

# **IMPORTANT NOTICE**

This Planning Guide provides nominal dimensions and specifications useful for the initial planning of a project. Before beginning actual construction, make sure you have the installation (shop) drawings customized with specifications and dimensions for your specific project.

Lift configurations and dimensions are in accordance with our interpretation of the standards set forth by the codes listed on the front cover of this Planning Guide. Please consult Savaria or the authorized Savaria dealer in your area for more specific information pertaining to your project, including any discrepancy between referenced standards and those of any local codes or laws.

The dimensions and specifications in this Planning Guide are subject to change (without notice) due to product enhancements and continually evolving codes and product applications.

Visit our website **www.savaria.com** for the most current Vuelift drawings and dimensions.

# **Purpose of This Guide**

This guide assists architects, contractors, and lift professionals to incorporate the Vuelift Residential Elevator into a residential design. The design and manufacture of the Vuelift Elevator meets the requirements of the following codes and standards:

- ASME A17.1/CSA B44 2000, Section 5.3
- ASME A17.1/CSA B44 2004, Section 5.3
- ASME A17.1 2004, Addendum 2005, Section 5.3
- ASME A17.1/CSA B44 2007, Section 5.3
- ASME A17.1/CSA B44, Addendum 2008, Section 5.3
- ASME A17.1/CSA B44 2010, Section 5.3
- ASME A17.1/CSA B44 2013, Section 5.3
- ASME A17.1/CSA B44 2016, Section 5.3
- ASME A17.1/CSA B44 2019, Section 5.3
- ASME A17.1 1996, Part 5

We recommend that you contact your local authority having jurisdiction to ensure that you adhere to all local rules and regulations pertaining to residential elevators.

**IMPORTANT:** This Planning Guide provides nominal dimensions and specifications useful for the initial planning of a vertical platform lift project. Dimensions and specifications are subject to change without notice due to continually evolving code and product applications.

Before beginning actual construction, please consult Savaria or the authorized Savaria dealer in your area to ensure you receive your site-specific installation drawings with the dimensions and specifications for your project.

Visit our website for the most recent Vuelift drawings and dimensions.

# How to Use This Guide

1 Determine your client's intended use of the lift.

- **2** Determine the local code requirements.
- **3** Determine the site installation parameters.
- **4** Determine the cab type and hoistway size requirements.
- 5 Plan for electrical requirements.

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# **Revision History of This Guide**

December 4, 2017 - Initial release December 14, 2017 - Added Electrical Requirements section on page 9 (round) and page 25 (octagonal) January 31, 2018 - Added drawings for Type 2, Octagonal, Glass on pages 38 to 43 March 8, 2018 - Revised Noise Level spec in Specifications tables on pages 6 to 22 March 23, 2018 - Added dimensions for controller box and UPS on pages 21 and 45 March 29, 2018 - Revised drawing on page 42 May 7, 2018 - Added wheelchair plan views on pages 21 and 46 May 14, 2018 - Added notes to wheelchair plan views on pages 21 and 46 May 16, 2018 - Added note on pages 22 and 47 stating that a remote controller cannot be more than 50 feet away from the top of the unit in order for the cable to reach June 7, 2018 - New front cover December 7, 2018 - Revised drawing on page 46 December 19, 2018 - Added new Chapter 3 for Round Glass Large (RGL) and Octagonal Glass Large (OGL) elevators; All drawings revised to latest version January 2, 2019 - Revised drawings to latest version January 14, 2019 - Drawing added to show location of extra header rings for floor-to-floor height >14 (as needed) on pages 20, 40, 48, 55, 75 and 83 March 26, 2019 - Added remote controller drawings on pages 24, 59 and 86 March 27, 2019 - Added info for electrical outlet on pages 10,11, 12, 29, 30, 31, 64, 65 and 66 May 9, 2019 - Revised drawings on pages 20, 40, 48, 55, 75 and 83 May 22, 2019 - Added balcony and handrail information on pages 18, 39, 48, 57, 77 and 86 May 29, 2019 - Added Model Specification sheets on pages 15, 37, 47, 77 and 87 June 5, 2019 - Revised drawings on pages 53, 83, and 93 October 16, 2019 - Revised drawings to latest version October 28, 2019 - Revised drawings to latest version January 8, 2020 - Revised drawings to latest version January 9, 2020 - Added note to temperature spec on pages 7, 27, and 66 January 17, 2020 - Added Savaria Link option to specs on pages 8, 28 and 67 and to provisions by others on pages 11, 31 and 70 March 16, 2020 - Revised specs on pages 8, 28 and 67; Removed 3 & 5 rule from pages 9, 29 and 68; Revised info on pages 12, 32 and 71; Revised controller drawing on pages 25, 64 and 95 March 19, 2020 - Revised specs on page 67 March 23, 2020 - Revised footprint spec on page 66 April 8, 2020 - Revised safety factor on pages 13, 34, 35, 75 and 76; Added new drawings on pages

25, 47, 66, 88 and 99; Removed window from controller box drawings on pages 26, 67 and 100 June 17, 2020 - Added 2019 code to table on page 2; Added new spec "floor by others (in cab)" to

specs tables on pages 7, 28, and 69

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# Chapter 1: Round Acrylic (RAM)

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# Specifications - Round Acrylic (RAM)

Specification	Specification Data	
Load capacity	840 lb (381 kg)	
Maximum travel	55 ft (16.76 m)	
Travel speed	32 ft/min (0.16 m/s)	
Noise level (for typical installation)	65 dB	
Daily cycle	Normal: 40 Heavy: 80 Excessive: 150 Maximum starts in 1 hour on standard installation: 20 NOTE: Please consult your Sales Representative if there's a chance you may exceed these amounts.	
Maximum levels serviced	6	
Minimum overhead	106"(2692 mm) for standard cab 96" (2438 mm) for short cab	
Cab	Cab walls: Full clear acrylic Cab interior height (standard): 84 in (2.13 m) Cab interior height (optional): 76.5 in (1.94 m) Cab weight: 550 lb (250 kg) Cab floor area: 13.09 sq ft (1.22 sq m)	
Floor by others (in cab)	3/4" (19 mm) maximum	
Footprint	54" (1.37 m) diameter	
Power supply	30A, 230-V, single-phase, 50/60 Hz	
Cab lighting	15A, 115V, single-phase, 50/60 Hz	
Suspension	Type: Galvanized aircraft cable (2 x 3/8" diameter) Construction: IWRC 7 x 19 RHRL Nominal strength: 14,400 lb (6,545 kg) Weight of ropes: 0.243 lb/ft (3.616 g/cm) Travel cable weight: 0.228 lb/ft (3.393 g/cm)	
Drive train	Type: Winding drum Motor: 1.5 HP with integrated brake Transmission: Ultra-low vibration, 3-stage, right-angle, helical-bevel drive Motor control: Preprogrammed variable frequency drive Door interlocks: Xtronics	
Pit/floor load	Refer to the section "Load Calculations"	
Distance between 2 landings	93" (2362 mm) minimum	
Pit depth	4" - 12" (102 mm - 305 mm) No pit with optional short ramp	
Temperature operating range (environment)	- 10°C to + 40°C / 14°F to 104°F <b>NOTE</b> : For optimal running conditions, each landing of the unit should be in a climate-controlled environment.	

Specification	Specification Data	
Safety features	Pit run/stop switch and car top run/stop switch Emergency stop switch Safety brakes Electrical circuit overspeed Manual lowering Emergency battery back-up for cab lighting and lowering	
Options	<ul> <li>Optional configurations: Type 1, 2, 3</li> <li>Optional colors: <ul> <li>White (Texture White PX521W859)</li> <li>Silver (Texture Silver PX521S343)</li> <li>Custom powder-coat frame</li> <li>Note that Black is the standard color (Texture Black PX622N365)</li> <li>Other options: Up to 6 stops, balcony attachment</li> <li>Savaria Link remote monitoring (Vuelift Micro-6 only)</li> </ul> </li> </ul>	

# Safety First - Round Acrylic (RAM)

# 3/4 & 4 Rule (Code 2016 and After)

The ASME A17.1-2016/CSA B44-16 Safety Code for Elevators and Escalators (2016 AND AFTER) mandates the following maximum hoistway door clearances (see drawing on next page):

- Clearance between the hoistway door and the hoistway edge of the landing sill shall not exceed 0.75" (19 mm).
- Distance between the hoistway face of the landing door and the car door shall not exceed 4" (102 mm).
- Vuelift Residential Elevator design is with a maximum 1.25" (32 mm) running clearance.

# **Electrical Requirements - Round Acrylic (RAM)**

Your electrician and phone installer must supply the following connections:

- Main Disconnect One 230V single-phase, 30 Amp fused disconnect box with 20 Amp fuse/breaker. If voltage is not 230V minimum, a buck-boost transformer is required.
- Lighting Disconnect One 120V, 15 Amp fused disconnect or circuit breaker for cab lighting.
- Telephone Line One telephone line jack in close proximity to the controller.
- Electrical Outlet One 15A GFCI outlet shall be installed near the pit or base ring.

NOTE: Savaria does not provide power cable to main disconnect.

# **Recommended Manufacturers for Fused Disconnect**

#### Square D

- Main disconnect: 230V single-phase disconnect model # H221N.
   240V, 30 Amp with Interlock Kit ELK031 Aux Contacts (normally opened/normally closed). In addition, two each - 250V, 20 Amp, RK5 fuses.
- Lighting disconnect: 120V, 15 Amp fused disconnect or circuit breaker.

#### Siemens

- Main disconnect: 230V single-phase disconnect model #HF221N.
   240V, 30 Amp with Interlock Kit-HA 161234 Aux Contacts (normally opened/normally closed). In addition, two each - 250V, 20 Amp, RK5 fuses.
- Lighting disconnect: 120V, 15 Amp fused disconnect or circuit breaker.

## G.E.

- Main disconnect: 230V single-phase disconnect model # TH3221.
   240V, 30 Amp with Interlock Kit THAUX21D Aux Contacts (normally opened/normally closed). In addition, two each - 250V, 20 Amp, RK5 fuses.
- Lighting disconnect 120V, 15 Amp fused disconnect or circuit breaker.

#### **Cutler Hammer**

- Main disconnect: 230V single-phase disconnect model # DH221NGK.
   240V, 30 Amp with Interlock Kit THAUX21D Aux Contacts (normally opened/normally closed). In addition, two each - 250V, 20 Amp, RK5 fuses.
- Lighting disconnect: 120V, 15 Amp fused disconnect or circuit breaker.

Recommended manufacturers for circuit breakers at the distribution panel (and the distribution panel itself): Square D or Siemens only.

# **Provisions By Others - Round Acrylic (RAM)**

# General

#### **Construction Site**

The owner/agent is required to provide all masonry, carpentry, and drywall work as required. Floors shall be in a finished state prior to installation of the unit. Refer to the section, Site Preparation on the next page.

# Dimensions

The contractor/customer must verify all clearance dimensions prior to delivery of the unit.

# Structural

#### **Floor Loads**

A structural engineer is required to ensure that the building will safely support all loads imposed by the lift equipment. Refer to the tables on the installation drawings (shop drawings) for pit/floor loads imposed by the equipment. Refer to the section, Load Calculations.

#### Electrical Power Supply

See the following table. Lockable fused disconnects must be installed in compliance with electrical code and are to be provided prior to installation of the unit. Roughed in power to the lift must be provided to the head assembly location prior to installation of the unit.

Power Supply Specifications	Disconnect Size	Time Delay Fuse Size	Volts	Phase
Motor and equipment	30 Amps	30 Amps	230 Volts	Single
Cab lights	15 Amps	15 Amps	115 Volts	Single
Pit light	15 Amps	15 Amps	115 Volts	Single

## Telephone

If a telephone circuit is required, the jack is to be provided and installed by others. This circuit shall be brought to a location next to the controller and be available to connect and test upon elevator installation.

## **Electrical Outlet**

One 15-Amp GFCI outlet shall be installed near the pit or base ring.

## **Permanent Power**

Before installation can begin, permanent power must be supplied.

## Entrances

#### Handrails

All balcony levels require handrails to be installed per local codes after installation is completed. The handrail and installation is to be provided by the contractor/customer. Savaria Concord Lifts Inc. and/or local installer are not responsible for handrail installation or materials.

# Savaria Link Option (Vuelift Micro-6 Only)

If you have the Savaria Link <u>Ethernet</u> remote monitoring option, ensure that you have an Ethernet connection with Internet capability in the vicinity of the unit's controller.

If you have the Savaria Link <u>Wireless</u> remote monitoring option, ensure that you have a wireless signal with Internet capability in the vicinity of the unit's controller.

# Site Preparation - Round Acrylic (RAM)

The following items MUST be completed prior to installation of the elevator.

## **Finished Floors**

• Finished floors be installed at all landing levels.

## 230V Power (with Switched Disconnect)

- Permanent 230V, single-phase, 30-Ampere dedicated power to a lockable fused (cartridge type) disconnect switch.
- Disconnect switch must be mounted in a location within line of sight of the elevator or controller.
- 230V source must be run from the disconnect switch to a junction box in a discrete location at the top of the elevator hoistway location.
- Disconnect must be installed according to all applicable local codes.

## 110V Power (with Switched Disconnect) - 2 are required

- Permanent 110V, single-phase, 15-Ampere dedicated power to a lockable, fused (cartridge type) disconnect switch.
- Disconnect switch must be mounted near the 230V disconnect switch.

## **Telephone Works**

• Telephone jack must be provided next to the electrical disconnects. This can be the common house line in most jurisdictions. Please check with your local installer or building contractor for code requirements.

## **Electrical Outlet**

• One 15-Amp GFCI outlet shall be installed near the pit or base ring.

# **Floor Built for Load**

• Smooth level surface for installing the elevator, with floor load bearing capacity for the elevator plus rated load. An exact specification can be provided by contacting Savaria.

## **Floor and Pit Cutouts Complete**

- If a pit is to be used, a smooth, level surface of at least 4" must be provided. For pit depths greater than 12", contact Savaria to ensure proper equipment will be provided.
- It is recommended that any pit floor and walls be finished prior to installation. Pit floor and walls are visible after elevator installation is completed.
- Hole in floor, or modified balcony rail as directed by drawings.

# **Check Floor to Floor Maximum and Minimum Distances**

- 106" (2692 mm) minimum overhead distance from upper floor level to the underside of the finished ceiling for standard cab configuration.
- 96" (2438 mm) minimum overhead distance from upper floor level to the underside of the finished ceiling for modified short cab configuration.

# **Drywall and Painting**

• All drywall and painting must be complete.

# Load Calculations - Round Acrylic (RAM)

- Primary loads are carried by the four support columns that run from top to bottom on the elevator.
- The load (represented below as Lower Floor Total Load) is supported on 4"x4" plates at the bottom of each of the four columns.
- Vuelift elevators are designed such that the dead load and impact load are transferred to the lowest level through the rail base plates and rings when installed properly in a building with structural integrity including consistent floor to floor heights.
  - Note: Vuelift elevators are designed for applications in buildings that maintain consistent floor to floor height as the building ages.
  - If floor to floor height changes after installation, the elevator MUST be taken out of service pending inspection and correction by a trained installation technician.
- All mid floors including the bottom floor may be subjected to a maximum lateral load of 200 lb.
- Walls of bricks, terra-cotta, hollow blocks, and similar materials shall not be used for attachment of column (guide rail) brackets unless adequately reinforced.
- Where necessary, the building construction shall be reinforced to provide adequate support for the columns (guide rails).
- Shipping weight is estimated actual including crating materials, etc.
- Floor load figures include elevator structure weight when loaded with full test capacity.
- Floor load figures shown here are actual loads; your building engineer must add a proper factor of safety to the floor design.
- Many jurisdictions require floor designs to include at least a safety factor of 4, doubling the loads shown here.
- To reiterate, these figures DO NOT include your factor of safety for floor loads. Engineer your floor to include (add) an appropriate safety factor and comply with local building codes.

Lower Floor Dead Load (lbf) = (38 x feet of hoistway) + (60 x number of floors) + 2193

Lower Floor Impact Load (lbf) = 3703

Lower Floor Total Load (lbf) = Dead Load + Impact Load

Mid Floor Load (lbf) = 182

Shipping Weight (lb) = (694 x number of floors) + 1720

**Note:** Shipping weight includes the actual component weights for all parts, plus shipping crate and packaging weight.

## Examples

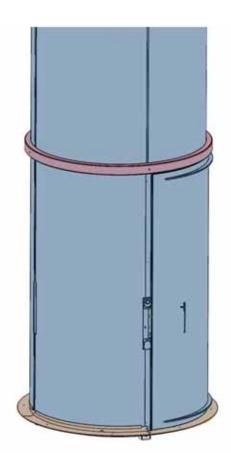
	<u>3 stop with 36' of hoistway</u>	<u>2 stop with 19' hoistway</u>
Lower Floor Dead Load	3,741	3,035
Lower Floor Impact Load Lower Floor Total Load	<u>3,703</u> 7,444	<u>3,703</u> 6,738
Mid Floor Loads (on each mid floor)	182	182
Shipping Weight	3,802	3,108

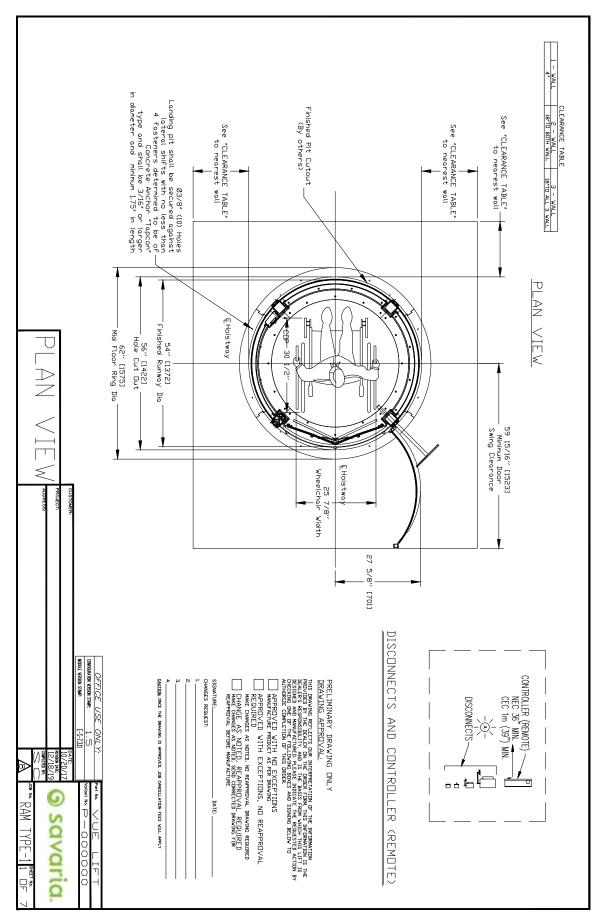
- Plan view
- Pit/bottom floor/thru-floor view
- Balcony detail
- Balcony plate and handrail information
- Thru-floor detail
- Elevation view
- Elevation view (showing extra header rings for floor-to-floor height >14 ft)
- Provisions by others
- Pit cutout detail
- Machine room layout and wire routing
- Controller box dimensions

# **Model Specifications - Round**

# Round (Acrylic)

- Capacity: 381kg (840 lb)
- Cab Size: 1.22 sqm (13.09 sq. ft.)
- Clear Cab Size: 1298mm (51 in.)
- Cab Height: 2134mm (84 in.)
- Hoistway Footprint
  - Acrylic: 1372mm (54 in.)
  - Pit/Thru Floor Cutout: 1422mm (56 in.)
  - Balcony/Header Ring: 1473mm (58 in.)
  - Pit/Thru Floor Ring: 1575mm (62 in.)
- Minimum Overhead Clearance: 2692mm (106 in.)





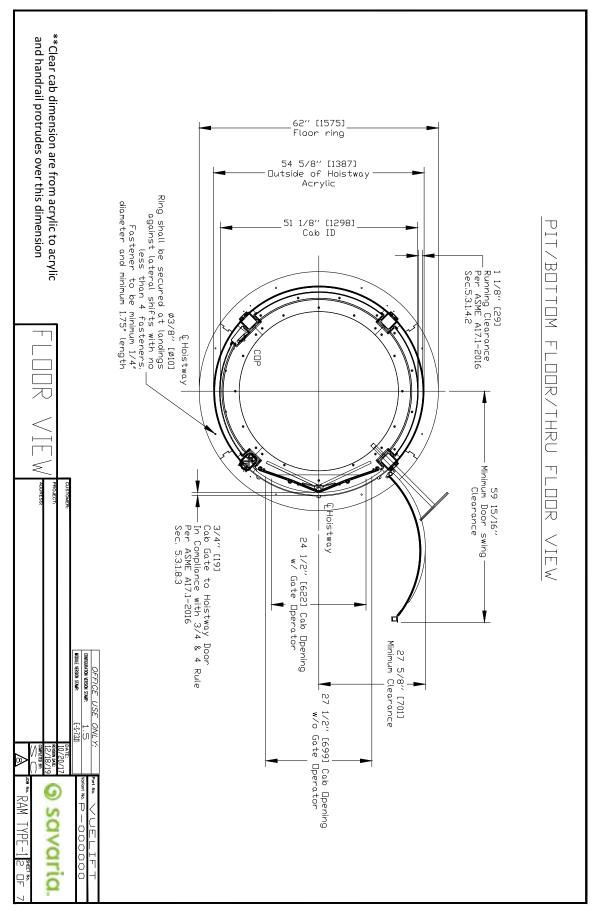
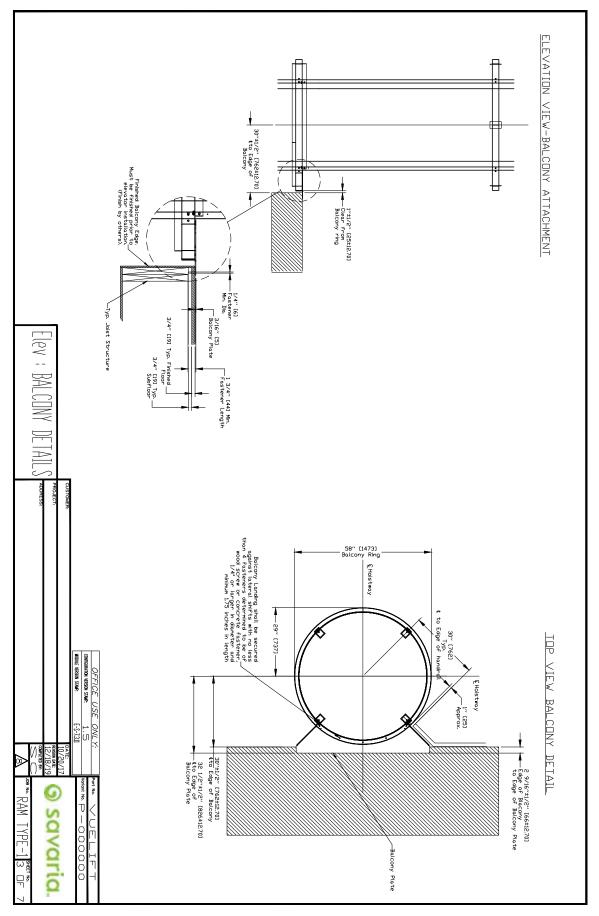
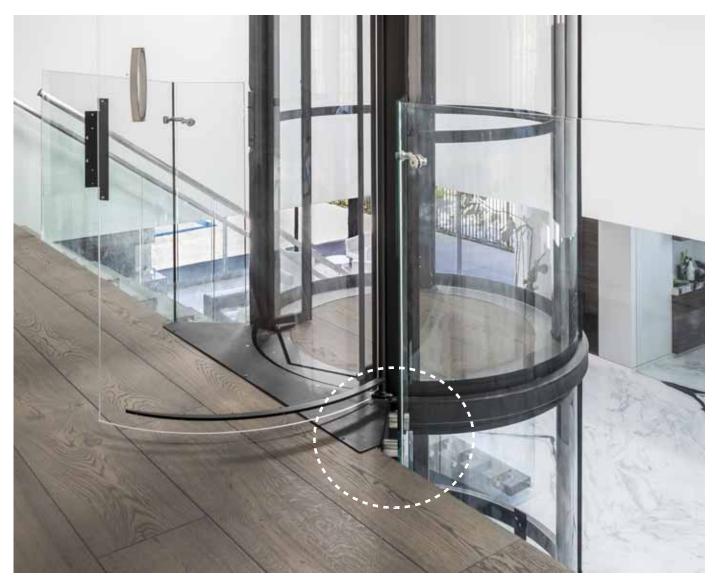


Figure 3: Balcony detail - round acrylic (RAM)



#### Figure 4: Balcony plate and handrail information - round acrylic (RAM)

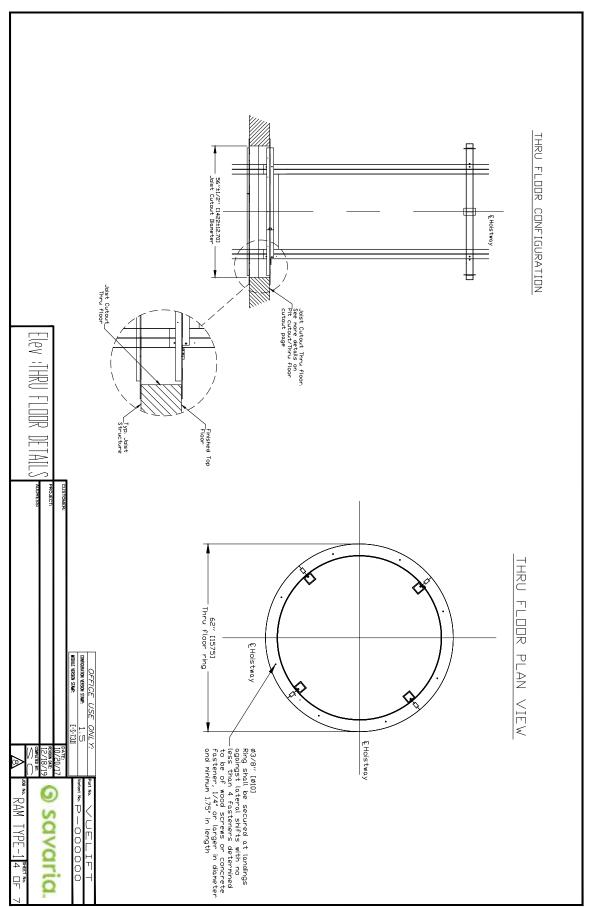


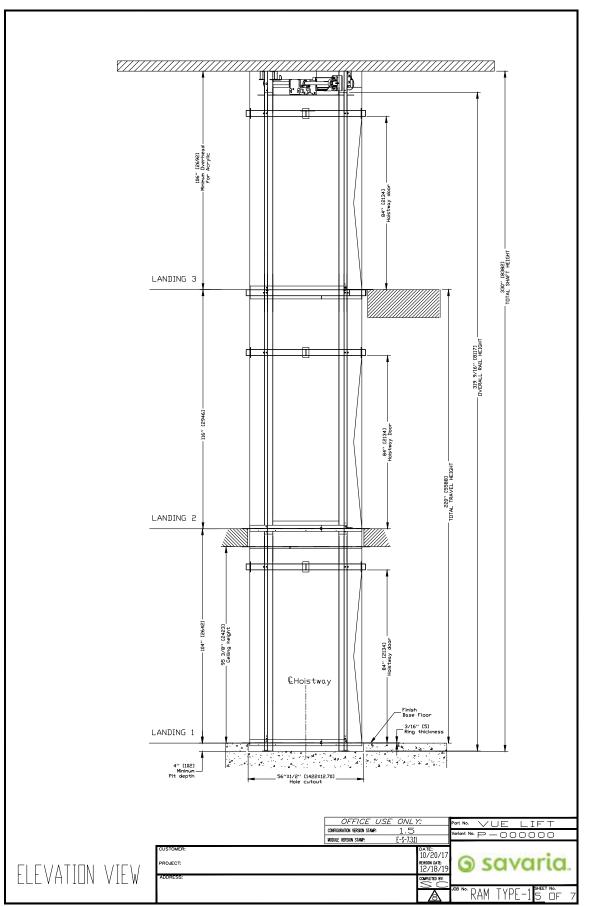
The Vuelift balcony plate provides a vertical flange on either side that can be used to mount the adjacent handrail. This plate is made of 3/16" steel and is designed to support the handrail loading and forces.

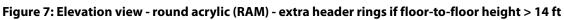
The photo above shows a finished handrail view. It is important to note that the spacing between the handrail post and the elevator shaft should be between 2" (51 mm) and 3" (76 mm) to allow sufficient clearance for the operation of the hoistway door and the hall call button.

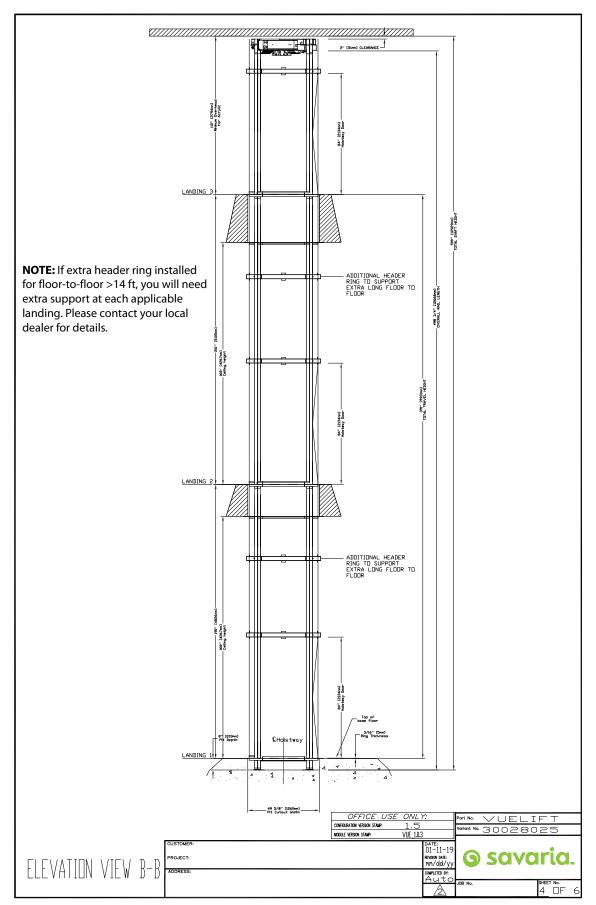
**NOTE**: Installing the handrail on top of the balcony plate is NOT permitted as it will interfere with the door opening operation and door clearances.

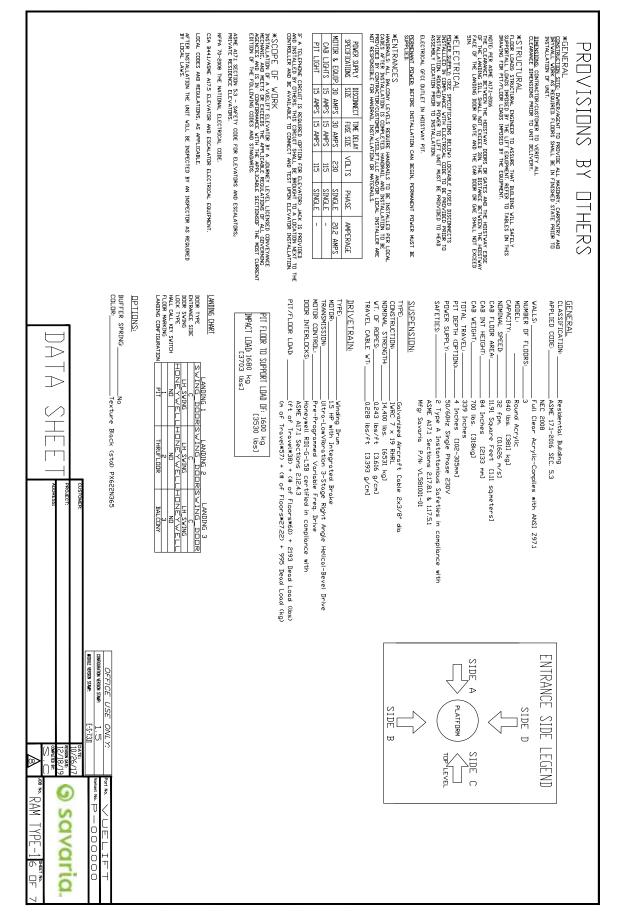




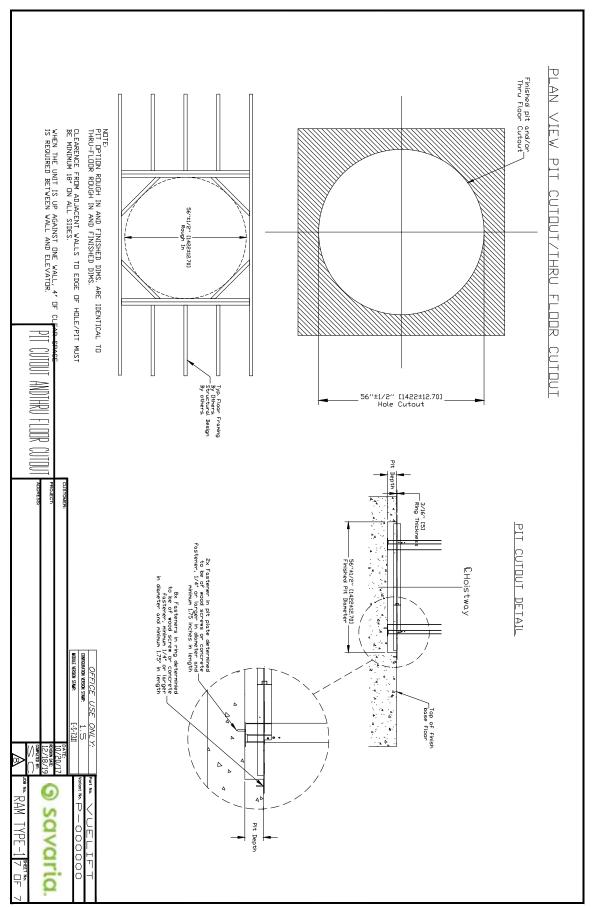












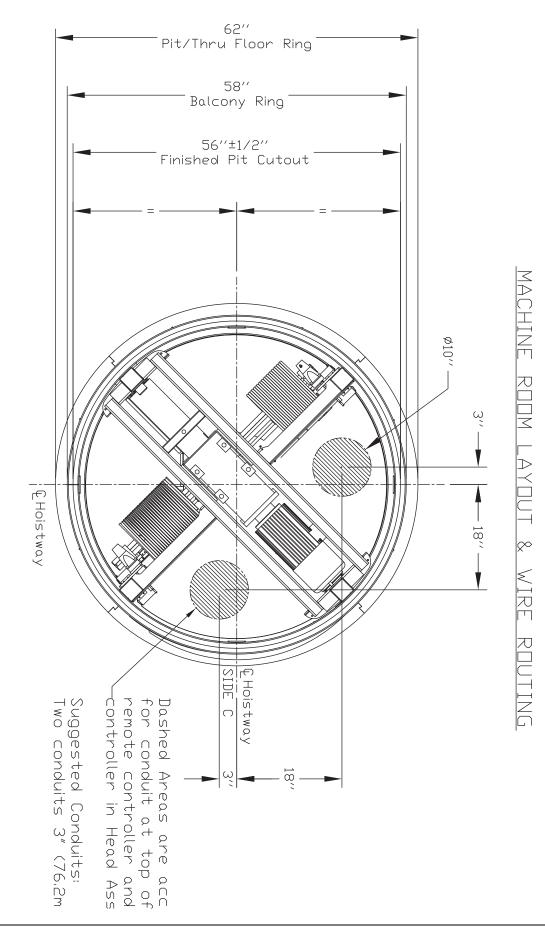
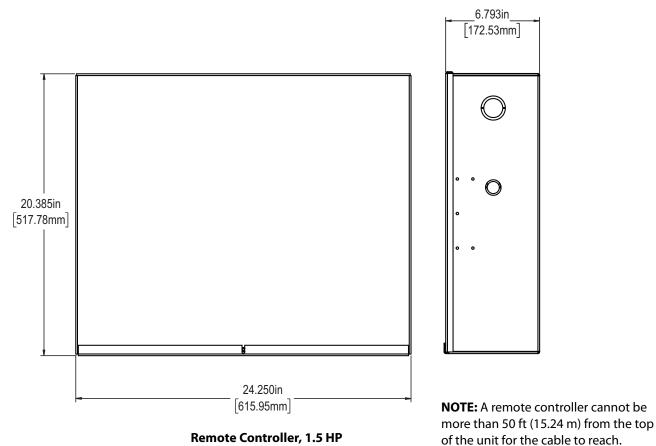
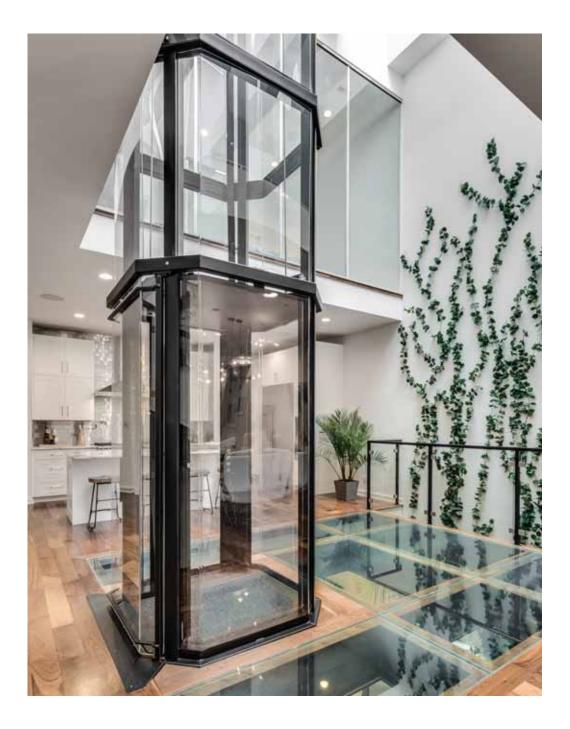


Figure 11: Controller box dimensions- round acrylic (RAM)



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# Chapter 2: Octagonal Acrylic (OAM) & Octagonal Glass (OGM)



# Specifications - Octagonal Acrylic & Octagonal Glass (OAM & OGM)

Specification	Specification Data	
Load capacity	Acrylic model: 840 lb (381 kg) Silica glass model: 950lb (432 kg)	
Maximum travel	55 ft (16.76 m)	
Travel speed	Acrylic model: 32 ft/min (0.16 m/s) Silica glass model: 40 ft/min (0.20 m/s)	
Noise level (for typical installation)	65 dB	
Daily cycle	Normal: 40 Heavy: 80 Excessive: 150 Maximum starts in 1 hour on standard installation: 20 NOTE: Please consult your Sales Representative if there a chance you may exceed these amounts.	
Maximum levels serviced	6	
Minimum overhead	Acrylic model (standard cab): 106" (2692 mm) Acrylic model (optional short cab): 96" (2438 mm) Silica glass model: 108" (2743 mm)	
Cab	Cab walls: Full clear acrylic or silica glass Cab interior height (standard): 84 in (2.13 m) Cab weight (acrylic): 500 lb (250 kg) Cab weight (silica glass): 1000 lb (455 kg) Cab floor area: 12.83 sq ft (1.19 sq m)	
Floor by others (in cab)	3/4" (19 mm) maximum	
Footprint	59.31" x 45.5" (1.5 m x 1.16 m)	
Power supply	30A, 230-V, single-phase, 50/60 Hz	
Cab lighting	15A, 115V, single-phase, 50/60 Hz	
Suspension	Type: Galvanized aircraft cable (2 x 3/8" diameter) Construction: IWRC 7 x 19 RHRL Nominal strength: 14,400 lb (6,545 kg) Weight of ropes: 0.243 lb/ft (3.616 g/cm) Travel cable weight: 0.228 lb/ft (3.393 g/cm)	
Drive train	Type: Winding drum Motor (acrylic model): 1.5 HP with integrated brake Motor (silica glass model): 3.0 HP with integrated brake Transmission: Ultra-low vibration, 3-stage, right-angle, helical-bevel drive Motor control: Preprogrammed variable frequency drive Door interlocks: Xtronics	
Pit/floor load	Refer to the section "Load Calculations"	
Distance between 2 landings	93" (2362 mm) minimum	
Pit depth	4" - 12" (102 mm - 305 mm) No pit with optional short ramp	
Temperature operating range (environment)	- 10°C to + 40°C / 14°F to 104°F <b>NOTE</b> : For optimal running conditions, each landing of the unit should be in a climate-controlled environment.	

Specification	Specification Data	
Safety features	Pit run/stop switch and car top run/stop switch Emergency stop switch Safety brakes Electrical circuit overspeed Manual lowering Emergency battery back-up for cab lighting and lowering	
Options	<ul> <li>Optional configurations: Type 1, 2, 3</li> <li>Optional cab wall and hoistway: Acrylic or low-iron silica glass</li> <li>Optional colors: <ul> <li>White (Texture White PX521W859)</li> <li>Silver (Texture Silver PX521S343)</li> <li>Custom powder-coat frame</li> <li>Note that Black is the standard color (Texture Black PX622N365)</li> <li>Other options: Up to 6 stops, balcony attachment</li> <li>Savaria Link remote monitoring (Vuelift Micro-6 only)</li> </ul> </li> </ul>	

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# Safety First - Octagonal Acrylic & Octagonal Glass (OAM & OGM)

# 3/4 & 4 Rule (Code 2016 and After)

The ASME A17.1-2016/CSA B44-16 Safety Code for Elevators and Escalators (2016 AND AFTER) mandates the following maximum hoistway door clearances (see drawing on next page):

- Clearance between the hoistway door and the hoistway edge of the landing sill shall not exceed 0.75" (19 mm).
- Distance between the hoistway face of the landing door and the car door shall not exceed 4" (102 mm).
- Vuelift Residential Elevator design is with a maximum 1.25" (32 mm) running clearance.

