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SECTION 09770

SPECIAL WALL SURFACES

PART 1 GENERAL

1.1 SECTION INCLUDES

1. Pre-manufactured panel system including mounting hardware and specified accessories.

1.2 RELATED SECTIONS

1. Section 06100 - Rough Carpentry; furring, blocking, and other carpentry work that is not exposed to view.

2. Section 06402 - Interior Architectural Woodwork; for interior woodwork other than wall systems not included in this section.

3. Section 09260 - Gypsum Board Assemblies; for metal support systems not included in this section.

1.3 REFERENCES

1. American Society for Testing and Materials (ASTM) E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
   a) Class 1/A - Flame Spread 0-25, Smoke Developed 450 or less.
   b) Class 2/B - Flame Spread 26-75, Smoke Developed 450 or less.

2. Architectural Woodwork Institute (AWI) Quality Standards.

3. National Electrical Manufacturer’s Association (NEMA)

1.4 SUBMITTALS

1. Submit under provisions of Section 01300.

2. Product Data: Manufacturer's Safety Data Sheets (MSDS) on each product to be used, including:
   a) Preparation instructions and recommendations.
   b) Storage and handling requirements and recommendations.
   c) Installation methods.

3. Shop Drawings: Shop drawings in sufficient detail to show fabrication, installation, anchorage, and interface of the work of this Section with adjacent work.

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4. Selection Samples: For each finish product specified, one complete set of color samples representing manufacturer's standard range of available colors and patterns.

1.5 QUALITY ASSURANCE

1. Manufacturer Qualifications:
   a) Firm experienced in successful production of wall systems similar to that indicated for the Project, with sufficient production capacity to produce required units without causing delay in the work.
   b) Provide certificate signed by panel manufacturer certifying that products comply with specified requirements.

2. Installer Qualifications: Demonstrate successful experience in installing architectural woodwork similar in type and quality to those required for this project.

1.6 DELIVERY, STORAGE, AND HANDLING

1. Do not deliver wall system until painting, wet work, grinding, and similar operations that could damage, soil, or deteriorate wall system have been completed in installation areas as specified by AWI 1700-G-3.

2. If panels are stored prior to installation, store them flat in completely enclosed areas, out of the weather. If panels must be stored in other than installation areas, store only in areas where environmental conditions comply with manufacturers recommendations. Do not expose panels to continuous direct sunlight, nor to extremes in temperature and humidity. Store products in manufacturer's packaging until ready for installation.

3. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.7 PROJECT CONDITIONS

1. Do not deliver or install wall system until building is enclosed, wet work is complete and HVAC system is operating and will maintain temperature and relative humidity at occupancy levels during the remainder of the construction period as specified by AWI 1700-G-3.

2. Do not install wall system until normal lighting conditions exist. Normal lighting conditions are described as those in place when the project is finished. This includes, but not limited to, design lighting (wall washers, spotlights and flood lights, and similar fixtures) and natural lighting.

3. Wall, ceilings, floors, and openings must be level, plumb, straight, in-line and square as specified by AWI 1700-G-3.

4. Optional for use with Glass panels.

   Sub wall must be flat and dry and conform to ML/SFA 540 Specifications. Vertical alignment (plumbness) of wall shall be within 1/960th (1/8” in 10 ft.) of the span. Horizontal alignment (levelness) of the walls shall be within 1/960th (1/8” in 10ft.) of their respective heights. Squareness of walls shall not be more than 1/8” out of square within the length of the wall. All corners, window mullions, are door frames must be plumb and level.

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~~5.~~ Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results, both during installation and subsequent occupancy. Do not install products under environmental conditions outside manufacturer's absolute limits. Panels shall be conditioned in the environment in which they will be installed for a minimum of 72 hours prior to installation. The recommended environment is 60^0 to 80^0 F and 35% to 55% relative humidity.

6. Manufacturer warrants any product it has manufactured and sold against defects in materials or workmanship for a period of one year from the date of original purchase and acceptance for use. This warranty extends to products assembled / installed and used in the manner intended and does not cover damage or failure caused by misuse, abuse or accidents, exposure to extreme temperature, improper installation, improper maintenance, and exposure to water or excessive humidity or excessive moisture.

PART 2 PRODUCTS

2.1 MANUFACTURERS

1. Acceptable Manufacturer: Panel Specialists, Inc.; 3115 Range Rd., Temple, TX 76504. Distributed by: Surface Materials, 6655 Parkland Blvd. Solon, OH 44139 Phone: 440.248.0000 Email: customerservice@surfacematerials.com

2. Substitutions: Not permitted.

   (optional):

3. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 PANEL SYSTEMS

1. Provide prefinished decorative panels where shown on the drawings, as specified herein, and as needed for a complete and proper installation.

