WHATCOM COUNTY LIBRARY SYSTEM
BIRCH BAY VOGT LIBRARY EXPRESS RENOVATION

ADDENDUM No. TWO (2)
May 7th, 2026

BID DATE/TIME: Prior to 5:00 PM Wednesday, May 13, 2026 ***(Remains Unchanged)***

NOTICE TO BIDDERS:
Bidders must acknowledge receipt of this addendum on Exhibit A of the Invitation to Bid. The Contract Documents for the above referenced project are hereby changed as follows:

CHANGES TO THE GENERAL CONDITIONS SPECIFICATIONS (DIVISIONS 0 & 1):

GS 2.1 A second ***Non-Mandatory***, Pre-bid Walk was held on Friday May 1st, 2026, at 2:00 PM. A copy of the Meeting Attendance Sign-In Sheet has been included with this addendum.

CHANGES TO THE TECHNICAL SPECIFICATIONS

AS 2.1 **ADD** specification section **07 18 00 – Traffic Coatings**.

AS 2.2 **ADD** specification section **06 73 00 – Composite Decking**.

AS 2.2 **REPLACE** specification section **08 71 00 – Door Hardware**.

AS 2.3 **ADD** specification section **09 96 00 – High Performance Coatings**.

CHANGES TO THE DRAWINGS

AD 2.1 **REPLACE** the following drawing sheets attached with this addendum, all changes clouded:
*Minor drawing changes shown below in *italics*.

- **G1.00 – Cover Sheet** (*Updated Drawing List*)
- **AD1.00 – Crawl Space Demolition Plan** (*Hazmat Notes, Coating at Existing Column*)
- **AD1.11 – First Floor Demolition Plan** (*Hazmat Notes*)
- **AD1.12 – First Floor Demolition Ceiling Plan** (*Hazmat Notes*)
- **AD1.21 – Second Floor Demolition Plan** (*Hazmat Notes, Gutter Demolition*)
- **AD1.30 – Demolition Plan Pole Buildings** (*Hazmat Notes, Existing Slab Thickness*)
- **AD2.01 – Demolition Elevations** (*Hazmat Notes, Demo Windows and Downspouts*)
- **AD2.02 – Demolition Elevations** (*Hazmat Notes, Demo Windows and Downspouts*)
- **AD2.03 – Demo Elevations East Pole Building** (*Hazmat Notes*)
- **AD2.04 – Demo Elevations West Pole Building** (*Hazmat Notes*)
- **A0.12 – Site Details and General Notes** (*Detail Reference Added for Sign Foundation*)
- **A1.00 – Crawl Space Floor Plan** (*Add Protective Coating at Existing Column*)

AD 2.2 **REPLACE** sheet **A0.14 – Accessible Ramp Plan and Details**:

- Updated framing plan, sections, and details added.

AD 2.3 **REPLACE** sheet **A1.11 – First Floor Plan**:

- Floor assembly tags added to clarify existing joist spacing, see A5.00.
- Minimum slope of 1/8” per foot shown at covered porch.
- Note regarding exterior wall insulation added.
- Electrified hardware and reference to electrical drawings added.

AD 2.4 **REPLACE** sheet **A1.12 – First Floor Ceiling Plan**:
- Lower-level roof soffits shown, keynote to paint soffits and framing added.
- Ceiling assembly tags added, refer to A9.00 for types.
- Ceiling access panel added at duct heater per mechanical.
- Missing detail callouts updated.
- Text notes for future owner furnished equipment updated (projector, speakers, projection screen)
- Added references to mechanical and electrical drawings.
- Drawing legend updated for clarity.

AD 2.5 **REPLACE** sheet **A1.21 – Second Floor Plan**:
- Floor assembly tags added.
- Add plywood mounting board for telecom.
- Delete keynote #14.
- Remove errant detail callout.
- Drawing legend updated for clarity.

AD 2.6 **REPLACE** sheet **A1.22 – Second Floor Ceiling Plan**:
- Ceiling assembly tags added.
- Drawing legend updated for clarity.

AD 2.7 **ADD** sheet **A1.31 – Roof Plan**:
- New gutters and downspout locations shown.
- Obscured roof areas shown to illustrate extent of soffit painting.

AD 2.8 **REPLACE** sheet **A2.01 – Exterior Elevations**:
- Show new downspouts, add keynote #25.
- Detail callouts updated.

AD 2.9 **REPLACE** sheet **A2.02 – Exterior Elevations**:
- Show new downspouts, add keynote #25.
- Handrailing, partial ramp section, and new trim added to East Elevation 2/A2.02.
- Window type “F” revised to 3030 to avoid conflict with exterior handrail.

AD 2.10 **REPLACE** sheet **A5.00 – Assemblies**:
- Existing floor joist spacing added to details 1 and 2.
- Subfloor thickness clarified as 1/2”.
- Note added to reference ceiling assemblies on A9.00.
- The word “Plank” removed from references to fiber-cement siding.
- Note added to patch and repair existing plaster prior to paint.
- Joist spacing and traffic coating spec reference added at covered porch assembly.

AD 2.11 **ADD** sheet **A5.02 – Exterior Details**:
- Added details for covered porch soffit and “Telepen” housing.

AD 2.12 **REPLACE** sheet **A6.01 – Interior Elevations**:
- Trim at window type “F” updated to reflect new window size.
- Mounting height at self-checkout counter added. Corner guard shown on 5/A6.01
- Remove reference to window treatments. Treatments to be provided by Owner.
- Media controller and access keypad shown halftone to indicate future by Owner.
- Projector and projection screen notes updated to reflect future work by Owner.

AD 2.13 **REPLACE** sheet **A7.01 – Interior Details**:
- Detail 1 updated to clarify subfloor and baseboard detailing.
- Details 3, 9, 10 updated to show 7/8" furring at type C1 ceiling.

AD 2.14 **REPLACE** sheet **A7.02 – Interior Details**:
- Add details 3 and 6 for ceiling transition and motorized projection screen.

AD 2.15 **REPLACE** sheet **A9.00 – Finish Schedule**:
- Add ceiling assemblies.

AD 2.15 **REPLACE** sheet **A9.01 – Door & Window Schedules**:
- Update window type "F" to reflect revised height of 3'-0".

AD 2.16 **ADD** drawing **ASK-01 – RV Parking Pad Demolition.**

SD 2.1 **ADD** drawing **SSK-1.1 – Monument Sign Foundation.**

SD 2.2 **ADD** drawings **SSK-2.1** and **SSK-2.2 – Chimney Bracing**.

CD 2.1 **REPLACE** sheet **CD101 – Demolition and TESC Plan**:
- Show demolition of existing concrete RV pad.
- Extend demolition of existing fence to property line.
- Show demolition of existing gas meter, refer to mechanical drawings.

CD 2.2 **REPLACE** sheet **CG101 – Site Grading and Drainage Plan**:
- Add EV charging pads.
- Revise trench drain lengths.

CD 2.3 **REPLACE** sheet **CP101 – Pavement Plan**:
- Update parking layout at accessible and EV stalls. Add signage.
- Add hydroseeding at electrical trench areas.
- Revise site lighting locations to match electrical site plan.

CD 2.4 **REPLACE** sheet **C-502 - Details**:
- Update accessible parking stall and signage notes.

CD 2.5 **ADD** sheet **C-503 - Details**:
- New details for accessible EV charging stall and signage.

SUBSTITUTION REQUESTS

The manufacturers noted below as "Approved" and elsewhere in this addendum are approved, subject to full compliance with the Contract Documents. Bidders are cautioned that the listing of a manufacturer in the addendum does not necessarily grant approval of a manufacturer's standard production product, but rather the manufacturer is approved to bid their product. Bidders are reminded that by bidding these substitutions, the product submittals and shop drawings are required and subject to review for conformance and compliance with the contract documents.

SECTION	DESCRIPTION	MANUFACTURER/PRODUCT	RESPONSE
09 30 00 – 2.03	Wall Tile Mortar	Ardex X65 Lite Tile and Stone Mortar	**Approved**
09 30 00 – 2.04	Epoxy Tile Grout	Ardex WA Epoxy Grout and Adhesive	**Approved**
09 30 00 – 2.05	Silicone Sealant	Ardex SX Silicone Sealant	**Approved**
09 30 00 – 2.12	Self-Leveling Underlayment	Ardex V1300 Self Leveling Underlayment	**Approved**

Refer to Section 01 25 00 for additional substitution request information. Only products listed above as "approved" or products listed in Part 2 of the technical specifications are approved for this project

BIDDER QUESTIONS

The following questions have either been submitted or discussed onsite during the walkthrough by potential bidders. The following responses provided are binding and shall become part of the Contract Documents.

NOTE: Refer to Addendum #1 for response to questions 1-15.

