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2.7	FINISHES	
A.	Steel Finish: Factory priming for field-painted finish.	
1.	Shop Primer: Manufacturer's standard, fast-curing, lead- and chromate-free primer complying with ANSI A250.10 acceptance criteria.	
PART III - EXECUTION		
3.1	INSTALLATION	
A.	Remove welded-in shipping spreaders installed at factory.	
B.	Provide doors and frames of sizes, thicknesses, and designs indicated. Install standard steel doors and frames plumb, rigid, properly aligned, and securely fastened in place; comply with Drawings and manufacturer's written instructions.	
C.	Standard Steel Frames: Install standard steel frames for doors and other openings, of size and profile indicated. Comply with SDI 105.	
1.	Set frames accurately in position; plumb, aligned, and braced securely until permanent anchors are set. After wall construction is complete, remove temporary braces, leaving surfaces smooth and undamaged.	
a.	At fire-protection-rated openings, install frames according to NFPA 80.	
b.	Apply bituminous coating to backs of frames that are filled with mortar, grout, and plaster containing antifreezing agents.	
2.	Metal-Stud Partitions: Solidly pack mineral-fiber insulation behind frames.	
3.	Masonry Walls: Coordinate installation of frames to allow for solidly filling space between frames and masonry with mortar as specified in Unit Masonry Assemblies.	
4.	Concrete Walls: Solidly fill space between frames and concrete with grout. Install grout in lifts and take precautions, including bracing frames, to ensure that frames are not deformed or damaged by grout forces.	
D.	Standard Steel Doors: Fit hollow-metal doors accurately in frames. Shim as necessary.	
1.	Fire-Rated Doors: Install doors with clearances according to NFPA 80.	
E.	Glazing: Comply with installation requirements and with standard steel door and frame manufacturer's written instructions.	
F.	Final Adjustments: Check and readjust operating hardware items immediately before final inspection. Leave work in complete and proper operating condition. Remove and replace defective work, including standard steel doors or frames that are warped, bowed, or otherwise unacceptable.	
G.	Prime-Coat Touchup: Immediately after erection, sand smooth rusted or damaged areas of prime coat and apply touchup of compatible air-drying primer.	
END OF SECTION C08110		
SECTION C08210: PLASTIC LAMINATE FACED DOORS		
PART I - GENERAL		
1.1	SUMMARY	
A.	All doors in this section are to be supplied and installed by the General Contractor through the Owner's National Account Vendor, refer to National Account List.	
B.	Sections Includes:	
1.	Plastic Laminated Faced Doors	
1.2	RELATED SECTIONS	
A.	Hollow Metal Doors and Frames: SECTION C08110	
B.	Finish Door Hardware: SECTION C08710	
1.3	REFERENCES	
A.	AWI P-200 - Architectural Woodwork Quality Standards Illustrated; 1997, Seventh Edition, Version 1.0.	
B.	WDMA NWWDA I.S.1-A - Architectural Wood Flush Doors; 1997.	
1.4	SUBMITTALS	
A.	Submit under provisions of Section 01300.	
B.	Shop Drawings: Door and frame schedule.	
C.	Specimen Warranty.	
1.5	WARRANTY	
A.	Provide manufacturer's written warranty that doors will be free of defects for the period specified under normal use. Adhere to manufacturer's requirements to avoid voiding warranty.	
PART II - PRODUCTS		
2.1	MANUFACTURERS	
A.	PLASTIC LAMINATE FACED DOOR SUPPLIER CONTACT INFORMATION: Locknet, 100 Courchelle Drive Nickolasville, KY 40356 ATTN: Jeff Kirkner (856) 887-9119 ext. 131	
2.2	MATERIALS	
A.	Non-Fire-Rated Solid Core Doors: Flush wood doors faced with NEMA LD 3, Grade HGS (0.050-inch thick) high pressure plastic laminate.	
1.	Type: Particleboard core type, complying with AWI Type PC-HPDL-3 and WDMA NWWDA I.S.1-A, with average 30 pcf (480 kg/cu m) density core complying with ANSI A208.1 Grade LD-1.	
a.	Crossbanding: 1/10 inch (2.5 mm) thick 3-ply wood crossbanding.	
b.	Face Backer: 1/10 inch (2.5 mm) thick hardboard face backer.	
