

## 3 LANDSCAPE BASELINE CONDITIONS

### 3.1 INTRODUCTION

- 3.1.1 This chapter of the LIA presents the landscape baseline conditions by setting out an overview of the identified LRs within the assessment area.

### 3.2 LANDSCAPE CHARACTER

- 3.2.1 The Application Site is broadly characterised by wooded hillsides which extend to the north, east and west. This is a large-scale landscape comprising coastal hillsides falling to the sea, where the hillsides assume a covering of low scrub and grassland.
- 3.2.2 To the south of the Application Site lies the shore of southern Hong Kong Island. This is also a large-scale landscape characterised by rocky beaches covered with shingle and sporadic boulders.

### 3.3 LANDSCAPE RESOURCES

- 3.3.1 The LRs identified within the assessment area together with photos taken on site which show the typical conditions of the identified LRs, are shown on **Figure 2.1**.

#### LR1 Rocky Shore

- 3.3.2 **LR1 Rocky Shore** primarily comprises rocky coastal topography along with numerous boulders and shingle along the southern and eastern coast of Chung Hom Kok above the tidal high-water mark. Rocky shores are natural resources which are considered to have a **High** sensitivity to change.

- 3.3.3 **Relationship with the Project Works:** A very limited extent of the proposed installation, including the proposed semi-buried Beach Manholes with associated Cable Landing Ducts and the shore-end part of the underground Submarine Cable, together with the associated 1.5m works area around these components will fall within approximately 73.28m<sup>2</sup> of LR1, representing a **Negligible** magnitude of change to this resource.

#### LR2 Secondary Woodland

- 3.3.4 **LR2 Secondary Woodland** mainly consists of secondary scrub / woodland established on natural hillsides with loose, sandy and occasionally rocky soil extending along the southern and eastern shore of Chung Hom Kok. The woodland has established in the last 20 years and is characterised by weedy vegetation and invasive tree species such as *Leucaena leucocephala*, along with some common native tree species (e.g. *Macaranga tanarius var. tomentosa*). The understory of the woodland is sparsely vegetated.

- 3.3.5 Findings of the tree survey show that there are **10** nos. existing trees located within the assessment area (**Figure 3.1** refers), of which **3** nos. are of invasive weedy species namely *Leucaena leucocephala*.

- 3.3.6 The overall maturity of the LR2 resource within the Application Site is low, and the vegetation structure is not well-developed. Given the preponderance of non-native invasive species, the sensitivity of this resource to change is **Low / Medium**.

- 3.3.7 **Relationship with the Project Works:** A part of the proposed Cable Landing Ducts and associated structures, inclusive of the associated 1.5m works area, will affect approximately 192.89m<sup>2</sup> of LR2, representing a **Small** magnitude of change to this resource.

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# 4 ASSESSMENT OF LANDSCAPE IMPACTS

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## 4.1 INTRODUCTION

4.1.1 This chapter will assess the landscape impacts arising from the proposed installation by first identifying any sources of landscape impact, followed by the proposal for landscape mitigation and assessment of impacts on the identified LRs during construction and operation after the implementation of the proposed measures.

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## 4.2 SOURCES OF LANDSCAPE IMPACTS

4.2.1 The following sources of landscape impacts will arise during the **construction phase**:

- erection of temporary works hoardings, barriers and/or enclosures;
- minor site clearance works (e.g. minimal trimming of existing herbaceous ground vegetation) for the installation of the proposed beach manholes and cable landing ducts;
- removal of **3** nos. trees of undesirable weed species i.e., *Leucaena leucocephala* and **7** nos. trees of other species (**Figure 4.1** refers);
- installation of approximately 26.6 linear metres of proposed surface mounted cable landing ducts within the Application Site, including excavations of footings for supporting racks;
- construction of 1 no. draw pit (partly within the Application Site);
- construction of 2 nos. beach manholes; and
- excavation of approximately 5.9 linear metres trenches for underground cable ducts.

4.2.2 At the **operational phase**, the following permanent works components of the proposed installation may give rise to landscape impacts as follows:

- presence of approximately 26.6 linear metres of surface mounted cable landing ducts;
  - presence of 2 nos. beach manholes; and
  - presence of 1 no. draw pit (partly within the Application Site).
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## 4.3 PROPOSED LANDSCAPE MITIGATION MEASURES

4.3.1 The landscape mitigation measures set out in **Table 4.1** are proposed to reduce or eliminate the landscape impacts of the proposed installation.

**Table 4.1: Proposed Landscape Mitigation Measures**

ID No.	Landscape Mitigation Measures
<b>Design Stage Mitigation Measures</b>	
DM1	Optimal / Sensitive Alignment of Cable Landing Ducts
DM2	Optimal / Sensitive Location of Beach Manhole
<b>Construction Stage Mitigation Measures</b>	
CM1	Minimal Extent of Working Areas
CM2	Minimal Duration of Construction Works
CM3	Removal and Replacement / Making Good of Boulders / Shingle
<b>Operational Stage Mitigation Measures</b>	
OM1	Minimal Sizing of All Built Structures
OM2	[NOT USED]
OM3*	Compensatory Planting for Felled Trees (Off-site)

\*For PlanD's reference only

4.3.2 These mitigation measures are described below.

#### **Design Stage Mitigation Measures**

##### **DM1 - Optimal / Sensitive Alignment of Cable Landing Ducts**

4.3.3 The alignment of the proposed cable landing ducts has been optimised to facilitate the landing of the ALC at the Applicant's cable landing stations at Lots RBL No. 1220 and 1221 within the shortest possible distance from the high-water mark, thereby minimising its footprint within the "CPA" zone. It has also been designed to avoid trees as far as practicable, with the possibility of supporting racks being further adjusted section by section to account for on-site conditions, so as to minimise impact to trees and boulders.

##### **DM2 - Optimal / Sensitive Location of Beach Manhole**

4.3.4 The location of the proposed beach manhole has been selected to minimise disturbance to existing boulders on the rocky shore, thereby preserving the character of the shore as far as possible, whilst avoiding conflict with other existing and planned cable landing facilities in the same beach area.

#### **Construction Stage Mitigation Measures**

##### **CM1 - Minimal Extent of Working Areas**

4.3.5 The extent of the construction works area has been limited to a maximum 1.5m from the proposed cable duct alignment and associated structures. This will minimise disturbance to surrounding landscape and trees.

##### **CM2 - Minimal Duration of Construction Works**

4.3.6 The duration of the proposed construction works has been limited to the shortest possible time required to undertake the works whilst putting in place the necessary safety and environmental mitigation measures. This will ensure that the impacts on LR's from the proposed works is minimised whilst ensuring safety and environmental acceptability of the works.

##### **CM3- Removal and Replacement / Making Good of Boulders / Shingle Disturbed by Works**

4.3.7 Boulders and shingle disturbed by the proposed construction works will be removed or lifted, stored and placed back at their original locations after the completion of works. This will ensure that the proposed works does not substantially alter the resources or character of the rocky shore on which a

very limited portion of the proposed works lie.

### Operational Stage Mitigation Measures

#### OM1 - Minimal Sizing of All Built Structures

- 4.3.8 All built structures are designed to be compact and of minimal sizing consistent with operational requirements so as to minimise the overall footprint of the proposed installation. This will contribute to minimising ground vegetation clearance and visual prominence of the installation.

