Vuelift®

Residential Elevator

Planning Guide

For North America and European Units

savaria

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
- EN 81-41:2010 Special lifts for the transport of persons and goods
- 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.

Printed in Canada

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
September 9, 2020 - Revised drawings and other various updates throughout
November 10, 2020 - Revised drawings throughout
September 16, 2021 - Updated calculations
June 20, 2022 - Updates to schematics and measurements
October 3, 2022 - Revised cover page, updated code requirements, revised drawings for pages 17-19, 31, 43-45, 58-60, 72, 83-84, 97, 108-110, 122
October 24, 2023 - Added Site Preparation Checklist on page 123, added revision number.
April 15, 2024 - Revised pages, 15, 41, 56, 81 and 106

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Chapter 1:
Round Acrylic (RAM)

Specifications - Round Acrylic (RAM)

Specification	Specification Data
Load capacity	840 lb (381 kg)
Maximum travel	50 ft (15.24 m); 55 ft (16.76 m) where a variance is possible
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	108" (2743mm) for 84" (2133mm) cab 104" (2641mm) for 80" (2032mm) cab 96" (2438mm) for 76.5" (1943mm) cab
Cab	Cab walls: Full clear acrylic Cab interior height (standard): 84 in (2.13 m) Cab interior height (optional): 80in (2.03 m) Cab interior height: 76.5in (1.94 m) Cab weight: 650 lb (295 kg) Cab floor area: 13 sq ft (1.3 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: 5.0HP (3.5 KW) with integrated brake Transmission: Low vibration, worm gear drive Motor control: Preprogrammed variable frequency drive Door interlocks: Xtronics
Pit/floor load	Refer to the section "Load Calculations"
Distance between 2 landings	93.5" (2375 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 **NOTE**: 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	Optional configurations: Type 2, 3R, 6 Optional colors: • White (Texture White PX521W859) • Silver (Texture Silver PX521S343) • Custom powder-coat frame Note that Black is the standard color (Texture Black PX622N365) Other options: Up to 6 stops, balcony attachment Savaria Link remote monitoring (Vuelift Micro-6 only) Landing door handle painted to match unit Top header ring in sheet metal painted to match unit

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 30 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, 30 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, 30 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, 30 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, 30 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 Ethernet 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 Wireless 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

- 108" (2743mm) for 84" (2133mm) cab minimum overhead distance from upper floor level to the underside of the finished ceiling for standard cab configuration. (standard)
- 104" (2641 mm) for 80" (2032 mm) cab minimum overhead distance from upper floor level to the underside of the finished ceiling for modified short cab configuration. (optional)
- 96" (2438 mm) for 76.5" (1943 mm) cab minimum overhead distance from upper floor level to the underside of the finished ceiling for silica glass model. (short)

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 250 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 (lbs) = (45 x feet of hoistway) + (250 x number of floors) + 2210 lbs

  Lower Floor Dead Load (Kg) = (67 x meter of hoistway) + (113 x number of floors) + 1002 Kg

  Lower Floor Impact Load (lbs) = 4452 lbs (2019 Kg)

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

  Mid Floor Load (lbf) = 250 lbs (113kg)

  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.*

Drawings - Round Acrylic (RAM)

- Plan view
- Pit view
- Base mount details
- Thru-floor view
- Balcony view
- Balcony plate and handrail information
- Thru-floor details
- Balcony details
- Elevation view
- Elevation view (showing extra header rings for floor-to-floor height >14 ft)
- Pit cutout detail
- Datasheet
- Machine room layout and wire routing
- Controller box dimensions

Model Specifications - Round

Round (Acrylic)

- Capacity: 381kg (840 lb)
- Cab Size: 1.3 sqm (13 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: 2743mm (108 in.) for 2133 mm (84 in.) cab
- Minimum Overhead Clearance: 2641mm (104 in.) for 2032 mm (80 in.) cab

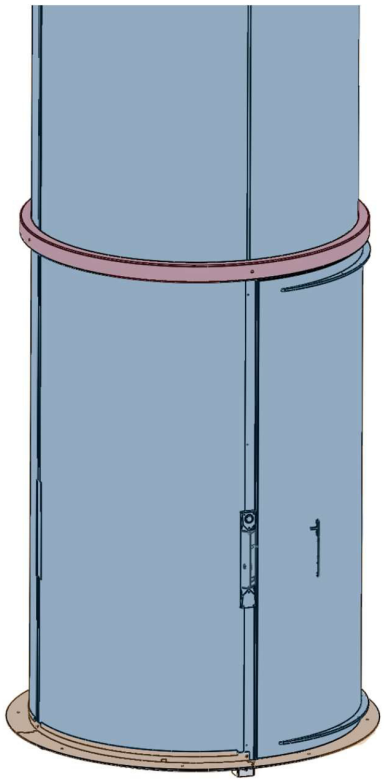


Figure 1: Plan view - round acrylic (RAM) type 1

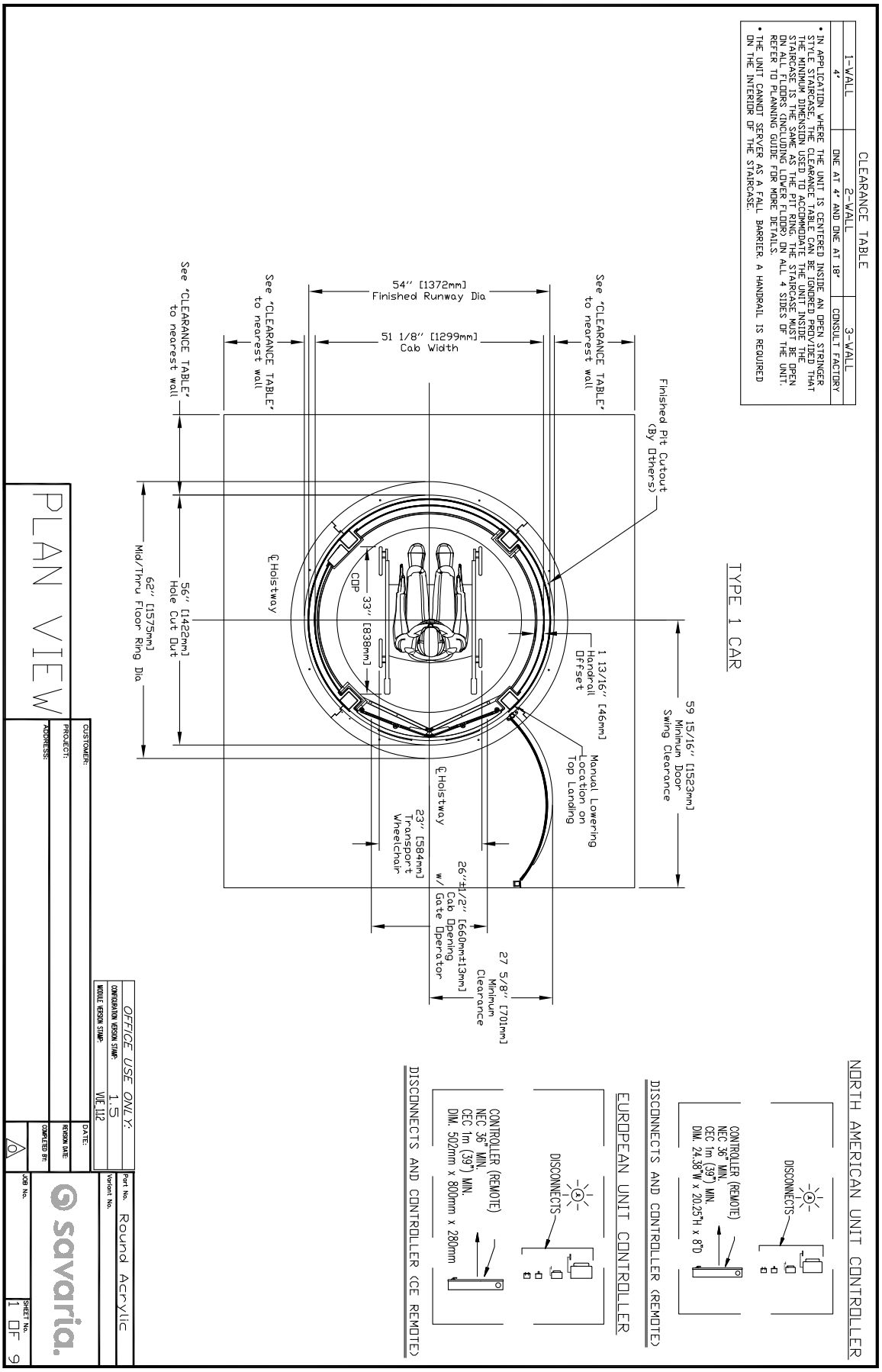


Figure 2: Plan view - round acrylic (RAM) type 2

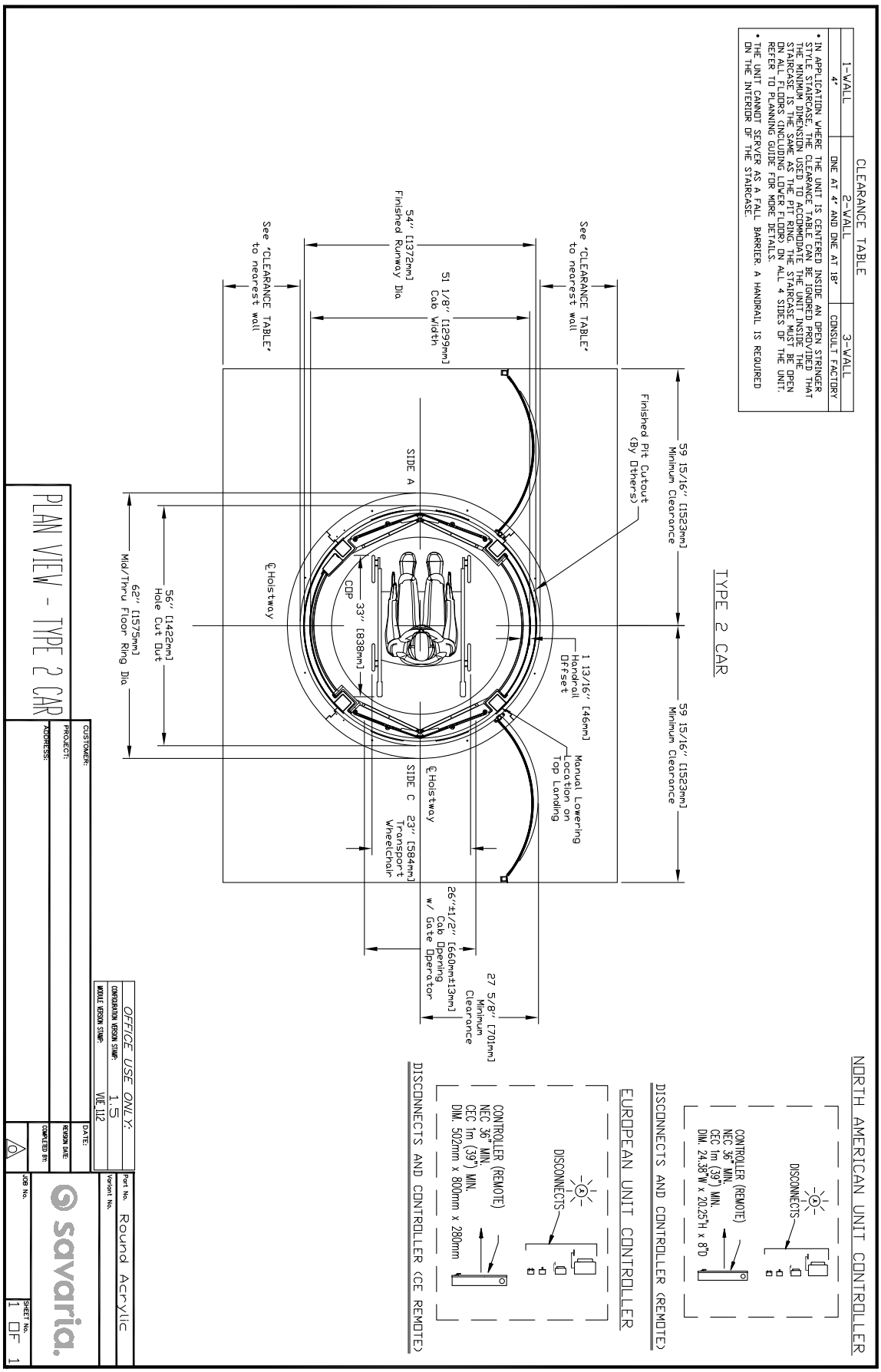


Figure 3: Plan view - round acrylic (RAM) type 3

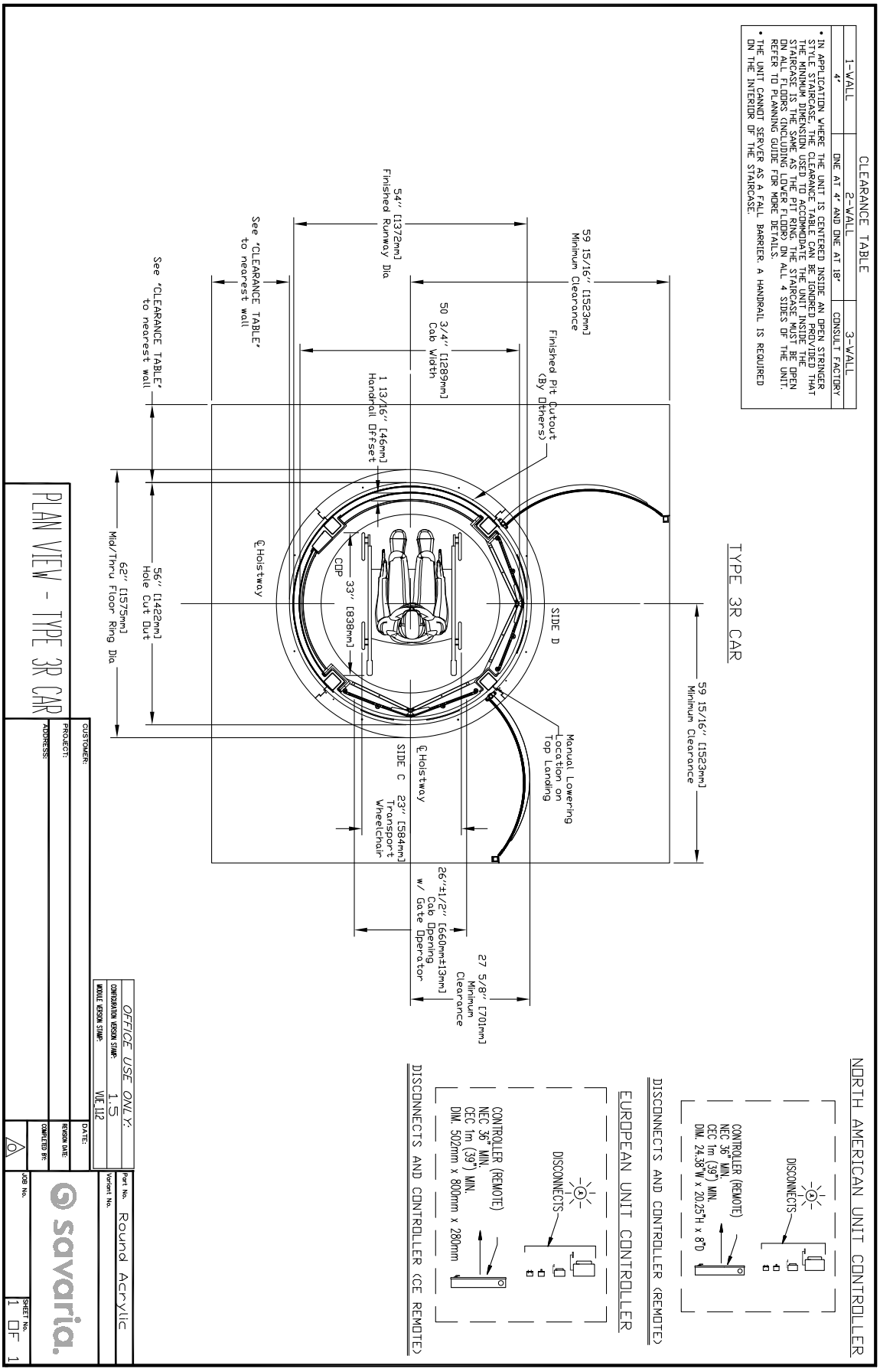


Figure 4: Pit view - round acrylic (RAM) type 1, 2 or 3

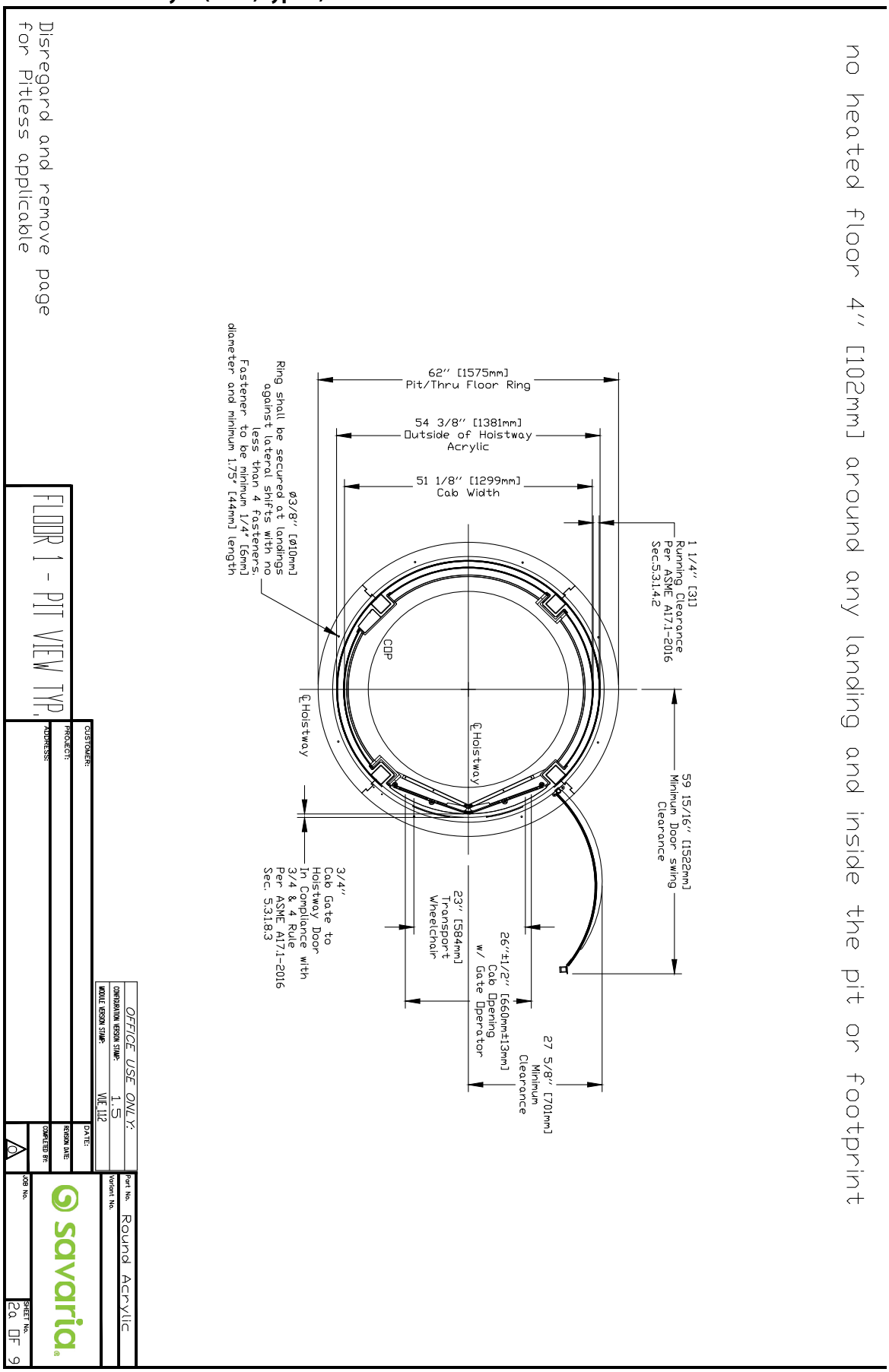


Figure 5: Base mount details - round acrylic (RAM) type 1, 2 or 3

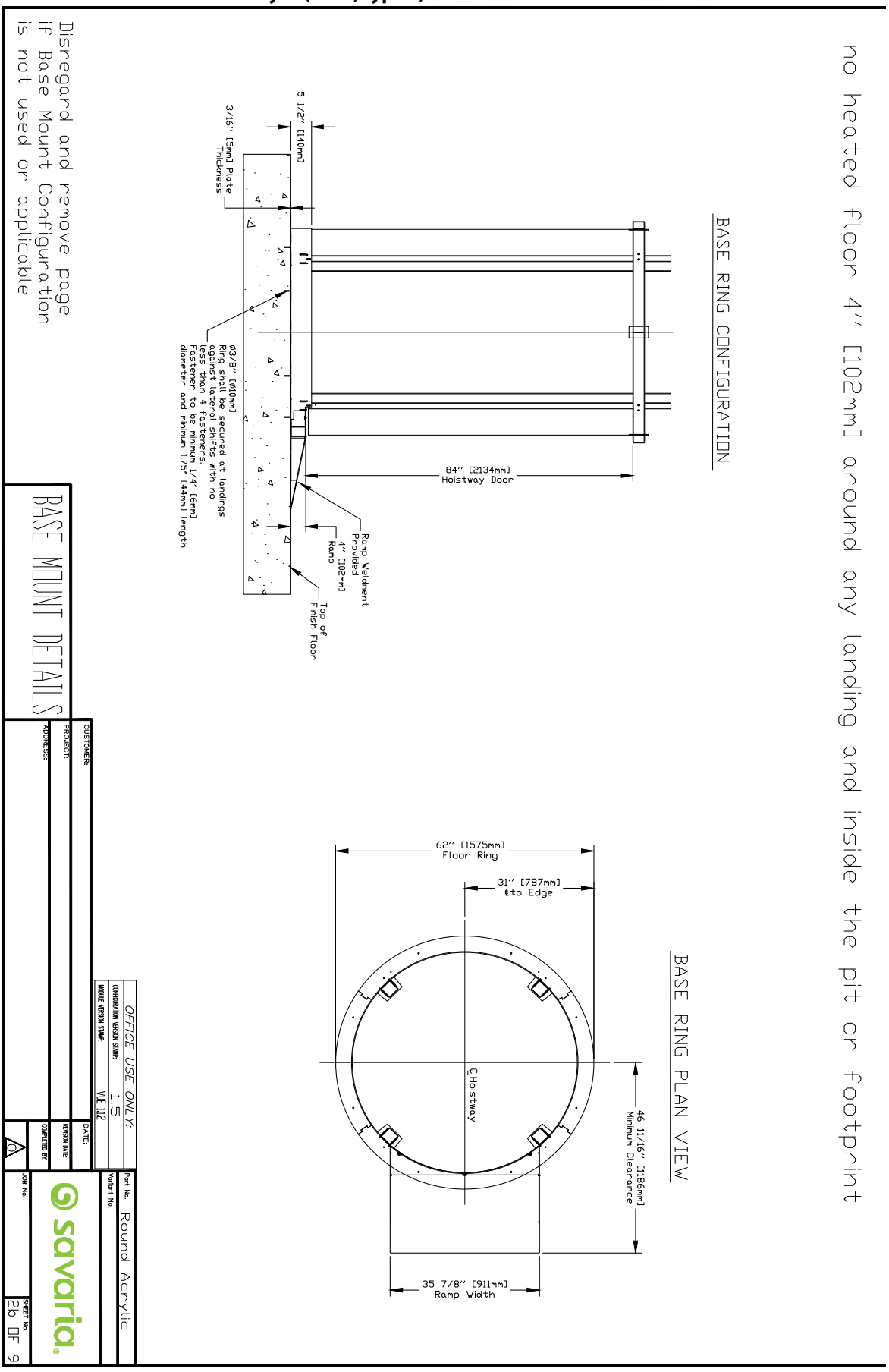


Figure 6: Thru-floor view - round acrylic (RAM) type 1, 2 or 3

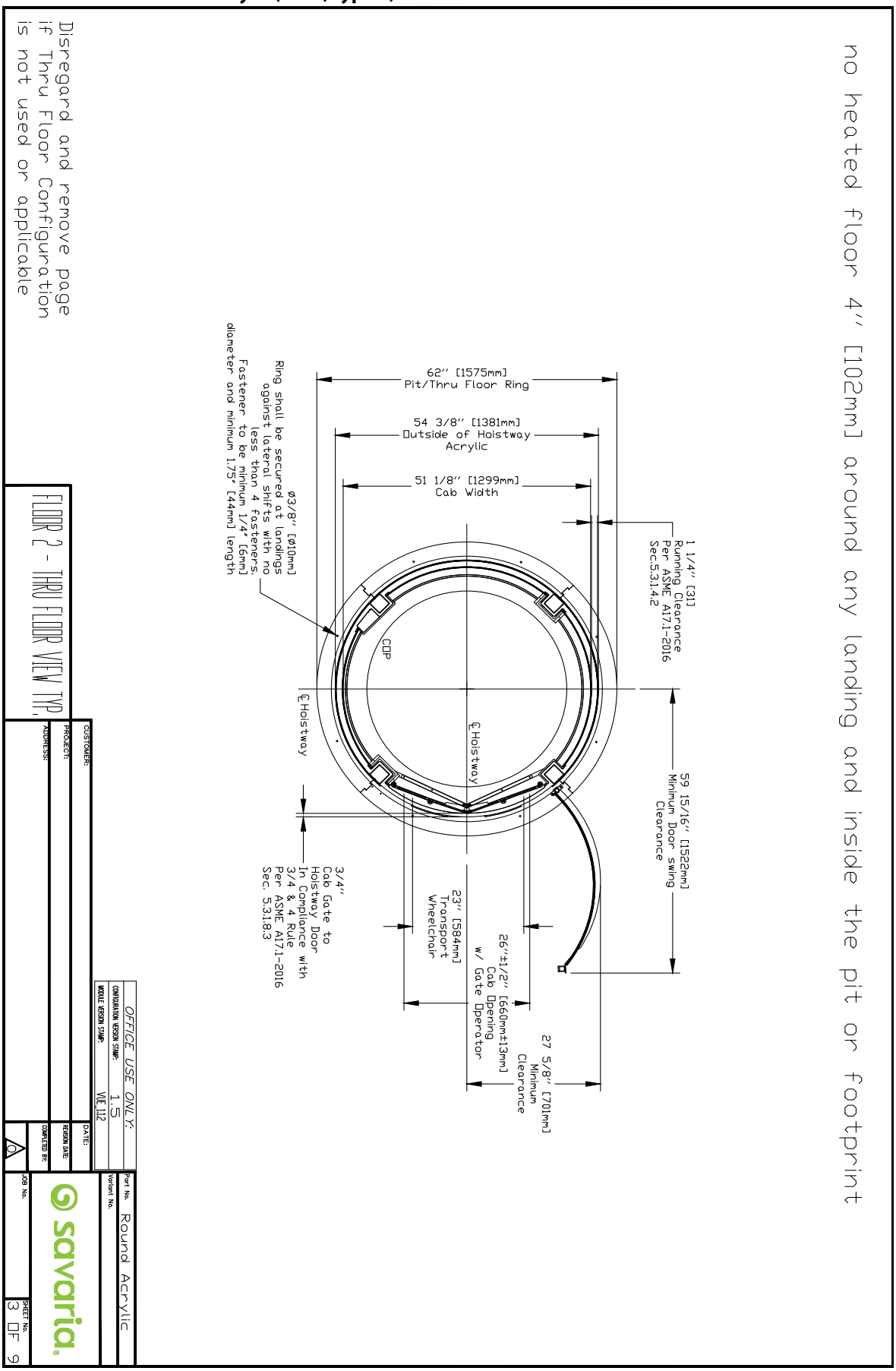


Figure 7: Balcony view - round acrylic (RAM) type 1, 2 or 3

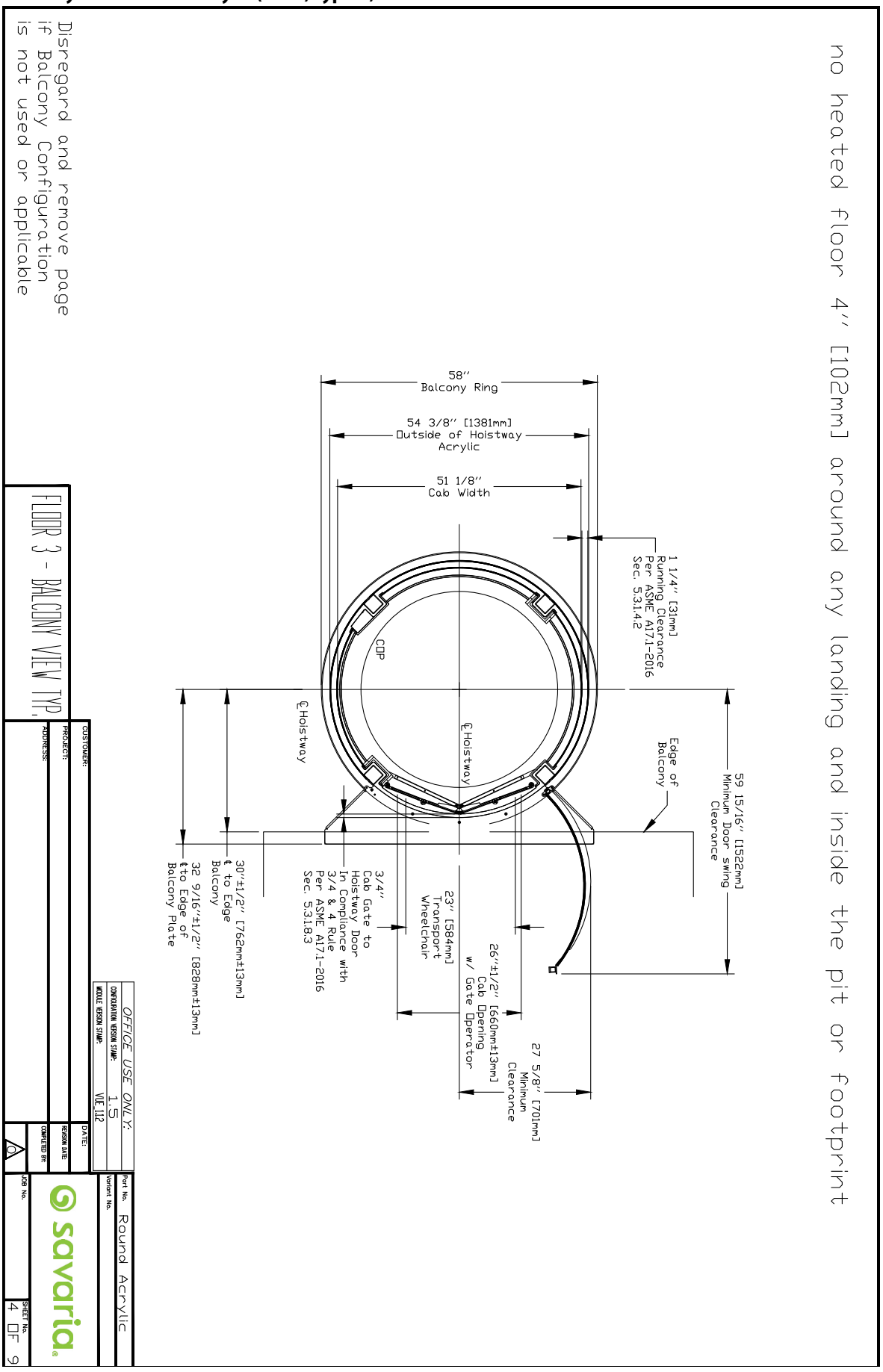


Figure 8: Balcony plate and handrail information - round acrylic (RAM) type 1 shown

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 is 1" (25.4 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 9: Thru-floor details- round acrylic (RAM) type 1, 2 or 3

