

Residential Elevator **DESIGN GUIDE**

ASME A17.1, Section 5.3



Inline Gear Drive



Hydraulic Drive



Winding Drum Drive

Table of Contents

About Symmetry Elevating Solutions	2
Residential Elevator Safety Notice	3
Residential Elevator Drive Systems.....	4
Equipment for Symmetry Residential Elevators	5
Elevator Car Doors & Gates.....	6
Two and Three Speed Automatic Elevator Car Doors.....	7
Typical Hoistway Construction	8-12
Hoistway–Typical Rail Backing Construction.....	13
Hoistway–Construction Outline.....	14
Inline Gear Drive–Remote Controller	15
Inline Gear Drive–MRL Controller & Access Hatch Detail	16
Hydraulic Drive–Machine Rooms.....	17
Winding Drum Drive–Machine Room	18
Flush Door & Frame.....	19

About Symmetry Elevating Solutions

Symmetry is a beautifully crafted, expertly engineered accessibility-related product line proudly **made in the U.S.A.** at the Bella Elevator LLC manufacturing plant. Promoted and sold by our exclusive nationwide network of carefully selected Symmetry partners and associates, Symmetry offers residential elevators, vertical platform lifts and Limited Use/Limited Application (LU/LA) elevators.

Strictly following national code guidelines and adhering to local jurisdiction requirements and variances, Symmetry products are ADA and ASME compliant and manufactured to meet the end users’ specific needs. Symmetry Elevating Solutions representatives possess a wealth of knowledge and experience and are committed to excellence for the life of the product—before, during and after project completion.

With dealer locations spanning North America, we are equipped to meet the accessibility needs of a wide spectrum of clients, from home and business owners, to municipalities, school and other governmental entities.

Please note that this guide is for planning purposes only, applies exclusively to national code, and should not be used for construction.
Prior to construction, please contact your local Symmetry Elevating Solutions representative and request a job-specific set of elevator plans to ensure that you obtain the accurate dimensions and requirements for your project.

Your representative will also assist you to make sure that your project plans will comply with the applicable state and local codes and the building authority.

Residential Elevator Safety as mandated by national code

Securing the space between the hoistway door and the car gate/door

Depending on the version of code that is enforced in your local jurisdiction, the hoistway door and car gate/door space requirements differ.

If your jurisdiction enforces ASME A17.1 (year 2013 & prior) Elevator and Escalator Safety Code, the rule was referred to as the 3" x 5" rule and is depicted in the image below, on the left.

In 2016, the ASME A17.1 code was revised, with the new $\frac{3}{4}$ " x 4" rule being adopted. The requirements for A17.1 (year 2016 & future) are depicted in the image below, on the right.

This rule was amended after it was determined that utilizing a standard residential hoistway door, installed under ASME A17.1 (year 2013 & prior), allows a space between the hoistway door and car gate/door large enough for a child to hide, thus subjecting the child to a potentially unsafe scenario, which could result in serious injury **if said space is not protected by some other means**.

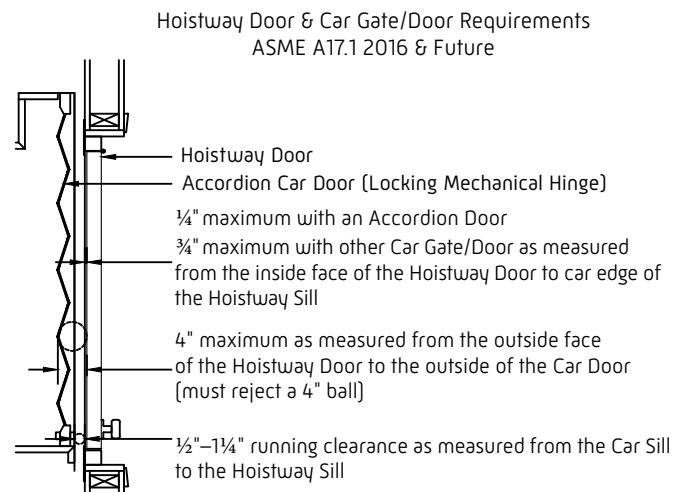
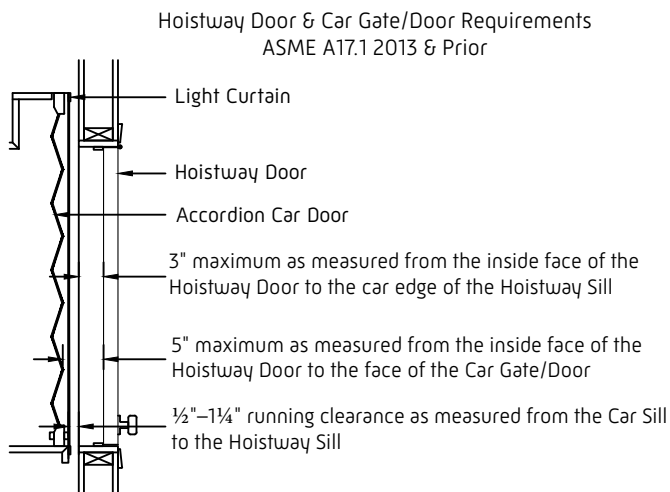
NOTE: Symmetry residential elevators have added security features that protect this space.

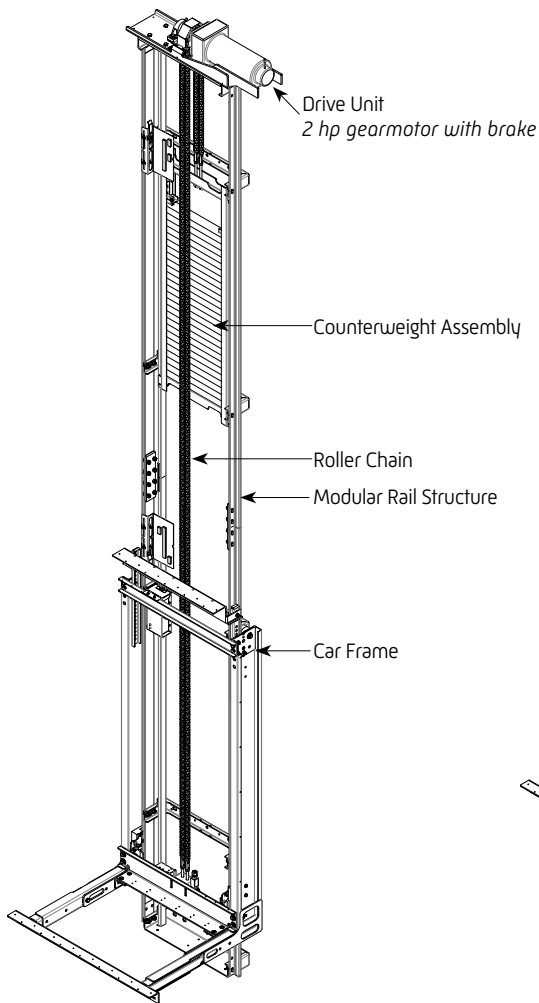
All Symmetry residential elevators are provided with a standard, enhanced gate switch bypass monitor that continuously monitors the elevator control system to detect a scenario where someone may enter the space between the hoistway and the car, without ever entering the car. The enhanced gate switch bypass monitor will keep the elevator from leaving the landing should it detect the aforementioned event.

Additionally, should you live in a jurisdiction that still enforces the ASME A17.1 (year 2013 & prior) code, your elevator will also be equipped with a light curtain that projects a crisscross pattern of 92 beams to keep the elevator from leaving the landing should an obstruction be detected.

Your safety is our number one priority. Thus, rest assured that regardless of the version of Elevator and Escalator Safety Code that is enforced in your jurisdiction, your Symmetry residential elevator safely protects the space between the hoistway door and car gate/door.

Please consult your local Symmetry Elevation Solutions representative regarding door and hoistway safety code recommendations.





