Division 10

SECTION 101400

SIGNAGE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Interior and Exterior Signage

1.3 DEFINITIONS

A. Accessible: In accordance with the accessibility standard.

1.4 COORDINATION

A. Furnish templates for placement of sign-anchorage devices embedded in permanent construction by other installers.

1.5 ACTION SUBMITTALS

A. Product Data:

1. Each type of signage.

B. Shop Drawings: For signage.

1. Include fabrication and installation details and attachments to other work.
2. Show sign mounting heights, locations of supplementary supports to be provided by other installers, and accessories.
3. Show message list, typestyles, graphic elements, including raised characters and Braille, and layout for each sign.

C. Samples for Initial Selection: For each type of sign assembly, exposed component, and exposed finish.

1. Include representative Samples of available typestyles and graphic symbols.

D. Samples for Verification: For each type of sign assembly showing all components and with the required finish(es), full size.

1. Full-size Samples, if approved, will be returned to Contractor for use in Project.

E. Product Schedule: For panel signs. Use same designations indicated on Drawings or specified.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance Data: For signs to include in maintenance manuals.

1.7 QUALITY ASSURANCE

A. Manufacturer: Company specializing in manufacturing Products specified in this section with minimum three years documented experience.

1.8 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of signs that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Deterioration of finishes beyond normal weathering.

b. Deterioration of embedded graphic image.

c. Separation or delamination of sheet materials and components.

2. Warranty Period: Five (5) years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Structural Performance: Signs and supporting elements are to withstand the effects of gravity and other loads within limits and under conditions indicated on drawings.

B. Thermal Movements: For exterior signs, allow for thermal movements from ambient and surface temperature changes.

1. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.

C. Accessibility Standard: Comply with applicable provisions in the USDOJ's "2010 ADA Standards for Accessible Design" and ICC A117.1.

2.2 ROOM IDENTIFICATION SIGNS

A. Room Identification Signs: Sign with smooth, uniform surfaces; with message and characters having uniform faces, sharp corners, and precisely formed lines and profiles; and as follows:

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

    a. ASI Sign Systems, Inc.

    b. Mohawk Sign Systems.

2. Restroom Sign Components:

    a. Materials:

        1) Face: photopolymer face, in matt finish.

        2) Backing Plate: Acrylic, .080" thick.

        3) Back Panel: Oversized, .080" thick.

        4) Photopolymer bonded to acrylic backing plaque, tactile lettering. Graphics and Braille shall be integral part of the face.

        5) Solid Colors: Selected from Manufacturer's standard colors.

        6) Mounting: Vinyl tape with silicone.

B. Fabrication:

1. Tactile Graphics and Text:

    a. Fabrication Process: Provide tactile copy (and grade 2 Braille) raised 1/32 inch minimum from plaque first surface by Manufacturer's photopolymer bonded process. Sign face of single material, tactile characters and Braille integral to photopolymer. Adhesive-fixed characters are not acceptable.

    b. Provide lettering and graphics precisely formed, uniformly opaque to comply with relevant ADA regulations and requirements indicated for size, style, space, content, position, and colors. Tactile characters to be raised minimum 1/32" from surface. Computerized translation of sign copy to be responsibility of the Manufacturer.

    c. Size shall be 6" wide x 9" high.

C. Symbols as follows:

1. Provide at restrooms:

   a. "Men" with symbol and handicap symbol (Room 207).

   b. "Women" with symbol and handicap symbol (Room 205).

   c. "Unisex Restroom" with Male and Female symbols and handicap symbol (Rooms 111, 112, 113, 116, 117, 119).

   d. Men and/or Women symbol 4" high.

   e. Handicap symbol 2" high.

   f. 1-1/2" lettering

2. Provide at elevator:

   a. "In case of fire, use stairs" and symbol.

3. Provide at other areas:

   a. Room identification lettering 1-1/2" high.

   b. Provide at:

      1) Ready Room

      2) Community Room (2)

      3) Watch Room

      4) Chief

      5) Meeting Room (Common) (2)

      6) Commissioner

      7) Dress Uniforms

2.3 BUILDING MOUNTED SIGN

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

a. Basis of Design: Gemini, individual letters

b. ASI Sign Systems, Inc.

2. Sign:

a. Material: Aluminum

b. Letter style shall be “Arial".

c. Mounting: Each letter individually mounted to wall with 1/2” projected spacer.

d. Sign shall read:

1) “PORT EWEN FIRE DISTRICT” (1” thick x 24” high).

3. Finish:

a. Painted, color from manufacturers standard colors.

2.4 FABRICATION

A. General: Provide manufacturer's standard sign assemblies according to requirements indicated.

1. Preassemble signs in the shop to greatest extent possible. Disassemble signs and assemblies only as necessary for shipping and handling limitations. Clearly mark units for reassembly and installation; apply markings in locations concealed from view after final assembly.

2. Mill joints to a tight, hairline fit. Form assemblies and joints exposed to weather to resist water penetration and retention.

3. Comply with AWS for recommended practices in welding and brazing. Provide welds and brazes behind finished surfaces without distorting or discoloring exposed side. Clean exposed welded and brazed connections of flux, and dress exposed and contact surfaces.

4. Conceal connections if possible; otherwise, locate connections where they are inconspicuous.

5. Internally brace signs for stability, to meet structural performance loading without oil-canning or other surface deformation, and for securing fasteners.

6. Provide rabbets, lugs, and tabs necessary to assemble components and to attach to existing work. Drill and tap for required fasteners. Use concealed fasteners where possible; use exposed fasteners that match sign finish.

2.5 GENERAL FINISH REQUIREMENTS

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

B. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

B. Verify that sign-support surfaces are within tolerances to accommodate signs without gaps or irregularities between backs of signs and support surfaces unless otherwise indicated.

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

3.2 INSTALLATION

A. General: Install signs using mounting methods indicated and according to manufacturer's written instructions.

1. Install signs level, plumb, true to line, and at locations and heights indicated, with sign surfaces free of distortion and other defects in appearance.

2. Install signs so they do not protrude or obstruct according to the accessibility standard.

3. Before installation, verify that sign surfaces are clean and free of materials or debris that would impair installation.

4. Corrosion Protection: Coat concealed surfaces of exterior aluminum in contact with grout, concrete, masonry, wood, or dissimilar metals, with a heavy coat of bituminous paint.

B. Accessible Signage: Install in locations on walls according to the accessibility standard.

C. Mounting Methods:

1. Projecting Studs: Using a template, drill holes in substrate aligning with studs on back of sign. Remove loose debris from hole and substrate surface.

a. Masonry Substrates: Fill holes with adhesive. Leave recess space in hole for displaced adhesive. Place spacers on studs, place sign in position, and push until spacers are pinched between sign and substrate, embedding the stud ends in holes. Temporarily support sign in position until adhesive fully sets.

b. Thin or Hollow Surfaces: Place spacers on studs, place sign in position with spacers pinched between sign and substrate and install washers and nuts on stud ends projecting through opposite side of surface and tighten.