#### OM3 - Compensatory Planting for Felled Trees (Off-site – For PlanD’s reference only)

- 4.3.9 Compensatory planting will be provided for any felled trees arising from the proposed construction works, apart from invasive, exotic species that are unfavourable to the local ecosystem (e.g. *Leucaena leucocephala*).
- 4.3.10 The feasibility of undertaking compensatory planting within the Application Site has been thoroughly and repeatedly examined. However, given the hillside terrain, thin soils and existing vegetation cover, planting opportunities are very limited within and around the Application Site.
- 4.3.11 Government regulation (Page C2 of Appendix C of DEVB TC(W) No. 4/2020) states that seedling trees should be planted on slopes, as their root balls are better adapted to sloping terrain than larger Light Standard or Standard trees. Inside and around the Application Site, the thin, rocky soils and competition and shading from existing vegetation make planting and successful establishment of seedlings in these areas impracticable. In addition, space within the Application Site is extremely limited and seedling trees planted close to the cable ducts are likely to be shaded out by the shadows cast by the twin ducts themselves.
- 4.3.12 For this reason, compensatory tree planting is proposed to take place in the eastern part of Lot RBL No. 1220 to the north-east of the Application Site. This Lot forms part of the same project but is outside the scope of this Application. The topography of this site is mainly flat with some slopes. However, in addition to this proposed compensatory planting, Lot RBL No. 1220 is also proposed to accommodate a number of retained trees and compensatory planting trees related to another project (refer to **Figure 4.2**). This means that additional planting opportunities are relatively limited.
- 4.3.13 7 nos. compensatory trees for this project will be planted at Light Standard size at a compensation ratio of 1:1 by number, as there is insufficient space within the Lot to allow for a ratio of 1:1 by diameter at breast height (DBH).
- 4.3.14 Planting will be carried out in accordance with the prevailing standards of the Civil Engineering and Development Department’s General Specification for Civil Engineering Works. The trees will be subject to a one-year Establishment Period and maintained by the Applicant thereafter.
- 4.3.15 Tree species native to the area, which have been surveyed in this study or listed in Appendix A of the Ecological Survey Report in **Annex D**, are being considered for compensatory planting. These shortlisted species will undergo an evaluation process based on their ability to adapt to coastal and hillside environments, their ecological significance, and their availability in the market (**Table 4.1** refers).

**Table 4.1: Proposed Compensatory Tree Species\***

Scientific Name	Chinese Name
<i>Bischofia javanica</i>	秋楓
<i>Bridelia tomentosa</i>	土蜜樹
<i>Hibiscus tiliaceus</i>	黃瑾
<i>Litsea glutinosa</i>	潺槁樹
<i>Sterculia lanceolata</i>	假蘋婆

\*For PlanD's reference only

#### 4.4 CONSTRUCTION IMPACTS ON LANDSCAPE RESOURCES

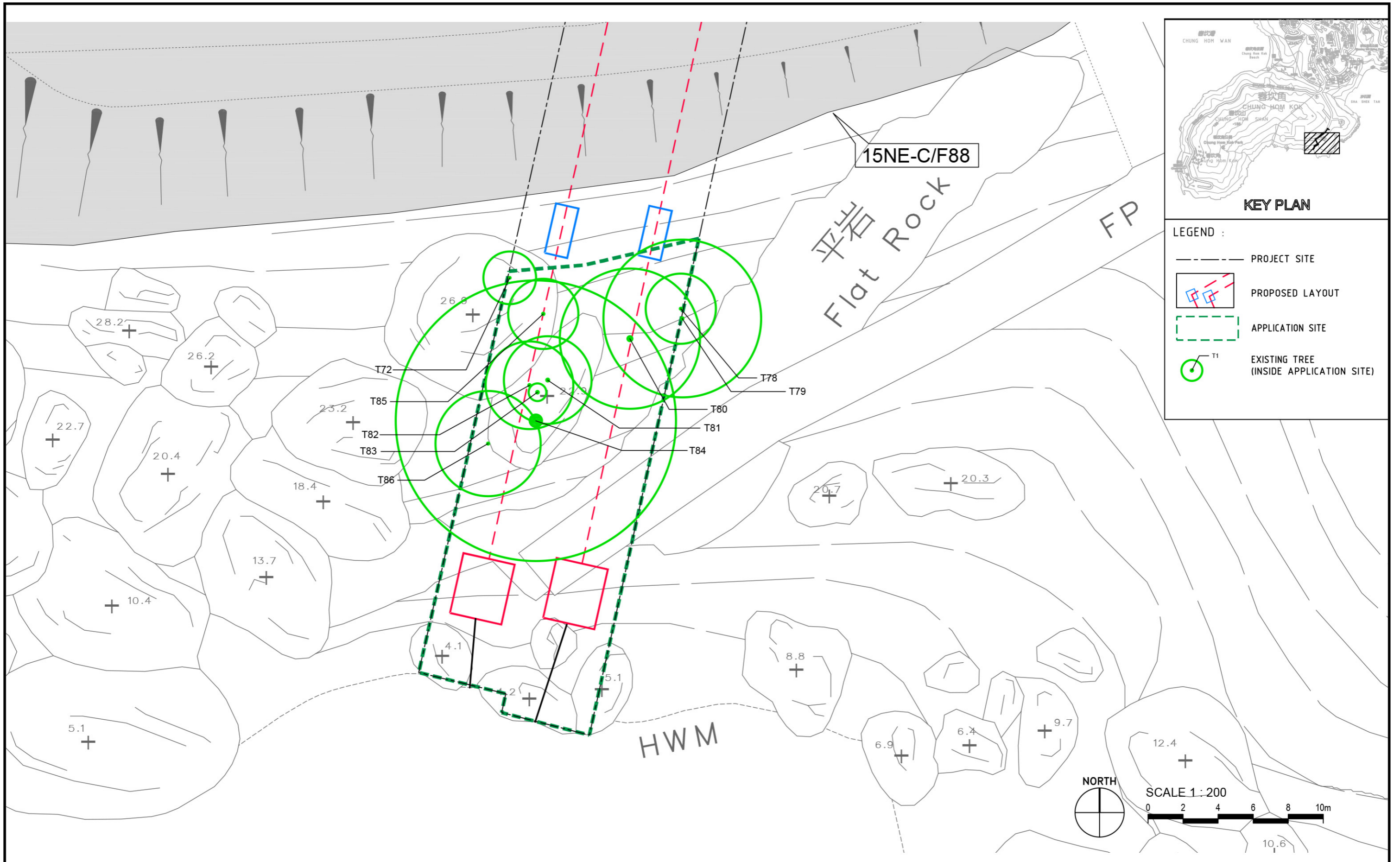
- 4.4.1 With the design and construction stage mitigation measures implemented, the part of the temporary works within **LR2 Secondary Woodland** will represent a Small magnitude of change on an LR with a Low / Medium sensitivity to change. As such, at the construction phase, the temporary works will give rise to **Insubstantial** impact on this LR.
- 4.4.2 Following the implementation of the mitigation measures proposed a very limited extent of the temporary works within **LR1 Rocky Shore** will represent a Negligible magnitude of change on an LR with a High sensitivity to change. The works will therefore result in **Insubstantial** landscape impact.

#### 4.5 OPERATIONAL IMPACTS ON LANDSCAPE RESOURCES AFTER IMPLEMENTATION OF MITIGATION MEASURES

- 4.5.1 Following the implementation and maturation of the proposed mitigation planting, a small part of the proposed installation will impact **LR2 Secondary Woodland** and will represent a Small magnitude of change on an LR with a Low / Medium sensitivity to change. Following the implementation of the mitigation measures proposed and the colonisation and re-establishment of adventitious vegetation, it is therefore anticipated that this part of the proposed installation will give rise to **Insubstantial** landscape impact on this LR when seen as a whole.
- 4.5.2 With the proposed mitigation measures implemented and matured (including replacement of boulders and shingle), there will be a very limited extent of the proposed installation situated within **LR1 Rocky Shore** which will represent a Negligible magnitude of change on an LR with a High sensitivity to change. This proposed installation will therefore result in **Insubstantial** impacts on this LR.

