

**Guidelines**  
**on**  
**Surprise Safety Inspection Programme**  
**of**  
**the Housing Authority**

**17<sup>th</sup> Edition, 2022**

## Complied by the Occupational Safety and Health Council

**Changes issued since publication**

<b>Edition/Amendment No.</b>	<b>Date</b>	<b>Comments (text changes are highlighted in yellow)</b>
1 <sup>st</sup> ed.	13/10/2014	Disclosure of the internal guidelines developed in the first quarter of 2013 and since then under continual revision every quarter
2 <sup>nd</sup> ed.	13/01/2015	Amendments due to the revision of SSIP checklist in Jan 2015 (in items 1.6.3, 2.1.7, 2.1.8, 2.1.15, 3.2.1, 3.2.2, 4.1.7, 4.2.7)
3 <sup>rd</sup> ed.	07/07/2015	Amendments due to the revision of SSIP checklist in Jul 2015 (clarification in item 1.5.3, renumbering of item 4.1.8, replacing “&” in items 4.1.5, 4.2.5, 4.3.3 and 4.4.3); and clarifications in items 1.5.7, 2.2.1, 5.2.8
4 <sup>th</sup> ed.	12/10/2015	Amendments due to the revision of SSIP checklist in Oct 2015 (clarification in items 2.1.2, 2.1.15, sub-section 4.3, item 4.3.6, 5.2.4, and 5.2.5)
5 <sup>th</sup> ed.	07/01/2016	Amendments due to the clarification in N/A criteria in item 2.1.3 and the explicit mentioning of lorry-mounted cranes with a hydraulic grab (clarification in Section introduction and item 4.2.3)
6 <sup>th</sup> ed.	04/2016	Amendments due to the revision of SSIP checklist in Apr 2016 (clarification in Section introduction of lifting receptacles in items 4.1.1, 4.2.1, the use of reflective vest/clothing in 4.1.14, 4.2.14, the N/A condition in 1.5.7, and correct a typo in 3.2.4)
7 <sup>th</sup> ed.	01/2017	Amendments due to the revision of SSIP checklist in Jan 2017 (extension of scope of “to work-above-ground”, expansion of examples in heading of sub-sections 1.5 and 1.6, deletion of “in-running nips” from item 4.3.4), expansion of the guideline in item 3.1.2, clarification of scope of chain blocks in section 4 introduction, alignment of guideline items in 4.1.5 with 4.2.5, expansion of the guideline in item 4.2.5, addition of high visibility requirements in 4.1.14 and 4.2.14, and updating in reference list.

8 <sup>th</sup> ed.	04/2017	Amendments due to the revision of SSIP checklist in Apr 2017 (addition of provision in 1.5.2); inclusion of the physical condition of LA in items 4.1.2, 4.2.2, 4.3.2, and 4.4.2; and correction of typo in naming the LA regarding N/A condition in subsections 4.3 and 4.4.
9 <sup>th</sup> ed.	09/2017	Amendments due to the revision of SSIP checklist in Oct 2017 (adding of “s” after opening in 2.1.5; changing spelling of “signaler” to “signaller” in 4.1.6, 4.1.14, 4.2.6, 4.2.14, 4.3.6, and 4.4.5); addition of working platform in scope of Section (1), amendment of formula of rise to tread ratio in 1.5.2, inclusion of exemption in 3.1.2, and addition of earthing in 5.2.3
10 <sup>th</sup> ed.	01/2018	Amendments due to the revision of SSIP checklist in Jan 2018 (adding of “unauthorized use” as an example in item 1.1.6; deletion of “at 2m or above” in item 1.5.1); addition of related clauses in 1.5.1 from DCMBI P02/15 <i>Platforms for Working at Different Heights</i> .
11 <sup>th</sup> ed.	10/2018	Amendments due to the revision of SSIP checklist in Oct 2018 (adding of “Y-type” in item 2.2.1 and adding of “and bonding conductors were” in item 5.2.3); expansion of the guideline in 1.6.3 as per PRE.B8.255.7; correction of typo in 2.1.4 and 3.3.1; expansion of the guideline in 2.1.7 as per PRE.B10.860.A; expansion of the guideline in 4.1.4 as per PRE.B8.242.C; clarification of a point in 4.3.6 & 4.4.5; and updating of references.
12 <sup>th</sup> ed.	1/2019	Addition of N/A condition in 1.5.1; and more exclusion of less risky manual lifting appliances of Sub-section 4.4 in the introduction of Section (4).
13 <sup>th</sup> ed.	4/2019	Amendments to Assessment Criteria in General due to the changes from HASAS v1.5.1 to HASAS v1.6; addition of guideline in 1.5.2; and updating of references.
14 <sup>th</sup> ed.	7/2019	Marking with “*” of new audit criteria of HASAS 1.6 applicable to contracts tendered after 1 April 2019 or ongoing contracts issued with Contract

		Manager’s instruction; expansion of guideline in 1.4.1, 1.6.6, 2.1.7, 2.1.14, 4.1.1, 4.1.2, 4.1.4, 4.1.6, 4.1.7, 4.1.9, 4.1.14, 4.2.1, 4.2.2, 4.2.6, 4.2.7, 4.2.8, 4.2.11, 4.2.14, 4.3.1, 4.3.2, 4.4.1, 5.1.1, 5.2.4 and 5.2.7 as per HASAS v1.6; and addition of “N/A” condition in 2.1.14.
15 <sup>th</sup> ed.	10/2019	Amendments due to the revision of SSIP checklist in Sep 2019 (changing name of section(2)); expansion of the guideline in item 3.3.1 and 4.3.12; and changing “mobile cranes” to “truck-mounted cranes” and addition of excavators (incl. sheet pile drivers) in scope of Section (4.2)
16 <sup>th</sup> ed.	4/2020	Amendments due to the expansion of the guidelines in 1.6.2 and 2.1.5 as per PRE.B10.1010.8 ; expansion of the guideline in item 1.1.1, 1.2.1, 1.4.1, 1.5.2, 1.6.6, 2.1.5, 2.1.14, 3.2.3, 3.2.5, 4.1.6, 4.1.11, 4.2.6, 4.3.6 and 4.4.5, and items 1.1.2, 1.1.6, 1.6.3, 1.6.5, 2.1.7, 2.1.13, 4.1.4; 4.1.13, 4.1.14, 4.2.12, 4.2.14, 4.3.12 and 5.2.8 due to the revision of SSIP checklist in Jul 2020; addition of “hop-up platforms” in the scope of section 1.5; change of the term “reflective vest” to “high visibility clothing” with addition of requirement as specified in HyD COP in items 4.1.14, 4.2.14, and 4.3.12; and addition of HyD COP and LD Guidebook in References.
17 <sup>th</sup> ed	10/2022	Amendments in Section 1.6 (1.6.2, 1.6.3, 1.6.5 & 1.6.6) due to the expansion of the guidelines for Modular Integrated Construction and in items 2.1.2, 2.1.4, 2.1.6, 2.1.7, 2.1.8, 2.1.14, 2.2.1, 3.1.4, 4.1.1, 4.1.4, 4.1.6, 4.1.7, 4.1.14, 4.2.1, 4.2.6, 4.2.7, 4.2.14, 4.3.1, 4.3.6, 5.2.4, 5.2.5 and 5.2.8 for regular review and as per the updated HASAS v1.7 and updated specifications.

## **Guidelines on Surprise Safety Inspection Program (SSIP) of the Housing Authority**

The Occupational Safety & Health Council (OSHC) is commissioned by the Housing Authority (HA) to develop and manage Surprise Safety Inspection Program (hereafter called SSIP). These guidelines contain the background and the assessment criteria of the items on the inspection checklist that is used by SSIP inspectors.

### **Objectives of SSIP**

The objectives of SSIP are: to further enhance the occupational safety and health standards of Capital Works New Works Contracts; to strengthen third party monitoring and assessment on contractor safety performance pertaining to the implementation of safety control measures on sites through surprise site visits; and to reiterate the principle of “Safety First” as an integral part of quality construction.

### **On-site Inspection Process**

Upon arrival and reported to the guard house at the site entrance, SSIP inspector starts taking photos of site activities and check existing practice while waiting and on the way to the opening meeting place.

SSIP inspector will convene a short opening meeting with contractor’s site representatives and HA’s project resident staff for understanding progress, major site activities, and plant so as to select the inspection route.

Contractor’s representatives and project resident site staff shall accompany SSIP inspector throughout the inspection.

At the closing meeting at the end of each inspection visit, the non-compliance situations will be discussed and photos will be shown to verify the findings. It is important to voice any potential disputes and other related issues in the closing meeting to foster two-way communication and to avoid misgiving.

All three parties – Contractor, HA site staff, and OSHC SSIP inspector – will sign on the checklist to acknowledge the results. In case of dispute, contractor shall first sign on the checklist and may jot down major issues on the last page of the checklist. The contractor may dispute within 14 calendar days from the date of SSIP visit with substantiation and evidence to support the argument by writing to SSIP Management Office of OSHC.

Summary of inspection findings and verified scores will be issued about two weeks after the visit. It may take longer when there is a dispute.

### **Assessment Criteria in General**

SSIP focuses on five high risk activities and relies on compliance checks on physical conditions on site. SSIP inspection checklist has a marking scheme. There is no partial compliance for each checklist item. Non-full compliance is treated as non-compliance.

If an unsafe condition/act involves non-compliance in two or more different sections/items, such non-compliance findings could be counted in each individual section/item. An example will be an incomplete toe-board can pose a hazard of fall of person as well as falling objects.

Some checklist items have multiple parts. Compliance in all applicable parts will justify a compliance in the checklist item. However, a non-compliance finding in any of the parts will result in a non-compliance for the whole checklist item.

During the SSIP Inspection, the SSIP inspector, with the help of the guidelines, identifies, analyses, and evaluates any unsafe condition(s) or act(s). Compliance will be assessed according to the level of risk involved.

References for the compliance of individual item of SSIP checklist can include but not limited to the audit criteria of HASAS, safety related contractual requirements, Site Safety Manual of Housing Authority, Codes of Practice and Guidelines of relevant departments and organisations, and requirements of legislation. Some new audit criteria of HASAS 1.6 are applicable to contracts tendered after 1 April 2019 or ongoing contracts issued with Contract Manager's instruction. The guideline criteria subject to this condition will be marked with "\*". Some new audit criteria of HASAS 1.7 are applicable to contracts using Modular Integrated Construction (MiC).

Photos are usually taken as an evidence for the non-conformance. However, if any found unsafe act stops before the photo can be taken, the related items can still be counted as non-compliance. SSIP Inspector will indicate the non-compliance finding immediately to representatives from both Contractor and Housing Authority. Photo of the scene will be taken and the non-compliance finding will be described in words with illustration in the verified report.

Suspension of site activities during the duration of surprise safety inspection cannot be taken as non-applicable should non-compliance be depicted. Whenever Contractor

claims that the related equipment or structure is under construction, rectification, maintenance or otherwise not in use, reasonable arrangements of prohibition notice of use and proper fencing off the related item have to be made to warrant a non-applicable decision.