3.3 ADJUSTING AND CLEANING

A. Remove and replace damaged or deformed signs and signs that do not comply with specified requirements. Replace signs with damaged or deteriorated finishes or components that cannot be successfully repaired by finish touchup or similar minor repair procedures.

B. Remove temporary protective coverings and strippable films as signs are installed.

C. On completion of installation, clean exposed surfaces of signs according to manufacturer's written instructions and touch up minor nicks and abrasions in finish. Maintain signs in a clean condition during construction and protect from damage until acceptance by Owner.

END OF SECTION 101400

Division 10

SECTION 101400

SIGNAGE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Interior and Exterior Signage

1.3 DEFINITIONS

A. Accessible: In accordance with the accessibility standard.

1.4 COORDINATION

A. Furnish templates for placement of sign-anchorage devices embedded in permanent construction by other installers.

1.5 ACTION SUBMITTALS

A. Product Data:

1. Each type of signage.

B. Shop Drawings: For signage.

1. Include fabrication and installation details and attachments to other work.
2. Show sign mounting heights, locations of supplementary supports to be provided by other installers, and accessories.
3. Show message list, typestyles, graphic elements, including raised characters and Braille, and layout for each sign.

C. Samples for Initial Selection: For each type of sign assembly, exposed component, and exposed finish.

1. Include representative Samples of available typestyles and graphic symbols.

D. Samples for Verification: For each type of sign assembly showing all components and with the required finish(es), full size.

1. Full-size Samples, if approved, will be returned to Contractor for use in Project.

E. Product Schedule: For panel signs. Use same designations indicated on Drawings or specified.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance Data: For signs to include in maintenance manuals.

1.7 QUALITY ASSURANCE

A. Manufacturer: Company specializing in manufacturing Products specified in this section with minimum three years documented experience.

1.8 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of signs that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Deterioration of finishes beyond normal weathering.

b. Deterioration of embedded graphic image.

c. Separation or delamination of sheet materials and components.

2. Warranty Period: Five (5) years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Structural Performance: Signs and supporting elements are to withstand the effects of gravity and other loads within limits and under conditions indicated on drawings.

B. Thermal Movements: For exterior signs, allow for thermal movements from ambient and surface temperature changes.

1. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.

C. Accessibility Standard: Comply with applicable provisions in the USDOJ's "2010 ADA Standards for Accessible Design" and ICC A117.1.

2.2 ROOM IDENTIFICATION SIGNS

A. Room Identification Signs: Sign with smooth, uniform surfaces; with message and characters having uniform faces, sharp corners, and precisely formed lines and profiles; and as follows:

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

    a. ASI Sign Systems, Inc.

    b. Mohawk Sign Systems.

2. Restroom Sign Components:

    a. Materials:

        1) Face: photopolymer face, in matt finish.

        2) Backing Plate: Acrylic, .080" thick.

        3) Back Panel: Oversized, .080" thick.

        4) Photopolymer bonded to acrylic backing plaque, tactile lettering. Graphics and Braille shall be integral part of the face.

        5) Solid Colors: Selected from Manufacturer's standard colors.

        6) Mounting: Vinyl tape with silicone.

B. Fabrication:

1. Tactile Graphics and Text:

    a. Fabrication Process: Provide tactile copy (and grade 2 Braille) raised 1/32 inch minimum from plaque first surface by Manufacturer's photopolymer bonded process. Sign face of single material, tactile characters and Braille integral to photopolymer. Adhesive-fixed characters are not acceptable.

    b. Provide lettering and graphics precisely formed, uniformly opaque to comply with relevant ADA regulations and requirements indicated for size, style, space, content, position, and colors. Tactile characters to be raised minimum 1/32" from surface. Computerized translation of sign copy to be responsibility of the Manufacturer.

    c. Size shall be 6" wide x 9" high.

C. Symbols as follows:

1. Provide at restrooms:

   a. "Men" with symbol and handicap symbol (Room 207).

   b. "Women" with symbol and handicap symbol (Room 205).

   c. "Unisex Restroom" with Male and Female symbols and handicap symbol (Rooms 111, 112, 113, 116, 117, 119).

   d. Men and/or Women symbol 4" high.

   e. Handicap symbol 2" high.

   f. 1-1/2" lettering

2. Provide at elevator:

   a. "In case of fire, use stairs" and symbol.

3. Provide at other areas:

   a. Room identification lettering 1-1/2" high.

   b. Provide at:

      1) Ready Room

      2) Community Room (2)

      3) Watch Room

      4) Chief

      5) Meeting Room (Common) (2)

      6) Commissioner

      7) Dress Uniforms

2.3 BUILDING MOUNTED SIGN

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

a. Basis of Design: Gemini, individual letters

b. ASI Sign Systems, Inc.

2. Sign:

a. Material: Aluminum

b. Letter style shall be “Arial".

c. Mounting: Each letter individually mounted to wall with 1/2” projected spacer.

d. Sign shall read:

1) “PORT EWEN FIRE DISTRICT” (1” thick x 24” high).

3. Finish:

a. Painted, color from manufacturers standard colors.

2.4 FABRICATION

A. General: Provide manufacturer's standard sign assemblies according to requirements indicated.

1. Preassemble signs in the shop to greatest extent possible. Disassemble signs and assemblies only as necessary for shipping and handling limitations. Clearly mark units for reassembly and installation; apply markings in locations concealed from view after final assembly.

2. Mill joints to a tight, hairline fit. Form assemblies and joints exposed to weather to resist water penetration and retention.

3. Comply with AWS for recommended practices in welding and brazing. Provide welds and brazes behind finished surfaces without distorting or discoloring exposed side. Clean exposed welded and brazed connections of flux, and dress exposed and contact surfaces.

4. Conceal connections if possible; otherwise, locate connections where they are inconspicuous.

5. Internally brace signs for stability, to meet structural performance loading without oil-canning or other surface deformation, and for securing fasteners.

6. Provide rabbets, lugs, and tabs necessary to assemble components and to attach to existing work. Drill and tap for required fasteners. Use concealed fasteners where possible; use exposed fasteners that match sign finish.

2.5 GENERAL FINISH REQUIREMENTS

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

B. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

B. Verify that sign-support surfaces are within tolerances to accommodate signs without gaps or irregularities between backs of signs and support surfaces unless otherwise indicated.

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

3.2 INSTALLATION

A. General: Install signs using mounting methods indicated and according to manufacturer's written instructions.

1. Install signs level, plumb, true to line, and at locations and heights indicated, with sign surfaces free of distortion and other defects in appearance.

2. Install signs so they do not protrude or obstruct according to the accessibility standard.

3. Before installation, verify that sign surfaces are clean and free of materials or debris that would impair installation.

4. Corrosion Protection: Coat concealed surfaces of exterior aluminum in contact with grout, concrete, masonry, wood, or dissimilar metals, with a heavy coat of bituminous paint.

