

USITT-ASTC Venue Renovation Challenge University of Virginia

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Introduction & Existing Site







The McIntire Amphitheater is an outdoor theater located on the Central Grounds of the University of Virginia. The amphitheater, designed by Architect Fiske Kimball and built in 1921, is in a classical style featuring oversized concrete seating, two main staircases, and a stage structure with two small buildings attached forming a Skene.

Existing Site Photographs

















Existing Site Photographs



The objective of this project is to revilitize the 1920 McIntire Amphitheatre, located on the historic grounds of the University of Virginia, from a public ruin rarely used formally or informally into a thriving public intersection by day and a working student performing space by night. This will serve to fill a deficiency of student performing spaces for theatre, dance, and music groups on Grounds by providing a spatial hub for student performance groups with a venue of flexible capacity and usability, production support infrastructure, and company spaces for storage and rehearsal.

These goals are accomplished via 5 means of intervention:

Maintenance of the greater spatial sense of the site, while resloping and terracing the public space to allow greater informal uses by day to students intersecting the site shaded under the new structure.

Excavation and terracing of the inner lawn and reconfiguration of the audience improving sightlines allows a comfortable atmosphere in the house at a variety of capacities while providing supporting occupied spaces in the new edges of excavation.

Overlaying the site with frames, catwalks and trusses of technical infrastructure provides positions for equipment without interrupting the condition of the audience below and gives flexibility and greater capability to the needs of designers at multiple scales of production, sheltering the stage below, and providing safe clear access to amateur technicians.

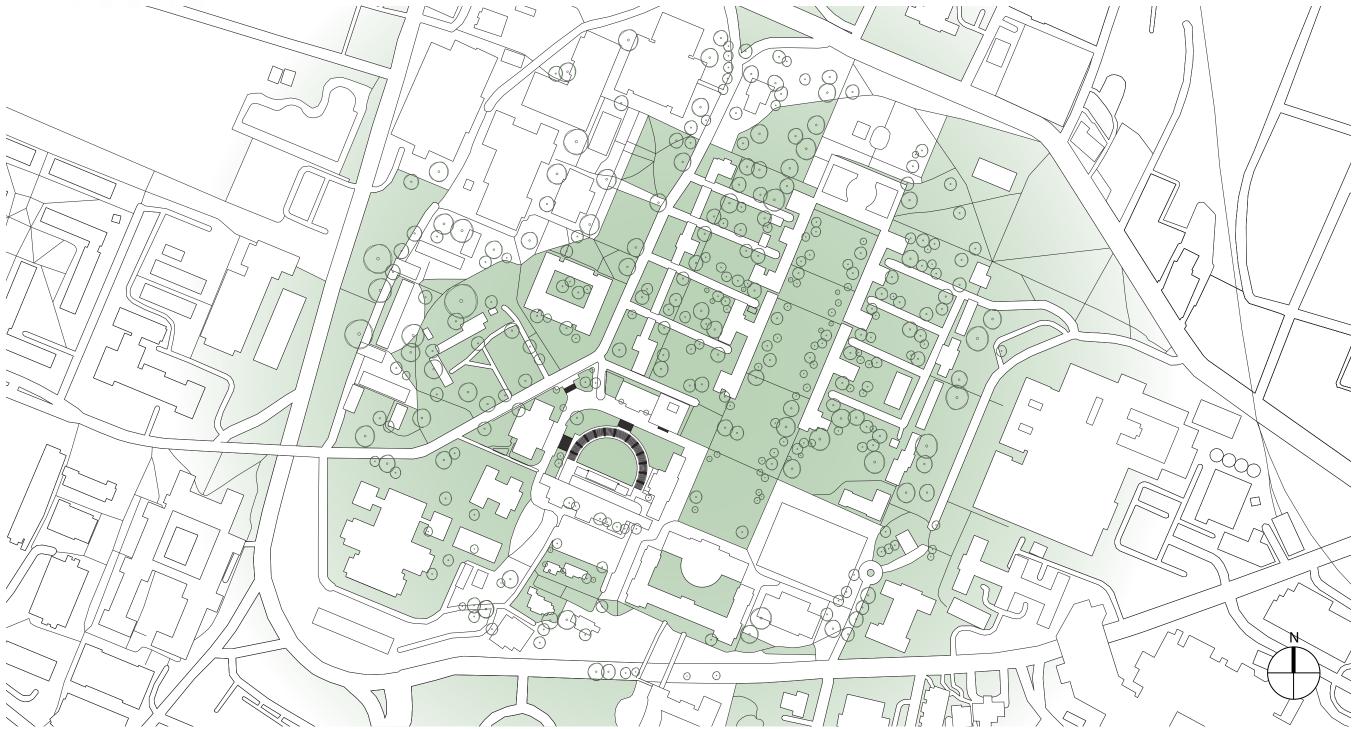
Depression and reconstruction of the stage to usable proportions allows greater connectivity with the audience and backstage, and better serves amatuer performers, directors and designers to create performances ranging from dance, to plays to musicals.

Extrusion of the single wall of the existing Skene into a new volume of supporting space across 3 floors from performance support of scene shops and dressing rooms rising to rehearsal rooms supporting student theatre companies outside of their performances.

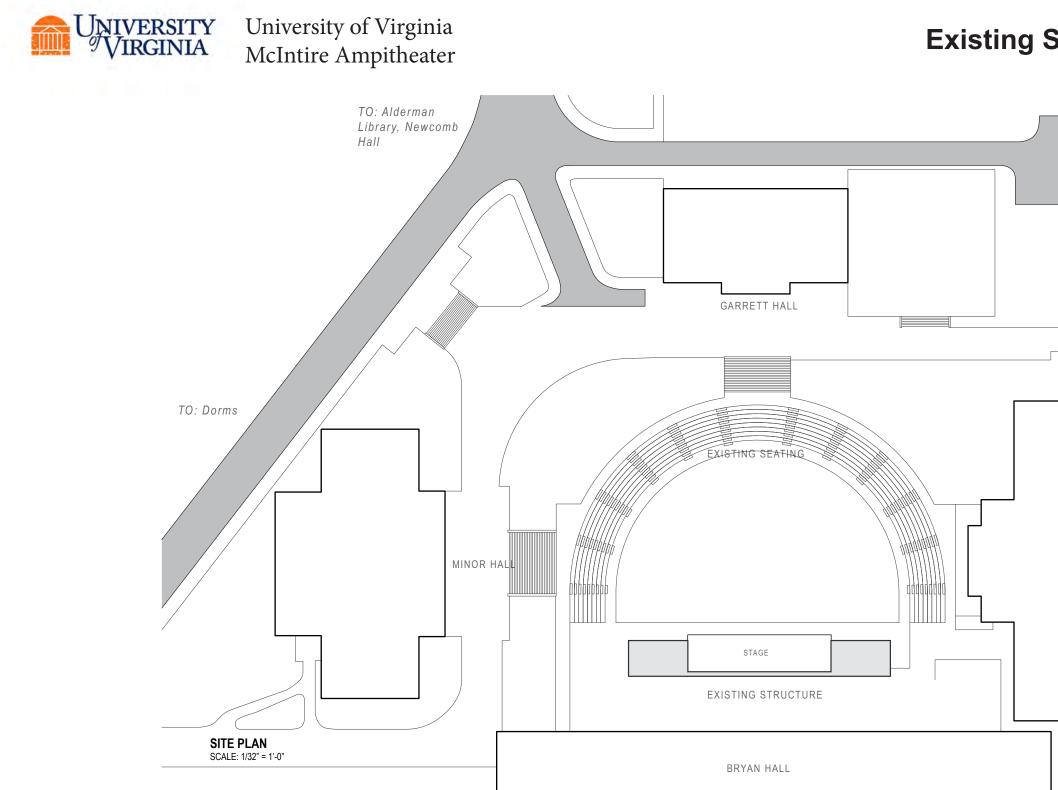
Mission Statement



University Site Map - Central Grounds



McIntire Ampitheater is seated in the middle of the grounds of the University of Virginia, a historic university founded in 1819 by Thomas Jefferson known for its traditional colonial architecture of the Academical Village.



Location of the McIntire Amphitheater in UVA's Central Grounds, with close proximity to academic buildings (Minor, Garrett, Cocke, and Bryan Halls), the Lawn, Alderman Library, and on-grounds student residences. The existing seating forms a semicircle around a large grass field that is used as a flexible event space.

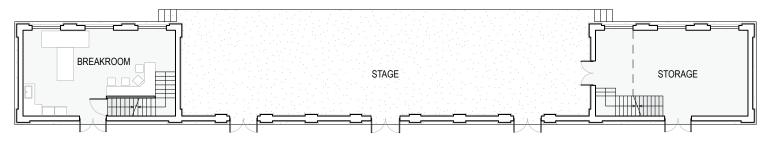
Site Plan						
	— TO: The Lawn, _ Rotunda					
	COCKE HALL					



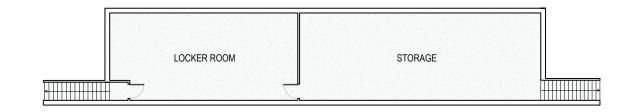
Existing Structure Plans







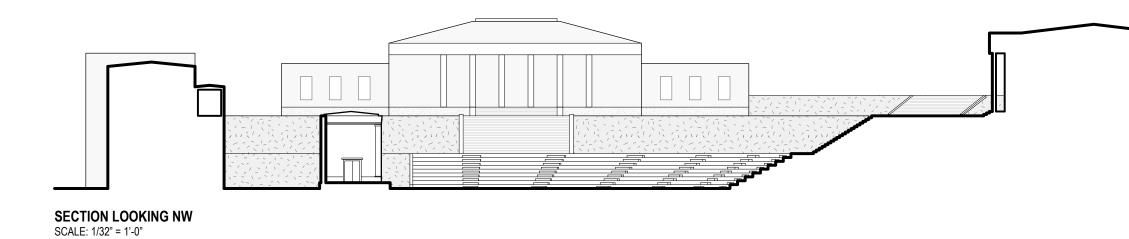






Plans of the existing backstage structure, constructed in 1921 and most recently renovated in 2012. Currently, the two small buildings at either side of the stage are primarily used for storage (as well as offices and a breakroom for UVA facilities staff), across two above-ground floors and a basement.





Existing section shows the 25' height decrease from the sidewalk in front of Garrett and Minor Halls to the ground by the stage. A large, flat grassy area separates the existing seating from the stage.

Existing Transverse Section



Key areas	Current Site Needs	Solutions
Size, Form, Scale and Sightlines	Seating is very far away from stage and the stage itself is far too wide and shallow. Sightlines are extremely wide and with hard interior corner angles. When additional seating is built in on the grass, the seats block each other.	Demolishing the exis deeper more narrow greater headroom o the horizontal sightli increase useable se
Circulations and Access	Site has very difficult accessiblity with only a few stairs and fewer railings and no ramps	Adding ramp access site.
Public Space Functionality	The site is underused as it is very open and shade- less. The theatre must moderate between the pub- lic "daytime" informal function and the "nightime" function as a performance venue.	Development of add nance of green spac not in performance.
Performance and FOH Infrastructure	To hold night events or more full productions, all technical infrastructure must be added including power and data, positions for rigging and equip- ment, backstage, loading dock, and stage access.	Building in positions Addition of backstag es. Addition of bathr trol.
Sun, Weather and Water	The current site is exposed to the elements and as a lower point, rain accumulates in the grass.	Sheltering the stage stage in rain, and ke overheard equipmer be weather resistant In excavation the wa Maintaining grass or permeablity with cor even. At the lowest p

ge allows material to be left on the keeps rain and snow directly off ent. All equipment would need to ant as the site is still open. water runoff problems grow. on the seating platforms keep concrete steps to keep the pads even. At the lowest point by the orchestra pit french drains and additional drainage would be necessary. Civil engineering consultation would be necessary to specify those solutions.

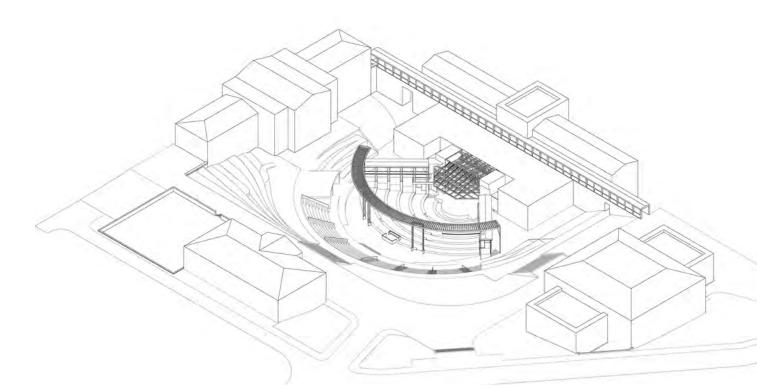
existing stage and creating a ow stage. Excavation to give over the stage. Constraining of tline and reconfiguring seating to seats

essiblity across the levels of the

dditional public areas, mainteace function in seating for when ÷.

ns for lighting, audio and rigging. age building for production spachrooms and FOH booth for con-





Public Space/Accessiblity Improvements

-Resloping of ground and creation of larger open space to aid public flow

-Increasing circulation and accessiblity with railings and ramps between all levels.

-Large seating platforms and shade of the structure and pergola allows the seating area to be used by public when not in performance.

-Creation of a large public plaza on the roof of the new addition between Bryan Hall and the existing structure.

Front of House Construction: Seating/Audience Experience

-Sightlines/Seating: Resloping of seating to create comfortable vertical sightlines and increase seating capacity.

-Intimacy: Bringing the audience closer to the stage, extending the apron, and keeping technical infrastructure above allows for a deeper engagement of audience and performer. The new seating gently slopes back from the stage leading up to the old concrete seats, which allows the space to flex capacity while using the entire seating area. This is designed to make the house seem comfortably full with as few as 50-100 on lawn seats, 500 in chairs, or 1,000 into the overflow seating.

-Bathrooms/Ammenties/Support: Bathrooms are placed in the booth and accessed off the side aisles of the seating. As the site is very public and mainly for public and student events, ticketing and concessions can be set up as needed in the public area near the stairs.

