



Sun Fook Kong Construction Limited
新福港營造有限公司

安全論壇2019-屋邨管理處 (分區定期保養合約)

SAFETY FORUM 2019- ESTATE MANAGEMENT

DIVISION

(DISTRICT TERM MAINTENANCE CONTRACTS)

高空工作安全

Safe work at height

1. 棚架工作 Scaffolding Works

2. 吊船工作 Gondola Works

3. 離地工作 Work-above-ground

4. 公眾安全 Public Safety

1. 工程管理 Construction Works Management

執行報工制度

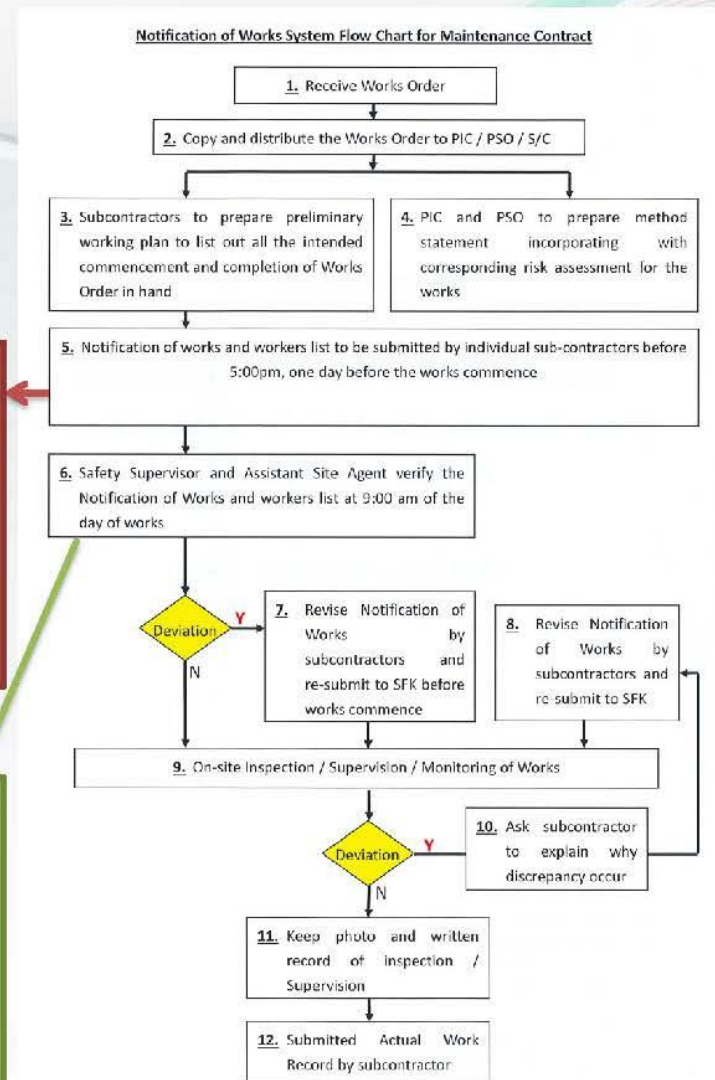
Implementation of Notification of Work System

Notification of works and workers list to be submitted by individual sub-contractors before 5:00pm, one day before the works commence

- 分判商必須在工程開始前一天下午5:00前提交報工表及工人名單

Safety Supervisor and Assistant Site Agent Verify the Notification of Works and workers list at 9:00am of the day of works

- 安全督導員及助理地盤總監會在工作日當天早上9:00核實報工及工人名單情況



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棚架工作 Scaffolding works



2. 棚架管理 Scaffolding Management

只聘用持有職安健星級企業資格證書的棚架公司

Only Scaffolding companies which are certified under Occupational Safety and Health Star Enterprise – RMAA Safety Accreditation Scheme are employed

職安健星級企業 OSH Star Enterprise

- ✓ 通過嚴格的安全審核，有效執行安全管理制度，保障施工安全

Implemented safety management system and passed stringent safety audit

- ✓ 擁有良好的工作安全紀錄，在獲得認證前最少12個月及成為星級企業期間，並無涉及任何致命意外。

Good safety record, no fatal accident happened in OSH Star Enterprise at least 12 months prior to the accreditation

