STUDY ON THE APPLICATION OF VARIOUS VEGETATION SPECIES FOR LANDSCAPING OF MAN-MADE SLOPES IN HONG KONG

GEO REPORT No. 259

Halcrow China Limited

GEOTECHNICAL ENGINEERING OFFICE

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

THE GOVERNMENT OF THE HONG KONG

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PREFACE

In keeping with our policy of releasing information which may be of general interest to the geotechnical profession and the public, we make available selected internal reports in a series of publications termed the GEO Report series. The GEO Reports can be downloaded from the website of the Civil Engineering and Development Department (http://www.cedd.gov.hk) on the Internet. Printed copies are also available for some GEO Reports. For printed copies, a charge is made to cover the cost of printing.

The Geotechnical Engineering Office also produces documents specifically for publication. These include guidance documents and results of comprehensive reviews. These publications and the printed GEO Reports may be obtained from the Government's Information Services Department. Information on how to purchase these documents is given on the second last page of this report.

R.K.S. Chan
Head, Geotechnical Engineering Office
February 2011

FOREWORD

The objectives of this study are to identify and consolidate a list of potentially suitable vegetation species for application on man-made slopes in Hong Kong and to investigate the potential application methods appropriate to these species, and to plan, arrange and supervise site trials of selected potential species on various environmental settings and application methods.

The study was carried out by Halcrow China Limited in collaboration with Dr Billy C.H. Hau of The University of Hong Kong, as part of Agreement No. CE 14/2003 (GE), 10-year Extended LPM Project, Phase 4, Package C, Kwun Tong, Wong Tai Sin and Sai Kung, Landslip Preventive Works on Government Slopes and Related Studies.

For this study, the project team of the Civil Engineering and Development Department provided valuable guidance, and participated in the formulation of the methodology. Their contributions are gratefully acknowledged.

A T Watkins
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CONTENTS

1. INTRODUCTION

Halcrow China Limited (Halcrow) was commissioned by the Geotechnical Engineering Office of the Civil Engineering Department on 28 October 2003 to carry out Agreement No. CE 14/2003(GE) under the 10-year Extended Landslip Preventive Measures (LPM) Project. As part of the Agreement, Halcrow is required to undertake a study on the landscape application of vegetation species on man-made slopes (the Study).

The key tasks of the Study in accordance with Clause 6.2(vi)(c) of the project brief are as follows:

(a) Consolidate a list of vegetation species that are potentially suitable for application on man-made slopes and prepare a plant selection matrix of the vegetation species showing the growth characteristics, environmental tolerances, landscape uses, and other relevant information for each species.

(b) Investigate the potential landscape application methods of the vegetation species in terms of the feasibility of applying the species in hydroseeding and pit-planting on man-made slopes, the commercial availability of their seeds and seedlings, and any other aspects that are considered appropriate.

(c) Plan, arrange and supervise site trials of various potential species and landscape application methods.

(d) Draw conclusions from the site trials and incorporate findings in the plant selection matrix.

Under the Study, working papers as specified in Clause 6.2(vi)(c)(2) were provided at various stages, and a seminar for the GEO was conducted in June 2007 following the submission of the Interim Study Report as required by Clause 6.2(vi)(c)(3).

This Final Study Report was prepared in accordance with Clauses 5(viii) and 6.2(vi)(c)(2)(d) of the project brief (Appendix A) and presents the findings of the above-listed key tasks. Recommendations on the use of vegetation were also made.

2. OBJECTIVES

The objectives of this Final Study Report are to report the methodologies adopted for the site trials and the results and findings of the site trials. This report has also reported the assessment of the use of hydroseeding, pit-planting of container-grown seedlings, spot-sowing and planting of stem-cuttings as landscaping application methods for potentially suitable vegetation species on man-made slopes; and proposed site trials to (1) test for environmental tolerance of various vegetation species under different site conditions, (2) test various less common planting methods on man-made slopes including direct seedling and planting of stem-cutting, and (3) identify various species that grow under deep shade. An opinion

survey on the perceived applicability and availability of plant species for use on man-made slopes was undertaken. Results of the survey are also presented in this report.

3. ASSESSMENT OF SUITABILITY OF VARIOUS SPECIES FOR APPLICATION ON MAN-MADE SLOPES

3.1 Potentially Suitable Plant Species

3.1.1 Objective

In order to obtain viewpoints from stakeholders involved in slope works, a questionnaire on application of various plant species on man-made slopes (Appendix B) was circulated to various government departments, LPM consultants, LPM contractors, landscape consultants and landscape contractors in March 2004. The results obtained from this survey were then used to update the plant selection matrix (Table 5) and considered in planning the site trials.

3.1.2 Methodology

A questionnaire on the application of potentially suitable plant species (Appendix B) was circulated to a total of 125 organisations in March 2004. The circulation list included 19 slope forming and maintaining government departments and divisions, 28 LPM consultants, 43 LPM contractors, 9 landscape consultants and 26 landscape contractors. A summary of the organisations invited to contribute to the study is presented in Table 1.

The respondents were asked to rate the greening effectiveness and maintenance requirement for the listed species on a scale of 1 to 5, where 1 denotes the least greening effectiveness, and the lowest maintenance requirements. The respondents were also asked to recommend any additional suitable species not on the questionnaire that could be used for greening of man-made slopes. They were also asked to share their opinions and experience on the critical factors for vegetation establishment, and any other information or interesting past experience relating to successful greening of slopes.

Based on the initial responses, 8 respondents from different sectors were chosen for further interview to gain more in depth information on existing experience of planting on man-made slopes in Hong Kong. All follow-up interviews have been completed.

3.1.3 Summary

From the opinion survey, a total of 127 responses were received up to 9 July 2004 which comprised 124 out of the 125 circulated parties, 2 anonymous responses and an additional response from the Landscape Unit of the Highways Department. Of the 127 returned replies, 72 respondents did not complete the questionnaire, primarily due to a stated lack of expertise in this area within their organisations. The remaining 55 responses were either complete or partially complete.

The results of the survey on the greening effect and maintenance requirements for the various listed species are generally consistent (Table 2). Among the 187 vegetation species,

21 species had more than 10 responses (Table 3). Among the 21 vegetation species, practitioners are particularly satisfied with the greening effect of *Wedelia trilobata*, *Acadia confusa, Acacia mangium*, *Calliandra haematocephala, Acacia auriculiformis*, *Castanopsis fissa* and *Lophostemon confertus*, that the average scores for the greening effectiveness of these species are 4 or above. The maintenance requirements for these species are generally considered low with scores less than 3, except for *Castanopsis fissa*.

Poor establishment of vegetation as a result of shading under a tree canopy was highlighted as a problem by a number of practitioners. Some respondents claimed satisfactory results in establishing *Wedelia trilobata* and *Syngonium podophyllum* var. "White Butterfly" in shady parts of slopes. Nevertheless, based on the study team's experience, *Wedelia trilobata* would not establish in deep shade. *Syngonium podophyllum* is a cultivated herb from Mexico for ornamental use, regular maintenance such as irrigation and fertilisation will be needed for it to grow well on slopes (whether in shade or not). Therefore it is still necessary to identify more species, especially native species, for growing under deep shade.

It was collectively agreed by the respondents that water, sunlight, nutrients, soil conditions and slope gradients were the most critical factors for vegetation growth. Choice of vegetation species, planting seasons and workmanship were also identified as being important for vegetation growth. Other comments received from the respondents included: mulching products were generally not successful; and regular pruning was important to keep trees in good condition and reduce surcharge of the slopes. It is also recommended to use planting tubes of size smaller than the void in the wire mesh to avoid cutting the wire mesh. However, this is not applicable to tree planting. If tree species are planted, the wire mesh should ideally be cut to the maximum size of the species.

In addition to the list of species mentioned in the questionnaire, respondents were asked to recommend additional species for consideration in the study. These species were reviewed for inclusion in the plant selection matrix. A list of additional species with comments on their appropriateness for inclusion in the plant selection matrix, are presented in Table 4.

A revised plant selection matrix incorporating the results of this survey is presented in Table 5.

3.2 Commercial Availability

3.2.1 Objective

A survey on the commercial availability of the list of potential suitable species for man-made slopes was undertaken in June 2004 by circulating a questionnaire (Appendix C) to landscape contractors in Hong Kong. The objective of the survey was to obtain information on the cost, availability in Hong Kong, source, ordering time, minimum order, and planting and maintenance requirements for each of the species.

3.2.2 Methodology

The survey was sent to the landscape contractors in Hong Kong in June 2004. Landscape contractors were chosen from the ETWB's "List of Approved Suppliers of Materials and Specialist Contractors for Public Works" under the category of Landscaping dated 10 February 2004 and the "Housing Authority List of Soft Landscape Contractors for New Works" (Groups 1 and 2) under the COMIS of the Hong Kong Housing Authority dated 11 March 2004.

3.2.3 Findings

Five out of 27 landscape contractors replied to the questionnaire. Follow up telephone calls were made to the remaining 22 organisations. Contact details of the respondents are provided in Table 6. Results are summarised in Table 7 and source data are provided in Appendix D.

Although only 5 landscape contractors had provided response, they are considered to be the major providers. A summary of the commercial availability based on their responses is presented in Table 7. Results are incorporated in the selection criteria of vegetation species presented in Appendix E.

4. LANDSCAPE APPLICATION METHODS

4.1 A Review of Hong Kong Forestry History with Respect to Planting Methods

In order to provide some insights on the landscape application methods on man-made slopes, the changes in afforestation methods in the Hong Kong forestry history have been reviewed. Hong Kong has a long history of afforestation for environmental causes, firstly for soil erosion control and more recently for biodiversity conservation (Corlett, 1999). The Colonial Government started afforestation on Hong Kong Island in 1872 (Flippance, 1940). Soon after the New Territories were added to the Colony in 1899, afforestation gradually extended to the New Territories. However, over the period between 1871 and 1940 before World War II, a much larger afforestation effort had been put into Hong Kong Island than Kowloon and the New Territories.

1871-1880

In this period, afforestation was accomplished by planting bare-rooted seedlings of both native and exotic species raised in nurseries (Ford, 1880). Seeds were sown in prepared ground in two nurseries, one in Kowloon and one on Hong Kong Island. Seedlings were allowed to grow for a year after germination. They were then lifted from the nursery ground, taken to the planting sites and planted in prepared pits. According to Ford (1880), afforestation in these 10 years was not very successful. Seventy five percent of the trees planted in the afforested areas died. Most of the surviving trees appeared very sick and had little promise of surviving. The failure was attributed to poor nursery practices, post-nursery care and planting skills. Seedlings were not carefully lifted from the nursery ground so that the roots were severely injured. The roots were not properly protected during transportation

and transplanting, so that most seedlings died soon after being planted. Some planting holes were not filled-in with enough soil and some seedlings were planted too deep.

1880-1940

Direct seeding experiments involving mainly the native pine *Pinus massoniana* were initiated in the late 1870s, although a few other native and exotic species were also tried (Ford, 1883). The results were satisfactory for pine on sites with good soil and the scale of direct seeding was gradually enlarged. All the suitable sites on the northern side of Hong Kong Island were earmarked for direct seeding in 1883. However, Ford (1883) noted that on south-facing slopes, direct seeding appeared less promising due to the stronger drying influence of the sun. In addition, on steep slopes, heavy rains tended to wash away the loose soil together with the seeds. Direct-seeding was first done by spot sowing in prepared pits but in 1883 and 1885, experiments were conducted on broadcast sowing of pine seeds on hillside grasslands that had no ground preparation (Ford, 1887). The results were successful and the scale of this method was gradually enlarged in subsequent years (Ford, 1889). Throughout the period from 1880 to 1940, direct seeding of *P. massoniana* seeds was the main afforestation method. Flippance (1939; 1940) noted that although germination was a little variable, much better results were obtained from broadcast than from spot sowings.

Pit planting of bare-rooted seedlings of both native and exotic tree species was used on poorer sites where direct seeding was not appropriate (Ford, 1883). However, Flippance (1939) noted that direct seeding of *P. massoniana* was gradually found more effective than planting bare-rooted pine seedlings raised in the nursery. Thus, the latter method was discarded for pine trees but retained for broad-leaved tree species, which, in comparison, were generally not successful by direct seeding.

Ford (1892) noted that after many years of afforestation, the most suitable lands on Hong Kong Island (i.e. with good soil, water and shelter) for tree growth had been filled up and the difficulty of carrying on planting was much greater. The planting scale on Hong Kong Island was gradually reduced from the early 1890s. On the other hand, natural regeneration was reported to be making considerable progress. However, natural regeneration was not mentioned again in subsequent forestry reports.

In 1907, an experiment was conducted with a small number of *Castanopsis fissa* seedlings that had been raised from seeds sown in pots, i.e. planting container-grown seedlings. The seedlings were planted out in spring like bare-rooted *P. massoniana* seedlings on open ground in Pokfulam Road. The results were negative and the method was said to be unsuitable (Dunn, 1908). Other than in 1908, this planting method was no longer mentioned in subsequent forestry reports in this period. On the contrary, it appears from various forestry reports throughout this period that, where seedlings were planted, only bare-rooted seedlings were used in afforestation. Daley (1975) also indicated that until the 1950s, planting bare-rooted seedlings was the usual afforestation method.

1945-Present

Afforestation restarted immediately after the war (1942-1945) mainly by broadcast sowing as nursery stock for planting was not available (Daley, 1975). Planting container-grown seedlings was soon introduced and quickly became standard practice due to

higher survival rates and lesser dependence on weather conditions (Corlett, 1999; Daley, 1975). The decline in reliance on *Pinus massoniana*, which was due to its susceptibility to fire damage and the occurrence of two serious new pests (Corlett, 1999) contributed to the disappearance of direct seeding as an afforestation method in Hong Kong. Nowadays, almost all plantings in Hong Kong's hillsides are done by planting container-grown seedlings.

4.2 Landscape Application Methods on Man-made Slopes in Hong Kong

Current landscape application methods on man-made slopes in Hong Kong include planting container-grown seedlings and direct seeding in the form of hydroseeding by adding mostly exotic tree seeds into the grass hydroseeding mix. Both methods are considered promising so far and are commonly adopted in slope greening.

According to the GEO, sodding, sprigging and hydrosprigging had also been tried in Hong Kong but the methods are rarely used. No information concerning local applications of these methods is available. Sodding is most commonly used in creating lawns. Cut squares of grass are simply put on the pre-prepared greening surface like carpeting the ground. The advantages of this method are that an instant greening effect can be achieved and initial weed problems are avoided (http://www.extension.umn.edu/info-u/plants/BG540.html). However, this method is only suitable for gentle slopes that have flat surfaces and it is expensive. Sprigging is the application of sprigs to the ground surface. Sprigs are pieces of vegetated plant parts such as rhizome below soil level or stolon above soil level, sprigs are planted by spreading the vegetated species on the prepared ground by broadcast or mechanical method (http://www.hbarhturf.com/sprigging.htm). It takes a longer time to achieve the same greening effect in comparison with sodding but it is relatively less expensive and it could form a deeper solid root systems (http://www.laughinghousefarms.com/sprigging.htm). Hydrosprigging is similar to hydro-seeding but the grass seeds are replaced by living pieces of grass stems and roots. It can only be used for species that can grow vegetatively. Different varieties of hybrid *Cynodon dactylon* (Bermudagrass) are used in hydrsprigging (http://www.turfmaker.com/). These three methods are primarily used in planting lawns in North America. However, it does not mean that they cannot be used in slope greening. The major disadvantages are that they are more expensive than hydroseeding and require more pre-planting site preparation and post-planting maintenance such as irrigation. Sodding and sprigging may not be very useful in man-made slopes in Hong Kong as most slopes are steep and do not have a flat surface. Hydrosprigging may be more applicable on slopes in Hong Kong but they are just a more expensive method than hyroseeding in slope greening. The lack of sod farms in Hong Kong would also limit the application of this method.

