

## Appendix J

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### Schedule of Mitigation Implementation

**TABLE 1 CONTRACT HCC-300 - EAST TSIM SHA TSUI STATION**

EIA Ref	Mitigation Ref.	Environment Protection Measures	Location/Duration of Measures/Timing of Mitigation Implementation	Implementation Dept/agent	Implementation Stages <sup>1</sup>			Relevant Legislation and Guidelines
					D	C	O	
<b>Land Contamination</b>								
Ch.8	LC01	An investigation of potentially contaminated land is required to define the full extent of any contamination around the Caltex Petrol Station in Middle Road. The objective is to define the need for and scope of any remedial works and special disposal requirements. In view of the extent of hardstanding and likely presence of underground services within the area, boreholes are recommended. Boreholes will enable soil samples to be collected and allow standpipes to be installed for groundwater monitoring and to monitor for the potential presence of volatile organic chemicals. All borehole locations will be dependent upon accessibility and the extent of below ground services.  Supervision of the borehole installation shall be provided by a qualified Environmental Scientist, ensuring that the works are carried out to the required standard, at the most suitable locations and that monitoring standpipes are appropriately installed to allow	Prior to the commencement of construction.  If contaminated, the site shall be remediated in accordance with the approved CAR/RAP.  Location: Middle Road Children's Playground and Wing On Plaza Garden.	KCRC/ Contractor	√			EIA Ordinance Waste Disposal Ordinance Water Pollution Control Ordinance PN 3/94 ProPECC Note

<sup>1</sup> D = Design, C = Construction, O = Operation

EIA Ref	Mitigation Ref.	Environment Protection Measures	Location/Duration of Measures/Timing of Mitigation Implementation	Implementation Dept/agent	Implementation Stages			Relevant Legislation and Guidelines
					D	C	O	
		<p>future monitoring. Samples shall be taken from all boreholes for subsequent laboratory testing. All soils shall be logged and described in accordance with the appropriate standards (e.g. British Standard (BS5930) – Code of Practice for Site Investigation). Typically four samples (3 soil and 1 groundwater) shall be submitted for analysis from each borehole although this will be dependent upon site observations.</p> <p>Analysis of the samples will be dependent upon the findings of the intrusive investigation but shall include analysis for volatile organics (including BTEX compounds), total petroleum hydrocarbons, pH, metals, sulphate and PAHs. Leaching tests such as TCLP (Toxicity Characteristic Leaching Procedure) may be required in the event that elevated concentrations of contaminants are detected.</p> <p>All standpipes installed shall be purged (typically three well volumes) and sampled following the completion of site works. This will enable the collection of representative groundwater samples which may then be submitted for chemical analysis.</p>						

EIA Ref	Mitigation Ref.	Environment Protection Measures	Location/Duration of Measures/Timing of Mitigation Implementation	Implementation Dept/agent	Implementation Stages <sup>1</sup>			Relevant Legislation and Guidelines
					D	C	O	
<b>Landscape and Visual Mitigation</b>								
Ch.11	LV01	The Champion Tree No. 251 shall be protected throughout the construction period. The Contractor will be liable to cover any costs associated with damage caused to the above tree.	At all times throughout the construction phase.	KCRC / Contractor	√			EIA Ordinance
Ch.11	LV02	Construction of open space, siting out areas and children's play area on top of the proposed ETS on the existing site of the Middle Road Children's Playground. The design of the Station shall allow for the planting of large trees and shrubs to replace those lost on the existing Playground;	As early as practically possible for those works areas affecting open space.	KCRC / Contractor	√			EIA Ordinance
Ch.11	LV03	<b>Wing On Plaza Garden</b> Hoarding of working areas particularly those adjacent to retained public open space within the gardens. Careful design of the proposed site working areas to reduce where possible unnecessary landscape and adverse visual impacts, this includes the design of site lighting to avoid light spillage and glare. Good site management to ensure the orderly storage of materials and machinery. Strictly controlled working hours to reduce where possible unnecessary impacts during evening hours and at weekends particularly to	As required throughout the construction period. Wing On Plaza Gardens	KCRC / Contractor	√			EIA Ordinance

EIA Ref	Mitigation Ref.	Environment Protection Measures	Location/Duration of Measures/Timing of Mitigation Implementation	Implementation Dept/agent	Implementation Stages <sup>1</sup>			Relevant Legislation and Guidelines
					D	C	O	
		<p>the adjacent hotels and commercial premises.</p> <p>Monitoring of construction activity to the minimisation of adverse visual and landscape impacts.</p> <p>The maintenance of pedestrian access where possible through the careful design of construction activity or through the provision of temporary footpath routes to allow the continued use of the remaining areas of this important recreational resource. This would include the existing pedestrian access routes from Chatham Road South and the users of the subway from the New World Hotel.</p> <p>The provision of interpretation boards to inform the residents and the general public of the type of works being undertaken and the likely time scale to completion. These boards should have portals in the hoarding allowing the public visual access to the works.</p> <p>The protection of existing vegetation which is to be retained particularly at the northern end of the Gardens where a number of mature trees are in the works area or in close proximity to it. Many of the semi-mature trees in this area were identified in the tree survey as being worthy of retention.</p>						

EIA Ref	Mitigation Ref.	Environment Protection Measures	Location/Duration of Measures/Timing of Mitigation Implementation	Implementation Dept/agent	Implementation Stages <sup>1</sup>			Relevant Legislation and Guidelines
					D	C	O	
Ch.11	LV04	<p>The protection of hard paved areas from construction activity particularly those within the gardens that would continue to be open to the public.</p> <p>The provision of interpretation boards to inform the residents and the general public of the type of works being undertaken and the likely time scale to completion. These boards would have portals in the hoarding allowing the public visual access to the works.</p> <p><b>Middle Road Children's Playground</b></p> <p>Hoarding of working areas particularly those adjacent to retained public open space.</p> <p>Careful design of the proposed site working areas to reduce where possible unnecessary landscape and adverse visual impacts, this would include the design of site lighting to avoid light spillage and glare.</p> <p>Good site management to ensure the orderly storage of materials and machinery.</p> <p>Strictly controlled working hours to reduce where possible unnecessary impacts during evening hours and at weekends particularly to the adjacent residential property, hotels and commercial premises.</p>	As required throughout the construction period. Middle Road Children's Playground	KCRC / Contractor	√			EIA Ordinance