Proposed Interventions

Backstage Addition: Company/Production Support

-Rehearsal Spaces: creating dedicated larger rehearsal rooms to aid dance and theatre groups in smoothly transititioning into the main theatre. -Storage: temporary and longer term storage needs from resident and visitng companies as well as items such as chairs, and venue equipment. zations without offsite working space principle dressing rooms.

er use.

Complete Stage Renovation: Stage/Performer Experience

-Scale: comfortable width (40') for most types of performance as well as quite deep to allow for a wide range of staging options. Grid height is tall enough to allow for tall scenery and for the stage to not seem compressed.

-Form: While the seating and apron are radially organized, the stage is not a thrust intentionally to control the audience view angle and allow for direct side allowing deeper engagement with the house than a proscenium.

Technical Support Infrastructure Additions.

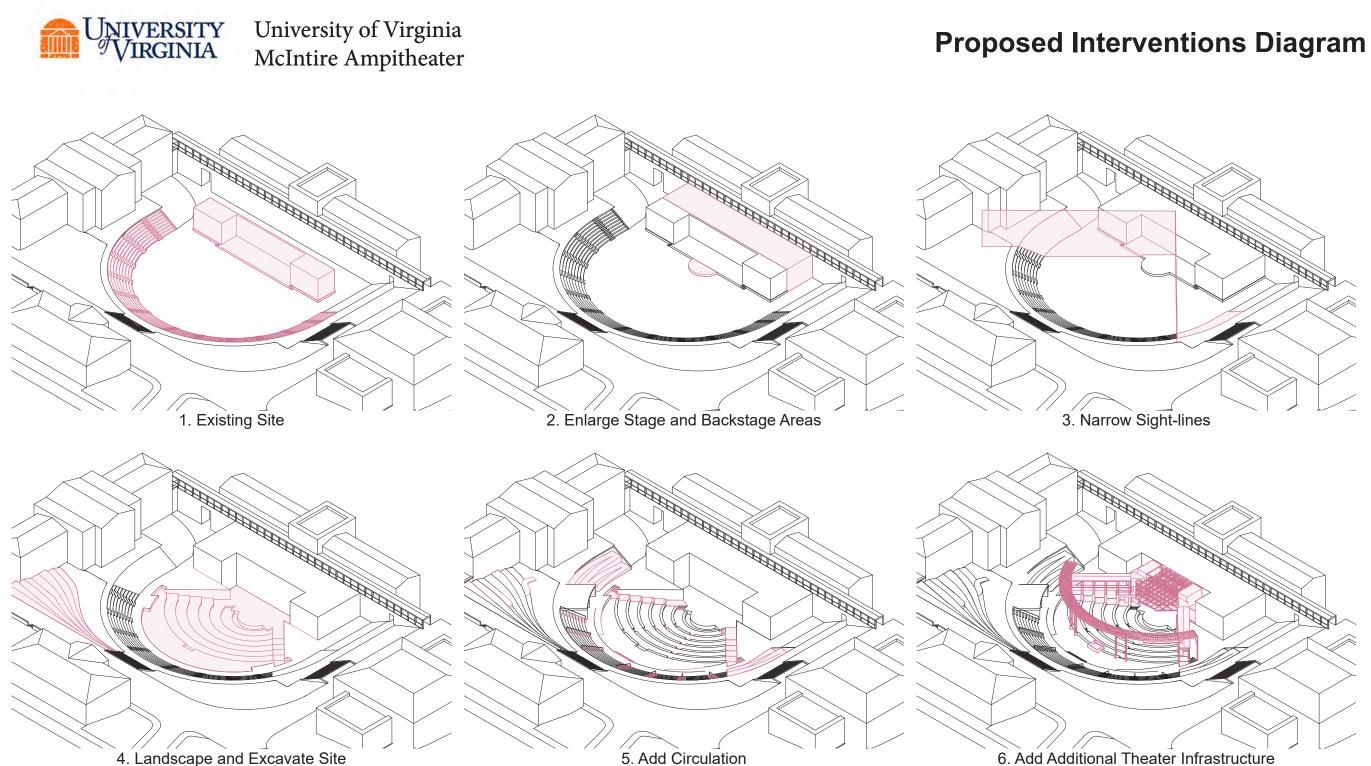
-Climate: moderate shelter over stage and equipment and weather resistance

and designer preferences.

-Acoustics: improving performance audio guality and projection.

fly systems via catwalks, alcoves and the tension grid.

- -Production Shops: Able to support moderate levels of production work for organi-
- -Dressing Rooms/Green Room: supporting cast sizes 10-40, with ensemble and
- -Deep wings and full crossover at double height to allow for scenery and perform-
- entrances like an end stage. This is to accommodate new and amateur directors, performers and designers to whom a large thrust might pose particularly challenging. Additionally, the form allows for a wider variety of performance types while still
- -Rigging: allowance for flexible overstage rigging capablities over the entire stage.
- -Lighting: ensuring positions, power and data to serve many types of productions
- -Ease of technician access: designing all positions to be accessible without lifts or



The diagram above outlines our design process.

1.) The site is analyzed and specific issues are identified.

2.) Issues with existing dimensions prompted the widening of the stage and the addition of a backstage building.

3.) Obstructed views in the corners of the existing seating led to the narrowing of the seating area.

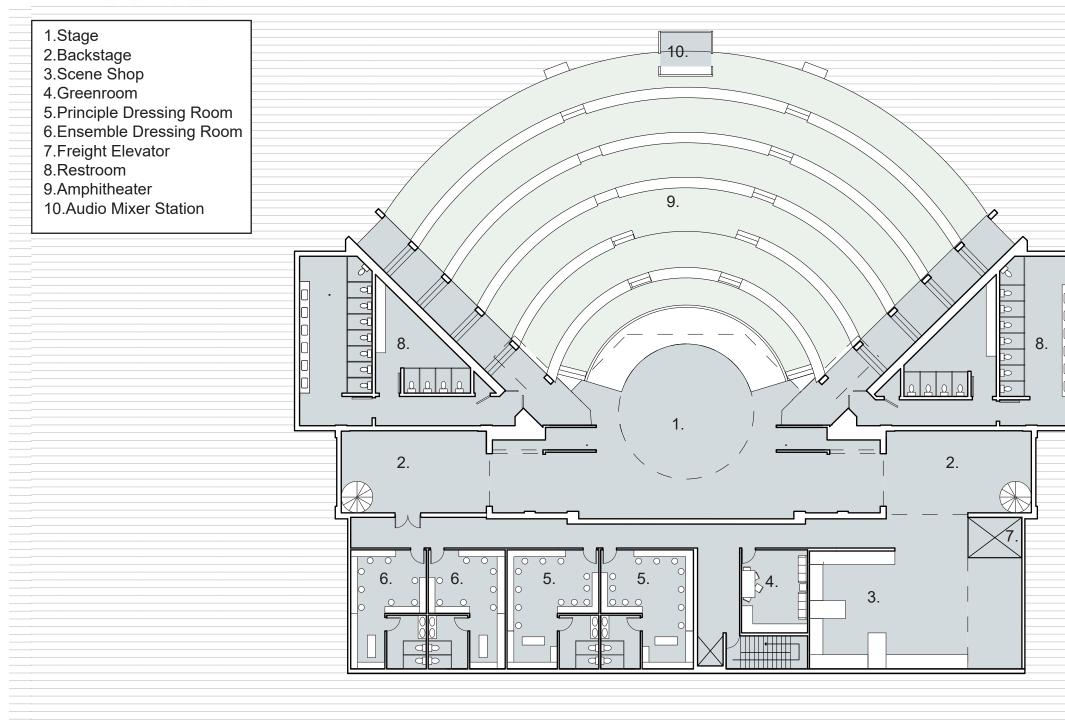
4.) Dimensions and views from existing seats prompted the addition of a new seating area in the inner lawn. This space was excavated to provide more intimate and unobstructed seating options for the new stage.

5.) Ramps, stairs, and, railings are added around the site to make the site accessible from new angles.

6.) Finally, additional theater infrastructure is added.

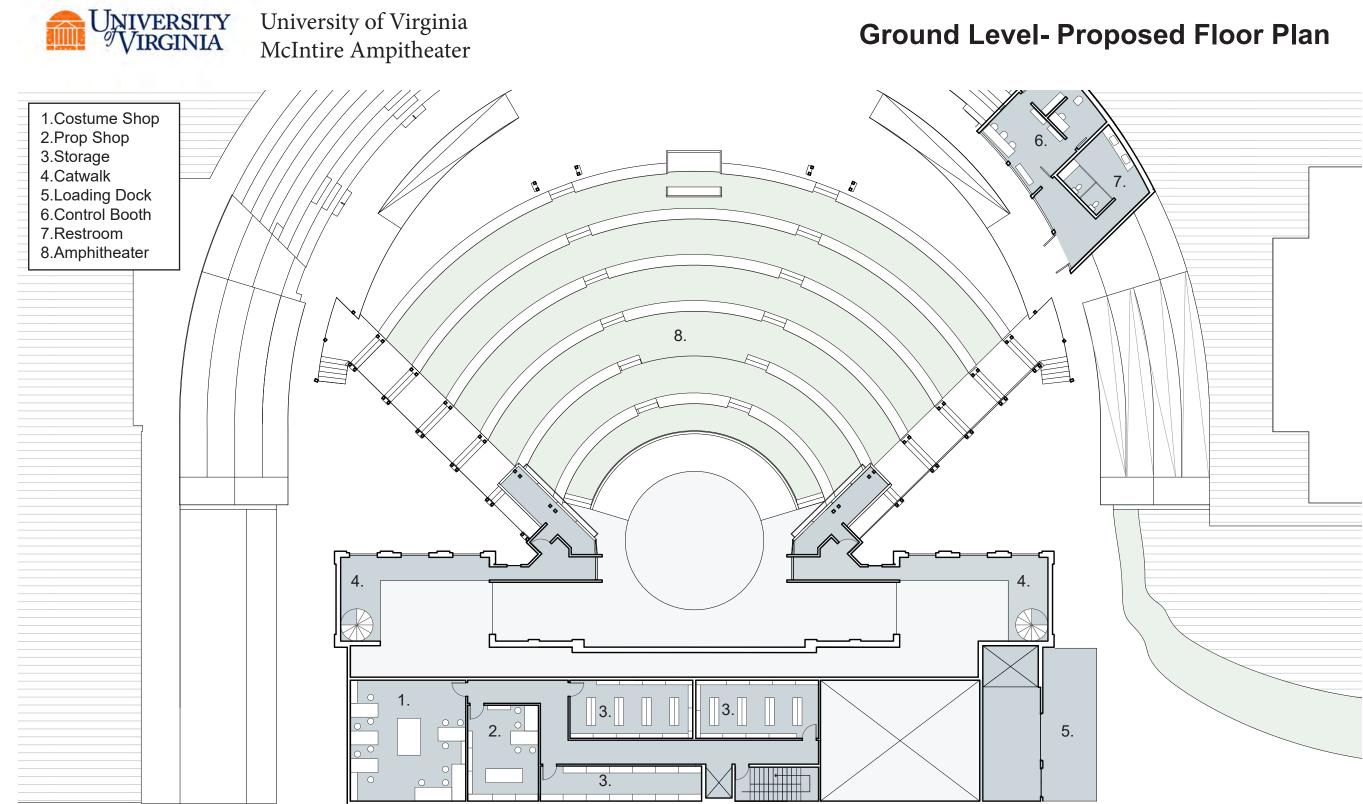


Sublevel- Proposed Floor Plan

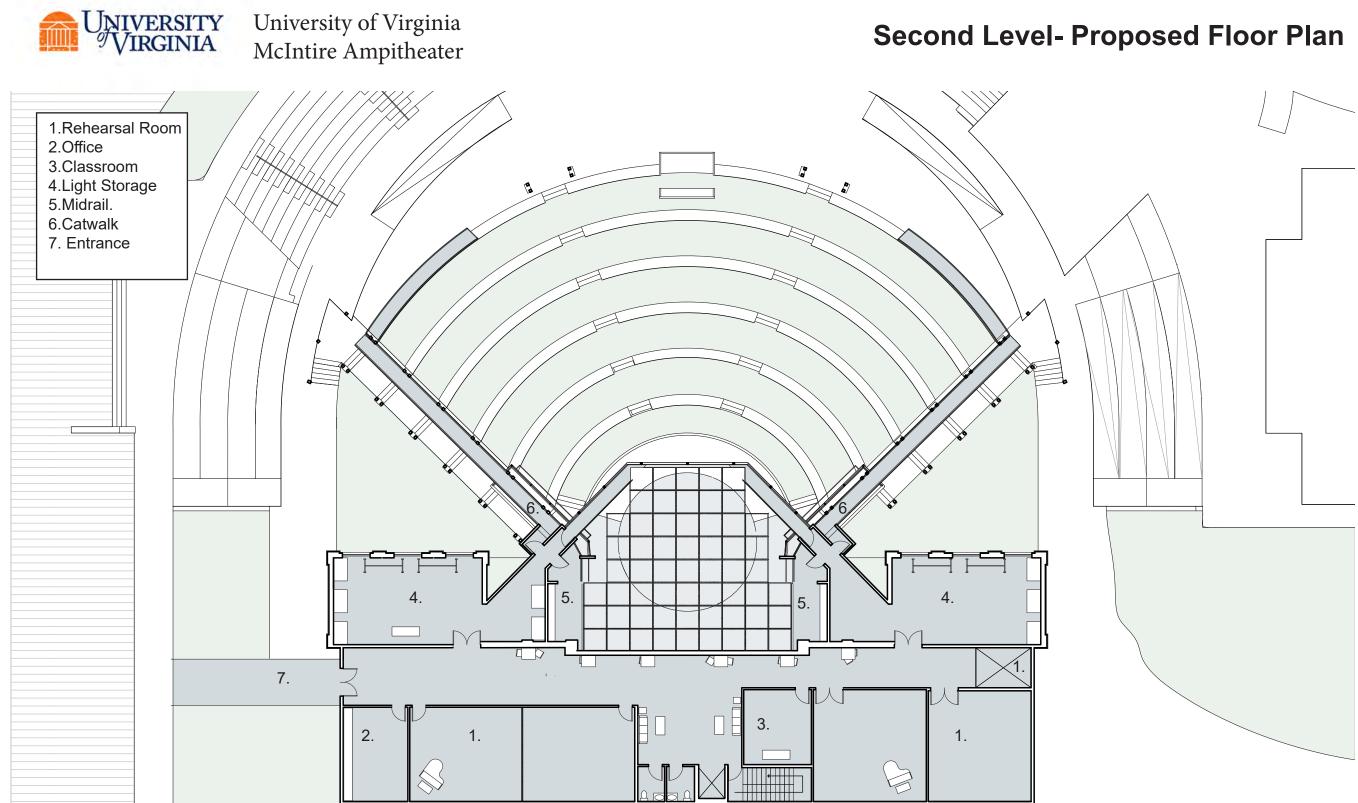


The proposed addition to the existing structure provides essential infrastructure for a performance space. Principle and ensemble dressing rooms provide space for performers ranging from actors to dancers to musicians. A scene shop, with a freight elevator, allows for a space to build and create set pieces.

