

Walter Nichols

AE 481

Lighting Proposal Memo

Part A

Large Work Space:

For my large work space, I want to use the main computer lab in the 2nd floor of the building, as well as the computer lab classrooms attached to the sides of the main lab. The main lab is the about the equivalent of 308 Sackett or one of the Williard computer labs, except that it is a much larger lab. The main lab area is roughly 44' x 82', or 3,608 square feet. The three computer lab classrooms are 32' x 41', or 1312 square feet. The main lab area serves as a large public, general computer use area. Tasks include, typing word documents, surfing the internet, playing computer games, and using webcams for communication purposes. The computer classrooms are more like a traditional classroom area. This classrooms are primarily used for teaching Comp. Science and IST classes, but are open for general use when no class has the room reserved. Visual tasks include all of the previous tasks, but also include note taking (paper and with a computer), computer programming, and viewing slides from an overhead projector. The lighting for the classrooms and the lab area are the same. They both use 8' 32W architectural indirect fluorescent T8s. These luminaries are laid out in 8' runs in each row, forming a continuous row of light. Task lighting is also provided as some of the desks via desk lamps in the lab area.



Pictures of multiple views insides the main computer lab area.



Another view of the main lab area. 2 different views of the computer classroom spaces. Laptops fold out from inside the desks.

Special Purpose Space 1:

My first special purpose space is going to be an auditorium style classroom that also has video conferencing capabilities. This classroom has stadium style seating that is raked up higher as you go further to the back of the room. The room has dimensions of 35' wide and 38' deep (1,330 square feet). The classroom is primarily used as a large lecture hall, but it can also be used for video conferencing via Microsoft net meeting. The classroom can also be used for students taking classes via the internet. This is done by having the teacher set up a net meeting, and then broadcasting the meeting over the internet to the students on the other end. Questions can then be asked back and forth using a microphone. This space makes use of multiple types of lighting. General lighting is provided by a combination of a 6" 32W triple tube dimmable wall wash as well as 8" 42W triple tube dimmable downlights. Additional spotlighting is provided for the board as well as the person speaking by using par56 300W track mounted incandescent spotlights.



Pictures of multiple views inside the auditorium classroom/ video conferencing room.



More pictures of the auditorium classroom/ video conferencing room. The picture on the right shows a close up of the track lighting, and the somewhat disturbing difference in CCT between the wall wash + down lights vs. the track lights.

Special Purpose Space 2:

My 2nd special purpose space the Pechter Family Music Room. This space is used primarily by the Arts and Music department. The music room is used for students to practice playing musical instruments, as well as concert, jazz, and other forms of music practice. The classroom is also used for choir practices. Attached to the side of this room are two smaller (7' x 9') practice rooms. These rooms are sound proof, and allow students to practice privately instead of in the larger music room. The music room has dimensions of 50' x 45' (including the 2 practice rooms). Visual tasks in this room include: taking notes on music scores, reading music scores, following tempos from the band director by watching his hand or tempo stick movements. Lighting in the music room takes on a more decorative feel. General lighting is provided by 9 cell, 3 lamp, 40W, recessed, parabolic luminaries. It also uses 8", 26W, double tube, CFT cylindrical, suspend pendants.



Pictures of multiple views inside the Pechter Family Music Room.



More pictures of the Pechter Family Music Room. The picture on the right shows a closer view of the recessed cylinder luminaries.

Circulation Space:

I am choosing the corridor around the main set of stairs, the stairs, and the landing area at the top of the stairs as my circulation space. I chose this space because it is in the heart of the traffic between classes in the Hawthorn Building, and because I like the aesthetics of that area. The floor has a somewhat strange but tasteful tile pattern to it, and the stairs have a nice open feeling to them when you're walking up or down them. The corridor is 80' long by 8' wide, and the stairs are also around 8's wide. Corridor spaces use daylight from the windows as a source of light during the day where applicable, but also uses 6", 32W triple tube compact fluorescent downlights. All doorways have a 4" triple tube 18W downlight for additional light when entering or exiting the classroom.



Corridor space leading up to the stairs.

Student lounge area off to the side of the landing of the stairs

Outside Space:

Outside the Hawthorn Building, there isn't much as far as site lighting is concerned. The site lighting is done with architectural lantern style luminaries mounted on architectural steel poles and uses high pressure sodium. At the entrances, there is also canopy down lighting for additional light when entering or exiting the building.