CONSTRUCTION INDUSTRY COUNCIL
建造業議會

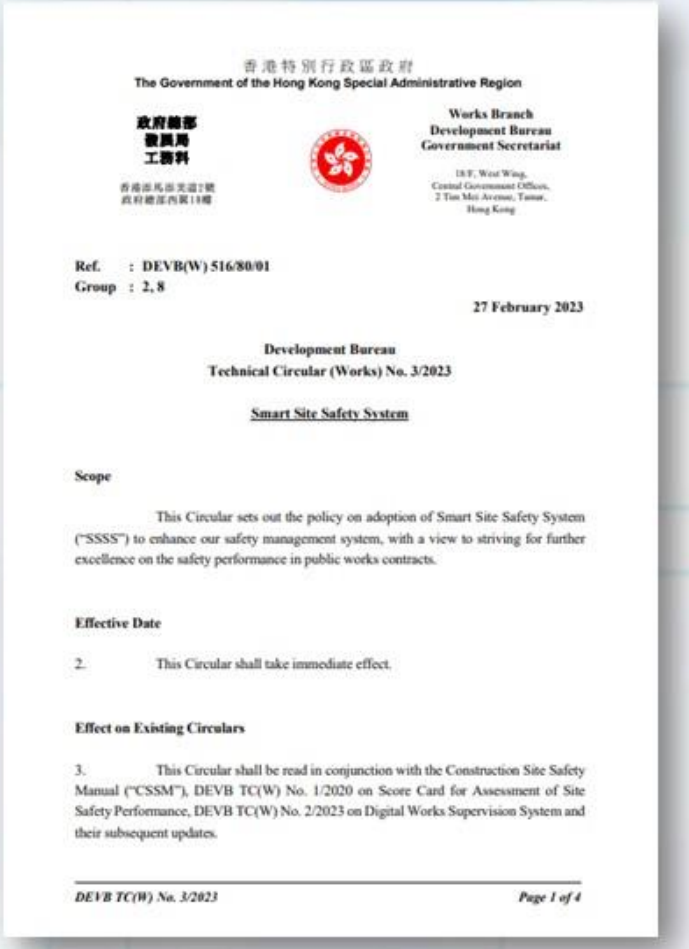
安全智慧工地系統標籤計劃簡介

Introduction of Smart Site Safety System Labelling Scheme (4SLS)

Objective

- In 2023, Works Branch of the **Development Bureau (DEVB)** issued **Technical Circular (Works) No. 3/2023** promulgating the adoption of 4S for public works contracts with a contract sum exceeding HK$30 million.

- To promote a wider adoption of 4S in construction projects for uplifting site safety, the **DEVB and Construction Industry Council (CIC)** has collaboratively rolled out the **4S Labelling Scheme** to drive full adoption of 4S.



香港特別行政區政府
The Government of the Hong Kong Special Administrative Region

政府總部
發展局
工務科

Works Branch
Development Bureau
Government Secretariat

18/F, West Wing,
Central Government Offices,
2 Tim Mei Avenue, Tamar,
Hong Kong

Ref. : DEVB(W) 516/80/01
Group : 2, 8

27 February 2023

Development Bureau
Technical Circular (Works) No. 3/2023

Smart Site Safety System

Scope

This Circular sets out the policy on adoption of Smart Site Safety System ("SSSS") to enhance our safety management system, with a view to striving for further excellence on the safety performance in public works contracts.

Effective Date

2. This Circular shall take immediate effect.

Effect on Existing Circulars

3. This Circular shall be read in conjunction with the Construction Site Safety Manual ("CSSM"), DEVB TC(W) No. 1/2020 on Score Card for Assessment of Site Safety Performance, DEVB TC(W) No. 2/2023 on Digital Works Supervision System and their subsequent updates.

Eligibility Criteria of 4S Labelling Scheme

- **Target:**

  Local construction projects **already implemented 4S** to enhance site safety, including **Public works** under the following departments, and **Non-Public works contracts** and **RMAA projects**.

建築署
Architectural Services Department

CEDD 土木工程拓展署
Civil Engineering and Development Department

渠務署
Drainage Services Department

機電工程署
EMSD

路政署
HIGHWAYS DEPARTMENT

水務署
Water Supplies Department

Benefits of Acquiring the 4S Label

- **Uplift the safety of the construction site**
- **Encourage 4S adoption among the industry**
- **Recognise the 4S adoption by developers and main contractors**
- **Create better Corporate image/ ESG engagement**

Assessment Criteria of 4S Labelling Scheme

- **Project Safety Officer** **identifies the risks** of the project with a comprehensive risk assessment.

- **The Main Contractor** **implements relevant 4S solutions** based on the "Recommended 4S Package" and other reference materials (1) to address the respective risks identified.

Note(1): Sample use of 4S can refer to, but is not limited to, DEVB ***"Technical Circular (Works) No. 3/2023"*** *and CIC Reference Material* ***"Guide to Smart Safety-related Technologies for use in Construction Works"****.*

Assessment Criteria of 4S Labelling Scheme

DEVB "Technical Circular (Works) No. 3/2023"

(https://www.devb.gov.hk/filemanager/technicalcirculars/en/upload/1393/1/C-2023-03-01.pdf)

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Assessment Criteria of 4S Labelling Scheme

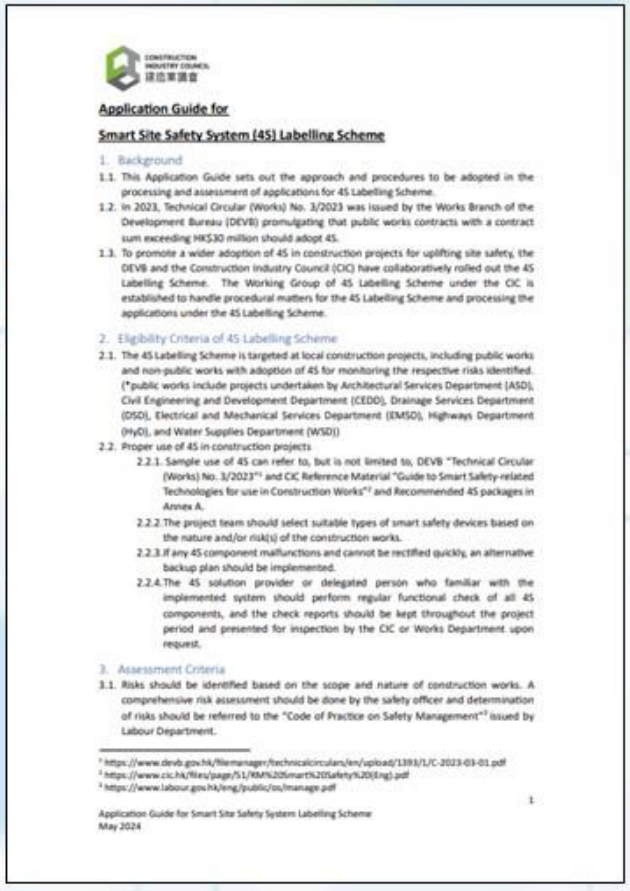
CIC Reference Material "Guide to Smart Safety-related Technologies for use in Construction Works"

