Development Services

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APPEAL SUMMARY

Status: Decision Rendered

Appeal ID: 21958	**Project Address:** 601 SW 2nd Ave
Hearing Date: 10/2/19	**Appellant Name:** Tom Jaleski
Case No.: B-018	**Appellant Phone:** 9712385267
Appeal Type: Building	**Plans Examiner/Inspector:** John Butler, Amit Kumar
Project Type: commercial	**Stories:** 24 **Occupancy:** B **Construction Type:** I-A
Building/Business Name: Moda Tower	**Fire Sprinklers:** Yes - Throughout
Appeal Involves: Alteration of an existing structure	**LUR or Permit Application No.:**
Plan Submitted Option: pdf [File 1] [File 2] [File 3] [File 4] [File 5]	**Proposed use:** Office Building

APPEAL INFORMATION SHEET

Appeal item 1

Code Section	Existing Appeals B-18 (03/08/2000) and B-9 (08/28/2002)
Requires	The Moda Tower is currently approved for a maximum occupant load of 333 on the 9th floor based on the approved appeals in B-18 (2000) and B-9 (2002) (Attachments 4 and 5). We wish to replace those appeals with this appeal.
Proposed Design	This is an existing permitted building constructed per the 1996 OSSC based on the 1994 UBC. The existing 24-story office building is protected with an automatic fire sprinkler system and a voice annunciated fire alarm system throughout. The 9th story is served by two enclosed interior exit stairways. We are proposing to increase the maximum occupant load allowed on the 9th floor only from 333 occupants maximum to 500 occupants maximum. This occupant load increase is based on the increased egress capacity of the two existing exit stairs. This capacity increase will be achieved by: Replacing the existing 36” doors at the exit stair enclosure and vestibule by 48” doors. Providing automated ADA push button opener as granted by Appeal ID # 20705 Alarm and voice annunciation is provided throughout the building. An egress analysis stamped by an Oregon Fire Protection Engineer, confirming the increased egress capacity, by a simulated egress analysis software, is submitted with this appeal. The increased capacity is consistent with the prescriptive requirements of the 2014 OSSC and the future 2019 OSSC. Limitations of this appeal request:

This egress capacity increase does not grant increased occupant load on this floor. Any increase in occupant load will have to satisfy the city's seismic regulations and applicable OSSC requirements. A complete comparative analysis of the building occupancy and occupant load today and on October 1, 2004 will be provided during permit application.

We are requesting that this building be allowed a maximum 10% occupant load increase without triggering a seismic update in item #2 of this appeal. This appeal is supported by the Statewide Alternate Method (SAM) and has been granted on similar size buildings in the city.

This egress capacity increase is limited to the 9th floor. The owner is aware that to extend the prescriptive egress width factor provision (0.2 for stairs and 0.15 for doors) to the rest of the building will require a UBC-IBC comparative analysis.

Reason for alternative

The OSSC allows for a 33% reduction in the minimum required calculated egress capacity where an automatic fire sprinkler system and an emergency voice annunciated communication system is provided. The existing building is equipped with both of those protection measures. Therefore, the prescriptive permitted capacity factor is 0.2 inch per occupant for exit stairs (Section 1005.3.1) and 0.15 inch per occupant for exit doors (Section 1005.3.2).

The existing stair width is 50 inches each, for a total of 100 inches for both exit stairs. 100 inches / 0.2 inch per occupant provides a maximum capacity for 500 occupants. Two exits are required for stories with 500 occupants or less as per Section 1015.2.1. Therefore, the existing stair meets the prescriptive requirements to allow 500 occupants.

The limiting parameter to egress is the existing egress door width of 36 inches. To match the stairs' capacity for egress, the existing 36-inch doors will be removed and replaced with new 48-inch doors. 96 inches (two 48-inch doors) / 0.15 inch per occupant provides a maximum capacity for 640 occupants. Therefore, the proposed configuration meets the prescriptive requirements to allow maximum 500 occupants based on the stair width.

Since the existing conditions would not provide door maneuvering clearances for the new 48-inch doors, the new doors will be automated by ADA push buttons to comply with accessibility requirements.

Based on the combined protection of an automatic fire sprinkler system and an emergency voice annunciated communication system and the prescriptive compliance of egress capacity and equivalent accessibility, the proposed design meets the code requirements and provides equivalent protection to service a maximum of 500 occupants on the 9th floor.

A performance analysis of the egress times with and without the proposed modifications was done. The analysis used Pathfinder, an advanced occupant-movement simulation software designed by Thunderhead Engineering. The latest release of the software, (Pathfinder 2019.1) was utilized for the modeling. This software is an agent-based egress simulator that uses steering behaviors to model occupant motion. Pathfinder is also a validated software for use in computer modeling of building evacuation as per Table 60.1 of the Society of Fire Protection Engineers (SFPE) Handbook 5th Edition. This analysis confirmed that the proposed changes will allow 500 occupants to egress the 9th floor 1 minute and 25 seconds faster than the current configuration.

We urge you to approve the proposed modifications to the 9th floor of the MODA Tower building.

Appeal item 2

Code Section City of Portland Title 24.85.040 Change of Occupancy or Use

Requires

	Multiple occupancy changes to a single building may be made under this section without triggering a seismic upgrade provided the cumulative changes do not result in the addition of more than 149 occupants with respect to the legal building occupancy as of October 1, 2004.
Proposed Design	This is an existing permitted building constructed per the 1996 OSSC based on the 1994 UBC. This 24-story office building is protected with an automatic fire sprinkler system and a voice annunciated fire alarm system throughout. This appeal proposes that this building be permitted to add up to 10 percent more occupants with respect to the legal building occupancy as of October 1, 2004, before the seismic upgrade requirements mandated by section 24.85.040 are applicable.
Reason for alternative	There is an ongoing concern expressed by building owners, architects, code experts, and even some city officials about the 149-occupant load trigger as it is currently applied to existing buildings in Portland. This approach is unfairly burdensome on large buildings. The state Building Codes Division (BCD) has approved a state-wide alternate materials method SAM 08-05 which permits occupant load increase to be up to 10% of the building area per footnote b to table 1007.3. “ b) Where the area of the new occupancy with a higher hazard category is less than or equal to 33 percent of the total building floor area, and the total occupant load for the building is not increased by more than 150 occupants (or 10 percent of the existing occupant load, whichever is greater) the building does not require structural improvement unless required by other provisions of this code. “ We urge you to approve the proposed modifications to occupant load threshold that triggers a seismic upgrade to the MODA Tower building, based on the state-wide SAM attached.

APPEAL DECISION

1. Increase in maximum occupant capacity of 9th floor: Granted as proposed.
Note: Confirmation of seismic and all applicable OSSC requirements will be verified as part of building permit plan review.

2. Increase in building occupant load of up to 10 percent with respect to permitted occupancy on 10-01-2004 before seismic upgrades are required: Granted as proposed.
Note: The 10 percent occupant load increase is cumulative and and is based on the entire building using 2004 as a baseline.

The Administrative Appeal Board finds that the information submitted by the appellant demonstrates that the approved modifications or alternate methods are consistent with the intent of the code; do not lessen health, safety, accessibility, life, fire safety or structural requirements; and that special conditions unique to this project make strict application of those code sections impractical.

Pursuant to City Code Chapter 24.10, you may appeal this decision to the Building Code Board of Appeal within 90 calendar days of the date this decision is published. For information on the appeals process, go to www.portlandoregon.gov/bds/appealsinfo, call (503) 823-7300 or come in to the Development Services Center.

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Client Name:	**Unico Properties**		
Project Number:	C18-000F.2	Date:	9/29/2019
Distribution:	Ty Barker, Unico Properties		
Subject:	Attachment #1 – Egress Performance Analysis		
Referenced Codes and Standards:	2014 Oregon Structural Specialty Code Society of Fire Protection Engineers (SFPE) Handbook, 3rd Edition		
Building Name:	Moda Tower		
Room Area Affected:	Level 09		

1. OVERVIEW

The Moda Tower is an existing 24-story high-rise building in downtown Portland. The building contains 6 levels of parking, with Group B (business) tenants located in the stories above. The building is equipped throughout with a fully automatic sprinkler system and an emergency voice/alarm communication system.

The 9th floor of the building will be undergoing tenant improvements but will remain as a Group B occupancy space. The two interior exit stairways will remain as existing. Currently, the existing building is permitted with an appeal that restricts the number of occupants to 333 persons per floor based on the 1997 OSSC. Per 2014 OSSC Exception for §1005.3.1 and §1005.3.2, the means of egress components (stair/door/corridor) are prescriptively allowed a higher egress capacity (based on a smaller egress factor) when the building is equipped with an emergency voice/alarm communication system. Utilizing this reduction in the egress width factor, the stairways can accommodate 500 occupants instead of the 333 currently permitted.

The occupant load limit of 333 occupants per floor was established by an appeal. Appeal ID #20705 was submitted to request that the prescriptive 2014 OSSC exception be applied to the stairways and doorways on Floor 09 in lieu of restricting the occupant load to 333 persons in accordance with the existing appeal. However, procedurally that will require a full building analysis. At this time the owner has selected to follow a narrow path for the 9th floor only. Code Unlimited has performed the egress analyses documented in this report to demonstrate that the proposed design provides equivalent or additional life safety compared to the permitted existing condition, without analyzing all the floors and all life safety requirements that would apply to this 24-story building.

This is accomplished by a comparison of the proposed design of 500 occupants against the baseline condition of 333 occupants. Our analysis demonstrates that the proposed design

provides faster egress than the baseline existing condition. Based on the widening of the entry door to 48-inches and the voice annunciation currently provided throughout the building, all the 500 occupants from the level 09 of this building reach an exit **1 minute and 25 seconds faster** than in the existing permitted condition.

2. EGRESS SIMULATION

Pathfinder, an advanced occupant-movement simulation software designed by Thunderhead Engineering, was used to determine building evacuation times. The latest release of the software, (Pathfinder 2019.1) was utilized for the modeling. This software is an agent-based egress simulator that uses steering behaviors to model occupant motion. Pathfinder is also a validated software for use in computer modeling of building evacuation as per Table 60.1 of the SFPE Handbook 5th Edition.

The simulation for the behaviors of the occupant movement utilized Steering Mode. This mode models a realistic simulation of occupant behavior during egress and queuing. Occupants are modeled to avoid collisions and simulate movements of pedestrians in a traffic system (Figure 1). This is more conservative and realistic compared to the SFPE Mode where occupants can occupy a single space simultaneously. SFPE Mode sets limitation on occupant flow rate through egress components (doorways, corridors, stairways) and simulates occupants utilizing the shortest path to egress, which leads to occupants overlapping each other (Figure 2). Occupants do not react with the changing environment during egress in SFPE Mode, such as avoiding collisions with other occupants or walls and boundaries or navigating available space.

