SECTION 10100 - VISUAL DISPLAY BOARDS

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Porcelain enamel markerboards.
2. Tackboards.

1.2 SUBMITTALS

A. Material Safety Data (MSD): MSD Sheets are required for all materials with detailed information on content, product safety, and potentially harmful characteristics. MSD Sheets shall be submitted by Contractor to the Architect for review prior to delivery or use of such materials on the project site. Product approval will depend, in part, upon meeting the environmental requirements of this specification, based upon MSD information submitted to the Architect for review.

B. Product Data: For each type of visual display board indicated.

C. Shop Drawings: For each type of visual display board required.

1. Include dimensioned elevations. Show location of joints between individual panels where unit dimensions exceed maximum panel length.
2. Include sections of typical trim members.
3. Show anchors, grounds, reinforcement, accessories, layout, and installation details.

D. Samples for Initial Selection: Manufacturer's color charts showing the full range of colors and textures available for the following:

1. Markerboards: Actual sections of porcelain enamel finish for each type of markerboard required.
2. Vinyl-Fabric-Faced Cork Tackboards: Fabric swatches for each type of vinyl-fabric-faced cork tackboard indicated.

E. Samples for Verification: Of the following products, showing color and texture or finish selected. Where finishes involve normal color and texture variations, include Sample sets showing the full range of variations expected. Prepare Samples from the same material to be used for the Work.

1. Visual Display Boards: Sample panels not less than 8-1/2 by 11 inches, mounted on the substrate indicated for the final Work. Include a panel for each type, color, and texture required.

2. Aluminum Trim and Accessories: Samples of each finish type and color, on 6-inch- long sections of extrusions and not less than 4-inch squares of sheet or plate. Include Sample sets showing the full range of color variations expected.

F. Product Certificates: Signed by manufacturers of tackboards certifying that vinyl-fabric-faced cork tackboard materials furnished comply with requirements specified for flame-spread ratings.

1.3 QUALITY ASSURANCE

A. Source Limitations: Obtain visual display boards through one source from a single manufacturer.

B. Fire-Test-Response Characteristics: Provide vinyl-fabric-faced tackboards with the following surface-burning characteristics as determined by testing assembled materials composed of facings and backings identical to those required in this Section per ASTM E 84 by a testing and inspecting agency acceptable to authorities having jurisdiction. Identify vinyl-fabric-faced tackboards with appropriate markings of applicable testing and inspecting agency.

1. Flame Spread: 25 or less.
2. Smoke Developed: 10 or less.

1.4 PROJECT CONDITIONS

A. Field Measurements: Verify field measurements before preparation of Shop Drawings and before fabrication to ensure proper fitting. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

1. Allow for trimming and fitting where taking field measurements before fabrication might delay the Work.

1.5 WARRANTY

A. General Warranty: The special porcelain enamel warranty specified in this Article shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the Contract Documents.

B. Porcelain Enamel Markerboard Warranty: Submit a written warranty executed by manufacturer agreeing to replace porcelain enamel markerboards that do not retain their original writing and erasing qualities, become slick and shiny, or exhibit crazing,

cracking, or flaking within the specified warranty period, provided the manufacturer's written instructions for handling, installation, protection, and maintenance have been followed.

1. Warranty Period: Life of the building.

PART 2 - PRODUCTS

1.6 MANUFACTURERS

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Porcelain Enamel Markerboards:

a. Best-Rite Chalkboard Co.
b. Carolina Chalkboard Co.
c. Claridge Products and Equipment, Inc.

2. Tackboards:

a. Best-Rite Chalkboard Co.
b. Carolina Chalkboard Co.
c. Claridge Products and Equipment, Inc.

1.7 MATERIALS

A. Porcelain Enamel Markerboards: Balanced, high-pressure-laminated, porcelain enamel markerboards of 3-ply construction consisting of face sheet, core material, and backing.

1. Face Sheet: 0.024-inch-, "Vitracite," porcelain enamel clad, Type 1, stretcher-leveled aluminized-steel face sheet, as manufactured by Claridge Products and Equipment. Fuse porcelain enamel coating to steel at approximately 1000 deg F.

a. Cover Coat: Provide manufacturer's standard, light-colored, special writing surface with gloss finish intended for use with erasable dry markers.

2. Core: 3/8-inch- thick, particleboard core material complying with requirements of ANSI A208.1, Grade 1-M-1.
3. Backing Sheet: 0.015-inch- thick, aluminum-sheet backing.
4. Laminating Adhesive: Manufacturer's standard, moisture-resistant, thermoplastic-type adhesive.

B. Natural-Cork Tackboards: Single-layer, 1/4-inch- thick, seamless, compressed fine-grain, bulletin board quality, natural-cork sheet; face sanded for natural finish; complying with MS MIL-C-15116, Type II.

1.8 ACCESSORIES

A. Metal Trim and Accessories: Fabricate frames and trim of not less than 0.062-inch-thick, extruded-aluminum alloy, size and shape as indicated, to suit type of installation. Provide straight, single-length units. Keep joints to a minimum. Miter corners to a neat, hairline closure.

1. Marker Tray: Manufacturer's standard, continuous, box-type, aluminum tray with slanted front and cast-aluminum end closures for each marker board.

1.9 FABRICATION

A. Markerboards: Laminate facing sheet and backing sheet to core material under pressure with manufacturer's recommended flexible, waterproof adhesive.

1. Cut joints straight and true. Space joints symmetrically. Fit and match panels before shipment to provide a continuous, uniform writing surface.

B. Assembly: Provide factory-assembled markerboard and tackboard units, unless field-assembled units are required.

1. Make joints only where total length exceeds maximum manufactured length. Fabricate with minimum number of joints, balanced around center of board, as acceptable to Architect.

1.10 FINISHES

A. General: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations relative to applying and designating finishes.

B. Finish designations prefixed by AA conform to the system established by the Aluminum Association for designating aluminum finishes.

C. Class II, Clear Anodic Finish: AA-M12C22A31 (Mechanical Finish: nonspecular as fabricated; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class II, clear coating 0.010 mm or thicker) complying with AAMA 607.1.

PART 3 - EXECUTION

1.11 EXAMINATION

A. Examine wall surfaces, with Installer present, for compliance with requirements and other conditions affecting installation of visual display boards.

