



**Prosper Fire Department  
Fire Prevention Division  
1500 EAST. FIRST STREET  
Prosper, Texas 75078  
Phone 972-346-9469**

## **Fire Alarm Installation Requirements**

### **I. Protection Against Physical Damage**

In both exposed and concealed locations where nonmetallic-sheathed cables pass through either factory or field punched, cut, or drilled slots or holes in metal members, the cable shall be protected by listed bushings or listed grommets covering all metal edges that are securely fastened in the opening prior to installation of the cable. **NFPA 70 section 300.4**

All fire wire, raceways, cable assemblies, boxes, cabinets, and fittings shall be securely fastened in place, and shall be self-supported. Support of wiring by wire ties to the ceiling grid supports, conduit, or other wiring is not allowed. **NFPA 70 section 300.11**

Exposed or Fished in Concealed Spaces:

In raceway or exposed on the surface of ceiling and sidewalls or fished in concealed spaces. Cable splices or terminations shall be made in listed fittings, boxes, enclosures, fire alarm devices, or utilization equipment. Where installed exposed, cables shall be adequately supported and installed in such a way that maximum protection against physical damage is afforded by building construction such as baseboards, door frames, ledges, and so forth. Where located within 2.1 m (7 ft) of the floor, cables shall be securely fastened in an approved manner at intervals of not more than 450 mm (18 in.). **NFPA 70 section 760.52**

Power-limited fire alarm circuit conductors shall not be strapped, taped, or attached by any means to the exterior of any conduit or other raceway as a means of support.  
**NFPA 70 section 760.57**

**Fire alarm circuits shall be installed in a neat and workmanlike manner.**

Cables and conductors installed exposed on the surface of ceiling and sidewalls shall be supported by structural components of the building in such a manner that the cable or conductors will not be damaged by normal building use. Such cables shall be attached to structural components by straps, staples, hangers, or similar fittings designed and installed so as not to damage the cable. The installation shall also conform to 300.4(D).

**NFPA 70 section 760.6**

## **II. Outlet, Device, Pull, and Junction Boxes; Conduit Bodies; Fittings and Manholes**

### **(D) Suspended Ceilings:**

An enclosure mounted to structural or supporting elements of a suspended ceiling shall be not more than 1650 cm<sup>3</sup> (100 in.<sup>3</sup>) in size and shall be securely fastened in place in accordance with either (D) (1) or (D) (2). **NFPA 70 section 314.23**

### **(1) Framing Members:**

An enclosure shall be fastened to the framing members by mechanical means such as bolts, screws, or rivets, or by the use of clips or other securing means identified for use with the type of ceiling framing member(s) and enclosure(s) employed. The framing members shall be adequately supported and securely fastened to each other and to the building structure.

Continued on next page

### **(2) Support Wires:**

The installation shall comply with the provisions of 300.11(A). The enclosure shall be secured, using methods identified for the purpose, to ceiling support wire(s), including any additional support wire(s) installed for that purpose. Support wire(s) used for enclosure support shall be fastened at each end so as to be taut within the ceiling cavity.

### **Secured in Place:**

Raceways, cable assemblies, boxes, cabinets, and fittings shall be securely fastened in place. Support wires that do not provide secure support shall not be permitted as the sole support. Support wires and associated fittings that provide secure support and that are installed in addition to the ceiling grid support wires shall be permitted as the sole support. Where independent support wires are used, they shall be secured at both ends.

Cables and raceways shall not be supported by ceiling grids.

(d) Suspended Ceilings. A dropped, suspended, or similar ceiling that does not add strength to the building structure shall not be considered a structural ceiling.

**NFPA 70 section 300.11 (A)**

### **Onsite requirements:**

- **Permit holder is responsible for all required accommodations needed to perform the inspection.**
- **Ceiling tile shall not be installed prior to inspection. This includes “borders” unless given specific approval in writing.**
- **All fire alarm testing will be performed on battery power.**
- **After hours inspections and tests are available for an additional fee.**

Bryan Ausenabaugh, Fire Marshal  
[bryan.ausenbaugh@prosperfire.com](mailto:bryan.ausenbaugh@prosperfire.com)