2.	Facing Color: See drawings.	
3.	Edge Banding: Matching laminate.	
4.	Total Thickness: 1-3/4 inches (44 mm).	
5.	Core Edges: Structural composite lumber.	
6.	Stiles and Rails: Solid hardwood lumber.	
7.	Stile Width: 1-3/8 inches (35 mm) before trimming.	
8.	Top Rail Height: 1-3/8 inches (35 mm) before trimming.	
9.	Bottom Rail Height: 1-3/8 inches (35 mm) before trimming.	
10.	Adhesive: Type I, waterproof & urea-free.	
2.3	FABRICATION	
A.	Doors: Factory fit doors to suit frame-opening sizes indicated, with the following uniform clearances and bevels, unless otherwise indicated.	
1.	Comply with clearance requirement standards for non rated door fitting.	
2.	Factory machine doors for hardware that is not surface applied.	
B.	Coordinate measurements of hardware mortises in metal frames to verify dimensions and alignment before factory machining.	
2.4	QUALITY CONTROL	
A.	Face Plane Tolerance (Telegraphing): Variation in surface of face not more than 1/100 inch from true plane in any 3 inch span.	
B.	Warp Tolerance: Bow, cup, and twist not more than 1/4 inch in any 42 inches wide by 84 inches high area, or less, if door dimensions are smaller; excluding doors less than 1-3/4 inch thick that are over 36 inches wide or 84 inches high and doors with cutouts exceeding manufacturer's specified limits.	
PART III - EXECUTION		
3.1	PREPARATION	
A.	Verify that frames comply with indicated requirements for type, size, location, and swing characteristics and have been installed with level heads and plumb jams.	

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3.2	A.	INSTALLATION	Install all materials in strict accordance with the manufacturer's installation instruction with doors in frame plumb and true, without rack, and so doors do not fall open or closed simply due to gravity.
1.			Install door frames with specified.
2.			Install door hardware as specified.
3.3	A.	FIELD QUALITY CONTROL	Installation Tolerances: Install non fire-rated doors with not more than 1/8-inch clearance at top and sides, 1/4-inch at bottom.
3.4	A.	ADJUSTING, CLEANING AND PROTECTION	Operation: Adjust door and frame for free operation without binding, rack, or warp. Re-hand or replace doors that do not swing or operate freely.
	B.		Clean and remove dust and other foreign matter from panel and framing surfaces. Clean finishes in accordance with manufacturer's instructions.
	C.		Project installed doors until completion of project.
END OF SECTION C08210			
SECTION - C08320: FRP FLUSH DOORS			
PART I - GENERAL			
1.1	A.	SECTION INCLUDES	Fiberglass reinforced polyester (FRP) flush doors with aluminum frames.
1.2		RELATED SECTIONS	Standard Steel Door and Frames: SECTION C08110
1.3	A.	PERFORMANCE REQUIREMENTS	General: Provide door assemblies that have been designed and fabricated to comply with specified performance requirements, as demonstrated by testing manufacturer's corresponding standard systems.
	B.		Air Infiltration: For a single door 3'-0" x 7'-0", test specimen shall be tested in accordance with ASTM E 283 at pressure differential of 6.24 psf. Door shall not exceed 0.80 cfm per linear foot of perimeter crack.
	C.		Water Resistance: For a single door 3'-0" x 7'-0", test specimen shall be tested in accordance with ASTM E 331 at pressure differential of 7.50 psf. Door shall not have water leakage.
	D.		Thermal Transmission: Exterior Doors, U-Value, AAMA 1503-98: Maximum of 0.29 BTU/hr x sf x degrees F, Minimum of 55 CRF value.
	E.		Surface Burning Characteristics, FRP Doors and Panels. ASTM E 84:
11.			Flame Spread: Maximum of 200, Class C.
1.4		SUBMITTALS	
A.		Product Data:	Submit manufacturer's product data, including description of materials, components, fabrication, finishes, and installation.
1.5		WARRANTY	
A.		Warrant doors, frames, and factory hardware	against failure in materials and workmanship, including excessive deflection, faulty operation, defects in hardware installation, and deterioration of finish or construction in excess of normal weathering.
B.		Warranty Period:	Ten years starting on date of shipment. In addition, a limited lifetime (while the door is in its specified application in its original installation) warranty covering: failure of corner joinery, core deterioration, delamination or bubbling of door skin.
