

SECTION [14 44 00] HYDRAULIC SIDEWALK LIFTS

Manufacturer guide specification · Wizard Material Handling, LLC · Rev. 2, October 2026

SPECIFIER NOTE: This guide specification covers Wizard hydraulic sidewalk lifts (power sidewalk elevators) that carry materials only between the sidewalk or grade and a basement or vault, through flush sidewalk doors. Edit to suit the project: choose between [bracketed] options, fill in blanks, and delete all Specifier Notes before issuing. Sidewalk lifts are typically placed in Division 14, Conveying Equipment, under Sidewalk Lifts; assign the section number per your office standard. Every Wizard sidewalk lift is built to fit its vault. For sizing help or a project-specific edit, contact Wizard at (973) 239-1451 or sales@wizardmh.com.

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes: Hydraulic sidewalk lift for transporting materials only between [sidewalk] [grade] level and [basement] [vault] level, complete with platform, guide structure, hydraulic drive, bow irons, sidewalk doors and frame, [safety screen,] controls, lower landing [gate] [door] with interlock, and installation.
- B. Related sections:
 - 1. Section [03 30 00] Cast-in-Place Concrete: vault walls, pit, slab and frame embedment.
 - 2. Section [05 50 00] Metal Fabrications: support steel and curb angles at the sidewalk opening.
 - 3. Section [07 10 00] Dampproofing and Waterproofing: vault and pit waterproofing.
 - 4. Section [08 ____] Doors and Frames: fire-rated lower landing door, where required.
 - 5. Section [22 ____] Plumbing: pit drain or sump and sidewalk door drain connection.
 - 6. Division 26, Electrical: power to the lift fused disconnect.
 - 7. Section [32 13 13] Concrete Paving: sidewalk restoration around the door frame.

1.02 REFERENCES

- A. ASME A17.1/CSA B44, Safety Code for Elevators and Escalators, requirements for power sidewalk elevators, edition and local modifications as adopted by the AHJ.
- B. AWS D1.1, Structural Welding Code - Steel.
- C. NFPA 70, National Electrical Code, Article 620.
- D. NEMA 250, Enclosures for Electrical Equipment.
- E. Building code, elevator code and sidewalk or right-of-way requirements of the Authority Having Jurisdiction (AHJ).

SPECIFIER NOTE: Most jurisdictions regulate sidewalk lifts as elevators, which means a permit, an acceptance inspection and periodic inspections. In New York City, sidewalk elevators fall under the NYC Building Code, Appendix K, and work in the public sidewalk also needs Department of Transportation approval. Confirm requirements with the AHJ early. Wizard can handle permits, inspections and testing if needed.

1.03 DEFINITIONS

- A. Sidewalk Lift: A hydraulic power sidewalk elevator that operates through an opening in the sidewalk or other exterior area, protected by hinged sidewalk doors, for carrying materials only. Not designed or permitted to carry passengers.
- B. Bow Irons: Steel members mounted on the platform that push the sidewalk doors open as the platform rises and guide them closed as it descends.

1.04 SUBMITTALS

- A. Product Data: Manufacturer's data sheets showing capacity, speed, components, sidewalk door construction and load rating, safety devices and finishes.
- B. Shop Drawings: Plan, elevation and section showing vault dimensions, platform size, sidewalk opening and door layout, hinge orientation, frame and drain details, pit depth, equipment reaction loads, power unit location and electrical requirements.
- C. [Engineering Calculations: Sidewalk door load rating and equipment reaction loads, signed and sealed by a professional engineer licensed in the project state.]
- D. Closeout Submittals: Operation and maintenance manual, parts list, electrical and hydraulic schematics, keys, AHJ acceptance documents and warranty.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Firm regularly engaged in the manufacture and installation of sidewalk lifts with a minimum of [10] years of documented experience.
- B. Welding: Structural welding by welders qualified in accordance with AWS D1.1.
- C. Installer Qualifications: [Manufacturer's own installation crew, licensed or permitted to perform elevator work in the project jurisdiction where the AHJ requires it.] [Installer approved by the manufacturer, working under factory supervision with manufacturer support throughout installation.]

SPECIFIER NOTE: Wizard holds a New Jersey elevator license and works with a licensed third-party expeditor for New York City projects. Outside its install area, Wizard ships lifts nationwide with factory supervision and support for the installing contractor.

- D. [Single Source Responsibility: Manufacture, installation, sidewalk doors, testing and post-installation service by a single firm.]

1.06 DELIVERY, STORAGE AND HANDLING

- A. Lift shall be shop-assembled and delivered as a complete unit, set into the vault in a single pick by boom truck or crane where site access allows.
- B. Coordinate delivery date, curb or lane closure, and any street or sidewalk permits for the pick [by Contractor] [by lift manufacturer].

SPECIFIER NOTE: A shop-built unit set in one pick keeps sidewalk closure to hours instead of days. Confirm access for a boom truck at the curb during design.

