香港青年協會
the hongkong federation of youth groups

# Phase III Redevelopment of The Hong Kong Federation of Youth Groups Jockey Club Sai Kung Outdoor Training Camp

## *On-Site Compensatory Woodland Planting Plan*

August 2012








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# 1. INTRODUCTION

1.1.1 An Environmental Impact Assessment (EIA) has been conducted for the construction and operation of the Project, namely "Phase III Redevelopment of The Hong Kong Federation of Youth Groups Jockey Club Sai Kung Outdoor Training Camp" (hereinafter referred to as "the Project"). The Project Proponent is the Hong Kong Federation of Youth Groups (HKFYG). The EIA was approved in December 2010 and the Environmental Permit (EP) is issued in January 2011.

1.1.2 According to the EIA and EM&A Manual, the ecological impacts included loss of 0.01 ha of mangroves, loss of 0.31 ha of woodland and associated vegetation, and potential impacts to 8 nos. of a protected tree species *Aquilaria sinensis*. Mitigation measures included compensatory mangrove and woodland planting, and tree transplantation. Compensatory mangrove planting of 0.01 ha of Kandelia droppers will be implemented along the intertidal zone at the camp site. Compensatory woodland planting will include mainly native tree and shrub species which are present in the existing habitats and are valuable to wildlife. Due to limited space within the Project site, in addition to on-site (about 0.03 ha) compensatory woodland planting, off-site (about 0.8 ha at Lui Ta Shek, Sai Kung West Country Park) compensatory woodland planting were also proposed, both to be implemented by a qualified landscape contractor appointed by the Project Proponent. Of the 8 no. of *Aquilaria sinensis* recorded within the site formation boundary, 3 will be retained and 5 will be transplanted.

1.1.3 According to the EP Condition 3.3 for Ecological Preservation and Compensation Measures, the Permit Holder (HKFYG) shall, at least one month before any compensatory planting, submit 3 hard copies and one electronic copy of the detailed Planting Plan including details such as location, maintenance requirement and programme, of the tree transplanting, compensatory mangrove and woodland planting to the Director for approval. The Mangrove Planting Plan was submitted to EPD in 11 March 2011 and was approved in 23 March 2011. Mangrove planting was implemented in April 2011. The Tree Protection and Transplanting Plan & The Whip Planting Plan (Off-site Compensatory Woodland Planting Plan) at Lui Ta Shek, Sai Kung West Country Park was submitted to EPD in 14 March and 27 April 2011 and was approved in 30 May 2011. Planting at Lui Tak Shek was implemented in June 2011, while tree transplantation was completed in March 2012.

1.1.4 The purpose of this submission is to present the On-site Compensatory Woodland Planting Plan, which is the remaining item of submission in accordance to EP Condition 3.3. The schedule of drawings are attached in **Appendix 1**.

# 2. ON-SITE COMPENSATORY WOODLAND PLANTING PLAN

## 2.1 Planting Locations and Materials

2.1.1 Three locations with a total area of about 0.07 ha will be designated for on-site compensatory woodland planting areas (shown as the hatched areas designated for tree whip plantings (DRG. NOs. AT3-PP-PP-01.3A -1.5A in **Appendix 1**). About 312 no. of native tree whips including *Castanopsis fissa, Litsea glutinosa, Reevesia thyrsoidea, Sterculia lanceolata, Schefflera heptaphylla, Machilus breviflora, Sapium discolor* will be planted at 1.5 m

spacing in these areas.

2.1.2 The on-site compensatory woodland planting will form part of the soft landscape plan covering the planting works for the Project. In addition, the landscape/ornamental plantings of the remaining areas also incorporate a variety of standard and heavy standard native trees, including *Aquilaria sinensis, Celtis sinensis, Cerbera manghas, Cinnamomum camphora* and *Hibiscus tiliaceus* as well as *native shrubs including Melastoma sanguineum* and *Melastoma candidum*, which serves as an ecological enhancement feature for the Project.

## 2.2 Planting Programme

2.2.1 It is anticipated that the planting works will be implemented upon completion of the superstructure works during the construction phase. The tentative schedule for planting is March-April 2013.

# 3. MONITORING

3.1.1 Monthly site inspection will be carried out for the first three month after planting and quarterly thereafter for two years. Survival and growth of representative species should be observed and recorded with photo records. The results of compensatory woodland planting monitoring will be included in the EM&A reports which will be verified by the Independent Environmental Checker (IEC).

3.1.2 According to the EM&A manual, should non-compliance of the ecological impacts occur, actions in accordance with the action plan stated in **Table 1** below should be carried out.