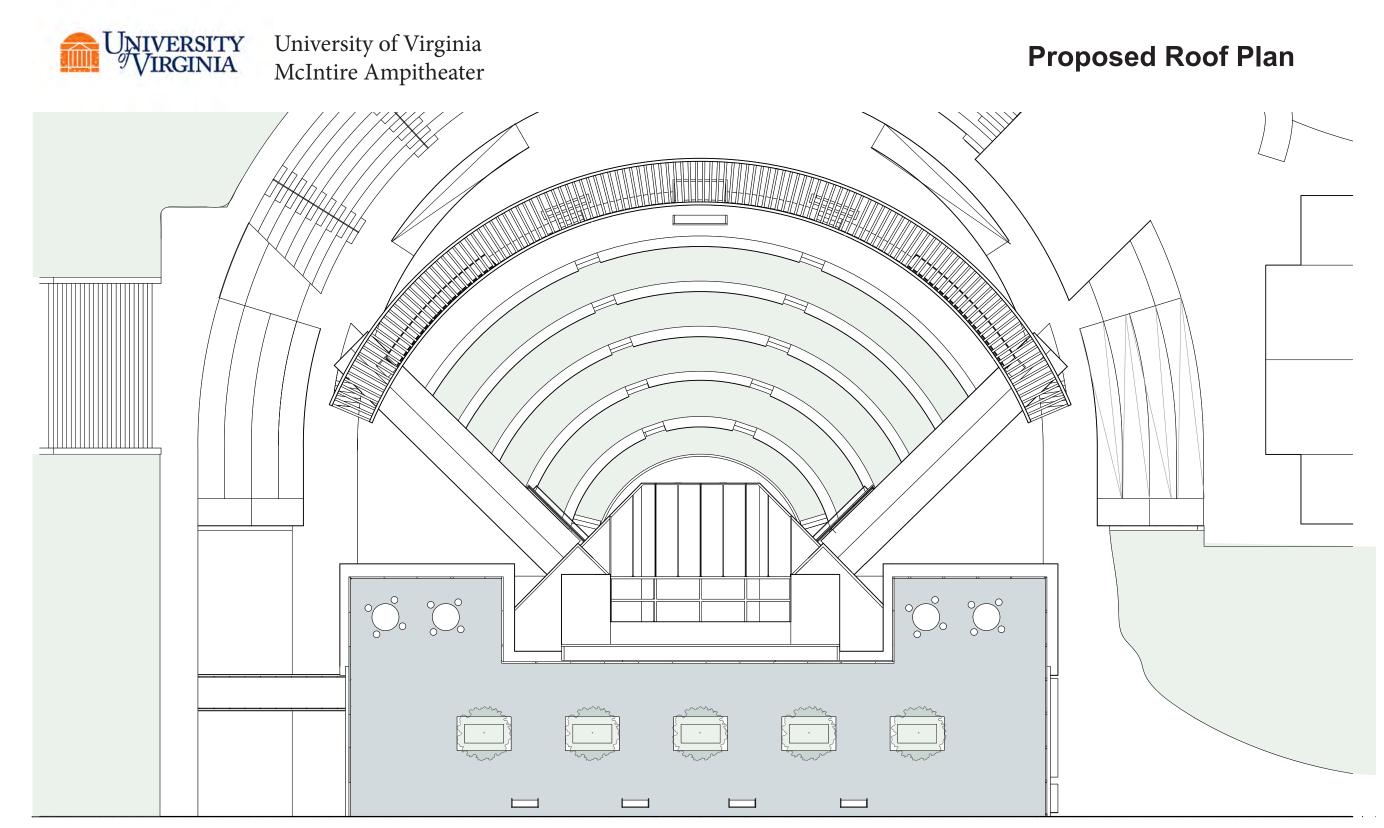
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The proposed plan for the ground floor provides shop space for building props and fabricating costumes. These spaces can be used as teaching spaces as well. With an infrastructure to sustain many student-based performances, ample amounts of storage space was necessary. The spaces over the scene shop, in the wings, and the cross over are made double height to facilitate movement of tall scenery. An enclosed control booth was placed front of house giving a space for stage managers and board operators space to call shows.

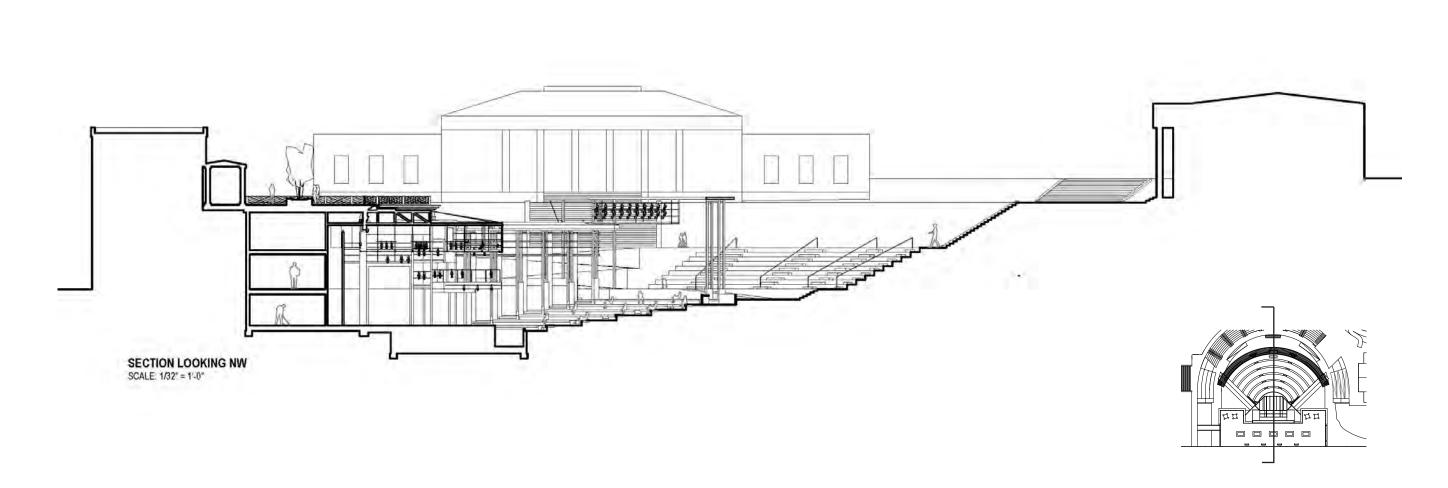


The upper level of the proposed building provides much needed rehearsal spaces on UVA's grounds. Designed with a partition wall, the rehearsal spaces can be opened for larger rehearsals matching the width of the stage or accomodate smaller groups. Light storage spaces can also be used as demo rooms for lighting designers with a classroom to provide more teaching space. This floor provides access to the midrail and catwalks.



The intentions for this renovation was not only to provide a space for performers and musicians, but also provide additional public space for the general UVA community. The rooftop terrace provides this additional gathering space for students and faculty to experience this space from a different perspective.

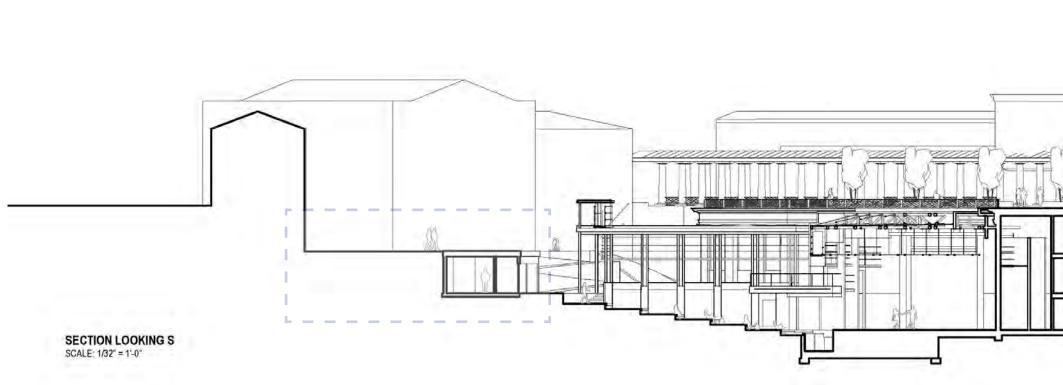




Proposed intervention involves digging down into the grass field to lower the stage height, and the construction of a three story backstage structure. Portions of the existing seating are cut away to narrow the viewing angles, and provide space for additional ramps to improve the accessibility of the space.

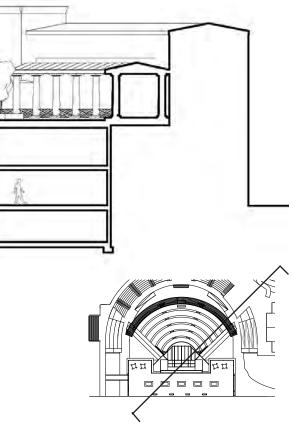
Proposed Transverse Section





Front of house spaces (lighting booth, restrooms) are housed in a small building embedded in the existing seating level. The rooftop space acts as an extension of the flat ground beyond, forming an intermediate plaza for informal events and distant viewing of performances. (Area highlighted within dotted line)

Proposed Radial Section





University/Venue Staffing:

Permanent Technical Manager:

Responsible for overall management of the venue, equipment/shops, training/ oversight of Student Technicians, offices in the venue. Interfaces with user groups in pre production.

Part Time Student Employee House Technicians: Serve as house technicians per the Technical Manager Interfaces between user groups and the Technical Manager day to day. Workforce that is tied to semester along with student groups and that can be present during weekend and evening times when student groups are loading in, teching, etc to help ensure safe working, and help advise amateur technicians.

lloor	Student Producing Groups: Wide number of possible number of performers and scale of production. Generally small to medium audiences.		University Ru	
User Groups	Dance/ Music Groups		Theatre Groups	University at large Events (i.e. Commencent Exercises)
Personnel	Dance and music groups ma own designers and/or techni from the Drama Department arts community, supplement dent House Techncians for the needs.	cians recruited /performing ed by the Stu-	Theatre Groups, having more involved production needs, have a larger internal structure with leadership channels in all production areas led by the Producer, Director and Technical Director, supported by Department heads and designers; however, as amateur groups, support from the Venue staff to assist/ensure safe operations particu- larly in areas such as rigging and corodination of spaces and material such as shops, storage, tools, and equipment is key.	The University for its own events, through the Technical Manager, provides its own labor and offsite material.
Needs	Dance Common Needs -Rehearsal Space -Dressing Rooms/Green- room -Dance Flooring -Rep Lighting -Audio Playback	Music Common Needs -Dressing Rooms/ Greenroom -Rep Lighting -Audio	Rehearsal Space -Storage -Costume, Prop, Scene Shops -Dressing Rooms/Greenroom -Orchestra Pit -Potentially larger/complex scenery and lighting needs -Audio Playback/Mics	-Storage -Audio/Lighting
Audience	Lawn Seating or Single Rows	s of Chairs	Lawn Seating or Single Rows of Chairs	Double Rows of Chairs and Old Seating.

Proposed Staffing Needs

Run Programs/Larger Events

Additional Large Performance Groups:
(i.e Department of Music, Department of Drama, and/
or Heritage Theatre Feastival (Summerstock))

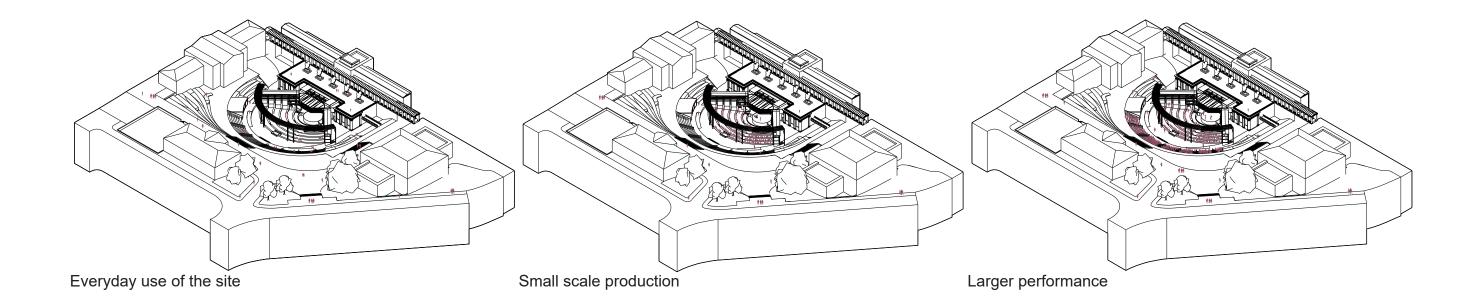
Larger companies have sufficent outside knowledge and resources to operate independently and do much production work offsite, venue staff would be limited to ensure smooth handoff to visiting company before load in and restoration after load out. .

-Dressing Rooms/Greenroom

-Audio/Lighting Equipment -Potential for more advanced and outside equipment brought in to supplement house equipment.

