

NORTHSHORE CONCERT HALL

AT INGLEMOOR HIGH SCHOOL

NORTHSHORE SCHOOL DISTRICT
KENMORE, WASHINGTON

2022 JAMES D. MACCONNELL AWARD

01. EXECUTIVE SUMMARY

Music is a particularly rich source of inspiration for architecture. This belief hinges on the fact that music and architecture share many fundamentals.

Legend has it that Wolfgang Amadeus Mozart composed entire pieces of music within his mind prior to setting a single drop of ink to paper. In reality, historians have found that this was not the case. Like many composers, Mozart developed excerpts, themes, and energies in his mind, wrote them down, and then used musical notation to work out the rest of the piece. As architects may similarly visualize initial major aspects of a design in their mind, it is the process of collaborative input, program relationships, site location and arrangement of major building components that require final development, on paper, through a creative process. In this way, the process of developing a piece of music and an architectural design through collaborative sketching and symbol notations have many similarities.

This and many other parallels created a unique architectural opportunity to compose a very special high school concert hall and instructional music building for Northshore School District and its community.

Initial credit is given to the district superintendent, district administration, and subsequent committee members who, through many collaborative discussions, determined that rather than providing another performing arts center in the district to accommodate drama, music and dance, a district-community venue focused specifically on music would provide the greatest benefit and open pathways for advanced student instruction that did not currently exist.

TO SEE A VISION THAT WAS BROUGHT ABOUT BY COMMUNITY DISCUSSION AND THOUGHT, TO SEE IT ACTUALLY COMING TO FRUITION, IT'S VERY EXCITING.

- BOB SWAIN, SCHOOL BOARD PRESIDENT

This project represents a unique program, specifically targeted at music instruction and performance, without sacrificing acoustics as typically encountered in a traditional theater setting. The single most important aspect of this project was to provide superior acoustics in support of instrumental and vocal music

instruction and performances. The facility is now in use and the district reports “the acoustics are amazing, the building is beautiful, and is highly accommodating of the requirements for true music instruction and performance.”

The aesthetics of the facility returns users and patrons to the parallels between music and architecture by its expression of rhythm. Rhythm is the most fundamental and primordial core of music; rhythm keeps and defines order. This function of rhythm appears throughout the architecture of the facility manifesting its appearance in massing, fenestrations, siding, mullions, railings, structure, and materials; all of which symbolize an elegant and organized design approach that embraces the building's purpose and core values.

The design team was tasked with creating a concert hall and music instruction building on the existing Inglemoor High School campus to accommodate current and future needs of this thriving program. Quoting Northshore school board members on their first tour of the facility, “this project has far exceeded our expectations.”



02. SCOPE OF WORK & BUDGET

A concert hall and music instruction building to accommodate district-wide and community performances with flexible music rehearsal spaces for band, orchestra, choir, and instrumental instruction.

9-12
GRADES

35,819
SQUARE FEET

\$28.3M
CONSTRUCTION

752
EVENT SEATING

2022
COMPLETION



03. SCHOOL & COMMUNITY ENGAGEMENT

COMMUNITY CONTEXT

Inglemoor High School serves the students and families in the southwest area of the Northshore School District. The district focuses on nurturing the limitless possibilities in every student. The community possesses the ingredients for success: caring and committed teachers and staff; strong district administrative leadership; supportive and engaged parents and caregivers; and an active and generous community.

Over the last 28 years, the community has successfully supported 8 consecutive Northshore School District capital bond elections, run approximately every 4 years, totaling over \$1.16 billion in capital funding. This continued success is a testament of an active and supportive community who understands the importance of developing and implementing educational facilities which support students to be life-long learners. On February 13, 2018, the district passed a \$275 million capital projects bond with 60.78% voter support. Included in the 2018 bond was a performing arts and instructional building to be located at Inglemoor High School.

HISTORY

Kenmore, the community of Inglemoor High School, is located on the hills and north shoreline of Lake Washington. This is the ancestral homeland of the Sts'-ahp-absh indigenous people who once wintered where the Sammamish River flows into Lake Washington. Non-native settlers found their way to Kenmore prior to Washington becoming a state in 1889. Originally established as a logging town with schools, churches, eating establishments, and roadhouses, this area provided services and entertainment for travelers as they passed through town. Kenmore eventually became a road, rail, water, and air transportation hub utilizing the beaches of Lake Washington as an idyllic lakeside destination. Kenmore continues to develop as a bedroom community of Seattle with a diverse collection of thriving businesses and commerce.

EVOLUTION

In 1959, the Woodinville and Bothell School Districts joined together to form Northshore School District. The district's 21,000+ employees serve a culturally diverse population of approximately 24,000 students in 20 elementary schools, 6 middle schools, 4 comprehensive high schools, and 5 choice schools. The Northshore School District is committed to strengthening their community through excellence in education

by ensuring equitable and diverse opportunities to learn, a strategic plan that is community-driven, and providing safe and secure facilities for students, staff, and visitors.

SITE

The Inglemoor High School campus is located on a 40.2-acre site. The original school dates back to 1965 with substantial modernizations occurring in 1994 and 1998. The high school is comprised of multiple buildings arranged around a central courtyard connected with covered exterior circulation. The campus is mostly single-story buildings, and for the most part the original 1965 character of the buildings is apparent. The campus sits on the north end of a ridge, sloping down on all sides except the south which remains on the man-made plateau at campus level. The remaining portion of the site is heavily developed with parking and sports fields.

FUTURE

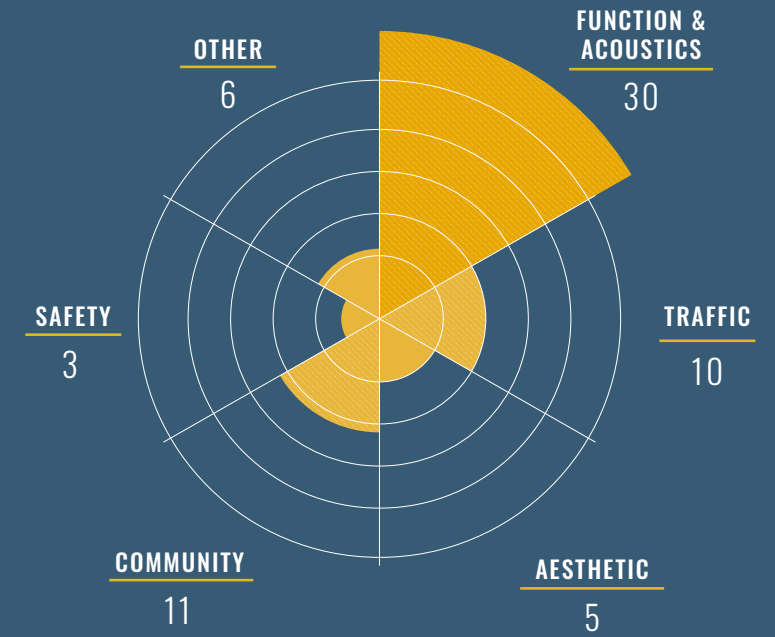
Northshore School District passed a \$425M general obligation bond on February 8, 2022. A portion of this bond will be directed towards a phased replacement of Inglemoor High School. The recently completed Northshore Concert Hall and Music Building will remain a significant aspect in the future design of the upcoming campus replacement project.