- ✓ 所有「星級企業」都有為員工購買合適的勞工保險。

Purchased suitable Employee's Compensation Insurance



職業安全健康局
OCCUPATIONAL SAFETY & HEALTH COUNCIL



勞工處
Labour Department



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新福港營造有限公司

棚架管理 Scaffolding Management

根據房屋署，屋宇署及勞工處的標準
搭建棚架

Erection of Scaffolding is based on Site Safety Handbook of Hong Kong Housing Authority, Guideline of Buildings Department and COP of Labour Department

因應各邨屋型問題，安排結構工程師對
狗臂架進行負重計算，確保達到有關安全
標準。

Structural Engineer is required to carry out design calculations on metal brackets to ensure relevant safety standards are met under specific circumstances of Housing Estates



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棚架管理 Scaffolding Management

加強對合資格人士的監察 Strengthen Monitoring of Competent person



要求合資格人士到達工地前30分鐘WhatsApp通知安全部，助理地盤總監及管工
Competent person is required to notify Safety Department, Assistant Site Agent and Foreman via WhatsApp 30min in advance before arrival



要求合資格人士到達工地後要在屋邨座頭簽到，並與前線管理人員集合。
Competent person is required to sign the logbook at the security guard counter of the estate upon arrival and assemble with frontline management staff

棚架管理 Scaffolding Management

提供臨時流動繫穩裝置及提供牢固點
Provide Transportable Temporary Anchorage Device
(TTAD) and Anchorage Point



棚架管理 Scaffolding Management

安排竹棚合資格人士取得由職安局舉辦的供連接懸空式竹棚架個人防墮裝置繫穩時錨固裝置的選擇安裝，使用，檢查及測試合格證書及登記在職安局的相關人員資歷認可名單內，可以對繫穩裝置(有眼錨栓)進行拉力測試

Arrange CP of Bamboo scaffolder to attain ANCP Certificate training organized by OSHC and registered in the list of Accreditation of OSHC to carry out pull out test of anchor bolt



棚架管理 Scaffolding Management

佩戴個人防護裝備

Personal Protective Equipment are equipped by Scaffolder



棚架管理 Scaffolding Management

6mm連牆器
6mm Tie-back



在狗臂架上安裝
3粒繫穩錨絲
3 anchor bolts are
installed on metal
bracket



不助燃帆布
Fire retardant canvas



安裝踢腳板
及橋板
Installation of toe-
board and planking
board



棚架管理 Scaffolding Management

棚架完成後安全部/前線管理會根據棚架檢查表作出檢查及影相作為記錄
Safety Department/frontline management staff will check the scaffold based on the checklist and take photos for record after completion of erection of scaffold

SFK 新福港營造有限公司 Sun Fook Kong Construction Limited 合約編號: 30179439

Sample
建築工程項目

拍攝日期: _____ 拍攝地點: _____

欄架外觀	九管架及螺絲	鋼架及木橋
欄架表板五	柱樑	半層樓及救生繩
吊機帆布測試	上落樓梯	吊機帆布
地下圍封	合資格人士	



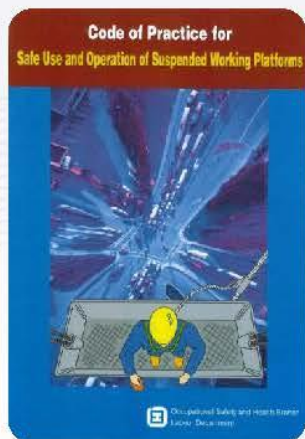
吊船工作 Gondola Works







吊船管理 Gondola Management

根據房屋署及勞工處的標準安裝吊船

Installation of gondola is based on Site Safety Handbook and Zero-Tolerance of Housing Department and COP of Labour Department



