1. **GENERAL**
   1. **SECTION INCLUDES**
      1. Areaway gratings.
      2. Grates in Accessible Path of Travel to conform to CBC Chapter 11B.
   2. **REFERENCES**
      1. AWS A2.4 - Standard Symbols for Welding, Brazing and Nondestructive Examination.
      2. AWS D1.1 - Structural Welding Code, Steel.
      3. ASTM A36 - Structural Steel.
      4. ASTM A123 - Zinc (Hot-Dip Galvanized) Coating on Iron and Steel Products.
      5. ASTM A436 - Austenitic Gray Iron Castings.
      6. Steel Structures Painting Council (SSPC) - Steel Structures Painting Manual.
   3. **PERFORMANCE REQUIREMENTS**
      1. Maximum Allowable Deflection Under Live Load: 1/120 size components by single support design.
   4. **SUBMITTALS**
      1. Shop Drawings indicating welded connections using standard AWS A2.4 welding symbols. Indicate net weld lengths.
      2. Product Data: Indicate construction and fabrication details, finishes and anchorage areaway.
   5. **FIELD MEASUREMENTS**
      1. Verify that field measurements are as indicated on shop drawings.
2. **PRODUCTS**
   1. **MANUFACTURERS**
      1. Products of following manufacturers form basis for design and quality intended.
         1. Alhambra Foundry Inc., Alhambra, CA.
         2. Neenah Foundry, Inc., Neenah, WI.
         3. Barry Pattern and Foundry Co., Inc., Birmingham, AL.
         4. Vulcan Foundry, Denham Springs, LA.
      2. Or equal, as approved in accordance with Division 1, General Requirements for Substitutions.
   2. **MATERIALS**
      1. Steel: ASTM A123 galvanized, ASTM A36 steel.
      2. Cast Iron: ASTM A436.
      3. Welding Materials: AWS D1.1; type required for materials being welded.
      4. Shop and Touch-Up Primer: SSPC 15, Type 1, red oxide.
      5. Touch-Up Primer for Galvanized Surfaces: SSPC 20 zinc rich.
   3. **ACCESSORIES**
      1. Fasteners: Galvanized steel, vandal-resistant.
   4. **FABRICATION**
      1. Fabricate grates to accommodate design loads and to sizes indicated.
      2. Weld joints of intersecting metal sections.
      3. Fabricate support framing for openings.
   5. **FINISHES**
      1. Clean surfaces of rust, scale, grease, and foreign matter prior to finishing.
      2. Do not prime surfaces in direct contact with concrete or where field welding is required.
      3. Prime and paint items with two coats. Color to be selected by the Architect from District standard colors.
3. **EXECUTION**
   1. **EXAMINATION**
      1. Verify that opening sizes and dimensional tolerances are acceptable.
      2. Verify that supports are correctly positioned.
   2. **INSTALLATION**
      1. Install components in accordance with manufacturer's instructions.
      2. Place frames in correct position, plumb and level.
      3. Mechanically cut finish surfaces. Do not flame cut.
      4. Anchor by welding.
      5. Set perimeter closure flush with top of grating and surrounding construction.
      6. Secure to prevent movement.
   3. **TOLERANCES**
      1. Maximum Space Between Adjacent Sections: 1/8 inch.
      2. Maximum Variation From Top Surface Plane of Adjacent Sections: 1/8 inch.

**END OF SECTION**