2. Comply with applicable requirements of "Architectural Woodwork Quality Standards" in the production and installation of the wall panel system as published by the Architectural Woodwork Institute (AWI) unless otherwise indicated.

3. Panel System: #312 as manufactured by Panel Specialists, Inc. A progressive panel system with an exposed divider molding creating a 1/2inch (12mm) recessed channel reveal horizontally and vertically between edge banded panels. The reveal can be accented with a concave insert or p-lam or veneer strips. Recommended for vertical and horizontal interior installations. Maximum panel length for horizontal installations is 96 inches (2438 mm).
   a) Panel Thickness: 7/16 inches (11.1 mm).
   b) Horizontal Reveal: System to provide a ½" (12mm) wide recessed reveal between panels.
   c) Vertical Reveal: System to provide a ½" (12mm) wide recessed reveal between panels.
   d) Panel Edge Finish: Panel edges to be finished with .018-inch (.5mm) PVC edge banding or wood veneer, except as noted in material specifications.
   e) Panel Finish: Refer to Room Finish Schedule and drawings.
   f) Main Laminated Panel Fire Rating: (Select one)

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a) Fire Rating: ASTM E84, Class A.
b) Fire Rating: ASTM E84, Class B.

g) Molding: All moldings to be .062" thick (at structural areas) 6063 alloy aluminum with T5 temper.
   a) Divider Moldings
      1. #312 ½" wide Recessed Channel Divider Molding
      2. #312RI Concave Reveal Insert (Optional- Choose)
      3. High Pressure Laminate Strip Insert (Optional- Choose)
      4. #410 H Divider Molding available for use with marker boards, resilient tack board, and other specialty panels

   b) ½" Wide Edge Trims & 1" Corners (Choose)
      1. #304 ½" Edge Trim Molding
      2. #304A ½" Edge Trim Molding (2-piece)
      3. #103-90 1" Rounded 90° Outside Corner
      4. #103-135 135 ° Outside Corner
      5. #304-90 End Cap for top and bottom of 90° outside corner
      6. #304-135 End Cap for top and bottom of 135° outside corner
   c) 3/8" Wide Edge Trims and 3/8" Wide Stepped corners (Choose)
      1. #604 3/8" Edge Trim molding
      2. #604A 3/8" Edge Trim molding (2-piece)
      3. #603-90 3/8" Stepped 90° Outside Corner
      4. #603-135 3/8" Stepped 135° Outside Corner
      5. #604-90 End Cap for top and bottom of 90° Outside Corner

   d) #404C Chair Rail Top Trim with #412RI flat or #312RI concave reveal insert for use in wainscot height installations
h) Finishes:
   a) Panel Face: (enter finish descriptions here)
      1. Finish #1: _____
      2. Finish #2: _____
      3. Finish #3: _____
   b) Panel Face Pattern Direction: (select one)
      1. Horizontal
      2. Vertical
   c) Panel Edge Banding: (select one or enter custom color choice)
      1. .5mm PVC Black
      2. .5mm PVC Platinum
      3. .5mm PVC Custom Color: _____
      4. Finished wood veneer (for wood veneer surfaced panels)
   d) Aluminum Molding Finish: (select one or enter custom color choice)
      1. Clear Anodized
      2. Black
      3. Custom Color: _____

2.3 MATERIALS (Choose panel surfaces required)

1. High Pressure Decorative Laminates

   a) High Pressure Laminate (VGS, VGF.) and non-decorative backers (BKV) used to surface wall panels systems shall be manufactured to meet or exceed the National Electrical Manufacturing Association (NEMA LD3-2005) for thickness, performance properties and appearance.

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2. Custom Graphic High-Pressure Laminate

   a) Custom High-Pressure Laminate (CHPL) and non-decorative backers (BKV) used to surface wall panels systems shall be manufactured to meet or exceed the National Electrical Manufacturing Association (NEMA LD3-2005) for thickness, performance properties and appearance.

   b) Images can be either photographs or graphic images in a format in accordance with the manufacturer's artwork requirements described on their website.