HOPES & CONCERNS

During programming table groups were asked to identify what excited them, and what concerns they had regarding the upcoming project. This collective input, with a high emphasis on function and acoustics, was distilled into what became the project's Guiding Principles.

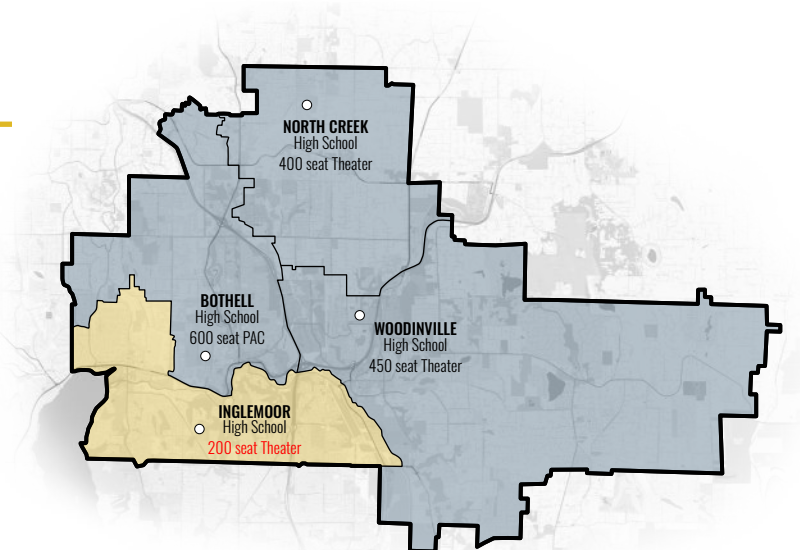


ENGAGED STAKEHOLDERS

Desiring additional parity between their four high school campuses, the community approved the 2018 bond measure which included construction of a performing arts venue at their oldest high school campus. A key factor in ensuring that this new facility would be a space that truly served the

needs of Inglemoor High School and the larger community, the district immediately established a Project Advisory Team to explore the opportunities and engage in the programming. Made up of students and parents, Inglemoor staff, district-wide performing arts staff, district

administration, board members, and representatives from the Kenmore City Council; the 25-member Project Advisory Team was charged with soliciting information and establishing engaged community participation and feedback for this project.



PROJECT CHALLENGES

The initial challenge put forth to the Project Advisory Team was to determine the primary function and purpose of this new facility at Inglemoor High School. This project was promised to the community as a venue for the performing arts, but no clear direction was provided to dictate if this description meant a drama production theater like the offerings at their other comprehensive high schools, or if this new facility could be something more unique and tailored to the needs of Inglemoor High School and the community.

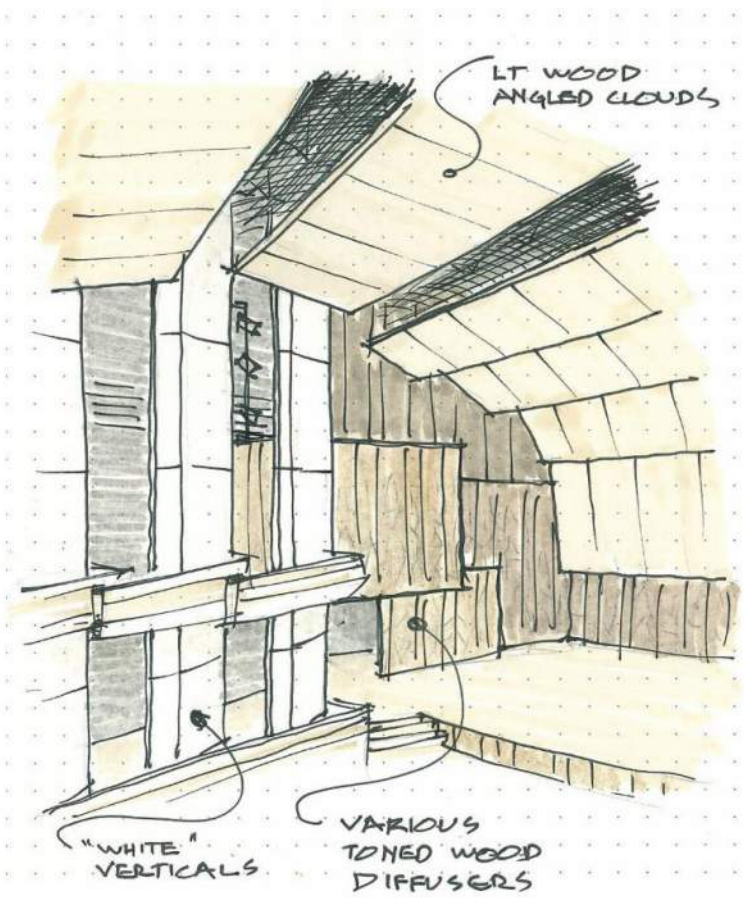
Multiple workshops were held exploring potential program opportunities. Current performance venues throughout the district, including their capacities, were reviewed by the committee to better understand what they had and how they were being used. The committee established an engaging outreach plan for discussion and feedback from the community to test ideas and help arrive at the best solution.

A significant driver in the discussions was the fact that the district has a district-wide performing arts theater at Bothell High School which is continuously booked for K-12 drama,

music, and speaking engagements throughout the school year allowing few opportunities for additional programs or private community venues.

Realizing that the district has theatrical performance spaces dedicated to drama at their other three comprehensive high schools, and an existing small theater on the Inglemoor campus, the committee determined that a new performance space at Inglemoor High School would best serve its students and the surrounding community by creating a dedicated concert hall.

