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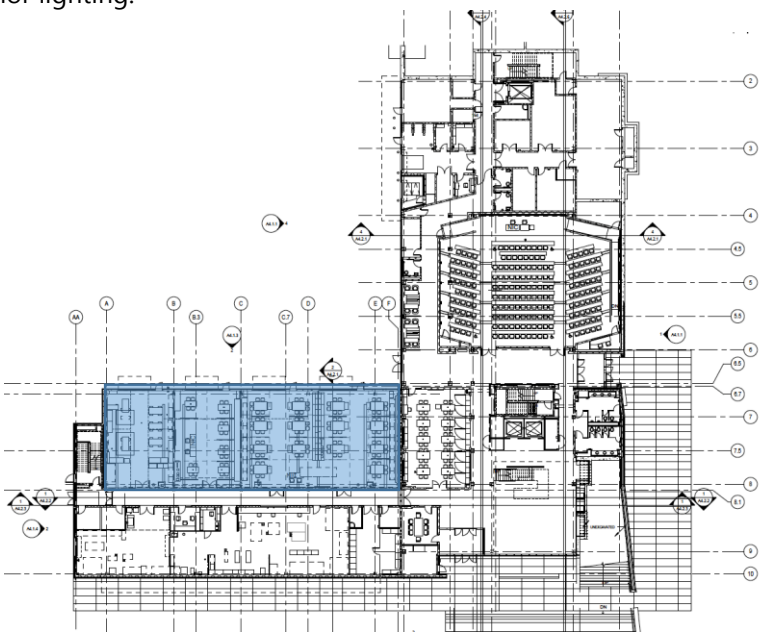
09.08.2014

Technical Report 1 | Part 1 | Lighting Proposal Memo

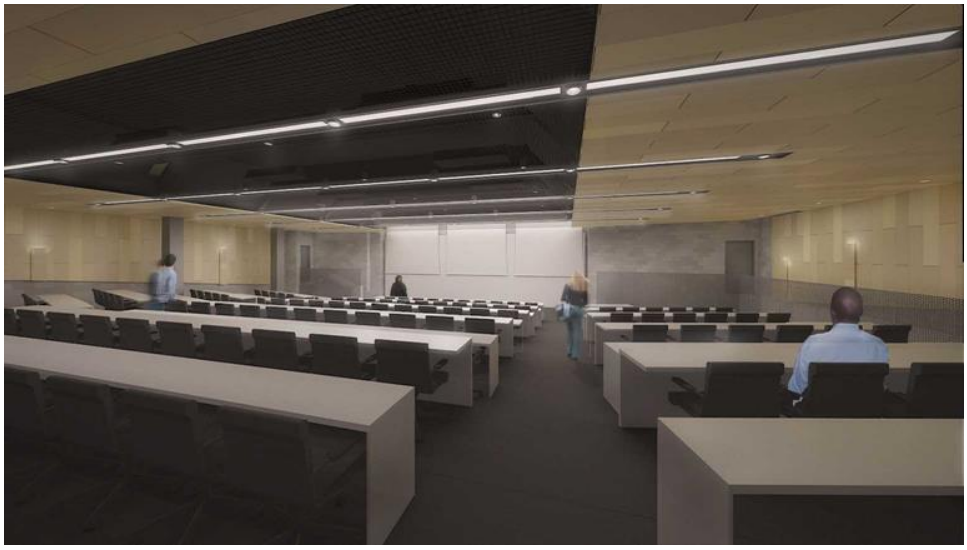
Project Labs | Proposed Large Work Space

The large open-plan project labs on the first floor function as a large multipurpose space for fabrication and testing of a variety of engineering-related work and will be a very important space for a hands on learning experience. According to the plans, the labs will be for Senior Projects, Mechatronics and SAE (Society of Automotive Engineers). The space is 5,704 square feet in area and has a double height exposed ceiling. The materiality in this space is very raw and unfinished; the floor is a basic polished concrete floor and the walls are painted CMU blocks. This space will be a challenge due to the tall height and immense size of the space, the variety of functions that it will serve and the visibility from the 2nd floor walkway that has a view into the space. In this space, there is the opportunity to study the daylighting effects of the northern clerestory and windows on the space as well as implementing some photosensor control of the interior lighting.

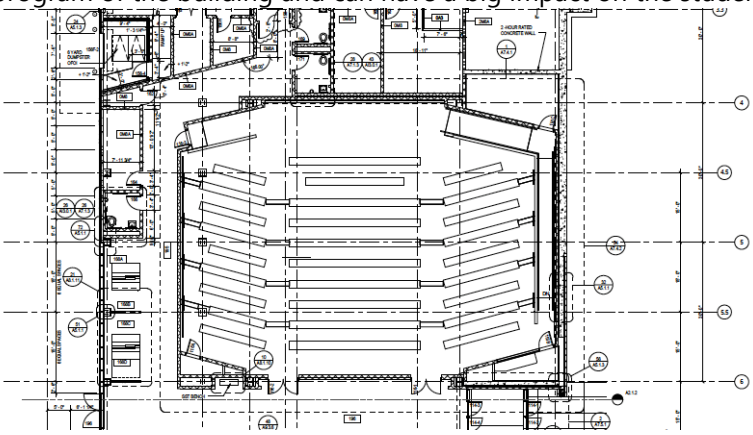


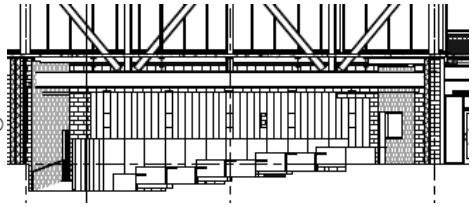
Level 1 Floor Plan with Project Labs Highlighted in Blue