It is necessary that SSIP inspector checks relevant documents (though kept at minimal) and takes photos for record. In case the contractor claims that a piece of relevant document cannot be located, the document can be assumed valid and mark will be given. The SSIP checklist will indicate that contractor has to submit the document by to SSIP Management Office within two working days for verification. It will be counted as non-compliance for any late submission.

### **Disclaimer**

These guidelines are produced for inspectors under SSIP to conduct inspections for Housing Authority projects. Compliance with these guidelines does not itself confer any immunity from legal obligations. Individual contractors and sub-contractors are responsible for ensuring that they meet their occupational safety and health obligations under the relevant legislation.

## **Section (1) Working at Height**

This section focuses on working platforms from which a person is liable to fall from a height of 2 metres or more in the first four sub-sections and equipment and other places of work from which a person is liable to fall from any height in sub-sections 1.5 and 1.6.

- 1.1 Stationary working scaffolds/platforms – include bamboo scaffolds (whether double layer or not) and stationary metal scaffolds (including access towers).
- 1.2 Mobile working scaffolds/platforms (non-power driven) – include mobile metal scaffolds and mobile aluminum towers.
- 1.3 Mobile working scaffolds/platforms (power driven) – include mobile elevating working platforms that are of telescopic boom type, scissor type, vertical mast type, boom type, etc.
- 1.4 Suspended working platforms (SWP) – include gondolas and guided suspended working platforms.
- 1.5 Work equipment for below 2 metres and access equipment – include work equipment from which a person is liable to fall from a height less than 2 metres (e.g. step platforms, hop-up platforms) and access equipment from which a person is liable to fall from any height, e.g., stepladders, ladders, trestles, stairs, runs, and gangways.
- 1.6 Other places of work - include floors, stairs, loading platforms, working platforms, RCD platforms, canopies, falseworks, metal formworks, lift shafts, roof edges, fragile surfaces, Modular Integrated Construction (MiC), and any other working at height locations from which a person is liable to fall any height.

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### ***Sub-section 1.1 Stationary working scaffolds/platforms***

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#### **Item 1.1.1**

Sound and stable construction; erected, inspected, examined by competent person (CP) and Form 5 displayed

#### **Guideline**

1. Construction of scaffolds and working platforms fulfills the requirements specified in “Code of Practice for Bamboo Scaffolding Safety”, “Code of Practice for Metal Scaffolding Safety” and relevant guidelines. For example, 1.5m to 2.0m overlap of bamboo members should be allowed for ledgers and standards.
2. Form 5 (CSSR-F5) – “Scaffolds - Reports of Results of Fortnightly or Other Inspections” must be valid (e.g. within 14 days immediately preceding use),



completed and signed by competent person. Name and designation of this competent person should be clearly stated.

3. Erection, alteration, addition and dismantling of bamboo and metal scaffold is under immediate supervision of competent person. The competent person who immediately supervises workmen carrying out scaffolding works shall not actively engage himself or herself in such work.
  4. Form 5 should be displayed at prominent position on the scaffold.
  5. In case no scaffolds/platforms are seen, this item should be “N/A”.
- 

#### **Item 1.1.2**

Closely boarded, securely mounted, even surface without tripping hazard, and access and egress opening should be well covered by solid material.

#### **Guideline**

1. Mounting method of working platforms fulfills the requirements specified in “Code of Practice for Bamboo Scaffolding Safety”, “Code of Practice for Metal Scaffolding Safety” or relevant guidelines. In particular, interstices of open metal work shall not exceed 4000 square millimetres in area; and the space between adjacent boards or planks should not exceed 25 mm.
  2. In case no scaffolds/platforms are seen, this item should be “N/A”.
- 

#### **Item 1.1.3**

Sufficient width - 400mm; or for movement of materials 650mm

#### **Guideline**

1. Insufficient width due to storage of materials on scaffolding will be counted as non-compliance.
  2. In case no scaffolds/platforms are seen, this item should be “N/A”.
- 

#### **Item 1.1.4**

Secure guard-rails and toe-boards

#### **Guideline**

1. Heights of guard-rails must be 450-600mm (intermediate rail) and 900-1150mm (top rail) normally.
2. For the bamboo scaffold, if the platform is protected by not less than 2 horizontal

bamboo members of the scaffold spaced at intervals between 750 millimetres to 900 millimetres.

3. Height of toe-board must be at least 200mm.
  4. In case no scaffolds/platforms are seen, this item should be “N/A”.
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#### **Item 1.1.5**

Safe means of access and egress

##### **Guideline**

1. For stairs, guard-rails on both sides should be provided.
  2. For ladders, a portion of at least 1 metre above the landing place at height should be provided.
  3. In case no scaffolds/platforms are seen, this item should be “N/A”.
- 

#### **Item 1.1.6**

Proper use (fencing off, no working on two or more levels, no overreaching, no overloading, no unauthorized use, etc.)

##### **Guideline**

1. The bottom of each scaffold should be fenced off when there is work on the scaffold.
  2. Working on two or more levels on the same scaffold at the same time is not allowed to control falling object hazard.
  3. In case no workers are seen on scaffold, this item should be “N/A” unless there is overloading with the scaffold / platform.
- 

#### **Item 1.1.7**

Fall arresting system (safety harness, independent lifeline, anchorage, safety net, etc.)

##### **Guideline**

1. Safety harness must be attached to secure anchorage point.
  2. Safety harness should be anchored to a position that is higher than user’s working level (高掛低用).
  3. Fall arresting system (eyebolt, independent lifeline, etc.) must be examined by competent person, with valid Form 6 and 7.
  4. Fall arresting system must be in good condition.
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5. After installation each anchor device (e.g., eyebolt) should be submitted to an axial pull-out force of 6 kN to confirm the soundness of the complete assembly.
  6. Use of safety harness must fulfill the requirements as specified in “Guidance Notes on Classification and Use of Safety Belts and their Anchorage Systems”.
  7. If provision of fall arresting system is required, workers on scaffold must use the fall arresting system. E.g. Scaffolders must use the fall arresting system during erecting or dismantling of scaffold.
  8. In case no workers are seen on scaffold, this item should be “N/A”.
- 

#### **Item 1.1.8**

Clear of debris and loose material

#### **Guideline**

1. No debris should be left or stored on scaffold / platform to prevent slip and trip which may eventually cause a fall of person.
  2. “Loose material” refers to material that is not sufficiently secured, e.g. plank or board.
  3. In case no scaffolds/platforms are seen, this item should be “N/A”.
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### ***Sub-section 1.2 Mobile working scaffolds/platforms (non-power driven)(e.g. mobile aluminium towers)***

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#### **Item 1.2.1**

Sound and stable construction; erected, inspected, examined by CP and Form 5 displayed

#### **Guideline**

1. Construction of platforms fulfill the requirements specified in “Code of Practice for Metal Scaffolding Safety” and relevant guidelines.
2. Form 5 (CSSR-F5) – “Scaffolds - Reports of Results of Fortnightly or Other Inspections” must be valid (e.g. within 14 days immediately preceding use), completed and signed by competent person. Name and designation of this competent person should be clearly stated.
3. Erection, alteration, addition and dismantling of bamboo and metal scaffold is under immediate supervision of competent person. The competent person who immediately supervises workmen carrying out scaffolding works shall not actively

engage himself or herself in such work.

4. Form 5 should be displayed at prominent position on the scaffold.
  5. In case no scaffolds/platforms are seen, this item should be “N/A”.
- 

### **Item 1.2.2**

Closely boarded, even surface without tripping hazard

#### **Guideline**

1. In particular, interstices of open metal work shall not exceed 4000 square millimetres in area; and the space between adjacent boards or planks should not exceed 25 mm.
  2. In case no scaffolds/platforms are seen, this item should be “N/A”.
- 

### **Item 1.2.3**

Appropriate base to height ratio; even and stable ground; appropriate out-riggers

#### **Guideline**

1. Base to height ratio is 1 to 3 for outdoor use and 1 to 3.5 for indoor use.
  2. In case out-riggers are required, they should be extended correctly (e.g. 45 degree) and rested firmly on even and stable ground.
  3. In case no scaffolds/platforms are seen, this item should be “N/A”.
- 

### **Item 1.2.4**

Secure guard-rails and toe-boards

#### **Guideline**

1. Heights of guard-rails must be 450-600mm (intermediate rail) and 900-1150mm (top rail).
  2. Height of toe-board must be at least 200mm.
  3. In case no scaffolds/platforms are seen, this item should be “N/A”.
- 

### **Item 1.2.5**

Safe means of access and egress

#### **Guideline**

1. In case an internal ladder is provided for access and egress, users have to climb inside the scaffold to reduce the risk of fall.
  2. In case no scaffolds/platforms are seen, this item should be “N/A”.
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### **Item 1.2.6**

Proper use (no riding while moving, no over-reaching, no overloading, etc.)

#### **Guideline**

1. Except moving of platforms, those base wheels should be locked.
  2. The platform should not be used during adverse weather condition. Platform must be secured to prevent overturning.
  3. Worker should stand safely on the platform.
  4. In case no workers are seen on mobile working scaffold or platform, this item should be “N/A”.
- 

### **Item 1.2.7**

Fall arresting system (safety harness, independent lifeline, anchorage, etc.)

#### **Guideline**

1. Safety harness must be attached to secure anchoring point.
2. Safety harness should be anchored to a position that is higher than user’s working level (高掛低用).
3. Fall arresting system (independent lifeline, anchorage (e.g., eyebolt)) must be examined by competent person, with valid Form 6 “Certificate of Test and Thorough Examination of Chains, Ropes and Lifting Gear” and Form 7 “Chains, Ropes and Lifting Gear – Certificate of Results of Thorough Examination in Preceding 12 months”.
4. Fall arresting system must be in good condition.
5. After installation each anchor device (e.g., eyebolt) should be submitted to an axial pull-out force of 6 kN to confirm the soundness of the complete assembly.
6. Use of safety harness must fulfill the requirements as specified in “Guidance Notes on Classification and Use of Safety Belts and their Anchorage Systems”.
7. If provision of fall arresting system is required, workers on mobile working scaffold or platform must use the fall arresting system. E.g. Scaffolders must use the fall arresting system during erecting or dismantling of scaffold.
8. In case no workers are seen on mobile working scaffold or platform, this item should be “N/A”.

