VERTICAL/INCLINED WHEELCHAIR LIFTS
RESIDENTIAL INSTALLATIONS
ASME 18.1b (2001) Sections 5 & 6; NFPA 70, 2002

WCLR/WCLIR -_____

Site Name: _____ City: _____ Date: ____/____/____

VERTICAL & INCLINED WHEECHAIR LIFTS	A18.1 Sect 5 & 6	COMMENTS	Pass
Runways (Vertical)	5.1	1) Runways	
		a) Runway construction for lifts that penetrate a floor must comply with para. 2.1.1 and with the building code.	☐
		b) Only lifts installed in conformance with para. 2.1.1 shall serve more than two landings.	☐
	5.1.1.1	2) Guarding	
		a) The runway shall be guarded at the upper landing by a door at least 36 in. (914 mm) high of solid construction and provided with a combination mechanical lock and electric contact.	☐
		b) The door shall be permitted to be opened only if the platform floor is within 2 in. (51 mm) of that landing.	☐
		c) A smooth vertical fascia of unperforated construction shall be securely fastened from the upper landing sill to the level of the lower landing sill.	☐
		i) It shall be equal to or stronger than 0.0598 in. (1.519 mm) sheet steel and guard the full width of the platform.	☐
		ii) The fascia shall not be permanently deformed when a force of 125 lbf (556 N) is applied on any 4 in. (102 mm) by 4 in. (102 mm) area.	☐
	5.1.1.3	d) A metal guard at least 6 in. (152 mm) in height and extending the full width of the platform shall be installed on the lower landing side of the platform to prevent a wheelchair from rolling off the platform.	☐
		i) The guard shall be automatically actuated by the movement of the platform away from the lower landing, and it shall remain in the elevated position until the platform returns to the lower landing.	☐
	5.1.1.4	e) The guard shall be operated with positive cam action or provided with an electric contact which shall stop the platform if the guard is not fully elevated when the platform has traveled 6 in. (152 mm) away from the lower landing.	☐
	5.1.1.5	f) The guard shall withstand, without permanent deformation, a force of 125 lbf (556 N) applied on any 4 in. (102 mm) by 4 in. (102 mm) area.	☐
		i) This force shall not cause the height of the ramp, at any point in its length, to be less than 6 in. (152 mm) measured vertically from the surface of the platform floor.	☐
	5.1.1.6	g) The sides of the platform not used for entrance or exit shall be guarded to a height of at least 36 in. (914 mm) by smooth construction with no openings, other than those necessary for the operation of the lift.	☐
		i) Those openings necessary for operation shall reject a ball 1/2 in. (13 mm) in diameter.	☐
	5.1.1.7	h) The underside of the platform shall be equipped with a device which:	
		i) If the platform is obstructed in its downward travel by a force not to exceed 4 lbf (17.8 N) applied anywhere on its underside;	☐
		ii) will actuate a contact which shall cause electric power to be removed from the driving machine motor and brake; and	☐
		iii) cause the platform to stop its downward motion within 2 in. (51 mm).	☐
		iv) Motion shall be permitted to resume when the force is removed.	☐
		v) When the installation conforms to the requirements of para. 2.1.1 or 2.1.2, the sensing device on the underside of the platform is not required.	☐
	5.1.1.8	i) The platform floor-to-sill clearance at the upper landing shall not exceed 3/4 in. (19 mm).	☐

