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ACC Reference Number:	1701	W	000	CSC	760	000287

METHOD STATEMENT TITLE	Ref No.	Rev. -
General Lifting Plan for North of Bifurcation Works		

	Prepared by:	Checked by:	Reviewed by:	Reviewed by:
Signature:	PP.			
Name:	LI Wenguang	Vincent Li	Leung Kwok Fung / Hui Wai Kwan	MH Isa / WH Lam
Position:	Engineer	Construction Manager	SM/SO	QM/QE
Date:	16/5/2024	16/5/2024	17/5/2024	17/5/2024
	Reviewed by:	Reviewed by:	Reviewed by:	Approved by:
Signature:		WL Yeung, M. McGleenon		
Name:	James Ma / Iris Ho	Yeung Wai Lun	Paul Freeman / Mark McGleenon	Eric Fong
Position:	EM/EO	A. Project Director	Sr. Project Director / A. Project Director	Project Director
Date:	17/5/2024	20/5/2024	20/5/2024	20/5/2024



Date:				
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1.	Introduction (Overview of the operation/works)																												
	<p>For the construction of the north bifurcation works, access and material delivery shall be via the level crossings to be installed across the existing test track (method statement to be submitted separately). Due to the site constraint between the mainline and the Test Track it is not possible to maintain a site haul road throughout the works area during foundation works, especially at the east of works area W2 due to the existing exposed rock head and sloping ground profile. To support the construction work, a lifting method over the Test Track has been considered as alternative means of delivery. In general, a mobile crane will be set up at the South Road and Works Area W11G for lifting material/ equipment over the test track to the works areas between the test track and the mainline. All lifting works over the Test track are subject to EDOC and BUGN approval and it has been agreed with RP/HKTS to prepare this general lifting method statement so as to shorten the approval time. This method statement covers all lifting operations for the delivery of material/ equipment above and across the live Test Track to Works Area W2. Typically, this includes 4.5m/ 7m RP fence material, piling material (socket H pile & mini pile), sheet piles, rebar, excavation spoil removal, other construction materials etc. The detailed arrangement is described in the following sections.</p>																												
2.	Reference Documents (Identify relevant documents by name and reference number)																												
	(Library) Working Paper No.6 – Railway Protection General Specification for Civil Engineering Works (NEC4) (MTR Corporation Limited - 2022) Scope for Contract 1701 Materials and Workmanship Specification for Civil Engineering Works																												
3.	Details of Sub-Contractor/Specialist Sub-Contractor																												
	The works will be carried out by our subcontractor and supervised by our front-line staff such as a WPIC. A CP(T) will also be provided as required with 1 CP appointed for every 20 workers at the same work area. All workers shall possess the qualification Railway Safety Training (RSI). A WPIC will be assigned to supervise the construction works at each work site.																												
4.	Responsibilities for Activities described within Method Statement																												
	CSHK is responsible to inspect, supervise and carry out the construction works. The following persons, as listed in the table below, will attend the specific tool-box talk and be responsible for the activities:																												
	<table border="1"><thead><tr><th>Company</th><th>Name</th><th>Position</th></tr></thead><tbody><tr><td rowspan="12">CSHK</td><td>Li Shek Chau, Vincent</td><td>Construction Manager</td></tr><tr><td>CHUNG Ying Na, Nana</td><td>Assistant Project Manager</td></tr><tr><td>LAM Toi Wai, David</td><td>Senior Engineer</td></tr><tr><td>CHUNG Hong Wing, Johnson</td><td>Senior Engineer</td></tr><tr><td>Tsang Kwok Ming</td><td>Engineer</td></tr><tr><td>LI Wenguang</td><td>Engineer</td></tr><tr><td>LI Man Hin</td><td>Graduate Engineer</td></tr><tr><td>ZHAO Jing, Kingsley</td><td>Assistant Engineer</td></tr><tr><td>Cheung Siu Kei</td><td>Superintendent (WPIC)</td></tr><tr><td>Benny Yeung</td><td>General Foreman</td></tr><tr><td>Jacky To</td><td>Foreman</td></tr><tr><td>TBC</td><td>CP(T)</td></tr></tbody></table>	Company	Name	Position	CSHK	Li Shek Chau, Vincent	Construction Manager	CHUNG Ying Na, Nana	Assistant Project Manager	LAM Toi Wai, David	Senior Engineer	CHUNG Hong Wing, Johnson	Senior Engineer	Tsang Kwok Ming	Engineer	LI Wenguang	Engineer	LI Man Hin	Graduate Engineer	ZHAO Jing, Kingsley	Assistant Engineer	Cheung Siu Kei	Superintendent (WPIC)	Benny Yeung	General Foreman	Jacky To	Foreman	TBC	CP(T)
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5.	Programme and Working Hours (Start & finish date of operation/works)																																																																												
	<p>The material/ equipment lifting arrangement is planned to commence from Jul 2024. The lifting operation will be carried out in NTH from 02:00 – 4:00 am daily, from Monday to Saturday, subject to coordination and approval of the Depot Yard Master (DYM). Preparation works will be carried out in TH/ NPH.</p> <p>The above envisaged working times may be subject to amendment to suit the depot working schedule and will be agreed with the DYM in advance.</p>																																																																												
6.	Plant, Equipment & Material (Identify type, model and specification of MAJOR plant & equipment)																																																																												
	<p>All plant and equipment will be inspected prior to mobilization on site to ensure they are in good working condition and comply with all current regulations. A plant permit system will be adopted to ensure the condition of the lifting crane and appliances are checked before use.</p> <p>Construction materials to be lifted are primarily RP fence components, sheet piles, casing and H-beam of socketed H-Pile, excavation spoil, rebar or concrete etc. Equipment/plant includes silent piling machines, generators, skips, water/fuel tanks and hand tools. Details are listed in the following table.</p> <table border="1"><thead><tr><th>Item</th><th>Material</th><th>Size (m)</th><th>Weight (ton)</th></tr></thead><tbody><tr><td>1</td><td>Concrete Block</td><td>1.125 (B) ×1.35 (L) ×1.5 (H)</td><td>5.7</td></tr><tr><td>2</td><td>4.5m Fence Panel</td><td>2.25 (L) ×3.5 (H)</td><td>2</td></tr><tr><td>3</td><td>7m Fence Panel</td><td>2.25 (L) ×5.5 (H)</td><td>3</td></tr><tr><td>4</td><td>Sheet Pile (III)</td><td>6 to 12</td><td>2.5 to 5</td></tr><tr><td>5</td><td>Casing (610 Dia. Min. 5mm Thk.)</td><td>6 to 12</td><td>1.5 to 3</td></tr><tr><td>6</td><td>Site Formation Material (Concrete block, subbase material etc.)</td><td>1m x1m x1m</td><td>1.5 to 3</td></tr><tr><td>7</td><td>H-Beam (305x305x223kg/m)</td><td>6 to 12</td><td>2.6 to 5.2</td></tr><tr><td>8</td><td>Water Tank (empty, capacity 15 to 150m³)</td><td>N/A</td><td>0.5 to 5</td></tr><tr><td>9</td><td>Rebars for Mini-pile (T50 Ribbed Bars*5)</td><td>6 to 12</td><td>2</td></tr><tr><td>10</td><td>12m Timber</td><td>12m×0.15m×47mm</td><td>3</td></tr><tr><td>11</td><td>Material Skip (empty)</td><td>408mm (H) ×1225mm (W) ×1380mm (L)</td><td>0.5</td></tr><tr><td>12</td><td>Rebars For Bi-Furcation Works</td><td>12</td><td>2</td></tr><tr><td>13</td><td>Plywood</td><td>L 2.93m x W 900mm x T 54mm</td><td>2</td></tr><tr><td>14</td><td>Scaffold Materials</td><td>L=6m</td><td>3</td></tr><tr><td>15</td><td>Concrete Pipe</td><td>DN525,L=2500mm</td><td>3</td></tr><tr><td>16</td><td>Concrete Skip (empty, capacity 4.5ton)</td><td>1620mm×1780mm×2440mm</td><td>4.5</td></tr><tr><td>17</td><td>Generator</td><td>1740 mm×550 mm×1192 mm</td><td>1</td></tr><tr><td>18</td><td>Wire Mesh</td><td>W1524mm</td><td>1</td></tr></tbody></table>	Item	Material	Size (m)	Weight (ton)	1	Concrete Block	1.125 (B) ×1.35 (L) ×1.5 (H)	5.7	2	4.5m Fence Panel	2.25 (L) ×3.5 (H)	2	3	7m Fence Panel	2.25 (L) ×5.5 (H)	3	4	Sheet Pile (III)	6 to 12	2.5 to 5	5	Casing (610 Dia. Min. 5mm Thk.)	6 to 12	1.5 to 3	6	Site Formation Material (Concrete block, subbase material etc.)	1m x1m x1m	1.5 to 3	7	H-Beam (305x305x223kg/m)	6 to 12	2.6 to 5.2	8	Water Tank (empty, capacity 15 to 150m³)	N/A	0.5 to 5	9	Rebars for Mini-pile (T50 Ribbed Bars*5)	6 to 12	2	10	12m Timber	12m×0.15m×47mm	3	11	Material Skip (empty)	408mm (H) ×1225mm (W) ×1380mm (L)	0.5	12	Rebars For Bi-Furcation Works	12	2	13	Plywood	L 2.93m x W 900mm x T 54mm	2	14	Scaffold Materials	L=6m	3	15	Concrete Pipe	DN525,L=2500mm	3	16	Concrete Skip (empty, capacity 4.5ton)	1620mm×1780mm×2440mm	4.5	17	Generator	1740 mm×550 mm×1192 mm	1	18	Wire Mesh	W1524mm	1
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19	Steel Plate	L 4000mm× W2000mm×10mm	2
20	Dewatering Pump	/	1
21	Electric Distribution Board	H 250mm× L 250mm × W150mm	1
22	Transformer	H680 mm×W500 mm×D410mm	1
23	Cherry Picker	AMWP11.5-8100	5
24	Working Platform (Scissor Lift)	XEMN SERIES	5
25	Excavator	0.8 to 5 ton	5

Table 6.1 – Materials Lists (to be lifted)

Plant / Equipment	Quantity
80 Tons Mobile Crane	4 (included spare)
Crane Lorry	4 (included spare)
Generator	4 (included spare)

Table 6.2 – Plant/ Equipment Lists

Manpower	Quantity
General Labour	10
Operator	6
Rigger	6

Table 6.3 – Manpower Lists

The above quantities and sizes are estimated only, the actual quantity and size will be confirmed to suit the site condition.

