STEPHEN F. AUSTIN STATE UNIVERSITY

NACOGDOCHES, TEXAS

PROCUREMENT AND PROPERTY SERVICES
P. O. Box 13030
NACOGDOCHES, TX 75962

REQUEST FOR PROPOSAL

RFQ NUMBER
AE-BLDG PROJECTS-2018

ADDENDUM NO. 1

Dated: 8/22/18

PROPOSAL MUST BE RECEIVED BEFORE:
5:00PM, WEDNESDAY, SEPTEMBER 5, 2018

MAIL PROPOSAL TO:

Stephen F. Austin State University
Procurement Services
P. O. Box 13030
Nacogdoches, TX 75962-3030

HAND DELIVER AND/OR EXPRESS MAIL TO:

Stephen F. Austin State University
Procurement Services
2124 Wilson Drive
Nacogdoches, TX 75962

Show RFP Number, Due Date and Time on Return Envelope

NOTE: PROPOSAL must be time stamped at **Stephen F. Austin State University Procurement Services** before the hour and date specified for receipt of proposal.

REFER INQUIRIES TO:

Kay Johnson
Stephen F. Austin State University
Procurement Services
936-468-4037
email: johnsondk6@sfasu.edu

STEPHEN F. AUSTIN STATE UNIVERSITY
Request for Qualifications #AE-BLDG PROJECTS-2018

ADDENDUM NO. 1

THIS ADDENDUM MUST BE ACKNOWLEDGED IN ORDER FOR THE RESPONSE TO RECEIVE CONSIDERATION. FAILURE TO ACKNOWLEDGE THE ADDENDUM WILL RESULT IN DISQUALIFICATION OF THE RESPONSE.

PROPOSAL MUST BE RECEIVED BEFORE:
5:00PM, WEDNESDAY, SEPTEMBER 5, 2018

Please note the following responses to questions:

Q. Page 13 item 3.3.8, you refer to the response to be unbound, do you want the document to be loose sheets?
A. Yes

Q. Page 3 1.1 scope list four projects, is this RFQ for all projects, or do we get to choose the project we are interested on?
A. All projects.

Q. Can we respond for two or more but not all, if so do we need individual responses or can we list different team on section 2.1.4?
A. Respond to any and all projects your firm has experiences with. You can list different teams by project and have one response.

Q. Page 7 Section 2.2.2 through 2.2.5 are only applicable to the prime firm and not the entire team? Prime firm that is the respondent?
A. Prime firm that is the respondent.

Q. Page 9 Section 2.6.3 and 2.6.4 are the same questions, do you need to respond twice?
A. No, please just reference 2.6.3.

Q. Page 10 section 2.7.9, you request our understanding of the schedule but on page 4 your schedule only list the Start of the Programming and the Estimated Occupancy, do you want for us to build a schedule in order to respond to your question?
A. Yes you can build a schedule.

Q. If so, do you need a schedule for each project your RFQ is for, or can we develop a comprehensive one in order to respond?
A. You can develop a comprehensive schedule and/or describe your plan.

Q. Criteria One: Should we treat this submission like an IDIQ or are you wanting us to submit for each project that we are interested in from the proposed list on page 3?
A. Submission should include experience with projects listed.

Q. Criteria Three: Would you like our firm to build a project team of consultants for each of the proposed projects we would like to pursue listed on page 3?
A. Project team for each project

Q. Criteria Six: Should we list all consultants and services we can provide for each proposed project or as a whole?
A. For each project.

Q. 2.6.3 and 2.6.4 are the same. Could you please clarify?
A. 2.6.4 is a duplicate.

Q. Will one architect be selected for all four projects, or will one architect be selected for each project?
A. One architect will be selected for all four projects.

Q. Do you know if commissioning services will be procured as a part of the referenced A/E RFQs or if it will be a separate solicitation?
A. Commissioning services will be incorporated into the Owner's Project Requirements developed by each A/E team and will be contracted separately.

Q. Will there be a pre-response meeting to find out more about the project?
A. No, however there will be a recommended pre-proposal meeting for the RFP#CMR-BLDG PROJECTS-2018 on Tuesday, August 28, 2018 at 10:00 am in the Physical Plant Training room located at 2124 Wilson Drive, Nacogdoches, Texas on the campus of Stephen F. Austin State University.

Q. Is the intent of SFA to award to a single contract for all four of these facilities, or could a respondent be awarded contracts for one or more individual projects?
A. The intent is to award to one firm for all projects.

Q. If the four facilities are to be awarded as a single project, is work on all four expected to run concurrently?
A. Start dates are pending funding approval and are expected to be different for each project with one or more beginning simultaneously.

Q. Will one SFA project manager be responsible for all four projects or will each facility have a different PM?
A. To be determined. There could be more than one project manager representing SFA.
Q. Are respondents expected to provide a single project team that encompasses the staffing and subcontracting requirements for all four facilities?
A. Respondents are not expected to provide a single team, however respondents should make their own determination that best serves SFASU.
Q. Will a single HUB subcontracting plan be submitted in which the cumulative HUB goal is 23.7%, or would each facility get its own separate HUB plan?
A. Each facility would have a HUB plan.

Q. Do you have a sample contract we could review?
A. Not at this time. We utilize an architect engineer/owner agreement. We are currently updating our contracts.
Q. Item 2.7.9 asks for an analysis of the Owner's project planning schedule. Can you provide this schedule so that we can respond or is the schedule shown in 1.3 Project Timetable?
A. The schedule is shown in 1.3.

Q. Will the four projects be seeking LEED certification or any other green building certification? Should the consultants include a LEED specialist?
A. No. LEED will not be required, however we are open to sustainable design and operations best practices.

1.3 PROJECT TIMETABLE-Updates noted in red

8/24/18 at noon	Deadline for questions
8/28/18	Addenda posted, if any
09/05/2018	Response Due
10/04/2018	Finalists selected and notified
10/10/2018	List of presenters due
10/26/2018- 10/29/2018	SFA Board of Regents Meeting, receive presentations and final selection
November – December 2018	A/E Contracting
1/1/2019	Estimated start for architectural programming
TBD	Estimated schematic design approval
TBD	CMR interim pricing
TBD	Estimated start for design development
TBD	Estimated start for development approval
TBD	Working drawings due
TBD	CMR GMP due
TBD	Estimated notice to proceed
TBD	Estimated substantial completion
8/31/2021	Estimated occupancy

*Dates are tentative and subject to change.

2.6 CRITERIA SIX: (10%) RESPONDENT'S DESCRIPTION OF SERVICES PROVIDED

Deleted 2.6.4 which is a duplicate of 2.6.3.

Campus Space Utilization Strategy report-Added
Reference the following link http://www.sfasu.edu/vpfa/

EXHIBIT D-Added
Reference attached Exhibit D for assessment report on Fine Arts

EXHIBIT D

FACILITY ASSESSMENT AND CONCEPTUAL IDEAS

Stephen F. Austin State University
L. E. Griffith Jr. Fine Arts Building

Kirksey ARCHITECTURE

6909 Portwest Drive
Houston Texas 77024
713 850 9600 | kirksey.com

June 07, 2017

Project Team

Kirksey Architecture
Steve Durham, AIA
Architecture & Design

Ensight/Cardno Haynes Whaley
Doug Antwiler, P.E.
Structural Engineer

Jones/DBR Inc.
Tim Kilby, CxA, LEED ® AP BD+C
Mechanical Engineer

Addleman Engineering PLLC
Nat Addleman
Life Safety

The Winning Way
Bill Winning
Accessibility

Schuler Shook
Alex Robertson
Theater Planning

Wrightson, Johnson, Haddon & Williams, Inc.
Chris Purpura
Acoustics and Lighting

J.E. Kingham Construction Company
John Kingham
Cost Consulting

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01 FORWARD

Forward

This document is structured as follows:

Executive Summary

This section is a brief overview of the entire project including history, descriptions of current spaces, issues to be addressed and recommendations for the future.

Code Analysis

This section lists the standards and constraints that will control the project.

Assessment Report with Photos

This section describes and documents existing conditions and recommendations for the facility. Below are the consultants involved in assessing the facility:

- Architectural - Kirksey Architecture
- Structural – Ensight/Cardno Haynes Whaley
- MEP – Jones/DBR, Inc.
- Life Safety/Code – Addleman Engineering
- Accessibility – The Winning Way
- Theater Planning – Schuler Shook
- Acoustic & Lighting – Wright Johnson Haddon & Williams

Plans of Existing Facility

This section provides plans of the existing facility, as well as plans describing department area use and space use.

Concept Plans and Renderings

This section provides conceptual plans of the proposed renovation and new addition, as well as renderings for promotional and fundraising use.

Construction Estimate

This section outlines the estimated construction cost of proposed renovations and a new addition.

02 EXECUTIVE SUMMARY

Executive Summary

Architecture

The Campus Master Plan Update 2020 (see description in Exhibit A) offers a concise and limited review and approach to address the growing needs of the College of Fine Arts and the many programs it supports. As part of a deeper study into the departmental needs of the college in 2016, this assessment indicates how the existing facilities, known as the L.E. Griffith Fine Arts Building, could be transformed and adapted to support a larger population of students if renovated in concert with a new addition that would add new performance spaces for students and faculty, modify existing classroom spaces to more effectively aid in teaching, and reorganize the wide variety of storage and support spaces required to uphold a growing theatrical program.

The L.E. Griffith Fine Arts Building was originally constructed in 1958 and designed by Shirley Simons & Sons Architects. The limestone and brick building was later extensively remodeled by F&S Partners, Inc., which added new floors, a large balcony, new mechanical equipment, and included excavations underneath the building to enlarge storage space for props and scenery. As a result, the building contains approximately 77,000-square feet on three levels and includes a, 1,100-seat auditorium with balcony seating, a large stage, and fly-loft.

In general, the building has been well maintained and is in serviceable condition given its age. Noticeable signs of wear and tear are evident given the understanding that building usage occurs during the day and evenings, and that performance spaces have been “made to fit”, or customized to address larger than expected numbers. Additionally, overcrowding of storage spaces exists throughout the building, especially in the lower floor level. Typical elements like sealant failure at brick joints, discolored ceiling tile, weathered door and window frames, poor lighting conditions, MEP systems nearing the end of their lifespan, and various worn finishes are expected, but could easily be addressed in future maintenance programs.

Beyond superficial upgrades to the entire building, several major upgrades are recommended to ensure the entire facility can address all the needs of all the programs for years to come.

Life Safety Improvements

While a change in building occupancy is not expected, it would be recommended that a full fire suppression system be installed in the facility. Currently, only partial areas of the building are covered by a sprinkler system which are located through the first level. This system should be expanded to cover all floors. This would allow designers to 1) “open up” or “unzip” the building interior to create more transparency and contiguous space throughout the facility, 2) would give proper fire-protection coverage that would allow seamless transitions for a future addition and that is consistent with university standards, and 3) allow vertical openings within the building for sightlines and stairways that will visually and physically connect more students, faculty, and guests as they navigate the facility.

2 Executive Summary

Reconfiguration of Level One

A complete redesign of the first level to more effectively allow for efficient storage of scenery, stage props, and ancillary spaces required to support a large theater program. Currently, several storage rooms have dirt floors, a result from the 1984 renovation project that included the removal of several feet of earthen dirt. This removal allowed additional head space and room to store a vast amount for scenery and props. Further excavations should occur to allow a new concrete slab to be installed as well as make room for a new freight elevator to connect the first floor level storage areas to the stage level. A reconfiguration of the first floor level would also provide new efficiencies in storage, proper functioning dressing rooms, and enhanced costume development areas and green room space for performers.

Reconfigured Space Planning for Level Two & Three

The focus on floors two and three should be directed at creating new performance and practice spaces, creating larger classroom space, and reorganizing department office space to support a larger student population. Along with these developments, the creation of student collaboration spaces and hang-out areas would be critical to the final upgrades of the building.

Improve Vertical Movement

The final and maybe one of the more critical recommendations is to improve service and vertical movement to and within the facility. This can be achieved improving access to and reconfiguring the existing service dock located on the west side of the building along North Street. A new access driveway should be considered off of Alumni Drive which would allow truck traffic to pull alongside the service dock instead of blocking traffic on North Street while backing in to the service area. Additionally, adding a new freight elevator to address the vertical transportation of scenery and props from the lower storage area to the stage level would greatly enhance the theater operations and put less strain on the existing orchestra pit lift, which is currently serving as the main vertical transportation for these items. And lastly, a new elevator bank located in future new construction would easily allow building users and patrons to easily access all areas of the facility, and more specifically, could connect the main lobby with the primary building entrance, if planned correctly.

It would be recommended as well to consider a more in-depth study on the structural system, especially at the foundation level, if the decision is to move forward with renovations of the facility. This could prove to be an important bit of information if any work is commenced on the first floor level as suggested in this document. Further assessment studies can be found throughout this document as well as more specific detailed summaries for structure, MEP, life safety, accessibility, theater planning and AV and acoustics systems.

Structure

Considering the age of the Griffith Fine Arts Building and the large amount of use the facility is experiencing, the structure is in good condition. The largest structural concern observed is detailed in observation S1. The metal roof deck over the stage area has corroded through at several locations around the perimeter due to previous leaks. This has compromised the capacity of the deck in this area and may create an unsafe condition for maintenance work on the roof in these areas. In addition, construction materials have been placed on top of the roof in this area adding load to this already compromised area. Three other high priority observations are noted in the report. Observations S5 and S10 relate to the safety of fixed ladders on the roof of the structure used by maintenance workers. Observation S11 refers to a decorative stone that appears to have disbonded from the adjacent stones near the roof line at the North West corner of the north entrance element. Because of its height above the ground it is important to verify that this stone is secured.

Mechanical

The HVAC system is a mixture of components that are original, have been replaced in the past or are recently replaced. The chilled water system equipment, with the exception of the recently replaced cooling towers, is at the end of the projected service life and should be considered for replacement. The heating water system, with the exception of the recently replaced boilers, is at the end of the projected service life and should be considered for replacement. The air distribution equipment (air handling units, duct, terminal units and air devices) is near the end of the projected service life and should be considered for replacement. The ventilation system consisting of outside air intakes and exhaust fans should be evaluated during the air distribution equipment replacement and upgraded to current ventilation standards. The exhaust fans are in need of replacement. The piping system should be spot checked in some of the concealed areas where it is the original piping and cut open to examine the condition.

Electrical

The electrical system consists of replaced main switch gear that is in good condition, and original distribution equipment that is at the end of its projected service life. The distribution system should be considered for replacement. The grounding system for the building is the conduit system which is code compliant but not the best practice. Installing grounding conductors should be considered for safety and power quality. Lighting has been upgraded in the spaces around the auditorium to energy efficient fluorescent but upgrading to LED should be considered for maintenance reduction and energy usage reduction. Lighting in the auditorium should be considered for upgrade to dimmable LED also. The stand-by generator was recently installed and is in good condition but the feeder circuit to the building should be upgraded.

2 Executive Summary

Plumbing

The first level plumbing system has not been replaced since the original construction and is in poor condition, needing replacement. The second and third floor systems are in good condition. The restroom fixtures appear to be in good condition but the electric drinking fountains are not and should be considered for replacement. The domestic water heating is accomplished by a gas water heater on the first level that is in need of replacement, and by small 4 gallon electric water heaters in the restrooms. The electric water heaters are accessible by the public and should be considered for relocation. There are three lift stations within the building, one for sanitary sewer and two for subsurface drainage. All three stations are reported to be operational but at the service age, should be considered for replacement.

Life Safety

The Griffith Building is a steel and masonry flat roof structure housing classrooms, offices, a theater, storage rooms and other support utility rooms. The nearly 60-year old building is of mixed occupancy containing business, assembly and storage occupancies and is in need of upgrades to bring the facility up to code. Upgrades would include changes to building exits, rated corridors, and most importantly, the fire sprinkler system.

The existing first floor level currently has a working sprinkler system for most of the floor area. It would be recommended to install an additional fire sprinkler system to complete the entire building giving it full coverage. This coverage would allow changes in construction that would benefit the proposed modifications mentioned in the Architecture Executive Summary above.

Accessibility

The Texas Accessibility Standards Assessment was performed to determine conformance with Elimination of Architectural Barriers; Administrative Rules of the Texas Department of Licensing and Regulations; 16 Texas Administrative Code; Chapter 68; Texas Accessibly Standards (TAS). This report does not address the Federal Americans with Disabilities Act (ADA) or its requirements. The building has many issues in regards to accessibility, beginning with the parking, the exterior accessible route from parking to the only public accessible entrance level one. The restrooms on level two are generally compliant with some minor violation. Restrooms on level one and three have greater issues and will required more work to achieve compliance. In addition, the theater seating will require reconfiguration. Refer to report for additional specific violations.

Theater Planning

While many components of the overall theatrical system including lighting, may be reused, there is a substantial amount of basic equipment used to support a university theatrical program such as this, that should be replaced. Replacement may be for age reasons, but primarily replacement is for safety reasons. Basic systems such the orchestra pit lift, major components of the rigging system, and theater seating within the auditorium should all be considered for replacement.

Audio & Visual Technology

The following assessment includes the Audio & Visual (AV) technical systems operating within the Griffith Fine Arts Building. The facilities included are Turner Auditorium, the Downstage Theater, Recording Studio, and the Sound Lab.

Technology changes constantly and each small advancement renders an existing audio or video system a little older. In the case of the Griffith Fine Arts Building, the permanent sound system in Turner Auditorium was installed when analog devices were the norm but as we all know, the world has gone digital. The recommendation for both Turner and Downstage Theater is to upgrade their sound systems to a common digital platform and to relocate the Turner's core elements to improve their operation as well as the enhance audience experience. Additionally, Turner Auditorium does not have a permanent video presentation system and adding one would greatly expand the room's usage and capabilities.

The audio systems operating in the Recording Studio and Sound Lab are already digital but in need of some equipment updates. The Recording Studio major need is a permanent and purpose built 3-room studio. An additional recommendation for the Sound Lab is to be networked to the other Griffith Hall facilities thereby expanding its capabilities and allowing content sharing. However, if new construction is considered, relocating this entire department to a newly designed customize space would be recommended.

Conclusion

A significant investment into the existing Griffith Building is recommended if the desire is to continue utilizing the facility for many years to come. This assessment indicates the "bones" of the existing structure are solid and in good working order and backbone of the MEP systems are fully functional, operating sufficiently and serving its purpose. Investment into the facility would allow greater use of all the spaces opening the building up to new user experiences, allowing for current programs to operate more effectively, and to prepare the facility to accept and mesh with a new facility addition that would have an overall impact of increasing enrollment and student retention in the program. A conceptual plan for proposed changes to the existing facility and for a new building addition can be found at the end of this report in the Concept Plans and Rendering section followed by a conceptual cost estimate in the Estimate section.

03 ASSESSMENTS

Code Assessment

Project Information

BUILDING PERMIT NO:	PERMIT #
TDLR PROJECT #:	TDLR #
PROJECT ADDRESS:	GRIFFITH BUILDING
	NACOGDOCHES TX 75962

PROJECT DESCRIPTION

3 STORY ACADEMIC BUILDING CONTAINING CLASSROOMS, THEATER, OFFICES AND STORAGE ROOMS.

APPLICABLE CODES INCLUDE:

- 2012 INTERNATIONAL BUILDING CODE
- 2012 NFPA 101 LIFE SAFETY CODE
- 2012 NFPA 1 FIRE CODE
- 2012 UNIFORM MECHANICAL CODE
- 2012 INTERNATIONAL FUEL GAS CODE
- 2012 INTERNATIONAL PLUMBING CODE
- 2014 NATIONAL ELECTRICAL CODE, NEC 90.4
- 2015 NFPA 70E ELECTRICAL SAFETY CODE
- 2013 NFPA 13 FIRE SPRINKLER CODE
- 2013 NFPA 72 FIRE ALARM CODE
- NFPA 45 STANDARD ON FIRE PROTECTION FOR LABORATORIES USING CHEMICALS
- TEXAS ACCESSIBILITY STANDARDS (TAS) 2012
- ENERGY CODE: ASHRAE 90.1-2010

Use and Occupancy Classification: Chapter 3

CLASSIFICATION: IBC SECTION 302

OCCUPANCY TYPE(S):

MAJOR USE OF BUILDING	Business Group B
OTHER LARGE AREAS	Assembly Group A-1, Storage S-1

CLASSIFICATION: LSC CHAPTER 6

OCCUPANCY TYPE(S):

MAJOR USE OF BUILDING	Business
OTHER LARGE AREAS	Assembly, Storage

3 Assessments

3.1 Code Assessment

Special Requirements Based on Use and Occupancy: Chapter 4

HIGH-RISE BUILDINGS: IBC SECTION 403

THIS PROJECT **IS NOT** A HIGH RISE

General Building Heights and Areas: Chapter 5

GENERAL BUILDING HEIGHT AND AREA LIMITATION:

Note: Height and area limitation are based on group A-1 in accordance with section 508.3.2 (non-separated occupancies)

	TABLE 503	MODIFIED (504/506)	ACTUAL
BUILDING HEIGHT	160’	180’	69’-4”
NO. OF STORIES	5 STORY	6 STORY	3 STORIES
MAX. AREA PER STORY	UL	UL	32,540
AREA TOTAL	UL	UL	101,910

BUILDING AREA MODIFICATIONS:

Area Modifications:

Note: Sprinkler increase taken, frontage increase not considered.

Aa={At + [At x Is]}

Aa={15,500 + [15,500 x 2]}

Aa=15,500 + 31,000

Aa=46,500 S.F./ story

IBC & LSC MIXED USE AND OCCUPANCY:

NON-SEPARATED OCCUPANCIES

REQUIRED SEPARATION OF OCCUPANCIES (HOURS): N = No separation required

Types of Construction: Chapter 6

CONSTRUCTION CLASSIFICATION: 602

BUILDING TYPE Type IB

FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS:

PRIMARY STRUCTURAL FAME	2 HOUR
BEARING WALLS	
EXTERIOR	2 HOUR
INTERIOR	2 HOUR
NONBEARING WALLS & PARTITIONS	
EXTERIOR (T 602)	0 HOUR
INTERIOR	0 HOUR
FLOOR CONSTRUCTION	2 HOUR
ROOF CONSTRUCTION	1 HOUR

The structural frame shall be considered to be the columns and the girders, beams, trusses and spandrels having direct connections to the columns and bracing members designed to carry gravity loads. The members of floor or roof panels which have no connection to the columns shall be considered secondary members and not a part of the structural frame.

Except in Group F-1, H, M and S-1 occupancies, fire protection of structural members shall not be required, including protection of roof framing and decking where every part of the roof construction is 20 feet or more above any floor immediately below. Fire-retardant-treated wood members shall be allowed to be used for such unprotected members.

FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE: TABLE 602

EXTERIOR WALL RATING:	0 HOUR

Fire and Smoke Protection Features: Chapter 7

EXTERIOR WALLS:

MAXIMUM AREA OF EXTERIOR WALL OPENINGS:

DISTANCE OF BUILDING FROM (1) LOT LINE (2) CENTERLINE OF A STREET OR (3) ASSUMED PROPERTY LINE BETWEEN BUILDINGS:	30’ OR GREATER
ALLOWABLE OPENING %:	No Limit
CLASSIFICATION OF OPENING:	Unprotected

3 Assessments

3.1 Code Assessment

Interior Finishes: Chapter 8

WALL AND CEILING FINISHES:

INTERIOR WALL AND CEILING FINISHES SHALL BE CLASSIFIED IN ACCORDANCE WITH ASTM E 84 OR UL 723.

CLASS A: FLAME SPREAD 0-25; SMOKE-DEVELOPED 0-450

CLASS B: FLAME SPREAD 26-75; SMOKE-DEVELOPED 0-450

CLASS C: FLAME SPREAD 76-200; SMOKE-DEVELOPED 0-450

INTERIOR WALL AND CEILING FINISH REQ'S BY OCCUPANCY

INTERIOR EXIT STAIRWAYS, INTERIOR EXIT RAMPS AND EXIT PASSAGEWAYS: Class B

COORIDORS AND ENCLOSURE FOR EXIT ACCESS STARIWAYS AND EXIT ACCESS RAMPS: Class B

ROOMS AND ENCLOSED SPACES: Class C

INTERIOR FLOOR FINISHES:

Fire Protection Systems: Chapter 9

AUTOMATIC SPRINKLER SYSTEMS:

AUTOMATIC SPRINKLER PROTECTION IS REQUIRED THROUGHOUT.

STANDPIPE SYSTEMS: SECTION 905

THIS BUILDING **IS** EQUIPED WITH A STANDPIPE SYSTEM FOR ONLY LEVEL 1.

REFER TO MECHANICAL DRAWINGS FOR LOCATION AND CLASSIFICATION INFORMATION OF STANDPIPES IN THE BUILDING.

PORTABLE FIRE EXTINGUISHERS:

FIRE EXTINGUISHERS LOCATED IN ACCORDANCE WITH NFPA 10, 2013.

SEE LIFE SAFETY PLANS FOR EXTINGUISHER LOCATIONS.

Means of Egress: Chapter 10

OCCUPANCY LOAD (NFPA 101, 7.3.1):

TABLE 1004.1.2 MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT.

REFER TO LIFE-SAFETY PLANS FOR OCCUPANCY LOAD CALCULATIONS.

ASSEMBLY CONCENTRATED (CHAIRS ONLY-NON FIXED)	7 NET
ASSEMBLY UNCONCENTRATED (TABLES AND CHAIRS)	15 NET
ASSEMBLY FIXED SEATING	NUMBER OF FIXED SEATS
ACCESSORY STORAGE, MECH EQUIPMENT ROOMS	300 GROSS
BUSINESS	100 GROSS
EDUCATIONAL - CLASSROOM	20 NET
EDUCATIONAL - SHOPS / VOCATIONAL ROOM	50 NET
STAGES AND PLATFORMS	15 NET

MEANS OF EGRESS SIZING (NFPA 101, 7.3.2):

STAIRWAYS. EGRESS CAPACITY FACTOR:

- 0.3 INCH / OCCUPANT

LEVEL COMPONENTS & RAMPS. EGRESS CAPACITY FACTOR:

- 0.2 INCH / OCCUPANT

DOORS, GATES AND TURNSTILES:

PANIC AND FIRE EXIT HARDWARE. THE FOLLOWING AREAS ARE REQUIRED TO HAVE PANIC AND FIRE HARDWARE.

- GROUP A OR E WITH OCCUPANT LOAD OF 50 OR MORE
- ELECTRICAL ROOMS WITH >1,200 AMPERES AND OVER 6 FEET WIDE THAT CONTAIN OVERCURRENT DEVICES,
- WHERE SERVING A ROOM OR AREA WITH AN OCCUPANT LOAD OF 50 OR MORE, DOORS SHALL SWING IN THE DIRECTION OF EGRESS TRAVEL.

EXIT ACCESS:

COMMON PATH OF EGRESS TRAVEL (NFPA 12.2.5.1.2 & 38.2.5.3)

MAXIMUM COMMON PATH OF EGRESS TRAVEL:	GROUP A: 20 FEET
	GROUP B: 100 FEET

3 Assessments

3.1 Code Assessment

EXIT ACCESS TRAVEL DISTANCE (NFPA 12.2.6 & 38.2.6):

1016.2 LIMITATIONS. MAXIMUM EXIT ACCESS TRAVEL DISTANCE:	GROUP A: 250 FEET
	GROUP B: 300 FEET

CORRIDOR:

1018.1 CONSTRUCTION. IF REQUIRED, SHALL BE FIRE PARTITIONS:

FIRE-RESISTANCE RATING WITH AUTOMATIC SPRINKLER PROTECTION: 0 HOURS

1018.2 WIDTH AND CAPACITY. MINIMUM CORRIDOR WIDTH:

OTHER	44 INCHES
ACCESS TO MEP EQUIPMENT	24 INCHES
OCCUPANT LOAD <50	36 INCHES

1018.4 DEAD ENDS. MAXIMUM DEAD END CORRIDOR DISTANCE:

GROUP A	20 FEET
GROUP B (WITH AUTOMATIC SPRINKLER PROTECTION)	50 FEET

NUMBER OF EXITS AND EXIT ACCESS DOORWAYS:

MINIMUM NUMBER OF EXITS / STORY:

2 EXITS (1-500)

3 EXITS (501-1000) IBC 1006.2.1.1, LSC 7.4

4 EXITS (>1000 OCC) IBC 1006.2.1.1, LSC 7.4

INTERIOR EXIT STAIRWAYS AND RAMPS:

CONSTRUCTION. ENCLOSURES FOR INTERIOR EXIT STAIRWAYS AND RAMPS SHALL BE CONSTRUCTED AS FIRE BARRIERS

FIRE-RESISTANCE RATING	2 HOURS

EXIT PASSAGEWAYS:

1023.2 WIDTH.	44 INCHES MINIMUM
	36 INCHES MINIMUM IF OCCUPANT LOAD IS LESS THAN 50

REFER TO LIFE-SAFETY PLAN(S) FOR EXIT PASSAGEWAY WIDTH, PARTITION RATINGS AND TERMINATION.

Plumbing Systems: Chapter 29

MINIMUM NUMBER OF PLUMBING FACILITIES:

GROUP	OCCUPANT LOAD		WATER CLOSET MEN		WATER CLOSET WOMEN		LAVATORIES MEN		LAVATORIES WOMEN		DRINKING FOUNTAINS		SERVICE SINK	
	MEN	WOM'N	REQ'D	PRV'D	REQ'D	PRV'D	REQ'D	PRV'D	REQ'D	PRV'D	REQ'D	PRV'D	REQ'D	PRV'D
A-1	63	63	.5	-	1	-	.3	-	.3	-	.25	-	-	-
A-3	247	247	2	-	3.8	-	1.25	-	1.25	-	1	-	-	-
B	563	563	12.26	-	12.26	-	8	-	8	-	11.26	-	-	-
TOTAL	-	-	15	24	18	24	10	16	10	16	13	8	1	4

Architectural Assessment

Exterior Envelope

As noted by Haynes Whaley's assessment, there are several areas of the brick façade that require repair. Some areas (refer to item S-11) pose safety issues due to the decorative stone's height above the ground. Others are more cosmetic. Areas of cracked brick and loose stonework should be repointed and/or reattached (A-1).

The screen to surround and hide the top of the air conditioning unit on the West side of Griffith was never installed. Installation of the remaining screen to hide this equipment is recommended (A-2).

Loading Dock

The existing loading dock size is not compatible with the theater's needs. A larger loading dock with a height adjustment feature and driveway should be considered to better serve the school's productions. Trucks currently have to back in from North Street, a busy 4-lane public street. The drive and dock should also be relocated or the drive should be given a paved area in which to change directions (A-3).

Roof

The roof appears to have ponding although it does not appear to be overly excessive throughout the entire roof. As noted by several consultants, including DBR (refer to item P-4) and Haynes Whaley (refer to item S-2), the existing scuppers are few and far apart. Number and size of scuppers and roof drains should be evaluated and if necessary, redesigned or enlarged to better suit the building's drainage requirements (A-4).

Wayfinding

In general, the sequence of wayfinding for a theater-going patron attending a performance at Griffith needs improvement. The sequence from arrival to the box office to the theater should be clarified through wayfinding techniques such as improved signage or more prominent street frontage. A sign change for the box office is recommended (A-5). If new construction is an option, relocating the box office to a prominent location should be considered.

Exterior Doors & Windows

A replacement of all exterior doors and windows with an aluminum frame storefront system is recommended (A-6). If new construction is an option, the use of new curtainwall may serve areas like a new lobby more effectively.

Entrance

The entrance to Griffith Auditorium lacks the grandeur ideal for the lobby to such a large performance space. A general enhancement of the building entrance/lobby is recommended (A-7). If new construction is an option, enlarging the floor area as well as the volume of the lobby should be considered.

Storage

As mentioned in Haynes-Whaley's assessment, during the 1984 renovation areas of the basement, which were formerly crawlspaces, were excavated to create full-height spaces. The building's main mechanical and electrical systems were moved from the roof to be housed in some of these spaces (rooms 139 and 140). The other spaces were left unfinished with only dirt floors and have become storage for props and scenery (refer to item S-17). A concrete slab on grade is recommended to better serve productions and to better preserve scenery and prop stock (A-8).

Interior Finishes and Fixtures

As noted by DBR's assessment of the electrical systems, all fluorescent lighting should be upgraded to LED fixtures (refer to item E-5) to reduce energy consumption and bulb replacements (A-9). A full replacement of floor and wall tile, countertops and toilet partitions of all restrooms is recommended (A-10). All lay-in ceilings should be replaced (A-11). All painted walls should be repainted and wall coverings and corner guards should be replaced (A-12). All floors finishes should be replaced (A-13).

New Construction

The existing Downstage Theater, a black box theater that seats 80, is inadequate for the department's current needs. An addition including a new black box theater that seats 150 people with flexible seating, a control room, restrooms for the public and performers, dressing rooms and connection to the lobby is recommended (A-14).

Likewise, it is recommended to add new elevators to serve the main lobby connecting all floors. Further, it is recommended to add a new freight elevator and new exit stairs on the south side elevation allowing an improved exit strategy from the existing Griffith Hall building's 2nd and 3rd floor (A-15). The new freight elevator should connect the first floor with the stage-level of the building to improve the movement of scenery and props. In concert with this idea, a new exit stair on the north side elevation allowing an improved exit strategy from the existing Griffith Hall 3rd floor, would also be recommended (A-16). The addition of both new stairs would greatly add to the flexibility of classroom design on the 3rd floor of the existing facility

Concept plans and building views can be seen in the Concept Plan section of this report.

Architectural Condition Survey

Item No. A-1

Description Exterior brick and stone work

Action Repoint and reattach all damaged exterior brick and stone work.

Item No. A-2

Description Brick wall surrounding air conditioning unit on west side of building

Action Install missing screen around air conditioning unit to conceal equipment

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Item No. A-3

Description Loading dock on west side

Action Consider enlarging and relocating loading dock and driveway to better suit production needs

Item No. A-4

Description Close-up of roof scupper and drain

Action Evaluate roof drainage requirements and consider additional and/or larger scuppers and/or roof drains

Item No. A-5

Description Signage

Action Improve wayfinding for theater patrons

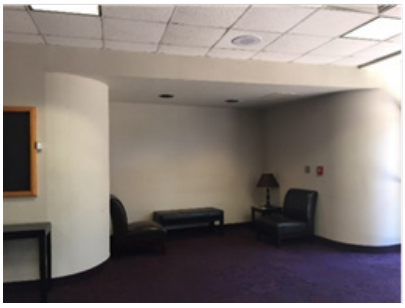
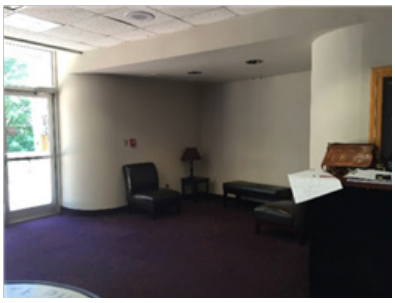
Item No. A-6

Description Exterior doors and windows

Action Replace with aluminum storefront system

Item No. A-7



Description Lobby

Action Renovation and general enhancement of the lobby

Item No. A-8

Description Prop and scenery storage

Action Install concrete slab on grade to all spaces with dirt floors

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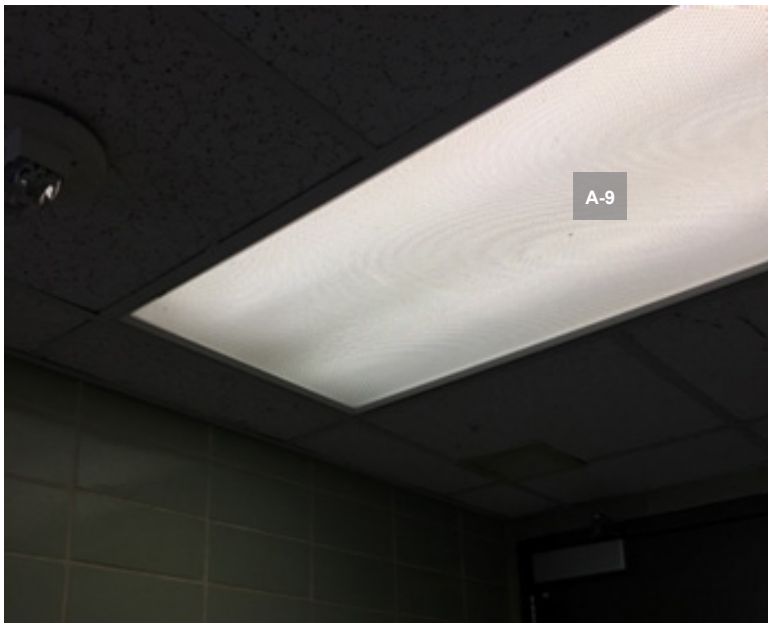
Item No. A-9



Description Fluorescent lighting

Action Replace all fluorescent lighting with LED

Item No. A-10

Description Restrooms

Action Replacement of floor and wall tile, countertops and toilet partitions

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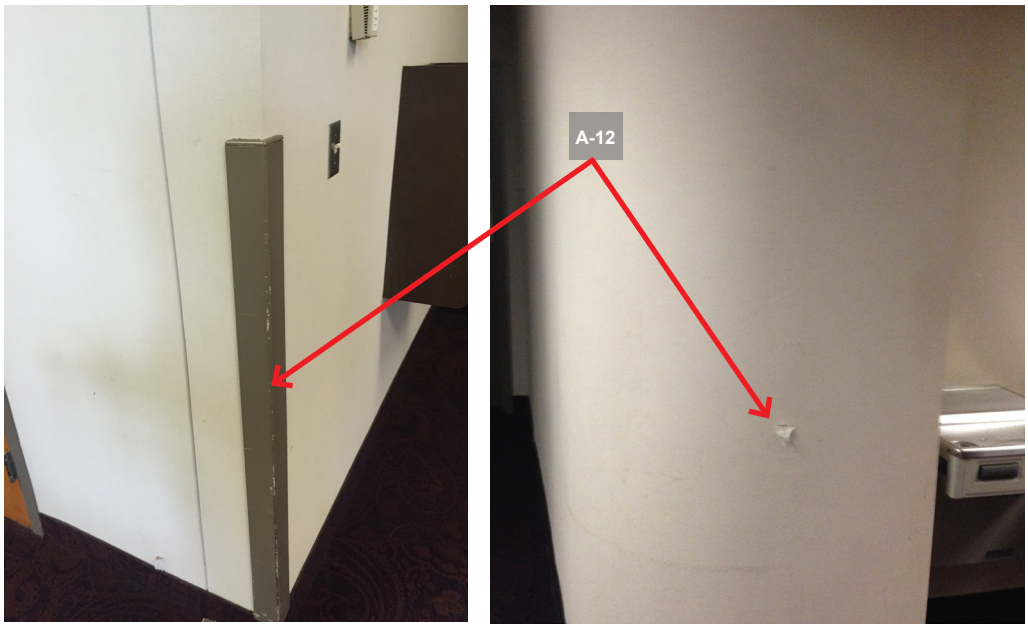
Item No. A-11

Description Lay-in ceiling

Action Replace all lay-in ceilings

Item No. A-12



Description Painted walls and wall coverings

Action Repaint walls and replace wall coverings and corner guards

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Item No. A-13

Description Floor finishes

Action Replace all floor finishes

Item No. A-14: No photo, see spreadsheet.

Item No. A-15: No photo, see spreadsheet.

Item No. A-16: No photo, see spreadsheet.

Architectural Assessment Scope

KEY	ITEM	CONDITION	DESCRIPTION
	ARCHITECTURAL		
A-1	Exterior brick and stone work	Poor	Repoint and reattach all damanged exterior brick and stone work
A-2	Brick wall surrounding air conditioning unit on west side of building	N/A	Install missing screen around air conditioning unit to conceal equipment
A-3	Loading dock on west side	Poor	Consider enlarging and relocating loading dock and driveway to better suit production needs
A-4	Close-up of roof scupper and drain	Poor	Evaluate roof drainage requirements and consider additional and/or larger scuppers and/or roof drains
A-5	Signage	Poor	Improve wayfinding for theater patrons
A-6	Exterior doors and windows	Fair	Replace with aluminum storefront system
A-7	Lobby	N/A	Renovation and general enhancement of the lobby
A-8	Prop and scenery storage	Poor	Install concrete slab on grade to all spaces with dirt floors
A-9	Flourescent lighting	Fair	Upgrade to LED fixtures
A-10	Restrooms	Poor	Replacement of floor and wall tile, countertops and toilet partitions
A-11	Lay-in Ceiling	Poor	Replace all lay-in ceilings
A-12	Painted walls and wall coverings	Fair	Repaint walls and replace wall coverings and corner guards
A-13	Floors	Poor	Replace all floor finishes
A-14	New construction	N/A	Addition including a new black box theater that seats 150 people with flexible seating, a control room, restrooms for the public and performers, dressing rooms and connection to the lobby is recommended
A-15	New construction	N/A	New freight elevator and new exit stairs on the south side elevation
A-16	New construction	N/A	New exit stair on the north side elevation

Structural Assessment

The L. E. Griffith Fine Arts Building was built around 1956 and dedicated in 1958. The structure has a central auditorium, balcony and full stage space. Two levels of classroom and practice space surround the auditorium on three sides. The building has a basement that is divided between prop storage for the theater and mechanical systems for the overall building. Based on the information available, it appears that the building has undergone one large renovation in 1984 and several minor renovations over the life of the structure. Original construction drawings were not available at the time of this report, but drawings of the 1984 renovation were available. Because there is not good documentation on the existing structure, much of the structural information and system descriptions in this report are based on visual observations made during the site visit on September 22, 2016 by Mr. Doug Antwiler PE.

The center auditorium portion of the building has a galvanized roof deck supported by steel joists. These joists are in turn supported by deep steel trusses spanning across the short dimension of the auditorium that mount to the face of wide flange columns. A significant catwalk and ceiling system was added in this area during the 1984 renovation. The balcony has concrete cast in place risers that were modified with steel framing during the 1984 renovation to improve access. The stage area has painted metal deck supported by steel joists that are in turn supported by wide flange beams and columns. A significant “grid” appears to have been added during the 1984 renovation over the fly-loft to allow for rigging over the entire stage area. Around the perimeter of the auditorium, the classroom and practice areas have shallow cast in place concrete joist floor and roof systems. The building originally had a partial basement on the north end of the building and at the stage with crawl spaces in the remaining areas. During the 1984 renovation significant areas of the basement were excavated to create full height spaces. Some of these spaces were repurposed to hold the main mechanical and electrical systems for the building (which were originally housed on the roof of the building). Other excavated areas do not appear to have been intended to be used (because the floor was left as bare earth. However, these areas are currently being used for prop storage for the stage. Based on the excavated areas, the building is founded on drilled shaft piers. Information on the depth of piers and their reinforcement is not known. The outside walls of the building have a combination of brick and stone façade that are backed by unreinforced clay tile masonry and CMU walls (in the areas that were renovated). It appears that the original clay tile masonry walls are intended to be the lateral system for the building. On top of the building is a tower element. This originally housed the cooling tower for the building and a series of bells at the top. The cooling tower has been removed from the tower element and although the bells are stored within the tower element they are not currently in place due to ongoing replacement of the bell structure. The building has an asphalt and gravel roof with scuppers that connect to exterior copper downspouts around the perimeter of the building.

Priorities of Observed Conditions

In order to assist in planning and scheduling of ongoing maintenance and required remedial work for the building, the conditions discussed in this report are prioritized into three categories according to the perceived immediacy of performing repairs. During the course of the onsite condition survey a few conditions were observed that are not technically structural in nature but may have an impact on the ongoing performance and condition of the building. Descriptions of these items will be identified as Non-Structural with no priority designation. The category designation for each condition is indicated in parentheses at the end of the discussion for that item. Descriptions of these different categories are as follows:

- High Priority - This includes items of a present severity that foster immediate structural or life safety concerns or if left unaddressed, may develop into serious structural conditions or promote significant damage or deterioration to other structural elements. Repairs in these areas should be performed in the immediate or very near future.

- Medium Priority - This includes items that should be repaired to prevent future damage and ongoing deterioration of structural and/or architectural elements, but do not appear to have an immediate adverse impact on the structural integrity of the building. Minor safety issues related to the structural aspects might also be included in this category. Repairs in these areas can probably be deferred for a reasonable period of time without significant detriment but should be included in a scheduled maintenance program to maintain the long-term structural integrity of the building.
- Low Priority - This includes items that may have been previously repaired (with only periodic monitoring suggested to verify the continuing success of the repairs), items described for information only, and minor conditions that do not appear to be structurally significant. Repairs, when recommended, are primarily for cosmetic considerations or to enhance the serviceability of the building and may be performed as funds permit or not at all.
- Non-Structural - This includes items that are not technically structural in nature but may have an impact on the ongoing performance and condition of the garage. Minor safety issues unrelated to the structural aspects might also be included in this category. Descriptions of these items are included in this report for information only and may require the involvement of architects, contractors or consultants in other areas of expertise to determine the actual significance and appropriate remedial actions necessary, if any.

Limitations of Survey

This review is cursory in nature and is not intended to be comprehensive in scope. Conditions may exist that were not observed, reviewed or reported. Although no evidence was observed to indicate that other defects, deterioration, or areas of distress were present, it must be noted that this report is based primarily on visual observations made on the exteriors and interiors of the building where the structure is not concealed by finishes. Repair methods referred to in this report are of a general nature only. Specific repair procedures and materials should be determined and specified for each individual condition prior to implementing repairs. The responsibility of our firm is limited to reporting field observed conditions and providing general recommendations and opinions. No responsibility by our firm for verifying that indicated repairs or additional investigations have been performed shall be assumed or considered implied. The investigation performed was focused only on the structural adequacy of the building. No effort was made to investigate mechanical, plumbing or electrical systems of these structures and no environmental testing was performed on these structures.

Several of the described conditions were observed in numerous locations and, unless stated otherwise, can be considered as occurring throughout the building.

Structural Condition Survey

Item No. S-1

Description Underside of roof above stage South West and North Wall. Existing roof deck has corroded through in a few areas along the wall due to roof leaks in the past. This has compromised the structural capacity of the deck in these areas.

Action Remove and replace existing metal deck in this area. (High Priority)

Item No. S-2

Description Roof of building (general). The scuppers on the roof of the building are small, widely spaced and in general do not have overflow drains or scuppers. This can lead to standing water on the roof that can cause roof leaks and higher roof loads in areas where the drain is blocked.

Action Review current roof drainage and consider adding additional drainage. (Medium Priority)

Item No. S-3

Description North East corner of upper parapet at back of auditorium. Corner has cracked and appears to have been caulked instead of mortared back in place.

Action Have a mason repoint this corner to restore structural integrity. (Medium Priority)

Item No. S-4

Description Roof over North entrance. Roof has inadequate drainage, signs of long term standing water and debris. This can lead to roof leaks and excessive roof loading in this area.

Action Review current roof drainage and provide adequate slope/drainage. (Medium Priority)

Item No. S-5

Description North West side of main entrance on roof. Fixed ladder on wall exits over depressed area instead of adjacent roof. This does not appear to meet current safety guidelines. Also no permanent ladder to lower roof.

Action Verify position of ladder meets current access/safety guidelines and relocate if necessary. (High Priority) Consider providing ladder to lower roof area (Non-structural)

Item No. S-6

Description Inside bell tower. Spalled concrete and corroded reinforcement at slab edge.

Action Clean reinforcement and repair with polymer modified Portland cement mortar. (Medium Priority)

Item No. S-7

Description Bell tower. Top flange of wide flange beams supporting bell tower are corroding.

Action Clean and paint existing structural steel with good quality paint. (Medium Priority)

Item No. S-8

Description Bell tower. Daylight visible through seam at top of tower, roof of tower leaks.

Action Seal roof of tower to prevent future water intrusion. (Medium Priority)

Item No. S-9

Description Roof over stage near bell tower. Construction materials stored on roof over stage in area where the deck is compromised due to corrosion.

Action Although the weight of these materials would normally be within what the roof could safely support with the corrosion damage observed on the roof deck below, this material needs to be removed. (High Priority)

Item No. S-10

Description Roof Ladder from roof over stage to roof over auditorium. Several of the embeds anchoring this ladder are either missing or disengaged.

Action Reattach ladder to the existing wall. (High Priority)

Item No. S-11

Description North West corner of north entrance near roof level. Piece of stone veneer appears to have shifted outward.

Action Repoint/reattach stone veneer at this location. (High Priority)

Item No. S-12

Description The “Grid” area over the main auditorium stage. The access up to the grid area does not appear to comply with current safety practices and the mesh on the grid area itself has several openings in it that larger than 6 inches x 6 inches.

Action We recommend that a theater and/or access consultant review this area to verify that the safety measures in place in these areas comply with current industry norms. (Medium Priority)

Item No. S-13

Description West side of building at stair down to mechanical area. Guardrail has corroded through.

Action Replace guard rail. (Medium Priority)

Item No. S-14

Description West side of building at stair down to mechanical area. Slack cables in safety barrier.

Action Tighten cables. (Medium Priority)

Item No. S-15

Description West side of building at stair down to mechanical area. Open light fixture with exposed wires.

Action (Non-structural)

Item No. S-16

Description West side of building at stair down to mechanical area. Corroded door frame.

Action (Non-structural)

Item No. S-17

Description Basement in prop storage area. Several rooms in the basement that are being used for prop storage have dirt floors.

Action Consider adding a concrete slab on grade in these rooms to improve operations and access. (Non-structural)

Item No. S-18

Description Horizontal hatch door into mechanical area on West side of building. Hatch has significant corrosion around the perimeter due to water intrusion.

Action Consider replacing hatch and detailing new hatch to prevent water intrusion (Medium Priority) Re: Photo M-1 in MEP Systems Assessment.

Item No. S-19

Description West side of building at dock. Broken stonework.