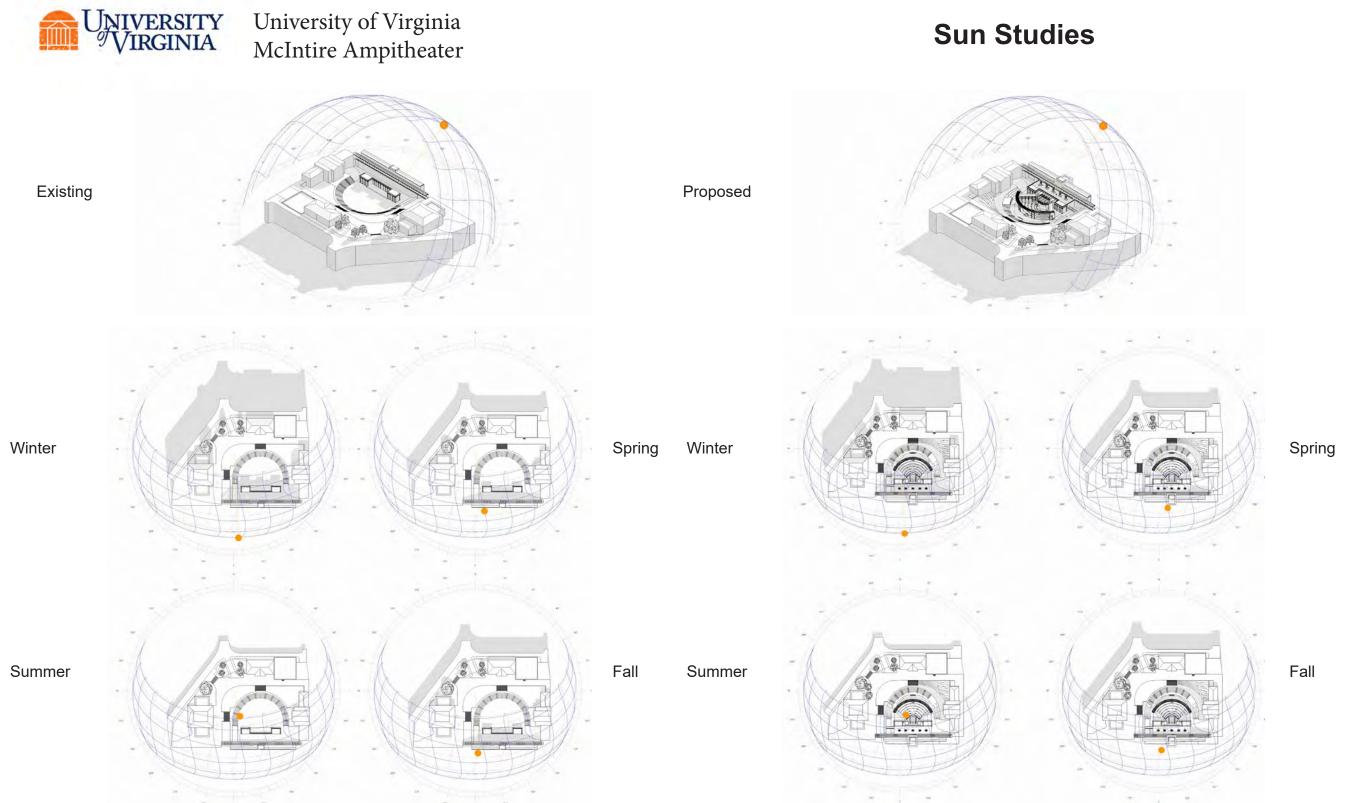
Audience needs vary





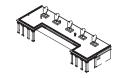
The proposed space is designed to host events of different scales. When not in use, the proposed design transforms an otherwise rejected space into more gathering space for the UVA community. The lower seating of the Amphitheater can accomodate seating for some of the smaller productions, while the audience can expand into the upper rows for larger performances like concerts and musicals.

Use of Space Diagrams

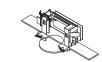


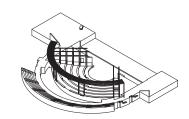
Proposing an exterior theater space renovation, a series of sun studies were performed to understand the comfort and lighting of the space during the day. The existing space is exposed to the sun throughout the entire year. With the new proposal, by digging down into the site, new seating can be shaded from the sun by the building south of our site. This provides more comfortable shaded space for audience members during daytime shows or students lounging between classes.

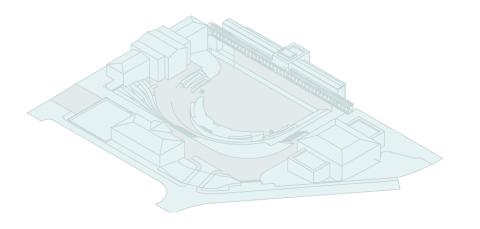




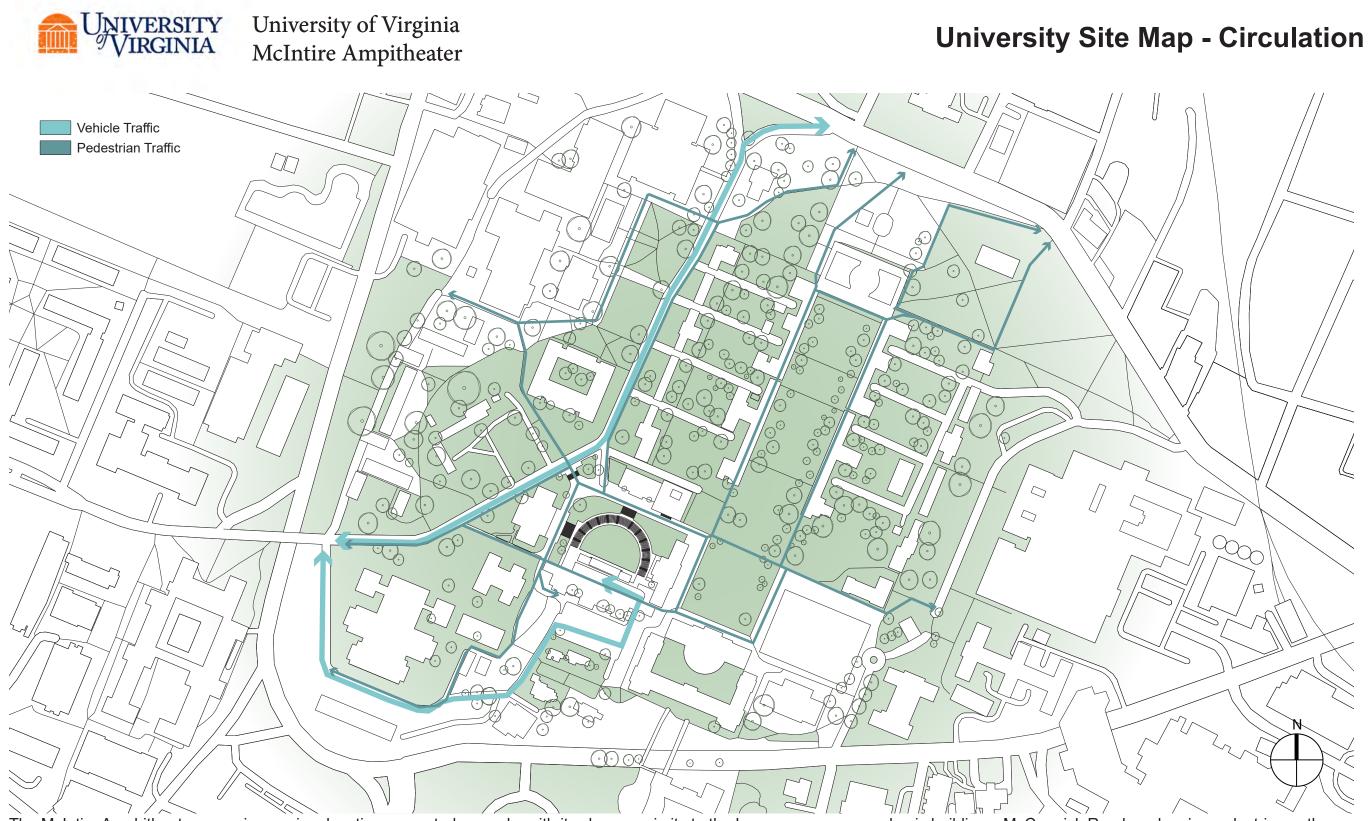




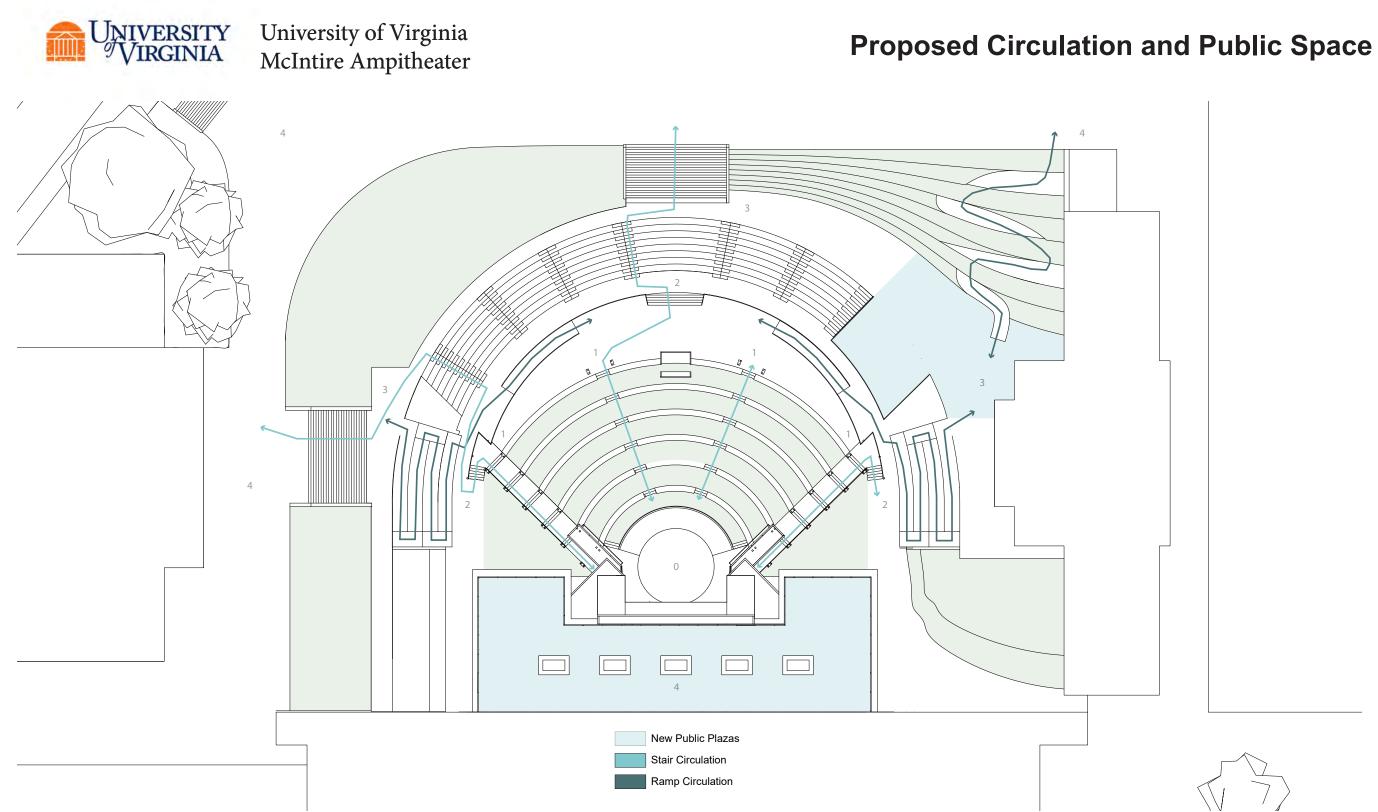




Section 1: Public Space



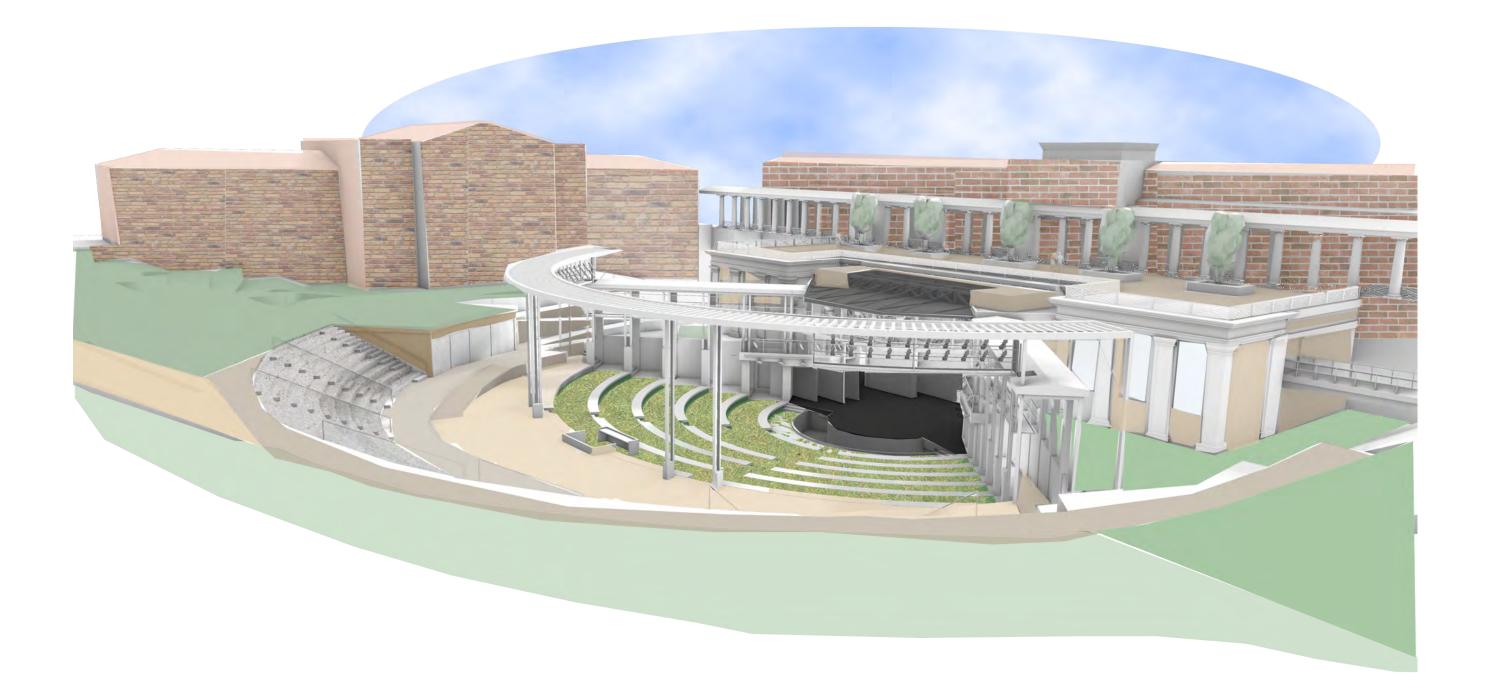
The McIntire Amphitheater occupies a prime location on central grounds, with its close proximity to the Lawn, numerous academic buildings, McCormick Road, and major pedestrian pathways through grounds. Located at this crossroads, the amphitheater has become a popular space for informal lunch gatherings, events and fairs, and is even a common stop on university tours. While a popular tourist spot, the space is heavily under used and acts more as a public ruin than a vibrant social hub.



