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ABOVE: EXTERIOR OF HALL AUDITORIUM

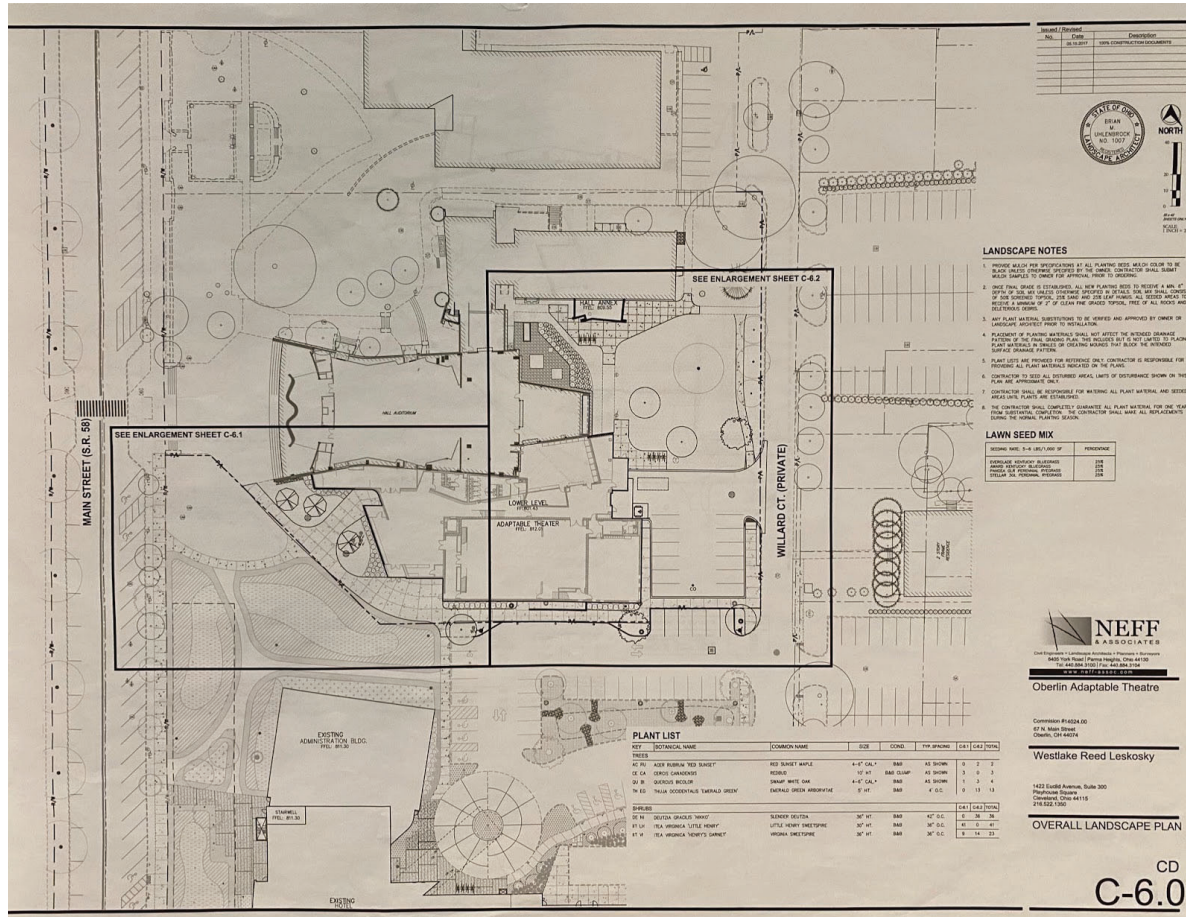
LEFT: LA FINTA GIARDINIERA (2014-15)

BELOW: CENDRILLON (2017)



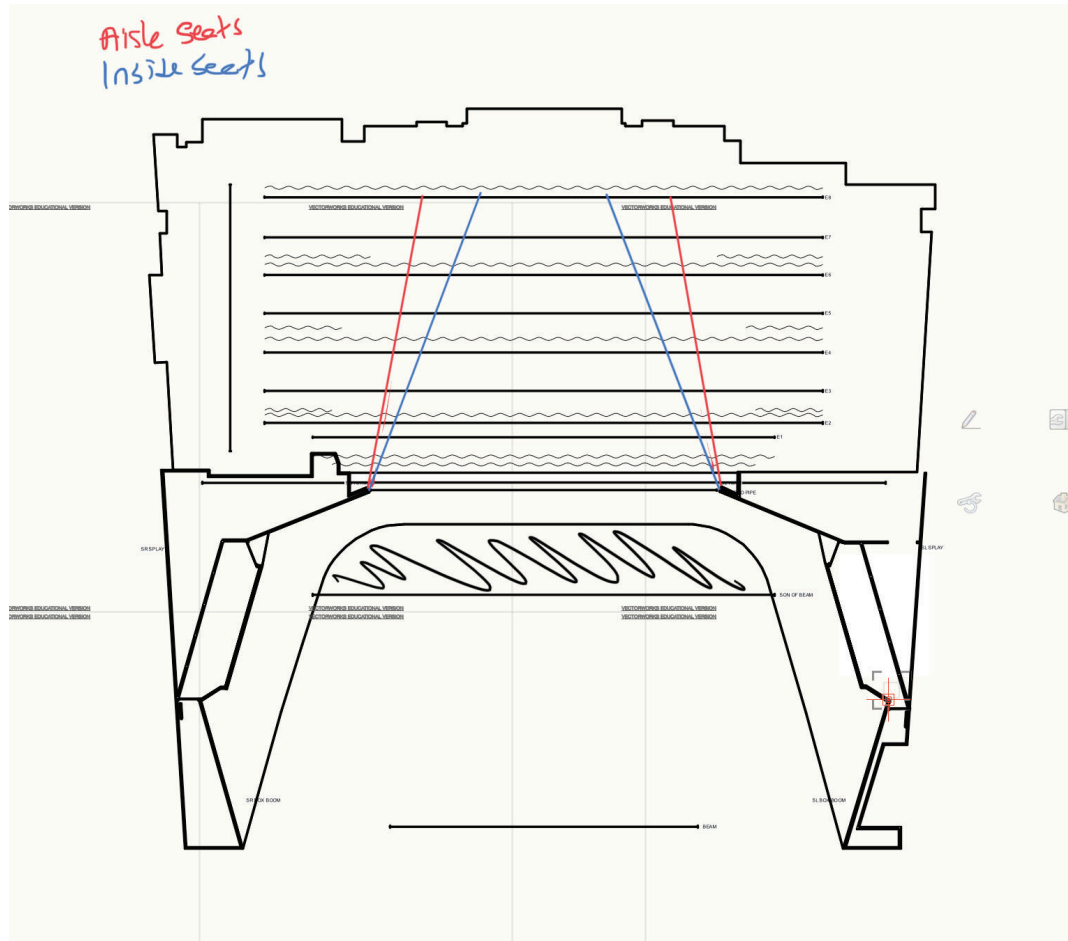
BASIC INFORMATION

Hall Auditorium and the Eric Baker Nord Performing Arts Complex are located on the eastern side of Oberlin College's campus between the Art and Admissions buildings. Parking for all three of these buildings, as well as the Oberlin Hotel, is located behind the Nord Complex.



