# **Development Services**

## From Concept to Construction

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### APPEAL SUMMARY

Status: Decision Rendered

Appeal ID: 27742	Project Address: 3251 SW Sam Jackson Park Rd
Hearing Date: 5/11/22	Appellant Name: Marcus Morgan
Case No.: E-001	Appellant Phone: 503-816-4438
Appeal Type: Electrical	Plans Examiner/Inspector: Cari Ebbert, Brian Crise
Project Type: commercial	Stories: 15 Occupancy: I-2 Construction Type: I-A
Building/Business Name: Hatfield Research Center	Fire Sprinklers: Yes - Fully Sprinklered
Appeal Involves: Alteration of an existing structure	LUR or Permit Application No.: 22-126563-ET
Plan Submitted Option: pdf [File 1]	Proposed use: Hospital

#### APPEAL INFORMATION SHEET

#### Appeal item 1

Code Section

2021 OESC 110.26(E)(1) Referenced: 2019 OMSC 102.5, 2019 OMSC 102.6

#### Requires

2021 OESC 110.26(E) (1) Indoor

Indoor installations shall comply with 110.26(E)(1)(a) through (E)(1)(d).

(a) Dedicated Electrical Space. The space equal to the width and depth of the equipment and extending from

the floor to a height of 1.8 m (6 ft) above the equipment or to the structural ceiling, whichever is lower, shall be dedicated to the electrical installation. No piping, ducts, leak protection apparatus, or other equipment foreign to the electrical installation shall be located in this zone.

Exception: Suspended ceilings with removable panels shall be permitted within the 1.8-m (6-ft) zone.

- (b) Foreign Systems. The area above the dedicated space required by 110.26(E)(1)(a) shall be permitted to contain foreign systems, provided protection is installed to avoid damage to the electrical equipment from condensation, leaks, or breaks in such foreign systems.
- (c) Sprinkler Protection. Sprinkler protection shall be permitted for the dedicated space where the piping complies with this section.

2019 OMSC 102.5 does not require the removal, alteration, or abandonment of, nor prevent the continue utilization and maintenance of, an existing mechanical system lawfully in existence at the time of the adoption of this code.

2019 OMSC 102.6 notes additions, alterations, renovations, or repairs to a mechanical system shall conform to that required to a new mechanical system without requiring the existing mechanical system to comply with all of the requirements of this code.

# Code Modification or Alternate Requested

Existing piping will remain in place per OSMC 102.5 and 102.6. Structural sheet metal enclosures will be installed tight to structure, and it will enclose the existing HVAC and fire protection piping sections located directly above the electrical gear.

#### **Proposed Design**

The new electrical room is cooled by a number of new chilled water fan coil units. All new chilled water piping and condensate piping is not routed above the electrical gear, and as such is in compliance with the above listed code sections.

The existing chilled water pipes cross over emergency electrical switchgear to serve the new chilled water piping. As stated above, new chilled water piping is routed around all other electrical gear (not crossing over gear).

The existing fire protection water pipes were left in place but cross over electrical gear. The fire protection pipes serve the electrical rooms and provide full coverage as required by NFPA 13.

Existing piping will remain in place per OSMC 102.5 and 102.6. Structural sheet metal enclosures will be installed tight to structure, and it will enclose the existing HVAC and fire protection piping sections located directly above the electrical gear. The sheet metal enclosures will be sealed watertight. A site glass will be provided to check for leaks and a drainpipe with isolation valve and threaded connection for a temporary hose in the event of a leak.

In addition to sheet metal enclosures, chilled water piping will be pressure tested. Continuous insulation with vapor barrier will be applied to chilled water pipes. As designed and installed, the piping system will prevent damage to newly installed electrical gear. The installation of sheet metal enclosures will leave plenty of room to run any future conduits.

Reason for alternative OHSU has extensive existing systems, and space for new utilities is extremely limited. Rerouting existing utilities that serve the intended installation space is not feasible due to the congestion of existing utilities in the area and the critical nature of the medical and research facilities that they serve. Design team believes the proposed installation meets the intent of the code to prevent water damage and allow for conduit entry and exit from the switchboard.

> Existing chilled water piping is not impeding space to service the equipment or for future conduit installation. To prevent water damage the chilled water piping is soldered or brazed and is effectively a continuous system. No screwed fittings, press fittings, or other similar fittings are allowed. Piping is tested at 150PSI to confirm the system is leak free before operation; this test pressure is approximately four times higher than the normal operating pressure of chilled water system. The chilled water piping is insulated and provided with a vapor barrier to prevent condensation. In addition, sheet metal enclosures will be installed as secondary protection to the new electrical equipment (please refer to included sketches).

All new chilled water piping and condensate piping is not routed above the electrical gear. New fan coil units will have condensate pipes routed to floor drains. All condensate piping is soldered copper and is a continuous system. No screwed fitting, press fittings, or other similar fittings are allowed. Condensate piping will not be routed above any electrical equipment. Piping will be tested to 150PSI to confirm the system is leak free before operation (condensate has no operating pressure).