7. Logistic Management

Upto June 2024, access to the site will be from the Depot West gate, and via the exsiting west level crossing details as shown in figure 7.1

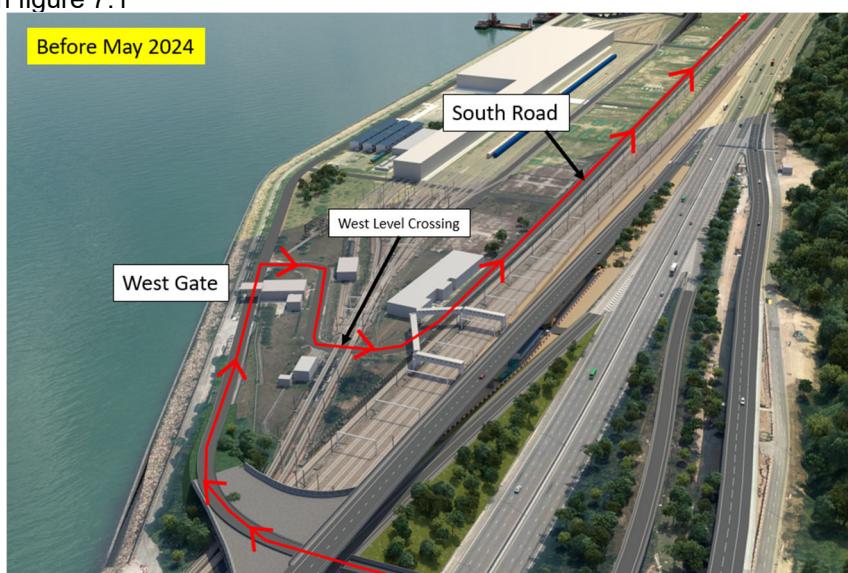


Figure 7.1 – Access to Northern Work Area before Opening of the Vehicle Access Bridge

From July 2024, vehicle access to the site will be from the East Gate of the depot and via the Vehicular Access Bridge to the South Road. Figure 7.2 below shows the routing of vehicle access:



Figure 7.2 – Access to Northern Work Area after Opening of the Vehicle Access Bridge

For details of the security and traffic arrangement please refer to the Security and Traffic Management (Main Stage) under separate submission.

8. Construction Methods / Construction Sequence Drawings

8.1 Lifting Arrangement

The works at W2 is planned to have 6 work-fronts, hence lifting work is expected to be required at each work-front. Figures 8.1 to 8.8 show the mobile crane siting and lifting arrangement at each location.

In general, an 80-ton mobile crane will be set up on the South Road & Works Area W11G (north side of the test track), from where construction materials will be lifted to the Bi-furcation Works Area (W2) between the test track and mainline. The longest distance on plan from the 80-ton mobile crane position on the South Road to the construction area is 21m as shown in **Figure 8.4**. The concrete blocks for the RP Fence will be lowered down close to ground level (around 1m above) centrally between the Test Track and Mainline and then positioned laterally in place. A “stopper” will be fixed on the concrete block prior to lifting to guide the subsequent mesh fence installation (Figure 8.5). The test track OHL shall be de-energized for lifting work for the RP fence on the north side of W2 during NPH. For the south side of W2, lifting shall be carried out during test track NTH.

The selection of the 80-ton mobile crane is required to suit lifting of the heaviest material at the largest radius, with this size of crane then being used for all material lifting. As shown in **Table 6.1 – Materials List (to be lifted)**, the concrete block for the RP fence is the heaviest material. As a result, an 80-ton mobile crane will be utilised. When the outriggers are fully extended, the width required is 8m. The width of the south road is 8.5m, which is sufficient for the 80-ton mobile crane to work. Mobile cranes will not be deployed at the intersection of South Road to ensure that other vehicles go to North Road.



Figure 8.1 – Layout Plan of G.L. ~80



Figure 8.2 – Layout Plan of G.L. ~100

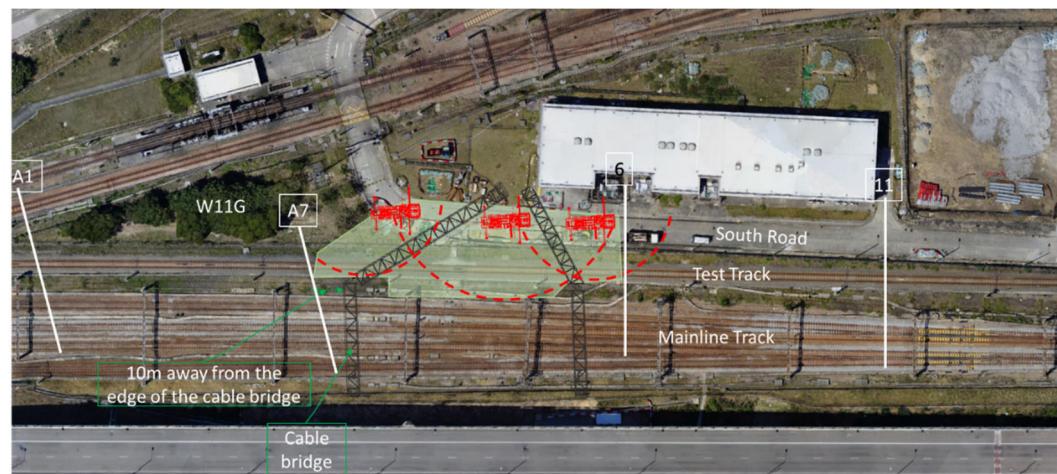


Figure 8.3 – Layout Plan of G.L. ~40, Works Area W11G

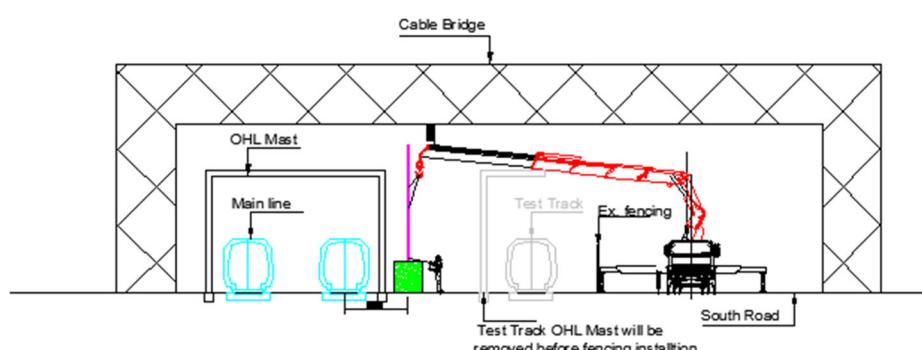
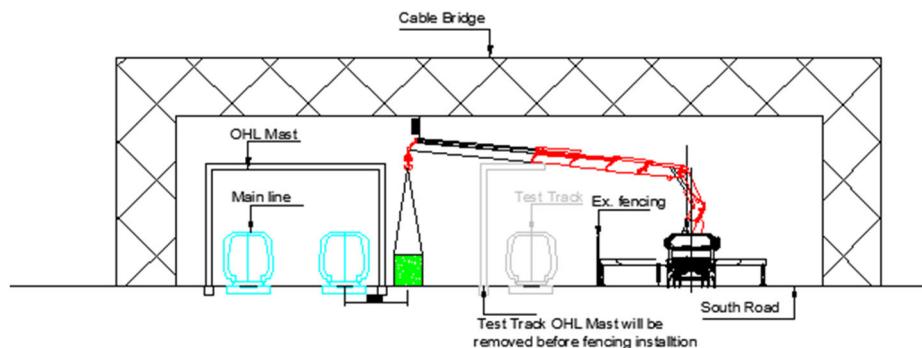


