



**Civil Engineering and Development Department
Geotechnical Engineering Office**

**Natural Terrain Hazard Mitigation Works
at
Study Area No. 12NW-C/SA1
Above Leung Fai Tin Along Clear Water Bay Road,
Sai Kung**

PROJECT PROFILE

February 2013

Halcrow

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1 BASIC INFORMATION

1.1 *Project Title*

Natural Terrain Hazard Mitigation Works within the Works Area at the lower portion of Study Area No. 12NW-C/SA1 (hereinafter referred to as “the Project”), located above Leung Fai Tin along Clear Water Bay Road, Sai Kung under Agreement No. CE 37/2008 (GE): Landslip Prevention and Mitigation Programme, 2008, Package J, Natural Terrain Hazard Mitigation Works, Kowloon, New Territories and Outlying Islands - Investigation, Design and Construction.

1.2 *Purpose and Nature of the Project*

Geotechnical Engineering Office (GEO) of the Civil Engineering and Development Department has identified about 2700 natural hillside catchments with a known history of landslides close to existing buildings and important transport corridors based on interpretation of large-scale historical aerial photographs. Natural hillside catchments affecting individual units of existing development are further grouped into different Study Areas designated for natural terrain hazard studies by GEO.

The natural hillside, Study Area No. 12NW-C/SA1, above Leung Fai Tin above Clear Water Bay Road in Clear Water Bay Peninsula, includes a number of hillside catchments which warrant high priority for natural terrain hazard study and mitigation actions. The location and the extent of the Study Area are shown in Figure 1, and views of the Study Area are shown in Plates 1 and 2.

The natural hillside within the Study Area has been disturbed since 1940s, and there were 3 landslides identified to have occurred on the natural hillside in 1970s. A detailed natural terrain hazard study concluded that the natural hillside within the Study Area is highly susceptible to landslide failures and the landslide debris would travel downslope and be channelised along the stream course reaching Clear Water Bay Road and the village houses at Leung Fai Tin.

Hence, natural terrain hazard mitigation works (HMW) are required at the lower portion of the Study Area (hereinafter referred to as "the Works Area") to mitigate the potential hazards arising from natural terrain open hillslope landslides, boulder falls and channelised debris flows at the Study Area affecting Clear Water Bay Road and village houses at Leung Fai Tin downhill. The proposed natural terrain hazard mitigation works (HMW) include erection of tensioned steel mesh fences (also known as flexible barrier), construction of masonry maintenance staircases and associated landscape treatments at the Works Area. The extent of the Works Area has been

carefully considered to limit the extent of proposed works, necessary working space and the site access.

1.3 *Name of Project Proponent*

The Project Proponent is the Landslip Preventive Measures Division 2 (LPM2) of the Geotechnical Engineering Office (GEO), Civil Engineering and Development Department (CEDD), the Government of the Hong Kong Special Administrative Region (HKSAR).

1.4 *Location and Scale of Project*

The proposed HMW would be constructed within the Works Area at the lower portion of the Study Area No. 12NW-C/SA1 above Clear Water Bay Road, Leung Fai Tin in Clear Water Bay Peninsula. The Works Area is located within a Conservation Area. General location of the Works Area and the approximate extent of the proposed HMW are shown in Figures 2 and 3 respectively. The detailed design of the HMW is presented in Appendix A.

Extent of the Works Area is approximately 6,000m². There will be no works or disturbance outside the Works Area. The scope of the proposed HMW includes the erection of about 250m long, 5m-6m high flexible barrier, construction of 300m long, 600mm wide masonry maintenance access with handrails, and landscaping works. The flexible barrier would be of 5m to 6m in height and would be supported by vertical and raking steel bar anchors (about 120 nos.) to be drilled and installed in ground. Landscape works including pit-planting of native light standard trees, planting of climbers and hydroseeding will also be carried out.

Table 1.1 – Summary of the Works Area:

| Location | Outline zoning plan | Extent | Scope of HMW works |
|---|--------------------------|---------------------------------|---|
| Vegetated hillside above Clear Water Bay Road, Leung Fai Tin in Clear Water Bay Peninsula | Within Conservation Area | Area approx 6,000m ² | <ul style="list-style-type: none"> • Erect flexible barrier (<i>approximately 5m-6m high, 250m long</i>) • Construct masonry maintenance access (<i>600mm wide, app. 300m long</i>) with handrails (<i>1.2m high, app. 300m long</i>) • Soft landscape works (<i>pit-planting of native light standard trees, planting of climbers and hydroseeding</i>) |

1.5 ***Number and Types of Designated Projects to be Covered by the Project Profile***

The Works Area of the Project falls within a Conservation Area under the approved Clear Water Bay Peninsula South Outline Zoning Plan No. S/SK-CWBS/2 (Figure 3) and EPD confirmed the Project is classified as a Designated Project (DP) in accordance with Item Q.1, Part 1 of Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO) on 31 October 2011 (Ref: f() in EP 1/SK/CWBR/9).

1.6 ***Name and Telephone Number of Contact Person(s)***

| | |
|-----------------|--|
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|------------------|--|

2 **OUTLINE OF PLANNING AND IMPLEMENTATION PROGRAMME**

2.1 ***Outline of Project Planning***

The Project would be delivered under Agreement No. CE37/2008 (GE) which was awarded by the Civil Engineering and Development Department (CEDD) to Halcrow China Limited (HCL) as the Engineering Consultant in February 2009. HCL is responsible for the investigation, design and supervision of the HMW for this Project. The proposed HMW would be implemented by a Contractor who would be appointed by CEDD around mid-2013.

The proposed HMW will be carried out within the Works Area (Figure 3 and Plate 2). Details of the proposed HMW design are presented in Appendix A. A sequence of the proposed HMW, comprising 3 major activities, is described in Table 2.1 below:

Table 2.1 – Sequence of Proposed HMW

| Activities | Details |
|--|--|
| Site possession and preparation | <ul style="list-style-type: none"> • site clearance • erection of hoarding |
| Construction of flexible barrier and masonry maintenance access with handrails | <ul style="list-style-type: none"> • drilling in soil and/or rock for the foundation of the tensioned steel mesh fences using percussive drilling equipment and disposal of excavated material. The approximate size of a drillhole is 0.1m in diameter. • grouting and concreting to the foundation of the fences. • erection of proprietary approx. 250m long, 5m to 6m high flexible barrier. • excavation, concreting and masonry laying to the approx. 300m long, 600mm wide maintenance access with handrails. |
| Soft landscape treatment works (i.e. planting) | <ul style="list-style-type: none"> • pit-planting of native light standard trees • planting of climbers • hydroseeding |

2.2 Tentative Project Programme

The construction period would last for 15 months. The Project is scheduled to commence in September 2013 and to be completed in November 2014. The tentative programme of the proposed HMW is illustrated in Table 2.2.

Table 2.2 – Tentative Construction Programme

| Activities (Anticipated duration) | Month | | | | | | | | | | | | | | |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| | Sep 13 | Oct 13 | Nov 13 | Dec 13 | Jan 14 | Feb 14 | Mar 14 | Apr 14 | May 14 | Jun 14 | Jul 14 | Aug 14 | Sep 14 | Oct 14 | Nov 14 |
| Mobilisation and setting up (2 months) | | | | | | | | | | | | | | | |
| Flexible barrier and masonry maintenance staircases (11 months) | | | | | | | | | | | | | | | |
| Soft landscape treatment works (2 months) | | | | | | | | | | | | | | | |

2.3 *Interactions with Other Projects*

A feasibility study for the provision of a bus lay-by at the road section below the Works Area for the Project is concurrently carried out by the Highways Department. According to the best available information to date (as of May 12), the construction works of the bus lay-by is scheduled to commence around late 2012 / early 2013 and the construction period is estimated to be 2 years.

3 **MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT**

3.1 *General*

The Project is located in Clear Water Bay Peninsular along Clear Water Bay Road near Leung Fai Tin. Area in the vicinity is rural setting with Clear Water Bay Country Park, a Conservation Area, and villages with 3-storey village houses in Ha Yeung, Leung Fai Tin and Ha Yeung New Village.

The Works Area of the Project, located within a Conservation Area, is a vegetated north-east facing natural hillside covered by secondary forest with a stream course. Clear Water Bay Country Park is located above the Works Area with a section of High Junk Peak Country Trail along the ridgeline (Figure 1 and Plate 1).

3.2 *Noise*

The Works Area is located in rural area which could be sensitive to noise, therefore noise sensitive receivers (NSRs) within 300m of the Works Area have been considered. Representative NSRs identified are listed in Table 3.1 and presented in Figure 2.

Table 3.1 – Representative Noise Sensitive Receivers (NSRs)

| NSR Ref. | Description | No of Floor | Proximity to the Works Area |
|-----------------|--|--------------------|------------------------------------|
| NSR 1 | No. 4 Village House, Leung Fai Tin | 3 | 28m |
| NSR 2 | No. 12 Village House, Leung Fai Tin | 3 | 45m |
| NSR 3 | No. 53 Village House, Ha Yeung | 3 | 110m |
| NSR 4 | No. 10 Village House, Ha Yeung New Village | 3 | 250m |

The major source of existing noise would be road traffic from the Clear Water Bay Road, the sole access to the recreation facilities (e.g. beaches, BBQ areas and golf clubs) in this district. According to "The Annual Traffic Census 2011" published by the Transport Department, the traffic density of this section of Clear Water Bay Road is moderate and it is expected to be relative higher during weekends and public holidays. Thus, the ambient noise level would be low to moderate.

3.3 Air Quality

Representative air sensitive receivers (ASRs) identified within 300m of the Works Area are listed in Table 3.2 and presented in Figure 2.

Table 3.2 – Representative Air Sensitive Receivers

| ASR Ref. | Description | No of Floor | Proximity to the Works Area |
|-----------------|--|--------------------|------------------------------------|
| ASR 1 | No. 4 Village House, Leung Fai Tin | 3 | 25m |
| ASR 2 | No. 12 Village House, Leung Fai Tin | 3 | 45m |
| ASR 3 | No. 53 Village House, Ha Yeung | 3 | 110m |
| ASR 4 | No. 10 Village House, Ha Yeung New Village | 3 | 250m |

Vehicle emissions at Clear Water Bay Road would be the major source of existing air pollution in the vicinity of the Works Area for the Project. No other source of existing air pollution has been identified.

In the absence of on-site monitoring data for the Works Area of the Project at Leung Fai Tin, the annual average concentrations of pollutants measured at EPD's nearest air monitoring station at Kwun Tong, approximately 6km away from the Works Area, would be used as a reference to provide information on the background air pollutant levels.

The annual average concentrations of SO₂, TSP, RSP (PM₁₀) and NO₂ recorded at Kwun Tong Air Monitoring Station as reported in the "Air Quality in Hong Kong 2010" and "Air Quality in Hong Kong 2011-Preliminary Report" published by EPD are compared against the annual Air Quality Objectives (AQOs) under the Air Pollution Control Ordinance. In addition, monthly average concentration of FSP (PM_{2.5}) is available at Kwun Tong Air Monitoring Station since April 2011. The range of the monthly average concentration of FSP (PM_{2.5}) has been available at this station since April 2011, and therefore FSP data is also presented for reference. The results are summarised in Table 3.3.

Table 3.3 – The Annual Averages of Gaseous Pollutants Recorded at EPD's Kwun Tong Air Monitoring Station and the Corresponding Annual Air Quality Objectives (AQOs)

| Pollutants | 2011 Annual Average Concentration ⁽¹⁾ | 2010 Annual Average Concentration ⁽²⁾ | AQOs |
|---|--|--|----------------------------|
| Sulphur Dioxide | 12 µg/m ³ | 10 µg/m ³ | 80 µg/m³ |
| Total Suspended Particulates | 74 µg/m ³ | 67 µg/m ³ | 80 µg/m³ |
| Respirable Suspended Particulates (PM ₁₀) | 49 µg/m ³ | 47 µg/m ³ | 55 µg/m³ |
| Fine Suspended Particulates (PM _{2.5}) ⁽³⁾ | 17 – 46 µg/m ³ | No data | - |
| Nitrogen Dioxide | 63 µg/m ³ | 59 µg/m ³ | 80 µg/m³ |

Notes:

(1) Based on Air Quality in Hong Kong 2011 – Preliminary Report (EPD)

(2) Based on Air Quality in Hong Kong 2010 (EPD)

(3) Based on monthly data from Apr 2011 to December 2011

The monitoring results of the above listed pollutants at Kwun Tong Air Monitoring Station are below the annual AQOs. Kwun Tong Air Monitoring Station is located in the urban setting, while this Project is located in rural area with relatively lower traffic flow. Therefore, it is expected that the background levels of pollutants at the Works Area of the Project are lower than those obtained at the Kwun Tong Air Monitoring Station, and hence should be meeting the current AQOs.

3.4 *Water Quality*

A stream course is located within the Works Area of the Project, running in a west-southwest to east-northeast direction from the crest to toe (Figure 2). The surface water of the drainage is collected into a catchpit along Clear Water Bay Road, and is then discharged via an underground culvert across Clear Water Bay Road towards the northeast. The stream is a seasonal stream that there is no continuous flow during the dry season, whilst occasional small temporary pools can be found. The substrate in the streambed is predominantly boulders. General view of the stream course during dry season is illustrated in Plate 1. An ecological survey of the stream was carried out and detailed under Section 3.5.

3.5 *Ecology*

General ecological surveys for the Project within the Works Area were conducted between May 2010 and June 2010, covering birds, amphibians and reptiles and plants, in order to identify any susceptible species that are likely to be affected by the construction works. Night time or evening surveys were also included for the animal part. The methodology and duration of the ecological surveys were designed to commensurate with the scale of the Project, the size and the availability of similar habitats in the area.

Further vegetation surveys were conducted in May 2010 and April 2012 – September 2012 to identify any trees that would be directly affected by the proposed HMW within the Works Area. The vegetation surveys also included tree identification and detailed survey of each and every individual of plant species of conservation importance (i.e. *Aquilaria sinensis* (土沉香) and *Pavetta hongkonghensis* (香港大沙葉)) within the Works Area. All these ecological surveys were carried out by Dr. Billy C.H. Hau, Dr. Yik Hei Sung, Mr. Tony Tun Hei Hung (ISA Certified Arborist) and Dr. Chun Chiu Pang and Mr. Philip Sin Hang Yip (ISA Certified Arborist).

Habitat

The Works Area is mainly comprised of secondary woodland dominated by native tree species situated in a valley with a stream running through. The canopy cover of the forest is moderately high and its canopy reaches about 6m to 10m on average. The average diameter at breast height (dbh) of the trees ranges between 40cm and 70cm. The quality of forest along the stream edge is good indicated by the occurrence of a juvenile Chinese Waterside Skink (*Tropidophorus sinicus* 稜蜥), in the stream, which is a stream-dependent and common species in Hong Kong with no special conservation importance. Disturbance by human activities was evident in the Works Area as indicated by the presence of some existing disturbed grounds.

Fauna

Bird surveys were conducted between May 2010 and June 2010. A total of 58 individuals of 16 species were recorded in the survey (Table 3.4). Black Kite (麻鷹) is classified as regional concern and the population is in marked decline whilst Crested Serpent Eagle (蛇鵂) is of local concern (Fellowes *et al.*, 2002). None of the species are listed on the IUCN Red List. No signs of breeding birds or nests were recorded during the surveys.

The survey for amphibians and reptiles was conducted in May 2010. A total of four species of amphibian (Table 3.5) and four species of reptiles were recorded in the survey (Table 3.6). The calls of two Lesser Spiny Frog (*Quasipaa exilispinosa* 小棘蛙) were heard in the streams in the Study Area. This species is classified as Vulnerable on the IUCN Red List of Threatened Species owing to over-harvesting and habitat destruction. It is also listed as of potential global concern by Fellowes *et al.* (2002). However, it is a rather common species in Hong Kong (Karsen *et al.*, 1998), no immediate conservation concern is considered for this species in Hong Kong. All other species recorded are common in Hong Kong which has no special conservation concern.

Table 3.4 – Bird Species and Abundance Recorded in the Survey within the Works Area

| Species no. ¹ | Species name | Common name | Chinese name | Relative abundance ⁴ |
|--------------------------|-------------------------------|------------------------------------|--------------|---------------------------------|
| 067 | <i>Milvus migrans</i> | Black Kite ² | 黑鷹 (麻鷹) | + |
| 071 | <i>Spilornis cheela</i> | Crested Serpent Eagle ³ | 蛇鵂 | + |
| 194 | <i>Streptopelia chinensis</i> | Spotted Dove | 珠頸斑鳩 | + |
| 202 | <i>Hierococcyx</i> | Large Hawk Cuckoo | 鷹鵂 | + |
| 213 | <i>Otus bakamoena</i> | Collared Scops Owl | 領角鴞 | + |
| 270 | <i>Pycnonotus jocosus</i> | Red-whiskered Bulbul | 紅耳鸛 | ++ |
| 271 | <i>Pycnonotus sinensis</i> | Chinese Bulbul | 白頭鸛 | ++ |
| 273 | <i>Hypsipetes</i> | Chestnut Bulbul | 栗背短腳鸛 | + |
| 287 | <i>Copsychus saularis</i> | Oriental Magpie Robin | 鵲鸛 | + |
| 315 | <i>Garrulax canorus</i> | Huamei | 畫眉 | + |
| 347 | <i>Orthotomus sutorius</i> | Common Tailorbird | 長尾縫葉鶯 | ++ |
| 380 | <i>Cyornis hainanus</i> | Hainan Blue Flycatcher | 海南藍鶇 | + |
| 389 | <i>Parus major</i> | Great Tit | 大山雀 | + |
| 395 | <i>Aethopyga christinae</i> | Fortail Sunbird | 叉尾太陽鳥 | + |
| 397 | <i>Zosterops japonicus</i> | Japanese White-eye | 暗綠繡眼鳥 | ++ |
| 447 | <i>Corvus macrorhynchos</i> | Large-billed Crow | 大嘴烏鴉 | ++ |

Table 3.4 – Bird Species and Abundance Recorded in the Survey within the Works Area

| Species no. ¹ | Species name | Common name | Chinese name | Relative abundance ⁴ |
|--------------------------|--------------|-------------|--------------|---------------------------------|
|--------------------------|--------------|-------------|--------------|---------------------------------|

Notes:

- (1) Species number follows list from Hong Kong Bird Watching Society.
- (2) Black Kite is classified as regional concern and the population is in marked decline (Fellowes *et al.*, 2002).
- (3) Crested Serpent Eagle is of local concern (Fellowes *et al.*, 2002)
- (4) The relative abundance: 1-5 individuals (+); 6-10 individuals (++); and over 10 individuals (+++).

Table 3.5 – List of Amphibians Recorded in the Works Area

| Species name | Common name | Chinese name | Relative abundance ¹ |
|---|-------------------|--------------|---------------------------------|
| <i>Duttaphrynus</i> | Common Toad | 黑眶蟾蜍 | + |
| <i>Polypedates megacephalus</i> | Brown Tree Frog | 斑腿泛樹蛙 | + |
| <i>Quasipaa exilispinosa</i> ² | Lesser Spiny Frog | 小棘蛙 | + |
| <i>Rana guentheri</i> | Gunther's Frog | 沼蛙 | ++ |

Notes:

- (1) The relative abundance: 1-5 individuals (+); 6-10 individuals (++); and over 10 individuals (+++).
- (2) Species classified as Vulnerable on the IUCN Red List of Threatened Species and listed as of potential global concern by Fellowes *et al.* (2002).

Table 3.6 – List of Reptiles Recorded in the Works Area.

| Species name | Common name | Chinese name | Relative abundance ¹ |
|---------------------------------|-------------------------|--------------|---------------------------------|
| <i>Calotes versicolor</i> | Changeable lizard | 變色樹蜥 | + |
| <i>Gekko chinensis</i> | Chinese Gecko | 壁虎 | + |
| <i>Sphenomorphus incognitus</i> | Brown Forest Skink | 蠍蜓 | + |
| <i>Tropidophorus sinicus</i> | Chinese Waterside Skink | 稜蜥 | + |

Note:

- (1) The relative abundance: 1-5 individuals (+); 6-10 individuals (++); and over 10 individuals (+++).

Flora

Vegetation surveys of the Works Area were conducted in May 2010 – June 2010, May 2011, and April 2012 – September 2012. All plants including ferns, gymnosperms and angiosperms found in the Works Area were recorded by direct observation and herbarium checking.

Based on the surveys, there were 597 tree individuals within the Works Area. Locations and details of these trees are presented in Appendix A, and Table B1 in Appendix B respectively. Amongst them 575 were successfully identified whilst 19 of them were dead trees (Table B1 in Appendix B). Three trees (reference: T801, T802 and T803) were practically not accessible as they were densely surrounded by climbers which make observations not possible. However, they are unlikely to be affected by the construction work. A total of 32 tree species were found during the survey. The Works Area is dominated by *Machilus chekiangensis* (浙江潤楠) with 316 matured individuals found in the area. Other common tree species included *Aporosa dioica* (銀柴), *Aquilaria sinensis* (土沉香), *Diospyros morrisiana* (羅浮柿) and *Cinnamomum parthenoxylon* (黃樟) (Table 3.7).

Two plant species (namely *Aquilaria sinensis* (土沉香) and *Pavetta hongkonghensis* (香港大沙葉)) of conservation importance according to the Technical Memorandum on Environmental Impact Assessment Process of the EIA Ordinance were found within the Works Area (Tables B2 and B3 in Appendix B). *Aquilaria sinensis* (土沉香) is listed as rare and precious plant of Hong Kong (AFCD, 2003) and listed as vulnerable in both IUCN Red List and China Plant Red Data Book; whilst *Pavetta hongkonghensis* (香港大沙葉) is listed under the Forests and Countryside Ordinance (Cap. 96). A number of mature individual of *Aquilaria sinensis* (土沉香) were found damaged to various degree.

Table 3.7 – The Abundance of the Tree Species Identified in the Tree Survey within the Works Area

| Species name | Chinese name | Abundance | Commonness in Hong Kong |
|--|--------------------|-----------|-------------------------|
| <i>Machilus chekiangensis</i> | 浙江潤楠 | 316 | Very common |
| <i>Diospyros morrisiana</i> | 羅浮柿 | 56 | Very common |
| <i>Aporosa dioica</i> | 銀柴 | 40 | Very common |
| <i>Cinnamomum parthenoxylon</i> | 黃樟 | 28 | Common |
| <i>Aquilaria sinensis</i> ⁽²⁾ | 土沉香 ⁽²⁾ | 22 | Common |
| <i>Scolopia saeva</i> | 廣東刺柃 | 15 | Common |
| <i>Schefflera heptaphylla</i> | 鵝掌柴 | 11 | Very common |
| <i>Cinnamomum camphora</i> | 樟 | 10 | Common |
| <i>Mallotus paniculatus</i> | 白楸 | 7 | Very common |

Table 3.7 – The Abundance of the Tree Species Identified in the Tree Survey within the Works Area

| Species name | Chinese name | Abundance | Commonness in Hong Kong |
|--------------------------------------|--------------|-----------|-------------------------|
| <i>Sterculia lanceolata</i> | 假蘋婆 | 7 | Very common |
| <i>Meliosma rigida</i> | 筆羅子 | 7 | Common |
| <i>Syzygium hancei</i> | 韓氏蒲桃 | 6 | Common |
| <i>Ficus fistulosa</i> | 水同木 | 6 | Common |
| <i>Diospyros eriantha</i> | 烏柿 | 6 | Very common |
| <i>Syzygium levinei</i> | 山蒲桃 | 5 | Common |
| <i>Machilus pauhoi</i> | 刨花潤楠 | 5 | Very common |
| <i>Canthium dicoccum</i> | 魚骨木 | 4 | Common |
| <i>Acronychia pedunculata</i> | 山油柑 | 4 | Very common |
| <i>Elaeocarpus sylvestris</i> | 山杜英 | 4 | Very common |
| <i>Archidendron lucidum</i> | 亮葉猴耳環 | 2 | Common |
| <i>Cratoxylum cochinchinense</i> | 黃牛木 | 2 | Very common |
| <i>Elaeocarpus chinensis</i> | 中華杜英 | 2 | Common |
| <i>Choerospondias axillaris</i> | 南酸棗 | 1 | Common |
| <i>Eurya nitida</i> | 細齒葉柃 | 1 | Very common |
| <i>Ficus subpisocarpa</i> | 筆管榕 | 1 | Very common |
| <i>Ficus variegata</i> | 青果榕 | 1 | Very common |
| <i>Garcinia oblongifolia</i> | 嶺南山竹子 | 1 | Very common |
| <i>Litsea rotundifolia</i> | 豺皮樟 | 1 | Very common |
| <i>Mangifera indica</i> ^e | 杧果 | 1 | N/A |
| <i>Sarcosperma laurinum</i> | 肉實樹 | 1 | Very common |
| <i>Phyllanthus reticulatus</i> | 小果葉下珠 | 1 | Common |
| <i>Symplocos glauca</i> | 羊舌樹 | 1 | Common |
| Total | | 575 | |

Notes:

- (1) Species marked with an “e” represents exotic species according to Hong Kong Herbarium (2001).
- (2) 22 out of all *Aquilaria sinensis* (土沉香) individuals found within the Works Area are of tree size. List of all *Aquilaria sinensis* (土沉香) individuals are presented in Table B2 of Appendix B.
- (3) *Pavetta hongkonghensis* (香港大沙葉) individuals were also found within the Works Area, as listed in Table B3 of Appendix B. All individuals identified were not up to tree size, hence *Pavetta hongkonghensis* (香港大沙葉) is not presented in this table.

