SECTION 10 21 13.17

PHENOLIC TOILET COMPARTMENTS

(Cubiform® by AAPG — European-Style Overhead-Braced Solid Phenolic Compartments)

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Factory-fabricated, European-style overhead-braced solid phenolic-core toilet compartments for commercial restrooms, including doors, floating pilasters, divider panels supported on stainless steel floor pedestals, mounting brackets, headrail, and related accessories.
   1. Overhead-braced toilet compartments.
   2. [Urinal screens of matching solid phenolic construction.]
   3. [Dressing and privacy screens of matching solid phenolic construction.]

B. Products Not Furnished or Installed Under This Section:
   1. In-wall blocking, backing, and reinforcement for wall-mounted brackets and headrail.
   2. Concrete, tile, and floor finishes, and floor flatness preparation.
   3. [Toilet and bath accessories (grab bars, dispensers, hooks) specified in Section 10 28 00.]
   4. [Plumbing fixtures and fittings specified in Division 22.]
   5. Field finishing of adjacent construction.

1.2 RELATED SECTIONS

A. Section 06 10 00 - Rough Carpentry: In-wall blocking and backing for brackets and headrail anchorage.

B. Section 09 21 16 - Gypsum Board Assemblies: Wall substrates receiving wall brackets.

C. Section 09 30 00 - Tiling: Restroom wall and floor finishes at compartments.

D. Section 10 28 00 - Toilet, Bath, and Laundry Accessories.

E. Division 22 - Plumbing: Fixtures, fittings, and rough-in.

1.3 REFERENCES

A. ASTM International (ASTM):
   1. ASTM A240 and ASTM A666 - Stainless Steel Sheet, Strip, and Plate.
   2. ASTM A743/A743M - Corrosion-Resistant Stainless Steel Castings.
   3. ASTM B221 - Aluminum and Aluminum-Alloy Extruded Bars, Rods, and Shapes.
   4. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
   5. [ASTM B86 - Zinc-Alloy (Zamac) Die Castings, where standard-duty hardware is specified.]

B. International Code Council / American National Standards Institute (ICC/ANSI):
   1. ICC/ANSI A117.1 - Accessible and Usable Buildings and Facilities.

C. U.S. Department of Justice:
   1. 2010 ADA Standards for Accessible Design (28 CFR Part 36).

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

E. UL GREENGUARD / GREENGUARD Gold Certification, where required by the Project.

1.4 ADMINISTRATIVE REQUIREMENTS

A. Preinstallation Conference: Conduct a conference at the Project site before installation. Review substrates, blocking and headrail anchorage, floor conditions, layout, fixture centerlines, accessible clearances, hardware, and protection.

B. Coordination: Coordinate blocking, headrail support, floor flatness, plumbing fixture locations, accessory locations, and accessible compartment clearances before fabrication.

1.5 SUBMITTALS

A. Product Data: Submit manufacturer's literature describing panel construction, colors, edge treatment, brackets, headrail, hardware, and accessories.

B. Shop Drawings: Submit plans, elevations, and details showing layout, dimensions, door and panel sizes, panel heights, floor clearance, door swings, brackets, headrail, blocking, anchorage, accessible compartment clearances, and hardware mounting heights.

C. Samples:
   1. Color Samples: Manufacturer's full range for each phenolic color and finish specified.
   2. Corner and Edge Sample: Solid phenolic panel corner showing core, decorative face, and machined beveled edge.
   3. Hardware Samples: One of each bracket, hinge, latch, and coat hook specified.

D. Certificates and Test Reports:
   1. Surface burning characteristics (ASTM E84) for the specified phenolic panels.
   2. GREENGUARD or GREENGUARD Gold certification, where required by the Project.
   3. Manufacturer certification that accessible compartments comply with ICC/ANSI A117.1 and the 2010 ADA Standards.

E. Closeout Submittals: Submit cleaning and maintenance instructions, warranty documentation, and a record of the approved colors, hardware, and product codes.

1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications: Manufacturer regularly engaged in the production of solid phenolic toilet compartments of similar type, scope, and quality.

B. Installer Qualifications: Installer experienced in toilet compartment installation of comparable scope and approved by the manufacturer.

C. Surface Burning Characteristics: Provide phenolic panels complying with the interior finish requirements of IBC Chapter 8 for the occupancy and location indicated, when tested in accordance with ASTM E84.
   1. Required Rating: [Class A.] [Class B.] [As required by the authority having jurisdiction.]

D. Accessibility: Provide accessible compartments complying with ICC/ANSI A117.1 and the 2010 ADA Standards for clear floor space, door size and swing, approach, and hardware operable with one hand and without tight grasping, pinching, or twisting of the wrist.

E. Single-Source Responsibility: Provide compartments, hardware, and accessories under single-source responsibility.

F. Mockup: [Provide one complete compartment, including doors, floating pilaster, panels, floor pedestal, brackets, headrail, and hardware, for review. The approved mockup establishes the minimum standard.]

