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TABLE OF CONTENTS

	Page No.
1. Basic Information	1
1.1 Project Title.....	1
1.2 Purpose and Nature of the Project.....	1
1.3 Name of Project Proponent.....	1
1.4 Location and Scale of Project	1
1.5 Number and Type of Designated Project.....	2
1.6 Name and Telephone Number of Contact Persons	2
2. Outline of Planning and Implementation Programme.....	3
2.1 Planning and Implementation of the Proposed Project.....	3
2.2 Site Selection.....	3
2.3 Project Time Table	3
2.4 Interactions with Broader Programme Requirements or Other Projects	3
3. Major Elements of the Surrounding Environment.....	4
3.1 Noise	4
3.2 Air Quality	4
3.3 Ecology.....	4
3.4 Landscape and Visual.....	10
4. Possible Impacts on the Environment	12
4.1 Process Involved	12
4.2 Summary of Potential Environmental Impacts.....	12
4.3 Ecology.....	13
4.4 Landscape and Visual.....	14
4.5 Gaseous Emissions and Dust.....	17
4.6 Odour	18
4.7 Noise	18
4.8 Night-time Operations.....	18
4.9 Traffic Generation	18
4.10 Effluents, Discharges and Runoff.....	18
4.11 Waste	19

4.12	Manufacture, Storage, Use, Handling, Transport, or Disposal of Dangerous Goods, Hazardous Materials or Wastes	19
4.13	Risk of Accidents Resulting in Pollution or Hazard	19
4.14	Disposal of Spoil or Contaminated Material.....	20
4.15	Disruption of Water Movement or Bottom Sediment.....	20
4.16	Cultural Heritage.....	20
5.	Environmental Protection Measures to be Incorporated in the Design and Any Further Environmental Implications.....	21
5.1	Measures to Minimize Environmental Impacts	21
5.2	Comment on the Possible Severity, Distribution and Duration of Environmental Effects.....	22
5.3	Comment on any Further Implications	22
5.4	Previously Approved Similar Environmental Assessments	23
6.	Conclusion.....	24

LIST OF TABLES

Table 2.1	Project Time Table for the Transposer Stations
Table 3.1	Noise Sensitive Receivers
Table 3.2	Evaluation of the Castle Peak, Kowloon Peak, Cloudy Hill and Lamma Island Sites
Table 4.1	Potential Sources of Environmental Impacts
Table 4.2	Estimate of Habitat Loss
Table 4.3	Significance of Permanent Land-Take Impacts
Table 4.4	Landscape Impact Assessment
Table 4.5	Visual Impact Assessment
Table 4.6	Definition of Significance of Landscape / Visual Impact

LIST OF APPENDICES

Appendix 1	Figures
Appendix 2	Recorded Plant Species
Appendix 3	Protection Status of Plant Species
Appendix 4	Landscape Assessment Matrix
Appendix 5	Visual Assessment Matrix

1. BASIC INFORMATION

1.1 Project Title

Hill-top Transposer Station Expansion at Castle Peak, Kowloon Peak, Cloudy Hill and Lamma Island.

1.2 Purpose and Nature of the Project

In July 2004, the Government announced the implementation framework for the Digital Terrestrial Television Broadcasting (DTTB) policy. The objective of launching the DTTB is to enhance Hong Kong's broadcasting infrastructure to make Hong Kong a leading digital city, to improve spectrum efficiency and enhance the quality of broadcasting, and also to enable new applications such as high-definition television (HDTV), interactive television and data casting services.

One of the major milestones of the implementation framework is for the two incumbent terrestrial television broadcasters, namely Asia Television Limited (ATV) and Television Broadcasts Limited (TVB), to start broadcasting in both analogue and digital format (simulcasting) sometime within the year 2007. Thus, the terrestrial broadcasting infrastructure will need to be urgently upgraded to achieve the Government's timetable.

To facilitate simulcasting, extensions are required to some existing hill-top transposer stations to house additional broadcasting equipment. The sites requiring this equipment include Castle Peak, Kowloon Peak, Cloudy Hill and Lamma Island, which presently contain existing transposer buildings. As such, the project is an extension of these existing facilities.

As some of these buildings are located within sensitive areas, such as existing country parks, a site of special scientific interest (SSSI) and a Conservation Area, this Project Profile has been prepared to identify and assess the potential environmental impacts associated with the construction and operation of the extensions to these transposer stations. This Project Profile has been based on information on the construction and operation of the extensions from the Project Proponent and the Design Engineers.

1.3 Name of Project Proponent

Television Broadcasts Limited (TVB).

1.4 Location and Scale of Project

1.4.1 Castle Peak

The Castle Peak Transposer Station is located at a ridge top at Castle Peak in Tuen Mun within the Castle Peak SSSI. The proposed extension area is adjacent to the existing group of TV transmitting stations presently in operation. The transposer station extension would comprise a 2-storey building constructed on a loading platform, housing 3 antenna platforms on top of the building. An antenna tower, approximately 34m, would be constructed above the top antenna platform. The building area would be approximately 156.6m² with top of the antenna tower reaching 628mPD. No other works such as slope stabilization will be involved with the proposed transposer station expansion. The site location plan is shown in **Appendix 1, Figure 1.1**.

1.4.2 Kowloon Peak

The Kowloon Peak Transposer Station is located at the top of Fei Ngo Shan in Kowloon, within the Ma On Shan Country Park. The extension would be adjacent to a group of existing TV transmitting stations that are currently in operation. The transposer station extension would comprise a 2-storey building and an antenna tower of 47m, on roof of the building. The building area would be approximately 141m² with top of the antenna tower reaching 654mPD. There may be some minor adjustments to footpaths for foot access to the station due to the project, but these works would be minor in nature and would only be undertaken in the immediate vicinity of the structure. No other works such as slope stabilization will be involved with the proposed transposer station construction. The site location plan is shown in **Appendix 1, Figure 1.2.**

1.4.3 Cloudy Hill

The Cloudy Hill Transposer Station is located at the top of Kau Lung Hang Shan in Tai Po within Pat Sin Leng Country Park. The proposed extension would be adjacent to a group of existing TV transmitting stations that are currently in operation. The transposer station extension would comprise a single storey building and an antenna tower, approximately 39m, on top of the building. The building area would be approximately 130m² with top of the antenna reaching 488mPD. The site location plan is shown in **Appendix 1, Figure 1.3.**

1.4.4 Lamma Island

The Lamma Island Transposer Station is located at top of the Ling Kok Shan on Lamma Island and is within a “Conservation Area” (CA) according to the Lamma Island Outline Zoning Plan No. S/I-LI/8. The proposed extension would be located adjacent to a group of existing TV transmitting stations that are currently in operation. The transposer station would comprise a 2-storey building and an antenna tower, approximately 15m, on the roof of the building. The building area would be approximately 163m² with top of the antenna reaching 269mPD. There may be some minor adjustments to footpaths for foot access to the station due to the project, but these works would be minor in nature and would only be undertaken in the immediate vicinity of the structure. No other works such as slope stabilization will be involved with the proposed transposer station construction. The site location plan is shown in **Appendix 1, Figure 1.4.**

1.5 Number and Type of Designated Project

This Project Profile covers one classification of a Designated Project under the Environmental Impact Assessment Ordinance (EIAO) in Schedule 2, Part I, Q – Miscellaneous, Q.1, as the four transposer stations expansion will be located in an existing country park, a conservation area, or a site of special scientific interest.

1.6 Name and Telephone Number of Contact Persons

Queries regarding the project can be addressed to:

Mr. Kelvin Leung (Project Proponent)	Television Broadcasts Limited Telephone No.: 2335 7291 Fax No.: 2358 0470
Mr. John Lee (Architect)	David SK Au & Associates Ltd. Telephone No.: 2560 8811 Fax No.: 2513 1828

2. OUTLINE OF PLANNING AND IMPLEMENTATION PROGRAMME

2.1 Planning and Implementation of the Proposed Project

TVB has appointed David S K Au and Associates Limited as their consultant for the design and associated contract management for the proposed four transposer stations expansion.

2.2 Site Selection

Each of the four sites presently contains an existing transposer station, which provides for terrestrial broadcasting coverage of the analogue networks. These sites have been selected for the proposed expansion so that the existing terrestrial broadcasting coverage can be maintained during the simulcasting period, and the analogue-to-digital migration of the existing terrestrial television services can be facilitated.

2.3 Project Time Table

The target completion date for the proposed expansion of the transposer stations is between August to September 2007 in order to facilitate the service. The key project programme target dates for each of the four sites are given in Table 2.1 below.

Table 2.1 Project Time Table for the Transposer Stations

Task Description	Schedule
<u>Castle Peak Transposer Station</u>	
- Detailed Design and Land Approvals (Note 1)	April 2006 to September 2006
- Construction	January 2007 to September 2007
- Launch of service	January 18, 2008
<u>Kowloon Peak Transposer Station</u>	
- Detailed Design	April 2006 to October 2006
- Construction	February 2007 to October 2007
- Launch of service	January 18, 2008
<u>Cloudy Hill Transposer Station</u>	
- Detailed Design	April 2006 to February 2007
- Construction	March 2007 to December 2007
- Launch of service	January 18, 2008
<u>Lamma Island Transposer Station</u>	
- Detailed Design and Land Approvals (Note 1)	April 2006 to September 2006
- Construction	April 2007 to November 2007
- Launch of service	January 18, 2008

Note 1: This will include a Section 16 Application to the Town Planning Board

2.4 Interactions with Broader Programme Requirements or Other Projects

There are no other planned projects located near the four transposer sites that are known at time of preparation of this Project Profile, and that they would interact with the construction programme of this Project. As such, cumulative environmental impacts would not result.

3. MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT

3.1 Noise

The transposer extension sites will be located in remote hilltop locations and there are no noise sensitive receivers (NSRs) identified within 300m from the site boundary. The separation distance of the nearest NSRs from the individual works areas are summarized in Table 3.1.

Table 3.1 Noise Sensitive Receivers

Site	Closest Permanent NSR Description	Approximate Distance from the Works Area
Castle Peak Transposer Station	Tuen Mun Residential Area	Over 2km
Kowloon Peak Transposer Station	Residential Development at Fei Ngo Shan Road	Over 1km
Cloudy Hill Transposer Station	Village Houses at Fung Yuen	Over 1km
Lamma Island Transposer Station	Village Houses at Ta Shui Wan	Over 440m

Hikers who utilize the trails through the country parks (i.e. Ma On Shan Country Park for the Kowloon Peak site, and Pat Sin Leng Country Park for the Cloudy Hill site) may be exposed to some distant construction noise but, as they are intermittent in nature, the exposure will be of limited duration, if at all.

3.2 Air Quality

There are no planned or existing air sensitive receivers (ASRs) identified within 500m from the extension sites at Castle Peak, Kowloon Peak and Cloudy Hill. There are village houses at Ta Shui Wan, which are located some 440m from the works site at Lamma Island. They are, therefore, not expected to be affected. Also, hikers in the country parks will only be subject to negligible nuisances.

3.3 Ecology

A desktop / literature study was carried out to identify any published information specific to each of the four sites. This was followed with a detailed ecological survey carried out in March 2006 for each site to determine the *in-situ* habitat types and plant species present. Other observations on the natural environment and ecology were made at this time and are described for each site in the following paragraphs.

For each extension site, the study area includes 500m surrounding the site for which a general account of habitat and flora was made. Detailed floral surveys were carried out within the 50m envelope of each site.

3.3.1 Castle Peak

The transposer site is situated in the Castle Peak SSSI, which covers an extensive area including the summit of Castle Peak and the ravines on the east and west face, with an area totalling 76ha. From literature review, the site is considered important for the Balloon Flower - *Platycodon grandiflorus*, which has previously been identified on the summit, and is protected under the Forest and Countryside Ordinance. There was however no *Platycodon grandiflorus* species found within the study area during the field survey. The ravines within the SSSI are forested with interesting and rare plant species such as *Uvaria hamiltonis*.

Platycodon grandiflorus, is distributed in Hong Kong Island, Castle Peak and Long Ke and, internationally, is found in many parts of China, Russia, Korea, Japan (Hong Kong Herbarium, 2003). It is considered an invasive weed in the eastern USA, but in Hong Kong the population is at its southern most range and the local population size is small. While *Platycodon grandiflorus* is locally scarce, it cannot be considered regionally threatened, and therefore is only of local conservation interest.

During the ecological survey, it was found that most of Castle Peak is covered by low lying grassy scrub with the dryer ridges dominated by grassland – a habitat which is common in Hong Kong. Woodland is found within the ravines running downhill from the Peak. Such well-developed example of habitats is somewhat rare in Hong Kong. The site extension area lies on a steep slope colonised by grassy scrub, with patches of protruding eroded rocks.

Habitats within the 500m study area are mostly grassy scrub with some ravine woodland fringes near the study area boundary. The 50m detailed study area was considered representative of the main grass scrub habitat covering most of the study area.

A total of 60 plant species were identified within the 50m detailed study area (see Appendix 2) and of particular note was *Rhododendron farrerae*, *Rhododendron simsii*, *Lilium brownie* and *Enkianthus quinqueflorus*. These species were found scattered throughout the study area, with only a few specimens of the *Rhododendron spp.* and one of *Lilium brownie* being found within the extension area (see Appendix 3 for details on the status of these species). These species are protected in Hong Kong under the Forestry Regulations (Cap. 96 sub. Leg.), but due to their wide distribution, are not considered threatened.

There were no literature records of rare or protected fauna species identified for this site and no species were identified during the survey. An evaluation of the ecological value of the site is provided in Table 3.2. The grassy scrub on the site and surrounding area is considered to be of medium ecological value.

3.3.2 Kowloon Peak

Based on literature search, there were no sensitive ecological resources recorded within the proposed extension areas. During the ecological survey, it was noted that the Kowloon Peak site and the surrounding areas are mainly grassland and grassy scrubland with small outcrops or rock. These are all common habitats in Hong Kong. The extension site lies on a gentle slope colonised by grassy scrub.

Habitats within the 500m study area are mostly grassy scrub. The 50m detailed study area was considered representative of the main grass scrub habitat covering most of the study area. During the field survey 38 plant species were recorded in the 50m study area (see Appendix 2) and of particular note are *Rhododendron farrerae*, *Rhododendron simsii* and *Lilium brownie*. Similar to Castle Peak, only a few specimens of these were found within the extension site (see Appendix 3 for details on the status of these species). These three species are protected in Hong Kong under the Forestry Regulations (Cap. 96 sub. Leg) but due to their wide distribution are not considered threatened. There were no literature records of rare or protected fauna species identified for this site and no species were identified during the field survey.

An evaluation of this site is shown in Table 3.2. This extension site and the surrounding areas are considered of low ecological value since it suffers from periodic hill fires and the habitat type (grassy scrub) is common, with only moderate flora diversity and can be easily recreated.

3.3.3 Cloudy Hill

Based on literature search, there were no sensitive ecological resources recorded within the proposed extension areas. The site is approximately 690m and 660m from the nearest boundary of the Sha Lo Tung SSSI and the Fung Yuen Valley SSSI respectively. The Sha Lo Tung SSSI stream is an important habitat for dragonflies. The area is also an important habitat for other aquatic fauna such as freshwater fish and amphibians (EPD 2002).

The Fung Yuen Valley SSSI consists of a well-forested ravine contained within a site of approximately 43ha. Some rare plants are known to occur on the edge of the forest e.g. *Illigera platyandra* and the SSSI is known to be an important breeding site for some rare butterflies (AFCD).

During the ecological survey it has been found that the Cloudy Hill site and surrounding areas have habitats mainly of recently burnt grassland, grassy scrubland, and young woodland (c30 years old), and small outcrops or rock. All are common habitats in Hong Kong. Apart from the developing woodland, the habitats within the site are commonly found in Hong Kong. The site development area lies on a gentle slope colonised by recently burnt grass.

Habitats within the 500m study area are mostly burnt grassland, grassy scrubland, and young woodland. The 50m detailed study area is considered representative of the main burned grassland and grassy scrub habitat covering most of the study area. A total of 43 species of plant were recorded in the study area (see Appendix 2) and of note is the *Lilium brownie* (see Appendix 3 for details on the status of this species), which was identified in the study area. However, only one or two single species were identified within extension site. This species is protected in Hong Kong under the Forestry Regulations (Cap. 96 sub. Leg). Due to its wide distribution, it is not considered threatened.

There were no literature records of rare or protected fauna species identified for this site and no species were identified during the survey.

An evaluation of this site is shown below in Table 3.2. The study area is considered of low ecological value as it suffers periodic hill fires, the habitat type (grassy scrub) is common, holds moderate flora diversity, and can easily be recreated.

3.3.4 Lamma Island

The South Lamma Island SSSI is approximately 1.4 km to the west of the extension site. The site is inhabited by bird populations of unusual species (AFCD).

During the ecological survey it was noted that the extension site and surrounding areas have habitats mainly of grassy scrub intermixed with exposed rocky boulders along the edge of a ridge. All are common habitats in Hong Kong. The extension site lies on a moderate slope colonised by grassy scrub.

Habitats within the 500m study area are mostly grassy scrub intermixed with exposed rocky boulders. The 50m detailed study area is considered representative of the main grassy scrub habitat covering most of the study area. During the botanical survey 56 plant species were recorded and presented in Appendix 2. One species of note (the tree *Artocarpus hypargyreus*) was recorded outside the extension site boundary but close to the edge. Furthermore, saplings were recorded outside the site development area. This species is classified as Vulnerable (VU) in the 2004 IUCN Red List (see Appendix 3). It is distributed throughout Fujian, Guangdong, Guangxi, Hainan, S Hunan, Jiangxi, SE Yunnan. This species is not protected in Hong Kong and is widely distributed in China. Given its IUCN status, this species is considered important and worthy of protection.

There were no literature records of rare or protected fauna species identified for this site and no species were identified during the survey.

An evaluation of this site is shown below in Table 3.2. This study area is considered of medium ecological value mainly due to the moderate to high flora diversity and the presence of various specimens of *Artocarpus hypargyreus*, which is classified as VU (IUCN Red List).

Table 3.2 Evaluation of the Castle Peak, Kowloon Peak, Cloudy Hill and Lamma Island Sites

Criteria	Castle Peak	Kowloon Peak	Cloudy Hill	Lamma Island
<i>Naturalness</i>	Given the general dryness and exposure of the Castle Peak site, scrubby grassland is possibly a typical climax community for the summit and could be considered natural.	The site is covered by scrubby grassland and probably represents an early transition phase to woodland. It is affected by periodic hill fires caused by human disturbance and is therefore considered less natural.	The site is covered by scrubby grassland and probably represents an early transition phase to woodland. The habitat has recently been burned by a hill fire and is therefore considered less natural.	The site is covered by scrubby grassland and probably represents an early transition phase to woodland. It is affected by rare hill fires caused by human disturbance and is therefore considered less natural.
<i>Size</i>	The site occupies a fairly small area and is located in extensive areas of grassy scrub habitat.	The site occupies a fairly small area and is located in extensive areas of grassy scrub habitat.	The site occupies a fairly small area and is located in extensive areas of grassy scrub habitat.	The site occupies a fairly small area and is located in extensive areas of grassy scrub habitat.
<i>Diversity</i>	The general area of the site contained 60 species of plant, with species more typical of higher mountain being recorded and thus the site is considered to have moderate diversity of flora	Plant species diversity was moderate with 38 plant species recorded.	Plant species diversity was moderate with 43 plant species recorded in the area, with less inside the actual site boundary.	Plant species diversity was moderate to high with 56 plant species recorded in the area.
<i>Rarity</i>	No rare species were recorded, however, several protected species were identified in the study area. Within the extension site, only a few single protected species were found.	No rare species were recorded, however, several protected species were identified in the study area. Within the extension site, only a few single protected species were found.	No rare species were recorded. However, several protected species were identified in the study area. Within the extension site only a few single protected species were found.	The tree species <i>Artocarpus hypargyreus</i> was recorded outside but near to the development site boundary. This species is classified as Vulnerable (VU) in the 2004 IUCN Red List. No rare or protected species were identified within the extension site area.
<i>Re-creatability</i>	Overall, this habitat would be re-creatable in short to medium term.	Overall, this habitat would be re-creatable in short to medium term.	Overall, this habitat would be re-creatable in the short term.	Overall, this habitat would be re-creatable in the short term.
<i>Fragmentation</i>	The habitat is not fragmented but forms part of a uniform block	This habitats are not fragmented but form part of a uniform block	This habitats are not fragmented but form a part of a uniform block	This habitats are not fragmented but form a part of a uniform block
<i>Ecological linkage</i>	Fairly well linked with other habitats as no man-made barriers exist in the area	Fairly well linked with other habitats as no man-made barriers exist in area	Fairly well linked with other habitats as no man-made barriers exist in area	Fairly well linked with other habitats as no man-made barriers exist in area

Criteria	Castle Peak	Kowloon Peak	Cloudy Hill	Lamma Island
<i>Potential value</i>	The site has average potential for enhancement	This site has average potential for enhancement.	This site has average potential for enhancement.	This site has average potential for enhancement.
<i>Nursery / Breeding ground</i>	Not known	Not known	Not known	Several sapling specimens of <i>Artocarpus hypargyreus</i> were recorded within the area indicating importance as a breeding area for this VU species.
<i>Age</i>	All habitats recorded at the site are considered young with the exception of the ravine woodland at Castle Peak Site.	All habitats recorded at the site are considered young.	All habitats recorded at the site are considered young.	All habitats recorded at the site are considered young.
<i>Abundance /Richness of wildlife</i>	Likely to be moderate given the level of naturalness, cover and lack of disturbance.	Potentially moderate.	Potentially moderate.	Potentially moderate
<i>Ecological Value</i>	Medium	Low	Low	Medium

3.4 Landscape and Visual

3.4.1 Castle Peak

The main visual sensitive receivers in the area are located in Tuen Mun, east of Castle Peak. The peak is a prominent landscape feature in the local area and is visible from most areas in Tuen Mun. Its steep slopes and wooded ravines provide a strong natural component to the landscape and are considered a visually important resource in such an urban dense environment as Tuen Mun. The peak is capped by the existing transposer stations, which are visible from many vantage points across Tuen Mun. However, the relative impact of the existing station, on the visual landscape is small due to their small scale and the distance at which they are viewed in Tuen Mun. The impact on hikers walking up Castle Peak is mostly evident when the walker reaches the summit

3.4.2 Kowloon Peak

The main visually sensitive receivers in the area are located to the south at Kowloon Bay, Choi Hung to the south west and various villages to the east of Kowloon Peak. The peak is a prominent landscape feature in the local area and is visible from most areas to the south and east of the peak. Its steep slopes and strong geometric shape make it a prominent feature in the landscape and as such is a visually important resource. The peak is capped by the existing transposer stations, which are visible from many vantage points in the general area. However, the relative impact of the existing station on the visual landscape is also generally small due to its small scale in the landscape and the distance at which the transposer station is viewed. The impact on hikers walking up Kowloon Peak is mostly evident when the walker reaches the summit as the station is often hidden by the topography of the hillside.

3.4.3 Cloudy Hill

The main visually sensitive receivers in the area are located to the north west at Fan Ling, south at Tai Po and south east at Fung Yuen Village and the Tai Po Industrial Estate. The peak is a prominent landscape feature in the local area and is visible from most areas to the north west, east and south east. Visibility from the south is somewhat restricted due to the long north-south ridge that blocks views of the summit. The wooded and green slopes, and location at the northern entrance to Tai Po make it a prominent feature in the landscape, and as such, is a visually important resource. The peak is capped by the existing transposer stations that are visible from many vantage points in the general area, except large parts of Tai Po. However, the relative impact, of the existing station, on the visual landscape is small due to the small scale in the landscape and the distance at which the transposer station is viewed. The impact on hikers walking up the peak is more evident as the existing transposer station can be viewed at many locations on the journey up the hill.

3.4.4 Lamma Island

The main visual sensitive receivers in the area are located to the north at So Kwu Wan. The peak is not a prominent landscape feature in the local area as it is mainly visible from certain parts of the island. It cannot be seen from So Kwu Wan village. The peak is capped by the existing transposer stations. The relative impact on the visual landscape of this station is small due to its small scale in the landscape and the distance at which the transposer station is viewed. The impact on hikers walking up the peak is only small, as the transposer station will only come into view near the peak.

3.4.5 Landscape Sensitivity

An initial assessment of the landscape sensitivity was conducted for the landscape areas within 500m of each station as per the guidelines in the EIA TM and EIAO Guidance Note No. 8/2002.

In all cases the existing area covers the peak of a prominent hill, on top of which, the existing transposer station facilities and towers are located. While the local landscape is mostly natural and thus of value, the presence of these structures will reduce the landscapes sensitivity. The landscape sensitivity for each site has been classified as Medium.

3.4.6 Visual Sensitivity

An initial assessment of the visual sensitivity was conducted for sensitive receivers in accordance with the guidelines in the EIA TM and EIAO Guidance Note No. 8/2002. In this case sensitive receivers are mainly residents with direct views of the sites from their home.

Residents will expect a high degree of control over the view from their windows and this would increase their sensitivity to any structure which either blocks or reduces their view quality. However, at each site, the residents are remote from the projects and hence the influence from any structure will be much reduced and their sensitivity is, therefore, considered moderate.

With regard to the Lamma Island Station, views from the main residential area, Sok Kwu Wan, will mostly be blocked by the brow of the hillside and thus sensitivity for this site is considered Low.

4. POSSIBLE IMPACTS ON THE ENVIRONMENT

4.1 Process Involved

The station extensions will be traditional reinforced concrete structures with all concrete works cast in-situ. The antenna towers will be erected directly on top of the main buildings. The antenna tower will be made of galvanized mild steel members and will be fabricated off-site.

Mini-pile foundation will be proposed for the station building. However, spread footing/ raft footing may be used as alternatives if soil conditions permit. The final choice of foundation type will be subject to the future contractor's proposal.

With the exception of the Cloudy Hill site, which can be accessed by vehicles, no direct vehicular access to the other 3 site is available. As such, most of the construction materials will be delivered to the sites by helicopter. There may be some minor adjustments to footpaths for foot access to the stations (e.g. Lamma site and Kowloon Peak site) due to the project, but these works would be minor in nature and would only be undertaken in the immediate vicinity of the structure.

There will be a maximum two small drilling rigs arranged for the mini-pile works. A small-sized excavator will be arranged for site formation works and excavation and lateral support (ELS) works. A vertical hoist will be deployed to facilitate the handling of construction materials during the course of the construction work for the main building. A temporary derrick will also be erected on the roof of the main building for the steel tower assembling works.

4.2 Summary of Potential Environmental Impacts

The construction and operational impacts associated with the transposer stations are summarised in Table 4.1 below and are described in details in the following Sections.

