



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

Roped Driven DUO 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 DUO Homelift complies with NFPA 70 NEC 2014 / CSA C22.1 and applicable building codes.



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© Stiltz Ltd. 2021		TITLE DUO Homelift Title Page	
Drawn Wagon Wang	Date 09/04/2019		
 THIRD ANGLE PROJECTION - AS 1100		DIMENSIONS IN MM UNLESS OTHERWISE NOTED	
		A4	Dwg No SURNAME. 01 SCALE: PAGE 1 OF 8

GENERAL DATA

Type:	DUO Homelift
Capacity:	375 lbs.
Speed:	21.7 ft/min
Maximum travel:	13.12 ft
Car floor area:	5.167 sq ft
Landings:	2
Car entrances:	1 in-line
Operation:	Constant pressure

LIFT WEIGHT

Hoist unit (machine room above car):	220.5 lbs.
Car body:	143.3 lbs.
Total empty lift:	363.8 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 entrance
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:	SK9012.1-71L/4 DBR6HL (Bevel gear unit)
Motor Power:	0.37 kW
Output Speed:	1380 / 14 rpm
Reduction:	02:37.4
Output Torque:	249 Nm
Brake torque; manufacturer:	5 Nm; Precima
Drum; manufacturer:	Taiyuan Kelitai Elevator Machinery Co. Ltd.
Material:	Cast Iron
Diameter:	7.087 in (180mm)
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