(https://www.cic.hk/files/page/51/RM%20Smart%20Safety%20(Eng).pdf)

Assessment Criteria of 4S Labelling Scheme

Application Guide for Smart Site Safety System (4S) Labelling Scheme

(https://www.cic.hk/content/dam/4s-labelling/pdf/Application%20Guide%20for%204SLS_20240517.pdf)



Application Guide for

Smart Site Safety System (4S) Labelling Scheme

1. Background

1.1. This Application Guide sets out the approach and procedures to be adopted in the processing and assessment of applications for 4S Labelling Scheme.

1.2. In 2023, Technical Circular (Works) No. 3/2023 was issued by the Works Branch of the Development Bureau (DEVB) promulgating that public works contracts with a contract sum exceeding HK$30 million should adopt 4S.

1.3. To promote a wider adoption of 4S in construction projects for uplifting site safety, the DEVB and the Construction Industry Council (CIC) have collaboratively rolled out the 4S Labelling Scheme. The Working Group of 4S Labelling Scheme under the CIC is established to handle procedural matters for the 4S Labelling Scheme and processing the applications under the 4S Labelling Scheme.

2. Eligibility Criteria of 4S Labelling Scheme

2.1. The 4S Labelling Scheme is targeted at local construction projects, including public works and non-public works with adoption of 4S for monitoring the respective risks identified. (*public works include projects undertaken by Architectural Services Department (ASD), Civil Engineering and Development Department (CEDD), Drainage Services Department (DSD), Electrical and Mechanical Services Department (EMSD), Highways Department (HyD), and Water Supplies Department (WSD))

2.2. Proper use of 4S in construction projects

2.2.1. Sample use of 4S can refer to, but is not limited to, DEVB "Technical Circular (Works) No. 3/2023"[1] and CIC Reference Material "Guide to Smart Safety-related Technologies for use in Construction Works"[2] and Recommended 4S packages in Annex A.

2.2.2. The project team should select suitable types of smart safety devices based on the nature and/or risk(s) of the construction works.

2.2.3. If any 4S component malfunctions and cannot be rectified quickly, an alternative backup plan should be implemented.

2.2.4. The 4S solution provider or delegated person who familiar with the implemented system should perform regular functional check of all 4S components, and the check reports should be kept throughout the project period and presented for inspection by the CIC or Works Department upon request.

3. Assessment Criteria

3.1. Risks should be identified based on the scope and nature of construction works. A comprehensive risk assessment should be done by the safety officer and determination of risks should be referred to the "Code of Practice on Safety Management"[3] issued by Labour Department.

[1] https://www.devb.gov.hk/filemanager/technicalcirculars/en/upload/1393/1/C-2023-03-01.pdf
[2] https://www.cic.hk/files/page/51/KM%20Smart%20Safety%20(Eng).pdf
[3] https://www.labour.gov.hk/eng/public/os/manage.pdf

1

Application Guide for Smart Site Safety System Labelling Scheme
May 2024

Recommended 4S Packages

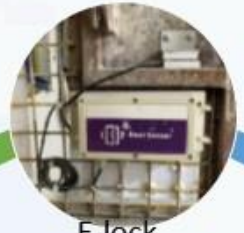
- Recommended 4S Packages are included in the **Application Guide**

		Recommended 4S packages (R = Recommended 4S Products; O = Optional item)									
Package	Type of Works (4S Sample Package)	Centralised management platform	Digitalised tracking system for site plants, powered tools and ladders	Digitalised permit-to-work system for hight risk activities	Hazardous areas access control by electronic lock and key system	Unsafe acts / dangerous situation alert for mobile plant operation danger zone	Unsafe acts / dangerous situation alert for tower crane lifting zone	Smart monitoring devices for workers and frontline site personnel	Safety monitoring system using Artificial Intelligence	Confined space monitoring system	Safety training with VR Technology
A	Single-tower Building (superstructure construction)			O	R	R	R	O	R	O	
B	Multiple-tower Building (superstructure construction)	O	O	R	R	R	R	R	R	O	O
C	Minor works /Repair (RMAA)			R	R			O	R	O	
D	Ground Investigation			R		R		O	R		
E	Building Demolition			R	R	R		R	R	O	
F	Foundation			R		R		O	R		
G	Site Formation			R		R			R		
H	Site Formation, Large Scale	R	O	R	R	R		R	R		O
I	Flyover/ Carriageway/ Road Widening	R	O		R	R		R	R		O
J	Footbridge system (including lift installation)		O			R		R	O		
K	Sewage/Water Treatment Works/ Stormwater Tank	R	O	R	R	R	O	R	R	R	O
L	Drainage/ Sewage Laying/ Utilities works		O	R		R		R		R	O
M	Port Works/ Pier/ Reclamation	O	O	R		R		R	R		O
N	Tunnelling	R	O	R	R	R		R	R	R	O
O	Landslip Prevention and Mitigation (LPM)		O			O		R			
P	Confined Space*	O		R	R			R	R	R	

*Environmental Monitoring system for harmful gas detection and network setup inside the confined space are recommended too.