Constructed in 1953, Hall Auditorium was intended to be a recital and concert hall. Its architect, Wallace Kirkman Harrison, is best known for his work on projects such as the UN General Assembly Building, Rockefeller Center, and the Metropolitan Opera House. Hall fills a total of 7809.42 square feet, with 2786.9 square feet allocated to the deck upstage of plaster line and 5022.5 square feet for the apron and house.

Currently, Hall Auditorium is home to Oberlin College and Conservatory's annual fall and spring operas, as well as the occasional dance performances and orientation events. Prior to the completion of the Irene and Alan Wurtzel Theater and Eric Baker Nord Performing Arts Annex in 2018, Hall Auditorium was the Theater Department's primary performance space where all productions were mounted.



HALL AUDITORIUM SIGHT LINES

PROJECT SCOPE

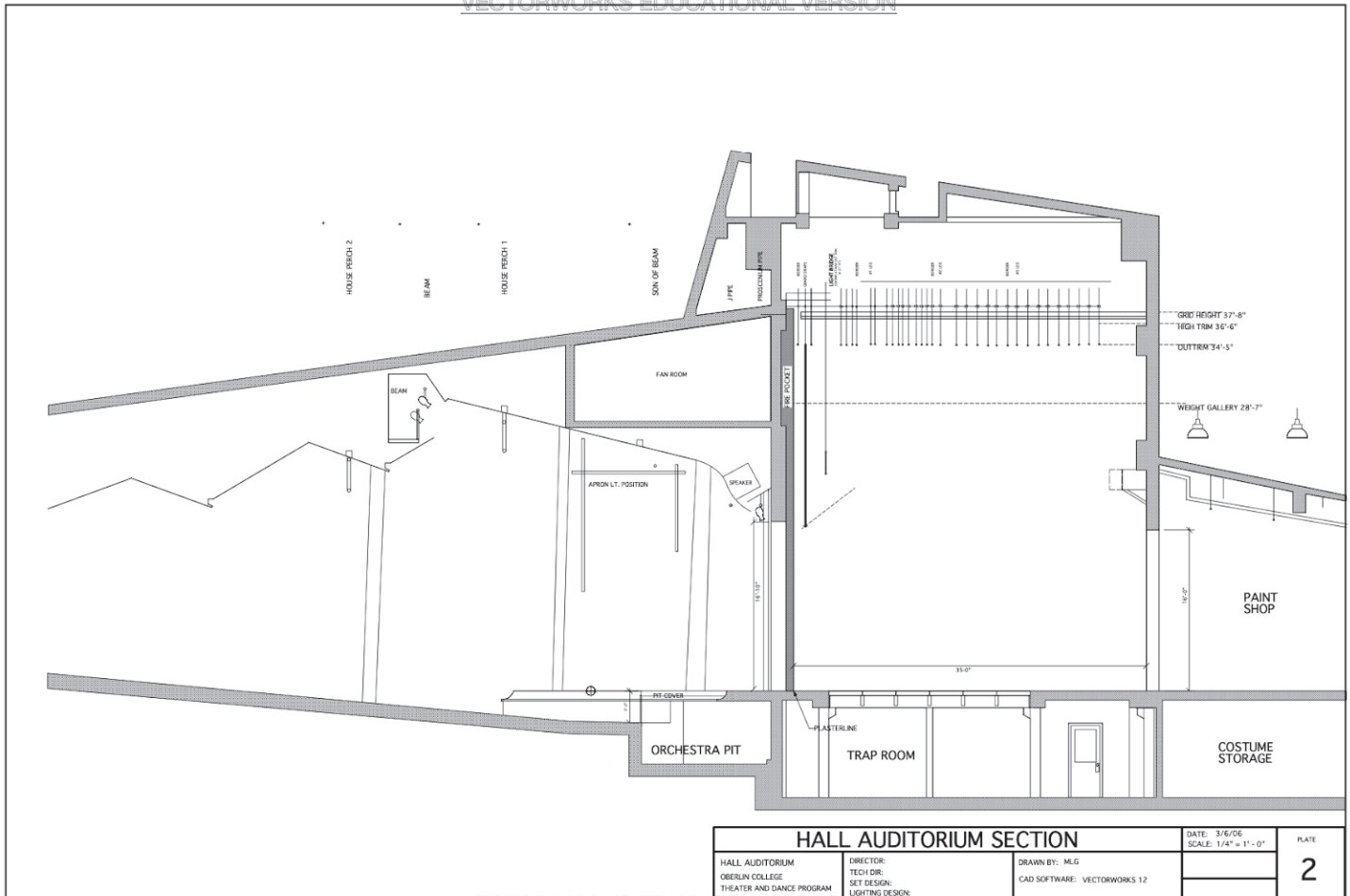
It is the intention of our team's project, informed by current department practices and industry best practices, to renovate and invest in the following components and systems of Hall Auditorium:

1. The Renovation of Fly Loft/Grid
2. The Renovation of our Front of House Lighting Positions
3. The Installation of a new Lighting System to include networking, distribution, and inventory
4. The Renovation of the House to include accessibility accommodations and a permanent sound mixing space
5. Environmental Sustainability