### **Item 1.2.8**

Clear of debris and loose material

#### **Guideline**

1. No debris nor loose materials should be left/ stored on scaffold / platform to prevent slip and trip which may eventually cause a fall of person.
  2. “Loose material” refers to material that is not sufficiently secured, e.g. plank or board.
  3. In case no scaffolds/platforms are seen, this item should be “N/A”.
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### ***Sub-section 1.3 Mobile working scaffolds/platforms (power driven)(e.g. mobile elevating working platforms)***

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### **Item 1.3.1**

Sound construction; inspected, tested & examined by competent examiner and relevant certificates (e.g. Form 4 & 5) displayed

#### **Guideline**

1. Form 4 – “Certificate of Test and Thorough Examination of Lifting Appliances” and Form 5 – “Lifting Appliances – Certificate of Results of Thorough Examination in Preceding 12 months” must be valid, completed (fill-in all required items) and signed by competent examiner.
  2. Relevant certificates (for example, Form 4 and 5) should be displayed at prominent position on the platform.
  3. Regular inspection and maintenance of MEWP should be arranged. For example, Form 1 (LALG-F1) – “Reports of Results of Weekly Inspections of Lifting Appliances” must be valid (within the preceding 7 days), completed (fill-in all required items) and signed by Competent Person or equivalent record. Name and designation of this competent person should be clearly stated.
  4. Safe Working Load / number of persons allowed must be marked.
  5. In case no scaffolds/platforms are seen, this item should be “N/A”.
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### **Item 1.3.2**

Closely boarded, even surface without tripping hazard

**Guideline**

1. The platform should not pose any tripping hazard.
  2. In case no scaffolds/platforms are seen, this item should be “N/A”.
- 

**Item 1.3.3**

On even and stable ground; appropriate out-riggers

**Guideline**

1. Out-riggers, if any, must be fully extended and rest firmly on even and stable ground.
  2. In case no scaffolds/platforms are seen, this item should be “N/A”.
- 

**Item 1.3.4**

Secure guard-rails and toe-boards

**Guideline**

1. Heights of guard-rails must be 450-600mm (intermediate rail) and 900-1150mm (top rail).
  2. Height of toe-board must be at least 200mm.
  3. In case no scaffolds/platforms are seen, this item should be “N/A”.
- 

**Item 1.3.5**

Safe means of access and egress

**Guideline**

1. Safe means must be provided for access to and egress from the platform.
  2. In case no scaffolds/platforms are seen, this item should be “N/A”.
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**Item 1.3.6**

Proper use (no riding while moving/no overreaching/no overloading, etc.); trained operator

**Guideline**

1. Operator must be trained by manufacturer / supplier of the platform, or suitable

person for safe operation of the platform.

2. Except self-propelled mobile elevating work platform, no riding while moving.
3. In case no workers are seen on power-driven mobile working platform, this item should be “N/A”.

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**Item 1.3.7**

Fall arresting system (safety harness, anchorage, etc.);

**Guideline**

1. Safety harness must be attached to secure anchoring point.
2. Fall arresting system must be in good condition.
3. Use of safety harness must fulfill the requirements as specified in “Guidance Notes on Classification and Use of Safety Belts and their Anchorage Systems”.
4. In case no workers are seen on power-driven mobile working scaffold, this item should be “N/A”.

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**Item 1.3.8**

Clear of debris and loose material

**Guideline**

1. No debris should be left on scaffold / platform to prevent slip and trip which may eventually cause a fall of person.
2. In case no scaffolds/platforms are seen, this item should be “N/A”.

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**Sub-section 1.4    *Suspended working platforms (SWP)(e.g. gondolas, guided-SWP)***

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**Item 1.4.1**

Sound construction; inspected, tested and examined by competent person & competent examiner and Forms 1, 2, & 3 were displayed

**Guideline**

1. Construction of SWP should fulfill the requirements specified in “Code of Practice for Safe Use and Operation of Suspended Working Platforms” or relevant guidelines.
2. Form 1 (SWP-F1) – “Certificate of Weekly Inspections of Suspended Working



Platform”, Form 2 – “Certificate of Thorough Examination of Suspended Working Platform” and Form 3 – “Certificate of Load Test and Thorough Examination of Suspended Working Platform” must be valid, completed and signed by competent person.

3. Forms should be displayed at prominent position on the SWP.
4. The maximum incline of the working platform deck should be less than 25%, i.e. 1:4.
5. The suspension wire ropes of SWP should be kept taut by means of weights attached to the bottom part of suspension wire ropes.
6. In case no SWP are seen, this item should be “N/A”.

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#### **Item 1.4.2**

Legal notices displayed, safe working load and number of persons allowed marked

#### **Guideline**

1. Safety information should be displayed in both Chinese and English.
2. In case no SWP are seen, this item should be “N/A”.

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#### **Item 1.4.3**

Closely boarded and even surface without tripping hazard

#### **Guideline**

1. The platform should not pose any tripping hazard
2. In case no SWP are seen, this item should be “N/A”.

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#### **Item 1.4.4**

Sufficient width (440mm), secure guard-rails and toe-boards

#### **Guideline**

1. Heights of guard-rails must be 450-600mm (intermediate rail) and 900-1150mm (top rail).
2. Height of toe-board must be at least 200mm.
3. In case no SWP are seen, this item should be “N/A”.

#### **Item 1.4.5**

Safe means of access and egress

##### **Guideline**

1. When access to the SWP is from the roof of the building, the access must be inside the parapet.
  2. If an access gate is necessary in the side frame of a working platform, it should not open outwards and should close automatically (e.g. spring-loaded). It should not be possible to open the lock accidentally.
  3. When working platforms are adjacent, neither scaffold boards nor any other form of decking should be used to provide access from one to the other.
  4. Means of access and egress could not be found in the vicinity, it will be counted as no safe means of access and egress.
  5. In case no SWP are seen, this item should be “N/A”.
- 

#### **Item 1.4.6**

Protection of climbers against the effect of weather, dust or material

##### **Guideline**

1. Provision of cover or protection for climbers.
  2. In case no SWP are seen, this item should be “N/A”.
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#### **Item 1.4.7**

Safe operation (no overreaching, no operation in adverse weather, etc.) and trained operators

##### **Guideline**

1. Safe operation includes no excessive materials on SWP.
  2. Training operator refers to operators possess valid certificate for the operation of SWP.
  3. In case no workers are seen on SWP, this item should be “N/A”.
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#### **Item 1.4.8**

Fall arresting system (safety harness, independent lifeline, anchorage, etc.)

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### **Guideline**

1. Safety harness must be attached to secure anchoring point.
  2. Safety harness should be anchored to a position that is higher than user's working level (高掛低用).
  3. Fall arresting system (eyebolt, independent lifeline, etc.) must be examined by competent person, with valid Form 6 and 7.
  4. Fall arresting system must be in good condition.
  5. After installation each anchor device (e.g., eyebolt) should be submitted to an axial pull-out force of 6 kN to confirm the soundness of the complete assembly.
  6. Use of safety harness must fulfill the requirements as specified in "Guidance Notes on Classification and Use of Safety Belts and their Anchorage Systems".
  7. In case no workers are seen on SWP, this item should be "N/A".
- 

### ***Sub-section 1.5 Work equipment for below 2 metres and access equipment (stepladders, ladders, trestles, stairs, gangways, runs, etc.)***

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#### **Item 1.5.1**

Ladder should not be used for working

#### **Guideline**

1. Platforms should be provided for working at different heights.
  2. Step-ladders, straight ladders and extension ladders are used purely as a means of access and egress to working platforms.
  3. If work equipment for below 2 metres or access equipment was found but no ladders were found on site, this item would be counted as compliance.
  4. If no work equipment for below 2 metres and no working at height activities were found, this item should be counted as N/A.
- 

#### **Item 1.5.2**

Provision; sound construction; properly assembled

#### **Guideline**

1. For fixed access ladder higher than 3 meters, safety hoops of spacing not exceeding 1 meters should be installed .
2. For long fixed access ladder, there should be a suitable landing place or rest

platform at an interval of not greater than 9 meters along the fixed access ladder. The landing place or rest platform should be fitted with suitable guard-rails of adequate strength.

3. Steps of ladder should have anti-slipping feature.
4. Ladder should have rubber feet.
5. Treads and rises on any stairway must be of uniform dimensions. The height of the rise and depth of the going of each step should observe the formula:  $600 \text{ mm} \leq (2 \times \text{rise}) + (\text{going or tread}) \leq 660 \text{ mm}$ .
6. Guard-rails should be provided for open side of all stairs, while railing should be provided on both sides.
7. For safe means of access and egress to other places with a level difference of not less than 600mm, access equipment such as a ladder with handrails should be provided.
8. Mobile working platform below 2 metres should be treated as work equipment instead of mobile working scaffold/platform in section 1.2.
9. If no means of access and egress are provided (e.g. to loading platform), it would be counted as non-compliance.

---

### **Item 1.5.3**

Good condition (incl. rubber feet, spreader arms)

#### **Guideline**

1. Each piece of work equipment for below 2 metres and access equipment should be in safe working order.
2. For ladders and stairs, there are no damages on the body / ladder stiles / steps / rungs / handrails / rubber feet, etc.
3. For a step-ladder, the spreader arms are there for securing the stability of the step-ladder when in use.

---

### **Item 1.5.4**

Secure footing and/or fastening at top landing to ensure stability

#### **Guideline**

1. For straight ladders, fasten the ladder properly with ropes on both ladder stiles, or have a fellow worker to stabilize the ladder with hands.
2. Stairs should be fixed properly.

**Item 1.5.5**

On even and stable ground/ footing and appropriate sloping angle

**Guideline**

For straight ladders, it should be placed on a 1:4 ratio of setback distance to height.

---

**Item 1.5.6**

Sufficient handhold (at least 1 m) extending from landing point

**Guideline**

Handhold applies to the ladder extension above the landing place for a straight ladder; and to the guard-rails of a stairway leading to a landing.

---

**Item 1.5.7**

Proper use (no riding on top or while moving, no over-reaching, no overloading, etc.)

**Guideline**

1. Only use ladders for access and egress. No ladders can be used as work equipment except the platform ladder which should be regarded as the last and only viable resort after conducting risk assessment and limited to a height of less than 2m.
  2. For a step-ladder, the spreader arms should be fully opened / extended when in use.
  3. No misuse of folded step-ladders as access ladders.
  4. No working on a piece of work/access equipment with one foot while the other foot is on other places.
  5. In case no workers are seen using work equipment, this item should be "N/A".
- 

**Item 1.5.8**

Proper access and egress with ladder (e.g. maintaining three points of contact)

**Guideline**

1. In case worker needs to carry hand tool(s), such tools should be stored in a tool bag or tool belt while climbing the ladder.
  2. In case no workers are seen climbing the ladder, this item should be "N/A".
-

**Sub-section 1.6    *Other places of work (including floors, stairs, loading platforms, working platforms, etc.)***

---

This sub-section focuses on work-above-ground safety. Other places of work include floors, stairs, loading platforms, RCD platforms, canopies, falseworks, metal formworks, lift shafts, roof edges, fragile surfaces, Modular Integrated Construction (MiC), and any other work-above-ground locations from which a person is liable to fall from any height and there is a high risk of injury.

---

**Item 1.6.1**

Sound and stable construction of loading platforms/ tailor-made working platforms; erected/ inspected/ examined by CP - Form 5, etc.

**Guideline**

1. Form 5 – “Scaffolds - Reports of Results of Fortnightly or Other Inspections” must be valid (e.g. within 14 days immediately preceding use), completed and signed by competent person. Name and designation of this competent person should be clearly stated.
  2. Form 5 should be displayed at prominent position on the platform.
  3. Safe working load must be marked.
  4. When there are no loading platforms/ tailor-made working platforms/RCD platform, etc. on which there is a working platform, this item should be “N/A”.
- 

**Item 1.6.2**

Secure & closely boarded (including floor opening cover) and even surface without tripping hazard

**Guideline**

1. In particular, interstices of open metal work shall not exceed 4000 square millimetres in area; and the space between adjacent boards or planks should not exceed 25 mm.
2. Cover all floor openings or provide railings around floor openings and voids:
  - (a) Cover all floor openings with solid and sound material constructed and securely fixed. Warning signs shall be clearly and boldly marked on covers to

show its purpose; or

- (b) Provide rigid guard-rails and toe-boards around floor openings. Heights of guard-rails must be 450-600 mm (intermediate rail) and 900-1150 mm (top rail). Height of toe-board must be at least 200 mm.
  3. At floor opening with considerable risk or safety concerns, safety nets of sufficient size and strength covering the floor openings to catch falling persons shall be provided. The safety nets shall be clear of any debris.
  4. The surface/platform should not pose any tripping hazard.
- 

### **Item 1.6.3**

Full-height 4-leaf metal gate for lift shaft opening, except working floor minus1 (WF-1), metal gate for hoist landing and secure fencing/guard-rails/toe-boards for other places of work at height

#### **Guideline**

1. Full-height 4-leaf metal gate with an upper pair and a lower pair of doors for lift shaft opening except for WF-1. On WF-1, the opening should be protected with guard-rails and toe-boards.
  2. Heights of guard-rails must be 450-600 mm (intermediate rail) and 900-1150 mm (top rail).
  3. Height of toe-board must be at least 200 mm.
  4. Mesh size for metal gate: maximum 50 mm x 50 mm.
  5. Provide guard rails, immediately after removal of slab table-forms or slab formworks, provide protective middle and top steel railings at heights of 600 mm and 1100 mm respectively at slab edges where parapet walls have not yet been constructed.
  6. All edges of installed MiC module shall be provided with suitable guard-rails and toe-boards. The open sides of module which they are liable to fall shall be effectively guarded to prevent any workers from falling from height. The connections for the guard-rails should be built-in with the module if possible. The guard-rails and toe-boards shall be installed immediately after the installation of module and it can only be removed when the next stack of module is to be installed.
- 

### **Item 1.6.4**

Proper use (no over-reaching, no overloading for loading platform, etc.)

#### **Guideline**

In case no workers are seen in all other places of work at height, this item should be “N/A”.

---

#### **Item 1.6.5**

Fall arresting system in use while working inside lift shaft or in places of work at height where adequate steps are impractical

##### **Guideline**

1. Safety harness must be attached to secure anchorage point.
  2. Safety harness should be anchored to a position that is higher than user’s working level (高掛低用) - maximum allowable fall factor being 1.
  3. Fall arresting system (eyebolt, independent lifeline, etc.) must be examined by competent person, with valid Form 6 and 7.
  4. Fall arresting system must be in good condition.
  5. After installation each anchor device (e.g., eyebolt) should be submitted to an axial pull-out force of 6 kN to confirm the soundness of the complete assembly.
  6. Use of safety harness must fulfill the requirements as specified in “Guidance Notes on Classification and Use of Safety Belts and their Anchorage Systems”.
  7. For lift works, three independent lifeline should be provided in the lift shaft.
  8. Effective fall preventive measures such as use of retractable fall arrestor should be adopted for workers working on the top of module/ in vicinity of the edges of module. Where possible, pre-cast anchor should be provided on the top of module / concrete structure of the building. The position of pre-cast anchor should be safely accessible for workers and workers should not be exposed to any risk of falling in the course of attaching or detaching the anchor.
  9. In case there were no lift shaft works and no workers are seen in places of work at height, this item should be “N/A”.
- 

#### **Item 1.6.6**

Safe means of access and egress

##### **Guideline**

1. For stairs, guard-rails on both sides should be provided.
2. For ladders, a portion of at least 1 meter above the landing place should be provided.
3. For safe means of access (and egress) to working platforms of a reverse circulation drill, an alternative could be considered by using extendable ladders to suit



different heights of the working platforms.

4. For safe means of access (and egress) to lift car top, compliance with correct method statement such as ensuring the effective function of opening the landing door to cease movement of lift car and activation of the emergency stop button at the lift car top should be followed.
5. For safe means of access and egress to a working platform off ground /floor level with a level difference of not less than 600mm, access equipment such as a ladder with handrails should be provided.
6. Proper safe means of access and egress should be provided to the MiC module.

Situations include:

- From the ground to the top of the module loaded on the truck;
- From the ground to the top of the module in designated storage area;
- From the working floor to the top of the module which will be or has been installed.

Such access provisions include the use of working platform, fixed ladder with proper fixtures and use of permanent / temporary staircase, power-operated elevating work platform, etc. A safe work method on the use of MEWPs / working platform should be available.

Straight ladder should be avoided, where practicable, placing beside the modules as a mean of access. The straight ladder should only be used where a task-specific risk assessment indicates that it is the only practical mean of access to a particular location, taking into account the actual circumstance and the availability of other means of access such as working platform, MEWP, fixed ladder with proper fixture, etc.. In addition, continuous fall protection shall be provided to workers assessing straight ladder and the ladder shall be properly secured to prevent from overturning / slipping off.

MEWPs should never be used where a dedicated access to the location is already provided.

For an operation which involves exiting the MEWP / work platform at height, suitable personal protective equipment and fall arresting system should be provided and used at all times, the following measures should be taken:

- Anchorage points which could provide continuous fall protection to workers should be provided for the MEWP / work platform and fall protection measures should be maintained at all times during the operation.
- A competent operator should remain in the MEWP at all times during the operation.
- The area around the chassis of the MEWP / work platform should be free of vehicular traffic.

## **Section (2)            Protection against Falling Objects**

This section focuses on the environment which will pose a hazard of falling objects - refuse chutes, material hoists, edges of excavation, provision of canopies & catch fans, edges of workplace and provision of safety helmets, etc.

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### ***Sub-section 2.1    Collective measures***

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#### **Item 2.1.1**

Provision of refuse chutes & regular clearing and maintenance

#### **Guideline**

1. Refuse chutes should have sound construction and securely mounted.
  2. The refuse chute door should be closed and locked whenever the refuse chute is not in use. If no workers are seen using the refuse chute, the refuse chute will be considered as not in use.
  3. No accumulation of refuse inside the refuse chutes.
  4. The door/gate of collection room at the lowest level of refuse chute system should be closed and locked except during collection of debris.
  5. If no refuse chutes are seen or they are under construction, this item should be "N/A".
- 

#### **Item 2.1.2**

Enclosure of hoistway, hoist gates be closed and locked

#### **Guideline**

1. The hoistway should be fully enclosed throughout its height sufficiently to contain falling material within the enclosure.
2. Keep the hoist gate closed and locked when loading or unloading is not in progress. When the hoist is in operation and the operator is in attendance on the ground floor, the ground floor hoist gate should be at least securely closed.
3. No gaps should be found between the hoist gate and platform when there is a risk of falling objects.
4. If no hoists are seen or the hoist was under construction, this item should be

“N/A”.

---

### **Item 2.1.3**

Proper raising & lowering practice in transportation of building materials/associated tools/equipment/debris

#### **Guideline**

1. Measures should be taken for preventing parts loosen / detached from height from equipment / materials to be transported (including materials inside receptacle)
  2. A receptacle used in connection with a material hoist or lifting appliance, for raising or lowering stone, bricks, tiles, slates, or other objects, shall be so enclosed, or constructed or designed, as to prevent the accidental fall of any of such objects.
  3. Manual vertical transportation of building materials/associated tools/equipment/debris will be assessed.
  4. Improper rigging of lifting gear could be treated as non-compliance in this item.
  5. This item should be “N/A”, if:
    - (1) no hoists are seen or the hoist was under construction,
    - (2) no lifting operations of lifting appliances are seen, and
    - (3) no manual vertical transportation operations are seen.
- 

### **Item 2.1.4**

Proper storage & stacking of materials away from edges of floors, loading/working platforms, etc.

#### **Guideline**

1. Storage areas should be at least 2 metres from edge of roof or floor openings, or any open edges where materials may fall off.
  2. The stack should be lower than the edge/sidewall of window opening or loading platform.
  3. Storage and stacking of materials should not pose any hazard of falling objects.
  4. Loose materials should not be stored on the top of and/ or inside the MiC modules.
- 

### **Item 2.1.5**

Covering up of floor openings or gaps of floor edges, etc.

### **Guideline**

1. The covers for floor openings or gaps should be able to cover up the whole opening or gaps.
  2. The covers should be of solid and sound material constructed and securely fixed. These covers shall be clearly and boldly marked to show its purpose.
  3. "Floor openings" also refers to lift shaft openings, which should have full height gate to cover.
- 

### **Item 2.1.6**

Provision of toe-boards to edges

### **Guideline**

1. Height of toe-board must be at least 200mm.
  2. Toe-board should be provided for any location having a hazard of falling objects.
  3. Toe-boards may be removed or remain unerected for the time and to the extent necessary for the access of persons or the movement of materials or other purposes of the work concerned, but shall be replaced or erected as soon as practicable after the expiration of that time.
  4. Toe-boards shall be installed immediately after the installation of MiC module and it can only be removed when the next stack of module is to be installed.
  5. Incomplete toe-boards could be counted as non-compliance.
- 

### **Item 2.1.7**

Provision of protective canopy, catch fans and nets, fencing off & regular clearing and maintenance

### **Guideline**

1. For building site with external bamboo scaffolding, when the structure has reached the 9<sup>th</sup> floor, sloping catch fan at not more than 5 floors intervals must be provided, to give a minimum horizontal coverage of 1500 mm.
  2. Screen nets must be erected to envelop the scaffold for the protection of person or vehicular traffic against falling objects. Suitable protective screen of fire retardant material should be provided to contain falling objects. Any damage of screen nets would be counted as non-compliance.
  3. The sloping catch-fan should consist of 3 mm (minimum) thick timber boards covered by layer of galvanized metal sheeting 0.2 mm (minimum) thick. Provision of nets with proper maintenance (no accumulation of debris or materials).
-

4. Upon casting of 7th floor, protective canopy must be completed.
  5. Protective canopy of horizontal projected width 3600 mm (minimum) at the first floor level around the edges of the building except in locations where the concrete canopy is of width 3000 mm or more for specified buildings and locations.
  6. The steel canopy should always be in place unless there is a practical need to lift it up to facilitate lifting works.
  7. \* For Building Contracts - design, construct, operate, maintain, and remove after use, electrically-operated retractable protection net for protecting workers at steel bending yard by the time of casting of concrete slab on 3/F. Provide safety measure(s) to protect the public against falling objects from the building under construction, within the area that is out of site boundary yet within inclined projection plane from the top outer edge of the building at 10 degrees from the vertical at ground level such as, erecting catch fan(s) at appropriate level(s). Exemption shall be permitted at the area / part of the area where no public access is allowed.
  8. Safety measure(s) shall be provided to protect the public against falling objects from the building under construction, within the area that is out of site boundary yet within inclined projection plane from the top outer edge of the building at 10 degrees from the vertical at ground level such as, erecting catch fan(s) at appropriate level(s) as well as provision of wall mounted catch fan immediately below the external wall mounted working platform at the gable end wall. Exemption shall be permitted at the area / part of the area where no public access is allowed.
  9. If protective canopy and catch fans are not required and nets are not seen, this item should be "N/A".
- 

#### **Item 2.1.8**

Provision of covered walkway, hoardings, and fences

#### **Guideline**

1. The covered walkway and hoarding should provide sufficient protection for pedestrian around the site periphery from falling objects.
  2. If covered walkway, hoardings, and fences are not seen, this item should be "N/A".
- 

#### **Item 2.1.9**

Use of receptacles for containing loose materials or tied up properly; use of tool bags or use of tool lanyards

**Guideline**

1. No materials stored higher than edges of receptacles.
- 

**Item 2.1.10**

Materials stored in safe and proper manner

**Guideline**

1. For stacked materials, safe stacking method should be used to prevent collapsing.
  2. Bagged or sacked material should be stacked or cross-piled on skids and should not be more than 10 bags high and should not exceed design load of structure to prevent overloading and material from falling, rolling, overturning or breaking.
- 

**Item 2.1.11**

No accumulation of debris near edges of floor, fans & nets, etc.

**Guideline**

In case no non-compliance is found, “Yes” should be counted for this item.

---

**Item 2.1.12**

Provision of waste collection and proper disposal arrangement

**Guideline**

1. Designated waste collection points should be provided at appropriate locations in the site.
  2. The accumulation of waste should not exceed 2000 mm high generally. For over 2000 mm in height, the waste should be stored at designated area with proper fence off arrangement and should not pose any hazard of falling objects.
- 

**Item 2.1.13**

No plants / machines, stockpile or any other materials is parked or placed near the edge of an excavation

**Guideline**

1. Loose materials may fall from spoil heaps into the excavation. Edge protection

should include toe-boards or other means, such as projecting trench sheets or box sides to protect against falling materials.

2. No plant/ machines is parked or placed within 2 meters near the edge of an excavation.
3. When materials placed near the edge of excavation pose a hazard of falling objects, it would be counted as non-compliance.
4. If no excavations are seen, this item should be “N/A”.

---

#### **Item 2.1.14**

Proper dismantling & removal practice of building materials/falsework/debris

##### **Guideline**

1. Measures for prevention of falling of objects must be implemented for above works.
2. \*During strut removal or cutting of pile head for Building and Foundation Contracts with ELS Works, provide safety measure(s) by mechanical means, e.g. hanging of strut or pile head by crane, certified by the Qualified Engineer, to prevent free-swinging of the section being cut and eliminate the risk of striking any persons.
3. \*Provide safety measure(s) to collect loose objects from the external wall and reduce the risk of falling objects during chipping, grinding or similar operations on the external wall.
4. Substantive support shall be provided to support the steel structure to be dismantled and its adjoining structures from accidental detaching, collapsing or failure during such works.
5. This item should be “N/A” if the dismantled debris does not constitute a falling object hazard, e.g. the debris is light, the possible fall of debris will not land on the head (debris are not in overhead level), or the debris is properly contained.

---

#### **Item 2.1.15**

Clear of debris and loose material from metal formwork and lifting receptacles (e.g., no loose materials in cages and no overflowing skips)

##### **Guideline**

1. “Loose material” includes hand tools and parts. Storage of loose material (unless in designated tool box with cover or being securely anchored on metal formwork) is prohibited. Whenever insecure bolts and nuts were found on the metal formwork in storage area, it would be counted as non-compliance.

2. Loose concrete on the metal formwork and lifting receptacles would be counted as debris.
  3. Examples of cages are man-carrying cages and oxy-acetylene cylinder set cages.
  4. In case no metal formworks and lifting receptacles are seen, this item should be “N/A”.
- 

#### **Item 2.1.16**

Weekly inspection (Form 4) for excavation

##### **Guideline**

1. Form 4 “Excavation and Earthworks – Reports of Results of Weekly Inspection” (CSSR-F4) must be valid (once in every period of 7 days), completed and signed by competent person. Name and designation of the person should be clearly stated.
  2. In case no excavations are seen, this item should be “N/A”.
- 

#### **Item 2.1.17**

Suitable shoring according to approved method statement for excavation

##### **Guideline**

1. For excavation exceeding 1.2 m, shoring according to approved method statement must be applied. Approved method statement could be checked.
  2. If no excavations are seen, this item should be “N/A”.
- 

### ***Sub-section 2.2 Personal Protective Equipment***

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#### **Item 2.2.1**

Wearing of safety helmets with the use of Y-type chin strap

##### **Guideline**

1. Provision of Y-type chin strap for all safety helmets.
2. Y-type chin strap must be in use.
3. Loose Y-type chin strap that cannot fix the safety helmet onto worker’s head securely should be counted as non-compliance.



### **Section (3)            Housekeeping**

This section focuses on the arrangements of material storage, working areas, walkways, and lighting to control risks of slip, trip, and fall, striking, stepping on and so on.

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#### ***Sub-section 3.1    Materials Handling***

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##### **Item 3.1.1**

Regular removal of debris with proper arrangement

##### **Guideline**

Accumulation of waste should not exceed 2000 mm in height generally.

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##### **Item 3.1.2**

Projecting nails or sharp objects are removed or hammered down or protected

##### **Guideline**

1. Examples of sharp objects include protruding rebars at the refuse chute and walkway bolts, in the designated area (according to the risk assessment), especially at eye level, etc.
  2. Unprotected protruded bars on working area would not be considered as non-compliance when there is an approved risk assessment to this effect. Yet the unprotected protruded bars, for example on the access route will still be considered as non-compliance. Typical examples are those along the access route to the working floor.
- 

##### **Item 3.1.3**

All large panel formwork are stored on a designated hard standing level ground with supporting stands

##### **Guideline**

1. Wooden support would not be counted as a proper supporting stand for the large panel formwork.
-

2. In case no large panel formworks are seen, this item should be “N/A”.
- 

#### **Item 3.1.4**

All precast units are stored on a designated hard standing level ground with supporting stands

#### **Guideline**

1. Wooden support will not be counted as a proper support for the precast unit.
  2. For storage of MiC modules:
    - Modules should not be stacked on top of each other unless it has been designed to do so.
    - Effective measures, such as installation of vertical steel guard posts securely fixed on the ground, should be adopted to support modules if applicable.
  3. In case no precast units are seen, this item should be “N/A”.
- 

#### **Item 3.1.5**

Materials and equipment are stored properly

#### **Guideline**

1. Materials and equipment must be stored properly on level and firm ground.
  2. For large materials with risk of overturning or rolling, supporting stands should be provided to prevent overturning / rolling.
  3. Rolling materials should be provided sufficient supporting wedges.
- 

#### **Item 3.1.6**

Materials and equipment are stored in designated area

#### **Guideline**

Clear label / identification should be displayed for material storage area.

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### ***Sub-section 3.2 Working environment***

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#### **Item 3.2.1**

Working areas and passageways are free from obstruction

**Guideline**

1. Exits and emergency facilities should also be free from obstruction.
  2. Obstruction is the fact of blocking an entrance, a passage, etc.
- 

**Item 3.2.2**

Working areas and passageways are free from tripping hazards

**Guideline**

Working areas and walkways should be kept as clear as possible of unnecessary materials and waste that could cause a tripping hazard.

---

**Item 3.2.3**

Adequate lighting is provided for work in dark or poor light situation

**Guideline**

1. Temporary fencing with warning notice is required to be installed on WF-1 to stop personnel entering the WF-1 area unless sufficient lighting is provided.
  2. Provide all hoardings, covered walkways etc. with temporary lighting;
  3. Provide adequate level of illumination during all hours of site operation to all circulation areas, dangerous openings, places with lifting and lowering operation and areas where work is being carried out
  4. For staircases and floors below working floor:
    - i. In normal circumstances, provide all staircases with temporary lighting
    - ii. Where only one staircase is lit, provide illuminated directional signs on every floor to indicate access to this staircase
    - iii. Where structural works are still in progress, provide temporary lighting up to at least two floors below working floor (WF-2)
- 

**Item 3.2.4**

No water ponding, and floors and access routes are not slippery

**Guideline**

1. Any slippery floor along corridor, passageway, and lift lobby would be counted as non-compliance.
2. In case slippery floor is not avoidable, adequate anti-slipping measures must be implemented.

3. If weather chart of the construction site records rain on last 2 days or when it is raining during inspection, this item should be “N/A”.
- 

### **Item 3.2.5**

Arrangements to warn and prevent the general public from entering or trespassing

#### **Guideline**

The provision of adequate measures and execution of proper controls are required at site periphery, openings, etc.

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### ***Sub-section 3.3 System Practice***

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#### **Item 3.3.1**

Good housekeeping practices should be maintained (e.g. 5S or other similar practice)

#### **Guideline**

1. 5S practices include designated storage area of tools / parts with clear labeling, etc.
  2. It is not necessary to have certification for housekeeping.
  3. Apart from safety, housekeeping practices should also be applied for health and hygiene reasons. For example, the finding of mosquito larvae would indicate a failure in anti-mosquito measures and be counted as non-compliance.
  4. General refuse (food scraps, containers of food and drinks, cigarette butts, etc.) should be properly collected in a container. When the waste can easily cause odour and hygiene problems, the container should be properly covered with a lid. Overflowing waste containers would be counted as non-compliance.
-

## **Section (4)            Lifting Operations**

This section focuses on the lifting safety of different kinds of lifting appliances (LA), lifting gear (LG), and lifting receptacles.

LA are:

- (1) Tower Cranes
- (2) Mobile Cranes (MC) - including truck-mounted cranes, crawler cranes, lorry-mounted cranes (with a hook or with a hydraulic grab), excavators (incl. sheet pile drivers), etc.
- (3) Electric chain blocks (ECB) and winches (W) or similar LA (e.g. derrick cranes, derrick jibs)
- (4) Manual operated chain blocks, gin wheels, pulley blocks or similar LA (MLA)

LG (起重裝置), as defined in the law, means a chain sling, rope sling, ring or similar gear, and a link, hook, plate clamp, shackle, swivel or eyebolt.

Lifting receptacles are material skips, oxy-acetylene cylinder cages, concrete hoppers, or similar receptacles.

Manual operated chain blocks, gin wheels, pulley blocks or similar LA (MLA) are only regarded as LA when they are:

- (1) being operated, and
- (2) the object being lifted is a hazard of a falling object.

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### ***Sub-section 4.1    Tower Crane (TC) Lifting Operation***

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#### **Item 4.1.1**

TC , associated lifting gear(LG) and lifting receptacles tested & examined by CE - Form 2, 3, 4, 5, 6, 7 where applicable

#### **Guideline**

1. The following forms must be valid, completed and signed by Competent Examiner (CE):
  - Form 2 – “Certificate of Test and Thorough Examination of Anchoring or Ballasting of Cranes”
  - Form 3 – “Certificate of Test and Thorough Examination of Crane, Crabs and

Winches”

- Form 4 – “Certificate of Test and Thorough Examination of Lifting Appliances (except Cranes, Crabs and Winches)”
  - Form 5 – “Lifting Appliances - Certificate of Results of Thorough Examinations in the Preceding Twelve Months”
  - Form 6 – “Certificate of Test and Thorough Examination of Chains, Ropes and Lifting Gear”
  - Form 7 – “Chains, Ropes and Lifting Gear - Certificate of Results of Thorough Examination in the Preceding Six Months”
2. \*Implement efficient and effective safety systems with aid of wireless communication technologies incorporated with Artificial Intelligence System, RFID, infrared, Internet of Things (IoT) or equivalent, for checking data of personnel, plant and equipment, and for alerting against unsafe acts or conditions; allow retrieval of such information instantly on site by an electronic device; and set up and update computerised database regularly.
  3. In case no TCs are seen, this item should be “N/A”.
- 

#### **Item 4.1.2**

TC inspected by CP (Form 1) and in safe working order

#### **Guideline**

1. Form 1 (LALG-F1) – “Reports of Results of Weekly Inspections of Lifting Appliances” must be valid (within the preceding 7 days), completed and signed by Competent Person. Name and designation of this competent person should be clearly stated.
  2. The physical condition of TC should be assessed for excessive wear and tear, e.g. wear and safety latch of hook. (Automatic safe load indicator is dealt with in item 4.1.3.)
  3. \*Provide interlock devices or other measures to secure the safety latches of crane hooks. The safety latches shall only be released manually, so as to prevent slipping of lifting gear out of the hooks.
  4. In case no TCs are seen, this item should be “N/A”.
- 

#### **Item 4.1.3**

Automatic safe load indicator in good working order.

#### **Guideline**

1. The automatic safe load indicator is in good working order.

2. In case no TCs are seen, this item should be “N/A”.

---

#### **Item 4.1.4**

Controls of TC (levers, handles, switches, monitor camera of CCTV on crane jib and at not higher than 6/F level of building) are clearly marked and are regularly maintained

#### **Guideline**

1. Installation of CCTV surveillance system with recording function with camera installed at 6/F level above lifting zone, at jib or saddle of tower crane.
2. Provide a computerized system with monitor in Contractor's site office for full time surveillance of tower cranes.
3. \*CCTV camera (wireless type) fixed onto tower crane saddle or fixed onto the end of the tower jib / boom when there is no saddle and associated equipment in the tower crane cabin. CCTV camera at each tower crane cabin and associated equipment in Contractor's Site office.
4. \*Implement an artificial intelligence system with CCTV and video recording system to monitor proper wearing of safety helmet and reflective vest in the lifting zone of tower crane. The CCTV system installed in the lifting zone of tower crane shall include artificial intelligence function. The system shall be connected and monitored at the contractor's site office for full time surveillance.
5. \*Provide a direct power supply from the mains to each tower crane if possible. If not, provide a power supply from a generator for each tower crane and do not share the power with other plant.
6. \*Provide secondary brake to handle situations not covered by the primary brake and offer protection when the primary brake fails. There is a grace period for implementation of the requirement of secondary brake up to the end of year 2019 and full implementation shall take effect from year 2020 onwards.
7. \*Allow a minimum continuous duration of 2 hours weekly during daytime for inspection and maintenance of the tower crane which shall be stopped for other operation. Maintain and indicate in the master construction programme the time for erection, telescoping, climbing, maintenance and dismantling of tower crane.
8. In case no TCs are seen, this item should be “N/A”.

---

#### **Item 4.1.5**

Safe working load is clearly marked for TC; associated LG with appropriate colour code

### **Guideline**

1. Safe working load should be marked in both Chinese and English.
  2. The safe working load should match the relevant examination certificate.
  3. In case no TCs are seen, this item should be “N/A”.
- 

### **Item 4.1.6**

Trained operators, signallers and riggers; signallers on duty during lifting

### **Guideline**

1. Trained operators, signallers, riggers should possess valid certificates.
  2. The signaller shall also have completed A12 Silver Card and Signaller for Hoisting Operations at Construction Sites Course or A12S Safety Training Course for Construction Workers of Specified Trade - Rigger and Signaller provided by the CIC.
  3. For MiC modules, a supervisory staff should be appointed to provide immediate supervision for the installation of MiC modules. The supervisory staff should successfully complete a training course comparable to the “Certificate in Modular Integrated Construction for Foreman” provided by CIC. The supervisory staff who has not received the training are acceptable up to 31 December 2024 provided that they have made arrangement to attend and complete the relevant training.
  4. Riggers have received appropriate training on general safe lifting operations.
  5. Signallers and riggers should wear high visibility clothing and stay in safe position during lifting-
  6. The lifting supervisor should be appointed to monitor and supervise the lifting process involving tower cranes. The lifting supervisor shall possess Certificate for Lifting Safety Supervisors provided by the CIC, and have a minimum of four-year experience in lifting operation. The lifting supervisor(s) who have not received the training are acceptable up to 31 December 2024 provided that they have made arrangement to attend and complete the relevant training.
  7. The lifting supervisor shall monitor and supervise the whole lifting process for MiC.
  8. In case no lifting operations are seen, certificates of operators, signallers and riggers should also be checked.
  9. In case no TCs are seen, this item should be “N/A”.
- 

### **Item 4.1.7**

Correct type of LG used and in good order

### **Guideline**



1. The use of LG should fulfill the requirement as stated in “Code of Practice for Safe Use of Tower Cranes”.
  2. In case no TCs are seen, this item should be “N/A”.
  3. The upper ends of the sling legs of any double or multiple sling or basket hitch should be connected by means of a shackle, ring or link of adequate strength.
  4. Suitable lifting frames and associated lifting gear shall be selected to lift each type of MiC module. The lifting points must be strategically positioned to hoist the entire module safely and ensure that the load distribution to all lifting points is reasonably uniform. The module shall be hoisted with the aid of lifting frame so that the module would not be subjected to inclined forces from lifting gear or otherwise accepted by a registered professional engineer.
  5. \*Safety measure(s) by mechanical means, certified by Qualified Engineer to eliminate releasing shackles for H-pile and sheet pile at height manually and prohibit the use of man-cage, e.g. double lock remote release shackle.
- 

#### **Item 4.1.8**

Anti-collision system for more than one TC on site or another TC on adjacent site

#### **Guideline**

1. Anti-collision system must fulfill the requirement as specified in “Code of Practice for Safe Use of Tower Cranes”.
  2. There should be arrangement for liaising with adjacent site if TC may collide with each other.
  3. In case no TCs are seen, this item should be “N/A”.
- 

#### **Item 4.1.9**

Load is secured safely

#### **Guideline**

1. Method for securing load should fulfill the requirement as specified in “Code of Practice for Safe Use of Tower Cranes”.
2. The two-leg slings used in choker hitch, basket hitch, double wrap choker hitch or double wrap basket hitch should be used for handling composite loads such as loose bundles or tubes, bars or wooden battens unless the friction grips between the parts is sufficient to prevent them slipping from the sling. As far as possible, such composite loads should first be tied up securely at their ends by steel wires or similar means of adequate strength.

3. The angle between any two diagonally opposite legs should not exceed 90 degrees.
  4. Permit-to-work-system should be applied for non-standard lifting operations, such as tandem lifting.
  5. In case no lifting operations are seen, this item should be “N/A”.
- 

#### **Item 4.1.10**

Enough space for safe operation

##### **Guideline**

1. Enough space should be provided for safe movement of TC and the load and also signallers and riggers.
  2. In case no lifting operations are seen, this item should be “N/A”.
- 

#### **Item 4.1.11**

Accessories are properly attached at tool box of Large Panel Formwork during lifting

##### **Guideline**

1. Tool box must be locked during lifting.
  2. No bolts, nuts, tie rods or loose materials were hung on the metal panel formwork during lifting.
  3. In case no TCs are seen, this item should be “N/A”.
- 

#### **Item 4.1.12**

Lifting zone fenced off with warning signs; and alarm system for areas at ground level & working floor

##### **Guideline**

1. Except necessary personnel (e.g. riggers), no other persons should enter the lifting zone.
  2. In case no TCs are seen, this item should be “N/A”.
- 

#### **Item 4.1.13**

Clear lifting route without lifting over any person/ obstruction or trapping

##### **Guideline**

1. If the suspended load hits any structure or is lifted over any person along its lifting route, it would be counted as non-compliance.
  2. In case no lifting operations are seen, this item should be “N/A”.
- 

#### **Item 4.1.14**

Safe operation (signalers, riggers and lifting coordinators wearing high visibility clothing, no operation at adverse weather condition, etc.)

#### **Guideline**

1. Examples of safe operation include lifting within site boundary, no pulling of load at inclined angle, and a tag line or control rope is available for assisting in the control of the swing or rotation of the load.
  2. The high visibility clothing should incorporate retroreflective strips or patches as specified in the Code of Practice of the Highways Department or current BS EN ISO 20471 unless stated otherwise in Housing Department *Reflective Jacket Details* (reference: H 6137E).
  3. Conduct a trial of the lifting operation of large panel formwork, large metal components and precast concrete components (including volumetric precast concrete elements, precast concrete slabs, facades, staircases, and MiC modules, etc.), as recommended by risk assessment, when the load is lifted not more than 300-500 mm off the level where it is originally placed and ensure the load is securely rigged before the load is further lifted.
  4. Each MiC module should be attached with at least two guide ropes for controlling the swing or rotation of the load.
  5. Ensure all workers to leave the danger zone of lifting operation before the load being lifted is started to be lifted above 300-500 mm off the level where it is originally placed, but the crane operator is an exception if it is not feasible to have remote control of mobile crane by the crane operator.
  6. In case no lifting operations are seen, this item should be “N/A”.
- 

#### **Item 4.1.15**

Lifting operations are done on level ground

#### **Guideline**

In case no lifting operations are seen, this item should be “N/A”.

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## ***Sub-section 4.2 Mobile Crane (MC) Lifting Operation (including lorry-mounted cranes LMC)***

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### **Item 4.2.1**

MC, associated lifting gear (LG) and lifting receptacles tested & examined by CE - Forms 3, 5, 6, 7 where applicable

#### **Guideline**

1. The following forms must be valid, completed and signed by Competent Examiner (CE):
    - Form 3 – “Certificate of Test and Thorough Examination of Crane, Crabs and Winches”
    - Form 5 – “Lifting Appliances - Certificate of Results of Thorough Examinations in the Preceding Twelve Months”
    - Form 6 – “Certificate of Test and Thorough Examination of Chains, Ropes and Lifting Gear”
    - Form 7 – “Chains, Ropes and Lifting Gear - Certificate of Results of Thorough Examination in the Preceding Six Months”
  2. \*Implement efficient and effective safety systems with aid of wireless communication incorporated with Artificial Intelligence System, RFID, infrared, Internet of Things (IoT) or equivalent, for checking data of personnel, plant and equipment, and for alerting against unsafe acts or conditions; allow retrieval of such information instantly on site by an electronic device; and set up and update computerised database regularly.
  3. In case no Mobile Cranes are seen, this item should be “N/A”.
- 

### **Item 4.2.2**

MC inspected by CP (Form 1) and in safe working order

#### **Guideline**

1. Form 1 (LALG-F1) – “Reports of Results of Weekly Inspections of Lifting Appliances” must be valid (not expired), completed (fill-in all required items) and signed by Competent Person. Name and designation of this competent person should be clearly stated.
2. The physical condition of MC should be assessed for excessive wear and tear, e.g. wear and safety latch of hook. (Automatic safe load indicator is dealt with in item 4.2.3.)

