



# City of Seattle

PLAN REVIEW NO. 78683

December 28, 2021

Knit  
16771 NE 80<sup>th</sup> Street  
Suite 110  
Redmond, WA 98082

ATTN: John Anderson (425) 595-3456

RE: **ARCHITECTURAL SUBMITTAL**  
Broadway Urbaine  
229 Broadway East  
SDCI A/P No.: 6771337

Occupancy Type: A-2/B/M, B, R-2, S-1  
Construction Type: IIIA over IA  
No. Of Stories: 7+ basement + roof penthouse/deck

Owner/Lessee: TAP Collaborative

## SCOPE OF PLAN REVIEW

New 7-story mixed-use building with one live/work unit. The four live/work units on Broadway (105 to 108) will be revised to commercial space in a future set of drawings.

## REFERENCES

2018 Seattle Fire Code (SFC)  
Seattle Fire Department Administrative Rules

## SUBMITTAL APPROVED

This submittal is approved, subject to Ordinance, field inspection, and providing the following corrections are made or conditions met:

## REQUIRED CORRECTIONS

Make these changes to the drawings prior to resubmittal.

1. Sheet: G3-10: "Fire Sprinkler Notes":
  - a. #1. Delete last 2 sentences referencing live/work units. They are incorrect.
  - b. #5. Delete section.
  - c. #6. Delete section.
2. Sheet: G3-10: "Fire Alarm Notes":

- a. Delete reference to “Manual” fire alarm system.
  - b. Delete reference to live/work units.
  - c. Delete reference to manual fire alarm boxes.
3. Sheet: G3-10: “Energy Responder Radio Coverage”:
- a. Revise title to “Emergency Responder Radio Coverage”.
4. Sheet: A2-18: Show and dimension solar panels and/or future solar zones a minimum of 4 feet from all roof edges. See SFD Client Assistance Memo 5124 noted in comment below.
5. Landscape Drawings: Specify permanent irrigation for landscaping on roof pursuant to SFC Section 317.4.1.

#### CONDITIONS OF APPROVAL

6. Future tenant improvements within each commercial tenant space are not included in this review and approval. Each tenant space shall be submitted for review and approval by the Seattle Fire Department.
7. Post building address so it is visible from the street. See specific requirements in SFC Section 505.
8. Solar photovoltaic power systems must conform to the requirements of SFC Section 1204.3. See SFD Client Assistance Memo 5124 for more details on requirements regarding photovoltaic systems at [http://www.seattle.gov/Documents/Departments/Fire/Business/5124CAM\\_PhotovoltaiCwerSystems.pdf](http://www.seattle.gov/Documents/Departments/Fire/Business/5124CAM_PhotovoltaiCwerSystems.pdf)
9. This general approval does not include review and approval of the automatic sprinkler or fire alarm systems. Submit shop drawings for the fire protection systems through the Department of Construction and Inspections for approval prior to installation.
10. An automatic sprinkler system conforming to NFPA 13 is required pursuant to SFC Section 903.2.8. It shall be designed and installed in accordance with SFC Sections 903,

912, and 913, NFPA 13, and SFD Administrative Rules. This includes but is not limited to:

- a. Hydraulic calculations shall be based on water supply information from a recent (within five years) Hydraulic Modeling Report or flow test in close proximity to the project site and in the same pressure zone pursuant to SFD Administrative Rule 9.03.20 Section 6.1. Submittals lacking this information will not be approved.
- b. A pressure reserve of 10% of the static pressure is required between the available water supply pressure and the system design pressure at the city main. The pressure reserve does not need to include the hose stream allowance pursuant to SFD Administrative Rule 9.03.20 Section 2.1.
- c. If the system is combined domestic/fire sprinkler, the hydraulic calculations must include anticipated domestic demand pursuant to NFPA 13R Section 9.5 unless an automatic shutoff valve is installed.
- d. The underground supply piping may extend a maximum of 10 feet under the building pursuant to SFD Administrative Rule 9.03.20 Section 2.17. This requirement does not apply for combined domestic and fire supply piping.
- e. The fire department connection (FDC) shall face a public street and be visible from the street, be unobstructed by fences, walls or vegetation, and have a minimum of 3 feet clear all around. The FDC shall be 1'6" to 4'0" above grade pursuant to NFPA 13 Section A8.17.2 and SFD Administrative Rule 9.03.20 Section 3.11.
- f. Backflow preventers shall be UL listed for fire service with approved valves and for the installed orientation pursuant to NFPA 13 Section 6.1.1.2. In addition, to be approved by King County Health Department, the backflow preventer must be approved by the USC Foundation for Cross-Connection Control and Hydraulic Research for the installed orientation and valve configuration.
- g. Commercial spaces shall have the following sprinkler protection:
  - i. Retail spaces (Group M) must comply with the requirements for Ordinary Hazard Group 2.
  - ii. Restaurant kitchens shall meet the requirements for Ordinary Hazard Group 1 with listed quick response sprinklers.