Action Replace broken stonework. (Non-structural)

Item No. S-20

Description Handrails on North side of building. Carbon steel bolts have been used to secure aluminum handrails. Several of these bolts are heavily corroded and some bolts are missing.

Action Replace missing and/or corroded bolts with new post installed stainless steel anchors. (Medium Priority)

Item No. S-21

Description East side of building near elevator lobby. Deteriorated mortar in joint in stonework.

Action Repoint joint. (Non-structural)

Item No. S-22

Description East side of building near elevator lobby. Spalling of patch on decorative stonework.

Action Remove spalled material and patch to match adjacent (Non-structural)

Item No. S-23

Description East side of building near covered entrance. Decorative stone seems to have shifted and be out of alignment.

Action Mason to verify that stones are secure. (Medium Priority)

Structural Assessment Scope

KEY	ITEM	CONDITION	DESCRIPTION
	STRUCTURAL		
S-1	Underside of roof above stage South West and North Wall. Existing roof deck has corroded through in a few areas along the wall due to roof leaks in the past. This has compromised the structural capacity of the deck in these areas.	Poor	Remove and replace existing metal deck in this area. (High Priority)
S-2	Roof of building (general). The scuppers on the roof of the building are small, widely spaced and in general do not have overflow drains or scuppers. This can lead to standing water on the roof that can cause roof leaks and higher roof loads in areas where the drain is blocked.	N/A	Review current roof drainage and consider adding additional drainage. (Medium Priority)
S-3	North East corner of upper parapet at back of auditorium. Corner has cracked and appears to have been caulked instead of mortared back in place.	Fair	Have a mason repoint this corner to restore structural integrity. (Medium Priority)
S-4	Roof over North entrance. Roof has inadequate drainage, signs of long term standing water and debris. This can lead to roof leaks and excessive roof loading in this area.	Fair	Review current roof drainage and provide adequate slope/drainage. (Medium Priority)
S-5	North West side of main entrance on roof. Fixed ladder on wall exits over depressed area instead of adjacent roof. This does not appear to meet current safety guidelines. Also no permanent ladder to lower roof.	N/A	Verify position of ladder meets current access/safety guidelines and relocate if necessary. (High Priority) Consider providing ladder to lower roof area (Non-structural)
S-6	Inside bell tower. Spalled concrete and corroded reinforcement at slab edge.	Fair	Clean reinforcement and repair with polymer modified Portland cement mortar. (Medium Priority)
S-7	Bell tower. Top flange of wide flange beams supporting bell tower are corroding.	Fair	Clean and paint existing structural steel with good quality paint. (Medium Priority)
S-8	Bell tower. Daylight visible through seam at top of tower, roof of tower leaks.	N/A	Seal roof of tower to prevent future water intrusion. (Medium Priority)
S-9	Roof over stage near bell tower. Construction materials stored on roof over stage in area where the deck is compromised due to corrosion.	N/A	Although the weight of these materials would normally be within what the roof could safely support with the corrosion damage observed on the roof deck below, this material needs to be removed. (High Priority)
S-10	Roof Ladder from roof over stage to roof over auditorium. Several of the embeds anchoring this ladder are either missing or disengaged.	N/A	Reattach ladder to the existing wall. (High Priority)
S-11	North West corner of north entrance near roof level. Piece of stone veneer appears to have shifted outward.	N/A	Repoint/reattach stone veneer at this location. (High Priority)
S-12	The “Grid” area over the main auditorium stage. The access up to the grid area does not appear to comply with current safety practices and the mesh on the grid area itself has several openings in it that larger than 6 inches x 6 inches.	N/A	We recommend that a theater and/or access consultant review this area to verify that the safety measures in place in these areas comply with current industry norms. (Medium Priority)
S-13	West side of building at stair down to mechanical area. Guardrail has corroded through.	Poor	Replace guard rail. (Medium Priority)
S-14	West side of building at stair down to mechanical area. Slack cables in safety barrier.	N/A	Tighten cables. (Medium Priority)
S-15	West side of building at stair down to mechanical area. Open light fixture with exposed wires.	N/A	(Non-structural)
S-16	West side of building at stair down to mechanical area. Corroded door frame.	N/A	(Non-structural)
S-17	Basement in prop storage area. Several rooms in the basement that are being used for prop storage have dirt floors.	N/A	Consider adding a concrete slab on grade in these rooms to improve operations and access. (Non-structural)
S-18	Horizontal hatch door into mechanical area on West side of building. Hatch has significant corrosion around the perimeter due to water intrusion.	Poor	Consider replacing hatch and detailing new hatch to prevent water intrusion (Medium Priority)
S-19	West side of building at dock. Broken stonework.	Poor	Replace broken stonework. (Non-structural)
S-20	Handrails on North side of building. Carbon steel bolts have been used to secure aluminum handrails. Several of these bolts are heavily corroded and some bolts are missing.	Fair	Replace missing and/or corroded bolts with new post installed stainless steel anchors. (Medium Priority)
S-21	East side of building near elevator lobby. Deteriorated mortar in joint in stonework.	Fair	Repoint joint. (Non-structural)
S-22	East side of building near elevator lobby. Spalling of patch on decorative stonework.	Fair	Remove spalled material and patch to match adjacent (Non-structural)
S-23	East side of building near covered entrance. Decorative stone seems to have shifted and be out of alignment.	N/A	Mason to verify that stones are secure. (Medium Priority)

MEP Assessment

HVAC System Summary

Plant: The central plant is housed on level 1 (basement below grade) of the facility. The original location of the plant was on this level and the access to it is through a single door. This level was expanded in the 1984 renovation. The chillers have been replaced since 1984 and are located in the expansion area. There is an equipment access opening at grade near the cooling towers. This access door is approximately 6 feet wide and 15 feet long. There are two spring, assisted doors that do not completely close and are missing the weather proofing. Due to the deterioration of the weather proofing and the poor condition of the doors, the central plant floor is subject to flooding during heavy rains (M-1). The floor drain under the large access door, in the floor of the plant, is not sufficient for the amount of water coming in. The exhaust fan (3000 cfm, .5 hp) that serves the plant not functioning (M-2).

The cooling is provided by two water cooled electric, water chillers, two primary chilled water pumps, two cooling towers, two condenser water pumps, AHU coils and a chilled water piping system. The chillers are 145 ton, Carrier screw chillers, installed in 1998 (serial number indicates they were manufactured in 1996) and are in fair condition but are nearing the end of their projected service life (M-3). The chilled water pumps are 20 HP, installed in 1998 in conjunction with the chillers and are in poor condition (M-4). The cooling towers are stainless steel, 435 gpm, with separate basins, installed in 2012 and are in excellent condition. The condenser water pumps are 20 HP, installed in 1998 and are in fair condition (M-5). They are near the end of their projected service life. The chilled water coils are part of the AHUs that were installed in 1984. The coils observed appeared to be in fair condition. The piping system within the building consists of “visible” piping that is readily accessible and “hidden’ piping that is concealed by construction or elements of the building. The “visible” piping has been replaced as renovations occurred but the “hidden” piping is original. The original piping’s insulation is fiberglass with mastic on the joints. Refrigerant leak detection system could not be located (M-6).

The heating is provided by two condensing boilers with fractional horsepower circulation pumps, two primary hot water pumps, AHU coils and a heating water piping system. The boilers are Camus DynaFlame 1,250,000 btu condensing boilers that were installed in 2014 and in excellent condition. The primary hot water pumps are 10 HP, installed in 1984 and with the exception of the insulation, are in poor condition and at the end of their projected service life (M-7). The AHU coils are part of the AHUs that were installed in 1984. The coils observed appeared to be in fair condition. The piping system within the building consists of “visible” piping that is readily accessible and “hidden’ piping that is concealed by construction or elements of the building. The “visible” piping has been replaced as renovations occurred but the “hidden” piping is original. The piping insulation is fiberglass with mastic on the joints. The boiler and gas water heater vents are combined into a single stack which is routed through the original boiler vent chase. The original boiler venting was not designed for the newer style boilers and the connection between the newer vents and the original vent shows signs of condensation which may compromise the existing vent (M-23). The boiler venting should be replaced with modern materials and routed to a new termination point at the roof.

Air distribution: The air distribution is accomplished through five air handlers in three different configurations. There is a multizone unit with electric reheat, serving the scene shop and support spaces on level one. There are three single zone units (2 on level one and one on a platform above level three) that serve the auditorium and stage spaces. To serve the remaining classrooms, meeting rooms, office, etc. there is a dual duct air handler serving terminal units in each space. The duct work is constructed of sheetmetal and the majority of it has been internally lined and wrapped with lead lined vinyl for sound attenuation (M-12). There was some externally insulated duct observed (M-13). None of the duct joints observed showed signs of joint sealing compound that is typically part of modern duct installation. There may be significant, cumulative duct leakage creating inefficiencies in the system (M-8). The air handlers were

installed in the mid-90s. There is an underground duct in the black box that should be cleaned and leak tested (M-22). The air handlers have very small access panels for maintenance (M-9) and exhibit some microbial growth in the drain pans (M-10). The air handlers are at the end of their service life. The duct is 32 years old and near the end of its service life. The duct should be cleaned if not replaced (M-11). There is a 3 ton fan coil unit serving the piano storage room on level 1 that was installed in 1984 and is near the end of the service life and should be considered for replacement (M-21). There is a 5 ton, DX, split system serving the control room booth in the auditorium that is marked as installed in 2011 and is reported in poor condition (M-18). The AHU serving the stage will disturb the curtains when active and should be addressed by installing different air diffusers to spread the air flow (M-20). There is a Liebert DX system serving the gallery, installed in 1995, in fair condition but nearing end of service life (M-19).

Ventilation: The outside air supply is ducted to the air handlers in level one (basement) from a large louver that is in the wall of the central plant, below grade. There is a pit to allow air flow below grade to the intake louver. The grate over this pit appears to be recently replaced. The outside air for the other units is similarly ducted from a louver or roof mounted intake to the air handling unit. Exhaust for restrooms on level one is provided by a suspended exhaust fan in the central plant that is in poor condition (M-14). The exhaust for restrooms, breakrooms and closets on levels 2 and 3 is ducted to roof mounted fans. These fans appear to be in fair condition but are near the end of their expected service life and should be considered for replacement (M-15). During our walk of the building, we observed lint traps installed on clothes dryer exhaust. This should be replaced with new exhaust ducts to the outside (M-16).

Controls: The building controls are a combination of pneumatic space temperature control and DDC control of equipment. The DDC controlled equipment is visible on the campus master control system but the pneumatic space temperature controls are not. The equipment is controlled via control modules that are on the local BAS network. The space temperature control is accomplished via pneumatic thermostats in the space that controls the dual duct terminal units and/or zone controls dampers. These pneumatic controls are not part of the campus DDC system and cannot be monitored or adjusted remotely and should be considered for full replacement with a DDC system.

HVAC System Assessment

Chillers: The chillers are 18 years old typically have a life span of 20 years. They are in fair condition but are nearing the end of the service life.

Chilled water pumps: The pumps are 18 years old and typically have a life span of 20 years. The insulation on the pumps has deteriorated and in result have condensation forming on them. This condensation appears to affect the pump housing and the pumps are in poor condition.

Cooling towers: The cooling towers are 4 years old and in excellent condition. There are no reported issues with them and the anticipated service life is another 20 years.

Condenser water pumps: The pumps are 18 years old and typically have a life span of 20 years.

Boilers: The boilers are 2 years old and are in excellent condition. Replace vent stack.

Hot water pumps: The pumps are possibly the original pumps, typically have a life span of 20 years and should be replaced.

Piping: The visible piping that has been replaced 32 years ago is in good condition but the original piping in the concealed areas of the building is 60 years old and at the end of its anticipated service life. The original piping

system should be considered for replacement.

Air distribution: The air handlers are nearing the end of their service life and are do not have adequate access for cleaning. The system should be considered for replacement. The dual duct terminal units have a typical service life of 20 years and are near the end of that service life and should be considered for replacement.

Ventilation: The exhaust fans are near the end of service life and should be considered for replacement. Dryer exhaust booster fans and ducts to the outdoor should be installed for clothes dryers.

Controls: There have been complaints regarding the ability to control space temperature. These complaints aren't addressable in an efficient manner with the current, pneumatic control system. The building control system should be upgraded so that all equipment is controlled by DDC and put on the LAN so that all may be monitored and controlled remotely by the university environmental staff (M-17).

NOTE: Refer to ASHRAE Service Life of Equipment table below for more information.

ASHRAE Service Life of Equipment Table

Equipment Item	Median Years
Air conditioners	
Window unit	10
Residential single or Split	
Package	15
Commercial through-the wall	15
Water-cooled package	15
Heat Pumps	
Residential air-to-air	15
Commercial air-to-air	15
Commercial water-to-air	19
Roof-top air conditioners	
Single-zone	15
Multi-zone	15
Boilers, hot water (steam)	
Steel water-tube	24 (30)
Steel fire-tube	25 (25)
Cast iron	35 (30)
Electric	15
Burners	21
Furnaces	
Gas- or oil-fired	18
Unit heaters	
Gas or electric	13
Hot water or steam	20
Radiant Heaters	
Electric	10
Hot water or steam	25

Equipment Item	Median Years
Air terminals	
Diffusers, grilles, and registers	27
Induction and fan coil units	20
VAV and double-duct boxes	20
Air washers	17
Ductwork	30
Dampers	20
Fans	
Centrifugal	25
Axial	20
Propeller	15
Ventilating roof-mounted	20
Coils	
DX, water, or steam	20
Electric	15
Heat Exchangers	
Shell-and-tube	24
Reciprocating compressors	20
Packaged chillers	
Reciprocating	20
Centrifugal	23
Absorption	23
Cooling towers	
Galvanized metal	20
Wood	20
Ceramic	34

Equipment Item	Median Years
Air-cooled condensers	20
Evaporative condensers	20
Insulation	
Molded	20
Blanket	24
Pumps	
Base-mounted	20
Pipe-mounted	10
Sump and well	10
Condensate 15	
Reciprocating engines	20
Steam turbines	30
Electric motors	18
Motor starters	17
Electric transformers	30
Controls	
Pneumatic	20
Electric	16
Electronic	15
Valve actuators	
Hydraulic	15
Pneumatic	20
Self-contained	10

Electrical System Summary

Service: The electrical service is provided via the University owned 12.5 kV, campus distribution system. A 12.5 kV circuit originating at the adjacent Music Building feeds a 15.5kV/120-208V pad mounted transformer. The pad mounted transformer supplies 120/208 volt, three phase power to the 4000 A main switchboard located on level one (basement) (E-1).

Distribution: The 4000A main switchboard was replaced in 2003 and is in very good condition. There is capacity and spare spaces for future needs. The main switchboard feeds two motor control centers (one installed in 2003 and one installed during original construction E-9) that power the auditorium dimmer panel, electric duct heaters, panel boards, automatic transfer switch, Liebert unit and other loads throughout the building. The panel boards serving the branch circuits are located throughout the building in what seem to be random locations, such as corridors, classrooms and offices. The typical method of the layout of electrical panels, at the time this building was constructed, was to place panel boards conveniently near the loads served (E-2). New buildings have dedicated rooms to house electrical equipment to keep unauthorized persons away and safe.

Lighting: Lighting is accomplished using fluorescent lay-ins, recessed “can” lights (CFL & incandescent), surface mounted fluorescent strip fixtures, surface mounted wall hung fixtures in the auditorium and recessed exterior soffit fixtures. The fluorescent lay-ins are basically two types, 2x2 with parabolic lens at the main entrance and 2x4 with prismatic lens in the corridors, restrooms, classrooms and office spaces. The recessed “can” lights are predominantly located in the auditorium with some in the coves around the main lobby. The surface mounted strip fixtures are utilized in the mechanical spaces, storage spaces and utility spaces. The fluorescent fixtures are all modern types with T-8 lamps and electronic ballasts. The auditorium lighting is incandescent for dimming purposes. There is a dimmer panel in the auditorium for control of the auditorium lighting. There are exterior stair way lights that were installed during the last renovation are in poor condition and should be replaced (E-10).

Power: The distribution of branch circuits is accomplished through the original electrical panels. These panels are near the end of their service life and should be replaced when renovations are performed. They are manufactured by ITE and are rated for 225 A (typical). (E-3). The grounding system in the building consists of the conduit system, as was the case when the building was constructed. Current methods utilize a grounding conductor pulled in the conduit with the power conductors. A grounding conductor will provide a solid and reliable path for fault current and typically raises the power quality at the user devices (E-4).

Stand-by power: Stand-by power is provided through an automatic transfer switch that is fed by a Cummins, 85 kW, natural gas fired generator that was recently installed and in excellent condition. The automatic transfer switch is located on level one, and in good condition. The original conduit from the generator to the transfer switch was reused which limited the conductor size and thus the emergency power capacity that can be delivered to the ATS.

Egress lighting: Egress lighting in the auditorium is provided by the normal lighting fixtures and powered by the natural gas, stand-by generator. Egress lighting in the corridors, classrooms and other spaces within the building is provided by “bug-eye” battery powered lights or battery powered ballasts (E-7).

Electrical System Assessment

Service: The service is in good condition and has no reported issues.

Distribution: The Main Switchboard is in excellent condition, as it was replaced in 2004 but the electrical panels are original and at the end of their service life. Replace electrical panels and provide grounding conductors.

Lighting: Fluorescent lighting is up to date but the upgrade to LED lighting may be considered due to the energy savings opportunity. Consider changing the auditorium lighting to LED dimmable to reduce energy consumption, heat generation (reduced cooling load) and eliminate changing of incandescent lamps (E-5). Consider upgrading all lighting to LED to reduce maintenance requirements and energy usage (E-5a).

Stand-by power: The generator and transfer switch are in good condition but the circuit capacity is limited due to existing conduit size. Recommend installing new conduit and wiring to utilize full capacity of generator (E-6).

Egress Lighting: Egress lighting can be upgraded from battery packs to the generator once generator capacity has been upgraded (E-8).

Plumbing System Summary

Supply: The domestic water supply piping consists of copper piping. The building has undergone several renovations but the piping on the level 1 (basement) has not been touched during these renovations. The supply piping on level 1 is the original piping and is in poor condition (P-1). Levels 2 and 3 have been renovated and the supply piping replaced and is in good condition. Insulation appears to be in fair condition.

Sanitary Drainage: The building has undergone several renovations but the sanitary drain piping on the level 1 (basement) has not been touched during these renovations. The sanitary drain piping on the level 1 is the original piping and is in poor condition (P-2). Levels 2 and 3 have been renovated and the sanitary drain piping replaced and is in good condition. The building drain system terminates on level 1 and drains to a sanitary lift station. The drain piping to the lift station is in poor condition but the lift station pumps and components were replaced in 1997 and are reported in good condition, but close to the end of service life (P-3).

Storm Drainage: Storm drainage appears to be accomplished through scuppers on the roof with a few roof drains. A roofing consultant should review the scupper size and design to evaluate the capacity. The roof drains are original (P-4) and should be thoroughly inspected and cleaned to find and remove any debris build up that may have occurred over the years.

Water Heating: The lower level domestic hot water is supplied by a 91 gallon, 199,900 btu input gas fired water heater located on the first level (basement). This gas water heater is reported in poor condition (P-5). The domestic water heating for the restrooms on levels 2 and 3 is accomplished by a small, 4 gallon electric water heater that is installed underneath the lavatory counter top. The units are exposed to the restroom users. Recommend the water heater is relocated to a space above the ceiling so it is not exposed to users (P-6).

Fixtures: The building has undergone several renovations with plumbing fixtures replaced during these renovations. Levels1, 2 and 3 have been renovated and the plumbing fixtures replaced and in good condition with the exception of the copper nipple between the urinal and sanitary drainage system. The material is rotting in several locations and should be replaced (P-10). The electric drinking fountains were replaced in the late 80s, are in poor condition and should be replaced (P-7). A suggestion was brought up during our interview to upgrade the existing flush valves to

automatic flush valves to conserve water and maintain fixture traps.

Sub-surface Drainage: There are two lift stations for subsurface drainage that are original. They are functional but the underground piping is in questionable condition due to materials and age. The pumps should be replaced due to age and the piping should be inspected and replaced as necessary (P-8, P-9).

Plumbing System Assessment

Supply: Replace level one water piping and insulation.

Sanitary Drainage: Replace level one sanitary piping and lift station components.

Storm drainage: Inspect and rod out storm drain piping, replace roof drains as necessary, and consider a roof and roof drainage report that may clarify the need for additional drainage for the roof.

Water heating: Replace gas water heater and small electric water heaters.

Fixtures: Replace electric drinking fountains with proper ADA water fountains.

Sub-surface drainage: Replace pumps and controls as indicated.

MEP Condition Survey

Item No. M-1

Description 6’ x 15’ steel access door to level 1 basement, mechanical room

Action Access door needs to be replaced

Item No. M-2

Description Prop and scenery storage

Action Install concrete slab on grade to all spaces with dirt floors

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Item No. M-3

Description Existing chillers

Action Replace chillers (2)

Item No. M-4

Description Chilled water pumps

Action Replace chilled water pumps (2)

Item No. M-5

Description Condenser water pumps

Action Replace condenser water pumps (2)

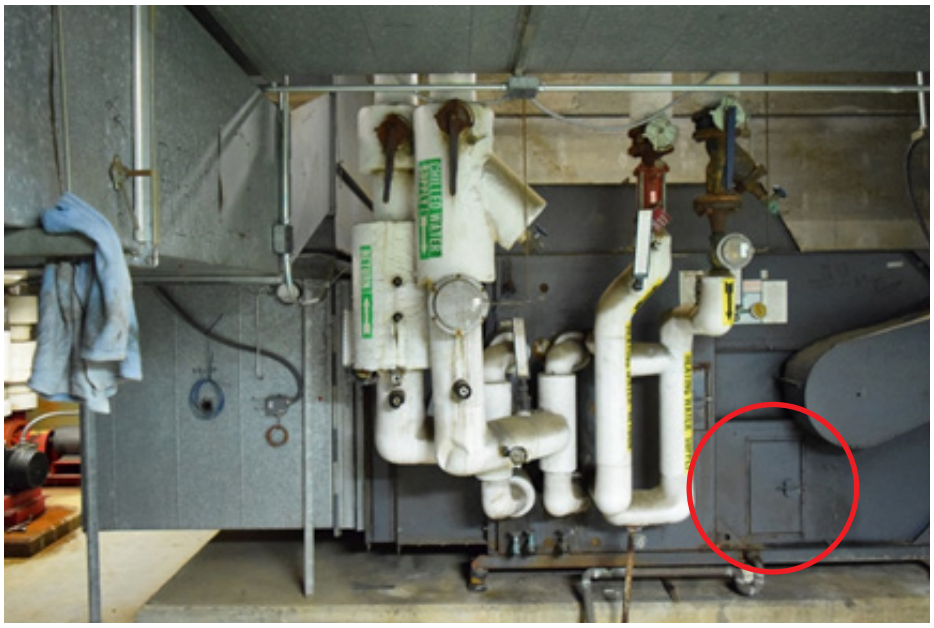
Item No. M-6: No photo, see spreadsheet.

Item No. M-7

Description Hot water system pumps

Action Replace hot water pumps (2)

Item No. M-9



Description Very small access panels that don't facilitate maintenance and cleaning

Action Replace air handlers

Item No. M-10

Description Apparent microbial growth

Action Refurbish air handlers

Item No. M-11: No photo, see spreadsheet.

Item No. M-12

Description Lead lined vinyl coating on duct.

Item No. M-13

Description External duct insulation.

Item No. M-14: No photo, see spreadsheet.

Item No. M-15

Description Roof mounted exhaust fan

Action Replace roof mounted exhaust fans

Item No. M-16

Description Dryer lint trap

Action Provide boosert fan and exhaust duct for clothes dryers

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Item No. M-17: No photo, see spreadsheet.

Item No. M-18: No photo, see spreadsheet.

Item No. M-19: No photo, see spreadsheet.

Item No. M-20: No photo, see spreadsheet.

Item No. M-21: No photo, see spreadsheet.

Item No. M-22: No photo, see spreadsheet.

Item No. M-23

Description Boiler venting

Action Replace boiler vent stacks (3)

Item No. E-1

Description Switchboard

Item No. E-2

Description Panel located in corridor

Item No. E-3: No photo, see spreadsheet.

Item No. E-4: No photo, see spreadsheet.

Item No. E-5: No photo, see spreadsheet.

Item No. E-6: No photo, see spreadsheet.

Item No. E-7

Description Battery powered egress lighting

Item No. E-8: No photo, see spreadsheet.

Item No. E-9: No photo, see spreadsheet.

Item No. E-10

Description Stair lighting in poor condition

Action Replace stairlighting on exterior stairs

Item No. P-1: No photo, see spreadsheet.

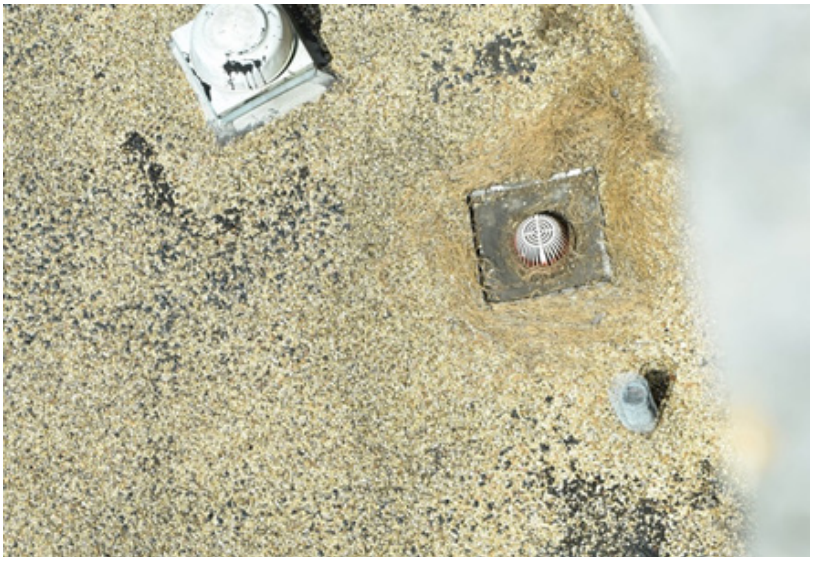
Item No. P-2: No photo, see spreadsheet.

Item No. P-3

Description Sanitary lift station

Action Replace lift station components

Item No. P-4



Description Roof drain

Action Inspect and clean roof drain piping

Item No. P-5: No photo, see spreadsheet.

Item No. P-6

Description Under counter water heater

Action Replace water heaters

Item No. P-7

Description Electric drinking fountains

Action Replace drinking fountains

Item No. P-8: No photo, see spreadsheet.

Item No. P-9: No photo, see spreadsheet.

MEP Assessment Scope

KEY	ITEM	CONDITION	DESCRIPTION
	MEP		
M-1	Replace the 6' x 15' steel access door to level 1 basement, mechanical room	Poor	Leaks during rain resulting in flooding of room
M-2	Replace non functioning exhaust fan in central plant	Poor	1/2 hp, 3000 cfm, propeller fan
M-3	Replace chillers (2)	Fair	Close to end of projected service life - 145 ton, water cooled chillers
M-4	Replace chilled water pumps (2)	Poor	20 hp pump package
M-5	Replace condenser water pumps (2)	Fair	20 hp pump package
M-6	Provide refrigerant leak detection system	N/A	New refrigerant leak detection system interlocked with BAS
M-7	Replace hot water pumps (2)	Poor	10 hp pump package
M-8	Inspect ductowrk for leakage and repair	N/A	Inspect ducts for visible or audible leakage and repair
M-9	Replace air handlers	Fair	(5) units at 40,000 cfm, 10,000 cfm, 23,000 cfm, 21,000 cfm and 3000 cfm.
M-10	Refurbish air handlers	Fair	(5) air handlers
M-11	Clean duct work	Poor	Provide access points and clean duct work
M-14	Replace suspended exhaust fan	Poor	Replace 1 hp, propeller fan, suspended from structure
M-15	Replace roof mounted exhaust fans	Fair	Replace (12) 1/2 hp roof mounted exhasut fans
M-16	Provide boosert fan and exhaust duct for clothes dryers	Poor	(2) dryers on level one
M-17	Upgrade building controls to full DDC.	N/A	Add DDC controls to terminal units and zone damper controls.
M-18	Replace control room DX system	Poor	Replace 5 ton split system with electric heat
M-19	Replace gallery DX system	Fair	Replace 7.5 ton split system with electricl heat and dehumidification.
M-20	Install new diffusers for auditorium unit serving stage to prevent curtain movement	N/A	Provide new diffusers (8) 36x20
M-21	Replace piano room fan coil unit	Poor	3 ton, DX fan coil unit.
M-22	Clean underground duct work in black box.	Poor	Clean approximately 60 feet of duct.
M-23	Replace boiler vent stacks (3)	Poor	Replace stacks (3) with vents that are compatible with new boilers
E-3	Replace electrical panels	Poor	Replace 16, 225 amp panels and refeed circuits
E-4	Install grounding conductors	Poor	Install grounding conductors in conduits.
E-5	Change auditorium lighting to LED	Poor	Replace existing lighting
E-5a	Replace all lighting with LED	Fair	Provide LED lighting for all spaces.
E-6	Replace generator conduit and wiring	N/A	Provide new conduits and conductors for 300A circuit.
E-8	Upgrade egress lighting	N/A	Provide conduit and wiring system for emergency power and wire egress fixtures to it.
E-9	Replace original motor control center	Poor	Replace 800 amp motor control center
E-10	Replace stairlighting on exterior stairs	Poor	Replace 30 lights
P-1	Replace copper supply piping	Poor	Replace level one piping
P-2	Replace original sanitary piping	Poor	Sawcut floor and replace sanitary piping on level one
P-3	Replace lift station components	Fair	Replace two submersible grinder/pumps (2hp)
P-4	Inspect and clean roof drain piping	Poor	Rod out roof drain piping
P-5	Replace gas water heater	Poor	Replace 199,000 btu, 91 gallon, gas fired water heater
P-6	Replace water heaters	Fair	Replace (6) 4 gallon, electric water heaters and relocate to plenum space.
P-7	Replace drinking fountains	Poor	Replace (18) electric drinking fountains with all stainless steel models.
P-8	Replace subsurface drainage pumps	Poor	Replace (4) 5 hp submersible pumps and controls
P-9	Inspect and replace subserface drainage piping as necessary	Poor	Run camera through piping and replace as needed
P-10	Replace waste nipple on urinals	Poor	14 urinals
P-11	Replace flush valves with automatic flush valves	Upgrade	30 flush valves (Sloan EBV-89A-M)

Life Safety Assessment

Life Safety Summary

The Griffith Building is a building of steel and masonry structure housing classrooms, offices, a theater, storage rooms and other support utility rooms. The building is of mixed occupancy containing business, assembly and storage occupancies, as defined in NFPA 101 Life Safety Code (2012) and the 2012 International Building Code (IBC), Chapter 3. Observations of the construction visible appear consistent with Type IA or Type IB, as defined in Chapter 6 of the IBC.

Egress

The building is provided with two stairs for egress from levels two and three. Due to sloping terrain, Stair A discharges on Level Two at A2. Stair B discharges in the interior of Level 1 at B1, the level of exit discharge. Stair B discharges through what appears to be an exit passageway that is provided with construction that appears to have a one-hour fire resistance separation, as required by Chapter 10 of the IBC. However, the building elevator opens into the exit passageway and there is combustible furniture in the passage.

The allowance for one of the interior exit stairs to discharge inside the building at the level of exit discharge only applies if the level of exit discharge is provided with complete automatic sprinkler protection. It is not. The addition of automatic sprinkler protection throughout the building will address this situation.

The elevator opening into the Stair B exit passageway at B1 is not allowed. Only normally occupied areas, (not shafts) are allowed to open into an exit enclosure (exit passageway). It appears it may be possible to construct an enclosed elevator lobby between the stair discharge and the elevator. Such construction would address this situation. (IBC Chapter 10)

The furniture in the exit passageway is not allowed. Only noncombustible items necessary for the proper functioning of an exit are allowed in the enclosure. (IBC Chapter 10)

Corridors

Unless the building is provided with automatic sprinkler protection throughout, the corridors are required to be separated from other floor areas by one-hour fire resistive construction. While the wall construction of the corridors could not be determined, not all doors leading into the corridors have labels indicating the doors have the required fire resistance rating. The Ticket Office (Rm 206) on Level 2 has an unprotected window opening.

Providing automatic sprinkler protection throughout the building will preclude the need for a fire resistance rating for the corridor. (IBC Chapter 10)

Construction

In Room 300, Upstage Theater, there is a “Sound Booth”. Sound Booth, 300A, contains a platform approximately 37” high fabricated from wood with no fire protection under the platform and storage in the enclosed space under the platform.

Automatic sprinkler protection is needed under the platform, as required by NFPA 13.

Drawings indicate the ceiling of the stage is over 50 feet high. Therefore, the stage proscenium wall is required to have a two-hour fire resistance rating. (LSC Section 12.4.5.6) While the construction of the wall appears to be of a type that will provide the required two-hour fire resistance rating, holes were observed in the wall that will need to be repaired to restore the fire resistance rating of the wall.

Automatic Sprinkler Protection

Automatic sprinkler protection is provided throughout Level 1. Automatic sprinkler protection is required by the Life Safety Code for an assembly occupancy having an occupant load of over 300. The assembly area (theater) of the building has an occupant load of over 1,000, based on the number of fixed seats.

Providing automatic sprinkler protection throughout the building, besides being required for the assembly occupancy, will also obviate the need for fire resistance separation of the corridors (IBC Chapter 10), allow the current situation of one of the exit stairs discharging through Level 1 (IBC Chapter 10) and allow occupancy separations of one-hour between the theater and the rest of the building as required by the Life Safety Code and the storage rooms and the rest of the building. (LSC Chapter 6) Otherwise, a two-hour fire resistance separation is required between some of the occupancies. (IBC Chapter 5; LSC Chapter 6) It should be noted, the IBC would allow non-separated occupancies in the building if the building meets the requirements of the most stringent occupancy. (IBC Chapter 5) It appears this would be the case.

Life Safety Condition Survey

Item No. LS-1

Description Combustible furniture in exit passageway

Action Remove furniture

Item No. LS-2

Description Box office window in corridor

Action Remove window, provide fire shutter or provide automatic sprinkler protection

Item No. LS-3

Description Combustible platform in Room 300 Sound Booth

Action Replace with noncombustible construction or provide automatic sprinkler protection

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Item No. LS-4: No photo, see spreadsheet.

Item No. LS-5: No photo, see spreadsheet.

Item No. LS-6: No photo, see spreadsheet.

Item No. LS-7: No photo, see spreadsheet.

Item No. LS-8: No photo, see spreadsheet.

Life Safety Assessment Scope

KEY	ITEM	CONDITION	DESCRIPTION
	LIFE SAFETY		
LS-1	Exit passageway for Stair B deficient at B1		Elevator opens into the exit passageway. Combustible furniture is in the exit passageway.
LS-2	Corridors do not have required one-hour fire resistance rating.		Most doors not labled indicating a fire resistance rating. Ticket office window opening into corridor is not protected.
LS-3	Room 300 Sound Booth combustible platform unprotected.		Combustible construction requires changing to noncombustible or provide automatic sprinkler protection.
LS-4	Improper Stair A discharge at A2.		Stair A at A2 discharges into Level 2 and floor is not provided with automatic sprinkler protection.
LS-5	Required fire protection not provided.		Building with the current assembly area (theater) is required to be provided with automatic sprinkler protection throughout. Providing automatic sprinkler protection throughout the building addresses all but LS-1 above.
LS-6	The theater does not appear to have a fire resistive separation from the rest of the building.		A one-fire resistive separation is required between the theater and the rest of the building by Chapter 6 of the Life Safety Code. However, the IBC will allow nonseparated occupancies if the building is provided with automatic sprinkler protection throughout.
LS-7	Confirm the storage rooms are separated from the theater areas by one-hour fire resistance construction		While there appears to be proper construction providing the required separation, this should be confirmed.
LS-8	Holes were observed in the stage proscenium wall.		The holes were observed in the that require repair to restore the fire resistance rating.

Texas Accessibility Standards (TAS) Assessment

Texas Accessibility Standards (TAS) Summary

The following report addresses findings observed during site inspection performed on September 22, 2016. The site inspection was performed to determine conformance with Elimination of Architectural Barriers; Administrative Rules of the Texas Department of Licensing and Regulations; 16 Texas Administrative Code; Chapter 68; Texas Accessibly Standards (TAS). This report does not address the Federal Americans with Disabilities Act (ADA) or its requirements.

Corrective Action

The report will document a noncompliant element as well as describe when corrective action is required (if any) as it pertains to Scenario 2 and 3. Below are the following corrective actions:

Corrective Action A

An element is found to not meet the TAS 1994 or TAS 2012 Standards; however the element would not be required to be corrected due to a renovation. The element would be allowed to remain in noncompliance indefinitely unless that element is altered or modified in any way. For example; an existing noncompliant break room sink.

Corrective Action B

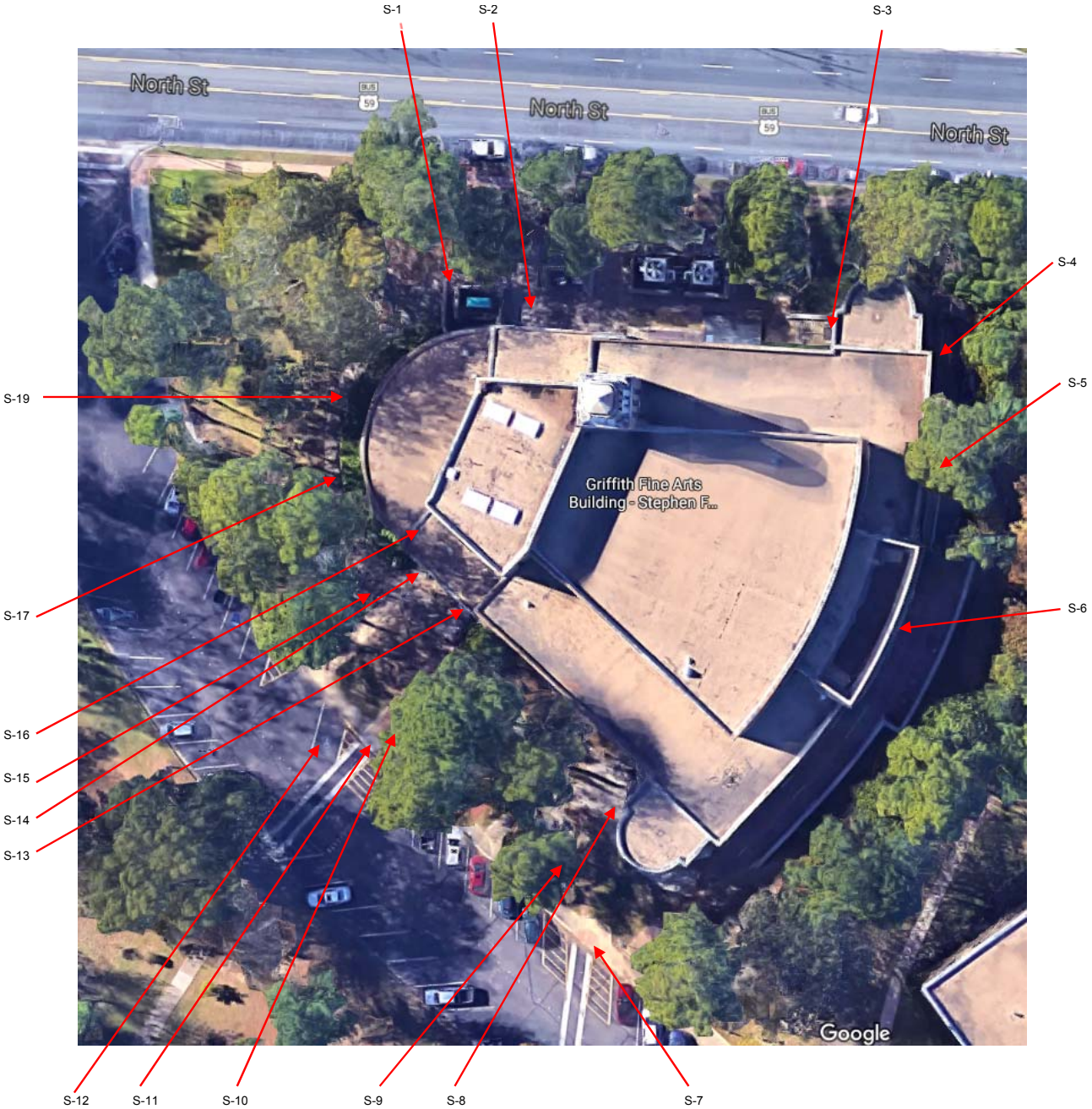
An element is found to not meet the TAS 1994 or TAS 2012 Standards and would be required to be corrected if a renovation occurred within the vicinity or in route of the noncompliant element. For example, if an area was renovated, the restroom(s) that would serve the renovation would be required to be corrected and brought into compliance. The owner shall determine what restroom serves the altered area, however the proximity of the restroom to the renovation must be considered and a user may not pass by a noncompliant restrooms to get to a compliant one.

Corrective Action C

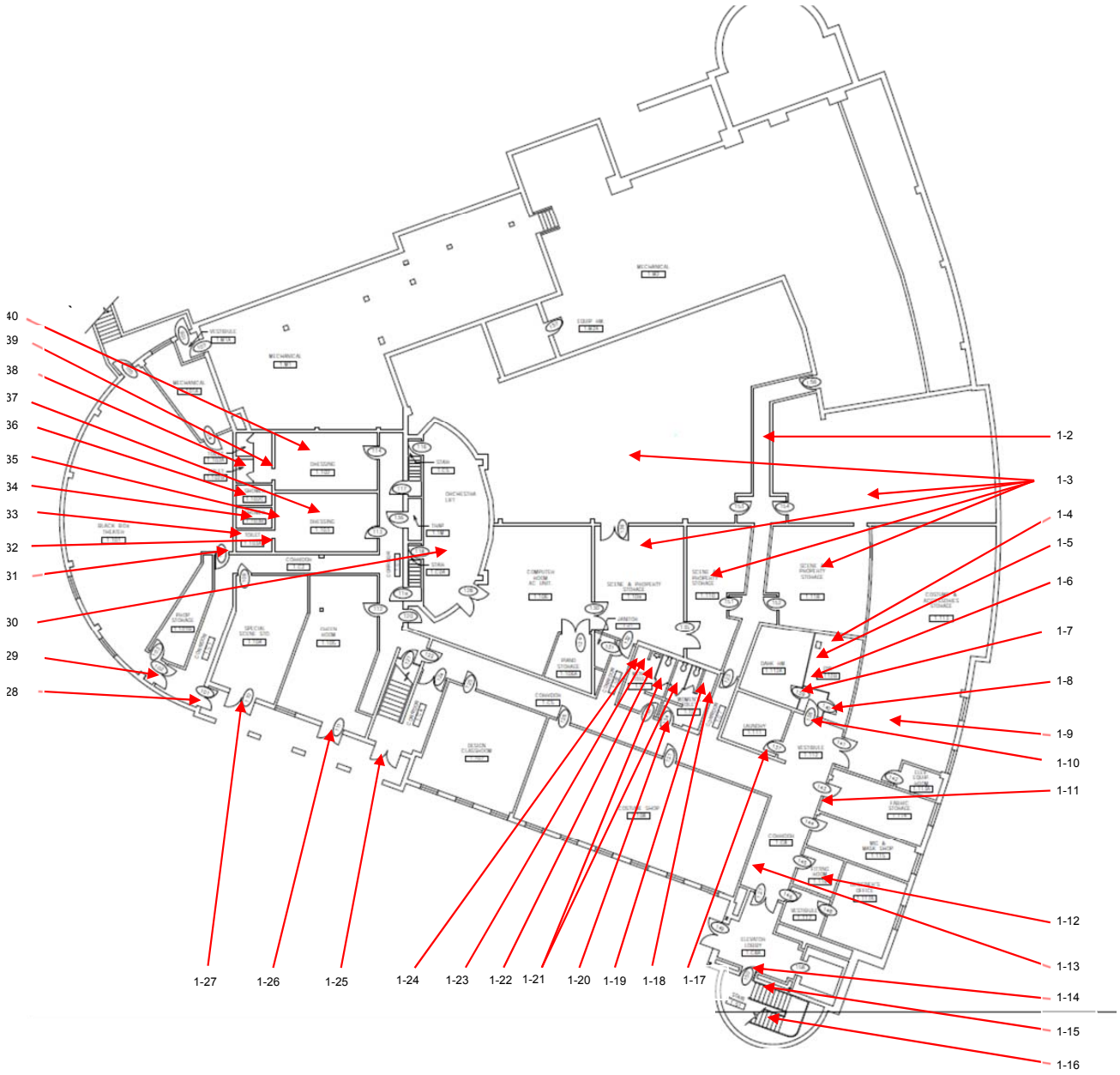
An element is found to not meet the TAS 2012 Standards; however it did meet the TAS 1994 Standards. The element would be allowed to remain in noncompliance indefinitely unless that element is altered or modified in any way.