PART II - PRODUCTS			
2.1	A.	MANUFACTURER	Special-Lite, Inc., Decatur, Michigan 49045.
2.2	A.	FRP FLUSH DOORS	Model: SL-17 Flush Doors with SpecLite3 fiberglass reinforced polyester (FRP) face sheets.
B.		Construction:	
1.		Door Thickness:	1-3/4 inches.
2.		Stiles and Rails:	Aluminum extrusions made from prime-equivalent billet that is produced from 100% reprocessed 6063-T6 alloy recovered from industrial process, minimum of 2-5/16-inch depth.
3.		Corners:	Mitered.
4.		Provide joinery of 3/8-inch diameter full-width tie rods through extruded splines top and bottom integral to standard tubular shaped stiles and rails reinforced to accept hardware as specified.	
5.		Securing Internal Door Extrusions:	3/16-inch angle blocks and locking hex nuts for joinery. Welds, glue, or other methods are not acceptable.
6.		Furnish extruded stiles and rails with integral reglets to accept face sheets. Lock face sheets into place to permit flush appearance.	
7.		Rail caps or other face sheet capture methods are not acceptable.	
8.		Extrude top and bottom rail legs for interlocking continuous weather bar.	
9.		Meeting Stiles:	Pile brush weathersseals. Extrude meeting stile to include integral pocket to accept pile brush weathersseals.
10.		Bottom of Door:	Install bottom weather bar with nylon brush weatherstripping into extruded interlocking edge of bottom rail.
11.		Glue:	Use of glue to bond sheet to core or extrusions is not acceptable.
C.		Face Sheet:	
1.		Material:	SpecLite3 FRP, 0.120-inch thickness, finish color throughout.
2.		Protective Coating:	Abuse-resistant engineered surface. Provide FRP with SpecLite3 protective coating, or equal.
3.		Texture:	Pebble.
4.		Adhesion:	The use of glue to bond face sheet to foam core is prohibited.
D.		Core:	
1.		Material:	Poured-in-place polyurethane foam.
2.		Density:	Minimum of 5 pounds per cubic foot.
3.		R-Value:	Minimum of 9.
E.		Cutouts:	
1.		Factory install vision lites, louvers, and panels.	
F.		Hardware:	
1.		Premachine doors in accordance with templates from specified hardware manufacturers and hardware schedule. No exceptions will be allowed.	
2.3	A.	MATERIALS	
		Aluminum Members:	
1.		Aluminum extrusions made from prime-equivalent billet that is produced from 100% reprocessed 6063-T6 alloy recovered from industrial processes: ASTM B 221.	
2.		Sheet and Plate:	ASTM B 209.
3.		Alloy and Temper:	As required by manufacturer for strength, corrosion resistance, application of required finish, and control of color.
B.		Components:	Door and frame components from same manufacturer.
C.		Fasteners:	
1.		Material:	Aluminum, 18-8 stainless steel, or other noncorrosive metal.
2.		Compatibility:	Compatible with items to be fastened.
3.		Exposed Fasteners:	Screws with finish matching items to be fastened.
END OF SECTION C08306			

2.4	ALUMINUM DOOR FRAMING SYSTEMS	
A.	Tubular Framing:	
1.	Size and Type: As indicated on the Drawings.	
2.	Materials: Aluminum extrusions made from prime-equivalent billet that is produced from 100% reprocessed 6063-T6 alloy recovered from industrial processes, 1/8-inch minimum wall thickness.	
3.	Applied Door Stops: 0.625-inch high, with screws and weatherstripping. Door stop shall incorporate pressure gasketing for weather seal. Countersunk fastener holes in door stop to preserve full metal thickness under fastener head.	
4.	Frame Members: Box type with 4 enclosed sides. Open-back framing in not acceptable.	
5.	Caulking: Caulk joints before assembling frame members.	
6.	Joints:	
a.	Secure joints with fasteners.	
b.	Provide hairline butt joint appearance.	
7.	Field Fabrication: Field fabrication of framing using stick material is not acceptable.	
8.	Applied Stops: For side, transom, and borrowed lites and panels. Applied stops shall incorporate pressure gasketing for weathering seal. Reinforce with solid bar stock fill for frame hardware attachments.	
9.	Hardware:	
a.	Premachine and reinforce frame members for hardware in accordance with manufacturer's standards and hardware schedule.	
10.	Anchors:	
.	a. Anchors appropriate for wall conditions to anchor framing to wall materials.	
b.	Door Jamb and Header Mounting Holes: Maximum of 24-inch centers.	
c.	Secure head and sill members of transom, side lites, and similar conditions.	
