SECTION 09 7700
SPECIAL WALL SURFACING
(GRID Phenolic Panel System)

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Factory-fabricated solid phenolic (compact laminate) panels together with the mounting hardware, framing, trim, and accessories required for installation as [wall surfacing] [suspended ceiling features] [freestanding screens and partitions].
   1. Product: GRID Phenolic Panel System.

B. Products Not Furnished or Installed Under This Section:
   1. In-wall blocking, backing, and structural support.
   2. Gypsum board, substrate preparation, and priming.
   3. [Acoustical absorptive material behind the grid, where specified in another Section.]

1.2 RELATED SECTIONS

A. Section [_____] - Rough Carpentry (blocking and backing).

B. Section [_____] - Metal Fabrications (support framing).

C. Section [_____] - Gypsum Board Assemblies.

D. Section 09 7710 - Framed Decorative Panel Systems (Panawall®).

E. Section 09 8433 - Sound-Absorbing Wall Units (Acousticalm®).

1.3 REFERENCES

A. ASTM International (ASTM):
   1. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
   2. ASTM D5420 - Standard Test Method for Impact Resistance of Flat, Rigid Plastic Specimens.
   3. [ASTM C423 and ASTM E795 - Sound absorption, where an absorptive backing is provided.]

B. National Electrical Manufacturers Association (NEMA):
   1. NEMA LD 3 - High-Pressure Decorative Laminates.

C. International Building Code (IBC), Chapter 8 - Interior Finishes.

1.4 SUBMITTALS

A. Product Data: Submit manufacturer’s data for each product specified, including grid geometry, open area, panel thickness, core color, and installation methods.

B. Shop Drawings: Submit elevations and reflected ceiling plans indicating panel layout, grid pattern alignment and continuity, dimensions, support and attachment details, edge conditions, and the location of all penetrations and trim.
   1. Indicate panel-to-panel joint treatment and pattern registration across joints.

C. Selection Samples: Submit manufacturer’s standard color and pattern selection samples representing the full range of available finishes.

D. Samples for Verification: Submit one sample, minimum 12 inches by 12 inches (305 mm by 305 mm), of each panel color and grid pattern selected, showing the machined edge, core color, and face finish.

E. Fire-Test Data: Submit independent test reports showing surface burning characteristics in accordance with ASTM E84.

F. Structural Data: Where panels are suspended or freestanding, submit calculations or manufacturer's data confirming the attachment method for the panel weight and applicable seismic requirements.

G. Safety Data Sheets (SDS): Submit manufacturer's Safety Data Sheets for adhesives, sealants, and other pertinent materials prior to their delivery to the site.

H. Maintenance Instructions: Submit manufacturer's cleaning and maintenance instructions.

1.5 QUALITY ASSURANCE

A. Single-Source Responsibility: Obtain panels and mounting hardware from a single manufacturer.

B. Surface Burning Characteristics: Provide panels with a [Class A (Class 1): flame-spread index 25 or less, smoke-developed index 450 or less] [Class B] rating when tested in accordance with ASTM E84.

C. [Mockup: Provide one full-size panel assembly, including a typical joint, for review. Approved mockup may remain as part of the Work.]

1.6 DELIVERY, STORAGE, AND HANDLING

A. Delivery: Deliver units and associated materials factory-packaged on sturdy pallets, properly packaged and protected against soiling, moisture, and physical damage.

1. Upon delivery, carefully inspect all cartons, packages, pallets, and protective wrap for damage or material shortage.
2. Immediately report any damaged or missing materials to the shipper and to AAPG.
3. Do not commence installation if any components are missing or damaged.
4. Contact AAPG with any questions, problems, or concerns.

B. Storage: Store products flat, in the manufacturer's unopened packaging, in a clean, dry, conditioned interior space until ready for installation. Do not store units on edge or beneath other materials.

C. Handling: Handle units with clean, dry hands or gloves to avoid soiling finished faces. Maintain protective wrap in place during on-site handling until ready for installation. Do not drag or stack units face-to-face after removal of protection.

D. Support panels fully when stored and moved; do not allow machined grid openings to bear point loads.

1.7 PROJECT CONDITIONS

A. Do not install panels until all wet work is complete and dry, the building is enclosed and weathertight, and the HVAC system is operating and balanced to normal operating conditions.

B. Environmental Conditions: Maintain temperature, humidity, and ventilation within the limits recommended by the manufacturer. Maintain a temperature range of 60 to 80°F (16 to 27°C) and a relative humidity range of 35 to 55 percent during storage, installation, and the product life cycle.

C. Solid phenolic is dimensionally stable but not dimensionally inert. Allow for thermal and hygroscopic movement at all attachment points and perimeter conditions.

