SECTION 14425

VERTICAL WHEELCHAIR PLATFORM LIFT

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Unenclosed, self-contained vertical platform wheelchair lift.

1.02 RELATED SECTIONS

A. Section 03300 - Cast-In-Place Concrete: Concrete shaftway and anchor placement.

B. Section 04810 – Unit Masonry Assemblies: Masonry shaftway and anchor placement.

C. Section 16010 – Electrical General Provisions.

D. Section 16050 – Basic Electrical Materials and Methods.

E. Section 16111 – Conduit and Wire.

F. Section 16115 – Pullboxes.

1.03 REFERENCES

A. ASME A17.1 - Safety Code for Elevators and Escalators.

B. ASME A17.5 - Elevator and Escalator Electrical Equipment.

C. ASME A18.1 - Safety Standard for Platform Lifts and Stairway Chairlifts.

D. ANSI A117.1 - Accessible and Usable Buildings and Facilities.

E. NFPA 70 - National Electric Code.

F. CSA - National Electric Code.

1.04 SUBMITTALS

A. Submit under provisions of Section 01350.

B. Product Data: Manufacturer's data sheets on each product to be used, including:
   1. Submit manufacturer's installation instructions, including preparation, storage and 2. handling requirements.
   2. Include complete description of performance and operating characteristics.
   3. Show maximum and average power demands.

C. Shop Drawings:
   1. Show typical details of assembly, erection and anchorage.
   2. Include wiring diagrams for power, control, and signal systems.
   3. Show complete layout and location of equipment, including required clearances and coordination with shaftway.

D. Selection Samples: For each finished product specified provide, two complete sets of color chips representing manufacturer's full range of available colors and patterns.

E. Verification Samples: For each finish product specified, two samples, minimum size 150 mm (6 inches) square, representing actual product, color, and patterns.

1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Firm with minimum 10 years experience in manufacturing of vertical platform lifts, with evidence of experience with similar installations of type specified.

B. Installer Qualifications: Licensed to install equipment of this scope, with evidence of experience with specified equipment. Installer shall maintain an adequate stock of replacement parts, have qualified people available to ensure fulfillment of maintenance and callback service without unreasonable loss of time in reaching project site.

1.06 REGULATORY REQUIREMENTS

A. Provide platform lifts in compliance with:
   1. ASME A18.1 - Safety Standard for Platform Lifts and Stairway Chairlifts.
   2. ASME A17.1 - Safety Code for Elevators and Escalators.
   3. ASME A17.5 - Elevator and Escalator Electrical Equipment.
   4. NFPA 70 - National Electric Code.

B. Seismic Design: In accordance with four seismic risk zone in accordance with 2007 California Building Code.

1.07 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

B. Store components off the ground in a dry covered area, protected from adverse weather conditions.

1.08 PROJECT CONDITIONS

A. Do not use wheelchair lift for hoisting materials or personnel during construction period.

1.09 WARRANTY

A. Warranty: Manufacturer shall warrant the wheelchair lift materials and workmanship for one year following completion of installation.

B. Extended Warranty: Provide an extended manufacturer's warranty for the entire warranty period covering the wheelchair lift materials and workmanship for the following additional extended period beyond the initial one year warranty:.
   1. Four additional years.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Acceptable Manufacturer: Garaventa Lift; Local Representative: McKinley Elevator, 17611 Armstrong Avenue, Irvine, CA 92614; Tel: (949) 261-9244; Web: www.garaventa.ca

1. Substitutions: See Section 01640 – Substitutions and Product Options.

2.02 UNENCLOSED VERTICAL WHEELCHAIR LIFT

A. Capacity: 340kg (750lbs) rated capacity.

B. Mast Height:
   1. Model GVL-OP-60; 1600 mm (63 inches) maximum lifting height.

C. Platform Size and Clear Platform Dimensions:
   1. Large: clear platform dimensions. 41-1/8 inches x 60-3/4 inches

D. Platform Configuration:
   1. Straight Through: Front and rear openings.

E. Landing Openings: Gates shall be self closing type.
   1. Gate Height: 42-1/8 inches.
   2. Gate Width: Nominal 40 inches.
   3. Platform Gate: Travels with platform and opens at lower landing.
   4. Upper Landing Gate.