#### 4.6 CONCLUSION

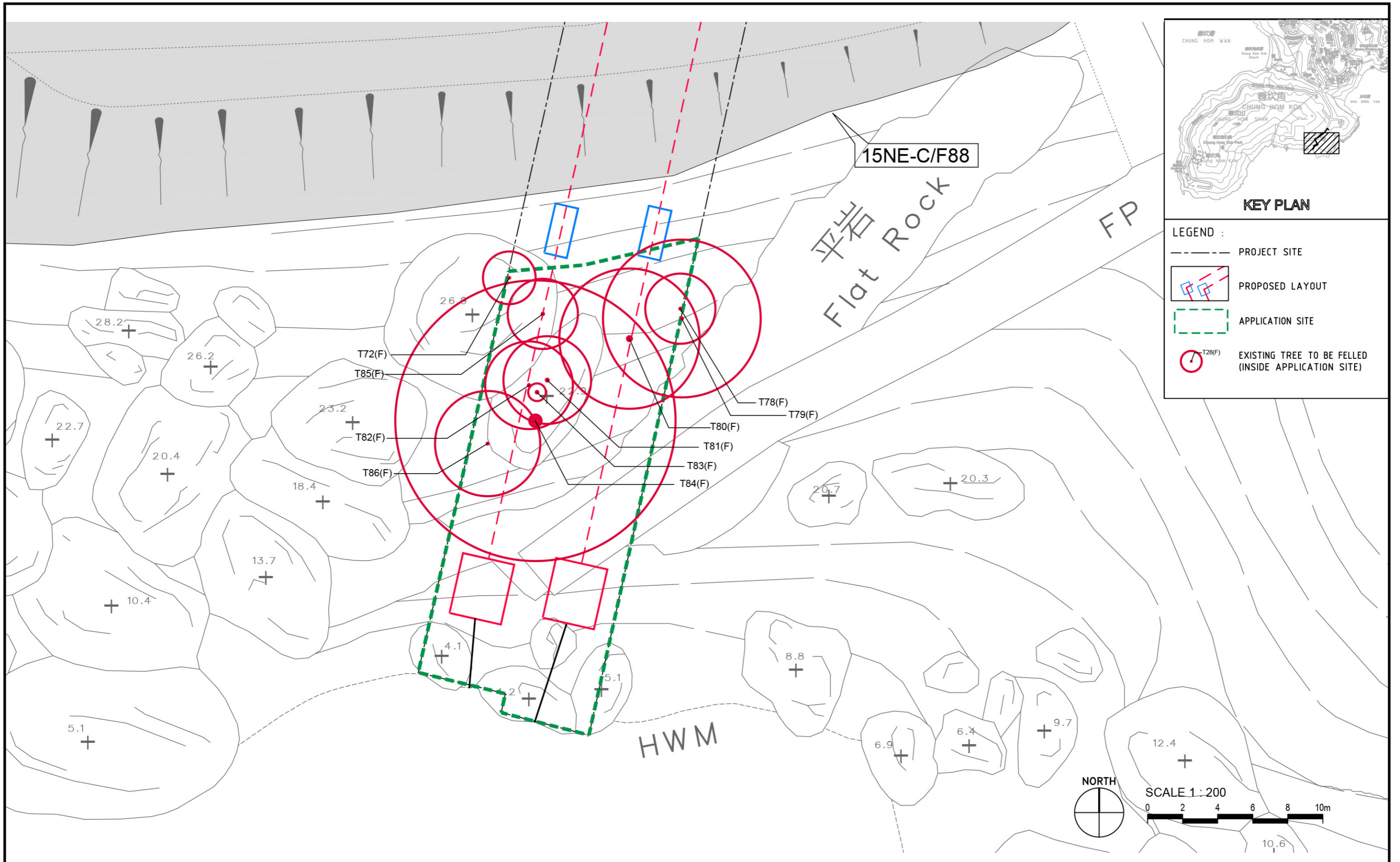
- 4.6.1 This chapter of the LIA has assessed the impacts of the proposed installation on LRs identified within the assessment area, as well as proposed appropriate mitigation measures aimed at avoiding and minimising landscape impacts. The following chapter will provide a conclusion on the acceptability of the overall landscape impacts of the proposed installation.



**Section 16 Planning Application for Proposed Public Utility Installation (Submarine Cable and Landing System) at Chung Hom Kok, Hong Kong Island**



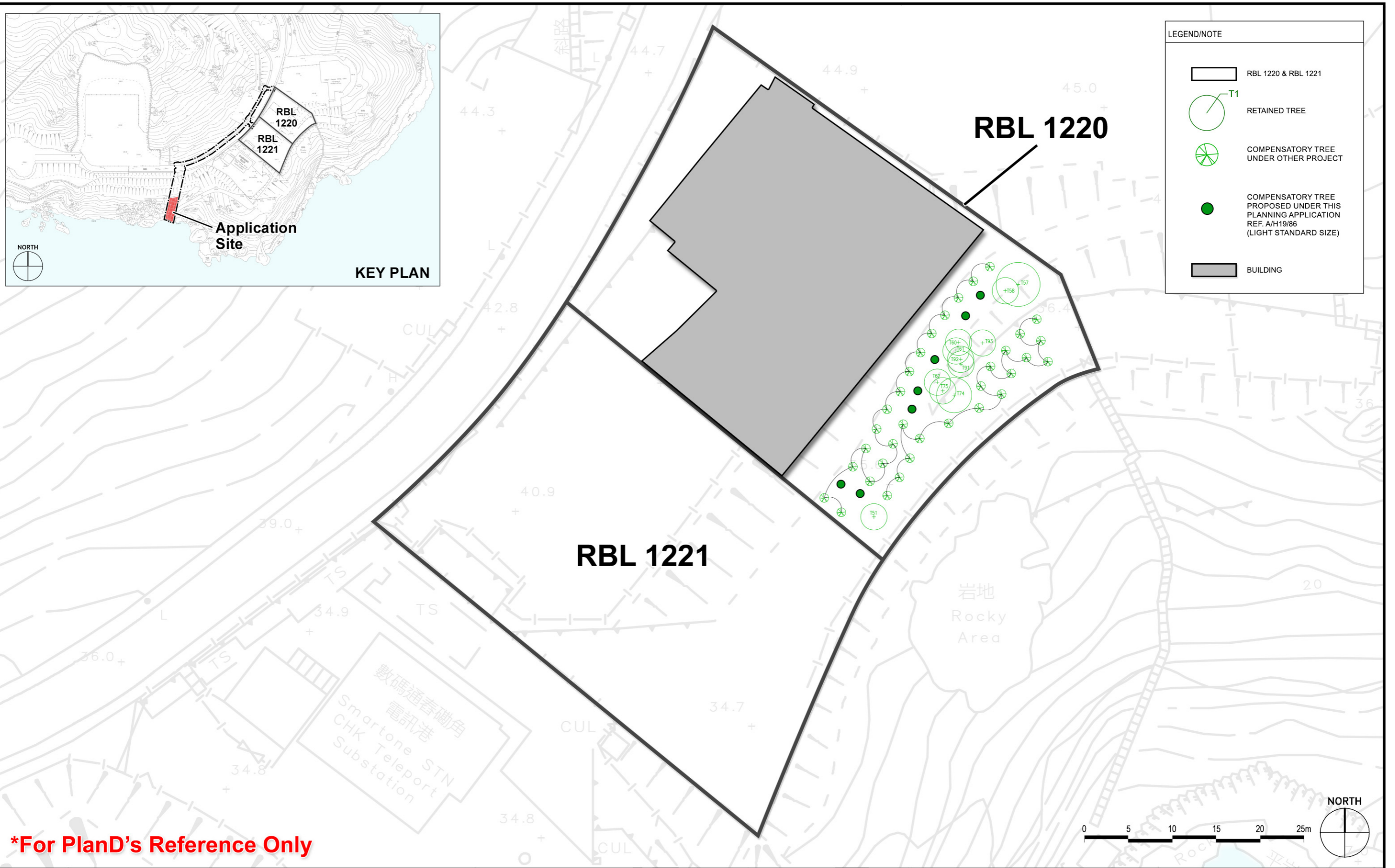
Title		Tree Survey Plan	
Scale	1:200 @ A3	Date	October 2024
Figure No.			<b>3.1</b>



**Section 16 Planning Application for Proposed Public Utility Installation (Submarine Cable and Landing System) at Chung Hom Kok, Hong Kong Island**



Title		Tree Treatment Plan	
Scale	1:200 @ A3	Date	October 2024
Figure No.			<b>4.1</b>



Section 16 Planning Application for Proposed Public Utility Installation (Submarine Cable and Landing System) at Chung Hom Kok, Hong Kong Island



Title		Tree Compensation Planting	
Scale	1:400 @ A3	Date	October 2024
		Figure No.	<b>4.2</b>