**PLAN REVIEW**

**Date**: October 11, 2023

**Project Name**: Chromalox Addition

**Project Address:** 2150 N. Rulon White Dr

**Contractor/Contact**: Jeff Newman

**Fee(s):**

**Fee Notice:**

Weber Fire District has various fees associated with plan reviews, and inspections. Please be prepared to make payments at the time when you pick up your approved plans. Impact Fees are due prior to taking out a building permit. Contact our offices at 801-782-3580 to arrange payments.

**Status: APPROVED WITH CONDITIONS**

**A Written Response Is Required. Please address each item.**

Items **HIGHLIGHTED** in yellow are items that must be specifically addressed by the responsible design professional.

*BOTH SPECIFIC AND GENERAL COMMENTS MUST BE READ AND ADHERED TO.*

**Specific Comments:**

Water Supply:

1. Water Supply Analysis Required: Prior to any construction being done, a water supply analysis shall be completed and submitted by an engineering firm or a fire protection engineer. This water supply analysis must include:
	1. Building Construction Type
	2. Available Water for fire-fighting purposes
		1. Static Flow Rates
		2. Residual Flow Rates
		3. Flowing GPM
		4. Duration of flowing GPM available.
	3. Statement of conformance/non-conformance to 2018 International Fire Code section 507 and Appendix B as adopted by Weber Fire District (See Resolution 04-2014 at <http://weberfiredistrict.com/services/fire-prevention>).
	4. If deficiency exists, proposed method to obtain conformance with adopted codes and Resolution 04-2014.
2. Fire Flow: The required fire flow for this building is based upon the construction type and the square footage. The fire flow shall be 2000 GPM for 2 Hours. Additional hydrants may be required to meet fire flow requirement. (See IFC Appendix B, B105.1(2).
3. Fire Flow Reduction: A 75% reduction in fire flow has been granted for this project due to the building being equipped with a fire suppression system.
4. Fire Hydrant(s): Per approved plans
5. All required fire hydrants and water systems shall be installed, approved and fully functional and on, prior to any combustible construction (IFC section 507.1 and 3312).

Fire Detection and Suppression Systems:

1. Fire Suppression Systems: Sprinklers (full 13 system) and alarms are required.
2. SEPARATE SUBMITTAL NOTICE: Fire suppression systems and fire alarm systems require a separate submittal. A permit shall be applied for before any installation of either fire suppression system or fire alarm system. The permit shall be on the job site and be available for review by any inspector. The APPROVED STAMPED set of plans shall also be on the job site and available for review by any inspector. If there is no permit and/or approved stamped plans on the job site, there will be a Stop Work Order issued until both are on the job site. Submit plans at Weber Fire District, 2023 W. 1300 N. Farr West. (See IFC section 901.2 and 907.1.1).
3. Electronic Supervision and Alarms: Fire suppression system shall be electronically monitored. Monitoring shall include Valves; pumps; tanks; water levels and temperatures; critical air pressures; waterflow. Monitoring shall be electrically supervised by a *listed* fire alarm control unit (See IFC 903.4).
4. Exterior Notification Device: There shall be a weatherproof horn/strobe device located on the street side of the building or above the FDC as approved by the Fire Prevention Division (coordinate with fire inspector regarding location). Such sprinkler waterflow alarm devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. (See IFC 903.4.2)
5. Fire Department Connections:
	1. Locking Knox Fire Department Connection (FDC) caps are required for the FDC. These may be ordered at [www.knoxbox.com](http://www.knoxbox.com). Please select WEBER FIRE DISTRICT as your jurisdiction. (See IFC 912.4.1)
	2. There shall be a cement pad measuring 3 ft. x 3 ft. under the FDC (coordinate with fire inspector regarding this). (See IFC 102.9)
	3. Location: FDC connections shall be so located that fire apparatus and hose connected to supply the system will not obstruct access to the buildings for other fire apparatus. FDC locations shall be approved by the AHJ. (IFC 912.2)
	4. Access: Immediate access to FDC shall be maintained always without obstruction from fences, trees, walls or other fixed or moveable object. (IFC 912.4)
	5. Signs: A metal sign with raised letters not less than 1 inch in size shall be mounted on all fire department connections serving automatic sprinklers, standpipes, or fire pumps. Such signs shall read: “AUTOMATIC SPRINKLERS” or “STANDPIPES” or “TEST CONNECTION”. (IFC 912.5)
6. Kitchen Hood Systems: Type I kitchen hood systems shall have the plans approved by the fire department prior installation and a test of the system shall be performed for the fire department for approval. A permit shall be applied for before any installation of either fire suppression system or fire alarm system. The permit shall be on the job site and be available for review by any inspector. The APPROVED STAMPED set of plans shall also be on the job site and available for review by any inspector. If there is no permit and/or approved stamped plans on the job site, there will be a Stop Work Order issued until both are on the job site. Submit plans at Weber Fire District, 2023 W. 1300 N. Farr West. (See IFC section 901.2 and 907.1.1).