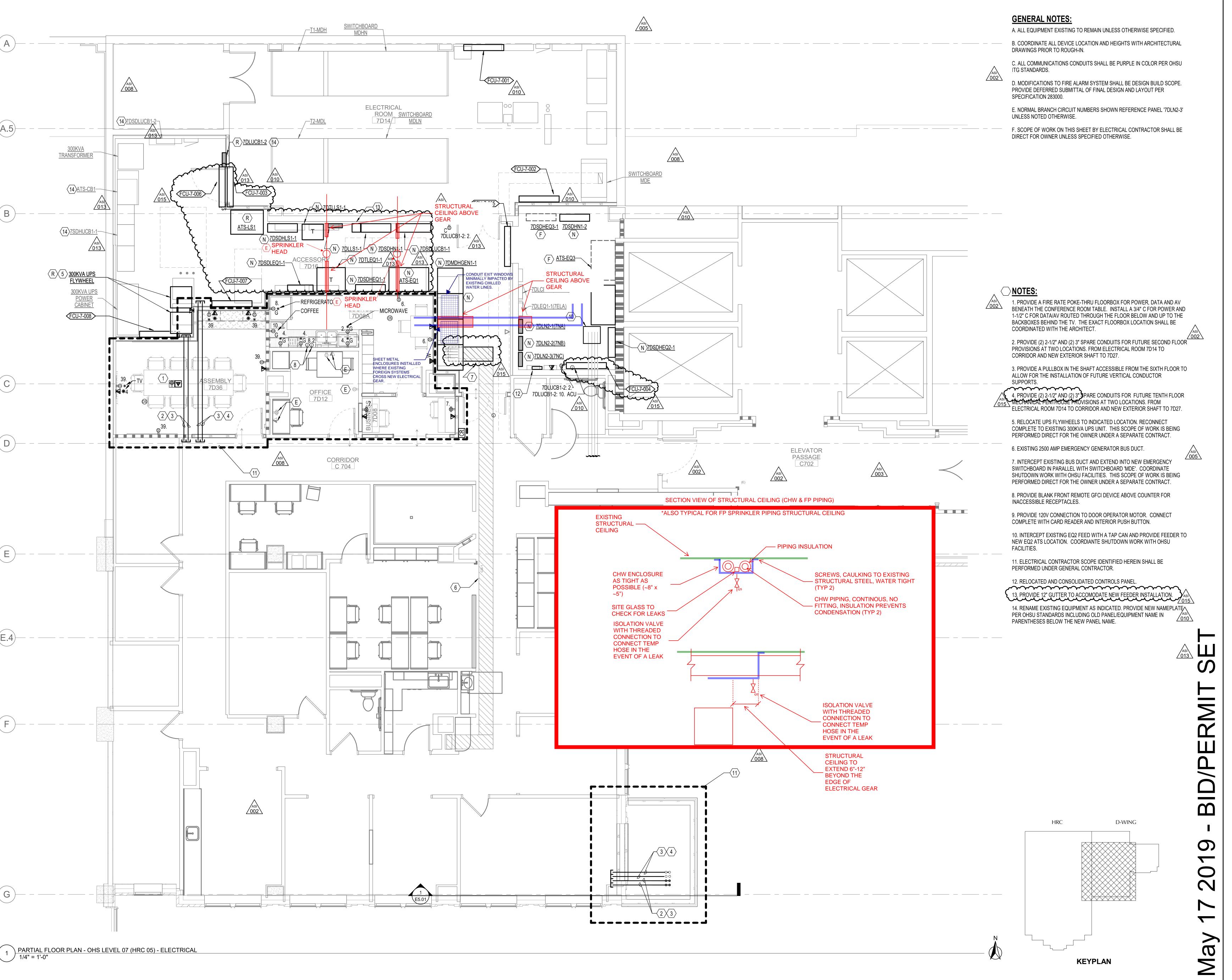
Fire sprinkler piping only servers the space and is required to provide coverage per NFPA 13. A structural sheet metal enclosure will be installed in any location where the existing piping crosses above the new electrical gear (please refer to included sketches).

#### APPEAL DECISION

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.

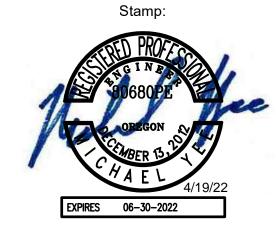
Pursuant to City Code Chapter 24.10, you may appeal this decision to the Building Code Board of Appeal within 90 calendar days of the date this decision is published. For information on the appeals process, go to www.portlandoregon.gov/bds/appealsinfo, call (503) 823-7300 or come in to the Development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

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Project Title:

MECHANICAL

PENTHOUSE

Revison Date

ASI 002 July 22, 2019

ASI 003 Jan 27, 2020

ASI 005 Mar 26, 2020

ASI 008 July 26, 2021

ASI 010 Dec 17, 2021

ASI 013 Feb 11, 2022

ASI 015 Apr 18, 2022

PARTIAL FLOOR
PLAN - OHS
LEVEL 07 (HRC
05) ELECTRICAL

E3.07.1