Table 4.1 Potential Sources of Environmental Impacts

Potential Impact	Cons.*	Ops.*
• Gaseous emissions	✓	x
• Dust	✓	x
• Odour	x	x
• Noise	✓	x
• Night-time operations	x	x
• Traffic generation	x	x
• Liquid effluents, discharges, or contaminated runoff	✓	x
• Generation of waste or by-products	✓	x
• Manufacturing, storage, use, handling, transport, or disposal of Dangerous Goods, hazardous materials or wastes	✓	x
• Risk of accidents which result in pollution or hazard	✓	x
• Disposal of spoil materials	✓	x
• Disposal of potentially contaminated materials	x	x
• Disruption of water movement or bottom sediment	x	x
• Unsightly visual appearance	✓	✓
• Ecological impacts		
- Terrestrial	✓	x
- Marine	x	x
- Fisheries	x	x
• Cultural heritage	x	x

Notes: ✓ = Potential to result in impacts, x = Not expected to result in adverse impacts

*: Cons. = Construction phase Ops. = Operation phase

4.3 Ecology

The main ecological impacts that may arise during construction and operation are summarized below:

Construction

- Temporary disturbance to habitats at works areas
- Direct habitat loss
- Run-off from site during construction
- Disturbance to local fauna

Operation

- Permanent loss of habitat to the transposer station footprint
- Risk of bird strikes

4.3.1 Construction Phase

The primary ecological impacts from the construction of the transposer station extensions will be permanent loss of habitat under the building footprint and temporary loss of habitat for the works areas. For each site the extent of the site boundary and work sites have been minimised as much as possible to reduce land take. In addition, the antenna tower is designed to place on the top of the building, thus minimizing the overall station footprint. Table 4.2 provides an estimate of the area lost temporarily and permanently based on the current design.

Table 4.2 Estimate of Habitat Loss

Transposer Site	Temporary Loss	Permanent Loss
Castle Peak	240m ²	157m ²
Kowloon Peak	186m ²	140m ²
Cloudy Hill	320m ²	180m ²
Lamma Island	240m ²	164m ²

At each site the temporary and permanent loss of habitats is limited when compared to the available habitat in the surrounding areas.

For the Castle Peak, Kowloon Peak and Cloudy Hill sites, only a few isolated single protected species were identified within the site areas with the majority of the population identified within the 500m study area. The specimens found within the extension sites area therefore do not represent a significant component of the total number found in the surrounding areas.

For the Lamma Island site, a VU (IUCN Red List) species *Artocarpus hypargyreus* was found in the immediately area outside the site development area. Impacts to this species may reduce local populations, as it appears to be the only adult specimen in the area. As such the station extension area and works site have been adjusted to ensure that the tree and its root ball are situated outside the site boundary, and measures will be taken to protect this species during construction.

The significance of permanent land take for the four sites after mitigations are given in Table 4.3 below.

Table 4.3 Significance of Permanent Land-Take Impacts

Site	Size of Land-Take	Existing Ecological Value	VU (IUCN Red List) Affected	Impact Significance Before / After Mitigation
Castle Peak	Small	Medium	-	Low to Medium
Kowloon Peak	Small	Low	-	Low
Cloudy Hill	Small	Low	-	Low
Lamma Island	Small	Medium	Not after mitigation is implemented.	Medium / Low

With regard to habitats in the temporary works areas, as these habitats are generally young and easy to re-create, medium to long-term impacts are not expected. All construction materials and wastes will be removed upon completion of the construction works with the ground re-instated to what was before.

There will be some disturbance to local wildlife at the Castle Peak, Kowloon Peak and Lamma Island, as materials will need to be transported by helicopter. No records of rare or protected fauna species have been identified for these sites. The use of a helicopter will eliminate the need for a more damaging haul road to the site. Such disturbance would be temporary with no long-term impacts expected

As the sites are small and located at the top of hills, limited amount of soil stockpiling is expected to be required. In addition, there are no streams nearby and it is expected that most sediments if washed from the site would be filtered out in the surrounding grass and scrub before reaching any watercourses. Measures will be implemented to control runoff such as using tarpaulin sheets to cover stockpiles and have them bunded. Impacts from run-offs are therefore expected to be minimal and of low significance.

4.3.2 Operational Phase

Before the 4 new transposer towers are in place, there have been existing radio towers erected at each of the site, which the local birds should have been used to. The addition of conspicuous new towers can therefore be easily adjusted to by the birds.

While the potential for bird strikes onto these new towers cannot be completely ruled out, the number of bird impacts, if any, should be low and will only represent a very small proportion of the local bird population given the low bird activities observed at each site.

During foggy or misty weather there is the potential of collisions for birds that are not familiar with the area. However, no main migration routes are known across the tower locations and it is likely that any migrants, particularly smaller birds, would skirt round the mountains and will not go over the top, thus avoiding the transmitter tower. Larger migrants such as wildfowl and birds of prey tend to cruise at quite a high altitude and would normally fly over the towers. . As the probability of bird collisions is considered to be low, this impact to general bird populations is considered to be of low significance.

4.4 Landscape and Visual

4.4.1 Construction Phase

During construction, disturbance to the soils and general construction equipment and building works will break up the natural landscape character. However, this will be

limited to a small area of the overall landscape and will last for a relatively short period of time (9 to 11 months) and as such is not considered significant impact.

Construction works will produce patches of bare earth, piles of construction materials and machinery that will be visible to hikers but not to the main sensitive receivers in the surrounding urban areas. As the impacts will be small in scale and will not be visible to the majority of sensitive receivers and will be temporary in nature, the magnitude of impact is considered low for landscape and negligible for visual impacts at all locations.

4.4.2 Operational Phase

Castle Peak

The transposer base will rise to a height of approximately 22m above the peak. On top of this the transmitter mast will rise to a further 34m. The total height of the structure above the peak will be approximately 56m and will be higher than the existing transposer stations in the vicinity.

Locating the new transposer next to the existing transposer station will not result in a major change to overall landscape character. The height of the new tower will, however, increase the scale of influence on the local landscape character and thus impact magnitude is considered low to moderate. The new transposer structure will be visible from Tuen Mun and other sensitive receivers, and will be more prominent when compared to the existing transposer stations due to its height and prominent location on the top of Castle Peak. However, the majority of sensitive receivers will view the new structure at a long distance, with the structure only forming a small part of their overall view, thus the magnitude of visual changes are considered to be low.

Kowloon Peak

The transposer base will rise to a height of approximately 10m above the peak. On top of this the transmitter mast will rise to a further 47m. The total height of the structure above the peak will be approximately 57m and will be higher than the existing transposer stations located in the vicinity.

Locating the new transposer next to the existing transposer station will not result in a major change to overall landscape character. The height of the new tower will, however, increase the scale of influence on the local landscape character and thus impact magnitude is considered to be low to moderate. The new transposer structure will be visible from Kowloon Bay, Choi Hung and various villages to the east of Kowloon Peak, and will be more prominent when compared to the existing transposer stations due to its height and key location on the top of Kowloon Peak. However, the majority of sensitive receivers will view the new structure at a long distance, with the structure only forming a small part of their overall view, thus the magnitude of visual changes are considered to be low.

Cloudy Hill

The transposer base will rise to a height of approximately 5m above the peak, on top of this the transmitter mast will rise a further 48m. The total height of the structure above the peak will be approximately 53m and will be higher than the existing transposer stations in the vicinity.

Locating the new transposer next to the existing transposer station will not result in a major change in the overall landscape character. The height of the new tower will, however, increase the scale of influence on the local landscape character and thus impact magnitude is considered to be low to moderate.

The new transposer structure will be visible from Fan Ling, Tai Po, Fung Yuen Village,

Tai Po Industrial Estate and parts of Tai Po and will be more prominent when compared to the existing transposer stations due to its height. However, the majority of sensitive receivers will view the new structure at long distance, with the structure only forming a small part of their overall view, thus the magnitude of visual changes are considered to be low.

Lamma Island

The transposer base will rise to a height of approximately 10m above the peak. On top of this, the transmitter mast will rise to a further 15m, making a total height of the structure to 25m. This will be higher than the current transposer stations located in the vicinity.

Locating the new transposer next to the existing transposer station will not result in a major change in the overall landscape character. The height of the new tower will, however, increase the scale of influence on the local landscape character and thus impact magnitude is considered to be low to moderate.

The new transposer structure will only be visible from limited parts of the Island and is not expected to be visible from So Kwu Wan. The distance from the sensitive receivers will further reduce the dominance of this new structure and thus the magnitude of visual changes is considered to be negligible.

Assessment of Landscape Impact Significance

The methodology used in this assessment follows the recommendations in the EIAO TM and in the EIAO Guidance Note No. 8/2002.

Table 4.4 below summaries the findings of the **Landscape Assessment**, the landscape significance threshold is derived from the combined analysis of the magnitude of change and the landscapes quality. A matrix (Appendix 4) is used to assess the level and range of impacts from low to high in relation to the sensitivity of the landscape resources and the magnitude of change resulting from the proposal.

Table 4.4 Landscape Impact Assessment

Summary of Landscape Impacts	Quality/Sensitivity to Change	Magnitude of Change at Source of Landscape Impact	Significance Threshold
Building and Tower	Medium	Low to Moderate	Slight to Moderate
Works Area ¹	Medium	Low	Slight

Note 1 - During construction only for all areas

Table 4.5, summaries the findings of the **Visual Assessment**, the visual significance threshold is derived from the combined analysis of the magnitude of change and the visual receivers sensitivity to change. A matrix (Appendix 5) is used to assess the level and range of impacts from low to high in relation to the sensitivity of the landscape resources and the magnitude of change resulting from the proposal.

Table 4.5 Visual Impact Assessment

SVR ¹	Quality/Sensitivity to Change	Magnitude of Change at Source of Visual Impact	Adverse Significance Threshold
Castle Peak	Medium	Low	Slight to Moderate
Cloudy Hill	Medium	Low	Slight to Moderate
Kowloon Peak	Medium	Low	Slight to Moderate
Lamma Island	Low	Negligible	Negligible to Slight
Works Areas ¹	Negligible	Negligible	Negligible

Note 1 - During construction only for all areas

Table 4.6, shows the definition of degree of impact associated with the Significance Threshold.

Table 4.6 Definition of Significance of Landscape / Visual Impact

Adverse/ beneficial impact			
Significant:	Moderate:	Slight:	Negligible:
Adverse/ beneficial impact where the proposal would cause significant deterioration or improvement in existing landscape quality.	Adverse/ beneficial impact where the proposal would cause a noticeable deterioration or improvement in existing landscape quality.	Adverse/ beneficial impact where the proposal would cause a barely perceptible deterioration or improvement in the existing landscape quality.	Change is noticeable but deemed to be neither adverse nor beneficial.

4.5 Gaseous Emissions and Dust

4.5.1 Construction Phase

There is a potential for limited fugitive dust emissions to be generated from the small-scale clearance and excavation. However, this is expected to be very minimal due to the limited site area and the small quantity of earth and rock involved. Furthermore, dust control measures stipulated in the Air Pollution Control (Construction Dust) Regulation will be implemented during the construction. Exhaust emissions (SO₂ and NO_x) from diesel powered construction plant will be minimal due to the small number of plant expected on-site.

Through the application of dust control measures and the use of properly maintained equipment, adverse air quality impacts are not anticipated.

4.5.2 Operational Phase

The transposer stations will run on city mains power supply. No air emissions are anticipated during the normal operation. There will be two 132kVA diesel generator sets provided at each transposer station for emergency back-up power supply in case of city mains failure. However, the emissions will occur only during emergency situations. Furthermore, the diesel generator installation will comply with the requirements stipulated under the Air Pollution Control (Furnaces, Ovens and

Chimneys) (Installation and Alteration) Regulations. Therefore, adverse impacts on air quality are not anticipated.

4.6 Odour

No odour impacts will be expected from the transposer stations during the construction and operational phases.

4.7 Noise

4.7.1 Construction Phase

Apart from the usual noise sources due to construction equipment, the key source of noise can be attributed to helicopters engaged in materials delivery to the sites.

As all noise sensitive receivers are remote from the works site and the helicopter will be flying at high altitude, noise is not expected to be a concern.

Hikers might be affected occasionally in case they happen to come close to the sites. The impact will however short and insignificant.

4.7.2 Operational Phase

Emergency generator sets might be a potential noise source during the operational phase of the transposer station. However, noise will only be generated during emergency situation only. Furthermore, the generators will be installed inside the station building and is therefore screened. Given that all noise sensitive receivers are remote from the works site, the noise impact would be negligible.

4.8 Night-time Operations

There will be no evening or night-time operations during the construction phase. The transposer stations will be unmanned during operation. No environmental impacts associated with night-time operations will be anticipated.

4.9 Traffic Generation

There is no vehicular access to the sites except for the Cloudy Hill site. For the Cloudy Hill site, there will be only minor trips generated by workers movements and arrival and removal of equipment/ materials during the construction phase. Access to the site will only occur during routine checking and maintenance works (3 to 4 times per year) during the operational phase. As such, environmental impacts associated with traffic generation are insignificant.

4.10 Effluents, Discharges and Runoff

4.10.1 Construction Phase

Measures will be undertaken to avoid untreated site discharges from inadvertently entering stream courses, including the implementation of temporary site drainage measures to control runoffs from the site in accordance with the ProPECC Note PN 1/94 "Construction Site Drainage". Contractors will be required to provide chemical toilets on-site with no kitchen or canteen allowed.

Based on the above, water quality impacts would be insignificant.

4.10.2 Operational Phase

There will be no effluent discharge during the operation of the transposer stations and no water quality impacts are expected.

4.11 Waste

4.11.1 Construction Phase

Only a small amount of construction and demolition (C&D) materials such as timber formworks, packaging for plant / equipment / materials, general refuse etc. will be generated during construction of the transposer stations. Disposal of the non-inert portion of C&D materials will be managed through the trip-ticket system following the guideline stipulated by the ETWB Technical Circular No. 31/2004 "Trip Ticket System for Disposal of Construction & Demolition Materials".

Only very small quantities of chemical waste will be generated along with municipal waste from construction workers. Correct handling, storage and disposal of these waste streams will be undertaken and adverse impacts on the environment are not anticipated.