Fire Department Access:

1. Provide a temporary address marker at the building site during construction. The address numbers, whether on the building or the sign, shall be legible font. (See IFC 505.1) (See IFC 505.1).
2. Fire access roads for this project shall be completed and approved prior to any combustible construction. Temporary roads shall meet the same requirements for height, width, and imposed loads as permanent roads (See IFC section 503.2.3; 3310; and D102.1).
3. Fire Access to buildings and facilities: Fire access roads are required for all facilities, buildings, or portions of buildings. Access roads shall extend to within 150 feet of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route. (See IFC 503.1)
4. Gates:
	1. Knox key switches are required for any electronic/electric gate. These may be ordered at [www.knoxbox.com](http://www.knoxbox.com). Please select WEBER FIRE DISTRICT as your jurisdiction. (See IFC 503.6)
	2. Knox padlock is required for any manually operated mechanical gate. These may be ordered at [www.knoxbox.com](http://www.knoxbox.com). Please select WEBER FIRE DISTRICT as your jurisdiction. (See IFC 503.6)

Building Comments:

1. There shall be an address on the building or on a sign visible from the street. If the address is on a sign-monument the sign-monument shall meets the requirements of the appropriate city/county planning department. The address numbers, whether on the building or the sign, shall be Arabic font with a minimum of 4” (four inches) in height with a .5” (half inch) stroke and be in contrasting colors from the background. All suites shall have number/letter designation on the doors meeting the same size requirements and contrasting color. (See IFC 505.1)
2. Provide a working space of not less than 30 inches in width, 36 inches in depth and 78 inches in height in front of electrical service equipment. If the electrical equipment is wider than 30 inches, the working space shall not be less than the width of the equipment. There shall be no storage within the designated working space. (See IFC 605.3)
3. Doors into electrical control panel rooms shall be marked with plainly visible and legible sign stating, “ELECTRICAL ROOM”. (See IFC 605.3.1)
4. Fire Protection and Utility Equipment Rooms:
	1. Rooms containing controls for air-conditioning systems, sprinkler risers and valves, fire detection or suppression shall be identified with a plainly visible and legible sign. (See IFC 509.1)
5. Gas meters shall be protected from vehicular damage. Above ground gas meters, regulators, and piping subject to damage shall be protected by bollards or barriers. (See IFC 603.9 and 312).
6. Fire doors shall have a permanent sign with 1-inch-high letters stating, “FIRE DOOR- DO NOT BLOCK”. (See IFC 703.2.1)
7. Fire Extinguishers:
	1. Extinguishers shall be provided so that the travel distance to any extinguisher does not exceed 75 feet. Extinguishers shall have a minimum rating of 2A10BC. The fire inspector may require additional extinguishers or higher rated extinguishers. (See IFC 906).
	2. Extinguishers weighing less than 40 pounds shall be mounted so that the top is not more than 5 feet above the floor. Extinguishers over 40 pounds shall be mounted so that the top is not more than 3.5 feet above the ground. (See IFC 906.9.1 and 906.9.2)
8. Storage:
	1. Ceiling clearance. Storage shall be maintained 2 feet or more below the ceiling in non-sprinklered areas or not less than 18 inches below sprinkler head deflectors in sprinklered areas. (See IFC 315.3.1)
	2. Equipment Rooms. Combustible storage shall not be stored in boiler rooms, mechanical rooms, or electrical rooms. (See IFC 315.3.3)
9. Occupant Load. Every room or space that is an assembly occupancy shall have the occupant load of the room or space posted in a conspicuous place near the main exit. The sign shall be clearly legible.
10. A Knox Key Box is required for this building if it is alarmed. These may be ordered at [www.knoxbox.com](http://www.knoxbox.com). Please select WEBER FIRE DISTRICT as your jurisdiction. Only 3200 Series boxes shall be used. (See IFC 506.1)
11. Underground fire lines shall be flushed using a minimum 4-inch line. The end of the line shall be secured as to prevent injury or damage to person or property. The fire department shall witness the flush.
12. Underground thrust blocks shall be inspected prior to burial. Thrust blocks must meet the load bearing requirements of NFPA 24. Bag mix is not acceptable. Documentation from the supplier shall be submitted indicating the load bearing PSI rating of the concrete.

**General Comments**:

1. Fire Access roads to any property shall have a minimum clear width of 20 feet (face of curb to face of curb) and a vertical clearance of 13 foot 6 inches and shall be capable of supporting a 75,000-pound load. Roads that are less than 26 feet in width shall be posted with “NO PARKING FIRE LANE” on both sides of the roadway. Roads more than 26 but less than 32 feet in width shall be posted on one side of the roadway. (Roadways and signage shall comply with appendix D of the 2021 International Fire Code as adopted by Weber Fire District).
2. Roads shall have a maximum grade of 10% unless specifically approved. Approval requires both the Fire Marshal’s approval and Weber County Engineering approval (See IFC section 503.2.7; D103.2; and Weber County ordinances).
3. Radius on all corners shall be a minimum of 28'-0". Roads and driveways shall also comply with City/County standards as applicable. *In cases of differing requirements, contact the Fire Marshal for clarification*.
4. Roundabouts: Roundabouts in roadways shall maintain the required minimum width of 20 feet. Wider roadways may be required to provide turning radius for fire apparatus. An auto-turn model shall be completed and submitted for review. The following vehicle information shall be used for this purpose:
	1. Width: 12.0 Ft
	2. Track: 7.61
	3. Lock to Lock Time: 6.0
	4. Steering Angle: 41.3
5. Dead end fire apparatus access roads more than 150 feet in length shall be provide with an approved area for turning around fire apparatus constructed with the same requirements as the roads (See IFC section D103.4)
6. For subdivisions with more than 30 single family residences, a second fire apparatus access road required. Access roads shall be placed a distance apart equal to not less than one-half the length of the maximum overall diagonal dimension of the development area/property to be served (See IFC section D106).
7. Roads and bridges shall be designed, constructed, and maintained to support an imposed load of 75,000 lbs. (See IFC section D102.1)
8. All roads shall be designed, constructed, surfaced, and maintained to provide an all-weather driving surface. All weather surfaces may include road-base material however, the roadway must be maintained open and accessible year-round (See IFC section 503.2.3 and D102.1).
9. Fire Prevention During Construction: The owner shall designate a person to be the fire prevention program superintendent who shall be responsible for the fire prevention program and ensure that it is carried out through completion of the project. Where guard service is provided, the superintendent shall be responsible for the guard service. The fire prevention program superintendent shall develop and maintain an approved pre-fire plan. The fire chief and the fire code official shall be notified of changes affecting the utilization of information contained in such pre-fire plans. (see IFC 3308)

This review was completed using the currently adopted Utah State Fire Code (International Fire Code) and any applicable local resolutions or ordinances.

Every effort has been made to provide a complete and thorough review of these plans. This review DOES NOT relieve the owner, contractor and/or developer from compliance with all applicable codes, and standards.

Any change or revision of this plan will render this review void and will require submittal of the new, or revised, layout for fire department review. If you have any questions, please contact me at 801-782-3580.

Reviewed By:

David Reed

Office of the Fire Marshal

Weber Fire District

801-782-3580