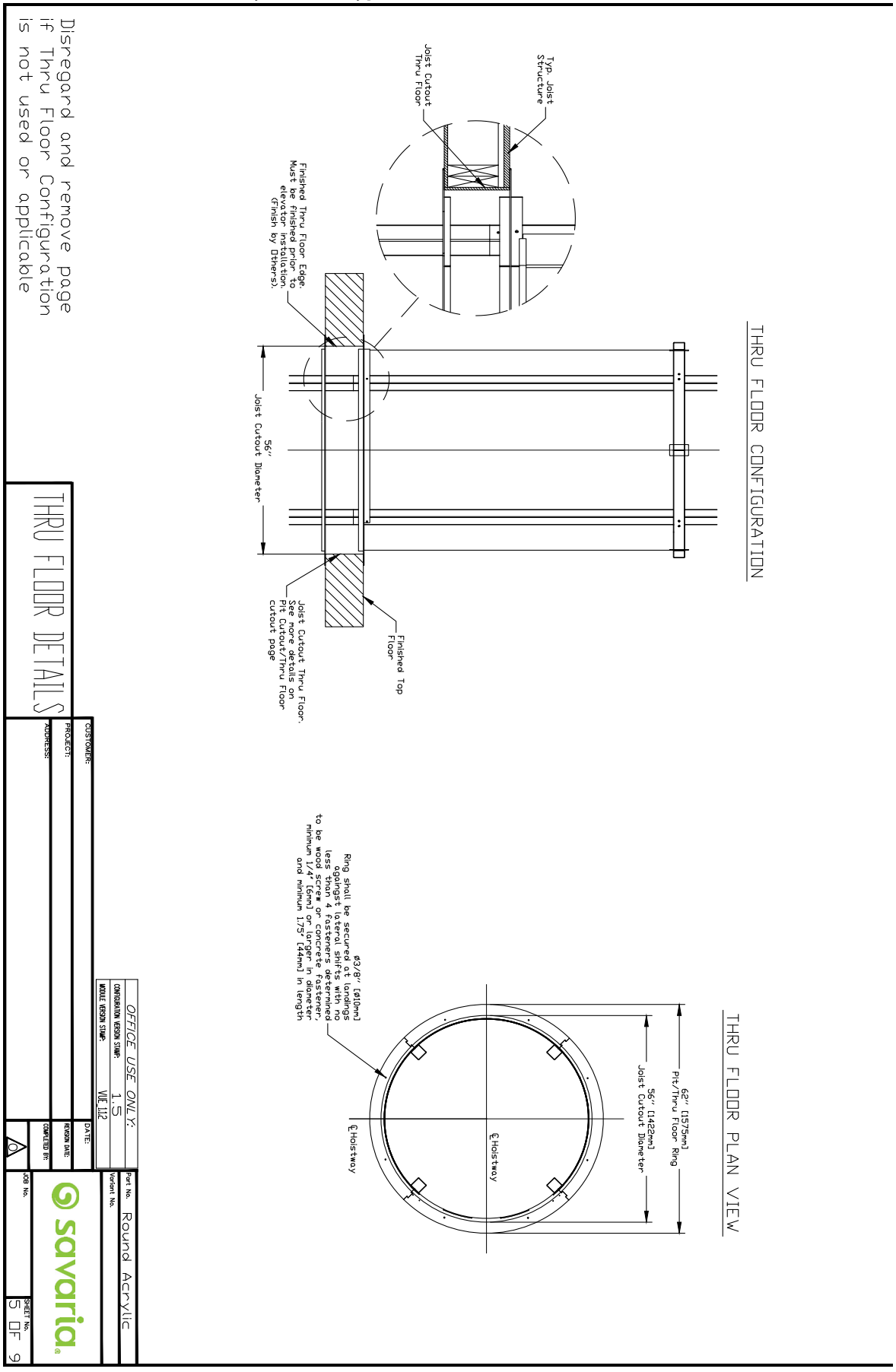


Figure 10: Balcony details- round acrylic (RAM) type 1, 2 or 3

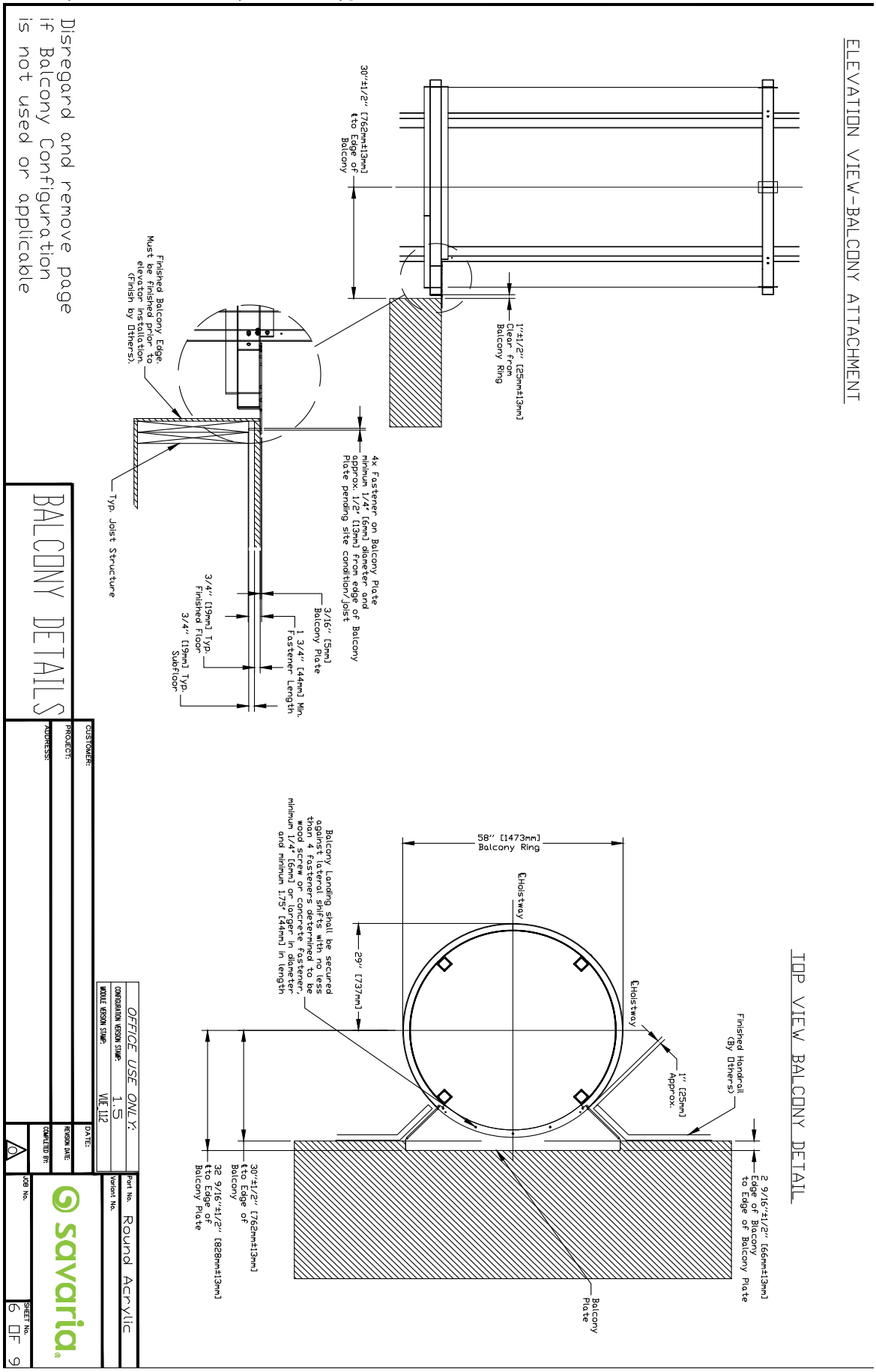


Figure 11: Elevation view - round acrylic (RAM) type 1, 2 or 3

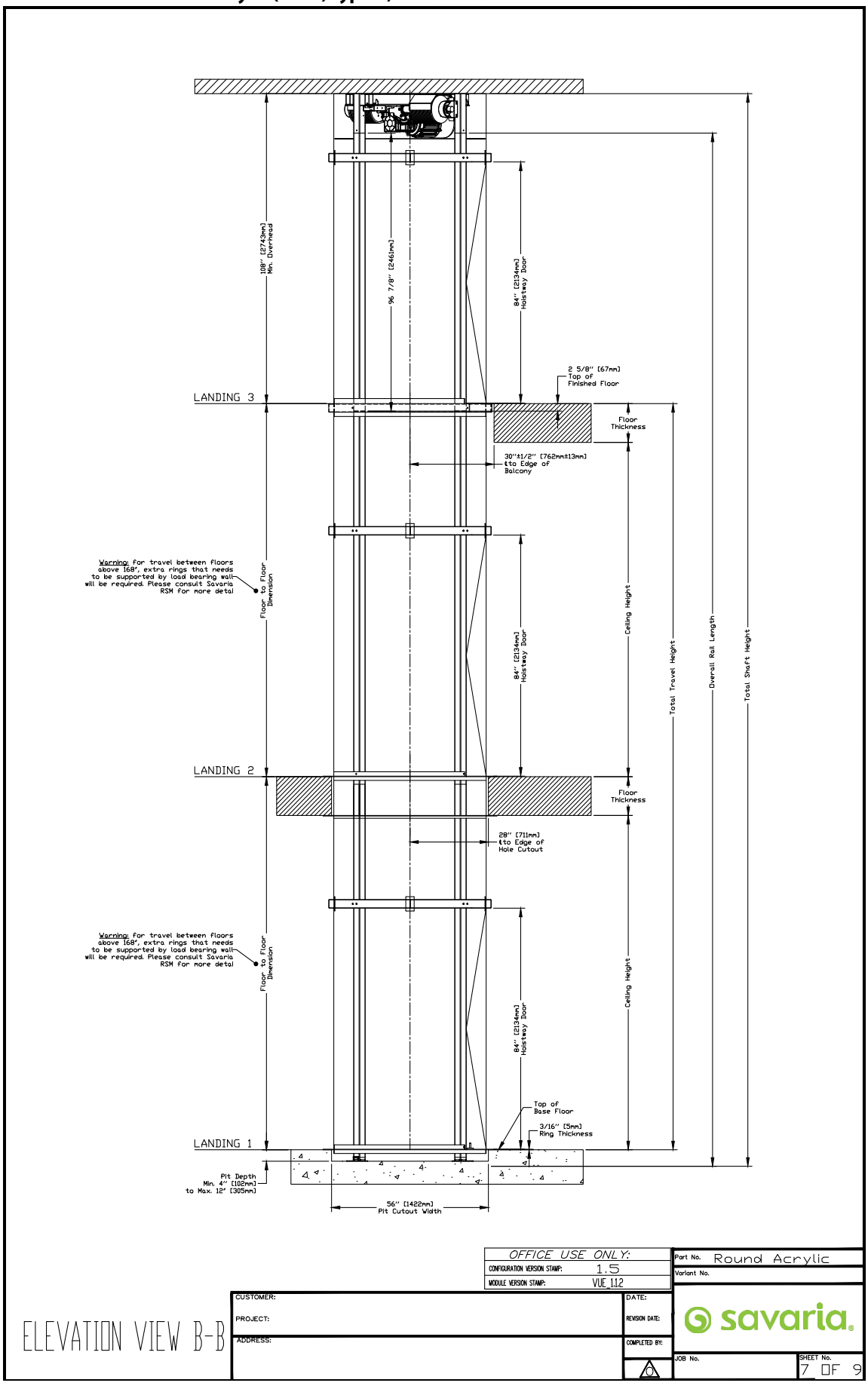


Figure 12: Pit cutout detail - round acrylic (RAM) type 1, 2 or 3

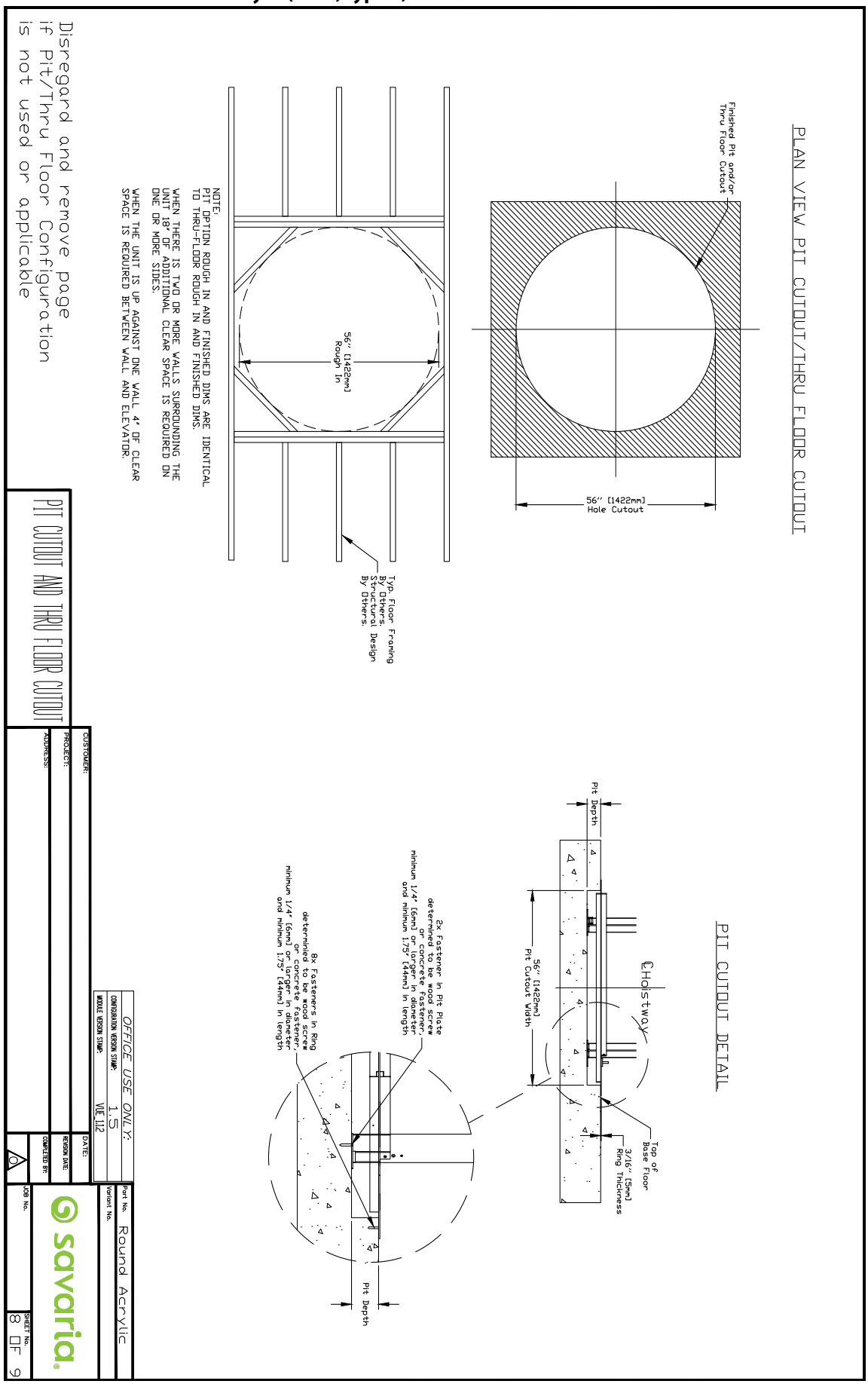


Figure 13: Datasheet - round acrylic (RAM) type 1, 2 or 3

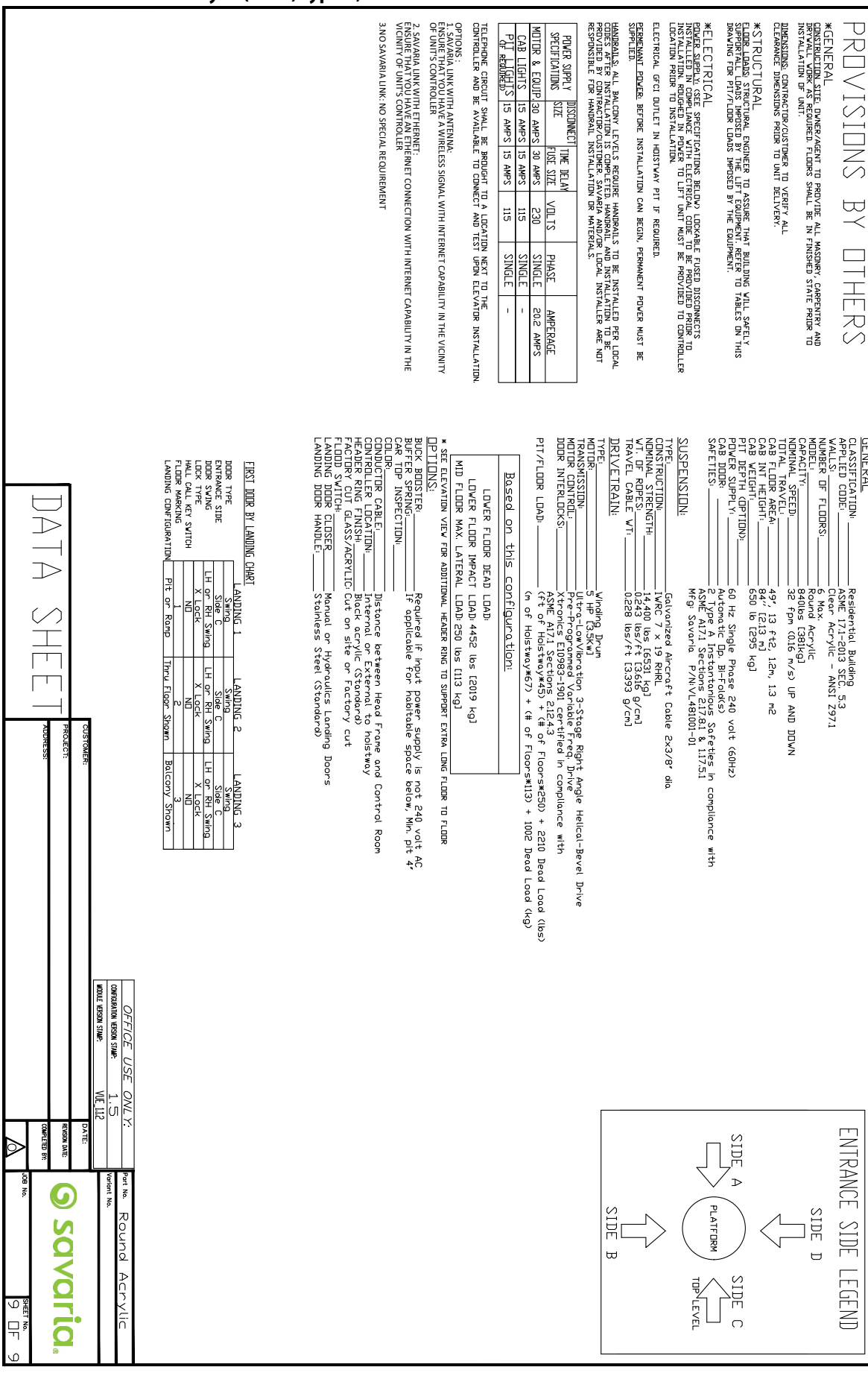


Figure 14: Machine room layout and wire routing - round acrylic (RAM) type 1, 2 or 3

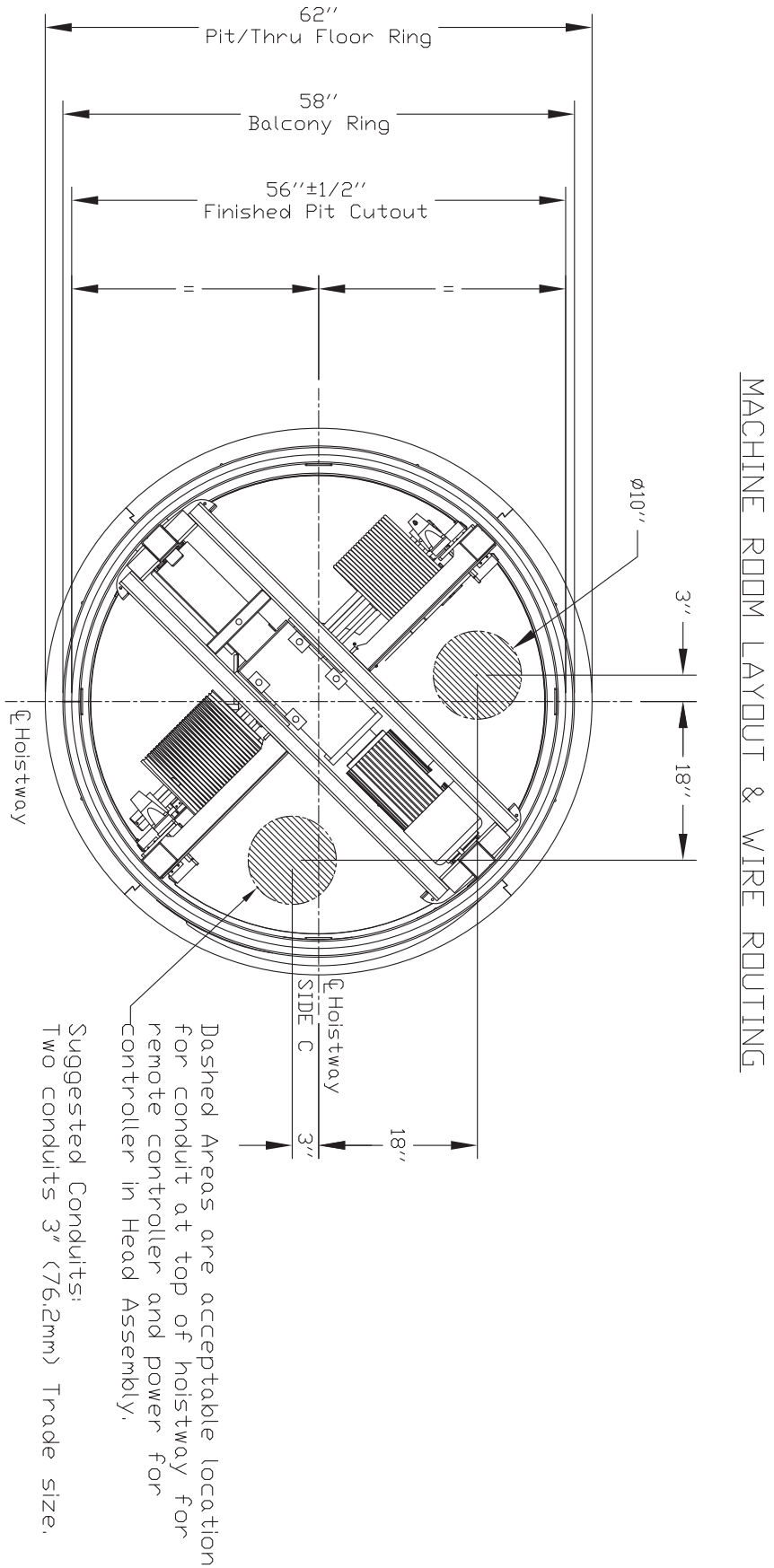
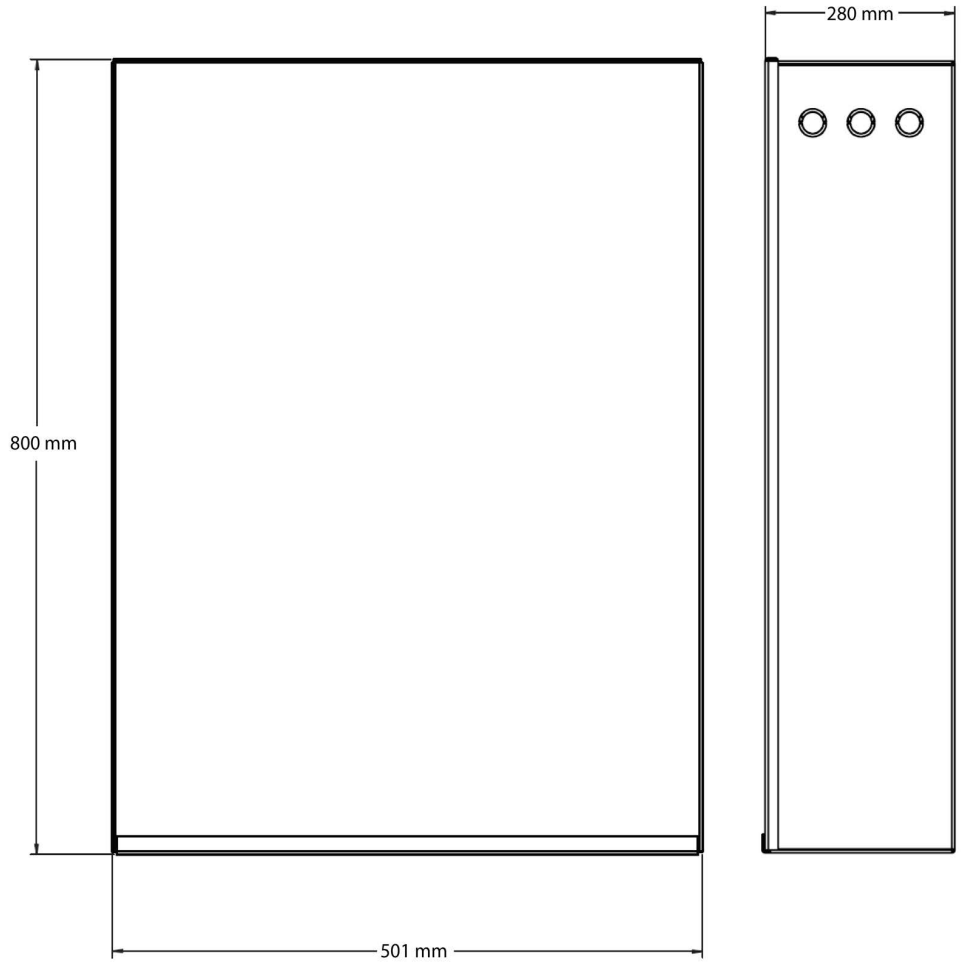


Figure 15: Controller box dimensions- round acrylic (RAM) type 1, 2 or 3



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: 950 lb (432 kg)
Maximum travel	50 ft (15.24 m); 55 ft (16.76 m) where a variance is possible
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	108" (2743mm) for 84" (2130mm) cab 104" (2641mm) for 80" (2032mm) cab 96" (2438mm) for 76.5" (1943mm) cab
Cab	Cab walls: Full clear acrylic or silica glass Cab interior height (standard): 84 in (2.13 m) Cab interior height (optional): 80in (2.03 m) Cab interior height: 76.5in (1.94 m) Cab weight (acrylic): 650 lb (295 kg) Cab weight (silica glass): 1050 lb (476 kg) Cab floor area: 12 sq ft (1.2 sq m)
Floor by others (in cab)	3/4" (19 mm) maximum
Footprint	Octagonal acrylic medium: 47.8" x 47.8" (1.21 m x 1.21 m) Octagonal glass medium: 49" x 49" (1.24 m x 1.24 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: 5.0HP (3.5 KW) with integrated brake Transmission: low vibration, worm gear drive Motor control: Preprogrammed variable frequency drive Door interlocks: Xtronics
Pit/floor load	Refer to the section “Load Calculations”
Distance between 2 landings	93.5" (2375 mm) minimum
Pit depth	4" - 12" (102 mm - 305 mm) No pit with optional short ramp

Specification	Specification Data
Temperature operating range (environment)	- 10°C to + 40°C / 14°F to 104°F **NOTE**: For optimal running conditions, each landing of the unit should be in a climate-controlled environment.
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	Optional configurations: Type 2, 3R, 6 Optional cab wall and hoistway: Acrylic or low-iron silica glass Optional colors: • White (Texture White PX521W859) • Silver (Texture Silver PX521S343) • Custom powder-coat frame Note that Black is the standard color (Texture Black PX622N365) Other options: Up to 6 stops, balcony attachment Savaria Link remote monitoring (Vuelift Micro-6 only) Landing door handle painted to match unit Top header ring in sheet metal painted to match unit

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 30 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, 30 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, 30 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, 30 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, 30 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

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 Ethernet 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 Wireless 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

- 108'' (2743mm) for 84'' (2133mm) cab minimum overhead distance from upper floor level to the underside of the finished ceiling for standard cab configuration. (standard)
- 104'' (2641 mm) for 80'' (2032 mm) cab minimum overhead distance from upper floor level to the underside of the finished ceiling for modified short cab configuration. (optional)
- 96'' (2438 mm) for 76.5'' (1943 mm) cab minimum overhead distance from upper floor level to the underside of the finished ceiling for silica glass model. (short)

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 250 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 (lbs) = (45 x feet of hoistway) + (250 x number of floors) + 2210 lbs

  Lower Floor Dead Load (Kg) = (67 x meter of hoistway) + (113 x number of floors) + 1002 Kg

  Lower Floor Impact Load (lbs) = 4452 lbs (2019 Kg)

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

  Mid Floor Load (lbf) = 250lbs (113kg)

  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.*

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.
- All mid floors including the bottom floor may be subjected to a maximum lateral load of 250 lb.
- 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 (lbs) = (104 x feet of hoistway) + (365 x number of floors) + 2671 lbs

  Lower Floor Dead Load (Kg) = (155 x meter of hoistway) + (166 x number of floors) + 1211 Kg

  Lower Floor Impact Load (lbs) = 8350 lbs (3787 Kg)

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

  Mid Floor Load (lbf) = 250 lbs (113kg)

  Shipping Weight (lb) = (1515 x number of floors) + 1804

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

  Note: *These equations are based on ACTUAL weight values and contain NO safety factors for floor loading.*

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	6, 349.21

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

Octagonal Acrylic (OAM)

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

Octagonal Glass (OGM)

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

Model Specifications – Octagonal

Octagonal (Acrylic)

- Capacity: 381kg (840 lb)
- Cab Size: 1.2 sqm (12 sq. ft.)
- Clear Cab Size: 1118w x 1070d (44 x 42.13 in.)
- Cab Height: 2134mm (84 in.)
- Hoistway Footprint
  - Acrylic: 1214 x 1214mm (47.8 x 47.8 in.)
  - Pit/Thru Floor Cutout: 1260 x 1260mm (49.63 x 49.63 in.)
  - Balcony/Header Ring: 1304 x 1304mm (51.38 x 51.38 in.)
  - Pit/Thru Floor Ring: 1407 x 1407mm (55.38 x 55.38 in.)
- Minimum Overhead Clearance: 2743mm (108 in.) for 2133 mm (84 in) cab
- Minimum Overhead Clearance: 2641 mm (104 in.) for 2032 mm (80 in.) cab