FLY SYSTEM, FLY LOFT, AND GRID

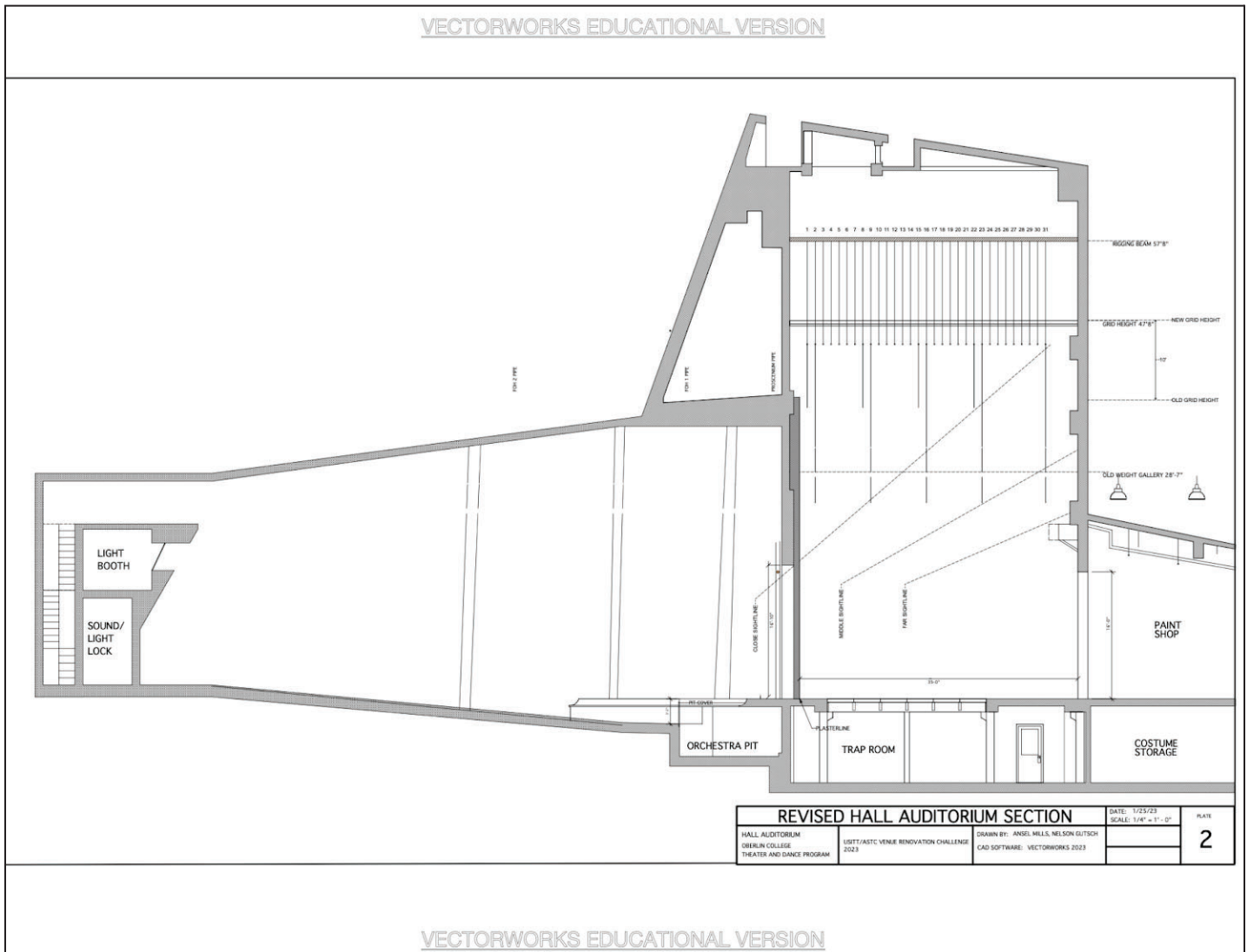
Currently, Hall Auditorium's gridiron is too short to fly soft goods and scenery out of sight. This has led to time-consuming and inefficient, albeit creative, solutions. The low grid height interferes with many aspects of running a show.

VECTORWORKS EDUCATIONAL VERSION



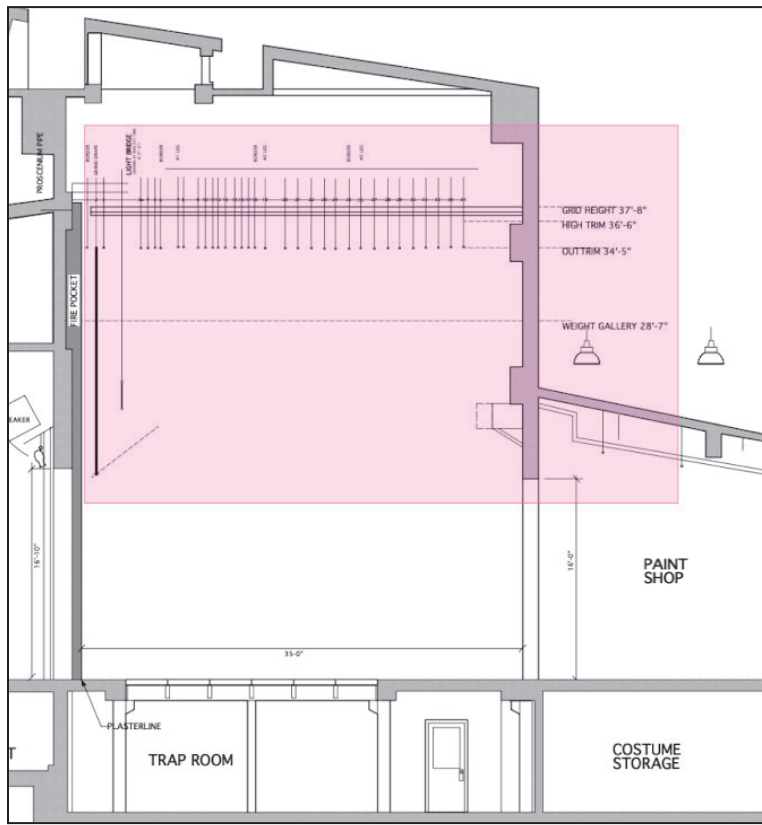
CURRENT HALL AUDITORIUM SECTION

We will raise the roof of the building by 20 feet to provide ample space for scenery and soft goods above the stage. We will replace our current gridiron with a new c-channel one, which will be ten feet higher than the present. This will leave ten feet between the grid and our new rigging beam, with plenty of space above that to support mechanical systems and future green expansion. We also feel that it is important to preserve the artistic and visual integrity of the building's facade, so this plan is carefully crafted to do so while dramatically increasing the functionality of the interior. We will also consult with structural engineers to ensure that the existing building will be modified to support the increased weight of a taller roof.

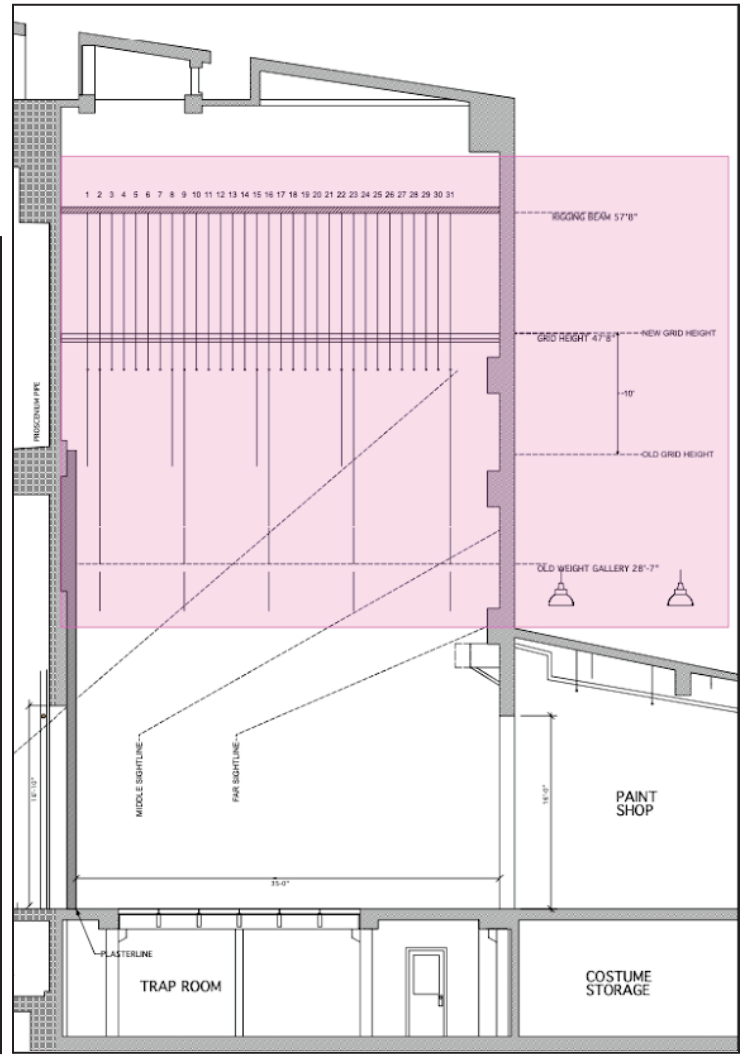


HALL AUDITORIUM SECTION WITH RAISED ROOF AND GRID

Hall Auditorium currently has 34 manual line sets underhung from the grid. However, they are irregularly spaced, complicating any rigging projects and diminishing the effectiveness of some of the line sets. On the downstage side, the line sets are very close, with many being as little as five inches apart. This makes them impossible to use simultaneously, rendering some useless. As you move further upstage, they are spaced out more, with the inconsistent spacing averaging around a foot (with a maximum of 1'-7"). The goal for this scope of the renovation is to create consistently spaced line sets on one-foot centers. Even though this would require getting rid of one, it would enable the functional use of more line sets. With the roof being raised simultaneously, there will be fewer added costs to space out the line sets.



CURRENT LINESET SECTION



RENOVATED LINESET SECTION

In conjunction with the changes being made to the grid height, we will motorize the fly system. Removing the current line sets and fly rail from stage left will provide valuable offstage space for equipment storage. This will allow for the installation of a staircase up to our current loading gallery, which will be repurposed as one leg of a catwalk system that will connect the booth, our new Front of House lighting positions, and backstage (see Front of House Lighting Positions).

FRONT OF HOUSE LIGHTING POSITIONS

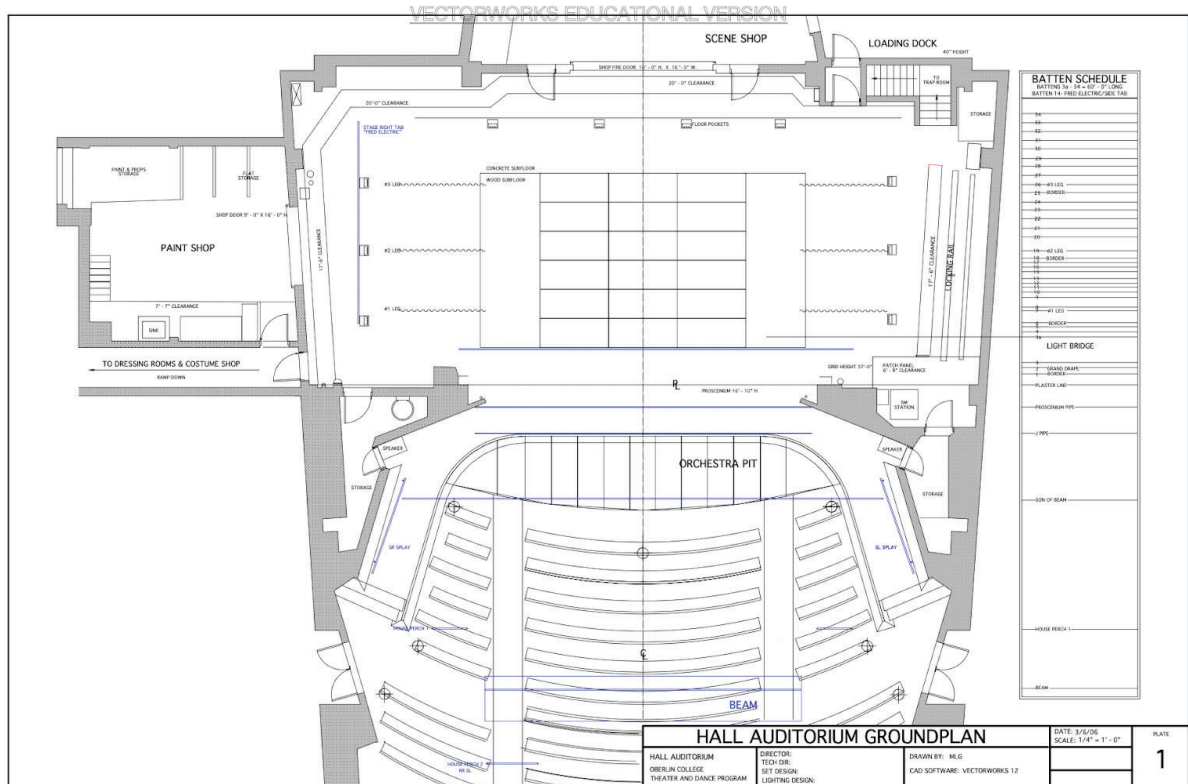
Currently, we have few front-of-house positions. We have one “beam” position, which is in a difficult-to-access location, as well as several pipe assemblies bolted to the walls and built out over the wings. These positions are difficult to focus lights from and create a half-finished, “slapped-together” feel.



