VISUAL EQUIPMENT										
		9000	Audio-visual system	1.00 ls	-	-	-	-	27,700.00 /ls	27,700	-	-	27,700
12.000			FURNISHINGS										
	12.610		FIXED AUDIENCE SEATING										
		9005	Fixed seating	1.00 ls	-	-	-	-	150,000.00 /ls	150,000	-	-	150,000
13.000			SPECIAL CONSTRUCTION										
	13.850		DETECTION AND ALARM										
		9000	Fire alarm	1.00 ls	-	-	-	-	18,500.00 /ls	18,500	-	-	18,500
	13.900		FIRE SUPPRESSION										
		9000	Fire sprinkler	1.00 ls	-	-	-	-	31,200.00 /ls	31,200	-	-	31,200
14.000			CONVEYING SYSTEMS										
	14.200		ELEVATORS										
		9000	Elevators (2 each)	1.00 ls	-	-	-	-	193,000.00 /ls	193,000	-	-	193,000
15.000			MECHANICAL										
	15.350		PLUMBING										
		9000	Plumbing	1.00 ls	-	-	-	-	122,000.00 /ls	122,000	-	-	122,000
	15.700		HVAC										
		9000	HVAC	1.00 ls	-	-	-	-	582,000.00 /ls	582,000	-	-	582,000
16.000			ELECTRICAL										
	16.200		ELECTRICAL POWER										
		9000	Electrical	1.00 ls	-	-	-	-	386,000.00 /ls	386,000	-	-	386,000



Estimate Totals

Description	Amount	Totals	Hours	Rate	Cost Basis	Cost per Unit	Percent of Total
Labor	225,300						4.83%
Material							
Subcontract	3,321,360						71.24%
Equipment							
Other	28,785						0.62%
	3,575,445	3,575,445					76.69 76.69%
Permits	34,968			0.750 %	T		0.75%
General Liabilitv	54,156			1.500 %	T		1.16%
GC Contingency	366,457			10.000 %	T		7.86%
O&P	604,654			15.000 %	T		12.97%
P & P Bond - GC	26,750				B		0.57%
Total		4,662,430					



Group	Phase	Item	Description	Takeoff Quantity	Labor Cost/Unit	Labor Amount	Material Cost/Unit	Material Amount	Sub Cost/Unit	Sub Amount	Other Cost/Unit	Other Amount	Total Amount
01.000			GENERAL REQUIREMENTS										
	01.310		PROJECT MANAGEMENT										
		2000	Project manager (50%)	9.00 mo	9,500.00 /mo	85,500	-	-	-	-	-	-	85,500
		2005	Project superintendent	18.00 mo	7,500.00 /mo	135,000	-	-	-	-	-	-	135,000
	01.520		CONSTRUCTION FACILITIES										
		1005	Project office	18.00 mo	-	-	-	-	-	-	350.00 /mo	6,300	6,300
		1050	Storage trailers	18.00 mo	-	-	-	-	-	-	280.00 /mo	5,040	5,040
		1060	Portable toilets	18.00 mo	-	-	-	-	-	-	240.00 /mo	4,320	4,320
	01.540		CONSTRUCTION AIDS										
		1017	Phone/fax/internet	18.00 mo	-	-	-	-	-	-	350.00 /mo	6,300	6,300
		1025	Copies/blue prints	1.00 ls	-	-	-	-	-	-	825.00 /ls	825	825
		1050	Dumpsters	12.00 ea	-	-	-	-	-	-	500.00 /ea	6,000	6,000
		9010	Equipment rental (lifts/scaffolding)	1.00 ls	-	-	-	-	7,200.00 /ls	7,200	-	-	7,200
	01.560		TEMP BARRIERS & ENCLOSURE										
		9000	Construction fencing	1.00 ls	-	-	-	-	1,760.00 /ls	1,760	-	-	1,760
	01.580		PROJECT IDENTIFICATION										
		1000	Project sign	1.00 ea	-	-	-	-	750.00 /ea	750	-	-	750
	01.740		CLEANING										
		2010	Final cleaning	1.00 ls	4,800.00 /ls	4,800	-	-	-	-	-	-	4,800
02.000			SITE CONSTRUCTION										
	02.220		DEMOLITION										
		9040	Demolition	1.00 ls	-	-	-	-	225,000.00 /ls	225,000	-	-	225,000
	02.930		EXTERIOR PLANTS										
		9001	Landscaping	1.00 ls	-	-	-	-	19,500.00 /ls	19,500	-	-	19,500
03.000			CONCRETE WORK										
	03.300		CAST-IN-PLACE CONCRETE										
		9000	Exterior concrete (ramps/stair repairs/courtyard area)	1.00 ls	-	-	-	-	49,200.00 /ls	49,200	-	-	49,200
		9001	Interior concrete stairs/ramps/trenches	1.00 ls	-	-	-	-	92,800.00 /ls	92,800	-	-	92,800
04.000			MASONRY										
	04.220		CONCRETE MASONRY UNITS										
		9000	New elevator shafts	1.00 ls	-	-	-	-	75,000.00 /ls	75,000	-	-	75,000
	04.900		MASONRY RESTORATION										
		9000	Exterior masonry cleaning/restoration	1.00 ls	-	-	-	-	28,250.00 /ls	28,250	-	-	28,250
		9005	Masonry openings for overhead doors	1.00 ls	-	-	-	-	27,500.00 /ls	27,500	-	-	27,500
05.000			METALS										
	05.120		STRUCTURAL STEEL										
		9000	Structural steel	1.00 ls	-	-	-	-	158,000.00 /ls	158,000	-	-	158,000
	05.520		HANDRAILS & RAILINGS										
		4010	Exterior metal railings	1.00 ls	-	-	-	-	6,200.00 /ls	6,200	-	-	6,200
		9000	Interior metal railings	1.00 ls	-	-	-	-	19,600.00 /ls	19,600	-	-	19,600



