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## 14. LANDSCAPE AND VISUAL IMPACT

### 14.1 Introduction

- 14.1.1 This section reports on the study to assess the potential landscape and visual impacts arising from construction and operation of any above ground structures and works areas associated with the Project.
- 14.1.2 The Project is a Schedule 3 Designated Project (DP) and various Schedule 2 DPs have been identified within it. The identified DPs are listed and described in **Section 2** of the EIA report.
- 14.1.3 An application for Environmental Permit (EP) would be submitted for the following Schedule 2 DPs (refer to Figure 14.9b) and these DPs during construction and operational phases are included in this Landscape and Visual Impact assessment:
  - DP1 <sup>1</sup> Construction and operation of new primary distributor road P1, district distributor road D1, D2, D3, D4, D5 and D6.
  - DP2 <sup>1</sup>– Construction and operation of a new effluent polishing plant
  - DP3<sup>1</sup>-Construction and operation of a new water reclamation plant
  - DP4 <sup>2</sup> Construction and operation of a refuse transfer station (RTS)
  - DP5 <sup>2</sup> Construction and operation of two 400kV electricity substations
  - DP6<sup>1</sup> Construction and operation of revitalisation works (i.e., river training, diversion works) for San Tin Eastern Main Drainage Channel is located less than 300m from Conservation Area<sup>3</sup>
  - DP7 <sup>1</sup> Construction and operation of recreational development for proposed Sites 0.1.1, 0.1.2, and 0.1.3 (as open space) encroach into Deep Bay Buffer Zone 2 Note:
  - Subject to an Environmental Permit application for both construction and operation phases of the DP under this EIA Study
  - Subject to separate EIA Study, as required.
     The future zoning of the concerned 'Conservation Area' as shown on
  - 3 The future zoning of the concerned 'Conservation Area' as shown on Figure 1.2 are subject to change due to the land use proposals as reflected in the Revised RODP.
- 14.1.4 Landscape and visual impacts were assessed in accordance with the criteria and guidelines as stated in Annexes 10 and 18 of the Technical Memorandum on Environmental Impact Assessment Process (EIAO-TM) and the Environmental Impact Assessment ordinance (EIAO) Guidance Note No. 8/2010 on "Preparation of Landscape and Visual Impact Assessment under the Environmental Impact Assessment Ordinance".

## 14.2 Scope and Content of Assessment Approach

#### Assessment Area

14.2.1 The assessment area for landscape impact assessment includes all areas within 500m from the Project boundary including works sites and works areas. The assessment area for the visual impact assessment is defined by the visual envelope of the Project. The landscape and visual impact study boundary are shown in **Figure 14.1**.

Review of Planning Framework

14.2.2 Relevant outline development plan(s), outline zoning plan(s), layout plan(s) or planning briefs and studies which may identify areas of high landscape value and visually sensitive areas should be reviewed. The aim is to gain an insight of the future outlook of the affected area so as to assess whether the Project can fit into the surrounding setting. Any conflict with statutory town plan(s) should be highlighted and appropriate follow-up action should be recommended.

#### Landscape Impact Assessment

14.2.3 The existing landscape resources and character within the assessment area were described, appraised, analysed, and evaluated. A system is derived for judging landscape and visual impact significance as required under the EIAO-TM. The sensitivity of the



landscape framework and its ability to accommodate change are particularly focused on. The degree of compatibility of the Project with the existing and planned landscape setting is identified. The landscape impact assessment evaluates the potential landscape impact so as to illustrate the significance of such impacts arising from the Project. Clear mapping of the baseline landscape resources, landscape character areas and the landscape impact are provided. This has been achieved by site visit and desktop study of topographical maps, information databases and photographs with reference to the ecological survey and habitat map. However, it is inevitable that during the process of identification for broad areas of landscape resources, some buildings, roads, hard paving, or other features may be included – or conversely some trees or other resource may be left out. This report attempts to formalise boundaries between distinct areas of landscape resources for the purpose of impact assessment and should not be construed as reflecting every single variable on the ground.

#### Visual Impact Assessment

- 14.2.4 The visual impact of the Project was assessed. For aboveground structures of the Project, clear illustrations including mapping of visual impact are provided. The assessment adopts a systematic methodology and includes the following:
  - i. Identification and plotting of visual envelope of the proposed Project within the assessment area.
  - ii. Identification of the key groups of sensitive receivers within the visual envelope and their views at both ground level and elevated vantage points.
  - iii. Description of the visual compatibility of the Project with the surrounding and the planned setting, and its obstruction and interference with the key views of the adjacent areas.
  - iv. Description of the severity of visual impact in terms of distance, nature, and number of sensitive receivers. The visual impact of the Project with and without mitigation measures are included so as to demonstrate the effectiveness of the proposed mitigation measures.
  - v. Clear evaluations and explanation with supportive arguments of all relevant factors considered in arriving at the significant thresholds of visual impact.

Landscape and Visual Mitigation Measures

- 14.2.5 The merit of preservation in total or in parts of existing landscape and the establishment of a new landscape character are evaluated. Alternative construction methods and / or Project-related works or structure(s) that would avoid or reduce the identified landscape and visual impacts are considered and evaluated for comparison before adopting other mitigation or compensatory measures to alleviate the impacts. The mitigation measures proposed are not only concerned with damage reduction but also included consideration of potential enhancement of the existing landscape and visual quality. Mitigation measures to minimise the adverse effects identified, including provision of a landscape design are recommended.
- 14.2.6 Parties are identified for the on-going management and maintenance of the proposed mitigation works to ensure their effectiveness throughout the operation of the Project. A practical programme and funding proposal for the implementation of the recommended measures are provided. Example of mitigation measures include tree preservation and tree transplanting as far as practical, control of night-time lighting glare, erection of decorative screen hoarding that compatible with the surrounding setting, reinstatement of the affected hard and soft landscape area in like-for-like basis, aesthetic design of aboveground structure, provision of finishes to structure, colour scheme and texture of material used, tree compensation, provision of screen planting, roadside amenity planting, roof greening and reprovision of open spaces.

Significance of Landscape and Visual Impact

14.2.7 Annotated illustration such as coloured perspective drawings, plans and section/elevation diagrams, oblique aerial photographs, photographs taken at vantage points and computer-generated photomontage are adopted where appropriate to illustrate the significance of the landscape and visual impacts of the aboveground ancillary structures of the Project.

### 14.3 Environmental Legislations, Standards and Guidelines

The following environmental legislation, standards and guidelines are applicable to the evaluation of landscape and visual impacts associated with the construction and operation of the Project:

- Environmental Impact Assessment Ordinance (Cap.499) and the Technical Memorandum on EIA Process (EIAO-TM), particularly Annexes 3, 10, 11, 18, 20 and 21;
- Hong Kong Planning Standards and Guidelines (HKPSG);
- Town Planning Ordinance (Cap 131);
- TPB PG-NO.12C Town Planning Board Guidelines for Application for Developments within Deep Bay Area Under Section 16 of the Town Planning Ordinance;
- TPB PG-NO. 41- Town Planning Board Guidelines on Submission of Visual Impact Assessment for Planning Applications to the Town Planning Board;
- Approved Kwu Tung South OZP No. S/NE-KTS/18;
- Approved Kwu Tung North OZP No. S/KTN/4;
- Approved San Tin Outline Zoning Plan No. S/YL-ST/8;
- Approved Mai Po and Fairview Park OZP No. S/YL-MP6;
- Approved Ngau Tam Mei Outline Zoning Plan No. S/YL-NTM/12;
- Approved Lok Ma Chau Loop Outline Zoning Plan No. S/LMCL/2;
- Forests and Countryside Ordinance (Cap. 96) and its subsidiary legislation the Forestry Regulations;
- Pesticides Ordinance (Cap. 133) and its subsidiary legislation and the Pesticides Regulations;
- Plant (Importation and Pest Control) Ordinance (Cap. 207);
- Country Parks Ordinance (Cap 208);
- Marine Parks Ordinance (Cap 476) and associated subsidiary legislation;
- Protection of Endangered Species of Animals and Plants Ordinance, Cap. 586;
- SILTech Publication (1991) Tree Planting and Maintenance in Hong Kong (Standing Interdepartmental Landscape Technical Group) [11-23];
- GEO Publication No. 1/2011 Technical Guidelines on Landscape Treatment for Slopes;
- Land Administration Office Instruction (LAOI) Section D-12 Tree Preservation;
- EIAO Guidance Note No. 8/2010;
- DEVB TCW No. 2/2012 on Allocation of Space for Quality Greening on Roads;
- DEVB TC(W) No. 5/2017 Community Involvement in Planting Works;
- DEVB TCW No. 6/2015 Maintenance of Vegetation and Hard Landscape Features;
- DEVB TC(W) No. 5/2020- Registration and Preservation of Old and Valuable Trees;

- DEVB TCW No. 3/2012 on Site Coverage of Greenery for Government Building Projects;
- DEVB TCW No. 1/2018 on Soft Landscape Provisions for Highway Structures;
- DEVB TCW No. 4/2020 Tree Preservation;
- DEVB Publication 2012 Guidelines on Greening of Noise Barriers;
- ETWB TCW No. 24/2004 Specification Facilitating the Use of Concrete Paving Units Made of Recycled Aggregates;
- ETWB TCW No. 36/2004 The Advisory Committee on the Appearance of Bridges and Associated Structures (ACABAS);
- ETWB TCW No. 5/2005 Protection of Natural Streams/Rivers from adverse Impacts Arising from construction Works;
- WBTC No. 25/93 Control of Visual Impact of Slopes;
- WBTC No. 17/2000 Improvement to the Appearance of slopes in connection with WBTC 25/93;
- Hong Kong 2030 Planning Vision and Strategy Final Report;
- Landscape Value Mapping of Hong Kong;
- LAO PN no. 2/2020A on Tree Preservation and Removal Proposal for Building Development in Private Projects Compliance of Tree Preservation Clause under Lease;
- Committee Paper NCSC 9/06 "Advisory Council on the Environment Nature Conservation Subcommittee Fung Shui Woods in Hong Kong";
- GEO Information Note 01/2021 Surface Protection and Appearance of Slopes; and
- Government General Regulation 740 restrictions on the preservation and felling of trees in Hong Kong;
- Guidelines on Soil Volume for Urban Trees;
- Guidelines on Soil Improvement;
- Street Tree Selection Guide; and
- Wild Animal Protection Ordinance (Cap. 170).

## 14.4 Assessment Methodology

Landscape Impact Assessment Methodology

The landscape impacts have been assessed according to the following procedures.

- Identification and description of the baseline landscape resources (LRs) and landscape characters area (LCAs) found within the assessment area. The assessment area includes all areas within 500 m of the Project area. This is achieved by site visits and desktop study of topographical maps, information databases and photographs. In this report, buildings, roads, and pavement are not considered as landscape resources and have therefore not been included in the mapping of resources. However, it is inevitable that during the process of identification for broad areas of landscape resources, some buildings, roads, hard paving, or other features may be included or conversely some trees or other resource may be left out. This report attempts to formalise boundaries between distinct areas of landscape resources for the purpose of impact assessment and should not be construed as reflecting every single variable on the ground.
- Assessment of the degree of sensitivity of the landscape resources (LRs) and landscape character areas (LCAs). This is influenced by a number of factors including whether the resource/character is common or rare, whether it is considered to be of local,



regional, national or global importance, whether there are any statutory or regulatory limitations/requirements relating to the resource, the quality of the resource/character, the maturity of the resource and the ability of the resource/character to accommodate change.

The sensitivity of each LR and LCA is classified as follows:

- **High:** Important landscape resources and landscape character of particularly distinctive in character or high importance, sensitive to relatively small change.
- **Medium:** Landscape resources and landscape character of moderately valued landscape characteristics reasonably tolerant to change.
- **Low:** Landscape resources and landscape character, the nature of which is largely tolerant to change.
- Identification of potential sources of landscape changes. These are the various elements of the construction works and operation procedures that would generate landscape impacts.

Assessment of the potential magnitude of landscape changes. Factors considered include:

- the compatibility with the surrounding landscape;
- the duration of the impact under construction and operation phase;
- scale of development; and
- reversibility of change.

The magnitude of landscape changes is classified as follows:

- Large: The landscape resources and landscape character would incur a major change.
- Intermediate: The landscape resources and landscape character would incur a moderate change.
- **Small:** The landscape resources and landscape character would incur slight or barely perceptible change.
- **Negligible:** The landscape resources and landscape character would incur no discernible change.
- Identification of potential landscape mitigation measures. These may take the form
  of adopting basic engineering design to prevent and/or minimise adverse landscape
  impacts before adopting other mitigation or compensatory measures to alleviate the
  impacts. Potential mitigation measures should also include the preservation of vegetation
  and natural landscape resources, transplanting trees with good condition and high amenity
  value, enhancement of existing landscape quality by providing of planting with screening,
  shading and ornamental value, re-vegetation of disturbed lands, compensatory planting,
  aesthetic design of aboveground structures including provision of finishes, colour scheme,
  texture of materials used and any measures to mitigate the impact on the existing and
  planned land use and VSRs. A programme for the mitigation measures will be provided.
  The agencies responsible for the funding, implementation, management, and maintenance
  of the mitigation measures will be identified.
- Prediction of the significance of impacts before and after the implementation of the mitigation measures. Potential mitigation measures suggested would alleviate the landscape impact and enhance the landscape quality by reinstating the disturbed lands and improve the compatibility with the surrounding. By synthesising the magnitude of the change and the sensitivity of the various LRs and LCAs, it is possible to categorise impacts in a logical, well-reasoned and consistent fashion. Table 14.1 shows the rationale for



dividing the degree of significance into four thresholds, namely insubstantial, slight, moderate, and substantial, depending on the combination of a negligible-smallintermediate-large magnitude of change and a low-medium-high degree of sensitivity of landscape resource and character.

# Table 14.1Relationship between Sensitivity and Magnitude of Change in Defining<br/>Impact Significance

		Low	Medium	High
Mag	Negligible	Insubstantial	Insubstantial	Insubstantial
nitude	Small	Insubstantial / Slight	Slight / Moderate	Moderate
of Char	Intermediate	Slight / Moderate	Moderate	Moderate / Substantial
ge	Large	Moderate	Moderate / Substantial	Substantial

## Sensitivity of Landscape Resource and Landscape Character Area

Note: All impacts are adverse unless otherwise noted with beneficial.

The significance of landscape impacts is categorised as follows:

Substantial:	Adverse / beneficial impact where the proposal would cause significant deterioration or improvement in existing landscape quality.
Moderate:	Adverse / beneficial impact where the proposal would cause a noticeable deterioration or improvement in existing landscape quality.
Slight:	Adverse / beneficial impact where the proposal would cause a barely perceptible deterioration or improvement in existing landscape quality.

Insubstantial: No discernible change in the existing landscape quality.

 Prediction of Acceptability of Impacts. An overall assessment of the acceptability, or otherwise, of the impacts according to the five criteria set out in Annex 10 of the EIAO-TM.

Broad Brush Tree Survey Methodology

Conducting the tree group survey has involved the following procedures:

- Where practical, trees in close proximity are grouped together in the same tree groups. The locations of these tree groups are drawn on the tree survey plan with the boundaries corresponding to the collective crown spread of the included trees. Where trees are scattered and/or access to them are limited, trees are conveniently grouped together in the same tree groups by visible physical boundaries on site, such as hoarding, fences, paths, and roads etc. The locations of these tree groups are drawn on the Broad-Brush Tree Survey Plan with the boundaries corresponding to the physical boundaries to define these zones. Where practical, all trees in the tree groups are surveyed at certain reasonable distances where tree species are identifiable. The amount of each tree species in the same tree groups are counted as far as possible or estimated for inaccessible trees. The following information is recorded and provided in ranges for each tree group:
- species in the tree groups:
  - height;



- crown spread;
- trunk diameter (measured 1.3 m from the ground);
- assessment of tree form (good / fair / poor);
- assessment of tree health (good / fair / poor);
- assessment of tree amenity value (high / medium / low); and
- assessment of tree survival rate after transplanting (high / medium / low).
- Where applicable, the following information is provided as remarks for each tree groups, if:
  - there is tree included in the Register of Old and Valuable Trees (OVT) promulgated under DEVB TC(W) No. 5/2020 – Registration and Preservation of Old and Valuable Trees;
  - there is tree potentially registrable in accordance with the criteria as set out in DEVB TC(W) No. 5/2020 – Registration and Preservation of Old and Valuable Tree;
  - there is tree belonging to species which is protected under local legislations, including the Forests and Countryside Ordinance (Cap. 96) and the Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586);
  - there is tree belonging to species which is included in the latest edition of the publication 'Rare and Precious Plants of Hong Kong' issued by AFCD; and
  - there is tree which has special importance due to special attributes such as protected status; rarity; age over 100 years, outstanding size or form; and cultural or historical significance etc.
- Photographic records are taken on site to show the general overall view of the tree groups.

Visual Impact Assessment Methodology

The visual impacts have been assessed according to the following procedures.

- Identification of the visual envelope during the construction and operation phases of the Project. This is achieved by site visit and desktop study of topographic maps, photographs, and preparation of cross-sections to determine visibility of the Project from various locations.
- Identification of the visually sensitive receivers (VSRs) within the Visual Envelope (VE) at construction and operation phases. These are the people who would reside within, work within, play within, or travel through, the Visual Envelope.
- Assessment of the degree of sensitivity of the VSRs The factors considered include:
  - the type of VSRs, which is classified according to whether the person is at home, at work, at play, or travelling. Those who view the change from their homes are considered to be highly sensitive as the attractiveness or otherwise of the outlook from their home will have a substantial effect on their perception of the quality and acceptability of their home environment and their general quality of life. Those who view the impact from their workplace are considered to be only moderately sensitive as the attractiveness or otherwise of the outlook will have a less important, although still material, effect on their perception of their quality of life. The degree to which this applies depends on whether the workplace is industrial, retail, or commercial. Those who view the impact whilst taking part in an outdoor leisure activity may display varying sensitivity depending on the type of leisure activity. Those who view the impact whilst travelling on a public thoroughfare will also display varying sensitivity depending on the speed of travel.
  - the relative numbers of VSRs will be expressed in terms of whether there are "many", "medium" and "few" VSRs in any one category of VSR

- other factors which are considered (as required by EIAO GN 8/2010) include the number of VSRs, the value and quality of existing views, the availability and amenity of alternative views, the duration or frequency of view, and the degree of visibility.

The sensitivity of VSRs is classified as follows:

- **High:** The VSR is highly sensitive to any change in their viewing experience.
- **Medium:** The VSR is moderately sensitive to any change in their viewing experience.
- **Low:** The VSR is only slightly sensitive to any change in their viewing experience.
- *Identification of potential sources of visual changes.* These are the various elements of the construction works and operation that would generate visual changes.

Assessment of the potential magnitude of visual changes. Factors considered include:

- the compatibility with the surrounding landscape;
- the duration of the impact;
- the potential blockage of view;
- the reversibility of the impact;
- the scale of the impact and distance of the source of impact from the viewer; and
- the degree of visibility of the impact, and the degree of which the impact dominates the field of vision of the viewer.

The magnitude of visual changes is classified as follows:

Large:	The VSRs would suffer a major change in their viewing experience.
Intermediate:	The VSRs would suffer a moderate change in their viewing experience.
Small:	The VSRs would suffer a small change in their viewing experience.
Negligible:	The VSRs would suffer no discernible change in their viewing experience.

- Identification of potential visual mitigation measures. These may take the form of adopting basic engineering design to prevent and/or minimise adverse visual impacts before adopting other mitigation or compensatory measures to alleviate the impacts. Potential mitigation measures should also include the preservation of vegetation and natural landscape resources, provision of screen planting, re-vegetation of disturbed lands, compensatory planting. Remedial measures such as colour and textural treatment of building features; and compensatory measures such as the implementation of landscape design elements (e.g., tree planting, creation of new open space, etc.) to compensate for unavoidable adverse impacts and to attempt to generate potentially beneficial long-term impacts to mitigate the impact on the existing and planned land use and VSRs. A programme for the mitigation measures will be provided. The agencies responsible for the funding, implementation, management, and maintenance of the mitigation measures will be identified.
- Prediction of the significance of visual impacts before and after the implementation of the mitigation measures. By synthesising the magnitude of the various visual impacts and the sensitivity of the VSR that are affected, it is possible to categorise the degree of significance of the impacts in a logical, well-reasoned and consistent fashion. Table 14.2 shows the rationale for dividing the degree of significance into four thresholds, namely, insubstantial, slight, moderate, and substantial, depending on the combination of a

negligible-small-intermediate-large magnitude of change and a low-medium-high degree of sensitivity of VSRs.

# Table 14.2Relationship between visually sensitive receivers (VSRs) Sensitivity and<br/>Magnitude of Change in Defining Impact Significance

		Low	Medium	High
Magnitude of Chan	Negligible	Insubstantial	Insubstantial	Insubstantial
	Small	Insubstantial / Slight	Slight / Moderate	Moderate
	Intermediate	Slight / Moderate	Moderate	Moderate / Substantial
ge	Large	Moderate	Moderate / Substantial	Substantial

Sensitivity of visually sensitive receivers (VSRs)

Note: All impacts are adverse unless otherwise noted with beneficial.

The significance of visual impacts is categorised as follows:

Substantial:	Adverse / beneficial impact where the proposal would cause significant deterioration or improvement in existing visual quality.
Moderate:	Adverse / beneficial impact where the proposal would cause a noticeable deterioration or improvement in existing visual quality.
Slight:	Adverse / beneficial impact where the proposal would cause a barely perceptible deterioration or improvement in existing visual quality.

**Insubstantial:** No discernible change in the existing visual quality.

 Prediction of Acceptability of Impacts. An overall assessment of the acceptability, or otherwise, of the impacts according to the five criteria set out in Annex 10 of the EIAO-TM.

## 14.5 Review of Planning and Development Control Framework

- 14.5.1 Relevant plan(s) and/or studies which may identify areas of high landscape value, country parks, coastal protection area, Green Belt and Conservation Area designations are reviewed. Any guidelines on landscape and urban design strategies and frameworks that may affect the appreciation of the Project are also reviewed. The aim is to gain an insight of the outlook of the affected area so as to assess whether the Project can fit into the surrounding setting. The 500m assessment area currently falls within 6 Outline Zoning Plans (OZPs) shown in **Figure 14.2a**, namely:
  - Approved Kwu Tung South OZP No. S/NE-KTS/18;
  - Approved Kwu Tung North OZP No. S/KTN/4;
  - Approved Mai Po and Fairview Park OZP No. S/YL-MP/6;
  - Approved Ngau Tam Mei Outline Zoning Plan No. S/YL-NTM/12;
  - Approved San Tin Outline Zoning Plan No. S/YL-ST/8; and
  - Approved Lok Ma Chau Loop Outline Zoning Plan No. S/LMCL/2;

- 14.5.2 The assessment area to the east of the Project falls within the Approved Kwu Tung South OZP No. S/NE-KTS/18. This includes mainly zoned area agricultural ("AGR") and Green Belt ("GB") including areas adjacent to the Ki Lun Shan (Hadden Hill), Fuk Tsuen Shan (Fir Hill) and Pak Tai To Yan.
- 14.5.3 The assessment area to the north-east of the Project falls within the Approved Kwu Tung North OZP No. S/KTN/4. Most of the areas of this OZP within the assessment are preserved as "GB" and some sites are preliminarily planned for Government, Institution and Community ("G/IC") and "Other Specified Use" ("OU") serving KTN NDA. A few strips of Amenity Areas ("A") were also reserved for road widening of San Tin Highway and Fanling Highway between San Tin Interchange and Po Shek Wu Interchange.
- 14.5.4 The assessment area to the north-east of the Project falls within the Approved Lok Ma Chau Loop Outline Zoning Plan No. S/LMCL/2. This includes Open Space ("O"), Conservation Area ("CA"), "OU (Ecological Area)", "OU (Research and Development, Education, and Cultural and Creative Industries)", and Government, Institution or Community ("G/IC").
- 14.5.5 The assessment area to the west of the Project falls within the Approved Mai Po and Fairview Park OZP No. S/YL-MP/6. Most of the area falls within Conservation Area ("CA"), Village Type Development ("V"), Other Specified Uses (Comprehensive Development to Include Wetland Restoration Area) ("OU(CDWRA)"), "Road" area and Mai Po Village Site of Special Scientific Interest (SSSI).
- 14.5.6 The Project area to the north of San Tin Highway falls within the Approved San Tin Outline Zoning Plan No. S/YL-ST/8. Given the existing rural character of the Project area and the existing wetlands, most of the area falls within the "CA" and Other Specified Uses (Comprehensive Development and Wetland Enhancement Area) ("OU(CDWEA)"), which allows limited development density. Other land uses include, "OU(CDWRA)", "OU(Railway)", "(OU (Service Station)", "V", "GB", Residential (Group D) ("R(D)") and "G/IC" uses.
- 14.5.7 To the south of San Tin Highway, the Project area is covered by the Approved Ngau Tam Mei Outline Zoning Plan No. S/YL-NTM/12. The current zonings are mostly Open Storage ("OS") and "GB" reflecting the natural features of the Project area. Existing Village Type Development ("V") zones designated for existing recognised villages includes Shek Wu Wai surrounded by the Project area, and possible interfacing with Fan Tin Tsuen, Yan Shau Wai, Tsing Lung Tsuen, Ha Wan Fisherman San Tsuen, and Chau Tau Tsuen located just outside of the Project area. Other land uses include Comprehensive development Area ("CDA") and Residential (Group C) ("R(C)").
- 14.5.8 The Tam Mei Barracks and San Tin Barracks and Area of Government Land are outside of OZP coverage but within the assessment area.
- 14.5.9 The proposed development has taken direct reference to the proposals and recommendations to the relevant OZPs, Practice Notes for Authorised Persons, Sustainable Building Design Guidelines and the HKPSG to inform the planning of the Project.
- 14.5.10 The overall planning of the Project has adhered to the planning objectives to develop the Area as a hub for clustered I&T development that creates synergy with Shenzhen. It will contribute to the development of the South-North dual engine (finance I&T), and become a new community for quality, healthy and green living. It aims to develop into a world class I&T Hub, balanced and vibrant community, becoming a Smart, Green and Resilient Exemplar, adopting a 15 minute neighbourhood planning concept, well developed connecting and promoting urban-rural integration. Coherent and legible urban structure, key activity nodes and residential communities of different intensities are planned regarding the existing context and landscape resources, including the surrounding green backdrop, as well as the revitalisation of the two major drainage channels namely the San Tin Eastern Main Drainage Channel (STEMDC) and San Tin Western Main Drainage Channel (STWMDC).



14.5.11 For additional background and a Project description, please refer to **Section 2** of the EIA Report.

OZP Plan Title and No.	Land Use Zoning	Potential Change to the OZP and the Anticipated Future Outlook of the Area due to the Project
Approved Kwu Tung	"AGR"	The existing "AGR" zoning will not be affected by the proposed development. There will be no potential change to this zoning.
South OZP No. S/NE- KTS/18	"GB"	The existing "GB" zoning will not be affected by the proposed development. There will be no potential change to this zoning.
	"GB"	The existing "GB" zoning will not be affected by the proposed development. There will be no potential change to this zoning.
Approved	"OU"	The existing "OU(railway associated facilities)" and "OU(plant for district cooling system)" will not be affected by the proposed development. There will be no potential change to this zoning.
Kwu Tung North OZP No. S/KTN/4	"OU (Amenity Area)"	The existing "OU (Amenity Area)" zoning will not be affected by the proposed development. There will be no potential change to this zoning.
	"G/IC"	The existing "G/IC" zoning will not be affected by the proposed development. There will be no potential change to this zoning.
	"Road"	The existing "Road" area will be partially permanently converted to "OU" for Refuse Transfer Station and Resource Recovery Facilities
	"CA"	The existing Conservation Area zoning will not be affected by the proposed development. There will be no potential change to this zoning.
Approved Mai Po and Fairview	"OU (CDWRA)"	The existing "OU" zoning will not be affected by the proposed development. There will be no potential change to this zoning.
Park OZP No. S/YL- MP6;	"\\"	The existing "V" zoning will not be affected by the proposed development. There will be no potential change to this zoning.
	SSSI	A tiny portion of the existing "SSSI" zoning will be affected by the proposed development and proposed for Other Specified Uses (Innovation & Technology) "OU(I&T)" use.
Approved San Tin	"R(D)"	The existing "R(D)" besides Castle Peak Road- San Tin Section will be potentially affected and converted to "OU(I&T)" and Open Space ("O").
Outline Zoning Plan	"√"	The existing "V" zoning will not be affected by the projects. Therefore, there will be no potential change to this zone.
No. S/YL- ST/8	"G/IC"	Some of the existing "G/IC" zoning will be affected due to the proposed Road. Some part of "G/IC" zoning will be converted into "OU(I&T)" use.

 Table 14.3
 Summary of review of Planning Framework

OZP Plan Title and No.	Land Use Zoning	Potential Change to the OZP and the Anticipated Future Outlook of the Area due to the Project
	"OU"	The "OU" zoning San Tin Tsuen Road and Castle Peak Road San Tin Section will be proposed as "OU(I&T)"). The Other Specified Use (Service Station) will be permanently converted into Other Specified Use (Mixed Use).
	"GB"	Part of the existing "GB" zoning near Lok Ma Chau Road and Chau Tau Village will potentially be affected and converted into "OU(I&T)" and infrastructural facilities.
	"CA"	Small portion of the "CA" around LMC BCP will be permanently affected by the Project for the "G/IC", "A", "OU(I&T)". This will include part of the Ha Wan Tsuen, agricultural land and fishponds.
	"U"	The "U" east of San Sham Road is for the LMC Spur Line and proposed Northern Link Railway system. This zoning will potentially permanently be affected for the proposed "OU(I&T)", "G/IC" and "A".
	"CDA"	The "CDA" zoning near Shek Wu Wai San Tsuen will be affected for the construction and operation of proposed public and private housing site, mixed use development and open space.
	"R(C)"	The "R(C)" zoning north-east of Maple Garden will be potentially affected for the construction and operation of proposed public housing site and G/IC facilities.
	"\\"	The "V" zoning Shek Wu Wai will not be affected by the proposed development. There will be no potential change to this zone.
Annewad	"OS"	Majority of the "OS" zoning will be potentially affected for the construction and operation of residential development, open space, "G/IC" facilities and "OU(I&T)" use.
Approved Ngau Tam Mei outline zoning plan no. S/YL-	"REC"	Only a small portion of "REC" zoning is located within the 500m assessment area. It will not be affected by the proposed development and therefore no potential change to this zoning.
NTM/12.	"OU"	This "OU(Electricity Sub-station)" refers to the site between San Tin Highway and San Tam Road and is intended for the provision of an electric sub-station. The zoning will be changed from "OU" to "G/IC" use where the existing Mai Po ESS remains.
	"GB"	The Existing "GB" near the Shek Wu Wai San Tsuen, Siu Hum Tsuen, Pang Loon Tei and Ngau Tam Mei Water Treatment Works will be permanently affected by the proposed development for the construction of future schools, Residential Development, "G/IC" uses, Mixed Use Development and Other Specified Use.
	"CA"	The existing "CA" zoning will not be affected by the proposed development. There will be no potential change to this zoning.

OZP Plan Title and No.	Land Use Zoning	Potential Change to the OZP and the Anticipated Future Outlook of the Area due to the Project
Approved Lok Ma Chau Loop Outline Zoning Plan No. S/LMCL/2	"O"	The existing "O" zoning will not be affected by the proposed development. There will be no potential change to this zoning.
	"G/IC"	The existing "G/IC" zoning will not be affected by the proposed development. There will be no potential change to this zoning.
	"OU"	The existing "OU" zoning will not be affected by the proposed development. There will be no potential change to this zoning.
	"CA"	The existing "CA" zoning will not be affected by the proposed development. There will be no potential change to this zoning.

In general, most of the affected areas within the **Approved Ngau Tam Mei outline zoning plan no. S/YL-NTM/12.** Include the "OS", "GB". As for the **Approved San Tin outline zoning plan no. SYL-ST/8**, the major affected areas include the "OU" and "U" zoning.

Proposed Planning, Urban Design and Landscape Framework for the Project

Overall Development Principle and Concepts

- 14.5.12 The Project has been planned to achieve a distinct landscape characteristic of a new town by removing the unsightly brownfield operation while integrating with adjacent existing and planned development and natural environment. The Revised RODP included major planning concepts that minimise impact on landscape and visual include 1) fostering district identity by landmark developments and embracing urban-rural integration to promote sense of belongings; and 2) promoting biodiversity through blue-green strategy, maximising greenery, providing/creating ecological linkages, etc.
- 14.5.13 There are currently existing brownfields of about 126 ha within the Project (refer to Figure 14.3) which were predominantly "Logistics & Freight Operation", "Vehicle-related Operation", "Warehouse/Workshop", and "Open Storage" uses. With the latest "East in East out, West in West out" policy steer and decline in the attractiveness of the Project for brownfield operation through LMC BCP, LMC BCP would no longer cater for goods vehicles and the needs for logistics land use could possibly be reduced. In this regard, brownfield sites within the Project shall be consolidated and released for other development. The brownfield operation which contributes to some degree of visual intrusion such as the piling of construction waste, containers in open storage, unmanaged vegetation around warehouse, logistics & freight operation, workshop and vehicle parking and the presence of light machinery, etc. will be removed and replaced with a holistic integrated new town. As a result, the Project will not only increase housing supply and provide jobs, but also improve the living environment through redevelopment of brownfield sites into a modern new community. The overall development will enhance the visual and landscape character of the area through the proposed design measures.
- 14.5.14 Careful consideration has been taken into account to preserve major landscape assets such as Pang Loon Tei secondary woodland, green knolls around Shek Wu Wai and LMC BCP, upland of Ki Lun Shan and Ngau Tam Shan and consideration for development in area near fishpond and wetland, thus minimising landscape and visual impacts. Similar priority has been given to establishing a network of linked open spaces including both green and blue corridor accommodated by number of parks, plazas, squares, green amenity strips and landscape corridors, to create new 'green' towns and partly compensate for any loss other relevant LRs.
- 14.5.15 Resilience and sustainability have been well-integrated into the design. In terms of site formation, a balance of self-standing slope adjoining open space and waterway are

preferred to provide opportunities for maximising greening and improve visual effect and as a result minimise landscape and visual impact. The general site formation has taken into account to cope with 1-in-200-year flood levels. When there is a need for site formation to significantly cut into existing landscape, the use of retaining solution is well integrated with features such as gabion finishes or terrace to seize planting opportunities.

- 14.5.16 The development of the Urban Design Framework has taken direct reference to the proposals and recommendations to the relevant OZPs, Practice Notes for Authorised Persons, Sustainable Building Design Guidelines and the HKPSG to inform the planning of the Project.
- 14.5.17 The key urban design concepts encapsulated in the Master Urban Design Plan, the Master Landscape Plan and the Revised RODP, are briefly summarised below. For additional background and a Project description, please refer to **Section 2** of the EIA report.

Building Height Strategy

- 14.5.18 The Project fronts a natural low-land wetland area in the north and set against green hills and mountains to the south. As such, the building height profile within the Project is a key attribute in framing important destinations as vantage points for the Project, providing a sensible skyline and transition against the existing setting. As a broad general principle, the maximum development height permitted will be reduced as they approach villages, low rise developments and open space. While high-rise development shall be considered at proposed mixed-use development and critical pedestrian and vehicular entry. The bird flight corridor and ecological corridor are also considered. Low rise profiles shall be adopted along ecologically sensitive areas. A stepdown approach shall be used along important bird flight paths.
- 14.5.19 In general, the building height profile steps down from the south to the north to respond to the proposed Sam Po Shue Wetland Conservation Park (SPS WCP) and the important bird flight corridor adjacent to the LMC station in order to minimise negative impacts on the sensitive area. The pinnacles and building profiles of each character zone shall also respect the peak and ridge line in the backdrop.
- 14.5.20 Overall, the building height strategy responds to the following proposed and existing features:
  - **Proposed mixed use development** High-rise development clusters shall be considered at railway stations to form landmarks that provide a sense of orientation and vistas to help identify key transport nodes.
  - **Gateways & Focal Points** Building heights shall be proposed to signify and improve the legibility of critical pedestrian and vehicular entry ways.
  - *Village / Existing Developments* Building heights should harmonise with existing low-rise developments and establishments.
  - **Green and Natural Elements** Building heights shall respond to adjacent open spaces and green corridors by descending to foster a more human-scale environment along these edges.
  - View Corridors and Skyline Building heights shall be proposed to frame view corridors and to create an undulating skyline that emphasises key landmarks and visual points. Stagnant building heights shall be avoided, and a stepped height profile shall be adopted for smooth transitions and to avoid appearing monotonous.
  - **Bird Flight Paths** Low-rise profiles shall be adopted along ecologically sensitive areas. A stepdown approach shall be used along important bird flight paths.
  - Planned Development of the Loop Reference shall be made to the Loop situated to the north-eastern of the Project. According to the Approved Lok Ma Chau Loop OZP No. S/LMCL/2, the proposed building heights with graduated building profiles that transition from low-rise developments along the northern waterfront area into inner medium-rise developments and gradually lower again to low-rise developments along

the planned ecological area (the Meander). This planned building profile shall be considered in conjunction with the nearby proposed building heights, including interface with the ecologically sensitive areas such as the bird flight path. Cohesive massing should also be considered to form a unified image of the Project together with the Loop.

Key Development Parameter

- The proposed building heights and development intensities for the Project give due regard to the physical form and settings of the existing and retained land uses to ensure a better integration with the surrounding area, while it frames key destinations as vantage points creating a sensible skyline that represents the Project.
- The overall development intensity and building height descend towards the northern periphery by designating low and medium-rise developments along the proposed SPS WCP and the important bird flight paths corridor adjacent to LMC station. The I&T developments to the north of the San Tin Highway comprises low to medium density building clusters with stepping building height.
- The proposed building heights and development intensity profiles are also configured to prioritize major development nodes and enhance points of the congregation within the Project. High-rise development clusters are concentrated at the proposed station near Chau Tau, and the proposed San Tin station and neighbouring areas to reflect their visual prominence.
- To create a gateway / landmark feature, the maximum building height for the mixeduse development at the proposed station near Chau Tau is proposed at +200 mPD for the landmark building. The developments within the proposed Station near Chau Tau would create a stepped building height profile echoing the residential developments in the existing villages (On Lung Tsuen, Wing Ping Tsuen, Fan Tin Tsuen and San Lung Tsuen) to the southwest.
- High-density residential and mixed-use development are proposed in the San Tin Station mixed use. The building height profile should reinforce the mixed-use land use, while harmonising with the undulating mountain ridgeline in the backdrop. The mixeduse development sites will adopt the highest building height of +200 mPD to setup the focal point and establish the landmark image of mixed-use development, while surrounding developments would have lower building height restriction (BHR) to create a descending building height profile.

Aesthetic Design of Building and Facade Treatment

- 14.5.21 To soften the architectural form of the proposed buildings, enhance the landscape integration of the proposed structures particularly in elevated views and enhance the integration of the proposed built environment, below key principle shall be adopted within the Project where technically feasible and subject to detail design stage:
  - Greening provision on podium, green roof and vertical greening for the building facades where technically feasible to provide a third dimension of greening framework to the Project;
  - In terms of the building finishes natural tones should be considered for the colour palette and non-reflective finishes shall be incorporated for the outward facing building facades to reduce the glare effect and to minimise impact on birds. Light earthy tone colours such as shades of green, grey, brown, and off-white should also be considered to reduce the visibility of the development components. At appropriate area, glass finishes, metal façade cladding of timber colour shall be proposed to increase transparency and integration with context;
  - The massing of the podium structure housing the Transport Interchange Hub (TIH), railway station, and retail, dining, and entertainment type (RDE) mall is proposed are encouraged to be in undulating form, providing a series of green spaces at multiple levels corresponding to surrounding uses; and
  - To further break down the massing visually, each building when feasible shall be visually sheared at the façade as if they are two buildings, to creates a less lengthy façade and more human-scale.

### View Corridors

- 14.5.22 View Corridors are proposed to maximise and align principally along major breezeways and visual connection to local landmarks and visual resources.
- 14.5.23 The existing natural visual elements, such as the mountains to the south and the wetland / fishponds to the north are identified as important features. The mountains serve as a natural backdrop framing the southern edge of the Project area and the wetland foreground would mirror the Shenzhen city skyline in the south. The following major view corridors are proposed as part of the urban design framework:
  - A view corridor proposed along San Sham Road would correlate with the mixed-use development at the proposed station near Chau Tau to create a gateway into the I&T Park and emphasize the visual connection to Shenzhen City skyline to the north.
  - Another two view corridors running north to south along the mixed-use area. One of the view corridors utilises the proposed green corridors and road alignments from the Shek Wu Wai Interchange (main access points) towards the vibrant core area of San Tin Town Centre (proposed San Tin Station / mixed use development). Building developments along this view corridor would frame the mountain ridgeline of Ngau Tam Shan. The second North-South view corridor provides a visual connection and orientation from the existing village of Shek Wu Wai through the Living Avenue and towards the Ngau Tam Shan's natural backdrop.

#### Breezeway

- 14.5.24 Breezeways within the urban design framework are to ensure effective air ventilation going through the Project and to improve the micro-climate of its proposed urban environments.
- 14.5.25 Breezeways along the prevailing wind will be proposed along major roads, proposed pedestrian streets and open spaces. Major ones include 1) along San Tin Highway and Fanling Highway towards Kwu Tung North New Development Area to the east; 2) along proposed open space to the southeast of the proposed San Tin Station, namely Town Park. 3) along the proposed major road of Road D1 parallel to Town Park through the proposed open space along STEMDC, namely Riverside Park towards the low-rise education uses and Ki Lun Shan.
- 14.5.26 Apart from the NE/ SW wind breezeways aligning the prevailing wind, there are also NW/SE wind breezeways. These breezeways generally follow the revitalised river channels STEMDC and STWMDC, major walkways and open space. Amongst others, four major north-west south-east breezeways are proposed including 1) along San Sham Road towards the north-west and run along STEMDC in the north of proposed mixed use development near Chau Tau; 2) along Road D5 towards Pang Loon Tei (PLT) area to the south, skim over Open Space in the Riverside Park and then further penetrate through the existing villages cluster via Green Belt area in the north; 3) along Open Space of the south STWMDC and towards existing villages cluster to the north; 4) along the proposed green corridors and road alignments from the Shek Wu Wai Interchange (main access points) towards the vibrant town core around the proposed mixed use development of San Tin Station.

### Blue-Green Infrastructure

- 14.5.27 The existing STEMDC and STWMDC and the associated water channel are proposed as corridors that connect various areas of the Project. It is proposed that the embankments of the channel be treated with greening measures appropriate to each individual context. This includes strategy such as naturalisation of channel bank, replacing concrete bank with sloped green edge, planting with native vegetation. Most of the vegetation species along the channel should comprise of native species and refer to existing local flora.
- 14.5.28 On top of that, proposed urban design framework further expands and integrates these blue-green elements into the new development areas to provide a comprehensive blue-green system. The major blue-green infrastructures are described below:

- **STEMDC (South of San Tin Highway)** To create a pleasant "Riverside Park", it is proposed to revitalise the existing water channel to better integrate with the open space design, forming a more resilient blue-green feature facilitating drainage function and a more scenic recreation destination.
- STEMDC (North of San Tin Highway) The downstream portion of the STEMDC is
  proposed to be retrained to (i) better integrate with the adjoining reed beds and
  wetlands; (ii) serve as a transition area between the built development and the wetland
  in terms of ecological value and recreation function; (iii) incur no adverse impacts, or
  better yet, some degree of improvement, to the existing drainage performance.
- **STWMDC (Living Avenue; Cultural & Recreational Complex)** Strategic landscape and technical improvements are proposed to provide opportunities for better drainage and more sensible blue-green experiences through naturalise water edge treatment and integrated ponds / tanks to increase flood retention capabilities and promote water friendly environment.

Landscape framework

- 14.5.29 In response to the planning vision, the open space and green framework for the Project is driven by the landscape vision of "The Urban-Rural Nature Symphony" comprising the following ideas. It entails weaving existing high-value ecological capital and adjoining landscape resources such as hillsides and uplands with open spaces to form a landscape network where residents are immersed in diverse natural settings the moment they step out of their homes. The readily accessible green outdoor spaces can reignite residents' connection with nature and improve quality of life. Conversely, having nature present throughout the new town in varying degrees supports local ecology and biodiversity.
- 14.5.30 The STEMDC and STWMDC are one of the two spines of the landscape network, with a series of open space adjacent to it providing interconnected landscape elements to accommodate leisure, recreation, and civic activities. These landscape network shall extend outward to connect to open space within surrounding areas and visually integrate with the hillside area. The proposed open space, amenity areas and landscaping will form as an integral part of the Project as well as mitigation measures for the loss of existing open spaces, amenity areas and existing trees due to the development.
- 14.5.31 In effect, the areas to the north of San Tin Highway take on predominant natural characteristics while those to the south of it integrate more urban and human-centric elements. The STEMDC and STWMDC are targeted to be naturalised, and these waterways become defining features of the parks and pedestrian corridors that link the northern and the southern areas. The type and intensity of programmes for the various parks correspond to their surrounding natural contexts and land uses. Overall, their designs strive to support ecological functions, incite interaction with nature and prioritise pedestrians over vehicles.
- 14.5.32 The landscape network in the Project comprises a variety of usage that form and alignment of this network considers the following:
  - Ensuring that the retained key ecological capital is not cut off or engulfed by urban components;
  - Maximising areas for potential greenery with an aim to create diverse habitats within the landscape network;
  - Ensuring the network connects with adjacent woodlands, wetlands, and essential habitats to support wildlife movements;
  - Synergy with adjacent land usage to lay foundation for future landscape design;
  - Relating future leisure and recreational provisions to the overall urban design; and
  - Promoting walkability within the Project area through open space.

Native vegetation

14.5.33 The Project will require a large number of trees to be affected, and a subsequently large number to be replaced via compensatory planting. In general, it is recommended that trees and shrubs consist of native species to the fullest extent possible in order to enhance the



ecological value and integrity of the landscape network/ open spaces and Project as a whole.

**Concurrent Projects** 

14.5.34 The EIA Study Brief No. ESB-340/2021 identified several major projects in vicinity of the assessment area as having the potential to run concurrently with the proposed Project and hence have the potential to result in cumulative impacts on the environment. The Project may have interactions with the following projects:

The major planned interface projects within the Project include:

- Development of The Loop Main Works Package 1
- Advance Site Formation and Engineering Infrastructure Works at Kwu Tung North and Fanling North New Development Areas
- Remaining Phase of Site Formation and Engineering Infrastructure Works at Kwu Tung North and Fanling North New Development Area – Detailed Design and Site Investigation
- Strategic Feasibility Study on The Development of Wetland Conservation Parks System
- Northern Link (NOL) Main Line
- Ngau Tam Mei New Development Area
- Strategic Study on Major Roads beyond 2030 Feasibility Study
- 14.5.35 Cumulative impacts from the concurrent projects have been assessed in relation to their landscape and visual impact and summarised in **Section 14.11** of this report.

## 14.6 Baseline Study

Landscape resources (LRs)

- 14.6.1 According to the EIA Study Brief, the assessment area for landscape impact assessment shall be include all areas within a 500m distance from the Project boundary and of all works areas. Preliminary baseline review of existing LRs are described as below and illustrated in <u>Figure 14.3</u>. The LR, and its sensitivity to change and ability to accommodate changes of the identified LRs will be described in **Table 14.4**. Photo record of existing LRs are shown in <u>Figure 14.5a-5c</u>. Aerial Photo of the overall the Project are shown in <u>Figure 14.6</u>.
- 14.6.2 Several sites of recognised conservation importance have been identified nearby the 500m assessment area, including the follows:

Mai Po Village SSSI

14.6.3 The Mai Po Village SSSI is the piece of Fung Shui woodland about 5.3 ha behind the Mai Po Village designated in 1979. The SSSI forms part of the Mai Po Inner Deep Bay Ramsar Site and Priority Site for Enhanced Conservation, and this SSSI was designated with a general presumption against development, and to conserve the undisturbed woodland that support the community of nesting and breeding ardeids at Mai Po Village Egretry including Little Egret, Cattle Egret and Chinese Pond Heron. A tiny portion of 0.14 ha. of the SSSI which has been disturbed and covered by some structures is included in the Project and proposed for I&T use.

Mai Po Inner Deep Bay Ramsar Site, and Ramsar Site Priority Site for Enhanced Conservation

14.6.4 Located in the north-western of the assessment boundary, the Mai Po Inner Deep Bay Ramsar Site and Ramsar Site Priority for Enhanced Conservation refers to an extensive area of wetland habitats in the Mai Po and Inner Deep Bay area. It was designated as a Ramsar Site in 1995 under the Ramsar Convention, covering a mosaic of habitats such as intertidal mudflat, mangroves, tidal shrimp ponds, fishponds, and reedbed. Mangrove habitat within this Ramsar Site was considered to be the largest in Hong Kong. Considering the international ecological importance of this area, it was further identified as a Priority Site



for Enhanced Conservation under the New Nature Conservation Policy in 2004 (AFCD, 2021c).

Lam Tsuen Country Park

14.6.5 The Lam Tsuen Country Park situated in the Northern New Territories designated in 1979. It is around 1,520 hectares including the Tai Po and Yuen Long. This includes the Tai To Yan, Kai Kung Leng with attractive upland, woodlands and stream.

Wetland Conservation area (WCA)

14.6.6 The planning intention of the WCA is to conserve the ecological value of the fishponds which form an integral part of the wetland ecosystem in the Deep Bay Area. It comprises the existing and contiguous, active, or abandoned fishponds in the Deep Bay Area, which should all be conserved.

Wetland Buffer Area (WBA)

14.6.7 The WBA is a 500m along the landward boundary of the WCA to protect the ecological integrity of the fishponds and wetland and prevents development that would have a negative off-site disturbance impact on the ecological value of fishponds.

Table 14.4.1 Baseline Landscape Resources

ID No.	Landscape Resources	Descriptions	Sensitivity (Low, Medium, High)	Baseline area (ha.)
LR1.0	Marsh/ Reed	Marsh/Reed This LR refers to the freshwater marsh/ reed areas within the 500m assessment area. The LR is generally located in the artificial wetland of The Loop, Ha Wan Tsuen and between ponds and developed areas in Lin Barn Tsuen and abandoned agricultural land near Shek Wu Wai San Tsuen and Yau Tam Mei Tsuen. The former is located within the WCA and WBA. The quality and rarity of these LR are regard as medium. Since it is characterised by the lush Herbaceous vegetation and common reed grass around some areas of seasonal open water area. Due to most vegetation are common in Hong Kong or likely to be evolved from nature succession with human disturbance such as traffic and agricultural activities in proximity. The rarity and landscape value, quality and are regard as medium. They are mostly within the Conservation Area ("CA") or Green Belt ("GB"). However, its nature is of low ability to accommodate changes. Hence, the overall sensitivity is considered as " <b>High</b> ".	High	14
LR2.0	Compensato ry Wetland	This LR refers to the mitigation wetlands proposed under other various designated projects within the assessment area. These are wetland habitat established and managed primarily for the purpose to provide high ecological value. These include: (i) STEMDC wetland which is within and/or in close proximity of the Project boundary. It refers to the constructed wetland in the form of a flood storage pond adjacent to San Tin Tsuen Road, Tsing Lung Tsuen	High	22.7

		drainage channel, constructed wetland along STEMDC, tidal channel and grasscrete-lined bottom of STEMDC. They are largely referring to aquatic and riparian vegetation; (ii) San Tin Constructed Wetland (Lotus Pond) located next to traffic road, hence receiving higher human disturbance. They are largely comprising of open water with aquatic plants, emergent vegetation, <i>Phragmites sp</i> , while other common tree and shrub species were also observed along the riparian zone; (iii) the Loop's Ecological Area, which refers to the 12.8 ha reedbed within the southern edge of The Loop. Due to the on-going construction activities, it receives frequent human disturbance; (iv) Lok Ma Chau Ecological Enhancement Area (LMC EEA) which refers to the 34 ha managed freshwater wetland habitats which is of limited human disturbance.		
		Overall, the mitigation wetlands have medium to high quality, maturity, and amenity value. It has medium to high rarity and local importance. As a result of its relative low ability to accommodate changes, the overall sensitivity of the LR is considered <b>'High'</b> . (For further details, please refer to <b>section 10.6.2</b> of the EIA report)		
		The dominant tree species include Leucaena leucocephala and Melia azedarach.		
LR3.0	Pond	Total area: 228.2 ha.	1	1
		<ul> <li>This LR refers to the freshwater ponds located within the WCA and WBA which form part of a more extensive area from San Tin to Mai Po. It is enclosed by bunds with tree planting and shrubs. Those ponds are found in San Tin area near LMC BCP, Sam Po Shue and Ha Wan Tsuen.</li> <li>For ponds around San Tin, they are ponds largely active with overgrown vegetation. They are in close proximity to open storage and brownfield operation (i.e., LR17)</li> </ul>		
	Ponds near San Tin and Sam Po Shue <sup>1</sup>	hindering their landscape amenity value. For the ponds near San Tin Tsuen Road and Tam Kon Chau Road, more human disturbance such as traffic are found.		
LR3.1		The ponds around Lok Ma Chau (LMC) meander and Ha Wan Tsuen are largely in relation with the village settlement. These ponds mainly consist common vegetation. For ponds near LMC BCP, they are mainly active fishpond for fisheries activities consist mainly herbaceous species along the pond bund.	High	222.5
		The LR has good quality and some aesthetic landscape value. Owning to this is an important landscape features contributing to the landscape character, its qualities and unique setting, it is relatively intolerant to any changes. This LR has high quality, maturity, and amenity value. It has high rarity and regional importance. As a result of its relative low ability to accommodate changes, the overall sensitivity of the LR is considered <b>'High'</b> .		

		The dominant tree species include <i>Dimocarpus longan</i> and <i>Leucaena leucocephala.</i>		
LR3.2	Ponds near Siu Hum Tsuen and Shek Wu Wai San Tsuen <sup>1</sup>	This LR refers to the vegetation around the freshwater ponds associated with the agricultural activities and village type development. These ponds are found in area near Luk Mei Tsuen, Shek Wu Wai, Shek Wu Wai San Tsuen, Siu Hum Tsuen and scattered in area in Ki Lun Tsuen, Pang Loon Tei, and Cheung Lek. They are active or abandoned fishponds supporting limited vegetation. The vegetation mainly consists of grasses and shrubs along pond bunds. The LR are of average quality and some aesthetic landscape value. This LR has medium quality, maturity, and amenity value. It has medium rarity and local importance. As a result of its relative medium to low ability to accommodate changes, the overall sensitivity of the LR is considered ' <b>medium'</b> . The dominant tree species include <i>Leucaena leucocephala, Macaranga tanarius var. tomentosa</i> and <i>Melia azedarach</i> .	Medium	3.7
LR3.3	Ponds near Ngau Tam Mei <sup>1</sup>	This LR refers to the vegetation around the freshwater ponds associated with adjacent village/orchard, marsh/reed, and grassland areas. Majority of the ponds were identified around the settlements in Yau Tam Mei Tsuen and near the Ngau Tam Mei Water Treatment Works. The identified ponds were found to be largely inactive or abandoned fishponds and the bunds were not managed and overgrown. It is also observed that the ponds were mostly interspersed with village areas and inaccessible. This LR has medium quality, maturity, and amenity value. It has medium rarity and local importance. As a result of its relative medium to low ability to accommodate changes, the overall sensitivity of the LR is considered ' <b>medium</b> '. The dominant tree species include, <i>Dimocarpus longan</i> and <i>Macaranga tanarius var. tomentosa</i>	Medium	2
LR4.0	Natural Watercourse	<ul> <li>Vegetation along Natural watercourse</li> <li>This LR refers to the LMC Meander and several small scale and fragmented natural streams within assessment area of the Project area. They are found in Ha Wan Tsuen, Lok Ma Chau Tsuen, and Pang Loon Tei.</li> <li>This LR is characterised by a combination of coarse grassland punctuated by small areas of shrubs. It is a mix of riparian vegetation with wetland herbs and shrubs. This LR has medium to high quality, maturity, and amenity value. It has medium rarity and local importance. As a result of its relative low ability to accommodate changes, the overall sensitivity of the LR is considered 'High'.</li> <li>The dominant tree species include <i>Ficus hispida, Ficus macrocarpa</i> and <i>Macaranga tanarius var. tomentosa</i>.</li> </ul>	High	5.95

		Vegetation along Modified Water course		
LR5.0	Modified	This LR refers to the channelised or man-made watercourses. This includes the Shenzhen River that has been widened or modified in phases since the 1990 and engineered channel within the Project area. This also includes the major drainage channel of STEMDC and STWMDC. It is mainly located along Ki Lun Tsuen to Pang Loon Tei, Shek Wu Wai and Chau Tau. Other modified watercourses recorded were generally narrow and highly concretised drainage channels which shared similar features, conditions and were situated within developed area i.e., adjacent to Maple Garden and Chau Tau Tsuen.		
	water course	The watercourses are modified with grasscrete banks and tree planting is found along some of their banks. It is considered that the modified watercourse is commonly found in Hong Kong and the ability to accommodate changes is high. This LR has medium to low quality, maturity and amenity value. It has low rarity and local importance. As a result of its relative high ability to accommodate changes, the overall sensitivity of the LR is considered 'Low'.	Low	24.29
		The dominant tree species include <i>Ficus macrocarpa, Leucaena leucocephala</i> and <i>Melaleuca cajuputi subsp. Cumingiana.</i>		
		Vegetation around Semi-natural watercourse		
LR6.0	Semi-Natural Watercourse	This LR refers to the small scale semi-natural water courses. It is characterised with a combination of concretised or channelised banks and natural bank. This LR includes vegetation associated with the water course, both within the streams, along the banks and those vegetation in the immediate vicinity. The vegetation mainly consists of grasses, shrubs and cluster of trees in some areas. They are mostly found in the lower stream area near the Sam Po Shue Wetland running between ponds (LR3) and adjacent to the Lok Ma Chau Road. This LR supported a medium diversity flora and fauna given its linkage and location as ecological and hydrological linkage between ponds. This LR has medium rarity and local importance. As a result of its relative medium ability to accommodate changes, the overall sensitivity of the LR is considered <b>'Medium'.</b>	Medium	11
		leucocephala, Macaranga tanarius var. tomentosa and Melia azedarach.		
		Seasonal Wet Grassland This LR refers to poorly drained fallow fields and		
LR7.0	Seasonal Wet Grassland	abandoned ponds. A small area of seasonal wet grassland has been identified with in Project area near the Mai Po San Tsuen and Siu Hum Tsuen. It is characterised by the herbaceous vegetation coverage and limited wetland species. This LR has medium quality, maturity and amenity value. It has medium rarity	Medium	0.2

		and local importance. As a result of its relative medium ability to accommodate changes, the overall sensitivity of the LR is considered ' <b>Medium'</b> .		
LR8.0	Wet Agricultural Land	Vegetation in Wet Agricultural Land This LR refers to the wet agricultural land holdings within the assessment area of the Project area. They are actively farmed land maintained with very shallow standing water. Scattered parts of the LR are identified in Shek Wu Wai. The LR is well kept with mainly herbaceous vegetation, while tree cover within the plots is very limited. This LR is of good quality and form an integral element of the local cultural resource. None the less, this LR is of man-made nature and is relatively less important to the landscape setting. This LR has medium quality, maturity, and amenity value. It has medium rarity and local importance. As a result of its relative medium ability to accommodate changes, the overall sensitivity of the LR is considered 'Medium'. The dominant tree species include <i>Dimocarpus longan</i> and <i>Litchi chinensis</i> .	Medium	0.2
LR9.0	Dry Agricultural Land	Vegetation in Dry Agricultural Land This LR refers to the agricultural land holdings within the assessment area of the Project area. Several parts of the LR are identified in Shek Wu Wai, Pang Loon Tei and Chau Tau Tsuen. They are mainly dry agricultural land, and most lands are active. The LR is well kept and organized while tree cover within the plots is very limited. This LR is of good quality. As a result, it has medium quality, maturity, and amenity value. It has medium rarity and local importance. As a result of its relative medium ability to accommodate changes, the overall sensitivity of the LR is considered 'Medium'. The dominant tree species include Artocarpus heterophyllus, Clausena lansium and Dimocarpus longan.	Medium	13.7
LR10.0	Woodland	Woodland This LR refers to woodland patches within the assessment area of the Project area. The LR is mainly located in Ha Wan Fisherman San Tsuen, Ki Lun Shan, area near San Tin Barracks, Mai Po San Tsuen and along border of the natural hillsides. The trees are either semi-mature to mature and is generally in fair to good condition. An area of the woodland is designated within the Mai Po Village SSSI, located to the south of a junction between Tam Kon Chau Road and Castle Peak Road (Mai Po Section). The trees are utilised by the community of nesting and breeding of the Mai Po Village Egretry. (For further details please refer to <b>Section 10</b> of EIA Report) This LR is of high landscape amenity and quality and possess strong natural characteristic. It has medium to high quality, maturity, and amenity value. It has medium rarity and local importance. As a result of its relative low	High	31.8

		ability to accommodate changes, the overall sensitivity of the LR is considered ' <b>High</b> '. The dominant tree species include <i>Bridelia tomentosa</i> , <i>Cinnamomum camphora</i> , <i>Ficus hispida</i> , <i>Ficus variegate</i> , <i>Schefflera heptaphylla</i> and <i>Microcos nervosa</i> . One flora species of conservation importance, Incense Tree* ( <i>Aquilaria sinensis</i> ), was recorded in several locations at the woodland north-west of Chau Tau Tsuen and in the woodland south of Pang Loon Tei which both are outside of the Project area.		
		Mixed Woodland		
LR11.0	Mixed Woodland	This LR refers to the mixed woodland area that are largely scattered throughout the Project area that are spatially defined by the patterns of surrounding human developments. This results in segregated, areas of land that may have various stages and types of vegetation of variable size and quality. The vegetation is characterised by a mix of natural, self-seeded, and plantation-style woodland. Species may include mature or semi-mature trees forming an interlocking canopy and dense understory. Area closer to urban development such Castle Peak Road - San Tin are more dominated by shrubs and with varying qualities. Others mixed woodland scatters around Shek Wu Wai San Tsuen, Siu Hum Tsuen, and Mai Po Lung Tsuen. Due to the unique natural nature and high quality, the mixed woodlands which are thought to be of regional significant is of low ability to accommodate changes. The overall sensitivity is ' <b>High'</b> . The dominant tree species include exotic trees e.g. <i>Acacia confuse, Dimocarpus long</i> and <i>Acacia confusa,</i> and native trees e.g. <i>Bridelia tomentosa, Macaranga tanarius var. tomentosa</i> and <i>Microcos nervosa</i> . One flora species of conservation importance, Incense Tree ( <i>Aquilaria sinensis</i> )*, was recorded in several locations at the woodland east of Kam Kwai Leng and west of Tam Mei Hill (Refer to <b>Figure 10.3D</b> ). 2 nos. of potential Tree of Particular Interest (TPI) are identified within this LR i.e. T18 ( <i>Ficus virens</i> ) and T19 ( <i>Ficus virens</i> ).(Refer to <b>Figure 14.10</b> ).	High	97.4
LR12.0	Plantation	Total Area: 64.5		
LR12.1	Plantation	<b>Plantation</b> This LR is predominantly composed of native tree species growing naturally with some understory vegetation and plantation-style forests. The trees vary in height and maturity and provide a continuous greening on the slopes. The LR can be found on man-made slope, natural hillside, and urban parks. This includes the San Tin Highway, San Sham Road, Mai Po Lung Tsuen, Maple Garden, Southern hillside of Ngau Tam Shan, Fan Tin Tsuen and San Tin Park. The trees are mainly in good condition and semi-mature. This LR has medium quality, maturity, and amenity value. It has medium rarity and local importance. As a result of its relative medium ability to accommodate changes, the overall sensitivity of the LR is considered ' <b>Medium'</b> .	Medium	40.1

		has medium quality, maturity and amenity value. It has low rarity and local importance. As a result of its relative medium ability to accommodate changes, the overall sensitivity of the LR is considered ' <b>Medium'</b> .		
LR14.0	Grassland	<b>Grassland</b> This LR refers to the large patch grassland with scattered trees within the assessment area of the Project area. It is largely referring to the hillside area bordering the assessment area. It is mainly located to the east and southwest side of Project. It is common on the hillside of Tit Hang Shan, Ki Lun Shan, most of the top of Ngau Tam Shan and the small hill adjacent to the Vineyard. The grassland provides a continuous greening on the slopes. This LR has a natural characteristic, fair to good quality of landscape amenity and small extent of human disturbance. As such, this LR	Medium	207
LR13.0	Shrubland	<b>Shrubland</b> This LR refers to the large patch of shrubs and herbaceous grasses with scattered trees within the assessment area of the Project area. It is largely referring to the hillside area bordering the assessment area. It is mainly located in the northern, eastern, and southwestern side of Project area. The vegetation varies in height and provides a continuous greening on the slopes. This LR has a strong natural characteristic, fair to good quality of landscape amenity and small extent of human disturbance such as the present of small extent of burial ground/ human settlement. As such, this LR has medium quality, maturity, and amenity value. It has low rarity and low local importance. As a result of its relative medium ability to accommodate changes, the overall sensitivity of the LR is considered ' <b>Medium'</b> .	Medium	109.4
LR12.2	Plantation along San Tin- Fanling Highway	Plantation along San Tin- Fanling Highway This LR refers to medium-sized and clusters of trees planted by man within the assessment area of the Project area. It is referring to the roadside planting along San Tin-Fanling Highway, Kwu Tung Road and San Tam Road. The trees are mainly in good condition and semi-mature. This LR has medium quality, maturity and amenity value. It has medium low rarity and local importance. As a result of its relative high ability to accommodate changes, the overall sensitivity of the LR is considered 'Low'. The dominant tree species include Acacia confuse, Celtis sinensis and Eucalyptus spp. Whereas Incense Tree* was identified on North of Kam Kwai Leng within the Project boundary. 1 nos. of TPI are identified within this LR i.e. T5 (Ficus virens) (Refer to Figure 14.10).	Low	24.3
		The dominant tree species include <i>Acacia confuse,</i> <i>Celtis sinensis</i> and <i>Eucalyptus spp.</i> Whereas one flora species of conservation importance, Incense Tree* ( <i>Aquilaria sinensis</i> ) was identified on Kam Kwai Leng within the Project boundary.		



	This LR refers to traditional villages and modern villages within the assessment area of the Project area. This includes areas in Ki Lun Tsuen, Luk Mei Tsuen, Pang Loon Tei, Siu Hum Tsuen, Shek Wu Wai, Shek Wu Wai San Tsuen, Mai Po Lung Tsuen, San Tin, Lin Barn Tsuen, Ha Wan Tsuen, Lok Ma Chau Tsuen, Pak Shek Au, and Chau Tau Tsuen. The vegetation is arranged by human following the domestic structures and the interwoven roads and paths. It also refers to the small patches of orchards identified in east Shek Wu Wai agricultural land and Pang Loon Tei village area. The LR contains common fruit tree species and is often managed by human. These Vegetation is highly disturbed and dominated by exotic and ornamental species. This LR has medium quality, maturity, and amenity value. It has low rarity and low local importance. As a result of its relative high ability to accommodate changes, the overall sensitivity of the LR is considered <b>'Low'</b> .		
	The dominant tree species include <i>Ficus macrocarpa,</i> <i>Leucaena leucocephala</i> and <i>Macaranga tanarius var.</i> <i>tomentosa.</i> 3 nos. of TPI are identified within this LR i.e. T1 ( <i>Ficus macrocarpa</i> ), T21 ( <i>Ficus virens</i> ), T28 ( <i>Ficus virens</i> ). (Refer to <b>Figure 14.10</b> ).		
LR16.0 LR16.0 Developed Area/ (Including residential area and man-made structure)	<ul> <li>Vegetation in developed area (Including residential area and man-made structure)</li> <li>This LR refers to urbanised areas within the assessment area of the Project area, which are heavily developed with mainly hard paved surfaces and limited vegetated landscape areas.</li> <li>The major area includes Maple Garden, Royal Palm, Tam Mei Barracks, Gurka cemetery, San Tin Barrack, Mai Po San Tsuen, Hop Shing Wai San Tin Highway - Fanling Highway, the San Tin Interchange, MTR LMC Station, the Loop area, and sport ground in front of Ha Wan Tsuen. The Vegetation in this LR is mainly man-made landscape planting. This LR has medium quality, maturity and low to medium amenity value. It has low rarity and low local importance. As a result of its relative high ability to accommodate changes, the overall sensitivity of the LR is considered 'Low'.</li> <li>The dominant tree species include <i>Ficus macrocarpa, Leucaena leucocephala</i> and <i>Macaranga tanarius var. tomentosa</i>. One flora species of conservation importance, Incense Tree* (<i>Aquilaria sinensis</i>), was recorded in wasteland along Lok Ma Chau Road, which was an abandoned wasteland, and subject to current construction activities along Ha Wan Tsuen East Road. 9 nos. TPI are identified within this LR i.e. T3 (<i>Melaleuca cajuputi subsp. Cumingiana</i>), T4 (<i>Ficus virens</i>), T12 (<i>Ficus macrocarpa</i>), T13 (<i>Ficus macrocarpa</i>), T16 (<i>Ficus macrocarpa</i>), T17 (<i>Eucalytuts spp.</i>) and T27 (<i>Melaleuca cajuputi subsp. Cumingiana</i>) (Refer to 100000000000000000000000000000000000</li></ul>	Low	453.7

LR17.0	Wasteland/ Open storage/ Temporary Area	<ul> <li>Vegetation in wasteland/open storage/ temporary area</li> <li>This LR refers to areas that are heavily adapted for human industrial use such as open areas for storage, parking, or other associated activities such as factory facilities, waste processing and other industrial workshop. They are characterised by small internal roads with very little existing vegetation. In which most are self-seeded trees and shrubs scattered around the areas. Generally, vegetation is found along the periphery of the boundary lot lines that trees and understory form rows of vegetation.</li> <li>The Vegetation in this LR is mainly self-seedling trees with understory and shrub planting of low amenity value. This LR has medium quality, maturity and low to medium amenity value. It has low rarity and low local importance. As a result of its relative high ability to accommodate changes, the overall sensitivity of the LR is considered 'Low'.</li> <li>The dominant tree species include <i>Ficus macrocarpa,Leucaena leucocephala and Macaranga tanarius var. tomentosa.</i> one no. of TPI are identified within this LR i.e. T24 (<i>Ficus macrocarpa</i>).(Refer to Figure 14.10)</li> </ul>	Low	127.3
* In accordan level. The id Ecological S	nce with DEVB TCW No entified Incense Tree* (A ection of this EIA Repor	. 4/2020, "trees" refers to a plant with trunk diameter larger than 95mm (300mm girl Aquilaria sinensis) are not considered as tree due to their DBH smaller than 95mm. t.	h) measured 1300mn Detailed are discusse	n above ground d under the

1 Refer to the subject and its adjacent associated vegetation

Landscape Character Areas (LCAs)

- 14.6.8 LCAs can be identified by the grouping of landscape components of a similar nature which may include topography, geological features, vegetation cover, settlement patterns and features of cultural importance.
- 14.6.9 A total of 10 LCAs were identified within the assessment area and classified into different major categories. These areas, and their sensitivity to change, are described in **Table 14.4**. The locations of the character areas are indicated on **Figure 14.4**. For ease of reference and co-ordination between text, tables and figures each landscape character area is given an identity number. Photo record of existing Landscape characters is shown in **Figure 14.8a-8b**.

ID. No	LCA	Descriptions	Sensitivity
LCA1	Settled Valley Landscape	LCA1 refers to the valley areas located in the north-west of Tam Mei Barracks, Yau Tam Mei Tsuen, and the east of Ki Lun Tsuen. This LCA is dominated by scattered settlements, tracks, large sized hillside woodland and grassland. While most of the human settlement and development do not detract the character of the mountain backdrop, in addition to its relative natural characteristics, the overall landscape quality and value is considered as high. The LCA has a low capacity to accept changes. As a result, the overall sensitivity is considered "High".	High

## Table 14.4.2 Landscape Character Area

ID. No	LCA	Descriptions	Sensitivity
LCA2	Upland And Hillside Landscape	LCA 2 refers to large undeveloped hillside areas in the Lam Tsuen Country Park, Ki Lun Shan, Ngau Tam Shan and Lok Ma Chau area. This LCA comprises some large sized strips of woodland, grassland and shrubland. Due to its strong natural characteristics, the ability to accommodate changes is low. As a result, the overall sensitivity is considered to be "High".	High
LCA3	Rural Coastal Plain Landscape	LCA3 refers to the flat and expansive areas in Mai Po, San Tin, Lin Barn Tsuen, and area adjoining Sam Po Shue Wetland near LMC BCP. It is dominated by large sized fishponds and small agricultural plots. This LCA include part of the WCA and WBA. Regarding its significant local character with man-made landscaping, the landscape value and quality is considered as high, it has a low capacity to accept changes. The overall sensitivity is considered "High".	High
LCA4	Rural Inland Plain Landscape	LCA 4 refers to the flat and expansive lowland areas in Shek Wu Wai San Tsuen, Shek Wu Wai Tsuen, Luk Mei Tsuen, Mai Po Lung Tsuen, Siu Hum Tsuen, and Ki Lun Tsuen, which are lying between the low hills and wooded knolls. This LCA consists of village houses in rural areas separated by narrow footpaths or lanes, mature trees and peripheral woodland scattered along the abandoned fields. Given the previously developed nature of the character area, the ability to accommodate changes is considered as medium. The overall sensitivity is considered as "Medium".	Medium
LCA5	Urban Peripheral Village Landscape	LCA 5 refers to village areas on the fringes of urban developments, which is in Fan Tin Tsuen, Tsing Lung Tsuen, and Tung Chan Wai. The LCA is dominated by the small- scale village settlements, mainly with low-rise houses in a dense cluster. As a result of human disturbance, the landscape value and quality are considered as medium, and it has a medium capacity to accept changes. The overall sensitivity is considered "Medium".	Medium
LCA6	Miscellaneous Rural Fringe Landscape	LCA 6 refers to rural areas which located in Chau Tau Village, Lok Ma Chau, and Mai Po San Tsuen. This LCA consists of agricultural fields, patch of tree cluster and scattered villages as well as open storage and parking areas which have been converted from abandoned agricultural fields. Given the previously developed nature of the LCA, the landscape value and quality are considered as medium. The overall sensitivity is considered "Medium".	Medium
LCA7	Comprehensive Residential Development	This LCA 7 refers to the areas composed of comprehensive residential development near Fairview Park and Palm Springs. The LCA has limited natural vegetation and mainly comprised of artificial landscaping. As a result of the man- made nature, the landscape value and quality are considered as low. The overall sensitivity is considered "Low".	Low
LCA8	Institutional Landscape	LCA 8 refers to urban areas of the San Tin Barracks, water treatment work and Tam Mei Barracks. This LCA is dominated by small or medium sized barracks, open areas, and car parks. The LCA also has some patches of vegetation clusters well as vegetation associated with the barracks and open areas. As a result of the built nature and special characteristic of this LCA, the landscape value and quality are considered as medium. This LCA has a medium capacity to accept changes. The overall sensitivity is considered "Medium".	Medium

ID. No	LCA	Descriptions	Sensitivity
LCA9	Transportation Corridor Landscape	This LCA 9 refers to the major areas of San Tin Highway, Fanling Highway, Kwu Tung Road, and San Tin Interchange. Vegetation cover is restricted to a narrow strip with grass and some roadside planting. Given the man-made nature of this LCA, the landscape quality and value are considered as low, and has a high capacity to accept changes. As a result, the overall sensitivity is considered "Low".	Low
LCA10	Miscellaneous Urban Fringe Landscape	LCA 10 refers to the mix used areas in the LMC BCP and adjoining areas including the Loop future development. This LCA is dominated by administration building, utility facilities, scattered associated open storages, vacant land, channelised watercourses and traffic roads. It also contains some plantation along the control point. As this landscape has been heavily developed, due to its man-made nature, it is considered to have a high capacity to accept changes. The overall sensitivity is considered "Low".	Low

#### Broad-brush Tree Survey

- 14.6.10 A broad-brush tree survey was carried out between September to November in 2022 and February to May in 2023 within the Project boundary to identify dominant tree species, maturity, rarity, and any plant species of conservation interest, etc. which would be potentially affected to provide baseline information on the LRs and LCAs. The broad-brush tree survey finding including tree survey plans and tree schedule are illustrated in **Appendix 14.1** and to be read in conjunction with Habitat Map in Ecological Section of this EIA report.
- 14.6.11 It is estimated that approximately 64,490 nos. of trees were surveyed within the Project boundary in the broad-brush tree survey. The most abundant tree species recorded within the Project boundary include *Macaranga tanarius var. tomentosa, Dimocarpus longan, Ficus macrocarpa, Acacia confuse, Casuarina equisetifolia, Celtis sinensis, Melia azedarach, Ficus hispida, Acacia mangium* and *Eucalyptus spp.*
- 14.6.12 No OVT is identified within the 500m assessment area of the Project boundary. A detailed Tree Preservation and Removal Proposal (TPRP) will be carried out at a later detailed design stage, to finalise tree treatment and allocate compensatory planting areas. The following summarise the TPI as defined in DEVB TC(W) No. 4/2020 and shall satisfy one or more of the criteria in accordance with para. 2.6.1 of the Guidelines for Tree Risk Assessment and Management Arrangement (9th edition (Rev.3), 26 January 2022 or the latest version) promulgated by DEVB. Their locations are illustrated in **Appendix 14.1**.
- 14.6.13 17 nos. of TPI are identified within the Project area of which are to be retained, transplanted, or felled subject to detailed design at a later stage (Refer to <u>Appendix 14.1.0</u>). They are T1 (*Ficus macrocarpa*), T3 (*Melaleuca cajuputi subsp. Cumingiana*), T4 (*Ficus virens*), T5 (*Ficus virens*), T6 (*Ficus virens*), T8 (*Ficus virens*), T9 (*Ficus virens*), T13 (*Ficus macrocarpa*), T12 (*Ficus macrocarpa*), T16 (*Ficus virens*), T17 (*Eucalytuts spp.*), T18 (*Ficus virens*), T19 (*Ficus virens*), T21 (*Ficus virens*), T24 (*Ficus macrocarpa*), T27 (*Melaleuca cajuputi subsp. Cumingiana*) and T28 (*Ficus virens*). Some of these trees are proposed to be circumscribed in Open Space areas in order to be retained and protected. In other instances where this is not practical, implementation of the proposed mitigation measures calls for the trees to be transplanted if impacts on them cannot be avoided.
- 14.6.14 Apart from the broad-brush tree survey, three flora species of conservation importance are recorded. This includes undersized *Aquilaria sinensis* (Incense Tree) were recorded within Project area. Transplantation is recommended as far as possible for Incense Tree to minimise the impact to this species. As they are not defined as "tree" based on DEVB TC(W) No. 4/2020, any Plant Preservation and Transplantation Proposal should be prepared by a qualified ecologist / botanist with at least 10 years relevant experience and should be

submitted to and approved by AFCD via EPD prior to the commencement of any construction activities. Details are discussed under the Ecological section of this EIA Report.

14.6.15 The area of identified LRs within the Project boundary and estimated number of trees within each LR are presented in **Table 14.5**.

ID	Landscape Resources	Area within Project area (ha)	Estimated Number of Trees within the LR
LR1.0	Marsh/ Reed	8.0	738
LR2.0	Compensatory Wetland	4.9	740
LR3.1	Ponds near San Tin and Sam Po Shue	92	4165
LR3.2	Ponds near Siu Hum Tsuen and Shek Wu Wai San Tsuen	3.1	371
LR3.3	Ponds near Ngau Tam Mei	N/A	N/A
LR4	Natural Watercourse	0.2	34
LR5	Modified water course	9.4	529
LR6	Semi-Natural Watercourse	6.5	397
LR7	Seasonal Wet Grassland	0.1	9
LR8	Wet Agricultural Land	0.2	18
LR9	Dry Agricultural Land	10.3	1044
LR10	Woodland	5.2	929
LR11	Mixed Woodland	29.7	4945
LR12.1	Plantation on slope	12.0	4105
LR12.2	Plantation along roadside	14.1	2645
LR13	Shrubland	16.2	3080
LR14	Grassland	17.6	2818
LR15	Village/ Orchard	34.7	4094
LR16.0	Vegetation in developed area (Including residential area and man-made structure)	228	21935
LR17	Vegetation in Waste land/open storage/ temporary area	117	11894

 Table 14.5
 Broad Estimated Number of Trees within each LR

## Visual Baseline

Visual Envelope (VE)

- 14.6.16 The visual envelope of the Project during the construction and operation phases is illustrated in **Figure14.9a-14.9b**. During the construction and operation phases, the visual envelope was identified by site visit and desktop study of topographic maps and photographs to determine visibility of the Project from various locations.
- 14.6.17 The visual envelope is mainly confined by the ridgeline and cityscape. This includes the comprehensive residential development of Palm Spring, Fairview Park, and natural landscape resource such has the Mai Po wetland, Ki Lun Shan and Ngau Tam Shan. The visual envelope of this area is confined from vegetated hillside at north and east, Mai Po wetland to the west and Residential cityscape to the south.
  - The visual envelope may extend to the whole of the area from which the development site and the proposed scheme is visible. That area from which any part of the proposed development would be visible is extensive on account of the scale of the proposed development and the fact it is situated at lowland and wetland area which will be visually prominent. However, it should be noted that for the purposes of this assessment, a nominal approximate 6.5km Project area has been taken around the proposed development as it is considered that the visual impact generated by the proposed development would be insignificant beyond this distance.

• Baseline review of Visual Sensitive Receivers (VSRs) within the visual envelope are described, together with their sensitivity to change and ability to accommodate changes in the following section.

Visually sensitive receivers (VSRs)

- 14.6.18 Within the visual envelope, a number of key VSRs were identified during construction and operational phases. They are listed, together with their baseline assessment and sensitivity, in **Table 14.6** and mapped in **Figure 14.9a-9b**.
- 14.6.19 The sensitivity of VSRs is assessed in accordance with EIAO Guidance Note No. 8/2010. Key factors including type of VSRs, number of individuals of the VSRs, quality of existing view, availability of alternative views, degree of visibility, duration of view and frequency of view of the VSRs are evaluated.
- 14.6.20 Five Types of VSRs are generally categorised in accordance with the land use of the areas where the VSRs are located. There are mainly 5 types of VSRs, namely Recreational (REC), Residential (R), Institutional (GIC), Occupational (O), and Travelling (T) VSRs.

Residential VSR Group (R)

- 14.6.21 R2, R3, R6, R10 and R11 represent the residential VSRs near the proposed developments which is mainly 3-storey or lower and mostly in a cluster. They are small village and rural type settlement. For R2, it refers to low-rise medium sized village type development including Mai Po San Tsuen and Mai Po Lo Wai. For R3, it includes residents of Tsing Lung Tsuen, Yan Sau Wai, On Lung Tsuen, Wing Ping Tsuen, Fan Tin Tsuen, San Lung Tsuen, Tung Chan Wai (Here after referring to as San Tin Seven Villages). This is a clusters of low-rise village type development taking approx. 23.7 ha. north of San Tin Highway. Their views from ground level are fairly confined by built structures and vegetation. For R6, it refers to the small village cluster of Chau Tau Tsuen and Poon Uk Tsuen. They are comprised of mainly rows of modern three-storey modern village houses. For R10, it refers the residents of Shek Wu Wai which is a rural village development and small in scale with low-rise building. For R11, it refers to the Ha Wan Fisherman San Tsuen which is a lowrise rural village development and small in scale. There are few to medium number of individuals. Their quality of view is fair with general open view to topography while alternative views are available. The proposed development is partially visible to these VSRs while VSR located closer to the proposed development could potentially have full degree to visibility of the development. These VSRs have long viewing duration and frequent viewing frequency. Thus, their sensitivity is considered as medium.
- 14.6.22 R1, R4, R5, R7 are other Residential VSRs representing the low-rise residential clusters such as Palm Springs, Fairview Park, and Maple Gardens. These are medium to large scale estate development. For Palm Spring, it comprises of around 980 houses mainly with a north-south facing, fronted with garden and parking. They generally enjoy open sky view and view to Shenzhen with existing planting and generally tall trees along the internal roads. For Fairview Park, it covers over 110ha and comprises more than 5,000 houses. Their planting along the internal road blocked some of their existing view toward the development. For Maple Garden, it comprises of total of 3 blocks, providing 160 houses with view toward the roadside planting along San Tam Road and green knolls. For these VSRs, there are medium to many individuals. Their quality of view is fair with general open view to topography while alternative view is available. The proposed development is partially visible to these VSRs while VSRs located further away could potentially only have glimpse view of the development. These VSRs have long viewing duration and frequent viewing frequency. Thus, their sensitivity is considered as medium.
- 14.6.23 R8 and R9 are residential VSRs representing the future mid to high rise residential VSRs. For R9, this refers to the residential institution as planned under the Loop. There are medium number of individuals. Their quality of view is fair with open view to the surrounding natural topography and skyline. Although they have alternative view, the proposed works are partially visible to these VSRs in medium to long viewing duration and frequent viewing frequency. Thus, their sensitivity is considered as medium to high.

Recreational VSR Group (REC)

- 14.6.24 REC2, REC4 and R10 (including Shek Wu Wai Playground) to represent the recreational VSRs are mainly found in Mai Po Nature Reserve, local open spaces such as San Tin Park, Man Tin Cheung Park, and Shek Wu Wai Playground. There are few individuals. The existing view is fair. Although they all have alternative views, the proposed works are partially visible to these VSRs in medium to short viewing duration and occasional viewing frequency, thus their sensitivity is considered as medium.
- 14.6.25 REC1, REC3 and REC5 represent the recreational users along hiking trail of Kai Kung Leng range of Lam Tsuen Country Park, Ki Lun Shan and Ngau Tam Shan. They are general located at an elevated location with panoramic view of the proposed development with some degree of vegetation blocking the foreground view. There are few to medium individual. The quality of existing view is good. Although they all have alternative views, the proposed works are fully visible to these VSRs in long to medium viewing duration and rare viewing frequency, thus their sensitivity is considered as medium. For REC6, it represents the recreational users of the future Sam Po Shue Wetland Conservation Park (SPS WCP). Although the approximate area for the SPS WCP is to be confirmed, they are viewers located at-grade mainly from the south-west to west of the Project with panoramic view towards the Project. There are few to medium individual. The quality of existing view is good and unique. Although they have alternative views, the proposed works are fully visible to the VSRs in short to medium viewing distance, short viewing duration and rare viewing frequency. Thus, their sensitivity is considered as high.

Traveller VSR Group (T)

14.6.26 T1, T2 and T3 represent the travelling and transient VSRs comprise of road travellers along San Tin Highway, Castle Peak Road and San Sham Road and passenger of MTR Lok Ma Chau Station. There are many individuals with fair existing view such as the existing roadside plantation. Although they all have alternative views, the proposed works are partially to fully visible to these VSRs subject to the location of the VSRs along the Road. These VSRs have short viewing duration and rare viewing frequency. Thus, their sensitivity is considered as low.

Occupational VSR Group (O)

- 14.6.27 O1 and O5 represent the occupational VSRs in the open storage facilities scattered around Ngau Tam Mei. There are few to medium number of individuals. The existing view is fair with alternative view available. These VSRs have medium to short viewing duration, glimpse to partial visibility and occasional frequency of view. Thus, the sensitivity is considered as Medium to low.
- 14.6.28 O2, O3, O4, O6 represent the occupational VSRs with medium number of individuals. The existing is fair with alternative view available. These VSRs have medium viewing duration and glimpse to partial visibility to the development and occasional frequency of view. Thus, the sensitivity is considered as Medium to low.

Government, Institution or Community VSR Group (GIC)

14.6.29 For GIC1, GIC2, GIC3 and GIC4 represent the users of the government, institutional and/ or community facilities mainly located at the south of the site. Their view is generally considered to be moderately sensitive as the character of view will have a less important effect on their perception. The existing view is fair with alternative view available. These VSRs have medium to short viewing duration, glimpse to partial visibility and occasional frequency of view. Thus, the sensitivity is considered as medium to low.

VSR ID.	Visually Sensitive Receiver (VSR)	Type of VSRs	Number of Individuals (Many/ Medium/ Few)	Quality of Existing View (Good/Fair/ Poor)	Availability of Alternative Views (Yes/No)	Degree of Visibility (Full/ Partial/ Glimpse)	Duration of View (Long/ Medium/ Short)	Frequency of View (Frequent/ Occasional/ Rare)	Sensitivit y (Low, Medium, High)
R1	Low-rise residents of Maple Garden, Palm Springs, and Royal Palm	Residential	Many	Fair	Yes	Full	Long	Frequent	Medium
R2	Residents of Mai Po San Tsuen, Mai Po Lo Wai	Residential	Medium	Fair	Yes	Partial	Long	Frequent	Medium
R3	Residents of San Tsing Lung Tsuen, Yan Sau Wai, On Lung Tsuen, Wing Ping Tsuen, Fan Tin (San Yi Cho and Ming Tak Tong), San Lung Tsuen, Tung Chan Wai	Residential	Medium	Fair	Yes	Partial	Long	Frequent	High
R4	Residents of Long Ha Tsuen, Man Yuen Tsuen, and Pok Wai Village	Residential	Medium	Fair	Yes	Partial	Long	Frequent	Medium
R5	Residents of the Vineyard and low-rise residential area along Tam Mei Road	Residential	Medium	Fair	Yes	Partial	Long	Frequent	Medium
R6	Residents of Chau Tau Village, Poon Uk Tsuen	Residential	Few	Fair	Yes	Full	Long	Frequent	High
R7	Residents of Fair View Park	Residential	Many	Fair	Yes	Glimpse	Long	Frequent	Medium
R8	Residents of Proposed Kwu Tung North New Development Area and Ma Tso Lung area.	Residential	Medium	Fair	Yes	Partial	Long	Frequent	Medium

Table 14.6 V	isually sensitive	receivers (VSRs	) and their	sensitivity
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VSR ID.	Visually Sensitive Receiver (VSR)	Type of VSRs	Number of Individuals (Many/ Medium/ Few)	Quality of Existing View (Good/Fair/ Poor)	Availability of Alternative Views (Yes/No)	Degree of Visibility (Full/ Partial/ Glimpse)	Duration of View (Long/ Medium/ Short)	Frequency of View (Frequent/ Occasional/ Rare)	Sensitivit y (Low, Medium, High)
R9	Future residents of the Loop development	Residential	Medium	Fair	Yes	Full	Long	Frequent	High
R10	Residents of Shek Wu Wai, recreational users of Shek Wu Wai Playground	Residential/R ecreational	Few	Fair	Yes	Full	Long	Frequent	High
R11	Residents of Ha Wan Fisherman San Tsuen	Residential	Few	Fair	Yes	Full	Long	Frequent	High
REC 1	Hikers along Ngau Tam Shan Hiking Trail	Recreational	Medium	Good	Yes	Partial	Medium	Occasional	Medium
REC 2	Visitors of Mai Po Marsh Wetland reserve	Recreational	Few	Good	Yes	Full	Medium	Rare	Medium
REC 3	Hiker of Ki Lun Shan	Recreational	Few	Good	Yes	Full	Medium	Rare	Medium
REC 4	Park visitors of San Tin Park and Man Tin Cheung Park	Recreational	Many	Fair	Yes	Glimpse	Medium	Occasional	Medium
REC 5	Hikers of Lam Tsuen Country Park	Recreational	Medium	Good	Yes	Full	Medium	Occasional	High
REC 6	Future users of Sam Po Shue Wetland Conservation Park	Recreational	Medium	Good	Yes	Full	Medium	Occasional	High
T1	Travellers of San Tin Highway	Travelling	Many	Poor	Yes	Glimpse	Short	Rare	Low
T2	Users of MTR Lok Ma Chau Station	Travelling	Many	Fair	Yes	Glimpse	Short	Rare	Low

 Table 14.6
 Visually sensitive receivers (VSRs) and their sensitivity
VSR ID.	Visually Sensitive Receiver (VSR)	Type of VSRs	Number of Individuals (Many/ Medium/ Few)	Quality of Existing View (Good/Fair/ Poor)	Availability of Alternative Views (Yes/No)	Degree of Visibility (Full/ Partial/ Glimpse)	Duration of View (Long/ Medium/ Short)	Frequency of View (Frequent/ Occasional/ Rare)	Sensitivit y (Low, Medium, High)
Т3	Traveller of Fan Ling Highway	Travelling	Many	Fair	Yes	Glimpse	Short	Rare	Low
01	Workers of Open Storage/ Industrial usage of Ngau Tam Mei	Occupational	Medium	Fair	Yes	Partial	Medium	Occasional	Medium
02	Workers around Castle peak road (Mai Po section)	Occupational	Medium	Fair	Yes	Partial	Medium	Occasional	Medium
O3	Farmer in Agricultural land near LMC BCP	Occupational	Medium	Fair	Yes	Partial	Medium	Occasional	Medium
04	Industrial and potential tertiary users of Kwu Tung and Pak Shek Au	Occupational	Medium	Fair	Yes	Partial	Medium	Occasional	Medium
O5	Workers in open storage	Occupational	Few	Fair	Yes	Full	Short	Occasional	Low
O6	Future workers of the Loop development	Occupational	Medium	Fair	Yes	Full	Medium	Occasional	Medium
GIC1	Lok Ma Chau Operation Base	Institutional	Medium	Fair	Yes	Partial	Medium	Occasional	Medium
GIC2	Users of Gurkha Cemetery	Institutional	Few	Fair	Yes	Full	Medium	Occasional	Medium
GIC3	Users of San Tin Barracks	Institutional	Few	Fair	Yes	Glimpse	Medium	Occasional	Medium
GIC4	Users of Tam Mei Barracks	Institutional	Few	Fair	Yes	Glimpse	Medium	Occasional	Low

## Table 14.6 Visually sensitive receivers (VSRs) and their sensitivity

Note: R = Residential; Rec = Recreational; T=Transport Related/ Traveller; I=Institutional, GIC=Government/Community, O= Occupational,

## 14.7 Landscape Impact Assessment

## Potential Sources of Landscape Impact

- 14.7.1 The sources of landscape impact due to the Project would create various levels of landscape impact during construction and operational phases of the Project. Potential impacts would result from the temporary and permanent works during construction phase and permanent aboveground structure elements during operational phase. The conceptual development proposals will be formulated through an iterative design process, further refined, and developed to accommodate the future institutional design requirements, and to minimise the predicted residual landscape impacts. As the development proposals may be further refined, the assessment assumes the worst-case scenario in terms of the impacts.
- 14.7.2 The Project is a DP under the EIAO with Schedule 3 Item 1, an urban development or redevelopment project covering an area more than 50 ha. In addition, there are associated infrastructures proposed within the Project area as DPs under EIAO Schedule 2, they will also be considered as part of the Landscape Impact Assessment. The DPs are described in Section 2.2 of this report, for detailed description please refer to **Section 2** of this EIA report. Other non-DP components will also be assessed as a cumulative effect. The level of details for the DPs is subject to the further refinement at later stage and is provided to the best knowledge available for the purpose for this assessment.
- 14.7.3 The sources of landscape impact in the construction phase would include:

## **Direct Impact:**

- Construction of the development within building lot of the Project (Schedule 3 DP)
- Site clearance works involving the removal of the existing storage containers and recreational facilities, as well as the removal of existing trees, shrub planting, fishpond and wetland;
- Site formation works including cutting and filling;
- Construction of the viaduct and finishing works;
- Excavation works and haulage off-site of excavated materials;
- Storage of existing topsoil for reinstatement works;
- Importation and storage of construction equipment and plant;
- Materials stockpiling;
- Construction of site access;
- Temporary traffic management activities;
- Removal of existing roads
- Construction of local road and associated internal site roads and bridges;
- Construction of proposed San Tin Station and proposed station near Chau Tau, as well as proposed residential, mixed use, I&T, logistic, storage and workshop uses (LSW) and Other Specified Use development;
- Construction of proposed tracks and stations platforms;
- Re-alignment of roads;
- Re-alignment and upgrading of drainage channel and watercourse;
- Laying down utilities including water, drainage, power, and waste;
- Construction of the temporary parking areas, on-site accommodation offices and structures and working areas, importation and storage of equipment and materials;

- Indirect Impact;
- Construction traffic;
- The laying down of utilities, including water, drainage and power;
- Temporary site access areas, site cabins and heavy machinery;
- After dark lighting and welding; and
- Dust and construction debris.
- 14.7.4 The sources of landscape impact in the operational phase would include:
- 14.7.5 The Project (Schedule 3 DP) itself, including:
  - Operation of individual development within the building lot of the Project;
  - Operation of proposed San Tin Station and proposed station near Chau Tau, proposed residential, mixed use, I&T, LSW and Other Specified Use development;
  - Operation of proposed Open Space;
  - Provision of Noise mitigation structures;
  - Residual impacts of permanent removal of existing trees and other vegetation; and
  - Changes of landscape character permanently due to the Project.
- 14.7.6 In addition to the Project under Schedule 3 mentioned above, refer to **Section 2** of the EIA report and **Figure 1.2** of the EIA Report, the associated infrastructures proposed within the Project (DPs) under EIAO Schedule 2, they have been also considered as part of the landscape impact assessment.

ID No.	Landscape resources/ Landscape	Description of works	Description of Impacts (Area loss (ha) / Total	Magnitude of change (Large/ Intermediate/ Small/ Negligible)				
	character areas		Area of LR (ha)/ Type of loss)	Constructio n	Operation			
Landsc	Landscape resources (LRs)							
LR1.0	Marsh/ Reed	<ul> <li>The Project (Schedule 3 DP)</li> <li>Construction and operation of Road D1, Road P1 (DP1) and Road D2 (DP1)</li> <li>Site clearance work for "OU(I&amp;T)", "G/IC", "OU(MU), "Rsc", "O" and associated internal development.</li> <li>Run-off from site clearance works and construction of the temporary structures and working areas</li> </ul>	<ul> <li>Disturbance to existing landscape resource by construction activities.</li> <li>Permanent loss of approx. 63% of this LR</li> <li>Baseline area coverage is approx.14 ha. Permanent loss 9 ha. of LR 1.0</li> <li>A total of approx. 738 nos. of trees will be either transplanted or felled, subject to detailed design.</li> </ul>	Intermediate	Intermediate			

## Table 14.7 Magnitude of Landscape Impact during Construction and Operation

LR2.0	Compensator y wetland	<ul> <li>The Project (Schedule 3 DP)</li> <li>Run-off from construction of the temporary structures and working areas.</li> </ul>	-	Disturbance to existing landscape resource by construction activities. Permanent loss of approx. 4.96 ha (22%) of mitigation wetland of STEMDC Baseline area coverage is approx. 22.7 ha. A total of approx. 75 nos. of trees will be either transplanted or felled, subject to detailed design. The compensatory wetland abutting STEMDC will be disturbed during construction phase. Affected compensatory wetland will be reinstated as part of the revitalisation of STEMDC.	Intermediate	Intermediate
LR3.1	Ponds Ponds near San Tin and Sam Po Shue	<ul> <li>The Project (Schedule 3 DP)</li> <li>Construction and operation of Road D3 (DP1)</li> <li>Construction and operation of O.1.1, O.1.2 (DP7)</li> <li>"OU(I&amp;T)", "G/IC" and internal connection road</li> <li>Construction of temporary structures and working areas</li> <li>Run-off from site clearance works.</li> <li>Run-off from construction of the temporary structures and working areas.</li> <li>Permanent operation of "OU(I&amp;T)", "G/IC"</li> </ul>	-	Permanent loss of partial extent of existing vegetation around ponds. Approx. 41% of this area will be permanently loss due to the works especially the existing vegetation around the ponds. Baseline area coverage is approx. 222.5 ha. Permanent loss of 92 ha. A total of approx. 4,146 nos. of trees will be either transplanted or felled, subject to detailed design.	Large	Large
LR3.2	Ponds near Siu Hum Tsuen and Shek Wu Wai San Tsuen	<ul> <li>The Project (Schedule 3 DP)</li> <li>Construction and operation of Road D1 (DP1)</li> <li>Site clearance work for "O", "Rsc", "OU(MU)", "G/IC" and associated</li> </ul>	-	Permanent loss of partial extent of existing vegetation around pond. Approx.83% of this LR will be affected. Baseline area	Large	Large

		<ul> <li>internal roads.</li> <li>Run-off from site clearance works.</li> <li>Run-off from construction of the temporary structures and working areas.</li> <li>Permanent operation of "O", "Rsc", "OU(MU)" and "G/IC"</li> </ul>	-	coverage is approx. 3.74 ha. Permanent loss of 3.1 ha. A total of approx. 877 nos. of trees will be either transplanted or felled, subject to detailed design.		
LR 3.3	Ponds near Ngau Tam Mei	<ul> <li>No permanent work is proposed.</li> </ul>	-	Baseline area coverage is approx. 2 ha. No tree will be felled or transplanted.	Negligible	Negligible
LR4.0	Natural Watercourse	<ul> <li>No permanent work is proposed.</li> </ul>	-	Baseline area coverage is approx. 5.95 ha. No tree will be felled or transplanted.	Negligible	Negligible
LR5.0	Modified watercourse	<ul> <li>The Project (Schedule 3 DP)</li> <li>Construction and operation of Road D1 (DP1)</li> <li>Revitalisation of San Tin Eastern &amp; Western Main Drainage Channel (DP6)</li> <li>Construction of "R", "Rsc", "OU", and "O" developments and associated internal roads.</li> <li>Channel enhancement measures, including development of associated infrastructure along channel will be implemented.</li> <li>Diverting of channel alignment due to conflict with proposed development OU(I&amp;T)</li> <li>Boxing and culverting of a portion of existing channel</li> <li>Construction of associated internal site roads.</li> <li>Permanent Operation of "R", "Rsc", "OU", and "O" developments</li> </ul>	-	Approx. 16% of this LR will be permanently loss due to the works, including the existing vegetation around the ponds. Baseline area coverage is approx. 24.29 ha. Permanent loss of 3.8 ha A total of approx. 441 nos. of trees will be either transplanted or felled, subject to detailed design.	Small	Small
LR6.0	Semi-Natural Watercourse	<ul> <li>The Project (Schedule 3 DP)</li> <li>Construction and operation of Road D1 (DP1)</li> <li>Site clearance for</li> </ul>	-	Temporary disturbance to existing landscape by construction activities and channel	Intermediate	Intermediate

		<ul> <li>proposed "OU(I&amp;T)", "G/IC" and "O" developments and associated internal roads.</li> <li>Channel enhancement measures, including development of associated infrastructure along channel will be implemented.</li> <li>Boxing and culverting of a portion of existing channel</li> <li>Construction of associated internal site roads.</li> </ul>	-	revitalisation along proposed open space. Approx. 1.1 ha. (6%) will be temporary disturbed during construction phase. These are found in the proposed "A" and "O" in Pang Loon Tei, Chau Tau Tsuen and around San Tin. Approx. 55% of this LR will be permanently loss. Baseline area is approx.11 ha. Permanent loss of 6.1 ha A total of approx. 551 nos. of trees will be either transplanted or felled, subject to detailed design.		
LR7.0	Seasonal Wet Grassland	<ul> <li>The Project (Schedule 3 DP)</li> <li>Construction of Road D5 (DP1)</li> <li>Run-off from site clearance works.</li> <li>Run-off from construction of the temporary structures and working areas.</li> <li>Permanent demolition of existing seasonal wet grassland along Castle Peak Road.</li> </ul>	-	Permanent loss of entire 0.1 ha of LR due to works. Approx. 43% loss. Baseline area is approx. 0.23 ha. A total of approx.9 nos. of trees will be either transplanted or felled, subject to detailed design.	Intermediate	Intermediate
LR8.0	Wet Agricultural Land	<ul> <li>The Project (Schedule 3 DP)</li> <li>Construction and operation of Road D1 (DP1)</li> <li>Site clearance for "O"," "Rsc"," G/IC" and associated internal roads.</li> <li>Run-off from site clearance works.</li> <li>Run-off from construction of the temporary structures and working areas.</li> <li>Demolition of existing seasonal wet grassland along caste</li> </ul>	-	Permanent loss of all 0.2 ha of LR due to works. Baseline area is approx. 0.20 ha. A total of approx. 18 nos. of trees will be either transplanted or felled, subject to detailed design.	Large	Large

		peak road for" O", "G/IC"," R" and "OU(RAF)"			
LR9.0	Dry Agricultural Land	<ul> <li>The Project (Schedule 3 DP)</li> <li>Site clearance for Open space "O", "G/IC", "Rsc" and "R", and "E" development.</li> <li>Construction of temporary structures and working areas</li> <li>Construction of access roads and associated internal roads.</li> <li>Permanent demolition of LR9</li> </ul>	<ul> <li>Approx. 76% of this LR will be permanently loss due to the works, including the existing vegetation around the dry agricultural land.</li> <li>Baseline area is approx. 13.7ha.</li> <li>Permanent loss of 10.36 ha</li> <li>A total of approx. 1,558 nos. of trees will be either transplanted or felled, subject to detailed design.</li> </ul>	Large	Large
LR10.0	Woodland	<ul> <li>The Project (Schedule 3 DP)</li> <li>Site clearance for "OU(I&amp;T)"</li> <li>Construction of temporary structures and working areas</li> <li>Construction of access roads and associated internal roads.</li> <li>Permanent demolition of LR10 abutting San Tin Highway</li> </ul>	<ul> <li>Temporary disturbance to existing landscape resource by construction activities</li> <li>Approx. 5.3% of this LR will be affected permanently.</li> <li>Baseline area coverage is approx. 31.8ha. Permanent loss of 1.7 ha of this LR</li> <li>A total of approx. 267 nos. of trees will be either transplanted or felled, subject to detailed design.</li> </ul>	Small	Small
LR11.0	Mixed Woodland	<ul> <li>The Project (Schedule 3 DP)</li> <li>Construction and operation of DP2, DP4 and DP7</li> <li>Site clearance for "G/IC", "OU(MU)", "Rsc" and "O" and "A"</li> <li>Construction of access roads and associated internal roads.</li> <li>Construction of temporary structures and working areas</li> <li>Partial permanent loss of LR 11 near Mai Po Lung, Tsuen, and Shek Wu Wai San Tsuen</li> </ul>	<ul> <li>Temporary disturbance to existing landscape by construction activities</li> <li>Approx. 17% of this LR will be affected.</li> <li>Affected Mixed woodland is located near Mai Po Lung Tsuen and Shek Wu Wai San Tsuen.</li> <li>Baseline area is approx. 97.43 ha. Permanent loss of 16.3 ha. mixed woodland.</li> </ul>	Intermediate	Intermediate

			-	A total of approx. 4,793 nos. of trees will be either transplanted or felled, subject to detailed design.		
LR12.0	Plantation				·	
LR12.1	Plantation on slope	<ul> <li>Proposed Project (Schedule 3 DP)</li> <li>Site clearance for "G/IC"</li> <li>Construction of access roads and associated internal roads.</li> <li>Construction of temporary structures and working areas</li> <li>Permanent loss of partial plantation</li> <li>Operation of new development</li> </ul>	-	Approx. 9% of this LR will be affected permanently. Baseline vegetation coverage is approx. 40.1 ha. Permanent loss of 3.8 Ha. mixed woodland. A total of approx. 3,114 nos. of trees will be either transplanted or felled, subject to detailed design.	Small	Small
LR12.2	Plantation along roadside	<ul> <li>Proposed Project (Schedule 3 DP)</li> <li>Operation of new development</li> <li>Site clearance for "G/IC", "OU(MU)", "Rsc", "O" and "A"</li> <li>Construction of access roads and associated internal roads. (Including Road L5, L10)</li> <li>Construction of temporary structures and working areas</li> <li>Permanent loss of partial plantation</li> </ul>	-	Approx.58% of this LR will be affected permanently. Baseline vegetation coverage is approx.24.35 ha. Permanent loss of plantation of approx. 14. ha A total of approx. 2,541 nos. of trees will be either transplanted or felled, subject to detailed design.	Intermediate	Intermediate
LR13.0	Shrubland	<ul> <li>Proposed Project (Schedule 3 DP)</li> <li>Operation of new development and Road D1, D2 (DP1)</li> <li>Site clearance works for "G/IC", "E" and "Rsc".</li> <li>Construction of the Temporary structures and working areas</li> <li>Construction of associated internal roads.</li> <li>Temporary disturbance to existing landscape by construction activities as most of</li> </ul>	-	Permanent loss of shrubland approx. 11% of this LR Baseline vegetation coverage is approx. 109 ha. Permanent loss of 11.8 ha. A total of approx. 2,859 nos. of trees will be either transplanted or felled, subject to detailed design.	Small	Small

LR14.0	Grassland	<ul> <li>LR13 is planned as Green Belt area or outside the development boundary.</li> <li>Permanent loss of partial plantation</li> <li>Operation of new development.</li> <li>Proposed Project (Schedule 3 DP)</li> <li>Operation of new development and Road D1 (DP1).</li> <li>Site clearance works for "OU(I&amp;T)", "OU(MU)", "O", "GIC", "Rsc".</li> <li>Construction and operation of Road D1 (DP1)</li> <li>Construction of the temporary structures and working areas</li> <li>Construction of associated internal roads.</li> <li>Permanent loss of grassland located</li> </ul>	-	Permanent loss of plantation of approx. of 6%. Baseline vegetation coverage is approx.20 ha. Permanent loss of plantation of approx. 16.9 ha A total of approx. 2,804 nos. of trees will be either transplanted or felled, subject to detailed design.	Small	Small
		within development boundary near Pang Loon Tei, Chau Tau Tsuen, Lin Barn Tsuen, and adjoining of San Tin Tsuen Road.				
LR15.0	Village/ Orchard	<ul> <li>Proposed Project (Schedule 3 DP).</li> <li>Construction and operation of DP2.</li> <li>Site clearance works for "G/IC", "Rsc". "OU(MU)", "O" and "E"</li> <li>Construction of temporary structures and working areas.</li> <li>Construction of access roads and associated internal roads.</li> <li>Permanently demolition of existing Orchard near Pang Loon Tei, LMC BCP, Siu Hum Tsuen.</li> <li>Partial extent of orchard is demolition near Mai Po Lung Tsuen Pang Loon Tei, Shek Wu Wai/ Shek Wu Wai San Tsuen, Chau Tau Tsuen</li> </ul>	-	Permanent loss of plantation of approx. 44%. Baseline vegetation coverage is approx. 78.73ha. Permanent loss of plantation of approx. 34.7. ha. A total of approx. 4,031 nos. of trees will be either transplanted or felled, subject to detailed design.	Intermediate	Intermediate

		- Operation of new development.			
LR16.0	Vegetation in developed area (Including residential area and man- made structure)	<ul> <li>Proposed Project (Schedule 3 DP).</li> <li>Construction and operation of DP1, DP2, DP3, DP4, DP5, DP7.</li> <li>Demolition of some of the existing structures/road and associated structures.</li> <li>Construction of access roads and associated internal roads.</li> <li>Operation of new roads network and development.</li> </ul>	<ul> <li>Permanent loss of approx. 50% of this LR.</li> <li>Baseline coverage is approx. 453.7ha. Permanent loss of approx. 227 ha.</li> <li>A total of approx. 21,715 nos. of trees will be either transplanted or felled, subject to detailed design.</li> </ul>	Large	Large
LR17.0	Vegetation in Waste land/open storage/ temporary area	<ul> <li>Proposed Project (Schedule 3 DP).</li> <li>Construction and operation of DP1, DP2, DP3, DP4, DP5, DP7.</li> <li>Demolition of existing Open storage/waste ground and associated structures.</li> <li>Construction of access roads and associated internal roads.</li> <li>Site clearance work for Schedule 3 DP development.</li> <li>Operation of new roads network and development.</li> </ul>	<ul> <li>Permanent loss of approx. 98% of this LR.</li> <li>Baseline coverage is approx. 127.3 ha Permanent loss of approx.117.2ha.</li> <li>A total of approx. 11656 nos. of trees will be either transplanted or felled, subject to detailed design.</li> </ul>	Large	Large
Landsc	ape character a	rea (LCAs)			
LCA1	Settled Valley Landscape	<ul> <li>Proposed Project (Schedule 3 DP).</li> <li>Construction and operation of Road D5 (DP1).</li> <li>Construction of the I&amp;T development and associated "O", "GIC" and associated roads.</li> <li>Site clearance works.</li> <li>Presence of construction equipment.</li> <li>Construction of the temporary structures and working areas.</li> <li>New buildings and road network replacing existing development and vegetation.</li> </ul>	<ul> <li>Proposed works alters the perception of landscape and visual amenity of LCA1, especially area within the Pang Loon Tei.</li> <li>A portion of LCA1 will permanently be affected while the nature of works is differ from existing elements.</li> <li>Magnitude of change would be intermediate.</li> </ul>	ntermediate	Intermediate

LCA2	Upland And Hillside Landscape	<ul> <li>Proposed Project (Schedule 3 DP).</li> <li>Construction and operation of Road D5 (DP1).</li> <li>Construction of the I&amp;T development and associated "O", "G/IC" and associated roads.</li> <li>Site clearance works.</li> <li>Presence of construction equipment</li> <li>Construction of the temporary structures and working areas.</li> <li>New buildings and road network replacing existing development and vegetation.</li> </ul>	- - t	Proposed works within the Pang Loon Tei alters the perception of landscape and visual amenity of LCA2. The impact is at the peripheral area and relatively small. Magnitude of change would be small.	Small	Small
LCA3	Rural Coastal Plain Landscape	<ul> <li>Proposed Project (Schedule 3 DP)</li> <li>Construction of the "OU(I&amp;T)" development and associated "O", "G/IC" and associated roads.</li> <li>DP1, DP6, DP7 and associated internal roads.</li> <li>Site clearance works.</li> <li>Presence of construction equipment.</li> <li>Construction of the temporary structures and working areas</li> <li>Construction of the "OU(I&amp;T)" and associated internal roads.</li> <li>Construction of the "OU(I&amp;T)" and associated internal roads.</li> <li>Construction of residential developments.</li> </ul>	- t -	Proposed work would alter perception of landscape quality of the visual amenity of LCA. Considered the different nature of and scale of the development. The magnitude of change to this LCA is Large.	Large	Large
LCA4	Rural Inland Plain Landscape	<ul> <li>Proposed Project (Schedule 3 DP).</li> <li>Site clearance works for "OU(I&amp;T)" development, "O", "GIC", residential use, "OU(MU)" Presence of construction equipment.</li> <li>Construction of the temporary structures and working areas.</li> <li>Construction of the "R", "Rsc", "OU(MU)", "G/IC" and "OU(I&amp;T)" developments.</li> <li>DP1-DP7 and</li> </ul>	-	Proposed work would change the landscape quality. During operation phases, majority of this LCA will be impacted. The nature of the new development is largely different from current character. Permanent loss of existing vegetation due to the replacement with infrastructure and/ or buildings.	Large	Large

LCA5	Urban Peripheral Village Landscape	<ul> <li>associated internal roads.</li> <li>New proposed road networks and proposed development replacing the existing generally open characters.</li> <li>Proposed Project (Schedule 3 DP)</li> <li>Site clearance works for "OU(I&amp;T)" and "A".</li> <li>Presence of the construction of the temporary structures and working areas.</li> <li>Construction and operation of the residential and amenity green.</li> </ul>	<ul> <li>The magnitude of change is considered as large.</li> <li>Proposed work would change the landscape quality.</li> <li>Consider the nature of the current and proposed development character are of similar nature, the scale of work is localised.</li> <li>The magnitude of change is considered as small.</li> </ul>	Small	Small
LCA6	Miscellaneous Rural Fringe Landscape	<ul> <li>Proposed Project (Schedule 3 DP).</li> <li>Site clearance works for "OU(I&amp;T)" and "A".</li> <li>Presence of the construction of the temporary structures and working areas.</li> <li>Associated internal roads.</li> <li>Construction and operation of "G/IC", "OU(I&amp;T)" and "A".</li> </ul>	<ul> <li>Proposed work and construction within LCA6 alter perception of landscape quality and visual amenity of LCA6.</li> <li>Presence of the projects alters perception of landscape quality and visual amenity of LCA6.</li> <li>Presence of the projects alters perception of landscape quality and visual amenity of LCA6.</li> <li>Consider the nature of the current and proposed development character are of similar nature, the scale of work is localised.</li> <li>The magnitude of change is considered as small.</li> </ul>	Small	Small
LCA7	Comprehensiv e Residential Development	<ul> <li>Proposed Project (Schedule 3 DP).</li> <li>Site clearance works.</li> <li>Presence of the construction of the temporary structures and working areas.</li> <li>Associated internal roads.</li> <li>Construction of the "G/IC" and "A".</li> </ul>	<ul> <li>Construction within LCA6 alters perception of landscape quality and visual amenity of LCA6.</li> <li>Consider the nature of the current and proposed Project are of similar nature, it is compatible to surrounding landscape character.</li> </ul>	Small	Small

1	1	1	1	1	
			- Hence the magnitude of change is considered as small		
LCA8	Institutional Landscape	Nil	Nil	Negligible	Negligible
LCA9	Transportatio n Corridor Landscape	<ul> <li>Proposed Project (Schedule 3 DP)</li> <li>Associated internal roads.</li> <li>Construction of Iconic bridge, viaduct, and associated transportation infrastructure.</li> <li>Construction and operation of DP 1.</li> </ul>	<ul> <li>Construction within LCA9 alters perception of landscape quality and visual amenity of LCA9.</li> <li>During Operation phases, the nature of the proposed development will be of similar nature to current LCA.</li> <li>Consider the localised impact, the magnitude of change for both phase is small.</li> </ul>	Small	Small
LCA10	Miscellaneous Urban Fringe Landscape	<ul> <li>Proposed Project (Schedule 3 DP).</li> <li>Construction and operation of OU(I&amp;T) and associated infrastructure works and internal roads.</li> <li>Site clearance works.</li> <li>Presence of the construction of the temporary structures and working areas.</li> <li>Construction and operation of DP1 and DP6.</li> </ul>	<ul> <li>During construction phase, the temporary works area for the construction of the "OU(I&amp;T)", connecting roads to the Loop and upgrading of San Sham Road.</li> <li>During operation phases, the majority of the LCA will be altered with viaduct structures, Science Park type development and associated internal roads.</li> <li>Consider the localised impact and nature of the proposed development of similar nature of current character. The magnitude of change is considered as intermediate.</li> </ul>	Intermediate	Intermediate

Significance of Unmitigated Landscape Impact

14.7.7 The significance of landscape impact, before implementation of mitigation measures, in the construction and operational phases are assessed and presented in **Table 14.7**. The

significance of unmitigated impacts on the affected LRs and LCAs would vary from substantial to insubstantial. They are described as below.

Landscape Resources

14.7.8 The significance of unmitigated impacts on the affected LRs and LCAs would vary from insubstantial to substantial.

Insubstantial: LR4.0, LR3.3

- 14.7.9 The landscape resource LR4.0 is regarded as with high landscape sensitivity. This is due to its good to fair undisturbed nature and vegetation. Considered that no works will be proposed during both the construction and operational phase, hence the magnitude of change on this LR is considered as negligible and the unmitigated landscape impact significance is insubstantial.
- 14.7.10 The LR 3.3 is regarded with medium landscape sensitivity. It is due to its medium landscape amenity value and partial man-made nature. No works are proposed during construction and operation phases, hence the magnitude of change on this LR is considered as negligible, and the unmitigated landscape impact significance is insubstantial.

<u>Slight:</u> LR2.0, LR5.0, LR12.1, LR13.0, LR14.0

- 14.7.11 The landscape resource LR 2.0 is regarded as with high landscape sensitivity. This is due to its natural nature and vegetation along this LR is considered in fair to good condition with some degree of ecological value. During construction phase, only a small portion of this LR would be temporarily affected along the STEMDC and hence intermediate magnitude of change during construction phase. Upon completion of works, any disturbed vegetation shall be reinstated except the area for the proposed channel revitalisation works. The magnitude of change on this LR is considered as intermediate and hence the unmitigated landscape impact is regarded as moderate during the construction phase. Consider the magnitude of change is intermediate and temporary in nature and the impact significance can be reversed during operation phases, as such, the unmitigated landscape impact significance during operation phases is regarded as slight.
- 14.7.12 The landscape resource of LR 12.1, LR13.0. and LR14.0 are mainly composed of weed, self-seeding plants, shrubland, grass or vegetation in fair to poor condition with medium landscape sensitivity and medium to low landscape amenity value. Given that only small portion of these LRs within the proposed works area will be affected during both the construction and operation phases, while part of the LR14 is as part of the proposed Green Belt ("GB") hence no development is proposed, it is considered that the magnitude of change to these LRs is considered as small. Hence, the resultant unmitigated landscape impact significance is regarded as slight.
- 14.7.13 The landscape resource of LR5.0 is mainly of man-made nature with low landscape sensitivity. During construction phase, it will be affected during construction phase and reinstated during operation phases. For the lower stream (North of San Tin Highway), it will be revitalised and replaced by the proposed DP6. The mid and upper stream of the STEMDC will be revitalised and upgraded during construction phases and reinstated during operation phases. Those modified watercourse along Lok Ma Chau Road, Shenzhen River and outside of proposed boundary will not be affected by the proposed development during construction and operation phases. The affected vegetation along the modification watercourse will be reprovisioned. As such, the magnitude of change is regarded as small. The resultant unmitigated landscape significance is regarded as slight.

Moderate: LR1.0, LR6.0, LR7.0, LR10.0, LR11.0, LR12.2, LR15.0, LR16.0 and LR17.0

- 14.7.14 The Landscape resource of LR1.0 considered as with high landscape sensitivity. It is due to its medium quality of vegetation and its low ability to accommodate change. During construction and operation phases, partial extent of this LR will be affected. However, relatively large portion of this LR is outside the proposed Project boundary while the scale of development is localised. Hence, the magnitude of change is regarded as intermediate, and the resultant unmitigated landscape impact is regarded as moderate.
- 14.7.15 The Landscape resource of LR6.0 is regarded as with medium landscape sensitivity. It is due to its medium landscape amenity value and partial man-made nature. During construction and operation phases, design consideration is incorporated in both construction and operation phases as mentioned in **Section 14.4** under blue green infrastructure design measures. As such, the magnitude of change is regarded as intermediate. The resultant unmitigated landscape significance is assessed as moderate.
- 14.7.16 The landscape resource LR7.0 is regarded as with medium landscape sensitivity. This is due to its man-made nature relating to previous agricultural activities and vegetation around this LR is considered in fair condition and common in Hong Kong. During construction and operation phases, LR7.0 in Pang Loon Tei will be permanently removed where those near Mai Po Lo Wai will not be affected. As such, the magnitude of change is regarded as intermediate. The resultant unmitigated landscape significance is assessed as moderate.
- 14.7.17 The landscape resource of LR10.0 is regarded with high landscape sensitivity. It is due to its nature consisting of woodlands, semi-mature trees and second-growth woodland forming an interlocking tree canopy. It is generally in fair to good condition and landscape amenity value. During construction and operation phases, partial extent of this LRs will be affected due to construction works. However, relatively large portion of this LRs is either located outside the proposed Project boundary or within the proposed Green Belt. Hence the magnitude of the change will be small, the resultant unmitigated landscape impact significance is regarded as moderate.
- 14.7.18 The Landscape resource of LR11.0 is regarded with high landscape sensitivity. It is due to its nature consisting of semi-mature trees and secondary-growth woodland forming an interlocking tree canopy. It is generally in fair to good condition and landscape amenity value. During construction and operation phases, partial extent of this LRs will be affected due to construction works. Hence the magnitude of the change will be intermediate, the resultant unmitigated landscape impact significance is regarded as moderate.
- 14.7.19 For the landscape resource LR12.2, due to its nature being vegetation planted by man, its sensitivity to change is considered as low. During construction and operation phases, partial extent of LR12.2 will be affected due to the proposed roadworks. Since most of the LR are located at the peripheral of the proposed development along roadside, partial extent will be affected. Hence the magnitude of change considered as intermediate. The resultant unmitigated landscape impact significance is regarded as moderate.
- 14.7.20 The landscape resource of LR15.0 is mainly disturbed man-made nature with low landscape sensitivity. The vegetation is of fair to low quality and are mostly exotic or ornamental species. During construction and operation phases, most of this LR will be permanently removed. As such, the magnitude of change is regarded as intermediate. The resultant unmitigated landscape significance is assessed as moderate.
- 14.7.21 The landscape resource of LR16.0 is mainly the man-made nature with low landscape sensitivity and high ability to accommodate changes. During both the construction and operation phases, part of the existing elements will be permanently removed. The affected vegetation is manly ornamental. As such, the magnitude of change is regarded as large. Due to the low landscape value and quality, the resultant unmitigated landscape significance is regarded as moderate.
- 14.7.22 The landscape resource of LR17.0 is mainly comprising of the self-seedling vegetation or of man-made nature with low landscape sensitivity and high ability to accommodate changes. During both the construction and operation phases, most part of the existing

elements will be permanently removed. As such, with regards of the low sensitivity, the magnitude of change is regarded as large. The resultant unmitigated landscape significance is regarded as moderate.

## Substantial: LR3.1, LR3.2, LR8.0, LR9.0

- 14.7.23 The landscape resource of LR8.0 and LR9.0 are considered with landscape sensitivity of medium. The vegetation within these LRs is of medium amenity value and quality. During construction and operation phases, all these LRs will be permanently affected, and such impact is irreversible. The magnitude of change is considered as large. The resultant unmitigated landscape significance is regarded as substantial in both construction and operation phases.
- 14.7.24 The landscape resource LR3.1 is considered as with high landscape sensitivity. It is due to its medium quality of vegetation mainly consisting of common vegetation as a result from aquafarming and low ability to accommodate change. During construction and operation phases, partial extent (41%) of this LR will be permanently removed for the proposed development. Despite relatively large portion of this LRs including those in Sam Po Shue are outside of the proposed Project boundary including one flora species of conservation importance Incense Tree (which is also outside of the Project boundary), it has high ecological value resulting in low ability to accommodate change. As such, the magnitude of change is regarded as large. The resultant unmitigated landscape significance is regarded as substantial in both construction and operation phases.
- 14.7.25 For landscape resource LR3.2, it is considered with medium landscape sensitivity due to its medium ability to accommodate change and most vegetation is of man-made nature or self-seedling due to nearby agricultural activities. However, most of these ponds near Shek Wu Wai and Pang Loon Tei will be removed permanently. Given the permanent, irreversible loss of this resources (i.e., some vegetation may be retained in-situ subject to detail design stage). The magnitude of change is considered as large. The resultant unmitigated landscape significance is regarded as substantial in both construction and operation phases.

### Landscape Character Area

LCA1 – Settled Valley Landscape

14.7.26 The Settled Valley Landscape Character area (LCA1) representing the valley areas located in the northwest of Tam Mei Barracks and the east of Ki Lun Tsuen. This LCA is dominated by scattered settlements, tracks, large sized hillside woodland and grassland. The sensitivity of this LCA is regarded as high. This LCA will be affected with proposed construction in area around Pang Loon Tei. Existing buildings structures and trees will be permanently removed. As such, magnitude of change on this LCA due to the Project is intermediate during both the construction and operation phases. The magnitude of change is considered as intermediate, and the resultant unmitigated impact is moderate.

LCA2 – Upland and Hillside Landscape

14.7.27 The Upland and Hillside Landscape area (LCA2) of the large undeveloped hillside areas in the Lam Tsuen Country Park, Ki Lun Shan, Ngau Tam Shan and Lok Ma Chau area. The sensitivity for this area is regarded as high. The magnitude of change to this LCA is considered as small. This LCA will only be affected by the proposed development at the peripheral area. As such, magnitude of change on this LCA due to the Project is small during construction and operation phases. The magnitude of change is considered as small, and the resultant unmitigated impact is moderate.

## LCA3 – Rural Coastal Plain Landscape

14.7.28 The Rural Coastal Plain Landscape area (LCA 3) refers to the flat and expansive areas in Mai Po, San Tin and area adjoining Sam Po Shue Wetland near LMC BCP which include the WCA and WBA. The sensitivity of this area is regarded as high. The construction of the I&T development and associated supporting infrastructure works will affect this LCA. As such, magnitude of change on this LCA due to the Project is large during construction and operation phases. Hence, the resultant unmitigated impact is substantial.

## LCA4 – Rural Inland Plain Landscape

14.7.29 The Rural Inland Plain Landscape refers to the flat and expansive lowland areas near Shek Wu Wai Tsuen, Mai Po Lung Tsuen, Siu Hum Tsuen, and Ki Lun Tsuen. The sensitivity of this LCA is regarded as medium. The open character of this area will be changed while vegetation will be removed permanently due to the Project. This included the construction and operation of residential, commercial, "G/IC", and I&T development. As such, magnitude of change on this LCA due to the Project is large during both the construction and operation phases, hence the resultant unmitigated impact is substantial.

LCA5 – Urban Peripheral Village

14.7.30 The urban peripheral village refers to the fringes of urban developments, which include the San Tin Seven Villages. The sensitivity for this area is regarded as medium. A small portion of this LCA next to Pak Shek Au will be permanently changed for the construction and operation of I&T development. Considered that the proposed works are localised and the change to the surrounding is relatively small, therefore the magnitude of change to this LCA is considered as small. The unmitigated landscape impact on this LCA during construction and operational phases is slight.

LCA6 – Miscellaneous Rural Fringe Landscape

14.7.31 The miscellaneous rural fringe landscape refers to the rural areas which located in Chau Tau Village, Lok Ma Chau, and Mai Po San Tsuen. This LCA consists of agricultural fields, patch of tree cluster and scattered villages as well as open storage and parking areas. The sensitivity of this area is regarded as medium. Parts of the LCA will be affected by the construction and operation of residential site, I&T development, "G/IC" and Amenity Areas. Considered that the proposed works are localised and the change to the surrounding is of similar nature to the existing character, therefore the magnitude of change to this LCA is considered as small. The unmitigated landscape impact on this LCA during construction and operational phases is slight.

LCA7 – Comprehensive Residential Development

14.7.32 The comprehensive residential development refers to the area near Fairview Park Palm Springs and residential area along San Tam Road with mixed of developed and undeveloped land. The sensitivity of this area is regarded as low. Parts of the LCA along San Tam Road will be affected for the construction and operation of Road D3, "G/IC" and Amenity Areas and other associated proposed developments. As such, magnitude of change on this LCA due to the Project is small during construction and operation phases, and hence the resultant unmitigated impact is slight.

LCA8 - Institutional Landscape

14.7.33 The institutional landscape refers the Ngau Tam Mei Water Treatment works, San Tin Barracks area and Tam Mei Barracks where all are located outside of the Project boundary. The sensitivity of these is considered as medium. Considered that no works will be proposed within the LCAs, hence, it is assumed that there will be no change to the existing LCA during both the construction and operation phases. The magnitude of change is considered as negligible, and the resultant unmitigated impact is insubstantial.

## LCA9 - Transportation Corridor Landscape

14.7.34 The transportation corridor landscape refers to the major roadside facilities and amenities areas of San Tin Highway, Fanling Highway, Kwu Tung Road, and San Tin Interchange. The sensitivity of this area is regarded as low. Parts of the LCA will be affected due to the construction of DP1 (Road P1, L8, D2 and D3), viaduct structures, iconic footbridge and associated internal roads for the construction and operation of the proposed development. Given that the proposed works are of similar nature with the existing elements of this LCA while the works are localised and only affected a small portion of the vegetation, the changes to surrounding is small. Hence, the magnitude of change on this LCA due to the Project is small during construction at operation phases, and hence the resultant unmitigated impact is slight.

## LCA10 - Miscellaneous Urban Fringe Landscape

14.7.35 The miscellaneous urban fringe landscape refers to the LMC BCP and adjoining areas including the Loop future development. The sensitivity of this area is regarded as Low. This LCA will be affected due proposed I&T development, road works (Road P1 and Road D6) and associated internal roads work. Existing buildings structures and tree will be permanently removed. The magnitude of change to this LCA is considered as intermediate. The unmitigated landscape impact on this LCA during construction and operational phases is moderate.

## 14.8 Visual Impact Assessment

### Sources of Visual Impact

14.8.1 The sources of visual impact due to the Project would create varying levels of visual impact during construction and operation phases of the Project. Potential impacts would result from the temporary works during construction phase and permanent aboveground structure elements during operation phases.

The sources of visual impact in the construction phase would include:

- Construction of development within the building lots of the Project (Schedule 3 DP);
- Construction of landscape deck and elevated walkway;
- Site clearance and potential tree removal/ transplanting;
- Modification, retrofitting and/ or demolition of existing structures;
- Construction of the viaduct and finishing works;
- Temporary access path, site offices, haul road, storage of construction materials, heavy machinery, equipment and plants, hoarding, construction traffic;
- Loss of other vegetation due to the construction works;
- Dust and construction debris, and
- Potential night-time glare arising from the lighting of construction activities.

Indirect Impact:

- The laying down of utilities, including water, drainage and power;
- After dark welding, and
- Dust during dry weather.

The sources of visual impact in the operational phase would include:

 Operation of proposed above ground structures, including the proposed mitigation measures such as noise barriers;

- Permanent removal of existing trees, vegetation and other natural or rural features such as wetland, fishponds, farmland, orchard, settlements, etc; and
- Changes of visual environment and landscape character permanently due to the Project.
- 14.8.2 In addition to the Project under Schedule 3 mentioned above, refer to **Section 2** of the EIA report and <u>Figure 2.3</u> and <u>2.4</u> of the EIA Report, the following associated infrastructures proposed within or outside the Project (DPs) under EIAO Schedule 2, they have been also considered as part of the Visual impact assessment.

Degree of compatibility of the DP and associated works

- 14.8.3 The Project (Schedule 3 DP) is developed with consideration to minimise adverse impact on existing landscape and visual resources. However, noted the large-scale nature of the proposed development, it would inevitably alter the visual environment and landscape character. Currently, the Project area is mainly flat land and rural in nature. It comprises of largely brownfield sites and is mostly surrounded by green hills and ponds/ wetland. The transformation of the Project from presently a largely brownfield sites into a contemporary and integrated community through the provision of appropriate landscape treatment and design consideration is described in **Section 14.5.11 - 14.5.32** and <u>Appendix 14.4</u> which ultimately improves the landscape and visual outlook of the Project.
- 14.8.4 The following DPs are planned and developed with the Revised RODP. They are well integrated with the existing and planned development and transportation network. The implementation of the new district distributor road and associated infrastructure and facilities facilitating the development and site formation work are crucial elements to support the whole development.
  - DP1 Construction and operation of new primary distributor road P1, district distributor road D1, D2, D3, D4, D5 and D6
- 14.8.5 The construction and operation of the effluent polishing plant (STLMC EPP) (DP2) equipment has been put into basement as far as practicable. The height of the DP2 is optimised. The new reclaimed water facility (DP3), refuse transfer station (RTS) (DP4), 400kV electricity substations (DP5) are essential infrastructure and are restricted in height.
- 14.8.6 Advance screen planting, decorative hoarding around construction works, landscape planting shall be incorporated where appropriate to soften the proposed structures. Green roofs and vertical greening shall be proposed to provide visual relief to VSRs at high level. It is considered the provision of these DPs can blend in with the urban environment and considered to be compatible.
- 14.8.7 The revitalisation of STEMDC (DP6) are proposed to upgrade the existing engineered channel to naturalised embankment to maximise greening opportunities and form as part of the wider blue-green network. It is considered that the provision can blend in with the new proposed development and as compatible with adjacent landscape setting.
- 14.8.8 For DP7 Recreational Development within Deep Bay Buffer Zone 2 (i.e., O.1.1, O.1.2, and O.1.3 (as Open Space)), careful considerations are placed for the proposed design and usage. Minimisation and avoidance on landscape and ecological important features are integrated within the Project and the proposed design (refer to **Section 14.9.1**). It will be in line with the existing or proposed adjacent landscape setting.
- 14.8.9 The Project and associated works will be in line with the existing or proposed adjacent landscape setting and are considered as compatible to the existing and planned urban landscape settings.

Magnitude of Visual Impact

14.8.10 The magnitude of impacts during construction and operational phases was assessed based on the viewing distance, compatibility of the Project with the surrounding landscape, duration of impacts, scale of development, reversibility of change and potential blockage of view as shown in **Table 14.8**. The magnitude of visual change of key VSR groups during construction and operation phases is assessed.

Representative Viewpoints

- 14.8.11 Photomontages at representative locations showing the comparison between existing conditions, Day 1 after completion of the Project without mitigation measures, on Day 1 after completion of the Project with mitigation measures, and in Year 10 of operation of the Project with mitigation measures were prepared in accordance with EIAO Guidance Note No. 8/2010.
- 14.8.12 The criteria for the selection of representative viewpoints for photomontages include:
  - major public viewpoint which covers the proposed development to represents key VSRs or VSR groups who would be potentially affected by the proposed permanent structures; and
  - the viewpoints should be able to represent the worst-case scenarios and demonstrate the compatibility of the proposed development to the adjacent visual context and illustrate the visual effect during Day 1 without mitigation measures, Day 1 with mitigation measures and Year 10 with mitigation measures.
- 14.8.13 Based on the proposed development, the proposed viewpoint from key representative VSRs is mapped in **Figure 14.22-14.39** with their descriptions provided as follow:

VP1 - View from Community Sports

14.8.14 This VP represents the recreational users between Tit Hang and Fung Kong from a medium viewing distance. It is selected to represent VSRs R8 and GIC1. It is located 950m from the development boundary with vegetation in the foreground.

VP2 - View from Pak Shek Au Cycleway

14.8.15 This VP represents VSRs located near Pak Shek Au and the proposed future Kwu Tung North NDA users, it is selected to represent VSRs with a medium viewing range of the proposed development from the north-east namely VSRs O4 and T3. It is located 600m from the development boundary with roadside planting and green knoll in the foreground.

VP3 – View from Ki Lun Shan Hiking Trail

14.8.16 This VP represents the VSR looking at the proposed development at an elevate position. It is selected to represent recreational VSR REC3 with a short viewing range to the proposed development from the East. It is 600m from the development boundary and at an elevation of +200 mPD.

VP4 - View from Kai Kung Leng Hiking Trail

14.8.17 This VP represents the recreational users from a far distance at elevated viewing location which present an overall view of the proposed development. This VP represents the recreational (REC) VSRs from elevated level of Ngau Tam Shan Hiking Trail and Kai Kung Leng hiking trail with a medium to long viewing distance of the proposed development from south-east. As well as GIC users located southeast of the Project area namely users Gurkha Cemetery (GIC2), users of San Tin Barracks (GIC3) and Users Tam Mei Barracks (GIC4). It is located 2300m from the development boundary and at an elevation of about +550 mPD.



VP5 - View from pedestrian footbridge of San Tin Highway

14.8.18 This VP is selected to represent the travelling VSR along San Tin Highway. This includes the pedestrian, motorist and residential VSR. It is located approximately 2600m from the development boundary at an elevation approximately +10 mPD. This VP is selected to represent VSRs T1, O1, O2 and R4.

VP6 - View from pedestrian footbridge of NT Circular Road

- 14.8.19 This VP represents the residents in the mid-rise residential cluster with a medium viewing range to the development from the Southwest. It is selected to represent VSRs R1, R5 and R7 and travelling VSR T1. It is located approximately 400m from the development boundary at an elevation of approximately +10m mPD.
  - VP7 View from Tam Kon Chau Road near Mai Po Nature Reserve
- 14.8.20 This VP is selected to represent the visitor of the Mai Po Nature Reserve especially those utilising the bird watching hide due to its high recreational value. It also represents residents of Mai Po San Tsuen and Mai Po Lo Wai (R2) and occupational users (O5) of workers in open storage along San Tin Highway Castle Peak Section viewing from the south-west of the Project area. It represents the short to medium viewing range VSR from the south-west of the proposed development and selected to represent VSRs REC2 and R2. The VP is located approximately 1500m from the development boundary.

VP8 - View from Lok Ma Chau MTR Station

14.8.21 This VP represents the transient users of MTR Lok Ma Chau Station, or residential users near Sam Po Shue wetland and the Loop and the adjoining area. It is selected to represent the VSR with direct view towards the proposed development with short viewing distance from north-west namely T2 and future recreational VSR REC6. The VP is located approximately 320m from the development boundary.

VP9 - View from Yan Sau Wai

14.8.22 This VP is selected to represent the residential and recreational users enclosed by the proposed development looking at the north to north-east of it. It is selected to represent VSR R3 and REC4. The VP is located approximately 60m from the development boundary.

VP10 - View from Man Tin Cheung Park

14.8.23 This VP is selected to represent the residential and recreational users enclosed by the proposed development looking at the north-west to southwest of it. It is selected to represent VSRs R3 and REC4. It is located approximately 100m from the development boundary at an elevation of +18 mPD.

VP11 - View from the Loop

14.8.24 This VP is selected to represent the future residential and occupational users of the Loop. It also represents the residential VSR Residents of Fisherman San Tsuen (R11), Occupational VSR 3 (O3) of the farmers near LMC BCP and residential users (R6) of Chau Tau Village and Poon Uk Tsuen located north-east to the Project area. This VP is located north-east of the Project area with close-range view toward the proposed the Project development. It is located approximately 100m from the development boundary.

VP 12 - View along hiking trail of Ngau Tam Shan

14.8.25 This view is selected to represent the recreational users (REC1) of hikers along Ngau Tam Shan, GIC users (GIC2 and GIC3). This VP is located south-west of the development

boundary with panoramic view toward the Project area. It is approximately 500m away from the development boundary and at an elevation of approximately +240 mPD.

VP 13 - View from San Tam Road/ Mai Po San Tsuen

14.8.26 This view is selected to represent the residential (R2) VSR of Mai Po San Tsuen, Mai Po Lo Wai, and Travellers along San Tin Highway (T1). This VP is located immediate to the development boundary (approx. 4m) and has a close-range view located immediate southwest of the Project area.

VP14 - View from San Tin Highway Cycleway (Castle Peak Rd - San Tin)

14.8.27 This view is selected to represent the residential VSR including residential VSR R3 and travellers along San Tin Highway (T1) and Fanling Highway (T3). This VP is located to the immediate to the development boundary (approx. 3m) and has a close-range view of the north-east to southeast.

VP 15 - View from San Tin Highway Footbridge

14.8.28 This view is selected to represent the residents R10, travellers along San Tin Highway (T1) and Fanling Highway (T3). This VP is located above San Tin Highway and has a close to medium range view of the southwest of the development.

VP 16 – View from Kwu Tung Road

14.8.29 This view is selected to represent the residential VSR R3, recreational VSR REC4 and travelling VSRs T1 and T3. This VP is located above the San Tin Highway and has a close-range view of the north to north-west of the development. This view is located within the development boundary at an elevation of +13 mPD.

VP 17 – View from Shek Wu Wai Playground

14.8.30 This view is selected to represent the residential and recreational user in Shek Wu Wai (R10) located south of San Tin Highway and large surrounded by the proposed development. This VP is located approximately 6m from the boundary and has a close-range view of the central portion of the proposed development such as G.5.7 and O.5.1.

VP 18 – View from Yau Pok Road Near Tai Seng Wai

- 14.8.31 This view is selected to represent the residential VSRs R1, R4, R7 and recreational VSR REC2. This VP is located approximately 3500m from the proposed development and have a long-range view of the south-west of the development.
- 14.8.32 In addition to the key visual issues that will arise under Schedule 3, the key visual issues also relate to the individual DPs under EIAO Schedule 2. The assessment findings will inform the future detailed development proposals within the Project and the design of its associated infrastructure and utility development. The conceptual development proposals will be formulated through an iterative design process, further refined and developed to accommodate the future design requirements, and to minimise the predicted residual landscape impacts. As the development proposals may be further refined, the assessment assumes the worst-case scenario in terms of the impacts.
- 14.8.33 Further details of the DPs are described in **Section 2** of the EIA Report. Other non-DP components were also assessed. The level of details of the DPs is subject to further refinement at detailed design stage and is provided to the best knowledge available for the purpose of the assessment.

VSR ID.	Visually sensitive receiver (VSR)	Type of VSR	Type of VSR	Type of VSR	Type of VSR	Type of VSR	Type of VSR	Type of VSR	Type of VSR	Source of visual impact	f Approx. viewing distance	Compatibility of the project with the surrounding landscape (High/ Medium/ Low)		Duration of impacts (Long/ Medium/ Short)		Scale of development (Large/ Medium/ Small)		Reversit char (Yes/	oility of nge No)	Potential blockage of view (Full/ Partial/ Nil)		Magnitude of change (Large/ Intermediate/ Small/ Negligible)	
			impuot	(m)	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation							
R1	Low-rise residents of Maple Garden, Palm Springs and Royal Palm	Residential	The Project, DP3	300- 1000m	Medium	Medium	Medium	Long	Small	Small	Yes	No	Partial	Partial	Intermediate	Intermediate							
R2	Residents of Mai Po San Tsuen, Mai Po Lo Wai	Residential	The Project, DP 2, DP3	50-100m	Medium	Medium	Medium	Long	Large	Large	Yes	No	Partial	Partial	Intermediate	Intermediate							
R3	Residents of San Tsing Lung Tsuen, Yan Sau Wai, On Lung Tsuen, Wing Ping Tsuen, Fan Tin (San Yi Cho and Ming Tak Tong), San Lung Tsuen, Tung Chan Wai	Residential	The Project, DP2, DP3	150- 200m	Low	Medium	Medium	Long	Large	Large	Yes	No	Partial	Partial	Large	Large							
R4	Residents of Long Ha Tsuen, Man Yuen Tsuen, and Pok Wai Village	Residential	The Project	1600- 2500m	Medium	Medium	Medium	Long	Small	Small	Yes	No	Nil	Nil	Negligible	Negligible							
R5	Residents of Vineyard and low-rise residential area along Tam Mei Road	Residential	The Project	750m	Medium	Medium	Medium	Long	Small	Small	Yes	No	Partial	Partial	Small	Small							
R6	Residents of Chau Tau Village, Poon Uk Tsuen	Residential	The Project, DP1	50-150m	Low	Medium	Medium	Long	Large	Large	Yes	No	Partial	Partial	Intermediate	Intermediate							
R7	Residents of Fair	Residential	The Project	1000- 2400m	Medium	Medium	Medium	Long	Small	Small	Yes	No	Partial	Partial	Negligible	Negligible							
R8	Residents of Proposed Kwu Tung New Town Development and Ma Tso Lung area.	Residential	The Project	2000- 3000m	Medium	Medium	Medium	Long	Small	Small	Yes	No	Partial	Partial	Negligible	Negligible							
R9	Future residents of the Loop.	Residential	The Project, DP1	350m	Low	Medium	Medium	Long	Medium	Medium	Yes	No	Partial	Partial	Intermediate	Intermediate							

Table 14.8	Magnitude of Vis	ual Impact during	Construction and (	<b>Operation Phases</b>

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VSR ID.	Visually sensitive	y re Type of VSR /SR)	Type of VSR	Source of visual	Approx. viewing distance	Compatik project surroundin (High/ Me	oility of the with the g landscape dium/ Low)	Duration o (Long/ Medi	f impacts um/ Short)	Scale of de (Large/ Sm	evelopment Medium/ aall)	Reversit char (Yes/	oility of Ige No)	Potential of v (Full/ Pa	blockage view Irtial/ Nil)	Magnitude (Large/ Inte Small/ Ne	of change ermediate/ egligible)
			impaor	(m)	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	
R10	Residents of Shek Wu Wai, recreational users of Shek Wu Wai Playground	Residential	The Project	200m	Low	Medium	Medium	Long	Large	Large	Yes	No	Full	Full	intermediate	intermediate	
R11	Residents of Fisherman San Tsuen	Residential	The Project	10m	Low	Medium	Medium	Long	Large	Large	Yes	No	Partial	Partial	Intermediate	Intermediate	
REC 1	Hikers along Ngau Tam Shan Hiking Trail	Recreational	The Project, DP5	400m	Low	Medium	Medium	Long	Medium	Medium	Yes	No	Partial	Partial	Large	Large	
REC 2	Visitors of Mai Po Marsh Wetland reserve	Recreational	The Project	570m	Low	Medium	Medium	Long	Medium	Medium	Yes	No	Partial	Partial	Intermediate	Intermediate	
REC 3	Hiker of Ki Lun Shan	Recreational	The Proiect	300m	Low	Medium	Medium	Long	Large	Large	Yes	No	Partial	Partial	Large	Large	
REC 4	Park visitors of San Tin Park and Man Tin Cheung Park	Recreational	The Project	100- 250m	Low	Medium	Medium	Long	Large	Large	Yes	No	Partial	Partial	Intermediate	Intermediate	
REC 5	Hikers of Lam Tsuen Country Park	Recreational	The Project	2300m	Low	Medium	Medium	Long	Medium	Medium	Yes	No	Partial	Partial	Intermediate	Intermediate	
REC 6	Future users of Sam Po Shue wetland conservation park	Recreational	The Project, DP7	570m	Low	Medium	Medium	Long	Medium	Medium	Yes	No	Partial	Partial	Intermediate	Intermediate	
T1	Travellers of San Tin Highway	Travelling	The Project, DP1, DP2, DP2, DP4, DP5	Transient , 0m	Medium	Medium	Medium	Long	Large	Large	Yes	No	Partial	Partial	Intermediate	Intermediate	
T2	Users of MTR Lok Ma Chau Station	Travelling	The Project	Transient , 350m	Medium	Medium	Medium	Long	Medium	Medium	Yes	No	Partial	Partial	Intermediate	Intermediate	
Т3	Traveller of Fan Ling Highway	Travelling	The Project, DP4	Transient , 0m	Medium	Medium	Medium	Long	Large	Large	Yes	No	Partial	Partial	Small	Small	
O1	Workers of Open Storage/ Industrial usage of Ngau Tam Mei	Occupational	The Project	1100m	Low	Medium	Medium	Long	Medium	Medium	Yes	No	Partial	Partial	Small	Small	
O2	Workers around Castle peak road (Mai Po section)	Occupational	The Project,	950- 1500m	Low	Medium	Medium	Long	Medium	Medium	Yes	No	Nil	Nil	Negligible	Negligible	

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VSR ID.	Visually sensitive Type of VSR receiver (VSR)		Source of visual	Source of visual impact	Source of visual impact	Approx. viewing distance	Compatibility of the project with the surrounding landscape (High/ Medium/ Low)		Duration of impacts (Long/ Medium/ Short)		Scale of development (Large/ Medium/ Small)		Reversibility of change (Yes/ No)		Potential blockage of view (Full/ Partial/ Nil)		Magnitude of change (Large/ Intermediate/ Small/ Negligible)	
				(m)	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation		
O3	Farmer in Agricultural land near LMC BCP	Occupational	The Project, DP5	10-50m	Low	Medium	Medium	Long	Large	Large	Yes	No	Partial	Partial	Intermediate	Intermediate		
O4	Industrial and potential tertiary users of Kwu Tung and Pak Shek Au	Occupational	The Project	270- 300m	Low	Medium	Medium	Long	Small	Small	Yes	No	Small	Small	Small	Small		
O5	Workers in open storage	Occupational	The Project	0m	Low	Medium	Medium	Long	Large	Large	Yes	No	Partial	Partial	Intermediate	Intermediate		
O6	Future workers of the Loop development	Occupational	The Project, DP1, DP9	350m	Low	Medium	Medium	Long	Large	Large	Yes	No	Partial	Partial	Intermediate	Intermediate		
GIC1	Lok Ma Chau Operation Base	Institutional	The Project, DP1	1900m	Low	Medium	Medium	Long	Small	Small	Yes	No	Partial	Partial	Small	Small		
GIC2	Users of Gurkha Cemetery	Institutional	The Project, DP5	150m	Low	Medium	Medium	Long	Large	Large	Yes	No	Full	Full	Large	Large		
GIC3	Users of San Tin Barracks	Institutional	The Project, DP5	250	Low	Medium	Medium	Long	Large	Large	Yes	No	Full	Full	Large	Large		
GIC4	Users of Tam Mei Barracks	Institutional	The Project	350- 700m	Low	Medium	Medium	Long	Large	Large	Yes	No	Partial	Partial	Intermediate	Intermediate		

Note: The Project= Schedule 3 project, VSR= Visually sensitive receivers, R = Residential; Rec = Recreational; T=Transport Related/ Traveller; I=Institutional, GIC=Government/Community, O= Occupational, 1= will be removed during operation phases.

Significance of unmitigated Visual Impact

- 14.8.34 The magnitude of impacts during construction and operational phases was assessed based on the viewing distance, compatibility of the Project with the surrounding landscape, duration of impacts, scale of development, reversibility of change and potential blockage of view as shown in **Table 14.8**.
- 14.8.35 The nature of the Project (Schedule 3) is generally high-rise development and large in scale. The magnitude of visual change before mitigation for the mid and close range VSRs is perceived to range from intermediate to large. The perceived magnitude of change for the distant VSRs range from negligible to insubstantial. The impact for each VSRs is grouped and described in below. The magnitude of impacts experience by VSRs is generally greater in the construction phase than in the operation phases for most VSRs due to the presence of the construction activities and temporary disturbance to the surrounding landscape.

Insubstantial:

Residential

14.8.36 For VSRs R4, R7 and R8, their sensitivity to change is medium. Due to no potential blockage from the proposed works during both the construction and operation phases, the magnitude of change as a result is considered as negligible. Hence the significance of visual impact is insubstantial.

### **Occupational**

14.8.37 For the VSR O2 the sensitivity to change is considered as medium. In view of their long viewing distance, with no blockage on the view, the magnitude of change as a result is considered as negligible during both the construction and operation phases. Hence, the significance of visual impact is insubstantial.

Slight:

Residential

14.8.38 For the VSR R5, the sensitivity of these VSRs is regards as medium. It is VSRs that have continuous and partial view towards the source of visual impact at a distance ranging from 750-1000m. Lastly, their medium to long viewing distance, along with obstruction from existing roadside planting and natural terrain near Ngau Tam Shan, the proposed development will only result in partial blockage of view and further obscured due to the distance from source of impact. In view of the medium compatibility of the Project with the surrounding landscape and the small scale of development visible for these VSR, the correspondence magnitude of change is considered as small, and significance of visual impact is considered as slight.

## Travelling

14.8.39 For users of Fanling Highway (T3), this VSR will be travelling at high speed and will generally be commuters with less of an interest in the view. Their view is confined and interrupted by adjacent highway structures and natural terrain when viewing towards the development. Their views are also screened by existing roadside planting. Hence, the magnitude of changes is considered as small and impact significance as slight.

### Occupation/ G/IC

14.8.40 For VSRs O1, O4, O5 and GIC1, these VSRs have a low to medium sensitivity to change due to their relatively short to medium viewing during to the existing view. Their viewing distance toward to the proposed works is ranging from 270-1900m. For VSR O4 and O5, due to their proximity to the proposed development, existing view to the natural terrain will partially be blocked. The correspondence magnitude of change is considered as small to

intermediate. For VSRs O1 and GIC1, in view of their long viewing distance, the small blockage of existing view will not significantly be notified by the viewers. Thus, the magnitude of change to these VSRs is small. In additions, considered that the proposed design measures will be adopted for the Project, it is assumed that the Project will remove existing view of brownfield operation and replace with visually compatible uses to the overall environment. As such, the significance of visual impact is considered as slight.

Moderate:

**Residential** 

- 14.8.41 For VSRs R1 and R2, their sensitivity to change is considered as high during both the construction and operation phases due to the long and frequent viewing duration to existing view. Most of these VSRs have view from the southwest of the development at a medium to short viewing distance. They have view from mainly 3-storey residential estate development/ clusters while their current existing view at ground level are largely obstructed by existing roadside vegetation in the foreground. In view of the short viewing distance between the proposed works including the I&T development and road works (DP1), the existing views will be partially blocked. The correspondence magnitude of change is considered as intermediate, and the significance of visual impact is considered as moderate.
- 14.8.42 For VSRs R6, R9 and R11, their sensitivity to change is considered as high during both the construction and operation phases due to the long and frequent viewing duration to existing view. Most of these VSRs has close proximity to the proposed development and view from the north-west to north-east. Most of these VSRs are in rows of 3-storey village type residential development while their current existing view at ground level are largely obstructed by existing brownfield operation/ vegetation in the foreground. In view of the short viewing distance between the proposed works including the I&T development and road works (DP1), the existing views will be partially blocked. The brownfield operation will be replaced by the new proposed development while open sky view remains intact. The view toward ridgeline will be partially obstructed. The correspondence magnitude of change is considered as intermediate, and the significance of visual impact is considered as moderate.
- 14.8.43 The sensitivity of VSR R10 is considered high. Considered that these VSRs will have continues and full view towards the source of visual impact at a distance ranging from 0-400m, it results in a large extent of permanent partial blockage of view with medium compatibility with the surrounding landscape. Consider the current view at ground level are partially blocked by existing development and vegetation, the corresponding magnitude of change to these VSRs is considered as intermediate during both the construction and operation phases. This is due to the close proximity of the proposed mixed-use development and GIC development. Hence, the significance of visual impact is considered as moderate.

## **Recreational**

- 14.8.44 For VSRs REC2 and REC6, the sensitivity to change is considered as medium to high due to the existing good and open view toward the farmland and series of mountain ridges. During both the construction and operation phases, the existing brownfield operation and associated low-rise structures will be removed and replaced by the developments of the Project and will partially block the existing view to the mountain ridges. However, the existing view to the extensive farmland and buffer greening are remained unchanged. Subject to the various viewing distance of these VSRs, the magnitude of change is considered as intermediate, and the significance of visual impact is considered as moderate.
- 14.8.45 For VSRs REC4 the sensitivity to change is considered as medium due to the open view toward the Shenzhen skyline with partial blockage from vegetation in the foreground. During both the construction and operation phases, the existing brownfield operation and

associated low-rise structures will be removed and replaced by the I&T development and will permanently partially block the existing view to the Shenzhen skyline. In view of the existing open sky view remained unchanged, subject to the close viewing distance of the VSR, the magnitude of change is considered as intermediate, and the significance of visual impact is considered as moderate.