F. Power Gate Operators:
   1. Location:
      Platform Gate: Travels with platform and opens lower landing.
      Upper Landing Gate.
   2. Automatically opens the gate when platform arrives at a landing. Will also open at landing by pressing call button or gently pulling the gate.
   3. ADA Compliant and obstruction sensitive.
   4. Low voltage, 24 VDC with all wiring concealed.

G. Lift Components:
   1. Machine Tower: Custom aluminum extrusion.
   2. Base Frame: Structural steel.
   3. Platform Side Wall Panels: 16 gauge galvanized steel sheet.
   4. Platform Access Ramp: 12 gauge galvanized steel plates; slip resistant surfaces.
      a. Ramp: Stationary type.
      b. Ramp: Automatic folding type.
   5. Side Guard Panels: 42-1/8 inches high mounted on platform.
   6. Outdoor Protection: Lift shall include modifications recommended by manufacturer for reliable performance in outdoor climate of project site.

H. Leadscrew Drive:
   1. Drive Type: Self-lubricating acme screw drive.
   2. Emergency Operation: Manual handwheel device to raise or lower platform.
   3. Battery Powered Emergency Lowering: Battery powered platform lowering device that automatically activates in the event of power failure. Allows passenger to drive platform downward to lower landing. Does not operate lift in up direction.
   4. Allows passenger to drive platform downward to lower landing. Does not operate lift in up direction.
   5. Safety Devices:
      Integral safety nut assembly with safety switch.
   6. Travel Speed: 10fpm
   7. Motor: 2.0 HP
   8. Power Supply:
      a. 120 VAC single phase; 60 Hz on a dedicated 20 amp circuit

b. 208 VAC, single phase; 50 Hz on a dedicated 16 amp circuit

I. Platform Controls: 24 VDC control circuit with the following features.
1. Direction Control: Constant pressure rocker switch.
2. Illuminated and audible emergency stop switch shuts off power to lift and activates audio alarm with battery backup.
3. Keyed operation.

J. Call Station Controls: 24 VDC control circuit with the following features.
1. Direction Control: Constant pressure rocker switch.
2. Keyed operation.
3. Call Station Mounting:
a. Lower:
1) Wall mounted surface.
b. Upper:
1) Frame mounted.

K. Safety Devices and Features:
1. Grounded electrical system with upper, lower, and final limit switches.
2. Tamper resistant interlock to electrically monitor that the gate is in the closed position and the lock is engaged before lift can move from landing.
3. Pit stop switch mounted on mast wall.
4. Electrical disconnect shall shut off power to the lift.
5. Under platform safety pan with five waterproof safety switches to detect obstruction under platform.

L. Finishes
1. Aluminum Extrusions: Silver anodized finish.
2. Ferrous Components: Electrostatically applied baked powder finish, fine textured.
a. Color: RAL 8011; Nut Brown.
3. Lift Finish: Baked powder finish RAL 8011; Nut Brown color from optional RAL color chart.

PART 3 EXECUTION

3.01 EXAMINATION

A. Do not begin installation until substrates have been properly prepared.

B. Verify shaft and machine space are of correct size and within tolerances.

C. Verify required landings and openings are of correct size and within tolerances.

D. Verify electrical rough-in is at correct location.

E. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.02 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.03 INSTALLATION

A. Install platform lifts in accordance with applicable regulatory requirements including ASME A 17.1, ASME A 18.1 and the manufacturer's instructions.

B. Install system components and connect to building utilities.

C. Accommodate equipment in space indicated.

D. Startup equipment in accordance with manufacturer's instructions.

E. Adjust for smooth operation.

3.04 FIELD QUALITY CONTROL

A. Perform tests in compliance with ASME A 17.1 or A18.1 and as required by authorities having jurisdiction.

B. Schedule tests with agencies and Architect, County, and Contractor present.

3.05 PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION