

Digger Specialties, Inc.
PO Box 241
Bremen, Indiana 46506
Toll Free (800) 446-7659
Phone (574) 546-5999
Fax (574) 546-5099
Web Site www.diggerspecialties.com

November 2004

Product Guide Specification

Specifier Notes: This product guide specification is written according to the Construction Specifications Institute (CSI) Format, including *MasterFormat*, *SectionFormat*, and *PageFormat*, contained in the *CSI Manual of Practice*.

The section must be carefully reviewed and edited by the Architect to meet the requirements of the project and local building code. Coordinate this section with other specification sections and the drawings.

Delete all "Specifier Notes" when editing this section.

SECTION 06620

PVC RAILINGS

Specifier Notes: This section covers Digger Specialties PolyRail Systems. Consult Digger Specialties for assistance in editing this section for the specific application.

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. PVC railings.

1.2 RELATED SECTIONS

Specifier Notes: Edit the following list of related sections as required for the project. List other sections with work directly related to this section.

- A. Section 06100 - Rough Carpentry.

1.3 REFERENCES

Specifier Notes: List standards referenced in this section, complete with designations and titles. This article does not require compliance with standards, but is merely a listing of those used.

- A. ASTM F 964 - Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Exterior Profiles Used

for Fencing.

Specifier Notes: Include the following reference when specifying Cardinal 42-inch high railing, maximum 8-foot railing length or Eagle 42-inch high railing, maximum 7-foot railing length.

- B. BOCA-ES Research Report 21-42 - Eagle and Cardinal Polyvinyl Railing.

1.4 DESIGN REQUIREMENTS

Specifier Notes: Include the following minimum load requirements when specifying Cardinal 42-inch high railing, maximum 8-foot railing length or Eagle 42-inch high railing, maximum 7-foot railing length.

- A. Minimum Load Requirements: Railing system shall withstand the following.
 1. Minimum concentrated load of 200 pounds applied horizontally or vertically down at any point on top railing.
 2. Uniform load of 50 pounds per foot applied vertically down and horizontally, but not simultaneously on top railing.

1.5 SUBMITTALS

- A. Comply with Section 01330 - Submittal Procedures.
- B. Product Data: Submit manufacturer's product data, including installation instructions.
- C. Shop Drawings: Submit manufacturer's shop drawings, indicating materials, dimensions, tolerances, hardware, fasteners, mounting, accessories, and finish.
- D. Samples: Submit manufacturer's standard color samples.

Specifier Notes: Include the submittal of test reports of railings when specifying Cardinal 42-inch high railing, maximum 8-foot railing length or Eagle 42-inch high railing, maximum 7-foot railing length.

- E. Test Reports: Submit manufacturer's test reports of railings from independent testing agency.
- F. Warranty: Submit manufacturer's standard warranty.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B. Storage: Store materials in clean, dry area in accordance with manufacturer's instructions. Keep temporary protective coverings in place.
- C. Handling: Protect materials and finish from damage during handling and installation.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. Digger Specialties, Inc., PO Box 241, Bremen, Indiana 46506. Toll Free (800) 446-7659. Phone

2.2 PVC RAILINGS

- A. PVC Railings: PolyRail Systems.
1. Rigid Polyvinyl Chloride (PVC) Exterior Profiles:
 - a. ASTM F 964.
 - b. Impact modifiers for cold weather resistance.
 - c. Titanium dioxide, 10 parts, for UV resistance.
- B. Railing Posts:

Specifier Notes: Edit the following for the required railing posts.

1. 4-Inch PVC Posts: [38 inches] [44 inches] [48 inches]. Sleeve over nominal 4-inch wood posts or 4-inch aluminum post mounts.
2. 4-Inch Adjustable Aluminum Post Mounts: Fastened to wood or concrete structure with leveling feature.
3. Post Caps: [Flat] [Gothic] [Ball] [Trim].
4. 4-Inch Decorative Posts: [38 inches] [44 inches] [48 inches] [52 inches] with rounded cap.
5. 4-Inch Decorative Post Mounts: 4-inch adjustable aluminum post mounts.
6. 4-Inch PVC Support Posts: [96 inches] [108 inches] [120 inches]. Sleeve over nominal 4-inch wood posts.
7. 4-Inch PVC Support Post Mounts: Top and bottom.
8. 4-Inch Decorative Support Posts: 4 inches by [104 inches] [120 inches] with aluminum reinforcement.
9. 4-Inch Decorative Support Post Mounts: Top and bottom.
10. 5-Inch Decorative Support Posts: 5 inches by [104 inches] [120 inches] with aluminum reinforcement.
11. 5-Inch Decorative Support Post Mounts: Aluminum top and bottom hurricane.
12. Column Clad: [4 inches] [6 inches] [8 inches] by [102 inches] [120 inches]. Wrap around existing nominal [4-inch] [6-inch] [8-inch] wood posts.
13. Post Flairs: For each style.
14. Color: [White] [Tan].

Specifier Notes: Specify the required model of railings and delete the others.

- C. Railings: Cardinal Vinyl Railing.

Specifier Notes: Specify the required railing height, railing length, stair railing length, railing support, spindles, and color.

1. Height: [36 inches] [42 inches].
2. Railing Length: [4 feet] [5 feet] [6 feet] [7 feet] [8 feet] [9 feet] [10 feet].
3. Stair Railing Length: [4 feet] [5 feet] [6 feet] [7 feet] [8 feet] [9 feet] [10 feet].
4. Railing Support: [8 feet] [9 feet] [10 feet].
5. Spindles: [Standard] [Decorative].
6. Spindle Size: 7/8 inch by 1-1/2 inches.
7. Spindle Spacing: 2-7/8 inches.
8. Top and Bottom Rails: Reinforced with aluminum channel.
9. Railing Mounts: External with stainless steel fasteners.

10. Color: [White] [Tan].

Specifier Notes: Include the following two sentences when specifying 42-inch high railing, maximum 8-foot railing length.

- [11. Testing: Tested, certified, and approved by NTA Testing Laboratory for guard rail approval.]
[12. Evaluated: BOCA-ES Report 21-42.]

- D. Railings: Cardinal Chippendale Vinyl Railing.

Specifier Notes: Specify the required railing height, railing length, railing support, and color.

1. Height: [36 inches] [42 inches].
2. Railing Length: [4 feet] [5 feet] [6 feet] [7 feet] [8 feet] [9 feet] [10 feet].
3. Railing Support: [8 feet] [9 feet] [10 feet].
4. Spindles: Standard.
5. Spindle Size: 7/8 inches by 1-1/2 inches.
6. Spindle Spacing: 2-7/8 inches.
7. Top and Bottom Rails: Reinforced with aluminum channel.
8. Railing Mounts: External with stainless steel fasteners.

Specifier Notes: If required, specify the optional double Chippendale sections for each railing length, for railing lengths of 7, 8, 9, and 10 feet. Delete this option if single Chippendale section is to be used.

- [9. Double Chippendale Sections: For each railing length.]
10. Color: [White] [Tan].

- E. Railings: Eagle Vinyl Railing.

Specifier Notes: Specify the required railing height, railing length, stair railing length, railing support, and color.

1. Height: [36 inches] [42 inches].
2. Railing Length: [4 feet] [5 feet] [6 feet] [7 feet] [8 feet] [9 feet] [10 feet].
3. Stair Railing Length: [4 feet] [5 feet] [6 feet] [7 feet] [8 feet] [9 feet] [10 feet].
4. Railing Support: [7 feet] [8 feet] [9 feet] [10 feet].
5. Spindles: Standard.
6. Spindle Size: 1 inch by 1 inch.
7. Spindle Spacing: 2-7/8 inches.
8. Top and Bottom Rails: Reinforced with aluminum channel.
9. Railing Mounts: External with stainless steel fasteners.
10. Color: [White] [Tan].

Specifier Notes: Include the following two sentences when specifying 42-inch high railing, maximum 7-foot railing length.

