

PROJECT OBJECTIVES

BUILDING LOCATION

The proposed Electrical Equipment Building is located at the SFPUC South East Plan (Evans and Phelps Street)

PROJECT OBJECTIVE:

To provide a building enclosure for electrical equipment that is “contemporary” in design and responsive to the existing structures on site. The building shall minimize energy usage and incorporate sustainable design practices through the use of daylighting devices and a natural ventilation system. Proposed facility shall also be resistant to the corrosive environment created by the wastewater treatment plant.

Proposed Design Goals Include:

- Use of Natural Daylighting and Shading Devices to reduce energy consumption
- Use of Solar Collection System to generate electricity.
- Use of Natural Ventillation System to reduce energy consumption.
- Materials Reuse (Use of building materials with recycled content).
- Recycling of Rain Water to limit storm water run off into drainage systems.

BUILDING SOLUTION:

A 4,000 square foot facility located parallel to the access road with second floor situated over existing electrical equipment to remain. The plan will allow for a linear circulation pattern that permits personnel to travel through the building from the east side to the west side. The proposed foot print is approximately 52' x 82' with a roof height of 28' to top of parapet.



SFPUC SOUTHEAST PLANT

PROJECT SITE

LEGEND

A. Proposed New Building

1. Secondary Sedimentation Tanks
2. Secondary Sludge Control Building
3. Gallery
4. Pretreatment Facility
5. Sedimentation Building
6. Aeration Tanks
7. Postchlorination Building
8. Chlorine Contact Channels
9. Administration Laboratory Buildings
10. Sedimentation Buildings
11. Dryer Building
12. Service Building
13. Operators Building
14. Small Concrete Building



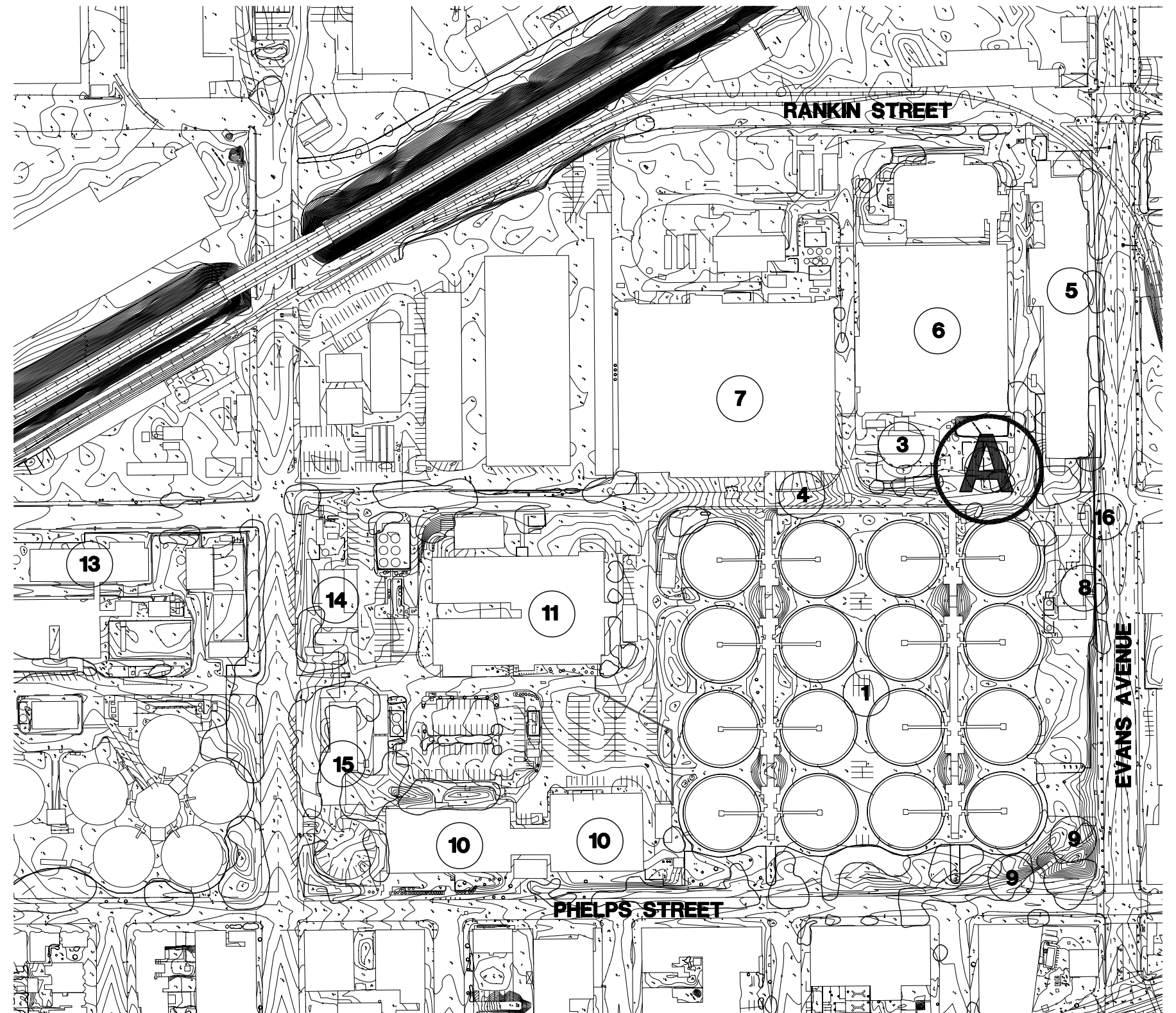
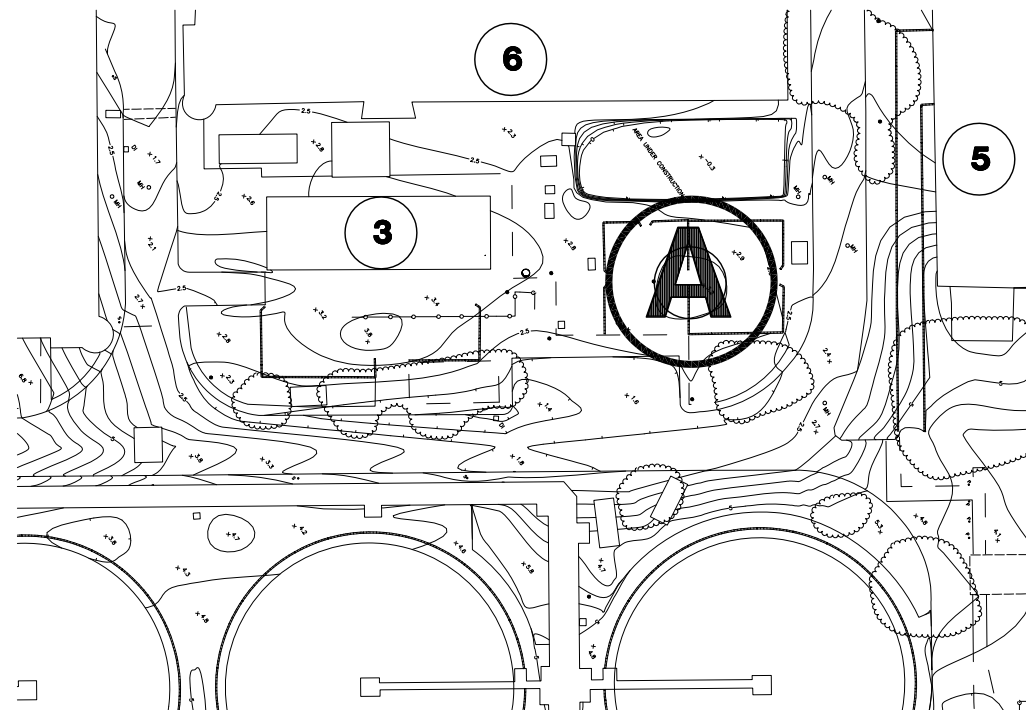
SITE SURVEY

Location of Proposed Building

A Proposed New Building

EXISTING SURROUNDING STRUCTURES

- | | |
|-------------------------------------|----------------------------------------|
| 1 SECONDARY SEDIMENTATION TANKS | 9 CHLORINE CONTACT CHANNELS |
| 2 PRIMARY POWER SWITCHING STATION | 10 ADMINISTRATION/LABORATORY BUILDINGS |
| 3 SECONDARY SLUDGE CONTROL BUILDING | 11 SEDIMENTATION BUILDINGS |
| 4 GALLERY | 12 DIGESTERS |
| 5 PRETREATMENT FACILITY | 13 DRYER BUILDING |
| 6 SEDIMENTATION BUILDING | 14 SERVICE BUILDING |
| 7 AERATION TANKS | 15 OPERATORS BUILDING |
| 8 POSTCHLORINATION BUILDING | 16 SMALL CONCRETE BUILDING |



