Development Services

From Concept to Construction

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APPEAL SUMMARY

Status: Decision Rendered - Held over from ID 27716 (4/27/22) for additional information

Appeal ID: 27743	Project Address: 1725 SW Salmon St
Hearing Date: 5/11/22	Appellant Name: Shea Gilligan
Case No.: B-008	Appellant Phone: 6462630183
Appeal Type: Building	Plans Examiner/Inspector: Preliminary
Project Type: commercial	Stories: 7 Occupancy: A-2 Construction Type: I-A
Building/Business Name: High Noon	Fire Sprinklers: Yes - throughout
Appeal Involves: Alteration of an existing structure, Reconsideration of appeal	LUR or Permit Application No.:
Plan Submitted Option: pdf [File 1]	Proposed use: Restaurant

APPEAL INFORMATION SHEET

Appeal item 1

Requires

Code Section 602.2 (OSSC 2019)

Types I and II Construction are those types of construction in which the building elements listed in Table 601 are of noncombustible materials, except as permitted in Section 603 and elsewhere in

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this code.

Code Modification or Alternate Requested To allow the mezzanine floor to be CLT, 5-ply (6.875" thick) supported by steel beams with steel and/or concrete columns.

Proposed Design

Located in the Sawbuck building at 1725 SW Salmon, this restaurant tenant improvement will be the first to establish occupancy in the corner space facing both 18th and Salmon. The shell permit received final inspection on 10/15/21. The building is 5-stories of type III-A over 2-stories of type I-A podium (plus a basement, also 1-A podium). Being a recently constructed new building, each 'future' tenant space was designed to meet current life safety, fire protection and seismic requirements. The code sheet in the approved permit for the shell shows an A2 occupancy in this tenant space, indicating this space was designed for a restaurant tenant, with high enough ceilings to accommodate a mezzanine. All exterior walls were built under shell permit #19-106743-CO. The proposed design is for one 1348 SF mezzanine, comprised of 5-ply, 175mm (6.875"-thick) cross laminated timber which will be open to the floor below, has two open exit access stairs, and will be supported by concrete columns (built under the shell) and a combination of steel beams and columns and/or 3-hour rated bearing walls.

With the type I-A construction type, non-combustible materials are required throughout. We offer the following reasons why the mass timber mezzanine floor should be allowed:

CLT is not as readily combustible as other forms of wood construction. The proposed floor provides the equivalent resistance as required in table 601 for type I-A floors (2 hour). See attached exhibit for the structural analysis, which includes char fire resistance rating analysis. (See

Exhibit C for calculations)

The mezzanine floor will be sprinklered from above and below. Besides one bathroom, there will be no concealed spaces. The 25 sf bathroom is much less than the 10% enclosed allowable. Any concealed spaces in the bathroom will follow rules for Type IV rules for gypsum protection applied directly to the CLT surface.

The main restaurant floor has 3 means of egress, each of which are well below the maximum exit travel distance allowed. To exit using Stair A from the most remote part of the mezzanine, the maximum travel distance is approximately 69'-0". To exit using Stair B from the most remote part of the mezzanine is approximately 96'-0". As per Table 1017.2 Exit Access Travel Distance, for an A occupancy with a sprinkler system, the max distance is 250'-0". Our maximum exit travel distance is less than half of the maximum allowable. (See exhibit A for first floor and mezzanine floor plan.)

Each open exit access stair from the mezzanine will be non-combustible and from the bottom of the stair, there are clear sightlines to the exit door, which leads directly outside. The bottom riser of Stair A is approximately 9'-0" from an exit directly to the exterior. And the bottom riser of Stair B is approximately 13'-5" (24'-0" path of travel) from an exit which discharges directly to the exterior. (see attached exhibit B for 3D views from bottom of stairs directly to the exits)

The flame spread rating of the CLT is class B, (see exhibit D) meeting/exceeding the A2 occupancy requirements for interior finishes for rooms.

Reconsideration text:

Stair A has been minorly revised in design development to make the treads code compliant and so the max. travel distance is now 74'- 10 1/2".

A minor design modification changes our language for #2. The mezzanine floor will be sprinklered from above and below. Besides one bathroom, there will be one small office. The 95 sf office plus the 39 sf bathroom is less than the 10% enclosed allowable. Any concealed spaces in the bathroom will follow rules for Type IV rules for gypsum protection applied directly to the CLT surface.

Reason for alternative The openness of the mezzanine allows anyone on it to see, smell, detect smoke, flames etc. The ability to detect fire through various means is in no way compromised via this proposed design of a CLT floor. The two means of egress ensue rapid egress from anywhere on the mezzanine. The width of the egress stairs is unchanged by the mezzanine material, so the path of egress and distance is unaffected by the CLT material.

> Because the entire tenant space is separated from the adjacent spaces and units above by 2 hours walls and floor/ceiling assemblies and a non-combustible primary structure in the concrete podium, the alternate mezzanine material does not alter the fire life safety of other occupants of the building.

> CLT is a proven fire-resistant material. Our calculations show the proposed floor can withstand a 2-HR fire requirement of Type I-A floor construction, without intumescent coatings.