1.7 DELIVERY, STORAGE, AND HANDLING

A. Deliver compartments in protective packaging identified with product, color, and Project information.

B. Store components upright and supported in a dry, ventilated space, protected from soiling and damage. Solid phenolic is moisture-resistant; nonetheless protect faces and edges from impact and abrasion.

C. Handle components to prevent chipping, scratching, and damage to faces, machined edges, and hardware.

D. Immediately report damaged or missing materials to the shipper and to AAPG. Do not install missing or damaged components.

1.8 PROJECT CONDITIONS

A. Environmental Conditions: Do not install until the building is enclosed and wet work at adjacent construction is complete and dry.

B. Field Measurements: Verify dimensions, fixture centerlines, and clearances at the Project site before fabrication where the Work depends on field conditions.

1.9 WARRANTY

A. Manufacturer's Warranty: Provide the manufacturer's standard written warranty covering defects in materials and manufacture, including delamination and breakdown of the phenolic panels from moisture and humidity, for [fifteen (15)] years from the date of Substantial Completion.

B. [Hardware Warranty: Corrosion-resistant hardware warranted against breakdown for [_____] years.]

PART 2 - PRODUCTS

2.1 MANUFACTURER

A. Basis-of-Design Manufacturer: American Architectural Products Group (AAPG), 248 James Street, Venice, FL 34285. Telephone: +1-844-307-9571. Email: info@aapgco.com. Website: www.aapgco.com.

B. Specified Product: Cubiform® European-Style Overhead-Braced Phenolic Toilet Compartments.

2.2 SUBSTITUTIONS

A. Substitutions: Not permitted. Requests for substitutions, comparable products, alternates, or proposed equals will not be considered.

B. Division 01 substitution procedures do not apply to this Section. Product naming is proprietary and establishes the only acceptable manufacturer and product.

2.3 COMPARTMENT SYSTEM — COMMON REQUIREMENTS

A. System Description: European-style, overhead-braced solid phenolic-core toilet compartments comprising doors, pilasters, and divider panels secured with wall and panel brackets and an anti-grip headrail. European-style privacy is achieved through full-height 72-inch (1829 mm) doors and panels and a reduced floor clearance, producing minimized sightlines and gaps.

B. Mounting Style: Overhead-braced with floating pilasters. Pilasters are suspended from the continuous anti-grip headrail and float clear of the floor; they are not floor-anchored. Floor loads are carried by the divider panels, each of which bears on a stainless steel pedestal mounted to the underside of the panel. The headrail is secured to the pilasters and to blocking within adjacent walls.

C. Panel Material: Solid phenolic core of cellulose fibers impregnated with phenolic resin and fused under heat and pressure, with integral decorative melamine faces and a [black] [color-thru] core. Self-supporting, non-delaminating, and resistant to moisture, humidity, impact, and graffiti.

D. Colors and Finish: Selected from the manufacturer's [standard] [full] color range; [color-thru]; matte or suede finish.

E. Edges: Machined smooth with a 15-degree bevel on exposed edges; no crown molding.

2.4 DIMENSIONS AND COMPONENTS

A. Privacy Configuration: European-style, zero-sightline system. The meeting edges of the doors and pilasters are rabbeted with an interlocking profile that closes the door-to-pilaster gap for zero sightlines. Full-height 72-inch (1829 mm) doors and panels and reduced floor clearance further eliminate sightlines and gaps.

B. Door and Divider Panel Height: 72 inches (1829 mm).

C. Floor Clearance (Ground Clearance): 6 inches (152 mm) standard. [9 inches (229 mm).] [12 inches (305 mm).]

1. Resulting top of door and panel is approximately 78 inches (1981 mm) above finished floor at the standard 6-inch (152 mm) clearance.

D. Doors: 3/4 inch (19 mm) thick solid phenolic.

E. Pilasters (Floating): 3/4 inch (19 mm) thick solid phenolic, floating type — suspended from the continuous headrail and held clear of the floor. Pilasters are not floor-anchored and are not provided with floor shoes.

F. Divider Panels: [1/2 inch (13 mm)] [3/4 inch (19 mm)] thick solid phenolic, floor-supported on a stainless steel pedestal at the underside of each panel.

G. Floor Support Pedestal: Type 304 stainless steel pedestal mounted to the underside of each divider panel, transferring floor loads to the finished floor and providing concealed leveling adjustment. The pedestal is the sole floor-bearing support and establishes the specified floor clearance and the floating-pilaster condition. Finish: No. 4 satin.

H. Headrail: Extruded aluminum anti-grip headrail with [clear] [color] anodized finish, continuous across the compartment run, anchored to walls and blocking, and supporting the floating pilasters.

