

SECTION 10 21 13 –TOILET COMPARTMENTS

PART 1 - GENERAL

1.01 SUMMARY

- A. Work Included: Provide products in accordance with the Contract Documents. The Contract Documents are as defined in the "Agreement". The "General Conditions Governing All Contracts" shall apply to all work under the Contract. The Work of this Section shall include but not be limited to the following:
 - 1. Compact laminate (CL/Solid Phenolic), moisture resistant substrate toilet compartment work with floor-anchored partitions, hardware for toilet compartments, shop drawings and working drawings and manufacturer's guarantee.
 - a. Toilet partitions.
 - b. Urinal privacy screens.
- B. Related Section: Refer to the following sections for related work:
 - 1. Section 06 10 00, "Rough Carpentry" for overhead supports of ceiling anchored units.
 - 2. Section 10 28 13, "Toilet Accessories" for toilet paper holders, grab bars, and similar accessories.

1.02 SUBMITTALS

- A. Product Data: For each type and style of toilet compartment and screen specified. Include details of construction relative to materials, fabrication, and installation. Include details of anchors, hardware, and fastenings.
- B. Shop Drawings: For fabrication and installation of toilet compartment and screen assemblies. Include plans, elevations, sections, details, and attachments to other work. Show locations of cutouts for compartment-mounted accessories and compartment-mounted grab bars. Submit manufacturer's shop drawings for each product specified, including the following:
 - 1. Plans, elevations, details of construction and attachment to adjacent construction.
 - 2. Show anchorage locations and accessory items.
 - 3. Verify dimensions with field measurements prior to final production of toilet compartments.
- C. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- D. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square representing actual product, color, and patterns.

1.03 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Minimum 10 year experience manufacturing similar products.
- B. Installer Qualifications: Minimum 2 year experience installing similar products.
- C. Single Source Requirements: To the greatest extent possible provide products from a single manufacturer.
- D. Accessibility Requirements: Comply with requirements applicable in the jurisdiction of the project, including but not limited to ADA and ICC/ANSI A117.1 requirements as applicable.
- E. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - a. Finish areas designated by Architect.
 - b. Do not proceed with remaining work until workmanship is approved by Architect.
 - c. Refinish mock-up area as required to produce acceptable work.

1.04 PRE-INSTALLATION MEETINGS

- F. Convene minimum two weeks prior to starting work of this section.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials in manufacturer's original unopened and undamaged packages. Clearly identify manufacturer, brand name, contents, color, stock number, and order number on each package.
- B. Storage: Store in original packaging under protective cover and protect from damage. Stack containers in accordance with manufacturer's recommendations.
- C. Handling: Handle materials in accordance with manufacturer's instructions to prevent damage to products and finishes.

1.06 PROJECT CONDITIONS

- A. Field Measurements: Verify dimensions in areas of installation by field measurements before fabrication and indicate measurements on shop drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
 - 1. Established Dimensions: Where field measurements cannot be made without delaying the Work, establish dimensions and proceed with fabricating units without field measurements. Coordinate supports, adjacent construction, and fixture locations to ensure actual dimensions correspond to established dimensions.

1.07 SEQUENCING

- A. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

1.08 WARRANTY

- A. Manufacturer's Warranty: Manufacturer's standard 25 year limited warranty for panels, doors, and stiles against breakage, corrosion, delamination, and defects in factory workmanship. Manufacturer's standard 1 year guarantee against defects in material and workmanship for stainless steel door hardware and mounting brackets.

PART 2 – PRODUCTS

2.01 MANUFACTURERS

- A. Basis of Design:

Bobrick Toilet Partitions: Dura Line Series 1082G.67, CGL
Contact: Fred Sylvester 631-249-7171
BOBRICK Washroom Equipment, Inc., which is located at: 6901 Tujunga Ave.;
North Hollywood, CA 91605-6213; Tel: 818-764-1000; Fax: 818-765-2700;
Email: info@bobrick.com; Web: www.bobrick.com

- B. Substitutions:

The Architect will consider products of comparable manufacturers as a substitution, pending the Contractor's submission of adequate documentation of the substitution in accordance with procedures in Division 1 of the Project Manual. Documentation shall include a list of five similar projects of equivalent size where products have been installed for a minimum of two years, and manufacturer's certification that products are fabricated in the United States.

