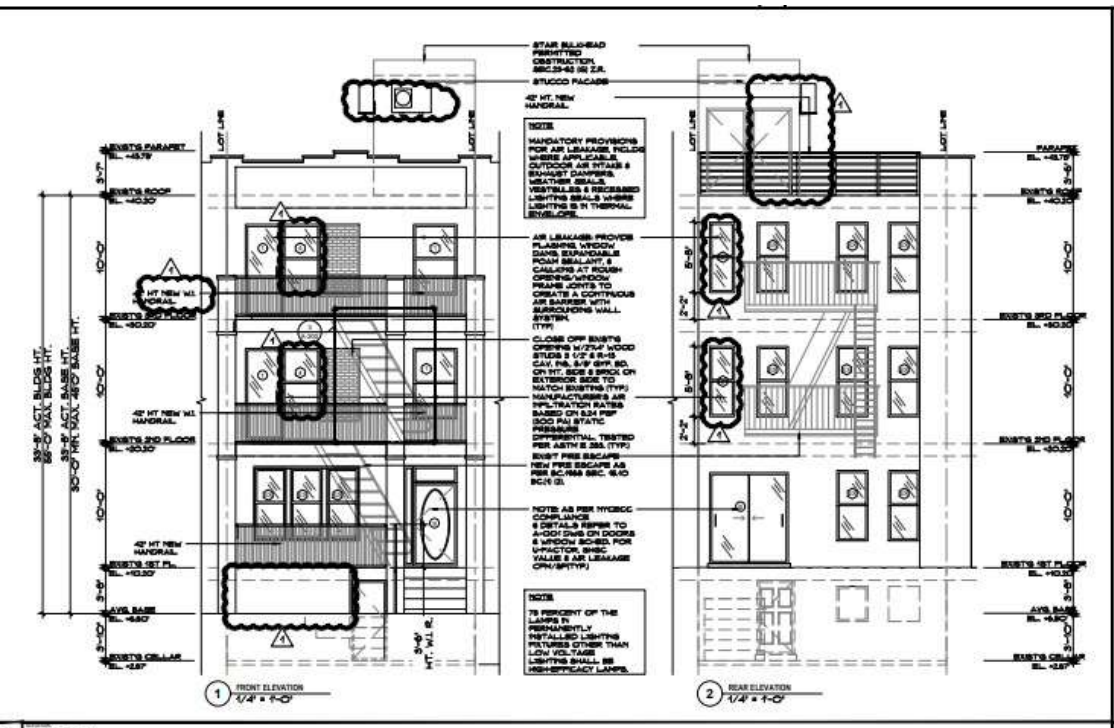
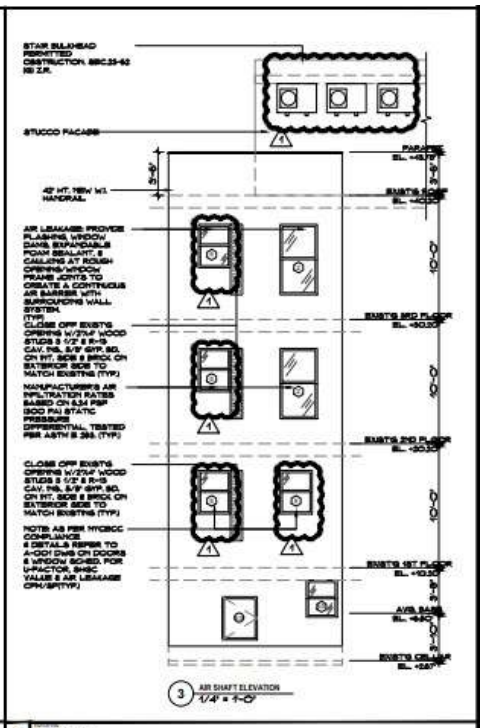
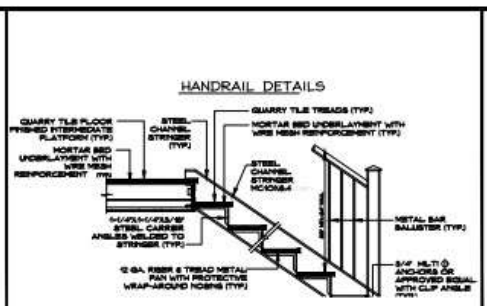


