



REFERENCE MATERIAL

on Safety Roles and Responsibilities of Key Stakeholders in the Hong Kong Construction Industry

Practical Reference Guidance On Work-above-ground Operation

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Disclaimer

Whilst reasonable efforts have been made to ensure the accuracy of the information contained in this publication, the CIC nevertheless would encourage readers to seek appropriate independent advice from their professional advisers where possible and readers should not treat or rely on this publication as a substitute for such professional advice for taking any relevant actions

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Appendix I – Safety Roles of Respective Stakeholders and their Safety Responsibilities at Respective Level correlating to each step of the "Practical Reference Guidance on Work-above-ground Operation"

Preface

The Construction Industry Council (CIC) is committed to seeking continuous improvement in all aspects of the construction industry in Hong Kong. To achieve this aim, the CIC forms Committees, Task Forces and other forums to review specific areas of work with the intention of producing Alerts, Reference Materials, Guidelines and Codes of Conduct to assist participants in the industry to strive for excellence

The CIC appreciates that some improvements and practices can be implemented immediately whilst others may take more time to adjust. It is for this reason that four separate categories of publications have been adopted, the purposes of which are as follows:

Alerts	Alerts are reminders in the form of brief leaflets produced quickly					
	to draw the immediate attention of relevant stakeholders to the					
	need to follow some good practices or to implement some					
	preventive measures in relation to the construction industry.					

Reference	Reference materials for adopting standards or methodologies in				
Materials	such ways that are generally regarded by the industry as good				
	practices. The CIC recommends the adoption of relevant				
	Reference Materials by industry stakeholders where appropriate.				

Guidelines	Guidelines provide information and guidance on particular topics
	relevant to the construction industry. The CIC expects all industry
	stakeholders to adopt the recommendations set out in relevant
	Guidelines where applicable.

Codes of	Codes of Conduct set out the principles for all relevant industry
Conduct	participants to follow. Under the Construction Industry Council
	Ordinance (Cap. 587), the CIC is tasked to formulate codes of
	conduct and enforce such codes. The CIC may take necessary
	actions to ensure compliance with the codes.

We encourage you to share your feedback with us. Please take a moment to fill out the Feedback Form attached to this publication for us to further enhance this publication for the benefit of all concerned. With our joint efforts, we believe our construction industry will develop further and will continue to prosper for years to come

Purpose

This aim of this "Practical Reference Guidance on Work-above-ground Operation (PRG)" is to provide a technical-based guidance to construction industry stakeholders who may perform work-above-ground operation in their project. Under section 6A of the Factories and Industrial Undertakings Ordinance (Cap. 59), the proprietor of an industrial undertaking has a duty to ensure, so far as is reasonable practicable, the health and safety at work of all persons employed by him at the industrial undertaking. This type of performance-based legislation requires the duty holders to conduct risk assessment to identify the hazards inherent in the process and develop appropriate precautions for remedy, including provision and maintenance of a safe system of work.

To narrow down the scope of work of the duty holders based on the "Stakeholder Model" to process-based approach is used. The purpose is to confine its application to work-above-ground operation. Readers should note that it is not feasible for CIC to develop a PRG for each and every work-above ground task because of the variable factors involved. Readers can nevertheless model on this PRG to develop their own system of work in work-above-ground to fulfill their legal duty under section 6A of the Factories and Industrial Undertakings Ordinance, (Cap. 59). Stakeholders' complied with this reference should not be deemed as complied with statutory requirements.

There are altogether 4 PRGs published, covering lifting operation, work-above-ground, erection and dismantling of scaffold or platform and electrical work. This publication focuses on the process of **Work-above-ground**. It provides a step-by-step guidance for the industry stakeholders to develop a safe system of work in work-above-ground before commencement the work. This PRG, for the purpose of widening its applicability to different work-above-ground processes is based on the type of operation, instead of task, after considering the various types of work-above-ground tasks which involve the use of different types of equipment, different work environment and different natures of works, etc.

This PRG, unlike other guidance document for safety at work, emphasizes not only the ways how the work should be safely carried out, but also on the ways how the work should be safely carried out by respective persons who are playing respective roles at a designated level in a project organisation.

Usage of Practical Reference Guidance

This PRG is specially prepared for those who will be / are involved in work-above-ground operation. Such work-above-ground operation needs to be controlled by a well established safe system of work which is actually a legal requirement under section 6A of the Factories and Industrial Undertakings Ordinance, (Cap. 59).

This PRG is modeled on the five steps to a safe system of work given in the guidebook "Safe Systems of Work" (Labour Department, 2004) and provides practical guidance for the stakeholders at tactical level to draw up safe work procedures as required by law.

At tactical level, the project-in-charge can follow the step-by-step guidance to call up the risk assessment team, develop safe system of work, deploy suitable work-above-ground equipment and competent work-above-ground team members to take up respective post during the work-above-ground operation to reduce, so far as is reasonable foreseeable, any risk inherent in the operations.

At operational level, the PRG can provides guidance to those in supervisory functions on safety inspection and document checking.

At behavioural level, the PRG provides guidance on proper work procedures for workers to follow and to reduce human errors at work.

2. Practical Reference Guidance on Work-above-ground Operation

2.1 Principle

The PRG adopts the Six-step Approach to ensure that hazards are eliminated or risk minimized through a systematic way that include:

- 1. Assessing the task;
- 2. Identifying the hazards;
- 3. Defining safe methods;
- 4. Implementing the system;
- 5. Monitoring the system; and
- 6. Reviewing the system

The PRG aims to help the construction industry stakeholders by specifying the responsibilities of each respective stakeholder in a construction project according to their designated roles and functions. The proposal makes reference to the construction industry in the following ways:

- For project controller at strategic level (i.e. developer / client) to demonstrate safety commitments and draw up tendering documents and contract specifications;
- For company directors at strategic level to draw up job specifications for project staff before deployment;
- 3. For project-in-charge at tactical level to draw up project safety plan;
- 4. For project supervisors at operation level to execute the supervision plan; and
- 5. For operators at execution level to understand their rights and responsibilities in execution of their works.
- 6. In this reference material, work above the ground generally refers to all work carried out above the ground (regardless of height), which also includes related work using gondolas, scaffolding, ladders and kung fu platform.

2.2 Six-step Approach

The ten steps involved in the recommended six-step approach are listed as followings:

- 1. Preparation of work plan in pre-work-above-ground operation
- 2. Conduct of risk assessment to define safe work-above-ground plan
- 3. Establishment of safe work-above-ground procedures
- 4. Selection of suitable work-above-ground equipment
- 5. Inspection, testing and examination of work-above-ground equipment and PPE if necessary
- 6. Assurance of competence of work-above-ground team
- 7. Training of safe work-above-ground procedures
- 8. Implementation of safe work-above-ground procedures
- 9. Monitoring on adherence of safe work-above-ground procedures
- 10. Review of safe work-above-ground procedures

2.3 Safety Roles and Responsibilities of stakeholders in different levels

Safety is never a single person responsibility. It is an integrated science requiring input from different people with different safety roles and responsibilities. Different people at different levels have to jointly exercise their functions and contribute their knowledge / experiences in accordance with their respective roles and responsibilities.

A. Client / Developer

1. <u>Prepare of work plan in pre-work-above-ground operation</u> Strategic Level:

The client / developer should take part in pre-work-above-ground operations, allocate sufficient time and resources to the appointed contractor to prepare the work plan in work-above-ground. During the pre-work-above-ground operations, they should convene design out risk review meetings with the contractor and designer, if so appointed, to design out risks on work-above-ground for work to be conducted on the ground and permanent structure.

- Conduct of risk assessment to define safe work-above-ground plan
 N/A
- Establish of safe work-above-ground procedures
 N/A
- Select of suitable work-above-ground equipment
 N/A
- Inspection, testing and examination of work-above-ground equipment and PPE if necessary N/A
- 6. Assurance of competence of work-above-ground team N/A
- 7. <u>Training of safe work-above-ground procedures</u> N/A
- 8. <u>Implementation safe work-above-ground procedures</u> N/A
- Monitoring on adherence of safe work-above-ground procedures N/A
- Review of safe work-above-ground procedures N/A

B. Client's Representative

1. Preparation of work plan in pre-work-above-ground operation

Strategic Level:

The client's representative, acting on behalf of the client, should advise the client on selection and appointment of a competent contractor to carry out specified work-above-ground procedures and protection devices. They should advise the Client and the contractor(s) on the standards selected for the method on work-above-ground, and participate in the design out risk meeting to give advice to designer and contractor.

Conduct of risk assessment to define safe work-above-ground plan Tactical Level:

The client's representatives should participate in the risk assessment team meeting and convoy the residue risk on work-above-ground plan to the risk assessment team for considerations.

Operational Level:

The client's representatives, main contractor and sub-contractor, the supervisory staff should participate in the risk assessment meeting and provide feedback on associated hazards and control measures to reduce the risks that are feasible in implementation.

3. <u>Establishment of safe work-above-ground procedures</u>

Tactical Level:

The client's representatives should review the procedures submitted by the project manager and provide necessary comment on the procedures before countersigning the procedures to confirm that they comply with the statutory standards and contractual requirements.

4. <u>Selection of suitable work-above-ground equipment</u>

Tactical Level:

The client's representatives should check that the provided work-above-ground equipment are appropriate and complies with the statutory standards and contract specifications, and endorse the equipment deployed for the purpose.

The client's representatives and the supervisory staff should provide feedback on the suitability and appropriateness of the work-above-ground equipment deployed.

5. <u>Inspection, testing and examination of work-above-ground equipment and PPE if necessary</u>

N/A

6. Assurance of competence of work-above-ground team

Tactical Level:

The client's representatives should review the qualification of the operators of suspended working platform (SWP), and the training and skill of persons in various trades according to the statutory requirements and contract requirements.

7. Training of safe work-above-ground procedures

Tactical Level:

The client's representatives should check review the training plan and program in line with contract specifications and approve the training plan.

8. <u>Implementation of safe work-above-ground procedures</u>

Tactical Level:

The client's representatives should check and monitor the precautions in work-above-ground operations to ensure they are appropriate and adhered to the statutory requirements and contract specifications.

9. <u>Monitoring on adherence of safe work-above-ground procedures</u> Operational Level:

The client's representatives should conduct random physical checks and inspection to ensure the adherence to the work-above-ground procedures and to suspend work that would create imminent risk of bodily injury.

10. Review of safe work-above-ground procedures

Tactical Level:

The client's representatives should participate in review meeting and provide views on feedback from frontline staff in work-above-ground operations.

C. Designer

 Preparation of work plan in pre-work-above-ground operation Strategic Level:

The designer can be an architect in design of building structures or any persons in similar capacity appointed by the client relating to special installation for work-above-ground protection facilities. They have duties to design out risks in planning, manage pre-construction design, arrange on work-above-ground operations or projects, and inform the client and contractor any changes from the original design. The design out risk should be based on the principles of eliminating the hazard as a first priority by keeping people to work on ground instead of work-above-ground in the pre-work-above-ground plan.

- Conduct of risk assessment to define safe work-above-ground plan
 N/A
- Establishment of safe work-above-ground procedures N/A
- Selection of suitable work-above-ground equipment
 N/A
- Inspection, testing and examination of work-above-ground equipment and PPE if necessary
 N/A
- 6. <u>Assurance of competence of work-above-ground team</u> N/A
- 7. <u>Training of safe work-above-ground procedures</u> N/A
- 8. <u>Implementation of safe work-above-ground procedures</u> N/A

Monitoring on adherence of safe work-above-ground procedures N/A

10. Review of safe work-above-ground procedures N/A

D. Main Contractor

 Preparation of work plan in pre-work-above-ground operation Strategic Level:

The main contractor at head office should decide on the strategies to fulfil the contract specifications on safety in design, construction, installation and maintenance of the protection facilities and equipment in planning of work-above-ground. They are required to define standards for the project team, allocate sufficient support and resources, set up accountability system on selection and monitoring of sub-contractors to ensure work-above-ground plan are strictly adhered to.

2. Conduct of risk assessment to define safe work-above-ground plan Tactical Level:

The main contractor should form a risk assessment team comprising members at different levels of the site organizational structure to conduct risk assessment for work-above-ground plan. The risk assessment should identify the hazards and risks on work-above-ground if necessary and determine the correct steps and procedures to eliminate or mitigate the hazards and risks in work-above-ground plan. The risk assessment should be based on the guidelines from the design-out-risk meetings of the client and designer and senior management at head office when drawing the safe work-above-ground plan in the risk assessment exercise held for the purpose.

The supervisory staff should participate in the risk assessment meeting and provide feedback on hazards and control measures to reduce the risks that are feasible in implementation.

Behavioural Level:

The workmen who are familiar with the work processes concerning work-above-ground activities, should participate in the risk assessment meetings and provide feedback to enable the work-above-ground plan is well defined and streamlined in operation.

3. Establishment of safe work-above-ground procedures

Tactical Level:

The main contractor should endorse the safe work-above-ground procedures prepared by the safety personnel according to the findings and input of the risk assessment team, and allocate necessary resources for implementation of the safety procedures on work-above-ground with in-house rules to control the compliance of the established procedures.

4. Selection of suitable work-above-ground equipment

Tactical Level:

The main contractor should provide sufficient resources for the erection and provision of suitable appropriate work-above-ground equipment according to the endorsed procedures.

Operational Level:

The supervisory staff should provide feedback on the suitability and appropriateness of the work-above-ground equipment deployed.

Behavioural Level:

The workers should provide feedback on the suitability and appropriateness of the work-above-ground equipment deployed.

5. <u>Inspection, testing and examination of work-above-ground equipment</u> and PPE if necessary

Tactical Level:

The main contractor should appoint a competent examiner (e.g. registered professional engineer in specified discipline) to test, examine and certify that the SWP erected for work at external walls, and the anchorages and independent lifelines for anchoring the safety harness for work-above-ground protection are in safe working order according to the statutory requirements.

The main contractor should appoint a competent person to inspect and certify the SWP in safe working order weekly, scaffolds erected in construction sites bi-weekly, and the PPE before every use (e.g. the safety harness deployed) for the work-above-ground process according to the statutory requirements.

Operational Level:

The appointed competent examiner should carry out testing and examinations of facilities as specified in the statutory requirements and the contract, enter the records in approved form, and deliver the report of the testing and examination to the owner of the SWP or the contractors responsible for the fall arresting system for fall protection. They should report to the contractor and owner of any defects observed during their test and examination.

The appointed competent person should carry out inspection of the scaffolds and the PPE for fall protection specified in the statutory requirements and the contract and enter the records in approved form.

The appointed competent person should carry out inspection of the SWP and the PPE for fall protection specified in the statutory requirements and the contract and enter the records in approved form and submit the reports to the owner of the SWP.

6. Assurance of competence of work-above-ground team

Tactical Level:

The main contractor should appoint worker trained with sufficient ability's to operate the SWP, and supervisor to supervise the work-above-ground operations by various trades in the site.

Operational Level:

The supervisors should assess the suitability and competence of the operators of the SWP, and other persons if necessary according to statutory requirements or contract terms.

7. Training of safe work-above-ground procedures

Tactical Level:

The main contractor should ensure the persons involved in work-above-ground processes are adequately trained and competent in the operations and safety procedures as necessary for the type of work to be performed. He should endorse the safety training plan and program, and provide sufficient time and resources to individuals to attend training.

Operational Level:

The supervisory staff should participate in the safety training to understand the safe work-above-ground procedures.

Behavioural Level:

The front line workers should participate in the safety training to understand the safe work-above-ground procedures.

8. Implementation of safe work-above-ground procedures

Tactical Level:

The main contractor should ensure that the works adhere to the endorsed work-above-ground procedures. For work to be performed in adverse conditions, he should re-assess the risk and implement permit to work if it is under safety condition.

The supervisory staff should verify whether the work-above-ground protection are in line with the endorsed safety procedures for the work and consider suspending the work if necessary for rectification and take precautions according to the laid down procedures before resuming the work. The non-compliance should be recorded and reported to the project in-charge for follow up if warranted.

Behavioural Level:

The front lines in the work-above-ground operations should adhere to safety procedures for work-above-ground and only carry out work according to the laid down procedures and statutory requirements. They should follow the instruction of the supervisory staff and rectify the situations with safety precautions before resuming the work.

Monitoring on adherence of safe work-above-ground procedures Tactical Level:

The main contractor should develop disciplinary policy to enforce the compliance of work-above-ground procedures and statutory requirements. The main contractor should ensure that an effective inspection program is in place and delegate sufficient authority to the front line supervisors to suspend the work that may create imminent risk of bodily injury. The main contractor should endorse the corrective actions promptly for quick rectification proposed by the supervisory staff if the proposal is reasonable and fair.