4S Sample Package A

- **Use:** Single Building of 30 storeys of 8 flats/ storey
- **Duration:** 24 months
- **No. of workers: 100**



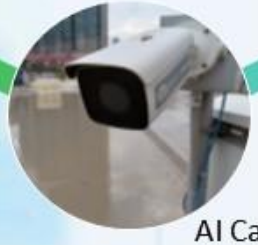
E-lock

Alert system for tower crane

Package A

Single-tower Building

Alert system for mobile plant



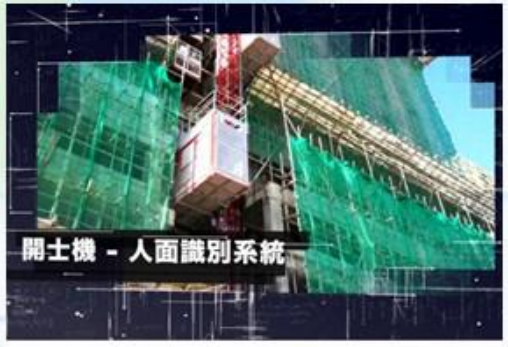
AI Camera

Optional

Confined Space monitoring system

Worker's positioning / health monitoring

Electronic Permit-to-Work (PTW) System



物料開土機使用人面識別系統，
只批准有接受安全訓練的工友使用。

Source of photos: 「生命第一2023」行出安全大獎 -屯門鍾發里公營房屋發展計劃建築工程
https://www.safetyweek.hk/CSW_2023/conference_ppt/pm/4.TuenMun-HinFatLane.pdf

WALK THE TALK 行出安全

4S Labelling Application Process

4 Easy Steps for Applying for 4S Labelling

4S Labelling Application Process

Apply Online

The main contractor apply the 4S Labelling Scheme (4SLS) through online application.

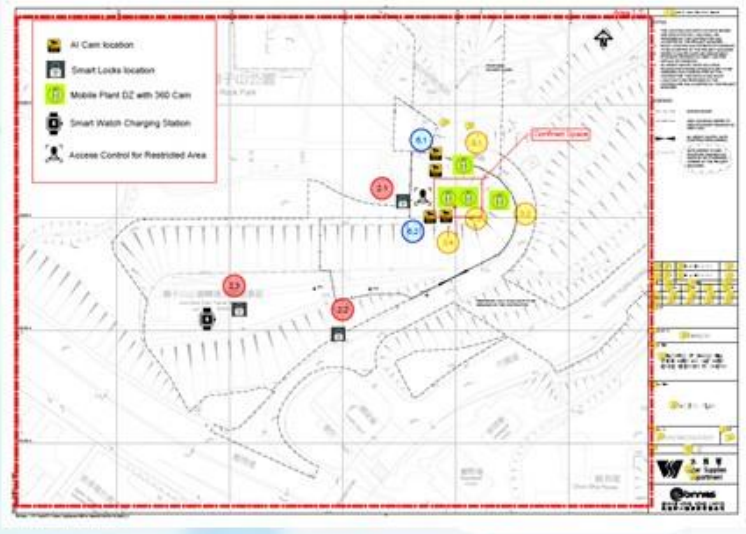
Homepage: cic.hk/4s-labelling

Application e-Form

4S Labelling Application Process

Site Inspection

CIC or Works Department will conduct a site inspection



Location Plan indicating the installation and setup of the 4S devices or system

Mobile Plant Alert System

E-Lock at lift shaft

Worker's Smart Watch

4S Labelling Application Process

Site Inspection

- Inspection criteria will be based on the **existence** and **workability** of the proposed 4S device or system.

The worker worn the smart swatch for monitoring health status

Alert message sent to Safety Officer through SMS

The 4S Label

The 4S Label

- An **electronic copy** and a **plaque** of the 4S Label will be issued with usage guidelines.
- The 4S Label issued for printing and plaque for **displaying at the site entrances** for the labelled project.
- Labelled or application in progress project will be listed on the CIC 4S Labelling Scheme website.

Example of how to display the 4S Label Plaque

Illustration of 4S Label Plaque being displayed at the site entrances of the labelled project.

Open for Application

- **Application**
  - Starts from **20 May 2024**
  - Submit through online application (e-form) on the CIC 4SLS webpage

- **Application fee:**
  Waived before 1 January 2025

- 4S Label is valid for **one year** from the approval date.

Renewal of the 4S Label

- **CIC will issue a renewal reminder** to the main contractors of labelled projects **3 months prior to the date of expiry** of their existing labels.

- The main contractor of the labelled project **shall submit application for renewal at least 1 month prior to the date of expiry.**

- The **Assessment Team** will review the submitted documents and make a recommendation to the **Working Group of 4S Labelling Scheme** for renewal.

Surprise Inspection

- The **Inspection Team** will conduct surprise inspections **on all randomly selected labelled projects**.

- If the 4S devices / solutions are found not satisfactorily implemented, the 4S label for the labelled project will be confiscated from the contractor.

- The applicant needs to pay for the application fee to reclaim the confiscated 4S label. **Confiscation of 4S label will be updated on the CIC 4SLS webpage**.

CONSTRUCTION
INDUSTRY COUNCIL
建造業議會

5 Common Issues of 4S Labelling Scheme Application

1. Project NOT follow package without reason

reason

Recommended package table

		Recommended 4S packages (R = Recommended 4S Products; O = Optional item)									
Package	Type of Works (4S Sample Package)	Centralised management platform	Digitalised tracking system for site plants, powered tools and ladders	Digitalised permit-to-work system for hight risk activities	Hazardous areas access control by electronic lock and key system	Unsafe acts / dangerous situation alert for mobile plant operation danger zone	Unsafe acts / dangerous situation alert for tower crane lifting zone	Smart monitoring devices for workers and frontline site personnel	Safety monitoring system using Artificial Intelligence	Confined space monitoring system	Safety training with VR Technology
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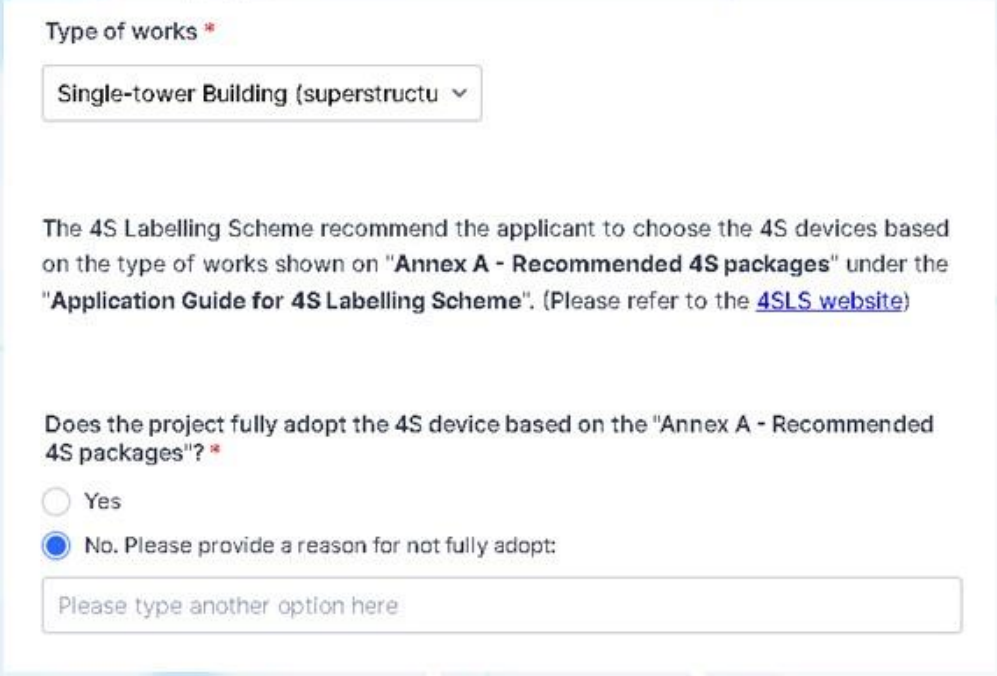
K	Sewage/Water Treatment Works/ Stormwater Tank	R	O	R	R	R	O	R	R	R	O
L	Drainage/ Sewage Laying/ Utilities works		O	R		R		R		R	O
M	Port Works/ Pier/ Reclamation	O	O	R		R		R	R		O
N	Tunnelling	R	O	R	R	R		R	R	R	O
O	Landslip Prevention and Mitigation (LPM)		O			O		R			
P	Confined Space*	O		R	R			R	R	R	

*Environmental Monitoring system for harmful gas detection and network setup inside the confined space are recommended too.

Project NOT follow package without reason

Online application form


Type of works *

Single-tower Building (superstructu

The 4S Labelling Scheme recommend the applicant to choose the 4S devices based on the type of works shown on "**Annex A - Recommended 4S packages**" under the "**Application Guide for 4S Labelling Scheme**". (Please refer to the 4SLS website)

Does the project fully adopt the 4S device based on the "Annex A - Recommended 4S packages"? *

- Yes
- No. Please provide a reason for not fully adopt:

Please type another option here

- Option for not fully adopt Recommended 4S package
- With justify reason provide

2. A.I. cameras as the 4S device for mobile plant operation danger zone

A.I. cameras as the 4S device for mobile plant operation danger zone

- AI camera set outside and monitoring the restricted area

A.I. cameras as the 4S device for mobile plant operation danger zone

- 360 AI Camera or UWB 4S
  On the plant

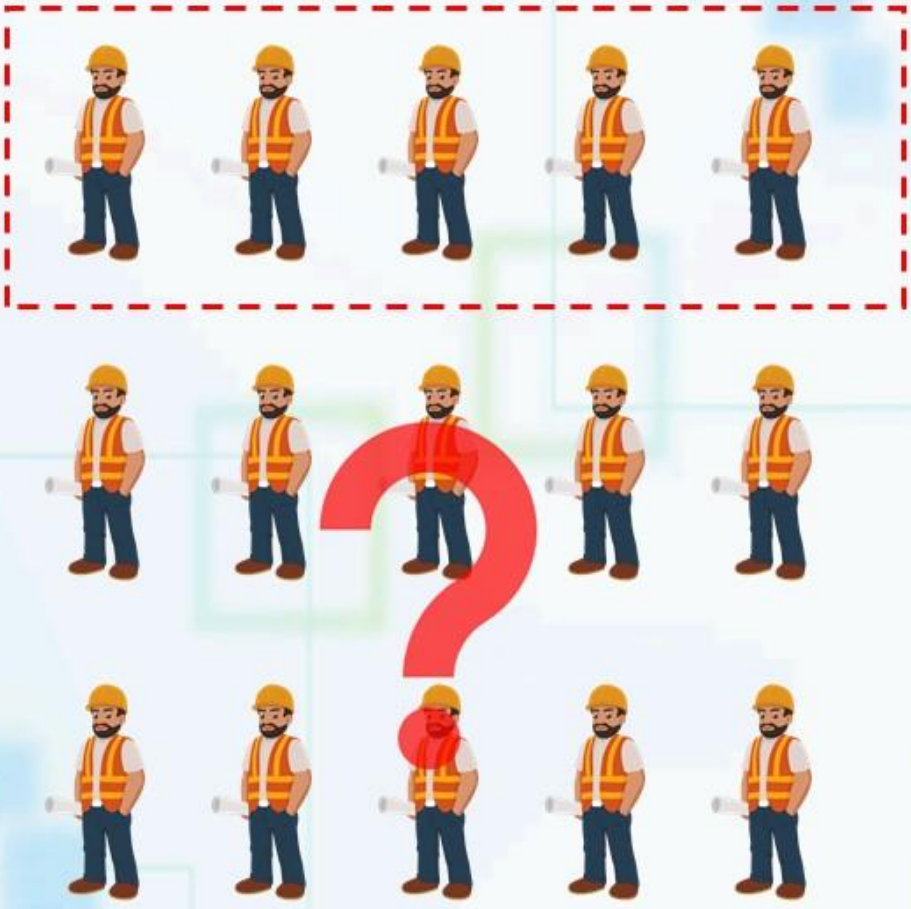
3. Smart Wearables deployed is not enough

Smart Wearables deployed is not enough

Smart watch for risk like

- Heatstroke
- Missing people
- Fall from height

Smart Wearables deployed is not enough



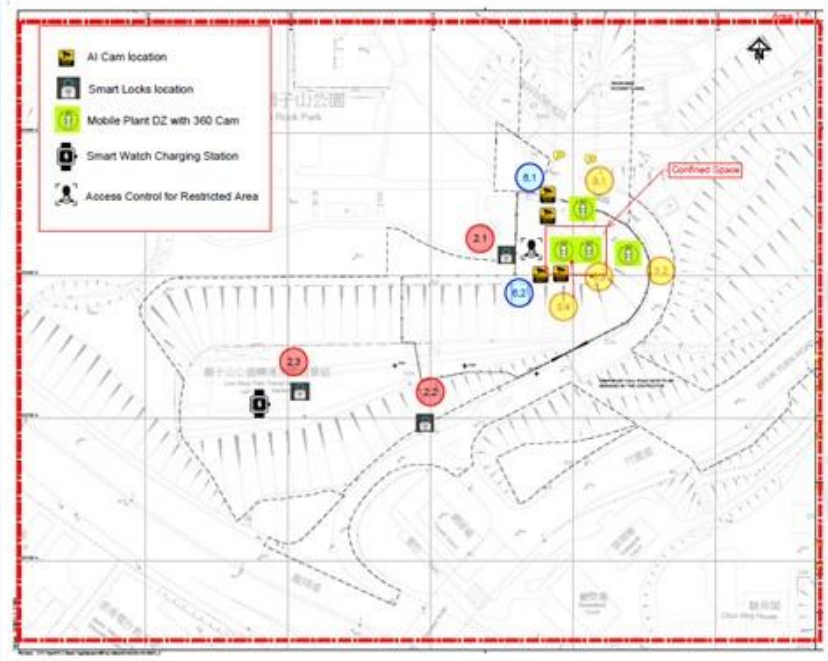
Smart watch for risk like

- Heatstroke
- Missing people
- Fall from height

← **Why missing them??**

4. Missing 4S Location Plan

Missing 4S Location Plan

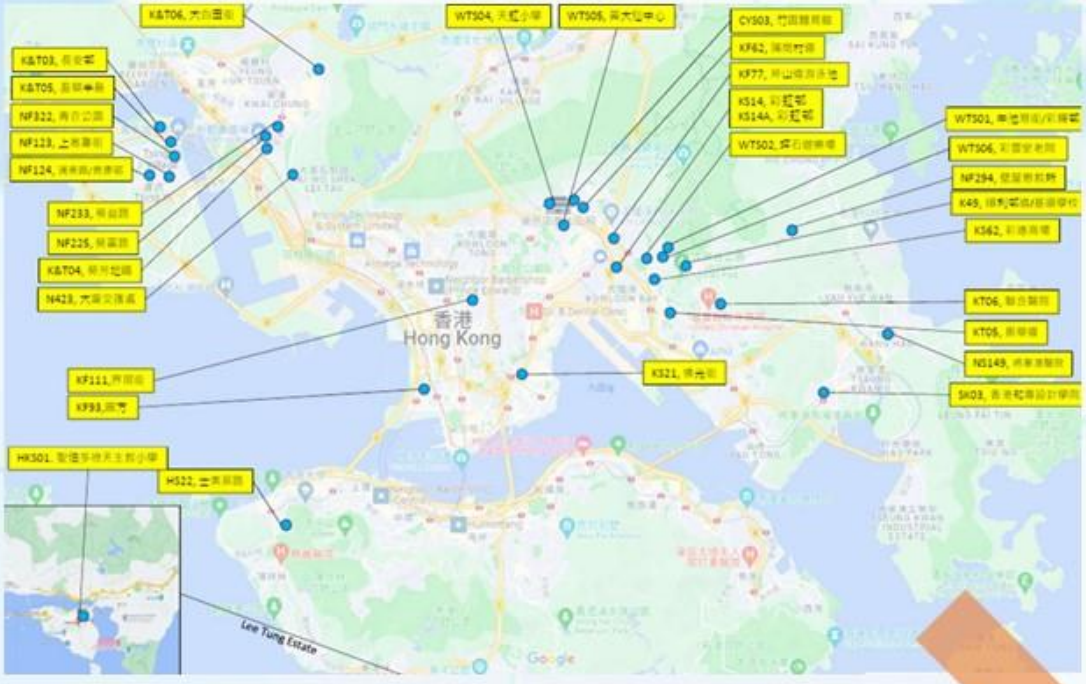


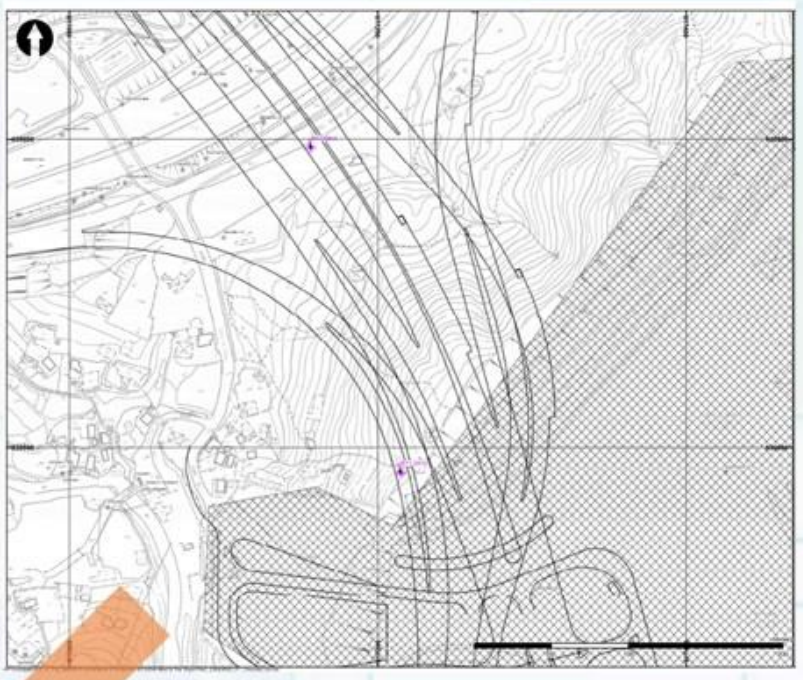
Location Plan showing every 4S devices is CRITICAL for preparation of site inspection

Fixed 4S device: E-lock, AI Camera, Tower Crane 4S,

Mobile Plant 4S, Confined Space, other sensors

Missing 4S Location Plan





Location Plan cannot clearly show the 4S device location

5. Missing Operation Arrangement

Missing Operation Arrangement

If 4S device cannot be shown in location plan. Operation Arrangement should be submitted to show:

(i) How to distribute the devices to workers or to assets

(ii) How to store the devices / assets

(iii) How to operate the devices etc

Operation Arrangement for Smart Watch

1. Selection of workers

For selecting the first priority worker, the following criteria were set up on site:

A) Worker who is age of 60 or above

B) Worker who is working alone, such as plant operator

C) Worker who has High blood pressure record by medical institutions

2. Storage/ Charging for Smart Watch

For selected workers, the contractor will provide a specific Smart Watch pairing with the worker. Every start of working day, the worker should take the Smart Watch at 4S Control Room Charging point, and return the Smart Watch for Charging at the end of working day. The Smart Watch will be charging the power overnight to ensure the Smart Watch can function all the working time.

3. Operation of the Smart Watch

The Smart Watch will be set up all the setting before pairing to worker. The product feature please refer to annex (7.0 Smart Watch)

Operation Arrangement for digitalized Tracking System for Site Plants

1. Inputting Asset Info on CMP (how to distribute)

For the plants using on site, info [including type of plant, location, Brand and Model Number and Serial No., Owner (subcontractor), Certificate no. and expiry day, safety working load, NRMM label] will be inputted for registration on CMP.

2. Generating QR Code and Posting on Assets (how to store)

Further to item 1, QR code will be automatically generated by CMP and our Safety officer or Front-Line Staff will print the QR code on an A4 paper and post it on the corresponding plant. All plant data will be stored at web-based CMP and no hardcopy of plant data is required to be stored on site.

3. On-site Checking and Monitoring of the Asset Status (how to operate)

For any of regular site walk, ad-hoc inspection or random check, inspector is able to check the plant status on site by scanning the QR code with common smart phone without installation of any apps. Our safety officer will also regularly check any expiry on certificate of plant on CMP for monitoring purpose.

Sample Application Form

Thank You

中華人民共和國香港特別行政區政府
發展局
Development Bureau
The Government of the Hong Kong Special Administrative Region of the People's Republic of China

CONSTRUCTION INDUSTRY COUNCIL
建造業議會

安全智慧工地系統標籤計劃
SMART SITE SAFETY SYSTEM LABELLING SCHEME

安全智慧工地系統標籤計劃
SMART SITE SAFETY SYSTEM LABELLING SCHEME

查詢 ENQUIRIES

cic.hk/4s-labelling

4sls@cic.hk

2100 9000

This is a clip from the 18 October 2024 recording of the

Hong Kong Housing Authority

“Site Safety Seminar for Capital Works New Works Contracts”

The speaker on stage is Mr. Ion CHAN, Manager

the Development, Construction Industry Council

His topic is

Application procedure and Tips

for Smart Site Safety System Labelling Scheme

****

(00:24)

Hello everyone, let me introduce myself first. My name is Ion Chan

If you have noticed the promotional materials from the Construction Industry Council

or the Smart Site Safety System Labeling Scheme

you might have already seen me before

Some of you may have even called to inquire about project approvals

and spoken with me over the phone

First of all, thank you to the Housing Authority for inviting us today

to introduce the Smart Site Safety System Labelling Scheme

Let me give a brief overview

for those who have never heard of or applied for the Scheme

so you can understand how to join

I will also share some tips

As of now, we estimate over 450 project applications

So there are some experiences and lessons

about challenges or key points in the application process

to help make your submission smoother

When using Smart Site Safety Systems

we want to help you implement them more effectively on site

As you all know, the Smart Site Safety System

was introduced in a Development Bureau technical circular in late February 2023

that all public works contracts over $30 million are required to adopt Smart Site Safety System

The system have to consist of three core elements

a smart safety device

connected through a network to a central management platform

These are the three essentials

The circular also provides specifications

and select 10 types of Smart Site Safety Systems

as recommendations

So this year, the Development Bureau

worked with CIC to roll out a new initiative

to help everyone better adopt these systems on site

and encourage more projects to implement them

In May 2024, the current Labelling Scheme is jointly launched

What kinds of projects are eligible to apply?

It is very simple

any local construction project in Hong Kong

any size or type, either government or private

including maintenance, addition and alteration works

Why are there six department logos at the bottom of the slide?

It is not that only these six departments can apply

but under the scheme's definition

projects under these six departments

are classified as public works projects

So if your project falls under the Housing Authority

when filling in the application form

be sure to indicate it as non-public works, please pay attention

Any project can apply

So why apply for the Smart Site Safety System Label?

Of course, the goal is to encourage more use of these systems on site

Using smart site safety systems can improve site safety

And when you have adopted them

You will want recognition to show the public

that the contractor and developer

uses Smart Site Safety Systems

which shows they care about safety and build a stronger corporate image

All successful applications will be listed on our website

Anyone, including government departments, Labour Department officers, or the media

can view the site and see which projects and developers

have committed to using Smart Site Safety Systems

So during the application for the Scheme

So what do we assess?

The assessment criteria are simple, just a few key points

First, before applying

the safety officer must conduct a proper risk assessment

to identify potential hazards in the project

Then, based on those hazards

select the appropriate Smart Site Safety System equipment

and that is all required

If you are unsure about how to choose or what to use

we offer recommended Smart Site Safety System packages

Applicants are encouraged to

use the according recommended packages

for different kinds of works

If you are still unclear

we have additional reference materials for you to look at

I will explain more later

The first reference document is

the 2023 Development Bureau technical circular

It outlines many important details related to Smart Site Safety Systems

Second is a November 2022 reference guide

published by the CIC

also related to smart site safety systems

Although it did not have the exact name at that time

it outlined ten different types of smart site safety systems

which align with today's Smart Site Safety System definition

This document is relatively concise

so you can quickly get a grasp of the system

Of course, you must also read the application guide for the Scheme

to understand how to apply, the application process and key things to look out for

As for what constitutes

a reasonable application of smart site safety systems

there are a few main points

Simply speaking

it is not ticking off a checklist like a "dim sum order sheet"

It does not mean the system is being utilized

It should start from a risk-based perspective

Identify what the project really needs

and use technology to monitor the most dangerous areas

so that relevant personnel can take action before accidents happen

That is the true goal we want to achieve

Now, let's look at this chart

It shows the recommended Smart Site Safety System packages

Here, you will see 15 types of construction works

and their corresponding recommended or optional system types

This chart has two purposes

First, it is for

applying to the Construction Innovation and Technology Fund

If you follow this table

it provides a fast-track route for funding approval

helping sites a quicker access to the system

Second, this same chart is used in the Labelling Scheme

as a checklist

When you declare your type of project

we will check whether you have adopted the appropriate type of system

This chart was created by the CIC committee

with industry professionals

who have used these smart site safety systems themselves

and had relevant experience

They recommended suitable products for each type of project

but actually every type of smart safety products could be suitable

This is not a rigid framework you must follow

it is simply a starting point

especially useful if you are new to Smart Site Safety Systems

"O" means optional

"R" means recommended

This chart is included in the application guide

For example, take the case of constructing a single high-rise building

say, a 30-storey building, one unit per eight flats, and a two-year project

What kinds of Smart Site Safety System products could be used?

One example is the use of electronic locks

Since it is a high-rise construction

there will definitely be lift shafts

Unsecured lift shafts can allow workers to fall down accidentally

posing risks for falling

Installing electronic locks controls access for the lift shafts

only authorised personnel can tap in while others cannot enter

If someone deliberately tampers with the lock to get in

the system will alert the site manager, who can then follow up

In addition, of course, there are mobile plant alert systems

For example, excavators or bulldozers

Smart Site Safety Systems can detect if anyone is approaching the machine

so the operator knows if someone suddenly appears in their blind spot

and can stop immediately to prevent accidents

Naturally, for high-rise buildings, there will be tower cranes

which must also be equipped with similar Smart Site Safety Systems

Lastly, there are AI cameras

AI cameras have many applications

In this context

they are most commonly installed at site entrances and exits

When workers pass through

the system can check whether they are properly wearing personal protection equipment

such as safety helmets and reflective vests

It helps verify the most basic safety requirements

That is just one example

Each Smart Site Safety System package follows these principles

to help you choose a suitable system for your site

Now, back to the application process

how do you apply for the Labelling Scheme?

In simple terms, there are four steps

Step one is online application

Following environmental principles, the entire process is digital

After submitting the form online

we will check if all required information has been provided

If anything is missing, we will ask you to re-submit it

If your documents are complete, we can process it faster

So this is a tip to help with your application

Next is the site inspection

As we want to ensure all the systems are truly implemented

after discussions with the Development Bureau

we decided that every application must include a site inspection

to verify that all devices have been properly installed and functioning

Only then can we issue the label

Finally, there is a Working Group

of the Smart Site Safety System Labelling Scheme

They will review all projects that have passed the site inspection

and give final approval

Once all steps are complete

as mentioned earlier, the label can be issued

Here is the website for online application

It is very simple, just type “4SLS” into your browser

The first link will definitely be our webpage

If you cannot find it, type “cic.hk/4s-labelling”

and you will see the application page

There is an “Apply Now” button, you can click to start your application

A tip for everyone: After you clicked in

before you start filling in the first page of the e-form

there is a reminder of the documents required and a sample form for reference

Due to limitations on the e-form you can only fill it in one page at a time

but you can download the sample form to check all required fields in advance

Review everything and prepare the necessary documents before filling in the e-form will save much time

After applying, we will also conduct a site inspection

The inspection will not be like a normal demonstration tour

where you lead the inspection officer to each location

We want to see the systems in use

So when submitting the form, you will need to include a layout plan

showing the specific locations of the Smart Site Safety System equipment

For example, where the AI cameras are

where the mobile plant is operating, where the electronic locks are installed

They must be clearly marked on the layout plan and submitted together with the application

We will use this layout to plan the inspection route

and inspect according to actual site conditions

Many projects worry that

the layout might change in two weeks’ time after submission

That is not a problem as we understand site conditions change all the time

Just submit what you have for us to plan

If things look different when we visit the site

we fully understand and accommodate that

So there is no need to worry about submitting the location plan in advance

Of course, for some Smart Site Safety Systems
such as smart helmets
workers will move around and exact locations could not be found
that is fine as a layout plan is not necessary
Instead, you will need to submit an operation arrangement which we will explain more later
It should specify who wears the smart helmets, how they are stored and how they are used
so that during site inspection, we know under what conditions they are being used
This helps us understand what to check on site
so please prepare the relevant documents for submission

The inspection mainly focuses on two aspects:
existence and workability
Existence means, for example, if you report using 10 AI cameras
we will check if all 10 are in use
You cannot have 10 cameras reported
but 8 cameras not functioning
or they are took down for repair which will not be acceptable
The other part is a demonstration of workability
We will check whether the Smart Site Safety Systems are operating properly
A lot of Smart Site Safety Systems
not only monitor workers
but in case of incidents
also send alerts to safety officers or managers
These alerts could be sent via instant messaging platforms, apps,
or displayed on a central management system
We will check whether the system is operating as reported
All the functions that are declared in the application

for the Smart Site Safety System to handle such risk

we will check on-site that any declared functions are being used

In short, anything declared in the application will be checked during inspection

So please remember, this is not a demonstration prepared in advance

We expect everything to be fully installed

and functioning smoothly before we conduct the inspection

When we arrive on site, we may ask questions at random

And if most of the systems are not functioning

it is very likely the project will not receive the label

If your application is successful

you will receive this plaque

As you can see, the character on the left

has an interesting design

it combines the Chinese character for "安" with the Smart Site Safety System logo

The plaque will be given to you

so you can display it at the site entrance

We will also provide a digital version

If your site has multiple access points

or you want to promote your use of the Smart Site Safety System

you can use the digital label freely

In addition, all projects awarded the label

will be listed on our website

including contract name, site location, developer, and main contractor

So any project that uses Smart Site Safety Systems

will have its details published online

Here is an example where

the plaque is placed in a prominent location

to show the site uses Smart Site Safety Systems and prioritises safety

Anyone passing by will know the site is of high quality

The application for the Smart Site Safety System Labelling Scheme

officially started on 20 May

There is currently no deadline for application

You can apply at any time

But take note, for now, the application fee is waived

This exemption will last until 1 January 2025

After that, we are not sure yet

So take advantage of the next 2 months and apply now

Getting the label does not mean

you do not need to improve the site

Construction projects last one, two, even three years

and each year brings different circumstances

So the label is valid for one year

After that, it can be renewed

There is a section for renewal application

We will send a reminder around the one-year mark

to let you know your label is expiring and your project needs to apply for renewal

If the project is still ongoing and you want to maintain the label

you must submit updated documents

because site conditions will have changed

For example, you may have started with site formation

then moved on to superstructure, and now nearing completion

The use of Smart Site Safety Systems will change over time

Some will no longer be needed while others may need to be added

So throughout the project

the scheme encourages

regular review of your Smart Site Safety Systems

is some system no longer needed

or do new systems need to be added

to handle newly appearing risks

so we hope for continuous updates and follow ups

We may ask for supporting documents

to verify your system and equipment management

After submitting your renewal documents and the application

we may conduct another site inspection

The updated information will be reviewed

by the Work Group for final approval

If approved, the label will be extended for another year

But do not let your guard down during that year

as there will be surprise inspections

The inspection team may arrive unannounced

for projects that already got the label

to check whether your Smart Site Safety Systems are still functioning properly

The same principles apply

As site conditions changed

even if conditions on site differ from those at the time of application

that is fine, as long as the changes are justified from a safety perspective

Why certain devices are removed?

Is it because that tower crane was removed

or other solutions were put in place to handle those risks?

If there are documents and reasonable explanations

our inspectors will understand

as they mostly have safety backgrounds

But we do expect to see that

your Smart Site Safety Systems are still in use

still managing risks and still being maintained

If unfortunately we find during the inspection

that the systems are no longer operational

Then be careful

your project may be at risk of having the label revoked

If the label is revoked

this will be shown on our website

If you are unlucky

and the inspection did not go well, you should improve your Smart Site Safety Systems as soon as possible

When we come back for re-inspection

if everything is confirmed to be in order, the label can be reinstated

But of course a re-application fee will be charged

So we hope that everyone makes full use of Smart Site Safety Systems throughout the project

to maintain construction quality

We have prepared some FAQs

about common issues during the application process

Let's take a look

The first question we get a lot is

If the project does not follow the recommended package, will it still be accepted?