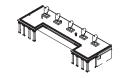
Clear and accessible circulation paths are essential is allowing visitors to move easily throughout the site. In the proposed design, various stairs and ramps allow visitors to move between four distinct levels (marked above by numbers). The widening of existing stairs and addition of railings allow the staircases to become more accessible, while ramps on either side of the stage allow for even more accessibility options.



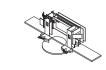
Rendered Proposed Daytime View

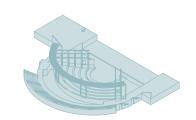


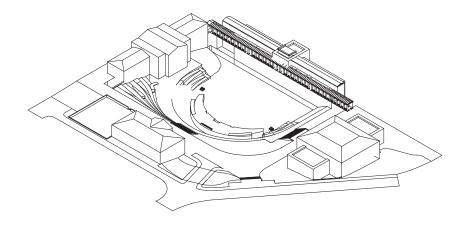






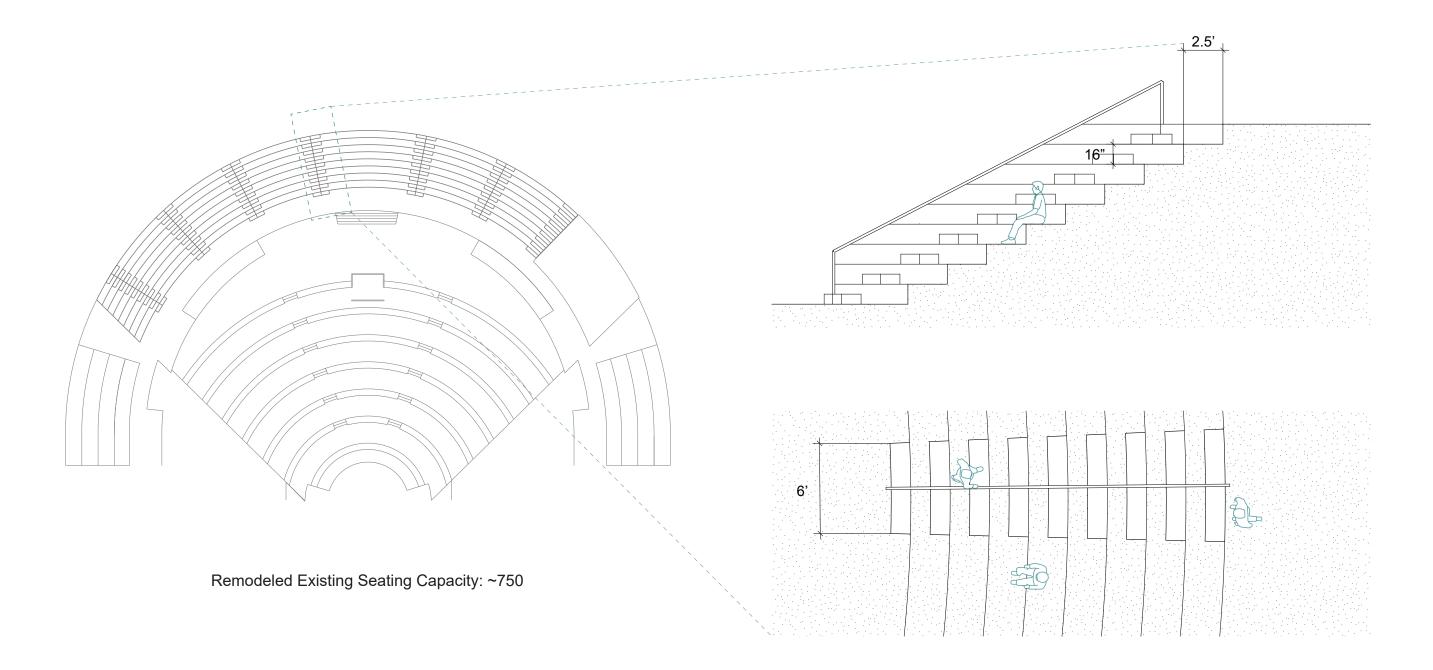






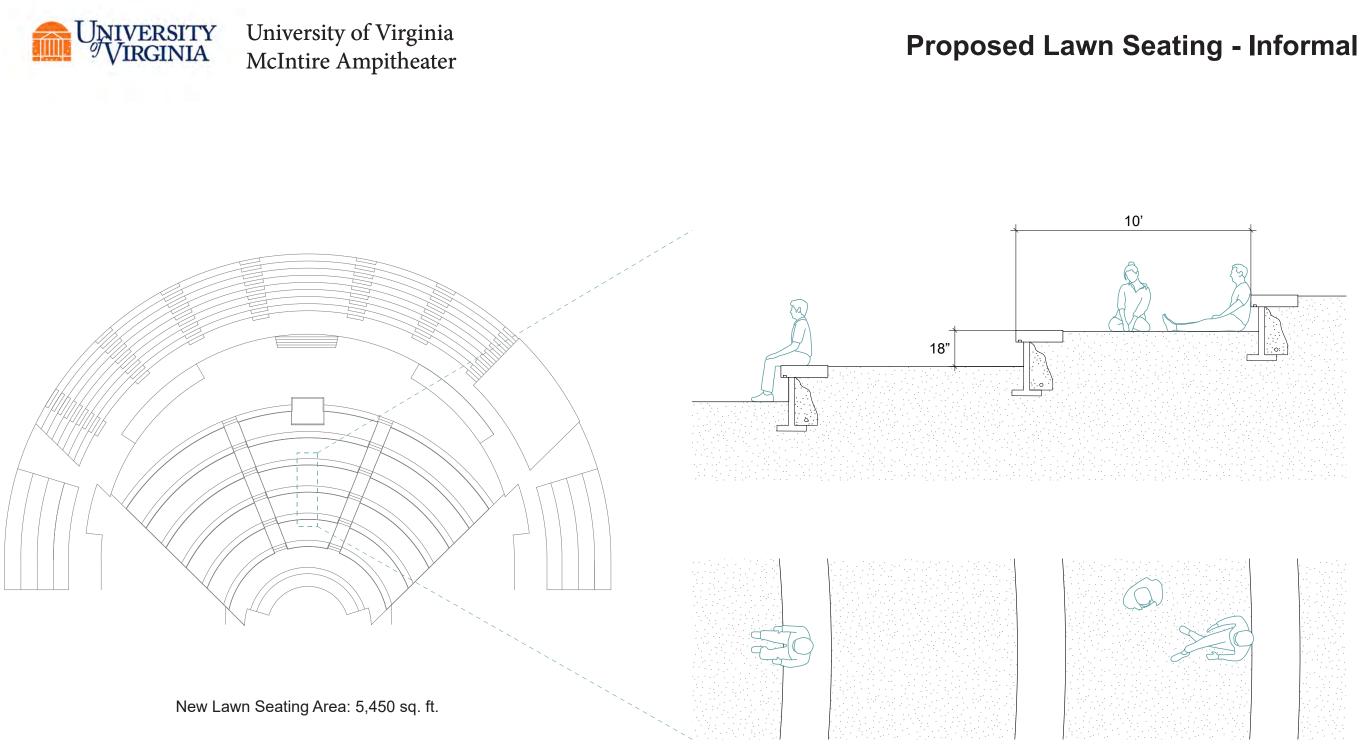
Section 2: Seating



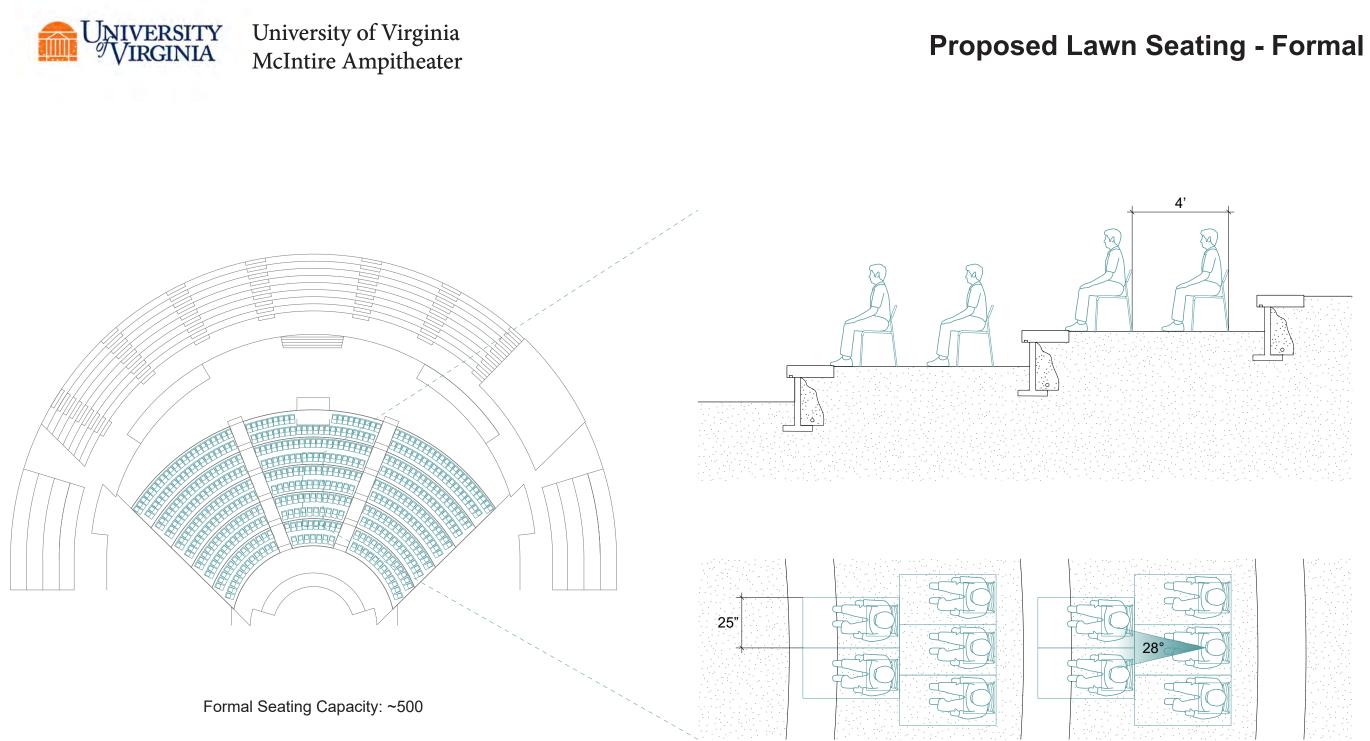


The proposed redesign of the existing seating removes roughly half of the original seating (the majority of which had obstructed views of the stage) in favor of narrowed sight-lines and widened staircases. Narrowing the sight-line ensures better viewing angles for audience members while widening the staircases allows for the addition of a railing, making the space more accessible.

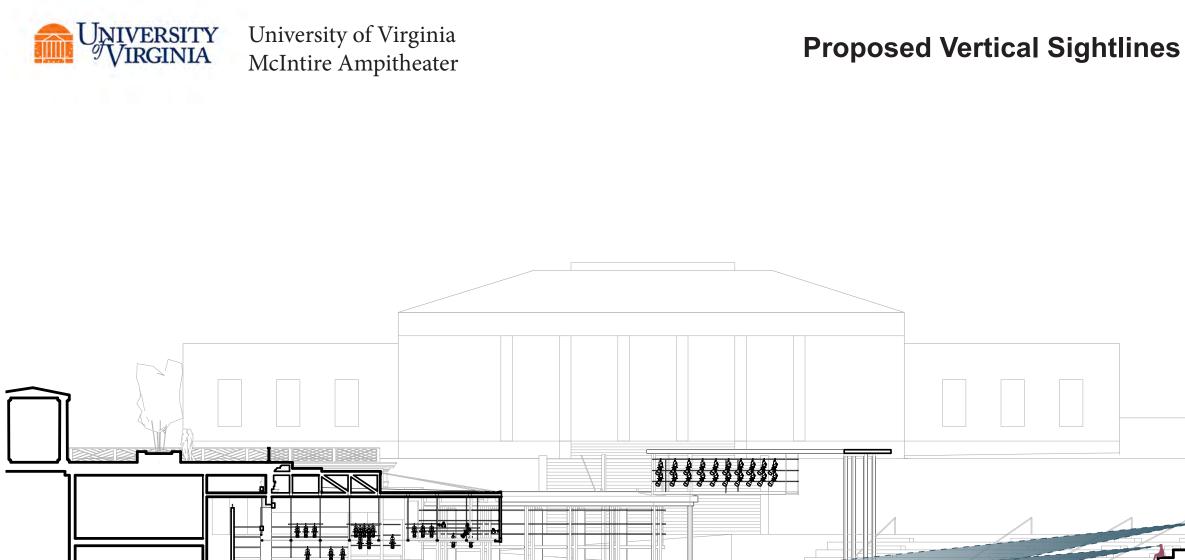
Proposed Remodeled Existing Seating



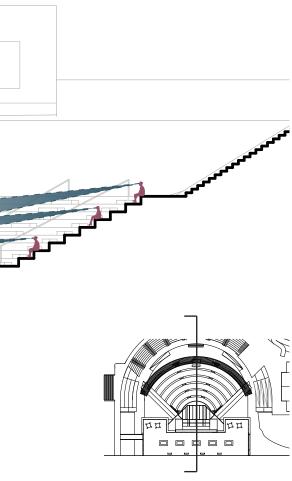
The proposed design of the new seating area excavates the existing inner lawn in order to provide additional seating with unobstructed views closer to the stage. The resulting terraces are large enough for small groups to gather in a social setting during the day and provides space for informal seating during small theatrical productions.