B.	Frame Capping:	
1.	Model: SL-70.	
2.	Capping: With insert frame as indicated on the Drawings.	
3.	Finish: Match framing.	
2.5	HARDWARE	
A.	Premachine doors in accordance with templates from specified hardware manufacturers and hardware schedule.	
2.6	VISION LITES	
A.	Factory Glazing: 1/4-inch glass	
B.	Lites in Exterior Doors: Allow for thermal expansion.	
2.7	ALUMINUM FINISHES	
A.	Anodized Finish: Class I finish, 0.7 mils thick. See Drawings for finish.	
PART III - EXECUTION		
3.1	INSTALLATION	
A.	Install doors in accordance with manufacturer's instructions.	
B.	Install doors plumb, level, square, true to line, and without warp or rack.	
C.	Anchor frames securely in place.	
D.	Separate aluminum from other metal surfaces with bituminous coatings or other means approved by Architect.	
END OF SECTION C08320		
SECTION - C08306: ACCESS PANELS		
PART I - GENERAL		
SECTION INCLUDES		
1.1	Flush mounted access panels.	
1.2	RELATED SECTIONS	
A.	Metal Fabrications: SECTION C05500	
B.	Gypsum Board Systems: SECTION C09250	
C.	Rough Carpentry: SECTION C06000	
D.	Painting: SECTION C09910	
PART II - PRODUCTS		
2.1	MANUFACTURER	
A.	Interior Access Panels:	
1.	Larsen Manufacturing Co., Minneapolis, MN 55432	
2.	MIFBA, Chicago, IL 60643	
3.	Substitutions are allowed as described in SECTION C01030	
B.	Exterior Access Panels:	
1.	JL Industries, Bloomington, MN 55435	
2.2	ACCESS PANELS	
A.	Interior: Access panels shall meet or exceed the following:	
1.	Size: 16 x 16 or as indicated on the drawings	
2.	Material:	
a.	Door: 14 gauge galvanized steel, minimum	
b.	Frame: 16 gauge steel, minimum	
2.	Hardware:	
a.	Hinges: Concealed.	
b.	Locks: Flush screw driver operated steel cam.	
3.	Anchors: Manufacturer's standard for use intended.	
4.	Finish: Phosphate dipped steel with factory prime coat.	
B.	Exterior: Model XPA weather resistant flush access panel	
1.	Material:	
a.	Door: 2-inch thick insulated .040 aluminum	
b.	Insulation: Fiberglass	
c.	Frame: 16 gauge galvanized steel frame with 1-inch hinge	
2.	Hardware:	
a.	Hinge: Continuous stainless steel piano hinge	
b.	Handle: Provide (2) non-locking (H) die-cast zinc handles with chrome plating	
4.	Gasket: EPDM foam rubber bulb seal	
5.	Anchors: Manufacturer's standard for use intended.	
6.	Powdercoat Finish: Bronze (B)	
7.	Provide spring chain to prevent door swinging more than 110 degrees.	
PART III - EXECUTION		
3.1	INSTALLATION	
A.	Protect access panels from damage. Protect work of other trades during installation. Install access panels in locations indicated, complete in all details, securely anchored in place, plumb, level and parallel with building lines. Finally installed access panels shall open and close freely.	
3.2	CLEAN-UP	
A.	Upon completion of work of this Section, remove all debris relating to the conduct of this portion of the work from the premises.	
END OF SECTION C08306		

2		SECTION - C08344: TRAFFIC DOORS
PART I - GENERAL		
1.1	SUMMARY	
A.	Light to medium duty traffic doors.	
1.2	SUBMITTALS	
A.	Submit under provisions of SECTION C01300.	
B.	Product Data: Manufacturer's data sheets on each product to be used, including:	
2.	Preparation instructions and recommendations.	
3.	Storage and handling requirements and recommendations.	
4.	Installation methods.	
5.	Operation and maintenance data.	
1.3	WARRANTY	
A.	Provide manufacturer's standard two-year warranty that products are free of defects in material and workmanship and guaranteeing to replace (exclusive of freight and labor) parts proven defective within two years after date of shipment purchaser.	
PART II - PRODUCTS		
2.1	MANUFACTURERS	
A.	Elason Corporation, Kalamazoo, MI 49003, (800) 828-3655.	
B.	Substitutions: Not permitted.	
2.2	TRAFFIC DOORS	
A.	Personnel Doors: 3/4-inch exterior grade solid wood core; 1-inch total thickness; light to medium duty.	
1.	Facing: Full length stainless steel panels. (Model SCP-3)	
a.	Full Length Panels: 18 gauge stainless steel both sides; stainless steel top hinge covers.	
