

SECTION 05 7319

CABLE GUARD RAILINGS

This section includes editing notes to assist the user in editing the section to suit project requirements. These notes are included as hidden text, and can be revealed or hidden by one of the following methods:

Microsoft Word 2007: Click the OFFICE button, select WORD OPTIONS, select DISPLAY, then select or deselect the HIDDEN TEXT option.

Microsoft Word (earlier versions): From the pull-down menus select TOOLS, then OPTIONS. Under the tab labeled VIEW, select or deselect the HIDDEN TEXT option.

Corel WordPerfect: From the pull-down menus select VIEW, then select or deselect the HIDDEN TEXT option.

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. [Carbon steel] [Stainless steel] railing frame components.
 - 2. Stainless steel cables and fittings
- B. Related Sections:
 - 1. Division 01: Administrative, procedural, and temporary work requirements.
 - 2. Section [__ ____] - Concrete stairs.
 - 3. Section [__ ____] - Wood stairs.
 - 4. Section [__ ____] - Metal stairs.

1.2 REFERENCES

- A. American Welding Society (AWS):
 - 1. D1.1 - Structural Welding Code - Steel.
 - 2. D1.6 - Structural Welding Code - Stainless Steel.
- B. ASTM International (ASTM):
 - 1. A276 - Standard Specification for Stainless Steel Bars and Shapes.
 - 2. A479 - Standard Specification for Stainless Steel Bars and Shapes for Use in Boilers and Other Pressure Vessels.
 - 3. A500 - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.
- C. National Association of Architectural Metal Manufacturers (NAAMM) AMP 503 - Finishes for Stainless Steel.
- D. Society of Automotive Engineers/Aerospace Materials Specifications (SAE/AMS) QQ-S-763 - Steel, Corrosion-Resistant, Bars, Wire, Shapes, and Forgings.

1.3 SYSTEM DESCRIPTION

- A. Design Requirements:
 - 1. Design guard railing system to conform to Building Code requirements.
 - 2. Design guard railing system to withstand following minimum loads:
 - a. Concentrated load of [200] [__] pounds applied from any direction at any point on railing except at infill areas.
 - b. Concentrated load of [200] [__] pounds per square foot applied from any direction at any point along top rail.
 - c. Design infill to withstand minimum uniform load of [50] [__] pounds per square foot

- d. applied horizontally.
- d. Uniform and concentrated loads do not need to be applied simultaneously.
- 3. Design guard railing system to prevent passage of 4 inch diameter sphere.
- 4. Design guard railing system components to withstand specified loads without excessive deflection or distortion when cables are tensioned to amounts required to conform to Building Code requirements.

1.4 SUBMITTALS

- A. Submittals for Review:
 - 1. Shop Drawings:
 - a. Show sizes, dimensions, details, and installation of framing components, cables, and cable hardware.
 - b. Include details of anchoring guard railing system to mounting surface.
 - 2. Product Data: Include preparation instructions and recommendations, storage and handling requirements and recommendations, installation methods, and available colors, styles, patterns and textures.
 - 3. Samples:
 - a. Guard railing frame components: [12] [] inch long samples of each profile.
 - b. Cable: [12] [] inches long.
 - c. Cable hardware: Each component.
 - d. [3 x 3] [x] inch coating samples showing available colors.
- B. Sustainable Design Submittals:
 - 1. Recycled Content: Certify percentages of post-consumer and pre-consumer recycled content.
 - 2. Regional Materials: State distance from point of manufacture to Project site.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Minimum [] years [documented] experience in work of this Section.
- B. Mockup:
 - 1. Size: Minimum [] feet long x full height.
 - 2. Show: Guard railing components, accessories, attachments, and finishes.
 - 3. Locate [where directed.] [].
 - 4. Approved mockup may [not] remain as part of the Work.
- C. Pre-Installation Conference:
 - 1. Convene pre-installation conference approximately [6] [] weeks prior to beginning work of this Section.
 - 2. Attendance: Contractor, Architect, guard railing fabricator, and guard railing installer.
 - 3. Review:
 - a. Installation methods for frame components attaching to supporting construction.
 - b. Installation, adjusting, and protection of guard railing system.
 - c. Coordination with other work.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Contract Documents are based on products by Paramount Iron and Handrail, Inc., 49 Stokes Drive, Carson City, NV 89706, telephone 775-887-1077, email salespcr@aol.com, website www.paramountiron.cc.
- B. Substitutions: [Under provisions of Division 01.] [Not permitted.]

2.2 MATERIALS - RAILING FRAME COMPONENTS

- A. Framing:

1. Material: [Carbon steel pipe, ASTM A53, Grade A.] [Carbon steel tube, ASTM A500.] [Stainless steel, ASTM A312, Type 304L or 316L.]
2. Recycled content: Minimum [] percent, with minimum [] percent classified as post consumer.
3. Profiles:
 - a. Top rail: [Rectangular, 1 x 2 inches.] [Round, [1-1/4] [1-1/2] inch diameter.]
 - b. Handrail: 1-1/2 inch diameter, located at 36 inch height.
 - c. Corner posts: [Square, 2 x 2 inches.] [Rectangular, 1 x 2 inches.]
 - d. Posts: [Square, 2 x 2 inches.] [Rectangular, 1 x 2 inches.] [Round, [1-1/4] [1-1/2] inch diameter.]
 - e. Bottom rail: Round, 3/4 inch diameter.
 - f. Overall height: [36] [42] inches.
 - g. Mounting method: [Top-mounted.] [Facia-mounted.] [Cast into concrete.]
4. Finish: Manufacturer's standard baked-on powder coat, [Raven Black] [Classic Grey] [white] [Sparkle Silver] [Silver Vein] [Hartford Green] [Copper Vein] [Bronze] [custom] color [to be selected from manufacturer's full color range].

**** OR ****

5. Finish: Shop-applied primer paint, for field-applied finish.

**** OR ****

6. Finish: Unfinished, for field-applied finish.

**** OR ****

7. Finish: NAAMM AMP 503; [No. 4 satin.] [No. 8 mirror polished.]

2.3 MATERIALS - CABLES AND CABLE HARDWARE

A. Cables:

1. Material: 1 x 19, Type 316 stainless steel strand, left-hand lay, per dimensional properties contained in MIL-W-87161.
2. Finish: [Mill finish.] [PVC coated.]
3. Diameter: [1/8 inch, minimum breaking strength of 1780 pounds.] [3/16 inch, minimum breaking strength of 4000 pounds.]
4. Orientation: [Horizontal.] [Slope parallel to stain pitch.]
5. Spacing: 3.420 inches on center.

B. Cable Hardware Components:

1. Material: Stainless steel, ASTM A276 and A479, SAE/AMS QQ-S-763, Type 316.
2. Source: Ultra-Tec Cable Railing Products by The Cable Connection.

C. Cable Grommets: Ultraviolet-resistant Delrin or equivalent, black color; prevent abrasion of posts where bored for cables.

D. Mounting and Assembly Hardware: Material and finish consistent with guard railing system.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install guard railing system in accordance with manufacturer's instructions and approved Shop Drawings.
- B. Install guard railing system plumb, level, square, and rigid.
- C. Space posts maximum 42 inches on center.

- D. Anchor guard railing system to supporting construction.
- E. Tension cables to minimum tension indicated on approved Shop Drawings.
- F. Ensure that cables are parallel, without kinks and sags.

3.2 ADJUSTING

- A. Touch up minor scratches and abrasion in coated surfaces to match factory finish.

END OF SECTION