4.3 Potential Landscape Application Methods on Man-made Slopes in Hong Kong

Apart from the various landscape application methods on man-made slopes mentioned above, the review in Section 4.1 suggests that direct seeding by spot-sowing may also be possible. Planting cut-stems of selected species directly on the slope surface (i.e. planting stem cuttings), which has been tried overseas could also be tested in Hong Kong. Planting of bare-rooted seedlings does not seem to be applicable as the historical record indicates that

technical requirements on handling bare-rooted seedlings lead to low success rates. Also, the commercial supply in Hong Kong and China generally lacks bare-rooted seedlings.

5. SITE TRIALS

Site trials were undertaken to investigate the performance of selected vegetation species for greening of man-made slopes. The site trial comprised 3 parts.

> Part 1 (discussed in Section 5.1): A field trial of potentially suitable species using pit-planting of container-grown seedlings to test the factors that affect seedling establishment.
>
> Part 2 (discussed in Section 5.2): A field trial of various species using alternative application methods namely (a) direct seeding in the form of hydroseeding and spot-sowing, and (b) pit-planting of stem cuttings.
>
> Part 3 (discussed in Section 5.3): A field trial to identify ground covering plant species that can grow in deep shade by pit-planting.

In all trials, it had been proposed that the vegetation species would preferably be native plants and naturalised exotic species that are self-regenerated and considered to have greater ecological value to Hong Kong. However, exotic species were used in Part 3 due to the lack of supply of native species. Part 1 site trial was intended to test in the field some of the potentially suitable species using pit-planting of container-grown seedlings for slope greening according to the Plant Selection Matrix (Table 5 and Appendix E). However, one native species that are known to grow well on man-made slopes was included in Part 1 of the site trials as controls to compare the performance of other native or naturalised exotic species. No control species were designed for the Parts 2 and 3 of the site trials because the former focused on less common application methods while the latter aimed to identify ground covering plants growing in deep shade.

5.1 Part 1 - Pit-planting of Container-grown Seedlings and Factors Affecting Seedling Establishment

5.1.1 Objective

Pit-planting (i.e. planting container-grown seedlings) has been proven a successful planting technique. This part of the field trial used this technique to study factors affecting seedling growth with the objective of confirming the suitability of the selected native plant species as planned vegetation on man-made slopes over a variety of constraints.

5.1.2 Methodology

A previous study on vegetation of man-made slopes suggested that appropriate shading on slope surfaces (i.e. some shading in the summer afternoon for a couple of hours to avoid

heat stress to the plants) and exposure to road traffic (pollution and traffic turbulence) would affect plant establishment (Choi & Chau, 2004; Lee & Shui, 2004). On the other hand, sites that are subject to strong wind are also not favourable to the growth of most plant species. Past experience showed that steep slopes are theoretically less favourable to seedling establishment due to more rapid run-off of surface water and thus reduced infiltration. Some shade on a slope surface will reduce heat stress on the young seedlings while exposure to the wind turbulence from busy road traffic will tend to increase stress on the seedlings. These three factors i.e. slope gradient, appropriate shading and exposure to road traffic were incorporated for testing in the design of the Part 1 (and Part 2) site trial below.

Apart from these three factors, other factors including various environmental factors, geology and soil condition were also considered. Wind and light factors are reflected in the "appropriate shading" factor where sites receiving appropriate shades would imply less exposure to wind and strong sunlight. Pollution factor is reflected in the "exposure to road traffic" factor where sites next to busy roads would imply a higher level of air pollution by vehicle emissions. Lower exposure to road traffic would also mean less wind turbulence on the slope surface. Geology was considered but not adopted as key conditions to be tested in the current site trials because geological names (e.g. decomposed granite / volcanics) are generic and do not reflect the variability of soil textures and geochemical composition of the various soil types. The soil factors affecting vegetation include soil texture, nutrient and water content, and it is considered that loose or sandy soil is typically more favourable than more dense or clayey soil for vegetation growth. While soil condition is not considered as a key factor, observations regarding this were made at each trial site. A summary of factors considered is presented in Table 8.

The design of the Part 1 site trial was a compromise of site availability and experimental scale limitations. If any three factors have to be studied by a standard analysis of variance design with replications, at least 16 sites are needed which only means one replication, and 24 sites are needed if there will be two replications. The three factors i.e. (1) slope gradient, (2) appropriate shading on slope surface and (3) exposure to road traffic were sub-divided into two sub-factors which generally illustrate the more favourable and less favourable conditions for each of the factors. This provides 8 combinations for trial as illustrated in Figure 1, where the conditions denoted as U_{111} the most favourable to U_{222} the least favourable are described. Any other combinations of the three factors are considered as moderate site conditions. In this study, slope gradient $> 45^{o}$ is considered steep and gradient $\leq 45^{o}$ is considered gentle. In order to better compare the performance of vegetation species at different slope gradient, the selected sites should ideally be significantly smaller than 45^{o} for gentle slopes and significantly larger than 45^{o} for steep slopes. This was however difficult in view of the small number of sites that were available for this study. Appropriate shading would be determined quantitatively by % PAR (Photosynthetic Active Radiation) at each site. PARs are light with wavelength ranging from 400 to 700 nm which are most important to plants for photosynthesis. A Skye PAR special sensor (SKP 210) were used to determine the degree of shading at the selected sites. On a sunny day, 5 readings were taken randomly on the slope surface of each site in mid-day and 5 readings were taken from an open area near each site within the same hour. The percentage PAR available for plants at each site were calculated by dividing the mean PAR on the slope surface with the mean PAR in the open. For the exposure to road traffic, Transport Department's Annual Average Daily Traffic (AADT) data were used to indicate traffic flow.

In each of the three chosen slopes for this planting trial, 3 planting plots were established. In each planting plot, 20 seedlings of each of the 10 selected species (see the next section below) were planted randomly at 1 m spacing centre by centre in staggered pattern. For each plot, an area of about 100 square meters was needed. Thus, for each slope, 300 square meters of planting area were set in total for the part 1 site trial (Plate 1).

5.1.3 Plant Selection

The aim of the Part 1 site trial was to identify plant species that would eventually form a stable and self-sustainable vegetation cover on the slope. In this respect, native shrub and tree species that could evolve into a shrubland or forest on man-made slopes and accelerate natural succession were given higher priority in the Part 1 site trial. Climbers (woody or non-woody) and herbaceous species can provide temporary protection to the slope surface against erosion before the successful establishment of the tree and shrub species. They also would add to the diversity of the vegetation and were believed to arrive naturally during the succession process. Climbers and herbaceous species were not included in this planting trial but they may be included in future studies.

A list of potential suitable species for application on man-made slopes was presented as a plant selection matrix (Table 5) which had 198 species. The following selection criteria were applied to select species that are (i) shrub or small tree species of about 3m normal height in the wild; (ii) naturally occurring on man-made slopes, or planted on man-made slopes in Hong Kong, or found on steep natural slope; (iii) native or naturalised exotic; (iv) unplanned species or planned species with unknown performance on man-made slopes; and (v) commercially available for planting trials (Figure 2 and Appendix E). Thirty-two native tree and shrub species were short-listed according to these criteria (Table 9). In addition, one additional native species which was known to grow well on man-made slopes was selected as control to compare the performance of the less well known species in the trial.

With respect to the field planting trial, a manageable number in terms of individual plants was around 1,500 seedlings. With 3 sites (see Section 5.1.4 for details) and 60 seedlings per species per site, 10 species were tested in the site trial. They were selected from Table 9 on the basis of seedling availability (Table 10). For the other suitable species on Table 9 which were not tried in this study due to the lack of commercial supply of seedlings, they are recommended for further studies in future.

5.1.4 Site Selection

To complete the proposed site trial, 6 sites would ideally be selected with 2 sites in each of the three categories i.e. favourable, moderate and least favourable (Figure 1). Site trials at each site should ideally be started at the same time such that differences between sites can be compared. However, taking into account the difficulties in aligning the works programmes of the LPM contracts, a 3-month difference in the start time of the planting works at each site were allowed. With reference to the site condition category in Figure 1 and the works programmes, one favourable, one moderate and one least favourable site categories have been identified for the field planting trial. These are:

(a) Feature No. 12SW-A/C129 is located along Tai Au Mun Road with a slope gradient of 55^{o} (Figure 3 and Plate 2). The site is exposed to strong wind and direct sunlight. It is classed U222 in Figure 1 and therefore categorised as a "least favourable" site.

(b) Feature No. 11NE-B/C824 (Figure 5 and Plate 3) is located along Clear Water Bay Road with a slope gradient of about 50^{o}. The feature is shaded by trees on the slope crest but can still receive sufficient sunlight for plant establishment. It is classed U_{212} in Figure 1 and therefore categorised as a "moderate" site.

(c) Feature No. 10NE-B/C77 (Figure 7 and Plate 4) located along Tsing Nam Street (off Tsing Yi Road) in Tsing Yi is potentially suitable for site trial. The portion behind Water Services Department's facilities is considered suitable as a "favourable" site because it is gentle, with favourable shade provided by large trees on the slope face and not affected by road traffic.

5.1.5 Site Trial Planting

Part 1 site trials were started on 23 September 2005 at feature No. 11NE-B/C824, on 14 November 2005 at feature No. 11NE-B/C129 and 18 November 2005 at feature No. 10NE-B/C77 (Table 11). All seedlings were supplied by the Native Tree Nursery of the Kadoorie Farm and Botanic Garden. Specifications of the seedlings follow particular specification of the contract (Appendix F).

The locations of the planting plots and the planting grids at each site are shown on Figure 3 and 4 for feature No. 12SW-A/C129, Figures 5 and 6 for feature No. 11NE-B/C824, and Figures 7 and 8 for feature No. 10NE-B/C77 respectively.

5.1.6 Monitoring

Field checking for transplantation loss was conducted approximately one month after planting work was completed. Seedlings that had died in the first month would be regarded as having perished due to stress during the transplant process. Replacement planting of the dead seedlings was then conducted. Survival of each seedling, including the replacement seedlings, was recorded in May, at the beginning of the first wet season after planting. The survival condition was taken again in September 2006 and late December 2006 to determine survival rate over the wet and dry seasons.

5.1.7 Results and Analysis

The traffic data and light availability at each slope are shown below:

Slope No.	Least favourable 12SW-A/C129	Moderate 11NE-B/C824	Favourable 10NE-B/C77
AADT-2005	5,560 (Tai Hung Tun - Hang Hau)	29,870	0
% PAR	95.0	44.6	8.0

It shows that the Least favourable slope had moderate traffic but high exposure to sunlight and wind. The Moderate slope had high traffic load but appropriate shading. The Favourable slope had no traffic but low sunlight illumination.

Field checking of transplantation loss (or alternately survival rate) at each site was conducted approximately one month after planting. Mean percentage survival between different plots at feature No. 12SW-A/C129 was variable but it was rather consistent in the two other slopes (Table 10a). The least transplantation loss was recorded at feature No. 11NE-B/C824 (Mean % survival is 96.3 %; Table 10a). The lowest mean percentage survival was recorded in feature No. 12SW-A/C129 (81.3%; Table 10a). Replacement planting was done appropriately (Table 11). There was a longer delay in the replacement planting of feature No. 10NE-B/C77 due to the problem in sourcing replacement seedlings. Three more inspections were conducted after replacement planting in May, September and December 2006 respectively (Table 11).

a. Differences between sites

The seedling survival after one year in the Moderate (11NE-B/C824) and Favourable (10NE-B/C77) slopes are considered very good. The mean survival rates are over 70% for all species with a few species reaching 100% (Table 10b). Statistical analysis (ANOVA) shows that the mean percentage seedling survival of the Least Favourable slope (12SW-A/C129), which is 47.6 (±28.8)%, is significantly lower than that of the Moderate (91.6 ±8.5%) and Favourable (85.5 ±17.9%) slopes ($p < 0.01$; Table 10c). The difference between the Moderate and Favourable slopes is not statistically significant.

b. Differences within site

Significant differences in seedling survival after one year are detected between planting plots in each of the three studied slopes (Table 10d). This suggested that micro-site differences do affect the performance of planted seedlings.

In the Favourable slope (Figure 7), Plot 1 (100 ±2.4%) has significantly higher seedling survival than Plot 3 (90 ±12.7%) and Plot 3 has significantly higher seedling survival than Plot 2 (66 ±20.2%) ($p < 0.05$; Table 10d). The low seedling survival in Plot 2 might be due to the defect rectification of the soil nails in the vicinity of Plot 2 after the site trial had started where many seedlings were disturbed. Plot 3 is higher up on the slope and comparatively more exposed than Plot 1. However, a 90% mean survival rate of all species is in fact not bad in comparison with hillside reforestation in Hong Kong. Though growth

data were not taken, seedlings in Plot 3 were observed to be much larger than those in Plot 1 and 2 probably due to more sunlight in Plot 3.

In the Moderate slope (Figure 10), seedling survival in Plot 1 (97 ±5.9%) is significantly higher than that in Plot 3 (85 ±12.0%) ($p < 0.05$; Table 10d). However, there are no differences between Plot 1 and Plot 2 (90 ±14.1%), and Plot 2 and Plot 3. This micro-site difference may be due to Plot 3 being taller, steeper and more exposed to sunlight than Plot 1. Lastly, in the Least Favourable slope (Figure 3), seedling survival in Plot 1 (72.0 ±18.3%) and Plot 2 (53.0 ±24.3%) are significantly higher than that in Plot 3 (18.5 ±16.3%) respectively ($p < 0.05$; Table 10d). However, there are no differences between Plot 1 and Plot 2. Better seedling survival in Plot 1 may be due to protection from wind offered by the site hoardings during the first dry season after planting.

Field observation found that the growth rate of the seedlings in the Moderate slope and Plot 3 of the Favourable slope appeared to be a lot higher though actual measurement was not taken due to site difficulties. One factor which had been overlooked in the design of the site trial is the occurrence of large trees on the slope surface. On the Moderate slope, shade was provided by trees on the slope crest, there were no existing large trees on the slope face. In the Favourable slope, shade was provided by mature trees on the slope face (except in Plot 3). Seedling growth may suffer from the competition with these mature trees for nutrients and water on the slope face.

c. Differences between species

The statistical analysis testing seedling survival between species on each of the 3 slopes shows that there are no significant differences between species (p is larger than 0.05 in the Favourable and Moderate sites. P is smaller than 0.01 in the Least Favourable site but the multiple comparison cannot shown any differences between species). That is to say all of the 9 testing species and the 1 control species have similar survival rates at all sites. The very high survival rates at the Moderate and Favourable sites suggest that species specific difference are minor.

In summary, the results of this site trial show that using the studied native tree seedlings on the Moderate and Favourable sites by pit-planting is a suitable greening method and the 9 testing species are comparable to the control species in terms of survival. However, a longer monitoring period (3 years) is preferred for site trials involving woody plant species. The result on the Least Favourable slope show that slopes that are generally very exposed e.g. not protected from wind and sunlight by topography and vegetation may not be suitable for greening using native tree seedlings.

5.2 Part 2 - Other Landscaping Application Methods: Direct Seeding and Planting of Stem Cuttings

5.2.1 Objective

The objective of this trial is to test the practicability of other landscaping methods such as direct seeding in the form of hydroseeding and spot-sowing, and planting of stem cuttings rather than the common greening method i.e. pit-planting of container-grown seedlings on man-made slopes. The background to these two landscape application methods was

described in Sections 4.1 and 4.2 above. Part 2 sites trials were also conducted at all three sites in order to investigate the effectiveness of these methods over a range of site qualities.