# Electrical Requirements - Octagonal Acrylic & Octagonal Glass (OAM & OGM)

Your electrician and phone installer must supply the following connections:

- Main Disconnect One 230V single-phase, 30 Amp fused disconnect box with 20 Amp fuse/breaker. If voltage is not 230V minimum, a buck-boost transformer is required.
- Lighting Disconnect One 120V, 15 Amp fused disconnect or circuit breaker for cab lighting.
- Telephone Line One telephone line jack in close proximity to the controller.
- Electrical Outlet One 15A GFCI outlet shall be installed near the pit or base ring.

NOTE: Savaria does not provide power cable to main disconnect.

# **Recommended Manufacturers for Fused Disconnect**

# Square D

- Main disconnect: 230V single-phase disconnect model # H221N.
   240V, 30 Amp with Interlock Kit ELK031 Aux Contacts (normally opened/normally closed). In addition, two each - 250V, 20 Amp, RK5 fuses.
- Lighting disconnect: 120V, 15 Amp fused disconnect or circuit breaker.

# Siemens

- Main disconnect: 230V single-phase disconnect model #HF221N.
   240V, 30 Amp with Interlock Kit-HA 161234 Aux Contacts (normally opened/normally closed). In addition, two each - 250V, 20 Amp, RK5 fuses.
- Lighting disconnect: 120V, 15 Amp fused disconnect or circuit breaker.

# G.E.

- Main disconnect: 230V single-phase disconnect model # TH3221.
   240V, 30 Amp with Interlock Kit THAUX21D Aux Contacts (normally opened/normally closed). In addition, two each - 250V, 20 Amp, RK5 fuses.
- Lighting disconnect 120V, 15 Amp fused disconnect or circuit breaker.

# **Cutler Hammer**

- Main disconnect: 230V single-phase disconnect model # DH221NGK.
   240V, 30 Amp with Interlock Kit THAUX21D Aux Contacts (normally opened/normally closed). In addition, two each - 250V, 20 Amp, RK5 fuses.
- Lighting disconnect: 120V, 15 Amp fused disconnect or circuit breaker.

# Recommended manufacturers for circuit breakers at the distribution panel (and the distribution panel itself): Square D or Siemens only.

# Provisions By Others - Octagonal Acrylic & Octagonal Glass (OAM & OGM)

# General Construction Site

The owner/agent is required to provide all masonry, carpentry, and drywall work as required. Floors shall be in a finished state prior to installation of the unit. Refer to the section, Site Preparation on the next page.

# Dimensions

The contractor/customer must verify all clearance dimensions prior to delivery of the unit.

#### Structural Floor Loads

Floor Loads

A structural engineer is required to ensure that the building will safely support all loads imposed by the lift equipment. Refer to the tables on the installation drawings (shop drawings) for pit/floor loads imposed by the equipment. Refer to the section, Load Calculations.

## Electrical Power Supply

See the following table. Lockable fused disconnects must be installed in compliance with electrical code and are to be provided prior to installation of the unit. Roughed in power to the lift must be provided to the head assembly location prior to installation of the unit.

Power Supply Specifications	Disconnect Size	Time Delay Fuse Size	Volts	Phase
Motor and equipment	30 Amps	30 Amps	230 Volts	Single
Cab lights	15 Amps	15 Amps	115 Volts	Single
Pit light	15 Amps	15 Amps	115 Volts	Single

## Telephone

If a telephone circuit is required, the jack is to be provided and installed by others. This circuit shall be brought to a location next to the controller and be available to connect and test upon elevator installation.

# **Electrical Outlet**

One 15-Amp GFCI outlet shall be installed near the pit or base ring.

# **Permanent Power**

Before installation can begin, permanent power must be supplied.

# Entrances

## Handrails

All balcony levels require handrails to be installed per local codes after installation is completed. The handrail and installation is to be provided by the contractor/customer. Savaria Concord Lifts Inc. and/or local installer are not responsible for handrail installation or materials.

# Savaria Link Option (Vuelift Micro-6 Only)

If you have the Savaria Link <u>Ethernet</u> remote monitoring option, ensure that you have an Ethernet connection with Internet capability in the vicinity of the unit's controller.

If you have the Savaria Link <u>Wireless</u> remote monitoring option, ensure that you have a wireless signal with Internet capability in the vicinity of the unit's controller.

# Site Preparation - Octagonal Acrylic & Octagonal Glass (OAM & OGM)

The following items MUST be completed prior to installation of the elevator.

## **Finished Floors**

• Finished floors be installed at all landing levels.

## 230V Power (with Switched Disconnect)

- Permanent 230V, single-phase, 30-Ampere dedicated power to a lockable fused (cartridge type) disconnect switch.
- Disconnect switch must be mounted in a location within line of sight of the elevator or controller.
- 230V source must be run from the disconnect switch to a junction box in a discrete location at the top of the elevator hoistway location.
- Disconnect must be installed according to all applicable local codes.

## 110V Power (with Switched Disconnect) - 2 are required

- Permanent 110V, single-phase, 15-Ampere dedicated power to a lockable, fused (cartridge type) disconnect switch.
- Disconnect switch must be mounted near the 230V disconnect switch.

## **Telephone Works**

• Telephone jack must be provided next to the electrical disconnects. This can be the common house line in most jurisdictions. Please check with your local installer or building contractor for code requirements.

## **Electrical Outlet**

• One 15-Amp GFCI outlet shall be installed near the pit or base ring.

#### Floor Built for Load

• Smooth level surface for installing the elevator, with floor load bearing capacity for the elevator plus rated load. An exact specification can be provided by contacting Savaria.

#### Floor and Pit Cutouts Complete

- If a pit is to be used, a smooth, level surface of at least 4" must be provided. For pit depths greater than 12", contact Savaria to ensure proper equipment will be provided.
- It is recommended that any pit floor and walls be finished prior to installation. Pit floor and walls are visible after elevator installation is completed.
- Hole in floor, or modified balcony rail as directed by drawings.

## **Check Floor to Floor Maximum and Minimum Distances**

- 106" (2692 mm) minimum overhead distance from upper floor level to the underside of the finished ceiling for standard cab configuration.
- 96" (2438 mm) minimum overhead distance from upper floor level to the underside of the finished ceiling for modified short cab configuration.
- 108" (2743 mm) minimum overhead distance from upper floor level to the underside of the finished ceiling for silica glass model.

## **Drywall and Painting**

• All drywall and painting must be complete.

# Load Calculations - Octagonal Acrylic (OAM)

- Primary loads are carried by the four support columns that run from top to bottom on the elevator.
- The load (represented below as Lower Floor Total Load) is supported on 4"x4" plates at the bottom of each of the four columns.
- Vuelift elevators are designed such that the dead load and impact load are transferred to the lowest level through the rail base plates and rings when installed properly in a building with structural integrity including consistent floor to floor heights.
  - Note: Vuelift elevators are designed for applications in buildings that maintain consistent floor to floor height as the building ages.

If floor to floor height changes after installation, the elevator MUST be taken out of service pending inspection and correction by a trained installation technician.

- All mid floors including the bottom floor may be subjected to a maximum lateral load of 200 lb.
- Walls of bricks, terra-cotta, hollow blocks, and similar materials shall not be used for attachment of column (guide rail) brackets unless adequately reinforced.
- Where necessary, the building construction shall be reinforced to provide adequate support for the columns (guide rails).
- Shipping weight is estimated actual including crating materials, etc.
- Floor load figures include elevator structure weight when loaded with full test capacity.
- Floor load figures shown here are actual loads; your building engineer must add a proper factor of safety to the floor design.
- Many jurisdictions require floor designs to include at least a safety factor of 4, doubling the loads shown here.
- To reiterate, these figures DO NOT include your factor of safety for floor loads. Engineer your floor to include (add) an appropriate safety factor and comply with local building codes.

Lower Floor Dead Load (lbf) = (38 x feet of hoistway) + (60 x number of floors) + 2193

Lower Floor Impact Load (lbf) = 3703

Lower Floor Total Load (lbf) = Dead Load + Impact Load

Mid Floor Load (lbf) = 182

Shipping Weight (lb) = (694 x number of floors) + 1720

**Note:** Shipping weight includes the actual component weights for all parts, plus shipping crate and packaging weight.

#### **Examples**

	<u>3 stop with 36' of hoistway</u>	<u>2 stop with 19' hoistway</u>
Lower Floor Dead Load	3,741	3,035
Lower Floor Impact Load	<u>3,703</u>	<u>3,703</u>
Lower Floor Total Load	7,444	6,738
Mid Floor Loads (on each mid floor)	182	182
Shipping Weight	3,802	3,108

# Load Calculations - Octagonal Glass (OGM)

- Primary loads are carried by the four support columns that run from top to bottom on the elevator.
- The load (represented below as Lower Floor Total Load) is supported on 4"x4" plates at the bottom of each of the four columns.
- Each middle floor carries a separate Mid Floor Load supporting only that floor's metal floor rings, while the main cab/hoistway load (Lower Floor Total Load) is transferred fully to the bottom floor.
- Walls of bricks, terra-cotta, hollow blocks, and similar materials shall not be used for attachment of column (guide rail) brackets unless adequately reinforced.
- Where necessary, the building construction shall be reinforced to provide adequate support for the columns (guide rails).
- Shipping weight is estimated actual including crating materials, etc.
- Floor load figures include elevator structure weight when loaded with full test capacity.
- Floor load figures shown here are actual loads; your building engineer must add a proper factor of safety to the floor design.
- Many jurisdictions require floor designs to include at least a safety factor of 4, doubling the loads shown here
- To reiterate, these figures DO NOT include your factor of safety for floor loads. Engineer your floor to include (add) an appropriate safety factor and comply with local building codes.

Lower Floor Dead Load (lbf) = (143.0 x feet of hoistway) + (340 x number of floors) + 3100

Lower Floor Impact Load (lbf) = 7491

Lower Floor Total Load (lbf) = Dead Load + Impact Load

Mid Floor Load (lbf) = 200

Shipping Weight (lb) = (1967 x number of floors) + 2562

**Note:** Shipping weight includes the actual component weights for all parts, plus shipping crate and packaging weight.

## Examples

<u>3 stop with 32.2' of hoistway</u>
8,725
<u>7,491</u>
16,759

Total Load is distributed as follows:

- At any point in time, two opposing columns may have up to 12,000 lbf (6000 lbf/column)
- However, the max load carried by all four column combined will not exceed 16,759 lbf before addition of factor of safety required by local building code.

Mid Floor Loads (on each mid floor) 200

Shipping Weight 8,463

# Drawings - Octagonal Acrylic & Octagonal Glass (OAM & OGM)

# Octagonal Acrylic (OAM), Type 1

- Plan view
- Pit/bottom floor/thru-floor view
- Balcony details
- Balcony plate and handrail information
- Thru-floor details
- Elevation view
- Elevation view (showing extra header rings for floor-to-floor height >14 ft)
- Provisions by others
- Pit cutout/thru-floor cutout
- Machine room layout and wire routing

## Octagonal Glass (OGM), Type 1

- Plan view
- Pit/bottom floor/thru-floor view
- Balcony details
- Balcony plate and handrail information
- Thru-floor details
- Elevation view
- Elevation view (showing extra header rings for floor-to-floor height >14 ft)
- Provisions by others
- Pit cutout/thru-floor cutout

# Octagonal Glass (OGM), Type 2

- Plan view
- Pit/bottom floor/thru-floor view
- Balcony details
- Balcony plate and handrail information
- Elevation view
- Elevation view (showing extra header rings for floor-to-floor height >14 ft)
- Provisions by others
- Pit cutout/thru-floor cutout
- Machine room layout and wire routing

## **Controller box dimensions**

# Model Specifications – Octagonal

## Octagonal (Acrylic)

- Capacity: 381kg (840 lb)
- Cab Size: 1.19 sqm (12.83 sq. ft.)
- Clear Cab Size: 1118w x 1056d (44 x 41<sup>9</sup>/<sub>16</sub> in.)
- Cab Height: 2134mm (84 in.)
- Hoistway Footprint
  - Acrylic: 1215 x 1215mm (48 x 48 in.)
  - Pit/Thru Floor Cutout: 1260 x 1260mm ( $49\frac{5}{8} \times 49\frac{5}{8}$  in.)
- Balcony/Header Ring: 1304 x 1304mm (51<sup>3</sup>/<sub>8</sub> x 51<sup>3</sup>/<sub>8</sub> in.)
- **Pit/Thru Floor Ring**: 1407 x 1407mm (55 <sup>3</sup>/<sub>8</sub> x 55 <sup>3</sup>/<sub>8</sub> in.)
- Minimum Overhead Clearance: 2692mm (106 in.)

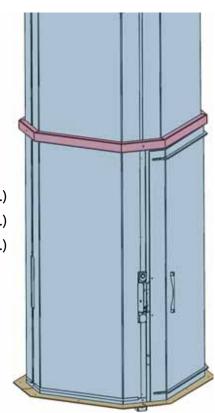
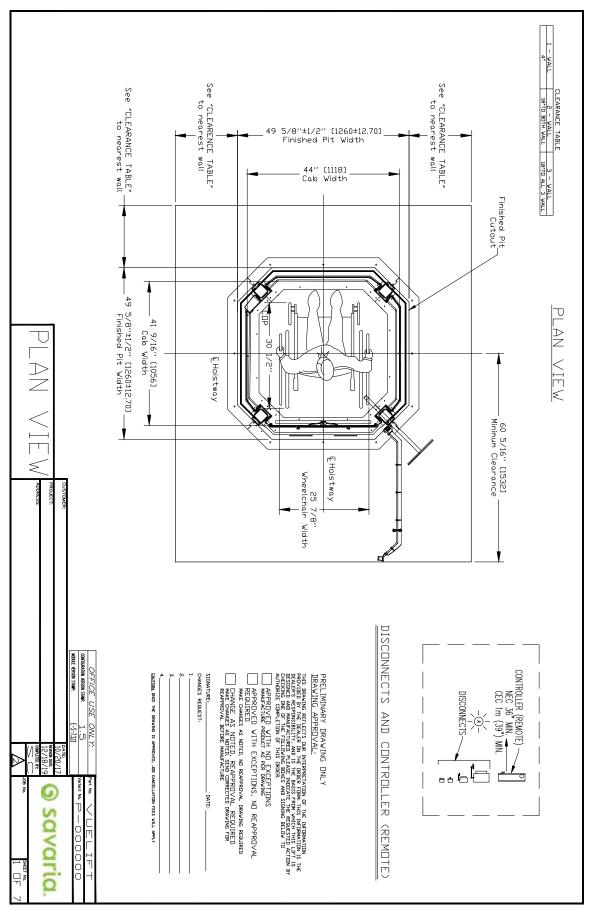
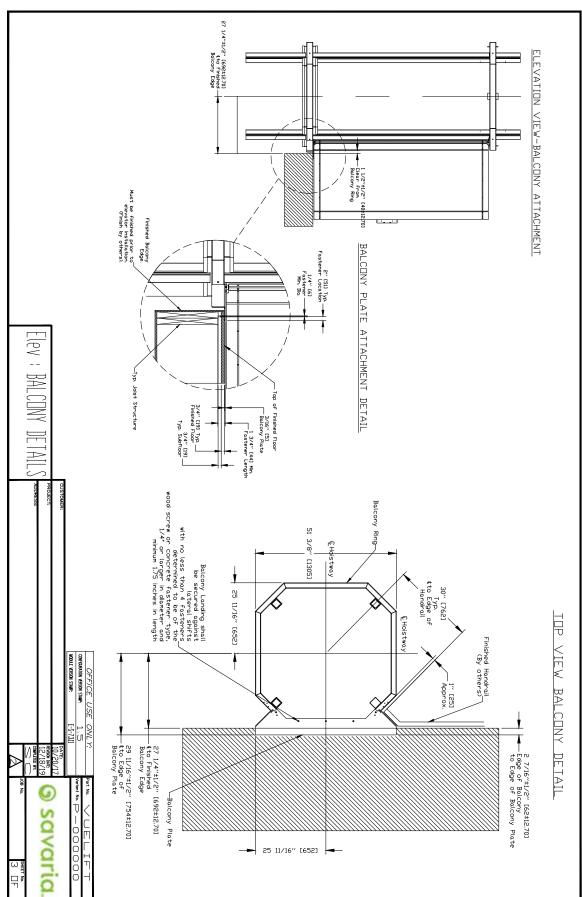


Figure 12: Plan view - octagonal acrylic (OAM) type 1

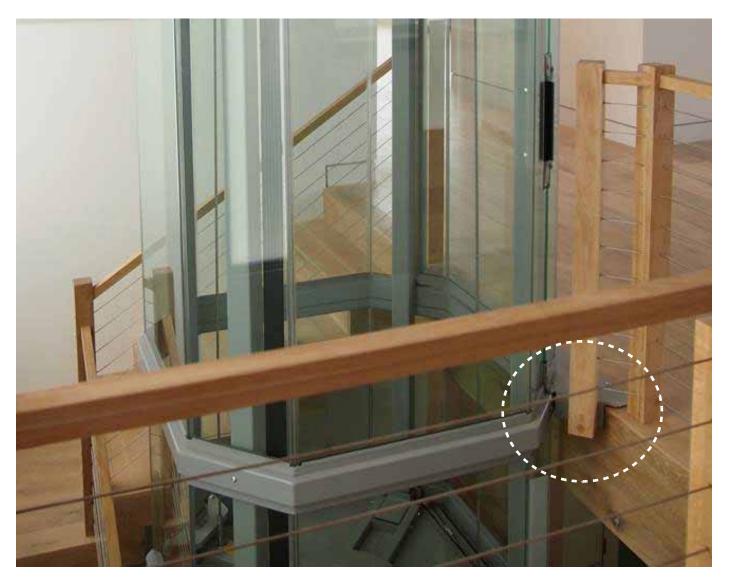




\*\*Clear cab dimension are from acrylic to acrylic and handrail protrudes over this dimension \$3/8" [\$10] Ring shall be secured at landings against lateral shifts with no less than 4 fasteners. Fastener to be minimum 1/4" diameter and minimum 1.75" length 55 3/8" [1407] Floor Ring 1 1/4" [32] Running Clearance Per ASME A17.1-2016 Sec. 5.3.1.4.2 47 13/16" [1215] Ðutside of Hoistway Acrylic PIT/BOTT 44'' [1118] Cab Width  $\square$ Plan : FL P DOR/ 41 9/16" [1055] Cab Width l E Hoistway THRU VIEW 60 5/16" [1532] Minimum Door Swing Clearance . D D R Ă Ð Hoist**t**ay Car Gate to Hoistway Door=2 1/2" [ In Compliance with 3/4-4 Rule Per ASME A17.1-2016 Sec. 5.3.18.3 VIEW 24 1/2" [622] Cab Opening w/ Gate Operator 22 9/16" [573] Minimum Clearance I Ţ 27 [64]. 13/16" [706] Cab Opening w/o Gate Operator oule version stamp FIGURATION VERSION STANP: OFFICE USE 1.5 FS-7311 9 savaria 믺







The Vuelift balcony plate provides a vertical flange on either side that can be used to mount the adjacent handrail. This plate is made of 3/16" steel and is designed to support the handrail loading and forces.

The photo above shows a finished handrail view. It is important to note that the spacing between the handrail post and the elevator shaft should be between 2" (51 mm) and 3" (76 mm) to allow sufficient clearance for the operation of the hoistway door and the hall call button.

**NOTE**: Installing the handrail on top of the balcony plate is NOT permitted as it will interfere with the door opening operation and door clearances.

