Davis Door Service, Inc.
2021 S. Grand St. Seattle, WA 98144-4526,
Phone# 206-324-9101 • Fax# 206-324-9104,
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DIVISION 08 - OPENINGS

CSI SECTION 083323- SLIDING GATES

PART 1 GENERAL

1.1 SUMMARY

A. Provide a complete **Sliding Gate System**, including all components required for a fully functional installation.

B. Work includes fabrication, factory finishing and calibration, delivery, and installation of the complete gate assembly as indicated on the drawings and specified herein.

C. Coordinate work of this Section with related trades, including concrete foundations, reinforcement, electrical power supply, and control wiring.

D. System shall be suitable for exterior industrial or commercial applications and designed for high-cycle, low-maintenance operation consistent with products manufactured by Davis Door Products.

2.1 RELATED SECTIONS

A. Section 03300 - Cast-In-Place Concrete: Prepared opening in concrete. Execution requirements for placement of anchors in concrete wall construction.

B. Section 04810 - Unit Masonry Assemblies: Prepared opening in masonry.

C. Section 05500 - Metal Fabrications: Steel frame and supports.

D. Section 08710 - Door Hardware

E. Section 11150 - Parking Control Equipment: Remote door control.

F. Section 16150 - Wiring Connections: Electrical service to door operator.

3.1 REFERENCES

A. ANSI/DASMA 108-2017 – Standard Method for Testing Sectional Garage Doors, Rolling Doors and Flexible Doors: Determination of Structural Performance Under Uniform Static Air Pressure Difference.

B. UL 325 – Standard for Door, Drapery, Gate, Louver, and Window Operators and Systems.

C. ASTM F2200 – Standard Specification for Automated Vehicular Gate Construction.

D. ASTM A 653 - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.

E. ASTM A 924 - Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process.

F. ASTM B 221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.

4.1 DESIGN / PERFORMANCE REQUIREMENTS

A. Gate Mounting Type: [Specifier to choose one option]

1. Top Track Mounted
2. V-Grooved Bottom Track Mounted
3. Cantilevered Bottom Track Mounted

B. Power Requirement options (choose one):
1. 120 Volts, Single Phase, 60Hz, 20A
2. 230 Volts, Single Phase, 60Hz, 20A
3. 230 Volts, Three Phase, 60Hz, 20A
4. 460 Volts, Three Phase, 60Hz, 20A

C. Wind load Design: The gate assembly shall be designed and constructed to resist the design wind loads and deflection limits indicated on the Contract Documents**.**

5.1 SUBMITTALS

A. Submit under provisions of Section 01300.

B. Product Data: Manufacturer's data sheets on each product to be used, including:
1. Preparation instructions and recommendations.
2. Storage and handling requirements and recommendations.
3. Installation methods.

C. Shop Drawings: Indicate plans and elevations including opening dimensions and required tolerances, connection details, and installation details.

D. Submission of chip and color samples shall be optional and available upon request.

E. Submission of sheeting pattern samples shall be optional and available upon request.

F. Manufacturer's Certificates: Certify products meet or exceed specified requirements.

G. Operation and Maintenance Data.

6.1 QUALITY ASSURANCE

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

B. Installer Qualifications: Authorized representative of the manufacturer with minimum five years documented experience.

C. Products Requiring Electrical Connection: Listed and classified by Underwriters Laboratories, Inc. acceptable to authority having jurisdiction as suitable for purpose specified.

D. Compliance:
1. Gate operator and control system shall comply with UL 325 – Standard for Door, Drapery, Gate, Louver, and Window Operators and Systems.
2. Gate construction shall comply with ASTM F2200 – Standard Specification for Automated Vehicular Gate Construction.
3. Electrical installation shall conform to NFPA 70 – National Electrical Code (NEC).
4. All applicable local building and electrical codes shall apply.

E. Single-Source Responsibility - Provide the complete gate system—including doors, panels, gate structure, operators, controls, safety devices, and accessories—from a single manufacturer. The primary manufacturer shall assume responsibility for the overall system performance, and integration. Secondary components shall be products approved or recommended by the primary manufacturer.

