

Summary of environmental impacts associated with the Project

Sensitive Receivers / Assessment Points	Impact Prediction Results (Without Mitigation)	Key Relevant Standards/Criteria	Extents of Exceedance (Without Mitigation)	Impact Avoidance Measures/ Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
Air Quality Impact					
Construction Phase					
Existing Air Sensitive Receivers (including residential area, public place of worship and planned institution)	No adverse construction dust impact is anticipated as a result of the construction activities and associated transportation by the Project.	<ul style="list-style-type: none"> AQO TM-EIAO Annex 4 	Not applicable	Good control measures are recommended: <ul style="list-style-type: none"> Water spraying on any dusty materials before loading and unloading and stockpile of dusty materials; Cover or shelter any stockpile of dusty materials; and Cover any dusty load by impervious sheeting on the construction barges before they leave the site 	No adverse residual impacts anticipated
Operational Phase					
Existing Air Sensitive Receivers (including residential area, public place of worship and planned institution)	No direct air pollution source is added due to the implementation of the project. The air quality at the ASRs may result in a slight improvement due to the increase in separation distance between the new berthing area and the ASRs	<ul style="list-style-type: none"> AQO TM-EIAO Annex 4 	Not applicable	As the Project would not generate or induce any additional air quality impact, migration measures are considered not necessary.	No adverse residual impacts anticipated
Noise					
Construction Phase					
Existing Noise Sensitive Receivers (Country Park)	No adverse construction noise impact is anticipated as a result of the marine-based foundation works and prefabrication method used in above-water superstructure. Thus, quantitative noise assessment was not necessary.	<ul style="list-style-type: none"> TM-EIAO Annex 5 	Not applicable	Good control measures are recommended to minimize the construction noise impact as far as practical: <ul style="list-style-type: none"> Good site practices to limit noise emissions at the source; Use of quality powered mechanical equipment (QPME); Use of temporary noise barriers to screen noise from relatively static PME; and 	No adverse residual impacts anticipated

\\HKGNTS22\GEO\ACTUAL_JOB\262145\05-00 OUTGOING REPORTS & SUBMISSIONS\05-11-1 EIA REPORT (LAI CHI WO)\3 FINAL\ISSUE 02\CH 14 - CONCLUSION\APPENDICES\WORKING\APPENDIX 14.2 IMPACT SUMMARY\APPENDIX 14.2 - IMPACTS SUMMARY_V3.DOCX

Sensitive Receivers / Assessment Points	Impact Prediction Results (Without Mitigation)	Key Relevant Standards/Criteria	Extents of Exceedance (Without Mitigation)	Impact Avoidance Measures/ Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
				<ul style="list-style-type: none"> Alternative use of plant items within one worksite, wherever practicable. 	
Operational Phase					
Existing Noise Sensitive Receivers (Country Park)	As the Project will not have any planned noise source during the operational phase, no operational noise impact is anticipated.	<ul style="list-style-type: none"> TM-EIAO Annex 5 	Not applicable	As the Project would not generate additional noise impact, mitigation measures are considered not necessary.	No adverse residual impacts anticipated
Water Quality					
Construction Phase					
Water Sensitive Receivers (including beach, fish culture zone and marine park)	Water quality in WSRs would be deteriorated by the following construction activities: <ul style="list-style-type: none"> marine-based site investigation works; marine-based foundation works; above-water construction works; demolition works; site run-off from general site operation; accidental spillage of chemicals; and sewage from workforce. 	<ul style="list-style-type: none"> TM-EIAO Annex 6 and Annex 14 Water Pollution Control Ordinance (WPCO) (Cap. 358) Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters (TM-DSS) Practice Note for Professional Persons (ProPECC) PN 1/94 	Not applicable	Good practices when conducting marine-based site investigation works and marine-based foundation works; <ul style="list-style-type: none"> Prefabrication method should first be considered when designing superstructures; Good site practices in accordance to (ProPECC PN1/94) when handling the site sun-off from general site operation; Proper storage of the chemicals used during construction; and Providing temporary sanitary facilities and posting notices about treating discharge at conspicuous locations for the workforce 	No adverse residual impacts anticipated
Operational Phase					
Water Sensitive Receivers (including beach, fish culture zone and marine park)	No adverse water impact is anticipated from the Project during operation phase since the Project does not plan to increase the number of kaito or alter the existing kaito routing; and the improved pier head is located farther away from the WSRs.	<ul style="list-style-type: none"> TM-EIAO Annex 6 and Annex 14 Water Pollution Control Ordinance (WPCO) (Cap. 358) Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters 	Not applicable	As the Project would not generate or induce any additional water quality impact, mitigation measures are considered not necessary.	No adverse residual impacts anticipated

