Table J-1: Environmental Mitigation Measures Implementation Status (June 2021)

Loading, Unloading or Transfer of Dusty Materials

		implementation stage	
EM&A Ref.	Recommendation Measures	L1	L2
Air Quality	Impact (Construction)		
2.1 &	General Dust Control Measures		
10.3.1	Frequent water spraying for active construction areas (12 times a day or once every one hour), including Heavy construction activities such as construction of buildings or roads, drilling, ground excavation, cut and fill operations (i.e., earth moving)	✓	✓
2.1 &	Best Practice For Dust Control		
10.3.1	The relevant best practices for dust control as stipulated in the Air Pollution Control (construction Dust) Regulation should be adopted to further reduce the construction dust impacts from the Project. These best practices include:		
	Good Site Management		
	• Good site management is important to help reducing potential air quality impact down to an acceptable level. As a general guide, the Contractor should maintain high standard of housekeeping to prevent emission of fugitive dust. Loading, unloading, handling and storage of raw materials, wastes or by-products should be carried out in a manner so as to minimise the release of visible dust emission. Any piles of materials accumulated on or around the work areas should be cleaned up regularly. Cleaning, repair and maintenance of all plant facilities within the work areas should be carried out in a manner minimising generation of fugitive dust emissions. The material should be handled properly to prevent fugitive dust emission before cleaning.	Obs	Obs
	Disturbed Parts of the Roads		
	 Each and every main temporary access should be paved with concrete, bituminous hardcore materials or metal plates and kept clear of dusty materials; or 	✓	✓
	 Unpaved parts of the road should be sprayed with water or a dust suppression chemical so as to keep the entire road surface wet. 	✓	✓
	Exposed Earth		
	 Exposed earth should be properly treated by compaction, hydroseeding, vegetation planting or seating with latex, vinyl, bitumen within six months after the last construction activity on the site or part of the site where the exposed earth lies. 	N/A No exposed earth in this project.	N/A No exposed earth in this project.

EM&A Ref.	Recommendation Measures	L1	L2
	 All dusty materials should be sprayed with water immediately prior to any loading or transfer operation so as to keep the dusty material wet. 	✓	✓
	Debris Handling		
	 Any debris should be covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the three sides. 	✓	✓
	 Before debris is dumped into a chute, water should be sprayed so that it remains wet when it is dumped. 	✓	✓
	Transport of Dusty Materials		
	 Vehicle used for transporting dusty materials/spoils should be covered with tarpaulin or similar material. The cover should extend over the edges of the sides and tailboards. 	✓	✓
	Wheel washing		
	 Vehicle wheel washing facilities should be provided at each construction site exit. Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels. 	✓	✓
	Use of vehicles		
	 The speed of the trucks within the site should be controlled to about 10km/hour in order to reduce adverse dust impacts and secure the safe movement around the site. 	✓	✓
	 Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels. 	✓	✓
	 Where a vehicle leaving the construction site is carrying a load of dusty materials, the load should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle. 	✓	✓
	Site hoarding		
	 Where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length of that portion of the site boundary except for a site entrance or exit. 	✓	✓

Best Practicable Means for Cement Works (Concrete Batching Plant)

EM&A Ref.	Recommendation Measures	L1	L2
2.1 & 10.3.1	The relevant best practices for dust control as stipulated in the Guidance Note on the Best Practicable Means for Cement Works (Concrete Batching Plant) BPM 3/2(93) should be followed and implemented to further reduce the construction dust impacts of the Project. These best practices include:		
	Exhaust from Dust Arrestment Plant		
	 Wherever possible the final discharge point from particulate matter arrestment plant, where is not necessary to achieve dispersion from residual pollutants, should be at low level to minimise the effect on the local community in the case of abnormal emissions and to facilitate maintenance and inspection 	N/A No concrete batching plant in this project.	N/A No concrete batching plant in this project.
	Emission Limits		
	 All emissions to air, other than steam or water vapour, shall be colourless and free from persistent mist or smoke 	N/A No concrete batching plant in this project.	N/A No concrete batching plant in this project.
	Engineering Design/Technical Requirements		
	 As a general guidance, the loading, unloading, handling and storage of fuel, raw materials, products, wastes or by-products should be carried out in a manner so as to prevent the release of visible dust and/or other noxious or offensive emissions 	N/A No concrete batching plant in this project.	N/A No concrete batching plant in this project.
	Non-Road Mobile Machinery (NRMM):	• •	
	All NRMMs operating on-site which are subject to emission control of Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation are approved/exempted (as the case may be) and affixed with the requisite approval/exemption labels.	✓	✓
Noise Imp	act (Construction)		
3.1 &	Good Site Practice		
10.4.1	Good site practice and noise management can significantly reduce the impact of construction site activities on nearby NSRs. The following package of measures should be followed during each phase of construction:		
	 only well-maintained plant to be operated on-site and plant should be serviced regularly during the construction works; 	✓	✓
	 machines and plant that may be in intermittent use to be shut down between work periods or should be throttled down to a minimum 	✓	✓
	 plant known to emit noise strongly in one direction, should, where possible, be orientated to direct noise away from the NSRs; 	✓	✓
	 mobile plant should be sited as far away from NSRs as possible; and 	✓	✓

EM&A Ref.	Recommendation Measures	L1	L2
	material stockpiles and other structures to be effectively utilised, where practicable, to screen noise from on-site construction activities.	✓	✓
3.1 &	Adoption of Quieter PME		
10.4.1	The recommended quieter PME adopted in the assessment were taken from the EPD's QPME Inventory and "Sound Power Levels of Other Commonly Used PME" are presented in Table 4.26 in the EIA report. It should be noted that the silenced PME selected for assessment can be found in Hong Kong.	✓	✓
3.1 &	Use of Movable Noise Barriers		
10.4.1	Movable noise barriers can be very effective in screening noise from particular items of plant when constructing the Project. Noise barriers located along the active works area close to the noise generating component of a PME could produce at least 10 dB(A) screening for stationary plant and 5 dB(A) for mobile plant provided the direct line of sight between the PME and the NSRs is blocked.	✓	✓
3.1 &	Use of Noise Enclosure/ Acoustic Shed		
10.4.1	The use of noise enclosure or acoustic shed is to cover stationary PME such as air compressor and concrete pump. With the adoption of the noise enclosure, the PME could be completely screened, and noise reduction of 15 dB(A) can be achieved according to the EIAO Guidance Note No. 9/2010.	✓	✓
3.1 &	Use of Noise Insulating Fabric		
10.4.1	Noise insulating fabric can also be adopted for certain PME (e.g. drill rig, pilling machine etc). The fabric should be lapped such that there are no openings or gaps on the joints. According to the approved Tsim Sha Tsui Station Northern Subway EIA report (AEIAR-127/2008), a noise reduction of 10 dB(A) can be achieved for the PME lapped with the noise insulating fabric.	✓	✓
3.1 &	Scheduling of Construction Works outside School Examination Periods		
10.4.1	During construction phase, the contractor should liaise with the educational institutions (including NSRs LCS and CRGPS) to obtain the examination schedule and avoid the noisy construction activities during school examination periods.	N/A No educational institutions nearby the site.	N/A No educational institutions nearby the site.

Construction site runoff and drainage

EM&A Ref. **Recommendation Measures** L1 L2 4.1 & The site practices outlined in ProPECC Note PN 1/94 should be followed as far as 10.5.1 practicable in order to minimise surface runoff and the chance of erosion. The following measures are recommended to protect water quality and sensitive uses of the coastal area, and when properly implemented should be sufficient to adequately control site discharges so as to avoid water quality impacts: At the start of site establishment, perimeter cut-off drains to direct off-site water around the site should be constructed with internal drainage works and erosion and sedimentation control facilities implemented. Channels, earth bunds or sand bag barriers should be provided on site to direct storm water to silt removal facilities. The design of the temporary on-site drainage system should be undertaken by the WKCDA's Contractor prior to the commencement of construction: Sand/silt removal facilities such as sand/silt traps and sediment basins should be provided to remove sand/silt particles from runoff to meet the requirements of the TM standards under the WPCO. The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC Note PN 1/94. Sizes may vary depending upon the flow rate. The detailed design of the sand/silt traps should be undertaken by the WKCDA's Contractor prior to the commencement of construction. All drainage facilities and erosion and sediment control structures should be regularly Obs inspected and maintained to ensure proper and efficient operation at all times and particularly during rainstorms. Deposited silt and grit should be regularly removed, at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times. Measures should be taken to minimize the ingress of site drainage into excavations. If excavation of trenches in wet periods is necessary, they should be dug and backfilled in short sections wherever practicable. Water pumped out from foundation excavations should be discharged into storm drains via silt removal facilities. All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing facility should be provided at construction site exit where practicable. Wash-water should have sand and silt settled out and removed regularly to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains.

EM&A Ref.	Recommendation Measures	L1	L2
	 Open stockpiles of construction materials or construction wastes on-site should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system. 	√	√
	 Manholes (including newly constructed ones) should be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and stormwater runoff being directed into foul sewers. 	✓	✓
	 Precautions should be taken at any time of the year when rainstorms are likely. Actions should be taken when a rainstorm is imminent or forecasted and actions to be taken during or after rainstorms are summarized in Appendix A2 of ProPECC Note PN 1/94. Particular attention should be paid to the control of silty surface runoff during storm events, especially for areas located near steep slopes. 	✓	✓
	 Bentonite slurries used in piling or slurry walling should be reconditioned and reused wherever practicable. Temporary enclosed storage locations should be provided on- site for any unused bentonite that needs to be transported away after all the related construction activities are completed. The requirements in ProPECC Note PN 1/94 should be adhered to in the handling and disposal of bentonite slurries. 	N/A No bentonite slurries are used in this project.	N/A No bentonite slurries are used in this project.
	Barging facilities and activities		
	Recommendations for good site practices during operation of the proposed barging point include:		
	 All vessels should be sized so that adequate clearance is maintained between vessels and the seabed in all tide conditions, to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash; 	N/A No barging facilities in this project.	N/A No barging facilities in this project.
	 Loading of barges and hoppers should be controlled to prevent splashing of material into the surrounding water. Barges or hoppers should not be filled to a level that will cause the overflow of materials or polluted water during loading or transportation; 	N/A No barging facilities in this project.	N/A No barging facilities in this project.
	 All hopper barges should be fitted with tight fitting seals to their bottom openings to prevent leakage of material; and 	N/A No barging facilities in this project.	N/A No barging facilities in this project.
	 Construction activities should not cause foam, oil, grease, scum, litter or other objectionable matter to be present on the water within the site. 	N/A No barging facilities in this project.	N/A No barging facilities in this project.

EM&A Ref.	Recommendation Measures	L1	L2
4.1 &	Sewage effluent from construction workforce		
10.5.1	Temporary sanitary facilities, such as portable chemical toilets, should be employed on- site where necessary to handle sewage from the workforce. A licensed contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance.	✓	✓
4.1 &	General construction activities		
10.5.1	 Construction solid waste, debris and refuse generated on-site should be collected, handled and disposed of properly to avoid entering any nearby storm water drain. Stockpiles of cement and other construction materials should be kept covered when not being used. 	✓	✓
	 Oils and fuels should only be stored in designated areas which have pollution prevention facilities. To prevent spillage of fuels and solvents to any nearby storm water drain, all fuel tanks and storage areas should be provided with locks and be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank. The bund should be drained of rainwater after a rain event. 	Obs	Obs
Waste Mar	nagement Implications (Construction)		
6.1 &	Good Site Practices		
10.7.1	Recommendations for good site practices during the construction activities include:		
	 Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site 	Obs	Obs
	 Training of site personnel in proper waste management and chemical handling procedures 	✓	✓
	Provision of sufficient waste disposal points and regular collection of waste	✓	✓
	 Appropriate measures to minimise windblown litter and dust/odour during transportation of waste by either covering trucks or by transporting wastes in enclosed containers 	✓	✓
	 Provision of wheel washing facilities before the trucks leaving the works area so as to minimise dust introduction to public roads 	✓	✓
	 Well planned delivery programme for offsite disposal such that adverse environmental impact from transporting the inert or non-inert C&D materials is not anticipated 	✓	✓

EM&A Ref.	Recommendation Measures	L1	L2
6.1 &	Waste Reduction Measures		
10.7.1	Recommendations to achieve waste reduction include:		
	 Sort inert C&D material to recover any recyclable portions such as metals 	✓	✓
	 Segregation and storage of different types of waste in different containers or skips to enhance reuse or recycling of materials and their proper disposal 	Obs	✓
	 Encourage collection of recyclable waste such as waste paper and aluminium cans by providing separate labelled bins to enable such waste to be segregated from other general refuse generated by the work force 	✓	✓
	 Proper site practices to minimise the potential for damage or contamination of inert C&D materials 	✓	✓
	 Plan the use of construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of wastes 	✓	✓
6.1 &	Inert and Non-inert C&D Materials		
10.7.1	In order to minimise impacts resulting from collection and transportation of inert C&D material for off-site disposal, the excavated materials should be reused on-site as fill material as far as practicable. In addition, inert C&D material generated from excavation works could be reused as fill materials in local projects that require public fill for reclamation.	✓	✓
	 The surplus inert C&D material will be disposed of at the Government's PFRFs for beneficial use by other projects in Hong Kong. 	✓	✓
	 Liaison with the CEDD Public Fill Committee (PFC) on the allocation of space for disposal of the inert C&D materials at PFRF is underway. No construction work is allowed to proceed until all issues on management of inert C&D materials have been resolved and all relevant arrangements have been endorsed by the relevant authorities including PFC and EPD. 	✓	✓
	 The C&D materials generated from general site clearance should be sorted on site to segregate any inert materials for reuse or disposal of at PFRFs whereas the non-inert materials will be disposed of at the designated landfill site. 	✓	✓

L2 ✓
Obs
✓
✓

7.1 &

10.8.1

The potential for land contamination issues at the TST Fire Station due to its future relocation will be confirmed by site investigation after land acquisition. Where necessary, mitigation measures for minimising potential exposure to contaminated materials (if any) or remediation measures will be identified. If contaminated land is identified (e.g., during decommissioning of fuel oil storage tanks) after the commencement of works, mitigation measures are proposed in order to minimise the potentially adverse effects on the health and safety of construction workers and impacts arising from the disposal of potentially contaminated materials.

The following measures are proposed for excavation and transportation of contaminated material:

- To minimize the chance for construction workers to come into contact with any contaminated materials, bulk earth-moving excavation equipment should be employed;
- Contact with contaminated materials can be minimised by wearing appropriate
 clothing and personal protective equipment such as gloves and masks (especially
 when interacting directly with contaminated material), provision of washing facilities
 and prohibition of smoking and eating on site;
- Stockpiling of contaminated excavated materials on site should be avoided as far as possible:
- The use of contaminated soil for landscaping purpose should be avoided unless pretreatment was carried out:
- Vehicles containing any contaminated excavated materials should be suitably covered to reduce dust emissions and/or release of contaminated wastewater:
- Truck bodies and tailgates should be sealed to stop any discharge;

N/A

TST Fire Station is out of this project boundary, no mitigation measure is required.

N/A

TST Fire Station is out of this project boundary, no mitigation measure is required.

N/A

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N/A

TST Fire Station is out of this project boundary, no mitigation measure is required.

EM&A Ref.	Recommendation Measures	L1	L2
	 Only licensed waste haulers should be used to collect and transport contaminated material to treatment/disposal site and should be equipped with tracking system to avoid fly tipping; 	N/A TST Fire Station is out of this project boundary, no mitigation measure is required.	N/A TST Fire Station is out of this project boundary, no mitigation measure is required.
	Speed control for trucks carrying contaminated materials should be exercised;	N/A TST Fire Station is out of this project boundary, no mitigation measure is required.	N/A N/A TST Fire Station is out of this project boundary, no mitigation measure is required.
	 Observe all relevant regulations in relation to waste handling, such as Waste Disposal Ordinance (Cap. 354), Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354) and obtain all necessary permits where required; and 	N/A TST Fire Station is out of this project boundary, no mitigation measure is required.	N/A TST Fire Station is out of this project boundary, no mitigation measure is required.
•	 Maintain records of waste generation and disposal quantities and disposal arrangements. 	N/A TST Fire Station is out of this project boundary, no mitigation measure is required.	N/A TST Fire Station is out of this project boundary, no mitigation measure is required.
Ecological	Impact (Construction)	·	·
	No mitigation measure is required.		
Landscape	and Visual Impact (Construction)		
Table 9.1 & 10.8 (CM1)	Trees should be retained in situ on site as far as possible. Should tree removal be unavoidable due to construction impacts, trees will be transplanted or felled with reference to the stated criteria in the Tree Removal Applications to be submitted to relevant government departments for approval in accordance to ETWB TCW No. 29/2004 and 3/2006.	✓	✓
Table 9.1 & 10.8 (CM2)	Compensatory tree planting shall be incorporated to the proposed project and maximize the new tree, shrubs and other vegetation planting to compensate tree felled and vegetation removed. Also, implementation of compensatory planting should be of a ratio not less than 1:1 in terms of quality and quantity within the site.	N/A Compensatory tree planting is being reviewed.	N/A Compensatory tree planting is being reviewed.
Table 9.1 & 10.8 (CM3)	Buffer trees for screening purposes to soften the hard architectural and engineering structures and facilities.	N/A Roof garden is designed to be built, but it has not been completed yet.	N/A Roof garden is designed to be built, but it has not been completed yet.

EM&A Ref.	Recommendation Measures	L1	L2
Table 9.1 & 10.8 (CM4)	Softscape treatments such as vertical green wall panel /planting of climbing and/or weeping plants, etc, to maximize the green coverage and soften the hard architectural and engineering structures and facilities.	N/A Climbing or weeping plants are designed to be planted, but proposal is being reviewed for the planting location.	N/A Climbing or weeping plants are designed to be planted, but proposal is being reviewed for the planting location.
Table 9.1 & 10.8 (CM5)	Roof greening by means of intensive and extensive green roof to maximize the green coverage and improve aesthetic appeal and visual quality of the building/structure.	N/A Roof garden is designed to be built, but it has not been completed yet.	N/A Roof garden is designed to be built, but it has not been completed yet.
Table 9.1 & 10.8 (CM6)	Sensitive streetscape design should be incorporated along all new roads and streets.	N/A Greening along the seafront is proposed, but it has not been completed yet.	N/A Greening along the seafront is proposed, but it has not been completed yet.
Table 9.1 & 10.8 (CM7)	Structure, ornamental planting shall be provided along amenity strips to enhance the landscape quality.	N/A Gardens are designed to be built, but it has not been completed yet.	N/A Gardens are designed to be built, but it has not been completed yet.
Table 9.1 & 10.8 (CM8)	Landscape design shall be incorporated to architectural and engineering structures in order to provide aesthetically pleasing designs.	N/A Roof garden is designed to be built, but it has not been completed yet.	N/A Roof garden is designed to be built, but it has not been completed yet.
Table 9.1 (CM9)	Minimize the structure of marine facilities to be built on the seabed and foreshore in order to minimize the affected extent to the waterbody	N/A No marine facilities for this project.	N/A No marine facilities for this project.
Table 9.2 & 10.9 (MCP1)	Use of decorative screen hoarding/boards	✓	✓
Table 9.2 & 10.9 (MCP2)	Early introduction of landscape treatments	N/A No landscape treatments during this stage.	N/A No landscape treatments during this stage.
Table 9.2 & 10.9 (MCP3)	Adoption of light colour for the temporary ventilation shafts for the basement during the transition period.	N/A No ventilation shafts for this project.	N/A No ventilation shafts for this project.
Table 9.2 & 10.9 (MCP4)	Control of night time lighting	✓	✓

EM&A Ref.	Recommendation Measures	L1	L2
Table 9.2	Use of greenery such as grass cover for the temporary open areas will help achieve the	N/A	N/A
& 10.9	visual balance and soften the hard edges of the structures.	No temporary open areas for this	No temporary open areas for this
(MCP5)		project.	project.
N/A -	Not Applicable		
✓ -	Implemented		
Obs -	Observed		

Rem - Reminder