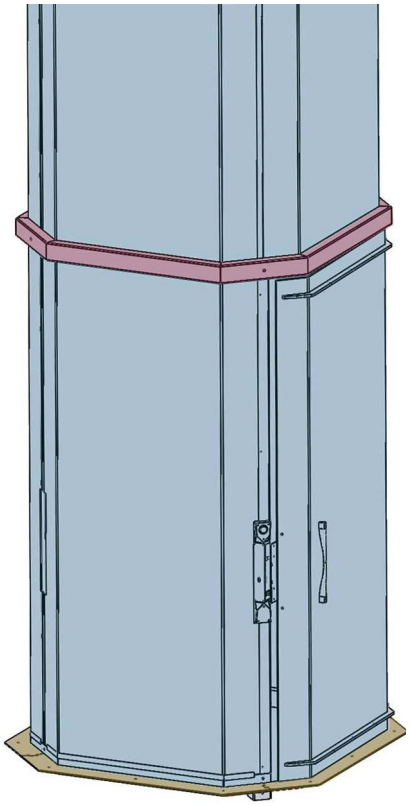


Figure 16: Plan view - octagonal acrylic (OAM) type 1

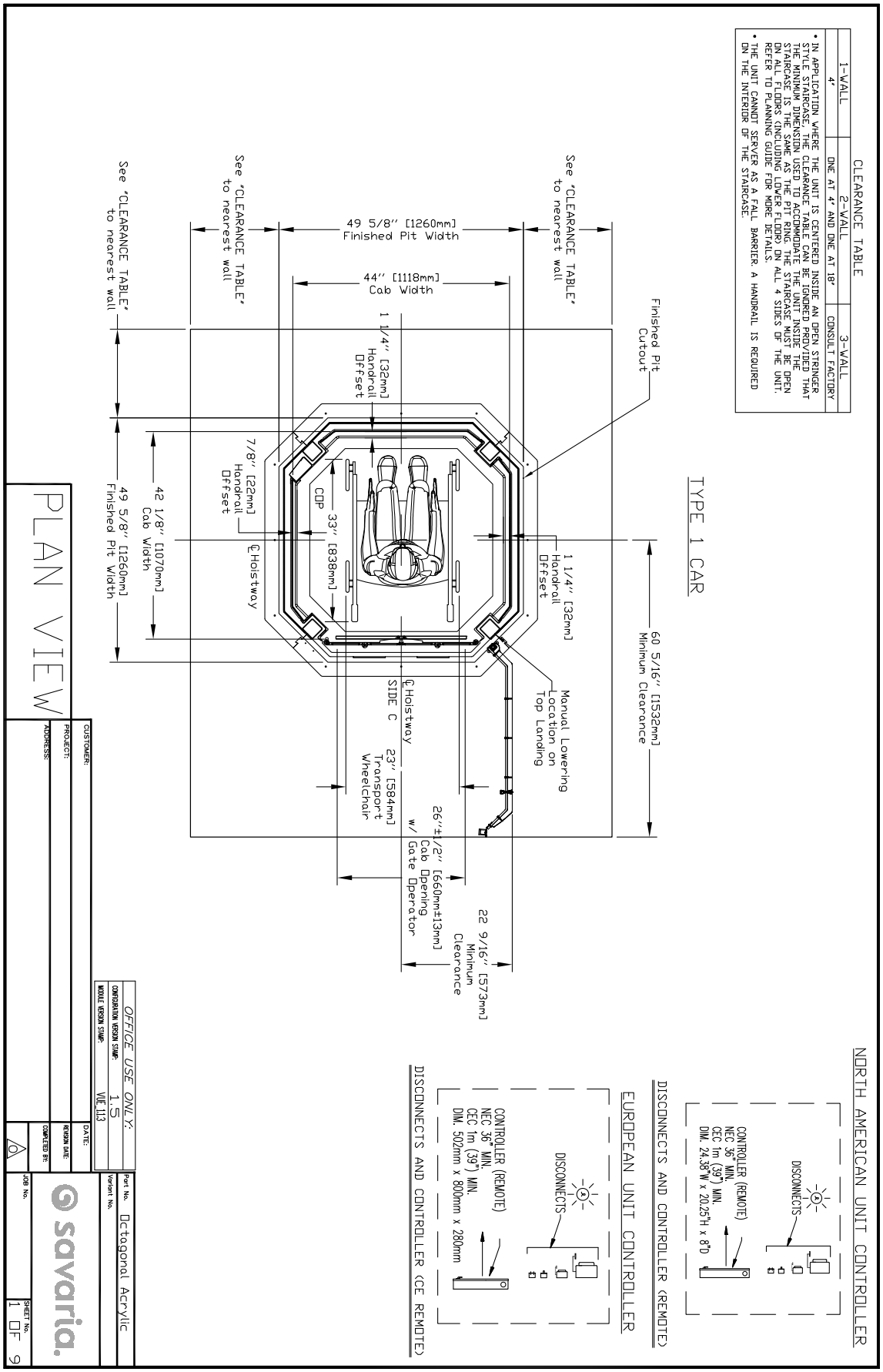


Figure 17: Plan view - octagonal acrylic (OAM) type 2

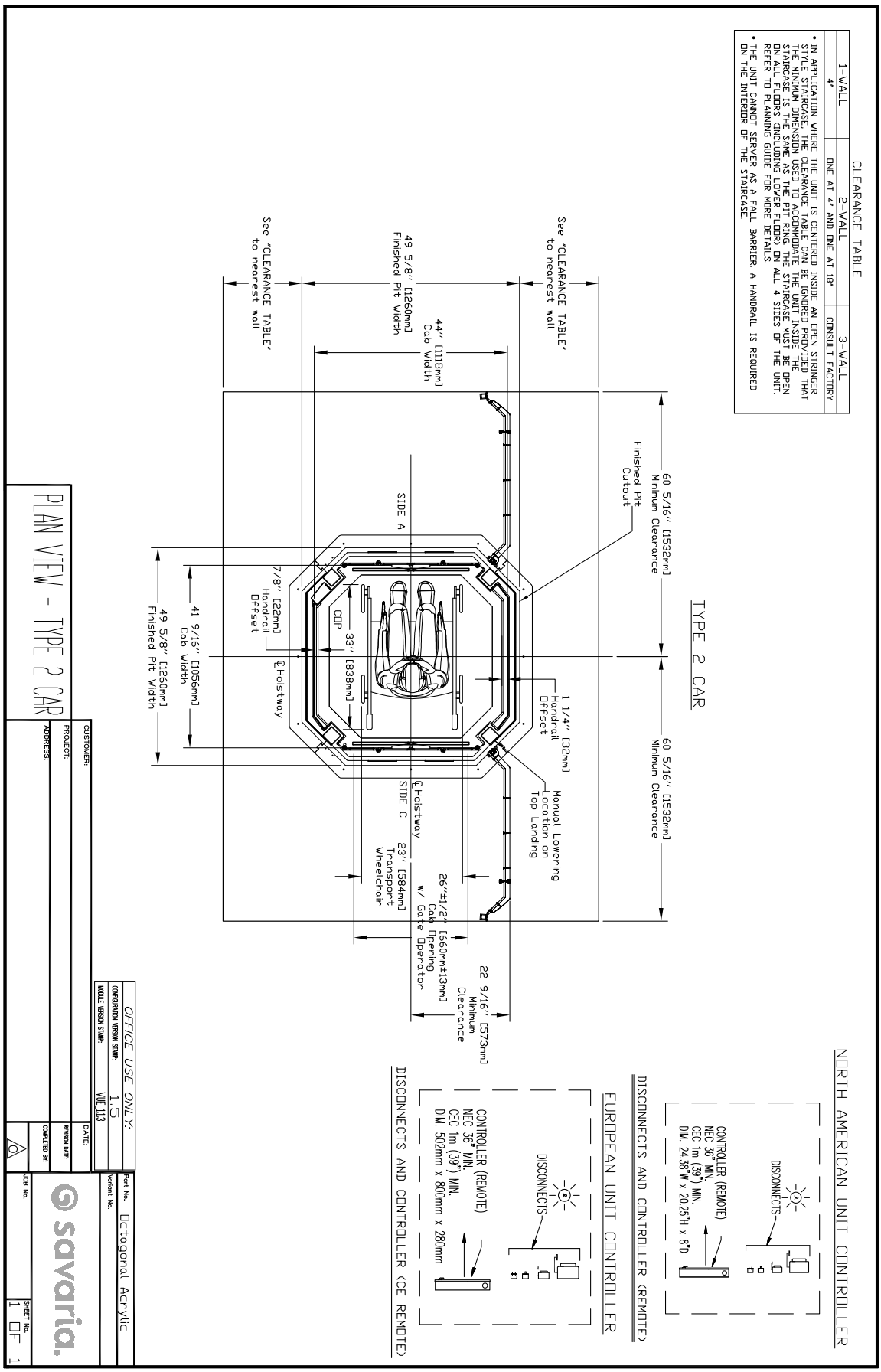


Figure 18: Plan view - octagonal acrylic (OAM) type 3

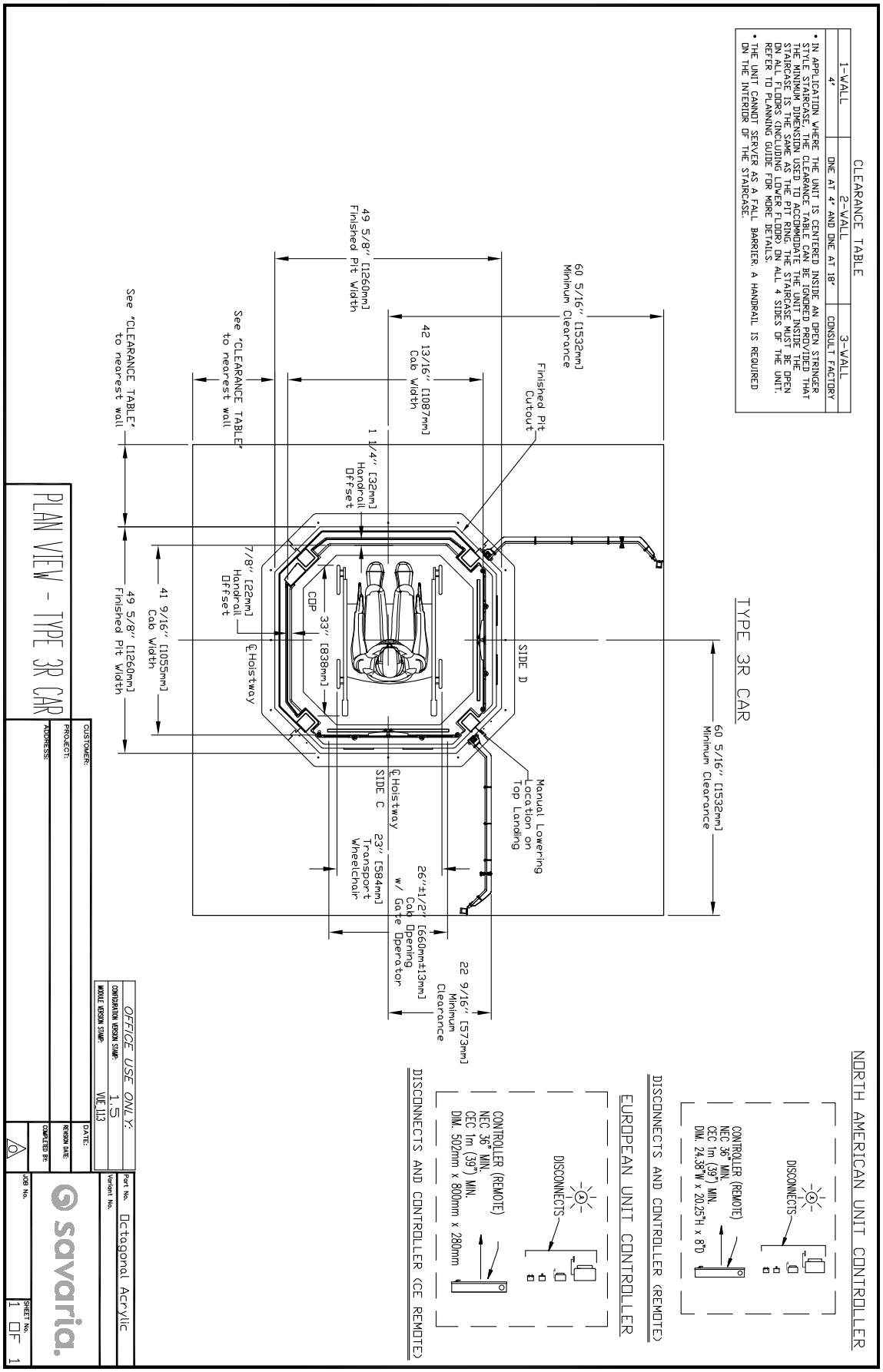


Figure 19: Pit view - octagonal acrylic (OAM) type 1, 2 or 3

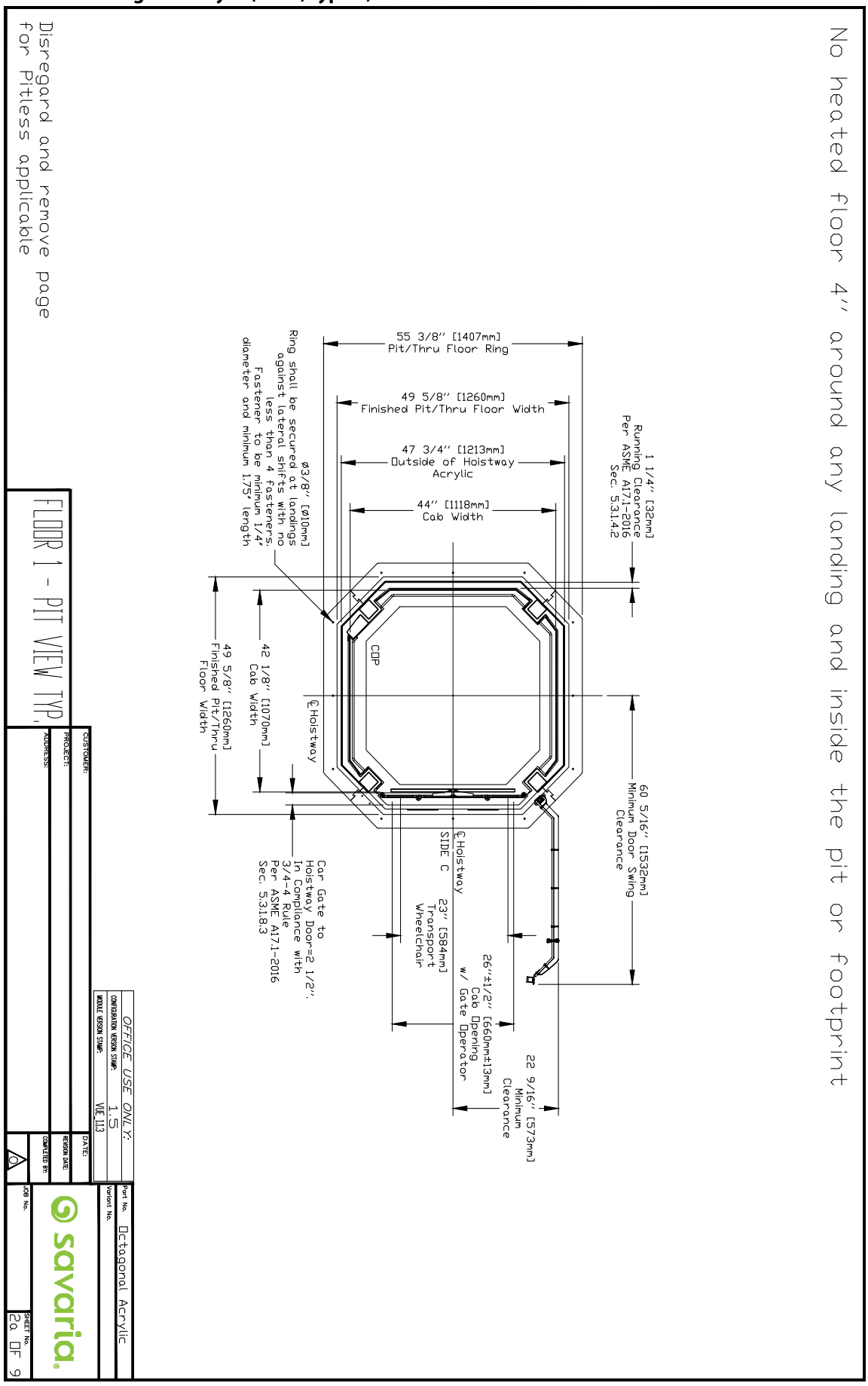


Figure 20: Base mount details- octagonal acrylic (OAM) type 1, 2 or 3

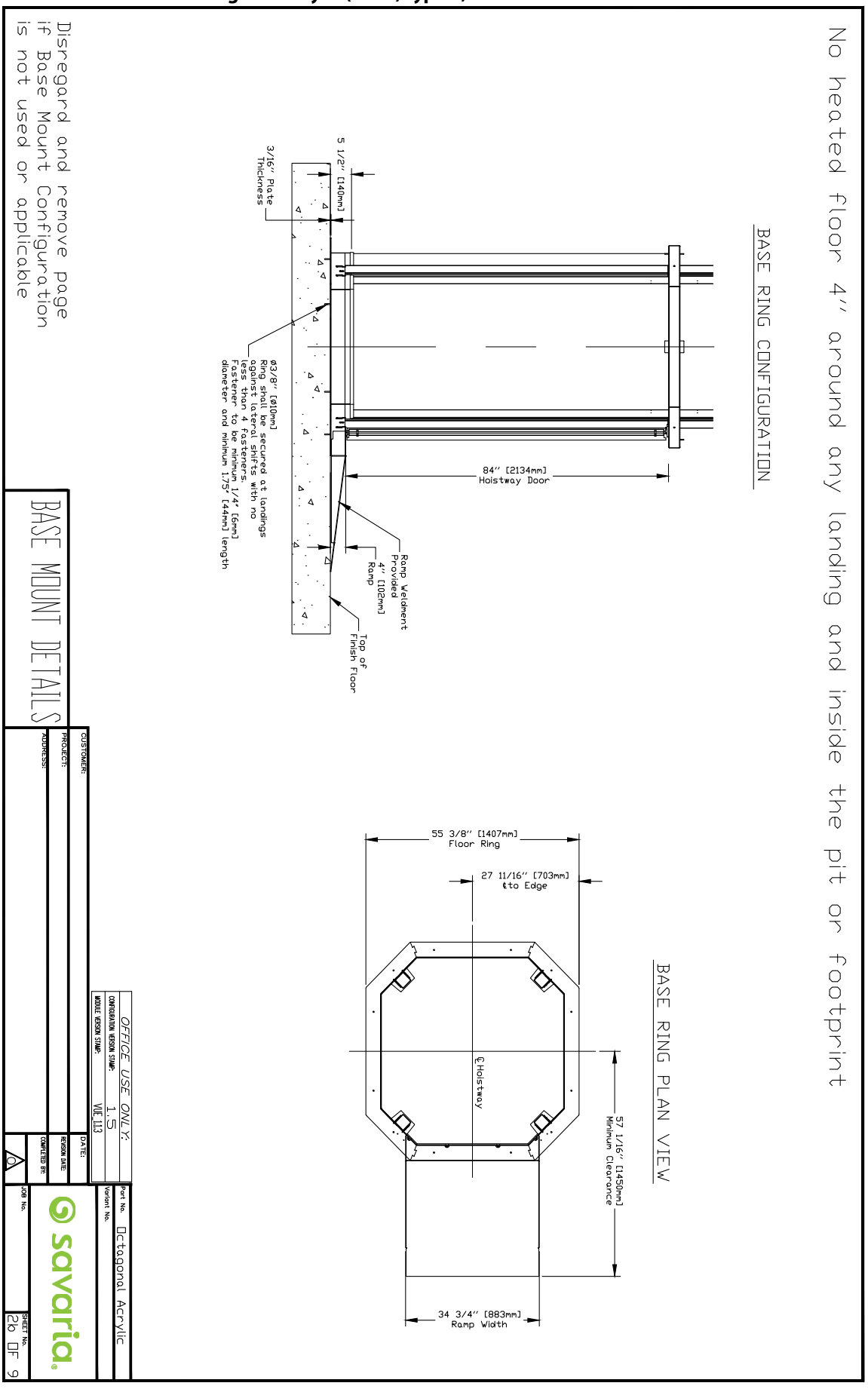


Figure 21: Thru-floor view- octagonal acrylic (OAM) type 1, 2 or 3

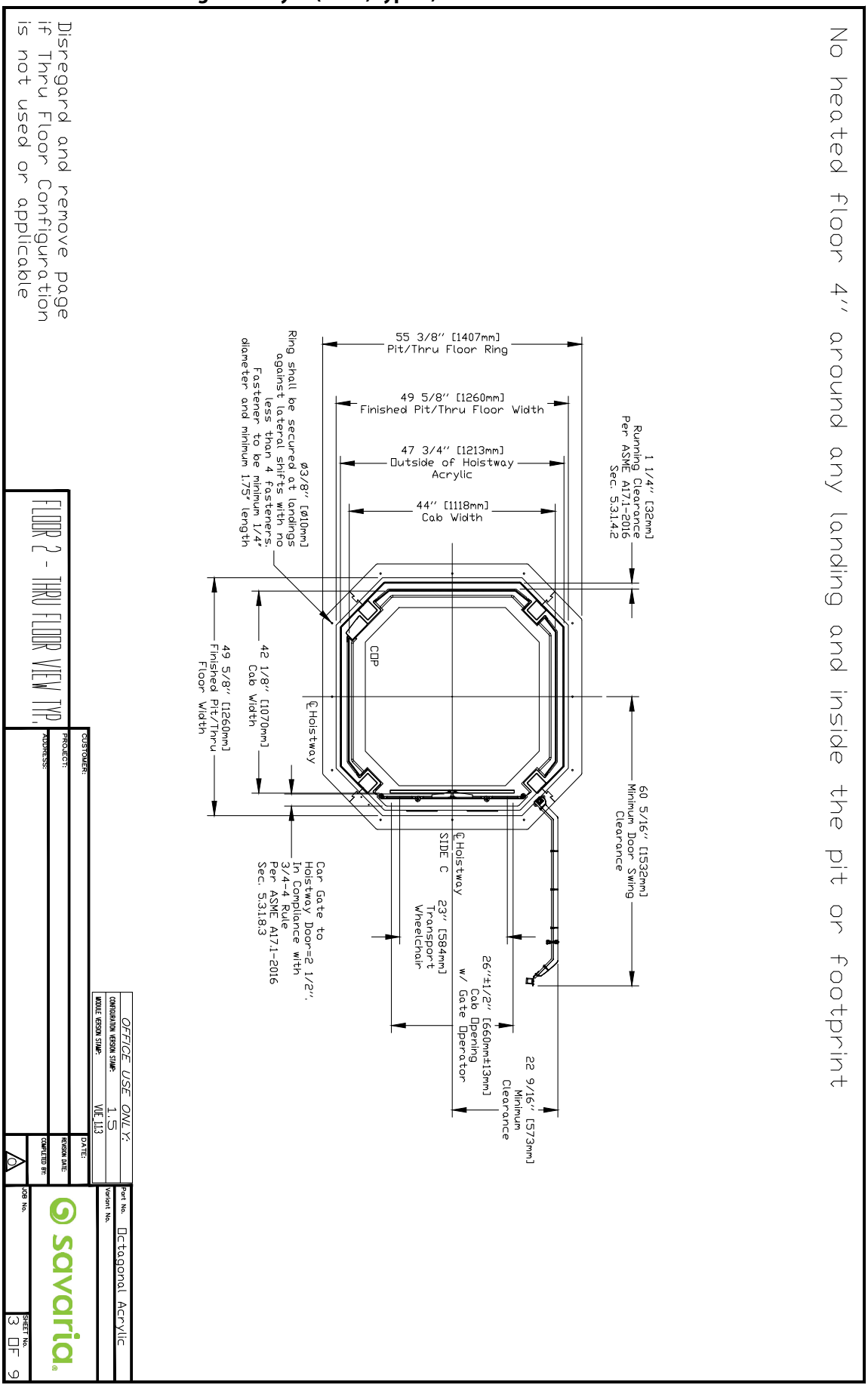


Figure 22: Balcony view - octagonal acrylic (OAM) type 1, 2 or 3

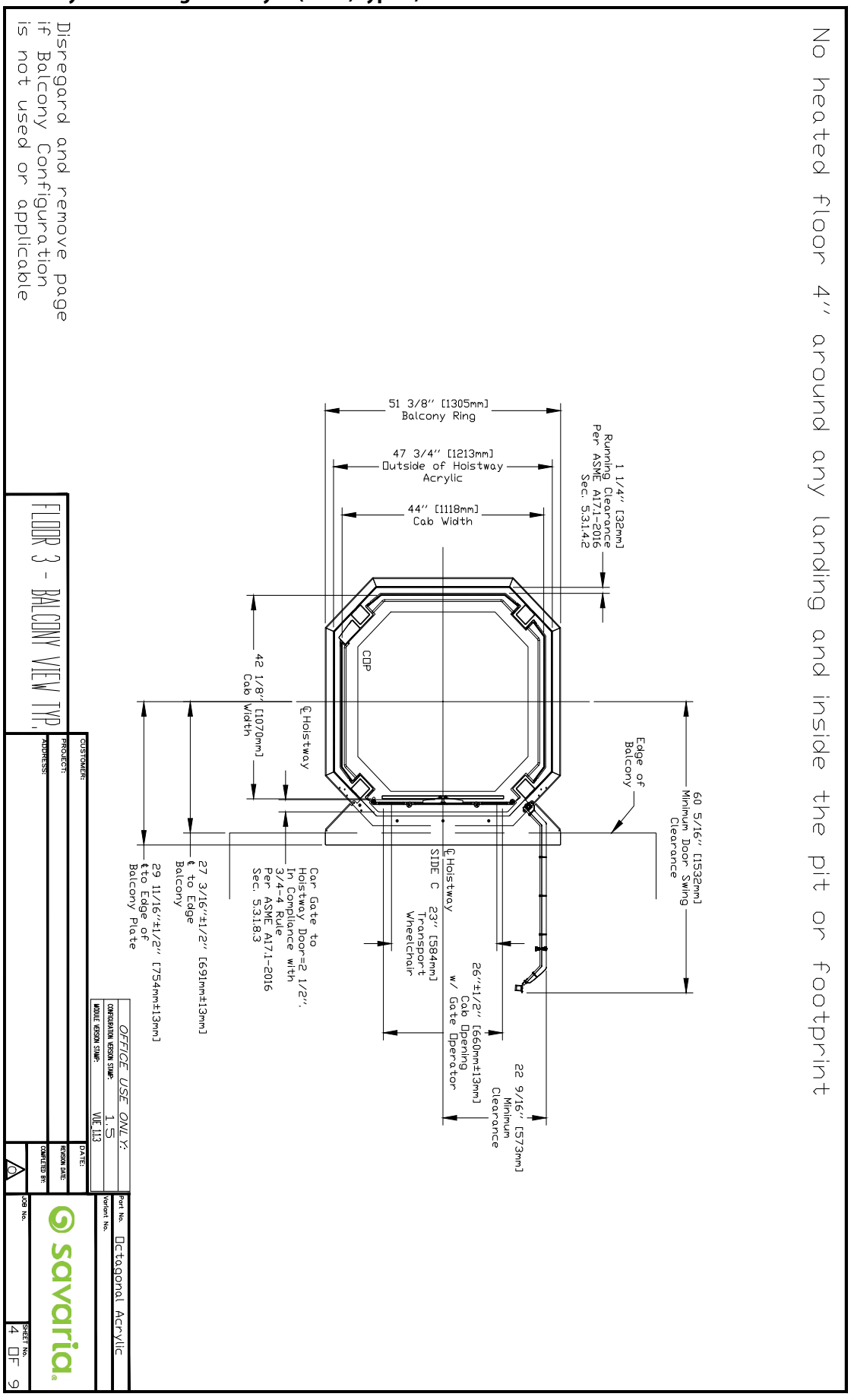
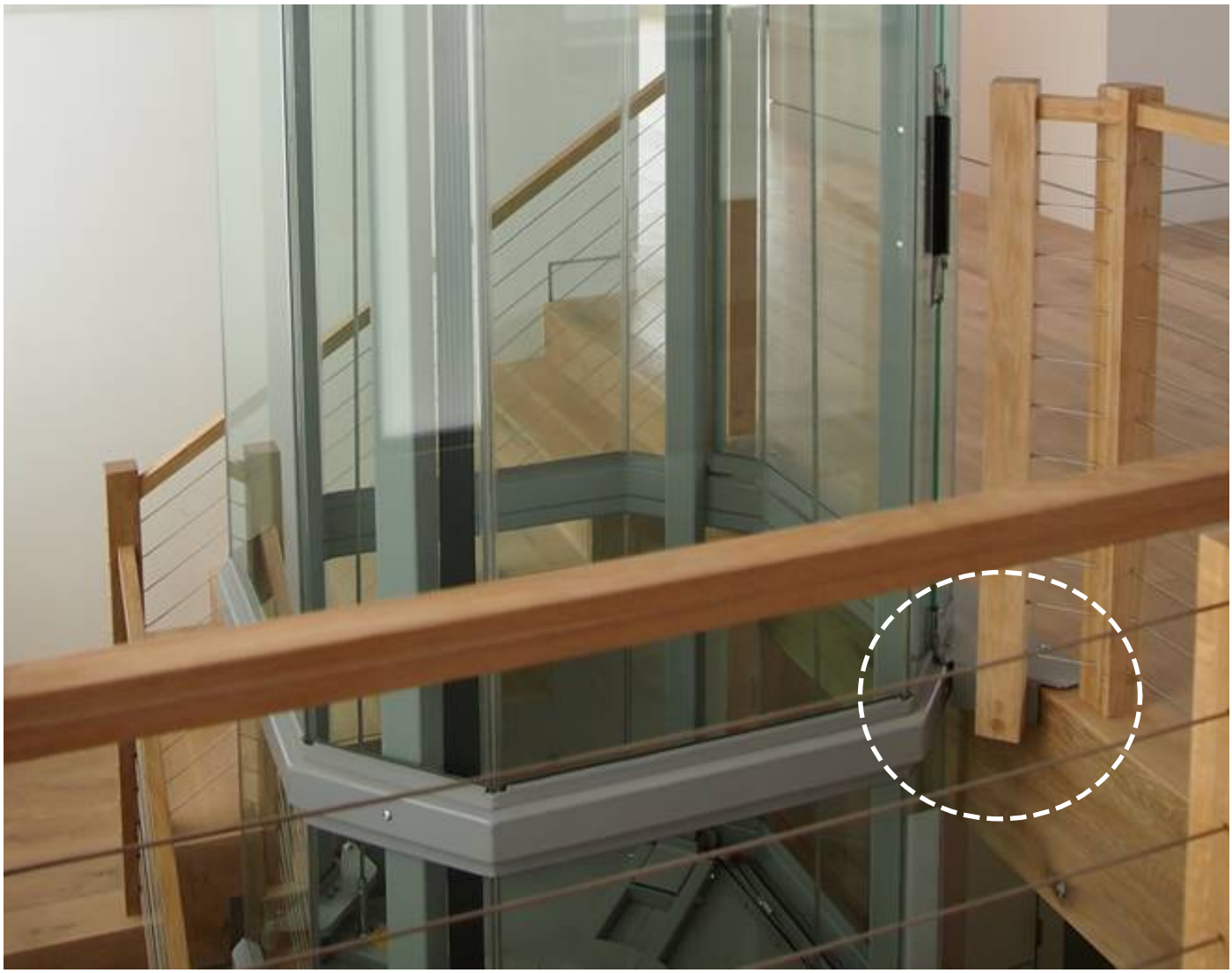


Figure 23: Balcony plate and handrail information - octagonal acrylic (OAM) type 1 shown



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 IS 1" (25.4 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 24: Thru-floor details - octagonal acrylic (OAM) type 1, 2 or 3

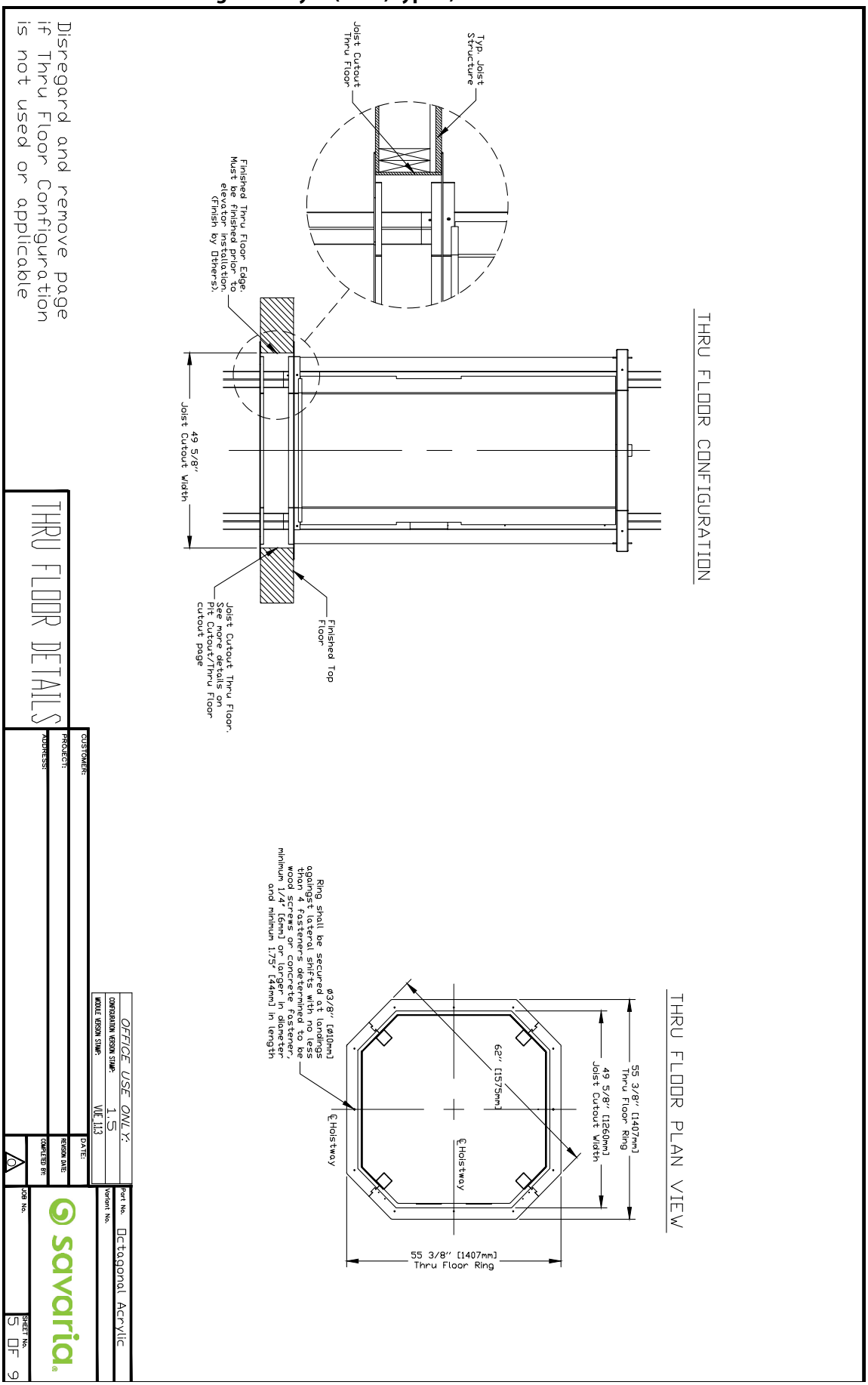


Figure 25: Balcony details - octagonal acrylic (OAM) type 1, 2 or 3

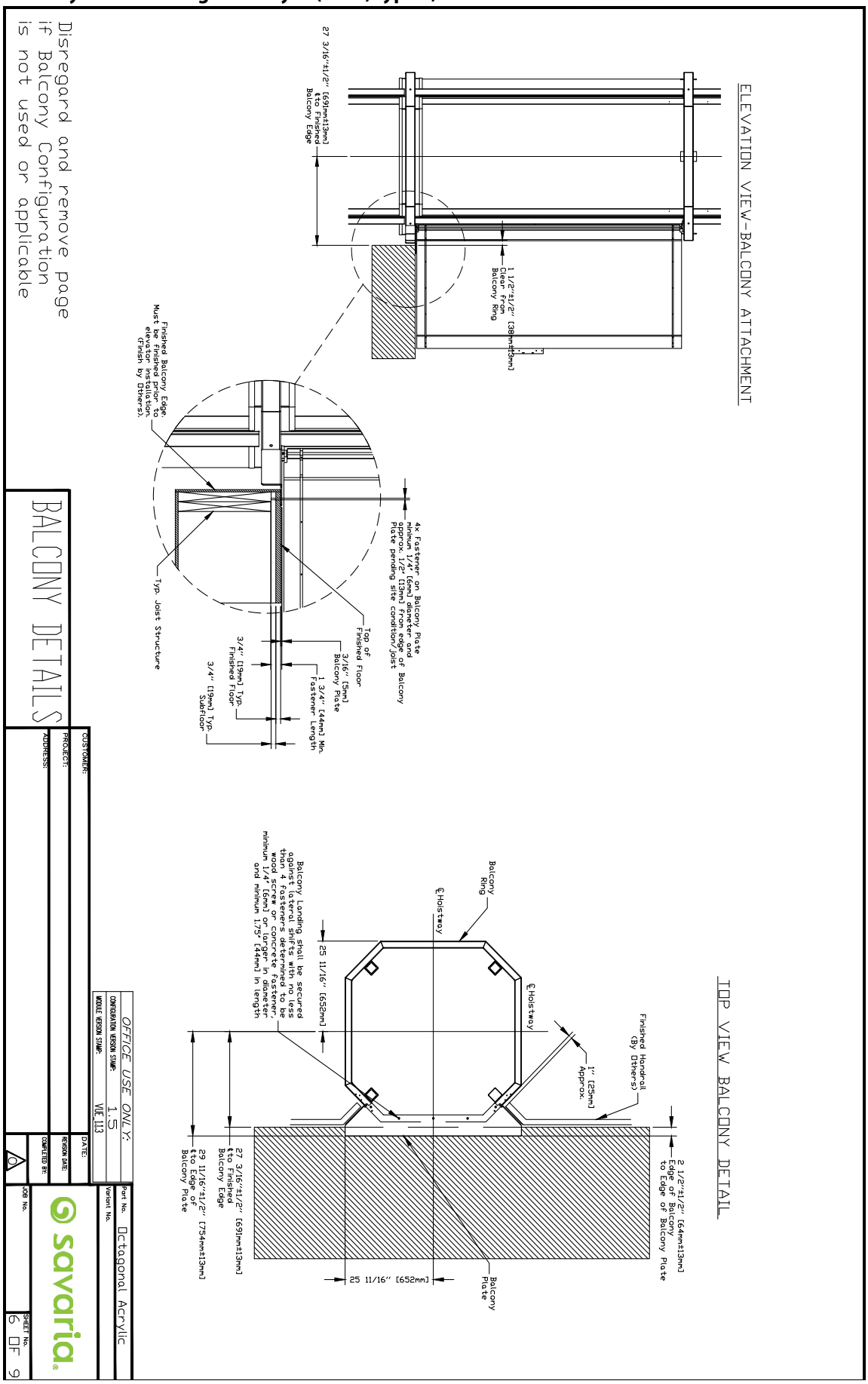


Figure 26: Elevation view - octagonal acrylic (OAM) type 1, 2 or 3

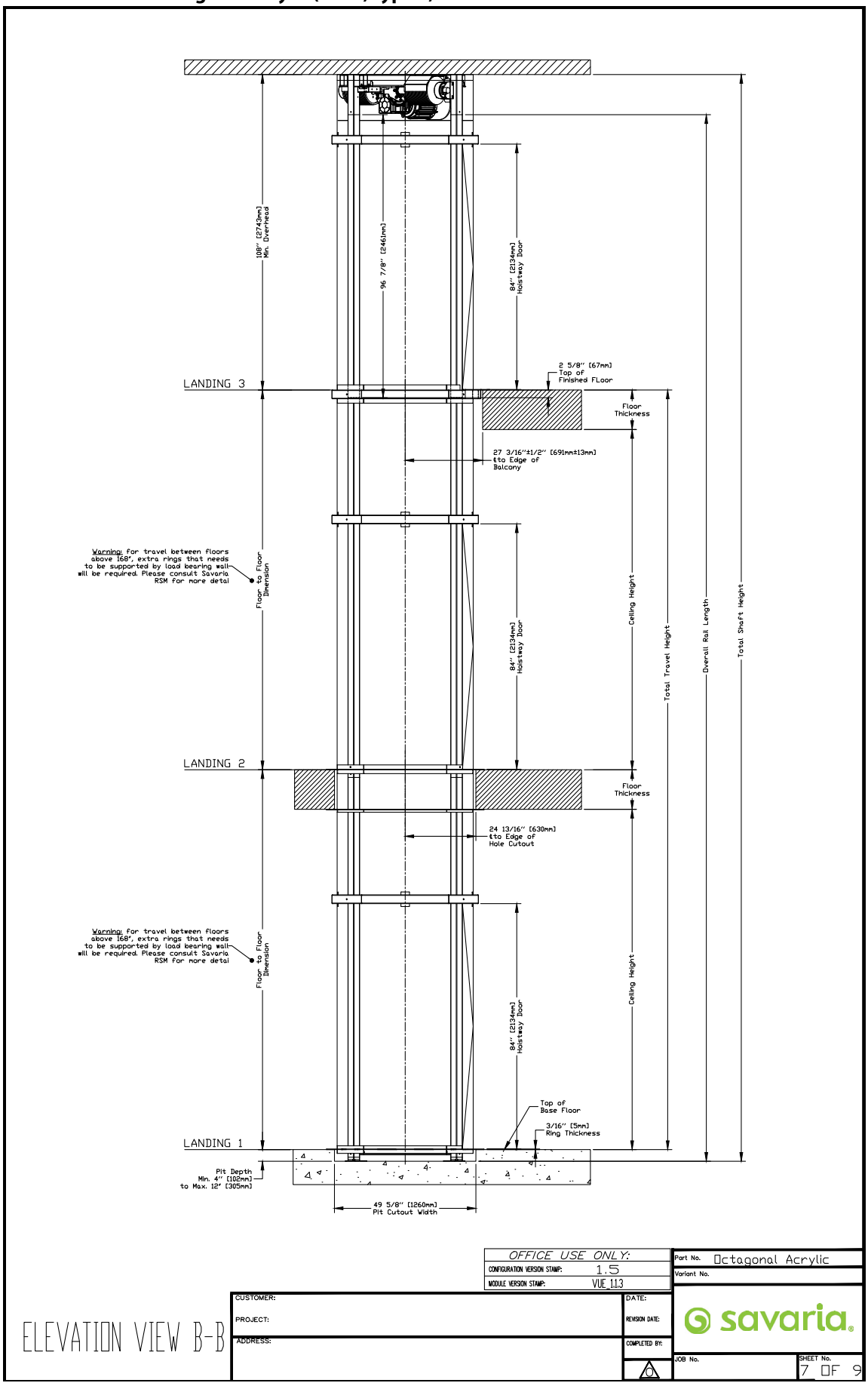


Figure 27: Pit cutout/thru-floor cutout - octagonal acrylic (OAM) type 1, 2 or 3

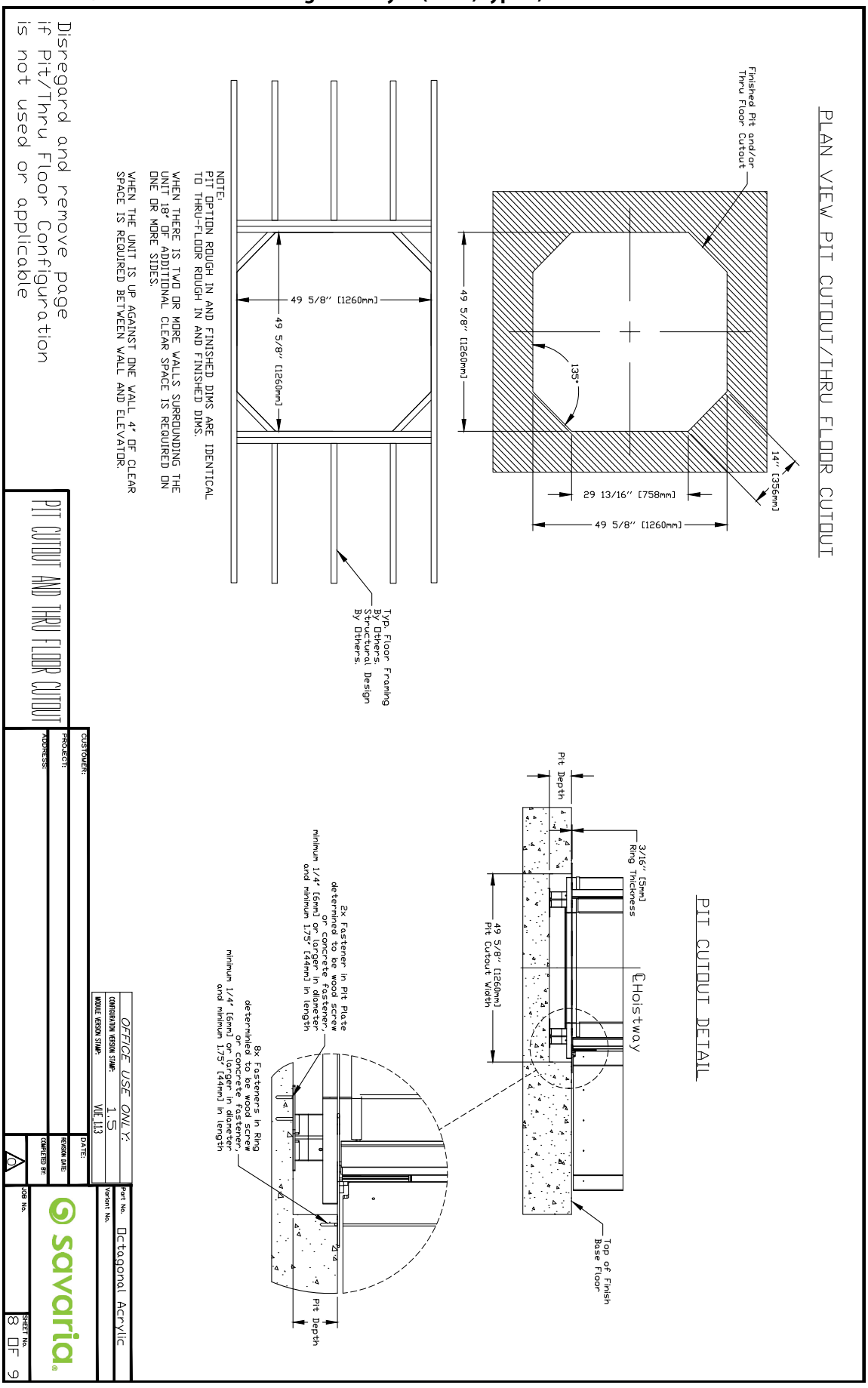


Figure 28: Datasheet - octagonal acrylic (OAM) type 1, 2 or 3

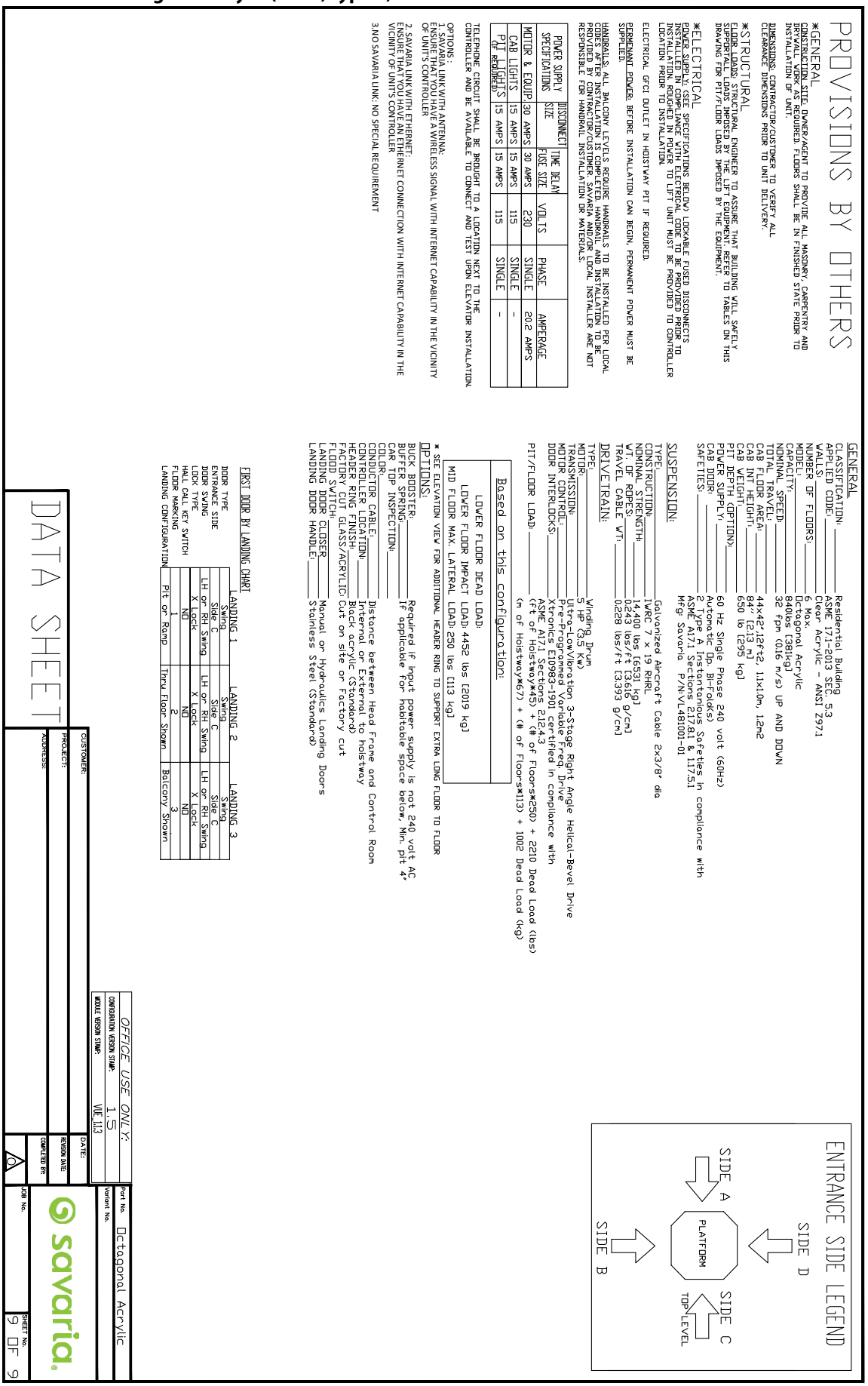
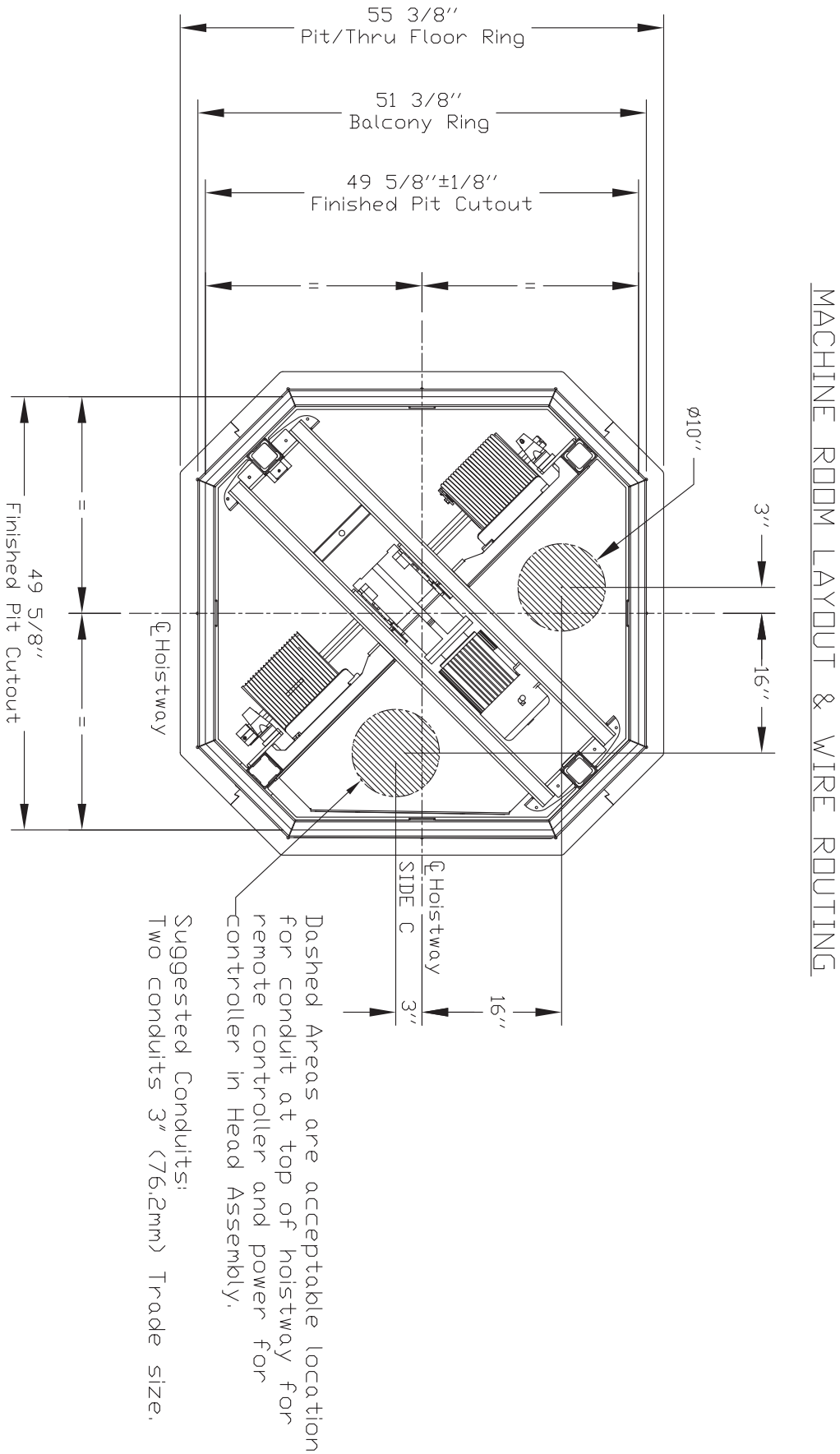


