



57 South Commerce Way #130, Bethlehem PA 18017  
(610) 443-2282

## Roped Driven TRIO 6m Homelift Layout Drawing Submittal

Customer: \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Contact: \_\_\_\_\_

Project Name: \_\_\_\_\_  
Location: \_\_\_\_\_


The Liftinstituut B.V., an accredited ANSI AECO, has certified the elevator system meets the requirements of the ASME A17.7-2007 / CSA B44.7-07 per certificate no. NA17-0842-1004-026-01 revision no. 3.

The TRIO Homelift complies with NFPA 70 NEC 2014 / CSA C22.1 and applicable building codes.



Block: xxx Lot: xxx  
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© <b>Stiltz Ltd.</b> 2021			TITLE		
Drawn <b>Wagon Wang</b>		Date <b>09/24/2019</b>	TRIO Homelift 6m Title Page		
<div><p>THIRD ANGLE PROJECTION - AS 1100</p></div> <div>DIMENSIONS IN MM UNLESS OTHERWISE NOTED</div>			A4	Dwg No <b>SURNAME. 01</b>	PAGE
				SCALE:	1 OF 8

**GENERAL DATA**

Type:	TRIO Homelift
Capacity:	500 lbs.
Speed:	21.7 ft/min
Maximum travel:	19.685 ft
Car floor area:	8.5 sq ft
Landings:	3 max.
Car entrances:	1 in-line, 2 thru
Operation:	Constant pressure

**LIFT WEIGHT**

Hoist unit (machine room above car):	242 lbs
Car body:	99 lbs
Total empty lift:	440.0 lbs.

**SUSPENSION ROPES**

Manufacturer:	Pfeifer Drako
Type:	Drako 7 x 19 WSC (Mil Spec 83420)
Dimensions:	0.2362 in (6mm)
Min. breaking force:	29,0 kN

**GUIDE RAILS**

Manufacturer:	Stiltz
Type:	Specific Aluminium Alloy (AA 6063) extrusion
Size:	Overall depth 7.165 in, width 3.756 in

**CAR**

Type:	Centrally guided, 1 or 2 entrances
Suspension:	2 ropes, drum
Walls:	Sides have full walls.
Door:	Manual operation swing full height doors.
Floor surface:	In accordance with clause 5.3.1.11
Apron minimum vertical height:	2.362 in
Handrail:	Included as standard

**APPLIED COMPONENTS**

Safety gear; manufacturer; type:	Stiltz, mechanical gripper plates and rods
Car door lock; manufacturer; type:	Stiltz (Kunshan) Limited, ES 20M
UL certificate:	102448987CRT-001

**MACHINE EQUIPMENT**

Manufacturer:	Nord Gear Ltd
Type:	SK9016.1 AX VL-80SH/4 DBR6 HL TF OL/H (Bevel gear unit)
Motor Power:	0.55 kW
Output Speed:	1420 / 16 rpm
Reduction:	01:91.77
Output Torque:	339 Nm
Brake torque; manufacturer:	5 Nm; Precima
Drum; manufacturer:	YangZhou Saiierda Nylon manufacture Co. Ltd.
Material:	Cast Iron
Diameter:	7.874 in (200mm)
Diverter pulley; manufacturer:	YangZhou Saiierda Nylon manufacture Co. Ltd.
Material:	Nylon
Quantity:	2

**ELECTRICAL**

Main power:	220-1-60 HZ - 20 AMP
Signal voltage:	24 VDC
Emergency lowering system:	Battery 12 V - 12 AMP, with emergency lighting
PLC; manufacturer:	Mitsubishi
Type:	AL2-24MR-D
VFD; manufacturer:	Mitsubishi
Type:	FR-D720

**SIGNAL/SAFETY FEATURES**

Landing controls:	Remote transmitters hold-to-run buttons, with back lights
Car controls:	Hold-to-run call buttons, with back lights
On/off and reset switch:	Keyed on car operating panel
Emergency stop:	Push emergency stop switch with alarm siren
Emergency signalling device:	Two way voice communication telephone, to landline
Car indicator lights:	Over-speed, over-load, out-of-balance, bottom-top obstruction
Car Lighting:	LED strip lighting in ceiling and LED puck lighting cab floor
Top of car/machine room:	Load sensitive top plate above lift
Bottom of car:	Obstruction sensor pad at base of lift car

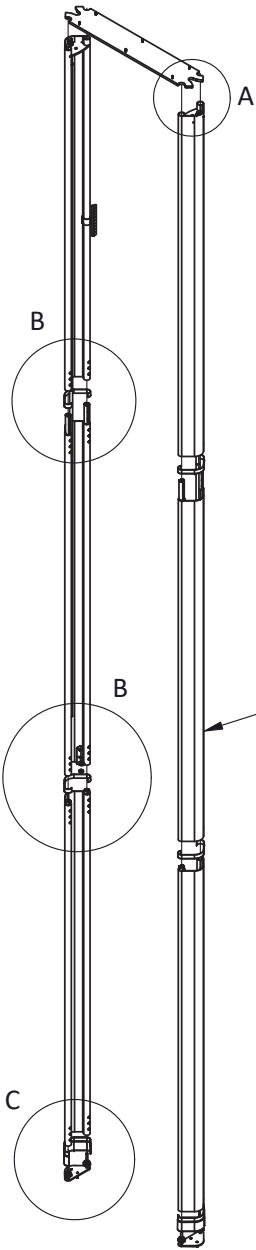
Car door contact; manufacturer;	Kronenberg, PZ 73
UL certificate:	20141104-SA34041
Machine brake; manufacturer;	Precima
UL certificate:	1478630



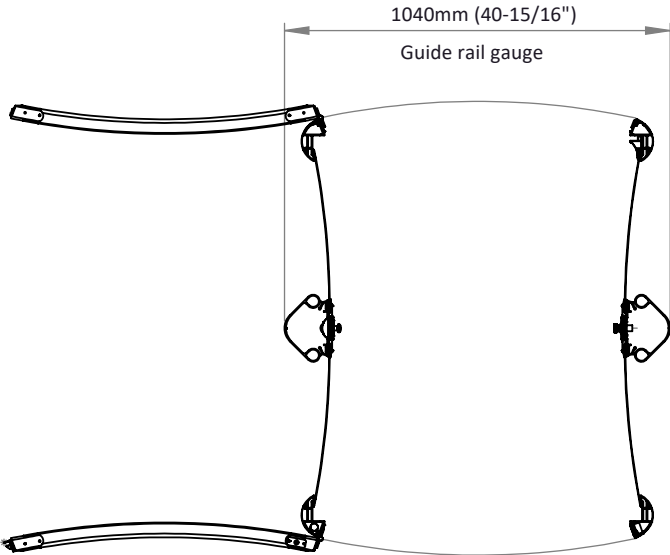
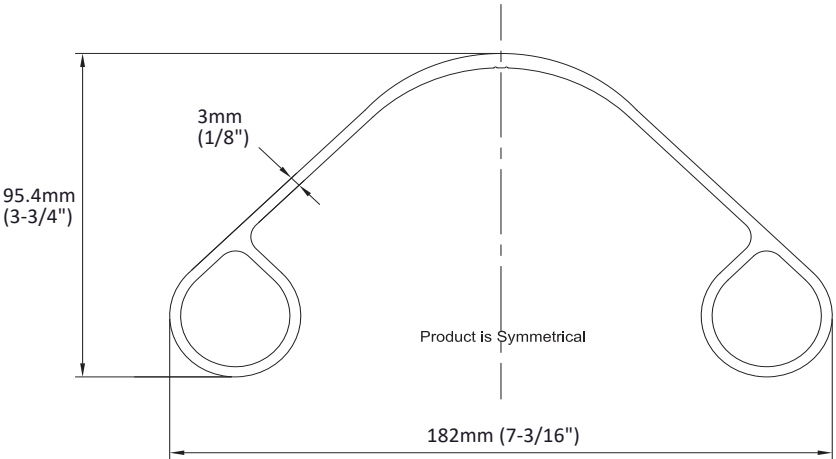
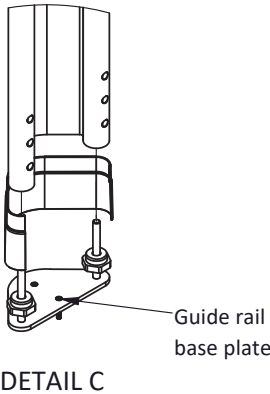
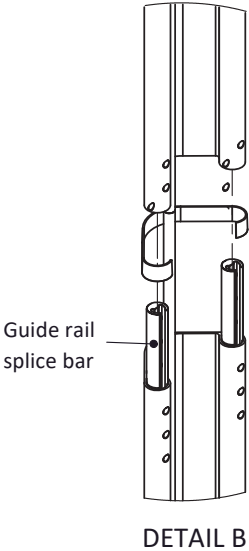
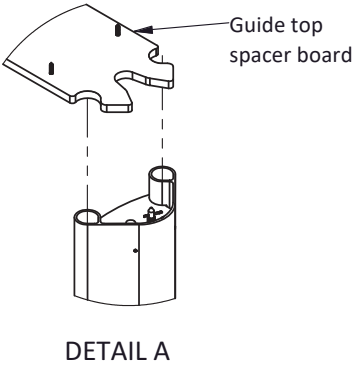
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Drawn	Wagon Wang	Date	09/24/2019
		DIMENSIONS IN MM UNLESS OTHERWISE NOTED THIRD ANGLE PROJECTION - AS 1100	
A4		Dwg No SURNAME. 02	PAGE
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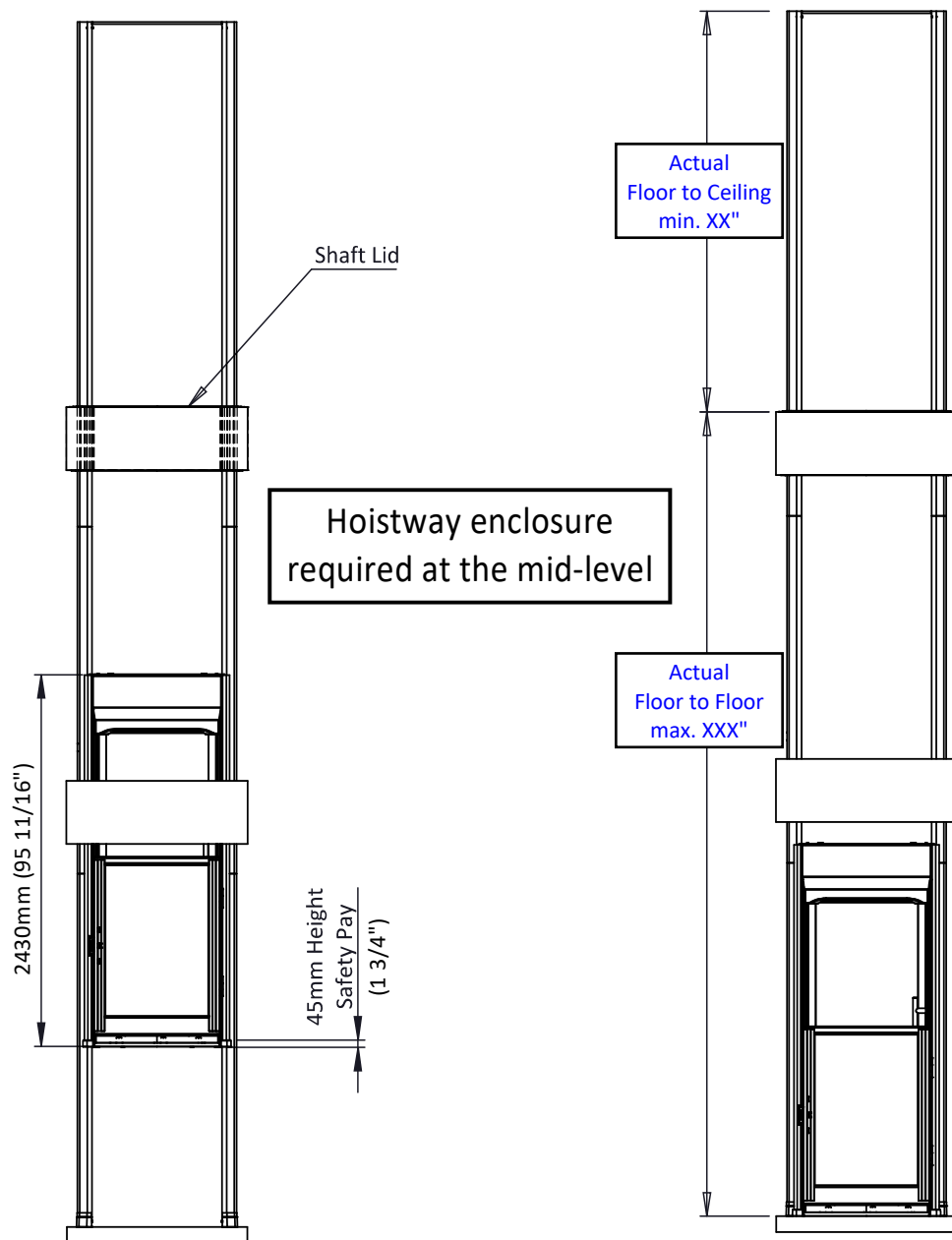
Universal guide rail  
length 2300mm (90-1/2")



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© <b>Stiltz Ltd.</b> 2021		TITLE	
Drawn <b>Wagon Wang</b>	Date <b>09/24/2019</b>	<b>Guide Rail Support System</b>	
 THIRD ANGLE PROJECTION - AS 1100		DIMENSIONS IN MM UNLESS OTHERWISE NOTED	
<b>A4</b>	Dwg No <b>SURNAME. 03</b>	PAGE	
	SCALE:	3 OF 8	



#### A17.1.5.3-2013 / CSA B44-13 deviations:

- (1) 5.3.1.3 – Insufficient car top clearance
- (3) 5.3.1.16.2.j – Top of car

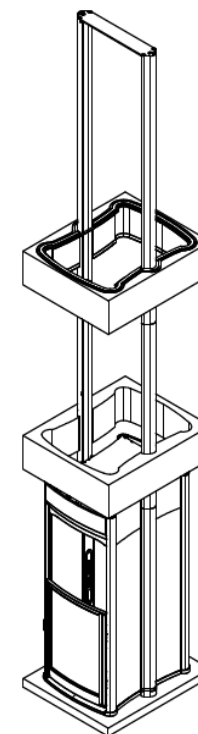
The top of the mechanical hoist enclosure, which is positioned on top of the lift car, is equipped with; (i) a fixed protection panel; (ii) six micro switch limits; (iii) an extreme upper limit switch; and (iv) in most cases the shaft lid.

The fixed protection panel will prevent penetration into the hoist enclosure, but is not designed to be stood on. Signage is installed to inform and remind people not to stand on top of the lift. A micro switch will activate, and stop the lift, if the protection panel is removed. In addition, the shaft lid that protects the second floor opening (from falling hazard) travels on top of, and protects, the car top mounted hoist unit. A wire rope clamp and locking mechanism is fitted to the shaft lid preventing removal.

The main switch to disconnect all power to the hoist, is located just below the protection panel. This allows the hoist to be disabled from about the lift cab, and therefore the lift cannot travel in either direction electrically.

The six micro switches and extreme upper limit switch (absolute final limit) will activate when depressed. So if any top clearance risk occurs, the person/s can depress any one of the six micro switches or extreme upper switch and the lift will stop moving upwards immediately. If the extreme upper limit is activated, the reset button (adjacent to the extreme upper limit) will be depressed to move the lift downwards.

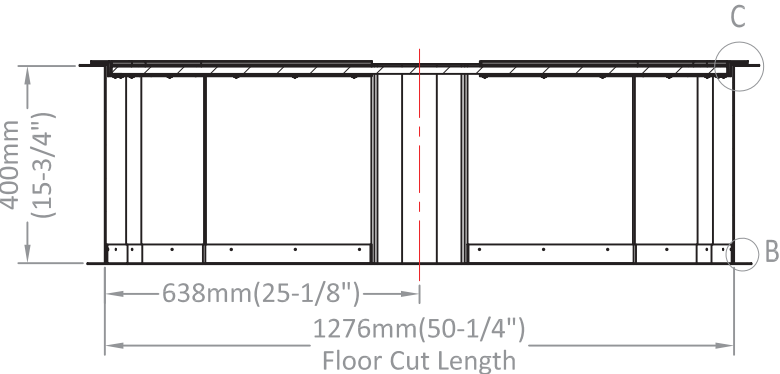
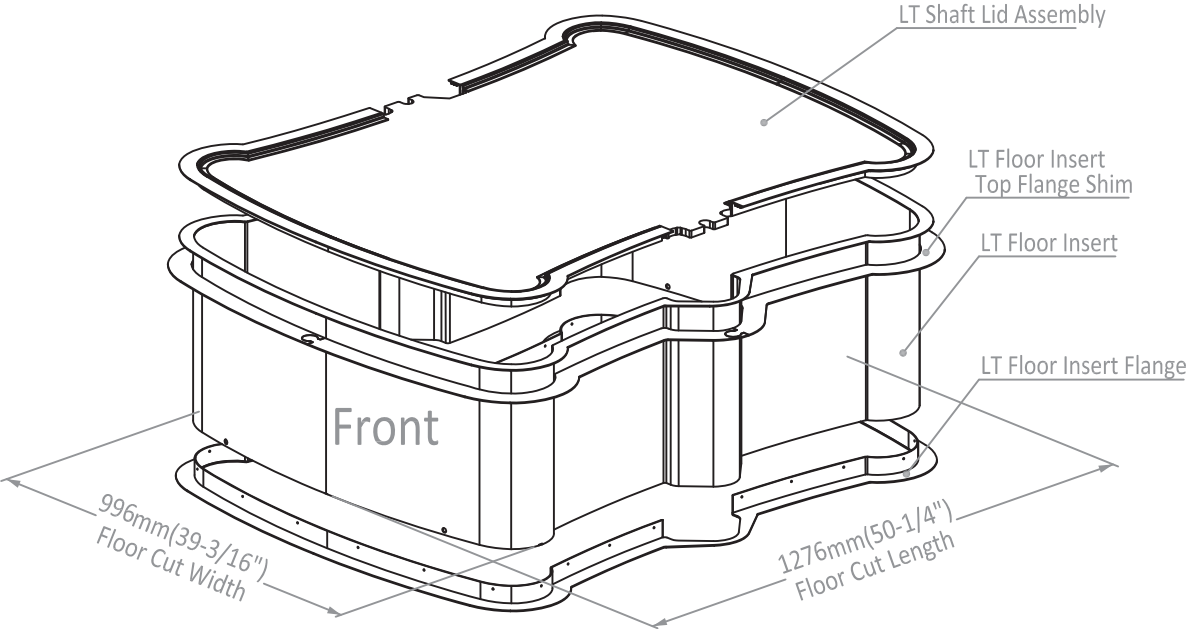
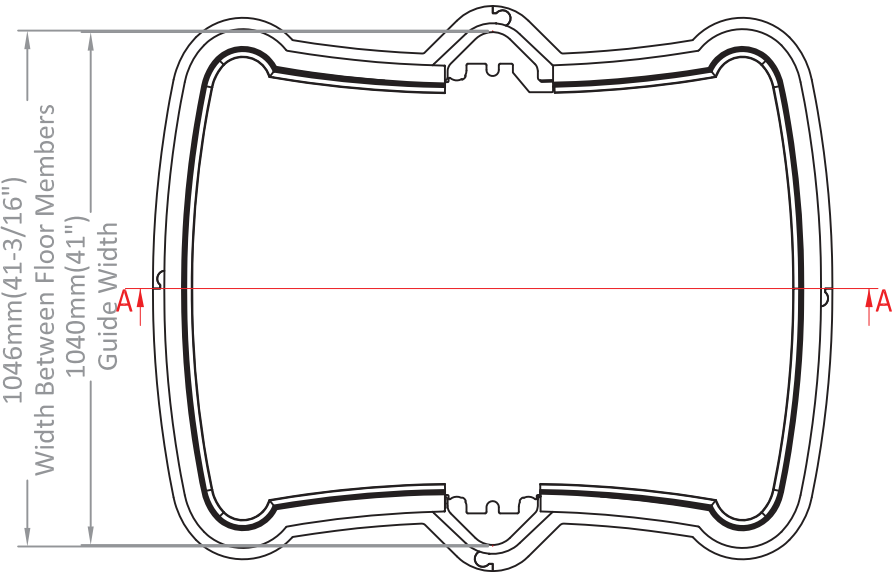
In addition, signage is installed to inform and remind people of the low head height clearance above the lift car.



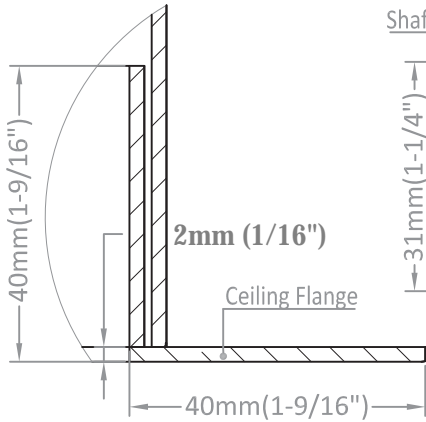
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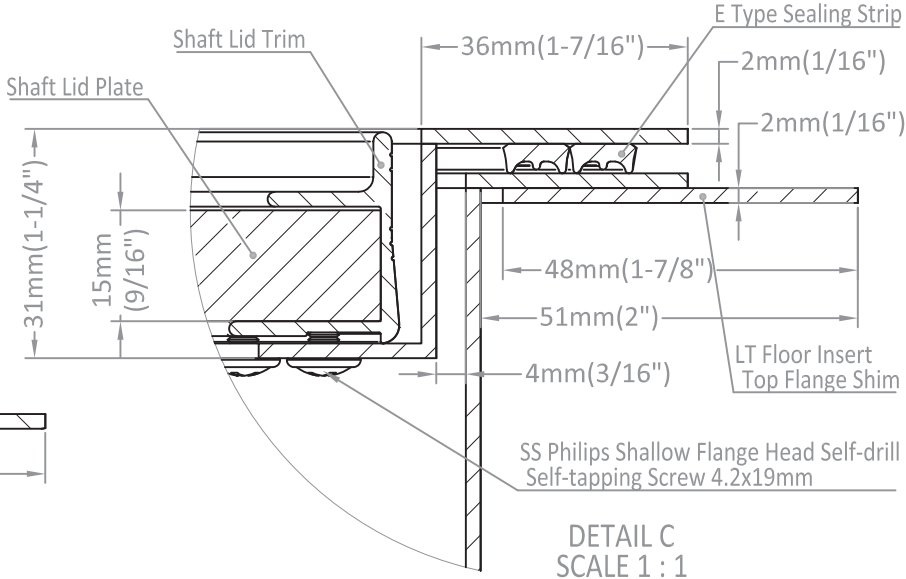
© Stiltz Ltd. 2021		TITLE	
Drawn	Wagon Wang	Date	09/24/2019
THIRD ANGLE PROJECTION - AS 1100		TRIO Homelift Travel	
A4		Dwg No	SURNAME.04
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SECTION A-A