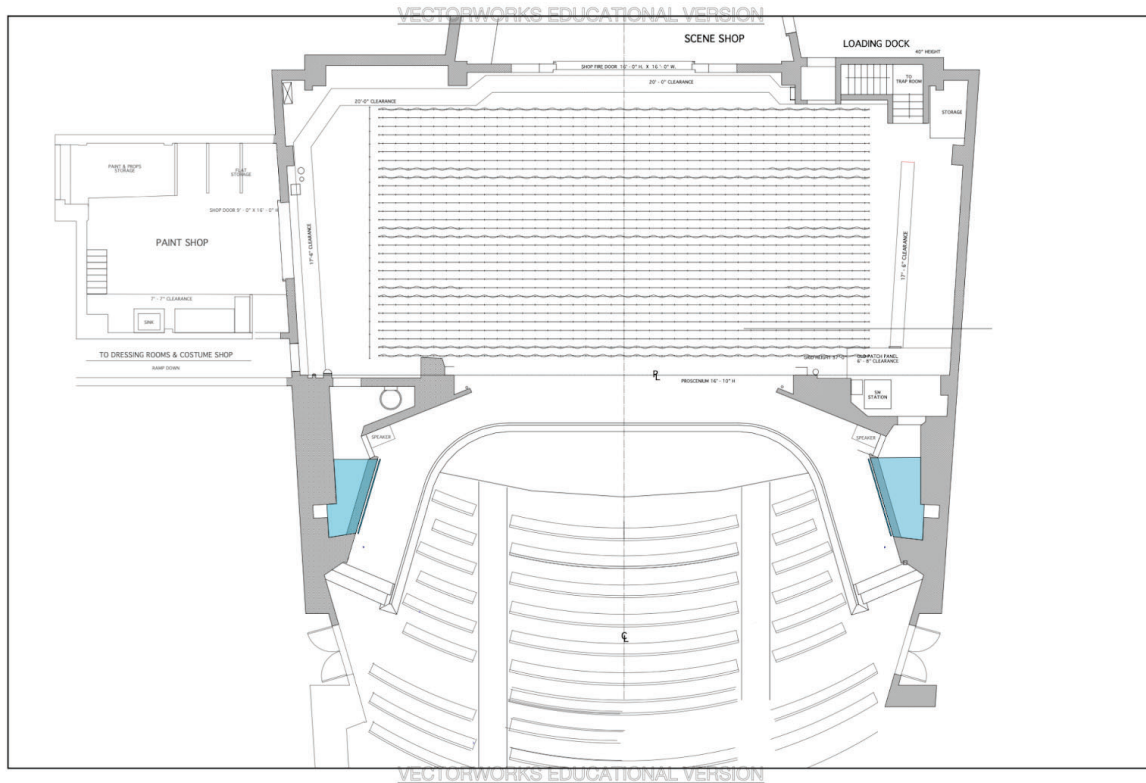
ABOVE: "BEAM" POSITION AND BOOTH WINDOW

LEFT: CURRENT BOX BOOM AND APRON POSITIONS

BELOW: CURRENT HALL AUDITORIUM GROUND PLAN

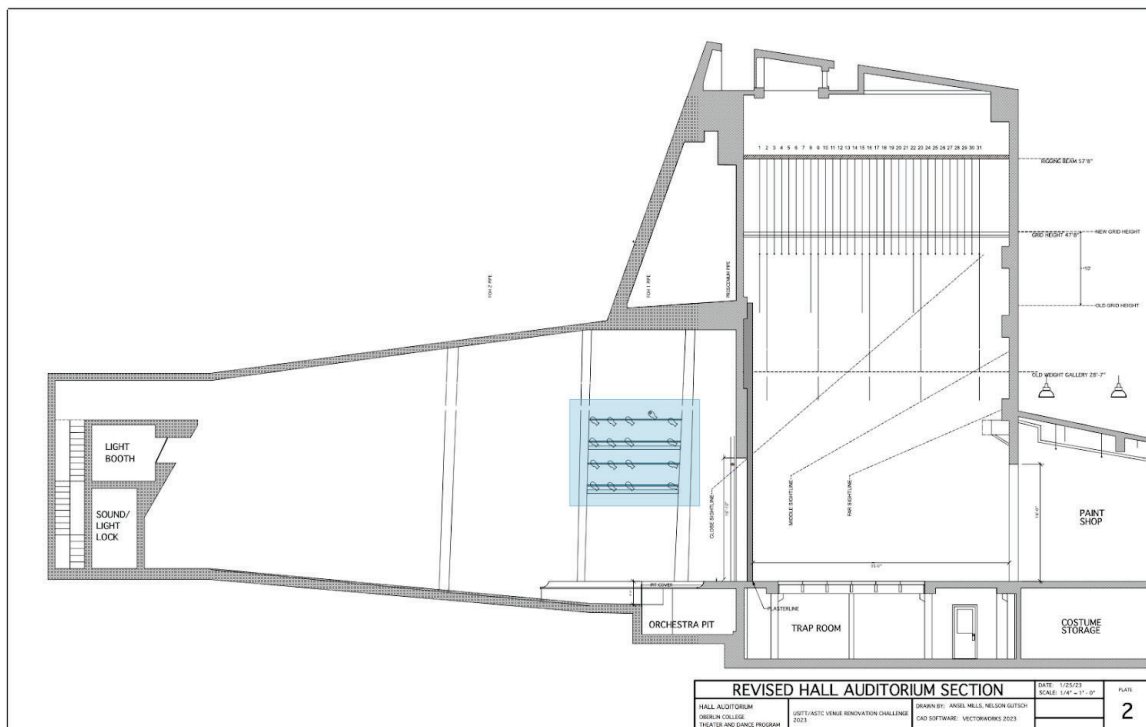


In our redesign of the space, we plan to build a two-level focus balcony into the footprint of the apron to function as box positions. This would be accessible from the backstage portion of the wings and would allow for much easier hanging and focusing. While this would eliminate several current pipe positions, the improved access and visual style would be worth the sacrifice. Additional positions could be achieved with temporary pipes extending off of the new balconies as needed.

