Are you looking for section properties for steel fabricated when color television was new and slide rules were king? AISC’s new Design Guide 15, now on the shelves of the AISC bookstore, closes the generation gap on steel.

The new publication offers designers a one-stop resource for the evaluation and analysis of steel in existing structures. Particular attention is given to steel and wrought iron sections produced between the years 1873 and 2000. The text contains improvements on the knowledge base in the 1953 AISC publication Iron and Steel Beams 1873 to 1952.

The new text is the brainchild of Mr. Roger Brockenbrough, P.E., former senior research consultant for U.S. Steel. Mr. Brockenbrough is a member of the AISC Committee on Specifications and Chair of the AISI Committee on Specifications for the Design of Cold-Formed Steel Structural members.

WHAT'S INSIDE
More than an update. Many in the industry now turn to the retrofit and rehabilitation of existing structures to sustain their businesses through difficult economic times. Design Guide 15 is a reference to aid a new generation of designers with pertinent material never before addressed in AISC publications.

Design Guide 15 is the industry’s most complete reference for the historic dimension, property, material and specification information needed in the rehabilitation and retrofit of steel structures. Procedures are included for the enhancement of structural connections including the design strength of bolts, rivets and welds. Tables have been added to simplify steel producer information, giving new order to volumes of detached mill tables. Methods are provided with references for additional information, to address seismic concerns in existing structures for their compliance with the current codes.

The text presents strategies for adding new steel members with existing structures, including the welding, cutting, and drilling existing members.

Section Properties. Properties of steel shapes produced between the years 1887 and 2000 and wrought iron sections produced from 1873 to 1900 are included in the design guide. Tables are provided for each of the three historic families of steel sections which include the physical dimensions of each section, compact section criteria, elastic properties and the plastic modulus. Section producer information has also been compiled from previous texts for use in the current design guide.

Evaluation and enhancement of existing structures. The new design guide includes methods for the inspection and evaluation of structures with respect to their ability to resist lateral and gravity loadings. The evaluation and strengthening of connections is addressed and procedures are given for the welding, cutting, and drilling of existing members.

References on Rehabilitation and Retrofit. If the information that you are looking for is not included in the design guide, an extensive listing is provided with other useful resources along with abstracts of the material addressed in each text. References are provided for other texts and for case...
studies on successful rehabilitation and retrofit projects.


**WHERE TO GET IT**

Design Guide 15 is available from AISC’s publications department at 800.644.2400 or from AISC’s online bookstore at [www.aisc.org](http://www.aisc.org). At $26 + shipping for AISC members, or $39 + shipping for non-members, this is one reference you won’t want to be without.

Christopher M. Hewitt, Staff Engineer–Structures in AISC’s Engineering and Research department in Chicago, managed the production of Design Guide 15.

*From the AISC archives: J. R. Hegemen, president of the Metropolitan Life Insurance Co., drives the last rivet into the company’s new headquarters (then the tallest office structure in the world) on July 8, 1908. AISC’s new Design Guide 15 tells us that rivet steel was covered by ASTM A9 in 1908, which at the time had a specified minimum tensile stress of 50 ksi.*