- iii. Restaurant dining (Group A-2 or B) and other business uses (B occupancies) shall meet the requirements for Light Hazard. Install listed quick response sprinklers in light hazard areas.
- h. Trash and recycling, storage, and mechanical/electrical spaces shall meet the requirements for Ordinary Hazard Group 1.
- i. Live/work units shall meet the requirements for Light Hazard throughout the unit. Provide listed quick response or residential sprinklers.
- j. Dwelling units, lobbies, corridors, assembly, and office spaces shall meet the requirements for Light Hazard. Install listed quick response or residential sprinklers in light hazard areas.
- k. Sprinkler protection shall be provided as follows:
  - i. Recessed entries, building overhangs, canopies, covered patios, decks and balconies pursuant to SFD Administrative Rule 9.03.20 Sections 2.3, 2.4, and 2.5.
  - ii. At each floor stair landing pursuant to SFD Administrative Rule 9.03.20 Section 2.6.
  - iii. In the first floor restroom in each live/work unit, regardless of size.
  - iv. Bathrooms with a washer/dryer within the space.
  - v. In combustible concealed spaces such as attics, above suspended ceilings, and within soffits and interstitial spaces.
  - vi. Protection in elevator hoistways, machine rooms, and control rooms shall meet the requirements of SFD Administrative Rule 9.06.14.
  - vii. Sprinklers shall not be installed in the SCL transformer room pursuant to SBC Section 426.12 and SFC Section 903.3.1.1.1.
- l. Sprinkler installation shall be completed in the commercial tenant spaces and may not be deferred to a future tenant improvement project.
- m. CPVC piping may not be used in Ordinary Hazard areas exceeding 400 square feet pursuant to NFPA 13 Section 6.3.6.2.

- n. The sprinkler system shall be monitored by a central station approved by the Seattle Fire Department pursuant to SFC Section 903.4.1. The system shall also have an approved audible device located on the exterior of the building pursuant to SFC Section 903.4.2.
11. A Class I standpipe system is required pursuant to SFC Section 905.3.1. It shall be designed and installed in accordance with SFC 905, NFPA 14 and SFD Administrative Rule 9.03.20. This includes but is not limited to:
- a. Standpipe risers shall be installed in every stairway pursuant to SFC Section 905.4. Other sprinkler risers are not permitted in enclosed exit stairways pursuant to SBC 1023.5.
  - b. Standpipe risers shall be interconnected and be provided with isolation valves pursuant to NFPA 14 Sections 7.5 and 6.3.2. Valves shall be accessible pursuant to SFD Administrative Rule 9.03.20 Section 2.15.
  - c. Hose connections shall be provided at intermediate landings or the floor landing but must be consistent throughout the building pursuant to SFC Section 905.4 #1. Provide hose connections at the roof elevation of every stairway with roof access pursuant to SFC 905.4 #5. Every portion of the building must be within 200 feet of a hose connection pursuant to SFC Section 905.4 #6.
  - d. Dry standpipe systems shall not be concealed in the building walls or above ceilings unless it is monitored with supervisory air pressure pursuant to NFPA 14 Section 6.1.1.
  - e. The standpipe system shall have a two-way fire department connection (FDC) that faces a public street and is located at least 10 feet from any building exit door. It shall be located within 400 feet of a fire hydrant pursuant to SFD Administrative Rule 9.03.20 Section 3.7. The FDC shall be 1'6" to 4'0" above grade pursuant to NFPA 14 Section 6.4.6 and SFD Administrative Rule 9.03.20 Section 3.11.
  - f. Provide a listed check valve as near as practicable to the point where the FDC joins the system pursuant to NFPA 14 Section 6.4.2. A check valve is also required for independent dry systems with a drain downstream of the valve.
12. A fire alarm system is required pursuant to SFC Section 907.2.9. It shall be designed and installed in accordance with the SFC Section 907, NFPA 72, and SFD Administrative Rules. This includes but is not limited to:
- a. Locate the fire alarm control panel (FACP) or a remote annunciator inside the main building entrance pursuant to SFC 907.6.3.1.