Group	Phase	Item	Description	Takeoff Quantity	Labor Cost/Unit	Labor Amount	Material Cost/Unit	Material Amount	Sub Cost/Unit	Sub Amount	Other Cost/Unit	Other Amount	Total Amount
	05.550		STAIR TREADS AND NOSING										
		4000	Stair nosings	1.00 ls	-	-			12,700.00 /ls	12,700	-	-	12,700
06.000			WOOD AND PLASTICS										
	06.100		ROUGH CARPENTRY										
		9000	Rough carpentry (framing at stage/balcony)	1.00 ls	-	-	-	-	64,600.00 /ls	64,600	-	-	64,600
	06.200		FINISH CARPENTRY										
		9000	Finish carpentry (trim/millwork/railings/etc.)	1.00 ls	-	-	-	-	71,000.00 /ls	71,000	-	-	71,000
	06.910		WOOD RESTORATION-CLEANING										
		9000	Misc. repairs/new bell at Bell Tower	1.00 ls	-	-	-	-	13,600.00 /ls	13,600	-	-	13,600
07.000			THERMAL/MOISTURE PROTECT										
	07.490		ROOFING										
		9000	Roof/gutter/downspout repairs	1.00 ls	-	-	-	-	27,500.00 /ls	27,500	-	-	27,500
08.000			DOORS & WINDOWS										
	08.050		DOORS										
		9000	New doors/hardware	1.00 ls	-	-	-	-	112,400.00 /ls	112,400	-	-	112,400
	08.190		METAL DOOR RESTORATION										
		9000	Restoration/repair of existing entry doors	1.00 ls	-	-	-	-	8,500.00 /ls	8,500	-	-	8,500
	08.360		OVERHEAD DOORS										
		9000	OH doors	1.00 ls	-	-	-	-	23,300.00 /ls	23,300	-	-	23,300
	08.500		WINDOWS										
		9000	New wood windows	1.00 ls	-	-	-	-	188,000.00 /ls	188,000	-	-	188,000
09.000			FINISHES										
	09.260		GYPSUM BOARD ASSEMBLIES										
		9000	Drywall/framing/ceilings	1.00 ls	-	-	-	-	193,000.00 /ls	193,000	-	-	193,000
	09.280		PLASTER RESTORATION										
		9000	Plaster restoration	1.00 ls	-	-	-	-	32,000.00 /ls	32,000	-	-	32,000
	09.300		TILE										
		9000	Tile (restroom floors/walls and main entry)	1.00 ls	-	-	-	-	45,700.00 /ls	45,700	-	-	45,700
	09.545		SPECIALTY CEILINGS										
		9000	Vaulted ceiling	1.00 ls	-	-	-	-	17,200.00 /ls	17,200	-	-	17,200
	09.620		SPECIALTY FLOORING										
		9000	Decorative concrete overlay in Auditorium	1.00 ls	-	-	-	-	42,300.00 /ls	42,300	-	-	42,300
	09.640		WOOD FLOORING										
		9005	New wood flooring (balcony and stage)	1.00 ls	-	-	-	-	33,200.00 /ls	33,200	-	-	33,200
	09.680		CARPET										
		9010	Carpet/VCT (offices/event space/etc.)	1.00 ls	-	-	-	-	68,900.00 /ls	68,900	-	-	68,900



