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END OF SECTION

SECTION 01 11 00
SUMMARY OF WORK

PART 1 GENERAL

1.1 RELATED REQUIREMENTS

A. Drawings and general provisions of the Contract, provided by Owner.

1.2 SUMMARY

A. This Section includes the following:
1. Project information.
2. Work covered by Contract Documents.
3. Coordination with occupants.
4. Work Restrictions.
5. Work Restrictions.
6. Specifications and drawings conventions.
7. Miscellaneous provisions.

B. Hazardous Materials: Identification and removal of hazardous materials (asbestos, lead paint, PCB's) may be encountered, notify the Owner's representative in writing immediately. The Owner will arrange for investigation and disposal of the material.

1.3 PROJECT INFORMATION

A. Project Location: Glen Echo Town Hall, 6106 Harvard Ave, Glen Echo MD 20812.
1. .

B. Owner: Town of Glen Echo.
1. Owner's Representative: Susan Thies, townhall@glenecho.gov mobile (301) 320-4041. Susan Theis

1.4 WORK COVERED BY CONTRACT DOCUMENTS

A. Description of Work: The work includes replacement of 3 sets of doors in the Glen Echo Town portion of the Glen Echo Town Hall building.

1.5 SCHEDULING OF THE WORK

A. Within the normal limits of operations, the facility as identified on the contract drawings will be delivered to the Contractor for performance of the contract upon notice to proceed.

B. The Owner will occupy portions of the building during the entire period of construction for the conduct of their normal operations.
1. A United States Post Office operates in leased space in a portion of the first floor of the Glen Echo Town Building. The Post Office has a separate entrance. Electrical services for both occupants are located in a single electrical room, accessed from outside of the building, and the HVAC system for both occupants is located in an underground boiler room with HVAC units located on top of the access area to the boiler room. The boiler room is accessed from the outside of the building. The Contractor may avail of both utilities, with advance notification and cooperation with the Town Hall, who will coordinate with the Post Office.

C. It is the Owner's intent to coordinate and cooperate with the Contractor for the good of the Project.

D. The Contractor shall perform the Work in a manner to allow for continuous operation of the Owner's facilities.
   1. Should an unforeseen operating difficulty develop as a result of the Contractor's work, the Contractor shall take whatever action is required to alleviate the difficulty.

E. Immediately upon notice to proceed, the Contractor shall begin work on production of a construction schedule for the work. The Owner will be available for meeting with the Contractor as required by the Contractor, for developing a construction schedule.

F. A final construction schedule shall be submitted to and approved by the Owner before proceeding with the work on, or affecting operations in, areas outside the limit of operations.

1.6 COORDINATION WITH OCCUPANTS

A. The Owner reserves the right to partially occupy any completed portions of the Project before the entire project is completed, in which case an inspection will be held and terms of occupancy will be recorded in a certificate of partial substantial completion.

1.7 WORK RESTRICTIONS

A. Contractor Use of Premises – Normal List of Operations:
   1. The Owner will deliver the contract areas as indicated to the Contractor for the performance of the Contract.
   2. The Owner and other contractors performing other work within these Limits of Operation shall be allowed access at all times.
   3. Maintain existing fire egress lanes, and fires separations during the entire Contract period.
   4. Incoming (deliveries) and outgoing ((trash-debris) shall be coordinated by the Contractor with the Owner. Trips shall be minimized with scheduled use being determined by the Owner.

B. Contractor Use of Premises – Operations outside of Limit:
   1. Use of certain loading docks and other areas will be granted the Contractor on a regular intermittent basis so that facility routine is not seriously affected.
   2. The Owner will judge the proper time and extend of use.
   3. Coordinate work necessary outside of the "Limit of Work" with Owner. Outages shall be scheduled with Owner.

C. Safety Precautions:
   1. The Contractor shall initiate, maintain and supervise all safety precautions and programs in connection with the performance of the Contract. The Architect will not have control over or be responsible for safety precautions and programs in connection with the Work.
   2. Do not commence work until approved drawings have been returned, and all finishes have been confirmed.

1.8 SPECIFICATION AND DRAWING CONVENTIONS

A. Specification Format: These Specifications are organized into Divisions and Sections based on the Construction Specification Institute's MasterFormat 2004 Edition numbering system.

B. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular

situations. These conventions are as follows:

1. Imperative mood and streamlined language are generally used in the Specifications. The words “shall,” “shall be,” or “shall comply with,” depending on the context, are implied where a colon (:) is used within a sentence or phrase.
2. Specification requirements are to be performed by Contractor unless specifically stated otherwise.

C. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
   1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.

1.9 WORKING HOURS AND OVERTIME NOTIFICATION

A. Notify and receive permission from the Owner for Contractor’s personnel to work outside of normal daytime working hours. Normal working hours shall be 8:00 AM to 4:00 PM Monday thru Friday.

B. The Contractor shall base his proposal on working normal hours except for Work indicated on the Drawings, or specifications, to be performed off-hours.
   1. When necessary to reach a proper stopping place in any portion of the work, Contractor shall work overtime, both his forces and forces of his subcontractors, without addition to the Contract Price. Contractor is responsible for all incidental cost in connection with such overtime work.
   2. Manufacturer 36 month limited warranty on parts from date of shipment.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

END OF SECTION

SECTION 02 14 19
SELECTIVE DEMOLITION

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. Demolition and removal of selected portions of building or structure.

1.3 DEFINITIONS

A. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and salvaged or removed and reinstalled.

B. Remove and Salvage: Carefully detach from existing construction, in a manner to prevent damage, and deliver to Owner ready for reuse.

C. Remove and Reinstall: Detach items from existing construction, prepare for reuse, and reinstall where indicated.

D. Existing to Remain: Existing items of construction that are not to be permanently removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.4 MATERIAL OWNERSHIP

A. Unless otherwise indicated, demolition waste becomes property of the Contractor.

B. Product Data: Manufacturer's data sheets on each product to be used, including:
   1. Preparation instructions and recommendations.
   2. Storage and handling requirements and recommendations.
   3. Installation methods.

C. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemoratives plaques and tablets, and other items of interest or value to Owner that may be uncovered during demolition remain the property of Owner.
   1. Carefully salvage in a manner to prevent damage and promptly return to Owner.

1.5 PREINSTALLATION MEETINGS

A. Predemolition Conference: Conduct conference at Project site.
   1. Inspect and discuss condition of construction to be selectively demolished.
   2. Review structural load limitations of existing structure.
   3. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.
   4. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.

5. Review areas where existing construction is to remain and requires protection.

1.6 INFORMATIONAL SUBMITTALS

A. Schedule of Selective Demolition Activities: Indicate the following:
1. Detailed sequence of selective demolition and removal work, with starting and ending dates for activity.
2. Coordination for shutoff, capping, and continuation of utility services.

B. Inventory: Submit a list of items to be removed and salvaged and deliver to Owner prior to start of demolition.

1.7 FIELD CONDITIONS

A. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.

B. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.

C. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.

D. Storage or sale of removed items or materials on-site is not permitted.

PART 2 PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

B. Standards: Comply with ANSI/ASSE A10.6 and NFPA 241.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify that utilities have been disconnected and capped for starting selective demolition operations.

B. Review record documents of existing construction provided by Owner. Owner does not guarantee that the existing conditions are same as those indicated in record documents.

C. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.

D. When unanticipated mechanical, electrical, or structural elements that conflict with intended function of design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to the Architect.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRIAL SYSTEMS

A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against damage.

B. Existing Services/Systems to Be Removed, Relocate, or Abandoned: Locate, identify, disconnect, and seal or cap off indicated utility services and mechanical/electrical systems serving areas to be selectively demolished.

3.3 PREPARATION

A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways and other adjacent occupied and used facilities.
1. Comply with requirements for access and protection specified in Section "Temporary Facilities and Controls".

B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.

C. Trained employees of the elevator contractor shall perform installation work.

D. Adjust lift for proper operation and clean unit thoroughly.

E. Instruct users in operating procedures and owner's maintenance person in trouble-shooting and maintenance procedures.

3.4 SELECTIVE DEMOLITION, GENERAL

A. General: Demolish and remove existing construction as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
1. Proceed with selective demolition systematically, from higher to lower level.
2. Remove decayed vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
3. Dispose of demolished items and materials promptly.

B. Removed and Salvaged items:
1. Clean salvaged items,
2. Pack or crate items after cleaning, identify contents of containers,
3. Store items in a secure area until deliver to Owner,
4. Transport items to Owner's storage area off-site.
5. Protect items from damage during transport and storage.

3.5 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

A. Concrete: Demolish in small sections. Using power-driven saw, cut concrete to a depth of at least ¾ inch at junctures with construction to remain. Dislodge concrete from reinforcement at perimeter of areas being demolished, cut reinforcement, and then remove remainder of concrete. Neatly trim openings to dimensions indicated.

B. Masonry: Demolish in small sections. Cut masonry at junctures with construction to remain, using power driven saw, then remove masonry between saw cuts.

3.6 DISPOSAL OF DEMOLISHED MATERIALS

A. General: Except for items or materials indicated to be recycled, reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.
1. Do not allow demolished materials to accumulate on-site,

2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas,
3. Comply with the approved Construction Wast Management Plan, as approved by the authority having jurisdiction.

B. Burning: Do not burn demolished materials.

C. Disposal: Transport demolished materials off Owner’s property and legally dispose of them.

3.7 CLEANING

A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION

SECTION 04 20 00
UNIT MASONRY

PART 1 GENERAL

1.1 RELATED SECTIONS

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 OF WORK

A. Furnish all labor, materials, and equipment necessary or required to remove and replace masonry items to install doors specified to be installed in existing masonry walls.
   1. The Contractor shall report in writing to the Owner any existing defects of surfaces or work which may affect the quality or dimensions of work.

1.3 DEFINITIONS

A. CMU(s): Concrete masonry unit(s).

B. Reinforced Masonry: Masonry containing reinforcing steel in grouted cells.

1.4 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project Site.