1. Surfaces to receive markerboards shall be free of dirt, scaling paint, and projections or depressions that would affect smooth, finished surfaces of markerboards.
2. Surfaces to receive tackboards shall be dry and free of substances that would impair the bond between tackboards and substrate.
3. Do not proceed with installation until unsatisfactory conditions have been corrected.

1.12 INSTALLATION

A. Deliver factory-built visual display boards completely assembled in one piece without joints, where possible. If dimensions exceed panel size, provide 2 or more pieces of equal length as acceptable to Architect. When overall dimensions require delivery in separate units, prefit components at the factory, disassemble for delivery, and make final joints at the site. Use splines at joints to maintain surface alignment.

B. Install units in locations and at mounting heights indicated and according to manufacturer's written instructions. Keep perimeter lines straight, plumb, and level. Provide grounds, clips, backing materials, adhesives, brackets, anchors, trim, and accessories necessary for complete installation.

C. Markerboards: Align and level joints between adjoining panels and apply manufacturer's recommended joint filler compound. Hone and finish joints to a continuous even plane.

D. Coordinate Project-site-assembled units with grounds, trim, and accessories. Join parts with a neat, precision fit.

1.13 ADJUSTING AND CLEANING

A. Verify that accessories required for each unit have been properly installed and that operating units function properly.

B. Clean units according to manufacturer's written instructions.

END OF SECTION 10100

SECTION 10155 – TOILET COMPARTMENTS

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes toilet compartments and screens as follows:

1. Type: Solid polymer resin (plastic).
2. Compartment Style: Floor mounted overhead braced.
3. Screen Style: Wall hung.

1.2 SUBMITTALS

A. Material Safety Data (MSD): MSD Sheets are required for all materials with detailed information on content, product safety, and potentially harmful characteristics. MSD Sheets shall be submitted by Contractor to the Architect for review prior to delivery or use of such materials on the project site. Product approval will depend, in part, upon meeting the environmental requirements of this specification, based upon MSD information submitted to the Architect for review.

B. 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.

C. Shop Drawings: For fabrication and installation of toilet compartment and screen assemblies. Include plans, elevations, sections, details, and attachments to other work.

1. Show locations of reinforcement and cutouts for compartment-mounted toilet accessories.

D. Samples for Initial Selection: Manufacturer's color charts consisting of sections of actual units showing the full range of colors, textures, and patterns available for each type of compartment or screen indicated.

E. Samples for Verification: Of each compartment or screen color and finish required, prepared on 6-inch- square Samples of same thickness and material indicated for Work.

F. Products - Recycled Content: Provide certification from manufacturer on product’s recycled content.

1.3 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.

PART 2 - PRODUCTS

1.4 MANUFACTURERS

A. Manufacturer – Basis of Design: Santana Products, Inc.

1.5 MATERIALS

A. General: Provide materials that have been selected for surface flatness and smoothness. Exposed surfaces that exhibit pitting, seam marks, roller marks, stains, discolorations, telegraphing of core material, or other imperfections on finished units are unacceptable.

B. Solid Polymer Resin: High-density polyethylene (HDPE) with homogenous color throughout. Provide material not less than 1-inch-thick with seamless construction and eased edges in color and pattern as follows:

1. Colors and Patterns: Two colors and patterns in each room as selected by Architect from manufacturer's full range of colors and patterns.
2. Recycled Content: Minimum 50% recycled material content.

C. Pilaster Shoes and Sleeves (Caps): Solid-plastic, polymer-resin pilasters.

D. Full-Height, Full Length (Continuous) Brackets: Manufacturer's standard design for attaching panels and screens to walls and pilasters of the following material:

1. Material: Solid-plastic.

E. Hardware and Accessories: Manufacturer's standard design, heavy-duty extruded aluminum with bright-anodized finish.

1. Door Strike/Keeper: Nominal 6-inches long, extruded aluminum secured with stainless steel fasteners. Provide with black vinyl bumper.
2. Latch: Manufacturer’s standard.

3. Coat Bumper/Hook: Chrome plated zamac.
4. Hinges: 8-inch aluminum wrap-around type. Provide 3 inches for doors larger than 30 inches in width.

F. Head Rail: Extruded aluminum with anti-grip design. Manufacturer's standard finish. Install using stainless steel fasteners.

G. Heat-Sink Strip: Manufacturer's standard continuous, extruded-aluminum strip in manufacturer's standard finish.

H. Anchorages and Fasteners: Manufacturer's standard exposed fasteners of stainless steel or chrome-plated steel or brass, finished to match hardware, with theft-resistant-type heads. Provide sex-type bolts for through-bolt applications. For concealed anchors, use hot-dip galvanized or other rust-resistant, protective-coated steel.

I. Provide overhead miscellaneous steel framing as required to support and brace partitions from base building structure.

1.6 FABRICATION

A. General: Provide standard doors, panels, screens, and pilasters fabricated for compartment system. Provide units with cutouts and drilled holes to receive compartment-mounted hardware, accessories, and grab bars, as indicated.

1. Provide internal reinforcement in metal units for compartment-mounted hardware, accessories, and grab bars, as indicated.

B. Solid-Plastic, Polymer-Resin Compartments and Screens: Provide aluminum heat-sink strips at exposed bottom edges of HDPE units to prevent burning.

C. 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.

1. Provide manufacturer's standard overhead cross bracing.

D. Wall-Hung Screens: Provide units in sizes indicated of same construction and finish as compartment panels, unless otherwise indicated.

1. Provide metal-faced screens with integral full-height flanges for attachment to wall.

E. Doors: Unless otherwise indicated, provide 24-inch- wide in-swinging doors for standard toilet compartments and 36-inch- wide out-swinging doors with a minimum 32-inch- 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 surface-mounted latch unit with combination rubber-faced door strike and keeper designed for emergency access. Provide units that comply with accessibility requirements of authorities having jurisdiction 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.

PART 3 - EXECUTION

1.7 INSTALLATION

A. General: Comply with manufacturer's written installation instructions. Install units rigid, straight, plumb, and level. Secure units in position with manufacturer's recommended anchoring devices.