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Runways (Inclined)	6.1.1	1) Free Passage Width.	N/A ☐
		a) A free passage width of not less than 20 in. (508 mm) shall be provided.	☐
		b) If the platform can be folded when not in use, the distance will be measured from the folded position.	☐
	6.1.2	2) Clearances.	
		a) Clearances between the platform and adjacent surfaces shall not be less than 3/4 in. (19 mm).	☐
		b) At no point in its travel shall the edge of the platform facing the upper landing be more than 24 in. (610 mm) above a step or landing as measured vertically.	☐
	6.1.3	3) Pits and Ramps.	
		a) A pit, floor-mounted ramp, or retractable platform-mounted ramp shall be provided.	☐
		b) Retractable ramps shall conform to the requirements of para. 6.6.6. Where a pit is provided, it shall be protected as required by the authority having jurisdiction.	☐
Lower Access Ramp	5.1.3	1) A retractable ramp shall be permitted to be mounted on the platform.	N/A ☐
		2) When in use, the incline of the ramp shall not be greater than:	
		a) 1 in 6, for heights up to 2½ in. (64 mm);	☐
		b) 1 in 8, for heights greater than 2½ in. (64 mm) and less than 3 in. (76 mm);	☐
		c) 1 in 12, for heights 3 in. (76 mm) or greater.	☐
		d) The ramp shall extend the full width of the platform floor.	☐
		e) It shall be permitted to be actuated by the movement of the platform away from the lower landing; and	☐
		f) Shall remain retracted while the platform is away from the lower landing.	☐
		g) The ramp shall be permitted to also be used as the guard specified in para. 5.1.1.3.	☐
		3) The ramp shall be operated by a positive mechanical action or shall be provided with an electric contact which will stop the movement of the platform within 6 in. (152 mm) of the lower landing if the ramp has failed to rise to its elevated position.	☐
Structural Support	5.1.5 6.1.5	The structure on which the equipment is installed shall be capable of safely supporting the loads imposed.	☐
Headroom Clearance	5.1.6	Headroom clearance throughout the range of travel shall be not less than 80 in. (2032 mm) as measured vertically from the platform floor.	☐

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VERTICAL & INCLINED WHEELCHAIR LIFTS	A18.1 Sect 5 & 6		COMMENTS	Pass
Driving Means and Sheaves (Sections 5.3 & 6.3)	5.3	6.3	1) The driving means shall be one of the following: a) winding drum b) traction c) roped sprocket d) chain sprocket e) screw f) rack and pinion g) direct-plunger hydraulic h) roped-hydraulic i) lever hydraulic j) friction	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
			2) Driving means utilizing a combination of two or more means shall conform to all applicable requirements of the respective means unless stated otherwise.	☐
	5.3.1.3	6.3.1.3	3) Friction gearing, clutch mechanisms, or couplings shall not be used to connect a driving machine drum or sheave to the main driving mechanism.	☐
	5.3.1.4	6.3.1.4	4) Worm gearing having cast iron teeth shall not be used on the driving machine.	☐
Driving-Machine Brakes	5.4.1	6.4.1	1) Driving machines, except hydraulic, shall be equipped with friction brakes directly attached to the driving means through a continuous shaft, mechanical coupling, or toothed gearing applied by springs, or by gravity, and released electrically.	☐
	5.4.2		2) A single ground or short circuit, a counter-voltage or a motor-field discharge shall not prevent the brake magnet from allowing the brake to set when the operating device is placed in the stop position.	☐
	5.4.3	6.4.2	3) A machine brake is not required if a self- locking drive utilizing a lead screw, worm, or other positive gearing which will stop and hold the platform with the rated load within 4 in. (102 mm) of down travel after the power is removed is provided.	☐
Friction Machines	8.3.1		1) The friction developed shall be self-adjusting to allow for wear and be capable of lifting and supporting a platform loaded with 125% of the rated load.	☐
	8.3.2		2) The friction drive wheels shall be made of metal or other durable material or a combination of materials.	☐
	8.3.3		3) Friction drive, if used to drive the over-speed governor, shall be independent of the main friction drive.	☐
	8.3.4		4) If the over-speed governor is friction driven: a) the control system shall include circuitry to continually monitor the rotation of the over-speed governor driving means during travel. b) If rotation ceases, electric power shall be removed from the driving machine motor and brake (if provided) within 10 sec or 40 ft (1016 mm) of travel, whichever occurs first. c) Releasing operating controls shall be permitted to reset the monitor or its circuitry.	☐ ☐ ☐
	8.3.5		5) The force transmitted to the rotating device by friction shall be at least twice the force necessary to actuate the safeties.	☐