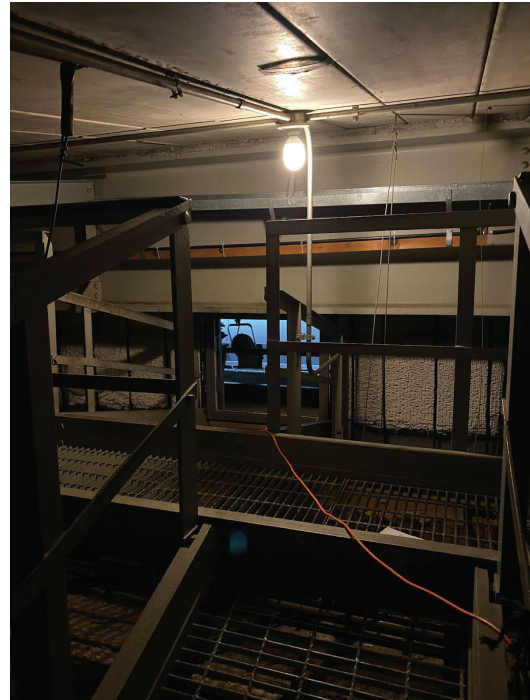


ABOVE: FOCUS BALCONY GROUND PLAN

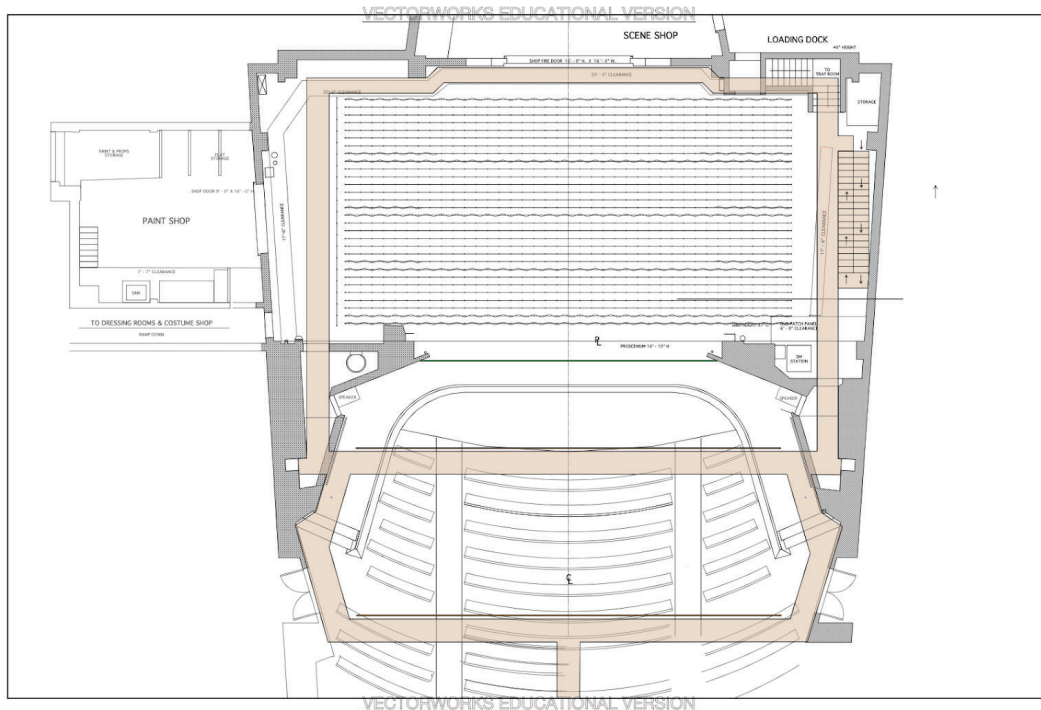
BELOW: FOCUS BALCONY SECTION



Additionally, we have redesigned the catwalks. Currently, the catwalks to our “beam” position run along the roofline, which was designed for acoustics, not access. As such, the catwalks have numerous ups, downs, and tight squeezes (less than a foot tall). Also, the catwalks are currently accessed by a straight ladder and a small hatchway. Due to this, lighting fixtures and other equipment can’t easily be carried up to the beam. To transport equipment into the beam, we currently have a pulley system that can be dropped into the house as necessary.

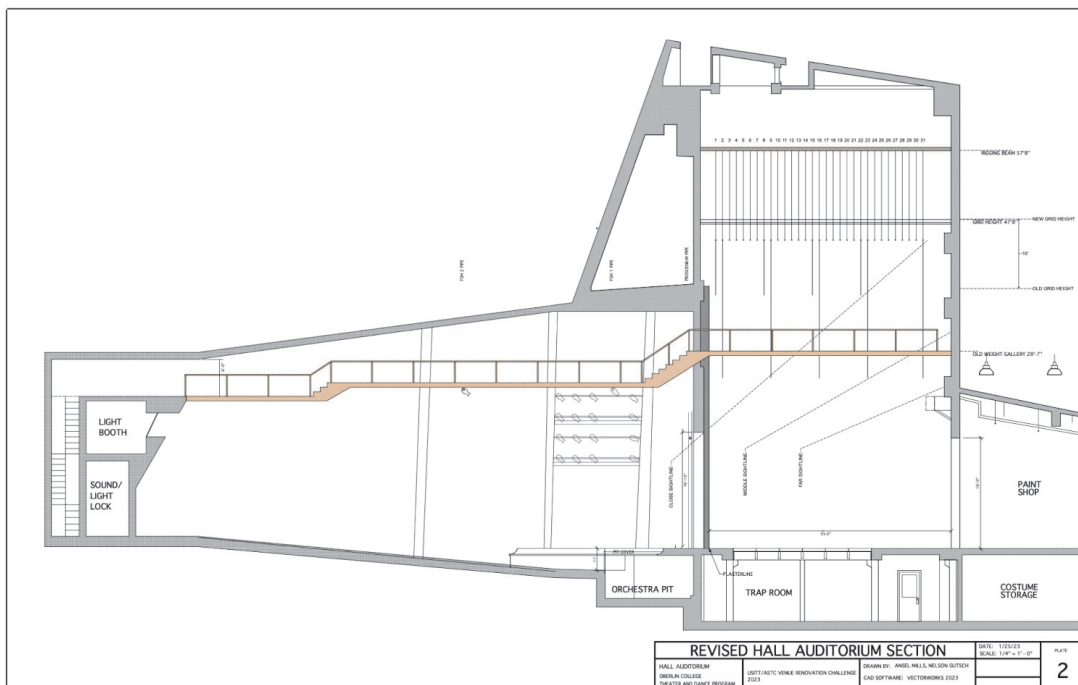


To solve many of these issues, we will remove the ceiling and catwalks as they exist currently and replace them with a catwalk system that connects the booth, front-of-house lighting positions, and backstage. It will cross through the proscenium arch using an existing doorway and connect to the current loading gallery. Acoustic reflectors hung below the new catwalks will replace the current hard ceiling and will provide improved acoustics for our current programs. Finally, we also will motorize our “pro pipe,” which is mounted above the stage within the proscenium arch. This would make it considerably easier to hang and circuit lights from without the need for a Genie lift.