Lecture Hall | Proposed Special Purpose Space

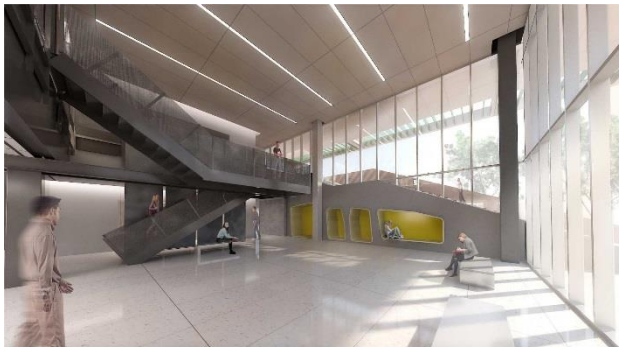


The main lecture hall on the first level of the building is the largest space for lectures in the School of Engineering and Computer Science and is about 4,808 square feet and seats 200 people. This space needs to have a strong academic feel as well as a sense of collaboration and excitement for learning; if this space feels too bland then it will become just another lecture hall. In terms of materials, this space is probably one of the most complex; the ceiling is a combination of acoustic ceiling tiles and painted exposed ceiling, the wall is a combination of acoustic wall panels to match the ceiling and CMUs, and the floor is simply a carpet tiling. This space is going to be the one that I use to create three schematic design concepts for as it is an interesting shape and has a very important functionality within the program of the building and can have a big impact on the student body.





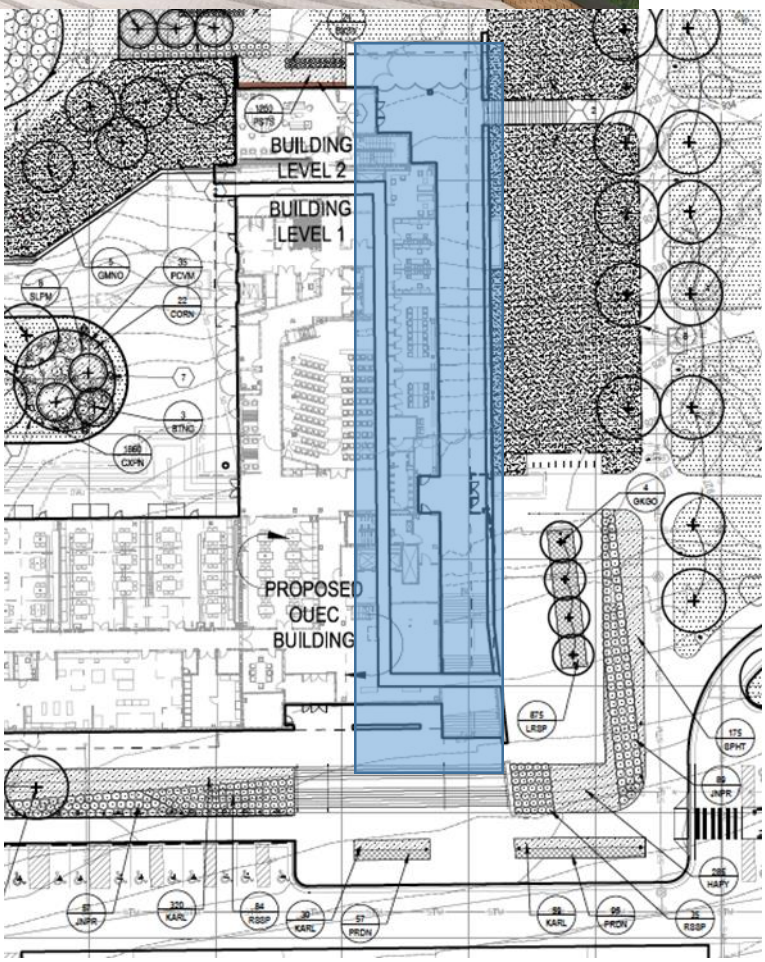
North Lobby and Atrium | Proposed Circulation Space



This is a combined transition space consisting of the South Lobby which is a double height entrance area from the first level to the second level and then the café on the second level and the open atrium from the second level up to the fifth level. This transition space will be heavily trafficked by students and faculty alike as it surrounds all of the main transitional paths between the south entrance and the labs, classrooms and offices on the other levels. This space is also a transition space between the materiality in the building with nice terrazzo flooring and acoustic ceiling panels transitioning to the more basic materiality of exposed ceilings, CMU walls, and painted GWB walls. This space will also function as a place of rest and informal study for the building's occupants and surely a very important public space which is why I have chosen to use this space to implicate the psychological impressions of relaxation and tension.

Covered Walkway and Stair | Proposed Outdoor Space

The main exterior staircase is going to be a heavily traversed transition from the parking lots to the south of the Engineering Center and the other academic buildings to the north. The goal for this exterior space will be to assure that pedestrians feel comfortable while walking through the area and to highlight the architecture of the building and stair so as to compliment the design and make a positive statement on the campus fabric. This area may have possible daylighting components to study in terms of the overhang and louvered structure and the implications that it will have on the interior.



Site Plan with Stair and Walkway Highlighted in Blue

*All images and plans are courtesy of SmithGroupJJR