5.2.2 Direct Seeding

Sowing plant seeds directly on the prepared ground is one of the potential planting methods that may be suitable for man-made slopes. Adding exotic tree seeds such as *Acacia confusa* and *Lophostemon confertus* into the hydroseeding mix (usually with the grass species *Cynodon dactylon* and *Paspalum notatum*) has proven successful on man-made slopes in Hong Kong, but little documented works using native tree and shrub seeds in hydroseeding are available. Documented research on spot-sowing using both native and exotic tree and shrub species is also lacking. It was thus proposed that direct seeding in the form of hydroseeding and spot-sowing using selected native or naturalised small tree and shrub species should be tried. However, it is noted that there are various limitations in direct seeding test:

(a) The test should ideally be carried out at the beginning of the wet season (i.e. between March and April) allowing the seeds to germinate at the beginning of the wet season.

(b) Species recommended for the test should at least have reasonable germination rates in nurseries. [all of the recommended species in Table 12 have at least 50% germination rate in a nursery germination test (unpublished data) or according to 中國樹林誌編委會, 1981 and 陳存及、陳伙法, 2000.]

(c) Most native tree and shrub seeds have no commercial supply. A large quantity of seeds (in a few kgs) are needed for hydroseeding.

(d) Native tree and shrub seeds specifically collected for the site trials should ideally be used as soon as possible after collection. This is because seed viability will decay exponentially with time for most native species. Thus, species fruiting from January to March should be used for the optional planting period, see item “a” above. Long term seed storage techniques for native tree and shrub species are not well developed in Hong Kong.

(e) Seed species for hydroseeding should be small enough (< 5 mm in diameter) while those for spot sowing should be large enough (≥ 5 mm in diameter) for handling by hand.

5.2.2.1 Methodology

Part 2a Hydroseeding

For Hydroseeding, two planting plots (9 m^2 each) were demarcated in each site. In each planting plot, there were nine 1 m by 1 m sub-plots. For each of the three species selected for this site trial (see the next section below), 50 g of seeds were mixed with a hydroseeding mix that follows particular specification of the contract (Appendix F) and spread in one of the nine sub-plots by hand. In view of the small amount of seeds using in the hydrodeeding in this trial, standard hydroseeding method using a pump and a sprayer was not used. Instead, tree seeds were mixed with the hydroseeding mix in a bucket and applied to the plots by hand, this is to ensure the tree seeds are evenly spread in the plot (Plate 5). Though the hydroseeding mix was not sprayed on the slope slope, there should be no impact on the germination and establishment of the native seeds used. There were 3 replicates for each of the 3 species to make up 9 sub-plots. The random planting pattern was generated by computer. The erosion control mat were lifted off for the hydroseeding work and then replaced subsequently.

Part 2b Spot Sowing

For spot-sowing, three planting plots, around 18 m^2 each, were demarcated on each site. Twenty seeds of each of the three selected species (see the next section below) were randomly sown in each plot. Planting pattern at each plot was randomly generated by computer. Holes of approximately 40 mm diameter and 20 mm deep were formed by screw-driver at 0.5 m spacing by driving perpendiculartly into the slope surface, seeds were sowed by hand in accordance to the random pattern, 1 seed was sowed at 1 hole (Plate 6). There were also 3 replicates for each species in this site trial.

For each species used, a control seed germination test was set up in the green house of the University of Hong Kong (HKU) (Plate 7). Fifty seeds of each species were sown in sandy soil in germination trays at 5 cm by 5 cm spacing in a green house at HKU. Irrigation was provided once daily for 3 months. Each germinated seed was counted weekly for 3 months.

5.2.2.2 Plant Selection

The selection criteria of species for direct seeding are: (i) shrub or small tree species; (ii) species are found naturally occurring on man-made slopes, or planted on man-made slopes in Hong Kong, or occurs on steep natural ; (iii) native or naturalised exotic; (iv) if the species known to have germination rates; (v) if the species have germination rates $\geq$ 50% then the species are recommended for direct seeding trial in the form of hydroseeding for seeds with diameter < 5 mm, and in the form of spot-sowing for seeds with diameter $\geq$ 5 mm (Figure 2 and Appendix E). The potential species for hydroseeding and spot-sowing tests based on the above criteria were short-listed from Appendix E to Table 12. Three species were used for the spot-sowing site trial and three species were used for hydroseeding site trial (Table 13). These 6 species were primarily adopted on the basis of seed availability in the wild at the time of the site trials as no commercial seed supply of all species on Table 12 are available. For the other potential species which are not tested in this study due to unavailability of seeds, they are recommended for further site trials in future.

5.2.2.3 Site Selection

The direct seeding trials were conducted independently from the site trial discussed in Part 1 (Section 5.1). The direct seeding site trials were carried out at 3 sites with different site conditions: favourable, moderate and least favourable (Figure 1). The same sites for Part 1 of the site trials as described in Section 5.1.4 were also used in Part 2 site trials.

5.2.2.4 Site Trial Planting

Planting work for Part 2 direct seeding site trials were conducted in late March and early April 2006 and the control set up in the University of Hong Kong (HKU) was done in early April 2006, details refer to Table 11. No pre-seeding treatment is required based on KFBG Native Tree Nursery. Seeds required for the site trial were collected from the field since November 2005, as different species fruit in different time of the year. The collected seeds were stored temporarily in the laboratory of HKU. The seeds can be stored at room temperature at most within the same season (wet or dry season) after collection. However, different species will lose viability differently even if they are kept in the same condition. For seed species with hard seed coats (except the Fagaceae), seed viability can be maintained pretty well. For the Fagaceae species e.g. *Cyclobalanopsis myrsinifolia*, storing in wet freshwater sand may be needed to maintain seed viability (中國樹林誌編委會, 1981 and 陳存及、陳伙法, 2000). Prior to the planting in the field, floating seeds (i.e. bad seeds) were discarded.

The locations of the Part 2 direct seeding trial plots on feature Nos. 12SW-A/C129, 11NE-B/C824 and 10NE-B/C77 are shown on Figures 9, 10 and 11 respectively. The final planting grids of the Part 2 direct seeding site trials on feature Nos. 12SW-A/C129, 11NE-B/C824 and 10NE-B/C77 are shown in Figures 12, 13 and 14 respectively.

5.2.2.5 Monitoring

Since the direct-seeding planting trials were set up in late March/early April 2006, the first monitoring (both field plots and control plots) was conducted in early May 2006 and monthly thereafter for a period of up to 6 months (3 months for the control only as the germination conditions are ideal for germination). Any seeds that do not germinate 6 months after the trial has been started will unlikely to remain viable (Again 3 months for control). Replacement sowing in the field is not considered because low seed germination rate likely indicates that the species is not able to germinate under its respective condition on the man-made slopes. Stem height and basal diameter of the germinated seeds were impractical to measure because of the lack of safe access to most of the planting plots. The number of germinated seeds was counted once per month from May to December 2006.

5.2.2.6 Results and Analysis

Part 2a Hydroseeding

The mean number of germinated seedlings per square meter (i.e. a sub-plot) of all 3 species remaining alive after 7 months at all sites were not high (Table 14a). In addition, a lot of the subplots had zero live seedlings at the end of the study, no statistical comparison could be conducted. However, it is obvious that seed germination in the Least Favourable site (12SW-A/C129) is a lot lower than that in the other two sites (Table 14). This agrees well with the results of the Part 1 site trial.

Looking at the mean number of germinated seedlings at the Moderate and Favourable sites throughout the monitoring period (Table 14), there is a peak in seed germination in *Psychotria asiatica* and *Rhus succedanea* in the 4th and 5th months after planting. Most of the germinated seedlings in most plots were trapped underneath the erosion control mat which attributed to the mortality of many germinated seedlings. This was partly because the holes of the synthetic erosion control mat were too small. On the other hand, the slope surfaces were not even enough and therefore there were empty spaces in between. The cotyledons of many germinated seeds had split open before they penetrated through the erosion control mat and they were thus trapped. If this problem can be overcome, then, hydroseeding may be a feasible technique as up to 74 and 35 live seedlings per square meter were recorded for *P. asiatica* and *R. succedanea* respectively.

Despite the problem with the erosion control mat, the overall mean number of live germinated seedlings after 8 months for *P. asiatica* were still acceptable in the Moderate and Favourable slope. 20 and 26 seedlings per square meter respectively at these two slopes were more than enough for establishing a woody plant cover.

In fact, 1 to 4 established seedlings per square meter will be sufficient for the development of a woody plant cover. In this case, even *Bridelia tomentosa* could be regarded as suitable for hydroseeding in the Moderate and Favourable site.

In the control set up, the germination rate (N = 50) of *P. asiatica*; *R. succedanea* and *B. tomentosa* were 24%, 80% and 4% respectively. Unlikely in the field, *R. succedanea* had higher germination rate than *P. asiatica* in the nursery.

Like the Part 1 site trial, a longer monitoring period is needed prove the effectiveness of this application technique. As observed in the Moderate site, the hydroseeded grass species also grew very well which in fact over-grown the germinated seedlings. At the end of the monitoring period, the germinated seedlings still grow well. However, it may eventually be suppressed by the grass.

In summary, the results of this site trial show that *P. asiatica* is suitable for hydroseeding on Moderate and Favourable slopes. The other two species might also be suitable on slopes with smooth surface where the erosion control mat could adhere close to the soil face. However, an assessment of the impact of the erosion control mat on the growth and survival of the germinated seedlings is needed. In addition, a longer term study covering at least two wet and two dry seasons is needed to observe the growth and establishment of the germinated seedlings. These two studies can be conducted together. Finally, it should be noted that for native tree and shrub species, seed availability in the commercial sector remains

a major problem to be resolved even if hydroseeding is found to be suitable for many native species.

Part 2b Spot Sowing

The mean number of germinated seedlings per plot remaining alive at the end of the monitoring period for all species at all sites is not high (Table 15a & b). Again, due to zero germination in many plots, statistical comparison was not conducted.

The results show that Cyclobalanopsis *myrsinifolia* had similar number of live germinated seedlings at the end of the monitoring period at all 3 sites which were also the highest among the 3 species (although the mean number per plot was only 4.3 to 5 seeds) (Table 15c, d & e). For the other two species, the mean numbers were very small to make any comparison.

The nursery germinate rates (i.e. controls) of *Ormosia emarginata* and *Reevesia thyrsoidea* were significantly higher than that in the field. However, the germinate rate of *C. myrsinifolia* in the field was higher than that in the nursery (Table 15 b). It may be because the germination period of this species was longer than 3 months (the monitoring period of the control). It should be note that the purpose of the controls was to make sure that the seeds used in the site trial had reasonable viability. A higher germination rate in the field than in the nursery does not affect the purpose of this site trial.

The low number of live germinated seedlings in the end of the monitoring period seems to suggest that spot-sowing may not be a good application method on slopes. However, one should note that the sowing density was actually rather low in this site trial. If 20 seeds of *C. myrsinifolia* were applied in a 1m by 1m plot, more than 4 seedlings can be established per plot which will be sufficient for the establishment of a woody cover. At this sowing density, even *Ormosia emarginata* may be possible.

The results of this site trial also show that large seed with a thick seed coat is better in direct seeding. This agrees well with direct seeding experiments conducted in natural hillside (Chick, 2004). Trees in the Family Fagaceae e.g. *C. myrsinifolia* have particularly good potential in direct seeding. Future site trials using direct seeding on slopes should try other Fagaceae species.

In summary, spot-sowing at a density of 20 seeds per square meter using large seed species with a thick seed coat can be tested further in future. It is because this has the potential to be a cheaper landscape application method than planting native seedlings. Also, spot-sowing can be applied with other landscape application method e.g. planting seedlings to diversify the plant species mix. For upgraded slopes where the vegetation establishment are not very satisfactory, spot-sowing could be a non-intrusive and cheap method to fix the problem. Again, the monitoring period of this site trial is not long enough to observe the growth and establishment of the germinated seedlings. Ideally, a minimum of 3 years is more preferable. Widespread application of spot-sowing is limited by the lack of commercial seed supply. Yet, if a handful of suitable native species with rich supply of seeds in nature each year are identified, it is easy to train up workers to collect them from the wild and the cost in seed collection should not be high. In addition, if spot-sowing is only used as a supplementary method, the amount of seeds needed will be small and the supply

problem is less serious. Lastly, planting programme involving direct seedling should follow the natural availability of the seeds of the selected species to reduce cost in seed storage and decline in seed viability during storage.

5.2.3 Planting of Stem Cuttings

5.2.3.1 Methodology

Three planting plots, around 25 m^2 each, were demarcated on each site. Twenty cut stems of each of the four selected species (see the next section below) were collected from the wild in Hong Kong by trained collectors and randomly inserted by hand in holes of diameter about 40 mm at 0.5 m spacing in each plot. A screw driver was used to create a hole of about 10 cm deep first. About half of the cut stem was inserted into the slope in upright position and the hole was back-filled with soil mix (Plate 8). The cut stems were straight, around 15 cm long and 1-2 cm in diameter and collected from the nearby hillsides if possible and stored in water for not more than 1 day prior to planting in the field.

For each species used, a control cutting test was set up in the green house of HKU. Sixty cut stems of each species were planted in two germination trays (36 x 44 x 15 cm in size) filled with autoclaved river sand (Plate 9). They were kept in a growth chamber which was maintained at 28^{o}C and 80% in humidity with 12 hours in light and 12 hours in darkness per day. The cuttings of each species were checked for sprouting weekly for 5 months.

5.2.3.2 Plant Selection

The selection criteria of species for planting of stem cuttings are: (i) shrub or small tree species; (ii) species are found naturally occurring on slopes, or planted on man-made slopes in Hong Kong, or occurs on steep natural; (iii) native or naturalised exotic; (iv) if the species known to re-sprout i.e. new leaves growing from stems from burning; and (v) if the re-sprout rate known to be high (Hill et al., 2002) (Figure 2 and Appendix E). The potential species for this study based on the above criteria were short-listed from Appendix E to Table 16. Four species were eventually chosen as they had relatively better performances from a nursery cutting trial conducted in the summer of 2005. For the other potential species on Table 16, they are recommended for further site trials in future.

5.2.3.3 Site Selection

The stem cutting site trials were conducted independently from the site trial discussed in Part 1 (Section 5.1) and the direct seeding site trials. The stem cutting site trials were carried out at 3 sites with different site conditions: favourable, moderate and least favourable site conditions (Figure 1). The same sites for Part 1 of the site trials as described in Section 5.1.4 were also used in Part 2 site trials.

5.2.3.4 Site Trial Planting

Planting work for Part 2 stem cutting site trials were conducted in March and early April 2006 and the control set up in HKU was done in early April 2006 (Table 11). Cut stems were collected from natural shrublands in Hong Kong one day prior to the planting in each site.

The locations of the Part 2 stem cutting site trials on feature Nos. 12SW-A/C129; 11NE-B/C824 and 10NE-B/C77 are shown on Figures 9, 10 and 11 respectively. The final planting grids of the Part 2 direct seeding site trials on feature Nos. 12SW-A/C129, 11NE-B/C824 and 10NE-B/C77 are shown in Figures 15, 16 and 17 respectively.

5.2.3.5 Monitoring

The stem-cutting site trials were started in March/April 2006. Re-sprouting and sustained green leaves (an indication of rooting) were checked monthly for up to six months. The occurrence of new green leaves on the planted stems were recorded. If the new leaves survive throughout the monitoring period, it indicates that roots have been developed and the stem will likely develop in to a seedling. Otherwise, the new leaves are merely using the nutrient and energy reserve of the stem and they shall die over a short period of time. Any cut stems that do not re-sprout 6 months after the trial has been started will unlikely remain viable. Replacement planting of cut stems is considered unnecessary because low success rate likely indicates that the species is not able to re-sprout (i.e. new leaves growing from stems) under its respective site conditions. Living stems are counted monthly during a 6-month monitoring period. No baseline is needed as all cut stems are of the same length.

