



THIS WEEK IN TRAINING

CONSTRUCTION TYPES & THE NYS TRUSS IDENTIFICATION SYSTEM

On December 29th 2004 The State of New York enacted a law that all **newly constructed** commercial buildings and multiple dwellings that utilize a truss building system for either a floor assembly or a roof assembly must place on all doors and also above the fire department sprinkler connection (FDC) a sign designed by the state to let the responding fire department know that there is a truss roof/floor (or both) assembly inside. The problem is, most of us have no idea how to decipher what the sign means...

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THE SYSTEM

Title 19 of the Official Compilation of Codes, Rules and Regulations of the State of New York was amended to add the following language:

“1264.1 Introduction- Section 382-a of the Executive Law provides that commercial and industrial buildings and structures that utilize truss type construction shall be marked by a sign or symbol that informs persons conducting fire control and other emergency operations of the existence of truss construction. Section 382-a further directs the State Fire Prevention and Building Code Council to promulgate rules and regulations it deems necessary to carry into effect the provisions of the statute. This Part establishes certain requirements pertaining to the identification of buildings and structures that utilize truss type construction.”

A little wordy? Yes and that’s just the Introduction so you can only imagine what the rest of it is like but it means, the state amended not just the building codes but the law that actually governs the building and fire codes and put this truss identification system in place.

The identification system is based on the type of construction the building is classified under. For example, “Type II” construction which is in a nutshell,

TRUSS IN THE DISTRICT

This article is all about the system ONLY.

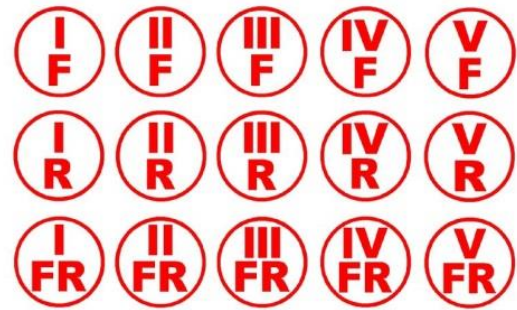
There are plenty of other ways to identify truss construction which will be discussed in a future article.

Remember, If you don’t see a truss sign on a door, IT DOESN’T MEAN IT’S NOT TRUSS, You should always assume it is unless informed

otherwise..

“Let No Mans Ghost Say His Training Let Him Down”

FIGURE 1



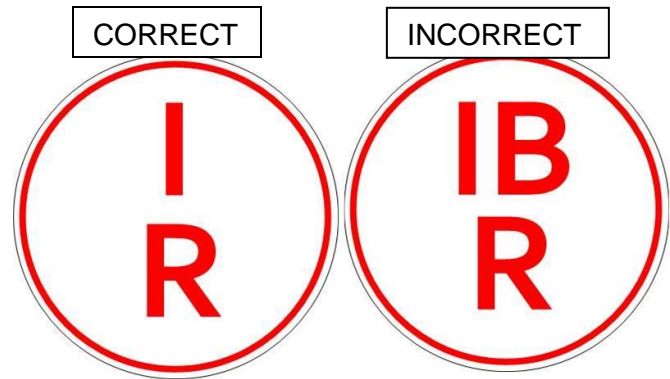
all building components are made from non-combustible materials such as steel and concrete. The actual phrasing in the Building Code is much more in depth and is beyond the scope of this paper. That being said, the reason for this subject is because most people don't know what the differences are between "Type I" all the way up to "Type V" construction, they may not even realize that the letters are *actually* alphanumeric roman numerals, and not plain letters (Fig.1).

So an explanation in plain English for each type is needed in order to understand the system.