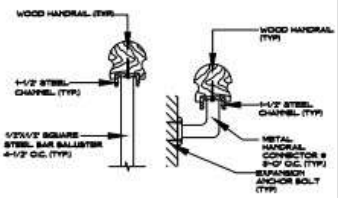


1 ELEVATION

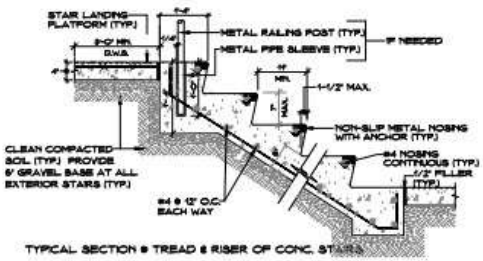
2 AIR SHAFT



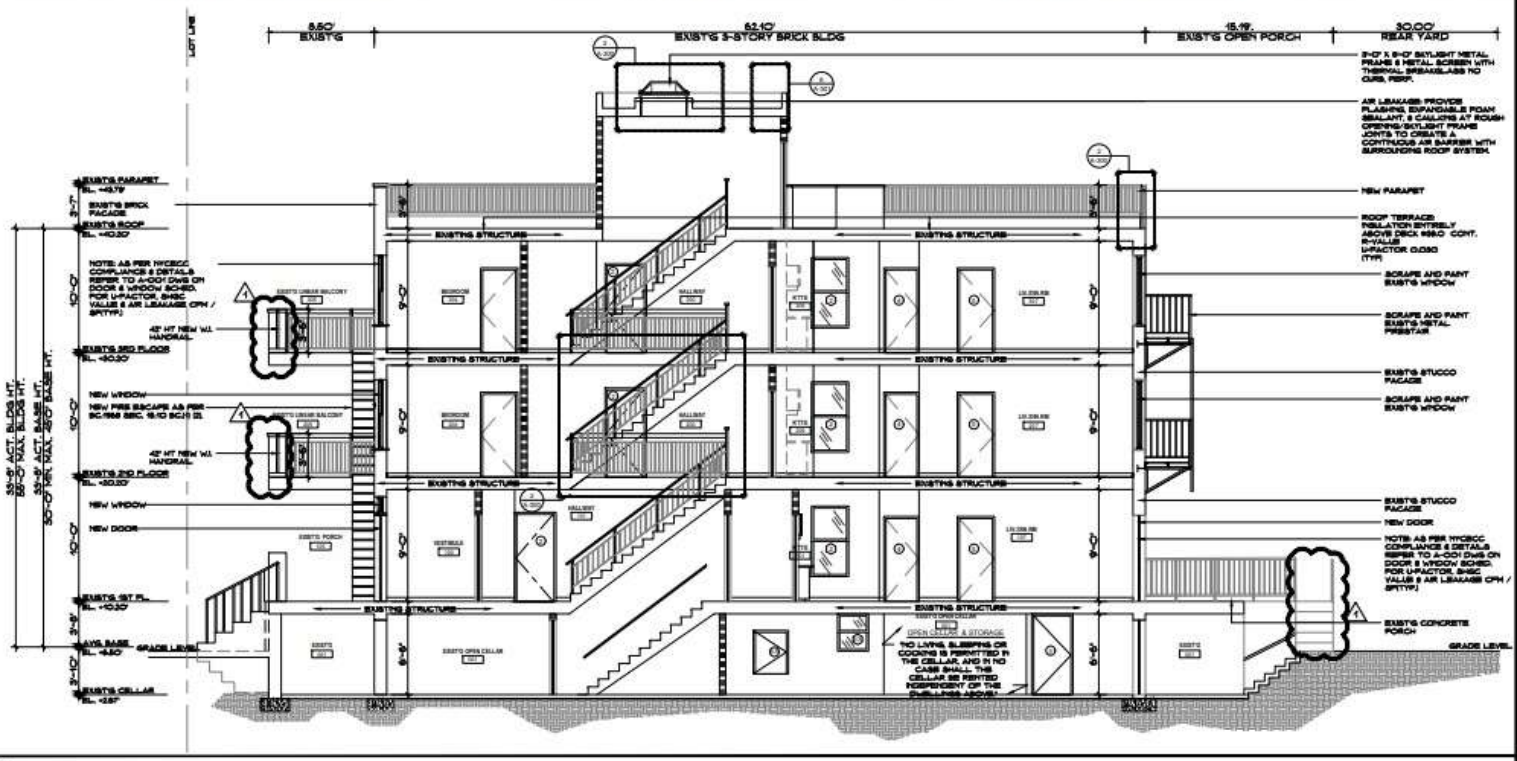
2 TYPICAL STAIR DETAIL (INTERIOR)