7.1 DELIVERY, STORAGE, AND HANDLING

A. Protect materials from exposure to moisture until ready for installation.

B. Store materials in a dry location.

8.1 PROJECT CONDITIONS

A. Pre-Installation Conference: Convene a pre-installation conference just prior to commencement of field operations, to establish procedures to maintain optimum working conditions and to coordinate this work with related and adjacent work.

9.1 WARRANTY

A. Manufacturer shall provide a limited warranty covering all parts and components for a period of two (2) years.

PART 2 PRODUCTS

1.2 MANUFACTURER

A. Acceptable Manufacturer:

1. Davis Door Service Inc., 2021 S. Grand St. Seattle, WA 98144-4526
Phone# 206-324-9101 • Fax# 206-324-9104 • Email: info@davisdoor.com
Website: https://davisdoorproducts.com/

B. Substitutions: Not permitted.

2.2 SLIDING GATE CONSTRUCTION

A. Aluminum Vertical Lift Gate System shall have the following characteristics:

1. Gate Panel Assembly: Each gate panel shall be constructed of a welded aluminum tube frame with an exterior aluminum sheeting overlay providing a smooth, finished surface.

a. Frame Material: 6063-T52 Aluminum Tubing and/or 6061-T6 conforming to ASTM B221.

b. Sheeting Material

(Specifier to choose one from standard offering):
[Specifier Note: Additional aluminum sheet patterns and perforation styles are available from McNICHOLS® upon request]

(i) Solid Aluminum Sheet, .090” Thick, 3003-H14
(ii) ¾ No.125 Flat Exp Alum Sheet, 1/8” Thick 5005-H34
(iii) ½ Round 11/16 Stag Perf Alum,1/8” Thick, 3003-H14
(iv) ¼” Impact Resistant Polycarbonate— clear or tinted as specified.

c. Finish

[Specifier to choose one]

(i) Mill Finish: Uncoated aluminum in its as-manufactured condition (extruded or rolled), with no supplemental surface treatment.
(ii) Powder-Coat Finish (Cardinal or Tiger): Factory-applied thermoset powder coating in architect-selected RAL color and sheen; applied per manufacturer’s standard process.
(iii) High-Performance Paint Finish (Artisan Kynar): Factory-applied, fluoropolymer-based coating providing superior UV and corrosion resistance; color and sheen as selected by Architect.

d. Steel shapes, Plates and Bars: ASTM A36

2. The following mounting hardware items represent the standard configuration and serve as the design basis for this system. Equivalent or heavier-duty components may be substituted when project conditions, loading, or performance requirements dictate. Mounting hardware shall be provided and installed in accordance with the mounting type specified in Section 4.1.
    a. Top Track Mounted
        (i) Henderson 301H Track. Henderson track brackets to be mounted to ceiling or header wall.
        (ii) Tandem bracket with Henderson 56 AX/N Rollers
    b. V-Grooved Bottom Track Mounted
        (i) Model AH115 6” V-Grooved wheel
    c. Cantilever Bottom Track Mounted
        (i) HI-Motion Cantilevered Gate Hardware
3. Finish and Color Options: [Specifier to choose one]
    a. Mill Finish: Uncoated aluminum in its as-manufactured condition (extruded or rolled), with no supplemental surface treatment.
    b. Powder-Coat Finish (Cardinal or Tiger): Factory-applied thermoset powder coating in architect-selected RAL color and sheen; applied per manufacturer’s standard process.
    c. High-Performance Paint Finish (Artisan Kynar): Factory-applied, fluoropolymer-based coating providing superior UV and corrosion resistance; color and sheen as selected by Architect.
4. Electric Gate Operator (Choose one):
    a. All-O-Matic SL-100 DCFP Operator
        (i) Power Supply Requirements: 115VAC / 230VAC / 1ph /60Hz
    b. Lift Master CSL24UL High Traffic Sliding Gate Operator
        (i) Power Supply Requirements: 120VAC / 230VAC / 1ph/60Hz
5. Entrapment Protection Devices (UL 325 compliant)
    a. Photoelectric Light Curtain: Manufacturer's standard system designed to detect an obstruction in door opening without contact between door and obstruction.
    b. Monitoring Type: Designed to interface with door operator control circuit to detect damage to or disconnection of sensing device.
    c. Electric Sensor Edge: Automatic safety sensor edge, located within astragal or weather stripping mounted to bottom section. Contact with sensor activates device. Connect to control circuit using manufacturer's standard take-up reel or self-coiling cable.
        (i) Monitoring Type: Four-wire configured device designed to interface with door- operator control circuit to detect damage to or disconnection of sensor edge. Operator Control Station - Provide operator control stations to control gate opening, closing, and emergency stop functions. Controls shall be compatible with the specified gate operator and comply with applicable electrical and safety standards.

6. Control Types – common control types are as follows. Other types are available. [Specifier to choose one or combination]
    a. Push-Button Control Station
    b. Key-Operated Control Station
    c. Push-Button and Key-Operated Combination Control Station
7. Gate Controls Mounting and Location shall be within visual line of sight of the door and 60” above finished floor (choose one or combination).
    a. Flush mounting.
    b. Surface mounting.
    c. Interior location.
    d. Exterior location.
    e. Both interior and exterior location.

B. Additional Options:
1. Weather-stripping (where applicable)
2. Specialty overlay panel sheeting
3. Powder coating or High Performance painting
4. Free exit motion sensor
5. Sensing Edge Receiver / Transmitters

PART 3 EXECUTION

1.3 PRE INSTALLATION SITE SURVEY

A. Do not begin installation until openings have been properly prepared.
B. Verify wall openings are ready to receive work and opening dimensions and tolerances are within specified limits.
C. Verify that electrical power is available, properly sized, and of the correct voltage, phase, and frequency as specified for the gate operator system.
D. If preparation is the responsibility of another installer, notify customer of unsatisfactory preparation before proceeding.
E. Verify Reinforcement (Rebar) Locations:
1. Prior to drilling, coring, or anchor installation, verify the location, depth, and spacing of reinforcing steel within concrete substrates.
2. Verification may be performed by review of structural drawings or by use of scanning methods such as ground penetrating radar (GPR) or rebar locators.
3. Scanning may be performed by the Installer or by others, depending on contract scope and project requirements.
4. Coordinate scanning responsibility with the Owner or General Contractor prior to commencement of work.
5. Report any conflicts, obstructions, or insufficient embedment conditions to the Engineer or Owner before proceeding.

2.3 PREPARATION

A. Clean surfaces thoroughly prior to installation.
B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result under the project conditions.

3.3 INSTALLATION

A. Install steel towers and aluminum vertical lift panels in accordance with approved shop drawings and the manufacturer's printed instructions.
B. Coordinate installation with adjacent work to ensure proper clearances and allow for maintenance.
C. Anchor assembly to wall construction and building framing without distortion or stress.
D. Fit and align door assembly including hardware.
E. Coordinate installation of electrical service. Complete power and control wiring from disconnect to unit components.
F. Provide proper operating procedures and maintenance schedule.

4.3 FINAL CALIBRATION AND CLEAN-UP

A. Compliance Test for proper operation and adjust as necessary to provide proper operation without binding or distortion.
B. Adjust hardware and operating assemblies for smooth and quiet operation.
C. Clean gates with non-abrasive materials and methods recommended by manufacturer.
D. All damaged, marred, or improperly finished components shall be repaired or replaced prior to final acceptance.

5.3 FINAL INSPECTION AND ACCEPTANCE

A. Final Inspection- Upon completion of installation and final calibration, conduct a joint inspection with the customer or authorized representative to verify full and proper operation of all assemblies and components.
B. Documentation - Provide all required submittals and documentation, including:
    1. Operation and maintenance manuals
    2. As-built drawings reflecting final installation conditions
    3. Warranty certificates and material test reports, if applicable
C. Training - Provide end-user training on gate operation, routine maintenance procedures, and basic troubleshooting. Confirm the operator’s understanding and demonstrate proper use.
D. Acceptance - Obtain written confirmation of acceptance from the customer upon successful demonstration of performance, completion of all required documentation, and correction of any punch list items.

END OF SECTION