

UNIVERSITY OF PENNSYLVANIA NEURAL AND BEHAVIORAL SCIENCES BUILDING

415 University Ave, Philadelphia, PA 19104

Reinhardt Swart | Lighting + Electrical

Advisor | Shawn Good

Lighting Design Memo

9.9.13

PURPOSE

This lighting design memo outlines the spaces to be studied in detail and redesigned later; upon approval, I will create a cohesive lighting design concept which will lead to a complete lighting solution for the spaces described:

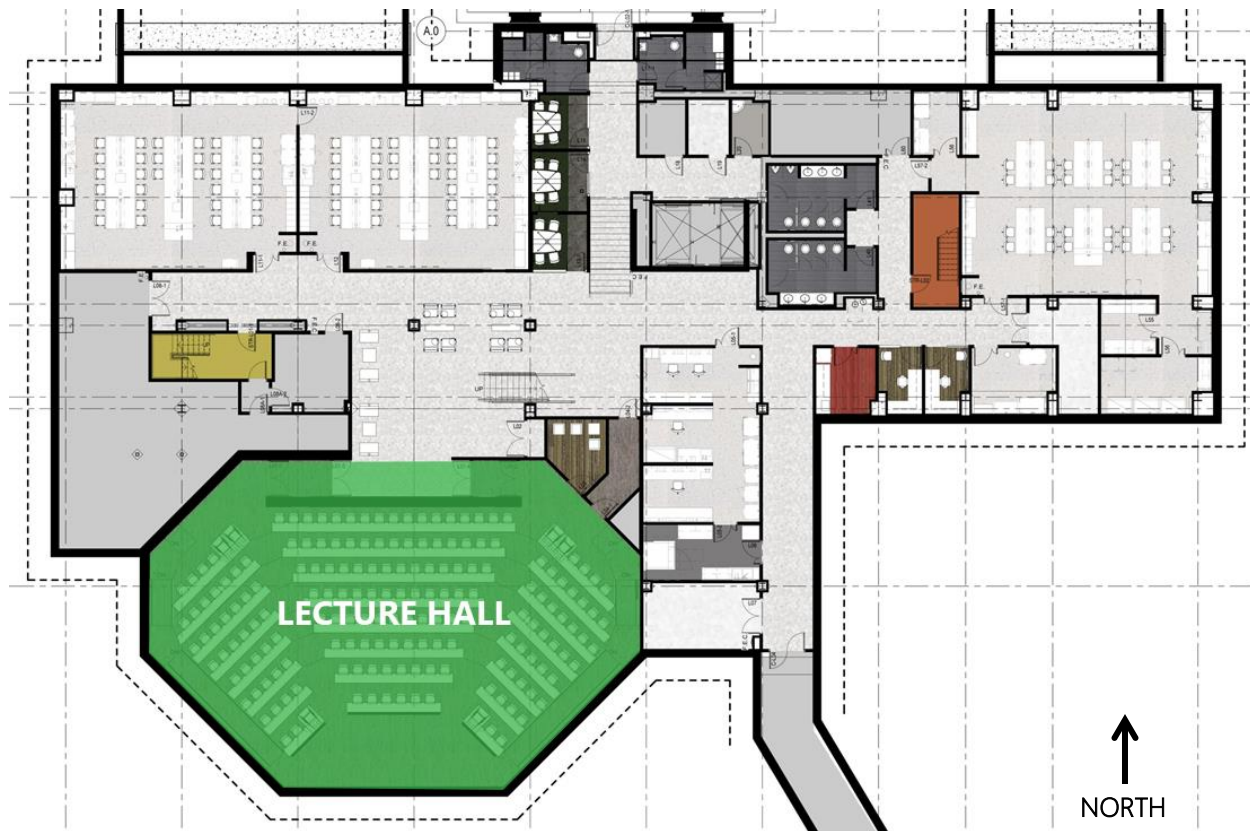
- Special purpose space – lecture hall
- Circulation space – ground floor southern lobby/lounge
- Large work space – ground floor classroom
- Outdoor space – southern façade and site

The ground floor lobby/lounge space will be presented with three design concepts as seen later in the lighting design deliverables. The ceiling design and spatial definition allow for several interesting lighting designs. Likewise, by using light effectively, the lecture hall will instill a public psychological impression on the occupants.



Courtesy of SmithGroupJJR | Southwest Corner

SPECIAL PURPOSE SPACE – LECTURE HALL



The lecture hall is a tiered underground space that houses 174 mobile seats as well as AV equipment and lecture space. The ceiling and walls are custom-made acoustic panels that angulate throughout the space.

DIMENSIONS

Area – 3200 ft².

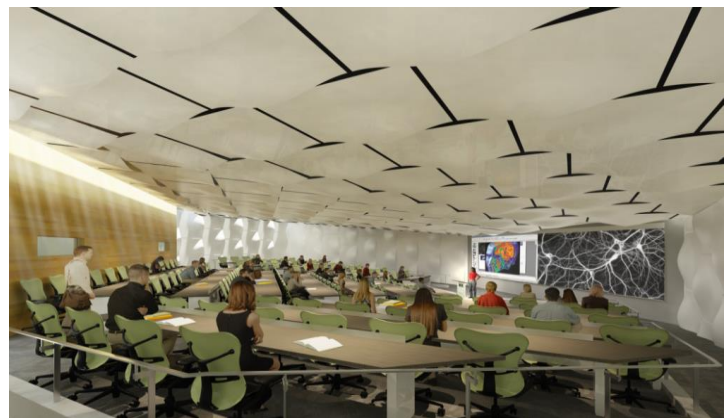
Approx. width – 90'

Approx. length – 55'

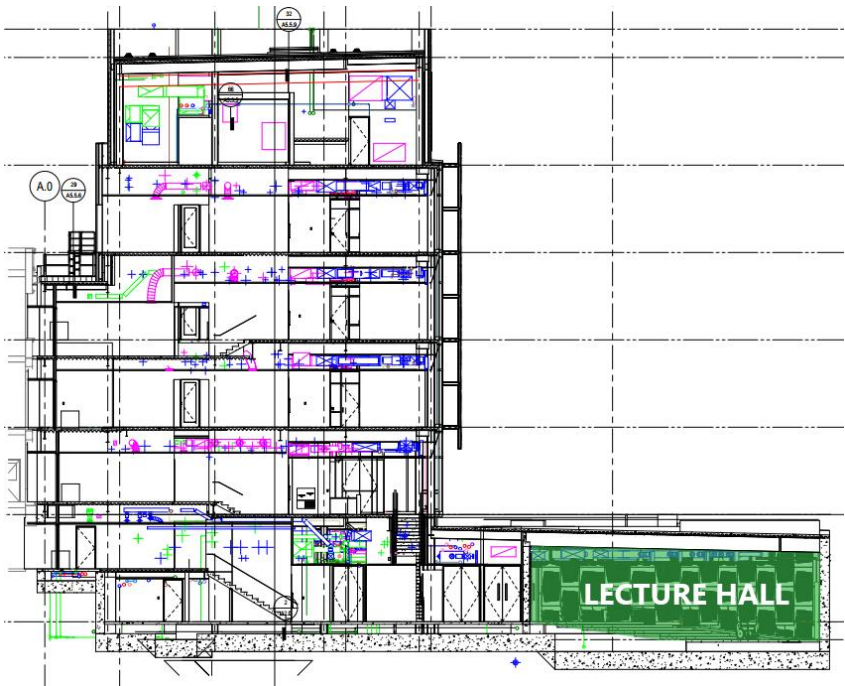
Approx. ceiling height – 13'