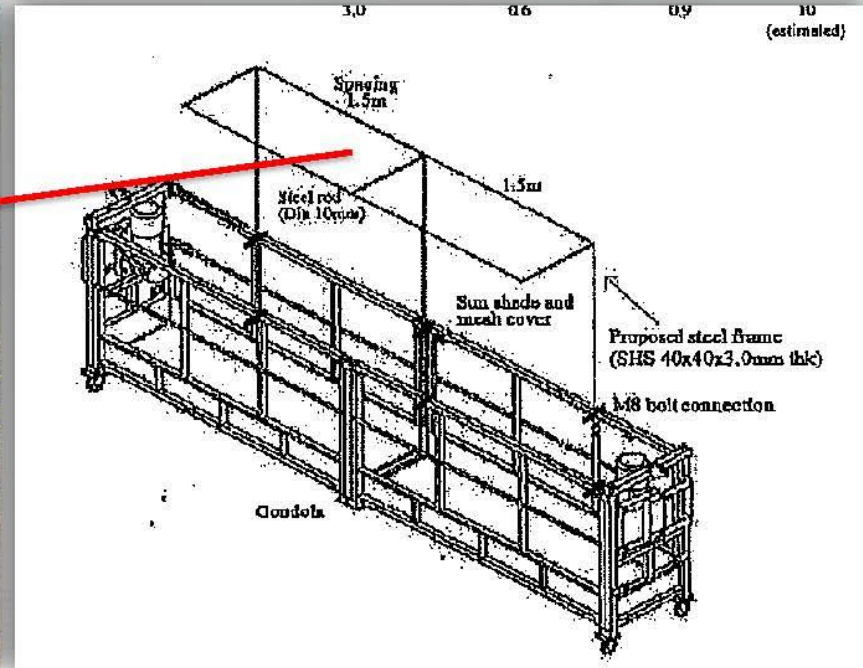
嚴格遵從 - 吊船-零容忍(第一階段)- 口訣

<p>負載 勿超重</p> 	<p>吊船 咪亂裝</p> 	<p>隔開 接地線</p> 
<p>夾架 跟圖安</p> 	<p>協助 上落船</p> 	<p>高掛 防墮扣</p> 
<p>繫穩 救生繩</p> 	<p>電線 無破損</p> 	<p>電箱 要上鎖</p> 

吊船管理

Gondola Management

吊船的額外設施必須由註冊工程師設計及計算，以確保吊船可以穩定及安全操作
Additional installation for gondola should be designed and calculated by Registered Engineer to ensure the whole set up of gondola are under safe condition



吊船管理 Gondola Management



壓重配件已掛上重量告示
及不可移動告示
Weight and “Do not move”
are displayed
at the counter weight

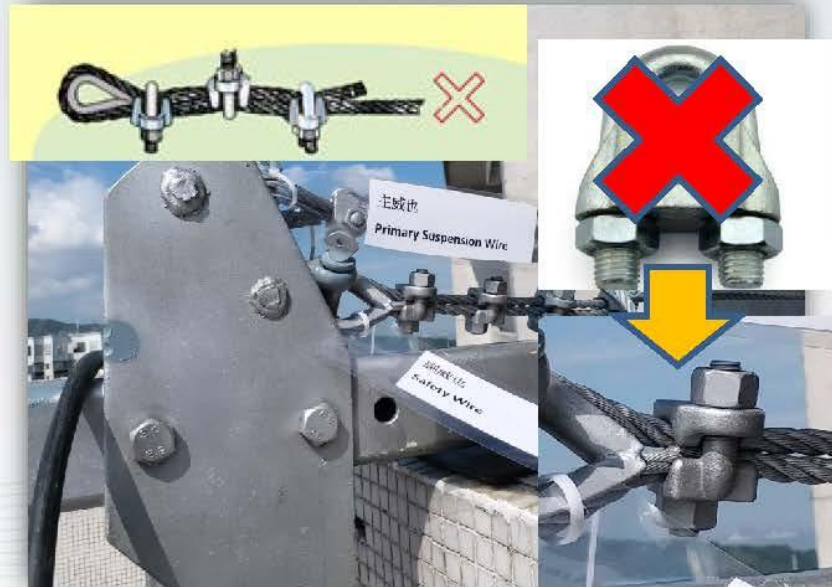


在地上已加上標記，
確保壓重配件安裝在天台
的支撐結構上
Marking are made on the
roof to ensure the counter
weight are installed in
accurate position