Question 16:	I'd like to request clarification on the following question from a landscaping subcontractor for this project; "The tree sizes: 2" @ 1- Gal are not the same and 1 Gal, Pot- plants don't exist. Could you please confirm tree sizes?"
Response 16:	**Thanks for pointing out our typo.** • **The 2 - Cornus kousa/Chinese Dogwoods should be a 2" calip.** • **All other trees and shrubs are listed correctly as a 1 gal. pot.** • **The 1 gallon size was permitted by the Flood Requirement Documents provided by Northwest Ecological.** • **The 1 - gal. pot was specified to keep the owners costs down.** • **If the landscape contractor cannot source a 1 gal. for any plant, they can request substitutions at a larger size.**
Question 17:	I am working on obtaining the bid bond for the Birch Bay Vogt Library, but I can't find who the bid bond should be payable to. Can you please confirm the bid bond is to be payable to Whatcom County Library System?
Response 17:	**Confirmed, make payable to Whatcom County Library System.**
Question 18:	Additional information coming in addendum #2 for the Accessible ramp. I assume that this will be cable rail, is that correct?
Response 18:	**Accessible ramp details reissued in Addendum #2.**
Question 19:	The cable rail specification does not list a preferred manufacturer, is it fair to assume this should be Feeney Designrail?
Response 19:	**Cable rail to be replaced with welded wire mesh, refer to A0.14 in Addendum #2.**
Question 20:	Please clarify the type of handrail to be installed at the main entry stair. Exterior elevations appear to be standard pipe rail. The first floor plan references the Aluminum handrail specification which calls for Designrail by Feeney, which is a cable rail system.
Response 20:	**Standard pipe railing is acceptable.**
Question 21:	S1.01 references details 11 or 12 on S4.02 at the north wall – those details don't exist on that sheet. Possibly the intent was to reference detail 4 for sill plate anchors?
Response 21:	**That is a typo. That note on S1.01, should read details 6/S3.01 or 10/S3.01.**
Question 22:	Else where on sheet S1.01, there are references at exterior walls that call out 6 & 11 on S3.01. 11/S3.01 is the new concrete footing detail for the columns. Possibly this was intended to be details 6 and 10 on S3.01?
Response 22:	**That is a typo. That note on S1.01, should read details 6/S3.01 or 10/S3.01.**

Question 23:	A1.12 – There appears to be many detail callouts with no sheet or detail numbers.
Response 23:	**Sheet A1.12 has been reissued in Addendum #2.**
Question 24:	A1.11, Plan note 14 – References specification Division 09 96 00 – High Performance Coatings – This Section does not appear to be included.
Response 24:	**Specification Section 09 96 00 - High Performance Coatings has been included in Addendum #2.**
Question 25:	A1.11, Plan note 10 – References specification Division 07 18 00 – Traffic Coatings – This section does not appear to be included.
Response 25:	**Specification Section 07 18 00 - Traffic Coatings has been included in Addendum #2.**
Question 26:	Confirm no reinforcement for the 6" Waste enclosure pad.
Response 26:	**Provide 4x4 WWF per 3/C502.**
Question 27:	What is the assumed spacing of the floor joists?
Response 27:	**24" on center for original structure, 16" on center for additions. Spacing added to assembly types on A5.00. Assembly tags added to plans issued in Addendum 2.**
Question 28:	Are the louvers to be a true Flood Vent or would a standard Louver be acceptable so long as we meet the "Removable" Criteria?
Response 28:	**Standard louvers are acceptable. Provide minimum open area shown on A1.00.**
Question 29:	Does the existing column in the crawlspace need to be wrapped or protected prior to placing fill to avoid damage and rotting?
Response 29:	**Coat existing beam with new asphalt emulsion coating or dampproofing. See keynote added to sheet A1.00.**
Question 30:	What is the thickness of the existing concrete slab at the pole buildings?
Response 30:	**4" slab on grade with 6" thickened edge. Keynotes on sheet AD1.30 updated to note thicknesses.**
Question 31:	We're a siding contractor trying to give our bids to GC's. Is there a plan holder list or list of GC's available?
Response 31:	**Check the WCLS website for most current Plan Holder list.**
Question 32:	Drawings refer to a strapping detail for the existing chimney, but I can't find one in the drawings.
Response 32:	**Refer to SSK-2.1 and SSK-2.2 included with Addendum #2.**
Question 33:	Please clarify whether the existing asphalt will be pulverized and regraded or milled/ground to accommodate the 2" overlay.
Response 33:	**Pulverize and grade per plan.**
Question 34:	In the asbestos survey the plaster up stairs is less than 1% asbestos and now would fall under the EPA/NESHAP rules. Should that work be done by the abatement contractor?
Response 34:	**Yes it would require asbestos contractors. Non-asbestos trained contractors are not equipped to handle less than 1% of asbestos**

Question 35:	Do subcontractors also need to have a bid bond for this project?
Response 35:	**Subcontractors are not required to provide a bid bond. Subcontractors are expected to provide their bid to the prime bidding contractors. Bids and proposals for partial or individual scopes will not be accepted by WCLS**
Question 36:	Specification section 09 96 00 is missing?
Response 36:	**Section 09 96 00 – High Performance Coatings is attached in Addendum #2.**
Question 37:	I can't seem to find a detail for the new fencing in the back along the east property line. Can you please direct me to where that is or is that just getting replaced in kind?
Response 37:	**Fence details have been included with Addendum #2, refer to detail 4/A0.12. Intent is to replicate the existing fence along the Southern property line.**

ATTACHMENTS:

- Pre-Bid Walkthrough #2 Attendee Sign-In Sheet (1 page).
- Specification Section 06 65 00 – Composite Decking (3 pages).
- Specification Section 07 18 00 – Traffic Coatings (3 pages).
- Specification Section 08 71 00 – Door Hardware (13 pages).
- Specification Section 09 96 00 – High Performance Coatings (7 pages).
- Addendum #2 Drawings (36 pages):
  - G1.00 – Cover Sheet
  - AD1.00 – Crawl Space Demolition Plan
  - AD1.11 – First Floor Demolition Plan
  - AD1.12 – First Floor Demolition Ceiling Plan
  - AD1.21 – Second Floor Demolition Plan
  - AD1.30 – Demolition Plan Pole Buildings
  - AD2.01 – Demolition Elevations
  - AD2.02 – Demolition Elevations
  - AD2.03 – Demo Elevations East Pole Building
  - AD2.04 – Demo Elevations West Pole Building
  - A0.12 – Site Details and General Notes
  - A0.14 – Accessible Ramp Plan and Details
  - A1.00 – Crawl Space Floor Plan
  - A1.11 – First Floor Plan
  - A1.12 – First Floor Ceiling Plan
  - A1.21 – Second Floor Plan
  - A1.22 – Second Floor Ceiling Plan
  - A1.31 – Roof Plan
  - A2.01 – Exterior Elevations
  - A2.02 – Exterior Elevations
  - A5.00 – Assemblies
  - A5.02 – Exterior Details
  - A6.01 – Interior Elevations
  - A7.01 – Interior Details
  - A7.02 – Interior Details
  - A9.00 – Finish Schedule
  - A9.01 – Door and Window Schedules
  - ASK-01 – RV Parking Pad Demolition
  - SSK-1.1 – Monument Sign Foundation
  - SSK-2.1 – Chimney Bracing Detail
  - SSK2.2 – Chimney Bracing Detail
  - CD101 – Demolition and TESC Plan
  - CG101 – Site Grading and Drainage Plan
  - CP101 – Pavement Plan
  - C-502 – Details
  - C-503 - Details

End of Addendum 2

Sign In Sheet: Birch Bay Vogt Library Express

Name: Catherine D Marquez
Email: asbestoseas@aol.com
Title: Owner Company: EAS

Name: Marley McIntyre
Email: m.mcintyre@colacurcio.com
Title: PM Company: Colacurcio Brothers

Name: Brian Gresham
Email: brian@windwoodent.com
Title: Estimator Company: Windwood Enterprises Inc.

Name: Andy Swinburnson
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Title: Project Manager Company: Swinburnson Ent.

Name: Ryan Cullup
Email: ryan.cullup@wcls.org
Title: Facilities Mgr Company: ~~Whatcom~~ WCLS

Name: Clark Yoder
Email: cyoder@oaips.com
Title: Con Admin Company: OAI

PART 1 - GENERAL

1.01 SUMMARY

A. Work in this section includes:
   1. PVC composite decking at new accessible ramp.
   2. Decking fastening system.

B. Related work in other sections:
   1. Section 06 10 00 – Rough Carpentry.
   2. Section 06 65 00 – Plastic Simulated Wood Trim.

1.02 SUBMITTALS

A. See Section 013000 - Administrative Requirements for submittal procedures.

B. Product Data: Submit manufacturers' data on manufactured products showing compliance with specified requirements and installation instructions.
   1. Include decking fastening system components.

C. Samples: For decking, not less than 24 inches long, showing the range of variation to be expected in appearance of decking, including surface texture.

1.03 QUALITY ASSURANCE

A. Installer Qualifications: Installer with a minimum of 3 years experience installing composite deck materials.

B. Mock-Up: Provide a mock-up for evaluation installation techniques and workmanship.

1.04 DELIVERY, STORAGE, AND HANDLING

A. Store materials under cover and protected from weather and contact with damp or wet surfaces. Stack materials flat with spacers between each bundle to provide air circulation. Provide for air circulation around stacks and under coverings.

1.05 WARRANTY

A. See Section 017800 - Closeout Submittals for additional warranty requirements.

B. Special Warranty: Manufacturer agrees to repair or replace components of decking system that fail in materials or workmanship within specified warranty period.
   1. Failures include, but are not limited to, the following:
   2. Structural failures, including cracking, splitting, and deforming.
   3. Warranty Period: 20 years from date of Substantial Completion.

C. Fade and Stain Warranty: Provide manufacturer's warranty against color fade and permanent staining within warranty period.
   1. Fading is defined as loss of color of more than 4 Hunter color-difference units as measured in accordance with ASTM D2244.
   2. Warranty Period: 25 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.01 PLASTIC DECKING

A. Basis-of-Design Product: Subject to compliance with requirements, provide AZEK Building Products; TimberTech AZEK Vintage Collection or comparable product by one of the following:
   1. Trex Company, Inc.
   2. Fiberon Decking.
   3. NewTechWood.
   4. Or approved equal.

B. All-Plastic Decking: Solid capped four-sided shapes made from HDPE, PVC, polystyrene, or cellular PVC; with no cellulose fiber.
   1. Decking Standard: ICC-ES AC174.
   2. Decking Size: 1 inch thick by 5-1/2 inches wide.
   3. Decking Length: Full length as indicated on the drawings.
   4. Configuration: Provide grooved edges designed for concealed fastening.
   5. Surface Texture: Embossed woodgrain.
   6. Color: Vintage Collection, Coastline.
   7. Fascia Board: 1/2 by 11-3/4 inches by 12 foot, matching decking color.

2.02 DECKING FASTENING SYSTEM

A. Basis-of-Design Product: Subject to compliance with requirements, provide AZEK Building Products “CONCEALoc”, or comparable product by one of the following:
   1. Blue Heron Enterprises, LLC.
   2. Grabber Construction Products.
   3. Ipe Clip Fastener Company Inc. (The).
   4. Or approved equal.

B. Concealed Decking Clips: Black-oxide-coated, stainless steel clips designed to secure decking material and provide uniform spacing of decking material.

C. Fasteners: Stainless steel screws, minimum #7 size, in sufficient length to penetrate not less than 1-1/4 inches (31 mm) into wood framing substrate.

2.03 ACCESSORIES

A. Flashing and Joist Tape: Heavy duty butyl adhesive tape, black color.
   1. TimberTech Pro-Tac Flashing and Joist Tape, or approved equal.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify lines, levels, and dimensions before proceeding with work of this section.

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

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

3.02 PREPARATION

A. Clean substrates of projections and substances detrimental to application.

3.03 INSTALLATION

A. Set work to required levels and lines, with members plumb, true to line, cut, and fitted. Fit work to other construction; scribe and cope as needed for accurate fit.

B. Install decking[and stair treads] in accordance with manufacturer's written instructions.

C. Secure decking to wood framing with [concealed deck clips and screws] [exposed fasteners].

D. Provide blocking and framing as indicated and as required to support facing materials, fixtures, specialty items, and trim.

E. For exposed work, arrange fasteners in straight rows parallel with edges of members, with fasteners evenly spaced and with adjacent rows staggered.

3.04 CLEANING AND PROTECTION

A. Protect installed decking from damage during construction.

B. Perform final clean of all deck surfaces upon completion of all work.

END OF SECTION 06 73 00

PART 1 - GENERAL

1.01 SUMMARY

A. Work in this section includes:
   1. New polyurethane waterproofing with basalt aggregate coating at covered porch.

B. Related work in other sections:
   1. Section 06 10 00 – Rough Carpentry.
   2. Section 07 62 00 – Sheet Metal Flashing and Trim.
   3. Section 07 92 00 – Joint Sealants.

1.02 SUBMITTALS

A. See Section 013000 - Administrative Requirements for submittal procedures.

B. Product Data: Submit manufacturers' data on manufactured products showing compliance with specified requirements and installation instructions.
   1. Manufacturer's data sheets on each product to be used.
   2. Preparation instructions and recommendations.
   3. Storage and handling requirements and recommendations.
   4. Typical installation methods.

C. Verification Samples: Two representative units of each type, size, pattern and color.

D. Shop Drawings: Include details of materials, construction and finish. Include relationship with adjacent construction.

1.03 ADMINISTRATIVE REQUIREMENTS

A. Convene a conference approximately two weeks before scheduled commencement of the Work. Attendees shall include Architect, Contractor and trades involved. Agenda shall include schedule, responsibilities, critical path items and approvals.

1.04 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum five years documented experience.

B. Installer Qualifications: Company specializing in performing Work of this section with minimum two years documented experience with projects of similar scope and complexity.

C. Source Limitations: Provide each type of product from a single manufacturing source to ensure uniformity.

D. Mock-Up: Construct a mock-up with actual materials in sufficient time for Architect's review and to not delay construction progress. Locate mock-up as acceptable to Architect and provide temporary foundations and support.
   1. Intent of mock-up is to demonstrate quality of workmanship and visual appearance.
   2. If mock-up is not acceptable, rebuild mock-up until satisfactory results are achieved.
   3. Retain mock-up during construction as a standard for comparison with completed work.
   4. Do not alter or remove mock-up until work is completed or removal is authorized.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Store and handle all materials in strict compliance with manufacturer's written instructions and recommendations.

B. Protect from damage due to weather, excessive temperature, and construction operations.

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

1.06 WARRANTY

A. See Section 017800 - Closeout Submittals for additional warranty requirements.

B. Manufacturer Warranty: 5-years from date of substantial completion.

C. Installer Warranty: Warrant coatings against defective materials and/or workmanship, to remain watertight and weatherproof with normal usage for 2-years following substantial completion.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Acceptable Manufacturers:
   1. APT Advanced Polymer Technology.
   2. Qualipur Qualideck.
   3. Or approved equal.

2.02 POLYURETHANE TRAFFIC COATING

A. High-solids, 2-component polyurethane waterproofing and traffic bearing system suitable for use in pedestrian areas.
   1. Basis of Design: Qualideck Pedestrian Traffic System with modified topcoat.
      a. Primer Coat: Q152 two-component polyurethane-based primer.
      b. Intermediate Coat: Qualipur 372 polyurethane coating, **minimum 2-coats**.
      c. Topcoat: #14x#50 Basalt aggregate, applied to **full refusal**.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify lines, levels, and dimensions before proceeding with work of this section.

B. Examine surfaces to receive membrane. Notify architect if surfaces are not acceptable. Do not begin surface preparation or application until unacceptable conditions have been corrected.

3.02 PRIMING

A. Condition all components to 60°F-85°F for 24 hours prior to use. Premix each component.

B. Mechanically mix at low speed (400 – 600 rpm) to completely mix the 2-component primer.

C. The substrate shall be clean and dry before primer (152) is applied. The substrate surface shall be inspected and made sure to be free of grease, oil, dust, dirt and other foreign matter, before primer coating is applied.

D. Apply primer at 4 mils using high quality rollers, flat squeegees, or airless spray units.

E. Allow to cure at 68-degrees Fahrenheit for 4-6 hours, but no more than 24-hours.

3.03 INTERMEDIATE COAT

A. Ensure all primers have properly cured and substrate is ready to receive new coatings.

B. Pre-mix the color component. Then, empty the contents of component “B” into component “A”. Mixing is accomplished by using a jiffy paddle and low speed drill (400 to 600 rpm). Take care not to incorporate excessive air into the product. Mix components for 2 minutes in provided pail. Scrape down sides of pail and mix for additional 1.5 minutes before proceeding with application.

C. Apply two intermediate coats of Q372. Use a high-quality roller, brush, or squeegee to apply a uniform film at the recommended rate. Sand, 12-20 mesh (angular) or 16-30 mesh (angular), flint (angular), or aluminum oxide (angular) can be applied by backrolling after application of the coating.

3.04 TOPCOAT

A. Apply basalt aggregate over intermediate coat until full refusal.

B. Adjust application rate as needed to achieve a uniform finish and texture.

3.05 QUALITY CONTROL

A. Apply new coatings as reviewed and approved during the mockup.

B. Repair any unsatisfactory work as directed by the Architect at no additional cost to the Owner.

END OF SECTION 07 18 00

PART 1 - GENERAL

1.01 SUMMARY

A. Work in this section includes:
   1. Hardware for wood, fiberglass, and aluminum doors.
   2. Thresholds.
   3. Weatherstripping and gasketing.

B. Related work in other sections:
   1. Section 08 14 00 – Wood Doors.
   2. Section 08 16 13 – Fiberglass Doors.
   3. Section 08 41 13 – Aluminum Framed Entrances.
   4. Section 27 05 00 - Common Work Results for Communications.
   5. Section 28 31 00 - Fire Detection & Alarm.

1.02 REFERENCES

A. Reference Standards: Applicable provisions of the most recent adopted editions of the following standards shall apply to the work of this Section:
   1. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design 2010.
   2. ASTM E283/E283M - Standard Test Method for Determining Rate of Air
   3. Leakage Through Exterior Windows, Skylights, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen 2019.
   4. DHI Sequence and Format for the Hardware Schedule 2019.
   5. DHI Keying Systems and Nomenclature 2019.
   6. DHI Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames 2004.
   7. DHI WDHS.3 Recommended Locations for Architectural Hardware for Flush Wood Doors 1993, also in WDHS-1/WDHS-5 Series, 1996.
   8. IBC International Building Code Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
   9. ICC A117.1 Accessible and Usable Buildings and Facilities 2017.
   10. NFPA 70 National Electrical Code Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
   11. NFPA 80 Standard for Fire Doors and Other Opening Protectives 2022.
   12. NFPA 101 Life Safety Code Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
   13. NFPA 105 Standard for Smoke Door Assemblies and Other Opening Protectives 2022.
   14. NFPA 252 Standard Methods of Fire Tests of Door Assemblies 2022.
   15. UL 10C Standard for Positive Pressure Fire Tests of Door Assemblies Current Edition, Including All Revisions

1.03 ADMINISTRATIVE REQUIREMENTS

A. Coordination: Coordinate the manufacture, fabrication, and installation of products that door hardware is installed on.

B. Sequencing and Scheduling: Sequence installation to ensure facility services connections are achieved in an orderly and expeditious manner.

C. Pre-Installation Meetings: Convene a preinstallation meeting one week prior to commencing work of this section; require attendance by affected installers and the following:
   1. Architect.
   2. Hardware Supplier’s Architectural Hardware Consultant (AHC).
   3. Hardware Installer.
   4. Owner's Security Consultant.

D. Furnishing: Furnish templates for door and frame preparation to manufacturers and fabricators of products requiring internal reinforcement for door hardware.

E. Keying Requirements Meeting:
   1. Schedule meeting at project site prior to Contractor occupancy.
   2. Attendance Required:
      a. Contractor.
      b. Owner.
      c. Hardware Supplier’s Architectural Hardware Consultant (AHC).
      d. Door Hardware Installer.
      e. Owner's Security Consultant.
      f. Manufacturer’s Representative (if required)
   3. Agenda:
      a. Establish keying requirements.
      b. Verify locksets and locking hardware are functionally correct for project requirements.
      c. Verify that keying and programming complies with project requirements.
      d. Establish keying submittal schedule and update requirements.
   4. Incorporate "Keying Requirements Meeting" decisions into keying submittal upon review of door hardware keying system including, but not limited to, the following:
      a. Access control requirements.
      b. Key control system requirements.
   5. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.
   6. Deliver established keying requirements to manufacturers.

1.04 SUBMITTALS

A. See Section 013000 - Administrative Requirements for submittal procedures.

B. Product Data: Manufacturer's catalog literature for each type of hardware, marked to clearly show products to be furnished for this project, and includes construction details, material descriptions, finishes, and dimensions and profiles of individual components.

C. Shop Drawings – Door Hardware Schedule: A detailed listing that includes each item of hardware to be installed on each door.
   1. Prepared by or under supervision of Architectural Hardware Consultant (AHC).
   2. Comply with DHI (H&S) using door numbering scheme and hardware set numbers as indicated in Contract Documents.
      a. Submit in vertical format.

3. List groups and suffixes in proper sequence.
4. Include complete description for each door listed.
5. Include manufacturer's and product names, and catalog numbers; include functions, types, styles, sizes and finishes of each item.
6. Include account of abbreviations and symbols used in schedule.

D. Shop Drawings – Electrified Door Hardware: Include diagrams for power, signal, and control wiring for electrified door hardware that include details of interface with building safety and security systems. Provide elevations and diagrams for each electrified door opening as follows:
1. Prepared by or under supervision of Architectural Hardware Consultant (AHC) and Electrified Hardware Consultant (EHC).
2. Elevations: Include front and back elevations of each door opening showing electrified devices with connections installed and an operations narrative describing how opening operates from either side at any given time.
3. Diagrams: Include point-to-point wiring diagrams that show each device in door opening system with related colored wire connections to each device.
4. Provide electrical operation technical sheets including product schematics, point to point diagrams, and electrical requirements of all electrified hardware. Completely coordinate with the general contractor, electrical engineer, electrician, security access subcontractor and the installer. Operational descriptions are for demonstration only – verify operational intent with the owner, architect and electrical engineer.

E. Samples for Verification:
1. Submit samples if requested.
2. Architect will return full-size samples to Contractor.
3. Include product description with samples.

F. Closeout: Submit in accordance with provisions of Division 01:
1. Manufacturer's Installation Instructions: Indicate special procedures and perimeter conditions requiring special attention.
2. Maintenance Data: Include data on operating hardware, lubrication requirements, and inspection procedures related to preventative maintenance.
a. Bitting List: List of combinations as furnished.
3. Keying Schedule:
a. Submit three (3) copies of Keying Schedule in compliance with requirements established during Keying Requirements Meeting unless otherwise indicated.
4. Warranty: Submit manufacturer's warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.
5. Maintenance Materials and Tools: Furnish the following for Owner's use in maintenance of project.
a. Tools: One set of each special wrench or tool applicable for each different or special hardware component, whether supplied by hardware component manufacturer or not.

1.05 QUALITY ASSURANCE

A. Qualifications:

1. Manufacturer (Supplier) Qualifications: Company with certified Architectural Hardware Consultant (AHC) and Electrified Hardware Consultant (EHC) to assist in work of this section.
2. Installer (Applicator) (Erector) Qualifications: Company specializing in performing work of the type specified for commercial door hardware with at least three years of documented experience.

B. Regulatory and Operational Requirements:
1. Provide hardware for all openings, whether specified or not, in compliance with NFPA Standard No. 80, proper operation and local building code requirements. Where required, provide only hardware which has been tested and listed by UL or FM for types and sizes of doors required and complies with requirements of door and door frame labels. Label hardware, as required, for compliance with pressure testing criteria as dictated in IBC.

1.06 WARRANTY

A. See Section 017800 - Closeout Submittals for additional warranty requirements.

B. Manufacturer Warranty: Provide manufacturer warranty against defects in material and workmanship for period indicated, from Date of Substantial Completion. Complete forms in Owner's name and register with manufacturer.
1. Closers: Twenty Five years, minimum.
2. Exit Devices: Ten years, minimum.
3. Locksets and Cylinders: Ten years, minimum.
4. Electrical Hardware: One year, minimum.
5. Other Hardware: Two years, minimum.
6. Provide a manufacturer’s variance on the manufacturer’s letterhead that indicates that they will comply with these requirements (if not compliant).

PART 2 - PRODUCTS

2.01 PERFORMANCE

A. General Requirements:
1. Provide specified door hardware as required to make doors fully functional, compliant with applicable codes, and secure to extent indicated.
2. Door Pulls and Push Plates:
a. Provide door pulls and push plates on doors without a lockset, latchset, exit device, or auxiliary lock unless otherwise indicated.
3. Closers:
a. Provide door closer on each exterior door, unless otherwise indicated.
b. Provide door closer on each fire-rated and smoke-rated door.
4. Thresholds:
a. Exterior Applications: Provide at each exterior door, unless otherwise indicated.
5. Smoke and Draft Control Seals:
a. Provide gasketing for smoke and draft control doors (Indicated as "S" on Drawings) that complies with local codes, requirements of assemblies tested in accordance with UL 1784.
6. Weatherstripping and Gasketing:

a. Provide weatherstripping on each exterior door at head, jambs, and meeting stiles of door pairs, unless otherwise indicated.
b. Provide door bottom sweep on each exterior door, unless otherwise indicated.
c. Fabricate as continuous gasketing, do not cut or notch gasketing material.

7. Electrically Operated and/or Controlled Hardware: Provide necessary power supplies, power transfer hinges, relays, and interfaces as required for proper operation; provide wiring between hardware and control components and to building power connection in compliance with NFPA 70.
8. Fasteners:
   a. Provide fasteners of proper type, size, quantity, and finish that comply with commercially recognized standards for proposed applications.
   b. Provide machine screws for attachment to reinforced hollow metal and aluminum frames.
   c. Provide stainless steel machine screws and lead expansion shields for concrete and masonry substrates.
   d. Provide wall grip inserts for hollow wall construction.
   e. Fire-Resistance-Rated Applications: Comply with NFPA 80.
   f. Concealed Fasteners: Do not use through or sex bolt type fasteners on door panel sides indicated as concealed fastener locations, unless otherwise indicated or required per manufacturer's testing requirements.

B. Performance/Design Criteria:
1. Provide door hardware products that comply with the following requirements:
   a. Applicable provisions of federal, state, and local codes.
      1) IBC.
      2) NFPA 101.
   b. Accessibility: ADA Standards and ICC A117.1.
   c. Fire-Resistance-Rated Doors: NFPA 80, listed and labeled by qualified testing agency for fire protection ratings indicated, based on testing at positive pressure in accordance with NFPA 252 or UL 10C.
   d. Hardware Preparation for Steel Doors and Steel Frames: BHMA A156.115.
   e. Hardware Preparation for Wood Doors with Wood or Steel Frames: BHMA A156.115W.
   f. Products Requiring Electrical Connection: Listed and classified by UL as suitable for the purpose specified.

2.02 HINGES

A. Manufacturers: Conventional hinges.
1. Listed in Door Hardware Schedule: Best
2. Approved Substitutions: Hager, McKinney
3. Continuous hinges are as manufactured by Best. Equal products by ABH or Select are acceptable.

B. Properties:
1. Butt Hinges: As applicable to each item specified.
   a. Standard Weight Hinges: Minimum of two (2) permanently lubricated non-detachable bearings.

b. Heavy Weight Hinges: Minimum of four (4) permanently lubricated bearings on heavy weight hinges.
c. Template screw hole locations.
d. Pins:
1) Easily seated, non-rising pins
2) Non removable pins (NRP) as needed.
e. UL 10C listed for fire-resistance-rated doors.
2. Continuous Hinges: As applicable to each item specified.
a. Geared Continuous Hinges: As applicable to each item specified.
1) Non-handed.
2) UL 10C listed for fire-resistance-rated doors.
3) Sufficient size to permit door to swing 180 degrees
4) Best, equals by Select and ABH are acceptable.

C. Finishes: See Door Hardware Schedule.

D. Grades:
1. Butt Hinges: Comply with BHMA A156.1 and BHMA A156.7 for templated hinges.
2. Continuous Hinges: Comply with BHMA A156.26, Grade 1.

E. Types:
1. Butt Hinges: Include full mortise hinges.
2. Continuous Hinges: Include geared hinges.

F. Options: As applicable to each item specified.

G. Quantities:
1. Butt Hinges: Three (3) hinges per leaves up to 90 inches in height. Add one (1) for each additional 30 inches in height or fraction thereof.
a. Hinge weight and size unless otherwise indicated in hardware sets:
1) For doors up to 36 inches wide and up to 1-3/4 inches thick provide hinges with a minimum thickness of 0.134 inch and a minimum of 4-1/2 inches in height.
2) For doors from 36 inches wide up to 42 inches wide and up to 1-3/4 inches thick provide hinges with a minimum thickness of 0.145 inch and a minimum of 4-1/2 inches in height.
3) For doors from 42 inches wide up to 48 inches wide and up to 1-3/4 inches thick provide hinges with a minimum thickness of 0.180 inch and a minimum of 5 inches in height.
4) For doors greater than 1-3/4 inches thick provide hinges with a minimum thickness of 0.180 inch and a minimum of 5 inches in height.
2. Continuous Hinges: One per door leaf.

H. Applications: At swinging doors.
1. Provide non-removable pins at out-swinging doors with locking hardware and all exterior doors.

I. Products:
1. Butt Hinges:
a. Concealed or exposed bearing, five (5) knuckle.
b. Plain Bearing, Five (5) Knuckle.

2. Continuous Hinges:
    a. Aluminum geared hinges.

2.03 LOCK CYLINDERS

A. Manufacturers:
    1. Listed in Door Hardware Schedule: Schlage.
    2. Approved Substitutions: None – facility standard

B. Properties:
    1. Lock Cylinders: Provide key access on outside of each lock, unless otherwise indicated.
        a. Provide cams and/or tailpieces as required for locking devices.
        b. Provide cylinders with appropriate format interchangeable cores where indicated.

C. Material:
    1. Manufacturer's standard corrosion-resistant brass alloy.

D. Products:
    1. Rim/mortise/removable cores.

2.04 MORTISE LOCKS

A. Manufacturers:
    1. Listed in Door Hardware Schedule: Schlage.
    2. Substitutions: Dorma M1000, Schlage L9000, Sargent 8200

B. Properties:
    1. Mechanical Locks: Manufacturer's standard.
        a. Fitting modified ANSI A115.1 door preparation.
        b. Door Thickness Coordination Fitting 1-3/4 inch (44 mm) to 2-1/4 inch (57 mm) thick doors.
        c. Latch: Solid, one-piece, anti-friction, self-lubricating stainless steel.
            1) Latchbolt Throw: 3/4 inch (19 mm), minimum.
        d. Auxiliary Deadlatch: One piece stainless steel, permanently lubricated.
        e. Backset: 2-3/4 inch (70 mm).
        f. Lever Trim:
            1) Functionality: Allow the lever handle to move up to 45 degrees from horizontal position prior to engaging the latchbolt assembly.
            2) Strength: Locksets outside locked lever designed to withstand minimum 1,400 inch-lbs (158.2 Nm) of torque. In excess of that, a replaceable part will shear. Key from outside and/or inside lever will still operate lockset.
            3) Spindle: Designed to prevent forced entry from attacking of lever.
            4) Independent spring mechanism for each lever.
                (a) Trim to be self-aligning and thru bolted.
            5) Handles: Made of forged or cast brass, bronze, or stainless steel construction. Levers that contain a hollow cavity are not acceptable.
            6) Levers to operate a roller bearing spindle hub mechanism.
    2. Electrified Locks: Same properties as standard locks, and as follows:
        a. Voltage: 24 VDC.

b. Function: Electrically locked (Fail Safe) or unlocked (Fail Secure), as indicated for each lock in Door Hardware Schedule.

C. Finishes: See Door Hardware Schedule.
1. Core Faces: Match finish of lockset.

D. Options:
1. Provide locksets made in a manufacturing facility to compliant with ISO 9001-Quality Management and ISO 14001-Environmental Management.

2.05 EXIT DEVICES

A. Manufacturers:
1. Listed in Door Hardware Schedule: Precision 2000.
2. Substitutions: Dorma 9000, Sargent 8800, Von Duprin 98/35

B. Properties:
1. Touchpads: “T” style metal touchpads and rail assemblies with matching chassis covers end caps.
2. Latch Bolts: Stainless steel deadlocking with 3/4 inch projection using latch bolt.
3. Cylinder: Include where cylinder dogging or locking trim is indicated.
4. Strike as recommended by manufacturer for application indicated.
5. Sound dampening on touch bar.
6. Dogging:
a. Non-Fire-Resistance-Rated Devices: Manual dogging feature UNO
7. Handing: Field-reversible.

C. Grades: Complying with BHMA A156.3, Grade 1.

D. Standards Compliance:
1. Provide UL (DIR) listed exit device assemblies for fire-resistance-rated doors.
2. Comply with UL 10C.

E. Code Compliance: As required by authorities having jurisdiction in the State in which the Project is located.

2.06 BOLTS

A. Manufacturers:
1. Listed in Door Hardware Schedule: Trimco
2. Substitutions: DCI, ABH, Ives

B. Properties:
1. Flush Bolts:
a. Pairs of Swing Doors: At inactive leaves, provide flush bolts of type as required to comply with code.
b. Manual Flush Bolts: Manually latching upon closing of door leaf.
1) Bolt Throw: 3/4 inch, minimum.
2) Provide manual flush bolts where allowed by code.

2.07 CLOSERS

A. Manufacturers:
1. Listed in Door Hardware Schedule: Best EHD9016

2. Approved Substitutions: LCN 4040XP, Sargent 271

B. Properties:
1. Surface Mounted Closers: Manufacturer's standard.
a. Construction: Cast Iron
b. Covers:
1) Type: Standard for product selected.
(a) Full.
2) Material: Plastic.
3) Finish: Painted.

C. Grades:
1. Closers: Comply with BHMA A156.4, Grade 1.
a. Underwriters Laboratories Compliance:
b. Testing Standards Compliance: Meeting requirements of UL 10C for positive pressure.

