



HAYES HIGGINS PARTNERSHIP

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CAHIR DIGITAL HUB



LIFT SPECIFICATION Tender Issue

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1 GENERAL

1.1 Proposed Lift

With the purpose of providing mobility to disabled persons using this building a passenger lift installation will be supplied, installed, tested and commissioned by the contractor to the requirements of this specification and the current (or superseding standard) of the following standards:

- The lift installation shall be CE marked and supplied with a Declaration of Conformity in accordance with the Lift Directive 2014/33/EU.
- EN81-20:2014 Technical requirements for the construction, installation and of lifts
- EN81-50:2014 Design rules, calculations and tests of lift components
- EN 81-28 - Remote Alarm for Passenger and Goods/Passenger Lifts
- EN 81-70 - Accessibility for Persons with Impaired Mobility
- EN 81-73 - Behaviour of lifts in the event of fire
- Irish Building Regulations 2010 - Part M
- Official languages act 2003 for all announcements
- Emergency Lighting IS3217
- Buildings for Everyone guidance document
- EN 13155: Cranes. Safety. Non-fixed load lifting attachments
- EN 50085-1: Cable trunking and cable ducting systems for electrical installations. Part 1 General requirements
- BS EN 50085-2-3: Cable trunking and cable ducting systems for electrical installations. Part 2-3 Particular requirements for slotted cable trunking systems intended for installation in cabinets
- IS 10101 National Rules for Electrical Installations

The location of the lift, supporting structure, power and control provisions are outlined in the architectural layout drawings, structural layout and M&E layouts.

1.1 Design Certificate

The lift installer shall provide all documentation required for BCAR certification including ancillary certificates.

2 PASSENGER LIFT

Passenger lifts will be supplied to the following specification:

General Lift Requirements	
Number of lifts	Lift Type
1 No. Passenger Lifts 1 000kg	Machine-room-less
	Gearless Machine
Lift Usage	Travel
Passenger lift	3 Floors (approximately 7metres) The actual travel is to be verified by the Lift Specialist with the Main Contractor. No extra will be considered for differences between the actual and tendered travel distances.
Speed	
1.0m/s (to be confirmed by lift specialist)	
No. of Floors/Stops	No. of Entrances
3 No for each lift (Ground, First and Second floors)	1 No on each floor
Levelling Accuracy	Size of Lift Shaft
3mm	1905mm x 2380mm (WxD)
Pit Depth	Headroom
1500mm	4200mm (to underside of lifting beam)
Indication	Car Dimensions (inside)
Visual and Annotation	Internal Dimension (WxDxH) 1400mm x 1600mm x 2200mm
Power Supply	Door Dimensions
Three Phase, 400 Volts, 50 Hertz, 32A	900mm (width) x 2100 mm Height Clear Opening
Lift Doors	Car Control Panel
Fully automatic, 2 panel, central opening, rolled stainless steel grade 441, Fermator 50/11, Fire Rated E120.	Finished in black stainless steel grade 441 and located within both side walls
Access	Fire Rating
Key call access, one for each door of the lift.	2 Hours
Battery Backup	Induction Loop System
Yes.	Yes.

2.1 Lift Construction

The lift to be installed will be a stainless steel with a 2-hour fire rating.

The designated walls in the lift shaft for guide rails and lift gear will be specified on the architectural drawings and if not clear will be confirmed with the structural engineer. The lift will be vandal proof.

Power will be brought to the top of the lift shaft for supplying the lift and lift shaft. The supply to the lift shall be 3-phase + neutral + earth terminated at the top of the Lift Well with a suitable, lockable isolator.

2.2 Lift Performance Objectives

The contractor will include for all items to provide a fully functioning, safely installed lift with the lift supply and installation being carried out by a contractor-employed lift specialist, who will also provide all electrical services within the lift shaft including shaft lighting, and power outlets.

The lift specialist will carry out all design and calculations to ensure that the lift is supported securely away from the lift shaft wall and will also provide a full set of arrangement drawings which will be submitted with design data to the structural engineer for approval in good time before manufacturing of the lift and allowing for alterations without affecting the agreed project programme.

The lift specialist will supply and install all fixing, guides, brackets and other support infrastructure and will co-ordinate with the structural engineer's steelwork design as is to be provided by the contractor. All structural support or use is to be verified with the structural engineer before installation. They will also co-ordinate with the fire design to ensure that the integrity of the lift shaft or steel structure is not compromised in this regard. The lift specialist will ensure that the lift shaft remains free of debris and is generally clean.