B. Overhead-Braced-and-Floor-Anchored Compartments: Secure pilasters to floor and level, plumb, and tighten. Secure continuous head rail to each pilaster with not less than 2 fasteners. Hang doors and adjust so tops of doors are parallel with overhead brace when doors are in closed position.

C. Screens: Attach with anchoring devices according to manufacturer's written instructions and to suit supporting structure. Set units level and plumb and to resist lateral impact.

1.8 ADJUSTING AND CLEANING

A. Hardware Adjustment: Adjust and lubricate hardware according to manufacturer's written instructions for proper operation.

B. Provide final protection and maintain conditions that ensure toilet compartments and screens are without damage or deterioration at the time of Substantial Completion.

END OF SECTION 10155

SECTION 10416 - DIRECTORIES

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Internally illuminated directories.

1.2 SUBMITTALS

A. Material Safety Data (MSD): MSD Sheets are required for all materials with detailed information on content, product safety, and potentially harmful characteristics. MSD Sheets shall be submitted by Contractor to the Architect for review prior to delivery or use of such materials on the project site. Product approval will depend, in part, upon meeting the environmental requirements of this specification, based upon MSD information submitted to the Architect for review.

B. Product Data: For each model indicated. Include details of construction relative to materials, dimensions of individual components, profiles, and finishes.

C. Shop Drawings: For each type of directory required.

1. Include dimensioned plans, elevations and details, large-scale sections of typical members, and other components. Show anchors, grounds, reinforcement and layout, and indicate finishes.
2. Include setting drawings, templates, and directions for installing anchor bolts and other anchorages to be installed as a unit of Work in other Sections.
3. Wiring diagrams from manufacturer for illuminated directories.

D. Samples for Initial Selection: Manufacturer's color charts showing the full range of colors and textures available for the following:

1. Aluminum Trim and Accessories: 4-inch- long sections of extrusions and not less than 2-inch squares of sheet or plate for each exposed metal surface showing available metal finishes.

E. Samples for Verification: Of the following products, showing color and texture, or finish selected. Where finishes involve normal color and texture variations, include Sample sets showing the full range of variations expected. Prepare Samples from the same material to be used for the Work.

1. Aluminum Trim and Accessories: Samples of each finish type and color, on 6-inch- long sections of extrusions and not less than 4-inch squares of sheet or plate.

2. Message Strips: Samples of message strips in color selected with sample of typography specified.

F. Product Certificates: Signed by manufacturers of vinyl-fabric-faced cork tackboards certifying that the products furnished comply with requirements specified for flame-spread ratings.

G. Products - Recycled Content: Provide certification from manufacturer on product's recycled content.

1.3 QUALITY ASSURANCE

A. Installer Qualifications: Engage an experienced installer who is an authorized representative of the building directory manufacturer for installation and maintenance of units required for this Project.

1. The Installer shall be capable of providing replacement message strips within 10 working days of receipt of an order.

B. Source Limitations: Obtain building directories through one source from a single manufacturer.

C. Product Options: Drawings indicate size, profiles, and dimensional requirements of building directories and are based on the specific model indicated. Other manufacturers' building directories with equal performance characteristics may be considered. Refer to Division 1 Section "Substitutions."

1. Do not modify intended aesthetic effects, as judged solely by Architect, except with Architect's approval and only to the extent needed to comply with performance requirements. Where modifications are proposed, submit comprehensive explanatory data to Architect for review.

D. Fire-Test-Response Characteristics: Provide vinyl-fabric-faced tackboards with the following surface-burning characteristics as determined by testing assembled materials composed of facings and backings identical to those required in this Section per ASTM E 84 by a testing and inspecting agency acceptable to authorities having jurisdiction. Identify vinyl-fabric-faced tackboards with appropriate markings of applicable testing and inspecting agency.

1. Flame Spread: 25 or less.
2. Smoke Developed: 10 or less.

E. Listing and Labeling: Provide electrically operated fixtures specified in this Section that are listed and labeled.

1. The Terms "Listed" and "Labeled": As defined in the National Electrical Code, Article 100.

1.4 PROJECT CONDITIONS

A. Field Measurements: Verify rough openings for directories 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 opening dimensions and proceed with fabricating building directories without field measurements. Coordinate wall construction to ensure actual opening dimensions correspond to established dimensions.

1.5 EXTRA MATERIALS

A. Deliver extra blank message strips to Owner. Furnish extra message strips that match message strips installed, are packaged with protective covering for storage, and are identified with labels describing contents.

1. Message-Strip Units: Furnish blank, full-size, message-strip units equal to 10 percent of amount installed for Owner's future use.

PART 2 - PRODUCTS

1.6 MANUFACTURERS

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Illuminated Directories:

a. Andco Industries Corporation.
b. Apco Graphics.
c. ASI Sign System, Inc.

1.7 MATERIALS

A. Aluminum Extrusions: Manufacturer's standard extruded-aluminum sections with not less than the strength and durability properties specified in ASTM B 221 for 6063-T5 alloy.

B. Laminated Glass: ASTM C 1172; Kind LA (2 lites of annealed Type I glass); 2 lites of 3-mm-thick Type I (transparent glass, flat); Class 1 (clear); Quality q3 (glazing select); float glass laminated to a dark neutral-bronze-colored, 0.030-inch- thick, transparent polyvinyl butyral interlayer with a luminous transmittance of 9 percent.

1. Interlayer Product: Subject to compliance with requirements, provide Monsanto No. 360900 Saflex Interlayer.

1.8 ILLUMINATED DIRECTORIES

A. Rear-Illuminated Directories: For each directory required, provide a surface-mounted, rear-illuminated-type directory consisting of a cabinet with an operable transparent cover, containing a concealed illumination system, and a retainer frame containing a header panel and message strips. Graphics for message strips, header panels, and other designs shall be in the letter style, size, spacing, and arrangement indicated.

1. Cabinet Housing: Provide perimeter cabinet frame fabricated from aluminum extrusions of the profile indicated, mitered and welded with an aluminum-sheet rear cover panel. Provide structural reinforcement to prevent racking and misalignment.
2. Frameless Cover Design: 6-mm-thick, bronze, acrylic cover, with acrylic returns to engage the perimeter frame.
3. Reveal-Type Frame and Cover Design: 6-mm-thick, bronze, laminated glass in an extruded-aluminum frame. Mount cover frame on concealed hinges to form a reveal between the cover frame and the inner edge of perimeter cabinet frame.