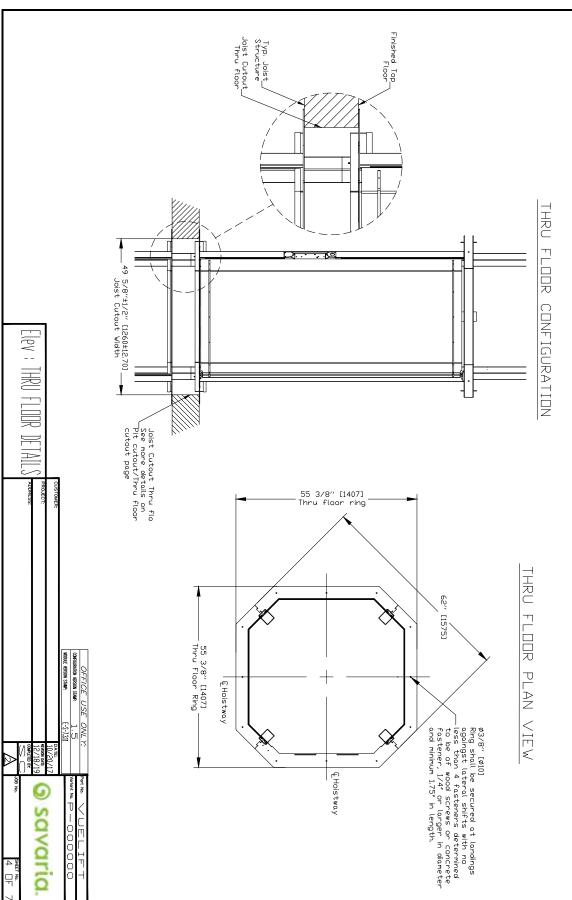
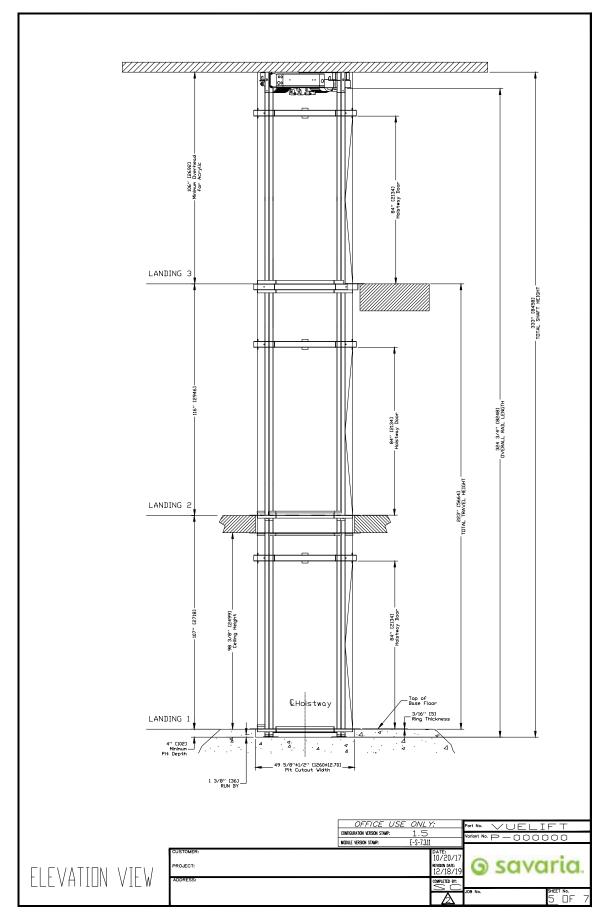


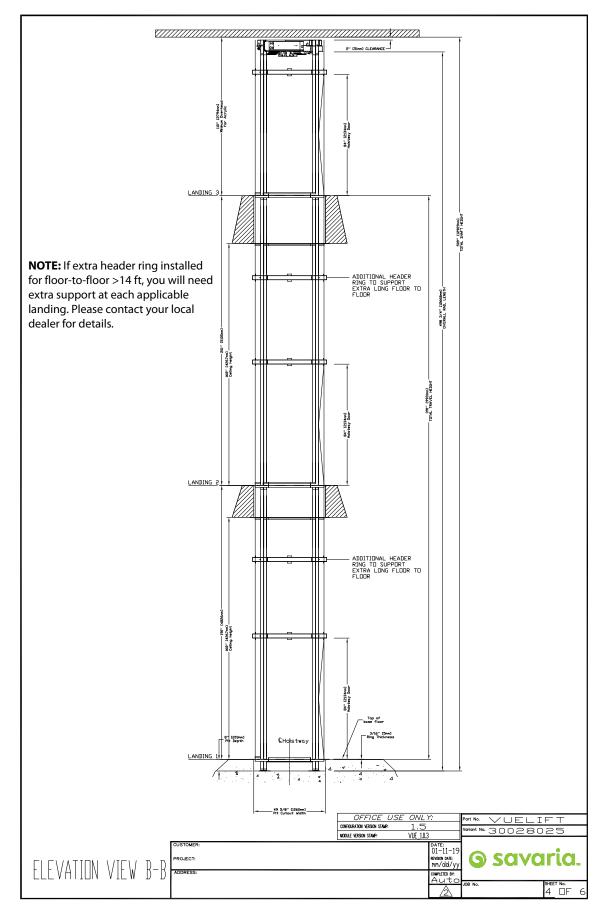
Figure 16: Thru-floor detail - octagonal acrylic (OAM) type 1

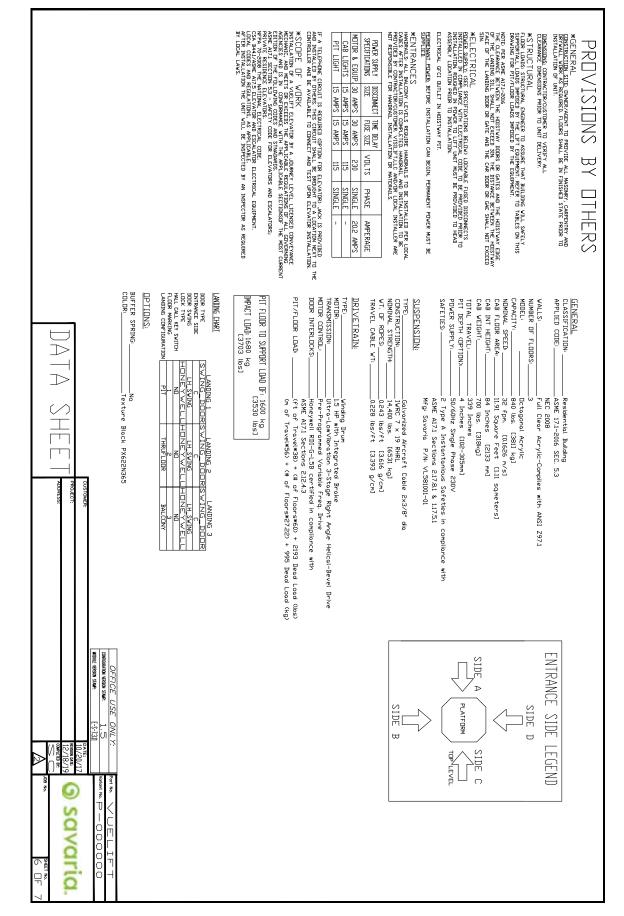
42

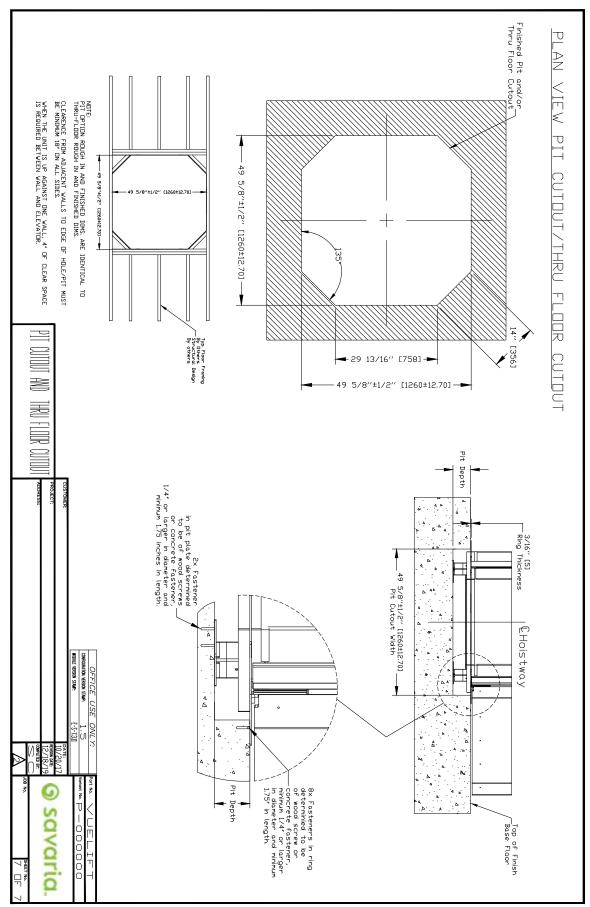
Figure 17: Elevation view - octagonal acrylic (OAM) type 1



#### Figure 18: Elevation view - octagonal acrylic (OAM) type 1 - extra header rings if floor-to-floor height > 14 ft

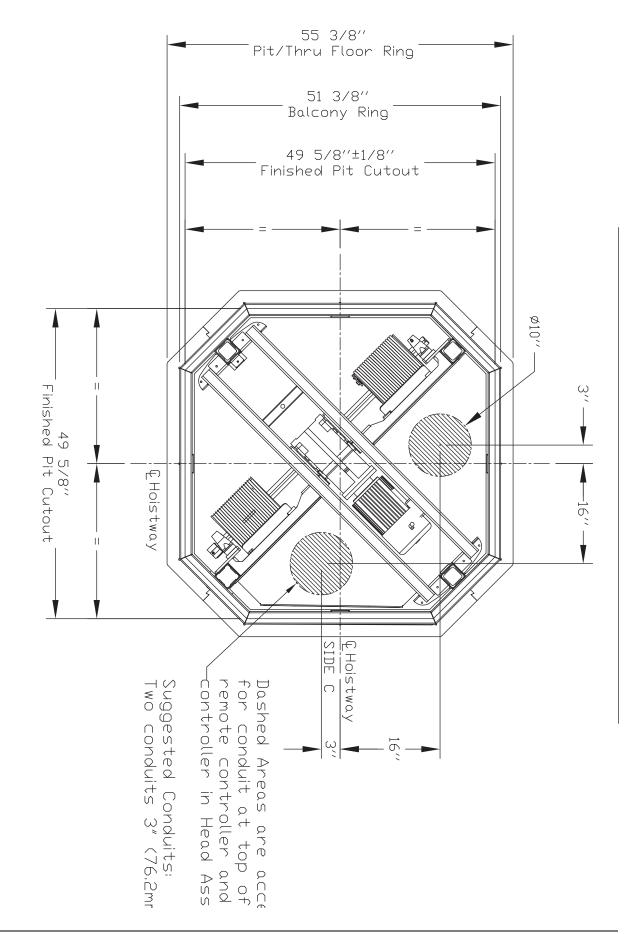






#### Figure 20: Pit cutout/thru-floor cutout - octagonal acrylic (OAM) type 1

Figure 21: Machine room layout and wire routing - octagonal acrylic (OAM)



# Model Specifications – Octagonal

## Octagonal (Glass)

- Capacity: 432kg (950 lb)
- Cab Size: 1.19 sqm (12.83 sq. ft.)
- Clear Cab Size: 1118w x 1056d (44 x 41<sup>9</sup>/<sub>16</sub> in.)
- Cab Height: 2134mm (84 in.)
- Hoistway Footprint
  - Glass: 1215 x 1215mm (48 x 48 in.)
- Pit/Thru Floor Cutout: 1260 x 1260mm (49 <sup>5</sup>/<sub>8</sub> x 49 <sup>5</sup>/<sub>8</sub> in
- **Balcony/Header Ring**:  $1304 \times 1304$  mm  $(51^{3}/_{8} \times 51^{3}/_{8} in$
- **Pit/Thru Floor Ring**: 1407 x 1407mm  $(55^{3}/_{8} \times 55^{3}/_{8} \text{ in})$
- Minimum Overhead Clearance: 2743mm (108 in.)

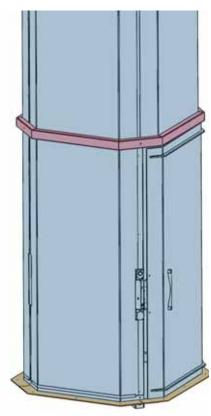
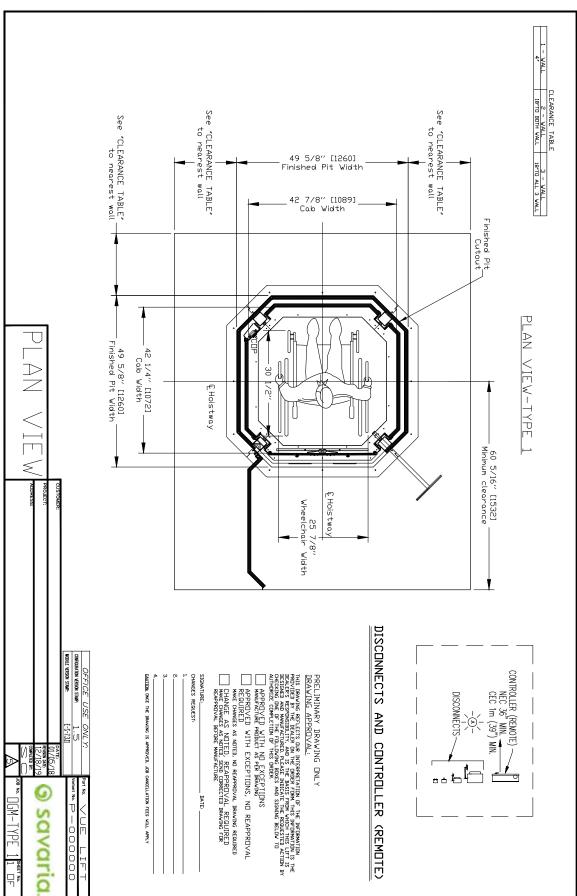


Figure 22: Plan view - octagonal glass (OGM) type 1



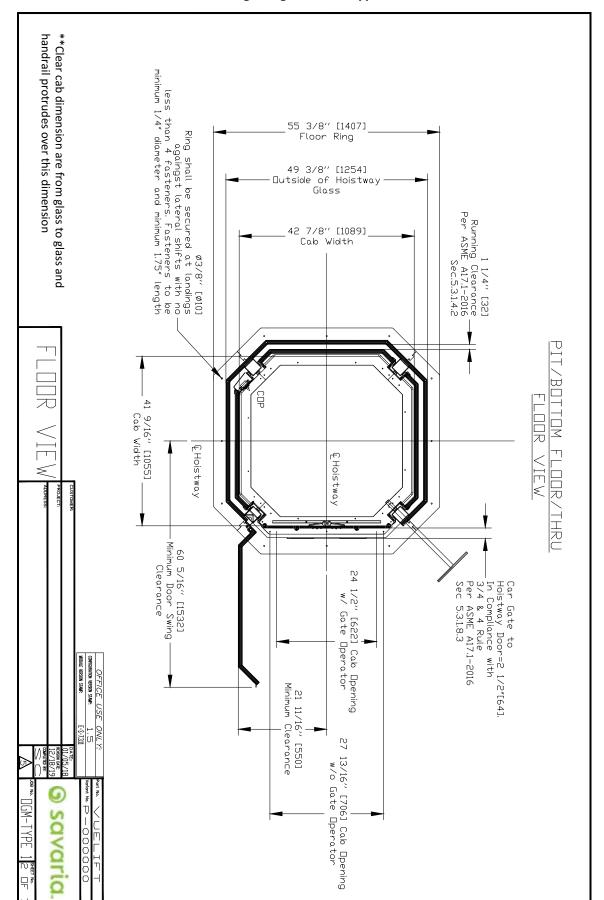
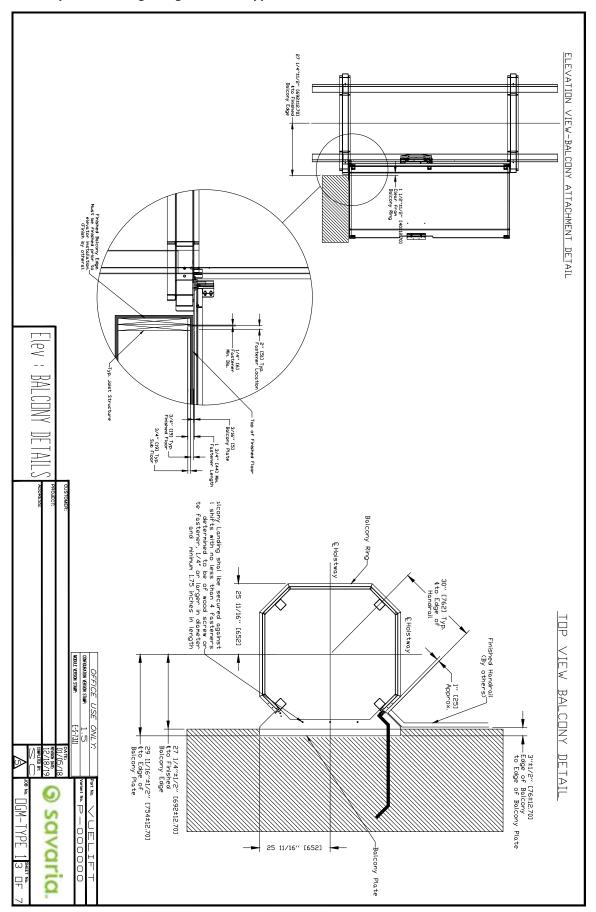


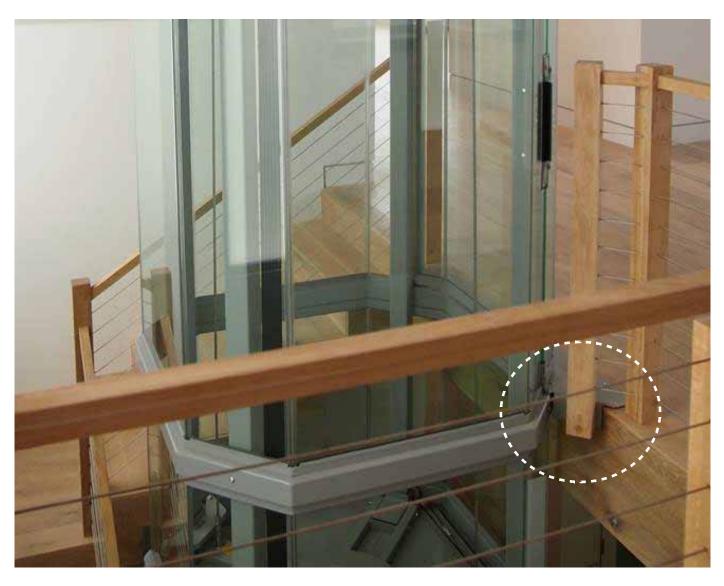
Figure 23: Pit/bottom floor/thru-floor view - octagonal glass (OGM) type 1

50

Figure 24: Balcony detail - octagonal glass (OGM) type 1



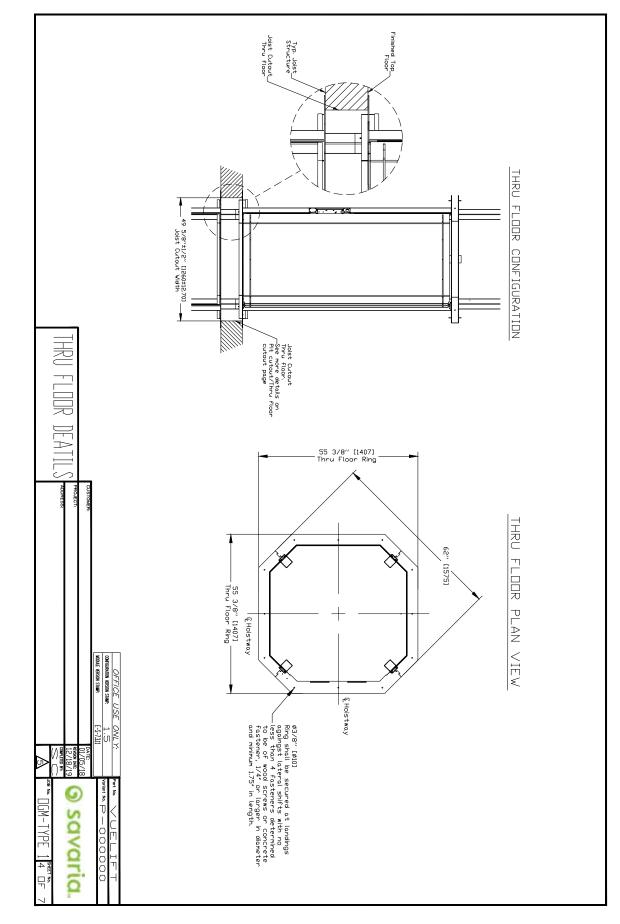




The Vuelift balcony plate provides a vertical flange on either side that can be used to mount the adjacent handrail. This plate is made of 3/16" steel and is designed to support the handrail loading and forces.

