

PRELIMINARY BUILDING CODE SUMMARY

GENERAL NOTE: Every effort has been made to obtain accurate and applicable criteria however research may not contain all the necessary criteria and should be confirmed with the ruling jurisdiction.

PROJECT	Oak Lodge Community Project Concord Property						
Site Address	3811 SE Concord Rd. Milwaukie, OR 97267						
Building Area (Existing)	<table border="0" style="margin-left: 40px;"> <tr> <td style="padding-right: 10px;">Basement/Lower Level</td> <td style="text-align: right;">23,250 gsf</td> </tr> <tr> <td style="padding-right: 10px; text-align: center;">Main Level</td> <td style="text-align: right;">23,160 gsf</td> </tr> <tr> <td style="padding-right: 10px;">Total Building Area</td> <td style="text-align: right;">46,410 gsf</td> </tr> </table>	Basement/Lower Level	23,250 gsf	Main Level	23,160 gsf	Total Building Area	46,410 gsf
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Main Level	23,160 gsf						
Total Building Area	46,410 gsf						
Jurisdictional Authority	Clackamas County, Oregon						
Applicable Codes	2019 Oregon Structural Specialty Code 2019 Oregon Fire Code 2019 Oregon Mechanical Specialty Code 2017 Oregon Plumbing Specialty Code 2017 Oregon Electrical Specialty Code 2019 Oregon Zero Energy Ready Commercial Code 2018 International Existing Building Code 2009 ICC / A117.1 Accessible and Usable Buildings and Facilities 2010 ADA Standards for Accessible Design						
Occupancy Classification Existing	E - Education						
Occupancy Classification Proposed (Chapter 3)	A-2, A-3 Assembly (Community Center, Library) B Business (Offices)						
Separation of Occupancies (Table 508.4)	A-3 and B: 1-hour <i>Fire barriers per Section 707 or horizontal assemblies per Section 711.</i>						
Construction Classification Existing (Table 503)	Type V B (Confirmed with Ray Van Lieu, Clackamas County Plans Exam.) Exterior: Unreinforced brick and clay tile double-wythe bearing walls, minimally reinforced concrete up to grade. Interior: Wood-framed (walls, floor and roof) Building is fully sprinklered.						
Allowable Building Height (Table 504.3)	60 ft						
Allowable Stories Above	Group A-2, A-3: 2 stories Group B: 3 stories						

Grade Plane
 (Table 504.4)

Allowable Building Area
 (Table 506.2)

Tabulated:
506.2.4 Mixed-occupancy, multistory buildings:

Per Table 506.2:

Allowable areas:

- A-2 = 18,000 sf
- A-3 = 18,000 sf
- B= 27,000 sf

FIRST FLOOR

Group A-2:

- Cafeteria and kitchen: **3,110 sf**

Group A-3:

- General Assembly room: **1,640 sf**

Group B:

- Remaining sf: **18,500 sf**

SECOND FLOOR

Group A-3:

- General Assembly room: **4,915 sf**
- Media Center: **1,472 sf**

Group B:

- Remaining sf: **16,773 sf**

Allowable area per floor for **Group A-2, A-3:** = $(18,000 + (6,000 \times .75)) = 18,000 + 4,500 = \mathbf{22,500 \text{ per story}}$

Allowable area per floor for **Group B:** = $(27,000 + (9,000 \times .75)) = 27,000 + 6,750 = \mathbf{33,750 \text{ per story}}$

Aggregate sum of the ratios = Actual area of each story / allowable area of each story using the unity formula:

First story:

$$(3,110+1,640 / 22,500) + (18,250 / 33,750) = .2111 + .5407 = \mathbf{.7518 < 1}$$

Second Story:

$$(6,387 / 22,500) + (16,773 / 33,750) = .2839 + .4960 = \mathbf{.7797 < 1}$$

$.7518 + .7797 = \mathbf{1.5315 < 4}$ per Exception 506.2.4 Mixed Occupancy/
 Multi-story Bldgs

Requires 1-hour separation between A-2/A-3 and B groups.