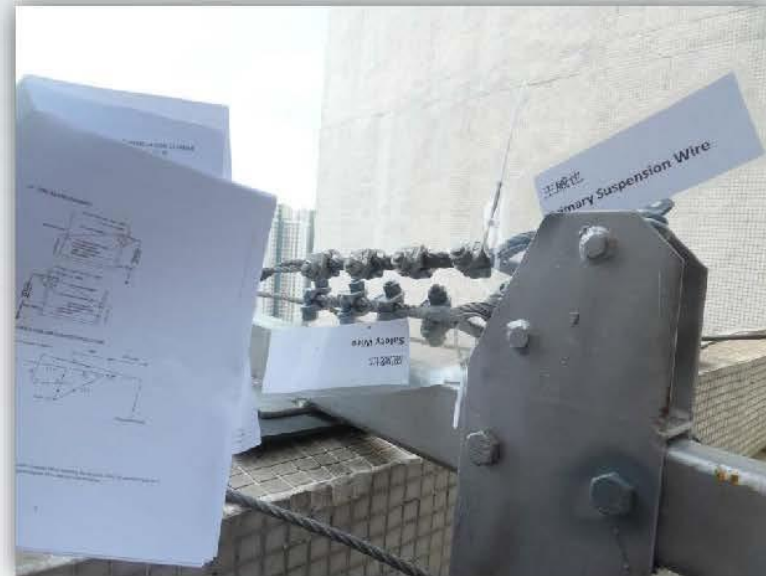


於吊纜末端加上重物以確保纜索
沒有鬆弛及保持垂直狀況
Adding a weight at the end of the
suspension rope, so as to ensure no
slacking of the ropes above the
safety devices and keep the rope
vertical at all times

吊船管理 Gondola Management



吊船威也夾已由U字夾轉用7字夾
“7” wire clips are used on site instead of
”U” shape wire clips



吊船設施必須根據已批准的圖則安裝
The gondola facilities should be installed
in accordance with the approved drawing

吊船管理

Gondola Management

使用防水插座(IP67)

Waterproof plugs(IP67) are used



吊船管理

Gondola Management

在牆角的救生繩及電線用軟墊及膠管作保護。

Fabric material and plastic tube are provided for protection of life-line and electrical wire at sharp corner



吊船管理 Gondola Management

安排註冊專業工程師(RPE)到現場檢驗及發出檢驗證書
Arrange Registered Professional Engineer(RPE) to inspect on site and issue test certificate



吊船管理

Gondola Management



安排註冊專業工程師(RPE)對繫穩裝置(有眼錨栓)進行拉力測試
Pull out test for eye bolt is carried out by RPE



繫穩裝置(有眼錨栓)已加上標籤
註明安全負重
Safe Working Load is displayed

吊船管理 Gondola Management

吊船公司委派合資人士向工人及前線管理人員提供吊船操作訓練及檢查方法及發出吊船證書

The Gondola company appoints CP to provide training on operation and inspection methods of gondola to the workers and frontline management personnel and issue relevant certificate to trained worker



