STEEL FRAMING:

Substantiation is Needed

The lack of accepted standards presents some problems which contractors must overcome.

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Steel framing is a rapidly expanding market for the specialty contractor. But there are some problems—some of them serious—with which a contractor must be familiar and be prepared to resolve.

Probably the major difficulty right now is the absence of a universally applicable or acceptable standard, either as to manufacture or as to installation.

With the diversity of section designs, configurations, metal thicknesses, code approvals and availability of test data, a single, comprehensive and acceptable institutional reference specification is virtually impossible to develop.

One of the best and most successful attempts to establish a nationally accepted standard was published last year by the Metal Lath/Steel Framing Association, of 221 N. LaSalle St., Chicago, Ill., 60601. This organization’s “Light Gage Steel Framing Specifications” was prepared by the leading manufacturers and should be a part of every wall and ceiling contractor’s technical library.

The entire specification was carried as a special insert in the October, 1977, edition of Construction Dimensions Magazine. Copies of the specification are available from the MLSFA.

As outstanding as this effort was, though, the wide range of nomenclature for essentially the same item contributes a sense of uneasiness for the designer. The latter can never be absolutely certain without going to the manufacturer’s material specs on each item—and/or checking carefully with a knowledgeable contractor.

Various Names

For example, discounting the metal gage factor, the “C” or Cee study is variously known as a channel stud, a drywall stud, a screw tee stud, a C-shaped sec-
tion, as well as “L”, “S”, or “LS” series studs.

A designer or a contractor would need to refer to a picture or drawing of a section of the stud to be certain which stud is being discussed.

What makes a thorough knowledge of steel framing so important for the contractor are the consequences of this lack of standardization. Without uniformity among the types of material and the systems, building codes are understandably sketchy as to light metal framing. It is not unusual that the only valuable information to be found in a typical code is a reference to wall heights and deflection.

Some manufacturers have made serious efforts to overcome these shortcomings. A few have individual approvals for their products, and there are those who have conducted more extensive, explicit research.

Unfortunately, manufacturers face the constant problem of getting their research cards distributed properly. In many cases where a distribution has been successful, the cards become separated from those adopted into the building code books.

For many engineers and other designers, if it isn’t in the code book it simply doesn’t exist. This is where knowledge by the contractor is so essential.

In defense of the manufacturers’ problems, the problems and astronomical fees demanded by code bodies for obtaining building code product approvals for individual assembly components represent substantial barriers.

During the interim, little is being accomplished so far as grouping and classifying fabricated items and components on congruent characteristics.

Faced with this scattering of knowledge in the market, designers want and need direction. They contend that they are not receiving this information or, in view of the difficulty in getting it, the designers are turning to alternate construction systems.

The gap in making more designers aware of all the elements the industry possesses such as variety of design, answers to specific engineering problems and economies points to the need for a generic information source.

In this way, the information would be available at the moment of need—not before or after.

Should the industry not soon produce some viable all-inclusive standards or complete reference specifications, the design profession may turn to someone else to shape them. Engineering groups or public entities may well unilaterally develop and impose standards.

Arising also from this lack of uniformity is which section of the job specification light metal framing shall be put into. In the east the practice is to put it in Section 5 (light iron) while on the west coast it goes into Section 9 (lathing). Where it comes to light has a profound influence on the work jurisdiction.

In one area lathers put it all up regardless of the type of wall covering. In others carpenters, iron workers or even sheet metal workers have assumed or been assigned work jurisdiction.

Building departments are not the same in various parts of the country. In some areas heavy reliance is placed on approved laboratory tests certifying to performance of the materials based on predetermined criteria. In other areas the level of test sophistication is backwoods.

There is an immediate need to develop a higher level of technical expertise both within the industry and by building officials.

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But the trend in recent years is a heavy accent on engineering oriented building officials. It is not unreasonable to expect this emphasis on test data to gradually sweep the entire country in time.

**Price Peddling**

Some manufacturers peddle their products on the basis of price alone. Others sell by graphics and engineering support. Contractors, in self-defense, are going to need a broader understanding of design criteria of the materials they assemble into a building.

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Trade promotion representatives are frustrated by the test data gaps for even some time-honored assemblies. This may hardly be the time to pressure manufacturers into an expanded testing program because most of them are busy right now filling orders. But if the industry doesn’t look ahead for days to come in product development and more especially for performance substantiation of those products, a lot of doors may suddenly close.

Light metal framing components are products of the space age. They lend themselves to shop fabrication, to energy conservation and to a host of other economies. But they require a more enlightened contractor to promote them on the basis of technical know how. They also require a labor leader with some vision to see beyond today’s full employment.

And there will be a tomorrow—with or without us.