- b. Provide one manual pull station at the FACP or the automatic sprinkler system main riser and control valve pursuant to SFC Section 907.2.
- c. Provide smoke detection at:
  - i. System panels and power supplies pursuant to SFC 907.4.1.
  - ii. Elevator lobbies pursuant to SFD Administrative Rule 9.06.14.
  - iii. Corridors with supply air that serve residential occupancies pursuant to SMC Section 606.2.4. The system shall shutdown supply air fans on smoke detection.
- d. Provide heat detection in the SCL transformer room pursuant to SFC Section 907.2.9.4.
- e. Provide smoke detection in elevator machine and control rooms and heat detection within 18 inches of elevator motors located in hoistways pursuant to SFD Administrative Rule 9.06.14.
- f. The fire alarm system shall control:
  - i. Elevator recall pursuant to SFD Administrative Rule 9.06.14.
  - ii. Smoke damper closure pursuant to SFC Section 907.3.1.
  - iii. Stairway pressurization pursuant to SBC Section 909.20.6 #2.
  - iv. Elevator pressurization pursuant to SBC Section 909.21.6.
- g. The system must provide audibility of 15-dBA above ambient sound levels and 75-dBA minimum throughout residential areas and 60dBA minimum throughout other areas pursuant to NFPA Sections 18.4.3.1 and 18.4.5.1.
- h. Provide low frequency audible alarms in sleeping rooms pursuant to NFPA 72 Section 18.4.5.3. Visible alarms are not required within dwelling units except in accessible units for the hearing impaired.
- i. Provide visible alarms in all public and common use areas (including all common-use decks) other than exit enclosures pursuant to SFC Section 907.5.2.3. Alarms shall be located pursuant to NFPA 72 Section 18.5.4.3 in rooms and Section 18.5.4.4 in corridors.

- j. Provide visible alarms within the first floor commercial space in each live/work unit pursuant to SFC Section 907.5.2.3.
  - k. Provide a minimum of one audible and visible alarm device within each commercial tenant space until a future tenant improvement requires revisions pursuant to SFD Administrative Rule 9.09.07.
  - l. If interior egress doors to stairways are locked, they must unlock upon activation of the fire alarm system and signal from a switch adjacent to the fire alarm annunciator in the main entry lobby pursuant to SFC Section 1008.1.9.11 Exception 3.
  - m. The fire alarm system shall monitor automatic sprinkler system waterflow switches and sprinkler and standpipe valve tamper indicators pursuant to SFC Section 903.4.
  - n. The fire alarm system shall be monitored by a central station approved by the Seattle Fire Department pursuant to SFC Section 907.6.5.
13. Smoke dampers shall be actuated by smoke detectors installed pursuant to SBC Section 717.3.3.2 and the detectors shall be connected to the building fire alarm system.
14. The shaft pressurization system shall have a firefighter's smoke control panel pursuant to SFC Section 909.16. This panel shall be located adjacent to the fire alarm annunciator inside the main building entrance.
15. If provided, locate the central control point for the two-way communication system adjacent to the fire alarm annunciator inside the main building entrance pursuant to SFC Section 1009.8.1. See SFD Client Assistance Memo 5122 for more details on area of refuge two-way communication systems at <http://www.seattle.gov/Documents/Departments/Fire/Business/5122CAM%20WiredSystems.pdf> This communication system is not part of the building fire alarm system.
16. This building must provide minimum in-building signal strength for emergency responder radios pursuant to SFC Section 510. Prior to receiving a certificate of occupancy, this building will require BDA/DAS installed, or a form certifying that the building or portions of the building meet section 510 signal strength requirements without the use of BDA/DAS. For more information see Client Assistance Memorandum #5123 and the "Coverage Sufficient Without BDA" form here: <http://www.seattle.gov/Documents/Departments/Fire/Business/Assessment%20of%20Coverage%20Without%20BDA-DAS.pdf>