Inline Gear Drive System

General

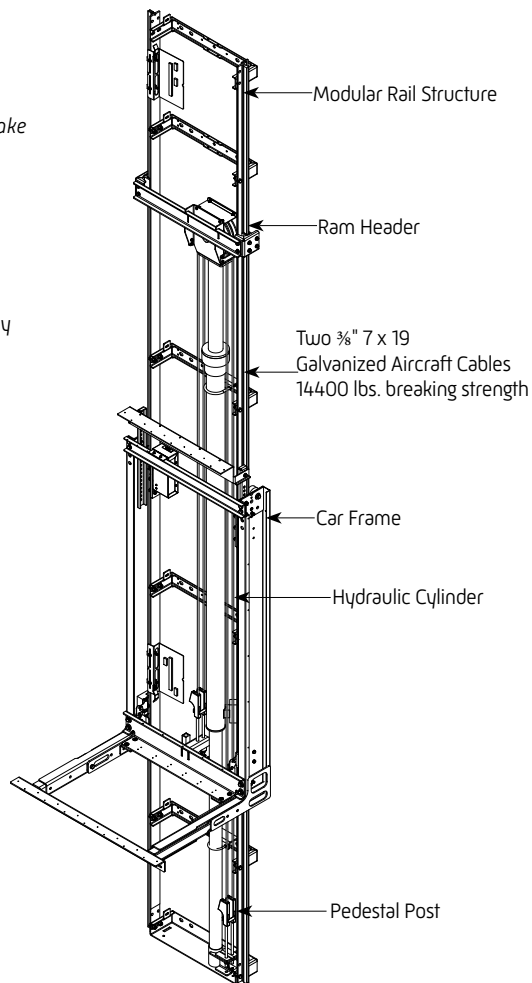
- Overhead minimum of 8'0" [96 inches] with remote controller; minimum of 9'0" with controller in hoistway with a 7'0" interior car height

Mechanical Equipment

- 208/230 VAC, 60HZ, 20 amp, single-phase power supply for motor controller
- Two #60 roller chains
- Inverter-controlled variable speed Inline Gear Drive unit with counterweight and 2 hp motor
- Manual lowering device

Safety Features

- Slack chain safety device
- Two upper and one lower final limit
- Machine stop switch



Hydraulic Drive System

General

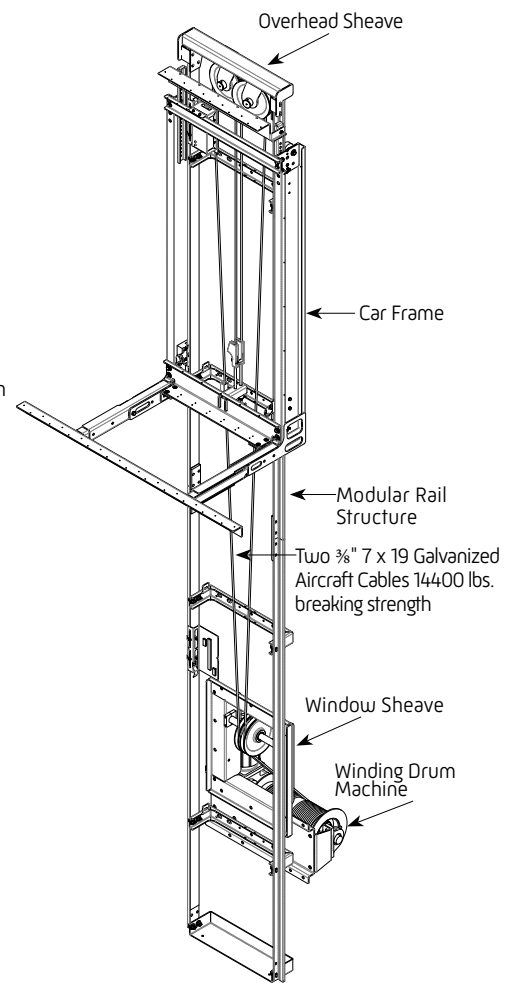
- Overhead minimum of 7'10" [94 inches] with a 7'0" interior car height

Mechanical Equipment

- 208/230 VAC, 60HZ, 30 amp, single-phase power supply for motor controller
- Two 3/8" 7 x 19 galvanized aircraft cable [14400 lbs. breaking strength] with wedge rope shackles
- 80mm diameter piston/102 mm diameter cylinder including 3/4" reducer brushing
- 3 hp submersed motor with 2-speed valve assembly
- Manual down valve for emergency lowering

Safety Features

- Slack rope safety device
- Line rupture valve



Winding Drum Drive System

General

- Overhead minimum of 7'10" [94 inches] with a 7'0" interior car height

Mechanical Equipment

- 208/230 VAC, 60HZ, 30 amp, single-phase power supply for motor controller
- Two 3/8" 7 x 19 galvanized aircraft cable [14400 lbs. breaking strength]
- Inverter-controlled variable speed winding drum drive unit and 3 hp motor
- Manual lowering device

Safety Features

- Slack rope safety device
- Two upper and one lower final limits

General

- Travel: maximum of 50'0" (minimum 12 inches between stops)
- Speed: 40 fpm
- Rated capacity: 1,000 lbs.
- Pit depth: 6" minimum (8 inches preferred)
- Two stops
- Single opening
- Three-year limited parts warranty

Mechanical Equipment

- Modular 6 lb. T-rail structure
- Car frame assembly
- Power supply for motor controller (See each drive for specifics.)
- 120 VAC, 60HZ, 15 amp single-phase power supply
- Code-compliant electrical disconnects included*

Safety Features

- Motor controller supply disconnects (located in controller)
- Car light supply disconnects (located in controller)
- Pit stop switch
- Car-top stop switch
- In-car emergency stop switch and alarm
- Safety switch for car gate(s)
- Battery backup emergency car lights and alarm
- Electromechanical hoistway door interlocks (doors by others)
- Light curtain monitoring the car entrance†

Controls

- Programmable Logic Controller (PLC)
- Non-selective collective automatic operation
- S.M.A.R.T. system (Self-Monitoring Alert Response Technology) *
- Car Operating Panel (COP) with LED floor position indicator §
- Recessed phone box (phone jack included) §
- Hall stations with call button and LED floor position indicator §
- Automatic car lighting
- Single floor designated car homing
- Uninterruptible Power Supply (UPS) for car lowering and automatic car gate/door operation (if provided) in the event of a power failure*

Car Features

- Car size up to 15 square feet
- 7'0" interior car height
- Birch, Oak or Maple flat veneer interior walls with flat ceiling*
- Matching wood handrail
- Matching wood car sill
- Unfinished plywood floor with sill set for ¾" (flooring by others)
- Two energy-saving recessed LED lights with black trim rings
- 7'0" vinyl laminate accordion gate (Light Oak, Dark Oak, Birch, White, Chalk or Antique White)

Optional Features

- Up to six stops
- Single automatic push-button operation
- Custom car size up to 18 square feet **
- Custom car heights
- Shaker or Recessed panel car with flat ceiling
- Shaker, Recessed or Raised panel car with matching ceiling
- Four recessed LED lights with Black, Polished Brass, Brushed Nickel or Bronze trim rings
- Factory-finished car
- Polished Stainless Steel, Polished or Brushed Brass, Black Vintage Bronze and Oil-Rubbed Brass fixtures (including COPs, phone boxes, hall calls and handrails)
- COP with integrated keypad phone
- Custom wood interiors
- Custom factory finishes (Antiqued, Distressed and Crackle) *
- "Green" material alternatives and finishes for car interiors *
- ¾" finished or unfinished installed hardwood car flooring
- Factory flooring insert for ¼" flooring by others
- Buffer springs (requires minimum of 10 inch pit depth)
- Key switch for COP and/or hall stations
- 750-lb. car capacity

Car Gate/Door Options

- Symmetry Safety 3-Panel car door
- Two and three speed car door or car and landing doors
- Wrap around car door ‡
- Enterprise collapsible gate
- Hardwood veneer accordion gate
- Clear acrylic panel accordion gate
- Automatic car gate/door operator (not available on the Enterprise collapsible gate)

NOTE: Accordion gates will have Bronze hardware except on White, Chalk or Antique White gates. Acrylic gates will have Clear hardware when Stainless Steel or Black fixtures are provided.

* Denotes exclusive features

** May require approval from the local authority having jurisdiction

† Depends upon the package ordered

‡ Availability depends on the code year

§ Standard finish is brushed stainless steel, but multiple finishes available.



Symmetry Safety 3-Panel Car Door

Our exclusive Symmetry Safety 3-Panel Door is one of the safest residential elevator car doors on the market. Panels shown in Black with vision panel, Brushed Stainless Steel and Vintage Bronze.

STANDARD FEATURES

- Manual Car Door Operation—the trailing panel of the car door measures at 2" from edge of the car sill and is restricted to a maximum hoistway door setback of 1¾" under the 3" x 5" rule; designed to fit within requirements of the new ¾" x 4" rule, with maximum running clearance and maximum hoistway door setback of ¾"
- Height of Opening—7'0"
- Car Door Opening—33" clear opening (fits in a "typical" hoistway with a 36"-wide car)

OPTIONS

- Power Car Door Operation—the leading panel of the car doors measures at ½" from the edge of the car sill and is restricted to a maximum hoistway door setback of 3" under the 3" x 5" rule; designed to fit within the requirements of the new ¾" x 4" rule with the maximum hoistway door setback of ¾"
- Height of Opening—7'11"; custom heights available
- Car Door Opening—36" clear opening (fits in a "typical" hoistway with a 40"-wide car)
- Light Curtain—optional if installed under the ¾" x 4" rule; standard as secondary protective device if unit installed under the 3" x 5" rule
- Vision Panels—available with clear or bronze Plexiglas®



Enterprise Collapsible Gate

The Enterprise Collapsible Gate is always designed and manufactured to comply with current codes. Shown in Vintage Bronze.

STANDARD FEATURES

- Nylon "Quiet Glide" wheels for smooth operation when opening and closing gate
- Low Profile Handles
- Rejects a ball 3" in diameter
- Every third vertical member guided at the top
- Every vertical member guided at the bottom

OPTIONS

- Light Curtain—optional if installed under the ¾" x 4" rule; standard as a secondary protective device if installed under the 3" x 5" rule
- Available in solid brass (brushed or polished), stainless steel (brushed or polished) or powder-coated steel
- Selection of attractive standard and premium finishes available; custom colors also available upon request
- 75D Option is available to meet the deflection requirements of ASME A17.1 2016

NOTE: Brass is not available with the 75D option.



Accordion Gate

The Accordion Gate is one of our most popular gate choices. Shown in Antique White with Vision Panels.

STANDARD FEATURES

- Laminate panels in Light Oak, Dark Oak, Birch, White, Antique White or Chalk
- Vinyl hinging (ASME A17.1 2013 or prior)
- Height of Opening—from 6'8" up to 7'11"

OPTIONS

- Additional Panel Options
 - Laminate panels in Cherry, Walnut or Black
 - Unfinished or finished matching hardwood
 - Clear or Bronze/Smoke Acrylic
 - Solid or Perforated Aluminum
- Light Curtain—optional if installed under the ¾" x 4" rule; standard as a secondary protective device if installed under the 3" x 5" rule
- Mechanical hinging (ASME A17.1 2013 or prior)
- Locking mechanical hinging is available to meet the deflection requirements of ASME A17.1 2016. (This allows for ¼" maximum hoistway door setback.)
- Vision Panels—available with Clear or Bronze/Smoke Acrylic

Two & Three Speed Automatic Elevator Car Doors

Car doors only or car and landing doors



Two Speed Car and Landing Door in
Brushed Stainless Steel

Automatic commercial-style doors optimize ease of use for passengers. Car door only or car and landing door packages available.

STANDARD FEATURES

- Power-operated
- Clear Openings—31½", 35½" or 36"
- Clear Heights—78¾", 84¾" or 94½"
- Panels come standard in Beige.
- Light Curtain

OVERHEAD REQUIREMENTS

- Two Speed Doors
 - Car and landing doors—98"
 - Car door only—97"
- Three Speed Doors
 - Car and landing doors/car door only—101"

OPTIONS

- Framed Glass Panels—available with clear safety glass; not currently offered on hoistway doors; standard finish for panels is Black
 - Available in Brushed Stainless or powder-coated steel in Beige, Black, White, Vintage Bronze, Zinc Rich Primer, Goldsmith, Bin Silver, Cast Bronze and Ivory
- Custom colors upon request



Three Speed Car Door in
Brushed Stainless Steel

Available Finishes

Custom colors are available upon request.



Brushed
Stainless
Steel



Beige
(standard)



Black



White



Vintage
Bronze



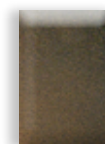
Zinc Rich
Primer



Goldsmith



Bin Silver



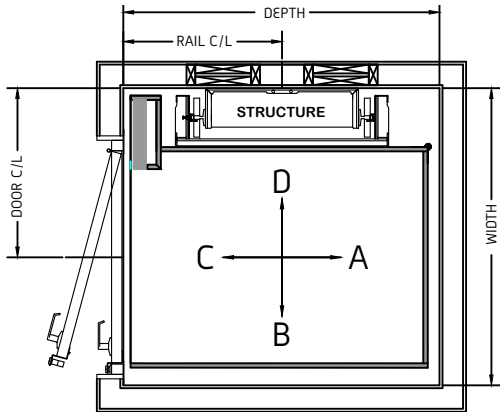
Cast
Bronze



Ivory

Typical Hoistway Options

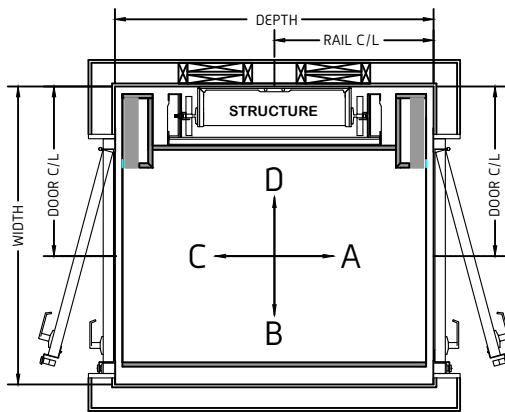
All hoistway dimensions reference interior dimensions—finished wall to finished wall.



Single Opening

Rail Left, Right-Hand Door (shown)
Rail Right, Left-Hand Door (opposite)

Car Gate/Door	Car Size	Width	Depth	Rail C/L	Door C/L	Clear Opening
Accordion or Collapsible (2)	36X48	50½"	54¼"	27½"	28¾"	33½"
	36X60	50½"	66¼"	33½"	28¾"	33½"
	40X54	54½"	60¼"	32"	32¾"	33½" (3)
Symmetry Safety 3-Panel	36X48	52"	55"	31"	30¼"	33"
	36X60	52"	67"	33½"	30¼"	33"
	40X54	54½"	61"	31"	32¾"	33" (3)



Opposite Opening

Rail Right, Left-Hand Door, Right-Hand Door
Rail Left, Right-Hand Door, Left-Hand Door

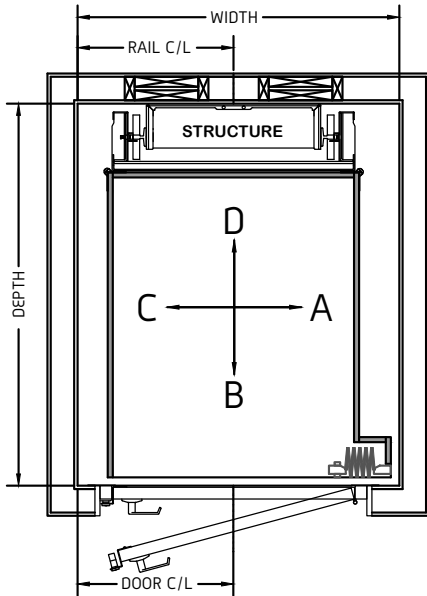
Car Gate/Door	Car Size	Width	Depth	Rail C/L	Door C/L	Clear Opening
Accordion or Collapsible (2)	36X48	50½"	54"	27"	28¾"	33½"
	36X60	50½"	66"	33"	28¾"	33½"
	40X54	54½"	60"	30"	32¾"	33½" (3)
Symmetry Safety 3-Panel	36X54	52"	61¾"	31"	30¼"	33"
	36X60	52"	67¾"	34"	30¼"	33"
	40X54	54½"	61¾"	31"	32¾"	33" (3)

- (1) Inline Gear Drive motor extends into the access hatch
- (2) Collapsible gates will have a clear opening approximately 1" less than shown
- (3) 36" clear opening available—door centerlines may change

Door centerlines apply to 3'0" doors, except where otherwise noted.

Typical Hoistway Options

All hoistway dimensions reference interior dimensions—finished wall to finished wall.



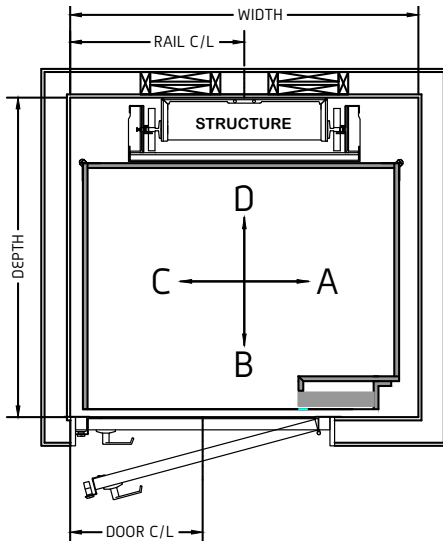
Single Opening

Rail Front, Left-Hand Door (shown)
Rail Front, Right-Hand Door (opposite)

Car Gate/Door	Car Size	Width	Depth	Rail C/L	Door C/L	Clear Opening
Accordion or Collapsible (2)	36X48	48"	62¼"	23½" (1)	23¼"	32¼"
	36X60	48"	74¼"	23½" (1)	23¼"	32¼"
	40X54	48"	68¼"	24" (1)	21¾"	33½"
Symmetry 3-Panel Safety	36X48	52¼"	63⅛"	22" (1)	21¾"	33"
	36X60	52¼"	75⅛"	22" (1)	21¾"	33"
	40X54	54½"	69⅛"	24½"	21¾"	33"

Single Opening

Rail Front, Left-Hand Door (shown)
Rail Front, Right-Hand Door (opposite)



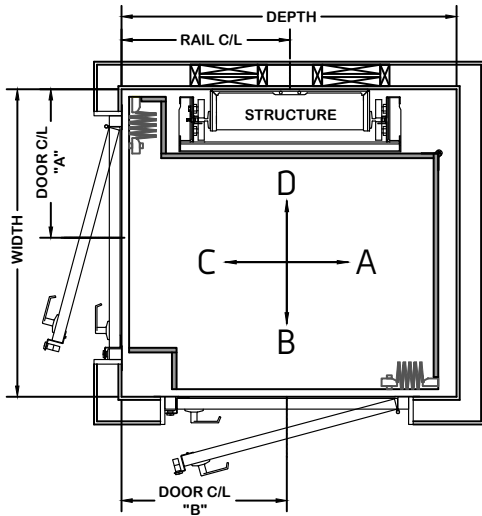
Car Gate/Door	Car Size	Width	Depth	Rail C/L	Door C/L	Clear Opening
Accordion or Collapsible (2)	48X36	55"	50¼"	27½"	21¾"	33½" (3)
	60X36	67"	50¼"	33½"	21¾"	33½" (3)
	54X40	61"	54¼"	30½"	21¾"	33½" (3)
Symmetry 3-Panel Safety	48X36	55"	51⅛"	27½"	21¾"	33"
	60X36	67"	51⅛"	33½"	21¾"	33" (3)
	54X40	61"	55⅛"	30½"	21¾"	33" (3)

(1) Inline Gear Drive motor extends into the access hatch

(2) Collapsible gates will have a clear opening approximately 1" less than shown

(3) 36" clear opening available—door centerlines may change

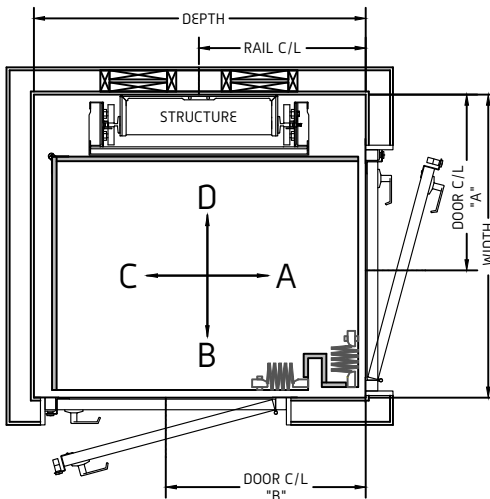
Door centerlines apply to 3'0" doors, except where otherwise noted.



90° Opening

Rail Left, Right-Hand Door, Left-Hand Door or
Rail Front, Left-Hand Door Right-Hand Door (shown)
Rail Right, Left-Hand Door, Right-Hand Door or
Rail Front, Right-Hand Door, Left-Hand Door (opposite)

Car Gate/Door	Car Size	Width	Depth	Rail C/L	Door C/L A	Clear Opening A	Door C/L B	Clear Opening B
Accordion or Collapsible [2]	36X48	50¼"	54¾"	31"	24¼"	31"	27"	33½"
	36X60	50¼"	66¾"	33½"	24¼"	31"	39"	33½" [3]
	40X54	54¼"	60¾"	31"	28¼"	33½"	33"	33½" [3]
Symmetry Safety 3-Panel	40X48	55⅞"	55⅞"	31"	30¾"	33"	25⅞"	33"
	40X54	55⅞"	61⅞"	31"	30¾"	33"	31⅞"	33" [3]



90° Opening

Rail Right, Right-Hand Door, Left-Hand Door or
Rail Front, Left-Hand Door, Right-Hand Door (shown)
Rail Left, Left-Hand Door, Right-Hand Door or
Rail Front, Right-Hand Door, Left-Hand Door (opposite)

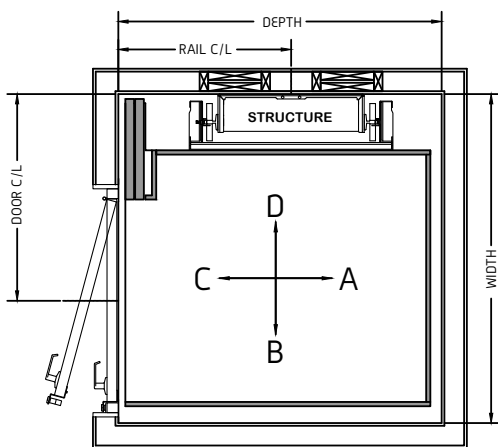
Car Gate/Door	Car Size	Width	Depth	Rail C/L	Door C/L A	Clear Opening A	Door C/L B	Clear Opening B
Accordion or Collapsible [2]	36X48	50¼"	54¾"	27½"	29¼"	28½"	33"	33½"
	36X60	50¼"	66¾"	33½"	29¼"	28½"	45"	33½" [3]
	40X54	54¼"	60¾"	30½"	29¼"	32½"	39"	33½" [3]
Symmetry Safety 3-Panel	44X48	59⅞"	55⅞"	28"	29¼"	33"	33⅞"	33"
	44X54	59⅞"	61⅞"	31"	29¼"	33"	39⅞"	33" [3]

- [1] Inline Gear Drive motor extends into the access hatch
[2] Collapsible gates will have a clear opening approximately 1" less than shown
[3] 36" clear opening available—door centerlines may change

Door centerlines apply to 3'0" doors, except where otherwise noted.