Figure 29: Machine room layout and wire routing - octagonal acrylic (OAM) type 1, 2 or 3



Model Specifications – Octagonal

Octagonal (Glass)

- Capacity: 432kg (950 lb)
- Cab Size: 1.2 sqm (12 sq. ft.)
- Clear Cab Size: 1087w x 1073d (42.8 x 42.25 in.)
- Cab Height: 2134mm (84 in.)
- Hoistway Footprint
  - Glass: 1244 x 1244mm (49 x 49 in.)
  - Pit/Thru Floor Cutout: 1260 x 1260mm (49.63 x 49.63 in.)
  - Balcony/Header Ring: 1304 x 1304mm (51.38 x 51.38 in.)
  - Pit/Thru Floor Ring: 1407 x 1407mm (55.38 x 55.38 in.)
- Minimum Overhead Clearance: 2743mm (108 in.) for 2133 mm (84 in) cab
- Minimum Overhead Clearance: 2641 mm (104 in.) for 2032 mm (80 in.) cab

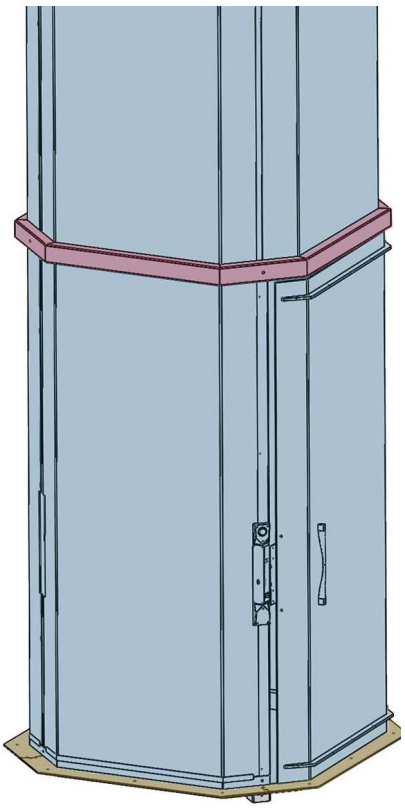


Figure 30: Plan view - octagonal glass (OGM) type 1

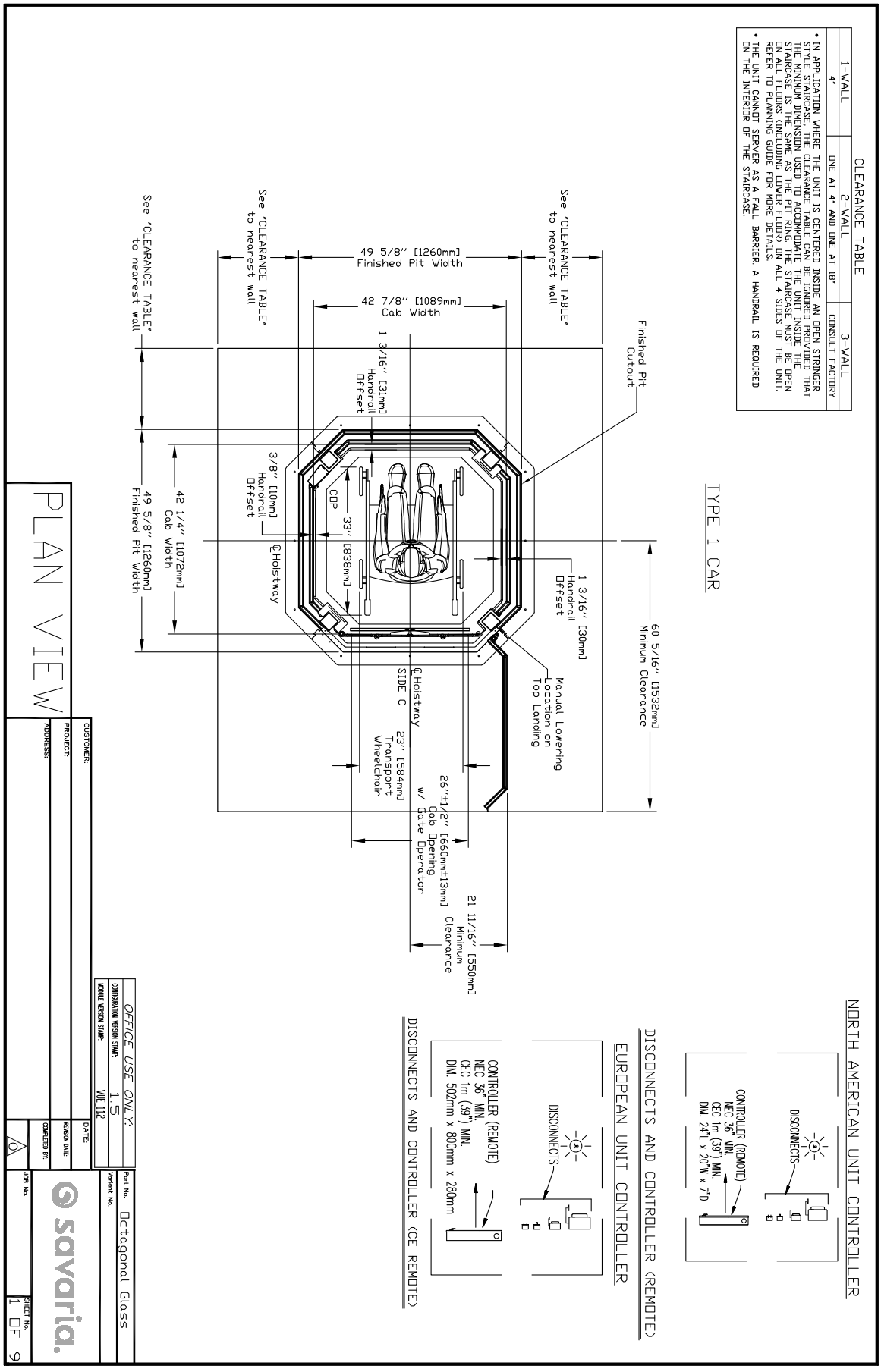


Figure 31: Plan view - octagonal glass (OGM) type 2

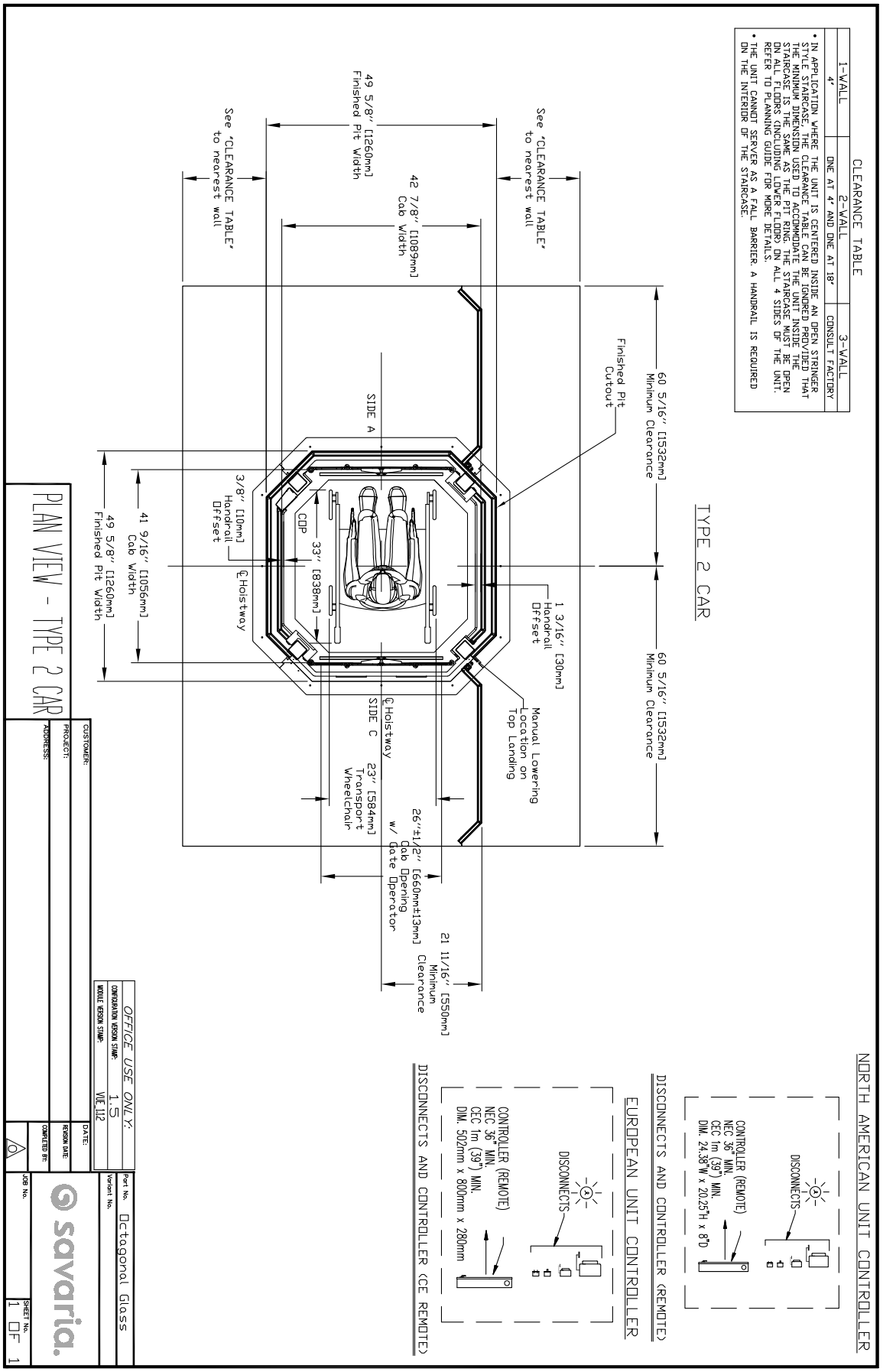


Figure 32: Plan view - octagonal glass (OGM) type 3

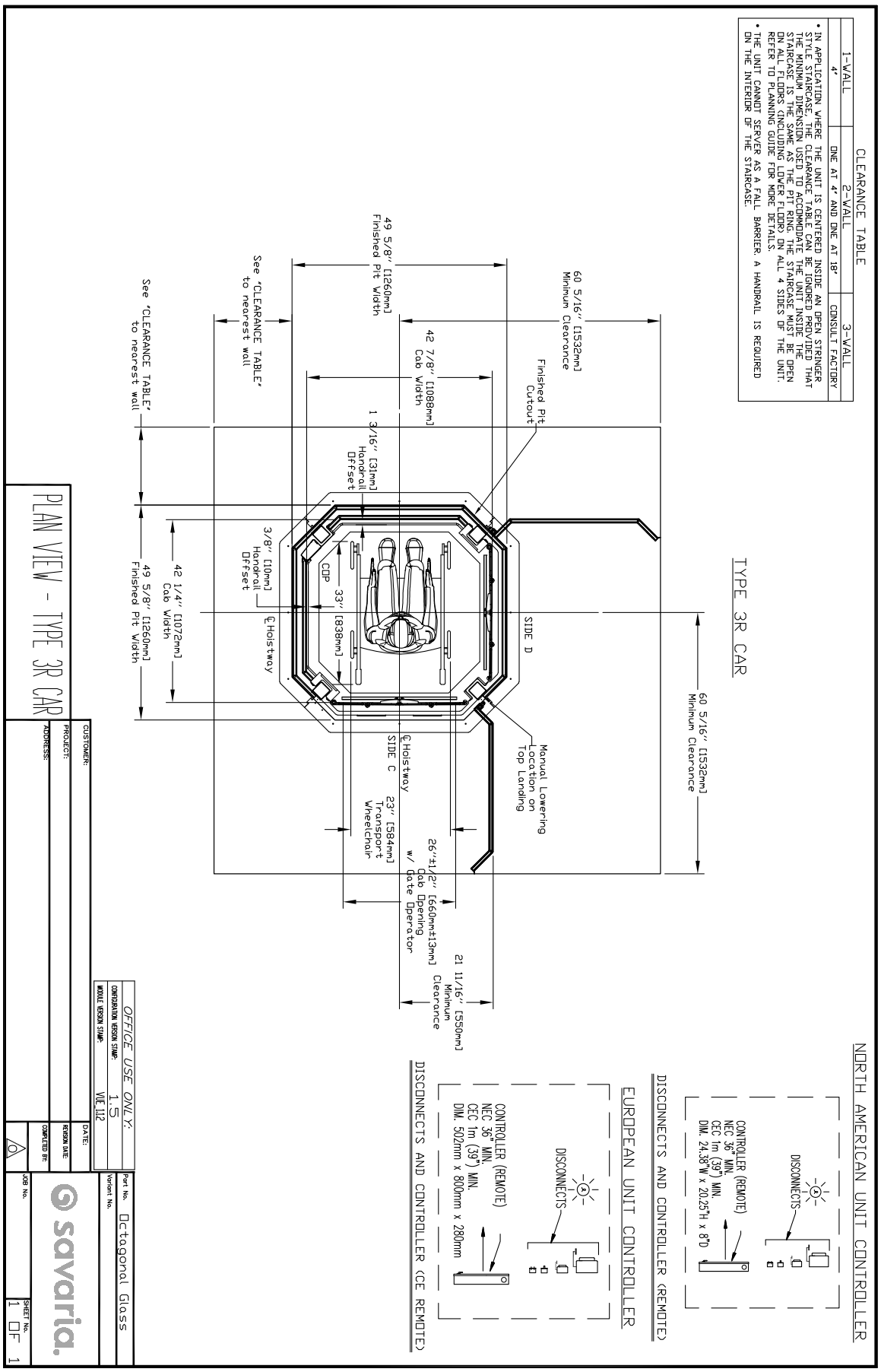


Figure 33: Pit view - octagonal glass (OGM) type 1, 2 or 3

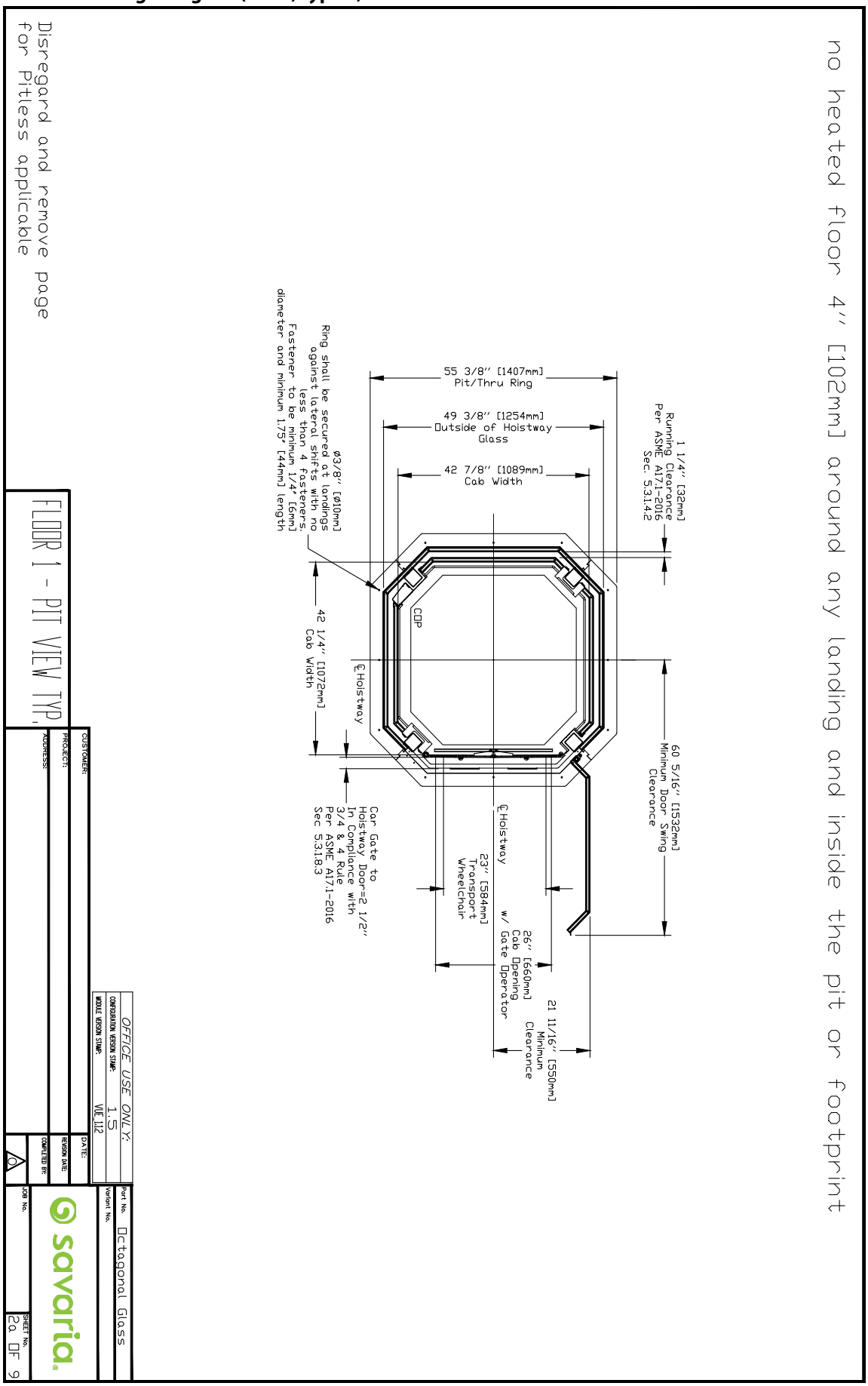


Figure 34: Base mount details- octagonal glass (OGM) type 1, 2 or 3

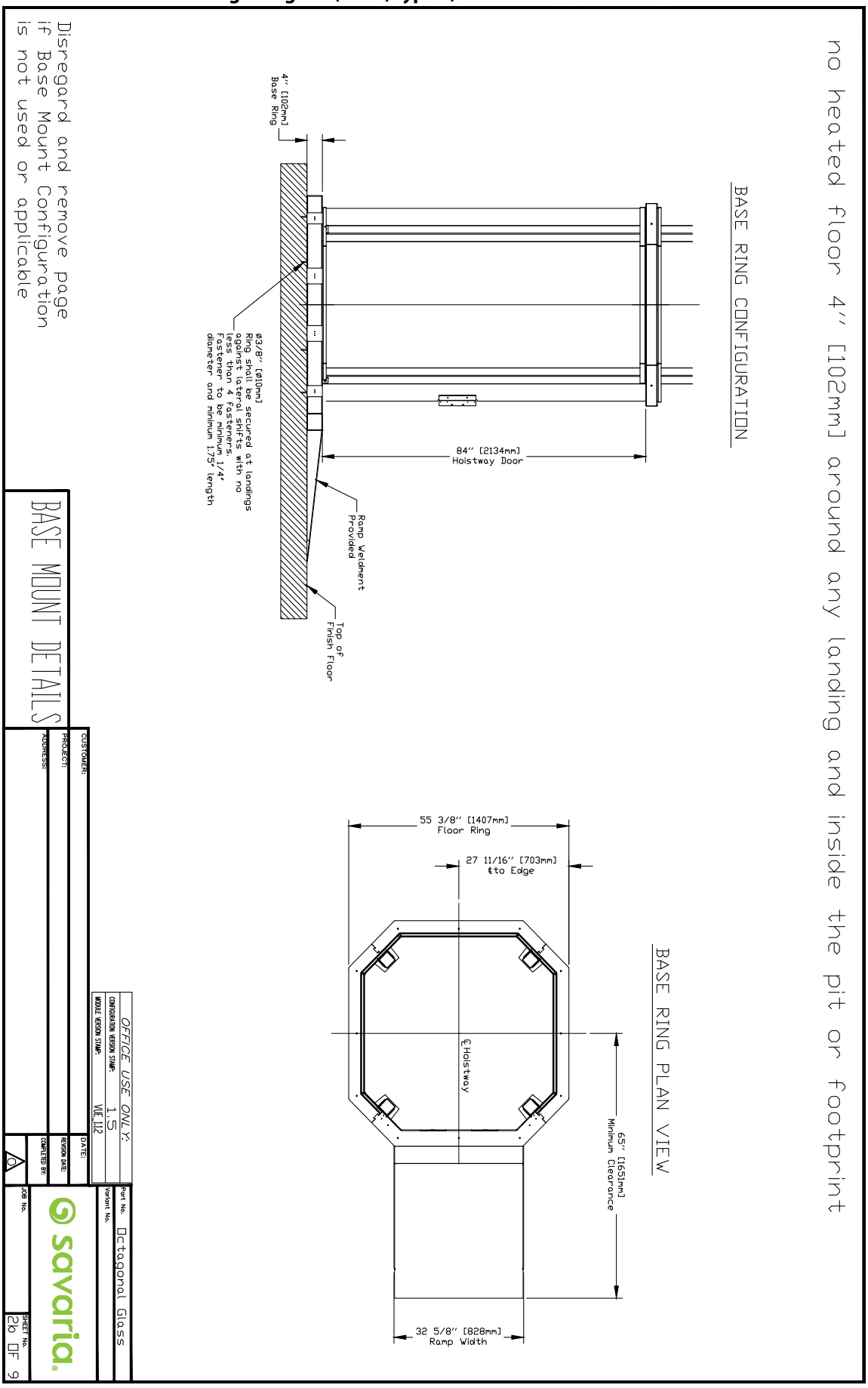


Figure 35: Thru-floor view - octagonal glass (OGM) type 1, 2 or 3

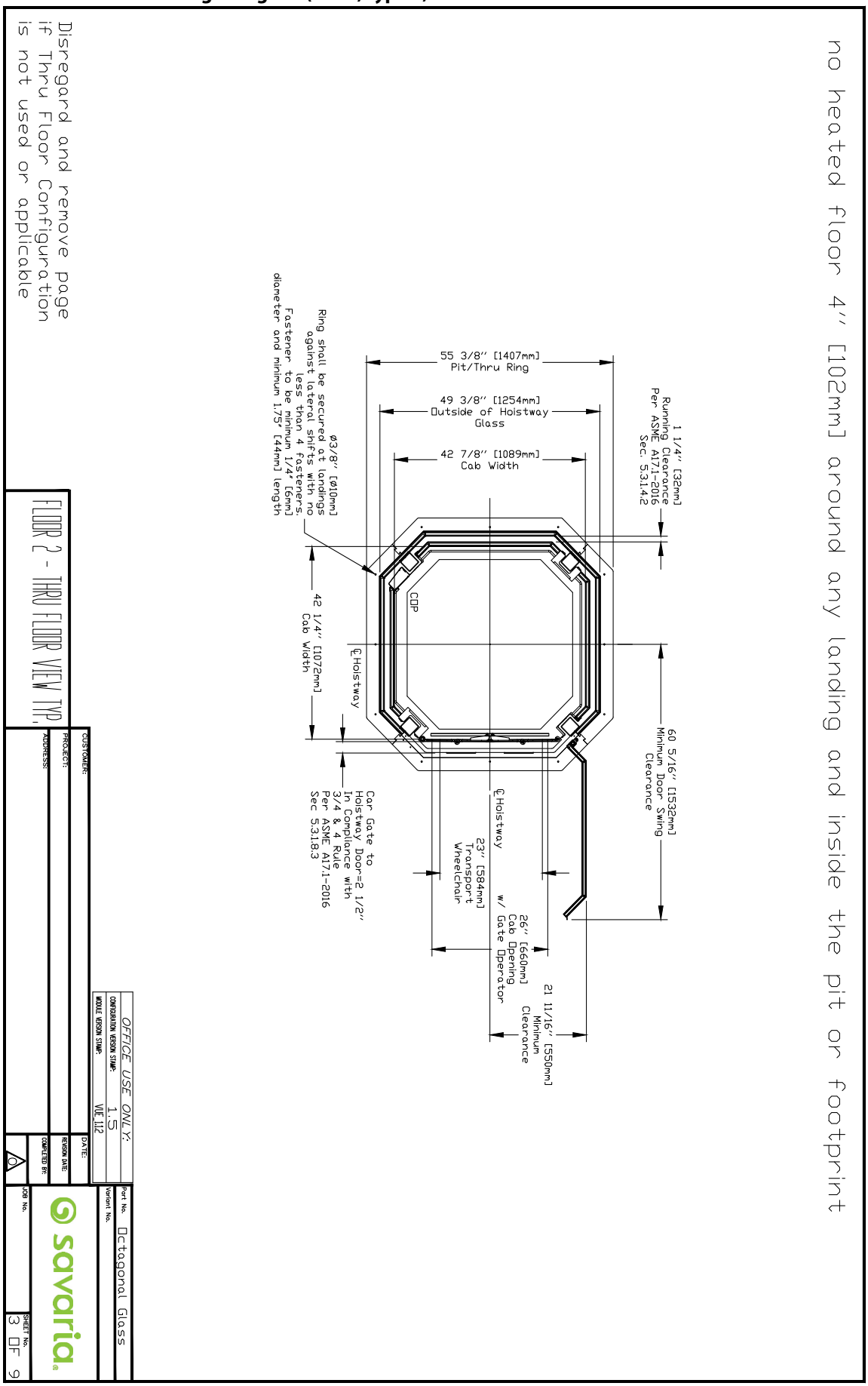


Figure 36: Balcony view - octagonal glass (OGM) type 1, 2 or 3

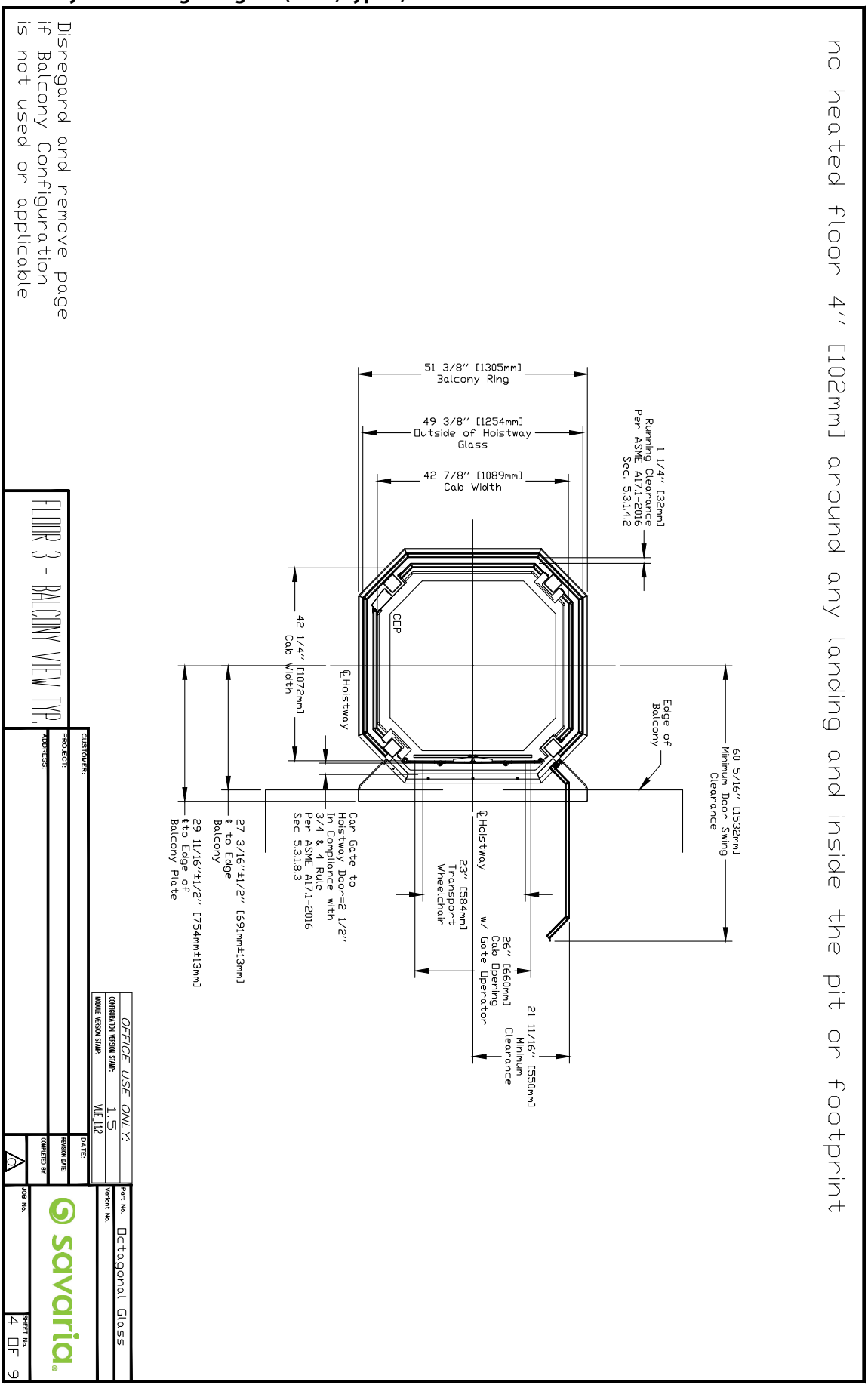
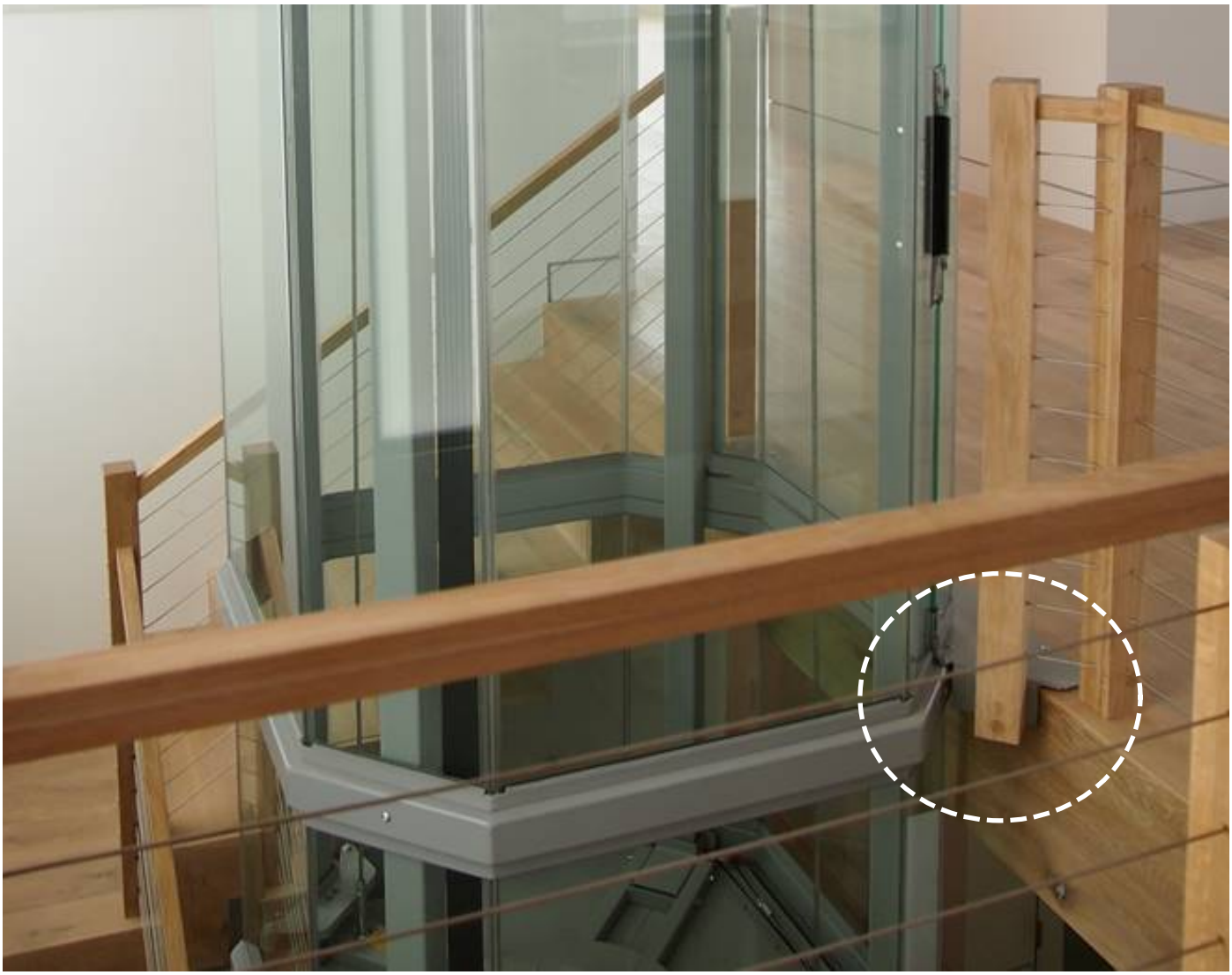


Figure 37: Balcony plate and handrail information - octagonal glass (OGM) type 1 shown



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 is 1"(25.4 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 38: Thru-floor detail - octagonal glass (OGM) type 1, 2 or 3

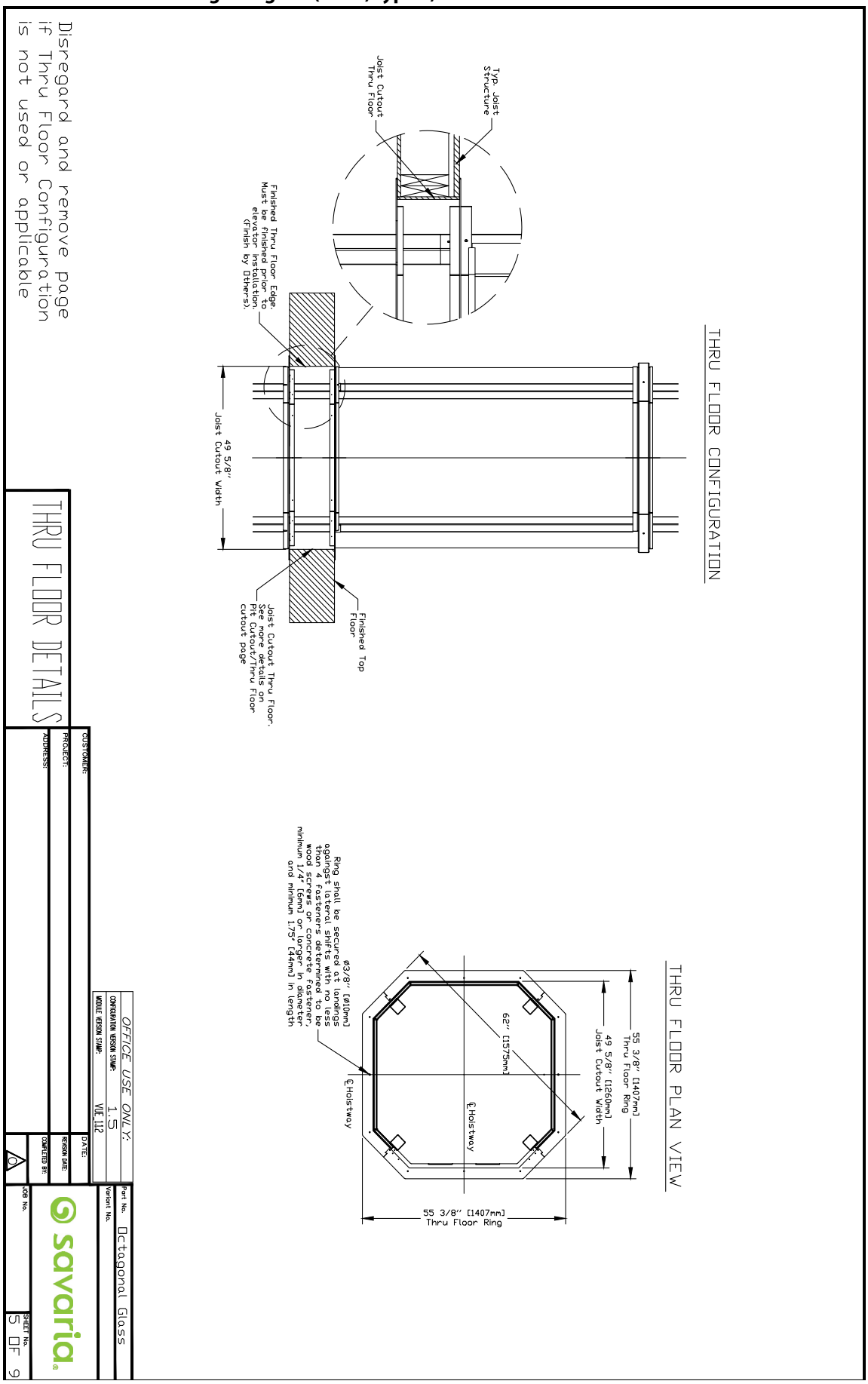


Figure 39: Balcony detail - octagonal glass (OGM) type 1, 2 or 3

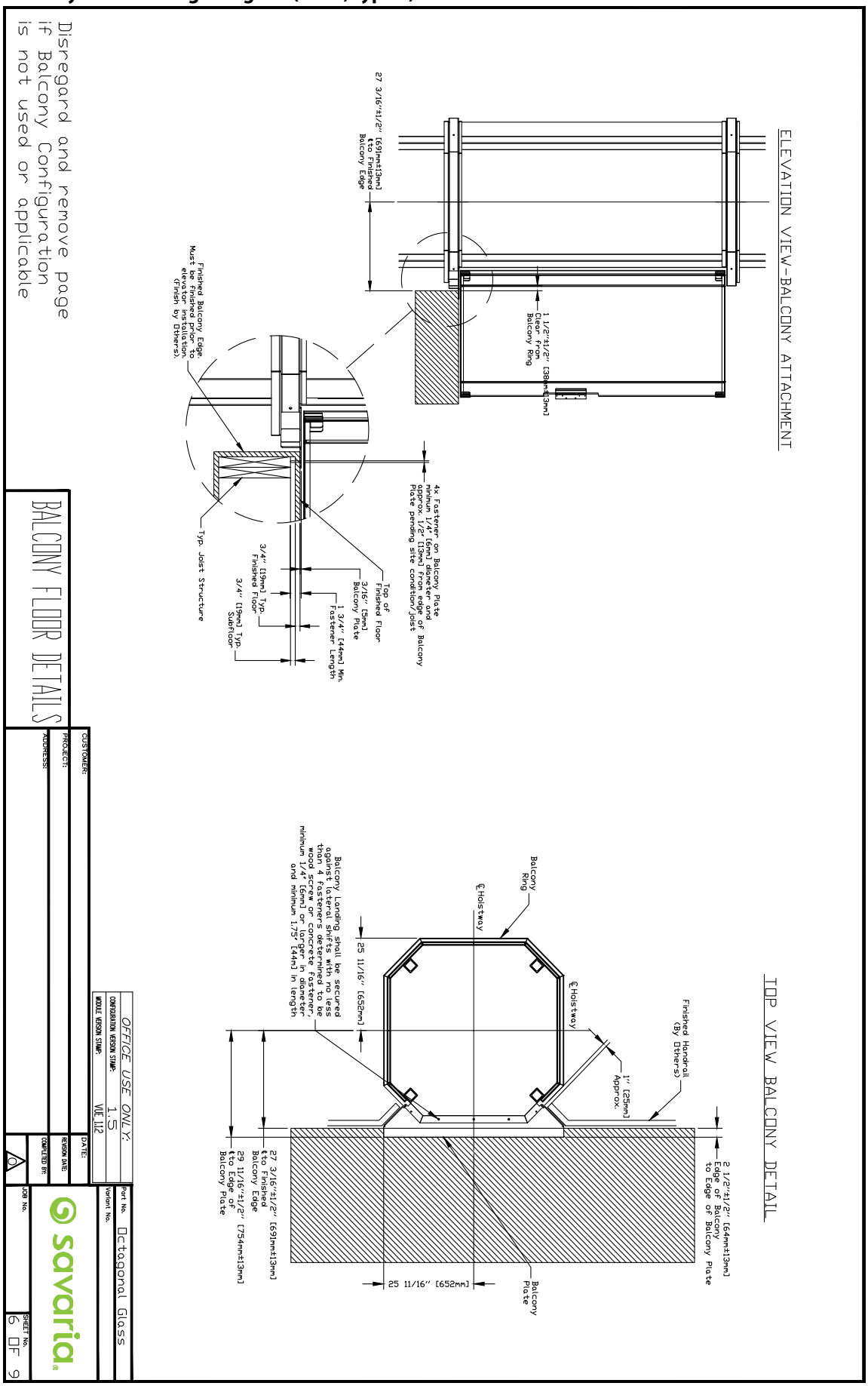


Figure 40: Elevation view - octagonal glass (OGM) type 1, 2 or 3

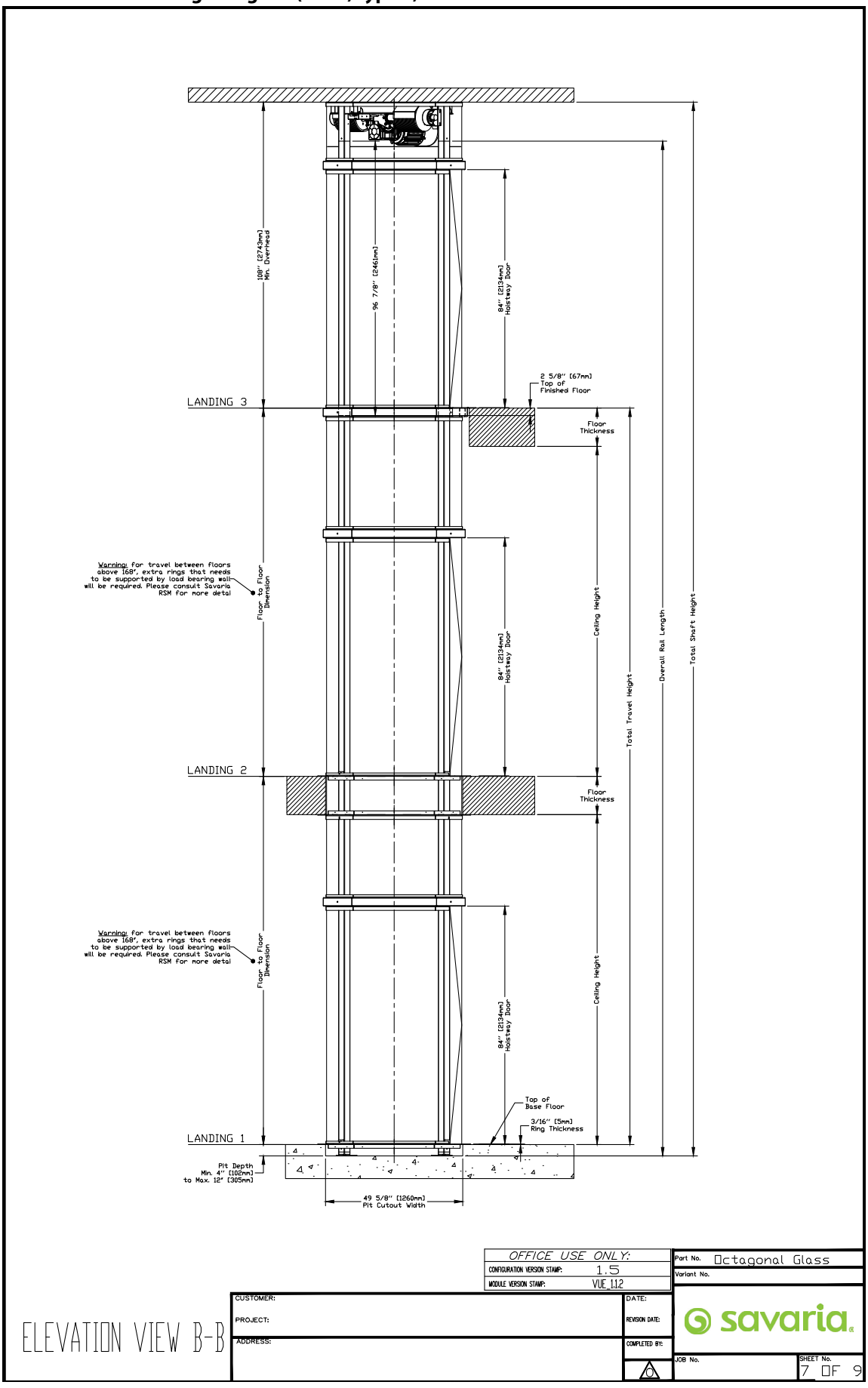


Figure 41: Pit cutout/thru-floor cutout - octagonal glass (OGM) type 1, 2 or 3

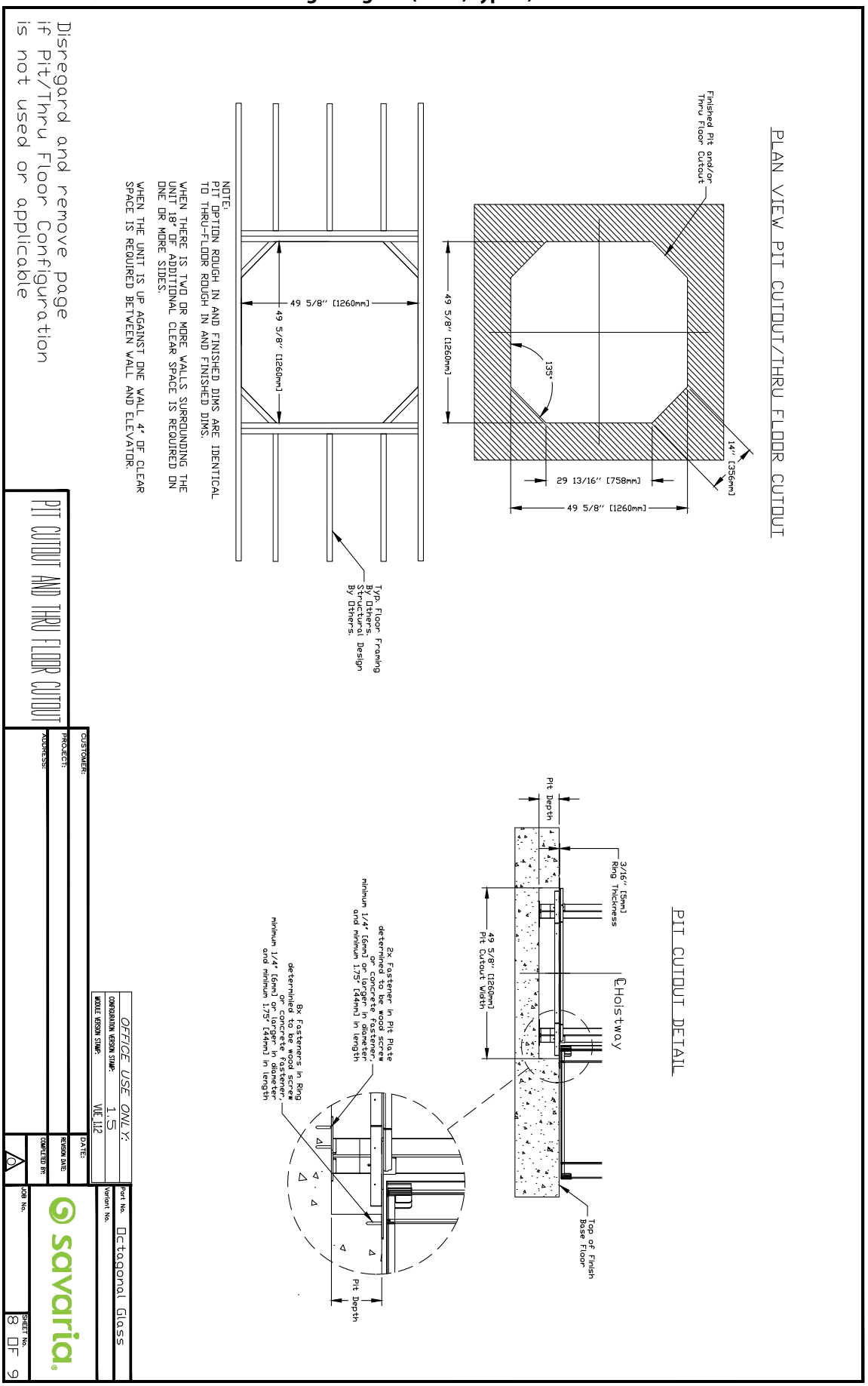


Figure 42: Datasheet - octagonal glass (OGM) type 1, 2 or 3

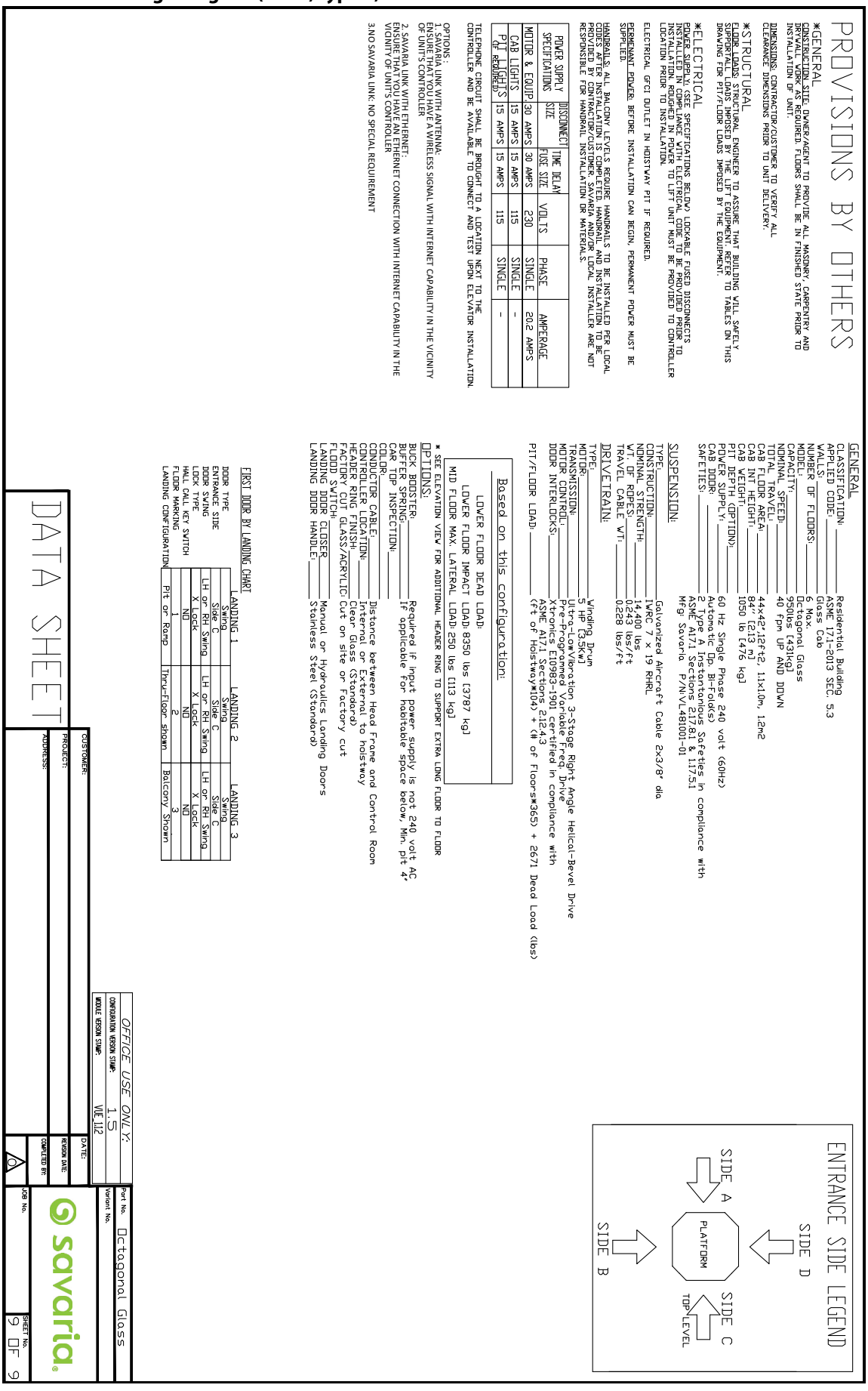


Figure 43: Machine room layout and wire routing - octagonal glass (OGM) type 1, 2 or 3

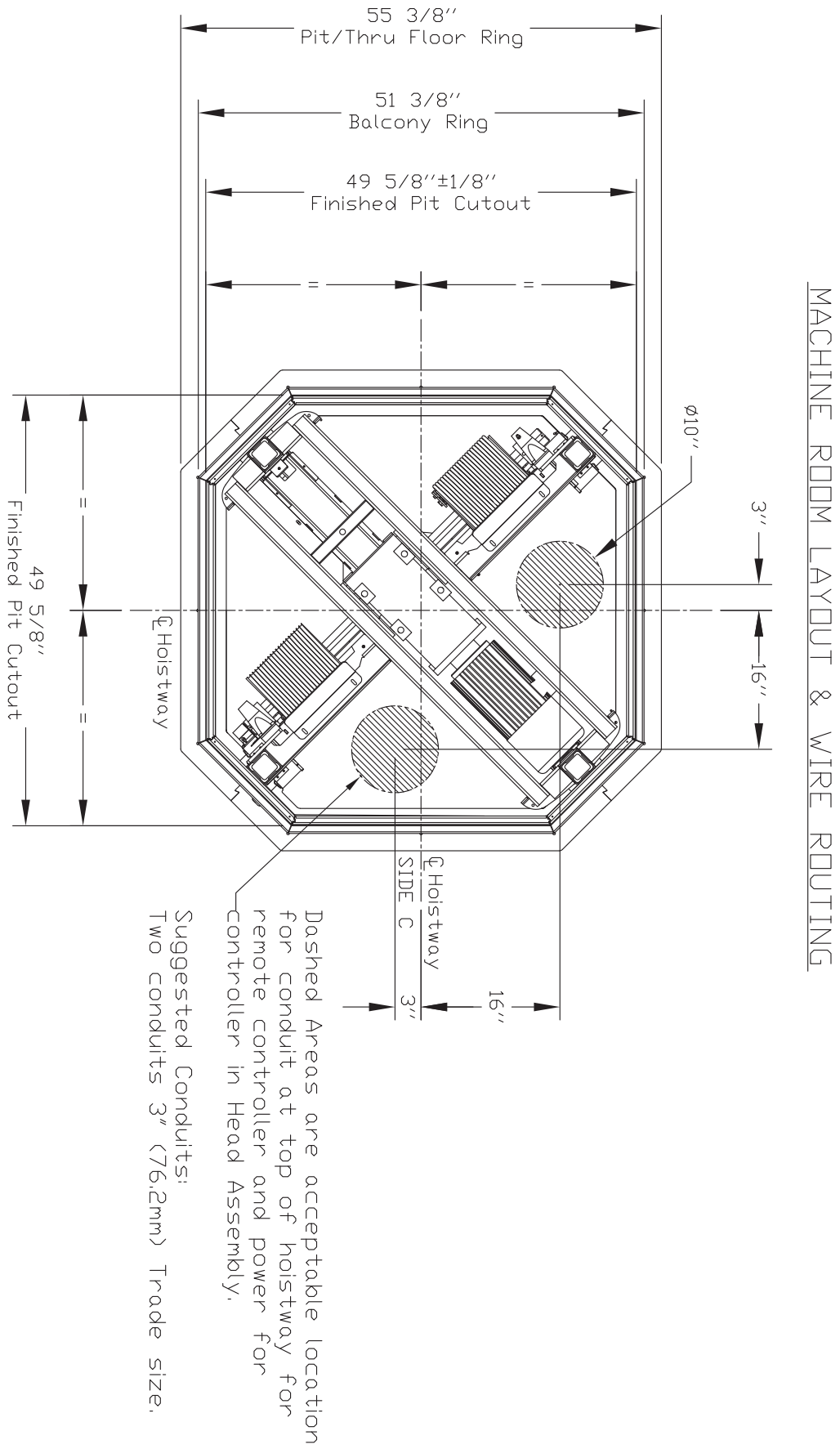
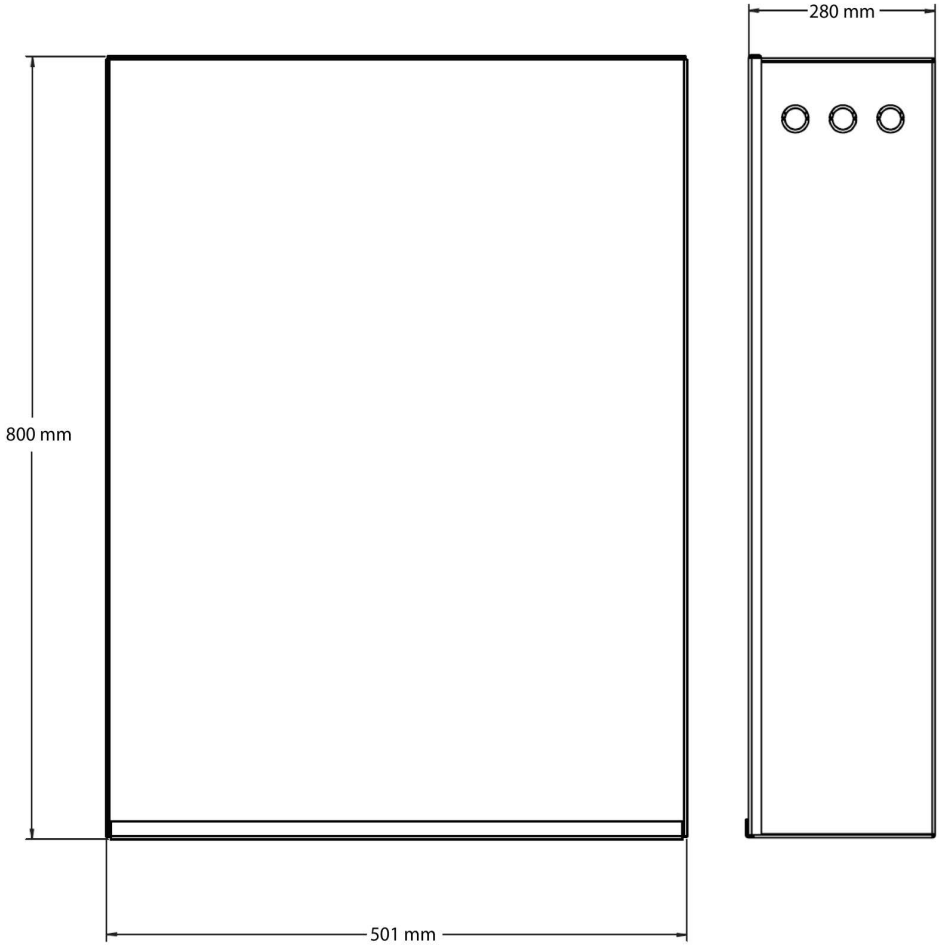


Figure 44: Controller box dimensions - octagonal acrylic & octagonal glass (OAM & OGM), type 1, 2 or 3



Chapter 3:
Round+ Glass (RGL)

Specifications - Round+ Glass (RGL)

Specification	Specification Data
Load capacity	950 lb (432 kg)
Maximum travel	50 ft (15.24 m); 55 ft (16.76 m) where a variance is possible
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" (2743mm) for 84'' (2133mm) cab 104" (2641mm) for 80'' (2032mm) cab
Cab	Cab interior height RGL: 84 in (2.13 m) Cab interior height RGL: 80 in (2.03 m) Cab floor area RGL: 15.00 sq ft (1.4 sq m) Cab weight RGL: 1200 lb (545 kg)
Floor by others (in cab)	3/4" (19 mm) maximum
Footprint	Round+ glass: 58.4'' (1.48 m) diameter
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: 5.0HP (3.5 KW) with integrated brake Transmission: Low vibration, worm gear drive Motor control: Preprogrammed variable frequency drive Door interlocks: Xtronics
Pit/floor load	Refer to the section “Load Calculations”
Distance between 2 landings	93.5'' (2375 mm) minimum
Pit depth	4'' - 12'' (102 mm - 305 mm)
Temperature operating range (environment)	- 10°C to + 40°C / 14°F to 104°F **NOTE**: 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	Optional configurations: Type 2, 3R, 6 Optional colors: • White (Texture White PX521W859) • Silver (Texture Silver PX521S343) • Custom powder-coat frame Note that Black is the standard color (Texture Black PX622N365) Other options: Up to 6 stops, balcony attachment Savaria Link remote monitoring (Vuelift Micro-6 only) Landing door handle painted to match unit Top header ring in sheet metal painted to match unit

Safety First - Round+ Glass (RGL)

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 (RGL)

Your electrician and phone installer must supply the following connections:

- Main Disconnect - One 230V single-phase, 30 Amp fused disconnect box with 30 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, 30 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, 30 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, 30 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, 30 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 (RGL)

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 Ethernet 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 Wireless 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 (RGL)

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

- 108" (2743mm) for 84" (2133mm) cab minimum overhead distance from upper floor level to the underside of the finished ceiling for standard cab configuration. (standard)
- 104" (2641 mm) for 80" (2032 mm) cab minimum overhead distance from upper floor level to the underside of the finished ceiling for modified short cab configuration. (optional)

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.
- All mid floors including the bottom floor may be subjected to a maximum lateral load of 250 lb.
- 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 (lbs) = (114 x feet of hoistway) + (370 x number of floors) + 3041 lbs

  Lower Floor Dead Load (Kg) = (170 x meter of hoistway) + (168 x number of floors) + 1379 Kg

  Lower Floor Impact Load (lbs) = 9542 lbs (4328 Kg)

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

  Mid Floor Load (lbf) = 250 lbs (113kg)

  Shipping Weight (lb) = (1226 x number of floors) + 3041

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

Drawings - Round+ Glass (RGL)

Round+ Glass (RGL)

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

Model Specifications – Round+

Round+ (Glass)

- Capacity: 432kg (950 lb)
- Cab Size: 1.4 sqm (15 sq. ft.)
- Clear Cab Size: 1349mm (53.13 in.)
- Cab Height: 2134mm (84 in.)
- Hoistway Footprint
  - Glass: 1483mm (58.4 in.)
  - Pit/Thru Floor Cutout: 1502mm (59.13 in.)
  - Balcony/Header Ring: 1543mm (60.75 in.)
  - Pit/Thru Floor Ring: 1654mm (65.13 in.)
- Minimum Overhead Clearance: 2743mm (108 in.) for 2133 mm (84 in.) cab
- Minimum Overhead Clearance: 2641mm (104 in.) for 2032 mm (80 in.) cab