2.3 Lifting Cabin Services and Accessories

The lifting cabin will be equipped with the following:

- 1100mm high handrail
- Mirror
- LED lighting, with at least 2 lamps, IP54, CCT 4000K
 - The ceiling must be a fully dispersed light diffuser type, not individual lights.
- Integrated emergency lighting to the latest version of IS 3217
- Self-illuminating controls
- Annunciation and visual indication of floor in car
- An audio indication of floor arrival with an integrated induction loop
- Bumper rails high and low level

The cabin will operate in the following manner:

- The cabin will stop at its current point if a power failure occurs and will be returned to ground level using emergency back-up supply incorporated in the lift installation.
- The lift motor will be of variable speed design and will adjust too automatically to the lift weight. The speed of the lift shall be 1.0m/s with the size of the motor as per the lift manufacturer's recommendations.
- The lift will have an automatic low energy standby mode for when the lift is not in use.
- Doors will be automatic and will have an 8 second minimum hold open time.

Lift Finishes
Under no circumstances should brushed stainless steel materials be considered.
Ceiling
The ceiling of the car should fit from wall to wall with no crevices. Any lighting fittings should be easily maintained.
Walls
ANSI Grade 441 rolled Stainless Steel
Glazing
The glazed rear wall of the lift car shall be constructed using laminated safety glass mounted within a rigid stainless steel frame system designed and certified by the lift manufacturer.
Floor
Where necessary, the car floor should have a watertight one-piece floor-covering that is coved and attached to the car walls. The floor-covering should be slip-resistant and have a surface that allows wheeled trolleys to be easily steered. Floor covering must meet the requirements of EN 81-70. Under no circumstances will black or very dark coloured flooring be accepted.
Car Operating panel
Part M compliant The COP panel should be full height and a coloured glass backing for contract and aesthetics.
Hand-rail
A handrail, EN81-70 compliant, with a continuous 40mm diameter extruded ANSI Grade 316 polished stainless-steel handrail to three sides with the ends turned in shall be fitted in the lift car. The area in front of control panel to be left free from handrail, the height should be sufficient to support passengers and to protect the car when trolleys are in use. All fixings shall be hidden with no sharp edges and the handrails shall be bolted through the cabin walls.
External Finishes
ANSI Grade 441 Rolled patterned Stainless Steel
Landing Architraves
Stainless Steel – to be supplied by lift supplier, installed by main contractor

2.4 Lift Doors

The lift shall come with Advanced door opening Nudging function, reduced speed safety closing with warning buzzer and have adjustable door opening and closing times.

Maintenance Access panel shall be integrated into door frame.

Wrap around architrave on lift doors shall be installed.

2.5 Lift Car Operation

At each floor, a pushbutton call access point will be provided. Visual indication and bell on landing shall also be included

Doors will open automatically upon pushbutton activation allowing the passenger to enter lift. The car operating panel will present all controls, on choosing the appropriate floor by button the doors shall close and the lift will proceed in a smooth manner to the relevant floor.

2.6 Interfaces

A voice alarm system will be provided linked via phone line to the lift monitoring company. 12 months monitoring shall be provided free of charge. Both systems shall be linked to the induction loop.

On activation of the building fire alarm system the lift shall automatically return to the designated evacuation floor and remain parked with doors open.

2.7 Safety Provisions

The following shall be provided:

- Full height multi-beam detector
- Smoke detector in cabin
- Emergency power operation
- Emergency siren
- Emergency safety gear on car
- Pressure sensitive doors
- Emergency cabin lighting
- Load weighting system
- Audio-visual overload indicator
- Fire alarm interfaces
- Danger notices
- Emergency manual door release with Euro release key
- Automatic hands-free auto dialler
- Manual emergency release system
- Overspeed governor
- Certified safety brake

- Door open/close pushbuttons
- Car priority key switch
- Lift homing to designated floor
- Certified pit ladder

2.8 Post Hand-over Maintenance Requirement

It is a requirement that under the contract one year's full maintenance will be provided by the lift specialist.

2.9 Glazing

The glass must comply with:

- EN 81-20
- EN 12150 (toughened glass)
- EN 14449 (laminated glass)

2.10 Equipment Handling

Equipment will be handled stored and installed in compliance with the manufacturer's recommendations.

2.11 Handover

All relevant commissioning and test certs for a complete safe operational system will be provided by the contractor before hand-over.

