

Proposed location of Fire Alarm Control Panel  
Proposed location of Fire Alarm Pull Station  
Proposed location of Knox Box  
Proposed location of Fire Extinguisher

FACP  
PS  
K  
FEXT

project name  
**COMNAV**  
project location  
430 Riverside Street  
Portland, Maine

plan north  
true north

SUBMITTED  
FOR BUILDING  
PERMITS  
02/17/2012

date  
February 17, 2012

scale  
1/8" = 1'-0"

project #  
2011-016

drawing title  
Code  
Summary  
A201

drawing number  
A201

**Means of Egress Requirements - Exit access:**

Each use is analyzed individually, however since we are applying the Mixed Multiple allowances of the building code we are required to apply the more stringent of requirements from both applicable sections of the Codes. Based on Table 1004.1.2 we calculated occupant load for each area of the building.

- o Ground Floor Business Use:
- o 50 Business occupants (1 per / 100 SF) in 5,000 SF of gross office space.
- o 47 Manufacturing occupants (1 per / 100 SF) in 4,700 SF of gross manufacturing space.

**OCCUPANT LOAD NOTES:** The occupancy loads are calculated from load tables provided by IBC 2009 and results are functions of the requirements of the building code stipulated values for establishing egress capacities and likely reflect a much higher loading than would ordinarily be present and are utilized to determine required egress features.

**Business use egress**

- o Occupant Load: 40 (10 or so occupants would travel through manufacturing space and that egress is evaluated under the Manufacturing heading).
- o Minimum number of EXITS for office area: Two (3 provided plus one additional EXIT through Manufacturing space)
- o Min separation of EXITS: 1/2 the max diagonal of the space.
- o Max travel distance to Exterior: 2' (must use stricter Manufacturing number)
- o Max Common Path of Travel: " (must use stricter Manufacturing number). This is the shared path of travel prior to reaching two distinct EXIT routes out of the building.
- o Max Dead End Corridor: "
- o Max unrated corridor loading - less than 30 occupants. Corridor rating should not be required. Max corridor load in all affected corridors is less than 20 occupants.

**Manufacturing use egress**

- o Occupant Load: 47 plus 10 or so office occupants would travel through manufacturing space to exit building.
- o Minimum number of EXITS for manufacturing area: Two (1 direct route provided plus three additional EXITS through office space)
- o Min separation of EXITS: 1/2 the max diagonal of the space.
- o Max travel distance to Exit: 200'-0"
- o Max Common Path of Travel: 50'-0". This is the shared path of travel prior to reaching two distinct EXIT routes out of the building.
- o Max Dead End Corridor: 20'-0"
- o Max unrated corridor loading - less than 30 occupants. Corridor rating should not be required. The max corridor loading in all affected areas is around 20 occupants.

The proposed schematic plans all provide adequate EXIT access in both quantities and exit separation. In addition all travel distance, common path of travel and dead end corridor limitations fall within the stated guidelines noted above.

**Means of Egress Requirements - Doors**

All of the doors leading out of the building need to be wide enough to handle the occupant load as well as the minimum widths proscribed by the ADA. All of the exits from the building meet these requirements. The vestibule doors are wide enough to meet the proposed capacity of the new subdivided use, however they do not meet the requirements for doors in a series. These doors must have 4'-0" of clear space in front of the preceding door when in the open position. The rear and side egress doors are not accessible from the exterior direction. Accommodation would be made from the front door to the facility to provide for ADA access. The inner Vestibule door and exterior door may need to be electrified for automatic openers

**Means of Egress Requirements - Emergency Lighting & Marking of Exits**

All of the spaces throughout the building require emergency lighting. All building exits shall be clearly marked with EXIT signage.

**Fire Protection Requirements**

**Sprinklers** - The building codes do not require the building to be sprinkled. Existing building as a one-story structure and its small footprint allow for safe egress from the building without the added benefits of additional fire protection.

**Fire Separations** - Because the renovated building would be permitted under the Mixed Multiple allowances, the manufacturing and office space would not require any rated separations or assemblies. All spaces shall meet the more strict definitions within the codes whether it be for the manufacturing use or the business use.

**Elevators** - Not applicable.

**Corridor ratings** - Not applicable.

**Unenclosed vertical openings** - Not applicable

**Boiler or Furnace** - spaces shall be separated by 1-hour fire rated assemblies. Air handling rooms (or ceiling hung units) have no special requirements.

**Fire Alarm System** - required, should be interconnected throughout the building. If the main Fire Alarm Control Panel is not located at the main entrance (or approved substitute location, an approved Remote should be in that approved location. Typically the same location of the Knox Box (see below). The City is requiring a Master Box.



20 Furnishings, Finish Plan