- C. METPAR _ Compact Laminate Floor Mounted Partition

- D. GLOBAL – Compact Laminate Floor Mounted Partition

- E. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

1. Mounting:

- a. Floor-mounted, overhead-braced with satin finish, extruded anodized aluminum headrails, 0.065 inch (1.65 mm) thick with anti-grip profile.
 - 1) Stile Height: As required up to 10 feet 0 inches (305 cm) maximum.
- b. Wall-hung.
 - 1) Screen Height: 42 inches (107 cm) with 18 inches (46 cm) floor clearance.
 - 2) Screen Height: 48 inches (122 cm) with 12 inches (30 cm) floor clearance.

- E. Performance Requirements:
 - 1. Graffiti Resistance (ASTM D 6578): Passed cleanability test; 5 staining agents.
 - 2. Scratch Resistance (ASTM D 2197): Maximum load value exceeds 10 kilograms.
 - 3. Impact Resistance (ASTM D 2794): Maximum impact force exceeds 30 inch-pounds.
 - 4. Smoke Developed Index (ASTM E 84): Less than 450.
 - 5. Flame Spread Index (ASTM E 84): Less than 75.
 - 6. National Fire Protection Association/International Building Code Interior Wall and Ceiling Finish: Class B.
 - 7. Uniform Building Code: Class II.
- F. Finished Thickness:
 - 8. Stiles and Doors: 3/4 inch (19 mm).
 - 9. Panels and Screens: 1/2 inch (13 mm).
- G. Stiles: Floor-anchored stiles furnished with expansion shields and threaded rods.
 - 1. Leveling Devices: 7 gauge, 3/16 inches (5 mm) thick, corrosion-resistant, chromate-treated, double zinc-plated steel angle leveling bar bolted to stile; furnished with 3/8 inch (10 mm) diameter threaded rods, hex nuts, lock washers, flat washers, spacer sleeves, expansion anchors, and shoe retainers.
 - 2. Stile Shoes: One-piece, 22 gauge (0.8 mm), 18-8, Type 304 stainless steel, 4 inch (102 mm) height; tops with 90 degree return to stile. One-piece shoe capable of adapting to 3/4 inch (19 mm) or 1 inch (25 mm) stile thickness and capable of being fastened (by clip) to stiles starting at wall line.
- H. Wall Posts: Pre-drilled for door hardware, 18-8, Type 304, 16 gauge (1.6 mm) stainless steel with satin finish; 1 inch (25 mm) x 1-1/2 inches (38 mm) x 58 inches high (1473 mm).
- I. Anchors: Expansion shields and threaded rods at floor connections as applicable. Threaded rods secured to supports above ceiling as applicable. Supports above ceiling furnished and installed as Work of Section 05 50 00 - Metal Fabrications.
- J. Hardware: Chrome-plated "Zamak", aluminum, extruded plastic hardware **not acceptable**.
 - 1. Compliance: Operating force of less than 5 lb (2.25 kg).
 - 2. Emergency Access: Hinges, door latch allow door to be lifted over keeper from outside compartment on inswing doors.
 - 3. Materials: 18-8, Type 304, heavy-gauge stainless steel with satin finish.
 - 4. Doorstops: Prevents inswinging doors from swinging out beyond stile; on outswing doors, doorstop prevents door from swinging in beyond stile.
 - 5. Fastening: Hardware secured to door and stile by through-bolted, theft-resistant, pin-in-head Torx stainless steel machine screws into factory-installed, threaded brass inserts. Fasteners secured directly into core not acceptable.
 - a. Threaded Brass Inserts: Factory-installed; withstand direct pull force exceeding 1500 lb (680 kg) per insert.
 - 6. Clothes Hooks: Projecting no more than 1-1/8 inch (29 mm) from face of door.
 - 7. Door Latch: Track of door latch prevents inswing doors from swinging out beyond stile; on outswing doors, door keeper prevents door from swinging in beyond stile; 16 gauge (1.6 mm) sliding door latch, 14 gauge (2 mm) keeper.
 - 8. Locking: Door locked from inside by sliding door latch into keeper.
 - 9. Hinge Type:

- a. Standard.
 - 1. Balanced, with field-adjustable cam to permit door to be fully closed or partially open when compartment is unoccupied.
 - b. Full-Height Institutional Hinge.
 - 1. Hinges: 16 gauge (1.6 mm) stainless steel, self-closing, 3 section hinges.
10. Mounting Brackets:
- a. Standard Concealed.
 - 1. Mounting Brackets: Mounted inside compartment; exposed brackets on exterior of compartment not acceptable with the exception of outswing doors.
 - b. Full-Height.
 - 1. Mounting Brackets: 18 gauge (1.2 mm) stainless steel and extend full height of panel.
 - 2. U-Channels: Secure panels to stiles.
 - 3. Angle Brackets: Secure stiles-to-walls and panels to walls.