Operational Level:

The supervisory staff should monitor the adherence of safe work-above-ground procedures and ensure the unsafe facilities for work-above-ground protection are not used and replaced by safe one.

10. Review of safe work-above-ground procedures

Tactical Level:

The main contractor should establish channel for feedback from frontline staff and ensure hazards of fall of persons and objects are promptly followed up. The main contractor should convene review meeting on a regular basis, in particular in special situations involving change of working conditions or deterioration of the equipment and facilities for work-above-ground that may affect the safety of the frontline operations, or when accident has happened.

The supervisory staff should participate in review meeting and report feedback from the front line in work-above-ground operations.

Behavioural Level:

All frontline workers in work-above-ground operations should report hazards to supervisors for corrective actions. They should provide feedback on control measures and suggest actions for improvements.

E. Sub-contractor

Preparation of work plan in pre-work-above-ground operation
 The subcontractor should work with the main contractor to develop a safety plan on work-above-ground.

Conduct of risk assessment to define safe work-above-ground plan Tactical Level:

The sub-contractor should form a risk assessment team comprising members at different levels of the site organizational structure to conduct risk assessment for work-above-ground plan. The risk assessment should identify the hazards and risks on work-above-ground if necessary and determine the correct steps and procedures to mitigate the hazards and risks in work-above-ground plan. The risk assessment should be based on the guidelines from the design-out-risk meetings of the client and designer and senior management at head office when drawing the safe work-above-ground plan in the risk assessment exercise held for the purpose.

Operational Level:

The supervisory staff should participate in the risk assessment meeting and provide feedback on associated hazards and control measures to reduce the risks that are feasible in implementation.

Behavioural Level:

The workers who are familiar with the work processes concerning work-above-ground activities, should participate in the risk assessment meetings and provide feedback to enable the work-above-ground plan well defined and streamlined in operation.

3. Establishment of safe work-above-ground procedures

Tactical Level:

The sub-contractor should endorse the safe work-above-ground procedures prepared by the safety personnel according to the findings and input of the risk assessment team, and allocate necessary resources for implementation of the safety procedures on work-above-ground with in-house rules to control the compliance with the established procedures.

4. Selection of suitable work-above-ground equipment

Tactical Level:

The sub-contractor should provide sufficient resources for the erection and provision of suitable appropriate work-above-ground equipment according to the endorsed procedures.

Operational Level:

The supervisory staff should provide feedback on the suitability and appropriateness of the work-above-ground equipment deployed.

5. <u>Inspection, testing and examination of work-above-ground equipment</u> and PPE if necessary

Tactical Level:

The sub-contractor should appoint a competent examiner (e.g. Registered Professional Engineer) to test, examine and certify that the SWP erected for work at external walls, and the anchorages and independent lifelines for anchoring the safety harness for work-above-ground protection are in safe working order according to the statutory requirements.

The sub-contractor should appoint a competent person to inspect and certified in safe working order the SWP weekly, scaffolds erected in construction sites bi-weekly, and the PPE before every use such as the safety harness deployed for the work-above-ground process according to the statutory requirements.

The appointed competent examiner should carry out testing and examinations of facilities as specified in the contract, enter the records in form, and deliver the report of the testing and examination to the owner of the SWP or the contractors responsible for the fall arresting system for fall protection. They should report to the contractor or owner, of any defects observed during testing and examination to the contractor or owner.

The appointed competent person a should carry out inspection of the SWP, the scaffolds and the PPE for fall protection specified in the statutory requirements and the contract, entered the records in approved form and submit the reports to the owner of the SWP, the contractor responsible for the scaffold and the fall arresting system as appropriate. They should report to the contractor or owner of any defects observed during their testing and examination as required by the legislations.

6. Assurance of competence of work-above-ground team

Tactical Level:

The sub-contractor should appoint worker trained with sufficient ability's to operate the SWP, and supervisor to supervise the work-above-ground operations by various trades in the site.

Operational Level:

The supervisors should assess the suitability and competence of the operators of the SWP, and other persons if necessary according to statutory requirements or contract terms.

