**SECTION 08 33 23.13**

**High-Performance Overhead High-Speed Doors**

**PART 1 – GENERAL**

* 1. **SECTION INCLUDES:**
1. High-Performance Overhead High-Speed Doors and accessories for complete installation.
2. Wiring from electric circuit disconnect to operator to control station.
3. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
	1. **RELATED REQUIREMENTS:**
4. Refer to Door, Frame and Hardware Schedules, related detail drawings, including jamb, head and thresholds as indicated on Contract Drawings for locations, quantities, and remarks, as well as general provisions of the Contract, General and Supplementary Conditions, and Division 01 which shall apply to the scope of this section.
5. Related sections may include:
6. Division 3 – Concrete
7. Division 4 – Concrete Unit Masonry
8. Division 5 – Metal Fabrications
9. Division 6 – Finish Carpentry
10. Division 7 – Flashing and Sheet Metal
11. Division 8 – Openings, Automatic Door Operators, Security Grilles, Door Hardware
12. Division 9 – Painting, field applied finish
13. Division 10 - Signage
14. Division 16 – Raceway and Boxes, Wiring Connections
15. Division 26 – Electrical
16. Division 28 - Access control
17. Division 32 – Manufactured Site Specialties (Bollards)
	1. **SUBMITTALS**
18. Product Data: Completely describing components.
19. Shop Drawings: Showing details of fabrication, installation, and accommodation to connecting work.
20. Installation Instructions: For door, operator, and accessories.
21. Operating and Maintenance Data: For door, operator, and accessories.
22. LEED Rated Project Certification: When requested, certificate indicating percentage of post-consumer recycled content by weight for each Product specified under this section.
	1. **QUALITY ASSURANCE**
23. Suppliers: Obtain High-Performance Overhead High-Speed Doors, including all components and accessories through one source, from a single manufacturer. Use only new doors, components, and accessories for this project.
24. Door manufacturer to have proven track record of successful product performance of no less than 10 years. References to be provided upon request.
25. Warranty: Product to have a minimum warranty of 2-years, warranty documentation to be provided upon request.
26. Installer Qualification: Door manufacturer, or trained, approved, and licensed door installer.
	1. Field Measurements: Verify field measurements are as indicated on shop drawings prior to beginning fabrication. Verify power supply conforms with high-performance overhead high-speed doors electrical requirements prior to fabrication.
	2. Coordination: Coordinate the work with installation of electrical power locations, and sizes of conduit.

**PART 2 – PRODUCT**

**2.01 MANUFACTURERS**

A. Marathon Model 209 Direct Drive High-Performance Overhead High-Speed Doors as manufactured by: ASI Doors, Inc
 Milwaukee, WI USA
 (800) 558-7068
 [www.asidoors.com](http://www.asidoors.com)
 sales@asidoors.com

B. Provide the following as to be considered the basis of design: High-Performance Overhead High-Speed Door Model: Marathon 209 Series

1. No substitutions will be considered unless written request for approval has been submitted by the bidder and has been received by the architect at least ten (10) days prior to the date for receipt of bids. Each such request shall include the name of the materials for which it is to be substituted and a complete description of the proposed substitute, including drawings, cuts, mockups, and electrical schematics permitted. Doors that utilize bolt on hinges, flexible hinges, belt hinge design, roller wheels, elongation springs, lift cables or other complex tension systems requiring significant maintenance requirements, will not be accepted.
	1. **HIGH-PERFORMANCE OVERHEAD HIGH-SPEED DOORS**
2. GENERAL
	1. Door size to fit door opening 20’0” wide x 16’0” high or shown on architectural drawings.
	2. Door opening speeds shall be field adjustable up to 80” per second.
	3. Door closing speeds shall be field adjusted.
	4. Doors curtain slats shall be connected utilizing overlapping wind-locks. Doors containing roller wheels, metal hinges, or straps will not be accepted.
3. MATERIALS
	1. Door curtain material shall be constructed of solid hinge strength, extruded clear anodized aluminum slats with nylon wind-locks to prevent metal-to-metal contact while in operation, or
	2. [OPTIONAL]: Full width clear polycarbonate window slats with UV inhibitors (Model 209V),
	3. [OPTIONAL]: Custom configuration of window slats and solid slats (Model 209D),
	4. Side guides shall be constructed of high strength, extruded clear anodized aluminum with full perimeter weather seal.
	5. Side guides shall extend the height of the door opening and not exceed a 6” wide x 6” depth footprint.
	6. Side guides shall not contain springs, counterbalance systems, cables, chains, or sprockets.
4. HOODS
5. [OPTIONAL]: Galvalume with PVDF finish full shroud / hood with polymer end caps to cover barrel and operator assemblies.
6. OPERATION
	1. Doors shall be powered by a 3 horsepower, high speed / high cycle electric direct drive motor, without the use of springs, counterbalance systems, cables, pulleys, or sprockets.
	2. Electric direct drive motor shall be 3 horsepower, capable of accommodating 208V, 230V, or 460 V 3 phase, 60Hz.
	3. Self-Diagnostic electric control panel to be in a NEMA 4 rated enclosure, assembled and ready for connection by others. Momentary Open / Close / Stop button and rotary disconnect on face of control panel.
	4. Absolute encoder provides infinite adjustment. Adjustments to be made without the aid of special tools and can be made from the exterior of the control panel.
	5. Floor accessible manual “Chain-fall” operation with disconnect cut-off switch when in manual mode. (Spring loaded release levers will not be accepted.)
	6. Door curtain shall be equipped with wireless electric reversing bottom edge to be active along full length of door edge.
	7. Time delay auto close full adjustable in field