B. Accessible Signage: Install in locations on walls according to the accessibility standard.

C. Mounting Methods:

1. Projecting Studs: Using a template, drill holes in substrate aligning with studs on back of sign. Remove loose debris from hole and substrate surface.

a. Masonry Substrates: Fill holes with adhesive. Leave recess space in hole for displaced adhesive. Place spacers on studs, place sign in position, and push until spacers are pinched between sign and substrate, embedding the stud ends in holes. Temporarily support sign in position until adhesive fully sets.

b. Thin or Hollow Surfaces: Place spacers on studs, place sign in position with spacers pinched between sign and substrate and install washers and nuts on stud ends projecting through opposite side of surface and tighten.

3.3 ADJUSTING AND CLEANING

A. Remove and replace damaged or deformed signs and signs that do not comply with specified requirements. Replace signs with damaged or deteriorated finishes or components that cannot be successfully repaired by finish touchup or similar minor repair procedures.

B. Remove temporary protective coverings and strippable films as signs are installed.

C. On completion of installation, clean exposed surfaces of signs according to manufacturer's written instructions and touch up minor nicks and abrasions in finish. Maintain signs in a clean condition during construction and protect from damage until acceptance by Owner.

END OF SECTION 101400

SECTION 102113.19

PLASTIC TOILET COMPARTMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Solid-plastic toilet compartments.

B. Related Requirements:

1. Section 102800 "Toilet, Bath, and Laundry Accessories" for accessories mounted on toilet compartments.

1.3 COORDINATION

A. Coordinate requirements for blocking, reinforcing, and other supports concealed within wall to ensure that toilet compartments can be supported and installed as indicated.

1.4 ACTION SUBMITTALS

A. Product Data:

1. Solid-plastic toilet compartments:

    a. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for toilet compartments.

B. Shop Drawings:

1. Include plans, elevations, sections, details, and attachment details.
2. Show locations of cutouts for compartment-mounted toilet accessories.
3. Show locations of centerlines of toilet fixtures.
4. Show locations of floor drains.
5. Show overhead support or bracing locations.

C. Samples: Actual sample of finished products for each type of toilet compartment, hardware, and accessory.

1. Size: Manufacturer's standard size.

1.5 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For toilet compartments.

1.6 FIELD CONDITIONS

A. Field Measurements: Verify actual locations of toilet fixtures, walls, columns, ceilings, and other construction contiguous with toilet compartments by field measurements, and coordinate before fabrication.

1.7 WARRANTY

A. Manufacturer guarantees its plastic against breakage, corrosion, and delamination under normal conditions for 25 years from the date of substantial completion. If materials are found

to be defective during that period for reasons listed above, materials will be replaced free of charge.

PART 2 - PRODUCTS

2.1 SOURCE LIMITATIONS

A. Obtain plastic toilet compartments from single source from single manufacturer.

2.2 PERFORMANCE REQUIREMENTS

A. Fire Performance: Tested in accordance with, and pass the acceptance criteria of, NFPA 286.

B. Structural Performance: Where grab bars are mounted on toilet compartments, design panels to comply with the following requirements:

1. Panels are able to withstand a concentrated load on grab bar of at least 250 lbf applied at any direction and at any point, without deformation of panel.

C. Regulatory Requirements: Comply with applicable provisions in the USDOJ's "2010 ADA Standards for Accessible Design" and ICC A117.1 for toilet compartments designated as accessible.

2.3 SOLID-PLASTIC TOILET COMPARTMENTS

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

1. ASI Global Partitions.
2. Hadrian Inc.; Zurn Industries, LLC.
3. Scranton Products; Hiny Hiders (Basis of Design).

B. Toilet-Enclosure Style: Floor mounted, overhead braced.

C. Door, Panel, and Pilaster Construction: Solid, high-density polyethylene (HDPE) material, not less than 1 inch thick, seamless, with eased edges, and with homogenous color throughout thickness of material.

1. Integral Hinges: Configure doors and pilasters to receive integral hinges.
2. Color: One color in each room as selected by Architect from manufacturer's full range.
3. Door and Panel Height: 66 inches
4. Panel Edge: Shiplap
5. Pilasters: 82 inches high, fastened to floor.

D. Pilaster Shoes: 3 inches high, 20 gauge stainless steel.

E. Pilaster Sleeves (Caps): Manufacturer's standard design; stainless steel.

F. Brackets (Fittings):

1. Stirrup Type: Continuous, stainless steel.

2.4 HARDWARE AND ACCESSORIES

A. Door Hardware and Accessories: Manufacturer's operating hardware and accessories.

1. Hinges:

a. Manufacturer's paired, wraparound, self-closing type that can be adjusted to hold doors open at any angle up to 90 degrees, allowing emergency access by lifting door.

1) Continuous, Stainless Steel.

2. Latch and Keeper: Manufacturer's surface-mounted latch unit, designed for emergency access, and with combination rubber-faced door strike and keeper. Provide units that comply with regulatory requirements for accessibility at toilet enclosures designated as accessible.

a. Material: Stainless steel.

3. Coat Hook: Manufacturer's combination hook and rubber-tipped bumper, sized to prevent inswinging door from hitting compartment-mounted accessories.

    a. Material: Stainless steel.

4. Door Bumper: Manufacturer's rubber-tipped bumper at outswinging doors.

    a. Material: Stainless steel.

5. Door Pull: Manufacturer's unit at outswinging doors that complies with regulatory requirements for accessibility. Provide units on both sides of doors at toilet enclosures designated as accessible.

    a. Material: Stainless steel.

B. Overhead Bracing: Heavy-duty continuous, extruded 6463-T5 alloy aluminum head rail with anti-grip profile and clear anodized finish.

C. Anchorages and Fasteners: Manufacturer's standard exposed fasteners of stainless steel, finished to match items they are securing, with theft-resistant-type heads. Provide sex-type bolts for through-bolt applications. For concealed anchors, use stainless steel, hot-dip galvanized steel, or other rust-resistant, protective-coated steel compatible with related materials.

2.5 MATERIALS

A. Stainless Steel Sheet: ASTM A240/A240M or ASTM A666, Type 304, stretcher-leveled standard of flatness.

B. Stainless Steel Castings: ASTM A743/A743M.

2.6 FABRICATION

A. Fabricate toilet compartment components to sizes indicated. Coordinate requirements and provide cutouts for through-partition toilet accessories where required for attachment of toilet accessories.

B. Overhead-Braced Units: Manufacturer's standard corrosion-resistant supports, leveling mechanism, and anchors at pilasters and walls to suit floor and wall conditions. Provide shoes at pilasters to conceal supports and leveling mechanism.

C. Door Size and Swings: Unless otherwise indicated, provide 24-inch-wide, inswinging doors for standard toilet enclosures and 36-inch-wide, outswinging doors with a minimum 32-inch-wide, clear opening for toilet enclosures designated as accessible.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and conditions, with Installer present, for compliance with requirements for fastening, support, alignment, operating clearances, and other conditions affecting performance of the Work.

1. Confirm location and adequacy of blocking and supports required for installation.

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

3.2 INSTALLATION

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

1. Maximum Clearances:

a. Pilasters and Panels or Screens: 1/2 inch.

b. Panels or Screens and Walls: 1 inch.