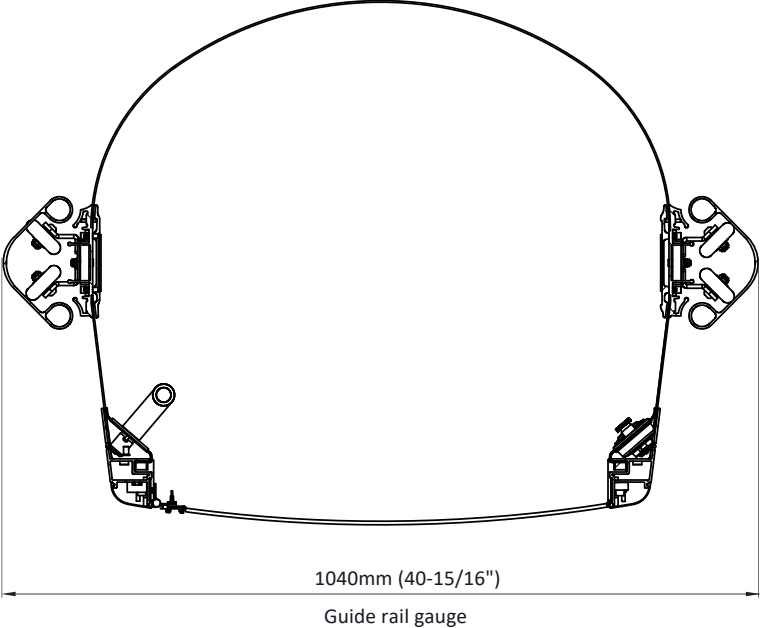
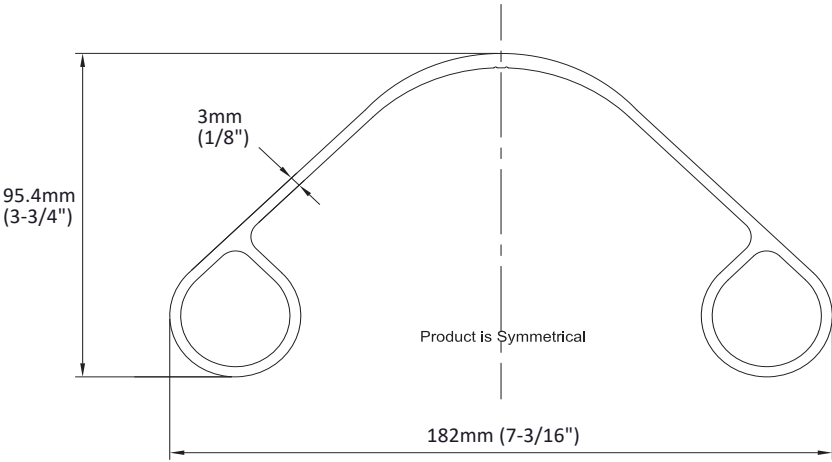
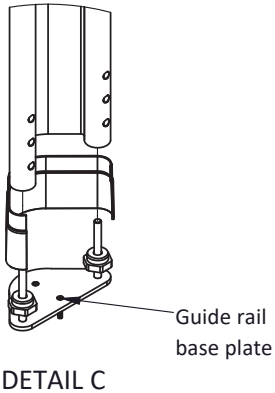
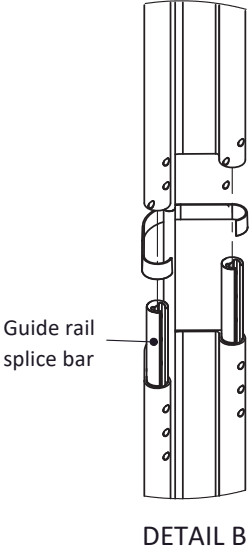
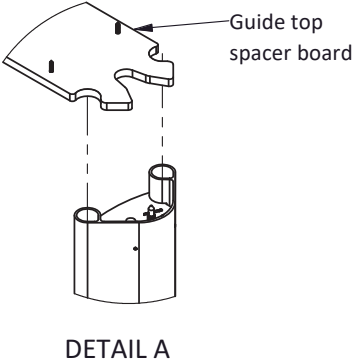
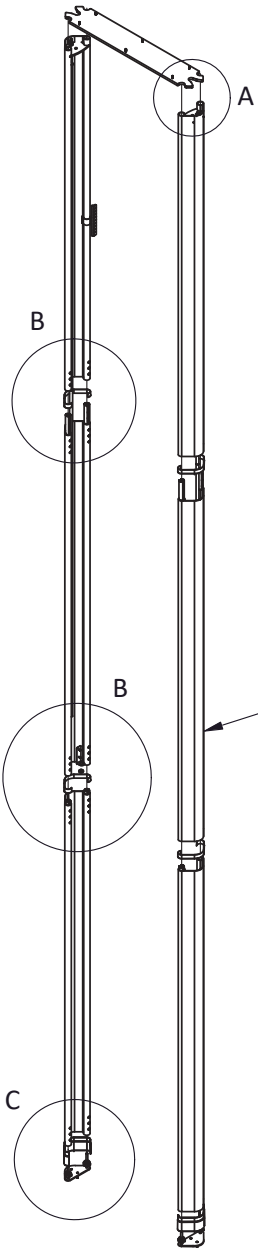
Landing controls:	Remote transmitters hold-to-run buttons, with back lights
Car controls:	Hold-to-run call buttons, with back lights
On/off and reset switch:	Keyed on car operating panel
Emergency stop:	Push emergency stop switch with alarm siren