Typical Hoistway Options

All hoistway dimensions reference interior dimensions—finished wall to finished wall.



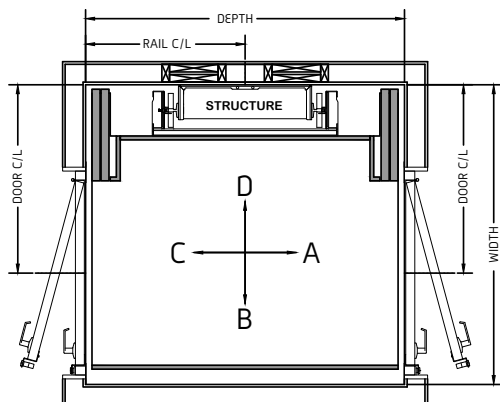
Single Opening

Rail Left, Right-Hand Door (shown)
Rail Right, Left-Hand Door (opposite)

Car Gate/Door	Car Size	Width	Depth	Rail C/L	Door C/L	Clear Opening
Two Speed Car Doors (shown)	44x48	59"	57½"	31"	37¼"	35½"
	44x54	59"	63½"	32"	37¼"	35½"
Three Speed Car Doors	36x48	50½"	58¼"	31½"	30¾"	31½" (4)
	36x60	50½"	70¼"	35"	30¾"	31½" (4)
	38x48	53½"	58¼"	31½"	31¾"	35½"
	38x60	53½"	70¼"	35"	31¾"	35½"
	40x54	54½"	64¼"	32"	32¾"	35½"

Opposite Opening

Rail Left, Right-Hand Door, Left-Hand Door
Rail Right, Left-Hand Door, Right-Hand Door



Car Gate/Door	Car Size	Width	Depth	Rail C/L	Door C/L	Clear Opening
Two Speed Car Doors (shown)	44x48	59"	61½"	31"	37¼"	35½"
	44x54	59"	67½"	34"	37¼"	35½"
Three Speed Car Doors	36x48	50½"	63"	32"	30¾"	31½" (4)
	36x60	50½"	75"	38"	30¾"	31½" (4)
	38x48	53½"	63"	32"	31¾"	35½"
	38x60	53½"	75"	38"	31¾"	35½"
	40x54	54½"	69"	35"	32¾"	35½"

(4) 2'8" doors

Door centerlines apply to 3'0" doors, except where otherwise noted.

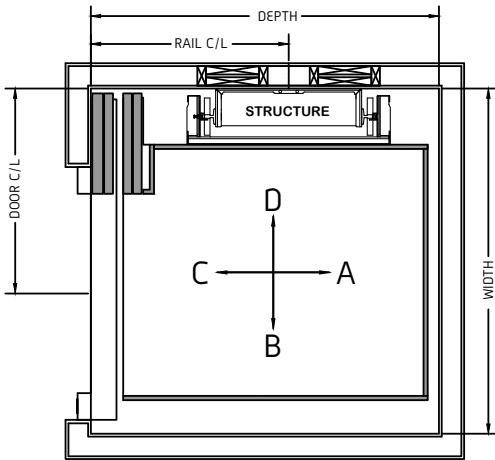
Typical Hoistway Options

All hoistway dimensions reference interior dimensions—finished wall to finished wall.

Single Opening

Rail Left, Right-Hand Door (shown)

Rail Right, Left-Hand Door (opposite)

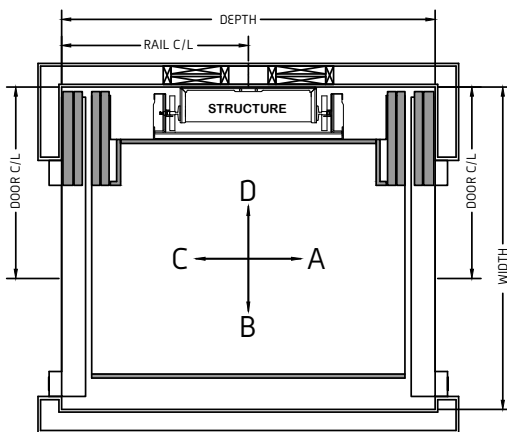


Car Gate/Door	Car Size	Width	Depth	Rail C/L	Door C/L	Clear Opening
Two Speed Car Doors (shown)	44X48	62"	62"	35½"	37¾"	35½"
	44X54	62"	68"	37"	37¾"	35½"
Three Speed Car Doors	36X48	52¾"	63"	36½"	30½"	31½" (4)
	36X60	52¾"	75"	42½"	30½"	31½" (4)
	38X48	55¾"	63"	36½"	31½"	35½"
	38X60	55¾"	75"	42"	31½"	35½"
	40X54	56¾"	69"	39½"	32½"	35½"

Single Opening

Rail Left, Right-Hand Door, Left-Hand Door (shown)

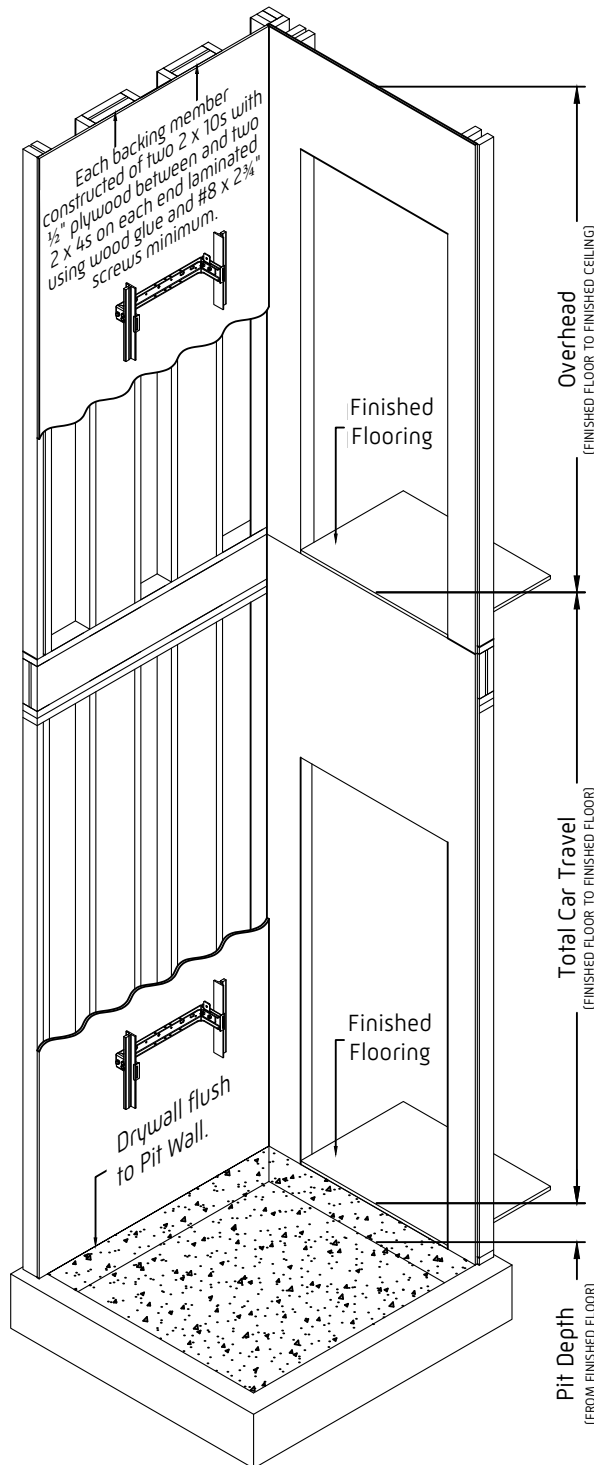
Rail Right, Left-Hand Door, Right-Hand Door (opposite)



