



2022

LAUREN WHITE | CADENCE

CADENCE



# CADENCE

MASTER OF ARCHITECTURE FINAL STUDY

LAUREN WHITE





THE BULL BUILDING  
1887



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HOW CAN  
ARCHITECTURE  
INSPIRE HOPE AND  
FOSTER UNITY  
AFTER TRAGEDY?

# A B S T R A C T

Cadence is a unique proposal that responds to the tragic bombing on Christmas day of 2020 in the Second Avenue Historic District of downtown Nashville, Tennessee. The location of the bombing was particularly devastating, as this district is the heart of the city and the founding site of Nashville. Originally known as Market Street, Second Avenue is filled with exquisite Victorian-era facades, containing memories of its colorful past when it was home to many small businesses including grocers, bakeries, and retailers. The bombing affected 60 buildings to varying degrees, leaving three buildings damaged beyond repair and in need of demolition. This project explores the design possibilities for the buildings neighboring the three that would be demolished, The Rhea Building (166 2nd Avenue) and 176 2nd Avenue. The Rhea Building will be repurposed as a Music Center, with spaces for the community to enjoy performances, as well as opportunities for kids and aspiring musicians of all ages to receive musical training and resources. 176 2nd Avenue will be repurposed as the Nashville History Museum, telling the stories of Nashville's past that don't currently have a home, such as Second Avenue itself and the Cumberland River. The Market Street Music Center and Nashville History Museum act as one with the connection to the central plaza, joining Nashville's vibrant past to the city's promising future. The project explores how architecture can respond to tragedy and exemplify hope and unity.



01

HISTORY &  
RESEARCH





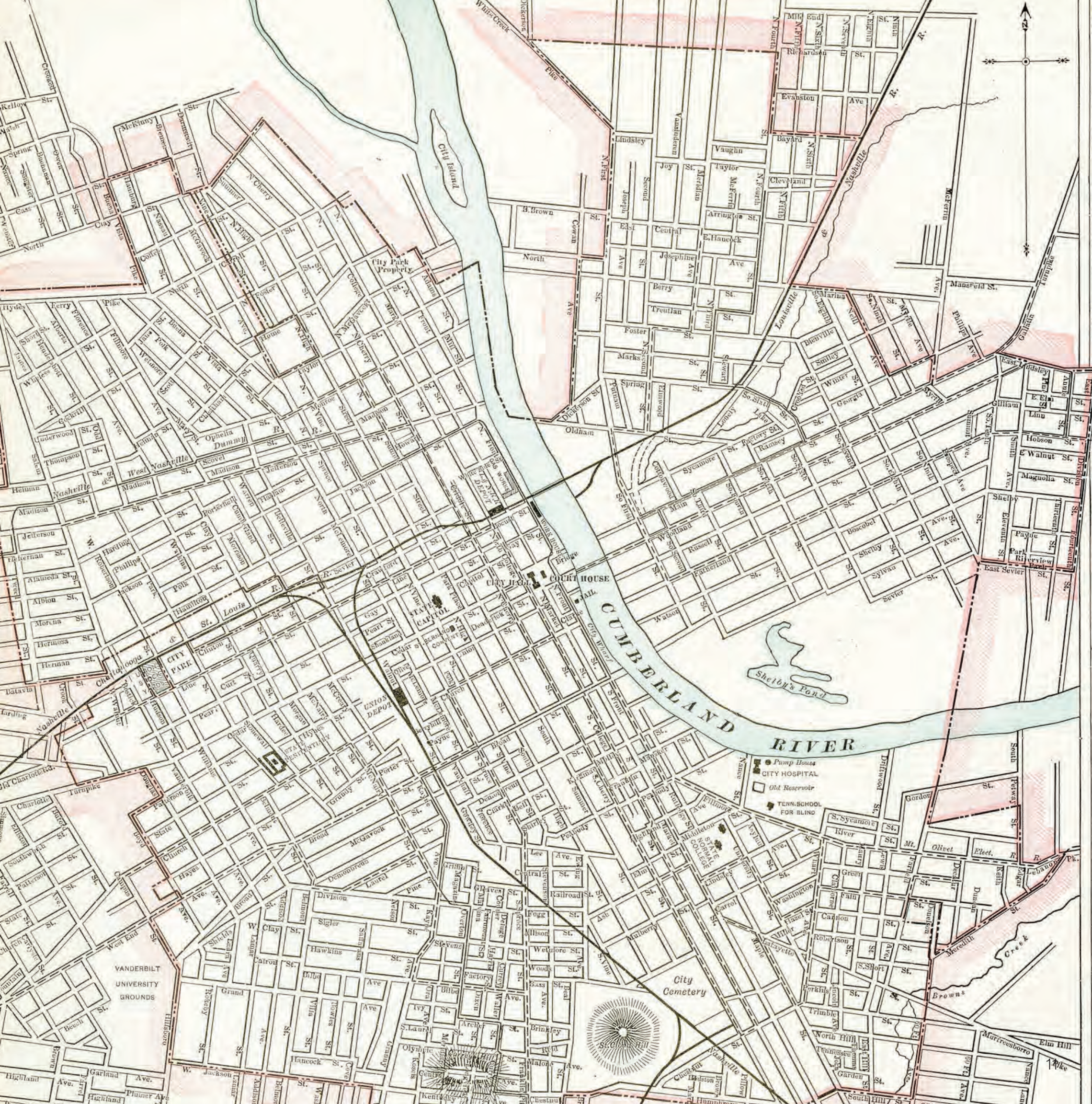
# THE FOUNDING OF NASHVILLE, TENNESSEE

*"History is all explained by geography."*

- Robert Penn Warren



Nashville, Tennessee was founded in 1779 by James Robertson and members of the Watauga tribe. Their first settlement was originally called Fort Nashborough and was located just off the banks of the Cumberland River, which provided an integral connection to the surrounding area. Due to the river's importance in growing Nashville's industrial and transportation centric economy, a public square was constructed adjacent to the river. The square connected to Market Street, which is now known as Second Avenue. This district was the birthplace of Nashville known today. The invention of the steam-boat further boosted Nashville's economy, and many industries flourished and expanded. Later, Nashville was selected as Tennessee's capital in 1843. Throughout Nashville's founding and development, the city continued to take on many identities as various industries expanded.



CUMBERLAND RIVER

- Pump House
- CITY HOSPITAL
- Old Reservoir
- TENN. SCHOOL FOR BLIND

City Park Property

CITY JAIL COURT HOUSE

CAPITOL

City Cemetery

VANDERBILT UNIVERSITY GROUNDS



Meredith Creek

Elm Hill

Browns

Washington

Green

Robertson

Highland

Denon

South

Gay

Clark

W. Front

W. Second

W. Third

W. Fourth

W. Fifth

W. Sixth

W. Seventh

W. Eighth

W. Ninth

W. Tenth

W. Eleventh

W. Twelfth

W. Thirteenth

W. Fourteenth

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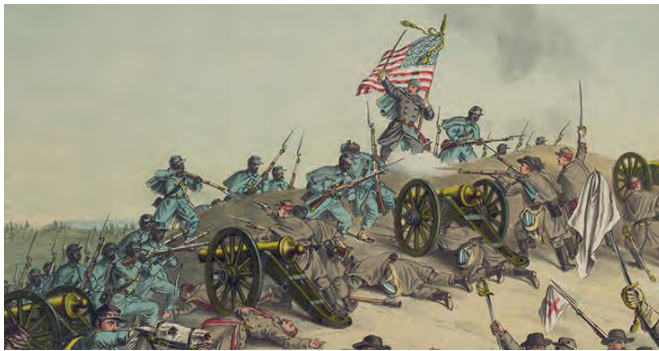
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1870

Due to its strategic location and access to the railroad, the city played a key role in the Civil War. Nashville was occupied by federal troops for three years, and **The Battle of Nashville** was fought in 1864. This battle was the last violent action of the Confederate Army.

Nashville was named “Athens of the South” due to the many educational institutions established there. A replica of the Parthenon was constructed for **The Tennessee Centennial Exposition** in order to affirm Nashville’s new reputation. The replica was designed by architect William Crawford Smith.

1897



1925

**The Grand Ole Opry** started in 1925 and held its first broadcast from the Ryman Auditorium in 1943. The Opry began as a weekly country music show and is widely considered the birthplace of country music. In 1967, the Country Music Hall of Fame opened. Establishments such as these furthered Nashville’s growing reputation as “Music City”.

# THE MAKING OF MUSIC CITY

*“Music has a great power for bringing people together. With so many forces in this world acting to drive wedges between people, it’s important to preserve those things that help us experience our common humanity.”*

- Ted Turner

The origins of music in Nashville date back to early settlers in the late 1700s, celebrating with fiddle tunes and dancing after the original founding at Fort Nashborough. In the 1800s, Fisk University aided Nashville’s nickname when the Fisk Jubilee Singers sang for the Queen of England. The Queen was so pleased with

their performance that she stated the singers must be from the “Music City.” In the 1930s, entertainment venues including dance halls, speakeasies, and nightclubs were popping up left and right, particularly on Jefferson Street. One of Nashville’s most famed music venues is the Ryman Auditorium and is nicknamed the

“Carnegie Hall of the South.” The legacy continues, as Nashville is known as the songwriting capital of the world and many popular music artists call the area home (“The Story of Music City”).



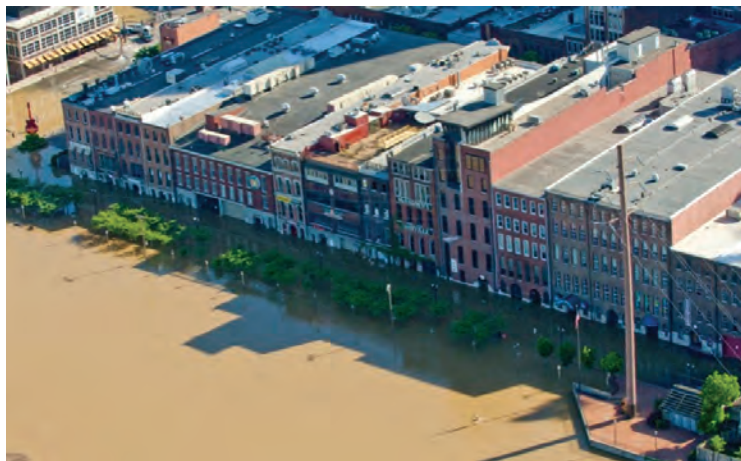


## 1960

Nashville played an important role in the **Civil Rights Movement**. Hundreds of college students were involved in a sit-in campaign, aiming to desegregate lunch counters throughout the city. One of the most influential groups of the time, the Student Nonviolent Coordinating Committee, started in Nashville with the help of John Lewis and other activists.

In May of 2010, a 1,000 year **flood** hit middle Tennessee as well as portions of Mississippi and Kentucky. In a matter of 36 hours, 13 inches of rain were measured. Tragically, 11 people died from the flooding in Nashville and the Second Avenue district suffered serious water damage.

## 2010



## 2020

In early March, a high-end EF3 **tornado** struck Nashville, and ended up being the 6th most damaging tornado in American history. More than 1,600 buildings were destroyed. In addition, the COVID-19 pandemic caused distress to the city, as its citizens suffered illness or death, as well as economic distress from many business closures.

# THE BOMBING

*“There is beauty in ruins to those who see”*

- Emmanuel Rajkumar



In the early morning hours of **December 25th, 2020**, a Nashville resident named Anthony Quinn Warner detonated a bomb from his recreational vehicle. He parked his vehicle downtown on Second Avenue next to the AT&T equipment building. Before the blast, speakers on the vehicle warned those nearby to evacuate the area. The explosion killed himself, injured eight people, caused many people to be displaced from their homes, and businesses to close.

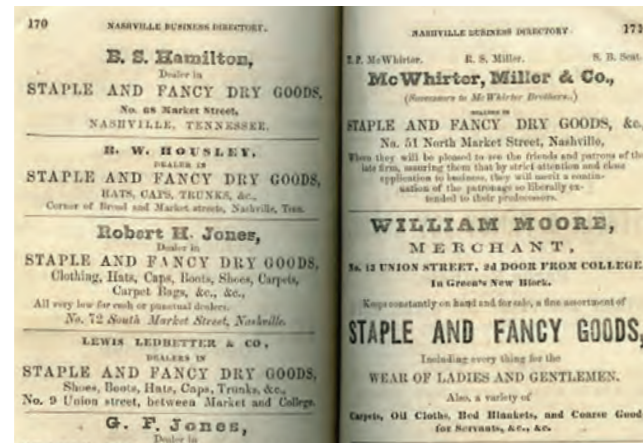




# THE HISTORY OF SECOND AVENUE

*“There is a quiet dignity to the street - a strong sense of unity - like every building is locked arm in arm with his neighbor profoundly but silently testifying to the spirit and vigor of Nashville in the 1870’s.”*

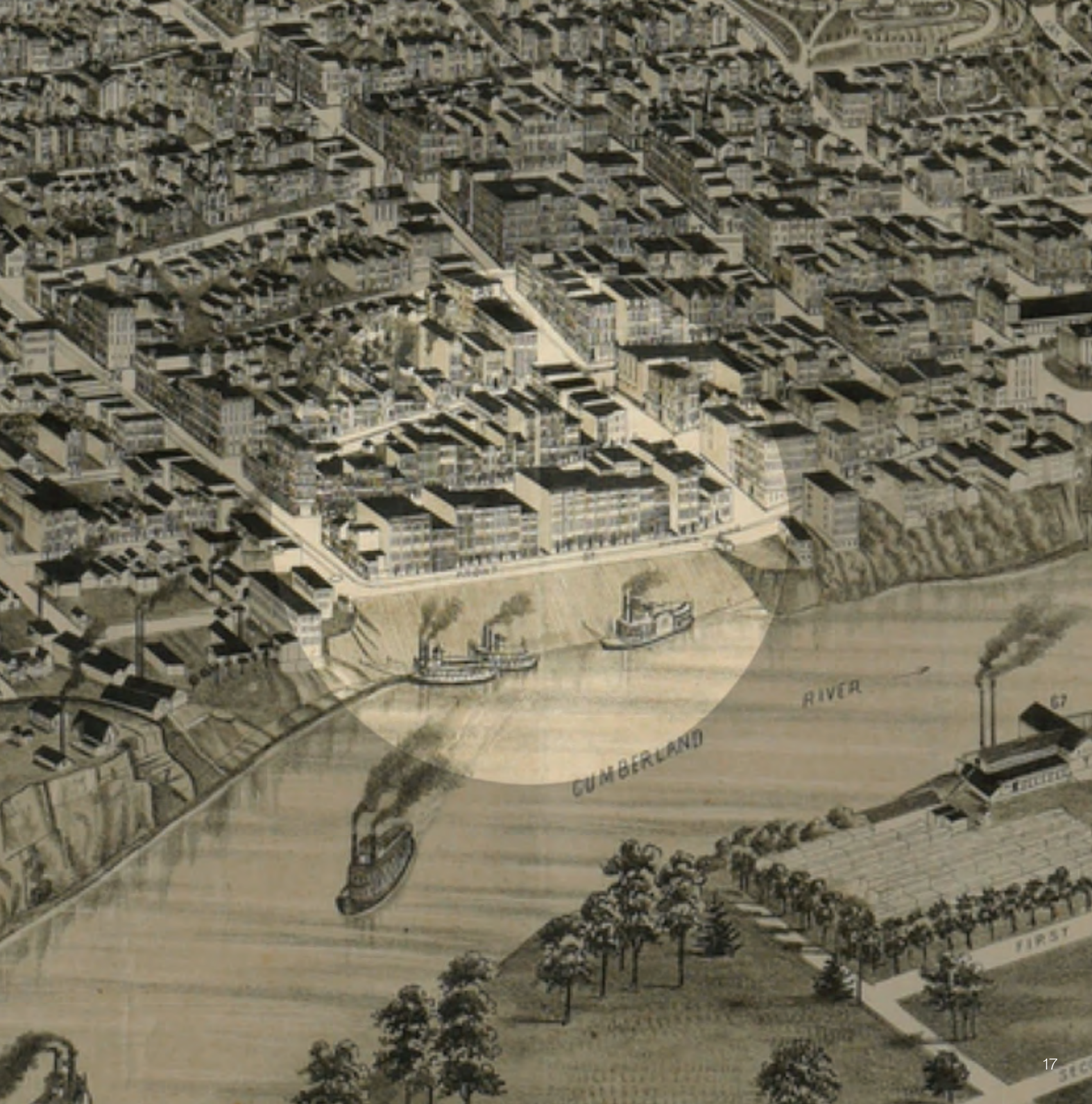
- Neil Bass



Second Avenue, originally named Market Street, was first bought in 1784 for the equivalent of about four English pounds, and the first store opened its doors in 1786. As previously discussed, Market Street's location and proximity to the river played a large part in the district's success (Arntz). Goods, produce, and other novelties were brought in by boat to the Front Street side of the block (now named First Avenue). Each building in the historic district is unique in that they are as deep as the entire city block, about 210 feet.

This framework was derived from the reality of unloading goods from First Avenue to then be brought through the buildings and sold under the more formal and intricate facades of Second Avenue. This system is also what has historically created a back alley or industrial type feel to First Avenue. Nonetheless, this street is undoubtedly one of the most important in Nashville's history. Market Street housed many types of stores including wholesalers, grocers, tobacco goods, saloons, and candy stores. Through-

out history, the street has endured many threats including fire, unprotected demolition of historic architecture, floods, street widening, and in 2020, a bombing. The following pages contain tokens of this rich history. Second Avenue was also the first historic district to be recognized on the National Register of Historic Places in 1972. After a failed attempt at a zoning overlay to better preserve the district, the street finally received the protection it deserves by the Historic Zoning Commission in 1997 (Arntz).



