

**SECTION 10 21 13
TOILET PARTITIONS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. All requirements for floor-mounted overhead braced solid polymer, or solid phenolic toilet compartments and privacy screens as indicated on the Drawings and as specified herein.
- B. Provide all accessories and hardware required for a complete installation.

1.02 SUSTAINABILITY REQUIREMENTS

- A. Sustainability requirements included in the Section are as follows:
 - 1. Documentation of Recycled materials.
- B. The Contractor shall implement practices and procedures to meet the Project's sustainable requirements. The Contractor shall ensure that the requirements related to these goals, as defined in Specification Section S01352, Sustainability Requirements, and as specified in this Section, are implemented to the fullest extent. Substitutions or other changes to the work shall not be proposed by the Contractor or their sub-contractors if such changes compromise the stated Sustainable Design Performance Criteria.

1.03 REFERENCE STANDARDS

- A. References and industry standards listed in this Section are applicable to the Work. Unless more restrictive criteria or differing requirements are explicitly stated in the Specifications, or mandated by governing codes or regulations, the recommendations, suggestions, and requirements described in the referenced standards shall be deemed mandatory and applicable to the Work.
- B. American Society for Testing and Materials (ASTM).
- C. National Fire Protection Association (NFPA)

1.04 SUBMITTALS

- A. Product Data
 - 1. Submit manufacturer's detailed technical data for materials, fabrication, and installation, including catalog cuts of anchors, hardware, fastenings, and accessories.
- B. Shop Drawings
 - 1. Submit shop drawings for fabrication and erection of Toilet Partition assemblies not fully described by product drawings, including plans, elevations, details of fastening devices and accessory reinforcing plates, templates, and instructions for installation of anchorage devices built into other work.
 - 2. Prior to installation of adjacent drywall work submit elevations, details, and templates for locations of steel grounds to be furnished and installed in drywall partitions under Section 09260-Gypsum Board Assemblies. Grounds shall receive fasteners at all locations where brackets and other devices supporting the work of this Section are attached to the wall.
- C. Samples
 - 1. Submit color chart with manufacturer's full range of Standard colors. Provide 4" square samples of color and finish of materials along with manufacturer's hardware samples, upon request.
- D. Certification
 - 1. Submit certification that materials furnished comply with requirements specified.
- E. E. Tests
 - 1. Submit independent laboratory test reports, naming the panel material manufacturer and the toilet compartment manufacturer:
 - a. Test report for flame spread shall be less than one year old.
 - b. Test report for burning toxicity shall be less than four years old.

- F. Maintenance Instructions
 - 1. Provide manufacturer's printed Instructions for maintenance of installed Work.
- G. Warranty
 - 1. Manufacturer's 15-year written Warranty
 - a. Sustainability Submittals:
 - 1) Submit documentation of recycled content consisting of product data or manufacturer's statement as applicable for the following:
 - (a) Toilet partitions
 - (b) Privacy screens
 - 2) Submit Contractor's Sustainable Materials Form with complete information on recycled content for materials provided under the work of this section in accordance with Section S01352, Sustainability Requirements. Include cost of materials and percentage, by weight, of materials that have post-consumer or pre-consumer recycled content.

1.05 QUALITY ASSURANCE

- A. Take field measurements prior to preparation of Shop Drawings and fabrication, where possible, to ensure proper fitting of Work. Allow for adjustments within specified tolerances in taking of field measurements. Provide inserts and anchorages built into other Work for installation of toilet partitions and related Work; coordinate delivery with other Work to avoid delay.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle compartments as recommended by manufacturer to protect from damage.