2.	Window Size: 10-inch diameter.	
3.	Window Molding: Black rubber molding.	
4.	Glazing: Clear acrylic.	
5.	Provide jamb guards and base plates as specified in Accessories below.	
2.3	HARDWARE AND ACCESSORIES	
A.	Hinges: Double Action Easy Swing proprietary hinges.	
1.	Finish: Stainless steel.	
B.	Jamb Guards: Use in high impact traffic areas to protect the door jamb and bottom pin.	
1.	Installed at bottom edges of corners.	
1.	Finish: Stainless steel.	
2.	Size: 3-inches (76 mm) wide by 9-inches (229 mm) high.	
PART III - EXECUTION		
3.1	EXAMINATION	
A.	Do not begin installation until substrates have been properly prepared.	
B.	Verify jambs plumb and square.	
3.2	PREPARATION	
A.	Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.	
3.3	INSTALLATION	
A.	Install in accordance with the manufacturer's instructions.	
B.	Anchor assembly to wall construction and building framing without distortion or stress.	
C.	Fit and align door assembly including hardware.	
D.	Adjust door assembly to smooth operation and in full contact with weatherstripping.	
END OF SECTION C08344		
SECTION C08411: ALUMINUM-FRAMED ENTRANCES & STOREFRONTS		
PART I - GENERAL		
1.1	SUMMARY	
A.	Section Includes: Aluminum Storefront, including:	
	(SITE ADAPT ARCHITECT TO VERIFY WHERE THERMALLY BROKEN FRAMES ARE REQUIRED)	
1.	Aluminum storefront with thermally broken frame.	
2.	Aluminum storefront with non-thermally broken frame for interior applications.	
3.	Aluminum Entrance System	
B.	Related Sections:	
1.	Sealants and Caulks: SECTION C07920	
2.	Finish Door Hardware: SECTION C08710	
3.	Glazing: SECTION C08800	
C.	Note: The owner's preference is for a product with a higher pre-consumer and/or post-consumer recycled content when tested in accordance with AA Specifications for Aluminum Structures. Contractor to submit options.	
1.2	SYSTEM PERFORMANCE DESCRIPTION	
A.	Performance Requirements: Provide aluminum storefront systems that comply with performance requirements indicated, as demonstrated by testing manufacturer's assemblies in accordance with test method indicated.	
1.	Wind Loads: Completed storefront system shall withstand wind pressure loads normal to wall plane indicated:	
a.	Exterior Walls:	
2.	Positive Pressure:	
3.	Negative Pressure:	
b.	Interior Walls (Pressure Acting in Either Direction):	
4.	Deflection: Maximum allowable deflection in any member when tested in accordance with ASTM E 330 with allowable stress in accordance with AA Specifications for Aluminum Structures.	
a.	Without Horizontals: L175 or 3/4-inch (19.1mm) maximum.	
b.	With Horizontals: L175 or L240 or 1/4-inch (6.4mm) for spans greater than 13'-6" (4.1mm) but less than 40'-0" (12.2m).	
5.	Thermal Movement: Provide for thermal movement caused by 190 degrees F. (82.2 degrees C.) surface temperature without causing buckling stresses on glass, joint seal failure, undue stress on structural elements, damaging loads on fasteners, reduction of performance, or detrimental effects.	
6.	Air Infiltration: Completed storefront systems shall have 0.06 CFM/FT² (1.10 m³/h-m²) maximum allowable infiltration when tested in accordance with ASTM E 283 at differential static pressure of 6.24 PSF (299 Pa).	
7.	Water Infiltration: No uncontrolled water when tested in accordance with ASTM E 2331, test pressure differential of 10 PSF (479 Pa) (or when required, field tested in accordance with AAMA 503). Fastener Heads must be sealed and sealed against Sill Flashing on any fasteners that penetrate through the Sill Flashing.	
8.	Thermal Performance: When tested in accordance with AAMA 507 and NFRC 100:	
a.	Condensation Resistance Factor (CRF): A minimum of 60.	
b.	Complete System Thermal Transmittance U Value: 0.50 BTU/HR·FT²/°F or less.	
c.	Complete System Shading Coefficient: 0.70 or better.	