1.5 SUBMITTALS

A. Product Data: Manufacturer's data sheets on each product to be used, including:
   1. Preparation instructions and recommendations.
   2. Storage and handling requirements and recommendations.
   3. Installation methods.

B. Shop Drawings and/or Literature for the following:
   1. Provide (3) copies of drawings and/or material certificates for the following:
      a. Concrete masonry units
      b. Concrete masonry bond beams
      c. Cementitious Materials
      d. Mortar and/or grout mixtures
      e. Steel Lintels if bond beams are not used
      f. Anchors, ties, and metal accessories
   2. Do not commence work until approved drawings and certificates have been returned, and all finishes have been confirmed.

C. Verification Samples: For each finish product specified. Provide digital samples of all samples.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Store masonry units on elevated platforms in dry location. If units are not stored in an enclosed location, cover tips and sides with waterproof sheeting, securely tied. If units become wet, do not install until they are dry.

B. Store cementitious materials on elevated platforms, under cover, and in a dry location. Do not use cementitious materials that have become damp.

C. Deliver pre-blended mortar mix in moisture-resistant containers. Store preblended, dry mortar mix in delivery containers on elevated platforms in a dry location or in covered weatherproof dispensing silos.

D. Store masonry accessories, including metal items, to prevent corrosion and accumulation of dirt.

E. Store and dispose of solvent-based materials, and associative materials, in accordance with requirements of local authorities having jurisdiction.

1.7 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install systems under environmental conditions outside manufacturer's recommended limits.

B. All work shall be performed by competent employees during regular working hours of regular working days. This service shall not cover adjustments or repairs due to negligence, misuse, abuse or accidents caused by persons other than the Contractor.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Source limitations for Masonry Units: Obtain exposed masonry units of a uniform texture and color, or a uniform blend within the ranges accepted for these characteristics, from single source from single manufacturer for each product required.

B. Source limitations for Mortar Materials: Obtain mortar ingredients of a uniform quality, including color for exposed masonry, from single manufacturer for each cementitious component and from single source or producer for each aggregate.

2.2 UNIT MASONRY, GENERAL

A. Masonry Standard: Comply with TMS 602/ACE 530.1/ASCE 6, except as modified by requirements in the Contract Documents.

B. Defective Units: Referenced masonry unit standards may not contain chips, cracks, or other defects exceeding limits stated.

C. Fire-Resistance Ratings: Comply with requirements for fire-resistance-rated assembly designs indicated.
1. Where fire-resistance-rated construction is indicated, units shall be listed and labeled by a qualified testing agency acceptable to authorities having jurisdiction.

2.3 CONCRETE MASONRY UNITS

A. Shapes: provide shapes indicated and as follows, with exposed surfaces matching exposed faces of adjacent units unless otherwise indicated.
1. Provide special shapes for lintels, corners, jambs, movement joints, headers, bonding, and other special conditions as required to match existing.

B. CMUs: ASTM C90.
1. Unit Compressive Strength: Provide units with minimum average net-area

compressive strength of 2000 psi.
2. Density Classification: Normal weight unless otherwise indicated
3. Size: (Width): Manufactured to dimensions 3/8 inch less than nominal dimensions.
4. Exposed Faces: Manufactured to dimensions 3/8 inch less than nominal dimensions.

2.4 MASONRY LINTELS

A. Masonry Lintels: Prefabricated or build-in-place masonry lintels or portions thereof, made from bond beam CMUs matching CMUs in color, texture, and density classification, with reinforcing bars placed as indicated and filled with coarse grout. Cure precast lintels before handling and installing. Temporarily support build-in lintels until cured.

2.5 MORTAR AND GROUT MATERIALS

A. Regional Materials: Aggregate for mortar and grout shall be manufactured within 100 miles of Project site from materials that have been extracted, harvested, or recovered, as well as manufacture, within 100 miles of Project site.

B. Portland Cement: ASTM C 150/C 150M, Type I or II may be used for cold weather construction. Provide natural color or white cement as required to produce mortar color indicated.
1. Alkali content shall not be more than 0.1 percent when tested according to ASTM C 114.

C. Hydrated Lime: ASTM C207, Type S.

D. Portland Cement-Lime Mix: Packaged blend of Portland cement and hydrated lime containing no other ingredients.

E. Aggregate for Mortar: ASTM C144.
1. For mortar exposed to view, use washed aggregate consisting of natural sand or crushed stone.
2. For joints less than ¼” use aggregate graded with 100 percent passing the No. 16 sieve.

F. Aggregate for Grout: ASTM C 404.

2.6 REINFORCEMENT

A. Uncoated-Steel Reinforcing Bars: ASTM A 615A 615M or ASTM A 996/A 996/M Grade 60.

B. Reinforcing Bar Positioners: Wire units designed to fit into mortar bed joints spanning masonry unit cells and to hold reinforcing bars in center of cells. Units are formed from 0.148-inch steel wire, hot-dip galvanized after fabrication. Provide units designed for number of bars indicated.

C. Masonry-Joint Reinforcement, General: ASTM A 951/A 951M
1. Interior Walls: Mill-galvanized carbon steel.
2. Wire Size for Side Rods: 9 gauge minimum (W1.7)
3. Wire Size for Cross Rods: 9 gauge minimum (W1.7)
4. Wire Size for Veneer Ties: varies with product application.
5. Spacing of Cross Rods, Tabs and cross Ties: Not more than 16 inches o.c.:
6. Provide in lengths of not less than 10 feet, with prefabricated corner and tee rods.

D. Masonry-Joint Reinforcement for Single-Wythe Masonry: Ladder or truss tupe with single

pair of side rods, or as required to match or be inserted into existing masonry .

2.7 MORTAR AND GROUT MIXES

A. General: Do not use admixtures, including pigments, air-entraining agents, or accelerator treatments, retarders, water-repellant agents, anti-freeze components, or other admixtures, unless otherwise indicated.
   1. Do not use calcium chloride in mortar or grout.
   2. Use Portland cement-lime unless otherwise indicated.

B. Mortar for Unit Masonry: Comply with ASTM C270, Proportion Property Specification.
   1. For masonry bond beam, use type S.
   2. For interior non-loaded

C. Grout for Unit Masonry: Comply with ASTM C476.
   1. Use grout of type indicated or, if not otherwise indicated, of type (fine or coarse) that will comply with TMS 602/ACI 530.1/ASCE 6 for dimensions of grout spaces and pour height.
   2. Proportion grout in accordance with TMS 602/ACI 530.1/ASCE for dimensions of grout spaces and pour height.
   3. Proportion grout in accordance with ASTM C476, table 1
   4. Provide grout with a slump of 8-11 inches as measured according to ASTM C143/C 143M.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work in the existing building.
   1. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.

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

3.2 TOLERANCES

A. Dimensions and Locations of Elements.
   1. For dimensions in cross section or elevation, do not vary by more than plus ½ inch or mins 1/4 inch.
   2. For location of elements in plan, do not vary from that indicated by more than plus or minus ½ inch.
   3. For location of elements in elevation, do not vary from that indicated by more than plus or minus 1/4 inch in a story height or ½ inch total.

B. Lines and Levels: To match existing.

C. Joints: To match existing.

3.3 LAYING MASONRY WALLS

A. Fill space between steel frames and masonry solidly with mortar unless otherwise indicated.

3.4 MORTAR BEDDING AND JOINTING

A. Lay hollow CMUs to match existing.

B. Lay solid masonry units and hollow CMUs with completely filled bed and head joints; butter ends with sufficient mortar to fill head joints and shove into place. Do not deeply furrow bed joints; butter ends with sufficient mortar to fill head joints and shove into place. Do not deeply furrow bed joints or slush head joints.

C. Touch-up, repair or replace damaged products before Substantial Completion.

D. Tool exposed joints to match existing masonry walls.

E. Install steel lintels where indicated as required to match and extend existing masonry.

3.5 LINTELS

A. Provide concrete or masonry lintels where shown and where openings of more than 24 inches for block size units are shown without structural steel or other supporting lintels.

B. Provide minimum bearing of 8” at each jamb unless otherwise indicated.

3.6 REPAIRING, POINTING, AND CLEANING

A. In-Progress Cleaning: Clean unit masonry as work progresses by dy brushing to remove mortar fins and smears before tooling joints.

B. Final Cleaning: After mortar is thoroughly set and cured, clean exposed masonry as follow: .
1. Remove large mortar particles by hand with wooden paddles and nonmetallic scrap hoes or chisels.
2. Test cleaning methods on sample wall; leave one-half of panel uncleaned for comparison purposes. Obtain Architect’s approval of sample cleaning before proceeding with cleaning masonry.
3. Clean concrete masonry by applicable cleaning methods indicated in NCMA TEK 8-4A.

3.7 MASONRY WASTE DISPOSAL

A. Salvageable Materials: Unless otherwise indicated, excess masonry materials are Contractor’s property. At completion of unit masonry work, remove from Project site.

B. Waste Disposal as Fill Material: Dispose of clean masonry waste, including excess or soil-contaminated sand, waste mortar, and broken masonry units, by crushing and mixing well with fill material as fill is placed.
1. Crush masonry waste to less than 4 inches in each dimension.
2. Do not dispose of masonry waste as fill within 18 inches of finished grade.

C. Excess Masonry Waste: Remove excess clean masonry waste that cannot be used as fill, as described above or recycled, and other masonry waste, and legally dispose off Owner’s property.

END OF SECTION

SECTION 08 11 13
HOLLOW METAL FRAMES

PART 1 GENERAL

1.1 SCOPE OF WORK

1. Install new metal door frame in an existing masonry opening that is being downsized.

1.2 REQUIREMENTS OF REGULATORY AGENCIES

A. American Society of Mechanical Engineers (ASME) A17.1 - Safety Code for Elevators and Escalators.

1.3 REQUIREMENTS OF REGULATORY AGENCIES

A. Fabricate and install work in compliance with applicable jurisdictional authorities.

B. File shop drawings and submissions with local authorities as the information is made available. Company pre-inspection and jurisdictional authority inspections and permits are to be made on a timely basis as required.

