

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Modular perforated aluminum screen wall system with Ombrae™ Optical Tile Imaging technology.
2. Accessories including attachments, clips, sub-girts, shims, and fasteners.
3. Factory applied coating system.

Edit Related Sections to those referenced in body of specification section.

B. Related Sections:

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|------------------|------------------------------|
| 1. Section 04220 | Concrete Masonry Units |
| 2. Section 05400 | Cold Formed Metal Framing |
| 3. Section 07600 | Flashing and Sheet Metal |
| 4. Section 07900 | Joint Sealants |
| 5. Section 08520 | Aluminum Windows |
| 6. Section 08911 | Glazed Aluminum Curtain Wall |

1.2 REFERENCES

A. American Architectural Manufacturers Association (AAMA):

1. AAMA 2605 Voluntary Specification Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels.
2. AAMA 611 Voluntary Specification for Anodized Architectural Aluminum.

B. American Society for Testing and Materials (ASTM):

1. ASTM B 209 Aluminum and Aluminum Alloy Sheet and Plate.

1.3 SYSTEM DESCRIPTION

- A. Modular perforated aluminum screen wall system with Ombrae™ Optical Tile Imaging technology.
- B. Mounting system, clips, and fasteners.

1.4 DESIGN REQUIREMENTS

- A. Wall Panel Deflection: L/40.
- B. Thermal Movement: Design system to accommodate vertical thermal movement of components without causing buckling, and undue stress on fasteners when subject to seasonal temperature cycling.
- C. Tolerance of Substructure: Design system to accommodate up to 1/4 inch in 10 foot variation out of plane in building structural framing or substrate.

1.5 PERFORMANCE REQUIREMENTS

- A. Structural Performance: No permanent deformation at 150 percent of design pressure exceeding L/60 for frame and L/40 for material.

1.6 SUBMITTALS

- A. Submit under provisions of Section 01330.
- B. Shop Drawings: Show thickness and dimensions of panels, panel profile, Ombræ Optical Tile layout, fastening and anchoring methods, details, and locations of joints.
- C. Product Data: Manufacturer's panel profiles, dimensions, characteristics and structural properties.
- D. Design and Performance Data: Fabricator's system including standard drawings, details, and design.
- E. Panel Samples: Minimum 8 inch by 11 inch.
- F. Fabricator Instructions:
 - 1. Include installation instructions, technical bulletins, and other product data.
 - 2. Include instructions for substrate requirements, special handling criteria, installation sequence, perimeter conditions, cleaning procedures, and conditions requiring special attention.
- G. Sample Warranty: Meet or exceed provisions specified by this Section.

1.7 QUALITY ASSURANCE

- A. Single Source Responsibility:
 - 1. Provide design and fabrication of wall panel system under responsibility of fabricator including perforated screen wall panel with Ombræ Optical Tiles, attachments, clips, girts, fasteners, and other accessories.

1.8 QUALIFICATIONS

- A. Fabricator:
 - 1. Company specializing in designing, engineering, and fabricating work of this Section.
 - 2. Approved by QMAAS Studios (Ombræ) as qualified to perform work of this Section.
- B. Installer:
 - 1. Company specializing in installing work of this Section.
 - 2. Trained and authorized by perforated screen wall panel system fabricator as qualified to perform work of this Section.

1.9 MOCKUP

- A. Provide under provisions of Section 01450.
- B. Construct mock-up, including outside corner condition showing complete system assembly.
- C. Construct size and type and locate as directed by Architect at Owner's cost.
- D. Incorporate accepted mock-up into Work.

1.10 PRE-INSTALLATION CONFERENCE

- A. Arrange in accordance with Section 01312.
- B. Attendance: GC/CM, installer, Owner, Architect, manufacturer's representative, and those requested to attend.

- C. Meeting Time: to be coordinated with attendees noted above and with any individuals performing work of related Sections affecting work of this Section.
- D. Location: Project Site (video conferencing may be acceptable).

1.11 DELIVERY, STORAGE, AND HANDLING

- A. Conform to provisions of Section 01651 and manufacturer's instructions.
- B. Deliver in manufacturers protective packaging with identifying labels intact.
- C. Store in well ventilated space under cover, off ground, protected from direct sunlight, weather, moisture, soiling, and marring of surface.
 - 1. Protect panels from temperatures exceeding 120 degrees F.
 - 2. Slope stored panels for positive drainage of water and condensation.
- D. Handle to prevent twisting, bending, and abrasion. Prevent contact with materials which may cause discoloration or staining.

1.12 PROJECT CONDITIONS

- A. Field Measurements: Verify actual conditions prior to fabrication and show on Shop Drawings.

1.13 COORDINATION

***Edit sections to include coordination and sequencing as needed for completion of work ***

- A. Conform to Section 01311 for coordination with work of other Sections.
- B. Field dimensions, Shop Drawings, and fabrication with critical path of construction Progress Schedule as necessary to meet lead time and avoid delays.
- C. Section 05400 for backing and support for work of this Section.

1.14 WARRANTY

- A. Conform to Warranty provisions specified Section 01778.
- B. For Painted Finish: Standard 10 year Warranty against fading, crazing, and chalking of coating system.
- C. For Anodized Finish: Standard 5 year Warranty against peeling, blistering, or cracking of the coating system.
- D. Panel System Fabricator: 2 year fabrication Warranty for conformance to design and performance and requirements.
- E. Installer: 2 year workmanship Warranty.

PART 2 PRODUCTS

2.1 FABRICATOR

- A. Keith Panel Systems, Tel (604) 987-4499, website: www.keithpanel.com, e-mail: mail@keithpanel.com. Basis of Design for performance and appearance.

2.2 ALUMINUM SCREEN WALL PANEL MATERIALS

- A. Aluminum Sheet: 3003 H14 aluminum alloy per ASTM-B209

- B. Thickness: 1.5mm to 3mm as recommended by manufacturer
- C. KPS Perforated Screen Wall with Ombrae Technology.
- D. No equals or alternates will be accepted.

2.3 ACCESSORIES

- A. Attachments, Clips, and Girts: As instructed by manufacturer.
- B. Pop Rivets: Stainless steel or aluminum as determined by fabricator to prevent galvanic action.
- C. Screw Fasteners: Type S, self-tapping framing screws, DT2000 corrosion resistant as instructed by manufacturer to suit application.
- D. Shims: As instructed by manufacturer.
- E. Isolation Accessories: Isolation tape, pads, or coatings as necessary to prevent galvanic action between dissimilar metals.

2.4 FABRICATION

- A. Shop fabricate wall panels in sizes and joint configurations to according to shop drawings.
- B. Form panel lines, breaks, and angles free from warp and buckle, and with no displacement of aluminum sheet.
- C. Custom perforate sheet with Ombrae Optical Tiles according to shop drawings.
- D. Form sections true to shape, accurate in size, square, and free from distortion or defects.
- E. Panels not to exceed 36" in width and 116" in height.

2.5 FINISHES

For Ombrae Imaging, manufacturer recommends Clear Anodized finish

- A. Clear Anodizing: Type II, Class 1 or 2
- B. Paint finish: PPG Duranar, PVDF, minimum 70 percent Kynar 500, or Hylar 5000 resin content, baked on finish, conforming to AAMA 2605.
- C. Powder Coating conforming to AAMA 2605
- D. Wall Panel Color: as specified

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify conditions ready to receive work of this Section before beginning installation.
- B. Verify substrate framing members suitable for installation ready to receive wall panel system.

3.2 PREPARATION

- A. Shim metal framed framing members and supports as necessary to provide level and plumb substrate for fastening panels.

3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions and provisions of Contract Documents.
- B. Install wall panel aligned, level, and plumb, within specified tolerances.
- C. Use concealed fasteners and clip attachments.
- D. Isolate aluminum from dissimilar metal, as required to prevent galvanic action.

3.4 TOLERANCES

- A. Maximum Offset From Alignment Between Adjacent Wall Panels: 1/8 inch.
- B. Maximum Variation from Horizontal and Vertical Plane: 1/2 inch in 20 foot, non-accumulative.

3.5 FIELD QUALITY CONTROL

- A. Manufacturer's Field Service:
 - 1. Make periodic visits and final inspection by manufacturer's authorized product representative as necessary to verify conformance to manufacturer's instructions and Warranty provisions.
 - 2. Promptly notify Architect of non-conforming work.

3.6 ADJUSTING

- A. Make adjustments to wall panel installations not conforming to specified tolerances.
- B. Field touch-up damaged finishes to match color and finish of factory applied panel finish.
- C. Replace work which cannot be repaired so that repairs are not discernable at distance of 10 feet.

3.7 CLEANING

- A. Dry-wipe panels as work progresses.
- B. Leave installation clean, free from residue and debris resulting from work of this Section.

END OF SECTION