CUMBERLAND

RIVER

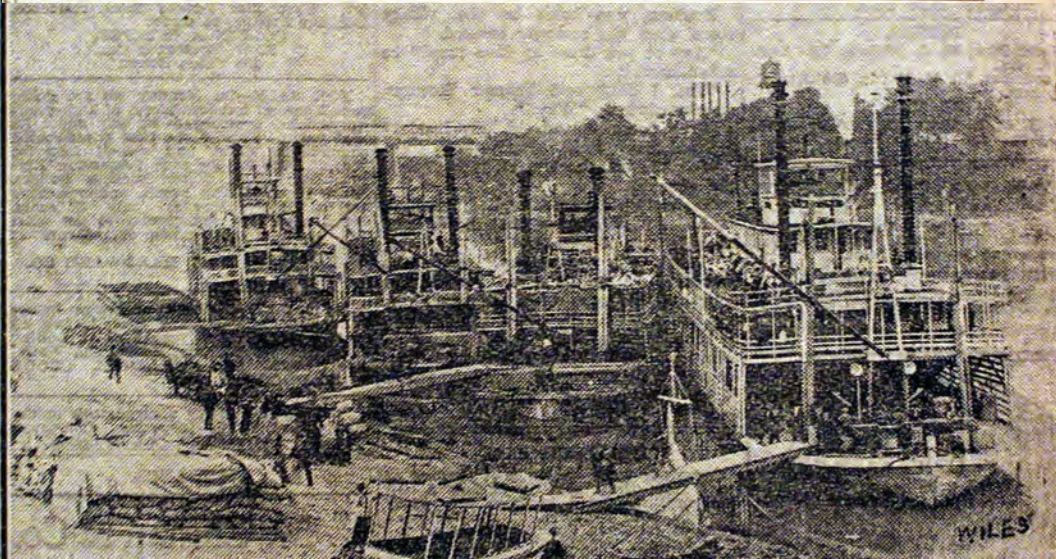
67

FIRST

# Second Avenue Phoenix Rising

Believers Live, Work  
In Historic District

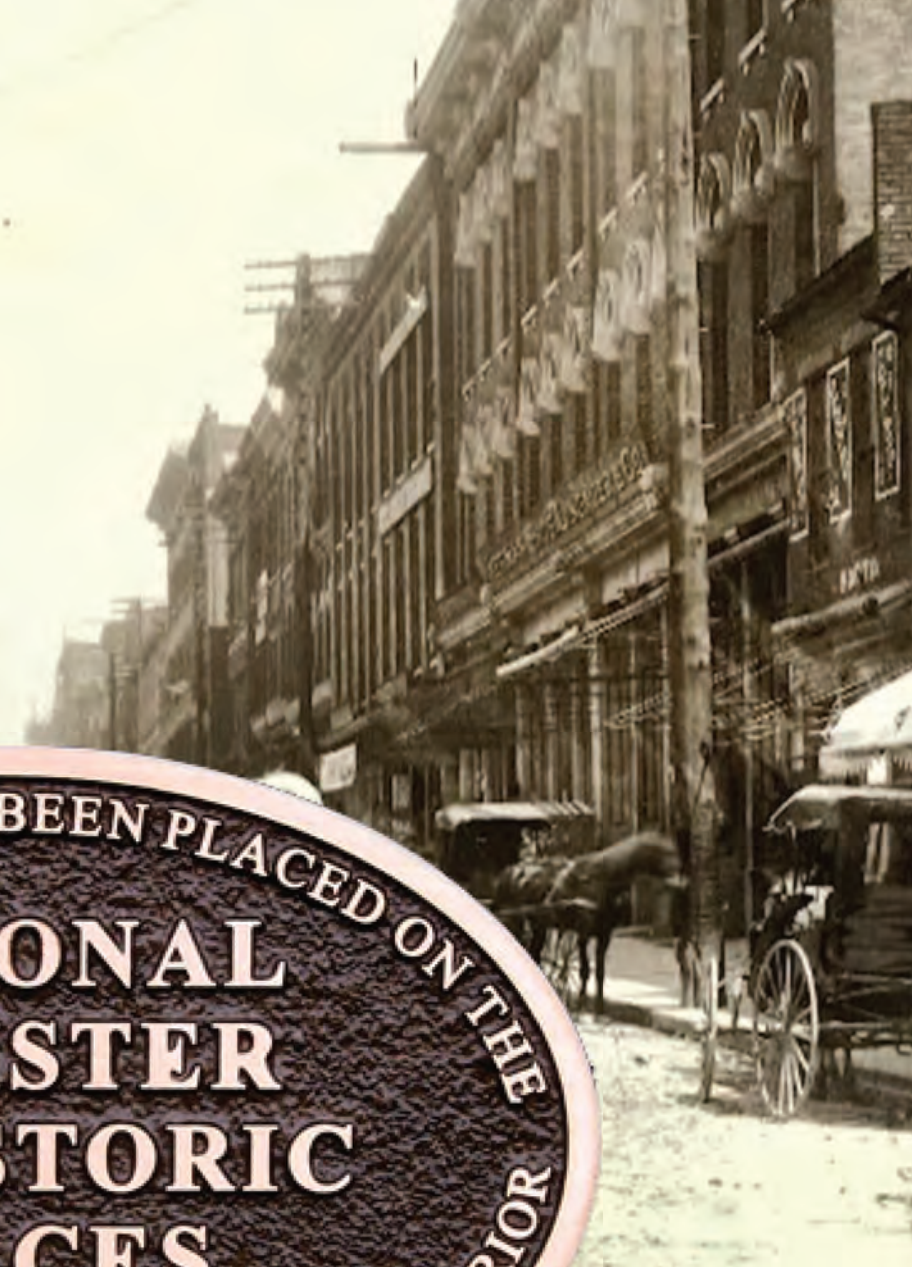
PLENTY OF BUSINESS AT THE WHARF



NASHVILLE BOMBING

Demolition requested of  
historic buildings on 2nd Avenue  
impacted by bombing





BEEN PLACED ON THE  
**NATIONAL  
 HISTORIC  
 LANDMARKS**  
 DISTRICT  
 OF THE INTERIOR  
 U.S. DEPARTMENT OF THE INTERIOR



THE TENNESSEAN  
 JUN 20 1982

**'Thriving Development' Predicted**

—Staff photo by Robert John

These historic buildings along Second Avenue, North, are being leased as office space. The project will add another 250,000 sq ft of office space to the downtown area. Restored by Nashville developer R.C. Mathews Jr., and will be 100,000 sq

# Downtown facades are tumbling down despite city pleas

THE NASHVILLE BANNER

By Clarke Canfield

Banner Staff Writer NOV 7 1985

Workers using a crane and a massive scoop began hammering down the shells of three historic downtown buildings today as attorneys said nothing more could be done to delay the demolition.

A crew from the Levy Wrecking Co., which began doing preliminary demolition work at about 7:30 a.m., started yanking off the tops of one of the facades at about 9 a.m., causing debris to come crashing down loudly into the streets.

**'You can bet this is a great loss for Nashville. It's a bad thing and extremely short-sighted.'**

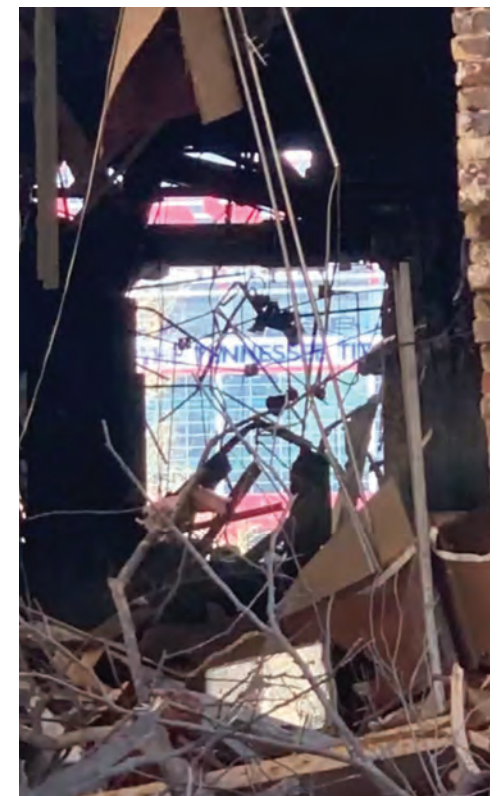
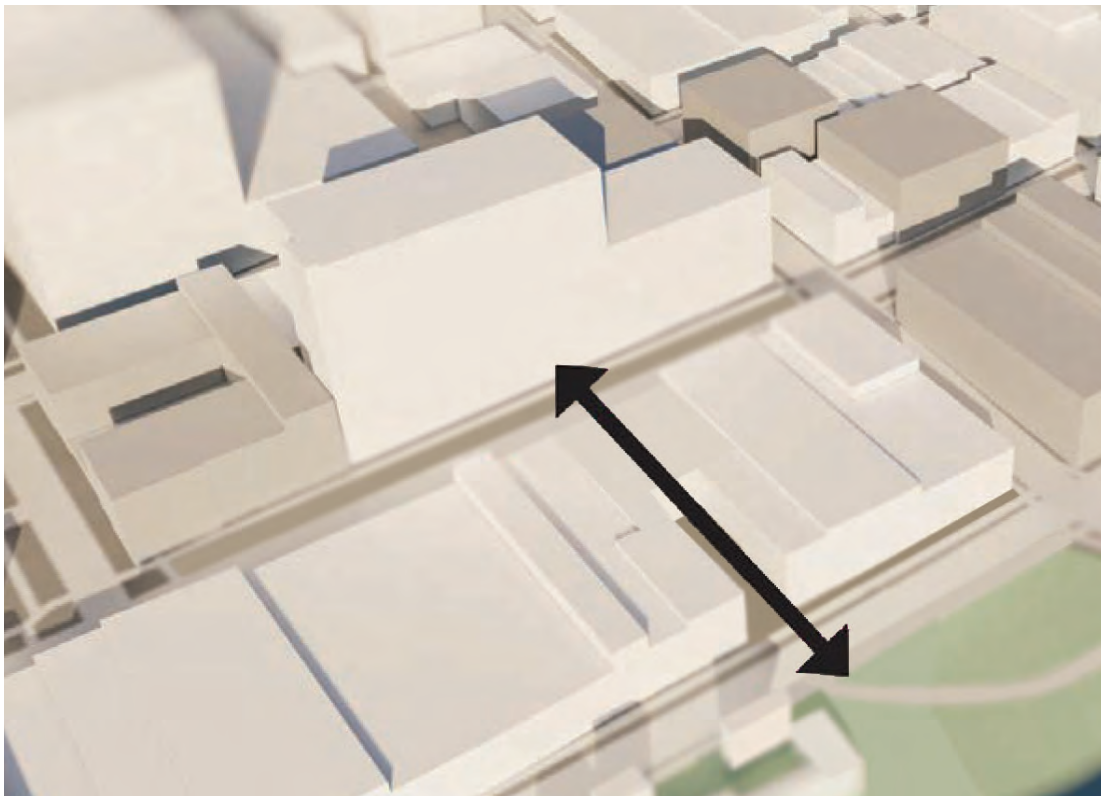
—Robert Tuke  
 Historic Nashville attorney





*“The key is remembering people. If what we build connects to human needs- for beauty, for social engagement, for work, for recreation - then we will create a city that is a satisfying experience for all its citizens.”*

- The Plan of Nashville



After the bombing, experts from the Urban Land Institute developed a report with their recommendations on a path forward for the district. The report stressed the importance of resolving the connection between Second Avenue and the Cumberland River, stating that it would allow for an inviting and emotional connection to the water, provide additional safety for the district, and create a visual link to the East bank of the river (“A ULI Virtual Advisory Services Panel Report”).

02

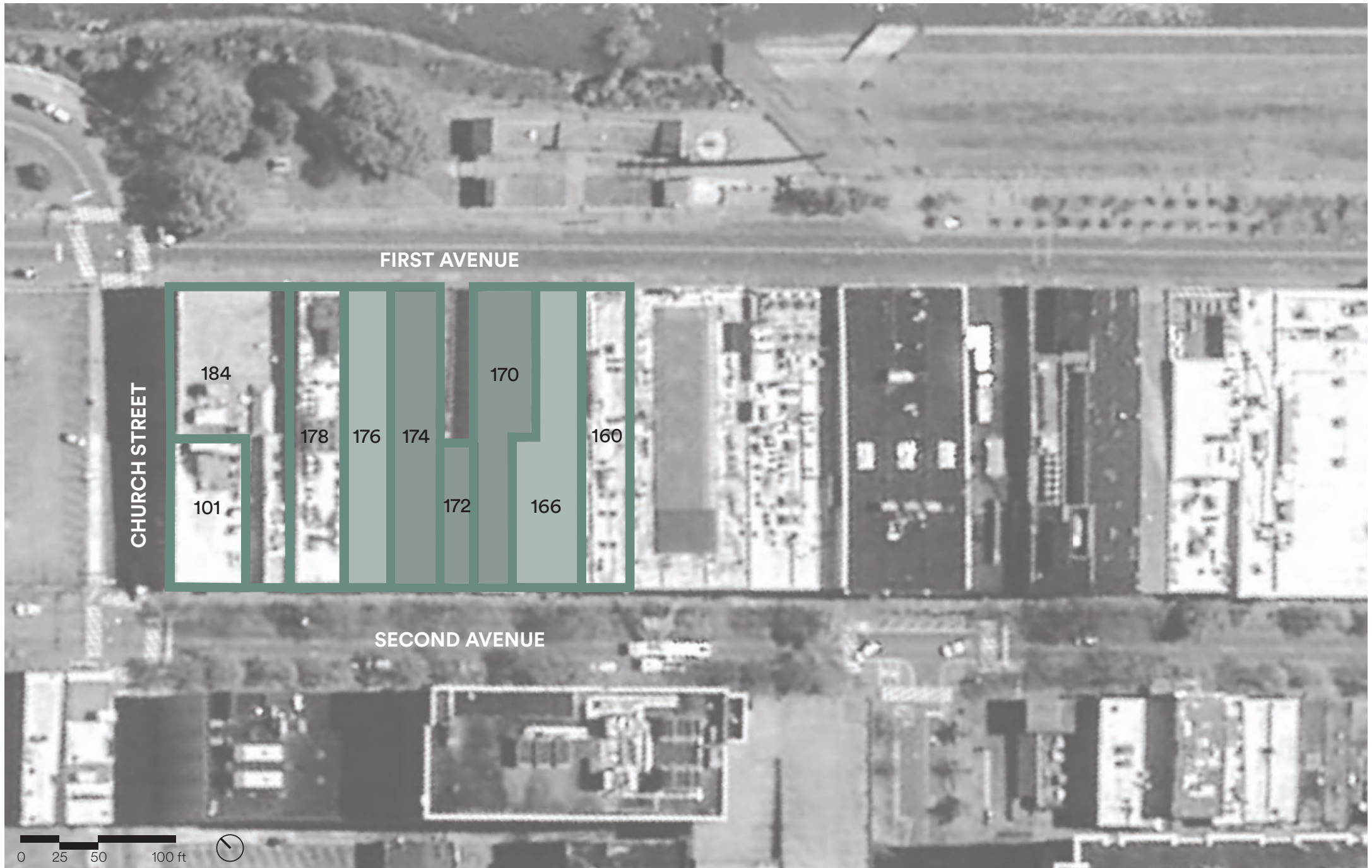
ADAPTIVE  
REUSE









# RESTORING THE



# BIRTHPLACE OF NASHVILLE

-  BUILDINGS TO BE DEMOLISHED
-  BUILDINGS TO BE REUSED

*“There is a remarkable continuity in the facades - each of brick, each punctuated with a rhythm of windows arranged with regularity without being repetitious and each crowned by a projecting cornice....in short, the street is an architectural masterpiece.”*

- Neil Bass

176



For the purposes of this project, I am assuming that 176 2nd Avenue is able to be restored.

174



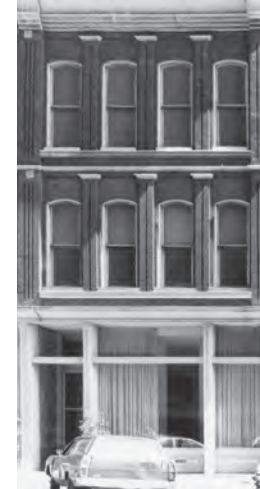
For the purposes of this project, I am assuming that the demolition request for 174 2nd Avenue was approved.

172



For the purposes of this project, I am assuming that the demolition request for 172 2nd Avenue was approved.

170



For the purposes of this project, I am assuming that the demolition request for 170 2nd Avenue was approved.

166



For the purposes of this project, I am assuming that the Rhea Building is able to be restored.

# THE ARGUMENT FOR ADAPTIVE REUSE

*“The most important thing about preservation is not the creation of the illusion of an old place, but the visibility of the arc of time, of generations of architecture working together to create a sense of place. We preserve not to take us back to the past but to make for a better present.”*

- Paul Goldberg

Reusing existing buildings is an important portion of historic preservation work. Adaptive reuse breathes new life into historic structures. Adaptive reuse involves unique design challenges as each building is redesigned apart from its original programming and intent. In the context of this project and given the constraints of this site, how can architecture be created with a 210 foot by 35 foot canvas?

Another component of adaptive reuse is sustainability. There is a common phrase amongst preservationists, stating that the most sustainable building is the one that is already built. With the construction industry accounting for nearly 40% of global CO2 emissions each year, it is time we take responsibility for our impact on the earth (“Why the Building Sector?”). With adaptive reuse, we can extend a building’s lifespan while preserving cultural heritage.

This type of preservation work provides a link between past and present by preserving and remembering our heritage. It reminds us of where we’ve been and what our cities are becoming. Campagnol writes of the important work of Brazilian architect Lina Bo Bardi, who preferred the term “industrial archeology” when discussing her work transforming industrial buildings. Her unique approach to restoration projects focused on the “historical present”, meaning Bo Bardi placed emphasis on what significance a building holds now as opposed to its past (Campagnol). In focusing on the building’s future possibilities, Bo Bardi is defending the “distinctive characteristics of a time that still belong to humanity” (Campagnol).

Lastly, adaptive reuse creates a unique experience, an intangible aspect to buildings that cannot be found in new construction. Combining modern build-

ing technology with historic architecture creates an atmosphere and sense of place that simply cannot be replicated. People are craving experiential spaces from architecture that tell a story.

In the context of Market Street Music Center, I viewed the adaptive reuse design approach as an insertion of new into the old. There is a cohesive synergy between the existing brick bearing walls and the new, warm mass timber structure. The design embraces both old and new; the structural grid respects the existing proportions of the façade and the visual connection between floors that can be seen in the entry atrium and waiting area were derived from the stepped brick corbeling on the exterior. The flexible interior structure and intentional placement of skylights proves that negative connotations of historic buildings appearing daunting and dreary are no longer valid.



2nd Ave. Wholesale District, Nashville, Tenn.

# 176 2ND AVENUE

REUSED AS THE NASHVILLE HISTORY MUSEUM

*Curved Pediment*

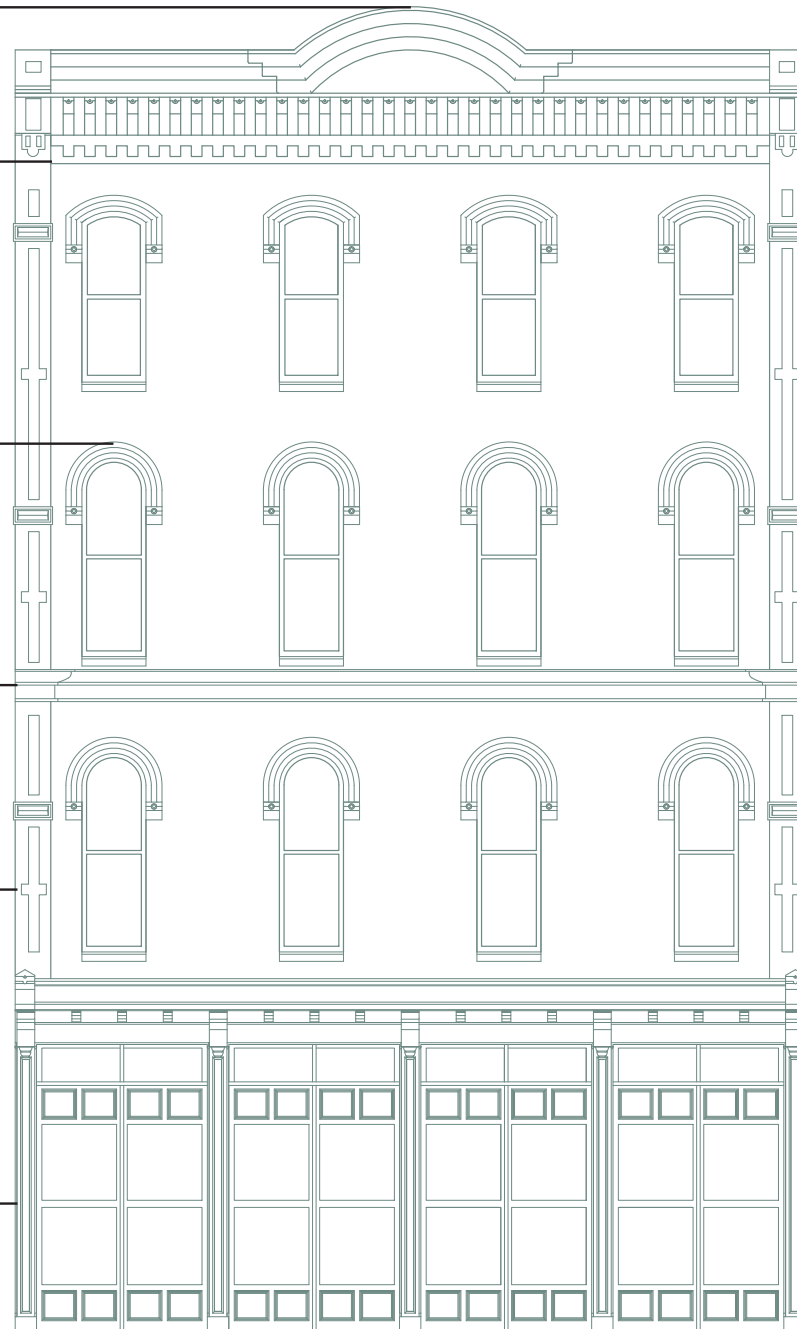
*Corbeled Brick Dentils*

*Arched Hoods with Shoulders*

*Stone Cornice / Belt Course*

*Cross Inset Brick*

*Cast Iron Storefront*



**Circa 1885**  
**Italianate influences**  
**Four Stories**  
**Brick Construction**

176 2nd Avenue contains many similar architectural elements to 174 2nd Avenue. However, they differ in that the arched windows of 176 2nd Avenue are one over one with metal round hoods on the second and third levels. On the fourth floor, there are flattened arch hoods with shoulders.

# 166 2ND AVENUE

REUSED AS THE MARKET STREET MUSIC CENTER



Circa 1887 (as seen on the inscription)  
19th Century Commercial Style with Romanesque and Italianate Influences  
Three Stories  
Brick Construction

The Rhea building is one of the earliest buildings constructed on the historic street and is composed of three stories and a three bay brick facade. On the 2nd Avenue facade, the central bay is higher than the outside bays, forming the iconic stepped roofline. The facade is crowned by a bracketed cornice. The first floor of this facade has been updated and contains new windows.

