

Section 06 66 30 – EXTERIOR PVC RAILINGS AND GUARDS**PART 1 - GENERAL****1.1 RELATED SECTIONS:**

- A. All contract documents apply to work of this section; this includes but is not limited to: Agreement; Drawings; Instructions to Bidders; General and Supplementary Conditions; and Division One Administrative Sections of the specifications.
- B. Related Sections:
 - 1. 01 33 00 – Submittal Procedures
 - 2. 01 40 00 – Quality Requirements
 - 3. 01 60 00 – Product Requirements
 - 4. 06 10 00 – Rough Carpentry
 - 5. 06 20 00 – Finish Carpentry
 - 6. 07 90 00 – Joint Protection
 - 7. 09 90 00 – Painting and Coating

1.2 SUMMARY:

- A. Section includes the furnishing and installing PVC Railing products, including but not limited to:
 - 1. Posts
 - 2. Post Caps and Sleeves
 - 3. Post Base, Trim and Accessories
 - 4. Top and Bottom Rails
 - 5. Balusters
 - 6. Aluminum and Synthetic Inserts
 - 7. Mounting Brackets

1.3 DESIGN / PERFORMANCE REQUIREMENTS:

- A. Minimum Load Requirements: When installed correctly following the Manufacturer's Instructions the 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.
- B. Consult the local building code AHJ to determine suitability of Fypon products to meet project and code requirements.

1.4 SUBMITTALS:

- A. Comply with provisions of Section 01 33 00 – Submittal Procedures
- B. Product Data: Provide Manufacturer's Data for each product to be used, including:
 - 1. Storage and handling requirements and recommendations.
 - 2. Preparation instructions and recommendations.
 - 3. Installation instructions.
- C. Shop drawings:

1. Submit detailed drawings showing sections and plans of stairs, dimensions and assembly of components including railings, brackets, reinforcements, anchors and welded and bolted connections.
 2. Show all field connections.
 3. Provide setting diagrams for installation of anchors, location of pockets, plates for attachment of rails to structure and blocking for attachment of wall rail.
 4. Indicate all required field measurements.
 5. Indicate component details, materials, finishes, connection and joining methods and the relationship to adjoining work.
 6. Submit one set of CAD files for approval.
- D. Product Samples: Submit duplicate samples of railings showing style and finish. One approved sample will be returned to contractor.
- 1.5 QUALITY ASSURANCE:
- A. Manufacturer Qualifications: Manufacturer shall have not less than 5 years successful experience in producing the type of prefabricated components required for project applications equivalent to the requirements for this project.
 - B. Installer Qualifications: Installer shall have a minimum of 5 years experience with the type of prefabricated components specified.
 - C. Pre-installation meetings: Conduct a pre-installation meeting to verify project requirements, substrate conditions, manufacturer's installation instructions, and manufacturer's warranty requirements.
- 1.6 DELIVERY, STORAGE AND HANDLING:
- A. Deliver all materials in original packaging, unopened with no visible damage.
 - B. Label each package with product contents and stock number of contents, with warranty, installation, and handling and storage recommendations enclosed, on-line or on packaging.
 - C. Allow for receiving, unloading, handling and movement to approved storage areas within project, and final movement to point of installation.
 - D. Store and protect all materials in accordance with manufacturer's requirements for environmental and physical protection. Keep temporary protective coverings in place.
 - E. Store products on flat level surface to prevent warping.
 - F. Protect materials and finish from damage during handling and installation.
- 1.7 PROJECT CONDITIONS:
- A. Maintain environmental conditions (temperature, humidity and ventilation) within limits recommended by manufacturer for optimum results.
 - B. Do not install products under environmental conditions outside manufacturer's recommendations.
 - C. Allow at least 24 hours for materials to adapt to conditions at project site prior to installation.

1.8 WARRANTY:

- A. Upon completion of work, provide a written Manufacturer's Lifetime Limited Warranty for products installed as part of this project to the Original Owner.

PART 2 - PRODUCTS

2.1 MANUFACTURERS:

- A. Acceptable Manufacturer:
Fypon, LLC.
1750 Indian Wood Circle
Maumee, Ohio 43537
Phone: 800/446-3040 (U.S. or Canada)
Fax: 800/446-9373 (U.S. or Canada)
<http://www.fypon.com>
Contact: Rod Clark
rclark@thermatru.com
458.206.8532
- B. Substitutions: Not permitted
- C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00.

2.2 MATERIALS:

- A. Manufactured PVC Railings:
 - 1. Railing Posts: **(INSERT MODEL/CATALOG NUMBER)**.
 - a. Height:
 - b. Post Caps:
 - c. Decorative Post Mounts:
 - d. Post Flairs:
 - e. Color:
 - 2. Railings: **(INSERT MODEL/CATALOG NUMBER)**.
 - a. Height:
 - b. Railing Length:
 - c. Stair Railing Length:
 - d. Railing Support:
 - e. Balusters:
 - f. Baluster Size:
 - g. Baluster Spacing:
 - h. Top and Bottom Rails:
 - i. Mounting Brackets:
 - j. Color:

PART 3 - EXECUTION

3.1 EXAMINATION:

- A. Site Verification of Conditions:

1. Prior to the start of installation, inspect all preceding work to ensure that there are no conditions which will cause an unsatisfactory installation of work involving PVC Railings.
2. Notify Architect in writing of any unacceptable conditions that would adversely affect installation or subsequent use of railings.
3. Do not install any work involving PVC Railing until unsatisfactory conditions are corrected and acceptable for proper installation of work.
4. Contractor shall be responsible for correcting or replacing all unacceptable work involving PVC Railings, which were installed over unsatisfactory conditions at no cost to Owner.

3.2 PREPARATION:

- A. Protect surrounding and adjacent work as required preventing damage to preceding work during execution of this work.
- B. Perform all preparation necessary for a successful installation of products as specified in manufacturer's installation instructions.

3.3 INSTALLATION:

- A. Obtain Manufacturer's instructions for successful installation of work to be performed and become knowledgeable with all material handling and installation recommendations.
- B. Ensure full compliance with Manufacturer's instructions in all aspects of tasks required by this work. Install railings in accordance with manufacturer's instructions at locations indicated on the drawings.
- C. Coordinate all work with all other project trades and provide proper accommodations for following work by other trades.

3.4 FIELD QUALITY CONTROL:

- A. After installation, check all work for flaws and defects.
- B. Repair all defective work.
- C. Remove and replace all damaged components that cannot be successfully repaired as determined by the Project Architect.

3.5 PROTECTION:

- A. Install temporary protective materials necessary to prevent damage to materials installed in this work until final acceptance of the project.
- B. Remove protection materials and clean all surfaces following manufacturer's recommendations prior to final project completion.
- C. Dispose properly of all protection and cleaning materials.

3.6 CLEANING:

- A. Clean railings prior to final acceptance 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.

END OF SECTION 06 66 30