新福港集團
日期: 2018/09/09
更新日期: 2018/02/19

委任總表

項目 No.	姓名 Name	委任項目 Assigned Job	責任 Responsibility	委任日期 App'd Date	證書編號 Certificate No.	公司 Company
1	李國強 Li Kwok Keung	前線管理人員	前線管理	11/10/2015	NA	NA
2	李國強 Li Kwok Keung	前線管理人員	前線管理	11/10/2015	NA	NA
3	譚家強 Tan Ka Keung	前線管理人員	前線管理	11/10/2015	NA	NA
4	譚家強 Tan Ka Keung	前線管理人員	前線管理	11/10/2015	NA	NA
5	譚家強 Tan Ka Keung	前線管理人員	前線管理	11/10/2015	NA	NA
6	譚家強 Tan Ka Keung	前線管理人員	前線管理	11/10/2015	NA	NA
7	譚家強 Tan Ka Keung	前線管理人員	前線管理	11/10/2015	NA	NA
8	譚家強 Tan Ka Keung	前線管理人員	前線管理	11/10/2015	NA	NA
9	譚家強 Tan Ka Keung	前線管理人員	前線管理	11/10/2015	NA	NA
10	譚家強 Tan Ka Keung	前線管理人員	前線管理	11/10/2015	NA	NA
11	譚家強 Tan Ka Keung	前線管理人員	前線管理	11/10/2015	NA	NA
12	譚家強 Tan Ka Keung	前線管理人員	前線管理	11/10/2015	NA	NA
13	譚家強 Tan Ka Keung	前線管理人員	前線管理	11/10/2015	NA	NA
14	譚家強 Tan Ka Keung	前線管理人員	前線管理	11/10/2015	NA	NA
15	譚家強 Tan Ka Keung	前線管理人員	前線管理	11/10/2015	NA	NA
16	譚家強 Tan Ka Keung	前線管理人員	前線管理	11/10/2015	NA	NA
17	譚家強 Tan Ka Keung	前線管理人員	前線管理	11/10/2015	NA	NA
18	譚家強 Tan Ka Keung	前線管理人員	前線管理	11/10/2015	NA	NA
19	譚家強 Tan Ka Keung	前線管理人員	前線管理	11/10/2015	NA	NA
20	譚家強 Tan Ka Keung	前線管理人員	前線管理	11/10/2015	NA	NA
21	譚家強 Tan Ka Keung	前線管理人員	前線管理	11/10/2015	NA	NA
22	譚家強 Tan Ka Keung	前線管理人員	前線管理	11/10/2015	NA	NA

懸吊工作台安全課程證件

持證人中文姓名 [Redacted]

英文姓名 [Redacted]

平安咭號碼 [Redacted]

證書號碼 [Redacted]

發証日期 [Redacted]

茲證持證人已完成懸吊工作安全課程

吊船管理 Gondola Management

泥頭不可超越的界線已清晰標示
A sign of no debris allowed over the red line is clearly displayed



吊船上展示中英對照安全負載
Bilingual safe working load information are displayed on Gondola



吊船管理

Gondola Management



吊船控制箱保持上鎖
Control Panel keep locking



安排一名總管工負責管理吊船總電
制開關，確保所有安全措施落實才
開啟/關閉吊船

Arrange a General Foreman to
manage the main switch of gondola to
ensure all safety measures
implemented on site before switch
on/off the gondola

吊船管理

Gondola Management

工人在吊船工作必須配戴安全帶及安全帽

Workers are equipped with safety harness and helmets to work in Gondola



離地工作 Work-above-ground

4. 提供離地工作設備 Provide Facility for Working at height

提供工作台
Metal scaffold



提供有護欄的工夫凳
Hop up platform with barriers



提供梯台
Platform ladder



公眾安全 Public Safety

5. 手工具管理 Hand Tool Management

手工具加設可調節繩圈的工具尾繩

Adjustable hand straps are installed to all hand tools for preventing falling object



6. 重視公眾安全 Public Safety Concern

加設護欄
Barriers are
provided



加設告示
Safety notices
are displayed

在主要出入口
加設保護棚
Erect a Bamboo
Scaffold for
protecting pedestrian



因應不同的工作性質
擴闊護欄圍封範圍
The fencing off area
would be adjusted
depends on different
nature of works

7. 加強訓練 Enhancement of Training

安全主任及安全督導員定期同前線管理人員及工人進行安全訓練
Safety training with Frontline Management Staffs and Workers are provided by Safety Officer and Safety Supervisor regularly



**職業安全做到足
人人生活好幸福**

**Pay attention to occupational safety
for the love of your family**

多謝
Thank You



問題時間

Q&A



1. 供連接懸空式竹棚架個人防墮裝置繫穩時錨固裝置的選擇安裝，使用，檢查及測試合格證書是什麼機構發出的？

What is the name of organization issue ANCP certificate?

2. 在吊船裝置使用的威也夾由U型轉去什麼形狀？

What kind of shape of new wire clips used in gondola installations?

Here is the footage of

“Safety Forum 2019 for Works Contracts and Property Services Contracts”

which was held on 3 July 2019

by the Hong Kong Housing Authority

The Speaker is

Mr. Yu Kam Lun Safety Manager of Sun Fook Kong Construction Limited

His topic is

Construction of Public Rental Housing Development of

Tung Tau Estate Phase 8 - Work at Height Safety Plan

Next

may we invite

Safety Manager of Sun Fook Kong Construction Ltd (SFK)

Mr. Yu Kam Lun to share with us

Mr. Yu, please

Greetings

I am Alan

a representative of Sun Fook Kong Construction Ltd

Thank you for the opportunity to share with you today

Public Rental Housing Development of Tung Tau Estate Phase 8

the work at height safety plan

An old saying goes

“If a workman wishes to do a good job, he must first sharpen his tools.”

That stresses the importance of preparedness

That stresses the importance of preparedness

The management level of Sun Fook Kong fully understands this idea

In this Tung Tau Estate Phase 8 development project

a work at height safety plan was in place

We hope it would be completed to satisfaction

Today’s sharing comprises five parts

First is a brief introduction to the project and the potential risks

Second is lifting operation management

Third is safety precautions for non-standard buildings

Fourth is safety precautions for standard buildings

They include working platform for rigging precast elements
and a video on building information modelling (BIM)

Towards the end, we will share the daily operation onsite

Tung Tau Estate Phase 8

is a development project of a public estate with 29 floors
roughly 1033 units

Estimated work completion will be in the 1st quarter of 2020

It is a tight schedule

Tung Tau Estate Phase 8 is at a very special location

We can see

neighbouring PRH estates, i.e. Tung Tau (II) Estate, Tung Wui Estate

There are private residential developments

and the landmark of Hong Kong

Kowloon Walled City Park and public playground

Adjacent to the site is Po Yan Oblate Primary School

Our site operated in the traditional way

such as constructing formwork, bar bending and concreting

erecting precast elements, and lifting metal formwork

which highly involve working at height and lifting operation

Carelessness could lead to grave consequences

We adopted a 3-level system for the management of lifting work

It is not the motion picture rating system

It is the 3-level system for management

The 1st level requires subcontractors to hire

at least 2 signallers

to take charge of daily lifting and rigging work

Second we hired 2 lifting supervisors directly

Second we hired 2 lifting supervisors directly

They supervised the work of signallers

The last line of defence
was guarded by our frontline foremen and safety supervisors
If they discovered
there were problems in the lifting operation or if it was abnormal
they would contact the tower crane operator
to stop all lifting operation

The incident and related information
would be followed up by the safety officer

Regarding tower crane operators

Sun Fook Kong Construction Ltd had done a good job

Direct recruitment eliminated subcontracting issues

These signaller and lifting supervisors

had to meet contract requirements

that they must be holders of A12 silver card

They were also required to attend
special training by the site safety officer

This ensured they fully understood the company's
internal regulations and pass the test

After passing the test

we would then consider their recruitment

Regarding safety measures in the construction of non-typical floors

we adopted thru-train service

What is through-train service?

That is we have replaced

bamboo scaffold with metal scaffold

Metal scaffold can provide

access both horizontally and vertically

Also, upon metal scaffold

suitable work platforms can be built

This provides a safe work environment for workers

to do formwork construction, bar bending and concreting work

The most important area was
the interface between non-standard and standard buildings
That was the so called transfer plate
We made a seamless interface
There was no need to dismantle the scaffolding
Only add special parts
to change the metal scaffold into a temporary frame
We call that "falsework "
This saved dismantling and modification of scaffolding
and related risks of working at height
On site, we used plenty of metal scaffold
We needed skilful scaffolders to carry out regular maintenance
We required competent persons to perform weekly inspections
to guarantee that scaffolding was safe for use
even more stringent than laws
For the safety measures of typical floor construction
before the introduction, I wish to share a story
In the past, Housing Authority (HA) had bigger sites
In addition to constructing buildings
there were spaces for temporary offices
contractors' meeting places and even spaces for storage
Now, space is limited
On construction sites, not only cargo containers
but even materials have to be delivered vertically
What is vertical delivery?
they are delivered at once to the floor where they are needed
They cannot be stored on site
especially for precast facade
These elements were delivered directly to the floor levels
"Hercules" is the rigger for precast elements
To keep up with the work programme

these Hercules were very strong physically
They climbed up and down easily without a sign of tiredness
What our management level observed can be very frightening
Let us look at this tow truck at about 1.5m above ground
and a precast element of about 3m high
If a rigger needed to do rigging work at height
and if he fell accidentally from 4-5m above ground
the consequences could be very serious
Thus the management level would work on the hardware
The rigging platform was put on the truck
This provided a better working environment
for riggers to do rigging work at height
without any need to climb up and down
Riggers were happy and praised this arrangement
because it facilitated their work to work in a safe environment
We gave it a name "Safety For You Platform"
Not sure if that was the reason we were awarded in 2018
a gold award of the 17th OSH Enhancement Programme
We won the recognition of the organiser and the industry
Regarding software
we have adopted Building Information Model (BIM)
Incorporating computer technology, engineering
safety knowledge
a video was made to simulate daily work logistics
The images showed clearly the rigging and location of workers
Without further delay, let us see how BIM works
Below is a video session to show that
when a standard floor is under construction
what safety hints need to be aware from the workmen
When the iron mold is dismantled by workmen
Every loose item

such as screws
support rod, etc.

it should be placed at the designated area

The iron mold will be lifting after the completion
of the checking conducted by workmen

The iron board on the pavement will be opened

Get ready for the lifting operation

When the designated iron mold has been lifted from standard working floor

The lifting procedure of Facade Bridge will be starting immediately

When workmen are working on the Facade Bridge

the full body harness must be used

After the lifting operation

when leaving the Facade Bridge

All barricades must be opened

After the workmen leaving Facade Bridge

the Facade Bridge can be lifted

After the completion of Facade Bridge climbing

all related barricades must be opened

The workmen start to release the lifting

the Precast Slab will be installed afterwards

Facade will be installed after the completion of the floor

When the vehicle with Facade arrives

a working platform is already set on the vehicle

to provide a working environment with safe & stable

to finish the whole procedure of lifting operation

reducing the hazard of work at height

The work process afterwards is

Bar-bending and fixing for walling

Outside Cage Climbing

The last procedure is iron mold installation

We now finished working for the standard floor

We have seen some hardware and software

Now let us take a look at the operation on sites

For daily work on construction sites, besides work at height

there were also requirements for working above ground

There were different step platforms, hop-up platforms

and mobile working platforms for frontline workers

All aimed at providing workers with a safe

and appropriate work environment

We also gathered different opinions

and actively cooperated with HA

We used lifting plants, such as lorry-mounted mobile crane

This reduced the risk of persons falling from height

Besides work at height

there was the risk of falling objects

We abode by contract terms to install metal canopies

We also built metal platforms

to give us larger working space

and prevent falling objects

Besides taking care of workers

we looked after our adjoining Po Yan Oblate Primary School

We specifically installed safety nets

to prevent small objects from falling into the school

This ends today's sharing. Thank you

Thank you, Mr. Yu, for the sharing

Mr. Yu will ask a question

Here comes the question

In 2018 SFK

won a big prize in the 17th OSH Enhancement Program Award

What was the name of the working platform that won the gold award?

Please raise your hand if you have the answer

Safety For You Platform

The answer is Safety For You Platform

It leaves a marked impression on us

Congratulations

Thank you

Another round of applause for Mr. Yu

Please be seated

It was mentioned just now

special attention is needed when working at height

We are happy that the industry searched all aspects

and found various niches to ensure safety in the work environment

Safety equipment and facilities like Safety For You Platform

and metal scaffold are both very convenient

Workers can have peace of mind and work safely and happily

Thank you for watching