

**Project:** Casco Bay High School Expansion

**Date:** 5-6-2018

**To/Company:** City of Portland Permitting

**From:** Robert Curtis

**Pages:** 2

**RE:** Occupant load and egress capacity for existing first floor

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**Existing Exterior Door Egress Capacity**

From Corridors and Stairs:

- (6) x 6'-0" pairs of double doors = 402 clear inches = **2,010 people** at .2" per person

From Individual Spaces:

- (6) x 3'-0" doors = 198 clear inches = **990 people** at .2 people /inch
- (1) x 6'-0" pair of double doors = 67 clear inches = **335 people** at .2 people /inch

TOTAL Calculated Egress Capacity at Exterior Doors = **3,335 people**

**Summary**

Total existing egress capacity at first floor = 3,335 people at 13 different points, six of which are accessed by the primary circulation system (corridors and stair enclosures).

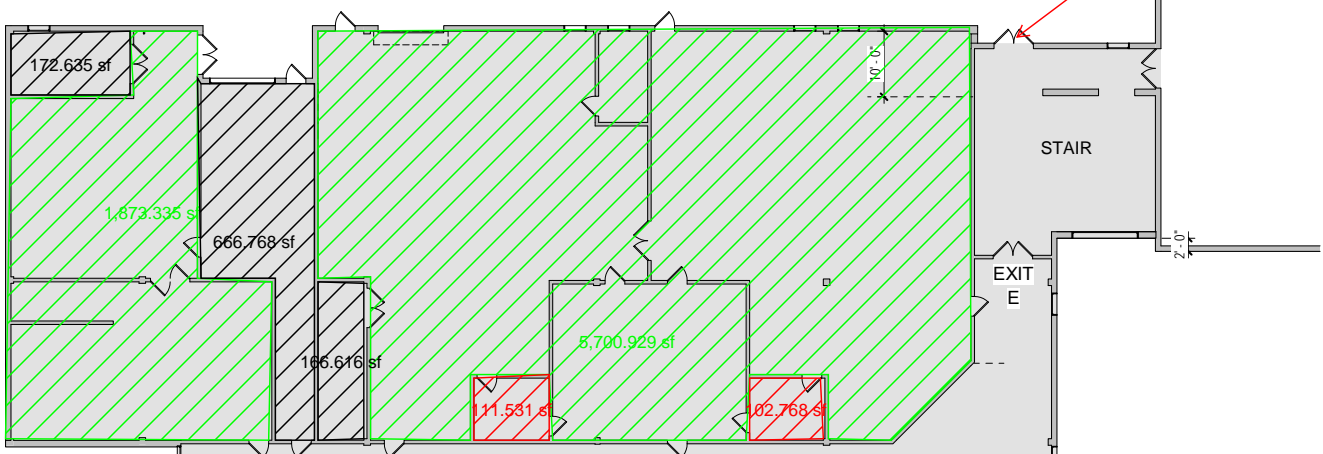
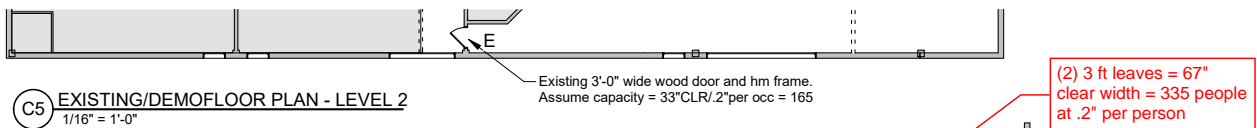
The proposed design reduces this capacity by 335 to 3,000 people.

**First Floor Existing Calculated Occupant Load:**

- Administrative areas: 5,725 sf at 100 gross sf/person = **58 people**
  - Classroom Spaces: 5,858 sf at 20 net sf/person = **293 people**
  - Shops/Lab Spaces: 7,786 sf at 50 net/person) = **156 people**
  - Utility/Storage Spaces: 1,810 sf at 400 sf /person = **5 people**
- TOTAL Calculated Occupant Load = **512 people**

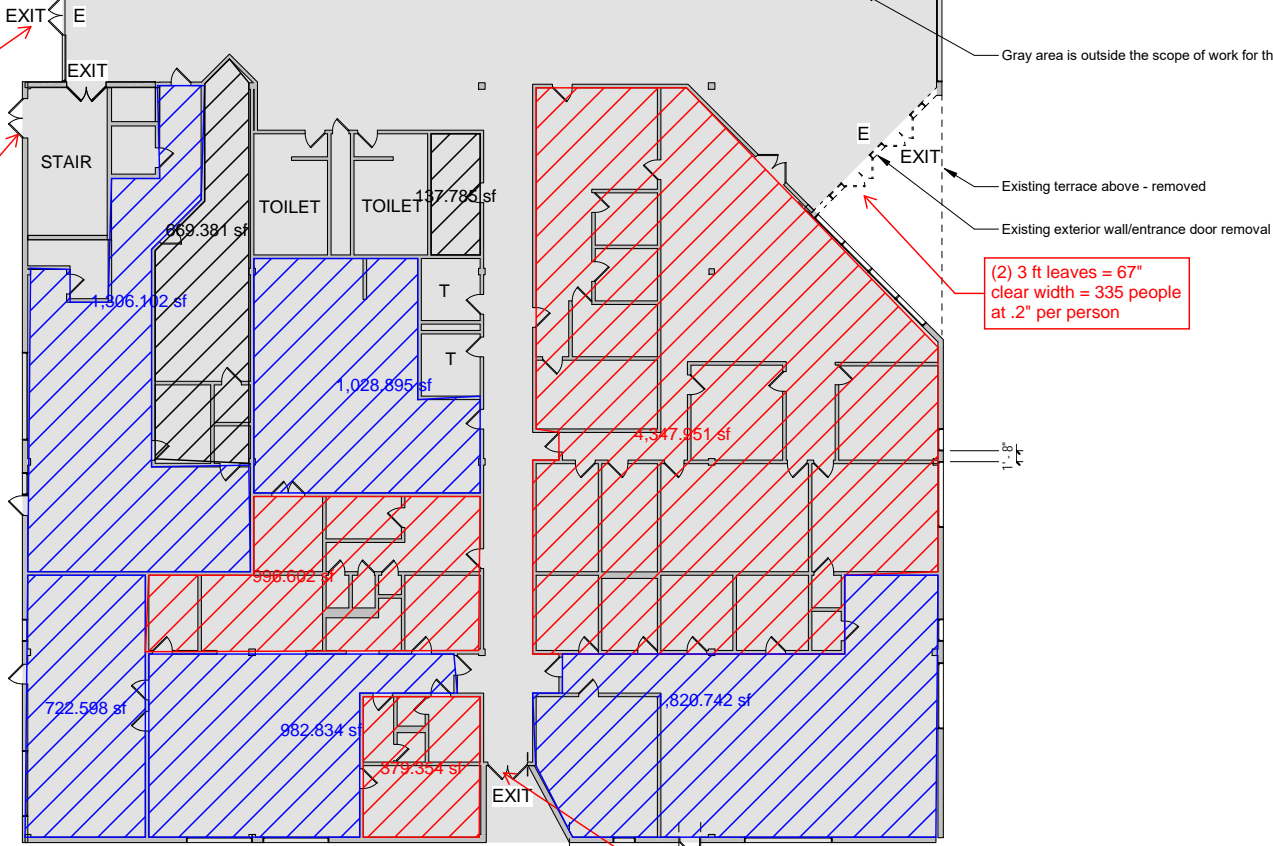
**Summary**

Total calculated occupant load for the first floor is approximately 512 people. This is significantly less than the actual student/staff population. Three exits are required for areas or spaces with occupant loads of 500 to 1,000 people. Five discrete exit points can be reached via corridors and stair enclosures.



(2) 3 ft leaves = 67" clear width = 335 people at .2" per person

(2) 3 ft leaves = 67" clear width = 335 people at .2" per person



C4 EXISTING/DEMO FLOOR PLAN - LEVEL 1  
1/16" = 1'-0"

- Shop/Lab Spaces
- Classroom Spaces
- Admin Spaces
- Utility/Storage Spaces