1. **"Type I"** construction is a building in which its structural components are all made of non-combustible material, such as steel and concrete, but, not only is it non-combustible, its components are treated with some form of fire resistance, like a steel column needs to be encased in concrete or have some type of retardant on it. The steel trusses must have a fire retardant sprayed on it as well. Think ALL Gurwin buildings.
2. **"Type II"** construction is the same as "Type I" minus the added fire protection of the components. Think Lowe's, Walmart.
3. **"Type III"** construction the exterior walls are of noncombustible materials and the interior building elements are of any material permitted by the code. So think block walls and possibly a wood or metal truss roof/floor and the truss could be metal with a wood deck. It's sort of an outside the box thing. Also with "Type III" a combustible siding such as vinyl can be hung on the block walls. Think **A LOT** of our taxpayers.
4. **"Type IV"** Type IV construction (Heavy Timber, HT) is that type of construction in which the exterior walls are of noncombustible materials and the interior building elements are of solid or laminated wood. Think Sleepy's on Jericho Tpke in Co. 4's area, Sunken Meadow Auto Body, IHOP
5. **"Type V"** Construction is all wood frame buildings. The walls, floors and the roof will all be made of wood, and with new construction, it's all lightweight wood assemblies. Think Burger King in 2's area, Dunkin Donuts on Jericho in 4's area and there's a new building that just went up on Jericho between Siracusa Blvd. and Cornell Dr. which is all wood frame with a lightweight wood truss roof.

The definitions above are in bits and pieces and in *plain spoken* text and are not the exact definitions in the code book. There are also sub categories A & B, to each type of construction but they go to an exterior fire rating that doesn't

apply to the truss identification system, except to say, sometimes people get their own companies to make them a sign and it's wrong, and they add the letter **A** or **B** to the first line of the sign, it does NOT belong on the sticker (Fig.2). In this instance, read the sticker the way it's normally designed to be read without the mistake on the top line.



According to table “TABLE I-1264

TRUSS IDENTIFICATION SIGN LOCATIONS” in “[19 NYCRR Part 1264](#)” the signs should be located at the “**Exterior building entrance doors, exterior exit discharge doors, and exterior roof access doors to a stairway**”. These are the places you are going to want to look for the signs. It would be pretty tragic if you didn't see the sign before you took the glass in a door to a taxpayer only to find out after the roof collapses, it was a truss roof.

In the “**Sign Placement**” section of the table it goes on to say “**Attached to the door, or attached to a sidelight or the face of the building, not more than 12 inches (305 mm) horizontally from the latch side of the door jamb, and not less than 42 inches (1067 mm) nor more than 60 inches (1524 mm) above the adjoining walking surface**”.

Essentially this says somewhere within 12 inches of the door knob/latch handle. There is also supposed to be one above the FDC.

The Symbols on the Sign

The sign is round and has reflective red and white graphics. The top line on the sign is actually the Construction Types in Alphanumeric Roman Numerals (Fig.1). As to which roman numerals are on the top line of the sign, it is dependent upon which type of construction the building is classified as. So that means the top line can only have an:

1. “I” - Type I Construction
2. “II” - Type II Construction
3. “III” - Type III Construction
4. “IV” - Type IV Construction
5. “V” - Type V Construction

The bottom line of the sign can have only an **F**, an **R** or an **FR**.

1. “**F**” shall mean floor framing, including girders and beams
2. “**R**” shall mean roof framing
3. “**FR**” shall mean floor and roof framing

So if you saw a sign with “**III**” on the top line and an “**R**” on the bottom line, that would be telling you the building is “**Type III**” construction with a truss “**Roof**” (Fig3.)

Summary

So in simple terms, the top line is in roman numerals only and speaks to the type of building construction the building is classified as. The bottom line of the sign speaks to where in the building the truss assembly/s is located.



FIGURE 3

You must also remember that this code **ONLY applies to commercial buildings and multiple dwellings built after December 29th 2004 or any commercial building or multiple dwelling that puts on any size addition that increases the floor area of the building. Remember too that it doesn't apply to ANY single family dwelling.**

If you are the first to notice the sign, And you can't remember which construction type is which, **ASK SOMEONE** who might know and make sure whether you remember what it means or not, to inform the Incident Commander(IC) you have a truss construction sign and tell him/her exactly what's on it.

At a minimum, if you have learned or retained nothing from this article, at least remember what the sign looks like, where it's going to be located and **ALWAYS** inform the IC of the presence of the sign and what's on it.

**Have A Safe Week
And Thanks For Reading...**

Fire Marshal Digiose

Note: See last page for explanatory diagram