03

DESIGN  
CONCEPTS







# THE CASE FOR AN ARCHITECTURE OF HOPE

*“Everything that is done in the world is done by hope”*

– Martin Luther

The dictionary defines hope as a feeling of expectation or desire for a certain thing to happen. Hope, in definition, is closely tied to similar notions such as faith and desire. It is no wonder that themes of hope are common among literature. It is an intrinsically human trait to be anxious about our uncertain future. Stories of hope make up our history. In many cases throughout history and writing, hope is tied to religious faith or faith in humanity. Hope can be an emotion that is experienced, or a lens to view reality. Hope can serve as an example of how altering our interpretation of our lives can be immensely powerful.

Hope is a universal human experience. It doesn't matter what our background is, our financial situation, our political affiliation, or our genetic makeup. It is human nature to desire more for our society. Everyone needs it. Hope is often misconstrued as simply wishing

for something to happen. A superfluous, utopian desire of perfection. A daydream, a side effect of our broken world. But, achieving what we wish for cannot be passive. Hope requires action. Hope takes grit. Hope asks us to do the work to get where we desire to be.

In the last year, as COVID 19 spread and became disruptive to society, we all surely hoped for a different, healthier future. But we knew we couldn't simply wish away a pandemic. Scientists worked around the clock to develop vaccines. Essential staff got to work, while others transitioned to working remotely. Doctors and nurses did everything in their power to care for their patients. They hoped and fought for a better tomorrow. Hope without action is merely a wish. To translate our dreams into reality, hope demands that we act.

Another misconception of hope is that those who hope view life through rose

colored glasses. They are dismissed as wishful thinkers, the glass half full type, wasting their days in wonderland. On the contrary, those who can hope in the darkest times are the strongest of us all. They are relying on deep-seeded beliefs that can transform present reality. They know that hard times are inevitable, yet temporary. They have faith. When hope exists, we are unstoppable.

Hope cannot exist alone. Hope moves. It creates. It engages. Hope has the power to spread, only if we give it the chance. Every person contains the ability to cause one another to become hopeful. Even in times of crisis such as all that 2020 brought, hope sustained us. Hope is what propels us forward. What causes us to make change, what causes us to ask for more out of our lives. It is this universal nature of hope that is so compelling to humanity.



# CADENCE AND MUSIC THEORY

*"Music is the space between the notes"*

- Claude Debussy

V - I      V - I      IV - I      IV - I

I - V      I - V      V - VI      V - VI

In music theory, a cadence (in Latin, cadentia, “a falling”) is the end of a phrase in which the melody or harmony creates a sense of resolution. Examples of the four types of cadences found in music are shown above (authentic, half, deceptive, and plagal). Cadence serves as a design inspiration for this project. Though the buildings speak to one another, beautiful buildings have fallen, creating a rhythm that undulates through the district.

# MUSIC AND ARCHITECTURE

*“Architecture is frozen music”*

- Johann Wolfgang von Goethe

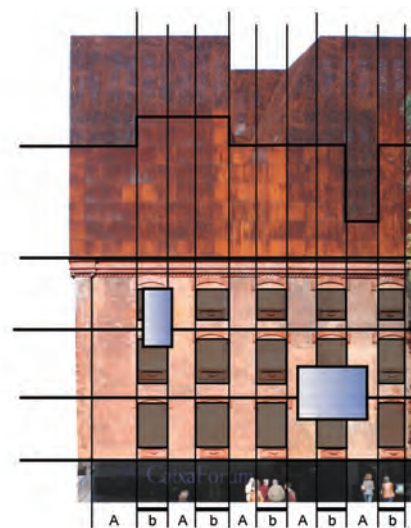
There are many similarities between architecture and music. Looking into the history of both fields, music and architecture are both based on an underlying order. Music and architecture share some of the same foundational principles; repetition, harmony, proportion, rhythm, and scale are crucial in both arts.

Architecture and music can also produce a wide variety of human emotions. Just as genres of music cultivate dramatically different emotions, each architect brings a unique feeling to a space. For example, Libeskind's use of dissonant angles and clashing structural elements in the Jewish Museum of Berlin are

intended to invoke feelings of discomfort in those experiencing the space (Jencks). In fact, Libeskind was inspired by an opera, where the musical composition imposes similar emotions. Another similarity between music and architecture is that not everything is revealed at once. One cannot hear the end of a song before the chorus or experience the promenade of a building before reaching the pinnacle.

The concepts of music were drawn upon throughout the design process. For instance, the initial grid of this project follows numerical proportions common in music theory. 2:1 ratios are common in music develop-

ment, therefore they became an anchor for the project. Such scales and rhythms can be translated into architecture and analyzed. To the right is a diagram explaining the rhythm and proportion of Herzog & de Meuron's Caixa Forum in Madrid (Jencks).



# HEALING ARCHITECTURE

## THE JAPANESE CONCEPT OF KINTSUGI

*"I've always seen architecture as a healing art,  
not just as a beautification art"*

- James Polshek



This project was inspired by the Japanese concept of Kintsugi, which takes a broken piece of ceramic and uses gold infill to make it whole again. The meaning of the term kintsugi comes from the words kin, meaning gold, and tsugi, meaning reconnect. Traditionally, kintsugi is used to repair broken tea ware.

The concept is derived from a Japanese tale dating back to the 16th century. According to the tale, a servant dropped his master's tea bowl as he was hastily preparing for a ceremony. When the tea master saw this happen, he rushed in with the solution of gluing the pieces back together with gold lacquer. The servant's master was so pleased and treasured the tea bowl even more than before. This story went on to inspire a new art form in Japan and has since inspired artists of all kinds (Blaine-Brownell).

With kintsugi, it is apparent that one is not attempting to diminish or hide the fact

that something is broken. Instead, it brings brokenness to light and makes the object more beautiful than before. My goal for this project is to emulate this concept architecturally. A meaningful takeaway from this concept is that past breaks are celebrated. Although one may wish the bombing in Nashville never occurred, one cannot alter the past, and this disaster is forever a part of the city's history. It is a traditionally Western view to make something "good as new", according to writer Bonnie Kemske, who wrote a book on the value of Kintsugi (Kintsugi: The Poetic Mend). But, how can we acknowledge history while making something better than new, as Kintsugi teaches us.

This project contains immense emotion due to the bombing. There is an emotionally charged nature to this site. Businesses were forced to close their doors, people were displaced from their downtown loft apartments, not to mention the

architectural loss of beautifully crafted historic structures. Wounds were left in the community that can still be felt almost a year and a half later. The site contains memory and emotion, and the weight of telling this story is heavy. Tragedy is what created the opportunity for this architectural project, but how can a place be created that will rise from the ashes literally and figuratively?

Kintsugi allows for broken pieces to come together again. When translating this concept architecturally, I thought of the two buildings being read as one, united with the shared plaza. The two buildings speak to one another. Unity is difficult to achieve, therefore in plan view you can see this negotiation. Unity requires give and take from each side. Throughout its history, Second Avenue has undoubtedly received many scars, yet there is a poetic beauty in transforming wounds into gold.

# PRECEDENT STUDIES

## ARCHITECTURE OF REMEMBRANCE



9/11 MEMORIAL  
NEW YORK CITY, NEW YORK  
MICHAEL ARAD

In the search for the appropriate design for the 9/11 memorial, the committee was looking for a design that honored the victims, addressed their families, and included a place for healing and reflection. Young architect Michael Arad won the competition and described the intent behind the design in stating the pools represent “absence made visible” (“About the Memorial”). There is a profound and poetic symbolism in the fact that the water is continually flowing down the voids, however they will never be filled. The names of the 2,983 people who were killed are inscribed on the edge of the two memorial pools.

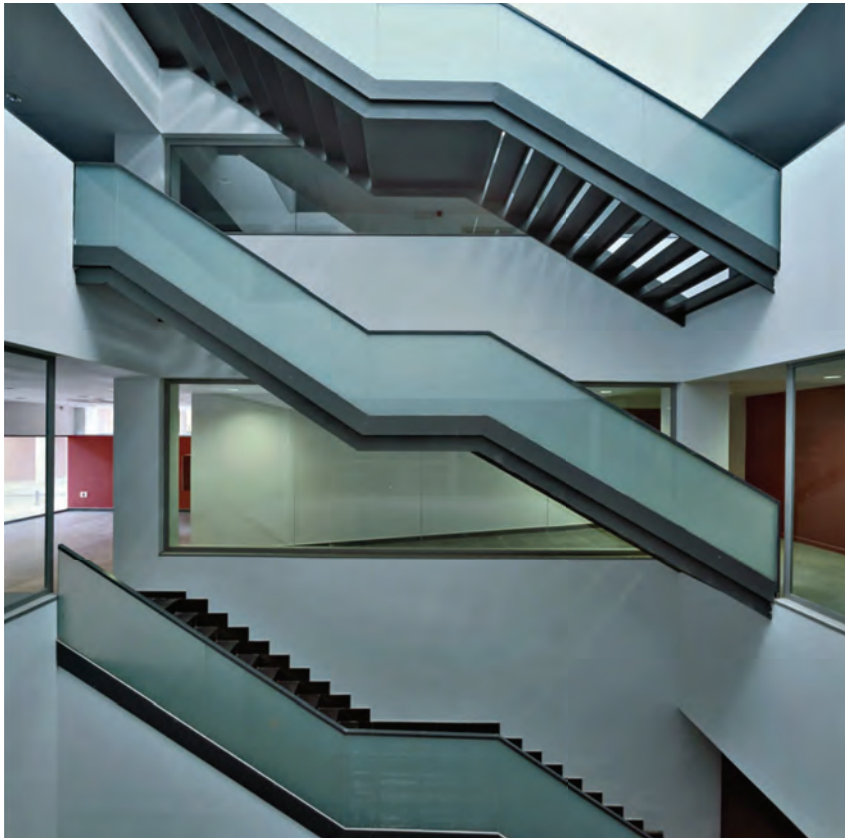
## ARCHITECTURE OF THE VOID



SANT ANTONI - JOAN OLIVER LIBRARY  
BARCELONA, SPAIN  
RCR ARCHITECTS

This project is a part of an initiative in Barcelona to recover the interior of the urban blocks. The thoughtful design unifies the street with an existing underutilized courtyard. The architects sought to make the street more dynamic. Through careful positioning of the masses of the building, the design addresses the desire to establish this link. The library acts as a door to explore the rest of the project and the main reading room is raised up, allowing light to filter down both sides, forming the entry to the public space. The programming adjacent to the garden is clad with light materials, allowing the garden to be experienced as an extension of the interior.

## MUSIC SCHOOLS



### SCHOOL OF MUSIC SAN SEBASTIAN DE LOS REYES, SPAIN A.H. ALONSO HERNÁNDEZ ASSOCIATES

This project was developed around the central guiding concept of the building acting as a music box. The architect places emphasis on architecture as a spatial experience with the central atrium that connects the wide variety of programming found in the building. The approach to the building is closed off when it needs to be, and open to the pedestrian promenade to invite visitors in. The music and dance rooms are flexible yet logical and play with light and shadows. The “box” is closed at some moments in the ascent and open when it needs to be, letting the music flow out (“A.H. Alonso Hernández”).

## ADAPTIVE REUSE



### STADTMUSEUM BERLIN, GERMANY ADEPT ARCHITECTS

Danish architecture firm ADEPT won the competition for a museum project that is part of a citywide initiative to encourage cultural centers. The design redevelops an existing building that had previously been closed for 20 years. ADEPT’s respectful reuse of the building is derived from their “house-in house” concept serves as a mix of museum and community house (“Adept Stadtmuseum”). A building that originally housed naval officers and later neglected is set to be revived. The open, flexible interior is inviting to the public and encourages exploration.



04

ARCHITECTURAL  
PROPOSAL





# THE EXISTING SITE



**— HISTORIC PRESERVATION ZONING OVERLAY** **■ NATIONAL REGISTER OF HISTORIC PLACES**

Municipal Courthouse &  
Public Square Park

Cumberland River

Riverfront Park

Fort Nashborough

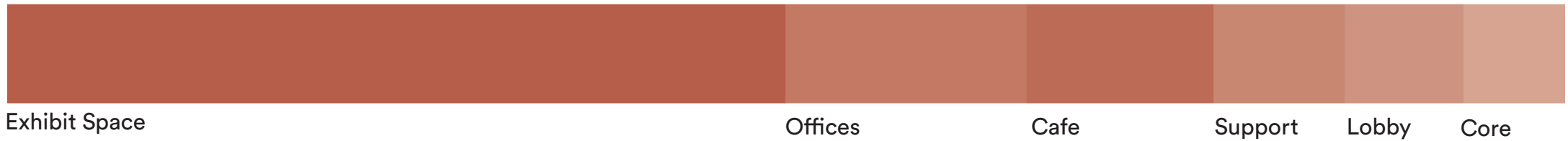
Broadway  
Historic District

John Seigenthaler  
Pedestrian Bridge

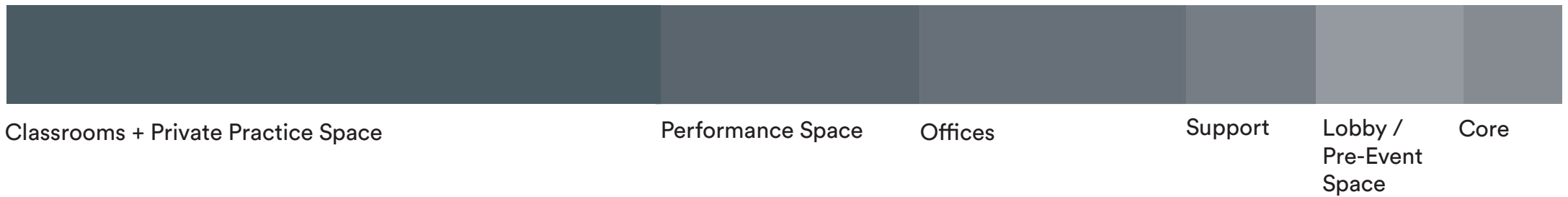


# PROGRAM

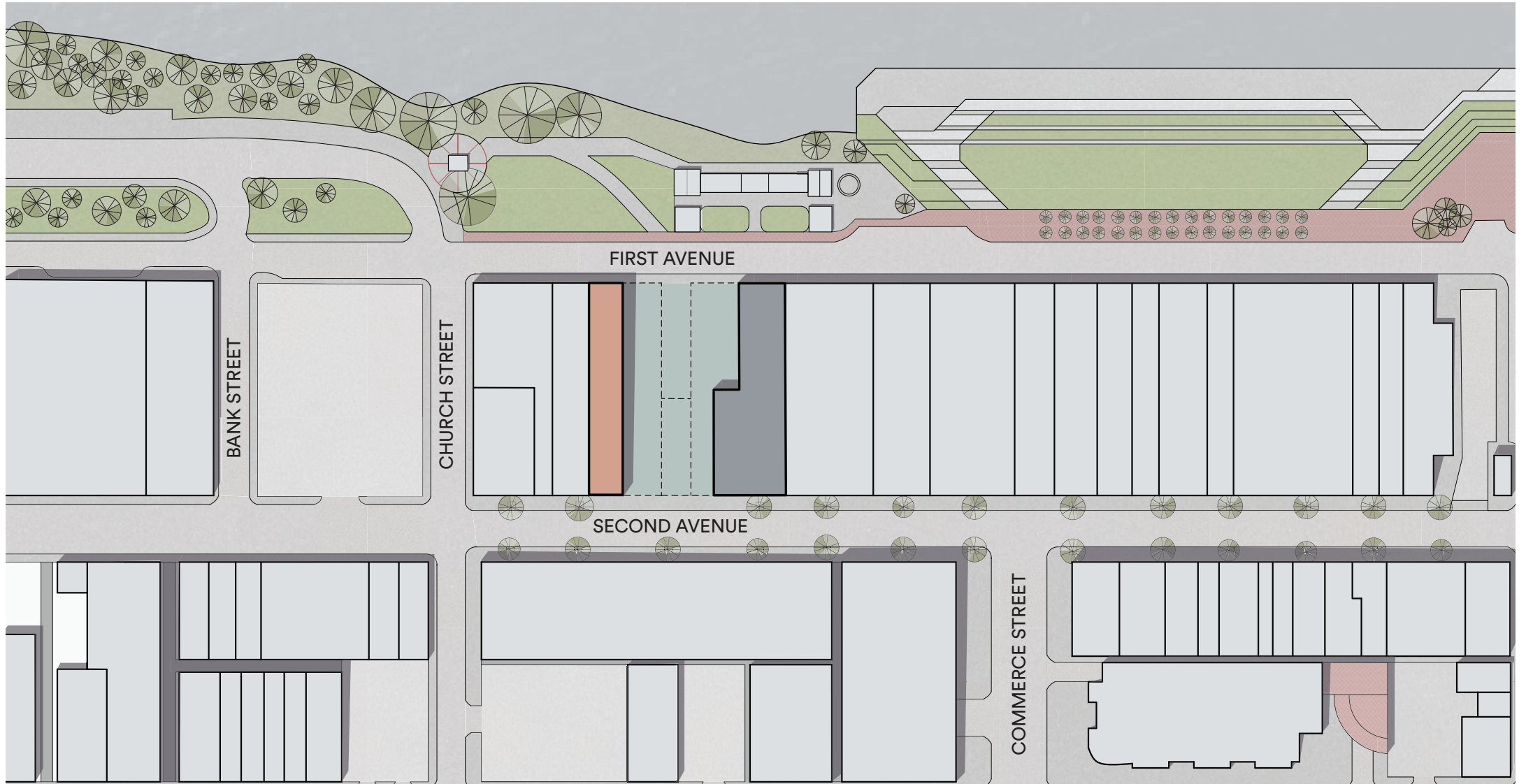
Nashville History Museum | 26,740 sq ft



Market Street Music Center | 30,440 sq ft



PAST | MUSEUM
  CONNECTION TO RIVER | PLAZA
  FUTURE | MUSIC CENTER
 - - - FOOTPRINT OF DEMOLISHED BUILDINGS



The Nashville History Museum represents the past. The existing structural elements and brick masonry are preserved and celebrated. The space between the two buildings takes advantage of the opportunity the bombing created to better connect Nashville’s downtown urban fabric to the Cumberland River. Historically, Nashville has not engaged or embraced the riverfront due to its history of industry. This project utilizes the opportunity to enhance the flow of downtown Nashville. The Music Center represents the future; an insertion of new into the old. The building exists to invest in the next generation that will be guiding the future of Nashville.

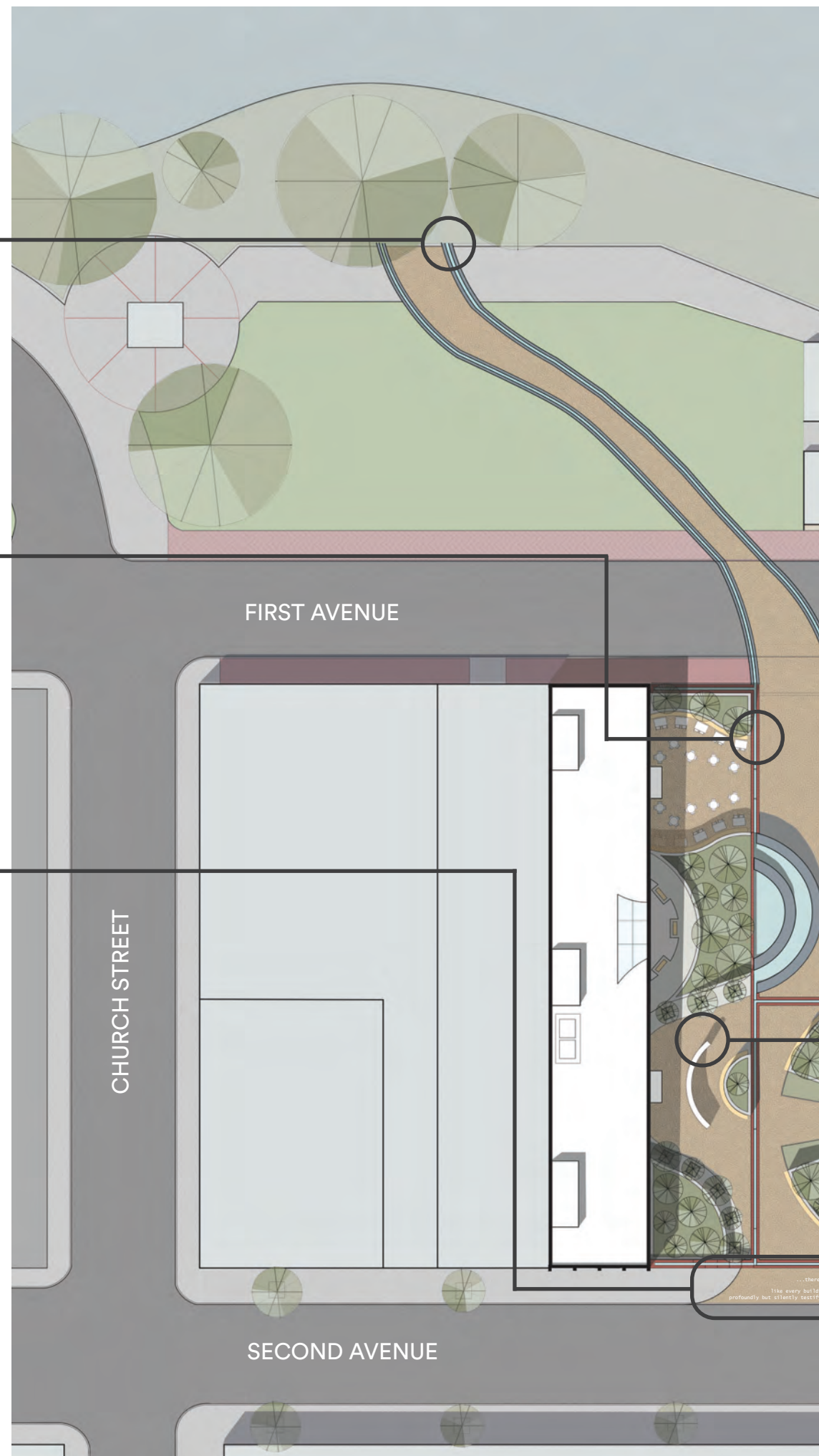


# LAYERS OF

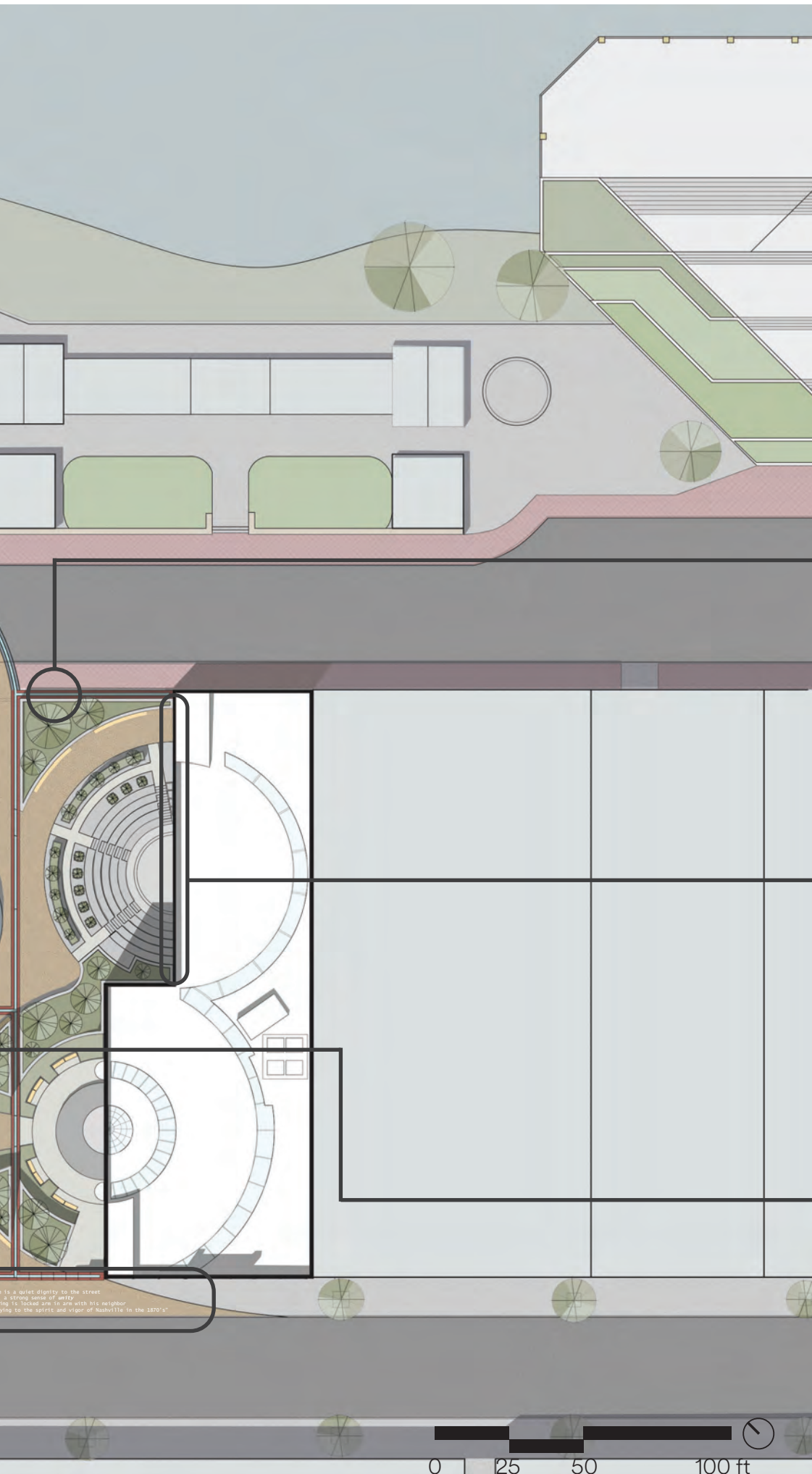
The water path, which originates at the Second Avenue entry to the plaza, flows all the way to the Cumberland River, as if the city is continually mourning the loss of architecture and history.

Water lines the footprint of where the demolished buildings once stood, memorializing their presence. Salvaged brick that was collected after the bombing is used to line the path. Tennessee blue slate shines below the water.

Inscriptions throughout the plaza prompt visitors to ask about the street's history and discover why the built environment is now this way.



# MEMORY



● Planters with vegetation local to Tennessee fill the plaza. The design ensures that something is in bloom throughout each season. The Gladiolus plant blooms beautiful flowers, said to symbolize hope.

● On the following page, note where the bearing walls between the each buildings are now exposed due to the demolition. The scars of the past are visible and embraced in the design of the plaza elevations.

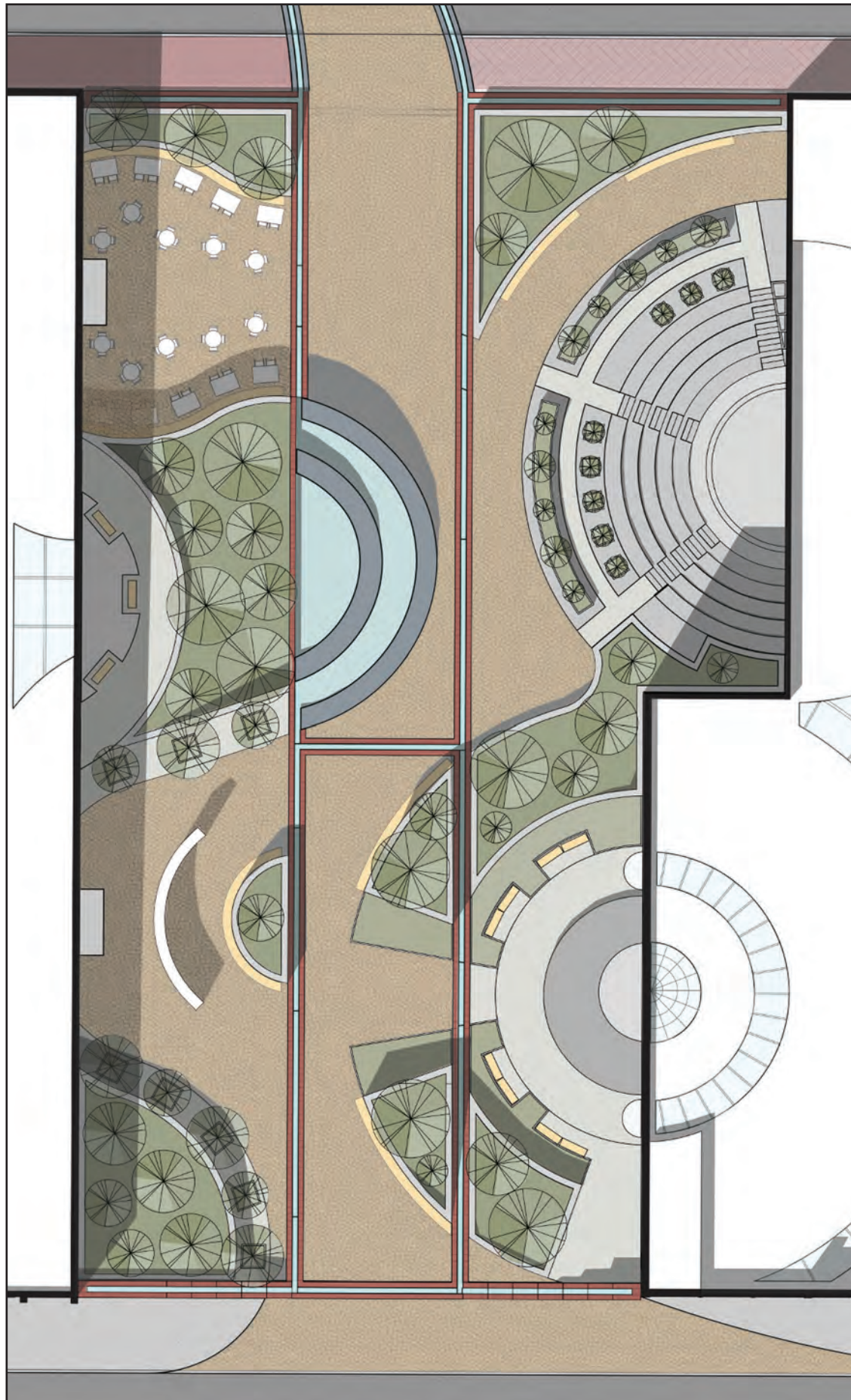
● A permanent exhibit on the Christmas Day bombing is located just before the entry to the Museum from the plaza, providing answers to visitors about the tragedy.

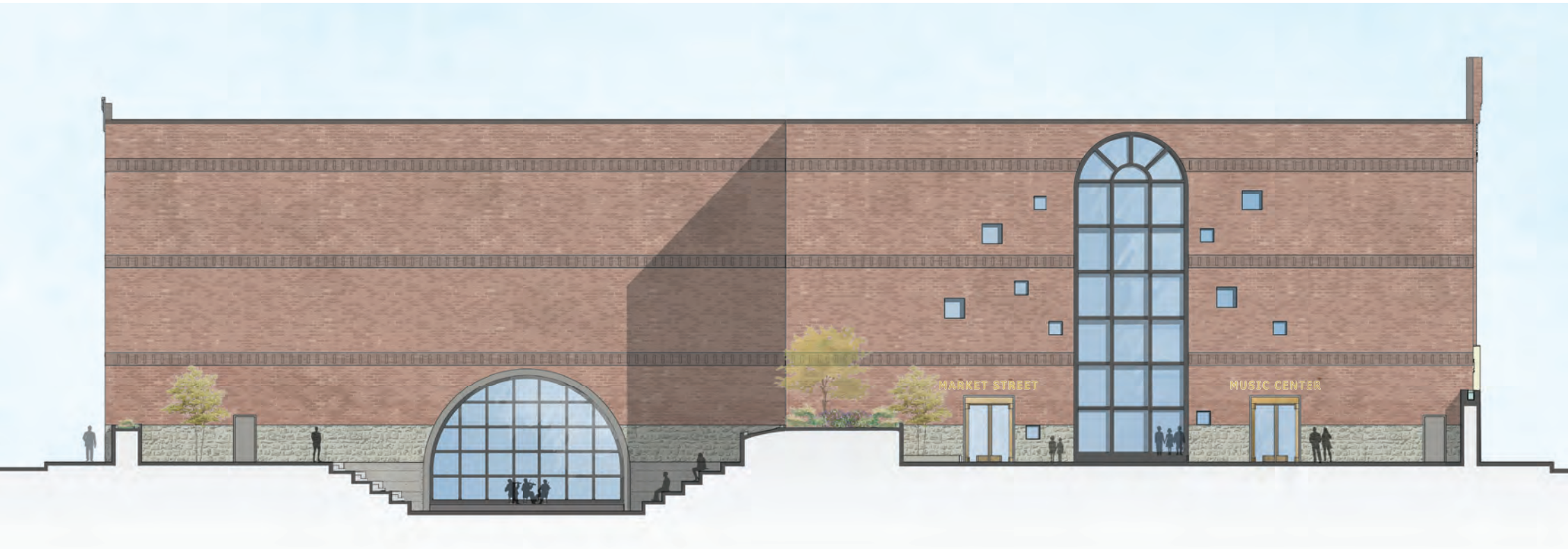
is a quiet dignity to the street  
a strong sense of unity  
ing is linked and with his neighbor  
ying to the spirit and vigor of Nashville in the 1870's"

0 | 25 | 50 | 100 ft



# T H E P L A Z A





MUSIC CENTER ELEVATION



MUSEUM ELEVATION



# LEVEL ONE

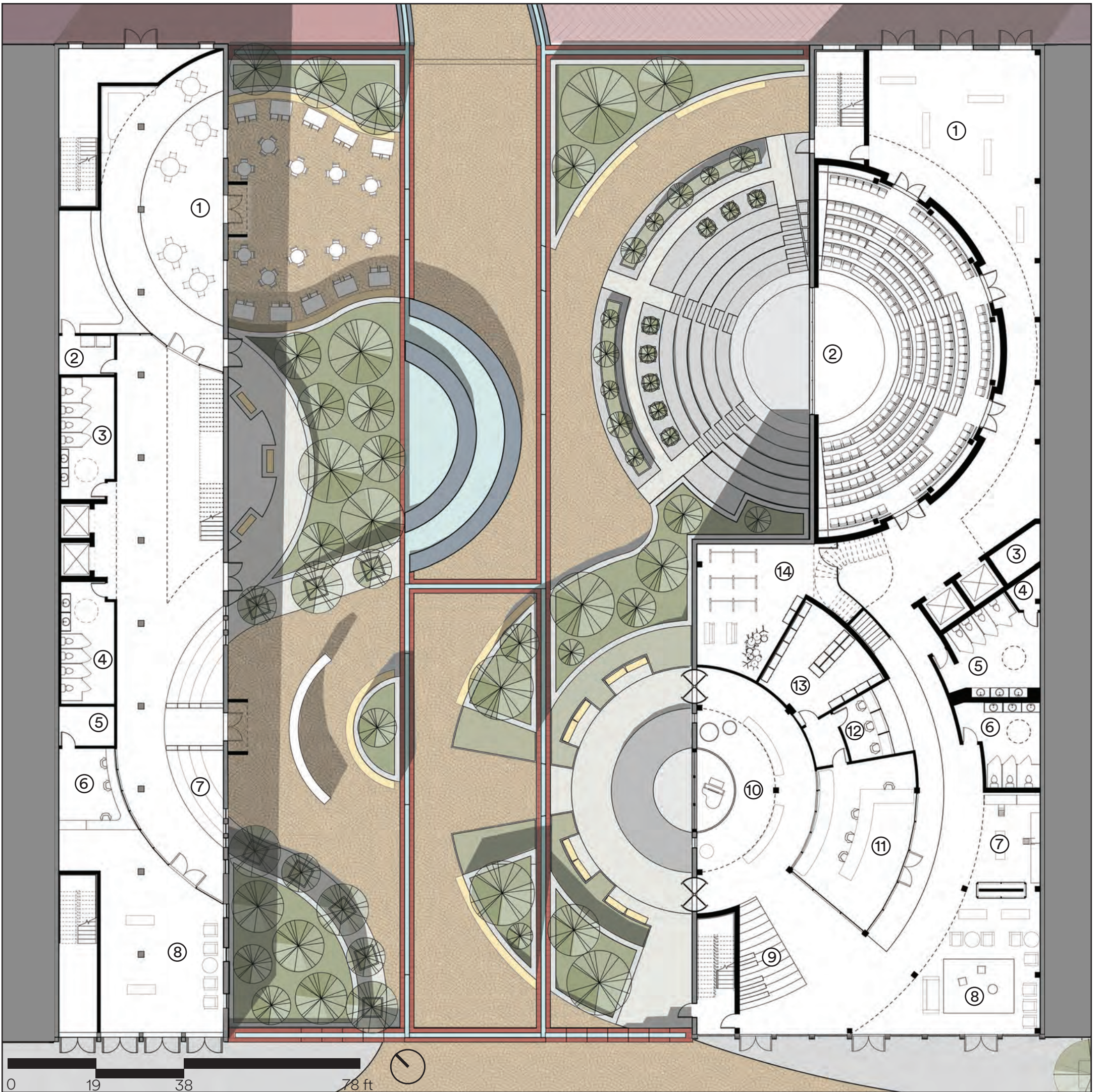
The first level is the most open and dynamic. The public can enter either building from Second Avenue, First Avenue, or the connecting plaza. The entry level focuses on flexible, engaging, and activated spaces that invite the public in.

## NASHVILLE HISTORY MUSEUM

1. Museum Cafe
2. Prep Kitchen
3. Men's Restroom
4. Women's Restroom
5. Mechanical
6. Ticket Purchase / Check-In
7. Learning Stair / Huddle Space
8. Lobby

