

**OKLAHOMA STATE UNIVERSITY - BUILDING DESIGN STANDARDS**

PART 1 GENERAL

1.1 REFERENCES:

- A. ACI 301 - Specifications for Structural Concrete for Buildings.
- B. ACI 315 - Details and Detailing of Concrete Reinforcement.
- C. ASTM A82 - Cold Drawn Steel Wire for Concrete Reinforcement.
- D. ASTM A185 - Welded Steel Wire Fabric for Concrete Reinforcement.
- E. ASTM A615 - Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.
- F. ASTM A706 - Low-Alloy Steel Deformed Bars for Concrete Reinforcement.
- G. AWS D1.4 - Structural Welding Code Reinforcing Steel.
- H. CRSI - Manual of Practice.
- I. CRSI 63 - Recommended Practice for Placing Reinforcing Bars.
- J. CRSI 65 - Recommended Practice for Placing Bar Supports, Specifications and Nomenclature.

1.2 QUALITY ASSURANCE:

- A. Perform concrete reinforcement work in accordance with CRSI Manual of Standard Practice, and Documents 63 and 65.
- B. Conform to ACI 301.
- C. Submit mill test certificates of supplied concrete reinforcing, indicating physical and chemical analysis.

1.3 SUBMITTALS:

- A. **LEED MR Credit 4.1: Recycled Content: 10% (post-consumer + 1/2 pre-customer)**  
Provide a statement from the manufacturer outlining the use of materials with recycled content. Information must include the sum of post-consumer recycled content plus one-half of the pre-customer content constituting at least 10% (based on cost) of the total value of the materials in the project. The recycled content value of the material assembly will be determined by weight. The recycled fraction of the assembly will then be multiplied by the cost of the assembly to determine the recycled value.

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- B. LEED MR Credit 4.2: Recycled Content: 20% (post-consumer + 1/2 pre-customer)  
Provide a statement from the manufacturer outlining the use of materials with recycled content. Information must include the sum of post-consumer recycled content plus one-half of the pre-customer content constituting an additional 10% beyond MR Credit 4.1 (total 20%, based on cost) of the total value of the materials in the project. The recycled content value of the material assembly will be determined by weight. The recycled fraction of the assembly will then be multiplied by the cost of the assembly to determine the recycled value.
- C. LEED MR Credit 5.1: Regional Materials: 10% Extracted, Processed & Manufactured Regionally.  
Provide a statement from the manufacturer confirming the materials or products provided have been extracted, harvested or recovered, as well as manufactured, within 500 miles of the project site for a minimum of 10% (based on cost) of the total materials value. If only a fraction of a product or material is extracted/harvested/ recovered and manufactured locally, then only that percentage (by weight) will contribute to the regional value.
- D. LEED MR Credit 5.2: Regional Materials: 20% Extracted, Processed & Manufactured Regionally.  
Provide a statement from the manufacturer confirming the materials or products provided have been extracted, harvested or recovered, as well as manufactured, within 500 miles of the project site for an additional 10% beyond MR Credit 5.1 (total of 20%, based on cost) of the total materials value. If only a fraction of a product or material is extracted/harvested/ recovered and manufactured locally, then only that percentage (by weight) will contribute to the regional value.

**PART 2 PRODUCTS**

**2.1 MATERIALS:**

- A. Reinforcing Steel: ASTM A615 plus (S1) and ASTM A706 for bars where welding is required, Grade 60 if not otherwise specified. Finish: Plain. Epoxy coated rebars will be considered at the design engineer's recommendation.

LEED MR Credit 4.1 and 4.2: Recycled Content, 10% and 20% respectively (post-consumer + 1/2 pre-customer)  
Material will contain recycled content when feasible.

- B. Welded Wire Fabric: ASTM A185. Finish: Plain. Furnish in flat sheets.
- C. Stirrup Steel: ASTM A82.

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2.2 ACCESSORY MATERIALS:

- A. Tie Wire: Minimum 16 gage annealed type. Acceptable patented system.
- B. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for strength and support of reinforcement during installation and placement of concrete.
- C. Chairs, Bolsters, Bar Supports, Spacers Adjacent to Architectural Concrete Surfaces: Plastic coated or plastic tipped type; size and shape as required.

2.3 FABRICATION:

- A. Fabricate in accordance with ACI 315, providing concrete cover specified in Section 03300.
- B. Weld reinforcing bars in accordance with AWS D1.4.

**END OF SECTION 03200**