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VERTICAL & INCLINED WHEELCHAIR LIFTS	A18.1 Sect 5 & 6		COMMENTS	Pass
Screw Drive Machines	8.2.1		1) The screw machine shall function to raise or lower the platform acting in conjunction with a screw column which directly supports the platform.	☐
	8.2.2		2) Screws shall be made of steel. Nuts shall be made of bronze or other materials having an elongation of at least 14% in 2 in. (51 mm).	☐
	8.2.3		3) Means shall be provided to maintain the screw in its operating position under all conditions of operation.	☐
			a) Screws suspended from their upper end shall be restrained at their lower end.	☐
	8.2.6		4) Means shall be provided to prevent the disengagement of the nut from the screw column.	☐
			a) This means shall be so designed and constructed as to prevent disengagement in the event of overtravel at full speed and without damage to any part of the lift installation.	☐
	8.2.9		5) A positive mechanical means shall be provided to prevent rotation or separation of sections of a multiple section screw column.	☐
	8.2.10		6) Means shall be provided to permit authorized personnel from a position outside the platform to raise or lower the platform manually in the event of a power failure, unless standby (emergency) power is provided.	☐
Indirect-Drive Machines	5.3.9	6.3.6	1) Indirect-drive machines, utilizing V-belt drives, tooth drive belts, or drive chains, shall conform to the following requirements:	N/A ☐
			a) requirements of para. 5.3.9.2 shall be permitted to be omitted if a self-locking drive meeting the requirements of para. 5.4.3 is provided.	☐
			b) If multiple belts or chains are provided, they shall be preloaded and matched for length in sets.	☐
	5.3.9.1	6.3.6.1	2) Belts and Chains:	
			a) Belt sets shall be selected on the basis of the manufacturer's rated breaking strength and a factor of safety of 10.	☐
			b) Chain and sprocket sets shall be selected on the basis of recommendations set forth in the Supplementary Information section of ANSI/ASME B29.1, using a service factor of 2.	☐
			c) Offset links in chain are not permitted.	☐
			d) Sprockets in a chain drive set and also a driven set shall be assembled onto a common hub, with teeth cut in-line after assembly to assure equal load distribution on all chains.	☐
			e) Tooth sheaves for a belt drive shall be constructed in a manner to assure equal load distribution on each belt in the set.	☐
			f) Load determination for both the belt and chain sets shall be based on the maximum static loading on the platform, which is the full load in the platform at rest and at a position in the runway which creates the greatest load, including either the platform or counterweight resting on its buffer.	☐
			g) Chain drives and belt drives shall be guarded to protect against accidental contact and to prevent foreign objects from interfering with drives.	☐
	5.3.9.2	6.3.6.2	3) Monitoring and Brake Location.	
			a) Each belt or chain in a set shall be continuously monitored by a broken belt or chain device which shall function to automatically interrupt power to the machine and apply the brake in the event any belt or chain in the set breaks or becomes excessively slack.	☐
			b) The driving machine brake shall be located on the traction sheave or drum assembly side of the driving machine so as to be fully effective in the event the entire belt set or chain set should break.	☐
	5.3.9.3		4) Replacement of Belts or Chains.	
			a) If one belt or chain of a set is worn, stretched, or damaged so as to require replacement, the entire set shall be replaced.	☐
			b) Sprockets and toothed sheaves shall also be replaced if worn.	☐