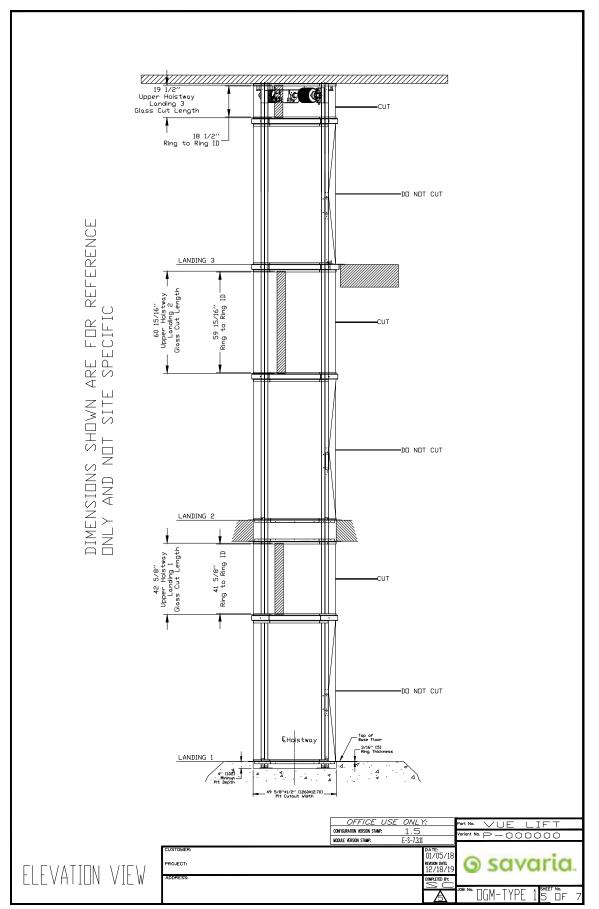
The photo above shows a finished handrail view. It is important to note that the spacing between the handrail post and the elevator shaft should be between 2" (51 mm) and 3" (76 mm) to allow sufficient clearance for the operation of the hoistway door and the hall call button.

**NOTE**: Installing the handrail on top of the balcony plate is NOT permitted as it will interfere with the door opening operation and door clearances.

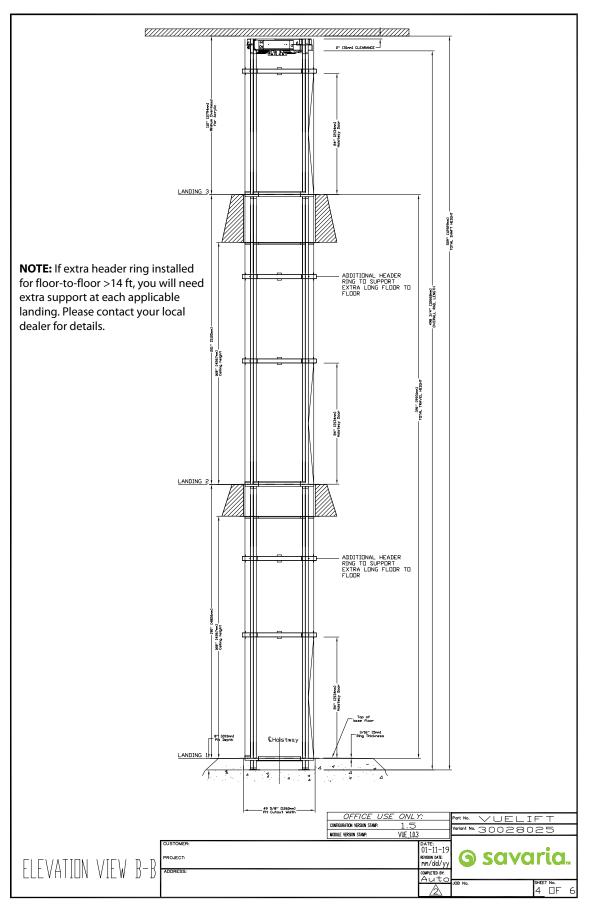








#### Figure 28: Elevation view - octagonal glass (OGM) type 1- extra header rings if floor-to-floor height > 14 ft

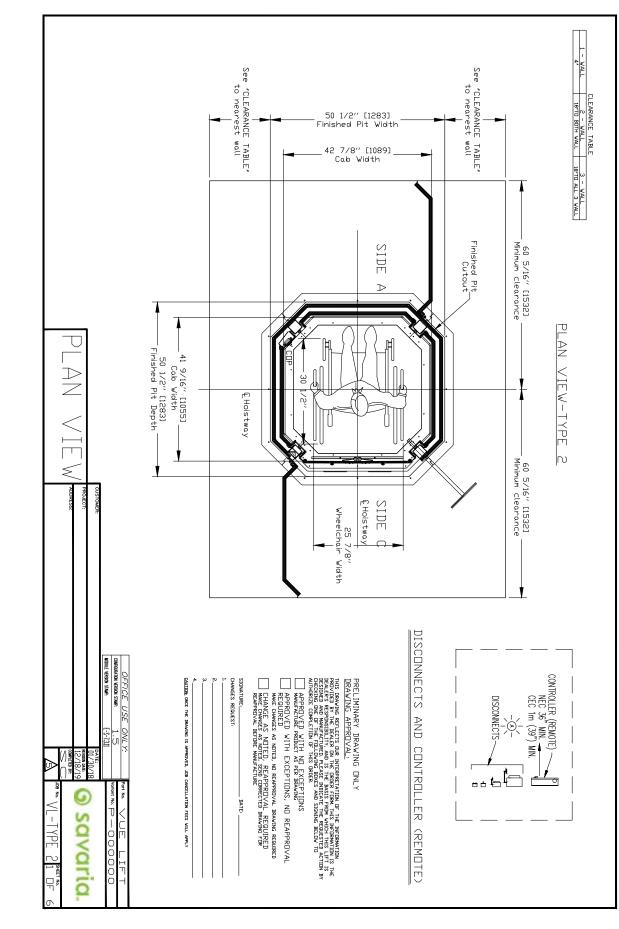


	NFA 70-2008 THE MATIDNAL ELECTRICAL CODE. CSA 8441/ASWE AT75 ELEVATOR AND ESCALATOR ELECTRICAL EQUIPMENT. LOCAL CODES AND REGULATIONS, NA APPLICABLE. AFTER INSTALLATION THE UNIT VILL BE INSPECTED BY AN INSPECTOR AS REGUIRED BY LOCAL LAVS.	MACLUFE, LT WUTK, WUTK, NSTALLAND F, AVELTE ELEMATER Y, A JURMEY, LETAL LEDNSED CONVEYANCE AGENCIES, AND S.N.S. DEFERMANCE. VTN. TK. APPLICESE. SECTIONSET THE MOST CORRENT EDITION OF THE FOLLOWING CODES AND SINUMARIS. ASIME ANJ. SECTION 53. – SAFETY CODE FOR ELEVATORS AND ESCALATORS) PRIVATE RESIDENCE ELEVATORS.	PMUR SUPPLY INSCRIMENT INFERAN MOTOR & EQUIP 30 AMPS 30 AMPS 230 SINGLE 202 AMPS CAB LIGHTS 15 AMPS 15 AMPS 15 SINGLE - PTT LIGHT 15 AMPS 15 AMPS 115 SINGLE - FIA TELEPHONE CIRCUIT IS REQUEED OPTION FOR ELEVATION ACT IS PROVIDED FA TELEPHONE CIRCUIT IS REQUEED OPTION FOR ELEVATION ACT IS PROVIDED FOR TELEPHONE CIRCUIT IS REQUEED OPTION FOR ELEVATION ACT IS PROVIDED FA TELEPHONE CIRCUIT IS REQUEED OPTION FOR ELEVATION ACT IS PROVIDED FOR THE AVALABLE TO CONNECT AND TEST UPON ELEVATION INSTALLATION MOTORING CIRCUIT IS REQUEED OPTION FOR ELEVATION INSTALLATION	ESPECIAL POLER BETDE INSTALLATION CAN BEGIN, PERMANENT POUER MUST BE SUPPLED. *ENTRACIES MUSTALED FOR MANDEL STORE HANDRALS TO BE INSTALLED PER LUCAL HANDRALES ALL BACCONV LEVELS REQUIRE HANDRALS TO BE INSTALLED FOR LUCAL REQUISE OF DE INSTALLED COMPANIES, LICEL HANDRALS AND ADDRESS NOT RESPONSIBLE FOR HANDRAL INSTALLED US ANTERALS. INSTALLER ARE NOT RESPONSIBLE FOR HANDRAL INSTALLED US ANTERALS.	THE CLEARANCE BEVEEN THE HUSTVAY DORS OF GATES AND THE HUSTVAY FACE OF THE LANDING SLL SALL AND FACE DB IN THE USFARCE BEVEEN THE HUSTVAY FACE OF THE LANDING DODG DR GATE AND THE CAR DODG DR GAE SHALL NOT EXCEED SIN. #ELECTRICAL GET SPECIFICATIONS BELIDAY LICKABLE FUSED DISCOMMENTS INSTALLED IN COMPLANCE VITH ELECTRICAL CODE TO BE FROVIDED FROM TO ASSEMBLY LOADING FOR TO INSTALLED IN MUST BE PROVIDED TO HEAD ASSEMBLY LOADING FOR TO INSTALLED IN MUST BE PROVIDED TO HEAD ELECTRICAL GFCI DUTLET IN HUSTVAY FIT.	PROVISE ATTORNE ALL MARKEN TO MAKE THE FOLLOW AND
DPTIDNS: BUFFER SPRINGNO COLOR:Texture Black (sta) PX622N365 COLOR:Texture Black (sta) PX622N365 COLOR:Texture Black (sta) PX622N365	LANDING 1       LANDING 1       LANDING 1       LANDING 1       LANDING 1       LANDING 1       LANDING 2       LANDING 2       LANDING 1       LANDING 2       RESUME       NO       NO	PIT FLOOR TO SUPPORT LOAD OF: 2150 kg IMPACT LOAD 2520 kg IMPACT LOAD 2520 kg L5540 kg	DRIVETRAIN:         TYPE.       Vinding Drum         MUTDR.       3 HP with Integrated Brake         TRANSMISSIDW       Ultra-LowVibration 3-Stage Right Angle Helical-Bevel Drive         MOTOR CONTROL:       Pre-Programmed Variable Freq. Drive         DOR INTERLOCKS       Honeywell RDI-G-L5B certified in compliance with         PTI/FLOOR LOAD       ASME AI71. Sections 2:12:3         PTI/FLOOR LOAD       (ft of Holstway#948) + (# of Floors#60) + 2130 Decad Load (lbs)	SUSPENSION:         Wfg: Savaria         P/N: VL48001-01           TYPE	8 4 6 8 7 0 n n	Residential Building ASME 17.1-2016 SEC NEC 2008 Fuil Clear Laminat 20 Cetagonal Giass 950 Los. (432) 40 40 fpm. [0.1626 r
OFFICE USE ONLY:     For No. VIELIFT       overaaning voor state:     1.5       water eoon state:     1.5       unter eoon state:     1.5       UNTASURA     1.5				SIDE B	SIDE A PLATFORM SIDE C	ENTRANCE SIDE LEGEND

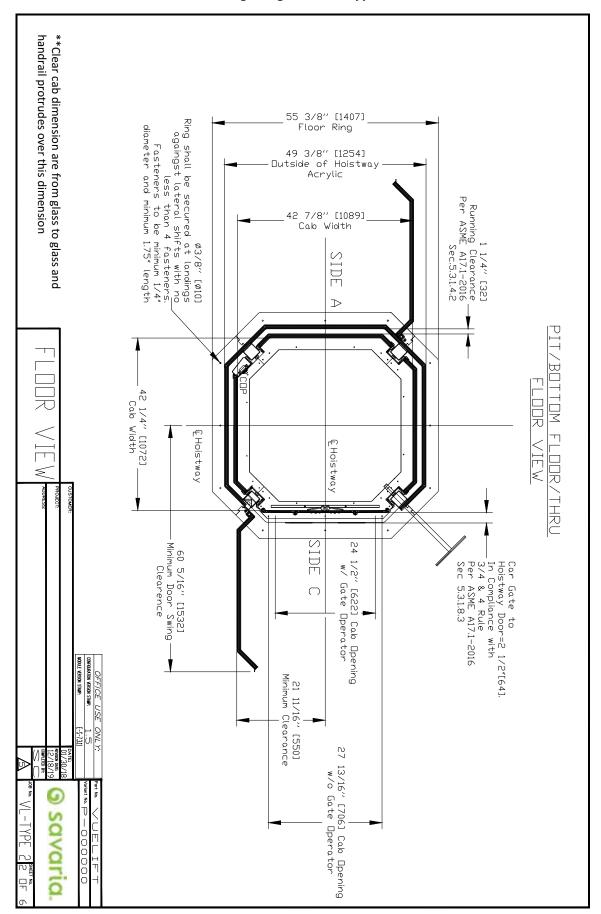
56

P <u>AN VIEW</u> WHEN THE UNIT IS UP AGAINST ONE WALL, 4' OF CLEAR SPACE IS REQUIRED BETWEEN WALL AND ELEVATOR. CLEARENCE FROM ADJACENT VALLS TO EDGE OF HOLE/PIT MUST BE MINIMUM 18' ON ALL SIDES. NOTE: PIT OPTION ROUGH IN AND FINISHED DIMS. ARE IDENTICAL TO THRU-FLOOR ROUGH IN AND FINISHED DIMS. PIT 49 5/8"±1/2" [1260±12,70] ----CUTOUT/THRU FLOOR CUTOUT [1260±12 Finished Pit and/or Thru Floor Cutout ίß Typ. Floor Framing
 By Others.
 Structural Design
 By others. 14, 2 7 [356] 🗕 29 13/16″ [758] 🗕 49 5/8"±1/2" [1260±12.70] --Ł 3/16" [5] Ring Thickness -Pit Depth 2x Fusterier in pit plate determined to be of wood screwed 1/4° or larger in dianeter and minimum 1.75 inches in length 4 4 \_\_\_\_49 5/8"±1/2" [1260±12.70] \_\_\_\_ Pit Cutout Width gth acteminied to be determined to be concrete fastener, minimum 1/4° or larger in alareter and minimum 1.75° in length EHoistway À CONFIGURATION VERSION STAMP: MODULE VERSION STAMP: ĥ 64 1 A A гл Å Ba ٠à ariant No. Pit 9 4 D Depth < savaria 4. 00 Top of finish Base Floor 0000 م ا 

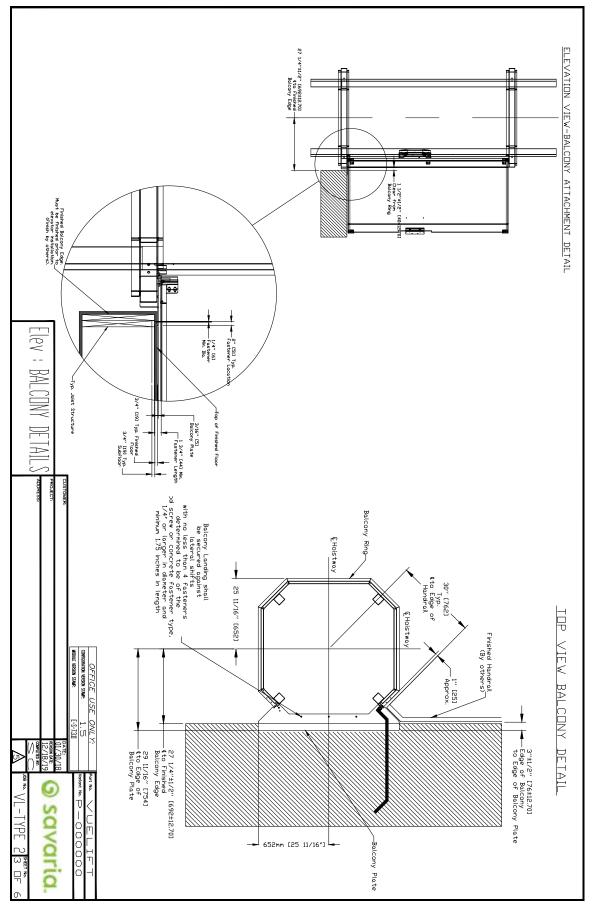
#### Figure 30: Pit cutout/thru-floor cutout - octagonal glass (OGM) type 1



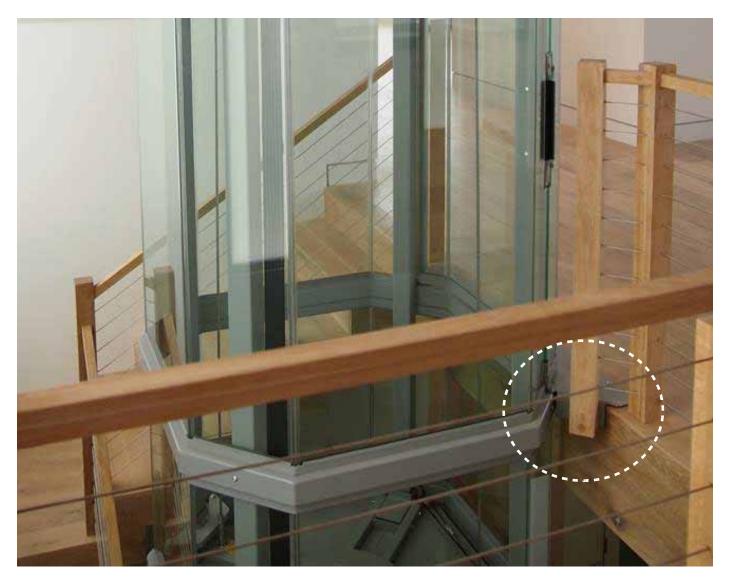
#### Figure 31: Plan view - octagonal glass (OGM) type 2



#### Figure 33: Balcony detail octagonal glass (OGM) type 2



#### Figure 34: Balcony plate and handrail information octagonal glass (OGM) type 2



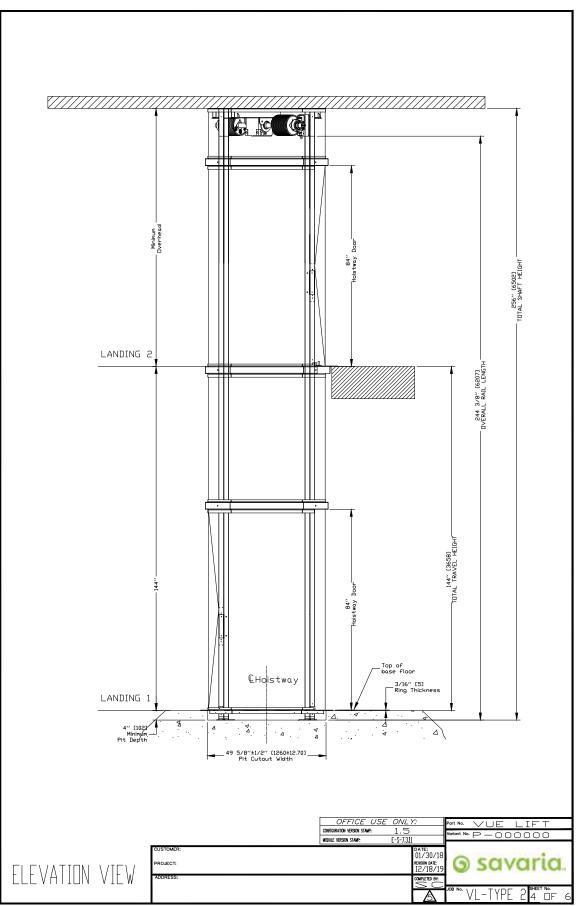
The Vuelift balcony plate provides a vertical flange on either side that can be used to mount the adjacent handrail. This plate is made of 3/16" steel and is designed to support the handrail loading and forces.

The photo above shows a finished handrail view. It is important to note that the spacing between the handrail post and the elevator shaft should be between 2" (51 mm) and 3" (76 mm) to allow sufficient clearance for the operation of the hoistway door and the hall call button.

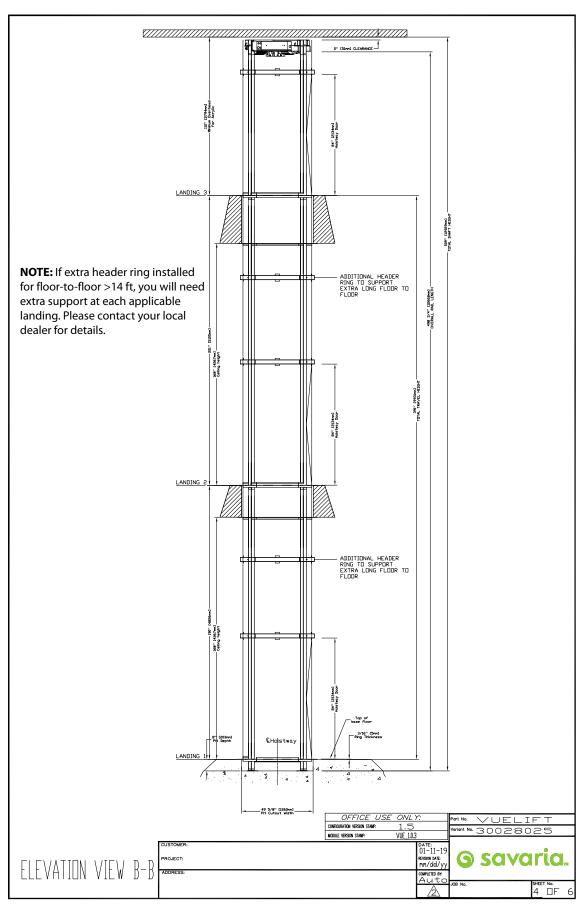
**NOTE**: Installing the handrail on top of the balcony plate is NOT permitted as it will interfere with the door opening operation and door clearances.