Emergency signalling device:	Two way voice communication 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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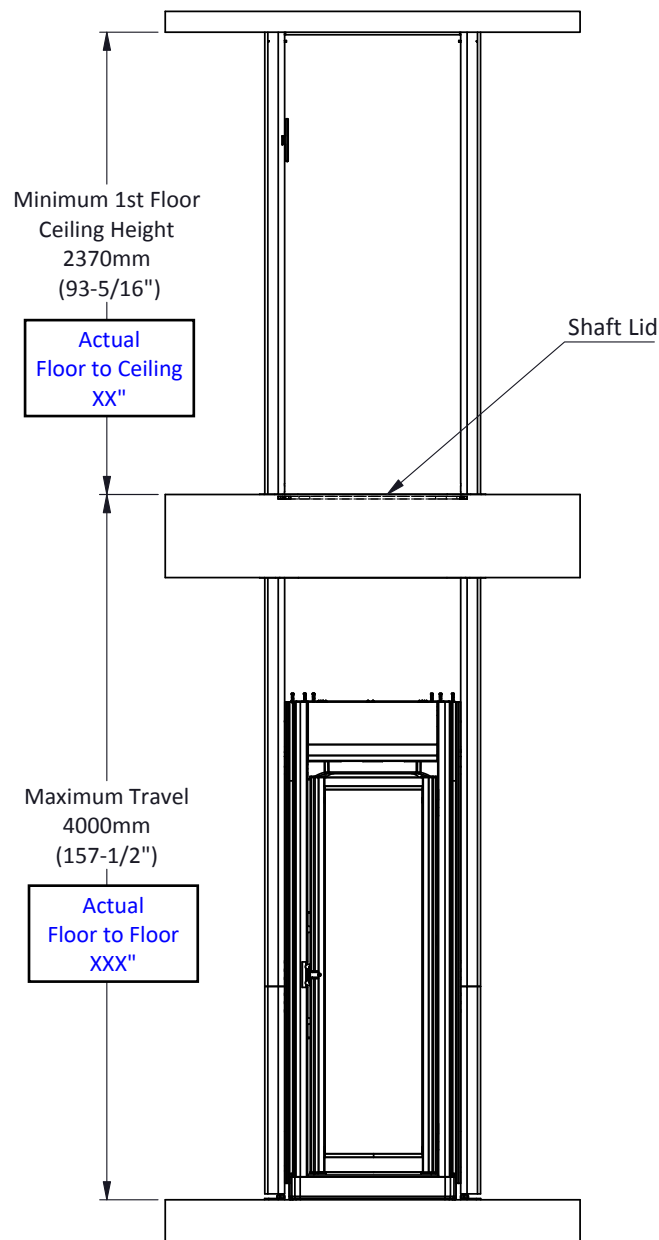
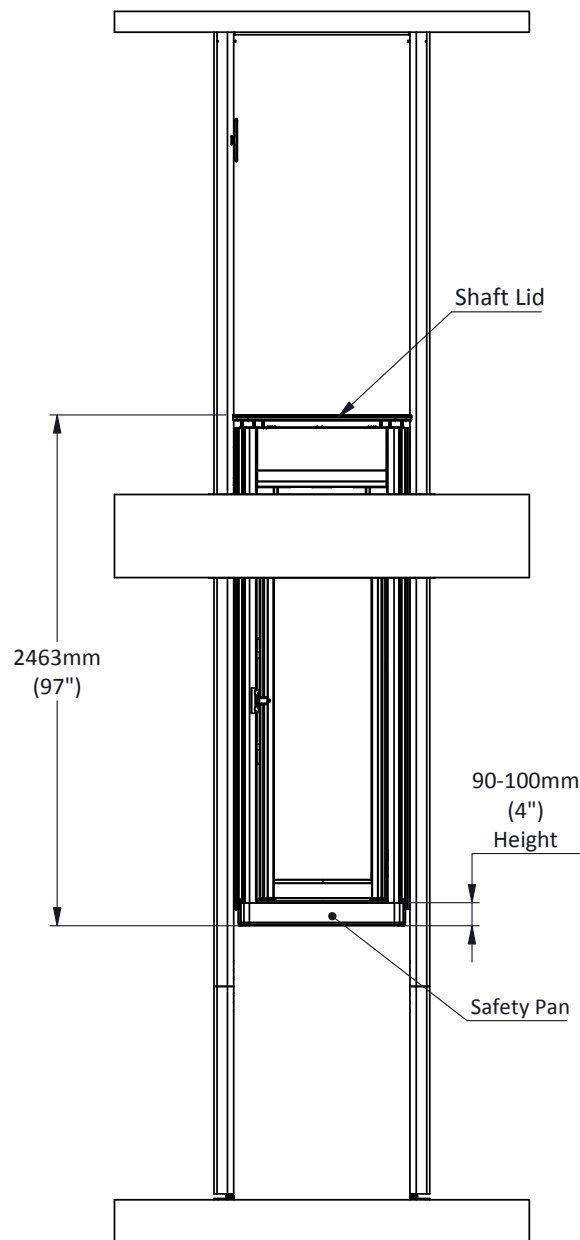
© Stiltz Ltd. 2021		TITLE		
Drawn Wagon Wang		Date 09/04/2019		
 THIRD ANGLE PROJECTION - AS 1100		Specifications		
		DIMENSIONS IN MM UNLESS OTHERWISE NOTED		
		A4	Dwg No SURNAME.02	PAGE 2 OF 8
			SCALE:	