TASKS/ACTIVITIES

Reading, writing, computer use,
AV presentations (projectors),
performance



NORTH-SOUTH SECTION



MATERIAL PALLETTE

Ceiling – special acoustic ceiling panel with iron ore accent paint

Walls – acoustic wall panels, yellow wood veneer

Floor – resilient sheet flooring

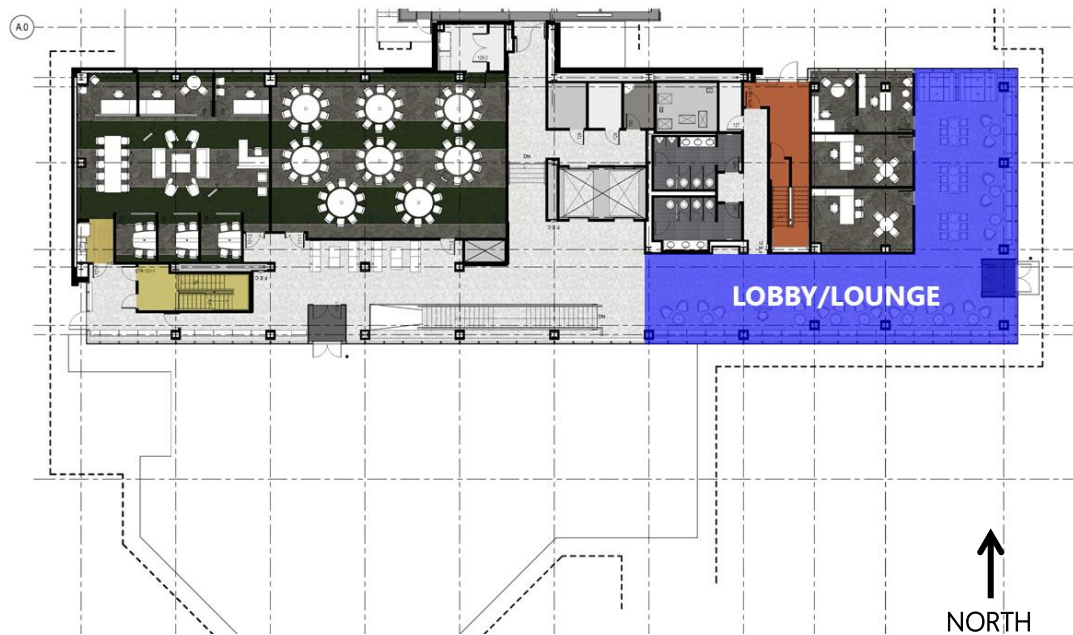


FURNITURE

The lecture hall houses comfortable mobile seating including space for six handicap accessible spots. The space has AV projectors, rolling screens, whiteboards, and lecturer stands.



CIRCULATION SPACE – GROUND FLOOR LOBBY/LOUNGE



The main lobby and lounge is a welcoming space that is abundantly lit by daylight. The ceiling is kinetic in form and promises to provide opportunities for a unique lighting solution.

DIMENSIONS

Area – 1180 ft².

Approx. width – 80' (L-shaped)

Approx. length – 60' (L-shaped)

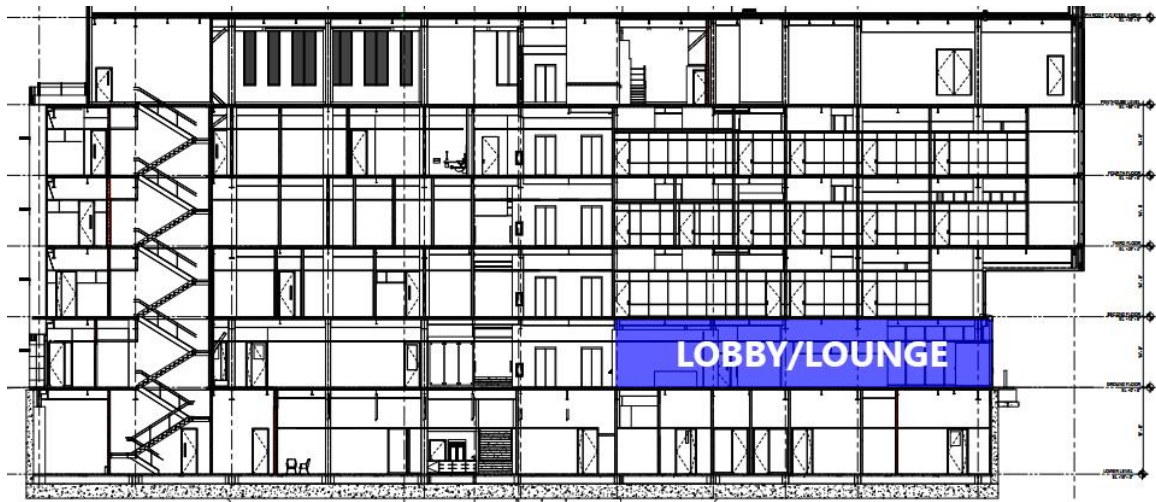
Approx. ceiling height – 9'6"

TASKS/ACTIVITIES

Public transition space, some reading and writing



EAST-WEST SECTION



MATERIAL PALLETTE

Ceiling – acoustic wood ceiling with various hole sizes and some areas with typical acoustic ceiling tile

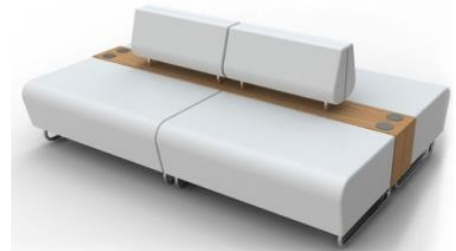
Walls – writable glass walls, insulated glazing units, white painted sections