**Table 1***
**Event and Action Plan for Ecological Impact - Construction Phase**

| Action Level | Environmental Team (ET) Leader | Independent Environmental Checker (IEC) | Camp operator/ Landscape Contractor |
|---|---|---|---|
| Poor survival or health of woodland planting | 1. Identify source<br>2. Inform the IEC<br>3. Discuss remedial actions with the IEC and Landscape Contractor<br>4. Monitor remedial actions until rectification has been completed | 1. Check report<br>2. Discuss with the Landscape Contractor on possible remedial measures<br>4. Advise the Landscape Contractor on effectiveness of proposed remedial measures | 1. Amend maintenance programme and replant as necessary |

* extracted from Table 5.1 of the EM&A Manual.

# 4. CONCLUSION

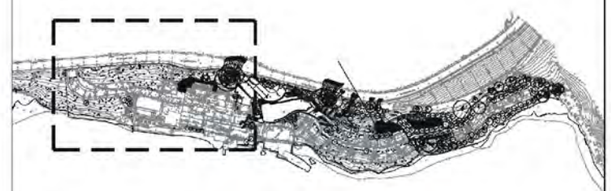
4.1.1 Upon submission and approval of the on-site compensatory woodland planting plan, the submission requirement under EP condition 3.3 will be completed and fulfilled. Implementation of the planting and monitoring will be documented accordingly in the monthly environmental and monitoring reports.

# Appendix 1

## On-Site Compensatory Woodland Planting Plan - Schedule of Drawings

**AREA A (241 m²)**

120nos. WHIP TREES (WITH TRUNK DIA OF MIN 10mm)
AT 1.5m C/C SPACING OF FOLLOWING SPECIES.
1. STERCULIA LANCEOLATA
2. SCHEFFLERA HEPTAPLIYLLA
3. MACHILUS BREVIFLORA
4. LITSEA GLUTINOSA



TAI MONG TSAI ROAD

TAI MONG TSAI ROAD

TR1365 TR1373 TR1374 TR1382 TR1381 TR1380 TR1378 TR1377 TR1383 TR1379 TR1376

TR1358 TR1357 TR1375

MIC ALB (SEMI-MATURE) 1nos.

ART.HET (STANDARD) 3nos.

CAR.PAP (STANDARD) 5nos.

TR1286 TR1287 TR1288

MATCHLINE FOR CONTINUATION SEE AT3-PP-01.4

NOTES:
1) ALL PLANTING STOCKS SHOULD BE FREE FROM PESTS AND DISEASES, INCLUDING BUT NOT LIMITED TO IMPORTED RED FIRE ANT, WEEDS AND WEED SEEDS AND SHOULD BE CHECKED IN ORDER BY RESIDENT LANDSCAPE ARCHITECT PRIOR TO PLANTING.
2) REGULAR WEEDING OPERATIONS, PEATS AND DISEASES CONTROL PLANS, FERTILIER PLANS ETC. SHOULD BE PERIOD AND NOTIFY HKPA OFFICERS THE OPERATIONAL PLANS AND MOINTOR THE WORKS.
3) PHOTO RECORDS ON DIFFERENT STAGES OF DEBRIS REMOVAL/SOILING REFILLING/ PLANTING WORKS, ETC. SHOULD BE KEPT FOR INSPECTION WHEN NECESSARY.

on-site compensatory woodland planting

| | | | | |
|---|---|---|---|---|
| Project: PROPOSED REDEVELOPMENT OF H.K.F.Y.G. TAI MONG TSAI OUTDOOR TRAINING CAMP PHASE III, TAI MONG TSAI ROAD, SAI KUNG | Scale: 1:200 A1 | Date: MAY 2012 | Rev. | Date | Description |
| | B.D. Ref. No.: BD 2 /9215/09 | | | | |
| | FPB Ref. No.: FP8/2057 | | | | |
| Drawing Title: TREE PLANTING PLAN CANTEEN BLOCK 1 | Project No.: 05916 | Drawn by: | | | |
| | Drawing No.: AT3-PP-01.3A | Checked by: KN | A | JUL12 | GENERAL REVISION |

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MATCH LINE FOR CONTINUATION SEE AT3-PP-013

**AREA B (227 m²)**

96nos. WHIP TREES (WITH TRUNK DIA OF min. 10mm) AT 1.5m C/C SPALING OF THE FOLLOWING SPECIES.
1. CASTANOPSIS FISSA
2. LITSEA GLUTINOSA
3. MACHILUS BREVIFLORA
4. REEVESIA THYRSOIDEA
5. SCHEFFLERA HEPTAPHYLLA
6. STERCULIA LANCEOLATA

6nos. NEW TREES WITH 200mm DBH (REFER TO AT3-PP-01.1)

TAI MONG TSAI ROAD

KOE.PAN. (SEMI-MATURE) 5nos.
FIC.BEN. (SEMI-MATURE) 10nos.

JUN.CHI. (HEAVY STANDARD) 8nos.
GAR.SPI.(HEAVY STANDARD) 5nos.
ACE.PAL.ATR (STANDARD) 3nos.
JUN.CHI. (HEAVY STANDARD) 13nos.

JUN.CHI. (HEAVY STANDARD) 9nos.

HIB.TIL (STANDARD) 8nos.

CIN.CAM (HEAVY STANDARD) 2nos.

SWIMMING POOL

ELA.HAI. (STANDARD) 6nos.

ELA.HAI. (HEAVY STANDARD) 4nos.

MIC.ALB. (HEAVY STANDARD) 3nos.
MIC.ALB. (HEAVY STANDARD) 1nos.

ELA.HAI. (HEAVY STANDARD) 2nos.

MIC.ALB. (HEAVY STANDARD) 1nos.

MATCH LINE FOR CONTINUATION SEE AT3-PP-01.5

TR775
TR643

H.W.M. (about 2.30mPD)

NOTES:
1) ALL PLANTING STOCKS SHOULD BE FREE FROM PESTS AND DISEASES, INCLUDING BUT NOT LIMITED TO IMPORTED RED FIRE ANT, WEEDS AND WEED SEEDS AND SHOULD BE CHECKED IN ORDER BY RESIDENT LANDSCAPE ARCHITECT PRIOR TO PLANTING.
2) REGULAR WEEDING OPERATIONS, PEATS AND DISEASES CONTROL PLANS, FERTILIER PLANS ETC. SHOULD BE PERIOD AND NOTIFY HKPA OFFICERS THE OPERATIONAL PLANS AND MOINTOR THE WORKS.
3) PHOTO RECORDS ON DIFFERENT STAGES OF DEBRIS REMOVAL/SOILING REFILLING/ PLANTING WORKS, ETC. SHOULD BE KEPT FOR INSPECTION WHEN NECESSARY.

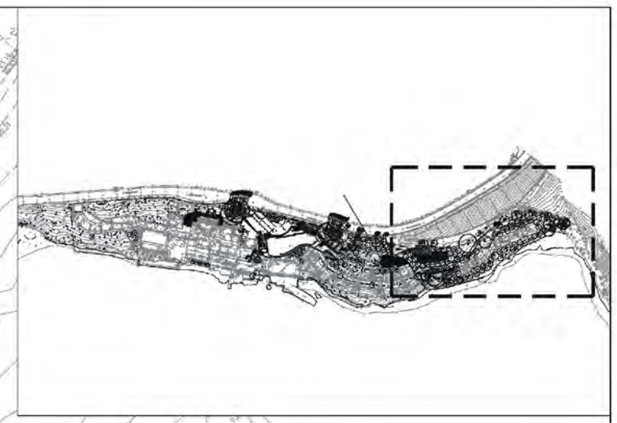
on-site compensatory woodland planting

| | | | | | |
|---|---|---|---|---|---|
| Project: PROPOSED REDEVELOPMENT OF H.K.F.Y.G. TAI MONG TSAI OUTDOOR TRAINING CAMP PHASE II TAI MONG TSAI ROAD, SAI KUNG | Scale: 1:200 A1 | Date: MAY 2012 | Rev. | Date | Description |
| | B.D. Ref. No.: BD 2 /9215/09 | | | | |
| | FPB Ref. No.: FP8/2067 | | | | |
| Drawing Title: TREE PLANTING PLAN CANTEEN BLOCK 1 | Project No.: 05916 | Drawn by: | | | |
| | Drawing No.: AT3-PP-01.4A | Checked by: KN | A. | JUL12 | GENERAL REVISION |

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**AREA C (254 m²)**
96nos. WHIP TREES (WITH TRUNK DIA OF MIN 10mm)
AT 1.5m C/C SPACING OF FOLLOWING SPECIES.
1. CASTANOPSIS FISSA
2. LITSEA GLUTINOSA
3. MACHILUS BREVIFLORA
4. REEVESIA THYRSOIDEA
5. SAPIUM DISCOLOR
6. SCHEFFLERA HEPTAPHYLLA
7. STERCULIA LANCEOLATA