1.07 PROJECT CONDITIONS

- A. Field Measurements: Verify vault dimensions, sidewalk opening, pit depth and obstructions before fabrication. Indicate measurements on shop drawings.
- B. [Existing Vault: Lift replaces an existing sidewalk lift. Manufacturer shall survey the existing vault and build the new lift to fit it, reusing the existing opening where it meets current code.]
- C. Coordination: Coordinate vault, pit, waterproofing, drainage, sidewalk opening and electrical service so they are complete before lift installation begins.

1.08 WARRANTY

- A. Manufacturer's standard warranty against defects in material and workmanship: [twelve (12)] months parts and [six (6)] months labor from date of shipment.
- B. Structural components: [five (5)] years from date of shipment.

1.09 MAINTENANCE SERVICE

- A. [Provide a maintenance and inspection service agreement for [12] months following substantial completion, including periodic inspection, adjustment and lubrication by the manufacturer's trained personnel, coordinated with AHJ periodic inspections.]

PART 2 - PRODUCTS

2.01 MANUFACTURER

- A. Basis of Design: Wizard Material Handling, LLC, 19 M Gardner Road, Fairfield, NJ 07004. Phone (973) 239-1451. sales@wizardmh.com. www.wizardmh.com.
 - 1. Product: Hydraulic Sidewalk Lift with flush sidewalk doors.
- B. Substitutions: [Not permitted.] [Under provisions of Division 01. Proposed substitutions must meet or exceed the capacity, door load rating, safety devices, testing and warranty specified.]

2.02 PERFORMANCE AND DESIGN CRITERIA

- A. Design, fabrication and installation shall comply with the sidewalk elevator requirements of ASME A17.1/CSA B44 as adopted and modified by the AHJ.
- B. Rated Capacity: [] lb, equally distributed.
- C. Vertical Travel: [] ft [] in, two stops: sidewalk and [basement] [vault] level. The platform shall not travel above sidewalk level except as needed to open the doors.
- D. Speed: [] feet per minute, not exceeding the maximum permitted by the AHJ.
- E. Platform Size: [] wide by [] long, sized to the vault.

SPECIFIER NOTE: Capacity, travel, speed and platform size are all custom on Wizard sidewalk lifts. Call for guidance before fixing the vault size; the vault, door opening and platform are designed together.

- F. Loading Method: [Hand truck] [Cart] [Pallet jack].

G. Sidewalk Door Load Rating: [250] lb per sq ft, uniformly distributed (pedestrian).

SPECIFIER NOTE: Sidewalk doors are rated for pedestrian loads and are not designed for vehicles. Keep the doors out of driveways, alleys and any area where vehicles can cross.

H. Deflection: No permanent deformation of any component when loaded to rated capacity.

2.03 COMPONENTS

A. Guide Structure: Structural steel guide rails or mast, anchored to the vault floor [and walls], designed for all static and dynamic loads.

B. Platform: Welded structural steel frame with 1/4 in diamond-pattern steel plate deck.

1. Bow irons sized and positioned to open the sidewalk doors fully as the platform rises and to guide them closed as it descends.
2. Side guards on non-loading sides [and] [collapsible (scissor) gates on loading sides], [] in high.

C. Lifting Means: Hydraulic ram cylinder(s) with chrome-plated rods.

D. Hydraulic Power Unit: Electro-hydraulic, with [] HP TEFC motor, pump, reservoir, pressure gauge and manual lowering valve, located [in the vault] [in an adjacent machine space].

Include:

1. Pressure relief valve to protect the system from overload and jam conditions.
2. Pressure-compensated flow control valve for controlled lowering speed.
3. Velocity fuse (rupture valve) at each cylinder to stop uncontrolled descent if a hydraulic line fails.

E. Sidewalk Doors and Frame: Custom built and furnished by lift manufacturer.

1. Door Type: [Two-leaf, center-opening, hinged doors] [Single-leaf high hat lid carried on the platform] that sit flush with the sidewalk when closed. Hinge lines at right angles to the building wall, or to the curb where the opening is next to the curb, unless the AHJ requires otherwise.
2. Leaves: [A36 structural steel diamond plate] [6061 structural aluminum with aluminum diamond plate] [Type 304 stainless steel diamond plate] [Type 316 stainless steel diamond plate] [Steel with 3 in pocket for concrete fill] with non-slip walking surface, rated as specified in Performance and Design Criteria.
3. Hinges and Hardware: Stainless steel.
4. Frame: [A36 structural steel] [6061 structural aluminum] [Stainless steel] frame with full gutter and NPT drain coupling(s) for PVC drop piping to the pit floor sump. Cast into or anchored to the sidewalk slab.
5. Doors and frame may be delivered ahead of the lift so the frame can be set before lift installation.
6. Doors open by the ascending platform and close and lock automatically as the platform descends. Doors remain closed and locked unless the platform is at the top.
7. Hold-open device that keeps doors from opening past [90] degrees and holds them in the open position, with self-locking feature that prevents accidental release.
8. [Recessed padlock hasp or keyed lock for securing doors when the lift is out of service.]