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Guarding of Driving Machines and Suspension Means.	5.3.8	6.3.5	1) The driving machine and suspension means shall be enclosed with a solid enclosure. 2) Any opening required for operation shall reject a ball 3/4 in. (19 mm) in diameter. 3) Access shall be provided by a removable panel for inspecting and servicing. The panel shall be screwed, locked, or bolted in place.	☐ ☐ ☐
Pipes in runway vicinity	5.1.2	6.1.4	Pipes conveying steam, gas, or liquids which, if discharged into the runway of the platform, would endanger life or health shall not be permitted.	☐
Suspension Means	5.5.1.1	6.5.1.1	1) Suspension and support means shall be one of the following: a) steel or iron wire rope b) steel aircraft cable c) chain d) direct-plunger hydraulic e) roped-hydraulic f) rack and pinion g) screw h) friction machine guides and rollers 2) Suspension and support means utilizing a combination of two or more means shall conform to all applicable requirements of the respective means unless stated otherwise.	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
	5.5.1.2	6.5.1.2	3) Steel tapes or welded link chains shall not be used as suspension means.	☐
	5.5.1.3		4) Where ropes or chains are used, no fewer than two shall be provided.	☐
	5.5.1.4		5) For rated loads up to 500 lb (227 kg),	
		6.5.1.3	a) ropes shall have a minimum diameter of 1/4 in. (6.4 mm); and b) chains shall have a minimum pitch of 1/2 in. (13 mm).	☐ ☐
			6) For higher rated loads,	
			a) ropes shall have a minimum diameter of 3/8 in. (9.5 mm); and b) chains shall have a minimum pitch of 5/8 in. (16 mm).	☐ ☐
Factors of Safety.	5.5.2	6.5.2	1) The suspension and support means shall have a factor of safety of not less than 7 based on the tension in the rope, cable, chain, or forces exerted on the hydraulic cylinder, screw drive, or rack and pinion when raising the rated load. 2) When the platform and counterweight are suspended by steel ropes and the driving means between the machine and the counterweight is an endless roller-type chain, the factor of safety of such chain shall be not less than 8, based on the rated load. See section 8 for special requirements of particular drive systems.	☐ ☐
Arc of Contact of Suspension Means on Sheaves and Sprockets.	5.5.3	6.5.3	1) The arc of contact of a wire rope on a traction sheave shall be sufficient to produce adequate traction under all load conditions. 2) The arc of contact of a chain on a driving sprocket shall be not less than 140 deg.	☐ ☐
Spare Rope Turns on Winding Drums.	5.5.4	6.5.4	1) All wire ropes of winding drum machines shall have not less than one full turn of the rope on the drum when the platform or counterweight has reached its limit of possible overtravel.	☐
Securing Suspension Ropes to Winding Drums.	5.5.5	6.5.5	1) The drum ends of wire ropes shall be secured by clamps on the inside of the drum of winding drum machines, tapered babbitted sockets, or by other means approved by the authority having jurisdiction.	☐
Lengthening, Splicing, Repairing, or Replacing Suspension Means.	5.5.6	6.5.6	1) Suspension wire rope shall not be lengthened or repaired by splicing. 2) Broken or worn suspension chains shall not be repaired. 3) If one rope or chain of a set is worn or damaged and requires replacement, the entire set of ropes or chains shall be replaced. 4) If a chain or sprocket is replaced due to wear, all chains and sprockets shall be replaced.	☐ ☐ ☐ ☐

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Fastening of Rope Suspension Means to Platform.	5.5.7	6.5.7	1) The platform ends of wire ropes shall be fastened in a return loop by properly made individual tapered babbitted sockets or properly attached fittings as recommended by wire rope manufacturers. 2) Clips of the U-bolt type shall not be used. 3) Tapered babbitted rope sockets and the method of babbitting shall conform to the requirements of para. 9.8.	☐ ☐ ☐
Guarding	5.5.8	6.5.8	1) All suspension means shall be guarded against accidental contact. 2) Suspension means which operate within a guide or track and travel at the same speed and in the same direction as the platform shall be considered suitably guarded.	☐ ☐
Platforms	5.6.1	6.6.1	1) Frame and Floor a) The frame shall be of metal construction and have a factor of safety of not less than 5 based on the rated load. b) The floor shall be of metal or wood construction with a nonskid surface.	☐ ☐
	5.6.2	6.6.1.1	2) Securing of Enclosures a) The enclosure shall be securely fastened to the floor and so supported that it cannot loosen or become displaced in ordinary service, on the application of the platform safety, or on buffer engagement. b) The platform enclosure shall be so constructed that removable portions cannot be dismantled from within the platform. c) Enclosure linings, decorative panels, light fixtures, and other apparatus or equipment attached to the enclosure shall be securely fastened and so supported that they will not loosen or become displaced in ordinary service, on platform safety application, or on buffer engagement. d) Panels attached to the enclosure for decorative or other purposes shall not be unfastened from inside the platform by the use of common tools or shall be permitted to be removed from inside the platform when perforations, exceeding that which would reject a ball 1/2 in. (13 mm) in diameter, in the enclosure used for panel hanging or support have permanent means to prevent straight through passage beyond the running clearance.	☐ ☐ ☐ ☐
	5.6.3	6.6.1.2	3) Strength and Deflection of Enclosure Walls. a) The enclosure walls shall be designed and installed to withstand a force of 75 lbf (334 N) applied horizontally at any point on the walls of the enclosure without permanent deformation nor cause the deflection to exceed 1 in. (25 mm).	☐
	5.6.4		4) Use of Cast Iron. a) Cast iron shall not be used in the construction of any load bearing member of the platform frame or floor other than for guide shoes and guide shoe brackets.	☐
	5.6.5		5) Floor Size ***(vertical).*** a) The inside net floor area shall not exceed 18 ft^2 (1.67 m^2).	☐
		6.6.2	6) Floor Area ***(inclined)*** a) The inside net floor area shall not exceed 12 ft^2 (1.11 m^2).	☐
	5.6.6		7) Illumination. a) The minimum illumination at the landing edge of the floor with the landing door open shall be not less than 5 ftc (54 lx).	☐

