FAIRWAY
ARCHITECTURAL RAILING SOLUTIONS

Section 06 60 00

P310 CELLULAR PVC RAILING

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Section 06 Fairway Architectural Railing Solutions P310 Cellular PVC Railing

1.2 RELATED SECTIONS

A. Section 06-1100 - Wood Framing.

B. Section 06-6300 – Plastic Railings

1.3 REFERENCES

A. ASTM D 7032-04 Standard Specification for Establishing Performance Ratings Wood-Plastic Composite Deck Boards and Guardrail Systems.

B. AAMA 308 – 16 Voluntary specification establishing the minimum requirements for dimensional stability, heat resistance, weight tolerance, heat build-up, Shore D Hardness and lead content of cellular polyvinyl chloride (PVC) exterior profiles.

1.4 DESIGN / PERFORMANCE REQUIREMENTS

Material Performance:

A. AAMA 303 Voluntary Specification for Rigid Poly Vinyl Chloride (PVC) Exterior Profiles

B. AAMA 1506 Voluntary Test Method for Laboratory Heat Build-Up Effects on Fenestration Products

C. ASTM D618 Standard Practice for Conditioning Plastics for Testing

D. ASTM D2240 Standard Test Method for Rubber Property-Durometer Hardness

E. ASTM D4216 Specification for Rigid Poly (Vinyl Chloride) (PVC) and Related PVC and Chlorinated Poly (Vinyl Chloride) (CPVC) Building Products Compounds

F. ASTM D4803 Standard Test Method for Predicting Heat Build-Up in PVC Building Products

G. AAMA AG AAMA Glossary

Structural Performance:

A. P310 Cellular PVC Railing was evaluated in accordance with 2015, International Building Code®, International Code Council. Structural Tests were performed according to Chapter 17 (Structural Tests and Special Inspections) of IBC 2015

B. Test results substantiate compliance with IBC 2015 withstanding an ultimate load of 2.5 time design load.

1.5 SUBMITTALS

A. Submit under provisions of Section 01300

B. Product Data: Submit manufacturer's product data for each product required, including installation requirements.

C. Shop Drawings: Provide complete details of entire railing system showing layout, components, fasteners and anchors.

D. Verification Samples: For each finished product specified, two samples, minimum size 6" long, representing actual product, color, and patterns.

E. Test Reports: Submit manufacturer's test reports of railings from independent testing agency to support load test requirements.

1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section.

B. Installer Qualifications: Company specializing in installing products of the type specified in this section.

C. Obtain guardrail accessories, fittings and fasteners from a Fairway Architectural Railing Solutions dealer to ensure consistent quality standards are maintained throughout the project.

D. Mock Up: Provide mock-up using acceptable products and manufacturer approved installation methods. Verify owner and architect's acceptance of product and workmanship.

1. Install one railing section of each type required.

2. Maintenance: Maintain mock-up during construction for workmanship comparison.

3. Removal: Remove and legally dispose of mock-up when no longer needed.

4. Incorporation: Incorporate mock-up into final construction.

E. Pre-Installation Conference: Conduct pre-installation conference.

1. Prior to commencing installation, meet at project site to review material selections, installation procedures, and coordination with other trades.

2. Mock-ups shall be reviewed during the pre-installation conference.

3. Pre-installation conference shall include the contractor, installer, Fairway Architectural Railing Solutions Representative, Architect and any other relevant parties.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Ordering: Comply with manufacturer's ordering instructions and lead time requirements to avoid construction delays.

B. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.

C. Storage and Handling: Store materials in clean, dry area away from other construction activities. Maintain material in original packaging until installation.

1.8 WARRANTY

A. Project Warranty: Refer to conditions of the Contract for project warranty provisions used with their permission. The manufacturer is responsible for technical accuracy.

B. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty documents executed by authorized company official. Manufacturer's warranty is in addition to, and not a limitation of, other rights Owner may have under Contract Documents.

C. Warranty: Limited Lifetime Warranty against defective workmanship and materials, when subject to normal and proper use, it is further warranted against surface peeling, rot, ground insects, splitting, corrosion, flaking, rusting and blistering, abnormal weathering and discoloration under conditions of normal use and service.

D. Warranty: Metal and Glass Balusters- Limited Warranty for a period of 10 years beginning from date of purchase under normal conditions of use and exposure.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Contract Documents are based on products by: Fairway Architectural Railing Solutions

53 Eby Chiques Road, Mount Joy, PA 17552.

1914 South Grant Ave., York, NE 68467

B. Substitutions: Not permitted under Division 01.

2.2 MATERIALS

A. P310 Guardrail Systems: Extruded cellular foam products combine the strength and consistency of engineered profiles. UV resistant with minimal expansion or shrinkage under extreme weather conditions. Look and feel of real wood without the maintenance. Paintable.