4. Film-Type Message Strips: Removable, negative-film message strips in interchangeable, interlocking, glass-reinforced plastic carriers approximately 7 inches long.

    a. Provide blank negative-film message strips for each carrier in the directory.

        1) Letter Size: 1/4 inch.
        2) Letter Style: Helvetica Medium.
        3) Letter Case: Capitals and lowercase.

5. Rear-Illumination System: Provide a removable and accessible fluorescent-strip fixture system with reflective interior surfaces for uniform illumination of message strips and header panel with minimum halation and without light leaks. Include lamps and internal wiring with single concealed electrical connection to the building system. Coordinate electrical characteristics with the power supply provided.

    a. Ballasts: Low-temperature, high-power-factor, low-energy, fluorescent lamp ballasts that comply with Certified Ballast Manufacturers Association standards and carry its label. Provide exterior ballasts for exterior signs.

1.9 ACCESSORIES

A. Fasteners: Provide screws, bolts, and other exposed fastening devices of the same material as the items being fastened. Fasteners for applications on the exterior and exposed to the weather shall be hot-dip galvanized, stainless steel, or aluminum. Provide types, gages, and lengths to suit installation conditions. Use theft-proof fasteners where exposed to view.

B. Hardware: Provide building directories with the following hardware:

1. Hinges: Continuous-type piano hinges.
2. Locks: Furnish each cover with manufacturer's standard lock; key locks alike. Furnish 2 keys per lock.

1.10 FABRICATION

A. General: Fabricate directories to requirements indicated, including dimensions, design, and thickness and finish of materials. Use metals and shapes of thickness, with reinforcing if needed, to produce flatness, free of oil canning, and to impart strength for size, design, and application indicated.

1. Fabricate perimeter cabinet and cover frames with reinforced corners, mitered to a hairline fit, with no exposed fasteners.
2. Hardware for Covers: Equip covers with hardware of type indicated.
3. Weatherproofing: For units located on the exterior, provide weatherproof construction, including weather-stripping and venting provisions for condensation control.

1.11 FINISHES

A. General: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations relative to applying and designating finishes.

B. Colors: Where message strips, header panels, or other items, other than frames or glazing materials, require color selection to distinguish letters or graphic images from the background or for other purposes, provide colors as selected by Architect from manufacturer's full range of colors.

C. Finish designations prefixed by AA conform to the system established by the Aluminum Association for designating aluminum finishes.

D. Class I, Color Anodic Finish: AA-M12C22A42/A44 (Mechanical Finish: nonspecular as fabricated; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class I, integrally colored or electrolytically deposited color coating 0.018 mm or thicker) complying with AAMA 606.1 or AAMA 608.1.

1. Color: As selected by Architect from the full range of industry colors and color densities.

PART 3 - EXECUTION

1.12 EXAMINATION

A. Examine wall surfaces, with the Installer present, for compliance with requirements and other conditions affecting installation of building directories.

1. Do not proceed with installation until unsatisfactory conditions have been corrected.

1.13 INSTALLATION

A. Install units plumb and level, in locations and with mountings shown. Securely attach to supporting structure with concealed fasteners, according to manufacturer's written installation instructions.

1.14 CLEANING AND PROTECTING

A. At completion of installation, clean surfaces according to manufacturer's written instructions.

B. Protect installed directories from damage until acceptance by Owner at the time of Substantial Completion.

END OF SECTION 10416

SECTION 10431 - SIGNS

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Signs.

1.2 QUALITY ASSURANCE

A. Regulatory Requirements: Comply with the Americans with Disabilities Act (ADA) and with code provisions as adopted by authorities having jurisdiction.

1.3 SUBMITTALS

A. Material Safety Data (MSD): MSD Sheets are required for all materials with detailed information on content, product safety, and potentially harmful characteristics. MSD Sheets shall be submitted by Contractor to the Architect for review prior to delivery or use of such materials on the project site. Product approval will depend, in part, upon meeting the environmental requirements of this specification, based upon MSD information submitted to the Architect for review.

B. Product Data: For materials indicated.

PART 2 - PRODUCTS

1.4 SIGNS

A. Exterior Signs: All exterior signs shall be in compliance with UF Construction Standards and Physical Plant Division "Policy & Procedure Documentation System" and UF "Campus Exterior Sign Policy".

B. Directional Signs: All directional signs shall be in conformance with ADA Guidelines and UF Construction Standards and UF "Campus Exterior Sign Policy".

C. Fabrication: Signs shall be fabricated by Physical Plant Division to conform to the University's standard design.

PART 3 - EXECUTION

1.5 INSTALLATION

A. Signs shall be installed by Physical Plant Division.

END OF SECTION 10431

SECTION 10505 - METAL LOCKERS

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Wardrobe lockers, including the following:

a. Double tier.

1.2 SUBMITTALS

A. Material Safety Data (MSD): MSD Sheets are required for all materials with detailed information on content, product safety, and potentially harmful characteristics. MSD Sheets shall be submitted by Contractor to the Architect for review prior to delivery or use of such materials on the project site. Product approval will depend, in part, upon meeting the environmental requirements of this specification, based upon MSD information submitted to the Architect for review.

B. Product Data: Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of locker and bench.

C. Shop Drawings: Include plans, elevations, sections, details, and attachments to other Work.

1. Show locker fillers, trim, base, sloping tops, and accessories. Include locker-numbering sequence.

D. Samples for Verification: For the following products, in manufacturer's standard sizes, showing the full range of color, texture, and pattern variations expected. Prepare Samples from the same material to be used for the Work.

1. Lockers.

E. Maintenance Data: For adjusting, repairing, and replacing locker doors and latching mechanisms to include in maintenance manuals specified in Division 1.

F. Products - Recycled Content: Provide certification from manufacturer on product’s recycled content.

1.3 QUALITY ASSURANCE

A. Source Limitations: Obtain locker units and accessories through one source from a single manufacturer.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Do not deliver lockers until spaces to receive them are clean, dry, and ready for locker installation.

B. Protect lockers from damage during delivery, handling, storage, and installation.

C. Deliver master keys, control keys, and combination control charts to Owner.

1.5 COORDINATION

A. Coordinate size and location of concrete bases. Concrete, reinforcement, and formwork requirements are specified in Division 3 Section "Cast-in-Place Concrete."

