**PART 1 GENERAL**

1.01 GENERAL REQUIREMENTS

1. Provide all materials, labor, equipment and services necessary to furnish, deliver and install all work under this section as shown on the contract documents, specified herein, and as specified by the job conditions.

1.02 DESCRIPTION

1. Related work specified elsewhere:

1. Metal Fabrication. Section 05 50 00

2. Rough Carpentry. Section 06 10 00

3. Access Panels & Doors: Section 08 31 00

4. Painting: Section 09 91 00

5. Electrical: Division 26

1.03 SUBMITTALS

1. Procedures: Furnish submittals in accordance with the general requirements specified.
2. Shop Drawing: Furnish shop drawings for architect's approval. Include elevations, sections, and details indicating dimensions, materials, finishes, conditions for anchorage and support of each door.
3. Certifications:
	1. Submit manufacturer’s Underwriters Laboratories (UL), Warnock Hersey (WH) or Factory Mutual Research (FM) laboratory test report verifying product compliance in accordance with the required fire and smoke ratings.
	2. Provide manufacturer’s ICC Evaluation Service report confirming compliance of the fire door assembly in accordance with the requirements of the Building Code.
4. Product Literature: Submit manufacturer's technical literature describing the product to be used under this section.
5. Maintenance and Operating Manuals: Furnish complete manuals describing the materials, devices and procedures to be followed in operating and maintaining all doors under this section. Include manufacturer's brochures and parts lists describing the actual materials used in the product.

1.04 QUALITY ASSURANCE

1. Fire & Smoke Rated Assemblies: Provide all doors with fire and smoke resistance rating required to comply with governing regulations which are inspected, tested, listed and labeled by UL, WH or FM and complying with NFPA 80 for class of opening. Provide units tested in accordance with the requirements of UL 10B, UL 1784, NFPA 252, ASTM E-152. Provide testing laboratory label permanently fastened to each fire and smoke door assembly.
2. Regulatory Requirements:
	1. Comply with applicable requirements of the laws, codes, ordinances and regulations of federal, state and municipal authorities having jurisdiction.
	2. Listed by the ICC Evaluation Service in accordance with the applicable sections of the Building Code.
3. Manufacturer Requirements: Door manufacturer shall have been in the business of and have experience in manufacturing the type of product covered under this specification section as well as giving credible service for a minimum of five (5) years. Provide list of at least ten (10) completed projects which include the products covered under this section.

1.05 DELIVERY, STORAGE AND HANDLING

1. General: Deliver and store materials in manufacturer's original packaging, labeled to show name, brand and type. Store materials in a protected dry location off the ground in accordance with manufacturer's instructions.

1.06 WARRANTY

1. Door Warranty: Furnish one (1) year written warranty signed by the manufacturer and installer agreeing to repair or replace work which has failed as a result of defects in materials or workmanship. Upon notification within the warranty period, such defects shall be repaired at no cost to the owner.

**PART 2 PRODUCTS**

* 1. SIDE ACTING FIRE & SMOKE RATED DOORS WITH INTEGRAL EGRESS DOOR
1. Manufacturer: Side acting fire and smoke rated doors with integral egress door shall be the Safescape model S7400-PC as manufactured by McKeon Door Company.
	1. MATERIALS
2. General: Each unit shall consist of an interlocking slat curtain designed to travel in a horizontal plane, smoothly and without binding. Curtain shall be manually operable to the fully open and fully closed position.
3. Curtain: Shall be fabricated of galvanized, interlocking, steel slats with an approximate cross section not less than 3" wide by 7/8" deep.
4. Leading Edge: Curtain shall be furnished with a structural steel member of tubular design to provide stiffness, limit deflection and provide for a tight fitting closure.
5. Receiving Edge: Shall be fabricated of a steel member with sufficient depth, designed to accept the leading edge and form a tight fitting closure when the door is the fully closed position.
6. Swinging Egress Door: Incorporated within the curtain shall be a swinging type steel door designed and built as an integral part of the fire door's assembly.
	* 1. Door Frame: Shall be an all-steel unit type ASTM A366 hot rolled steel, 14 gauge with the same labeled fire resistance rating as specified for door.
		2. Door Assembly: Complete with door, hinge, and locking channel mechanism. 20 gauge stretcher leveled, electro galvanized and bonderized steel faces.
		3. Hardware:
		4. Fire Exit Device: Flush mounted integral type fire exit device on one face and with pull handle on opposite face of the swinging door.
		5. Closer: Shall be concealed type.
7. Head Track: Shall be of not less than 1/8" thick steel and shall be provided with an integral locking bar. The faying surface shall not be less than 38% of the flat plate area when the door is in the closed position. Locking bar shall lock and retain the curtain in place.
8. Floor Track (Optional): Shall be no greater than 1½” deep and include integral removable stainless steel protective cover plates to allow for easy cleaning and proper maintenance.
9. Perimeter Smoke Seals: Provide internal, fully concealed UL Classified smoke seals located within the head track assembly. Externally mounted smoke seals shall not be acceptable.
10. Counterbalance Unit: The fire door shall be counterbalanced by means of adjustable steel counterweight system that is to be located in an area as indicated in the construction drawings.
11. Self-Closing Mechanism: The automatic release mechanism shall be activated by smoke detector or fire alarm. When activated the door is released and begins to close due to the captured counterweight force.
12. Magnetic Release Holder: A 24VDC magnetic release holder shall be located in the back of the fire door’s storage pocket. When power is interrupted to the magnetic release holder by the smoke detector or fire alarm, the fire door shall release and begin to self-close. Once the smoke detector or fire alarm has been cleared, the fire door shall simply be reset to the fire ready position, by manually pushing the fire door back into the storage pocket so that it engages the magnetic release holder.
13. Finish: After completion of fabrication, clean all metal surfaces to remove dirt and chemically treat to provide for powder coat adhesion. Provide powder coat finish of color as selected by architect from manufacturer’s standard RAL powder coat selection chart.

**PART 3 EXECUTION**

3.01 EXAMINATION

1. Examine surfaces and field conditions to which this work is to be performed and notify architect if conditions of surfaces exist which are detrimental to proper installation and timely completion of work.
2. Verify all dimensions taken at job site affecting the work. Notify the architect in any instance where dimensions vary.
3. Coordinate and schedule work under this section with work of other sections so as not to delay job progress.

3.02 INSTALLATION

1. Perform installation using only factory approved and certified representatives of the door manufacturer.
2. Install door assemblies at locations shown in perfect alignment and elevation, plumb, level, straight and true.
3. Adjust door installation to provide uniform clearances and smooth non-binding operation.
4. Install wiring in accordance with applicable local codes and the National Electrical Code Standard. Materials shall be UL listed.
5. Test door closing sequence when activated by the building's fire alarm system. Reset door after successful test.

3.03 PROTECTION AND CLEANING

1. Protect installed work using adequate and suitable means during and after installation until accepted by owner.
2. Remove, repair or replace materials which have been damaged in any way.
3. Clean surfaces of grime and dirt using acceptable and recommended means and methods.