TAS Condition Survey

Site Plan



Level One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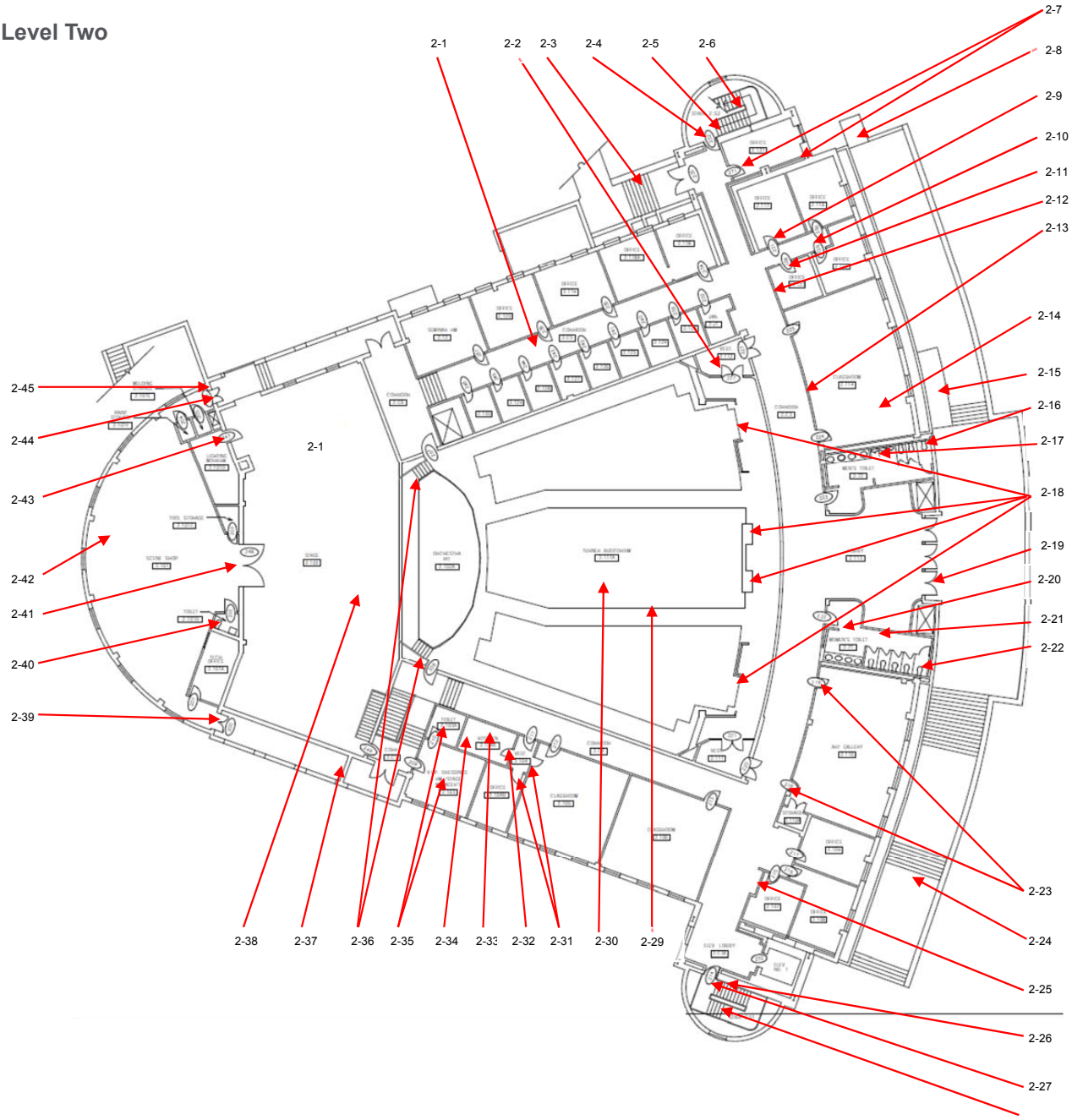
Level Two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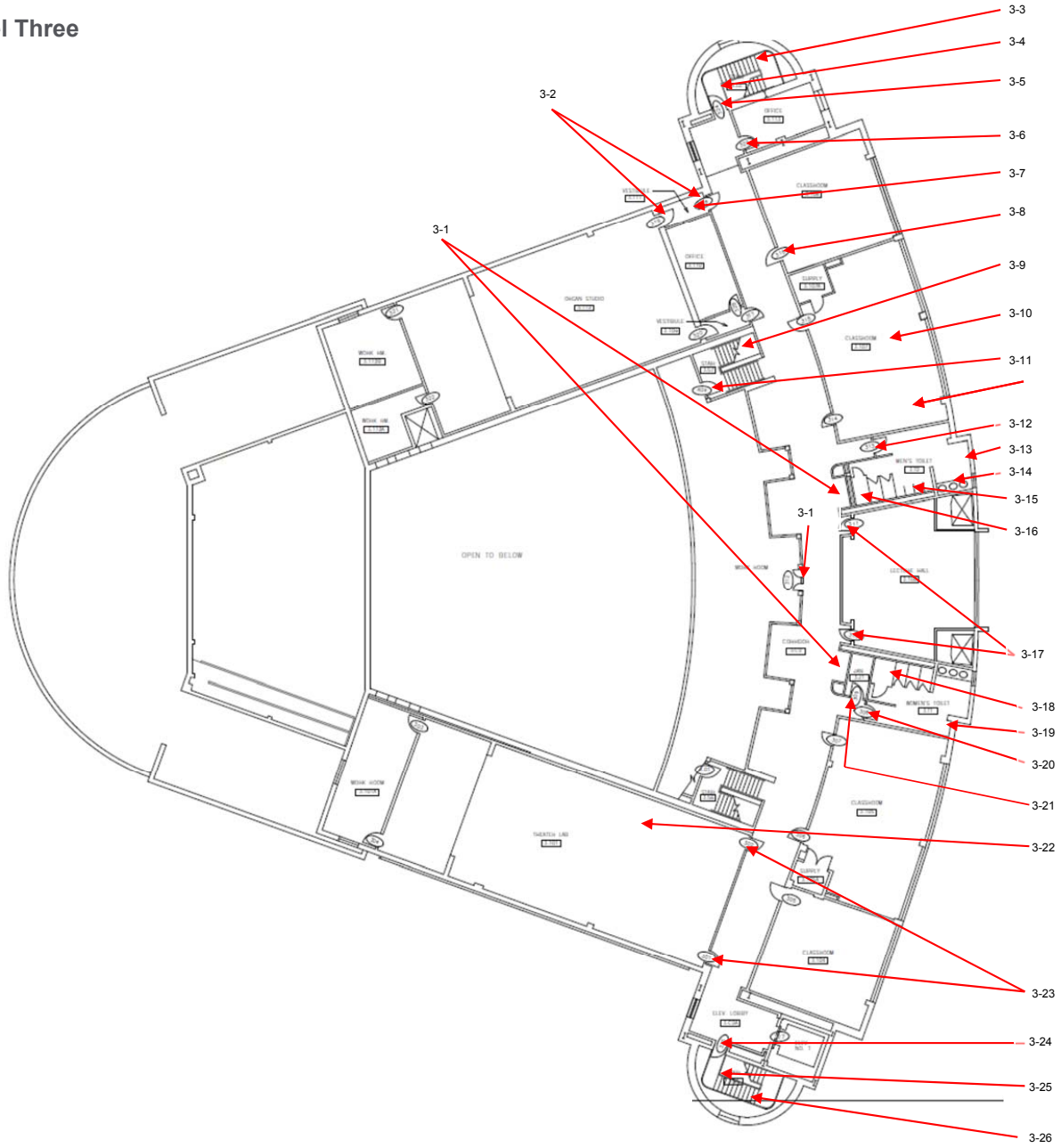
Level Three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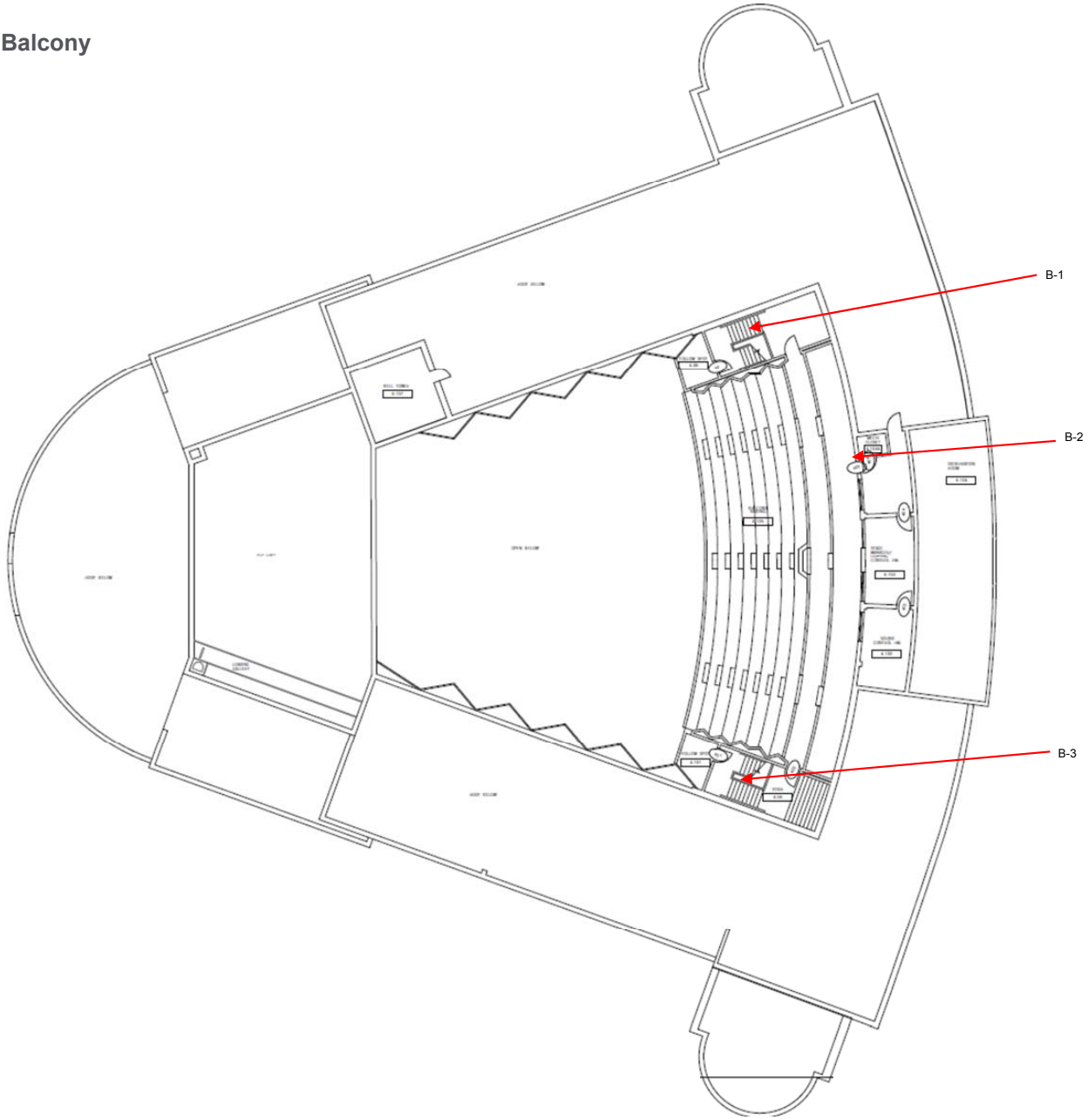
OPEN TO BELOW

Balcony



TAS Assessment Scope

KEY	ITEM	ACTION	DESCRIPTION
	TEXAS ACCESSIBILITY STANDARDS Site Plan		
S-1	Non accessible Exit.	A	This door is designated with an Exit sign. Min 2 accessible means of exit are required from a facility.
S-2	No-compliant ramps.	A	This door is designated with an Exit sign. Min 2 accessible means of exit are required from a facility.
S-3	See 2-3 for detailed plan and comment.		
S-4	See 2-8 for detailed plan and comment		
S-5	See 2-15 for detailed plan and comment.		
S-6	See 2-19 for detailed plan and comment.		
S-7	Non-compliant curb ramp.	B	Slope at curb ramp too great. 11.2%.
S-8	Unfilled wide expansion joint.	B	Sidewalk has a large unfilled expansion joint greater than 1/2". This is the only route from accessible parking to the facility's only accessible entrance.
S-9	Sloping walkway.	B	Sidewalk has a slope too great, 6.1% This is the only route from the accessible parking to the facility's only accessible entrance.
S-10	Cross slope at circulation path.	B	The curb ramp protrudes into the sidewalk reducing the level walk-way to less than 36" which requires users to travel a across the curb ramp creating a cross slope greater than 2%.
S-11	Non-compliant curb ramp.	B	Slope at curb ramp too great. 10.4%.
S-12	Non-compliant accessible parking space.	B	Parking space does not have and adjacent access aisle, but denoted as handicapped with decal and signage.
S-13	See 2-25 for detailed plan and comment.		
S-14	See 2-27 for detailed plan and comment.		
S-15	Change in level at sidewalk.	A	Asphalt has large bump running the entire width of surface.
S-16	See 2-28 for detailed plan and comment.		
S-17	Sloping walkway.	A	Sidewalk has a slope too great, 6.5% .
S-18	Sloping walkway.	A	Sidewalk has a slope too great, 6.7% .
S-19	Non-compliant cross slope at walkway	A	Sidewalk has cross slope too great, 4.2%.
	Level One		
1-1	Non compliant door hardware.	B	All interior door have knob type door hardware.
1-2	Sloping walking surface.	B	Interior corridor slopes greater than 5%.
1-3	Non-compliant surface.	B	Dirt floors are not level and have many holes and bumps.
1-4	Washer controls.	A	Washer controls are outside the reach range. It is assumed the washer is for student use and therefore shall be compliant.
1-5	Non-compliant sink.	A	Sink does not have knee clearance and is too high, eyewash does not have clearance.
1-6	Non-compliant stove.	A	Controls at stove require users to reach across burners.
1-7	Non-compliant door.	B	Door is only 32" wide and has insufficient maneuvering clearance on the pull side; 36" perpendicular to the doorway.
1-8	Non-compliant door.	B	Door is only 32" wide and has insufficient maneuvering clearance on the pull side.
1-9	Controls outside reach range.	A	The controls at the mechanized clothing rack are located too high.
1-10	Non-compliant door.	B	Door is only 32" wide and has insufficient maneuvering clearance on the pull side.
1-11	Non-compliant door.	B	Door has insufficient maneuvering clearance on the pulls side; 13" past the latch.
1-12	Dressing Room		Dressing room does not have an accessible bench and hooks are too high.
1-13	Lockers	A	No accessible locker provided. No unit provided that has both a shelf and a hook at an accessible height within the same unit.
1-14	Non-compliant door.	A	Door has insufficient maneuvering clearance on the pull side, 0" past the latch. Door opening force and closing speed too great.
1-15	Handrail extension.	A	Handrail extension at one side at bottom does not extend past the bottom tread.
1-16	Handrail height.	A	Handrails are too low, 30".
1-17	Non-compliant door.	B	Door is only 32" wide and has insufficient maneuvering clearance on the pull side, 39" perpendicular to doorway.
1-18	Lavatory Clear Floor Space (CFS).	B	Paper towel dispenser is located within the required CFS for the lavatory.
1-19	Lavatory pipes.	B	Pipes at lavatory are exposed.
1-20	Room signage.	B	Room signage is mounted on the door.
1-21	Toilet compartments.	B	No accessible toilet compartments provided in either Men's or Women's Restrooms.
1-22	Non-compliant urinal.	B	Urinal is too high, 24".
1-23	Lavatory pipes.	B	Pipes at lavatory are exposed.
1-24	Lavatory Clear Floor Space (CFS).	B	Paper towel dispenser is located within the required CFS for the lavatory.

1-25	Non-compliant door.	A	Non-compliant ramp located within the door maneuvering clearance on the pull side. This is a public entrance to the facility; 60% of entrances are required to be accessible. In addition, this door is designated with an Exit sign. Min 2 accessible means of exit are required from a facility.
1-26	Non-compliant door.	A	Step located at door threshold. This is a public entrance to the facility; 60% of entrances are required to be accessible. In addition, this door is designated with an Exit sign. Min 2 accessible means of exit are required from a facility.
1-27	Non-compliant door.	B	Non-compliant ramp located within the door maneuvering clearance on the pull side. This is a public entrance to the facility; 60% of entrances are required to be accessible. In addition, this door is designated with an Exit sign. Min 2 accessible means of exit are required from a facility.
1-28	Non-compliant door.	B	Non-compliant ramp located within the door maneuvering clearance on the pull side. This is a public entrance to the facility; 60% of entrances are required to be accessible. In addition, this door is designated with an Exit sign. Min 2 accessible means of exit are required from a facility.
1-29	Non-compliant door.	B	Two 24" double doors do not provide compliant clear width at single opening.
1-30	Orchestra Pit.	A	No accessible route to the Orchestra Pit.
1-31	Non-compliant door.		Insufficient maneuvering clearance on the push side; 2" past the latch with closer and a latch.
1-32	No accessible route to shower room.	B	Step located at opening into the shower room.
1-33	No accessible toilet compartment/water closet.	B	No accessible toilet compartment/water closet within the Dressing Room.
1-34	No accessible shower.	A	Shower has a large curb at threshold, no grab bars, and no compliant controls.
1-35	Mirror too high.	B	Mirror at lavatory mounted too high.
1-36	No accessible shower.	A	Shower has a large curb at threshold, no grab bars, and no compliant controls.
1-37	Men's Dressing Room	A	Dressing counter have non-compliant knee space, 24" high. No accessible bench provided. Clothes rods too high. Entry door opening force and closing speed too great.
1-38	No accessible toilet compartment/water closet.	B	No accessible toilet compartment/water closet within the Dressing Room.
1-39	No accessible route to shower room.	B	Step located at opening into the shower room.
1-40	Women's Dressing Room	A	Dressing counter have non-compliant knee space, 24" high. No accessible bench provided. Clothes rods too high. Entry door opening force and closing speed too great.
	Level Two		
2-1	Office doors.	B	All interior doors to Offices in corridor do not provide compliant clear width and have knob type hardware.
2-2	Theater Doors.	B	Two 30" double doors do not provide proper clear width at a single opening. Automatic door opener not working. Closing speed and opening force too great.
2-3	No accessible route/entrance.	A	Steps at entrance. Sign on door denotes a wheelchair implying this is an accessible entrance. This is a public entrance to the facility; 60% of entrances are required to be accessible. In addition, this door is designated with an Exit sign. Min 2 accessible means of exit are required from a facility.
2-4	Non-compliant door.	B	Door has insufficient maneuvering clearance on the pull side, 0" past the latch. Door opening force and closing speed too great.
2-5	Handrail extension.	A	Handrail extension at one side at bottom does not extend past the bottom tread.
2-6	Handrail height.	A	Handrails are too low, 30".
2-7	Non-compliant door hardware.	B	Doors have knob type hardware.
2-8	Non-compliant ramp.	B	Slope is too great, 9.1%.
2-9	Non-compliant door.	B	Door is only 32" wide and has knob type hardware.
2-10	Non-compliant door.	B	Door is only 32" wide, has knob type hardware and had insufficient maneuvering clearance on the pull side. 3" past the latch.
2-11	Non-compliant door.	B	Door is only 32" wide and has knob type hardware.
2-12	Ticket window.	A	Ticket window is too high, 43". Counter is a protruding hazard in the corridor, protrudes 6" at 37" high.
2-13	Ticket window.	A	Ticket window is too high, 43". Counter is a protruding hazard in the corridor, protrudes 6" at 37" high.
2-14	Non-compliant door hardware.	B	Doors to all offices have knob type hardware.
2-15	Non-compliant ramp.	B	Ramp slope too great, 9.7% to 10.2%. Handrail not provided on one side.
2-16	Non-compliant water closet	B	Water closet in accessible toilet compartment is located too far from the side wall, 20" CL.
2-17	Non-compliant urinal.	B	Urinal is too high, 17.5" AFF. Urinal does not have sufficient clear width, 28" wide.

2-18	Assembly area wheelchair spaces.	A	10 wheelchair spaces are required and only 4 spaces are provided. Openings for wheelchair spaces are only 60" wide which will only accommodate one wheelchair; 66" wide is required for two wheelchairs. All wheelchair spaces in Theater do not offer shoulder to shoulder alignment and are not located at the same level as the adjacent companion seats.
2-19	Non-compliant entrance.	A	Entry doors have a step at the threshold. This is a public entrance to the facility; 60% of entrances are required to be accessible. In addition, this door is designated with an Exit sign. Min 2 accessible means of exit are required from a facility.
2-20	Non-compliant door.	B	Door opening force and closing speed it too great.
2-21	Non-compliant storage.	B	Coat hooks are mounted too high, 52"
2-22	Non-compliant water closet	B	Water closet in accessible toilet compartment is located too far from the side wall, 20.5" CL. Water closet seat too high, 20".
2-23	Non-compliant door hardware.	B	Doors have knob type hardware.
2-24	No accessible route.	A	This is the main public entrance of the building and no accessible route provided to the accessible parking.
2-25	Drinking Fountain.	B	No drinking fountain provided for standing users. All fountains are at a spout height of 36".
2-26	Non-compliant door.	A	Door has insufficient maneuvering clearance on the pull side, 0" past the latch. Door opening force and closing speed too great.
2-27	Handrail extension.	A	Handrail extension at one side at bottom does not extend past the bottom tread.
2-28	Handrail height.	A	Handrails are too low, 30".
2-29	Seats with folding armrests.	A	No seats provided with retractable or folding armrests.
2-30	Assistive Listening System.	A	No assistive listening system provided in Theater.
2-31	Non-compliant door hardware.	B	Doors have knob type hardware.
2-32	Non-compliant door.	B	Door has knob hardware and has insufficient maneuvering clearance on the pull side, 40" perpendicular.
2-33	Non-compliant stove.	A	Controls at stove require users to reach across burners.
2-34	Non-compliant sink.	A	Sink does not have knee clearance and is too high, 36" AFF.
2-35	Non compliant route and bathroom.	A	Non compliant door hardware at restroom door, water closet, lavatory, and bath tub. Step into Dressing Room from corridor
2-36	Non-accessible stairs.	B	Tread and riser dimensions not compliant. No handrails provided.
2-37	Non-accessible route.	A	Step located at opening to exit access.
2-38	Stage Access.	A	No accessible route to the stage from the seating area when a circulation path exists.
2-39	Non-compliant door.	B	Double 24" doors do not provide sufficient clear width at single opening.
2-40	Non-compliant restroom.	B	Non-compliant restroom. Water closet, lavatory, door and room clearance all non-compliant.
2-41	Stage Shop.	B	No accessible route to Stage Shop. Non compliant steps only.
2-42	Light Loft.	A	No accessible route to Light Loft. Non-compliant steps only.
2-43	No accessible route.	A	Large drop off into storage room. No route into room.
2-44	Non-compliant door.	B	Insufficient maneuvering clearance on the push and pull side of the door.
2-45	Non accessible Exit.	A	Steps at exit door. This door is designated with an Exit sign. Min 2 accessible means of exit are required from a facility.
	Balcony Level		
B-1	No accessible stairs.	A	Stair treads are 10" deep.
B-2	No accessible route.	A	Stairs to control booth do not have compliant handrails. It is assumed this area is used by students and therefore shall have a compliant route.
B-3	No accessible stairs.	A	Stair treads are 10" deep.
	Level Three		
3-1	Drinking fountain.	B	No drinking fountain provided for standing users. All fountains are at a spout height of 36".
3-2	Non-compliant door.	A	Doors have knob hardware. Opening force and closing speed too great. Insufficient maneuvering clearance on push and pull side of doors.
3-3	Handrail height.	A	Handrails are too low, 30".
3-4	Handrail extension.	A	Handrail extension at one side at bottom does not extend past the bottom tread.
3-5	Non-compliant door.	B	Door has insufficient maneuvering clearance on the pull side, 0" past the latch. Door opening force and closing speed too great.
3-6	Non-compliant door hardware.	B	Door has knob type hardware.
3-7	Non-compliant maneuvering clearance.	B	Maneuvering clearance at door not level. Floor slopes 8.3% within the required maneuvering clearance.
3-8	Non-compliant doors in series.	B	Doors have opening force and closing speed too great. Doors in series do not have sufficient clearance between doors.
3-9	Vertical hazard.	B	Area under stairs create a vertical hazard where head height is less than 80".

3-10	No Accessible Sound Booth	B	No accessible route into sound booth. Ramp is located in the maneuvering clearance of the sound booth door.
3-11	Non-compliant door hardware.	B	Door has knob type hardware.
3-12	Non-compliant door.	B	Door has insufficient maneuvering clearance on the push and pull side. Door opening force and closing speed too great.
3-13	Non-compliant storage.	B	Coat hooks are mounted too high, 62"
3-14	Non-compliant lavatory.	B	Paper towel dispenser within the required clear floor space. Lavatory adjacent to the paper towel dispenser is the only lavatory that can be considered accessible since there is a water tank located within the knee clearance of the other lavatory.
3-15	Non-compliant urinal.	B	Urinal is too high, 23" AFF. Urinal does not have sufficient clear width, 24" wide.
3-16	Toilet compartments.	B	No accessible toilet compartments provided in Men's Restrooms.
3-17	Non-compliant door.	B	Door has insufficient maneuvering clearance on the pull side, 0" past the latch. Door opening force and closing speed too great.
3-18	Toilet compartments.	B	No accessible toilet compartments provided in Men's Restrooms.
3-19	Non-compliant storage.	B	Coat hooks are mounted too high, 66"
3-20	Non-compliant door.	B	Door has insufficient maneuvering clearance on the push and pull side. Door opening force and closing speed too great.
3-21	Non-compliant door hardware.	B	Door has knob type hardware.
3-22	Non-compliant doors.	B	Slopes located within the door maneuvering clearance. Opening force and closing speed too great.
3-23	Wheelchair spaces.	A	No wheelchair spaces located in assembly area with fixed seats.
3-24	Non-compliant door.	A	Door has insufficient maneuvering clearance on the pull side, 0" past the latch. Door opening force and closing speed too great.
3-25	Handrail extension.	A	Handrail extension at one side at bottom does not extend past the bottom tread.
3-26	Handrail height.	A	Handrails are too low, 30".

Theater Planning Assessment

Turner Auditorium - Orchestra Pit Lift

The orchestra pit lift is vital for the functions of the auditorium and the theatre department. The lift connects the stage, audience floor, orchestra pit level, and basement storage. It is used on a daily basis for moving equipment vertically in the building. The lift platform, lifting columns, and controls are out of service warranty and are maintained by local elevator company when needed. Safety door interlocks will only stop the lift when triggered. It is possible to open doors when the lift is not at the proper levels. When working below the lifting platform in the mechanical pit, there is no way to verify the motors have been disconnected. With the lift controller it is difficult to stop the platform at the proper levels. There are missing safety systems that a new orchestra pit lift system would require.

Recommendations:

Remove the existing and install a new orchestra pit lift system. This work will need to be designed and documented for a general contractor to bid. The scope of work will require electrical service to various lift control panels, motors, and control stations. In addition to the resurfacing of orchestra pit walls.

Turner Auditorium - Rigging System

The stage system is comprised of double purchase counterweight linesets with spot lines for cable management of stage electrics operated from an elevated locking rail backstage right. A fire curtain is installed on the proscenium wall, controlled by a system of out of balance counterweight. It is manually reset at the stage and gridiron levels. A counterweighted paint frame is installed backstage left (currently being used as storage). A loading gallery is located above the locking gallery. The gridiron extends from wall to wall above the stage.

There are additional rigging systems used to support the lighting structures above the orchestra and audience areas. Two drum winches are used to lower lighting structures above the orchestra. A third drum winch is used to lower a lighting structure above the audience. A counterweight system is used for power cable management to all three locations.

The stage rigging system has been repaired as needed over time. Rigging hardware has been added by various individuals without regard to rating or safety factors for overhead lifting. This makes it difficult to trace equipment back to a manufacturer should a failure occur. Pieces of rigging hardware show signs of rust. Head blocks, loft blocks, and mule blocks were made of a cast or cut metal. Pieces of steel framing for mounting additional rigging equipment are mounted to the gridiron atop of rigid electrical conduit and have not been properly painted to prevent the current amount of rusting. Due to the nature of a double purchase counterweight system, twice as much weight needs to be loaded onto the rigging arbor to achieve balance. This increases the amount of time and effort needed to reweight a lineset during production change overs. This can become problematic at certain times of year when the temperature at this level becomes too high. The stage right wall (rigging wall) is not perpendicular to the proscenium wall. At the gridiron this results in needing additional muling blocks for every lineset. The loft blocks, at the gridiron level, have been moved multiple times, creating liftline fleet angle issues between the head block, mule block and the loft block on several linesets.

The lighting rigging system has required some scavenging of parts to keep essential operations. Control components have been taken from one of the working winches to repair the essential winch above the orchestra pit area. The counterweighed cable management has required frequent inspections to check for damaged cable. The cable has been replaced several times. The limit switches on the winches have been difficult to set after cable repairs. When limits are not properly set, cables can be stretched and pulled out of connection. This damage is not known until the cable in energized.

Recommendations:

The stage rigging requires replacing counterweight arbors, head blocks, muling blocks, loft blocks, tension blocks, and all fiber and wire rope. Identify the most frequently used linesets and replace counterweight rigging for motorized. Install a motorized rigging control system. Remove the existing fire curtain and determine if adding architectural enhancements can reduce the height of the stage house to an elevation that would not require a fire curtain. Remove the existing paint frame and all rigging components.

The lighting rigging system control can be tied into the stage rigging motorized control. The user will be able to set limits at the control console. Remove counterweighted cable management and install sprung cable reels. Remove the lighting truss and cable management above the audience and install liftline terminations that allow for quick connection to future equipment.

Turner Auditorium - Performance and House Lighting System

The lighting system consists primarily of conventional dimming racks for performance and house lighting. This system has been recently updated. Lighting circuits are distributed to overhead stage electrics, four side slot positions on the audience walls and two catwalk positions. There are locations that are difficult to access and often cables are used to redistribute the circuits to other locations. The lighting control network has distribution to all areas of the auditorium. Emergency lighting for the stage and audience was changed during some of the upgrade work.

Recommendations:

Review emergency lighting levels with electrical engineer and ensure the dimmer rack responds properly in emergency power conditions. Add entry panel to catwalk location to control work lighting at this level.

Turner Auditorium - Auditorium Seating

Auditorium seating is on two levels. The orchestra seating level has three sections, left, center, and right. There is no cross aisle. The orchestra seating is on a single slope. Potential wheelchair locations are at the back of the orchestra in all three sections. Although the first row is accessible there were no apparent wheelchair locations. Balcony seating is accessed from a pair of stair wells from the third floor. The balcony seating is split into four sections. Seats at this level are riser mounted. There are no wheelchair locations as there is no elevator or lift accessing the area. Two rows of seating do not have padded backs. The seat back is formed plywood with an upholstered foam cushion. The seat pan is metal with upholstered foam cushion.

The conditions of the seats are fair to poor. There is cosmetic damage to most of the seats. Various methods have been used to re-secure the seats to the orchestra floor. The seats have considerable noise when operated.

Recommendations:

Replacing existing seats with new self-rising seats. Add aisle lighting on end standards where needed. In the event that a new Control Booth (see page 90, under “Turner Auditorium” section) is added to the front edge of the Balcony, then a new elevator will be required to access the balcony area and control area.

Turner Auditorium - Orchestra Shell Enclosure

At the time of observation, the theatre department was on the stage and the enclosure could not be evaluated.

Downstage Theatre - Seating

Approx. 100 loose upholstered folding chairs located on seating platforms. The chairs have no armrests and are not easily connected together.

Recommendations:

In the event a new Black Box theater is not added to the project, replace existing seating with new upholstered folding loose seating. New seating will be gangable and provide armrests.

Downstage Theatre - Platforming

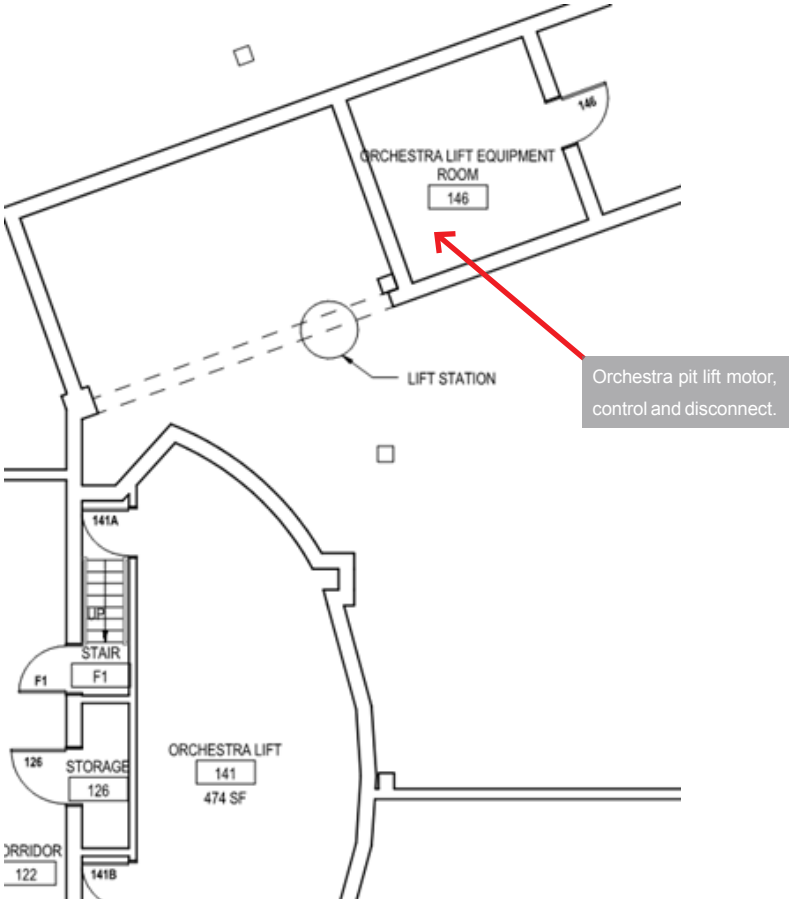
Seating platforms are built from plywood tops on 2x4 wooden frames. There are three sections with three levels. Each level has chair stops to prevent the chair from being slid off the platform. There are no hand rails or guards around the platform.

Recommendations:

Return the existing platforms to the theatre department. Install new seating platforms with chair stops and railings.

Theater Planning Condition Survey

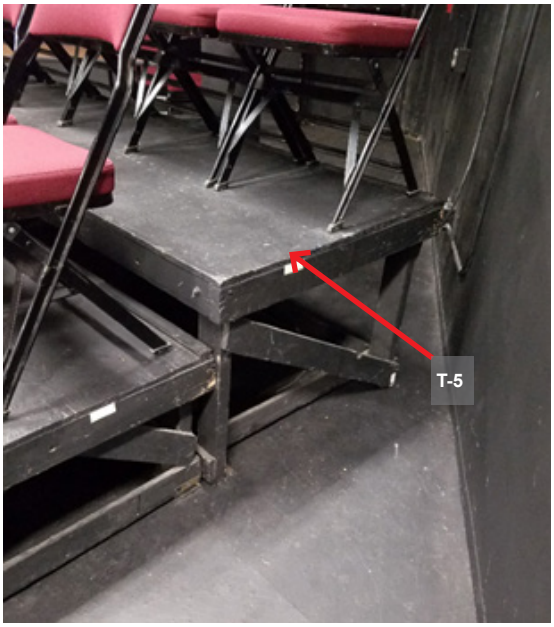
Item No. T-1, T-2, T-3, T-4



Description Orchestra Lift 141 and Equipment Room 146

Action Abandon the existing orchestra pit lift motors, controls, and disconnect. Install new orchestra pit lift platform, motors, controls, disconnects, and interlocks

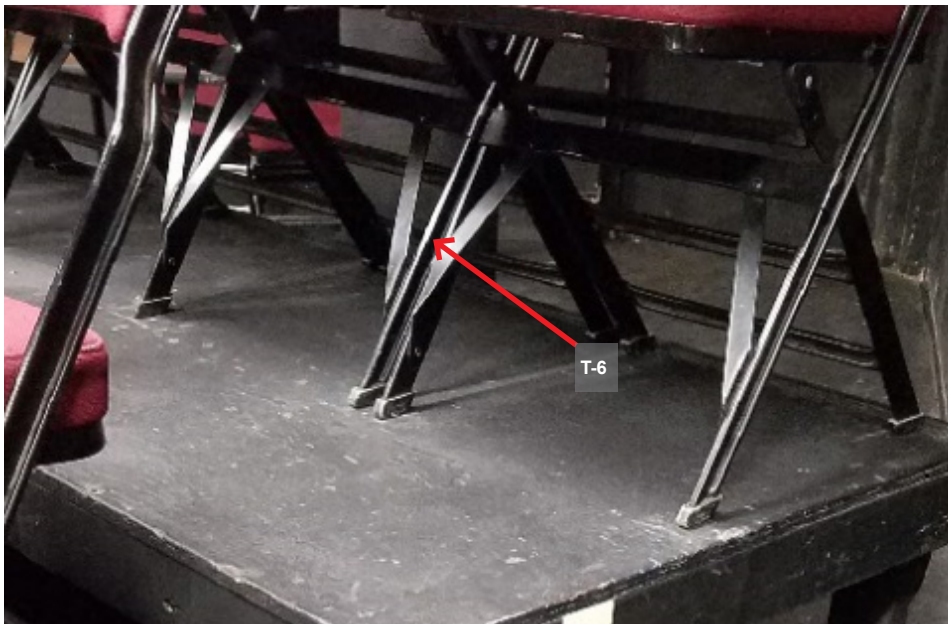
Item No. T-5



Description Black Box Theater 132

Action Demo existing audience seating risers and install new equipment with railings

Item No. T-6



Description Black Box Theater 132

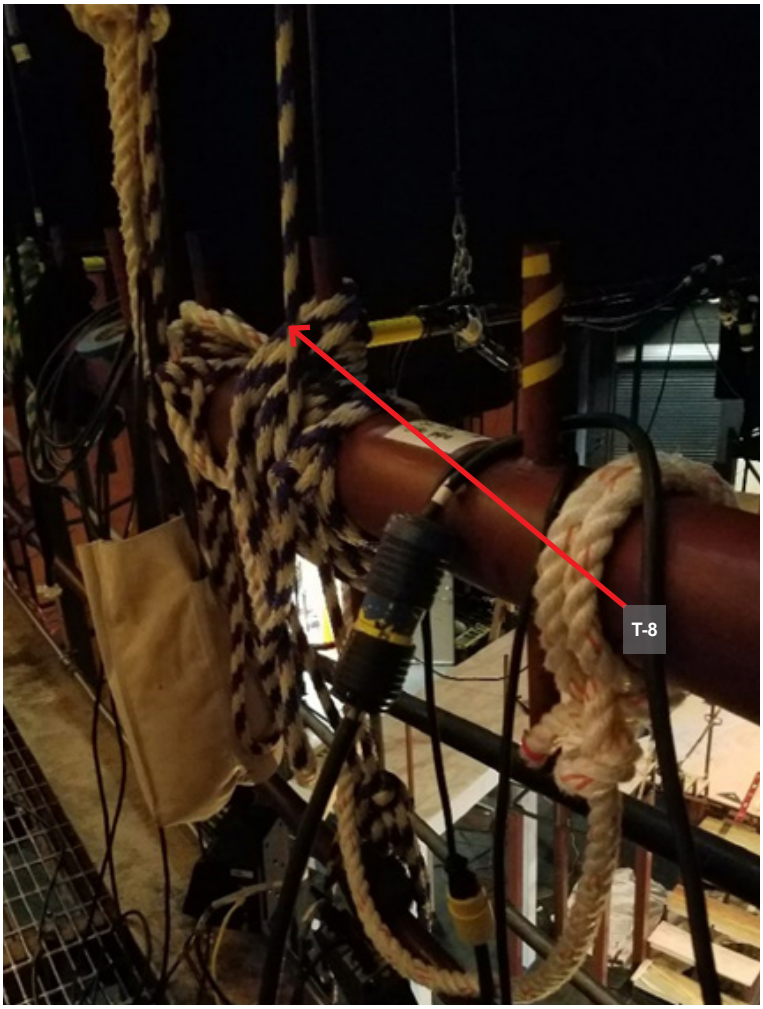
Action Loose audience chairs are not gangable. Replace with new audience chairs that are gangable and have arm rests

Item No. T-7

Description Black Box Theater 132

Action Demo existing incandescent performance lighting. Install new LED performance lighting system

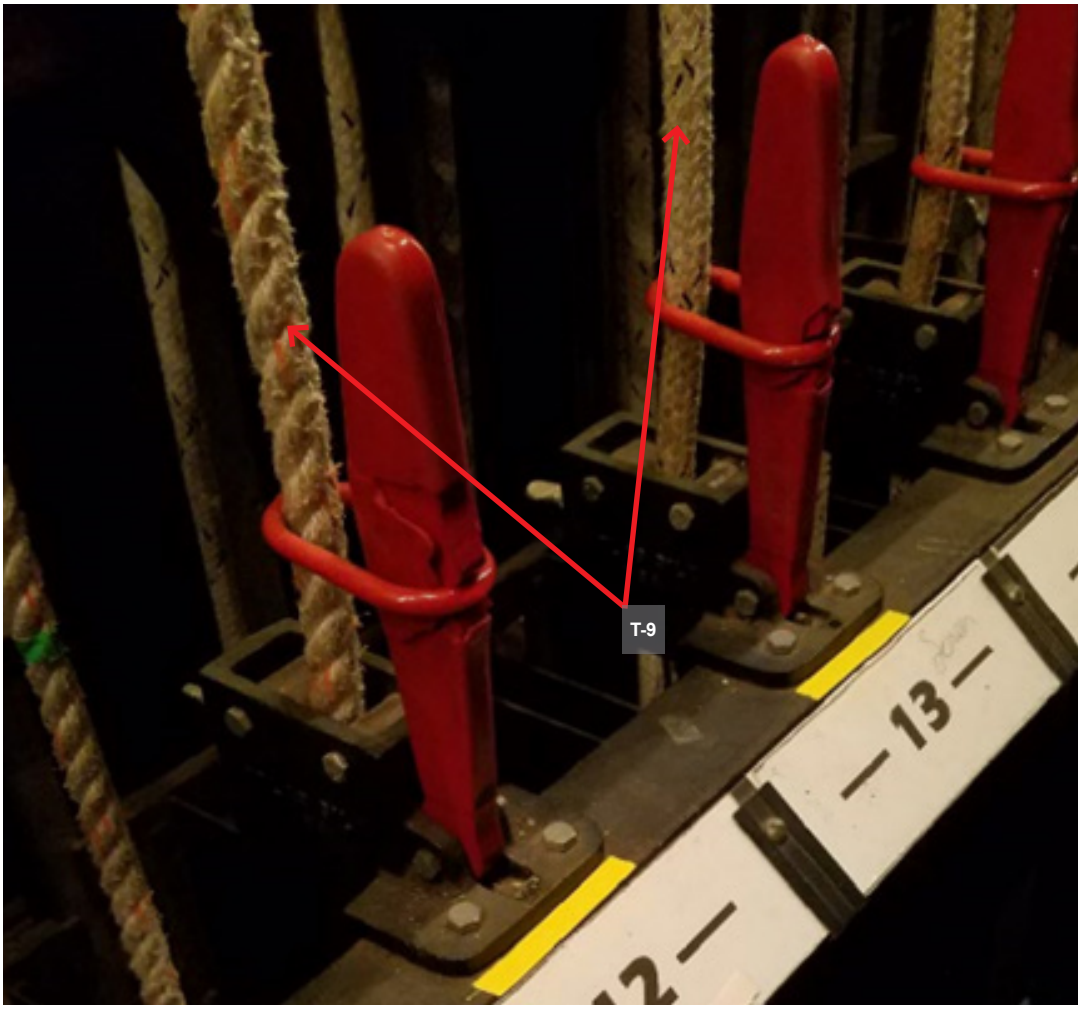
Item No. T-8



Description Stage 250, Locking Gallery

Action Replace hardware rope with rated fiber rope

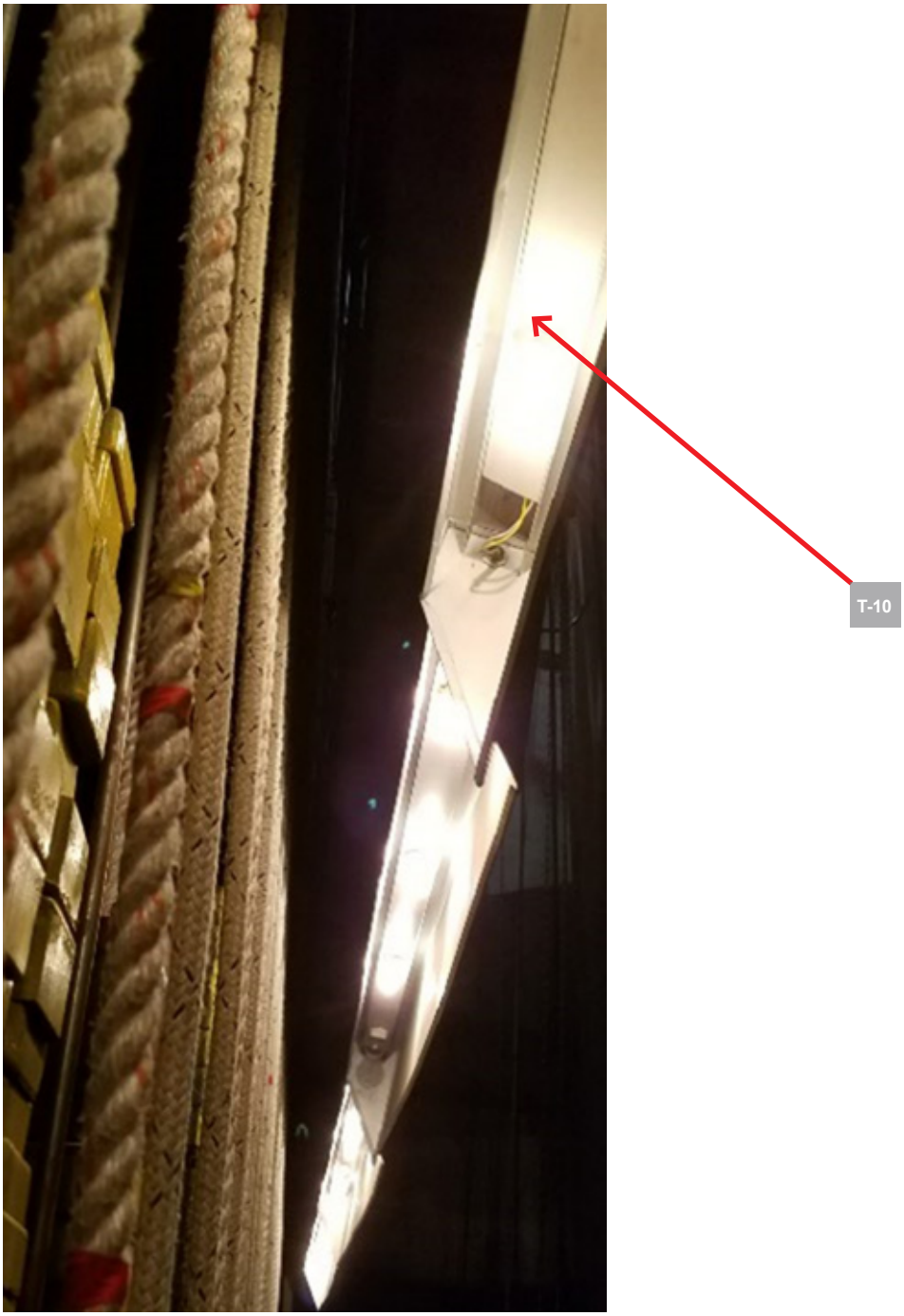
Item No. T-8



Description Stage 250, Locking Gallery

Action Replace all purchase lines

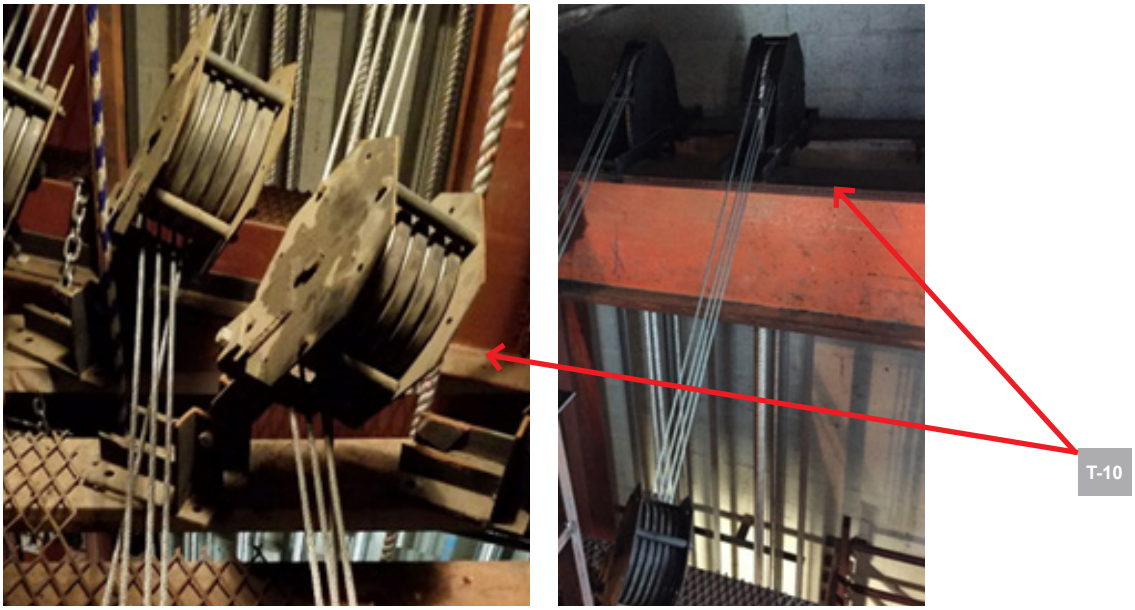
Item No. T-10



Description Stage 250, Locking Gallery

Action Demo existing lighting fixture. Install two color LED index strip light

Item No. T-10



Description Stage 250, Gridiron

Action Replace head blocks, loft blocks, and multi-line mule blocks

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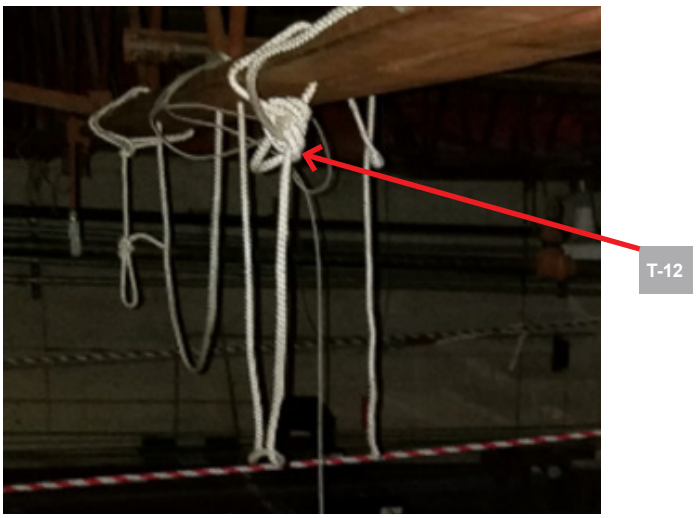
Item No. T-11: No photo, see spreadsheet

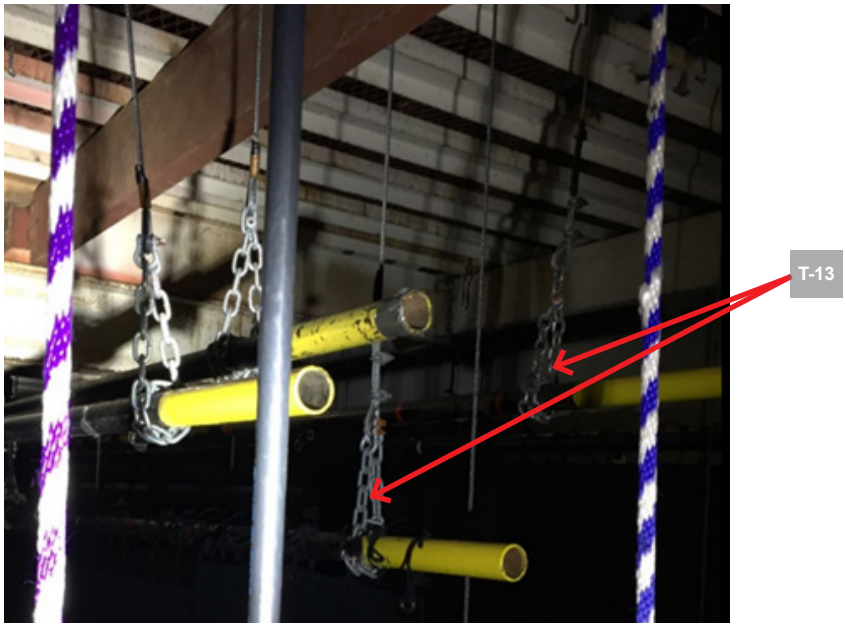
Item No. T-12



Description Stage 250, Gridiron

Action Add rigging rope loft blocks as necessary

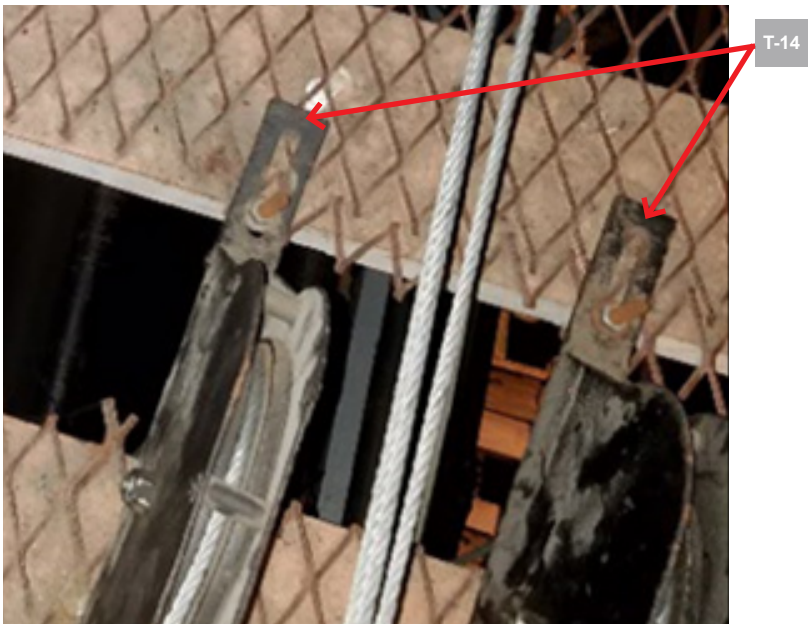
Item No. T-13



Description Stage 250, Gridiron

Action Replace all utility wire rope and terminations

Item No. T-14



Description Stage 250, Gridiron

Action Replace all rigging hardware that shows signs of corrosion

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Item No. T-15

Description Stage 250, Gridiron

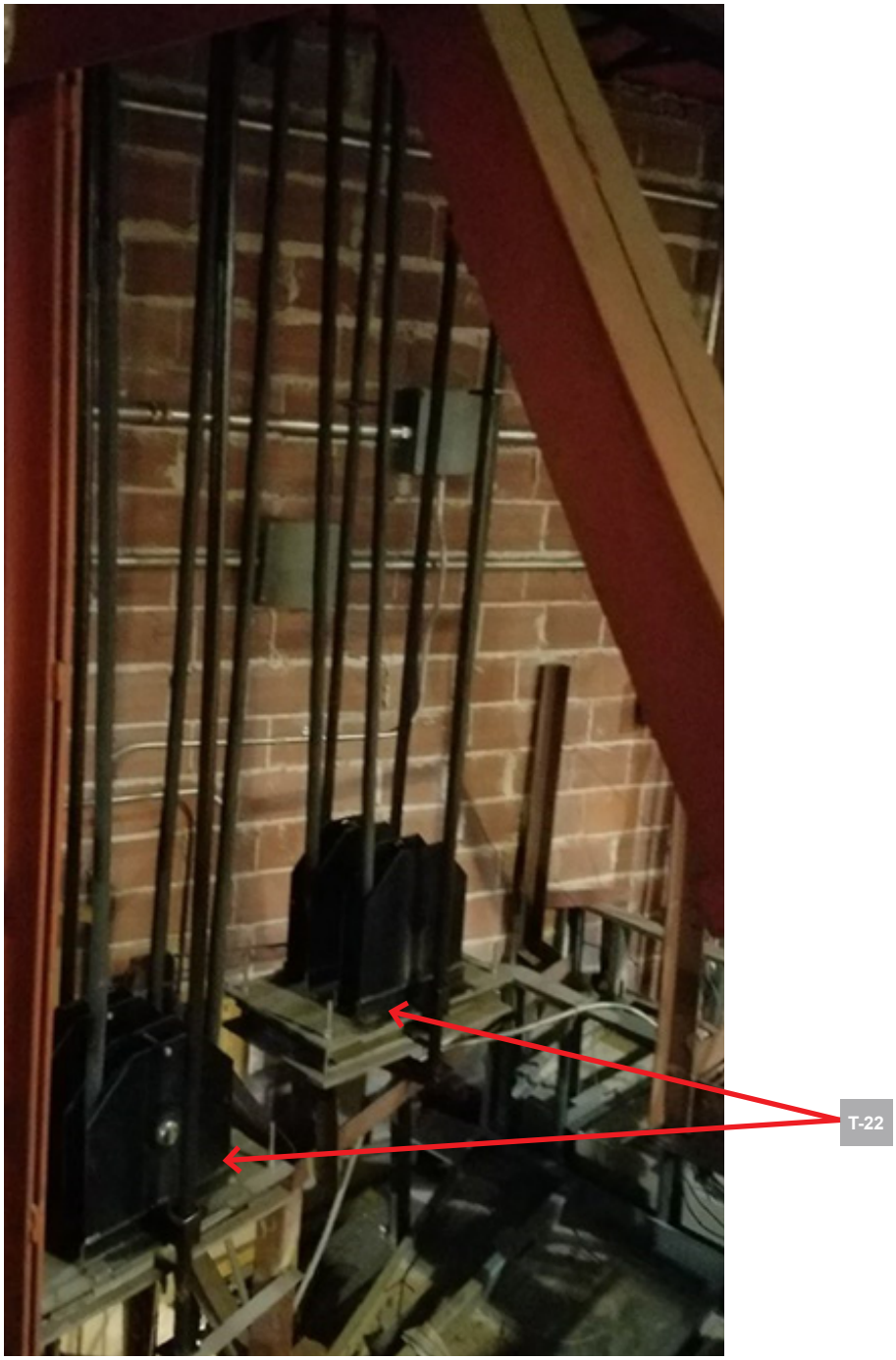
Action Replace cable saddles and lifting terminations

Item No. T-16

Description Stage 250, Gridiron

Action Replace rigging mounting

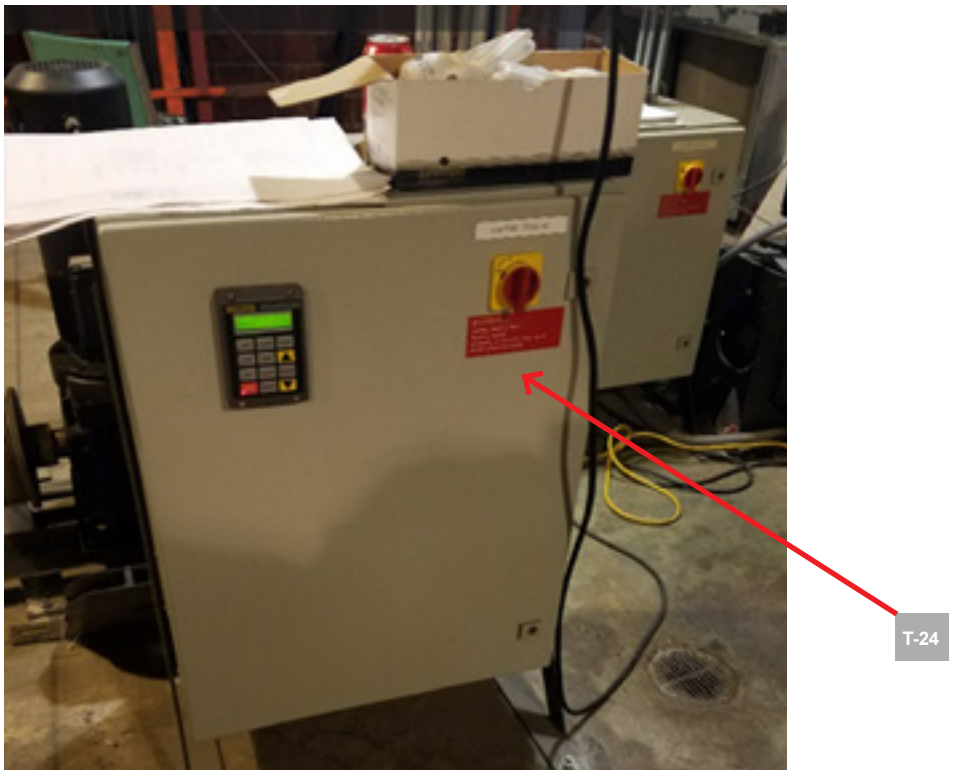
Item No. T-22



Description Catwalk Access 408

Action Demo existing cable management. Install cable reels

Item No. T-24



Description Catwalk Access 408

Action Demo existing Rigging motor controllers and add to new stage rigging system

Theater Planning Assessment Scope

Action Key
1 Items of Immediate Safety Concern
2 Items of Normal Concern
3 Items of No Safety Concern or Operational in Nature

KEY	ITEM	ACTION	LOCATION
	THEATER PLANNING		
	Level One		
TP-1	Inadequate size for six people, a rolling costume rack, a dressing area, and fitting area.	4	Fitting room 104
TP-2	Door swings into space taking up sqft.	4	Fitting room 104
TP-3	Portions of the room currently being used for storage.	3	Fitting room 104
TP-4	Needs private drapable area for dressing.	4	Fitting room 104
TP-5	Fluorescent lighting is adequate for tasks, not for color rendition of fabrics	2	Fitting room 104
TP-6	Ventilation is not sized for six people. This room gets stuffy quickly	4	Fitting room 104
TP-7	Room is being used for instruction, production, and storage.	3	Hat room 105
TP-8	Insufficient area for the production and teaching of wig styling and construction.	4	Hat room 105
TP-9	Fluorescent lighting is adequate for tasks, not for modeling wigs	2	Hat room 105
TP-10	Areoles are used frequently.	2	Hat room 105
TP-11	Shelving is in adequate to correctly store fabrics in bins and on bolts.	3	Fabric room 106
TP-12	The single row of moving costume rack allows for longer gowns to drag across the floor	3	Costume and Accessories Storage 107
TP-13	Some areas of room are not adequately lit for tasks.	3	Costume and Accessories Storage 107
TP-14	Exhaust vents passively pull air out of room.	2	Dye Room 110
TP-15	Fluorescent lighting adequate for task lighting, not for color rendition of fabrics.	2	Dye Room 110
TP-16	This is a wet room. Floor should drain.	4	Dye Room 110
TP-17	There is a lack of room to allow for air drying of fabrics.	4	Dye Room 110
TP-18	This is a wet room. Floor should drain.	4	Laundry 112
TP-19	Clothes dryer vents into room.	2	Laundry 112
TP-20	Room has exposed piping and hvac ductwork through out.	2	Hat Prop Storage 136
TP-21	Lighting is not adequate in task areas.	2	Hat Prop Storage 136
TP-22	Room is not enclosed and dust is able to collect on to stored items.	2	Hat Prop Storage 136
TP-23	This room is used for production and storage.	2	Scene & Prop Storage 137
TP-24	Large air duct divides the space and is only 5' above the floor.	2	Scene & Prop Storage 137
TP-25	The room is not enclosed. There is exposed ceiling structure and sprinkler pipes.	2	Scene & Prop Storage 137
TP-26	Room is created from digging out the ground.	4	Scene Storage 142
TP-27	HVAC ducts create obstacles in the room.	2	Scene Storage 142
TP-28	Room is not enclosed and dust is able to collect on to stored items.	2	Scene Storage 142
TP-29	Room is created from digging out the ground.	4	Scene Storage 143
TP-30	HVAC ducts create obstacles in the room.	2	Scene Storage 143
TP-31	Room is not enclosed and dust is able to collect on to stored items.	2	Scene Storage 143
TP-32	Sump Pump is open and running water is audible	1	Scene Storage 143
T-1	Orchestra pit lift disconnect is not in sight of the lift motors. Install new orchestra pit lift motors, frame, controls, and safety devices.	1	Mechanical A 144
T-2	Orchestra pit lift controls are not fully functional. Same as T-1.	1	Mechanical A 144
TP-33	HVAC ducts create obstacles in the room.	2	Scene & Prop Storage 138
TP-34	Room is not enclosed and dust is able to collect on to stored items.	2	Scene & Prop Storage 138
TP-35	Wiring going to the dimmer rack is exposed and not isolated from the storage areas.	1	Storage 139
TP-36	HVAC ducts create obstacles in the room.	2	Storage 139

TP-36	HVAC ducts create obstacles in the room.	2	Storage 139
TP-37	Room is not enclosed and dust is able to collect on to stored items.	2	Storage 139
T-3	Orchestra pit door open when pit lift is not at the level of the door. Same as T-1.	1	Storage 139
TP-38	Fluorescent lighting is damaged.	1	Orchestra Lift 141
TP-39	Opening in floor is not properly secured.	1	Orchestra Lift 141
T-4	Orchestra lift is frequently used to move items from storage to the stage. Same as T-1.	1	Orchestra Lift 141
TP-40	Orchestra pit access is not ADA accessible.	1	Stair F1
TP-41	Stair has no emergency lighting.	1	Stair F1
TP-42	Orchestra pit access is not ADA accessible.	1	Stair E1
TP-43	Stair has no emergency lighting.	1	Stair E1
TP-44	Dressing rooms are not adequately sized for number of performers.	3	Men and Women Dressing, Restroom and Shower 127 and 125
TP-45	Dressing rooms are not ADA accessible.	1	Men and Women Dressing, Restroom and Shower 127 and 125
TP-45	Make-up mirror only allows for a single person in front of each station.	4	Men and Women Dressing, Restroom and Shower 127 and 125
TP-46	Make-up mirror lights go along the top and sides.	4	Men and Women Dressing, Restroom and Shower 127 and 125
TP-47	Countertop is highly reflective.	4	Men and Women Dressing, Restroom and Shower 127 and 125
TP-48	Countertop storage is under the countertop and does not have adequate height	4	Men and Women Dressing, Restroom and Shower 127 and 125
TP-49	There is no storage above the make-up mirrors.	4	Men and Women Dressing, Restroom and Shower 127 and 125
TP-50	Make-up room HVAC is not sufficient for the number of people. Often a box fan is used in the room.	2	Men and Women Dressing, Restroom and Shower 127 and 125
TP-51	Room lighting is not sufficient for task lighting. Make-up mirror lights are often used when not necessary.	2	Men and Women Dressing, Restroom and Shower 127 and 125
TP-52	Restrooms and showers are not ADA accessible	1	Men and Women Dressing, Restroom and Shower 127 and 125
TP-53	Storage for classroom and production supplies is in outside the room.	4	Men and Women Dressing, Restroom and Shower 127 and 125
TP-54	Dressing rooms, shower, and toilets are not adequate for the capacity of the productions.	1	Men and Women Dressing, Restroom and Shower 127 and 125
TP-55	No way to communicate from green room to stage.	3	Green Room 124
TP-56	Full length mirrors along one wall can be distracting.	4	Green Room 124
TP-57	Corridor and stairs to stage are to narrow for large costumes.	3	Stair D
TP-58	The drafting tables are seating two people per table. The room is not large enough for the required class size.	3	Design Studio 120
TP -59	This room is trying to be a design studio and production lab space. This requires the movement of drafting tables when needed as a production lab space.	3	Design Studio 120
TP-60	There is little space for an instructor to stand and no space to setup demonstrations.	3	Design Studio 120
TP-61	The windows have shades and are always pulled down. The location of this room is not well suited in the building.	3	Design Studio 120
TP-62	There is only a small built-in shelving unit. Students have to bring all supplies and store nothing in the classroom.	3	Design Studio 120
TP-63	Dimming unit sitting on shelf in corner of room. Has items stored on top.	2	Design Studio 120
TP-64	Electrical power receptacles only runs along the perimeter of the room. Electrical cords for sewing machines are laying across travel paths. This is a trip hazard.	1	Costume Shop 117
TP-65	This space is used for classroom and production activities. All the equipment is tightly packed into the room with little space to move around.	2	Costume Shop 117
TP-66	Space under cutting tables is not maximized for storage.	4	Costume Shop 117
TP-67	Only 120v power is available. Some sewing equipment could use 220v power.	4	Costume Shop 117
TP-68	There is only one small full length mirror.	4	Costume Shop 117
TP-69	Storage bins are stacked atop of each other. Difficult to get to bottom bin without unstacking.	4	Costume Shop 117
TP-70	Room is not adequately sized for stage and number of desired audience.	3	Black Box Theater 132

TP-71	The room configuration doesn't allow for FOH production operation.	3	Black Box Theater 132
TP-72	The ceiling is low and production lighting fixtures are directly above audience members heads.	1	Black Box Theater 132
T-5	Audience seating platforms do not have railing. Install seating riser platform system with railings.	1	Black Box Theater 132
T-6	Audience seating chairs are not gangable. Install portable seating system with hardware that allows connection between seats, include arm rests.	1	Black Box Theater 132
T-7	Incandescent production lighting is not appropriate for this ceiling height. Add circuits, data distribution, and fixtures for LED production lighting.	2	Black Box Theater 132
TP-73	The room is not ADA accessible.	1	Black Box Theater 132
TP-74	HVAC ducts are right at door height.	1	Black Box Theater 132
TP-75	The floor was covered with a hard board sheet good. Need to determine if the subfloor is sprung.	2	Black Box Theater 132
	Level Two		
TP-76	Recessed down lighting did not cover all areas of the room.	3	VIP Dressing Room 247
TP-77	Room feels like a dressing room/storage room	4	VIP Dressing Room 247
TP-78	Make-up mirror and lights are out of date.	2	VIP Dressing Room 247
TP-79	Restroom is not ADA accessible.	1	VIP Dressing Room 247
TP-80	Dressing Room is not ADA accessible to the stage.	1	VIP Dressing Room 247
TP-81	Dressing Room needs intercom connection to stage.	4	VIP Dressing Room 247
TP-82	Dressing Room needs an interior design.	4	VIP Dressing Room 247
TP-83	Downstage right door exits to a corridor with direct access to outside. This allows sounds from the exterior to bleed onto the stage when doors are open.	3	Stage 250
TP-84	Downstage right door has a step down inside the threshold.	1	Stage 250
TP-85	Shop floor elevation is lower than the stage elevation. This requires steps in the door ways. This is not ADA compliant.	3	Stage 250
T-8	At the loading gallery, some ropes used for drop boxes are not properly rated for overhead lifting. Replace all rigging equipment.	2	Stage 250
T-9	The purchase line on the counterweight rigging inconsistent through out the rigging system. Some ropes were installed a different times. Same as T-8	1	Stage 250
TP-86	There are no guards at ladder openings.	1	Stage 250
T-10	Index strip light uses A-lamps. Replace with two color LED fixture.	3	Stage 250
T-11	Head blocks and multi-line mule blocks are cast or cut steel. Same as T-8.	1	Stage 250
T-12	Nylon rope is being used as purchase line sag bar. Same as T-8.	2	Stage 250
T-13	Many batten liftline terminations are not properly terminated. Same as T-8.	1	Stage 250
T-14	Loft block attachment shows rust on bolt. Same as T-8.	1	Stage 250
TP-87	The last rung of ladder access to gridrion is blocked by steel kick plate	1	Stage 250
T-15	Cable saddles for SO cable management are not properly secured to purchase line. Same as T-8.	2	Stage 250
TP-88	The rigging system for the paint frame needs to be replaced. Determine if the Owner wants to keep this or if all equipment can be demoed.	1	Stage 250
T-16	Structures for mounting rigging equipment are sitting atop rigid electrical equipment. Same as T-8.	2	Stage 250
TP-89	At several locations the steel mesh for the gridiron surface has been cut away and not replaced.	1	Stage 250
T-17	Verify that all chains and shackles used for over head rigging is rated for overhead lifting. Same as T-8.	1	Stage 250
TP-90	Over the years, conduits have been added to the wall around the back stage areas. This has hidden many devices that were previously mounted to the wall.	1	Stage 250
TP-91	Verify the need for a proscenium fire curtain. The fire curtain rigging system will need to be updated to a motorized operation.	1	Stage 250
TP-92	Stage floor elevation is not same as receiving area.	2	Stage 250

T-18	Loading and un-loading counterweight on rigging arbors is difficult and hazardous if not done properly. Reduce the amount of times personnel is required to perform task. Demo counterweight rigging for the line sets that get most use and replace with a motorized rigging system. These would include the stage electrics and orchestra shell battens.	1	Stage 250
TP-93	No sound isolation between shop and stage. No loud activity can happen in shop when rehearsals or performances are on the stage.	2	Scene Shop 251
TP-94	The scene shop is used for dual purposes. Small scenic work and lighting storage.	4	Scene Shop 251
TP-95	The sink in the restroom is used to clean out paint brushes.	3	Scene Shop 251
TP-96	Provide proper sawdust collection from built-in equipment.	2	Scene Shop 251
TP-97	Built-in stairs for stage access will require a ramped access for the stage. An able bodied person can go from the audience to the stage, so will a person with disability, within the room.	1	Orchestra Pit Lift
TP-98	Larger items can fall into the orchestra pit mechanical spaces below.	1	Orchestra Pit Lift
TP-99	The exits on the left and right of the pit do not exit to a sound and light lock, this requires crash bar hardware on the auditorium side of the door. This can be a distraction if exiting during a performance.	1	Orchestra Pit Lift
T-18	Audience seats are showing wear and tear. Some of the cushion foam has flatten. Replace all auditorium seating and end standard aisle lighting.	2	Turner Auditorium 204
TP-100	Wheelchair spaces in the back of the auditorium don't meet the spirit of the ADA code.	1	Turner Auditorium 204
TP-101	The second side lighting slot is inaccessible and not used for production lighting.	2	Turner Auditorium 204
T-19	Lighting circuits that are in the second side lighting slot are not used. Abandon circuits and add new receptacles where needed.	3	Turner Auditorium 204
TP-102	The lighting truss closest to the catwalk is inoperable. The truss can be seen from the balcony seats	3	Turner Auditorium 204
T-20	The lighting circuits on the lighting truss closest to the catwalks are not used. Repurpose the lighting circuits elsewhere in the building. Demo existing cable management.	3	Turner Auditorium 204
TP-103	Emergency lighting has been changed after equipment upgrades. Verify what house lighting fixtures are used in emergency lighting systems.	1	Turner Auditorium 204
TP-104	Some auditorium house lighting fixtures are lighting the walls and not the walking paths below.	2	Turner Auditorium 204
TP-105	Architectural lighting fixtures are dated and would benefit from an update, possibly and LED color changing fixture.	4	Turner Auditorium 204
TP-106	The auditorium floor tile and carpet is showing wear.	4	Turner Auditorium 204
TP-107	Door at the back of the auditorium have door stoppers installed at bottom of the door. This will prevent door from proper closing.	1	Turner Auditorium 204
TP-108	Move electrical outlet, under the seats in the rehearsal position, into floor box.	2	Turner Auditorium 204
TP-109	Vestibules should be lit at proper levels at all times.	1	Turner Auditorium 204
TP-110	Lobby is not adequately sized for audience capacity.	3	Lobby 201
TP-110	Restroom facilities are not proportional to the audience capacity. This creates long lines between breaks in performances.	3	Lobby 201
	Level Three		
TP-111	The audience capacity is not sufficient for a main stage or student production.	3	Theatre Lab 303
TP-112	The temporary tables and make-up stations should be replaced with built-in facilities.	3	Theatre Lab 303
TP-113	Control room platform needs railings.	2	Theatre Lab 303
TP-114	The room does not allow for the following: actor movement classes, rehearsal space for stage productions, stage combat classes, storage of rehearsal props or furniture.	2	Studio/Seminar 306

TP-115	The floor is not sprung for proper support for actor movement classes.	2	Studio/Seminar 306
TP-116	The ceiling is to low for full movement rehearsals.	2	Studio/Seminar 306
TP-117	The room is not sound isolated for many of the vocal and movement exercises.	2	Studio/Seminar 306
TP-118	Tiered seating risers doesn't allow for group classroom activities.	3	Lecture 309
	Level Four		
TP-119	Front face of balcony is large enough for a fixed production lighting position and video projector.	3	Balcony Seating 400
TP-120	There are various empty electrical boxes along the wall of the first row.	2	Balcony Seating 400
TP-121	Verify the railing at the end of the aisle on the balcony rail meets code.	3	Balcony Seating 400
TP-122	There is NO ADA access to balcony seating and control booth.	1	Balcony Seating 400
T-21	Same notes as auditorium chairs. Same as T-18.	2	Balcony Seating 400
TP-123	Balcony exits to a corridor stair case. This requires crash bar hardware on the door. This can be a distraction when exiting during a performance.	1	Balcony Seating 400
TP-124	Verify the down lighting in this area is part of emergency lighting.	1	Balcony Seating 400
TP-125	First three rows used as in house mix position above seats. This requires limited balcony seating when in use.	1	Balcony Seating 400
TP-126	Replace aisle step lighting. Verify these fixtures are on emergency power.	1	Balcony Seating 400
TP-127	Provide proper electrical receptacle for follow spot light on the front wall.	2	Follow Spot 401 and 402
TP-128	Change recessed lighting fixture for track mounted LED lighting fixtures.	3	Follow Spot 401 and 402
TP-129	All rooms - replace recessed task lighting with dimmable LED track lighting	3	Stage Manager/Lighting Control Rm 403, 404 and 405
TP-130	Control booth access door faces the stage. Move door.	3	Stage Manager/Lighting Control Rm 403, 404 and 405
TP-131	Access to catwalks requires going outside building and on to the roof. Catwalk access is necessary at all times of the day and should not require going outside the building.	1	Stage Manager/Lighting Control Rm 403, 404 and 405
TP-132	Required clearances around electrical equipment should be indicated on the floor to prevent equipment from being stacked in these areas.	3	Bell Tower 407 and Catwalk Access 408
T-22	FOH truss electric cable management requires constant inspection and repair. Demo existing cable management and install cable reels.	1	Bell Tower 407 and Catwalk Access 408
TP-133	Side lighting slot is accessible by wooden ladder mounted to the wall.	1	Bell Tower 407 and Catwalk Access 408
TP-134	Over the years, conduits have been added. Verify that all cables and conduit connections are properly connected.	2	Bell Tower 407 and Catwalk Access 408
T-23	During equipment upgrades, some electrical receptacles have been abandoned. Remove all plug box receptacles that are abandoned.	2	Bell Tower 407 and Catwalk Access 408
T-24	Rigging controllers for the FOH truss lighting systems have been pieced together over time to keep them operational. Replace rigging motor controls.	1	Bell Tower 407 and Catwalk Access 408
T-25	Catwalk lighting is controlled from stage lighting system in the auditorium. This can leave staff on the catwalks without the ability to turn on lights. Add local control to each catwalk.	1	Bell Tower 407 and Catwalk Access 408
TP-135	This area will require emergency lighting.	1	Bell Tower 407 and Catwalk Access 408

Lighting and Acoustics Assessment

Overview

The following is an assessment of the technical systems currently installed in the Griffith Fine Arts Building. The facilities include in this assessment include: Turner Auditorium, the Downstage Theater, Recording Studio, Sound Lab, and the Griffith Fine Arts Building.

The technical systems in use in the Griffith Fine Arts Building have been in service for several years while their current configurations should be reviewed to improve their operational and overall performance.

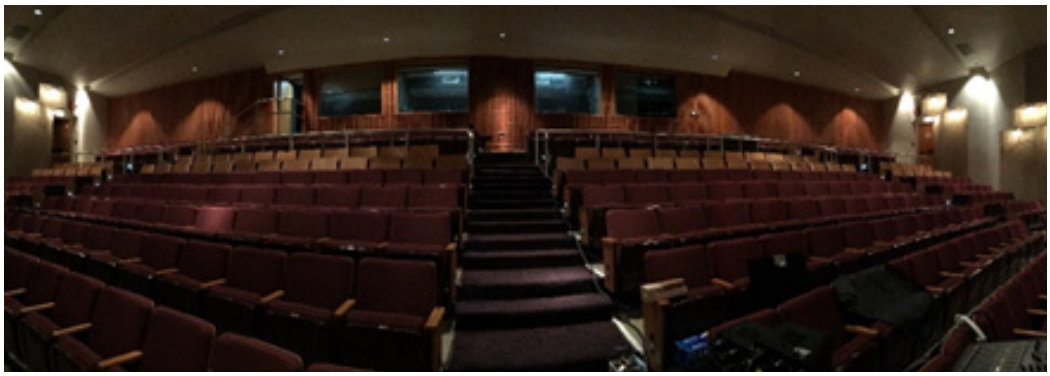
Turner Auditorium

The audio system currently installed in Turner Auditorium is fundamentally an analog design that has received component add-on's over the years resulting in today's hybrid design. The other two elements that need to be considered is a reorganized system configuration and the addition of a permanent video presentation system.

The Audio Control Booth: The existing audio control booth houses a 20-year old analog audio console, support equipment, playback speakers, and two equipment racks that house the sound systems audio amplifiers and support electronics. Considering the high level of amplifier fan noise present in the Audio Booth, it is almost impossible for the operator to hear issues like the onset of feedback before it occurs. Therefore, our first assessment recommendation is to remove the audio console and associated equipment from the Audio Booth and to convert this space into the Theater's AV Equipment Room. Given the current sound system infrastructure, this change would be cost effective and provide Turner Auditorium with a much need technology hub for Turner Auditorium.

The New Audio Booth: When the existing Audio Booth and AV Equipment are separated, it will be necessary to establish a new permanent location for the theater's audio console and other audio equipment. Our assessment recommendation would be to create a permanent front-of-house position in the balcony. This would allow the audio engineer to be located within the same acoustic space as the sound system and dramatically improve the audio systems performance quality for the audience.

The existing Theater's analog audio console is approximately 20-years old and although it is still operating correctly, our assessment recommendation would be to retire this console and replace it with a new digital audio console. The key reasons for this are its physical size and the level of technology that is built into the firmware of a digital console. When the digital audio console is moved out into the balcony, the size of the space will be dictated by size of the console and associated equipment racks. In the analog days, every device was unique meaning that if you wanted to add a processor for a microphone you needed a standalone box. Digital audio consoles have all the necessary audio processing built into the software for each of the 32, 40, or more input channels. This provides the audio engineer

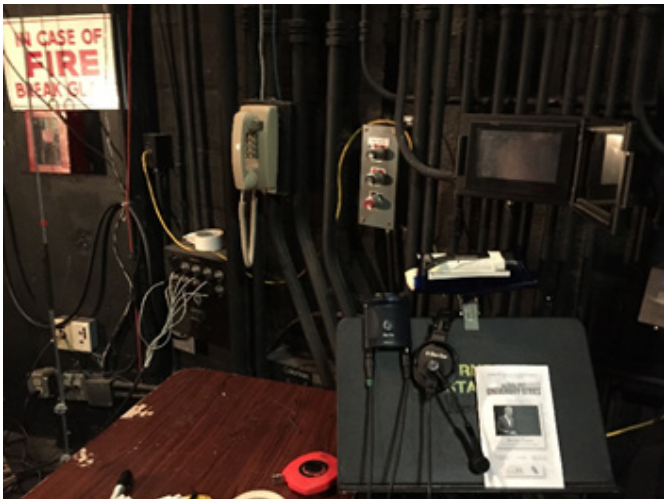


a complete pallet of audio tools to deliver the best sound possible but without having to buy all the individual units. Additionally, with all the audio processors being built-in, the need for several equipment racks next to the console is avoided and the footprint of the front-of-house position is reduced.

Based upon our measurements and listening tests, the Theater's existing loudspeaker speaker system does not provide uniform coverage across the audience. In addition, it lacks the dynamic range necessary to support normal theatrical and musical productions. Our assessment recommendation would be to design and virtually model a new loudspeaker system while taking into consideration any acoustical and/or architectural changes that may occur within the theater. In addition, this virtual work would allow the sound designer and architect the opportunity seamlessly blend the loudspeakers into the design. A new loudspeaker design would include main left and right speakers, front fill speakers, as well as speakers for the under-balcony, balcony, and very low-frequency.

The stage in the Turner Auditorium currently includes basic connectivity for audio and this should be maintained. Our assessment recommendation would be to expand the number and location of audio connections as part of any stage upgrades.

To assist with event and production and overall stage organization our assessment recommendation is to add a permanent Stage Manager's Position on stage right. Currently, there is an informal position on stage right but a permanent position would allow for centralized technology hub for video, lighting, audio, communications, and back-of-house. The image below shows the current position the stage Manager uses for show control.



To establish Turner Auditorium as a campus facility that can support a wider range of event types, our assessment recommendation is to add a permanent video presentation system to the facility. This would include a properly sized large format front projection screen, video projector, multiple connection locations for PC and digital media players, robotic video cameras for recording and streaming, and a control position for the video operators in the balcony. This system can be added in phases provided the proper video infrastructure and AV network are provided.

The Balcony Video & Lighting Control Room: The center section of the Balcony Control Booth is currently configured to support lighting and the event production staff. Our assessment recommendation would be to maintain the lighting and production staff and to add a video control position. The video position would control cameras, record and/or stream events, provide computer support for lectures, and generate graphics in support of events.

The Balcony Video & Lighting Control Room: The center section of the Balcony Control Booth is currently configured to support lighting and the event production staff. Our assessment recommendation would be to maintain the lighting and production staff and to add a video control position. The video position would control cameras, record and/or stream events, provide computer support for lectures, and generate graphics in support of events.

The Downstage Theater

The Downstage Theater is an intimate 80 seat venue with a low rather low ceiling & grid. This space also has a complex set of acoustical issues. Although the Theater doesn't require a sound reinforcement system for speech and if the space is maintained in its current location, our assessment recommendation would be to install a reasonable quality sound system for special effects and production support.

The SRT Lab

The Sound Lab is a small, acoustically acceptable, easy to operate, and properly equipped. Our assessment recommendation for the Sound Lab would be to update the audio recording computers and software to maintain its current quality and to add AV network capabilities. By adding AV network capabilities, the Lab could utilize other networked spaces in the facility for voice-over work, recording tracks, or other audio for video needs. This would also mean that the Sound Lab could maintain its current space while expanding its capabilities.

The SRT Studio

The current Recording Studio utilizes a large space that was not designed for recording. Typically, a recording studio will have excellent acoustics, higher ceilings, a very quiet HVAC system, isolated rooms for drums and vocals, excellent isolation from the outside world, and a dedicated control room.

The existing studio equipment is currently housed in portable cases as if it were used primarily for remote recording. Overall, the equipment quality is good but the studio itself needs to be reconstructed or relocated. Our assessment recommendation for the equipment would simply be to keep the firmware of the studios core devices current and to establish a proactive maintenance plan to ensure the portable equipment operates properly over the long-term.

If a permanent recording studio were to be designed, the existing equipment would provide an excellent starting point for the program. Our assessment recommendation would be to equip the new studio with the proper technical infrastructure, AV network connectivity, new control room monitors, and the necessary talkback, playback, and cue systems required in a functioning recording studio.

The space being used for the Recording Studio is not an ideal location which means there are only two ways to resolve the physical plant and that is to either 1) find a new room that can be reconfigured to fit the type of recording being done or 2) to redesign the existing space to provide a Control Room, voice-over booth, and a main studio. Having walked the building, there are spaces that could be built into a studio but cost of renovating a new or existing space should be evaluated from a financial, practical, and academic viewpoint. The best recommendation would be to move this entire department into a new customized facility suitable for flexibility and growth.

Griffith Fine Arts Building

When considering the technological future of the Griffith Fine Arts Building it is important to know that AV systems are now primarily designed around a series of network based devices that use a network centric infrastructure. The second point to be considered is that the design of audio and video equipment is now firmware based thereby providing an architecture that permits equipment to be kept state-of-the-art by utilizing software updates as opposed to buying a new piece of equipment. Our assessment recommendation for the Griffith Fine Arts Building would be establish a Master Technology Specification for AV and Presentation Technology to ensure that as each of the facilities listed above is updated, it would be designed and/or reconfigured in accordance with GFAB Standards.

Acoustics Summary

General acoustics assessments were completed for the existing SRT Studio (315), Turner Auditorium (204), Black Box Theater (132), and Sound Lab (111) within the Griffith Fine Arts Building on September 23, 2016. These assessments addressed the quality of the room acoustics, airborne sound isolation between the outside environment and/or adjoining spaces, and control of background noise levels from building systems – all relative to the current and intended uses of the spaces. Measurements of reverberation times (RT60s) and background noise levels were completed to support the assessment conclusions where applicable. A short summary of our findings and recommendations is presented below. These findings and recommendations address only the acoustics issues described above.

- SRT Studio (315): The current space is inadequate for its intended use as a music recording space. It would be better placed in new construction where the building design could be tailored to match the needs of the facility. In the current space, RT60s were relatively short (less than ½-second at mid-high frequencies) and the frequency spectrum was relatively flat. This condition might be effective for some recording sessions, but may be quite limiting for others. Ideally, this room would be double-height to allow for more flexibility with respect to the natural acoustics and acoustic treatments, potentially benefiting a larger cross-section of users. Additionally, the large, exterior window glass produces unwanted specular reflections in the main recording space that can adversely affect rehearsal, performance, and recording.

  Background noise levels in the main recording space, associated primarily with traffic noise intrusion, exceeded NC-35 – well above the NC-25 limit. Significant design and construction efforts would be required to improve the exterior wall and glazing assemblies in order to mitigate background noise levels. Additionally, airborne sound isolation between the main recording space and adjacent uses, including offices and conference rooms directly below, is a concern, and could require significant design and construction efforts to improve.

- Turner Auditorium (204): Existing RT60s ranged from 1.0-1.3 seconds at a majority of seating locations (orchestra, under-balcony, balcony) with an appropriate frequency response shape. The current acoustic character of the space is indicative of a multi-purpose auditorium suitable for a wide variety of performing arts productions – including music, dance, and theater. The acoustics are not tailored to maximize the enjoyment of any given production type over another, but are a compromise to satisfy all.

  If the future uses of the auditorium are to be primarily music oriented (i.e., symphony, band, choral), and the focus will be moved toward unamplified music performance, then RT60s should be lengthened by substituting acoustic diffusion surface treatments for the existing acoustic absorption treatments at rear wall areas (orchestra and balcony). Otherwise, we have no recommendations for room acoustics improvement.

  Measured background noise levels were NC 35, but only exceeded NC-30 in the 250 Hz octave band. Background noise levels were higher than the recommended maximum of NC-25, but there were no specific, elevated background noise sources observed. A review of the Auditorium HVAC systems would be appropriate to determine any potential background noise mitigation efforts.

- Black Box Theater (132): Like the recording studio discussed above, this space is inadequate for its current and proposed future uses; the theater would be better placed in new construction where the building design could be tailored to match the needs of the facility. The current theater is adjacent to a mechanical room, which was responsible for measured background noise levels of NC 35-40 – above the maximum design criterion of NC-30.

- Sound Lab (111): This space is adequate for its intended uses, but does exhibit minor flaws with respect to background noise and room-to-room sound isolation – both a function of the HVAC system design. Small changes to the supply-air ductwork design would be expected to mitigate the current acoustic deficiencies.

SRT Studio (315) Room Acoustics

The current studio space is approximately 982 sq. ft., single-story in height (approximately 10-foot ceiling height), producing an acoustic volume of approximately 9,820 cu. ft. Finishes include acoustic tile ceiling, vinyl tile floor, and gypsum board walls with some acoustic absorption/diffusion panel treatment. The exterior, north wall of the space includes a significant amount of window glazing.

The studio should exhibit relatively neutral acoustic character appropriate for the broadest spectrum of musical acts, recording techniques, etc. Given the size of the room, reverberation times in the 0.6-0.7 second range, across the entire audible sound spectrum, would be appropriate. Measured reverberation times in the existing room were in the range of 0.4-0.6 seconds, somewhat shorter that desired. This was primarily a function of the nearly 100% acoustic tile ceiling (excessive sound absorption). The frequency response of the space was relatively flat, as desired. Reflected sound energy from the large areas of exterior glass was not obvious during our measurements, but specular reflection from these surfaces could certainly be problematic during critical recording sessions.

With respect to room acoustics, the existing studio includes the following significant deficiencies.

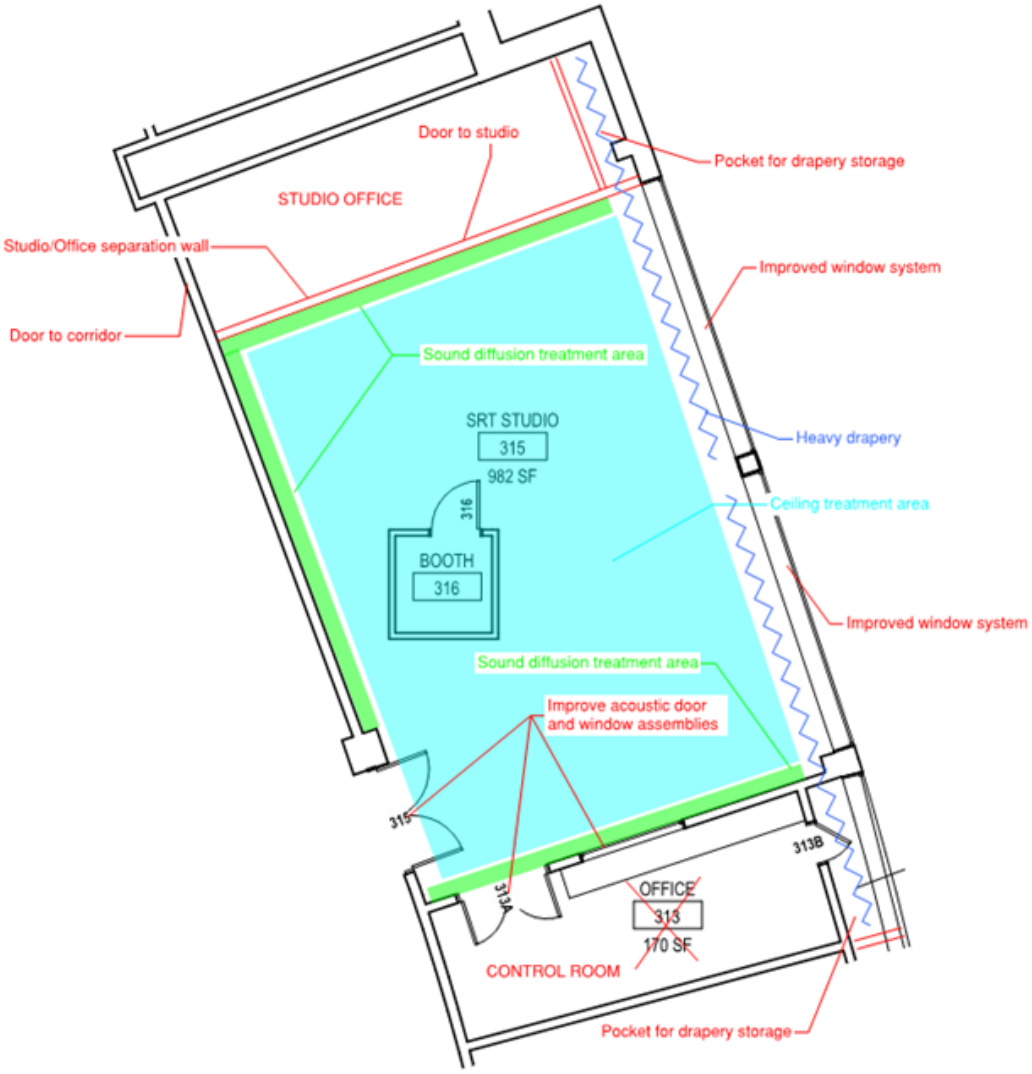
- Lack of volume/ceiling height: Additional ceiling height and room volume would provide flexibility with respect to room acoustic treatments and adjustments to the reverberation characteristics. A double-height space would be more appropriate.
- Poor room surface treatments: The room includes a nearly 100% acoustic tile ceiling which defines its acoustic character; that is, the room lacks acoustic character due to the excessive sound absorption at the ceiling. Sound absorption/diffusion wall treatments are relatively sparse, and offer relatively little benefit.
- Specular reflections from exterior window glazing: The large, north window contribute specular sound reflection of significant energy. This reflected sound energy would tend to color sound recordings in a negative way. The window reflections likely limit the recording techniques available to users.

Assuming that the current space will be retained as a music recording studio, we offer the following recommendations for improvement with respect to room acoustics.

Room volume/ceiling height: If possible, remove the suspended acoustic tile ceiling and open the space to the roof deck above. This would expose mechanical ductwork, piping, etc. to view, but would also increase the volume of the room, providing more flexibility with respect to “tuning” the room acoustics.

Acoustic surface treatments: Cover the underside of the exposed roof deck with an acoustic absorption treatment. This treatment should provide a noise reduction coefficient (NRC) of no less than 0.95. A spray-on cellulose or glass fiber insulation (e.g., K-13) of 3-inches thick would be appropriate. From the roof deck, suspend sound diffusion “clouds” over the primary recording areas. Each cloud should be 16-32 sq. ft. in area. These clouds should be arrange so that there are areas of coverage and areas open to the sound absorption at the roof deck – an overall ceiling coverage of 50-60% (approximately 500-600 sq. ft.). Consider use of two-dimensional sound diffusion products from RPG, Inc. for this application (e.g., Omniffusor, Waveform Bicubic G). At gypsum board walls, install a one-dimensional sound diffusion treatment over no less than 50% of the available wall surface in the main recording areas (i.e., no less than 250 sq. ft.). Again, many RPG, Inc. sound diffusion products would be appropriate for this application (e.g., Modffusor, Waveform Spline). Install a heavy drapery system that may be used to cover the exterior windows when needed to control reflections or add sound absorption (reduce reverberation) in the recording space. This system would have the potential to cover most of the north wall of the facility. The floor should remain a hard, sound-reflective surface, and portable floor rugs may be used to help define recording areas and absorb high-frequency sound if needed.

Please see the graphic mark-up on the following page illustrating the recommended room acoustics changes.



Airborne Sound Isolation

The north wall of the facility includes a significant amount of window glazing which, due to age and composition, is a significant flanking path for traffic noise transmission into the studio. To provide an appropriate amount of sound isolation from exterior to interior, these windows should be replaced, and an additional window assembly should be installed to the inside of the exterior unit with an offset of no less than 6-inches. The window construction might include a 1” storefront-type exterior system (¼” glass, ½” a.s., ¼” glass) combined with a ½” laminated window assembly with a minimum of 6-inches between the exterior and interior glass panes. The overall window construction should provide sound transmission class (STC) 50+ sound isolation performance. Of course, the new window system would not be operable.

The studio does not currently have an isolated control room. To remedy this, we recommend establishing a control room space in the location of the existing office; the office could be relocated to the west side of the facility as shown

above. The locations of the studio office and control room could be reversed, but we believe that the recommended layout makes the most of the existing door and interior window locations. New wall construction should provide minimum STC 55+ sound isolation performance; for example, standard 3-5/8" metal stud framing with two layers of 5/8" gypsum board on each side with acoustic batt stud cavity insulation. New or upgraded doors and windows should provide laboratory measured STC 50+ sound isolation performance. These units should be sourced from a specialty manufacturer such as Noise Barriers, LLC (www.noisebarriers.com).

Vertical sound isolation between the studio and office/conference room spaces on Level 2 below is a concern, and may have already presented scheduling difficulties regarding concurrent use of the adjacent spaces. Ideally, this problem would be mitigated with the addition of an isolated concrete floor slab within the studio. The isolated floor system would be composed of a rubber isolation layer (typically 1-inch thick) sandwiched between the structural slab and a minimum 4-inch thick concrete topping slab. However, the building has not necessarily been designed to handle the weight of such a system, and therefore an isolated flooring system of this type would not likely be appropriate. Less substantial isolated flooring systems may be considered, but may not provide adequate sound isolation improvement to warrant the expense.

Building Systems Noise Control

Currently, background noise in the studio is dominated by traffic operations on North Street. It is our belief that a majority of the traffic noise energy is being transmitted through the existing exterior windows, and that the window improvements presented above would remedy the situation. This background noise mitigation measure will not make the room "soundproof", but would be expected to improve the situation significantly.

Noise from the building's mechanical systems were not audible or measureable in the studio space. That's not to say that they do not contribute to the background noise environment, but they do not generate significant noise energy relative to the North Street traffic noise source. Once the exterior window system is improved, we will have a better understanding of noise produced by the building systems. However, we do not anticipate a significant noise contribution from these systems.

Turner Auditorium (204) Room Acoustics

The project space is a fan-shaped, 1,000+ seat (650+ floor, 350+ balcony) performing arts theater that currently hosts music, dance, and theatrical productions. The estimated volume of the space is 220,000 cu. ft. This produces a volume per seat (cu. ft./seat) of approximately 220 (approximately 6.2 cu. meters/seat), which is appropriate for a concert/ performance hall.

Auditorium room finishes include gypsum board sound reflectors at the ceiling, gypsum board and wood panel wall construction with a linear wood acoustic absorption treatment at rear wall areas and a "zig-zag" gypsum board sound diffusion surface at upper side walls, and concrete floors with carpet in the aisles. The dominant source of sound absorption in the space, and the surface that defines the RT60s, is the fully upholstered seating.

Existing RT60s in the vacant auditorium were measured to be in the range of 1-1.3 seconds at most seats (orchestra, under balcony, and balcony seating), with a linear frequency response curve. These measurement results are indicative of a multi-purpose auditorium suitable for the presentation and enjoyment of a wide variety of performing arts productions, and are not tailored to any one art form; in other words, the current acoustics are a compromise to satisfy the needs of a majority of the arts community. Reverberation times may be slightly shorter in the occupied space due to an incremental increase in sound absorption from the occupants, but the expected change would be relatively small. As a music concert hall or symphony hall, the acoustics of the space are a bit on the dry side (lacking reverberation); for example, RT60s desirable for symphonic music would be in the range of 1.6-2.2 seconds. This is not necessarily a deficiency with respect to the current use of the space, but could be considered one if the room is transitioned to more of

a music-only venue – especially music performance with little or no sound system support.

If the auditorium is to be transitioned as described above, we recommend a change to the rear wall sound absorption treatment in favor of a deep sound diffusion treatment. This substitution would lengthen RT60s in the space and provide for more enveloping reflected sound energy. As mentioned for the studio space, RPG, Inc. sound diffusion products would be appropriate for this application; specifically, the QRD 734 product is recommended. The chosen product or sound diffusion surface design should provide broadband sound diffusion (extending below 500 Hz), and would therefore require considerable depth (9-inches or more).

Airborne Sound Isolation

No airborne sound isolation problems were documented.

Building Systems Noise Control

Measured background noise levels in the auditorium were NC-35, but only exceeded NC-30 in the 250 Hz octave band. Still, background noise levels exceed the NC-25 maximum recommended value for this critical listening space. No specific building systems noise sources were obvious during our site visit and measurements, but it is likely that the auditorium HVAC system is the dominant source of background noise.

To mitigate background noise levels in the auditorium, we recommend a more thorough review of the HVAC system for the space. This review may help to identify specific sources of noise and appropriate improvements to mitigate background noise levels.

Black Box Theater (132) Room Acoustics

The project space is a wide fan-shaped, 80- seat performance theater located on Level 1 directly below the auditorium scene shop. The theater is single-story height (as defined by the location of the scene shop), and includes no specific room acoustics treatments/surfaces.