This new facility should be designed specifically for choral and orchestral performances, with supplemental specialized music instruction spaces to support the high school program. The committee exploded with excitement about the unique opportunities a true instructional music and performance building would bring, not only for the students and community of the district, but to musicians and patrons throughout the Pacific Northwest.



SITE LOCATION

The Concert Hall is the first phase in bringing new life to Inglemoor High School. Currently a tightly packed, aging campus-style school located on a steep plateau, the new building will be an anchor for the eventual replacement of the entire high school facility. As such, it was necessary to consider the masterplan of the whole site when choosing the new home of the Concert Hall.

The committee was asked to investigate and discuss four possible locations for the Concert Hall. The group was asked to consider the following parameters while determining the best location:

- Construction on an occupied school site
- How each location might integrate itself into the existing campus
- Topographic challenges that may be present at each location
- Accommodation of evening public access for performances
- Service access needed for the new facility
- Potential to improve other adjacent site deficiencies, such as traffic and parking

The group unanimously selected Option C, a vacant parcel northwest of the campus plateau in an area known as ‘The Grove’ for its superior

opportunities to improve parking and vehicular circulation at the front of the school, the minimal impact construction would have to teaching and

learning, and the flexibility the location left for a future phased replacement of the high school.





“Music is like therapy. Music moves people. **It connects people in ways that no other medium can.** It pulls heart strings. It acts as medicine.”

—Macklemore



VALUE OF THE PROCESS

The comprehensive effort to engage input from a diverse group of users and patrons in the initial planning and design phases of this project formed a unique vision and established core values that supported this project through the entire process. It became clear through the planning process that music education is a path

to life-long learning and knowledge of self and culture. This project provides amazing instructional opportunities for the students that did not previously exist in the district and created a venue for the community to celebrate and enjoy the love of music.

NORTHSHORE CONCERT HALL AT INGLEMOOR | 03. SCHOOL & COMMUNITY ENGAGEMENT



04. EDUCATIONAL ENVIRONMENT

During the first two meetings of the Educational Specifications process, collective guiding principals for this project were established. These principles were to guide all work and decisions made throughout the life of the project. The committee believed these goals had measurable outcomes and should be reviewed at every project milestone for conformance.

The following Guiding Principles were established:

A successful project will...

- *Support the needs of the school, the district, and the community.*
- *Result in a quality, functional, and flexible facility.*
- *Incorporate spaces that meet specific needs of instruction.*
- *Provide great acoustics in the performance hall.*
- *Be the pride of the community.*
- *Include improvements to parking and traffic flow at Inglemoor High School.*

NORTHSHORE CONCERT HALL AT INGLEMOOR



SUPPORTING CURRICULUM

Northshore School District has a strong commitment to providing students educational opportunities that extend learning in the creative and performing arts. For decades a stellar music program has been a pillar of Inglemoor and the community despite its program being stifled by the small inflexible 1965 concrete masonry box that it occupied on the old high school campus.

Development of the Northshore Concert Hall and new music instruction building represented the opportunity to provide students and the community a facility that truly captures the talent, skill, and preparation of the students, while giving families and community members who have invested so much, an audience experience worthy of that investment.

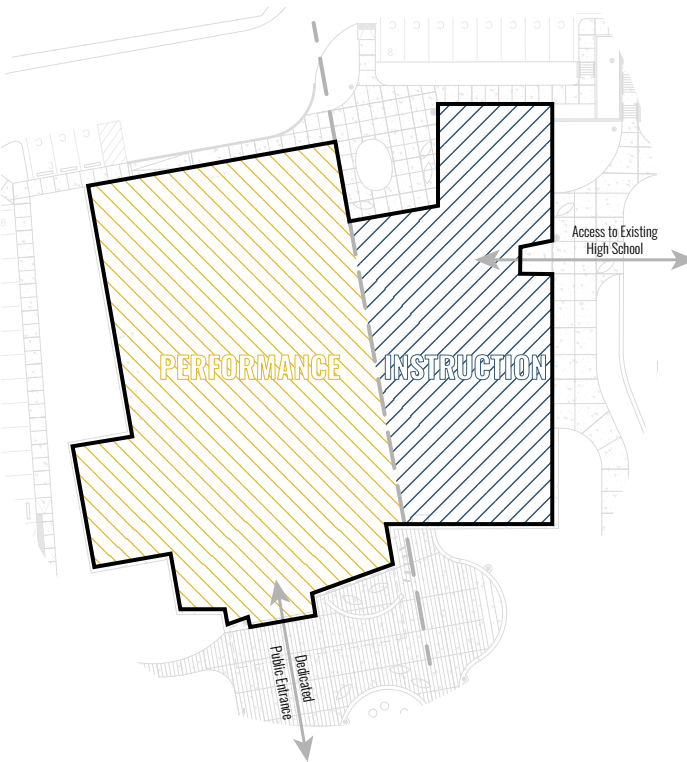
“It’s so important to remember that **the arts provide a safe place for students to develop their ideas and their dreams - dreams that can carry us into a brighter, lighter future.** The building behind me is going to be a beacon of light, not just for our community, but our country at large.

– Dr. Michelle Reid, Superintendent

VARIETY OF TEACHING & LEARNING

To be successful, the project needed to satisfy two primary functions. First and foremost, it must be an exceptional space for students to continue their musical education. The new instructional wing contains three main rooms: instrumental rehearsal, music technology, and vocal rehearsal.