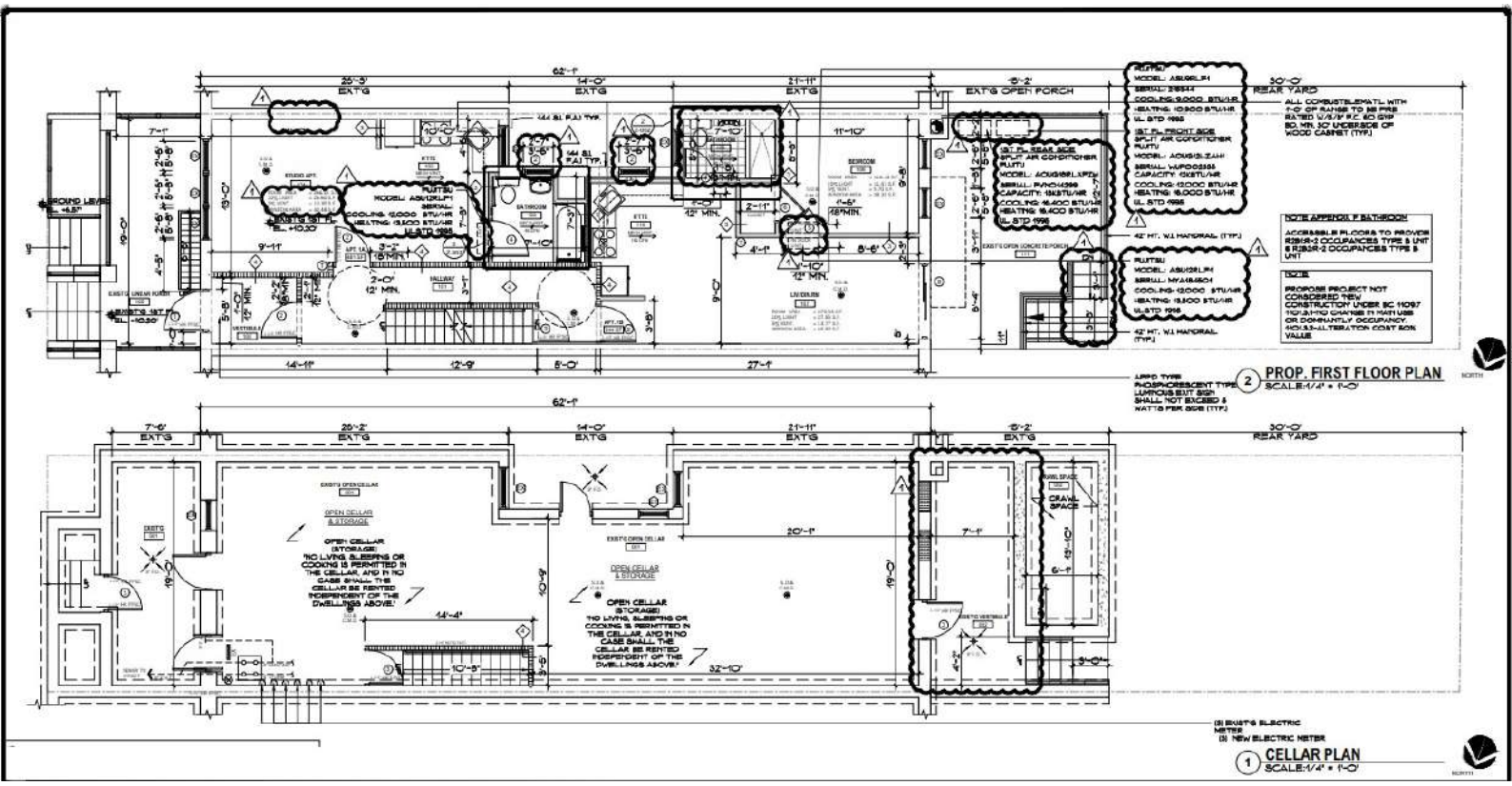
3 HANDRAIL DETAIL



4 TYPICAL RISER OF CONCRETE STAIRS



1 SECTION



2 PROP. FIRST FLOOR PLAN
SCALE: 1/4" = 1'-0"

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

SECTION ECC C405
ELECTRICAL POWER AND LIGHTING SYSTEMS(MANDATORY)

C405.1 General (Mandatory)
This section covers lighting system controls, the connection of ballasts, thermosiphon lighting power for interior applications, electrical energy consumption, and minimum acceptable lighting equipment for exterior applications.

Exception:
Dwelling units within commercial buildings shall not be required to comply with Sections C405.2 through C405.5 provided that a minimum of 75 percent of the lamps in permanently installed lighting fixtures, other than low voltage lighting, shall be high-efficacy lamps.

C405.2 Lighting controls (Mandatory)
Lighting systems shall be provided with controls as specified in Sections C405.2.1, C405.2.2, C405.2.3 and C405.2.4.

C405.2.1
Manual lighting controls.
All buildings shall include manual lighting controls that meet the requirements of Sections C405.2.1.1 and C405.2.1.2.

C405.2.1.1 Interior lighting controls.
Each area enclosed by walls or floor-to-ceiling partitions shall have at least one manual control for the lighting serving that area. The required controls shall be located within the area served by the controls or be a remote switch that identifies the lights served and indicates their status.

Exceptions:
1. Areas designated as security or emergency areas that need to be continuously lighted.
2. Lighting in stairways or corridors that are elements of the means of egress

C405.4 Exit signs (Mandatory)
Internally illuminated exit signs shall not exceed 5 watts per side

C405.2.1.2 Light reduction controls.