CIN.CAM. (STANDARD) 3nos.
ELA.HAI. (STANDARD) 3nos.
10nos.
AQU.SIN. (STANDARD) 10nos.
CEL.SIN. (STANDARD) 3nos.
ELA.HAI. (STANDARD) 5nos.
KOE.PAN. (STANDARD) 5nos.
KOE.PAN. (STANDARD) 11nos.
ACE.PAL.ATR. (STANDARD) 2nos.
AQU.SIN. (STANDARD) 4nos.
TAI MONG TSAI ROAD
TR775
TR643
TR766
TR644
TR639
MATCHLINE
CONTINUATION
TO DRG. NO. AT3-PP-01-4
HIB.TIL. (STANDARD) 3nos.
CER.MAN. (STANDARD) 2nos.
HIB.TIL. (STANDARD) 3nos.
CER.MAN. (STANDARD) 3nos.
HIB.TIL. (STANDARD) 3nos.
HIB.TIL. (STANDARD) 1no.
CER.MAN. (STANDARD) 3nos.
ACE.PAL.ATR. (STANDARD) 1no.
DEL.REG. (STANDARD) 1no.
GAR.SPI. (HEAVY STANDARD) 6nos.
DEL.REG. (STANDARD) 1no.
DEL.REG. (STANDARD) 3nos.

NOTES :
1) ALL PLANTING STOCKS SHOULD BE FREE FROM PESTS AND DISEASES, INCLUDING BUT NOT LIMITED TO IMPORTED RED FIRE ANT, WEEDS AND WEED SEEDS AND SHOULD BE CHECKED IN ORDER BY RESIDENT LANDSCAPE ARCHITECT PRIOR TO PLANTING.
2) REGULAR WEEDING OPERATIONS, PEATS AND DISEASES CONTROL PLANS, FERTILIER PLANS ETC. SHOULD BE PERIOD AND NOTIFY HKPA OFFICERS THE OPERATIONAL PLANS AND MOINTOR THE WORKS
3) PHOTO RECORDS ON DIFFERENT STAGES OF DEBRIS REMOVAL/SOILING REFILLING/ PLANTING WORKS, ETC. SHOULD BE KEPT FOR INSPECTION WHEN NECESSARY

on-site compensatory woodland planting

| | | | | |
|---|---|---|---|---|
| Project: PROPOSED REDEVELOPMENT OF H.K.F.Y.G. TAI MONG TSAI OUTDOOR TRAINING CAMP PHASE III, TAI MONG TSAI ROAD, SAI KUNG | Scale: 1:200 A1 | Date: JUN 2012 | | |
| | B.D. Ref. No.: BD 2 /9215/09 | | | |
| | FPB Ref. No.: FPB/2067 | | | |
| Drawing Title: TREE PLANTING PLAN (DORMITORY AREA) | Project No.: 05916 | Drawn by: | | |
| | Drawing No.: AT3-PP-01.5A | Checked by: KN | A | JUL12 GENERAL REVISION |

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# Tree Whip Planting Schedule

| Type | Botanical Name | Chinese Name | Standard | Spacing | QUANTITY |
|---|---|---|---|---|---|
| CAS. FIS. | CASTANOPSIS FISSA | 裂斗錐粟 | TREE WHIP MIN 10MM TRUNK DIAMETER | 1.5M C/C | 30 |
| MAC. BRE. | MACHILUS BREVIFLORA | 短花楠 | TREE WHIP MIN 10MM TRUNK DIAMETER | 1.5M C/C | 60 |
| LIT. GLU. | LITSEA GLUTINOSA | 潺槁樹 | TREE WHIP MIN 10MM TRUNK DIAMETER | 1.5M C/C | 59 |
| REE. THY. | REEVESIA THYRSOIDEA | 梭羅樹 | TREE WHIP MIN 10MM TRUNK DIAMETER | 1.5M C/C | 29 |
| SAP. DIS. | SAPIUM DISCOLOR | 山烏桕 | TREE WHIP MIN 10MM TRUNK DIAMETER | 1.5M C/C | 14 |
| STE. LAN. | STERCULIA LANCEOLATA | 假蘋婆 | TREE WHIP MIN 10MM TRUNK DIAMETER | 1.5M C/C | 60 |
| SCH. HEP. | SCHEFFLERA HEPTAPHYLLA | 鴨腳木 | TREE WHIP MIN 10MM TRUNK DIAMETER | 1.5M C/C | 60 |