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Glass On Platforms	6.6.4	1) Glass shall be permitted to be used on platforms subject to the following.	N/A ☐
	6.6.4.1	a) It shall be installed and guarded so as to provide adequate protection for passengers in case the glass panels break or are dislodged.	☐
	6.6.4.2	b) It shall be so mounted in the structure so that the structure, including the glass in place, shall withstand the required lift tests without damage.	☐
	6.6.4.3	c) Glass greater than 1 ft^2 (0.093 m^2) in area and abutting panels whose total area is greater than 1 ft^2 (0.093 m^2) shall be laminated glass as defined by ANSI Z97.1 or 16 CFR, Part 1201, Section 1201.2 or shall be glass bonded to a nonpolymeric coating, sheeting, or film backing having a physical integrity to hold the fragments when the glass breaks and be tested and conform to the acceptance criteria for laminated glass as specified in ANSI Z97.1 or 16 CFR, Part 1201, Section 1201.4.	☐
	6.6.4.4	d) The glass shall be marked as required by ANSI Z97.1 or 16 CFR, Part 1201, Section 1201.5.	☐
		i) Markings as specified in ANSI Z97.1 shall be on each separate piece of glass, and shall remain visible after installation.	☐
Platform Guarding.	6.6.6	1) A retractable metal guard at least 6 in. (152 mm) high shall be provided on the lower access end of the platform to prevent the wheelchair from rolling off that end of the platform.	☐
		2) It shall be automatically actuated by the movement from the lower landing or manually activated and shall remain in its elevated position until the platform returns to the lower landing.	☐
		3) It shall be operated by a positive cam action or it shall be provided with an electric contact which will stop the movement of the platform within 6 in. (163 mm) of travel away from the lower landing if the guard has failed to rise to its guarding position.	☐
		4) A retractable car platform mounted ramp shall be permitted to be used in lieu of the retractable platform guard.	☐
		5) Guards of at least 6 in. (152 mm) in height shall be provided on the sides of the platform not used for access.	☐
		6) Guards and ramps, in their guarding position, shall withstand, without permanent deformation, a force of 125 lbf (556 N) applied on any 4 in. (102 mm) by 4 in. (102 mm) area.	☐
		7) This force shall not cause the height of the ramp, at any point in its length, to be less than 6 in. (152 mm) measured vertically from the surface of the platform floor.	☐
		8) Means shall be provided to prevent a wheelchair from rolling off the platform at the upper access end.	☐
		9) When in use, the incline of the ramp shall not be greater than:	☐
		a) 1 in 6 for heights up to 2½ in. (64 mm);	☐
		b) 1 in 8 for heights greater than 2½ in. (64 mm) and less than 3 in. (76 mm);	☐
		c) 1 in 12 for heights 3 in. (76 mm) or greater.	☐
Seats	6.6.7	A lift shall be permitted to be provided with a folding seat and seat belt to accommodate a person not in a wheelchair.	☐
Obstruction Devices	6.6.8	The entire underside and the edges of the platform floor facing the upper and lower landings shall be equipped with a device which will stop the platform traveling within a distance of 2 in. (51 mm) or less if it is obstructed in its travel in either direction by a force of 4 lbf (17.8 N) or more.	☐