4.11.2 Operational Phase

The transposer stations will be unmanned with no waste generation expected during the operation. Debris that may be generated from the annual maintenance works, such as general building maintenance, footpath repair & grass cutting. These will be removed by contractors directly upon completion of works and disposed of properly. No environmental issues are anticipated.

4.12 Manufacture, Storage, Use, Handling, Transport, or Disposal of Dangerous Goods, Hazardous Materials or Wastes

4.12.1 Construction Phase

Dangerous goods are not expected to be needed for the construction process. Any chemical wastes produced in the construction process will be handled in accordance with the Waste Disposal (Chemical Waste) Regulations. No adverse impacts during construction will be anticipated.

4.12.2 Operational Phase

In order to provide uninterrupted service, it is necessary to store more than 2,500 litres of diesel fuel to run backup generators. Associated with this is the potential environmental risk of catastrophic failure of storage tank leading to spillage of all the contents or to a less extent accidental spillage during re-fuelling. The probability of this happening is considered remote although the consequence could be serious in terms of water pollution and land contamination if not properly controlled.

It is a likely requirement that some sort of containment of fuel should be provided as per the Regulation 99A of Dangerous Goods (General) Regulations. As such, the problem will be under controlled and no adverse impacts are therefore anticipated.

4.13 Risk of Accidents Resulting in Pollution or Hazard

Apart from the diesel stores mentioned before, the risk of accidents resulting in pollution or hazard is considered low.

4.14 Disposal of Spoil or Contaminated Material

Only a small amount of spoil materials (soil and broken rocks) will be generated. (Castle Peak: 250m³; Kowloon Peak: 150m³; Cloudy Hill: 100m³ Lamma Island: 150m³). As the excavated materials should be uncontaminated and inert, it will be reused on-site as far as possible. Any surplus excavated materials will be disposed of according to the trip-ticket system following the guidelines given in the ETWB Technical Circular No. 31/2004 "Trip Ticket System for Disposal of Construction & Demolition Materials".

4.15 Disruption of Water Movement or Bottom Sediment

By nature of the project, it will not result in any impact on water movement or bottom sediment.

4.16 Cultural Heritage

No historical or cultural impacts are considered likely.

5. ENVIRONMENTAL PROTECTION MEASURES TO BE INCORPORATED IN THE DESIGN AND ANY FURTHER ENVIRONMENTAL IMPLICATIONS

5.1 Measures to Minimize Environmental Impacts

General measures will be included in the works contract to ensure the prevention and control of pollution related to water quality, air quality, and waste management and to ensure the Contractor complies with the pollution control legislations in Hong Kong. Specific measures that will be incorporated include the following:

5.1.1 Ecology

- (1) Perennial plants: - Before construction works, a confirmation field survey shall be undertaken to confirm the locations of protected species, if any within the study area, and to identify suitable areas for transplanting the isolated protected species outside the site boundary. This shall be readily accomplished and will not unduly upset the local ecology as the donor areas will be small in size with a small number of specimens compared with the overall populations in the area. A transplantation plan for the protected plants shall be submitted to EPD/ AFCD and followed up with reports after transplantation, as well as on a quarterly basis for a period of 1 year after completion of the transplantation works.
- (2) Annual Plants: - Before commencement of works, a confirmation survey shall be undertaken to confirm the locations of protected species and to identify suitable areas for planting out seedlings. Seeds will be collected for all protected annual plants and these grown on to semi-maturity then planted out. A planting plan for the protected annual plants shall be submitted to EPD/ AFCD and followed up with reports after planting as well as on a quarterly basis for a period of 1 year after completion of the planting works.
- (3) With regard to the Lamma site, to avoid disturbance to the adult *Artocarpus hypargyreus* VU (IUCN Red List) tree the building footprint has been adjusted west to avoid this tree. The boundary of the site will be approximately 5m from the trees crown. In addition, before construction begins, a steel fence will be constructed round the tree with a 1m gap between the crown and the edge of the fence to protect the tree from any damage. Further, the site will be searched and any saplings of *Artocarpus hypargyreus* identified in the immediate area (within 50m of the site) will be marked and protected with a steel cage. On completion of works all fences and cages will be removed.
- (4) Bird Scarers (facsimiles of birds of prey or sonic boom devices) or visual markers (florescent coated sheets that move and rotate in the wind) shall be attached to the transposer mast to scare away/ alert flying birds of its presence, designs shall be submitted to EPD/AFCD for approval. In particular, design of the tower shall avoid the use of guy wires, which can increase collision rates. During foggy or cloudy weather, illumination of the tower at night could attract migrating birds passing by towards the tower resulting in collision. Choice of appropriate illumination will therefore be required.
- (5) Regarding the storage of diesel on site, it is recommended that all tanks are contained within a fuel tight structure capable of holding the entire contents of the tank should it accidentally rupture. It is understood that the client will house the diesel within the structure with full containment.
- (6) All disturbed temporary works area shall be restored to their original soil and habitat conditions after completion of works.

5.1.2 Landscape and Visual

The following measures are to be implemented either during construction or operation to reduce the potential for visual impacts resulting from the project.

- (1) The works areas will be kept tidy and construction wastes will be properly managed to reduce the visual impact to a minimum.
- (2) The sites will be reinstated after works have been completed and shall be replanted with native species appropriate to this area and soil type to enhance the habitat of the area.
- (3) Visually un-obtrusive / sensitive architectural finishes and recessive chromatic treatments shall be applied to all the above ground structures to ensure that they blend in with the surroundings.

5.1.3 Air Quality

The Contractor will be bound to implement the control measures recommended in the Air Pollution Control (Construction Dust) Regulation where appropriate. Construction plant shall also be regularly maintained and kept in good working order to minimise gaseous and particulate emissions. Where possible, plant should be electrically rather than diesel powered.

5.1.4 Water Quality

The Contractor will be obliged to fully comply with the Water Pollution Control Ordinance and during construction works and follow the best practice site drainage measures as described in the ProPECC Note PN 1/94 "Construction Site Drainage". During construction all excavated soil/ broken rocks materials will be properly covered and contained to ensure that sediment loaded surface runoff will not result.

5.1.5 Waste

- (1) Excavated spoil materials and other wastes shall be segregated, re-used on site or recycled as far as possible. Spoil material (e.g., soil and broken rocks) is expected to be retained for reuse on-site. Any waste materials to be disposed of will follow the trip-ticket system in accordance with the guideline stipulated by the ETWB Technical Circular No. 31/2004 "Trip Ticket System for Disposal of Construction & Demolition Materials".
- (2) Any chemical wastes from plant maintenance will be handled, stored and disposed of in accordance with the requirements of the Waste Disposal (Chemical Waste) Regulations.

5.2 Comment on the Possible Severity, Distribution and Duration of Environmental Effects

The construction works will last approximately 9 to 11 months and will affect only a small and localised area in the works and project areas. With the implementation of the recommended mitigation measures, no adverse environmental impacts are anticipated during the construction or operation of the proposed transposer stations expansion.

5.3 Comment on any Further Implications

None.

5.4 Previously Approved Similar Environmental Assessments

References have been made to the following Project Profiles submitted for Applications for Permission to Apply Directly for an Environmental Permit:

- (1) TV Transposer Station at Hill 374, Lam Tsuen Country Park, Application No. DIR-088/2003.
- (2) Erection of a Temporary Wind Monitoring Station at Miu Tsai Tun, Application No. DIR-104/2004.
- (3) Installation of Mobile Phone Base Station at Bride's Pool Road within Pat Sin Leng Country Park, Application No. DIR-054/2001.
- (4) Constructing and Operating Three Automatic Weather Stations at Pak Kung Au, Tai Fung Au and Ngong Ping on Lantau Island, Application No. DIR-134/2005.
- (5) Proposed Installation of Integrated Mobile Phone Base Station at Twisk Management Centre within Tai Lam Country Park, Tsuen Wan, Application No. DIR-111/2004.
- (6) Proposed Installation of Integrated Mobile Phone Base Station at Yuen Ng Fan, Sai Kung East Country Park, Application No. DIR-110/2004.
- (7) Erection of a Temporary Wind Monitoring Station at Pottinger Peak, Application No. DIR-096/2004.
- (8) Installation of Radio Base Station at Kei Ling Ha (Sai Sha Road), Sai Kung, Application No. DIR-035/2000.
- (9) Proposed Installation of Integrated Mobile Phone Base Stations at Shing Mun Country Park, Application No. DIR-033/2000.
- (10) Proposed Installation of Integrated Mobile Phone Base Station at Ma On Shan Country Park, Application No. DIR-022/1999.
- (11) Tung Chung Cable Car Project, Application No. DIR-085/2003

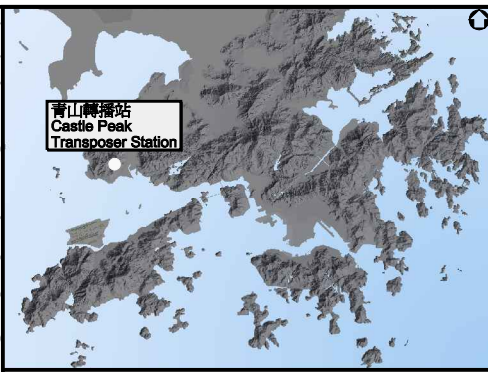
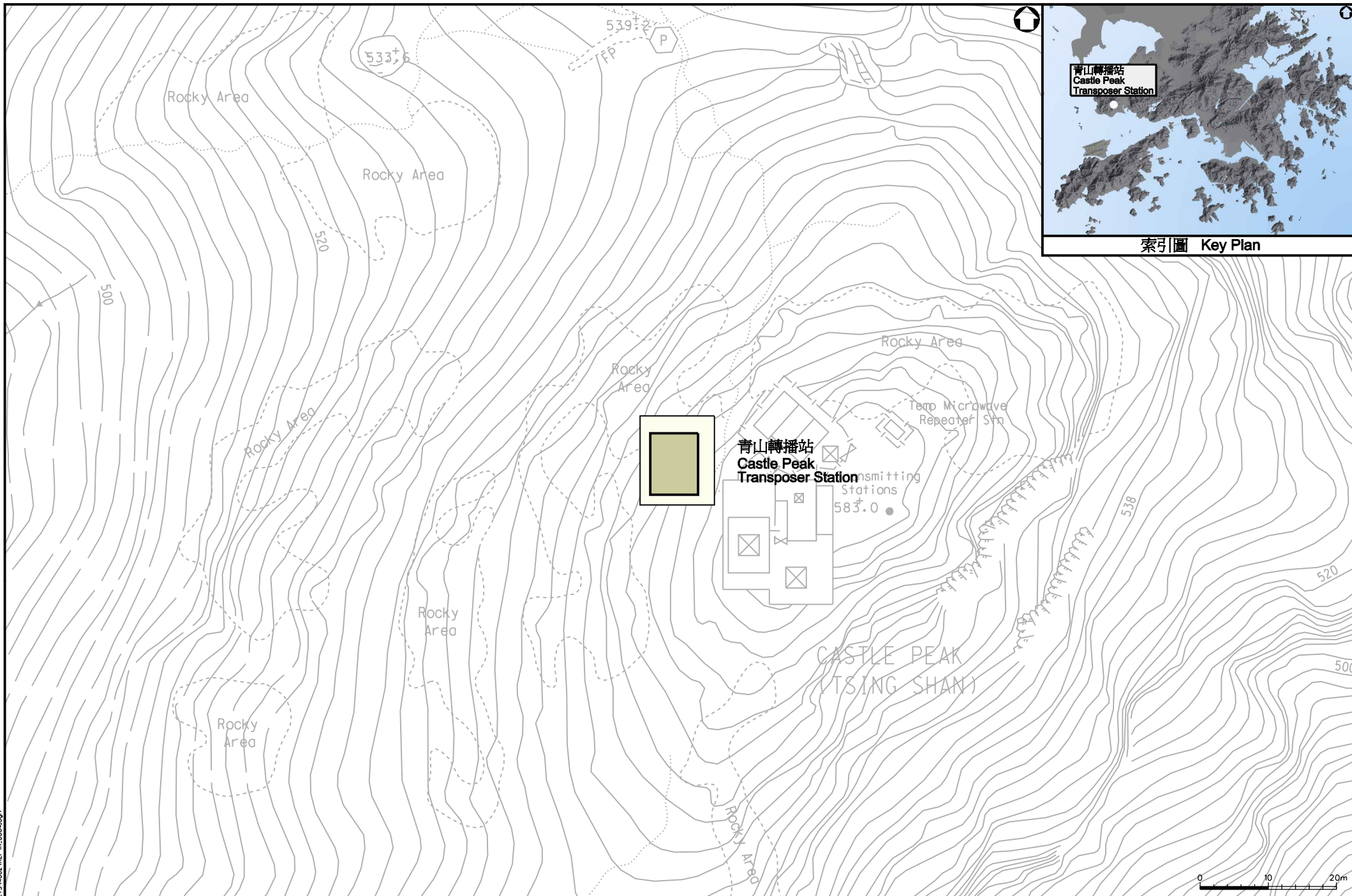
6. CONCLUSION

The environmental impacts expected from the four transposer stations expansion are considered to be minor. With the implementation of the recommended mitigation measures, no adverse residual environmental impacts are anticipated.

As impacts are not expected to be adverse and with the mitigation measures proposed, the requirements of the Technical Memorandum on Environmental Impact Assessment Process will be achieved and complied with in full. As such, TVB is applying directly for an Environmental Permit under Section 5(11) of the EIAO.

REFERENCES

- AFCD Register of Special Areas and Site of Special Scientific Interest
- EPD (2002) Terrestrial Habitat Mapping and Ranking Based on Conservation Value
- Hong Kong Herbarium (2003) Rare and Precious Plants of Hong Kong



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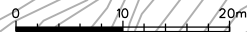
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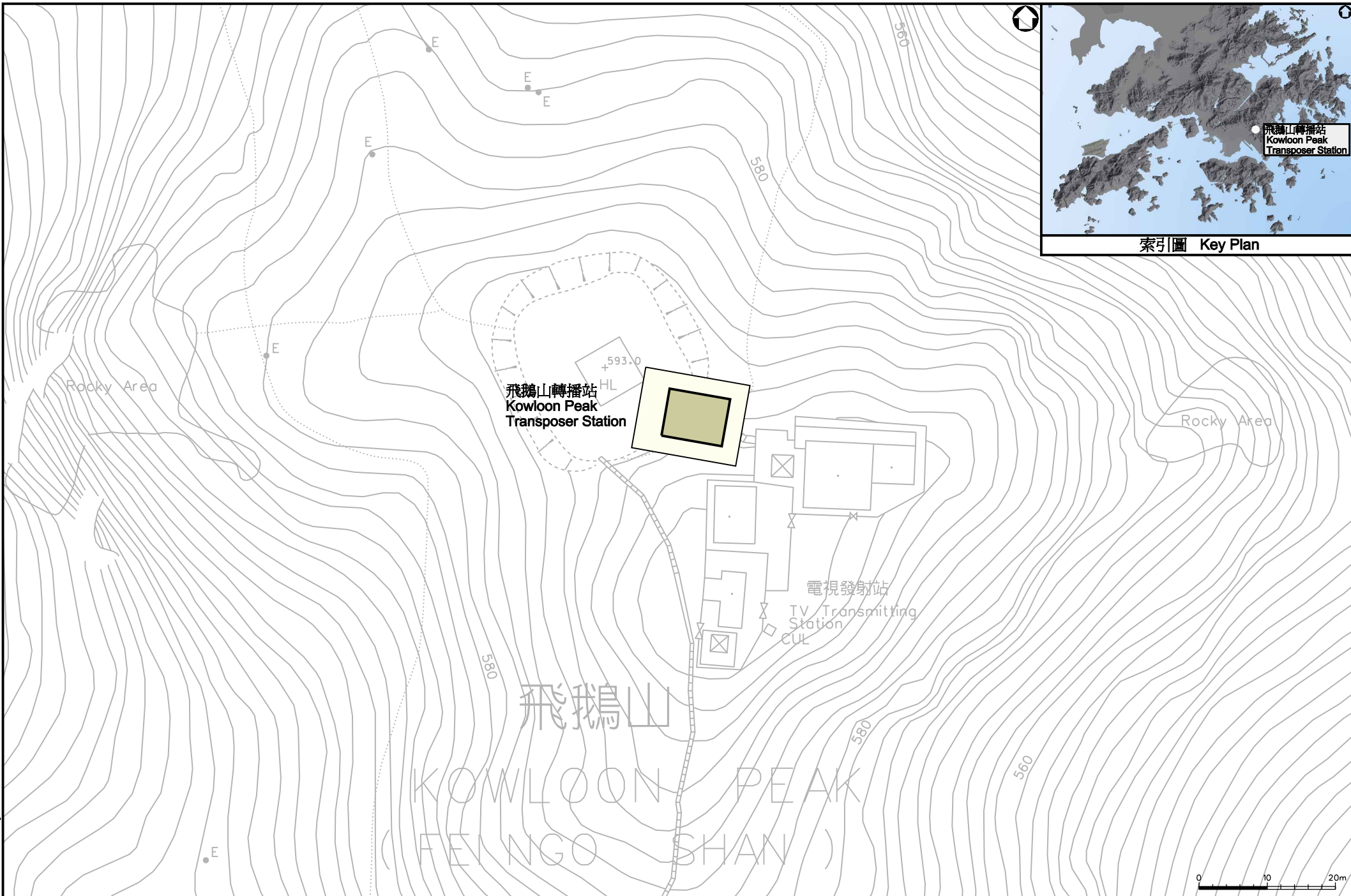

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青山、飛鵝山、九龍坑山及南丫島山頂轉播站擴建工程
 Hill-Top Transposer Station Expansion at
 Castle Peak, Kowloon Peak, Cloudy Hill and Lamma Island

Title: 工地位置 - 青山
 Site Location - Castle Peak
 Date: 10-2006
 Figure: Figure 1.1 圖 1.1





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青山、飛鵝山、九龍坑山及南丫島山頂轉播站擴建工程
Hill-Top Transposer Station Expansion at
Castle Peak, Kowloon Peak, Cloudy Hill and Lamma Island

Title:

工地位置 - 飛鵝山
Site Location - Kowloon Peak

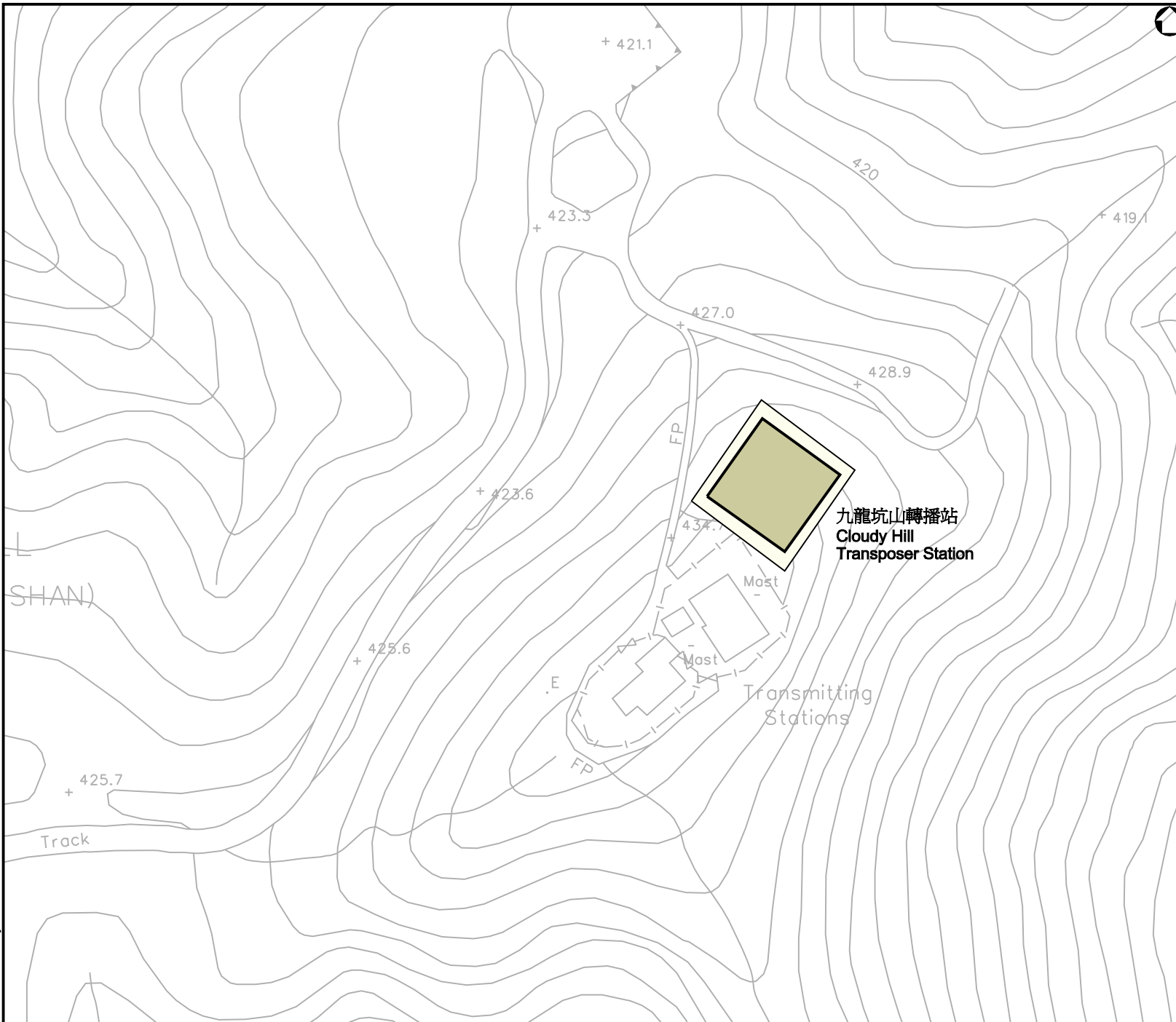
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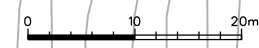
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Figure 1.2

圖 1.2



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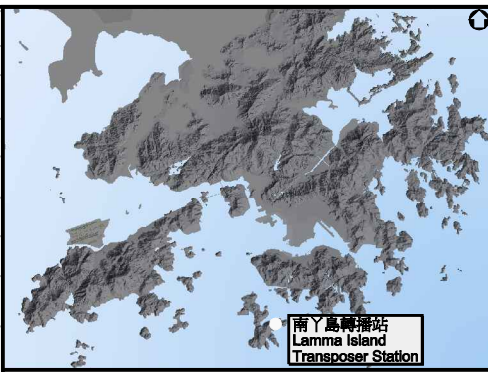
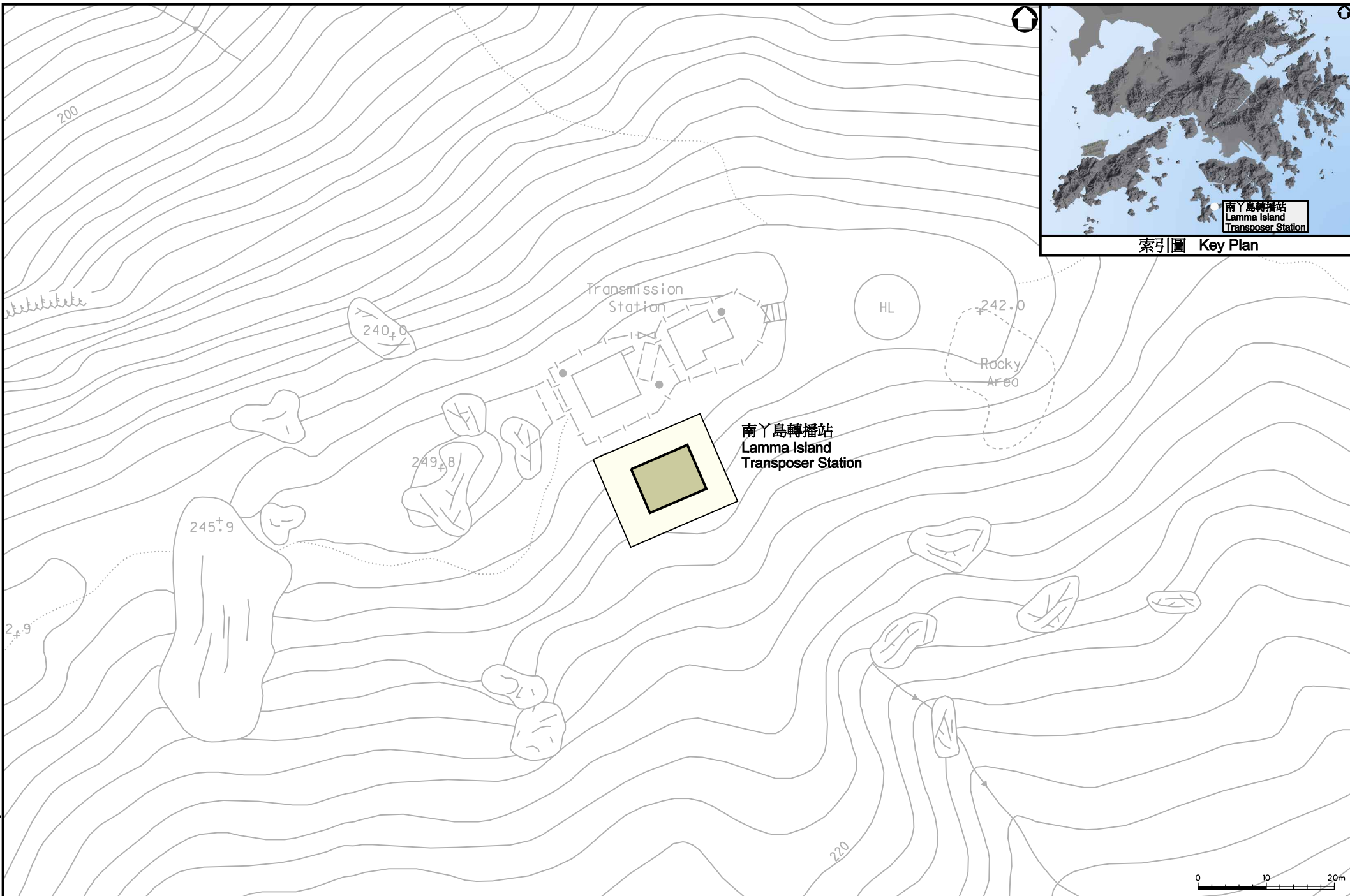

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 Hill-Top Transposer Station Expansion at
 Castle Peak, Kowloon Peak, Cloudy Hill and Lamma Island

Title: 工地位置 - 九龍坑山
 Site Location - Cloudy Hill
 Date: 10-2006

Figure: Figure 1.3 圖 1.3



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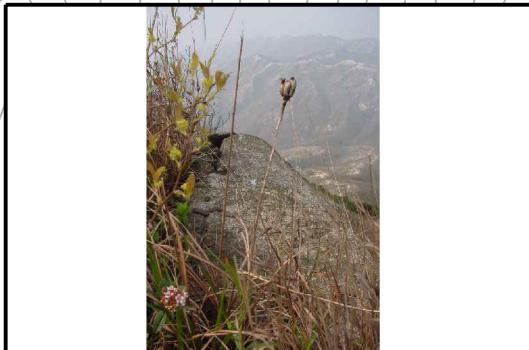
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 Hill-Top Transposer Station Expansion at
 Castle Peak, Kowloon Peak, Cloudy Hill and Lamma Island

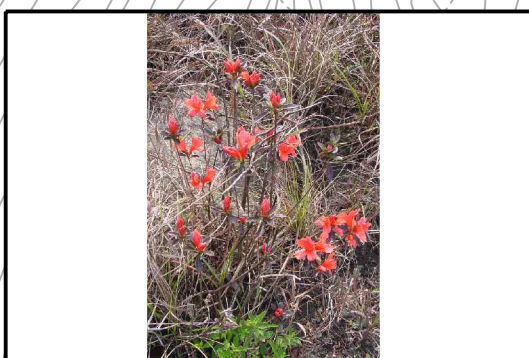
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 Site Location - Lamma Island
 Date: 10-2006
 Figure: Figure 1.4 圖 1.4



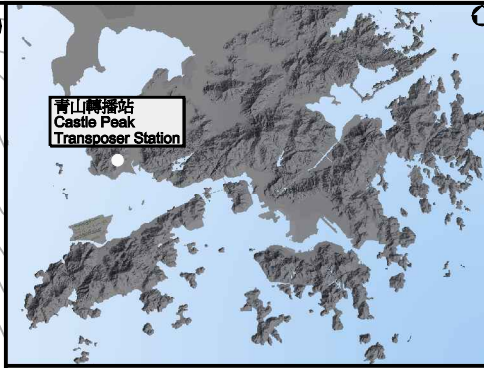
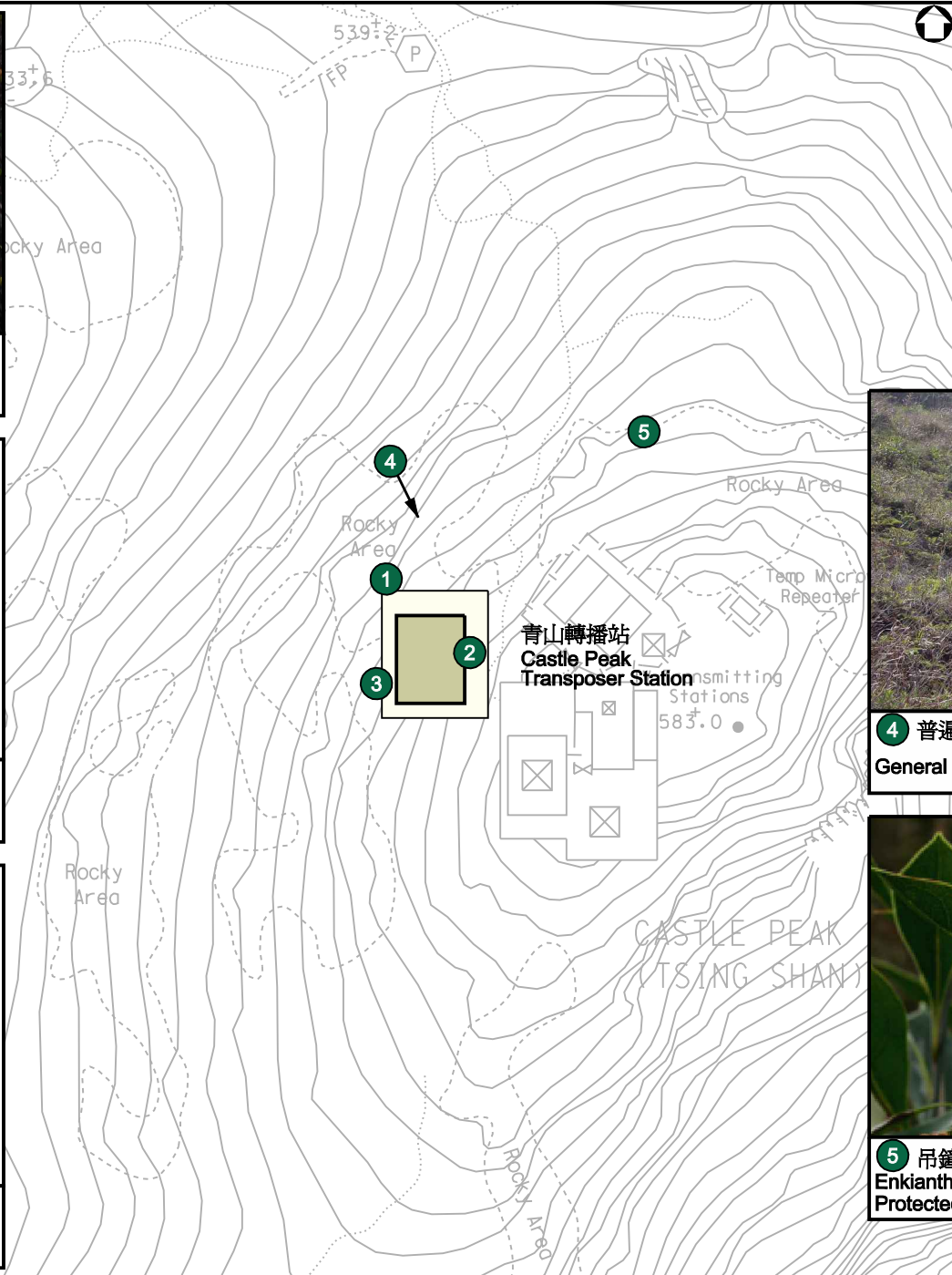
1 華麗杜鵑是受林務規例保護的
Rhododendron farrerae.
 Protected under the Forestry Regulations



2 淡紫百合的種籽孢是受林務規例保護的
Lilium brownii seed capsule.
 Protected under the Forestry Regulations



3 紅杜鵑是受林務規例保護的
Rhododendron simsii.
 Protected under the Forestry Regulations



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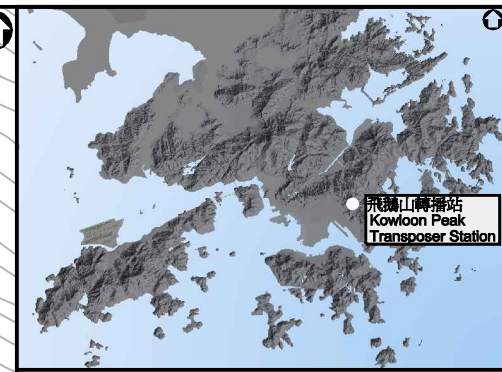


4 普遍的生境是草地和零散的灌木
 General Habitat - Grass/Patchy scrub.



5 吊鐘是受林務規例保護的
Enkianthus quinqueflorus
 Protected under the Forestry Regulations

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1 華麗杜鵑、紅杜鵑和其他植物品種均是受林務規例保護的
 Rhododendron farrerae, Rhododendron simsii and other plant species.
 Protected under the Forestry Regulation



2 草地與零散的矮灌木
 Grassland with scattered short scrub

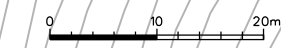


3 淡紫百合是受林務規例保護的
 Lilium brownii.
 Protected under the Forestry Regulation.

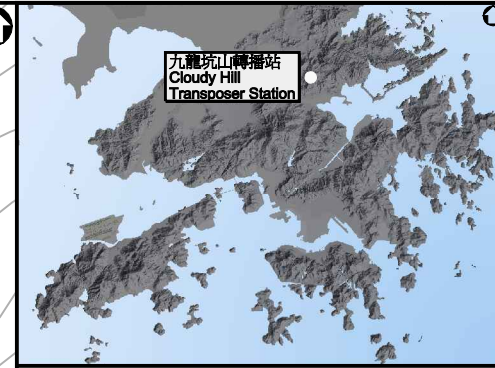
飛鵝山
 KOWLOON PEAK
 (FEINGO SHAN)

飛鵝山轉播站
 Kowloon Peak
 Transposer Station

電視發射站
 TV Transmitting
 Station
 CUL



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九龍坑山轉播站
Cloudy Hill
Transposer Station

索引圖 Key Plan



1 初生的淡紫百合是受林務規例保護的
Young growth of Lillium brownii.
Protected under the Forestry Regulation



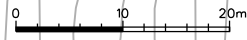
九龍坑山轉播站
Cloudy Hill
Transposer Station



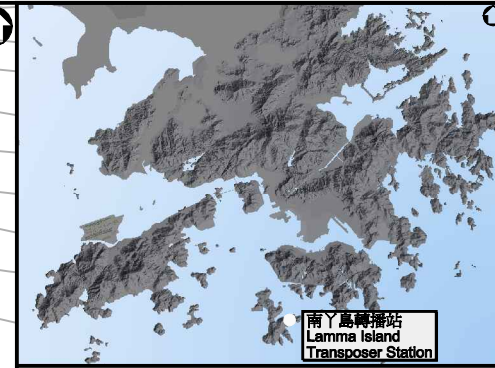
2 由工地望向東北方見到一片最近燒焦了的草地
Recently burned grassland on site location
looking NE



3 轉播站位置處於一片最近燒焦了的灌木/草地
Location of Transposer Station on recently burnt
scrub/grass looking West.



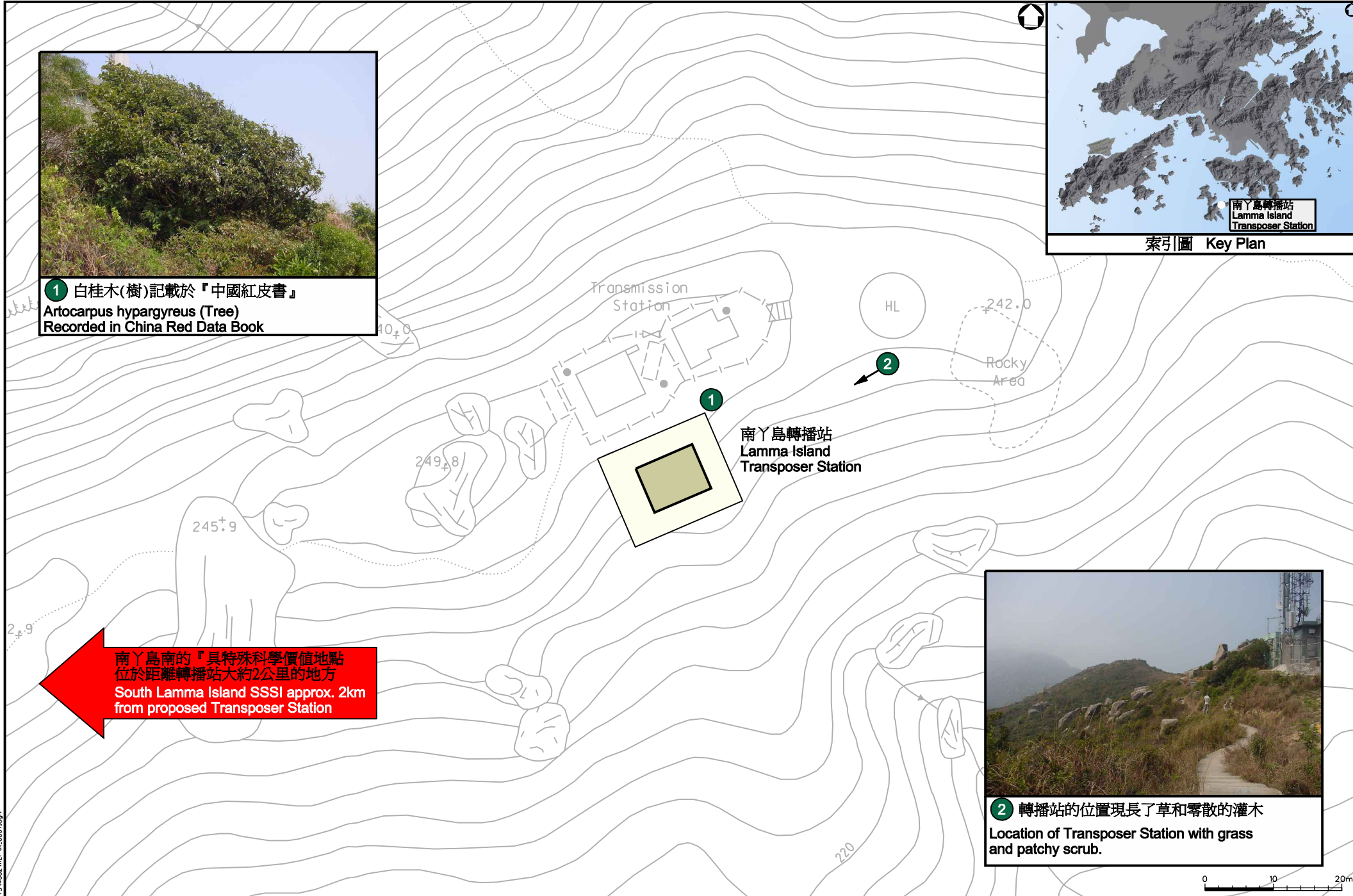
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索引圖 Key Plan



1 白桂木(樹)記載於『中國紅皮書』
 Artocarpus hypargyreus (Tree)
 Recorded in China Red Data Book

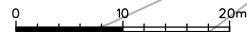


南丫島轉播站
 Lamma Island
 Transposer Station

南丫島南的『具特殊科學價值地點』
 位於距離轉播站大約2公里的地方
 South Lamma Island SSSI approx. 2km
 from proposed Transposer Station



2 轉播站的位置現長了草和零散的灌木
 Location of Transposer Station with grass
 and patchy scrub.



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Sampling Period (抽樣日期)

Mar-2006 (2006年3月)

Location (地點)

Castle Peak (青山)

HK Grid Ref. (香港地圖格網座標)

N827700 E813230

生長型 (Growth Form)	植物品種 (Plant Species)	備註 (Remarks)
T	羅浮柿 (<i>Diospyros morrisiana</i>)	
T	粗葉榕 / 牛奶仔 (<i>Ficus hirta</i>)	
T	天料木 (<i>Homalium cochinchinensis</i>)	
T	老鼠刺 (<i>Itea chinensis</i>)	
T	越南葉下珠 / 鐵包金 (<i>Phyllanthus cochinchinensis</i>)	
T	木蠟樹 / 野漆樹 (<i>Rhus succedanea</i>)	
S	水團花 (<i>Adina pilulifera</i>)	
S	白舌紫菀 (<i>Aster baccharoides</i>)	
S	黑面神 / 鬼畫符 (<i>Breynia fruticosa</i>)	
S	吊鐘 (<i>Enkianthus quinqueflorus</i>) *	分別找到3株 (3 individuals)
S	中華衛矛 / 華衛矛 (<i>Euonymus nitidus</i>)	
S	變葉榕 / 山榕 (<i>Ficus variolosa</i>)	
S	毛果算盤子 / 漆大姑 (<i>Glochidion eriocarpum</i>)	
S	金草 / 方骨草 (<i>Hedyotis acutangula</i>)	
S	山芝麻 (<i>Helicteres angustifolia</i>)	
S	梅葉冬青 (<i>Ilex asprella</i>)	
S	毛冬青 (<i>Ilex pubescens</i>)	
S	豹皮樟 / 圓葉豹皮樟 (<i>Litsea rotundifolia</i>)	
S	毛荳 (<i>Melastoma sanguineum</i>)	
S	密花樹 (<i>Myrsine seguinii</i>)	
S	刺葵 (<i>Phoenix hanceana</i>)	
S	石斑木 / 車輪梅 / 春花 (<i>Rhaphiolepis indica</i>)	
S	華麗杜鵑 (<i>Rhododendron farrerae</i>) *	>30株、不同大小散落分佈於項目發展區及鄰近範圍 (>30 and in various sizes, scattered in the proposed development area and the surrounding)
S	紅杜鵑 (<i>Rhododendron simsii</i>) *	>30株、不同大小散落分佈於項目發展區及鄰近範圍 (>30 and in various sizes, scattered in the proposed development area and the surrounding)
S	桃金娘 / 崗稔 (<i>Rhodomyrtus tomentosa</i>)	
H	扇葉鐵線蕨 (<i>Adiantum flabellulatum</i>)	
H	刺芒野古草 (<i>Arundinella setosa</i>)	
H	婆婆針 (<i>Bidens bipinnata</i>)	
H	烏毛蕨 (<i>Blechnum orientale</i>)	
H	積雪草 / 崩大碗 (<i>Centella asiatica</i>)	
H	香茅類植物 (<i>Cymbopogon</i> sp.)	
H	山菅蘭 (<i>Dianella ensifolia</i>)	
H	芒萁 (<i>Dicranopteris pedata</i>)	
H	多毛畫眉草 / 疏毛畫眉草 (<i>Eragrostis pilosissima</i>)	
H	華南龍膽 (<i>Gentiana loureirii</i>)	
H	細毛鴨嘴草 (<i>Ischaemum indicum</i>)	
H	山苦蕒 (<i>Ixeris chinensis</i>)	
H	野百合 / 淡紫百合 (<i>Lilium brownii</i>) *	~20株散落分佈於項目發展區上方 (~20 scattered in the upper part of the proposed development area)
H	劍葉鱗始蕨 / 雙唇蕨 (<i>Lindsaea ensifolia</i>)	
H	山麥冬 / 麥門冬 (<i>Liriope spicata</i>)	

生長型 (Growth Form)	植物品種 (Plant Species)	備註 (Remarks)
H	地蕊(<i>Melastoma dodecandrum</i>)	
H	芒 / 茅丁 (<i>Miscanthus sinensis</i>)	
H	酢漿草 (<i>Oxalis corniculata</i>)	
H	單葉新月蕨 (<i>Pronephrium simplex</i>)	
H	風毛菊 (<i>Saussurea japonica</i>)	
H	珍珠茅 (<i>Scleria levis</i>)	
H	韓信草 / 耳挖草 (<i>Scutellaria indica</i>)	
H	翠雲草 (<i>Selaginella uncinata</i>)	
H	蔓莖菜 (<i>Viola diffusa</i>)	
H	黃鹼菜 / 日本苦蕒菜 (<i>Youngia japonica</i>)	
C	天門冬 (<i>Asparagus cochinchinensis</i>)	
C	威靈仙 (<i>Clematis chinensis</i>)	
C	酸藤子 / 酸藤果 (<i>Embelia laeta</i>)	
C	亮葉崖豆藤 / 亮葉雞血藤 (<i>Millettia nitida</i>)	
C	蔓九節 / 穿根藤 (<i>Psychotria serpens</i>)	
C	茅莓 / 草楊莓子 (<i>Rubus parvifolius</i>)	
C	繡毛莓 / 蛇泡 (<i>Rubus reflexus</i>)	
C	金剛藤 (<i>Smilax china</i>)	
C	土茯苓 (<i>Smilax glabra</i>)	
C	羊角拗 (<i>Strophanthus divaricatus</i>)	

品種總數 (Total Number of Species):

60

稀有或受保護植物數量 (Number of Rare or Protected Plants): 4

T 喬木 (Tree)

S 灌木 (Shrub)

H 草本植物 (Herb)

C 攀緣植物 (Climber / Creeper)

* 於香港受林務規例(附屬法例第96章)之保護 (Protected in Hong Kong under the Forestry Regulation (Cap. 96 sub. Leg.))

Sampling Period (抽樣日期) Mar-2006 (2006年3月)
 Location (地點) Kowloon Peak (飛鵝山)
 HK Grid Ref. (香港地圖格網座標) N822424 E841053

生長型 (Growth Form)	植物品種 (Plant Species)	備註 (Remarks)
T	銀柴 (<i>Aporosa dioica</i>)	
T	木薑子 / 山蒼樹 (<i>Litsea cubeba</i>)	
S	白花鬼針草 (<i>Bidens alba</i>)	
S	鬼針草 (<i>Bidens pilosa</i>)	
S	綠冬青 / 亮葉冬青 (<i>Ilex viridis</i>)	
S	雪白馬纓丹 / 如意草 (<i>Lantana camara</i>)	
S	野牡丹 (<i>Melastoma candidum</i>)	
S	密花樹 (<i>Myrsine seguinii</i>)	
S	九節 (<i>Psychotria rubra</i>)	
S	華麗杜鵑 (<i>Rhododendron farrerae</i>)*	~ 3-5 小株散落分佈於東部 (~3-5 small-sized individuals scattered on the eastern part of the site)
S	紅杜鵑 (<i>Rhododendron simsii</i>) *	~ 3-5 小株散落分佈於東部 (~3-5 small-sized individuals scattered on the eastern part of the site)
S	紅雀梅藤 (<i>Sageretia lucida</i>)	
H	水蘆草 (<i>Apluda mutica</i>)	
H	長葉鐵角蕨 (<i>Asplenium prolongatum</i>)	
H	薹草類植物 (<i>Carex</i> sp.)	
H	積雪草 / 崩大碗 (<i>Centella asiatica</i>)	
H	薊 (<i>Cirsium japonica</i>)	
H	大葉仙茅 (<i>Curculigo capitulata</i>)	
H	芒萁 (<i>Dicranopteris pedata</i>)	
H	地膽草 (<i>Elephantopus scaber</i>)	
H	金茅類植物 (<i>Eulalia</i> sp.)	
H	蜈蚣草 (<i>Pteris vittata</i>)	
H	山苦蕒 (<i>Ixeris chinensis</i>)	
H	六棱菊 / 鹿耳苓 (<i>Laggera alata</i>)	
H	野百合 / 淡紫百合 (<i>Lilium brownii</i>) *	<10株分別散落分佈於東部 (<10 individuals scattered on the eastern side of the site)
H	芒 / 茅丁 (<i>Miscanthus sinensis</i>)	
H	紫萁 (<i>Osmunda japonica</i>)	
H	車前草 (<i>Plantago major</i>)	
H	莧買菜 (<i>Sonchus arvensis</i>)	
H	鼠尾粟 (<i>Sporobolus indicus</i> var <i>major</i>)	
C	糯米團 / 蔓苧麻 (<i>Gonostegia hirta</i>)	
C	地蔞 (<i>Melastoma dodecandrum</i>)	
C	火炭母 / 五毒草 (<i>Polygonum chinense</i>)	
C	蔓九節 / 穿根藤 (<i>Psychotria serpens</i>)	
C	茅莓 / 草楊莓子 (<i>Rubus parvifolius</i>)	
C	鋪毛莓 (<i>Rubus reflexus</i>)	
C	暗色菝 (<i>Smilax lanceifolia</i> var. <i>opaca</i>)	
C	山黧蘘菊 (<i>Wedelia wallichii</i>)	

品種總數 (Total Number of Species):

38

稀有或受保護植物數量 (Number of Rare or Protected Plants): 3

- T 喬木 (Tree)
 S 灌木 (Shrub)
 H 草本植物 (Herb)
 C 攀緣植物 (Climber / Creeper)
 * 於香港受林務規例(附屬法例第96章)之保護 (Protected in Hong Kong under the Forestry Regulation (Cap. 96 sub. Leg.))

Sampling Period (抽樣日期) Mar-2006 (2006年3月)
 Location (地點) Cloudy Hill (坑山)
 HK Grid Ref. (香港地圖格網座標) N837384 E835639

生長型 (Growth Form)	植物品種 (Plant Species)	備註 (Remarks)
T	牛耳楓 (<i>Daphniphyllum calycinum</i>)	
T	大頭茶 (<i>Gordonia axillaris</i>)	
T	老鼠刺 (<i>Itea chinensis</i>)	
T	潺槁樹 (<i>Litsea glutinosa</i>)	
T	浙江潤楠 / 長序潤楠 (<i>Machilus chekiangensis</i>)	
T	鴨腳木 (<i>Schefflera octophylla</i>)	
T	筋櫟花椒 / 筋櫟 (<i>Zanthoxylum avicennae</i>)	
S	白舌紫菀 (<i>Aster baccharoides</i>)	
S	黑面神 / 鬼畫符 (<i>Breynia fruticosa</i>)	
S	白花燈籠 / 鬼燈籠 (<i>Clerodendrum fortunatum</i>)	
S	椴木 (<i>Eurya japonica</i>)	
S	變葉榕 / 山榕 (<i>Ficus variolosa</i>)	
S	毛荃 (<i>Melastoma sanguineum</i>)	
S	密菜蕒 / 三椏苦 (<i>Melicope pteleifolia</i>)	
S	刺葵 (<i>Phoenix hanceana</i>)	
S	九節 (<i>Psychotria rubra</i>)	
S	石斑木 / 車輪梅 / 春花 (<i>Rhaphiolepis indica</i>)	
S	桃金娘 / 崗稔 (<i>Rhodomyrtus tomentosa</i>)	
S	草珊瑚 / 雞爪蘭 / 九節楓 (<i>Sarcandra glabra</i>)	
S	了哥王 / 山雁皮 (<i>Wikstroemia indica</i>)	
H	芒萁 (<i>Dicranopteris pedata</i>)	
H	絲茅 (<i>Imperata koenigii</i>)	
H	羊耳菊 / 白牛膽 (<i>Inula cappa</i>)	
H	野百合 / 淡紫百合 (<i>Lilium brownii</i>) *	~10株散落分佈於項目發展區上方 (~10 scattered in the upper part of the proposed development area)
H	劍葉鱗始蕨 / 雙唇蕨 (<i>Lindsaea ensifolia</i>)	
H	小葉海金沙 / 石韋藤 (<i>Lygodium scandens</i>)	
H	地荃 (<i>Melastoma dodecandrum</i>)	
H	芒 / 茅丁 (<i>Miscanthus sinensis</i>)	
H	酢漿草 (<i>Oxalis corniculata</i>)	
H	一支黃花 (<i>Solidago decurrens</i>)	
C	寄生藤 (<i>Dendrotrophe frutescens</i>)	
C	酸藤子 / 酸藤果 (<i>Embelia laeta</i>)	
C	白花酸藤子 (<i>Embelia ribes</i>)	
C	多花勾兒茶 / 勾兒茶 (<i>Berchemia floribunda</i>)	
C	五爪金龍 (<i>Ipomoea cairica</i>)	
C	忍冬 / 金銀花 (<i>Lonicera japonica</i>)	
C	海金沙, 羅網藤 (<i>Lygodium japonicum</i>)	
C	薇甘菊 (<i>Mikania micrantha</i>)	
C	蔓九節 / 穿根藤 (<i>Psychotria serpens</i>)	
C	鋪毛莓 (<i>Rubus reflexus</i>)	
C	千里光 (<i>Senecio scandens</i>)	
C	金剛藤 (<i>Smilax china</i>)	
C	土茯苓 (<i>Smilax glabra</i>)	

品種總數 (Total Number of Species): 43

稀有或受保護植物數量 (Number of Rare or Protected Plants): 1

- T 喬木 (Tree)
- S 灌木 (Shrub)
- H 草本植物 (Herb)
- C 攀緣植物 (Climber / Creeper)
- * 於香港受林務規例(附屬法例第96章)之保護 (Protected in Hong Kong under the Forestry Regulation (Cap. 96 sub. Leg.))

Sampling Period (抽樣日期)

Mar-2006 (2006年3月)

Location (地點)

Lamma Island (南丫島)

HK Grid Ref. (香港地圖格網座標)

N807395 E832299

生長型 (Growth Form)	植物品種 (Plant Species)	備註 (Remarks)
T	臺灣相思 (<i>Acacia confusa</i>)	
T	白桂木 (<i>Artocarpus hypargyreus</i>) [^]	一棵樹及一株種苗在項目發展區的東北角被發現 (One tree and one sapling on the north east corner of the proposed development area)
T	大頭茶 (<i>Gordonia axillaris</i>)	
T	天料木 (<i>Homalium cochinchinensis</i>)	
T	老鼠刺 (<i>Itea chinensis</i>)	
T	潺槁樹 (<i>Litsea glutinosa</i>)	
T	血桐 (<i>Macaranga tanarius</i>)	
T	越南葉下珠 / 鐵包金 (<i>Phyllanthus cochinchinensis</i>)	
T	木蠟樹 / 野漆樹 (<i>Rhus succedanea</i>)	
T	鴨腳木 (<i>Schefflera octophylla</i>)	
T	革葉鐵欖 / 鐵欖 (<i>Sinosideroxylon wightianum</i>)	
T	筋樺花椒 / 筋樺 (<i>Zanthoxylum avicennae</i>)	
S	白舌紫菀 (<i>Aster baccharoides</i>)	
S	黑面神 / 鬼畫符 (<i>Breynia fruticosa</i>)	
S	毛果巴豆 (<i>Croton lachnocarpus</i>)	
S	寄生藤 (<i>Dendrotrophe frutescens</i>)	
S	小果柿 (<i>Diospyros vaccinioides</i>)	
S	中華衛矛 / 華衛矛 (<i>Euonymus nitidus</i>)	
S	柃木 (<i>Eurya japonica</i>)	
S	變葉榕 / 山榕 (<i>Ficus variolosa</i>)	
S	金草 / 方骨草 (<i>Hedyotis acutangula</i>)	
S	梅葉冬青 (<i>Ilex asprella</i>)	
S	雪白馬纓丹 / 如意草 (<i>Lantana camara</i>)	
S	豺皮樟 / 圓葉豺皮樟 (<i>Litsea rotundifolia</i>)	
S	毛茛 (<i>Melastoma sanguineum</i>)	
S	玉葉金花 (<i>Mussaenda pubescens</i>)	
S	九節 (<i>Psychotria rubra</i>)	
S	石斑木 / 車輪梅 / 春花 (<i>Raphiolepis indica</i>)	
S	桃金娘 / 崗稔 (<i>Rhodomyrtus tomentosa</i>)	
S	酒餅籐 (<i>Severinia buxifolia</i>)	
S	了哥王 / 山雁皮 (<i>Wikstroemia indica</i>)	
H	扇葉鐵線蕨 (<i>Adiantum flabellulatum</i>)	
H	刺芒野古草 (<i>Arundinella setosa</i>)	
H	長葉鐵角蕨 (<i>Asplenium prolongatum</i>)	
H	香茅類植物 (<i>Cymbopogon</i> sp.)	
H	山菅蘭 (<i>Dianella ensifolia</i>)	
H	芒萁 (<i>Dicranopteris pedata</i>)	
H	鴨嘴草 (<i>Ischaemum aristatum</i> var. <i>glaucum</i>)	
H	芒 / 茅丁 (<i>Miscanthus sinensis</i>)	
H	類蘆 / 石珍茅 (<i>Neyraudia reynaudiana</i>)	
H	珍珠茅 (<i>Scleria levis</i>)	
H	高桿珍珠茅 (<i>Scleria terrestris</i>)	
H	黃鹼菜 / 日本苦蕒菜 (<i>Youngia japonica</i>)	
C	無根藤 (<i>Cassytha filiformis</i>)	
C	青江藤 (<i>Celastrus hindsii</i>)	
C	威靈仙 (<i>Clematis chinensis</i>)	
C	酸藤子 / 酸藤果 (<i>Embelia laeta</i>)	
C	忍冬 / 金銀花 (<i>Lonicera japonica</i>)	
C	亮葉崖豆藤 / 亮葉雞血藤 (<i>Millettia nitida</i>)	
C	羊角藤 / 雞眼藤 (<i>Morinda umbellata</i>)	
C	土茯苓 / 光葉菝 (<i>Smilax glabra</i>)	
C	暗色菝 (<i>Smilax lanceifolia</i> var. <i>opaca</i>)	

生長型 (Growth Form)	植物品種 (Plant Species)	備註 (Remarks)
C	羊角拗 (<i>Strophanthus divaricatus</i>)	
C	牛眼馬錢 / 狹花馬錢 (<i>Strychnos angustiflora</i>)	
C	錫葉藤 (<i>Tetracera asiatica</i>)	
C	山鱗瑛菊 (<i>Wedelia wallichii</i>)	

品種總數 (Total Number of Species): 56

稀有或受保護植物數量 (Number of Rare or Protected Planted): 1

T 喬木 (Tree)

S 灌木 (Shrub)

H 草本植物 (Herb)

C 攀緣植物 (Climber / Creeper)

^ 已列入《中國植物紅皮書》和《廣東省珍稀瀕危植物圖譜》 (Recorded in China Red Data Book and Illustration of Rare & Endangered Plants in Guangdong Province)

學名 (Scientific Name)	分佈 (Distribution)	受保護程度 (Protection Status)	2004 世界自然保護聯盟瀕危物種《紅皮書》 (2004 IUCN Red List)
桔梗 <i>Platycodon grandiflorus</i>	香港島、青山及浪茄 亦見於中國東、南、西南、東北及中部等地區 (a) (Hong Kong Island, Castle Peak and Long Ke. Internationally it is found S, E, SW, C to NE China (a))	林務規例(附屬法例第96章) (Forestry Regulation (Cap. 96 sub. Leg.))	不適用 (N/A)
華麗杜鵑 <i>Rhododendron farrerae</i>	重慶、福建、廣東、廣西、湖南、江西 (b) (Chongqing, Fujian, Guangdong, Guangxi, Hunan, Jiangxi (b))	林務規例(附屬法例第96章) (Forestry Regulation (Cap. 96 sub. Leg.))	不適用 (N/A)
紅杜鵑 <i>Rhododendron simsii</i>	安徽、福建、廣東、廣西、貴州、湖北、湖南、江蘇、江西、四川、台灣、雲南、浙江 [日本、寮國(老撾)、緬甸、泰國] (b) (Anhui, Fujian, Guangdong, Guangxi, Guizhou, Hubei, Hunan, Jiangsu, Jiangxi, Sichuan, Taiwan, Yunnan, Zhejiang [Japan, Laos, Myanmar, Thailand] (b))	林務規例(附屬法例第96章) (Forestry Regulation (Cap. 96 sub. Leg.))	不適用 (N/A)
野百合 <i>Lilium brownii</i>	安徽、福建、甘肅、廣東、廣西、貴州、河北、河南、湖北、湖南、江蘇、江西、山西、四川、雲南、浙江 (b) (Anhui, Fujian, Gansu, Guangdong, Guangxi, Guizhou, Hebei, Henan, Hubei, Hunan, Jiangsu, Jiangxi, Shanxi, Sichuan, Yunnan, Zhejiang (b))	林務規例(附屬法例第96章) (Forestry Regulation (Cap. 96 sub. Leg.))	不適用 (N/A)
白桂木 <i>Artocarpus hypargyreus</i>	常綠闊葉森林；100-1700 米。福建、廣東、廣西、海南、湖南南部、江西、雲南東南部 (Broad-leaved evergreen forests; 100-1700m. Fujian, Guangdong, Guangxi, Hainan, S. Hunan, Jiangxi, SE Yunnan).	不適用 (N/A)	已列入 (Yes)

(a) 香港植物標本室《香港稀有及珍貴植物》(Rare and Precious Plants of Hong Kong, Hong Kong Herbarium).

(b) *Flora of China*

青山、飛鵝山、坑山及南丫島山頂轉播站擴建工程
 (Hill-top Transposer Stations Expansion at Castle Peak, Kowloon Peak, Cloudy Hill and Lamma Island)

景觀影響幅度臨界值(SIGNIFICANCE THRESHOLD OF LANDSCAPE IMPACT)				
轉變幅度 (MAGNITUDE OF CHANGE)	對改變的敏感度 (SENSITIVITY TO CHANGE)			
		低 (LOW)	中 (MEDIUM)	高 (HIGH)
	高 (HIGH)	中等影響 (MODERATE IMPACT)	中等 / 顯著影響 (MODERATE / SIGNIFICANT IMPACT)	顯著影響 (SIGNIFICANT IMPACT)
	中 (MEDIUM)	輕微 / 中等影響 (SLIGHT / MODERATE IMPACT)	中等影響 (MODERATE IMPACT)	中等 / 顯著影響 (MODERATE / SIGNIFICANT IMPACT)
	低 (LOW)	輕微影響 (SLIGHT IMPACT)	輕微 / 中等影響 (SLIGHT / MODERATE IMPACT)	中等影響 (MODERATE IMPACT)
	可忽略 (NEGLIGIBLE)	可忽略 (NEGLIGIBLE)	可忽略 (NEGLIGIBLE)	可忽略 (NEGLIGIBLE)

對景觀的負面/良性影響 (ADVERSE / BENEFICIAL IMPACT OF LANDSCAPE IMPACT)			
顯著 (SIGNIFICANT)	中等 (MODERATE)	輕微 (SLIGHT)	可忽略 (NEGLIGIBLE)
由於工程顯著地惡化或改善基線景觀狀況而帶來的負面或良性影響。 (ADVERSE / BENEFICIAL IMPACT WHERE THE PROPOSAL WOULD CAUSE SIGNIFICANT DEGRADATION OR IMPROVEMENT IN EXISTING LANDSCAPE BASELINE CONDITIONS.)	由於工程明顯地惡化或改善基線景觀狀況而帶來的負面或良性影響。 (ADVERSE / BENEFICIAL IMPACT WHERE THE PROPOSAL WOULD CAUSE NOTICEABLE DEGRADATION OR IMPROVEMENT IN EXISTING LANDSCAPE BASELINE CONDITIONS.)	由於工程僅僅明顯地惡化或改善基線景觀狀況而帶來的負面/中性/良性影響; 或由工程引起的改變將在景觀上並不明顯。 (ADVERSE / NEUTRAL / BENEFICIAL IMPACT WHERE THE PROPOSAL WOULD CAUSE A BARELY PERCEPTIBLE DEGRADATION OR IMPROVEMENT IN EXISTING LANDSCAPE CONDITIONS OR WHERE THE CHANGES BROUGHT ABOUT BY THE PROJECT WOULD NOT BE APPRAENT IN VISUAL TERMS)	有明顯的轉變, 但並不構成任何負面或是良性的影響。 (CHANGE IS NOTICEABLE BUT DEEMED TO BE NEITHER ADVERSE NOR BENEFICIAL)

青山、飛鵝山、坑山及南丫島 山頂轉播站擴建工程

(Hill-top Transposer Stations Expansion at Castle Peak, Kowloon Peak, Cloudy Hill and Lamma Island)

對覺影響幅度臨界值(SIGNIFICANCE THRESHOLD OF VISUAL IMPACT)				
轉變幅度 (MAGNITUDE OF CHANGE)	對改變的敏感度及視覺侵擾 (SENSITIVITY TO CHANGE AND VISUAL INTRUSION)			
		低 (LOW)	中 (MEDIUM)	高 (HIGH)
	高 (HIGH)	中等影響 (MODERATE IMPACT)	中等 / 顯著影響 (MODERATE / SIGNIFICANT)	顯著影響 (SIGNIFICANT IMPACT)
	中 (MEDIUM)	輕微 / 中等影響 (SLIGHT / MODERATE IMPACT)	中等影響 (MODERATE IMPACT)	中等 / 顯著影響 (MODERATE / SIGNIFICANT IMPACT)
	低 (LOW)	輕微影響 (SLIGHT IMPACT)	輕微 / 中等影響 (SLIGHT / MODERATE IMPACT)	中等影響 (MODERATE IMPACT)
	輕微 (NEGLIGIBLE)	可忽略 (NEGLIGIBLE)	可忽略 (NEGLIGIBLE)	可忽略 (NEGLIGIBLE)

對視覺影響的負面/良性影響 (ADVERSE / BENEFICIAL IMPACT OF VISUAL IMPACT)			
顯著 (SIGNIFICANT)	中等 (MODERATE)	輕微 (SLIGHT)	可忽略 (NEGLIGIBLE)
由於工程顯著地惡化或改善基線視覺狀況而帶來的負面或良性影響。 (ADVERSE / BENEFICIAL IMPACT WHERE THE PROPOSAL WOULD CAUSE SIGNIFICANT DEGRADATION OR IMPROVEMENT IN EXISTING VISUAL BASELINE CONDITIONS.)	由於工程明顯地惡化或改善基線視覺狀況而帶來的負面或良性影響。 (ADVERSE / BENEFICIAL IMPACT WHERE THE PROPOSAL WOULD CAUSE NOTICEABLE DEGRADATION OR IMPROVEMENT IN EXISTING VISUAL BASELINE CONDITIONS.)	由於工程僅僅明顯地惡化或改善基線視覺狀況而帶來的負面/中性/良性影響; 或由工程引起的改變將在視覺上並不明顯。 (ADVERSE / NEUTRAL / BENEFICIAL IMPACT WHERE THE PROPOSAL WOULD CAUSE A BARELY PERCEPTIBLE DEGRADATION OR IMPROVEMENT IN EXISTING LANDSCAPE CONDITIONS OR WHERE THE CHANGES BROUGHT ABOUT BY THE PROJECT WOULD NOT BE APPRAENT IN VISUAL TERMS).	有明顯的轉變, 但並不構成任何負面或是良性的影響。 (CHANGE IS NOTICEABLE BUT DEEMED TO BE NEITHER ADVERSE NOR BENEFICIAL)