

## **SECTION 12 48 16 - ENTRANCE FLOOR GRILLES**

### **PART 1 - GENERAL**

#### **1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### **1.2 SUMMARY**

- A. Section includes recessed floor grilles and frames.
- B. Related Requirements: Section 05 50 00, METAL FABRICATIONS.

#### **1.3 COORDINATION**

- A. Coordinate size and location of recesses in concrete to receive floor grilles and frames.

#### **1.4 ACTION SUBMITTALS**

- A. Product Data: For each type of product.
  - 1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for entrance floor grilles and foot grilles.
- B. Shop Drawings:
  - 1. Items penetrating floor grilles and frames, including door control devices.
  - 2. Divisions between grille sections.
  - 3. Perimeter floor moldings.
- C. Samples: For the following products, in manufacturer's standard sizes:
  - 1. Floor Grille: Assembled section of floor grille.
  - 2. Frame Members: Sample of each type and color.

#### **1.5 CLOSEOUT SUBMITTALS**

- A. Maintenance Data: For floor grilles and frames to include in maintenance manuals.

#### **1.6 FIELD CONDITIONS**

- A. Field Measurements: Indicate measurements on Shop Drawings.

## **PART 2 - PRODUCTS**

### **2.1 MANUFACTURERS**

- A. Manufacturers: Subject to compliance with requirements, **available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:** See Drawings.

#### **ENTRANCE FLOOR GRILLES, GENERAL**

- 2.2** Structural Performance: Provide floor grilles and frames capable
- A. of withstanding the following loads and stresses:
1. Uniform floor load of [300 lbf/sq. ft.]
  2. Wheel load of [350 lb] per wheel.
- B. Regulatory Requirements: Comply with applicable provisions in **the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines for Buildings and Facilities and ICC A117.1.**

### **2.3 FLOOR GRILLES**

- A. General: Provide manufacturer's standard floor-grille assemblies consisting of treads of type and profile indicated, interlocked or joined together by cross members, and with support legs (if any) and other components needed to produce a complete installation.
- B. Aluminum Floor Grilles: Provide manufacturer's standard floor grilles with extruded members, top-surfaced tread rails, and as follows:
- C. Tread Rails: Aluminum Alloy type 6061-T6. Soft Aluminum alloy (such as 6063-T52) is not allowed
- a. Aluminum Color: Clear.
2. Tread Rail Spacing: T-Shaped blades, 1-5/16 x 1/8 x 1-1/2 inch size. Spacing between blades not to exceed 3/16 inch.
  3. Top Surface: Serrated aluminum Fusion-bonded, level-cut-pile nylon carpet insert; 1/4 inch high, 28 oz. /sq. yd.
    - a. Top Surface Color: **As selected by Architect from manufacturer's full range of industry colors.**
  4. Grille Size: **As indicated.**
- D. Lockdown: **Manufacturer's standard.**

### **2.4 FRAMES**

- A. Provide manufacturer's standard frames of size and style for grille type, for permanent recessed installation in subfloor, complete with installation anchorages and accessories. Unless otherwise indicated, fabricate frame of same material and finish as grilles.

### **2.5 SUPPORT SYSTEM**

- A. Drainage Pit Applications: Provide manufacturer's special deep-pit frame and support extrusion system with intermediate support beams, sized and spaced as recommended by manufacturer for indicated spans and equipped with vinyl support cushions.

## **2.6 MATERIALS**

- A. Stainless-Steel Angles: ASTM A 276 or ASTM A 479/A 479M, corrosion resistant, Type 304.

## **2.7 FABRICATION**

- A. Shop fabricate floor grilles to greatest extent possible in sizes as indicated. Unless otherwise indicated, provide each grille as a single unit; do not exceed manufacturer's recommended maximum sizes for units that are removed for maintenance and cleaning. Where joints in grilles are necessary, space symmetrically and away from normal traffic lanes.
- B. Fabricate frame members in single lengths or, where frame dimensions exceed maximum available lengths, provide minimum number of pieces possible, with hairline joints equally spaced and pieces spliced together by straight connecting pins.

## **2.8 ALUMINUM FINISHES**

- A. Mill finish.
- B. Clear Anodic Finish: AAMA 611, AA-M12C22A41, Class I, 0.018 mm or thicker.
- C. Color Anodic Finish: AAMA 611, **AA-M12C22A42fA44, Class I, 0.018 mm** or thicker.

# **PART 3 - EXECUTION**

## **3.1 EXAMINATION**

- A. Examine substrates and floor conditions for compliance with requirements for location, size, minimum recess depth, and other conditions affecting installation of floor grilles and frames.
- B. Examine roughing-in for drainage piping systems to verify actual locations of piping connections before floor grille and frame and drain pan installation.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

## **3.2 INSTALLATION**

- A. Install recessed floor grilles and frames **and drain pans** to comply with manufacturer's written instructions at locations indicated and with top of floor grilles and frames in relationship to one another and to adjoining finished flooring as recommended by manufacturer. Set floor-grille tops at height for most effective cleaning action. **Coordinate top of floor-grille surfaces with doors that swing across grilles to provide clearance under door.**

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### **3.3 PROTECTION**

- A. After completing frame installations, provide temporary filler of plywood or fiberboard in floor-grille recesses and cover frames with plywood protective flooring. Maintain protection until construction traffic has ended and Project is near Substantial Completion.

**END OF SECTION 12 48 16**