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Capacity, Speed, and Travel	5.7.1	6.7.1	1) Limitation of Load, Speed, and Travel.	
			a) The rated load shall be not less than 450 lb (204 kg) nor more than 750 lb (340 kg). Platforms with floor area greater than 15 ft^2 (1.39 m^2) shall have a rated load of not less than 750 lb (340 kg). The lift shall be capable of sustaining and lowering a load as specified in Fig. 9.7.	☐
			b) The rated speed shall not exceed 30 ft/min (0.15 m/s).	☐
			c) The travel shall not exceed 12 ft (3658 mm) ***[vertical only].***	☐
	5.7.2	6.7.2	2) Capacity Plates.	
			a) A capacity plate stating the rated load shall be provided by the manufacturer and fastened in a conspicuous place.	☐
			b) The letters and numerals used shall be not less than 1/4 in. (6.4 mm) in height.	☐
	5.7.3	6.7.3	3) Data Plates.	
			a) A data plate shall be provided by the manufacturer and securely fastened to the machine.	☐
			b) The plate shall state the	
			i) rated speed	☐
			ii) rated load	☐
			iii) weight of platform	☐
			iv) suspension and support means	☐
			v) date of manufacture, and manufacturer's name.	☐
			c) Letters and numerals shall be not less than 1/4 in. (6.4 mm) in height.	☐

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Terminal Stopping Devices	5.9.1	6.9.1	1) Normal terminal stopping devices shall be permitted to use mechanically operated, magnetically operated, optical, or static type switches.	☐
			a) Final terminal stopping devices shall use only mechanically operated switches for determining platform position.	☐
			b) Terminal stopping devices which are located on the platform or in the runway shall be of the enclosed type and securely mounted in such a manner so that horizontal movement of the platform shall not effect the operation of the device.	☐
	5.9.2	6.9.2	2) Normal stopping devices operated by the platform shall be provided, and shall be set to stop the platform floor within a tolerance of 1/2 in. (13 mm) of the landings under rated loading to zero loading conditions.	☐
			a) The normal stopping devices shall be permitted to also serve as the upper and lower normal terminal stopping devices.	☐
	5.9.3	6.9.3	3) Upper and lower final terminal stopping devices operated by the platform shall be provided to remove power from the motor and the brake, if provided, except as specified in para. 5.9.6.	☐
			a) They shall be set to stop the platform after it travels past the normal terminal stopping device and before striking an obstruction.	☐
			b) A slack-rope device equipped with a slack-rope switch of the enclosed manually reset type, which shall cause the electric power to be removed from the driving machine motor and brake if any hoisting rope becomes slack shall be permitted to be used as the lower final terminal stopping device.	☐
	5.9.4	6.9.4	4) Final terminal stopping devices shall be mechanically operated.	☐
			a) The switch contacts shall be directly opened mechanically.	☐
			b) Arrangements which depend on a spring or gravity, or a combination thereof, to open the contacts shall not be used.	☐
	5.9.5	6.9.5	5) The final terminal stopping device shall not control the same controller switches as the normal terminal stopping devices unless two or more separate and independent switches are provided, two of which shall be closed to complete the driving-machine motor and brake circuit in either direction of travel.	☐
			a) Where a two or three-phase alternating-current driving-machine motor is used, these switches shall be of the multipole type.	☐
			b) The control shall be so designed and installed that a single ground or short circuit shall be permitted to allow either, but not prevent both, the normal and final stopping device circuits from stopping the platform.	☐
	5.9.6	6.9.6	6) Final terminal stopping devices are not required for direct-plunger hydraulic driving machines.	
			a) Lower final terminal stopping devices are not required where the limitations of the machine or runway limit the travel of the platform (e.g., a platform at rest on the bottom terminal landing).	☐
Operation	5.10.1	6.10.1	1) Operation of the chairlift from the upper or lower landing and from the chair shall be controlled by "UP" and "DOWN" control switches at all stations, and shall be by means of the continuous pressure type.	☐
			2) Controls shall be 48 in. (1220 mm) max. and 15 in. (380 mm) min. above the platform floor or facility floor or ground level.	☐
			3) Operating devices shall be designed so that both the "UP" and "DOWN" circuits cannot be operated at the same time.	☐

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VERTICAL & INCLINED WHEELCHAIR LIFTS	A18.1 Sect 5 & 6		COMMENTS	Pass
Attendant Operation	5.10.2	6.10.2	1) Attendant operation shall be permitted to be provided. 2) Where provided, it shall conform to the following requirements.	N/A ☐
	5.10.2.1	6.10.2.1	a) The attendant shall operate the lift by means of a continuous-pressure switch located on a control box on the free end of a detachable, flexible cord not more than 5 ft (1524 mm) in length.	☐
			b) A manually reset emergency stop switch shall also be provided in the control box.	☐
	5.10.2.2	6.10.2.2	c) No controls, other than an emergency stop switch, shall be provided on the lift.	☐
	N/A	6.10.2.3	d) Where the equipment operates on a straight flight of stairs, and where the platform is within sight during its entire travel, provisions shall be permitted to be made for the attendant to operate the lift from the top or bottom of the stairs.	☐
Motor Reversal Protection.	5.10.4	6.10.4	1) Where a non- instantaneous reversible motor is used, a protective circuit or device shall be provided to prevent the motor from continuing in the same direction if the reversing control is activated.	☐
Phase Reversal and Failure Protection	5.10.5	6.10.5	1) Lifts having polyphase alternating current power supply shall be provided with means to prevent the starting of the lift motor if the phase rotation is in the wrong direction, or if there is a failure of any phase.	☐
			2) This protection shall be considered to be provided if a reversal of phase of the incoming polyphase alternating current power will not cause the driving machine motor to operate in the wrong direction.	☐
Emergency Stop Switch	5.10.6	6.10.8	1) An emergency stop switch shall be provided in the platform.	☐
			2) Located in or adjacent to each platform operating panel.	☐
			3) When opened, this switch shall cause the electric power to be removed from the driving-machine motor and brake.	☐
			4) Emergency stop switches shall be of the manually opened and closed type and have red operating handles or buttons.	☐
			5) They shall be conspicuously and permanently marked "STOP" and shall indicate the "STOP" and "RUN" positions.	☐
			6) Switches shall be positively opened mechanically and their opening shall not be solely dependent on springs.	☐
Slack-Rope and Slack-Chain Devices for Winding Drum and Roller-Chain-Type Driving Machines.	5.10.7	6.10.7	1) Winding drum driving machines with rope suspension shall be provided with a slack-rope device of the manually reset type that will remove power from the motor and brake if the platform is obstructed in its descent and the suspension ropes slacken.	☐
			2) Lifts with roller chain suspension means shall be provided with a slack-chain device which will remove power from the motor and brake if the platform is obstructed in its descent and the suspension means slacken.	☐
			3) This device is not required to be of the manually reset type if the chain sprockets are guarded to prevent the chain from becoming disengaged from the sprockets.	☐
Release and Application of Driving-Machine Brake.	5.10.8	6.10.9	1) Driving-machine brakes shall not be electronically released until power has been applied to the driving-machine motor.	☐
			2) All power feed lines to the brake shall be opened and the brake shall apply automatically when any operating device in para. 5.10.1 or 5.10.2 is in the "STOP" position and when any electrical protective device functions.	☐
Manual Operation ***(vertical only)***	5.10.10		1) Means shall be provided to permit authorized personnel from a position outside the platform to raise or lower the platform manually in the event of power failure, unless standby (emergency) power is provided.	☐

VERTICAL/INCLINED WHEELCHAIR LIFTS
RESIDENTIAL INSTALLATIONS
ASME 18.1b (2001) Sections 5 & 6; NFPA 70, 2002

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VERTICAL & INCLINED WHEELCHAIR LIFTS	A18.1 Sect 5 & 6		COMMENTS	Pass
Code Data Plate	5.11	6.11	1) A code data plate shall be provided that indicates the A18.1 Standard to be used for inspections and tests. 2) The data plate shall be in plain view, securely attached on the main line disconnect or on the controller. 3) The data plate shall be of such material and construction that the letters and figures stamped, etched, cast, or otherwise applied to the face shall remain permanently and readily legible. 4) The height of the letters and figures shall be not less than 1/8 in. (3.2 mm).	☐ ☐ ☐ ☐
Electrical Equipment and Wiring		6.10.6.1 6.10.6.2	1) All electrical equipment and wiring shall conform to the requirements of ANSI/NFPA 70. 2) Electrical equipment shall be certified to the requirements of CAN/CSA B44.1/ASME A17.5.	☐ ☐