2. Stirrup Brackets: Secure panels or screens to walls and to pilasters with no fewer than two brackets attached near top and bottom of panel or screen.

a. Locate wall brackets, so holes for wall anchors occur in masonry or tile joints.

b. Align brackets at pilasters with brackets at walls.

B. Overhead-Braced Units: Secure pilasters to floor and level, plumb, and tighten. Set pilasters with anchors penetrating not less than 1-3/4 inches into structural floor unless otherwise indicated in manufacturer's written instructions. Secure continuous head rail to each pilaster with no fewer than two fasteners. Hang doors to align tops of doors with tops of panels and adjust, so tops of doors are parallel with overhead brace when doors are in closed position.

3.3 ADJUSTING

A. Hardware Adjustment: Adjust and lubricate hardware in accordance with hardware manufacturer's written instructions for proper operation. Set hinges on inswinging doors to hold doors open approximately 30 degrees from closed position when unlatched. Set hinges on outswinging doors to return doors to fully closed position.

END OF SECTION 102113.19

SECTION 10 22 13

WIRE MESH PARTITIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and provisions of the contract including General and Supplementary Conditions and Division 1, apply to this section.

1.2 SUMMARY

A. Section Includes:

1. Modular wire mesh partitions.

1.3 DEFINITIONS

A. Intermediate Crimp: Wires pass over one and under the next adjacent wire in both directions, with wires crimped before weaving and with extra crimps between the intersections.

1.4 ACTION SUBMITTALS

A. Product Data:

1. Wire mesh partitions.

B. Shop Drawings:

1. Include plans, elevations, sections, and attachment details.

2. Indicate clearances required for operation of gates.

C. Samples: Manufacturer's standard color sheets, showing full range of available colors for units with factory-applied color finishes.

1.5 INFORMATIONAL SUBMITTALS

1.6 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For wire mesh partition hardware.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Deliver wire mesh items with cardboard protectors on perimeters of panels and doors and with posts wrapped to provide protection during transit and Project-site storage. Use vented plastic.

B. Inventory wire mesh partition door hardware on receipt, and provide secure lockup for wire mesh partition door hardware delivered to Project site.

1. Tag each item or package separately with identification, and include basic installation instructions with each item or package.

1.8 FIELD CONDITIONS

A. Field Measurements: Verify actual dimensions of construction contiguous with wire mesh units by field measurements before fabrication.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Basis of Design: WireCrafters; Style 840.

2.2 PERFORMANCE REQUIREMENTS

A. Structural Performance: Wire mesh units to withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated.

1. Concentrated load of 50 lbf applied horizontally on an area of 1 sq. ft. at any location on a panel.

2. Total load of 200 lbf applied uniformly over each panel.

3. Concentrated load and total load need not be assumed to act concurrently.

B. Regulatory Requirements: Comply with applicable provisions in ICC A117.1 for doors and gates.

2.3 MODULAR WIRE MESH PARTITIONS

A. Mesh

1. Thickness: 1/8”

2. Design: 2 1/8” x 1 1/8” (center to center) rectangular woven wire (2”x1”actual opening)

B. Panels

1. Frame: 1 1/4" x 1 1/4" x 1/8” Angle

2. Fabrication: Mesh is securely welded to frame with flat steel stiffeners welded to frame behind mesh panels longer than 3’6”.

C. Doors

1. Frame: 1 1/4" x 1 1/4" x 1/8” Angle

2. Fabrication: Mesh is securely welded to frame with flat steel stiffeners welded to frame for extra strength where needed.

D. Post

1. Material: 2” x 2” x #14ga. Square Tubing

2. Fabrication: 1/4” x 2” x 7” plate welded at base of post.

E. Hardware:

1. Frame: 3/8” standard thread grade two plated for panel connections.
    a. 3/8” floor anchors.
2. Door: ¼” x 1” self drilling screws.
    a. Lock: Mortise cylinder lock and ADA lever handle operated by key outside, door knob inside.
    b. Hinges: 3 5-knuckle tight-pin butt hinges fastened to door panel and frame.

F. Finish: Electrostatic sprayed enamel.
1. Color: As selected by Architect from Manufacturer’s full range.

2.4 MATERIALS

A. Steel Wire: ASTM A510/A510M.

B. Steel Plates, Channels, Angles, and Bars: ASTM A36/A36M.

C. Steel Sheet: Cold-rolled steel sheet, ASTM A1008/A1008M, Commercial Steel (CS), Type B.

D. Steel Tubing: ASTM A500/A500M, cold-formed structural-steel tubing or ASTM A513/A513M, Type 5, mandrel-drawn mechanical tubing.

E. Metallic-Coated Steel Sheet: ASTM A653/A653M, Commercial Steel (CS), Type B; with G60 zinc (galvanized) or A60 zinc-iron-alloy (galvannealed) coating designation.

F. Panel-to-Panel Fasteners: Manufacturer's standard steel bolts, nuts, and washers.

G. Post-Installed Anchors: Capable of sustaining, without failure, a load equal to 6 times the load imposed when installed in unit masonry and 4 times the load imposed when installed in concrete, as determined by testing in accordance with ASTM E488/E488M, conducted by a qualified independent testing agency.

1. Material for Interior Locations: Carbon-steel components are zinc plated to comply with ASTM B633 or ASTM F1941/F1941M, Class Fe/Zn 5, unless otherwise indicated.

H. Power-Driven Fasteners: ICC-ES AC70.

2.5 FABRICATION

A. General: Fabricate wire mesh items from components of sizes not less than those indicated. Use larger-sized components as recommended by wire mesh item manufacturer. Furnish bolts,

hardware, and accessories required for complete installation with manufacturer's standard finishes.

1. Fabricate wire mesh items to be readily disassembled.

B. Wire Mesh Partitions: Fabricate wire mesh partitions with cutouts for pipes, ducts, beams, and other items indicated. Finish edges of cutouts to provide a neat, protective edge.

1. Mesh: Weld mesh to framing.

2. Framing: Fabricate framing with mortise-and-tenon corner construction.
   a. Provide horizontal stiffeners as required by panel height and as recommended by wire mesh partition manufacturer. Weld horizontal stiffeners to vertical framing.
   b. Fabricate partition and door framing with slotted holes for connecting adjacent panels.

3. Fabricate wire mesh partitions with 3 to 4 inches of clear space between finished floor and bottom horizontal framing.

4. Doors: Align bottom of door with bottom of adjacent panels.
   a. For doors that do not extend full height of partition, provide transom over door, fabricated from same mesh and framing as partition panels.

5. Hardware Preparation: Mortise, reinforce, drill, and tap doors and framing as required to install hardware.

2.6 STEEL AND IRON FINISHES

A. Enamel finish: Immediately after cleaning and pretreating, apply manufacturer’s standard enamel finish, suitable for use indicated, with a minimum dry film thickness of 2 mils.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

B. Examine floors for suitable conditions where wire mesh items will be installed.

C. Examine walls to which wire mesh items will be attached for properly located blocking, grounds, and other solid backing for attachment of support fasteners.

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

3.2 INSTALLATION OF WIRE MESH PARTITIONS

A. Anchor wire mesh partitions to floor with 3/8-inch-diameter, post installed expansion anchors at 12 inches o.c. through floor shoes located at each post and corner. Adjust wire mesh partition posts in floor shoes to achieve level and plumb installation.

1. Anchors may be set with power-actuated fasteners instead of post installed expansion anchors if indicated on Shop Drawings.

B. Anchor wire mesh partitions to walls at 12 inches o.c. through back corner panel framing and as follows:

1. For concrete and solid masonry anchorage, use expansion anchors.

C. Secure top capping bars to top framing channels with 1/4-inch-diameter, "U" bolts spaced not more than 28 inches o.c.

D. Where standard-width wire mesh partition panels do not fill entire length of run, provide adjustable filler panels to fill openings.

E. Install doors complete with door hardware.

F. Bolt accessories to wire mesh partition framing.

3.3 REPAIR

A. Repair painting:

1. Wire brush and clean rust spots, welds, and abraded areas immediately after installation, and apply repair paint with same material as used for shop painting to comply with SSPC-PA 1 requirements for touching up shop-painted surfaces.
   a. Apply by brush or spray to provide a minimum 2.0-mil dry film thickness.

3.4 ADJUSTING

A. Adjust doors to operate smoothly and easily, without binding or warping. Adjust hardware to function smoothly. Verify that latches and locks engage accurately and securely without forcing or binding.

3.5 PROTECTION

A. Remove and replace defective work, including doors and framing that are warped, bowed, or otherwise unacceptable.

END OF SECTION

SECTION 10 22 39

FOLDING PANEL PARTITIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Operable acoustical panel partitions.

1.3 DEFINITIONS

A. NIC: Noise Isolation Class.

B. NRC: Noise Reduction Coefficient.

C. STC: Sound Transmission Class.

1.4 ACTION SUBMITTALS

A. Product Data:

1. Operable acoustical panel partitions.

B. Shop Drawings: For operable panel partitions.

1. Include plans, elevations, sections, attachment details, and numbered panel installation sequence.

2. Indicate stacking and operating clearances. Indicate location and installation requirements for hardware and track, blocking, and direction of travel.

C. Samples: For each type of exposed material, finish, covering, or facing, prepared on Samples of size indicated below:

1. Textile Facing Material: Full width by not less than 36-inch-long section of fabric from dye lot to be used for the Work, with specified treatments applied. Show complete pattern repeat.

2. Panel Edge Material: Not less than 3 inches long.

3. Hardware: One of each exposed door-operating device (if requested).

1.5 INFORMATIONAL SUBMITTALS

A. Coordination Drawings: Reflected ceiling plans, drawn to scale, on which the following items are shown and coordinated with each other, using input from installers of the items involved:

1. Partition track, track supports and bracing, switches, turning space, and storage layout.

2. Suspended ceiling components.

3. Structural members to which suspension systems will be attached.

4. Size and location of initial access modules for acoustical tile.

5. Items penetrating finished ceiling including the following:

a. Lighting fixtures.
b. HVAC ductwork, outlets, and inlets.
c. Sprinklers.
d. Smoke detectors.

B. Setting Drawings: For embedded items and cutouts required in other work, including support-beam, mounting-hole template.

C. Product Certificates: For each type of operable panel partition.

1. Include approval letter signed by manufacturer acknowledging Owner-furnished panel facing material complies with requirements.

D. Product Test Reports: For each operable panel partition, for tests performed by a qualified testing agency.

1.6 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For operable panel partitions to include in maintenance manuals.

1. In addition to items specified in Section 01 78 23 "Operation and Maintenance Data," include the following:

a. Panel finish facings and finishes for exposed trim and accessories. Include precautions for cleaning materials and methods that could be detrimental to finishes and performance.
b. Seals, hardware, track, track switches, carriers, and other operating components.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Protectively package and sequence panels in order for installation. Clearly mark packages and panels with numbering system used on Shop Drawings. Do not use permanent markings on panels.

1.8 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of operable panel partitions that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Faulty operation of operable panel partitions.

b. Deterioration of metals, metal finishes, and other materials beyond normal use.

2. Partition Warranty Period: 2 years from date of Substantial Completion.

3. Suspension System Warranty period: Twenty (20) years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Acoustical Performance: Provide operable panel partitions tested by a qualified testing agency for the following acoustical properties in accordance with test methods indicated:

1. Sound-Transmission Requirements: Operable panel partition assembly tested for laboratory sound-transmission loss performance in accordance with ASTM E90, determined by ASTM E413, and rated for not less than the STC indicated.

2. Noise-Reduction Requirements: Operable panel partition assembly, identical to partition tested for STC, tested for sound-absorption performance in accordance with ASTM C423, and rated for not less than the NRC indicated.

3. Noise-Isolation Requirements: Installed operable panel partition assembly, identical to partition tested for STC, tested for NIC in accordance with ASTM E336, determined by ASTM E413, and rated for 10 dB less than STC value indicated.

2.2 OPERABLE ACOUSTICAL PANEL PARTITIONS

A. Operable Acoustical Panel Partition: Partition system, including panels, seals, finish facing, suspension system, operators, and accessories.

1. Manufacturers: Subject to compliance with requirements, provide products by the following:

a. Modernfold, Inc.; Acousti-Seal Legacy Paired Panel

B. Panel Operation: Manually operated, paired panels.

C. Panel Construction: As required to support panel from suspension components and with reinforcement for hardware attachment. Fabricate panels with tight hairline joints and concealed fasteners. Fabricate panels so finished in-place partition is rigid; level; plumb; aligned, with tight joints and uniform appearance; and free of bow, warp, twist, deformation, and surface and finish irregularities. Top channel is reinforced to support suspension system components. Frame is

designed so that full vertical edges of panels are of formed steel and provide concealed protection of the edges of the panel skin

D. Dimensions: Fabricate operable acoustical panel partitions to form an assembled system of dimensions indicated and verified by field measurements.

1. Panel Width: Standard widths.

E. STC: Not less than 50.

F. Panel Weight: 8 lb/sq. ft. maximum.

G. Panel Thickness: Nominal dimension of 3 inches.

H. Panel Materials:

1. Steel Frame: Steel sheet, minimum 16-gage thickness formed steel with overlapped and welded corners.

2. Steel Face/Liner Sheets: Roll-formed 21-gage steel wrapping around panel edge. Panel skins shall be lock formed and welded directly to the frame for unitized construction.

I. Panel Closure: Manufacturer's standard unless otherwise indicated.

J. Hardware: Manufacturer's standard as required to operate operable panel partition and accessories; with decorative, protective finish.

1. Hinges: Full leaf butt hinges, attached directly to panel frame with welded hinge anchor plates within panel to further support hinge mounting to frame.

K. Panel Trim: No vertical trim required or allowed on edges of panels; minimal groove appearance at panel joints

L. Finish Facing: Reinforced vinyl with woven backing weighing not less than 20 ounces per lineal yard.

2.3 SEALS

A. Description: Seals that produce operable panel partitions complying with performance requirements and the following:

1. Manufacturer's standard seals unless otherwise indicated.

2. Seals made from materials and in profiles that minimize sound leakage.

3. Seals fitting tight at contact surfaces and sealing continuously between adjacent panels and between operable panel partition perimeter and adjacent surfaces, when operable panel partition is extended and closed.