5.2.3.6 Results and Analysis

As shown by the very low number of live germinated stems at the end of the monitoring period both in the field and in control (Table 17), stem-cutting does not appear to be a viable application method. Yet, as the first trial, growth hormone e.g. Auxin and fungicide were not used in this study. If this landscape application method will be explored in future, the application of growth hormone and fungicide shall be included. Growth hormone will stimulate root and shoot development of the cut stem leading to higher rooting rate. The cut stem is vulnerable to fungal attack at the cuts and fungicide will help to prevent this from happening and the cut stem will have a higher chance of surviving.

5.3 Part 3 - Planting Trial to Identify Plant Species for Growth in Deep Shade

5.3.1 Objective

It was repeatedly reported in the responses to the plant species questionnaire that plant establishment under the deep shade of existing large trees on man-made slopes was unfavourable for all species so far used in slope greening in Hong Kong. There is thus an urgent need to identify suitable ground covering species that can grow in shade. A planting trial is therefore proposed to identify ground covering species that could survive and grow in deep shade. Ground covering species refers to plants that grow in dense coverage close to

the ground level giving a carpeting effect. It generally includes some small shrub species, most herbaceous species and creepers (herbaceous or woody).

5.3.2 Methodology

The site trial was carried out in late April 2006. Three plots, each with nine sub-plots, were required for the Part 3. Each sub-plot was approximately 1 m by 1 m square. Locations of the three plots are shown in Figure 18. The arrangement of the nine sub-plots is illustrated in Figure 19. Three ground covering species were selected (see the next section below) and each species was applied to three sub-plots of each plot. Only one species was planted in each sub-plot. The previously hydroseeded cover applied in January 2006 and aboveground undergrowth vegetation on each sub-plot were removed as much as possible (Plate 5). The erosion control mat within each sub-plot was cut and removed. The sub-plots were connected with each other, therefore, 1 m by 9 m of the mat and the mesh was cut and removed. Nylon line (2 mm) was used for setting up the grid of each sub-plot within each plot. A 1 m by 1 m pit was excavated within each sub-plot. Depth of the pit should depend on the rootball's depth of the selected species. However, the original planting layer of this slope was shallow (< 10 cm), the pit was dug down to the surface of the soil nail heads. Excavated soil was removed off-site. Selected species in the form of container-grown seedlings were planted in each sub-plot in a staggered pattern and seedlings are packed closely to each other as illustrated in Figure 19. The three species came in standard black plastic bag container of 8 cm x 8 cm x 10 cm (Plate 10). It should be noted that as a site trial, the planting treatment was different from the current practice of pit-planting.

5.3.3 Plant Selection

The selection criteria of species for this part of site trial are: (i) ground covering species; and (ii) shade-tolerant (Figure 2 and Appendix E). The recommended species based on the selection criteria are listed in Table 18. However, three species have been selected only primarily on the basis of commercial availability (Table 19). The estimated number of plants required for each sub-plots was listed in Table 19. For those species on Table 18 that were not tested in this site trial, they are recommended for future studies.

5.3.4 Site Selection

Second batter of feature No. 11NE-B/C380 was considered suitable for part 3 site trial due to the presence of the trees which forms canopies that create deep shade in the slope (Plate 10). The feature was sparsely covered by hydroseeded grass with erosion control mat.

5.3.5 Site Trial Planting

Part 3 site trial was commenced on 21 April 2006. The planting plots were set at the bottom of the upper batter (Figure 18). In each plot, each of the three species were randomly assigned to three sub-plots (Figure 19).

5.3.6 Monitoring

The plantings were checked immediately upon completion of trial planting to ensure 100% of green coverage. The percentage covers of healthy-green, unhealthy-brown and dead-exposed soil were determined monthly until late December 2006 following the start of the trial. No replacement planting for dead patches will be conducted unless it is judged that the death is attributed to poor planting techniques or improper post planting treatment. Any replacement planting will be conducted within a month after the planting work. No replacement planting was conducted.

5.3.7 Results and Analysis

The % PAR of this slope was 4.02 which was considered very shady. For all three species, the mean percentage healthy-green cover appears to decline over time from the wet season to the dry season (Table 20a). Whilst this is the general trend, the decline in some subplots was not that significant (Table 20b).

Statistical analysis (One-way ANOVA) using the percentage healthy-green cover in the final monitoring found that there were significant difference between species ($p < 0.05$). Tukey test found that *Alocasia odora* had significantly higher coverage than *Epipremnum aureum* ($p < 0.05$). There were no significant difference in mean percentage healthy-green cover between *A. odora* and *Nephrolepis auriculata* ($p > 0.05$). For *N. auriculata* and *E. aureum*, the difference was marginally insignificant ($p = 0.08$). Since there is only one site in this site trial, the set-up is a typical design suffering from pseudo-replication. The results from this statistical analysis should be treated with caution. Qualitative interpretation from the data may be considered.

The results suggest that *E. aureum* is the least successful in this planting trial. In fact, all except one sub-plots (sub-plot 3 of plot 2) had very low coverage at the end of the monitoring period (Table 20b). For *A. odora*, all except two sub-plots (sub-plot 3 of plot 2 and sub-plot 3 of plot 3) had over 50% coverage in the end and five sub-plots had over 80% coverage. For *N. auriculata*, all except three subplots (sub-plots 1 and 2 of plot 2 and sub-plot 1 of plot 3) had over 50% coverage with three sub-plots (sub-plot 2 of plot 1, sub-plot 3 of plot 2 and sub-plot 2 of plot 3) had over 80% coverage. These suggest that *A. odora* and *N. auriculata* are suitable for planting as ground cover under shade on slopes. The variation in the performance of the same species in different sub-plots and plots appears to be random. This may be attributable to patchiness in the environment. For example, though the site is under shade, the availability of light is not uniform across the whole site. This explains with each species is planted in different sub-plots and plots as the mean survival rate is a better parameter for comparison.

Like other site trials in this study, the monitoring period is a bit short. A two year monitoring period is more desirable. If future site trial shall be planned, more than one site with a longer monitoring period should be attempted.

5.4 Supervision

Site trials were implemented by the relevant contractors of the LPM works contracts and supervised by the resident site staff (RSS). Since workmanship is critical in plant establishment, training of the RSS in the supervising of planting works was provided by Dr Billy Hau to ensure that planting is carried out in accordance with the specification of the relevant works contracts. Dr Billy Hau has been participated in supervising the site trials to provide technical support to the RSS.

6. CONCLUSION AND RECOMMENDATION

The results of this study show that planting container grown seedlings is still a more successful landscape application method on man-made slopes in Hong Kong. However, this study has also revealed the potential of hydroseeding and spot-sowing of native woody species on man-made slopes. Since germination in the field is likely to be patchy and sowing density need to be high for hydroseeding, it is more appropriate to use native shrub species in future site trial. It is because dense coverage of shrub species is somewhat natural. On the contrary, dense coverage of tree species will lead to high mortality because of competition, which is a waste of resources. For spot sowing, more site trials using large seeded species with thick seed coat should be conducted. Spot sowing could be a cost effective method in replacement planting and biodiversity enrichment on slopes. Also, spot sowing should be a complimentary method as seed supply in large quantity is likely to be a problem. Stem-cutting in this study can be regarded as unsuccessful. May be a screening trial in the nursery using growth hormone and fungicide should first be conducted to identify species with high rooting rate before any field trials should be conducted again.

A review of the field performance of native tree and shrub species planted on man-made slopes in Hong Kong by Hau and So (2005) shows that most of the native tree and shrub species are able to establish and grow on slopes except in very exposed slopes. The results of the Part 1 site trial agree well with the findings in Hau and So (2005). All species survive well on the Moderate and Favourable sites. These show that the establishment of a native woody plant cover on man-made slope is less dependent on species but more on site quality. That is to say many native species could establish on man-made slopes that are not very exposed such as those in Shek O Quarry (Hau & So, 2005) and 12SW-A/C129. Lastly, it should be noted that the quality of seedlings and planting skill are very important to the establishment of the planted seedlings.

The results of the Part 3 site trial show that *A. odora* and *N. auriculata* are suitable species for planting under shade. More site trials are needed to identify more species for planting under shade.

In the course of this study, finding suitable slopes for the site trials was a major problem. The lack of replication is a major problem in this study. The experiences from this study suggest that one should not incorporate so many factors in an investigation as the lack of suitable slopes would make the investigation impossible. Another limitation for planting site trial is the short monitoring period. For native tree and shrubs, two full years are needed for meaningful conclusion. Thus, longer term study should be incorporated into the LPM contracts for special projects. Finally, the effect of the erosion control mat on seed

germination and seedling survival and growth is an obvious problem that has not been investigated. This should be studied in future site trials.

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Table 1 - List of Respondents to the Questionnaire on Suitable Species for Use on Man-made Slopes (Sheet 1 of 4)

Company Name	Remarks
Government Slope Formation/ Maintenance Agents	
Agriculture, Fisheries and Conservation Department / Country and Marine Parks Branch	
Architectural Services Department / Property Services Branch	
Civil Engineering and Development Department / Geotechnical Engineering Office / LPM Division 2	Note 3
Drainage Services Department / Operation and Maintenance Branch / Hong Kong and Islands Division	
Drainage Services Department/ Operation and Maintenance Branch / Mainland South Division	
Drainage Services Department / Operation and Maintenance Branch / Mainland North Division	
Highways Department / Hong Kong Region	Note 2
Highways Department / Kowloon Region	Note 2
Highways Department / New Territories Region	Note 2
Highways Department / Landscape Unit	Notes 2 & 4
Housing Department / Geotechnical Engineering Unit	
Lands Department / Slope Maintenance Section	
Leisure and Cultural Services Department / Passive Amenities Section	
Territory Development Department / Hong Kong Island and Islands Development Office	Note 3
Territory Development Department / Kowloon Development Office	Note 3
Territory Development Department / New Territories East Development Office	Note 3
Territory Development Department / New Territories North Development Office	Note 3
Territory Development Department / New Territories West Development Office	Note 3
Water Supplies Department / Operations Branch	
LPM Consultants (Note 6)	
Atkins China Ltd.	
Au Posford Consultants Ltd.	
Babtie Asia Ltd.	
Black & Veatch Hong Kong Ltd.	
BMMK, Ratcliffe, Hoare & Co. Ltd.	
C M Wong and Associates Ltd.	
ESA Consulting Engineers Ltd.	
Fugro (Hong Kong) Ltd.	
Greg Wong & Associates Ltd.	
Halcrow China Limited	Note 4

Table 1 - List of Respondents to the Questionnaire on Suitable Species for Use on Man-made Slopes (Sheet 2 of 4)

Company Name	Remarks
Hyder Consulting Ltd.	
James Lau & Associates Ltd.	
LMM Consulting Engineers Ltd.	
Maurice Lee & Associates Ltd.	
Maunsell Geotechnical Services Ltd.	Note 4
Meinhardt (C&S) Ltd.	
Mott Connell Ltd.	
Mouchel Parkman Asia Ltd.	
Ove Arup & Partners Hong Kong Ltd.	
Parsons Brinckerhoff (Asia) Ltd.	
Pypun Engineering Consultants Ltd.	
Roger Sze and Associates Ltd.	
Siu Yin Wai & Associates Ltd.	
Scott Wilson Ltd.	
Victor Li & Associates Ltd.	
Wong & Cheng Consulting Engineers Ltd.	
Wong Pak Lam and Associates Consulting Engineers & Architects Ltd.	
WSP Hong Kong Ltd.	
LPM Contractors (Note 7)	
Adrian Engineering Limited	
Aoki Corporation	
Barbican Construction Company, Limited	
Carrier Construction Limited	
China Geo-Engineering Corporation	
China Harbour Engineering Company (Group)	
China Road and Bridge Corporation	
Chun Wo Construction and Engineering Company Limited	
CWF Piling & Civil Engineering Company Limited	
Dix Construction & Transportation Limited	
Enpack (H.K.) Limited	
Excel Engineering Company Limited	
FELS Construction Techniques Limited	
Fraser Construction Company Limited	
Fuk Shing Engineering Company Limited	
Gammon Skanska Limited	
GeoTech Engineering Limited	
Hin Tak Construction Company Limited	
Hong Kong Construction (Civil Engineering) Limited	
Hsin Chong Construction Company Limited	
Hung Wan Construction Company Limited	
Kenly (H.K.) Limited	
Kin Shing Construction Company Limited	

Table 1 - List of Respondents to the Questionnaire on Suitable Species for Use on Man-made Slopes (Sheet 3 of 4)

Company Name	Remarks
Kwan On Construction Company Limited	
Lap Kai Engineering Company Limited	
Man Wah New Concepts Engineering Limited	
Marshall-Karson Constuction & Engineers Limited	
Ming Hing Waterworks Engineering Company Limited	
Pacific Construction Limited	
Paul Y. - ITC Construction & Engineering Co. Limited	
Paul Y. Construction Company, Limited	
Penta-Ocean Construction Company Limited	
Professional Engineering Limited	
Rankie Engineering Company Limited	
Shun Yuen Construction Company Liited	
Sun Fook Kong (Civil) Limited	
Tai Kam Construction Engineering Company Limited	
Tonic Engineering & Construction Company Limited	
Tysan Foundation Limited	
Vibro (H.K.) Limited	
Wing Wo (Asphalt) Engineering Company operated by Vernaltex Company Limited	
Wo Hing Construction Company	
Yick Hing Construction Company Limited	
Landscape Consultants (Note 8)	
ACLA Limited	
ADI Limited	Note 4
Belt Collins Hong Kong Limited	
DRU Austin Rayner	
Earthasia Limited	
Hassell Limited	Note 4
Kenneth Ng & Associates Limited	
Team 73 Hong Kong	
Urbis Limited	
Landscape Contractors (Note 9)	
Asia Landscaping Limited	
Blakedown (Hong Kong) Limited	
Bluet Hydroseeding Limited	
Cheung Kee Garden Limited	
Chu Kwon Garden	
City Landscaping Co. Ltd.	
Eurasian Garden Limited	
Hong Chui Landscape Company Limited	
Hong Kong Island Landscape Company Limited	

Table 1 - List of Respondents to the Questionnaire on Suitable Species for Use on Man-made Slopes (Sheet 4 of 4)

Company Name	Remarks
Hong Kong Landscaping Company Limited	Note 4
Kwong Lam Garden Limited	
Man Yuen Garden	
Melofield Nursery and Landscape Contractor Limited	
New May Landscape Limited	
NFY Nursery Limited	
Oriental Landscapes Limited	
Pegasus Greenland Limited	
Sutherland Nursery & Greening Company, Limited	
Tak Tai Farm Limited	
Tarzan Landscape Contractors Limited	
Toyo Greenland Company Limited	Note 4
Tsui Yuen Garden	
Tung Kee Garden Horticulture Limited	
Wah On Garden Landscaping Limited	
Wing Ho Yuen Landscaping Company Limited	
Yee Sun Garden Limited	

Notes:
(1) Refer to Table 2 and Section 3.1.3 for the summary of the responses.
(2) Landscape Unit of the Highways Department (HyD) replied on behalf of the HyD.
(3) Civil Engineering Department and Territory Development Department were combined and renamed as Civil Engineering and Development Department on 1 July 2004.
(4) Selected respondents were further interviewed.
(5) Two anonymous responses were received.
(6) LPM consultants were chosen from the "Longlist of Consultants for LPM Consultants and Related Geotechnical Consultancies" dated 26 February 2004.
(7) LPM contractors were chosen from the "List of Approved Suppliers of Materials and Specialist Contractors for Public Works under the category of Landslip Preventive/Remedial Works to Slopes/Retaining Walls" dated 4 March 2004.
(8) Landscape consultants were chosen from the Register of Practices of the Hong Kong Institute of Landscape Architects in February 2004.
(9) Landscape contractors were chosen from the "List of Approved Suppliers of Materials and Specialist Contractors for Public Works" under the category of Landscaping dated 10 February 2004 and the "Housing Authority List of Soft Landscape Contractors for New Works" (Groups 1 and 2) under the Counterparty Management Information System (COMIS) of the Hong Kong Housing Authority dated 11 March 2004.