1.4 SUBMITTALS

A. Submit under provisions of Section 01300 - Administrative Requirements.

B. Product Data: Manufacturer's data sheets on each product to be used, including:
   1. Preparation instructions and recommendations.
   2. Storage and handling requirements and recommendations.
   3. Installation methods.

C. Shop Drawings: Provide a complete layout of lift equipment detailing dimensions and clearances as required, including plans, elevations and sections showing location of machinery, and including load and reaction drawings provided by the elevator manufacturer.
   1. Provide (3) copies of drawings.
   2. Do not commence work until approved drawings have been returned, and all finishes have been confirmed.

D. Verification Samples: For each finish product specified. Provide digital samples of all samples.

E. Owner’s Instruction and Manual
   1. After installation is completed, the contractor shall instruct the owner in the proper use, operation and maintenance requirements of the elevator. Instructions to also include emergency procedures and safety rules and precautions. The contractor shall also supply the owner with an Owner’s Manual detailing the operating, safety, and maintenance procedures of the elevator.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: Minimum 2 years experience installing similar products, and acceptable to the manufacturer.
   1. Skilled tradesmen shall be employees of installing contractor approved by the manufacturer, with demonstrated ability to perform the work on a timely basis.

2. Must have adequate product liability insurance.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

B. Store and dispose of solvent-based materials, and associative materials, in accordance with requirements of local authorities having jurisdiction.

1.7 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install systems under environmental conditions outside manufacturer's recommended limits.

B. All work shall be performed by competent employees during regular working hours of regular working days. This service shall not cover adjustments or repairs due to negligence, misuse, abuse or accidents caused by persons other than the Elevator Contractor. Only genuine parts and supplies as used in the manufacture and installation of the original equipment shall be provided.

1.8 WARRANTY

A. Manufacturer warranty applies to repair or replacement, of parts failing due to defective material or workmanship. Manufacturer may provide factory reconditioned parts. Warranty is provided to Authorized Dealer on behalf of final purchaser and is not transferable. Warranty does not cover labor charges for removal, repair, or replacement. Labor costs may be covered for a period of time by Authorized Dealer's warranty, provided to purchaser separately.
1. Manufacturer 36 month limited warranty on parts from date of shipment.

1.9 MAINTENANCE

A. A quality maintenance service consisting of regular examinations in the first year of at least once every three (3) months, adjustments and lubrication of the elevator equipment shall be provided by the Elevator Contractor after the elevator has been turned over for the owner’s use. In the second year the Elevator Contractor shall provide examination, adjustment, and lubrication every 6 months. At the end of the three (3) year period, provide an offer to the Owner for an annual maintenance contract, which may or may not be accepted at that time

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Savaria, located at: 2 Walker Dr.; Brampton, ON, Canada L6T 5E1; ASD Toll Free Tel: 800-661-5112; Tel: 905-791-5555; Fax: 905-791-2222; Email: request info (info@savaria.com); Web: https://www.savaria.com

B. Requests for substitutions from other manufacturers may be considered.

2.2 PRODUCTS

A. Basis of Design: A18.1 Vertical Platform Lift as manufactured by Savaria Concord

B. Cab Design:
1. Cab accessed from two sides 90 degrees from existing to remain upper floor door to existing to remain lower door.

2. Existing shaft interior dimensions: approx. 6-’6” W x 6-’6” L x 23’ H
3. Existing structural walls: CMU.

C. Accessories:
1. Door Operator: Provide automatic door operator on existing to remain hoistway doors Opening and closing speed adjustable to comply with ADA requirements.
2. Provide battery emergency power for lowering of elevator and door opening.
3. Provide key lock system.
4. AutoDial Emergency telephone phone with push button to activate conversation

D. Finishes:
1. Cab and doors: White powder coat enamel on steel.
2. Hardware: Stainless steel.
3. Flooring: Sheet vinyl or similar standard finish.
4. Hoistway Doors and Frames (existing to remain): Enamel paint to match existing.
5. Shaft interior: Semi-gloss paint to match existing.

E. Lighting: Convert existing shaft lighting to LED.

F. Controller: Provide a microprocessor controller including necessary starting switches of adequate size together with all relays, switches and hardware required to accomplish the operation specified. Overload protection shall be provided to protect the motor against overloading.

G. Wiring: All wiring and electrical interconnections shall comply with the governing codes. Insulated wiring shall have flame retardant and moisture proof outer covering, and shall be run in conduit, tubing or electrical wire-ways. Travelling cables shall be flexible and suitably suspended to relieve strain on individual conductors.

H. Hoistway operating Devices:
1. Normal terminal stopping devices shall be provided. When an emergency terminal stopping device is also required, it shall be furnished and the controller switches and circuitry arranged in accordance with the requirements of the CSA B44 Elevator Code.

PART 3 EXECUTION

3.1 EXAMINATION

A. Do not begin installation until the hoistway and machine room has been properly assessed and repaired/modified to accept replacement lift.

B. Site dimensions shall be taken to verify that tolerances and clearances have been maintained and meet local regulations.

3.2 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

C. Paint shaft interior prior to lift installation.

3.3 ELEVATOR INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Install the components of the lift system that are required and that are required by jurisdictional authorities to license the lift.

C. Trained employees of the elevator contractor shall perform installation work.

D. Adjust lift for proper operation and clean unit thoroughly.

E. Instruct users in operating procedures and owner's maintenance person in trouble-shooting and maintenance procedures.

3.4 PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

SECTION 08 14 00
WOOD DOORS

PART 1 GENERAL

1.1 SCOPE OF WORK

A. Furnish all labor and materials required to install a standard grade wood stile and rail door in an existing painted wood opening.

1.2 REFERENCES

A. AMERICAN FOREST FOUNTATION (AFF)
   1. ATFS Standards (2021) American Tree Farm System Standards of Sustainability

1.3 REQUIREMENTS OF REGULATORY AGENCIES

A. Fabricate and install work in compliance with applicable jurisdictional authorities.

1.4 SUBMITTALS

A. Product Data: Manufacturer's data sheets on each product to be used, including:
   1. Preparation instructions and recommendations.
   2. Storage and handling requirements and recommendations.
   3. Recycled content for door cores
   4. Accessories
   5. Installation methods.
   6. Sample Warranty
   7. Fire Resistance Rating

B. Shop Drawings: Provide a complete layout of wood stile and rail door including dimensions and clearances as required, including plans, elevations and sections showing location of door hardware.
   1. Provide (3) copies of drawings.
   2. Do not commence work until approved drawings have been returned, and all finishes have been confirmed.

C. Owner's Instruction and Manual
   1. After installation is completed, the contractor shall instruct the owner in the proper use, operation and maintenance requirements of the elevator. Instructions to also include emergency procedures and safety rules and precautions. The contractor shall also supply the owner with an Owner's Manual detailing the operating, safety, and maintenance procedures of the elevator.

1.5 QUALITY ASSURANCE

1.6 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

B. Store and dispose of solvent-based materials, and associative materials, in accordance with requirements of local authorities having jurisdiction.

1.7 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install systems under environmental conditions outside manufacturer's recommended limits.

1.8 WARRANTY

A. Manufacturer warranty applies to repair or replacement, of parts failing due to defective material or workmanship. Manufacturer may provide factory reconditioned parts. Warranty is provided to Authorized Dealer on behalf of final purchaser and is not transferable. Warranty does not cover labor charges for removal, repair, or replacement. Labor costs may be covered for a period of time by Authorized Dealer's warranty, provided to purchaser separately.
   1. Manufacturer 36 month limited warranty on parts from date of shipment.

1.9 MAINTENANCE

A. A quality maintenance service consisting of regular examinations in the first year of at least once every three (3) months, adjustments and lubrication of the elevator equipment shall be provided by the Elevator Contractor after the elevator has been turned over for the owner's use. In the second year the Elevator Contractor shall provide examination, adjustment, and lubrication every 6 months. At the end of the three (3) year period, provide an offer to the Owner for an annual maintenance contract, which may or may not be accepted at that time

PART 2 PRODUCTS

2.1 RAIL AND STILE DOOR

A. Standard grade exterior Ponderosa Pine door conforming to ANSI/WDMA I.S.6A.

B. Thickness: Approximately 2" to match existing.

C. Finish: to accept paint finish to match existing wood frame.

D. Door Light Opening.
   1. Provide glazed openings with the manufacturer's standard wood moldings.

2.2 COMPOSITE FLUSH WOOD DOORS

A. Fire Rated Door for use in fire rated steel door frame.
   1. Door 2 includes fire rated door with fire rated glazing that is larger than can be certified. That said, this is what is desired for this particular door it will be accepted that the door will be delivered without a rating sticker, but the window will be etched with the tempered/fire rated glazing stamp.

B. Fire Rated Door

2.3 WEATHERSTRIPPING

A. Provide weatherstripping that is a standard cataloged product of a manufacturer of this specialty item. Provide bronze weatherstripping with a minimum thickness of 0.23mm (0.0089 inch) for sills, and a minimum thickness of 0.16mm (0.0063 inch) elsewhere. Air leakage of weatherstripped door not to exceed 0...25 cubic meter per second of air per square meter (0.5 cubic feet per minute of air per square foot of door Aarea when tested in accordance with ASTM E283.

2.4 ADDITIONAL HARDWARE REINFORCEMENT

A. Provide the minimum lock blocks to secure the specified hardware. The measurement of top, bottom, and intermediate rail blocks are a minimum 1.25 mm 5 inch by full core width. Comply with manufacturer's labeling requirements for reinforcement blocking, but not mineral material similar to the core.

2.5 FINISHES

A. Factory Paint for Stile and Rail door:
   1. Provide white paint, color to match existing transom, sidelight and door frame. Provide touch up paint for field touch up.