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Drawn Wagon Wang		Guide Rail Support System	
Date 09/04/2019		A4	Dwg No SURNAME. 03
 DIMENSIONS IN MM UNLESS OTHERWISE NOTED THIRD ANGLE PROJECTION - AS 1100			SCALE:
			PAGE 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

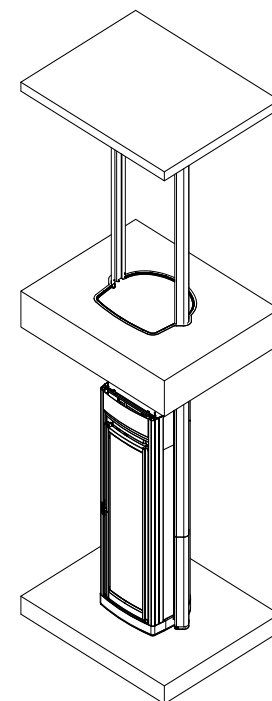
The top of the mechanical hoist enclosure, which is positioned on top of the lift car, is equipped with; (i) a fixed protection panel; (ii) six micro switch limits; (iii) an extreme upper limit switch; and (iv) in most cases the shaft lid.

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.

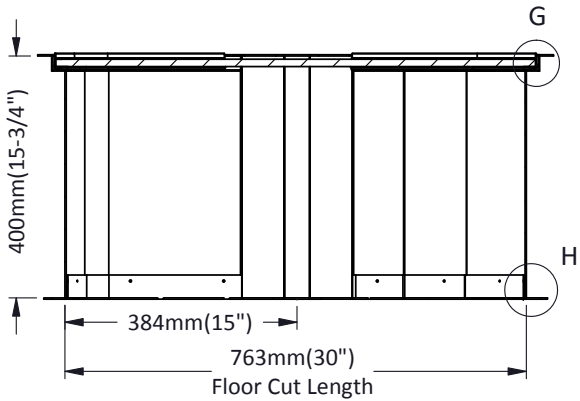
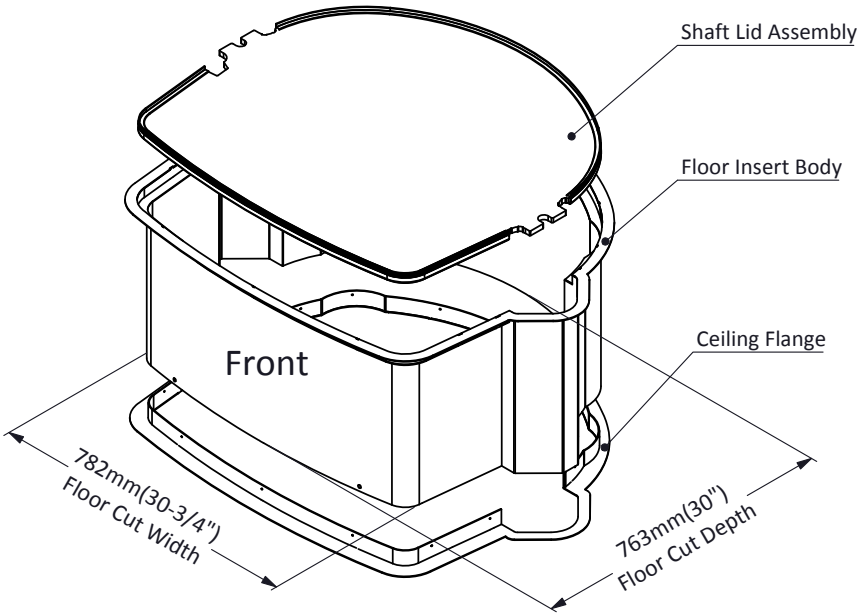
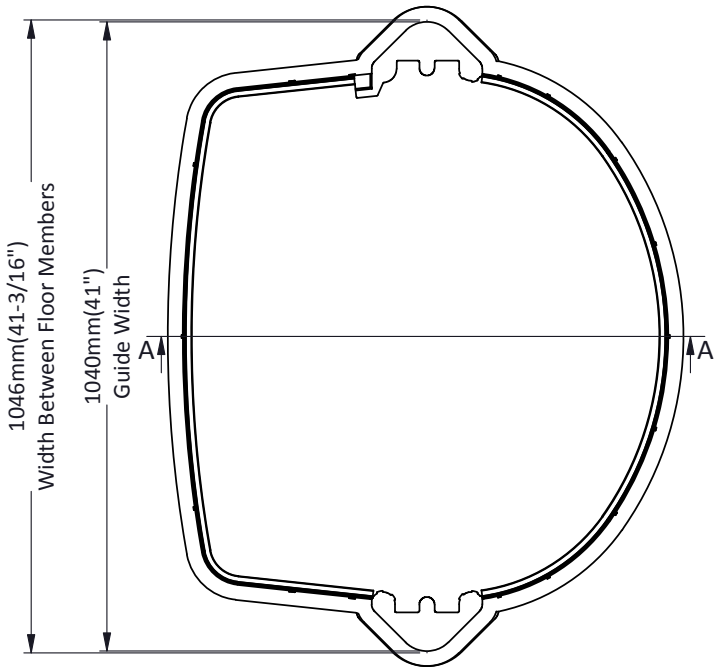
In addition, signage is installed to inform and remind people of the low head height clearance above the lift car.



