興勝建築有限公司
HANISON CONSTRUCTION COMPANY LIMITED

離地工作安全分享
Work-above-ground Operation

屯門顯發里公營房屋發展計劃建造工程

Construction of Public Housing Development at Hin Fat Lane, Tuen Mun
(CONTRACT NO. 20200312)

講者: 陳江華 (安全及環境經理)

1.1 地盤簡介 Overview of Project

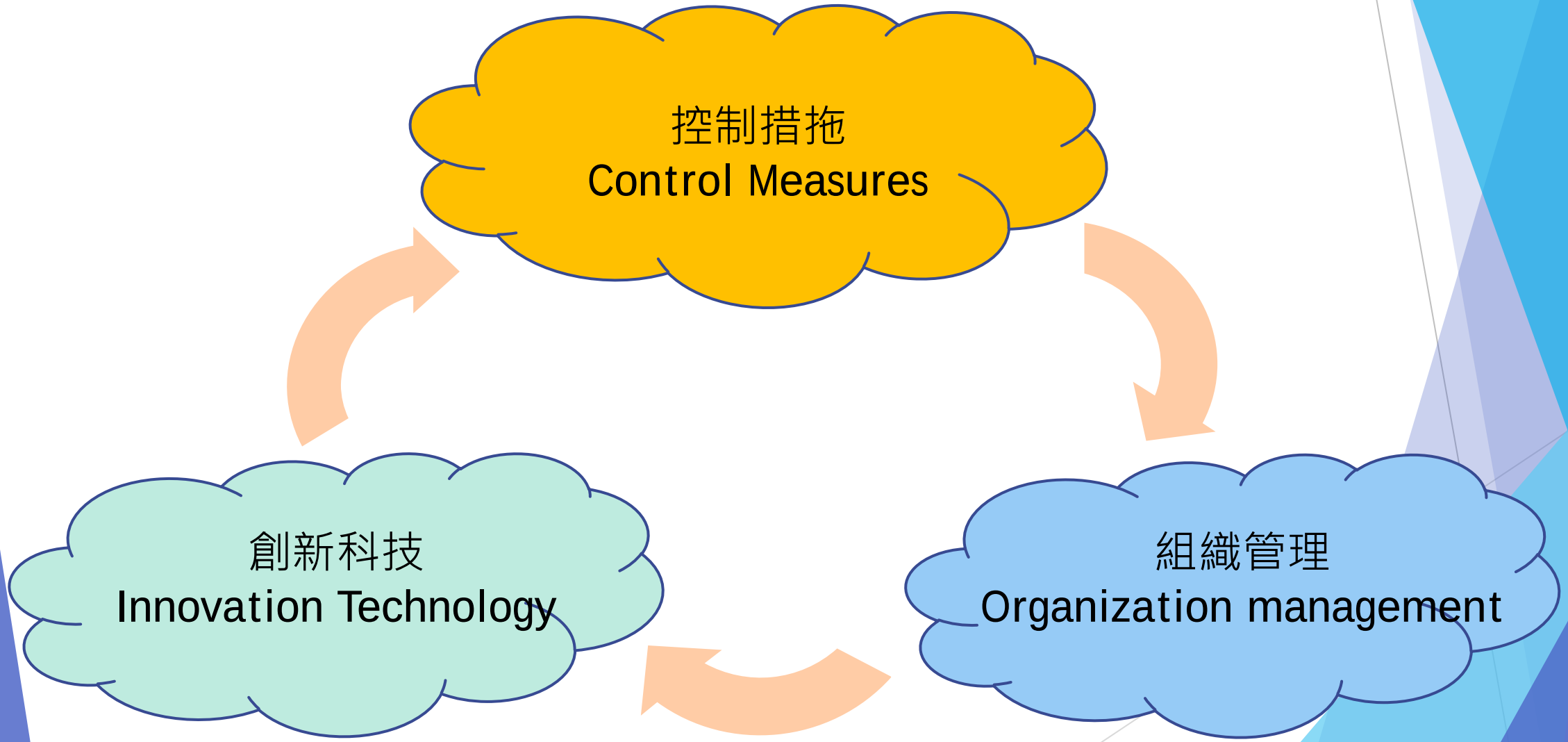
1.1.1 地盤簡介 Overview of Project

- Main Contractor: Hanison Construction Company Limited
- Client: Hong Kong Housing Authority
- Architect: Hong Kong Housing Authority
- Commencement Date: 1 June 2021
- Anticipated Completion Date: Q2 2024
- General Description:
  - One non-standard domestic block with 34 domestic storeys on top of a 3-storey podium
  - Elevated ramp with piling (52 nos.) and pile caps
  - Run-in / out and Emergency Vehicular Access
  - External landscape platform at +11.7mPD
  - Bicycle parking, community farm and plant nursery at above drainage reserve area
  - Site formation at slope areas