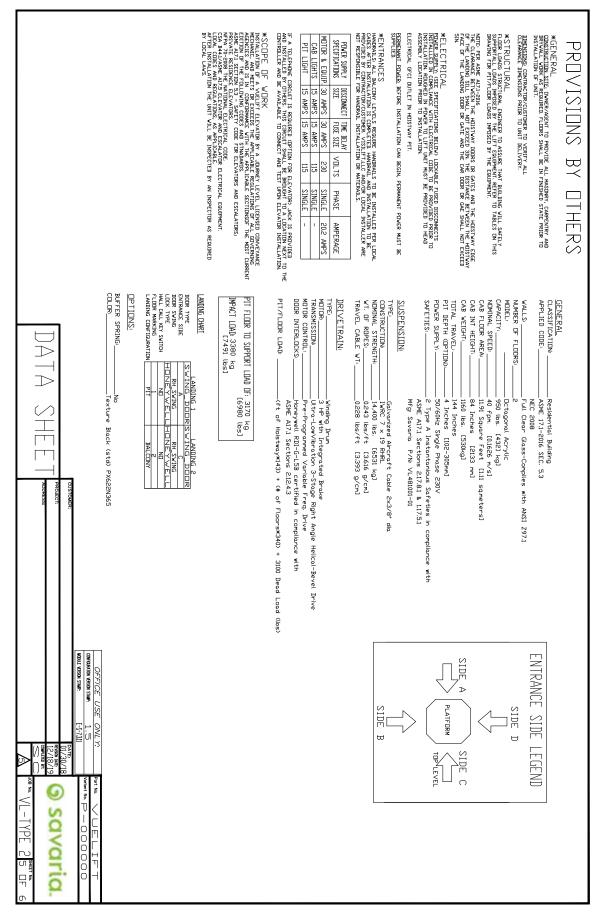
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Figure 35: Elevation view octagonal glass (OGM) type 2

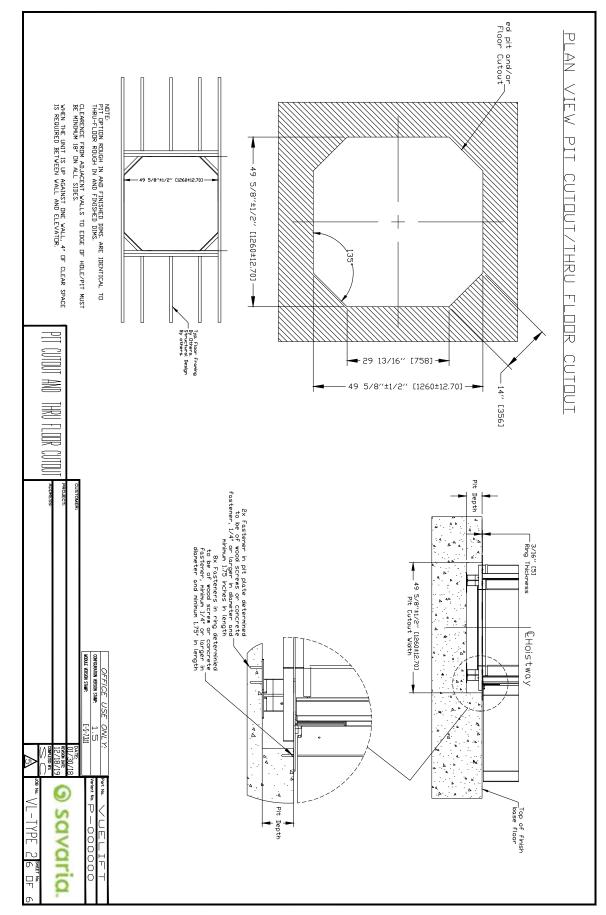


#### Figure 36: Elevation view octagonal glass (OGM) type 2 - extra header rings if floor-to-floor height > 14 ft

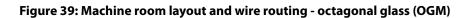




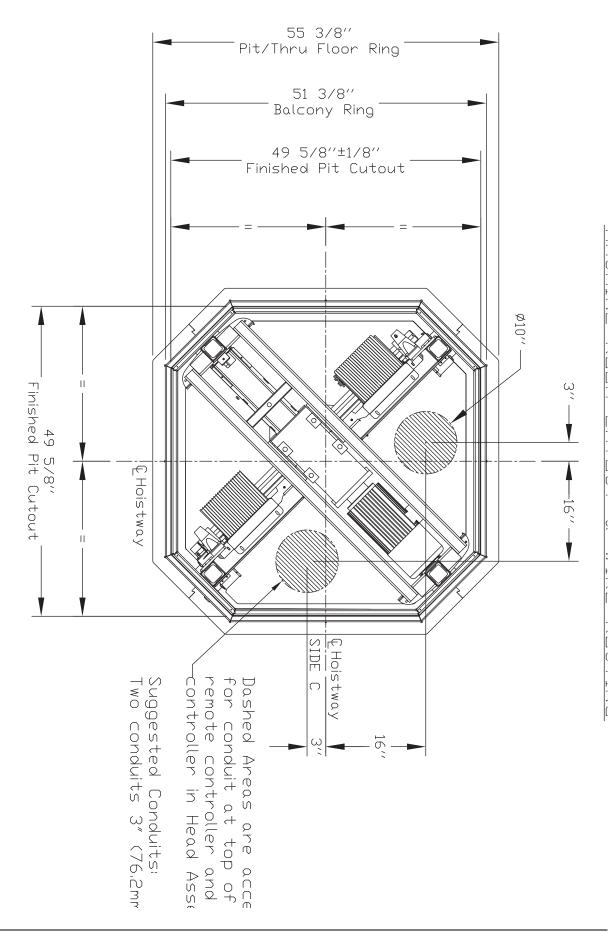
#### Figure 37: Datasheet octagonal glass (OGM) type 2



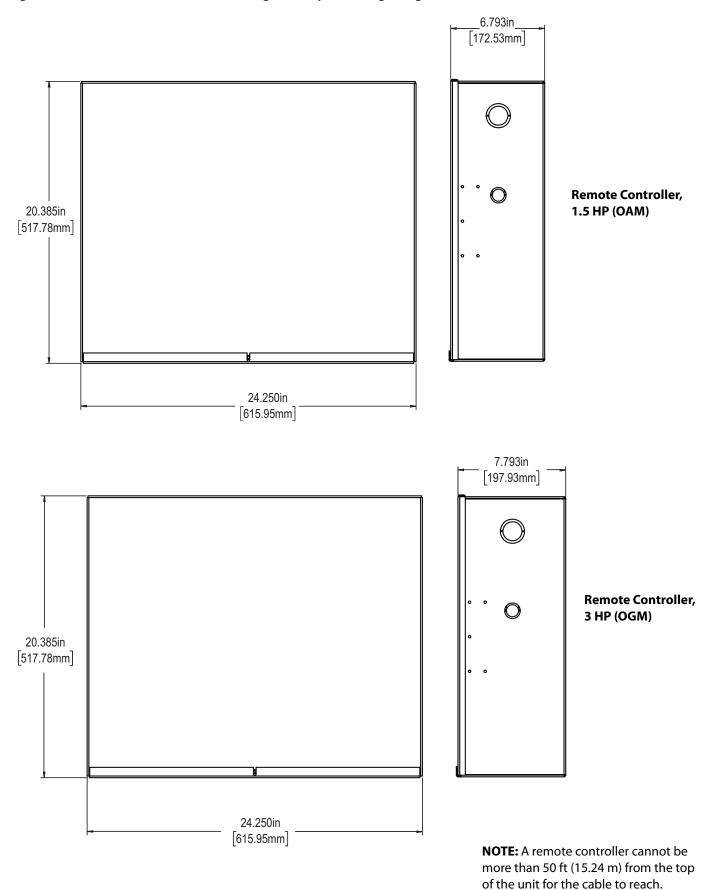
#### Figure 38: Pit cutout/thru-floor cutout octagonal glass (OGM) type 2



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#### Figure 40: Controller box dimensions - octagonal acrylic & octagonal glass (OAM & OGM)



# Chapter 3: Round+ Glass (RGL) & Octagonal+ Glass (OGL)





# Specifications - Round+ Glass & Octagonal+ Glass (RGL & OGL)

Specification	Specification Data			
Load capacity	950 lb (432 kg)			
Maximum travel	55 ft (16.76 m)			
Travel speed	40 ft/min (0.20 m/s)			
Noise level (for typical installation)	65 dB			
Daily cycle	Normal: 40 Heavy: 80 Excessive: 150 Maximum starts in 1 hour on standard installation: 20 NOTE: Please consult your Sales Representative if there a chance you may exceed these amounts.			
Maximum levels serviced	6			
Minimum overhead	108″ (2.74 m)			
Cab	Cab interior height RGL: 84 in (2.13 m) Cab interior height OGL: 84 in (2.13 m) Cab floor area RGL: 15.00 sq ft (1.4 sq m) Cab floor area OGL: 14.00 sq ft (1.31 m) Cab weight RGL: 850 lb (386 kg) Cab weight OGL: 1200 lb (544 kg)			
Floor by others (in cab)	3/4" (19 mm) maximum			
Footprint	Round+ glass: 57.56" (1.46 m) diameter Octagonal+ glass: 62" x 62" (1.6 m x 1.6 m)			
Power supply	30A, 230V, single-phase, 50/60 Hz			
Cab lighting	15A, 115V, single-phase, 50/60 Hz			
Suspension	Type: Galvanized aircraft cable (2 x 3/8" diameter) Construction: IWRC 7 x 19 RHRL Nominal strength: 14,400 lb (6,545 kg) Weight of ropes: 0.243 lb/ft (3.616 g/cm) Travel cable weight: 0.228 lb/ft (3.393 g/cm)			
Drive train	Type: Winding drum Motor: 3.0 HP with integrated brake Transmission: Ultra-low vibration, 3-stage, right-angle, helical-bevel drive Motor control: Preprogrammed variable frequency drive Door interlocks: Xtronics			
Pit/floor load	Refer to the section "Load Calculations"			
Distance between 2 landings	93" (2362 mm) minimum			
Pit depth	4″ - 12″ (102 mm - 305 mm)			
Temperature operating range (environment)	- 10°C to + 40°C / 14°F to 104°F <b>NOTE</b> : For optimal running conditions, each landing of the unit should be in a climate-controlled environment.			

Specification	Specification Data	
Safety features	Pit run/stop switch and car top run/stop switch Emergency stop switch Safety brakes Electrical circuit overspeed Manual lowering Emergency battery back-up for cab lighting and lowering	
Options	<ul> <li>Optional configurations: Type 1, 2, 3</li> <li>Optional colors: <ul> <li>White (Texture White PX521W859)</li> <li>Silver (Texture Silver PX521S343)</li> <li>Custom powder-coat frame</li> <li>Note that Black is the standard color (Texture Black PX622N365)</li> <li>Other options: Up to 6 stops, balcony attachment</li> <li>Savaria Link remote monitoring (Vuelift Micro-6 only)</li> </ul> </li> </ul>	

# Safety First - Round+ Glass & Octagonal+ Glass (RGL & OGL)

## 3/4 & 4 Rule (Code 2016 and After)

The ASME A17.1-2016/CSA B44-16 Safety Code for Elevators and Escalators (2016 AND AFTER) mandates the following maximum hoistway door clearances (see drawing on next page):

- Clearance between the hoistway door and the hoistway edge of the landing sill shall not exceed 0.75" (19 mm).
- Distance between the hoistway face of the landing door and the car door shall not exceed 4" (102 mm).
- Vuelift Residential Elevator design is with a maximum 1.25" (32 mm) running clearance.

# Electrical Requirements - Round+ Glass & Octagonal+ Glass (RGL & OGL)

Your electrician and phone installer must supply the following connections:

- Main Disconnect One 230V single-phase, 30 Amp fused disconnect box with 20 Amp fuse/breaker. If voltage is not 230V minimum, a buck-boost transformer is required.
- Lighting Disconnect One 120V, 15 Amp fused disconnect or circuit breaker for cab lighting.
- Telephone Line One telephone line jack in close proximity to the controller.
- Electrical Outlet One 15A GFCI outlet shall be installed near the pit or base ring.

NOTE: Savaria does not provide power cable to main disconnect.

# **Recommended Manufacturers for Fused Disconnect**

### Square D

- Main disconnect: 230V single-phase disconnect model # H221N.
   240V, 30 Amp with Interlock Kit ELK031 Aux Contacts (normally opened/normally closed). In addition, two each - 250V, 20 Amp, RK5 fuses.
- Lighting disconnect: 120V, 15 Amp fused disconnect or circuit breaker.

### Siemens

- Main disconnect: 230V single-phase disconnect model #HF221N.
   240V, 30 Amp with Interlock Kit-HA 161234 Aux Contacts (normally opened/normally closed). In addition, two each - 250V, 20 Amp, RK5 fuses.
- Lighting disconnect: 120V, 15 Amp fused disconnect or circuit breaker.

## G.E.

- Main disconnect: 230V single-phase disconnect model # TH3221.
   240V, 30 Amp with Interlock Kit THAUX21D Aux Contacts (normally opened/normally closed). In addition, two each - 250V, 20 Amp, RK5 fuses.
- Lighting disconnect 120V, 15 Amp fused disconnect or circuit breaker.

## **Cutler Hammer**

- Main disconnect: 230V single-phase disconnect model # DH221NGK.
   240V, 30 Amp with Interlock Kit THAUX21D Aux Contacts (normally opened/normally closed). In addition, two each - 250V, 20 Amp, RK5 fuses.
- Lighting disconnect: 120V, 15 Amp fused disconnect or circuit breaker.

# Recommended manufacturers for circuit breakers at the distribution panel (and the distribution panel itself): Square D or Siemens only.

# Provisions By Others - Round+ Glass & Octagonal+ Glass (RGL & OGL)

#### General Construction Site

The owner/agent is required to provide all masonry, carpentry, and drywall work as required. Floors shall be in a finished state prior to installation of the unit. Refer to the section, Site Preparation on the next page.

#### Dimensions

The contractor/customer must verify all clearance dimensions prior to delivery of the unit.

#### Structural

**Floor Loads** 

A structural engineer is required to ensure that the building will safely support all loads imposed by the lift equipment. Refer to the tables on the installation drawings (shop drawings) for pit/floor loads imposed by the equipment. Refer to the section, Load Calculations.

### Electrical

#### Power Supply

See the following table. Lockable fused disconnects must be installed in compliance with electrical code and are to be provided prior to installation of the unit. Roughed in power to the lift must be provided to the head assembly location prior to installation of the unit.

Power Supply Specifications	Disconnect Size	Time Delay Fuse Size	Volts	Phase
Motor and equipment	30 Amps	30 Amps	230 Volts	Single
Cab lights	15 Amps	15 Amps	115 Volts	Single
Pit light	15 Amps	15 Amps	115 Volts	Single

#### Telephone

If a telephone circuit is required, the jack is to be provided and installed by others. This circuit shall be brought to a location next to the controller and be available to connect and test upon elevator installation.

#### **Electrical Outlet**

One 15-Amp GFCI outlet shall be installed near the pit or base ring.

#### **Permanent Power**

Before installation can begin, permanent power must be supplied.

#### Entrances

#### Handrails

All balcony levels require handrails to be installed per local codes after installation is completed. The handrail and installation is to be provided by the contractor/customer. Savaria Concord Lifts Inc. and/or local installer are not responsible for handrail installation or materials.

#### Savaria Link Option (Vuelift Micro-6 Only)

If you have the Savaria Link <u>Ethernet</u> remote monitoring option, ensure that you have an Ethernet connection with Internet capability in the vicinity of the unit's controller.

If you have the Savaria Link <u>Wireless</u> remote monitoring option, ensure that you have a wireless signal with Internet capability in the vicinity of the unit's controller.

## Site Preparation - Round+ Glass & Octagonal+ Glass (RGL & OGL)

The following items MUST be completed prior to installation of the elevator.

#### **Finished Floors**

• Finished floors be installed at all landing levels.

#### 230V Power (with Switched Disconnect)

- Permanent 230V, single-phase, 30-Ampere dedicated power to a lockable fused (cartridge type) disconnect switch.
- Disconnect switch must be mounted in a location within line of sight of the elevator or controller.
- 230V source must be run from the disconnect switch to a junction box in a discrete location at the top of the elevator hoistway location.
- Disconnect must be installed according to all applicable local codes.

#### 110V Power (with Switched Disconnect) - 2 are required

- Permanent 110V, single-phase, 15-Ampere dedicated power to a lockable, fused (cartridge type) disconnect switch.
- Disconnect switch must be mounted near the 230V disconnect switch.

#### **Telephone Works**

• Telephone jack must be provided next to the electrical disconnects. This can be the common house line in most jurisdictions. Please check with your local installer or building contractor for code requirements.

#### **Electrical Outlet**

• One 15-Amp GFCI outlet shall be installed near the pit or base ring.

#### **Floor Built for Load**

• Smooth level surface for installing the elevator, with floor load bearing capacity for the elevator plus rated load. An exact specification can be provided by contacting Savaria.

#### **Floor and Pit Cutouts Complete**

- If a pit is to be used, a smooth, level surface of at least 4" must be provided. For pit depths greater than 12", contact Savaria to ensure proper equipment will be provided.
- It is recommended that any pit floor and walls be finished prior to installation. Pit floor and walls are visible after elevator installation is completed.
- Hole in floor, or modified balcony rail as directed by drawings.

#### **Check Floor to Floor Maximum and Minimum Distances**

- 106" (2692 mm) minimum overhead distance from upper floor level to the underside of the finished ceiling for standard cab configuration.
- 96" (2438 mm) minimum overhead distance from upper floor level to the underside of the finished ceiling for modified short cab configuration.
- 108" (2743 mm) minimum overhead distance from upper floor level to the underside of the finished ceiling for silica glass model.

#### **Drywall and Painting**

• All drywall and painting must be complete.

### Load Calculations - Round+ Glass (RGL)

- Primary loads are carried by the four support columns that run from top to bottom on the elevator.
- The load (represented below as Lower Floor Total Load) is supported on 4"x4" plates at the bottom of each of the four columns.
- Each middle floor carries a separate Mid Floor Load supporting only that floor's metal floor rings, while the main cab/hoistway load (Lower Floor Total Load) is transferred fully to the bottom floor.
- Walls of bricks, terra-cotta, hollow blocks, and similar materials shall not be used for attachment of column (guide rail) brackets unless adequately reinforced.
- Where necessary, the building construction shall be reinforced to provide adequate support for the columns (guide rails).
- Shipping weight is estimated actual including crating materials, etc.
- Floor load figures include elevator structure weight when loaded with full test capacity.
- Floor load figures shown here are actual loads; your building engineer must add a proper factor of safety to the floor design.
- Many jurisdictions require floor designs to include at least a safety factor of 4, doubling the loads shown here.
- To reiterate, the figures below DO NOT include your factor of safety for floor loads. Engineer your floor to include (add) an appropriate safety factor and comply with local building codes.

Lower Floor Dead Load (lbf) = (107.1 x feet of hoistway) + (276 x number of floors) + 3020

Lower Floor Impact Load (lbf) = 7845

Lower Floor Total Load (lbf) = Dead Load + Impact Load

Mid Floor Load (lbf) = 318

Shipping Weight (lb) = (1226 x number of floors) + 2040

**Note:** Shipping weight includes all actual part weights for lower and mid floor loads using 12' per floor, plus shipping packaging weight.

#### Example

	<u>2 stop with 19' hoistway min</u>
Lower Floor Dead Load	5,605
Lower Floor Impact Load	<u>7,845</u>
Lower Floor Total Load	13,450

Total Load is distributed as follows:

- At any point in time, two opposing columns may have up to 12,000 lbf (6000 lbf/column)
- However, the max load carried by all four column combined will not exceed 16,759 lbf before addition of factor of safety required by local building code.

Mid Floor Loads (on each mid floor) 318

Shipping Weight	4, 492
-----------------	--------

# Load Calculations - Octagonal+ Glass (OGL)

- Primary loads are carried by the four support columns that run from top to bottom on the elevator.
- The load (represented below as Lower Floor Total Load) is supported on 4"x4" plates at the bottom of each of the four columns.
- Each middle floor carries a separate Mid Floor Load supporting only that floor's metal floor rings, while the main cab/hoistway load (Lower Floor Total Load) is transferred fully to the bottom floor.
- Walls of bricks, terra-cotta, hollow blocks, and similar materials shall not be used for attachment of column (guide rail) brackets unless adequately reinforced.
- Where necessary, the building construction shall be reinforced to provide adequate support for the columns (guide rails).
- · Shipping weight is estimated actual including crating materials, etc.
- Floor load figures include elevator structure weight when loaded with full test capacity.
- Floor load figures shown here are actual loads; your building engineer must add a proper factor of safety to the floor design.
- Many jurisdictions require floor designs to include at least a safety factor of 4, doubling the loads shown here.
- To reiterate, the figures below DO NOT include your factor of safety for floor loads. Engineer your floor to include (add) an appropriate safety factor and comply with local building codes.

