



## Division 21. Fire Suppression

### 21 00 00. Fire Suppression

For campus projects that require a fire suppression system shut down in a campus facility, a [Shut Down Procedure of Fire Safety System Sheet](#) must be completed and filed seven days prior to activity, so that it can be reviewed, approved, and coordinated with FP&M.

In compliance with the City of Madison Fire Department, all interior stairway floor number signs must meet the requirements of the [International Fire Code, 2009 Edition, Section 1022.8](#)

It is suggested that a stair signage mockup is reviewed on-site with the City of Madison Fire Department prior to the submittal of the signage package.

### *21 05 00. Common Work Results for Fire Suppression*

#### **21 05 05. General Requirements for Fire Suppression**

1. It shall be specified that the Operation and Maintenance manuals contain calculations and flow test specifications for fire pump and sprinkler systems.
2. Owner training shall be included for all equipment and systems and training shall be scheduled and take place.
3. As-built record drawings shall be kept up to date on the job site, and turned over to the A/E prior to final pay requests. The drawings must be prepared by the A/E in a clear AutoCAD format and turned over to the UW PM at Close Out.
4. All dry type systems shall be dual action type.
5. Determine with the architect if center-of-tile head placement shall be a requirement. If yes, specify and note on the fire protection drawings (in addition to notes on RCP's).
6. Whenever possible, fire hose standpipe valve shall be installed on the roof of new buildings on the top of each fire hose standpipe, with drain valve below roof. This fire hose valve is used for NFPA acceptance testing and for NFPA required flow testing.
7. Assurances shall be made that drain receivers accepting discharge from fire system drain valves and flow test stations can handle high flow discharge of fire systems with fire pumps running. The main drain on a fire system is also a NFPA fire flow test point. This main drain shall be piped into the fire pump test header whenever the drain receiver cannot handle the full flow with the fire pump running.
8. Coordination of the test drain locations shall occur with the A/E to minimize rust staining on building facades and flatwork.

### **21 10 00. Water-Based Fire Suppression Systems**

1. Tee-drilling of water supply piping in building shall not be allowed.
2. Building water services shall terminate in building with a threaded flange on the ductile iron service pipe, bolt on or quick flanges shall not be allowed.



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3. Buildings with dual water services for domestic and fire supply shall have additional valve installed on the water main between the dual services, so either service can supply the building in event of an interruption of water supply.
  4. UW may consider adding valves to the water main on each side of the water service of smaller buildings, if the building requires non-interruptible water supply.



# Division 21 Detail 1

## SHUT DOWN PROCEDURE OF FIRE PROTECTION SYSTEM Building Contact Information

Building Number		
Building Address		
Facility Manager	Office Phone	Cell

### System Out of Service

Date of Shut Down:
Time System Taken Out of Service:
Time System Put Back into Service:
Areas Affected by Shut Down:
Shut Down Coordinator:
Company Performing Work:

### Pre-Planned Shut Down or Emergency Shut Down Procedures

Facility Manager Contacted	Yes / No	Initials:
UW Safety Department Contacted 262-8769	Yes / No	Initials:
UW Police and Security Contacted 262-2957	Yes / No	Initials:
Madison Fire Department non-emergency 911 Contacted 255-2345 and 266-4135 ( <b>CALL BOTH</b> )	Yes / No	Initials:
Installed tags for all affected areas	Yes / No	Initials:
Verify all tools and material on hand	Yes / No	Initials:
Fire watch procedures have been implemented	Yes / No	Initials:

### Restoring System to Normal

Facility Manager Contacted	Yes / No	Initials:
UW Safety Department Contacted 262-8769	Yes / No	Initials:
UW Police and Security Contacted 262-2957	Yes / No	Initials:
Madison Fire Department non-emergency 911 Contacted 255-2345 and 266-4135 ( <b>CALL BOTH NUMBERS</b> )	Yes / No	Initials:
Verify all tags have been removed	Yes / No	Initials:
All necessary inspections / test are complete	Yes / No	Initials:
Fire watch forms have been collected; send to UW Safety	Yes / No	Signature:
Shut Down forms kept on site and a copy sent to UW Safety	Yes / No	Signature:

### Reference

- NFPA 72 (2002) National Fire Alarm Code (Chapter 4 Impairments)
- NFPA 25 (2002) Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems (Chapter 14 Impairments)
- International Fire Code 2003 (IFC 901.7 through IFC 901.8.1)



## Division 21 Detail 2



### **CITY OF MADISON FIRE DEPARTMENT**

325 W. Johnson St., Madison, WI 53703-2295  
Phone: 608-266-4420 ♦ FAX: 608-267-1100 ♦ E-mail: [fire@cityofmadison.com](mailto:fire@cityofmadison.com)

#### **INTERIOR STAIRWAY FLOOR NUMBER SIGNS INTERNATIONAL FIRE CODE, 2009 EDITION**

##### **Section 1022.8 Stairway floor number signs**

A sign shall be provided at each floor landing in interior exit enclosures connecting more than three stories designating the floor level, the terminus of the top and bottom of the stair enclosure and the identification of the stair. The signage shall be of contrasting colors and also state the story of, and the direction to the exit discharge and the availability of roof access from the stairway for the fire department.

Required components of floor number signs; all character size is a minimum of 1 inch unless specified:

- **Overall sign size** – shall be a minimum of 17 inches by 11 inches. (MGO 34.1022{1})
- **Floor level** – what story or floor is this sign for (1, 2, Basement, P1, etc.) with a minimum character height of 3 ½ inches and located in the middle of the sign. (MGO 34.1022{3})
- **Terminus of the top and bottom of the stair enclosure** – Shall identify what floor levels this stairwell serves from top to bottom.
- **Identification of the stairway** – all stairways shall be identified (North/South, 1/2, A/B, etc) with a minimum character height of 1 inch. (MGO 34.1022{2})
- **Remainder of lettering** – all lettering not specified above shall be a minimum of ¾ inch in height. (MGO 34.1022{4})
- **Story of, and the direction to the exit discharge** – where does this stairway exit? (1<sup>st</sup> floor, Basement, etc.) Also, is the exit door up or down from this location.
- **Availability of roof access** – does this stairway have access to the roof? It shall be marked either way (Roof Access or No Roof Access).
- **Location** – sign shall be located 5' – 0" above the floor landing. It shall be in a position that allows it to be seen regardless of the door being open or closed (do not place on door itself).

A sample floor number sign will be available to accompany this letter, and will be considered an approved design for stairway floor number signs.

Any questions concerning this letter or accompanying sample sign may be directed to a Fire Inspector at 608-266-4484. We thank you for your continued cooperation and compliance in making Madison a safer city for residents, employees and visitors.



## Division 21 Detail 2

NORTH STAIRWAY  
STAIRWAY SERVES FLOORS:  
BASEMENT THRU 5

**2**  
SAMPLE

NO ROOF ACCESS  
**GO DOWN 1 FLOOR TO EXIT**  
EXIT LEVEL - FLOOR 1