EIA Ref	Mitigation Ref.	Environment Protection Measures	Location/Duration of Measures/Timing of Mitigation Implementation	Implementation Dept/agent	Implementation Stages <sup>1</sup>			Relevant Legislation and Guidelines
					D	C	O	
		<p>Monitoring of construction activity to minimise adverse visual and landscape impacts.</p> <p>The maintenance of pedestrian access where possible through the careful design of construction activity or through the provision of temporary footpath routes to allow the continued use of the remaining areas of this important recreational resource.</p> <p>The provision of interpretation boards to inform the residents and the general public of the type of works being undertaken and the likely time scale to completion. These boards would have portals through the hoarding allowing the public visual access to the works.</p> <p>The protection of existing vegetation which is to be retained, particularly the Champion Trees (notably No.251 – <i>Ficus microcarpa</i>) which shall be protected from the construction works throughout the entire construction period.</p> <p>The transplantation of trees identified during the tree survey, to positions agreed with the LCSD.</p> <p>The pruning of both roots and branches of trees identified for retention, which are in close proximity to the proposed works.</p>						

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					D	C	O	
		The protection of hard paved areas from construction activity.						
Ch. 11	LV05	Selection of vegetation which will be responsive to the local context. Existing ornamental trees such as <i>Delonix regia</i> , <i>Bauhinia blakeana</i> and <i>Callistemon viminalis</i> contribute a high landscape value to the local area. They will form the base of the proposed planting scheme. Palms and flowering shrubs will also be planted to emphasise the park entrance and station entrance. A buffer edge or band of structure planting will be recreated along the perimeter of the site to reduce the viability of the building facade from road users on Salisbury Road and Chatham Road South and from surrounding buildings. Along the edges of the landscape deck, climbers will be planted from the base and creepers at the tops of the walls, to soften the hard edge of the station structures.	At the earliest opportunity post construction Landscape planting for all areas recommended in the EIA (and see Photo montages).	KCRC/ Contractor	√			EIA Ordinance
Ch. 11	LV06	General provision of two metres depth of soil, (opportunities to plant larger and deep rooted trees may be constrained, at some locations by the station roof slab design. Provision of sufficient soil depth to plant shallow rooted trees and palms above the station structure.	At the earliest opportunity post construction Landscape deck - Middle Road Children's Playground.	KCRC/ Contractor	√			EIA Ordinance



EIA Ref	Mitigation Ref.	Environment Protection Measures	Location/Duration of Measures/Timing of Mitigation Implementation	Implementation Dept/agent	Implementation Stages <sup>1</sup>			Relevant Legislation and Guidelines
					D	C	O	
Ch.11	LV07	A belt of structure planting shall be re-created at the western and southern boundaries of the site to reduce the noise from adjacent traffic and to enclose the open space within. Existing ornamental tree species such as Crataeva religiosa and Delonix regia to form the basis for the tree planting.	At the earliest opportunity post construction The re-provisioned Middle Road Childrens Playground.	KCRC/ Contractor	√			EIA Ordinance
Ch. 11	LV08	A detailed tree felling and compensatory plan shall be submitted to appropriate authorities for approval.	Prior to the construction	KCRC / Contractor	√			EIA Ordinance
<b>Water Pollution Control Mitigation. The Contractor shall implement the mitigation measures and good site management practises as specified in the Professional Persons Environmental Consultative Committee PN 1/94</b>								
Ch.7	WPC01	Sewage effluents generated at the station are required to meet the TM standards prior to the discharge. Sewage shall be directed to the public foul sewer system;	At relevant construction sites throughout the construction period.	KCRC /Operator	√	√	√	Water Pollution Control Ordinance
<b>Archaeology / Cultural Heritage</b>								
Ch.10	ACH01	Protective shields shall be placed around the small historic objects on Signal Hill, including the winch and historic stone blocks, which are located within the Signal Hill Garden, as well as protective scaffolding with a cover around Signal Hill Tower itself, to mitigate against any unforeseen damage during construction. Signal Hill Tower, Old Office and Toilet Block - Prior to commencement of	Prior to the commencement of construction for the ETS Station. Signal Hill:	KCRC / Contractor	√			Antiquities and Monuments Ordinance

EIA Ref	Mitigation Ref.	Environment Protection Measures	Location/Duration of Measures/Timing of Mitigation Implementation	Implementation Dept/agent	Implementation Stages <sup>1</sup>			Relevant Legislation and Guidelines
					D	C	O	
		<p>construction work on-site, protective scaffolding shall be erected around/within the buildings as deemed necessary by the Engineer, in order to prevent any major movement of the structure, all as directed by a Registered Structural Engineer.</p> <p>The exact specification for any necessary protective measures during construction shall be updated through the EM&amp;A programme.</p>						
Ch.10	ACH02	Historic resources shall be protected during blasting. Blasting works to be restricted as far as possible and full controls employed to minimise impacts to areas outside the blasting site.	Detailed Design and prior to any blasting operations potentially affecting Signal Hill.	KCRC/ Contractor	√			Antiquities and Monuments Ordinance
Ch.10	ACH03	Where practical the ETS or restored open space above the ETS shall incorporate a heritage education component into the Station Design. This may be a museum or educational centre of interest to local people and tourists.	Detailed Design Signal Hill/Middle Road Children's playground.	KCRC				Antiquities and Monuments Ordinance
EM&A Manual Ch.10	ACH04	Structural monitoring techniques shall be applied to the historic buildings/structures on the site during construction as determined/directed by the Engineer. Also a condition survey should be carried out prior to the commencement of construction.	Throughout the construction phase. Signal Hill	KCRC/ Contractor	√			Antiquities and Monuments Ordinance
Ch.10	ACH05	In order to partially replace lost public areas due to the project, the existing disused footpaths on the north slope of the site above	Construction phase. Signal Hill	Contractor	√			Antiquities and Monuments Ordinance