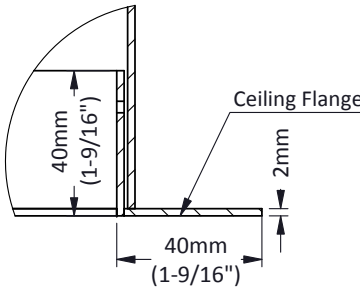
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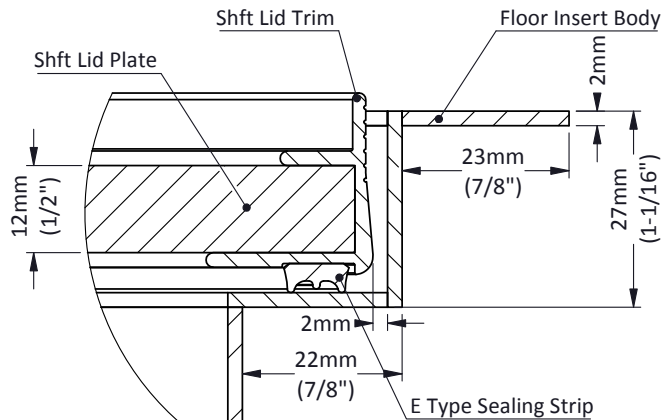
© Stiltz Ltd. 2021		TITLE	
Drawn	Wagon Wang	Date	09/04/2019
THIRD ANGLE PROJECTION - AS 1100		DUO Homelift Travel	
A4		Dwg No	SURNAME. 04
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SECTION A-A



