Division 14 42 00 (14420)
Vertical Platform Lift Model RE

January 2009

PART 1 - GENERAL

1.01 SECTION INCLUDES
A. All materials and labor necessary to complete the installation of the vertical platform lift.
B. Obtain all information affecting work at job site. Include verification of field, dimensions, anchoring and storage. Verify voltages and outlets on electrical drawings.

1.02 REFERENCES
A. The lift shall be designed and tested in accordance with NEC and ASME A18.1 Guidelines.
B. All designs, clearances, construction, workmanship and installation shall be in accordance with the requirements and code adopted by the authority having jurisdiction. The platform lift shall be subject to local, city and state approval prior to and following installation

1.03 SYSTEM DESCRIPTION
A. The product described herein manufactured by National Wheel-O-Vator, is a Vertical Platform Lift consisting of a machine tower with lifting platform, selected and dimensioned to provide adequate lifting height to suit the individual residence requirements. The lift can be used either indoors or outdoors to vertically transport a wheelchair user or mobility impaired person up and over a barrier thus creating access to or within a residence.
B. Performance
1. Rated Load: 750 pound capacity
2. Travel Speed: 9 feet per minute
3. Lifting Height: _____
4. Platform Size: 37”x 51”, with non-skid surface

1.04 SUBMITTALS
A. Submit drawings or manufacturers literature for approval. Drawings shall show dimensional and wiring requirements.

1.05 QUALITY ASSURANCE
A. Manufacturer: Company with not less than twenty (20) years of experience in the design and fabrication of vertical platform lifts.
B. Technical Services: Manufacturer and authorized dealer shall work with architects, engineers and contractors to adapt the platform lift product to the design and structural requirements of the building, site, and code requirements.
1.06 WARRANTY
A. Unit shall have a four (4) year limited parts warranty on the basic unit, including all electrical and drive system components.
1.07 MAINTENANCE
A. Maintenance of the platform lift unit shall consist of regular cleaning of the unit and regular inspection at intervals not longer than every 12 months. Rule 10.2.1 of ASME A18.1 requires all Private Residence Vertical Platform Lifts be inspected every twelve- (12) months.

PART 2 – PRODUCT

2.01 MANUFACTURER
A. National Wheel-O-Vator, a division of ThyssenKrupp Access Model RE, as distributed
By_____

B. No substitution shall be considered unless written request for approval has been submitted and received by the architect at least ten (10) days prior to the bid date.

Each substitution request shall include the name of the material for which it is to be substituted and a complete description of the proposed substitutions including drawings, performance and test data, a list of projects similar in scope, photographs of existing installation, design differences and other information necessary for evaluation.

2.02 FABRICATION
A. Platform shall be constructed of 12-gauge minimum zinc clad steel. If unit is not installed in a 3-inch pit, a flip-up ramp shall be provided.
B. Platform side panels must be 36" high. Side panel framework shall be a minimum of 1”x 1½” steel or aluminum . Solid infill panels shall be a minimum of 18-gauge zinc clad steel.
C. The mainframe support tubing shall be a combination of square and rectangular steel tubing with a minimum .120 wall thickness.
D. Carriage platform supports shall be a minimum of 1 x 2” steel flat bar and carriage uprights shall be a minimum of ½” thick steel flat bar. Cam rollers shall be used for axial carriage guidance and cam-followers with wear pads used for horizontal stability.
E. Loaded fasteners shall be grade five or higher. Locking fasteners shall be used in all critical locations.
F. The machine tower structural side plates shall be of 12-gauge steel and front and back covers shall be 18-gauge zinc clad steel minimum.
G. The drive mechanism shall be an acme screw design. The screw shall be a minimum of 1” diameter. The acme screw shall have a secondary safety nut, which in the event of a main lift nut failure will prevent uncontrolled descent.
H. The motor shall be instant reversing with a minimum of ¾ HP capacity.
I. The operating control circuit shall be 24 volts.
J. Finish shall be electro statically applied powder coating, oven baked to cure.
K. An upper final limit switch shall be provided.
L. Color shall be selected from manufacturers standard color or optional colors.
M. A constant pressure up/down control switch shall be installed at each landing level and on the platform.
N. Unit to be equipped with the “simplex” base and carriage design, which allows the carriage to be folded to reduce the shroud and carriage width to 19”, for ease of installation, without removal of any carriage attaching bolts.
O. Unit must be assembled and tested in factory before shipment.
P. An emergency stop switch shall be provided.
Q. A gate with a minimum height of 36” and a combination mechanical lock with a positive opening electric contact shall be provided at the upper landing.
R. The platform shall be equipped with an obstruction panel that will stop the downward travel if an obstruction is encountered.

S. An optional hand crank must be provided as a means of manually raising & lowering the platform.
T. The main lift nut will be equipped with a continuous lube system to distribute lubrication between main lift nut and the Acme screw

2.03 ACCESSORIES
SPECIFIER PLEASE NOTE – Due to different residential applications of Vertical Platform Lifts, please strike the optional items shown if not used.
A. An illuminated alarm switch shall be provided on the car as a means of signaling for assistance in the event of an emergency.
B. A grab rail shall be provided on the platform.
C. A hand crank shall be provided as a means of manually raising and lowering the platform in the event of power or component failure.
D. A gate with a combination mechanical lock with a positive opening electric contact shall be provided at the lower level. The height and type shall depend on model and code requirements.
E. A mechanical and electrical interlocking platform gate of 36 inches high that rides on the platform shall be provided.
F. A 24V DC, fail secure electric strike that contains electric contacts to insure the door is both closed and locked, shall be provided. (This option is required when flush mounted door and frames are provided by others.)
G. A stationary ramp may be substituted for the automatic flip-up ramp when a lower landing door or gate is provided.

PART 3 - EXECUTION

3.01 ACCEPTABLE INSTALLERS
A. Subcontractor Qualifications: A company that is listed as an authorized National Wheel-O-Vator dealer.
B. Electrical devices, services and final connections shall be by a qualified electrician

3.02 INSTALLATION
A. Unit shall be installed and operated in accordance with the NEC and ASME A18.1 Guidelines.
B. A dedicated electrical circuit with a lockable service disconnect switch rated per Table 1 shall be supplied by the electrical contractor at job site. (Depending on local electrical codes, a G.F.I. device may be required.) Please confer with lift contractor to determine appropriate motor for specified applications.

OVERCURRENT PROTECTIVE DEVICE RATINGS			
H.P.	VOLTAGE Single phase	DUAL ELEMENT FUSE TIME DELAY	INVERSE TIME BREAKER
3/4 HP	115V	20A	30A

Table 1

C. Coordinate work with general contractor.
D. Leave standard electrical connection drawings with electrical contractor to make final electrical connection.
E. The installation of the vertical platform lift shall be made in accordance with the approved plans and specifications and the manufacturers installation instructions.

3.03 F IELD QUALITY CONTROL
A. Load the vertical lift to rated capacity and test for several cycles to insure proper operation. No mechanical failures shall occur and no wear that would affect the reliability of the unit shall be detected.

For more details, call National Wheel-O-Vator's Design Line 800-968-5438.

Table 1