I. Urinal and Dressing Screens [where scheduled]: Matching solid phenolic, [1/2 inch (13 mm)] [3/4 inch (19 mm)] thick, wall-mounted on brackets [with floor pedestal support where indicated].

2.5 HARDWARE

A. General: Through-bolted, tamper-resistant hardware, [Type 304 stainless steel] [heavy-duty stainless steel castings] [chrome-plated Zamac], as specified.

B. Brackets: “D”-type wall and panel brackets, flush-mounted, [aluminum] [Type 304 stainless steel], through-bolted; quantity, spacing, and locations as required by the manufacturer for a rigid installation.

C. Hinges: [Self-closing, surface-mounted, through-bolted, gravity-cam hinges, adjustable to hold the door at a preset position when unlatched.] [Continuous integral hinge.]

D. Latch and Keeper: Surface-mounted slide latch incorporating an integral occupancy indicator that displays [vacant / occupied] status on the outside face of the door, with a rubber-faced combination door strike and keeper, and permitting emergency access from outside the compartment.

E. Coat Hook and Bumper: Combination hook with an integral rubber-tipped door stop, mounted below the top of the door to avoid over-the-door reach.

F. Floor Pedestal: Type 304 stainless steel floor pedestal at each divider panel, No. 4 satin finish, with concealed threaded leveling adjustment; the sole floor-bearing support for the compartment run. Pilasters float and are not provided with pilaster shoes.

G. Fasteners: Stainless steel, tamper-resistant (one-way or pin-in-head) at exposed locations.

H. Accessible Hardware: At accessible compartments, provide outswing doors, door pull hardware on both sides, and latch and pull hardware operable with one hand and complying with the ADA Standards and ICC/ANSI A117.1.

2.6 FABRICATION

A. Fabricate components square, true, and rigid, with smooth machined and beveled edges and factory-drilled hardware locations.

B. Provide wall and panel brackets at connections as required by the manufacturer for a rigid installation.

C. Reinforce panels and pilasters internally at hardware, brackets, and anchorage points as required.

D. Factory-fit hardware and verify operation before shipment to the greatest extent practicable.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine floors, walls, blocking, headrail anchorage, floor anchorage for pedestals, dimensions, plumbing fixture locations, and accessible clearances before installation.

B. Verify that in-wall blocking and headrail support are present, correctly located, and adequate to resist imposed loads.

C. Verify that floors are level and walls are plumb within the manufacturer's installation tolerances.

D. Do not begin installation until unsatisfactory conditions have been corrected. Beginning installation constitutes acceptance of substrates.

3.2 PREPARATION

A. Establish layout and verify fixture centerlines, compartment widths, door swings, and accessible clearances.

B. Coordinate blocking, headrail anchorage, and floor anchorage locations before setting components.

3.3 INSTALLATION

A. Install compartments plumb, level, and rigid in accordance with the approved shop drawings and the manufacturer's written instructions.

B. Set divider panels on their stainless steel floor pedestals; level and secure each pedestal to the finished floor, establishing the specified floor clearance. Install the continuous anti-grip headrail

across the run, anchored to walls and to wall blocking, and suspend the floating pilasters from the headrail so they align with the panels and are held clear of the floor.

C. Secure divider panels, floating pilasters, and doors with the “D”-type flush-mounted wall and panel brackets as required by the manufacturer.

D. Maintain the specified 6-inch (152 mm) floor clearance [or 9-inch (229 mm) or 12-inch (305 mm) where scheduled] and the 72-inch (1829 mm) door and panel height, with pilasters held clear of the floor and uniform, minimized gaps at pilasters and doors.

E. Install and adjust self-closing hinges so that doors of non-accessible compartments come to rest slightly open when unlatched, and doors of accessible compartments remain open.

F. Provide accessible compartment clearances, outswing doors, and hardware mounting heights complying with the ADA Standards and ICC/ANSI A117.1.

3.4 ADJUSTING

A. Adjust doors, hinges, and latches for smooth, quiet operation, consistent reveals, and proper door rest position.

3.5 FIELD QUALITY CONTROL

A. Inspect the completed installation for level, plumb, secure headrail and pedestal anchorage, pedestal leveling, floating-pilaster alignment and clearance, bracket engagement, floor clearance, door alignment and swing, hardware operation, and conformance with the approved shop drawings and accessible requirements.

B. Replace components that are chipped, scratched, delaminated, misaligned, or otherwise unacceptable.

3.6 CLEANING

A. Clean exposed surfaces with manufacturer-approved nonabrasive products. Remove markings and construction residue without damaging the finish. Solid phenolic surfaces resist graffiti and most cleaning agents; do not use abrasive pads or cleaners not approved by the manufacturer.

3.7 PROTECTION

A. Protect completed compartments from impact, staining, and damage by subsequent construction activities.

B. Repair or replace damaged work before Substantial Completion.

END OF SECTION 10 21 13.17