Yes, it can

The recommended package is just a suggestion

We understand that not every site can follow it exactly due to different conditions

As long as there is a reasonable explanation, it will be accepted

But of course, we will assess it case by case

For example, if the project is a single-block building

with no tower crane-related Smart Site Safety Systems

and no AI cameras used

we will ask for the reasons

We want to understand the rationale behind not following the package

This can be a form of knowledge sharing or learning

The key point is that if no reasonable explanation is provided during the application then it becomes a problem

When filling out the application form

you will be asked

if your site complies fully with the recommended package

You can answer “No”

But if you choose “No” please provide the reasons

Why is a certain Smart Site Safety System not adopted?

Is it truly unsuitable for your project?

Or have you already implemented better measures to eliminate those risks?

Tell us, if the reasons are sound, that is acceptable

But the most common reason we hear is

“It is not included in the contract” or “There is no budget”

These reasons are not acceptable

so please keep that in mind

The second point is about AI cameras

This equipment is used for mobile plant safety monitoring

There is no specific category in the application

In the recommended chart we showed earlier, there are various categories as well

So our colleagues will review accordingly

If they ask you

why no Smart Site Safety System is used for mobile plant

and you say, “I did use one,” there may be some disagreement

We have seen cases where

AI cameras were installed around a mobile plant danger zone

to monitor the area and prevent workers from entering

But under our categorisation

this is not classified as a Smart Site Safety System for mobile plant

It is a Smart Site Safety System

but it falls under Category 8

which is Smart Site Safety Systems using AI applications

Since mobile plant operation carries significant risk with many blind spots

our accepted Smart Site Safety System must be installed on the machinery itself

It must monitor the 360-degree surroundings of the machine

The system must move with the vehicle

so that the monitoring area moves accordingly

Take note of this

Whether it is a 360-degree camera or proximity sensors

they must meet these criteria

And let me remind everyone

if you use proximity sensors

we will take a closer look

Because with proximity sensors

it is not enough to just install them on the machine

Workers must also wear something

If a worker enters without wearing a smart helmet

or without a safety tag

then even if mobile plant hits a worker there will be no alert

So we will also look into whether smart equipment

has been adequately distributed to the workers

Another common issue

is that there are not enough

wearable smart devices

Why is that?

Wearable smart devices can do many things

For example, in this case all workers were given wearable smart devices

to monitor their heart rate, check for heatstroke, detect if someone has gone missing

or stayed inside too long, or fallen from height

They can even press an emergency alert

This case is fully acceptable

But this case is not

Why are there so many workers

but only a few have smart tags or smart safety helmets?

What is the reason the others do not have any?

We are not saying that all workers must wear them

because we understand these smart devices are expensive

But when using this type of equipment

you should also consider

how to allocate resources wisely

Which workers need them most?

Are they part of a high-risk group?

We also want to know the reasons behind your decision

So when we are on site we can understand that

for example, the workers near mobile plant are prioritised

or workers with pre-existing health conditions

like heart issues or high blood pressure

who need closer health monitoring

These are all reasonable explanations

Not everyone has to wear one

you can also have a clear reason to protect those at highest risk

The fourth issue is missing location plans

This happens very often

Here is a good example

On the left, even if it is just a construction drawing, or an aerial photo

as long as you mark where the Smart Site Safety Systems are installed, it is acceptable

Once we know where the equipment is

we will know what to expect on site

Generally, for all fixed-point installations

we expect to see them on the layout plan

Examples include E-Locks, AI cameras

Smart Site Safety Systems for tower cranes

For mobile plant, even though it moves

the movement area should still be roughly predictable

so you can mark an approximate location

Other items like sensors in confined spaces or other fixed-point devices

should also be shown on the location plan

This is a bad example

You cannot even tell which project it is

Now, it is not that this person is wrong

they just did not know how to handle it

They marked many locations on a Hong Kong map

maybe because it is a term contract with similar works at multiple locations

which are all marked on the map

But it does not clearly show

how the Smart Site Safety Systems are distributed

This drawing is not acceptable

The image on the right is even worse

It is just a map with no markings at all

So if you are handling a term contract,how should you provide the location markings?

There are two approaches

If the same type of works is carried out at all locations

you can prepare a typical setup diagram

For example, if the job involves streetlight maintenance

each site installs one camera

and sets up a barrier when starting work

A typical setup diagram helps us understand the layout

If we inspect one or two sites and see the same setup that is acceptable

We know that Housing Department contracts may involve several construction sites under the same contract

If each building site is independent

you may need to link contract info to individual sites

and apply for the Smart Site Safety System label separately for each location

Each site will be inspected individually and treated as a separate application case

These are some tips to keep in mind

The last part is about operational arrangements

What does this mean?

Among the 10 typical Smart Site Safety System items

two are expected to have project-specific operation arrangements

The first is wearable smart products like smart watches and helmets

The second is asset tracking and management

using QR codes or RFID tags on devices

We want to know

As there may be a large quantity of items or they may be stored in different places

their exact location may not be clear

so we want to know how the asset management is done

When do the machines get their tags?

How are the tags managed?

What will the system show?

When do workers wear their smart devices?

Do they take them home after work? Or return them to the site?

Is there a storage room where the smart watches are charged?

Once we understand your arrangement

we will know better what to expect on site

Don't worry if you are unsure how to write this

Sample templates are already available online

You can refer to them but of course, do not copy them word for word

Just adjust them according to your own site's conditions

As mentioned earlier

key documents in the application include a location plan for all fixed installations

An operational arrangement document

explaining how the Smart Site Safety Systems are used

You must also submit a project scope

Even if it is simple or only described in a few paragraphs on a government website

we still need to understand the scope

We will cross-check if the scope matches the project category

and see if everything is reasonable

These documents are mandatory

There are also optional ones like safety plans and risk assessments

which can help us better understand your project

and how your Smart Site Safety Systems are applied

If your system provider

has already helped prepare a detailed implementation plan

we encourage you to submit it as well

When needed

we will refer to it to assess how the systems are used on site

Lastly, a reminder to everyone

safety on site is crucial

I am sure you all agree

Smart Site Safety Systems are exactly designed to tackle this issue

so we encourage you to make good use of them

and join the Smart Site Safety System Labelling Scheme

It helps everyone to review your current setups

and check are there any room for improvements

and promotes knowledge sharing across the industry

That is all for today, thank you everyone

Thank you for watching

(31:18)