EIA Ref	Mitigation Ref.	Environment Protection Measures	Location/Duration of Measures/Timing of Mitigation Implementation	Implementation Dept/agent	Implementation Stages <sup>1</sup>			Relevant Legislation and Guidelines
					D	C	O	
		Minden Road shall be upgraded and made safe for use by the public.						
<b>Noise</b>								
Ch.5	N01	The Contractor shall adopt a reduced plant inventory and the use of quiet plant as specified in Appendix D2 to the EIA Report.	Sites 5 & 5A during <ul style="list-style-type: none"> <li>• Site preparation</li> <li>• Excavation (drill &amp; blast)</li> <li>• Station Construction</li> </ul>	Contractor	√			EIA Ordinance Noise Control Ordinance
Ch.5	N02	Indirect Technical Remedies (ITR) as specified in the EIA Report.	N4 only during site preparation excavation (drill & blast) and station construction of worksite 5A. ITR will be dealt with as an advance contract and will be in place prior to the commencement of site preparation .	Contractor / KCRC	√			EIA Ordinance
Ch.5	N03	Blasting works shall be restricted to once per day at a defined hour e.g. mid day, and affected SRs shall be prewarned of the blasting schedule.		Contractor	√			Noise Control Ordinance

EIA Ref	Mitigation Ref.	Environment Protection Measures	Location/Duration of Measures/Timing of Mitigation Implementation	Implementation Dept/agent	Implementation Stages <sup>1</sup>			Relevant Legislation and Guidelines
					D	C	O	
Ch.5	N04	Floating Slab Track shall be installed. (The design shall be approved by EPD)	<ul style="list-style-type: none"> <li>ETS</li> <li>Track Over Run</li> </ul>	KCRC / Contractor	√			EIA Ordinance
<b>Air</b>								
Ch 6	A01	<p>The Contractor shall adopt the following Dust Control Measures</p> <p><b>Blasting</b></p> <ol style="list-style-type: none"> <li>The areas within 30m from the blasting area shall be wetted with water prior to blasting.</li> <li>Blasting shall not be carried out under high wind conditions (such as when typhoon signal No. 3 or above is hoisted) unless prior permission of the Commissioner of Mines is obtained.</li> <li>(In addition to the above, the blasting operations should be well arranged and take appropriate precautions to minimise dust generation, such as use of blast nets and canvas covers, etc.)</li> </ol>	<ul style="list-style-type: none"> <li>Sites 5 &amp; 5A during</li> <li>Site preparation</li> <li>Excavation (drill &amp; blast)</li> <li>Station Construction</li> </ul>	Contractor	√			EIA Ordinance Air Pollution Control Ordinance
<b>Nuisance Impact Mitigation</b>								
Ch. 5	NI01	Portable barriers shall be used when noisy works are undertaken within 100m of an NSR. Barrier density shall be 20kg/m <sup>2</sup> and should be positioned to eliminate line of sight.	For all work sites under this contract	Contractor	√			Noise Control Ordinance

**TABLE 2 CONTRACT HCC-301 - HUNG HOM TO TSIM SHA TSUI TUNNELS**

EIA Ref	Mitigation Ref.	Environment Protection Measures	Location/Duration of measures/Timing of completion of Measures	Implementation Dept/agent	Implementation Stages <sup>1</sup>			Relevant Legislation and Guidelines
					D	C	O	
<b>Landscape and Visual Mitigation</b>								
Ch.11	LV01	Reinstatement of the disturbed areas of the Tsim Sha Tsui East Promenade along Salisbury Road including hard paved areas, seating provision, shade structures, and tree and shrub planting, where required.	As early as practically possible for those works areas affecting the Tsim Sha Tsui Promenade.	KCRC / Contractor	√			EIA Ordinance
Ch. 11	LV02	<b>Hung Hom Wan</b> Hoarding of working areas. Careful design of site lighting to avoid light spillage and glare. Good site management to ensure the orderly storage of materials and machinery.	As required throughout the construction period. Hung Hom Wan	KCRC / Contractor	√			EIA Ordinance
Ch.11	LV03	<b>Hung Hom to Salisbury Road</b> Hoarding of working areas. Careful design of site lighting to avoid light spillage and glare. Good site management to ensure the orderly storage of materials and machinery. Strictly controlled working hours to reduce where possible unnecessary impacts during evening hours and at weekends.	As required throughout the construction period. Hung Hom to Salisbury Road	KCRC / Contractor	√			EIA Ordinance