Figure 8.4 –Elevation Plan for Cable Bridge

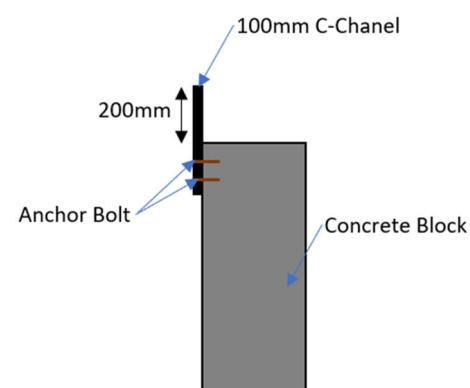


Figure 8.6 – “Stopper” Bar

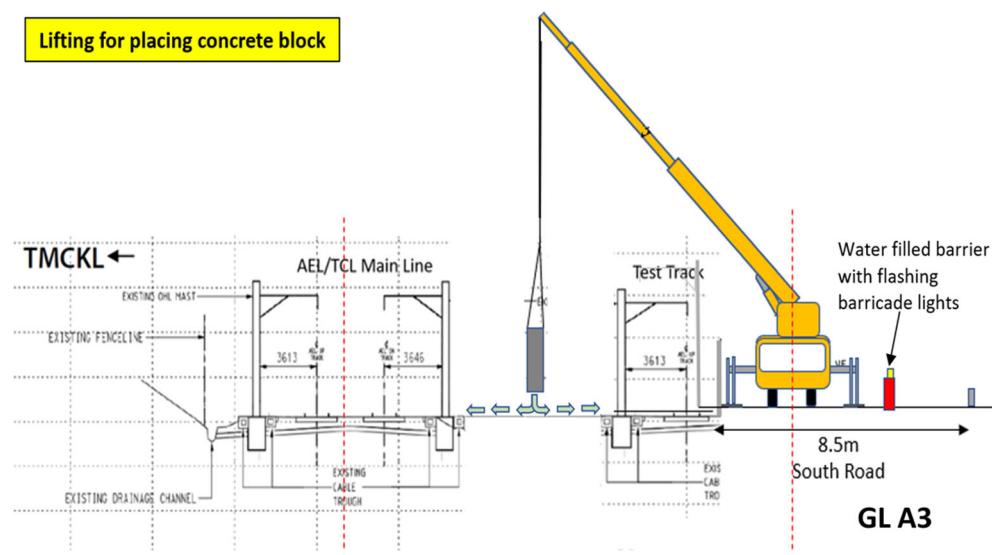


Figure 8.7 – Section GL A3

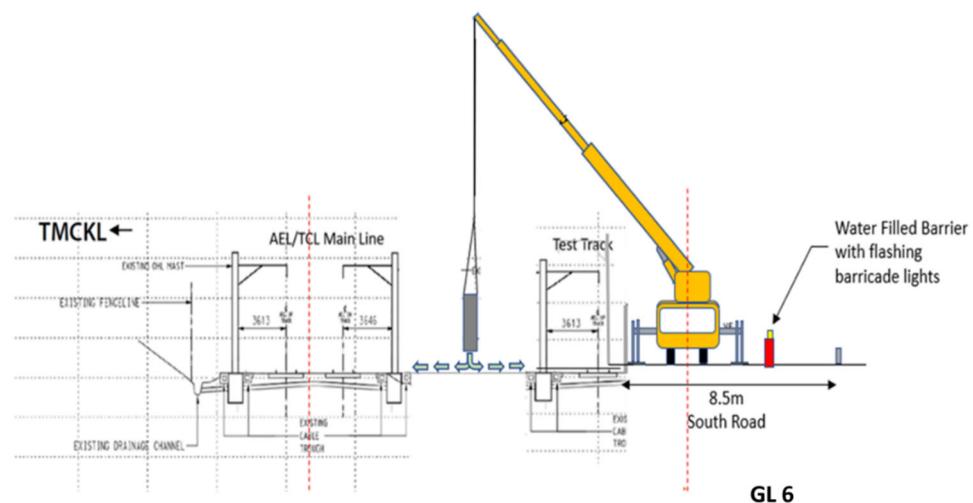


Figure 8.8– Section GL6

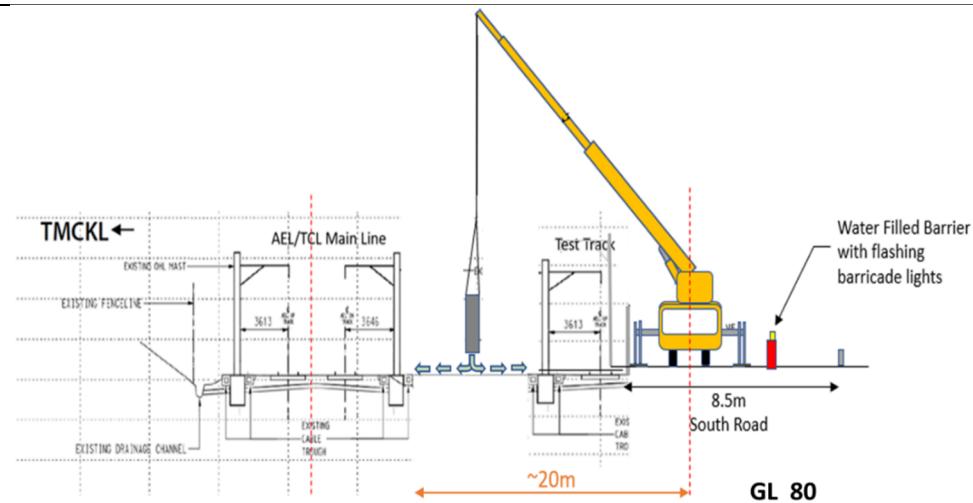


Figure 8.9 – Section GL80

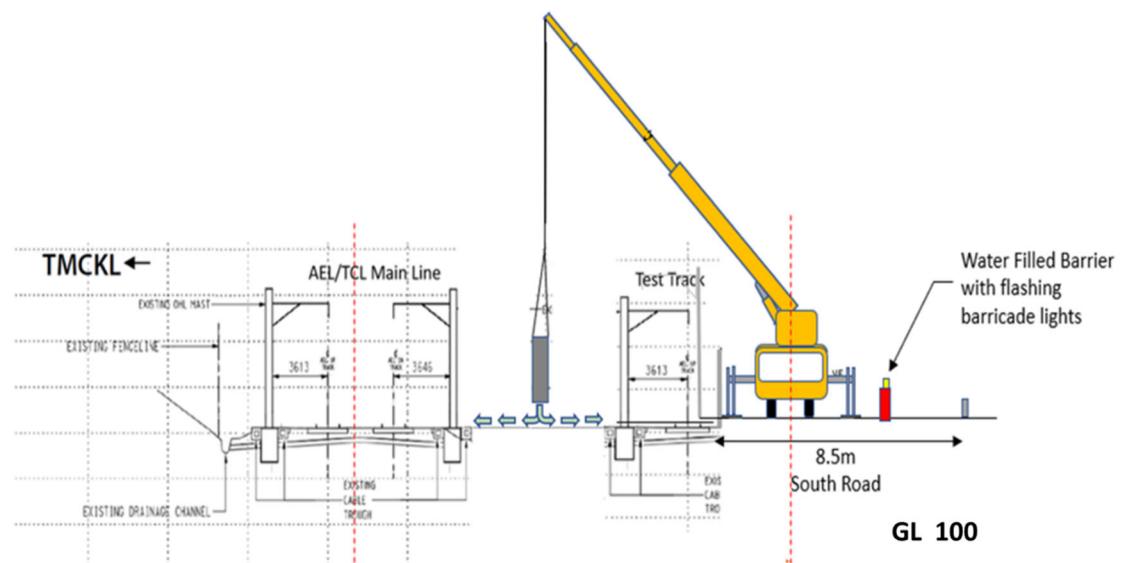


Figure 8.10 – Section GL100

8.2 Load Chart of 80-ton Mobile Crane

An 80-ton mobile crane will be set up at the South Road & Works Area W11G, to lift over the existing test track RP fence and OHL with a minimum boom angle of 60°. At the maximum horizontal distance of 21m, the lifting height of the mobile crane is 30m.

8.3 Safe Working Load Checking

Refer to **Figure 8.3– 80-ton Mobile Crane Load Chart**, at a working range of 22m and lifting height of 30m, the maximum lifting capacity is 11.6 tons.

$$\begin{array}{ll} \text{Max. Lifting Capacity} & = 11.6 \text{ tons} \\ 80\% \text{ of Max. Lifting Capacity} & = 9.28 \text{ tons} \end{array}$$

Weight of Concrete Block = 5.7 tons
80% of Max. Lifting Capacity > Weight of Concrete Block OK!

