SUPPLEMENT NO. 1

TO THE SPECIFICATION FOR THE DESIGN, FABRICATION & ERECTION OF STRUCTURAL STEEL FOR BUILDINGS

(ADOPTED FEBRUARY 12, 1969)

Effective November 1, 1970

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SECTION 1.4 MATERIAL

1.4.1 Structural Steel

1.4.1.1 After the words "ASTM A514", delete the following:

"(Quenched and tempered alloy steel structural shapes and seamless mechanical tubing meeting all of the mechanical and chemical requirements of A514 steel, except that the specified maximum tensile strength may be 140,000 psi for structural shapes and 145,000 psi for seamless mechanical tubing, shall be considered as A514 steel.)"

Add to the list of approved materials:

"*Hot-Formed Welded and Seamless High-Strength Low-Alloy Structural Tubing*, ASTM A618"

Add a new Section as follows:

"1.4.6 Stud Shear Connectors

Steel stud shear connectors shall conform to the requirements of Articles 429 and 430, *Code for Welding in Building Construction*, AWS D1.0-69, of the American Welding Society.

Manufacturer's certification shall constitute sufficient evidence of conformity with specifications."

SECTION 1.5 ALLOWABLE STRESSES

1.5.1 Structural Steel

1.5.1.3 Compression

1.5.1.3.1 Immediately following the words "compression members", add: "whose cross-sections meet the provisions of Sect. 1.9"

1.5.1.4 Bending

1.5.1.4.1 Delete subparagraph d in its entirety and substitute the following:

"d. The depth-thickness ratio of the web or webs shall not exceed the value given by Formulas (1.5-4a) or (1.5-4b) as applicable.

$$\frac{d}{t} = \frac{412}{\sqrt{F_y}}\left(1 - 2.33\,\frac{f_a}{F_y}\right) \text{ when } \frac{f_a}{F_y} \leqslant 0.16 \qquad \text{(1.5-4a)}$$

$$\frac{d}{t} = \frac{257}{\sqrt{F_y}} \qquad \text{when } \frac{f_a}{F_y} > 0.16 \qquad \text{(1.5-4b)"}$$

1.5.1.4.2 Immediately following the words "of Sect. 1.5.1.4.1" add a comma, and immediately following the words "except that $b_f/2t_f$" delete the comma.

Change formula number "(1.5-5)" to "(1.5-5a)".

1.5.1.4.3 Add a second paragraph as follows:

"Doubly-symmetrical I- and H-shape members bent about their minor axis (except hybrid girders and members of A514 steel) meeting the requirements of Sect. 1.5.1.4.1, subparagraph a, except where $b_f/2t_f$ exceeds $52.2/\sqrt{F_y}$ but is less than $95.0/\sqrt{F_y}$, may be designed on the basis of an allowable bending stress

$$F_b = F_y\left[0.933 - 0.0035\left(\frac{b_f}{2t_f}\right)\sqrt{F_y}\right] \qquad \text{(1.5-5b)"}$$

1.5.1.4.6a Immediately following the words "under Sect. 1.5.1.4.5," add: "and meeting the requirements of Sect. 1.9.1.2,".

1.5.1.4.6b Immediately following the words "under Sect. 1.5.1.4.5," add: "and meeting the requirements of Sect. 1.9.1.2,".

SECTION 1.10 PLATE GIRDERS AND ROLLED BEAMS

1.10.5 Stiffeners

1.10.5.3 In the third paragraph, immediately following the words "holes shall be such that", delete: "the smaller panel dimension, a or h, shall not exceed $348t/\sqrt{f_v}$" and substitute the words "f_v does not exceed the value given by Formula (1.10-1)".

SECTION 1.11 COMPOSITE CONSTRUCTION

1.11.2 Design Assumptions

1.11.2.2 At the beginning of the fourth paragraph, delete the words "For construction without temporary shoring, the value of the section modulus of the transformed composite section used in stress calculations (referred to the bottom flange of the steel beam) shall not exceed", and substitute the following:

"For construction without temporary shoring, the bottom flange steel stress may be computed from the total load moment and the actual transformed section modulus S_{tr}, except that the numerical value of S_{tr} so used shall not exceed that of Formula (1.11-2). This stress shall not exceed the appropriate value of Sect. 1.5.1."

SECTION 1.15 CONNECTIONS

1.15.5 Restrained Members

In the first line of the second paragraph delete the words "fully restrained".

SECTION 1.23 FABRICATION

1.23.1 Straightening Material

Delete this subhead and the entire text of the paragraph beginning with the words "Rolled material", and substitute a new subheading and paragraph reading as follows:

"1.23.1 Cambering, Curving, and Straightening

The local application of heat or mechanical means may be used to introduce or correct camber, curvature, and straightness. The temperature of heated areas, as measured by approved methods, shall not exceed 1100°F for A514 steel nor 1200°F for other steels."

1.23.6 Welded Construction

In Table 1.23.6, for thickness "To $\frac{3}{4}$, incl.", in the second column under the heading "Welding Process", change "None[2]" to "None[2,3]".