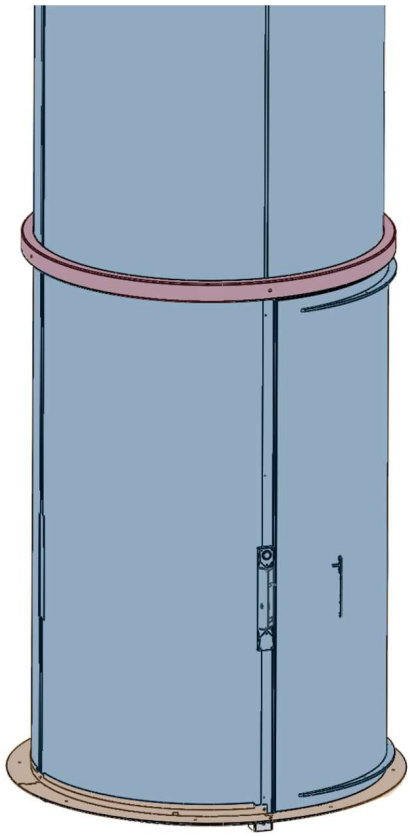


Figure 45: Plan view - round+ glass (RGL), type 1

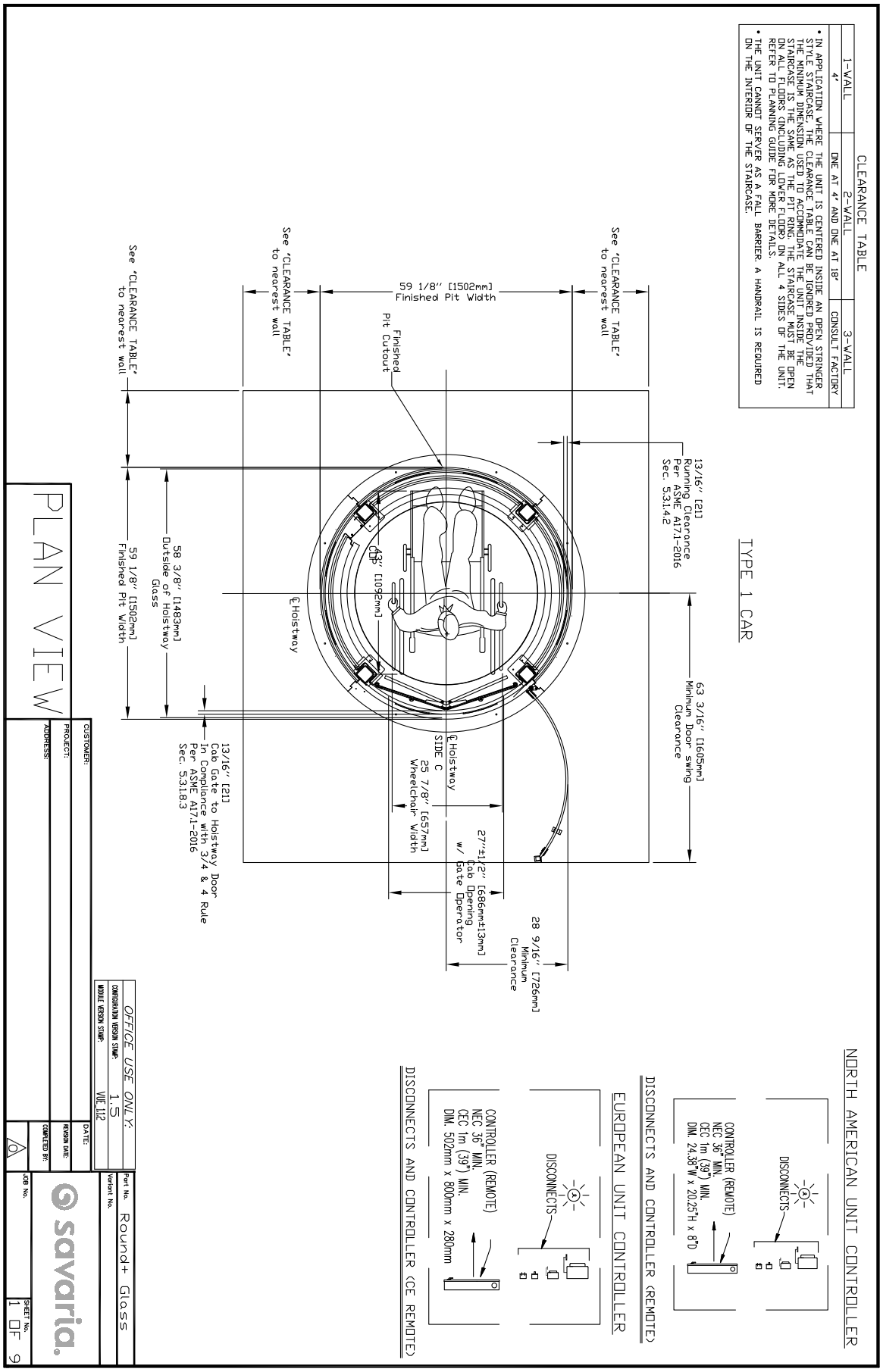


Figure 46: Plan view - round+ glass (RGL), type 2

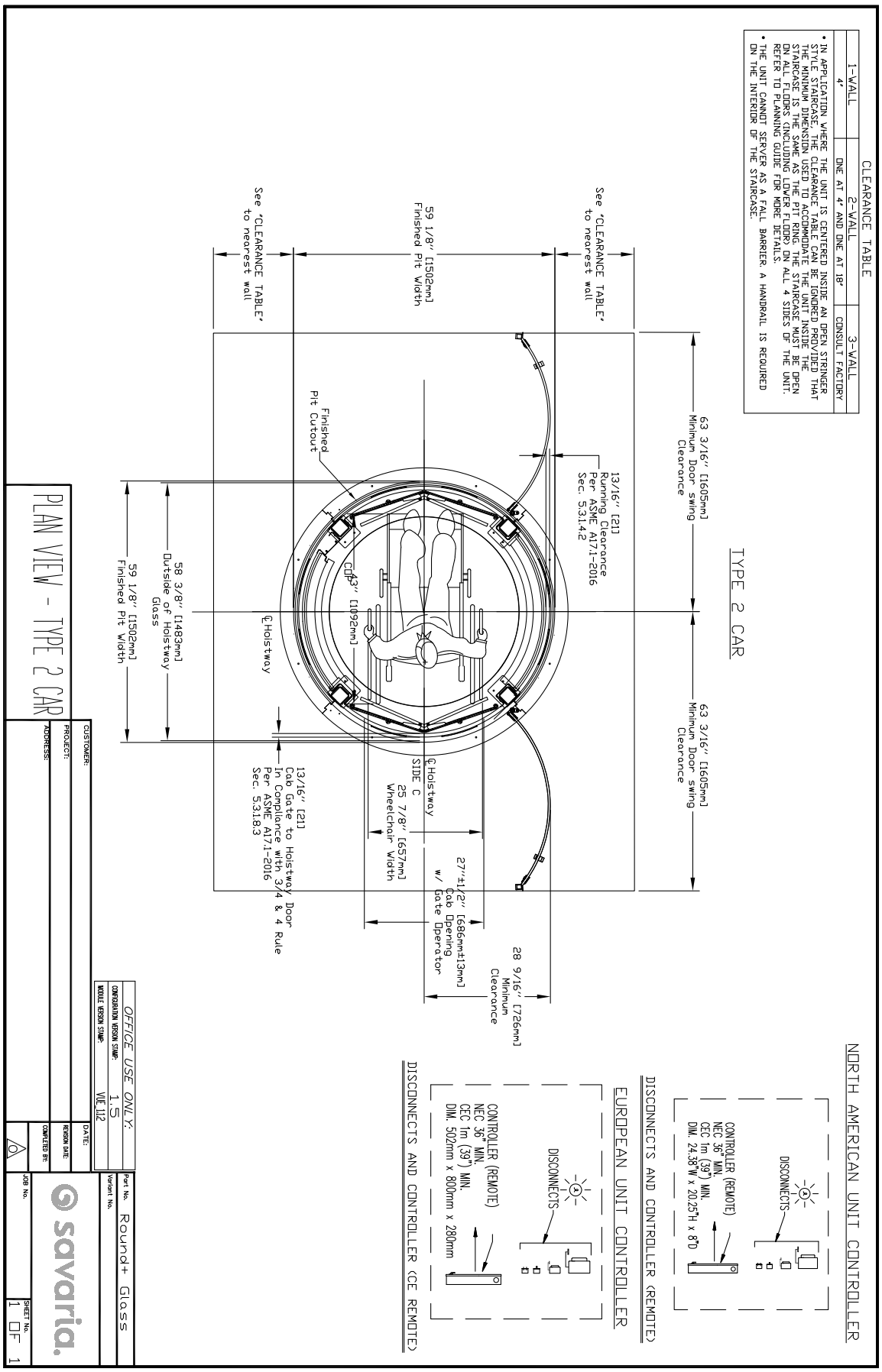


Figure 47: Plan view - round+ glass (RGL), type 3

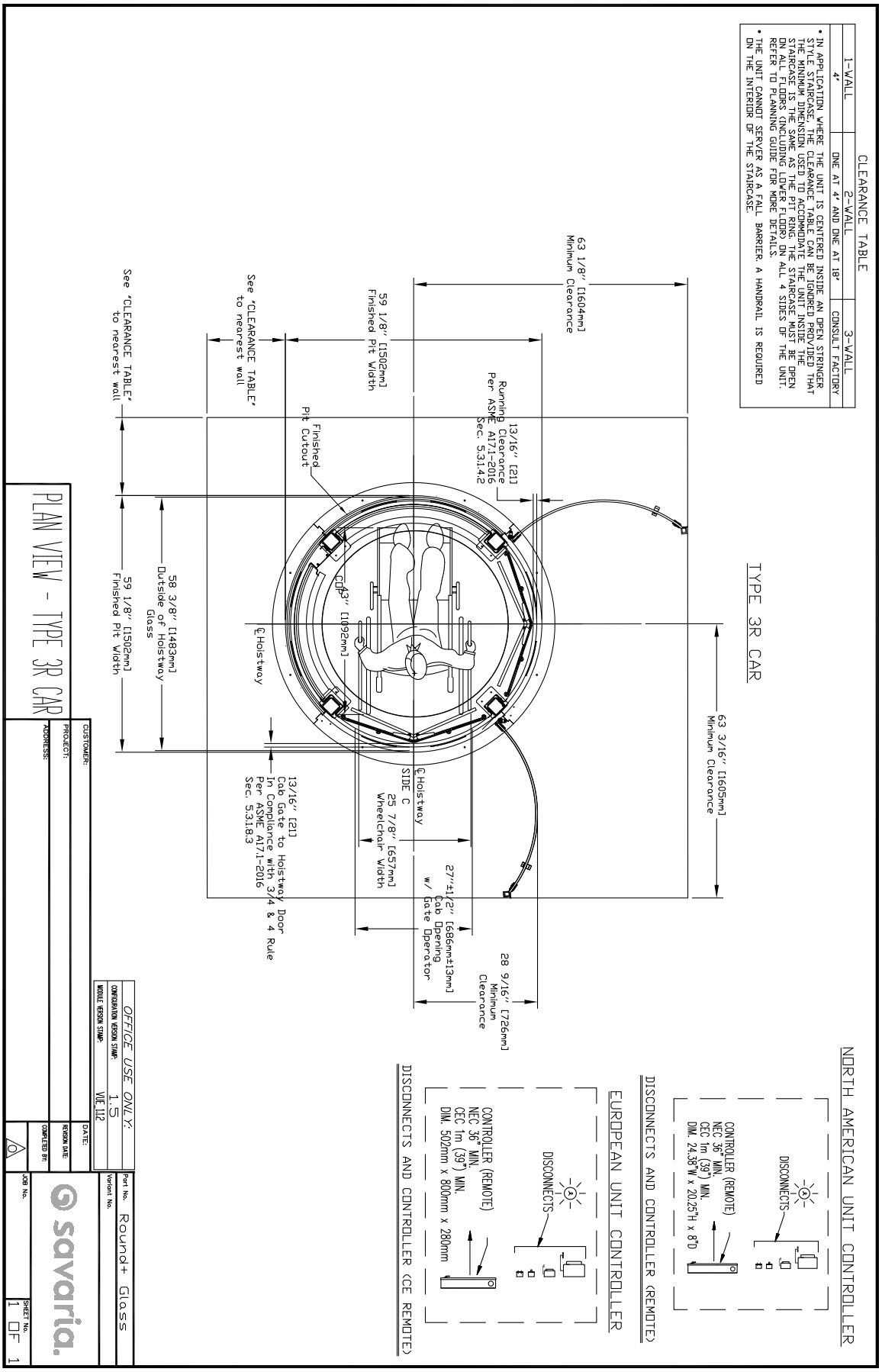


Figure 48: Pit view - round+ glass (RGL) type 1, 2 or 3

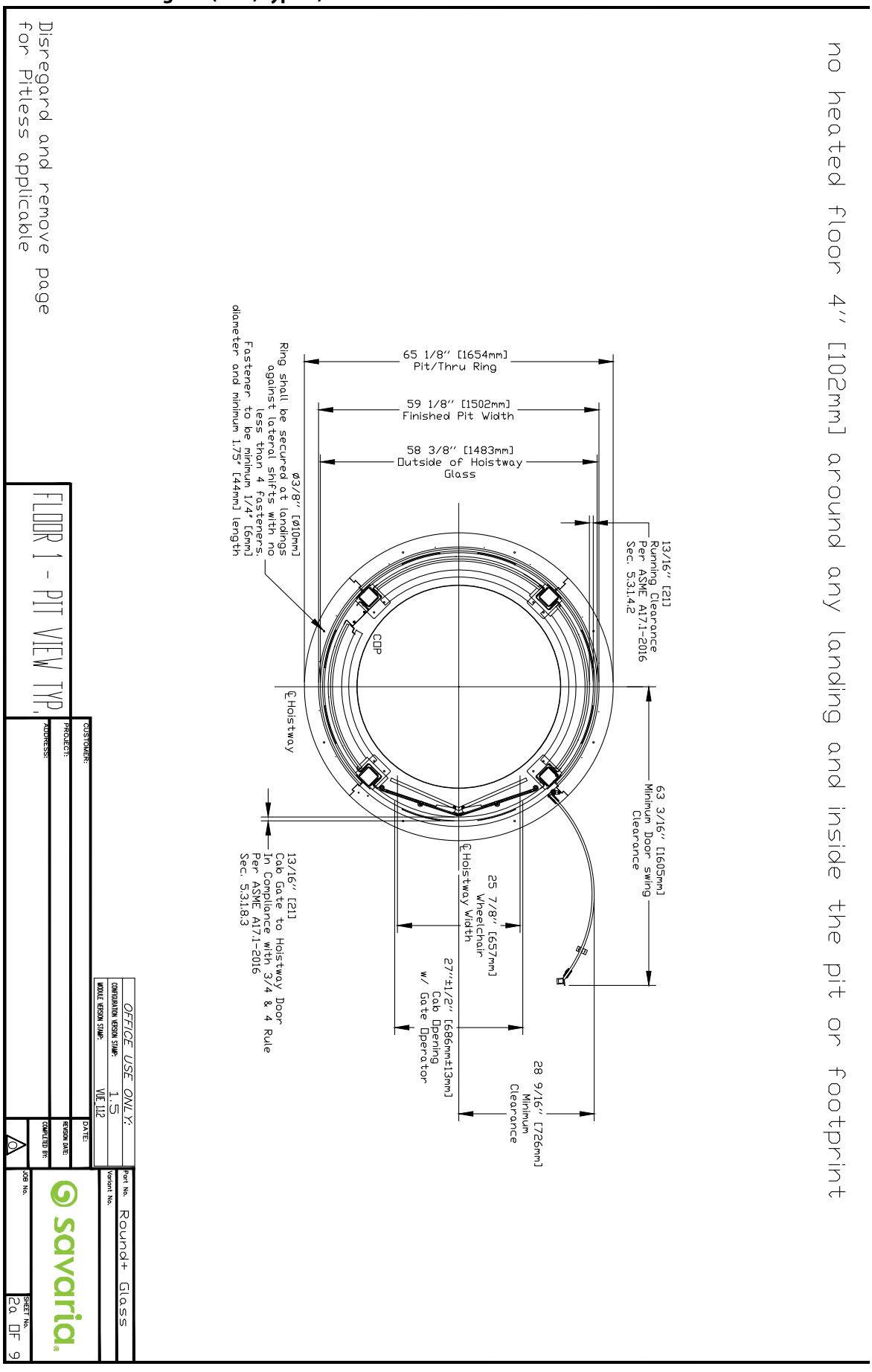


Figure 49: Base mount details- round+ glass (RGL) type 1, 2 or 3

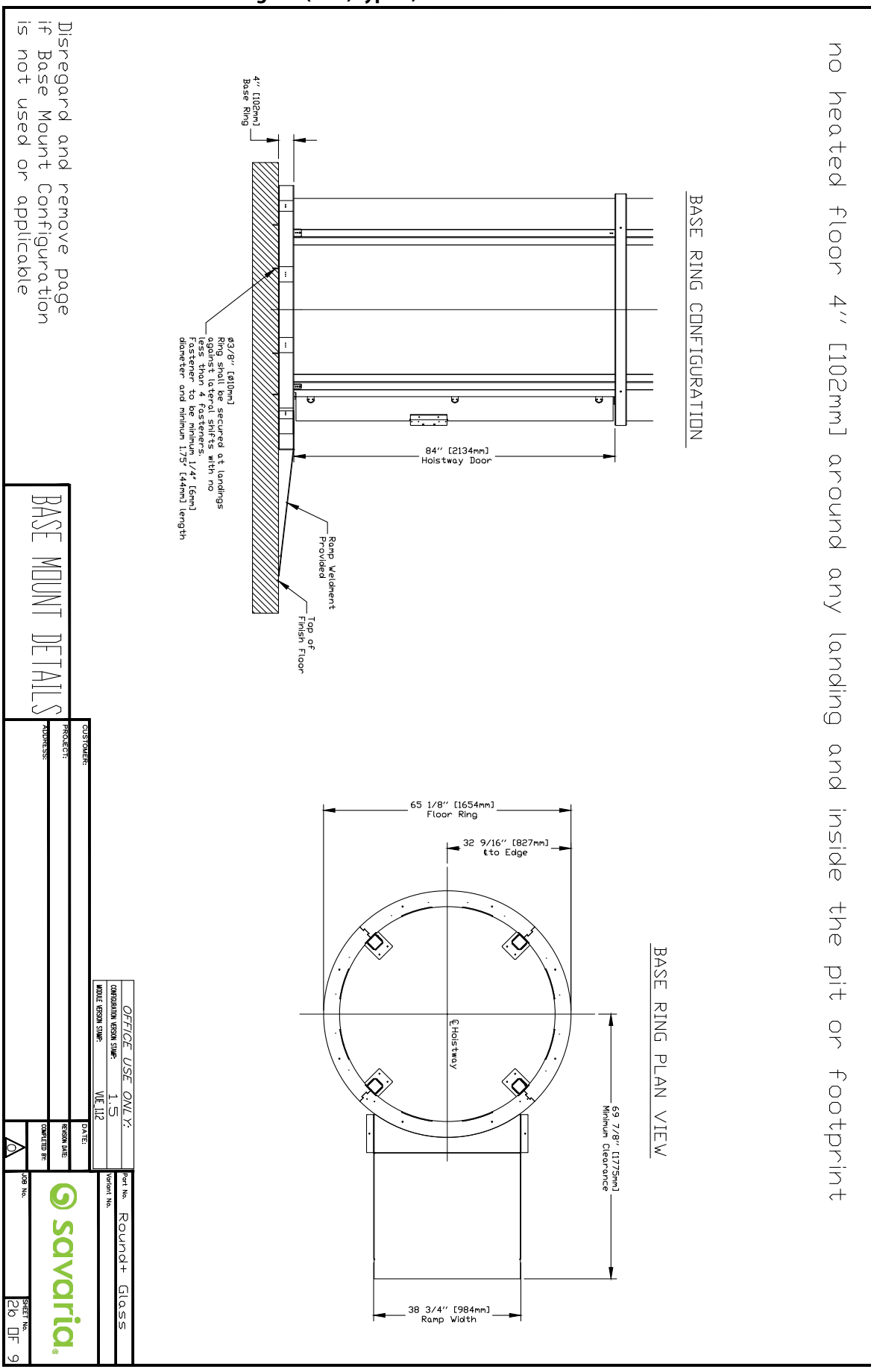


Figure 50: Thru-floor view - round+ glass (RGL) type 1, 2 or 3

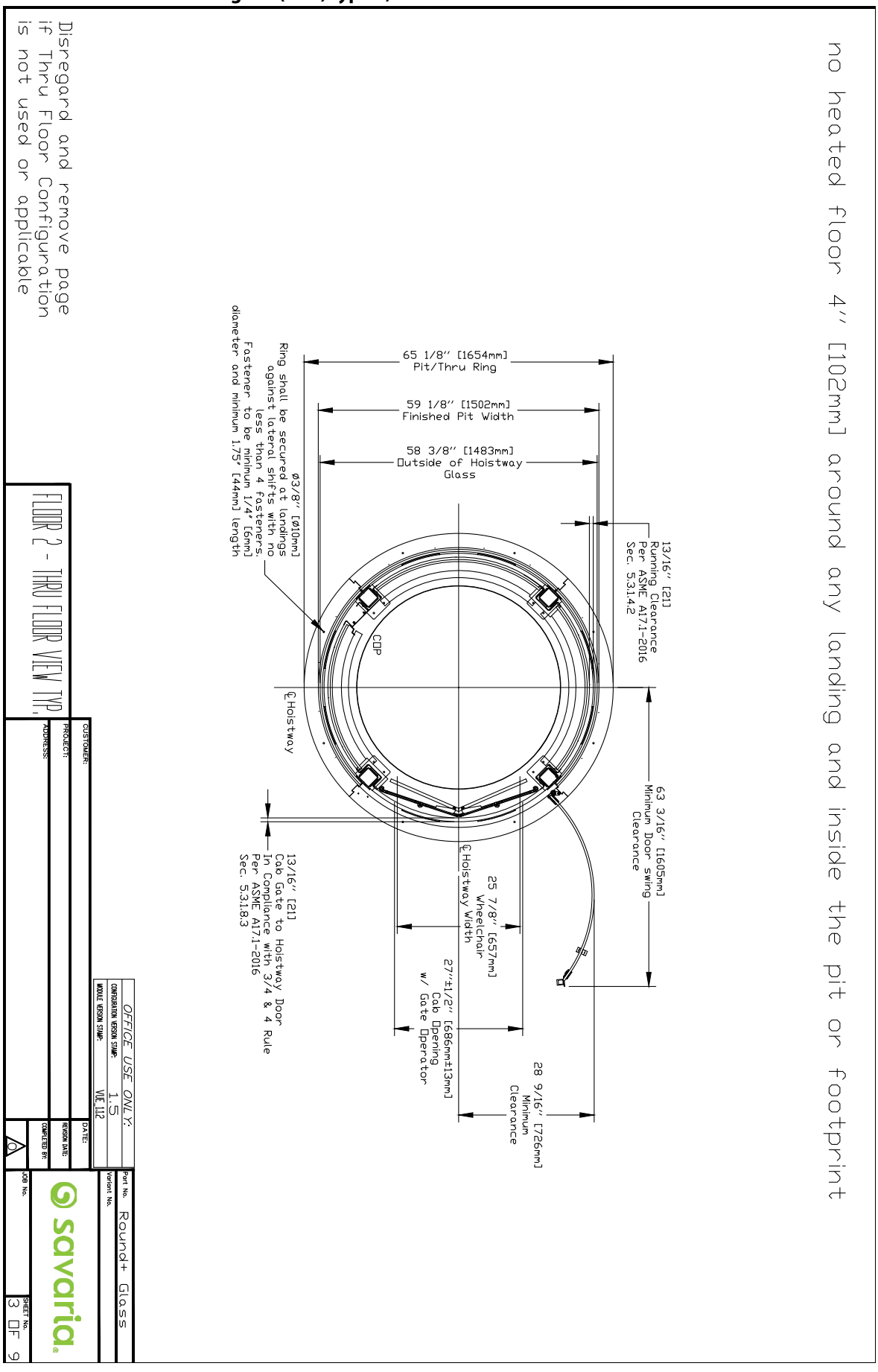


Figure 51: Balcony view - round+ glass (RGL) type 1, 2 or 3

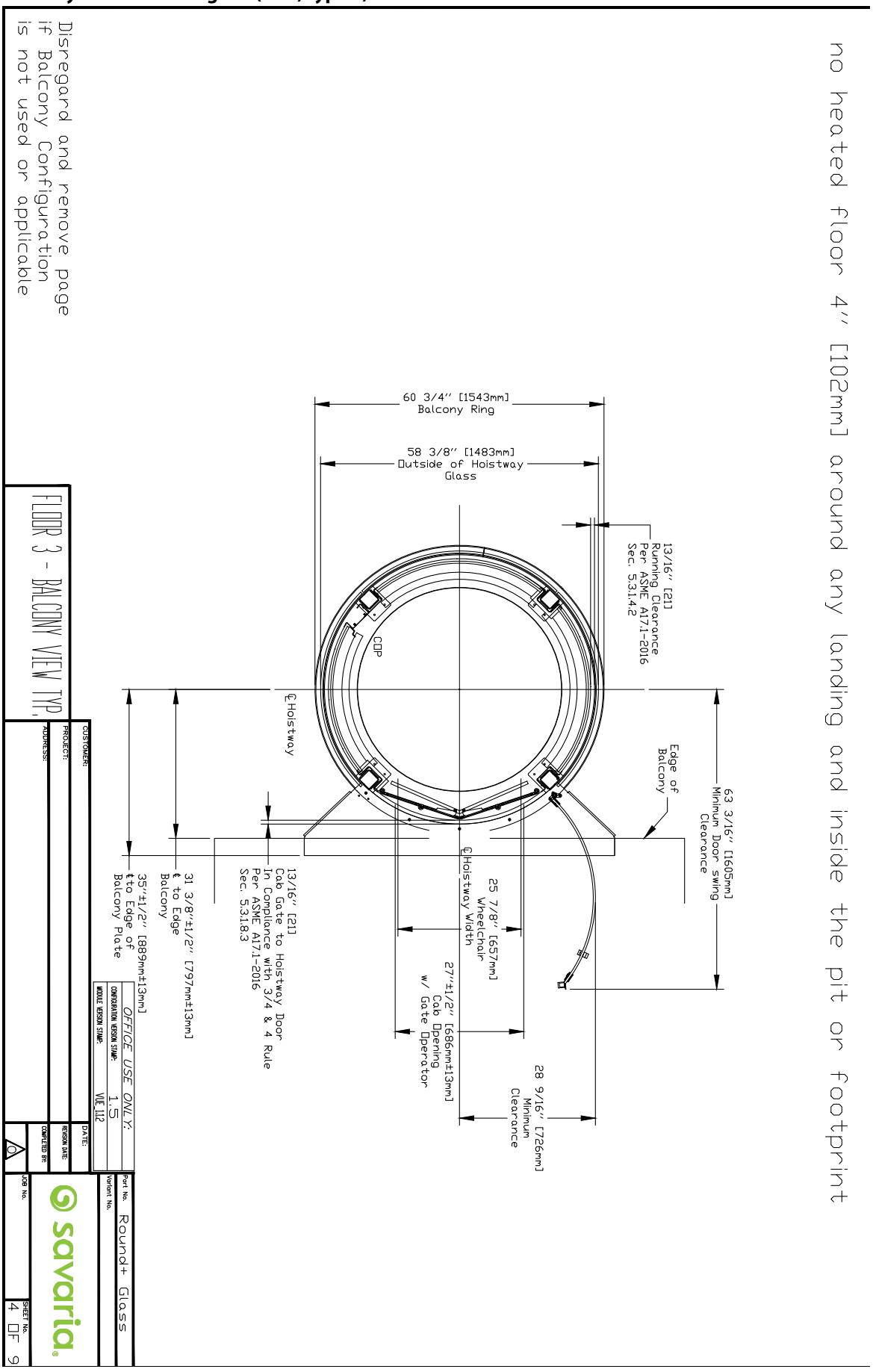


Figure 52: Balcony plate and handrail information - round+ glass (RGL) type 1 shown

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 is 1" (25.4 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 53: Thru-floor details - round+ glass (RGL) type 1, 2 or 3

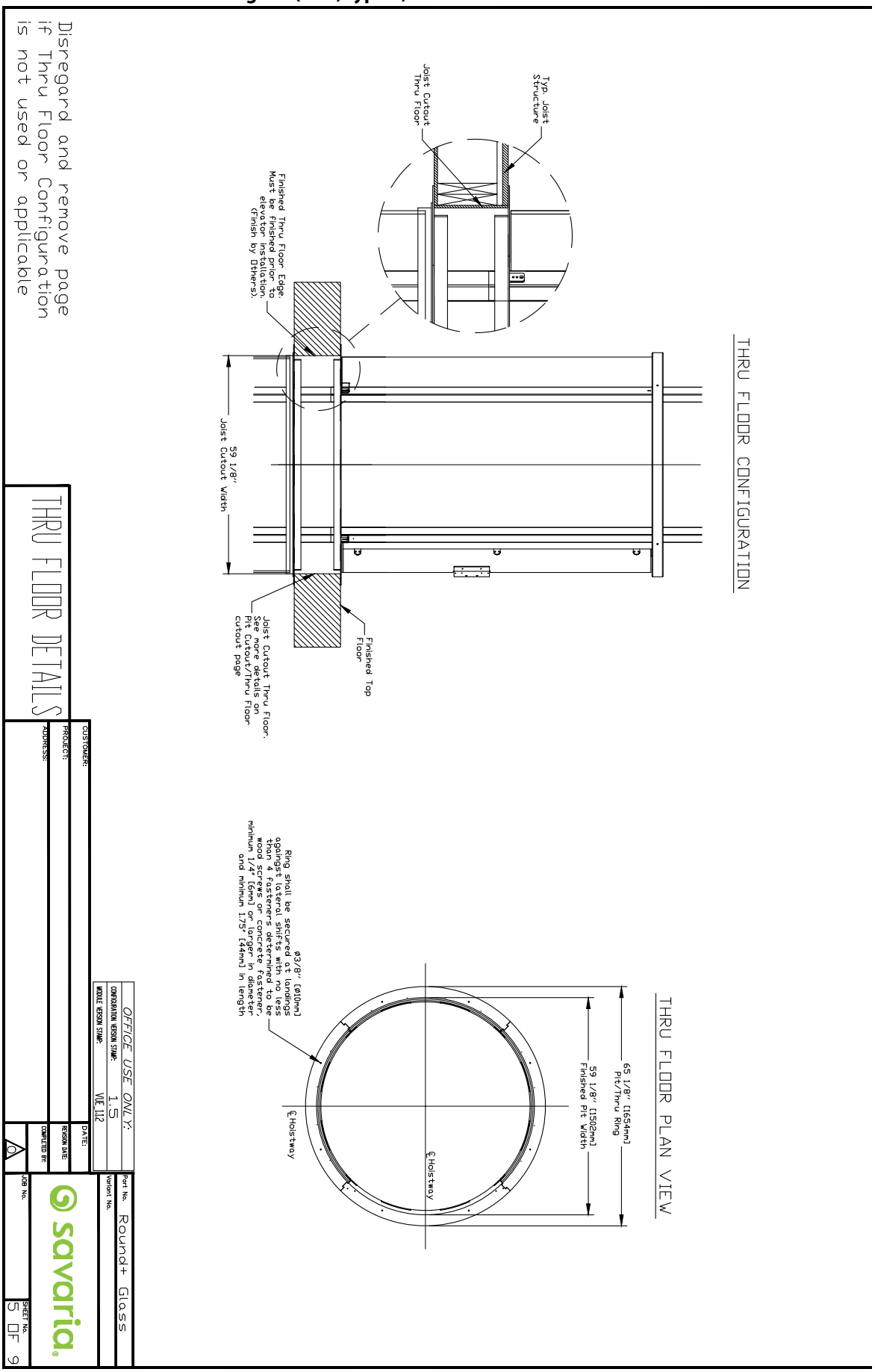


Figure 54: Balcony details - round+ glass (RGL) type 1, 2 or 3

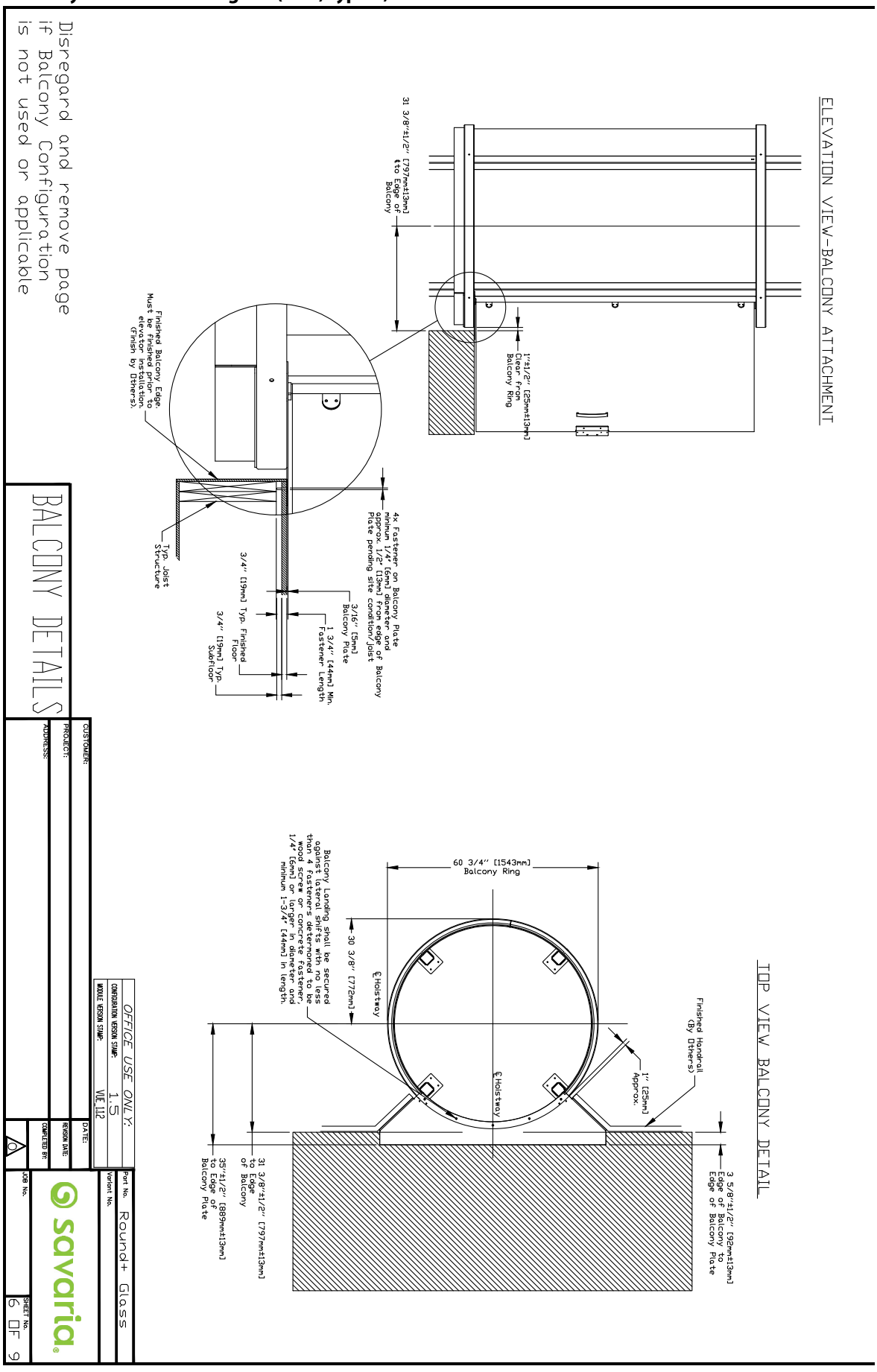


Figure 55: Elevation view - round+ glass (RGL) type 1, 2 or 3

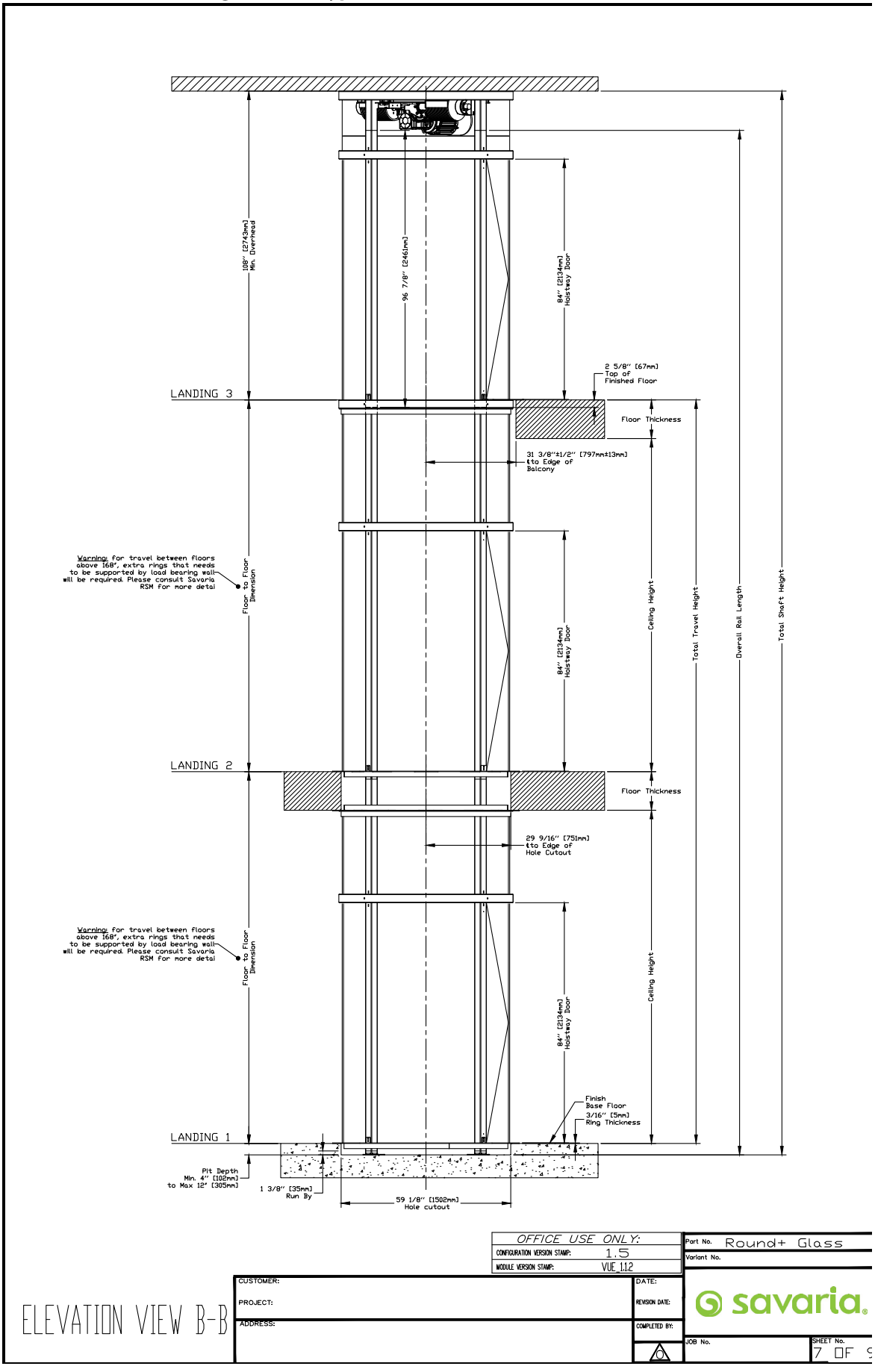


Figure 56: Pit cutout/thru-floor cutout - round+ glass (RGL) type 1, 2 or 3

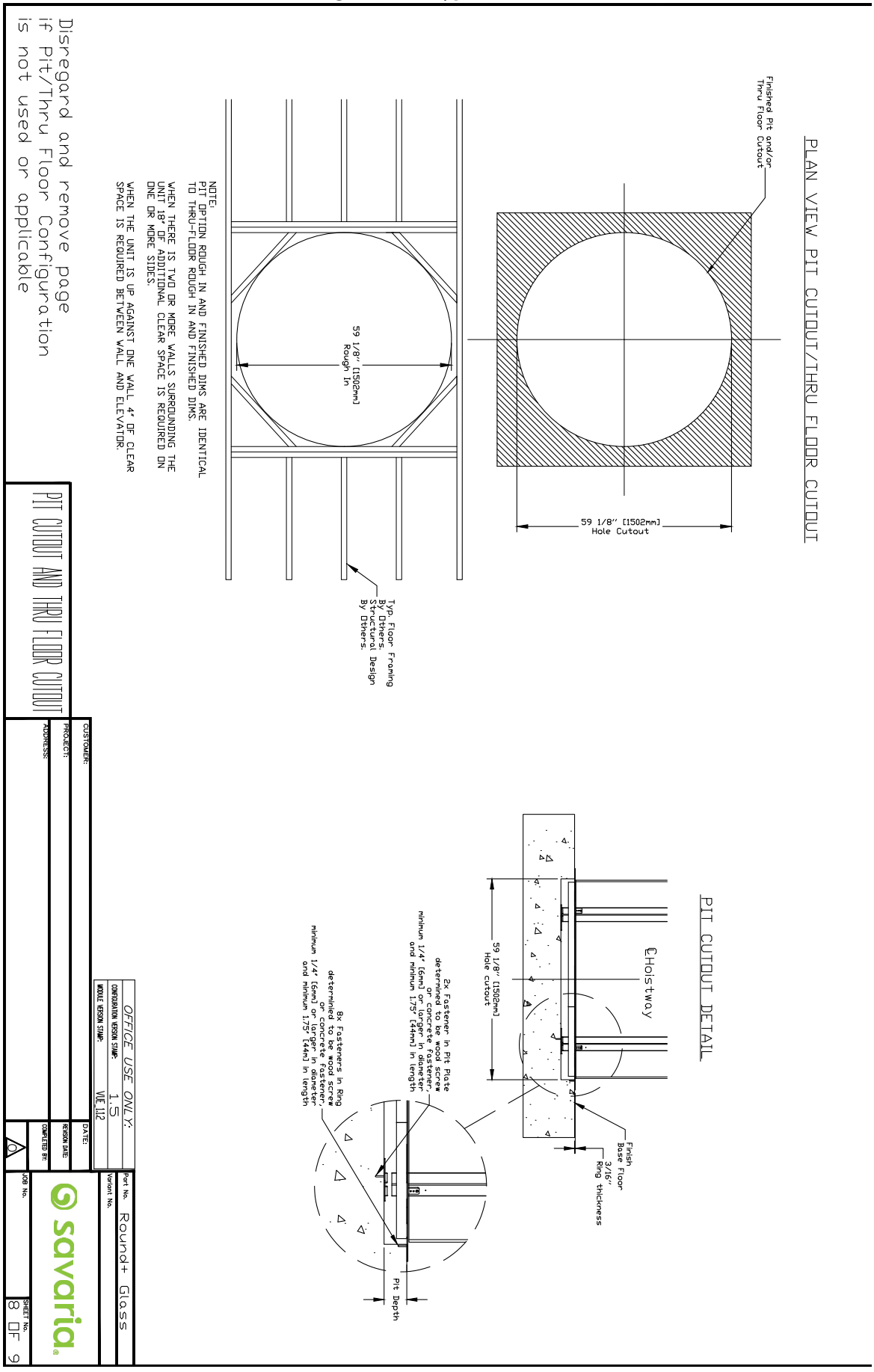


Figure 57: Datasheet - round+ glass (RGL) type 1, 2 or 3

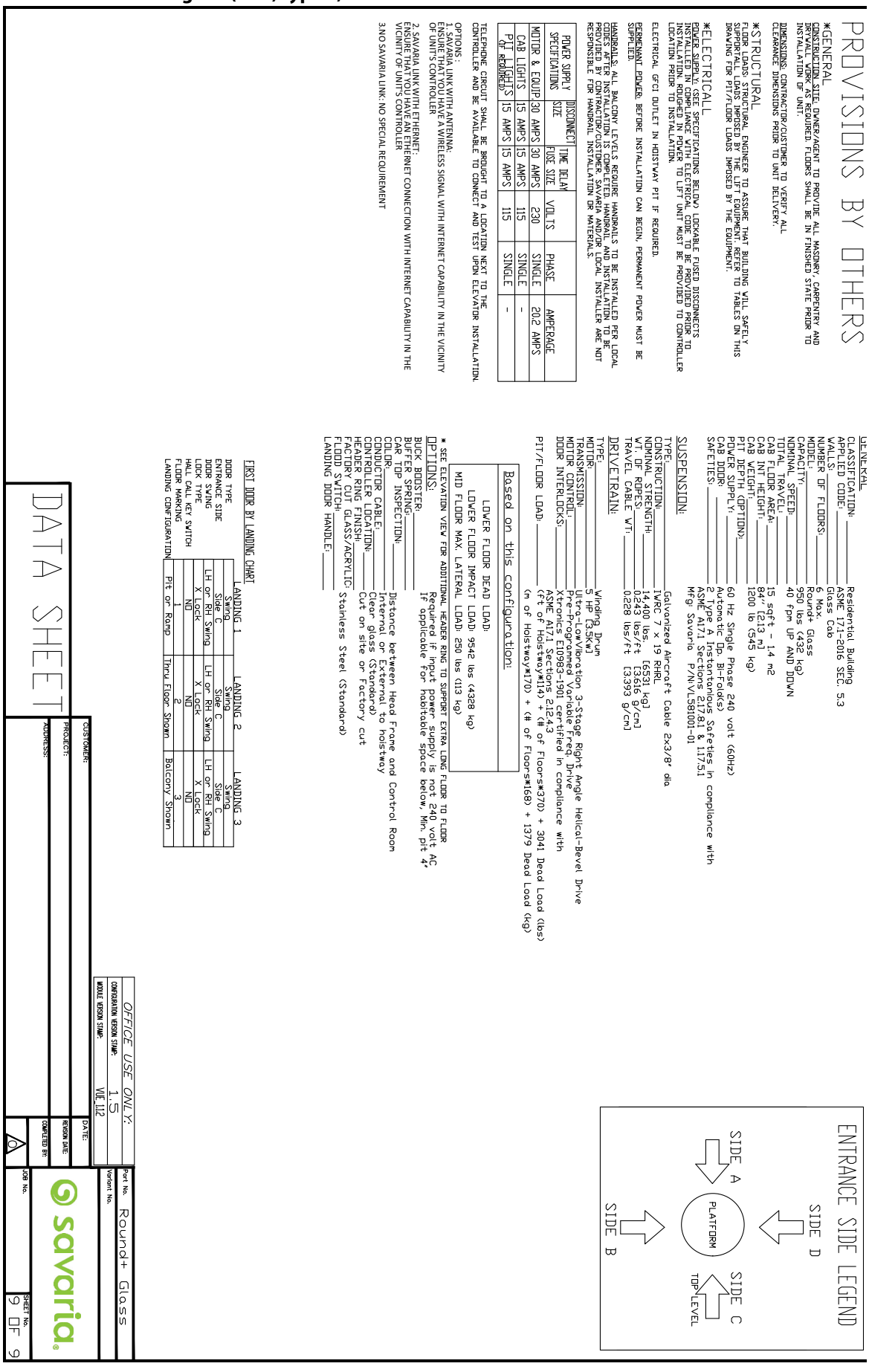


Figure 58: Machine room layout and wire routing - round+ glass (RGL) type 1, 2 or 3

