

SECTION 5B

STEEL JOISTS

1. **APPLICABLE PUBLICATIONS:** The Steel Joist Institute (SJI) publication listed below forms a part of this specification to the extent referenced. The publication is referred to in the text by the basic designation only.

Standard Specifications for Open Web Steel Joists, H-Series
(February 15, 1978)

2. **DESCRIPTION:** Steel joists are designated on the drawings in accordance with the standard designations of the Steel Joist Institute. Joists of other standard designations or joists with properties other than those shown may be substituted for the joists designated provided the structural properties are equal to or greater than those of the joists shown and provided all other specified requirements are met.

3. SUBMITTALS:

3.1 **Certificates of Compliance:** Certificates of compliance stating that the steel joists have been designed and manufactured in accordance with the SJI standard specification under which the members were produced shall be submitted in accordance with the SPECIAL PROVISIONS. Complete engineering design computations may be submitted for approval in lieu of the certification.

3.2 **Shop Drawings:** Shop drawings shall be submitted for approval in accordance with the SPECIAL PROVISIONS. Shop drawings shall include fabrication and erection details, specifications for shop painting, and identification markings of joists.

4. **DELIVERY AND STORAGE:** Materials shall be delivered to the site in undamaged condition and stored off the ground in a well drained location, protected from damage, and easily accessible for inspection and handling.

5. MATERIALS:

5.1 **Open Web Steel Joists:** Steel joists shall conform to the SJI Standard Specifications for Open Web Steel Joists, H-Series. Joists shall be designed to support the loads given in the Standard Load Table included with the standard open web joist specifications.

5.2 **Accessories and Fittings:** Accessories and fittings, including end supports and bridging, shall be in accordance with the standard specification under which the members were designed.

5.3 **Shop Painting:** Joists and accessories shall be shop painted with a rust-inhibiting primer paint. For joists which will be finish painted under SECTION: PAINTING, GENERAL, the paint shall be limited to a primer which is compatible with the specified finish paint.

6. **ERECTION:** Installation of joists shall be in accordance with the standard specification under which the member was produced. Joists shall

be handled in a manner to avoid damage. Damaged joists shall be removed from the site, except when field repair is approved and such repairs are satisfactorily made in accordance with the manufacturer's recommendations. Joists shall be accurately set and end anchorage shall be in accordance with the standard specification under which the joists were produced. Joist bridging and anchoring shall be secured in place prior to the application of any construction loads. Any temporary loads shall be distributed so that the carrying capacity of any joist is not exceeded. Loads shall not be applied to bridging. Abraded, corroded, and field welded areas shall be cleaned and touched up with the same type of paint used in the shop painting.