DETAIL B  
SCALE 1 : 1




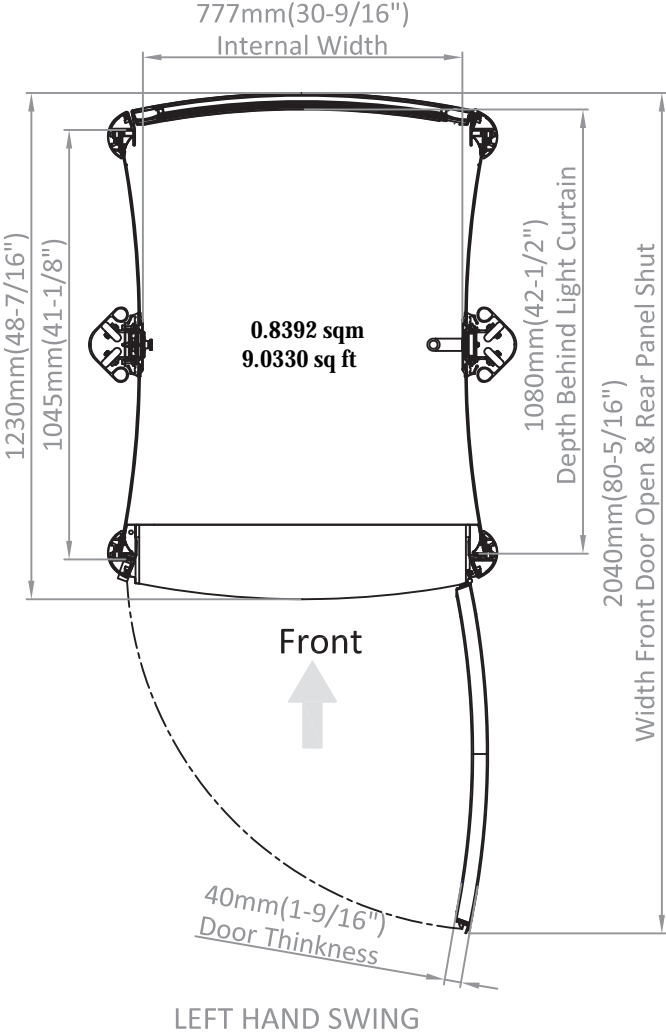
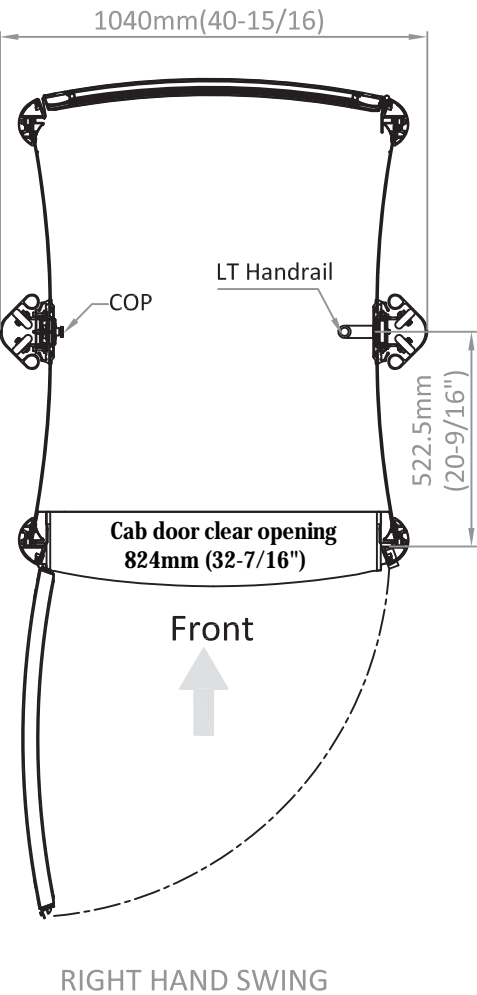
DETAIL C  
SCALE 1 : 1