PART 2 - PRODUCTS

1.6 LOCKERS

A. Model and Manufacturer – Basis of Design: “Corregidoor Lockers” by DeBourgh;

1. Dimensions: 12” width, 12” depth, 72” height

1.7 MATERIALS

A. Cold-Rolled Steel Sheet: ASTM A 366/A 366M, matte finish, suitable for exposed applications, and stretcher leveled or roller leveled to stretcher-leveled flatness.

B. Galvanized Steel Sheet: ASTM A 653/A 653M, commercial quality, G60 coating designation; mill phosphatized; suitable for exposed applications, and stretcher leveled or roller leveled to stretcher-leveled flatness.

C. Electrolytic Zinc-Coated Steel Sheet: ASTM A 591/A 591M, commercial quality, coating Class C; mill phosphatized; suitable for exposed applications; and stretcher leveled or roller leveled to stretcher-leveled flatness.

D. Fasteners: Zinc- or nickel-plated steel, slotless-type exposed bolt heads, and self-locking nuts or lock washers for nuts on moving parts.

1.8 WARDROBE LOCKERS

A. Body, Frames, and Doors: Manufacturer’s standard construction.

B. Hinges: Steel, full loop, five or seven knuckle; tight pin; minimum 2 inches high. Weld to inside of door frame and attach to door with at least two factory-installed fasteners that are completely concealed and tamper resistant when door is closed.

1. Provide at least three hinges for each door more than 42 inches high and at least two hinges for each door 42 inches high or less.

C. Projecting Handle and Latch: Manufacturer's standard, positive automatic, prelocking, pry-resistant latch and pull; chromium-plated, heavy-duty, vandal-resistant, lift-up handle, as follows:

1. Provide minimum three-point latching for each door more than 42 inches high; minimum two-point latching for each door 42 inches high or less.

a. Provide strike and eye for padlock.

2. Provide single-point gravity or spring-actuated latch with padlock lug.

1.9 LOCKER ACCESSORIES

A. Interior Equipment: Furnish each locker with the following items, unless otherwise indicated:

1. Hooks: Manufacturer's standard zinc-plated, ball-pointed steel. Provide one double-prong ceiling hook, and not fewer than two single-prong wall hooks for single-, double-, and triple-tier units. Attach hooks with at least two fasteners.
2. Coat Rods: Manufacturer's standard galvanized steel. Provide rod in lieu of ceiling hook for lockers 18 inches deep or greater.

B. Number Plates: Manufacturer's standard etched, embossed, or stamped, aluminum number plates with numerals at least 3/8 inch high. Number lockers in sequence indicated. Attach plates to each locker door, near top, centered, with at least two aluminum rivets.

C. Continuous Metal Base: Minimum 0.0598-inch- thick steel sheet, channel or zee profiled for stiffness, fabricated in lengths as long as practicable to enclose base and base ends of lockers, and finished to match lockers.

1. Height: 6 inches.

D. Continuously Sloping Tops: Manufacturer's standard, fabricated from minimum 0.0359-inch- thick steel sheet, for installation over lockers with separate flat tops. Fabricate tops in lengths as long as practicable, without visible fasteners at splice locations, finished to match lockers. Provide fasteners, filler plates, supports, and closures, as follows:

1. Closures: Vertical-end type.
2. Closures: Hipped-end type.
3. Sloped top corner fillers, mitered.

E. Recess Trim: Manufacturer's standard; fabricated from minimum 0.0478-inch- thick steel sheet, minimum 2-1/2-inch face width, and finished to match lockers. Fabricate trim in lengths as long as practicable.

F. Filler Panels: Manufacturer's standard; fabricated from minimum 0.0478-inch- thick steel sheet in an unequal leg angle shape, and finished to match lockers. Provide slip joint filler angle formed to receive filler panel.

G. Finished End Panels: Manufacturer's standard; fabricated from minimum 0.0239-inch-thick steel sheet, finished to match lockers, and designed for concealing exposed ends of nonrecessed lockers.

1. Provide one-piece panels for double-row (back-to-back) locker ends.

H. Center Dividers: Manufacturer's standard; fabricated from minimum 0.0239-inch- thick steel sheet, full-depth, vertical partitions between bottom and shelf, and finished to match lockers.

1.10 FABRICATION

A. Unit Principle: Fabricate each locker with an individual door and frame, individual top, bottom, back, and shelves, and common intermediate uprights separating compartments.

B. All-Welded Construction: Preassemble lockers by welding all joints, seams, and connections, with no bolts, screws, or rivets used in assembly. Grind exposed welds flush.

C. Fabricate lockers square, rigid, and without warp, with metal faces flat and free of dents or distortion. Make exposed metal edges free of sharp edges and burrs, and safe to touch. Weld frame members together to form a rigid, one-piece assembly.

1. Form locker-body panels, doors, shelves and accessories from one-piece steel sheet, unless otherwise indicated.

1.11 FINISHES, GENERAL

A. Finish all steel surfaces and accessories, except prefinished stainless-steel and chrome-plated surfaces.

B. Finish Painting: Refer to Division 9 Section "Painting."

C. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

D. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

E. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

1.12 STEEL SHEET FINISHES

A. Surface Preparation: Clean surfaces of dirt, oil, grease, mill scale, rust, and other contaminants that could impair paint bond. Use manufacturer's standard methods.

B. Powder-Coated Finish: Immediately after cleaning and pretreating, electrostatically apply manufacturer's standard baked-polymer finish consisting of a thermosetting powder topcoat. Comply with paint manufacturer's written instructions for applying and baking to achieve a minimum dry film thickness of 2 mils.

1. Color and Gloss: As selected by Architect from manufacturer's full range.

PART 3 - EXECUTION

1.13 EXAMINATION

A. Examine concrete bases for suitable conditions where metal lockers are to be installed.

1. Proceed with installation only after unsatisfactory conditions have been corrected.

1.14 INSTALLATION

A. Install metal lockers and accessories level, plumb, rigid, and flush according to manufacturer's written instructions.

