

# Safe Use of **Vertical Transportation** at Construction Sites

Safety Alert No. 001/15

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## Considerations during Design and Planning Stage:

- For building exceeding 30 meters in height, it is recommended to provide Builder's Lift (Passenger Hoist / Builder's Lift within lift shaft) in construction site in order to provide a safe and effective vertical transportation to workers within the construction site. To meet this purpose, relevant stakeholders such as Developer, Architect, Engineer, Contractor and the like should well consider the feasibility to provide Builder's Lift during design and planning stage.
- The use of builder's lifts, if properly planned, designed and used, can provide convenient transport of site personnel, reduce travelling time, increase productivity and reduce the risks associated with human fatigue and manual handling operations.
- Concerned Factors to select suitable Vertical Transportation for the construction sites:

	Passenger Hoist		Builder's Lift within lift shaft	
General Description	crane, material hoist, tem scaffoldings, temporary v	with the location of tower porary refuse chute, erected vater mains and the line and the integrity of the	Builder's Lift is more flexible than other types of lift in operation. It will not be affected by adverse weather especially in typhoon and raining season.	
Usage	Solely for lifting or lowering height.	ng persons for any building	Gain efficiency to install for high rise building with 30 floors or above.	
Limitation	Less suitable for curve b	uilding.	Less effective for building lower than 30 floors.	
	i) Contract Arrangement: • Feasibility of Builder's Lift Provision • Time of availability ii) Effect to Master Construction Programme iii) Block Design: • Availability of external mounting and accessibility			
Key factors to be concerned	iv) Efficiency :		n for hoisting, lifting work for Builder's Lift	
	v) Process Safety Risk :			



### **Disclaimer**

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## Considerations during Installation Stage:

- Do not carry out the installation works of a Builder's Lift unless written approval of design of the Builder's Lift has been granted by the Director of Electrical and Mechanical Services.
- Appoint competent persons to conduct job specific risk assessments before the commencement of work.
- Formulate and implement method statements taking into account the results of the assessment.
- Ensure that clear unobstructed and safe access routes should be provided at an appropriate stage for delivery of lift equipment / components to facilitate the installation, alteration of height travel and dismantling of Builder's
- Provide all necessary information, instruction, training and supervision to personnel involved.
- Ensure that registered examiners¹ shall test and examine Builder's Lift after completion of installation, major alteration or alteration of height of travel.

## Considerations during Operation Stage (Owners<sup>2</sup> of Builder's Lift):

### In General

- Make sure that Builder's Lift shall only be operated by competent operator.
- Ensure that Builder's lift is properly maintained and periodically inspected, cleaned, oiled and adjusted by registered contractor.
- Employ registered examiners every six months to test and examine Builder's Lift.
- Ensure only competent workers of registered contractors<sup>3</sup> and workers under their direct supervision shall erect and dismantle Builder's Lift.
- Ensure Builder's Lift shall not be overloaded.
- Provide and maintain sufficient illumination at each landing.
- Provide and maintain power supplies from a fixed source for the sole use by the registered contractor during the Builder's Lift installation and operation period at locations as agreed by the registered contractor.

### Within Lift Shaft

- Provide and maintain adequate strength together with waterproof protective deck inside the lift shaft to protect the Builder's Lift (within lift shaft) and subsequently remove as necessary.
- Provide and maintain protection deck and working deck above the cathead of the Builder's Lift (within lift shaft) to seal off the lift shaft.
- Provide at least one suitable and effective fire extinguisher on the cathead of the Builder's Lift (within lift shaft).



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### **Competent Operator**

- Ensure Builder's Lift shall not be overloaded.
- Ensure no disturbance of safety device when Builder's Lift is in operation.
- Visual inspection shall be made before using Builder's Lift.
- If any debris or damage is found on Builder's Lift, stop work and report to the management personnel immediately.

### Construction Workers / Site Personnel

- Maintain a clean and safe working environment at each landing. Water is not allowed inside the lift shaft in any case.
- Do not overload the Builder's Lift.
- Do not carry fire risk materials, explosive materials and wet trade materials when using Builder's Lift.
- Smoking is not allowed in the lift car.
- Do not lean against car doors.
- Do not temper the gate / lift door of the Builder's Lift.

### **Remarks:**

According to Builders' Lifts and Tower Working Platforms (Safety) Ordinance, Chapter 470, Section 2:

- 1. **Registered examiner**, in relation to lift work, means a person whose name is for the time being on the register of examiners kept under this Ordinance.
- 2. Owner means the owner of a builder's lift or tower working platform or, where it is leased, means the lessee of it, and includes:
  - any agent or person in charge or having the control or management of it; and
  - the contractor who is responsible for the construction site at which it is being used.
- 3. Registered contractor, in relation to lift work, means a person whose name is for the time being on the register of contractors kept under this Ordinance.

## **Relevant Reference:**

- Builders' Lifts and Tower Working Platforms (Safety) Ordinance, Chapter 470., EMSD Hong Kong Special Administrative Region (HKSAR).
- Code of Practice on the Design and Construction of Builder's Lift., EMSD Hong Kong Special Administrative Region (HKSAR).
- Circular Letters for Builder's Lifts and Tower Working Platforms., EMSD Hong Kong Special Administrative Region (HKSAR).



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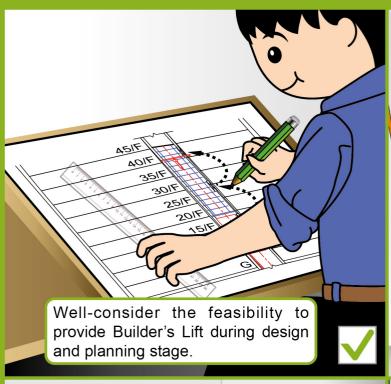
No. SA-CSY-001-15-E January 2015

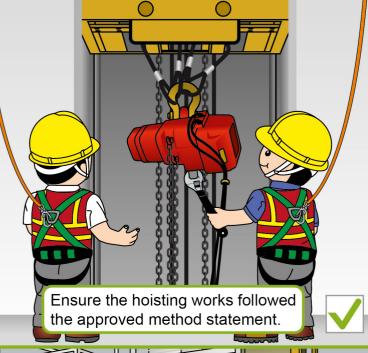


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