

**Description:**

The purpose of the section is to highlight the current applicable UMD Design Standards for source fabrication and erection of structural and miscellaneous metals on campus for new construction and renovation projects.

**Related Sections:**

- TBD

**Effective Date:**

January 1, 2023

**Applicable Standards:**

- AISC "Specifications for the Design and Erection of Structural Steel for Buildings"
- Comply with AISC "Specification for Structural Joints using ASTM A325 or A490 Bolts."
- Comply with AWS "Structural Welding Code".
- Comply with SJI "Standard Specifications and Standard Load Tables for Open WEB Steel Joists." Fabricator shall provide SJI certification.
- Comply with AISI "Specifications for the Design of Cold-Formed Steel Structural Members."
- Comply with SDI "Design Manual for Floor Decks and Roof Decks."

**General Requirements:****Structural Steel:**

- Comply with AISC "Specifications for the Design, Fabrication and Erection of Structural Steel for Buildings", including commentary and supplements.
- All welders shall be qualified per AWS "Standard Qualification Procedure." Provide certification that welders have passed AWS tests within the past 12 months.
- Testing agency shall inspect erection, bolted and welded connections, and submit final reports to UMD Planning and Construction. (Certification of independent inspection of shop-welded and bolted connections submitted by fabricator is acceptable.)

**Steel Joists:**

- Comply with SJI "Standard Specifications and Standard Load Tables for Open WEB Steel Joists." Fabricator shall provide SJI certification.
- Comply with AWS "Structural Welding Code."
- All welders shall be qualified per AWS "Standard Qualification Procedure." Provide certification that welders have passed AWS tests within the past 12 months
- All bridging, including end connections to walls, shall be in place prior to installation of floor or roof deck.
- Testing agency to inspect erection and welded connections bridging, anchorage, etc., and submit final reports to UMD Planning and Construction.

**Metal Decking:**

- Comply with AISI "Specifications for the Design of Cold-Formed Steel Structural Members."
- Comply with SDI "Design Manual for Floor Decks and Roof Decks."
- Comply with AWS "Structural Welding Code."
- All welders shall be qualified per AWS "Standard Qualification Procedure." Provide certification that welders have passed AWS tests within the past 12 months
- Welding washers shall be used for all welds.
- Minimum 20-gauge deck shall be used for spans 4'-6" to 5'-6", regardless of continuity over supports. All deck shall be galvanized.
- Testing agency to inspect erection and welded connections and submit final reports to UMD Planning and Construction.