B. Assemble knocked-down lockers with standard fasteners, with no exposed fasteners on door faces and face frames.

C. Connect groups of all-welded lockers together with standard fasteners, with no exposed fasteners on face frames.

D. Anchor lockers to floors and walls at intervals recommended by manufacturer, but not more than 36 inches o.c. Install anchors through backup reinforcing plates where necessary to avoid metal distortion, using concealed fasteners.

E. Fit exposed connections of trim, fillers, and closures accurately together to form tight, hairline joints, with concealed fasteners and splice plates.

1. Attach recess trim to recessed lockers with concealed clips.
2. Attach sloping top units to lockers, with closures at exposed ends.

F. Attach finished end panels with fasteners only at perimeter to conceal exposed ends of nonrecessed lockers.

G. Anchor locker benches to floors Uniformly space pedestals not more than 72 inches apart, and securely fasten to bench top and anchor to floor.

1.15 ADJUSTING, CLEANING, AND PROTECTION

A. Adjust doors and latches to operate easily without binding. Verify that integral locking devices operate properly.

B. Clean interior and exposed exterior surfaces and polish stainless-steel and nonferrous-metal surfaces.

C. Protect lockers from damage, abuse, dust, dirt, stain, or paint. Do not permit locker use during construction.

D. Touch up marred finishes, or replace locker units that cannot be restored to factory-finished appearance. Use only materials and procedures recommended or furnished by locker manufacturer.

END OF SECTION 10505

SECTION 10520 - FIRE-PROTECTION SPECIALTIES

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Fire-protection cabinets for the following:

a. Portable fire extinguishers.

2. Fire-protection accessories.

1.2 SUBMITTALS

A. Material Safety Data (MSD): MSD Sheets are required for all materials with detailed information on content, product safety, and potentially harmful characteristics. MSD Sheets shall be submitted by Contractor to the Architect for review prior to delivery or use of such materials on the project site. Product approval will depend, in part, upon meeting the environmental requirements of this specification, based upon MSD information submitted to the Architect for review.

B. Product Data: Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for fire-protection specialties.

1. Cabinets: Include roughing-in dimensions, details showing mounting methods, relationships of box and trim to surrounding construction, door hardware, cabinet type, trim style, and panel style.

C. Products - Recycled Content: Provide certification from manufacturer on product’s recycled content.

1.3 QUALITY ASSURANCE

A. Source Limitations: Obtain fire extinguishers and cabinets through one source from a single manufacturer.

B. NFPA Compliance: Fabricate and label fire extinguishers to comply with NFPA 10, "Standard for Portable Fire Extinguishers."

1.4 COORDINATION

A. Coordinate size of cabinets to ensure that type and capacity of fire extinguishers indicated and provided by Owner under separate Contract are accommodated.

PART 2 - PRODUCTS

1.5 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Fire-Protection Cabinets:

a. J.L. Industries, Inc.
b. Larsen's Manufacturing Company.
c. Potter-Roemer; Div. of Smith Industries, Inc.

1.6 MATERIALS

A. Cold-Rolled Steel Sheet: Carbon steel, complying with ASTM A 366/A 366M, commercial quality, stretcher leveled, temper rolled.

B. Stainless-Steel Sheet: ASTM A 666/A 666M, Type 302 or Type 304 alloy.

1.7 FIRE-PROTECTION CABINETS

A. Cabinet Construction: Provide manufacturer's standard box (tub), with trim, frame, door, and hardware to suit cabinet type, trim style, and door style indicated. Weld joints and grind smooth. Miter and weld perimeter door frames.

1. Fire-Rated Cabinets: Listed and labeled to meet requirements of ASTM E 814 for fire-resistance rating of wall where it is installed.

a. Construct fire-rated cabinets with double walls fabricated from 0.0478-inch-thick, cold-rolled steel sheet lined with minimum 5/8-inch- thick, fire-barrier material.
b. Provide factory-drilled mounting holes.

2. Cabinet Metal: Stainless steel sheet.

B. Cabinet Type: Suitable for the following:

1. One 10-pound ABC type fire extinguisher.

C. Cabinet Mounting: Suitable for the following mounting conditions:

1. Semi-Recessed: Cabinet box partially recessed in walls of shallow depth to suit style of trim indicated.

D. Cabinet Trim Style: Fabricate cabinet trim in one piece with corners mitered, welded, and ground smooth.
1. Exposed Trim: One-piece combination trim and perimeter door frame overlapping surrounding wall surface with exposed trim face and wall return at outer edge (backbend).

a. Flat Trim: 1/4- to 5/16-inch backbend depth.

E. Cabinet Trim Material: Manufacturer's standard, as follows:

1. Stainless steel sheet, #4 finish.

F. Door Material: Manufacturer's standard, as follows:

1. Stainless steel sheet, #4 finish.

G. Door Glazing: Manufacturer's standard, as follows:

1. Tempered Float Glass: ASTM C 1048, Kind FT, Condition A, Type I, Quality q3, as follows:

a. Class 1 (clear).
b. Thickness: 6 mm.

H. Door Style: Manufacturer's standard design, as follows:

1. Fully glazed panel with frame.

I. Door Construction: Fabricate doors according to manufacturer's standards, of materials indicated, and coordinated with cabinet types and trim styles selected.

1. Provide minimum 1/2-inch- thick door frames, fabricated with tubular stiles and rails, and hollow-metal design.
2. Provide inside latch and lock for break-glass panels.

J. Door Hardware: Provide manufacturer's standard door-operating hardware of proper type for cabinet type, trim style, and door material and style indicated. Provide either lever handle with cam-action latch, or exposed or concealed door pull and friction latch. Provide concealed or continuous-type hinge permitting door to open 180 degrees.

1.8 FINISHES, GENERAL

A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

C. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

1.9 STAINLESS-STEEL FINISHES

A. General: Remove or blend tool and die marks and stretch lines into finish. Grind and polish surfaces to produce uniform, directionally textured polished finish indicated, free of cross scratches. Run grain with long dimension of each piece.

B. Directional Polish: No. 4 finish.

1. When polishing is completed, passivate and rinse surfaces. Remove embedded foreign matter and leave surfaces chemically clean.