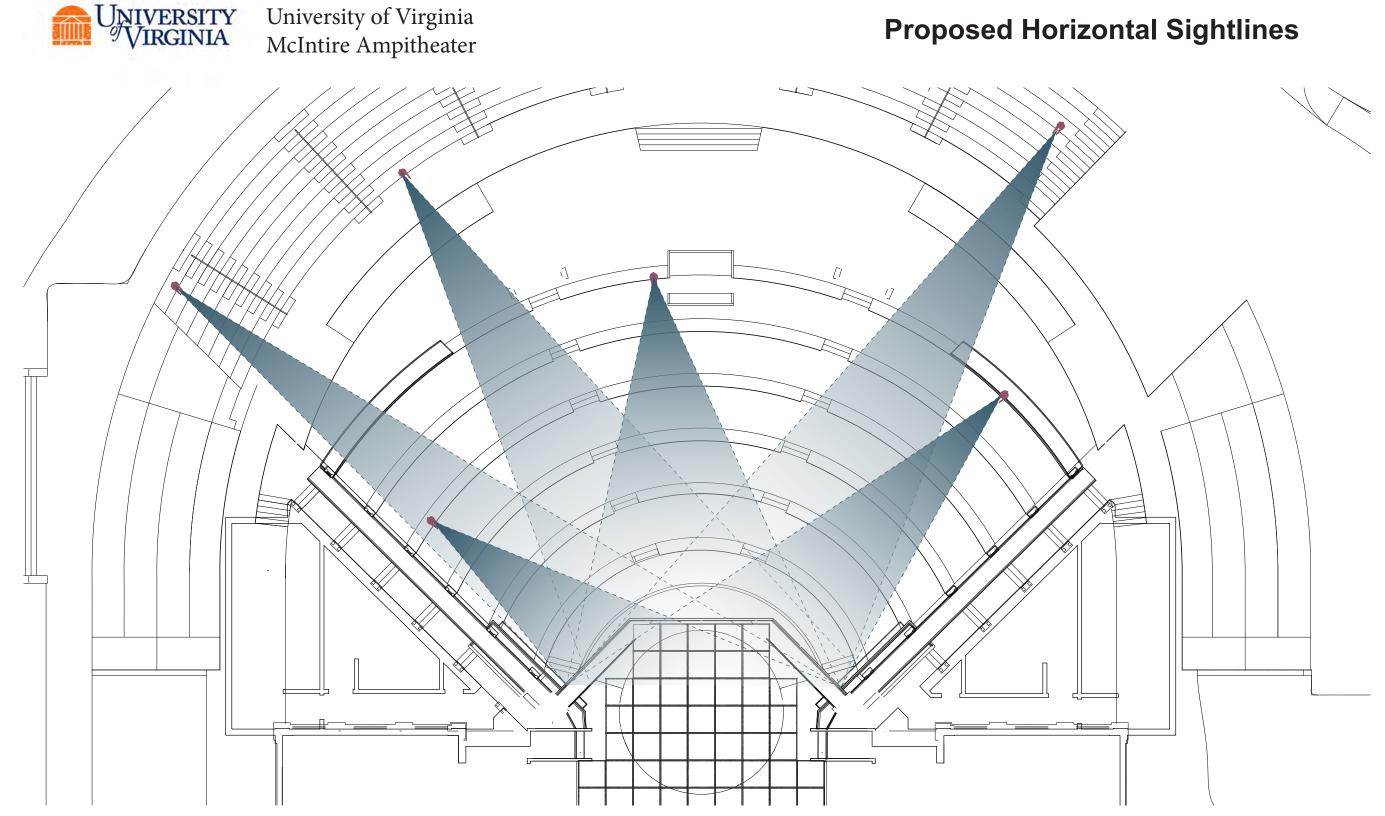


The proposed design for the new seating area also allows space for more formal seating arrangements. By staggering the seats in two rows on each terrace, the seating capacity of the area is ~500. This arrangement allows for more formal productions or graduation ceremonies that require more capacity.

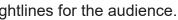


With the proposed site digging into the ground an extra story, more seating was added to the amphitheater and improved sightlines given the additional technical infrastructure. Each audience member is allowed unobstructed views of the stage. There is ample amount of clearence between the stage and the overhead structure which allows for an uncompressed view. For smaller scale shows, audience members in the lower amphitheater seating have full view of any scenery on stage. With larger performances, and additionally more audience members, sightlines are preserved even while sitting if the farthest seat from the stage.

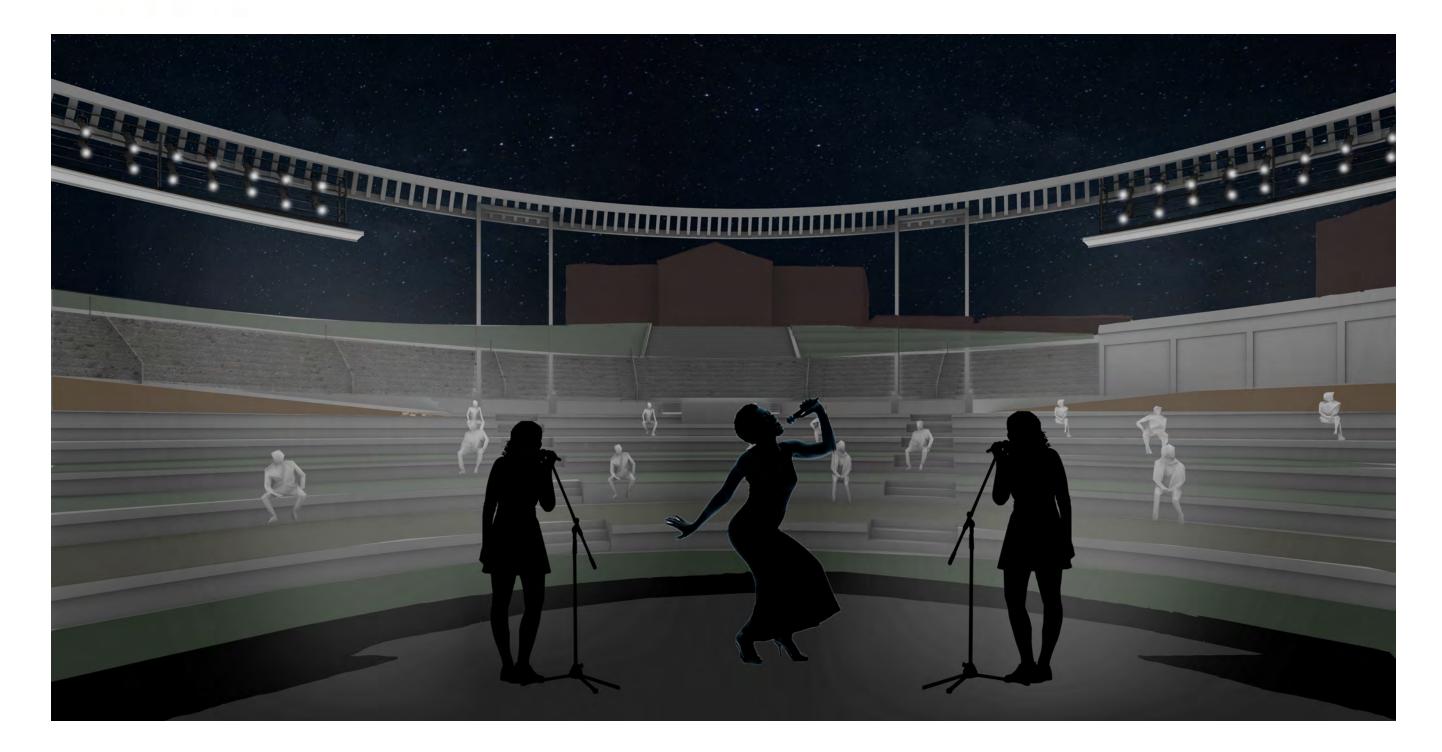




With such a large exterior theater space, the proposed design wanted to ensure maximum seating capacity as well as preserve the most amount of sightlines for the audience. By narrowing the amphitheater, the views from the audience were focused on the stage while limiting the amount of undesirable seats.

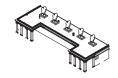






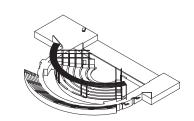
Proposed Rendered Night View From Stage

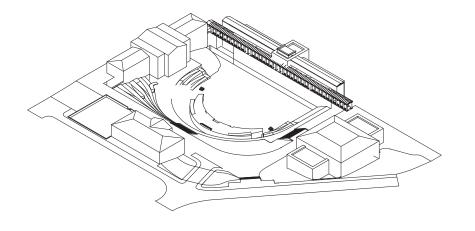






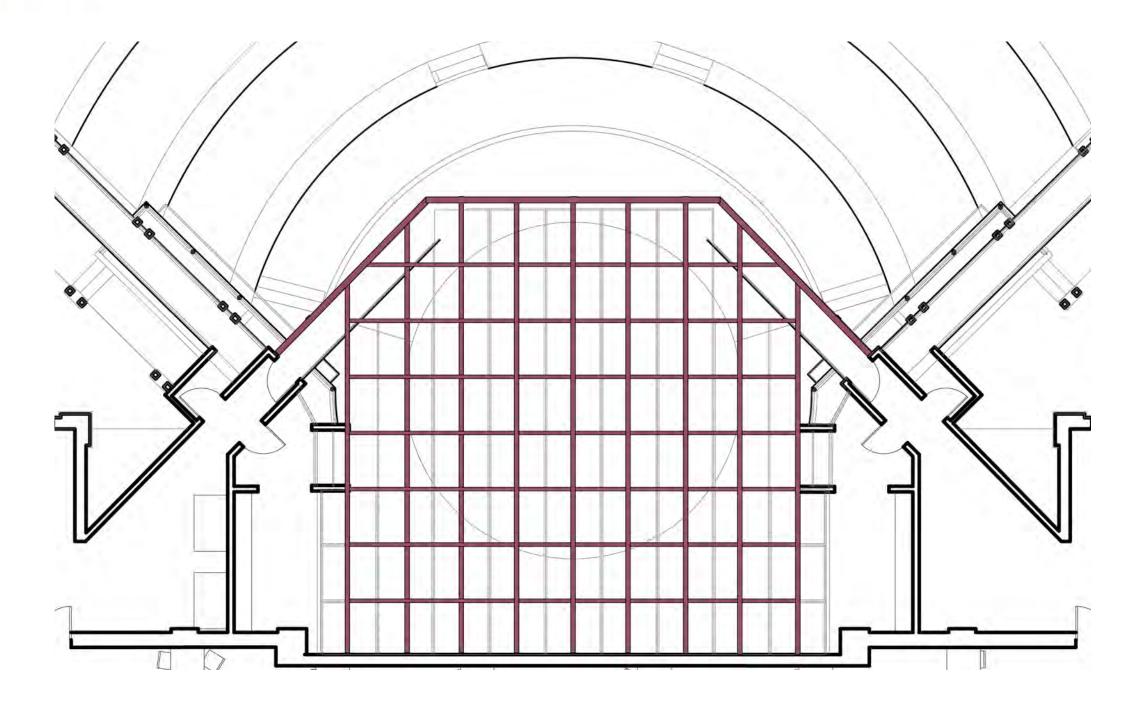






Section 3: Stage





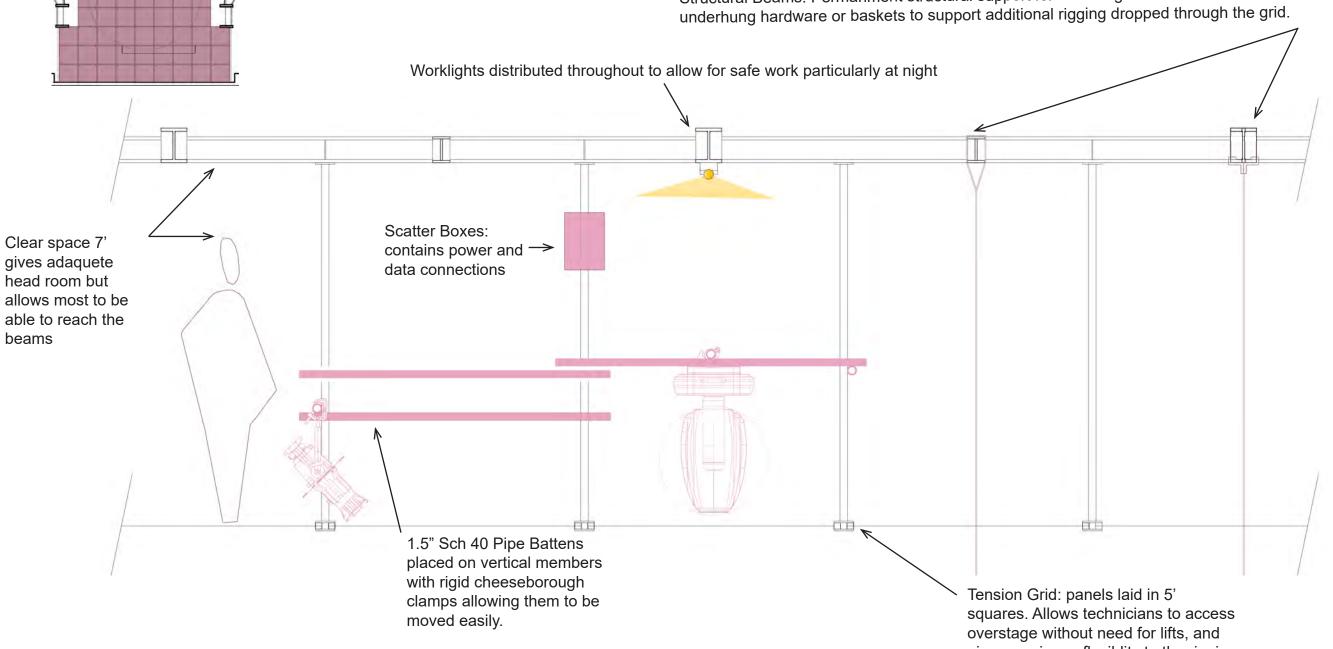
W flange beams are placed 5' OC supporting the tension grid verticals anchoring into the main structure. Via baskets, slings or beam clamps they also allow dead hung points as well as underhung rigging hardware including sheaves, blocks, motors, etc. Exact beam sizing would require structural engineering consultation. Gaps between tension grid panels align to underneath L/R running beams, and the US/DS running beams fall over the grid to allow for rigging lines to be dropped through.