1.1.2 地盤簡介 Overview of Project

Photo taken on 1 March 2024

2. 管理元素 Elements of Management



2.1 控制措施 Control Measures

2.1.1 離地工作-控制安全措施 Methods to control safety

- 1. Whenever working at heights, a portable light-duty working platform or working platform such as a steel frame that meets the specifications must be provided and Form 5 must be signed by a compete person before it can be used
- 2. Workers must use and correctly wear appropriate safety harness, fall arresters, and lifeline ropes, and fasten them tightly to a stable point or tie them to an independent lifeline
- 3. Provide safe, suitable and stable access/pedestrian access to and from the workplace
- 4. It is strictly prohibited to store large amounts of materials on the working platform of the scaffold
- 5. Use tool tail rope
- 6. The outer edge of the scaffold (workbench) must be covered with safety net to prevent objects falling from heights
- 7. Install appropriate coverings and other anti-fall facilities in floor openings

2.1.2 使用合適的梯台 Use of appropriate ladder

輕便工作台

梯台　　功夫櫈

流動工作台

2.1.3 使用合適的梯台 Use of appropriate ladder

流動工作台、梯台及功夫櫈不同特點比較：

	流動工作台	輕便工作台	
		梯台	功夫櫈
使用人數	1	1	1
工作平台高度	少於2米	不多於1.5米	不多於1米
梯腳主要物料	鋁質物料	玻璃纖維物料	玻璃纖維物料
防滑功能	工作平台踏腳面為防滑設計	工作平台踏腳面為防滑設計	工作平台踏腳面為防滑設計
安全組件	配置圍欄、踢腳板、腳輪輪鎖	配置圍欄、踢腳板	配置圍欄、踢腳板、底腳橫杆
特點	1. 可裝拆及易於搬運 2. 裝設腳輪，而腳輪有附設輪鎖，以至使用流動工作台時不會移位 3. 提供最大的工作平台面積進行小型工程的高處工作	1. 可摺合及易於搬運 2. 梯腳是由非導電材料製造，適合於機房、電掣房等有電力設備的環境使用 3. 適用於狹窄的工作環境進行小型工程的高處工作	1. 可快速裝拆及易於搬運 2. 底腳配置橫杆增加工作台穩定性 3. 工作平台與腳的開合位置能夠緊鎖及不會意外鬆脫 4. 梯腳是由非導電材料製造，適合於機房、電掣房等有電力設備的環境使用 5. 相對梯台而言，功夫櫈提供較大的橫向工作空間，因此更適合用於泥水批盪或鋪牆紙電線等裝修及維修工程 6. 適用於狹窄的工作環境進行小型

2.1.4 梯台每季檢查 Monthly Checking of Ladder Platform

Ladder platform is labeled with the checking and registration label according to the color coding

Proper step-ladder in used with guardrails and under EN131-7 standard

2.1.5 離地工作-控制安全措施 Methods to control safety

- **1.** Provide safe, suitable and stable access/pedestrian access to and from the workplace

- **2.** Use of light duty metal planking at bamboo scaffold

2.1.6 離地工作-控制安全措施 Methods to control safety

- 3. Use tool tail rope
- 4. Safety barriers with safety net to prevent objects falling from heights

2.1.7 離地工作-控制安全措施 Methods to control safety

- 5. Install appropriate coverings in floor openings

2.2 組織管理 Organization management

2.2.1 安全施工程序 Safe Working Cycle

Morning Exercise

Pre-work Briefing

Daily Morning Assembly & Training

Monthly Safety Committee Meeting

PPE checking & HIA

2.2.2 進行默哀會檢討近期嚴重意外個案 Silence Tribute

The Housing Department Staff attended Life First Campaign

Moment of Silence

Representative of Subcontractor, workers and site staff attended the silent tribute

2.2.3 提升安全文化 Enhance Safey Culture

Free cool Pocari and popsicle are distributed to workers at working floor and workplace

Safety and health performance appraisal of sub-contractors (Top 3)

2.2.4 定期播放安全影片
Regularly Demonstrate the Safety promotion video

- Demonstrate safety promotion videos at access gates for workers to watch

2.3 創新科技Innovation Technology

2.3.1 Novade Safety Management System

2.3.1.2 升降機槽地離工作之控制方法 Control measures of Working in lift shaft

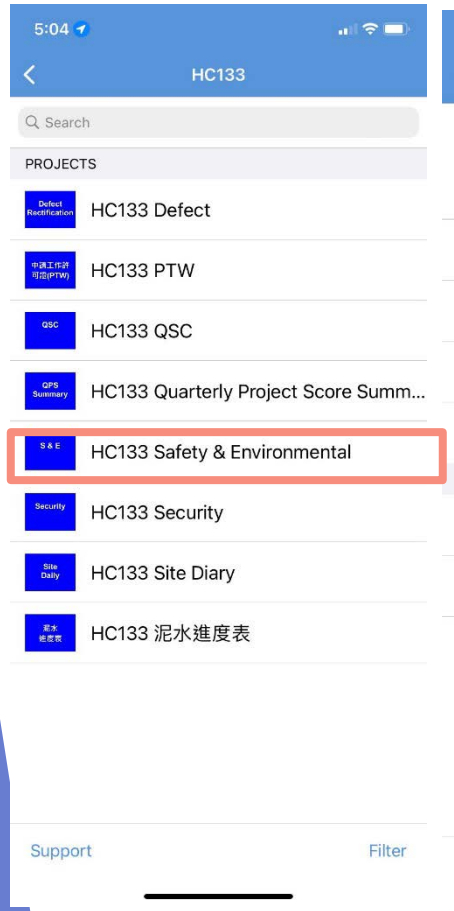
Lift shaft were covered with safety nets to prevent any falling objects

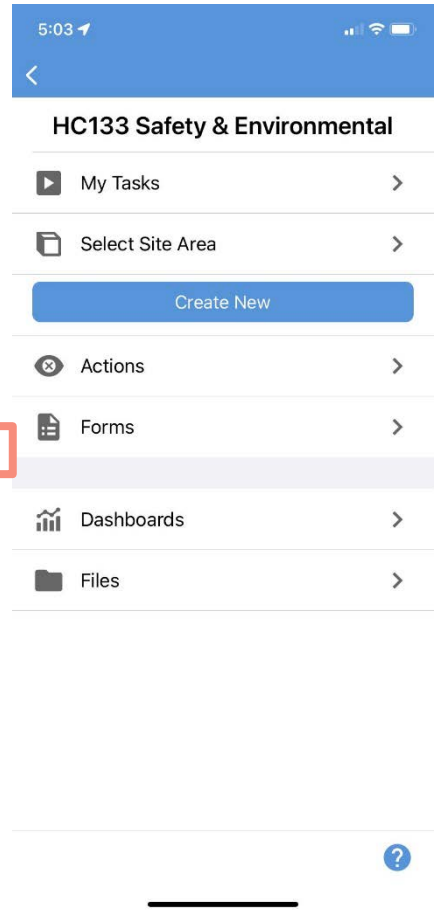
Safety warning signage are posted on lift shaft door and the door is kept locked at all times

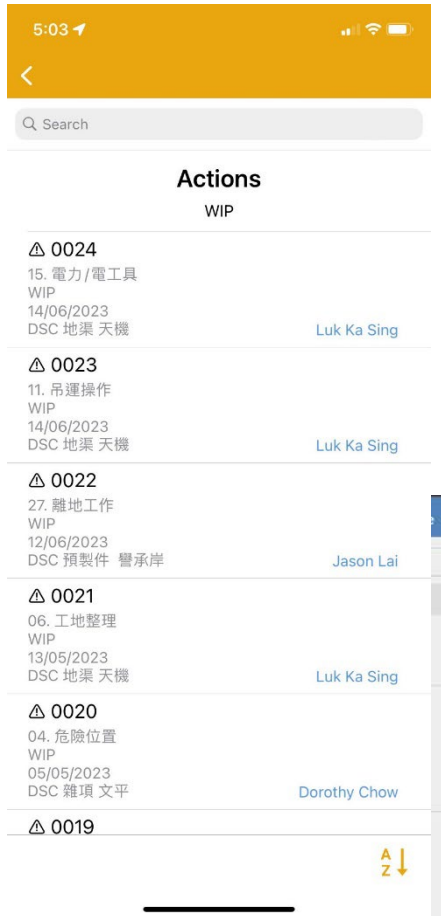
Lift shaft Permit-to-work system

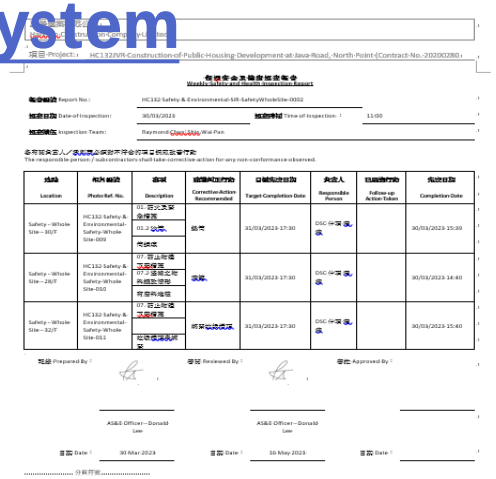
QR code is displayed at the lift shaft gate
Video is available for workers to watch before entering the lift shaft

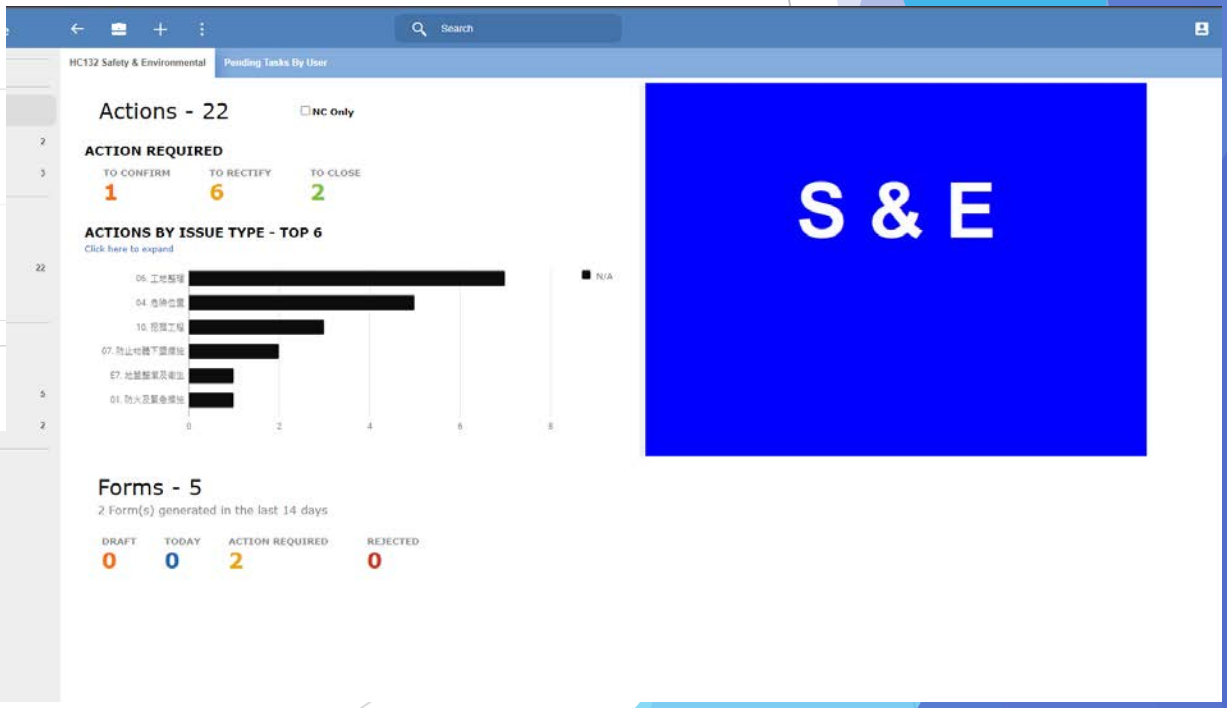
2.3.1.3 Apply Novade Safety Management System











Novade safety management system is implemented on site, all sub-contractor and foreman are required to use the system to ensure site safety

2.3.2 Material Hoist – facial recognition system

2.3.2.1 Material Hoist – facial recognition system

How it works

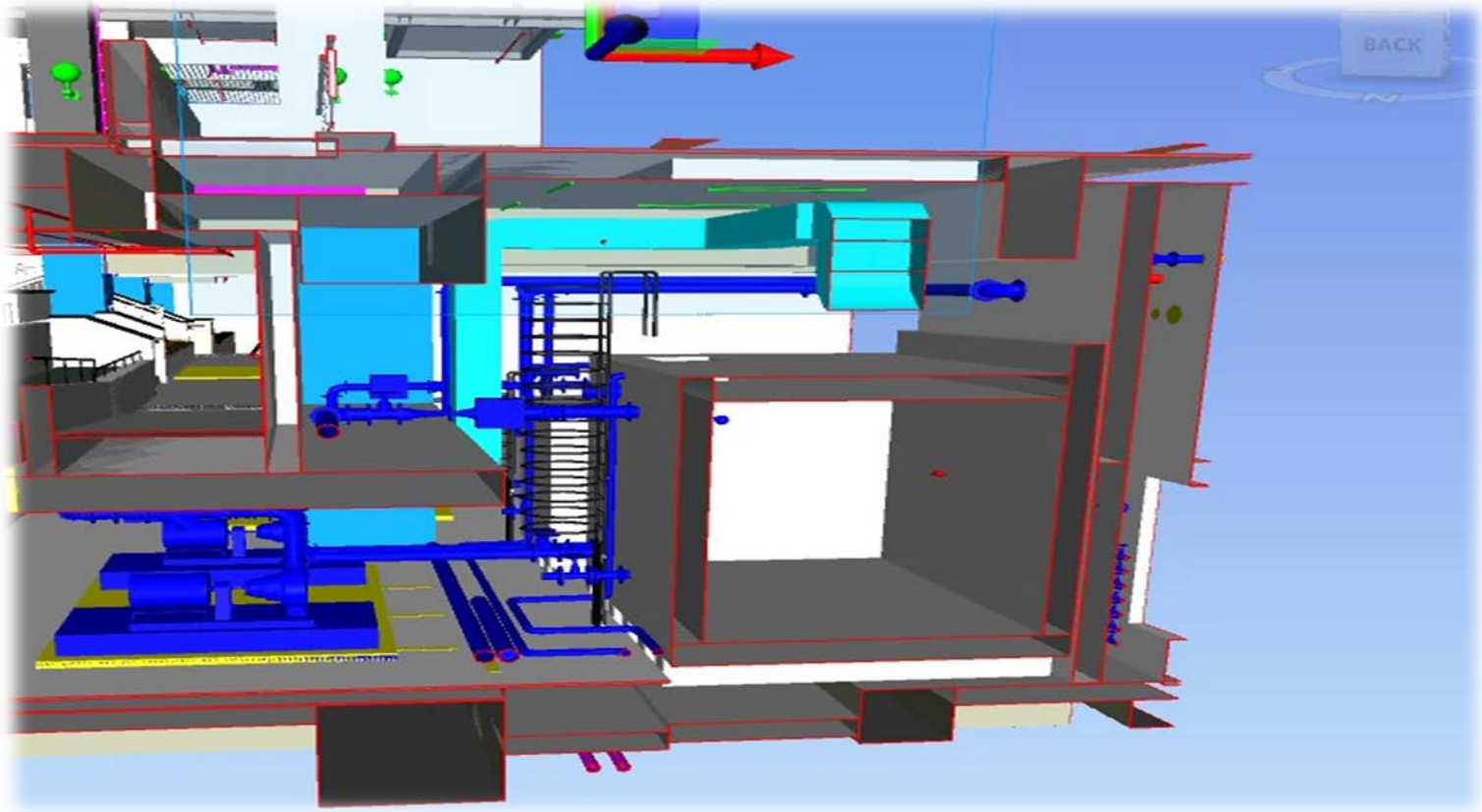
- Only workers who have received the material hoist operation and safety training
  - Can be recognized by the system
  - Can get the smart card to access
- Only there are workers on upper floor inserted the key – the material hoist can be operated

Material Hoist

2.3.3 建築信息模擬技術 Building Information Modelling(BIM)

Adoption of Building Information Modelling (BIM)

- Identify the potential hazard area visually to enhance site safety
- Reducing of design clashing - minimize abortive materials



2.3.3.1 建築信息模擬技術 Building Information Modelling(BIM)

Adoption of Building Information Modelling (BIM)

- Identify the potential hazard area visually to enhance site safety
- Reducing of design clashing - minimize abortive materials

2.3.4 遙控鏈鉻連接

Remote safe lifting hooks

- Safe Working Load: 3.2 Tonnes
- Hook Weight: 38 kg
- Remote Control Distance: 100 m

Fail Safe Design

Removable & rechargeable lithium battery with LED indicator and locking system

WELDOX (High strength steel) with Impact & corrosion resistant coating

Ready to be upgraded with load cell

Clutch protected electric motor

Manually operation button

Magnetic field generator

Safety latch

2.3.4.1 遙控鏈鉻連接

How it works

- The hook generates a magnetic field that 1) **attracts** the lifting gear such as shackle, 2) **orients** it and 3) **centers** it
- Presses the “close” button on the remote control to automatically close the lifting hooks, without any manual intervention, and operating remotely from a safe distance

Remote Control

On site demo

興勝建築有限公司
Hanison Construction Company Limited

管理層支持、
分判商/工友/員工努力、
齊創造安全、健康及愉快的工作環境。

多謝大家