DETAIL H




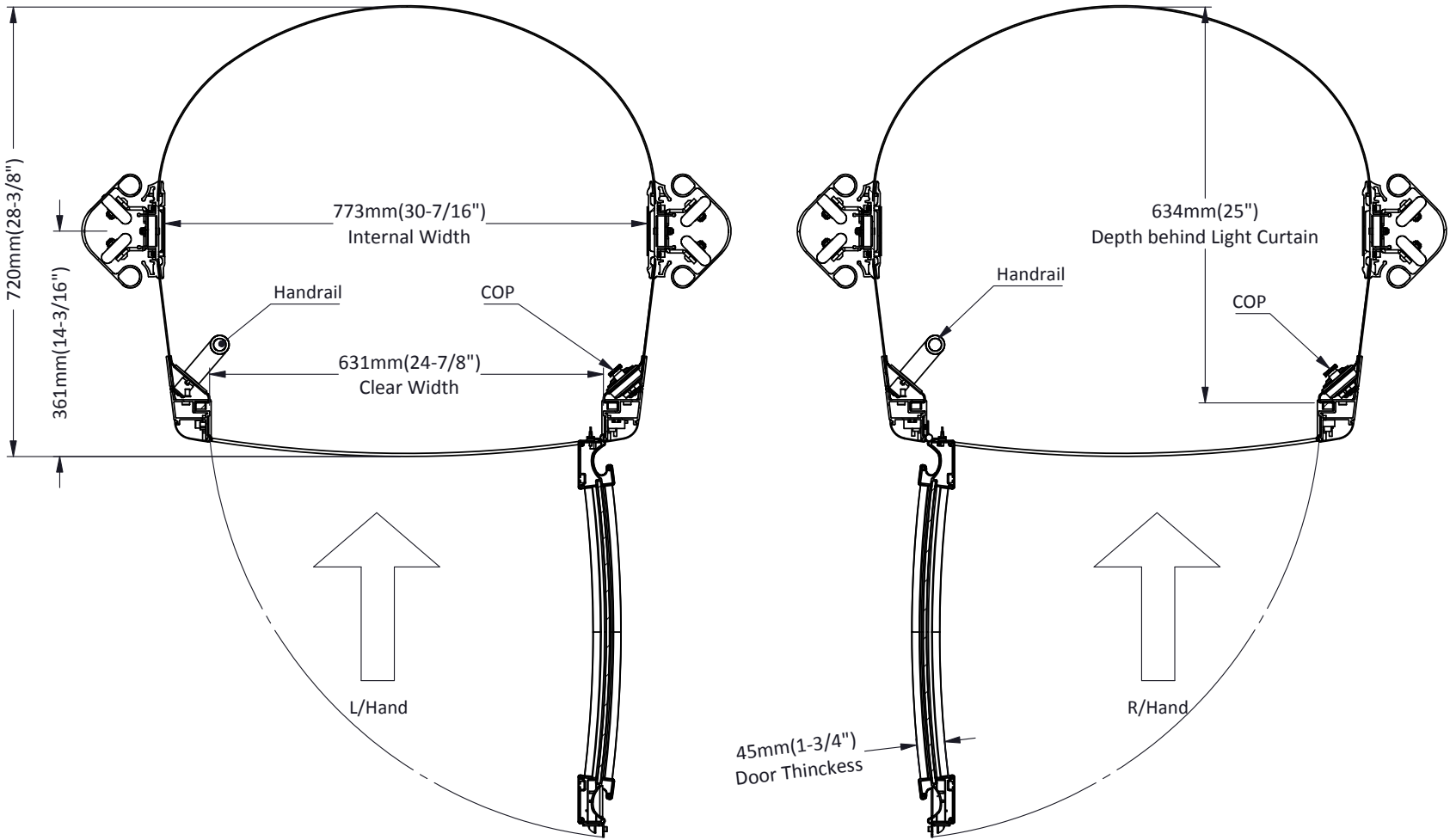
DETAIL G



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© Stiltz Ltd. 2021		TITLE Floor Insert & Shaft Lid Assembly	
Drawn Wagon Wang	Date 09/04/2019	A4	Dwg No SURNAME.05
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THIRD ANGLE PROJECTION - AS 1100			PAGE 5 OF 8



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Drawn	Wagon Wang	Date 09/04/2019
 THIRD ANGLE PROJECTION - AS 1100		
DIMENSIONS IN MM UNLESS OTHERWISE NOTED		

TITLE Platform Layout & Area		
A4	Dwg No SURNAME.06	PAGE
	SCALE:	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.

Vertical position approx.
150mm (6") below first
floor ceiling
Horizontal position no
more than 100mm (4")
outside the guide rail gauge

Min. width
 access to
 main line
 disconnect
 762mm (30")

Note min. standing room
in front of main line
disconnect 914mm (36")

Min. head
 clearance
 main line
 disconnect
 2000mm
 (78 3/4")