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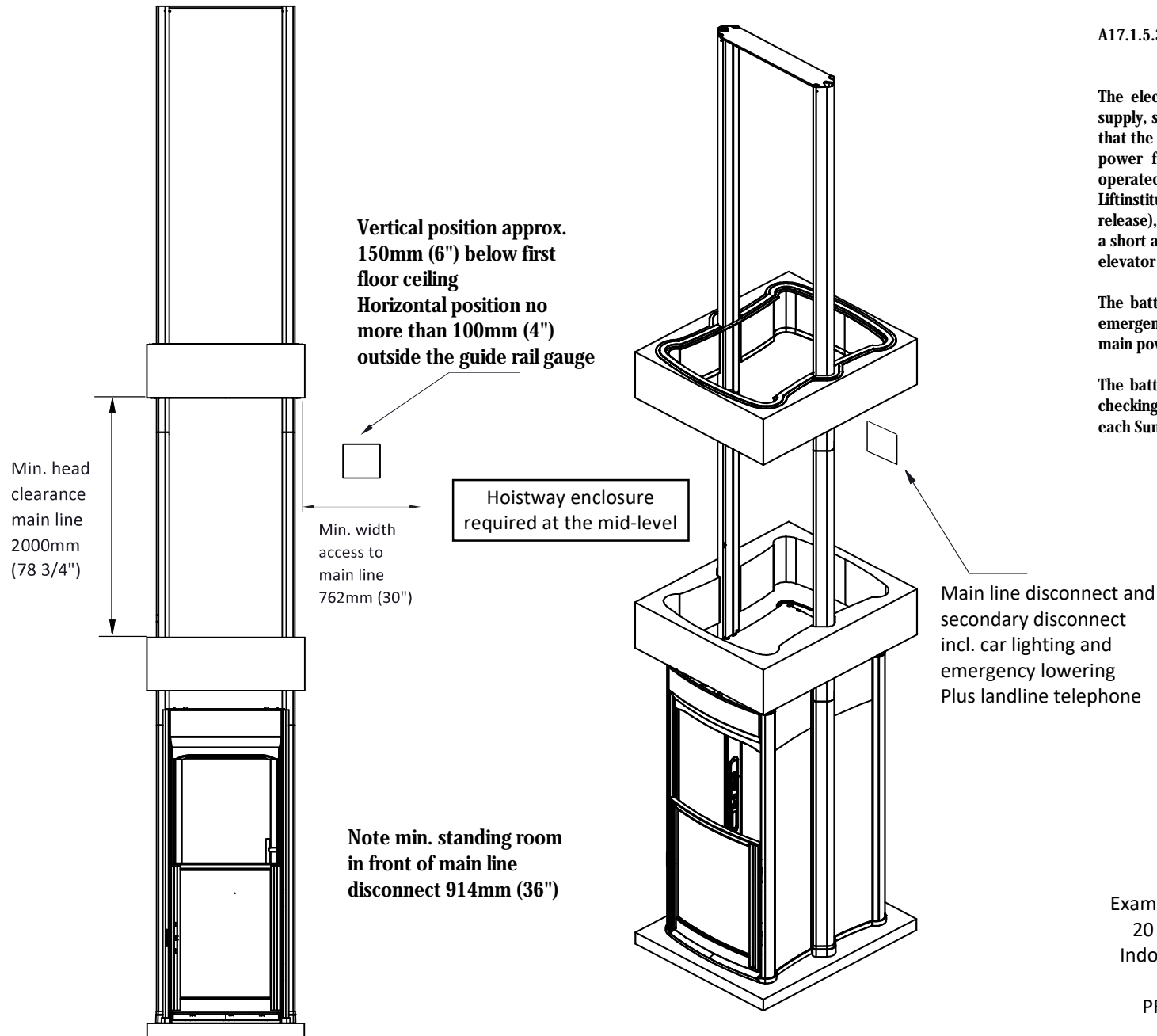
© <b>Stiltz Ltd.</b> 2021		TITLE Floor Insert & Shaft Lid Assembly	
Drawn Wagon Wang	Date 09/24/2019	A4	Dwg No <b>SURNAME.05</b>
 DIMENSIONS IN MM UNLESS OTHERWISE NOTED THIRD ANGLE PROJECTION - AS 1100			PAGE 5 OF 8
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© Stiltz Ltd. 2021		TITLE Platform Layout & Area	
Drawn	Wagon Wang	Date	09/24/2019
		DIMENSIONS IN MM UNLESS OTHERWISE NOTED	
THIRD ANGLE PROJECTION - AS 1100		A4	Dwg No SURNAME.06
		SCALE:	PAGE 6 OF 8



**A17.1.5.3-2013 / CSA B44-13 deviation:**  
**(2) 5.3.1.16.2.i – Manual operation**

The electrical safety lowering system is equipped with redundant power supply, so that the lift can disconnect itself from the main power and verify that the safety relay MR is in fact operational and available in the event of a power failure. The lowering system can be used in lieu of a manually operated system and has been confirmed as being suitable by the Liftinstituut. The electrical emergency operation is superior (to mechanical release), it allows any trapped occupant to be released from the LCU (car) in a short amount of time. Rather than time delays to the occupant waiting for elevator personnel to mechanically lower the LCU (car) from outside the lift.

The battery backup system will automatically switch from main power to emergency power, when power is lost. And return to main power when main power is re-established.

The battery backup system is self-checking and verifies its availability by checking the system two consecutive times between 1 AM and 1:30 AM each Sunday morning.

Car door lock; manufacturer; type:
Stiltz (Kunshan) Limited, ES 20M
Car door contact; manufacturer; type:
Kronenberg, PZ 73

Main line disconnect and secondary disconnect incl. car lighting and emergency lowering Plus landline telephone




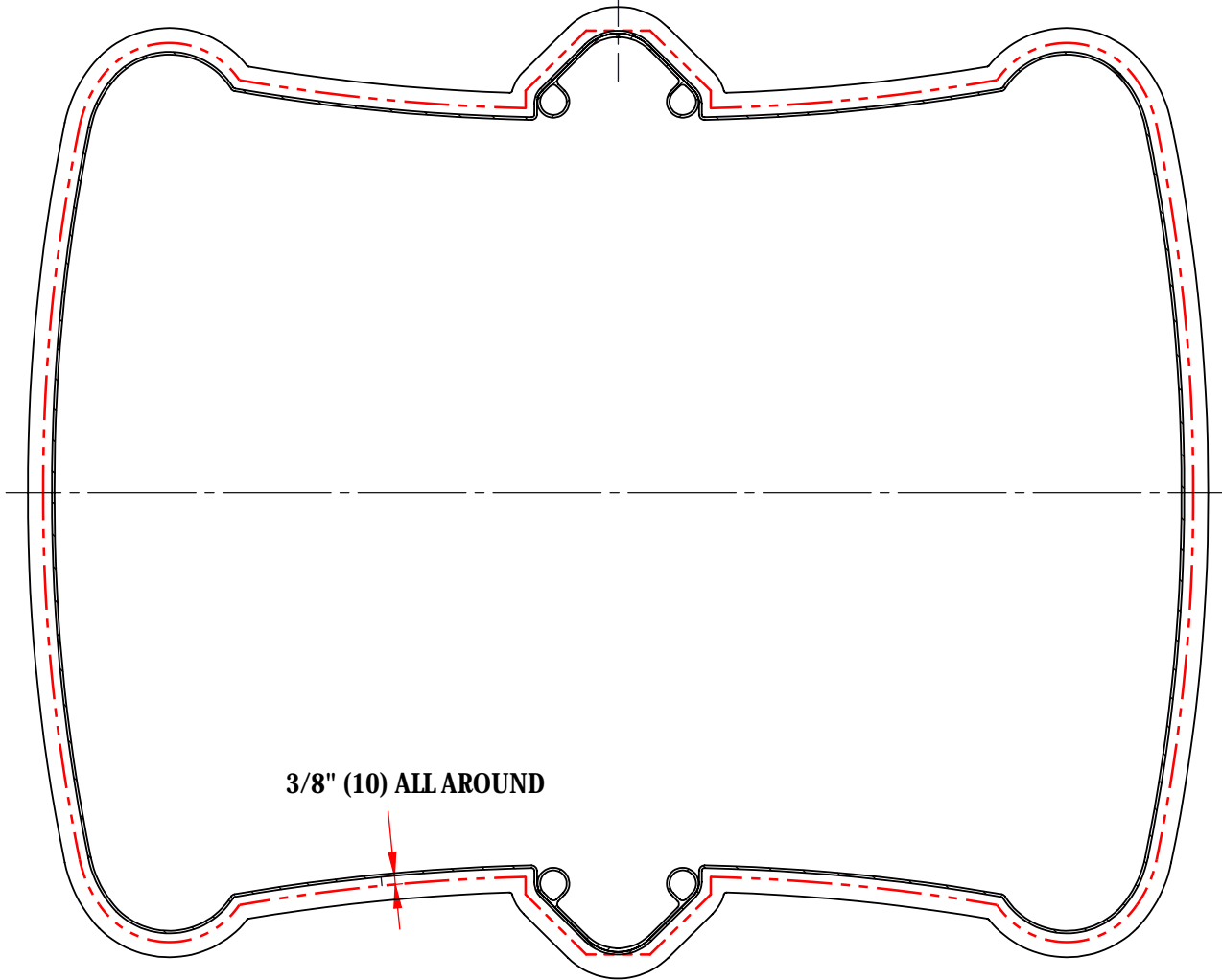
Example main line disconnect  
 20 Amp 240-Volt Fusible  
 Indoor General-Duty Safety  
 Switch  
 PROVIDED BY OTHERS



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© Stiltz Ltd. 2021			TITLE Main Line Disconnect		
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 THIRD ANGLE PROJECTION - AS 1100			A4	Dwg No	SURNAME. 07
				SCALE:	PAGE 7 OF 8
DIMENSIONS IN MM UNLESS OTHERWISE NOTED					



3/8" (10) ALL AROUND



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© <b>Stiltz Ltd.</b> 2021		TITLE	
Drawn <b>Wagon Wang</b> Date <b>09/24/2019</b>		Car to Insert Clearance	
 DIMENSIONS IN MM UNLESS OTHERWISE NOTED THIRD ANGLE PROJECTION - AS 1100		A4	Dwg No <b>SURNAME.08</b>
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