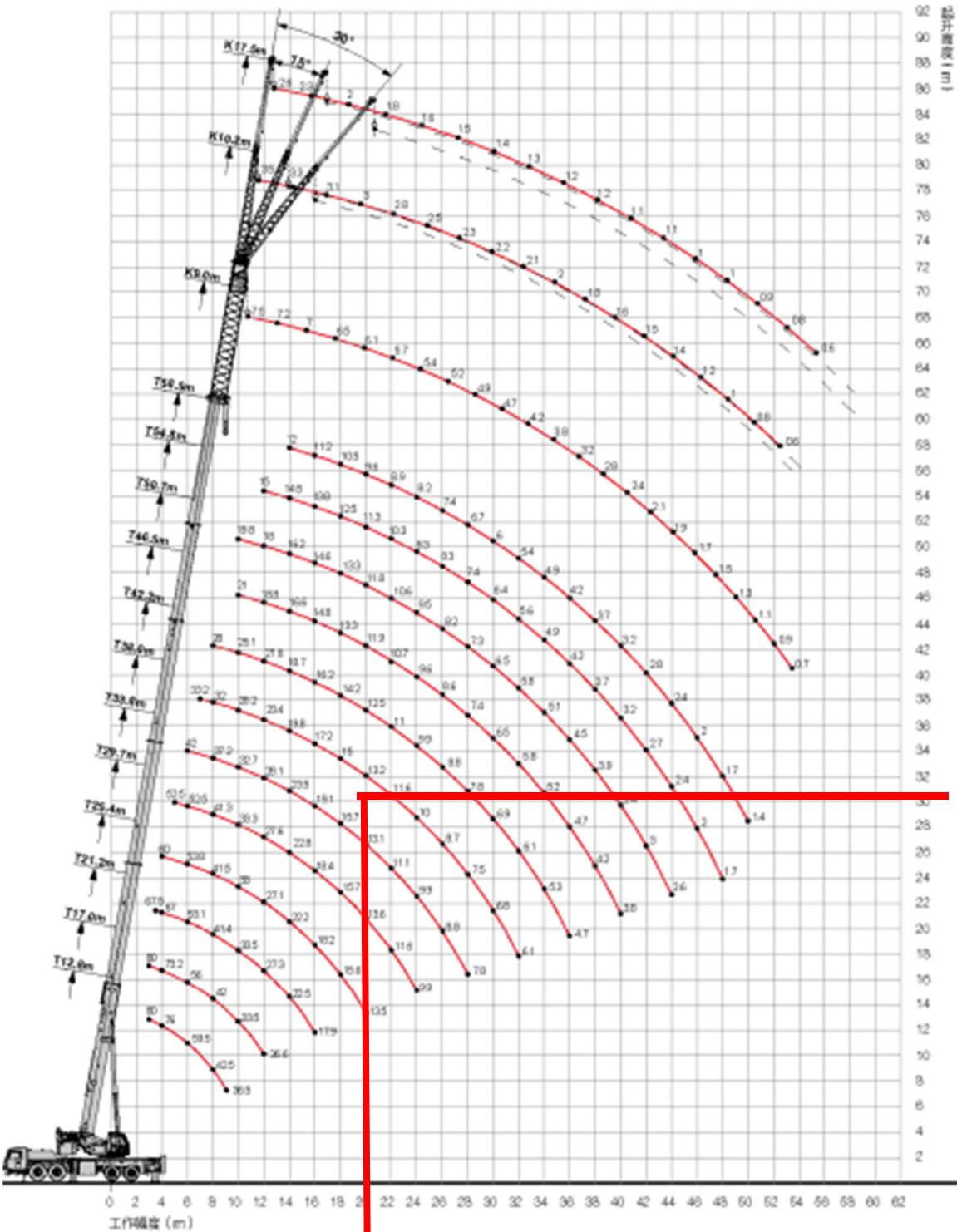


Figure 8.3 – 80-ton Mobile Crane Load Chart

8.4 Lifting Procedure

Working Schedule During NTH	Period
Checking of valid certificates, pre-works safety briefing,	Before 12:00 am



grant track possession (NTH, 02:00 -04:00)	
Construction Materials: concrete block , prefabricated fence, sheet pile, casing, H-beam delivery to South Road	12:00 am
Preparation work, Mobile Crane Setup	12:00 – 0200 am
Lift the construction materials to bi-furcation area, Each lifting procedure (check ground condition for crane sitting, lifting practice, checking the stability of lifted material before de-sling, structural gauge checking)	02:00 – 03:50 am
Before Leaving <ol style="list-style-type: none">1. Clean up the Works Area (site clearance), and inspection with MTR's inspector2. TWC checking for temporary works stability3. Qualified personnel should check whether the resistance of REW earthing meets the requirements.4. Line clear and return track possession to HKTS	03:50 – 04:00 am
Leave the works area, close and lock the access Gates	04:00 am
Vacate Mobile Crane to designated parking area	04:00 – 05:00 am

8.5 Lifting Mitigation Measure

8.5.1 Lifting Works close to Cable Bridges

For lifting plant set up at the Works Area W11G, the minimum clearance distance to the existing cable bridges shall be 10 m. Also, use mobile crane limiter to ensure the jib radius & angle are locked as shown in **Figure 8.5.1**.



Figure 8.5.1 – Lifting Arrangement at Works Area W11G

8.5.2 Other Construction Materials Lifting close to OHL

Refer to the RSR, the minimum clearance distance from the track are as **Figure 8.5.2**.

Before lifting works, confirm with the DYM that the traction current system has been de-energized.

During the lifting operation, any part of the lifting plant must be kept 2m distance from the OHL cables in any direction.

Construction materials shall be stored at the bi-furcation area properly ensuring storage areas are kept the minimum distance from the track facilities as per the RSR requirement.

In addition, the following measures will be implemented to avoid damage to the existing test track facilities

- Set out the 10m clearance zone on site;
- Check the existing ground condition is suitable to allow set up of the mobile crane.
- Before lifting or when the mobile crane(s) are in standby, the jib direction must not point to the cable bridges.
- During lifting, the mobile crane(s) shall be set in position that its jib is pointing a minimum of 10m away from the cable bridges.
- After lifting, the mobile crane(s) shall fully retract the jib and face away from the cable bridges.
- Apply 80% SWL selection of mobile crane.
- Apply 3-3-3 lifting practice to ensure material is safe for lifting.
- Appoint a lifting supervisor to supervise the lifting works.

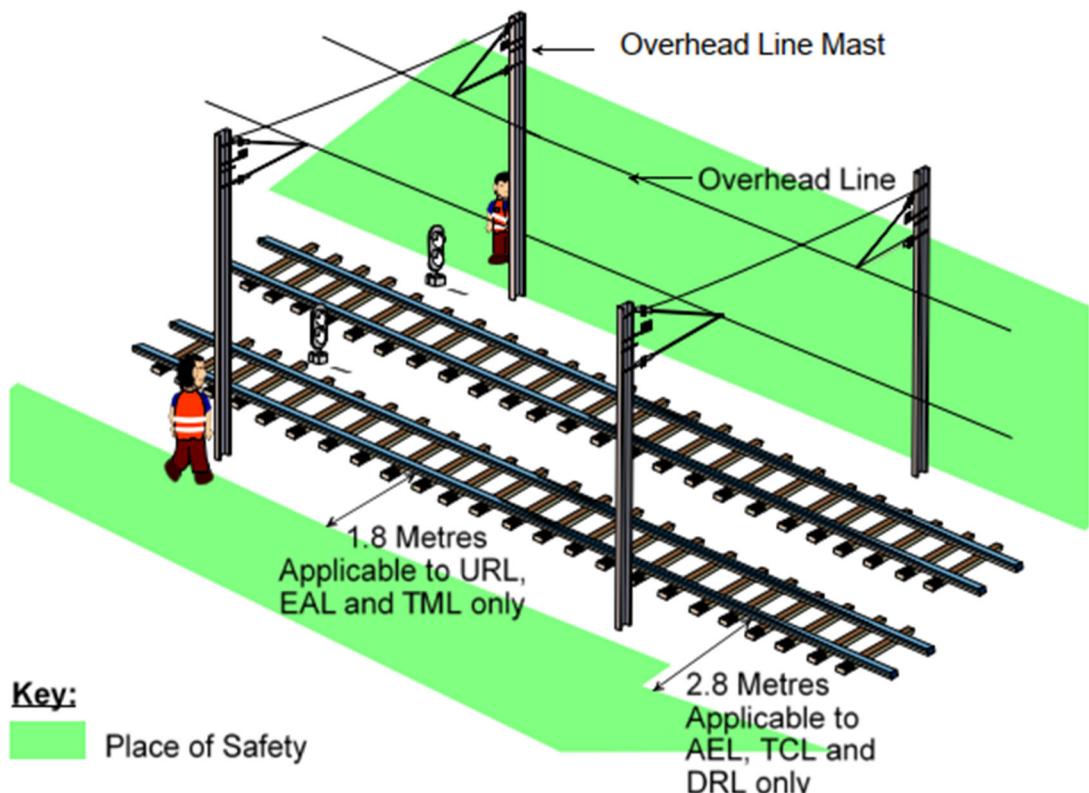


Figure 8.5.2 – Minimum Clearance

8.5.3 RP Fence Installation Works close to OHL

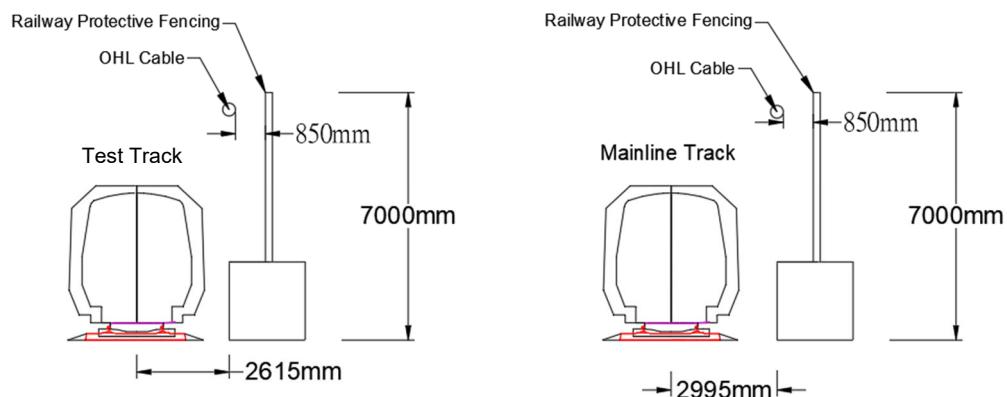
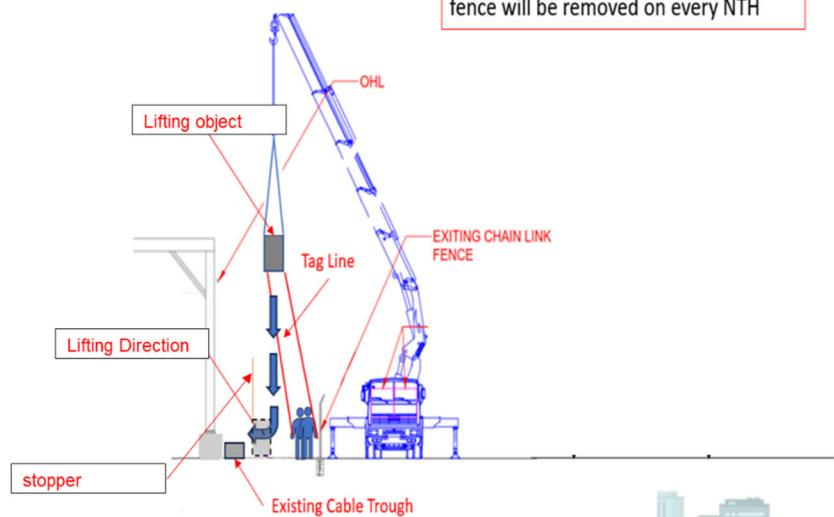