0 100' 200' 300'
SCALE: 1" = 100'



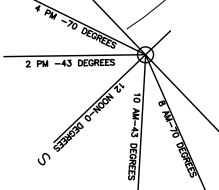
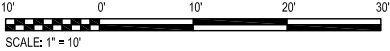
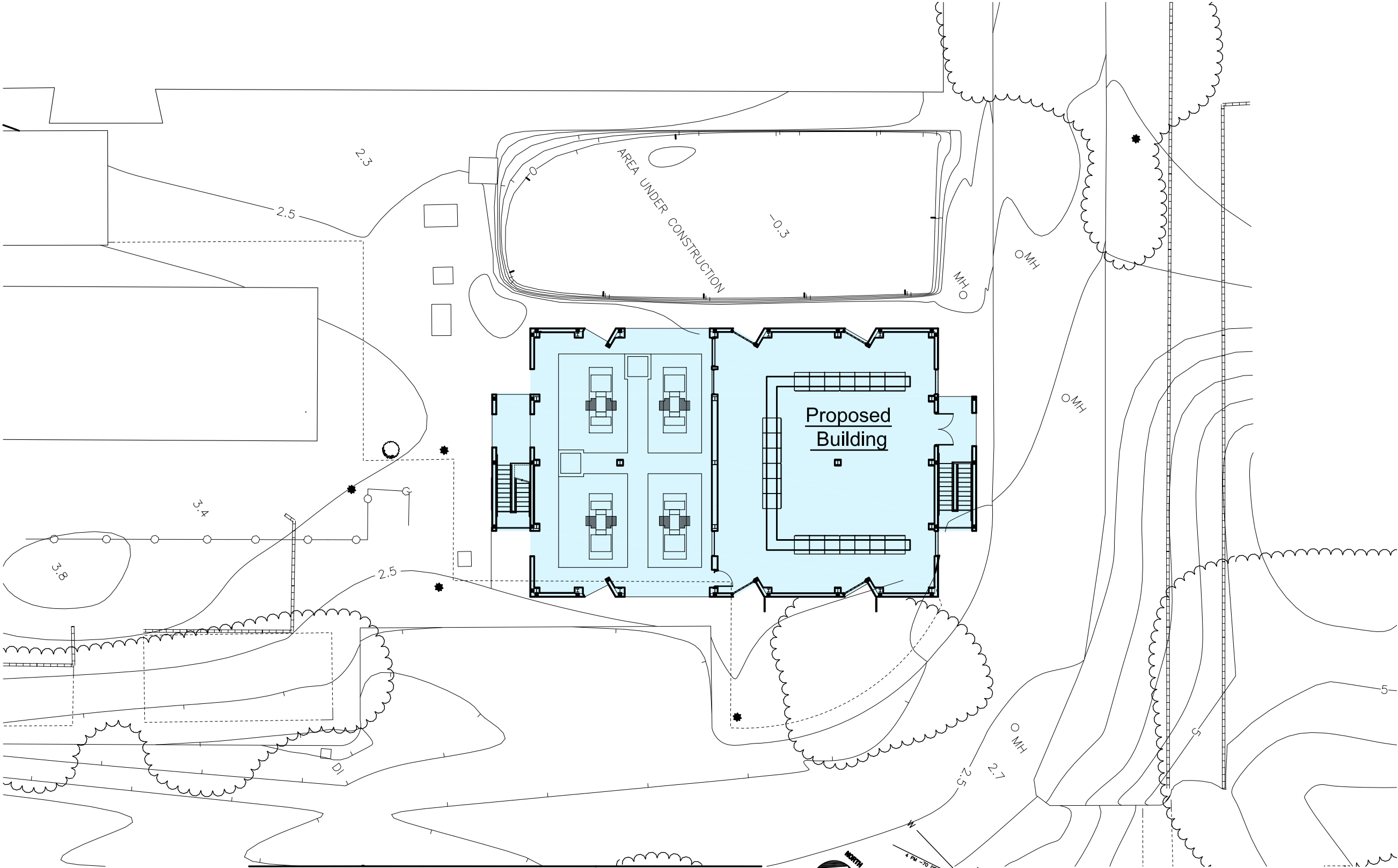
SITE AND SURROUNDING AREA



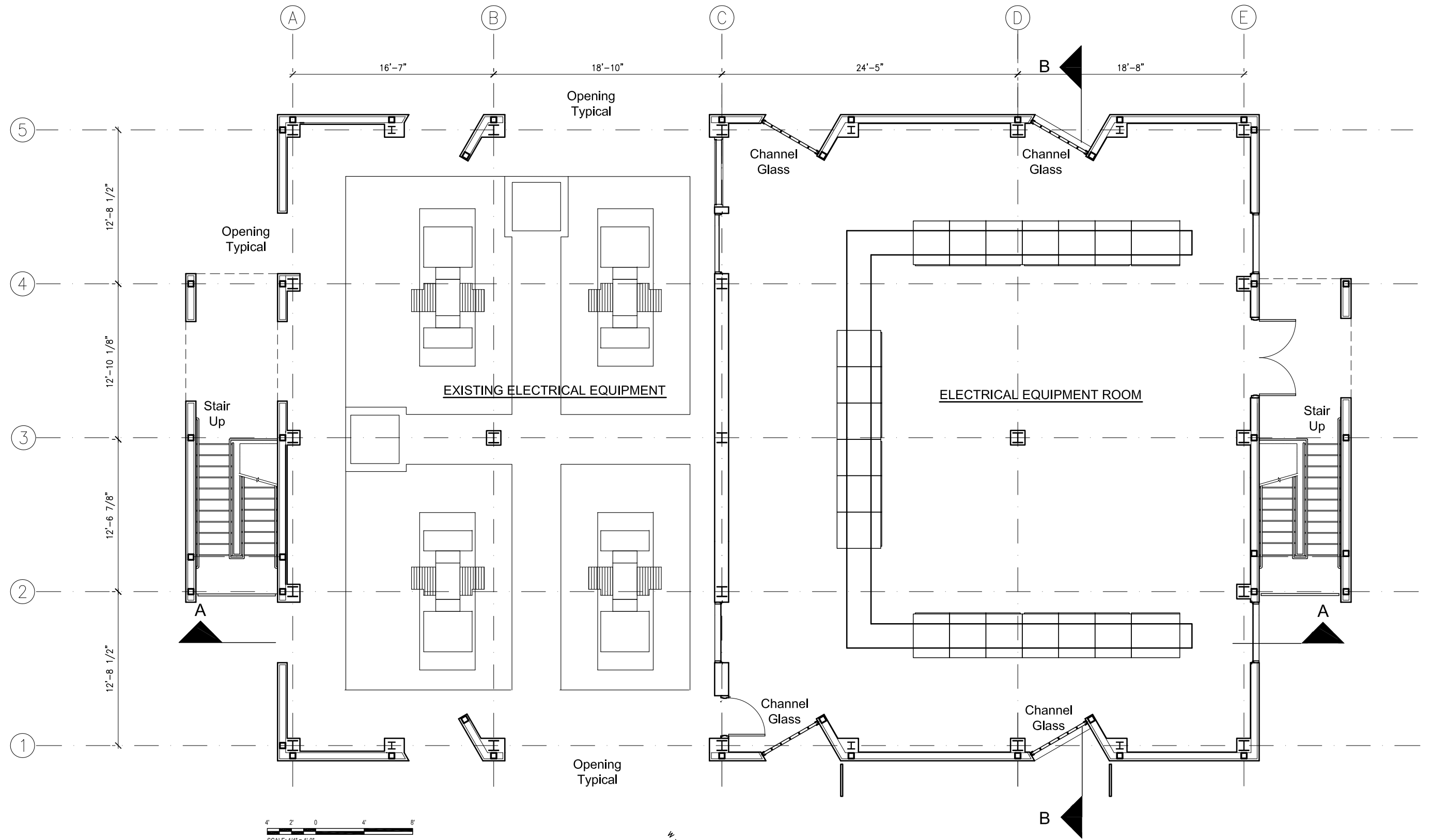
SITE AND SURROUNDING AREA



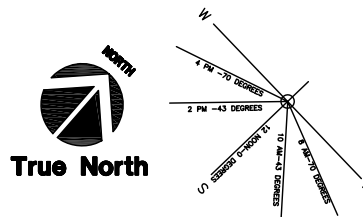
SITE PLAN



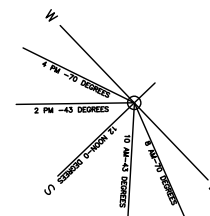
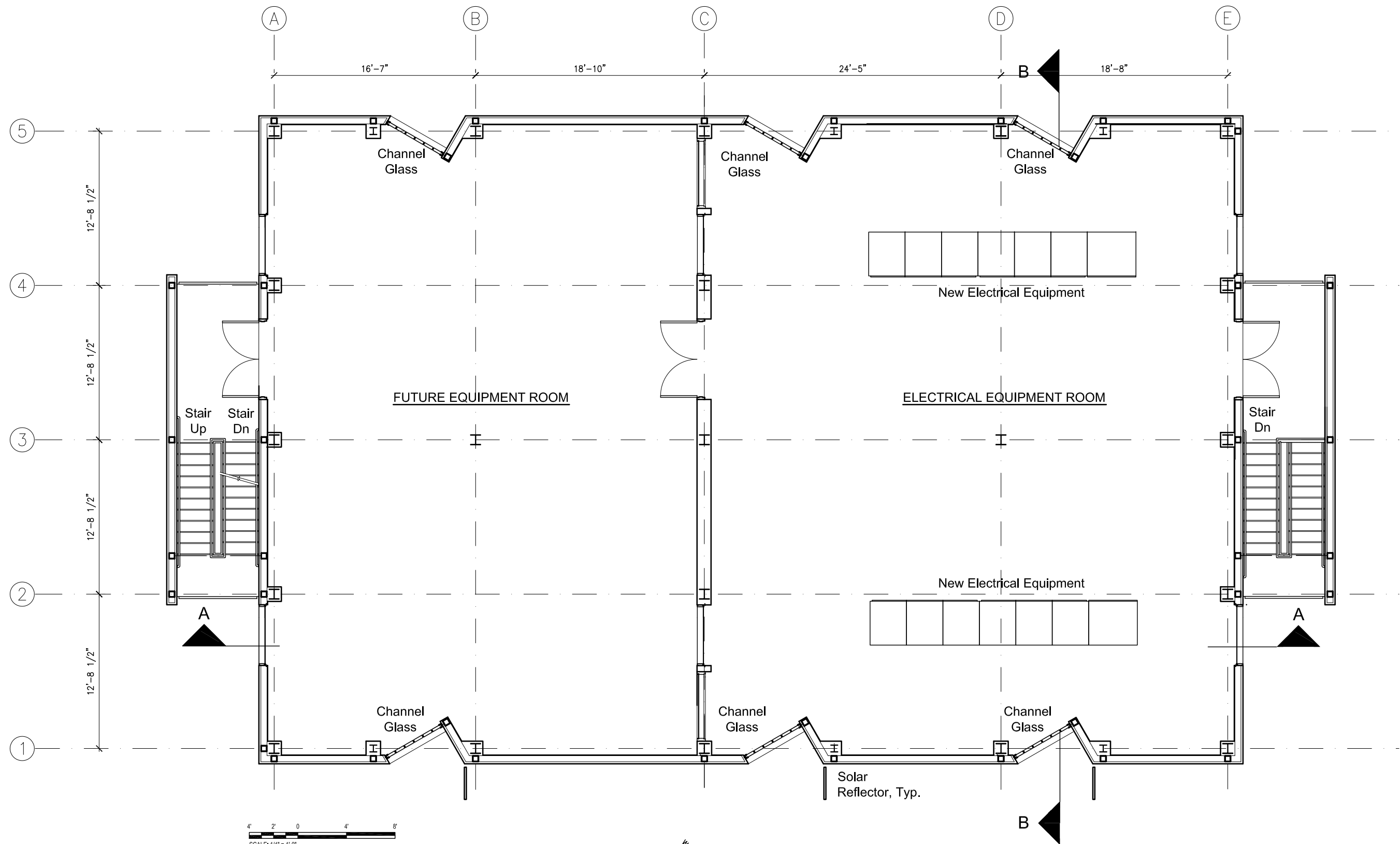
FIRST FLOOR PLAN



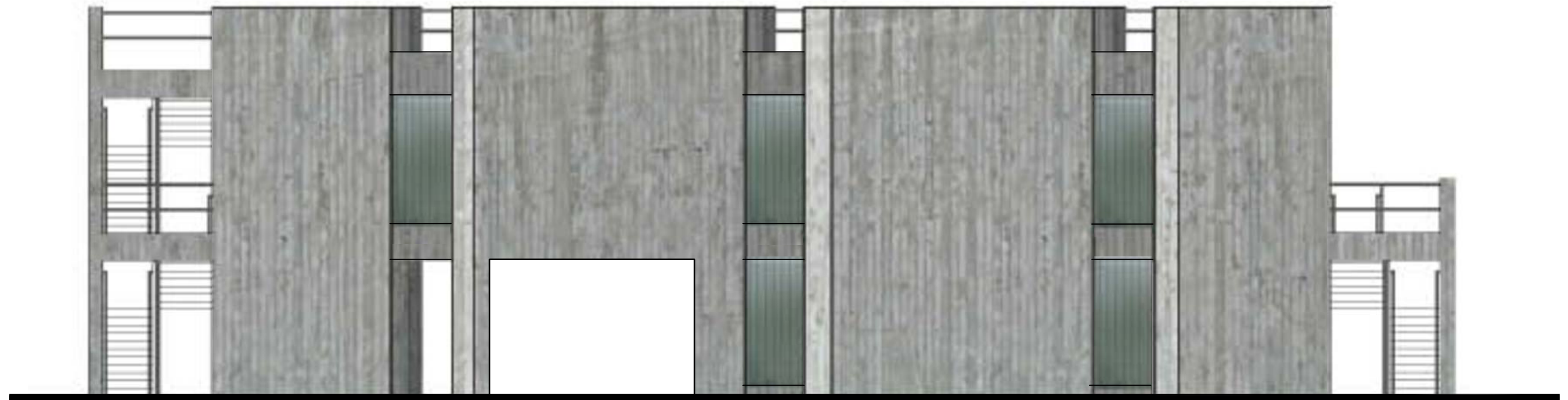
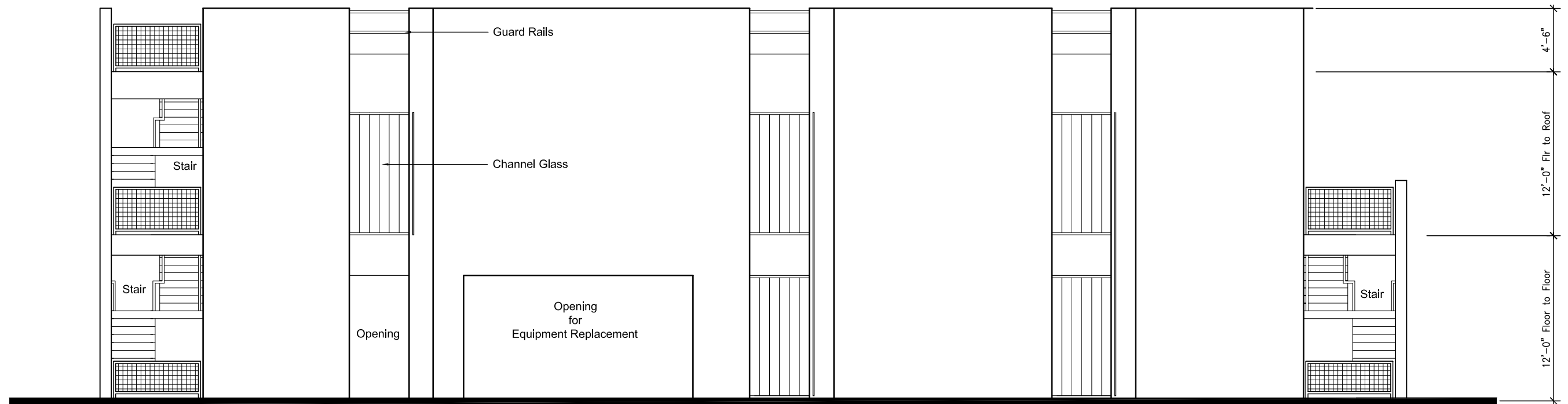
SCALE: 1/4" = 1'-0"