D. Code Compliance: As required by authorities having jurisdiction in the State in which the Project is located.

E. Types:
1. Rack-and-pinion, surface-mounted. 1-1/2 inches minimum bore.

F. Installation:
1. Mounting: Includes surface mounted installations.
2. Mount closers on non-public side of door and stair side of stair doors unless otherwise noted in hardware sets.
3. At outswinging exterior doors, mount closer on interior side of door.
4. Provide adapter plates, shim spacers, and blade stop spacers as required by frame and door conditions.
5. Where an overlapping astragal is included on pairs of swinging doors, provide coordinator to ensure door leaves close in proper order.

2.08 STOPS AND HOLDERS

A. Manufacturers:
1. Listed in Door Hardware Schedule: Trimco
2. Approved Substitutions: Rockwood, Don Jo

B. General: Provide overhead stop/holder when wall or floor stop is not feasible. Do not install floor stops unless specifically approved by Architect.

C. Grades:
1. Door Holders, Wall Bumpers, and Floor Stops: Comply with BHMA A156.16 and Resilient Material Retention Test as described in this standard.

D. Material: Base metal as indicated for each item by BHMA material and finish designation.

E. Types:
1. Wall Bumpers: Bumper, concave, wall stop.
2. Floor Stops: Provide with bumper floor stop.

F. Installation:

1. Non-Masonry Walls: Confirm adequate wall reinforcement has been installed to allow lasting installation of wall bumpers.

2.09 WEATHERSTRIPPING AND GASKETING

A. Manufacturers:
   1. Listed in Door Hardware Schedule: Pemko
   2. Approved Substitutions: Pemko, Zero

B. Grades: Comply with BHMA A156.22.

C. Products:
   1. Weatherstripping: See Door Hardware Schedule.
   2. Door Bottom Seals: See Door Hardware Schedule.
   3. Door Sweeps: See Door Hardware Schedule.
   4. Door Shoes: See Door Hardware Schedule.

2.10 KEYS AND CORES

A. Manufacturers:
   1. Listed in Door Hardware Schedule: Schlage.
   2. Approved Substitutions: None – facility stardard.

B. Properties: Complying with guidelines of BHMA A156.28.
   1. Provide small format interchangeable core.
   2. Provide keying information in compliance with DHI standards.
   3. Keying Schedule: Arrange for a keying meeting, with Architect, Owner and hardware supplier, and other involved parties to ensure locksets and locking hardware, are functionally correct and keying complies with project requirements.
   4. Keying: Master keyed.
   5. Include construction keying and control keying with removable core cylinders.
   6. Brass construction cores. Plastic is not acceptable.
   7. Do not make brass construction cores and construction control and operating keys a part of Owner's permanent keying system, nor furnish in the same keyway (or key section) as Owner, permanent keying system.
   8. Supply keys in following quantities:
      a. Grand Master Keys: 2 each.
      b. Master Keys: 4 each.
      c. Construction Master Keys: 6 each.
      d. Construction Keys: 10 each.
      e. Construction Control Keys: 1 each.
      f. Permanent Control Keys: 1 each.
      g. Change Keys: 3 each for each keyed core.
      h. Deliver keys with identifying tags to Owner by security shipment direct from manufacturer.
   9. Permanent Keys and Cores: Stamped with applicable key marking for identification. Do not include actual key cuts within visual key control marks or codes. Stamp permanent keys "Do Not Duplicate."
   10. Include installation of permanent cores and return construction cores to hardware supplier. Construction cores and keys to remain property of hardware supplier.

2.11 FINISHES

A. Finishes: Provide door hardware of same finish, unless otherwise indicated.
   1. Finish: 630; satin stainless steel. 652; satin chromium plated with steel base material, 626, satin chromium plated with brass/bronze base material and 689; aluminum painted, with any base material.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify that doors and frames are ready to receive this work; labeled, fire-rated doors and frames are properly installed, and dimensions are as indicated on shop drawings.

B. Correct all defects prior to proceeding with installation.

C. Verify that electric power is available to power operated devices and of correct characteristics.

3.02 INSTALLATION

A. Install (Apply) (Erect) in accordance with manufacturer's instructions for conditions of installation.

B. Install hardware in accordance with manufacturer's instructions and applicable codes.

C. Install hardware using the manufacturer’s fasteners provided. Drill and tap all screw holes located in metallic materials. Do not use “Riv-Nuts” or similar products.

D. Install hardware on fire-rated doors and frames in accordance with applicable codes and NFPA 80.

E. Install hardware for smoke and draft control doors in accordance with NFPA 105.

F. Use templates provided by hardware item manufacturer.

G. Do not install surface mounted items until application of finishes to substrate are fully completed.

H. Wash down masonry walls and complete painting or staining of doors and frames.

I. Complete finish flooring prior to installation of thresholds.

J. Door Hardware Mounting Heights: Distance from finished floor to center line of hardware item. As indicated in following list; unless noted otherwise in Door Hardware Schedule or on drawings.
   1. For Steel Doors and Frames: Install in compliance with DHI (LOCS) recommendations.
   2. For Wood Doors: Install in compliance with DHI WDHS.3 recommendations.
   3. Mount hardware at locations and heights recommended by manufacturer, requirements of ANSI A117.1, ADA and State Building Code, as applicable.

K. Set exterior door thresholds with full-width bead of elastomeric sealant at each point of contact with floor providing a continuous weather seal; anchor thresholds with stainless steel countersunk screws.

3.03 QUALITY CONTROL

A. Field (Site) Tests and Inspections:
   1. Perform field inspection and testing under provisions of Division 1 – Quality Control.

2. Provide an Architectural Hardware Consultant (AHC) to inspect installation and certify that hardware and installation has been furnished and installed in accordance with manufacturer's instructions and as specified.

3.04 HARDWARE SCHEDULE

Hardware Group No. 01 (HWG-1):				
QTY	DESCRIPTION	MODEL	FINISH	MFR
1 EA	CONT. HINGE	027XY OR 112HD	US28	IVE
1 EA	ELECTRIFIED LEVER LOCK	SCHLAGE ND80BDEU RHO STOREROOM LEVER LOCK (FAIL SECURE)	626	SCH
1 EA	RIM CYLINDER	20-057 ICX	626	SCH
1 EA	FSIC CORE	23-030	626	SCH
1 EA	AUTOMATIC OPERATOR	9531 ADA OPERATOR, PULL SIDE MOUNT	ANCLR	LCN
2 EA	ACTUATOR	8310-853 SQUARE HARD WIRED		LCN
1 EA	ACTUATOR BOX	8310-867S SURFACE MOUNT		LCN
1 EA	THRESHOLD	171A ADA, FIELD VERIFY SIZE	A	PEM
1 EA	KICK PLATE	8410 10” X 34” B-CS	US32D	IVES
1 EA	DOOR SWEEP	315CN 36”	AL	PEM
1 SET	SEALS	PK33D	BLK	PEM

Hardware Group No. 02 (HWG-2):				
QTY	DESCRIPTION	MODEL	FINISH	MFR
3 EA	HINGE	BY FIBERGLASS DOOR MANUFACTURER		
1 EA	ELECTRIFIED LEVER LOCK	SCHLAGE ND80BDEU RHO STOREROOM LEVER LOCK (FAIL SECURE)	626	SCH
1 EA	RIM CYLINDER	20-057 ICX	626	SCH
1 EA	FSIC CORE	23-030	626	SCH
1 EA	SURFACE CLOSER	LCN 4040XP RW/PA	689	LCN
1 EA	THRESHOLD	BY FIBERFLASS DOOR MANUFACTURER	AL	
1 EA	DOOR SWEEP	315CN 36”	AL	PEM
1 SET	SEALS	PK33D	BLK	PEM

Hardware Group No. 03 (HWG-3):				
QTY	DESCRIPTION	MODEL	FINISH	MFR
3 EA	HINGE	IVES 5PB1	626	IVES
1 EA	STOREROOM LEVER LOCK	SCHLAGE ND80PD RHO	626	SCH

Hardware Group No. 04 (HWG-4):				
QTY	DESCRIPTION	MODEL	FINISH	MFR
3 EA	HINGE	IVES 5PB1	626	IVES
1 EA	PASSAGE LEVER	SCHLAGE ND10S RHO	626	SCH
1 EA	KICK DOWN HOLDER	FS452	626	IVES

Hardware Group No. 05 (HWG-5):				
QTY	DESCRIPTION	MODEL	FINISH	MFR
3 EA	HINGE	IVES 5PB1	626	IVES
1 EA	CLASSROOM LEVER LOCK	SCHLAGE ND70PD RHO	626	SCH