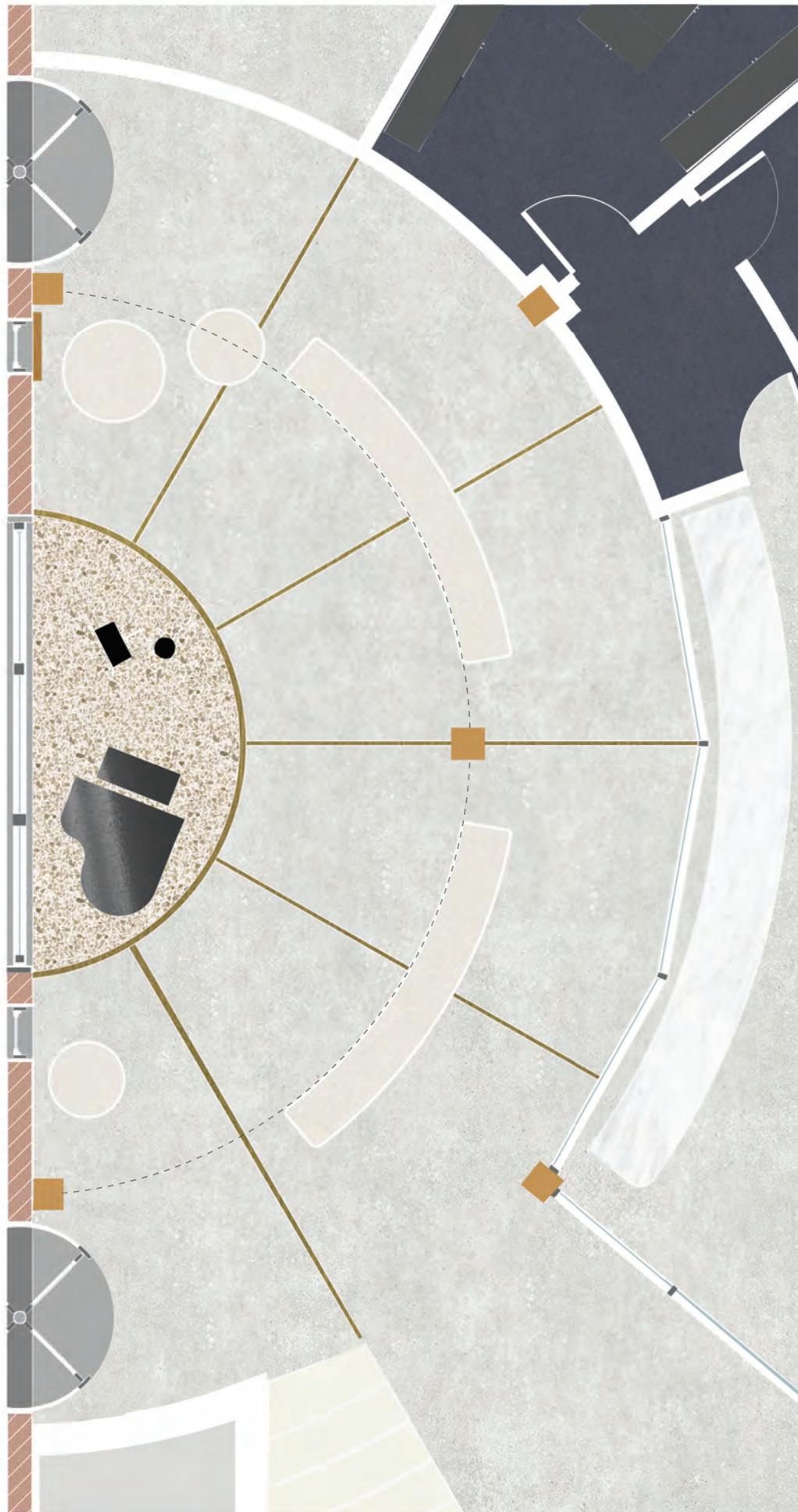
## MARKET STREET MUSIC CENTER

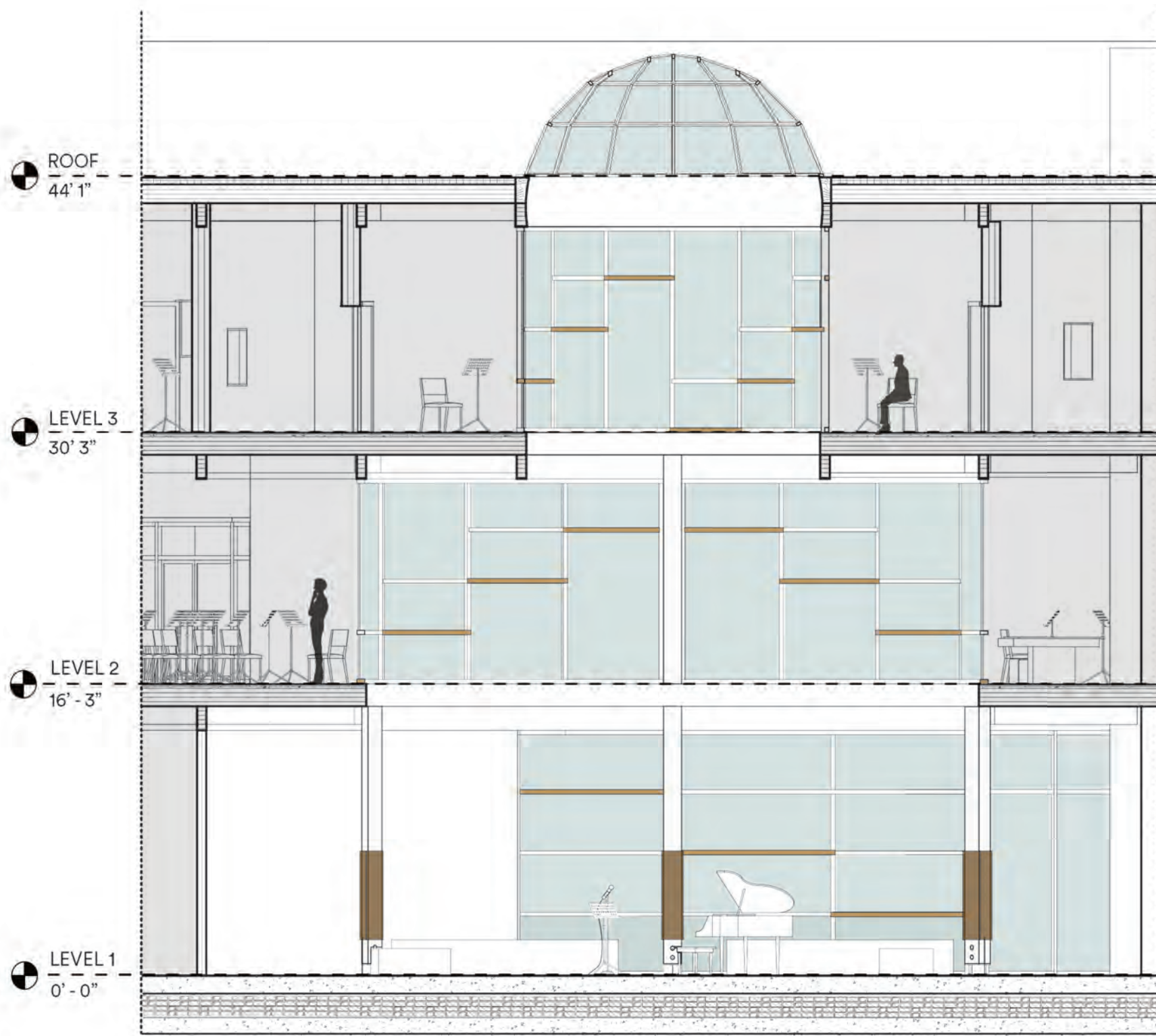
- |                                  |                        |
|----------------------------------|------------------------|
| 1. Art Exhibit / Pre-Event Space | 9. Interactive Floor   |
| 2. Auditorium                    | 10. Atrium             |
| 3. Mechanical                    | 11. Check-In           |
| 4. Janitor's Closet              | 12. Ticket Booth       |
| 5. Women's Restroom              | 13. Instrument Storage |
| 6. Men's Restroom                | 14. Auditorium Storage |
| 7. Music Library                 |                        |
| 8. Waiting / Hangout             |                        |

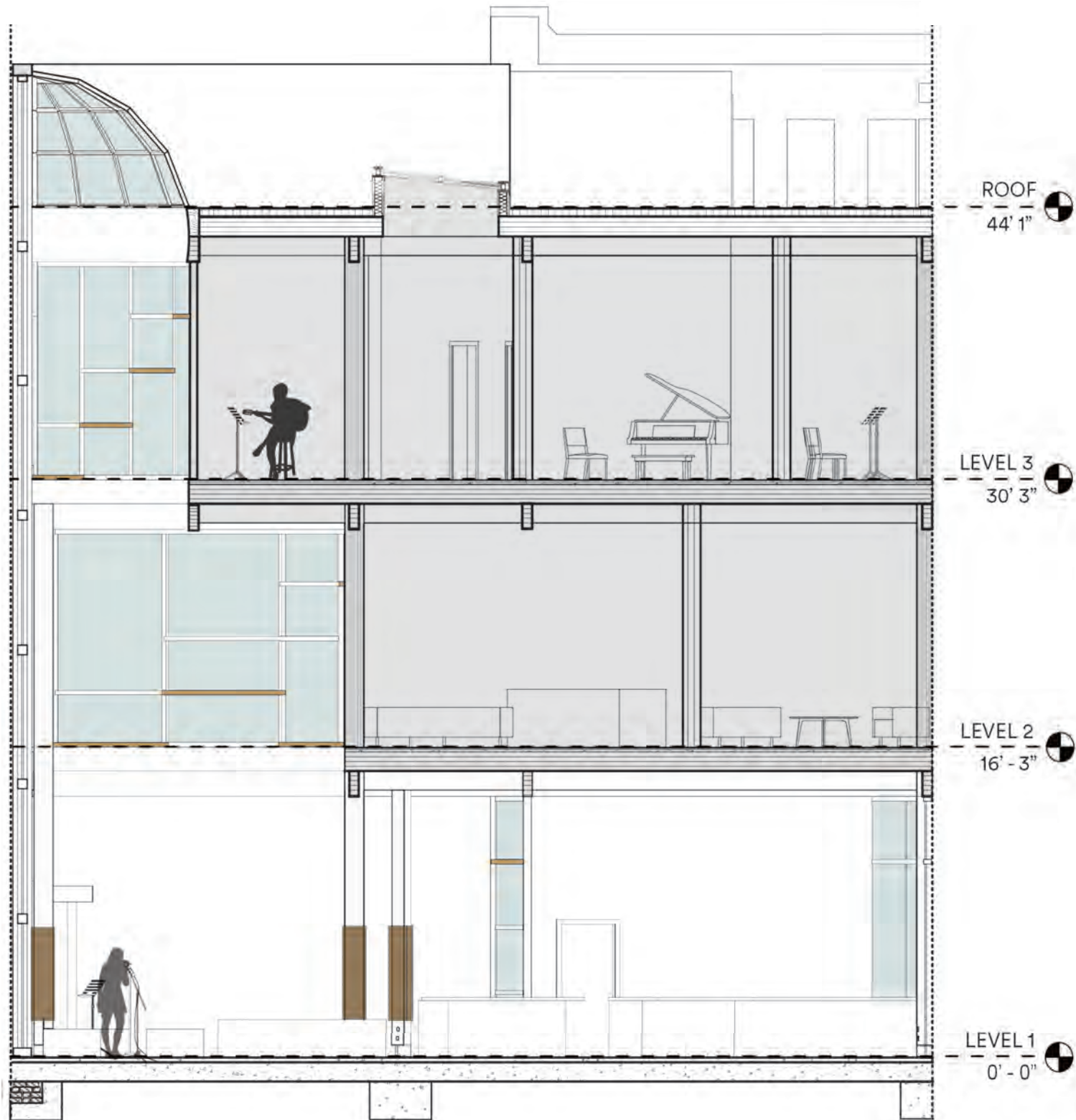


# ENTRY ATRIUM











# LEVEL TWO

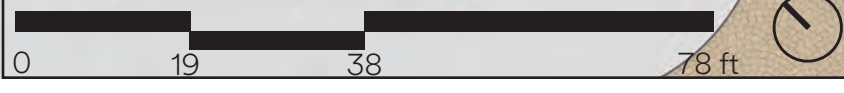
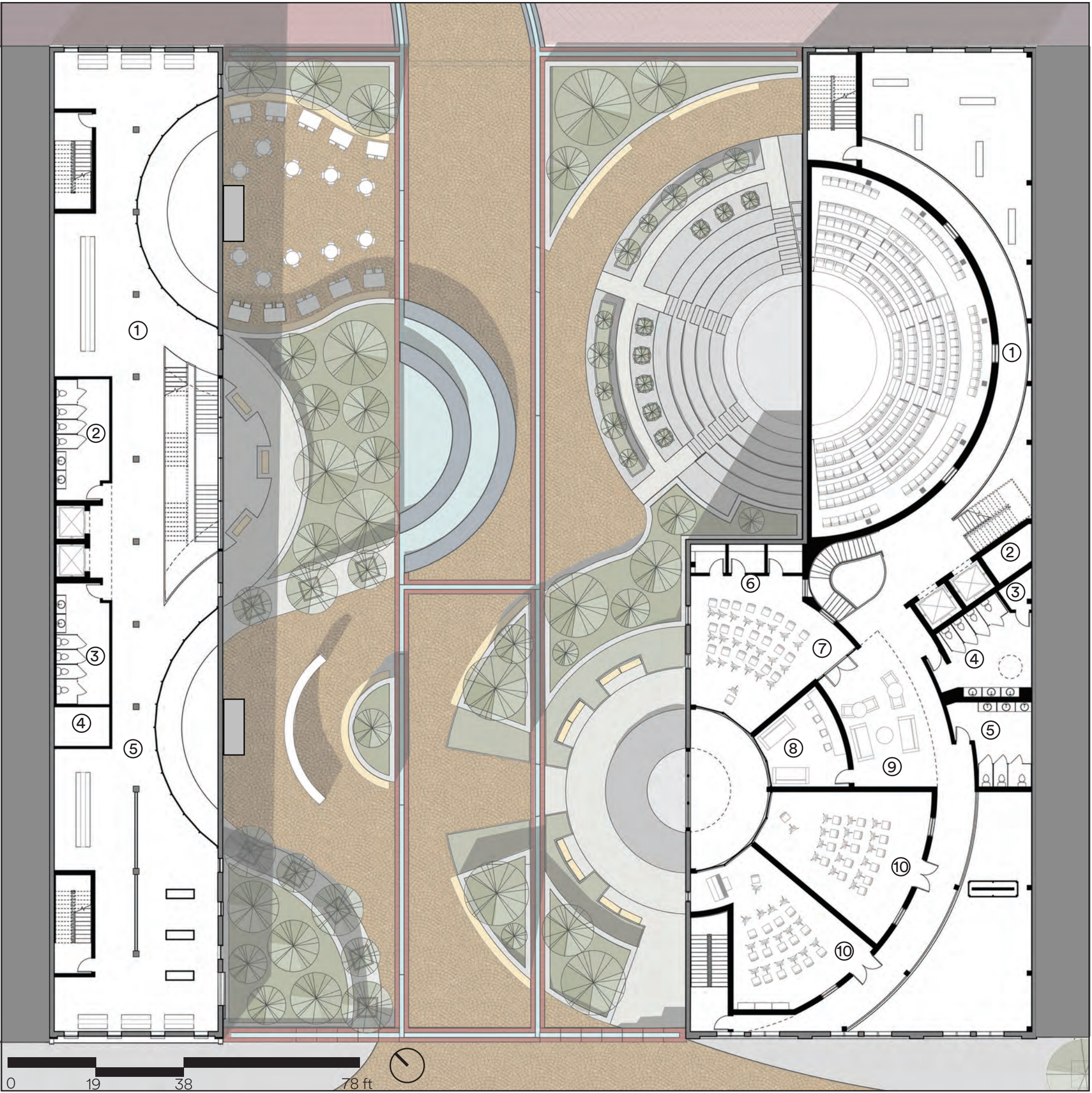
The second level of the music center focuses on group practice spaces. The catwalk allows visitors to peek into the auditorium performance space below. The museum is organized around the central atrium with a cascading stair, which guides guests through the exhibits on either side.

## NASHVILLE HISTORY MUSEUM

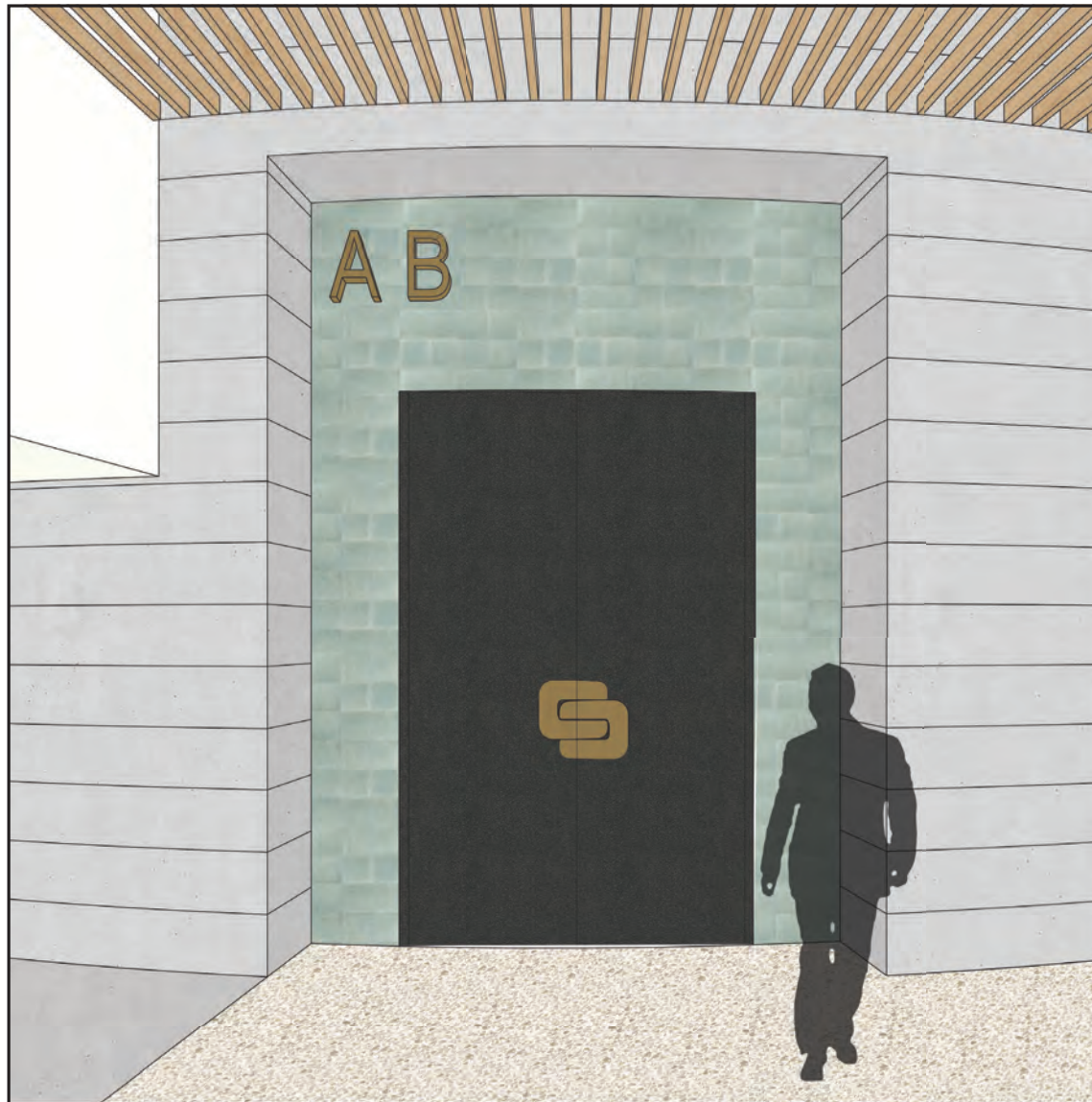
1. Nashville Music History Exhibit
2. Men's Restroom
3. Women's Restroom
4. Mechanical
5. Interactive Music Exhibit

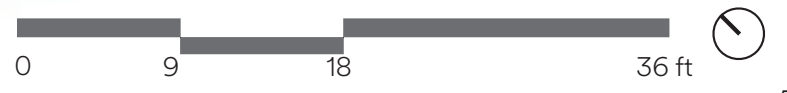
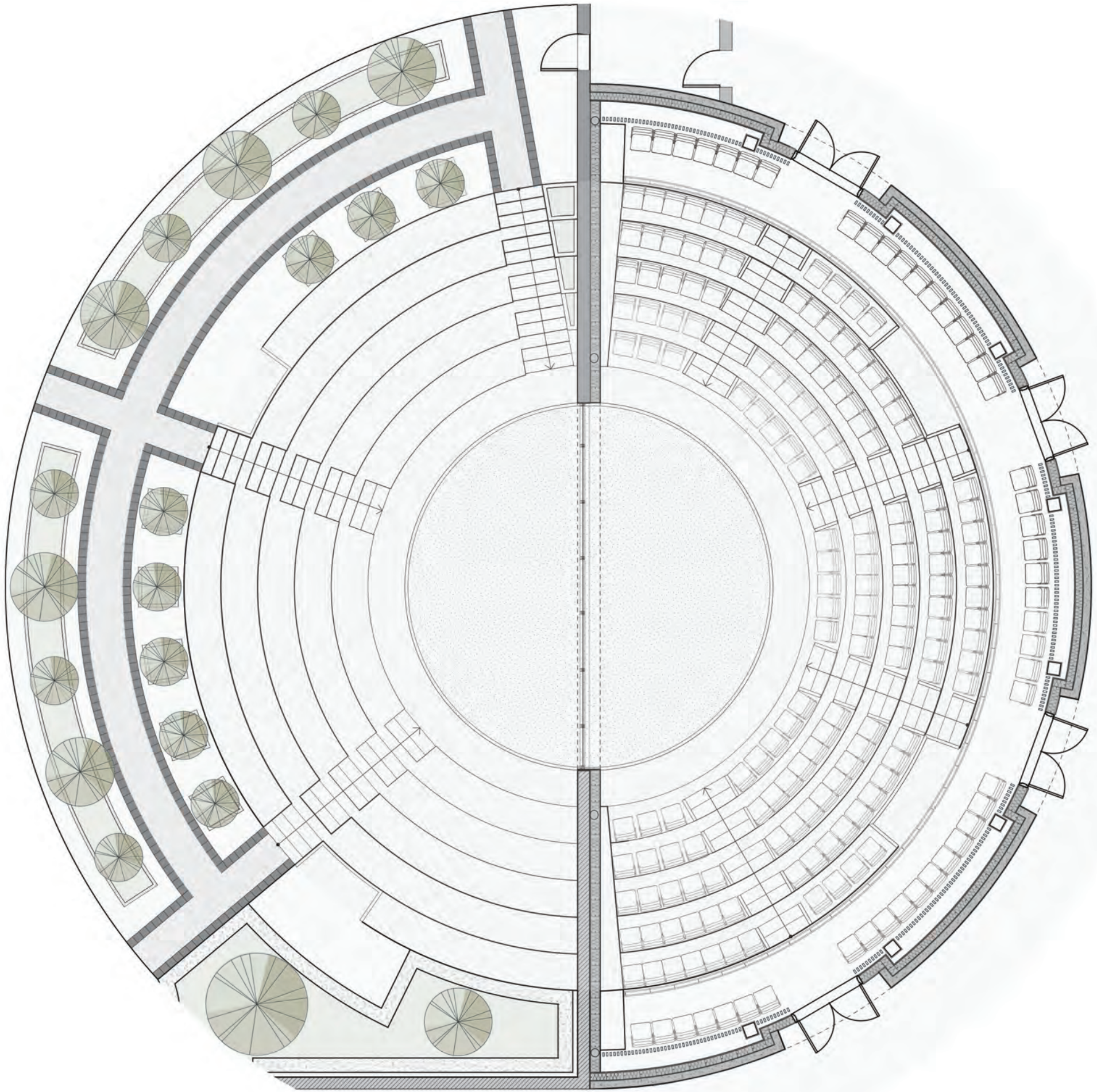
## MARKET STREET MUSIC CENTER