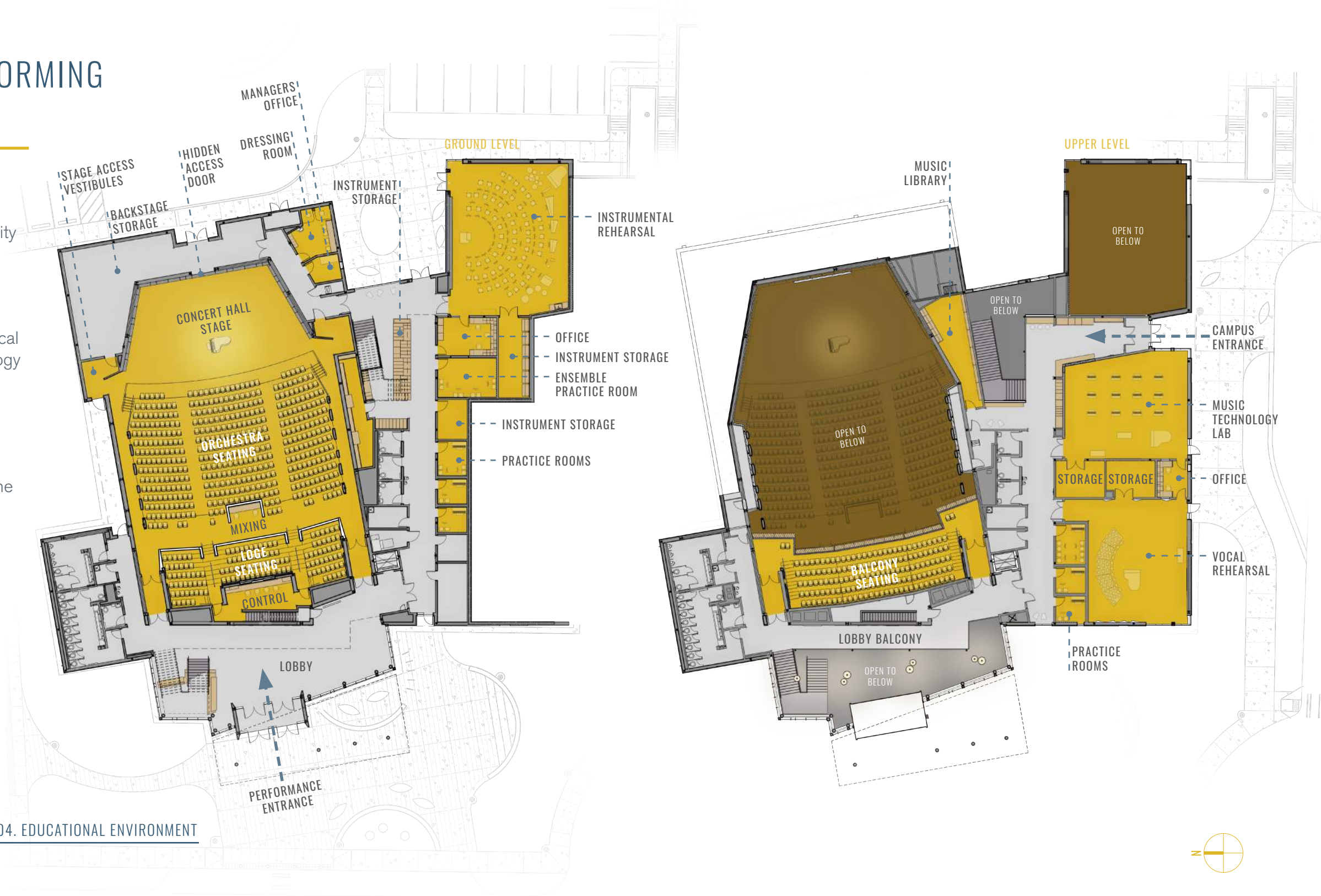
Secondly, the design team was charged with creating a 752-seat concert hall for performances. The district wanted a space that would inspire students and community members alike; a facility that could bring the community together around a common love of music and fulfill a need in the community for a space specifically designed for choral and orchestral performance.



FLEXIBLE, HIGH-PERFORMING EDUCATIONAL SPACE

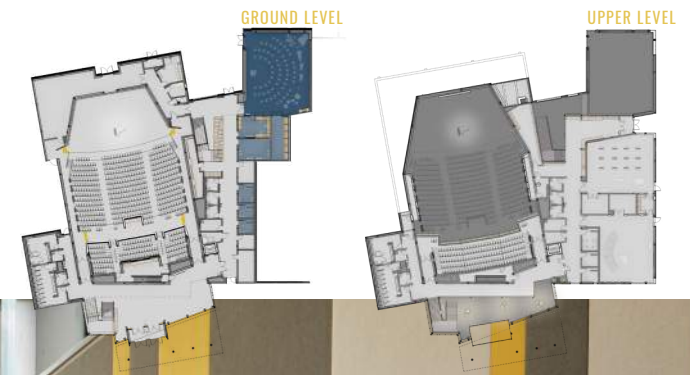
Fulfilling the need for open, flexible classrooms dedicated to musical instruction, the southern half of the facility is dedicated to educational spaces for Inglemoor. The space is divided proportionally between upper and lower levels with the instrument rehearsal classroom on the lower level and the vocal rehearsal classroom and music technology lab on the upper level.

The large, flexible instructional spaces allow groups of students to practice simultaneously in any of three rehearsal zones without conflict. Each aspect of the facility is designed with buffer rooms to keep the sound contained within each rehearsal or performance space. These buffer zones are made up of offices, generously sized storage spaces, and practice rooms in a variety of sizes to encourage collaboration between a multitude of student groups.



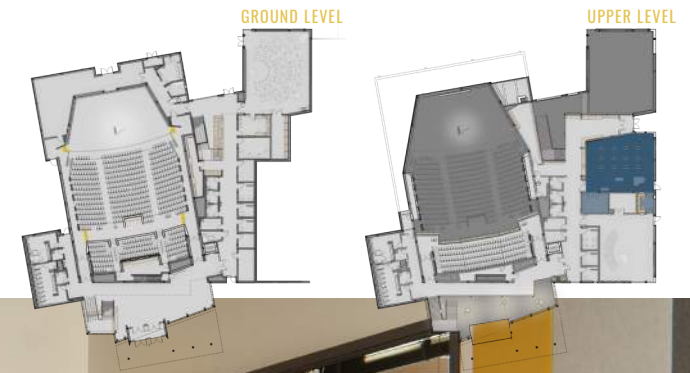
INSTRUMENTAL REHEARSAL

Located on the lower level in close proximity to the concert hall stage, the instrumental rehearsal room supports multiple ensembles including concert band, marching band, jazz band, percussion ensemble, and orchestra. Its direct connection to the exterior provides easy access to the football field and bus loading for travel. During concerts this space functions as a green room, with a large video monitor streaming live footage from the stage.



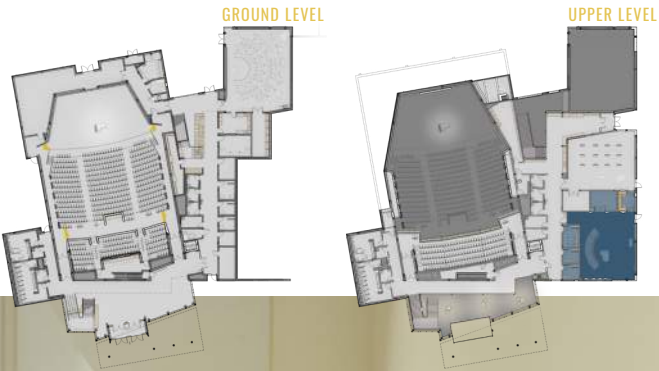
MUSIC TECHNOLOGY LAB

Strategically located near the main student entrance, relites between the classroom and the corridor allow views into the Music Lab stimulating curiosity about the technology and diversity of music to students passing by. This flexible lab supports piano and guitar instruction when not used for instruction of world music, music theory, and music composition.



