Planning Guide Builder & Architect Edition

Elite Plus Residential Elevator

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Planning Guide Elite Plus Residential Elevator

This planning guide is designed to assist architects, contractors, homeowners, and elevator professionals in planning for a home elevator that meets the requirements of ASME A17.1 Part V Section 5.3.

We strongly recommend that you contact the codes authority having jurisdiction in the area(s) where the elevator will be installed. Become familiar with all requirements governing the installation and use of elevators in private residences. It is extremely important for you to know and adhere to all regulations concerning installation and use of elevators.

Important:

This planning guide provides nominal dimensions and specifications useful for **INITIAL** planning of an elevator project. **BEFORE** beginning actual construction, be sure to receive application drawings customized with specifications and dimensions for your specific project.

Call 1-844-389-2977 to find a dealer in your area or visit our website at AmeriGlide.com.

Elevator configurations and dimensions are in accordance with our interpretation of the standards set forth by ASME A17.1 Part V Section 5.3. Please consult AmeriGlide or an authorized dealer in your area for more specific information pertaining to your project, including any deviation between referenced standards and those of any local codes or laws. Always contact local code authorities for any variation to standards. Please note all dimensions and specifications contained herein are nominal and should only be used in the early planning stages. Construction of the actual hoistway and related Elite Plus Residential Elevator requirements should be based off job-specific application drawings.

This elevator requires 240 VAC, single phase 60 Hz circuit with ground and separate 115 VAC, single phase 60 Hz circuit with ground fused 15 amp for light circuits.

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Technical Specifications

General Specifications	Standard	Optional
Drive Type	2:1 Roped hydraulic	Direct drive hydraulic
Rated Capacity	1,000 lbs	1,400 lbs
Travel Speed	40 fpm	
Maximum Travel	40'	Beyond 40' consult factory
Maximum Landings	4	Beyond 4 consult factory
Power Requirement	240V single phase 30 amp 110V single phase 15 amp	

Design Specifications	Standard	Optional
Cabin Height	84"	96"
Cabin Doors	Manual Good Gate	Automatic Good Gate 2-speed or 3-speed Victory Door
Landing Doors *3 speed victory landing doors only available for 84" cab height	Landing doors by others	2-speed or 3-speed* Victory Door

Fixture Specifications	Standard	Optional
Car Operating Panel (COP)	84"	96"
Phone	Manual Good Gate	Automatic Good Gate 2-speed or 3-speed Victory Door
Call Stations	Landing doors by others	2-speed or 3-speed* Victory Door

Note on Door Orientation

The sliding gate on all models is designed to recess towards the rail wall, allowing us to efficiently utilize hoistway space.

Since the gate collapses in the direction of the recess / rail wall, the opening will be on the opposite side of the rail wall.

It is recommended to try to align the opening of the landing door with the opening of the gate.

A good rule of thumb is to have the hinges of your landing door on the same side as the rail wall.



Pit and Overhead Requirements

Door Type	Minimum Overhead Required
Good Gate 84" - Manual	96"
Good Gate 84" - Automatic	96" minimum, 102" preferred
Good Gate 96" - Manual	108″
Good Gate 96" - Automatic	108" minimum, 114" preferred
2-Speed Victory Door 78¾″	98″
2-Speed Victory Door 84"	104"
2-Speed Victory Door 96"	118"
3-Speed Victory Door 78 ³ / ₄ "	102″
3-Speed Victory Door 84"	108″
3-Speed Victory Door 96" 84" and 96" available on cab door only.	120″

Overhead is measured from the floor of the upper landing to the top of the hoistway.

Elevator Capacity	Minimum Pit Depth
≤ 1,000 lbs	96"
1,400 lbs	96" minimum, 102" preferred

9" pit depth may impose additional cost

In some cases, a 1,400 lbs capacity rating may be required. This is determined by square footage & configuration of cab.



Machine Room Recommended Layout



Machine Space Requirements (by others)

Machine Room / Space Lighting & Service Receptacle

Lighting Supply Disconnect

Main Disconnect

Provide a 120 VAC GFCI duplex receptacle at the machine location. Provide adequate lighting in the machine space with a switch located within easy reach of the point of entry. Power to be supplied from distribution panel as an independent branch circuit. Provide a telephone line to the machine room and connected to the elevator controller (if applicable)

15 AMP fused lockable disconnect switch for 120-1-60 power supply. Power to be supplied from distribution panel as an independent branch switch circuit. Switch to be fused at 15 AMP.

Fused lockable disconnect switch for main power supply provided with neutral. Switch must also be provided with an auxiliary contact designed to open when the disconnect switch is opened.

Typical Machine Room Equipment: Controller

Elevator Control Enclosure (mounted on wall of machine room)



As per the National Code, all electrical equipment requires a 36" clear working space in front of the equipment.

Typical Machine Room Equipment: Power Unit

Elevator Hydraulic Power Unit (sits on floor of machine room)





Typical Pit Loads

For elevators with a rated capacity of 1,000 lbs



Typical Hoistway Pit Floor Construction

8" (203 mm) concrete slab poured on undisturbed or compacted soil with a minimum allowable bearing pressure of 1.0 ksf

Minimum compressive strength of concrete at 28 days must be no less than 20 mPa

Reinforcing steel (#5, grade 60) must be placed at the bottom of the slab in 2 traverse directions & at a spacing of 12" (305 mm)

Hoistway pit floor to support a load of 10 KIPS (10,000 lbs.) / 44.48 kN (includes impact)

Typical Pit Loads

For elevators with a rated capacity of 1,400 lbs



Typical Hoistway Pit Floor Construction

8" (203 mm) concrete slab poured on undisturbed or compacted soil with a minimum allowable bearing pressure of 1.0 ksf

Minimum compressive strength of concrete at 28 days must be no less than 20 mPa

Reinforcing steel (#5, grade 60) must be placed at the bottom of the slab in 2 traverse directions & at a spacing of 12" (305 mm)

Hoistway pit floor to support a load of 10 KIPS (10,000 lbs.) / 44.48 kN (includes impact)

Recommended Rail Wall Construction



The elevator devices code requires that the building construction forming the supports for the guide rails & guide rail brackets shall be designed to withstand the forces as indicated in this drawing package. The general contractor shall ensure that the appropriate professional (architect and / or engineer) review the indicated forces to ensure that the building design / construction meets all required codes.

Maximum allowable deflection of rail wall is 3mm [.125"]

Recommended Rail Wall Construction

1,400 lbs

RAIL SUPPORT WALL DESIGN MUST BE VERIFIED BY CUSTOMER'S STRUCTURAL ENGINEER/ARCHITECT



The elevator devices code requires that the building construction forming the supports for the guide rails & guide rail brackets shall be designed to withstand the forces as indicated in this drawing package. The general contractor shall ensure that the appropriate professional (architect and / or engineer) review the indicated forces to ensure that the building design / construction meets all required codes.

Maximum allowable deflection of rail wall is 3mm [.125"]



Manual & Automatic

Typical Hoistway Configurations Incline Cab with Good Gate (Manual & Automatic)



Cab Size Wx D	Hoistway Width	Hoistway Depth	Rail Centerline	Door Centerline
36" x 48"	54"	56"	27″	311/2"
36" x 54"	54"	62"	30"	311/2"
36" x 60"	54"	68"	33"	311/2"
42" x 28"	60"	56"	27″	371/2″
42" x 42"	60"	50"	24"	371/2"
40" x 54"	58"	62"	30"	351/2"
42" x 54"	60"	62″	30"	371/2″

Through Cab with Good Gate (Manual & Automatic)



Cab Size Wx D	Hoistway Width	Hoistway Depth	Rail Centerline	Door Centerline
36" x 48"	55″	57 ¹ /2″	28 ³ /4"	311/2″
36" x 54"	55″	63 ¹ /2″	31³/4″	311/2″
36" x 60"	55″	69 ¹ /2″	34³/4′′′′	31 ¹ /2″
42" x 28"	59"	631/2"	31³/4″	351/2″
42" x 42"	61"	51 ¹ /2″	25 ³ /4″	371/2″
40" x 54"	61"	57 ¹ /2″	28 ³ /4″	371/2″
42" x 54"	61"	631/2"	313/4″	371/2"

*Square footage of this size exceeds 15'. Availability subject to local codes & regulations.

90 Degree Cab with Good Gate (Manual and Automatic)



Cab Size Wx D	Hoistway Width	Hoistway Depth	Rail Centerline	Door Centerline	Door Centerline 2
38" x 48"	56 ¹ /2″	58″	26″	33"	23 ¹ /2"
38" x 54"	56 ¹ /2″	64"	28″	33"	23 ¹ / ₂ "
42" x 44"	60 ¹ /2″	55"	25″	37"	23 ¹ / ₂ "
42" x 48"	60 ¹ /2″	58″	26″	37"	23 ¹ /2″

Style 5 Cab with Good Gate (Manual & Automatic)



Cab Size Wx D	Hoistway Width	Hoistway Depth	Rail Centerline	Door Centerline
36" x 44"	54 ¹ /2″	54"	27"	22 ³ /4″
36" x 48"	54 ¹ /2"	58"	29"	223/4"
42" x 44"	60 ¹ /2″	54"	27″	22 ³ /4″
42" x 48"	60 ¹ /2″	58"	29"	22 ³ /4″

2-Speed Victory Doors

Cab Doors Only

*For a 90 degree configuration, consult factory

Incline Cab with 2-Speed Victory Door



Cab Size Wx D	Hoistway Width	Hoistway Depth	Rail Centerline	Door Centerline
42" x 42"	62"	54"	27″	371/2″
42" x 48"	62"	60"	30"	371/2″
42" x 54"	62"	66"	33"	371/2″

Through Cab with 2-Speed Victory Doors



Cab Size Wx D	Hoistway Width	Hoistway Depth	Rail Centerline	Door Centerline
42" x 42"	62"	50"	25″	371/2″
42" x 48"	62"	56"	28″	371/2″
42" x 54"	62"	62"	31″	371/2″

Style 5 Cab with 2-Speed Victory Doors



Cab Size Wx D	Hoistway Width	Hoistway Depth	Rail Centerline	Door Centerline
36" x 52"	54"	62"	31"	391/2"
36" x 54"	54"	64"	32"	391/2"
42" x 52"	60"	60"	31″	391/2"
42" x 54"	60"	60"	32″	391/2"

3-Speed Victory Doors

Cab Doors Only

Incline Cab with 3-Speed Victory Door



Cab Size Wx D	Hoistway Width	Hoistway Depth	Rail Centerline	Door Centerline
36" x 42"	54"	52″	27″	311/2″
36" x 48"	54"	58″	30"	311/2"
36" x 54"	54"	64"	33"	311/2″

Through Cab with 3-Speed Victory Doors



Cab Size Wx D	Hoistway Width	Hoistway Depth	Rail Centerline	Door Centerline
36" x 42"	54"	521/4"	261/8″	311/2″
36" x 48"	54"	581/4"	291/8"	311/2″
36" x 54"	54″	641/4"	321/8″	311/2″

Typical Hoistway Configurations Style 5 Cab with 3-Speed Victory Doors



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Cab Size Wx D	Hoistway Width	Hoistway Depth	Rail Centerline	Door Centerline
46" x 36"	54"	55″	27″	32"
46" x 42"	54″	614″	27″	32"

2-Speed Victory Doors

Cab and Landing Doors Only

Typical Hoistway Configurations Incline Cab with 2-Speed Victory Door



Cab Size Wx D	Hoistway Width	Hoistway Depth	Rail Centerline	Door Centerline
42" x 42"	62"	56"	31"	371/2″
42" x 48"	62"	62"	34"	371/2″
42" x 54"	62"	68"	37″	371/2″

*Note that for this cab style, the rail centerline cannot be centered on the rail wall. The centerline in these charts are measured from the corner of the wall with the landing door do the center of the rails.

Through Cab with 2-Speed Victory Doors



Cab Size Wx D	Hoistway Width	Hoistway Depth	Rail Centerline	Door Centerline
42" x 42"	62"	65"	321/2"	371/2″
42" x 48"	62"	71″	351/2"	371/2″
42" x 54"	62"	77"	351/2″	371/2″

Typical Hoistway Configurations Style 5 Cab with 2-Speed Victory Doors



Cab Size Wx D	Hoistway Width	Hoistway Depth	Rail Centerline	Door Centerline
36" x 52"	60"	62″	31″	391/2"
36" x 54"	60"	64"	32″	391/2"
42" x 52"	66"	62"	31"	391/2"
42" x 54"	66"	64"	32″	391/2"

3-Speed Victory Doors

Cab and Landing Doors Only

Only available in 78³/₄" door height

Incline Cab with 3-Speed Victory Door



Cab Size Wx D	Hoistway Width	Hoistway Depth	Rail Centerline	Door Centerline
36" x 42"	56"	58"	33"	31 ¹ /2″
36" x 48"	56"	64"	36"	31 ¹ /2″
36" x 54"	56″	70″	39"	31 ¹ /2″

Through Cab with 3-Speed Victory Doors



Cab Size Wx D	Hoistway Width	Hoistway Depth	Rail Centerline	Door Centerline
36" x 42"	56"	621/4"	311/8″	311/2"
36" x 48"	56"	68 ¹ /4″	341/8"	311/2″
36" x 54"	56″	741/4″	371/8″	311/2″

Typical Hoistway Configurations Style 5 Cab with 3-Speed Victory Doors



Cab Size Wx D	Hoistway Width	Hoistway Depth	Rail Centerline	Door Centerline
48" x 36"	58"	60"	29″	33"
48" x 42"	58″	66"	29"	33"