3.6 *Landscape and Visual*

The Works Area of the Project is predominantly located within a Conservation Area at elevations between 82mPD and 120mPD. The proposed flexible barrier are planned to be of 5m to 6m high and erected at levels approximately 95mPD (at the north) to 110mPD (at the south). A stream course is present across the Works Area running east. There has been some disturbance by human activities at the lower hillside within the Conservation Area, evident by the damage of *Aquilaria sinensis* (土沉香) and the disturbed grounds within the Works Area. Some urns were found in the vicinity of the Works Area.

Adjoining the Conservation Area is Clear Water Bay Country Park (Figure 3) and a footpath which is section of High Junk Peak Country Trail (Figure 2) is running along the ridgeline at approximate levels of 270mPD to 344 mPD. The hillside at and in the vicinity of the Works Area is predominantly secondary forests.

Clear Water Bay Road (approximate 88mPD to 99mPD, from north to south) is located immediately below the Works Area, there are villages with 3-storey village houses scattered around in the vicinity. As shown in Figure 2, across Clear Water Bay Road from the Works Area, there are village houses at Leung Fai Tin and Ha Yeung located approximately 50m and 150m respectively. Ha Yeung New Village is located approximately 250m south to the Works Area.

The Project is visually sensitive to the area below the Works Area. Therefore, the road users of Clear Water Bay Road and the villagers of Leung Fai Tin are the visual sensitive receivers (VSRs).

Location plan and aerial views of the surrounding environment of the Works Area are shown in Figure 1 and Plates 1 and 2 respectively. A section showing topography of and in the vicinity of the Works Area is presented in Figure 4.

3.7 *Cultural Heritage*

There are no declared monuments, proposed monuments, graded or proposed historic sites/buildings, built heritage resources and sites of archaeological interest located wholly or partly within or in the vicinity of the Works Area for the Project.

4 POSSIBLE IMPACTS ON ENVIRONMENT

4.1 *General*

Based on the location and nature of the Project, as described in Section 1 and detailed in Section 2, potential environmental impacts arise from the Project during construction and operation phases are described in Sections 4.2 and 4.3 respectively.

4.2 *Potential Environmental Impact during Construction Phase*

4.2.1 *Noise*

Construction of the HMW will be carried out during week days between 7:00am and 7:00pm, the working hours will be specified in the contract document. During the construction, noise will be generated from the vehicular visits for transportation of equipment and materials to the site as well as powered mechanical equipment (PME) being used. The noise impact from vehicular visits to the site is not considered significant as only up to 5 visits are expected per day, and therefore not assessed.

Noise sensitive receivers (NSRs) have been identified as described in Section 3.2. The construction noise at the designated NSRs has been assessed in accordance with the methodology specified in the *Technical Memorandum on Noise from Construction Work Other than Percussive Piling* (EPD, 1998).

The major source of the construction noise impact would be generated from the use of powered mechanical equipment (PME) during the construction activities. An inventory of proposed PME employed for each activity is listed in Table 4.1 below:

Table 4.1 – Identified Sources of Noise for Each Construction Activity

| Construction Activity and Period | Key Elements | Equipment employed | Equipment code⁽¹⁾ |
|--|--------------------------------------|------------------------------------|-------------------------------------|
| Activity 1 – Site Possession and Preparation (Sep 13 to Oct 13) | Site clearance, erection of hoarding | Generator, silenced, 75dB(A) at 7m | CNP102 |
| | | Welding Set | Note (2) |

Table 4.1 – Identified Sources of Noise for Each Construction Activity

| Construction Activity and Period | Key Elements | Equipment employed | Equipment code ⁽¹⁾ |
|---|--|---|-------------------------------|
| Activity 2 – Construction of HMW (Nov 13 to Sep 14) | Erect flexible barrier and construct masonry maintenance access with handrails | Drill rig, rotary type (diesel) | Note (3) |
| | | Generator, silenced, 75dB(A) at 7m | CNP102 |
| | | Air compressor, air flow $\leq 10\text{m}^3/\text{min}$ | CNP001 |
| | | Hoist, passenger/ material (petrol) | CNP123 |
| | | Concrete Pump, stationary/lorry mounted | CNP047 |
| | | Concrete mixer (petrol) | CNP046 |
| Activity 3 – Soft Landscape Treatment Works (Oct 14 to Nov 14) | Pit-planting of native light standard trees, planting of climbers and hydroseeding | Generator, silenced, 75dB(A) at 7m | CNP102 |
| | | Water pump (petrol) | CNP282 |

Notes:

- (1) *Technical Memorandum on Noise from Construction Work Other than Percussive Piling* (EPD, 1998)
- (2) Source: Approved EIA Report of Sheung Shui to Lok Ma Chau Spur Line (AEIAR-052/2002).
- (3) Source: Other PME documented by the Noise Control Authority (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

Noise standard of day time (7:00am to 7:00pm) construction activities is 75dB(A) according to Table 1B of Annex 5 of Technical Memorandum under EIAO. A maximum sound level of 75dB(A) will be specified during the construction works as per the “Recommended Pollution Control Clauses for Construction Contracts” provided by EPD.

The noise impact assessment calculation is presented in Appendix C and the predicted noise levels of each Activity at each NSR during the HMW are shown in Table C4 of Appendix C. Results of the predicted SPL at the NSRs are summarised in Table 4.2.

Table 4.2 – Summary of Unmitigated Construction Noise Levels

| NSR Ref. | Description | Predicted SPL⁽¹⁾ (dB(A)) | Standard⁽²⁾ (dB(A)) | Exceedance |
|-----------------|--|--|---|-------------------|
| NSR1 | No. 4 Village House, Leung Fai Tin | 66 – 80 | 75 | Y |
| NSR2 | No. 12 Village House, Leung Fai Tin | 62 – 77 | 75 | Y |
| NSR3 | No. 53 Village House, Ha Yeung | 54 – 69 | 75 | N |
| NSR4 | No. 10 Village House, Ha Yeung New Village | 47 – 62 | 75 | N |

(1) Refer to Appendix C for the detailed assessment

(2) Table 1B of Annex 5 of Technical Memorandum under EIAO

The results indicate that predicted noise levels at NSR 1 and NSR2 (No. 4 and No. 12 Village Houses respectively at Leung Fai Tin) will exceed the required noise standard 75dB(A) during Activity 2 (Appendix C). Therefore, noise mitigation measures will be necessary for NSR1 and NSR2 to reduce the noise to an acceptable level during this activity, as detailed in Section 5.

4.2.2 *Air Quality*

The vehicle visits to the site for the Project will be as few as five per day, therefore the exhaust emission from the vehicles is considered insignificant.

Excavation and drilling operations for the foundation of the flexible barrier could generate dust, particularly during the dry season. Dust could also be generated from the stockpiling of construction materials and waste. As the number of plants and equipment to be used during construction would be limited, therefore the dust impact would be low. Nonetheless, good site practice on dust suppression as detailed in Section 5 will be implemented to reduce the impact as far as practicable.

4.2.3 *Water Quality*

A stream course is present across the Works Area running east. As shown by the detailed design in Appendix A, the proposed flexible barrier will be built across the stream, whilst the maintenance access and anchor will not be built at the stream, as detailed in Section 5.1.3. Impact on water quality would be low; however, there remains a possibility that site runoff may enter the stream at the central portion of the Works Area. Water quality of the stream may deteriorate due to the site runoff entering the Works Area. Site runoff may contain suspended solids and contaminants which would be the main source of potential water quality impacts.

Potential sources of pollution include runoff and erosion from exposed soil surface and stockpiles, release of grouting and cement materials during rainfall, wash water from dust suppression sprays, and fuel and lubricants from maintenance of construction vehicles and mechanical equipment. Sewage arising from the on-site construction workforce would also have the potential to cause water pollution.

4.2.4 Ecology

Fauna

All wild birds are protected in Hong Kong by the law, Cap. 170 Wild Animals Protection Ordinance. The bird species recorded were common resident and urban species in Hong Kong though Black Kite (麻鷹) and Crested Serpent Eagle (蛇鵟) are of local and regional concerns respectively according to Fellowes et al. (2002). These raptors have wide habitat ranges which are unlikely to be affected by the HMW. The potential impact of the HMW is mainly disturbance of breeding birds in the Works Area. However, no signs of breeding birds or nests were recorded during the surveys.

The major concerns about the herpeto-fauna, primarily amphibians, are the construction of the flexible barrier at the stream and the potential runoff into the stream arising from the construction activities which would affect the water quality of the streams. All amphibian species recorded are common in Hong Kong though *Quasipaa exilispinosa* (小棘蛙) is classified as Vulnerable on the IUCN Red List of Threatened Species and listed as of potential global concern by Fellowes et al. (2002). Increased suspended solids and turbidity and other potential pollutants e.g. oil and grease produced from the work may have adverse impact to the amphibians living in the water e.g. tadpoles. Hence, the runoff from the proposed work should be minimised or blocked from entering into the streams and the nearby water channel. Mitigation of water pollution is discussed in Section 5.

Flora

Detailed surveys of the individuals of *Aquilaria sinensis* (土沉香) and *Pavetta hongkongensis* (香港大沙葉) were conducted in May 2012 and September 2012 which aimed to locate all seedlings, saplings and matured individuals of *Aquilaria sinensis* (土沉香) and *Pavetta hongkongensis* (香港大沙葉) and to assess whether they will be affected by the upcoming engineering work. The results revealed that a total of 85 and 10 individuals of *Aquilaria sinensis* (土沉香) and *Pavetta hongkongensis* (香港大沙葉) are located within the Works Area respectively (Tables B2 and B3 in Appendix B). The potential impacts of the construction work on all the *Aquilaria sinensis* (土沉香) and *Pavetta hongkongensis* (香港大沙葉) individuals were assessed. No individual was found close to the proposed alignment (i.e. 1.5m away from the alignment) which is likely to be affected by the current work. Therefore, all individuals of *Aquilaria sinensis* (土沉香) and *Pavetta hongkongensis* (香港大沙葉) within the Works Area will be protected and retained *in-situ* and none of them will

be pruned or fell for the HMW. However, 22 out of 61 matured individuals of *Aquilaria sinensis* (土沉香) (36.1%) appeared to have been harvested as Chinese medicine i.e. agarwood (Table B2 in Appendix B). They were either topped or damaged at the bottom part (Plate 3). This area is believed to be a hotspot for logging or agarwood extraction and the *Aquilaria sinensis* (土沉香) is highly vulnerable to such activities.

Apart from *Aquilaria sinensis* (土沉香) and *Pavetta hongkongensis*, (香港大沙葉) some other tree individuals within close proximity to the proposed alignment are likely to be affected by the HMW. A total of 25 individuals were identified along and in the close proximity of the alignment such that tree felling cannot be avoided, as summarised in Table 4.3 and indicated in Appendix A. They are comprised of 11 tree species whilst all of them are not protected species but either common or very common on hillsides of Hong Kong (Corlett *et al.*, 2000).

Vegetation clearance is required to construct the flexible barriers (approximately 1.5m of working space from the flexible barrier) with associated anchor and masonry maintenance access, as well as to provide sufficient working space to the workers for safe construction on the sloping ground. The clearance area is mainly along the location of the flexible barriers, its understory vegetation comprise common herbaceous and shrub species with existing disturbance in places. Hence, the vegetation clearance locations are not of conservation importance.

It is estimated that there will be temporary loss of approximately 200m² understorey area. Provision of permanent structures i.e. the flexible barrier (approx. 250m long) with associated anchors and maintenance access with handrails (approx. 300m long and 600mm wide), results in permanent loss of approximately 200m² of understorey area. Additionally, 25 individuals of non-protected trees will inevitably be felled. No *Aquilaria sinensis* (土沉香) and *Pavetta hongkongensis* (香港大沙葉) will be felled.

Table 4.3 – Summary of the Non-protected Tree Individuals which will be felled for the HMW

| Tree No. | Species name | Chinese name | Trunk diameter (m) | Spread (m) | Height (m) | Origin |
|----------|-------------------------------|--------------|--------------------|------------|------------|--------|
| T020 | <i>Machilus chekiangensis</i> | 浙江潤楠 | 0.19 | 5 | 9 | Native |
| T021 | <i>Meliosma rigida</i> | 筆羅子 | 0.17 | 2 | 5 | Native |
| T024 | <i>Aporosa dioica</i> | 銀柴 | 0.11 | 2 | 5 | Native |
| T025 | <i>Machilus chekiangensis</i> | 浙江潤楠 | 0.18 | 5 | 10 | Native |
| T026 | <i>Diospyros morrisiana</i> | 羅浮柿 | 0.15 | 3 | 10 | Native |
| T027 | <i>Diospyros morrisiana</i> | 羅浮柿 | 0.13 | 5 | 9 | Native |
| T028 | <i>Archidendron lucidum</i> | 亮葉猴耳環 | 0.18 | 3 | 18 | Native |
| T190 | <i>Aporosa dioica</i> | 銀柴 | 0.13 | 3 | 9 | Native |

Table 4.3 – Summary of the Non-protected Tree Individuals which will be felled for the HMW

| Tree No. | Species name | Chinese name | Trunk diameter (m) | Spread (m) | Height (m) | Origin |
|----------|---------------------------------|--------------|--------------------|------------|------------|--------|
| T305 | <i>Aporosa dioica</i> | 銀柴 | 0.12 | 5 | 8 | Native |
| T489 | <i>Cinnamomum parthenoxylon</i> | 黃樟 | 0.50 | 8 | 16 | Native |
| T494 | <i>Mallotus paniculatus</i> | 白楸 | 0.15 | 6 | 8 | Native |
| T496 | <i>Schefflera heptaphylla</i> | 鴨腳木 | 0.29 | 7 | 14 | Native |
| T497 | <i>Diospyros morrisiana</i> | 羅浮柿 | 0.17 | 6 | 10 | Native |
| T499 | <i>Machilus chekiangensis</i> | 浙江潤楠 | 0.45 | 12 | 14 | Native |
| T543 | <i>Diospyros morrisiana</i> | 羅浮柿 | 0.16 | 5 | 10 | Native |
| T544 | <i>Machilus chekiangensis</i> | 浙江潤楠 | 0.16 | 6 | 13 | Native |
| T792 | <i>Meliosma rigida</i> | 筆羅子 | 0.13 | 5 | 5 | Native |
| T793 | <i>Diospyros morrisiana</i> | 羅浮柿 | 0.20 | 4 | 8 | Native |
| T807 | <i>Eurya nitida</i> | 細齒葉柃 | 0.13 | 3 | 6 | Native |
| T855 | <i>Machilus chekiangensis</i> | 浙江潤楠 | 0.18 | 4 | 15 | Native |
| T856 | <i>Scolopia saeva</i> | 廣東刺柃 | 0.13 | 4 | 11 | Native |
| TA001 | <i>Aporosa dioica</i> | 銀柴 | 0.10 | 2 | 8 | Native |
| TA017 | <i>Machilus chekiangensis</i> | 浙江潤楠 | 0.21 | 6 | 15 | Native |
| TA036 | <i>Schefflera heptaphylla</i> | 鴨腳木 | 0.26 | 4 | 10 | Native |
| TA062 | <i>Acronychia pedunculata</i> | 山油柑 | 0.15 | 6 | 7 | Native |

Note: Refer to Appendix A for the location of the tree reference.

4.2.5 Landscape and Visual Impact

During the construction works, temporary scaffolding and working platforms will be erected within the Works Area to facilitate the installation of flexible barrier. There will be vegetation clearance and felling of 25 non-protected trees (Table 4.3 and Appendix A) for the permanent structures, as well as working space and temporary access path. The existing vegetated Works Area has been disturbed by human activities where the permanent maintenance access of approx. 300m long, 600mm wide will be provided. These locations will be utilised to minimise vegetation loss, nevertheless temporary site clearance will be inevitable for sufficient working space for safe construction. Conservation importance species *Aquilaria sinensis* (土沉香) and *Pavetta hongkongensis* (香港大沙葉) were found within the Works Area and will all be retained *in-situ*, despite some *Aquilaria sinensis* (土沉香) trees were found damaged by previous human activities as described in Section 3.6. The damaged *Aquilaria sinensis* (土沉香) trees are indicated in Table B2 in Appendix B).

The proposed flexible barrier will be built across the stream within the Works Area, but the maintenance access and anchor will not be built at the stream, therefore impact on water quality would be low, as detailed in Section 5.1.3. However, there remains a possibility that site runoff may enter the stream at the central portion of the Works Area affecting the water quality, as detailed in Section 4.2.3.

The VSRs are the road users of the Clear Water Bay Road and the villagers at Leung Fai Tin. The unsightly construction activities are temporary and the vertical extent of the construction activities will be limited to 5m-6m. The existing mature trees below the Works Area could provide a natural screening effect to the VSRs. The construction activities are not sensitive to the VSRs due to the combined effect of the topographic location and the natural screening by the existing trees, as demonstrated in Figure 4.

Considering the above, the degree of sensitivity and the magnitude during construction phase are determined and the **impact significance is considered slight**, Table 4.4 summaries the assessment. **The landscape and visual impacts are considered acceptable with mitigation measures** as detailed in Section 5.1.5.

Table 4.4 – Summary of Landscape and Visual Impact Assessment during Construction Phase

| | Degree of sensitivity (High / medium / low) | Magnitude (Large/Intermediate/Small/ Negligible) |
|-------------------------------|--|---|
| Impact to landscape resources | Medium | Intermediate |
| Visual impact | Low | Small |
| IMPACT SIGNIFICANCE | SLIGHT | |

(Substantial /Moderate/Slight/Insubstantial)

4.2.6 *Cultural Heritage*

No cultural heritage resources would be affected by the proposed HMW.

4.2.7 *Waste Management*

Construction and demolition (C & D) waste will be generated from site clearance, drilling and excavation works. Estimated volumes of C&D waste from the activities under the Project are presented in Table 4.5 below:

Table 4.5 – Estimated Volume of C & D Waste Generated from the Project

| Type of C & D Waste | Anticipated Source | Estimated Volume |
|---|--|--------------------|
| Soil/rock | Drilling & excavation for foundation of flexible barrier | 100 m ³ |
| | Construction of masonry maintenance staircase | 100 m ³ |
| Non-inert materials such as timber, refuse etc. | Site Clearance | 50 m ³ |
| Grand Total | | 250 m ³ |

C&D waste will be handled and transported to the designated areas. The inert material will be disposed to designated public filling areas managed by CEDD and the non-inert material will be disposed to designated landfill managed by EPD.

4.3 **Potential Environmental Impact during Operation Phase**

Following the HMW, there will be no activities related to the Project during operation phase. Therefore, there will be no adverse environmental impacts on **noise, air quality, water quality** and **waste** to the sensitive receivers during the operational phase. As there are no **cultural heritage** resources in the vicinity of the Works Area, therefore there will be no impact during operation phase.

Ecological impact:

No negative impact is expected during operation phase. The soft landscape works are expected to be positively benefiting the ecological aspect of the Works Area in particular to the existing disturbed ground which will be re-planted

Landscape and visual impact:

There will be permanent change to the landscape by construction of permanent structures (i.e. flexible barrier and maintenance access with handrails), therefore the degree of sensitivity and the magnitude to the change during operation phases are considered for assessing the impact significance.

- Within the Conservation Area, an approximate 250m long, 5m-6m high flexible barrier will be permanently erected with approximately 300m long maintenance access and handrails within the Conservation Area where *Aquilaria sinensis* (土沉香) and *Pavetta hongkongensis* (香港大沙葉) species have been found but some *Aquilaria sinensis* (土沉香) species are already damaged. All the *Aquilaria Sinensis* (土沉香) and *Pavetta hongkongensis* (香港大沙葉) will be retained *in-situ* and 25 non-protected trees will inevitably be felled as explained earlier. The existing disturbed grounds covered with

bare soil surface will be re-vegetated by hydroseeding and compensatory planting. The planting works will enhance the landscape impact to the existing disturbed area and the ecological value of Works Area.

- The flexible barrier will be built across the stream. To avoid disturbance to the stream, the maintenance access will not be built within the stream in order to avoid disturbance to the stream bed, an opening of at least 0.5m will be allowed between the stream bed and the bottom of the flexible barrier., and position of the anchors will be adjusted on site away from the stream to avoid drilling at the stream.
- The location of the permanent structures is predominantly vegetated with existing trees. The flexible barriers are the most visible feature of 5m-6m high relatively, whilst most of the handrails and the maintenance access would not be visible to the VSRs as illustrated in Plate 3 and Figure 4. Considering the above, the degree of sensitivity and the magnitude during operation phase are determined and the **impact significance is considered moderate**, Table 4.6 summaries the assessment. **The landscape and visual impacts are considered acceptable with mitigation measures** as detailed in Section 5.1.5.

Table 4.6 – Summary of Landscape and Visual Impact Assessment during Operation Phase

| | Degree of sensitivity (High / medium / low) | Magnitude (Large/Intermediate/Small/ Negligible) |
|-------------------------------|--|---|
| Impact to landscape resources | Medium | Intermediate |
| Visual impact | Medium | Intermediate |
| IMPACT SIGNIFICANCE | MODERATE | |

(Substantial /Moderate/Slight/Insubstantial)

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

5.1 *Mitigation Measures during Construction and Operation*

During the construction phase, the requirements specified in EPD's "Recommended Pollution Control Clauses for Construction Contracts" will be followed. This document has covered areas of noise control, air pollution control, water pollution control and waste management. Specific control requirements during construction and operation are reviewed and presented below.

5.1.1 *Noise*

Construction phase:

The predicted construction noise levels indicated that the unmitigated construction noise impacts would exceed the day time noise criteria from Activity 2 at NSR1 and NSR2.

Movable noise barrier is proposed for noise screening. Drilling rigs, air compressor, concrete pump and concrete mixer shall be operated behind movable noise barriers comprised of minimum 25mm thick sound absorbing lining with surface mass in excess of 10kg/m², and 10mm thick plywood (or 1mm thick steel backing). Height of the movable barriers varies to suit the equipment and location, and that there will be no direct line of sight to the equipment. For a notional noise source of 2m high, the movable noise barrier shall be of a minimum height of 1.7m for NSR1 and 2m for NSR2, as indicated in Figures C1 and C2 in Appendix C). It is anticipated that the movable noise barrier could achieve a 10dB(A) reduction. The Contractor may adopt alternative design of movable noise barrier which has demonstrated success to achieve at least the same screening effects, upon approval from the Engineer.

Calculation of the mitigated noise levels of each Activity at NSR1 and NSR2 are presented in Table C5 of Appendix C. Mitigation is not required for NSR3 and NSR4. Following the implementation of the movable noise barrier, there will be no exceedance of noise level. Results of the predicted mitigated SPL at the NSRs are summarised in Table 5.1.

Table 5.1 – Summary of Mitigated Construction Noise Levels

| NSR Ref. | Description | Mitigated SPL⁽¹⁾ (dB(A)) | Standard⁽²⁾ (dB(A)) | Exceedance |
|-----------------|--|--|---|-------------------|
| NSR1 | No. 4 Village House, Leung Fai Tin | 66 – 73 | 75 | N |
| NSR2 | No. 12 Village House, Leung Fai Tin | 62 – 70 | 75 | N |
| NSR3 | No. 53 Village House, Ha Yeung | 54 – 69 | 75 | N |
| NSR4 | No. 10 Village House, Ha Yeung New Village | 47 – 62 | 75 | N |

In addition to the above mitigation measures, the Contractor would adopt quiet mechanical equipment whereas suitable to minimise the noise level as far as practicable.

Good site practices would also be implemented to reduce the nuisance by the works as far as possible. Good site practices include:

- Care in the placement and orientation of noisy plants away from the sensitive receivers and effective utilisation of material stockpiles and other structures in screening noise from the on-site construction activities;
- Careful planning of construction sequence;
- Regular maintenance of plants and equipment; and
- Utilisation of silencers or mufflers on the construction equipment to reduce noise without impairing machine efficiency.

No construction activities would be allowed during 7pm to 7am on weekdays and anytime on Sundays and public holidays.

Operation phase:

There will be no activities relating to the Project during operation phases, therefore mitigation measures are not required.

5.1.2 *Air Quality*

Construction phase:

Dust mitigation measures stipulated in the Air Pollution Control (Construction Dust) Regulation should be implemented to minimise fugitive dust emissions from the Works Area during the drilling and excavation for foundation of flexible barrier. Good site practice should be employed to minimise the dust generated as far as practicable. Dust control measures include:

- Regular watering to reduce dust emissions from exposed soil surfaces or unpaved areas, particularly during dry weather;
- Frequent watering for particularly dusty static construction areas;
- Covering to all dusty vehicle loads transported to and from site; and
- Watering the wheels and bodies of construction vehicles before exiting the construction site.

Despite the impact on air quality due to the additional road traffic for the HMW is assessed to be insignificant, we will encourage the contractor to minimise vehicle trips as far as practicable by appropriate planning to maximise the utilisation of each trip to the Works Area by the vehicle.

Operation phase:

There will be no activities relating to the Project during operation phases, therefore mitigation measures are not required.