1.8 WARRANTY

A. Manufacturer's Warranty: Submit the manufacturer's standard written warranty covering materials and workmanship against defects for a period of [one (1) year] from the date of installation.

PART 2 - PRODUCTS

2.1 MANUFACTURER

A. Acceptable Manufacturer: American Architectural Products Group (AAPG), 248 James Street, Venice, FL 34285. Telephone: +1-844-307-9571. Email: pwest@aapgco.com.

B. Product: GRID Phenolic Panel System.

C. Distributor: Koroseal Interior Products, 1111 Medina Road, Medina, OH 44256. Telephone: 855-753-5474. Email: info@koroseal.com.

2.2 SUBSTITUTIONS

A. No substitutions permitted.

2.3 PANELS

A. Panel Material: Solid phenolic compact laminate consisting of cellulose fiber layers impregnated with thermosetting phenolic resin, fused under high heat and pressure with integral decorative surface layers, complying with NEMA LD 3, Grade CGS.

1. Core Color: [Black.] [Brown.]
2. Manufactured by [CARBON ZERO HPL] [_____].

B. Panel Thickness: 3/16 inch (4 mm)

C. Panel Sizes:

1. Face Dimensions: [Nominal 24 inches by 48 inches (610 mm by 1219 mm)] [As indicated on the Drawings].
2. Maximum standard panel size: [_____]. [Custom sizes and shapes as indicated on the Drawings.]

D. Edges and Machined Openings: Square cut, deburred, and finished to a smooth, consistent profile. Machined edges shall expose the phenolic core uniformly and be free of chipping, burning, and tool marks.

E. Face Finish: [Matte.] [Textured.] [Wood-grain pattern.]

1. Color and Pattern: [_____] [As selected by the Architect from the manufacturer's standard selection.]
2. Finish Sides: [One side decorative, one side backer.] [Both sides decorative, for double-sided and freestanding applications.]

F. [Acoustic Backing: Where indicated, provide the grid panel over an acoustically absorptive backing. Submit NRC data for the assembly tested in accordance with ASTM C423. NRC: [_____].]

2.4 MOUNTING HARDWARE AND ACCESSORIES

A. Framing and Trim: [Extruded aluminum, factory-finished.] Provide perimeter and edge trim as indicated.

2.5 FABRICATION

A. Factory-fabricate panels to the sizes and profiles indicated, ready to install except for field fabrication required by jobsite and perimeter conditions.

1. Machine all openings and edges cleanly, with uniform radii at internal corners to prevent stress concentration; minimum 1/8-inch (3 mm) radius at all internal corners and cut-outs.
2. Factory-drill all attachment holes; do not field-drill without the manufacturer's written approval.
3. Sequence and mark panels to maintain pattern registration and grain or pattern direction as shown on the shop drawings.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Installer's Examination: Examine the substrates and conditions under which the Work of this Section is to be performed. Submit written notification to the Architect and the system manufacturer if such conditions are unacceptable. Beginning installation constitutes the installer's acceptance of conditions.

1. Verify that substrates are smooth, solid, flat, dry, and free of dust, oil, and other contaminants.
2. Verify that sufficient blocking, backing, and structural support are provided for the panel weight and mounting method.
3. Verify that mechanical, electrical, and other items affecting the Work of this Section are placed and ready to receive this Work.

3.2 PREPARATION

A. Conditioning: Allow panels to acclimate to a balanced environment in the installation location for 72 hours prior to installation.

B. Protect adjacent surfaces and finished work with drop cloths and masking.

C. Before installing, lay out panels and verify pattern registration, color consistency, and orientation against the approved shop drawings.

3.3 INSTALLATION

A. Install panels in strict accordance with the manufacturer's installation instructions, level, plumb, and true to line.

1. Anchor units rigidly and securely to blocking, framing, or structure using the specified mounting hardware.
2. Do not overtighten fasteners; allow panels to move freely at attachment points to accommodate thermal and hygroscopic movement.
3. Maintain uniform joint widths and continuous pattern registration across adjacent panels.

B. Installation Tolerances: Install panel faces flush and aligned, with a maximum variation of 1/16 inch (1.6 mm) between adjacent panels and 1/8 inch in 8 feet (3 mm in 2.4 m) from level and plumb.

C. Where suspended, install in accordance with the approved structural and seismic details. Provide lateral bracing as required by the authority having jurisdiction.

3.4 CLEANING AND PROTECTION

A. Clean panel faces and machined openings with a mild detergent and clean water. Do not use solvents, abrasive cleaners, or scouring pads.

B. Protect installed panels from damage and soiling until Substantial Completion. Replace panels that cannot be cleaned or repaired to the Architect's satisfaction.

END OF SECTION 09 7700