



See comments for necessary customizations or additions specific to project.

Section 13461
IMAGEWALL Panel System

Part 1 General

1.1 General Requirement

- A. Work of this Section, as shown or specified, shall be in accordance with the requirements of the Contract Documents.
- B. Reference standards: Work shall comply with published recommendations of the following unless otherwise stated below:
 1. ZAHNER "Architectural Metals – A guide to Selection, Specification and Performance"; John Wiley & Sons 1995: ISBN 0-471-04506-3.
 2. ZAHNER "Architectural Metal surfaces" John Wiley and Sons 2005: ISBN 0-47126335-4.
 3. ZAHNER US Patent 7,212,688: A method for converting an image to machine control data. The patent describes and claims several methods and procedures for applying images to metal panels and other building coverings.

1.2 Section Includes

- A. The Work of this Section includes all labor, materials, equipment and services necessary to complete the custom metal panels incorporating images and or lettering as shown on the drawings including but not limited to the following:
 1. IMAGEWALL custom architectural metal panels, imaging and associated trimless edges and panel work.
 2. IMAGEWALL milled substructure- (For Drop & lock System Only)
 3. IMAGEWALL is the basis of design. Other licensees of the ZAHNER patent are available for consideration as alternates only and not as equals to the IMAGEWALL systems being described hereinafter.

1.3 Related Sections

- A.
- B.

1.4 Quality Assurance

A. Qualifications of Installers:

1. Use a single source installer with a minimum of five years of experience with artwork, custom architectural metal work or similar high quality finish products which is thoroughly trained and experienced in the skills required and completely familiar with the material science of sheet metal as well as the requirements established for this work.
2. For panel installation, allow only competent and skilled workers vetted by or in the employ of the installer. The crews must be completely familiar with the products and the manufacturer's currently recommended methods of installation.

B. Electronic Files

1. Electronic imaging files will be provided to IMAGEWALL by the Customer. Along with providing these files, the Customer is responsible

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for providing field verified dimensions and reference points as the basis for the files. The density of the perforation will be determined by IMAGEWALL and approved by the Customer.

2. The Contractor/Construction Manager shall be responsible for the coordination of all electronic files provided by the Architect. File compatibility with the fabrication software is the sole responsibility of the Contractor/Construction Manager.

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1.5 Performance Criteria

- A. Structural Design: Design calculations, certified by a registered professional engineer, are available at an additional cost. Data for substrate and load requirements will need to be provided by the Customer. Panel system shall be capable of resisting typical interior positive and negative forces.

1.6 Bid Submittals

- A. Include but are not limited to the following:
 1. Proposal drawings: Proposal drawings must include all prototypical conditions; anchors, head, jamb, sill and corner conditions, top and bottom and assembly structures
 2. Sample warranty.
 3. Statement of compliance with the design intent and commitment to comply with the Contract Documents. The bidder should provide information pertaining to proposed alternates or deviations to the documents.

1.7 Submittals

- A. Manufacturer's Data: Submit for information only, metal manufacturer's specifications, installation instructions, operations and maintenance instructions and general recommendations for wall cladding applications. Include manufacturer's certification or other data substantiating that the materials comply with the requirements. Indicate by copy of transmittal that the installer has received a copy of the manufacturer's instructions and recommendations.
- B. Samples: Submit samples at least 6" square of each specified metal and gauge to be used. Samples will be reviewed by the Architect for compliance with the Architect's control samples relative to thickness, texture and finish requirements. Compliance with all other requirements is the exclusive responsibility of the Contractor.
- C. Shop Drawings: Submit 3D electronic model or shop drawings of the metal panel system including all installation layouts and all details necessary to inform the installation process.
- D. Project schedule from award to substantial completion.
- E. Shop drawings should be coordinated and show surrounding work, and should be promptly updated throughout the project as architectural drawings and shop drawings from other trades are updated.
- F. Structural calculations should be signed and sealed by a licensed Professional Engineer.

Commented [4]: Applicable for Zahner Custom finishes. Paint and Anodized Aluminum Finishes will be available at additional Cost.

1.8 Product Handling

- A. Deliver materials and products in unopened factory labeled packages. Protect packages from all possible damage including tarping to protect from exposure to weather.

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- B. Store and handle in strict compliance with manufacturer's instructions and recommendations.
 - 1. Stack materials inside on platforms or pallets, covered with tarps or other suitable weathertight but ventilated covering allowing for free airflow around covered material. Protect from exposure to site airborne debris.
 - 2. Require all personnel to wear clean white cotton gloves when handling and installing architectural metal panels.
 - 3. Do not store panels in contact with other materials that might cause staining, denting or other surface damage.
- C. Protection: the Customer is responsible to use all means necessary to protect the materials of this Section before, during and after installation and to protect the installed work and materials of all other trades.
- D. Replacements: In the event of damage, immediately make all repairs and replacements necessary at the sole cost of the responsible party.

1.9 Guarantee

- A. Upon completion of this portion of the work, and as a condition of its acceptance, deliver to the Architect a written guarantee signed by the Panel Installation Contractor guaranteeing that the work was installed per the drawings and the manufacturer's instructions and that the installed panels will remain intact for a period of at least five years.
- B. Manufacturer to provide a separate guarantee that the panels were fabricated to meet the drawings requirements and if properly maintained will not crack, peel, delaminate or fail structurally for a period of at least five years.

Part 2 Products

2.1 Materials

- A. IMAGEWALL Panel System: Custom architectural metal panel system with perforation pattern as required.
- B. Panel Materials to consist of:
 - 1. Zinc: Hunter Zinc™, Roano Zinc™, Baroque Zinc™, Pre-Weathered finish.
 - 2. Copper: Dirty Penny Copper™, Star Blue Copper™ finish.
 - 3. Steel: Solarum Steel™
 - 4. Stainless Steel: Mirror Polish, Glass Bead™, Angel Hair® finish.
 - 5. Aluminum: Powder coated, Anodized finish.
- C. Hardware System to consist of:
 - 1. Facade or wall system: angle anchors, mullions, drop locks.
 - 2. Screen system: N/A (Panels only).
 - 3. Ceiling system: mullions, sideways drop locks.
- D. If there is a protective film, the temporary film must be removed immediately upon installation.
- E. All panels to be designed, engineered and fabricated in the panel manufacturer's plant and finishes applied by patina craftspeople experienced in the handling of custom metal sheets.
- F. All panel surfaces must be fully inspected and cleaned upon arrival at the panel manufacturer's plant to fully prepare the surfaces and edges for a multi-step fabrication process.

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G. Face panels and attachments to be designed (in electronic models) and manufactured at manufacturer's plant. All components to be sequenced and numbered without visible notes on the surface to guide a seamless sequence of installation process.

H. Fasteners, including rivets, screws and bolts, shall be as recommended by the single source manufacturer.

2.2 Miscellaneous Materials

A. All other materials not specifically described but required for a complete and proper installation of complete custom panel system to be provided by the installer.

2.3 Dissimilar Metals Protections

A. Where possible, contact between dissimilar metal surfaces shall be avoided. Where contact occurs, notify the Manufacturer who shall advise the Customer how best to isolate the surfaces, as follows:

1. Ferrous metals in contact with stainless steel shall be painted with one of:
 - a. Bituminous paint complying with FS-TT-C-494, Type II, 12 mils dry film thickness.
 - b. Zinc chromate primer, alkyd, complying with FS-TT-P-645.
2. Taping or gasketing with a non-absorptive material.

Part 3 Executions

3.1 Panel Fabrication

A. General: Custom fabricate sheet metal panels to comply with details shown and recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to the design, dimensions, geometry, metal thickness and other characteristics of the installation indicated. Fabricate sheet metal panels and accessories at the shop to the greatest extent possible.

B. Fabricate sheet metal wall panels to allow for expansion in running work sufficient to prevent buckling, damage and deterioration of the Work. Form exposed sheet metal work to fit over substructure without excessive oil-canning, buckling or tool marks.

3.2 Inspection

A. Examine the areas and conditions where the custom metal cladding is to be installed and correct any conditions detrimental to the proper and timely completion of the work. The substrate must be plum and true and capable of supporting the custom panel system without deflection or deformation. Do not proceed with the work until unsatisfactory conditions are corrected to permit proper installation of the work.

B. Verify field dimensions before fabrication. Notify Manufacturer of any discrepancy between field measurements and dimensions in the model.

3.3 Installation

A. General: Comply with panel manufacturer's instructions for assembly, installation and erection of custom metal panels.

B. Damaged Material: Remove and replace panels and component parts of the work which have been damaged (including finish) as directed by the Architect.

3.4 Cleaning and Protection

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- A. Remove protective film or interleave from exposed surfaces of metal panels promptly upon installation and in accordance with Manufacturer's recommendations and with care to avoid damage to finish.
- B. Clean exposed surfaces of custom metal panel work promptly after completion of installation. Comply with recommendations of panel manufacturer.
- C. Maintain installed custom panels in a clean condition throughout construction and ensure that cleaning by other trades in proximity to the custom panels does not impart dust or debris on panels. Avoid spilling, dripping or splattering of cleaning solutions onto custom panels.

End of Section