VOCAL REHEARSAL

The vocal rehearsal room is specifically tuned for vocal acoustics and allows flexibility in configurations and instruction. Equipped with built-in recording and audio equipment for practice and performance, this space draws students into an active teaching and learning environment where they learn to participate as a group as well as practice and think as autonomous musicians.



CONCERT HALL PERFORMANCE VENUE

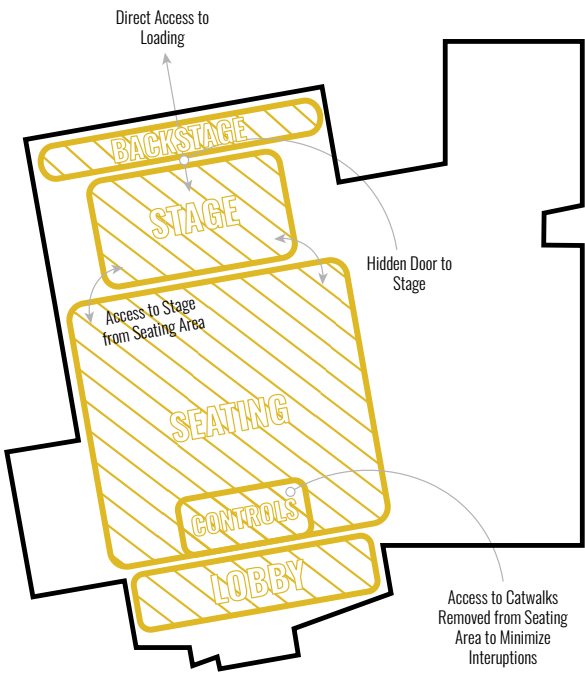
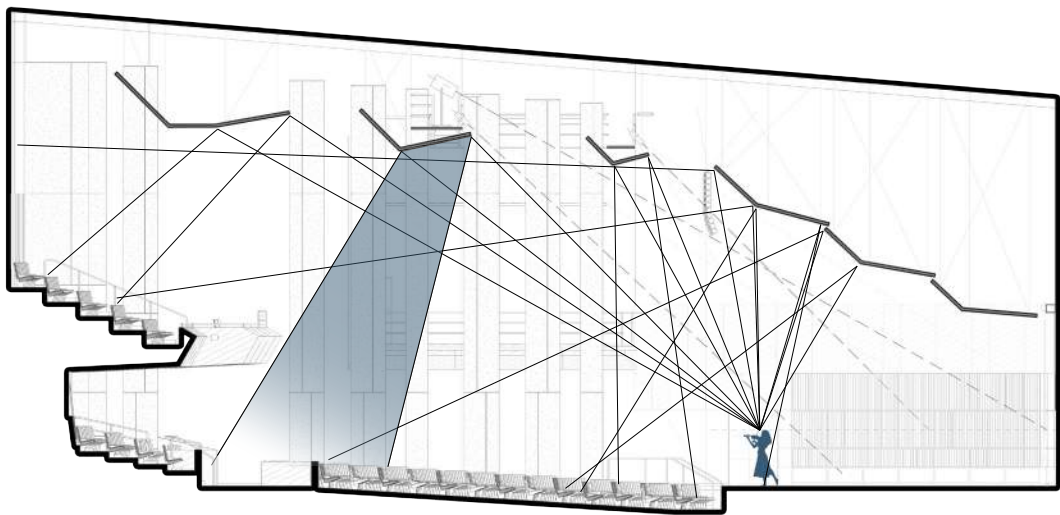
Extreme care was taken to develop a beautiful and functional concert hall that was worthy of receiving patrons in a formal public setting while still balancing the fiscal responsibility the district had to its community. Each element of the Concert Hall was scrutinized to ensure the finished product would provide an exceptional experience for both performer and patron alike.

The building is angled slightly off the campus grid with an expansive glass lobby sheltered by a large canopy to ensure an impressive and welcoming presence at the front of the campus. At night, with the lights illuminating the interior lobby, it glows like a beacon, welcoming the community and providing the dramatic experience that the district requested.

Acoustics dictated the shape, proportion, and size of the Hall. To provide the highest quality choral and orchestra performance venue, the 752-seat concert hall was designed in a “shoebox” shape providing an intimate and acoustically superior experience for audiences.

Carefully designing the seating layout to provide an exceptional experience across the entire Hall, the auditorium itself is broken into three levels of seating. The main orchestra level nestles right up against the stage, with a very shallow rake.

Behind this is a smaller loge seating area. An overhanging balcony accessed from the upper level bring additional patrons closer to the performers.



Stage access is accommodated from both sides allowing easy transitions between performers. Side aisles through the auditorium are provided at stage level on each side of the performance hall adding to the flexibility of performance options.

A displacement ventilation air system provides low velocity supply air through diffusers located in the floor under the seating and around the perimeter of the stage to maximize occupant comfort with conditioned air that runs silently.

Lighting was engineered to provide even washes of light across the entire stage with minimal shadowing, allowing the audience to clearly see the performers and ensure the musicians can read their sheet music. Additional house lights sparkle from above adding to the unique environment of the hall.



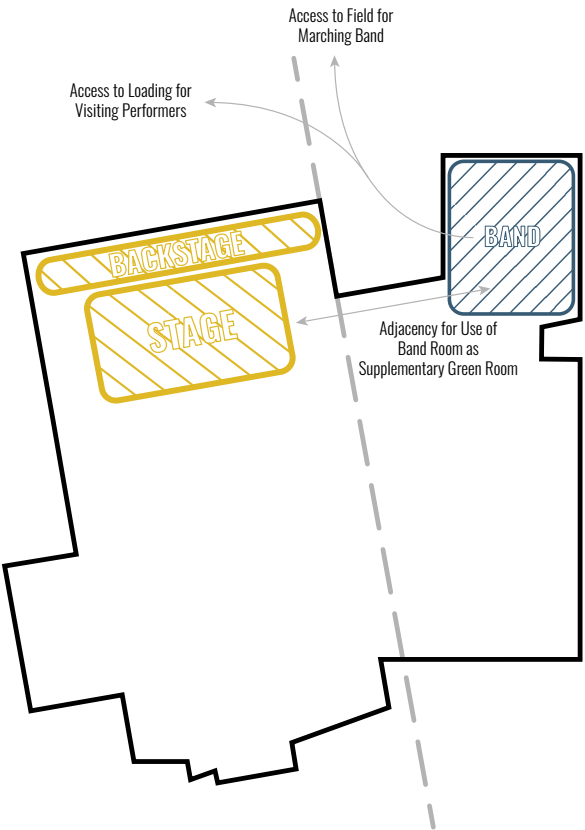
Careful attention was given to the design of the stage itself, as in a true concert hall it functions as the largest instrument in the ensemble. Light in color to showcase the performers and made of wood, the carefully engineered air void underneath the stage vibrates from contact with the instruments and reflects sound back into the space. If the stage was too hard it would reflect sound, leading to excessive reverberation and echoing. As no orchestra pit is required, the audience can be seated right up against the stage, providing patrons with a truly immersive experience.