Proposed Rigging Infrastructure Plan



Proposed Overstage Structure Detail

Structural Beams: Permanment structural support for tension grid and roof. Allows for



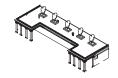
gives maximum flexiblity to the rigging and lighting systems.

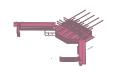




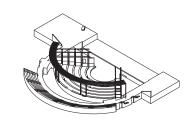
Rendered Stage View

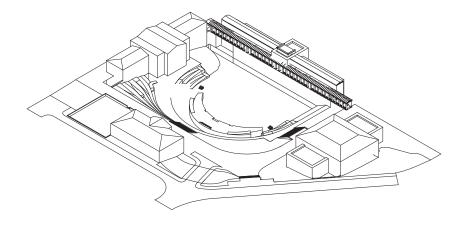








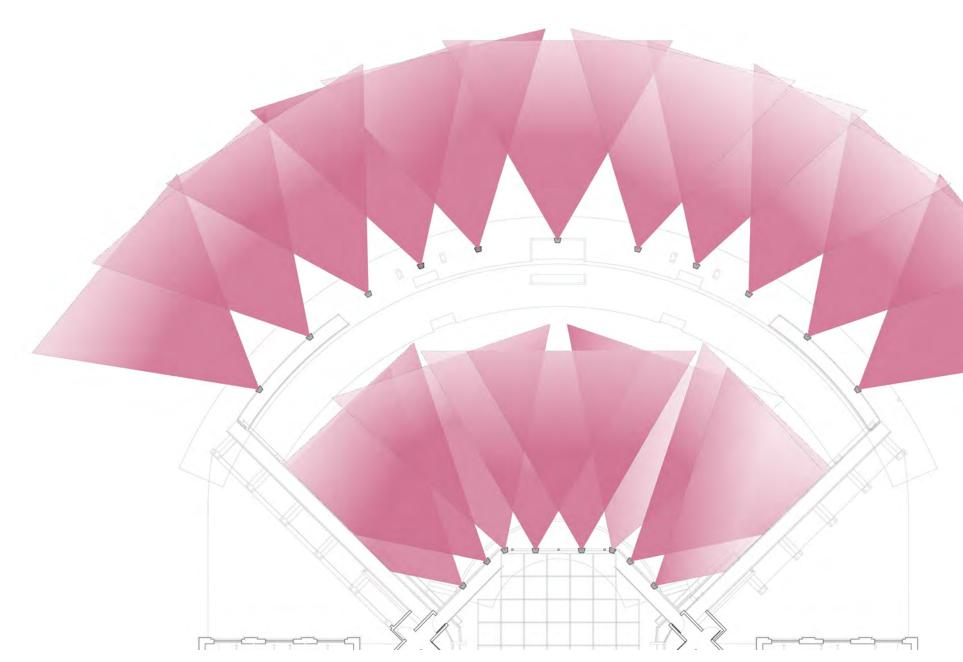




Section 4: Tech



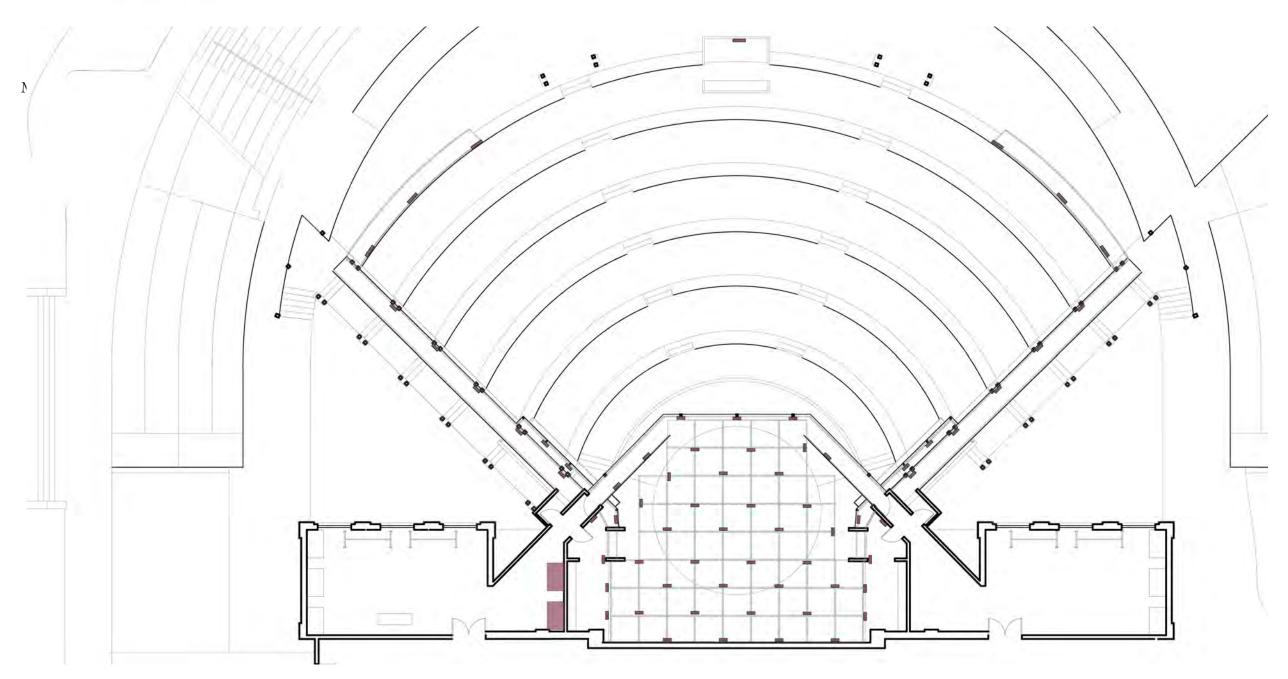
Proposed Speaker Layout



Speakers placement designed to give even coverage to the seating areas. The site is surrounded by buildings and lower seating area is excavated down which help isolate it from surrounding noise of the public areas. Additional acoustical consulting required for final installation and to prevent unforseen sound problems.

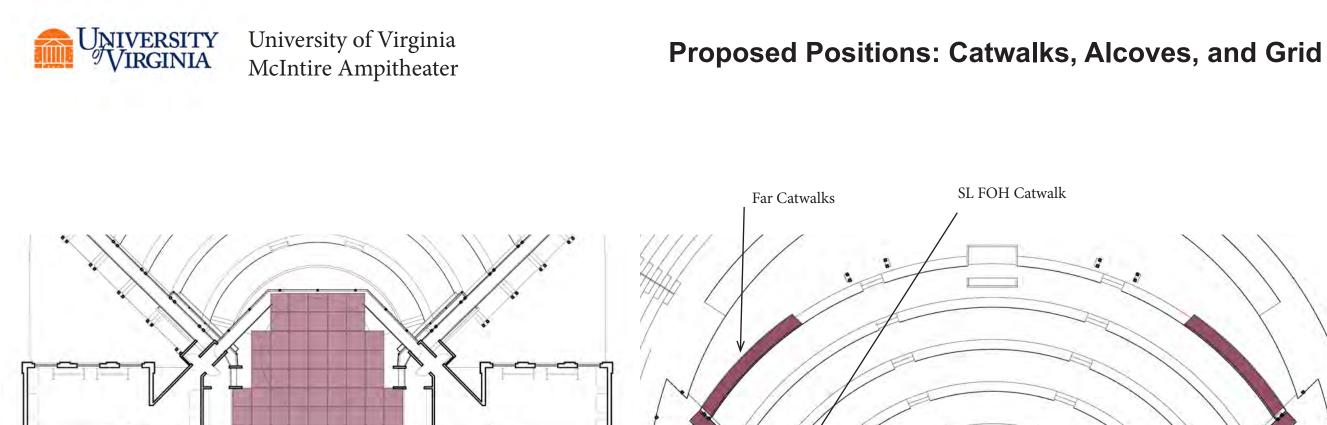


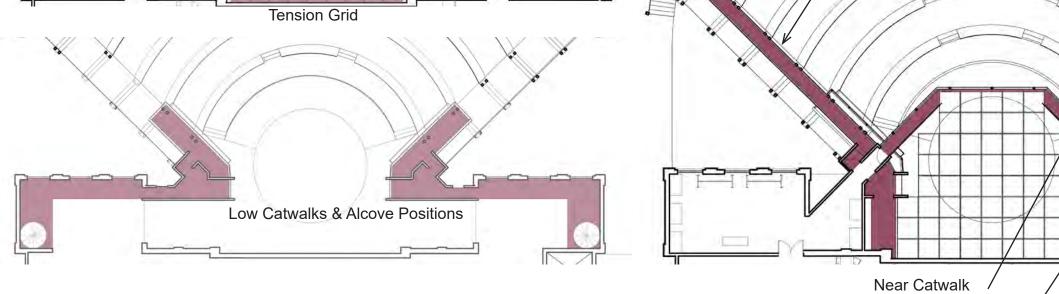




Scatter boxes contain each 6 120V dimmer circuits, available broken out into 2P&G tails and Socapex connectors. Additionally, each contains 2 hotpatch 120V edison circuits for intelligent unit power. Additional constant current or relay circuits added at the dimmer rack by swapping with dimmer cards, but as the technicians generally are amateurs and frequently changing, having available hot power reduces the likelyhood for mistakes. Data is available in each box via Network control, with RJ45 connectors linking back to the console. Gateways deployed from these jacks provide DMX universes to intelligent units as needed. Each box is weather proofed as, while under cover, they are exposed to moisture and temperature year round. 200A Company Switch for supplemental power at 220V for additional lighting or automation is offstage left along with the central dimmer racks.

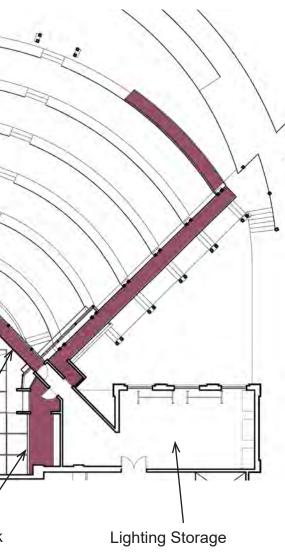
Proposed Power/Data Distribution





SR Mid Catwalk

The primary rigging/lighting positions are designed around ease of access. Catwalks and Tension grids allow amateur technicians safe access without ladders, lifts, or permanent fly systems. All catwalk access stems from the main building for security as the positions are outside. The positions, while exposed to the elements, moisture and temperature, are roofed.







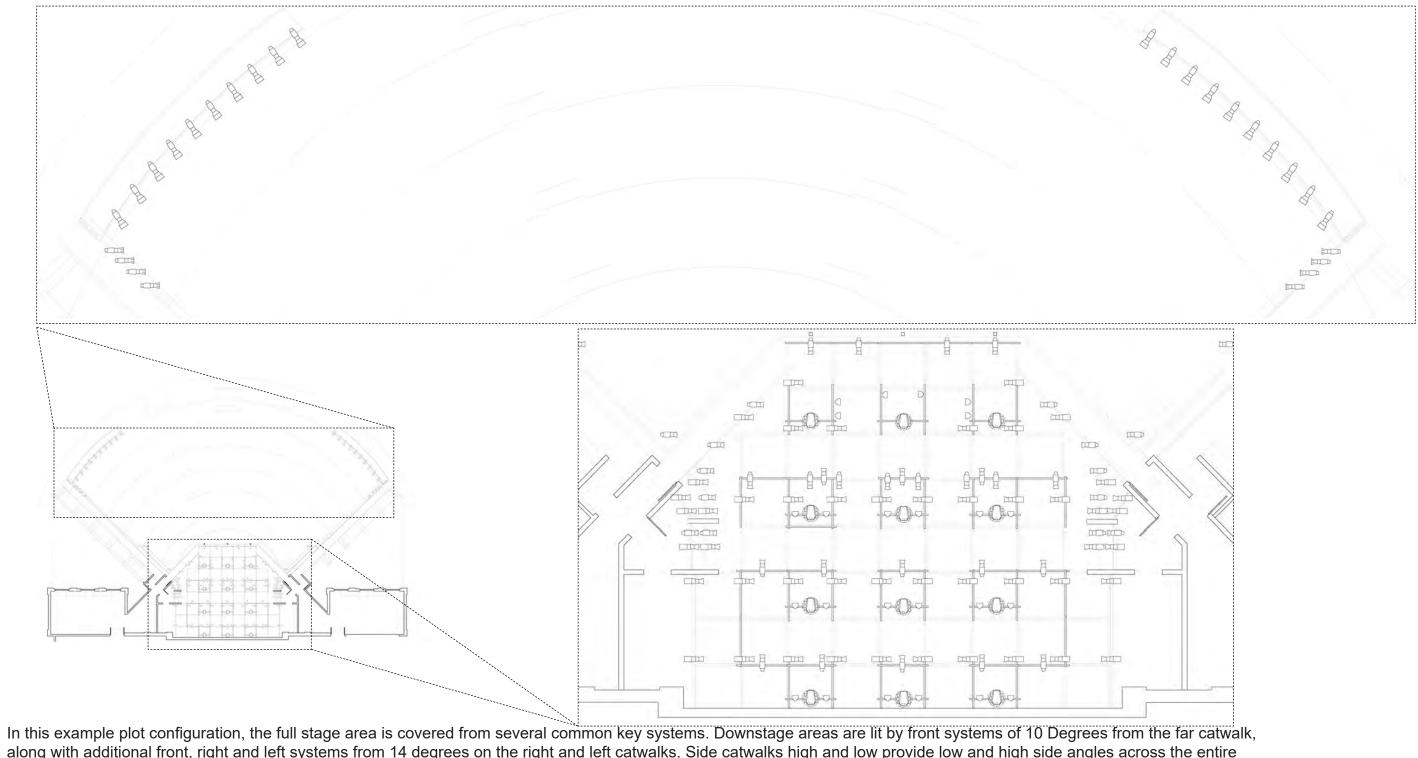


Lighting postions are located to provide maximum coverage of the stage playing volume(shown above in yellow) while allowing comfortable vertical sightlines and allowing for taller scenic elements.

Proposed Lighting Section



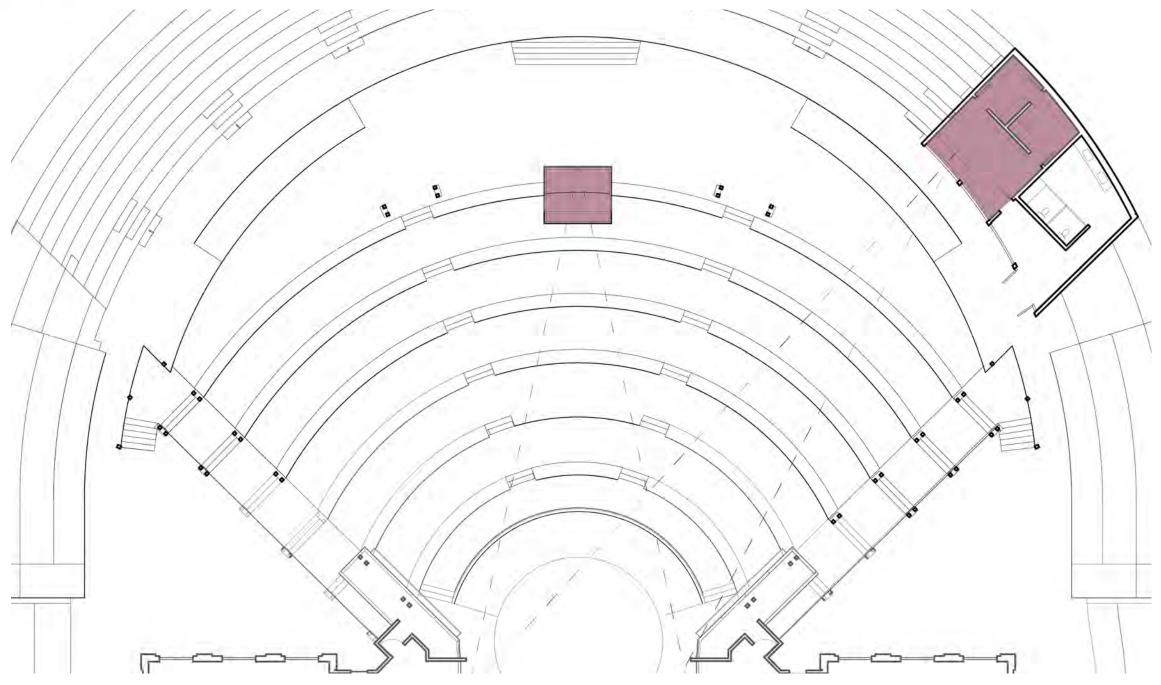
Proposed Example General Repertory Light Plot



In this example plot configuration, the full stage area is covered from several common key systems. Downstage areas are lit by front systems of 10 Degrees from the far catwalk, along with additional front, right and left systems from 14 degrees on the right and left catwalks. Side catwalks high and low provide low and high side angles across the entire stage including the large apron. Top, back, upstage front, and overhead moving light coverage is provided from the nearcCat and tension grid overstage. This shows merely one basic configuration of the lighting. The placement of positions and power/data allow individual designers and the nature of each show to inform equipment use.



Proposed Control Areas/Systems



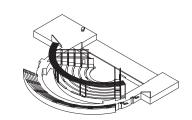
Control is located in two primary areas: Stage Management, Lighting, Media, Audio Playback are in the FOH Booth which is enclosed for isolation and protection while maintaining sightlines to the stage. Sound mixing is located center in an open booth to be able to hear the "room" evenly. Lighting Control is through an ETC EOS theatre console in the several thousand address range (i.e. Ion, Eos, Ti, Gio) to provide optimal control for the scale of events. Audio communications jacks are located additionally in all key performance areas: greenroom, dressing rooms, wings, pit, etc.

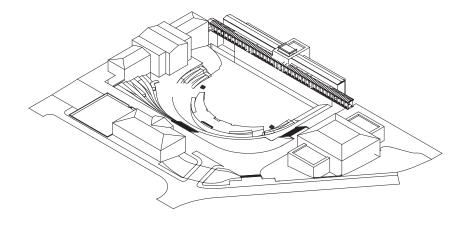






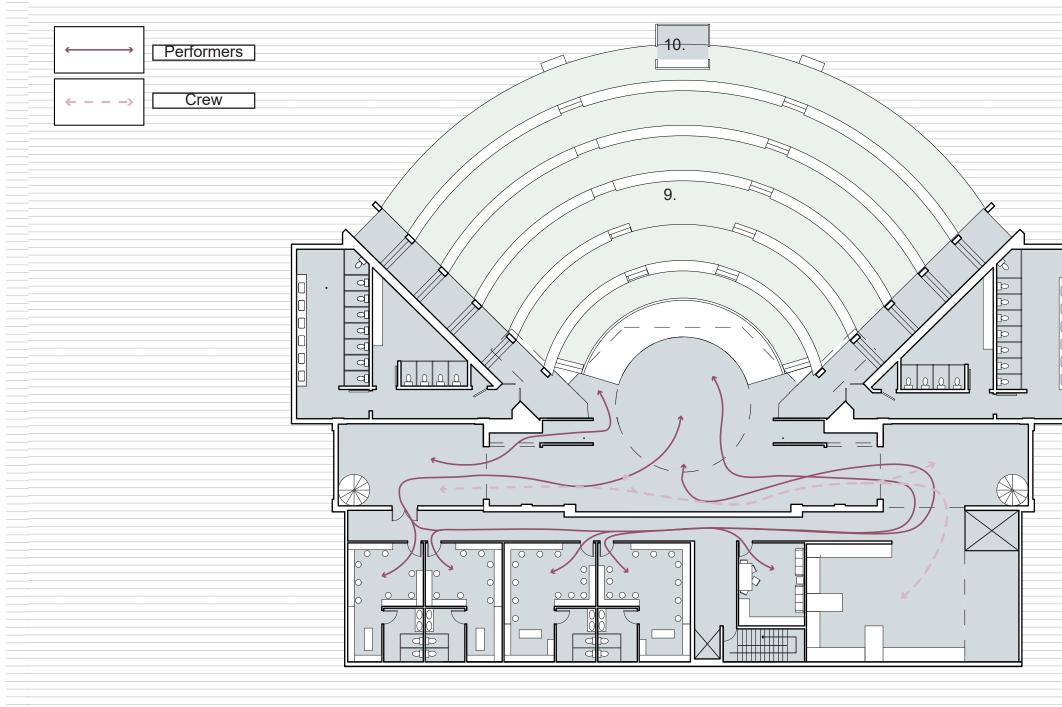






Section 5: Backstage





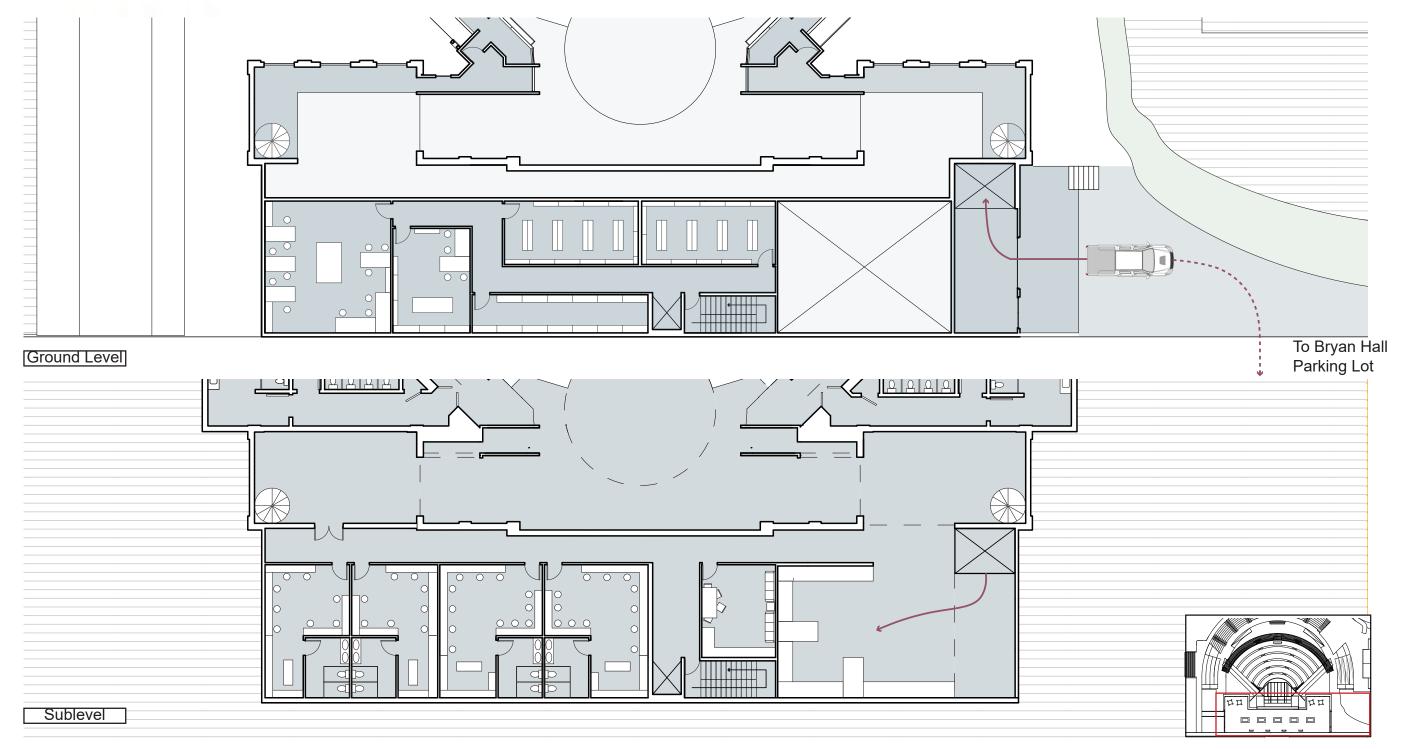
Backstage circulation is an important factor in making a show run smoothly. The proposed back stage space situates all dressing rooms and the scene shop with direct access the wings and stage. The entrances to these spaces are placed in a corridor that reduces the amount of light and sound bleed that could negatively effect a performance. A 7-foot wide crossover hallway allows for the quick movement of actors from the stage to dressing rooms and back in place for the next scene. Crew members have direct access to the wings and scene shop for any set changes that occur throughout performances.

Proposed Performance Circulation

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The loading dock for the proposed renovation keeps the existing road connection currently on site. Trucks have access to the loading dock via the Bryan Hall parking lot. The loading dock leads to the scene shop on the sublevel via the freight elevator. This elevator travels to all floors to allow for the transport of material, lighting instruments, and tools.

Proposed Loading Dock Access



Square Foot Allocations



Space/Name	Floor	Square Footage	Notes
Loading/Staging Space			
Freight Elevator	S1, G,2,	108	Access to all floors and loading dock at ground level
Stage Wings	S1	1980	Both stage right and stage left wing space
Loading Dock	G	864	
		2952	
Technical Support			
Lighting Storage	2	594	Storage spaces act as demo rooms for students
Costume Shop	G	650	
Storage	G	331	
Prop Shop	G	320	
Storage	G	331	
General Storage	G	224	
Scene Shop	S1	832	Direct access to freight elevator, double height ceiling
Tool Storage	S1	224	Lockable cage within the scene shop
Offices	2	180	
Control Booth	FOH	462	
Audio Mixer Station	FOH	68	
		4216	
Company Support			
Principle Dressing Room-A	S1	142	2 toilets, 2 sinks
Principle Dressing Room-R	S1		2 toilets, 2 sinks
Ensemble Dressing Room-A	S1		2 toilets, 2 sinks
Ensemble Dressing Room-B	S1		2 toilets, 2 sinks
Green Room	S1	285	
Rehearsal Room	2		Can become 2 smaller rehearsal spaces with wall partition
Rehearsal Room	2	625	
Rehearsal Room	2	726	
Classroom	2	255	
		5073	

Proposed Square Footages - 1





Proposed Square Footages - 2

Public Space			
Building Lobby	2	1820	Open space to serve as seating and lounge for students
All-Gender Restroom	2	45	One toilet, one sink
All-Gender Restroom	2	45	One toilet, one sink
Handicap Restroom	FOH	428	2 toilets, 2 sinks
Amphitheater Restroom-A	S1	1162	12 toilets, 6 sinks
Amphitheater Restroom-A	S1	1162	12 toilets, 6 sinks
Elevator	S1,G,2	38	Access to all Floors
Roof Terrace	R	6058	Roof terrace accessible from Bryant Hall collonade
		10758	
Performance Space			
Stage	S1	1517	
Amphitheater-Lower Seating	S1	5135	
		6652	