\\HKGNTS22\GEO\ACTUAL_JOB\262145\05-00 OUTGOING REPORTS & SUBMISSIONS\05-11-1 EIA REPORT (LAI CHI WO)\3 FINAL\ISSUE 02\CH 14 - CONCLUSION\APPENDICES\WORKING\APPENDIX 14.2 IMPACT SUMMARY\APPENDIX 14.2 - IMPACTS SUMMARY_V3.DOCX

Sensitive Receivers / Assessment Points	Impact Prediction Results (Without Mitigation)	Key Relevant Standards/Criteria	Extents of Exceedance (Without Mitigation)	Impact Avoidance Measures/ Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
		(TM-DSS) • Practice Note for Professional Persons (ProPECC) PN 1/94 – Construction Site Drainage			
Waste Implication					
Construction Phase					
Water quality, air and noise sensitive receivers at or near the Project site, the waste transportation routes and the waste disposal site, as well as the waste disposal outlet	It is estimated that 994m ³ of inert soft C&D material, 69m ³ of inert hard C&D materials, 179m ³ of marine sediment, 5.06 tonnes of general refuse, paper, metals, plastics, floating refuse etc. and tens of litres/month of chemical waste will be generated.	• TM-EIAO • ETWB TC(W) No. 34/2002	Not applicable	<ul style="list-style-type: none"> Waste reduction should be achieved at the planning and design phase, as well as by ensuring the implementation of good site practices; Standard formwork or pre-fabrication should be used as much as possible in order to minimise the arising of C&D materials; Carry out on-site sorting to retrieve recyclable materials as much as possible; Inert construction waste shall not be in liquid form such that it can be contained and delivered by water-tight containers. Inert C&D materials in liquid form shall be solidified before delivering to the public fill reception facilities; General refuse should be stored in enclosed bins separately from construction and chemical wastes. Recycling bins should also be placed to encourage recycling. Preferably enclosed and covered areas should be provided for general refuse collection and routine cleaning for these areas should also be implemented to keep areas clean. A reputable waste 	No adverse residual impact anticipated

Sensitive Receivers / Assessment Points	Impact Prediction Results (Without Mitigation)	Key Relevant Standards/Criteria	Extents of Exceedance (Without Mitigation)	Impact Avoidance Measures/ Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
				<p>collector should be employed to remove general refuse on a daily basis;</p> <ul style="list-style-type: none"> If chemical wastes are produced at the construction site, the contractors should register with EPD as chemical waste producers. Chemical wastes should be stored in appropriate containers and collected by a licensed chemical waste collector. Good management practices for handling and disposal of marine sediments at dedicated marine disposal sites. 	
Operational Phase					
Water quality, air and noise sensitive receivers at or near the Project site, the waste transportation routes and the waste disposal site, as well as the waste disposal outlet	Sufficient number of trash bins and recycling bins have already been provided for the collection of general refuse generated by visitors and pier users along the existing footpath to Lai Chi Wo. No bin will be provided as no general refuse is anticipated by the Project during the operational phase.	• Waste Disposal Ordinance (Cap. 354)	Not applicable	<ul style="list-style-type: none"> Recycling containers are recommended to be provided at suitable locations to encourage recycling of waste such as aluminium cans and plastics during operation phase 	No adverse residual impact anticipated
Land Contamination					
Construction workers within the Project site	No potential land contamination issue identified in the Project Site	<ul style="list-style-type: none"> TM-EIAO Section 3 (Potential Contaminated Land Issues) of Annex 19 “Guidelines for Assessment of Impact on Sites of Cultural Heritage and Other Impacts” Guidance Note for Contaminated Land 	Not applicable	No mitigation measure is required	No adverse residual impact anticipated

Sensitive Receivers / Assessment Points	Impact Prediction Results (Without Mitigation)	Key Relevant Standards/Criteria	Extents of Exceedance (Without Mitigation)	Impact Avoidance Measures/ Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
		Assessment and Remediation <ul style="list-style-type: none"> Guidance Manual for Use of Risk-based Remediation Goals for Contaminated Land Management Practice Guide for Investigation and Remediation of Contaminated Land 			
Ecology					
Construction Phase					
500m of the boundary of the Project and any other areas likely to be impacted by the Project	<ul style="list-style-type: none"> Temporary habitat loss- 0.323 ha of sandy shore, 0.003 ha of woodland (no actual woodland loss, the connecting walkway have to be constructed between the proposed LCW Pier and the existing footpath near the shore) and 1.044 ha of the sea (actual area will be much smaller due to piling method) Potential risk of encroachment on the common hard coral <i>Oulastrea crispata</i> 	<ul style="list-style-type: none"> TM-EIAO Annex 8 and Annex 16 	Not applicable	<ul style="list-style-type: none"> Encroachment of other terrestrial recognized sites of conservation importance including the country park and Fung Shui Woodland have avoided; Avoiding important habitats such as mangrove and seagrass bed, SSSI and the coral communities identified Adopting piling method instead of reclamation method; Recycling of water contaminated with slurry rock fragment; No-dumping policy; and Mitigation measures and good site practices for water quality in marine works. 	<ul style="list-style-type: none"> Permanent loss of 0.015ha developed area (the existing pier), 0.016ha sandy shore and less than 0.125ha marine water habitat (water column and sub-tidal soft bottom seabed) Loss of low coverage (less than 1%, equivalent to 0.006m²) of common hard coral mostly <i>Oulastrea crispata</i> (and very low numbers of <i>Porites lobata/lutea</i> and <i>Leptastrea purpurea</i>) on the existing pier head Provision of new and additional hard substrates for coral colonization
Operational Phase					

Sensitive Receivers / Assessment Points	Impact Prediction Results (Without Mitigation)	Key Relevant Standards/Criteria	Extents of Exceedance (Without Mitigation)	Impact Avoidance Measures/ Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
500m of the boundary of the Project and any other areas likely to be impacted by the Project	<ul style="list-style-type: none"> Permanent Habitat loss- 0.015 ha of developed area, 0.016 ha of sandy shore and 0.125 ha of the sea (actual area will be much smaller due to piling method) Artificial lightings 	<ul style="list-style-type: none"> TM-EIAO Annex 8 and Annex 16 	Not applicable	<ul style="list-style-type: none"> Encroachment of other terrestrial recognized sites of conservation importance including the country park and Fung Shui Woodland have avoided; Avoiding important habitats such as mangrove and seagrass bed, SSSI and the coral communities identified Adopting piling method instead of reclamation method; and Minimising the additional lighting in the new pier head. 	<ul style="list-style-type: none"> No adverse residual impact anticipated
Landscape and visual impact					
Construction Phase					
Existing Trees, Landscape Resources (LRs) and Landscape Character Areas (LCAs) and Visually Sensitive Receivers (VSRs) within the assessment area	<ul style="list-style-type: none"> Moderately adverse impacts on LR inshore water of Crooked Harbour near Lai Chi Wo, LCA inshore water landscape of Crooked Harbour and LCA Coastal Upland and Hillside Landscape of Pan Pui Teng Slightly adverse impacts on LR rocky shore along the coastline and the existing Lai Chi Wo pier Moderately adverse impact on VSR marine travellers in Crooked Harbour Slightly adverse impacts on other 3 VSRs including Users at Affinity Pavilion, Users 	<ul style="list-style-type: none"> TM-EIAO Annexes 3, 10, 11, 18, 20 and 21. EIAO Guidance Note 8/2010 Preparation of Landscape and Visual Impact Assessment. HKPSG Chapters 4 and 10. Protection of Endangered Species of Animals and Plants Ordinance (Cap.586). ETWB TC(W) No. 29/2004 – Registration of Old and Valuable Trees, and Guidelines for their Preservation. Land Administration Office, Lands Department Practice Note Nos. 7/2007 and 7/2007A Tree Preservation and Tree Removal Application for 	Not applicable	<ul style="list-style-type: none"> Minimisation of Construction Area Site Hoarding Construction Programme Water Quality Control Appearance of Construction Plants / Machinery Lighting Control 	<ul style="list-style-type: none"> Slightly adverse impacts on LR inshore water of Crooked Harbour near Lai Chi Wo, LCA inshore water landscape of Crooked Harbour and LCA Coastal Upland and Hillside Landscape of Pan Pui Teng Insubstantial impacts on all other LR and LCAs Slightly adverse impact on VSR marine travellers in Crooked Harbour Insubstantial impacts on all other VSRs

Sensitive Receivers / Assessment Points	Impact Prediction Results (Without Mitigation)	Key Relevant Standards/Criteria	Extents of Exceedance (Without Mitigation)	Impact Avoidance Measures/Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
	at Lai Chi Wo Viewing Point and Hikers along Hiking Trail near Kau Ma Shek <ul style="list-style-type: none"> Insubstantial impacts on all other LRs and LCAs 	Building Development in Private Projects.			
Operational Phase					
Existing Trees, Landscape Resources (LRs) and Landscape Character Areas (LCAs) and Visually Sensitive Receivers (VSRs) within the assessment area	<ul style="list-style-type: none"> Slightly beneficial impact on LR Lai Chi Wo Pier Moderately adverse impact on LR inshore water of Crooked Harbour near Lai Chi Wo and LCA inshore water landscape of Crooked Harbour Moderately beneficial impact on VSR marine travellers in Crooked Harbour Slightly beneficial impacts on other 3 VSRs including Users at Affinity Pavilion, Users at Lai Chi Wo Viewing Point and Hikers along Hiking Trail near Kau Ma Shek Insubstantial impacts on all other LRs and LCAs 	<ul style="list-style-type: none"> TM-EIAO Annexes 3, 10, 11, 18, 20 and 21. EIAO Guidance Note 8/2010 Preparation of Landscape and Visual Impact Assessment. HKPSG Chapters 4 and 10. Protection of Endangered Species of Animals and Plants Ordinance (Cap.586). ETWB TC(W) No. 29/2004 – Registration of Old and Valuable Trees, and Guidelines for their Preservation. Land Administration Office, Lands Department Practice Note Nos. 7/2007 and 7/2007A Tree Preservation and Tree Removal Application for Building Development in Private Projects. 	Not applicable	<ul style="list-style-type: none"> Sensitive Design and Disposition of the Pier Structures 	<ul style="list-style-type: none"> Moderately beneficial impacts on LR Lai Chi Wo Pier Slightly adverse impact on LR inshore water of Crooked Harbour near Lai Chi Wo and LCA inshore water landscape of Crooked Harbour Insubstantial impacts on all other LRs and LCAs Moderately beneficial impacts on all 4 VSRs
Fisheries					
Construction Phase					
Fisheries resources within 500m assessment area	<ul style="list-style-type: none"> Loss of about 1.526 ha of fishing ground Disturbance of fishing activities by the 	<ul style="list-style-type: none"> TM-EIAO Annex 9 and Annex 17 	Not applicable	<ul style="list-style-type: none"> Follow water quality mitigation measures 	No adverse residual impact anticipated

Sensitive Receivers / Assessment Points	Impact Prediction Results (Without Mitigation)	Key Relevant Standards/Criteria	Extents of Exceedance (Without Mitigation)	Impact Avoidance Measures/Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
	footprints and temporary works area of pier <ul style="list-style-type: none"> Indirect disturbance of fisheries habitats due to deterioration of water quality from the construction works 				
Operational Phase					
Fisheries resources within 500m assessment area	<ul style="list-style-type: none"> Direct loss of about 0.156 ha fishing ground at the footprint of the pier Disturbance of fishing activities by the footprint of the pier 	<ul style="list-style-type: none"> TM-EIAO Annex 9 and Annex 17 	Not applicable	No mitigation measure is required	No adverse residual impact anticipated
Cultural Heritage					
Construction Phase					
Marine Archaeology	<ul style="list-style-type: none"> No marine archaeological resources are identified within the assessment area through the geophysical survey and visual diver survey. Adverse impact from the construction works is not anticipated. 	<ul style="list-style-type: none"> Antiquities and Monuments Ordinance (Cap. 53); Environmental Impact Assessment Ordinance (EIAO) (Cap. 499), including the Technical Memorandum on Environmental Impact Assessment Process (EIAO-TM); Guidelines on Cultural Heritage Impact Assessment prepared by Antiquities and Monuments Office (AMO); Hong Kong Planning Standards and Guidelines (HKPSG); and Guidelines for Marine Archaeological 	Not applicable	No mitigation measure is required	No adverse residual impact anticipated

Sensitive Receivers / Assessment Points	Impact Prediction Results (Without Mitigation)	Key Relevant Standards/Criteria	Extents of Exceedance (Without Mitigation)	Impact Avoidance Measures/ Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
Investigation (MAI).					
Operational Phase					
Marine Archaeology	<ul style="list-style-type: none"> Adverse impact to cultural heritage is not anticipated from the Project during the operational phase. 	<ul style="list-style-type: none"> Antiquities and Monuments Ordinance (Cap. 53); Environmental Impact Assessment Ordinance (EIAO) (Cap. 499), including the Technical Memorandum on Environmental Impact Assessment Process (EIAO-TM); Guidelines on Cultural Heritage Impact Assessment prepared by Antiquities and Monuments Office (AMO); Hong Kong Planning Standards and Guidelines (HKPSG); and Guidelines for Marine Archaeological Investigation (MAI). 	Not applicable	No mitigation measure is required	No adverse residual impact anticipated