1. FINISHES
2. Clear anodized aluminum finish
3. [OPTIONAL]: RAL color or custom anodized color match
4. SAFETY & ACTIVATION
	1. Dual safety reversing photo-eyes standard, or
		* 1. [OPTIONAL]: 6’ High light curtain reversing system
	2. 24v Activation, controls and safety may include:
		* 1. [OPTIONAL]: One, two or three push button controls,
			2. [OPTIONAL]: Ceiling mounted, low voltage pull switch,
			3. [OPTIONAL]: Radio control actuator,
			4. [OPTIONAL]: Motion and/or presence detector system,
			5. [OPTIONAL]: Loop detector module (floor wire loop by others),
			6. [OPTIONAL]: Touchless waive actuator,
			7. [OPTIONAL]: Preannounce to close visual or audible warning,
			8. [OPTIONAL]: Two or four LED warning light bars
			9. [OPTIONAL]: Other activation or warning systems by others

**PART 3 – EXECUTION**

**3.01 EXAMINATION**

1. Verification of Conditions:
	* + 1. The opening should be square and plumb in order to achieve the best possible installation.
			2. The floor between the door jambs should be level and if not, address this condition when positioning the door side columns.
			3. Areas immediately adjacent and above the opening must be free of intrusion from pipes, electrical conduit, building structural members and other obstructions.
			4. Verify wall integrity and if necessary, structurally reinforce to support the weight of the door.
			5. Verify installation conditions as satisfactory to receive work of this section. Beginning work constitutes your acceptance of conditions as satisfactory.
2. Verify the size of the high-performance overhead high-speed door against the opening size, dimensions, and tolerances before beginning the actual installation.

**3.02 PREPARATION**

* + 1. Coordination:
			1. Coordinate installation of high-performance overhead high-speed doors with other trades prior to commencement of work. If any conditions are found to be unsatisfactory, do not commence work.
			2. Only factory trained installers who have read and become familiarized with the manufacturer’s written instructions for installation, operating, and maintenance should preform the required work.
		2. Surface Preparation:
			1. Door openings should be weatherproofed, flashed, and ready to receive finishes prior to commencing installation.
			2. Protect surrounding areas and surfaces to prevent damage during work of this section.
		3. Demolition / Removal:
			1. High-performance overhead high-speed doors must be installed directly to the structure of the doorway. Previous doors installed must be removed along with any other materials which will interfere with installation. Care will be taken not to damage adjacent materials or surfaces.

**3.03 INSTALLATION**

* 1. Work to be performed by manufacturer trained licensed installers or under direct supervision of manufacturer technicians.
	2. Mechanical installation work in accordance with manufacturer’s written installation instruction manual. Only proper anchorage devices and appropriate sealants as outlined in the installation instruction manual should be utilized.
	3. Electrical installation work and final connections should be done only by licensed electricians and in accordance with the manufacturer’s written installation instruction manual.

**3.03 STARTUP AND ADJUSTING**

1. Refer to the written installation instruction manual for proper startup and adjusting procedures.

**3.04 DEMONSTRATION AND TRAINING**

1. Upon completion of installation, the Owner, or a representative of, shall have the door demonstrated and trained on its proper use and maintenance.
2. A sign-off must be obtained by the installer from the Owner’s, or a representative of, noting the date, function and procedures covered and submitted to manufacturer along with before and after pictures of the interior and exterior of the building. These must be submitted immediately following completion of installation at sales@asidoors.com and include the job number and name.
3. Questions regarding service and or technical support from the factory can be obtained through service@asidoors.com or (414) 464-6200 and requesting technical support.

**3.05 WARRANTY**

1. Two (2) Year – Mechanical and Electrical Components from date of shipment.
2. One (1) Year – Labor from date of shipment.
3. One (1) Year – Defects in material and workmanship from date of shipment.

**3.06 CLEANING**

1. Clean curtain and components using approve materials and methods recommend by manufacturer.
2. Remove labels, protective films, and other visible markings.
3. Leave the premises clean and free of residue of work of this section.

**END OF SECTION**