The stage is intentionally exposed, with no proscenium to block views or dampen the acoustics of the ensemble or chorus. Without the typical theater proscenium to block the wings, stage access is intentionally exposed creating a sense of community between the performers and the audience. A large hidden access door is recessed into the ribbed wood acoustical panels at the back of the stage to provide direct access for moving the concert piano and large instruments on and off the stage.

Lighting controls are managed in the isolated control room with direct view of the stage. Back stairs from the booth provide access to the catwalks for lighting adjustments and eliminate the need for technical staff to enter the main venue area during a performance.

Live sound mixing is managed from a secondary position located in the center of the 'house' to suit the needs of the event.

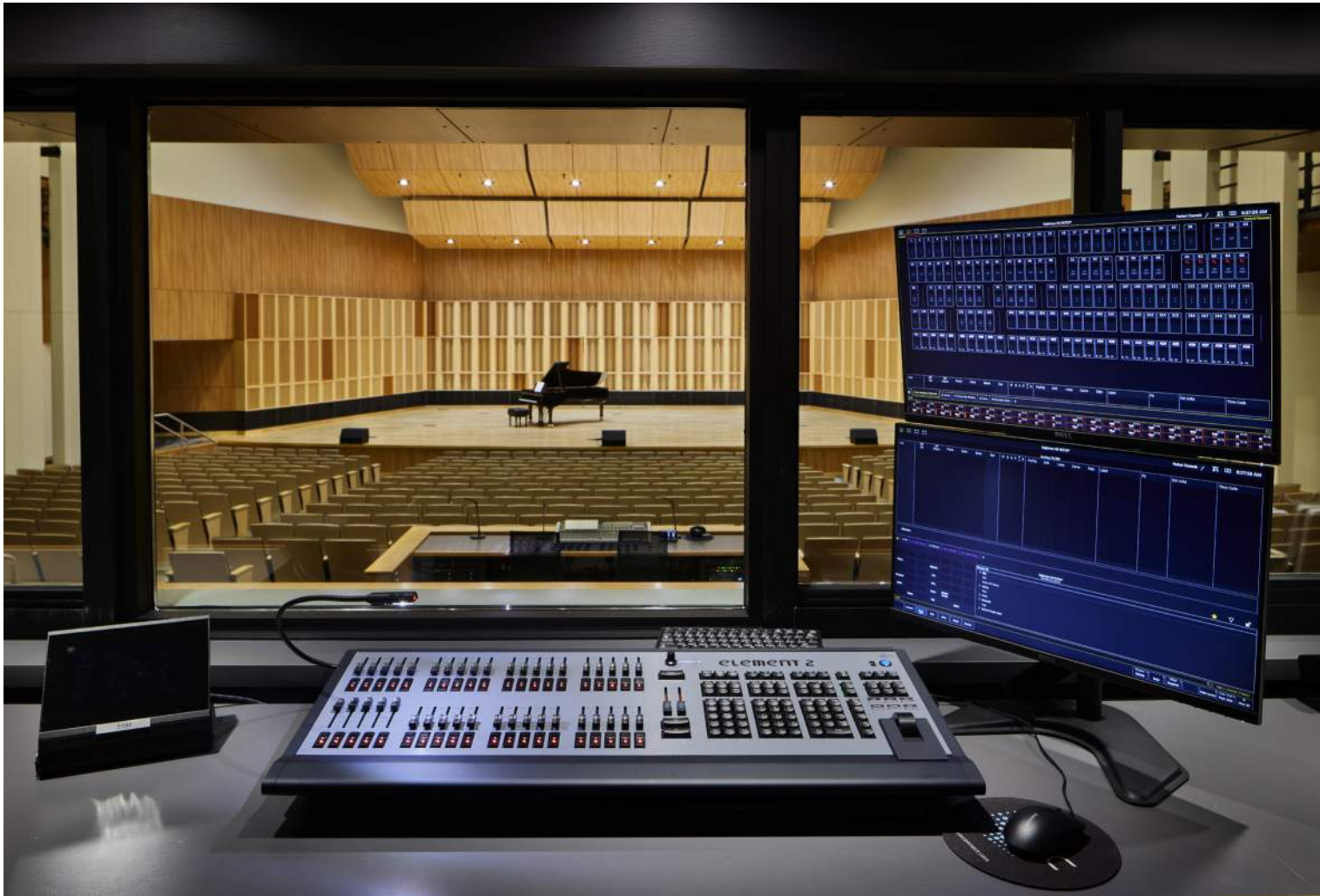
During performances the instrumental rehearsal room serves a dual purpose as a green room, equipped with the capability to stream both video and audio footage of the stage to allow waiting performers the ability to monitor the performance in real-time.