Car Gate/Door	Car Size	Width	Depth	Rail C/L	Door C/L	Clear Opening
Two Speed Car Doors (shown)	44X48	62"	70½"	35½"	37¾"	35½"
	44X54	62"	76½"	38½"	37¾"	35½"
Three Speed Car Doors	36X48	52¾"	72¾"	36½"	30½"	31½"
	36X60	52¾"	84¾"	42½"	30½"	31½"
	38X48	55¾"	72¾"	36½"	31½"	35½"
	38X60	55¾"	84¾"	42½"	31½"	35½"
	40X54	56¾"	78¾"	39½"	31½"	35½"

(4) 2'8" doors

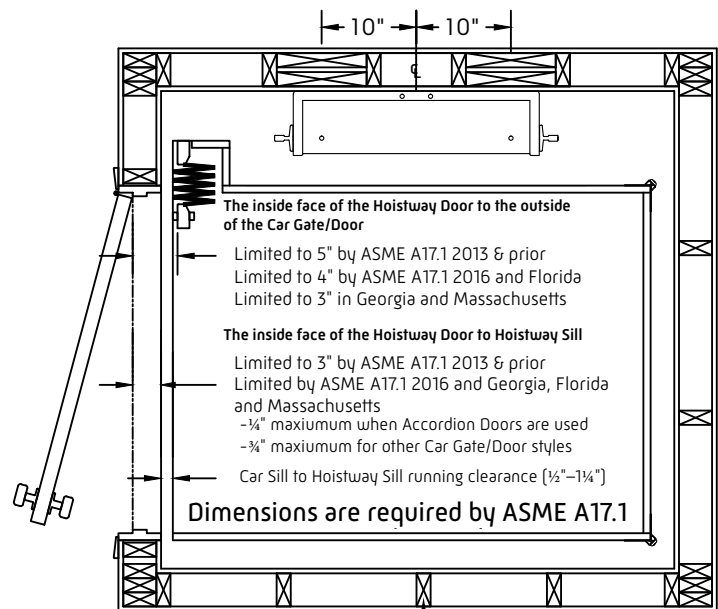
Door centerlines apply to 3'0" doors, except where otherwise noted.



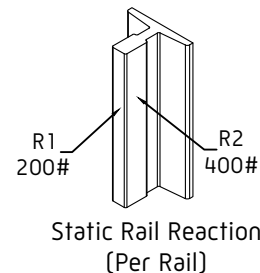
Each backing member is constructed of two 2 x 10s with 1/2" plywood between and two 2 x 4s on each end; laminated using wood glue and #8 x 2 3/4" screws (minimum).

Please note that Winding Drum Drives with greater than 30'0" of travel require 2 x 12s in lieu of the 2 x 10s, and the centerline spacing increases from 10 inches to 12 inches.

Installing 1/2" plywood behind the drywall will improve the sound-deadening and strengthen the hoistway.



Typical Framework with Drywall Construction



Rail Backing & General Hoistway

- Provide adequate rail backing per drawings. For vertical spans between floor systems that exceed 10'0", please consult a structural engineer. The wall must be capable of supporting the loads (two times the rail forces) without deflecting more than $\frac{1}{8}$ ".
- The hoistway must be constructed square and plumb within $\frac{1}{8}$ " tolerance throughout.
- The hoistway must be free of any obstructions not related to the operation of the elevator (i.e. sprinklers, pipes, ducts, etc.).
- The structure of the hoistway must allow for installation of a chain hoist to transfer materials during construction.
- Provide hoistway doors that are a minimum of 3'0" x 6'8" and solid core construction.

Pit Floor

- Provide a pit floor at a minimum of 6" [8 inches preferred] from the top of the finished floor to the highest point in the pit. (NOTE: Three speed car and landing doors require an 8-inch pit depth minimum.)
- Provide a pit floor capable of withstanding the impact load of 6,489 lbs. and the static load of 3,840 lbs.

Overhead

Inline Gear Drive

- Provide a minimum overhead of 8'0" for a 7'0" interior car height with a remote mounted controller.
- Provide a minimum overhead of 9'0" for a 7'0" interior car height with an in-the-shaft controller.

Hydraulic or Winding Drum Drive

- Provide a minimum overhead of 7'10" for a 7'0" interior car height.

Please note: If a Shaker, Recessed or Raised panel ceiling is used, an additional half-inch of overhead is required.

Drive-Specific Items

Inline Gear Drive

- Provide a minimum 8" x 8" access hatch at or near the top of the hoistway for manual lowering. [See drawings.]

Winding Drum Drive

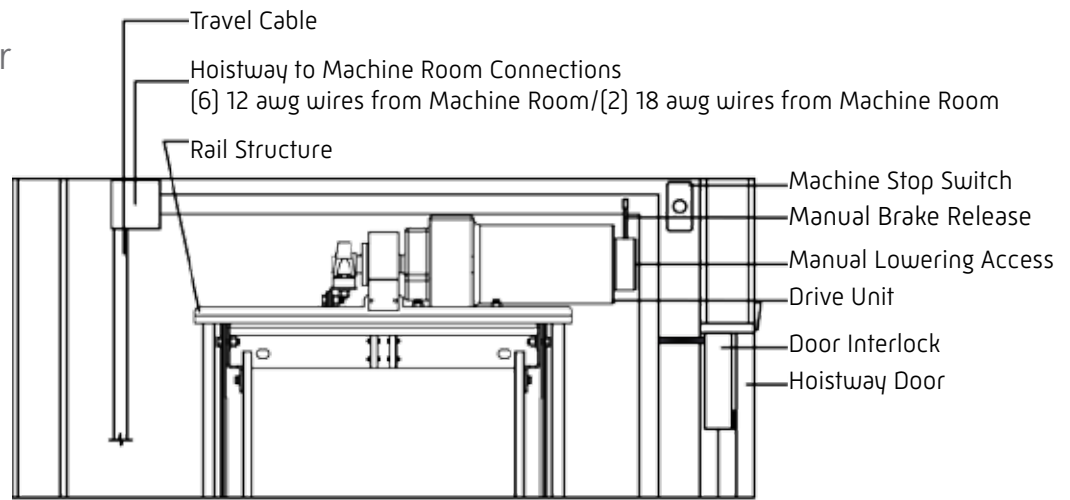
- Provide a framed window between the machine room and the hoistway for passing of the suspension means. [See drawings.]

Please note that this guide is for planning purposes only, applies exclusively to national code, and should not be used for construction. Prior to construction, please contact your local Symmetry Elevating Solutions representative and request a job-specific set of elevator plans to ensure that you obtain the accurate dimensions and requirements for your project.

Your representative will also assist you to make sure that your project plans will comply with the applicable state and local codes and the building authority.

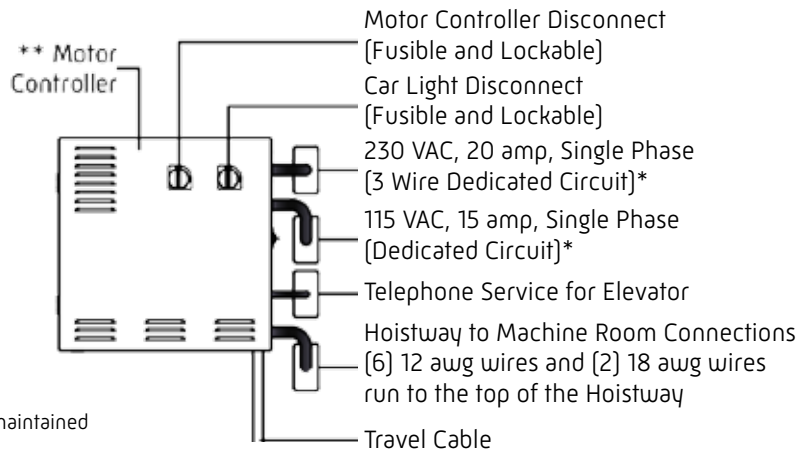
Inline Gear Drive Remote Controller

Please note that this layout is shown for manual lowering access at the top right of the view. The drive unit can be mounted opposite to accommodate access.



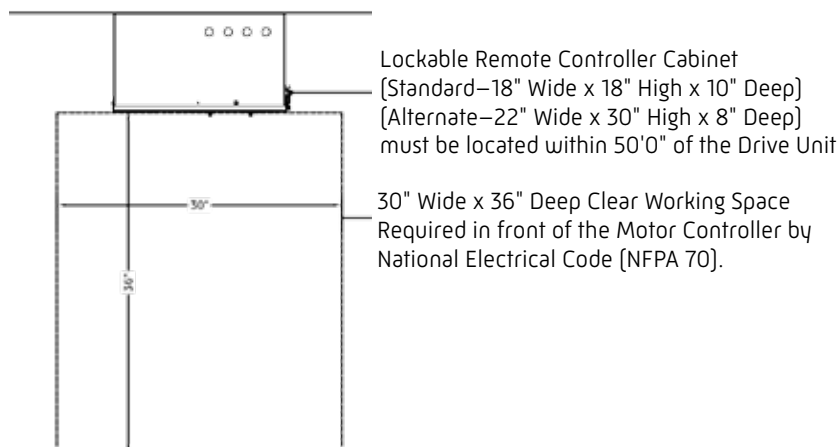
Note:

- 1) Minimum overhead clearance as measured from the top of the upper landing sill 8'0" for a standard 7'0" car.

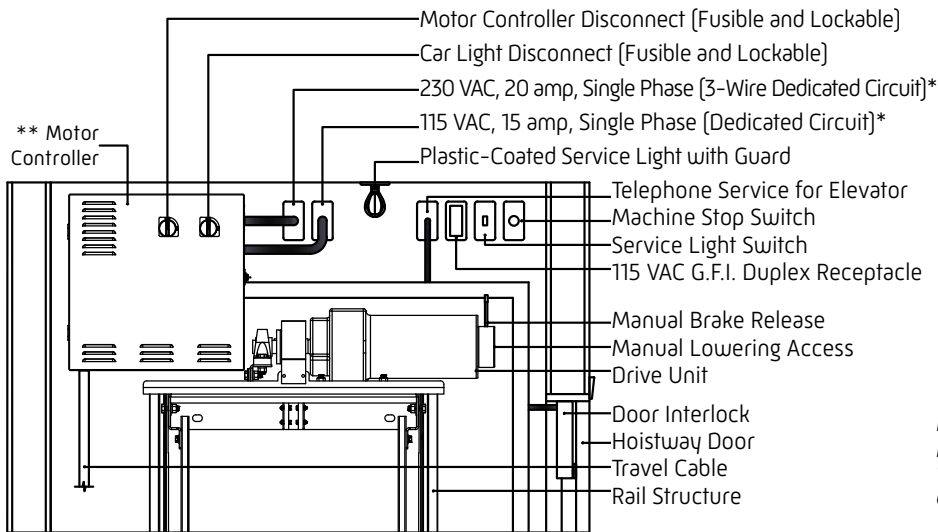


*Feeding breaker must not be a G.F.I.

**The control space temperature must be maintained between 32°F and 80°F.



Inline Gear Drive MRL Controller



Please note that this layout is shown for manual lowering access at the top right of the view. The drive unit can be mounted opposite to accommodate access.

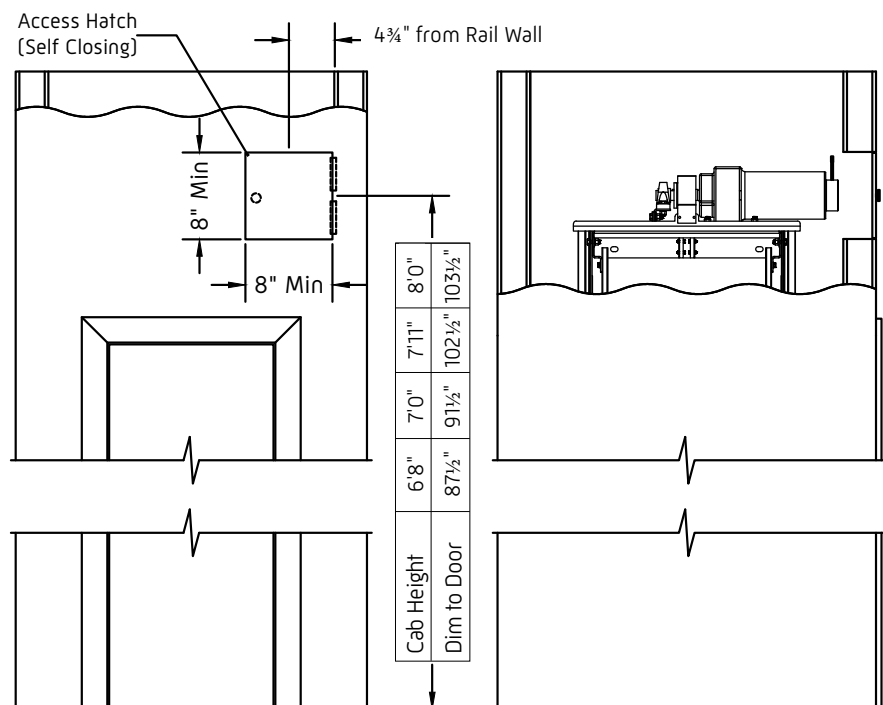
Notes:

- Minimum overhead clearance as measured from the top of the uppermost landing sill to the bottom of the shaft ceiling is 9'0" for a standard 7'0" car
- The MRL Controller option is not available in all jurisdictions, please contact your local Symmetry Elevating Solutions representative or local authority to confirm acceptance.

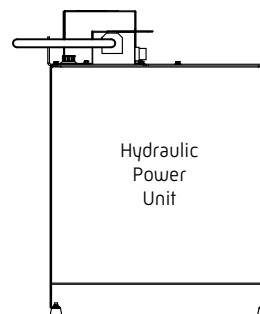
*Feeding breaker must not be a G.F.I.

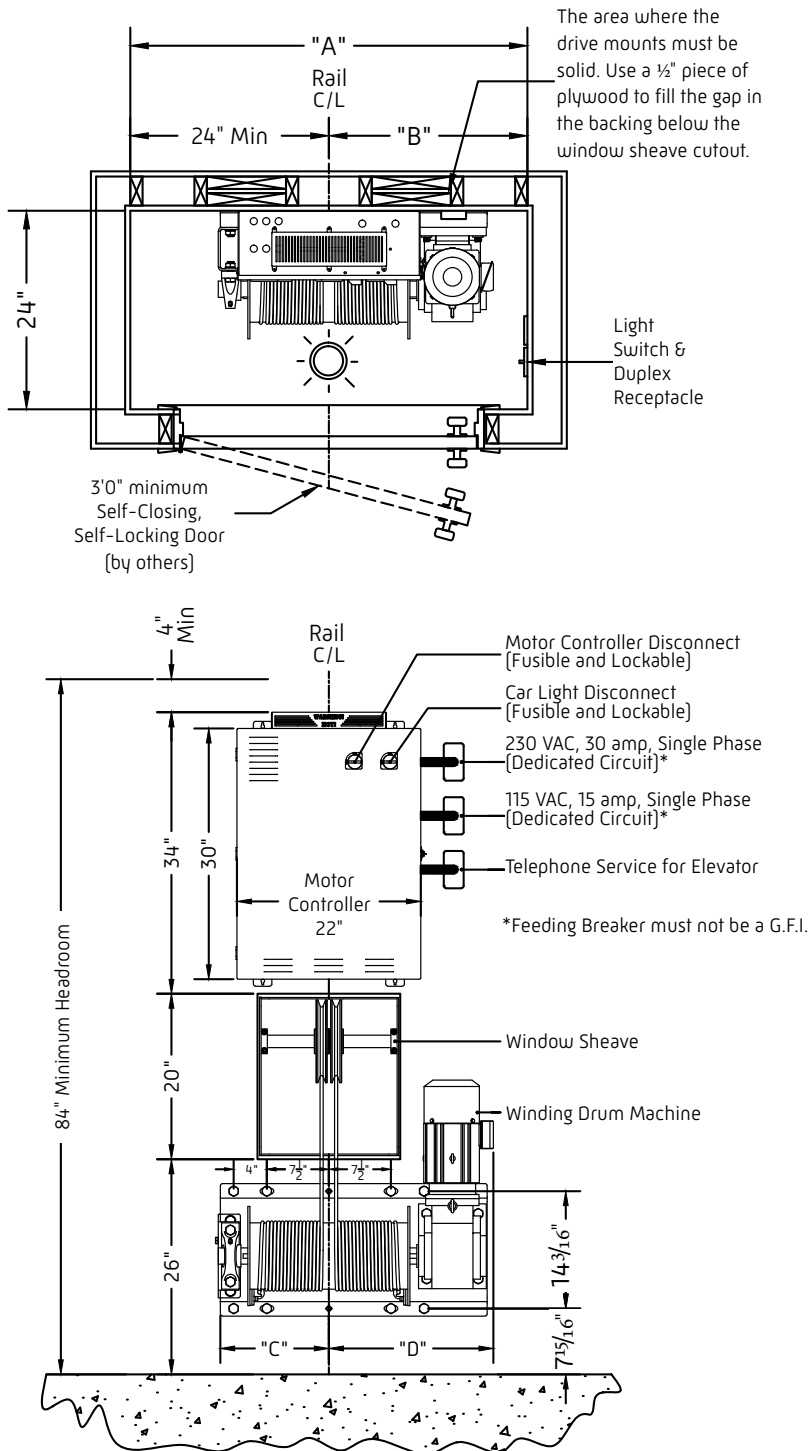
**The control space temperature must be maintained between 32°F and 80°F.

Access Hatch Detail

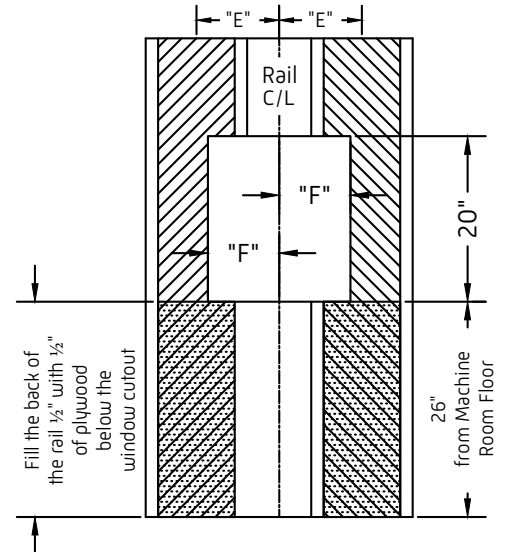


Hydraulic Drive Compact Machine Room





Window Sheave Detail Cutout



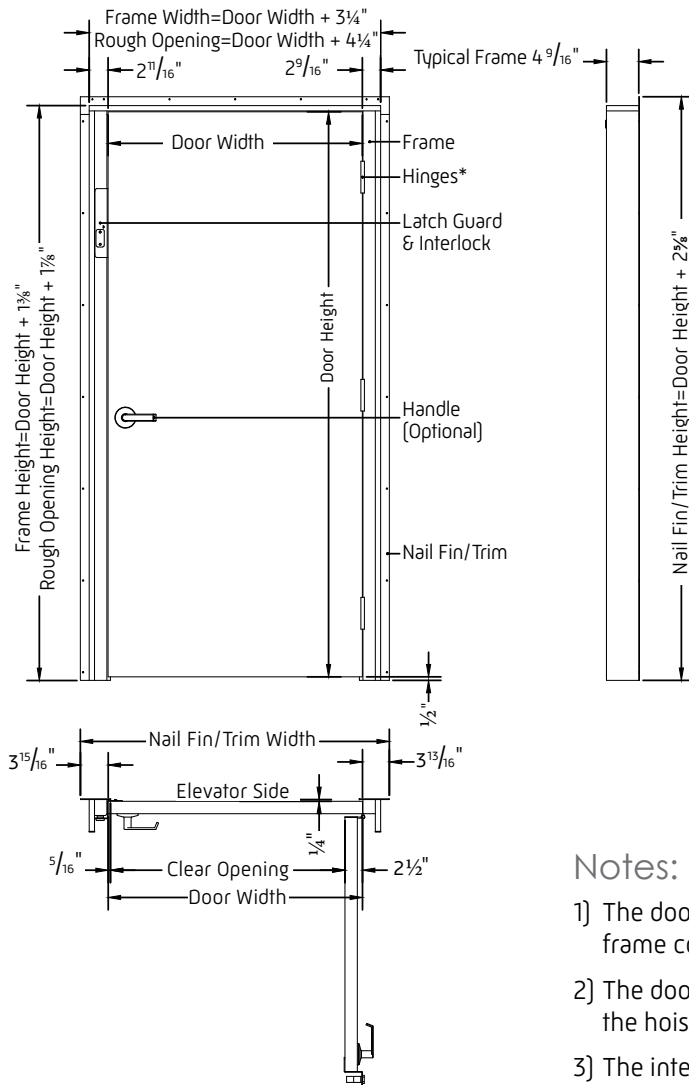
Notes:

- 1) The Elevator Machine Room location and layout must meet the code requirements defined by the local authority having jurisdiction.
- 2) 30" Wide x 36" Deep clear working space in front of the Motor Controller as required by the National Electrical Code (NFPA 70).
- 3) The light switch must be located on the strike side of the Machine Room Door.
- 4) The Machine Room must be free of all equipment not related to the elevator.
- 5) The Machine/Control Room temperature must be maintained between 32°F and 80°F.

Travel-Specific Dimension Chart

Travel	"A"	"B"	"C"	"D"	"E"	"F"
Up to 30'0"	48" min	24" min	13 1/8"	19 7/8"	10"	8 5/8"
Over 30'0"	60" min	36" min	19 5/16"	28 3/16"	12"	13"

Flush Door & Frame



Flush Door

Notes:

- 1) The door/frame is suitable for installation in masonry or wood frame construction.
- 2) The door/frame is installed with the door flush to the inside of the hoistway.
- 3) The interior hoistway wall should be finished up to the rough opening.
- 4) This can be furnished as a frame only or complete door with frame.



Roller Ball Catch & Recessed Pull
(Optional Features)



Dummy Handle
(Optional)



Latch Guard
(Exterior View)



Electronic Interlock
(EMDL)



AIA Continuing Education

www.symmetryelevator.com/aia

Symmetry offers in-person and online course options to obtain continuing education credits. Each completed course is worth 1 (one) LU/A HSW/SD credit and provides a detailed review of residential elevators, vertical wheelchair lifts, and limited use/limited application (LU/LA) elevators.

Our continuing education AIA courses also address specification, code application, suitability of product type, and the direct governance and guidelines of the ADA, ANSI and ASME.



symmetryelevator.com
877.375.1428