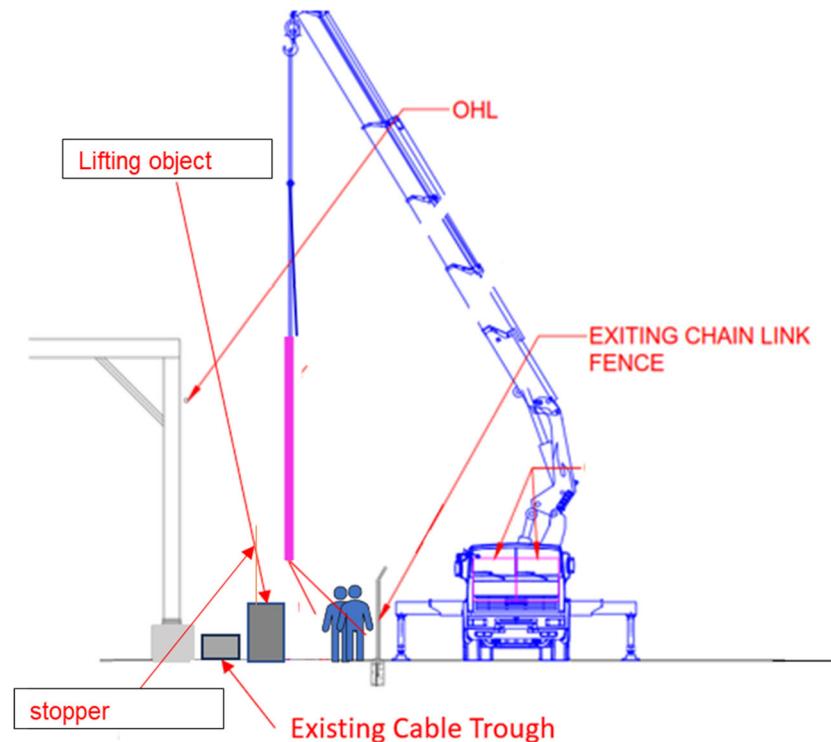
Figure 8.5.3 – Minimum Distance of Structural Gauge for Test Track and Mainline Track

The works will be carried out in close proximity to the existing test track and AEL/TCL mainline where proper railway protection measures need to be in place before commencement of any physical site works. Referring to (Library) Working Paper No.6 & approved BUGN – Railway Protection, a minimum 4.5 m high fence is proposed for activities that do not require plant/machinery with high booms or where there are no overhead line (OHL) masts on that particular side of the track. A minimum 7 m high fence is proposed for activities which require the use of plant/machinery with high booms adjacent to the fence, or where the OHL masts are located on that side of the track. The minimum clearance between fence mesh and the OHL fault return wire is required to be at least 850 mm as shown in **Figure 8.5.3**. (For RP Fence Installation Details, please refer to separate submission).

LEFTING ARRANGEMENT

Material, Plant, Garbage inside existing fence will be removed on every NTH





8.5.4 Lifting Method for Construction Materials

A. H-beam



General	Lifting gear shall not be slung/rigged or lifted an angle of greater than 90 degrees. In rare cases where physical load shapes or lifting space does not allow , written approval from the project leader must be obtained together with a designated lifting plan.
Load Description	H-Beam-Various length loads-MAX Weight 5.2 Tons to be verified prior to lifting
Lifting Gear	2 Leg Chain slings with SWL 8 Tons
Ancillary Equipment	Double Tag-lines ,Beam lifting clamp
Slinging Method	Shackles attached to designated lifting point
Alternative	Single wrapped and choked and the wrapping points should be at the 1/ 3 and 2/3 of the lifting H-beam Lifting clamps with 2-legged chain slings
Safety Restrictions	The lifting angle should not exceed 90° Attaching 2tag-lines The width of the flange between the edge of H beam and outer perimeter of lifting eye should be at least 50mm. The lifting capacity and the physical condition of the lifting clamp should be verified prior to lifting operation

B. Timber



General	If you choke a chain or webbing sling you must derate SWL by 20% and only use chains or sling not exceeding 90°.
Load Description	Batten
Lifting Gear	2 webbing slings with SWL 6 Tons
Ancillary Equipment	Double Tag-lines
Slinging Method	wrapped and choked with at least one ratchet strip/packing tie to wrap the load
Alternative	Wrapped and choked with at least one ratchet strip/packing tie to wrap the load
Safety Restrictions	Every single piece of batten should have similar length. Pre-lift check should be carried out to ensure no loose materials should be wrapped in the bundle of the lifting load Single wrapped and choked and the wrapping points should be at the 1/ 3 and 2/ 3 of the lifting load

C. Loose Materials



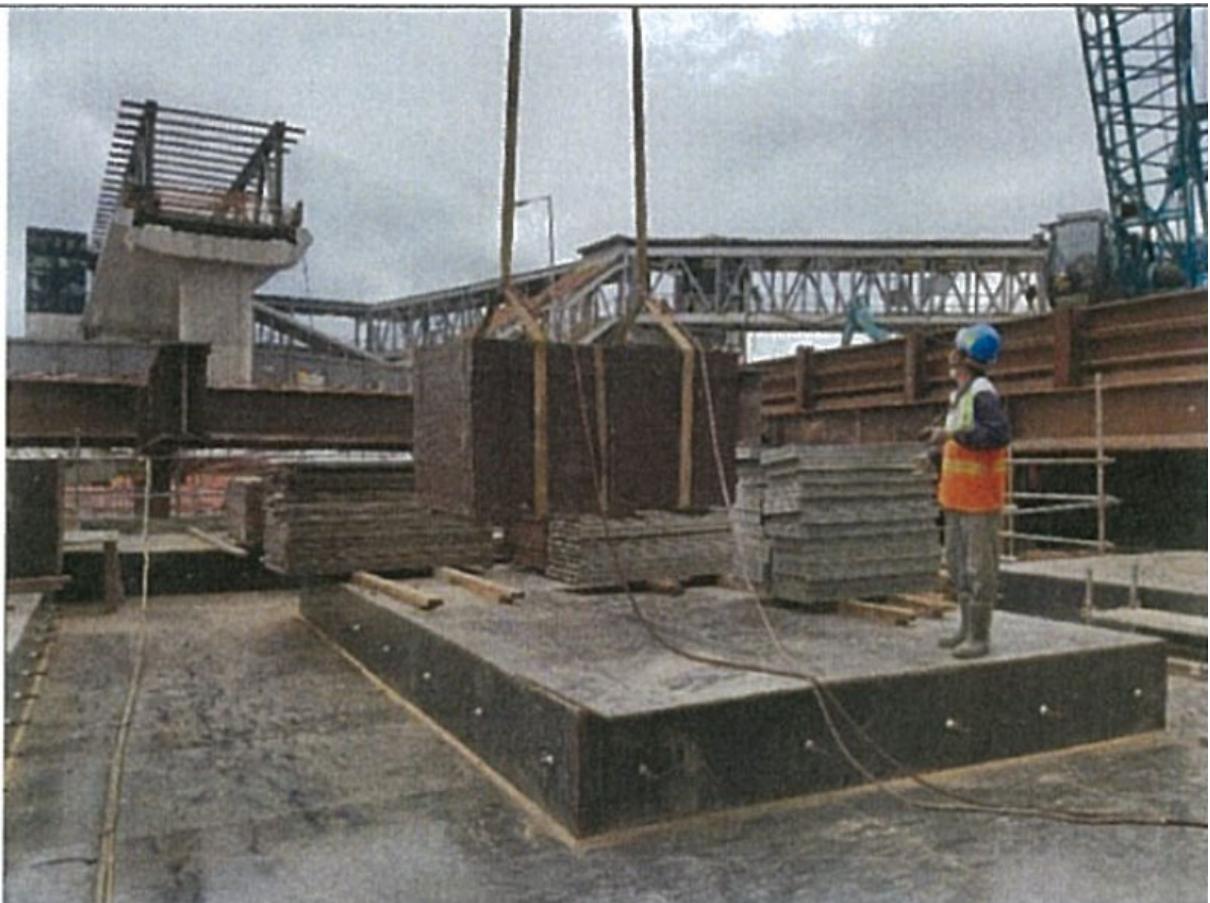
	If you choke a chain or webbing sling you must de-rate SWL by 20% and only use chains or sling not exceeding 90°
Load Description	Material skip with lifting eyes
Lifting Gear	4-Legged Chain slings with SWL 7 Tons
Ancillary Equipment	Double Tag-lines
Slinging Method	wrapped and choked with at least one ratchet strip/packing tie to wrap the load
Alternative	N/A
Safety Restrictions	No overflow of material inside the skip Pre-lift check should be conducted to ensure the weight of the lifting load does not exceed the allowable capacity of the skip. maximum 80% of the height of material skip

D. Rebars



General	If you choke a chain or webbing sling you must de-rate SWL by 20% and only use chains or sling not exceeding 90°.
Load Description	Various length loads-MAX Weight 2 Ton to be verified prior to lifting
Lifting Gear	2-leg chain slings with SWL 4 to 8 Tons
Ancillary Equipment	Double Tag-lines
Slinging Method	Double wrapped and choked
Alternative	N/A
Safety Restrictions	Look for any signs of load movement on check lift

E. Plywood



General	If you choke a chain or webbing sling you must de-rate SWL by 20% and only use chains or sling not exceeding 90°.
Load Description	Plywood
Lifting Gear	Gear 2leg chain slings with SWL 5 Tons and webbing slings with SWL 6Tons
Ancillary Equipment	Double Tag-lines
Slinging Method	wrapped and choked with at least one ratchet strip/packing tie to wrap the load
Alternative	N/A
Safety Restrictions	Look for any signs of load movement on check lift Single wrapped and choked and the wrapping points should be at the 1/ 3 and 2/3 of the lifting load.