<sup>1</sup> D = Design, C = Construction, O = Operation

East Rail Extension Hung Hom to Tsim Sha Tsui - EIA  
Schedule of Mitigation

EIA Ref	Mitigation Ref.	Environment Protection Measures	Location/Duration of measures/Timing of completion of Measures	Implementation Dept/agent	Implementation Stages <sup>1</sup>			Relevant Legislation and Guidelines
					D	C	O	
Ch.11	L.V04	<p>The maintenance of pedestrian access where possible through the careful design of construction activity or through the provision of temporary footpath routes. This includes the existing pedestrian walkway leading from the Hong Kong Coliseum to the footpath over the International Mail Centre access road and on to the waterfront.</p> <p>The provision of interpretation boards to inform the residents and the general public of the type of works being undertaken and the likely time scale to completion. These boards should have portals in the hoarding allowing the public visual access to the works.</p> <p><b>Salisbury Road to Wing On Plaza.</b> Hoarding of working areas particularly those adjacent to the promenade. Careful design of the proposed site working areas to reduce where possible unnecessary landscape and adverse visual impacts, this includes the design of site lighting to avoid light spillage and glare. Good site management to ensure the orderly storage of materials and machinery. Strictly controlled working hours to reduce where possible unnecessary impacts during evening hours and at weekends particularly to the hotels and commercial premises, which line</p>	As required throughout the construction period. Salisbury Road to Wing On Plaza.	KCRC / Contractor	√			EIA Ordinance

EIA Ref	Mitigation Ref.	Environment Protection Measures	Location/Duration of measures/Timing of completion of Measures	Implementation Dept/agent	Implementation Stages <sup>1</sup>			Relevant Legislation and Guidelines
					D	C	O	
		<p>the waterfront.</p> <p>Monitoring of construction activity to the minimisation of adverse visual and landscape impacts.</p> <p>The maintenance of pedestrian access where possible through the careful design of construction activity or through the provision of temporary footpath routes. This would include the existing pedestrian walkway along the promenade, which is an important recreational resource for the area. Alternative access routes shall be provided to mitigate the loss of the public footbridges to the Grand Stanford Hotel and the footbridge that connects the promenade with Mody Road.</p> <p>The provision of interpretation boards to inform the residents and the general public of the type of works being undertaken and the likely time scale to completion. These boards should have portals in the hoarding allowing the public visual access to the works.</p> <p>The protection of existing vegetation which is to be retained particularly at the southern and northern ends of the promenade where there is a narrow planting strip with a number of semi-mature trees identified in the tree survey as being worthy of retention.</p> <p>The protection of hard paved areas from construction activity particularly those on the</p>						

EIA Ref	Mitigation Ref.	Environment Protection Measures	Location/Duration of measures/Timing of completion of Measures	Implementation Dept/agent	Implementation Stages <sup>1</sup>			Relevant Legislation and Guidelines
					D	C	O	
		promenade, which are to be retained.						
<b>Nuisance Impact Mitigation</b>								
Ch. 5	N02	Portable barriers shall be used when noisy works are undertaken within 100m of an NSR. Barrier density shall be 20kg/m <sup>2</sup> and should be positioned to eliminate line of sight.	For all work sites under this contract	Contractor		√		Noise Control Ordinance



**TABLE 3 CONTRACT HCC-302 - SUBWAYS**

EIA Ref	Mitigation Ref.	Environment Protection Measures	Location/Duration of measures/Timing of completion of Measures	Implementation Dept/agent	Implementation Stages <sup>1</sup>			Relevant Legislation and Guidelines
					D	C	O	
<b>Landscape and Visual Mitigation</b>								
Ch.11	LV01	Reinstatement of the road surface and disturbed areas along Middle Road, Blenheim Avenue and Mody Road. This shall be considered as an opportunity to enhance the local streetscape of the area with opportunity for feature paving and street tree planting.	As early as practically possible for those works areas affecting existing or future road surfaces.	KCRC / Contractor	√			EIA Ordinance
Ch.11	LV02	<b>Middle Road Station Entrances</b> Hoarding of working areas particularly screening views from the roadside pavements along Middle Road where public access would be maintained. Careful design of the proposed site working areas to reduce where possible unnecessary landscape and adverse visual impacts, this includes the design of site lighting to avoid light spillage and glare. Good site management to ensure the orderly storage of materials and machinery. Strictly controlled working hours to reduce where possible unnecessary impacts during evening hours and at weekends particularly to	As required throughout the construction period. Middle Road Station Entrance	KCRC / Contractor	√			EIA Ordinance

<sup>1</sup> D = Design, C = Construction, O = Operation

EIA Ref	Mitigation Ref.	Environment Protection Measures	Location/Duration of measures/Timing of completion of Measures	Implementation Dept/agent	Implementation Stages <sup>1</sup>			Relevant Legislation and Guidelines
					D	C	O	
		<p>the adjacent residential properties such as Far East Mansion, the Sheraton Hong Kong Hotel and commercial premises.</p> <p>Monitoring of construction activity to ensure the minimisation of adverse visual and landscape impacts.</p> <p>The maintenance of pedestrian access where possible through the careful design of construction activity or through the provision of temporary footpath routes to allow continued access to the properties lining Middle Road.</p> <p>The provision of interpretation boards to inform the residents and the general public of the type of works being undertaken and the likely time scale to completion. These boards should have portals through the hoarding allowing the public visual access to the works.</p> <p>The protection of hard paved areas from construction activity particularly those on the street pavements.</p>						
Ch.11	LV03	<p><b>Blenheim Avenue to Nathan Road</b></p> <p>Hoarding of working areas particularly screening views from the roadside pavements along Blenheim Avenue and Mody Road where public access would be maintained. This is important for the route of the cut and cover tunnel and the entrance / vent structures.</p>	As required throughout the construction period. Blenheim Avenue to Nathan Road	KCRC / Contractor	√			EIA Ordinance

EIA Ref	Mitigation Ref.	Environment Protection Measures	Location/Duration of measures/Timing of completion of Measures	Implementation Dept/agent	Implementation Stages'			Relevant Legislation and Guidelines
					D	C	O	
		<p>Careful design of the proposed site working areas to reduce where possible unnecessary landscape and adverse visual impacts, this would include the design of site lighting to avoid light spillage and glare.</p> <p>Good site management to ensure the orderly storage of materials and machinery.</p> <p>Strictly controlled working hours to reduce where possible unnecessary impacts during evening hours and at weekends particularly to the adjacent residential properties such as Mirador Mansions and Ocean View Court, the Holiday Inn Hotel and nearby commercial premises.</p> <p>The maintenance of pedestrian access where possible through the careful design of construction activity or through the provision of temporary footpath routes to allow continued access to the properties lining Mody Road, those at the southern ends of Cornwall Avenue, Bristol Avenue, Hanoi Road and Hart Avenue.</p> <p>The provision of interpretation boards to inform the residents and the general public of the type of works being undertaken and the likely time scale to completion. These boards should have portals through the hoarding allowing the public visual access to the works.</p> <p>The protection of hard paved areas from</p>						

EIA Ref	Mitigation Ref.	Environment Protection Measures	Location/Duration of measures/Timing of completion of Measures	Implementation Dept/agent	Implementation Stages <sup>1</sup>			Relevant Legislation and Guidelines
					D	C	O	
		construction activity particularly those on the street pavements.						
<b>Noise Mitigation</b>								
Ch5.	N01	<p>The Contractor shall implement the following Mitigation:</p> <ul style="list-style-type: none"> <li>a detailed phasing and sequencing of construction activities as specified in Appendix D8</li> <li>use of electrically driven plant as specified in Appendix D2</li> <li>eliminate mobile generators through the use of temporary mains supply</li> <li>use of containers to accommodate concrete pumping equipment</li> <li>use of alternative construction plant which is quieter</li> <li>use of shrouds to mitigate noise for concreting and pipe piling</li> <li>full decking of excavation and subway box construction</li> </ul>	<p>Pedestrian Interchange Subway and Middle Road Station Entrances to be constructed according to the phasing plan and sequence as given in Appendix D8</p>	Contractor	√			EIA Ordinance
Ch5	N02	Indirect Technical Remedies in the form of upgraded window glazing and air-conditioning as detailed in Chapter 5	<ul style="list-style-type: none"> <li>N6/N16 for Sites 7N/7M</li> <li>N7/N8 for Sites 7E/7D</li> </ul>	KCRC/ Contractor	√			EIA Ordinance

East Rail Extension Hung Hom to Tsim Sha Tsui - EIA  
 Schedule of Mitigation

EIA Ref	Mitigation Ref.	Environment Protection Measures	Location/Duration of measures/Timing of completion of Measures	Implementation Dept/agent	Implementation Stages			Relevant Legislation and Guidelines
					D	C	O	
			<ul style="list-style-type: none"> <li>• N9 for Site 7C</li> <li>• N10 for Site 7A</li> <li>• N13 for Site 7G</li> <li>• N14 for Site 7H</li> </ul> The ITR provision will be prior to construction site preparation					

**TABLE 4 CONTRACT HCC-400 - HUNG HOM STATION AND HO MAN TIN SUBSTATION**

EIA Ref	Mitigation Ref.	Environment Protection Measures	Location/Duration of measures/Timing of completion of Measures	Implementation Dept/agent	Implementation Stages <sup>1</sup>			Relevant Legislation and Guidelines
					D	C	O	
<b>Noise Mitigation</b>								
Ch. 5	N01	Construction works which affect the Coliseum Podium area shall be suspended when there are performances at the Coliseum or as requested by LCSD.	Worksites 2 and throughout the construction phase	Contractor	√			Noise Control Ordinance
<b>Air</b>								
Ch. 6	A01	Dust Control Measures	Worksites 2 and throughout the construction phase	Contractor	√			

<sup>1</sup> D = Design, C = Construction, O = Operation

**TABLE 5 ALL CONTRACTS**

EIA Ref	Mitigation Ref.	Environment Protection Measures	Location/Duration of measures/Timing of completion of Measures	Implementation Dept/agent	Implementation Stages <sup>1</sup>			Relevant Legislation and Guidelines
					D	C	O	
<b>Waste Management Mitigation</b>								
Ch.13	EM1	An Environmental Management System shall be developed. A major component of this system will be a contract specific Environmental Management Plan (EMP).	The EMP shall be prepared within 60 days of Contract Commencement	KCRC/ Contractor	√			EIAO and Contract Requirement
	EM2	A contract specific Environmental Monitoring and Audit Manual (EM&A) shall be prepared.	The EM&A Manual shall be prepared within 60 days of Contract Commencement	KCRC/ Contractor	√			EIAO and Contract Requirement
	EM3	A contract specific Environmental Mitigation Implementation Schedule shall be prepared.	The EMIS shall be prepared prior to the commencement of construction	KCRC/ Contractor	√			EIAO and Contract Requirement
Ch.9	WM01	A Waste Management Plan (WMP) shall be prepared.	The WMP shall be prepared prior to the commencement of construction work.	KCRC / Contractor	√			EIA Ordinance Waste Disposal Ordinance
Ch.9	WM02	Raw material requirements shall be planned at the outset of each construction activity to avoid excess material storage and wastage on-site.	At the planning stage for each construction activity. At all Work sites.	KCRC / Contractor	√			Waste Disposal Ordinance
Ch.9	WM03	Wastes shall be stored and handled in dedicated	For all worksites and	Contractor	√			Waste Disposal

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EIA Ref	Mitigation Ref.	Environment Protection Measures	Location/Duration of measures/Timing of completion of Measures	Implementation Dept/agent	Implementation Stages <sup>1</sup>			Relevant Legislation and Guidelines
					D	C	O	
Ch.9	WM04	<p>areas with banded sides in such a way as to avoid loss or leakage and subsequent pollution. Waste storage sites shall be approved by the Engineer and shall be located away from sensitive areas such as: residential, surface/groundwater or coastal areas. Designated waste storage areas shall be well maintained and cleaned regularly.</p> <p>The Contractor shall segregate construction waste materials on-site to facilitate re-use, recycling and waste disposal practice in accordance with the best available technology, as follows:</p> <ul style="list-style-type: none"> <li>a) Construction and demolition waste/non inert waste for disposal at landfill.</li> <li>b) Public fill (inert waste) for reuse, recycling as far as practical in public fills or reclamation sites. Public fill includes soil, rock asphalt, concrete, brick, building debris etc.</li> <li>c) Chemical waste as defined in Schedule 1 of the Waste Regulations.</li> </ul>	throughout construction phase.	Contractor	√			Ordinance
Ch.9	WM04	No burning of debris, construction wastes or vegetation shall be allowed on-site.	For all worksites and throughout construction phase.	Contractor	√			Waste Disposal Ordinance Air Pollution control Ordinance



EIA Ref	Mitigation Ref.	Environment Protection Measures	Location/Duration of measures/Timing of completion of Measures	Implementation Dept/agent	Implementation Stages <sup>1</sup>			Relevant Legislation and Guidelines
					D	C	O	
Ch.9	WM05	All water and liquid waste products arising on the site shall be collected and removed from Site via a suitable and properly designed temporary drainage system and disposed of at a location and in a manner that will cause neither pollution nor nuisance.	For all worksites and throughout construction phase.	Contractor	✓			Water Pollution Control Ordinance Waste Disposal Ordinance
Ch.9	WM06	The environmental monitoring shall include trip ticket usage to ensure proper disposal and avoidance of fly tipping.	For all waste disposal off-site throughout construction phase	Contractor	✓			Waste Disposal Ordinance
Ch.9	WM07	Due to the size of this project and the amount of waste requiring disposal it is proposed that a recording system is implemented to assess the effectiveness of waste reduction, recycling and disposal. This is specified in the EM&A manual.	For all waste disposal off-site throughout construction phase	Contractor	✓			EM&A manual Waste Disposal Ordinance
Ch.9	WM08	Sewage from site toilets, kitchens and similar, shall be collected at on-site portable toilets and sewage collected for disposal at an appropriate sewage treatment works. Grease traps shall be installed where canteen waste is collected and shall be capable of providing at least 20 minutes retention during peak flow, prior to discharge.	For all worksites and throughout construction phase.	Contractor	✓			Water Pollution Control Ordinance Waste Disposal Ordinance
<b>Landscape and Visual Mitigation</b>								
Ch.11	LV01	No vegetation of any type shall be removed from lands outside the works boundary.	For all areas potentially affected by construction works.	Contractor	✓			EIA Ordinance
Ch.11	LV02	Site fencing shall be erected on the border of	Prior to the	KCRC /	✓			EIA Ordinance

EIA Ref	Mitigation Ref.	Environment Protection Measures	Location/Duration of measures/Timing of completion of Measures	Implementation Dept/agent	Implementation Stages <sup>1</sup>			Relevant Legislation and Guidelines
					D	C	O	
		all construction sites, storage areas etc. to avoid unnecessary off-site damage to vegetation, trees and the landscape generally.	commencement of construction. At all work sites.	Contractor				
Ch.11	LV03	The Contractor shall preserve all trees within the works boundaries if they are outside the permanent works areas and do not interfere with construction or operation of the project. All trees for retention will be adequately protected from disturbance due to the works by the use of robust fencing encircling the trees directly below the edge of their crown.	For all worksites and throughout construction phase.	KCRC / Contractor	√			EIA Ordinance
Ch.11	LV04	Monitoring of the landscape restoration programme shall be undertaken with the following objectives: a) success in carrying out the tree/shrub planting programme; b) survival of seedlings; and c) need for replanting.	From the commencement of landscape restoration works into the rail operation phase and for the duration of the EM&A works.	Contractor / Engineer	√		√	EIA Ordinance
Ch.11	LV05	The Contractor shall ensure that Landscape planting areas incorporate the following: proper and safe access for subsequent horticultural maintenance; proper and sufficient drainage and irrigation systems; and lockable water points.	At appropriate times during the construction schedule. At landscape areas as indicated in the EIA photomontages.	KCRC / Contractor / Engineer	√		√	EIA Ordinance

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Ch.11	LV06	The Contractor shall ensure that pedestrian walkways remain passable at all stages of the construction.	At all times throughout the construction phase.	KCRC / Contractor	√			EIA Ordinance
Ch.11	LV07	The Contractor shall reinstate footpaths that have been temporarily severed during construction and re-provision footpaths permanently impacted by the works.	As required throughout the construction period.	KCRC / Contractor	√			EIA Ordinance
Ch.11	LV08	In order to compensate for the loss of vegetation during the construction period, new trees and tree seedlings will be planted at the affected area. These trees will be carefully located so as to maximise their amenity value. The selection of tree species will be agreed with the LCSD. Structure planting will help to spatially define the activity areas. Tree and shrub planting will also help to soften the profile of any above ground structures.	At the earliest opportunity post construction. Locations include all areas recommended in the EIA for new tree planting.	KCRC/ Contractor	√			EIA Ordinance
<b>Dust Control Mitigation</b>								
Ch.6	DC01	The Contractor shall implement the following general control requirements as specified in the Schedule of the Air Pollution (Construction Dust) Regulation, Part III :  i) Site boundary and entrance Wheel washing facilities shall be provided at the exit of all construction sites to prevent dusty material from being carried off-site on vehicles and deposited on public roads. Wash-	At all construction work sites.					
			At all times throughout the construction phase.	Contractor	√			Air Pollution Control Ordinance Air Pollution Control

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		<p>water shall have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of wheel wash operations.</p> <p>Areas at which vehicle washing takes place and the section of road between the washing facilities and the exit point shall be paved with concrete, bituminous or hardcore material.</p>						(Construction Dust) Regulation
		<p>ii) Access haul roads</p> <p>All haul roads of vehicles shall be paved with concrete, bituminous hardcore materials or metal plates, and kept clear of dusty materials.</p> <p>The Contractor shall spray all roads within the construction sites and roads leading to the sites using water bowsers with spray bars, hose pipes etc., to control dust.</p>	<p>Prior to Haul Road Use.</p> <p>As required throughout the construction phase.</p>	Contractor	√			
		<p>iii) Exposed earth</p> <p>To minimise dust emissions, the amount of spoil exposed and the dust generation potential shall be kept as low as possible, this shall be accomplished by appropriate methods such as surface compaction, temporary fabric covers, minimising the extent of exposed soil and the prompt re-vegetation or hydroseeding of completed earthworks.</p>	<p>At all times throughout the construction phase.</p>	Contractor	√			

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		iv) Stockpile Stockpiles shall be covered entirely by impervious sheeting, placed in an area sheltered on the top and the three sides; or The entire surface shall be kept wet by applying water spraying or dust suppression chemical.	At all times throughout the construction phase.	Contractor		√		
		v) Loading, unloading or transfer of dusty materials All dusty materials shall be sprayed with water immediately before their handling.	Prior to handling materials that are likely to generate dust.	Contractor		√		
		vi) Debris handling Materials having the potential to create dust shall not be loaded to a level higher than the side and tail boards of lorries/trucks, and shall be covered by a clean tarpaulin in good condition. The tarpaulin shall be properly secured and shall extend at least 300 mm over the edges of the side and tailboards. The debris shall be kept wet by water spray prior to dumping into a chute.	At all times throughout the construction phase.	Contractor		√		
		vii) Site clearance During breaking/crushing or demolition works, watering shall be implemented to control dust. All demolished items shall be covered or placed in sheltered area within a day of	During Site Clearance Works	Contractor		√		

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					D	C	O	
		demolition.						
		viii) Blasting Blasting will be controlled by the Mines and Quarries Division of CED. Blasts shall be restricted to one per day during daytime hours. The areas within 30m from the blasting area shall be wetted with water prior to blasting. Blasting shall not be carried out under high wind conditions such as when typhoon signal No. 3 or above is hoisted unless prior permission of the Commissioner of Mines is obtained. (In addition to the above, the blasting operations shall be well arranged and take appropriate precautions to minimise dust generation, such as use of blast nets and canvas covers, etc.)	Prior to and during all blasting works.	Contractor	√			
Ch.6	DC02	The Contractor shall also ensure the following site practices are implemented : a) Open burning of debris, construction wastes, vegetation or other materials on the site is prohibited. b) Dust nuisance is prevented at all times. c) All vehicles have their engines turned off while parked on the site.	For all worksites and throughout construction phase.	Contractor	√			Air Pollution Control Ordinance for (a) only.

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Operational Air Quality								
Ch.6	AQ01	Since the ventilation shafts and air intakes will be at or near street level, the inlet and exhaust vents shall be positioned to face away from all ASRs and facing towards the harbour if possible.	Detailed Design.	KCRC / Engineer			√	Hong Kong Planning Standards and Guidelines
Noise Mitigation								
Ch. 5	N01	The Contractor shall consider noise and vibration as an environmental constraint in his planning and execution of the Works.	For all worksites and throughout construction phase.	Contractor			√	Noise Control Ordinance
Ch. 5	N02	The Contractor shall ensure that all powered mechanical equipment used in the works shall be effectively sound reduced using the most modern techniques available.	For all worksites and throughout construction phase.	Contractor			√	Noise Control Ordinance
Ch. 5	N03	The Contractor shall select equipment with consideration for using equipment with lowest noise levels and ensure that all equipment is regularly maintained.	For all worksites and throughout construction phase.	Contractor			√	Noise Control Ordinance
Ch. 5	N04	The Contractor shall ensure that all equipment engines and motors are equipped with proper mufflers.	For all worksites and throughout construction phase.	Contractor			√	Noise Control Ordinance
Ch.5	N05	It is recommended that the following measures are undertaken and audited throughout the construction phase to ensure that they are being implemented wherever possible.	---	---			√	Noise Control Ordinance

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					D	C	O	
Ch.5	N06	<p>Apply maximum permissible sound power levels to vent shafts design as described in the EIA Report. The general specification is 75 dB(A) at 1m from each vent shaft.</p> <p>A more stringent specification of 71 dB(A) is required for vent shafts 1 and 7.</p> <p>a) Operation of only well maintained plant on-site;</p> <p>b) Regular servicing of plant during construction;</p> <p>c) Restriction of rock drilling to the shortest period possible;</p> <p>d) Use of and maintenance of silencers or mufflers on construction equipment during construction;</p> <p>e) Siting of mobile plant as far away from NSRs as possible;</p> <p>f) Shut down of machines and plant that may be intermittently used between work periods or failing that, equipment shall be throttled down to a minimum;</p> <p>g) Orientation of plant known to emit noise strongly in one direction such that the noise is directed away from nearby SRs.</p>	<p>Vent shafts 5,6 &amp;8 with the general specification.</p> <p>Vent shafts 1 &amp; 7 with the stringent specification.</p> <p>For all worksites and throughout construction phase.</p> <p>d) For all worksites and throughout construction phase.</p> <p>e) For all worksites and throughout construction phase.</p> <p>f) For all worksites and throughout construction phase.</p> <p>g) For all worksites and throughout construction phase.</p>	KCRC/Engineer			√	Noise Control Ordinance
			For all worksites and throughout construction phase.	Contractor			√	
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EIA Ref	Mitigation Ref.	Environment Protection Measures	Location/Duration of measures/Timing of completion of Measures	Implementation Dept/agent	Implementation Stages <sup>1</sup>			Relevant Legislation and Guidelines
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<b>Water Pollution Control Mitigation. The Contractor shall implement the mitigation measures and good site management practises as specified in the Professional Persons Environmental Consultative Committee PN 1/94</b>								
Ch.7	WPC01	Wastewater arising from tunnelling and excavation works shall be discharged into the storm drainage system via petrol interceptors and silt traps.	For all worksites and throughout construction phase.	Contractor	√			Water Pollution Control Ordinance
Ch.7	WPC02	The Contractor shall ensure that rain run-off from the construction sites is not deposited directly into any watercourse or the marine environment.	For all worksites and throughout construction phase.	Contractor	√			Water Pollution Control Ordinance
Ch.7	WPC03	All drainage facilities and erosion and sediment control structures shall be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rainstorms.	For all worksites and throughout construction phase.	Contractor	√			Water Pollution Control Ordinance
Ch.7	WPC04	The Contractor shall check all equipment for prevention of oil and or lubrication leaks and ensure that all equipment oil and lubrication replacements are performed only in bunded maintenance and repair areas.	Weekly throughout the construction period.	Contractor	√			Water Pollution Control Ordinance
Ch.7	WPC05	Sediment tanks of sufficient capacity, constructed from pre-formed individual cells of approximately 6-8m <sup>3</sup> capacity shall be used at all sites for settling waste-waters prior to disposal.	At relevant construction sites throughout the construction period.	KCRC / Contractor	√			Water Pollution Control Ordinance
Ch.7	WPC06	Wastewater arising from excavation works	At relevant construction	Contractor	√			Water Pollution

