## SECTION 081713

## INTEGRATED DOOR AND HARDWARE ASSEMBLIES

### GENERAL

* 1. **GENERAL NOTE**
		1. The General Conditions, Supplementary General Conditions, and Division 1 ‑ General Requirements are hereby made a part of this Section as fully as if repeated herein.
	2. **SUMMARY**
		1. Section Includes
			1. Integrated metal door opening assemblies with doors, operating hardware, accessories, and installation for a complete assembly.
	3. **RELATED SECTIONS**
		1. Section 01 33 00, Submittal Procedures.
		2. Section 01 25 13, Product Substitution Procedures.
	4. **REFERENCES**
		1. ANSI/BHMA A156.32 – Integrated Door Opening Assemblies, 2015.
		2. ANSI/[UL 10C](http://ulstandardsinfonet.ul.com/scopes/0010C.html) – Positive Pressure Fire Tests of Door Assemblies, American National Standards Institute/Underwriters Laboratories, 2001.
		3. ASTM A1008 – Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability, American Society of Testing and Materials; 2004a.
		4. AWI AWQS – Architectural Woodwork Quality Standards **P-208;** The Architectural Woodwork Institute; 8th Edition.
		5. NFPA 101 – Life Safety Code, National Fire Protection Association, 2003.
		6. NFPA 252 – Standard Methods of Fire Tests of Door Assemblies, National Fire Protection Association, 2003.
		7. SDI 111 A – Recommended Steel Door Frame Details, Steel Door Institute; 2002.
		8. SDI 112 – Zinc-Coated (Galvanized/Galvannealed) Standard Steel Doors and Frames, Steel Door Institute, 1997.
		9. UL 305 – Standard for Panic Hardware, Underwriters Laboratories Inc., 1997
		10. UL 1784 – Air Leakage Tests for Door Assemblies, Underwriters Laboratories Inc., 2001 (for elevator shaft & lobby applications).
	5. **SYSTEM DESCRIPTION**
		1. Performance Requirements
			+ 1. Certified to BHMA – A153.32, Integrated Door Opening Assemblies, 2015.
	6. **SUBMITTALS**
		1. Shop Drawings
			1. In accordance with Section 01 33 00.
			2. Indicate each door and frame condition; frame type, profile and installation detail; items of finish hardware, finishes and electrical rough‑in requirements.
		2. Samples
			1. In accordance with Section 01 33 00.
		3. Environmental
			1. Submit UL certification for Environmental Product Declaration (EPD)
	7. **QUALITY ASSURANCE**
		1. Qualifications
			1. Manufacturer: Firm with not less than 5 years successful experience in fabrication of integrated metal door opening assemblies with full-height latch/lock and full-height hinge.
			2. Supplier: Authorized distributor of manufacturer.
			3. Installer: Manufacturer certified.
		2. Regulatory Requirements
			1. Rated door assemblies shall have been tested to meet conditions of NFPA 252 as required by NFPA 101 section 6-2.3.3.
	8. **DELIVERY, STORAGE AND HANDLING**
		1. Packaging: Polyvinyl wrapped, palette by floor, and clearly marked for each opening.
		2. Delivery: Deliver to site in original unopened containers and pallets bearing system manufacturers name, and brand.
		3. Store: Horizontally on level surface, not less than 2 inches off floor in a clean, dry well-ventilated area protected from sunlight, extreme heat, dryness and moisture.
	9. **PROJECT CONDITIONS**
		1. Do not bring door systems to site until building temperature and humidity ranges are compatible with recommended values for preservation of wood moisture content as listed by AWI AWQS. Building shall be stabilized at 30 to 60 percent humidity.
	10. **WARRANTY**
		1. Integrated metal door opening assembly: Manufacturer’s standard 2 year warranty against defects in material and workmanship.
		2. Locksets, hanger rods, and panic exit devices: Manufacturer’s lifetime limited warranty against defects in material and workmanship.
		3. Store doors in a clear, dry ventilated space having controlled temperature and a relative humidity range between 30 and 60 percent. Stack doors flat and off the floor to prevent warpage.

### PRODUCTS

* 1. **MANUFACTURER**
		1. Integrated door and hardware systems
			1. Total Door: [www.totaldoor.com](http://www.totaldoor.com).
			2. Substitutions: Refer to Section 01 25 13, Not permitted.
		2. Distributer:
			1. [www.integrated-door.com](http://www.integrated-door.com) 425-823-3054
	2. **MATERIALS**
		1. Frames
			1. Shall be included in this section.
			2. In accordance with ANSI/SDI A250.8, SDI 111A, and SDI 112.
			3. Construction: All‑welded unit, type.
			4. Material: Steel, cold rolled, ASTM A1008, 16 gauge.
			5. Fire Resistance Rating: Where indicated in Contract Documents for doors.
			6. Spreader Bar: Removable, at sill.
		2. Frame Anchorage Devices
			1. To securely fasten to wall construction without distortion or stress.
			2. In accordance with fire resistance rating indicated in Contract Documents.
		3. Door Systems
			1. In accordance with ANSI/SDI A250.8.
			2. General Use – Interior, Exterior & Fire Rated
				1. Stiles: Steel, galvannealed, 16 gauge, spot welded.
				2. Top and Bottom Rails: 5-1/2 inch 18 gauge steel rails.
				3. Cores:

Solid polystyrene continuously bonded to faces.