The occupant load for the mezzanine is 73 occupants, the occupant load for the total space is 209 occupants.

Appeal 18138, item #1 is a similar appeal which has been granted allowing a CLT floor for a mezzanine in a Type I-A building.

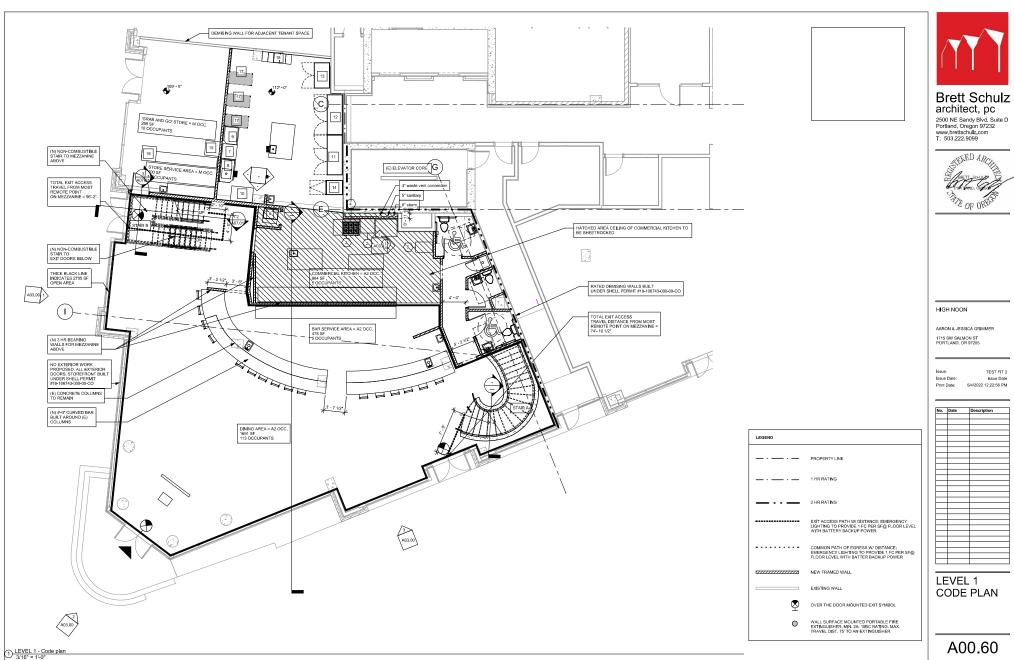
Reconsideration text: The addition of the office in the mezzanine reduce the occupant load in the dining area to 69 occupants.

Use of combustible Cross Laminated Timber for mezzanine floor in Type 1A construction: Granted provided Type X drywall is used on the ceiling of the kitchen.

Appellant may contact John Butler (503 865-6427) or e-mail at John.Butler@portlandoregon.gov with questions.

The Administrative Appeal Board finds with the conditions noted, 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.



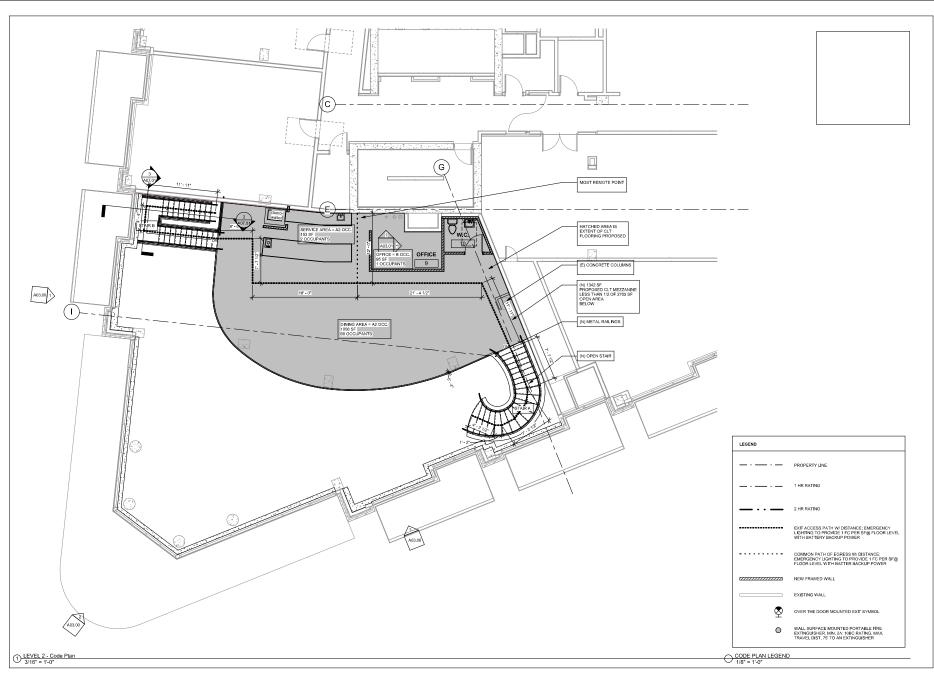




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CODE PLAN

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AARON & JESSICA GRIMMER 1715 SW SALMON ST PORTLAND, OR 97205

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LEVEL 2 CODE PLAN

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