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					D	C	O	
		shall be discharged to storm drains via sediment tanks.	sites throughout the construction period.					Control Ordinance
Ch.7	WPC07	Drainage from vehicle maintenance areas, plant servicing areas and vehicle wash bays shall be passed via a petrol interceptor prior to discharge.	At relevant construction sites throughout the construction period.	Contractor		√		Water Pollution Control Ordinance
Ch.7	WPC08	A surface water drainage system shall be provided to collect operational tunnel seepage. Where oils and lubricating fluids could be spilt, the operational tunnel discharge and track runoff shall pass through the oil and grit/silt interceptors/chambers to remove oil, grease and sediment before being disposed to the public stormwater drainage system;	At relevant construction sites throughout the construction period.	KCRC Contractor Operator		√	√	Water Pollution Control Ordinance
Ch.7	WPC09	Unpolluted groundwater shall be discharged to the storm drains via a sediment trap;	At relevant construction sites throughout the construction period.	Contractor		√		Water Pollution Control Ordinance
Ch.7	WPC10	The efficiency of silt traps and oil interceptors is dependent on regular cleaning and maintenance. These installations shall be regularly cleaned and maintained in good working order.	At relevant construction sites throughout the construction period. Rail Operation.	Contractor Operator		√	√	Water Pollution Control Ordinance
Ch.7	WPC11	Oil contents of the oil interceptors shall be collected and transferred to the Chemical Waste Treatment Facility at Tsing Yi or other appropriate disposal site.	At relevant construction sites throughout the construction period. Rail Operation.	Contractor Operator		√	√	Water Pollution Control Ordinance
<b>Archaeology / Cultural Heritage</b>								

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Ch.10	ACH01	A retrieval methodology shall be employed in the event that original landscape features or architectural features come to light during excavation. If such features are revealed cessation of works will be required while a written, drawn and photographic record is undertaken. Environmental samples will be taken and all artefacts will be retrieved for further study. Interruption to the engineering schedule will be minimal.	Throughout the construction period in all excavated areas.	Contractor / Archaeological Experts	√			Antiquities and Monuments Ordinance
Ch.10	ACH02	A programme of monitoring shall be used to systematically observe the excavations associated with construction. As presented in the EIA, the areas where this will be required include: Area of pre-1924 reclamation to the east of Signal Hill Area of pre-1924 reclamation and original landforms along Middle Road Areas of pre-1924 reclamation and original landforms along Mody and Blenheim Roads and their intersections with Hanoi and Cornwall Roads This programme shall be undertaken by a qualified archaeological consultant, to be contracted separately for this phase of works.	Throughout the construction period in all excavated areas as indicated.	Contractor / Archaeological Experts	√			Antiquities and Monuments Ordinance
<b>Nuisance Impact Mitigation</b>								
Ch.9	NI01	The Contractor shall be responsible for	Throughout the	Contractor	√			EIA Ordinance

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Ch.7	NI02	<p>ensuring that no earth, rock or debris is deposited on public or private right of way as a result of his operations, including any deposits arising from the movement of Construction Plant or vehicles.</p> <p>The Contractor shall at all times ensure that all existing stream courses and drains within, and adjacent to, the Site are kept safe and free from any debris and any excavated materials arising from the Works.</p>	<p>construction phase.</p> <p>For all worksites and throughout construction phase.</p>	Contractor	✓		Waste Disposal Ordinance	
Ch.9	NI03	<p>Site hoardings shall be constructed of re-usable materials sourced without significant detrimental impact on the environment.</p> <p>Use of tropical hardwoods on-site is prohibited.</p>	<p>For all worksites and throughout construction phase.</p> <p>For all worksites and throughout construction phase.</p>	Design Team / Contractor	✓		EIA Ordinance	
Ch.9	NI04	<p>The Contractor shall where ever possible avoid transportation of materials and equipment during peak hours 0700 to 0900 and 1700 to 1900 to avoid aggravating conditions on local roads.</p>	<p>For all worksites and throughout construction phase.</p> <p>Throughout the construction phase.</p>	Design Team / Contractor	✓		EIA Ordinance and WBTC	
Ch.5	NI05	<p>The Contractor shall where ever possible avoid transportation of materials and equipment during peak hours 0700 to 0900 and 1700 to 1900 to avoid aggravating conditions on local roads.</p>	<p>Throughout the construction phase.</p>	Contractor	✓		EIA Ordinance	