B. Factory Finish for Fire Doors:
   1. Provide doors finished at the factory by the door manufacturer as follows:
      a. Provide WDMA TR-4 (conversion varnish) factory finish systems that utilize water-based stains and finishes with ultraviolet UV protection/ The coating is NAAWS 4.0 premium, medium rubbed sheen, closed grain effect. Use stain when required to produce the finish specified for color. Seal edges, cutouts, trim, and wood accessories, and apply two coats of finish compatible with the door face finish. Touch up finishes that are scratched or marred, or where exposed fastener holes are filled. I accordance with the door manufacturer's instructions. Match color and sheen of factory finish using materials compatible for field application.

PART 3 EXECUTION

3.1 INSTALLATION

A. Do not install building construction materials that show visual evidence of biological growth.

B. Before installation, seal top and bottom edges of doors with the approved water-resistant sealer. Seal cuts made on the job immediately after cutting using approved water-resistant sealer. Fit, trim, and hang doors with a 2 mm (1/16 inch) minimum, 3mm (1/4 inch) maximum clearance over thresholds. Provide 10 mm (3/8 inch minimum, 11 mm (7/16 inch) maximum clearance at bottom where no threshold occurs. Bevel edges of door at the rate of 3 mm (1/8 inch in 2 inch. Door warp must not exceed 6 mm (1/4 inch where measured in accordance with ANSI/WDMA I.S.1A.

C. Fire Doors
   1. Install fire doors in accordance with NFPA 80. Do not paint over labels.

D. Weatherstripping
   1. Install doors in strict accordance with the door manufacturer's printed installation instructions and details. Weatherstrip exterior swing-type doors at sills, heads and jambs to provide weathertight installation. Apply weatherstripping at sills to bottom rails of doors and hold in place with a brass or bronze plate. Apply weatherstripping to door frames at jambs and head. Shape weatherstripping at sills to suit the threshold.

3.2 PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

08 71 00
DOOR HARDWARE

PART 1 GENERAL

1.1 SCOPE OF WORK

A. Furnish all labor, materials, and equipment necessary or required to provide door hardware for

1.2 SYSTEM DESCRIPTION

A. Section includes items known commercially as builders hardware or door hardware. For openings not specifically mentioned in the Part 3 Article “Hardware Schedule”, material of character consistent with that specified for similar openings shall be provided.

1.3 RELATED SECTIONS

A. 08 11 13 Hollow Metal Frames and 08 14 00 Wood Doors

1.4 COORDINATION

A. Installation Templates: Distribute for doors, frames and other work specified to be factory prepared.

B. Product Data: For each type of product indicated, include construction and installation details, material descriptions, dimensions of individual components and profiles, and finishes.

C. Door Hardware Schedule: Coordinate final door hardware schedule with doors, frames and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
   1. Format: Schedule shall be in vertical form; horizontal is not acceptable. Use same door numbers as used in the Contract Documents.
   2. Content: Include the following information:
      a. Identification number, location, hand, fire rating, size, and material of each door and frame.
      b. Locations of each door hardware set, cross-referenced to Drawings on floor plan and to door and frame schedule.
      c. Complete designations, including name and manufacturer, type, style, function, size, quantity and finish of each door hardware product.
      d. Fastenings and other pertinent information.
      e. Explanation of abbreviations symbols, and codes contained in schedule.
      f. Mounting locations for door hardware.
   3. Do not proceed with work of this Section until schedule has been reviewed and approved by Architect and the keying approved by the Owner.
   4. After approval of the hardware schedule, no substitutions of material or manufacture shall be made without prior written authorization from the Architect.

D. Keying Schedule: Prepared by hardware supplier after keying conference with Architect, Owner and hardware installer, detailing Owner’s final keying instructions for locks.

1.5 QUALITY ASSURANCE

A. Supplier Qualification: A recognized builder's hardware supplier who has been furnishing hardware in the project's vicinity for a period not less than 2 years. The supplier shall have appropriate experience to correctly interpret the plans, detailed drawings and specifications. And shall have in their regular employ an Architectural Hardware Consultant certified by the Door Hardware Institute who is available during the course of the Work to consult with Contractor, Architect, and Owner about door hardware and keying.

B. Fire Rated Door Assemblies: Where fire-rated door assemblies are indicated, provide door hardware rated for use in assemblies complying with NFPA 80 that are listed and labeled by Underwriters Laboratories or other qualified testing agency for fire protection ratings indicated, based on testing at positive pressure according to NFPA 252 or UL 10C, unless otherwise indicated. Items shall be properly stamped or labeled for easy identification.

C. Accessibility Requirements: For door hardware on doors in an accessible route, comply w2. Provide thresholds not more than ½ inch high.

1.6 DELIVERY, HANDLING AND STORAGE

A. Package items of hardware delivered to the jobsite complete with necessary screws, bolts, and miscellaneous parts and instructions. Label each package with the schedule identification.

1.7 DELIVERY, HANDLING AND STORAGE

A. Package items of hardware delivered to the job site complete with necessary screws, bolts, miscellaneous parts and instructions. Label each package with the schedule identification number.

1.8 QUALITY ASSURANCE

A. Installer Qualifications: Minimum 2 years experience installing similar products, and acceptable to the manufacturer.
   1. Skilled tradesmen shall be employees of installing contractor approved by the manufacturer, with demonstrated ability to perform the work on a timely basis.
   2. Must have adequate product liability insurance.

1.9 WARRANTY

1. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within the manufacturer's specified warranty period, minimum of which shall be 2 years.

1.10 MAINTENANCE

A. A quality maintenance service consisting of regular examinations in the first year of at least once every three (3) months, adjustments and lubrication of the elevator equipment shall be provided by the Elevator Contractor after the elevator has been turned over for the owner's use. In the second year the Elevator Contractor shall provide examination, adjustment, and lubrication every 6 months. At the end of the three (3) year period, provide an offer to the Owner for an annual maintenance contract, which may or may not be accepted at that time

PART 2 PRODUCTS

2.1 DOOR HARDWARE

A. Door hardware shall meet the most recent version as established by the American National Standards Institute (ANSI) unless otherwise specified.

Butts and Hinges	ANSI A156.1
Exit Devices	ANSI A156.3
Door Controls-Closers	ANSI A156.4
Architectural Door Trim	ANSI 156.6
Template Hinge Dimensions	ANSI 156.7
Door Controls – Overhead Stops and Holders	ANSI 156.8
Closer Holder Release Devices	ANSI 156.15
Materials and Finishes	ANSI 156.18
Door Gasketing and Edge Seal Systems	ANSI 156.21
Exit Locks	ANSI 156.29

2.2 HINGES

A. Provide template produced hinges.

B. Hinges shall be five knuckle, unless indicated otherwise.

C. Size and shape of hinges, unless otherwise noted otherwise in the hardware schedule, shall be as follows:

Door Thickness and Width (inches)	Hinge Height		Hinge Width and Gauge
1-3/4 and 40	A8112	4-1/2	4 or 4-1/2 0.134

2.3 LOCKS AND LATCHES

A. All functions shall be available in one size case. Provide lever and trim styles as specified.
   1. Lock Throw: Comply with testing requirements for length of bolts required for labeled fire doors, and as follows:
      a. Mortise Locks: Minimum ¾ inch latch bolt throw.
   2. Backsets: 2-3/4 inches unless otherwise specified.
   3. Strikes: Provide manufacturer's standard strike for each lock bolt or latch bolt complying with requirements indicated for applicable lock or latch and with strike box and with curved lip extended to protect frame; finished to match lock or latch.
   4. Finish: Locks shall be finished US26D (626) unless otherwise specified.

2.4 EXIT DEVICES

A. Types and functions shall be as indicated in hardware schedule. Rim or concealed vertical rod (CVR) type.

B. Finish: Shall be knurled finish in US 26D..

2.5 BOLTS FOR INACTIVE DOORS

A. Combination Flush bolts shall have constant latching bold at top and automatic on bottom. Provide Trimco 3825 for wood doors and Trimco 3815 for wood doors for bottom, or approved equals.

B. Provide dustproof strike L04021 for bottom flush type bolts.

C. Finish of bolts shall be US26D (626/652).

2.6 LOCK CYLINDERS AND KEYING

A. Cylinders shall be Corbin Russwin Interchangeable core type.
   1. Furnished standard embossed keys of nickel silver. Furnish keys in the following

quantities:
a. Master 6 each.
b. Key blanks: 6.
2. Cylinders and cores shall be manufactured of brass or bronze.

2.7 DOOR CLOSERS

A. Surface Closers: BHMA A156.4; rack-and-pinion hydraulic type with adjustable sweep and latch speeds controlled by key-operated valves and forged=steel main arm. Comply with manufacturer's written recommendations for size of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Provide factory-sized closers, adjustable to meet field conditions and requirements for opening force. Closers shall be applied with rectangular covers, void of manufacturer's trademarks. Furnish xex bolts for all labeled wood doors. Grommet type nuts are not acceptable.

B. Closers shall be Modern type with cover, meeting ANSI A156.4 FeSW 1 requirements with PT-4 optional features C (Adjustable closing force up to 50 percent additional), D (Adjustable hydraulic backcheck) F (delayed action) and H (Adjustable closing force through a range of sizes).
1. Where closers are indicated to have a built in stop provide spring-cushion type.

C. Finish shall be USD 626 (US26D).

D. Acceptable Products: No substitutions.
1. LCN 4011/411 Series
2. Corbin Russwin DC6210 Series full cover.
3. Norton 8501 Series.

E. Closers for interior doors shall meet ADA Accessibility Guidelines. "Barrier Free" type of door closers shall be provided where required by ADA Accessibility Guidelines. Before acceptance of door closers on the job, a representative of the door closer manufacturer and the hardware distributor shall inspect and adjust the closers to ensure the requirements for the sweep period and door opening force have been met.
1. Door closer shall require no greater than 5 lbs. of force to open.
2. Sweep period shall be no faster than 5 seconds to go from 90 degrees slope to 12 degrees.

2.8 STOPS AND HOLDERS

A. Floor stops
1. Acceptable Manufacturers:
a. Rixon.
b. Sargent.

B. Finish of stops and holders shall be US32D (630) unless otherwise specified in the hardware schedule.

2.9 DOOR GASKETING

A. Door Gasketing: BHMA A156.22; air leakage not to exceed 0.50 cfm per foot of reach length for gasketing other than for smoke control, as tested according to ASTM E 283; with resilient or flexible seal strips that are easily replaceable and readily available from stocks maintained by the manufacturer.
1. Provide the following, no substitutions.
a. Seals and Smoke Seals: National Guard 5050.

b. Weatherstripping: National Guard 172NA.

B. Astragals for Metal Fire Doors and Wood Fire Doors: Where required by door manufacturer or Authorities Having Jurisdiction for ratings indicated, provide National Guard 158VA. No substitutions. Astragal shall meet the requirements of UL 10B and UL 10C for positive and negative pressure “Fire Tests of Door Assemblies”.

C. Door Silencers: Similar to Ives SR64 or Rockwood 608.

2.10 THRESHOLDS

A. Thresholds: BHMA A156.21: fabricated to full width of opening. Thresholds shall be mill finish aluminum unless indicated otherwise.
1. Acceptable Manufacturers unless specific product id named in Part 3 Article “Hardware Sets”:
a. National Guard Products.
b. Pemko.
c. Zero.

2.11 TRIM AND PLATES

A. Kick plates: shall be beveled 3 sides and have minimum thickness of 0.05 inches.

B. Finish: USD 626 (US26D).

2.12 PULLS

A. Entrance door pull on exit device: Model T-7036 x T5660 by Elmes Manufacturing with keypad.
1. Finish: Polished stainless steel.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire rated door assembly construction. Wall and floor construction and other conditions affecting performance.

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

3.2 INSTALLATION

A. Except as specifically indicated or required to comply with governing regulations, and except as may be otherwise directed by the Architect, mount door hardware units at heights to comply with the following.
1. Standard Steel Door Frames: ANSI/SDI A250.8.
2. Wood Doors: DHI WDHS.3, “Recommended Locations for Architectural Hardware for Wood Flush Doors”.

B. Install each hardware item in compliance with the manufacturer’s instructions and recommendations.

C. Set thresholds for exterior doors in full bed of sealant.

3.3 ADJUSTING AND CLEANING

A. Adjust and check with operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended.

3.4 HARDWARE SETS

A. The following hardware sets shall be used as basis for preparation of the Contractor's hardware schedule to be submitted as specified.

1. Hardware Set 1
   - 3 PAIRS HINGES
   - 1 EXIT DEVICE VON DUPRIN 98/99 SERIES RIM EXIT DEVICE
   - 1 SEALS
   - 1 THRESHOLD
   - 1 CLOSER PARALLEL ARM WITH HOLD OPEN
   - 1 DOOR FLOOR STOP

2. Hardware Set 2
   - 6 PAIRS HINGES
   - 1 FIRE EXIT DEVICE VON DUPRIN 98/99 SERIES DOUBLE ACTING VERTICAL ROD WITH LEVER DOOR HANDLE ON STAIR SIDE
   - 1 FIXED ASTRAGAL
   - 1 CLOSER PARALLEL ARM WITH HOLD OPEN
   - 1 WALL STOP
   - 1 DOOR MOUNTED FLOOR STOP

3. Hardware Set 3
   - 6 PAIRS HINGES
   - 1 LEVER DOOR HANDLE THROW INTO ADJACENT DOOR
   - 1 DOUBLE ACTING VERTICAL ROD IN ADJACENT DOOR
   - 1 RECESSED FLOOR ACCEPTOR FOR VERTICAL ROD
   - 1 DEAD BOLT HANDLE TO ACTIVATE VERTICAL ROD FROM INSIDE OFFICE

END OF SECTION

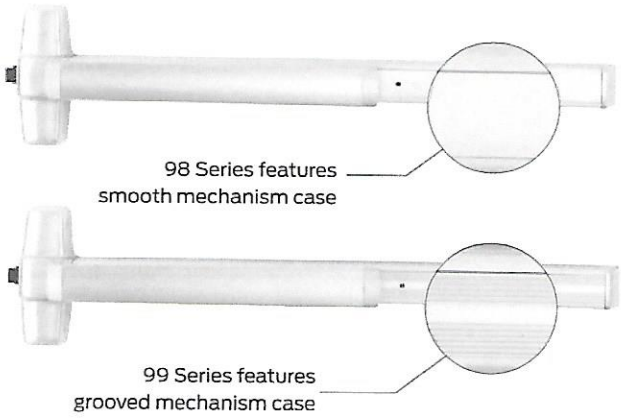
VON DUPRIN®

Exit device

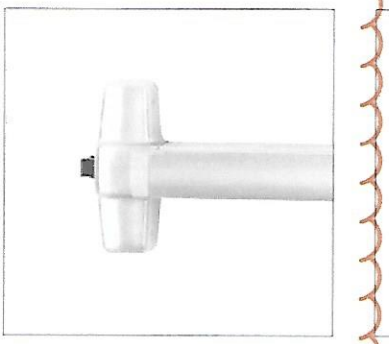
98/99 Series

Overview

The 98/99 Series devices are heavy-duty push pads. The 98 Series has a smooth mechanism case, while the 99 Series has a grooved mechanism case. The 98/99 Series has been certified to the highest industry standards and are used in schools, hospitals and government buildings.

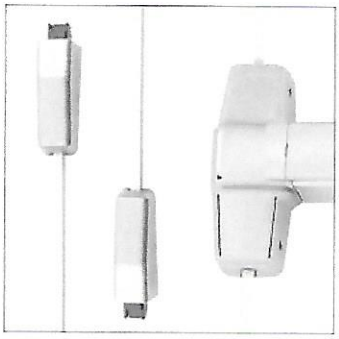


Device types



Rim device

75 Mortise lock device



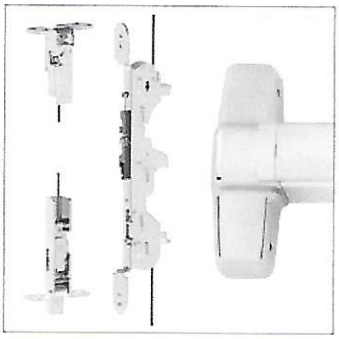
27 Surface mounted vertical rod device [1]

47 Concealed vertical rod device, 5/16" throw [1]

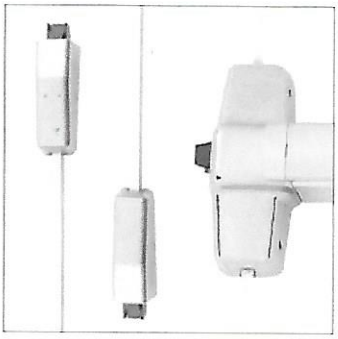
48 Concealed vertical rod device, 5/8" top, 1 1/2" bottom throw

47WDC Concealed vertical rod wood door device [1]

49 Concealed vertical cable device [2]



50WDC Concealed vertical cable wood door device



57 Three-point latch device

[1] Also available less bottom rod (LBR)
[2] Also available less bottom latch (LBL)

ALLEGION™

VON DUPRIN®

Exit device
98/99 Series

Finishes

605
Bright Brass

606
Satin Brass

612
Satin Bronze

619
Satin Nickel

622
Matte Black

625
Bright Chrome

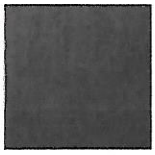
626
Satin Chrome

626AM
Satin Chrome,
Antimicrobial

628
Aluminum, Clear
Anodized

630
Satin Stainless

630AM
Satin Stainless,
Antimicrobial



643e
Aged Bronze

693
Black

710
Dark Brown,
Anodized

Due to the many variations in monitors and printers, color samples may appear different than the physical product. Contact your local sales representative for a physical color sample.

ALLEGION™

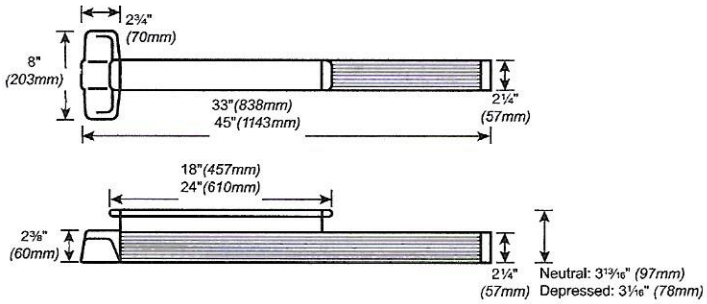
VON DUPRIN®

Exit device
98/99 Series

Specifications

Accessibility	▪ Force to depress push pad – AX device: 5 lbs – Standard device: 15 lbs ▪ Push pad projection – Neutral: 3 13/16" (97 mm) – Depressed: 3 1/16" (78 mm)
Certifications/ approvals	All Von Duprin 98/99 exit devices are ANSI/BHMA Certified. Please refer to the BHMA Certified Products Directory for specific listings.
Mounting height	39 13/16" (1011 mm) 39 11/16" (1008 mm) with mullion
Warranty	36 months from the date of placing the product in operation

Dimensions



013139, Rev. 11/2019
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ALLEGION™

CO-100

Standalone Electronic Lock

Overview

The CO Series provides ideal solutions for customers seeking the added security and convenience of electronic access control without the cost or complexity of a fully networked system. Within this group is CO-100, a standalone lock that is manually programmable. User rights are stored on the lock with unique PIN codes assigned to each user. This minimizes the number of mechanical keys issued which protects the integrity of your key system. PIN codes can be easily added or deleted at anytime, right at the door.

The CO-100 from Schlage is versatile enough to use anywhere. In the classroom/storeroom function, it is rated full outdoor and can be used for gate or breezeway access. CO-100 privacy function locks can be programmed to show occupancy indication for applications such as dressing areas or bathrooms. And office/classroom function locks can be set up for remote release making them perfect for vestibules or waiting rooms.

Cylindrical, mortise, mortise deadbolt, and exit trim chassis options are available. The series is compatible with many popular brands of exit devices and offered in a wide variety of finishes and levers to suite with your existing hardware. Mechanical key override is standard and compatible with multiple cylinder types.

CO Series has been tested to the highest standards in the industry to ensure the quality and reliability you have come to expect from Schlage. The CO Series is ANSI/BHMA A156.25 (full outdoor[1]), ANSI/BHMA Grade 1 certified and UL 294 Listed.

Features & Benefits

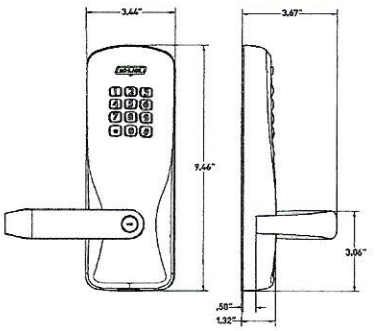
- Manually programmable
- Up to 500 unique 3-6 digit PIN codes stored on the lock
- ANSI/BHMA A156.25 (full outdoor[1]), ANSI/BHMA Grade 1 certified, UL 294 and UL 10C listed, hurricane wind and impact rated[2]
- Storeroom, office/classroom and privacy functions available
- Chassis options include cylindrical, mortise, and exit trim
- Compatible with most major brands of key systems and exit devices
- Hard wired, remote release push button capability[3]
- Programmable option for lighted occupancy indication[4]
- Three levels of user authority
- Normal, toggle, pass through, and freeze credential attributes available
- LED indicator visually communicates lock status
- Fully outdoor rated in 70 function for use on pool gates and breezeways

1. Applies to 70 function only.
2. Applies to cylindrical and mortise chassis only.
3. Available on office function locks manufactured after 1/1/2018 with firmware version 2.6.2 or higher.
4. Available on privacy function locks manufactured after 9/30/2018 with firmware version 2.7.0 or higher.

SCHLAGE

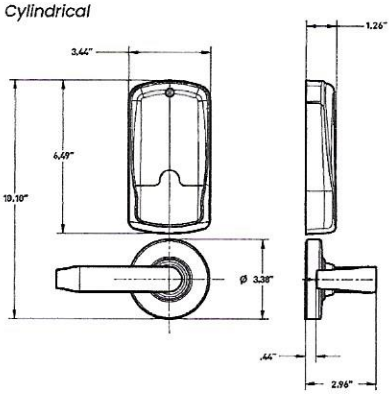
CO-100
Standalone Electronic Lock

Exterior

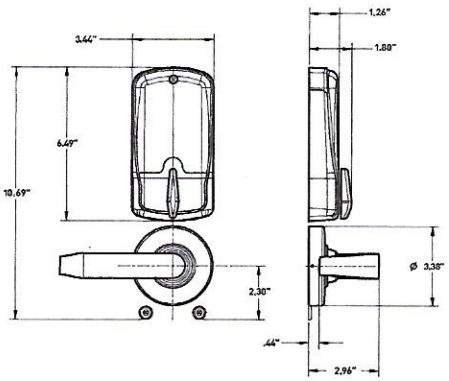


Interior

Cylindrical



Mortise deadbolt



CO-100 Electronic Lock Specifications

Users	500
Credential verification time (keypad only)	≤ 1 second
Visual/audible communications	Tri-colored LED's and audible indicators
Power supply	4 AA batteries (standard off the shelf: included)
Battery life	Up to 2 yrs with 4 AA batteries
Operating temperature	Exterior: -31° to 151°F (-35° to 66°C) Interior: -31° to 151°F (-35° to 66°C)
Operating humidity	0 - 100% non-condensing
Certifications	ANSI/BHMA A156.25 (full outdoor[1]); ANSI/BHMA Grade 1; UL 294; ULC S319; UL 10C 3 hour; FCC Part 15; Industry Canada (IC); ADA compliant Cylindrical and mortise chassis only: TDI DR-464, DR-465; FL12400, FL4613, FL1592, FL13013, FL14482 Mortise chassis only: FL3905

Functions

- Storeroom
- Office/classroom
- Privacy

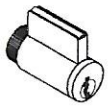
Standard Status Signals

- Battery status - indicated by flashing LED lights
- Access granted/access denied
- Programming commands
- Occupied - indicated by red LED light (privacy function only)

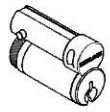
1. Applies to 70 function only.

Mechanical Specifications

Chassis	Cylindrical	Mortise	Exit trim
Handing	Handed to order, field reversible		
ANSI standard (Meets or exceeds)	A156.25 A156.2 Series 4000 Grade 1	A156.25 A156.13 Series 1000 Grade 1	A156.25 A156.3
Door thickness	1-3/4" standard, 1-3/8" to 2-3/4" optional (available in 1/8" increments)		
Backset	Standard: 2-3/4" Optional: 2-3/8", 3-3/4", 5"	2-3/4" only	Defined by exit device
Latch bolt	Standard: 1/2" throw Optional: 3/4" throw	Standard: 3/4" throw	Provided by exit device
Levers	Pressure cast zinc, plated		
Strike	Standard: 1-3/16" lip, ANSI, 1-1/4" x 4-7/8" Optional: Additional configurations available please see price book		Provided by exit device
Cylinder and keys	Schlage 6-pin Everest 29 S123 keyway Conventional cylinder with two patented keys standard. Additional options available including SFIC, FSIC and competitor brands. See Lever & Cylinder Compatibility Data Sheet		
Exit device compatibility	See CO Series Exit Trim Compatibility Data Sheet		



Conventional cylinder



Full Size Interchangeable Core

Small Format Interchangeable Core

Programming and Use Options

Function code	User level	Description
PIN[1]	Basic	Unlocks the lock momentarily when in a normally secured state.
Programming	Manager/administrator	Initiates all programming actions (can be changed by administrator)
User changes	Manager/administrator	Assigns or deletes user PINs for the lock
Toggle	Manager/administrator	Changes the lock to an unlocked state and back when desired
Freeze	Administrator	Maintains the lock in current state until code is re-entered (cannot be toggled)
Pass through	Administrator	Unlocks the lock momentarily regardless of current state
Other	Administrator	Includes change relock delay period; change PIN length; disable/enable beeper; disable/enable remote release[2]; disable/enable LED occupancy indication[3]

1. Credentials can be 3-6 digits in length.
2. Remote release feature available on office function only.
3. Occupancy indication feature available on privacy function only.

Ordering Information

Available through one of our GSA schedule 84 approved distributions.

Required fields | Factory defaults and options

CO	-	100	-	CY	-	70	-	KP	-	SPA	-	626	-	P6	-	S123	-	RH	-	13-247	-	10-025	-	134
Series		Class		Chassis		Function		Reader		Lever Style		Finish		Key Cylinder		Keyway		Handing		Backset & Latch or Armored Front		Strike		Door Thickness
1		2		3		4		5		6		7		8		9		10		11		12		13

Standard options are indicated with a dot. See price book for specific configuration options.

3 Chassis

CY	Cylindrical
MS	Mortise
993R	Exit trim – Rim/CVC/CVR
993S	Exit trim – SVR
993M	Exit trim – mortise
993DT	Dummy exit trim

4 Function

40	Privacy
50	Office/classroom
70	Storeroom

5 Reader

• KP	Keypad

6 Lever

ATH	Athens
BRK	Boardwalk
BRW	Broadway
LAT	Latitude
LON	Longitude
RHO	Rhodes
SPA	Sparta
TLR	Tubular

Available with tactile warning options.

7 Finish

605	Bright Brass
606	Satin Brass
612	Satin Bronze
619	Satin Nickel
625	Bright Chrome
• 626	Satin Chrome
626AM	Satin Chrome Antimicrobial
643e	Aged Bronze

8 Key Cylinder

• P6	Schlage 6-pin conventional key-in-lever cylinder

See price book for other SFIC, FSIC and less cylinder options available. Compatible with Schlage®, Sargent®, Corbin Russwin, Medeco® and Yale®.

9 Keyway

• S123	Everest 29

See price book for other available keyway options including restricted keyways in Primus XP high security cylinders and master keying.

10 Handing

• RH	Right handed
RHR	Right handed reverse
LH	Left handed
LHR	Left handed reverse

Field reversible.

11 Backset & Latch or Armored Front

• 13-247	Cylindrical: 2-3/4" backset deadlatch, square corner, 1-1/8" x 2-1/4"
• 09-663	Mortise: Armor front, 1-1/4" wide, square corner

12 Strike

• 10-025	Cylindrical: 1-3/16" lip, ANSI, no box, 1-1/4" x 4-7/8"
• 10-072	Mortise: 1-3/16" lip, 1-1/4" x 4-7/8" square corner, box

See price book for other available strikes.

13 Door Thickness

• 134	1-3/4"

Other thicknesses available between 1-3/8" and 2-3/4". See price book for details.

Lever Styles

Conventional cylinders shown, SFIC and FSIC also available.


Athens


Boardwalk


Broadway


Latitude


Longitude


Rhodes


Sparta


Tubular

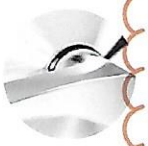
Finishes


605
Bright Brass


606
Satin Brass


612
Satin Bronze


619
Satin Nickel


625
Bright Chrome


626
Satin Chrome


626AM
Satin Chrome Antimicrobial


643e
Aged Bronze

004186, Rev. 01/24

SECTION 08 80 00
GLAZING

PART 1 GENERAL

1.1 SUMMARY

A. Section includes glazing for door lights.

1.2 RELATED SECTIONS

A. Section 08 14 00 Wood Doors.

1.3 DEFINITIONS

A. Manufacturer is used in the Section to refer to a firm that produces fabricated glass as defined in the referenced glazing standard.

1.4 SUBMITTALS

A. Product Data: For each glass product and glazing material indicated showing that their produces comply with specified requirements.

B. Samples for Verification
   1. 12-inch-square samples of each type of glass indicated except for clear monolithic glass products.
   2. 12-inch-long samples of each color required (except black) for each type of gasket and sealant exposed to view. Install sealant sample between two strips of material representative in color of the adjoining framing system.

1.5 QUALITY ASSURANCE

A. Glazing Publications: Comply with published recommendations of glass product manufacturers and organizations below, unless more stringent requirements are indicated. Refer to these and publications for glazing terms not otherwise defined in this Section or in referenced standards.
   1. GANA Publications: GANA's "Laminated Glazing Reference Manual" and GANA's "Glazing Manual".
   2. IGMA Publication for Insulating Glass: SIGMA TM-3000, "North American Glazing Guidelines for Sealed Insulating Glass Units for Commercial and Residential Use".

B. Safety Glazing Labeling: For products indicated to comply with testing requirements of 16 CFR Part 1201 for Category II materials, provide safety glass permanently marked with certification label of Safety Glazing Certification Council (SGCC) or other certification agency acceptable to authorities having jurisdiction.

C. Fire-Protection-Rated Glazing Labeling: Permanently mark fire-protection-rated glazing with certification label of a testing agency acceptable to authorities

D. having jurisdiction. Label shall indicate manufacturer's name, test standard, whether glazing is for use in fire doors or other openings, whether or not glazing hose-stream test, whether or not glazing has a temperature rise rating of 450 deg F, and the fire-resistance rating in minutes.

E. Glazier Qualifications: Engage an experienced glazier who has completed glazing similar in material, design and extent to that indicated for Project with a record of successful in-service performance.

F. Single Source Responsibility for Glass: Obtain glass from one source for each type of product indicated below:
   1. Insulating glass of each construction indicated.
   2. Heat-treated glass (ASTM C 1048) condition indicated.

G. Single-Source Responsibility for Glazing Accessories: Obtain glazing accessories from one source for each product and installation method indicated.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Protect glazing materials to comply with manufacturer's written instructions and as needed to prevent damage to glass and glazing materials from condensation, temperature changes, direct exposure to sum, or other causes.

1.7 SITE CONDITIONS

A. Environmental Limitations: Do not proceed with glazing when ambient and substrate and temperature conditions are outside the limits permitted by glazing materials manufacturer or when glazing channel substrates are wet from rain, frost, condensation, or other causes.

B. Store and dispose of solvent-based materials, and associative materials, in accordance with requirements of local authorities having jurisdiction.

1.8 WARRANTY

A. Manufacturer's Special Warranty for Insulating Glass: Manufacturer agrees to replace insulating glass units that deteriorate within specified warranty period. Deterioration of insulation glass is defined as failure of hermetic seal under normal se that is not attributed to glass breakage or to maintaining and cleaning insulation glass contrary to manufacturer's written instructions.
   1. Warranty Period: 10 years from date of Substantial Completion.

PART 2 PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. General: Provide glazing systems that withstand normal thermal movement, wind loading, and impact loading (where applicable), without failure including loss or glass breakage attributable to the following: Defective manufacture, fabrication, or installation; failure of sealants or gaskets to remain watertight and airtight; deterioration of glazing materials; or other defects in construction.

B. Design glass according to ASTM E 1300 using the following design criteria:
   1. Maximum Lateral Deflection For glass supported on all four edges, limit center-of-glass deflection at design wind pressure to not more than 1/50 time the short-side length or 1 inch, whichever is less.

C. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes acting on glass framing members and glazing components.
   1. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.

D. Strength: Where fully tempered glass is indicated, provide Kind FT heat-treated glass.

1. Safety Glazing: Where safety glazing or fully tempered glass is indicated, provide glazing that complies with 16 DFT 1201, Category II.

2.2 INSULATING GLASS PRODUCTS

A. Insulating-Glass Units: Factory assembled units consisting of sealed lites of glass separated by a dehydrated interspace, qualified according to ASTM E 2190, and complying with other requirements specified.
   1. For properties of individual glass lights, refer to requirements specified elsewhere in the Section applicable to types, classes, kinds, and conditions of glass products comprising lights of insulating glass units.

B. Insulating units shall be as indicated on Drawings:
   1. Apply low-e coatings on third surface.

2.3 FIRE PROTECTION-RATED GLAZING

A. Fire-Protection-Rated Glazing, General: Listed and labeled by a testing agency acceptable to authorities having jurisdiction for fire-protection ratings indicated based on testing according to NFPA 252 for door assemblies. Passes positive pressure test standards UL 10Cm YBC 7-2 and 7-4.

B. Fire-Protection-Rated Glazing in Doors: Laminated glass made from 2 plies of clear, ceramic flat glass; thickness as required for ratings indicated complying with testing requirements in 16 CFR 1201 for Category II materials.
   1. FireLite Plus by Nippon Electric Glass Co., Ltd. (distributed by Technical Glass Products) or approved equal by one of the following.
      a. Safti First.
      b. Schott North America, Inc.

2.4 GLAZING ACCESSORIES

A. Provide glazing gaskets, glazing sealants, glazing tapes, setting blocks, spacers, edge blocks, and other glazing accessories that are compatible with glazing products and each other.
   1. For fire-rated assemblies, provide accessories that are approved by testing agencies that listed and labeled fire-protection ratings indicated.

2.5 MISCELLANEOUS GLAZING MATERIALS

A. General: Provide products of material, size, and shape complying with referenced glazing standard, requirements of manufacturers of glass and other glazing materials involved for glazing application indicated, and with a proven record of compatibility with surfaces contacted in installations.

B. Cleaners, Primers and Sealers: Type recommended by sealant or gasket manufacturer.

C. Perimeter Insulation for Fire-Resistive Glazing: Product that is approved by testing agency that listed and labeled fire-resistant glazing product with which it is used for application and fire protection rating indicated.

2.6 FABRICATION OF GLASS AND OTHER GLAZING PRODUCTS

A. Fabricate glazing units in sizes to fit openings indicated for Project, with edge and face clearances, edge and surface conditions, and bite complying with written instructions of

product manufacturer and referenced glazing publications, to comply with system performance requirements.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine framing, glazing channels, and stops, with Installer present, for compliance with the following:
   1. Manufacturing and installation tolerances, including those for size, squareness, offsets at corners.
   2. Presence and function of weep system.
   3. Minimum required face and edge and edge clearances.
   4. Effective sealing between joints of glass-framing members.

B. Do not proceed with glazing until unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Clean glazing door openings receiving glass immediately before glazing. Remove coatings that are not firmly bonded to substrates.

3.3 GLAZING GENERAL

A. Comply with combined recommendations of manufacturers of glass, sealants, gaskets, and other glazing materials, except where more stringent requirements are indicated, including those in referenced glazing publications.

B. Protect glass from edge damage during handling and installation as follows:
   1. Use a rolling block in rotating glass units to prevent damage to glass corners. Do not impact glass with metal framing. Use suction cups to shift glass units within openings; do not raise or drift glass with a pry bar.

C. Install setting blocks in sill rabbets, sized and located to comply with referenced glazing standard, unless otherwise required by glass manufacturer. Set blocks in thin course of compatible sealant suitable for heel bead.

D. Do not exceed edge pressures stipulated by glass manufacturers for installing glass lights.

E. Apply primers to joint surfaces where required for adhesion of sealants.

F. Provide spacers for glass lites where length plus width is larger than 50 inches.
   1. Locate spacers directly opposite each other on both inside and outside faces of glass. Install correct size and spacing to preserve required face clearances, unless gaskets and glazing tapes are used that have demonstrated ability to maintain required face clearances and to comply with system performance requirements.
   2. Provide 1/8 inch minimum bite of spacers on glass and use thickness equal to sealant width. With glazing tape, use thickness slightly less than final compressed thickness tape.

G. Provide edge blocking where needed to prevent glass lites from moving sideways in glazing channel, as recommended in writing by glass manufacturer and according to requirements in referenced glazing publications.

H. Where wedge-shaped gaskets are driven into one side of channel to pressurize sealant or gasket on opposite side, provide adequate anchorage so gasket cannot walk out when

installation is subjected to movement.

I. Square cut wedge-shaped gaskets at corners and install gaskets in manner recommended by gasket manufacturer.

3.4 GASKET GLAZING (DRY)

A. Cut compression gaskets to lengths recommended by gasket manufacturer to fit openings exactly, with allowance for stretch during installation.

B. Insert soft compression gasket between glass and frame or fixed stop so it is securely in place with joints miter cut and bonded together at corners.

C. Installation with Drive-in Wedge Gaskets: Center glass lites in openings on setting blocks, and press firmly against soft compression gasket by inserting dense compression gaskets formed and installed to lock in place against faces of removable stops. Start gasket applications at corners and work toward centers of openings. Seal gasket joints with sealant recommended by the gasket manufacturer.

D. Installation with Pressure-Glazing Stops: Center glass lites in openings on setting blocs, and press firmly against soft compression gasket. Install dense compression gaskets and pressure-glazing stops, applying pressure uniformly to compression gaskets. Compress gaskets to produce a weathertight seal without developing bending stresses in glass. Seal gasket joints with sealant recommended by gasket manufacturer.

E. Install gaskets so they protrude past face of glazing stops.

3.5 CLEANING AND PROTECTION

A. Protect glass from contact with contaminating substances resulting from construction operations. If, despite such protection, contaminating substances do come into contact with glass, remove substances immediately as recommended by manufacturer.

B. Examine glass surfaces adjacent to or below exterior concrete and other masonry surfaces at frequent intervals during construction, but not less than once a month, for build-up of dirt, scum, alkali deposits, or stains, and remove as recommended by glass manufacturer.

C. Remove and replace glass that is damaged during construction period.

D. Wash glass on both faces not more than 4 days prior to date scheduled for inspections that establish date of Substantial Completion. Wash glass as recommended by glass manufacturer.

END OF SECTION

SECTION 09 91 00
PAINTING

PART 1 GENERAL

1.1 SUMMARY OF WORK

A. The work includes painting and finishing of interior and exterior exposed items and surfaces in the Project'
   A. Surface preparation, priming and coats of paint specified.