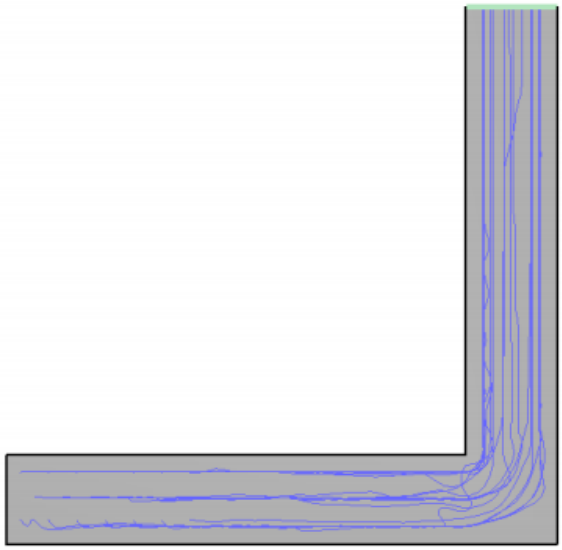

Figure 1: *Occupant trails around a corridor modeled in Steering Mode.*

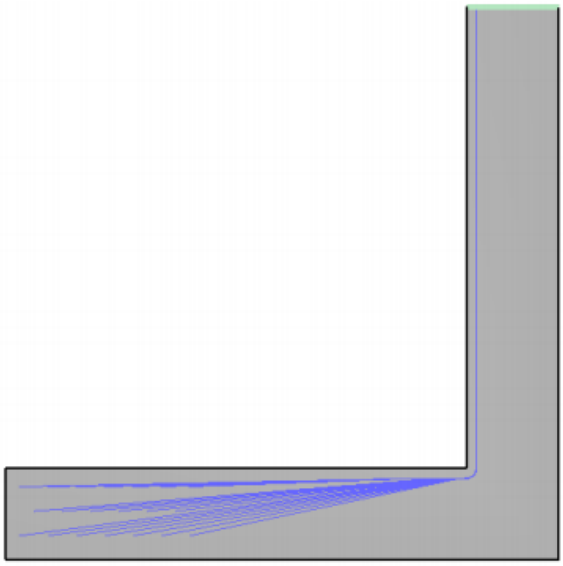

Figure 2: *Occupant trails around a corridor modeled in SFPE Mode.*

Table 1: *Summary of walking speeds on horizontal surfaces per the SFPE Handbook.*

Ambulatory Ability	Percentage of Occupants	Walking Speed
Locomotive Disability	15%	2.62 ft/s
No Locomotive Disability	85%	4.10 ft/s

The SFPE Handbook Table 3-12.4 provides walking speeds on horizontal surfaces. As summarized in Table 1 below, those with full ambulatory abilities have a walking speed of 4.10 ft/s (1.25 m/s). Those with locomotor disabilities are reported to move at 2.62 ft/s (0.8 m/s). Walking speeds on stairs are computed by the software in accordance with Engineering Guide to Human Behavior in Fire (SFPE, 2003).

The inputs to the simulation represent the occupant movement that is expected in the evacuation of the business building. As referenced in the 4th Edition of the SFPE Handbook of Fire Protection Engineering, the U.S. Census Bureau reported in 2005 that 14.9% of the U.S. population 5 years and older had some level of disability, excluding people living in institutions. Since this is a business occupancy and majority of occupants will be adult population with standard mobility, 15% of the building occupants have been assumed to have mobility impairment (Table 1).

The percentage of occupants with mobility impairments does not pose a significant limitation on the total egress time in this analysis. The occupants' steering behavior allows occupant avoidance during egress, which permits faster moving occupants to move around slower moving occupants. Therefore, the limits posed by occupants with mobility impairments is based on the one occupant furthest from an exit and with a mobility impairment. The simulations demonstrate that the largest factor affecting total egress times is queueing at "pinch points" such as doorways, corridor entrances from open areas and along stairways on the upper floors.

3. PARAMETER COMPARISON

Two egress simulations were performed using Pathfinder; the first to establish the travel time required to egress all occupants under the 333 occupant appeal scenario both from the 9th floor and from the building, and then to establish the egress time for the proposed design with the higher occupant load utilizing wider door widths and emergency voice/alarm communication system. The two simulations were compared to determine if equivalent or better protection is provided by the proposed design. The simulations are based on a comparison of the following parameters:

- Occupant Load
- Doorway Width
- Emergency Voice/Alarm Communication System

3.1 Occupant Load

The occupant load in the baseline condition scenario is based on the existing conditions with an approved appeal of 333 occupants per floor. This is based on provisions of the UBC, Table 10-B, under which the appeal was granted, which limited the number of occupants based on the stair width. The stair width of 50” resulted in a maximum occupant load of 333 persons between the two stairs.

The 2014 OSSC includes a prescriptive reduction in the capacity factor for stairways, from 0.3 inches per occupant to 0.2 inches per occupant, that did not exist in the building code at the time of the original appeal. Based on this reduction, the two (2) existing 50” wide stairways can accommodate a total of 500 occupants. Since the focus of this analysis was on the effects of increasing occupant load on the 9th floor, the simulation of the proposed design includes 500 occupants on Level 09 but limits all other floors to 333 occupants in accordance with the existing approved appeal.

3.2 Doorway Width

Table 10-B in the UBC, the basis for the 333-occupant appeal, required doors used as a means of egress to be sized at 0.2 inches in net clear width per occupant. Under those requirements, the minimum door width required was 33.4”, which the 36” nominal width doors could meet.

The 2014 OSSC includes a prescriptive reduction in the capacity factor for doors, from 0.2 inches per occupant to 0.15 inches per occupant, that did not exist in the building code at the time of the original appeal. However, even with this reduction in capacity factor, the existing doorways could not provide sufficient egress capacity to meet the needs of egressing an occupant load of 500 as proposed.

Under the prescriptive reduction, door widths would need to be increased to approximately 37.5” clear width to accommodate all proposed occupants. To provide additional protection for the proposed design, the doors to the vestibule and stairways on Level 09 will be increased from the existing 36 inches (approximately 34” net clear width) to 48 inches wide (approximately 46” net clear width). The larger door will allow occupants on Level 09 to enter the rated stairway enclosure more quickly, with less queuing around the doorways, but the travel down the stairs is still limited by the stair widths.

> Note: Both interior exit stairways are pressurized in the existing condition. Pressure differentials were measured for the existing doorways. Calculations were performed to evaluate force to open with the wider 48-inch doors in accordance with 2014 OSSC §909.6.2 and found to be within requirements of 2014 OSSC §1008.1.3.

3.3 Emergency Voice/Alarm Communication System

The fire alarm system has been updated from horns/strobes to an emergency voice/alarm communication system in accordance with §907.5.2.2. The emergency voice/alarm communication system is installed as Class B pathways, with wiring enclosed in conduit and 2-hour fire-rated shaft enclosures. Since the building is sprinklered, the system classifies as Pathway Survivability Level 1 as defined in NFPA 72 and satisfies the NFPA and OSSC requirements. The emergency voice/alarm system affects the following parameters:

- *Phased Evacuation*
  Because the building is now equipped with an emergency voice/alarm communication system, occupants can egress in a phased evacuation. Phased evacuation will result in decreased congestion in the stairs during exiting. At the time the existing building was permitted, the building would not have been installed with an emergency voice/alarm communication system meeting current code requirements and exiting for all floors would occur simultaneously on any alarm.

  To measure the effects of congestion on the stairways, both models included the egress of occupants on Level 09 with simultaneous egress of the two floors above and two floors below (see Figure 3). By limiting the older, non-voice alarm system to phased evacuation for comparison to the current fire alarm system, congestion for the non-voice alarm system would be reduced and the comparison is more conservative.

- *Pre-Evacuation Time*
  The recently updated fire alarm system has improved the building performance beyond the design basis used for the 333-occupant appeal. This is reflected in the 2014 OSSC for means of egress width factors permitted for a building with voice alarm and evacuation.

  For egress modeling, the pre-evacuation time (time after fire is detected and alarm is sounded, but before occupants begin to move towards exits) is based on the type of notification that occupants receive. Under the old, 333 occupant load scenario, the pre-evacuation time of 4 minutes was based on an audible alarm which did not provide specific information on fire location and exiting. With the addition of voice alarm/evacuation, response to fire alarms is significantly improved and a pre-evacuation time of 1 minute is more common. For the models evaluated for this study, pre-evacuation times of 4 minutes for the audible-only, 333 occupant scenario was used versus 1 minute for the current, voice alarm/evacuation communication system scenario being proposed. Pre-evacuation times for both conditions was based on Table 3-13.1 in the SFPE Handbook, 3rd Edition.

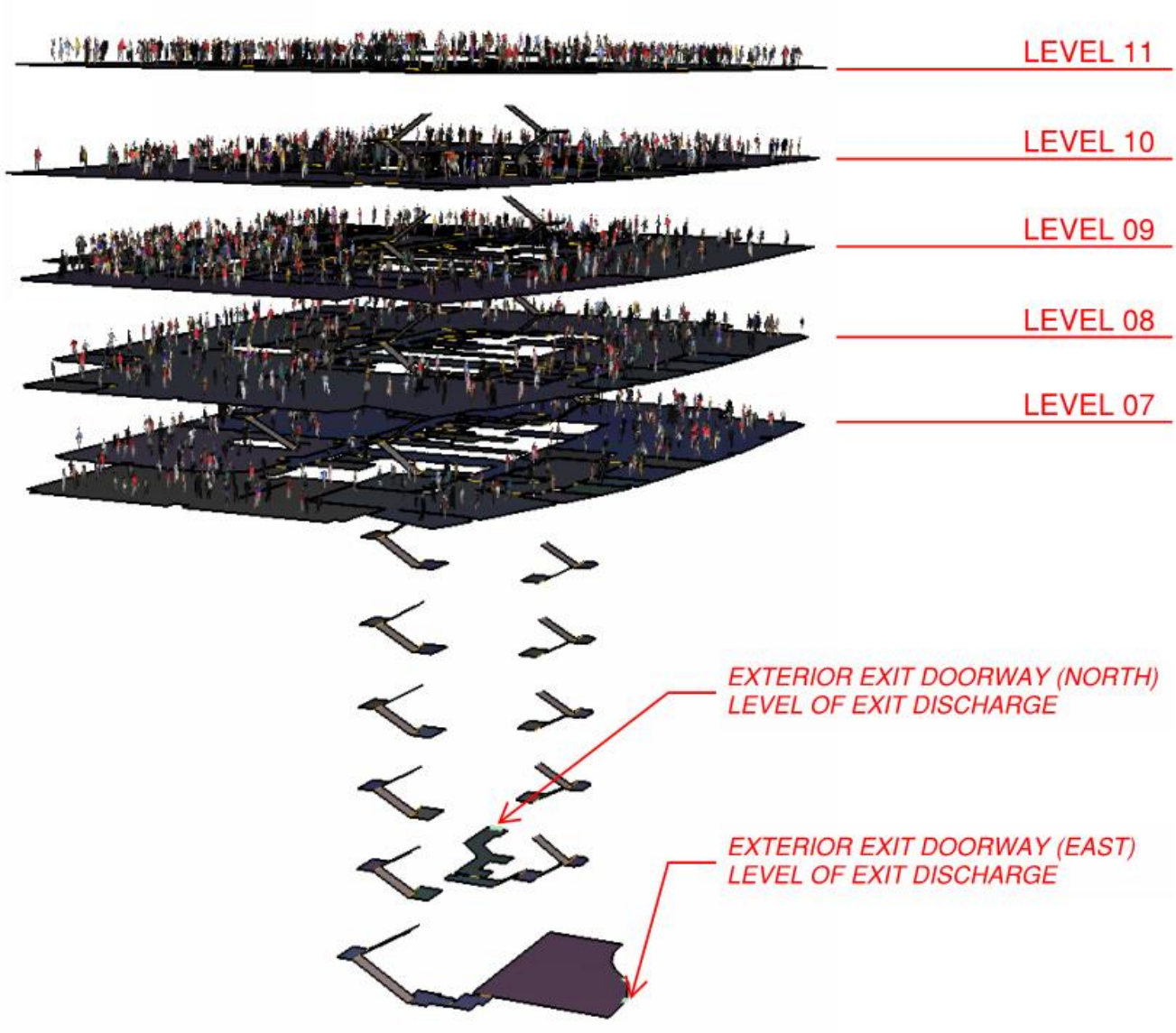

Figure 3: *Both the Existing and Proposed models included the occupants on Levels 07-11, as well as the path of travel to the building exterior.*

4. RESULTS ANALYSIS

For modeling purposes, the occupants were randomly distributed in the rooms within each level, with no occupants starting in the corridors.

The success criterion for the egress models was based on comparing the egress time of occupants on Floor 09. The code does not restrict the travel distance once an occupant is within a fire-resistance rated enclosed exit stairway. However, to include the effects of congestion from surrounding floors, the five floors were modeled with stairways leading to exterior exit doorways on the level of exit discharge.

4.1 Existing Design

The existing design included 36-inch doorways leading to the enclosed interior exit stairway with 333 occupants on all floors.

The egress time, including pre-evacuation time, required for all occupants on Level 09 to reach a rated stairway enclosure was found to be **16 minutes and 10 seconds.**

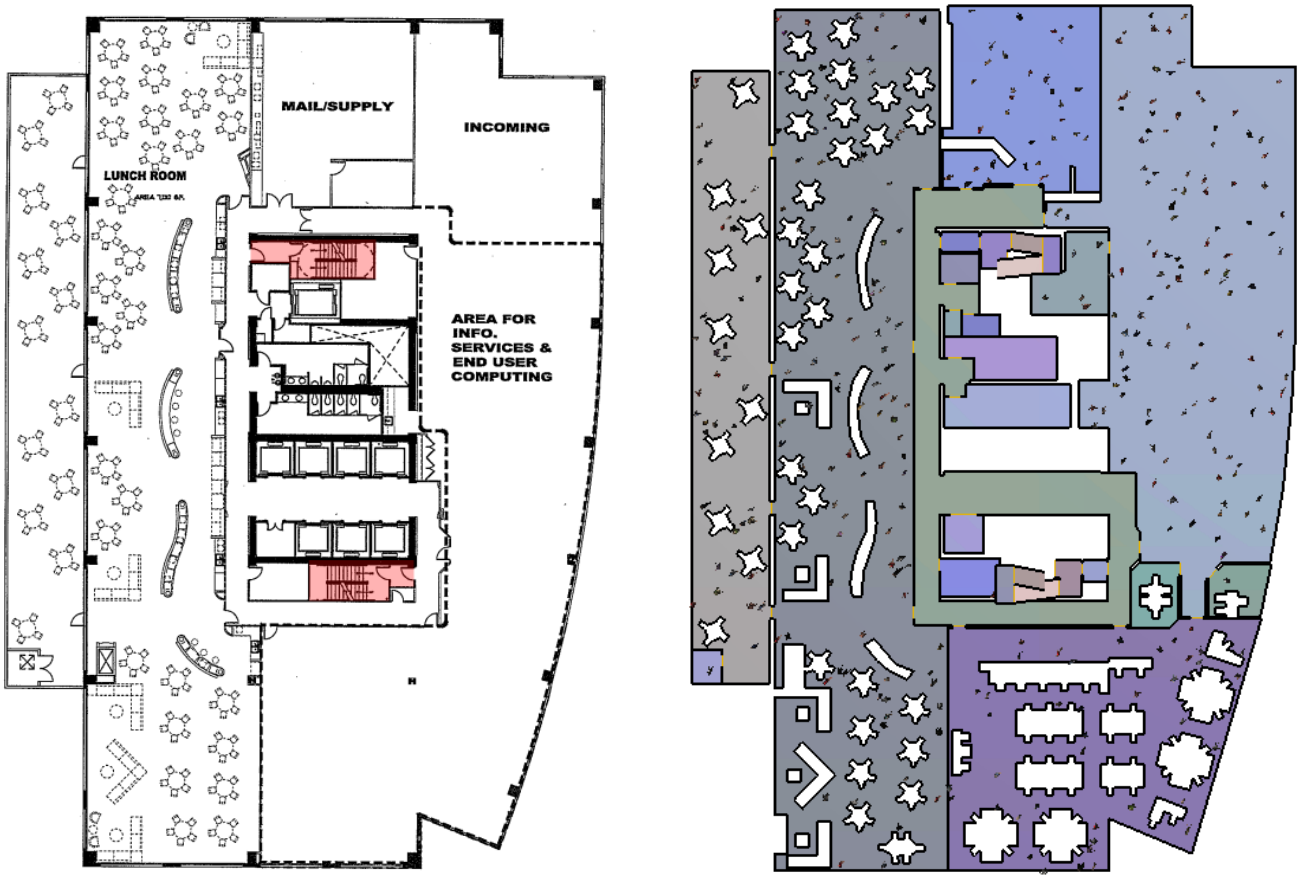

Figure 4: *Level 09 floor plan of the existing design with interior exit stairways higlighted in red (left); Pathfinder model of Level 09 with 333 occupants (right).*

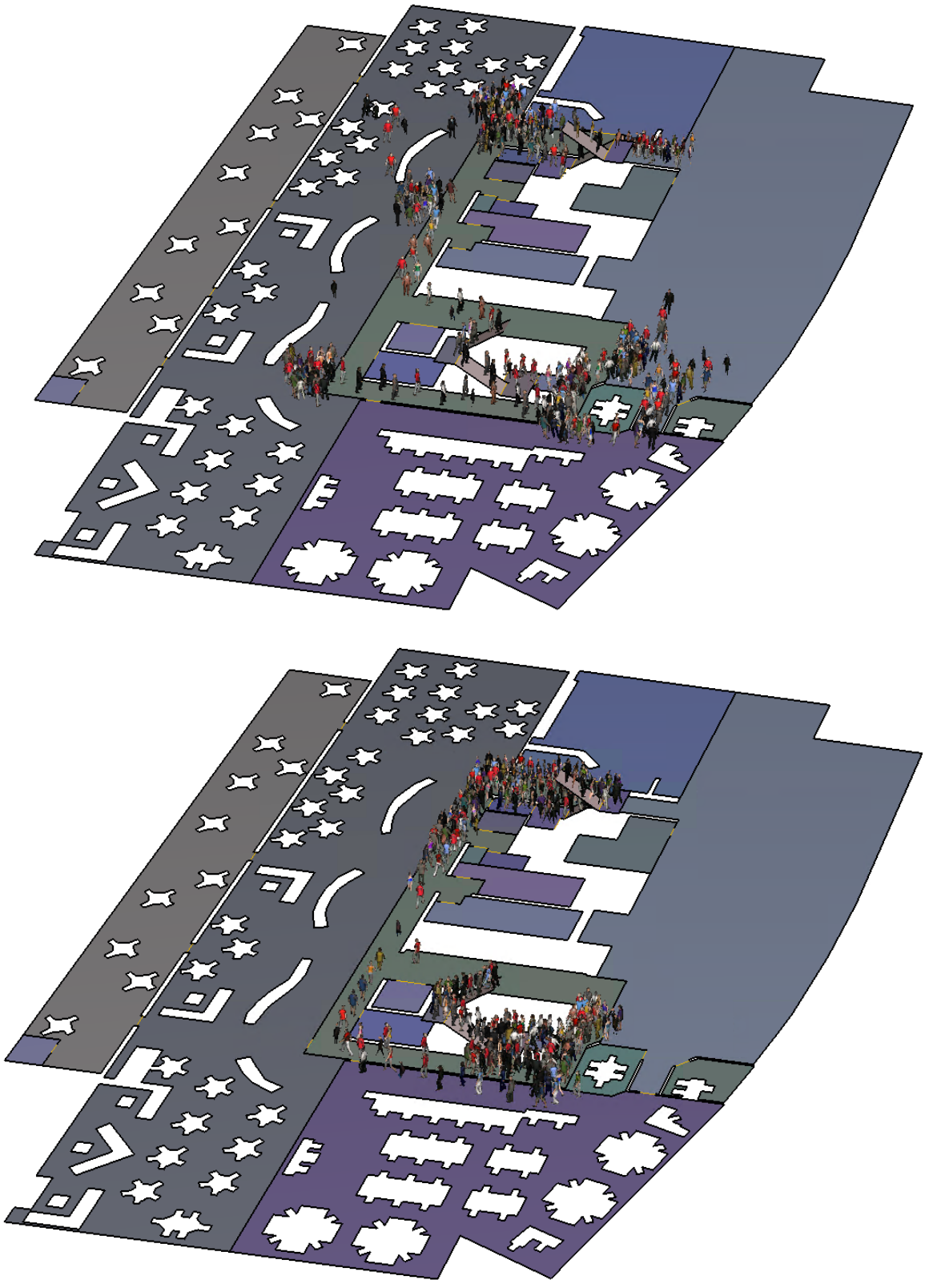

Figure 5: *Egress on Level 09, including 4 minutes of pre-movement time. At 4 minutes 30 seconds, occupants begin queuing at doorways (upper); at 6 minutes, stairways are congested, and the flow rate of occupants has decreased (lower).*

4.2 Proposed Design

The proposed design increased the width of the doorways to 48-inches each leading to the enclosed interior exit stairway on all floors, with 500 occupants on Level 09 and 333 occupants on all other floors included in the simulation. It also took credit for the use of voice alarm/evacuation to aid in pre-movement times.