7. Training of safe work-above-ground procedures

Tactical Level:

The project in-charge should ensure the persons involved in work-above-ground processes are adequately trained and competent in the operations and safety procedures as necessary for the type of work to be performed. He should provide the safety training program, and provide sufficient time and resources to attend training by individuals.

For sub-contractor of any tiers, the supervisory staff should participate in the safety training to understand the safe work-above-ground procedures.

Behavioural Level:

For sub-contractor of any tiers, the front line workers should participate in the safety training to understand the safe work-above-ground procedures.

8. Implementation of safe work-above-ground procedures

Tactical Level:

The sub-contractor should ensure that the works are adhere to the endorsed work-above-ground procedures. For work to be performed in adverse conditions, he should re-assess the risk and implement permit to work if it is under safety condition.

Operational Level:

For sub-contractor of any tiers, the supervisory staff should verify whether the work-above-ground protection are in line with the endorsed safety procedures for the work and consider suspending the work if necessary for rectification and take precautions according to the laid down procedures before resuming the work. The non-compliance should be recorded and reported to the project in-charge for follow up if warranted

Behavioural Level:

For subcontractor of any tiers, all front lines in the work-above-ground operations should adhere to safety procedures for work-above-ground and only carry out work according to the laid down procedures and statutory requirements. They should follow the instruction of the supervisory staff and rectify the situations with safety precautions before resuming the work.

Monitoring of adherence of safe work-above-ground procedures Tactical Level:

The sub-contractor should develop disciplinary policy to enforce the compliance of work-above-ground procedures and statutory requirements. He should ensure an effective inspection program is in place and delegate sufficient authority to the front line supervisors to suspend the work that may create imminent risk of bodily injury. He should endorse the corrective actions promptly for quick rectification proposed by the supervisory staff if the proposal is reasonable and fair.

Operational Level:

For sub-contractor of any tiers, the supervisory staff should monitor the adherence of safe work-above-ground procedures and ensure the unsafe facilities for work-above-ground protection are not used and replaced by safe one.

10. Review of safe work-above-ground procedures

Tactical Level:

The sub-contractor should establish channel for feedback from front lines and ensure hazards of fall of persons and objects are promptly followed up. He should convene review meeting on a regular basis, in particular in special situations involving change of working conditions or deterioration of the equipment and facilities for work-above-ground, that may affect the safety of the frontline operations, or when accident has happen.

Operational Level:

For sub-contractor of any tier, the supervisory staff should participate in review meeting and report feedback from the front line in work-above-ground operations.

Behavioural Level:

For sub-contractor of any tier, all frontline workers in work-above-ground operations should report hazards to supervisors for corrective actions. They should provide feedback on control measures and suggest actions for improvements.

F. Safety Personnel

Preparation of work plan in pre-work-above-ground operation Safety personnel should understand the legal and contractual requirements of work-above-ground and assist in preparing the safe work plan.

Conduct of risk assessment to define safe work-above-ground plan Tactical Level:

For main contractor and sub-contractor, the safety personnel should actively participate in the risk assessment meeting to assist in the identification of the hazards on work-above-ground and discuss the safety measures to eliminate the process of work-above-ground as far as possible and substitute new but safer methods to reduce the risk at source according to current standards and codes of practices.

3. Establishment of safe work-above-ground procedures

Tactical Level:

The safety personnel who attend the risk assessment meeting should record the resolution of the meeting and prepare the safe work-above-ground procedures accordingly.

Selection of suitable work-above-ground equipment Safety personnel of main contractors and sub-contractors should advise on relevant statutory standards on the safe work equipment.

5. <u>Inspection, testing and examination of work-above-ground equipment</u> and PPE if necessary

Tactical Level:

The safety personnel of main contractor or sub-contractor of any tiers should arrange the schedules for inspection, testing and examination of the facilities and equipment by a competent person and competent examiners according to the statutory requirement and contract specifications. The reports and certificates signed by the competent person and competent examiner should be received and kept for inspections by relevant persons and the authority.

6. Assurance of competence of work-above-ground team

The safety personnel of the main contractor and sub-contractors shall ensure that relevant work, rights and responsibilities have been appointed.

7. Training of safe work-above-ground procedures

Tactical Level:

For main contractor and sub-contractor of any tiers, the safety personnel should design the training program, and identify the workers involved in work-above-ground operations. The safety personnel should implement the training plan after the project in-charge has endorsed the plan and monitor the implementation of the training before the works and keep attendance records of the training.

8. Implementation of safe work-above-ground procedures

Tactical Level:

For main contractor and subcontractor of any tiers, the safety personnel should check and verify the precautions entered in the procedures and also the permit, if required, are in place before work-above-ground commences

Monitoring on adherence of safe work-above-ground procedures Tactical Level:

For main contractor and subcontractor of any tiers, the safety personnel should conduct inspection to oversee performance of the frontline in work-above-ground and follow-up the endorsed corrective actions. In case of dangerous situations encountered during duty, he / she should immediately suspend the work that would create imminent risk of bodily injury. He/she should prepare performance data sheet for analysis on regular basis.

10. Review of safe work-above-ground procedures

Tactical Level:

For main contractor and sub-contractor of any tiers, the safety personnel should consolidate feedback from frontline for discussion in review meetings. He should participate in review meeting and provide views on feedback from frontline in work-above-ground operations.

A matrix showing the Safety Roles of Respective Stakeholders and their Safety Responsibilities at Respective Level correlating to each step of the "Practical Reference Guidance on Work-above-ground Operation" is given in Appendix 1 for reference.

Appendix I – Safety Roles of Respective Stakeholders and their Safety Responsibilities at Respective Level correlating to each step of the "Practical Reference Guidance on Work-above-ground Operation"

		Position (Subject to individual organisiation decision and arrangement)	Preparation of work plan in pre-work-above-ground operation	Conduct of risk assessment to define safe work-above-ground plan	Establishment of safe work-above-ground procedures	Selection of suitable work-above-ground equipment
	Client / Developer	Project Director, Project Manager, etc.	Ensure design out risk system in place Allocate sufficient time and resources Select and appoint competent designer and contractor Convene design out risk meeting			
Strategic Level (High-level Decision Making)	Client's Representative	Architect, Principle Engineer	Advise on requirements in contract Advise on selection and appointment of contractor Participate in design out risk meeting			
(nightevel Decision Making)	Designer	Architect, Engineer	Plan and manage pre-work above ground design Communicate residue risk on design Participate in design out risk meeting			
	Main Conractor	Director, Project Director, Contract Manager, etc.	Ensure accountability system in place Provide sufficient time and resources Participate in design out risk meeting			
	Client's Representative	Architect, Resident Engineer		Participate in risk assessment Review solution of residue risk on design	Review and comment safe work above ground procedures B3	Review and comment the selection of work above ground equipment B4
Tactical Level (Line Management Function)	Main Contractor / Sub-contractor	Project Manager, Construction Manager, Site Agent, Superintendent, etc.		Set up accountability system Establish risk assessment team Convene risk assessment meeting Decide solution of residue risk on design	Prepare and endorse the safe work above ground procedures Set up safety rules and disciplinary policy for enforcement Provide sufficient resources	Provide sufficient resources D4 / E4
	Main / Subcontractor Safety Personnel	Safety Manager, Safety Officer, Safety Supervisor, Safety Representative	Understand the legal and contractual requirments F1	Participate in risk assessment Assist in identifying hazards Provide advice on control measures Record solutions on risk assessment	Assist the preparation of safe work above ground procedures F3	Advice legal standards of safe work above ground equipment F4
	Client's Representative	Inspectorates, Work Supervisors, etc.		Participate in risk assessment Feedback on hazards and controls		Feedback on suitability of safe work above ground equipment
	Main Contractor / Sub-contractor	Engineer, Superviser, Foremen, etc.		Participate in risk assessment Feedback on hazards and controls D2 / E2		Feedback on suitability of safe work above ground equipment D4 / E4
Operation Level (Supervising Function)	Competent Examiner / Competent Person	Competent Examiner - RPE Competent Person - Person appointed by the onwer according the regulation.				
Behavioural Level (Works Executing Fucntion)	Main Contractor / Subcontractor	Worker working above ground		Participate in risk assessment Feedback on hazards and workability of controls D2 / E2		Feedback on suitability of safe work above ground equipment D4 / E4

Appendix I – Safety Roles of Respective Stakeholders and their Safety Responsibilities at Respective Level correlating to each step of the "Practical Reference Guidance on Work-above-ground Operation"

Inspection, testing and examination of work-above-ground and PPE if necessary	Assurance of competence of work-above-ground team	Training of safe work-above-ground procedures		Implementation of safe work-above-ground procedures	9 Monitoring on adherence of safe work-above-ground procedures	Review of safe work-above-ground procedures	
	Review and comment competence of operator	Review and comments on training plan	0.7	Check and monitor the procedures	Monitor submission of permit to work Delegate authority for suspension of work	Participate in review meeting Provide views on feedback	
Appoint competent engineer for checking of temporary works and mechanical work above ground equipment Appoint competent person for inspection of scaffold Appoint competent person to assess and issue ladder permit Arrange CE / CP to conduct inspection, checking of safe work above ground equipment	Appoint competent operator to operate mechanical work above ground equipment D6 / E6	1. Endorse safe work above ground training plan 2. Appoint suitable trainers 3. Provide sufficient time and resources 4. Ensure safety training to all required levels 5. Ensure train up for necessary competence	B7	Ensure adherence of safe work above ground procedures Endorse the permit-to-work system D8 / E8	1. Enforce the disciplinary policy 2. Delegate authority for suspension of work 3. Ensure effective inspection 4. Endorse corrective actions D9 / E9	Establish channel for feedback Ensure reported hazards / suspension of work are promptly reviewed Convene review meeting on need basis	
Ensure inspection or checking schedule in place Ensure report / permit from CE and CP available for inspection	Ensure the appointment compile with statutory standards	Identify targets for training Prepare training plan Monitor implementation of training plan Keep record of safety training	F7	Ensure adherence of safe work above ground procedures Comment on the details of permit-to-work / permit to use ladder	Conduct inspection Prepare inspection analysis Follow-up endorsed corrective actions Suspend work with imminent risk	Consolidate feedback for discussions Participate in review meeting Provide views on feedback F10	
	Feedback on suitability of competence B6	1. Attend safety training	В7	Track record of permit to work / permit to use ladder B8	Conduct inspection Suspend work with imminent risk Propose corrective actions	Provide views on feedback Report feedback B10	
Ensure CP to conduct inspection of scaffold Ensure CP to assess and issue of permit to use ladder D5 / E5	Feedback on suitability of competence D6 / E6	1. Attend safety training	D7 / E7	Apply permit-to-work before work above ground Ensure work above ground carry out under permit D8 / E8	Conduct inspection Suspend work with imminent risk Propose corrective actions D9 / E9	Participate in review meeting Report feedback D10 / E10	
Competent Engineer 1. Checking of temporary works and mechanical work above ground equipment 2. Enter results in appropriate document 3. Deliver document to project in charge Competent Person 1. Inspect of scaffold 2. Enter inspection result in approved form 3. Assess of ladder and issue of permit 4. Deliver report / permit to project in charge		Competent person to attend safety training	D7 / E7	Competent person to assess and issue of permit to use ladder D8 / E8			
		Attend safety training	D7 / E7	Adhere to safe work above ground procedures, permit to work and permit to use ladder Report to supervisor on new hazards if identified Stop work on new hazards if identified		Report hazards to supervisor Give feedback Make suggestions for improvement D10 / E10	



Feedback Form [Reference Material on Safety Roles and Responsibilities of Key Stakeholders in the Hong Kong Construction Industry - Practical Reference Guidance On Work-above-ground Operation]

Thanks for reading this publication. To pursue improvement in our future versions, we appreciate your valuable suggestions.

(Please put a " √ " in the appropriate box)

1. As a whole, I feel that the publication is:	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	
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Comprehensive						
Useful						
Practical						
2. Does the publication enable you to	Yes		No	No C	Comment	
understand more about the Safety Roles and Responsibilities of Key Stakeholders on Work-above-ground Operation?						
3. Have you made reference to the publication	Quite Of	ten	Sometimes	١	lever	
in your work?						
4. To what extent have you incorporated the	Most		Some	1	None	
recommendations of the publication in your work?						
5. Overall, how would you rate the	Excellent	Very Good	Satisfactory	Fair	Poor	
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6. Please give any other comments and suggestions (use separate sheets if necessary).						
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E-mail: enquiry@cic.hk

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