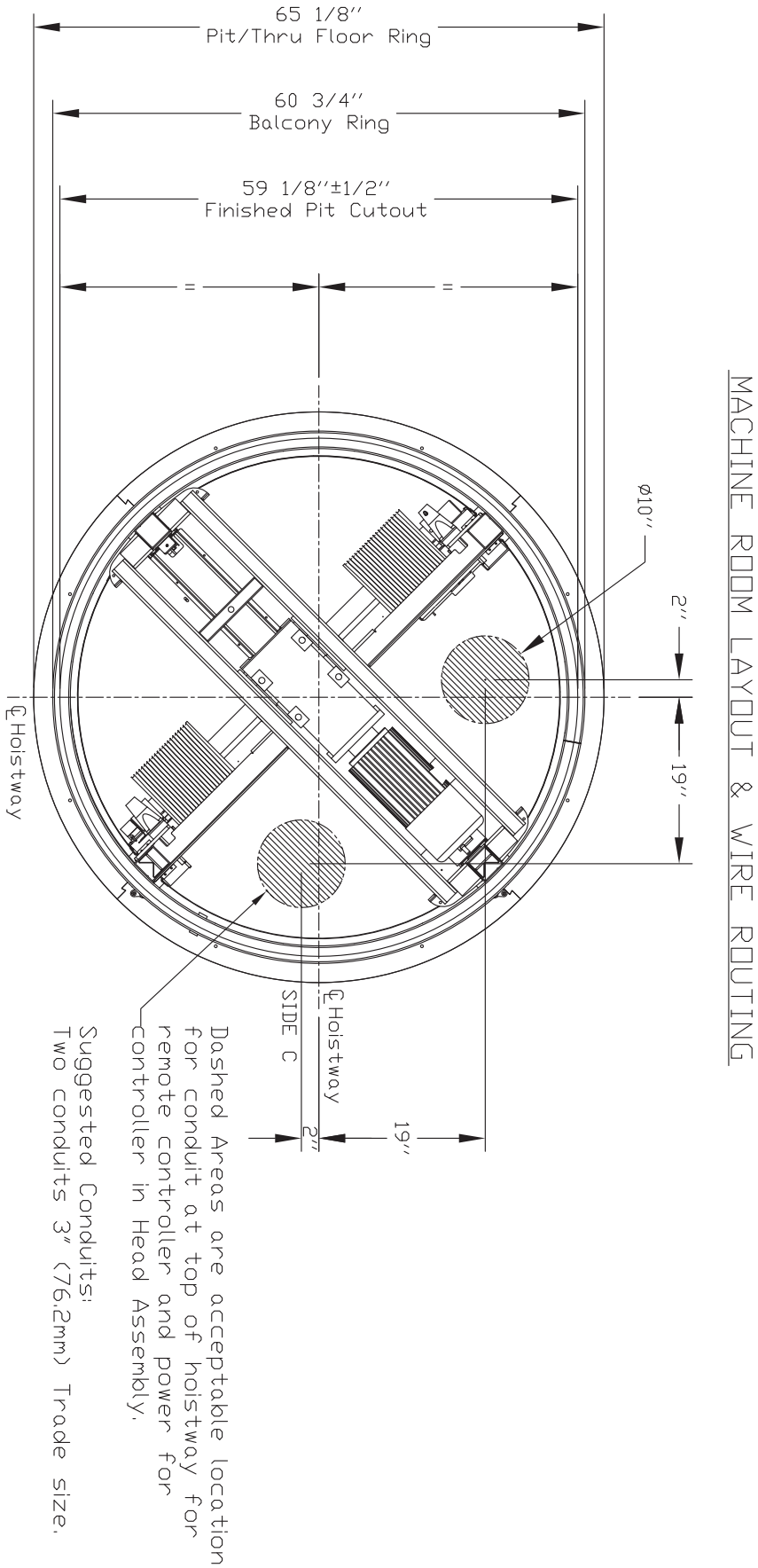
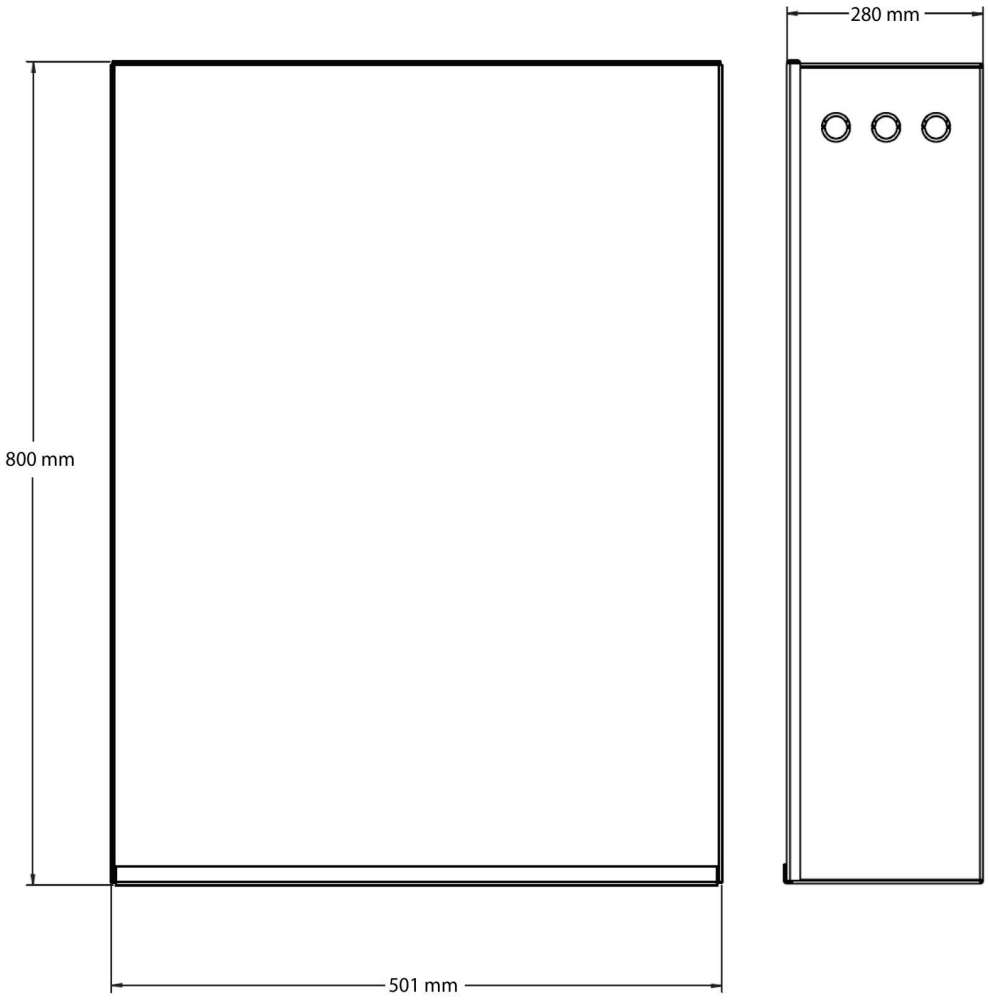
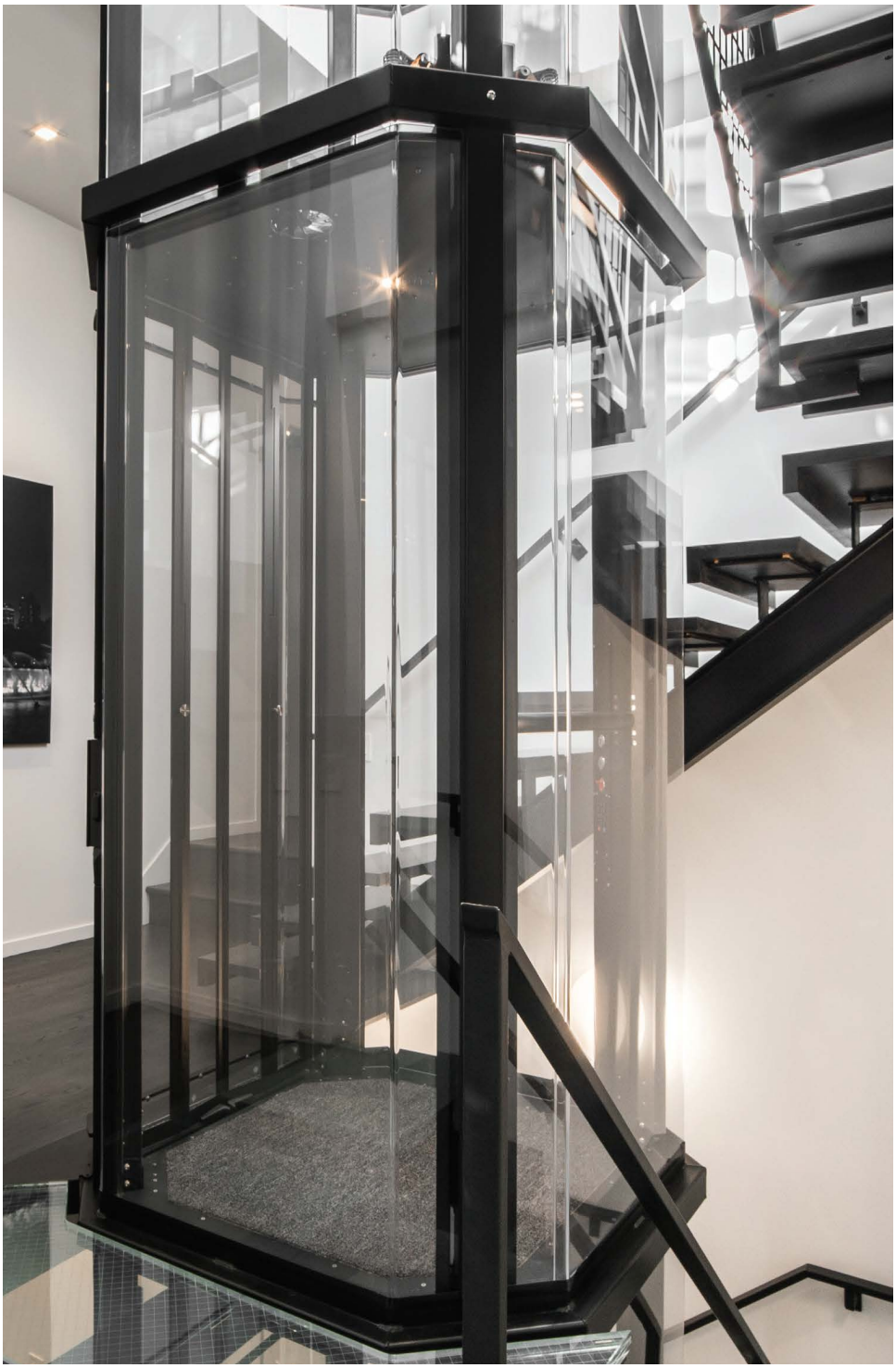


Figure 59: Controller box dimensions - round+ glass (RGL) type 1, 2 or 3



Chapter 4: Octagonal+ Glass (OGL)



Specifications - Octagonal+ Glass (OGL)

Specification	Specification Data
Load capacity	950 lb (432 kg)
Maximum travel	50 ft (15.24 m); 55 ft (16.76 m) where a variance is possible
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" (2743mm) for 84" (2133mm) cab 104" (2641mm) for 80" (2032mm) cab 96" (2438mm) for 76.5" (1943mm) cab
Cab	Cab interior height OGL: 84 in (2.13m) Cab interior height OGL: 80 in (2.3m) Cab floor area OGL: 15.00 sq ft (1.4 sq m) Cab weight OGL: 1200 lb (545 kg)
Floor by others (in cab)	3/4" (19 mm) maximum
Footprint	Octagonal+ glass: 57.8" x 57.8" (1.47 m x 1.47 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: 5.0 HP (3.5 KW) with integrated brake Transmission: Low vibration, worm gear drive Motor control: Preprogrammed variable frequency drive Door interlocks: Xtronics
Pit/floor load	Refer to the section “Load Calculations”
Distance between 2 landings	93.5" (2375 mm) minimum
Pit depth	4" - 12" (102 mm - 305 mm)
Temperature operating range (environment)	- 10°C to + 40°C / 14°F to 104°F **NOTE**: 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	Optional configurations: Type 2, 3R, 6 Optional colors: • White (Texture White PX521W859) • Silver (Texture Silver PX521S343) • Custom powder-coat frame Note that Black is the standard color (Texture Black PX622N365) Other options: Up to 6 stops, balcony attachment Savaria Link remote monitoring (Vuelift Micro-6 only) Landing door handle painted to match unit Top header ring in sheet metal painted to match unit

Safety First - Octagonal+ Glass (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 - Octagonal+ Glass (OGL)

Your electrician and phone installer must supply the following connections:

- Main Disconnect - One 230V single-phase, 30 Amp fused disconnect box with 30 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, 30 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, 30 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, 30 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, 30 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+ Glass (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 Ethernet 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 Wireless remote monitoring option, ensure that you have a wireless signal with Internet capability in the vicinity of the unit's controller.

Site Preparation - Octagonal+ Glass (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

- 108'' (2743mm) for 84'' (2133mm) cab minimum overhead distance from upper floor level to the underside of the finished ceiling for standard cab configuration. (standard)
- 104'' (2641 mm) for 80'' (203 mm) cab minimum overhead distance from upper floor level to the underside of the finished ceiling for modified short cab configuration. (optional)
- 96'' (2438 mm) for 76.5'' (1943 mm) cab minimum overhead distance from upper floor level to the underside of the finished ceiling for silica glass model. (short)

Drywall and Painting

- All drywall and painting must be complete.

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).
- All mid floors including the bottom floor may be subjected to a maximum lateral load of 250 lb.
- 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 (lbs) = (114 x feet of hoistway) + (415 x number of floors) + 3091 lbs

  Lower Floor Dead Load (Kg) = (170 x meter of hoistway) + (188 x number of floors) + 1402 lbs

  Lower Floor Impact Load (lbs) = 9741 lbs (4418 Kg)

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

  Mid Floor Load (lbf) = 250 lbs (113kg)

  Shipping Weight (lb) = (1226 x number of floors) + 3091

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

Drawings - Octagonal+ Glass (OGL)

Octagonal+ Glass (OGL)

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

Model Specifications – Octagonal+

Octagonal+ (Glass)

- Capacity: 432kg (950 lb)
- Cab Size: 1.4 sqm (15 sq. ft.)
- Clear Cab Size: 1149w x 1253d (45.25 x 49.3 in.)
- Cab Height: 2134mm (84 in.)
- Hoistway Footprint
  - Glass: 1468 x 1468mm (57.8 x 57.8 in.)
  - Pit/Thru Floor Cutout: 1432x 1432mm (56.38 x 56.38 in.)
  - Balcony/Header Ring: 1473 x 1473mm (58 x 58 in.)
  - Pit/Thru Floor Ring: 1574mm (62 x 62 in.)
    - Minimum Overhead Clearance: 2743mm (108 in.) for 2133 mm (84 in) cab
    - Minimum Overhead Clearance: 2641 mm (104 in.) for 2032 mm (80 in.) cab