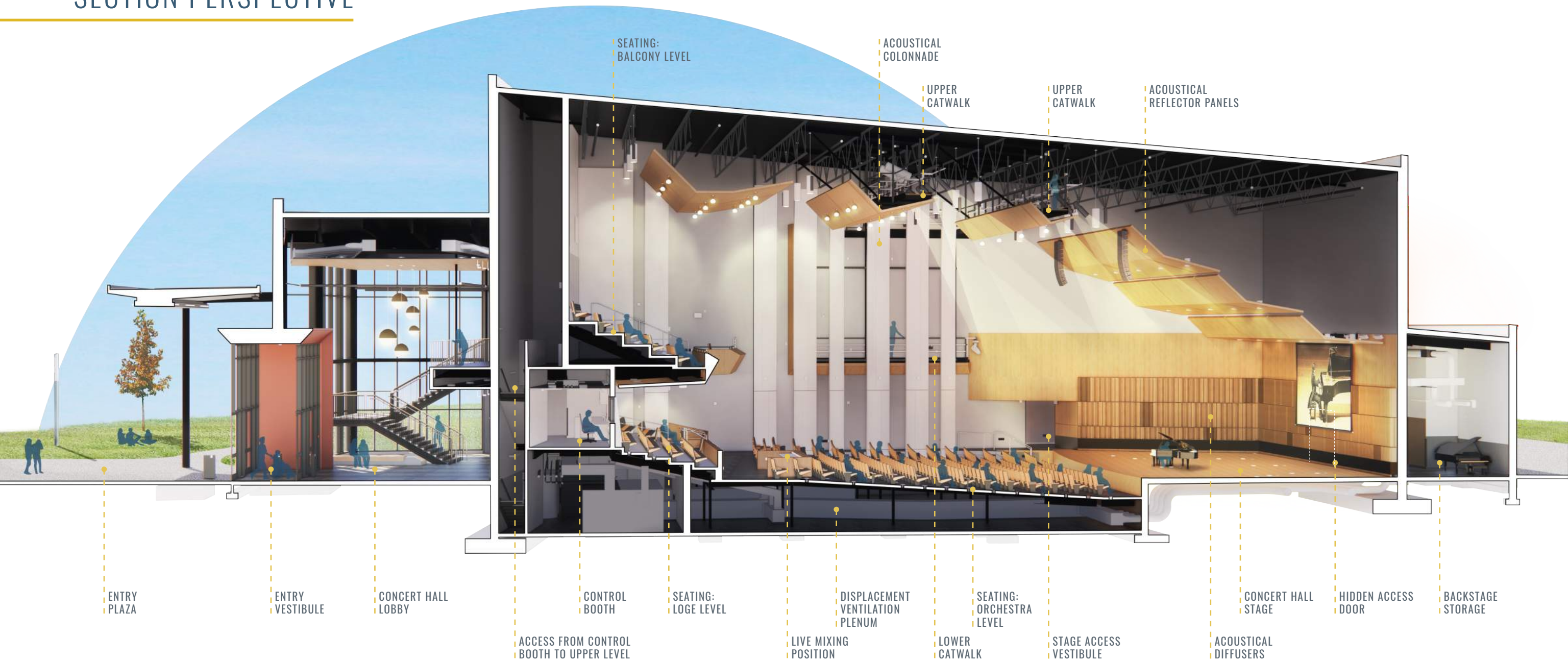
Additional backstage amenities include a generously sized storage area and a gender-neutral dressing room equipped with individual changing stalls designed to provide flexibility and be culturally inclusive.

For decades a stellar music program has been a pillar of Inglemoor High School and our community. The Concert Hall... **represents the opportunity to provide our students and community a facility that truly captures the talent, skill, and preparation of our students,** while giving our families and community, who have invested so much, the audience experience worthy of that investment.

– Adam Desautels, Principal of Inglemoor High School



SECTION PERSPECTIVE



05. PHYSICAL ENVIRONMENT

When looking to weave the Concert Hall into the fabric of a congested high school campus, the design team considered a number of key factors. The charge to create a state-of-the-art concert hall required the building to have a dynamic, modern, and engaging presence at the north end of campus – and also required the development of a complex, phased masterplan to ensure this new facility would not negatively impact the planned replacement of the remainder of campus.

The building also needed to showcase the district's commitment to reducing its carbon footprint, and to develop learning environments that celebrate and showcase environmental responsibility. Nestled up against a large wetland and ravine, the stormwater management in particular needed to be carefully considered.

Finally, the design team felt strongly that this facility provided an opportunity to shine light on the district and the community's commitment to the arts, and in particular showcase the music talents of not only the Inglemoor High School student body, but musical performers all across the district.

NORTHSHORE CONCERT HALL AT INGLEMOOR



THE RIGHT FIT

For Inglemoor & Their Community

Located at the far eastern edge of the City of Kenmore, the Inglemoor High School campus encompasses a 49.2-acre parcel dating back to 1965.

The high school sits at the top of man-made plateau surrounded by athletic fields and parking. Despite the sites generous size, space for building is at a premium due to the rolling terrain, and wetland complex / ravine to the eastern edge of the site.

Mindful that the high school complex is slated for replacement during the next bond cycles, the design team recognized the importance of carefully siting the new Concert Hall as the first phase of this construction to come. The Concert Hall anchors the northern end of the high school complex, bridging the 15' elevation change between the upper campus and the lower parking and campus entry sequence. Nestled into the existing slope, the Concert Hall is a celebration of Inglemoor's student achievement in the performing arts and a vibrant marker of community values.

SUSTAINABILITY

Supporting the District's Long-Term Goals

Cognizant of their responsibility to their community, the district charged the design team with developing a concert hall that was not only inspiring and beautiful, but assumed a practical approach that balances aesthetics, sustainability and durability in order to provide a building that can be efficiently maintained to its maximum usable life.

To ensure this the design team first conducted a series of exercises centered on master-planning for a full campus replacement to ensure the district could maintain maximum flexibility for future construction.

Once the location for the building was confirmed, the desire for a healthy, nurturing environment continued to inform design decisions. Materials were selected for their ability to provide a warm,

professional atmosphere but also for their durability and low maintenance. The use of efficient plumbing fixtures reduces the water usage of the building by at least 25%. Natural daylighting floods the lobby and learning environments throughout the facility, enhanced with LED light fixtures. Despite the warm, welcoming glow the building exudes in the evening, the facility is designed so that zero direct-beam illumination leaves the school site.

“We recognize that learning happens best in community and this community concert hall, as it begins to grow, is going to begin to capture again the imagination, the talent, and the spirit of the Northshore family...**The arts are not something extra in Northshore. They are core to who we are and the foundation to the experience we want for each of our students.**”

— Dr. Michelle Reid, Superintendent



INCLUSION & BELONGING

Celebrating the Achievements of All Students

At the heart of this project was a desire by the district to publicly celebrate and lift up the young musicians of the Northshore community. Having already invested in several state-of-the-art facilities dedicated to the performing arts including one large (600 seat) and two smaller (400-450 seat) theater options, the district decided it was time to challenge the concept of what was 'standard' for a high school.

When reflecting upon the example of high school athletics, considerable effort and expense is expended to provide professional-level opportunities for students to explore options in a variety of sports offerings. Locker rooms, team rooms, sports therapy facilities, natural or turf fields designed and optimized for a variety of sports are all typical at the high school level. Just as the athletic facilities are optimized for the sporting event they host, Northshore realized that they had an opportunity to optimize their performing arts offerings.

