

CSI Format for The Volare Tension Façade System Specification

SECTION 10240

ARCHITECTURAL METAL PANEL SYSTEM

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Exterior Formed Metal Panels and Panel Attachments
- B. Substructure and Framing
- C. Structural Attachments, Including Embeds, Anchors, and Attachments
- D. Accessories
- E. Factory Applied Finishes
- F. System Engineering

1.2 RELATED SECTIONS

- A. Section 05120 - "Structural Steel" for supporting substrate
- C. Section 03300 – Cast-in-Place Concrete for supporting substrate
- D. Section 03400 – Precast Concrete for supporting substrate

1.3 REFERENCES

- A. ASTM B209: Standard for Aluminum Sheet and Plate
- B. ASTM A492: Standard for Stainless Steel Rope Wire
- C. ASTM A36: Standard for Carbon Structural Steel
- D. ASTM A-500: Standard for Carbon Steel Structural Square and Rectangular Steel Tubes
- E. ASTM A-554: Standard for Stainless Steel Mechanical Tubing
- F. ASTM A1007: Standard for Carbon Steel Wire for Wire Rope
- G. ASCE/SEI 19-10: Structural Applications of Steel Cables for Buildings
- H. AAMA 2605: Standard for Aluminum Finishes
- I. AAMA TIR-A9-2000: Metal Curtain Wall Fasteners
- J. ISO 9001: 2008: Quality Management System Requirements

1.4 DESIGN REQUIREMENTS

- A. Delegated Design: Design exterior metal panel system, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.

- B. Structural Performance: Formed metal items, including anchors and connections, shall withstand the effects of gravity loads and the following loads and stresses without exceeding the allowable design working stress of materials involved and without exhibiting permanent deformation in any components:
 - 1. Wind Loads on Exterior Items: As indicated on Drawings, but not less than +30 psf/-30 psf.
 - 2. Seismic Performance: Assemblies, including anchors and connections, shall withstand the effects of earthquake motions determined according to ASCE/SEI 7. Component Importance Factor is 1.0.
- C. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes acting on exterior metal fabrications by preventing buckling, opening of joints, overstressing of components, failure of connections, and other detrimental effects.
 - 1. Temperature Change: 120 deg F , ambient; 180 deg F (100 deg C), material surfaces.
- D. Control of Corrosion: Prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with incompatible materials.

1.5 SUBMITTALS

- A. Product Data: Provide a detail list of Material data sheets that detail the components, fasteners, finishes, and methods of fabrication. Also provide samples of material finishes.
- B. Shop Drawings: Submit shop drawings that show layout including plan views, elevations, sections and details.
 - a. Shop Drawings must be accompanied by calculations completed by a Professional Engineer registered in the state of the project location.
- C. Samples: Submit four (4) Samples of:
 - a. Material Finishes
 - b. Attachments
 - c. 12" Section of Framing
 - d. 12" Square Section of Panel
- D. Quality Assurance: Provide copy of manufacturer's and installers Quality Management System equal to ISO 9001: 2008.
 - a. Submittal to be submitted with shop drawings

1.6 DELIVERY, STORAGE, & HANDLING

- A. Delivery: materials will be delivered to the specified location and signed off for quality delivery by the appropriate party accepting liability.

Bunting Architectural Metals: Volare Tension Façade System

20 River Road, Verona, PA 15147 Main: 412-820-2200 Fax: 412-820-4404 www.buntingarchitecturalmetals.com

- B. Storage: Materials should be stored in an approved area by the manufacturer. This area should be free from construction and dry.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. Company: Bunting Architectural Metals
 - a. 20 River Road Verona PA 15147
 - b. Tel.412.820.2200
 - c. Web: www.buntingarchitecturalmetals.com or sales@buntingarchitecturalmetals.com
- B. Basis of Design: The drawing and specifications have been designed to conform to Bunting Architectural Metals. Substitutions must be made 2 weeks in advance of the project bid date and meet section 01630 of the specification for substitutions for consideration. Without prior approval to the project bid date and an addendum issued to all bidders a substitution cannot be used.
- C. Substitutions: To be considered for substitution prior to bid the product must comply with 01630; in conjunction with that the following must be submitted: Calculations that certify the product does meet the performance requirements in ASCE/SEI 7, a 3 year experience record with an equal system, and a full size sample for review.

2.2 MATERIALS

- A. Material quality: Provide materials free from surface blemishes where exposed to view in the finished installation.
- B. Metal Panel: .125" Aluminum Plate.
- C. Embedded Items: Galvanized Steel
- D. Structural Framing: Galfan
- E. Fasteners: All fasteners to be Stainless Steel 316 Grade
- F. Castings: All castings to be stainless steel
- G. Machined Parts: All Machined Parts to be Stainless Steel

2.3 FINISHES

- A. ALUMINUM FINISHES**
 - a. A. High-Performance Organic Finish: Two-coat fluoropolymer finish complying with AAMA 2605 and containing not less than 70 percent PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
 - i. Color and Gloss: As selected by Architect from manufacturer's full range.
 - ii. Paint Applicator must be a PPG Factory Applied High Performance Architectural Metal Coatings Certified Applicator and Quality Audited by PPG

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2.3 FABRICATION

- A. General: Fabricate metal panel system from components of sizes not less than those indicated and as recommend by manufacturer. Furnish all bolts, hardware, and accessories required for a complete installation.
- B. Fabricate in accordance with approved shop drawings.
- C. Fabricate system complete to satisfy structural and performance requirements.
- D. Perform all welds by certified welder with valid AWS certification.
- E. Cut, Drill, Punch, Weld, and Form metals cleanly and accurately. Remove burrs and ease edges of radius to the material thickness of the given material, unless indicated otherwise. Remove sharp or rough edges on exposed surfaces.

PART 3 EXECUTIONS

3.1 EXAMINATION

- A. Prior to the erection of the system installation team will verify that the site is built to the contract documents. If it is not built to the contract documents within the acceptable tolerances prime contractor shall adjust the site to accommodate the installation of metal panel system per the contract documents.

3.2 INSTALLATION

- A. Installation to be performed in accordance with Volare Tension Façade installation instructions and at the locations per the location plans provided by the manufacturer.

3.3 PROTECTION

- A. Contractor to provide protection if construction is not complete.

END OF SECTION