



# AEI Student Design Competition Competition Program

## Addendum 2019

### The Challenges

The competition will challenge the student teams to address the design, integration, and construction issues associated with this project. Please keep in mind that the Challenges presented have been created for the sole purpose of the Student Design Competition. Submissions should address the following challenges:

1. **ACOUSTICS.** The Jack H. Miller Center for Musical Arts provides space for musical performances. The importance of the facility in having a superior design that addresses and positively impacts the acoustical quality of the building is desired by the owner. The owner expects the highest quality of acoustical performance for the concert hall for the following types of performances: individual, choral, orchestral, and chamber music. While these will be the main features of the space, the owner would like a design that can either accommodate or adapt to the following additional events: lectures, graduations, and/or perhaps public events to go with the other challenge. This challenge will require teams to have superior acoustical quality design in critical spaces. These spaces include: (1) main auditorium / concert hall, (2) classroom and practice spaces, and (3) recital and rehearsal rooms.

Team generated design(s) must accommodate a range of uses (discussed above) for any given day (performances are expected to regularly change). As such, each team must create a design that can adapt to each performance type. Teams must research and justify acoustical performance parameters and design ranges for both sound transmission and reverberation times to be used and benchmarked against. The ideal final design of the main hall during individual, choral, orchestral, and chamber music settings are not to have electrical amplification. Electrical amplification is only permitted for uses such as lectures, graduations, and/or public events.

Rooms, spaces, and the HVAC system impact and implication that they have on each other and how they drive designs, should be taken into account and discussed. Innovative engineering solutions, appropriate architectural design and material selection should be explored, designed, and justified based on applicable design standards. Details on the exact techniques and performance levels should be researched, selected, and justified by the team. Design teams need to consider all relevant disciplines in their acoustical solutions, including architecture, engineering, construction, maintenance, and the audience. At a minimum, the teams shall provide an integrated solution that addresses these challenges and provides a path to a design solution.

2. **WOOD, TIMBER, & ENGINEERED WOOD.** Hope College would like to consider the intensity with which it responds to issues of sustainability by incorporating the carbon sequestration characteristics and renewability of wood construction. Teams should incorporate options such as Glue Laminated members, Heavy Timber members, Cross Laminated Timber members (CLT) and Engineered Wood products in at least 25% of their redesign of the Jack H. Miller



# AEI Student Design Competition Competition Program

Center for Musical Arts building. By altering the design to incorporate a significant amount of wood for structure, envelope, finishes, etc., the College hopes to both increase awareness of sustainable alternatives to design and construction and sequester a significant amount of carbon.

Design teams responding to this challenge are encouraged to reconsider the overall layout and composition of spaces in the design to take full advantage of the unique characteristics of wood, timber, and engineered wood construction. The design response should be clearly depicted in diagram form that illustrates the conceptual rearrangement of spaces in response to meeting the challenge.

- 3. ROOF TOP AMENITY SPACE.** As part of the Jack H. Miller Center for Musical Arts, Hope College wants to explore adding amenity space on the roof to host community and university events. At a minimum, the space should be able to support pre-performance gatherings, receptions, and networking/social events. Administrators have expressed specific ideas and concerns for the space. These comments include:

- Capacity to hold a minimum of 100 people
- Access to the space should be considered for both community and university events
- Weather-responsive space that can be used throughout the year
- Flexibility of the space to host many functions and events
- Safety and security concerns

Overall, Hope College wants the amenity space to be a highly desired space. Teams should consider not only uses for the event space but also support functions for the space, such as restrooms, storage, etc. Ultimately, the design team should maximize revenue potential of the space while balancing costs.

## Building Information

Jack H. Miller Center for Musical Arts at Hope College, Holland, Michigan

“The Jack H. Miller Center for Musical Arts includes two performance venues, classrooms, practice rooms, faculty studios and office space for the Department of Music. The 64,000-square-foot complex is built along Columbia Avenue between 9th and 10th streets.

The centerpiece of the new building is an 800-seat concert hall featuring both main-floor and balcony seating. The facility also houses the John and Dede Howard Recital Hall that seats approximately 125 for more intimate performances and features the primary concert piano, a Steinway concert grand.

Instructional space includes dedicated rehearsal space for the college’s several choral and instrumental ensembles, 17 individual practice rooms, an updated piano lab, a computer lab, a percussion studio, a recording studio and two general-use classrooms. The building also includes 24 faculty teaching studios and offices.



# AEI Student Design Competition Competition Program

The department of music presents more than 125 performances, clinics, workshops and recitals each year. Hope also features concerts through programs such as the long-running Great Performance Series.” (<https://hope.edu/directory/buildings/jack-h-miller-musical-arts-ctr/index.html>)

For the purpose of the AEI Student Design Competition, the target total building budget will be \$25 million. Costs associated with the Challenges listed above should be budgeted separately and included as add alternates.

A document with applicable codes will be provided to registered teams with the other project documents.

## Competition Timeline

Student Team Registration begins	<b>Monday, August 27, 2018</b>
Student Team Registration ends	<b>Wednesday, January 9, 2019   1:00pm EST</b>
Deadline for Written Submissions	<b>Monday, February 18, 2019   1:00pm EST</b>
Notify Finalist Teams	<b>Monday, March 4, 2019</b>
Finalist Presentations	<b>Thursday, April 4, 2019</b>

All teams may continue to work on their projects after the written submission in anticipation of possible selection as a finalist team and in preparation for the finalist presentations. The architectural engineering programs are encouraged to have competing students present their projects to their peers and faculty. It is also encouraged that they receive comments and suggestions from these individuals at multiple instances throughout the project.

Finalist presentations will occur on Thursday, April 4, 2019 in Tysons, Virginia. The event will be broadcast via webcast, and finalist submissions will be published on the competition website.