B. Vertical Interlocking Sound Seals between panels: Roll-formed steel astragals, with reversible tongue and groove configuration in each panel edge for universal panel operation. Rigid plastic or aluminum astragals or astragals in only one panel edge are not acceptable

C. Horizontal Top Seals: Continuous contact extruded vinyl bulb shape with pairs of non-contacting vinyl fingers to prevent distortion without the need for mechanically operated parts.

D. Horizontal Bottom Seals:

1. Resilient, mechanical, retractable, constant-force-contact seal exerting uniform constant pressure on floor when extended, ensuring horizontal and vertical sealing and resisting panel movement.
   a. Manually activated seals providing nominal 2-inch operating clearance with an operating range of +1/2-inch to –1-1/2-inch. Seal shall be operable from panel edge or face. Extended seal shall exert nominal 120 pounds (265 kg) downward force to the floor throughout operating range.

2.4 PANEL FINISH FACINGS

A. Description: Finish facings for panels that comply with indicated fire-test-response characteristics and that are factory applied to operable panel partitions with appropriate backing, using mildew-resistant nonstaining adhesive as recommended by facing manufacturer's written instructions.

1. Apply one-piece, seamless facings free of air bubbles, wrinkles, blisters, and other defects, with no gaps or overlaps. Horizontal seams are not permitted. Tightly secure and conceal raw and selvage edges of facing for finished appearance.

2. Match facing pattern 72 inches above finished floor.

B. Fabric Wall Covering: Manufacturer's standard fabric, from same dye lot, treated to resist stains.

1. Color/Pattern: As selected by Architect from manufacturer's full range.

C. Trimless Edges: Fabricate exposed panel edges so finish facing wraps uninterrupted around panel, covering edge and resulting in an installed partition with facing visible on vertical panel edges, without trim, for minimal sightlines at panel-to-panel joints.

2.5 SUSPENSION SYSTEMS

A. Tracks: Minimum 7-gage, 0.18-inch roll formed steel. Track shall be supported by adjustable steel hanger brackets connected to structural support pairs of 1/2-inch diameter threaded rods. Brackets must support the load bearing surface of the track.

1. Exposed track soffit: Steel, removable for service and maintenance, attached to track bracket without exposed fasteners, and pre-painted off-white.

B. Carriers: One all steel trolley with steel-tired ball bearing wheels.

C. Aluminum Finish: Mill finish or manufacturer's standard, factory-applied, decorative finish unless otherwise indicated.

D. Steel Finish: Manufacturer's standard, factory-applied, corrosion-resistant, protective coating unless otherwise indicated.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine flooring, floor levelness, structural support, and opening, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of operable panel partitions.

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

3.2 INSTALLATION OF OPERABLE PANEL PARTITIONS

A. General: Comply with ASTM E557, operable partition manufacturer’s written installation instructions, Drawings and approved Shop Drawings.

B. Install operable panel partitions and accessories after other finishing operations, including painting, have been completed in area of partition installation.

C. Install panels in numbered sequence indicated on Shop Drawings.

D. Broken, cracked, chipped, deformed, or unmatched panels are not acceptable.

E. Broken, cracked, deformed, or unmatched gasketing or gasketing with gaps at butted ends is not acceptable.

F. Light-Leakage Test: Illuminate one side of partition installation and observe vertical joints and top and bottom seals for voids. Adjust partitions for alignment and full closure of vertical joints and full closure along top and bottom seals.

3.3 CLEANING AND PROTECTION

A. Clean partition surfaces upon completing installation of operable partitions to remove dust, dirt, adhesives, and other foreign materials according to manufacturer’s written instructions.

B. Provide final protection and maintain conditions in a manner acceptable to the manufacturer and Installer that ensure operable partitions are without damage or deterioration at time of Substantial Completion.

3.4 ADJUSTING

A. Adjust operable panel partitions, hardware, and other moving parts to function smoothly, and lubricate as recommended by manufacturer.

3.5 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain operable panel partitions.

END OF SECTION

SECTION 102800

TOILET AND SHOWER ACCESSORIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Toilet Accessories.
2. Shower Accessories.

1.3 COORDINATION

A. Coordinate accessory locations with other work to prevent interference with clearances required for access by people with disabilities, and for 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.

1.4 ACTION SUBMITTALS

A. Product Data Submittals: For each product.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
2. Include anchoring and mounting requirements, including requirements for cutouts in other work and substrate preparation.

B. Product Schedule: Indicating types, quantities, sizes, and installation locations by room of each accessory required.

1. Identify locations using room designations indicated.
2. Identify accessories using designations indicated.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For accessories to include in maintenance manuals.

1.6 WARRANTY

A. Manufacturer's Special Warranty for Mirrors: Manufacturer agrees to repair or replace mirrors that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, visible silver spoilage defects.
2. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Structural Performance: Design accessories and fasteners to comply with the following requirements:

1. Grab Bars: Installed units are able to resist 250 lbf concentrated load applied in any direction and at any point.

2. Shower Seats: Installed units are able to resist 360 lbf concentrated load applied in any direction and at any point.

2.2 TOILET ACCESSORIES

A. Source Limitations: Obtain each type of toilet accessory from single source from single manufacturer.

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

1. AJW Architectural Products.

2. American Specialties, Inc.

3. Bobrick Washroom Equipment, Inc.

4. Bradley Corporation.

C. Grab Bar **(A)**:

1. Basis of design: Bobrick B-6806.99.

2. Mounting: Flanges with concealed fasteners.

3. Material: Stainless steel, 0.05 inch thick.

a. Finish: Smooth, ASTM A480/A480M No. 4 finish (satin) on ends and slip-resistant texture in grip area.

4. Outside Diameter: 1-1/2 inches.

5. Configuration and Length: Type (A): 42”; Type (A.1): 36”; Type (A.2): 24”; Type (A.3): 18”; Type (A.4): 12”; Type (A.5): Two (2) wall “L” bar (Bobrick B-6861).

D. Toilet Tissue (Roll) Dispenser **(B)**:

1. Basis of design: Bobrick B-69997.
2. Description: Double-roll dispenser.
3. Mounting: Surface mounted.
4. Operation: Noncontrol delivery with standard spindle.
5. Capacity: Designed for 4-1/2- or 5-inch- diameter tissue rolls.
6. Material and Finish: Stainless steel, ASTM A480/A480M No. 4 finish (satin).

E. Sanitary-Napkin Disposal Unit **(C)**:

1. Basis of design: Bobrick B-254.
2. Mounting: Surface mounted.
3. Door or Cover: Self-closing, disposal-opening cover.
4. Receptacle: Removable.
5. Material and Finish: Stainless steel, ASTM A480/A480M No. 4 finish (satin).

F. Soap Dispenser **(D)**:

1. Basis of design: Bobrick B-26607
2. Description: Designed for manual operation and dispensing soap in liquid or lotion form.
3. Mounting: Vertically oriented, surface mounted.
4. Capacity: 500ml/17 fl. oz.
5. Materials: Stainless steel, ASTM A480/A480M No. 4 finish (satin).