- F. [Safety Screen: Automatic screen below the sidewalk doors that covers the opening whenever the platform is below sidewalk level, rated for not less than 300 lb on any 1 sq ft and rejecting a 2 in ball.]

SPECIFIER NOTE: Include the safety screen where the AHJ requires it or where the doors may be left open over a lowered platform.

G. Controls:

1. Sidewalk level: Key-operated, spring-return, continuous-pressure UP and DOWN switch in a weatherproof NEMA 4 box located within 18 in of the opening. Key removable only in the OFF position. [Pendant UP/DOWN pushbuttons on a flexible cord not more than 5 ft long, stored in the weatherproof box.]
2. Operation through the sidewalk opening, in both directions, shall be from the sidewalk only.
3. [Lower level operating station with UP, DOWN and EMERGENCY STOP, which operates the lift only when the bow irons are clear of the sidewalk doors.]
4. Controller with motor starter, overload protection and low-voltage control circuit in a NEMA [12] [4] enclosure.

H. Electrical Characteristics: [208-230 V] [460 V], 3-phase, 60 Hz.

I. Safety Devices, minimum:

1. Upper and lower normal limit switches and final overtravel limit switch.
2. Mechanical stops at top and bottom of travel.
3. Emergency stop at each operating station.
4. Electrical interlock on the lower landing gate or door preventing operation unless it is closed and locked, and preventing opening unless the platform is at that level.
5. [Audible warning signal that sounds while the platform is moving through the sidewalk opening.]
6. "NO RIDERS" and rated capacity signs on the platform and at each landing.

J. Lower Landing: [Gate furnished by lift manufacturer] [Fire-rated door by others under Division 08, with interlock furnished by lift manufacturer].

2.04 FINISHES

- A. Clean steel of dirt, mill scale, oil and grease. Finish with two top coats of industrial machinery enamel. Color: [Manufacturer standard] [____].
- B. Sidewalk doors and frame: [Steel, solvent washed, two coats rust-inhibitive primer and two coats industrial machinery enamel, black] [Hot-dip galvanized steel] [Mill-finish aluminum] [Stainless steel]. Underside of doors painted [safety yellow].
- C. Safety-related components finished OSHA safety orange.

2.05 ENVIRONMENTAL PROTECTION

- A. Sidewalk-level controls, switches and wiring rated for wet locations.
- B. Corrosion-resistant hardware at the sidewalk doors and frame.
- C. [Reservoir heater where the vault is unheated.]

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify that the vault, pit, waterproofing, drainage, sidewalk opening and electrical service are complete and within tolerances shown on the approved shop drawings.
- B. Notify the Architect in writing of conditions detrimental to proper installation. Do not begin installation until unsatisfactory conditions are corrected.

3.02 PREPARATION (BY OTHERS)

- A. Vault and Pit: Provide vault and pit to the dimensions on the approved shop drawings, waterproofed, with [floor drain] [sump pit and pump] as required by the AHJ.
- B. Sidewalk Opening: Provide the sidewalk opening, curb angles and slab edge to receive the door frame, pitched to drain away from the frame.
- C. Drainage: Provide a drain line from the door frame gutter coupling to [the vault drain] [the building storm system].
- D. Electrical: Provide power of the specified characteristics to a fused disconnect within sight of the lift controller.
- E. [Permits: Obtain sidewalk, street opening and right-of-way permits required for vault and opening work.]

3.03 INSTALLATION

- A. Install lift in accordance with the approved shop drawings, the manufacturer's written instructions and the AHJ's requirements.
- B. Set guide structure plumb and platform level. Anchor to vault floor and walls as indicated on shop drawings.
- C. Set door frame flush with finished sidewalk, level along the hinge line and sealed watertight to the slab. Adjust doors so they open fully on the bow irons and close and lock flush.
- D. Connect controls, interlocks and safety devices. Fill and bleed hydraulic system.

3.04 FIELD QUALITY CONTROL

- A. Operating Load Test: Raise and lower rated load through full travel, opening and closing the sidewalk doors each cycle.
- B. Safety Device Test: Test every limit switch, emergency stop, key switch, interlock, door lock and hydraulic safety valve. Correct deficiencies and retest.
- C. Door Test: Verify doors open fully, hold open securely, close and lock flush, and drain without ponding.
- D. Obtain acceptance inspection by the AHJ before placing the lift in service. [Permits, inspections and testing are included in the lift contractor's scope.]

SPECIFIER NOTE: Wizard can handle lift permits, inspections and testing if needed. Keep the bracketed sentence to put that responsibility in the lift scope.

3.05 DEMONSTRATION AND TRAINING

- A. Train Owner's personnel in safe operation from the sidewalk, keeping the area around the doors clear, key control, daily checks and emergency procedures. Turn over keys and the operation and maintenance manual at training.

3.06 ADJUSTING, CLEANING AND PROTECTION

- A. Touch up scratches and damaged finishes with matching factory finish. Remove debris caused by the work of this section.
- B. Protect the installed lift and sidewalk doors from damage by other trades until substantial completion. Do not use the lift for construction purposes unless approved by the manufacturer.

END OF SECTION