ABOVE: NEW CATWALK GROUND PLAN

BELOW: NEW CATWALK SECTION



These renovations will dramatically improve our ability to use Hall Auditorium for theatrical and operatic mainstage performances. By improving the front of house positions, we will be giving our lighting designers more room for creative and dynamic light plots while remaining flexible enough to install modern systems. Electricians will also appreciate the ease of access to our new catwalk system, and patrons will enjoy a more polished aural experience with the implementation of acoustic reflectors.

LIGHTING SYSTEM

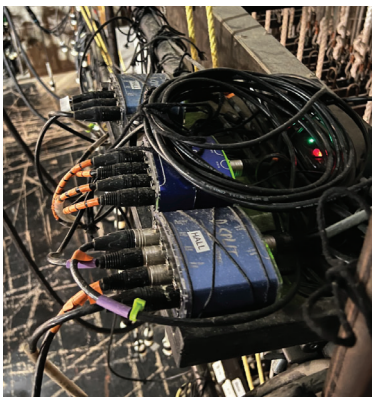
Currently, Hall Auditorium has a system of dimmer racks that powers traditional incandescent light fixtures. We want to modernize this system to stay as up-to-date as possible as lighting technology continues to develop.

The first stage of this plan is to replace all of the existing dimmer racks with relay units. By fully overhauling our lighting system within the process of the overall renovation, the cost of equipment and implementation will be incrementally less than if it became its own project. When our dimmers are replaced, Hall Auditorium will consume far less power than it does now, even if we direct power from our current dimmer racks towards our new motorized fly system.



LEFT: HALL AUDITORIUM'S DIMMER ROOM
BELOW: DMX SPLITTERS AND MULTICABLES

The second issue to be addressed is networking. Currently, our DMX system primarily consists of cable runs that stem from a series of data splitters on stage left. In our redesign, we will add DMX gateways, network cabling, and relay power into the structure of the new catwalks. We will continue to use twistlock multicables and DMX lines on our battens to allow flexibility on which pipes are used as electrics.



Our current inventory of incandescent Source 4's is becoming less efficient as lighting technology continues its inevitable march forward. Keeping our theater modern, flexible, and energy-efficient necessitates a switch to LED lighting instruments. Whether this is through buying an inventory of ColorSource 4's (to keep our current Source 4 barrels), going down the Source 4WRD path, or some other option, the fixture inventory will be decided towards the latter end of the renovation process. With technology evolving so quickly, equipment that is spec'd now may be out-of-date by the time we are ready to open the project to bidders and order equipment, and costs cannot be accurately predicted this far in advance. Regardless, this upgrade will be environmentally better: LEDs both consume less energy and produce less waste heat. This reduces our need for HVAC, and generally makes the theater more comfortable.

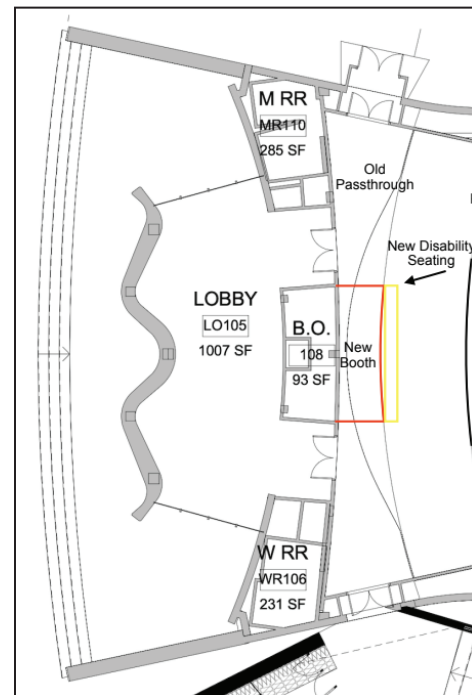
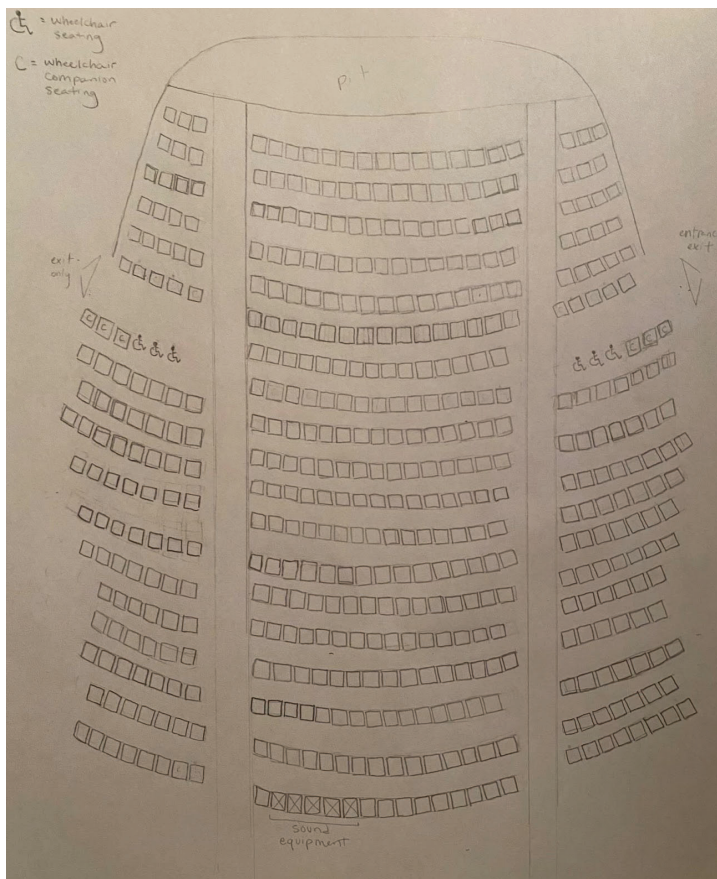
Finally, we want to ensure that we have the capacity for moving lights to be added to the space. At this stage, that means ensuring that the catwalks and hanging positions have all of the necessary equipment (power, DMX, and weight rating).



PARTIAL INVENTORY OF SOURCE 4s IN THE ELECTRICS SHOP

HOUSE, ACCESSIBILITY, AND SOUND BOOTH

When Nord Annex was completed, box office operations for both Hall Auditorium and the Wurtzel Theater shifted to the Nord lobby. Hall Auditorium's former box office shares a wall with the back of its house. Currently sitting unused, it was one of our first considerations for improvement. Taking advantage of its centered rear location, we will knock down part of the wall and extend the room into the back of the house, giving us a proper sound mixing booth and AV rack room. This will free up a few seats currently taken over by our temporary mixing station and open up space to add accessibility seating. The current rear cross-aisle will be removed, but will be functionally replaced by a new cross-aisle at the center of the house.



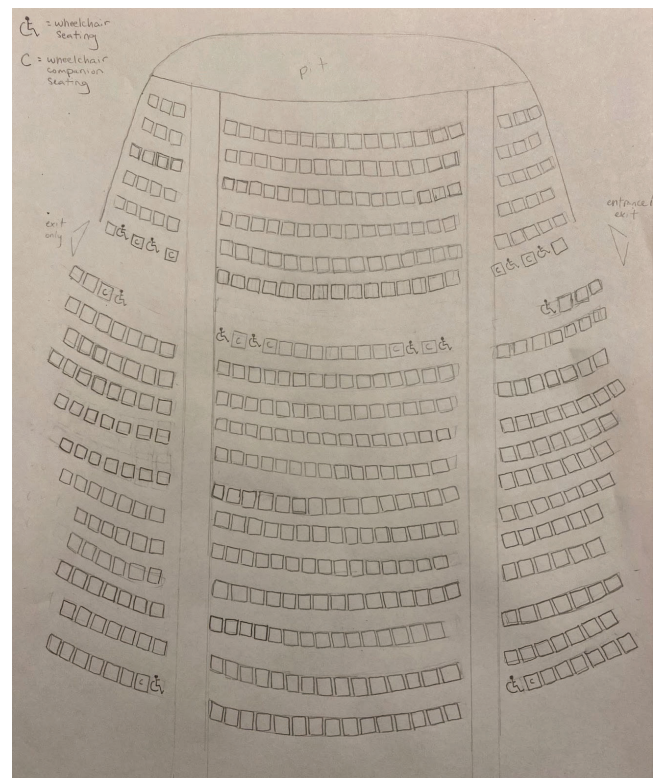
ABOVE LEFT: CURRENT SEATING PLAN
ABOVE RIGHT: NEW SOUND ADDITION
BELOW LEFT/CENTER: SOUND MIXING AREA
BELOW RIGHT: FORMER BOX OFFICE



Hall Auditorium currently has four limited mobility seats, dispersed horizontally but not vertically, and no true wheelchair-accessible seating. Additionally, there are two entrances on house right from our recently-built lobby—one at the back of the house and one about halfway down the length of the house—but only the back entrance is accessible for those with mobility issues. The mid-house entrance has a one foot drop with a step down taking up half the length, and the other half railed off. We will remove the railing and install a wheelchair lift to provide easy access to the middle of the theater. Through those doors is an aisle that we will surround with wheelchair seating by leveling the first row on either side to the same elevation as the aisle. If we remove the adjacent row of seats in the center section, we can also level out that space to create more wheelchair seats and a passthrough for easier access to the rest of the house. While this would cut down on our seating capacity slightly, the safety of everyone in the building and accessibility for patrons are the highest priorities. Our new sound booth would even open up five seats that are currently unusable, so we would regain some of the seating we would be removing. This would allow us to welcome patrons who are currently unable to attend shows in Hall due to a lack of accessible seating options.



TOP LEFT: VIEW FROM HOUSE RIGHT
BOTTOM LEFT: REAR PASS-THROUGH VIEW
BELOW: NEW SEATING PLAN



Currently, backstage is only accessible by a ramp coming from outside the auditorium, since the makeshift ramps leading up to the stage from the house are too steep to be wheelchair-safe. Since we have aprons on either side that are hardly ever used in productions, we would like to remove the stage left apron, located right next to the side house entrance, and install a code-compliant ramp. The ramp would need to be at least 12 feet long to comply with the rule of one foot of length per inch of elevation. We have 16 feet of space to work with, so this is completely doable without changing anything else about the rest of the stage or house.



CURRENT RAMP TO THE APRON



CURRENT STAIRS TO THE PIT

The Orchestra Pit has a set of stairs on either side to enter/exit below the stage. Previously, the stairs on the stage left side were covered to make more room for instrumentalists and makeshift stairs were built instead. We will remove this addition and the original stairs, replacing them with a set of removable stairs and a limited use/limited application lift that could be easily stored adjacent to the entrance. We wouldn't have to worry about storing the stairs as much, as they would be the primary means of access, but there is plenty of space to safely put them aside when we would need to use the lift. Furthermore, there is an elevator that leads into the Hall trap room from the Nord lobby, so there is an existing accessible route into the orchestra pit.

SUSTAINABILITY

Many aforementioned aspects of this renovation will improve the sustainability of the auditorium. For example, the usage of LED lights mitigates the energy use in the lighting system. However, performance spaces tend to only use power in bursts, and the auditorium is hardly utilized during the summer months. This creates a unique challenge when designing a theater, but also presents a unique opportunity. In collaboration with the Engineering and Environmental Studies Departments, we will explore the possibility of power diversion and storage to create a system that only utilizes as much energy as is necessary. We theorize that with the addition of solar panels and with the increasing quality of energy storage systems, we will be able to more efficiently power the space. There are already spaces on Oberlin's campus that utilize one set of solar panels to power multiple buildings and contribute to the storage of power, so creating a similar system for the theater complex would be worth looking into. There is also a pre-existing plan to implement geo-thermal heating into the dormitories on campus, and Hall's heating system could potentially be added to that plan.

Additionally, we would like to include mold removal in this renovation. Air quality has been sorely unregulated on our campus as a whole, and since this building is 70 years old, there are plenty of leaks and cracks that have grown mold over time. Aside from performances, there are tours and mandatory orientation events that take place in Hall, which are currently unsafe for some students to attend. In order to make the auditorium safe for those with respiratory illnesses, and to improve the wellness of everyone in the building, we want to make sure that this isn't overlooked in the renovation process.

CONCLUSION

Our proposed renovations to Hall Auditorium would be beneficial to all who utilize it, from patrons and performers to technicians and designers. Modernizing this space will not only allow for higher quality productions, but will also provide students with an opportunity to explore emerging technologies that are used in the professional entertainment industry.

We would like to extend our thanks to Howard Glickman for supporting our team throughout our theoretical renovation, and to ASTC and USITT for sponsoring this project!