PART 3 - EXECUTION

1.10 EXAMINATION

A. Examine roughing-in for cabinets to verify actual locations of piping connections before cabinet installation.

B. Examine walls and partitions for suitable framing depth and blocking where cabinets are to be installed.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

1.11 INSTALLATION

A. Comply with manufacturer's written instructions for installing fire-protection specialties.

B. Install in locations and at mounting heights indicated or, if not indicated, at heights acceptable to authorities having jurisdiction.

1. Prepare recesses for cabinets as required by type and size of cabinet and trim style.
2. Fasten cabinets to structure, square and plumb.

1.12 ADJUSTING, CLEANING, AND PROTECTION

A. Adjust cabinet doors that do not swing or operate freely.

B. Refinish or replace cabinets and doors damaged during installation.

C. Provide final protection and maintain conditions that ensure that cabinets and doors are without damage or deterioration at the time of Substantial Completion.

END OF SECTION 10520

SECTION 10705 – INTERIOR SUN CONTROL DEVICES

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Day-lighting louvers.

1.2 SUBMITTALS

A. Material Safety Data (MSD): MSD Sheets are required for all materials with detailed information on content, product safety, and potentially harmful characteristics. MSD Sheets shall be submitted by Contractor to the Architect for review prior to delivery or use of such materials on the project site. Product approval will depend, in part, upon meeting the environmental requirements of this specification, based upon MSD information submitted to the Architect for review.

B. Product Data: For products indicated. Include manufacturer's specifications and installation instructions, details of construction relative to materials, dimensions of individual components, profiles, and finishes.

1. Include maintenance data for cleaning and lubrication.

C. Shop Drawings: Include plans, elevations, sections, details, and attachments to other Work. Include details relative to installation including fasteners, anchors, and accessories.

D. Samples for Initial Selection: Submit a sample of daylight device showing specific surface finishes with intended method of anchorage and accessories required.

E. Mockup: Provide operating mock-up of full size 8' unit with hinge and support mechanism.

1.3 QUALITY ASSURANCE

A. Source Limitations: Obtain sun control devices through one source from a single manufacturer.

1.4 PROJECT CONDITIONS

A. Field Measurements: Verify dimensions by field measurements before fabrication and indicate measurements on Shop Drawings.

PART 2 - PRODUCTS

1.5 MANUFACTURERS

A. Manufacturer – Basis of Design:

1. Construction Specialties, Inc., Cranford, New Jersey (908) 272-5200

B. Other Acceptable Manufacturer:

1. ASCA, Inc., Basking Ridge, New Jersey (908) 221-1000

1.6 MATERIALS

A. Aluminum Extrusions: ASTM B 221, alloy 6063-T5 or T-6.

B. Aluminum Sheet: ASTM B 209, alloy 3003 or 5005 with temper as required for forming, or as otherwise recommended by metal producer for required finish.

1. Thickness: 0.040-inches, minimum.

C. Core: Molded rigid cellular polystyrene board; 2.0 pounds per cubic foot density.

D. Polystyrene Insulation: ASTM C 578 for Type 1.

1. Density: 2.0 pounds per cubic foot (pcf).
2. Flame-Spread and Smoke-Developed Indexes: 25 and 450 or less, respectively, per ASTM E 84.

E. Fasteners: Of same basic metal and alloy as fastened metal or 300 Series stainless steel, unless otherwise indicated. Do not use metals that are incompatible with joined materials.

1. Use types and sizes to suit unit installation conditions.
2. Use hex-head or Phillips pan-head screws for exposed fasteners.

1.7 FABRICATION

A. General: Assemble units in factory to minimize field splicing and assembly. Disassemble units as necessary for shipping and handling limitations. Clearly mark units for reassembly and coordinated installation.

B. Louver Blades and Vertical Supports: Minimum 0.040-inch thick aluminum sheet. Louver blade configuration shall be as indicated with polystyrene core. Aluminum seams shall be butt joint configurations. End caps shall be die cut aluminum.

C. Vertical Supports: Minimum 0.040 inch thick aluminum sheet. Aluminum seams shall be butt joint configurations. End caps shall be die cut aluminum.

D. Anchors: Include anchorages and accessories required for complete assembly.

E. Operation: Louver shall be designed to rotate downward 90-degrees.

1.8 ALUMINUM FINISHES

A. General: Finish designations prefixed by AA comply with system established by the Aluminum Association for designating aluminum finishes.

B. High-Performance Organic-Coating Finish: AA-C12C42R1x (Chemical Finish: cleaned with inhibited chemicals; Chemical Finish: acid-chromate-fluoride-phosphate conversion coating; Organic Coating: as specified below). Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.

1. Fluoropolymer Two-Coat Coating System: Manufacturer's standard two-coat, thermocured system consisting of specially formulated inhibitive primer and fluoropolymer color topcoat containing not less than 70 percent polyvinylidene fluoride resin by weight; complying with AAMA 2605.

a. Color and Gloss: As selected by Architect from manufacturer's full range.

PART 3 - EXECUTION

1.9 EXAMINATION

A. Examine substrates and openings, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance.

1. Proceed with installation only after unsatisfactory conditions have been corrected.

1.10 INSTALLATION

A. Locate and place units level, plumb, and at indicated alignment with adjacent work.

B. Form closely fitted joints with exposed connections accurately located and secured.

C. Repair damaged finishes. Return items that cannot be refinished in the field to the factory, make required alterations, and refinish entire unit or provide new units.

1.11 ADJUSTING AND CLEANING

A. Test operation of units and adjust as needed to produce fully functioning units that comply with requirements.

B. Clean exposed surfaces to remove fingerprints and soil during construction period. Do not let soil accumulate until final cleaning.

C. Before final inspection, clean exposed surfaces in accordance with manufacturer's instructions and recommendations.

D. Restore units damaged during installation and construction so no evidence remains of corrective work. If results of restoration are unsuccessful, as determined by Architect, remove damaged units and replace with new units.

1. Touch up minor abrasions in finishes with air-dried coating that matches color and gloss of, and is compatible with, factory-applied finish coating.

END OF SECTION 10705

SECTION 10801 - TOILET AND BATH ACCESSORIES

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Toilet accessories.

1.2 SUBMITTALS

A. Material Safety Data (MSD): MSD Sheets are required for all materials with detailed information on content, product safety, and potentially harmful characteristics. MSD Sheets shall be submitted by Contractor to the Architect for review prior to delivery or use of such materials on the project site. Product approval will depend, in part, upon meeting the environmental requirements of this specification, based upon MSD information submitted to the Architect for review.