17. Provide a Class 2-A fire extinguisher for every 3,000 ft<sup>2</sup> of ordinary hazard occupancy (trash, storage, mechanical) and for every 6,000 ft<sup>2</sup> of light hazard occupancy (residential, assembly, office) pursuant to SFC Section 906. Verify that all portions of the building are within 75 feet of travel distance to a fire extinguisher. The fire extinguishers should be located in conspicuous locations along normal paths of travel. See SFD Client Assistance Memo 5961 for more details at <http://www.seattle.gov/Documents/Departments/Fire/Business/5961CAM%20FireExtinguisher.pdf>
18. Provide a Class 2-A fire extinguisher within the first floor commercial space in each live/work unit. The fire extinguisher should be located in conspicuous locations along normal paths of travel. See SFD Client Assistance Memo 5961 for more details at <http://www.seattle.gov/Documents/Departments/Fire/Business/5961CAM%20FireExtinguisher.pdf>
19. Provide fire safety during construction work in accordance with SFC Chapter 33 that includes temporary heating equipment, precautions against fire, flammable and combustible liquids, flammable gases, explosive materials, owner's responsibility for fire protection, fire reporting, access for firefighting, water supply for fire protection, standpipes, automatic sprinkler systems, portable fire extinguishers, motorized construction equipment, and safeguarding roofing operations.
20. Provide Class 2-A fire extinguishers pursuant to SFC Section 3315 during construction at the following locations:
  - a. At each stairway on all floor levels where combustible materials are stored or used.
  - b. In every storage and construction office shed.
  - c. Where special hazards exist including, but not limited to, the storage and use flammable and combustible liquids.
  - d. In every room or space within the building used for storage, a dressing room, or a workshop.
  - e. Temporary enclosures.
  - f. Within 30 feet of hot work.
21. Provide a construction standpipe pursuant to SFC Section 3313 and NFPA 14 Chapter 12. The construction standpipe system shall be installed when the progress of construction is not more than 40 feet in height above the lowest level of fire department access. Such standpipe systems shall be extended as construction progresses to have



2-1/2 inch outlets within one floor of the highest point of construction having secured decking or flooring.

22. Egress, separation, fire protection systems, and emergency access shall conform to the requirements of SFC Chapter 33 during construction. Contractor materials and activities shall not block access to or egress from any building while the building is occupied. This includes demolition phase work and also applies to impacts upon neighboring buildings as well as spaces within these buildings.
23. No storage or use of flammable or combustible liquids, cutting or welding operations, roofing operations or use of flammable gas for temporary heating or drying shall be conducted on any construction site without first having obtained a specific permit from the Seattle Fire Department for these hazardous activities. Please call (206) 386-1450 for permit information.
24. If there is an existing unused underground heating oil tank at the site, it shall be decommissioned and removed from the site pursuant to SFC Chapter 57 and SFD Administrative Rule 34.02.07. Such work shall only be conducted by a certified Underground Storage Tank Decommissioner, and requires a Seattle Fire Department permit. Call (206) 386-1450 for permit information.

The Seattle Fire Code, Seattle Fire Department Administrative Rules and Client Assistance Memos are all available at: <http://www.seattle.gov/fire/business-services/fire-code-and-fire-safety-documents>

Please contact me at (206) 386-1193 or [daniel.sully@seattle.gov](mailto:daniel.sully@seattle.gov) if there are any questions or comments.

Daniel P. Sully, P.E., S.E.  
Fire Protection Engineer