

## **PART 1: GENERAL**

### 1.01 SCOPE OF STANDARD

- A. This standard provides general guidance concerning the specific preferences of Sam Houston State University for the design, fabrication and erection of structural steel building systems.

### 1.04 QUALITY CONTROL

A. Qualifications for welding work:

1. All welders and welding processes shall be qualified in accordance with AWS “Standard Qualification Procedure.”
2. All welders shall have passed AWS qualification tests within the past six months.
3. Contractor shall provide WPS and PQR for all welds as part of the project submittals.
4. SHSU reserves the right to inspect the welds (at our cost) by any means normally accepted in the industry. Including but not limited to; visual, dye-penetrant, mag-particle and radiograph. All weld inspections will use the procedures as outlined by the American Society for Non-Destructive Testing (ASNT).
5. All structural steel welds shall be in accordance with AWS D1.6

### 1.05 SUBMITTALS

A. Fabricator shall submit, as a minimum, the following:

1. Mill certificates for all steel members, Mill test reports, and transfer Heat numbers.
2. Complete shop drawings, including placement plans, member sizes, connections, connection details, bill of materials, and dimensions of members and locations of splices.
3. All primers, coatings and cleaning methods.

## **PART 2: PRODUCTS**

### 2.01 GENERAL

- A. All steel shall be domestically manufactured, unless foreign sources are accepted by Sam Houston State University
- B. Primer paint shall be compatible with subsequent paint systems to be applied.

### **PART 3: EXECUTION**

#### 3.02 QUALITY CONTROL

- A. Sam Houston State University will contract with an independent testing agency to provide inspection services during the course of the project. The fabricator and the erector shall provide access to all parts of the work for inspection by the testing agency to accomplish its work. The testing agency may require access to the fabricator's shop at any time during fabrication or just prior to shipment of the structural steel.
- B. Sam Houston State University reserves the right to reject any and all materials or workmanship not complying with specified requirements at any time.
- C. Fabricator and/or erector shall correct all deficiencies and work, which is not in compliance with the specified requirements. Any additional testing or inspection costs will be at the expense of the fabricator/erector.

### **PART 4: DESIGN**

#### 4.01 GENERAL

- A. In the design of structural steel systems, the design engineer shall take into consideration the future flexibility of the system and the need to make frequent modifications to building systems.

#### 4.02 DESIGN

- A. Refer to SHSU Structural Systems standard for design loads.
- B. Full-Penetration Welding – Full-penetration welds are often required and even desirable for many structural steel connections. The engineer should give consideration to cost and testing requirements when designing structural steel connections.

#### 4.03 SYSTEMS TO AVOID

- A. Avoid steel systems with excessive span/depth ratios. Deflections should be kept within acceptable limits.
- B. Avoid the use of “weathering steel” rolled sections or sheet metal panels.
- C. Avoid the use of A-490 bolts.

END OF STANDARD 05100