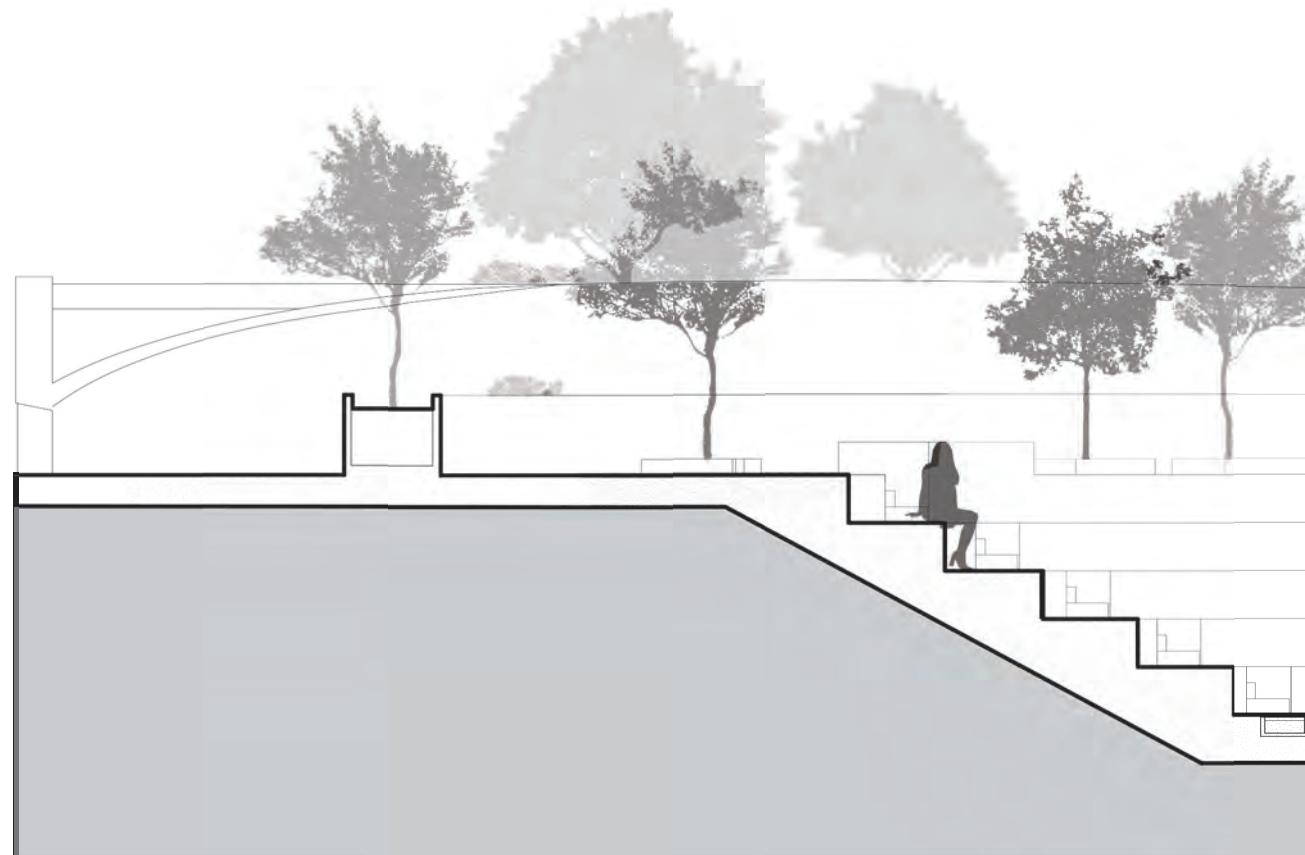
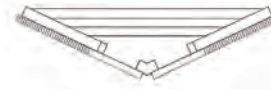
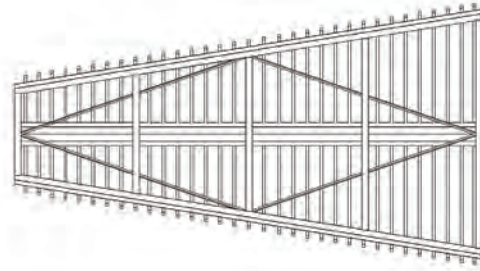
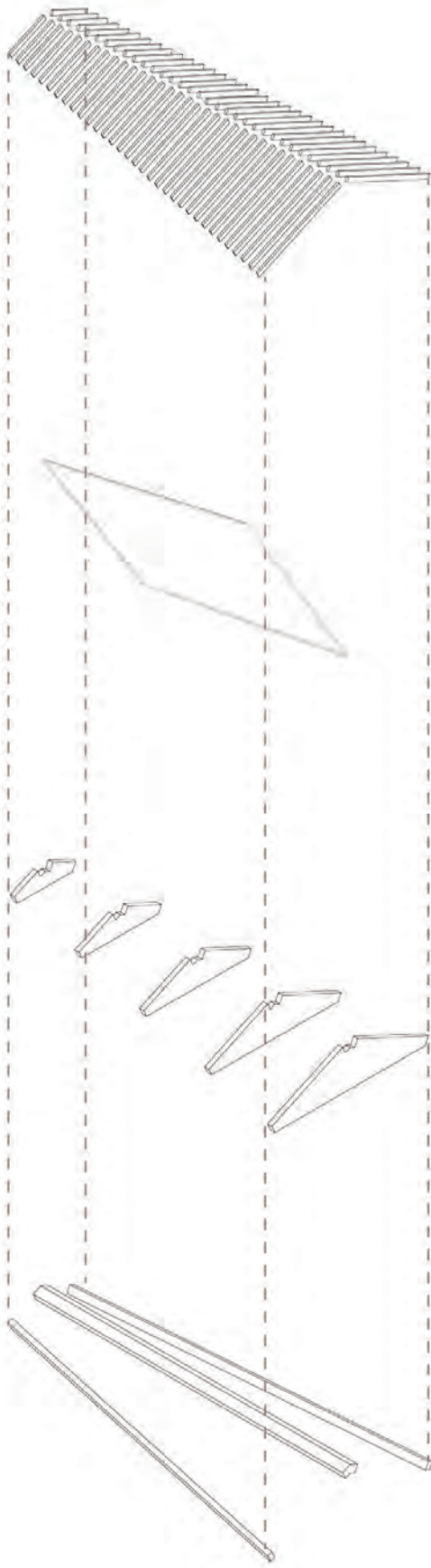
1. Catwalk
2. Mechanical
3. Janitor's Closet
4. Women's Restroom
5. Men's Restroom
6. Changing Rooms
7. Pre-Performance Practice Room
8. Instructor's Lounge
9. Lounge / Flex
10. Group Practice

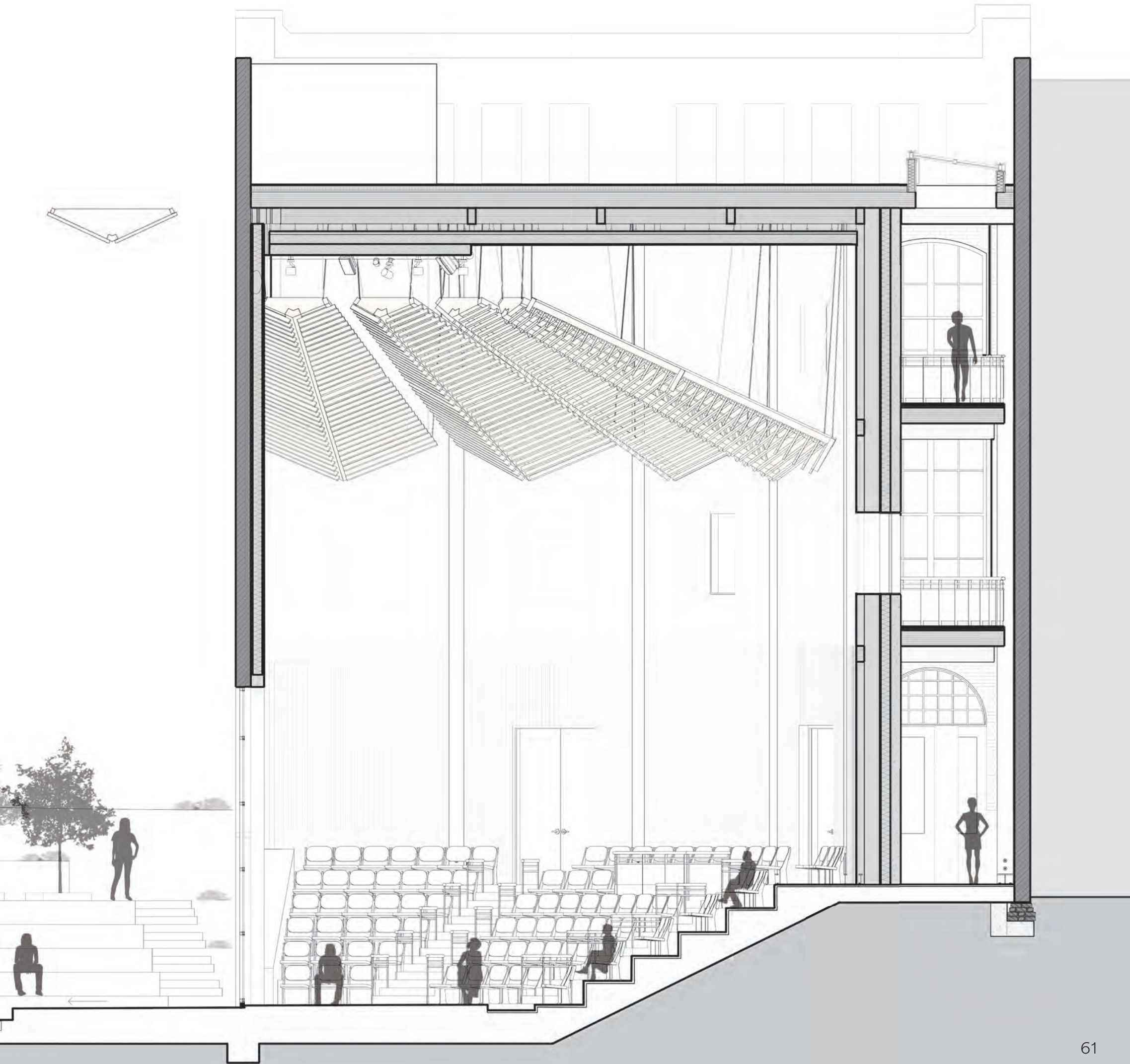


# AUDITORIUM









# LEVEL THREE

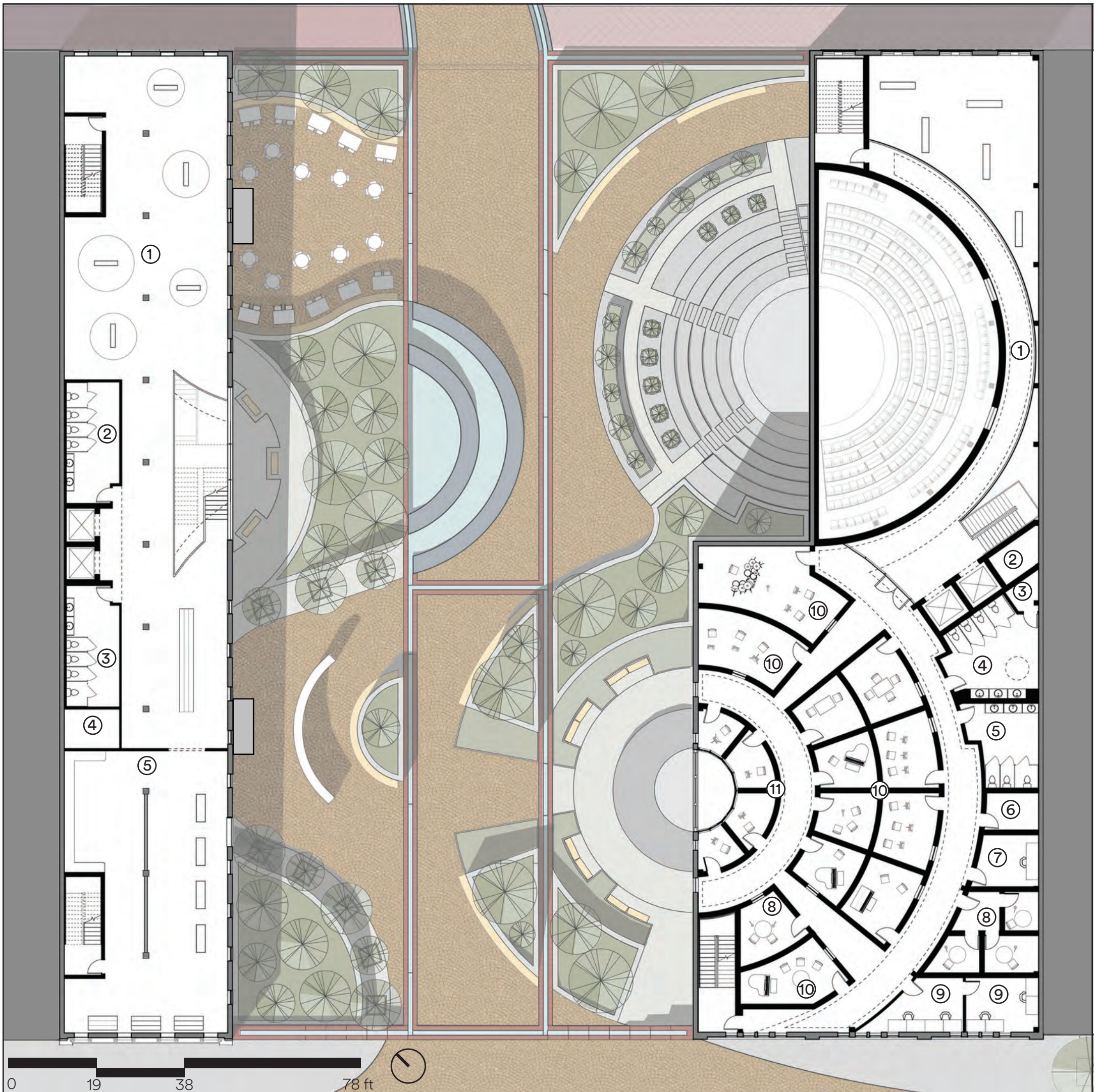
The third level of the music center is the most private as it focuses on individual practice and guided lessons. In the central half circle of practice rooms, one can look down to see an impromptu performance in the entry atrium below. Again, the two museum exhibits on this level are flanked by the central stair.

## NASHVILLE HISTORY MUSEUM

1. Fort Nashborough Exhibit
2. Men's Restroom
3. Women's Restroom
4. Mechanical
5. Rotating Exhibit

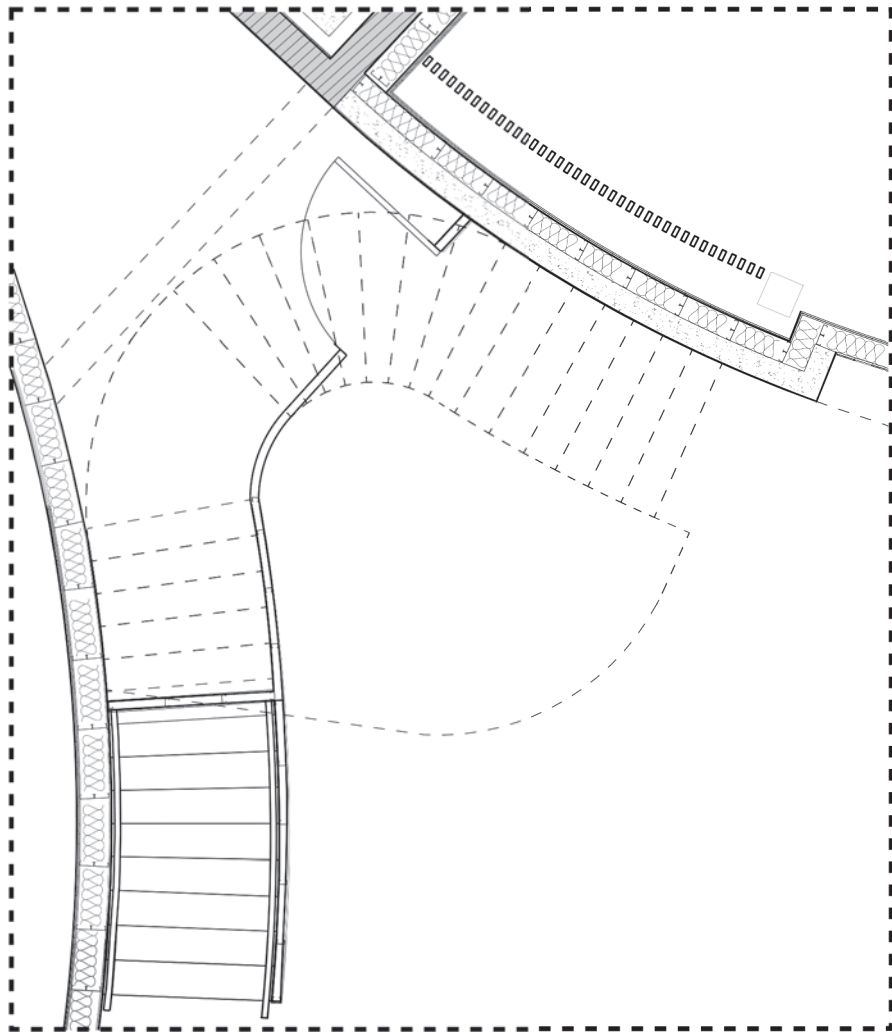
## MARKET STREET MUSIC CENTER

1. Catwalk
2. Mechanical
3. Janitor's Closet
4. Women's Restroom
5. Men's Restroom
6. Storage
7. AV / Light Control
8. Podcast Recording
9. Music Center Offices
10. Group Practice
11. Individual Practice

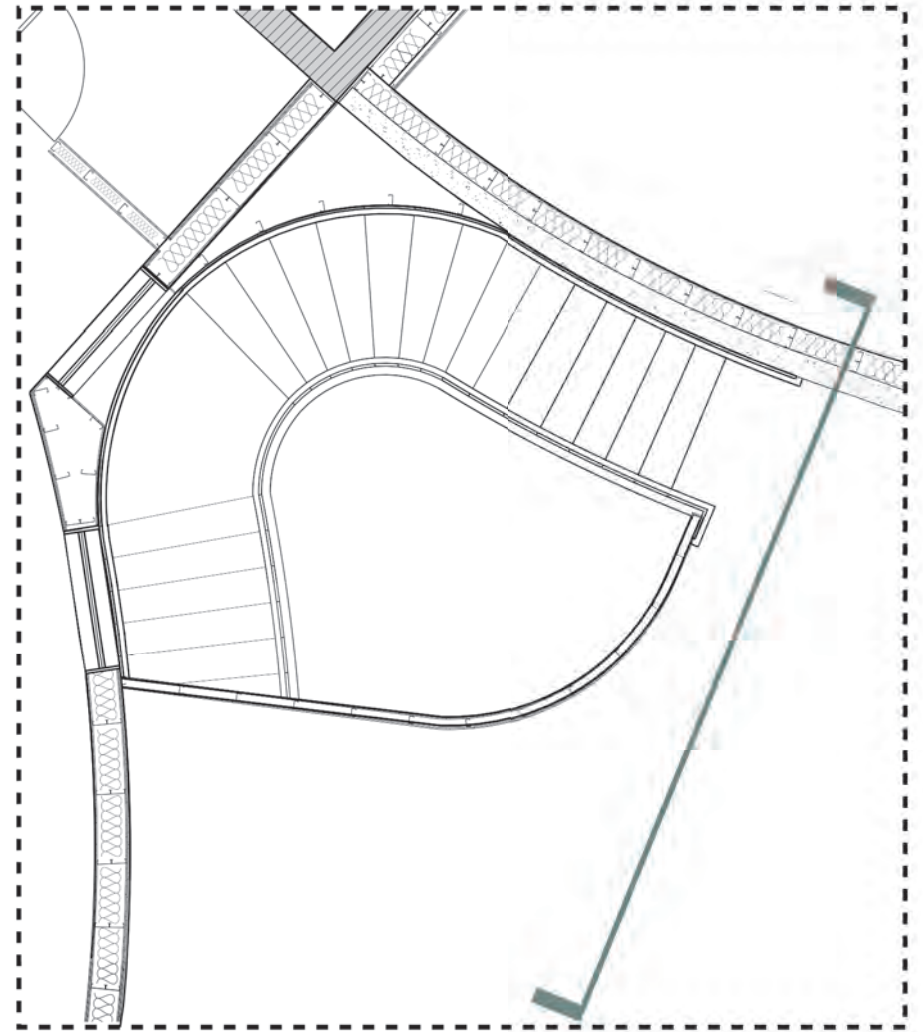




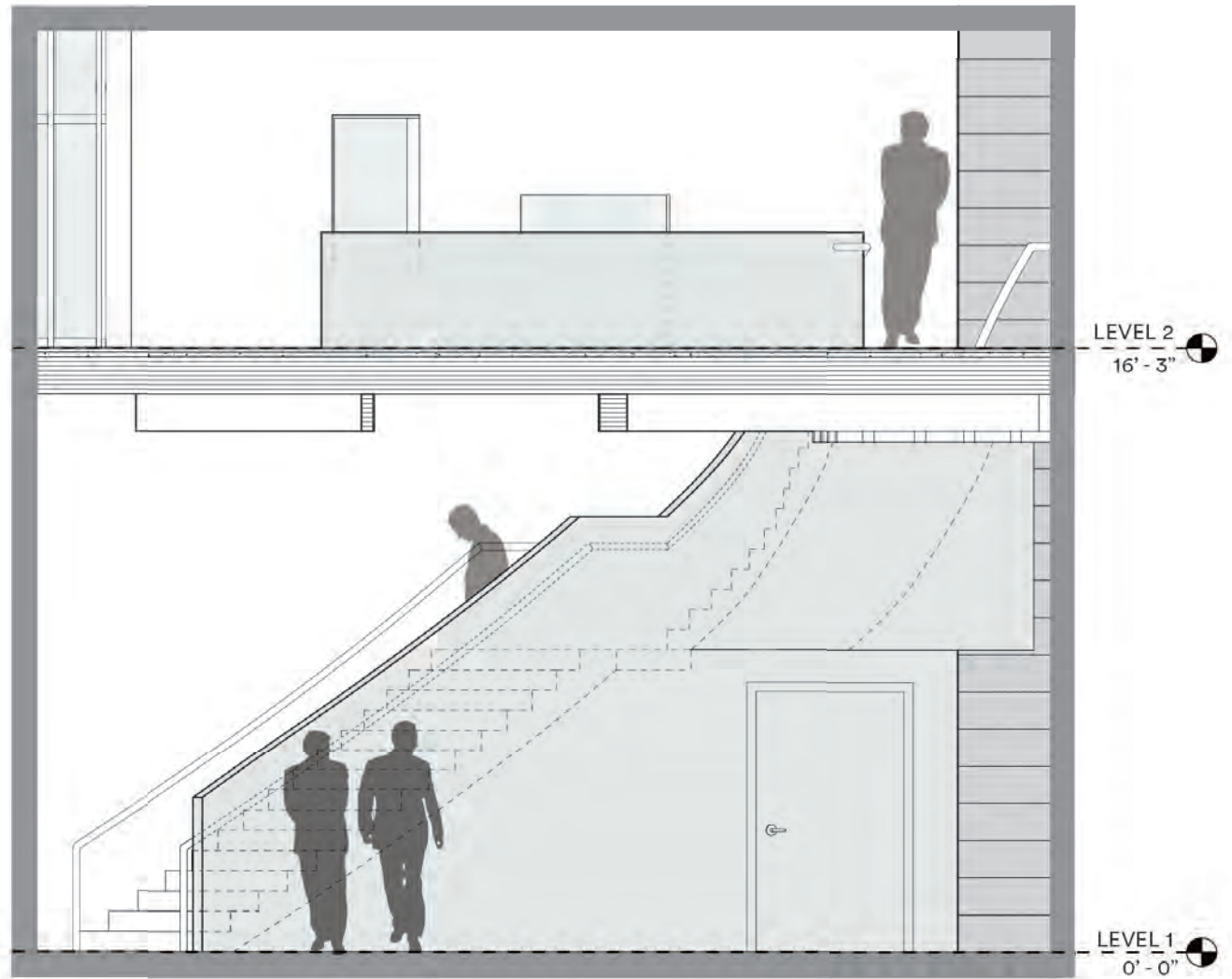
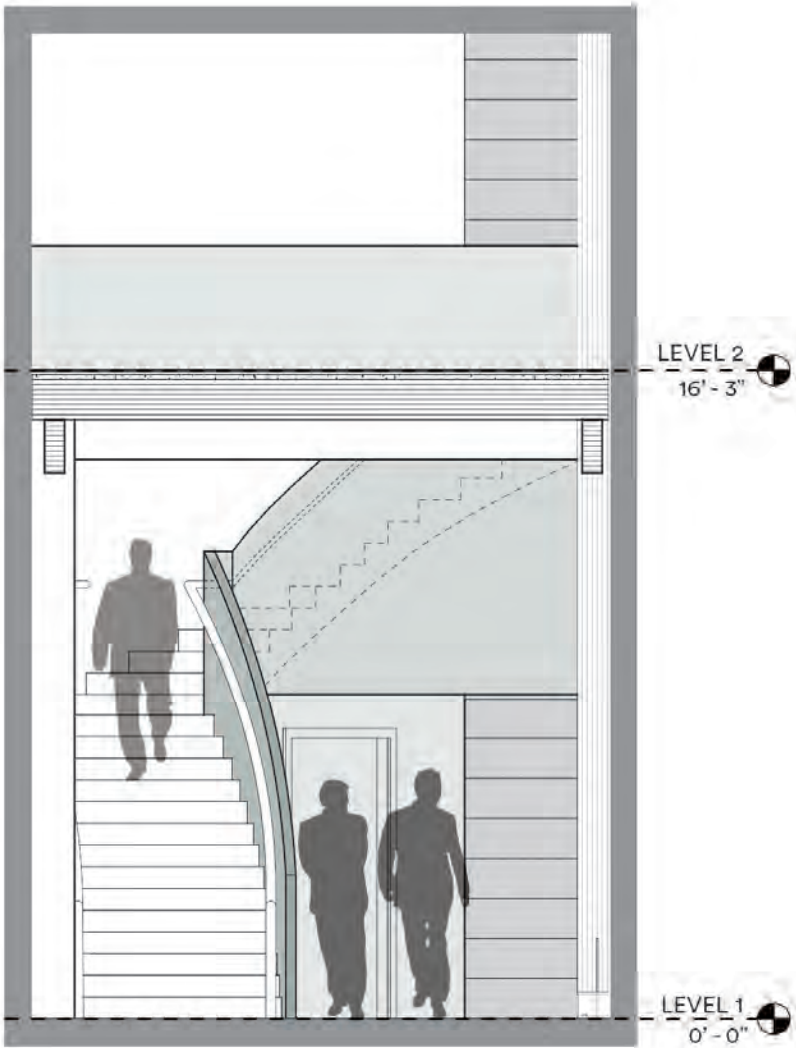
# CENTRAL STAIR



LEVEL ONE



LEVEL TWO

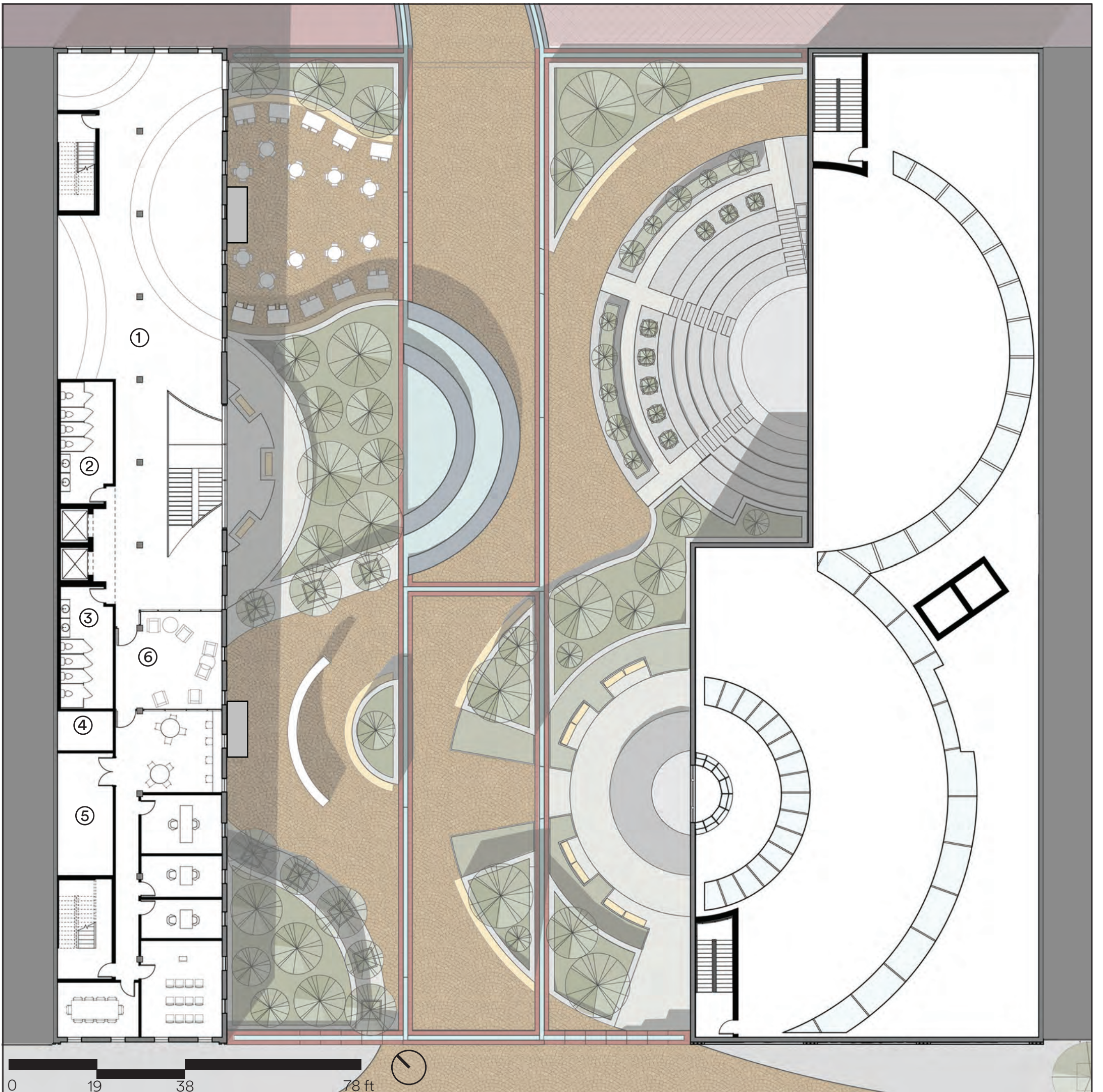


# LEVEL FOUR

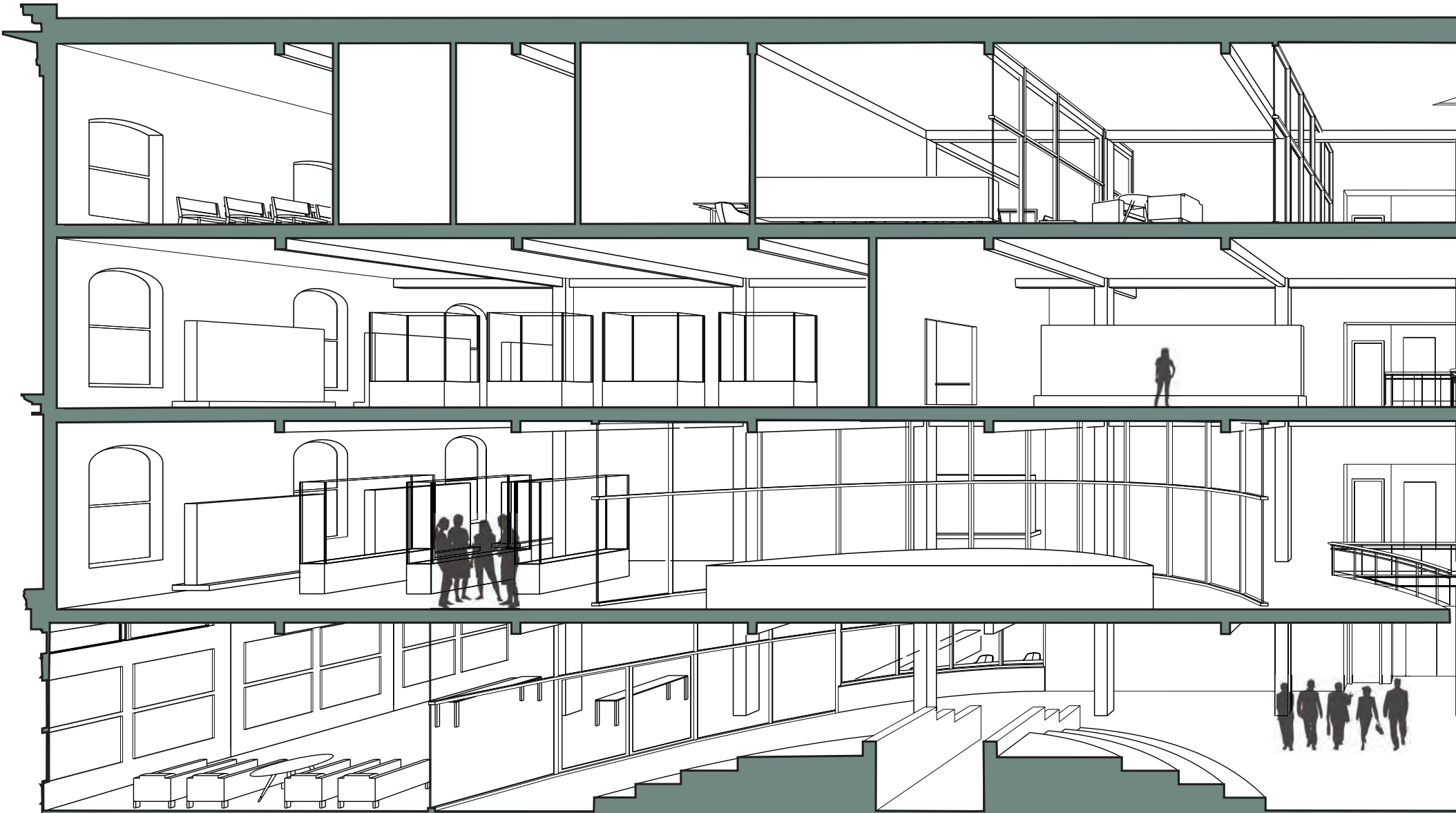
The fourth level of the museum houses the Fort Nashborough exhibit with the opportunity to look out and view the replica below after learning about its history. The museum offices and support spaces are housed on the opposite side. Skylights bring in light to the internal hallways of the music center.

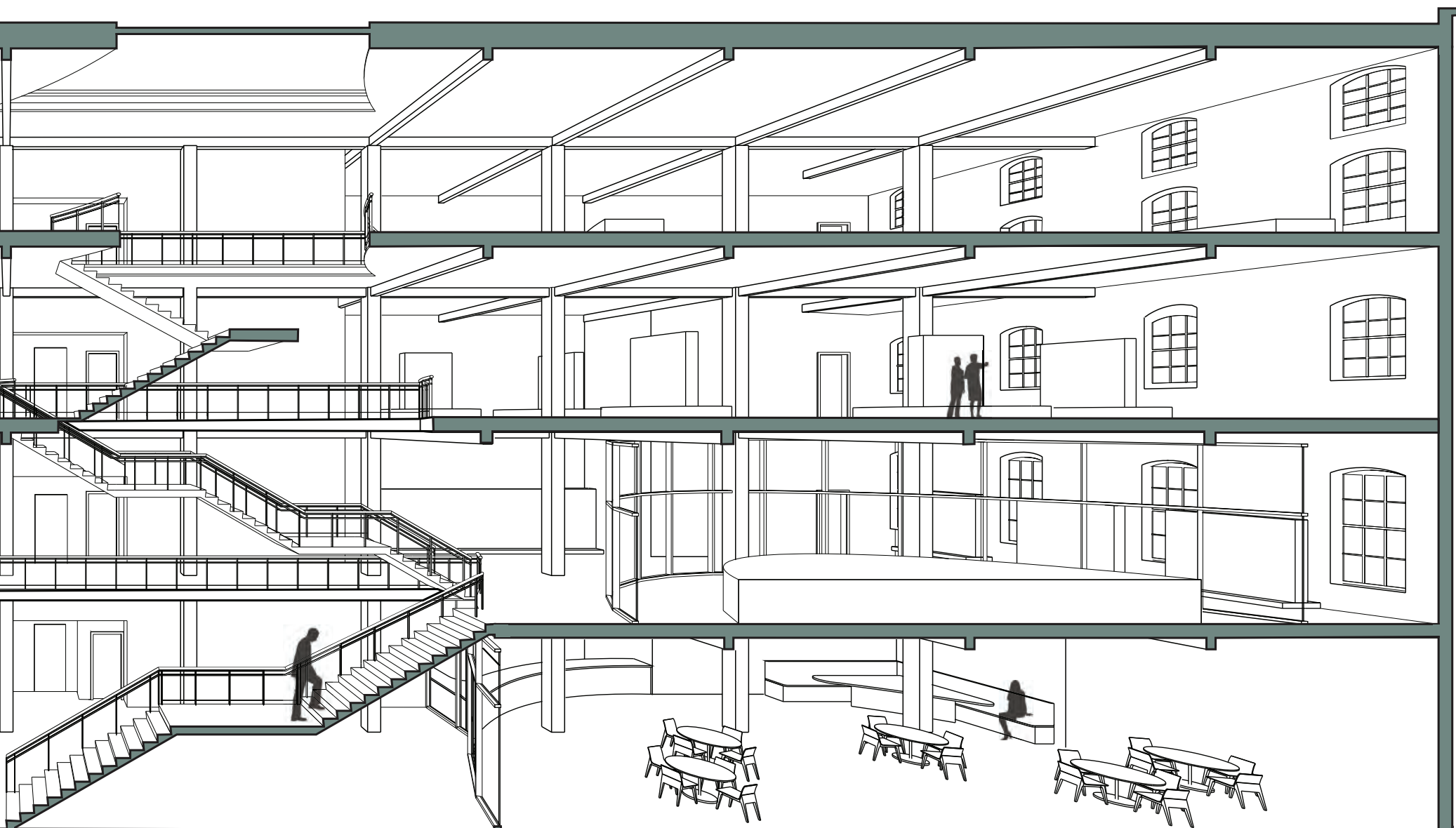
## NASHVILLE HISTORY MUSEUM

1. Fort Nashborough Exhibit
2. Men's Restroom
3. Women's Restroom
4. Mechanical
5. Storage
6. Museum Offices



# NASHVILLE HISTORY MUSEUM





# SOUTH ELEVATION

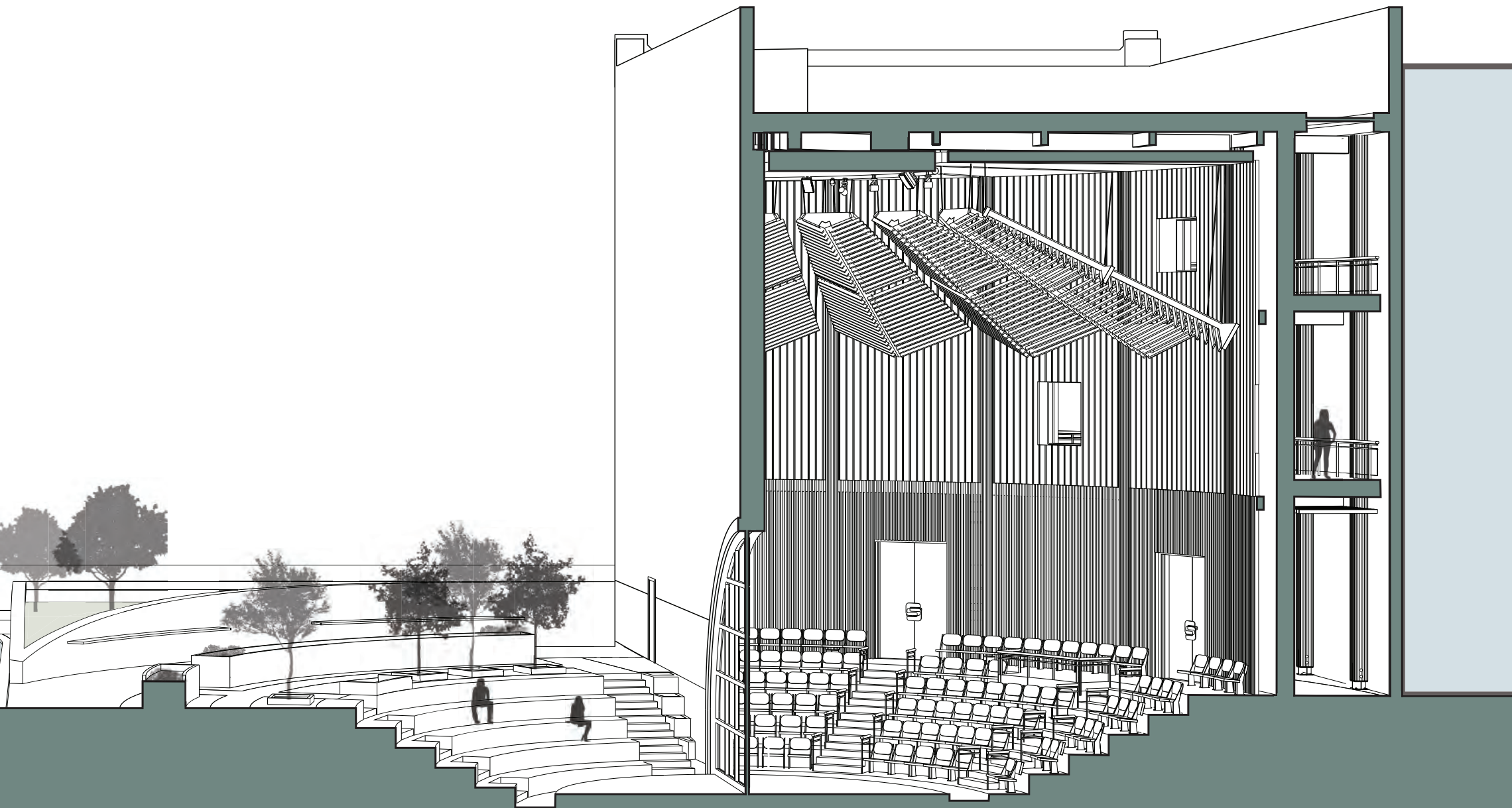
The Second Avenue entry contains the origin of the water flowing throughout the rest of the plaza. The stepped brick and concrete on either side of the main entry allow the water to flow to the rest of the plaza and creates a serene sensory threshold. The stepped nature of the entry was derived from the demolished building's proportions. Salvaged brick from the blast is used to highlight this design element.











# NORTH ELEVATION

The concrete planters are inset with ceramic tile, nodding to the proportion and location of the demolished building's main facade elements. The height of the planters provides some retreat from the busy downtown district while considering visual security and safety.





# DESIGNING FOR ACOUSTICS

*"I am every day more and more convinced of the truth of Pythagoras's saying, that nature is sure to act consistently and with constant analogy in all her operations: from whence I conclude, that the same numbers, by means of which the agreement of sound affects our ears with delight, are the very same which please our eyes and our minds."*

- Alberti, the Ten Books of Architecture

The Music Center is composed of Mass Timber construction. With the correct assembly and detailing along with acoustic grade materials, this construction type can exceed the acoustic performance necessitated by a music center. When designing a music center, it is important to prioritize user experience. The structure of the auditorium is mostly independent of the rest of the building to contain sound. The upper floors of the music center emphasize room to room noise control. One of the most acoustically sound assemblies is a double stud wall, therefore thicker assemblies are specified in this project. In order for each practice room to not transmit noise to the next, the glulam columns are contained within the walls. Additionally, door openings are offset on the third level to prevent sound transmission.

When designing a music center, it is important to prioritize user experience. The structure of the auditorium is mostly independent of the rest of the building to contain sound. The upper floors of the music center emphasize room to room noise control. One of the most acoustically sound assemblies is a double stud wall, therefore thicker assemblies are specified in this project. In order for each practice room to not transmit noise to the next, the glulam columns are contained within the walls. Additionally, door openings are offset on the third level to prevent sound transmission.

EXISTING WALL (BEYOND)  
52' - 0"

ALUMINUM MULLION  
SINGLE SLOPE  
SKYLIGHT  
5/8" SHIM  
PARAPET WALL  
FLASHING

ROOF  
44' - 1 1/2"

5/8" GYPSUM  
INSULATION  
5/8" GYPSUM  
DOUBLE STUD  
ALUMINUM  
FRAME

ACOUSTIC GRADE  
WINDOW

LEVEL 3  
30' - 3"

LEVEL 2  
16' - 3"

CERAMIC TILE  
8" CONCRETE WALL

LEVEL 1  
0' - 0"

PVC ROOF MEMBRANE  
COVERBOARD - CEMENT FIBER  
CONTINUOUS RIGID INSULATION 6" XPS-12-30  
AIR AND VAPOR BARRIER MEMBRANE

CLT BILLET 7 PLY  
GLULAM BEAM

METAL RAILING  
GLASS PANEL

WOOD FLOOR FINISH  
CONCRETE/GYPSUM TOPPING 1"  
ACOUSTICAL MAT PRODUCT  
CLT BILLET 7 PLY  
GLULAM BEAM  
ROD + CLEVIS CONNECTION

GLULAM COLUMN (BEYOND)

WOOD FLOOR FINISH  
CONCRETE/GYPSUM TOPPING 1"  
ACOUSTICAL MAT PRODUCT  
CLT BILLET 7 PLY  
GLULAM BEAM  
ROD + CLEVIS CONNECTION  
METAL SUPPORTS AND FASTERS  
2"x2" BIRCH MULLIONS @ 6" O.C.

KNIFE PLATE CONNECTION  
TERRAZZO FLOOR FINISH  
CONCRETE SLAB

WALL SECTION AT CURVED AUDITORIUM WALL





*“He will bestow on them a crown of beauty  
instead of ashes, the oil of joy instead of  
mourning, and a garment of praise instead  
of a spirit of despair.”*

Isaiah 61:3



# CONCLUSION

The Second Avenue District undoubtedly has a unique story to tell those who are willing to learn and listen. The street itself could serve as a symbol of the resiliency and enduring spirit of Nashville and its people. The future of Second Avenue is unknown, yet it is the goal of all parties involved in the project to serve the people of Nashville by listening to the community's needs and desires. Nashville is experiencing immense growth with no signs of slowing down. Although future growth is important, preservation is crucial. Preserving Second Avenue is equivalent to saving the heart of the city. This is certainly a pivotal time in the city's history, but Nashvillians will do what they have always done: come together. Even amidst the aftermath of tragedy, the future of Nashville remains hopeful.



# ACKNOWLEDGEMENTS



---

**MICHAEL O'BRIEN | COMMITTEE CHAIR**

It was an honor and a privilege to get to study under you. Your unique blend of wisdom, eloquence, passion for architecture and care for your students is inspiring. I have thoroughly enjoyed the richness of our conversations. This project would not be what it was without you. Thank you for your dedication to your students. Your teaching will undoubtedly leave a lasting impact.



---

**DR. CAMPAGNOL | COMMITTEE MEMBER**

Thank you for your time and dedication to this project. Your positivity and encouragement were a bright spot throughout this process. It was an honor to learn from your depth of knowledge and experience. I will always remember your stories and passion for architecture.



---

**DR. WANG | COMMITTEE MEMBER**

Thank you for your willingness to jump into the architecture world. Your exterior perspective was much needed and greatly benefitted the development of the project. Thank you for always providing thoughtful comments and being so generous with your time.



---

**MARCEL ERMINY | STUDIO PROFESSOR**

It was an honor and a privilege to get to study under you. Your obsession with architecture is immensely inspiring and you have forever changed the way I view and think about architecture. You pushed me farther than I thought I could go. Thank you for your invaluable contributions to this project and my architectural education. I'm sorry for all the sleep you lost because of me.

**Mom, Dad, and Kat**

Thank you for your never-ending support and encouragement. You know that I could not have gotten through this program without you. Thank you for always being there for me and never doubting what I can accomplish.

**Grad Gals**

Thank you for keeping me sane these past two years. Getting through architecture school is a bond like no other and I have loved making memories with each of you. Special thanks to Andrea for serving as my fourth committee member. You are so talented and I truly value your design insight on this project. Thanks for always being willing to help and never complaining about my endless questions.

**Studio 8**

Thank you for your consistent support, encouragement, willingness to help, and invaluable advice on this project. I can't wait to work with such a talented team of architects.

**Chick fil friends**

Thank you for always providing a refreshing break from school and reminding me that there is more to life when I got tunnel vision. I appreciate you all more than you know. I can't wait to design our lake house one day.

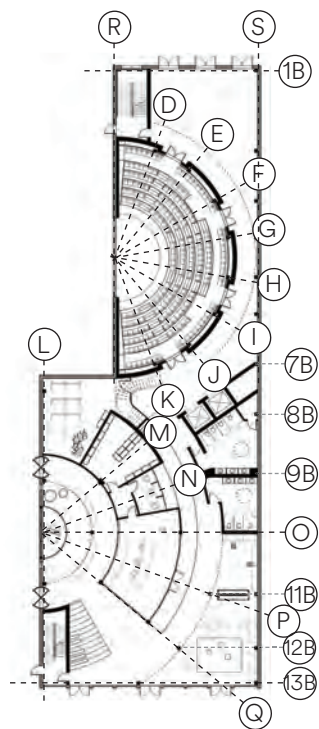
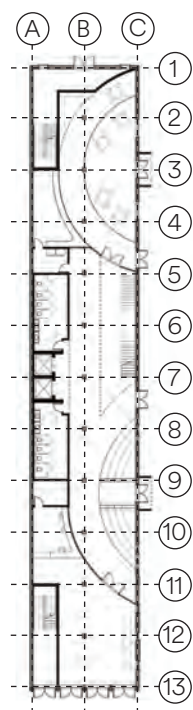
**To the architecture student who finds this book**

Architecture school will try to tell you that you are not enough. You are. Your worth is not in architecture and it will never fully satisfy you. You were made, by a God who loves you endlessly, for so much more. [See: Colossians 3:1-2, Philippians 4:6-7, Joshua 1:9]

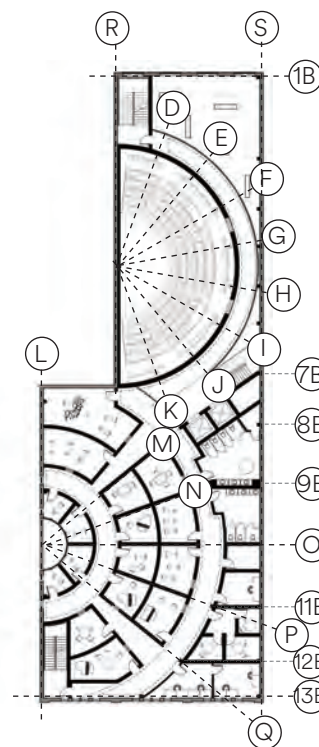
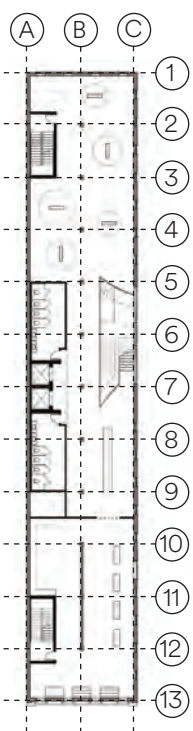
# APPENDIX

SYSTEMS + STRUCTURES INFORMATION

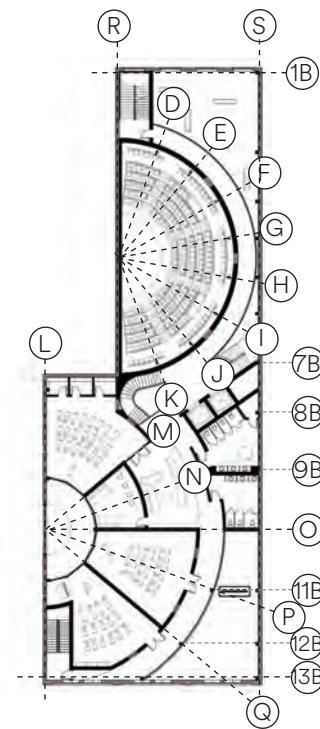
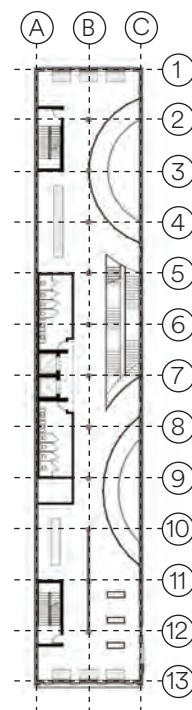
## STRUCTURAL GRID



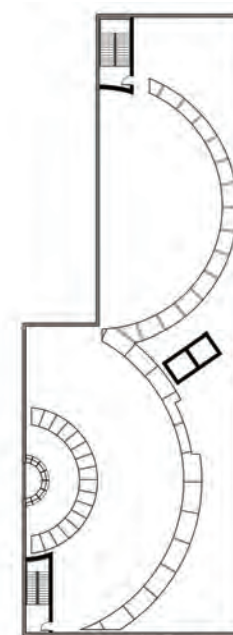
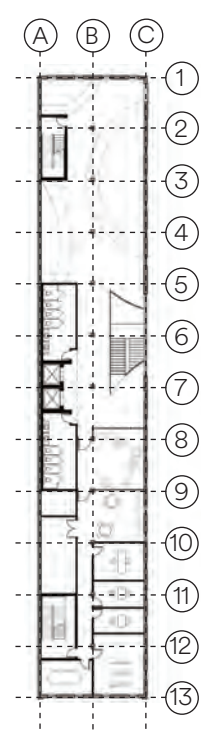
## LEVEL ONE



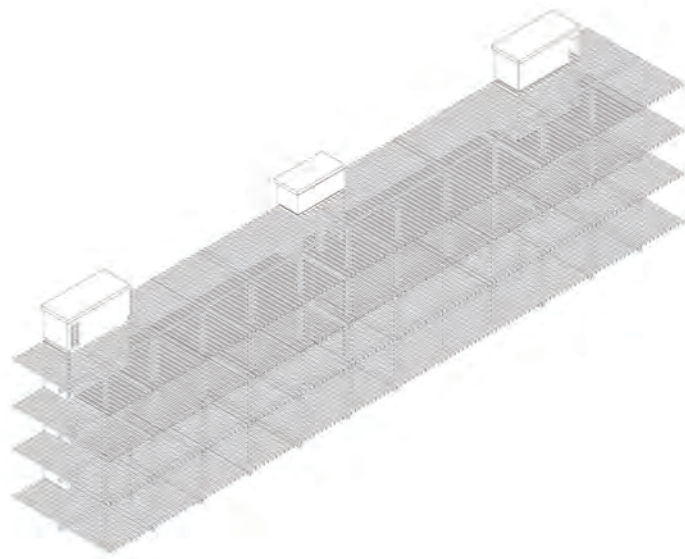
## LEVEL THREE



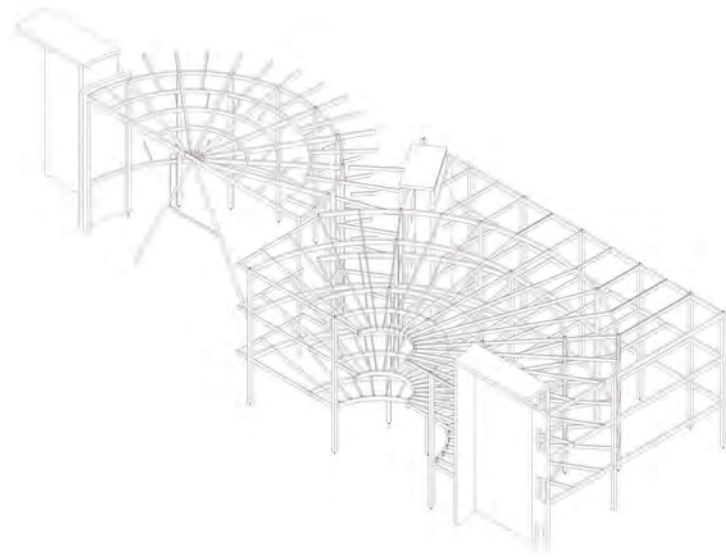
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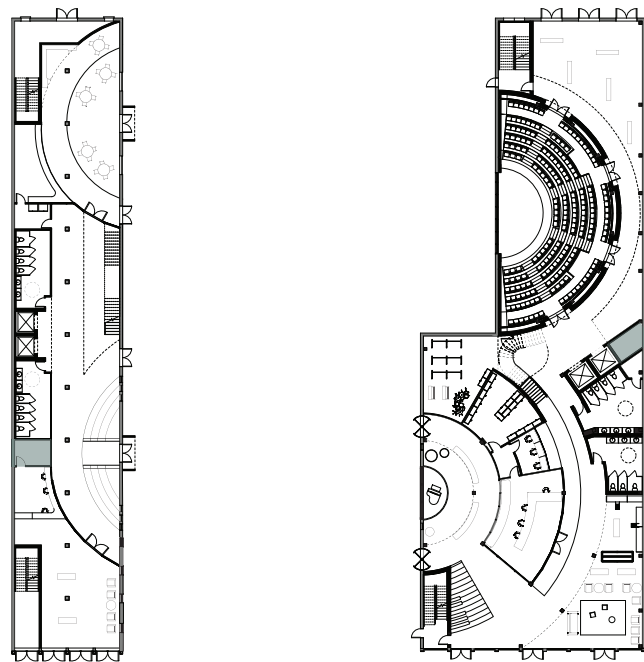
## LEVEL FOUR



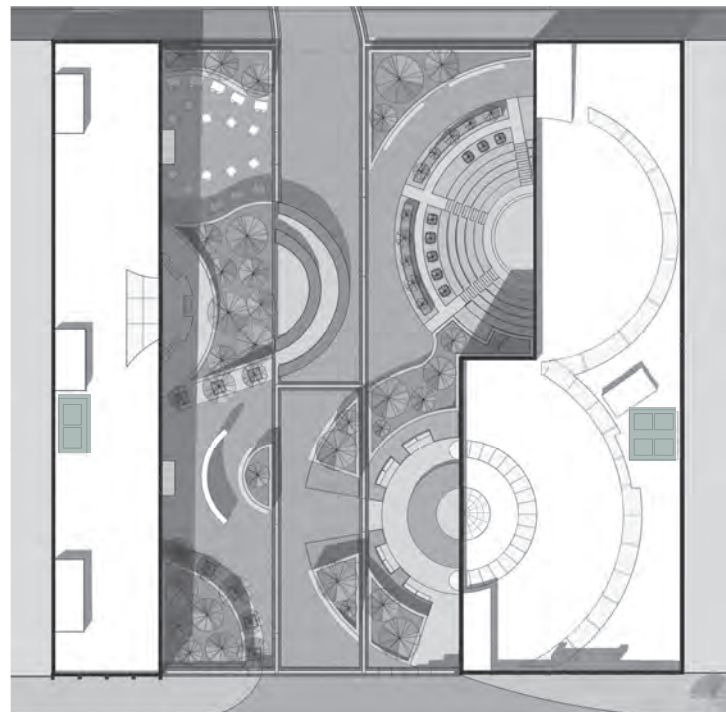
MUSEUM STRUCTURAL MODEL



MUSIC CENTER STRUCTURAL MODEL



MECHANICAL SYSTEMS



# SOURCES

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