1.07 WARRANTY

- A. Written, fifteen years, against breakage, corrosion and delamination; replaced without charge, excluding labor.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Solid Polymer (HDPE) Compartments
 - 1. Scranton Products, Scranton, PA 18505.
 - 2. Columbia Partitions A Division of Partition Systems International of South Carolina (PSiSC) Columbia, SC 29202
 - 3. Global Partitions, Eastonollee, Georgia GA 30538
- B. Solid Phenolic Compartments
 - 1. Columbia Partitions A Division of Partition Systems International of South Carolina (PSiSC) Columbia, SC 29202

2.02 MATERIALS - SOLID POLYMER COMPARTMENTS

- A. Sheet Material (Panels, Doors, Pilasters)
 - 1. Sheet material for toilet partition construction: Fabricate panels, doors and pilasters from polymer resins, plus fire retardants, with class "A" Flame Spread rating of 0 to 25 in accordance with ASTM E84; or NFPA 286 and the New York City Building Code.
 - a. Polymer: Fabricate from polymer Resins compounded under high pressure, forming a single component section that is waterproof, corrosion-proof, impact-resistant, non-absorbent, with self-lubricating poly-glaze surface resistant to marking with pens, pencils and other writing instruments.
 - 2. Toxicity: Upon exposure to fire, material shall not produce products of decomposition or combustion that are more toxic than those given off by wood or paper when decomposing or burning under comparable conditions. Provide approved toxicity report.
 - 3. Colors: Selected by Project Architect from manufacturer's Standard Basic color.
- B. Hardware

1. All hardware to be fabricated from heavy aluminum extrusion (6063-T5 or 6463-T5 alloy) with bright dipped anodized finish
 - a. Provide each toilet compartment with hardware, including door hinges, latch, stop and keeper, and necessary fittings and fasteners for complete installation.
 - b. Door hardware:
 - 1) Hinges
 - (a) Fabricate hinges with wrap around flanges, surface mounted and through-bolted to doors and pilasters with one-way sex bolts. Hinge shall be 8" high. Hinges shall operate on opposing nylon cam with stainless steel pin and nylon shaft on interior factory-set to full close position, unless otherwise noted. For Disabled Accessible doors, provide heavy duty outswing wrap-around hinges.
 - (b) Note: Provide 3/8" - 1/2" clearance between door and pilaster, in closed position.
 - 2) For each door, provide one (1) coat hook/bumper of heavy chrome plated bronze with rubber bumper. For Disabled Accessible doors, also provide one (1) door pull and one (1) wall stop. Provide one-way sex bolts to secure above items.
 - 3) Fabricate door strike (6") and keeper with wrap around flanges, surface-mounted and through-bolted to pilasters with one-way sex bolts.
 - 4) Fabricate door latch housing surface mounted and through-bolted to door with one-way sex bolts. Slide bolt and button shall be of heavy aluminum with "tough-coat black" finish. For Disabled Accessible doors, provide latch easily-operable by Disabled.
 - c. Provide full length (of juncture) continuous wall brackets weighing not less than 1.685 lbs. per linear foot or .125" thick, for panels-to-pilasters, pilasters-to-wall and panel-to-wall connections.
 - 1) Factory pre-drill wall brackets, with holes spaced a maximum of 12" along full length of each leg of bracket, with a hole 3" maximum from each end. Provide a minimum of 5 holes per leg. Through-bolt wall brackets to panels and pilasters with one-way sex bolts.
 - d. Headrail: Anti-grip configuration, weighing not less than 1.188 lbs. per linear foot. Fasten headrail to tops of pilasters and headrail brackets by through-bolting with one-way stainless steel sex bolts. For headrail on in corner units, provide end cap furnished by manufacturer for exposed end of headrail.
 - e. Headrail brackets: 20 gage stainless steel or cast aluminum.
- C. Privacy Screens
 1. Same construction, material and thickness as toilet compartments. Size as indicated on Drawings.

2.03 MATERIALS - SOLID PHENOLIC COMPARTMENTS

- A. General: Provide material which has been selected for surface flatness and smoothness. Exposed surfaces which exhibit pitting, seam marks, roller marks, stains, discolorations, telegraphing of core material, or other imperfections on finished units are not acceptable. Solid Phenolic shall meet or exceed all requirements for Class "A" Flame Spread Rating, 0 to 25 calculated according to ASTM E84 and NYC Building Code.
- B. Material shall be Solid Phenolic with a high pressure melamine matte finish surface made as an integral part of the core material under heat and pressure. Separately fabricated surfaces are not acceptable.
 1. Thickness:
 - a. Doors - Minimum 3/4" Finished Thickness
 - b. Divider Panels - Minimum 3/4" Finished Thickness
 - c. Pilasters - Minimum 1" Finished Thickness

2. Toxicity: Upon exposure to fire, material shall not produce products of decomposition or combustion that are more toxic than those given off by wood or paper when decomposing or burning under comparable conditions. Provide approved toxicity report.
 3. Colors: To be selected by Project Architect from Manufacturer's Standard stock or non-stock Colors.
- C. Hardware
1. Provide each toilet compartment with hardware, including door hinges, latch, stop and keeper, and necessary fittings and fasteners for complete installation.
 2. Door hardware:
 - a. Hinges
 - 1) Continuous, 14 gauge, Type 304 Stainless Steel Hinge. Hinge shall be 3" wide and shall have five (5) stainless steel wire springs. Set for full self closing unless otherwise noted. Pivot pin shall be .250" in diameter, and shall be made of Type 304 Stainless Steel. Hinges shall provide for emergency access by lifting the door. Hinges shall be pre-drilled for mounting to door and pilaster. Holes shall be at 9" O.C. for Through-Bolting with one-way Stainless Steel Fasteners. Each Hinge is to be packaged separately and is to be labeled by stock number, manufacturer and left or right hand.
 - 2) Note: Provide 5/16" clearance between door and pilaster, in closed position.
 - b. Coat Hook/Bumper: Heavy Duty Cast Stainless Steel with a Satin finish and Rubber Bumper. Provide one per door. Secure with one-way sex bolts manufactured by Galaxy Hardware, Inc., Jacknob, or Harris Hardware.
 - c. Strike and Keeper: Heavy Duty Cast Stainless with Satin finish. The Strike and Keeper shall have an integral rubber bumper door stop. Provide one per door. Through-bolt with one-way sex bolts. Manufactured by Galaxy Hardware, Inc., Jacknob, Inc., or Harris Hardware.
 - d. Slide Latch: Heavy Duty Cast Stainless Steel with a Satin finish. The Slide Latch shall be surface mounted, and through-bolted with one-way sex bolts. For disabled accessible doors, provide latch easily operable by the disabled. Provide one per door, manufactured by Galaxy Hardware, Inc., Jacknob, Inc. or Harris Hardware.
 - e. Door Stop: At disabled accessible doors provide Heavy Duty Cast Stainless Steel with a Satin finish. Manufactured by Galaxy Hardware, Inc., Jacknob, Inc., or Harris Hardware.
 - f. Pull Handle: At disabled accessible doors provide Heavy Duty Cast Stainless Steel with a Satin finish. Manufactured by Galaxy Hardware, Inc., Jacknob, Inc., or Harris Hardware.
 3. Continuous Brackets: Provide for all pilaster/panel/wall connections. Full Height (57½") Extruded 6063-T5 Aluminum with a Satin Anodized finish. The minimum weight shall be 1.685 pounds per lineal foot. All holes for mounting to wall and panel/pilaster shall be pre-drilled. Holes are to be spaced at 9" O.C. maximum along the full length of the bracket for a total of fourteen (14) holes for mounting to the wall and seven (7) holes for mounting to the panel/pilaster. Bracket wall thickness .125" minimum. Through-bolt with one-way sex bolts.
 4. Overhead Bracing (Headrail): Continuous Heavy Duty Extruded 6063-T5 Aluminum with Anti-Grip profile weighing not less than 1.18 lbs. per lineal foot. Headrail shall have integral reinforcing channel. Headrail shall have a Satin Anodized finish. Provide Headrail Corner Brackets, Wall Brackets, and Headrail End Caps as required. The Headrail and Headrail Brackets shall have a minimum wall height of 2". The minimum wall thickness of the Headrail and Headrail Brackets shall be .125". Through-bolt with one-way sex bolts.
- D. Privacy Screens
1. Same construction, material and thickness as toilet compartment divider panels. Size as indicated on

2.04 ACCESSORIES

- A. Mount accessories to partition units in accordance with manufacturer's instructions.

2.05 FABRICATION - SOLID POLYMER COMPARTMENTS

- A. General
 - 1. Provide single component construction of solid high density polyethylene resin in colors that extend from surface throughout core of material. Doors, panels and pilasters shall be 1" thick with edges machined to a radius of 0.250" and sharp corners removed. All exposed edges shall be free of saw marks. To ensure mar-free finish, cover all plastic material with protective plastic film.
- B. Panels and doors shall be 55" high, pilasters 82" high.
- C. Provide aluminum edge strips at bottom edge of doors and panels.

2.06 FABRICATION - SOLID PHENOLIC COMPARTMENTS

- A. General:
 - 1. Provide doors, panels, screens and pilasters fabricated for partition system, complete with all accessories and hardware listed above and as required for installation of fully functional system.
 - 2. Provide units with cutouts, drilled holes to receive partition mounted hardware, accessories, and grab bars, as indicated.
 - 3. Provide heavy duty "Z" bars, complete with threaded rods, lock washers and leveling adjusting nuts at pilaster, to permit structural connection at floor.
 - 4. Set and secure continuous Extruded Aluminum Anti-Grip Headrail at top of each pilaster.
- B. Provide Stainless Steel Shoe at each pilaster to conceal supports and leveling mechanism.
- C. Panels and doors shall be 58" high, pilasters 82" high.

2.07 PILASTER SHOES

- A. Shoe: Stainless steel (Type 304, 20 gage) 3" high, secured to pilaster with tamper-proof one-way sex bolts.
- B. Secure shoe to floor with 4" galvanized steel screws. Provide concealed leveling bolts for proper leveling.

2.08 ANCHORAGE AND REINFORCEMENT

- A. Anchorages and fasteners: Manufacturer's Standard, theft-proof exposed fasteners of stainless steel (Type 304), finished to match hardware, with 1/4" tamper-proof sex bolts.
- B. Reinforcement for paper holders: Provide as recommended by the Toilet Compartment manufacturer, for vandal resistant mounting.
- C. Reinforcement for grab bars: Provide as recommended by Toilet Compartment manufacturer.
 - 1. Grab bar installation shall sustain a force of at least 250 lbs. at any point from any direction.
- D. Grab Bar Support: Panels shall be capable of supporting grab bars with 250 lb. Force at any point in any direction.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Installation at Floors:
 - 1. Anchor pilasters to deck as recommended by compartment manufacturer. Anchors shall penetrate structural floor no less than 2 inches.
- B. Attach Continuous Wall Brackets and other supporting devices to wall with the following:
 - 1. At solid masonry: 1/4" diameter x 3 1/2" long Stainless Steel expansion shields at 9" O.C. vertical spacing.
 - 2. At cavity masonry: 1/4" diameter x required length Stainless Steel toggle bolts at 9" O.C. vertical spacing.
 - 3. At drywall: Secure wall brackets and all other supporting devices to wall with #14 stainless steel vandal resistant torx head with pin sheet metal screws. Screws shall be of sufficient

length to penetrate wall finish, drywall panels and metal grounds and extend at least 1/2" through metal grounds.

- C. Comply with manufacturer's recommended procedures and installation sequence. Install partitions rigid, straight, plumb, and level. Provide clearances not more than 1/2" between pilasters and panels, panels and walls, and not more than 1" between pilasters and walls. No evidence of drilling, cutting and patching shall be visible in finished work.
- D. For Youth Centers: Provide secure anchorage of compartments to ceiling construction as detailed on Drawings.

3.02 CLEANING

- A. Remove protective masking and clean exposed surfaces of toilet partitions, using materials and methods recommended by manufacturer. Provide protection as necessary to prevent damage during remainder of construction period.

END OF SECTION

SAMPLE