The egress time required for all occupants on Level 09 to reach a rated stairway enclosure, including pre-movement time, was found to be **14 minutes and 45 seconds.**

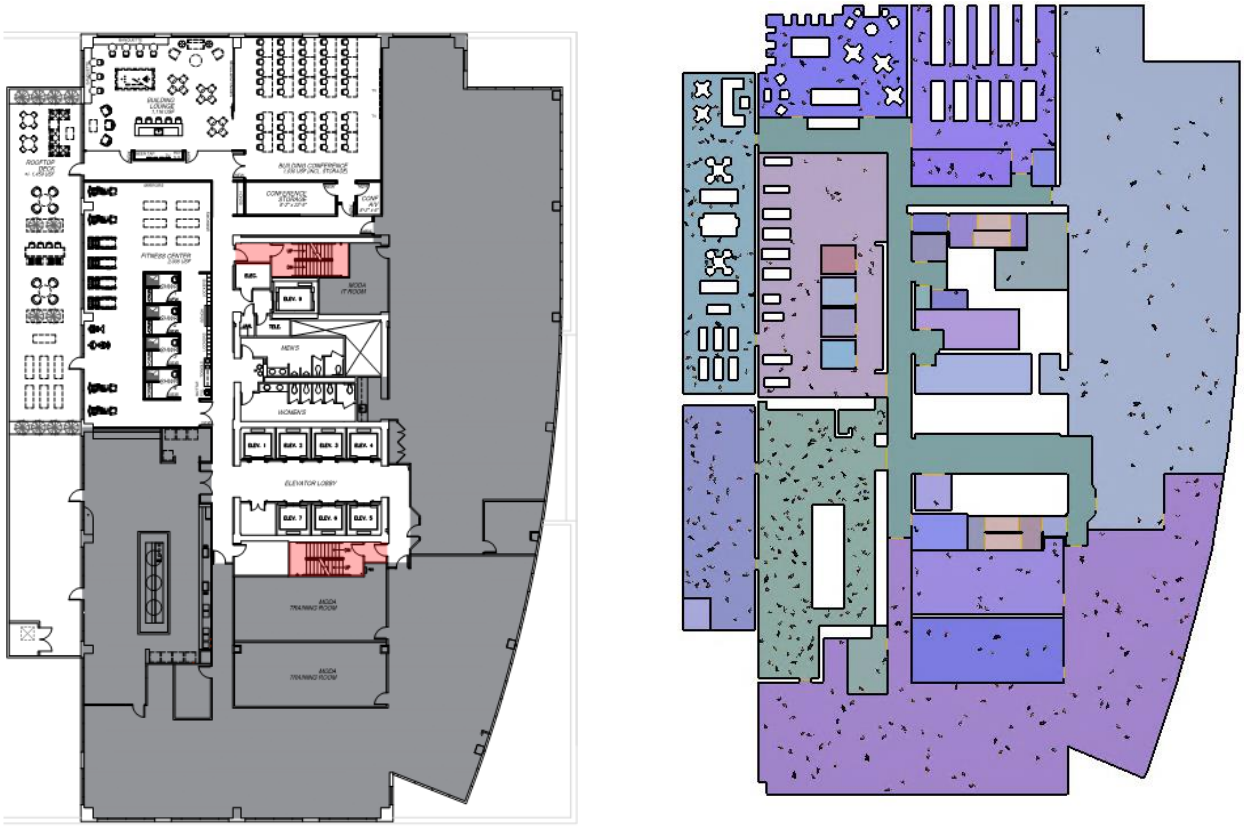

Figure 6: *Level 09 floor plan of the existing design with interior exit stairways higlighted in red (left); Pathfinder model of Level 09 with 500 occupants (right).*

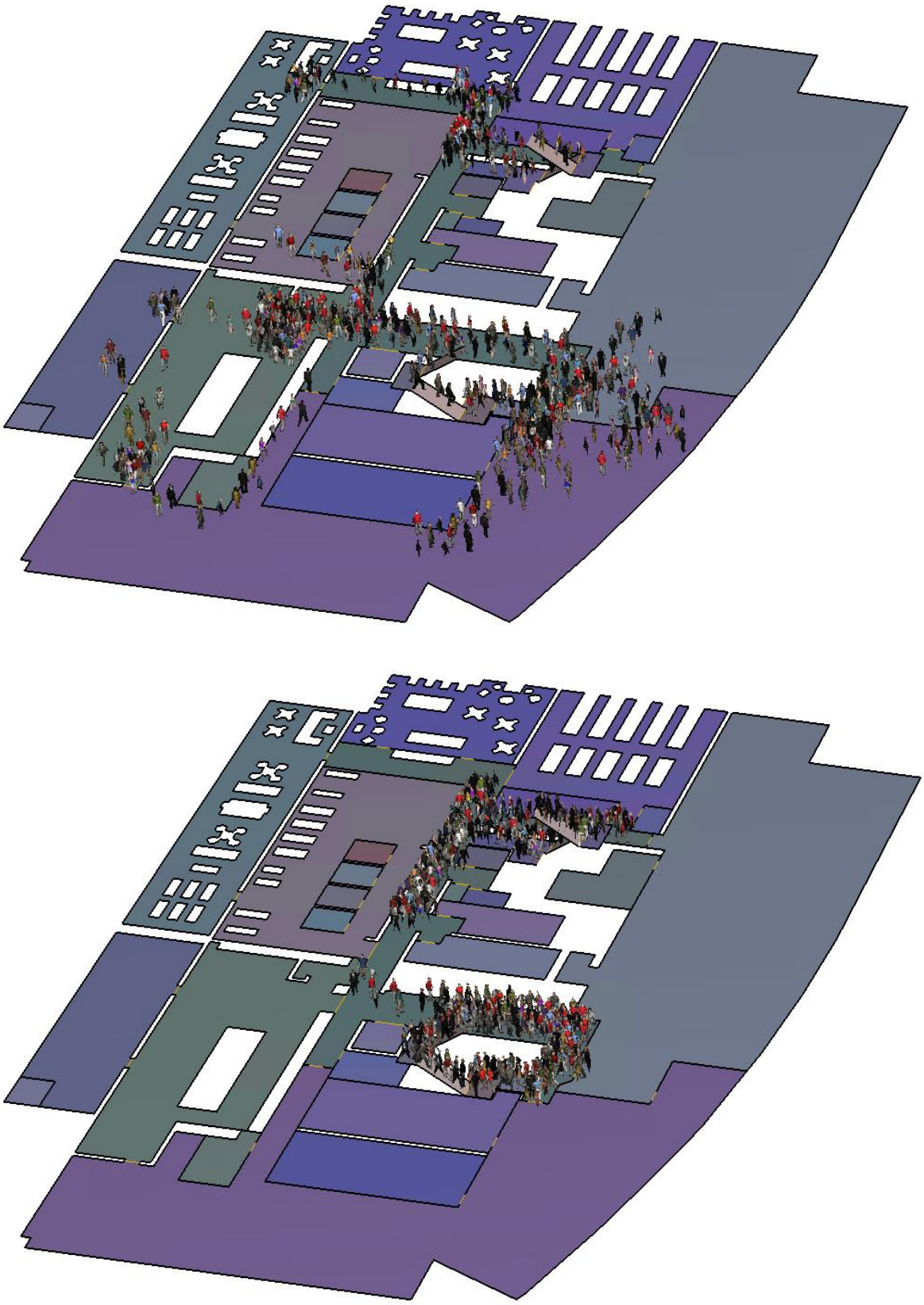

Figure 5: *Egress on Level 09, including 1 minute of pre-movement time. At 1 minutes 30 seconds, occupants begin queuing at doorways (upper); at 6 minutes, stairways are congested, and the flow rate of occupants has decreased (lower).*

5. SUMMARY

Table 2 summarizes the design parameters of the two simulated egress models.

Table 2: *Design parameters of the egress models.*

Parameters	Existing Design	Proposed Design
1. Interior Exit Stairway Width	50 in.	50 in.
2. Stairway Capacity	167/stair	250/stair
3. Exit Door Width – *vestibule and enclosed exit stair doors*	36 in. (34 in. net clear)	48 in. (46 in. net clear)
4. Doorway Capacity	App. 170/door	App. 307/door
5. Occupant load	Level 07 – 333 Level 08 – 333 Level 09 – 333 Level 10 – 333 Level 11 – 333 No occupants modeled on other floors.	Level 07 – 333 Level 08 – 333 Level 09 – 500 Level 10 – 333 Level 11 – 333 No occupants modeled on other floors.
6. Pre-Evacuation Time	4 minutes	1 minute
7. Level 09 Egress Time	**16 minutes and 10 seconds** *(970 seconds)*	**14 minutes and 45 seconds** *(885 seconds)*
8. Total Egress Time	**29 minutes and 24 seconds** *(1,764 seconds)*	**28 minutes and 8 seconds** *(1,688 seconds)*

6. CONCLUSION

The proposed design of 500 occupants on Level 09 with wider doorways at the vestibule at the interior exit stairways and the use of a voice/alarm communication system performs better in an egress simulation than the conditions of the existing appeal. The proposed design includes:

- An emergency voice/alarm communication system meeting the requirements of 2014 OSSC and a Survivability Level 1 in accordance with NFPA 72, reducing pre-movement time of occupants.
- Wider doorways at the vestibule and interior exit stairways (48 inches) than prescriptively required by the 2014 OSSC (37.5 inches), increasing the capacity and flow rate of occupants into the rated stairway enclosure.

The egress simulation accounted for the effects of queuing and congestion at the doorways and stairways by including two floors above Level 09 and two floors below. Based on the results of the simulations, occupants of Level 09 egress the proposed design **1 minute and 25 seconds faster** than the existing design. All occupants of the five floors reach an exit on grade in the proposed design **1 minute and 16 seconds** faster than the existing design. Therefore, the proposed design will exceed the protection for egressing occupants intended by the existing appeal and meet the requirements of the 2014 OSSC prescriptively on Level 09.

Vincent L. Collins, FPE

Fire Protection Engineer/Principal

Statewide Alternate Method
July 2014

No. 08-05
2012 International Existing Building Code and 2014 Oregon Structural Specialty Code, Chapter 34

(Ref.: ORS 455.060)

Statewide Alternate Methods *are approved by the Division administrator in consultation with the appropriate advisory board. The advisory board's review includes technical and scientific facts of the proposed alternate method. In addition:*

- *Building officials shall approve the use of any material, design or method of construction addressed in a statewide alternate method;*
- *The decision to use a statewide alternate method is at the discretion of the designer; and*
- *Statewide alternate methods do not limit the authority of the building official to consider other proposed alternate methods encompassing the same subject matter.*

Code Edition: 2012 International Existing Building Code (IEBC)
2014 Oregon Structural Specialty Code (OSSC)

Code Section: OSSC Chapter 34

Date: October 1, 2008 (Issued)
May 5, 2010 (Updated)
July 1, 2014 (Updated)

Initiated by: Building Codes Division (BCD)

Subject: Use of the 2012 International Existing Building Code (IEBC) Chapter 34

Background:

Chapter 34 of the OSSC (based on the 2012 International Building Code) regulates the repair, alteration, change of occupancy, and addition of existing buildings. It principally provides two paths for compliance; a "*prescriptive compliance metho*d" and a "*performance compliance method*."