Floor – terrazzo tile

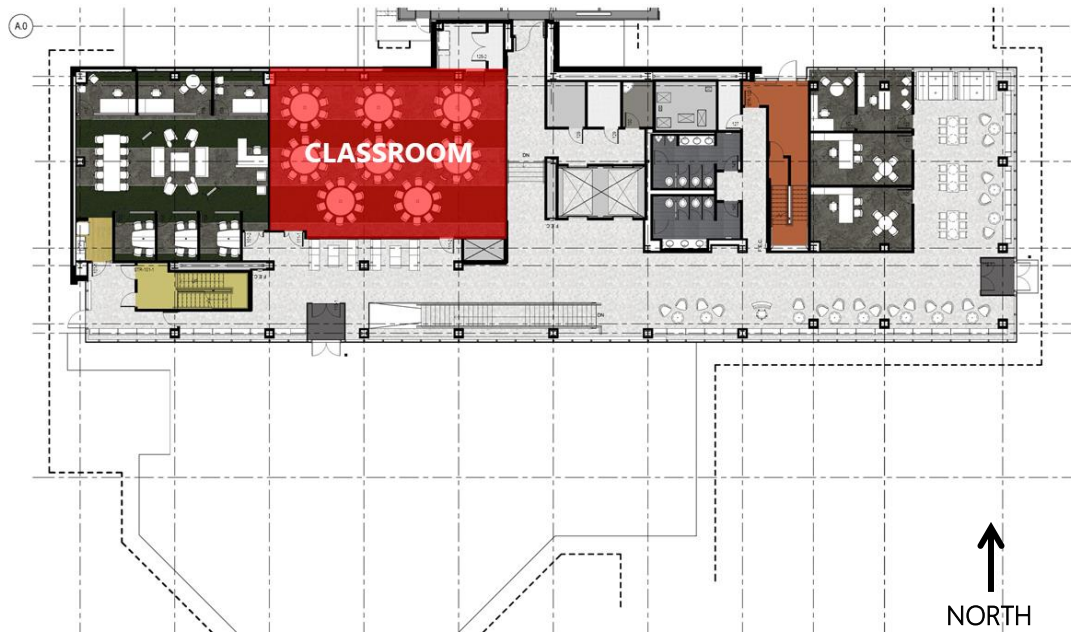


FURNITURE

The public spaces are furnished as to promote community and public interaction. The seating is mobile and modern. The open space and furniture encourages collaboration and discussion between the users of the NSB Building.



LARGE WORKSPACE SPACE – GROUND FLOOR CLASSROOM



On the ground floor, there is a large classroom arranged to inspire collaboration and teamwork. Modern classroom furniture and equipment is placed in the space. Located to the north, this space has good diffuse daylight ideal for classroom work.

DIMENSIONS

Area – 1700 ft².

Approx. width – 50'

Approx. length – 34'

Approx. ceiling height – 9'6"

TASKS/ACTIVITIES

Reading, writing, computer use,
AV presentations (projectors)