Fire Resistive Building Elements
 (Table 601)

Primary Structural Frame	0-hr
Exterior Bearing walls	0-hr
Interior Bearing Walls	0-hr
Exterior Nonbearing Walls	0-hr (See Exterior Wall Protection Reqs)
Interior Nonbearing Walls	0-hr
Floor Construction	0-hr
Roof Construction	0-hr

Fire Resistive Rating for Exterior Walls based on Fire Separation Distance	Distance $X < 5$ ft = 1 hr	1 hr
	Distance 5 ft $\leq X \leq 10$ ft	1 hr
	Distance 10 ft $\leq X \leq 30$ ft	1 hr
	Distance $X \geq 30$ ft	0 hr

(Table 602)

Fire Separation Distance and Degree of Opening Protection

FIRE SEPARATION DISTANCE (feet)	DEGREE OF OPENING PROTECTION	ALLOWABLE AREA ^a
0 to less than 3 ^{b, c, k}	Unprotected, Nonsprinklered (UP, NS)	Not Permitted ^k
	Unprotected, Sprinklered (UP, S) ^j	Not Permitted ^k
	Protected (P)	Not Permitted ^k
3 to less than 5 ^{d, e}	Unprotected, Nonsprinklered (UP, NS)	Not Permitted
	Unprotected, Sprinklered (UP, S) ^j	15%
	Protected (P)	15%
5 to less than 10 ^{e, f, j}	Unprotected, Nonsprinklered (UP, NS)	10% ^h
	Unprotected, Sprinklered (UP, S) ^j	25%
	Protected (P)	25%
10 to less than 15 ^{e, f, g, j}	Unprotected, Nonsprinklered (UP, NS)	15% ^h
	Unprotected, Sprinklered (UP, S) ^j	45%
	Protected (P)	45%
15 to less than 20 ^{f, g, j}	Unprotected, Nonsprinklered (UP, NS)	25%
	Unprotected, Sprinklered (UP, S) ^j	75%
	Protected (P)	75%
20 to less than 25 ^{f, g, j}	Unprotected, Nonsprinklered (UP, NS)	45%
	Unprotected, Sprinklered (UP, S) ^j	No Limit
	Protected (P)	No Limit
25 to less than 30 ^{f, g, j}	Unprotected, Nonsprinklered (UP, NS)	70%
	Unprotected, Sprinklered (UP, S) ^j	No Limit
	Protected (P)	No Limit
30 or greater	Unprotected, Nonsprinklered (UP, NS)	No Limit
	Unprotected, Sprinklered (UP, S) ^j	No Limit
	Protected (P)	No Limit

Protected Openings
705.8.1

Where openings are required to be protected, opening protectives shall comply with Section 7.16.

705.8.2 Exception: Opening protectives not required where building is fully equipped with automatic sprinkler system and exterior openings are protected by a water curtain using automatic sprinklers approved for that use.

Unprotected Openings
705.8.2

Where unprotected openings are permitted, windows and doors shall be constructed of any approved materials. Glazing shall conform to the requirements of Chapters 24 and 26.

Fire Extinguishing Systems
904.2.2

Commercial hood and duct systems:
 Each required commercial kitchen exhaust hood and duct system required by the Mechanical Code to have a Type I hood shall be protected with an approved automatic fire-extinguishing system installed in accordance with this code.

Automatic Fire Sprinkler System
(Section 903)

Required for A-2, A-3.
 Existing: Building is fully sprinklered

Fire & Smoke Detection
(Section 907) Group A & B: Manual fire alarm box required, unless building is equipped with an automatic sprinkler system and occupant notification appliances are activated.

Seismic Upgrade
2017 ASCE 41 Seismic Design and Retrofit of Existing Building Seismic Upgrade **Voluntary** (Confirmed with Andy Anderson , Clackamas County Structural Engineer Plans Examiner) -refer to Seismic Assessment by Catena Engineers.

Existing Group E Occupancy greater than 500 people, Risk Category III structure. Anticipated Group A Occupancy greater than 500 people, would remain Risk Category III; does not trigger mandatory upgrade due to Occupancy change.

Plumbing Fixtures

Existing:

Kitchen

Upper Level: 0

Lower Level: 3

Lavatory

Upper Level: 26

Lower Level: 15

Drinking Fountains

Upper Level: 7

Lower Level: 6

Showers

Upper Level: 1

Lower Level: 11

Dishwashers

Upper Level: 0

Lower Level: 1

Sinks

Upper Level: 22

Lower Level: 29