3. Wood Veneer Panels.
   a) Veneers from standard range of veneer species will be HPVA Architectural Grade A or better.
   b) Veneer leaves to be balanced matched on the panel
   c) Panels to be finished on the edge with matching veneer edge banding
   d) Finish to be durable UV coating with a gloss (50%) or satin (20%) (choose) finish.
   e) Finish to be clear or custom stained (choose)
   f) Panels to be random matched or vertically sequenced matched on the wall (choose)

4. New Leaf High Performance Veneer Panels
   a) .030" thick New Leaf performance veneer, species pattern and stain color selected from standard product range
   b) Finish to be a polyurethane coating in a matte or semi-gloss finish (choose)
   c) Panels to be finished with matching PVC edge banding
   d) Panels to be randomly matched on the wall

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5. Bulletin Board (Tack Board)
   a) Linoleum resilient homogeneous tackable surface material shall be of natural materials consisting of linseed oil, granulated cork, resin binders and dry pigments, mixed and bonded to a natural jute backing.
   b) Color as scheduled in the Room Finish Schedule or as indicated on the drawings.
   c) Panels are not edge banded.

6. Acoustical Panel
   a) ½ in. thick 100% polyester fiber acoustical panels edge machined to fit into specified molding system.
   b) Noise Reduction Coefficient- .45 NRC
   c) Fire Rating; ASTM E84, Class A
   d) Color as noted in the Room Finish Schedule or as indicated on the drawings.
   e) Not edge banded.

7. Marker Board Panels (Dry Erase).
   a) Magnetic porcelain enamel steel faced panels.
   b) Panels are not edge banded

8. Phenolic Panels
   a) Panels to be durable 3/8" Compact Laminate panels formed from melamine resin saturated overlay and decorative papers bonded to a core of phenolic resin impregnated kraft papers to provide superior impact and moisture resistance.

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b) Fire Rating ASTM- E84 Class A or Class B (Choose)

9. Back Painted Glass Panels *** See Paragraph 1.7.4 regarding special sub wall conditions.**
   a) Back painted glass panels to be ¼" (6mm) tempered, low iron glass bonded to a suitable substrate profiled to accept full range of molding systems
   b) Paint adhesion to meet or exceed 2,000PSI
   c) Paint Color to be: (choose)
      PSI Color # _____
      Custom Color to match_____
      (Options)
   d) Magnetic marker boards to be 3/16" tempered low iron glass, bonded to a steel faced substrate profiled to accept full range of PSI moldings. Colors to be: (Choose)
      PSI Color # _____
      Custom Color to match _____
   e) Imaged glass panels to be printed with ceramic fret inks bonded to glass with a resolution of at least 720 DPI. Image to be graphics or photographs provided by architect.
   f) Digital etched glass panels to have graphic image provided by architect fused to panel surface with a contrasting matte finish.

10. Panel core to be industrial grade M2 particle board used in Class II (B) panel composition. Fire-rated particle board shall be used for Class I (A) panel compositions (refer to AWI Section 200). Particle board is TCSA Title VI compliant and contains no added formaldehyde (NAF).

PART 3 EXECUTION

3.1 EXAMINATION

1. Do not begin installation until substrates have been properly prepared according to AWI 1700-G-3.

2. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 FIELD DIMENSIONS

1. Where wall system is indicated to be fitted to other constructions, check actual dimensions of other constructions by accurate field measurements before manufacturing wall system; show recorded measurements on final shop drawings. Coordinate manufacturing schedule with construction progress to avoid delay of work.

2. Where field measurements cannot be made without delaying the work, guarantee dimensions and proceed with manufacture of wall system without field measurements coordinate other construction to ensure that actual dimensions correspond to guaranteed dimensions.

3.3 PREPARATION

1. Panels must be acclimated to ambient temperature and humidity conditions in accordance with manufacturer's specifications prior to installation. Refer to PSI installation guide for proper, handling, storage, and acclimation procedures.

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2. Clean surfaces thoroughly prior to installation.

3 Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.4 INSTALLATION

1. Install in accordance with manufacturer's instructions.

2. When interior paneling is on an exterior wall or in a wet area, provide a barrier sheet of plastic film between the outside wall and the panels in order to prevent condensation affecting the stability of the panels.

2. Field cutting of all wall systems should be accomplished using carbide tools. All face penetrations and cutouts should have a minimal 1/8-inch (3 mm) radius in corners according to NEMA Standards Publication LD 3-2005.

3. All wall systems should receive an "S" bead of panel mastic on the back of the panel during installation.

4. For vertical applications, wall systems shall be mechanically fastened to horizontal metal furring strapping spaced 24 inches (610 mm) O.C. Furring straps shall be no less than 18-ga 3-1/2 inches (89 mm) wide, continuously. Metal strapping to be installed to the drywall studs prior to the application of the gypsum board by the framing contractor. For panels installed with a horizontal orientation, strapping is recommended but not necessary

3.5 PROTECTION

1. Protect installed products until completion of project.

2. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION