SECTION 08312

ACCESS DOORS AND FRAMES

PART 1 - GENERAL

1.01 DESCRIPTION

A. This Section describes the requirements for furnishing and installing the following:

1. Interior plumbing/mechanical access doors at all required locations and/or as indicated on drawings.

1.02 SUBMITTALS

A. Product Data: Manufacturer's technical data and installation instructions for each type of access door assembly, including setting drawings, templates, instructions and directions for installation of anchorage devices. Include complete schedule including types, general locations, sizes, wall and ceiling construction details, finishes, latching or locking provisions and other data pertinent to installation.

B. Location Drawing: Show proposed location of every required access door. Show location of adjacent materials, trim pieces, and hardware required to complete the work. Do not begin installation until location is approved.

1.03 QUALITY ASSURANCE

A. Fire-Rated Door Assemblies: Units that comply with NFPA 80, are identical to door and frame assemblies tested for fire-test-response characteristics, and are labeled and listed by UL, Warnock Hersey, or other testing and inspecting agency acceptable to authorities having jurisdiction.

1.04 COORDINATION

A. Furnish inserts and anchoring devices required to be built into other work. Coordinate delivery to avoid delay.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Deliver and store access doors in manufacturer's standard protective packaging.

B. Do not remove protective packaging until ready for installation.

C. Follow manufacturer's instructions for storage and handling.

PART 2 - PRODUCTS

2.01 APPROVED MANUFACTURERS

A. J.L. Industries, Karp Associates, Milcor, Nystrom or approved equal.

2.02 MATERIALS AND FABRICATION

A. Non-Fire-Rated Access Doors with Exposed Trim:

1. Door Design: Flush panel.

2. Material: Stainless steel, 16-gauge frame and 14-gauge door.

3. Finish: Satin polish finish.

4. Trim: Flange integral with frame, ¾-inch wide, overlapping surrounding finished surface.

5. Hinge: Concealed pin hinge mechanism and continuous piano hinge.

6. Latch/Lock: Flush screwdriver operated stainless steel cam latch.

B. Fire-Rated Access Doors with Exposed Trim:

1. Door Design: Flush panel.

2. Material: Stainless steel, 16-gauge frame and 20-gauge door.

3. Finish: Satin polish finish.

4. Insulation: 2-inch thick fire-rated insulation sandwiched between two pieces of 20-gauge steel.

5. Trim: Flange integral with frame, ¾-inch wide, overlapping surrounding finished surface.

6. Hinge: Concealed pin hinge.

7. Continuous Closer: Automatic spring closer to automatically close and latch door.

8. Latch/Lock: Ball bearing cylinder lock operated by a recessed flush key lock. Panels shall have interior latch release mechanism allowing the door to be unlocked from the inside.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install access doors in accordance with manufacturer's instructions.

B. Coordinate installation with work of other Sections.

C. Set frames accurately in position and securely attach to supports with face panels plumb and level in relation to adjacent finish.

D. Frames, doors and trim pieces shall not vary from straightness or snug contact fit by more than 1/16-inch.

3.02 ADJUST AND CLEAN

A. Adjust hardware and panels after installation for proper operation.

B. Remove and replace panels and frames that are warped, bowed, dented, or otherwise damaged.

END OF SECTION

SECTION 08333

OVERHEAD COILING DOORS

PART 1 - GENERAL

1.01 DESCRIPTION

A. This Section describes requirements for furnishing and installing the following:

1. Exterior overhead coiling service door at Sallyport.

B. Related Sections:

1. Gates and gate operators are specified in Section 02827.
2. Metal fabrications are specified in Section 05505.
3. Access doors and frames are specified in Section 08312.
4. Overhead coiling grilles are specified in Section 08334.
5. Parking control equipment is specified in Section 11150.

1.02 SUBMITTALS

A. Product Data: Manufacturer's descriptive and technical data and illustrations.

B. Operating and Maintenance Instructions: Complete data for maintenance and operation.

1.03 QUALITY ASSURANCE

A. Manufacturer: Regularly providing assemblies of the type required for not less than 5-years, capable of maintaining, repairing, and servicing the Project location within reasonable time when service is called for by the Owner, and shall retain responsibility for installation of doors.

B. Wind Loading: Design and reinforce exterior overhead service doors to withstand a 20-psf wind loading pressure.

C. Overhead coiling doors shall be designed to a standard maximum of 25-cycles per day and an overall maximum of 50,000 operating cycles for the life of the door.