G. Paper Towel (Folded) Dispenser **(E)**:

1. Basis of design: Bobrick B-262.
2. Mounting: Surface mounted.
3. Minimum Capacity: 400 C-fold or 525 multifold towels.
4. Material and Finish: Stainless steel, ASTM A480/A480M No. 4 finish (satin).

H. Mirror Unit **(G)**:

1. Basis of design: Bobrick B-165.
2. Frame: Stainless steel angle, 0.05 inch thick.
    a. Corners: Mitered and mechanically interlocked.
3. Size: 18” w x 36” tall.
4. Hangers: Manufacturer's standard rigid, tamper and theft resistant.

I. Mirror Unit **(G.1)**:

1. Basis of design: Bobrick B-165.
2. Frame: Stainless steel angle, 0.05 inch thick.
    a. Corners: Mitered and mechanically interlocked.
3. Size: 72” w x 46” tall.
4. Hangers: Manufacturer's standard rigid, tamper and theft resistant.

2.3 SHOWER ACCESSORIES

A. Source Limitations: Obtain each type of shower room accessory from single source from single manufacturer.

B. Robe Hook **(I)**:

1. Description: Double-prong unit.
2. Material and Finish: Stainless steel, ASTM A480/A480M No. 4 finish (satin).
3. Provide two (2) per every room with shower.

C. Folding Shower Seat **(J)**:

1. Basis of design: Bobrick B-5181.

2. Configuration: L-shaped seat, designed for wheelchair access.
3. Seat: Phenolic or polymeric composite of slat-type or one-piece construction in color as selected by Architect.
4. Mounting Mechanism: Stainless steel, ASTM A480/A480M No. 4 finish (satin).
5. Dimensions: 33-inches-wide by 22 5/16-inches deep.
6. Provide one (1) in each ADA toilet room with shower.

D. Shower Curtain Rod **(K)**:

1. Basis of Design: Bobrick B-207
2. Description: 1-inch- outside diameter, straight rod.
3. Configuration: As indicated on Drawings
4. Mounting Flanges: Concealed fasteners;
5. Rod Material and Finish: Stainless steel, ASTM A480/A480M No. 4 finish (satin).
6. Provide one (1) per shower.

E. Shower Curtain:

1. Basis of design: Bobrick B-204.
2. Size: Minimum 6 inches wider than opening by 72 inches high.
3. Material: Vinyl, minimum 0.006 inch thick, opaque, matte.
4. Color: As selected from manufacturer's full range.
5. Grommets: Corrosion resistant at minimum 6 inches o.c. through top hem.
6. Shower Curtain Hooks: Chrome-plated or stainless steel, spring wire curtain hooks with snap fasteners, sized to accommodate specified curtain rod. Provide one hook per curtain grommet.
7. Provide one (1) curtain and required hooks per shower.

F. Soap Dish **(L)**:

1. Basis of design: Bobrick B-680.
2. Description: Surface mounted, 4-1/2" w x 2" h with drain holes.
3. Material and Finish: Stainless steel, ASTM A480/A480M No. 4 finish (satin).
4. Provide one (1) at each shower.

G. Towel Bar **(M)**:

1. Basis of design: Bobrick B-530.
2. Extra Heavy-Duty Surface Mounted Bar.
3. 1" outside diameter, 18" long.
4. 18 gage, Type 304 Stainless steel, satin.
5. Provide one (1) per every room with shower.

2.4 MATERIALS

A. Stainless Steel: ASTM A240/A240M or ASTM A666, Type 304, 0.031-inch-minimum nominal thickness unless otherwise indicated.

B. Fasteners: Screws, bolts, and other devices of same material as accessory unit, unless otherwise recommended by manufacturer or specified in this Section, and tamper and theft resistant where exposed, and of stainless or galvanized steel where concealed.

C. Mirrors: ASTM C1503, Mirror Glazing Quality, clear-glass mirrors, nominal 6.0 mm thick.

2.5 FABRICATION

A. General: Fabricate units with tight seams and joints, and exposed edges rolled. Hang doors and access panels with full-length, continuous hinges. Equip units for concealed anchorage and with corrosion-resistant backing plates.

B. 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

3.1 INSTALLATION

A. Install accessories in accordance with 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.

1. Remove temporary labels and protective coatings.

B. Grab Bars: Install to comply with specified structural-performance requirements.

C. Shower Seats: Install to comply with specified structural-performance requirements.

3.2 ADJUSTING AND CLEANING

A. Adjust accessories for unencumbered, smooth operation. Replace damaged or defective items.

B. Clean and polish exposed surfaces in accordance with manufacturer's written instructions.

END OF SECTION 102800

SECTION 105129

PHENOLIC LOCKERS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Phenolic Lockers

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of locker.

B. Shop Drawings: For lockers.

1. Include plans, elevations, sections, and attachment details.
2. Show locker trim and accessories.
3. Include locker identification system and numbering sequence.

C. Samples: For each color specified, in manufacturer's standard size.

D. Product Schedule: For lockers. Use same designations indicated on Drawings.

1.4 CLOSEOUT SUBMITTALS

A. Maintenance Data: For adjusting, repairing, and replacing locker doors and latching mechanisms to include in maintenance manuals.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than five (5) years of documented experience.

B. Installer Qualifications: Company specializing in performing the work of this section with minimum three years of documented experience and approved by manufacturer.

1.6 DELIVERY, STORAGE, AND HANDLING

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

1.7 FIELD CONDITIONS

A. Field Measurements: Verify actual dimensions of recessed openings by field measurements before fabrication.

1.8 COORDINATION

A. Coordinate sizes and locations of framing, blocking, furring, reinforcements, and other related units of work specified in other Sections to ensure that lockers can be supported and installed as indicated.

1.9 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of phenolic lockers that fail in materials or workmanship, excluding finish, within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Structural failures.

b. Faulty operation of latches and other door hardware.

2. Warranty Period: 25 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations: Obtain metal lockers and accessories from single source from single locker manufacturer.

1. Obtain locks from single lock manufacturer.

B. Manufacturers:

1. Columbia Lockers, a division of PSiSC; Phenolic Lockers

2. Summit Lockers

3. Scranton Products

2.2 PERFORMANCE REQUIREMENTS

A. Accessibility Standard: For lockers indicated to be accessible, comply with applicable provisions in the USDOJ's "2010 ADA Standards for Accessible Design" and ICC A117.1.

2.3 LOCKER APPLICATIONS

A. Athletic Lockers: 3-tier lockers, wall mounted with matching closed base.

1. Width: 12 inches.
2. Depth: 12 inches.
3. Height: 72 inches.
4. Fittings: One double-prong ceiling hook, two single prong wall hooks.
5. Locking: Electronic deadbolt-style latch; MasterLock #3685.
6. Provide flat top.
7. Color: As selected by Architect from manufacturer's full line of standard colors.

2.4 PHENOLIC LOCKERS

A. Lockers: Factory assembled, made of phenolic core panels with mortise and tenon joints and stainless steel mechanical joint fasteners; fully finished inside and out; each locker capable of standing alone.