With the creation of the Northshore Concert Hall the district has proclaimed that the talents of their burgeoning musicians are equally worthy of celebration as their budding actors and dancers. On par with professional halls not typically seen outside of a University campus or civic space, the

“We have large ensembles with students who are passionate about what they do, and this passion can be seen through the decades of success of all programs, whether this is the band, orchestra, or choir. So, I think **providing a professional environment for music is just as important as it is for sports and the facilities they are given.**”

– Aditi Saraf, student at Inglemoor High School

Concert Hall showcases the districts commitment to developing spaces that welcome and celebrate the culture and achievements of all students.

Each of the district's theaters is in high demand, and widely used for theater, music, dance, lectures, and an assortment of other activities. Opportunities for hosting community performers and traveling programs was limited by the amount of district performances. As an added benefit, by creating a facility optimized for music and choral performance the district was able to relieve pressure at their other district theater facilities.



Acknowledging that this new concert hall will be a focal point of the community, the layout of the facility and the technical systems are designed with a user-friendly layer of access and operation for the non-technical user.

Access to the stage and all areas of the auditorium were carefully considered to ensure universal direct access. The locations of accessible seating were carefully considered to

provide a variety of viewing angles. Select seats are removable to allow for placement of wheelchairs, while others have transfer arms for partially ambulatory persons.

From their first glimpse of the building, through the main doors and into the lobby, to their seat in the concert hall or their place on the stage, students and patrons alike come together with a common love of music to celebrate student achievement.

06. RESULTS OF THE PROCESS & PROJECT

Opened in January 2022, the Concert Hall is just beginning to host its first performances and the district is carefully balancing the excitement of the students and community against the need to keep everyone safe during the remnants of the pandemic. Initial feedback from students, visitors, staff, and professionals alike has been overwhelmingly positive and they have been quick to remark upon the impact that this facility will have on both the music programs for Northshore School District, and the community they serve.

Educational goals and objectives were achieved with great success by providing students an inspirational and highly functional facility that extends learning in the field of music. Amazing acoustics in the rehearsal rooms, clearly defined equipment and instrument storage, and state of the art audio/video support systems has elevated the opportunities for young adults to experience advancement in the music program at Inglesmoor High School.

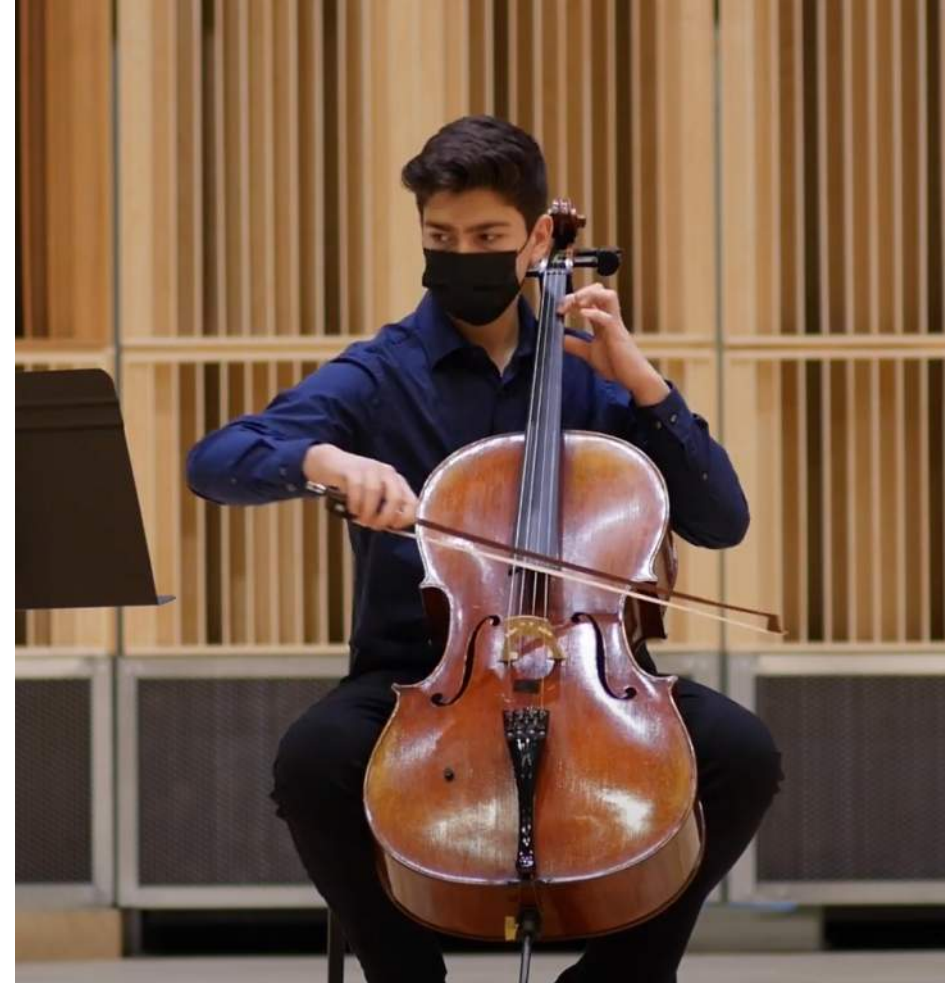
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CHANGE IS IMMINENT

The new Concert Hall will move Northshore School District forward into new realms – creatively, socially, and politically. It will bring together the entire community through the variety of events this venue can facilitate for use by residents of all ages and demographics.

To quote Ludwig van Beethoven, **“Music can change the world.”** This very unique and special concert hall and music instruction building on the Inglemoor High School Campus is sure to change the lives of many young adults and provide an even stronger connection between the school district and community it serves.



“One thing I really enjoyed about the process was being able to communicate with my peers about what they wanted to see in the new concert hall. I am personally looking forward to performing in the hall because the acoustics are going to be amazing, but I’m also really excited that all three programs, choir, orchestra, and band, are going to get their own space. **When I think about the future generations of Northshore music students performing in a concert hall, I feel so proud and accomplished.** It just warms my heart that I was able to play a role in creating a space for all music students.”

– Zoe Starikov, student at Inglemoor High School



“It was an incredible experience playing the violin as part of the inauguration of the concert hall. The design of the hall is super sleek and polished and I am thoroughly impressed by the acoustics that amplified the performers’ playing. **I’m very excited to perform here more often in the future as part of North Creek’s Chamber Orchestra and eager to see many more young and bright [Northshore] musicians showcasing their musical talent in the hall.**”

– Harini Thiagarajan, student at North Creek HS