Each area that is required to have a manual control shall also allow the occupant to reduce the connected lighting load in a reasonably uniform illumination pattern by at least 50 percent. Lighting reduction shall be achieved by one of the following or other approved method:

1. Controlling all lamps or luminaires;
2. Dual switching of alternate rows of luminaires, alternate luminaires or alternate lamps;
3. Switching the middle lamp luminaires independently of the outer lamps; or
4. Switching each luminaire or each lamp.

Exception: Light reduction controls need not be provided in the following areas and spaces:
1. Areas that have only one luminaire, with rated power less than 100 watts.
2. Areas that are controlled by an occupant-sensing device.
3. Corridors, equipment rooms, storerooms, restrooms, public lobbies, electrical or mechanical rooms.
4. Sleeping unitsas Section C405.2.2.1;
5. Spaces that use less than 0.6 watts per square foot (6.5 W/m2).
6. Daylight spaces complying with Section C405.2.2.3.2

C405.2.2.3 Daylight zone control.
Daylight zones shall be designed such that lights in the daylight zone are controlled independently of general area lighting and are controlled in accordance with either Section C405.2.2.3.1 or Section C405.2.2.3.2.
Each daylight control zone shall not exceed 2,500 square feet (232 m2). Contiguous daylight zones adjacent to vertical fenestration are allowed to be controlled by a single controlling device provided that they do not include zones facing more than two adjacent cardinal orientations (i.e., north, east, south, west).
Daylight zones under skylights more than 15 feet (4572 mm) from the perimeter shall be controlled separately from daylight zones adjacent to vertical fenestration.

Exception: Daylight zones enclosed by walls or ceiling height partitions and containing two or fewer light fixtures are not required to have a separate switch for general area lighting.

C405.2.2.1 Automatic time switch control devices.
Automatic time switch controls shall be installed to control lighting in all areas of the building.

Exceptions:
1. Emergency egress lighting does not need to be controlled by an automatic time switch.
2. Lighting in spaces controlled by occupancy sensors does not need to be controlled by automatic time switch controls.

The automatic time switch control device shall include an override switching device that complies with the following:

1. The override switch shall be in a readily accessible location.
2. The override switch shall be located where the lights controlled by the switch are visible, or the switch shall provide a mechanism which announces the area controlled by the switch.
3. The override switch shall permit manual operation.
4. The override switch, when initiated, shall permit the controlled lighting to remain on for a maximum of 2 hours; and
5. Any individual override switch shall control the lighting for a maximum area of 5,000 square feet (465 m2).

C405.2.4 Exterior lighting controls.
All exterior lighting shall be provided with a control that automatically turns off the lighting when daylight is available.
Exceptions:
1. Emergency lighting that is intended to be automatically off during building operation.
2. Lighting specifically required to satisfy health and life safety requirements.
3. Decorative gas lighting systems
4. Lighting for covered vehicle entrances or exits from buildings or parking structures where required for safety, security, or eye adaptation.

INTERIOR STAIRS AS PER SC 27-375

-CLEAR WIDTH BETWEEN WALLS NOT LESS THAT 36".
-CLEAR HEADER IN BLDG. CLASS 71 CLS. J2 & J3 MAY BE 6'-8" MIN.
-LANDING WIDTH EQUAL OF STAIR WIDTH.
-HEIGHT OF HANDRAILS ABOVE THE NOSING OF TREADS NOT MORE THAN 34" NOR LESS THAN 30".
-RISERS HT. (TABLE 6-4 MAX. 8")
-TREADS WIDTH (TABLE 6-4 MAX. 9" + 1/2" NOSING. TYP.

NOTE

75 PERCENT OF THE LAMPS IN PERMANENTLY INSTALLED LIGHTING FIXTURES OTHER THAN LOW VOLTAGE LIGHTING SHALL BE HIGH-EFFICACY LAMPS.

NOTE

MANDATORY PROVISIONS FOR AIR LEAKAGE, INCLDG WHERE APPLICABLE, OUTDOOR AIR INTAKE & EXHAUST DAMPERS, WEATHER SEALS, VESTIBULES & RECESSED LIGHTING SEALS W-ERE LIGHTING IS IN THERMAL ENVELOPE.

NOTE

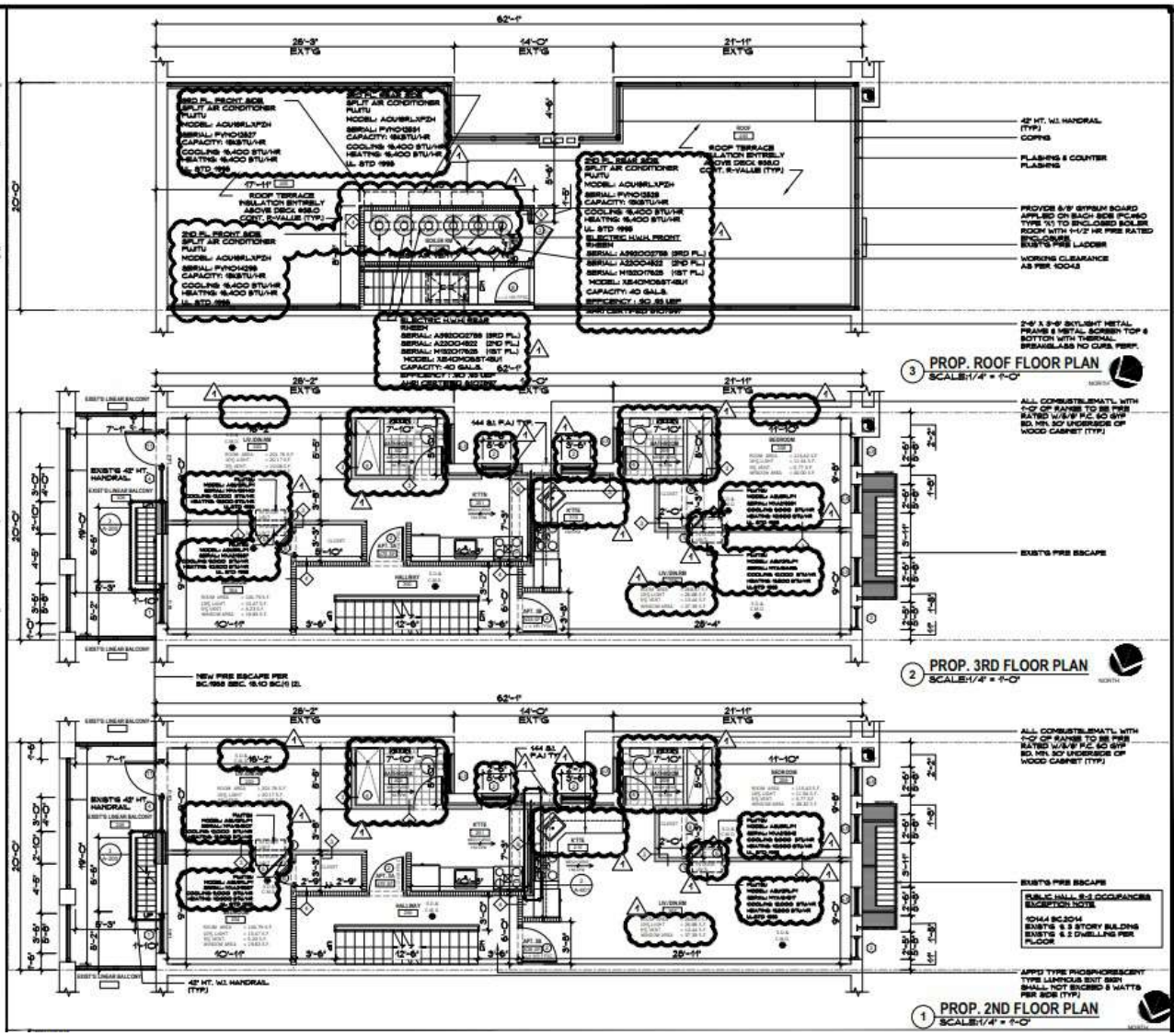
ALL EXTERIOR LIGHTING SHALL BE PROVIDED WITH A CONTROL THAT AUTOMATICALLY TURNS OFF THE LIGHTING WHEN DAYLIGHT IS VAILABLE(TYP.)

DOORS AS PER SC 27-371

-DOORS INTO STAIRS AND EXIT PASSAGEWAYS SHALL HAVE AT LEAST 1/2 HR. FIRE PROTECTION RATING.

-EXIT DOORS SHALL BE SELF-CLOSING SWINGING DOORS WITH 1/2 HR FIRE PROTECTION RATING. EXCEPT:
THAT THE EXTERIOR STREET FLOOR EXIT DOORS HAVING AN EXTERIOR SEPARATION OF MORE THAN 15.0'

NOTE

A PERMANENT CERTIFICATE SHALL BE POSTED ON OR IN THE ELECTRICAL DISTRIBUTION PANEL. STATING INSULATION R-VALUES AND EQUIPMENT EFFICIENCIES

THE INSTALLED PERMANENT CERTIFICATE SHALL BE VISUALLY INSPECTED FOR LOCATION, CONTENTS AND