1. Locations: See Drawings
2. Doors: Full overlay, covering full width and height of locker body; square edges.
3. Panel Core Exposed at Edges: Machine polished, without chips or tool marks; square edge unless otherwise indicated.
4. Where locker ends or sides are exposed, finish the same as fronts or provide extra panels to match fronts.
5. Provide filler strips where indicated, securely attached to lockers.
6. Toe Kick Plates: 1/2-inch thick, solid phenolic panel in color matching door face or in color Black; verify with Architect via Shop Drawing submittal; typ., all lockers.
7. Door Color: As selected by Architect; allow for 2 different colors.
8. Body Color: Manufacturer's standard white or light color.
9. Fasteners for Accessories and Locking Mechanisms: Tamperproof type.

B. Component Thicknesses:

1. Doors: 1/2-inch minimum thickness.
2. Locker Body:
    a. Tops, bottoms, and shelves 3/8 inch; sides and backs 5/16 inch; minimum.
3. End Panels and Filler Panels: 3/8-inch minimum thickness.
4. Toe Kick Plates: 1/2-inch minimum thickness.

C. Phenolic Core Panels: Nonporous phenolic resin and paper core formed under high pressure; glued laminated panels not acceptable.

1. Surface Burning Characteristics: Flame spread index of 75 or less, and smoke developed index of 450 or less; when tested in accordance with ASTM E84.

D. Hinges: Stainless steel, 5 knuckle, concealed; minimum of 110 degree opening; with sex bolts.

E. Coat Hooks: Ball-pointed type, high-impact phenolic; attached with tamperproof screws; two fasteners minimum per each.

F. Number Plates: Manufacturer's standard, minimum 4-digit, permanently attached with two rivets minimum; near top of door and centered; may be field installed.

G. Wood Support Base: 2-by-4 nominal size lumber treated with manufacturer’s standard preservative-treatment.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Where lockers are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication, indicate measurements on Shop Drawings.

B. Verify that prepared bases are in correct position and configuration. Provide Phenolic facers to conceal bases in all visible locations; color Black or as directed by Architect.

C. Verify bases and embedded anchors are properly sized.

D. Coordinate sizes and locations of framing, blocking, furring, reinforcement, and other related units of work specified in other Sections to ensure lockers can be supported and installed as indicated.

3.2 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Install lockers plumb and square.

C. Secure lockers with anchor devices to suit substrate materials. Minimum Pullout Force: 100 pounds.

D. Bolt adjoining locker units together to provide rigid installation.

E. Install end panels, filler panels, sloped tops, and miscellaneous panels.

F. Install accessories.

G. Replace components that do not operate smoothly.

3.3 ADJUSTING

A. Lubricate and adjust hardware.

B. Adjust doors and latches to operate easily without binding.

3.4 CLEANING

A. Clean locker interiors and exterior surfaces.

3.5 PROTECTION

A. Protect lockers from damage, abuse, dust, dirt, stain, or paint.

B. Do not permit use during construction.

C. Touch up marred finishes using only materials and procedures recommended or furnished by locker manufacturer. Replace lockers that cannot be restored to factory-finished appearance.

END OF SECTION 105126

SECTION 10 51 43

WIRE MESH STORAGE LOCKERS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes wire mesh storage lockers.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: Include plans, elevations, sections, details, and attachments.

C. Samples: For units with factory-applied color finishes.

1.4 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than fifteen years of documented experience.

B. Installer Qualifications: Installer shall have experience necessary to assure lockers and all accessories and components are installed properly and according to manufacturer's instructions.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver wire mesh storage lockers manufacturer's original, unopened containers

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Basis of Design: GearGrid Corporation; Standard Fire Station Wall Mount Lockers

B. Substitutions: Section 01 25 00 "Substitution Procedures".

2.2 WIRE MESH STORAGE LOCKERS

A. Unit Sizes:

1. Width: 30 inches

2. Depth: 24 inches

3. Height: 72 inches

B. Construction: Units shall be welded at all applicable joints. Forming of metal shall be completed by standard cold-forming operations. Use of fasteners will only be required to allow for knock-down shipping, securing units to mounting surface and on applicable accessories.

C. Frame: Heavy-duty 1-1/4 inch steel tubing.

D. Sides and Back Grids: High-strength ¼ inch wire, 3 inch by 3 inch square grid pattern.

E. Shelves/Hooks: 2 adjustable shelves constructed of high-strength ¼" wire and 3 apparel hooks per locker openin.

F. Nameplate Holder: 20-guage sheet metal, 2 inch x 16-11/16 inch.

G. Mounting brackets: 11-guage steel wall mount brackets.

H. Finish for Uncoated Ferrous Steel: Powder-coated finish unless otherwise indicated.

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

2.3 FABRICATION

A. General: Fabricate wire mesh storage lockers from components of sizes not less than those indicated. Use larger size components as recommended by wire mesh manufacturer. Furnish bolts, hardware, and accessories required for complete installation with manufacturer's standard finishes.

1. Fabricate wire mesh storage lockers to be readily disassembled.

2. Welding: Weld corner joints of framing and finish sand.

B. Wire Mesh Storage Lockers: Fabricate initial storage locker with front and two sides. Fabricate additional storage lockers as add-on units designed to share one side with initial storage locker.

1. Fabricate wall panel and door framing with slotted holes for connecting adjacent panels.

2.4 STEEL FINISHES

A. Powder-Coat Finish: Immediately after cleaning and pretreating, apply manufacturer's standard baked-on powder-coat finish, suitable for use indicated, with a minimum dry film thickness of 3 mm.

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

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

B. Examine floors for suitable conditions where wire mesh storage lockers will be installed.

C. Examine walls to which wire mesh storage lockers will be attached for properly located blocking, grounds, and other solid backing for attachment of support fasteners.

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

3.2 WIRE MESH STORAGE LOCKERS ERECTION

A. Anchor wire mesh storage lockers to floor with 3/8-inch-diameter expansion anchors at 12 inches o.c. through bottom panel framing. Shim panel framing as required to achieve level and plumb installation.

B. Anchor wire mesh storage lockers to walls at 12 inches o.c. through back corner panel framing and as follows:

C. For concrete and solid masonry anchorage, use expansion anchors.

D. Attach adjacent wire mesh storage lockers to each other through side panel framing.

E. Install horizontal dividers/shelving in double-tier storage lockers.

3.3 ADJUSTING AND CLEANING

A. Adjust doors to operate smoothly and easily without binding or warping. Adjust hardware to function smoothly. Confirm that hasps engage accurately and securely without forcing or binding.

B. Remove and replace defective work, including doors and framing that are warped, bowed, or otherwise unacceptable.

C. Replace components that do not have factory-finished appearance.

3.4 PROTECTION

A. Protect all products from damage, abuse, dust, dirt, stain, or paint.

B. Do not permit use during construction.

C. Touch up marred finishes using only materials and procedures recommended or furnished by locker manufacturer. Replace products or components that cannot be restored to factory-finished appearance.

END OF SECTION