14.8.46 The VSR REC5 is elevated VSR with panoramic view from the mountain ridge toward the entire San Tin area and surrounding mountain ridges and have high sensitivity to change. During both the construction and operation phases, the existing low dense developed structures will be removed and replaced by the high-rise developments of the Project which will partially obstruct the existing view. Considered that the viewing distance is relatively far, thus will only slightly reduce the sense of openness. Hence, the correspondence magnitude of change is considered as intermediate, and the significance of visual impact is considered as moderate.

## Travelling

- 14.8.47 For VSR T1, their sensitivity is considered as low due to their transient nature. This VSR intersect or pass through the Project such that their views will be altered for longer durations of their journey. However, they will be travelling at high speed and will generally be commuters with less of an interest in the view. Their view is confined and interrupted by adjacent highway structures and screened by existing roadside planting. Hence their magnitude of change is considered as intermediate and significance of visual impact as moderate.
- 14.8.48 For VSR T2, the sensitivity to change is considered as low due to its short duration and rare frequency of view. This VSRs will have permanent and intermittent full views towards the source of visual impact at a distance range from 0 m to 350 m. For users of MTR Lok Ma Chau Station (T2), this VSR's view will be confined to the MTR station, cross border facilities, semi-open-air platform and the window views from MTR cart travelling at a high speed. The proposed above ground structures will impose partial blockage to their view. Hence, the magnitude of changes is considered as Intermediate and the significance of visual impact as moderate.

## Occupation/ G/IC

14.8.49 For VSRs O3, O6, GIC2, GIC3 and GIC4, their sensitivity to change is considered as medium to low. Considered that these are the VSRs located at the close proximity to the proposed works area, these VSRs will have permanent and partial view toward the source of visual impact. The existing visual elements such as factories or squatter huts will be removed and replaced by the Project. The magnitude of change as a result is considered as intermediate for O3 and O6 during both the construction and operation phases. In view of the low compatibility of the Project with the surrounding Landscape and the large scale of development visible for these VSRs, the significance of visual impact is considered as moderate. For GIC2, GIC3 and GIC4, their sensitivity to change is considered as low. Considered their immediate location to the proposed development, these VSR will have permanent and near to full view toward the source of visual impact. The existing visual elements such as factories and squatter huts will be removed and replaced by the Project. As such, their magnitude of change as a result is considered as large for GIC2 and GIC3 and intermediate for GIC4 during both construction and operation phases. Considering the presence of existing vegetation in the foreground, and their sensitivity to change, the significance of visual impact is considered as moderate.

> Substantial: <u>Residential</u>

14.8.50 The sensitivity of VSR R3 is high. Considered that these VSRs will have continues and full view towards the source of visual impact at a distance in all direction ranging from 50-200m, it results in permanent partial blockage of view with low compatibility with the surrounding

landscape. Despite the ground level view are currently partially blocked by existing development and vegetation, the proposed landmark development near R3 is fully visible during operation phases. The corresponding magnitude of change for VSR R3 is considered as large during both the construction and operation phases. Hence, the significance of visual impact is considered as substantial.

### **Recreational**

- 14.8.51 For VSR REC1, the sensitivity to change is considered as medium due to its elevated location associated with open and good view toward the Shenzhen skyline, fishponds and expansive lowland of San Tin including brownfield operation prominent in the foreground near Pang Loon Tei. During both the construction and operation phases, the existing brownfield operation and associated low-rise structures will be removed and replaced by the developments of the Project and will partially block the existing view to the ponds and changes the character of the view. However, open sky view and view toward the skyline of Shenzhen remains. The correspondence magnitude of change is considered as large, and the significance of visual impact is considered as substantial.
- 14.8.52 For VSR REC3, the sensitivity is considered as medium due to the existing good to fair quality of view. Due to the relatively close proximity toward the proposed works, they will have continuous and full view toward the source of visual impact. The existing view of VSR REC3 toward the low dense developed rural area and view to the extensive agricultural land of Mai Po will be replaced by and partially blocked by the proposed works of the Project respectively during both the construction and operation phases. Considered that the existing visual elements will be changed drastically, the corresponding magnitude of change is considered as large, and significance of visual impact is substantial.
- **14.9** Landscape and Visual Mitigation Measures

Landscape and Aesthetic External Design Measures in the Proposed Scheme

- 14.9.1 In the previous section, potential landscape and visual impacts have been identified due to the proposed Project and associated Schedule 2 DPs. It should be noted that design measures with intention to minimise overall landscape and visual impact due to the development have also been incorporated into the layout during planning stage. The planning intention has been discussed in **Section 14.5**.
- 14.9.2 The Revised RODP set out the proposed land use framework to guide future development of the Project in terms of spatial land use arrangements, development intensities and heights, major infrastructural networks, open space, and visual corridors/networks, etc. with intention to minimise the potential landscape and visual impacts of the Project. The section below summarises the relevant planning principles and concepts that have been incorporated into the Revised RODP, particularly highlighting those that avoid, reduce, compensate, or mitigate the potential landscape and visual impacts of the Project.

### Avoidance of potential impacts

- 14.9.3 Preservation of areas with high landscape value
  - The boundary of the Project area has been optimised to avoid impact on a patch of moderate to high ecological value mature woodland and a section of natural watercourse behind San Tin Barracks at Pang Loon Tei.
  - High value natural landscape should be well protected and preserved. Important
    features of higher ecological value and egretries are areas of conservation importance
    within the assessment area. An "Open Space" was proposed under the Revised RODP,
    where the loss of the roosting substratum at the MPLV Egretry would be avoided and
    minimised. Construction activities near the MPLV Egretry should only be conducted
    outside the breeding season (September to February in the following year) in order to

minimise the potential disturbance impact on the egretry. Enhancement measures (e.g., water features and planting of mature trees) were also proposed at the "Open Space" located adjacent to the MPLV Egretry to promote ardeid usage. While the loss of San Tin Open Storage Area Night Roost and Ha Wan Tsuen Night Roost would be unavoidable, roosting area would be re-provided in the open space along the bank of the diverted channel and adjacent to the proposed fisheries research centre respectively, under the Revised RODP. The re-provided night roost would comprise water features and mature native tree species that are currently used as a roosting substratum. These features should be established prior to the dry season prior to the arrival of overwintering birds in order to provide suitable roosting opportunities.

• Under the Revised RODP, 37.35 ha of the Project are excluded from development, and would be zoned, and preserved as Green Belt. It has preserved 3.54 ha of woodland falling within the Project area and 12.18 ha of mixed woodland. For further detail, refer to **Section 10** of the EIA Report.

### Enhancement in Landscape and Visual Aspect

Creation of local identity (Refer to **Appendix 14.2.1**)

14.9.4 The Project has been designed as a technopole with strong emphasis on "integration" of work, live, play, and learn under the urban-rural environment. The area is broadly characterised into San Tin I&T Park North, San Tin I&T Park South and San tin Town Centre, with identifiable urban characters and landmarks embracing varying development themes and functionalities.

Creation of new landscape framework and green network

14.9.5 A series of outdoor spaces including open space, amenity, landscape corridor and green knolls are well integrated through a string of landscape elements for leisure outlet, recreation, and civic activities. The landscape network comprises of difference character and program and are well integrated with the two drainage channels. The open spaces are well connected to the adjacent proposed development. They also serve as a mitigation measure for the loss of existing vegetation due to the development.

View corridor to retain key visual resources (Refer to Appendix 14.2.2)

14.9.6 The existing natural features including the mountains to the south and south-east and the wetland / fishponds to the north and north-west are important visual resources unique to the Project. Set against the mountain backdrop framing the south-eastern and southern edges of the Project and the wetland in the north and north-west, several view corridors, mainly formed by proposed open space and major roads, are proposed together to enhance visual connection and permeability to the key visual resources and maximise views to the landmark developments.

Creation of "landscape buffer" in response to the surrounding context

14.9.7 Non-building area (NBA) identified as "landscape buffer" is proposed along the wetland park interface and the revitalised STEMDC as well as along the bird flight path (at the northern tip of the existing LMC BCP area serving as natural landscape) to enhance biodiversity, as well as to create a sensible transition between rural / natural assets and new developments. The "landscape buffer" is envisioned to have limited recreation facilities to minimise human disturbance of the wildlife. The area would largely be characterised by natural habitats and natural trails where visitors are still welcome to meander through the space and interact with nature, but at lower intensities. Nonetheless, more active open space corridors are proposed within the corresponding development parcels to facilitate seamless integration between different green environments along the public realm.

Creation of blue & green network (Refer to Appendix 14.2.3)

14.9.8 Within the Project, the proposed river/water channels, retention ponds, wetland, open space, and green knolls are knitted closely together. The blue & green network is highlighted by two landscaped river channels created through revitalisation of San Tin Eastern Main Drainage Channel (STEMDC) and San Tin Western Main Drainage Channel (STWMDC), which integrate with the green knolls and the open space surrounding the proposed mixed-uses, residential and I&T developments. Open spaces of varying sizes are proposed at each character area as activity nodes and along major roads which also serve as pedestrian connections.

Channel revitalisation and watercourse Enhancement

- 14.9.9 The major watercourse within the Project namely STEMDC and STWMDC are proposed with green and eco-hydraulic design approach to promote integrated green infrastructure while improving the aesthetics and ecological value. Segment of the river are proposed to be upgraded and naturalised through optimisation of the river embankment by removing the existing concrete bank with gentle embankment for tree planting, creation of riverine island and overall, a more visually appealing and resilient watercourse.
- 14.9.10 Features include, 1) tree planting along embankment for night roost relocation (in lower stream of STWMDC), 2) "Riverside Park" with integration of open retention pond facilitating drainage function and a more scenic recreation destination (In mid-segment of STEMDC), 3) further enhance ecological and landscape value in the downstream portion of the STEMDC through re-profiling with natural and hybrid embankment treatment to better integrate with the adjoining reed beds and wetlands etc.

Respecting the surrounding through control of development height and massing (Refer to **Appendix 14.2.4**)

14.9.11 The Project is situated at the transitional area between the low-lying wetland / fishponds to the north and north-west and the hilly and mountainous area of Ngau Tam Shan and Ki Lun Shan to the south and south-east. With an aim to integrate with its rural and low-density setting and transition to a new vibrant townscape, high-rise development clusters (maximum building height up to +200 mPD) are concentrated at the proposed station near Chau Tau, and the proposed San Tin Station and neighbouring areas to reflect their visual prominence. From these high-rise clusters, the proposed building heights gradually descend towards the wetland/fishponds (in the north and north-west), village clusters (north of San Tin Highway and in the north-east), the central part of the Project where an iconic Cultural and Recreational Complex will set foot, the Riverside Community (eastern part of the Project), and then climb up to the San Tin South I&T Park near the mountain slopes (in the southeast).

General principle on mitigation measures for Ponds

- 14.9.12 Considering the filling of some ponds around San Tin and Sam Po Shue (LR3.1) for the Project, the compensation measures for wetland would be infeasible to include these compensation areas on-site (within Project site) due to the large area requirement for the loss in this landscape resource and habitat. The enhanced ponds as part of a mosaic of wetland area in the north would allow a higher ecological linkage in San Tin and Sam Po Shue with the implementation of the proposed SPS WCP as mitigation measure. For further detail during construction and operation phases, refer to **section 10.11** of the Ecological Impact Assessment.
- 14.9.13 Major design measures incorporated in the development layout for the Project are summarised in **Table 14.9**.

ID No.	Design Measures
DM1	<ul> <li>Provision of Wildlife corridor where appropriate and applicable</li> <li>Opportunity for ecological linkage is proposed at below location.</li> <li>1) Between STEMDC, Ha Wan Tsuen and Lok Ma Chau should be provided for target mammal species via culvert / constructed wetland in order to prevent roadkill and guiding wildlife into the underpasses.</li> <li>2) Provide ecological linkage between the various "GB" under the Revised RODP, targeting mammal species of conservation importance</li> <li>Details of the proposed wildlife corridor shall be formulated in detailed design in later stages and shall be agreed with relevant authorities (e.g., AFCD and EPD) prior to commencement of construction works. It is expected that, provision of wildlife corridor can maximise the ecological function of preserved "GB" and mitigate the habitat fragmentation impact.</li> <li>To enhance visual and air permeability</li> <li>For further details, refer to Section 10.11.10 of the EIA Report.</li> </ul>

- 14.9.14 The above categories will act as the basis for the formulation of urban planning and landscape design guidelines as a manual in defining the basic design elements in the Project. In the following section, a series of mitigation measures have been formulated to minimise impacts where possible. The overall design of aboveground structures should attempt to pose a positive gesture to integrate with the surrounding environments.
- 14.9.15 In the following section, it will describe:
  - (i) Summary of proposed generic landscape and visual measures for the overall proposed Project
  - (ii) Summary of proposed landscape and visual mitigation measures for specific Schedule 2 DPs
- 14.9.16 The generic proposed landscape and visual mitigation measures, together with an indication of Funding, Implementation and Maintenance Agencies, during the construction and operational phases are listed in **Table 14.10** and **Table 14.11** and illustrated in <u>Figure 14.13,14.14a-g</u>. Mitigation measures for Schedule 2 DPs are illustrated in <u>Figure 14.17.0-14.17.31</u>.
- 14.9.17 Generally, all mitigation measures are to be implemented as early as possible and many of these mitigation measures perform multiple functions. Tentative development schedule for the DPs is included in **Section 2** of the EIA Report.

# Table 14.10GenericProposedLandscapeandVisualMitigationMeasuresforConstruction Phase including Schedule 2 DPs

ID No.	Landscape and Visual Mitigation Measures	Funding Agency	Implementation Agency
CM1	<ul> <li>Preservation of Existing Vegetation         <ul> <li>All the existing vegetation and trees to be retained and not to be affected by the Projects shall be carefully protected during construction by means of fencing during construction stage to prevent damage to tree canopies and root zones from vehicles and storage of materials.</li> <li>The tree preservation and tree treatment shall be subject to the detailed design stage and in accordance with DEVB TC(W) No. 4/2020 - Tree Preservation and the latest guidelines on Tree Preservation during Development issued by GLTMS of DEVB.</li> <li>A detailed tree survey will be carried out for the Tree Preservation and Removal proposal (TPRP) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted, or removed and will include details of tree protection measures for those trees to be retained.</li> </ul> </li> </ul>	Government/ Private Sector	Contractors of the Government/ Private Sector
CM2	<ul> <li><u>Transplantation of Existing Trees</u></li> <li>Trees unavoidably affected by the works should be transplanted as far as possible in accordance with DEVB TC(W) No. 4/2020- Tree preservation and the latest Guidelines on Tree Preservation during Development issued by GLTMS of DEVB.</li> <li>Sufficient time should be reserved for the advanced tree transplanting preparation works to enhance the survival rate of the transplanted trees.</li> <li>The transplanting proposals are subject to review at the detailed design stage and to agreement-in-principle with the relevant management and maintenance agents and/or Government departments.</li> </ul>	Government/ Private Sector	Contractors of the Government/ Private Sector
СМЗ	<ul> <li><u>Reinstatement of Temporarily Disturbed Landscape Areas</u></li> <li>All hard and soft landscape areas disturbed temporarily during construction should be reinstated on like-to-like basis, to the satisfaction of the relevant Government departments.</li> </ul>	Government/ Private Sector	Contractors of the Government/ Private Sector
CM4	<ul> <li><u>Minimise Disturbance on Watercourses</u></li> <li>The design shall minimise disturbance on watercourses, particularly for natural watercourse. Good site practices as described in ETWB TCW No. 5/2005 "Protection of natural streams/rivers from adverse impacts arising from construction works" shall also be adopted to avoid any pollution entering the watercourses nearby where applicable. Should temporarily or indirect disturbance on watercourse is unavoidable, it shall be reinstated to the satisfaction of relevant Government departments.</li> </ul>	Government/ Private Sector	Contractors of the Government/ Private Sector
CM5	<ul> <li><u>Minimise Topographical Changes</u></li> <li>The proposed site formation works should be optimised to reduce topographical/ landform changes, as well as reduce land take and interference with natural terrain.</li> <li>Where there is a need to significantly cut into the existing landform, retaining walls and cut slopes should be considered to minimise landform changes and land resumption.</li> <li>Earthworks and engineered slopes should be designed to be a visually interesting landform, compatible with the surrounding landscape and maximise greening opportunities.</li> </ul>	Government/ Private Sector	Contractors of the Government/ Private Sector

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	Applicable to Visual Impact			
CM6	<ul> <li>Management of Construction Activities and Facilities</li> <li>Management of facilities on work sites which give control on the height and disposition/arrangement of all facilities on the works site to minimise visual impact to adjacent VSRs.</li> </ul>	Government/ Private Sector	Contractors of the Government/ Private Sector	
CM7	Control on night- time lighting - Control of night-time lighting glare to prevent light		Contractors of the Government/	
	overspill to the nearby VSRs and into the sky. Relevant best practices as suggested in the "Charter on External Lighting" and "Guidelines on Industry Best Practices for External Lighting Installations" promulgated by The Environment Bureau (ENB) shall be adopted.	Government/ Private Sector	Private Sector	
	Construction of decorative hoarding around construction	Government/	Contractors of the	
CM8	<ul> <li>Erection of decorative screen hoarding or hoarding compatible with the surrounding setting.</li> </ul>	Private Sector	Private Sector	
CM9	Advance planting of screen planting	Government/ Private	Contractors of the Government/	
	<ul> <li>Advance screen planting of fast-growing tree and snrub species to proposed development</li> </ul>	Sector	Private Sector	
	Creating interface between Ponds, Wetland and the proposed Project			
CM10	<ul> <li>The 20m "landscape buffer" between STEMDC and OU(I&amp;T) and the 35m "landscape buffer" are being proposed to create buffer between the existing and/or the development and wetland.</li> <li>Native tree species, shrub mix, and riparian vegetation should be incorporated in the "landscape buffer".</li> <li>Phasing of pond filling works in San Tin – Sam Po Shue area should be adopted. The pond filling works should be started from urbanised area towards the wetland area (i.e. from the southeast near STEMDC or San Tin Highway, towards the north-west), and construction activities should be minimised at any one time, so as to allow gradual displacement of wildlife. It shall be conducted during wet season as far as practicable.</li> </ul>	Government/ Private Sector	Contractors of the Government/ Private Sector	
	to Section 2 - Project description and Section 10 -Ecological Impact Assessment			

Table 14.11	Proposed Landscape and Visual Mitigation Measures for Operation Phase
	including Schedule 2 DPs

ID No.	Landscape and Visual Mitigation Measures	Funding Agency	Implementation Agency	Maintenance/ Management Agency*
OM1	<ul> <li><u>Sensitive and aesthetically pleasing</u> <u>design of aboveground structures</u></li> <li>Aesthetically pleasing design as regard to the form, material and façade finishes should be incorporated to the proposed above ground structures for both Schedule 2 and Schedule 3 DPs above ground structures. Implementation of lighter colour tone, natural materials on façade design should be implemented where appropriate.</li> <li>The planning of the Revised RODP has considered reducing potential visual impacts, enhancing visual amenity, and keeping visual corridors. The proposed development will ensure the building massing is compatible with its surroundings.</li> </ul>	Government/ Private Sector	Contractors of the Government/ Private Sector	Contractors of the Government/ Private Sector/ Building proponents
OM2	Landscape         integration         of         build           development         -         Buffer tree planting and vertical greening shall also be maximised for ventilation         building, engineering structures and associated facilities as far as appropriate to provide a source of green visual relief, minimise any potential adverse landscape and visual impacts through greening effect (e.g., provision of tree / shrub / climber planting), and to blend in the structures to the adjacent landscape and visual context.           -         Integration         of         biophilic/resilient/sustainable         landscape design, smart         landscape infrastructure and edible planting are encouraged where practicable subject to detail design stage.	Government/ Private Sector	Contractors of the Government/ Private Sector	Contractors of the Government/ Private Sector/ Building proponents
ОМЗ	<ul> <li>Provision of roadside planting/ amenity planting / peripheral screening or planting</li> <li>Roadside soft landscape should be incorporated to the proposed vehicular roads, station, and associated engineering facilities. Ornamental and native species suited for roadside planting should be proposed to soften the road corridors. Shade tolerant plants with tall to medium height should be planted to under the viaduct to soften the hard edges and provide screening.</li> <li>When technically feasible, application of blue-green</li> </ul>	Government	Contractors of the Government	HyD/ LCSD

ID No.	Landscape and Visual Mitigation Measures	Funding Agency	Implementation Agency	Maintenance/ Management Agency*
	infrastructure and sustainable drainage system shall be incorporated in roadside planters.			
OM4	<ul> <li>Provision of new tree planting</li> <li>Compensatory tree planting should be provided in accordance with DEVB TC(W) 4/2020 - Tree Preservation to compensate for felled trees.</li> <li>Compensatory shrub planting should be provided to compensate for the loss of shrub planting in amenity areas.</li> <li>As far as practicable, tree compensation within the proposed Project will be provided at a 1:1 ratio when appropriate and applicable.</li> <li>Trees affected by DPs will be compensated within their respective DP areas.</li> </ul>	Government/ Private Sector	Contractors of the Government/ Private Sector	Initiating Government department (development user department)/ Private Sector
OM5	<ul> <li>Incorporation of green roof</li> <li>Roof greening should be proposed to the roof area of the proposed structures as far as practical to enhance the landscape quality of the structures and mitigate any potential visual impact on adjacent VSRs. Roof greening shall comply with the site coverage of greenery requirements shall be in accordance with DEVB TC(W) No. 3/2012 – Site Coverage of Greenery for Government Building Projects.</li> </ul>	Government/ Private Sector	Contractors of the Government/ Private Sector	Initiating Government department development use department)/ Private Sector
OM6	<ul> <li><u>Sensitive design of noise barriers</u></li> <li>The proposed noise barriers &amp; enclosures shall be design in an elegant manner that includes suitable combination of transparent and sound absorbent materials, appropriate colour selection of panels and supporting structures, or provision of at-grade planting of trees, shrubs and/or climbers.</li> </ul>	Government	Contractors of the Government	HyD
OM7	<ul> <li>Control of night-time lighting glare</li> <li>All the night-time lighting shall be avoided except for safety purpose. No light glare shall illuminate directly outside the Project. Relevant best practices as suggested in the "Charter on External Lighting" and "Guidelines on Industry Best Practices for External Lighting Installations" promulgated by ENB shall be adopted.</li> </ul>	Government/ Private Sector	Contractors of the Government/ Private Sector	n/a
OM8	<ul> <li><u>Revitalisation and naturalisation of river to</u></li> <li><u>create a Blue green network</u></li> <li>The major drainage channel/ man- made watercourse channels within</li> </ul>	Government	Contractors of the Government/DS D	DSD
ID No.	Landscape and Visual Mitigation Measures	Funding Agency	Implementation Agency	Maintenance/ Management Agency*
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	<ul> <li>the Project area will be affected by the works.</li> <li>It presents an opportunity to better integrate integrated blue-green infrastructure into the urban and landscape design. As such, forming a more resilient blue-green feature facilitating drainage function and a more scenic recreation destination.</li> <li>Where technically feasible, soft banks allowing reed planting, tree planting shall be encouraged.</li> <li>Ponds and water features should be incorporated where appropriate</li> </ul>			
OM9	<ul> <li>Maximise greening on engineering structures and surfaces</li> <li>Where technically feasible and appropriate (i.e., where suitable depth of planting medium, maintenance access and enough light penetration to ground level available) climber should be proposed at vertical surfaces such as greening facade of building blocks, viaduct piers or noise barriers to break up the appearance of uniform engineered structures and surfaces.</li> <li>Tree planting integrate with wider streetscape elements such as hardscape paving, outdoor furniture and lighting poles should be considered to create a pedestrian-friendly network.</li> <li>At-grade road planting should be considered along central median planters and on the road island with reference to DEVB TC(W) No. 2/2012, DEVB TC(W) No. 1/2018, DEVB TC(W) No. 6/2015.</li> <li>For greening of highways specifically, refer to HQ/GN/15 – "Guidelines for Greening Works along Highways".</li> </ul>	Government/ Private Sector	Contractors of the Government/ Private Sector	Initiating Government department (development user department)/ Private Sector
OM10	<ul> <li>Landscape treatment on slope</li> <li>To minimise adverse impacts in relation to LRs, LCAs and VSRs site formation should be reduced as far as possible to avoid substantial slope cutting. When condition does not allow, slope landscaping shall be explored wherever possible.</li> <li>Hydroseeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape resources and character.</li> <li>Tree seedlings and/ or shrubs should be planted where the slope gradient and site conditions allow. Greening shall be planted on retaining</li> </ul>	Government/ Private Sector	Contractors of the Government/ Private Sector	Initiating Government department (development user department)/Pr ivate Sector

ID No.	Landscape and Visual Mitigation Measures	Funding Agency	Implementation Agency	Maintenance/ Management Agency*
	<ul> <li>structures associated with modified slopes, where technically feasible.</li> <li>All slope landscaping works should comply with GEO Publication No. 1/2011- "Technical Guidelines on landscape Treatment for Slopes."</li> </ul>			
OM11	<ul> <li>Sensitive design of landscape areas / provision of Open Space</li> <li>The principles adopted in the Revised RODP ensure that urban design and landscape framework are incorporated which will also improve the landscape visual amenity.</li> <li>Elegant, sensitive design and generous planting of the associated landscape areas.</li> <li>Provision of wetland/freshwater habitat/water pond at appropriate location for habitat creation.</li> <li>All requirements for Open Space areas stated in the EIA Report should be adhered to.</li> </ul>	Government/ Private Sector	Contractors of the Government/ Private Sector	Initiating Government department (development user department)/Pr ivate Sector
OM12	<ul> <li>Off-site woodland compensation</li> <li>Woodland compensation is proposed for woodland that are unavoidably affected. The proposed location and detailed design are subject to further agreement.</li> <li>Woodland compensation would be provided based on "no net loss" and "like for like" basis or by providing a compensation area with equivalent or higher ecological function. However, in light of a paucity of suitable area for on-site compensation within the Project area, off-site woodland compensation is considered instead.</li> <li>Plant species should be selected to include a mix of species with pioneering characteristics (fast- growing/ light-tolerant/ drought- tolerant/ wind-tolerant, etc.) and native species and complementary species to the local area.</li> <li>For further detailed for the proposed location and list of recommended species, refer to Section 10.13.</li> </ul>	Government	Contractors of the Government	AFCD
OM13	<ul> <li><u>Creation of landscape buffer</u></li> <li>An NBA namely "landscape buffer" area was proposed along the northwestern boundary of the Revised ROPD, between the proposed Project area in San Tin and Sam Po Shue Wetland, and also at the existing LMC BCP, between the land use "OU(I&amp;T).1.1.1" and STEMDC.</li> <li>The "landscape buffer" would minimise disturbance from Project</li> </ul>	Government/ Private Sector	Contractors of the Government/ Private Sector	Initiating Government department (development user department)/Pr ivate Sector

ID No.	Landscape and Visual Mitigation Measures	Funding Agency	Implementation Agency	Maintenance/ Management Agency*
	<ul> <li>Area by providing a buffer area between the development and the adjacent wetland and by incorporating gentle slope interface with the ponds and planting of trees and native/ suitable vegetation.</li> <li>For further details, refer to Section 10.11.12.</li> </ul>			
	Stepped building height profile.			
OM14	<ul> <li>The building height profile shall refer to the recommended Building Height Concept (Appendix 14.2.4) down from the south to the north to respond to the SPS WCP and the important bird flight paths adjacent to the LMC station in order to minimise negative impacts on the sensitive area. The pinnacles and building profiles of each character zone shall also respect the peak and ridge line in the backdrop.</li> <li>As a broad general principle, the maximum development height permitted will be reduced as they approach villages, low rise developments and open space. While high-rise development shall be considered at mixed use development and critical pedestrian and vehicular entry.</li> <li>Low rise profiles shall be adopted along ecologically sensitive areas. A stepdown approach shall be used along important bird flight paths.</li> </ul>	Government/ Private Sector	Contractors of the Government/ Private Sector	Initiating Government department (development user department)/Pr ivate Sector
	14.5.17-14.5.19 and <u>Appendix 14.2.4</u> .			
OM15	<ul> <li>Provision of Breezeway/ airpaths</li> <li>Provision of Breezeway/ Airpaths to ensure effective air ventilation going through the Project and to improve the micro-climate of its proposed urban environments in accordance with the HKPSG Ch11- Urban Design Guidelines.</li> <li>Major ones include 1) along San Tin Highway and Fanling Highway towards Kwu Tung North New Development Area to the east; 2) along proposed open space to the southeast of the proposed San Tin Station, namely Town Park. 3) along the proposed major road of Road D1 parallel to Town Park across the San Tin Town Centre (East) through the proposed open space along STEMDC, namely Riverside Park</li> </ul>	Government/ Private Sector	Contractors of the Government/ Private Sector	-

ID No.	Landscape and Visual Mitigation Measures	Funding Agency	Implementation Agency	Maintenance/ Management Agency*
	<ul> <li>towards the low-rise education uses and Ki Lun Shan.</li> <li>Other breezeways are generally following the revitalised river channels – STEMDC and STWMDC, major walkways and public open space.</li> <li>To enhance visual and air permeability</li> <li>For further details, refer to Section 14.5.23-25.</li> </ul>			
OM16	<ul> <li>Provision of view corridor</li> <li>View Corridor are proposed to maximise and aligned principally along major breezeways and visual connection to local landmarks and visual resources.</li> </ul>	Government/ Private Sector	Contractors of the Government/ Private Sector	-
*Mana from ir contra	gement and Maintenance Agencies are iden ndividual agent shall be sought at the detaile ct.	ntified as per DE d design stage b	VB TCW No. 6/2015 before commenceme	. Agreement nt of the

Note: The Contractor shall be responsible for the maintenance of the soft landscape works during the establishment period at operation phases. The project proponent shall then be responsible for the management and maintenance of the soft landscape work until such time those are successfully handed over to the designated agent/department.

- 14.9.18 The following good site practice measures will also be incorporated in the construction phase of the Project:
  - Topsoil, where identified, shall be stripped, and stored for re-use in the construction of the soft landscape works.
  - Existing trees to be retained on site shall be carefully protected during construction.
- 14.9.19 The construction phase mitigation measures listed above should be adopted from the commencement of construction and should be in place throughout the entire construction period. The operation phase mitigation measures listed above should be adopted during the detailed design and should be built as part of the construction works so that they are in place at the date of commissioning of the Project. However, it should be noted that the full effect of the soft landscape mitigation measures would not be appreciated for several years.
- 14.9.20 On top of the generic mitigation measure proposed in the above section, mitigation measures specifically for the individual DPs are listed as below.

# Table 14.12Proposed Landscape and Visual Mitigation Measures for Operational and<br/>Construction Phase for schedule 2 DPs

ID No.	Landscape and Visual Mitigation Measures	Funding Agency	Implementation Agency	Maintenance/ Management Agency*						
Mitigation measures for drainage related infrastructure DP- DP2,3										
Operat	tion									
OM17	Sensitive layout design of above-ground structures- All above-ground structures, including STLMC effluent polishing plant (DP2) and STLMC Water Reclamation Plant (DP3), etc. shall	Government	Contractors of the Government	Initiating Government department (development user department)						



ID No.	Landscape and Visual Mitigation Measures	Funding Agency	Implementation Agency	Maintenance/ Management Agency*
Mitiga	<ul> <li>be sensitively designed in a manner that responds to the existing and planned urban context. The height, form and layout shall be optimised to minimise potential visual impact.</li> <li>The footprint layout and massing of development components and the works area should also be kept to a practical minimum and the detailed design of development components for construction phase should follow the Sustainable Building Design Guidelines.</li> <li>The form, textures, finishes and colours of the proposed development component components should aim to be compatible with the existing surroundings.</li> </ul>	ructure DP- D	26.7	
Operat			-0,7	
OM18	Watercourse impact mitigation within WCA For channelised watercourses, if these are modified, the DSD PN No. 3/2021- Guidelines on Design for Revitalisation of River Channel, should be considered. Appropriate mitigation measures should be proposed to ensure the new watercourses match the existing as far as possible. Measures can include enhancement planting to upgrade the channels as appropriate, including consideration of wetland planting along embankments where appropriate; as well as consideration of the best materials for the channel lining (e.g., gabion). All measures must also ensure any necessary maintenance work can be carried out and that the channel meets all its requirements for water flow.	Government/ Private Sector	Contractors of the Government/ Private Sector	n/a

\*Management and Maintenance Agencies are identified as per DEVB TCW No. 6/2015. Agreement from individual agent shall be sought at the detailed design stage before commencement of the contract. Note: The Contractor shall be responsible for the maintenance of the soft landscape works during the establishment period at operation phases. The project proponent shall then be responsible for the management and maintenance of the soft landscape work until such time those are successfully handed over to the designated agent/department.

#### Programme of Implementation of Landscape and Visual Mitigation Measures

14.9.21 The construction phase measures listed above shall be adopted from the commencement of construction and shall be in place throughout the entire construction period. The operation phases measures listed above shall be adopted during the detailed design and be built as part of the construction works so that they are in place at the date of commissioning of the Project. However, it should be noted that the full effect of the soft landscape mitigation measures would not be appreciated for several years.

- 14.9.22 Consideration of alternative design options that would avoid or reduce the landscape and visual impacts or make the Project more compatible with the setting shall be given before adopting other mitigation measures to alleviate the impacts.
- 14.9.23 Viewpoint locations of the photomontages are shown in **Figure 14.9a to 14.9b**. The photomontages intend to demonstrate only the scale and massing of the Project and the effect of the proposed mitigation measures. The architectural design finishes or any other related detailed design components are subject to refinement and changes during the detailed design stage.
- 14.9.24 Photomontages of the Project without and with mitigation measures illustrating the appearance on Day 1 and after 10 years of the Project are shown in **Figure 14.22 to 14.39**.

## 14.10 Residual Impact

14.10.1 The potential significance of the impacts on landscape resources and character areas during the construction and operation phases, before and after mitigation, is provided in **Table 14.12**. The assessment follows the proposed methodology and assumes that the appropriate mitigation measures identified in **Table 14.9** to **Table 14.11** would be implemented, and the full effect of the soft landscape mitigation measures would be realised after ten years.

#### Landscape Resources

- 14.10.2 For LR4.0 and LR3.3, there would be no residual impact on these LRs during construction and operation as no construction works would be conducted in this LR.
- 14.10.3 Under this Project, it is anticipated that there would be "**Slight**" impact significance for LR5.0, LR12.1, LR13.0 and LR14.0 due to their small magnitude of change or low sensitivity. With well-implemented mitigation measures CM1-5 and OM1-5, OM8 (and CM10 and OM18 for LR2.0, LR5.0) they would remain as "**Slight**" residual impact during construction stage and would reduce to "**Insubstantial**" residual impact at Day 1 and year 10 of the operation.
- 14.10.4 There would be "**Moderate**" impact significance to LR1.0, LR2.0, LR6.0, LR7.0, LR10.0, LR11.0, LR12.2, LR15.0, LR16.0 and LR17.0 due to their medium-sized affected area and permanent and irreversible change. With well-implemented mitigation measures CM1-5 and OM1-5, OM8 (and CM10 OM18 for LR6, OM13 for LR1.0 and LR2.0) they would remain as "**Moderate**" residual impact during construction stage and would reduce to "**Slight**" residual impact at Day 1 and "**Insubstantial**" at year 10 of the operation.
- 14.10.5 There would be "**Substantial**" impact significance to LR3.1 due to their medium-sized affected area and permanent and irreversible change. With well-implemented mitigation measures DM1, CM1-5, CM10 and OM1-5, OM13, OM18 they would remain as "**substantial**" residual impact during construction stage. Other measures are well integrated from construction stage throughout to operation phase. The Government will take forward detailed planning and design of wetland enhancement at the proposed SPS WCP. Hence, it would remain at "substantial" residual impact at Day 1 and "Moderate" at year 10 of the operation. For further detail refer to **Section 10.11**.
- 14.10.6 There would be "substantial" impact significance to LR3.2, LR8.0 and LR9.0. This is due to the large, affected area with permanent and irreversible proposed structures including removal of existing trees and vegetation. With well-implemented mitigation measures, CM1-5 and OM1-5, they would remain as "**Substantial**" residual impact during construction stage. At Day 1 of operation, the residual impact will be at "**Moderate**" and reduce to "**Slight** impact at year 10 of operation.

#### Landscape Character area

- 14.10.7 There will be insubstantial impact on LCA 8 as there are no proposed work within LCA 8.
- 14.10.8 For landscape character area LCA 7 and LCA 9, there will be **"Slight"** impact significance due to its limited affected area and low sensitivity to changes. With implemented mitigation these LCA would remain as **"Slight"** during construction phase, **"Insubstantial"** at Day 1 and year 10 of the operation.
- 14.10.9 For landscape character area, LCA 5. LCA 6 and LCA 10 there will be "**Slight**" impact significance due to its medium-sized affected area despite its sensitivity to change range from low to high sensitivity. With well-implemented mitigation measures these LCA result in "**Slight**" residual impact during construction stage and would reduce to "**Insubstantial**" residual impact at Day 1 and year 10 of the operation.
- 14.10.10 For landscape character area LCA 1 and LCA 2 their impact significance will be "**Moderate**" due to their medium-sized affected area and permanent and irreversible change. With wellimplemented mitigation measures they would become from "**Moderate**" residual impact during construction stage and would reduce to "**Slight**" residual impact at Day 1 of operation and "**Insubstantial**" at year 10 of the operation.
- 14.10.11 For landscape character area LCA 3 and LCA 4, it will undergo significant changes caused by the proposed development. It is anticipated that there would be "**Substantial**" impact significance to them due to the large, affected area with permanent and irreversible proposed structures including removal of existing trees and vegetation. With well-implemented mitigation measures they would remain as "**Substantial**" residual impact during construction stage and "**Moderate**" at Day 1 of operation and reduce to "**Slight**" impact at year 10 of operation.

#### Visual Impact

- 14.10.12 The potential significance of the visual impacts during the construction and operation phases, before and after mitigation, is provided in **Table 14.14**.
- 14.10.13 The assessment followed the proposed methodology and assumed that the appropriate mitigation measures identified in above would be implemented, and the full effect of the visual mitigation measures should be realised after ten years.
- 14.10.14 Under this Project, for VSRs R4, R7, R8 and O2 would experience "insubstantial" impact significance threshold before and after mitigation due to the obstruction of view towards the development by existing tree planting, natural terrain and or long viewing distance. The development will not be visible to users. Therefore, the residual impacts after mitigation would remain "**insubstantial**" during construction, at operation at Day 1 and at year 10.
- 14.10.15 For VSRs R5, T3, O1, O4, O5 and GIC1 would experience "**Slight**" impact significance before and after mitigation due to the obstruction of view towards the development by tree planting, natural terrain and or transient nature of the VSR. Their medium to long viewing distance, short duration of view and partial visibility toward the proposed development result in the "**Slight**" residual impacts after mitigation during construction and during operation at Day 1 and remain "**Insubstantial**" at year 10 as proposed mitigations such as compensatory tree planting, roadside planting and green roof are not visible from this distance. For VSR R5, due to its long viewing duration and relative closer viewing distance, its residual impacts remain as "**Slight**" at year 10 even after full implementation of mitigation.
- 14.10.16 For VSRs R1, R6, R9, REC2, REC4, T2 and GIC4, they would experience "**Moderate**" impact significance before mitigation, due to its short viewing distance, short duration of view and partial visibility toward the proposed development. For R9 and T2 its residual impacts after mitigation at Day 1 and Year 10 of operation would remain as "**Moderate**"

due to the close proximity. For R1, R6, REC2, REC4 and GIC4, the residual impacts after mitigation would remain "**Moderate**" during construction and operation at Day 1 and reduce to "**Slight**" at year 10 upon implementation of mitigation measures such as roadside and compensatory tree planting.

- 14.10.17 For R2, R10, R11, REC5, REC6, O3, O6, T1, GIC2 and GIC3, they would experience "Moderate" impact significance before mitigation, due to its short viewing distance, short duration of view and partial visibility toward the proposed development. These VSRs are in close proximity to the atop development such that they would have partial to full views of the development. As a result, when considering the sensitivity of these VSRs, their residual impacts at year 10 would remain as "Moderate".
- 14.10.18 For VSRs R3, REC1 and REC3 and they will experience "Substantial" impact significance before mitigation, due to their short to medium viewing distances from the proposed development. The residual impacts for the above VSRs after mitigation would remain as "Substantial" during construction given the preservation of existing vegetation, management of construction activities and facilities, control of night-time lighting glare and erection of decorative screen hoarding; the visual impact will remain as "Substantial" at Day 1 of operation. It is anticipated that although mitigation measures are implemented to mitigate the visual impact imposed by the building mass including compensatory tree planting, roadside and amenity planting, sensitive and aesthetically pleasing design of aboveground structures, enhancement of landscape buffer and provision of green roof, the massing of the proposed aboveground structures would be visually significant and large given the short to medium viewing distance and permanent nature. As such, the impact would remain as "substantial" at year 10 of operation. This is largely due to the scale of proposed development within the Project and proximity of the VSRs to the sources of impact, with viewers located either close by or enclosed by the Project. As a result, views are full and, in some cases, all-encompassing for those enclosed by the Project. Mitigation measures are not able to adequately compensate for such a substantial magnitude of change for these VSRs. When the proposed landscape mitigations including roadside and amenity planting, vertical green and compensatory trees become mature. The above would help soften the building masses and visually blend in with the well-developed cityscape of Shenzhen at the backdrop. Nonetheless, in the bigger picture, the visual impact remains due to the aforementioned reason.

# Photomontage

- 14.10.19 Photomontages illustrating the proposed works and the recommended mitigation measures are provided in <u>Figure 14.22 to 14.35</u>. The locations of the viewpoints are indicated in <u>Figure 14.9a</u>. Viewpoints have been selected from major public viewing points to provide close, medium, and long-range views of the Project. The photomontages illustrating views at Day 1 represent the commencement of operation phases for the entire the Project development, with and without mitigation measures. The photomontages illustrate the proposed development under the following scenarios:
  - Existing Baseline Conditions This photo illustrates the 'before scenario' the existing landscape conditions before construction of the Project for the purpose to assess the magnitude of visual change.
  - Day 1 without mitigation measures (Operation Phase) This photomontage illustrates the proposed the Project development at Day 1 without mitigation. This photomontage is used to assess the effectiveness of implementing mitigation measures in reducing the landscape and visual impacts.
  - Day 1 with mitigation measures (Operation Phase) This photomontage illustrates the proposed the Project development at Day 1 with mitigation. The implementation of mitigation measures at Day 1 will reduce the landscape and visual impacts imposed by the proposed the Project at Day 1.
  - Year 10 with mitigation measures (Operation Phase) This photomontage illustrates the Project at Year 10 with mitigation. The implementation of mitigation

measures will have matured at Year 10 further reducing the landscape and visual impacts imposed by the proposed development.

## Photomontage Viewpoint 1 – View from Community Sports

14.10.20 This VP represents the recreational users between Tit Hang and Fung Kong from a medium viewing distance. It is selected to represent VSRs R8 and GIC1. The photograph is taken at an elevation of +15 mPD and approximately 950m away from the proposed development. As demonstrated in the Photomontage VP1 (Figure 14.22), the proposed development are blocked by existing vegetation and natural landform. There are no potential blockage and hence negligible magnitude of change. The impact significance is insubstantial and residual visual impact to the VSRs identified above is considered insubstantial at Day 1 of operation and Year 10.

Photomontage Viewpoint 2 – View from Pak Shek Au cycle way

14.10.21 This VP represents VSR located near Pak Shek Au and the proposed future Kwu Tung North NDA users, it is selected to represent VSR with a medium viewing range of the proposed development from the North-East namely VSRs O4 and T3. The photograph is taken at an elevation of +18 mPD and approximately 600m away from the proposed development. As demonstrated in the Photomontage VP2 (Figure 14.23), the proposed development is small in scale while majority are blocked by existing roadside vegetation and natural landform. Mitigation measures such as Sensitive and aesthetically pleasing design of aboveground structures (OM1) are proposed as evidenced by the difference between with and without mitigation conditions to alleviate the visual impact. The impact significance is slight and residual visual impact to the VSRs identified above is considered insubstantial at Day 1 of operation and Year 10.

## Photomontage Viewpoint 3 - View from Ki Lun Shan hiking trail

14.10.22 This VP represents the VSR looking at the proposed development at an elevated position. It is selected to represent recreational VSR REC3 with a short viewing range to the proposed development from the East. The photograph is taken at an elevation of +200 mPD and approximately 400m away from the proposed development. As demonstrated in Photomontage VP3 (**Figure 14.24**), the existing open nature, visual resources such as fishponds and wetland of Mai Po Nature reserve are largely blocked by the proposed development. The existing open storage/ industrial use removed and replaced by the proposed development. Mitigation measures such as roadside tree planting, amenity planting, landscape integration with building, green roof and aesthetically pleasing design of aboveground structures are proposed. It is evidenced by the difference between Day 1 and Year 10 condition have a notable impact on the visual outlook. However, due to the large scale of the Project and medium proximity, the impact significance is substantial and residual impact is substantial at Day 1 and at year 10 with mitigation.

# Photomontage Viewpoint 4 - View from Kai Kung Leng hiking trail

14.10.23 This VP represents the recreational users from a far distance at elevated viewing location which present an overall view of the proposed development. This viewpoint is selected to represent VSRs REC1, REC 5, GIC2, GIC3 and GIC4. The photograph is taken at an elevation of +550m and approximately 2300m away from the proposed development. As demonstrated in Photomontage VP4 (**Figure 14.25**), the proposed development is medium in scale. The existing open nature, visual resources such as fishponds and wetland are partially blocked by the proposed development while view towards Mai Po and Shenzhen skyline remains Mitigation measures such as roadside tree planting, amenity planting, landscape integration with building, green roof and aesthetically pleasing design of aboveground structures are proposed. It is evidenced by the difference between Day 1 and Year 10 condition have a notable impact on the visual outlook. However, despite medium scale of the Project, given the direct view overlooking the Project and medium proximity of it from the VSR. The impact significance is considered as moderate, residual

visual impact to the VSRs identified above is considered moderate at Day 1 of operation and by Year 10.

## Photomontage Viewpoint 5 - View from pedestrian footbridge of San Tin Highway

14.10.24 This VP is selected to represent the travelling VSR along San Tin Highway. This includes the pedestrian, motorist and residential VSR. This VP is selected to represent VSRs T1, O1, O2, R4 and R7. This photograph is taken at an elevation of 13m and approximately 2600m away from the proposed development. As demonstrated in Photomontage VP5 (Figure 14.26), the proposed development is small in scale and mostly blocked by existing roadside tree and natural landform in the foreground. Mitigation measures such as aesthetically pleasing design of aboveground structures are proposed as evidenced by the difference between with and without mitigation conditions to alleviate the visual impact. The impact significance is slight and residual visual impact to the VSRs identified above is considered insubstantial at Day 1 of operation and Year 10.

#### Photomontage Viewpoint 6 - View from pedestrian footbridge of NT Circular Road

14.10.25 This VP represents the residents in the mid-rise residential cluster adjacent to the San Tin Highway, San Tam Road, and Castel Peak Road – Mai Po Section. Major residential estate includes Maple Garden, Royal Palm and The Vineyard. It is selected to represent VSRs R1, R5 and T1 which have a medium viewing range to the development from the southwest. The photograph is taken at an elevation of around 10m and approximately 400m away from the proposed development. As demonstrated in Photomontage VP6 (Figure <u>14.27</u>), the proposed development is medium in scale and partially blocked by existing vegetation/ structures in the foreground along the San Tin highway. Mitigation measures such as aesthetically pleasing design of aboveground structures are proposed as evidenced by the difference between with and without mitigation conditions to alleviate the visual impact. The impact significance is slight to moderate and residual visual impact to the VSRs identified above is considered slight to moderate at Day 1 of operation and Year 10.

## Photomontage Viewpoint 7 - View from Tam Kon Chau Road near Mai Po Nature Reserve

14.10.26 This VP is selected to represents the short to medium viewing range VSR from the South-West of the proposed development and selected to represent VSRs REC2 and R2. The photograph is taken at-grade and approximately 1500m away from the proposed development. As demonstrated in Photomontage VP7 (**Figure 14.28a** and **Figure 14.28b**), the proposed development is medium in scale and mostly blocked by existing vegetation in the foreground. The ridgeline of Ngau Tam Shan is partly obstructed but the character and openness of this view remain intact. Mitigation measures such as aesthetically pleasing design of aboveground structures are proposed as evidenced by the difference between with and without mitigation conditions to alleviate the visual impact. The impact significance is moderate and residual visual impact to the VSRs identified above is considered moderate at Day 1 of operation and slight at Year 10.

# Photomontage Viewpoint 8 - View from Lok Ma Chau MTR station

14.10.27 This VP represents the residential or transient VSRs near MTR Lok Ma Chau Station, Sham Po Shue wetland, proposed the Loop and the adjoining area. It is selected to represent the VSR with direct view towards the proposed development with short viewing distance from north-west namely T2 and future recreational VSR REC 6. The photograph is taken at an elevation of +10 mPD and approximately 320 m away from the proposed development. As demonstrated in Photomontage VP8 (**Figure 14.29**), the proposed development is medium in scale. Ponds and existing vegetation in the foreground remained intact. The ridgeline of Ngau Tam Shan and Kai Kung Leng largely remains intact with partial blockage to the later. Open view to Yuen Long's skyline remains. Mitigation measures such as aesthetically pleasing design of aboveground structures are proposed as evidenced by the difference

between with and without mitigation conditions to alleviate the visual impact. The impact significance is moderate and residual visual impact to the VSRs identified above is considered moderate at Day 1 of operation and at Year 10.

## Photomontage Viewpoint 9 - View from Yan Sau Wai

14.10.28 This VP is selected to represent the residential and recreational users looking at the northwest to north-east of the development. It is selected to represent VSR R3 and REC4. The photograph is taken at-grade and approximately 60m away from the proposed development. As demonstrated in Photomontage VP9 (**Figure 14.30**), it shows the scale of the proposed development for users in proximity and enclosed by the proposed development. The main features comprise of the landmark proposed station near Chau Tau /mixed used building along with I&T park development. In the foreground, existing greenery and structures partially intervene the view. However, despite the close proximity, open sky view remains intact due to relative gentle stepped proposed building profile. Mitigation measures such as roadside tree planting, amenity planting, landscape integration with building aesthetically pleasing design of aboveground structures is proposed as evidenced by the difference between with and without mitigation conditions to alleviate the visual impact. The impact significance is moderate and residual visual impact to the VSRs identified above is considered moderate at Day 1 of operation and at Year 10.

## Photomontage Viewpoint 10 - View from Man Tin Cheung Park

14.10.29 This VP is selected to represent the residential and recreational users enclosed by the proposed development looking at the north-west to Southwest of it. It is selected to represent VSRs R3 and REC4. The photograph is taken at elevation of +18 mPD and approximately 100 m away from the proposed development. As demonstrated in Photomontage VP10 (Figure 14.31), the proposed development is large in scale and partially blocked by building and vegetation in the foreground. The view toward Shenzhen skyline is partially obstructed. Mitigation measures such as aesthetically pleasing design of aboveground structures are proposed as evidenced by the difference between with and without mitigation conditions to alleviate the visual impact. Despite the close distance to the proposed development, due to the proposed stepped building profile in design consideration and the present of vegetation I the foreground that partially screened off the development. The impact significance is regards as slight and residual visual impact to the VSRs identified above is considered slight at Day 1 of operation and at Year 10.

# Photomontage Viewpoint 11- View from the Loop

14.10.30 This VP is selected to represent the future residential and occupational users of the Loop. This VP is located north-east of the Project area with panoramic view toward the Project development. It is selected to represent VSRs O3, O6, R6, R9 and R11. The photograph is taken at-grade and approximately 350 m away from the proposed development. As demonstrated in Photomontage VP11 (Figure 14.32), the proposed development is medium in scale due to its distance and partially blocked by building and vegetation in the foreground. The visual resource such as the ridgeline of Ngau Tam Shan are partially blocked by the proposed I&T and residential development. Mitigation measures such as aesthetically pleasing design of aboveground structures are proposed as evidenced by the difference between with and without mitigation conditions to alleviate the visual impact. The impact significance is moderate and residual visual impact to the VSRs identified above is considered moderate at Day 1 of operation and at Year 10.

# Photomontage Viewpoint 12 - View from hiking trail of Ngau Tam Shan

14.10.31 This view is selected to represent the recreational users (REC1) of hikers along Ngau Tam Shan, GIC users (GIC2 and GIC3). The photograph is taken at an elevation of +240 mPD and approximately 900m away from the proposed development. As demonstrated in Photomontage VP12 (**Figure 14.33**), the proposed development is medium in scale and intervene by vegetation on the hillside. The bottom of the view comprises of the LSW

development in Pang Loon Tei. To the left, it comprises of the San Tin Station / mixed use development and residential development. The view extends to the existing Mai Po Wetland and skyline of Shenzhen while removing sight to the fishpond and brownfield operation. Mitigation measures such as roadside tree planting, amenity planting, landscape integration with building, green roof and aesthetically pleasing design of aboveground structures are proposed as evidenced by the difference between with and without mitigation conditions to alleviate the visual impact. The impact significance is moderate and residual visual impact to the VSRs identified above is considered as moderate at Day 1 of operation and at Year 10.

## Photomontage Viewpoint 13 – View from San Tam Road/ Mai Po San Tsuen

14.10.32 This view is selected to represent the residential VSR (R2) of Mai Po Lung Tsuen, Mai Po Lo Wai and Travellers along San Tin Highway (T1). This VP has a close-range view located immediate Southwest of the Project area. The photograph is taken at-grade and approximately 200 m away from the proposed development. As demonstrated in Photomontage VP13 (**Figure 14.34**), the proposed development is large in scale due to close proximity. Mitigation measures such as roadside tree planting, amenity planting, landscape integration with building, green roof and aesthetically pleasing design of aboveground structures are proposed. It is evidenced by the difference between Day 1 and Year 10 condition have a notable impact on the visual outlook. However, due to the distance between the Project and the VSR, the mitigations are less effective. The impact significance is considered as substantial, residual visual impact to the VSRs identified above is considered as substantial at Day 1 of operation and by Year 10.

# Photomontage Viewpoint 14 - View from San Tin Highway Cycleway (Castle Peak Rd - San Tin)

14.10.33 This view is selected to represent the residential VSR including Residents of San Tsing Lung Tsuen (R3) and travellers along San Tin highway (T1) and Fanling highway(T3). This VP has a close-range view of the north-east to south-east of the proposed development. The photograph is taken at-grade and approximately 30 m away from the proposed development. As demonstrated in Photomontage VP14 (Figure 14.35), the proposed development is large in scale due to close proximity. Mitigation measures such as roadside tree planting, amenity planting, landscape integration with building, green roof and aesthetically pleasing design of aboveground structures are proposed. It is evidenced by the difference between Day 1 and Year 10 condition have a notable impact on the visual outlook. However, due to the distance between the Project and the VSRs, the mitigation is less effective. The impact significance is considered as substantial, residual visual impact to the VSRs identified above is considered as substantial at Day 1 of operation and by Year 10.

#### Photomontage Viewpoint 15 - View from San Tin Highway footbridge

14.10.34 This view is selected to represent the Residents/ Recreational users of Shek Wu Wai (R10), travellers along San tin highway (T1) and Fanling highway (T3). This VP has a close to medium range view of the south-west of the development. The photograph is taken at an elevation of +10 mPD and within the Project boundary. As demonstrated in Photomontage VP15 (**Figure 14.36**), the proposed development is large in scale due to close proximity. Mitigation measures such as roadside tree planting, amenity planting, landscape integration with building, green roof and aesthetically pleasing Design of Aboveground structures are proposed. It is evidenced by the difference between Day 1 and Year 10 condition have a notable impact on the visual outlook. However, due to the distance between the Project and the VSRs the mitigation is less effective. The impact significance is considered as substantial, residual visual impact to the VSRs identified above is considered as substantial at Day 1 of operation and moderate by Year 10.

## Photomontage Viewpoint 16 – View from Kwu Tung Road

14.10.35 This view is selected to represent the residential VSR R3, recreational VSR REC4 and travelling VSR T1 and T3. This view is located above the San Tin Highway and has a close-range view of the north to north-west of the development. The photograph is taken at an elevation of approximately +13 mPD and within the development boundary. As demonstrated in Photomontage VP16 (**Figure 14.37**), the building and developments of mixed-use development to the left and I&T development in the middle leading to the view towards the upland of Tit Hang. The existing partial view to the Shenzhen skyline will be blocked. Mitigation measures such as roadside tree planting, amenity planting, landscape integration with building, green roof and aesthetically pleasing design of aboveground structures are proposed. It is evidenced by the difference between Day 1 and Year 10 condition have a notable impact on the visual outlook. The impact significance is considered as substantial, residual visual impact to the VSRs identified above is considered as substantial at Day 1 of operation and moderate by Year 10.

#### Photomontage Viewpoint 17 – View from Shek Wu Wai playground

14.10.36 This view is selected to represent the residential and recreational user in Shek Wu Wai (R10) at ground level. This VP is located approximately 6m from the boundary and has a close-range view of the central portion of the proposed development such as G.5.7 and O.5.1. As demonstrated in Photomontage VP17 (**Figure 14.38**), the existing trees, playground and vegetation in the foreground remains intact and screened off most proposed development. Where the existing open sky view is partially blocked by the proposed cultural and recreational complex. Mitigation measures such as roadside tree planting, amenity planting, landscape integration with building, green roof and aesthetically pleasing design of aboveground structures are proposed. It is evidenced by the difference between Day 1 and Year 10 condition have a notable impact on the visual outlook. The impact significance is considered as slight, residual visual impact to the VSRs identified above is considered as slight at Day 1 of operation and insubstantial by Year 10.

## Photomontage Viewpoint 18 - View from Yau Pok Road Near Tai Seng Wai

14.10.37 This view is selected to represent the view available to the residents near Tai Sang Wai (i.e., R7) and along San Tin Highway - Tam Mei Section (i.e., R4) and recreational users REC2. This VP is located at-grade and located approximately 3500m from the proposed development and have a long-range view of the South-West of the development. The existing view is mostly rural setting with fishpond, vegetation, green knolls in the background and glimpse of the Shenzhen tall building. As demonstrated in Photomontage VP18 (Figure 14.39), the proposed development will be partially visible and integrate with the ridgeline rhythmically. Owing to the far distance of the existing views, the proposed development will not result in a significant change in either the landscape character or the visual amenity of the area. Mitigation measures such as amenity planting, landscape integration with building, green roof and aesthetically pleasing design of aboveground structures are proposed. It is evidenced by the difference between Day 1 and Year 10 condition have a notable impact on the visual outlook. However, due to the distance between the Project and the VSRs, the mitigation is less effective. The impact significance is considered as slight, residual visual impact to the VSRs identified above is considered as slight at Day 1 of operation and insubstantial by Year 10.

Table 14.15 Significance of Langscape impact guilling construction and Operational Phase	Table 14.13	Significance of Landscape Impact during Construction and Operational Phases
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ID No	Landscape Resource /	Sensitivity (Low, Medium, High)		Magnitude of Change (Negligible, Small, Intermediate, Large)		Impact Significan (Insubstantial, Subs	nce before Mitigation Slight, Moderate, stantial)	Recommended	Significance ( (Insubstanti	of Residual Impac al, Slight, Modera	ct after Mitigation ate, Substantial)
12 1101	Landscape	Construction	Onenstion	Construction	Operation	Construction	Operation	Mitigation Measures	Construction	Op	eration
	onaraoter Areas	Construction	Operation	Construction	Operation	Construction	Operation		Construction	Day 1	Year 10
Landsca	pe Resources (LRs	;)									
LR1.0	Marsh/ Reedbed	High	High	Intermediate	Intermediate	Moderate	Moderate	CM1-CM6 & OM1-OM5, OM8, OM9, OM13, OM18	Moderate	Slight	Insubstantial
LR2.0	Compensatory wetland	High	High	Intermediate	Intermediate	Moderate	Moderate	CM1-CM6, CM10 &OM1-OM5, OM8-OM9, OM13, OM18	Moderate	Slight	Insubstantial
LR3.1	Ponds near San Tin and Sam Po Shue	High	High	Large	Large	Substantial	Substantial	DM1, CM1-CM6, CM10 &OM1-OM5, OM8-OM9, OM13, OM18	Substantial	Substantial	Moderate
LR3.2	Ponds near Siu Hum Tsuen and Shek Wu Wai San Tsuen	Medium	Medium	Large	Large	Substantial	Substantial	CM1-CM6, CM10 &OM1-OM5, OM9, OM18	Substantial	Moderate	Slight
LR3.3	Ponds near Ngau Tam Mei	Medium	Medium	Negligible	Negligible	Insubstantial	Insubstantial	-	Insubstantial	Insubstantial	insubstantial
LR4.0	Natural Watercourse	High	High	Negligible	Negligible	Insubstantial	Insubstantial	-	Insubstantial	Insubstantial	Insubstantial
LR5.0	Modified watercourse	Low	Low	Small	Small	Slight	Slight	CM1-CM6, CM10 &OM1-OM5, OM8-OM9, OM13, OM18	Slight	Insubstantial	Insubstantial
LR6.0	Semi-Natural Watercourse	Medium	Medium	Intermediate	Intermediate	Moderate	Moderate	CM1-CM6, CM10 &OM1-OM5, OM9, OM8, OM18	Moderate	Slight	Insubstantial
LR7.0	Seasonal Wet Grassland	Medium	Medium	Intermediate	Intermediate	Moderate	Moderate	CM1-CM6 & OM1-OM5, OM8, OM9	Moderate	Slight	Insubstantial

#### Agreement No. CE 20/2021 (CE) FIRST PHASE DEVELOPMENT OF THE NEW TERRITORIES NORTH – SAN TIN / LOK MA CHAU DEVELOPMENT NODE – INVESTIGATION

ID No.	Landscape Resource /	ndscape Sensitivity source / (Low, Medium, High)		Magnitude of Change (Negligible, Small, Intermediate, Large)		Impact Significar (Insubstantial, Sub	Impact Significance before Mitigation (Insubstantial, Slight, Moderate, Substantial)		Significance of Residual Im (Insubstantial, Slight, Mod		pact after Mitigation lerate, Substantial)	
	Landscape Character Areas	Construction	Antigation Measures		Mitigation Measures	Construction	Operation					
		Contra donio	oporation	eeneu uouen	oporation	Contraction of the second seco	oporation		Constituction	Day 1	Year 10	
LR8.0	Wet Agricultural Land	Medium	Medium	Large	Large	substantial	substantial	CM1-CM6 & OM1-OM5, OM9	substantial	Moderate	Slight	
LR9.0	Dry Agricultural Land	Medium	Medium	Large	Large	substantial	substantial	CM1-CM6 & OM1-OM5, OM9	substantial	Moderate	Slight	
LR10.0	Woodland	High	High	Small	Small	Moderate	Moderate	CM1-CM6 & OM1-OM5, OM9, OM12	Moderate	Slight	Insubstantial	
LR11.0	Mixed Woodland	High	High	Intermediate	Intermediate	Moderate	Moderate	CM1-CM6 & OM1-OM5, OM9, OM10	Moderate	Slight	Insubstantial	
LR12.1	Plantation on slope	Medium	Medium	Small	Small	Slight	Slight	CM1-CM6 & OM1-OM5, OM9, OM10	Slight	Insubstantial	Insubstantial	
LR12.2	Plantation along roadside	Low	Low	Intermediate	Intermediate	Moderate	Moderate	CM1-CM6 & OM1-OM5, OM9	Moderate	Slight	Insubstantial	
LR13.0	Shrubland	Medium	Medium	Small	Small	Slight	Slight	CM1-CM6 & OM1-OM5, OM9	Slight	Insubstantial	Insubstantial	
LR14.0	Grassland	Medium	Medium	Small	Small	Slight	Slight	CM1, CM3-CM6 & OM1-OM3, OM5, OM9- OM10	Slight	Insubstantial	Insubstantial	
LR15.0	Village/ Orchard	Low	Low	Intermediate	Intermediate	Moderate	Moderate	CM1-CM6 & OM1-OM5, OM9	Moderate	Slight	Insubstantial	
LR16.0	Vegetation in developed area (Including residential area and man-made structure)	Low	Low	Large	Large	Moderate	Moderate	CM1-CM6 & OM1-OM5, OM9-OM11	Moderate	Slight	Insubstantial	
LR 17.0	Vegetation in Waste land/open storage/ temporary area	Low	Low	Large	Large	Moderate	Moderate	CM1-CM6 & OM1-OM5, OM9-OM11, OM13	Moderate	Slight	Insubstantial	
Landsca	be Character Area	(LCA)										

#### Agreement No. CE 20/2021 (CE) FIRST PHASE DEVELOPMENT OF THE NEW TERRITORIES NORTH – SAN TIN / LOK MA CHAU DEVELOPMENT NODE – INVESTIGATION

ID No.	Landscape Resource /	Indscape Sensitivity esource / (Low, Medium, High)		Magnitude of Change (Negligible, Small, Intermediate, Large)		Impact Significar (Insubstantial, Subs	nce before Mitigation . Slight, Moderate, stantial)	Recommended	Significance of Residual Impact after Mitigation           Recommended         (Insubstantial, Slight, Moderate, Substantial)		
	Landscape	Construction	Operation	Construction	Oneration	Construction	Oneretien	Mitigation Measures	Construction	O	peration
	onaraoter Areas	Construction	Operation	Construction	Operation	Construction	Operation		Construction	Day 1	Year 10
LCA1	Settled Valley Landscape	High	High	Intermediate	Intermediate	Moderate	Moderate	CM1-CM6 & OM1-OM5, OM9	Moderate	Slight	Insubstantial
LCA2	Upland And Hillside Landscape	High	High	Small	Small	Moderate	Moderate	CM1-CM6 & OM1-OM5, OM9	Moderate	Slight	Insubstantial
LCA3	Rural Coastal Plain Landscape	High	High	Large	Large	Substantial	Substantial	CM1-CM6 & OM1-OM5, OM8, OM9, OM13	Substantial	Moderate	Slight
LCA4	Rural Inland Plain Landscape	Medium	Medium	Large	Large	Substantial	Substantial	CM1-CM6, CM10 &OM1-OM5, OM9, OM18	Substantial	Moderate	Slight
LCA5	Urban Peripheral Village Landscape	Medium	Medium	Small	Small	Slight	Slight	CM1-CM6, CM10 &OM1-OM5, OM9, OM18	Slight	Insubstantial	Insubstantial
LCA6	Miscellaneous Rural Fringe Landscape	Medium	Medium	Small	Small	Slight	Slight	CM1-CM6 & OM1-OM5, OM9	Slight	Insubstantial	Insubstantial
LCA7	Comprehensive Residential Development	Low	Low	Small	Small	Slight	Slight	CM1-CM6, CM10 &OM1-OM5, OM9, OM18	Slight	Insubstantial	Insubstantial
LCA8	Institutional Landscape	Medium	Medium	Negligible	Negligible	Insubstantial	Insubstantial	-	Insubstantial	Insubstantial	Insubstantial
LCA9	Transportation Corridor Landscape	low	low	Small	Small	Slight	Slight	CM1-CM6 & OM1-OM5, OM9	Slight	Insubstantial	Insubstantial
LCA10	Miscellaneous Urban Fringe Landscape	low	low	Intermediate	Intermediate	Slight	Slight	CM1-CM6, CM10 &OM1-OM5, OM9, OM13, OM18	Slight	Insubstantial	Insubstantial

## Table 14.14 Significance of Visual Impacts during Construction and Operation Phases

ID. No.	Key VSRs	Represent ing VP	Receptor Se (Low, Mediu	ensitivity m, High)	Magnitude (Negligib Intermedi	e of Change ble, Small, ate, Large)	Impact Significance Threshold BEFORE Mitigation (Insubstantial, Slight, Moderate, Substantial)		Recommended Mitigation	Residual Im (Insubstantial	pact Significanc AFTER Mitigation , Slight, Moderat	e Threshold 1 e, Substantial)
							incustato, e		measures	Construction	Oper	ation
			Construction	Operation	Construction	Operation	Construction	Operation		Construction	Day 1	Year 10
R1	Low-rise residents of Maple Garden, Palm Springs and Royal Palm	VP6, VP18	High	High	Small	Small	Moderate	Moderate	CM1-CM10; OM1-OM17	Moderate	Moderate	Slight
R2	Residents of Mai Po San Tsuen, Mai Po Lo Wai	VP6, VP7. VP13	Medium	Medium	Intermediate	Intermediate	Moderate	Moderate	CM1-CM10; OM1-OM17	Moderate	Moderate	Moderate
R3	Residents of San Tsing Lung Tsuen, Yan Sau Wai, On Lung Tsuen, Wing Ping Tsuen, Fan Tin (San Yi Cho and Ming Tak Tong), San Lung Tsuen, Tung Chan Wai	VP9, VP10. VP14, VP16	Medium	Medium	Large	Large	Substantial	Substantial	CM1-CM10; OM1-OM17	Substantial	Substantial	Substantial
R4	Residents of Long Ha Tsuen, Man Yuen Tsuen and Pok Wai Village	VP6, VP18	Medium	Medium	Negligible	Negligible	Insubstantial	Insubstantial	-	Insubstantial	Insubstantial	Insubstantial
R5	Residents of Vineyard and low-rise residential area along Tam Mei Road	VP6	Medium	Medium	Small	Small	Slight	Slight	CM1-CM9; OM1-OM7	Slight	Slight	Slight
R6	Residents of Chau Tau Village, Poon Uk Tsuen	VP1, VP2	High	High	Intermediate	Intermediate	Moderate	Moderate	CM1-CM9; OM1-OM7	Moderate	Moderate	Slight
R7	Residents of Fair View Park	VP5, VP18	Medium	Medium	Small	Small	Insubstantial	Insubstantial	-	Insubstantial	Insubstantial	Insubstantial
R8	Residents of Proposed Kwu Tung New Town Development and Ma Tso Lung area.	VP1	Medium	Medium	Negligible	Negligible	Insubstantial	Insubstantial	-	Insubstantial	Insubstantial	Insubstantial

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ID. No.	Key VSRs	Represent ing VP	Receptor Se (Low, Mediu	ensitivity ım, High)	Magnitude (Negligib Intermedi	e of Change ble, Small, ate, Large)	Impact Significance Threshold BEFORE Mitigation (Insubstantial, Slight, Moderate, Substantial)		Recommended Mitigation	Residual Impact Significance Threshold AFTER Mitigation (Insubstantial, Slight, Moderate, Substantial)		
							moderate, e		measures	Construction	Oper	ation
			Construction	Operation	Construction	Operation	Construction	Operation		Construction	Day 1	Year 10
R9	Future residents of the proposed Loop development.	VP11	High	High	Intermediate	Intermediate	Moderate	Moderate	CM1-CM10; OM1-OM18	Moderate	Moderate	Moderate
R10	Residents of Shek Wu Wai, recreational users of Shek Wu Wai Playground	VP15, VP17	High	High	Intermediate	Intermediate	Moderate	Moderate	CM1-CM9; OM1-OM7	Moderate	Moderate	Moderate
R11	Residents of Fisherman San Tsuen	VP11	High	High	Large	Large	Moderate	Moderate	CM1-CM9; OM1-OM7	Moderate	Moderate	Moderate
REC 1	Hikers along Ngau Tam Shan Hiking Trail	VP3, VP12	Medium	Medium	Large	Large	Substantial	Substantial	CM1-CM9; OM1-OM17	Substantial	Substantial	Substantial
REC 2	Visitors of Mai Po Marsh Wetland reserve	VP7, VP18	Medium	Medium	Intermediate	Intermediate	Moderate	Moderate	CM1-CM10; OM1-OM18	Moderate	Moderate	Slight
REC 3	Hiker of Ki Lun Shan	VP3	Medium	Medium	Large	Large	Substantial	Substantial	CM1-CM10; OM1-OM18	Substantial	Substantial	Substantial
REC 4	Park visitors of San Tin Park and Man Tin Cheung Park	VP9. VP10, VP16	Medium	Medium	Large	Large	Moderate	Moderate	CM1-CM9; OM1-OM17	Moderate	Moderate	Slight
REC 5	Hikers of Lam Tsuen Country Park	VP4	High	High	Intermediate	Intermediate	Moderate	Moderate	CM1-CM10; OM1-OM18	Moderate	Moderate	Moderate
REC 6	Future users of Sam Po Shue wetland conservation park	VP8	High	High	Intermediate	Intermediate	Moderate	Moderate	CM1-CM10; OM1-OM18	Moderate	Moderate	Moderate
T1	Travelers of San Tin Highway	VP6, P13, VP14, VP 15, VP16	Low	Low	Intermediate	Intermediate	Moderate	Moderate	CM1-CM9; OM1-OM17	Moderate	Moderate	Moderate
T2	Users of MTR Lok Ma Chau Station	VP8	Low	Low	Intermediate	Intermediate	Moderate	Moderate	CM1-CM9; OM1-OM17	Moderate	Moderate	Moderate
Т3	Traveller of Fan Ling Highway	VP2, VP14, VP15	Low	Low	Intermediate	Intermediate	Slight	Slight	CM1-CM9; OM1-OM17	Slight	Slight	Insubstantial

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ID. No.	Key VSRs	Represent ing VP	Receptor Sensitivity (Low, Medium, High)		Magnitude of Change (Negligible, Small, Intermediate, Large)		Impact Significance Threshold BEFORE Mitigation (Insubstantial, Slight, Moderate, Substantial)		Recommended Mitigation Measures	Residual Impact Significance Threshold AFTER Mitigation (Insubstantial, Slight, Moderate, Substantial)		
										Construction	Operation	
			Construction	Operation	Construction	Operation	Construction	Operation		Construction	Day 1	Year 10
O1	Workers of Open Storage/ Industrial usage of Ngau Tam Mei	VP5	Medium	Medium	Small	Small	Slight	Slight	CM1-CM9; OM1-OM17	Slight	Slight	Insubstantial
O2	Workers around Castle peak road (Mai Po Section)	VP5	Medium	Medium	Negligible	Negligible	Insubstantial	Insubstantial	-	Insubstantial	Insubstantial	Insubstantial
O3	Farmer in Agricultural land near LMC BCP	VP11	Medium	Medium	Intermediate	Intermediate	Moderate	Moderate	CM1-CM9; OM1-OM7	Moderate	Moderate	Moderate
04	Industrial and potential tertiary users of Kwu Tung and Pak Shek Au	VP2	Medium	Medium	Small	Small	Slight	Slight	CM1-CM9; OM1-OM7	Slight	Slight	Insubstantial
O5	Workers in open storage	VP6, VP7, VP13	Low	Low	Intermediate	Intermediate	Slight	Slight	CM1-CM9; OM1-OM17	Slight	Slight	Insubstantial
O6	Future workers of the Loop development	VP11	Medium	Medium	Intermediate	Intermediate	Moderate	Moderate	CM1-CM10; OM1-OM18	Moderate	Moderate	Moderate
GIC1	Lok Ma Chau Operation Base	VP8	Medium	Medium	Small	Small	Slight	Slight	CM1-CM9; OM1-OM7	Slight	Slight	Insubstantial
GIC2	Users of Gurkha Cemetery	VP4, VP12	Medium	Medium	Large	Large	Moderate	Moderate	CM1-CM9; OM1-OM7	Moderate	Moderate	Moderate
GIC3	Users of San Tin Barracks	VP 12	Medium	Medium	Large	Large	Moderate	Moderate	CM1-CM9; OM1-OM7	Moderate	Moderate	Moderate
GIC4	Users of Tam Mei Barracks	VP 4	Low	Low	Intermediate	Intermediate	Moderate	Moderate	CM1-CM9; OM1-OM7	Moderate	Moderate	Slight

## 14.11 Cumulative Impacts from concurrent Projects

- 14.11.1 The EIA Study Brief No. ESB–340/2021 identified several major projects, in the vicinity of the assessment area. The planned construction period and a brief description of the projects identified has been summarised in **Section 2** of the EIA report (**Section 2.12**). Many of the projects will be completed in advance of the construction programme for the Project (i.e., are not concurrent projects), and due to their nature potential cumulative impacts with the Project are not anticipated.
- 14.11.2 During the subsequent detailed design stage of the Project, it is proposed to conduct an environmental review to collate any further available information to update the cumulative impact assessment, including but not limited to the implementation programme of concurrent projects.
- 14.11.3 Concurrent projects with cumulative impacts identified for the Project are summarised below.

Northern Link (NOL) Main Line

- 14.11.4 Construction of NOL main line is expected to commence in 2025 and for completion in 2034. The proposed NOL Main Line includes a railway of about 10.7 kilometres between the Kam Sheung Road Station and Kwu Tung Station, with three intermediate stations at San Tin, Ngau Tam Mei and Au Tau.
- 14.11.5 The San Tin Station (SAT) is located within the Project in-between the current Green Belt (GB) and Comprehensive Development Area (CDA) of the Approved Ngau Tam Mei OZP No. S/YL-NTM/12. The SAT Station will be at a specified location within the proposed Project. The station is proposed to be directly below the planned road to minimise the interface with the adjacent planned developments and is considered as part of the Schedule 3 Project development. With proper implementation of mitigation measures (e.g., preservation of existing vegetation, control of night-time lighting glare, erection of decorative screen hoarding and sensitive and aesthetically pleasing design of aboveground structures) as recommended in this report, the landscape and visual cumulative impacts would be minimised to an acceptable level without adverse cumulative landscape or visual impacts.

The Loop

- 14.11.6 The construction of site formation and infrastructure works commenced in July 2021 for expected completion in phases in around 6 years. The main works package includes the site clearance and formation within the Loop, and engineering infrastructure works supporting Phase 1 development of the Hong Kong-Shenzhen Innovation and Technology Park, including Western Connection Road and Direct Road Link for connection with the Loop, local roads, sewerage, drainage, water supply and landscaping works.
- 14.11.7 Although no cumulative impacts are predicted at this stage, it is advised that a coordinated approach be undertaken between these projects to reduce potential impacts in terms of both magnitude and the period of disturbance during construction.

Nau Tam Mei (NTM) Development

- 14.11.8 Land use review study is commissioned in 2021. The construction programme is yet to be confirmed. Study will ascertain the feasibility of comprehensive development of the Ngau Tam Mei area, propose broad land uses, identify supporting infrastructure, and recommend necessary follow-up study and possible implementation approach.
- 14.11.9 The proposed NTM development is located approx. 1km south of the Project site, it is likely to have slight visual impact in view of the proximity and its location being largely encompassed by the hilly terrain of Ngau Tam Shan and Kai Kung Leng. The planned

development of NTM could be visible from high vantage points VSRs. Moderate cumulative landscape and visual impact during construction are anticipated. Slight cumulative visual impact is expected upon operation in view of the massing of the proposed development and the lighting glare during night-time operation would be visible. With proper implementation of mitigation measures (e.g., preservation of existing vegetation, control of night-time lighting glare, erection of decorative screen hoarding and sensitive and aesthetically pleasing design of aboveground structures) as recommended in this report, the landscape and visual cumulative impacts would be minimised to an acceptable level without adverse cumulative landscape or visual impacts.

Strategic Study on Major Roads beyond 2030 - Feasibility Study

- 14.11.10 Study had been commissioned from Dec 2020 to Apr 2023. The construction programme is yet to be confirmed.
- 14.11.11 Although no cumulative impacts are predicted at this stage, it is advised that a coordinated approach be undertaken between these projects to reduce potential impacts in terms of both magnitude and the period of disturbance during construction.

Advance Site Formation and Engineering Infrastructure Works at Kwu Tung North and Fanling North New Development Areas

- 14.11.12 Construction commenced in September 2019. The construction programme is yet to be confirmed.
- 14.11.13 The main works package includes site formation in the KTN and FLN NDA, construction of the Fanling Bypass (Eastern Section) connecting the FLN NDA to Fanling Highway. Which is about 10 km of local roads and about 10 km of footpaths, and about 4 km cycle tracks within the NDA area, and associated junction/road improvements. Other engineering infrastructure works including drainage, sewerage, waterworks, landscaping works and slope works and part expansion and upgrading of Shek Wu Hui Sewage Treatment Works ("SWHSTW") are proposed.
- 14.11.14 Although no cumulative impacts are predicted at this stage, it is advised that a coordinated approach be undertaken between these projects to reduce potential impacts in terms of both magnitude and the period of disturbance during construction.

Remaining Phase of Site Formation and Engineering Infrastructure Works at Kwu Tung North and Fanling North New Development Area – Detailed Design and Site Investigation

- 14.11.15 The works mainly covers the following: Site formation in the Kwu Tung North (KTN) and Fanling North (FLN) New Development Area (NDA) for housing, community, commercial and other developments as well as engineering infrastructure works; and
- 14.11.16 Engineering infrastructure works including Fanling Bypass (Western Section), Po Shek Wu Road Flyover, new interchanges together with widening of Fanling Highway for connection with KTN NDA, local roads, cycle tracks, drainage, sewerage, waterworks, pumping stations, fresh water and flushing water service reservoirs, and landscaping works.
- 14.11.17 Although no cumulative impacts are predicted at this stage, it is advised that a coordinated approach be undertaken between these projects to reduce potential impacts in terms of both magnitude and the period of disturbance during construction.

## 14.12 Monitoring and Audit Requirement

#### Construction Phase

14.12.1 The detailed landscape and engineering design of the Project shall be undertaken so as to ensure compliance with the landscape and visual mitigation measures described in **Table 14.9-14.11.** Implementation of the recommended mitigation measures would be regularly audited during construction phase to ensure that they are fully realised and that any potential conflicts between the proposed landscape measures and any other project works and operation requirements are resolved at the earliest possible date and without compromise to the intention of the mitigation measures. Details of environmental monitoring and audit (EM&A) requirement are discussed in the separate EM&A Manual.

Design of Landscape and Visual Mitigation Measures

14.12.2 The detailed design of the landscape and visual mitigation measures shall be undertaken so as to ensure compliance with the proposed measures in this report.

Site Supervision of Landscape Works

14.12.3 The implementation of the landscape works during the construction phase and establishment works shall be inspected through the site audit program.

Operation phases

14.12.4 All landscape and visual mitigation measures shall be monitored during the landscape establishment period to check that intended mitigation effects are realised.

## 14.13 Conclusion

Overall Summary- Landscape Impact

- 14.13.1 The Project is generally located within the Approved San Tin Outline Zoning Plan No. S/YL-ST/8; and Approved Ngau Tam Mei Outline Zoning Plan No. S/YL-NTM/12 with tiny portions within the Approved Mai Po and Fairview Park OZP No. S/YL-MP/6 and the Approved Kwu Tung North OZP No. S/KTN/4. The overall planning of the Project adhered to the planning objectives to be a world class I&T hub, a balance and vibrant community and an SGR exemplar. It is developed with strong emphasis on "integration" between work, live and nature. Coherent and legible urban structure, key activity nodes and residential communities of different intensities are planned regarding the existing context and landscape resources, including the surrounding green backdrop, as well as the revitalisation of the two major drainage channels namely the San Tin Eastern Main Drainage Channel (STEMDC) and San Tin Western Main Drainage Channel (STWMDC). Considering that the Project are design in a holistic manner under the same principle. The overall design as set out in the urban design and landscape design framework shall work in unison with the aforementioned mitigation measures to ensure an attractive new town replacing the existing mix of open storage, agricultural use to achieve a positive impact as a result of the new town development.
- 14.13.2 Among the approximate 64,490 nos. existing trees within the study area, potentially approximately 56,350 nos. (87%) of existing trees will be felled or transplanted, while approximately 8,140 nos. (13%) of them would be retained, subject to detailed design. Among the identified 17 nos. of TPI, 8 nos. are proposed to be retain in-situ. This includes T3 (*Melaleuca cajuputi subsp. Cumingiana*), T4 (*Ficus virens*), T6 (*Ficus virens*), T9 (*Ficus virens*), T12 (*Ficus macrocarpa*), T16 (*Ficus macrocarpa*). T19 (*Ficus virens*) and T27 (*Melaleuca cajuputi subsp. Cumingiana*). While 9 nos. of TPI will be affected. This includes T1 (*Ficus macrocarpa*), T5 (*Ficus virens*), T8 (*Ficus virens*), T13 (*Ficus macrocarpa*), T17 (*Eucalytuts spp.*), T18 (*Ficus virens*), T21 (*Ficus virens*), T24 (*Ficus macrocarpa*) and T28 (*Ficus virens*).

- 14.13.3 Within the Project boundary, as far as practicable, compensation and new tree planting within the proposed Project will be provided at a 1:1 ratio when appropriate and applicable to compensate for the tree loss due to site development works. Compensatory planting would be considered in accordance with DEVB TC(W) No.4/2020, with due regard to the planting guidelines promulgated by the Greening, Landscape and Tree Management Section of the Development Bureau. The compensatory planting shall be selected based on the principle of "Right Plant, Right Place", i.e., to select suitable plants for planting in appropriate places, and with reference to Guiding Principles on Use of Native Plant Species in Public Works Projects promulgated by DEVB to improve the vegetation diversity, enhance ecological value and re-creation of vegetation habitat particular for areas adjoining the hillside area. Tree Preservation and Removal Proposals including compensation planting scheme shall be submitted in accordance with DEVB TC(W) No. 4/2020 - Tree Preservation. Furthermore, the Project will incur the permanent loss of 1.70 ha woodland throughout the Project area. To compensate for the unavoidable loss of woodland, a suitable area was identified near the compensatory woodland for the Loop. Details of preliminary woodland compensation plan are discussed in Ecological Section of this EIA Report.
- 14.13.4 Under this Project, before mitigation, there would be substantial significance of impact on the following landscape resources. They are mainly permanent and irreversible loss. This includes approx. 41% of ponds near San Tin and Sam Po Shue (LR3.1), 83% of ponds in Siu Hum Tsuen and Shek Wu Wai San Tsuen area (LR3.2), all Wet Agricultural Land (LR8.0) and approx. 76% of dry Agricultural Land (LR9.0) are to be affected. Upon completion of works, this area will become new planned development including open space, residential development, mixed use development, residential and G/IC uses. With appropriate mitigation measures, it is considered that the residual impacts on these landscape resources will be remain as "substantial" residual impact during construction stage. It will be reduced to "moderate" at day 1 of operation and further reduced to "slight" impact at year 10 of operation. For the loss in high sensitivity landscape resources such as LR3.1, woodland (LR10.0) and mixed woodland (LR11.0), they are well incorporated in the design process to minimise their impact as far as practicable within the landscape framework. However, in view of the potential loss due to the Project, it would be infeasible to include these compensation areas on-site (within Project site) due to the large area requirement for both compensations of ponds and woodlands. As such, wetland enhancement in the future SPS WCP and offsite woodland planting is anticipated to mitigate the aforementioned landscape impact. Other landscape resources are either not affected or can minimise their residual impact from slight to insubstantial during operation phase from Day 1 to Year 10 from various mitigation proposed.
- 14.13.5 For landscape character area, most permanent works are located within the Rural Inland Plain Landscape (LCA 4) and Rural Coastal Plain Landscape (LCA 3). During the construction phase, due to the proposed works in these LCAs, their predicted landscape impact would be substantial. Fore Settled Valley Landscape (LCA 1), some works are proposed within this LCA and moderate predicted landscape impact is anticipated.
- 14.13.6 For LCA 3 and LCA 4, there would be substantial residual landscape impact due to the substantial scale of change and high landscape value and quality. The residual impact will be further reduced to moderate and slight respectively from Day 1 to Year 10 of operation phases due to the maturing of tree planting and vertical greening of mitigation measures proposed.
- 14.13.7 For LCA 1, there would be moderate residual landscape impact. The residual impact will be further reduced to slight and insubstantial respectively from Day 1 to Year 10 of operation phases due to the maturing of tree planting and vertical greening of mitigation measures proposed. For the remaining other Landscape character areas are either not affected or are able to reduce their residual impact from slight to insubstantial during operation phases from Day 1 to Year 10 from various mitigation proposed.
- 14.13.8 Despite the residual landscape impact during the operation phases are perceived to be adverse for all of the LR. For LR5.0 (Modified watercourse) and some of the LR17.0 (Waste

land/pen storage), due to implementation of the proposed Landscape Framework, the overall impact on these resources would be enhanced via new amenity and native plantings and enhanced naturalised river/channel.

Overall Summary - Visual Impact

- 14.13.9 For visual impact assessment, there would be substantial residual visual impacts on the recreational VSR REC1 (Hikers along Ngau Tam Shan Hiking Trail), REC3 (Hiker of Ki Lun Shan) and Residential VSR R3 (Residents of San Tin Seven Villages). They are VSR located near the proposed development, surrounded by the development, or viewed from an elevated position. The proposed development has significantly altered the existing visual context such as open view of San Tin and Shenzhen skyline for REC1 and REC3 and ridgeline of Ngau Tam Shan, Kai Kung Leng and open sky view for R3. During construction phase, the substantial visual impact remains with the implementation of mitigation measure. Due to the scale of the proposed development, proximity of these VSRs to the sources of impact, with viewers located either close by or enclosed by the Project, views are full and, in some cases, all-encompassing for those enclosed by the Project. Mitigation measures are not able to adequately compensate for such a substantial magnitude of change for these VSRs. Nonetheless, when the proposed landscape mitigations including roadside and amenity planting, vertical green and compensatory trees become mature. The above would help soften the building masses at year 10 of operation and visually blend in with the well-developed cityscape of Shenzhen at the backdrop in Day 1 and Year 10 of operation phases.
- 14.13.10 Generally, GIC users located in proximity, residential VSR or travelling VSR through the Project area has a moderate residual impact at Day 1 of operation after implementation of mitigation measures such as the Users of Tam Mei Barracks (GIC4) and Low-rise residents of Maple Garden, Palm Springs, and Royal Palm (R1). Although their visual contexts are altered, their medium to low sensitivity to change contribute to the residual impact. There is also moderate residual impact at Day 1 operation on recreational VSR REC 2 and REC4. As such, the visual context is partially altered. Subject to the geographical location, some of these VSR are located relatively far away and hence the potential blockage are partial and scale of development are of small scale. With appropriate mitigation measure applied, the residual impact would remain at moderate in Day 1 and further reduced to slight in Year 10 of operation after the implementation of the mitigation measures. For T1, T2, R2, R9, R10, R11, O3, O6, REC5, REC6, GIC2 and GIC3, due to their relative closer distance from the source of impact and long viewing duration, despite the lower building profile as proposed in the design consideration and the mentioned mitigation measures, their residual impact at before mitigation, Day 1 of operation and year 10 will remain at moderate. This is due to the partial blockage of open sky view and view toward ridgeline are blocked by the development.
- 14.13.11 Residual impact on other VSRs is considered as slight to insubstantial (i.e. insubstantial for R4, R7, R8, O2 and slight for R5, T3, O1, O4, O5, GIC1) during construction phase. This is due to the relative far viewing distance, partial to no blockage of view and small scale of development in view. Hence no significance impact on existing visual context. Therefore, the residual impact in Day 1 would be slight to insubstantial and would be further reduced to insubstantial in Year 10 when the proposed landscape and visual mitigation are established and mature. For R5, due to its long viewing duration and proximity to source of visual impact and the size of development, its residual impact at year 10 will remain at slight.
- 14.13.12 Cumulative landscape and visual impacts from other concurrent projects are discussed. Based on the implementation of other concurrent projects, potential cumulative impact may arise from Northern Link (NOL) Main Line. In view of the nature of the nature of the underground nature of the proposed SAT station, insurmountable cumulative landscape and visual impact would not be anticipated.
- 14.13.13 In view of the scale and nature of the Project, mitigation measures are not able to adequately compensate for such a substantial magnitude of change. Nonetheless, the overall change as a result of the Project will ultimately bring about positive change. The

transformation of the Project area from currently mainly brownfield sites into a balanced and vibrant community with varying use including residential, mixed use, I&T and LSW, and complementary landscape treatments for different area will result in strong visual interest and character and improved the overall visual outlook for the majority of VSRs. Moreover, breezeways and view corridors are proposed in the urban design framework which add visual interest to the development and retain its visual connection to the contextual setting and the broader San Tin area. The building heights also refer to the surrounding developments and villages which will create a distinctive visual character. The urban design framework sets forth a number of planning and urban design concepts intended to guide the form, scale and overall visual character of the Project with the intention to develop a holistic and visually dynamic new town arising from what is presently dominated by brownfield sites.

#### Overall Conclusion

- 14.13.14 With the aims to improve the overall quality of development within the Project, mitigation against adverse impacts, and to enhance existing landscape resources and visual environments, a number of key planning, urban design and landscape concepts are proposed in the Revised RODP, Master Urban design Plan and Landscape Master plan. With this guiding principle set out in early stage, these mitigation measures during construction stage could optimise their effect by minimisation of the footprint of the works area, avoidance of significant topographical changes together with the retention, protection, and compensatory planting of trees / vegetation. These measures if deployed, will have the capacity to reduce, in most cases, the level of residual impact experienced by the VSRs, LRs and LCAs at the construction stage.
- 14.13.15 Under the Project, the present large brownfield operations set within a rural landscape setting will be changed. The proposed planning, urban design and landscape framework as described in **section 14.5** will enhance the visual outlook and landscape characters of the proposed new town while ensuring ample green space, vibrant community and green initiatives are considered throughout the Project. Considering the scale of the Project, it will inevitably result in some landscape and visual impact. It is not possible to fully mitigate all landscape impacts in relation to the loss of agriculture land, woodlands, ponds or tree planting for affected LRs and LCAs in the construction period and early operational stage due to the long establishment period to sufficiently compensate for the associated impacts. Nevertheless, tree to be felled or transplanted will be in phases over the course of construction phases. Hence, the trees will not be affected all at once. This allow the establishment of some of the planting prior the first population intake and their positive impacts with be fell before the completion of the Project.
- 14.13.16 Furthermore, the urban design and landscape framework is an intrinsic part of the Project that must be viewed in connection with proposed mitigation measures. While it is mentioned that not all impacts can be fully reduced or eliminated through the implementation of mitigation measures, the design principles provide enhancement by specifically outlining and dedicating areas for open space, blue-green network, Green Belt, breezeway, view corridor, massing control, aesthetic above ground structure design, and provision of compensatory planting proposal. It is considered that the overall Project is appropriate to the planned context of the area and in the long term with beneficial landscape and visual impacts.
- 14.13.17 In view of the above and considering the development need, the proposed development of the Project would inevitably change the landscape character and visual environment of the area. With the design measures/features stated in **Section 14.9** and the full implementation of the proposed mitigation measures, the proposed development would bring forth landscape and visual enhancement of the area by the displacement of existing unsightly brownfield operations with a quality green and attractive new town.
- 14.13.18 Overall, with the full implementation of the proposed mitigation measures, it is considered that the residual landscape and visual impact with full implementation of mitigation