Lower Floor Dead Load (lbf) = (107.1 x feet of hoistway) + (276 x number of floors) + 3020

Lower Floor Impact Load (lbf) = 7845

Lower Floor Total Load (lbf) = Dead Load + Impact Load

Mid Floor Load (lbf) = 318

Shipping Weight (lb) =  $(1226 \times number \text{ of floors}) + 2040$ 

**Note:** Shipping weight includes all actual part weights for lower and mid floor loads using 12' per floor, plus shipping packaging weight.

#### Example

	<u>2 stop with 19' hoistway min</u>	
Lower Floor Dead Load	5,605	
Lower Floor Impact Load	<u>7,845</u>	
Lower Floor Total Load	13,450	

Total Load is distributed as follows:

- At any point in time, two opposing columns may have up to 12,000 lbf (6000 lbf/column)
- However, the max load carried by all four column combined will not exceed 16,759 lbf before addition of factor of safety required by local building code.

Mid Floor Loads (on each mid floor) 318

Shipping Weight	4, 492
-----------------	--------

### Drawings - Round+ Glass & Octagonal+ Glass (RGL & OGL)

#### Round+ Glass (RGL)

- Plan view
  - Pit/bottom floor/thru-floor view
  - Balcony details
  - Balcony plate and handrail information
  - Thru-floor details
  - Elevation view
  - Elevation view (showing extra header rings for floor-to-floor height >14 ft)
  - Provisions by others
  - Pit cutout/thru-floor cutout
  - Machine room layout and wire routing

#### Octagonal+ Glass (OGL), Type 1

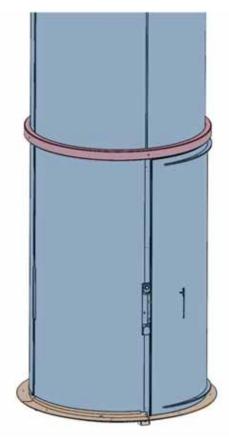
- Plan view
- Pit/bottom floor/thru-floor view
- Balcony details
- Balcony plate and handrail information
- Thru-floor details
- Elevation view
- Elevation view (showing extra header rings for floor-to-floor height >14 ft)
- Provisions by others
- Pit cutout/thru-floor cutout
- Machine room layout and wire routing

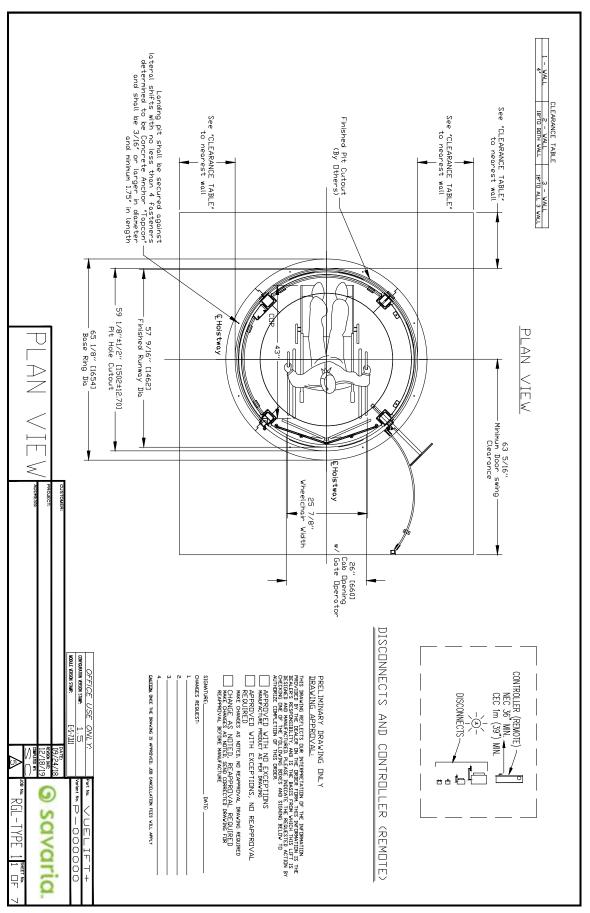
#### **Controller box dimensions**

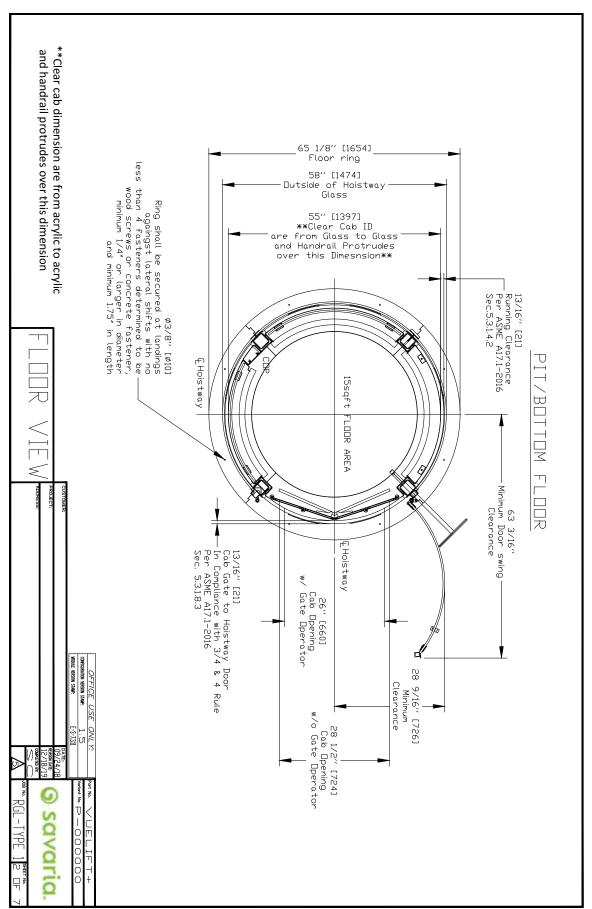
# Model Specifications – Round+

Round+ (Glass)

- Capacity: 432kg (950 lb)
- Cab Size: 1.4 sqm (15 sq. ft.)
- Clear Cab Size: 1397mm (54 in.)
- Cab Height: 2134mm (84 in.)
- Hoistway Footprint
  - Glass: 1474mm (58 in.)
- Pit/Thru Floor Cutout: 1502 mm ( $59 \frac{1}{8}$  in.)
- **Balcony/Header Ring**: 1543 mm (60  $^{3}/_{4}$  in.)
- **Pit/Thru Floor Ring**: 1654mm ( $65 \frac{1}{8}$  in.)
- Minimum Overhead Clearance: 2743mm (108 in.)







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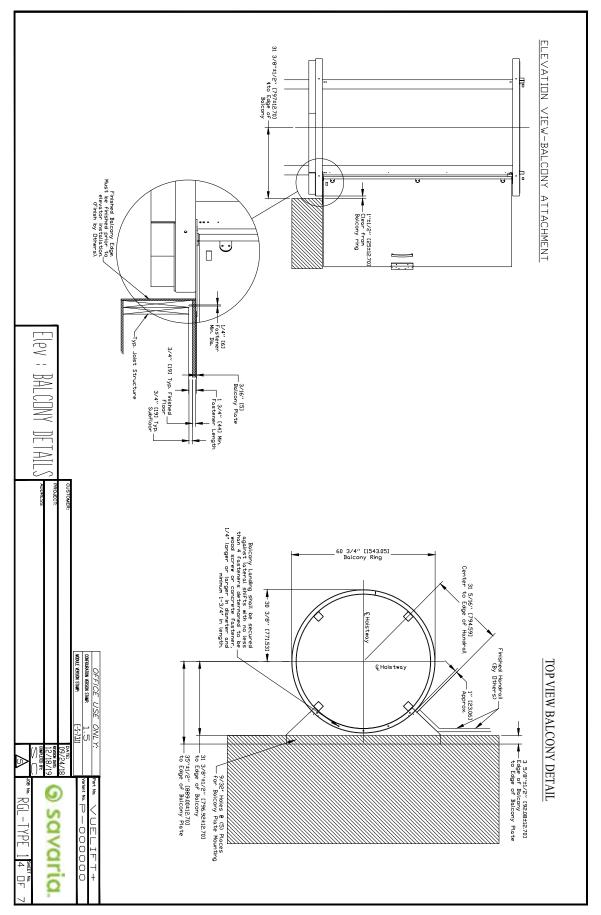
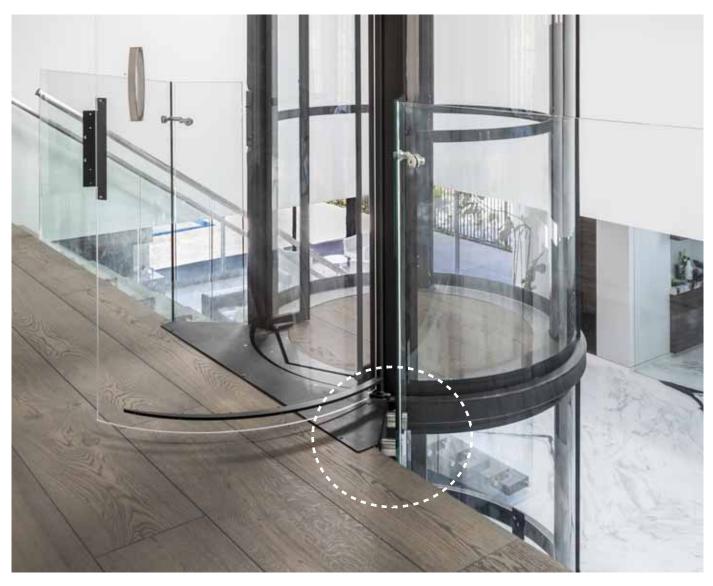


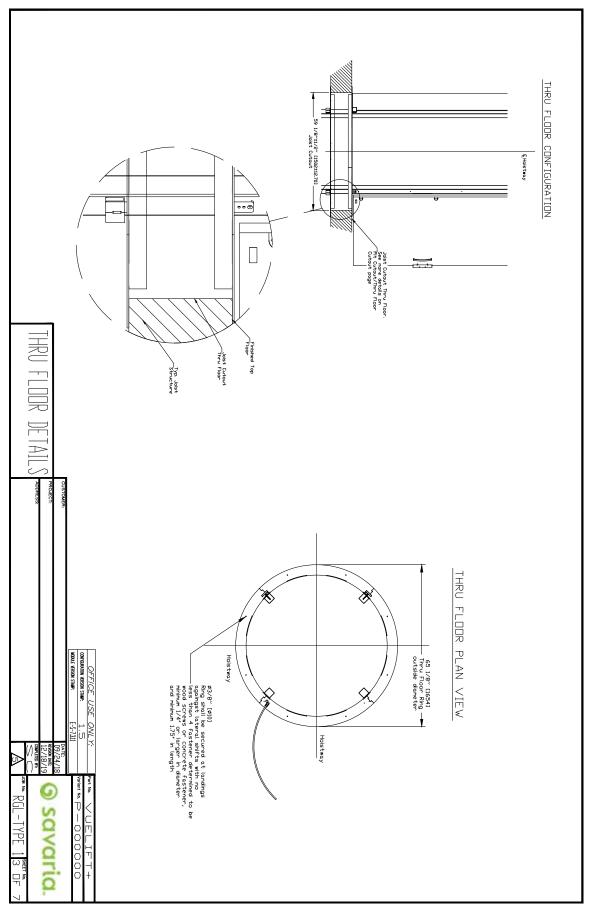
Figure 44: Balcony plate and handrail information - round+ glass (RGL)



The Vuelift balcony plate provides a vertical flange on either side that can be used to mount the adjacent handrail. This plate is made of 3/16" steel and is designed to support the handrail loading and forces.

The photo above shows a finished handrail view. It is important to note that the spacing between the handrail post and the elevator shaft should be between 2" (51 mm) and 3" (76 mm) to allow sufficient clearance for the operation of the hoistway door and the hall call button.

**NOTE**: Installing the handrail on top of the balcony plate is NOT permitted as it will interfere with the door opening operation and door clearances.



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Figure 46: Elevation view - round+ glass (RGL)

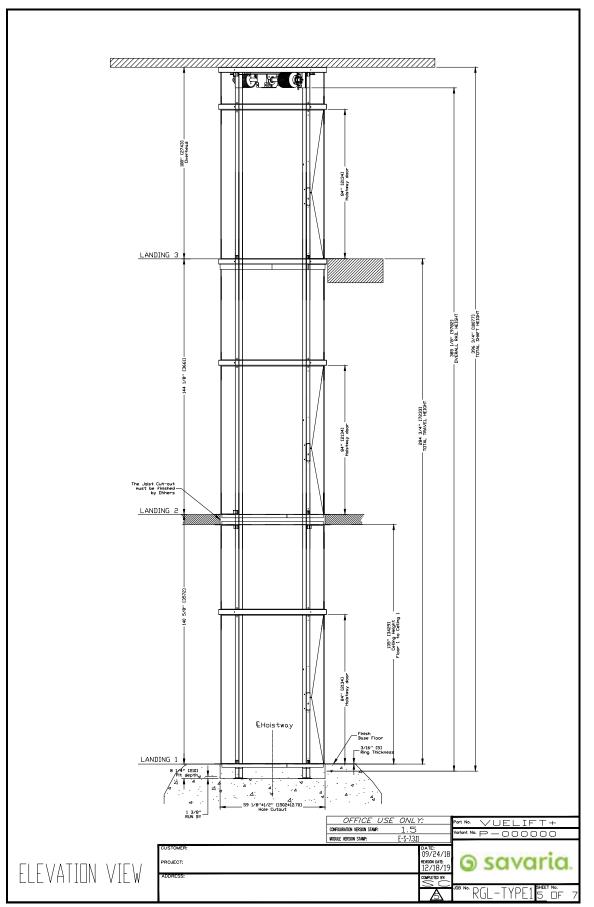
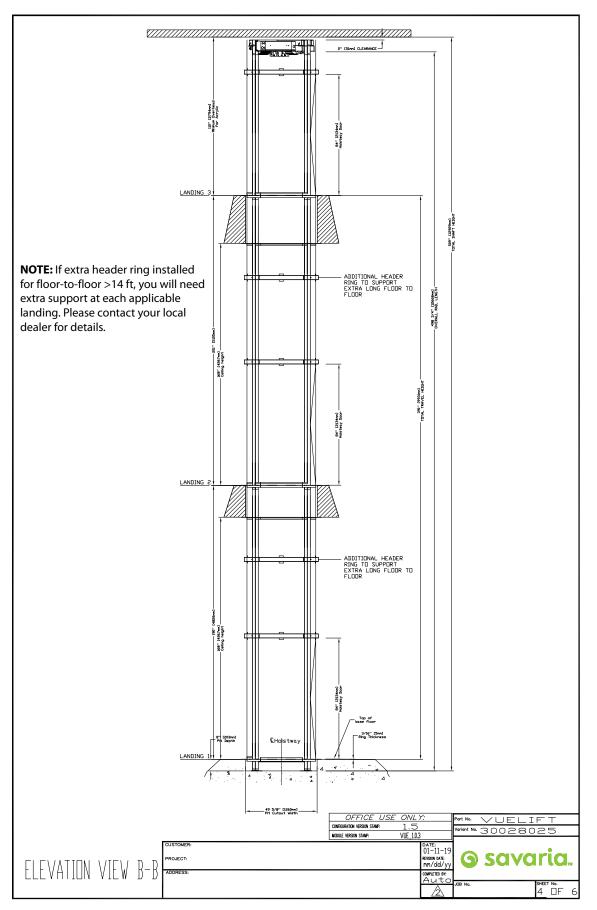
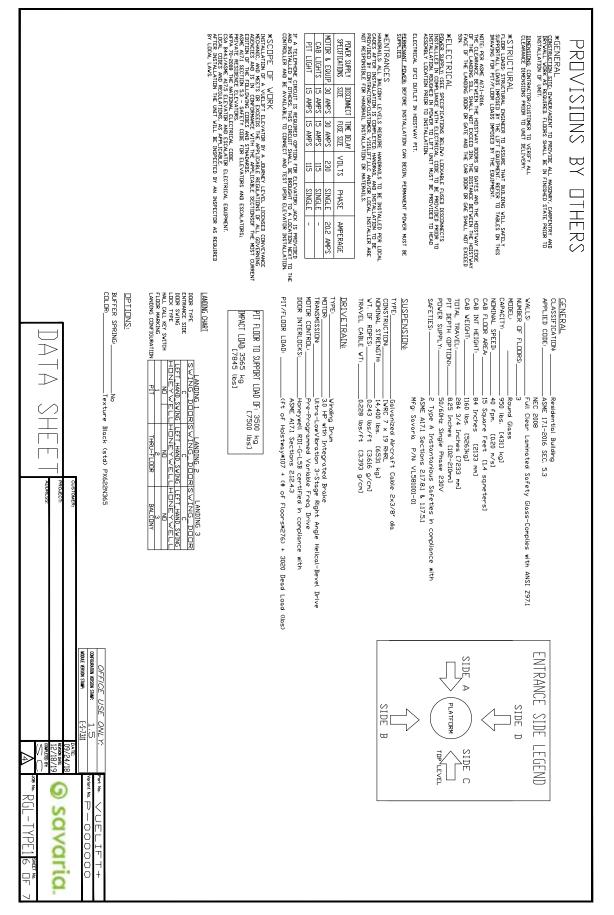


Figure 47: Elevation view - round+ glass (RGL) - extra header rings if floor-to-floor height > 14 ft





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Figure 49: Pit cutout/thru-floor cutout - round+ glass (RGL)

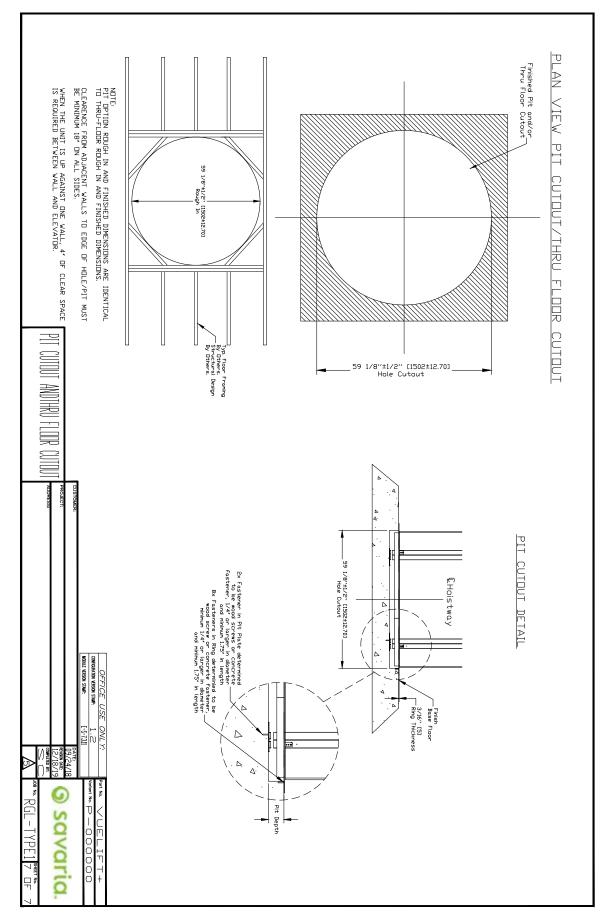
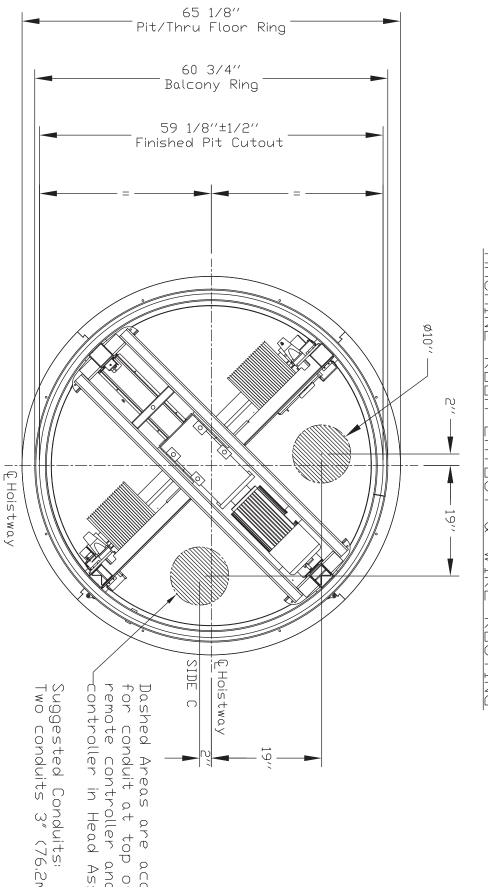


Figure 50: Machine room layout and wire routing - round+ glass (RGL)



MACHINE ROOM AYDUT  $\infty$ WIRE ROUTING

# Model Specifications – Octagonal+

#### Octagonal+ (Glass)

- Capacity: 432kg (950 lb)
- Cab Size: 1.31 sqm (14 sq. ft.)
- Clear Cab Size: 1156w x 1253d (45<sup>1</sup>/<sub>2</sub> x 49<sup>5</sup>/<sub>16</sub> in.)
- Cab Height: 2134mm (84 in.)
- Hoistway Footprint
  - Glass: 1421 x 1421mm (56 x 56 in.)
- Pit/Thru Floor Cutout:  $1432x \ 1432mm \ (56^{3}/_{8} \ x \ 56^{3}/_{8} \ in.$
- Balcony/Header Ring: 1473 x 1473mm (58 x 58in.)
- **Pit/Thru Floor Ring**: 1574 x 1574mm (62 x 62 in.)
- Minimum Overhead Clearance: 2743mm (108 in.)