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

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


Car door contact; manufacturer; type:
 Kronenberg, PZ 73

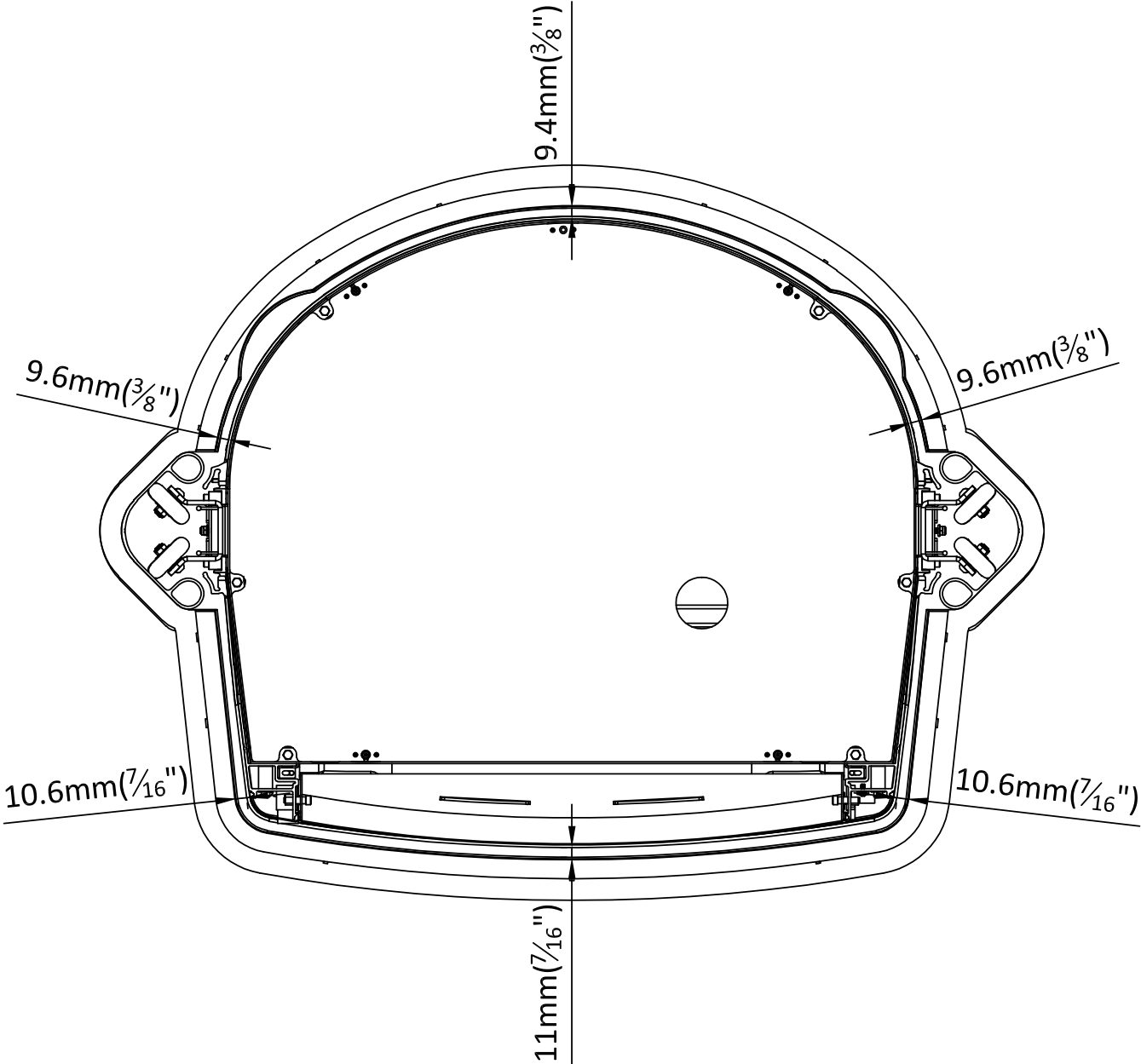
Example main line disconnect
 20 Amp 240-Volt Fusible
 Indoor General-Duty Safety
 Switch
 PROVIDED BY OTHERS



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© Stiltz Ltd. 2021		TITLE Main Line Disconnect	
Drawn Wagon Wang	Date 09/04/2019		
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DIMENSIONS IN MM UNLESS OTHERWISE NOTED		Dwg No SURNAME. 7	PAGE 7 OF 8
		SCALE:	



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© Stiltz Ltd. 2021		TITLE	
Drawn Wagon Wang Date 09/04/2019		Car to Insert Clearance	
 DIMENSIONS IN MM UNLESS OTHERWISE NOTED THIRD ANGLE PROJECTION - AS 1100		A4	Dwg No SURNAME. 8
			SCALE: