

Kepware, 400 Congress Street, Portland Maine

3rd floor Tenant Improvement

NFPA 101, Life Safety Code Handbook, Code Review

Project Description:

Kepware, a Portland based Technology Company, occupies 9178 square feet of space on the 3rd floor of the building at 400 Congress Street in Portland. They also lease space on the 2nd and 4th floor of the building. The first floor of the building is occupied by a branch of the US postal Service. Kepware is planning to expand their floor area on the 3rd floor by leasing an additional 3414 square feet of adjacent office space previously inhabited by a separate tenant. The work does not require changes to the structure of the building, the building enclosure or means of egress components that serve the building. This code summary demonstrates that the proposed work complies with applicable sections of NFPA 101, Life Safety Code Handbook, and the requirements of the specific occupancy, Existing Business.

Chapter 39: Existing Business Occupancies

39.1 General Requirements

39.1.1 Application.

No change in occupancy is proposed.

39.1.2 Multiple Occupancies:

Not applicable to this permit application

39.1.3 Special Definitions:

Not applicable to this permit application

39.1.4 Classification of Occupancy: Business: See §6.1.11

The Building Occupant, Kepware, is a Portland based technology company. The occupant's activities conform to the definition of a Business Occupancy in §6.1.11.1.

39.1.5 Classification of Hazard of Contents: see §6.2.2

The contents of this office comply with the Life Safety Code Handbook's description of Ordinary Hazard Contents in §6.2.2.3* Ordinary Hazard Contents.

39.1.6 Minimum Construction Requirements:

No requirements

39.1.7 Occupant Load:

The occupant load has been calculated according to Table 7.3.1.2. See drawings, sheet ref-2:

Kepware occupant load = 125 people

39.2 Means of Egress Requirements

39.2.1 General

The existing stairs serve as the exits for each floor. The exit access within Kepware's space floor been designed in accordance with the means of egress requirements specified by Chapter 7 and Chapter 39.

39.2.2 Means of Egress Components.

39.2.2.2 Doors. Doors complying with 7.2.1 shall be permitted

7.2.1.4.2 Door Leaf Swing Direction: A door can swing opposite direction of egress travel with room occupant load less than 50.

39.2.2.3 Stairs. No change to the existing stairs is required or proposed

39.2.3 Capacity of Means of Egress.

7.3.1.1.2: the loss of any means of egress leaves available 50% of egress capacity:

Stairs: The occupant load of the 6th floor = 136. 50% =68 Occupants

Stair width = $.3 \times 68 = 20.4$ inches

Access ways = $.2 \times 68 = 13.6$ inches

Doors: All existing doors in the means of egress are 36" wide leaves

39.2.3.2 Clear width required

A clear width of at least 44" has been provided at new passageways serving an occupant load greater than 50

39.2.4 Number of Exits.

39.2.4.1 (2) 2 exits required

Four (4) stairways serve the tenants of the building. See drawing ref-

Stair 3 is internal to tenant B and therefor 3 stairs (Stair 1, Stair 2, and Stair 3) serve as means of egress for the Kepware tenant space.

39.2.4.2 Exit access is allowed to be on a single path for up to the maximum common path of travel allowed

Maximum Common Path of travel = 100 feet (per 39.2.5.3.1). See drawing ref-2, Travel Lengths for depiction of Common Paths of travel.

39.2.5 Arrangement of Means of Egress.

39.2.5.2* Dead-end corridors shall not exceed 50 ft

The proposed work creates a 32' long dead-end corridor from the elevator lobby by stair 2. This less than the maximum allowed

39.2.5.3.1 Common path of travel shall not exceed 100 ft on a story protected throughout by an approved automatic sprinkler system in accordance with 9.7.1.1(1). See ref-2 for depiction of Common Paths of travel

39.2.6 Travel Distance to Exits.

39.2.6.3 Travel distance to an exit, measured in accordance with 7.6 shall not exceed 300 ft (91 m) in business occupancies protected throughout by an approved, supervised automatic sprinkler system in accordance with §9.7. See drawing ref-2 for depiction of Travel distance to an exit.

39.2.7 Discharge from Exits.

Existing exit discharge to remain. No change is proposed.

39.2.8 Illumination of Means of Egress.

Lighting, with a combination of motion sensor-type lighting switches and dedicated circuits will be provided so that the illumination at all floor areas will be a minimum of 1 ft candle when occupants are present. See mechanical drawings

39.2.9 Emergency Lighting.

See drawings ref-2 and a2 drawings for emergency lighting locations and specifications.

39.2.10 Marking of Means of Egress.

See drawings ref-2 and a2 drawings for exit signs

39.2.11 Special Means of Egress Features. Not applicable

39.3 Protection

39.3.1 Protection of Vertical Openings.

The existing exit stair enclosures 1 and 2 appear to be enclosed by fire rated construction, and would have been required to be so enclosed when the building was constructed, however, this document does not represent that the existing fire stair enclosure meets code. Stair 3 has a labeled door on the landings midway between floors. Drawing ref-1 shows the location of existing labeled doors.

39.3.2 Protection from Hazards.

Materials within this tenant space are routine office supplies that would be considered ordinary hazard materials, and therefore not required to be separated per 39.3.2.2. The appliances in the kitchenette area are used for food warming and are not flue connected appliances.

39.3.3 Interior Finish. Table A.10.2.2
Business Occupancy, Sprinklered

Exits

Walls and Ceilings: A, B, or C permitted Floors: no requirements

Exit Access Corridors

Walls and Ceilings: A, B, or C permitted Floors: no requirements

Other Spaces

Walls and Ceilings: A, B, or C permitted Floors: no requirements

39.3.4 Detection, Alarm, and Communications Systems.

The existing alarm systems shall be modified as the work requires. A separate permit shall be applied for by the alarm installer

39.3.5 Extinguishment Requirements.

In accordance with NFPA 10, Standards for Portable Fire Extinguishers, Table 6.2.1.1 Fire Extinguisher Size and Placement for Class A Hazards. See drawing ref-2 for maximum travel distance and fire extinguisher locations

39.3.6 Corridors. (No requirements.)

39.3.7 Subdivision of Building Spaces. (No special requirements.)

39.4 Special Provisions 39.

Not applicable to this permit application

39.5 Building Services

39.5.1 Utilities

Not applicable to this permit application

39.5.2 Heating, Ventilating, and Air-Conditioning

The existing HVAC work shall be modified as required. A separate permit shall be obtained by the HVAC installer

39.5.3 Elevators, Escalators, and Conveyors

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39.5.4 Rubbish Chutes, Incinerators, and Laundry Chutes.

Not applicable to this permit application

39.6 Reserved

39.7.1 Emergency Plans.

Discussion: Tenant shall provide training to designated employees in the use of portable fire extinguishers. Tenant shall conduct drills in accordance with §4.7