3. \*Provide interlock devices or other measures to secure the safety latches of crane hooks (Not applicable for mobile cranes which are rented and are not expected to be used on site for more than six months). The safety latches shall only be released manually, so as to prevent slipping of lifting gear out of the hooks.
  4. In case no Mobile Cranes are seen, this item should be “N/A”.
- 

#### **Item 4.2.3**

Automatic safe load indicator in good working order.

#### **Guideline**

1. The automatic safe load indicator is in good working order.
  2. In case no Mobile Cranes are seen or when only lorry-mounted cranes with a hydraulic grab are seen, this item should be “N/A”.
- 

#### **Item 4.2.4**

Controls of MC (lever, handles, switches, etc.) are clearly marked and MC are regularly maintained

#### **Guideline**

1. Maintenance record of MC should be available.
  2. In case no Mobile Cranes are seen, this item should be “N/A”.
- 

#### **Item 4.2.5**

Safe working load is clearly marked for MC; associated LG with appropriate colour code

#### **Guideline**

1. Safe working load should be marked in both Chinese and English.
  2. The safe working load should match the relevant examination certificate.
  3. In case no Mobile Cranes are seen, this item should be “N/A”.
  4. The safe working load should be posted at the appropriate position that the operator can see.
- 
-

#### **Item 4.2.6**

Trained operators, signallers and riggers; signallers on duty during lifting

##### **Guideline**

1. Trained operators, signallers, riggers and lifting supervisor should possess valid certificates.
  2. The signaller shall also have completed A12 Silver Card and Signaller for Hoisting Operations at Construction Sites Course or A12S Safety Training Course for Construction Workers of Specified Trade - Rigger and Signaller provided by the CIC.
  3. For MiC modules, a supervisory staff should be appointed to provide immediate supervision for the installation of MiC modules. The supervisory staff should successfully complete a training course comparable to the “Certificate in Modular Integrated Construction for Foreman” provided by CIC. The supervisory staff who has not received the training are acceptable up to 31 December 2024 provided that they have made arrangement to attend and complete the relevant training.
  4. Riggers have received appropriate training on general safe lifting operations.
  5. The lifting supervisor should be appointed to monitor and supervise the lifting process involving mobile cranes. The lifting supervisor shall possess Certificate for Lifting Safety Supervisors provided by the CIC, and have a minimum of four-year experience in lifting operation. The lifting supervisor(s) who have not received the training are acceptable up to 31 December 2024 provided that they have made arrangement to attend and complete the relevant training.
  6. The lifting supervisor shall monitor and supervise the whole lifting process for MiC.
  7. In case no lifting operations are seen, certificates of operators, signallers and riggers should also be checked.
  8. In case no Mobile Cranes are seen, this item should be “N/A”.
- 

#### **Item 4.2.7**

Correct type of LG used and in good order

##### **Guideline**

1. The use of LG should fulfill the requirement as stated in “Code of Practice for Safe Use of Mobile Cranes”.
2. The upper ends of the sling legs of any double or multiple sling or basket hitch should be connected by means of a shackle, ring or link of adequate strength.
3. Suitable lifting frames and associated lifting gear shall be selected to lift each type of MiC module. The lifting points must be strategically positioned to hoist the entire module safely and ensure that the load distribution to all lifting points is

reasonably uniform. The module shall be hoisted with the aid of lifting frame so that the module would not be subjected to inclined forces from lifting gear or otherwise accepted by a registered professional engineer.

4. \*Safety measure(s) by mechanical means, certified by Qualified Engineer to eliminate releasing shackles for H-pile and sheet pile at height manually and prohibit the use of man-cage, e.g. double lock remote release shackle.
  5. In case no Mobile Cranes are seen, this item should be “N/A”.
- 

#### **Item 4.2.8**

Load is secured safely

##### **Guideline**

1. Method for securing load should fulfill the requirement as specified in “Code of Practice for Safe Use of Mobile Cranes”.
  2. The two-leg slings used in choker hitch, basket hitch, double wrap choker hitch or double wrap basket hitch should be used for handling composite loads such as loose bundles or tubes, bars or wooden battens unless the friction grips between the parts is sufficient to prevent them slipping from the sling. As far as possible, such composite loads should first be tied up securely at their ends by steel wires or similar means of adequate strength.
  3. The angle between any two diagonally opposite legs should not exceed 90 degrees.
  4. Permit-to-work-system should be applied for non-standard lifting operations, such as tandem lifting.
  5. In case no lifting operations are seen, this item should be “N/A”.
- 

#### **Item 4.2.9**

Enough space for safe operation

##### **Guideline**

1. Enough space should be provided for safe movement of MC and the load and also signallers and riggers.
  2. At least 600mm should be maintained between any part of MC liable to slew and adjacent structure, or prevent person from entering the zone that may have trapping hazard.
  3. In case no lifting operations are seen, this item should be “N/A”.
-

#### **Item 4.2.10**

Out-rigger fully extended and supported

##### **Guideline**

1. The jacks should be suitably extended so that all the crane tyres are clear of the ground.
  2. Mat of timber blocking should be used to support the float each out-rigger. It should be 3 times larger than area of float (unless a smaller area is specified by manufacturer) and completely support the float.
  3. For timber blocking, it should be tightly spaced, level, and in good working order.
  4. In case no lifting operations are seen, this item should be “N/A”.
- 

#### **Item 4.2.11**

Lifting zone fenced off with warning signs

##### **Guideline**

1. Except necessary personnel (e.g. riggers), no other person should enter the lifting zone.
  2. \*Implement a system on mobile cranes to alert any personnel who enters danger zones of the mobile plant and record the unsafe acts for follow-up actions (Not applicable for mobile cranes which are rented and are not expected to be used on site for more than six months).
  3. In case no lifting operations are seen, this item should be “N/A”.
- 

#### **Item 4.2.12**

Clear lifting route without lifting over any person/ obstruction or trapping

##### **Guideline**

1. If the suspended load hits any structure or is lifted over any person along its lifting route, it would be counted as non-compliance.
  2. In case no lifting operations are seen, this item should be “N/A”.
- 

#### **Item 4.2.13**

Working on stable and even ground

##### **Guideline**



1. MC should only be operated on uniform, level and firm ground with sufficient load bearing capacity to ensure stability.
  2. In case no lifting operations are seen, this item should be “N/A”.
- 

#### **Item 4.2.14**

Safe operation (signalers, riggers and lifting supervisors wearing high visibility clothing, no operation at adverse weather condition, etc.)

#### **Guideline**

1. Examples of safe operation include lifting within site boundary, no pulling of load at inclined angle, and a tag line or control rope is available for assisting in the control of the swing or rotation of the load.
  2. The high visibility clothing should incorporate retroreflective strips or patches as specified in the Code of Practice of the Highways Department or current BS EN ISO 20471 unless stated otherwise in Housing Department *Reflective Jacket Details* (reference: H 6137E).
  3. Conduct a trial of the lifting operation of large panel formwork, large metal components and precast concrete components (including volumetric precast concrete elements, precast concrete slabs, facades, staircases and MiC modules, etc.), as recommended by risk assessment, when the load is lifted not more than 300-500 mm off the level where it is originally placed and ensure the load is securely rigged before the load is further lifted;
  4. Each MiC module should be attached with at least two guide ropes for controlling the swing or rotation of the load.
  5. Ensure all workers to leave the danger zone of lifting operation before the load being lifted is started to be lifted above 300-500 mm off the level where it is originally placed and ensure the load is securely rigged before the load is further lifted, but the crane operator is an exception if it is not feasible to have remote control of mobile crane by the crane operator.
  6. The lifting supervisor shall monitor and supervise the whole lifting process involving volumetric precast concrete elements.
  7. Permit-to-work system for non-standard lifting operations, such as tandem lifting.
  8. In case no lifting operations are seen, this item should be “N/A”.
- 
- 
-

#### **Item 4.2.15**

Lifting operations are done on level ground

#### **Guideline**

In case no lifting operations are seen, this item should be “N/A”.

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### ***Sub-section 4.3 Electric chain blocks (ECB) and winches (W) or similar LA (e.g. derrick cranes, derrick jibs) - lifting operation***

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#### **Item 4.3.1**

ECB/W & associated lifting gear(LG) tested & examined by CE - Forms 3,4,5,6,7

#### **Guideline**

1. The following forms must be valid, completed and signed by Competent Examiner (CE):
    - Form 3 – “Certificate of Test and Thorough Examination of Crane, Crabs and Winches”
    - Form 4 – “Certificate of Test and Thorough Examination of Lifting Appliances (except Cranes, Crabs and Winches)”
    - Form 5 – “Lifting Appliances - Certificate of Results of Thorough Examinations in the Preceding Twelve Months”
    - Form 6 – “Certificate of Test and Thorough Examination of Chains, Ropes and Lifting Gear”
    - Form 7 – “Chains, Ropes and Lifting Gear - Certificate of Results of Thorough Examination in the Preceding Six Months”
  2. \*Implement efficient and effective safety systems with aid of wireless communication incorporated with Artificial Intelligence System, RFID, infrared, Internet of Things (IoT) or equivalent, for checking data of personnel, plant and equipment, and for alerting against unsafe acts or conditions; allow retrieval of such information instantly on site by an electronic device; and set up and update computerised database regularly.
  3. In case no pieces of ECB/W are seen, this item should be “N/A”.
- 

#### **Item 4.3.2**

ECB/W inspected by CP (Form 1) and in safe working order

### **Guideline**

1. Form 1 (LALG-F1) – “Reports of Results of Weekly Inspections of Lifting Appliances” must be valid (within the preceding 7 days), completed and signed by Competent Person. Name and designation of this competent person should be clearly stated.
  2. The physical condition of ECB/W should be assessed for excessive wear and tear, e.g. wire and safety latch of hook.
  3. \*Provide interlock devices or other measures to secure the safety latches of crane hooks. The safety latches shall only be released manually, so as to prevent slipping of lifting gear out of the hooks. (Not applicable for cranes which are not expected to be used on site for more than six months).
  4. In case no pieces of ECB/W are seen, this item should be “N/A”.
- 

### **Item 4.3.3**

Safe working load is clearly marked on ECB/W; associated LG with appropriate colour code

### **Guideline**

1. Safe working load should be marked in both Chinese and English.
  2. In case no pieces of ECB/W seen, this item should be “N/A”.
- 

### **Item 4.3.4**

Dangerous parts of ECB/W are securely guarded

### **Guideline**

1. If the dangerous parts are unreachable, this item should be “N/A”.
  2. Guarding of dangerous parts should fulfill the requirements as specified in “Handbook on Guarding and Operation of Machinery”.
  3. In case no pieces of ECB/W are seen, this item should be “N/A”.
- 

### **Item 4.3.5**

ECB is properly mounted and supported

### **Guideline**

1. ECB and any of its parts should be mounted and supported securely and without hazard of falling.
2. In case no pieces of ECB/W are seen, this item should be “N/A”.