2.02 COMPACT LAMINATE (SOLID PHENOLIC), MOISTURE RESISTANT SUBSTRATE

- A. Compact Laminate (Solid Phenolic) Toilet Partitions: Bobrick DuraLineSeries.
- 1. Design Type:
 - a. Standard Height.
 - 1) Door/Panel Height: 58 inches (147 cm).
 - 2) Floor Clearance: 12 inches (30 cm).
 - 2. Privacy Style Partitions: No sightlines with gap-free interlocking doors and stiles routed 0.300 inches (7.6 mm) from the edge to allow for 0.175 inch (4.4 mm) overlap to prevent line-of-sight into the toilet compartment. Privacy strips fastened or adhered onto the partition material are not acceptable.
 - 3. Mounting Configuration:
 - a. Floor-mounted, overhead-braced with satin finish, extruded anodized aluminum headrails, 0.065 inch (1.65 mm) thick with anti-grip profile.
 - 1) Stile Maximum Height: 83 inches (211 cm).
- B. Compact Laminate (Solid Phenolic) Urinal Screens: Bobrick DuraLineSeries.
- 1. Mounting Configuration:
 - a. Floor-to-ceiling.
 - 1) Screen Height: 58 inches (178 cm) with floor clearance: 12 inches (30 cm).
 - 2) Stile Height: As required up to 10 feet 0 inches (305 cm) maximum.
 - b. Post-to-ceiling.
 - 1) Screen Height: 58 inches (178 cm).
 - 2) Floor Clearance: 12 inches (30 cm).
 - 3) Post Height: Up to 10 feet 0 inches (305 cm) maximum.
 - c. Wall-hung.
 - 1) Screen Height: 42 inches (107 cm) with 18 inches (46 cm) floor clearance.
 - 2) Screen Height: 48 inches (122 cm) with 12 inches (30 cm) floor clearance.

- C. Materials: Solidly fused plastic laminate with matte-finish melamine surfaces; integrally bonded colored face sheets and black phenolic-resin core.
- D. Edges: Black; brown edges not acceptable.
- E. Color:
 - 1. As selected by Architect from manufacturer's standard DuraLineSeries range.
 - 2. Color: 4878 Pewter Mesh
UNLESS OTHERWISE NOTED
 - 3. Color: Other color as selected by architect based on Manufacturer's range and confirmed by local Manufacturer Representative.
- F. Fire Resistance:
 - 1. National Fire Protection Association/International Building Code Interior Wall and Ceiling Finish: Class B / Uniform Building Code: Class II.
 - a. Flame Spread Index (ASTM E 84): 30 for panels and stiles.
 - b. Smoke Developed Index (ASTM E 84): 55 for panels, 20 for stiles.
- G. Finished Thickness:
 - 1. Stiles and Doors: 3/4 inch (19 mm).
 - 2. Panels and Screens: 1/2 inch (13 mm).
- H. Stiles: Floor-anchored stiles furnished with expansion shields and threaded rods.
 - 1. Leveling Devices: 7 gauge, 3/16 inches (5 mm) thick, corrosion-resistant, chromate-treated, double zinc-plated steel angle leveling bar bolted to stile; furnished with 3/8 inch (10 mm) diameter threaded rods, hex nuts, lock washers, flat washers, spacer sleeves, expansion anchors, and shoe retainers.
 - 2. Stile Shoes: One-piece, 22 gauge (0.8 mm), 18-8, Type 304 stainless steel, 4 inch (102 mm) height; tops with 90 degree return to stile. One-piece shoe capable of adapting to 3/4 inch (19 mm) or 1 inch (25 mm) stile thickness and capable of being fastened (by clip) to stiles starting at wall line.
- I. Wall Posts: Pre-drilled for door hardware, 18-8, Type 304, 16 gauge (1.6 mm) stainless steel with satin finish; 1 inch (25 mm) x 1-1/2 inches (38 mm) x 58 inches high (1473 mm).
- J. Anchors: Expansion shields and threaded rods at floor connections as applicable. Threaded rods secured to supports above ceiling as applicable. Supports above ceiling furnished and installed as Work of Section 05 50 00 - Metal Fabrications.

- K. Hardware:
1. Compliance: Operating force of less than 5 lb (2.25 kg).
 2. Emergency Access: Hinges, latch allow door to be lifted over keeper from outside compartment on inswing doors.
 3. Materials: 18-8, Type 304, heavy-gauge stainless steel with satin finish.
 4. Doorstops: Prevents inswinging doors from swinging out beyond stile; on outswing doors, doorstop prevents door from swinging in beyond stile.
 5. Fastening: Hardware is secured to door and stile with pin-in-head Torx stainless steel machine screws. Hinges, latch and optional door stops secured to door with pin-in-head Torx stainless steel machine screws into factory-installed, threaded brass inserts. Fasteners for hinges, latch and optional door stops secured directly into core not acceptable.
 - a. Threaded Brass Inserts: Factory-installed; withstand direct pull force exceeding 1500 lb (680 kg) per insert.
 6. Clothes Hooks: Projecting no more than 1-1/8 inch (29 mm) from face of door.
 7. Door Latch: Track of door latch prevents inswing doors from swinging out beyond stile; on outswing doors, door keeper prevents door from swinging in beyond stile; 16 gauge (1.6 mm) sliding door latch, 14 gauge (2 mm) keeper.
 8. Locking: Door locked from inside by sliding door latch into keeper.
 9. Hinge Type:
 - a. Standard.
 - 1) Balanced, with field-adjustable cam to permit door to be fully closed or partially open when compartment is unoccupied.
 - b. Full-Height Institutional Hinge.
 - 1) Hinges: 16 gauge (1.6 mm) stainless steel, self-closing, 3 section hinges.
 10. Mounting Brackets:
 - a. Standard concealed.
 - 1) Mounting Brackets: Mounted inside compartment; exposed brackets on exterior of compartment not acceptable with the exception of outswing doors.
 - b. Full-Height.
 - 1) Mounting Brackets: 18 gauge (1.2 mm) stainless steel and extend full height of panel.
 - 2) U-Channels: Secure panels to stiles.
 - 3) Angle Brackets: Secure stiles-to-walls and panels to walls.
- L. Fire Resistance:
1. National Fire Protection Association/International Building Code Interior Wall and Ceiling Finish: Class B / Uniform Building Code: Class II.
 - a. Flame Spread Index (ASTM E 84): 60 for panels and stiles.
 - b. Smoke Developed Index (ASTM E 84): 265 for panels and stiles.
- M. Stiles: Floor-anchored stiles furnished with expansion shields and threaded rods
1. Stile Leveling Device:
 - a. Standard:
 - 1) Overhead-Braced: 12 gauge (2.8 mm), 3 inches x 1-1/4 inches (75 x 32 mm) plated steel stile bracket factory installed to bottom of stile. Furnished with leveling bolt, shoe retainer, floor L-bracket, plastic anchor #14-16, #14 x 5/8 inches (M6.3 x 16 mm)

- 2) stainless steel sheet-metal screws and #14 x 1-3/4 inches (M6.3 x 45 mm) stainless steel sheet-metal floor screws.
 - 2) Floor-Anchored: 3/8 inches x 1 inches (10 x 25 mm) steel bar, zinc-chromate plated, bolted to stile using 6 inches x 3/8 inches (152 x 10 mm) diameter carbon steel lag bolt. Furnished with 3/8 inches (10mm) diameter threaded rods, hex nuts, washers, spacer sleeve (ceiling-hung only), expansion shield and shoe retainer.
 - 3) Ceiling-Hung: 3/8 inches x 1 inches (10 x 25 mm) steel bar, zinc-chromate plated, bolted to stile using 6 inches x 3/8 inches (152 x 10 mm) diameter carbon steel lag bolt. Furnished with 3/8 inches (10mm) diameter threaded rods, hex nuts, washers, spacer sleeve (ceiling-hung only), expansion shield and shoe retainer.
 - b. Steel Core Stile Option:
 - 1) Leveling Devices: 3/8 inch x 7/8 inch (10 mm x 22 mm) steel bar welded to 11 gauge (3 mm) steel-reinforcing core; chromate-treated and double zinc-plated; welded to sheet-steel core of stiles.
 - 2. Stile Shoes: One-piece, 22 gauge (0.8 mm), 18-8, Type 304 stainless steel, 4 inch (102 mm) height; tops with 90 degree return to stile. One-piece shoe capable of adapting to 3/4 inch (19 mm) or 1 inch (25 mm) stile thickness and capable of being fastened (by clip) to stiles starting at wall line.
- N. Wall Posts: Pre-drilled for door hardware, 18-8, Type 304, 16 gauge (1.6 mm) stainless steel with satin finish; 1 inch (25 mm) x 1-1/2 inches (38 mm) x 58 inches high (1473 mm).
- O. Anchors: Expansion shields and threaded rods at floor connections as applicable. Threaded rods secured to supports above ceiling as applicable. Supports above ceiling furnished and installed as Work of Section 05 50 00 - Metal Fabrications.
- P. Hardware:
- 1. Compliance: Operating force of less than 5 lb (2.25 kg).
 - 2. Emergency Access: Hinges, latch allow door to be lifted over keeper from outside compartment on inswing doors.
 - 3. Materials:
 - a. Stainless Steel
 - 1) Hinges: Pivot hinges constructed of stainless steel with satin finish.
 - 2) Door Hardware: Latches, keepers, coat hooks constructed of stainless steel with satin finish.
 - 3) Mounting Brackets: Constructed of 18-8, Type-304, heavy-gauge stainless steel with satin finish.