F. Scaffold Materials



General	If you choke a chain or webbing sling you must de-rate SWL by 20% and only use chains or sling not exceeding 90°.
Load Description	Scaffold Materials
Lifting Gear	2 webbing slings with SWL 6 Tons
Ancillary Equipment	Manufactured rack and double taglines
Slinging Method	Wrapped and choked with at least one ratchet strip/packing tie to wrap the load
Alternative	N/A
Safety Restrictions	Every single piece of tube should have similar length. Pre-lift check should be carried out to ensure no loose materials should be trapped in the bundle of the lifting load Single wrapped and choked and the wrapping points should be at the 1/3 and 2/3 of the lifting load

G. Concrete Pipe



General	If you choke a chain or webbing sling you must de-rate SWL by 20% and only use chains or sling not exceeding 90°.
Load Description	Concrete Pipe
Lifting Gear	2webbing slings with SWL 6 Tons 2-leg chain slings with SWL 5 Tons
Ancillary Equipment	Manufactured rack and double taglines
Slinging Method	Single wrapped and choked with at least one ratchet strip/packing tie to wrap the load and manufactured rack
Alternative	N/A
Safety Restrictions	Every single piece of tube should have similar length. Pre-lift check should be carried out to ensure no loose materials should be trapped in the bundle of the lifting load Single wrapped and choked and the wrapping points should be at the 1/ 3 and 2/ 3 of the lifting load Short materials should be lifted by material skip

H. Concrete Skip



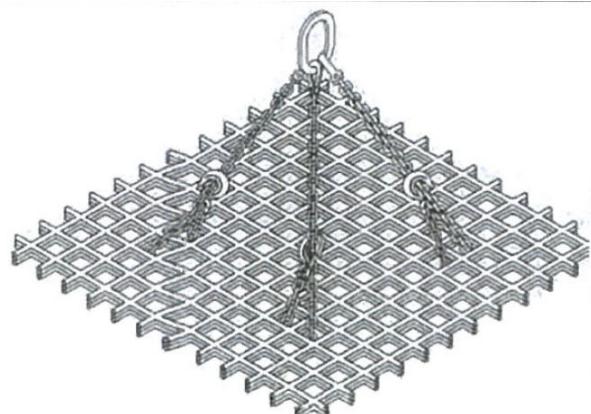
General	Max allowable weight=4500kgs as indicated on the skip , load weight to be verified prior to lift
Load Description	Concrete Skip
Lifting Gear	Single Chain
Ancillary Equipment	Manufactured rack and double taglines
Slinging Method	Sling attached to designated lifting point
Alternative	N/A
Safety Restrictions	<p>Do not lift skip materials which are above the top level of the skip Beware of rusted components & doors.</p> <p>Report any weld cracks or damage to skip or lifting gears immediately to Supervisors Clear exclusion zone shall be controlled by the signalman/rigger during lifting operations</p> <p>Short materials should be lifted by material skip</p>

I. Generator



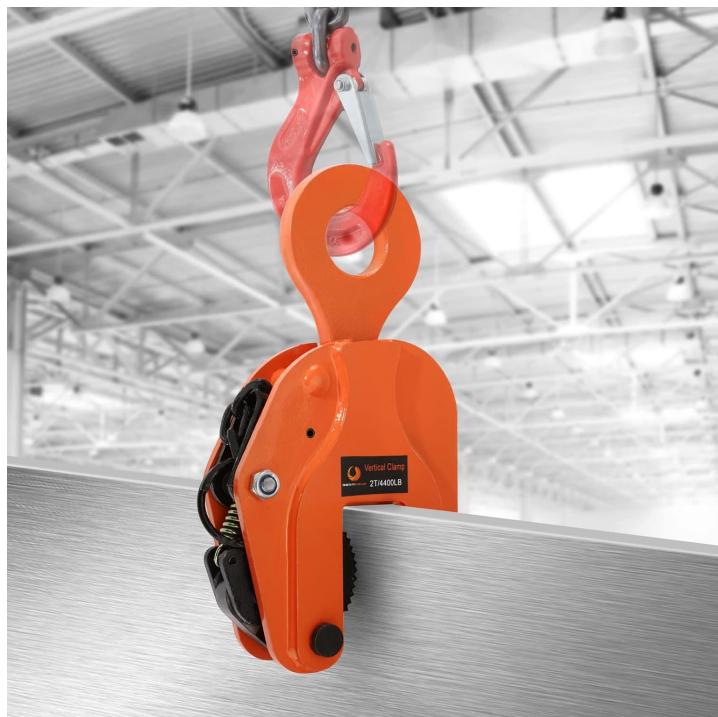
General	Max allowable weight=1000Kgs , load weight to be verified prior to lift
Load Description	Generator
Lifting Gear	Single chain and shackle (if necessary)
Ancillary Equipment	Manufactured rack and double taglines
Slinging Method	Shackles attached to designated lifting point.
Alternative	N/A
Safety Restrictions	Check if lifting eye is fixed or removable as removable eye must have valid certificate

J. Wire Mesh



General	Nil
Load Description	Mesh Reinforcement -Up to 5 sheets and the total weight should be less than 1000Kg
Lifting Gear	4-leg chain slings to suit weight of mesh
Ancillary Equipment	double taglines
Slinging Method	Chain slings passed through bottom layer of mesh choke hitched
Alternative	N/A
Safety Restrictions	Look for any signs of load movement on check lift

K. Steel Plate



General	Nil
Load Description	Steel Plate
Lifting Gear	2-leg chain slings to suit weight of plate
Ancillary Equipment	Vertical Plate Lifting Clamp , double taglines
Slinging Method	Shackles attached to designated lifting point
Alternative	N/A
Safety Restrictions	Look for any signs of load movement on check lift

L. Dewatering Pump



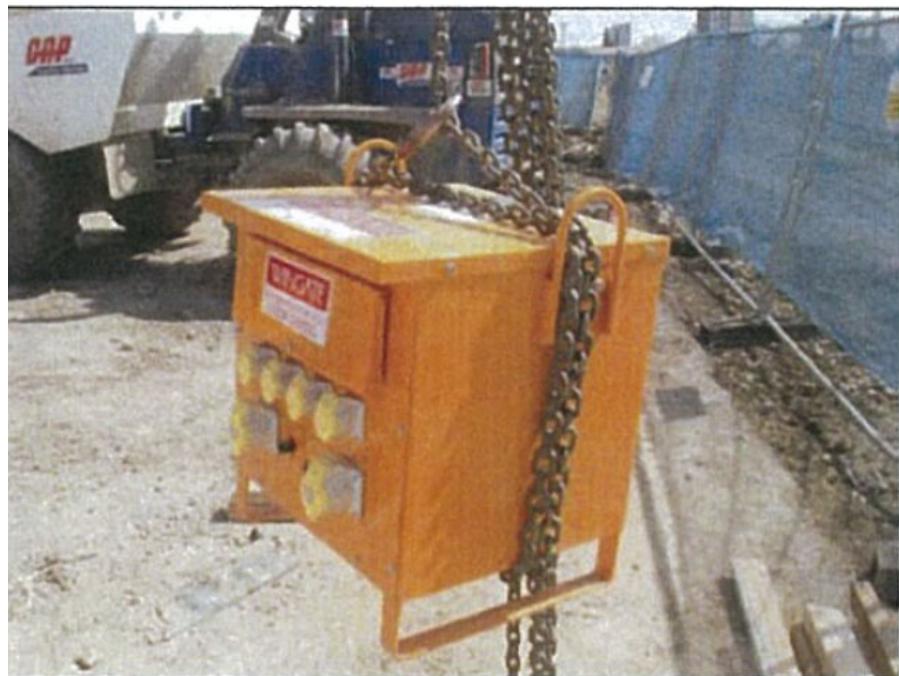
General	Max allowable weight=150kg as indicated on the pump plate , load weight to be verified prior to lift.
Load Description	Dewatering Pump
Lifting Gear	2-leg chain slings with SWL 2 Tons
Ancillary Equipment	Double taglines
Slinging Method	Connect chain slings directly on to all designated lifting points
Alternative	N/A
Safety Restrictions	Check lifting chains , hooks and condition of pump handles/eyes/lifting points before lifting Maximum weight 150kg or as indicated on the pump plate Do not use fitted power cables for lifting or as a tagline