#### **Item 4.3.6**

Trained operators, signallers and riggers; signallers on duty during lifting

##### **Guideline**

1. Trained operators, signallers, riggers should possess valid certificates / training records.
  2. The signaller shall also have completed A12 Silver Card and Signaller for Hoisting Operations at Construction Sites Course or A12S Safety Training Course for Construction Workers of Specified Trade - Rigger and Signaller provided by the CIC.
  3. Signallers, riggers should stay in safe position during lifting.
  4. In case no lifting operations are seen, training records of operators should also be checked if operators are at ECB spot.
  5. In case no pieces of ECB/W are seen or no operators are at ECB spot, this item should be "N/A".
- 

#### **Item 4.3.7**

Correct type of LG used and in good order

##### **Guideline**

1. The physical condition of LG should be assessed.
  2. In case no pieces of LG are seen, this item should be "N/A".
- 

#### **Item 4.3.8**

Load is secured safely

##### **Guideline**

In case no lifting operations are seen, this item should be "N/A".

---

#### **Item 4.3.9**

Enough space for safe operation

##### **Guideline**

1. Enough space should be provided for safe movement of ECB/W and the load and also signallers and riggers.
-

2. In case no lifting operations are seen, this item should be “N/A”.
- 

**Item 4.3.10**

Lifting zone fenced off with warning signs

**Guideline**

1. Except necessary personnel (e.g. riggers), no other person should enter the lifting zone.
  2. In case no lifting operations are seen, this item should be “N/A”.
- 

**Item 4.3.11**

Clear lifting route without obstruction or trapping

**Guideline**

In case no lifting operations are seen, this item should be “N/A”.

---

**Item 4.3.12**

Safe operation (signalers and riggers wearing high visibility clothing, no operation at adverse weather condition, etc.)

**Guideline**

1. Safe operation includes no pulling of load at inclined angle.
  2. For the operation of a derrick crane or a roof crane, signalers and riggers should wear high visibility clothing. The high visibility clothing should incorporate retroreflective strips or patches as specified in the Code of Practice of the Highways Department or current BS EN ISO 20471 unless stated otherwise in Housing Department *Reflective Jacket Details* (reference: H 6137E).
  3. In case no lifting operations are seen, this item should be “N/A”.
-

**Sub-section 4.4** *Manual operated chain blocks, gin wheels, pulley blocks or similar LA (MLA) - lifting operation*

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**Item 4.4.1**

MLA & associated lifting gear (LG) tested & examined by CE - Forms 4, 5

**Guideline**

1. The following forms must be valid, completed and signed by Competent Examiner (CE):
    - Form 4 – “Certificate of Test and Thorough Examination of Lifting Appliances (except Cranes, Crabs and Winches)”
    - Form 5 – “Lifting Appliances - Certificate of Results of Thorough Examinations in the Preceding Twelve Months”
  2. \*Implement efficient and effective safety systems with aid of wireless communication technologies of RFID, infrared or equivalent, for checking data of personnel, plant and equipment; allow retrieval of such information instantly on site by an electronic device; and set up and update computerized database regularly.
  3. In case no pieces of MLA are seen, this item should be “N/A”.
- 

**Item 4.4.2**

MLA inspected by CP (Form 1) and in safe working order

**Guideline**

1. Form 1 (LALG-F1) – “Reports of Results of Weekly Inspections of Lifting Appliances” must be valid (within the preceding 7 days), completed and signed by Competent Person. Name and designation of this competent person should be clearly stated.
  2. The physical condition of MLA should be assessed for excessive wear and tear, e.g. wire and safety latch of hook.
  3. In case no pieces of MLA are seen, this item should be “N/A”.
- 

**Item 4.4.3**

Safe working load is clearly marked on MLA; associated LG with appropriate colour code

**Guideline**

1. Safe working load should be marked in both Chinese and English.
  2. In case no pieces of MLA are seen, this item should be “N/A”.
- 

**Item 4.4.4**

MLA is properly mounted and supported

**Guideline**

1. MLA and any of its parts should be mounted and supported securely and without hazard of falling.
  2. In case no pieces of MLA are seen, this item should be “N/A”.
- 

**Item 4.4.5**

Trained operators, signallers and riggers; signallers on duty during lifting

**Guideline**

1. Trained operators, signallers, riggers and lifting supervisors should possess valid certificates / training records.
  2. Signallers, riggers and lifting supervisors should stay in safe position during lifting.
  3. In case no lifting operations are seen, training records of operators should also be checked if operators are at MLA spot.
  4. In case no pieces of MLA are seen or no operators are at MLA spot, this item should be “N/A”.
- 

**Item 4.4.6**

Correct type of LG used and in good order

**Guideline**

In case no pieces of LG are seen, this item should be “N/A”.

---

**Item 4.4.7**

Load is secured safely

**Guideline**

In case no lifting operations are seen, this item should be “N/A”.

---

**Item 4.4.8**

Enough space for safe operation

**Guideline**

1. Enough space should be provided for safe movement of MLA and the load and also signallers and riggers.
  2. In case no lifting operations are seen, this item should be “N/A”.
- 

**Item 4.4.9**

Lifting zone fenced off with warning signs

**Guideline**

1. Except necessary personnel (e.g. riggers), no other person should enter the lifting zone.
  2. In case no lifting operations are seen, this item should be “N/A”.
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**Item 4.4.10**

Clear lifting route without obstruction or trapping

**Guideline**

In case no lifting operations are seen, this item should be “N/A”.

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**Item 4.4.11**

Safe operation (no operation at adverse weather condition, etc.)

**Guideline**

1. Safe operation includes no pulling of load at inclined angle.
  2. In case no lifting operations are seen, this item should be “N/A”.
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## **Section (5)            Electrical Supply System**

This section focuses on the arrangements for electrical supply system and the arrangements for electrical plant/tools/equipment.

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### ***Sub-section 5.1    Administrative procedures***

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#### **Item 5.1.1**

Provision of safe electrical supply system in terms of general safe practice of adopting log book recording regular checks, maintenance, repair, extension and alteration

#### **Guideline**

1. Records in log book / checklist should be clear and traceable.
  2. If more than one switchboard is located on a site, markings must be provided to distinguish one switchboard from another.
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#### **Item 5.1.2**

Provision of safe electrical supply system in terms of provision of installations away from wet areas and exposure to weather unless they are of water-proof type

#### **Guideline**

Not applicable

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#### **Item 5.1.3**

Provision of safe electrical supply system in terms of appropriate signage / notice displayed to warn electrical hazard and live parts, name and contact of registered electrician displayed

#### **Guideline**

Adequate “Danger” notices/signs are provided to indicate each distribution board or power generator is live.

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**Item 5.1.4**

Provision of safe electrical supply system in terms of appropriate notice on treatment for electrical shock and resuscitation, in both English and Chinese, displayed in areas where electricity is used

**Guideline**

The notice should be legible (of suitable size) and in both Chinese and English.

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***Sub-section 5.2 Site practice***

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**Item 5.2.1**

Temporary distribution boards securely mounted on supports and provided with suitable main switches

**Guideline**

Not applicable

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**Item 5.2.2**

Temporary distribution boards provided with circuit diagrams/labels and kept locked

**Guideline**

The electrical wiring diagram for the distribution board is provided and displayed prominently in its vicinity.

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**Item 5.2.3**

Appropriate earth leakage protection devices and bonding conductors were installed and maintained properly for the electrical supply system

**Guideline**

1. The switchboards and distribution circuits shall be equipped with suitable protection devices such as miniature circuit breaker (MCB), residual current device (RCD), and earthing to protect against over current and earth leakage respectively.
  2. Bonding conductor should be connected to the metal door of distribution board
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with suitable warning label.

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#### **Item 5.2.4**

Hand-held tools and temporary site lighting are operated at 110V

##### **Guideline**

1. Unless otherwise proved by the contractor, an electrical hand-held tool with a missing or an illegible rating plate will be presumed not operated at the reduced voltage of 110V.
  2. \*Ensure the use of cordless electric portable tools by operatives, including: circular saws for cutting wood or metal, reciprocating saws, angle grinders, rotary hammers, combination hammers for drilling, impact drivers, impact wrenches, demolition hammers, masonry cutters and jig saws. Prohibit the use of the above tools that are with cords.
  3. Blowers and submersible pumps are portable but are not regarded as hand-held tools and yet they are recommended to be operated at 110V.
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#### **Item 5.2.5**

Hand-held electrical tools have proper leakage protection.

##### **Guideline**

1. Handheld tools should either of double-insulated type (conforming to BS EN 61140 or equivalent) or have earth connection.
  2. Plugs and cable couplers of hand-held electrical tools are of splash-proof type with a protection class of IP54 or above.
  3. The cable, cord guard, plug, and casing of handheld electrical tools should be in good condition.
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#### **Item 5.2.6**

Generators are appropriately earthed.

##### **Guideline**

1. The generator is properly earthed and the impedance of the earthing electrode and connection is periodically checked by a Registered Electrical Worker.
  2. In case no generators are seen, this item should be "N/A".
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### **Item 5.2.7**

Cables are hung at high level or otherwise protected to avoid damage and electric shock.

#### **Guideline**

1. Suspended cables should be under no tension or strain on connections, adequately marked for protection, supported on proper hooks. Over 3 m spans should be supported by catenary wires on poles.
  2. If cables must be on the floor, they should be of water-proof type and be adequately protected against damage.
  3. Cables on ground are only permitted for short periods of time and are not immersed in water ponding. Additional protection is required and clearly marked so as not to constitute a tripping hazard. Cables of tough rubber sheathing (TRS, resistant to wear and abrasion but not to be used near solvents or oils) can be used.
  4. Provide hangers for cables of generators where applicable.
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### **Item 5.2.8**

Electric plants / tools / equipment are connected to power supply with proper socket outlets, plugs, and cable couplers of water-proofing type.

#### **Guideline**

1. Temporary switch boxes, socket outlets, plugs, and cable couplers are of splash-proof type with a protection class of IP54 or above and are in safe working order.
  2. All equipment (e.g. distribution boxes) and cables exposed to weather, corrosive atmosphere or damp conditions should be of the weatherproof type or contained in weatherproof enclosures suitable for the conditions.
  3. Every electrical joint and connection is of proper construction and design as regards conductivity, insulation, mechanical strength and protection. Makeshift connections and taped joints are not permitted.
  4. All live conductors, including those forming part of apparatus, are well insulated and further effectively protected, where necessary.
  5. All live conductors, including those forming part of apparatus, are properly placed and safeguarded.
  6. Using adaptor should be avoided to prevent overloading socket outlets.
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