EAST-WEST SECTION



MATERIAL PALLETE

Ceiling – acoustic ceiling tile

Walls – white eggshell paint

Floor – dark green/gray carpet tile

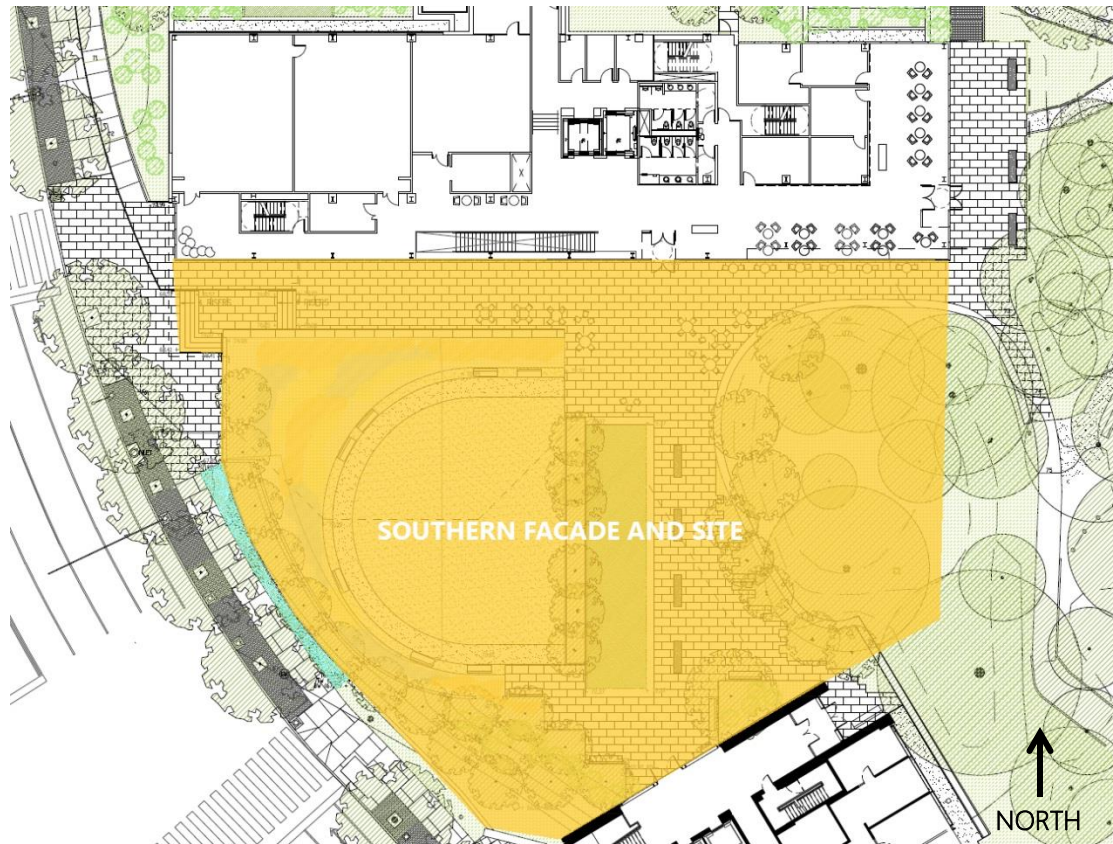


FURNITURE

The classroom has several large collaborative seating areas with mobile chairs. The round collaboration desks are designed for computer and laptop use and are chosen to accommodate for projector presentations.



OUTDOOR SPACE – SOUTHERN FAÇADE AND SITE



The scrim on the southern wall allows for a distinctive and interesting lighting design solution that further identifies the NBS building and reinforces the overall lighting scheme. The outdoor lighting will focus on the scrim façade and corresponding site.

DIMENSIONS

Site area – 20000 ft²

Approx. scrim width – 140'

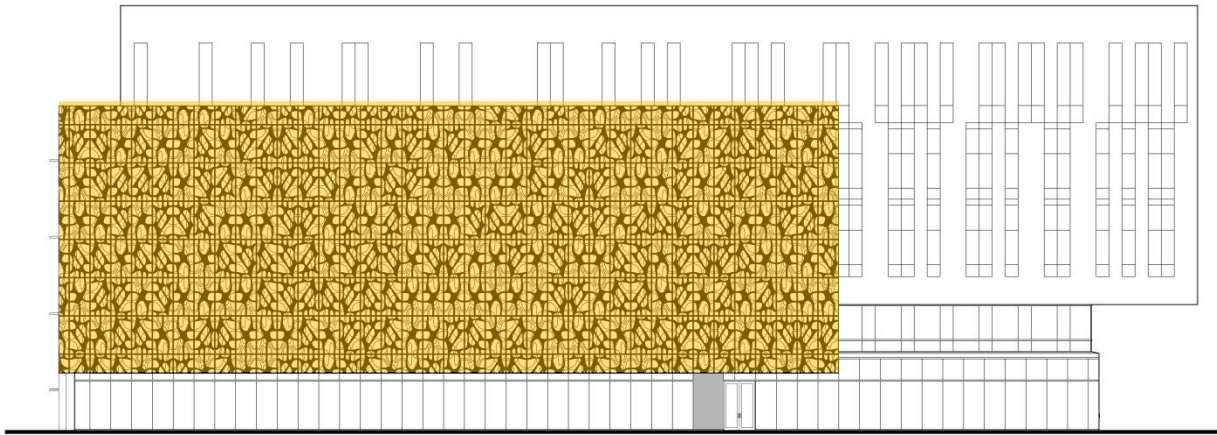
Approx. scrim height – 48'

TASKS/ACTIVITIES

Public entrance, façade,
outdoor movement



SOUTHERN ELEVATION



SCRIM FAÇADE

Solid and perforated aluminum panels backed by curtain wall insulated glazing units and metal panels.

MATERIALS/PLANTING

The outdoor space consists of various types of planting including sycamore maple, crabapple, American beech, and horsechestnut trees. The walkways are constructed using bluestone pavers, granite curbing, concrete paving, and a wooden bridge.