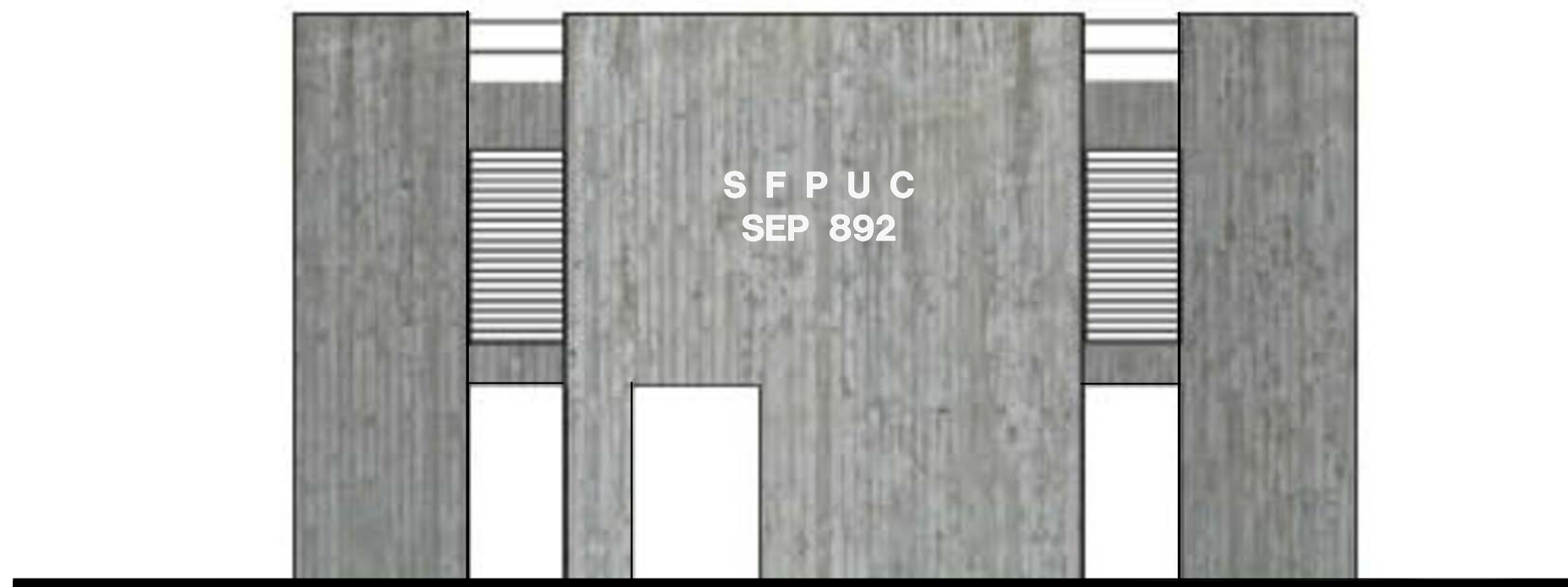
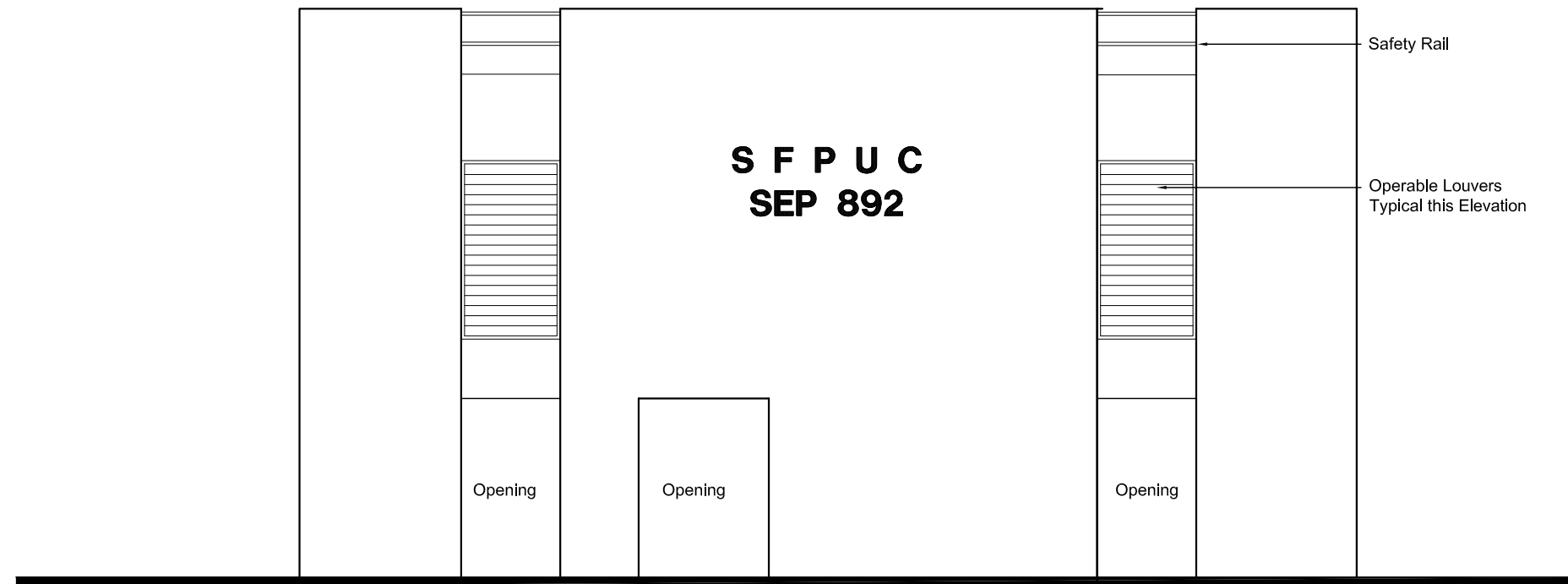
SECOND FLOOR PLAN



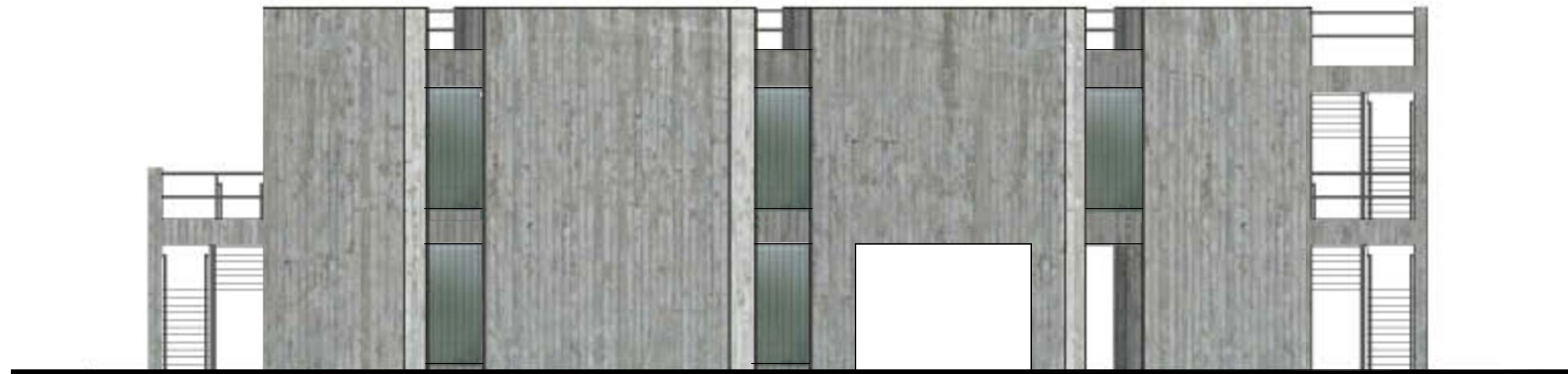
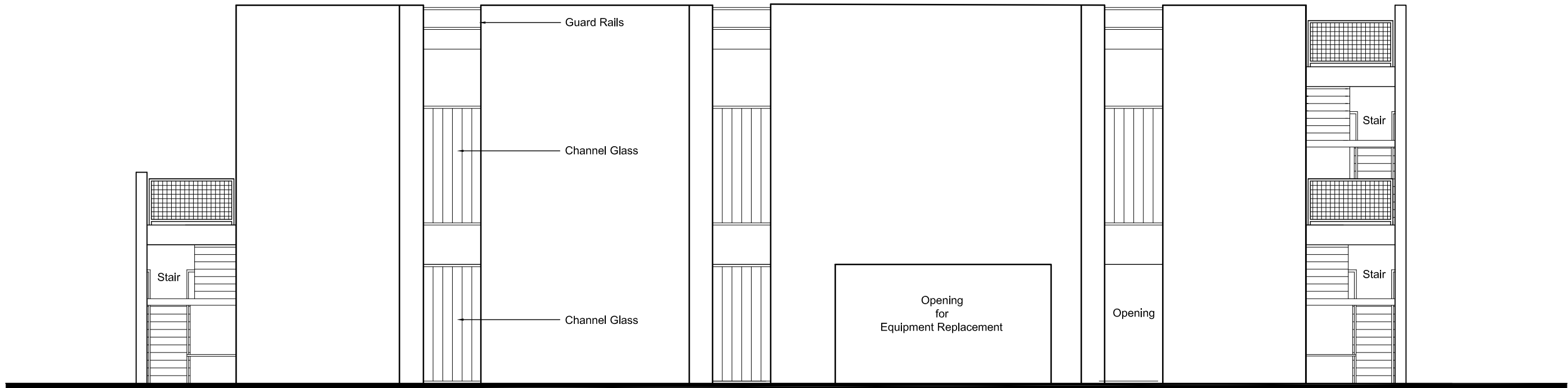
SOUTH EXTERIOR ELEVATION



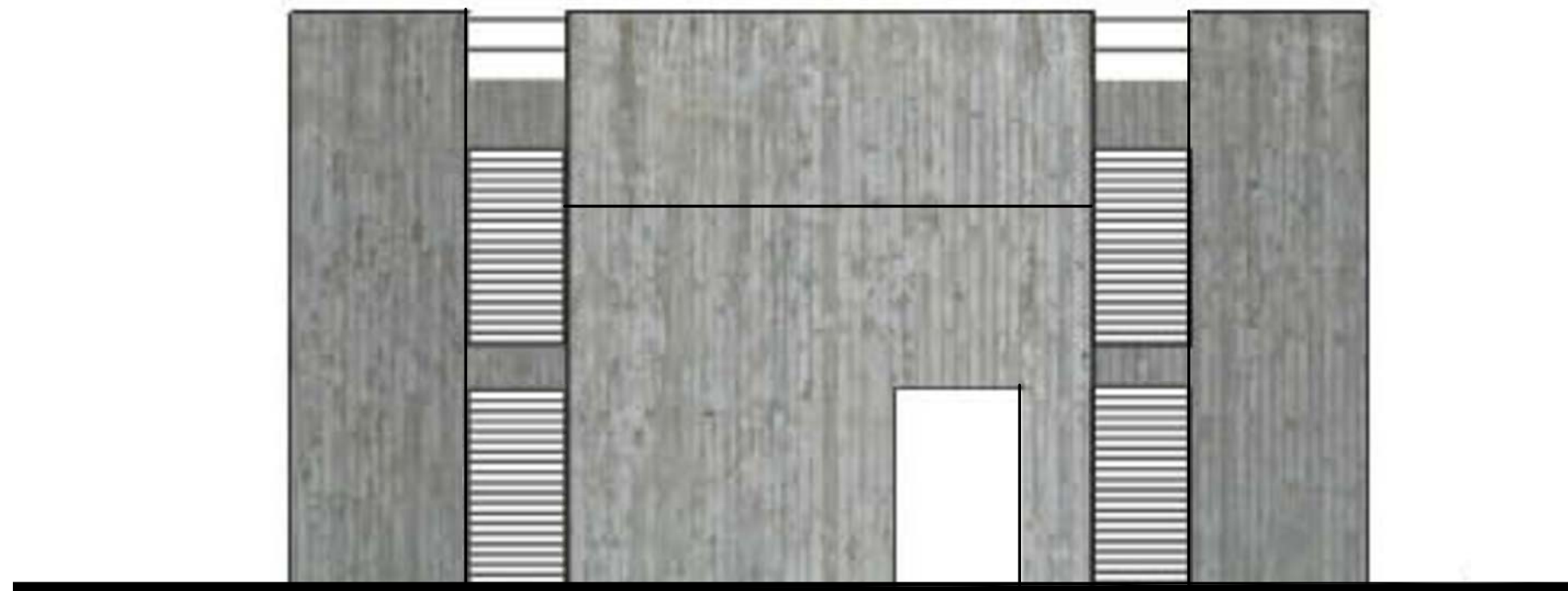
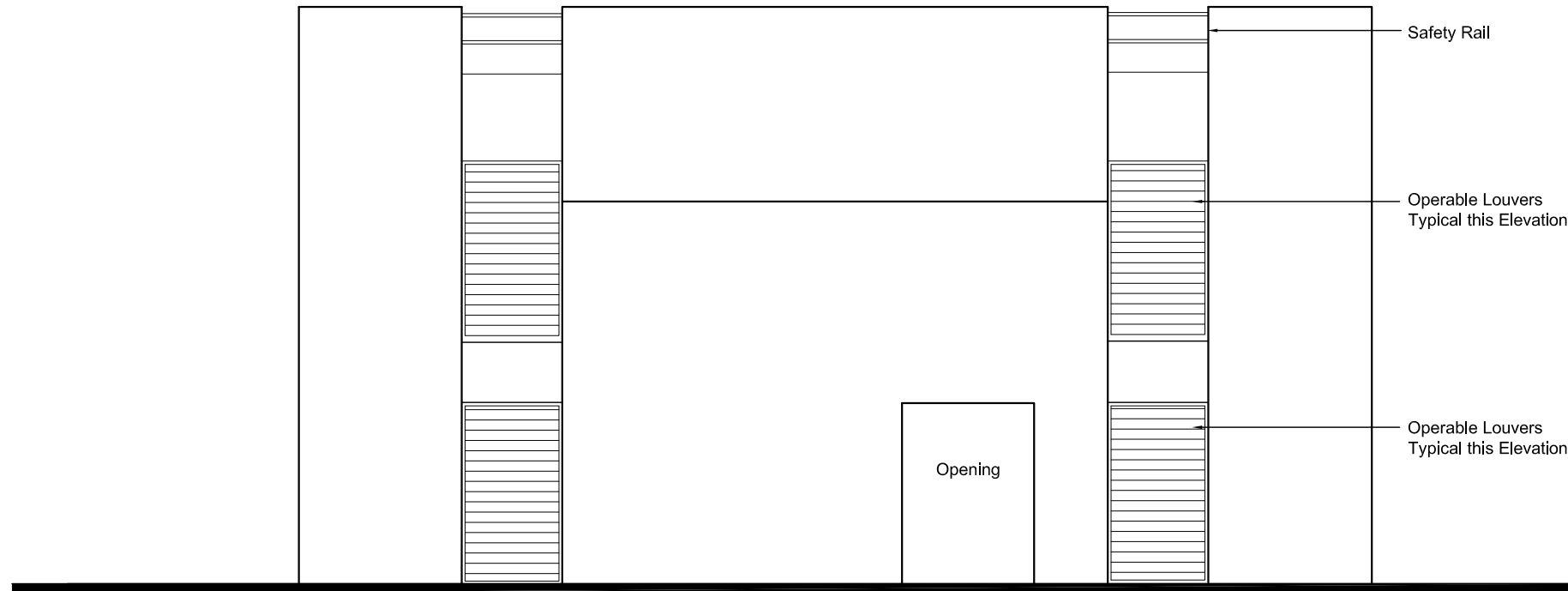
WEST EXTERIOR ELEVATION



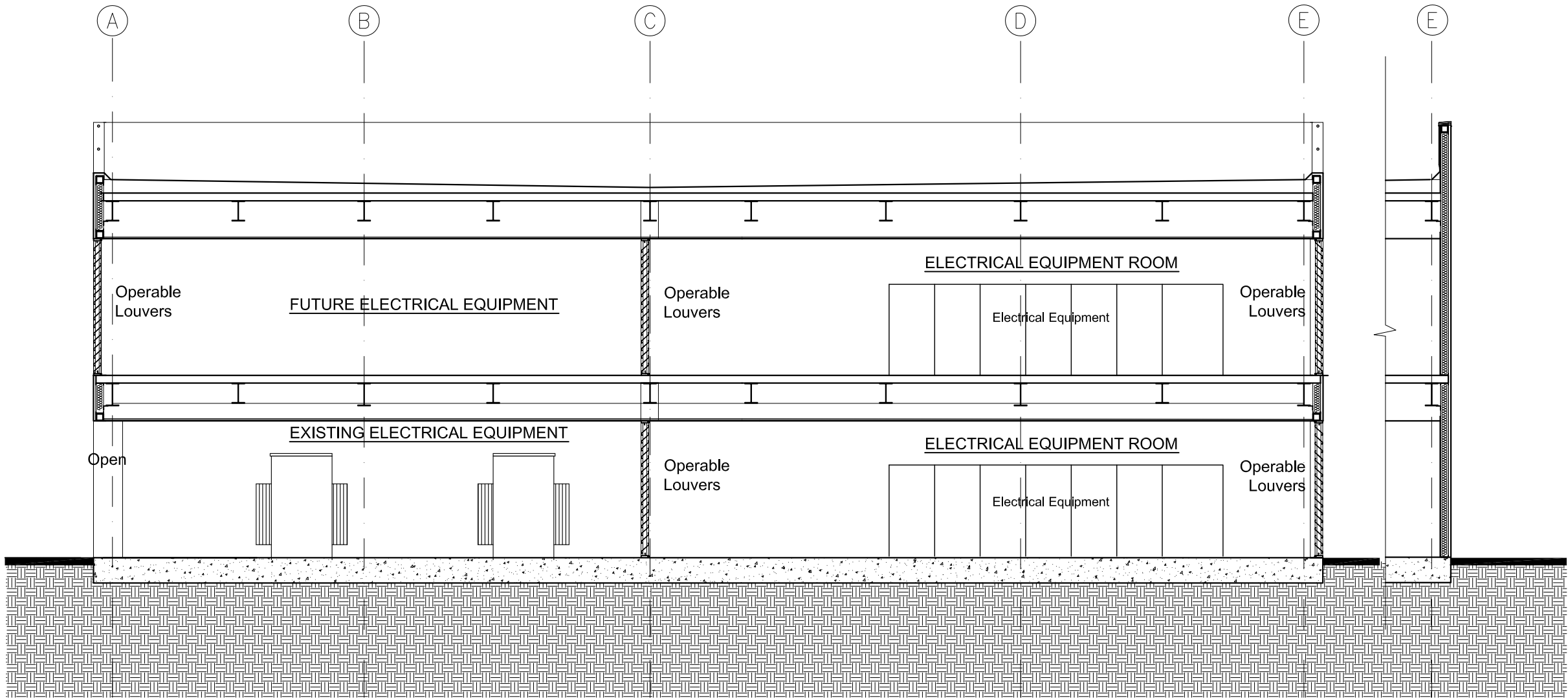
NORTH EXTERIOR ELEVATION



EAST EXTERIOR ELEVATION



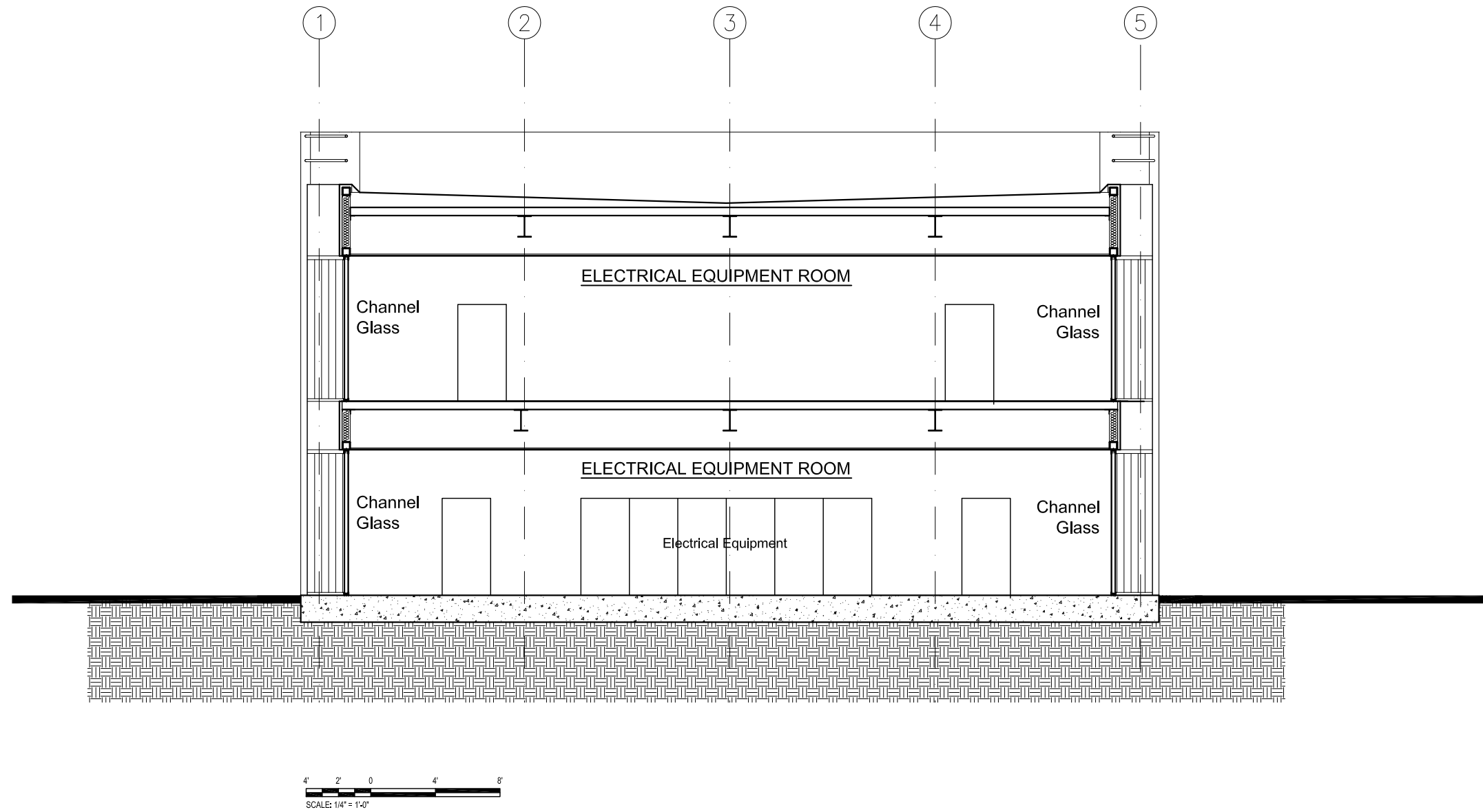
SECTIONS



4' 2' 0' 4' 8'
SCALE: 1/4" = 1'-0"



SECTIONS



STUDY SKETCHES - MASSING MODELS



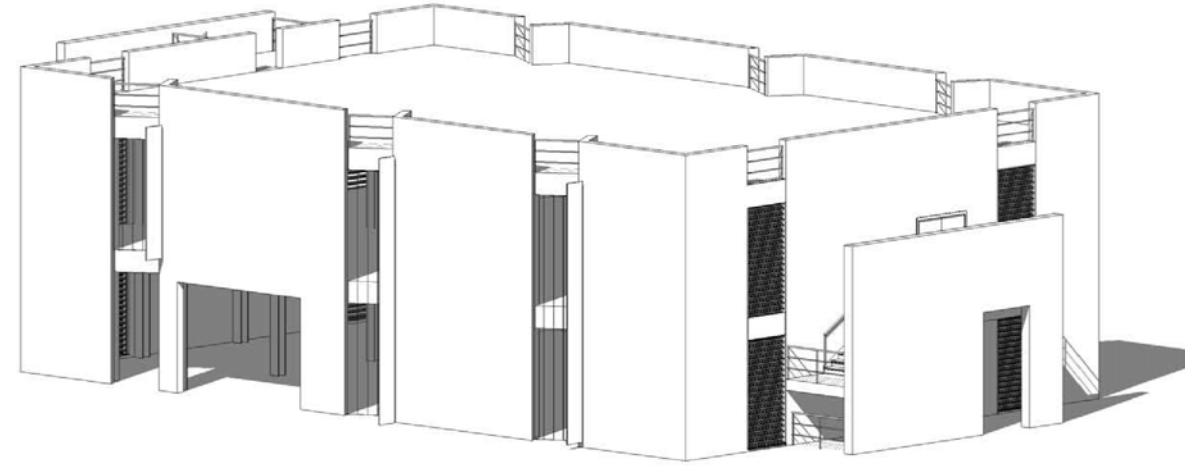
Study Sketch - Day View



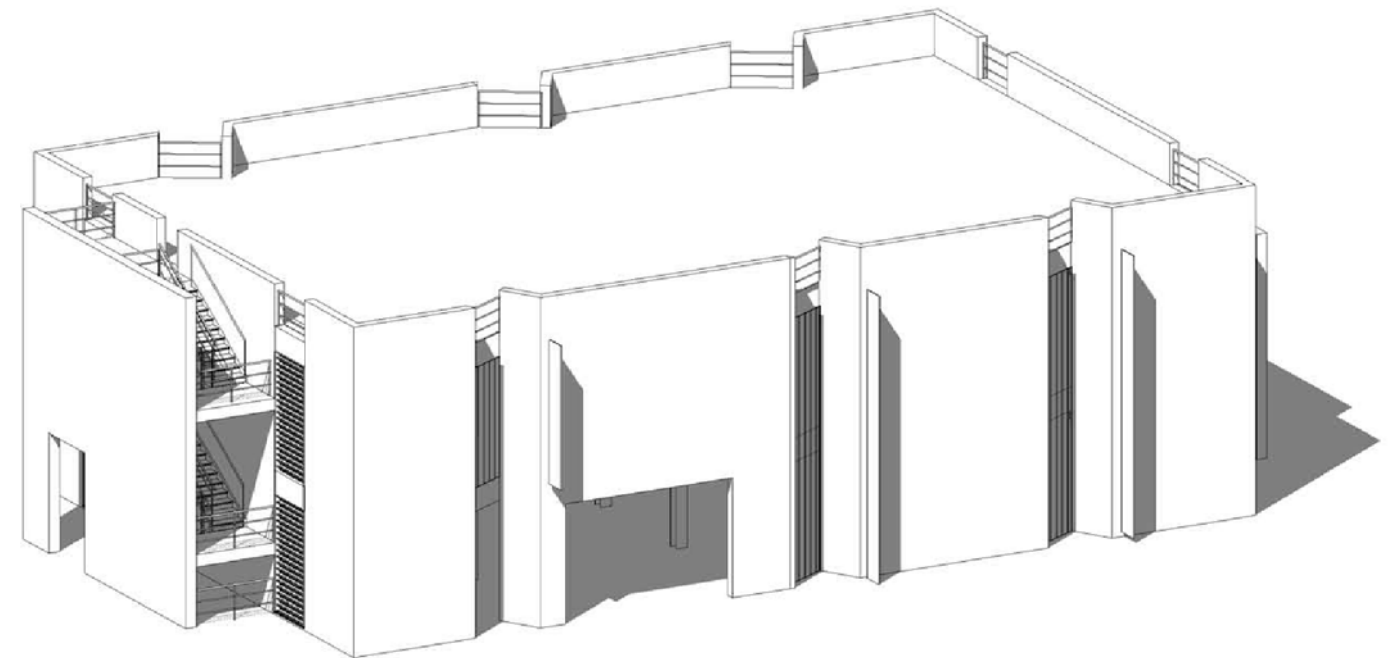
Study Sketch - Night View



Channel Glass

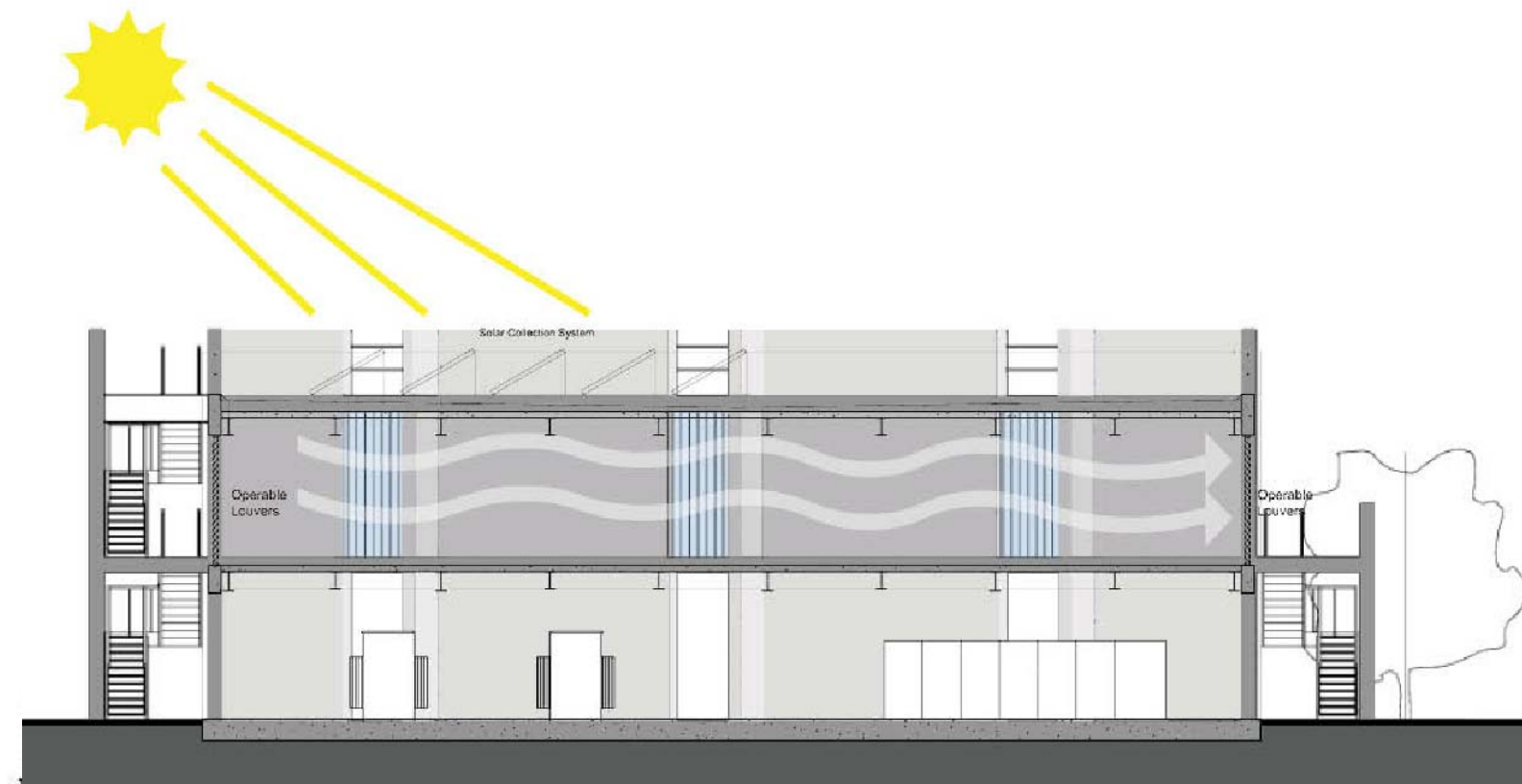
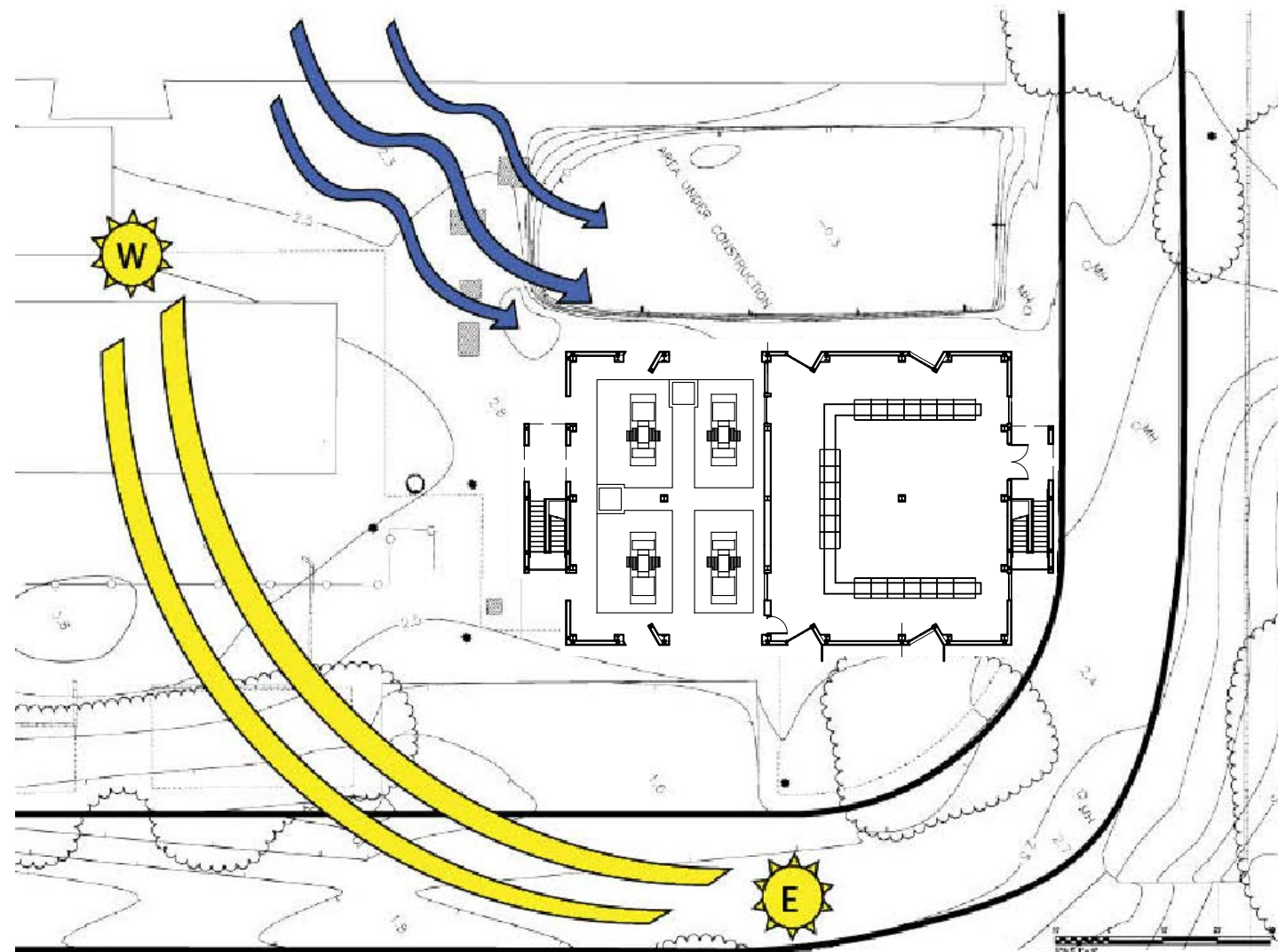


Isometric



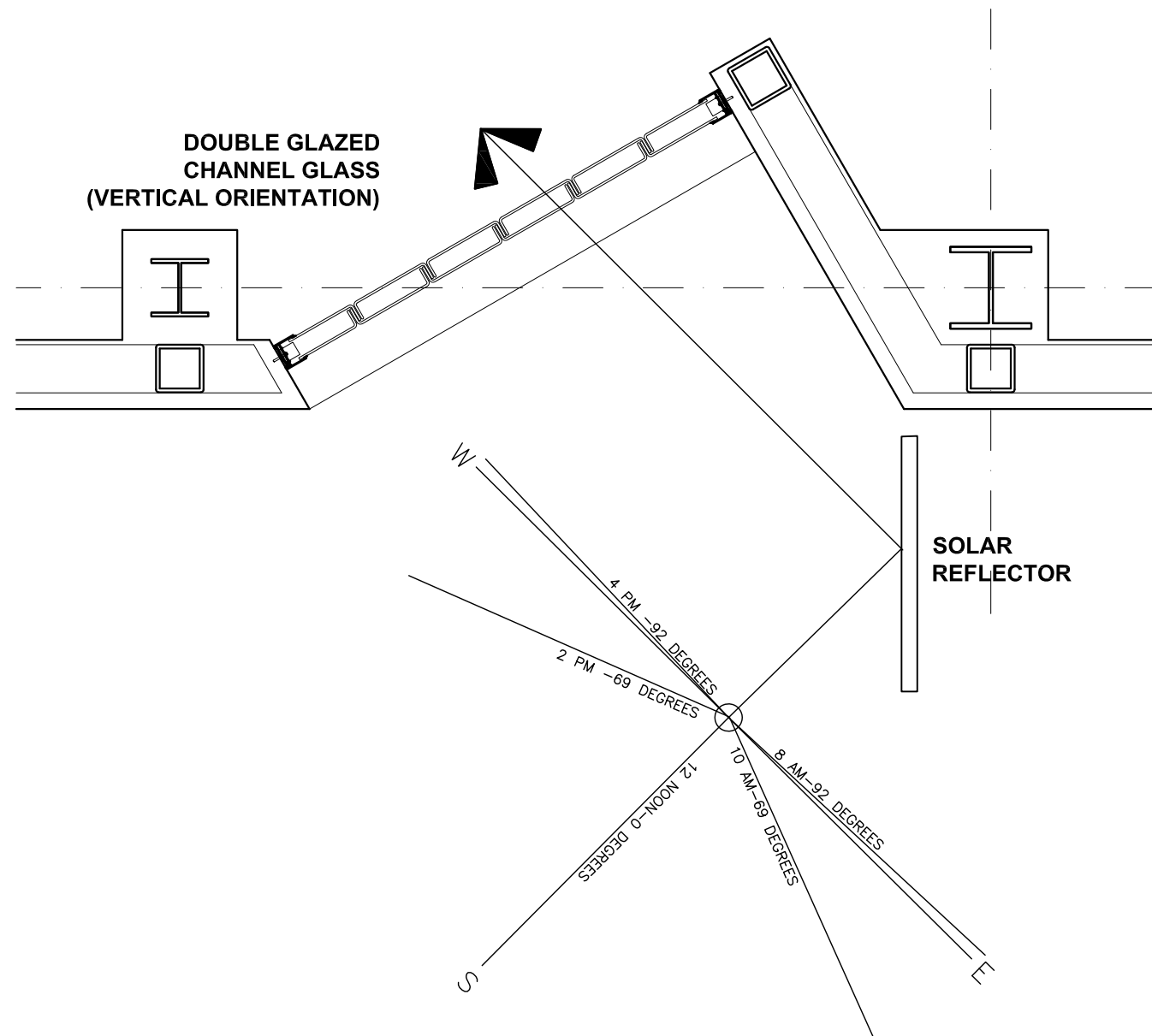
Isometric

SUN AND WIND



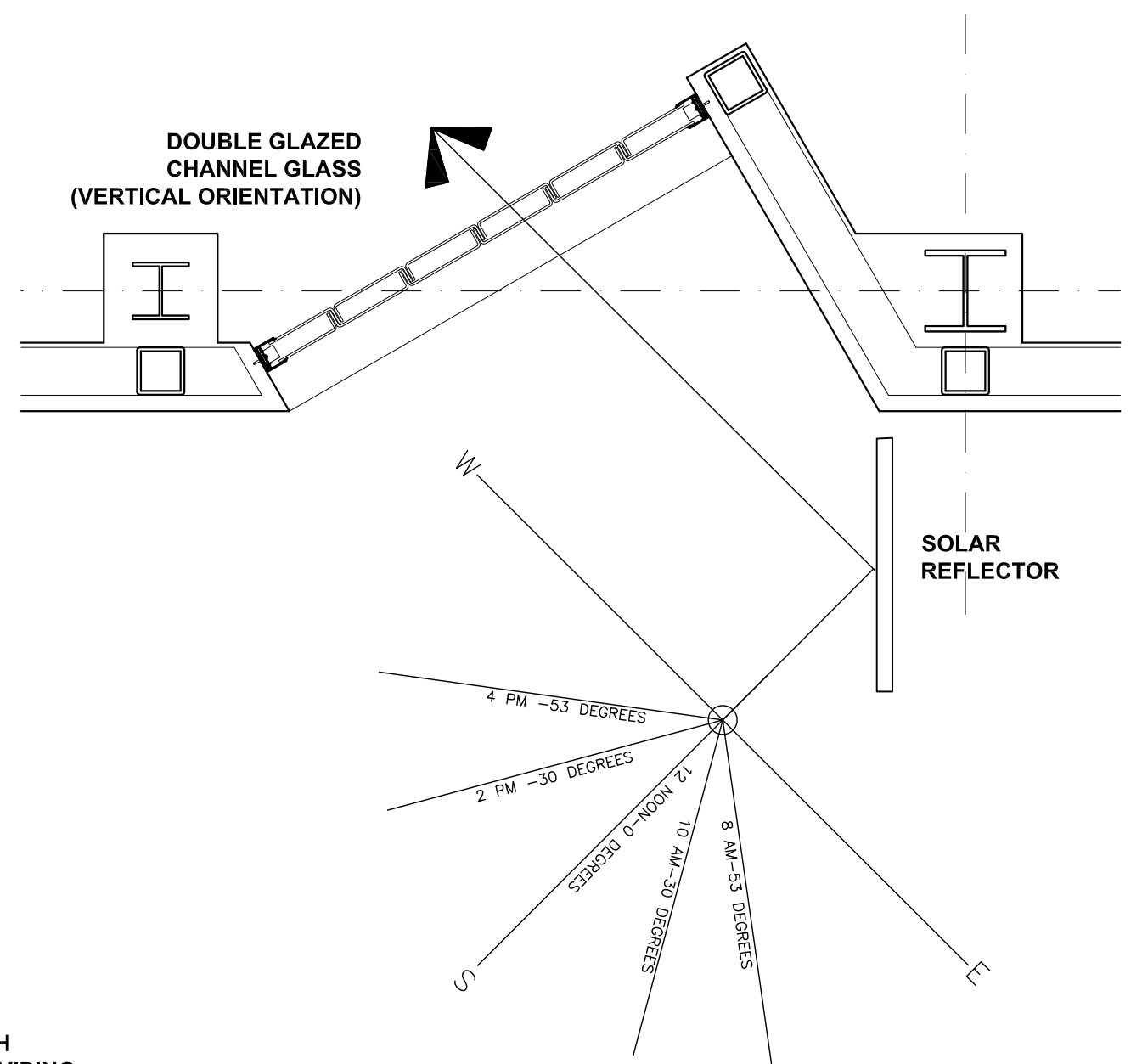
PLAN AND SECTION DIAGRAMS

SOLAR ANGLES



JUNE 21
(SUMMER SOLSTICE)

MORNING SUN WITH SOLAR REFLECTOR PROVIDING DAYLIGHT IN EARLY AFTERNOON HOURS (REDUCING HEAT GAIN FOR ELECTRICAL EQUIPMENT)



DECEMBER 21
(WINTER SOLSTICE)

