

2021 INTERNATIONAL FIRE CODE®

- I [A] **101.3 Purpose.** The purpose of this code is to establish the minimum requirements consistent with nationally recognized good practice for providing a reasonable level of life safety and property protection from the hazards of fire, explosion or dangerous conditions in new and existing buildings, structures and premises, and to provide a reasonable level of safety to fire fighters and emergency responders during emergency operations.

Application of Fire Code.

1. Fire code is a minimum standard that saves lives and should be used as such.
2. Fire code is reactive, meaning it is written after something bad has already happened and is meant to be the solution, so it does not happen again.
3. Some fire codes have written exceptions that go with along with the code to allow for an alternative solution but still provide the protection that was intended by the code writer.
4. Fire code is meant to protect both lives and property.
5. Fire code is meant to protect everyone (whoever would be on site).
6. Cost or price is not a reason to go outside or deviate from fire code.
7. Structural design is not a reason to go outside or deviate from fire code.
8. Life safety systems are an interior protection system primarily for the lives of those inside.
9. Fire access codes and water supply codes are for emergency response, to provide what they need to protect both lives and property.
10. The intent of fire code is never to stop developments but to make the development safe.
11. I do see fire code as a minimum life safety requirement and there is never a price that can be put on fire safety, and non-compliance puts people's lives at risk.
12. I also treat every project the same and do not go outside of code or give preferential treatment as that would not be proper conduct.
13. If there is a need for an exception to the code, I look for listed exceptions within the code book. If one exists and the conditions are met, it will be granted.
14. For each code, when it comes into question, the first two things I always do is look at the interpretation of the code to make sure it is clearly understood, and the proper application of the code applies.
15. The last thing to take into consideration is the intent of the code writer and to go to the code commentary books. This gives insight into the intent of the code and may give examples of compliance issues.
16. There can never be a modification to fire code that lessens health, life, and fire safety requirements.
17. I am always willing to look for a solution for developments that are still code compliant and not trying to force anyone to spend excessive amounts of money on projects, but I also do not compromise life safety for anyone for any reason.
18. Affordable housing does not imply less safety. Still needs to be constructed to the same life safety standards. Otherwise, it would imply that people with less income do not deserve the same life safety rights as others.



ANN ARBOR FIRE DEPARTMENT

FIRE PREVENTION BUREAU

111 North Fifth Avenue, Ann Arbor, Michigan 48104-1405

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FILE NUMBER: SEU25-0001 - Fire Review #1

PROJECT NAME: 805 Oxford Road

PROJECT TYPE: New Construction.

REVIEWED BY: Fire Marshal Michael Reddmann

DATE:

Details: New construction of a 3 Story Residential Apartment Building – Sorority House - Mixed use occupancy (has an assembly area in it).

Site access: Storage area for construction materials shall not interfere with fire/emergency site access.

Hydrant coverage: Hydrants shall be in service during construction.

Hydrants providing protection coverage for the building shall be in service and approved by both Planning and Fire Department before Fire Department will support permit issuance for new construction phase and before combustible materials are placed on the job site.

Fire Hydrant location: In no case shall the centerline of a hydrant be closer than 4 feet or farther than 10 feet from the face of a curb or the edge of a paved area.
City Standard –

Fire Hydrant Access: No parking shall be allowed within 15 feet of each side of a fire hydrant.

Hydrant coverage: Hydrant 250' radius –
Hydrant 400' hose lay –
Hydrant 500' spacing –

Fire Department Connection: 100' to fire hydrant –

Note: A NFPA 13 systems requires the FDC to be within 100' of the supporting hydrant. The site plan distance is 140 feet.



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- Note:** The architectural plans show a dining room with a capacity over 50 making it an assembly. This makes this a mixed occupancy and the system will need to be a NFPA 13 system and a 13R system will not be allowed. The FDC will need to be within 100 feet of the supporting fire hydrant.
- FDC Locations:** With respect to hydrants, driveways, buildings and landscaping, fire department connections shall be so located that fire apparatus and hose connected to supply the system will not obstruct access to the building for other fire apparatus. **2021 IFC 912.2**
- FDC Visibility:** Fire department connections shall be located on the street side of buildings, fully visible and recognizable from the street or nearest point of fire department vehicle access or as otherwise *approved* by the fire chief. **2021 IFC 912.**
- FDC Access:** Immediate access to fire department connections shall be maintained at all times and without obstruction by fences, bushes, trees, walls or any other fixed or moveable object. Access to fire department connections shall be *approved* by the fire code official. **IFC 2021 912.4**
- Knox Box:** Knox Box Location –
- Emergency Responder Radio Coverage:** Emergency responder radio coverage must meet requirements as specified in the **2021 IFC section 510.**
- Solar Panels and Energy Storage Systems:** Must be compliant with **2021 IFC Ch. 12 & 2021 MBC *if installed.***
- Fire Department Access:** 150' Hose-lay from fire lane – **2021 IFC 503.1.1**
- Fire Department Access:** Fire lane 20' widths – **2021 IFC 503.2.1**
- Note:** “No Parking – Fire Lane” signage shall be placed in areas were a parked or stopped vehicle would narrow the fire lane access to less than a 20' width. **2021 IFC 503.3**
- Fire Department Access:** Dead end fire lanes shall not exceed 150 feet without an approved turnaround. **2021 IFC 503.2.5**



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Fire Department Access: Fire access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced so as to provide all weather driving capabilities. **2021 IFC 503.2.3 & D102.1**

Fire Department Access: Grade – The grade of the fire apparatus road shall be within the limits established by the fire code official based on the fire department apparatus. **2021 IFC 503.2.7 & Appendix D103.2**

D103.2 Grade: Fire apparatus access roads shall not exceed 10 percent in grade. **See Note.**

Turning radius: The required turning radius of a fire apparatus access road shall be determined by the fire code official. **2021 IFC 503.2.4**

Fire Department Access Road with a hydrant: Where a fire hydrant is located on a fire apparatus access road, the minimum road width shall be 26 feet exclusive of shoulders. (See Figure D103.1) **2021 IFC D103.1**

Aerial Fire Apparatus Access: **International Fire Code, 2021 edition, D105.1**
Where the vertical distance between the grade plane and the highest roof surface exceeds 30 feet, approved aerial fire apparatus access roads shall be provided. For purpose of this section, the highest roof surface shall be determined by measurement to the eaves of a pitched roof, the intersection of the roof to the exterior wall, or the top of a parapet wall, whichever is greater.

International Fire Code, 2021 edition, D105.2
Aerial fire apparatus access roads shall have a minimum unobstructed width of 26 feet, exclusive of shoulders, in the immediate vicinity of the building or portion thereof.

No Stopping, Standing, Parking – Fire Lane signs needed

International Fire Code, 2021 edition, D105.3
At least one of the required access routes meeting this condition shall be located within a minimum of 15 feet and a maximum of 30 feet from the building and shall be positioned parallel to one entire side of the building. The side of the building on which the aerial fire apparatus access road is positioned shall be approved by the fire code official.



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International Fire Code, 2021 edition, D105.4

Overhead utility and power lines shall not be located over the aerial fire apparatus access road or between the aerial fire apparatus and the building. Other obstructions shall be permitted to be placed with the approval of the fire code official.

Fire Pump Room:

The fire pump room must be compliant with the following:
2021 MBC, 2021 IFC 913 & NFPA 20. See Note. (if needed)

Note:

A fire pump room should have its own direct exterior door to enter. Without a direct access door, the entire passageway from the fire-lane to the fire pump room will be required to have the same required fire rated construction.

Note:

This will also be reviewed by the Building Department.