D. Door finish shall be such that there is no corrosion when the material is subjected to salt spray resistance test ASTM B117 for 1,000-hours.

1.04 WARRANTY

A. Warrant overhead coiling doors to be free from defects in materials and workmanship for a period of 2-years from the date of Substantial Completion. This warranty shall be in addition to and not a limitation of other rights the Owner may have against the Contractor under the Contract Documents.

PART 2 - PRODUCTS

2.01 EXTERIOR OVERHEAD COILING SERVICE DOORS

A. Approved Manufacturers: The Cookson Co. Type FCM or equal by Cornell Iron Works, Inc., Overhead Door, Pacific Rolling Door or approved equal.

B. Door Curtain: The door curtain shall be constructed of interconnected flat face strip steel slats conforming to ASTM A653, gauge as recommended by door manufacturer. Finish shall consist of the following:

1. Hot dipped galvanized G90 coating consistent with ASTM A653.

2. Bonderized coating for prime coat adhesion.

3. Factory applied thermosetting powder coating applied with a minimum thickness of 2-mils. Custom color to match color sample furnished by the Architect.

C. Bottom Bar: Two 1/8-inch steel angles mechanically joined together, with safety edge system. Finish to match door curtain.

D. Guides: 3 steel angles bolted together with 3/8-inch fasteners to form a channel for the curtain to travel and shall include an extruded vinyl snap-on weatherstripping continuously along the exterior leg of the guide. The wall angle portion shall be continuous and fastened to the surrounding structure with either minimum 1/2-inch fasteners or welds, both on 36-inch centers. Finish to match door curtain.

E. Brackets: Constructed of steel, not less than 1/4-inch thick, bolted to the wall angle with minimum 1/2-inch fasteners. Finish to match door curtain.

F. Barrel: Steel tubing of not less than 4-inch diameter. Oil tempered torsion springs shall be capable of counter balancing the weight of the curtain. The barrel shall be designed to limit the maximum deflection to .03-inch per foot of opening width. Springs shall be adjusted by means of an exterior wheel. Finish with one coat of rust-inhibiting primer.

G. Hood: Fabricated of 24-gauge galvanized steel, formed to fit the curvature of the brackets. Hood shall contain a waterproof baffle to control air infiltration. Finish to match door curtain.

H. Operation:

1. Door shall be operated at a speed of 2/3 foot per second by an open drip-proof electric motor. The motor operator shall include a geared limit switch, and an electrically interlocked emergency chain operator. The motor starter shall be housed in a NEMA 1 housing and include a magnetic reversing starter, a 24 volt control transformer, and complete terminal strip to facilitate field wiring. The motor operator shall be activated from inside the Sallyport by a 3 button push-button station in a NEMA 1 enclosure and from outside the Sallyport by a hand-held transmitter. The hand-held transmitter shall be on the same frequency as the hand-held transmitter specified in Section 02827 for the sliding gate. The motor shall be size as required by the door. The motor operator shall be mounted to the door bracket and be UL listed.

   a. Provide number of hand-held transmitters as directed by the Architect.

2. The door shall include a safety edge system on the bottom bar to automatically reverse the door if the device detects an obstruction in the downward travel of the door.

   a. The safety edge shall consist of a rubber boot attached below the bottom bar with a switch secured to the back of the bottom bar. The safety edge shall operate with air wave technology and shall not rely on pneumatic pressure or electrical strip contacts to operate properly. The safety edge shall create an air wave that shall be detected and reverse the direction of the door.

   b. The safety edge shall not require a connection cord or any means of electrical connection to the motor control panel.

   c. The safety edge shall be of fail-safe construction, and on every cycle shall perform a self diagnostic test. If any part of the system fails, the door closing operation shall change from momentary pressure to constant pressure requiring constant pressure on the close control station to move the door in a downward motion. Repairing the safety edge system will automatically return the closing operation to momentary pressure.

d. The operation of the safety edge shall not be subject to interferences by temperature, barometric pressure, water infiltration, or punctures or small tears.

G. Locking: Equip doors for padlocking from coil side unless otherwise directed by the Architect.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install door and operating equipment with necessary hardware, jamb and head mold strips, anchors, inserts, hangers, and equipment supports in accordance with manufacturer's instructions and as specified.

B. Upon completion, lubricate, test and adjust doors to operate easily, free from warp, twist or distortion, and fitting weathertight.

C. Exposed surfaces shall be clean and free from scratches, dents, tool marks, stains, discoloration, and other defects and damage.

D. Train Owner's maintenance personnel on procedures and schedules related to door operation, servicing, preventative maintenance, and procedures for resetting closing devices after activation.

END OF SECTION

SECTION 08334

OVERHEAD COILING GRILLES

PART 1 – GENERAL

1.01 DESCRIPTION

A. This Section includes aluminum rolling grilles, complete with curtains, bottom bars, guides, brackets, hoods, operating mechanisms and specified special features.

B. Related Sections:

1. Metal fabrications are specified in Section 05505.
2. Access doors and frames are specified in Section 08312.
3. Overhead coiling doors are specified in Section 08333.

1.02 SUBMITTALS

A. Product Data: Manufacturer's product data, roughing-in diagrams, and installation instructions for each type and size of grille.

B. Shop Drawings: Furnish shop drawings for special components and installations not fully dimensioned or detailed in manufacturer's product data.

C. Operating and Maintenance Instructions: Complete data for maintenance and operation.

D. Samples: Sample of grille with specified finish.

1.03 QUALITY ASSURANCE

A. All rolling grilles shall be designed to a standard maximum of 25 cycles per day and an overall maximum of 50,000 operating cycles for the life of the grille.

1.04 WARRANTY

A. Warrant overhead coiling grilles to be free from defects in materials and workmanship for a period of 2-years from Date of Substantial Completion. This warranty shall be in addition to and not a limitation of other rights the Owner may have against the Contractor under the Contract Documents.

PART 2 – PRODUCTS

2.01 APPROVED MANUFACTURERS

A. The Cookson Company Type FMG – Motor or equal by Windsor Door, Cornell or approved equal.

2.02 MATERIALS AND FABRICATION

A. Grille Curtain: Cookson Pattern 5014-M92 constructed of 5/16-inch diameter horizontal aluminum rods on 2-inch centers with 1/8-inch aluminum hinged vertical connecting links (5/8-inch deep by 3-3/4-inch high) 9-inch on center. The finish on the rods and links shall be 204-R1 clear anodized.

B. Bottom Bar: Stainless steel tube measuring 4-inches high by 1-3/4-inches deep and shall include the Cookson Featheredge safety edge system.

C. Guides: Constructed of a continuous aluminum mounting flat connected to 1-1/2-inch by 2-1/2-inch by 1/8-inch thick continuous extruded aluminum guide section. Continuous nylon wearstrips shall be inserted on both sides of the guide to eliminate metal-to-metal contact. The aluminum mounting flat and the aluminum guide shall be mill finish.

D. Brackets: Steel not less than ¼-inch thick. The finish on the brackets shall be one coat of aluminum prime paint.

E. Barrel: Steel tubing of not less than 6-inches in diameter. Oil tempered torsion springs shall be capable of correctly counter balancing the weight of the curtain. The barrel shall be designed to limit the maximum deflection to .03-inch per foot of opening width. The springs shall be adjusted by means of an exterior wheel. The finish on the barrel shall be one coat of bronze rust-inhibiting paint.

F. Hood: Fabricated from .040 aluminum sheet and shall be formed to fit the curvature of the brackets. The finish on the hood shall be 204-R1 clear anodized.

2.03 OPERATION

A. The grille shall be operated at a speed of 2/3 foot per second by an open drip-proof electric motor with gear reducer in oil bath. The motor operator shall include a geared limit switch, and an electrically interlocked emergency chain operator. The motor starter shall be housed in a NEMA 1 housing and include a magnetic reversing starter size 0, a 24-volt control transformer, and complete terminal strip to facilitate field wiring.

B. The motor operator shall be activated by a keyed-button station in a NEMA 1 enclosure. The motor shall be size as required by the grille, 230 volts single phase. The motor operator shall be mounted to the grille bracket. All motor operators shall be U.L. listed.

C. At rooms or areas with no other means of egress, provide an emergency "Open" button on the side of the grill to prevent individuals from being locked inside.

2.04 LOCKING MECHANISMS

A. Motor operated grilles shall be secured by means of a cylinder lock in the bottom bar, electrically interlocked to prevent the motor from operating when the grille is locked.

B. The grille shall include the Featheredge Rolling Grille Safety Edge System as manufactured by The Cookson Company and shall include the following features:

1. The Featheredge shall be installed on the bottom bar of the grille and shall automatically reverse the grille if the device detects an obstruction in the downward travel of the grille.

2. The Featheredge shall consist of a rubber boot attached below the bottom bar with an electrical switch secured to the back of the bottom bar. The Featheredge shall operate with air wave technology and shall not rely on pneumatic pressure or electrical strip contacts to operate properly. The Featheredge shall create an air wave that shall be detected and reverse the direction of the grille.

3. The operation of the Featheredge shall not be subject to interferences by temperature, barometric pressure, water infiltration, or cuts in the rubber boot.

PART 3 – EXECUTION

3.01 INSTALLATION

A. Install grilles and operating equipment with necessary hardware, jamb and head mold strips, anchors, inserts, hangers, and equipment supports in accordance with manufacturer's instructions and as specified.

B. Upon completion, lubricate and adjust grilles to operate easily, free from warp, twist or distortion. Test grilles for proper operation.

C. Exposed surfaces shall be clean and free from scratches, dents, tool marks, stains, discoloration, and other defects and damage.

END OF SECTION

SECTION 08386

DOUBLE ACTING IMPACT TRAFFIC DOORS

PART 1 – GENERAL

1.01 DESCRIPTION

A. Section Includes: Double acting, self-closing, ¾-inch thick, impact traffic door with stainless steel facing.

1.02 SUBMITTALS

A. Product Data. Include manufacturer's installation instructions and cleaning and maintenance instructions.

B. Shop Drawings: Show fabrication details and anchorage. Include door elevations, head, jamb and meeting stile details including perimeter air seals.

C. Samples: Full range of manufacturer's standard color selections for facing material.

1.03 QUALITY ASSURANCE

A. Manufacturer Qualifications: Minimum five years experience in producing doors of the type specified.

1.04 DELIVERY STORAGE AND HANDLING

A. Verify doors were shipped in upright position.

B. Store in upright position and follow manufacturer's instructions printed on carton.

1.05 PROJECT/SITE CONDITIONS

A. Existing Conditions: Frames installed under other sections shall be level and plumb.

PART 2 - PRODUCTS

2.01 APPROVED MANUFACTURERS

A. Eliason Corporation Model SCG 3, Carlson Products, Chase Industries, RubbAir Door Division of Eckel Industries, Inc. or approved equal.

2.02 DOOR COMPONENTS

A. Door Body: ¾-inch thick solid core, full height of nose and jamb edge. 1-1/2-inch square PVC extrusions at top, bottom and above and below vision panel.

B. Facings: 18-gauge Type 302/304 stainless steel, full length on both sides, No 4 satin finish.

C. Hardware:

1. Top Assembly:

a. 11-gauge stainless steel enclosure with screw adjustable "V" plate bearing guide.

b. 11-gauge stainless steel door mounting bracket with case hardened steel clevis pin and two 7/8-inch diameter steel bearings.

c. 11-gauge stainless steel head/jamb mounting angle.

2. Bottom Assembly:

a. Internal mounted 1-5/16-inch diameter solid steel plug turned to ¾-inch diameter at bearing point.

b. Floor/jamb mounted stainless steel jamb guard with integral, low friction bearing.

D. Seals: Less than 5-cfm air infiltration per linear foot of seal per ASHRAE Bulletin 90-75. Provide full perimeter gasketing.

1. Jamb and Nose Edge: Replaceable polymer impregnated woven nylon fabric in hollow-loop configuration.

2. Header: Field installed, adjustable, polymer impregnated woven nylon fabric in hollow-loop configuration.

3. Sill: 1/16-inch thick neoprene rubber, factory installed; fixed.

4. Hardware Cutouts: 1/16-inch thick neoprene rubber, factory installed; fixed.

E. Vision Panel: 9-inch x 14-inch clear sealed polycarbonate set in a black PVC window gasket.

2.03 SOURCE QUALITY CONTROL

A. Fabrication Tolerances: Width and height of each leaf: + 0, -1/8 inch (3 mm).

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine opening in which door will be installed.

B. Coordinate with responsible entity to perform corrective work on unsatisfactory conditions.

C. Commencement of work by installer is acceptance of opening conditions.

3.02 INSTALLATION

A. Follow manufacturer's instructions.

B. Install door with necessary anchors, hardware and accessories.

3.03 ADJUSTING

A. Follow manufacturer's instructions as required to:

1. Clean and lubricate operating parts.

2. Adjust to open and close smoothly and freely without binding.

3. Check seals for proper fit.

3.04 CLEANING

A. Clean surfaces soiled by work as recommended by manufacturer.

B. Remove surplus materials and debris from the site.

END OF SECTION