

**5 METALS – V05000**

**5.1 GENERAL**

**5.1.1 Description**

This standard identifies minimum requirements that shall be met for all metal in the design and construction of elements for Arlington County Building Design Standards.

**5.1.2 Related Arlington County Standards, Specification and Policies**

including, but not limited to, those listed in Table 5.1.2

<b>Table 5.1.2</b>
Related Arlington County Standards, Specification and Policies
Arlington County Pre-Construction Manual (May 1, 2012)

**5.1.3 Applicable Standards and Specifications including**

including, but not limited to, those listed in Table 5.1.3

<b>Table 5.1.3</b>
Applicable Standards and Specifications
American Society for Testing and Materials (ASTM)
American Welding Society (AWS) Standards (American Welding Society)
ICC International Building Code/2012
US Green Building Council’s Leadership in Energy and Environmental Design (LEED) green building rating system

**5.1.4 Quality Assurance**

5.1.4.1 Reserved

**5.1.5 Submittals**

5.1.5.1 The Registered Design Professional shall identify, in the specification sections, manufacturer’s products, descriptions, performance criteria, materials, components, fabrication, source quality control, finish, and accessory materials pertaining to metal work and construction.

5.1.5.2 Project specifications shall require the Contractor to provide shop drawings for all structural and architectural steel design, connection details and calculations which shall be signed and sealed by a PE licensed in the Commonwealth of Virginia.

**5.2 DESIGN**

**5.2.1 Design Guidelines**

5.2.1.1 All structural elements and connections falling under this section shall be designed and installed in accordance with all applicable codes and standards and reviewed and approved by the County. All design and calculations performed shall be under the supervision of a PE licensed in the Commonwealth of Virginia; and, all structural steel drawings and calculations shall be signed and sealed by the PE.

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- 5.2.1.2 Structural steel designs and drawings shall conform to all requirements of the ASTM.
  - 5.2.1.3 Where practicable, steel connections are to be designed in such a manner as to avoid being classified as a critical structure; i.e., bolted connections are to be constructed as turn of the nut. Moment/rigid connections are to be avoided.
  - 5.2.1.4 The Registered Design Professional shall identify in the Specification that the Contractor shall touch up paint and/or primer after erection of steel or other metals.

#### **5.2.2 ASTM Requirements**

- 5.2.2.1 Project specifications shall specifically require the Contractor to comply with all requirements of the ASTM where applicable. Any requirements of the ASTM and ICC-IBC which are not specifically identified as a requirement of the Contractor shall be considered to be a requirement of the Registered Design Professional and the Structural Engineering Consultant.

#### **5.2.3 Welder Certification Requirements**

- 5.2.3.1 All welders must be certified by American Welding Society (AWS). Contractor must submit copies of certifications for all welders before the welders will be permitted to work on the project.

### **5.3 PRODUCTS**

#### **5.3.1 Reserved**