5.1.3 *Water Quality*

Construction phase:

The flexible barrier is proposed to be built across the stream within the Works Area, the following mitigation measures are incorporated in the design to minimise the adverse impact to the stream and its habitat:

- The maintenance access will not be built within the stream in order to avoid disturbance to the stream bed.
- An opening of at least 0.5m will be allowed between the stream bed and the bottom of the flexible barrier.
- Position of the anchors will be adjusted on site away from the stream to avoid drilling at the stream.
- The maintenance access and anchor will not be built at the stream.

The Contractor shall comply with the Water Pollution Control Ordinance and its subsidiary regulations. The proposed HMW works should also adhere to the Practice Note for Professional Person ProPECC Note PN 1/94 on Construction Site Drainage.

During construction, the contractor shall contain within the Works Area all surface runoff generated from any works, dust control and vehicle washing etc. Any trade effluent, foul, contaminated, cooling or hot water shall not be discharged into any public sewers, stormwater drains, channels, stream courses or the sea. Portable chemical toilet facilities will be provided on site and no foul water effluent will be discharged into the major stream course.

The majority of the excavation works arises from the construction of the flexible barrier and the maintenance staircase (Activity 2). We will avoid excavation works during rainy season as far as practicable. In addition, good site practice and management to control site runoff will be implemented to reduce adverse water impact as far as possible, these include:

- Surface run-off from the Works Area shall be discharged into stormwater drains or natural streams via adequately designed silt-removal facilities such as sand traps, silt traps, silt retention pond, sediment basins and mechanical water treatment plant. Channels or earth bunds or sand bag barrier shall be provided on site to properly direct stormwater to such silt-removal facilities.
- No excavated material, silt, debris, rubbish, cement slurry or such construction waste shall be deposited into natural stream.
- Exposed earth surface should be covered with tarpaulin or similar fabrics as necessary during rainstorm.
- Open stockpile of construction materials should be covered with tarpaulin or similar fabrics as necessary during rainstorm.
- Portable chemical toilet facilities will be provided on site and a licensed waste collector will be deployed to clean the toilet on a regular basis.
- Contractor will be required to carry out regular site cleaning and tidying throughout the construction period. Regular environmental inspections will be carried out during the construction period to ensure the site cleanliness and tidiness.
- It is recommended that tool box talk on site run-off control be carried out by the Contractor to increase the awareness of the workers.

Village houses at the northern end of Leung Fai Tin are located along the stream course below the Works Area. Although the impact to the water quality is low, the contractor shall notify the potentially affected villagers at Leung Fai Tin when works will be carried out around the stream course.

Operation phase:

Impact on water during operation phase is avoided by implementing the design as detailed under Construction phase in Section 5.1.3. Furthermore, there will be no activities relating to the Project during operation phases, therefore mitigation measures are not required.

5.1.4 *Ecology*

Construction phase:

Alignment has been optimised to preserve all the protected species and minimise the impact to the existing vegetation as far as practicable. The flexible barrier is proposed to be built across the stream. To minimise the adverse impact to the stream habitat and fauna, no maintenance access and anchor will be built at the stream, additionally an opening of at least 0.5m between the stream bed and the bottom of the flexible barrier is allowed for the passing of wildlife along the stream.

For flora, all the protected plant species within the Works Area will be retained *in-situ*, temporary vegetation loss is mitigated by re-vegetation, permanent vegetation loss is compensated by re-vegetating the existing damaged ground and compensatory planting is proposed for the mitigation tree felling during construction phase. Details of the mitigation measures are explained in detail below.

All *Aquilaria sinensis* (土沉香) and *Pavetta hongkongensis* (香港大沙葉) individuals within the Works Area can be retained *in-situ*, by positioning the alignment at a minimum 1.5m in radius away from these individuals. As a result, all 85 and 10 individuals of *Aquilaria sinensis* (土沉香) and *Pavetta hongkongensis* (香港大沙葉) respectively will be retained *in-situ* and be protected during the implementation of the proposed HMW. The following measures are proposed to mitigate the impacts of the HMW on the *Aquilaria sinensis* (土沉香) and *Pavetta hongkongensis* (香港大沙葉).

- Upon commencement of the HMW, a survey will be carried out to assess the condition of each individual of *Aquilaria sinensis* (土沉香) and *Pavetta hongkongensis* (香港大沙葉) that will potentially be affected by the construction work.
- Each *Aquilaria sinensis* (土沉香) and *Pavetta hongkongensis* (香港大沙葉) individual within the Works Area of the Project will be tagged and fenced off either in groups or individually to prevent from being damaged/disturbed during construction.
- An induction training will also be provided to all site personnel (both supervision staff and workers) in order to brief them on tree preservation including the locations of the *Aquilaria sinensis* (土沉香) and *Pavetta hongkongensis* (香港大沙葉) individuals and their importance.
- The resident site supervisory staff will closely monitor the conditions of the *Aquilaria sinensis* (土沉香) and *Pavetta hongkongensis* (香港大沙葉) individuals during the Construction Phase.

Site clearance will cause vegetation loss of the understorey area as explained under Section 4.2.4; however, this will closely be monitored by the resident site staff to avoid unnecessary removal as far as practicable. Particularly, to avoid damage to root systems of existing trees, the foundation of the flexible barriers and staircases will be adjusted (i.e. horizontally and/or vertically offset) on site in order not to interfere with the existing root systems.

The understorey area whereas the temporary loss of vegetation is approximately 200m² and this area will be mitigated by re-vegetation. Permanent loss of understorey area at the locations of the maintenance access (approximately 300m long and 600mm wide) and anchors is inevitable, the total area is approximately 200m². The permanent vegetation loss at the understorey area is mitigated by compensatory re-vegetation of the existing disturbed ground within the Works Area.

Tree felling of 25 non-protected and large individual trees cannot be avoided. As the tree density of the Works Area is relatively high, transplanting sizeable trees will adversely affect the adjacent trees by disturbing their root systems. All of the identified affected trees are of mature size so heavy machinery will be required for transplanting. Under this circumstance, tree transplanting is not recommended as it would probably cause more damage to the environment than tree felling. Therefore, tree felling with compensatory planting is proposed for ecological mitigation. It is recommended that a compensatory planting ratio of 1 to 3, i.e. for one tree removed, three light standard trees should be planted, will be carried out in order to mitigate the ecological impact on the natural slope without altering the ecological service too much in the near future, as well as to reduce the impact on soil stability due to the tree felling works. Native and shade-tolerant tree species are suggested for the planting as the study area is no longer in early successional stage, e.g. *Archidendron lucidum* (亮葉猴耳環), *Castanopsis fissa* (鰲蒴錐), *Cinnamomum parthenoxylon* (黃樟), *Cyclobalanopsis edithiae* (華南青岡), *Endospermum chinense* (黃桐) and *Syzygium hancei* (韓氏蒲桃). *Aquilaria sinensis* (土沉香) is also a suitable candidate as it is a shade-tolerant species that is common in lowland forests and Fung Shui woods in Hong Kong.

Compensatory light standard trees of the selected species will be planted in empty space available within the Works Area. They are preferably planted at the downhill area of the alignment in order to minimise the visual impact of the barrier from Clear Water Bay Road and village houses at Leung Fai Tin. The compensatory planting will be carried out at 2m spacing to allow sufficient space to grow. The mitigation measure will be monitored and supervised by ecologists and/or specialists. Compensation planting should be done after the completion of the construction works to avoid accidental disturbance to the planted trees.

We aim to minimise the footprint during the construction as far as practicable. As the tree density of the Works Area is relatively high and some trees are with wide spread, tree pruning will be required. The extent of tree pruning will be determined on site by the Engineer as advised by the

ecological expert. Reference will be made to Development Bureau's General Guidance on Tree Pruning. The tree pruning will be carried out by appropriate qualified personnel and supervised by our trained resident site staff and the ecological expert. Other retained trees in the close proximity of the construction works will also be protected by providing a protective wrapping around the tree trunks as illustrated in Plate 6.

Monitoring will be carried out by an ecological expert on a monthly basis during the construction phase to ensure the proposed mitigation measures are properly implemented.

The contractor will be required to comply with the General Specification for Civil Engineering Works (GS), which include specifications on Preservation and Protection of Trees. Reference will also be made to Technical Circular, ETWB TCW No. 3/2006 on Tree Preservation.

Operation phase:

Impact on ecology during operation phase is avoided by implementing the design as detailed under Construction phase in Section 5.1.4. Hence, no mitigation measures are required during operation phase.

5.1.5 *Landscape and Visual*

Construction phase:

Although the unsightly impact and lost of vegetation from the construction are temporary and reversible, mitigation measures are proposed to minimise the adverse impact as far as practicable.

During the construction of the barrier, approximately 1.5m of working space from the flexible barrier and access is required for the safe construction of the flexible barrier. The permanent location of the maintenance access will be fully utilised for temporary access to avoid unnecessary vegetation loss as far as practicable. The proximity of the temporary access to the protected species will also be considered. As a result, all *Aquilaria sinensis* (土沉香) and *Pavetta hongkongensis* (香港大沙葉) individuals will be retained *in-situ* and, 25 non-protected trees will be felled. The *Aquilaria sinensis* (土沉香) and *Pavetta hongkongensis* (香港大沙葉) individuals will be protected during construction by fencing off to avoid encroachment. Tree pruning will be required during the construction works, this will be determined on site. Tree felling is unavoidable, nevertheless tree felling is limited to within 1.5m of the alignment and compensatory planting with light standard trees will be implemented with a ratio of 1 to 3 with at 2m spacing, choosing suitable native species to improve the ecological value and aim for sustainability; as detailed in Section 5.1.4. The landscape design including the compensatory planting should follow GEO Publication

No. 1/2011. Good site practice and management to control site runoff will be implemented to avoid the impact to the stream as far as possible, as detailed in 5.1.3.

Despite the Works Area will unlikely be visible to the road users of the Clear Water Bay Road and villagers at Leung Fai Tin, mitigation measures will also be provided to minimise the visual impact by erecting hoarding around the Works Area to screen the unsightly construction activities of the proposed HMW works. Decorative panels with patterns of vegetation on hoarding will be provided where appropriate to minimise the adverse visual impact. There are existing mature trees located below the hoardings, these trees could provide natural screening to the Works Area. We will also seek opportunities to minimise the span of construction as practicable.

The design of the flexible barrier and the associated structures has taken the landscape and visual impact into consideration, as detailed in the mitigation measures under operation phase.

Following the implementation of the above mitigation measures, the landscape and visual impacts are considered acceptable with mitigation measures during construction phase.

Operation phase:

There will be a permanent change to the existing landscape by the proposed HMW works by erecting an approximately 250m long, 5m-6m high flexible barrier with associated anchors, and approximately 300m long, 600mm wide maintenance access with handrails. The flexible barrier will be built across the stream, but maintenance access and handrails will be avoided in the stream (Appendix A). The permanent changes as mentioned above will result in permanent vegetation lost of the 200m² understorey area include felling of 25 non-protected trees. Mitigation measures are therefore required to avoid, minimise and compensate the adverse impact. In addition, we are seeking opportunities to enhance the landscape and visual impact of the existing disturbed area due to human disturbance by re-vegetation as part of the landscape design. Recommended mitigation measures are as follows:

- Utilisation of the existing trees located in front of the flexible barrier as natural screening, example as illustrated in Plate 3.
- All *Aquilaria sinensis* (土沉香) and *Pavetta hongkongensis* (香港大沙葉) will be retained *in-situ*.
- The existing disturbed ground will also be mitigated by re-vegetation in order to improve the value of the existing landscape.
- Pit-planting of native light standard trees and planting of climbers in front of the fence where appropriate to provide screening effect, as illustrated in Plates 3 to 5.
- Dark colour of the flexible barrier will be use to reduce the adverse visual impact.

- Concrete footing of the anchor and the handrails along the maintenance access will be painted with sub-due colour to minimise the adverse visual impact as far as possible. An example is illustrated in Plate 5.
- Masonry finish will be applied to the maintenance access to blend with the surroundings. An example is illustrated in Plate 5.

Following the implementation of the above mitigation measures, the landscape and visual impacts are considered acceptable with mitigation measures during operation phase.

5.1.6 Cultural Heritage

Mitigation measures are not required as no cultural heritage resources are affected by the proposed works during both construction and operation phase.

5.1.7 Waste Management

Construction phase:

The Contractor shall comply with the Waste Disposal (Chemical Waste) (General) Regulation, the Waste Disposal Ordinance and its subsidiary regulations. The Contractor will be required to prepare and implement a Waste Management Plan in accordance with ETWB TC(W) No. 19/2005 Environmental Management on Construction Site.

The Contractor shall not permit any sewage, waste water or effluent containing sand, cement, silt or any other suspended or dissolved material to flow from the Works Area onto any adjoining land or allow any waste matter which is not part of the final product from waste processing plants to be deposited anywhere within any site or onto any adjoining land.

The Contractor will be required to carry out on-site sorting of surplus C&D material. The inert material will be disposed to designated public filling areas managed by CEDD and the non-inert material will be disposed to designated landfill managed by EPD. Trip ticket system will be implemented in accordance with DEVB TC(W) No. 6/2010 Trip Ticket System for Disposal of Construction and Demolition Materials to ensure the construction waste reaches the intended disposal facilities and correct procedures are being followed at all times. Training for site cleanliness and proper waste management procedure will be provided to all site personnel.

Operation phase:

There will be no activities relating to the Project during operation phases, therefore mitigation measures are not required.

5.2 Severity Distribution and Duration of Environmental Effects

No adverse residual environmental impacts are anticipated with the implementation of the recommended mitigation measures.

5.3 Further Implications

No further environmental implications are anticipated with the implementation of the recommended mitigation measures.

6 USE OF PREVIOUSLY APPROVED EIA REPORTS AND PROJECT PROFILES

Relevant Project Profiles submitted for application for permission to apply directly for an Environmental Permit (EP) are listed below:

Agreement No. CE 19/2008 (GE) Landslip Preventive Works at Feature No. 7NE-C/C310 Along Tai Po Road, Tai Po Kau [submitted to EPD on 28 July 2011 (Application No. DIR-215/2011) and the EP was granted on 1 September 2011 (EP No. EP-422/2011)].

Agreement No. CE 11/2004 (GE) Landslip Preventive Works at Feature No. 3SE-B/C156 Along Bride's Pool Road, Near Chung Mei Plover Cove Reservoir, Tai Po. [submitted to EPD on 21 Dec 2007 (Application No. DIR-162/2007) and the EP was granted on 1 Feb 2008 (EP No. EP-304/2008)].

Agreement No. CE 31/2004 (GE) Natural Terrain Hazard Mitigation Works in Kwai Chung, Victoria Road and Luk Keng Village – Investigation, Design and Construction. Natural Terrain Hazard Mitigation Works in Luk Keng Wong Uk. [submitted to EPD on 2 June 2006 (Application No. DIR-142/2006) and the EP was granted on 14 July 2006 (EP No. EP-252/2006)].

Agreement No. CE 28/2004 (GE) Landslide Preventive Works at Po Shan, Mid-levels [submitted to EPD on 18 Oct 2005 (Application No. DIR-131/2005) and the EP was granted on 28 November 2002 (EP No. EP-235/2005B)].

7 CONCLUSION

The potential environmental impacts arising from this Designated Project and the proposed mitigation measures are summarised in Table 7.1.

Table 7.1 – Summary of the potential environmental impacts and proposed mitigation measures

| Potential Impacts | Proposed Mitigation Measures |
|---|---|
| Noise | |
| <p>Construction phase: Noise generated from the construction activities</p> <p>Operation phase: No impact</p> | <p>Construction phase: Movable noise barrier Use quiet PME Implement good site practice</p> <p>Operation phase: Not required</p> |
| Air Quality | |
| <p>Construction phase: Dust generated from the construction activities and stockpiling of soil /rock</p> <p>Operation phase: No impact</p> | <p>Construction phase: Dust suppression measures, cover stockpile & implement good site practice</p> <p>Operation phase: Not required</p> |
| Water Quality | |
| <p>Construction phase: Potential site run-off to the stream affecting water quality</p> <p>Operation phase: Potential impact is avoided by not constructing maintenance access and anchor in the stream; additionally an opening of at least 0.5m is allowed between the stream bed and the bottom of the barrier for the passing of wildlife along the stream.</p> | <p>Construction phase: Implement good site practice to control runoff</p> <p>Operation phase: Not required</p> |
| Ecology | |
| <p>Construction phase: Temporary loss of approx. 200m² understorey area for temporary access during construction</p> | <p>Construction phase: Re-vegetate temporary vegetation loss</p> |

Table 7.1 – Summary of the potential environmental impacts and proposed mitigation measures

| Potential Impacts | Proposed Mitigation Measures |
|---|---|
| Ecology (Cont'd) | |
| <p>Permanent loss of approx. 200m² understorey area (~300m long 600mm wide maintenance access and anchor locations)</p> <p>Tree felling of 25 non-protected trees</p> <p>Tree pruning of other affected trees</p> <p>Operation phase: Potential impact is avoided by not constructing maintenance access and anchor in the stream; additionally an opening of at least 0.5m is allowed between the stream bed and the bottom of the barrier for the passing of wildlife along the stream.</p> | <p>Compensatory re-vegetation of all existing disturbed ground within the Works Area</p> <p>Compensatory planting (ratio 1:3) of suitable native light standard trees</p> <p>Implement good site practice</p> <p>Fence off <i>Aquilaria sinensis</i> (土沉香) and <i>Pavetta hongkongensis</i> (香港大沙葉) for protection</p> <p>Operation phase: Not required</p> |
| Landscape & Visual | |
| <p>Construction phase: Unsightly construction activities</p> <p>Loss of vegetation and trees</p> <p>Potential site run-off to the stream affecting water quality</p> <p>Operation phase: Permanent erection of 5m-6m high flexible barrier with handrailing and maintenance access</p> <p>Flexible barrier will be built across the stream</p> | <p>Construction phase: Hoarding for screening, minimise the construction period as possible</p> <p>Compensatory planting and re-vegetating bare areas</p> <p>Implement good site practice to control runoff</p> <p>Operation phase: Planting of light standard trees & climber for screening, masonry finish to maintenance access, dark colour barrier and paint surface of other associated structure with sub-due colour</p> <p>Maintenance access with handrail will not be built at the stream</p> |
| Cultural Heritage | |
| No impact | Not required |

Table 7.1 – Summary of the potential environmental impacts and proposed mitigation measures

| Potential Impacts | Proposed Mitigation Measures |
|--|---|
| Waste | |
| <p>Construction phase: ~250m³ of C&D waste is estimated to be generated and be transported to the designated public fill area and landfill site</p> <p>Operation phase: No impact</p> | <p>Construction phase: On-site sorting of waste, Implement trip ticket system, Implement waste management plan</p> <p>Operation phase: Not required</p> |

8 REFERENCES

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FIGURES

- Figure 1** **Location Plan of the Designated Project**
- Figure 2** **Locations of the Noise and Air Sensitive Receivers**
- Figure 3** **Proposed Natural Terrain Hazard Mitigation Works**
- Figure 4** **Section A-A**

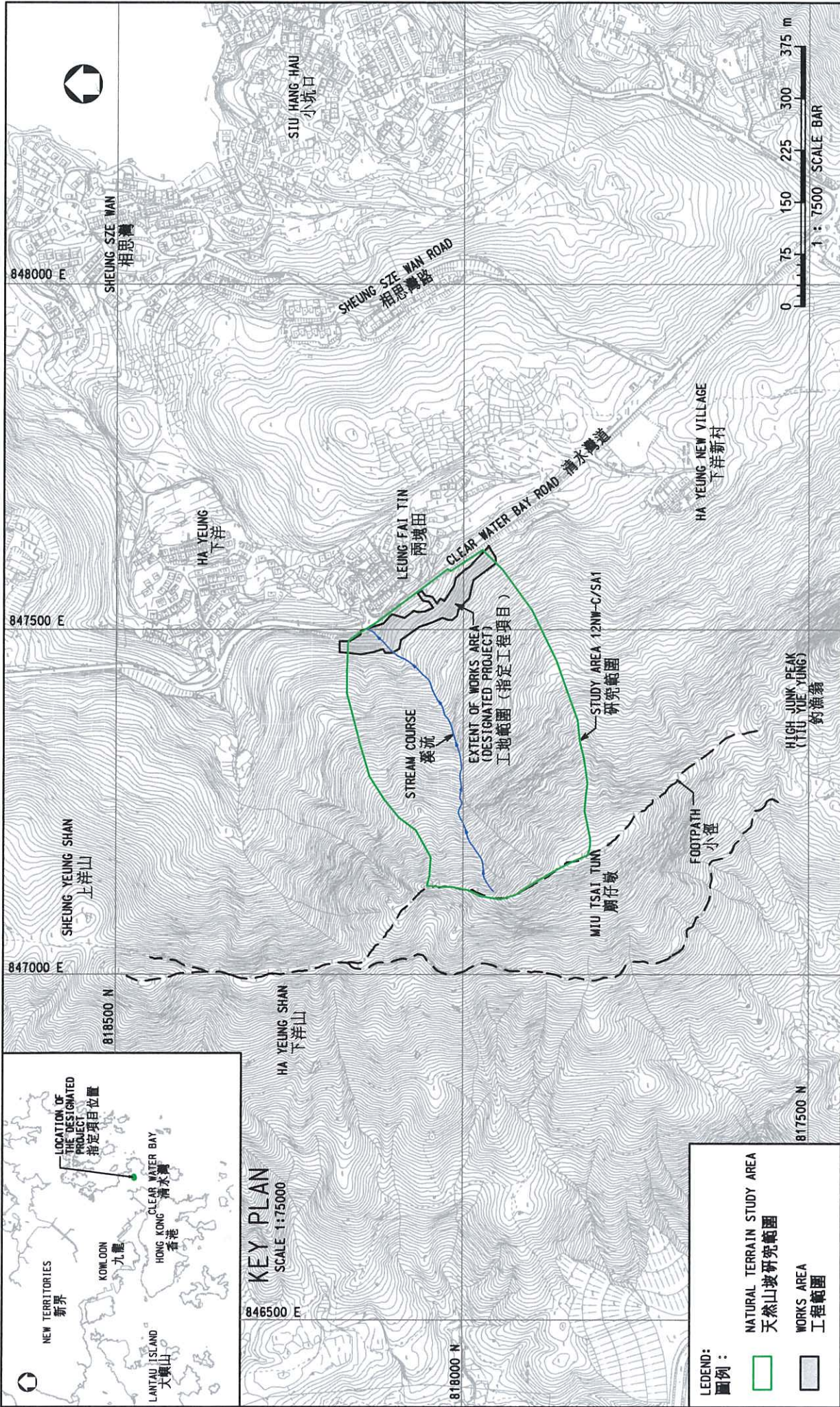


FIGURE 1
圖一

Location Plan
of the Designated Project
指定工程項目平面位置圖

Project:
Agreement No. CE 37/2008 (GE)
Landslip Prevention and Mitigation Programme, 2008,
Package J
顧問合約編號: CE 37/2008 (GE)
二零零八年防止及緩減山泥傾瀉計劃第J組

Consulting Engineers:
Halcrow
Halcrow China Ltd.
合樂中國有限公司

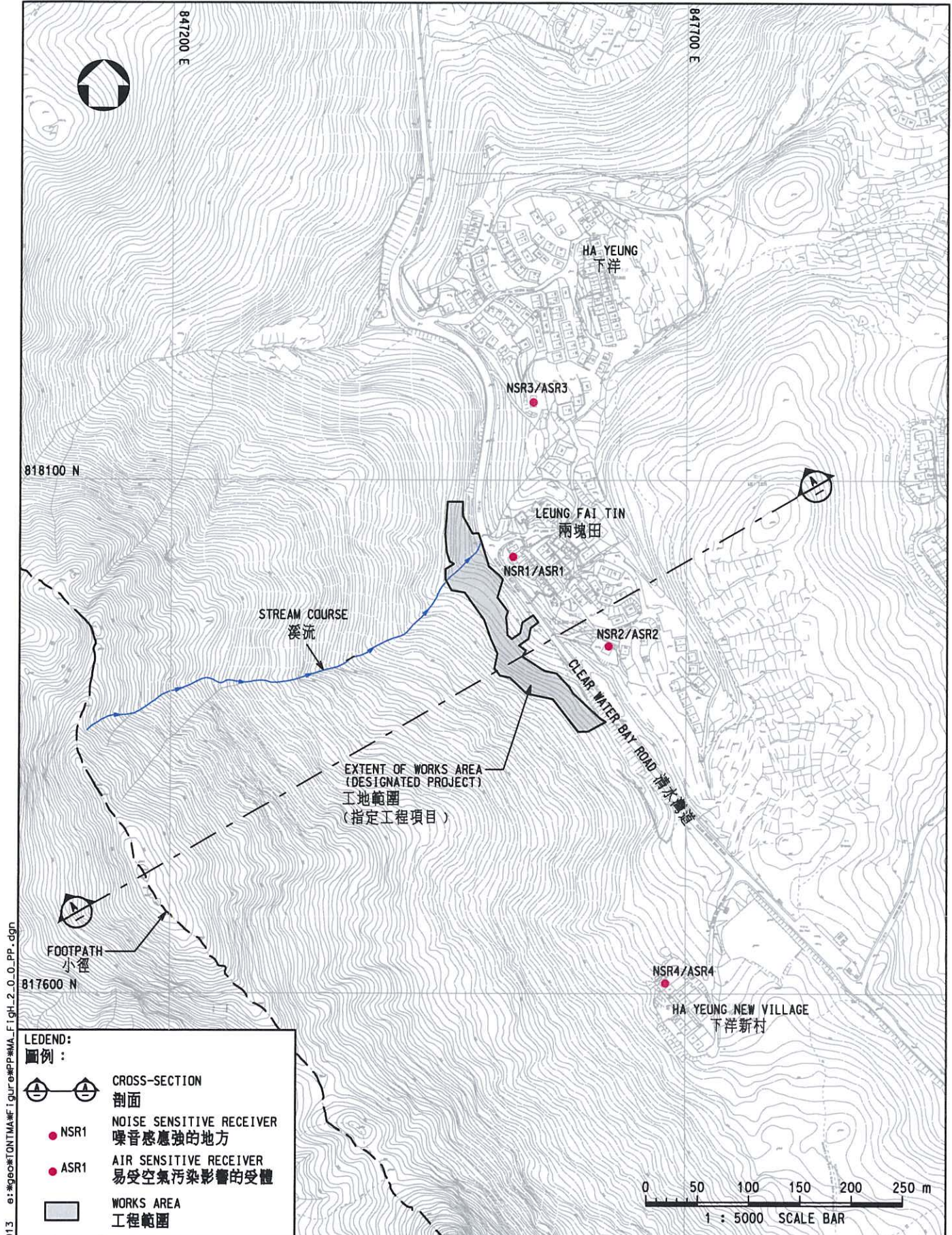
Client:
CEDD
CIVIL ENGINEERING
AND DEVELOPMENT
DEPARTMENT
土木工程拓展署



KEY PLAN
SCALE 1:75000

LEND: 圖例:

- NATURAL TERRAIN STUDY AREA
天然山坡研究範圍
- WORKS AREA
工程範圍



LELEND:
圖例:

| | |
|--|---------------------------------------|
| | CROSS-SECTION 剖面 |
| | NOISE SENSITIVE RECEIVER 噪音感應強的地方 |
| | AIR SENSITIVE RECEIVER 易受空氣污染影響的受體 |
| | WORKS AREA 工程範圍 |

4/2/2013 e:\project\TNT\MA\Figures\PMMA_FigH_2_0_0_PP.dgn

| | | | |
|---|--|--|------------------------|
| <p>Client:</p> <p>CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT 土木工程拓展署</p> | <p>Consulting Engineers:</p> <p>Halcrow Halcrow China Ltd. 合樂中國有限公司</p> | <p>Project:</p> <p>Agreement No. CE 37/2008 (GE) Landslip Prevention and Mitigation Programme, 2008, Package J 顧問合約編號: CE 37/2008 (GE) 二零零八年防止及緩減山泥傾瀉計劃第J組</p> | <p>FIGURE 2 圖二</p> |
| <p>Locations of the Noise and Air Sensitive Receivers 噪音敏感受體和空氣質素敏感受體位置圖</p> | | | |

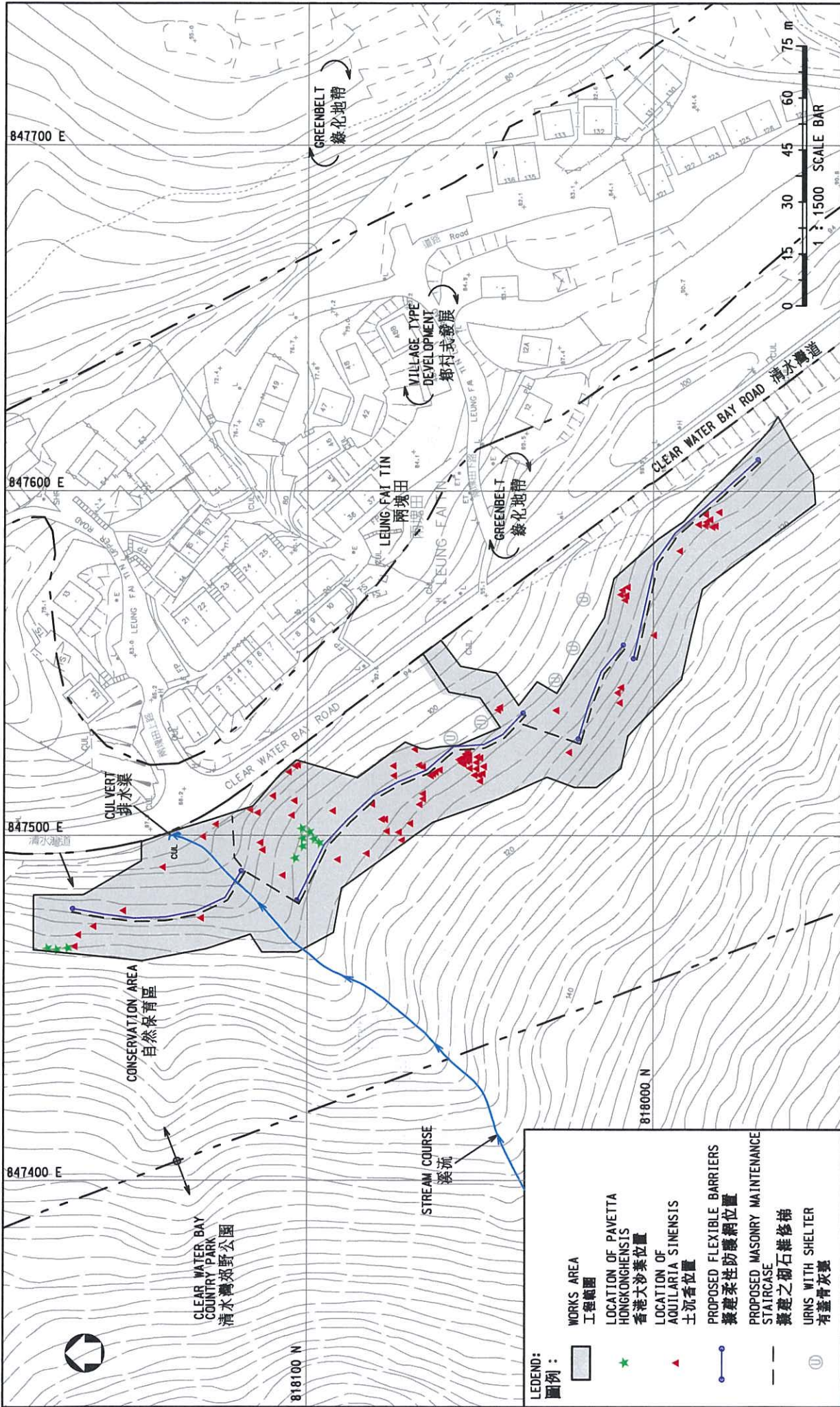


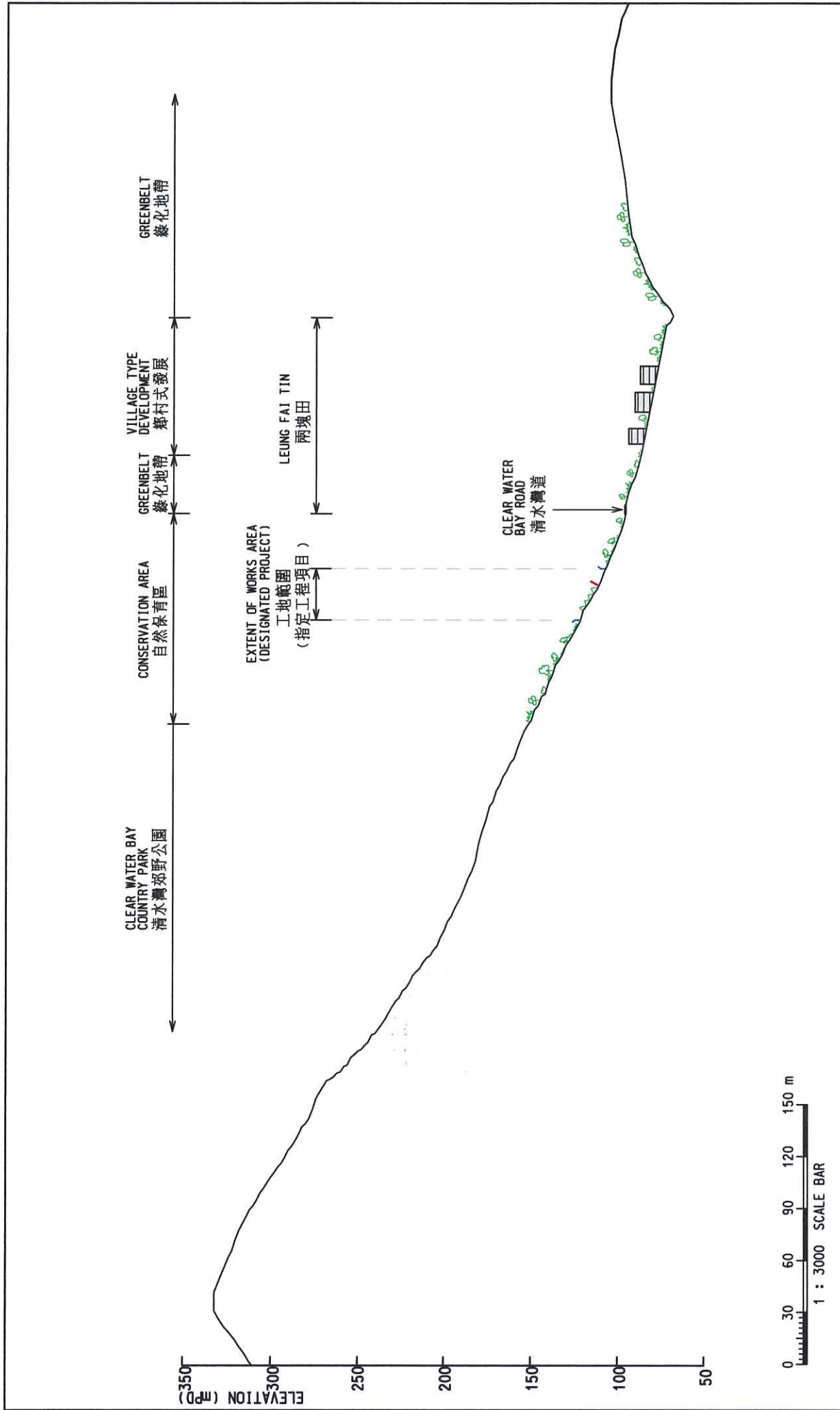
FIGURE 3
圖三

Proposed Natural Terrain
Hazard Mitigation Works
擬建天然山坡災害緩減工程

Project:
Agreement No. CE 37/2008 (GE)
Landslip Prevention and Mitigation Programme, 2008,
Package J
顧問合約編號: CE 37/2008 (GE)
二零零八年防止及緩減山泥傾瀉計劃第J組

Consulting Engineer:
Halcrow
Halcrow China Ltd.
合樂中國有限公司

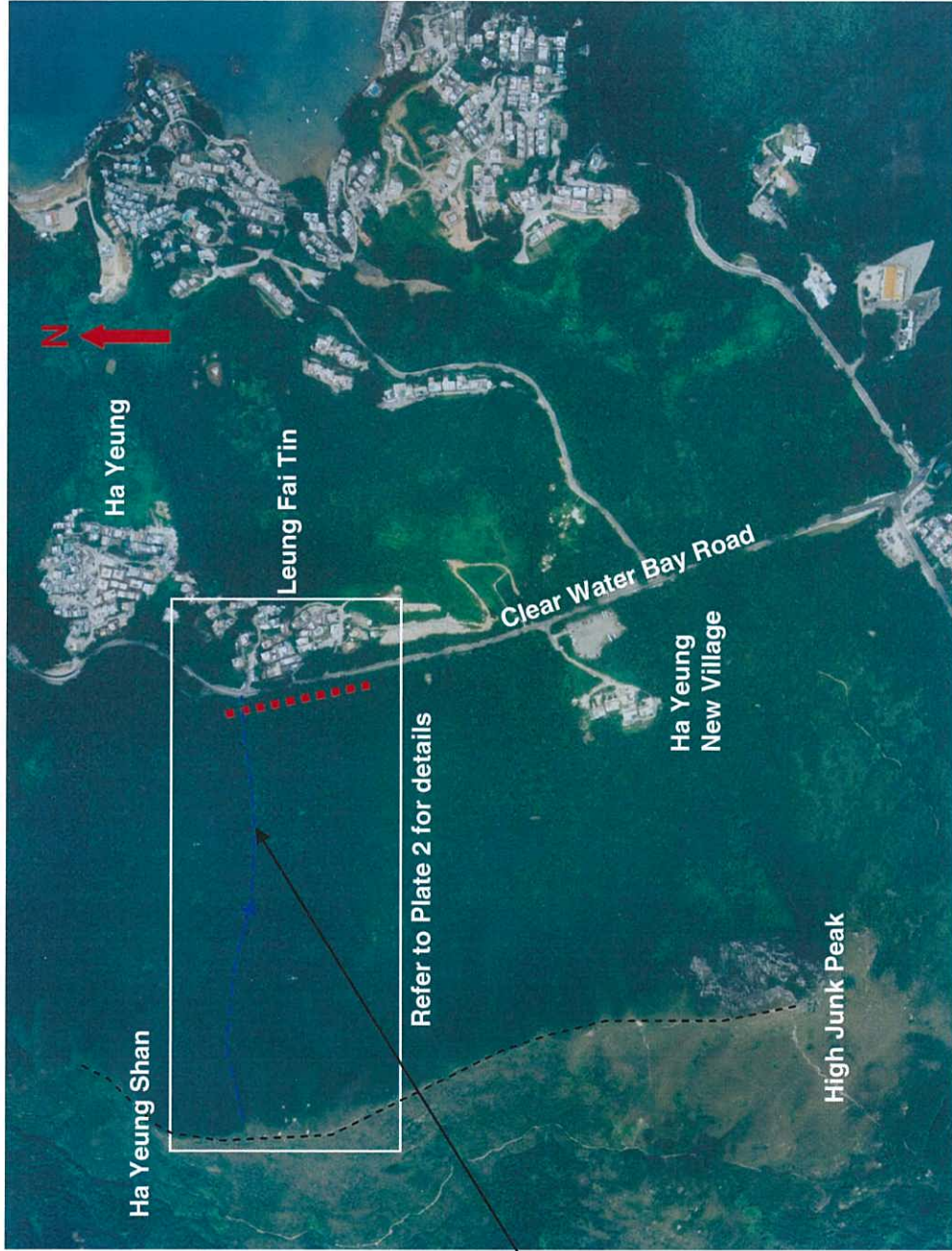
Client:
CEDD
CIVIL ENGINEERING
AND DEVELOPMENT
DEPARTMENT
土木工程拓展署



| | | | | |
|--|---|--|--|------------------------|
| <p>Client:</p>  <p>CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT 土木工程拓展署</p> | <p>Consulting Engineers:</p>  <p>Halcrow China Ltd. 合樂中國有限公司</p> | <p>Project:</p> <p>Agreement No. CE 37/2008 (GE) Landslip Prevention and Mitigation Programme, 2008, Package J 顧問合約編號: CE 37/2008 (GE) 二零零八年防止及緩減山泥傾瀉計劃第J組</p> | <p>Title:</p> <p>Section A - A 剖面圖 A - A</p> | <p>FIGURE 4 圖四</p> |
|--|---|--|--|------------------------|




PLATES

- Plate 1 **Overview the Surrounding Environment of the Designated Project**
- Plate 2 **Approximate Location of the Proposed Alignment of the Flexible Barrier and Views Around the Works Area**
- Plate 3 **Schematic Diagram of Landscape Treatment Works for Flexible Barrier**
- Plate 4 **Previous Examples of Flexible Barrier for Natural Terrain Hazard Mitigation at Tung Chung Road within the Lantau Country Park**
- Plate 5 **Illustrations of Mitigation Measures**
- Plate 6 **Illustration of Protective Wrapping around Tree Trunks**



(Source: GEO)

Legend:

-  Stream course
-  Ridge line
-  Approximate location of the flexible barrier alignment



Typical view of the stream course during dry season (Looking West)





A View of the bus stop at the Southern Portion of the Works Area (Looking West)



Northern End of the Works Area (Looking Northwest)

Approximate extent of the HIMW works



- Legend:
- Stream course
 - - - Approximate location of the maintenance access
 - Approximate alignment of the flexible barrier



Southern End of the Works Area (Looking Southeast)



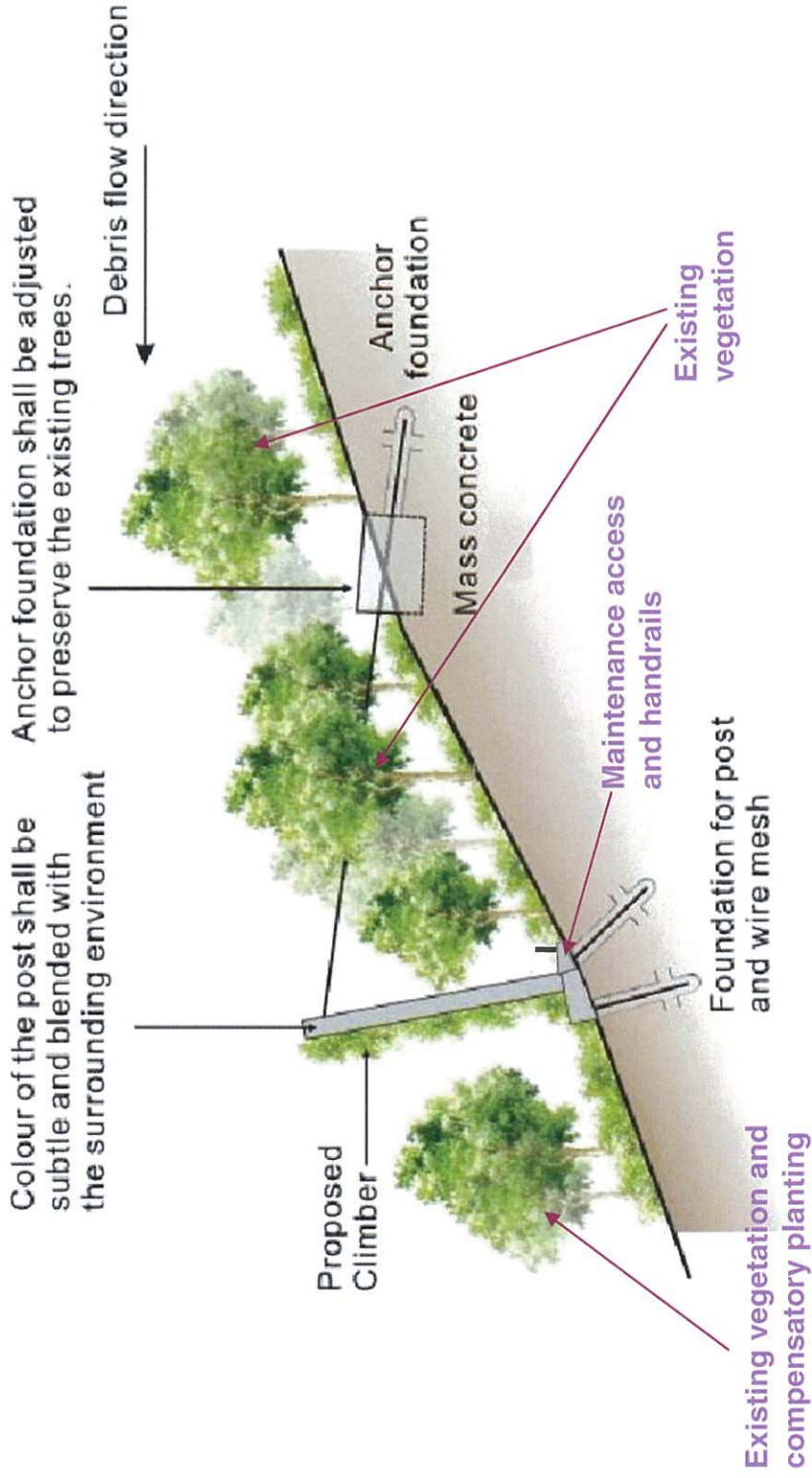
A View of the Northern Portion of the Works Area (Looking West)

Agreement No. CE 37/2008 (GE) Landslip Prevention and Mitigation Programme, 2008, Package J



Approximate Location of the Proposed Alignment of the Flexible Barriers and Views Around the Works Area

Plate 2



Extracted from GEO Report No. 256



Agreement No. CE 37/2008 (GE) Landslip Prevention and Mitigation Programme, 2008, Package J

Schematic Diagram of Landscape Treatment Works for Flexible Barrier

Plate 3

Natural terrain landslides



Area with flexible barriers with maintenance access

Tung Chung Road



Aerial View of Natural Terrain Mitigation Measures on the Hillside above Tung Chung Road

View of Flexible Barriers Close to Roadside of Tung Chung Road

Agreement No. CE 37/2008 (GE) Landslip Prevention and Mitigation Programme, 2008, Package J



Previous Examples of Flexible Barrier for Natural Terrain Hazard Mitigation at Tung Chung Road within Lantau Country Park

Plate 4

Pit-planting of seedlings for screening of flexible barriers



Plate 5a – Aerial View Showing Pit-planting in front of the flexible barrier for screening
(Example: Tung Chung Road)

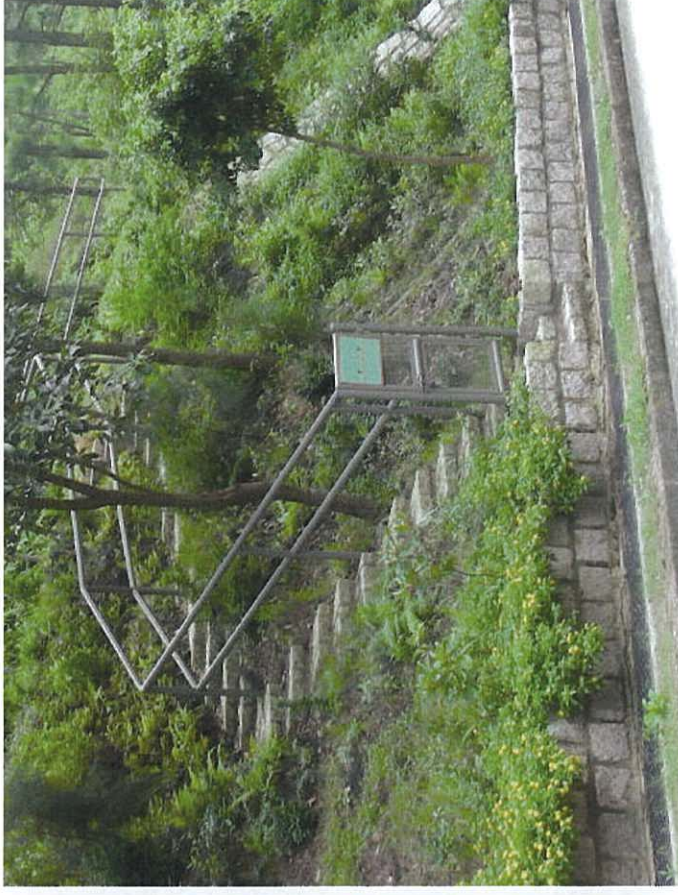


Plate 5b – Masonry finish to the maintenance access with painted handrails and gates to blend the design with surroundings
(Example: South Lantau Road)



(Source: GEO Publication No. 1/2011)

Agreement No. CE 37/2008 (GE) Landslip Prevention and Mitigation Programme, 2008, Package J

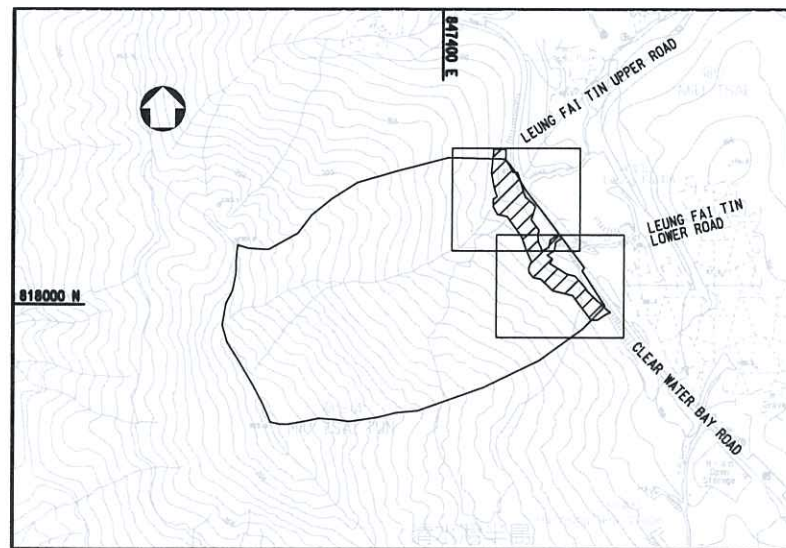


Illustration of Protective Wrapping around Tree Trunks

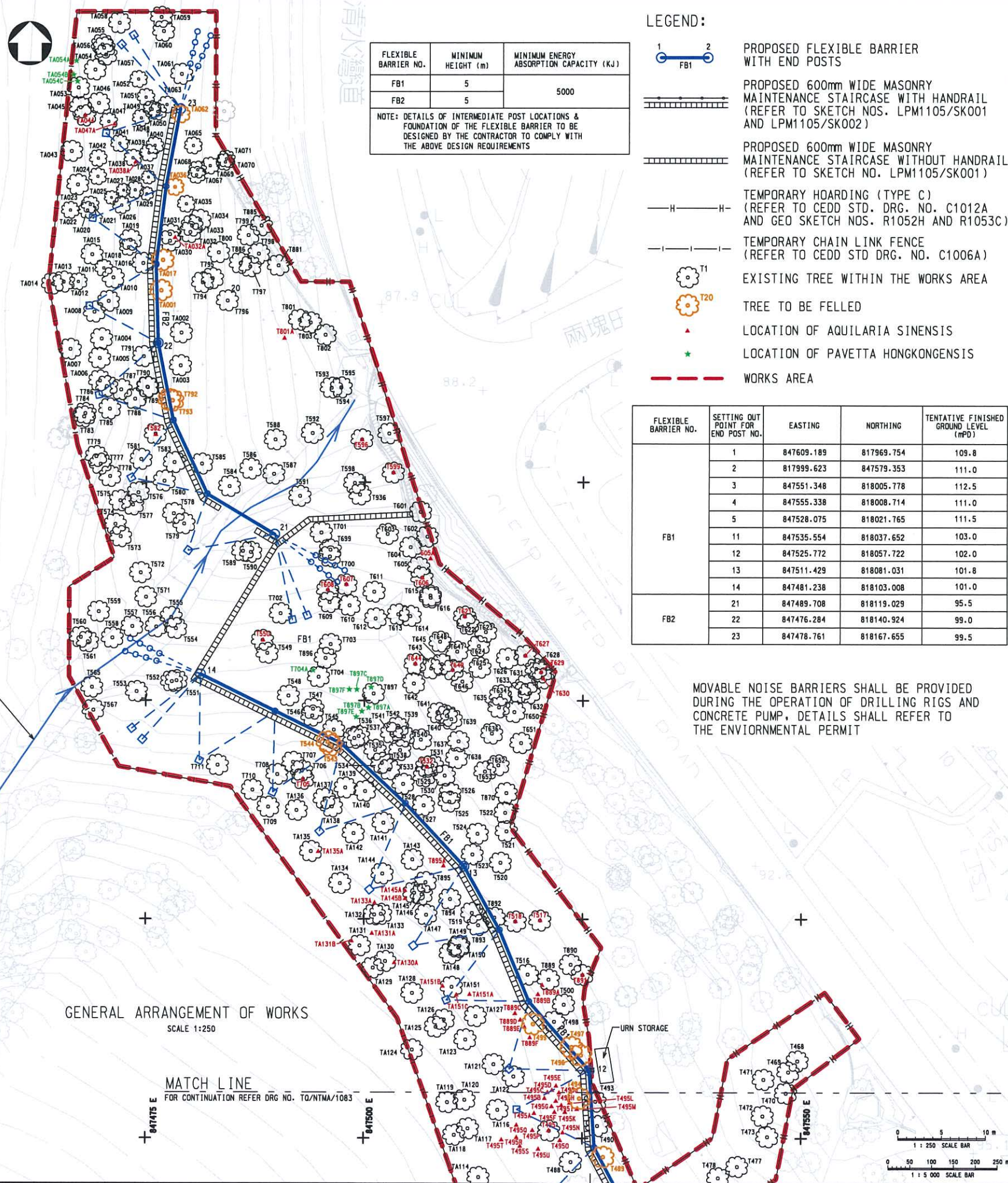
Plate 6

Appendix A

Proposed HMW Design



KEY PLAN
SCALE 1:5000



GENERAL ARRANGEMENT OF WORKS
SCALE 1:250

MATCH LINE
FOR CONTINUATION REFER DRG. NO. TO/NTMA/1083

| FLEXIBLE BARRIER NO. | MINIMUM HEIGHT (m) | MINIMUM ENERGY ABSORPTION CAPACITY (KJ) |
|----------------------|--------------------|---|
| FB1 | 5 | 5000 |
| FB2 | 5 | |

NOTE: DETAILS OF INTERMEDIATE POST LOCATIONS & FOUNDATION OF THE FLEXIBLE BARRIER TO BE DESIGNED BY THE CONTRACTOR TO COMPLY WITH THE ABOVE DESIGN REQUIREMENTS

LEGEND:

- PROPOSED FLEXIBLE BARRIER WITH END POSTS
- PROPOSED 600mm WIDE MASONRY MAINTENANCE STAIRCASE WITH HANDRAIL (REFER TO SKETCH NOS. LPM1105/SK001 AND LPM1105/SK002)
- PROPOSED 600mm WIDE MASONRY MAINTENANCE STAIRCASE WITHOUT HANDRAIL (REFER TO SKETCH NO. LPM1105/SK001)
- TEMPORARY HOARDING (TYPE C) (REFER TO CEDD STD. DRG. NO. C1012A AND GEO SKETCH NOS. R1052H AND R1053C)
- TEMPORARY CHAIN LINK FENCE (REFER TO CEDD STD. DRG. NO. C1006A)
- EXISTING TREE WITHIN THE WORKS AREA
- TREE TO BE FELLED
- LOCATION OF AQUILARIA SINENSIS
- LOCATION OF PAVETTA HONGKONGENSIS
- WORKS AREA

| FLEXIBLE BARRIER NO. | SETTING OUT POINT FOR END POST NO. | EASTING | NORTHING | TENTATIVE FINISHED GROUND LEVEL (mPD) | |
|----------------------|------------------------------------|------------|------------|---------------------------------------|------|
| FB1 | 1 | 847609.189 | 817969.754 | 109.8 | |
| | 2 | 817999.623 | 847579.353 | 111.0 | |
| | 3 | 847551.348 | 818005.778 | 112.5 | |
| | 4 | 847555.338 | 818008.714 | 111.0 | |
| | 5 | 847528.075 | 818021.765 | 111.5 | |
| | 11 | 847535.554 | 818037.652 | 103.0 | |
| | 12 | 847525.772 | 818057.722 | 102.0 | |
| | 13 | 847511.429 | 818081.031 | 101.8 | |
| | 14 | 847481.238 | 818103.008 | 101.0 | |
| | FB2 | 21 | 847489.708 | 818119.029 | 95.5 |
| | | 22 | 847476.284 | 818140.924 | 99.0 |
| | | 23 | 847478.761 | 818167.655 | 99.5 |

MOVABLE NOISE BARRIERS SHALL BE PROVIDED DURING THE OPERATION OF DRILLING RIGS AND CONCRETE PUMP, DETAILS SHALL REFER TO THE ENVIRONMENTAL PERMIT

- GENERAL NOTES
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SPECIFIED.
 - ALL LEVELS ARE IN METRES ABOVE PRINCIPAL DATUM.
 - ALL CO-ORDINATES ARE IN ACCORDANCE WITH HK (1980) GEODETIC DATUM.
 - POSITIONS OF FLEXIBLE BARRIER SHALL BE ADJUSTED WHERE NECESSARY ON SITE TO AVOID DAMAGE TO EXISTING TREES INCLUDING BRANCHES AND ROOTS.
 - EXISTING SURFACE DRAINAGE SYSTEM TO BE RETAINED SHALL BE MAINTAINED BY THE CONTRACTOR AND SHALL BE REPAIRED WHERE NECESSARY AS DIRECTED BY THE ENGINEER ON SITE.
 - LOCAL TRIMMING OR EXCAVATION SHALL BE CARRIED OUT AS DIRECTED ON SITE BY THE ENGINEER.
 - SEE DRG. NO. TO/NTMA/1086 FOR DETAILS OF TREES.
 - WARNING SIGNS FOR NATURAL HILLSIDE CATCHMENTS SHALL BE ERRECT AT THE LOCATION AS AGREED ON SITE BY THE ENGINEER. THE DETAILS OF THE WARNING SIGNS SHALL REFER TO GEO SKETCH NO. R1077.

| Rev | Description | By | Date | Approved |
|-----|---|-----|--------|----------|
| P8 | UPDATE HOARDING STANDARD | WYC | JAN.13 | LT |
| P7 | FLEXIBLE BARRIER AT STEAMCOURSE REVISED | WYC | DEC.12 | LT |
| P6 | FLEXIBLE BARRIER ALIGNMENT REVISED | WYC | SEP.12 | LT |
| P5 | FLEXIBLE BARRIER ALIGNMENT REVISED | WYC | JUN.12 | LT |
| P4 | FLEXIBLE BARRIER ALIGNMENT REVISED | WYC | OCT.11 | LT |
| P3 | FLEXIBLE BARRIER ALIGNMENT REVISED | WYC | MAR.11 | LT |
| P2 | SITE BOUNDARY REVISED | WYC | JAN.11 | LT |
| P1 | FIRST ISSUE | PC | NOV.10 | LT |

| | | | |
|----------|-----|------------------------------|--|
| Drawn | PF | Approved | |
| Designed | PC | Director, Halcrow China Ltd. | |
| Checked | WYC | | |

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Halcrow
合樂中國有限公司

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GEOTECHNICAL ENGINEERING OFFICE
CIVIL ENGINEERING AND
DEVELOPMENT DEPARTMENT

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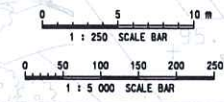
Contract:
CONTRACT NO. GE/2011/05
LANDSLIP PREVENTION AND MITIGATION PROGRAMME,
2008, PACKAGE J, LANDSLIP PREVENTION AND
MITIGATION WORKS IN KOWLOON,
NEW TERRITORIES AND OUTLYING ISLANDS

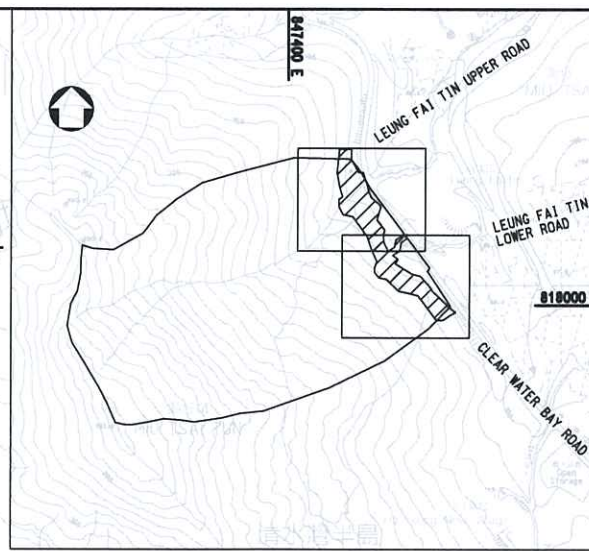
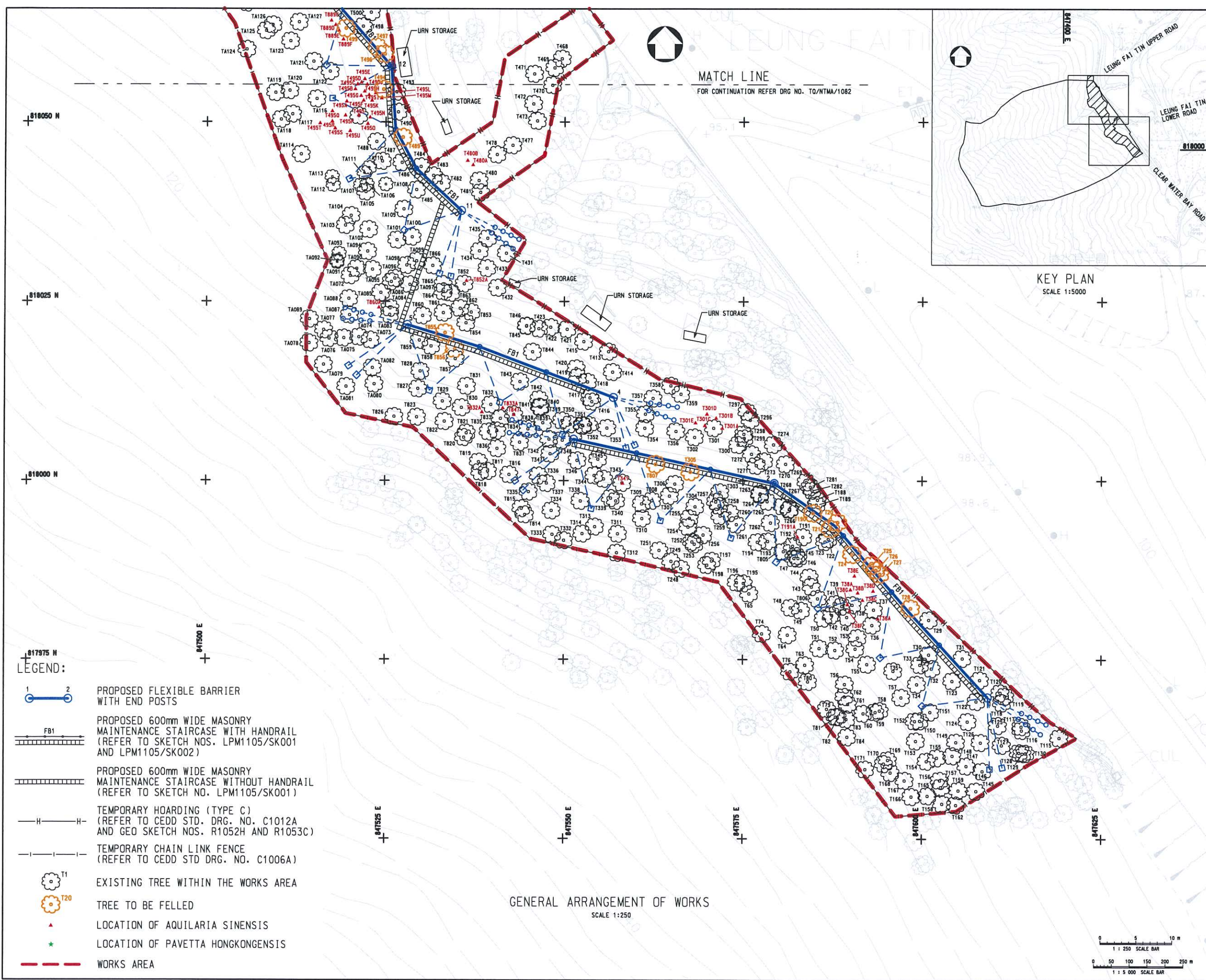
Drawing Title:
STUDY AREA NO. 12NW-C/SA1 (STUDY AREA H)
ABOVE LEUNG FAI TIN ALONG
CLEAR WATER BAY ROAD, SAI KUNG

GENERAL ARRANGEMENT OF WORKS (SHEET 1 OF 2)

| | | | |
|----------------|--------------|-----------|----|
| Drawing No.: | TO/NTMA/1082 | Revision: | P8 |
| Drawing Scale: | AS SHOWN | | |

CAD File Name: e:\geo\TONTMA\Drawing\1082\1082_P8_works.dwg

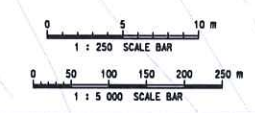




- GENERAL NOTES**
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SPECIFIED.
 2. ALL LEVELS ARE IN METRES ABOVE PRINCIPAL DATUM.
 3. ALL CO-ORDINATES ARE IN ACCORDANCE WITH HK (1980) GEODETIC DATUM.
 4. POSITIONS OF FLEXIBLE BARRIER SHALL BE ADJUSTED WHERE NECESSARY ON SITE TO AVOID DAMAGE TO EXISTING TREES INCLUDING BRANCHES AND ROOTS.
 5. EXISTING SURFACE DRAINAGE SYSTEM TO BE RETAINED SHALL BE MAINTAINED BY THE CONTRACTOR AND SHALL BE REPAIRED WHERE NECESSARY AS DIRECTED BY THE ENGINEER ON SITE.
 6. LOCAL TRIMMING OR EXCAVATION SHALL BE CARRIED OUT AS DIRECTED ON SITE BY THE ENGINEER.
 7. SEE DRG. NO. TO/NTMA/1086 FOR DETAILS OF TREES.
 8. WARNING SIGNS FOR NATURAL HILLSIDE CATCHMENTS SHALL BE ERRECTED AT THE LOCATION AS AGREED ON SITE BY THE ENGINEER. THE DETAILS OF THE WARNING SIGNS SHALL REFER TO GEO SKETCH NO. R1077.

- LEGEND:**
- PROPOSED FLEXIBLE BARRIER WITH END POSTS
 - PROPOSED 600mm WIDE MASONRY MAINTENANCE STAIRCASE WITH HANDRAIL (REFER TO SKETCH NOS. LPM1105/SK001 AND LPM1105/SK002)
 - PROPOSED 600mm WIDE MASONRY MAINTENANCE STAIRCASE WITHOUT HANDRAIL (REFER TO SKETCH NO. LPM1105/SK001)
 - TEMPORARY HOARDING (TYPE C) (REFER TO CEDD STD. DRG. NO. C1012A AND GEO SKETCH NOS. R1052H AND R1053C)
 - TEMPORARY CHAIN LINK FENCE (REFER TO CEDD STD DRG. NO. C1006A)
 - EXISTING TREE WITHIN THE WORKS AREA
 - TREE TO BE FELLED
 - LOCATION OF AQUILARIA SINENSIS
 - LOCATION OF PAVETTA HONGKONGENSIS
 - WORKS AREA

GENERAL ARRANGEMENT OF WORKS
SCALE 1:250



| Rev | Description | By | Date | Approved |
|-----|---|-----|--------|----------|
| P7 | UPDATE HOARDING STANDARD AND FLEXIBLE BARRIER ALIGNMENT REVISED | WVC | JAN-13 | LT |
| P6 | FLEXIBLE BARRIER ALIGNMENT REVISED | WVC | AUG-12 | LT |
| P5 | FLEXIBLE BARRIER ALIGNMENT REVISED | WVC | JUN-12 | LT |
| P4 | FLEXIBLE BARRIER ALIGNMENT REVISED | WVC | OCT-11 | LT |
| P3 | FLEXIBLE BARRIER ALIGNMENT REVISED | WVC | MAR-11 | LT |
| P2 | SITE BOUNDARY REVISED | WVC | JAN-11 | LT |
| P1 | FIRST ISSUE | PC | NOV-10 | LT |

| | | | |
|----------|-----|------------------------------|------|
| Drawn | FF | Approved | |
| Designed | PC | Director, Halcrow China Ltd. | |
| Checked | WVC | | Date |

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CIVIL ENGINEERING AND
DEVELOPMENT DEPARTMENT



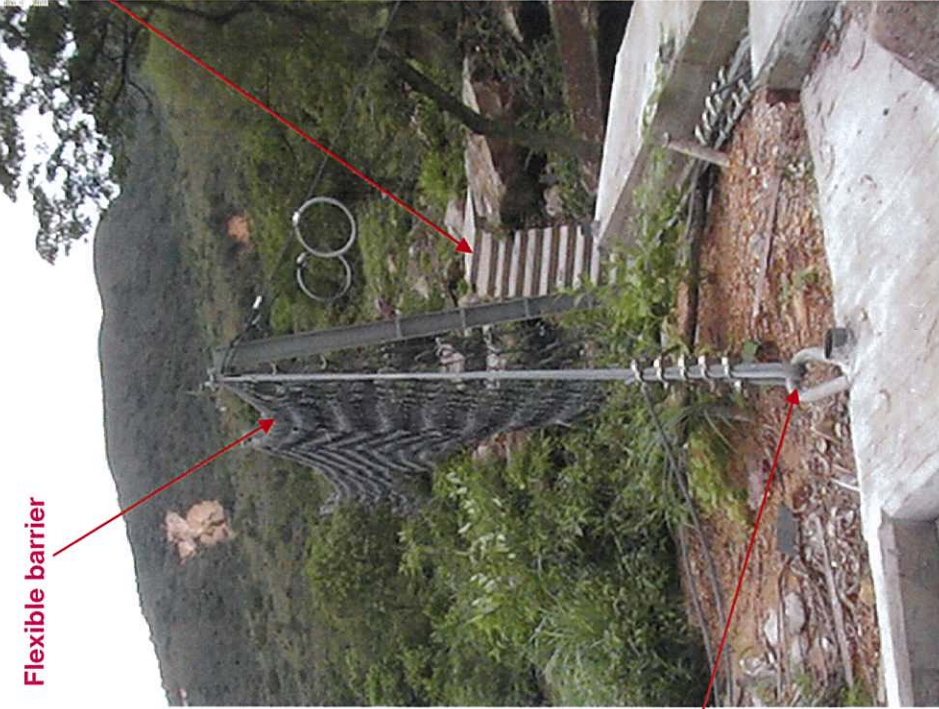
Contract:
CONTRACT NO. GE/2011/05
LANDSLIP PREVENTION AND MITIGATION PROGRAMME,
2008, PACKAGE J, LANDSLIP PREVENTION AND
MITIGATION WORKS IN KOWLOON,
NEW TERRITORIES AND OUTLYING ISLANDS

Drawing Title:
STUDY AREA NO. 12NW-C/SA1 (STUDY AREA H)
ABOVE LEUNG FAI TIN ALONG
CLEAR WATER BAY ROAD, SAI KUNG

GENERAL ARRANGEMENT OF WORKS (SHEET 2 OF 2)

| | | | |
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| Drawing No.: | TO/NTMA/1083 | Revision: | P7 |
|--------------|--------------|-----------|----|

Drawing Scale: AS SHOWN
C/D File no: e:\geo\TONTMA\Drawing\108\NTMA1083_P7_works.dgn



Flexible barrier

Maintenance staircase

Lateral anchor

Supporting post



Close-up View of Lateral Anchor and Maintenance Staircases

Close-up View of Flexible Mesh and Supporting Post

Agreement No. CE 37/2008 (GE) Landslip Prevention and Mitigation Programme, 2008, Package J



Previous Examples of Flexible Barrier for Natural Terrain Hazard Mitigation at Tung Chung Road within Lantau Country Park

Plate A1



View of the flexible barrier prior to installation



Example of installation process of the proprietary flexible barrier



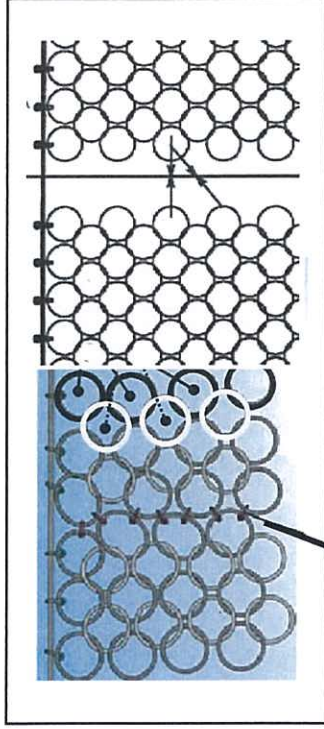
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Agreement No. CE 37/2008 (GE) Landslip Prevention and Mitigation Programme, 2008, Package J



Example of the Installation of a Proprietary Flexible Barrier (1)

Plate A2



View of proprietary flexible barrier after installation



Views of the anchors

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Example of the Installation of a Proprietary Flexible Barrier (2)

Halcrow

Plate A3

Appendix B

Ecological Survey Data

Table B1 – List of Trees Identified within the Works Area

| Tree Ref. ⁽¹⁾ | Species | Common English name | Chinese name | Origin ⁽²⁾ | Rare and Precious Species of Hong Kong ⁽³⁾ | Remark ⁽⁴⁾ |
|--------------------------|---------------------------------|-----------------------|--------------|-----------------------|---|-----------------------|
| T020 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T021 | <i>Meliosma rigida</i> | Stiff-leaved Meliosma | 筆羅子 | Native | No | |
| T022 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T023 | <i>Garcinia oblongifolia</i> | Lingnan Garcinia | 嶺南山竹子 | Native | No | |
| T024 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| T025 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T026 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T027 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T028 | <i>Archidendron lucidum</i> | Chinese Apea Ear-ring | 亮葉猴耳環 | Native | No | |
| T029 | <i>Archidendron lucidum</i> | Chinese Apea Ear-ring | 亮葉猴耳環 | Native | No | |
| T030 | <i>Scolopia saeva</i> | Scolopia | 廣東刺柃 | Native | No | |
| T031 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| T032 | Dead tree | - | - | - | No | |
| T033 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T034 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T035 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T036 | <i>Cinnamomum parthenoxylon</i> | Yellow Cinnamomum | 黃樟 | Native | No | |
| T037 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T038 | <i>Cinnamomum parthenoxylon</i> | Yellow Cinnamomum | 黃樟 | Native | No | |
| T039 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T040 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T041 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T042 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T043 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T044 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T045 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T046 | <i>Cinnamomum parthenoxylon</i> | Yellow Cinnamomum | 黃樟 | Native | No | |
| T047 | <i>Cinnamomum parthenoxylon</i> | Yellow Cinnamomum | 黃樟 | Native | No | |
| T048 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T049 | <i>Acronychia pedunculata</i> | Acronychia | 山油柑 | Native | No | |
| T050 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |

Table B1 – List of Trees Identified within the Works Area

| Tree Ref. ⁽¹⁾ | Species | Common English name | Chinese name | Origin ⁽²⁾ | Rare and Precious Species of Hong Kong ⁽³⁾ | Remark ⁽⁴⁾ |
|--------------------------|-----------------------------------|---------------------|--------------|-----------------------|---|-----------------------|
| T051 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T052 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T053 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T054 | <i>Cinnamomum parthenoxylon</i> | Yellow Cinnamomum | 黃樟 | Native | No | |
| T055 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T056 | <i>Cratogeomys cochinchinense</i> | Yellow cow wood | 黃牛木 | Native | No | |
| T057 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T058 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T059 | <i>Cinnamomum parthenoxylon</i> | Yellow Cinnamomum | 黃樟 | Native | No | |
| T060 | <i>Cinnamomum parthenoxylon</i> | Yellow Cinnamomum | 黃樟 | Native | No | |
| T061 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T062 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T063 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T064 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T065 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T074 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T076 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T079 | <i>Cinnamomum parthenoxylon</i> | Yellow Cinnamomum | 黃樟 | Native | No | |
| T080 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T081 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T082 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T083 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T084 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T115 | <i>Schefflera heptaphylla</i> | Ivy tree | 鴨腳木 | Native | No | |
| T116 | <i>Acronychia pedunculata</i> | Acronychia | 山油柑 | Native | No | |
| T117 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T118 | <i>Syzygium levinei</i> | Levine's Syzygium | 山蒲桃 | Native | No | |
| T119 | <i>Mallotus paniculatus</i> | Turn-in-the-wind | 白楸 | Native | No | |
| T120 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T121 | <i>Scolopia saeva</i> | Scolopia | 廣東刺柃 | Native | No | |
| T122 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T123 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |

Table B1 – List of Trees Identified within the Works Area

| Tree Ref. ⁽¹⁾ | Species | Common English name | Chinese name | Origin ⁽²⁾ | Rare and Precious Species of Hong Kong ⁽³⁾ | Remark ⁽⁴⁾ |
|--------------------------|---------------------------------|----------------------|--------------|-----------------------|---|-----------------------|
| T124 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T125 | <i>Cinnamomum parthenoxylon</i> | Yellow Cinnamomum | 黃樟 | Native | No | |
| T126 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T127 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T128 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T129 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T130 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T145 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T146 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T147 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T148 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T149 | <i>Schefflera heptaphylla</i> | Ivy tree | 鴨腳木 | Native | No | |
| T150 | <i>Elaeocarpus chinensis</i> | Chinese Elaeocarpus | 中華杜英 | Native | No | |
| T151 | <i>Scolopia saeva</i> | Scolopia | 廣東刺柃 | Native | No | |
| T152 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T153 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T154 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T155 | <i>Symplocos glauca</i> | Glaucous Sweet-leaf | 羊舌樹 | Native | No | |
| T156 | <i>Scolopia saeva</i> | Scolopia | 廣東刺柃 | Native | No | |
| T157 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T158 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T159 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T162 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T165 | <i>Scolopia saeva</i> | Scolopia | 廣東刺柃 | Native | No | |
| T166 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T167 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| T168 | <i>Cinnamomum parthenoxylon</i> | Yellow Cinnamomum | 黃樟 | Native | No | |
| T169 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| T170 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T171 | <i>Litsea rotundifolia</i> | Oblong-leaved Litsea | 豺皮樟 | Native | No | |
| T188 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T189 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |

Table B1 – List of Trees Identified within the Works Area

| Tree Ref. ⁽¹⁾ | Species | Common English name | Chinese name | Origin ⁽²⁾ | Rare and Precious Species of Hong Kong ⁽³⁾ | Remark ⁽⁴⁾ |
|--------------------------|---------------------------------|-------------------------|--------------|-----------------------|---|-----------------------|
| T190 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| T191 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T192 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T193 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T194 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T195 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T196 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T197 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T198 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T248 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| T249 | <i>Phyllanthus reticulatus</i> | Reticulated Leaf-flower | 小果葉下珠 | Native | No | |
| T251 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| T252 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T253 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T254 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T255 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| T256 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T257 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T258 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T259 | <i>Scolopia saeva</i> | Scolopia | 廣東刺柃 | Native | No | |
| T260 | <i>Cinnamomum parthenoxylon</i> | Yellow Cinnamomum | 黃樟 | Native | No | |
| T261 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T262 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T263 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T264 | Dead tree | - | - | - | No | |
| T265 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T266 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T267 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T268 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T269 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T270 | <i>Scolopia saeva</i> | Scolopia | 廣東刺柃 | Native | No | |
| T271 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |

Table B1 – List of Trees Identified within the Works Area

| Tree Ref. ⁽¹⁾ | Species | Common English name | Chinese name | Origin ⁽²⁾ | Rare and Precious Species of Hong Kong ⁽³⁾ | Remark ⁽⁴⁾ |
|--------------------------|---------------------------------|---------------------|--------------|-----------------------|---|-----------------------|
| T272 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T273 | <i>Cinnamomum parthenoxylon</i> | Yellow Cinnamomum | 黃樟 | Native | No | |
| T274 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T281 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T282 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T296 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T297 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T298 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T299 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T300 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T301 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T302 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| T303 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T304 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| T305 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| T306 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| T307 | <i>Cinnamomum parthenoxylon</i> | Yellow Cinnamomum | 黃樟 | Native | No | |
| T308 | <i>Schefflera heptaphylla</i> | Ivy tree | 鴨腳木 | Native | No | |
| T309 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T310 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T311 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T312 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T313 | <i>Cinnamomum parthenoxylon</i> | Yellow Cinnamomum | 黃樟 | Native | No | |
| T314 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T332 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T333 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T334 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T335 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T336 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T337 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T338 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T339 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |

Table B1 – List of Trees Identified within the Works Area

| Tree Ref. ⁽¹⁾ | Species | Common English name | Chinese name | Origin ⁽²⁾ | Rare and Precious Species of Hong Kong ⁽³⁾ | Remark ⁽⁴⁾ |
|--------------------------|----------------------------------|---------------------|--------------|-----------------------|---|-----------------------|
| T340 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T341 | <i>Aquilaria sinensis</i> | Incense tree | 土沉香 | Native | Yes | Topped |
| T342 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T343 | <i>Elaeocarpus chinensis</i> | Chinese Elaeocarpus | 中華杜英 | Native | No | |
| T344 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T345 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T346 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T347 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T348 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T349 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T350 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T351 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T352 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T353 | <i>Syzygium hancei</i> | Hance's Syzygium | 韓氏蒲桃 | Native | No | |
| T354 | <i>Syzygium hancei</i> | Hance's Syzygium | 韓氏蒲桃 | Native | No | |
| T355 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T356 | <i>Aporosa dioica</i> | Aporosa | 銀柴 | Native | No | |
| T357 | <i>Syzygium hancei</i> | Hance's Syzygium | 韓氏蒲桃 | Native | No | |
| T358 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T359 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T413 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T414 | <i>Scolopia saeva</i> | Scolopia | 廣東刺柃 | Native | No | |
| T415 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T416 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T417 | Dead tree | - | - | - | No | |
| T418 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T419 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T420 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T421 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T422 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T423 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T431 | <i>Cinnamomum parthenoxylon</i> | Yellow Cinnamomum | 黃樟 | Native | No | |

Table B1 – List of Trees Identified within the Works Area

| Tree Ref. ⁽¹⁾ | Species | Common English name | Chinese name | Origin ⁽²⁾ | Rare and Precious Species of Hong Kong ⁽³⁾ | Remark ⁽⁴⁾ |
|--------------------------|-----------------------------------|---------------------------|--------------|-----------------------|---|----------------------------|
| T432 | <i>Meliosma rigida</i> | Stiff-leaved Meliosma | 筆羅子 | Native | No | |
| T433 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T434 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T435 | <i>Cratogeomys cochinchinense</i> | Yellow cow wood | 黃牛木 | Native | No | |
| T468 | <i>Meliosma rigida</i> | Stiff-leaved Meliosma | 筆羅子 | Native | No | |
| T469 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T470 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T471 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T472 | <i>Diospyros eriantha</i> | Woolly-flowered Persimmon | 烏柿 | Native | No | |
| T473 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T477 | Dead tree | - | - | - | No | |
| T478 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T480 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T481 | <i>Syzygium hancei</i> | Hance's Syzygium | 韓氏蒲桃 | Native | No | |
| T482 | Dead tree | - | - | - | No | |
| T483 | <i>Scolopia saeva</i> | Scolopia | 廣東刺柃 | Native | No | |
| T484 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T485 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T486 | <i>Aporosa dioica</i> | Aporosa | 銀柴 | Native | No | |
| T487 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T488 | <i>Choerospondias axillaris</i> | Hog Plum | 南酸棗 | Native | No | |
| T489 | <i>Cinnamomum parthenoxylon</i> | Yellow Cinnamomum | 黃樟 | Native | No | |
| T490 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T493 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T494 | <i>Mallotus paniculatus</i> | Turn-in-the-wind | 白楸 | Native | No | |
| T495 | <i>Aquilaria sinensis</i> | Incense tree | 土沉香 | Native | Yes | Bottom part damaged |
| T496 | <i>Schefflera heptaphylla</i> | Ivy tree | 鴨腳木 | Native | No | |
| T497 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T498 | <i>Aporosa dioica</i> | Aporosa | 銀柴 | Native | No | |
| T499 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T500 | Dead tree | - | - | - | No | |
| T516 | <i>Scolopia saeva</i> | Scolopia | 廣東刺柃 | Native | No | |

Table B1 – List of Trees Identified within the Works Area

| Tree Ref. ⁽¹⁾ | Species | Common English name | Chinese name | Origin ⁽²⁾ | Rare and Precious Species of Hong Kong ⁽³⁾ | Remark ⁽⁴⁾ |
|--------------------------|---------------------------------|------------------------|--------------|-----------------------|---|-----------------------|
| T517 | <i>Aquilaria sinensis</i> | Incense tree | 土沉香 | Native | Yes | Topped |
| T518 | <i>Aquilaria sinensis</i> | Incense tree | 土沉香 | Native | Yes | |
| T519 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T520 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T521 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T522 | <i>Cinnamomum parthenoxylon</i> | Yellow Cinnamomum | 黃樟 | Native | No | |
| T523 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T524 | <i>Syzygium hancei</i> | Hance's Syzygium | 韓氏蒲桃 | Native | No | |
| T525 | <i>Cinnamomum parthenoxylon</i> | Yellow Cinnamomum | 黃樟 | Native | No | |
| T526 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T527 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T528 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T529 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T530 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T531 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T532 | <i>Aquilaria sinensis</i> | Incense tree | 土沉香 | Native | Yes | Bottom part damaged |
| T533 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T534 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T535 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T536 | <i>Sterculia lanceolata</i> | Lance-leaved Sterculia | 假蘋婆 | Native | No | |
| T537 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T538 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T539 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T540 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T541 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T542 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T543 | <i>Diospyros morristiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T544 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T545 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T546 | <i>Cinnamomum parthenoxylon</i> | Yellow Cinnamomum | 黃樟 | Native | No | |
| T547 | <i>Canthium dicoccum</i> | Butulang Canthium | 魚骨木 | Native | No | |
| T548 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |

Table B1 – List of Trees Identified within the Works Area

| Tree Ref. ⁽¹⁾ | Species | Common English name | Chinese name | Origin ⁽²⁾ | Rare and Precious Species of Hong Kong ⁽³⁾ | Remark ⁽⁴⁾ |
|--------------------------|----------------------------------|---------------------------|--------------|-----------------------|---|----------------------------|
| T549 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T550 | <i>Aquilaria sinensis</i> | Incense tree | 土沉香 | Native | Yes | Bottom part damaged |
| T551 | <i>Ficus fistulosa</i> | Common Yellow Stem-fig | 水同木 | Native | No | |
| T552 | <i>Ficus fistulosa</i> | Common Yellow Stem-fig | 水同木 | Native | No | |
| T553 | <i>Sterculia lanceolata</i> | Lance-leaved Sterculia | 假蘋婆 | Native | No | |
| T554 | Dead tree | - | - | - | No | |
| T555 | <i>Sterculia lanceolata</i> | Lance-leaved Sterculia | 假蘋婆 | Native | No | |
| T556 | <i>Canthium dicocum</i> | Butulang Canthium | 魚骨木 | Native | No | |
| T557 | <i>Machilus pauhoi</i> | Chekiang Machilus | 刨花潤楠 | Native | No | |
| T558 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T559 | <i>Machilus pauhoi</i> | Chekiang Machilus | 刨花潤楠 | Native | No | |
| T560 | Dead tree | - | - | - | No | |
| T561 | Dead tree | - | - | - | No | |
| T565 | <i>Machilus pauhoi</i> | Chekiang Machilus | 刨花潤楠 | Native | No | |
| T567 | <i>Cinnamomum parthenoxylon</i> | Yellow Cinnamomum | 黃樟 | Native | No | |
| T571 | Dead tree | - | - | - | No | |
| T572 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| T573 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T574 | <i>Machilus pauhoi</i> | Chekiang Machilus | 刨花潤楠 | Native | No | |
| T575 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| T576 | <i>Cinnamomum parthenoxylon</i> | Yellow Cinnamomum | 黃樟 | Native | No | |
| T577 | <i>Diospyros eriantha</i> | Woolly-flowered Persimmon | 烏柿 | Native | No | |
| T578 | <i>Mallotus paniculatus</i> | Turn-in-the-wind | 白楸 | Native | No | |
| T579 | <i>Mallotus paniculatus</i> | Turn-in-the-wind | 白楸 | Native | No | |
| T580 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| T581 | <i>Schefflera heptaphylla</i> | Ivy tree | 鴨腳木 | Native | No | |
| T582 | <i>Aquilaria sinensis</i> | Incense tree | 土沉香 | Native | Yes | Bottom part damaged |
| T583 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T584 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T585 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T586 | <i>Ficus fistulosa</i> | Common Yellow Stem-fig | 水同木 | Native | No | |
| T587 | <i>Sterculia lanceolata</i> | Lance-leaved Sterculia | 假蘋婆 | Native | No | |

Table B1 – List of Trees Identified within the Works Area

| Tree Ref. ⁽¹⁾ | Species | Common English name | Chinese name | Origin ⁽²⁾ | Rare and Precious Species of Hong Kong ⁽³⁾ | Remark ⁽⁴⁾ |
|--------------------------|----------------------------------|------------------------|--------------|-----------------------|---|----------------------------|
| T588 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T589 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T590 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T591 | <i>Ficus subpisocarpa</i> | Japanese Superb Fig | 筆管榕 | Native | No | |
| T592 | <i>Sterculia lanceolata</i> | Lance-leaved Sterculia | 假蘋婆 | Native | No | |
| T593 | <i>Ficus variegata</i> | Common Red-stem Fig | 青果榕 | Native | No | |
| T594 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| T595 | <i>Sterculia lanceolata</i> | Lance-leaved Sterculia | 假蘋婆 | Native | No | |
| T596 | <i>Aquilaria sinensis</i> | Incense tree | 土沉香 | Native | Yes | |
| T597 | <i>Mallotus paniculatus</i> | Turn-in-the-wind | 白楸 | Native | No | |
| T598 | <i>Mangifera indica</i> | Mango | 杧果 | Exotic | No | |
| T599 | <i>Aquilaria sinensis</i> | Incense tree | 土沉香 | Native | Yes | |
| T601 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T602 | <i>Mallotus paniculatus</i> | Turn-in-the-wind | 白楸 | Native | No | |
| T603 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T604 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T605 | <i>Canthium dicoccum</i> | Butulang Canthium | 魚骨木 | Native | No | |
| T606 | <i>Aquilaria sinensis</i> | Incense tree | 土沉香 | Native | Yes | Bottom part damaged |
| T607 | <i>Aquilaria sinensis</i> | Incense tree | 土沉香 | Native | Yes | |
| T608 | <i>Aquilaria sinensis</i> | Incense tree | 土沉香 | Native | Yes | |
| T609 | Dead tree | - | - | - | No | |
| T610 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T611 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T612 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| T613 | <i>Schefflera heptaphylla</i> | Ivy tree | 鴨腳木 | Native | No | |
| T614 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T615 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T616 | <i>Syzygium levinei</i> | Levine's Syzygium | 山蒲桃 | Native | No | |
| T621 | <i>Aquilaria sinensis</i> | Incense tree | 土沉香 | Native | Yes | Bottom part damaged |
| T622 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T623 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T624 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |

Table B1 – List of Trees Identified within the Works Area

| Tree Ref. ⁽¹⁾ | Species | Common English name | Chinese name | Origin ⁽²⁾ | Rare and Precious Species of Hong Kong ⁽³⁾ | Remark ⁽⁴⁾ |
|--------------------------|----------------------------------|---------------------------|--------------|-----------------------|---|----------------------------|
| T625 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T626 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T627 | <i>Aquilaria sinensis</i> | Incense tree | 土沉香 | Native | Yes | |
| T628 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T629 | <i>Aquilaria sinensis</i> | Incense tree | 土沉香 | Native | Yes | |
| T630 | <i>Aquilaria sinensis</i> | Incense tree | 土沉香 | Native | Yes | |
| T631 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T632 | <i>Cinnamomum parthenoxylon</i> | Yellow Cinnamomum | 黃樟 | Native | No | |
| T633 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T634 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T635 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T636 | <i>Cinnamomum parthenoxylon</i> | Yellow Cinnamomum | 黃樟 | Native | No | |
| T637 | <i>Diospyros eriantha</i> | Woolly-flowered Persimmon | 烏柿 | Native | No | |
| T638 | <i>Canthium dicoccum</i> | Butulang Canthium | 魚骨木 | Native | No | |
| T639 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T640 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T641 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T642 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T643 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T644 | <i>Aquilaria sinensis</i> | Incense tree | 土沉香 | Native | Yes | Bottom part damaged |
| T645 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T646 | <i>Scolopia saeva</i> | Scolopia | 廣東刺柃 | Native | No | |
| T647 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T648 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T649 | <i>Aquilaria sinensis</i> | Incense tree | 土沉香 | Native | Yes | Bottom part damaged |
| T650 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T651 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T652 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T653 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T699 | Dead tree | - | - | - | No | |
| T700 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T701 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |

Table B1 – List of Trees Identified within the Works Area

| Tree Ref. ⁽¹⁾ | Species | Common English name | Chinese name | Origin ⁽²⁾ | Rare and Precious Species of Hong Kong ⁽³⁾ | Remark ⁽⁴⁾ |
|--------------------------|----------------------------------|-----------------------|--------------|-----------------------|---|----------------------------|
| T702 | Dead tree | - | - | - | No | |
| T703 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T704 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T705 | <i>Aquilaria sinensis</i> | Incense tree | 土沉香 | Native | Yes | Bottom part damaged |
| T706 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T707 | <i>Schefflera heptaphylla</i> | Ivy tree | 鴨腳木 | Native | No | |
| T708 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T709 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T710 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T711 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T777 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| T778 | <i>Meliosma rigida</i> | Stiff-leaved Meliosma | 筆羅子 | Native | No | |
| T779 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| T783 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| T784 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T785 | <i>Schefflera heptaphylla</i> | Ivy tree | 鴨腳木 | Native | No | |
| T786 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T787 | <i>Machilus pauhoi</i> | Chekiang Machilus | 刨花潤楠 | Native | No | |
| T788 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T789 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T790 | <i>Schefflera heptaphylla</i> | Ivy tree | 鴨腳木 | Native | No | |
| T791 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T792 | <i>Meliosma rigida</i> | Stiff-leaved Meliosma | 筆羅子 | Native | No | |
| T793 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T794 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T795 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| T796 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T797 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T798 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T799 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T800 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T801 | - | - | - | - | - | Not accessible |

Table B1 – List of Trees Identified within the Works Area

| Tree Ref. ⁽¹⁾ | Species | Common English name | Chinese name | Origin ⁽²⁾ | Rare and Precious Species of Hong Kong ⁽³⁾ | Remark ⁽⁴⁾ |
|--------------------------|---------------------------------|---------------------|--------------|-----------------------|---|-----------------------|
| T802 | - | - | - | - | - | Not accessible |
| T803 | - | - | - | - | - | Not accessible |
| T805 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T806 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T807 | <i>Eurya nitida</i> | Shining Eurya | 細齒葉柃 | Native | No | |
| T814 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T815 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T816 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T817 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T818 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T819 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T820 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T821 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T822 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T823 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T826 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T827 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T828 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T829 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T830 | Dead tree | - | - | - | No | |
| T831 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T832 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T833 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T834 | Dead tree | - | - | - | No | |
| T835 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T836 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T837 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| T838 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T839 | <i>Cinnamomum parthenoxylon</i> | Yellow Cinnamomum | 黃樟 | Native | No | |
| T840 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T841 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T842 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |

Table B1 – List of Trees Identified within the Works Area

| Tree Ref. ⁽¹⁾ | Species | Common English name | Chinese name | Origin ⁽²⁾ | Rare and Precious Species of Hong Kong ⁽³⁾ | Remark ⁽⁴⁾ |
|--------------------------|----------------------------------|------------------------|--------------|-----------------------|---|-----------------------|
| T843 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T844 | <i>Cinnamomum parthenoxylon</i> | Yellow Cinnamomum | 黃樟 | Native | No | |
| T845 | <i>Syzygium levinei</i> | Levine's Syzygium | 山蒲桃 | Native | No | |
| T846 | <i>Cinnamomum parthenoxylon</i> | Yellow Cinnamomum | 黃樟 | Native | No | |
| T847 | <i>Aquilaria sinensis</i> | Incense tree | 土沉香 | Native | Yes | Topped |
| T852 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T853 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T854 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T855 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T856 | <i>Scolopia saeva</i> | Scolopia | 廣東刺柃 | Native | No | |
| T857 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T858 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T859 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T860 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T861 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T862 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T863 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T864 | <i>Cinnamomum parthenoxylon</i> | Yellow Cinnamomum | 黃樟 | Native | No | |
| T865 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| T866 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T870 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T881 | <i>Ficus fistulosa</i> | Common Yellow Stem-fig | 水同木 | Native | No | |
| T885 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| T886 | <i>Sterculia lanceolata</i> | Lance-leaved Sterculia | 假蘋婆 | Native | No | |
| T889 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T890 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T891 | <i>Aquilaria sinensis</i> | Incense tree | 土沉香 | Native | Yes | Topped |
| T892 | Dead tree | - | - | - | No | |
| T893 | <i>Scolopia saeva</i> | Scolopia | 廣東刺柃 | Native | No | |
| T894 | <i>Cinnamomum parthenoxylon</i> | Yellow Cinnamomum | 黃樟 | Native | No | |
| T895 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T896 | Dead tree | - | - | - | No | |

Table B1 – List of Trees Identified within the Works Area

| Tree Ref. ⁽¹⁾ | Species | Common English name | Chinese name | Origin ⁽²⁾ | Rare and Precious Species of Hong Kong ⁽³⁾ | Remark ⁽⁴⁾ |
|--------------------------|-------------------------------|---------------------------|--------------|-----------------------|---|-----------------------|
| T897 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| T936 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| TA001 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| TA002 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA003 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | Topped |
| TA004 | <i>Meliosma rigida</i> | Stiff-leaved Meliosma | 筆羅子 | Native | No | |
| TA005 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| TA006 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA007 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA008 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA009 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| TA010 | <i>Cinnamomum camphora</i> | Camphor | 樟 | Native | No | |
| TA011 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| TA012 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| TA013 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA014 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA015 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA016 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| TA017 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA018 | <i>Syzygium levinei</i> | Levine's Syzygium | 山蒲桃 | Native | No | |
| TA019 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA020 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA021 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| TA022 | <i>Syzygium hancei</i> | Hance's Syzygium | 韓氏蒲桃 | Native | No | |
| TA023 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA024 | <i>Diospyros eriantha</i> | Woolly-flowered Persimmon | 烏柿 | Native | No | |
| TA025 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA026 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA027 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA028 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA029 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA030 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |

Table B1 – List of Trees Identified within the Works Area

| Tree Ref. ⁽¹⁾ | Species | Common English name | Chinese name | Origin ⁽²⁾ | Rare and Precious Species of Hong Kong ⁽³⁾ | Remark ⁽⁴⁾ |
|--------------------------|----------------------------------|------------------------------|--------------|-----------------------|---|--------------------------------|
| TA031 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA032 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA033 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA034 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA035 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA036 | <i>Schefflera heptaphylla</i> | Ivy tree | 鴨腳木 | Native | No | |
| TA037 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA038 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| TA039 | <i>Elaeocarpus sylvestris</i> | Woodland Elaeocarpus | 山杜英 | Native | No | |
| TA040 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| TA041 | Dead tree | - | - | - | - | |
| TA042 | <i>Scolopia saeva</i> | Scolopia | 廣東刺柃 | Native | No | |
| TA043 | <i>Acronychia pedunculata</i> | Acronychia | 山油柑 | Native | No | |
| TA044 | <i>Aquilaria sinensis</i> | Incense tree | 土沉香 | Native | Yes | Bottom part damaged |
| TA045 | <i>Diospyros eriantha</i> | Woolly-flowered Persimmon | 烏柿 | Native | No | |
| TA046 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| TA047 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA048 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA049 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA050 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| TA051 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| TA052 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA053 | <i>Diospyros eriantha</i> | Woolly-flowered Persimmon | 烏柿 | Native | No | |
| TA054 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA055 | <i>Cinnamomum camphora</i> | Camphor | 樟 | Native | No | |
| TA056 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| TA057 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| TA058 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA059 | <i>Cinnamomum camphora</i> | Camphor | 樟 | Native | No | |
| TA060 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| TA061 | Dead tree | - | - | - | - | |
| TA062 | <i>Acronychia pedunculata</i> | Acronychia | 山油柑 | Native | No | |

Table B1 – List of Trees Identified within the Works Area

| Tree Ref. ⁽¹⁾ | Species | Common English name | Chinese name | Origin ⁽²⁾ | Rare and Precious Species of Hong Kong ⁽³⁾ | Remark ⁽⁴⁾ |
|--------------------------|-------------------------------|--------------------------|--------------|-----------------------|---|-----------------------|
| TA063 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| TA065 | <i>Elaeocarpus sylvestris</i> | Woodland Elaeocarpus | 山杜英 | Native | No | |
| TA067 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| TA068 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA069 | <i>Syzygium levinei</i> | Levine's Syzygium | 山蒲桃 | Native | No | |
| TA070 | <i>Elaeocarpus sylvestris</i> | Woodland Elaeocarpus | 山杜英 | Native | No | |
| TA071 | <i>Meliosma rigida</i> | Stiff-leaved Meliosma | 箬羅子 | Native | No | |
| TA072 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA073 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA074 | <i>Cinnamomum camphora</i> | Camphor | 樟 | Native | No | |
| TA075 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA076 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA077 | <i>Sarcosperma laurinum</i> | Fleshy Nut Tree | 肉實樹 | Native | No | |
| TA078 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA079 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA080 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA081 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| TA082 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| TA083 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| TA084 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA085 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA086 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA087 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA088 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA089 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| TA090 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA091 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA092 | <i>Aporusa dioica</i> | Aporusa | 銀柴 | Native | No | |
| TA093 | <i>Cinnamomum camphora</i> | Camphor | 樟 | Native | No | |
| TA094 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA095 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA096 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |

Table B1 – List of Trees Identified within the Works Area

| Tree Ref. ⁽¹⁾ | Species | Common English name | Chinese name | Origin ⁽²⁾ | Rare and Precious Species of Hong Kong ⁽³⁾ | Remark ⁽⁴⁾ |
|--------------------------|-------------------------------|------------------------|--------------|-----------------------|---|-----------------------|
| TA097 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA098 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA099 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA100 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA101 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA102 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA103 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA104 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA105 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA106 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA107 | <i>Cinnamomum camphora</i> | Camphor | 樟 | Native | No | |
| TA108 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA109 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA110 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA111 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA112 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA113 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA114 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA116 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA117 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA118 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| TA119 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA120 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA121 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA122 | <i>Ficus fistulosa</i> | Common Yellow Stem-fig | 水同木 | Native | No | |
| TA123 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA124 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA125 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA126 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA127 | <i>Diospyros morrisiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| TA128 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA129 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |

Table B1 – List of Trees Identified within the Works Area

| Tree Ref. ⁽¹⁾ | Species | Common English name | Chinese name | Origin ⁽²⁾ | Rare and Precious Species of Hong Kong ⁽³⁾ | Remark ⁽⁴⁾ |
|--------------------------|-------------------------------|---------------------------|--------------|-----------------------|---|-----------------------|
| TA130 | <i>Schefflera heptaphylla</i> | Ivy tree | 鴨腳木 | Native | No | |
| TA131 | <i>Diospyros morristiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| TA132 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA133 | <i>Diospyros morristiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| TA134 | <i>Cinnamomum camphora</i> | Camphor | 樟 | Native | No | |
| TA135 | <i>Elaeocarpus sylvestris</i> | Woodland Elaeocarpus | 山杜英 | Native | No | |
| TA136 | <i>Aporosa dioica</i> | Aporosa | 銀柴 | Native | No | |
| TA137 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA138 | <i>Diospyros morristiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| TA139 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA140 | <i>Diospyros morristiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| TA141 | <i>Mallotus paniculatus</i> | Turn-in-the-wind | 白楸 | Native | No | |
| TA142 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA143 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA144 | <i>Diospyros morristiana</i> | Morris's Persimmon | 羅浮柿 | Native | No | |
| TA145 | <i>Cinnamomum camphora</i> | Camphor | 樟 | Native | No | |
| TA146 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA147 | <i>Machilus chekiangensis</i> | Chekiang Machilus | 浙江潤楠 | Native | No | |
| TA148 | <i>Cinnamomum camphora</i> | Camphor | 樟 | Native | No | |
| TA149 | <i>Cinnamomum camphora</i> | Camphor | 樟 | Native | No | |
| TA150 | <i>Ficus fistulosa</i> | Common Yellow Stem-fig | 水同木 | Native | No | |
| TA151 | <i>Scolopia saeva</i> | Scolopia | 廣東刺柃 | Native | No | |

Notes:

- (1) Refer to Appendix A for the location of the tree reference.
- (2) Origin of the plant species (Native or exotic) were noted according to Hong Kong Herbarium (2001).
- (3) Plant species that were listed in AFCD (2003) were noted which is/are of conservation importance and concern.
- (4) All observations and remarks of the tree condition were made between April 2012 and September 2012.

Table B2 – Results of the Detailed Survey for Individuals of *Aquilaria sinensis* Found within the Works Area

| Tree ref ⁽¹⁾ | Height (cm) | Re-sprout ⁽²⁾ | dbh (mm) ⁽³⁾ | Healthiness ⁽⁴⁾ | Structure ⁽⁵⁾ | GPS coordinates | Remarks ⁽⁶⁾ | Damaged mature individuals |
|-------------------------|-------------|--------------------------|-------------------------|----------------------------|--------------------------|------------------------|---|----------------------------|
| T582 | 2000 | No | 260 | Very poor | Very poor | 22°18.116N 114°17.131E | Bottom part damaged | ✓ |
| T630 | 1200 | No | 220 | Good | Fair | 22°18.112N 114°17.166E | | |
| T550 | 1500 | No | 210 | Very poor | Very poor | 22°18.111N 114°17.149E | Bottom part damaged | ✓ |
| T627 | 1200 | No | 200 | Good | Fair | 22°18.112N 114°17.165E | | |
| T705 | 1400 | No | 200 | Very poor | Very poor | 22°18.108N 114°17.145E | Bottom part damaged | ✓ |
| T518 | 600 | No | 190 | Good | Fair | 22°18.090N 114°17.161E | | |
| T599 | 800 | No | 190 | Good | Fair | 22°18.119N 114°17.153E | | |
| T596 | 800 | No | 180 | Good | Fair | 22°18.120N 114°17.152E | | |
| T608 | 800 | No | 170 | Poor | Fair | 22°18.116N 114°17.154E | | |
| T644 | 800 | No | 160 | Very poor | Very poor | 22°18.110N 114°17.157E | Bottom part damaged | ✓ |
| T607 | 800 | No | 130 | Poor | Poor | 22°18.117N 114°17.155E | | |
| T606 | 700 | No | 120 | Very poor | Very poor | 22°18.118N 114°17.159E | Bottom part damaged | ✓ |
| T649 | 1000 | No | 120 | Very poor | Very poor | 22°18.110N 114°17.161E | Bottom part damaged | ✓ |
| T495 | 600 | No | 100 | Very poor | Very poor | 22°18.080N 114°17.171E | Bottom part damaged | ✓ |
| T621 | 700 | No | 100 | Very poor | Very poor | 22°18.115N 114°17.161E | Bottom part damaged | ✓ |
| T629 | 700 | No | 100 | Good | Fair | 22°18.112N 114°17.166E | | |
| TA044 | 1000 | No | 180 | Fair | Poor | 22°18.091N 114°17.083E | Bottom part damaged | ✓ |
| 833A | 200 | Yes | 160 | Fair | Poor | 22°18.058N 114°17.177E | Bottom part damaged / fungal body observed at bottom part | ✓ |
| 889C | 300 | No | 150 (base diameter) | Very poor | Very poor | 22°18.085N 114°17.168E | Bottom part damaged | ✓ |
| 605A | 140 | Yes | 120 (base diameter) | Good | Good | 22°18.117N 114°17.161E | One of the trunks broken and sealed with concrete | ✓ |
| 495M | 550 | No | 85 | Poor | Poor | 22°18.080N 114°17.170E | Bottom part damaged | ✓ |
| 801A | 130 | Yes | 85 (base diameter) | Good | Good | 22°18.132N 114°17.146E | Main stem broken | ✓ |

Table B2 – Results of the Detailed Survey for Individuals of *Aquilaria sinensis* Found within the Works Area

| Tree ref ⁽¹⁾ | Height (cm) | Re-sprout ⁽²⁾ | dbh (mm) ⁽³⁾ | Healthiness ⁽⁴⁾ | Structure ⁽⁵⁾ | GPS coordinates | Remarks ⁽⁶⁾ | Damaged mature individuals |
|-------------------------|-------------|--------------------------|-------------------------|----------------------------|--------------------------|------------------------|------------------------|----------------------------|
| TA133A | 170 | No | 80 | Fair | Fair | 22°18.062N 114°17.093E | | |
| 852A | 550 | No | 65 | Good | Good | 22°18.067N 114°17.173E | | |
| TA130A | 450 | No | 60 | Poor | Poor | 22°18.062N 114°17.106E | Bottom part damaged | ✓ |
| 495D | 500 | No | 55 | Good | Good | 22°18.084N 114°17.164E | | |
| TA135A | 200 | No | 55 | Fair | Fair | 22°18.071N 114°17.096E | | |
| 495E | 300 | No | 45 | Good | Poor | 22°18.089N 114°17.164E | | |
| 495F | 400 | No | 40 | Fair | Fair | 22°18.086N 114°17.165E | | |
| 895A | 250 | No | 40 | Good | Good | 22°18.100N 114°17.160E | | |
| TA145B | 350 | No | 40 | Fair | Fair | 22°18.067N 114°17.095E | Climber on tree trunk | |
| TA038A | 300 | No | 40 | Good | Good | 22°18.091N 114°17.096E | | |
| 301D | 350 | No | 35 | Good | Good | 22°18.060N 114°17.195E | | |
| 495A | 300 | No | 35 | Fair | Fair | 22°18.081N 114°17.165E | | |
| 495H | 300 | No | 35 | Good | Good | 22°18.080N 114°17.166E | | |
| 495P | 200 | Yes | 35 (base diameter) | Poor | Poor | 22°18.079N 114°17.164E | Main stem broken | ✓ |
| 889B | 200 | No | 35 | Good | Fair | 22°18.085N 114°17.164E | | |
| 191A | 250 | No | 30 | Good | Good | 22°18.051N 114°17.201E | | |
| 301A | 160 | No | 30 | Good | Fair | 22°18.060N 114°17.195E | | |
| 301B | 200 | No | 30 | Good | Good | 22°18.060N 114°17.195E | | |
| 301C | 300 | No | 30 | Good | Good | 22°18.060N 114°17.195E | | |
| 301E | 300 | No | 30 | Good | Good | 22°18.065N 114°17.190E | | |
| 495Q | 250 | No | 30 | Good | Good | 22°18.079N 114°17.164E | | |
| 495R | 250 | No | 30 | Fair | Fair | 22°18.079N 114°17.164E | | |
| 495S | 300 | No | 30 | Good | Fair | 22°18.079N 114°17.164E | | |
| 495T | 250 | No | 30 | Good | Fair | 22°18.083N 114°17.161E | | |

Table B2 – Results of the Detailed Survey for Individuals of *Aquilaria sinensis* Found within the Works Area

| Tree ref ⁽¹⁾ | Height (cm) | Re-sprout ⁽²⁾ | dbh (mm) ⁽³⁾ | Healthiness ⁽⁴⁾ | Structure ⁽⁵⁾ | GPS coordinates | Remarks ⁽⁶⁾ | Damaged mature individuals |
|-------------------------|-------------|--------------------------|-------------------------|----------------------------|--------------------------|------------------------|------------------------|----------------------------|
| 889A | 200 | No | 30 | Good | Good | 22°18.085N 114°17.164E | | |
| 889D | 300 | No | 30 | Good | Good | 22°18.091N 114°17.163E | | |
| 495J | 300 | No | 28 | Good | Fair | 22°18.080N 114°17.166E | | |
| 495L | 350 | No | 25 | Good | Good | 22°18.080N 114°17.166E | | |
| 495O | 300 | No | 25 | Good | Good | 22°18.080N 114°17.172E | | |
| 889E | 200 | No | 25 | Good | Fair | 22°18.088N 114°17.163E | | |
| 038E | 150 | No | 20 | Good | Good | 22°18.045N 114°17.205E | | |
| 036A | 170 | No | 13 | Fair | Poor | 22°18.042N 114°17.204E | | |
| 038D | 150 | No | 11 | Fair | Fair | 22°18.045N 114°17.205E | | |
| 038A | 50 | Yes | 10 (base diameter) | Very poor | Very poor | 22°18.045N 114°17.205E | Main stem broken | ✓ |
| T341 | 100 | Yes | N/A | Very poor | Very poor | 22°18.050N 114°17.186E | Topped | ✓ |
| T517 | 100 | No | N/A | Very poor | Very poor | 22°18.089N 114°17.164E | Topped | ✓ |
| T532 | 800 | No | N/A | Very poor | Very poor | 22°18.109N 114°17.156E | Bottom part damaged | ✓ |
| T847 | 100 | No | N/A | Very poor | Very poor | 22°18.058N 114°17.178E | Topped | ✓ |
| T891 | 100 | No | N/A | Very poor | Very poor | 22°18.086N 114°17.170E | Topped | ✓ |
| 038B | 40 | No | Seedling | Fair | Poor | 22°18.045N 114°17.205E | | |
| 038C | 40 | No | Seedling | Good | Good | 22°18.045N 114°17.205E | | |
| 038F | 50 | No | Seedling | Good | Good | 22°18.045N 114°17.202E | | |
| 038G | 50 | No | Seedling | Good | Good | 22°18.045N 114°17.202E | | |
| 480A | 50 | No | Seedling | Fair | Fair | 22°18.077N 114°17.168E | | |
| 480B | 30 | No | Seedling | Fair | Poor | 22°18.077N 114°17.168E | | |
| 495B | 120 | No | Seedling | Good | Good | 22°18.084N 114°17.163E | | |
| 495C | 120 | No | Seedling | Fair | Fair | 22°18.084N 114°17.163E | | |
| 495G | 180 | No | Seedling | Good | Good | 22°18.087N 114°17.166E | | |

Table B2 – Results of the Detailed Survey for Individuals of *Aquilaria sinensis* Found within the Works Area

| Tree ref ⁽¹⁾ | Height (cm) | Re-sprout ⁽²⁾ | dbh (mm) ⁽³⁾ | Healthiness ⁽⁴⁾ | Structure ⁽⁵⁾ | GPS coordinates | Remarks ⁽⁶⁾ | Damaged mature individuals |
|-------------------------|-------------|--------------------------|-------------------------|----------------------------|--------------------------|------------------------|------------------------|----------------------------|
| 495I | 30 | No | Seedling | Good | Good | 22°18.080N 114°17.166E | | |
| 495K | 30 | No | Seedling | Fair | Fair | 22°18.080N 114°17.166E | | |
| 495N | 170 | No | Seedling | Poor | Poor | 22°18.080N 114°17.172E | | |
| 495U | 100 | No | Seedling | Good | Good | 22°18.085N 114°17.166E | | |
| 832A | 100 | No | Seedling | Good | Fair | 22°18.058N 114°17.178E | | |
| 860A | 50 | No | Seedling | Good | Good | 22°18.064N 114°17.163E | | |
| 889F | 100 | No | Seedling | Fair | Fair | 22°18.088N 114°17.163E | | |
| TA151A | 100 | Yes | Seedling | Fair | Poor | 22°18.062N 114°17.091E | Topped | |
| TA151B | 350 | No | Seedling | Fair | Fair | 22°18.062N 114°17.091E | | |
| TA151C | 350 | No | Seedling | Fair | Good | 22°18.064N 114°17.091E | | |
| TA131A | 100 | No | Seedling | Fair | Fair | 22°18.065N 114°17.062E | | |
| TA131B | 100 | No | Seedling | Fair | Fair | 22°18.065N 114°17.062E | Main stem broken | |
| TA145A | 100 | No | Seedling | Fair | Fair | 22°18.067N 114°17.095E | | |
| TA032A | 20 | No | Seedling | Fair | Fair | 22°18.082N 114°17.096E | | |
| TA047A | 26 | No | Seedling | Good | Good | 22°18.091N 114°17.086E | | |

Notes:

- (1) Refer to Appendix A for tree reference.
- (2) Presence of re-sprouting was noted which was generally resulted from heavy trunk damage or serious infection of main stems.
- (3) Dbh (diameter at breast height) were measured for each sizeable individual. Base diameter of the main stem was measured instead if the trunk was broken or heavily damaged. No dbh can be obtained from seedlings.
- (4) Foliage condition, live crown ratio, presence of epicormic and root condition were considered for determining the healthiness of each plant individual (Matheny and Clark, 1994).
- (5) Form of tree taper, the overall tree performance and structure were considered for determining the tree and crown form of each plant individual (Matheny and Clark, 1994).
- (6) All observations and remarks of the tree condition were made between April 2012 and September 2012.

Table B3 – Results of the Detailed Survey for Individuals of *Pavetta hongkongensis* Found within the Works Area

| Tree ref | Height (cm) | Re-sprout ⁽¹⁾ | dbh (mm) ⁽²⁾ | Healthiness ⁽³⁾ | Structure ⁽⁴⁾ | GPS coordinates | Remarks ⁽⁵⁾ |
|----------|-------------|--------------------------|-------------------------|----------------------------|--------------------------|----------------------|---------------------------------------|
| T897A | 300 | No | 40 | Fair | Fair | 22°18.07N 114°17.09E | |
| T897B | 117 | Yes | Seedling | Good | Good | 22°18.07N 114°17.09E | |
| T897C | 80 | Yes | Seedling | Fair | Poor | 22°18.07N 114°17.09E | Disease symptom observed on the leave |
| T897D | 250 | No | Seedling | Fair | Fair | 22°18.07N 114°17.09E | |
| T897E | 150 | Yes | Seedling | Fair | Poor | 22°18.07N 114°17.09E | |
| T704A | 120 | Yes | Seedling | Fair | Poor | 22°18.07N 114°17.09E | Disease symptom observed on the leave |
| T897F | 55 | No | Seedling | Good | Good | 22°18.07N 114°17.09E | |
| TA054A | 70 | No | Seedling | Fair | Fair | 22°18.09N 114°17.08E | |
| TA054B | 300 | No | Seedling | Fair | Fair | 22°18.09N 114°17.08E | |
| TA054C | 170 | No | Seedling | Fair | Fair | 22°18.09N 114°17.08E | |

Notes:

- (1) Dbh (diameter at breast height) was measured for sizeable individual. No dbh can be obtained from seedlings.
- (2) Foliage condition, live crown ratio, presence of epicormic and root condition were considered for determining the healthiness of each plant individual (Matheny and Clark, 1994).
- (3) Form of tree taper, the overall tree performance and structure were considered for determining the tree and crown form of each plant individual (Matheny and Clark, 1994).
- (4) All observations and remarks of the tree condition were made in September 2012.

Appendix C

Noise Impact Assessment

Appendix C – Noise Impact Assessment

(In accordance with Technical Memorandum on Noise From Construction Work other than Percussive Piling, EPD, February 1998)

Table C1 – Representative Noise Sensitive Receivers within 300m

| Noise Sensitive Receiver Ref. | Description | No of Floor | Usage | Proximity to the Works Area |
|-------------------------------|--|-------------|-------------|-----------------------------|
| NSR 1 | No. 4 Village House, Leung Fai Tin | 3 | Residential | 28m |
| NSR 2 | No. 12 Village House, Leung Fai Tin | 3 | Residential | 45m |
| NSR 3 | No. 53 Village House, Ha Yeung | 3 | Residential | 110m |
| NSR 4 | No. 10 Village House, Ha Yeung New Village | 3 | Residential | 250m |

Table C2 – List of Construction Activities and Tentative Construction Period

| Activity Reference | Key Activities | Tentative Period |
|--------------------|---|------------------|
| Activity 1 | Site possession and preparation | Sep 13 to Oct 13 |
| Activity 2 | Construction of flexible barrier and masonry maintenance staircases | Nov 13 to Sep 14 |
| Activity 3 | Landscaping treatment works | Oct 14 to Nov 14 |

Table C3 – Predicted Sound Power Levels (SWL) for Each Construction Activity

| Activity Reference | Equipment | CNP Equipment Code | No. | SWL/Item in dB(A) |
|--------------------|---|--------------------|------------------------|-------------------|
| Activity 1 | Generator, silenced, 75dB(A) at 7m | CNP102 | 1 | 100 |
| | Welding Set | Note (1) | 2 | 78 |
| Activity 2 | Drill rig, rotary type (diesel) | Note (2) | Up to 2 ⁽³⁾ | 110 |
| | Generator, silenced, 75dB(A) at 7m | CNP102 | 1 | 100 |
| | Air compressor, air flow $\leq 10\text{m}^3/\text{min}$ | CNP001 | 1 | 100 |
| | Hoist, passenger/ material (petrol) | CNP123 | 1 | 104 |
| | Concrete Pump, stationary/lorry mounted | CNP047 | 1 | 109 |
| | Concrete mixer (petrol) | CNP046 | 1 | 96 |
| Activity 3 | Generator, silenced, 75dB(A) at 7m | CNP102 | 1 | 100 |
| | Water pump (petrol) | CNP282 | 1 | 103 |

- (1) Source: Approved EIA Report of Sheung Shui to Lok Ma Chau Spur Line (AEIAR-052/2002)
- (2) Source: Other PME documented by the Noise Control Authority (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)
- (3) One drill rig, rotary type (diesel) will be engaged in the vicinity of NSR1, whilst up to 2 drill rigs, rotary type (diesel) will be engaged at the rest of the Works Area.

Table C4 – Predicted Sound Pressure Levels (SPL) for Unmitigated Construction Activities
(Required noise level: 75 dB(A) in accordance with Table B1 of Annex 5 of Technical Memorandum under EIAO)

NSR1 - No. 4 Village House, Leung Fai Tin

| Activity Ref | Equipment | Equipment Code | No. | SPL calculation (dB(A)) | | | | Construction Period | | |
|-------------------------|---|----------------|-----|-------------------------|----------------------|-------------------|-----|---------------------|-----------------|-----------------|
| | | | | SWL | Distance Attenuation | Façade correction | SPL | Sep 13 – Oct 13 | Nov 13 – Sep 14 | Oct 14 – Nov 14 |
| Activity 1 | Generator, silenced, 75dB(A) at 7m | CNP102 | 1 | 100 | -37 | 3 | 66 | 66 | | |
| | Welding set | Note (1) | 2 | 81 | -37 | 3 | 47 | 47 | | |
| Activity 2 | Drill rig, rotary type (diesel) | Note (2) | 1 | 110 | -37 | 3 | 76 | | 76 | |
| | Generator, silenced, 75dB(A) at 7m | CNP102 | 1 | 100 | -37 | 3 | 66 | | 66 | |
| | Air compressor, air flow \leq 10m ³ /min | CNP001 | 1 | 100 | -37 | 3 | 66 | | 66 | |
| | Hoist, passenger/ material (petrol) | CNP123 | 1 | 104 | -37 | 3 | 70 | | 70 | |
| | Concrete Pump, stationary/lorry mounted | CNP047 | 1 | 109 | -37 | 3 | 75 | | 75 | |
| | Concrete mixer (petrol) | CNP046 | 1 | 96 | -37 | 3 | 62 | | 62 | |
| Activity 3 | Generator, silenced, 75dB(A) at 7m | CNP102 | 1 | 100 | -37 | 3 | 66 | | | 66 |
| | Water pump (petrol) | CNP282 | 1 | 103 | -37 | 3 | 69 | | | 69 |
| Total SPL, dB(A) | | | | | | | | 66 | 80 | 71 |
| Exceedance | | | | | | | | - | 5 | - |

- (1) Source: Approved EIA Report of Sheung Shui to Lok Ma Chau Spur Line (AEIAR-052/2002).
(2) Source: Other PME documented by the Noise Control Authority
(http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf).

Table C4 – Predicted Sound Pressure Levels (SPL) for Unmitigated Construction Activities
(Required noise level: 75 dB(A) in accordance with Table B1 of Annex 5 of Technical Memorandum under EIAO) (Cont'd)

NSR2 - No. 12 Village House, Leung Fai Tin

| Activity Reference | Equipment | CNP Equipment Code | No. | SPL calculation (dB(A)) | | | | Construction Period | | |
|-------------------------|--|--------------------|-----|-------------------------|----------------------|-------------------|-----|---------------------|-----------------|-----------------|
| | | | | SWL | Distance Attenuation | Façade correction | SPL | Sep 13 – Oct 13 | Nov 13 – Sep 14 | Oct 14 – Nov 14 |
| Activity 1 | Generator, silenced, 75dB(A) at 7m | CNP102 | 1 | 100 | -41 | 3 | 62 | 62 | | |
| | Welding set | Note (1) | 2 | 81 | -41 | 3 | 43 | 43 | | |
| Activity 2 | Drill rig, rotary type (diesel) | Note (2) | 2 | 113 | -41 | 3 | 75 | | 75 | |
| | Generator, silenced, 75dB(A) at 7m | CNP102 | 1 | 100 | -41 | 3 | 62 | | 62 | |
| | Air compressor, air flow ≤ 10m ³ /min | CNP001 | 1 | 100 | -41 | 3 | 62 | | 62 | |
| | Hoist, passenger/material (petrol) | CNP123 | 1 | 104 | -41 | 3 | 66 | | 66 | |
| | Concrete Pump, stationary/lorry mounted | CNP047 | 1 | 109 | -41 | 3 | 71 | | 71 | |
| | Concrete mixer (petrol) | CNP046 | 1 | 96 | -41 | 3 | 58 | | 58 | |
| Activity 3 | Generator, silenced, 75dB(A) at 7m | CNP102 | 1 | 100 | -41 | 3 | 62 | | | 62 |
| | Water pump (petrol) | CNP282 | 1 | 103 | -41 | 3 | 65 | | | 65 |
| Total SPL, dB(A) | | | | | | | | 62 | 77 | 67 |
| Exceedance | | | | | | | | - | 2 | - |

- (1) Source: Approved EIA Report of Sheung Shui to Lok Ma Chau Spur Line (AEIAR-052/2002).
(2) Source: Other PME documented by the Noise Control Authority
(http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf).

Table C4 – Predicted Sound Pressure Levels (SPL) for Unmitigated Construction Activities
(Required noise level: 75 dB(A) in accordance with Table B1 of Annex 5 of Technical Memorandum under EIAO) (Cont'd)

NSR3 - No. 53 Village House, Ha Yeung

| Activity Reference | Equipment | CNP Equipment Code | No. | SPL calculation (dB(A)) | | | | Construction Period | | |
|-------------------------|---|--------------------|-----|-------------------------|----------------------|-------------------|-----|---------------------|-----------------|-----------------|
| | | | | SWL | Distance Attenuation | Façade correction | SPL | Sep 13 – Oct 13 | Nov 13 – Sep 14 | Oct 14 – Nov 14 |
| Activity 1 | Generator, silenced, 75dB(A) at 7m | CNP102 | 1 | 100 | -49 | 3 | 54 | 54 | | |
| | Welding set | Note (1) | 2 | 81 | -49 | 3 | 35 | 35 | | |
| Activity 2 | Drill rig, rotary type (diesel) | Note (2) | 2 | 113 | -49 | 3 | 67 | | 67 | |
| | Generator, silenced, 75dB(A) at 7m | CNP102 | 1 | 100 | -49 | 3 | 54 | | 54 | |
| | Air compressor, air flow \leq 10m ³ /min | CNP001 | 1 | 100 | -49 | 3 | 54 | | 54 | |
| | Hoist, passenger/material (petrol) | CNP123 | 1 | 104 | -49 | 3 | 58 | | 58 | |
| | Concrete Pump, stationary/lorry mounted | CNP047 | 1 | 109 | -49 | 3 | 63 | | 63 | |
| | Concrete mixer (petrol) | CNP046 | 1 | 96 | -49 | 3 | 50 | | 50 | |
| Activity 3 | Generator, silenced, 75dB(A) at 7m | CNP102 | 1 | 100 | -49 | 3 | 54 | | | 54 |
| | Water pump (petrol) | CNP282 | 1 | 103 | -49 | 3 | 57 | | | 57 |
| Total SPL, dB(A) | | | | | | | | 54 | 69 | 59 |
| Exceedance | | | | | | | | - | - | - |

- (1) Source: Approved EIA Report of Sheung Shui to Lok Ma Chau Spur Line (AEIAR-052/2002).
(2) Source: Other PME documented by the Noise Control Authority
(http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf).

Table C4 – Predicted Sound Pressure Levels (SPL) for Unmitigated Construction Activities
(Required noise level: 75 dB(A) in accordance with Table B1 of Annex 5 of Technical Memorandum under EIAO) (Cont'd)

NSR4 - No. 10 Village House, Ha Yeung New Village

| Activity Reference | Equipment | CNP Equipment Code | No. | SPL calculation (dB(A)) | | | | Construction Period | | |
|-------------------------|--|--------------------|-----|-------------------------|----------------------|-------------------|-----|---------------------|-----------------|-----------------|
| | | | | SWL | Distance Attenuation | Façade correction | SPL | Sep 13 – Oct 13 | Nov 13 – Sep 14 | Oct 14 – Nov 14 |
| Activity 1 | Generator, silenced, 75dB(A) at 7m | CNP102 | 1 | 100 | -56 | 3 | 47 | 47 | | |
| | Welding set | Note (1) | 2 | 81 | -56 | 3 | 28 | 28 | | |
| Activity 2 | Drill rig, rotary type (diesel) | Note (2) | 2 | 113 | -56 | 3 | 60 | | 60 | |
| | Generator, silenced, 75dB(A) at 7m | CNP102 | 1 | 100 | -56 | 3 | 47 | | 47 | |
| | Air compressor, air flow ≤ 10m ³ /min | CNP001 | 1 | 100 | -56 | 3 | 47 | | 47 | |
| | Hoist, passenger/material (petrol) | CNP123 | 1 | 104 | -56 | 3 | 51 | | 51 | |
| | Concrete Pump, stationary/lorry mounted | CNP047 | 1 | 109 | -56 | 3 | 56 | | 56 | |
| | Concrete mixer (petrol) | CNP046 | 1 | 96 | -56 | 3 | 43 | | 43 | |
| Activity 3 | Generator, silenced, 75dB(A) at 7m | CNP102 | 1 | 100 | -56 | 3 | 47 | | | 47 |
| | Water pump (petrol) | CNP282 | 1 | 103 | -56 | 3 | 50 | | | 50 |
| Total SPL, dB(A) | | | | | | | | 47 | 62 | 52 |
| Exceedance | | | | | | | | - | - | - |

- (1) Source: Approved EIA Report of Sheung Shui to Lok Ma Chau Spur Line (AEIAR-052/2002).
(2) Source: Other PME documented by the Noise Control Authority
(http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf).

Table C5 – Predicted Sound Pressure Levels (SPL) for Mitigated Construction Activities
(Required noise level: 75 dB(A))

NSR1 - No. 4 Village House, Leung Fai Tin

| Activity Ref | Equipment | Equipment Code | No. | Unmitigated Noise level (dB(A)) | Barrier Attenuation (dB(A)) | Mitigated Noise Level (dB(A)) | Construction Period | | |
|-------------------------|--|----------------|-----|---------------------------------|-----------------------------|-------------------------------|---------------------|-----------------|-----------------|
| | | | | | | | Sep 13 – Oct 13 | Nov 13 – Sep 14 | Oct 14 – Nov 14 |
| Activity 1 | Generator, silenced, 75dB(A) at 7m | CNP102 | 1 | 66 | 0 | 66 | 66 | | |
| | Welding set | Note (1) | 2 | 47 | 0 | 47 | 47 | | |
| Activity 2 | Drill rig, rotary type (diesel) | Note (2) | 1 | 76 | -10 | 66 | | 66 | |
| | Generator, silenced, 75dB(A) at 7m | CNP102 | 1 | 66 | 0 | 66 | | 66 | |
| | Air compressor, air flow ≤ 10m ³ /min | CNP001 | 1 | 66 | -10 | 56 | | 56 | |
| | Hoist, passenger/material (petrol) | CNP123 | 1 | 70 | 0 | 70 | | 70 | |
| | Concrete Pump, stationary/lorry mounted | CNP047 | 1 | 75 | -10 | 65 | | 65 | |
| | Concrete mixer (petrol) | CNP046 | 1 | 62 | -10 | 52 | | 52 | |
| Activity 3 | Generator, silenced, 75dB(A) at 7m | CNP102 | 1 | 66 | 0 | 66 | | | 66 |
| | Water pump (petrol) | CNP282 | 1 | 69 | 0 | 69 | | | 69 |
| Total SPL, dB(A) | | | | | | | 66 | 73 | 71 |
| Exceedance | | | | | | | - | - | - |

(1) Source: Approved EIA Report of Sheung Shui to Lok Ma Chau Spur Line (AEIAR-052/2002).

(2) Source: Other PME documented by the Noise Control Authority

(http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf).

Table C5 – Predicted Sound Pressure Levels (SPL) for Mitigated Construction Activities
(Required noise level: 75 dB(A) (Cont'd)

NSR2 - No. 12 Village House, Leung Fai Tin

| Activity Ref | Equipment | Equipment Code | No. | Unmitigated Noise level (dB(A)) | Barrier Attenuation (dB(A)) | Mitigated Noise Level (dB(A)) | Construction Period | | |
|-------------------------|--|----------------|-----|---------------------------------|-----------------------------|-------------------------------|---------------------|-----------------|-----------------|
| | | | | | | | Sep 13 – Oct 13 | Nov 13 – Sep 14 | Oct 14 – Nov 14 |
| Activity 1 | Generator, silenced, 75dB(A) at 7m | CNP102 | 1 | 62 | 0 | 62 | 62 | | |
| | Welding set | Note (1) | 2 | 43 | 0 | 43 | 43 | | |
| Activity 2 | Drill rig, rotary type (diesel) | Note (2) | 2 | 75 | -10 | 65 | | 65 | |
| | Generator, silenced, 75dB(A) at 7m | CNP102 | 1 | 62 | 0 | 62 | | 62 | |
| | Air compressor, air flow ≤ 10m ³ /min | CNP001 | 1 | 62 | -10 | 52 | | 52 | |
| | Hoist, passenger/material (petrol) | CNP123 | 1 | 66 | 0 | 66 | | 66 | |
| | Concrete Pump, stationary/lorry mounted | CNP047 | 1 | 71 | -10 | 61 | | 61 | |
| | Concrete mixer (petrol) | CNP046 | 1 | 58 | -10 | 48 | | 48 | |
| Activity 3 | Generator, silenced, 75dB(A) at 7m | CNP102 | 1 | 62 | 0 | 62 | | | 62 |
| | Water pump (petrol) | CNP282 | 1 | 65 | 0 | 65 | | | 65 |
| Total SPL, dB(A) | | | | | | | 62 | 70 | 67 |
| Exceedance | | | | | | | - | - | - |

(1) Source: Approved EIA Report of Sheung Shui to Lok Ma Chau Spur Line (AEIAR-052/2002).

(2) Source: Other PME documented by the Noise Control Authority

(http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf).

Table C5 – Predicted Sound Pressure Levels (SPL) for Mitigated Construction Activities
(Required noise level: 75 dB(A) (Cont'd)

NSR3 - No. 53 Village House, Ha Yeung

| Activity Ref | Equipment | Equipment Code | No. | Unmitigated Noise level (dB(A)) | Barrier Attenuation (dB(A)) | Mitigated Noise Level (dB(A)) | Construction Period | | |
|-------------------------|---|----------------|-----|---------------------------------|-----------------------------|-------------------------------|---------------------|-----------------|-----------------|
| | | | | | | | Sep 13 – Oct 13 | Nov 13 – Sep 14 | Oct 14 – Nov 14 |
| Activity 1 | Generator, silenced, 75dB(A) at 7m | CNP102 | 1 | 54 | 0 | 54 | 54 | | |
| | Welding set | Note (1) | 2 | 35 | 0 | 35 | 35 | | |
| Activity 2 | Drill rig, rotary type (diesel) | Note (2) | 2 | 67 | 0 | 67 | | 67 | |
| | Generator, silenced, 75dB(A) at 7m | CNP102 | 1 | 54 | 0 | 54 | | 54 | |
| | Air compressor, air flow \leq 10m ³ /min | CNP001 | 1 | 54 | 0 | 54 | | 54 | |
| | Hoist, passenger/material (petrol) | CNP123 | 1 | 58 | 0 | 58 | | 58 | |
| | Concrete Pump, stationary/lorry mounted | CNP047 | 1 | 63 | 0 | 63 | | 63 | |
| | Concrete mixer (petrol) | CNP046 | 1 | 50 | 0 | 50 | | 50 | |
| Activity 3 | Generator, silenced, 75dB(A) at 7m | CNP102 | 1 | 54 | 0 | 54 | | | 54 |
| | Water pump (petrol) | CNP282 | 1 | 57 | 0 | 57 | | | 57 |
| Total SPL, dB(A) | | | | | | | 54 | 69 | 59 |
| Exceedance | | | | | | | - | - | - |

- (1) Source: Approved EIA Report of Sheung Shui to Lok Ma Chau Spur Line (AEIAR-052/2002).
 (2) Source: Other PME documented by the Noise Control Authority
 (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf).

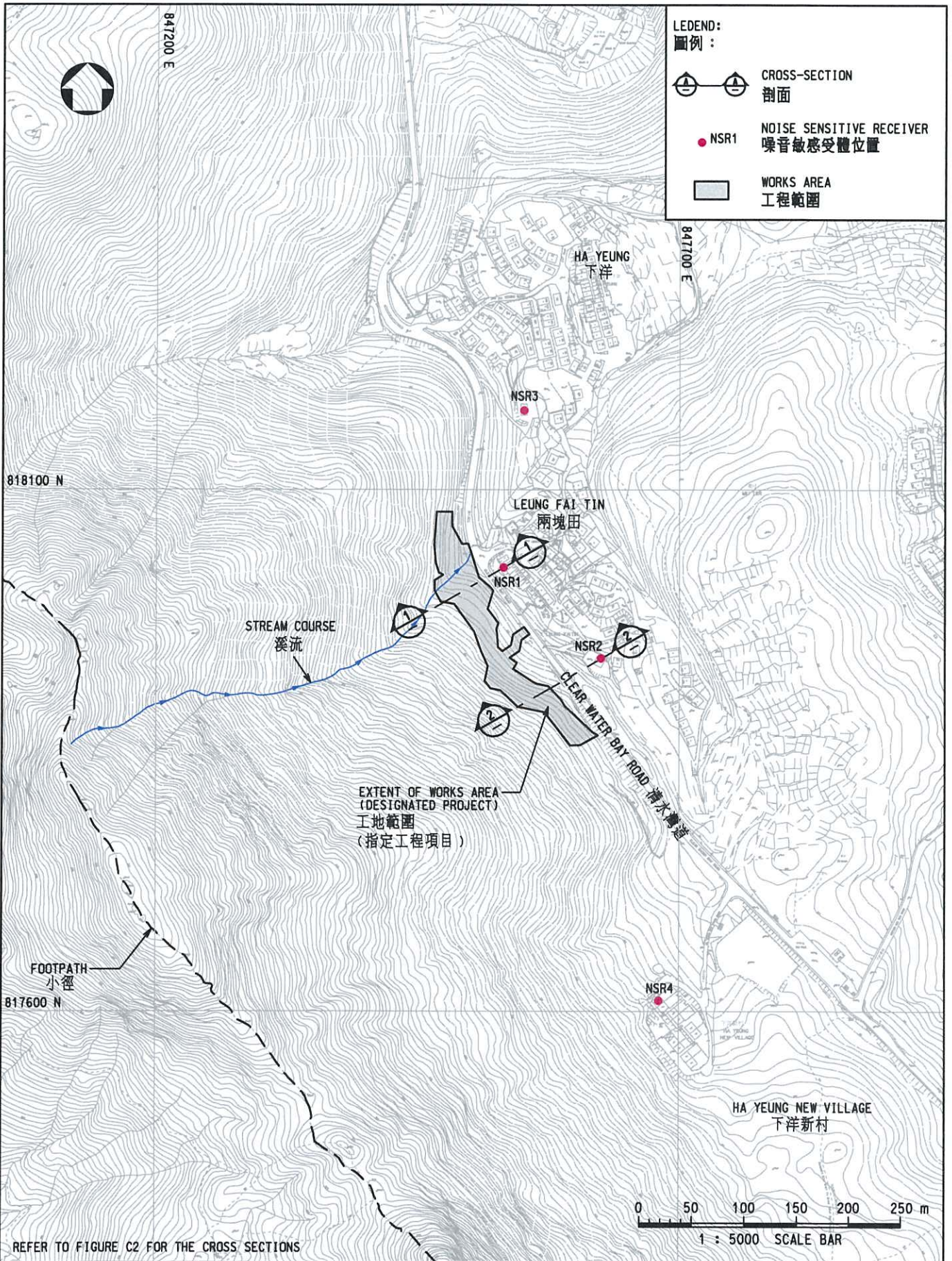
Table C5 – Predicted Sound Pressure Levels (SPL) for Mitigated Construction Activities
(Required noise level: 75 dB(A) (Cont'd)

NSR4 - No. 10 Village House, Ha Yeung New Village

| Activity Ref | Equipment | Equipment Code | No. | Unmitigated Noise level (dB(A)) | Barrier Attenuation (dB(A)) | Mitigated Noise Level (dB(A)) | Construction Period | | |
|-------------------------|---|----------------|-----|---------------------------------|-----------------------------|-------------------------------|---------------------|-----------------|-----------------|
| | | | | | | | Sep 13 – Oct 13 | Nov 13 – Sep 14 | Oct 14 – Nov 14 |
| Activity 1 | Generator, silenced, 75dB(A) at 7m | CNP102 | 1 | 47 | 0 | 47 | 47 | | |
| | Welding set | Note (1) | 2 | 28 | 0 | 28 | 28 | | |
| Activity 2 | Drill rig, rotary type (diesel) | Note (2) | 2 | 60 | 0 | 60 | | 60 | |
| | Generator, silenced, 75dB(A) at 7m | CNP102 | 1 | 47 | 0 | 47 | | 47 | |
| | Air compressor, air flow \leq 10m ³ /min | CNP001 | 1 | 47 | 0 | 47 | | 47 | |
| | Hoist, passenger/material (petrol) | CNP123 | 1 | 51 | 0 | 51 | | 51 | |
| | Concrete Pump, stationary/lorry mounted | CNP047 | 1 | 56 | 0 | 56 | | 56 | |
| | Concrete mixer (petrol) | CNP046 | 1 | 43 | 0 | 43 | | 43 | |
| Activity 3 | Generator, silenced, 75dB(A) at 7m | CNP102 | 1 | 47 | 0 | 47 | | | 47 |
| | Water pump (petrol) | CNP282 | 1 | 50 | 0 | 50 | | | 50 |
| Total SPL, dB(A) | | | | | | | 47 | 62 | 52 |
| Exceedance | | | | | | | - | - | - |

(1) Source: Approved EIA Report of Sheung Shui to Lok Ma Chau Spur Line (AEIAR-052/2002).

(2) Source: Other PME documented by the Noise Control Authority
http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf.

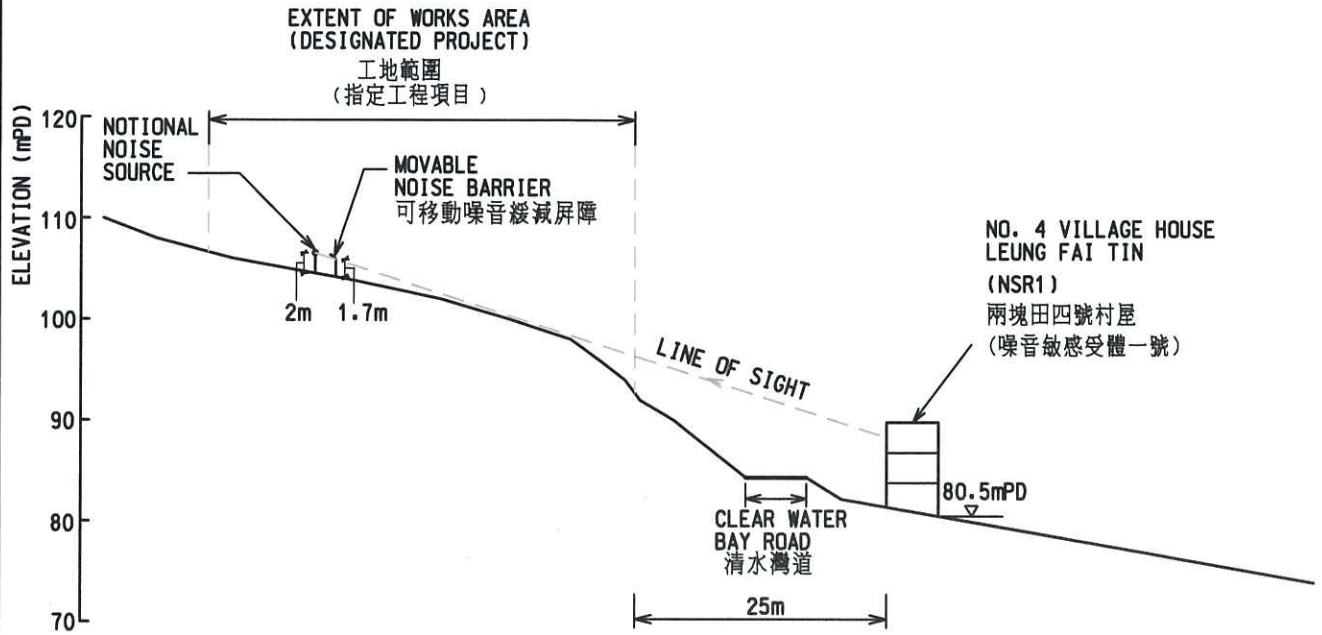


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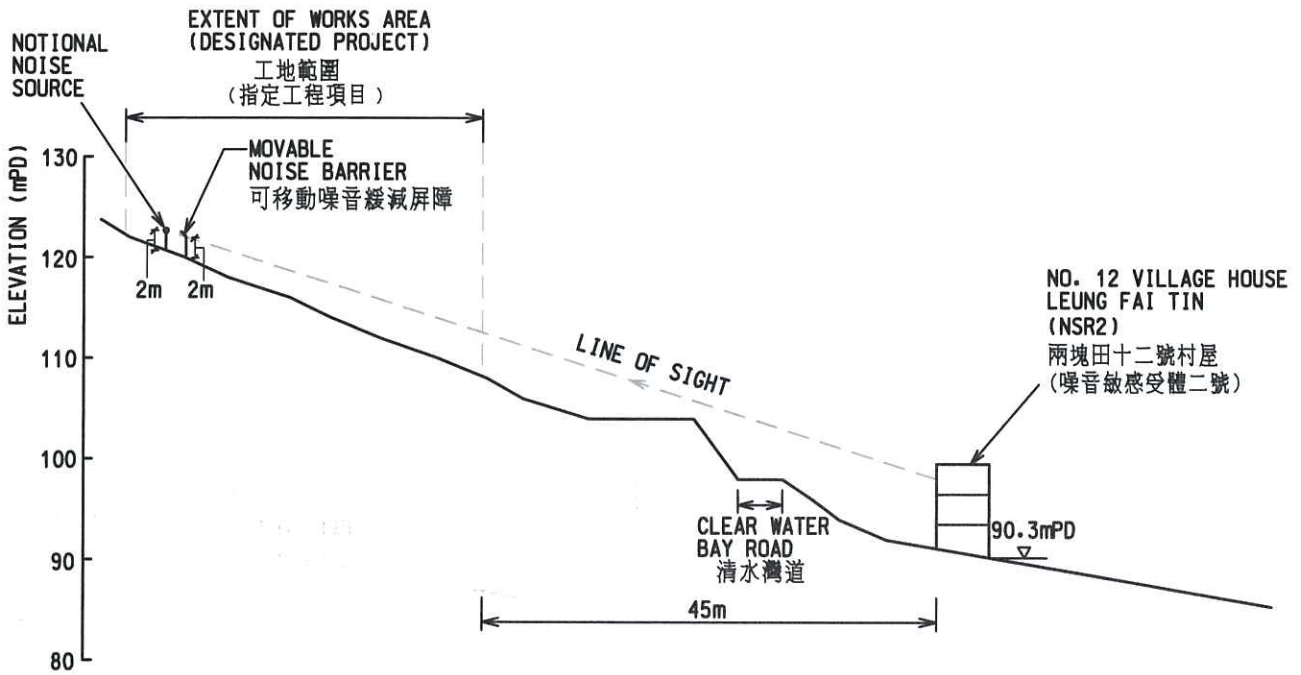
| | | | |
|---|--|--|--------------------------|
| Client:  CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT 土木工程拓展署 | Consulting Engineers:  Halcrow China Ltd. 合樂中國有限公司 | Project: Agreement No. CE 37/2008 (GE) Landslip Prevention and Mitigation Programme, 2008, Package J 顧問合約編號: CE 37/2008 (GE) 二零零八年防止及緩減山泥傾瀉計劃第J組 | FIGURE C1 圖 C1 |
|---|--|--|--------------------------|

Locations of the Noise Sensitive Receivers
 噪音敏感受體位置圖

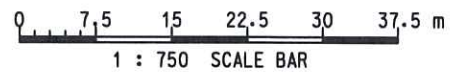
PHI.LIP



Section 1 - 1



Section 2 - 2



REFER TO FIGURE C1 FOR THE LOCATIONS OF THE CROSS-SECTIONS

Client:



Consulting Engineers:



Project:

Agreement No. CE 37/2008 (GE)
 Landslip Prevention and Mitigation Programme, 2008,
 Package J
 顧問合約編號: CE 37/2008 (GE)
 二零零八年防止及緩減山泥傾瀉計劃第J組

FIGURE C2
 圖 C2

Cross Section of the Proposed Movable Noise Barrier

可移動噪音緩減屏障剖面圖

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