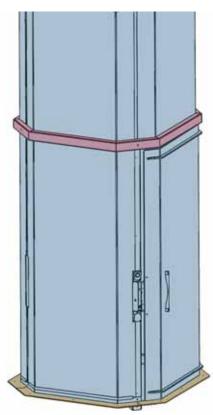
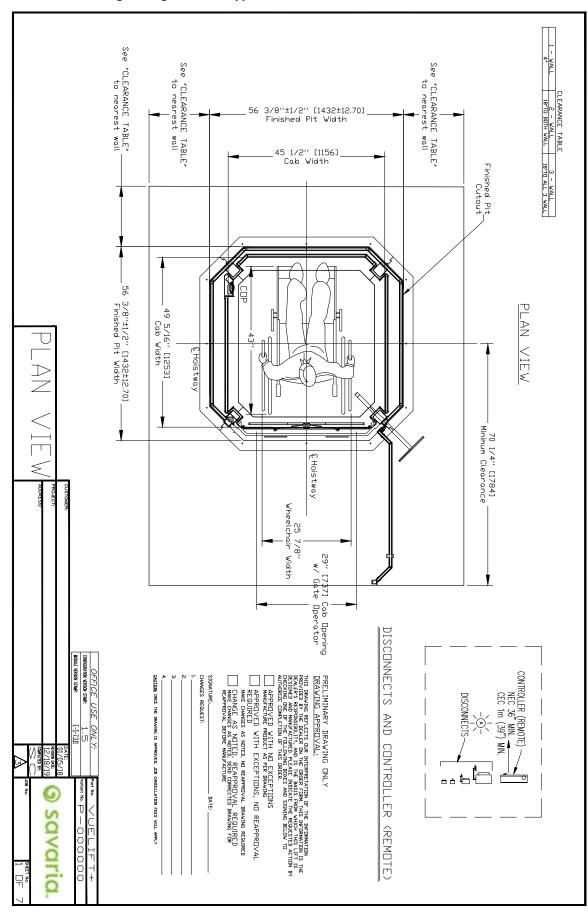
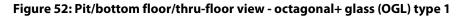
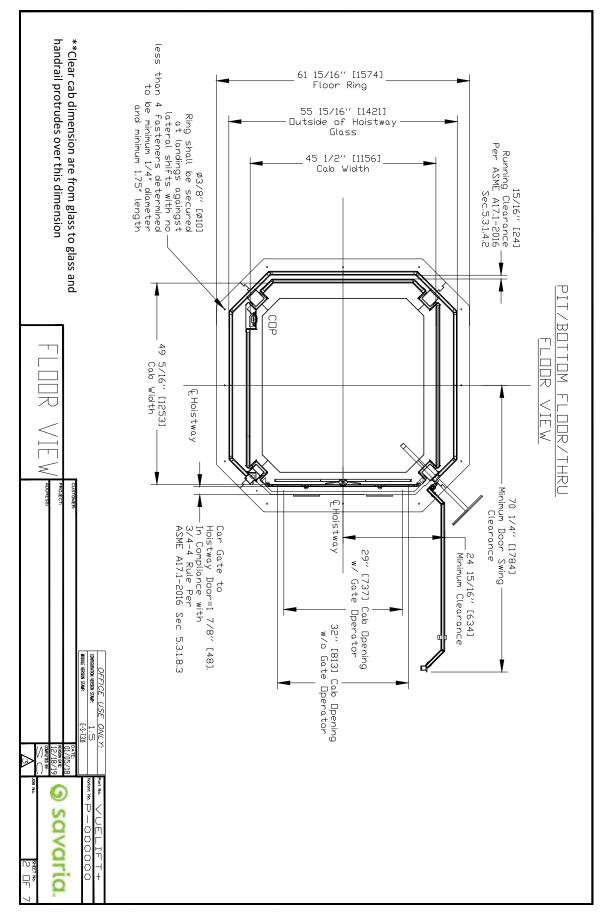




Figure 51: Plan view - octagonal+ glass (OGL) type 1

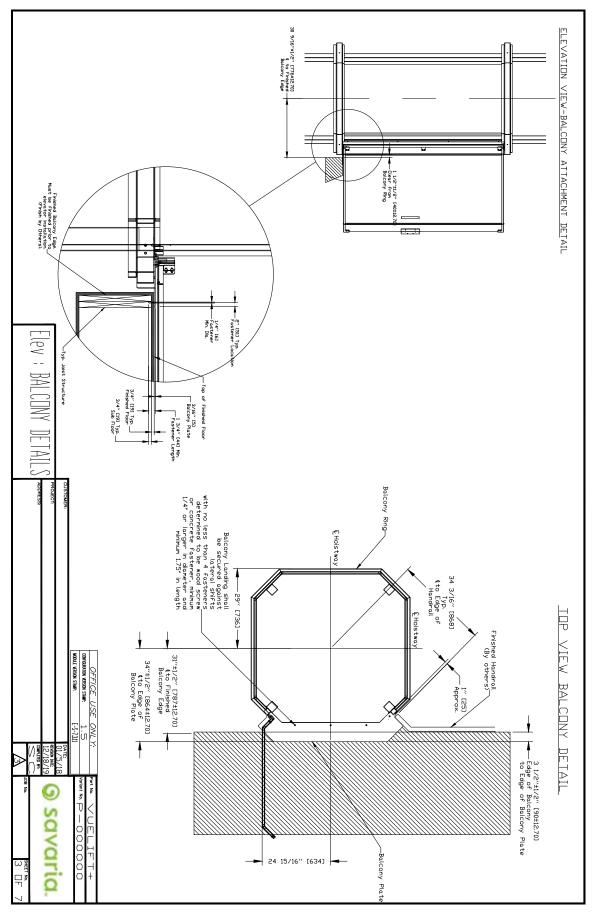




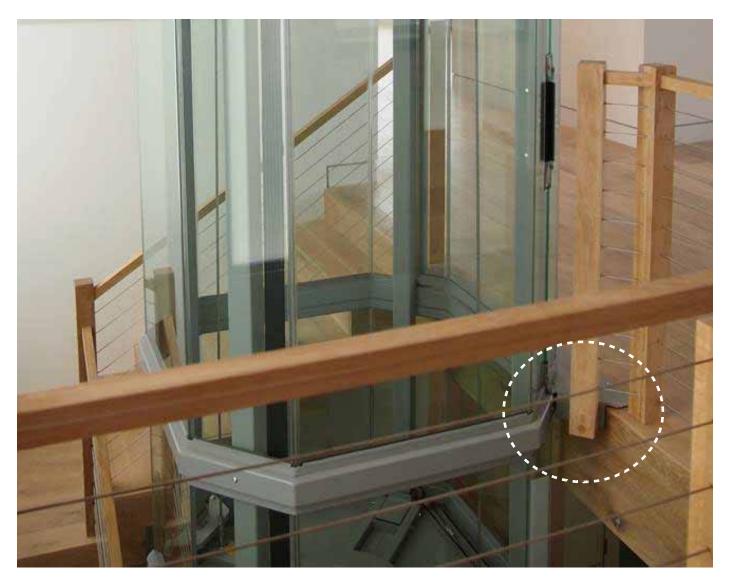




#### Figure 53: Balcony detail - octagonal+ glass (OGL) type 1



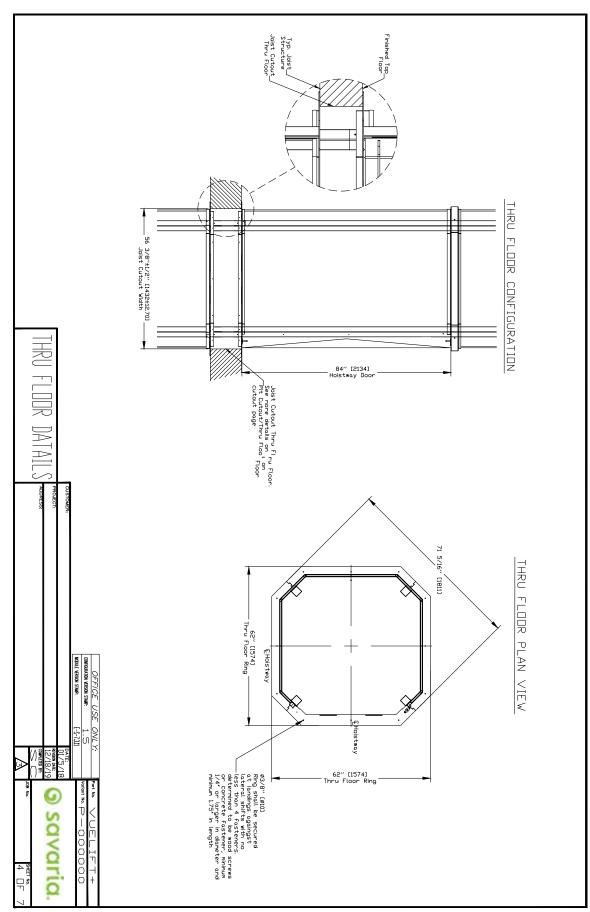
#### Figure 54: Balcony plate and handrail information - octagonal+ glass (OGL) type 1



The Vuelift balcony plate provides a vertical flange on either side that can be used to mount the adjacent handrail. This plate is made of 3/16" steel and is designed to support the handrail loading and forces.

The photo above shows a finished handrail view. It is important to note that the spacing between the handrail post and the elevator shaft should be between 2" (51 mm) and 3" (76 mm) to allow sufficient clearance for the operation of the hoistway door and the hall call button.

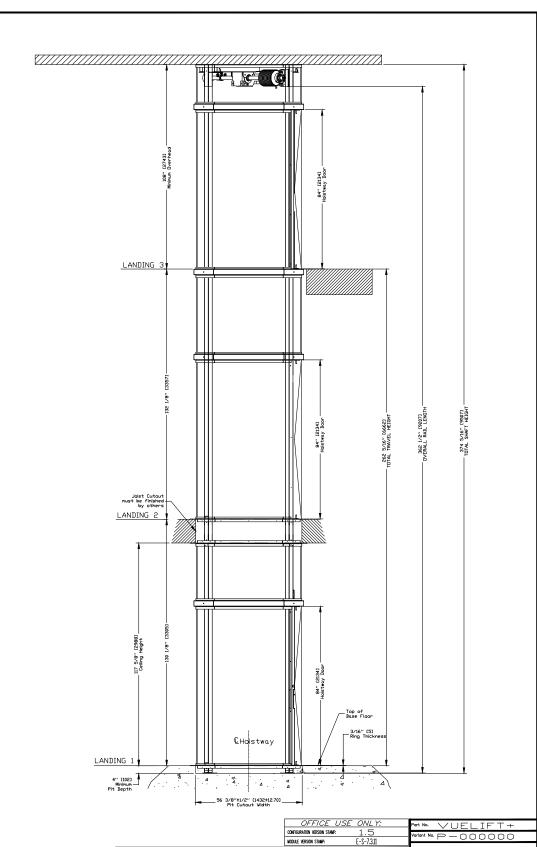
**NOTE**: Installing the handrail on top of the balcony plate is NOT permitted as it will interfere with the door opening operation and door clearances.



#### Figure 55: Thru-floor detail - octagonal+ glass (OGL) type 1

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Figure 56: Elevation view -octagonal+ glass (OGL) type 1



ELEVATION VIEW

ROJECT:

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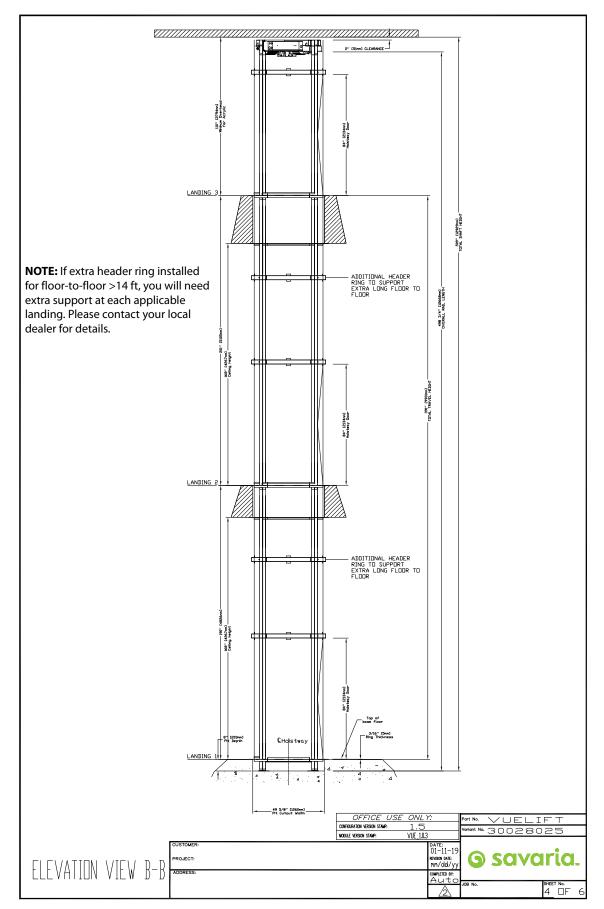
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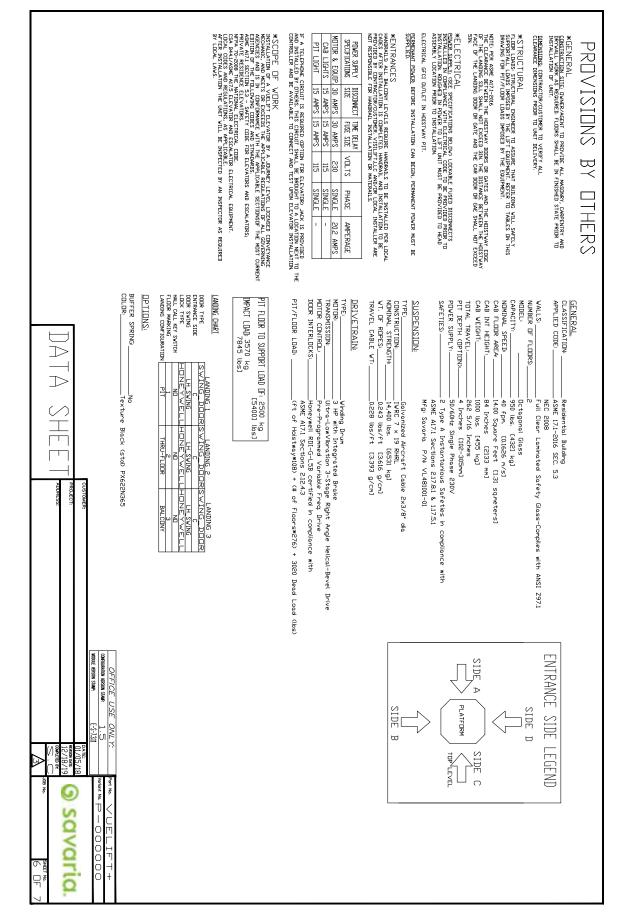
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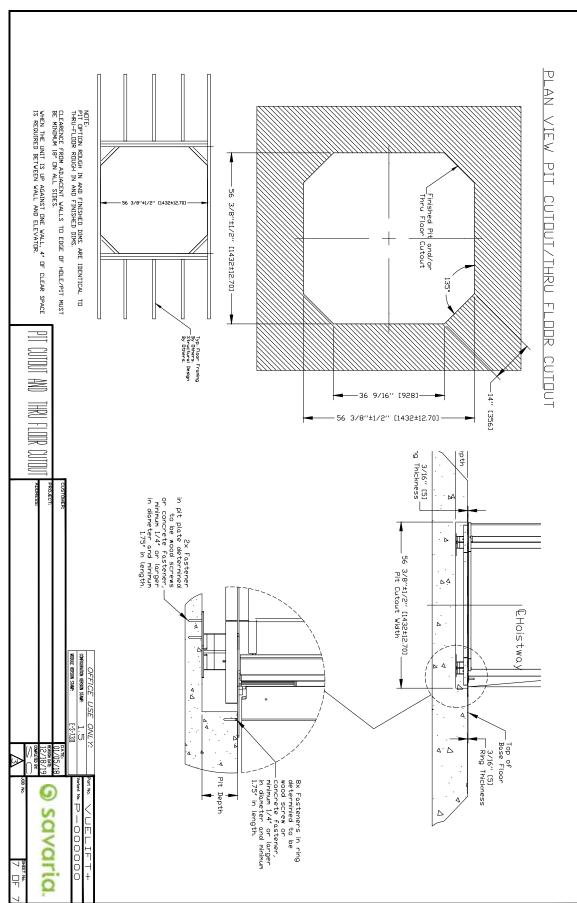
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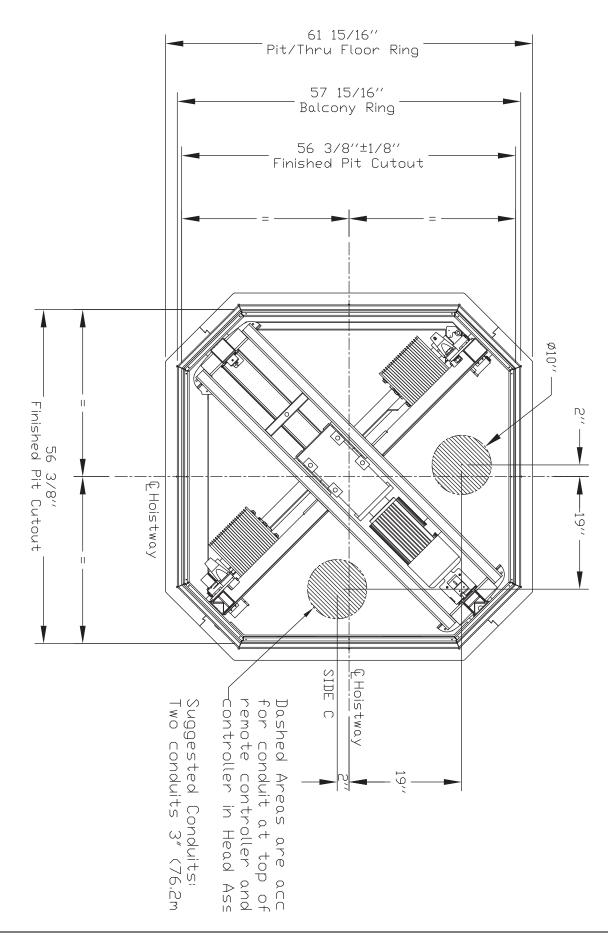


#### Figure 59: Pit cutout/thru-floor cutout - octagonal+ glass (OGL) type 1

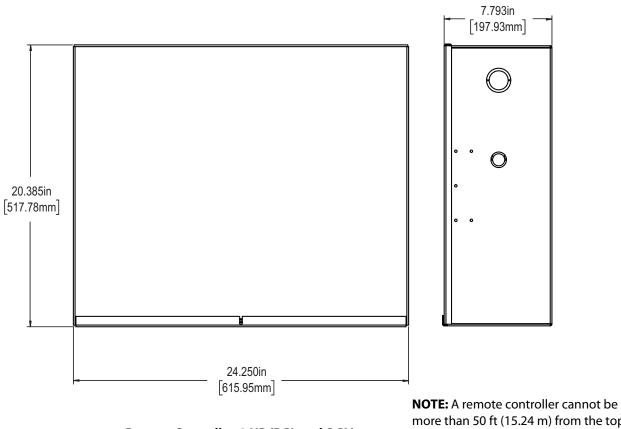
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Vuelift Planning Guide

Figure 60: Machine room layout and wire routing - octagonal+ glass (OGL)







Remote Controller, 3 HP (RGL and OGL)

more than 50 ft (15.24 m) from the top of the unit for the cable to reach.

# Vuelift Residential Elevator PLANNING GUIDE

Part No. 001123 Rev. 17-m06-2020

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