2.03 FABRICATION

- A. General: Provide standard doors, panels, screens, and pilasters fabricated for compartment system, unless otherwise indicated. Provide units with cutouts, drilled holes, and internal reinforcement to receive compartment-mounted hardware, accessories, and grab bars, as indicated.
- B. Overhead-Braced and-Floor-Anchored Compartments: Provide manufacturer's standard corrosion-resistant supports, leveling mechanism, fasteners, and anchors at pilasters to suit floor conditions. Make provisions for setting and securing continuous head rail at top of each pilaster. Provide shoes at pilasters to conceal supports and leveling mechanism.
- C. Floor-Anchored Screens: Provide pilasters and panels of same construction and finish as toilet compartments. Provide manufacturer's standard corrosion resistant anchoring assemblies complete with threaded rods, lock washers, and leveling adjustment nuts at pilasters for structural connection to floor. Provide shoes at pilasters to conceal anchorage.
- D. Wall-Hung Screens: Provide units in size indicated of same construction and finish as compartment panels, unless otherwise indicated.
- E. Doors: Unless otherwise indicated, provide min. 24-inch- (610-mm-) wide in-swinging doors for standard toilet compartments, and min. 36-inch- (914-mm-) wide out-swinging doors with a minimum 32-inch- (813-mm-) wide clear opening for compartments indicated to be handicapped accessible.
 - 1. Hinges: Manufacturer's standard self-closing type that can be adjusted to hold door open at any angle up to 90 degrees.
 - 2. Latch and Keeper: Manufacturer's standard latching emergency access and with combination rubber-faced door strike and keeper. Provide units that comply with accessibility requirements at compartments indicated to be handicapped accessible.
 - 3. Coat Hook: Manufacturer's standard combination hook and rubber-tipped bumper, sized to prevent door from hitting compartment-mounted accessories. Install one per stall.
 - 4. Door Pull: Manufacturer's standard unit that complies with ADA accessibility requirements at out-swinging doors. Provide units on both sides of doors at compartments indicated to be handicapped accessible.
 - 5. Door Bumper: Manufacturer's standard rubber-tipped bumpers at out-swinging doors.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Prepare substrates including but not limited to blocking and supports in walls and ceilings at points of attachment using methods recommended by the manufacturer for achieving the best result for the substrates under the project conditions.
 - 1. Inspect areas scheduled to receive compartments for correct dimensions, plumbness of walls, and soundness of surfaces that would affect installation of mounting brackets.
 - 2. Verify spacing of plumbing fixtures to assure compatibility with installation of compartments.
- B. If preparation is the responsibility of another installer, notify Architect in writing of deviations from manufacturer's recommended installation tolerances and conditions.
- C. Do not proceed with installation until substrates have been properly prepared with blocking and supports in walls and ceilings at points of attachment and deviations from manufacturer's recommended tolerances are corrected. Commencement of installation constitutes acceptance of conditions.

3.02 INSTALLATION

- Q. Install products in strict compliance with manufacturer's written instructions and recommendations, including the following:
 - 1. Verify blocking and supports in walls and ceilings has been installed properly at points of attachment.
 - 2. Verify location does not interfere with door swings or use of fixtures.
 - 3. Use fasteners and anchors suitable for substrate and project conditions
 - 4. Install units rigid, straight, plumb, and level.
 - 5. Conceal evidence of drilling, cutting, and fitting to room finish.
 - 6. Test for proper operation.
 - 7.

3.03 ADJUSTING, CLEANING AND PROTECTION

- R. Adjust hardware for proper operation after installation. Set hinge cam on in-swinging doors to hold doors open when unlatched. Set hinge cam on out-swinging doors to hold unlatched doors in closed position.
- S. Touch-up, repair or replace damaged products.
- T. Clean exposed surfaces of compartments, hardware, and fittings.

END OF SECTION