* + - * 1. Thickness: 1-3/4 inches.
				2. Faces: Steel, stretcher leveled, without seams or spot welds, galvannealed 20 gauge.
				3. Weld pattern: Enhanced in accordance with manufactures standard details.
			1. Gasketing
				1. U.L. approved for fire doors.
	1. **FINISHES**
		1. Hinge and Locking Channel
			1. Finish: Factory Pre-Finished.
				1. **Choose from standard factory colors.**
		2. Door Faces, Interior
			1. Finish: **Refer to door schedule.**
	2. **FABRICATION**
		1. Unless modified by Contract Documents, construct integrated metal door opening assemblies in accordance with manufacturer's published specifications and applicable Code requirements.
		2. Factory assemble with full-height hinges and latching/locking channels, locksets, exit devices, closers, lite kits, glazing, kickplates, stretcher plates, and armor plates.

### EXECUTION

* 1. **EXAMINATION**
		1. Field Conditions
			1. Prior to commencing installation, examine parts of building structure, which are to receive door systems and component parts.
			2. Report, in writing, conditions which would prevent proper execution or endanger permanency of the work to the Architect.
		2. Field Dimensions
			1. Where possible, verify frame tolerances before fabrication of door systems.
			2. Notify Architect of variances with reviewed shop drawings.
		3. Corrective measures, when necessary, shall be determined and approved prior to commencing fabrication.
		4. Coordinate door opening assembly details with adjacent work to assure proper attachments, clean junctions, etc.
	2. **INSTALLATION**
		1. Install work in accordance with Contract Documents and reviewed shop drawings.
			1. Install door systems and hardware in accordance with manufacturer’s recommendations.
			2. Installer: Manufacturer certified.
			3. Deliver frames to be installed by others.
		2. Frames
			1. Set plumb and square in accordance with DHI standards.
				1. Out-of-square at frame head: Not to exceed 1/16 inch.
				2. Out-of-plumb for each frame jamb: Not to exceed 1/16 inch.
				3. Out-of-alignment for each side in plan: Not to exceed 1/16 inch.
				4. Twist dimension: Not to exceed 1/16 inch.
			2. Brace until adjacent wall is constructed.
			3. Securely anchor to adjacent wall.
			4. Furnish and install clips, fastenings, and anchorages and conceal unless otherwise noted.
		3. Door Systems
			1. Hang to maintain manufacturer’s installation tolerances.
			2. Adjust to freely swing without binding, sticking, or sagging, and to eliminate excessive clearances.
		4. Hardware: When installation is otherwise complete, adjust hardware for proper operation and function.

### HARDWARE GROUPS

### Set -1 Hold Open-Pair, Exit Devices

2 ea Full Height Hinges H-13 Color TBD TD

2 ea Full Height Latch Channel L-11 Color TBD TD

2 ea Operating Pulls Lever or grip 630/628 TD

2 ea Exit Device PF200 (Flush Panic) 628 TD

2 ea Closer 90 or 180 deg. Alum TD
 1 set Smoke seals Black TD

2 ea Mag Holder TDH200 TD

### Set -2 Hold Open Double Egress

2 ea Full Height Hinges H-13 Color TBD TD

2 ea Full Height Latch Channel L-11 Color TBD TD

2 ea Exit Device PF200 (Flush Panic) 628 TD

2 ea Closer 90 or 180 deg. Alum TD
 1 set Smoke seal Black TD

2 ea Mag Holder TDH200 TD

### Set-3 Hold Open-Pair Elevator lobby, passage

2 ea Full Height Hinges H-13 Color TBD TD

2 ea Full Height Latch Channel L-11 Color TBD TD

2 ea Push/Pull Passage set M52/M33 628 TD

2 ea Closer 90 or 180 deg. Alum TD
 1 set Smoke seal Black TD

2 ea Mag Holder TDH200 TD

### Set -4 Hold Open-Single, Exit Devices

1 ea Full Height Hinges H-13 Color TBD TD

1 ea Full Height Latch Channel L-11 Color TBD TD

1 ea Operating Pulls Lever or grip 630/628 TD

1 ea Exit Device PF200 (Flush Panic) 628 TD

1 ea Closer 90 or 180 deg. Alum TD
 1 set Smoke seals Black TD

1 ea Mag Holder TDH200 TD

### Set-5 Hold Open-Single Elevator Cab Smoke door

1 ea Full Height Hinges H-13 Color TBD TD

1 ea Full Height Latch Channel L-11 Color TBD TD

1 ea Push/Pull Passage set M52/M33 628 TD

1 ea Closer 90 or 180 deg. Alum TD
 1 set Smoke seal Black TD

 1 ea Mag Holder TDH200 TD