



Superior Fire Department

*Superior Fire Department
3326 Tower Av
Superior, WI 54880*

*Phone: (715) 395-1680
Firedept4@ci.superior.wi.us
www.ci.superior.wi.us*

Construction Design & City of Superior Fire Code Requirements

Design professionals, contractors, and property owners who are working construction projects in the City of Superior need to be aware of several local codes and requirements that will affect site planning and design layout. Below is a list of those requirements and the conditions under which they apply. Each of these requirements was put in place to assure the safety of those who use a building and to ensure a quick and efficient response to emergencies in the building. They are taken either from NFPA 1 which was adopted by both the state and the city or from the City of Superior Code of Ordinances.

It is the preference of the fire department that all parties involved meet with the Lead Fire Inspector prior to the design of a project to discuss these requirements. Additionally, if, at any time from design through occupancy, there are questions or concerns regarding any of these requirements, it would be important to contact the fire department.

As with any code requirements, there is a process to apply for a variance. In regard to variances from state statutes, the application for variance must be made to the Wisconsin Department of Safety and Professional Services (DSPS). A form for this purpose is available on their web site. Application for a variance from a local ordinance must be made in writing to the Superior Fire Department. It must be made on the applicant's stationary and may not be submitted as an electronic document only.

KnoxBox:

Access key box installation will be required on buildings where it is warranted. The City of Superior uses a box manufactured by the Knox Company called a KnoxBox. There are a set of guidelines on our web site containing information on which buildings require KnoxBoxes and which do not. During the planning phase of your project, you should contact the fire department to determine whether a KnoxBox will be required for you project. If one is required, order forms may be obtained at the headquarters fire station or the boxes may be ordered on line. The boxes come in a variety of sizes and must be sized to hold the keys to all exterior doors and any locked interior spaces. NFPA 1-16.3.4.3 allows the AHJ to require an access key box during the time of construction. Check with the Fire Department to determine if one will be required on your job site. (NFPA 1-18.2.2.1)

In the case of new construction, it is advisable to incorporate the installation of the KnoxBox into the original design plans. Recessed KnoxBoxes are available which are installed so that the face of the box is flush with the wall after installation and are therefore more aesthetically pleasing. However, it is more difficult to install a flush mounted box after the exterior walls have been finished.

Driving Access to the Building:

Fire apparatus access must be provided to within 150 feet of any point on the exterior walls of the building. Where the building is fully protected by an automatic fire suppression system, the AHJ may increase the distance. The access road must have a width of at least twenty feet and an unobstructed height of 13.5 feet. The road must be so constructed that it will support a vehicle with 28,000 pound GVW. It must be finished with an all-weather surface. Any fire access road with a dead end of 150 feet or more must be provided with a turn around. Plans for the fire access to any building must be submitted to the fire department for approval. (NFPA 18.2.3.2.2)

Fire Hydrants:

There must be a fire hydrant within 400 feet walking distance of any point on the exterior walls of the building. In many locations in the city there are public hydrants that will fulfill this requirement. However, in some cases, due either to the size of the construction project or to the lack of public hydrants in the area where the construction is taking place, the installation of a private fire hydrant(s) will be required. Hydrants must be so located that the distance between hydrants does not exceed 500 feet. The location of private hydrants must be shown on the site plans and be submitted to the fire department for approval. (NFPA 1-18.5.3)

Fire Department Connections (FDC) & Proximity to a Fire Hydrant:

The FDC must be located within 150 feet walking distance of a fire hydrant. As with the requirement above, if there is no public hydrant within 150 feet of the location of the FDC, a private hydrant must be installed to meet this requirement. (City of Superior Code of Ordinances 54-83(3))

FDC Location:

The FDC must be located on the front of the building adjacent to the principle entrance. (City of Superior Code of Ordinances 54-83(2))

Access to Fire Hydrants and FDC's:

Fire hydrants must be installed within 12 feet of the curb or edge of the driving surface. (NFPA 1-18.5.6) Access to them from the driving surface must be unobstructed.

FDC's must be installed where a clear and unobstructed path from the public way may be maintained. (NFPA 1-13.1.4.1)

Hydrant Colors:

Private hydrants must be painted red to distinguish them from the yellow public hydrants. (City of Superior Code of Ordinances 54-76)

Coupling Thread:

The thread used for couplings on hydrants and FDC's must conform to the thread used by the Superior Fire Department. The specifications may be obtained from the fire department. (NFPA 13-6.7.1.1)

Fire Alarm Annunciator:

The fire alarm annunciator panel must be located at the principle entrance to the building. (NFPA 72-17.3.2)

Elevator Key Boxes:

Elevator key boxes must be installed adjacent to the shaftway door on the floor of recall. It must be installed within a foot of the shaftway door and six feet from the floor. The elevator key box must be fitted with a lock keyed to the "St. Paul" key (MM7802). The keys for the emergency operation of the

elevator must be installed in the elevator key box along with the key for the elevator machinery room and any intervening locked doors. It may not contain the shaftway door key which must be installed in the elevator machinery room adjacent to the power shutoff for the elevator. (City of Superior Code of Ordinances 54-52)

Certificate of Occupancy (C of O):

Before the building may be occupied by the owner or tenant, it must receive a fire inspection. Any violations of applicable state or municipal codes noted at the time of this inspection must be corrected, verified, and accepted before the certificate may be issued. Application for the certificate is made to the Building Inspection Department (715-395-71298). (City of Superior Code of Ordinances 34-121)

Fire Safety Systems Plan Review:

Plans for fire safety systems including automatic fire suppression systems, standpipes, fire alarm systems, and kitchen hood systems must be reviewed by the fire department. This review is in addition to any required state review. Following state review and approval, four sets of stamped plans must be submitted to the Building Inspection Department. They must be full sized plans with a 1/8 inch scale. Four sets of any explanatory material such as hydraulic calculations or component cut sheets must be submitted with the plans. (NFPA 1-1.14)

Fire Safety Acceptance Testing:

The fire department must be notified prior to acceptance testing of any fire safety system including automatic fire suppression systems, standpipes, fire alarm systems, and kitchen hood systems. All acceptance tests must be witnessed by personnel from the SFD. In the event that testing is done without a fire department witness, the test will need to be repeated and witnessed. Arrangements for acceptance testing may be made by contacting the fire department. (NFPA 1-13.1.1) A copy of the report of the acceptance test with signatures of the relevant parties must be submitted to the fire department prior to the issuing of a C of O. Electronically transmitted copies are acceptable. (NFPA 1-13.1.5)