Hardware Group No. 06 (HWG-6):				
QTY	DESCRIPTION	MODEL	FINISH	MFR
6 EA	HINGE	IVES 5PB1	626	IVES
1 EA	STOREROOM LEVER LOCK	SCHLAGE ND80PD RHO, LHR ACTIVE	626	SCH
1 EA	MANUAL FLUSH BOLT	ROCKWOOD 555 FLUSH BOLT	626	RWD
2 EA	KICK PLATE	8410 10” X 34” B-CS	US32D	IVES
2 EA	KICK DOWN HOLDER	FS452	626	IVES

Hardware Group No. 07 (HWG-7):				
QTY	DESCRIPTION	MODEL	FINISH	MFR
3 EA	HINGE	IVES 5PB1	626	IVES
1 EA	KEYED PRIVACY LEVER LOCK	SCHLAGE ND52PD RHO	626	SCH
1 EA	KICK PLATE	8410 10” X 34” B-CS	US32D	IVES

Hardware Group No. 08 (HWG-8):				
QTY	DESCRIPTION	MODEL	FINISH	MFR
3 EA	HINGE	IVES 5PB1	626	IVES
1 EA	CLASSROOM LEVER LOCK	SCHLAGE ND70PD RHO	626	SCH
1 EA	KICK PLATE	8410 10” X 34” B-CS	US32D	IVES

END OF SECTION 08 71 00

PART 1 - GENERAL

1.01 SUMMARY

A. Work in this section includes:
   1. New coating at exterior concrete and masonry surfaces.
   2. Painting of fiber-cement siding and existing exterior soffit and roof framing members.
   3. Surface preparation.

B. Related work in other sections:
   1. Section 04 01 00 – Maintenance of Masonry.
   2. Section 04 20 00 – Unit Masonry.
   3. Section 06 65 00 – Plastic Simulated Wood Trim.
   4. Section 07 46 46 – Fiber Cement Siding.
   5. Section 09 91 00 – Painting.

1.02 SUBMITTALS

A. See Section 013000 - Administrative Requirements for submittal procedures.

B. Product Data: For each paint system indicated, including.
   1. Product characteristics.
   2. Surface preparation instructions and recommendations.
   3. Primer requirements and finish specification.
   4. Storage and handling requirements and recommendations.
   5. Application methods.
   6. Cautions for storage, handling and installation.

C. Selection Samples: Submit a complete set of color chips that represent the full range of manufacturer's products, colors, and sheens available.

D. Verification Samples: For each finished product specified, submit samples that represent the actual product, color, and sheen.

E. Coating Maintenance Manual: Upon conclusion of project, the Contractor or paint manufacturer/supplier will furnish a coating maintenance manual, such as Sherwin-Williams, "Custodian Project Color and Product Information" report or equal. Manual will include an Area Summary with finish schedule, Area Detail designating where each product/color/finish was used, product data pages, Material Safety Data Sheets, care and cleaning instructions, touch-up procedures, and color samples of each color and finish used.

1.03 QUALITY ASSURANCE

A. Installer Qualifications: A firm or individual experienced in applying paints and coatings similar in material, design, and extent to those indicated for this Project, whose work has resulted in applications with a record of successful in-service performance.

B. Paint exposed surfaces. If a color of finish, or a surface is not specifically mentioned, Architect will select from standard products, colors, and sheens available.

C. Do not paint prefinished items, concealed surfaces, finished metal surfaces, operating parts, and labels unless indicated.

D. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.

1. Finish surfaces for verification of products, colors, and sheens.
2. Finish area designated by Architect.
3. Provide samples that designate primer and finish coats.
4. Compatibility and Adhesion: Check after one week of drying and curing by testing in accordance with ASTM D3359; Adhesion by tape test. If the coating system is incompatible, additional surface preparation up to and including complete removal may be required.
5. Do not proceed with remaining work until the Architect approves the mock-up.

1.04 DELIVERY, STORAGE, AND HANDLING

A. Delivery: Deliver manufacturer's unopened containers to the work site. Packaging will bear the manufacturer's name, label, and the following list of information.
   1. Product name, and type (description).
   2. Application and use instructions.
   3. Surface preparation.
   4. VOC content.
   5. Environmental handling.
   6. Batch date.
   7. Color number.

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

C. Store materials in an area that is within the acceptable temperature range, per manufacturer's instructions. Protect from freezing.

D. Handling: Maintain a clean, dry storage area, to prevent contamination or damage to the coatings

1.05 PROJECT CONDITIONS

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

1.06 EXTRA MATERIALS

A. Furnish extra paint materials from the same production run as the materials applied and, in the quantities, described below. Package with protective covering for storage and identify with labels describing contents. Deliver extra materials to Owner.

B. Furnish Owner with an additional one percent of each material and color, but not less than 1 gal (3.8 l) or 1 case, as appropriate.

1.07 WARRANTY

A. See Section 017800 - Closeout Submittals for additional warranty requirements.

B. Applicator Warranty: 1 year from date of substantial completion.

PART 2 - PRODUCTS

2.01 MANUFACTURER

A. Acceptable Manufacturers: Subject to compliance with requirements, provide products by one of the following manufacturers.
   1. Sherwin Williams (S-W).
   2. Benjamin Moore (Moore).
   3. Or Approved Equal.

2.02 APPLICATION/SCOPE

A. High Performance Exterior Paint and Coating Systems:
   1. Concrete: Concrete steps and copings.
   2. Masonry: Concrete masonry units, cinder, or concrete block.
   3. Metal: Aluminum, galvanized steel.

2.03 PAINT MATERIALS – GENERAL

A. Paints and Coatings:
   1. Unless otherwise indicated, provide factory-mixed coatings. When required, mix coatings to correct consistency in accordance with manufacturer's instructions before application. Do not reduce, thin, or dilute coatings or add materials to coatings unless such procedure is specifically described in manufacturer's product instructions.
   2. For opaque finishes, tint each coat including primer coat and intermediate coats, one-half shade lighter than succeeding coat, with final finish coat as base color. Or follow manufactures product instructions for optimal color conformance.

B. Primers: Where the manufacturer offers options on primers for a particular substrate, use a primer categorized as "best" by the manufacturer.

C. Coating Application Accessories: Provide all primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials required, per manufacturer's specifications.

D. Color: Refer to Finish Schedule for paint colors, and as selected.

2.04 HIGH PERFORMANCE EXTERIOR PAINT AND COATING SYSTEMS

A. Concrete; Smooth: Walls and Ceilings, Poured Concrete.
   1. Urethane System; Waterbased:
      a. Gloss Finish:
         1) 1st Coat: S-W Loxon Concrete and Masonry Primer Sealer, LX02W50 (8 mils. wet, 3.2 mils. dry per coat).
         2) 2nd Coat: S-W Pro Industrial Waterbased Acrolon 100 Gloss, B65-720 Series.
         3) 3rd Coat: S-W Pro Industrial Waterbased Acrolon 100 Gloss, B65-720 Series (4.0-8.0 mils. wet, 1.8-3.6 mils. dry per coat).
      b. Gloss Finish Single Component:
         1) 1st Coat: S-W Loxon Concrete and Masonry Primer Sealer, LX02W50 (8 mils. wet, 3.2 mils. dry per coat).
         2) 2nd Coat: S-W Pro Industrial Pre-Catalyzed Waterbased Urethane Gloss, B65-120 Series.
         3) 3rd Coat: S-W Pro Industrial Pre-Catalyzed Waterbased Urethane Gloss, B65-120 Series (6.0-12.0 mils. wet, 1.9-3.8 mils. dry per coat).

B. Masonry; CMU: Concrete Masonry Units.
   1. Urethane Systems; Waterbased:
      a. Gloss Finish:
         1) 1st Coat: S-W Heavy Duty Block Filler, B42W46 (18.0-34.0 mils. wet, 10.0-18.0 mils. dry per coat).
         2) 2nd Coat: S-W Pro Industrial Waterbased Acrolon 100 Gloss, B65-720 Series.
         3) 3rd Coat: S-W Pro Industrial Waterbased Acrolon 100 Gloss, B65-720 Series (4.0-8.0 mils. wet, 1.8-3.6 mils. dry per coat).
      b. Gloss Finish Single Component:
         1) 1st Coat: S-W Heavy Duty Block Filler, B42W46 (18.0-34.0 mils. wet, 10.0-18.0 mils. dry per coat).
         2) 2nd Coat: S-W Pro Industrial Pre-Catalyzed Waterbased Urethane Gloss, B65-120 Series.
         3) 3rd Coat: S-W Pro Industrial Pre-Catalyzed Waterbased Urethane Gloss, B65-120 Series (6.0-12.0 mils. wet. 1.9-3.8 mils. dry per coat).

C. Non-Ferrous Metal: Galvanized and Aluminum.
   1. Urethane Systems; Waterbased:
      a. Gloss Finish:
         1) 1st Coat: S-W DTM Wash Primer, B71Y1 (3.4-6.4 mils. wet, 0.7-1.3 mils. dry per coat).
         2) 2nd Coat: S-W Pro-Industrial Waterbased Acrolon 100 Gloss, B65-720 Series.
         3) 3rd Coat: S-W Pro-Industrial Waterbased Acrolon 100 Gloss, B65-720 Series (4.0-8.0 mils. wet, 1.8-3.6 mils. dry per coat).
      b. Gloss Finish; Single Component:
         1) 1st Coat: S-W DTM Wash Primer, B71Y1 (3.4-6.4 mils. wet, 0.7-1.3 mils. dry per coat).
         2) 2nd Coat: S-W Pro Industrial Pre-Catalyzed Waterbased Urethane Gloss, B65-120 Series.
         3) 3rd Coat: S-W Pro Industrial Pre-Catalyzed Waterbased Urethane Gloss, B65-120 Series (6.0-12.0 mils. wet, 1.9-3.8 mils. dry per coat).

D. Textured Masonry System: At concrete copings.
   1. Textured Finish; Waterbased:
      a. 1st Coat: S-W Loxon BlockSurfacer, LX01W200 (16.0 mils. wet, 8.8 mils. dry per coat).
      b. 2nd Coat: S-W Conflex UltraCrete Acrylic Textured Masonry Topcoat CF18W800 Series (50-80 sq ft/gal).
         1) Finish Texture: Medium.
   2. Smooth Finish; Waterbased:
      1) 1st Coat: S-W Loxon XP, LX11W50 Series.
      2) 2nd Coat: S-W Loxon XP, LX11W50 Series (14.0-18.0 mils. wet; 6.4-8.3 mils. dry per coat).

E. Architectural PVC, Plastic, and Fiberglass:
   1. Latex Systems:
      a. Gloss Finish:

1) 1st Coat: S-W Extreme Bond Bonding Primer, B51W00150 (3.1 mils. wet, 0.9 mils. dry per coat).
2) 2nd Coat: S-W A-100 Exterior Latex Gloss, A8 Series.
3) 3rd Coat: S-W A-100 Exterior Latex Gloss, A8 Series (4.0 mils. wet, 1.3 mils. dry per coat).

b. Semi-Gloss Finish:
1) 1st Coat: S-W Extreme Bond Bonding Primer, B51W00150 (3.1 mils. wet, 0.9 mils. dry per coat).
2) 2nd Coat: S-W Pro Industrial Acrylic Semi-Gloss, B66-650.
3) 3rd Coat: S-W Pro Industrial Acrylic Semi-Gloss, B66-650 (2.0-4.0 mils. dry per coat).

c. Satin Finish:
1) 1st Coat: S-W Extreme Bond Bonding Primer, B51W00150 (3.1 mils. wet, 0.9 mils. dry per coat).
2) 2nd Coat: S-W A-100 Exterior Latex Satin, A82 Series.
3) 3rd Coat: S-W A-100 Exterior Latex Satin, A82 Series (4.0 mils. wet, 1.5 mils. dry per coat).

d. Flat Finish:
1) 1st Coat: S-W Extreme Bond Bonding Primer, B51W00150 (3.1 mils. wet, 0.9 mils. dry per coat).
2) 2nd Coat: S-W A-100 Exterior Latex Flat, A6 Series.
3) 3rd Coat: S-W A-100 Exterior Latex Flat, A6 Series (4.0 mils. wet, 1.2 mils. dry per coat).

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify lines, levels, and dimensions before proceeding with work of this section.

B. Do not begin installation until the substrates have been properly prepared; notify Architect of unsatisfactory conditions before proceeding. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

C. Proceed with work only after conditions have been corrected and approved by all parties, otherwise application of coatings will be considered as an acceptance of surface conditions.

D. Previously Painted Surfaces: Verify that existing painted surfaces do not contain lead based paints, notify Architect immediately if lead based paints are encountered.

3.02 PREPARATION

A. General: Surfaces will be dry and in sound condition. Remove oil, dust, dirt, loose rust, peeling paint, or other contamination to ensure good adhesion.
1. Prior to attempting to remove mildew, it is recommended to test any cleaner on a small, inconspicuous area prior to use. Bleach and bleaching type cleaners may damage or discolor existing paint films. Bleach alternative cleaning solutions are advised.
2. Remove mildew before painting by washing with a solution of 1 part liquid household bleach and 3 parts of warm water. Apply solution and scrub the mildewed area. Allow solution to remain on the surface for 10 minutes. Rinse thoroughly with clean water and allow the surface to dry before painting. Wear protective glasses or goggles, waterproof

gloves, and protective clothing. Quickly wash off any of the mixture that comes in contact with your skin. Do not add detergents or ammonia to the bleach/water solution.

3. Remove items including but not limited to thermostats, electrical outlets, switch covers and similar items prior to painting. After completing painting operations in each space or area, reinstall items removed using workers skilled in the trades involved.
4. No exterior painting should be done immediately after a rain, during foggy weather, when rain is predicted, or when the temperature is below 50 degrees F (10 degrees C), unless products are designed specifically for these conditions. On large expanses of metal siding, the air, surface, and material temperatures must be 50 degrees F (10 degrees F) or higher to use low temperature products.

B. Aluminum: Remove all oil, grease, dirt, oxide, and other foreign material by cleaning per SSPC-SP1, Solvent Cleaning.

C. Block (Cinder and Concrete): Remove all loose mortar and foreign material. Surface must be free of laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement, and hardeners. Concrete and mortar must be cured at least 30 days at 75 degrees F (24 degrees C). The pH of the surface should be between 6 and 9 unless the products are designed to be used in high pH environments. On tilt-up and poured-in-place concrete, commercial detergents and abrasive blasting may be necessary to prepare the surface. Fill bug holes, air pockets, and other voids with a cement patching compound.

D. Concrete, SSPC-SP13 or NACE 6: This standard gives requirements for surface preparation of concrete by mechanical, chemical, or thermal methods prior to the application of bonded protective coating or lining systems. The requirements of this standard are applicable to all types of cementitious surfaces including cast-in-place concrete floors and walls, precast slabs, masonry walls, and shotcrete surfaces. An acceptable prepared concrete surface should be free of contaminants, laitance, loosely adhering concrete, and dust, and should provide a sound, uniform substrate suitable for the application of protective coating or lining systems.

E. Cement Composition Siding/Panels: Remove all surface contamination by washing with an appropriate cleaner, rinse thoroughly and allow to dry. Existing peeled or checked paint should be scraped and sanded to a sound surface. Pressure clean, if needed, with a minimum of 2100 psi pressure to remove all dirt, dust, grease, oil, loose particles, laitance, foreign material, and peeling or defective coatings. Allow the surface to dry thoroughly. The pH of the surface should be between 6 and 9 unless the products are designed to be used in high pH environments.

F. Galvanized Metal: Clean per SSPC-SP1 using detergent and water or a degreasing cleaner to remove greases and oils. Apply to a test area, priming as required. Allow the coating to dry at least one week before testing. If adhesion is poor, Brush Blast per SSPC-SP16 is necessary to remove these treatments.

G. Plaster: Must be allowed to dry thoroughly for at least 30 days before painting unless the products are designed to be used in high pH environments. Room must be ventilated while drying; in cold, damp weather, rooms must be heated. Damaged areas must be repaired with appropriate patching material. Bare plaster must be cured and hard. Textured, soft, porous, or powdery plaster should be treated with a solution of 1 pint household vinegar to 1 gallon of water. Repeat until the surface is hard, rinse with clear water and allow to dry.

3.03 INSTALLATION

A. Apply all coatings and materials with the manufacturer's specifications in mind. Mix and thin coatings according to manufacturer's recommendations.

B. Do not apply it to wet or damp surfaces. Wait at least 30 days before applying to new concrete or masonry. Or follow manufacturer's procedures to apply appropriate coatings prior to 30 days. Test new concrete for moisture content. Wait until wood is fully dry after rain or morning fog or dew.

C. Apply coatings using methods recommended by manufacturer.

D. Uniformly apply coatings without runs, drips, or sags, without brush marks, and with consistent sheen.

E. Apply coatings at spreading rate required to achieve the manufacturers recommended dry film thickness.

F. Regardless of the number of coats specified, apply as many coats as necessary for complete hide, and uniform appearance.

G. Inspection: The coated surface must be inspected and approved by the Architect just prior to the application of each coat.

3.04 QUALITY CONTROL

A. Protect finished coatings from damage until completion of project.

B. Touch-up damaged coatings after substantial completion, following manufacturer's recommendation for touch up or repair of damaged coatings. Repair any defects that will hinder the performance of the coatings.

END OF SECTION 09 96 00