SECTION 14420 - WHEELCHAIR LIFT

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes: A vertical platform (wheelchair) lifting device, designed to provide access to the building for mobility impaired persons. Lift consists of machine tower and lifting platform.

1.2 REFERENCES

A. Lift shall be designed, manufactured and installed in accordance with the following standards:

1. American National Standards Institute (ANSI).
2. American Society of Mechanical Engineers (ASME).
3. ADA Accessibility Guidelines (ADAAG).
4. Underwriters Laboratories (UL).
5. International Building Code (IBC).
6. National Electrical Code (NEC).
7. American Society for Testing Materials (ASTM).
8. American Welding Society (AWS).
9. Rhode Island State Building Code.

1.3 SYSTEM DESCRIPTION

A. Drive:

1. AC powered ballscrew drive; 1/2 hp, 120 V, 60Hz, instant reversing motor.
2. Number of Stops: Two.
3. Platform Configuration: straight-thru.
4. Maximum Travel: 53"
5. Rated Load: 750 lbs. with minimum safety factor of 5X.
6. Rated Speed: 9-12 fpm with rated load.
7. Platform Size: 36" x 60" or 36" x 48", as indicated, with 42" high guard panels.
8. Enclosure: 56" high wall panels.

B. Main Power Supply Wiring: Electrical contractor shall provide 115 VAC, single phase, 20 amp, 60 Hz power circuit.

C. Operating Features:

1. Platform Controls: Directional paddle switch, on/off key switch, emergency stop switch with alarm and illuminated alarm button.
2. Landing Controls: Directional paddle switch and on/off key switch mounted inside gate/door frames.
3. Constant pressure operation.
4. Grounded electrical system with upper, lower and final limit switches and 24 V operating controls.
5. Platform underpanel equipped with obstruction sensors.
6. Ramp with incline of 1:12.

7. Non-slip surface on platform floor and ramp.
8. Grab rail on platform.
9. Manual lowering device.
10. Integral ballscrew safety device and electromechanical brake.
11. Upper Landing Gate/Door:

    a. 6'-8" self closing, flush mount, 1-1/2 hour fire rated door with mechanical interlock and 3"x26" glass vision panel.

12. Platform Gate: 42" high, self-closing gate with mechanical interlock and steel sheet panel.
13. Lower Landing Gate: 53" high, self-closing gate with mechanical interlock and steel sheet panel.

1.4 QUALITY ASSURANCE

A. Manufacturer: Provide wheelchair lift manufactured by a firm with a minimum of 25 years experience in fabrication of wheelchair lifts equivalent to those specified.

B. All designs, clearances, workmanship and material, unless specifically accepted, shall be in accordance with all codes having legal jurisdiction.

C. All load ratings and safety factors shall meet or exceed those specified by all governing agencies with jurisdiction and shall be certified by a professional engineer.

D. Lift shall be subject to applicable state, local and city approval prior to installation and subject to inspection after installation. Determination of and adherence to these regulations is the responsibility of the lift contractor.

E. Welders certified in accordance with requirements of AWS D1.1 shall perform all welding of all parts.

F. Substitutions: Equivalent products by approved manufacturers may be submitted for approval.

1.5 WARRANTY

A. Manufacturer shall warrant the vertical platform lift's drive system for a period of two years after installation and all other components for one year after installation.

B. Extended Warranty: Manufacturer shall warrant the vertical platform lift for a period of 3 years after installation with the purchase of a preventative maintenance program from lift contractor for an equal number of years.

1.6 MAINTENANCE

A. The vertical platform lift must be maintained in accordance with manufacturer's instructions.

PART 2 - PRODUCT

2.1 MANUFACTURER

A. Basis of Design: Porch-Lift® vertical platform lift model PL-TG (toe guard) manufactured by ThyssenKrupp Access. Contact: 4001 E. 138th Street, Grandview, MO; Telephone: 800-925-3100; Fax: 816-763-4467; Email: archassist@accessind.com; Web site: http://www.accessind.com

2.2 MATERIAL

A. Machine Tower: 14 ga. steel sheet.

B. Guide Rail: 3" x 2" x 1/8" ASTM A500 grade B steel tubing.

C. Base Frame: 2" x 2" x 1/4" structural steel tubing and angle.

D. Lift Weldment: 3/8" hot rolled steel plate and 2" x 2" x 1/4" wall structural steel tubing.

E. Side Guard Panels: 18 ga. galvanealed steel sheet in 1" x 2" x 14 ga. steel tubing frame.

F. Enclosure: 18 ga. galvanealed steel sheet in 1" x 2" x 14 ga. steel tubing frame.

G. Front Access Panel: 20 ga. galvanealed steel sheet.

H. Platform: 11 ga. steel plate.

I. Access Ramp: 11 ga. steel plate.

2.3 FINISHES

A. Components shall be prepared with 1)alkaline detergent wash, 2)clear water rinse, 3)iron phosphate coating, 4)clear water rinse and finished with electrostatically applied and baked thermostatic powder coat finish for indoor or outdoor use. Standard color is ivory.

2.4 ELECTRICAL SYSTEMS

A. The electrical contractors shall provide a 115V, single phase, 20 amp, 60 Hz electrical power source connection.

B. Electrical piping and wiring supplied by others.

C. Final electrical connections performed by lift contractor.

PART 3 - EXECUTION

3.1 ACCEPTABLE INSTALLERS

A. Installers shall be experienced in performing work of this section who have specialized in work comparable to that required for this project.

B. Installers shall be certified and trained by the manufacturer.

3.2 EXAMINATION

A. Use field dimensions and approved manufacturer's shop drawings to examine substrates, supports and other conditions under which this work is to be performed. Do not proceed with work until unsatisfactory conditions are corrected.

3.3 INSTALLATION

A. The vertical platform lift shall be installed in accordance with manufacturer's instructions and as specified and approved by architect.

B. Upper landing gates and doors shall be installed by others. Electrical piping and wiring by others. Final electrical connections and lift adjustments by lift contractor.

3.4 DEMONSTRATION

A. The lift contractor shall make a final check of the lift's operation with the Owner or Owner's representative present prior to turning the lift over for use. The lift contractor shall determine that operating and safety devices are functioning properly.

END OF SECTION 14420