P310 Rail System (36" or 42" Heights) Level and Stair

1. 3 3/8" wide X 2 3/8" high Rigid Cellular PVC Top Rail -6', 8', 10' lengths (White)

2. 2 3/8" wide X .694" high Rigid Cellular PVC Top Sub Rail - 6', 8', 10' lengths (White)

3. 2 5/8" wide X 2 1/8" high Rigid Cellular PVC Bottom Rail- 6' 8' 10' lengths (White)

4. Top/Bottom Rail Aluminum Insert: 1 11/16" wide X 1 ¾" high, H-Shaped 6063/T6 aluminum extrusion

5. Balustrade:

A. 1 ¼" Solid Square Rigid Cellular PVC Baluster- (32" = 36" rail height & 38"

= 42” rail height)

B. ¾” Round Aluminum Baluster- (32” = 36” rail height & 36” = 42” rail height)

C. 4” Tempered Glass Balusters- (32” = 36” rail height & 38” = 42” rail height)

D. 1/8” Horizontal 316 Stainless Steel Cable Infill

E. Aluminum alloy 1350 woven mesh panel spaced 3” on-center (32 1/8” and 38 1/8” height)

F. 5/8” diameter hollow aluminum horizontal balusters (36” rail height & 42” rail height and 6’ and 8’ lengths)

6. A. 1 ¼” X 5” or 7” Foot Blocks installed at midspan of bottom rail

B. .39” wide X 40” Long X 1 3/16” Deep 6063-T5 aluminum bar with evenly spaced baluster hole locations for horizontal balusters to pass through

7. Mounting Hardware: Internal concealed powder coated stainless steel “L” shaped Sub Rail and Bottom Rail fasteners.

A. Stainless steel screws mount powder coated brackets to posts and to top and bottom aluminum inserts during installation

8. Baluster Connectors:

A. Aluminum Baluster Connector for ¾” Round Aluminum Baluster

B. Glass Baluster Shoe for 4” Tempered Glass Baluster

C. 316 Stainless Steel tensioning/non-tensioning fittings for Cable Infill

D. 1 ¾” long X ¾” wide X .140” thick aluminum collar threaded. Collar attaches to

½” threaded aluminum button fastened to the post.

1. set screw through side of aluminum collar secures baluster

B. Deck Board Cap Rail applications can be achieved by inverting the Cellular PVC Top Rail and mounting a deck board to the Cellular PVC Top Sub Rail.

2.3 ACCESSORIES

A. 4 ¼” Cellular PVC Post Sleeves 39”, 48”, and 108” lengths

B. 4 ¾” Pre-Glued Cellular PVC Post Wrap 39”, 48”, 108” lengths

C. 6 ¾” Pre-Glued Cellular PVC Post Wrap 39”, 48”, 108” lengths

D. 4 1/4”, 4 ¾”, 6 ¾” Classic Post Base Trim (PVC)

E. 4 1/4” 4 ¾”, 6 ¾” Classic Post Caps (PVC)

F. Adjustable Horizontal Level Railing Bracket- Stainless Steel

G. Adjustable Pitch Stair Railing Bracket- Stainless Steel

H. Structural Post Mounts – Standard and Heavy Duty

I. Cable Rail Structural Post Mounts – Pass Through and Termination

J. 12V LED Lighting

1.12V LED Post Sconce

2. 12V LED Light Strip

3. 12V LED In Deck Light

4. LED Extension Cables

5. 36- & 120-Watt Transformer

6. LED Flush Pin Light

I. 1 ½" ADA Handrail

1. 1 ½" X 8' or 8' 8" handrail

2. 1 ½" End Cap

3. 1 ½" P-loop Return

4. 3" Mounting Bracket

5. Straight rail aluminum connector

6. Adjustable Angle aluminum connector

7. 5, 32, and 38, degree radius

8. Quick Return Brackets

9. Inside/Outside corner brackets

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify that surfaces are properly prepared to receive installation of guardrails.

B. Notify Architect of conditions that would adversely affect installation or subsequent use.

C. Do not begin until unsatisfactory conditions are corrected.

3.2 INSTALLATION

A. Install handrail and accessories according to applicable manufacturer's instructions.

B. Install components plumb and level, accurately fitted, free from distortion or defects.

C. Install railings using manufacturer's supplied mounts, fasteners, and hardware.

D. Structural post mounts shall be attached to concrete surfaces or wood structure using hardware recommended by local building codes, engineers, or architects.

E. Install caps with appropriate PVC Adhesive.

3.3 CLEANING

A. Clean railing promptly after installation in accordance with manufacturer's instructions.

B. Remove labels and temporary protective coverings.

C. Do not use harsh cleaning material or methods that could damage finish.

D. Remove construction debris from project site and legally dispose of debris.

3.4 PAINTING

A. P310 Cellular PVC Railing comes in natural white and does not require painting for protection.

1. Surfaces shall be clean, dry and free of chalk, grease, oil, dirt and mold or mildew

2. Premium grade acrylic paint with solar reflective pigment specifically for use with PVC products is recommended

3. Paint should have a Light Reflective Value greater than 55

4. Comply with paint manufacturer's recommendations for use and application.

5. Use of darker colors may cause damage due to expansion and contraction and will void the product warranty

END OF SECTION