The room does not exhibit any specific bad behavior with respect to room acoustics.

Airborne Sound Isolation

The theater is located directly adjacent to a mechanical room to the west, and is directly below the auditorium scene shop – both noisy spaces. From a purely acoustics perspective, the location of the theater is incompatible with its use. The shallow nature of the room and the intervening ductwork, plumbing, conduit, etc. make significant vertical sound isolation improvements impossible. And lateral sound isolation improvements at the mechanical room wall would be very difficult given penetrations associate with ductwork, plumbing, etc., which amount to sound flanking paths between the spaces. Therefore, we cannot offer any improvement recommendations that would allow the theater to remain in its present space. We recommend moving this use to a more acoustically friendly environment.

Building Systems Noise Control

Measured background noise levels in the theater were NC-35. This exceeds the NC-30 criterion. It is our opinion that the short-coupled nature of the neighboring mechanical equipment (mechanical room to the west) and the project space would make it quite difficult and expensive to mitigate mechanical systems noise levels. Like the airborne sound isolation problem discussed above, the problem associated with the control of mechanical system noise points to the relocation of this facility.

Sound Lab (111)

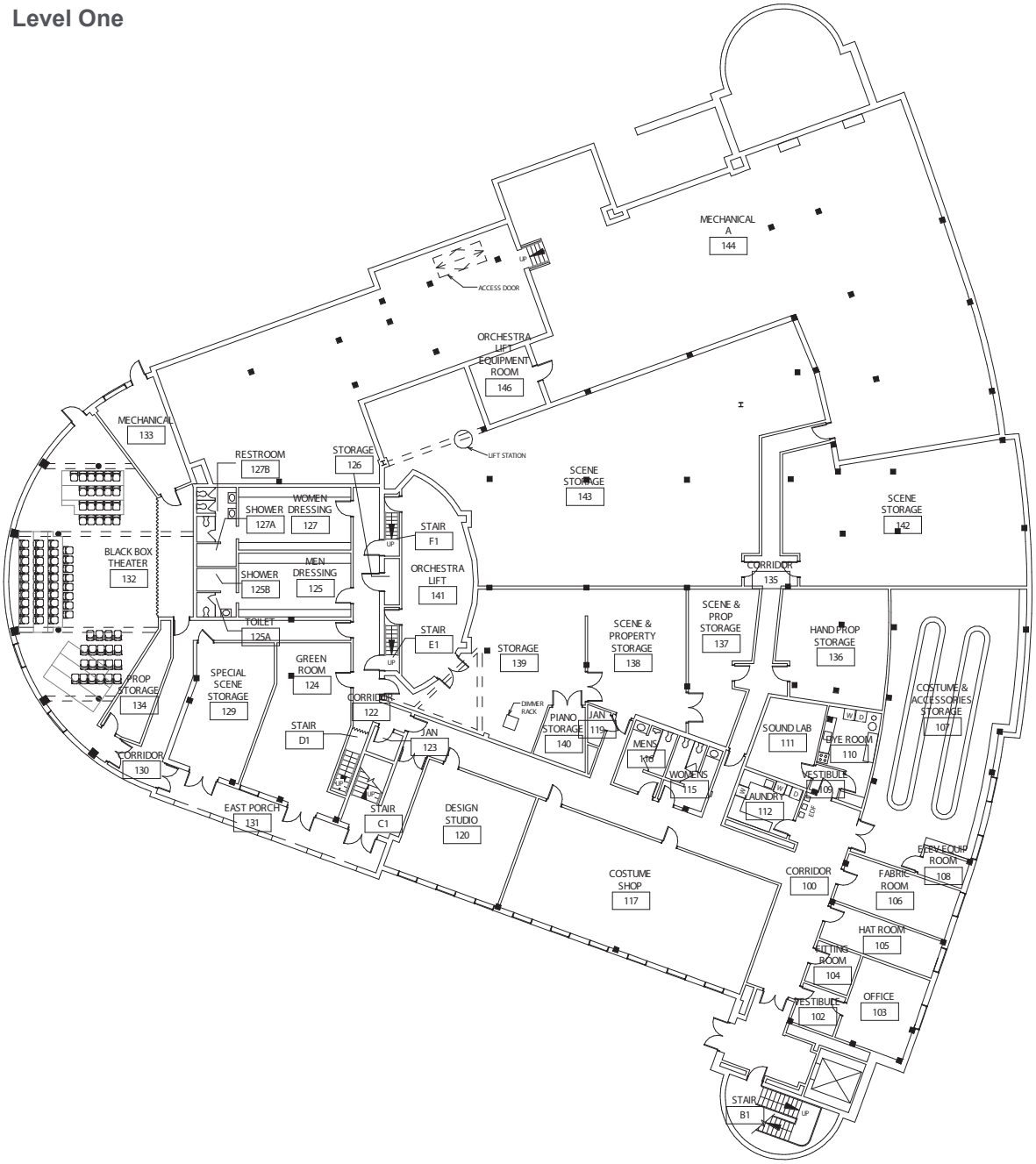
Measured background noise levels in the Lab were NC-25, but only exceeded NC-20 at the 500 Hz and 1,000 Hz octave bands; the room is very quiet. However, there have been complaints of air noise at the room's HVAC supply diffuser, in addition to cross-talk sound transmission from adjacent rooms (laundry, dye room) via the HVAC supply-air ductwork.

To mitigate the generated noise at the room's HVAC supply diffuser, it may be appropriate to add a second supply-air take-off and a second supply-air diffuser. This would reduce the air velocity at the individual diffusers, and therefore reduce the noise generated by the air movement over the diffuser vanes. To mitigate the cross-talk sound transmission problem, it may be appropriate to re-route supply-air ductwork so that there is significantly more duct length between the connected rooms. Sound would be "absorbed" in this additional duct length, and therefore less sound transmission between spaces would occur. It may also be possible to achieve this sound absorption/attenuation by replacing the existing supply-air ductwork connecting the adjacent rooms with an acoustically lined version (1" duct lining minimum).

04 EXISTING FACILITY

Plans of Existing Facility

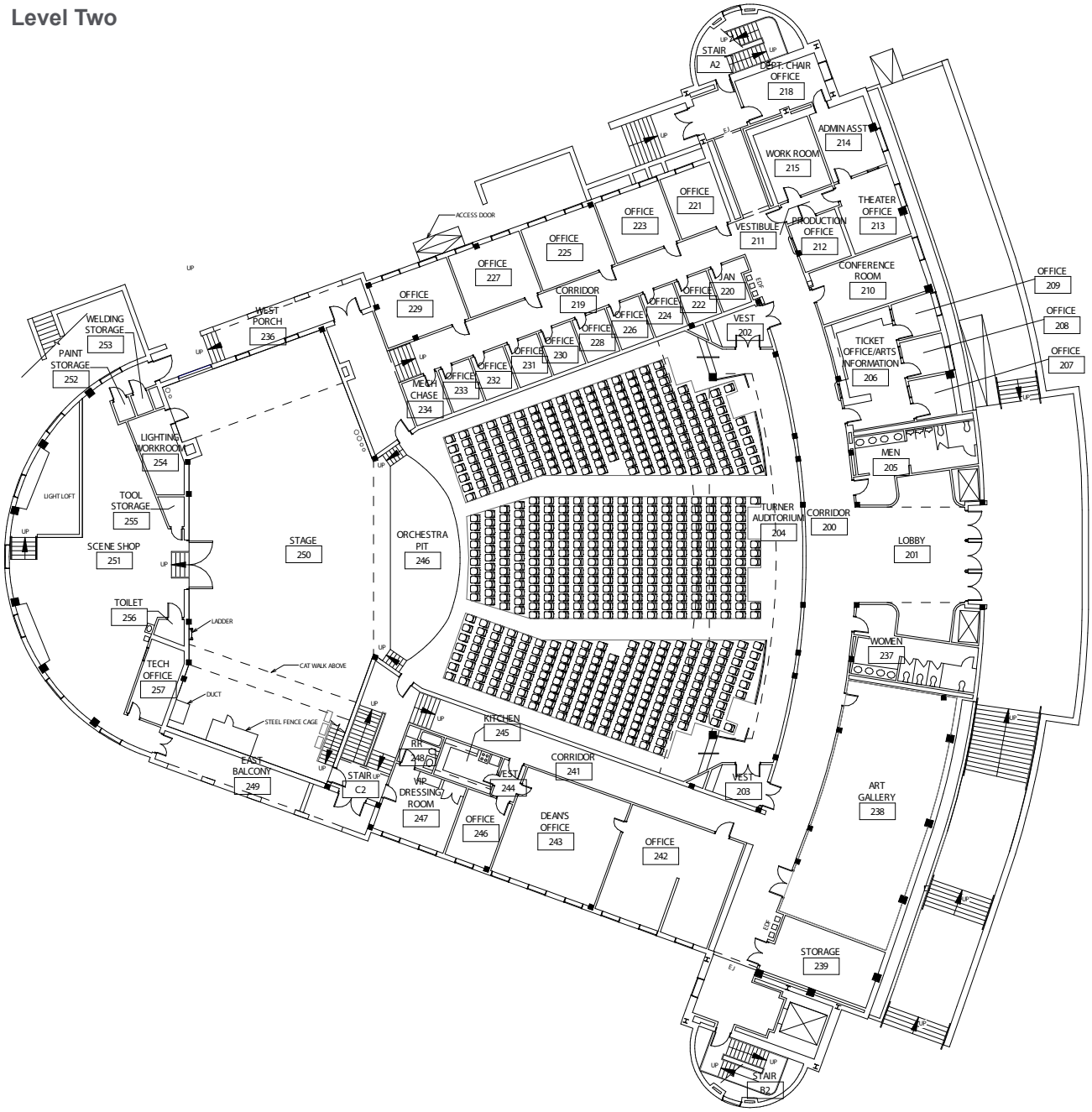
Level One



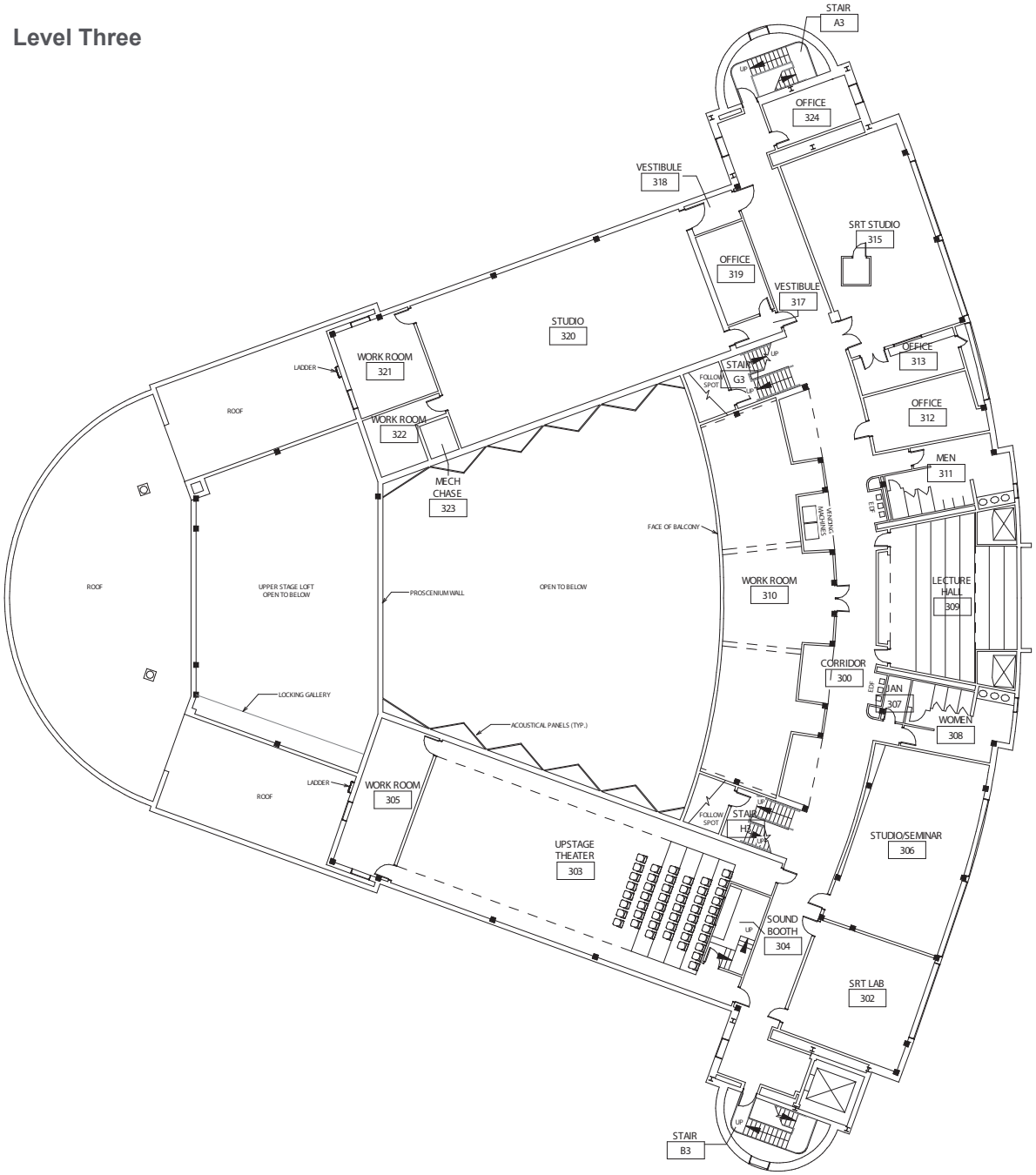
4 Existing Facility

4.1 Plans

Level Two



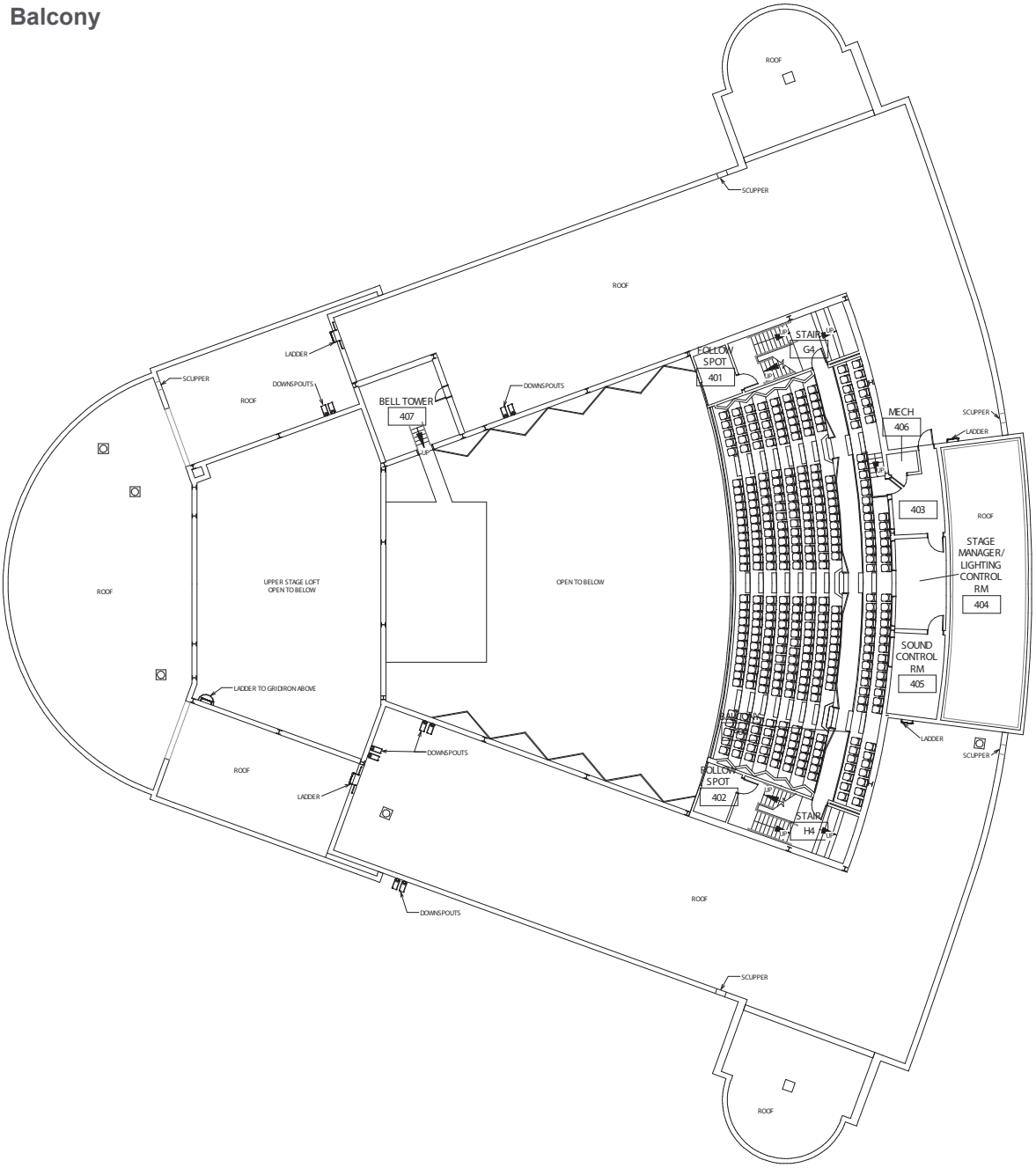
Level Three


STAIR
A3
UP
OFFICE
324
VESTIBULE
318
SRT STUDIO
315
OFFICE
319
VESTIBULE
317
STUDIO
320
OFFICE
313
WORK ROOM
321
LADDER
STAIR
G3
FOLLOW SPOT
UP
ROOF
WORK ROOM
322
OFFICE
312
MECH CHASE
323
MEN
311
ELEV
MACHINES
FACE OF BALCONY
ROOF
UPPER STAGE LOFT OPEN TO BELOW
PROSCENIUM WALL
OPEN TO BELOW
WORK ROOM
310
LECTURE HALL
309
CORRIDOR
300
LOCKING GALLERY
WOMEN
307
WOMEN
308
ACOUSTICAL PANELS (TYP.)
LADDER
ROOF
WORK ROOM
305
FOLLOW SPOT
STAIR
H3
UP
STUDIO/SEMINAR
306
UPSTAGE THEATER
303
SOUND BOOTH
304
SRT LAB
302
STAIR
B3
UP

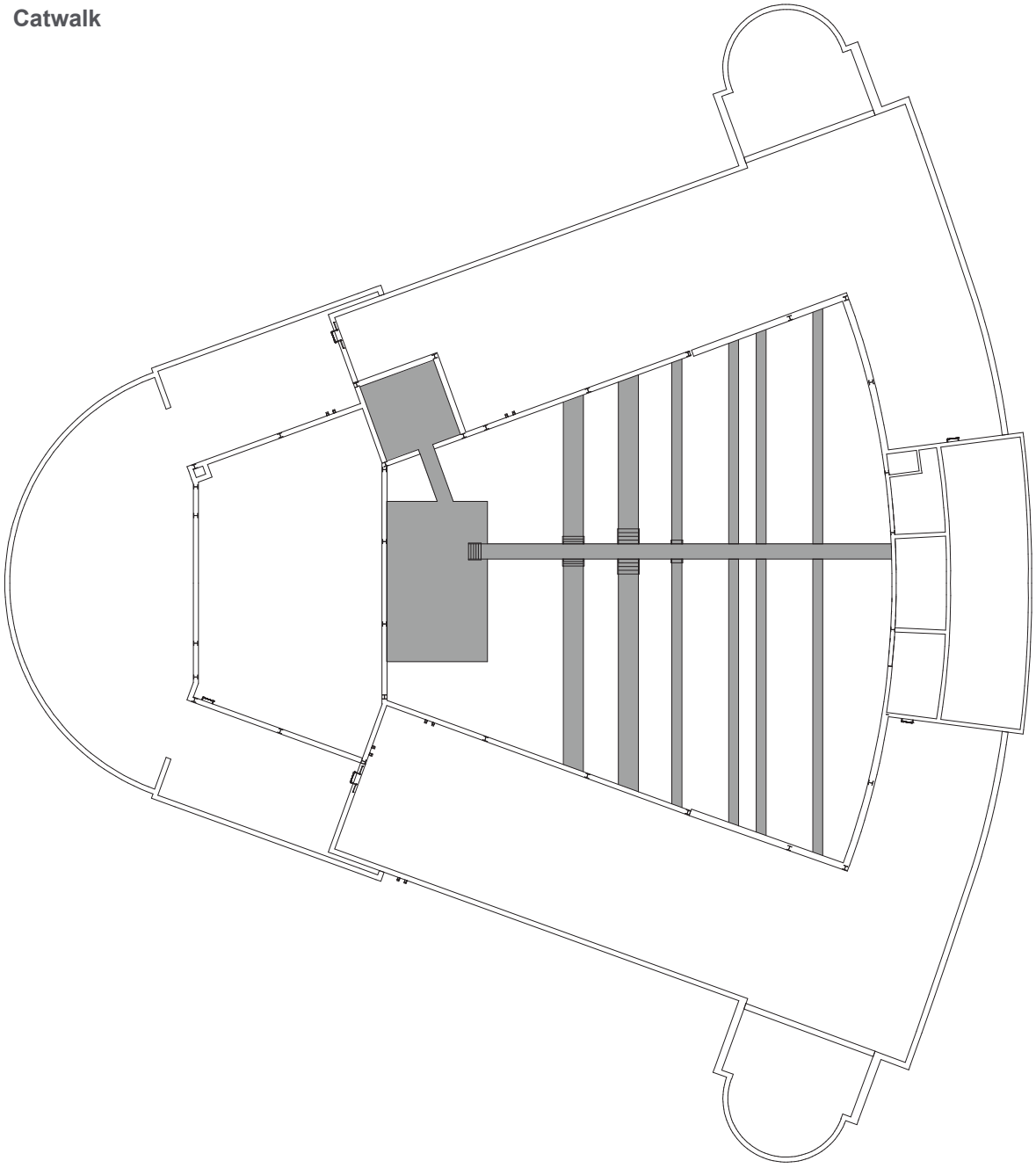
4 Existing Facility

4.1 Plans

Balcony



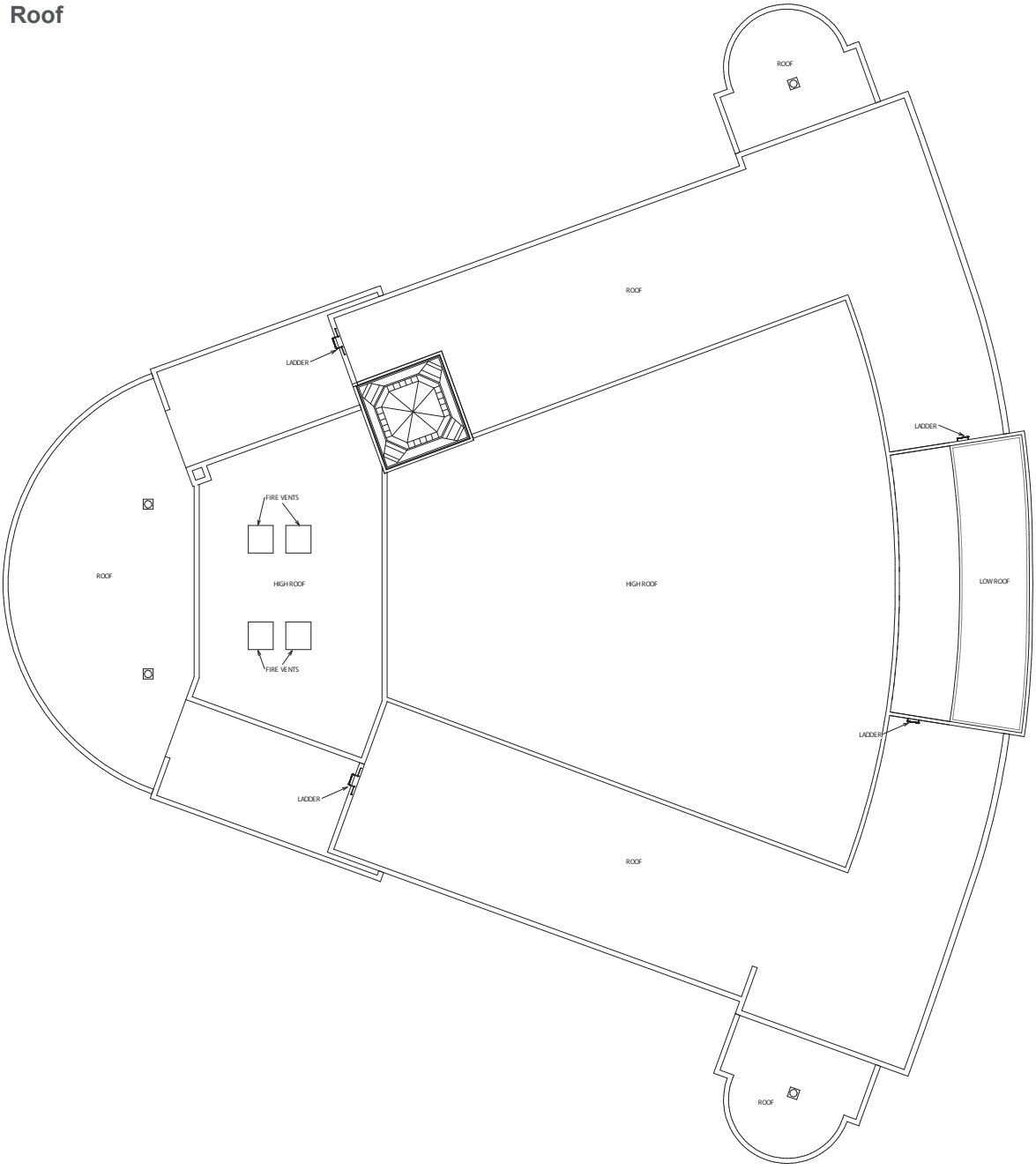
Catwalk



4 Existing Facility

4.1 Plans

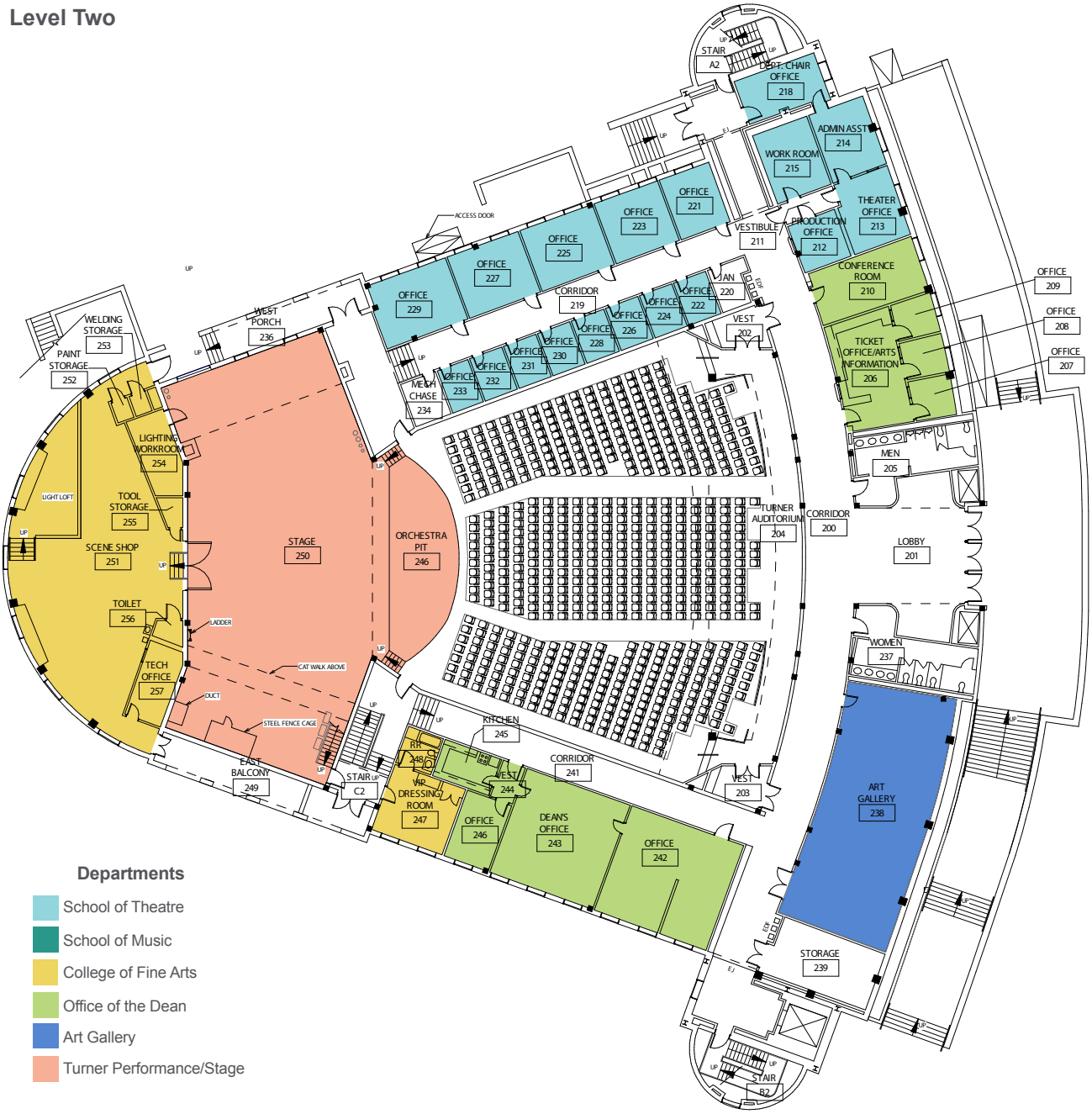
Roof



Departmental Plan Diagrams

Level One

Level Two

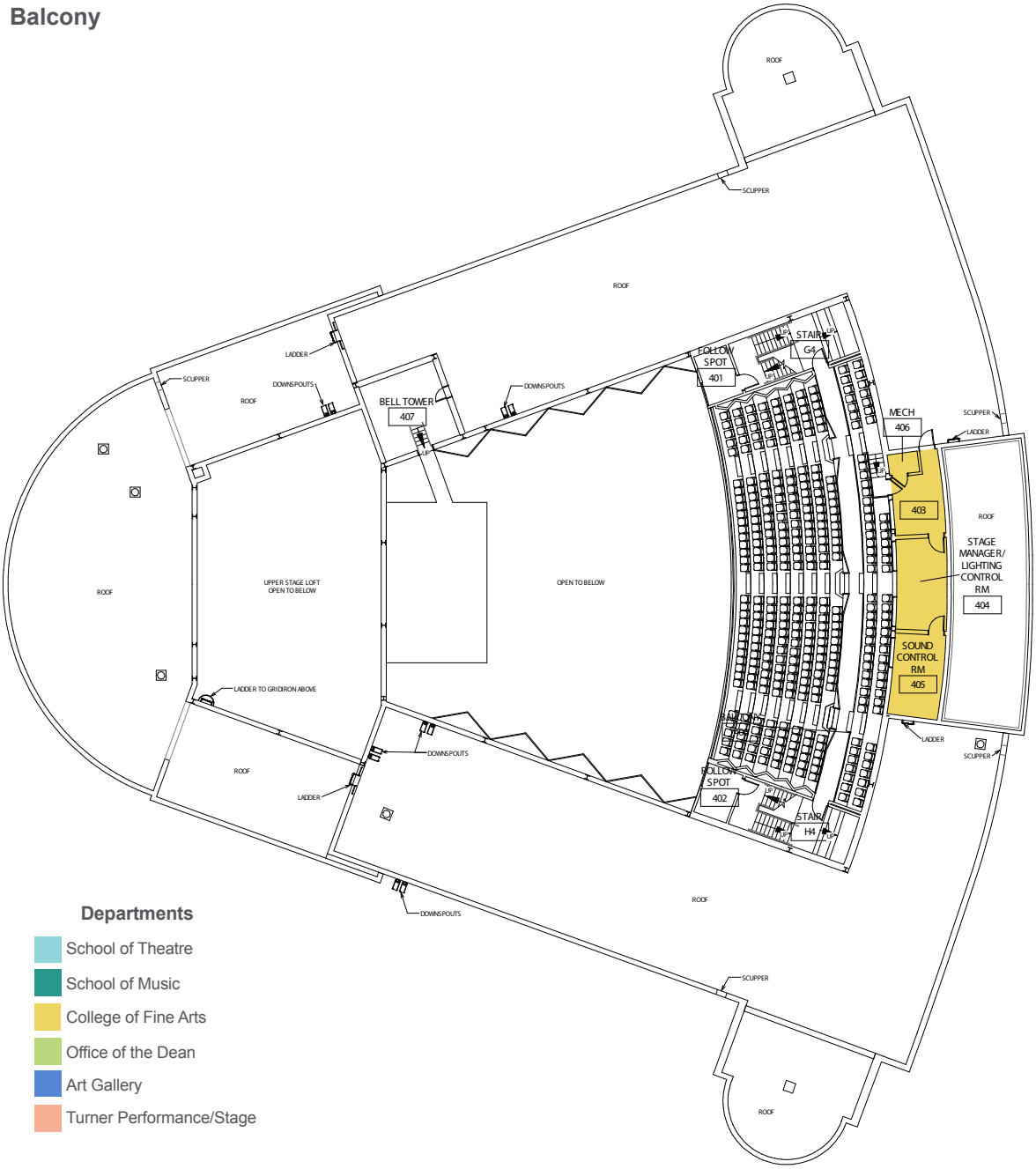

STAIR A2
DEPT CHAIR OFFICE 218
ADMIN ASST 214
WORK ROOM 215
THEATER OFFICE 213
PRODUCTION OFFICE 212
VESTIBULE 211
CONFERENCE ROOM 210
OFFICE 209
OFFICE 208
OFFICE 207
TICKET OFFICE/ARTS INFORMATION 206
MEN 205
TURNER AUDITORIUM 204
CORRIDOR 200
LOBBY 201
WOMEN 237
ART GALLERY 238
STORAGE 239
STAIR B2
VEST 203
VEST 244
CORRIDOR 241
KITCHEN 245
RR 248
VIP DRESSING ROOM 247
OFFICE 246
DEAN'S OFFICE 243
OFFICE 242
EAST BALCONY 249
STAIR C2
STAGE 250
ORCHESTRA PIT 246
SCENE SHOP 251
LIGHTING WORKROOM 254
TOOL STORAGE 255
TOILET 256
TECH OFFICE 257
LIGHT LOFT
LADDER
CAT WALK ABOVE
DUCT
STEEL FENCE CAGE
WELDING STORAGE 253
PAINT STORAGE 252
WEST PORCH 236
MECH CHASE 234
CORRIDOR 219
JAN 220
VEST 202
OFFICE 221
OFFICE 223
OFFICE 225
OFFICE 227
OFFICE 229
OFFICE 222
OFFICE 224
OFFICE 226
OFFICE 228
OFFICE 230
OFFICE 231
OFFICE 232
OFFICE 233
ACCESS DOOR
Departments
School of Theatre
School of Music
College of Fine Arts
Office of the Dean
Art Gallery
Turner Performance/Stage

Level Three

Departments

- School of Theatre
- School of Music
- College of Fine Arts
- Office of the Dean
- Art Gallery
- Turner Performance/Stage

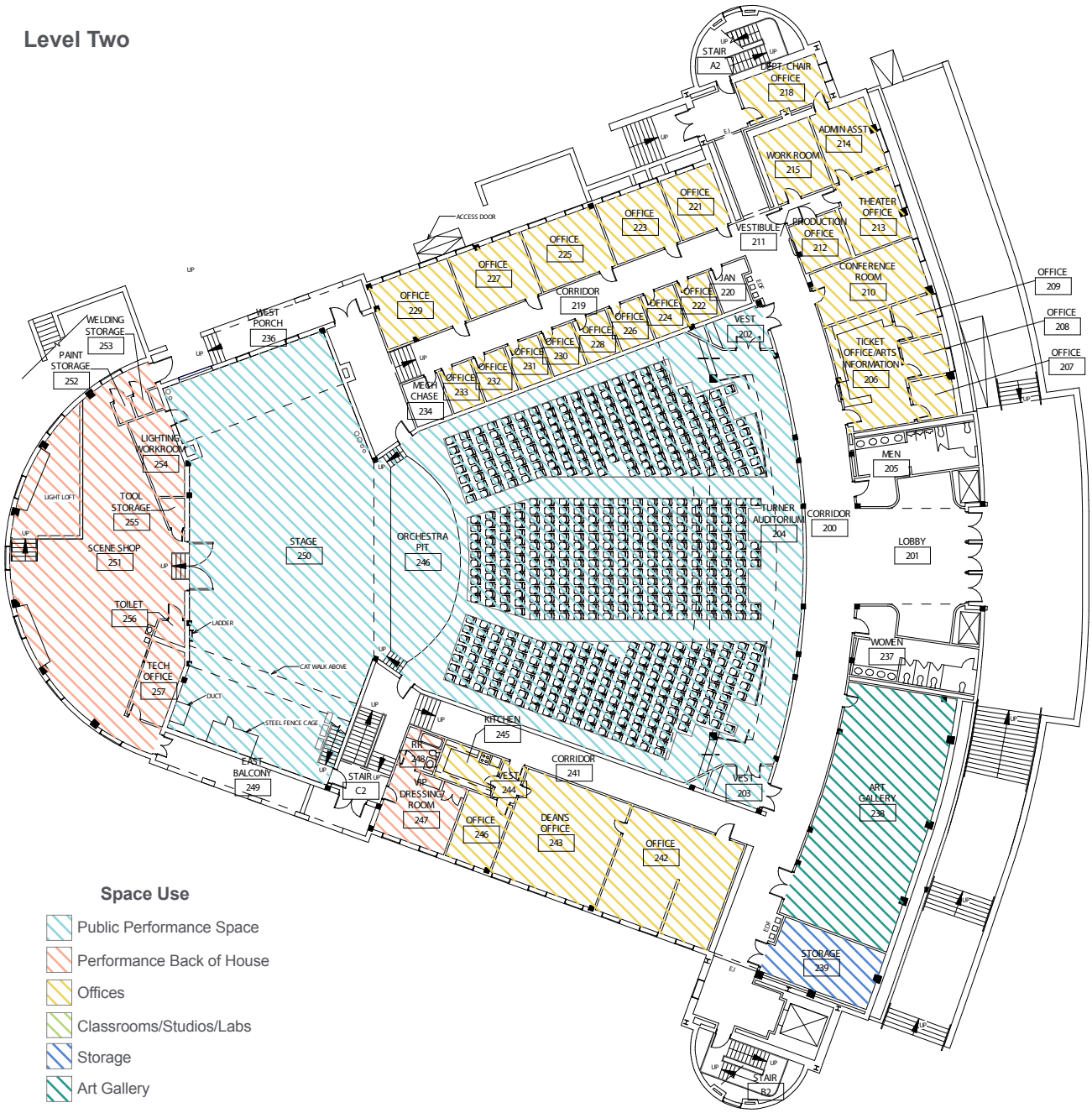
Balcony


ROOF
SCUPPER
LADDER
DOWNSPOUTS
BELL TOWER
407
FOLLOW SPOT
401
STAIR
G4
MECH
406
403
STAGE MANAGER/ LIGHTING CONTROL RM
404
SOUND CONTROL RM
405
UPPER STAGE LOFT OPEN TO BELOW
OPEN TO BELOW
LADDER TO GRIDIRON ABOVE
BALCONY
BOLCONY SPOT
402
STAIR
H4
Departments
School of Theatre
School of Music
College of Fine Arts
Office of the Dean
Art Gallery
Turner Performance/Stage

Use Plan Diagrams

Level One

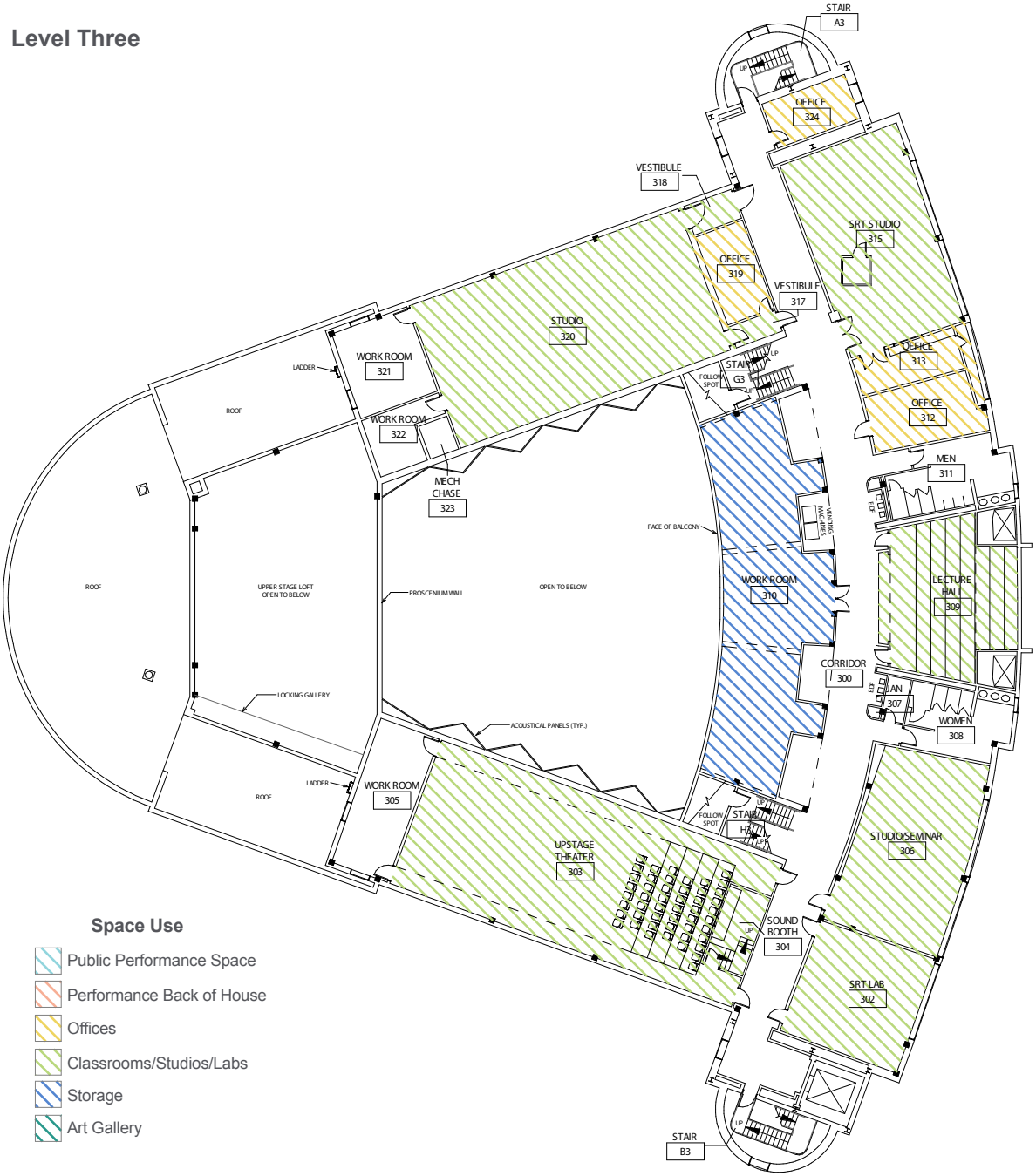
Level Two



Space Use

- Public Performance Space
- Performance Back of House
- Offices
- Classrooms/Studios/Labs
- Storage
- Art Gallery

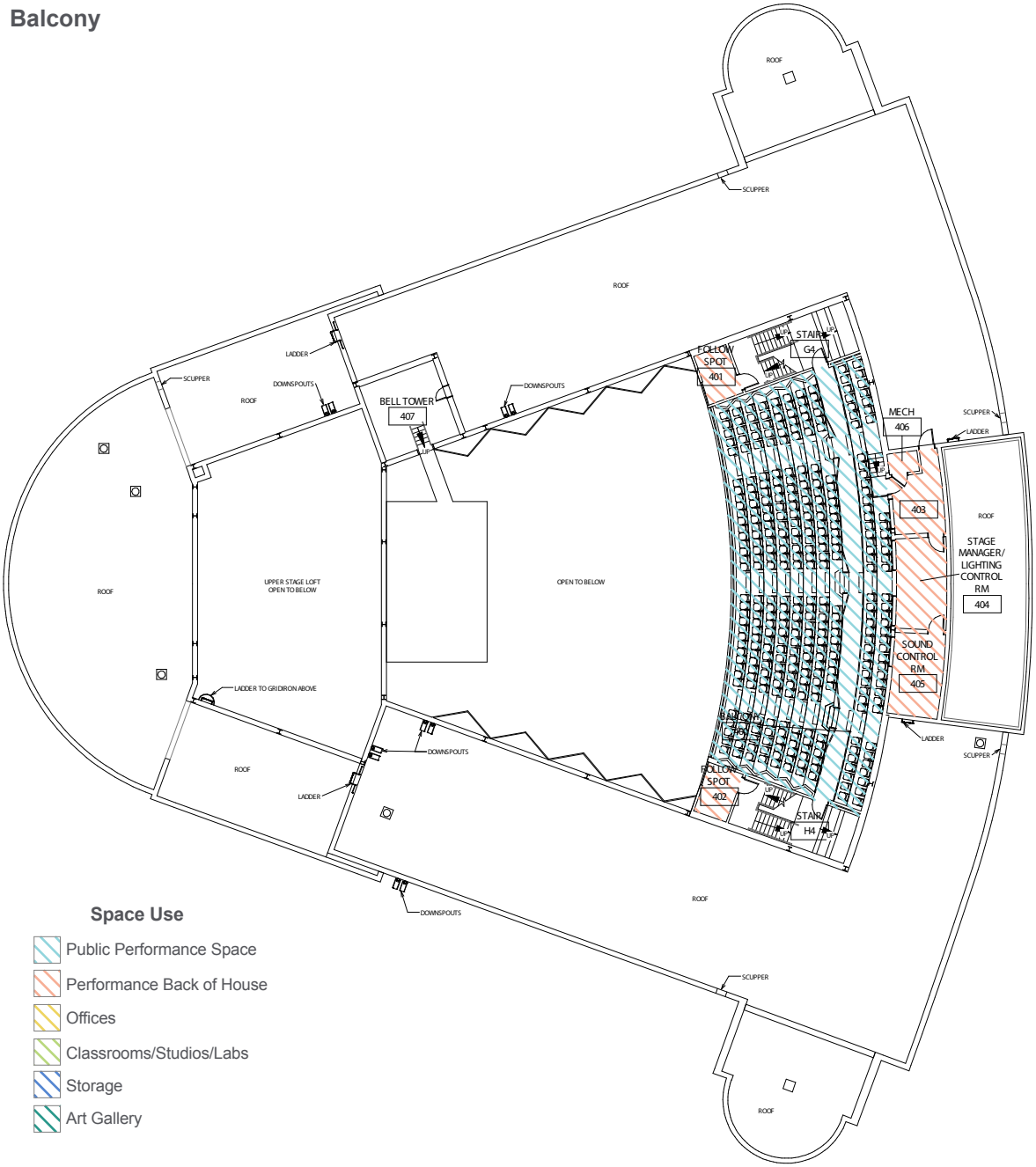
Level Three



Space Use

- Public Performance Space
- Performance Back of House
- Offices
- Classrooms/Studios/Labs
- Storage
- Art Gallery

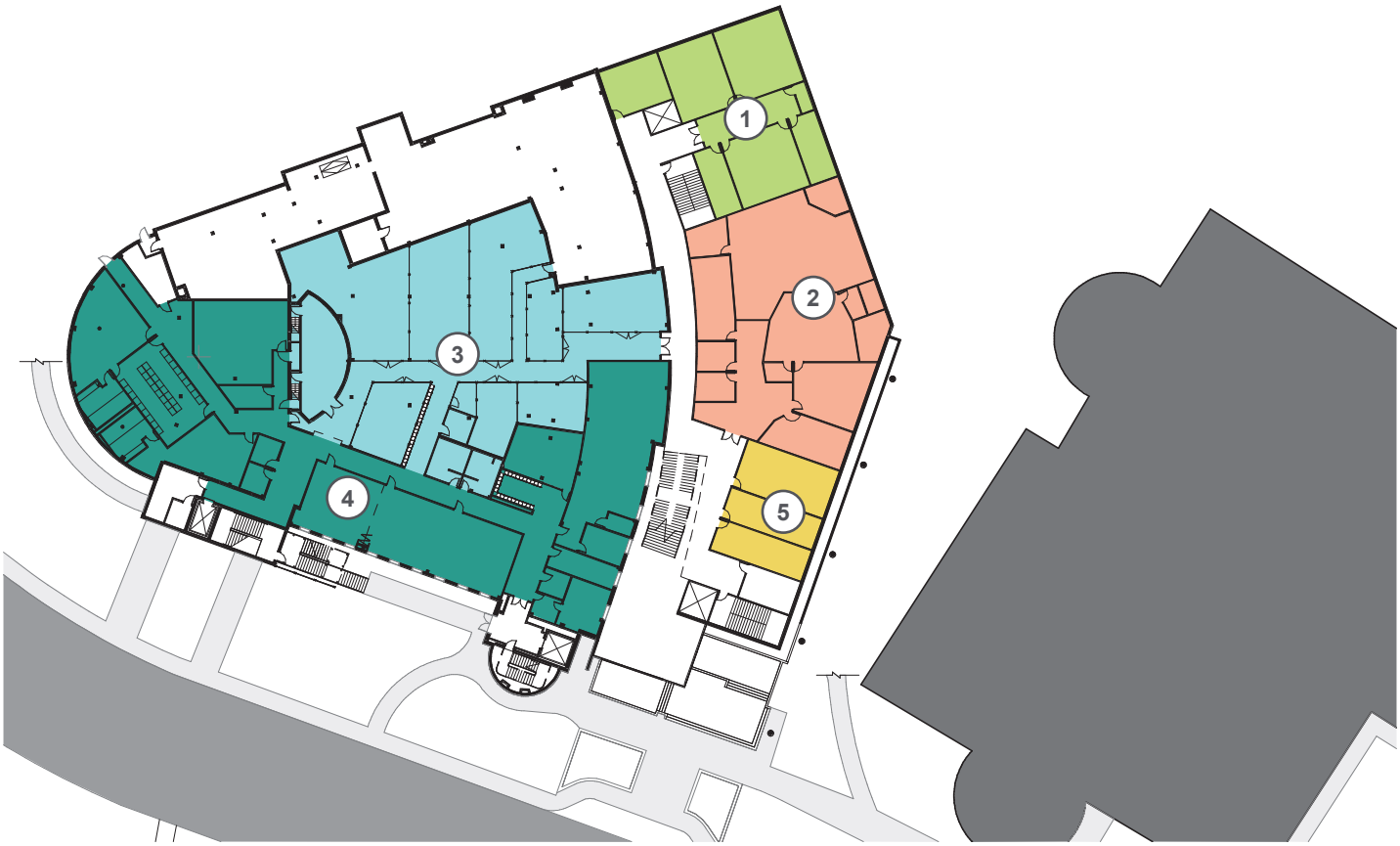
Balcony


ROOF
SCUPPER
LADDER
DOWNSPOUTS
BELL TOWER
407
FOLLOW SPOT
401
STAIR
G4
MECH
406
403
STAGE MANAGER/ LIGHTING CONTROL RM
404
SOUND CONTROL RM
405
UPPER STAGE LOFT OPEN TO BELOW
OPEN TO BELOW
LADDER TO GRIDIRON ABOVE
BALCONY
ORCHESTRA
FOLLOW SPOT
402
STAIR
H4
Space Use
Public Performance Space
Performance Back of House
Offices
Classrooms/Studios/Labs
Storage
Art Gallery

05 CONCEPTUAL PROPOSAL

Plans

Level One

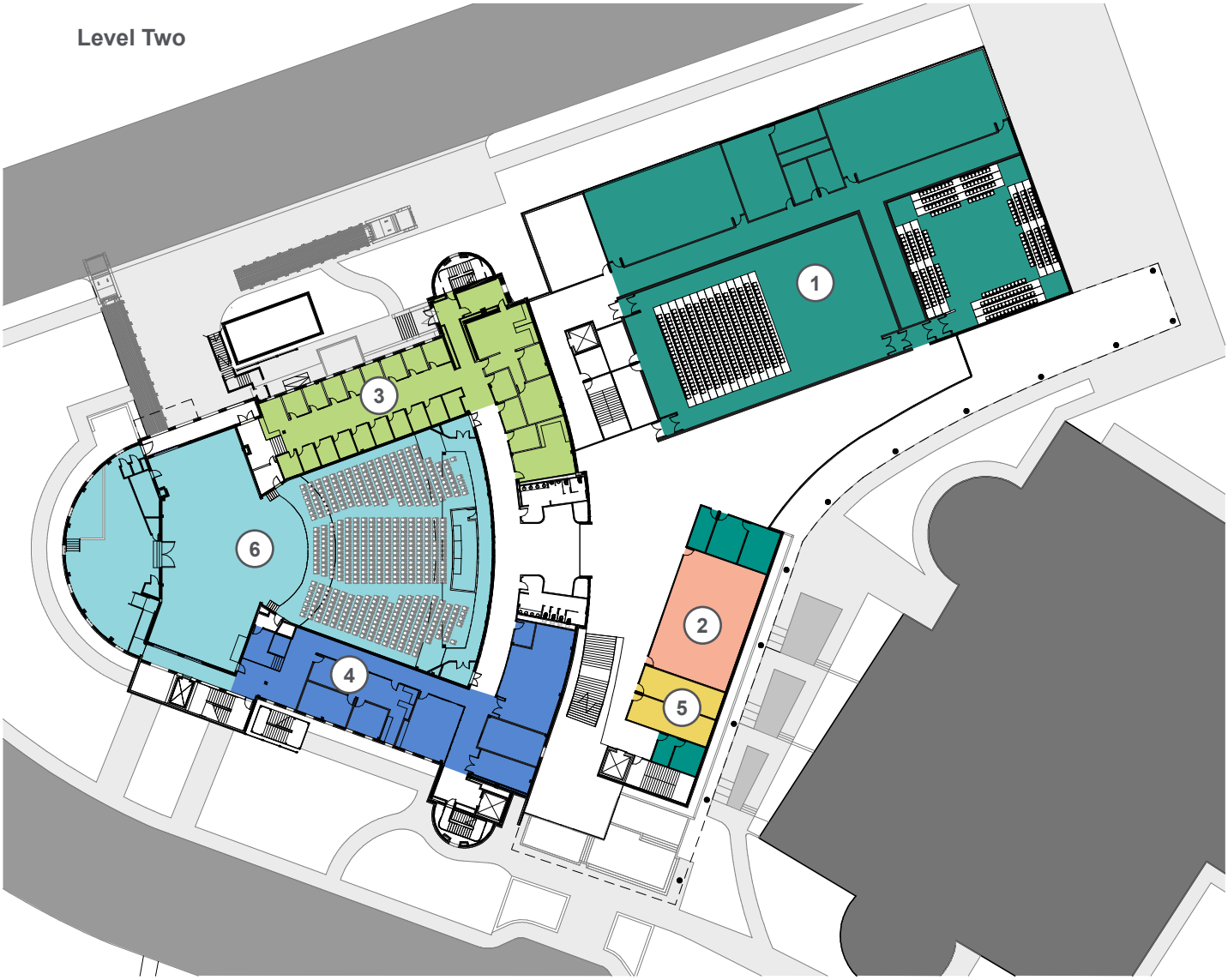


1. Actor Suite
2. SRT Suite
3. Prop and Scene Storage
4. Costume and Dressing
5. Mech and Restrooms

5 Conceptual Proposal

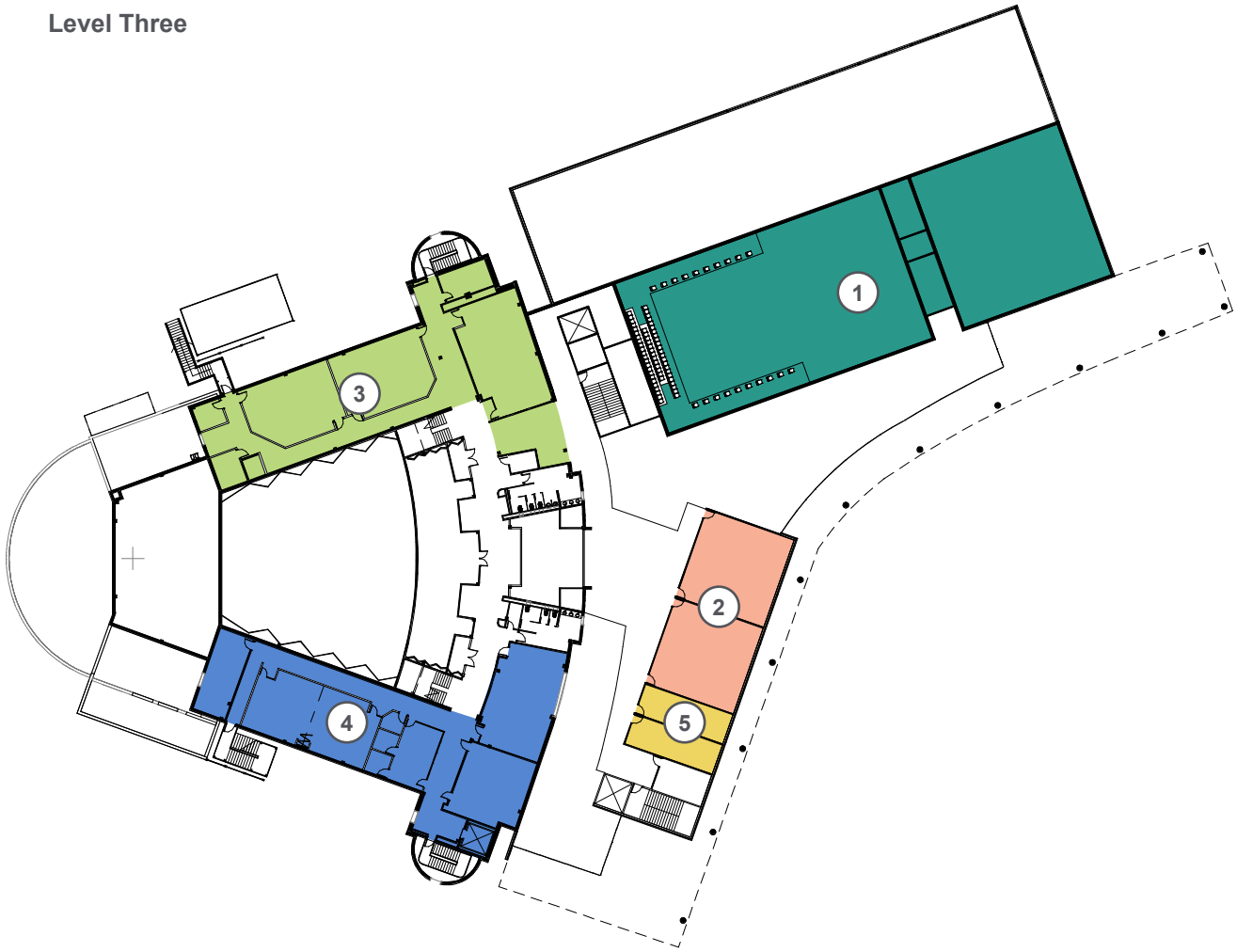
5.1 Plans

Level Two



1. Theater, Support and Rehearsal
2. Screening/Lecture Hall
3. Faculty Offices
4. Dean's Suite and Art Gallery
5. Restrooms
6. 1200-seat Auditorium

Level Three



1. Theater
2. Drafting & Movement Studios
3. Movement Studios
4. Flex Classrooms
5. Restrooms

Renderings

East Exterior


L. E. Griffith Fine Arts Building
Macbeth
SFASU
SFASU

Enlarged Lobby


Sculpture Courtyard

Flexible Theater

West Exterior along North Street

06 CONSTRUCTION ESTIMATE

Item		Description	Takeoff Qty		Total Unit Cost	Total Amount
001 Level 1 Ren						
1.000		**GEN CONDITIONS**				
1.100		*General Conditions*				
	1	General Conditions	27,166.00	sqft	5.19 /sqft	140,992
		General Conditions				*140,992*
1.710		*Final Cleanup*				
	10	Level 1 Renovation Final Cleanup	27,166.00	sf	0.35 /sf	9,508
		Final Cleanup				*9,508*
		407.490 Labor hours				
		67.92 Equipment hours				
		GEN CONDITIONS				**150,500**
		407.490 Labor hours				
		67.92 Equipment hours				
2.000		**SITEWORK**				
2.012		*Dispose Surplus*				
	10	Dispose Surplus	1,300.00	cuyd	16.17 /cuyd	21,017
		Dispose Surplus				*21,017*
		650.00 Labor hours				
		216.67 Equipment hours				
2.135		*Fencing*				
	10	Chain Link Fence	4,050.00	ls	4.00 /ls	16,200
		Fencing				*16,200*
		SITEWORK				**37,217**
		650.00 Labor hours				
		216.67 Equipment hours				
2.200		**DEMOLITION**				
2.300		*Concrete Remove & Replace*				
	1	Key Note 1 Saw Concrete Wall	35.00	lf	10.00 /lf	350
	5	Remove Slab On Grade	7,000.00	sf	4.00 /sf	28,000
	16	Key Note 1 Remove Concrete Walls	192.00	sqft	18.00 /sqft	3,456
	19	Patch Slab On Grade	7,000.00	sf	6.00 /sf	42,000
		Concrete Remove & Replace				*73,806*
		1,641.333 Labor hours				
		502.67 Equipment hours				
2.441		*Remove Wall*				
	1	Remove Walls	5,870.00	sf	1.30 /sf	7,631
		Remove Wall				*7,631*
		293.50 Labor hours				
		97.833 Equipment hours				
2.820		*Rem Glass & Aluminum*				
	2	Rem. Glass & Aluminum Systems	343.00	SF	2.603 /SF	893

Item		Description	Takeoff Qty		Total Unit Cost	Total Amount
		Rem Glass & Aluminum				*893*
		34.30 Labor hours				
2.871		*Remove HVAC Components*				
	5	Remove Ductwork	27,166.00	sf	1.00 /sf	27,166
		Remove HVAC Components				*27,166*
2.876		*Remove Electrical Components*				
	2	Interior Lighting	27,166.00	ea	0.50 /ea	13,583
		Remove Electrical Components				*13,583*
2.990		*Debris Haul-Off*				
	1	Concrete Waste & Debris Removal	180.00	cy	30.00 /cy	5,400
	1	Walls Waste & Debris Removal	150.00	cy	30.00 /cy	4,500
		Debris Haul-Off				*9,900*
		86.25 Labor hours				
		DEMOLITION				**132,979**
		2,055.383 Labor hours				
		600.50 Equipment hours				
3.000		**CONCRETE**				
3.100		*Concrete Subcontractor*				
	2	Slab On Grade	3,000.00	sqft	6.00 /sqft	18,000
	22	Key Note 01 Concrete Walls & Lintel	192.00	sqft	55.00 /sqft	10,560
		Concrete Subcontractor				*28,560*
		CONCRETE				**28,560**
4.000		**MASONRY**				
4.515		*Masonry Restoration*				
sub		Masonry Restoration Level 1	5,967.00	sqft	2.514 /sqft	15,000
		Masonry Restoration				*15,000*
		MASONRY				**15,000**
5.000		**STEEL**				
5.106		*Misc Steel*				
	5	Folding Partition Support	24.00	LF	75.00 /LF	1,800
	11	Wall Handrails @ Ramp	52.00	LF	40.00 /LF	2,080
		Misc Steel				*3,880*
		27.76 Labor hours				
		STEEL				**3,880**
		27.76 Labor hours				
6.000		**WOOD & PLASTICS**				
6.100		*Rough Carpentry*				
	1	Blocking	8.00	mbf	1,910.00 /mbf	15,280

Item		Description	Takeoff Qty		Total Unit Cost		Total Amount
		Rough Carpentry					*15,280*
		520.00 Labor hours					
		128.00 Equipment hours					
6.502		*Millwork*					
	5	Solid Surface Tops & Supports	60.00	sf	150.00	/sf	9,000
		Millwork					*9,000*
		WOOD & PLASTICS					**24,280**
		520.00 Labor hours					
		128.00 Equipment hours					
7.000		**THERMAL-MOIST PR**					
7.170		*Building Vapor Barrier*					
	8	Masonry Sealers	5,967.00	sqft	0.91	/sqft	5,430
		Building Vapor Barrier					*5,430*
7.241		*Penetration Firestopping & Fire Resistive Joint Systems*					
	10	Firestopping	27,166.00	sqft	0.10	/sqft	2,717
		Penetration Firestopping & Fire Resistive Joint Systems					*2,717*
		THERMAL-MOIST PR					**8,147**
8.000		**DOORS & WINDOWS**					
8.111		*Hollow Metal Doors & Frames*					
	1	Hollow Metal Doors Prop Storage Rooms	10.00	each	303.00	/each	3,030
	2	Hollow Metal Frames Prop Storage Rooms	32.00	each	203.00	/each	6,496
		Hollow Metal Doors & Frames					*9,526*
		126.000 Labor hours					
8.140		*Flush Wood Doors*					
	2	Flush Wood Doors	22.00	ea	303.00	/ea	6,666
		Flush Wood Doors					*6,666*
		66.000 Labor hours					
8.149		*Overhead Coiling Doors*					
	1	Coiling Doors	1.00	ea	3,000.00	/ea	3,000
		Overhead Coiling Doors					*3,000*
8.305		*Access Doors & Frames*					
	02	Access Doors	7.00	each	202.00	/each	1,414
		Access Doors & Frames					*1,414*
		14.00 Labor hours					
8.710		*Door Hardware*					
	1	Finish Hardware	32.00	leaf	819.00	/leaf	26,208
		Door Hardware					*26,208*
		128.00 Labor hours					
8.810		*Glazed Aluminum Curtain Walls*					
	7	Glass Glazing & Aluminum	343.00	sf	40.00	/sf	13,720
		Glazed Aluminum Curtain Walls					*13,720*
		DOORS & WINDOWS					**60,534**
		334.000 Labor hours					

Item		Description	Takeoff Qty		Total Unit Cost		Total Amount
9.000		**FINISHES**					
9.130		*Acoustical Panel Ceilings*					
	1	Acoustical Ceilings	9,215.00	sqft	2.80	/sqft	25,802
		Acoustical Panel Ceilings					*25,802*
9.300		*Ceramic Tile*					
	1	Ceramic Tile @ Toilet Floors	756.00	sqft	10.00	/sqft	7,560
	1	Ceramic Tile @ Toilet Walls 9'	2,286.00	sqft	10.00	/sqft	22,860
		Ceramic Tile					*30,420*
9.330		*Drywall Systems*					
	1	New Drywall Partitions	5,870.00	sf	5.00	/sf	29,350
		Drywall Systems					*29,350*
9.860		*Resilient Tile/Carpet*					
	3	Resilient Base @ Prop Storage	862.00	lf	1.50	/lf	1,293
	3	Resilient Base @ LVT	1,875.00	lf	1.50	/lf	2,813
	5	Rubber Treads & Risers	150.00	sqft	15.00	/sqft	2,250
	10	Luxury Vinyl Tile	9,215.00	sqft	4.50	/sqft	41,468
		Resilient Tile/Carpet					*47,823*
9.901		*Concrete Floor Sealing*					
	10	Seal Concrete Floor @ Prop Storage	8,915.00	sqft	2.50	/sqft	22,288
		Concrete Floor Sealing					*22,288*
		222.88 Labor hours					
9.940		*Painting*					
	04	Paint Concrete Walls & Ceiling	17,525.00	sf	1.753	/sf	30,721
		Painting					*30,721*
		500.714 Labor hours					
		FINISHES					**186,403**
		723.59 Labor hours					
10.000		**SPECL CONDITIONS**					
10.005		*Visual Display Units*					
	4	Marker & Tackboards	768.00	sf	15.00	/sf	11,520
		Visual Display Units					*11,520*
10.160		*Toilet Compartments*					
	1	Solid Plastic Part.	10.00	ea	865.00	/ea	8,650
		Toilet Compartments					*8,650*
		55.000 Labor hours					
10.430		*Signage*					
	1	Graphics & Signage Allowance	27,166.00	sqft	0.85	/sqft	22,965
		Signage					*22,965*
10.435		*Room Signage*					
	10	Room Signage & Way Finding	32.00	ea	75.00	/ea	2,400
		Room Signage					*2,400*
		64.00 Labor hours					
10.523		*F.E. & Cabinets*					
	20	Fire Ext. & Cabinets (Recessed)	6.00	each	325.00	/each	1,950

Item		Description	Takeoff Qty		Total Unit Cost		Total Amount
		F.E. & Cabinets					*1,950*
		26.250 Labor hours					
10.605		*Mesh Partitions*					
	10	Mesh Partitions	100.00	sqft	15.00	/sqft	1,500
		Mesh Partitions					*1,500*
		2.00 Labor hours					
10.652		*Operable Panel Partitions*					
	10	Operable Panel Partitions	240.00	sqft	50.00	/sqft	12,000
		Operable Panel Partitions					*12,000*
10.675		*Lockers*					
	04	Lockers	82.00	ea	350.00	/ea	28,700
		Lockers					*28,700*
10.810		*Toilet, Bath & Laundry Accessories*					
	10	LS Toilet Access	60.00	each	110.00	/each	6,600
		Toilet, Bath & Laundry Accessories					*6,600*
		112.500 Labor hours					
		SPECL CONDITIONS					**96,285**
		259.750 Labor hours					
13.000		**SPECIAL CONST**					
13.001		*Scaffolding*					
sub		Perimeter Building Scaffolding	5,967.00	sqft	5.00	/sqft	29,835
		Scaffolding					*29,835*
		SPECIAL CONST					**29,835**
14.000		**CONVEYING SYSTEM**					
14.200		*Elevators*					
	1	Elevators Renovations to Existing	1.00	sub	50,000.00	/sub	50,000
		Elevators					*50,000*
		CONVEYING SYSTEM					**50,000**
15.000		**MECHANICAL**					
15.001		*Plumbing*					
sub		Plumbing	30.00	fixt	4,154.52	/fixt	124,635
		Plumbing					*124,635*
15.010		*HVAC*					
sub		New HVAC Duct Work in Level 1	27,166.00	sqft	5.81	/sqft	157,722
		HVAC					*157,722*
15.750		*Fire Protection System*					
sub		Fire Pump	1.00	ls	20,756.51	/ls	20,757
sub		Water Surge Tanks	1.00	sub	25,945.66	/sub	25,946
sub		Fire Protection System	27,166.00	sqft	2.08	/sqft	56,431
		Fire Protection System					*103,133*
15.990		*Testing & Balance*					
sub		Testing & Balance	27,166.00	sqft	0.76	/sqft	20,654

Item		Description	Takeoff Qty		Total Unit Cost	Total Amount
		Testing & Balance				*20,654*
		MECHANICAL				**406,145**
16.000		**ELECTRICAL**				
16.001		*Electrical*				
	003	Electrical Service & Distribution	27,166.00	sqft	3.274 /sqft	88,930
	004	Branch Wiring	27,166.00	sqft	3.274 /sqft	88,930
	005	Lighting	27,166.00	sqft	6.55 /sqft	177,859
		Electrical				*355,719*
		ELECTRICAL				**355,719**
17.000		**TECHNOLOGY SYSTEMS**				
17.003		*Security System*				
	1	Closed Circuit Security System	27,166.00	sqft	1.01 /sqft	27,347
	2	Intrusion & Panic Alarm System	27,166.00	sqft	0.503 /sqft	13,674
		Security System				*41,021*
		54,332.00 Labor hours				
17.007		*Data & Phone System*				
	9	Data & Phone System	27,166.00	sf	1.01 /sf	27,347
		Data & Phone System				*27,347*
17.008		*Fire Alarm System*				
	1	Fire Alarm Systems	27,166.00	ls	2.52 /ls	68,369
		Fire Alarm System				*68,369*
17.010		*Access Controls*				
	1	Access Control Station	27,166.00	sqft	1.01 /sqft	27,347
		Access Controls				*27,347*
		TECHNOLOGY SYSTEMS				**164,085**
		54,332.00 Labor hours				
		001 Level 1 Ren			***64.403/sqft***	***1,749,568***
		27,166.00 sqft				
		59,309.970 Labor hours				
		1,013.082 Equipment hours				

Item		Description	Takeoff Qty		Total Unit Cost	Total Amount
002 Level 1 Add						
1.000		**GEN CONDITIONS**				
1.100		*General Conditions*				
	1	General Conditions	15,355.00	sqft	5.19 /sqft	79,692
		General Conditions				*79,692*
1.710		*Final Cleanup*				
	10	Level 1 Addition Final Cleanup	15,355.00	sf	0.35 /sf	5,374
		Final Cleanup				*5,374*
		230.33 Labor hours				
		38.39 Equipment hours				
		GEN CONDITIONS				**85,067**
		230.33 Labor hours				
		38.39 Equipment hours				
2.000		**SITEWORK**				
2.001		*Sitework*				
	3	Building Pad Preparation	3,325.00	cy	20.00 /cy	66,500
	14	Site Cut For Level 1 Foundation	9,000.00	cy	3.79 /cy	34,094
		Sitework				*100,594*
2.105		*Landscape & SubSurface Drainage*				
	8	French Drain Systems	777.00	lf	50.00 /lf	38,850
		Landscape & SubSurface Drainage				*38,850*
2.115		*Termite Control*				
	sub	Soil Poisioning	18,000.00	sqft	0.14 /sqft	2,520
		Termite Control				*2,520*
		SITEWORK				**141,964**
3.000		**CONCRETE**				
3.100		*Concrete Subcontractor*				
	1	Perimeter Grade Beams	2,940.00	sqft	32.00 /sqft	94,080
	1	Elevator Pit Beams	455.00	sqft	32.00 /sqft	14,560
	2	Slab On Grade	15,355.00	sqft	4.20 /sqft	64,491
	3	Interior Grade Beams	622.00	sqft	16.00 /sqft	9,952
	5	Drilled Piers	246.00	cuyd	350.00 /cuyd	86,100
	6	Pier caps & Plinths	23.00	cuyd	350.00 /cuyd	8,050
	6	Elevator Footings	15.00	cuyd	350.00 /cuyd	5,250
	13	Below Grade & Basement Walls	3,926.00	sf	32.00 /sf	125,632
	30	Fill and Finish Pan Stairs	888.00	sqft	10.00 /sqft	8,880
		Concrete Subcontractor				*416,995*
		CONCRETE				**416,995**
4.000		**MASONRY**				
4.100		*Masonry*				
	1	Concrete Masonry Units Elevator & Stair Wells 1st to 2nd Levels	5,158.00	ea	9.50 /ea	49,001

Item		Description	Takeoff Qty		Total Unit Cost	Total Amount
4.100		*Masonry*				
	1	Concrete Masonry Units @ Ext Screen Wall	157.00	ea	9.50 /ea	1,492
	4	Stone Work	3,200.00	sf	35.00 /sf	112,000
	4	Interior Lime Stone Work	559.00	sf	40.00 /sf	22,360
	4	Lime Stone Veneer @ Screen Wall	286.00	sf	35.00 /sf	10,010
		Masonry				*194,863*
		MASONRY				**194,863**
5.000		**STEEL**				
5.105		*Structural Steel*				
	1	Columns Level 1 to Level 2	2.00	tons	3,350.00 /tons	6,700
	6	Steel Stairs Level 1 to Level 2	888.00	sqft	140.00 /sqft	124,320
		Structural Steel				*131,020*
5.106		*Misc Steel*				
	11	Wall Handrails	120.00	LF	40.00 /LF	4,800
	11	Stair Guardrails	100.00	LF	80.00 /LF	8,000
	21	Elevator Pit Ladders	15.00	lf	50.00 /lf	750
		Misc Steel				*13,550*
		70.42 Labor hours				
5.506		*Ornamental Metal Stairs*				
	2	Ornamental Metal Stairs	438.00	sqft	200.00 /sqft	87,600
		Ornamental Metal Stairs				*87,600*
5.705		*Glazed Decorative Metal Railings*				
	1	Ornamental Rail Systems	80.00	lf	400.00 /lf	32,000
		Glazed Decorative Metal Railings				*32,000*
5.805		*Expansion Jnt Assemblies*				
	10	Expansion Joint Assemblies	220.00	lnft	20.10 /lnft	4,422
		Expansion Jnt Assemblies				*4,422*
		62.86 Labor hours				
		STEEL				**268,592**
		133.273 Labor hours				
6.000		**WOOD & PLASTICS**				
6.100		*Rough Carpentry*				
	1	Blocking	5.00	mbf	1,910.00 /mbf	9,550
		Rough Carpentry				*9,550*
		325.00 Labor hours				
		80.00 Equipment hours				
6.502		*Millwork*				
	1	Base Cabinet w/ Solid Surface	122.00	sqft	175.00 /sqft	21,350
	5	Solid Surface Vanity Tops W/ Supports	60.00	sf	150.00 /sf	9,000
		Millwork				*30,350*
		WOOD & PLASTICS				**39,900**
		325.00 Labor hours				
		80.00 Equipment hours				
7.000		**THERMAL-MOIST PR**				
7.170		*Building Vapor Barrier*				
	7	Waterproofing	4,676.00	sqft	6.00 /sqft	28,056

Item		Description	Takeoff Qty		Total Unit Cost	Total Amount
7.170		*Building Vapor Barrier*				
	8	Masonry Sealers	3,486.00	sqft	0.91 /sqft	3,172
	10	Building Caulking	350.00	lnft	5.00 /lnft	1,750
	11	Fluid Applied Membrane Air Barriers & Testing	3,486.00	sqft	5.80 /sqft	20,220
		Building Vapor Barrier				*53,198*
7.240		*Applied Fireproofing*				
	5	Spray-On Fireproofing	15,355.00	sqft	1.82 /sqft	27,946
		Applied Fireproofing				*27,946*
7.241		*Penetration Firestopping & Fire Resistive Joint Systems*				
	10	Firestopping	15,355.00	sqft	0.10 /sqft	1,536
		Penetration Firestopping & Fire Resistive Joint Systems				*1,536*
		THERMAL-MOIST PR				**82,680**
8.000		**DOORS & WINDOWS**				
8.111		*Hollow Metal Doors & Frames*				
	2	Hollow Metal Frames	13.00	each	203.00 /each	2,639
		Hollow Metal Doors & Frames				*2,639*
		39.000 Labor hours				
8.140		*Flush Wood Doors*				
	10	Flush Wood Doors	13.00	each	303.00 /each	3,939
		Flush Wood Doors				*3,939*
		39.000 Labor hours				
8.150		*Sound Control Door Assemblies*				
	06	Acoustical Doors and Frames	12.00	leaf	4,500.00 /leaf	54,000
		Sound Control Door Assemblies				*54,000*
8.305		*Access Doors & Frames*				
	02	Access Doors	4.00	each	202.00 /each	808
		Access Doors & Frames				*808*
		8.00 Labor hours				
8.710		*Door Hardware*				
	1	Finish Hardware	13.00	leaf	819.00 /leaf	10,647
		Door Hardware				*10,647*
		52.00 Labor hours				
8.810		*Glazed Aluminum Curtain Walls*				
	5	Glazed Aluminum Curtain Wall System Level 1 to Level 2	1,079.00	sf	60.00 /sf	64,740
	6	Hardware For Aluminum Doors	6.00	ea	1,400.00 /ea	8,400
sub		Interior Storefront Acoustic	500.00	sf	60.00 /sf	30,000
		Glazed Aluminum Curtain Walls				*103,140*
		DOORS & WINDOWS				**175,173**
		138.000 Labor hours				
9.000		**FINISHES**				
9.130		*Acoustical Panel Ceilings*				
	1	Acoustical Ceilings	7,323.00	sf	2.79 /sf	20,392
	1	Acoustical Ceilings In Sound Labs	5,100.00	ls	5.00 /ls	25,500

Item		Description	Takeoff Qty		Total Unit Cost	Total Amount
		Acoustical Panel Ceilings				*45,892*
9.300		*Ceramic Tile*				
	1	Porcelain Tile @ RR Walls 10'	2,230.00	sqft	10.82 /sqft	24,121
	1	Porcelain Tile @ Stairs	620.00	sqft	15.452 /sqft	9,580
sub		Ceramic Floor Tile In RR	774.00	ls	10.82 /ls	8,372
		Ceramic Tile				*42,073*
9.304		*Terrazzo Floor*				
	10	Terrazzo Flooring	3,145.00	sqft	16.00 /sqft	50,320
		Terrazzo Floor				*50,320*
9.330		*Drywall Systems*				
	1	Drywall Interior Walls	4,548.00	sf	5.00 /sf	22,740
	1	Drywall Interior Acoustic Walls	6,695.00	sf	8.00 /sf	53,560
	1	Drywall Furr Out Wall to Existing	3,627.00	sf	4.00 /sf	14,508
	1	Drywall FurrDown @ 2nd Floor	620.00	sf	8.00 /sf	4,960
	3	Acoustical Wall Panels	3,500.00	sqft	8.50 /sqft	29,750
	13	FRP Wall Panels @ Janitor Rooms	1,200.00	sqft	3.49 /sqft	4,186
		Drywall Systems				*129,704*
9.860		*Resilient Tile/Carpet*				
	3	Resilient Base	1,960.00	lf	1.50 /lf	2,940
	5	Rubber Treads & Risers	888.00	sqft	15.00 /sqft	13,320
	8	Carpet Tile @ Sound Studio	566.89	sy	52.00 /sy	29,478
	10	Luxury Vinyl Tile	3,541.00	sqft	5.00 /sqft	17,705
		Resilient Tile/Carpet				*63,443*
9.901		*Concrete Floor Sealing*				
	10	Seal Concrete Floor	1,300.00	sqft	2.50 /sqft	3,250
		Concrete Floor Sealing				*3,250*
		32.50 Labor hours				
9.940		*Painting*				
	02	Paint Int Gyp Walls	30,000.00	sub	1.542 /sub	46,259
		Painting				*46,259*
		FINISHES				**380,941**
		32.50 Labor hours				
10.000		**SPECL CONDITIONS**				
10.005		*Visual Display Units*				
	4	Visual Display Units	448.00	sf	15.00 /sf	6,720
		Visual Display Units				*6,720*
10.160		*Toilet Compartments*				
	1	Solid Plastic Part.	10.00	ea	865.00 /ea	8,650
		Toilet Compartments				*8,650*
		55.000 Labor hours				
10.200		*Louvers & Vents*				
	10	Vents & Louvers (Metal)	3.00	each	500.00 /each	1,500
		Louvers & Vents				*1,500*
		7.50 Labor hours				
10.270		*Computer Access Flooring*				
sub		Computer Floors	3,600.00	sqft	20.00 /sqft	72,000
		Computer Access Flooring				*72,000*
10.430		*Signage*				
	1	Graphics & Signage Allowance	15,355.00	sqft	0.85 /sqft	12,980

Item		Description	Takeoff Qty		Total Unit Cost		Total Amount
		Signage					*12,980*
10.435		*Room Signage*					
	10	Room Signage & Way Finding	13.00	ea	75.00	/ea	975
		Room Signage					*975*
		26.00 Labor hours					
10.523		*F.E. & Cabinets*					
	20	Fire Ext. Cabinets (Recessed)	4.00	each	325.00	/each	1,300
		F.E. & Cabinets					*1,300*
		17.500 Labor hours					
10.810		*Toilet, Bath & Laundry Accessories*					
	10	LS Toilet Access	60.00	each	110.00	/each	6,600
		Toilet, Bath & Laundry Accessories					*6,600*
		112.500 Labor hours					
		SPECL CONDITIONS					**110,725**
		218.500 Labor hours					
11.000		**EQUIPMENT**					
11.035		*Audio Visual System*					
	10	Recording Studio Control Booth AV Presentation	1.00	ls	12,000.00	/ls	12,000
	10	Recording Studio Control Booth Production Intercom	1.00	ls	15,000.00	/ls	15,000
	10	Recording Studio Control Booth Microphones	1.00	ls	50,000.00	/ls	50,000
	10	Recording Studio Control Booth Audio Recording System	1.00	ls	200,000.00	/ls	200,000
	10	Editing Class Room AV Presentation	1.00	ls	25,000.00	/ls	25,000
	10	Editing Class Room Student Work Stations	15.00	ea	8,000.00	/ea	120,000
	10	Recording Studio Project Room AV Presentation	1.00	ls	12,000.00	/ls	12,000
	10	Recording Studio Project Room Microphones	1.00	ls	20,000.00	/ls	20,000
	10	Recording Studio Project Room Audio System	1.00	ls	100,000.00	/ls	100,000
		Audio Visual System					*554,000*
11.036		*Fireman's Key Box (Knox Box)*					
	1	Fireman's Key Box	1.00	ea	933.00	/ea	933
		Fireman's Key Box (Knox Box)					*933*
		EQUIPMENT					**554,933**
12.000		**FURNISHINGS**					
12.510		*Mecho Shades*					
	1	Mecho Shades	500.00	sf	20.333	/sf	10,167
		Mecho Shades					*10,167*
		FURNISHINGS					**10,167**
13.000		**SPECIAL CONST**					
13.001		*Scaffolding*					
	sub	Perimeter Building Scaffolding	3,200.00	sqft	5.00	/sqft	16,000
	sub	Scaffolding @ Lobby	2,808.00	sqft	5.00	/sqft	14,040
		Scaffolding					*30,040*
		SPECIAL CONST					**30,040**

Item		Description	Takeoff Qty		Total Unit Cost	Total Amount
14.000		**CONVEYING SYSTEM**				
14.200		*Elevators*				
sub		Elevators	2.00	ea	132,095.00 /ea	264,190
		Elevators				*264,190*
		CONVEYING SYSTEM				**264,190**
15.000		**MECHANICAL**				
15.001		*Plumbing*				
sub		Plumbing	18.00	fixt	4,154.52 /fixt	74,781
		Plumbing				*74,781*
15.010		*HVAC*				
sub		HVAC	15,355.00	sqft	40.641 /sqft	624,044
		HVAC				*624,044*
15.750		*Fire Protection System*				
sub		Fire Protection System	15,355.00	sf	2.60 /sf	39,870
		Fire Protection System				*39,870*
15.990		*Testing & Balance*				
sub		Testing & Balance	15,355.00	sqft	0.76 /sqft	11,669
		Testing & Balance				*11,669*
		MECHANICAL				**750,365**
16.000		**ELECTRICAL**				
16.001		*Electrical*				
	03	Electrical Service & Distribution	15,355.00	sqft	4.17 /sqft	64,033
	004	Branch Wiring	15,355.00	sqft	8.34 /sqft	128,066
	005	Lighting	15,355.00	sqft	6.55 /sqft	100,531
		Electrical				*292,631*
		ELECTRICAL				**292,631**
17.000		**TECHNOLOGY SYSTEMS**				
17.003		*Security System*				
	1	Closed Circuit Security System	15,355.00	sqft	2.013 /sqft	30,915
	2	Intrusion & Panic Alarm System	15,355.00	sqft	0.503 /sqft	7,729
		Security System				*38,644*
		30,710.00 Labor hours				
17.007		*Data & Phone System*				
	9	Data & Phone System	15,355.00	sf	4.03 /sf	61,830
		Data & Phone System				*61,830*
17.008		*Fire Alarm System*				
	1	Fire Alarm Systems	15,355.00	ls	4.03 /ls	61,828
		Fire Alarm System				*61,828*
17.010		*Access Controls*				
	1	Access Control Station	15,355.00	sqft	1.01 /sqft	15,458

Item	Description	Takeoff Qty	Total Unit Cost	Total Amount
	Access Controls			*15,458*
	TECHNOLOGY SYSTEMS			**177,760**
	30,710.00 Labor hours			
	002 Level 1 Add		***259.003/sqft***	***3,976,985***
	15,355.00 sqft			
	31,787.60 Labor hours			
	118.39 Equipment hours			

Item		Description	Takeoff Qty		Total Unit Cost	Total Amount
003 Level 2 Ren						
1.000		**GEN CONDITIONS**				
1.100		*General Conditions*				
	1	General Conditions	26,208.00	sqft	5.19 /sqft	136,020
		General Conditions				*136,020*
1.710		*Final Cleanup*				
	10	Level 2 Renovation Final Cleanup	26,208.00	sf	0.35 /sf	9,173
		Final Cleanup				*9,173*
		393.120 Labor hours				
		65.52 Equipment hours				
		GEN CONDITIONS				**145,192**
		393.120 Labor hours				
		65.52 Equipment hours				
2.200		**DEMOLITION**				
2.300		*Concrete Remove & Replace*				
	1	Saw Concrete	130.00	lf	20.00 /lf	2,600
	4	Remove Suspended Precast Tees & Slabs	500.00	sf	10.00 /sf	5,000
	4	Remove Suspended Precast Tees & Slabs @ Lobby	775.00	sf	10.00 /sf	7,750
	10	Saw Concrete	130.00	lnft	20.00 /lnft	2,600
		Concrete Remove & Replace				*17,950*
		229.833 Labor hours				
		83.833 Equipment hours				
2.410		*Masonry*				
	2	Remove & Replace Masonry For Opening By Hand	200.00	sf	50.00 /sf	10,000
		Masonry				*10,000*
		16.67 Labor hours				
		8.333 Equipment hours				
2.441		*Remove Wall*				
	1	Remove Walls	13,080.00	sf	1.30 /sf	17,004
		Remove Wall				*17,004*
		654.00 Labor hours				
		218.00 Equipment hours				
2.820		*Rem Glass & Aluminum*				
	2	Rem. Glass & Aluminum Systems	784.00	SF	2.60 /SF	2,038
		Rem Glass & Aluminum				*2,038*
		78.40 Labor hours				
2.871		*Remove HVAC Components*				
	5	Remove Ductwork	26,208.00	sf	1.00 /sf	26,208
		Remove HVAC Components				*26,208*
2.874		*Furnishings*				
	10	Remove Seats	618.00	each	39.00 /each	24,102

Item		Description	Takeoff Qty		Total Unit Cost	Total Amount
		Furnishings				*24,102*
		618.00 Labor hours				
		618.00 Equipment hours				
2.876		*Remove Electrical Components*				
	2	Remove Electrical Components	26,208.00	ea	0.50 /ea	13,104
		Remove Electrical Components				*13,104*
2.900		*Remove Flooring*				
	1	Remove Flooring	26,208.00	sf	0.74 /sf	19,306
		Remove Flooring				*19,306*
		728.00 Labor hours				
2.944		*Remove Ceiling*				
	8	Remove Ceiling Finishes	26,208.00	sqft	1.00 /sqft	26,208
		Remove Ceiling				*26,208*
		218.40 Labor hours				
2.950		*Temporary Shoring*				
	1	Temporary Shoring @ Concrete Tees	100.00	lnft	76.00 /lnft	7,600
		Temporary Shoring				*7,600*
		200.00 Labor hours				
2.990		*Debris Haul-Off*				
	1	Waste & Debris Removal	180.00	cy	30.00 /cy	5,400
	1	Waste & Debris Removal From Concrete Floor Removal	30.00	cy	30.00 /cy	900
		Debris Haul-Off				*6,300*
		42.00 Labor hours				
		DEMOLITION				**169,820**
		2,785.30 Labor hours				
		928.17 Equipment hours				
3.000		**CONCRETE**				
3.100		*Concrete Subcontractor*				
	14	Structural Slabs & Steps @ Handicapped Lift	500.00	sf	25.00 /sf	12,500
	14	Structural Slabs @ Lobby	775.00	sf	20.00 /sf	15,500
		Concrete Subcontractor				*28,000*
		CONCRETE				**28,000**
4.000		**MASONRY**				
4.100		*Masonry*				
	1	Concrete Masonry Units @ Handicapped Lift	250.00	ea	10.00 /ea	2,500
		Masonry				*2,500*
4.515		*Masonry Restoration*				
sub		Masonry Restoration Level 2	6,000.00	sqft	2.50 /sqft	15,000
		Masonry Restoration				*15,000*
		MASONRY				**17,500**
5.000		**STEEL**				
5.105		*Structural Steel*				
	1	Floor Support Steel	3.00	tons	5,500.00 /tons	16,500
	3	Floor Support Steel	5.00	tons	5,500.00 /tons	27,500

Item		Description	Takeoff Qty		Total Unit Cost	Total Amount
		Structural Steel				*44,000*
5.106		*Misc Steel*				
	11	Handrails & Guardrails	105.00	LF	60.00 /LF	6,300
	11	Replace Guardrail @ Stair to Mech Area	50.00	LF	100.00 /LF	5,000
		Misc Steel				*11,300*
		46.97 Labor hours				
		STEEL				**55,300**
		46.97 Labor hours				
6.000		**WOOD & PLASTICS**				
6.100		*Rough Carpentry*				
	1	Blocking	8.00	mbf	1,910.00 /mbf	15,280
	22	Floor Framing @ New Stage Ramp	160.00	sqft	12.00 /sqft	1,920
		Rough Carpentry				*17,200*
		520.00 Labor hours				
		128.00 Equipment hours				
6.101		*Interior Finish Carpentry*				
	2	Finish Carpentry In Theaters	9,000.00	sqft	6.50 /sqft	58,500
		Interior Finish Carpentry				*58,500*
		9,000.00 Labor hours				
6.502		*Millwork*				
	1	Base Cabinet w/ Solid Surface	300.00	sqft	175.00 /sqft	52,500
	5	Solid Surface Tops	60.00	sf	150.00 /sf	9,000
		Millwork				*61,500*
		WOOD & PLASTICS				**137,200**
		9,520.00 Labor hours				
		128.00 Equipment hours				
7.000		**THERMAL-MOIST PR**				
7.100		*PVC Single Ply Roofing*				
	3	Better Drainage for Roof Over Existing North Entrance	1.00	ls	7,500.00 /ls	7,500
		PVC Single Ply Roofing				*7,500*
7.170		*Building Vapor Barrier*				
	8	Masonry Sealers	6,000.00	sqft	0.91 /sqft	5,460
		Building Vapor Barrier				*5,460*
7.241		*Penetration Firestopping & Fire Resistive Joint Systems*				
	10	Firestopping	26,208.00	sqft	0.10 /sqft	2,621
		Penetration Firestopping & Fire Resistive Joint Systems				*2,621*
		THERMAL-MOIST PR				**15,581**
8.000		**DOORS & WINDOWS**				
8.111		*Hollow Metal Doors & Frames*				
	2	Hollow Metal Frames	52.00	each	203.00 /each	10,556

Item		Description	Takeoff Qty		Total Unit Cost		Total Amount
		Hollow Metal Doors & Frames					*10,556*
		156.000 Labor hours					
8.140		*Flush Wood Doors*					
	10	Flush Wood Doors	52.00	each	303.00	/each	15,756
		Flush Wood Doors					*15,756*
		156.000 Labor hours					
8.149		*Overhead Coiling Doors*					
	3	Coiling Doors	2.00	ea	3,000.00	/ea	6,000
		Overhead Coiling Doors					*6,000*
8.150		*Sound Control Door Assemblies*					
	06	Acoustical Access Stage Doors and Frames	2.00	leaf	17,500.00	/leaf	35,000
	06	Acoustical Doors and Frames	3.00	leaf	4,500.00	/leaf	13,500
		Sound Control Door Assemblies					*48,500*
8.305		*Access Doors & Frames*					
	02	Access Doors	7.00	each	202.00	/each	1,414
		Access Doors & Frames					*1,414*
		14.00 Labor hours					
8.710		*Door Hardware*					
	1	Finish Hardware	52.00	leaf	819.00	/leaf	42,588
		Door Hardware					*42,588*
		208.00 Labor hours					
8.810		*Glazed Aluminum Curtain Walls*					
	7	Glass Glazing & Aluminum	784.00	sf	40.00	/sf	31,360
	10	Interior Storefront Systems	1,225.00	sqft	30.00	/sqft	36,750
		Glazed Aluminum Curtain Walls					*68,110*
		DOORS & WINDOWS					**192,924**
		534.000 Labor hours					
9.000		**FINISHES**					
9.002		*General Enhancement of The Lobby*					
	2	General Enhancement of The Lobby	1,720.00	sqft	23.26	/sqft	40,000
		General Enhancement of The Lobby					*40,000*
9.130		*Acoustical Panel Ceilings*					
	1	Acoustical Ceilings	18,500.00	sqft	2.80	/sqft	51,800
		Acoustical Panel Ceilings					*51,800*
9.300		*Ceramic Tile*					
	1	Ceramic Tile @ Toilet Floors	637.00	sqft	10.82	/sqft	6,890
	1	Porcelain Tile @ RR Walls 10'	1,950.00	sqft	10.82	/sqft	21,099
		Ceramic Tile					*27,989*
9.304		*Terrazzo Floor*					
	10	Terrazzo Flooring	100.00	sqft	16.00	/sqft	1,600
		Terrazzo Floor					*1,600*
9.330		*Drywall Systems*					
	1	Drywall Interior Walls	10,500.00	sf	5.00	/sf	52,500
	15	Acoustical Wall Panels	1,250.00	sf	8.50	/sf	10,625
		Drywall Systems					*63,125*
9.710		*Wood Flooring*					
sub		Wood Flooring @ Stage	4,112.00	sqft	10.00	/sqft	41,120

Item		Description	Takeoff Qty		Total Unit Cost		Total Amount
		Wood Flooring					*41,120*
9.860		*Resilient Tile/Carpet*					
	1	Carpet & Luxury Vinyl Tile	20,700.00	sqft	5.50	/sqft	113,850
	1	Carpet & Luxury Vinyl Tile	13,300.00	sqft	5.50	/sqft	73,150
	3	Resilient Base & Accessories	4,200.00	lf	1.50	/lf	6,300
	5	Rubber Treads & Risers	300.00	sqft	15.00	/sqft	4,500
		Resilient Tile/Carpet					*197,800*
9.940		*Painting*					
	02	Paint,Caulk,Vinyl Wall Cover	54,600.00	sub	1.42	/sub	77,336
		Painting					*77,336*
		FINISHES					**500,770**
10.000		**SPECL CONDITIONS**					
10.005		*Visual Display Units*					
	4	Marker & Tackboards	768.00	sf	15.00	/sf	11,520
		Visual Display Units					*11,520*
10.160		*Toilet Compartments*					
	40	Toilet Partitions (Solid Plastic)	7.00	ea	865.00	/ea	6,055
		Toilet Compartments					*6,055*
		38.500 Labor hours					
		12.60 Equipment hours					
10.430		*Signage*					
	1	Graphics & Signage Allowance	26,208.00	sqft	0.85	/sqft	22,155
		Signage					*22,155*
10.435		*Room Signage*					
	10	Room Signage & Way Finding	52.00	ea	75.00	/ea	3,900
		Room Signage					*3,900*
		104.00 Labor hours					
10.523		*F.E. & Cabinets*					
	20	Fire Ext. Cabinets (Recessed)	6.00	each	325.00	/each	1,950
		F.E. & Cabinets					*1,950*
		26.250 Labor hours					
10.810		*Toilet, Bath & Laundry Accessories*					
	10	LS Toilet Access	42.00	each	110.00	/each	4,620
		Toilet, Bath & Laundry Accessories					*4,620*
		78.750 Labor hours					
		SPECL CONDITIONS					**50,200**
		247.500 Labor hours					
		12.60 Equipment hours					
11.000		**EQUIPMENT**					
11.025		*Food Service Equipment*					
sub		Food Service Equipment	1.00	sub	20,000.00	/sub	20,000
		Food Service Equipment					*20,000*
11.027		*Stage Equipment*					
	1	Theatrical Sound System	1.00	ls	115,000.00	/ls	115,000
	2	Stage Dimming & Controls	1.00	ls	5,000.00	/ls	5,000
	3	Theatrical Rigging & Curtains	1.00	ls	750,000.00	/ls	750,000
	6	Demolition Stage Rigging System	1.00	ls	30,000.00	/ls	30,000

Item		Description	Takeoff Qty		Total Unit Cost		Total Amount
11.027		*Stage Equipment*					
	7	Orchestra Lift	1.00	each	250,000.00	/each	250,000
		Stage Equipment					*1,150,000*
11.035		*Audio Visual System*					
	10	Turner Auditorium Audio Reinforcement System	1.00	ls	250,000.00	/ls	250,000
	10	Turner Auditorium AV Presentation System	1.00	ls	125,000.00	/ls	125,000
	10	Turner Aud Video Monitoring	1.00	ls	25,000.00	/ls	25,000
	10	Dean's Conference Room AV Presentation	1.00	ls	6,500.00	/ls	6,500
	10	Back Of House and Lobby AV Presentation	1.00	ls	12,000.00	/ls	12,000
	10	Back Of House and Lobby Video Monitoring	1.00	ls	25,000.00	/ls	25,000
		Audio Visual System					*443,500*
11.452		*Residential Appliances*					
	10	Allowance	10.00	each	1,175.00	/each	11,750
		Residential Appliances					*11,750*
		100.00 Labor hours					
		EQUIPMENT					**1,625,250**
		100.00 Labor hours					
12.000		**FURNISHINGS**					
12.510		*Mecho Shades*					
	1	Mecho Shades	2,587.00	sf	20.00	/sf	51,740
		Mecho Shades					*51,740*
12.720		*Fixed Audience Seating*					
	10	Theater Seats	773.00	ea	184.00	/ea	142,232
		Fixed Audience Seating					*142,232*
		FURNISHINGS					**193,972**
13.000		**SPECIAL CONST**					
13.001		*Scaffolding*					
sub		Perimeter Building Scaffolding	6,000.00	sqft	5.00	/sqft	30,000
		Scaffolding					*30,000*
		SPECIAL CONST					**30,000**
14.000		**CONVEYING SYSTEM**					
14.200		*Elevators*					
	2	Wheel Chair Lifts	1.00	ea	54,500.00	/ea	54,500
		Elevators					*54,500*
		CONVEYING SYSTEM					**54,500**
15.000		**MECHANICAL**					
15.001		*Plumbing*					
sub		Plumbing	25.00	sub	4,154.52	/sub	103,863
		Plumbing					*103,863*
15.010		*HVAC*					
sub		HVAC	26,208.00	sub	23.223	/sub	608,641

Item		Description	Takeoff Qty		Total Unit Cost	Total Amount
		HVAC				*608,641*
15.750		*Fire Protection System*				
sub		Fire Protection System	26,208.00	sub	2.08 /sub	54,441
		Fire Protection System				*54,441*
15.990		*Testing & Balance*				
sub		Testing & Balance	26,208.00	sqft	0.76 /sqft	19,925
		Testing & Balance				*19,925*
		MECHANICAL				**786,870**
16.000		**ELECTRICAL**				
16.001		*Electrical*				
	003	Electrical Service & Distribution	26,208.00	sqft	3.274 /sqft	85,794
	004	Branch Wiring	26,208.00	sqft	3.274 /sqft	85,794
	005	Lighting	26,208.00	sqft	7.613 /sqft	199,532
		Electrical				*371,119*
		ELECTRICAL				**371,119**
17.000		**TECHNOLOGY SYSTEMS**				
17.003		*Security System*				
	1	Closed Circuit Security System	26,208.00	sqft	1.01 /sqft	26,383
	2	Intrusion & Panic Alarm System	26,208.00	sqft	0.503 /sqft	13,192
		Security System				*39,575*
		52,416.00 Labor hours				
17.007		*Data & Phone System*				
	9	Data & Phone System	26,208.00	sf	1.01 /sf	26,383
		Data & Phone System				*26,383*
17.008		*Fire Alarm System*				
	1	Fire Alarm Systems	26,208.00	ls	2.52 /ls	65,958
		Fire Alarm System				*65,958*
17.010		*Access Controls*				
	1	Access Control Station	26,208.00	sqft	1.01 /sqft	26,383
		Access Controls				*26,383*
		TECHNOLOGY SYSTEMS				**158,298**
		52,416.00 Labor hours				
		003 Level 2 Ren			***172.943/sqft***	***4,532,497***
		26,208.00 sqft				
		66,042.89 Labor hours				
		1,134.29 Equipment hours				

Item		Description	Takeoff Qty		Total Unit Cost	Total Amount
004 Level 2 Add						
1.000		**GEN CONDITIONS**				
1.100		*General Conditions*				
	1	General Conditions	31,396.00	sqft	5.19 /sqft	162,945
		General Conditions				*162,945*
1.710		*Final Cleanup*				
	10	Level 2 Addition Final Cleanup	31,396.00	sf	0.35 /sf	10,989
		Final Cleanup				*10,989*
		470.940 Labor hours				
		78.49 Equipment hours				
		GEN CONDITIONS				**173,934**
		470.940 Labor hours				
		78.49 Equipment hours				
2.000		**SITEWORK**				
2.001		*Sitework*				
	3	Building Pad Preparation	3,500.00	cy	20.00 /cy	70,000
		Sitework				*70,000*
2.105		*Landscape & SubSurface Drainage*				
	8	French Drain Systems	478.00	lf	50.00 /lf	23,900
		Landscape & SubSurface Drainage				*23,900*
2.115		*Termite Control*				
sub		Soil Poisioning	18,000.00	sqft	0.14 /sqft	2,520
		Termite Control				*2,520*
		SITEWORK				**96,420**
3.000		**CONCRETE**				
3.100		*Concrete Subcontractor*				
	1	Perimeter Grade Beams	2,008.00	sqft	32.00 /sqft	64,256
	2	Slab On Grade	16,041.00	sqft	4.20 /sqft	67,372
	3	Interior Grade Beams	650.00	sqft	16.00 /sqft	10,400
	4	Composite Slab on Deck	15,355.00	sf	4.25 /sf	65,259
	5	Drilled Piers	257.00	cuyd	350.00 /cuyd	89,950
	6	Pier caps & Plinths	25.00	cuyd	350.00 /cuyd	8,750
	30	Fill and Finish Pan Stairs	575.00	sqft	10.00 /sqft	5,750
		Concrete Subcontractor				*311,737*
		CONCRETE				**311,737**
4.000		**MASONRY**				
4.100		*Masonry*				
	1	Concrete Masonry Units Elevator & Stair Wells 1st to 2nd Levels	5,608.00	ea	9.50 /ea	53,276
	1	Concrete Masonry Units @ Ext Screen Wall	157.00	ea	9.50 /ea	1,492
	2	Modular Brick	29,500.00	ea	2.25 /ea	66,375
	2	Modular Brick @ 10' Parapet	9,030.00	ea	2.25 /ea	20,318

Item		Description	Takeoff Qty		Total Unit Cost		Total Amount
4.100		*Masonry*					
	4	Limestone Masonry Perimeter Wall	1,560.00	sf	35.00	/sf	54,600
	4	Interior Limestone Work Level 2	3,471.00	sf	40.00	/sf	138,840
	4	Stone Work @ Parapet	395.00	sf	35.00	/sf	13,825
	4	Lime Stone Veneer @ Screen Wall	286.00	sf	35.00	/sf	10,010
		Masonry					*358,735*
		MASONRY					**358,735**
5.000		**STEEL**					
5.105		*Structural Steel*					
	1	Columns Level 2 to Level 3	32.00	tons	3,350.00	/tons	107,200
	2	Floor Beams 2nd Floor	64.16	tons	3,350.00	/tons	214,936
	2	Roof Beams Level 2	26.00	tons	3,350.00	/tons	87,100
	2	Roof Beams Level 3 & Balcony Level	67.63	tons	3,350.01	/tons	226,561
	3	Misc. Steel Bracing @ Parapet	2.00	tons	5,500.00	/tons	11,000
	5	Composite Floor Deck	16,041.00	sqft	2.25	/sqft	36,092
	5	Roof Decking Level 2	9,100.00	sqft	2.25	/sqft	20,475
	5	Roof Deck Over Balcony Level	5,937.00	sqft	2.25	/sqft	13,359
	6	Steel Stairs Level 2 to Level 3	904.00	sqft	140.00	/sqft	126,560
		Structural Steel					*843,283*
5.106		*Misc Steel*					
	11	Wall Rails	97.00	LF	40.00	/LF	3,880
	11	Guardrails	100.00	LF	80.00	/LF	8,000
		Misc Steel					*11,880*
		59.70 Labor hours					
5.705		*Glazed Decorative Metal Railings*					
	1	Ornamental Rail Systems	51.00	lnft	400.00	/lnft	20,400
		Glazed Decorative Metal Railings					*20,400*
5.805		*Expansion Jnt Assemblies*					
	10	Expansion Joint Assemblies	220.00	lnft	20.10	/lnft	4,422
		Expansion Jnt Assemblies					*4,422*
		62.86 Labor hours					
		STEEL					**879,985**
		122.553 Labor hours					
6.000		**WOOD & PLASTICS**					
6.100		*Rough Carpentry*					
	1	Blocking	10.00	mbf	1,910.00	/mbf	19,100
	2	Roof Blocking	3.80	mbf	3,050.00	/mbf	11,590
	4	Parapet Sheathing	1,685.00	sf	2.15	/sf	3,623
		Rough Carpentry					*34,313*
		1,026.081 Labor hours					
		255.000 Equipment hours					
6.101		*Interior Finish Carpentry*					
	2	Finish Carpentry In Theaters	5,648.00	sqft	6.50	/sqft	36,712
	7	Wood Display Wall	1,508.00	sqft	25.00	/sqft	37,700
		Interior Finish Carpentry					*74,412*
		5,798.80 Labor hours					
6.502		*Millwork*					
	5	Solid Surface Vanity Tops W/ Supports	80.00	sf	150.00	/sf	12,000

Item		Description	Takeoff Qty		Total Unit Cost		Total Amount
		Millwork					*12,000*
		WOOD & PLASTICS					**120,725**
		6,824.881 Labor hours					
		255.000 Equipment hours					
7.000		**THERMAL-MOIST PR**					
7.100		*PVC Single Ply Roofing*					
	2	PVC Single Ply Roofing	9,100.00	sqft	11.40	/sqft	103,740
		PVC Single Ply Roofing					*103,740*
7.170		*Building Vapor Barrier*					
	8	Masonry Sealers	7,756.00	sqft	0.91	/sqft	7,058
	10	Building Caulking	1,551.20	lnft	5.00	/lnft	7,756
	11	Fluid Applied Membrane Air Barriers & Testing	7,756.00	sqft	5.80	/sqft	44,988
		Building Vapor Barrier					*59,801*
7.240		*Applied Fireproofing*					
	5	Spray-On Fireproofing	31,396.00	sqft	1.82	/sqft	57,141
		Applied Fireproofing					*57,141*
7.241		*Penetration Firestopping & Fire Resistive Joint Systems*					
	10	Firestopping	31,396.00	LS	0.10	/LS	3,140
		Penetration Firestopping & Fire Resistive Joint Systems					*3,140*
7.705		*Roof Accessories (Roof Hatches)*					
	10	Roof Hatch	1.00	each	5,122.00	/each	5,122
		Roof Accessories (Roof Hatches)					*5,122*
		5.00 Labor hours					
		THERMAL-MOIST PR					**228,944**
		5.00 Labor hours					
8.000		**DOORS & WINDOWS**					
8.111		*Hollow Metal Doors & Frames*					
	2	Hollow Metal Frames	41.00	each	203.00	/each	8,323
		Hollow Metal Doors & Frames					*8,323*
		123.000 Labor hours					
8.140		*Flush Wood Doors*					
	10	Flush Wood Doors	41.00	each	303.00	/each	12,423
		Flush Wood Doors					*12,423*
		123.000 Labor hours					
8.305		*Access Doors & Frames*					
	02	Access Doors	8.00	each	202.00	/each	1,616
		Access Doors & Frames					*1,616*
		16.00 Labor hours					
8.710		*Door Hardware*					
	1	Finish Hardware	41.00	leaf	819.00	/leaf	33,579
		Door Hardware					*33,579*
		164.00 Labor hours					
8.810		*Glazed Aluminum Curtain Walls*					
	5	Curtain Wall System	4,524.00	sf	60.00	/sf	271,440
	6	Aluminum Doors & Hardware	6.00	ea	3,200.00	/ea	19,200
	8	Ticket Transaction Window	1.00	ea	3,969.85	/ea	3,970

Item		Description	Takeoff Qty		Total Unit Cost		Total Amount
8.810		*Glazed Aluminum Curtain Walls*					
	10	Interior Storefront Systems	920.00	sqft	30.00	/sqft	27,600
		Glazed Aluminum Curtain Walls					*322,210*
		DOORS & WINDOWS					**378,151**
		426.000 Labor hours					
9.000		**FINISHES**					
9.130		*Acoustical Panel Ceilings*					
	1	Acoustical Ceilings	18,122.00	ls	2.80	/ls	50,742
		Acoustical Panel Ceilings					*50,742*
9.300		*Ceramic Tile*					
	1	Ceramic Floor Tile In RR	1,118.00	sqft	10.82	/sqft	12,097
	1	Porcelain Tile @ RR Walls 10'	3,630.00	sqft	10.82	/sqft	39,277
		Ceramic Tile					*51,374*
9.304		*Terrazzo Floor*					
	10	Terrazzo Flooring	7,163.00	sqft	16.00	/sqft	114,608
		Terrazzo Floor					*114,608*
9.330		*Drywall Systems*					
	1	Drywall Interior Walls	17,745.00	sf	5.00	/sf	88,725
	1	Drywall Ext Wall & Parapet	7,756.00	sf	6.00	/sf	46,536
	1	Drywall Furr Out Wall to Existing	3,627.00	sf	4.00	/sf	14,508
	1	Drywall FurrDown @ 3rd Floor	2,890.00	sf	8.00	/sf	23,120
	15	Acoustical Wall Panels	2,000.00	sf	8.50	/sf	17,000
		Drywall Systems					*189,889*
9.710		*Wood Flooring*					
sub		Wood Flooring	3,992.00	sqft	10.00	/sqft	39,920
		Wood Flooring					*39,920*
9.860		*Resilient Tile/Carpet*					
	1	Carpet & Luxury Vinyl Tile	16,825.00	sqft	5.50	/sqft	92,538
	3	Resilient Base	2,764.00	lf	1.50	/lf	4,146
		Resilient Tile/Carpet					*96,684*
9.861		*Resinous Systems*					
sub		Resilient Poured Floor	840.00	sqft	8.00	/sqft	6,720
		Resinous Systems					*6,720*
9.940		*Painting*					
	02	Paint,Caulk,Vinyl Wall Cover	41,782.00	sub	1.543	/sub	64,454
		Painting					*64,454*
		FINISHES					**614,389**
10.000		**SPECL CONDITIONS**					
10.005		*Visual Display Units*					
	4	Marker & Tackboards	896.00	sf	15.00	/sf	13,440
		Visual Display Units					*13,440*
10.160		*Toilet Compartments*					
	1	Solid Plastic Part.	15.00	ea	838.00	/ea	12,570

Item		Description	Takeoff Qty		Total Unit Cost	Total Amount
		Toilet Compartments				*12,570*
		82.500 Labor hours				
10.430		*Signage*				
	1	Graphics & Signage Allowance	31,396.00	sqft	0.85 /sqft	26,541
		Signage				*26,541*
10.435		*Room Signage*				
	10	Room Signage & Way Finding	41.00	ea	75.00 /ea	3,075
		Room Signage				*3,075*
		82.00 Labor hours				
10.523		*F.E. & Cabinets*				
	20	Fire Ext. Cabinets (Recessed)	7.00	each	325.00 /each	2,275
		F.E. & Cabinets				*2,275*
		30.63 Labor hours				
10.810		*Toilet, Bath & Laundry Accessories*				
	10	LS Toilet Access	90.00	each	110.00 /each	9,900
		Toilet, Bath & Laundry Accessories				*9,900*
		168.750 Labor hours				
		SPECL CONDITIONS				**67,801**
		363.88 Labor hours				
11.000		**EQUIPMENT**				
11.025		*Food Service Equipment*				
sub		Food Service Equipment	1.00	sub	20,000.00 /sub	20,000
		Food Service Equipment				*20,000*
11.027		*Stage Equipment*				
	1	Theatrical Sound System	1.00	ls	115,000.00 /ls	115,000
	2	Theatrical Lighting, Dimming & Controls System	1.00	ls	345,000.00 /ls	345,000
	2	Black Box Theatrical Lighting Dimming & Controls System	1.00	ls	240,000.00 /ls	240,000
	2	Lighting Lab Theatrical Lighting Dimming & Controls System	1.00	ls	110,000.00 /ls	110,000
	3	Theatrical Rigging & Curtains System	1.00	ls	250,000.00 /ls	250,000
	3	Black Box Theatrical Rigging & Curtains	1.00	ls	95,000.00 /ls	95,000
	6	Lighting Lab Stage Rigging & Drapery	1.00	ls	100,000.00 /ls	100,000
		Stage Equipment				*1,255,000*
		EQUIPMENT				**1,275,000**
12.000		**FURNISHINGS**				
12.510		*Mecho Shades*				
	1	Mecho Shades	4,000.00	sf	20.00 /sf	80,000
		Mecho Shades				*80,000*
12.711		*Portable Platform System*				
	1	Portable Platform System By Owner NIC				
12.720		*Fixed Audience Seating*				
	10	Theater Seats @ Flexible Theater	315.00	ea	793.651 /ea	250,000
	10	Loose Seating @ Black Box Theater NIC				
	10	Balcony Theater Seats @ Flexible Theater	79.00	ea	746.84 /ea	59,000

Item		Description	Takeoff Qty		Total Unit Cost	Total Amount
		Fixed Audience Seating				*309,000*
		FURNISHINGS				**389,000**
13.000		**SPECIAL CONST**				
13.001		*Scaffolding*				
sub		Scaffolding @ Lobby	8,151.00	sqft	5.00 /sqft	40,755
sub		Perimeter Building Scaffolding	12,300.00	sqft	5.00 /sqft	61,500
		Scaffolding				*102,255*
		SPECIAL CONST				**102,255**
14.000		**CONVEYING SYSTEM**				
14.200		*Elevators*				
	1	Elevators	1.00	sub	100,000.00 /sub	100,000
		Elevators				*100,000*
		CONVEYING SYSTEM				**100,000**
15.000		**MECHANICAL**				
15.001		*Plumbing*				
sub		Roof Drains	3.00	sub	3,635.20 /sub	10,906
sub		Plumbing	45.00	fixt	4,154.52 /fixt	186,953
		Plumbing				*197,859*
15.010		*HVAC*				
sub		HVAC	31,396.00	sqft	40.641 /sqft	1,275,967
		HVAC				*1,275,967*
15.750		*Fire Protection System*				
sub		Fire Protection System	31,396.00	sub	3.64 /sub	114,131
		Fire Protection System				*114,131*
15.990		*Testing & Balance*				
sub		Testing & Balance	31,396.00	sqft	0.76 /sqft	23,870
		Testing & Balance				*23,870*
		MECHANICAL				**1,611,826**
16.000		**ELECTRICAL**				
16.001		*Electrical*				
	003	Electrical Service & Distribution	31,396.00	sqft	3.274 /sqft	102,777
	004	Branch Wiring	31,396.00	sqft	6.55 /sqft	205,554
	005	Lighting	31,396.00	sqft	8.73 /sqft	274,072
		Electrical				*582,403*
		ELECTRICAL				**582,403**
17.000		**TECHNOLOGY SYSTEMS**				
17.003		*Security System*				
	1	Closed Circuit Security System	31,396.00	sqft	2.013 /sqft	63,211
	2	Intrusion & Panic Alarm System	31,396.00	sqft	1.01 /sqft	31,606

Item		Description	Takeoff Qty		Total Unit Cost	Total Amount
		Security System				*94,817*
		62,792.00 Labor hours				
17.007		*Data & Phone System*				
	9	Data & Phone System	31,396.00	sf	4.03 /sf	126,423
		Data & Phone System				*126,423*
17.008		*Fire Alarm System*				
	1	Fire Alarm Systems	31,396.00	ls	2.52 /ls	79,014
		Fire Alarm System				*79,014*
17.010		*Access Controls*				
	1	Access Control Station	31,396.00	ea	1.01 /ea	31,606
		Access Controls				*31,606*
		TECHNOLOGY SYSTEMS				**331,860**
		62,792.00 Labor hours				
		004 Level 2 Add			***242.81 /sqft***	***7,623,164***
		31,396.00 sqft				
		71,005.25 Labor hours				
		333.490 Equipment hours				

Item		Description	Takeoff Qty		Total Unit Cost	Total Amount
005 Level 3 Ren						
1.000		**GEN CONDITIONS**				
1.100		*General Conditions*				
	1	General Conditions	16,110.00	sqft	5.19 /sqft	83,611
		General Conditions				*83,611*
1.710		*Final Cleanup*				
	10	Level 3 Renovation Final Cleanup	16,110.00	sf	0.35 /sf	5,639
		Final Cleanup				*5,639*
		241.650 Labor hours				
		40.28 Equipment hours				
		GEN CONDITIONS				**89,249**
		241.650 Labor hours				
		40.28 Equipment hours				
2.200		**DEMOLITION**				
2.300		*Concrete Remove & Replace*				
	1	Saw Concrete	100.00	lf	20.00 /lf	2,000
	1	Saw Concrete	92.00	lf	20.00 /lf	1,840
	4	Remove Structural Tees & Topping Slabs	775.00	sf	10.00 /sf	7,750
	4	Remove Structural Tees & Topping Slabs	205.00	sf	10.00 /sf	2,050
		Concrete Remove & Replace				*13,640*
		176.133 Labor hours				
		60.844 Equipment hours				
2.410		*Masonry*				
	1	Saw Masonry	60.00	lf	7.50 /lf	450
	2	Remove Masonry For Opening By Hand	120.00	sf	5.00 /sf	600
	4	Tooth Brick Jambs	60.00	lf	30.00 /lf	1,800
		Masonry				*2,850*
		16.00 Labor hours				
		5.00 Equipment hours				
2.441		*Remove Wall*				
	1	Remove Walls	6,266.00	sf	1.30 /sf	8,146
		Remove Wall				*8,146*
		313.30 Labor hours				
		104.433 Equipment hours				
2.820		*Rem Glass & Aluminum*				
	2	Rem. Glass & Aluminum Systems	259.00	SF	2.60 /SF	673
		Rem Glass & Aluminum				*673*
		25.90 Labor hours				
2.871		*Remove HVAC Components*				
	5	Remove Ductwork	16,110.00	sf	1.00 /sf	16,110
		Remove HVAC Components				*16,110*
2.876		*Remove Electrical Components*				
	2	Interior Lighting	16,110.00	ea	0.50 /ea	8,055
		Remove Electrical Components				*8,055*
2.900		*Remove Flooring*				
	1	Remove Flooring	16,110.00	sf	0.74 /sf	11,873

Item		Description	Takeoff Qty		Total Unit Cost	Total Amount
		Remove Flooring				*11,873*
		447.50 Labor hours				
2.944		*Remove Ceiling*				
	8	Remove Ceiling Finishes	16,110.00	sqft	1.00 /sqft	16,110
		Remove Ceiling				*16,110*
		134.25 Labor hours				
2.990		*Debris Haul-Off*				
	1	Waste & Debris Removal	120.00	cy	30.00 /cy	3,600
		Debris Haul-Off				*3,600*
		24.00 Labor hours				
		DEMOLITION				**81,057**
		1,137.083 Labor hours				
		170.28 Equipment hours				
3.000		**CONCRETE**				
3.100		*Concrete Subcontractor*				
	4	Composite Slab For New Ramp	205.00	sf	7.561 /sf	1,550
	14	Structural Beam @ Lobby	130.00	lnft	75.00 /lnft	9,750
		Concrete Subcontractor				*11,300*
		CONCRETE				**11,300**
4.000		**MASONRY**				
4.515		*Masonry Restoration*				
sub		Masonry Restoration Level 3	7,191.00	sqft	2.503 /sqft	18,000
sub		Concrete Roof, & Steel Restoration in Bell Tower	350.00	sqft	28.571 /sqft	10,000
		Masonry Restoration				*28,000*
		MASONRY				**28,000**
5.000		**STEEL**				
5.105		*Structural Steel*				
	3	Floor Support Steel For New Opening	5.00	tons	5,500.00 /tons	27,500
	3	Floor Support Steel For New Ramp	1.50	tons	5,500.00 /tons	8,250
		Structural Steel				*35,750*
5.106		*Misc Steel*				
	11	Guardrail @ New Ramp	82.00	LF	80.00 /LF	6,560
	17	Steel Bar Grating @ Flyloft	2,270.00	sf	40.00 /sf	90,800
	28	Roof Access Ladders	25.00	lf	68.00 /lf	1,700
		Misc Steel				*99,060*
		503.85 Labor hours				
5.705		*Glazed Decorative Metal Railings*				
	1	Ornamental Rail Systems	40.00	lf	400.00 /lf	16,000
		Glazed Decorative Metal Railings				*16,000*
		STEEL				**150,810**
		503.85 Labor hours				
6.000		**WOOD & PLASTICS**				

Item		Description	Takeoff Qty		Total Unit Cost		Total Amount
6.100		*Rough Carpentry*					
	10	Blocking	5.00	mbf	1,700.00	/mbf	8,500
		Rough Carpentry					*8,500*
		333.333 Labor hours					
6.502		*Millwork*					
	5	Solid Surface Tops	60.00	sf	150.00	/sf	9,000
		Millwork					*9,000*
		WOOD & PLASTICS					**17,500**
		333.333 Labor hours					
7.000		**THERMAL-MOIST PR**					
7.100		*PVC Single Ply Roofing*					
	1	PVC Single Ply Roofing	24,750.00	sqft	2.50	/sqft	61,875
		PVC Single Ply Roofing					*61,875*
7.170		*Building Vapor Barrier*					
	8	Masonry Sealers	7,191.00	sqft	0.91	/sqft	6,544
		Building Vapor Barrier					*6,544*
7.241		*Penetration Firestopping & Fire Resistive Joint Systems*					
	10	Firestopping	16,110.00	sqft	0.10	/sqft	1,611
		Penetration Firestopping & Fire Resistive Joint Systems					*1,611*
		THERMAL-MOIST PR					**70,030**
8.000		**DOORS & WINDOWS**					
8.111		*Hollow Metal Doors & Frames*					
	2	Hollow Metal Frames	32.00	each	203.00	/each	6,496
		Hollow Metal Doors & Frames					*6,496*
		96.000 Labor hours					
8.140		*Flush Wood Doors*					
	10	Flush Wood Doors	32.00	each	303.00	/each	9,696
		Flush Wood Doors					*9,696*
		96.000 Labor hours					
8.305		*Access Doors & Frames*					
	02	Access Doors	5.00	each	202.00	/each	1,010
		Access Doors & Frames					*1,010*
		10.00 Labor hours					
8.710		*Door Hardware*					
	1	Finish Hardware	32.00	leaf	819.00	/leaf	26,208
		Door Hardware					*26,208*
		128.00 Labor hours					
8.810		*Glazed Aluminum Curtain Walls*					
	2	Mirrors @ Studios & Flex Areas	4,400.00	sqft	10.00	/sqft	44,000
	7	Glass Glazing & Aluminum	259.00	sf	40.00	/sf	10,360
	10	Interior Storefront Systems	294.00	sqft	30.00	/sqft	8,820
		Glazed Aluminum Curtain Walls					*63,180*

Item		Description	Takeoff Qty		Total Unit Cost		Total Amount
		DOORS & WINDOWS					**106,590**
		330.000 Labor hours					
9.000		**FINISHES**					
9.130		*Acoustical Panel Ceilings*					
	1	Acoustical Ceilings	14,450.00	ls	2.80	/ls	40,460
		Acoustical Panel Ceilings					*40,460*
9.300		*Ceramic Tile*					
	1	Ceramic Floor Tile In RR	672.00	sqft	10.82	/sqft	7,271
	1	Porcelain Tile @ RR Walls 10'	2,020.00	sqft	10.82	/sqft	21,856
		Ceramic Tile					*29,127*
9.330		*Drywall Systems*					
	1	Drywall Interior Walls	6,266.00	sf	5.00	/sf	31,330
		Drywall Systems					*31,330*
9.860		*Resilient Tile/Carpet*					
	3	Resilient Base	2,272.00	lf	1.50	/lf	3,408
	5	Rubber Treads & Risers	735.00	Sqft	15.00	/Sqft	11,025
		Resilient Tile/Carpet					*14,433*
9.940		*Painting*					
	02	Paint,Caulk,Vinyl Wall Cover	38,500.00	sub	1.543	/sub	59,391
		Painting					*59,391*
		FINISHES					**174,741**
10.000		**SPECL CONDITIONS**					
10.005		*Visual Display Units*					
	4	Marker & Tackboards	448.00	sf	15.00	/sf	6,720
		Visual Display Units					*6,720*
10.160		*Toilet Compartments*					
	1	Solid Plastic Part.	8.00	ea	838.00	/ea	6,704
		Toilet Compartments					*6,704*
		44.000 Labor hours					
10.430		*Signage*					
	1	Graphics & Signage Allowance	16,110.00	sqft	0.85	/sqft	13,619
		Signage					*13,619*
10.435		*Room Signage*					
	10	Room Signage & Way Finding	32.00	ea	75.00	/ea	2,400
		Room Signage					*2,400*
		64.00 Labor hours					
10.523		*F.E. & Cabinets*					
	20	Fire Ext. Cabinets (Recessed)	4.00	each	325.00	/each	1,300
		F.E. & Cabinets					*1,300*
		17.500 Labor hours					
10.652		*Operable Panel Partitions*					
	10	Operable Panel Partitions	240.00	sqft	50.003	/sqft	12,001
		Operable Panel Partitions					*12,001*

Item		Description	Takeoff Qty		Total Unit Cost	Total Amount
		SPECL CONDITIONS				**42,743**
		125.500 Labor hours				
13.000		**SPECIAL CONST**				
13.001		*Scaffolding*				
sub		Special Construction	7,191.00	sqft	5.00 /sqft	35,955
		Scaffolding				*35,955*
		SPECIAL CONST				**35,955**
15.000		**MECHANICAL**				
15.010		*HVAC*				
sub		HVAC	16,110.00	sub	23.223 /sub	374,130
		HVAC				*374,130*
15.990		*Testing & Balance*				
sub		Testing & Balance	16,110.00	each	0.76 /each	12,248
		Testing & Balance				*12,248*
		MECHANICAL				**386,378**
16.000		**ELECTRICAL**				
16.001		*Electrical*				
	003	Electrical Service & Distribution	16,110.00	sqft	3.274 /sqft	52,737
	004	Branch Wiring	16,110.00	sqft	3.274 /sqft	52,737
	005	Lighting	16,110.00	sqft	7.613 /sqft	122,652
		Electrical				*228,126*
		ELECTRICAL				**228,126**
17.000		**TECHNOLOGY SYSTEMS**				
17.003		*Security System*				
	1	Closed Circuit Security System	16,110.00	sqft	1.01 /sqft	16,218
	2	Intrusion & Panic Alarm System	16,110.00	sqft	0.503 /sqft	8,109
		Security System				*24,326*
		32,220.00 Labor hours				
17.007		*Data & Phone System*				
	9	Data & Phone System	16,110.00	sf	1.01 /sf	16,218
		Data & Phone System				*16,218*
17.008		*Fire Alarm System*				
	1	Fire Alarm Systems	16,110.00	ls	2.52 /ls	40,544
		Fire Alarm System				*40,544*
17.010		*Access Controls*				
	1	Access Control Station	16,110.00	ea	0.252 /ea	4,054
		Access Controls				*4,054*
		TECHNOLOGY SYSTEMS				**85,142**
		32,220.00 Labor hours				

Item	Description	Takeoff Qty	Total Unit Cost	Total Amount
	005 Level 3 Ren		***93.583/sqft***	***1,507,623***
	16,110.00 sqft			
	34,891.42 Labor hours			
	210.553 Equipment hours			

Item		Description	Takeoff Qty		Total Unit Cost	Total Amount
006 Level 3 Add						
1.000		**GEN CONDITIONS**				
1.100		*General Conditions*				
	1	General Conditions	21,665.00	sqft	5.19 /sqft	112,441
		General Conditions				*112,441*
1.710		*Final Cleanup*				
	10	Level 3 Addition Final Cleanup	21,665.00	sf	0.35 /sf	7,583
		Final Cleanup				*7,583*
		324.98 Labor hours				
		54.163 Equipment hours				
		GEN CONDITIONS				**120,024**
		324.98 Labor hours				
		54.163 Equipment hours				
3.000		**CONCRETE**				
3.100		*Concrete Subcontractor*				
	4	Composite Slab on Deck	10,000.00	sf	4.25 /sf	42,500
		Concrete Subcontractor				*42,500*
		CONCRETE				**42,500**
4.000		**MASONRY**				
4.100		*Masonry*				
	1	Concrete Masonry Units @ Ext Screen	164.450	ea	10.033 /ea	1,650
	1	Concrete Masonry Units Elevator & Stair Wells 3rd to 4th Levels	3,453.450	ea	10.14 /ea	35,000
	2	Modular Brick Exterior Level 3	39,300.00	ea	2.25 /ea	88,425
	4	Limestone Masonry Perimeter Wall	830.00	sf	35.00 /sf	29,050
	4	Interior Limestone Work Level 3	455.00	sf	35.00 /sf	15,925
		Masonry				*170,050*
		MASONRY				**170,050**
5.000		**STEEL**				
5.105		*Structural Steel*				
	2	Floor Beams 3rd Floor	40.02	tons	3,350.00 /tons	134,067
	3	Misc. Steel	5.00	tons	5,500.00 /tons	27,500
	5	Composite Floor Deck	10,000.00	sqft	2.25 /sqft	22,500
	5	Roof Deck Over Level 3	17,733.00	sqft	2.25 /sqft	39,899
		Structural Steel				*223,966*
5.705		*Glazed Decorative Metal Railings*				
	1	Ornnamental Metal Balcony Rail	145.00	lf	250.00 /lf	36,250
	1	Ornamental Rail Systems	142.00	lf	400.00 /lf	56,800
		Glazed Decorative Metal Railings				*93,050*
5.805		*Expansion Jnt Assemblies*				
	10	Expansion Joint Assemblies	440.00	lnft	20.10 /lnft	8,844

Item		Description	Takeoff Qty		Total Unit Cost		Total Amount
		Expansion Jnt Assemblies					*8,844*
		125.712 Labor hours					
		STEEL					**325,860**
		125.712 Labor hours					
6.000		**WOOD & PLASTICS**					
6.100		*Rough Carpentry*					
	1	Blocking	7.00	mbf	1,910.00	/mbf	13,370
	2	Roof Blocking	7.40	mbf	3,050.00	/mbf	22,570
	4	Parapet Sheathing	1,300.00	sf	2.02	/sf	2,626
		Rough Carpentry					*38,566*
		1,080.270 Labor hours					
		297.000 Equipment hours					
6.101		*Interior Finish Carpentry*					
	2	Finish Carpentry In Theaters	5,648.00	sqft	6.50	/sqft	36,712
	7	Wood Display Wall	1,560.00	sqft	25.00	/sqft	39,000
		Interior Finish Carpentry					*75,712*
		5,804.00 Labor hours					
6.502		*Millwork*					
	5	Solid Surface Vanity Tops W/ Supports	60.00	sf	150.00	/sf	9,000
		Millwork					*9,000*
		WOOD & PLASTICS					**123,278**
		6,884.270 Labor hours					
		297.000 Equipment hours					
7.000		**THERMAL-MOIST PR**					
7.100		*PVC Single Ply Roofing*					
	2	Single-Ply Roofing	17,733.00	sqft	11.40	/sqft	202,156
		PVC Single Ply Roofing					*202,156*
7.170		*Building Vapor Barrier*					
	8	Masonry Sealers	6,445.00	sqft	0.91	/sqft	5,865
	10	Building Caulking	1,289.00	lnft	5.00	/lnft	6,445
	11	Fluid Applied Membrane Air Barriers & Testing	6,445.00	sqft	5.80	/sqft	37,381
		Building Vapor Barrier					*49,691*
7.240		*Applied Fireproofing*					
	5	Spray-On Fireproofing	21,665.00	sqft	1.82	/sqft	39,430
		Applied Fireproofing					*39,430*
7.241		*Penetration Firestopping & Fire Resistive Joint Systems*					
	10	Firestopping	21,665.00	sqft	0.10	/sqft	2,167
		Penetration Firestopping & Fire Resistive Joint Systems					*2,167*
7.705		*Roof Accessories (Roof Hatches)*					
	10	Roof Hatch	2.00	each	5,172.00	/each	10,344
		Roof Accessories (Roof Hatches)					*10,344*
		10.00 Labor hours					
		THERMAL-MOIST PR					**303,788**
		10.00 Labor hours					

Item		Description	Takeoff Qty		Total Unit Cost		Total Amount
8.000		**DOORS & WINDOWS**					
8.111		*Hollow Metal Doors & Frames*					
	2	Hollow Metal Frames	12.00	each	203.00	/each	2,436
		Hollow Metal Doors & Frames					*2,436*
		36.000 Labor hours					
8.140		*Flush Wood Doors*					
	10	Flush Wood Doors	12.00	each	303.00	/each	3,636
		Flush Wood Doors					*3,636*
		36.000 Labor hours					
8.305		*Access Doors & Frames*					
	02	Access Doors	6.00	each	202.00	/each	1,212
		Access Doors & Frames					*1,212*
		12.00 Labor hours					
8.710		*Door Hardware*					
	1	Finish Hardware	12.00	leaf	819.00	/leaf	9,828
		Door Hardware					*9,828*
		48.00 Labor hours					
8.810		*Glazed Aluminum Curtain Walls*					
	5	Curtain Wall System	2,408.00	sf	60.00	/sf	144,480
	10	Interior Storefront Systems	340.00	sqft	30.00	/sqft	10,200
		Glazed Aluminum Curtain Walls					*154,680*
		DOORS & WINDOWS					**171,792**
		132.000 Labor hours					
9.000		**FINISHES**					
9.130		*Acoustical Panel Ceilings*					
	1	Acoustical Ceilings	9,388.00	ls	2.80	/ls	26,286
	1	APC-4 Eurospan Ceiling System	3,310.00	ls	18.00	/ls	59,580
		Acoustical Panel Ceilings					*85,866*
9.300		*Ceramic Tile*					
	1	Ceramic Floor Tile In RR	782.00	sqft	10.82	/sqft	8,461
	1	Porcelain Tile @ RR Walls 10'	1,970.00	sqft	10.82	/sqft	21,315
		Ceramic Tile					*29,777*
9.330		*Drywall Systems*					
	1	Drywall Int Partitions 3rd Level	10,530.00	sf	5.00	/sf	52,650
	1	Drywall Ext Wall & Parapet	6,445.00	sf	6.00	/sf	38,670
	1	Drywall Furr Out Wall to Existing	3,731.00	sf	4.00	/sf	14,924
	9	Suspended Gyp Board Ceilings @ Theater Ceiling	3,310.00	sqft	5.104	/sqft	16,893
		Drywall Systems					*123,137*
9.711		*Wood Ceiling Systems*					
	1	Wood Ceiling Systems	6,288.00	sf	25.00	/sf	157,200
		Wood Ceiling Systems					*157,200*
9.860		*Resilient Tile/Carpet*					
	1	Carpet & Luxury Vinyl Tile	9,400.00	sqft	5.50	/sqft	51,700
	3	Resilient Base	1,010.00	lf	1.50	/lf	1,515
		Resilient Tile/Carpet					*53,215*
9.940		*Painting*					
	02	Paint,Caulk,Vinyl Wall Cover	37,600.00	sub	1.543	/sub	58,003

Item		Description	Takeoff Qty		Total Unit Cost		Total Amount
		Painting					*58,003*
		FINISHES					**507,197**
10.000		**SPECL CONDITIONS**					
10.005		*Visual Display Units*					
	4	Marker & Tackboards	128.00	sf	15.00	/sf	1,920
		Visual Display Units					*1,920*
10.160		*Toilet Compartments*					
	1	Solid Plastic Part.	10.00	ea	838.00	/ea	8,380
		Toilet Compartments					*8,380*
		55.000 Labor hours					
10.430		*Signage*					
	1	Graphics & Signage Allowance	21,665.00	sqft	0.85	/sqft	18,315
		Signage					*18,315*
10.435		*Room Signage*					
	10	Room Signage & Way Finding	12.00	ea	75.00	/ea	900
		Room Signage					*900*
		24.00 Labor hours					
10.523		*F.E. & Cabinets*					
	20	Fire Ext. Cabinets (Recessed)	5.00	each	325.00	/each	1,625
		F.E. & Cabinets					*1,625*
		21.88 Labor hours					
10.536		*Protective Covers*					
	3	Louver Screen Wall	1,540.00	sf	32.47	/sf	50,000
		Protective Covers					*50,000*
10.810		*Toilet, Bath & Laundry Accessories*					
	10	LS Toilet Access	60.00	each	110.00	/each	6,600
		Toilet, Bath & Laundry Accessories					*6,600*
		112.500 Labor hours					
		SPECL CONDITIONS					**87,740**
		213.38 Labor hours					
12.000		**FURNISHINGS**					
12.510		*Mecho Shades*					
	1	Mecho Shades	340.00	sf	20.00	/sf	6,800
		Mecho Shades					*6,800*
		FURNISHINGS					**6,800**
13.000		**SPECIAL CONST**					
13.001		*Scaffolding*					
	sub	Interior Scaffolding @ Lobby & Black Box Theater	9,598.00	sqft	12.00	/sqft	115,176
	sub	Interior Scaffolding @ Flex Theatre	5,810.00	sqft	16.00	/sqft	92,960
		Scaffolding					*208,136*
		SPECIAL CONST					**208,136**

Item		Description	Takeoff Qty		Total Unit Cost	Total Amount
15.000		**MECHANICAL**				
15.001		*Plumbing*				
sub		Roof Drains	6.00	sub	3,635.202 /sub	21,811
sub		Plumbing	27.00	fixt	3,635.201 /fixt	98,150
		Plumbing				*119,962*
15.010		*HVAC*				
sub		HVAC	10,200.00	Sqft	70.66 /Sqft	720,688
		HVAC				*720,688*
15.750		*Fire Protection System*				
sub		Fire Protection System	17,733.00	sqft	2.60 /sqft	46,045
		Fire Protection System				*46,045*
15.990		*Testing & Balance*				
sub		Testing & Balance	21,665.00	each	0.76 /each	16,471
		Testing & Balance				*16,471*
		MECHANICAL				**903,166**
16.000		**ELECTRICAL**				
16.001		*Electrical*				
	003	Electrical Service & Distribution	21,665.00	sqft	3.274 /sqft	70,922
	004	Branch Wiring	21,665.00	sqft	6.55 /sqft	141,844
	005	Lighting	21,665.00	sqft	6.55 /sqft	141,844
		Electrical				*354,609*
		ELECTRICAL				**354,609**
17.000		**TECHNOLOGY SYSTEMS**				
17.003		*Security System*				
	1	Closed Circuit Security System	21,665.00	sqft	2.013 /sqft	43,619
	2	Intrusion & Panic Alarm System	21,665.00	sqft	0.503 /sqft	10,905
		Security System				*54,524*
		43,330.00 Labor hours				
17.007		*Data & Phone System*				
	9	Data & Phone System	21,665.00	sf	4.03 /sf	87,239
		Data & Phone System				*87,239*
17.008		*Fire Alarm System*				
	1	Fire Alarm Systems	21,665.00	ls	2.52 /ls	54,524
		Fire Alarm System				*54,524*
17.010		*Access Controls*				
	1	Access Control Station	21,665.00	ea	0.252 /ea	5,452
		Access Controls				*5,452*
		TECHNOLOGY SYSTEMS				**201,740**
		43,330.00 Labor hours				

Item	Description	Takeoff Qty	Total Unit Cost	Total Amount
	006 Level 3 Add		***162.782/sqft***	***3,526,680***
	21,665.00 sqft			
	51,020.333 Labor hours			
	351.163 Equipment hours			

Item		Description	Takeoff Qty		Total Unit Cost	Total Amount
007 Balcony Ren						
1.000		**GEN CONDITIONS**				
1.100		*General Conditions*				
	1	General Conditions	5,046.00	sqft	5.19 /sqft	26,189
		General Conditions				*26,189*
1.710		*Final Cleanup*				
	10	Balcony Level Renovation Final Clean Up	5,046.00	sf	0.35 /sf	1,766
		Final Cleanup				*1,766*
		75.69 Labor hours				
		12.62 Equipment hours				
		GEN CONDITIONS				**27,955**
		75.69 Labor hours				
		12.62 Equipment hours				
2.200		**DEMOLITION**				
2.441		*Remove Wall*				
	1	Remove Walls	234.00	sf	1.30 /sf	304
		Remove Wall				*304*
		11.70 Labor hours				
		3.90 Equipment hours				
2.500		*Metals*				
	13	Remove Metal Roof Deck	2,284.00	sqft	1.50 /sqft	3,426
		Metals				*3,426*
		15.23 Labor hours				
		15.23 Equipment hours				
2.700		*Roofing & Sheet Metal*				
	3	Remove Built Up Roof	2,284.00	sf	1.23 /sf	2,800
		Roofing & Sheet Metal				*2,800*
		114.20 Labor hours				
		22.84 Equipment hours				
2.871		*Remove HVAC Components*				
	5	Remove Ductwork	5,046.00	sf	1.00 /sf	5,046
		Remove HVAC Components				*5,046*
2.874		*Furnishings*				
	10	Remove Seats	358.00	each	39.00 /each	13,962
		Furnishings				*13,962*
		358.00 Labor hours				
		358.00 Equipment hours				
2.876		*Remove Electrical Components*				
	2	Interior Lighting	5,046.00	ea	0.50 /ea	2,523
		Remove Electrical Components				*2,523*
2.900		*Remove Flooring*				
	1	Remove Flooring	5,046.00	sf	0.74 /sf	3,734

Item		Description	Takeoff Qty		Total Unit Cost	Total Amount
		Remove Flooring				*3,734*
		140.17 Labor hours				
2.944		*Remove Ceiling*				
	8	Remove Ceiling Finishes	9,129.00	sqft	1.00 /sqft	9,129
		Remove Ceiling				*9,129*
		76.08 Labor hours				
2.990		*Debris Haul-Off*				
	1	Waste & Debris Removal	60.00	cy	30.00 /cy	1,800
		Debris Haul-Off				*1,800*
		12.00 Labor hours				
		DEMOLITION				**42,724**
		727.37 Labor hours				
		399.97 Equipment hours				
4.000		**MASONRY**				
4.515		*Masonry Restoration*				
sub		Masonry Restoration Balcony Level	17,721.00	sqft	2.50 /sqft	44,303
sub		Masonry Restoration Bell Tower	3,256.00	sqft	2.50 /sqft	8,140
		Masonry Restoration				*52,443*
		MASONRY				**52,443**
5.000		**STEEL**				
5.105		*Structural Steel*				
	5	Steel Decking	2,284.00	sqft	3.00 /sqft	6,852
		Structural Steel				*6,852*
		STEEL				**6,852**
6.000		**WOOD & PLASTICS**				
6.100		*Rough Carpentry*				
	1	Blocking	1.70	mbf	1,910.00 /mbf	3,247
	10	Roof Nailers	1.00	mbf	1,780.00 /mbf	1,780
		Rough Carpentry				*5,027*
		177.17 Labor hours				
		27.20 Equipment hours				
6.101		*Interior Finish Carpentry*				
	2	Finish Carpentry In Theaters	3,452.00	sqft	6.50 /sqft	22,438
		Interior Finish Carpentry				*22,438*
		3,452.00 Labor hours				
		WOOD & PLASTICS				**27,465**
		3,629.17 Labor hours				
		27.20 Equipment hours				
7.000		**THERMAL-MOIST PR**				
7.100		*PVC Single Ply Roofing*				
	2	Replace Roof Over Stage in Existing	2,284.00	sqft	12.00 /sqft	27,408

Item		Description	Takeoff Qty		Total Unit Cost	Total Amount
		PVC Single Ply Roofing				*27,408*
7.170		*Building Vapor Barrier*				
	8	Masonry Sealers	17,721.00	sqft	0.91 /sqft	16,126
		Building Vapor Barrier				*16,126*
7.241		*Penetration Firestopping & Fire Resistive Joint Systems*				
	10	Firestopping	5,046.00	sqft	0.10 /sqft	505
		Penetration Firestopping & Fire Resistive Joint Systems				*505*
		THERMAL-MOIST PR				**44,039**
8.000		**DOORS & WINDOWS**				
8.111		*Hollow Metal Doors & Frames*				
	2	Hollow Metal Frames	7.00	each	203.00 /each	1,421
		Hollow Metal Doors & Frames				*1,421*
		21.00 Labor hours				
8.140		*Flush Wood Doors*				
	10	Flush Wood Doors	7.00	each	303.00 /each	2,121
		Flush Wood Doors				*2,121*
		21.00 Labor hours				
8.305		*Access Doors & Frames*				
	02	Access Doors	1.00	each	202.00 /each	202
		Access Doors & Frames				*202*
		2.00 Labor hours				
8.710		*Door Hardware*				
	1	Finish Hardware	7.00	leaf	819.00 /leaf	5,733
		Door Hardware				*5,733*
		28.00 Labor hours				
		DOORS & WINDOWS				**9,477**
		72.000 Labor hours				
9.000		**FINISHES**				
9.130		*Acoustical Panel Ceilings*				
	1	Acoustical Ceilings	1,633.00	ls	2.80 /ls	4,573
	1	APC-4 Eurospan Ceiling System	7,497.00	ls	19.501 /ls	146,200
		Acoustical Panel Ceilings				*150,773*
9.330		*Drywall Systems*				
	1	Drywall	234.00	sf	5.00 /sf	1,170
		Drywall Systems				*1,170*
9.860		*Resilient Tile/Carpet*				
	1	Carpet & Luxury Vinyl Tile	3,558.00	sqft	5.50 /sqft	19,569
	3	Resilient Base	490.00	lf	1.50 /lf	735
	5	Rubber Treads & Risers	587.00	lf	15.00 /lf	8,805
		Resilient Tile/Carpet				*29,109*
9.940		*Painting*				
	02	Paint,Caulk,Vinyl Wall Cover	8,437.00	sub	1.753 /sub	14,790
		Painting				*14,790*

Item		Description	Takeoff Qty		Total Unit Cost	Total Amount
		FINISHES				**195,842**
10.000		**SPECL CONDITIONS**				
10.430		*Signage*				
	1	Graphics & Signage Allowance	5,046.00	sqft	0.85 /sqft	4,266
		Signage				*4,266*
10.435		*Room Signage*				
	10	Room Signage & Way Finding	7.00	ea	75.00 /ea	525
		Room Signage				*525*
		14.00 Labor hours				
10.523		*F.E. & Cabinets*				
	20	Fire Ext. Cabinets (Recessed)	1.00	each	325.00 /each	325
		F.E. & Cabinets				*325*
		4.38 Labor hours				
		SPECL CONDITIONS				**5,116**
		18.38 Labor hours				
12.000		**FURNISHINGS**				
12.720		*Fixed Audience Seating*				
	10	Theater Seats	359.00	ea	184.00 /ea	66,056
		Fixed Audience Seating				*66,056*
		FURNISHINGS				**66,056**
13.000		**SPECIAL CONST**				
13.001		*Scaffolding*				
sub		Interior Scaffolding @ Theatre	7,200.00	sqft	16.00 /sqft	115,200
sub		Special Construction	20,977.00	sqft	5.00 /sqft	104,885
		Scaffolding				*220,085*
		SPECIAL CONST				**220,085**
15.000		**MECHANICAL**				
15.010		*HVAC*				
sub		HVAC	5,046.00	sub	23.223 /sub	117,186
		HVAC				*117,186*
15.990		*Testing & Balance*				
sub		Testing & Balance	5,046.00	each	0.76 /each	3,836
		Testing & Balance				*3,836*
		MECHANICAL				**121,022**
16.000		**ELECTRICAL**				
16.001		*Electrical*				
	003	Electrical Service & Distribution	5,046.00	sqft	3.274 /sqft	16,518
	004	Branch Wiring	5,046.00	sqft	3.274 /sqft	16,518
	005	Lighting	5,046.00	sqft	7.613 /sqft	38,417

Item		Description	Takeoff Qty		Total Unit Cost	Total Amount
		Electrical				*71,454*
		ELECTRICAL				**71,454**
17.000		**TECHNOLOGY SYSTEMS**				
17.003		*Security System*				
	1	Closed Circuit Security System	5,046.00	sqft	1.01 /sqft	5,080
	2	Intrusion & Panic Alarm System	5,046.00	sqft	0.503 /sqft	2,540
		Security System				*7,620*
		10,092.00 Labor hours				
17.007		*Data & Phone System*				
	9	Data & Phone System	5,046.00	sf	1.01 /sf	5,080
		Data & Phone System				*5,080*
17.008		*Fire Alarm System*				
	1	Fire Alarm Systems	5,046.00	ls	2.52 /ls	12,699
		Fire Alarm System				*12,699*
17.010		*Access Controls*				
	1	Access Control Station	5,046.00	ea	0.252 /ea	1,270
		Access Controls				*1,270*
		TECHNOLOGY SYSTEMS				**26,668**
		10,092.00 Labor hours				
		007 Balcony Ren			***181.77 /sqft***	***917,197***
		5,046.00 sqft				
		14,614.60 Labor hours				
		439.782 Equipment hours				

Item		Description	Takeoff Qty		Total Unit Cost		Total Amount
008 Balcony Add							
1.000		**GEN CONDITIONS**					
1.100		*General Conditions*					
	1	General Conditions	1,162.00	sqft	5.19	/sqft	6,031
		General Conditions					*6,031*
1.710		*Final Cleanup*					
	10	Balcony Level Addition Final Clean Up	1,162.00	sf	0.35	/sf	407
		Final Cleanup					*407*
		17.43 Labor hours					
		2.91 Equipment hours					
		GEN CONDITIONS					**6,437**
		17.43 Labor hours					
		2.91 Equipment hours					
4.000		**MASONRY**					
4.100		*Masonry*					
	2	Modular Brick @ Balcony Level	37,200.00	ea	2.25	/ea	83,700
		Masonry					*83,700*
		MASONRY					**83,700**
5.000		**STEEL**					
5.105		*Structural Steel*					
	1	Columns Balcony Level to Balcony Level Roof	17.00	tons	3,350.00	/tons	56,950
		Structural Steel					*56,950*
5.106		*Misc Steel*					
	7	Catwalk Support Steel	7.00	tons	5,500.00	/tons	38,500
	11	Handrails & Guardrails @ Catwalk	634.00	LF	60.00	/LF	38,040
	17	Steel Bar Grating @ Catwalk	1,161.00	sf	34.95	/sf	40,573
		Misc Steel					*117,113*
		576.50 Labor hours					
		STEEL					**174,063**
		576.50 Labor hours					
6.000		**WOOD & PLASTICS**					
6.100		*Rough Carpentry*					
	1	Blocking	1.00	mbf	1,910.00	/mbf	1,910
	2	Roof Blocking	2.50	mbf	3,050.00	/mbf	7,625
	4	Parapet Sheathing	644.00	sf	2.02	/sf	1,301
		Rough Carpentry					*10,836*
		287.311 Labor hours					
		78.500 Equipment hours					
6.101		*Interior Finish Carpentry*					
	2	Finish Carpentry In Theaters	5,648.00	sqft	6.50	/sqft	36,712

Item		Description	Takeoff Qty		Total Unit Cost		Total Amount
		Interior Finish Carpentry					*36,712*
		5,648.00 Labor hours					
		WOOD & PLASTICS					**47,548**
		5,935.311 Labor hours					
		78.500 Equipment hours					
7.000		**THERMAL-MOIST PR**					
7.100		*PVC Single Ply Roofing*					
	2	Single-Ply Roofing	5,937.00	sqft	11.40	/sqft	67,682
		PVC Single Ply Roofing					*67,682*
7.170		*Building Vapor Barrier*					
	8	Masonry Sealers	5,315.00	sqft	0.91	/sqft	4,837
	10	Building Caulking	1,063.00	lnft	5.00	/lnft	5,315
	11	Fluid Applied Membrane Air Barriers & Testing	5,315.00	sqft	5.80	/sqft	30,827
		Building Vapor Barrier					*40,979*
7.240		*Applied Fireproofing*					
	5	Spray-On Fireproofing	5,937.00	sqft	1.82	/sqft	10,805
		Applied Fireproofing					*10,805*
7.241		*Penetration Firestopping & Fire Resistive Joint Systems*					
	10	Firestopping	5,937.00	sqft	0.10	/sqft	594
		Penetration Firestopping & Fire Resistive Joint Systems					*594*
		THERMAL-MOIST PR					**120,060**
8.000		**DOORS & WINDOWS**					
8.305		*Access Doors & Frames*					
	02	Access Doors	1.00	each	202.00	/each	202
		Access Doors & Frames					*202*
		2.00 Labor hours					
		DOORS & WINDOWS					**202**
		2.00 Labor hours					
9.000		**FINISHES**					
9.130		*Acoustical Panel Ceilings*					
	2	APC-4 Eurospan Ceiling System	5,810.00	sqft	19.50	/sqft	113,295
		Acoustical Panel Ceilings					*113,295*
9.330		*Drywall Systems*					
	1	Drywall Ext Wall & Parapet	5,315.00	sf	6.00	/sf	31,890
	9	Suspended Gyp Board Ceilings @ Theater Ceiling	5,810.00	sqft	5.00	/sqft	29,050
		Drywall Systems					*60,940*
9.940		*Painting*					
	02	Paint,Caulk,Vinyl Wall Cover	5,315.00	sub	1.753	/sub	9,317
		Painting					*9,317*
		FINISHES					**183,552**

Item		Description	Takeoff Qty		Total Unit Cost	Total Amount
10.000		**SPECL CONDITIONS**				
10.430		*Signage*				
	1	Graphics & Signage Allowance	1,162.00	sqft	0.85 /sqft	982
		Signage				*982*
10.435		*Room Signage*				
	10	Room Signage & Way Finding				
10.523		*F.E. & Cabinets*				
	20	Fire Ext. Cabinets (Recessed)	1.00	each	325.00 /each	325
		F.E. & Cabinets				*325*
		4.38 Labor hours				
		SPECL CONDITIONS				**1,307**
		4.38 Labor hours				
15.000		**MECHANICAL**				
15.001		*Plumbing*				
sub		Roof Drains	2.00	sub	3,635.20 /sub	7,270
		Plumbing				*7,270*
15.010		*HVAC*				
sub		HVAC	1,162.00	sqft	116.12 /sqft	134,928
		HVAC				*134,928*
15.750		*Fire Protection System*				
sub		Fire Protection System	5,937.00	sub	2.60 /sub	15,416
		Fire Protection System				*15,416*
15.990		*Testing & Balance*				
sub		Testing & Balance	1,162.00	each	0.76 /each	883
		Testing & Balance				*883*
		MECHANICAL				**158,498**
16.000		**ELECTRICAL**				
16.001		*Electrical*				
	003	Electrical Service & Distribution	1,162.00	sqft	3.274 /sqft	3,804
	004	Branch Wiring	5,648.00	sqft	6.55 /sqft	36,978
	005	Lighting	5,648.00	sqft	6.55 /sqft	36,978
		Electrical				*77,760*
		ELECTRICAL				**77,760**
17.000		**TECHNOLOGY SYSTEMS**				
17.003		*Security System*				
	1	Closed Circuit Security System	1,162.00	sqft	2.013 /sqft	2,340
	2	Intrusion & Panic Alarm System	1,162.00	sqft	0.503 /sqft	585
		Security System				*2,924*
		2,324.00 Labor hours				
17.007		*Data & Phone System*				
	9	Data & Phone System	1,162.00	sf	1.01 /sf	1,170

Item		Description	Takeoff Qty		Total Unit Cost	Total Amount
		Data & Phone System				*1,170*
17.008		*Fire Alarm System*				
	1	Fire Alarm Systems	1,162.00	ls	2.52 /ls	2,924
		Fire Alarm System				*2,924*
17.010		*Access Controls*				
	1	Access Control Station	1,162.00	ea	0.252 /ea	292
		Access Controls				*292*
		TECHNOLOGY SYSTEMS				**7,311**
		2,324.00 Labor hours				
		008 Balcony Add			***740.481/sqft***	***860,439***
		1,162.00 sqft				
		8,859.611 Labor hours				
		81.41 Equipment hours				

Item		Description	Takeoff Qty		Total Unit Cost		Total Amount
009 Site Develo							
1.000		**GEN CONDITIONS**					
1.100		*General Conditions*					
	1	General Conditions	1.00	ls	69,452.00	/ls	69,452
		General Conditions					*69,452*
1.710		*Final Cleanup*					
	20	Clean Streets	45,000.00	sf	0.15	/sf	6,750
		Final Cleanup					*6,750*
		315.00 Labor hours					
1.750		*Job Sign*					
	1	Site Signage	2.00	ea	750.00	/ea	1,500
		Job Sign					*1,500*
		GEN CONDITIONS					**77,702**
		315.00 Labor hours					
2.000		**SITEWORK**					
2.001		*Sitework*					
	2	Clearing & Grubbing	2.79	acre	757.63	/acre	2,114
	8	Remove Topsoil	2,340.00	cuyd	2.652	/cuyd	6,205
	9	Replace Topsoil	2,000.00	cy	2.652	/cy	5,303
	9	Topsoil @ New Planting Areas	340.00	cy	12.793	/cy	4,350
	11	Finish Grading	126,392.00	sf	0.084	/sf	10,560
	14	Site Cut	6,561.30	cy	2.09	/cy	13,705
	15	Site Fill	6,561.00	cy	2.09	/cy	13,705
	17	Remove Spoils	5,700.00	cy	6.061	/cy	34,548
	22	Restoration & Cleanup	30,000.00	sf	0.19	/sf	5,682
	26	Soil Stabilization	3,334.00	sqyd	5.013	/sqyd	16,714
	27	Site Demolition	30,000.00	sqft	1.32	/sqft	39,474
		Sitework					*152,361*
		156.00 Labor hours					
		156.00 Equipment hours					
2.018		*Erosion Control*					
	3	Stormwater Polution Prevention Plan	1.00	ls	1,500.00	/ls	1,500
	4	Stormwater Prevention Field Trips	12.00	ea	75.00	/ea	900
	6	Siltation Fence	1,100.00	lf	1.50	/lf	1,650
	8	Construction Exit	663.00	sy	11.50	/sy	7,624
		Erosion Control					*11,674*
2.025		*Asphalt Paving*					
	1	Patch Asphalt Paving at Existing Streets	2,108.00	sqft	6.00	/sqft	12,648
		Asphalt Paving					*12,648*
2.036		*Parking Lines*					
	2	Emblems & Cross Hatch Areas	1.00	ls	500.00	/ls	500
	03	Handicapped Parking Signs	5.00	ea	286.302	/ea	1,432
	08	Wheel Stops	12.00	ea	28.63	/ea	344
	10	All Types Parking Lines	1.00	ls	500.00	/ls	500
		Parking Lines					*2,775*
2.040		*Site Utilities*					
	1	Excavation, Back Fill & Dispose Waste	1,500.00	lnft	100.00	/lnft	150,000
	9	Manholes & Vaults	5.00	ea	5,000.00	/ea	25,000

Item		Description	Takeoff Qty		Total Unit Cost		Total Amount
2.040		*Site Utilities*					
	14	Trench Safety System	1,500.00	lf	35.00	/lf	52,500
	15	Fire Lines	500.00	lf	50.00	/lf	25,000
	16	Sanitary Sewer Line	500.00	lf	40.00	/lf	20,000
	17	Domestic Water Line	500.00	lf	50.00	/lf	25,000
	19	Gas Lines & Taps	1.00	ls	7,500.00	/ls	7,500
		Site Utilities					*305,000*
		1,500.00 Labor hours					
2.041		*Storm Drainage*					
	1	Storm Drainage System	750.00	lnft	100.00	/lnft	75,000
	6	Excavation, Back Fill & Dispose Waste	750.00	lnft	100.00	/lnft	75,000
	12	Inlets, Junction Boxes, and Oufalls	10.00	each	5,000.00	/each	50,000
		Storm Drainage					*200,000*
		60.000 Labor hours					
2.105		*Landscape & SubSurface Drainage*					
	8	French Drain Systems	500.00	lf	50.00	/lf	25,000
		Landscape & SubSurface Drainage					*25,000*
2.138		*Site Furnishings*					
	1	Exterior Benches	6.00	ea	2,088.333	/ea	12,530
	2	Bicycle Racks	25.00	lf	104.52	/lf	2,613
		Site Furnishings					*15,143*
		41.67 Labor hours					
		8.333 Equipment hours					
2.140		*Landscaping*					
	1	Planting	50.00	ea	600.00	/ea	30,000
	3	Tree Preservation & Protection	1,000.00	lf	7.00	/lf	7,000
	7	Landscape Ground Maintenance	30,000.00	sf	0.10	/sf	3,000
	9	Decomposed Granite	12.00	tons	166.67	/tons	2,000
	17	Grass	30,000.00	sqft	0.45	/sqft	13,500
		Landscaping					*55,500*
2.142		*Irrigation & Sleeves*					
	02	Irrigation Sleeves	190.00	lf	15.00	/lf	2,850
sub		Lawn Irrigation System	30,000.00	sqft	0.80	/sqft	24,000
		Irrigation & Sleeves					*26,850*
		79.17 Labor hours					
		SITEWORK					**806,951**
		1,836.833 Labor hours					
		164.333 Equipment hours					
2.200		**DEMOLITION**					
2.300		*Concrete Remove & Replace*					
	24	Remove Paving @ Alumni Drive	24,134.00	sf	1.80	/sf	43,441
	24	Replace Paving @ Alumni Drive	24,134.00	sf	6.25	/sf	150,838
		Concrete Remove & Replace					*194,279*
		DEMOLITION					**194,279**
3.000		**CONCRETE**					
3.100		*Concrete Subcontractor*					
	2	Dock Slab	580.00	sqft	5.25	/sqft	3,045
	6	Spread Footings	85.00	cuyd	350.00	/cuyd	29,750
	12	Walks, Pavers & Hardscapes	30,479.00	sf	11.00	/sf	335,269
	12	Walk Accent Allowance	300.00	sf	160.00	/sf	48,000

Item		Description	Takeoff Qty		Total Unit Cost	Total Amount
3.100		*Concrete Subcontractor*				
	13	Seat Walls & Steps	752.00	sf	105.00 /sf	78,960
	20	Light Pole Bases	10.00	ea	1,000.00 /ea	10,000
	22	Concrete Walls & Ret Walls	3,350.00	sqft	45.00 /sqft	150,750
	22	Dock Walls	560.00	sqft	26.322 /sqft	14,740
	30	Fill and Finish Pan Stairs	881.00	sqft	10.00 /sqft	8,810
		Concrete Subcontractor				*679,324*
3.760		*Sand Blast*				
sub		Sand Blasting	2,000.00	sqft	5.00 /sqft	10,000
		Sand Blast				*10,000*
		CONCRETE				**689,324**
4.000		**MASONRY**				
4.100		*Masonry*				
	2	Raise Mech Screen Wall Modular Brick	9,000.00	ea	2.25 /ea	20,250
		Masonry				*20,250*
		MASONRY				**20,250**
5.000		**STEEL**				
5.105		*Structural Steel*				
	6	Steel Stairs	881.00	sqft	140.00 /sqft	123,340
		Structural Steel				*123,340*
5.106		*Misc Steel*				
	11	Handrails & Guardrails	270.00	LF	75.00 /LF	20,250
		Misc Steel				*20,250*
		81.82 Labor hours				
5.215		*Cold Formed Metal Framing*				
	1	Framing @ Metal Screen Wall	620.00	lnft	7.50 /lnft	4,650
		Cold Formed Metal Framing				*4,650*
5.540		*Step Nosing*				
	10	Step Nosing	280.00	lnft	32.25 /lnft	9,029
		Step Nosing				*9,029*
		135.27 Labor hours				
5.705		*Glazed Decorative Metal Railings*				
	1	Ornamental Rail Systems @ North Wall	110.00	lf	400.00 /lf	44,000
		Glazed Decorative Metal Railings				*44,000*
		STEEL				**201,269**
		217.084 Labor hours				
7.000		**THERMAL-MOIST PR**				
7.822		*Metal Composite Material Wall Panels*				
	2	Composite Fascia @ Overhang Canopy	924.00	ls	30.00 /ls	27,720
	2	Composite Wall Panels @ Metal Screen Wall	2,550.00	sf	25.00 /sf	63,750
	2	Composite Metal Column Covers	2,515.00	sf	30.00 /sf	75,450
		Metal Composite Material Wall Panels				*166,920*

Item		Description	Takeoff Qty		Total Unit Cost	Total Amount
		THERMAL-MOIST PR				**166,920**
8.000		**DOORS & WINDOWS**				
8.305		*Access Doors & Frames*				
	01	Floor Hatch	1.00	Ea	7,500.00 /Ea	7,500
		Access Doors & Frames				*7,500*
		6.67 Labor hours				
		DOORS & WINDOWS				**7,500**
		6.67 Labor hours				
10.000		**SPECL CONDITIONS**				
10.430		*Signage*				
	12	Graphics & Signage Allowance	1.00	ea	28,178.33 /ea	28,178
		Signage				*28,178*
10.536		*Protective Covers*				
	2	Dock Canopy	185.00	sf	35.00 /sf	6,475
	2	Roof Overhang Canopy	6,432.00	sf	40.00 /sf	257,280
		Protective Covers				*263,755*
		SPECL CONDITIONS				**291,933**
14.000		**CONVEYING SYSTEM**				
14.200		*Elevators*				
	2	Hydraulic Dock Lift	106.00	sqft	250.00 /sqft	26,500
		Elevators				*26,500*
		CONVEYING SYSTEM				**26,500**
15.000		**MECHANICAL**				
15.155		*Chilled Water Piping*				
	1	Underground Pre-Insulated Piping	4,000.00	lf	51.931 /lf	207,726
		Chilled Water Piping				*207,726*
		MECHANICAL				**207,726**
16.000		**ELECTRICAL**				
16.001		*Electrical*				
	005	Lighting @ Canopies	6,617.00	sqft	7.64 /sqft	50,543
	006	Ext Pole Lights	10.00	ea	4,364.76 /ea	43,648
	006	Misc Site Lighting	25.00	ea	872.952 /ea	21,824
		Electrical				*116,014*
		ELECTRICAL				**116,014**

Item	Description	Takeoff Qty	Total Unit Cost	Total Amount
	009 Site Develo		***19.474/sqft***	***2,806,368***
	144,108.00 sqft			
	2,375.584 Labor hours			
	164.333 Equipment hours			

Item		Description	Takeoff Qty		Total Unit Cost		Total Amount
unassigned							
11.000		**EQUIPMENT**					
11.035		*Audio Visual System*					
	10	Audio Video & Projector Systems Rehearsal & Flex Class Rooms	8.00	room	27,500.00	/room	220,000
		Audio Visual System					*220,000*
		EQUIPMENT					**220,000**
		unassigned					***220,000***

Estimate Totals

Description	Amount	Cuts/Adds	Net Amount	Totals	
Labor	582,309		582,309		
Material	447,336		447,336		
Subcontract	26,387,534		26,387,534		
Equipment	181,933		181,933		
Other	121,409		121,409		
	27,720,521			**27,720,521**	
WC&Pavroll Tax	244.570				
Suretv Bond	221.718				
AGC Fees	17.685				
Liability Insurance	119.696				
Builder's Risk	74.810				
Project Contingency	100.055				0.352 %
CM Fee	1,424.953				5.000 %
	2,203,487			**29,924,008**	
Total				***29,924,008***	

T 0.33%
T 4.76%

207,650 /sf

Kirksey
ARCHITECTURE

6909 Portwest Drive
Houston Texas 77024
713 850 9600 | kirksey.com

STEPHEN F. AUSTIN STATE UNIVERSITY

NACOGDOCHES, TEXAS

PROCUREMENT SERVICES
P. O. Box 13030
NACOGDOCHES, TX 75962

REQUEST FOR QUALIFICATIONS

RFQ NUMBER
AE-BLDG PROJECTS-2018

RESPONSES MUST BE RECEIVED BEFORE:
5:00PM CST, WEDNESDAY, SEPTEMBER 5, 2018

MAIL RESPONSE TO:

Stephen F. Austin State University
Procurement and Property Services
P. O. Box 13030, SFA Station
Nacogdoches, TX 75962-3030

HAND DELIVER AND/OR EXPRESS MAIL TO:

Stephen F. Austin State University
Procurement and Property Services
2124 Wilson Drive
Nacogdoches, TX 75962

Show RFQ Number, Due Date and Time on Return Envelope

NOTE: RESPONSE must be time stamped at **Stephen F. Austin State University Procurement and Property Services** before the hour and date specified.

REFER INQUIRIES TO:

Kay Johnson
Stephen F. Austin State University
Procurement Services
936.468.4037
email: johnsondk6@sfasu.edu

STEPHEN F. AUSTIN STATE UNIVERSITY
Request for Qualifications #AE-BLDG PROJECTS-2018

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SECTION 1
INTRODUCTION

1.1 GENERAL DESCRIPTION

The university is seeking the services of an Architecture firm with experience in the programming, design and construction administration for several construction projects on the campus on Stephen F. Austin State University. The Architect will be selected at the same time as a Construction Manager at Risk to allow the firms to work together throughout the entire design process.

The proposed projects include:

Performing Arts Center – Renovate approximately 63,355 square feet of the existing Griffith Fine Arts facility built in 1959, and the addition of approximately 38,000 square feet of new space to house a theater with support and rehearsal facilities as well as a screening/lecture hall. The estimated construction cost of this project is Thirty-Seven Million Dollars ($37,000,000).

Residence Hall – Construction of a new residence hall of approximately 100,000 – 125,000 square feet and approximately 400 beds and possible demolition of an existing structure consisting of approximately 70,000 square feet that was constructed in 1966. The estimated construction cost of this project is Twenty-Four Million Five Hundred Thousand Dollars ($24,500,000).

Dining Facility – This project will consist of either major renovations or demolition and construction of a new facility, to replace the existing 42,480 square foot East College Cafeteria built in 1968. The estimated construction cost of this project is Fifteen Million Dollars ($15,000,000).

Welcome Center Building & Student Services Building – Renovate/re-purpose the existing Kennedy Auditorium building (1968 - 14,268 square feet) to create a welcome center and “one stop” shop for student recruitment, enrollment, and associated services, as well as performing phased renovation work on portions of the Rusk Building (1926 - 42,332 square feet) that are necessary to re-organize support services offered by departments providing various student services. The estimated construction cost of this project is Thirteen Million Dollars ($13,000,000).

1.2 SFA INFORMATION

SFA is an institution of higher education operated as an agency of the State of Texas. SFA employs approximately 1600 full and part-time faculty and staff members. SFA had an enrollment of 12,614 full and part-time students during the Fall 2017 semester. Most staff positions are based on a 12-month appointment coinciding with the fiscal year (9/1 - 8/31). Contracts are executed only for faculty members, and limited other appointments. A nine-member Board of Regents is appointed by the governor of Texas, with each regent serving staggered six-year terms.

1.3 PROJECT TIMETABLE

09/05/2018	Response Due
10/04/2018	Finalists selected and notified
10/10/2018	List of presenters due
10/26/2018- 10/29/2018	SFA Board of Regents Meeting, receive presentations and final selection
November – December 2018	A/E Contracting
1/1/2019	Estimated start for architectural programming
TBD	Estimated schematic design approval
TBD	CMR interim pricing
TBD	Estimated start for design development
TBD	Estimated start for development approval
TBD	Working drawings due
TBD	CMR GMP due
TBD	Estimated notice to proceed
TBD	Estimated substantial completion
8/31/2021	Estimated occupancy

*Dates are tentative and subject to change.

1.4 OPEN RECORDS

SFA anticipates that the review of the responses will be completed in October, 2018, and recommended to the Stephen F. Austin State University Board of Regents at their regularly scheduled meeting in October, 2018. Due to the nature of the responses, the parties understand the information exchanged in the negotiation process is confidential to the fullest extent permitted by law, and neither party will disclose such information to anyone other than representatives of the negotiating parties except as required by Texas law. Final awards and agreements, after all negotiations are completed, may be subject to the Texas Open Records Act. Additionally, state law requires each contract for the purchase of goods or services to be posted on the University's website. By entering into a contract with the university, the firm acknowledges and accepts the university will comply with all applicable laws regarding the public posting of contracts

1.5 HISTORICALLY UNDERUTILIZED BUSINESSES (HUB)

SEE EXHIBIT C – HUB SUBCONTRACTING PLAN
READ CAREFULLY

Each respondent is required to make a good faith effort to subcontract with historically underutilized businesses and shall submit a HUB Subcontracting Plan using the HUB Subcontracting Plan documents provided in Exhibit C.

Stephen F. Austin State University is committed to making a good faith effort to increase business with historically underutilized businesses (HUBs) by contracting with HUBs

either directly or indirectly through subcontracting opportunities. Respondents are encouraged to actively seek to subcontract or partner with HUBs in an effort to create an environment that actively acknowledges and values diversity.

The university has determined that subcontracting opportunities are probable under this contract.

The university's HUB goal for this procurement is:
23.7% for professional services

Each HUB subcontracting plan will be evaluated independently of the response. If the HSP does not reflect a good faith effort to subcontract with HUBs, the entire response will be disqualified.

All questions regarding the HUB Subcontracting Plan may be directed to the Procurement and Property Services Director/HUB Coordinator, Kay Johnson, 936-468-4037, johnsondk6@sfasu.edu

Failure to submit the HUB Subcontracting Plan will disqualify the bid from consideration.

1.6 U.S. DEPARTMENT OF HOMELAND SECURITY'S E-VERIFY SYSTEM

By entering into this Contract, the Contractor certifies and ensures that it utilizes and will continue to utilize, for the term of this Contract, the U.S. Department of Homeland Security's E-Verify system to determine the eligibility of:

1. All persons employed to perform duties within Texas, during the term of the Contract; and
2. All persons (including subcontractors) assigned by the Contractor to perform work pursuant to the Contract, within the United States of America.

The Contractor shall provide, upon request of SFA, an electronic or hardcopy screenshot of the confirmation or tentative non-confirmation screen containing the E-Verify case verification number for attachment to the Form I-9 for the three most recent hires that match the criteria above, by the Contractor, and Contractor's subcontractors, as proof that this provision is being followed.

If this certification is falsely made, the Contract may be immediately terminated, at the discretion of SFA and at no fault to SFA, with no prior notification. The Contractor shall also be responsible for the costs of any re-solicitation that SFA must undertake to replace the terminated Contract.

1.7 ISRAEL NON-BOYCOTT VERIFICATION

Pursuant to Section 2270.002, *Texas Government Code*, Contracting Party hereby represents, verifies, and warrants that it does not boycott Israel and will not boycott Israel during the term of the Agreement, as that term is defined by Section 808.001(1), *Texas Government Code*.

1.8 CONTRACTS WITH FOREIGN TERRORIST ORGANIZATIONS PROHIBITED

Pursuant to Section 2252.152, Texas Government Code, and to the extent applicable, Contracting Party hereby represents, verifies, and warrants that it does not do business with Iran Sudan, or any foreign terrorist organization identified on a list prepared and maintained under Section 806.051, 807.051, or 2252.153, Texas Government Code.

1.9 PARKING ON CAMPUS

All vehicles parked on the University campus must properly display a valid parking permit and comply with all University parking rules. The Parking and Traffic Office supervises and coordinates all parking transportation and traffic related functions on the campus. Permits expire each August 31.

Contractor shall be responsible for obtaining parking permits from the Parking and Traffic Office and for resolving, should they arise, any parking regulation disputes and violations. The Parking and Traffic Office telephone number is 936-468-7275.

1.10 TITLE IX

Stephen F. Austin State University strictly adheres to Title IX of the Education Amendments of 1972, the federal Campus Sexual Violence Elimination Act; United States Department of Education regulations and directives; and the university's sexual harassment policy and procedures ("Regulations"). Specifically, the Regulations apply to all students, employees, visitors, and other third parties on Stephen F. Austin State University-controlled property, including institutions and entities with whom Stephen F. Austin State University places its students. Further, such Regulations prohibit unequal treatment on the basis of sex as well as sexual harassment and sexual misconduct. As a condition of employment, enrollment, doing business, or being permitted on the campus, the above-mentioned individuals, organizations, and entities must agree to: 1) Report immediately to the Title IX coordinator any and all claims of sex discrimination or sexual misconduct; 2) Cooperate with Stephen F. Austin State University's Title IX investigation; and, 3) Cooperate fully with all sanctions that Stephen F. Austin State University may impose against such individual, organization, or entity, who is found to have violated the Regulations. If the individual, organization, or entity fails to adhere to any of the aforementioned requirements, Stephen F. Austin State University reserves the right to take appropriate action, including but not necessarily limited to, immediate removal from campus; discipline of employees and students (including termination of employment and/or expulsion from school); and termination of business or contractual relationships.

1.11 SMOKING, VAPING AND USE OF TOBACCO PRODUCTS

Stephen F. Austin State University is a tobacco and vape free campus.

SECTION 2
REQUIREMENTS FOR STATEMENT OF QUALIFICATIONS

Respondents shall carefully read the information contained in the following criteria and submit a complete statement of Qualifications to all questions in Section 2 formatted as directed in Section 3.3.7 and 3.3.8. Incomplete Qualifications will be considered non-responsive and subject to rejection.

2.1 CRITERIA ONE: (15%) RESPONDENT'S STATEMENT OF QUALIFICATIONS AND AVAILABILITY TO UNDERTAKE THE PROJECT (Maximum of two (2) printed pages per question)

2.1.1 Provide a statement of interest for the project including a narrative describing the Prime Firm's and Project Team's unique qualifications as they pertain to this particular project.

2.1.2 Provide a statement on the availability and commitment of the Prime Firm and its principal(s) and assigned professionals to undertake the project.

2.1.3 Provide a brief history of the Prime Firm and each consultant proposed for the project.

2.1.4 Provide a graphic representation of the project team, identifying the Prime Firm and each consultant proposed for the project.

2.2 CRITERIA TWO: (5%) PRIME FIRM'S ABILITY TO PROVIDE SERVICES

2.2.1 Provide the following information for the Prime Firm:

- Legal name of the company as registered with the Secretary State of Texas
- Address of the office that will be providing services
- Number of years in business
- Type of Operation (Individual, Partnership, Corporation, Joint Venture, etc…)
- Number of Employees by skill group
- Annual revenue totals for the past ten (10) years

2.2.2 Is your company currently for sale or involved in any transaction to expand or to become acquired by another business entity? If yes, please explain the impact both in organizational and directional terms.

2.2.3 Provide any details of all past or pending litigation or claims filed against your company that would affect your company's performance under a Contract with the Owner.

2.2.4 Is your company currently in default on any loan agreement or financing agreement with any bank, financial institution, or other entity? If yes, specify date(s), details, circumstances, and prospects for resolution.

2.2.5 Does any relationship exist by relative, business associate, capital funding agreement, or any other such kinship between your firm and any Owner employee, officer or Regent? If so, please explain.

2.2.6 Provide a claims history under professional malpractice insurance for the past five (5) years for the Prime Firm and any team members proposed to provide professional architectural or engineering services.

2.3 CRITERIA THREE: (20%) PROJECT TEAM'S ABILITY TO PROVIDE DESIGN AND CONSTRUCTION ADMINISTRATIVE SERVICES

2.3.1 Describe, in graphic and written form, the proposed project assignments and lines of authority and communication for principals and key professional members of each consultant that will be involved in the project. Indicate the estimated percent of their time these individuals will be involved in the project for design and construction.

2.3.2 Provide resumes giving the experience and expertise of the professional members for each consultant that will be involved in the project, including their experience with similar projects, the number of years with the firm, and their city of residence.

2.3.3 Clearly identify the members of the proposed team who worked on the listed projects in Criteria 2.4 and 2.5, and describe their roles in those projects.

2.3.4 Describe the basis for the selection of the proposed sub-consultants included in the design team and the role each will play for this project.

2.3.5 Describe the Prime Firm's process in working with consultants and integrating them into the design process.

2.4 CRITERIA FOUR: (25%) RESPONDENT'S PERFORMANCE ON PAST REPRESENTATIVE PROJECTS

2.4.1 List a maximum of five (5) projects completed in the last five (5) years for which you have provided services that are most related to this project. List the projects in order of priority, with the most relevant project listed first. Provide the following information for each project listed:

- Project name, location, contract delivery method, and description
- Color images (photographic or machine reproductions)
- Final Construction Cost, including Change Orders
- Final project size in gross square feet
- Type of construction (new, renovation, or expansion)
- Actual start and finish dates for design
- Actual Notice To Proceed and Substantial Completion dates for construction
- Description of professional services Prime Firm provided for the project
- Name of Project Manager (individual responsible to the Owner for the overall success of the project)
- Name of Project Architect (individual responsible for coordinating the day to day work)
- Name of Project Designer (individual responsible for design concepts)
- Consultants

References (for each project listed above, identify the following):

- The Owner's name and representative who served as the day-to-day liaison during the design and construction phases of the project, including telephone number
- Contractor's name and representative who served as the day-to-day liaison during the Preconstruction and/or construction phase of the project, including telephone number

- Length of business relationship with the Owner.

References shall be considered relevant based on specific project participation and experience with the Respondent. The Owner may contact references during any part of this process. The Owner reserves the right to contact any other references at any time during the RFQ/P process.

2.4.2 Identify a maximum of three (3) completed projects, of any type, for which the Prime Firm received an award for design excellence from a recognized organization and provide descriptive information for each.

2.5 CRITERIA FIVE: (10%) RESPONDENT'S PAST PERFORMANCE ON STEPHEN F. AUSTIN STATE UNIVERISITY PROJECTS

2.5.1 Identify and describe the Prime Firm's past experience on Stephen F. Austin State University projects within the last five (5) years. Projects may repeat with Section 2.4 above.

If the Prime Firm has not previously provided services for Stephen F. Austin State University, then identify and describe the Prime Firm's past performance on projects for institutions of higher education (or similar) within the last five (5) years. Projects may repeat with Section 2.4 above.

In either case above, provide the following information for each project listed:

- Project name, location, contract delivery method, and description
- Final Construction Cost, including Change Orders
- Final project size in gross square feet
- Type of construction (new, renovation, or expansion)

2.6 CRITERIA SIX: (10%) RESPONDENT'S DESCRIPTION OF SERVICES PROVIDED

2.6.1 Provide a detailed list (i.e. bulleted) of all Services and consultants you will provide to the Owner under Basic Services on this project including frequency and duration of site visits.

2.6.2 Provide a detailed list (i.e. bulleted) of all Services and consultants you will provide to the Owner as Additional Services for Design.

2.6.3 Provide a detailed list (i.e. bulleted) of all reimbursable services/expenses you will request from the Owner on this project.

2.6.4 Provide a detailed list (i.e. bulleted) of all reimbursable services/expenses you will request from the Owner on this project.

2.7 CRITERIA EIGHT: (15%) RESPONDENT'S KNOWLEDGE OF BEST PRACTICES

2.7.1 Describe the Prime Firm's design philosophy, design methodology, and its process for integrating institutional standards into design.

2.7.2 Describe the Prime Firm's quality assurance program explaining the method used and how the firm maintains quality control during the development of Construction Documents and quality assurance during the Construction phase of a project

2.7.3 Describe your project team's demonstrated technical competence and management qualifications with institutional projects, particularly those for higher education.

2.7.4 Describe your cost estimating methods for the design phases. How do you develop cost estimates and how often are they updated? For any combination of three (3) projects listed in response to Criteria 2.4 and 2.5, provide examples of how these techniques were used and what degree of accuracy was achieved.

2.7.5 Describe the way in which your firm develops and maintains work schedules to coordinate with the Owner's project schedule.

2.7.6 Describe the project team's approach to assuring timely completion of this project, including methods you will use for schedule recovery if necessary.

2.7.7 Describe how you track Owner input and review comments on your design document submittals to confirm that they have been addressed.

2.7.8 Describe your understanding of the administrative challenges and opportunities associated with providing Design and Construction Administrative services for Stephen F. Austin State University on this project.

2.7.9 Understanding schedule limitations, provide an analysis of the Owner's project planning schedule and describe how you plan to develop and communicate design, scope, and budget options to meet that schedule.

SECTION 3
RESPONSE SUBMITTAL INFORMATION

3.1 CONTACT INFORMATION

3.1.1 All questions regarding the RFQ, or response must be forwarded to the Director of Procurement and Property Services:

Kay Johnson
P.O. Box 13030, SFA Station
Nacogdoches, TX 75962
Phone: 936.468.4037
Fax: 936.468.4282
Email: johnsondk6@sfasu.edu

3.1.2 Questions relating to the HUB Subcontracting Plan may be directed to the Procurement and Property Services Director/HUB Coordinator, Kay Johnson, 936-468-4037, johnsondk6@sfasu.edu.

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3.2 SUBMITTAL DEADLINE AND LOCATION

3.2.1 All responses must be received by SFA no later than 5:00pm, Wednesday, September 5, 2018.

3.2.2 Responses are to be submitted to:

MAIL RESPONSES TO:	**HAND DELIVER AND/OR EXPRESS MAIL TO:**
Stephen F. Austin State University Procurement and Property Services P. O. Box 13030 Nacogdoches, TX 75962-3030	Stephen F. Austin State University Procurement and Property Services 2124 Wilson Drive Nacogdoches, TX 75962

3.2.3 All U.S. Mail addressed to any component of SFA is delivered to a central mail room and redistributed by SFA personnel to the addressee's on-campus post office box. Consequently, there is a possibility of delay between receipt of mail at the central mail room and receipt in the Procurement and Property Services Department. Responses must be in the office of the Procurement and Property Services Department by the time set for RFP closing in order to be considered, and receipt by SFA at the central mail room will not be deemed sufficient. The university shall not be responsible for responses received after the due date and time. Late responses will not be considered under any circumstances. Properly identified late responses will be returned to the respondent unopened.

3.2.4 Responses will be publicly opened Thursday, September 6, 2018 at 8:00am in the office of the Director of Procurement, 2124 Wilson Drive. Only the names of the Respondents will be read aloud.

3.2.5 Responses received after the time for closing will be returned to Respondent unopened regardless of the circumstance. It is the responsibility of the Respondent to get the responses delivered in a timely manner regardless of delivery method or circumstances.

3.2.6 Responses may be withdrawn at any time prior to the time and date set for RFQ closing.

3.2.7 Stephen F. Austin State University reserves the right to accept or reject any or all responses and to waive irregularities or technicalities provided such waiver does not substantially change the response or provide an advantage to any Respondent in the judgment of Stephen F. Austin State University.

3.3 SUBMITTAL INSTRUCTIONS

3.3.1 All responses must be submitted in the format prescribed in Section 3.3.7 and 3.3.8.

3.3.2 Each Respondent must submit one (1) <u>original printed copy of the Qualifications</u> with original signatures on the Execution of Offer.

3.3.3 The printed copy shall (1) be unbound; (2) contain divider sheets or tabs; (3) be printed on 8-1/2 in. x 11 in. white paper to enable copying, if needed; and (4) be a complete copy of all information submitted with Respondent's Qualifications. Colors must reproduce in a legible manner on a black-and-white copier.

3.3.4 **Respondent shall also submit one (1) complete electronic copy of the printed copy of the Qualifications on electronic media** (e.g., USB Drive [SFA's preference], CD-ROM, or DVD-ROM) in a Microsoft Office (Word, Excel, Project and PowerPoint files) version 2003 or later format, or <u>searchable</u> Adobe .PDF files. . Respondents shall divide the electronic copy into **TWO (2)** separate electronic files, one of which shall contain Respondent's Qualifications and the other of which shall contain Exhibits A-C.

3.3.5 All responses must be complete and convey all of the information requested to be considered responsive. If the response fails to conform to the essential requirements of the RFQ, SFA alone will determine whether the variance is significant enough to consider the response susceptible to being made acceptable and therefore a candidate for further consideration, or not susceptible to being made acceptable and therefore not considered for award.

3.3.6 Responses shall be signed by a legally authorized representative of the Respondent. Unsigned responses (Exhibit A) will be rejected as a material failure.

3.3.7 Required Submittals
Failure to provide any of the following documents will result in disqualification of the response from further consideration

A. Exhibit A – Signed Execution of Offer
B. Exhibit B – Acknowledgement of Addenda, if any
C. Exhibit C – HUB Subcontracting Plan
D. Statement of Qualifications addressing all items in Section 2

3.3.8 Statement of Qualifications (Section 2) Response Format

A. Qualifications shall be prepared SIMPLY AND ECONOMICALLY, providing a straightforward, CONCISE description of the respondent's ability to meet the requirements of this RFQ. Emphasis shall be on the QUALITY, completeness, clarity of content, responsiveness to the requirements, and an understanding of Owner's needs

B. Qualifications shall be a MAXIMUM OF SIXTY-FIVE (65) PRINTED PAGES. The cover, table of contents, divider sheets, HUB Subcontracting Plan and Execution of Offer do not count as printed pages.

C. Respondents shall carefully read the information contained in this RFQ and submit a complete response to all requirements and questions as directed. Incomplete Qualifications will be considered non-responsive and subject to rejection.

D. Qualifications shall consist of answers to questions identified in Section 2 of the RFQ. It is not necessary to repeat the question in the Qualifications; however, IT IS ESSENTIAL TO REFERENCE THE QUESTION NUMBER WITH THE CORRESPONDING ANSWER.

E. Separate and identify each criteria response to Section 2 of this RFQ by use of a divider sheet with an integral tab for ready reference.

F. Qualifications shall be printed on letter-size (8-1/2” x 11”) paper and unbound. DO NOT USE METAL-RING HARD COVER BINDERS.

G. Submittals shall include a “Table of Contents” and give page numbers for each part of the Qualifications.

H. Number all pages of the qualifications submittal sequentially using Arabic numerals (1, 2, 3, etc.); the Respondent is not required to number the pages of the HUB Subcontracting Plan.

3.4 EVALUATION AND RECOMMENDATION

3.4.1 All responses will be reviewed and recommendation made in accordance with Government Code Title 10, Chapter 2254. Initial review will be performed by an evaluation committee representing Stephen F. Austin State University.

3.4.2 Responses will be evaluated by the evaluation team using the criteria outlined in Section 2. Stephen F. Austin State University reserves the right to award an agreement based on the criteria that best meet the University's requirements and goals. The University shall be the sole judge of determining which response represents the best value to the University.

3.5 ACCEPTANCE AND FORMATION OF AGREEMENT

The SFA Board of Regents will confer in an open and public meeting and make the award decision based upon its determination of the best value to the university after considering the evaluation team recommendation and oral presentations. The Board of Regents reserves the right to reject any or all responses or to make an award based on information from the presentations that may not have been considered in the original evaluation criteria. By submitting a response, respondent accepts that best value will be solely determined by the SFA Board of Regents, and the original evaluation criteria will be used for determining which companies will make presentations to the board.

Award of an agreement from this Request For Qualification is contingent upon final approval by the Attorney General for Revenue Finance System Bonds (Revenue Bonds). If the Revenue Bonds are not approved, this RFQ will be cancelled, and no award will be made.

3.6 PRESENTATIONS

This information is for presentations for informational purposes only. Finalist will receive specific instructions, including, but not limited to, the date, time, and location of presentations to be made

A. If requested, finalist presentations and interviews will be made to the Building and Grounds Committee of the SFA Board of Regents between October 26 - 29, 2018.

B. Presentations should include the actual design professionals that will be assigned to the projects.

EXHIBIT A
EXECUTION OF OFFER

RFQ #AE-BLDG PROJECTS-2018

In compliance with this RFP, and subject to all the conditions herein, the undersigned offers and agrees to furnish any or all commodities or services and to comply with all terms, conditions and requirements set forth in the RFQ documents and contained herein.

By signature hereon, Respondent affirms that he/she has not given, offered to give, nor intends to give at any time hereafter any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to a public servant in connection with the submitted Qualifications. Failure to sign the response, or signing it with a false statement, shall void the submitted response or any resulting contracts, and the Respondent may be removed from all bid lists.

By the signature hereon affixed, the Respondent hereby certifies that neither the Respondent nor the firm, corporation, partnership, or institution represented by the Respondent or anyone acting for such firm, corporation, or institution has violated the antitrust laws of this State or the Federal antitrust laws nor communicated directly or indirectly the response made to any competitor or any other person engaged in such line of business.

By signature hereon, Respondent certifies that if a Texas address is shown as the address of the Respondent, Respondent qualifies as a Texas Resident Bidder as defined in Rule 34 TAC 20.38.

Certifications:
Texas Family Code Child Support Certification. By signature hereon, Respondent certifies as follows: "Under Section 231.006, Texas Family Code, the Contractor certifies it is not ineligible to receive the payments specified in the Agreement and acknowledges that this Agreement may be terminated and payment may be withheld if this certification is inaccurate."

Sales Tax Certification. By signing the Agreement, the Respondent certifies as follows: "Under Section 2155.004, Texas Government Code, the Contractor certifies that the individual or business entity named in this Agreement is not ineligible to receive the specified contract and acknowledges that this contract may be terminated and payment withheld if this certification is inaccurate."

Franchise Tax Certification. By signing the Agreement, a corporate or limited liability company, Respondent certifies that it is not currently delinquent in the payment of any Franchise Taxes due under Chapter 171 of the Texas Tax Code, or that the corporation or limited liability company is exempt from the payment of such taxes, or that the corporation or limited liability company is an out-of-state corporation or limited liability company that is not subject to the Texas Franchise Tax, whichever is applicable. Contractor acknowledges and agrees that if this certification is false or inaccurate, at University's option, the Agreement may be terminated and payment withheld.

Payment of Debts to the State of Texas. That pursuant to Section 403.0551, Texas Government Code, the Respondent agrees that any payments owing to the Contractor under this contract may be applied towards any debt or delinquent taxes that the Contractor owes the State of Texas or any agency of the State of Texas, until such debt or delinquent taxes are paid in full.

The person signing the Response should show title or authority to bind his/her firm in contract.

Federal Employer's Identification Number:_____

Sole Owner should also enter Social Security No.:_____

Respondent/Company:_____

Signature (INK):_____

Name (Typed/Printed):_____

Title:_____

Street:_____

City/State/Zip:_____

Telephone No/Fax No:_____

Email.:_____

THIS SHEET MUST BE COMPLETED, SIGNED, AND RETURNED WITH RESPONDENT'S SUBMITTAL. FAILURE TO SIGN AND RETURN THIS SHEET MAY RESULT IN THE REJECTION OF YOUR RESPONSE.

EXHIBIT B
ACKNOWLEDGEMENT OF ADDENDA

Receipt is hereby acknowledged of the following addenda to this RFP.

Addenda No. _____ Dated _____

Addenda No. _____ Dated _____

Addenda No. _____ Dated _____

Addenda No. _____ Dated _____

Respondent/Company:_____

Refer to the SFA Procurement and Property Services Department website to confirm all addenda issued: http://www.sfasu.edu/purchasing/122.asp

EXHIBIT C

HUB SUBCONTRACTING PLAN (HSP)