Discussion:

The IEBC, as promulgated by the International Codes Council, expands the provisions of OSSC Chapter 34 and adds a third approach known as the "work area compliance method" which is based on the level of work performed. The intent of the IEBC is to provide increased flexibility in the use of alternative approaches to achieve compliance with minimum requirements to safeguard the public health, safety and welfare. Designers may not mix and match compliance paths.

Seismic Rehabilitation: The IEBC provides 2 options for the seismic retrofit of existing buildings; 1) Appendix A and 2) ASCE 31 (Seismic Evaluation of Existing Buildings) in conjunction with ASCE 41 (Seismic Rehabilitation of Existing Structures). These standards are adopted insofar as they relate to the repair, alteration, change of occupancy, and addition to existing buildings.

Local adoption of a Seismic Rehabilitation Plan (ORS 455.020 {4}): This statute states in part: "Pursuant to the regulation of dangerous buildings, a municipality may adopt seismic rehabilitation plans that provide for phased completion of repairs that are designed to provide improved life safety but that may be less than the standards for new buildings." (Emphasis added). When a local municipality adopts a seismic rehabilitation plan as noted in statute, it is a separate requirement from those seismic rehabilitation upgrades that are required as part of an alteration, repair, change of occupancy or addition. In brief, municipalities may adopt additional triggers requiring compliance with the local seismic rehabilitation plan. Examples would include:

1. re-roofing,
2. cost threshold of remodel,
3. change of occupancy to a different relative hazard classification, essential facilities

In addition, the locally adopted seismic rehabilitation plan may specify a specific seismic rehabilitation standard (i.e., ASCE 41, Appendix A of the IEBC, etc.).

The IEBC also contains "Resource A" entitled; "**Guidelines on Fire Ratings of Archaic Materials and Assemblies.**" Resource A is only a guideline and is not intended to be a document for adoption. Accordingly, it is not part of this alternate method.

The technical and scientific facts of this alternate method have been reviewed by the Building Codes Structures Board.

Conclusion:

This alternate method is applicable to the occupancy categories covered in the Oregon Structural Specialty Code and administered through chapter 1 of the same.

Alterations, repairs, additions and changes of occupancy to existing structures shall be permitted to comply with the 2012 International Existing Building Code as amended herein. All 2012 International Existing Building Code references to other codes are as defined in Chapter 2, of the Oregon Structural Specialty Code.

The following portions of the International Existing Building Code **are not adopted** by the State of Oregon. Subject matter contained therein shall comply with applicable sections of the Oregon Structural Specialty Code, the Oregon Mechanical Specialty Code, the Oregon Electrical Specialty Code, the Oregon Boiler and Pressure Vessel Safety Code and the Oregon Plumbing Specialty Code:

1. All portions of Chapter 1, Administration, except Sections 101.2, 101.4, and 101.6
2. Section 115 - Unsafe structures and equipment. (May be adopted by local ordinance)
3. Section 116 - Emergency Measures (May be adopted by local ordinance)
4. Section 117 - Demolition (May be adopted by local ordinance)
5. All references to R-3 Occupancies
6. All references to The International Property Maintenance Code (May be adopted by local ordinance)
7. All references to accessibility. See 2014 OSSC Section 3411
8. All References to Type A and B dwellings
9. All references to historic buildings. See 2014 OSSC Section 3409
10. All references to relocated buildings. See 2014 OSSC Section 3410.1
11. All references to Flood Hazard Areas. Section 2014 OSSC Section 3404.2
12. Sections 607, 808, 1008 - Electrical Provisions
13. Section 608, 809, 1009 – Mechanical
14. Section 609, 810, 1010 – Plumbing

15. Sections 707, 811, 908 - Energy. See 2014 Oregon Energy Efficiency Specialty Code
16. Section 902.2.1 - Boiler controls
17. Section 804.4 - Fire alarm and detection. See 2014 Oregon Fire Code Section 907.3
18. Chapter 15 - Construction Safeguards
19. Chapter 16 - Reference Standards. See 2014 OSSC Chapter 35
20. Elevator standards for existing buildings
21. Platform lifts for existing buildings
22. Appendix B
23. Resource A

The following sections of the IEBC are amended as indicated:

1. Section 1401.2 **Applicability**. Structures existing prior to **July 1, 2014,** in which there is work involving additions, alterations or changes of occupancy shall be made to conform to the requirements of this chapter or the provisions of Chapters 5 through 13. The provisions of Sections 1401.2.1 through 1401.2.5 shall apply to existing occupancies that will continue to be, or are proposed to be, in Groups A, B, E, F, M, R, S **and U**. These provisions shall not apply to buildings with occupancies in Group H or I.
2. Chapter 3, Section 301.1, 301.1.4.1 and 301.1.4.2: See Structural/Seismic revisions below
3. Chapter 4, Section 402.1, 403.1, 404.1, and 407.1: See Structural/Seismic revisions below
4. Chapter 6, Section 602.2, 606.1, 606.2.1, 606.2.2.2, and 606.2.2.3: See Structural/Seismic revisions below
5. Chapter 7, Section 706.2, and 706.3.1: See Structural/Seismic revisions below
6. Chapter 8, Section 807.5: See Structural/Seismic revisions below
7. Chapter 9, Section 907.4: See Structural/Seismic revisions below
8. Chapter 10, Section 1001.3.1 and 1007.3.1: See Structural/Seismic revisions below.

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The technical and scientific facts for this Statewide Alternate Method are approved.

(Signature on File)
Mark Long, Administrator
Building Codes Division

May 5, 2010
Date

Chapter 3

Section 301.1

SUMMARY OF REVISIONS:

1. Clarify that all new structural members must meet the current IBC.
2. Remove loophole that allows structural design to previous editions of code.

OREGON REVISIONS:

301.1 General. The repair, alteration, change of occupancy, addition or relocation of all existing buildings shall comply with one of the methods listed in Sections 301.1.1 through 301.1.3 as selected by the applicant. Application of a method shall be the sole basis for assessing the compliance of work performed under a single permit unless otherwise approved by the code official. Sections 301.1.1 through 301.1.3 shall not be applied in combination with each other. Where this code requires consideration of the seismic-force-resisting system of an existing building subject to repair, alteration, change of occupancy, addition or relocation of existing buildings, the seismic evaluation and design shall be based on Section 301.1.4 regardless of which compliance method is used. **New structural members added as part of the repair, alteration, change of occupancy or addition shall comply with the International Building Code.**

~~Exception: Subject to the approval of the code official, alterations complying with the laws in existence at the time the building or the affected portion of the building was built shall be considered in compliance with the provisions of this code unless the building is undergoing more than a limited structural alteration as defined in Section 907.4.3. New structural members added as part of the alteration shall comply with the International Building Code. Alterations of existing buildings in flood hazard areas shall comply with Section 701.3.~~

Section 301.1.4.1

SUMMARY OF REVISIONS:

1. Clarifies that all of the system seismic design parameters must be obtained from ASCE 7 and incorporates ICC issued errata.
2. Carries forward the intent of the existing amendment to the 2006 IEBC.
3. Under the 2012 IBC the IEBC provisions are only an alternate compliance method, IBC Chapter 34 may still be used.

OREGON REVISIONS:

301.1.4.1 Compliance with IBC level seismic forces. Where compliance with the seismic design provisions of the International Building Code is required, the procedures shall be in accordance with one of the following:

1. One-hundred percent of the values in the International Building Code. Where the existing seismic force-resisting system is a type that can be designated as "Ordinary", values of R, Ω_0 and C_d used for analysis in accordance with Chapter 16 of the International Building Code shall be those specified for structural systems classified as "Ordinary" in accordance with Table 12.2-1 of ASCE 7, unless it ~~can be~~ **is** demonstrated that the structural system ~~satisfies the proportioning and detailing requirements for systems classified as "Intermediate" or "Special."~~ **will provide performance equivalent to that of a "Detailed", "Intermediate" or "Special" system.**

2. Compliance with ASCE 41 using both the BSE-1 and BSE-2 earthquake hazard levels and the corresponding performance levels shown in Table 301.1.4.1.

TABLE 301.1.4.1
PERFORMANCE CRITERIA FOR IBC LEVEL SEISMIC FORCES

Risk CATEGORY (Based on IBC Table 1604.5)	PERFORMANCE LEVEL FOR USE WITH ASCE 41 BSE-1 EARTHQUAKE HAZARD LEVEL	PERFORMANCE LEVEL FOR USE WITH ASCE 41 BSE-2 EARTHQUAKE HAZARD LEVEL
I	Life safety (LS)	Collapse prevention (CP)
II	Life safety (LS)	Collapse prevention (CP)
III	Note a, ~~Note b~~	Note a
IV	Immediate occupancy (IO)	Life safety (LS)

a. **Acceptance** criteria for RiskCategory III shall be taken as 80 percent of the acceptance criteria specified for Risk Category II performance levels, but need not be less than the acceptance criteria specified for Occupancy Category IV performance levels.

Section 301.1.4.2

SUMMARY OF REVISIONS:

1. Removes the reference to methods contained in older documents and replaces them with more modern consensus-based upgrade and evaluation procedures.
2. It further removes the reference to ASCE 31 as an "upgrade" document because ASCE 31 is actually an "evaluation" document.

OREGON REVISIONS:

301.1.4.2 Compliance with reduced IBC level seismic forces. Where seismic evaluation and design is permitted to meet reduced *International Building Code* seismic force levels, the procedures used shall be in accordance with one of the following:

1. The *International Building Code* using 75 percent of the prescribed forces. Values of R, Ω_0 and C_d used for analysis shall be as specified in Section 301.1.4.1 of this code.

~~2. Structures or portions of structures that comply with the requirements of the applicable chapter in Appendix A as specified in Items 2.1 through 2.5 shall be deemed to comply with this section.~~

~~2.1 The seismic evaluation and design of unreinforced masonry bearing wall buildings in Occupancy Category I or II are permitted to be based on the procedures specified in Appendix Chapter A1.~~

~~2.2 Seismic evaluation and design of the wall anchorage system in reinforced concrete and reinforced masonry wall buildings with flexible diaphragms in Occupancy Category I or II are permitted to be based on the procedures specified in Chapter A2.~~

~~2.3 Seismic evaluation and design of cripple walls and sill plate anchorage in residential buildings of light-frame wood construction in Occupancy Category I or II are permitted to be based on the procedures specified in Chapter A3.~~

~~2.4 Seismic evaluation and design of soft, weak, or open-front wall conditions in multiunit residential buildings of wood construction in Occupancy Category I or II are permitted to be based on the procedures specified in Chapter A4.~~

~~2.5 Seismic evaluation and design of concrete buildings and concrete with masonry infill buildings in all occupancy categories are permitted to be based on the procedures specified in Chapter A5.~~

~~3. Compliance with ASCE 31 based on the applicable performance level as shown in Table 301.1.4.2. It shall be permitted to use the BSE-1 earthquake hazard level as defined in ASCE 41 and subject to the limitations in Item 4 below.~~

2. ~~4.~~ Compliance with ASCE 41 using the BSE-1 Earthquake Hazard Level and the performance level shown in Table 301.1.4.2. The design spectral response acceleration parameters S_{XS} and S_{X1} specified in ASCE 41 shall not be taken less than 75 percent of the respective design spectral response acceleration parameters S_{DS} and SD_1 defined by the International Building Code.

A building that is evaluated and determined to meet ASCE 31 based on the applicable performance levels as shown in Table 301.1.4.2 is considered to be compliant with reduced IBC level forces.

TABLE 301.1.4.2
PERFORMANCE CRITERIA FOR REDUCED IBC – LEVEL SEISMIC FORCES RISK CATEGORY

RISK CATEGORY (Based on IBC Table 1604.5)	PERFORMANCE LEVEL FOR USE WITH ASCE 31	PERFORMANCE LEVEL FOR USE WITH ASCE 41 BSE-1 EARTHQUAKE HAZARD LEVEL
I	Life safety (LS)	Life safety (LS)
II	Life safety (LS)	Life safety (LS)
III	Notes a, b	Note a
IV	Immediate occupancy (IO)	Immediate occupancy (IO)

a. Acceptance criteria for RiskCategory III shall be taken as 80 percent of the acceptance criteria specified for Risk Category II performance levels, but need not be less than the acceptance criteria specified for Risk Category IV performance levels.
b. For RiskCategory III, the ASCE 31 screening phase checklists shall be based on the life safety performance level.

Chapter 4

Section 402.1 ~ Additions

SUMMARY OF REVISIONS:

IBC Section 3403 and the prescriptive compliance method of the IEBC Section 402 are identical with the exception of Oregon amendments to Chapter 34 of the IBC. Removing this section of the IEBC and referencing IBC Section 3403 will include these amendments in the prescriptive path of the IEBC without having to duplicate all the amendments.

OREGON REVISIONS:

402.1 General. Additions to any building or structure shall comply with the requirements of the International Building Code, Section 3403.

Delete remainder of IEBC Section 402.

Section 403.1 ~ Alterations

SUMMARY OF REVISIONS:

IBC Section 3404 and the prescriptive compliance method of the IEBC Section 403 are identical with the exception of Oregon amendments to Chapter 34 of the IBC. Removing this section of the IEBC and referencing IBC Section 3404 will include these amendments in the prescriptive path of the IEBC without having to duplicate all the amendments.

OREGON REVISIONS:

403.1 General. Alterations to any building or structure shall comply with the requirements of the International Building Code, Section 3404.

Delete remainder of IEBC Section 403.

Section 404.1 ~ Repairs

SUMMARY OF REVISIONS:

IBC Section 3405 and the prescriptive compliance method of the IEBC Section 404 are identical with the exception of Oregon amendments to Chapter 34 of the IBC. Removing this section of the IEBC and referencing IBC Section 3405 will include these amendments in the prescriptive path of the IEBC without having to duplicate all the amendments.

OREGON REVISIONS:

404.1 General. Repairs to any building or structure shall comply with the requirements of the International Building Code, Section 3405.

Delete remainder of IEBC Section 404.

Section 407.1 ~ Change of Occupancy

SUMMARY OF REVISIONS:

IBC Section 3408 and the prescriptive compliance method of the IEBC Section 407 are identical with the exception of Oregon amendments to Chapter 34 of the IBC. Removing this section of the IEBC and referencing IBC Section 3408 will include these amendments in the prescriptive path of the IEBC without having to duplicate all the amendments.

OREGON REVISIONS:

407.1 General. Changes of occupancy or use to any building, structure or portion thereof shall comply with the requirements of the International Building Code, Section 3408.

Delete remainder of IEBC Section 407.

Chapter 6

Section 602.2 ~ New and Replacement Materials

SUMMARY OF REVISIONS:

Modified to be consistent with 2014 OSSC Section 3401.4.2.

OREGON REVISIONS:

602.2 New and replacement materials. Except as otherwise required or permitted by this code, materials permitted by the applicable code for new construction shall be used. **Except for structural repairs and alterations, ~~L~~ l**ike materials shall be permitted for repairs and alterations, provided no *dangerous* or *unsafe* condition, as defined in Chapter 2, is created. Hazardous materials, such as asbestos and lead-based paint, shall not be used where the code for new construction would not permit their use in buildings of similar occupancy, purpose and location.

Section 606.1 ~ Structural Repairs

SUMMARY OF REVISIONS:

Clarify that structural repairs must comply with all of the provisions of the OSSC, not just the detailing provisions.

OREGON REVISIONS:

606.1 General. Structural repairs shall be in compliance with this section and Section 601.2. Regardless of the extent of structural or nonstructural damage, dangerous conditions shall be eliminated. Regardless of the scope of repair, new structural members and connections used for repair or rehabilitation shall comply with the ~~detailing~~ provisions of the International Building Code for new buildings of similar structure, purpose and location.

Section 606.2.1 ~ Repairs

SUMMARY OF REVISIONS:

Modified to be consistent with 2014 OSSC section 3405.4.

OREGON REVISIONS:

606.2.1 Repairs for less than substantial structural daage. For damage less than *substantial structural damage*, the damaged elements shall ~~be permitted to be restored to their predamage condition~~ **comply with the International Building Code.**

Section 606.2.2.2 ~ Repairs "Compliant"

SUMMARY OF REVISIONS:

Modified to be consistent with 2014 OSSC Section 3405.2.2.

OREGON REVISIONS:

606.2.2.2 Extent of repair for compliant buildings. If the evaluation establishes that the building in its predamage condition complies with the provisions of Section 606.2.2.1, then the damaged elements shall be ~~permitted to be restored to their predamage condition~~ **repaired such that they comply with the International Building Code.**

Section 606.2.2.3 ~ Repairs "Noncompliant"

SUMMARY OF REVISIONS:

Modified to be consistent with 2014 OSSC Section 3405.2.3.

OREGON REVISIONS:

606.2.2.3 Extent of repair for noncompliant buildings. If the evaluation does not establish that the building in its pre-damage condition complies with the provisions of Section 606.2.2.1, then the building shall be rehabilitated to comply with the **International Building Code.** ~~provisions of this section. The wind load for the *repair* and rehabilitation shall be those required by the building code in effect at the time of original construction, unless the damage was caused by wind, in which case the wind loads shall be in accordance with the International Building Code. The seismic loads for this rehabilitation design shall be those required by the building code in effect at the time of original construction, but not less than the reduced~~ IBC (strikethrough) ~~level seismic forces .~~

Chapter 7

Sections 706.2 & 706.2.1 ~ Alterations – Level 1

SUMMARY OF REVISIONS:

Modified to be consistent with 2014 OSSC Chapter 16 and ASCE 7

OREGON REVISIONS:

7**06.2 Addition or replacement of roofing or replacement of equipment.** Where addition or replacement of roofing or replacement of equipment results in additional dead loads, structural components supporting such reroofing or equipment shall comply with the gravity load requirements of the International Building Code.

Exceptions:

1. Structural elements where the additional dead load from the roofing or equipment is not increased by more than 5 percent.
2. Buildings constructed in accordance with the International Residential Code or the conventional light frame construction methods of the International Building Code and where the dead load from the roofing or equipment is not increased by more than 5 percent.
3. Addition of a second layer of roof covering weighing 3 pounds per square foot (0.1437 kN/m2) or less over an existing, single layer of roof covering.

Replacement equipment shall be anchored and braced in accordance with the requirements of the International Building Code.

Sections 706.3 & 706.3.1 ~ Reroof Permits

SUMMARY OF REVISIONS:

Captures all parapets and precludes compliance with reduced forces.

OREGON REVISIONS:

7**06.3 Additional requirements for reroof permits.** The requirements of this section shall apply to *alteration* work requiring reroof permits.

7**06.3.1 Bracing for unreinforced masonry ~~bearing wall~~ parapets.** Where a permit is issued for reroofing for more than 25 percent of the roof area of building assigned to Seismic Design Category D, E or F that has parapets constructed of unreinforced masonry, the work shall include installation of parapet bracing to resist the ~~reduced~~ *International Building Code* level seismic forces as specified in Section 301.1.4.~~2~~**1** of this code, unless an evaluation demonstrates compliance of such items **using the reduced *International Building Code* seismic forces as specified in Section** 301.1.4.2**.**

Chapter 8

Section 807.5 ~ Existing Structural Elements Resisting Lateral Loads

SUMMARY OF REVISIONS:

Precludes compliance with reduced forces.

OREGON REVISIONS:

807.5 Existing structural elements resisting lateral loads. Alterations affecting the demands or capacities of existing elements of the lateral load-resisting system shall be evaluated using the wind provisions of the International Building Code and the ~~**reduced**~~ IBC-level seismic forces. Any existing lateral load-resisting structural elements whose demand-capacity ratio with the alteration considered is more than 10 percent greater than its demand-capacity ratio with the alteration ignored shall be brought into compliance with those wind and seismic provisions. In addition, the alteration shall not create a structural irregularity prohibited by ASCE 7 unless the entire structure complies with Section 301.1.4.2. For the purposes of this section, comparisons of demand-capacity ratios and calculation of design lateral loads, forces and capacity shall account for the cumulative effects of additions and alterations since the original construction.

Chapter 9

Section 907.4.2 ~ Substantial Structural Alterations

SUMMARY OF REVISIONS:

Precludes compliance with reduced forces.

OREGON REVISIONS:

907.4.2 Substantial structural alteration. Where more than 30 percent of the total floor and roof areas of the building or structure have been or are proposed to be involved in structural *alteration* within a five-year period, the evaluation and analysis shall demonstrate that the altered building or structure complies with the *International Building Code* for wind loading and with ~~reduced~~ IBC-level seismic forces The areas to be counted toward the 30 percent shall be those areas tributary to the vertical load-carrying components, such as joists, beams, columns, walls and other structural components that have been or will be removed, added or altered, as well as areas such as mezzanines, penthouses, roof structures and in-filled courts and shafts.

Chapter 10

Section 1001.3.1 ~ Partial Change of Occupancy Classification

SUMMARY OF REVISIONS:

Requires compliance with structural provisions of 1007 in addition to the occupancy change requirements of 1012.

OREGON REVISIONS:

1001.3.1 Partial change of occupancy classification. Where a portion of an existing building is changed to a new occupancy classification, Section**s 1007 and** 1012 shall apply.

Section 1007.3.1 ~ Change of Occupancy (Work Area Method)

SUMMARY OF REVISIONS:

Establishes elevated seismic hazard improvement standards for change of occupancy.

OREGON REVISIONS:

1007.3.1 Compliance with the *International Building Code* level seismic forces. Where a building or portion thereof is subject to a change of occupancy that results in the building being assigned to a higher occupancy category based on Table 1604.5 of the *International Building Code*; or where such change of occupancy results in a reclassification of a building to a higher hazard category as shown in ~~Table 912.4; or where a change of a Group M occupancy to a Group A, E, I-1, R-1, R-2 or R-4 occupancy with two-thirds or more of the floors involved in Level 3 alteration work, the building shall comply with the requirements for International Building Code level seismic forces as specified in Section 101.5.4.1 for the new occupancy category~~ **Table 1007.3 or when the total building occupancy load is increased by more than 150 occupants, the building shall comply with the seismic improvement standards of Table 1007.3 as defined in Section 301.1.4.1 for the new occupancy category.**

Exception:

~~Group M occupancies being changed to Group A, E, I-1, R-1, R-2 or R-4 occupancies for buildings less than six stories in height and in Seismic Design Category A, B or C.~~

Where approved by the code official, specific detailing provisions required for a new structure are not required to be met where it can be shown that an equivalent level of performance and seismic safety is obtained for the applicable occupancy category based on the provision for reduced International Building Code level seismic forces as specified in Section 301.1.4.2.

~~Where the area of the new occupancy with a higher hazard category is less than or equal to 10 percent of the total building floor area and the new occupancy is not classified as Occupancy Category IV. For the purposes of this exception, buildings occupied by two or more occupancies not included in the same occupancy category, shall be subject to the provisions of Section 1604.5.1 of the International Building Code. The cumulative effect of the area of occupancy changes shall be considered for the purposes of this exception.~~

~~Unreinforced masonry bearing wall buildings in Occupancy Category III when assigned to Seismic Design Category A or B shall be allowed to be strengthened to meet the requirements of Appendix Chapter A1 of this code [Guidelines for the Seismic Retrofit of Existing Buildings (GSREB)].~~

TABLE 1007.3
Seismic Hazard Categories and Structural Improvement Standard [d]

RELATIVE HAZARD[b, c]	OSSC OCCUPANCY CLASSIFICATION	SEISMIC IMPROVEMENT STANDARD[a]
1 (Highest Standard)	A, E, I-2, I-3, H	301.1.4.1
2	R-1, R-2, R-4, SR, I-1, I-4	301.1.4.1
3	B, M	301.1.4.2
4	F-1, F-2, S-1, S-2	301.1.4.2
5 (Lowest Standard)	R-3, U	301.1.4.2

Notes:

a) Required improvements shall be made such that the entire building conforms to the indicated standard.

b) Where the area of the new occupancy with a higher hazard category is less than or equal to 33 percent of the total building floor area, and the total occupant load for the building is not increased by more than 150 occupants (or 10 percent of the existing occupant load, whichever is greater) the building does not require structural improvement unless required by other provisions of this code.

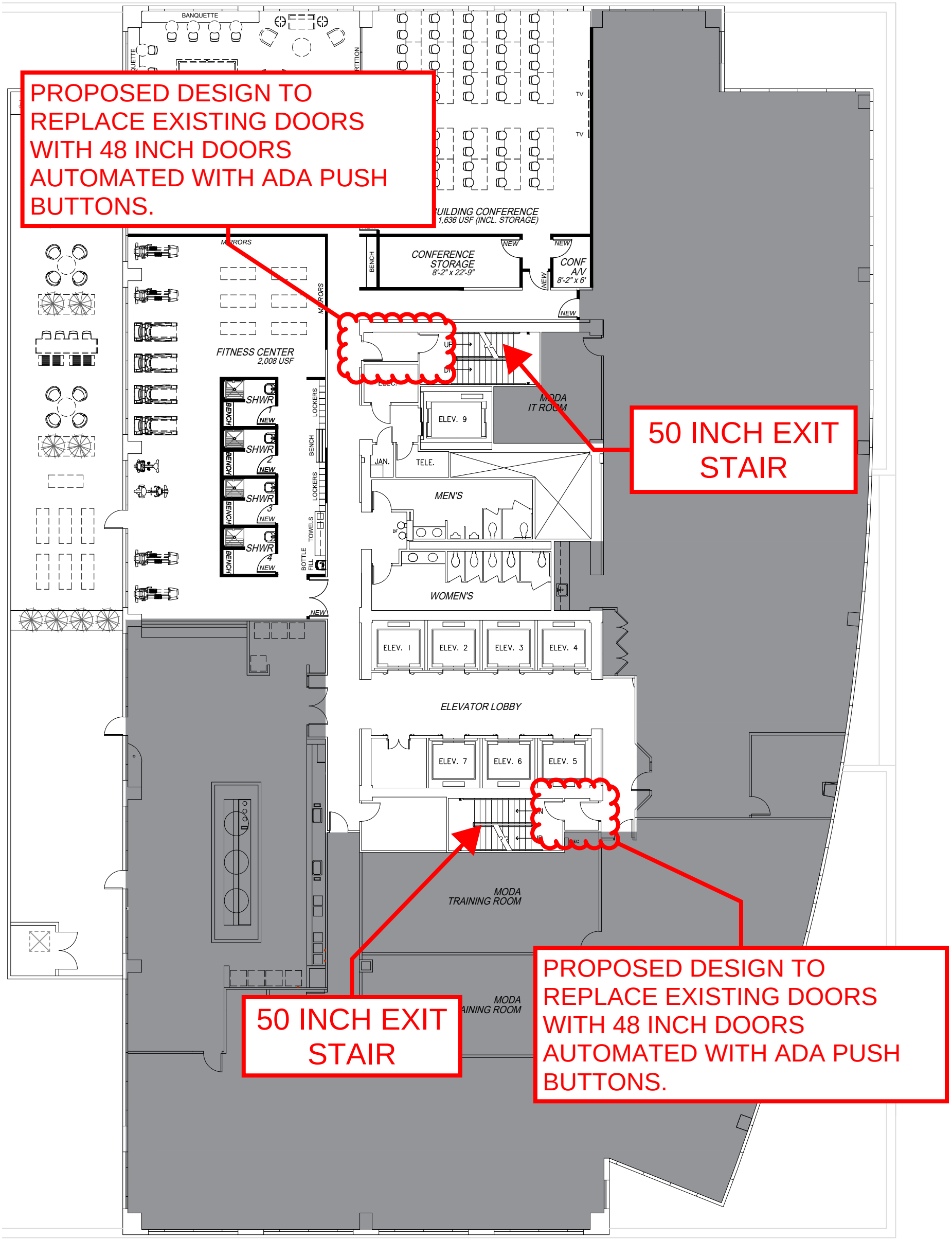
c) Where a change in occupancy results in the addition of more than 150 occupants to the building (or 10 percent of the existing occupant load, whichever is greater), the building shall be structurally improved based the Seismic Improvement Standard for the occupancy classification of the majority of the added occupants.

d) **For the purposes of this section, multiple changes in occupancy and occupant load are considered cumulative. The cumulative effects of the building area occupancy changes and occupant load changes shall be considered based upon the established legal occupancy on April 1, 2014.**

TFc.10 - 9th Floor Amenity Space

601 SW SECOND AVENUE

PROPOSED FLOOR PLAN



MODA
13,221 USF + 1,075 USF AT BALCONY

LRS ARCHITECTS

Project #218489 I Moda Tower
05.24.2019

SCALE: 1/16" = 1'-0"

Administrative Appeal Action **3-08-00**
Bureau of Buildings

Appeal Number B-18

Owner:	ODS Health Plans
Appellant:	Renee Kajimoto, 224-3860 FAX: 224-2482
Plan Reviewer:	Nauman Quraishi
Permit Number:	Not given
Stories/Occ/Type:	23 / B / I
RE:	Tenant Change Plan
Proposed Use:	Office
Project Address:	**601 SW 2nd Ave.**

1. BUILDING CODE SECTION: 1003.1

BUILDING REGULATION REQUIREMENT

From Table 10-A Minimum Egress Requirements – dining rooms require an occupant load factor of 15/sf. Offices require 10-0 sf.

PREVIOUS APPEAL 03.24.1997

BUILDING PROPOSED DESIGN

An appeal was granted to allow a maximum of 300 persons on the 9th floor. (See attached original appeal.) The stairs are designed per width to accommodate 333 persons. The office/mail area will be replanned to have a total of 90 persons (see attached plan). The remaining occupants allowed in the lunch room would be 243 based on 333 total allowed. We would like to maximize the allowable in the lunch room to 243 which is the allowable per the designed stair. Currently, the lunch room has a posted capacity of 255.

REASON FOR ALTERNATE

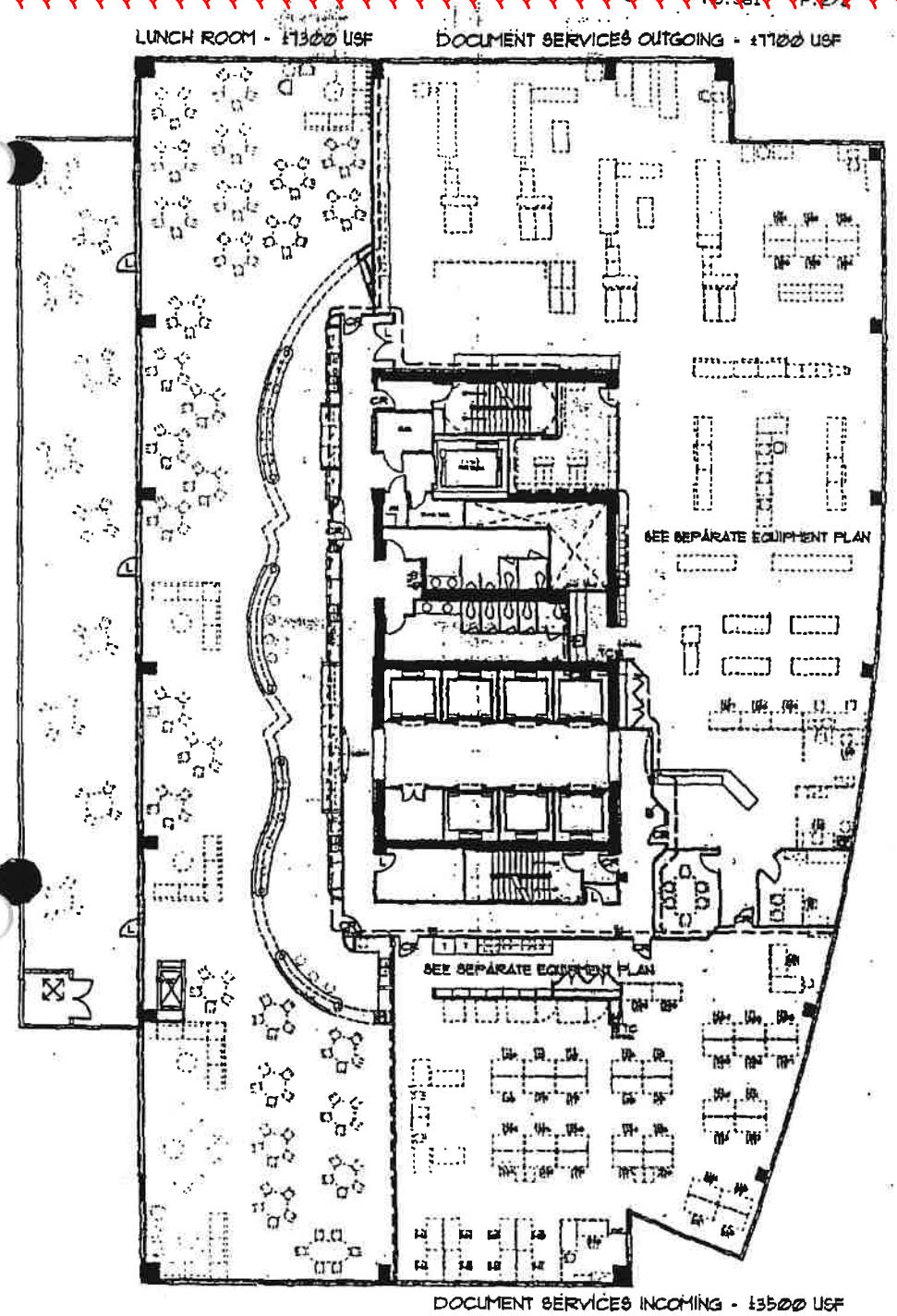
We would like to maximize the allowable population in the dining area for future flexibility. There are three exits from the lunch room with clearly identified exit signs. The exits lead directly to the exit corridor. The floor is fully sprinklered with smoke detectors.

Appeal Number B-18 **(Continued)**

The Administrative Staff reviewed the appeal, and the following decision was reached:

1. Occupant load for 9th floor: **Granted provided** the total occupant load for the floor does not exceed 333 persons and that calculations are provided showing that the exit systems, including doors and stairs, are capable of providing the required exit width for 333 persons.

Note: Occupant load in cafeteria shall be posted by the Fire Marshal's Office based on an occupant load of maximum 240 persons.



	DOC CTRL
TOTAL	43
USED	40
AVAIL.	3

FIRE CODE MAX. OCCUPANCY:
300 PERSONS TOTAL PER FLOOR

LUNCH ROOM MAXIMUM OCCUPANCY:
255 PERSONS

TC	TIME & ATTENDANCE CONTROL STATION
CR	CARD READER SECURITY
L	LOCK
P	PRINTER
PC	P.C.
F	FAX

DS Tower
SW Second Avenue - Portland, Oregon

CYNTHIA KNOTT & ASSOCIATES
EDITION • LANNING AND DESIGN
[illegible] AVENUE
[illegible] OREGON 97201 503 - 243 - 2324

Ninth Floor

Furniture Plan

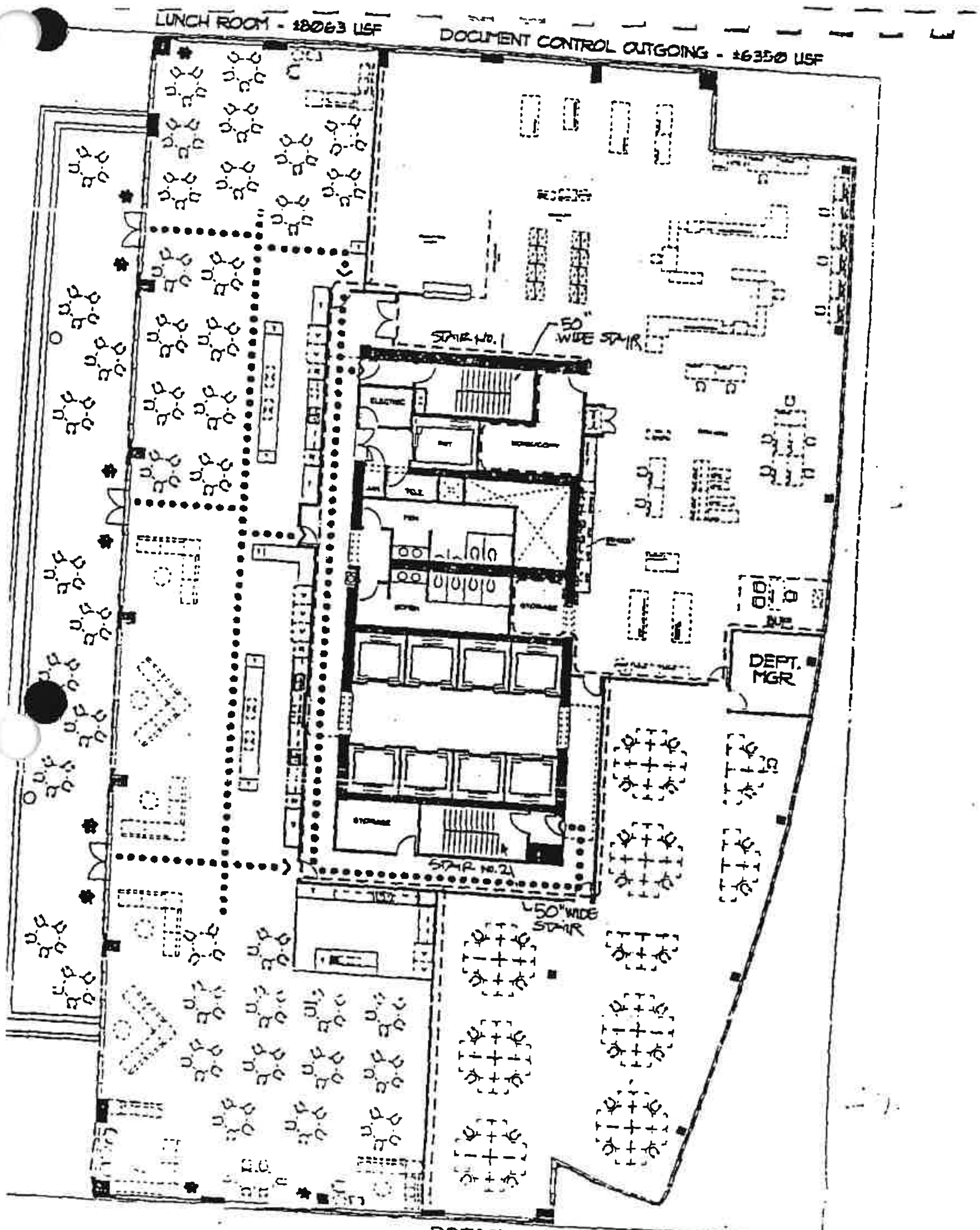
1/16"=1'-0"
SCALE

5-17-99
DATE

T-9
DWG. NO.

CURRENT EXISTING PLAN

ORIGINAL APPEAL



ESTIMATED FULL FLOOR OCCUPANCY:

LUNCH ROOM (215 PERSONS) TERRACE (60 PERSONS)	= 275 PERSONS
DOCUMENT CONTROL	= 58 PERSONS
TOTAL OCCUPANCY	= 333 PERSONS

- 333 x .3c = 99.9" TOTAL STAIR WIDTH REQUIRED
- 100" TOTAL WIDTH PROVIDED AS SHOWN

ower ·
Portland, Oregon

OTT & ASSOCIATES

Ninth Floor Space Plan & Egress Layout	1/16" = 1'-0" SCALE	T-9
Occupancy Count	2/12/97 DATE	DWG. NO.

Administrative Appeal Action **8-28-02**
Office of Planning and Development Review

Appeal Number B-9

Owner:	ODS Health Plans
Appellant:	Jan Knott AIA, CSI, 503-243-3375 FAX: 503-243-3390
Plan Reviewer:	Jim Harris
Permit Number:	
Stories/Occ/Type:	23 / M, S-3, B / I-FR
RE:	Alteration of an existing structure
Proposed Use:	Office Building
Project Address:	**601 SW 2nd Ave**

1. BUILDING CODE SECTION: 1003.2.2 Occupant Load

BUILDING REGULATION REQUIREMENT

For areas without fixed seats, the occupant load shall be not less than the number determined by dividing the floor area under consideration by the occupant load factor assigned to such use for such area as set forth in Table 10-A. …for more than one proposed use the occupant load is based on that use that yields the largest load.

BUILDING PROPOSED DESIGN

Administrative Appeal number B-18 dated 3-08-00 permitted an occupancy of 333 persons on the 9th floor of this building based on the existing width of the exit stairway. The permitted mix of uses and occupancy are as follows: lunch room 240 persons (sign posted), office/mail 93 persons. This appeal proposes to reduce the floor area of the lunch room to 4924 sq. ft. from 7110 sq. ft. and post a maximum occupancy of 179 persons. The remainder of the floor will be divided as follows: training room 2131 sq. ft. with a posted seating capacity of 65 persons, information services 7220 sq. ft. 69 persons, computer end-user 1998 sq. ft. 14 persons, mail services 1695 sq. ft. 6 persons. These occupancies are consistent with the number of seats and desks provided in the spaces.

THIS STILL MAINTAINS MAX OCCUPANT LOAD OF 333 FOR THE ENTIRE FLOOR

Appeal Number B-9 **(Continued)**

REASON FOR ALTERNATE

Because of exit stair width limitations the alternate is required to allow less people on the floor than is required by the code for the proposed occupancy uses. The building is 100% sprinklered and fire detection and visible alarms are provided. Corridor widths, number and location of exits are per code. The width of the existing exit stair is such that no more than 333 persons are permitted on this floor. The appeal will maintain that maximum number while distributing the occupants on the floor based on the end use of the space and the number of seats and desks provided. A plan showing the proposed floor occupancy and uses is attached to this appeal for information. Actual and proposed posted occupancies are marked on the attached plan. The approved ratio of persons/sq. ft. for the lunchroom is approximately the same in this appeal. 1 person per 40 sq. ft. (appeal) versus 1:42 sq. ft. (proposed).

The Administrative Staff reviewed the appeal, and the following decision was reached:

1. Occupant loads: **Granted provided** occupant loads are posted as proposed, and seating plan is posted at the training room, indicating maximum allowable use.