B. Product Data: Include construction details, material descriptions and thicknesses, dimensions, profiles, fastening and mounting methods, specified options, and finishes for each type of accessory specified.

C. Setting Drawings: For cutouts required in other work; include templates, substrate preparation instructions, and directions for preparing cutouts and installing anchoring devices.

D. Product Schedule: Indicating types, quantities, sizes, and installation locations by room of each accessory required. Use designations indicated in the Toilet and Bath Accessory Schedule and room designations indicated on Drawings in product schedule.

E. Maintenance Data: For accessories to include in maintenance manuals specified in Division 1. Provide lists of replacement parts and service recommendations.

F. Products - Recycled Content: Provide certification from manufacturer on product's recycled content.

1.3 QUALITY ASSURANCE

A. Source Limitations: Provide products of same manufacturer for each type of accessory unit and for units exposed to view in same areas, unless otherwise approved by Architect.

1.4 COORDINATION

A. Coordinate accessory locations with other work to prevent interference with clearances required for access by disabled persons, proper installation, adjustment, operation, cleaning, and servicing of accessories.

B. Deliver inserts and anchoring devices set into concrete or masonry as required to prevent delaying the Work.

1.5 WARRANTY

A. General Warranty: Special warranty specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

B. Manufacturer's Mirror Warranty: Written warranty, executed by mirror manufacturer agreeing to replace mirrors that develop visible silver spoilage defects within minimum warranty period indicated.

1. Minimum Warranty Period: 15 years from date of Substantial Completion.

PART 2 - PRODUCTS

1.6 MATERIALS

A. Stainless Steel: ASTM A 666, Type 304, with No. 4 finish (satin), in 0.0312-inch minimum nominal thickness, unless otherwise indicated.

B. Sheet Steel: ASTM A 366/A 366M, cold rolled, commercial quality, 0.0359-inch minimum nominal thickness; surface preparation and metal pretreatment as required for applied finish.

C. Galvanized Steel Sheet: ASTM A 653/A 653M, G60.

D. Chromium Plating: ASTM B 456, Service Condition Number SC 2 (moderate service), nickel plus chromium electrodeposited on base metal.

E. Mirror Glass: ASTM C 1036, Type I, Class 1, Quality q2, nominal 6.0 mm thick, with silvering, electroplated copper coating, and protective organic coating complying with FS DD-M-411.

F. Galvanized Steel Mounting Devices: ASTM A 153/A 153M, hot-dip galvanized after fabrication.

G. Fasteners: Screws, bolts, and other devices of same material as accessory unit, tamper and theft resistant when exposed, and of galvanized steel when concealed.

1.7 FABRICATION

A. General: One, maximum 1-1/2-inch- diameter, unobtrusive stamped manufacturer logo, as approved by Architect, is permitted on exposed face of accessories. On interior surface not exposed to view or back surface of each accessory, provide printed, waterproof label or stamped nameplate indicating manufacturer's name and product model number.

B. General: Names or labels are not permitted on exposed faces of accessories. On interior surface not exposed to view or on back surface of each accessory, provide printed, waterproof label or stamped nameplate indicating manufacturer's name and product model number.

C. Surface-Mounted Toilet Accessories: Unless otherwise indicated, fabricate units with tight seams and joints, and exposed edges rolled. Hang doors and access panels with continuous stainless-steel hinge. Provide concealed anchorage where possible.

D. Recessed Toilet Accessories: Unless otherwise indicated, fabricate units of all-welded construction, without mitered corners. Hang doors and access panels with full-length, stainless-steel hinge. Provide anchorage that is fully concealed when unit is closed.

E. Framed Glass-Mirror Units: Fabricate frames for glass-mirror units to accommodate glass edge protection material. Provide mirror backing and support system that permits rigid, tamper-resistant glass installation and prevents moisture accumulation.

1. Provide galvanized steel backing sheet, not less than 0.034 inch and full mirror size, with nonabsorptive filler material. Corrugated cardboard is not an acceptable filler material.

F. Mirror-Unit Hangers: Provide mirror-unit mounting system that permits rigid, tamper- and theft-resistant installation, as follows:

1. One-piece, galvanized steel, wall-hanger device with spring-action locking mechanism to hold mirror unit in position with no exposed screws or bolts.
2. Heavy-duty wall brackets of galvanized steel, equipped with concealed locking devices requiring a special tool to remove.

G. Keys: Provide universal keys for internal access to accessories for servicing and resupplying. Provide minimum of six keys to Owner's representative.

PART 3 - EXECUTION

1.8 INSTALLATION

A. Install accessories according to manufacturers' written instructions, using fasteners appropriate to substrate indicated and recommended by unit manufacturer. Install units level, plumb, and firmly anchored in locations and at heights indicated.

B. Secure mirrors to walls in concealed, tamper-resistant manner with special hangers, toggle bolts, or screws. Set units level, plumb, and square at locations indicated, according to manufacturer's written instructions for substrate indicated.

C. Install grab bars to withstand a downward load of at least 250 lbf, when tested according to method in ASTM F 446.

1.9 ADJUSTING AND CLEANING

A. Adjust accessories for unencumbered, smooth operation and verify that mechanisms function properly. Replace damaged or defective items.

B. Remove temporary labels and protective coatings.

C. Clean and polish exposed surfaces according to manufacturer's written recommendations.

1.10 TOILET AND BATH ACCESSORY SCHEDULE

A. Manufacturer – Basis of Design: Bobrick Washroom Equipment, Inc.

B. Accessories:

1. Recessed Paper Towel Dispenser/ Waste Receptacle: B-

2. Toilet Tissue Dispenser:

3. Book Shelf:

4. Utility Shelf:

5. Grab Bar (36 inch):

6. Grab Bar (42 inch):

7. Mirror:

a. Size: As indicated.

8. Soap Dispenser:

9. Coat Hook:

10. Sanitary Napkin Disposal:

11. Not Used

12. Not Used

13. Mop Hanger

14. ADA Compliant Mirror:

15. Mirror: Refer to

    a. Size: As indicated.

16. Recessed Feminine Napkin/ Tampon Vendor:

END OF SECTION 10801