Group	Phase	Item	Description	Takeoff Quantity	Labor Cost/Unit	Labor Amount	Material Cost/Unit	Material Amount	Sub Cost/Unit	Sub Amount	Other Cost/Unit	Other Amount	Total Amount
	09.900		PAINTS AND COATINGS										
		9000	Paint/finishes	1.00 ls	-	-	-	-	148,200.00 /ls	148,200	-	-	148,200
10.000			SPECIALTIES										
	10.050		SPECIALTIES										
		9020	Acoustical upgrades for Auditorium	1.00 ls	-	-	-	-	36,200.00 /ls	36,200	-	-	36,200
	10.400		INDENTIFICATION DEVICES										
		9001	Signage	1.00 ls	-	-	-	-	3,600.00 /ls	3,600	-	-	3,600
	10.520		FIRE PROTECTION										
		9000	Fire extinguisher/cabinets	1.00 ls	-	-	-	-	2,800.00 /ls	2,800	-	-	2,800
	10.810		TOILET ACCESSORIES										
		9000	Toilet partitions/accessories	1.00 ls	-	-	-	-	7,500.00 /ls	7,500	-	-	7,500
11.000			EQUIPMENT										
	11.130		AUDIO-VISUAL EQUIPMENT										
		9000	Audio-visual system	1.00 ls	-	-	-	-	27,700.00 /ls	27,700	-	-	27,700
	11.450		KITCHEN EQUIPMENT										
		9000	Catering kitchen	1.00 ls	-	-	-	-	87,300.00 /ls	87,300	-	-	87,300
12.000			FURNISHINGS										
	12.610		FIXED AUDIENCE SEATING										
		9005	Fixed seating	1.00 ls	-	-	-	-	150,000.00 /ls	150,000	-	-	150,000
13.000			SPECIAL CONSTRUCTION										
	13.850		DETECTION AND ALARM										
		9000	Fire alarm	1.00 ls	-	-	-	-	18,500.00 /ls	18,500	-	-	18,500
	13.900		FIRE SUPPRESSION										
		9000	Fire sprinkler	1.00 ls	-	-	-	-	31,200.00 /ls	31,200	-	-	31,200
14.000			CONVEYING SYSTEMS										
	14.200		ELEVATORS										
		9000	Elevators (2 each)	1.00 ls	-	-	-	-	193,000.00 /ls	193,000	-	-	193,000
15.000			MECHANICAL										
	15.350		PLUMBING										
		9000	Plumbing	1.00 ls	-	-	-	-	142,000.00 /ls	142,000	-	-	142,000
	15.700		HVAC										
		9000	HVAC	1.00 ls	-	-	-	-	582,000.00 /ls	582,000	-	-	582,000
16.000			ELECTRICAL										
	16.200		ELECTRICAL POWER										
		9000	Electrical	1.00 ls	-	-	-	-	386,000.00 /ls	386,000	-	-	386,000



Estimate Totals

Description	Amount	Totals	Hours	Rate	Cost Basis	Cost per Unit	Percent of Total
Labor	225,300						4.63%
Material							
Subcontract	3,480,660						71.49%
Equipment							
Other	28,785						0.59%
	3,734,745	3,734,745					76.71 76.71%
Permits	36,517			0.750 %	T		0.75%
General Liabilitv	56,569			1.500 %	T		1.16%
GC Contingency	382,783			10.000 %	T		7.86%
O&P	631,592			15.000 %	T		12.97%
P & P Bond - GC	26,750				B		0.55%
Total		4,868,956					



Group	Phase	Item	Description	Takeoff Quantity	Labor Cost/Unit	Labor Amount	Material Cost/Unit	Material Amount	Sub Cost/Unit	Sub Amount	Other Cost/Unit	Other Amount	Total Amount
01.000			GENERAL REQUIREMENTS										
	01.310		PROJECT MANAGEMENT										
		2000	Project manager (50%)	7.00 mo	9,500.00 /mo	66,500	-	-	-	-	-	-	66,500
		2005	Project superintendent	14.00 mo	7,500.00 /mo	105,000	-	-	-	-	-	-	105,000
	01.520		CONSTRUCTION FACILITIES										
		1005	Project office	14.00 mo	-	-	-	-	-	-	350.00 /mo	4,900	4,900
		1050	Storage trailers	14.00 mo	-	-	-	-	-	-	280.00 /mo	3,920	3,920
		1060	Portable toilets	14.00 mo	-	-	-	-	-	-	240.00 /mo	3,360	3,360
	01.540		CONSTRUCTION AIDS										
		1017	Phone/fax/internet	14.00 mo	-	-	-	-	-	-	350.00 /mo	4,900	4,900
		1025	Copies/blue prints	1.00 ls	-	-	-	-	-	-	825.00 /ls	825	825
		1050	Dumpsters	10.00 ea	-	-	-	-	-	-	500.00 /ea	5,000	5,000
		9010	Equipment rental (lifts/scaffolding)	1.00 ls	-	-	-	-	7,200.00 /ls	7,200	-	-	7,200
	01.560		TEMP BARRIERS & ENCLOSURE										
		9000	Construction fencing	1.00 ls	-	-	-	-	1,760.00 /ls	1,760	-	-	1,760
	01.580		PROJECT IDENTIFICATION										
		1000	Project sign	1.00 ea	-	-	-	-	750.00 /ea	750	-	-	750
	01.740		CLEANING										
		2010	Final cleaning	1.00 ls	4,800.00 /ls	4,800	-	-	-	-	-	-	4,800
02.000			SITE CONSTRUCTION										
	02.220		DEMOLITION										
		9040	Demolition	1.00 ls	-	-	-	-	142,000.00 /ls	142,000	-	-	142,000
	02.930		EXTERIOR PLANTS										
		9001	Restore landscaping	1.00 ls	-	-	-	-	6,500.00 /ls	6,500	-	-	6,500
03.000			CONCRETE WORK										
	03.300		CAST-IN-PLACE CONCRETE										
		9000	Exterior concrete (ramps/stair repairs)	1.00 ls	-	-	-	-	26,200.00 /ls	26,200	-	-	26,200
		9001	Interior concrete stairs/ramps/trenches	1.00 ls	-	-	-	-	44,800.00 /ls	44,800	-	-	44,800
04.000			MASONRY										
	04.220		CONCRETE MASONRY UNITS										
		9000	New elevator shaft	1.00 ls	-	-	-	-	44,600.00 /ls	44,600	-	-	44,600
	04.900		MASONRY RESTORATION										
		9000	Exterior masonry cleaning/restoration	1.00 ls	-	-	-	-	28,250.00 /ls	28,250	-	-	28,250
05.000			METALS										
	05.520		HANDRAILS & RAILINGS										
		4010	Exterior metal railings	1.00 ls	-	-	-	-	6,200.00 /ls	6,200	-	-	6,200
		9000	Handrails/guardrails - sub	1.00 ls	-	-	-	-	9,600.00 /ls	9,600	-	-	9,600
	05.550		STAIR TREADS AND NOSING										
		4000	Stair nosings	1.00 ls	-	-	-	-	7,700.00 /ls	7,700	-	-	7,700



Group	Phase	Item	Description	Takeoff Quantity	Labor Cost/Unit	Labor Amount	Material Cost/Unit	Material Amount	Sub Cost/Unit	Sub Amount	Other Cost/Unit	Other Amount	Total Amount
	13.850		DETECTION AND ALARM										
		9000	Fire alarm	1.00 ls	-	-	-	-	18,500.00 /ls	18,500	-	-	18,500
	13.900		FIRE SUPPRESSION										
		9000	Fire sprinkler	1.00 ls	-	-	-	-	31,200.00 /ls	31,200	-	-	31,200
14.000			CONVEYING SYSTEMS										
	14.200		ELEVATORS										
		9000	Elevators (1 each)	1.00 ls	-	-	-	-	98,200.00 /ls	98,200	-	-	98,200
15.000			MECHANICAL										
	15.350		PLUMBING										
		9000	Plumbing	1.00 ls	-	-	-	-	122,000.00 /ls	122,000	-	-	122,000
	15.700		HVAC										
		9000	HVAC	1.00 ls	-	-	-	-	582,000.00 /ls	582,000	-	-	582,000
16.000			ELECTRICAL										
	16.200		ELECTRICAL POWER										
		9000	Electrical	1.00 ls	-	-	-	-	362,000.00 /ls	362,000	-	-	362,000

Estimate Totals

Description	Amount	Totals	Hours	Rate	Cost Basis	Cost per Unit	Percent of Total
Labor	176,300						5.32%
Material							
Subcontract	2,337,060						70.50%
Equipment							
Other	22,905						0.69%
	2,536,265	2,536,265					76.50%
Permits	24,864			0.750 %	T		0.75%
General Liability	38,417			1.500 %	T		1.16%
GC Contingency	259,955			10.000 %	T		7.84%
O&P	428,925			15.000 %	T		12.94%
P & P Bond - GC	26,750				B		0.81%
Total		3,315,176					