M. Electric Distribution Board



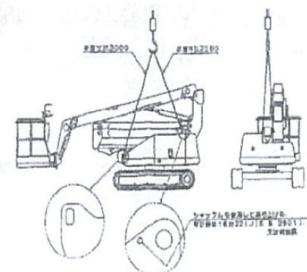
General	Electrician to be present prior to , and during lift occurring and confirm all cables have been disconnected. If you choke a chain or webbing sling you must de-rate SWL by 20 and only use chains or sling not exceeding 90°.
Load Description	Electric Distribution Board
Lifting Gear	2-leg chain slings with SWL 2 Tons
Ancillary Equipment	Double taglines
Slinging Method	Single wrapped and choked through lifting handles
Alternative	N/A
Safety Restrictions	Look for any signs of load movement on check lift Electrician to confirm all cables disconnected and that the panel is safe to lift prior to lift. the lifting eye must be manufacture recommend

N. Transformers



General	Nil
Load Description	Transformers
Lifting Gear	2-leg chain slings with adequate capacity
Ancillary Equipment	Double taglines
Slinging Method	Double wrapped and choked
Alternative	Double wrapped and choked webbing slings
Safety Restrictions	Look for any signs of load movement on check lift Ensure webbing slings are protected from any sharp edges

O. Cherry Picker



2 lifting point at the machine body front side
2 lifting point at the machine body back side

2 lifting point at the machine body front side
2 lifting point at the machine body back side

General	If you choke a chain or webbing sling you must de-rate SWL by 20% and only use chains or sling not exceeding 90°
Load Description	Cherry Picker
Lifting Gear	<p>The capacity of lifting gears must be capable of taking the weight of the cherry picker and its accessories as according to pre-lift check by signal man or lifting supervisor.</p> <p>For the weight of cherry picker over 5Tons , the lifting gears with adequate capacity shall be selected and used accordingly as per the relevant lifting plan for Non-Standard Lifting.</p>
Ancillary Equipment	Double taglines
Slinging Method	Connect chain slings directly on to all designated lifting points If impracticable , the lifting method should be designed and adopted as according to the relevant approved lifting plan for Non-Standard Lifting
Alternative	N/A
Safety Restrictions	<p>Look for any signs of load movement on check lift</p> <p>All lifting eyes must be used during lifting operation</p> <p>Ensure no loose materials attached to or placed in the cherry picker prior to the lifting operation. the lifting eye must be manufracture recommend</p>

P. Working Platform (Scissor Lift)



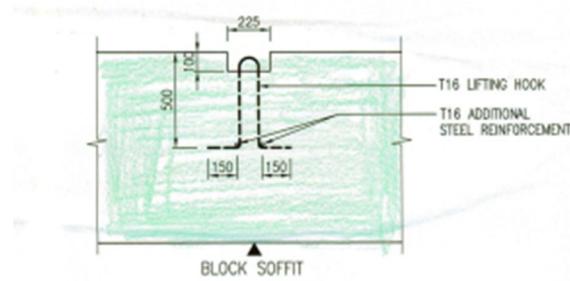
General	If you choke a chain or webbing sling you must de-rate SWL by 20% and only use chains or sling not exceeding 90°
Load Description	Scissor Lift
Lifting Gear	The capacity of lifting gears must be capable of taking the weight of the scissor platform and its accessories as according to pre-lift check by signal man or lifting supervisor. For the weight of cherry picker over 5Tons , the lifting gears with adequate capacity shall be selected and used accordingly as per the relevant lifting plan for Non-Standard Lifting.
Ancillary Equipment	Double taglines
Slinging Method	Connect chain slings directly on to all designated lifting points If impracticable , the lifting method should be designed and adopted as according to the relevant approved lifting plan for Non-Standard Lifting
Alternative	N/A
Safety Restrictions	Look for any signs of load movement on check lift All lifting eyes must be used during lifting operation Ensure no loose materials attached to or placed in the scissor platform picker prior to the lifting operation. the lifting eye must be manufacturer recommend

Q. Excavator



General	If you choke a chain or webbing sling you must derate SWL by 20% and only use chains or sling not exceeding 90°
Load Description	Excavator
Lifting Gear	The capacity of lifting gears must be capable of taking the weight of the excavator and its accessories as according to pre-lift check by signal mano rifting supervisor. For the weight of excavator over 5Tons , the lifting gears with adequate capacity shall be selected and used accordingly as per the relevant lifting plan for Non-Standard Lifting.
Ancillary Equipment	Double taglines
Slinging Method	Connect chain slings directly on to all designated lifting points If impracticable , the lifting method should be designed and adopted as according to the relevant approved lifting plan for Non-Standard Lifting
Alternative	N/A
Safety Restrictions	Look for any signs of load movement on check lift All lifting eyes must be used during lifting operation Ensure no loose materials attached to or placed in the excavator prior to the lifting operation. the lifting eye must be manufracture recommend.

R. Concrete Block of Fence



TYPICAL LIFTING INSERT DETAILS

SCALE 1 : 20

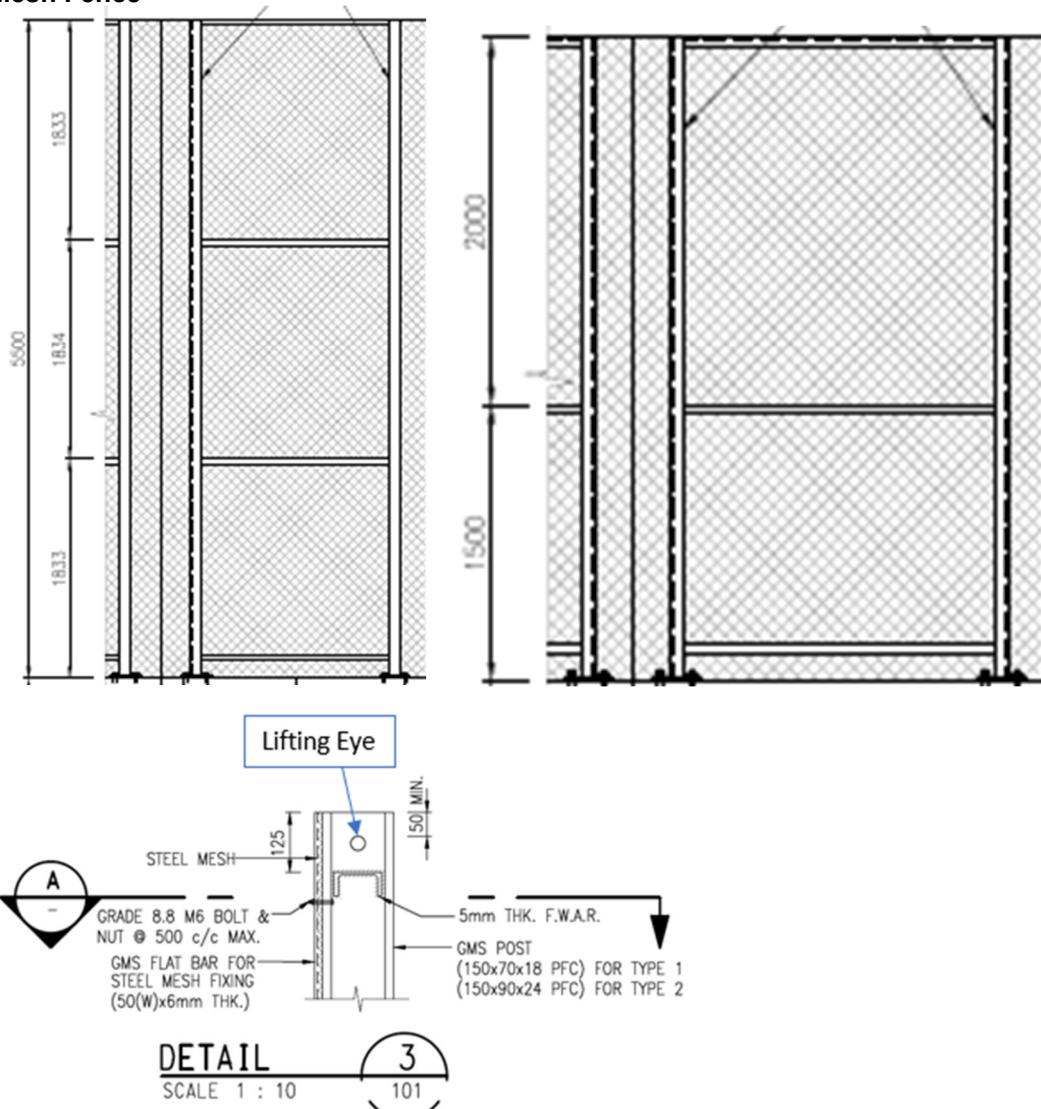
General	Nil
Load Description	Concrete Block of Fence
Lifting Gear	Single Chain
Ancillary Equipment	Manufactured rack and double taglines
Slinging Method	Sling attached to designated lifting point
Alternative	N/A
Safety Restrictions	Check lifting chains, hooks and condition of lifting points before lifting Do not lift concrete block of fence with lifting hook damaged. Report immediately to Supervisors Clear exclusion zone shall be controlled by the signalman/ rigger during lifting operations.

S. Casing

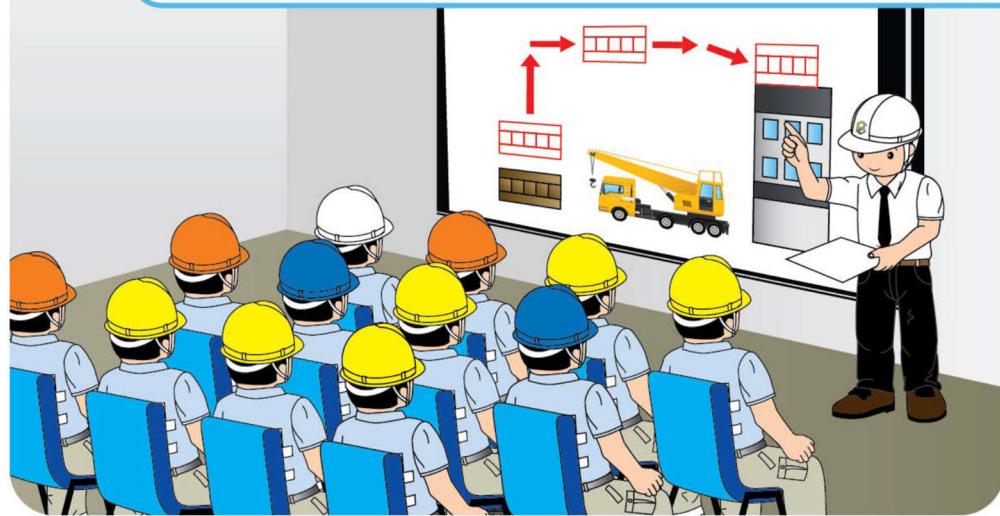


General	If you choke a chain or webbing sling you must de-rate SWL by 20% and only use chains or sling not exceeding 90°.
Load Description	Casing
Lifting Gear	2 webbing slings with SWL 6 Tons
Ancillary Equipment	Manufactured rack and double taglines, casing lifting gear.
Slinging Method	Wrapped and choked with at least one ratchet strip/packing tie to wrap the load
Alternative	N/A
Safety Restrictions	Every single piece of tube should have similar length. Pre-lift check should be carried out to ensure no loose materials should be trapped in the bundle of the lifting load Single wrapped and choked and the wrapping points should be at the 1/3 and 2/3 of the lifting load

T. Mesh Fence



General	If you choke a chain or webbing sling you must derate SWL by 20% and only use chains or sling not exceeding 90°.
Load Description	Mesh Fence
Lifting Gear	2-leg chain slings to suit weight of mesh fence
Ancillary Equipment	Double taglines
Slinging Method	Sling attached to designated lifting point
Alternative	N/A
Safety Restrictions	Check lifting chains, hooks and condition of lifting points before lifting Look for any signs of load movement on check lift. Stop lifting forward to OHL portal when the mesh fence has reached the "stopper" bar.

	<p>8.6 Contingency Arrangement for Lifting Crane A spare mobile crane will be arranged on site for emergency (Such as plant breakdown etc) during the Bi-furcation Works. The Emergency Contact List is attached in Appendix C</p>
9.	<p>Safety (Risk Assessments)</p> <p>1 All workers on site shall obtain RSI before works, and supervised by CP(T) & WPIC. 2 The pre-work briefing will be conducted before lifting. 3 Lifting supervision will be arranged.</p> 
	<p>Figure 9.1 –Lifting supervision</p> <p>4 All workers shall attend a site-specific induction course conducted by the Safety Department. The Safety Officer shall explain the necessary safety requirements and the Site Agent/ Foreman/ Engineer in charge of the work shall explain the system of work to his supervisors and workers.</p> 
	<p>Figure 9.2 –induction course conducted</p> <p>5 All workers shall be equipped with reflective vests and safety helmets during operation. All workers must go through a briefing by the Site Agent/ Safety Officer/ Safety Supervisor before commencement of any works. All workers on site shall obtain an approved "Mandatory Basic Safety Training Certificate".</p>

- 6 A pre-meeting will be arranged before commencement of the work among Foreman/ Site Agent, MTR's representatives and Safety Department to brief the nature of works, the safety aspects and the requirements laid down in the Safety Plan.
- 7 Safety helmets fitted with chin straps must be worn within the site, safety boots, hearing protectors (if needed), high visibility jackets/ sashes, reflective vests, goggles, gloves and full body harnesses for work at height will be provided to all staff working on site. Warning signs and barriers will be erected where necessary.
- 8 Particular care needs to be taken when working on or near busy roads. No works will be undertaken unless safe access, including approved and fully implemented TTAs where necessary. The voltage of any handheld power tools should not exceed 110V and preferably be less than 24V.
- 9 Any emergency situation shall be reported to CSHK's site supervisors (i.e. Site Agent/ Foreman/ Engineer, etc.) and Safety Department for prompt response. The emergency contact list and Safety Plan Accident/ Incident Response flowchart are attached in Appendix C.
- 10 Adequate lighting will be provided.
- 11 Double sling lines will be used during the lifting operation.
- 12 No two-lifting operation at different location shall be allowed to be carried out simultaneously.
- 13 lifting work must be done by rigger or signaller only.



Figure 9.3 –signaller

- 14 Mobile crane shall be operated on a firm and level ground that could adequately support the weight of the crane and loads.

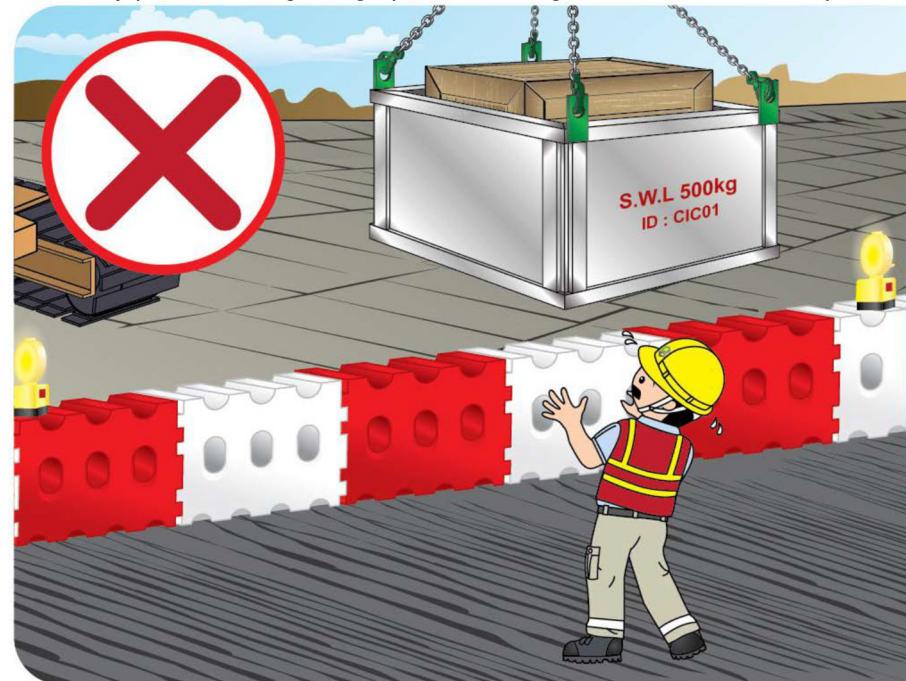


Figure 9.4 Mobile crane

- 15 Do not leave the operator's seat during lifting operation.



- 16 Do not pass over any person during lifting operation. lifting routes shall be detail planned and arranged.



The Risk Assessment attached in **Appendix A** has been prepared for all general activities. Specific safety procedures and precautions have been developed for all site operatives to follow. The Construction Manager together with the RSO, will supervise the implementation and make adjustment according to the actual site operations, in order to maintain a safe and amicable working environment.

Lifting Plant

No part of the mobile crane/ crane lorry will work beyond the water filled barrier and the maximum lifting load shall be <80% of the Safe Working Load (SWL).

The weight of the lifting gear must be counted as part of the lifting load.

For any lifting operation by crane lorry, the outriggers must be fully extended and the unsafe zone fenced off.

Smoke Arrangement

- All workers shall possess the qualification Railway Safety training (RSI), and can only smoke at the designated smoking area provided by CSHK.

Facilities for Smoke Area

- Cigarette Butt Receptacle
- Fire Extinguisher
- Sand Bucket



10. Environmental (Environmental aspect & impact identification as well as mitigation measures)

	<ul style="list-style-type: none">- Works should be carried out during NTH on normal working days. No PME will be used after 19: 00 on normal working days. and Sundays and public holiday with unless with a valid construction noise permit (CNP).- The works shall follow relevant mitigation measures as required under the Environmental Permit (EP) /EP submission and Contractor's Environmental Management Plan (EMP).- ULSD diesel will be used in all PME.- Plant with QPME label will be deployed, if available.- All chemicals will be placed on a drip tray.- For site clearance, water spray will be carried out during the work to prevent dust generation.- Waste water treatment and discharge will be installed on site. The details shall refer to Method statements under separate submission.- Only regulated NRMM with approved NRMM label to be used on site.
11.	Quality Control (Inspection and Test Plan including hold points)
	<p>To ensure the attainment of the required standard of works, the methods of working and the required works standards / acceptance criteria are defined in the method statement and are communicated to the relevant staff and workers carrying out the works. Day to day routine inspections of the works will be carried out by the Construction Team Leader, Site Engineers and Foreman as appropriate, to ensure that all works are performed following the requirements of these documents.</p> <p>All materials used should be approved by Project Manager.</p> <p>This method statement described the Lifting Plan only, ITP are not acceptable.</p>
12.	Appendices (Identify and include additional information in the submission package)
	<p>Appendix A – Risk Assessment</p> <p>Appendix B – Catalogue for 80-Tone Mobile Crane</p> <p>Appendix C – Emergency Contact List</p> <p>Appendix D –RtC</p>