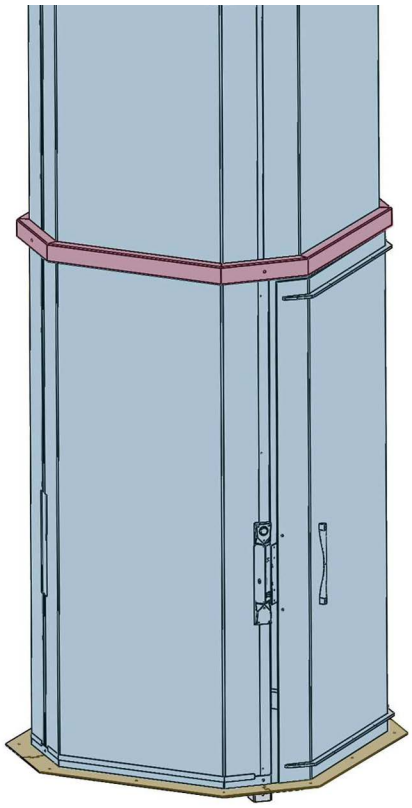


Figure 60: Plan view - octagonal+ glass (OGL) type 1

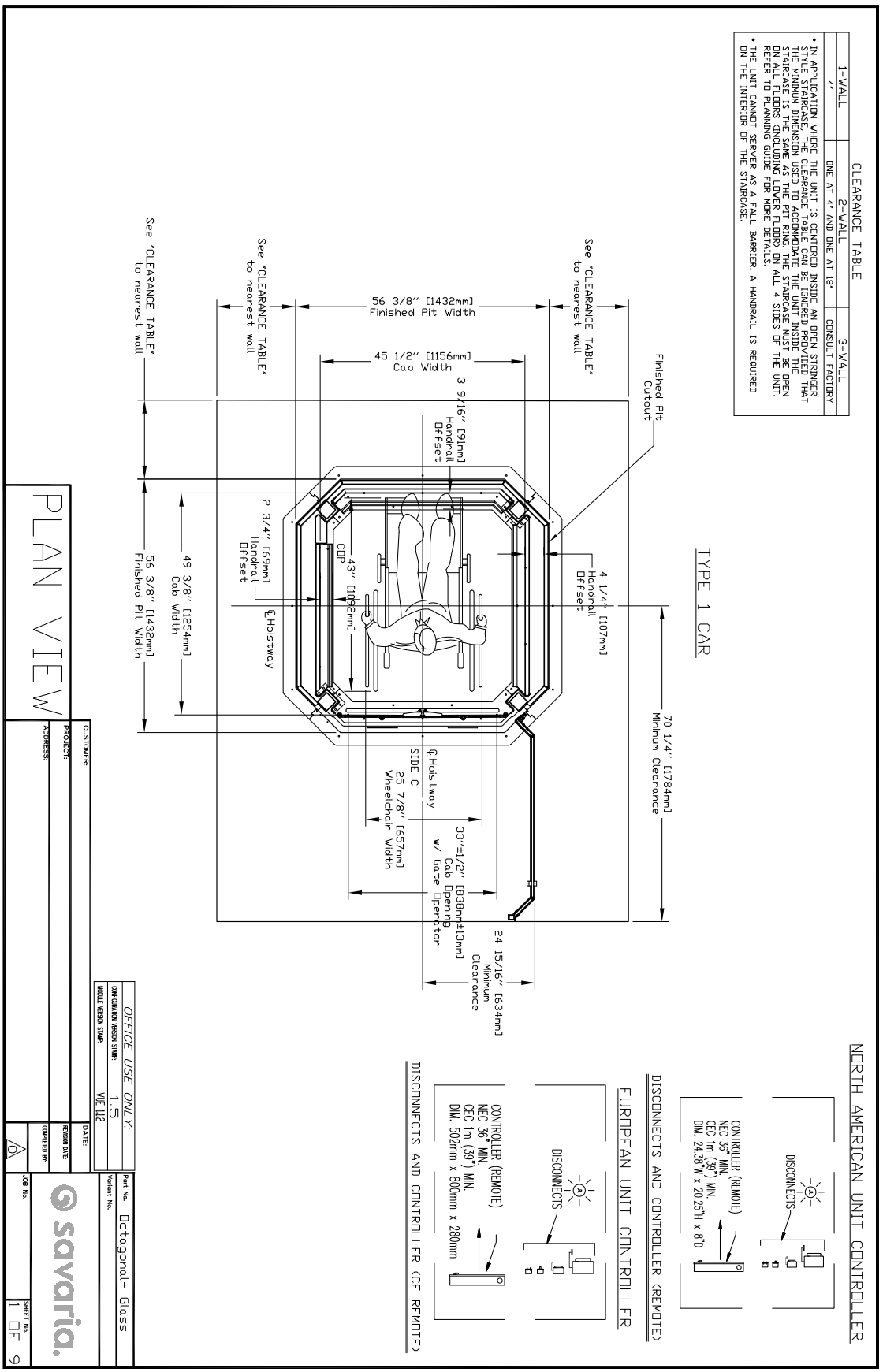


Figure 61: Plan view - octagonal+ glass (OGL) type 2

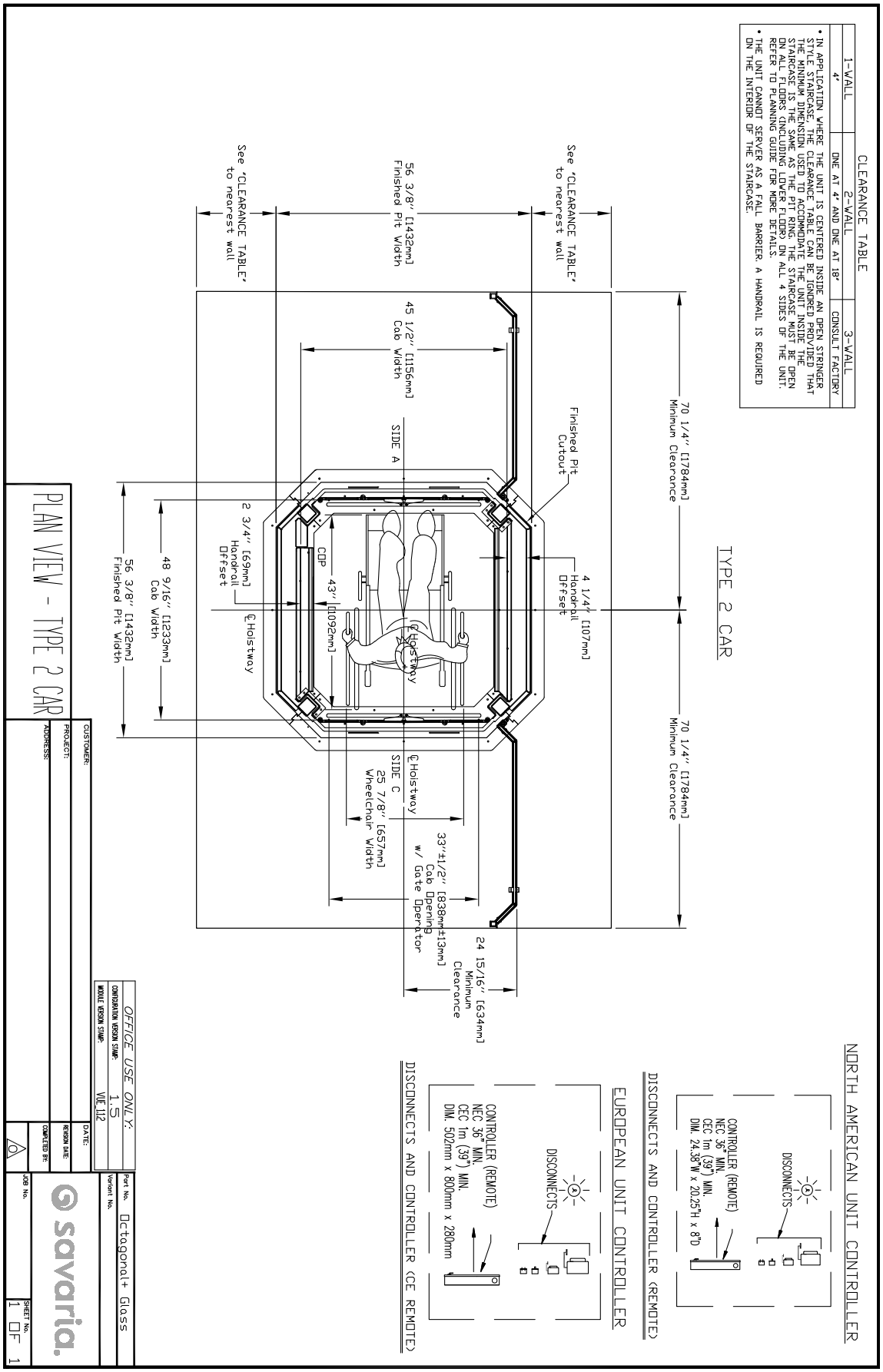


Figure 62: Plan view - octagonal+ glass (OGL) type 3

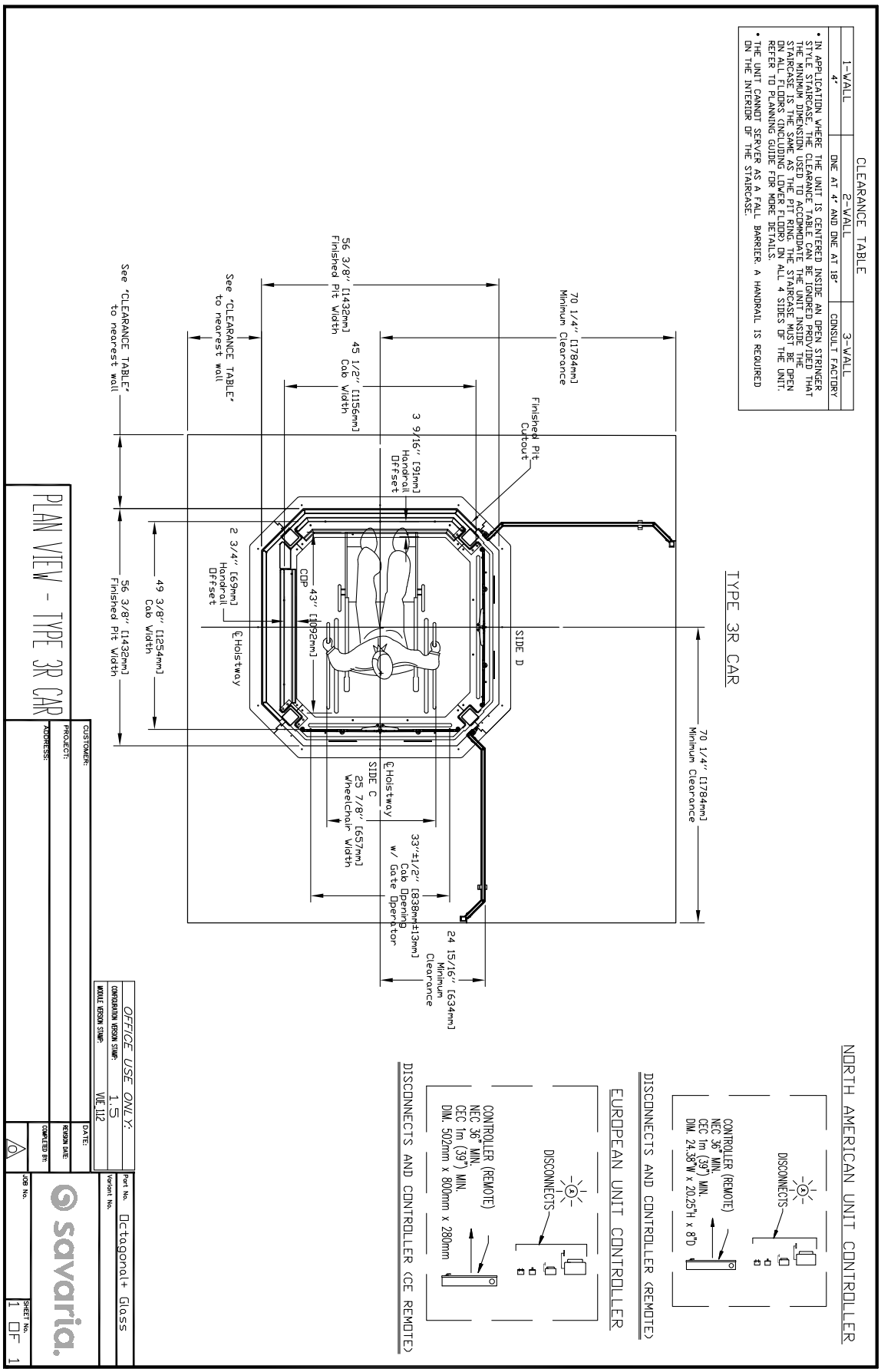


Figure 63: Pit view - octagonal+ glass (OGL) type 1, 2 or 3

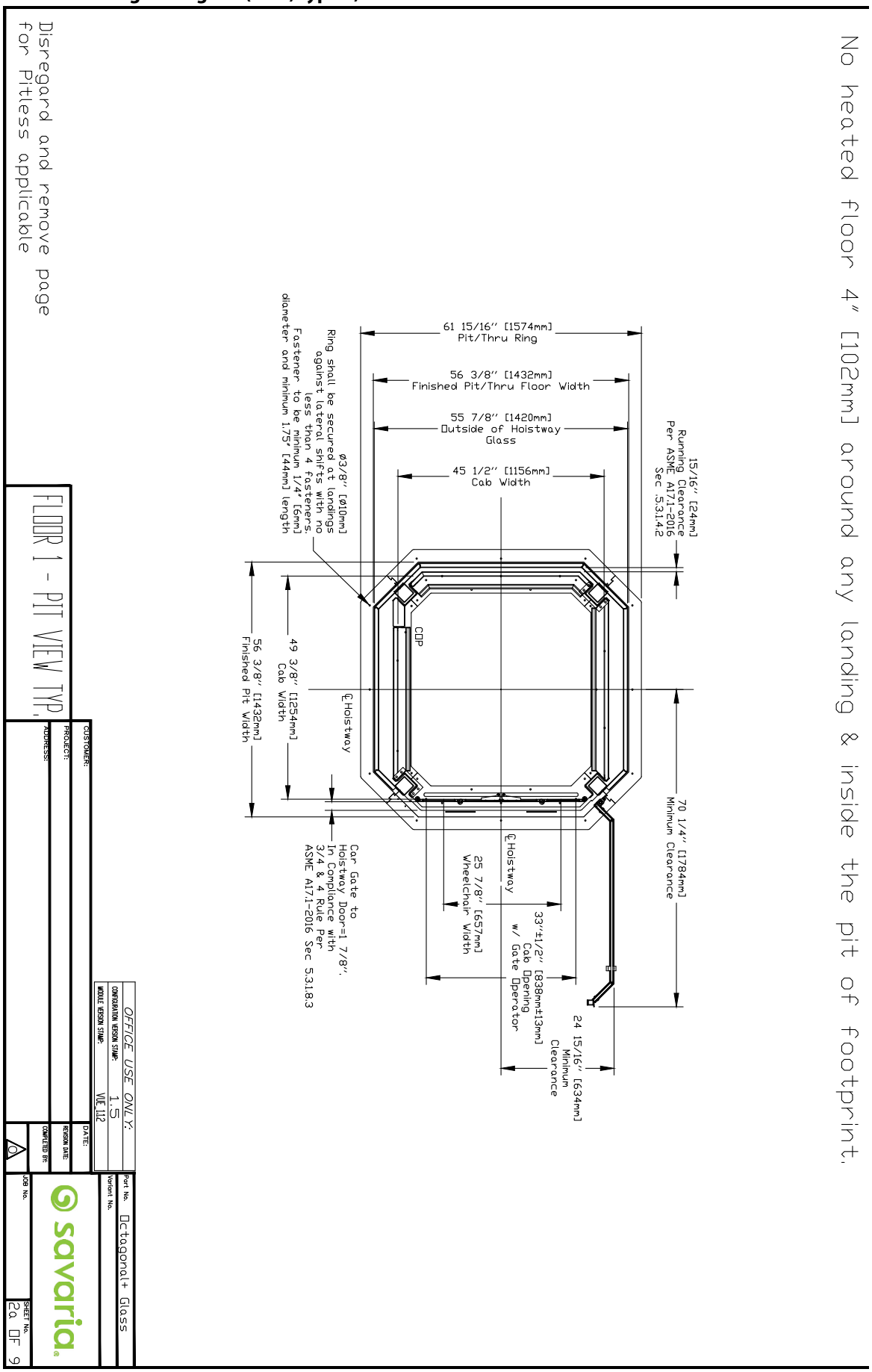


Figure 64: Base mount details- octagonal+ glass (OGL) type 1, 2 or 3

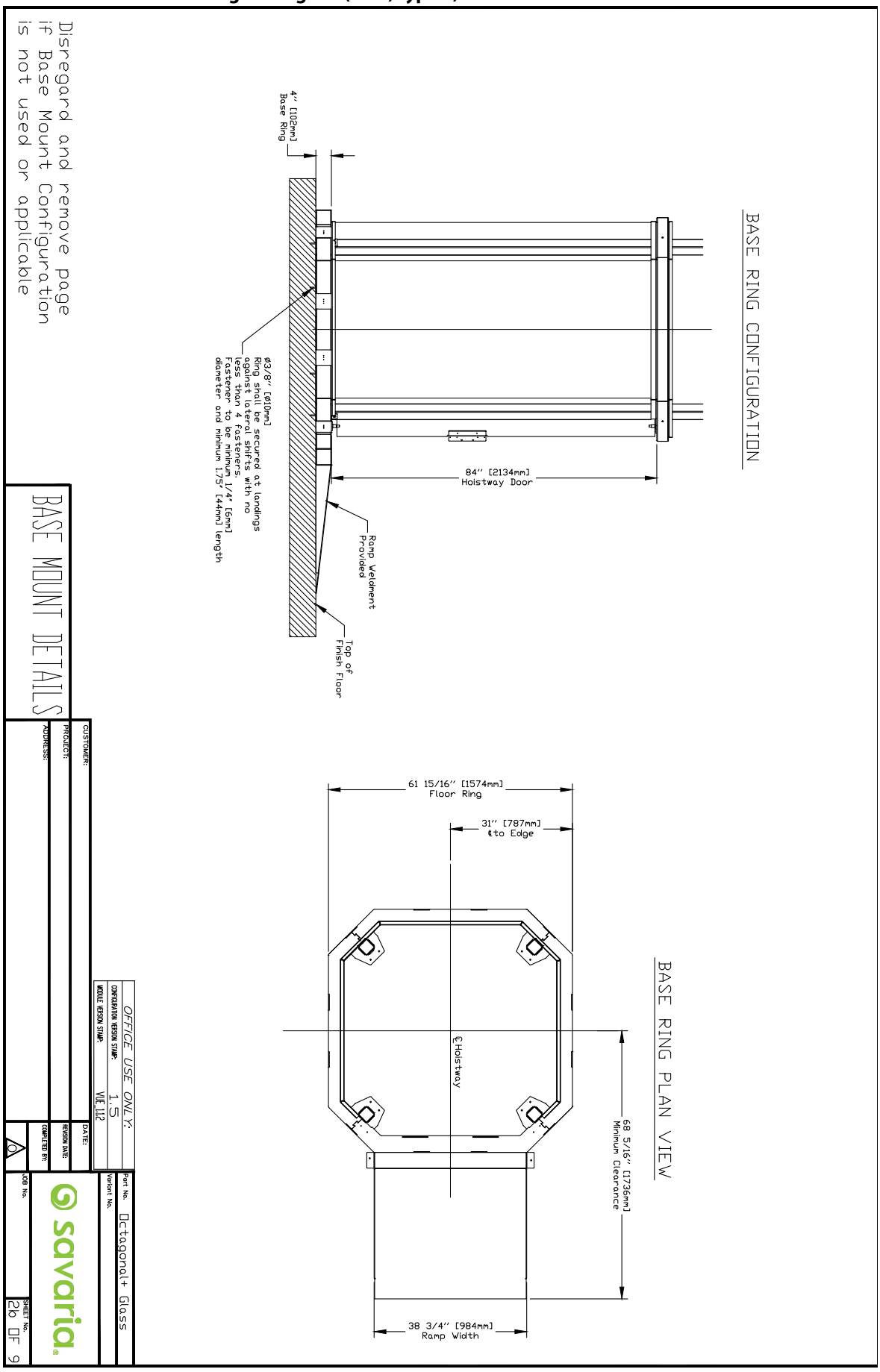


Figure 65: Thru-floor view - octagonal+ glass (OGL) type 1, 2 or 3

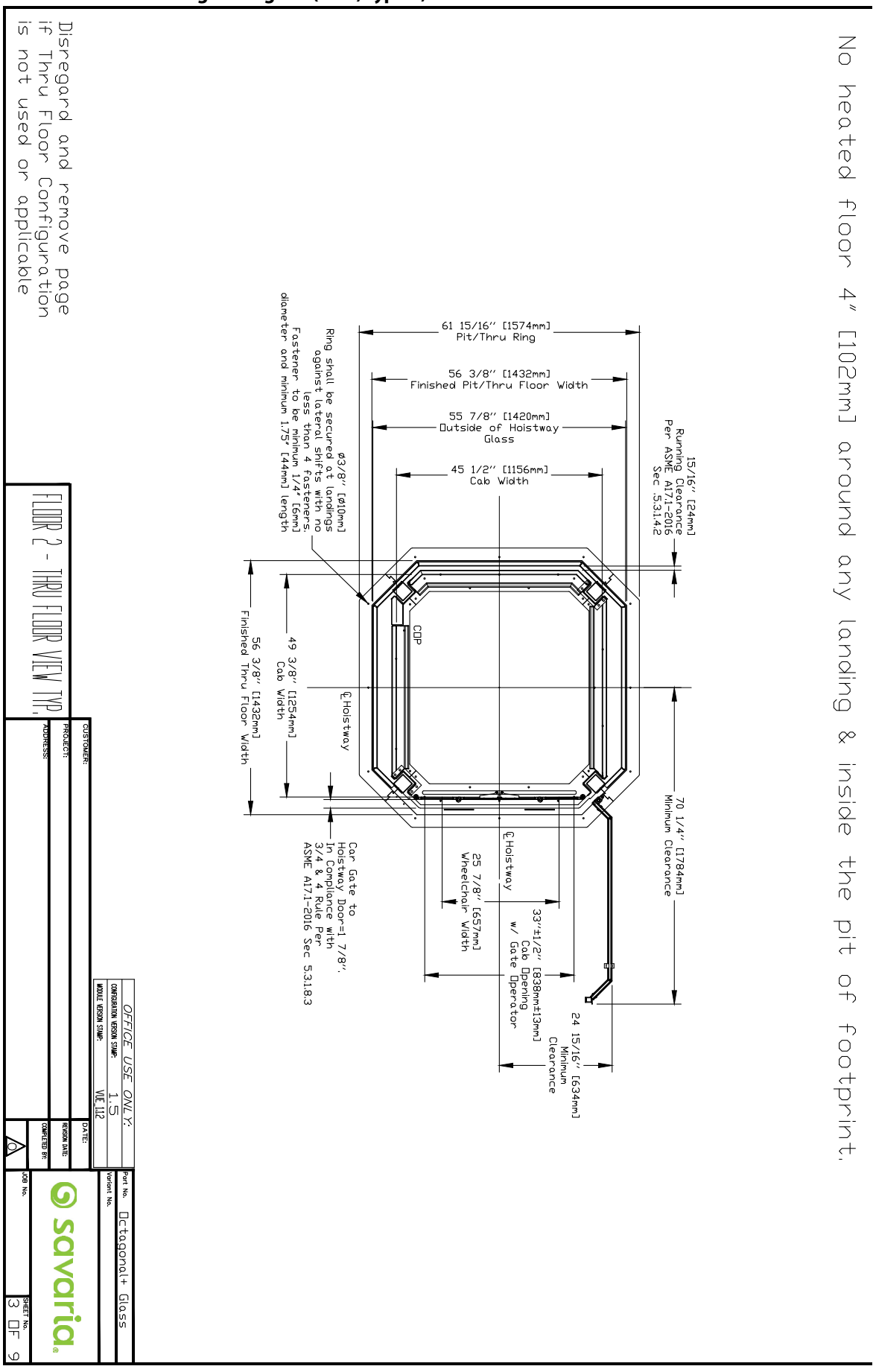


Figure 66: Balcony view - octagonal+ glass (OGL) type 1, 2 or 3

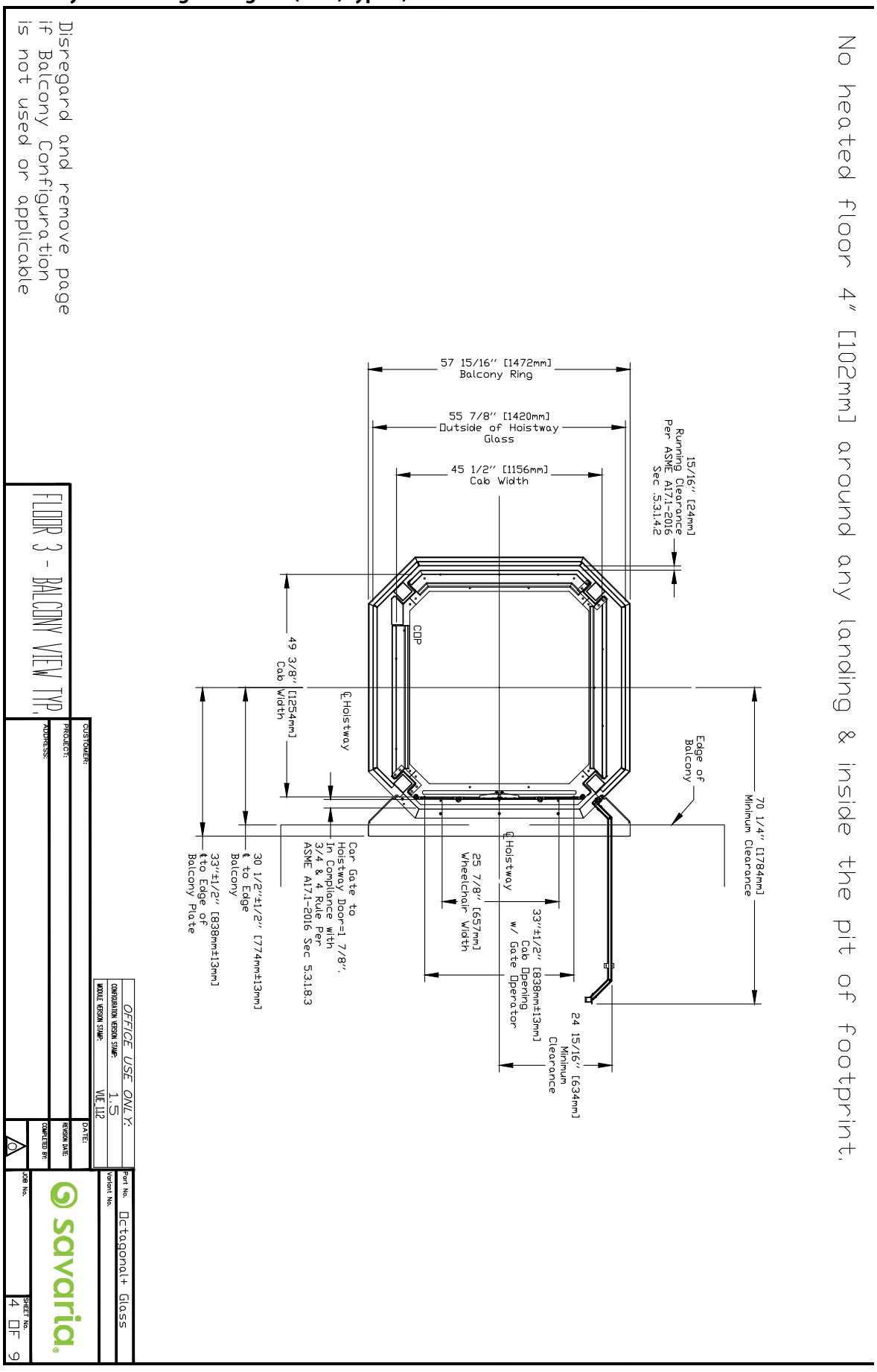
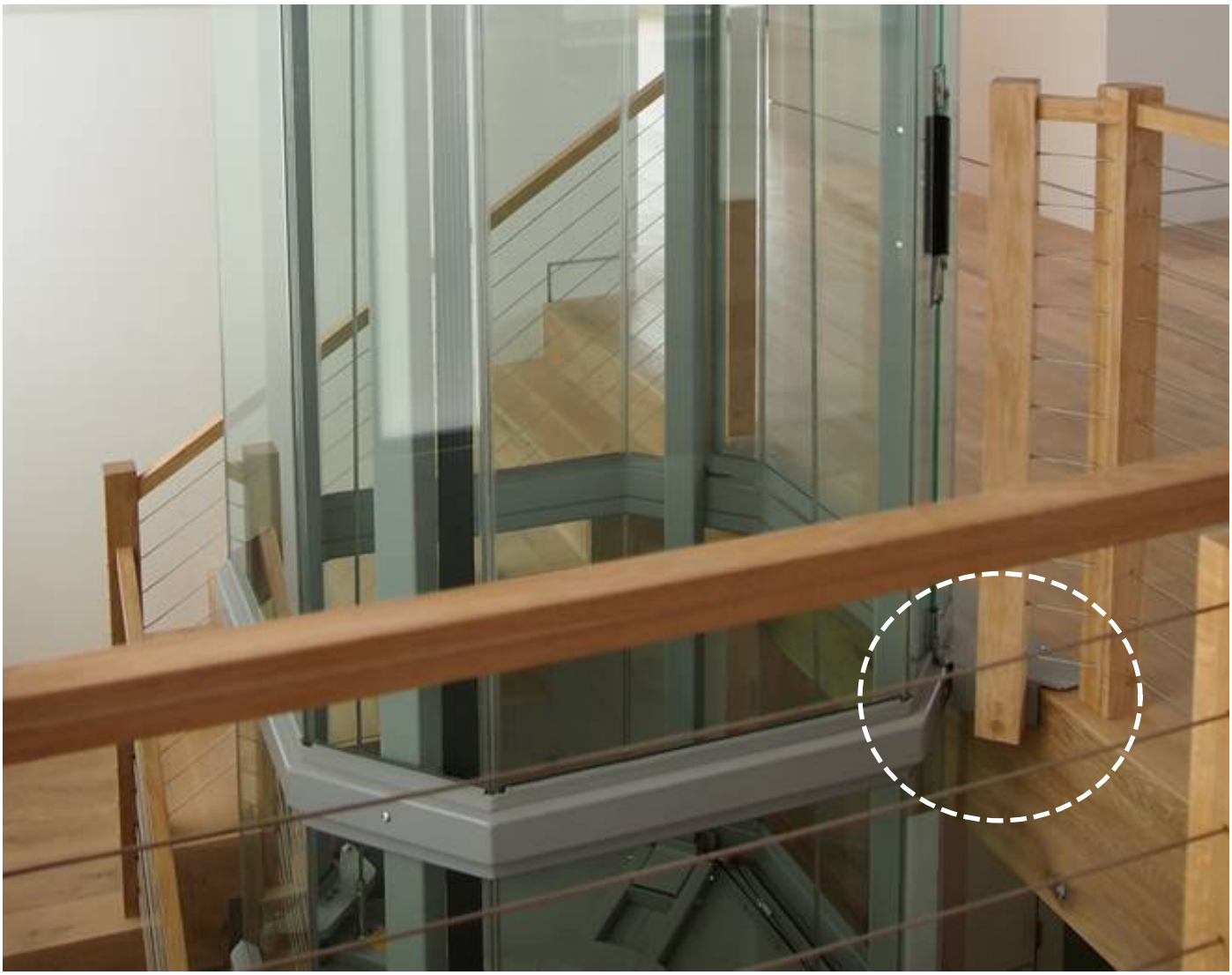


Figure 67Balcony plate and handrail information - octagonal+ glass (OGL) type 1 shown



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 is 1" (25.4 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 68: Thru-floor details - octagonal+ glass (OGL) type 1, 2 or 3

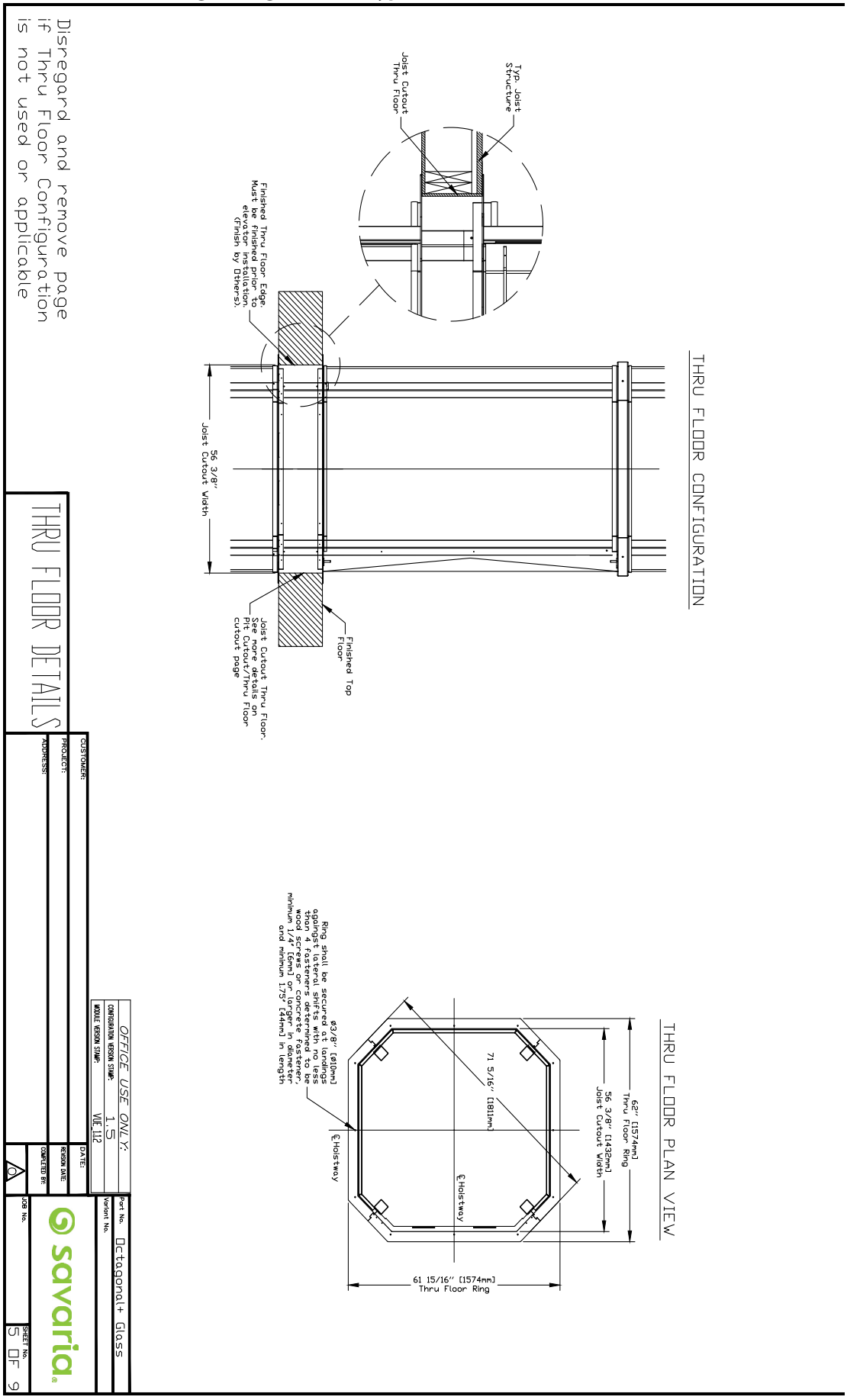


Figure 69: Balcony details - octagonal+ glass (OGL) type 1, 2 or 3

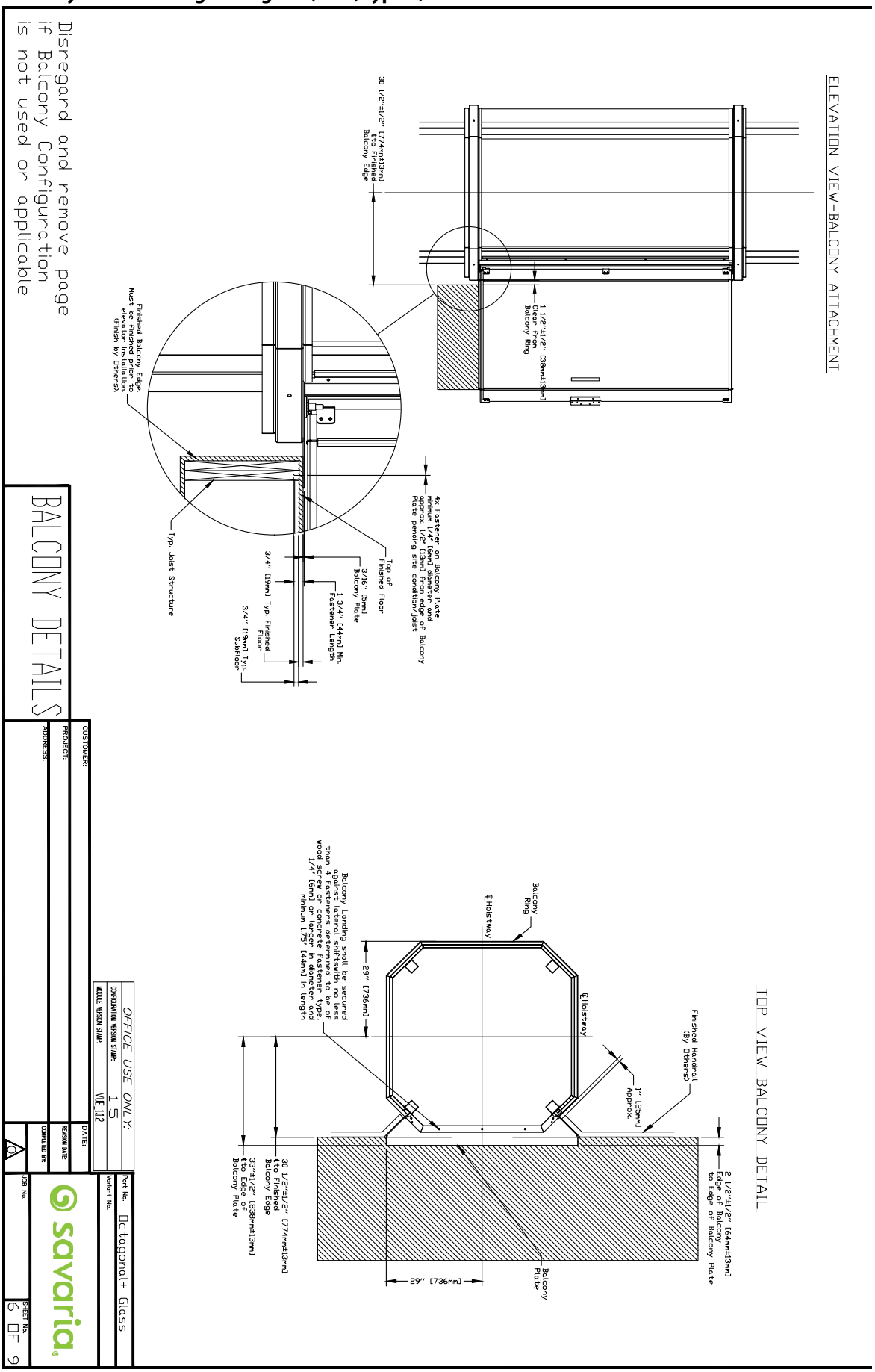


Figure 70: Elevation view - octagonal+ glass (OGL) type 1, 2 or 3

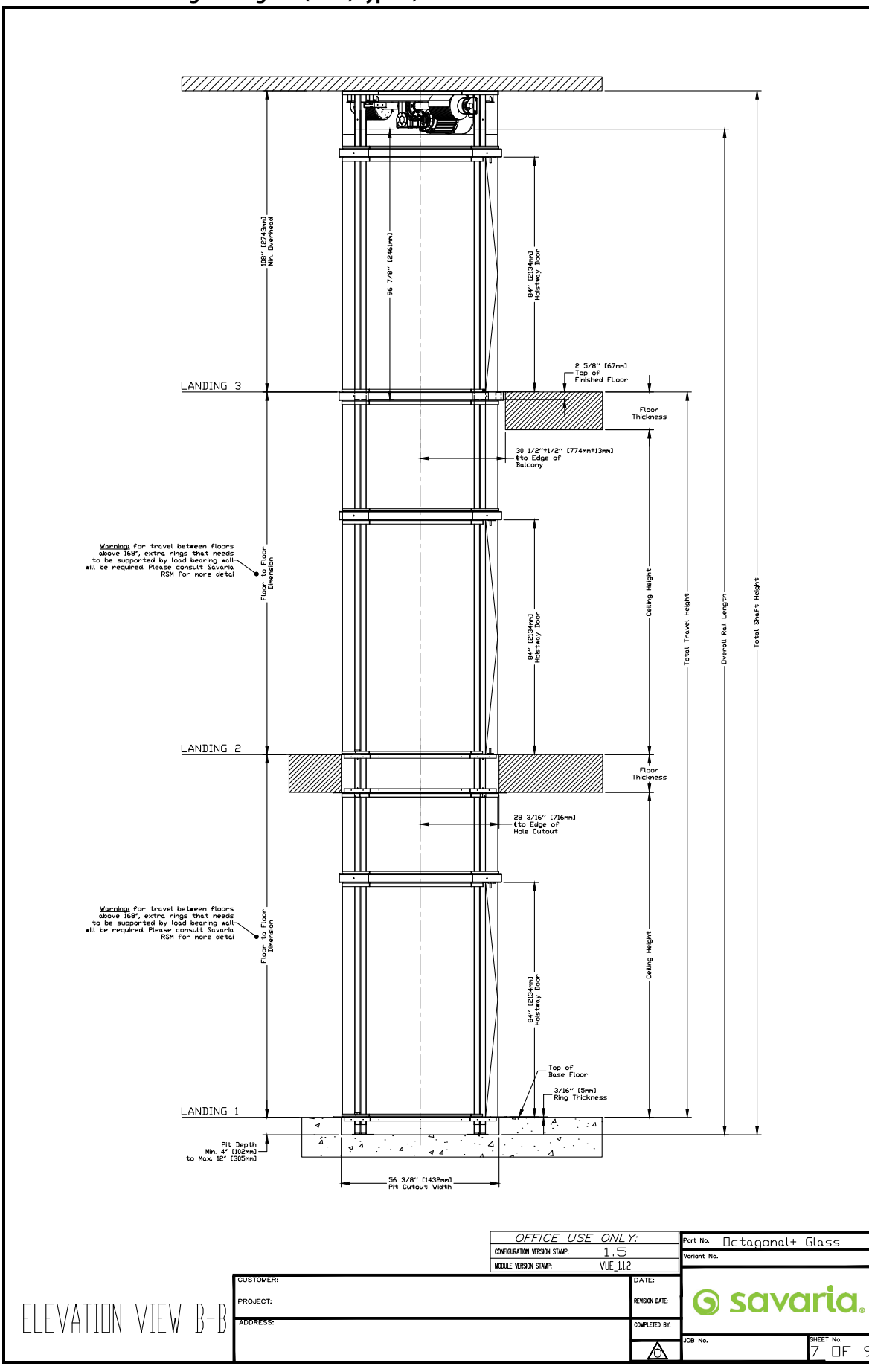


Figure 71: Pit cutout/thru-floor cutout - octagonal+ glass (OGL) type 1, 2 or 3

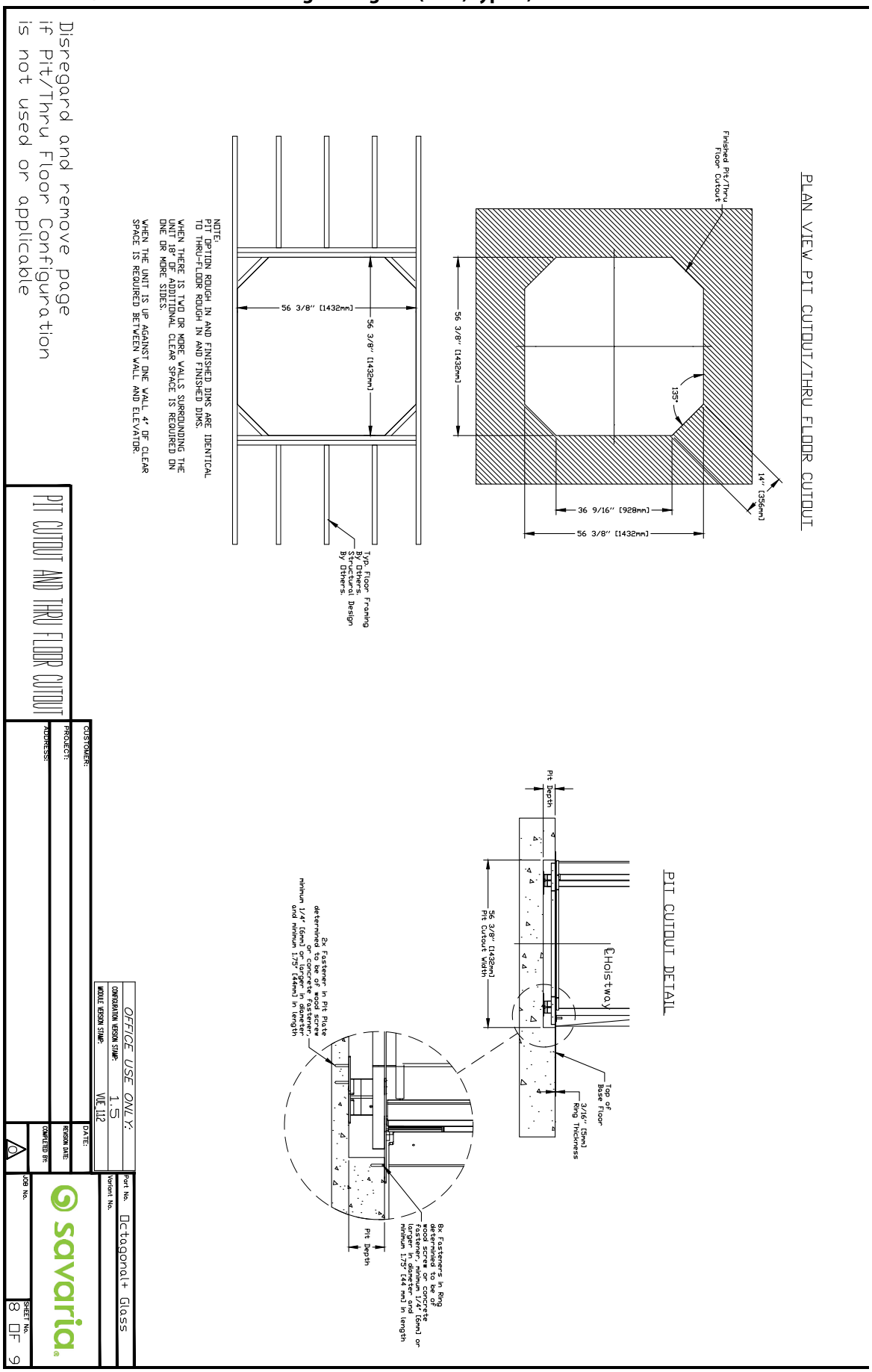


Figure 72: Datasheet - octagonal+ glass (OGL) type 1, 2 or 3

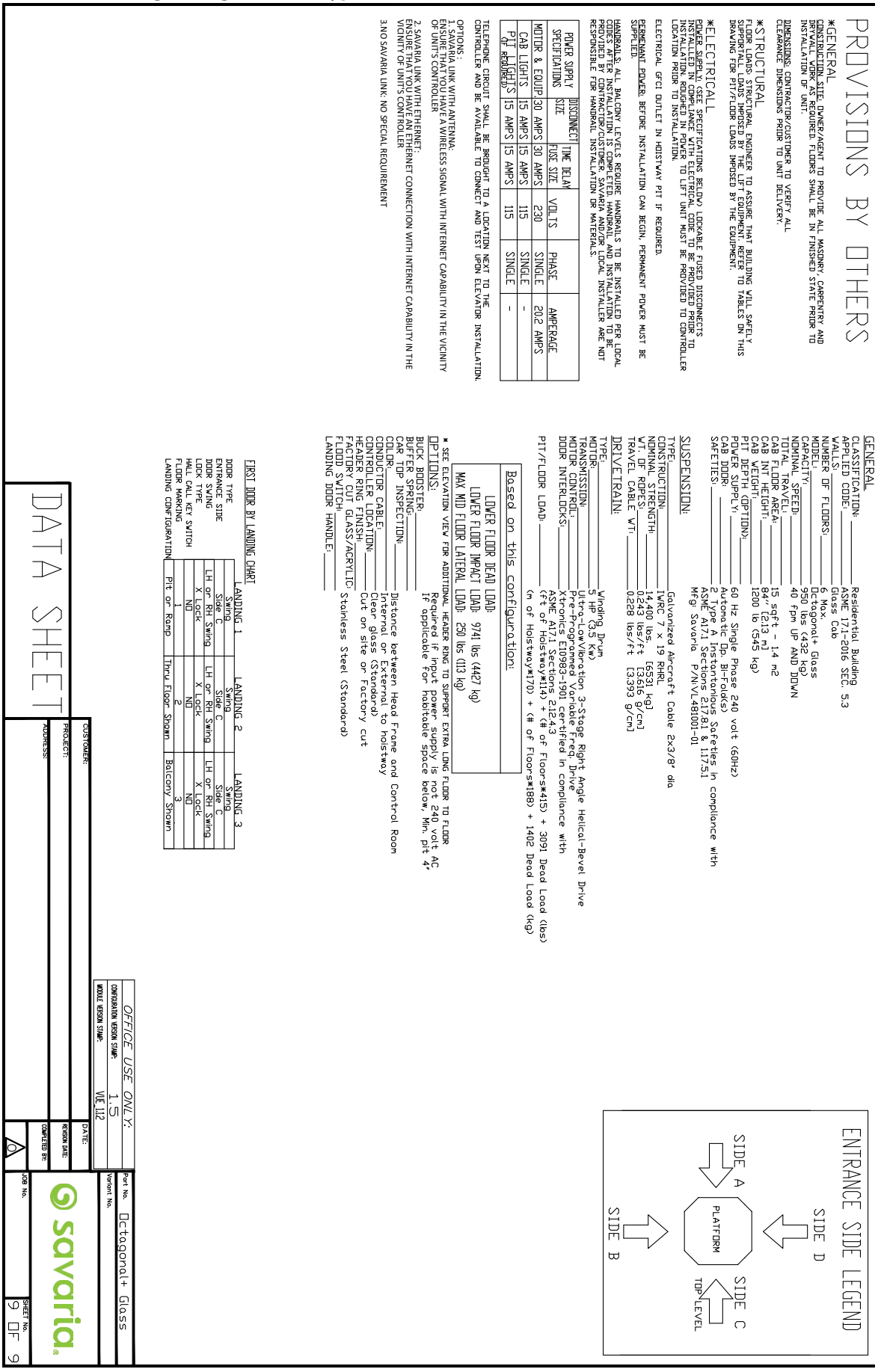


Figure 73: Machine room layout and wire routing - octagonal+ glass (OGL) type 1, 2 or 3

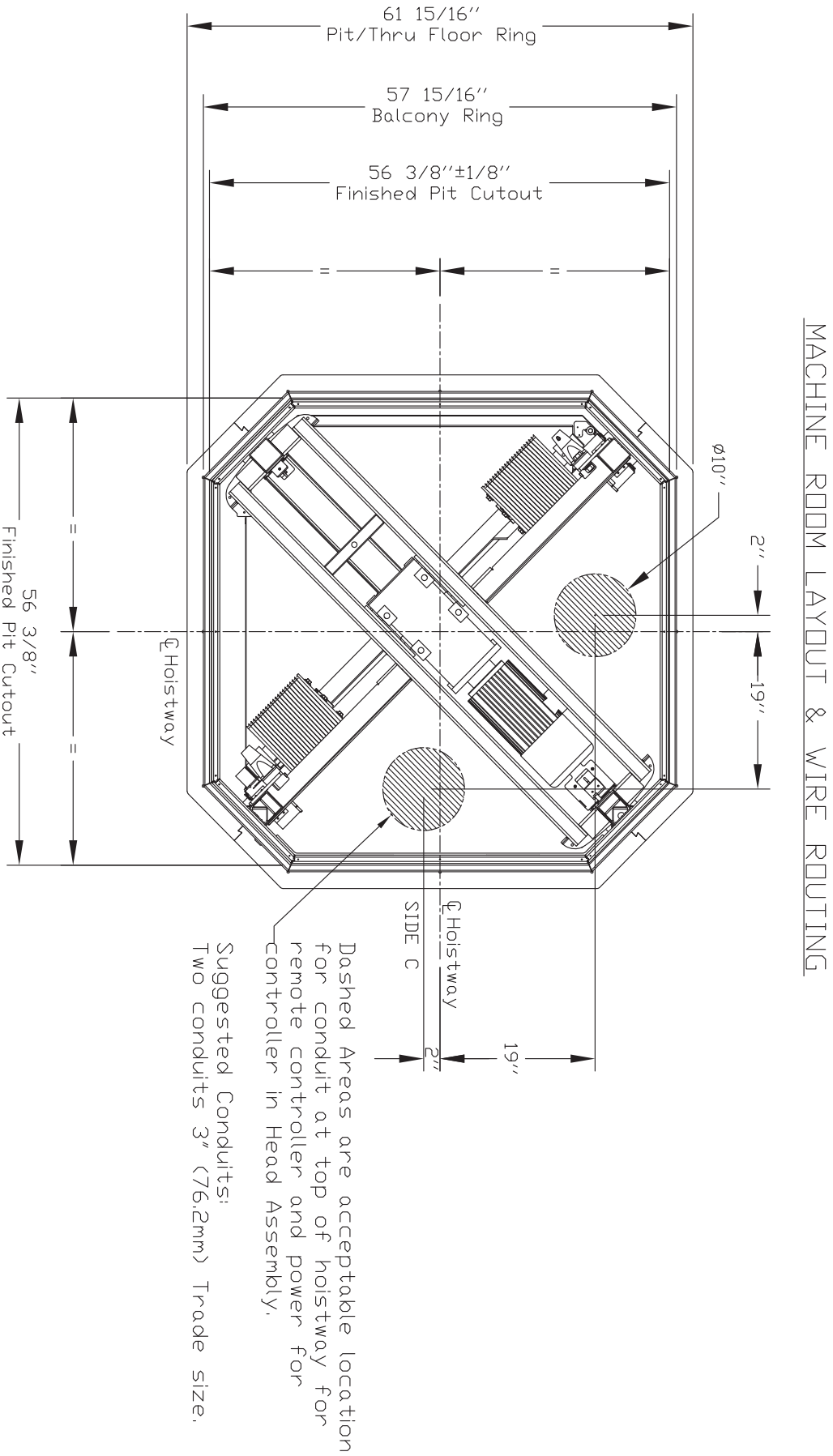
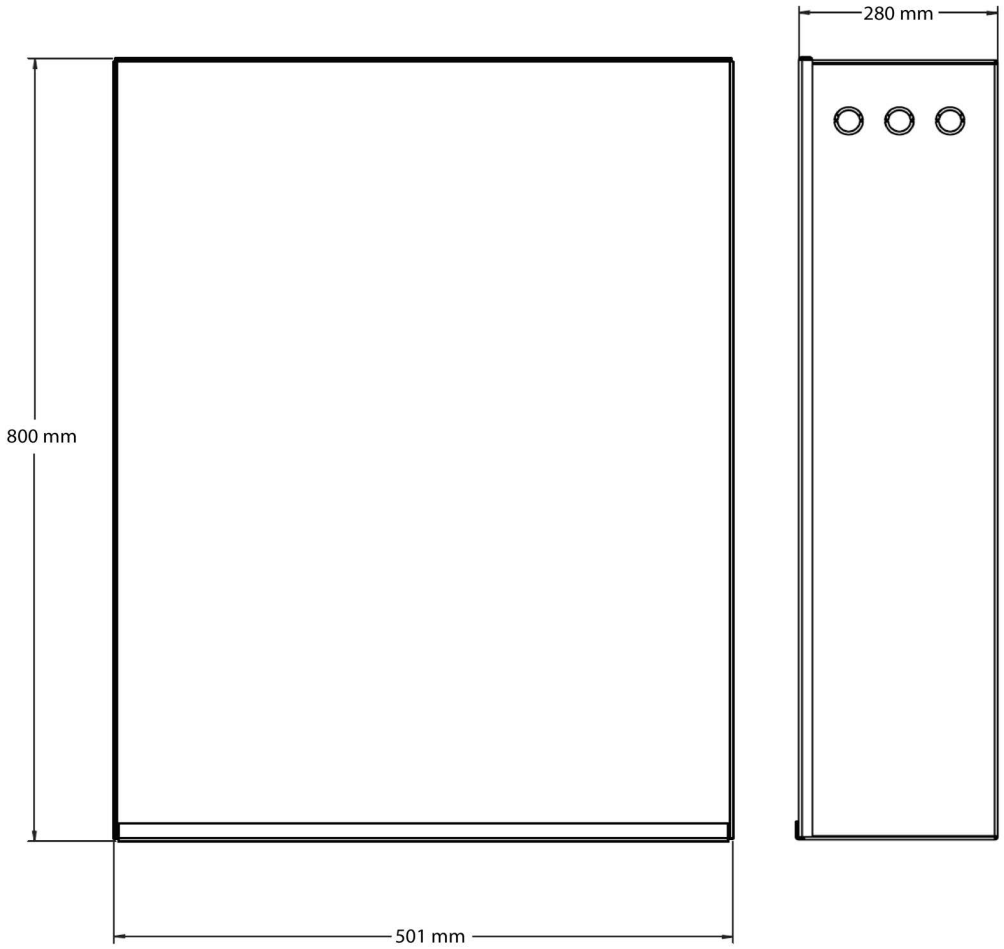


Figure 74: Controller box dimensions - round+ glass & octagonal+ glass (RGL & OGL) type 1, 2 or 3



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Site Preparation Checklist
Vuelift Round -OR- Octagonal Acrylic

Vuelift Elevators CANNOT be installed without ALL of the following items completed. Prior to any onsite installation team arriving, Vuelift requires that the following items be completed:

- **FInished Floors Completed**
  - Prior to elevator installation beginning, finished floors MUST be installed at all landing levels as the landing rings sit on top of the finished floor.
- **230V Power with Fused Disconnect**
  - Quantity 1: Permanent 230V, single phase, 30 ampere dedicated power to a lockable fused (cartridge type) disconnect switch.
    - Disconnect switch must be mounted in the elevator control panel room.
    - Disconnect must be installed according to all applicable local codes.
- **120V Power with Fused Disconnect**
  - Quantity 1: Permanent 120V, single phase, 15 ampere dedicated power to a lockable fused (cartridge type) disconnect switch.
    - Disconnect switch must be mounted in the elevator control panel room.
    - Voltage must be run from the disconnect switch to a junction box in a discrete location within 3' of the top of the elevator hoistway location (If required by the applicable local code.
- **Conduit from Elevator Control Room to Top of Elevator Hoistway**
  - 1 @ 1'' trade size for the 240VAC motor wire
  - 1 @ 2'' (or 3'' for 4+ stops) trade size for all low voltage wires
- **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 building contractor for code requirements.
- **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 your local installer or our factory.
- **Floor and Pit Cutouts Completed**
  - 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 your local installer 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. Dimensions on drawings are to finished surfaces.
  - Hole in floor, or modified balcony rail as directed by drawings.
- **Check Floor to Floor Max and Min Distances**
  - All measurements on site to match the job specific drawings.
  - Minimum overhead to match the job specific drawings.
- **Walls and Painting Must be Completed**
  - Drywall or Plaster sanding, finishing and painting must be completed.
- **Jobsite Clean**
  - Jobsite should be clean. Debris which could damage the elevator should be removed.

Vuelift

Residential Elevator
PLANNING GUIDE

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