B. Do not paint over any code-required labels such as Underwriter's Laboratories and Factory Mutual. Do not paint over fire-retardant treated markings.

1.2 DEFINITIONS

A. "Paint" as used in this Section shall mean all coating systems materials, including primers, emulsions, enamels, sealers and fillers, and other applied materials used as prime, intermediate or finish coats.

1.3 SUBMITTALS

A. Product Data: Submit manufacturer's technical information including paint label analysis and application instructions for each material proposed for use.

B. Samples: For verification of each type of paint system and in each color and gloss of topcoat. Label each sample for substrate, paint system, color and gloss.
   A. For paint systems indicated for metal substrates provide 2 samples of each color and sheen specified on 12 inch by 12 inch hardboard.
   B. For paint systems indicated for concrete masonry, provide two 4 inch square samples on masonry for each type of finish and color, including filler prime and finish coats.

1.4 QUALITY ASSURANCE

A. Single source Responsibility: Provide primers and other undercoat paint produced by same manufacturer as finish coats. Use only thinners approved by paint manufacturer and use only within recommended limits.

1.5 DELIVERY AND STORAGE

A. Deliver materials to job site in original, new and unopened packages and containers bearing manufacturer's name and label, and following information:
   A. Name or title of material.
   B. Manufacturer's stock number and date of manufacture.
   C. Manufacturer's name.
   D. Contents by volume, for major pigment and vehicle constituents.
   E. Thinning instructions.
   F. Application instructions.
   G. Color name and number.

B. Store material not in actual use in tightly covered containers. Maintain containers used in storage of paint in clean condition, free of foreign materials and residue.
   A. Protect from freezing. Keep storage areas neat and orderly. Remove oily rags and

waste daily. Protect workman and work areas from fire hazards and health hazards resulting from handling, mixing and application of paints.

1.6 FIELD CONDITIONS

A. Apply water-base paints only when temperature of surfaces to be painted and surrounding air temperatures are between 50 degree F and 90 degree F, unless otherwise permitted by paint manufacturer's printed instructions.

B. Do not apply paint in snow, rain, fog or mist; or when relative humidity exceeds 85 percent; or to damp or wet surfaces; unless otherwise permitted by paint manufacturer's printed instructions.
   A. Painting may be continued during inclement weather if areas and surfaces to be painted are enclosed and heated within temperature limits specified by paint manufacturer during application and drying periods.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Subject to compliance with the requirements, provide products by one of the following:
   A. Benjamin Moore.
   B. Glidden Professional.
   C. McCormick Paints.
   D. Pittsburgh Paints.
   E. Pratt and Lambert.
   F. The Sherwin Williams Company.

2.2 MATERIALS

A. Material Compatibility: Provide block fillers, primers, and finish-coat materials that are compatible with one another and with the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
   A. Provide tinted primer when recommended by manufacturer.

B. Material Quality: Provide best quality grade of various types of coatings as regularly manufactured by acceptable paint materials manufacturer. Materials not displaying manufacturer's identification as a standard, best-grade product are not acceptable.

C. Color Pigments: Pure, non-fading, applicable types to suit substrates and service indicated.
   A. Lead content in pigment, if any, is limited to contain not more than 0.06 percent lead, as lead metal based on the total non-volatile (dry-film) of paint by weight.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine areas and conditions under which painting work is to be applied and notify Architect in writing of conditions detrimental to proper and timely completion of work. Do not proceed with work until satisfactory conditions have been corrected.

B. Site dimensions shall be taken to verify that tolerances and clearances have been maintained and meet local regulations.

3.2 SURFACE PREPARATION
   A. General: Perform preparation and cleaning procedures in accordance with paint

manufacturer's instructions and as specified, for each substrate.

1. Clean substrates of substances that could impair bond of paints, including dirt, oil, grease, and incompatible paints and encapsulants.
2. Provide barrier coats over incompatible primers or remove and reprime as required. Notify Architect in writing of potential problems with using the specified coating systems on substrates primed by others.
3. Remove hardware, hardware accessories, machined surfaces, plates, and similar items in place and not to be finish painted or provide surface-applied protection prior to surface preparation and painting operations. Following completion of painting each space or area, reinstall removed items.
4. Clean surfaces to be painted before applying paint or surface treatments. Remove oil and grease prior to mechanical cleaning. Program cleaning and painting so that contaminants from cleaning process will not fall onto wet newly-painted surfaces.

B. Cementitious Materials: Prepare cementitious surfaces of concrete, concrete block to be painted by removing efflorescence, chalk, dust dirt, grease, oils, and by roughening as required to remove glaze.

1. Determine alkalinity and moisture content of surfaces to be painted by performing appropriate tests. If surfaces are found to be sufficiently alkaline to cause blistering and burning of finish paint, correct this condition before application of paint. Do not paint over surfaces where moisture content exceeds that permitted in manufacturer's printed directions.

C. Ferrous Metals: Clean ferrous metals, which are not galvanized or shop-painted, of oil, grease, dirt, loose mil and other foreign substances by solvent or mechanical cleaning.

1. Touch-up shop-applied prime coats wherever damaged or bare.
2. Clean and touch-up with same type shop primer.

D. Wood: Clean wood surfaces to be painted of dirt, oil or other foreign substances with scrapers, mineral spirits and sandpaper, as required. Sandpaper smooth those finished surfaces exposed to view and dust off. Scrape and clean small, dry, seasoned knots and apply a thin coat of white shellac or other recommended knot sealer, before application of priming coat. After priming, fill holes and imperfections in finish surface with putty or plastic wood-filler. Sandpaper smooth when dried. Wipe with tack rag immediately before applying paint.

1. For wood requiring field-applied coatings; prime, stain, or seal wood immediately upon delivery to job. Prime edges, ends, faces, undersides, and backsides of such wood, included cases and paneling.
2. Seal tops, bottoms and cut-outs of unprimed wood doors with a heavy coat of varnish or equivalent sealer immediately upon delivery to job.

E. Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions detrimental to formulation of a durable paint film.

3.3 MATERIALS PREPARATION

A. Mix and prepare painting materials in accordance with manufacturer's directions

B. Maintain containers used in mixing and application of paint in a clean condition, free of foreign materials and residue

C. Stir materials before application to produce a mixture of uniform density and stir as required during application. Do not stir surface film into material. Remove film and, if necessary, strain

material before using.

3.4 APPLICATION

A. General: Apply paints according to manufacturer's written instructions and to recommendations in "MPI Manual."
   1. Use applicators and techniques best suited for substrate and type of material being painted.
   2. Apply additional coats when undercoats, stains or other conditions show through final coat of paint, until paint film is of uniform finish, color, and appearance. Give special attention to ensure that surfaces, including edges, corners, crevices, welds and exposed fasteners, receive a dry film thickness equivalent to that of flat surfaces.
   3. Finish exterior doors on tops, bottoms and side edges same as exterior faces.
   4. Omit first coat of paint (primer) on metal surfaces that have been shop-primed and touch-up painted, unless otherwise indicated.

B. Schedule Painting: Apply first-coat material to surfaces that have been cleaned, pretreated or otherwise prepared for painting as soon a practicable after preparation and before subsequence surface deterioration.
   1. Allow sufficient time between successive coatings to permit proper drying. Do not recoat until paint has dried to where it feels firm, does not deform or feel sticky under moderate thumb pressure, and application of another coat of paint does not cause lifting or loss of adhesion of the undercoat.

C. Minimum Coating Thickness: Apply materials at not less than manufacturer's recommended spreading rate, to establish a total dry film thickness as indicated, or if not indicated, at recommended by coating manufacturer.

D. Prime Coats: Apply prime coat to surfaces required to be painted or finished, and which have not been prime coated by others.
   1. Recoat primed sealed surfaces where there is evidence of suction spots or unsealed areas in first coat, to assure a finish coat with no burn-through or other defects due to insufficient sealing.

E. Pigmented (Opaque) Finishes: Completely cover to provide an opaque, smooth surface of uniform finish, color, appearance and coverage. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, or other surface imperfections will not be acceptable.

F. Completed Work: Match approved samples for color, texture and coverage. Remove, refresh or repaint work not in compliance with specified requirements.

3.5 CLEAN-UP AND PROTECTION

A. Clean-Up: During progress of work, remove from site discarded paint materials, rubbish, cans, and rags at end of each work day.

B. Upon completion of painting work, clean window glass and other paint splattered surfaces. Remove splattered paint by proper method of washing and scraping, using care not to scratch or otherwise damage finished surfaces.

C. Protection: Protect work of other trades, whether to be painted or not, against damage by painting and finishing work. Correct any damage by cleaning, repairing or replacing, and repainting as acceptable to the Architect.
   1. Provide "Wet Paint" signs as required to protect newly painted finishes. Remove temporary protective wrappings provided by others for protection of their work, after completion of painting operations.

2. At the completion of work of other trades, touch up and restore all damaged or defaced painted surfaces.

3.6 PAINT SCHEDULE

A. Provide the following paint systems for the various for the various substrates indicated. Products of The Sherwin Williams Company are indicated as a standard of quality. Manufacturers' color names and product numbers are used for the purpose of color identification only. Products of the other Manufacturers listed in Article 2.1 are also acceptable if the products and colors are approved as equal to products and colors indicated, solely by the judgement of the Architect.

B. Interior Paint Schedule:
   1. Concrete Masonry Units:
      Block Filler: PrepRite Block Filler B25W25
      Two Finish Coats: ProMar 200 Zero VOC Interior Latex Semi-Gloss

   2. Ferrous Metal:
      Prime Coat: Pro Industrial Pro-Cryl Universal Primer
      Prime Coat is not required on items delivered shop primed.
      Two Finish Coats: ProMar 200 Zero VOC Interior Latex Semi-Gloss

   3. Wood for Opaque Finish:
      Prime coat: Premium Wall & Wood Primer
      Two Finish Coats: ProMar 200 Zero VOC Interior Latex Semi-Gloss

END OF SECTION