- [11. Testing: Tested, certified, and approved by NTA Testing Laboratory for guard rail approval.]
[12. Evaluated: BOCA-ES Report 21-42.]

F. Railings: Raven Vinyl Railing.

Specifier Notes: Specify the required railing height, railing length, stair railing length, railing support, spindles, and color.

1. Height: [36 inches] [42 inches].
2. Railing Length: [4 feet] [5 feet] [6 feet] [7 feet] [8 feet] [9 feet] [10 feet].
3. Stair Railing Length: [4 feet] [5 feet] [6 feet] [7 feet] [8 feet] [9 feet] [10 feet].
4. Railing Support: [7 feet] [8 feet] [9 feet] [10 feet].
5. Spindles: [Standard] [Decorative].
6. Spindle Size: 7/8 inch by 1-1/2 inches.
7. Spindle Spacing: 2-7/8 inches.
8. Top and Bottom Rails: Reinforced with aluminum channel.
9. Railing Mounts: External with stainless steel fasteners.
10. Color: [White] [Tan].

G. Railings: LXT Vinyl Railing.

Specifier Notes: Specify the required railing height, railing length, stair railing length, railing support, spindles, and color.

1. Height: [36 inches] [42 inches].
2. Railing Length: [4 feet] [5 feet] [6 feet] [7 feet] [8 feet] [9 feet] [10 feet].
3. Stair Railing Length: [4 feet] [5 feet] [6 feet] [7 feet] [8 feet] [9 feet] [10 feet].
4. Railing Support: [8 feet] [9 feet] [10 feet].
5. Spindles: [Standard] [Decorative].
6. Spindle Size: 1-3/8 inches by 1-3/8 inches.
7. Spindle Spacing: 3-1/2 inches.
8. Top and Bottom Rails: Reinforced with aluminum channel.
9. Railing Mounts: External with stainless steel fasteners.
10. Color: [White] [Tan].

H. Railings: Falcon Vinyl Railing.

Specifier Notes: Specify the required railing height, railing length, stair railing length, railing support, spindles, and color.

1. Height: [36 inches] [42 inches].
2. Railing Length: [4 feet] [5 feet] [6 feet] [7 feet] [8 feet] [9 feet] [10 feet].
3. Stair Railing Length: [4 feet] [5 feet] [6 feet] [7 feet] [8 feet] [9 feet] [10 feet].
4. Railing Support: [8 feet] [9 feet] [10 feet].
5. Spindles: [Standard] [Decorative].
6. Spindle Size: 1-3/8 inches by 1-3/8 inches.
7. Spindle Spacing: 3-1/2 inches.
8. Top and Bottom Rails: Reinforced with aluminum channel.
9. Railing Mounts: External with stainless steel fasteners.
10. Color: [White] [Tan].

I. PVC Continuous Handrail:

1. Type: 1-1/2-inch diameter PVC railing, reinforced with aluminum tube.
2. Handrail Mount: Aluminum.

3. Color: White.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine areas to receive railings.
- B. Notify Architect of conditions that would adversely affect installation or subsequent use of railings.
- C. Do not proceed with installation until unsatisfactory conditions are corrected.

3.2 INSTALLATION

- A. Install railings in accordance with manufacturer's instructions at locations indicated on the drawings.
- B. Install railings plumb, level, straight, square, accurately aligned, correctly located, to proper elevation, and secure.
- C. Install railings using manufacturer's supplied mounts, hardware, and fasteners.
- D. Attach caps to top of posts with PVC glue.
- E. Repair minor damages to finish in accordance with manufacturer's instructions and as approved by Architect.
- F. Remove and replace damaged components that cannot be successfully repaired as determined by Architect.

3.3 CLEANING

- A. Clean railings promptly after installation in accordance with manufacturer's instructions.
- B. Remove labels and temporary protective coverings.
- C. Do not use harsh cleaning materials or methods that would damage finish.

3.4 PROTECTION

- A. Protect installed railings to ensure that, except for normal weathering, railings will be without damage or deterioration at time of substantial completion.

END OF SECTION