Table 2 - Summary of Responses to Question 1 of the Questionnaire on Suitable Species for Use on Man-made Slopes (Sheet 1 of 8)

Vegetation Species	Number of Responses											
	Greening Effectiveness (1-least effective, 5 - most effective)					*Total no. of responses*	Maintenance Requirement (1-lowest, 5-highest)					*Total no. of responses*
	1	2	3	4	5		1	2	3	4	5	
Acacia auriculiformis (耳果相思)	0	0	3	8	7	*18*	*5*	4	7	0	1	*17*
Acacia confusa (台灣相思)	0	2	2	7	18	*29*	18	5	2	1	2	*28*
Acacia mangium (大葉相思)	0	0	3	4	9	*16*	6	5	3	0	1	*15*
Acronychia pedunculata (山油柑)	0	0	1	1	0	*2*	0	2	0	0	0	*2*
Adinandra millettii (黃瑞木)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Ailanthus fordii (常綠臭椿)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Alangium chinense (八角楓)	0	0	1	0	0	*1*	1	0	0	0	0	*1*
Albizia lebbeck (大葉合歡)	0	1	3	3	0	*7*	1	4	1	1	0	*7*
Alocasia macrorrhiza (海芋)	0	0	0	0	1	*1*	0	0	0	0	0	*0*
Antirhea chinensis (毛茶)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Aporusa dioica (銀柴)	0	0	1	0	0	*1*	1	0	0	0	0	*1*
Aquilaria sinensis (土沉香)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Archidendrom lucidum (亮葉猴耳環)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Ardisia crenata (朱砂根)	0	0	0	1	0	*1*	0	0	1	0	0	*1*
Artocarpus hypargyreus (白桂木)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
*Baeckea frutescens (*崗松)	0	0	0	1	0	*1*	1	0	0	0	0	*1*
*Bambusa tuldoides (*花眉竹)	0	0	0	0	1	*1*	0	0	0	0	0	*0*
*Bauhinia championii (*缺葉藤)	0	0	0	2	0	*2*	0	1	1	0	0	*2*
Bauhinia glauca (粉葉羊蹄甲)	0	0	3	1	2	*6*	0	4	1	0	0	*5*
Bauhinia purpurea (紅花羊蹄甲)	0	0	4	2	2	*8*	3	3	1	0	0	*7*
*Bauhinia variegata (*宮粉羊蹄甲)	0	0	7	2	0	*9*	3	5	0	0	0	*8*
*Bischofia javanica (*秋楓)	0	0	1	1	0	*2*	0	1	0	1	0	*2*
*Blechnum orientale (*烏毛蕨)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
*Bombax ceiba (*木棉)	0	0	1	0	0	*1*	0	1	0	0	0	*1*

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Table 2 - Summary of Responses to Question 1 of the Questionnaire on Suitable Species for Use on Man-made Slopes (Sheet 2 of 8)

Vegetation Species	Number of Responses											
	Greening Effectiveness (1-least effective, 5 - most effective)					*Total no. of responses*	Maintenance Requirement (1-lowest, 5-highest)					*Total no. of responses*
	1	2	3	4	5		1	2	3	4	5	
Bougainvillea spectabilis (葉子花)	0	0	2	0	0	*2*	1	0	1	0	0	*2*
Breynia fruticosa (黑面神)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Bridelia tomentosa (土密樹)	0	0	3	3	1	*7*	4	2	1	0	0	*7*
Broussonetia papyrifera (構樹)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Calliandra haematocephala (朱纓花(紅絨球))	0	0	0	8	3	*11*	2	3	4	1	1	*11*
Camellia caudata (長尾毛蕊茶(尾葉茶))	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Camellia crapnelliana (紅皮糙果茶(克氏茶))	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Camellia salicifolia (柳葉茶)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Cassia siamea (鐵刀木)	0	0	3	1	5	*9*	3	2	3	0	0	*8*
Castanopsis fissa (黧蒴錐(裂斗錐栗))	0	0	2	6	3	*11*	2	1	2	4	2	*11*
Casuarina equisetifolia (木麻黃)	1	0	3	6	4	*14*	5	5	2	0	1	*13*
Celtis tetrandra subsp. *Sinensis* (朴樹(相思樹))	0	2	7	5	2	*16*	2	7	4	0	0	*13*
Choerospondias axillaris (南酸棗)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Cinnamomum camphora (樟樹)	0	0	4	3	2	*9*	2	5	1	0	0	*8*
Clerodendrum fortunatum (白花燈籠 (鬼燈籠))	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Cratoxylum cochinchinense (黃牛木)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Cyclobalanopsis championii (嶺南青岡)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Cyclobalanopsis edithiae (華南青岡)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Cyclobalanopsis myrsinifolia (小葉青岡)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Cyclobalanopsis neglecta (竹葉青岡)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Cyclosorus parasiticus (華南毛蕨)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Dalbergia benthamii (兩廣黃檀)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Dalbergia hancei (藤黃檀)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Daphniphyllum calycinum (牛耳楓)	0	0	0	0	0	*0*	0	0	0	0	0	*0*

Table 2 - Summary of Responses to Question 1 of the Questionnaire on Suitable Species for Use on Man-made Slopes (Sheet 3 of 8)

Vegetation Species	Number of Responses											
	Greening Effectiveness (1-least effective, 5 - most effective)					*Total no. of responses*	Maintenance Requirement (1-lowest, 5-highest)					*Total no. of responses*
	1	2	3	4	5		1	2	3	4	5	
*Daphniphyllum oldhamii (*虎皮楠(交讓木))	0	0	0	1	0	*1*	1	0	0	0	0	*1*
*Delonix regia (*鳳凰木)	0	0	1	0	0	*1*	0	1	0	0	0	*1*
*Desmodium heterocarpon (*鳳凰木)	0	0	0	1	0	*1*	0	1	0	0	0	*1*
*Desmos chinensis (*假鷹爪)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
*Dicranopteris pedata (*芒萁)	1	0	0	0	0	*1*	1	0	0	0	0	*1*
*Dimocarpus longan (*龍眼)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
*Diospyros morrisiana (*羅浮柿)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
*Diospyros vaccinioides (*小果柿)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
*Diplospora dubia (*狗骨柴)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
*Duranta erecta (*假連翹)	0	0	3	3	1	*7*	0	3	2	0	1	*6*
*Elaeocarpus chinensis (*中華杜英)	0	0	0	0	1	*1*	0	1	0	0	0	*1*
*Elaeocarpus sylvestris (*山杜英)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
*Embelia laeta (*酸藤子)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
*Endospermum chinense (*黃桐)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
*Enkianthus quinqueflorus (*吊鐘花)	0	0	0	1	0	*1*	1	0	0	0	0	*1*
*Epipremnum aureum (*綠蘿(芋葉藤))	0	0	0	1	0	*1*	0	1	0	0	0	*1*
*Eucalyptus citriodora (*檸檬桉)	0	0	2	2	2	*6*	3	2	1	0	0	*6*
*Eucalyptus robusta (*大葉桉)	0	0	6	2	2	*10*	2	4	3	1	0	*10*
*Eucalyptus tereticornis (*細業桉)	0	0	0	2	1	*3*	1	1	0	1	0	*3*
*Eurya chinensis (*米碎花)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
*Eurya nitida (*細齒葉柃)	0	0	1	0	0	*1*	0	0	0	1	0	*1*
*Ficus hirta (*粗葉榕)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
*Ficus hispida (*對葉榕)	0	0	1	1	1	*3*	0	2	1	0	0	*3*
*Ficus microcarpa (*榕樹(細葉榕))	0	0	1	3	5	*9*	5	2	2	0	0	*9*

Table 2 - Summary of Responses to Question 1 of the Questionnaire on Suitable Species for Use on Man-made Slopes (Sheet 4 of 8)

Vegetation Species	Number of Responses											
	Greening Effectiveness (1-least effective, 5 - most effective)					*Total no. of responses*	Maintenance Requirement (1-lowest, 5-highest)					*Total no. of responses*
	1	2	3	4	5		1	2	3	4	5	
*Ficus pumila (*薜荔)	0	2	9	5	1	*17*	5	6	3	1	1	*16*
Ficus superba var. *japonica (*筆管榕)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Ficus variegata var. *chlorocarpa (*青果榕)	0	0	3	2	1	*6*	2	2	0	1	1	*6*
*Ficus variolosa (*變葉榕)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Ficus virens var. *sublanceolata (*大葉榕)	0	0	0	2	1	*3*	2	1	0	0	0	*3*
*Garcinia oblongifolia (*嶺南山竹子)	0	0	1	0	0	*1*	1	0	0	0	0	*1*
*Gardenia jasminoides (*梔子(水橫枝))	0	0	2	0	0	*2*	0	0	2	0	0	*2*
*Gordoria axillaris (*大頭茶)	0	3	11	9	1	*24*	3	8	9	3	0	*23*
*Grevillea robusta (*銀樺)	0	1	0	0	0	*1*	0	0	1	0	0	*1*
*Hedera helix (*洋常春藤)	0	1	1	1	1	*4*	1	1	1	1	0	*4*
*Helicteres angustifolia (*山芝麻)	0	0	1	0	0	*1*	0	1	0	0	0	*1*
*Hibiscus rosa-sinensis (*朱槿(大紅花))	0	1	3	1	3	*8*	0	4	1	1	1	*7*
*Hibiscus tiliaceus (*黃槿)	0	0	0	1	1	*2*	2	0	0	0	0	*2*
*Ilex asprella (*梅葉冬青)	0	0	2	1	0	*3*	0	3	0	0	0	*3*
*Ilex cinerea (*灰冬青)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
*Ilex rotunda (*鐵冬青)	0	1	2	0	0	*3*	0	2	1	0	0	*3*
*Ilex viridis (*綠冬青(亮葉冬青))	0	0	0	0	0	*0*	0	0	0	0	0	*0*
*Ipomoea cairica (*五爪金龍)	0	0	0	0	2	*2*	2	0	0	0	0	*2*
Ixora chinensis (龍船花)	0	1	1	0	0	*2*	0	1	1	0	0	*2*
*Lantana camara (*馬纓丹)	0	1	3	6	0	*10*	2	5	3	0	0	*10*
*Lantana montevidensis (*小葉馬纓丹(鋪地臭金鳳))	0	1	2	4	0	*7*	1	4	2	0	0	*7*
*Ligustrum sinense (*山指甲)	0	1	10	10	5	*26*	1	14	8	0	2	*25*
*Liquidambar formosana (*楓香)	0	1	2	1	0	*4*	2	0	2	0	0	*4*
*Lithocarpus glabra (*柯)	0	0	1	1	0	*2*	1	1	0	0	0	*2*

Table 2 - Summary of Responses to Question 1 of the Questionnaire on Suitable Species for Use on Man-made Slopes (Sheet 5 of 8)

Vegetation Species	Number of Responses											
	Greening Effectiveness (1-least effective, 5 - most effective)					*Total no. of responses*	Maintenance Requirement (1-lowest, 5-highest)					*Total no. of responses*
	1	2	3	4	5		1	2	3	4	5	
Lithocarpus harlandii (港柯)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Litsea cubeba (木薑子)	0	0	0	1	0	*1*	0	1	0	0	0	*1*
Litsea glutinosa (潺槁樹)	0	0	3	5	0	*8*	2	3	2	1	0	*8*
Litsea rotundifolia var. *oblongifolia* (豺皮樟)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Lophostemon confertus (紅膠木)	0	0	2	8	2	*12*	3	4	4	1	0	*12*
Lygodium japonicum (海金沙)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Macaranga tanarius (血桐)	0	0	3	3	2	*8*	2	4	1	1	0	*8*
Machilus breviflora (短序潤楠)	0	0	0	4	0	*4*	1	0	3	0	0	*4*
Machilus chekiangensis (浙江潤楠)	0	0	0	1	0	*1*	1	0	0	0	0	*1*
Machilus pauhoi (刨花潤楠)	0	0	0	3	0	*3*	0	0	3	0	0	*3*
Machilus velutina (絨毛潤楠)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Maesa perlarius (鯽魚膽)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Magnolia grandiflora (荷花玉蘭)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Mallotus paniculatus (白楸)	0	2	4	3	1	*10*	2	3	5	0	0	*10*
Mangifera indica (杧果)	0	0	0	0	1	*1*	0	1	0	0	0	*1*
Melaleuca quinquenervia (白千層)	0	0	1	3	1	*5*	1	1	1	1	0	*4*
Melastoma candidum (野牡丹)	0	0	8	6	0	*14*	0	6	7	0	0	*13*
Melastoma sanguineum (毛蕊)	0	1	9	5	1	*16*	0	9	5	0	1	*15*
Melia azaderach (楝(苦楝))	0	0	1	0	0	*1*	0	1	0	0	0	*1*
Melicope pteleifolia (密茱萸(三椏苦))	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Michelia alba (白蘭)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Microcos nervosa (*paniculata*) (破布葉)	0	0	0	4	0	*4*	2	1	0	1	0	*4*
Millettia nitida (亮葉崖豆藤)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Mussaenda pubescens (玉葉金花)	0	0	2	0	0	*2*	0	0	2	0	0	*2*

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Table 2 - Summary of Responses to Question 1 of the Questionnaire on Suitable Species for Use on Man-made Slopes (Sheet 6 of 8)

Vegetation Species	Number of Responses											
	Greening Effectiveness (1-least effective, 5 - most effective)					*Total no. of responses*	Maintenance Requirement (1-lowest, 5-highest)					*Total no. of responses*
	1	2	3	4	5		1	2	3	4	5	
*Myrica rubra (*楊梅)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
*Ormosia emarginata (*凹葉紅豆)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
*Ormosia pachycarpa (*茸莢紅豆)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
*Ormosia semicastrata (*軟莢紅豆)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
*Osmanthus fragrans (*桂花)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
*Paederia scandens (*雞矢藤)	0	0	1	0	0	*1*	0	0	1	0	0	*1*
*Palhinhaea cernua (*鋪地蜈蚣)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
*Parthenocissus dalzielii (*異葉爬牆虎)	0	1	10	6	2	*19*	6	10	1	1	1	*19*
Paspalum notatum (百喜草)	0	0	0	0	1	*1*	0	0	1	0	0	*1*
*Philodendron cordatum (*心葉喜樹蕉)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
*Phoenix hanceana (*刺葵)	0	0	1	1	0	*2*	0	0	1	1	0	*2*
*Phyllanthus emblica (*餘甘子(油甘子))	0	0	5	5	1	*11*	1	6	4	0	0	*11*
Pinus elliottii (愛氏松)	0	0	3	4	0	*7*	3	0	3	1	0	*7*
Pityrogramma calomelanos (粉葉蕨)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Psychotria asiatica (九節(山大刀))	1	1	4	1	0	*7*	2	3	1	0	0	*6*
Pteris semipinnata (半邊旗)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Pteris vittata (蜈蚣草)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
*Raphiolepis indica (*石斑木(車輪梅、春花))	0	0	6	8	0	*14*	2	9	3	0	0	*14*
Reevesia thyrsoidea (梭羅樹)	0	0	0	2	0	*2*	1	1	0	0	0	*2*
Rhododendron mucronatum (白杜鵑)	0	0	1	3	0	*4*	0	0	3	1	0	*4*
Rhododendron pulchrum (錦繡杜鵑)	0	1	3	0	0	*4*	0	0	2	0	0	*2*
Rhododendron pulchrum var. *phoeniceum* (紫杜鵑花)	0	1	4	2	1	*8*	1	3	3	0	0	*7*
Rhododendron simsii (紅杜鵑)	0	1	6	5	2	*14*	1	1	6	6	0	*14*
Rhodoleia championii (紅花荷)	0	0	0	0	0	*0*	0	0	0	0	0	*0*

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Table 2 - Summary of Responses to Question 1 of the Questionnaire on Suitable Species for Use on Man-made Slopes (Sheet 7 of 8)

Vegetation Species	Number of Responses											
	Greening Effectiveness (1-least effective, 5 - most effective)					*Total no. of responses*	Maintenance Requirement (1-lowest, 5-highest)					*Total no. of responses*
	1	2	3	4	5		1	2	3	4	5	
Rhodomyrtus tomentosa (桃金孃(崗檢))	0	3	4	11	0	*18*	3	10	2	2	0	*17*
Rhus chinensis (鹽膚木)	0	1	0	0	0	*1*	0	0	1	0	0	*1*
Rhus succedanea (木蠟樹(野漆樹))	0	0	0	1	0	*1*	0	0	1	0	0	*1*
Rubus reflexus (鏽毛莓)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Sapindus saponaria (無患子(木患子))	0	0	0	1	0	*1*	0	0	1	0	0	*1*
Sapium discolor (山烏桕)	0	1	5	6	3	*15*	4	4	6	0	1	*15*
Sapium sebiferum (烏桕)	0	1	2	5	1	*9*	2	4	1	1	0	*8*
Sarcandra glabra (草珊瑚)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Schefflera heptaphylla (鵝掌柴(鴨腳木))	0	0	0	5	1	*6*	0	1	4	0	0	*5*
Schima superba (木荷(荷樹))	0	0	6	5	4	*15*	3	6	6	0	0	*15*
Scolopia chinensis (刺柊)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Selaginella uncinata (翠雲草)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Sterculia lanceolata (假蘋婆)	0	1	1	6	0	*8*	1	4	3	0	0	*8*
Strophanthus divaricatus (羊角拗)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Symplocos glauca (羊舌樹)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Syzygium cumini (海南蒲桃)	0	0	0	0	1	*1*	1	0	0	0	0	*1*
Syzygium hancei (韓氏蒲桃)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Syzygium jambos (蒲桃)	0	1	0	4	0	*5*	1	2	2	0	0	*5*
Ternstroemia gymnanthera (厚皮香)	0	0	0	1	0	*1*	1	0	0	0	0	*1*
Tetracera asiatica (錫葉藤)	0	0	1	0	0	*1*	1	0	0	0	0	*1*
Trema tomentosa (山黃麻)	0	0	3	1	1	*5*	3	2	0	0	0	*5*
Tutcheria championii (石筆木)	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Viburnum odoratissimum (珊瑚樹)	0	0	1	0	0	*1*	0	1	0	0	0	*1*
Washingtonia robusta (華盛頓葵)	0	0	0	0	0	*0*	0	0	0	0	0	*0*

Table 2 - Summary of Responses to Question 1 of the Questionnaire on Suitable Species for Use on Man-made Slopes (Sheet 8 of 8)

Vegetation Species	Number of Responses											
	Greening Effectiveness (1-least effective, 5 - most effective)					*Total no. of responses*	Maintenance Requirement (1-lowest, 5-highest)					*Total no. of responses*
	1	2	3	4	5		1	2	3	4	5	
Wedelia trilobata (三裂葉蟛蜞菊)	0	0	3	4	13	*20*	8	9	1	1	0	*19*
Zanthoxylum avicennae (簕欓花椒(簕欓))	0	0	0	1	0	*1*	0	0	1	0	0	*1*
Addition species recommended by the practitioners (see Table 4 for comments)												
Wedelia chinensis	0	0	1	0	3	*4*	3	0	1	0	0	*4*
Philodendron	0	0	0	0	0	*0*	0	0	0	0	0	*0*
Rhododendron	0	0	0	1	0	*1*	0	0	1	0	0	*1*
Antigonon leptopus	0	0	1	0	0	*1*	0	0	0	1	0	*1*
Pittosporum tobira	0	2	2	0	0	*4*	0	0	2	2	0	*4*
Malvaviscus arboreus	1	0	0	0	0	*1*	0	0	0	0	1	*1*
Cordyline terminalis	1	0	0	0	0	*1*	0	0	0	0	1	*1*
Azalea	0	0	0	0	1	*1*	0	0	1	0	0	*1*
Cassia surattensis	0	0	0	1	0	*1*	0	1	0	0	0	*1*
Ficus benjamina	0	0	0	1	0	*1*	0	1	0	0	0	*1*
Cassia fistula	0	0	0	1	0	*1*	0	1	0	0	0	*1*
Bauhinia blakeana	0	0	0	1	0	*1*	0	1	0	0	0	*1*
Nephrlegis exaltata	0	1	0	0	0	*1*	0	1	0	0	0	*1*
Alnus formosana	0	0	0	0	1	*1*	0	0	0	0	1	*1*
Sheffler Arboricola 'Variegata'	0	0	0	1	0	*1*	0	1	0	0	0	*1*
Note: (1) Refer to Appendix B for the questionnaire on the suitable species for use on man-made slopes.												

Table 3 - Analysis of the Responses to Question 1 of the Questionnaire on Suitable Species for Use on Man-made Slopes (Sheet 1 of 8)

Vegetation Species	Greening Effectiveness Note (3)					Maintenance Requirement Note (3)				
	% of response			Score Note (7)	*Total no. of responses*	% of response			Score Note (11)	*Total no. of responses*
	Negtative Note (4)	Neutral Note (5)	Positive Note (6)			Negtative Note (8)	Neutral Note (9)	Positive Note (10)		
Ipomoea cairica (五爪金龍)	0	0	100	5.00	*2*	0	0	100	1.00	*2*
Alnus formosana Note (2)	0	0	100	5.00	*1*	100	0	0	5.00	*1*
Alocasia macrorrhiza (海芋)	0	0	100	5.00	*1*	NA	NA	NA	NA	*0*
Azalea Note (2)	0	0	100	5.00	*1*	0	100	0	3.00	*1*
Bambusa tuldoides (花眉竹)	0	0	100	5.00	*1*	NA	NA	NA	NA	*0*
Cynodon dactylon (狗牙根)	0	0	100	5.00	*1*	0	100	0	3.00	*1*
Elaeocarpus chinensis (中華杜英)	0	0	100	5.00	*1*	0	0	100	2.00	*1*
Mangifera indica (杧果)	0	0	100	5.00	*1*	0	0	100	2.00	*1*
Paspalum notatum (百喜草)	0	0	100	5.00	*1*	0	100	0	3.00	*1*
Syzygium cumini (海南蒲桃)	0	0	100	5.00	*1*	0	0	100	1.00	*1*
Wedelia trilobata (三裂葉蟛蜞菊)	0	15	85	4.50	*20*	5	5	90	1.74	*19*
Wedelia chinensis Note (2)	0	25	75	4.50	*4*	0	25	75	1.50	*4*
Hibiscus tiliaceus (黃槿)	0	0	100	4.50	*2*	0	0	100	1.00	*2*
Ficus microcarpa (榕樹(細葉榕))	0	11	89	4.44	*9*	0	22	78	1.67	*9*
Acacia confusa (台灣相思)	7	7	86	4.41	*29*	11	7	82	1.71	*28*
Acacia mangium (大葉相思)	0	19	81	4.38	*16*	7	20	73	2.00	*15*
Eucalyptus tereticornis (細業桉)	0	0	100	4.33	*3*	33	0	67	2.33	*3*
Ficus virens var. *sublanceolata* (大葉榕)	0	0	100	4.33	*3*	0	0	100	1.33	*3*
Calliandra haematocephala (朱纓花(紅絨球))	0	0	100	4.27	*11*	18	36	46	2.64	*11*
Acacia auriculiformis (耳果相思)	0	17	83	4.22	*18*	6	41	53	2.29	*17*
Cassia siamea (鐵刀木)	0	33	67	4.22	*9*	0	37	63	2.00	*8*
Schefflera heptaphylla (鵝掌柴(鴨腳木))	0	0	100	4.17	*6*	0	80	20	2.80	*5*
Castanopsis fissa (鱷蘋錐(裂斗錐栗))	0	18	82	4.09	*11*	55	18	27	3.27	*11*
Lophostemon confertus (紅膠木)	0	17	83	4.00	*12*	8	33	59	2.25	*12*
Eucalyptus citriodora (檸檬桉)	0	33	67	4.00	*6*	0	17	83	1.67	*6*
Melaleuca quinquenervia (白千層)	0	20	80	4.00	*5*	25	25	50	2.50	*4*

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Table 3 - Analysis of the Responses to Question 1 of the Questionnaire on Suitable Species for Use on Man-made Slopes (Sheet 2 of 8)

Vegetation Species	Greening Effectiveness Note (3)					Maintenance Requirement Note (3)				
	% of response			Score Note (7)	*Total no. of responses*	% of response			Score Note (11)	*Total no. of responses*
	Negtative Note (4)	Neutral Note (5)	Positive Note (6)			Negtative Note (8)	Neutral Note (9)	Positive Note (10)		
Machilus breviflora (短序潤楠)	0	0	100	4.00	*4*	0	75	25	2.50	*4*
Microcos nervosa (*paniculata*) (破布葉)	0	0	100	4.00	*4*	25	0	75	2.00	*4*
Ficus hispida (對葉榕)	0	33	67	4.00	*3*	0	33	67	2.33	*3*
Machilus pauhoi (刨花潤楠)	0	0	100	4.00	*3*	0	100	0	3.00	*3*
Bauhinia championii (缺葉藤)	0	0	100	4.00	*2*	0	50	50	2.50	*2*
Reevesia thyrsoidea (梭羅樹)	0	0	100	4.00	*2*	0	0	100	1.50	*2*
Ardisia crenata (朱砂根)	0	0	100	4.00	*1*	0	100	0	3.00	*1*
Baeckea frutescens (崗松)	0	0	100	4.00	*1*	0	0	100	1.00	*1*
Bauhinia blakeana Note (2)	0	0	100	4.00	*1*	0	0	100	2.00	*1*
Cassia fistula Note (2)	0	0	100	4.00	*1*	0	0	100	2.00	*1*
Cassia surattensis Note (2)	0	0	100	4.00	*1*	0	0	100	2.00	*1*
Daphniphyllum oldhamii (虎皮楠(交讓木))	0	0	100	4.00	*1*	0	0	100	1.00	*1*
Desmodium heterocarpon (鳳凰木)	0	0	100	4.00	*1*	0	0	100	2.00	*1*
Enkianthus quinqueflorus (吊鐘花)	0	0	100	4.00	*1*	0	0	100	1.00	*1*
Epipremnum aureum (綠蘿(芋葉藤))	0	0	100	4.00	*1*	0	0	100	2.00	*1*
Ficus benjamina Note (2)	0	0	100	4.00	*1*	0	0	100	2.00	*1*
Litsea cubeba (木薑子)	0	0	100	4.00	*1*	0	0	100	2.00	*1*
Machilus chekiangensis (浙江潤楠)	0	0	100	4.00	*1*	0	0	100	1.00	*1*
Rhododendron Note (2)	0	0	100	4.00	*1*	0	100	0	3.00	*1*
Rhus succedanea (木蠟樹(野漆樹))	0	0	100	4.00	*1*	0	100	0	3.00	*1*
Sapindus saponaria (無患子(木患子))	0	0	100	4.00	*1*	0	100	0	3.00	*1*
Sheffler Arboricola 'Variegata' Note (2)	0	0	100	4.00	*1*	0	0	100	2.00	*1*
Ternstroemia gymnanthera (厚皮香)	0	0	100	4.00	*1*	0	0	100	1.00	*1*
Zanthoxylum avicennae (簕欓花椒(簕欓))	0	0	100	4.00	*1*	0	100	0	3.00	*1*
Macaranga tanarius (血桐)	0	38	62	3.88	*8*	13	13	74	2.13	*8*
Schima superba (木荷(荷樹))	0	40	60	3.87	*15*	0	40	60	2.20	*15*

Table 3 - Analysis of the Responses to Question 1 of the Questionnaire on Suitable Species for Use on Man-made Slopes (Sheet 3 of 8)

Vegetation Species	Greening Effectiveness Note (3)					Maintenance Requirement Note (3)				
	% of response			Score Note (7)	*Total no. of responses*	% of response			Score Note (11)	*Total no. of responses*
	Negtative Note (4)	Neutral Note (5)	Positive Note (6)			Negtative Note (8)	Neutral Note (9)	Positive Note (10)		
Casuarina equisetifolia (木麻黃)	7	21	72	3.86	*14*	8	15	77	2.00	*13*
Bauhinia glauca (粉葉羊蹄甲)	0	50	50	3.83	*6*	0	20	80	2.20	*5*
Cinnamomum camphora (樟樹)	0	44	56	3.78	*9*	0	12	88	1.88	*8*
Bauhinia purpurea (紅花羊蹄甲)	0	50	50	3.75	*8*	0	14	86	1.71	*7*
Hibiscus rosa-sinensis (朱槿(大紅花))	12	38	50	3.75	*8*	29	14	57	2.86	*7*
Rhododendron mucronatum (白杜鵑)	0	25	75	3.75	*4*	25	75	0	3.25	*4*
Sapium discolor (山烏桕)	7	33	60	3.73	*15*	7	40	53	2.33	*15*
Ligustrum sinense (山指甲)	4	38	58	3.73	*26*	8	32	60	2.52	*25*
Bridelia tomentosa (土密樹)	0	43	57	3.71	*7*	0	14	86	1.57	*7*
Duranta erecta (假連翹)	0	43	57	3.71	*7*	17	33	50	2.83	*6*
Sapium sebiferum (烏桕)	11	22	67	3.67	*9*	13	13	75	2.13	*8*
Ficus variegata var. *chlorocarpa* (青果榕)	0	50	50	3.67	*6*	33	0	67	2.50	*6*
Phyllanthus emblica (餘甘子(油甘子))	0	45	55	3.64	*11*	0	36	64	2.27	*11*
Litsea glutinosa (潺槁樹)	0	38	63	3.63	*8*	13	25	63	2.25	*8*
Sterculia lanceolata (假蘋婆)	13	13	75	3.63	*8*	0	37	63	2.25	*8*
Eucalyptus robusta (大葉桉)	0	60	40	3.60	*10*	10	30	60	2.30	*10*
Syzygium jambos (蒲桃)	20	0	80	3.60	*5*	0	40	60	2.20	*5*
Trema tomentosa (山黃麻)	0	60	40	3.60	*5*	0	0	100	1.40	*5*
Raphiolepis indica (石斑木(車輪梅、春花))	0	43	57	3.57	*14*	0	21	79	2.07	*14*
Rhododendron simsii (紅杜鵑)	7	43	50	3.57	*14*	43	43	14	3.21	*14*
Pinus elliottii (愛氏松)	0	43	57	3.57	*7*	14	43	43	2.29	*7*
Lantana camara (馬纓丹)	10	30	60	3.50	*10*	0	30	70	2.10	*10*
Hedera helix (洋常春藤)	25	25	50	3.50	*4*	25	25	50	2.50	*4*
Acronychia pedunculata (山油柑)	0	50	50	3.50	*2*	0	0	100	2.00	*2*
Bischofia javanica (秋楓)	0	50	50	3.50	*2*	50	0	50	3.00	*2*
Lithocarpus glabra (柯)	0	50	50	3.50	*2*	0	0	100	1.50	*2*

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Table 3 - Analysis of the Responses to Question 1 of the Questionnaire on Suitable Species for Use on Man-made Slopes (Sheet 4 of 8)

Vegetation Species	Greening Effectiveness Note (3)					Maintenance Requirement Note (3)				
	% of response			Score Note (7)	*Total no. of responses*	% of response			Score Note (11)	*Total no. of responses*
	Negtative Note (4)	Neutral Note (5)	Positive Note (6)			Negtative Note (8)	Neutral Note (9)	Positive Note (10)		
Phoenix hanceana (刺葵)	0	50	50	3.50	*2*	50	50	0	3.50	*2*
Parthenocissus dalzielii (異葉爬牆虎)	5	53	42	3.47	*19*	11	5	84	2.00	*19*
Rhodomyrtus tomentosa (桃金孃(崗棯))	17	22	61	3.44	*18*	12	12	76	2.18	*17*
Celtis tetrandra subsp. *Sinensis* (朴樹(相思樹))	12	44	44	3.44	*16*	0	31	69	2.15	*13*
Melastoma candidum (野牡丹)	0	57	43	3.43	*14*	0	54	46	2.54	*13*
Lantana montevidensis (小葉馬纓丹(舖地臭金鳳))	14	29	57	3.43	*7*	0	29	71	2.14	*7*
Melastoma sanguineum (毛蕊)	6	56	38	3.38	*16*	7	33	60	2.53	*15*
Rhododendron pulchrum var. *phoeniceum* (紫杜鵑花)	12	50	38	3.38	*8*	0	43	57	2.29	*7*
Gordoria axillaris (大頭茶)	12	46	42	3.33	*24*	13	39	48	2.52	*23*
Ilex asprella (梅葉冬青)	0	67	33	3.33	*3*	0	0	100	2.00	*3*
Mallotus paniculatus (白楸)	20	40	40	3.30	*10*	0	50	50	2.30	*10*
Ficus pumila (薜荔)	12	53	35	3.29	*17*	13	19	69	2.19	*16*
Albizia lebbeck (大葉合歡)	14	43	43	3.29	*7*	14	14	72	2.29	*7*
Bauhinia variegata (宮粉羊蹄甲)	0	78	22	3.22	*9*	0	0	100	1.63	*8*
Liquidambar formosana (楓香)	25	50	25	3.00	*4*	0	50	50	2.00	*4*
Bougainvillea spectabilis (葉子花)	0	100	0	3.00	*2*	0	50	50	2.00	*2*
Gardenia jasminoides (梔子(水橫枝))	0	100	0	3.00	*2*	0	100	0	3.00	*2*
Mussaenda pubescens (玉葉金花)	0	100	0	3.00	*2*	0	100	0	3.00	*2*
Alangium chinense (八角楓)	0	100	0	3.00	*1*	0	0	100	1.00	*1*
Antigonon lotopus Note (2)	0	100	0	3.00	*1*	100	0	0	4.00	*1*
Aporusa dioica (銀柴)	0	100	0	3.00	*1*	0	0	100	1.00	*1*
Bombax ceiba (木棉)	0	100	0	3.00	*1*	0	0	100	2.00	*1*
Delonix regia (鳳凰木)	0	100	0	3.00	*1*	0	0	100	2.00	*1*

Table 3 - Analysis of the Responses to Question 1 of the Questionnaire on Suitable Species for Use on Man-made Slopes (Sheet 5 of 8)

Vegetation Species	Greening Effectiveness Note (3)					Maintenance Requirement Note (3)				
	% of response			Score Note (7)	*Total no. of responses*	% of response			Score Note (11)	*Total no. of responses*
	Negtative Note (4)	Neutral Note (5)	Positive Note (6)			Negtative Note (8)	Neutral Note (9)	Positive Note (10)		
Eurya nitida (細齒葉柃)	0	100	0	3.00	*1*	100	0	0	4.00	*1*
Garcinia oblongifolia (嶺南山竹子)	0	100	0	3.00	*1*	0	0	100	1.00	*1*
*Helicteres angustifolia (*山芝麻)	0	100	0	3.00	*1*	0	0	100	2.00	*1*
*Melia azaderach (*楝(苦楝))	0	100	0	3.00	*1*	0	0	100	2.00	*1*
*Paederia scandens (*雞矢藤)	0	100	0	3.00	*1*	0	100	0	3.00	*1*
Tetracera asiatica (錫葉藤)	0	100	0	3.00	*1*	0	0	100	1.00	*1*
Viburnum odoratissimum (珊瑚樹)	0	100	0	3.00	*1*	0	0	100	2.00	*1*
Rhododendron pulchrum (錦繡杜鵑)	25	75	0	2.75	*4*	0	100	0	3.00	*2*
Psychotria asiatica (九節(山大刀))	29	57	14	2.71	*7*	0	17	83	1.83	*6*
Ilex rotunda (鐵冬青)	33	67	0	2.67	*3*	0	33	67	2.33	*3*
Pittosporum tobira Note (2)	50	50	0	2.50	*4*	50	50	0	3.50	*4*
Ixora chinensis (龍船花)	50	50	0	2.50	*2*	0	50	50	2.50	*2*
Grevillea robusta (銀樺)	100	0	0	2.00	*1*	0	100	0	3.00	*1*
Nephrlegis exaltata Note (2)	100	0	0	2.00	*1*	0	0	100	2.00	*1*
Rhus chinensis (鹽膚木)	100	0	0	2.00	*1*	0	100	0	3.00	*1*
Cordyline terminalis Note (2)	100	0	0	1.00	*1*	100	0	0	5.00	*1*
Dicranopteris pedata (芒萁)	100	0	0	1.00	*1*	0	0	100	1.00	*1*
Malvaviscus arboreus Note (2)	100	0	0	1.00	*1*	100	0	0	5.00	*1*
Adinandra millettii (黃瑞木)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Ailanthus fordii (常綠臭椿)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Antirhea chinensis (毛茶)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Aquilaria sinensis (土沉香)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Archidendrom lucidum (亮葉猴耳環)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Artocarpus hypargyreus (白桂木)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Blechnum orientale (烏毛蕨)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Breynia fruticosa (黑面神)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*

Table 3 - Analysis of the Responses to Question 1 of the Questionnaire on Suitable Species for Use on Man-made Slopes (Sheet 6 of 8)

Vegetation Species	Greening Effectiveness Note (3)					Maintenance Requirement Note (3)				
	% of response			Score Note (7)	*Total no. of responses*	% of response			Score Note (11)	*Total no. of responses*
	Negtative Note (4)	Neutral Note (5)	Positive Note (6)			Negtative Note (8)	Neutral Note (9)	Positive Note (10)		
Broussonetia papyrifera (構樹)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Camellia caudata (長尾毛蕊茶(尾葉茶))	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Camellia crapnelliana (紅皮糙果茶(克氏茶))	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Camellia salicifolia (柳葉茶)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Choerospondias axillaris (南酸棗)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Clerodendrum fortunatum (白花燈籠 (鬼燈籠))	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Cratoxylum cochinchinense (黃牛木)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Cyclobalanopsis championii (嶺南青岡)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Cyclobalanopsis edithiae (華南青岡)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Cyclobalanopsis myrsinifolia (小葉青岡)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Cyclobalanopsis neglecta (竹葉青岡)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Cyclosorus parasiticus (華南毛蕨)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Dalbergia benthamii (兩廣黃檀)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Dalbergia hancei (藤黃檀)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Daphniphyllum calycinum (牛耳楓)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Desmos chinensis (假鷹爪)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Dimocarpus longan (龍眼)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Diospyros morrisiana (羅浮柿)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Diospyros vaccinioides (小果柿)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Diplospora dubia (狗骨柴)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Elaeocarpus sylvestris (山杜英)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Embelia laeta (酸藤子)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Endospermum chinense (黃桐)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Eurya chinensis (米碎花)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Ficus hirta (粗葉榕)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*

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Table 3 - Analysis of the Responses to Question 1 of the Questionnaire on Suitable Species for Use on Man-made Slopes (Sheet 7 of 8)

Vegetation Species	Greening Effectiveness Note (3)					Maintenance Requirement Note (3)				
	% of response			Score Note (7)	*Total no. of responses*	% of response			Score Note (11)	*Total no. of responses*
	Negtative Note (4)	Neutral Note (5)	Positive Note (6)			Negtative Note (8)	Neutral Note (9)	Positive Note (10)		
Ficus superba var. japonica (筆管榕)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Ficus variolosa (變葉榕)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Ilex cinerea (灰冬青)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Ilex viridis (綠冬青(亮葉冬青))	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Lithocarpus harlandii (港柯)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Litsea rotundifolia var. oblongifolia (豺皮樟)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Lygodium japonicum (海金沙)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Machilus velutina (絨毛潤楠)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Maesa perlarius (鯽魚膽)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Magnolia grandiflora (荷花玉蘭)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Melicope pteleifolia (密茱萸(三椏苦))	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Michelia alba (白蘭)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Millettia nitida (亮葉崖豆藤)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Myrica rubra (楊梅)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Ormosia emarginata (凹葉紅豆)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Ormosia pachycarpa (茸莢紅豆)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Ormosia semicastrata (軟莢紅豆)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Osmanthus fragrans (桂花)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Palhinhaea cernua (鋪地蜈蚣)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Philodendron cordatum (心葉喜樹蕉)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Philodendron Note (2)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Pityrogramma calomelanos (粉葉蕨)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Pteris semipinnata (半邊旗)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Pteris vittata (蜈蚣草)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Rhodoleia championii (紅花荷)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Rubus reflexus (鏽毛莓)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*

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Table 3 - Analysis of the Responses to Question 1 of the Questionnaire on Suitable Species for Use on Man-made Slopes (Sheet 8 of 8)

Vegetation Species	Greening Effectiveness Note (3)					Maintenance Requirement Note (3)				
	% of response			Score Note (7)	*Total no. of responses*	% of response			Score Note (11)	*Total no. of responses*
	Negtative Note (4)	Neutral Note (5)	Positive Note (6)			Negtative Note (8)	Neutral Note (9)	Positive Note (10)		
Sarcandra glabra (草珊瑚)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Scolopia chinensis (刺柊)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Selaginella uncinata (翠雲草)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Strophanthus divaricatus (羊角拗)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Symplocos glauca (羊舌樹)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Syzygium hancei (韓氏蒲桃)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Tutcheria championii (石筆木)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*
Washingtonia robusta (華盛頓葵)	NA	NA	NA	NA	*0*	NA	NA	NA	NA	*0*

Notes:
(1) Refer to Appendix B for the questionnaire and Table 2 for the summary of question 1.
(2) Additional vegetation species provided by the respondents, refer to Table 4 for comments.
(3) For the rating of the greening effectiveness, 1 denotes the least effective and 5 is the most effective. For maintenance requirements, 1 denotes the lowest requirements and 5 denotes the highest requirements.
(4) Negative denotes percentage of replies with ratings "1" and "2". (i.e. % of negative responses = (no. of responses of "1" + no. of responses of "2") / total no. of responses x 100%).
(5) Neutral denotes percentage of responses with rating "3". (i.e. % of neutral responses = no. of responses of "3" / total no. of responses x 100%).
(6) Positive denotes percentage of responses with ratings "4" and "5". (i.e. % of positive responses = no. of responses of "4" + no. of responses of "5" / total no. of responses x 100%).
(7) The score is the average score of the rating (i.e. score = ∑(no. of responses x the rating) / total no. of responses). The higher the score, the higher the greening effectiveness. The scores should be read in conjunction with the number of responses.
(8) Negative denotes percentage of responses with ratings "4" and "5". (i.e. % of negative responses = (no. of responses of "4" + no. of responses of "5") / total no. of responses x 100%).
(9) Neutral denotes percentage of responses with rating "3". (i.e. % of negative responses = no. of responses of "3" / total no. of responses x 100%).
(10) Positive denotes percentage of responses with ratings "1" and "2". (i.e. % of positive responses = no. of responses of "1" + no. of responses of "2" / total no. of responses x 100%).
(11) The score is the average score of the rating (i.e. score=∑(no. of responses x the rating) / total no. of responses). The lower the score, the lower the maintenance requirement. The scores should be read in conjunction with the number of responses.
(12) The species are listed in the order of greening effectiveness score, total number of responses and alphabetical order.

Table 4 - Additional Species for Use on Man-made Slopes Recommended by the Practitioners (Sheet 1 of 9)

Vegetation Species	Notes	Remarks
Alchornea trewioides *紅背山麻杆*	It is only recorded in one slope from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Allamanda cathartica	*Allamanda cathartica* is a common cultivated ornamental shrub in garden and roadside planters. Not recommended for the matrix under this study.	Notes 3, 6
Acacia longifolia	An exotic tree species which is not yet recorded in Hong Kong. Not recommended for the matrix under this study.	Notes 3, 6
Agalia odorata	*Aglaia odorata* is a cultivated exotic shrub which is common in Hong Kong. It is added to the matrix.	Note 3
Aleurites moluccana	A very large exotic ornamental tree usually planted in parks and gardens. Not recommended for the matrix under this study.	Notes 3, 6
Alnus formosana	Synonym of *Alnus japonica*, an exotic species. It is added to the matrix.	Note 2
Alysicarpus vaginalis *練莢豆*	A common native perennial herb. It is added to the matrix.	Note 3
Antigonon lotopus	*Antigonon loptopus* is a cultivated vine that is not naturalised. Recurrent maintenance is apparently needed and therefore not recommended for the matrix under this study.	Notes 2, 6
Arachis duranensis	An exotic ground creeper which is not recorded in Hong Kong. Not recommended for the matrix under this study.	Notes 3, 6
Asparagus cochinchinensis *天門冬*	It is only recorded in one slope from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Azalea	Common name of *Rhododendron* species, some are already on the matrix.	Note 2
Bauhinia blakeana	Cultivated roadside tree, not naturalised in Hong Kong. Not recommended for the matrix under this study.	Notes 2, 6
Boehmeria nivea *苧麻*	It is only recorded in one slope from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notse 4, 6

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Table 4 - Additional Species for Use on Man-made Slopes Recommended by the Practitioners (Sheet 2 of 9)

Vegetation Species	Notes	Remarks
Boehmeria pendulifiora var. loochooensis *密花苧麻*	A rare native shrub in Hong Kong as a whole but is apparently common on Hong Kong Island. It is added to the matrix.	Note 3
Bougainvillea buttiana	Similar to *B. spectabilis* but not recorded in Hong Kong. Not recommended for the matrix under this study.	Notes 3, 6
Brucea javanica *鴉膽子*	It is only recorded in one slope from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Caesalpinia pulcherrina	An exotic shrub (or small tree) for ornamental use. Not recommended for the matrix under this study.	Notes 3, 6
Callicarpa sp. *紫珠屬*	It is only recorded in one slope from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Camellia oleifera	A common small native tree. It is added to the matrix.	Note 3
Canthium dicoccum *鐵矢米*	It is only recorded in one slope from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Cassia fistula	Roadside tree, not naturalised in Hong Kong. Not recommended for the matrix under this study.	Notes 2, 6
Cassia olata	Should be *C. alata*. An ornamental shrub used in parks. Not recommended for the matrix under this study.	Notes 3, 6
Cassia surattensis	Cultivated and not naturalised. Not recommended for the matrix under this study.	Notes 2, 6
Cassytha filiformsis *無根藤*	It is only recorded in one slope from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Celtis timorensis *假玉桂*	It is only recorded in four slopes from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Cinnamomum burmannii *陰香*	It is only recorded in three slopes from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6

Table 4 - Additional Species for Use on Man-made Slopes Recommended by the Practitioners (Sheet 3 of 9)

Vegetation Species	Notes	Remarks
Cinnamomum parthenoxylon 黃樟	It is only recorded in three slopes from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Cheiranthus allionii	An unknown fern species of the genera *Cheilanthes*, probably cultivated. Not recommended for the matrix under this study.	Notes 3, 6
Clerodendrum japonicum	An ornamental shrub used in gardens and roadside planters. Not recommended for the matrix under this study.	Notes 3, 6
Cocculus orbiculatus 木防己	It is only recorded in one slope from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Cordia dichotoma	A large, fast-growing native tree growing on relatively flat land. Not recommended for the matrix under this study.	Notes 3, 6
Cordyline terminalis	Synonyn of *C. fruticosa*. Cultivated and not naturalised. Recurrent maintenance likely needed. Therefore, not recommended for the matrix under this study.	Notes 2, 6
Crataeva religiosa	The synonym of *Crataeva unilocularis*, an exotic small tree species. It is added to the matrix.	Note 3
Croton sp. 巴豆屬	It is only recorded in one slope from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Cunninghamia lanceolata	An exotic conifer tree introduced from mainland China. It is added to the matrix.	Note 3
Dianthus baxbatus	*D. barbatus* is a cultivated species for ornamental use. Not recommended for the matrix under this study.	Notes 3, 6
Dioscorea benthamii 大青薯	It is only recorded in one slope from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Dracontomelon duperreanum	An exotic large tree planted in parks and gardens. Not recommended for the matrix under this study.	Notes 3, 6
Elaeocarpus hainanensis	An exotic tree species usually planted in roadside and gardens. Not recommended for the matrix under this study.	Notes 3, 6

Table 4 - Additional Species for Use on Man-made Slopes Recommended by the Practitioners (Sheet 4 of 9)

Vegetation Species	Notes	Remarks
Erythrina speciosa *象牙花*	It is only recorded in one slope from Task 2. It is also a ornamental species that regular maintenance is required. Therefore, not recommended for the matrix under this study.	Notes 4, 6
Erythrina variegata	It should be *Erythrina variegata* which is a cultivted garden tree, not recommended for the matrix.	Note 3
Eschscholzia californiasa	It should be *E. californica* of the Family Papaveraceae. Not recorded in Hong Kong. Not reconmmended for the matrix under this study.	Notes 3, 6
Eucalyptus urophylla	An exotic *Eucalyptus sp*. which is not recorded in Hong Kong. Not recommended for the matrix under this study.	Notes 3, 6
Euphorbia griffithii	An ornamental species which is not recorded in Hong Kong. Not recommended for the matrix under this study.	Notes 3, 6
Ficus altissima	An uncommon native species in Hong Kong. Little is known about its growth habit. Not recommended for the matrix under this study.	Notes 3, 6
Ficus benjamina	Roadside tree, not naturalised in Hong Kong. Not recommended for the matrix under this study.	Notes 2, 6
Ficus elestica 'variegata'	This seems to refer to *Ficus elastica,* which is a large exotic tree species. Not recommended for the matrix under this study.	Notes 3, 6
Ficus fistulosa *水同木*	It is only recorded in five slopes from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Glochidion eriocarpum *毛果算盤子*	It is only recorded in five slopes from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Glochidion lanceolarium	A small native tree. It is added to the matrix.	Note 3
Glochidion wrightii *白背算盤子*	It is only recorded in two slopes from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Glochidion zeylanicum *香港算盤子*	It is only recorded in three slopes from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6

Table 4 - Additional Species for Use on Man-made Slopes Recommended by the Practitioners (Sheet 5 of 9)

Vegetation Species	Notes	Remarks
Gnetum luofuense *羅浮買麻藤*	It is only recorded in two slopes from Task 2. The study team has no experiences in propagating this species. Not recommended for the matrix under this study .	Notes 4, 6
Gymnema sylvestre *匙羹藤*	It is only recorded in one slope from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Hesperis matronalis	A herbaceous species from the Family Brassicaceae. Not recorded in Hong Kong. Not recommended for the matrix under this study.	Notes 3, 6
Homalium cochinchinense *天料木*	It is only recorded in two slopes from Task 2. It usually occurs in mature forest and is considered not suitable for newly planted man-made slope. Therefore, not recommended for the matrix under this study.	Notes 4, 6
Hypserpa nitida *夜花藤*	It is only recorded in one slope from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Indigofera spicata *鋪地木藍*	A native creeping herb. It is added to the matrix.	Note 3
Itea chineusis	*Itea chinensis* is a small common native tree. It is added to the matrix.	Note 3
Ilex pubescens *毛冬青*	It is only recorded in three slopes from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Inula cappa *羊耳菊*	It is only recorded in one slope from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Ipomoea biflora *心萼薯*	It is only recorded in one slope from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Jasminum mesuyi Hauce	*J. mesnyi* is a common cultivated ornamental shrub in garden and roadside planters. Not recommended for the matrix under this study.	Notes 3, 6
Lasianthus sp. *粗葉木屬*	It is only recorded in one slope from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6

Table 4 - Additional Species for Use on Man-made Slopes Recommended by the Practitioners (Sheet 6 of 9)

Vegetation Species	Notes	Remarks
Litsea monopetala *假柿木薑子*	It is only recorded in two slopes from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Malvaviscus arboreus	Should be *M. arboreus* var. *penduliflorus*, cultivated in Hong Kong and not naturalised. Recurrent maintenance likely needed. Therefore, not recommended for the matrix under this study.	Notes 2, 6
Mangifera indica	A rather large exotic fruit tree with dense foliage. Not recommended for the matrix under this study.	Notes 3, 6
Manihot esculenta *木薯*	It is only recorded in two slopes from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Michelia alba	A large exotic ornamental tree which is rather fast growing. Not recommended for the matrix under study.	Notes 3, 6
Murraya paniculata *九里香*	It is only recorded in two slopes from Task 2. It is also a ornamental species that regular maintenance is required. Therefore, not recommended for the matrix under this study.	Notes 4, 6
Nephrlegis exaltata *毛葉腎蕨*	*N. exaltata* is a synonym of *N. hirsutula*, (Rough Sword fern). It grows naturally in forest floor in forested ravines and valleys or in rock cracks along the coast. It is often planted in parks and gardens. The team has seen it planted on slopes along the South Lantau Road. It is added in the matrix.	Note 2
Nephrolepis cordifolia *腎蕨*	*N. cordifolia* is the synonym of *N. auriculata* (Tuberous Sword Fern). It is common in HK on rocks and tree trunks in forests. It grows in shade as well as under direct sunlight. It is widely cultivated worldwide. The team has seen it planted on slopes along the South Lantau Road. It is added to the matrix.	Note 3
Nerium indicum	The synonym of *N. oleander*, which is a gardening shrub, not recommended for the matrix under this study.	Notes 3, 6
Nerium oleander *夾竹桃*	It is only recorded in one slope from Task 2. It is also a ornamental species that regular maintenance is required. Therefore, not recommended for the matrix under this study.	Notes 4, 6

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Table 4 - Additional Species for Use on Man-made Slopes Recommended by the Practitioners (Sheet 7 of 9)

Vegetation Species	Notes	Remarks
Passiflora foetida *龍珠果*	It is only recorded in five slopes from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Passiflora suberosa *南美西番蓮*	It is only recorded in one slope from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Philodendron	All *Philodendron* sp. in Hong Kong are cultivated species that are not naturalised. Recurrent maintenance is apparently needed, not recommended for the matrix under this study.	Notes 2, 6
Phyllauthus cochinchinensis	*Phyllanthus cochinchinensis* is a small common native shrub. It is added to the matrix.	Note 3
Phyllanthus reticulates *小果葉下珠*	It is only recorded in one slope from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix imder this study.	Notes 4, 6
Pittosporum tobira	A native shrub. It is added to the matrix.	Note 2
Pueraria lobata *野葛*	It is only recorded in one slope from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Pyrus calleryana	A small native tree. It is added to the matrix.	Note 3
Rosa laevigata *金櫻子*	It is only recorded in one slope from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix.	Note 4
Rhododendron	Common name of *Rhododendron* sp. , several species already included in the matrix.	Note 2
Rhododendrum sinense	The synonym of *Rhododendron molle* which does not occur in Hong Kong. Not recommended for the matrix under this study.	Notes 3, 6
Sageretia thea *雀梅藤*	It is only recorded in one slope from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Salvia officinalis	An evergreen shrub that has been wildly cultivated. It is added to the matrix.	Note 3

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Table 4 - Additional Species for Use on Man-made Slopes Recommended by the Practitioners (Sheet 8 of 9)

Vegetation Species	Notes	Remarks
Scolopia saeva *廣東刺柊*	It is only recorded in one slope from Task 2 and unsuccessful in seedling propagation in nursery. Therefore, not recommended for the matrix under this study.	Notes 4, 6
Shefflera arboricola 'Variegata'	Cultivated shrub, not naturalised in Hong Kong, not recommended for the matrix under this study.	Notes 2, 6
Smilax china	A very common native climbing shrub. It is added to the matrix.	Note 3
Smilax glabra *土茯苓*	It is only recorded in two slopes from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Solanum torvum *水茄*	It is only recorded in one slope from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Solena amplexicaulis *茅瓜*	It is only recorded in one slope from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Stephania longa *翼箕篤*	It is only recorded in one slope from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Styrax suberifolius *紅皮*	It is only recorded in one slope from Task 2 and very slow growing, difficult to propagate. Therefore, not recommended for the matrix under this study.	Notes 4, 6
Syngonium podohyllum	A cultivated herb from Mexico for ornamental use. Not recommended for the matrix under this study.	Notes 3, 6
Syzygium levinei *山蒲桃*	It is only recorded in one slope from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Tadehagi triquetrum	A small native shrub. It is added to the matrix.	Note 3
Tecoma stans *黃鐘花*	A cultivated shrub for ornamental uses. Not recommended for the matrix under this study.	Notes 3, 6
Tetradium glabrifolium *楝葉吳茱萸*	It is only recorded in three slopes from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6

Table 4 - Additional Species for Use on Man-made Slopes Recommended by the Practitioners (Sheet 9 of 9)

Vegetation Species	Notes	Remarks
Urena lobata *肖梵天花*	It is only recorded in one slope from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Uraria crinita *貓尾草*	It is only recorded in one slope from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Vernicia fordii	A very large exotic ornamental tree usually planted in parks and gardens. Not recommended for the matrix under this study.	Notes 3, 6
Vetiver grass	Vetiver grass shall require maintenance cutting and is prone to fire. Not recommended for the matrix under this study.	Notes 3, 6
Wedelia chinensis	It looks similar to *W. trilobata* but requires wet habitats. Therefore, not recommended for the matrix under this study.	Notes 2, 6
Wikstroemia indica *了哥王*	It is only recorded in two slopes from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
Zanthoxylum nitidum *兩面針*	It is only recorded in two slopes from Task 2. The study team has no experience in propagating this species. Not recommended for the matrix under this study.	Notes 4, 6
花叶大紅花	May be a cultivar of *Hisbiscus rosa-sinensis* which is in the matrix.	Note 3
黃榕	A cultivar of *Ficus microcarpa* for ornamental use. Not recommended for the matrix under this study.	Notes 3, 6

Notes:
(1) Refer to Appendix B for the questionnaire.
(2) Additional species recommended in question 1 of the questionnaire (Appendix B).
(3) Additional species recommended in question 3 of the questionnaire (Appendix B).
(4) Additional species included in Task 2 (Hau & Leung, 2004).
(5) A total of 100 slopes were surveyed under Taks 2 (Hau & Leung, 2004).
(6) Species are not recommended in the plant selection matrix under this study based on the current knowledge, however they are recommended for further study to explore their applicability on man-made slopes.

Table 5 - Plant Selection Matrix (Sheet 1 of 14)

Scientific Name	Chinese Name	English Common Name	Family	Origin			Growth Habit				Plant Form							Characteristics										Normal Height					Growth Rate			
				Native	* - Exotic, # - Naturalised Exotic	Provenance	T-tree, C-conifer, P-palm, B-bamboo	Shrub	Climbing plant: C-climber, G-ground creeper, W-woody climber	Herb (F-fern, G-grass)	Rounded	Oval	Spreading	Domed	Vase	Columnar	Pyramidal	Evergreen	Semi-deciduous	Deciduous	Woody	Herbaceous	Annual	Biennial	Perennial	Strong vertical roots	Extensive lateral roots	Nitrogen Fixer	0 - 1 m	1 - 2 m	2 - 5 m	5 - 10 m	> 10 m	Fast Growing	Medium Growing	Slow Glowing	
Acacia auriculiformis	耳果相思	Ear-leaved Acacia	Mimosaceae		*		T				*							*			*				*		*	*					*			
Acacia confusa	台灣相思	Acacia	Mimosaceae		*		T				*							*			*				*		*	*					*			
Acacia mangium	大葉相思	Big-leaved Acacia	Mimosaceae		*		T				*							*			*				*		*	*					*			
Acronychia pedunculata	山油柑	Acronychia	Rutaceae	*			T					*						*			*				*							*			*
Adinandra millettii	黃瑞木	Millett's Adinandra	Theaceae	*				*				*						*			*				*						*			*		
Aglaia ororata	米仔蘭	Mock Lime	Meliaceae		*			*								*		*							*						*	*				
Ailanthus fordii	常綠臭椿	Ailanthus	Simaroubaceae	*			T						*			*		*			*				*						*			*		
Alangium chinense	八角楓	Chinese Alangium	Alangiaceae	*			T						*							*	*				*						*			*		
Albizia lebbeck	大葉合歡	Lebbeck Tree	Mimosaceae		*		T						*							*	*				*							*	*			
Alnus japonica	赤楊	Formosan Alder	Betulaceae		*		T						*							*	*				*			*				*	*			
Alocasia macrorrhiza	海芋	Giant Alocasia	Araceae	*						*								*				*			*						*			*		
Alysicarpus vaginalis	練莢豆	Alyce Clover	Fabaceae	*						*															*			*	*							
Antirhea chinensis	毛 茶	Chinese Antirhea	Rubiaceae	*			T					*						*			*				*						*			*		
Aporusa dioica	銀柴	Aporusa	Euphorbiaceae	*			T					*						*			*				*						*			*		
Aquilaria sinensis	土沉香	Incense Tree	Thymelaeaceae	*			T						*					*			*				*							*			*	
Archidendron lucidum	亮葉猴耳環	Chinese Apea Ear-ring	Mimosaceae	*			T						*					*			*				*						*			?		
Ardisia crenata	朱砂根	Hilo Holly	Myrsinaceae	*				*				*						*			*				*				*				*			
Artocarpus hypargyreus	白桂木	Silver-backed Artocarpus	Moraceae	*			T					*						*			*				*						*					*
Axonopus affinis	地毯草	Carpet Grass	Gramineae		*					G												*			*				*				*			
Baeckea frutescens	崗松	Dwarf Mountain Pine	Thymelaeaceae	*				*							*			*			*				*					*				*		
Bambusa tuldoides	花眉竹	Verdant Bamboo	Gramineae	*			B									*				*	*				*							*			*		
Bauhinia championii	缺葉藤	Champion's Bauhinia	Caesalpiniaceae	*					W							*				*					*							*				?	
Bauhinia glauca	粉葉羊蹄甲	Climbing Bauhinia	Caesalpiniaceae	*					W							*				*					*							*					
Bauhinia purpurea	紅花羊蹄甲	Purple Camel's Foot	Caesalpiniaceae		*		T					*						*			*				*							*			*		
Bauhinia variegata	宮粉羊蹄甲	Camel's Foot Tree	Caesalpiniaceae		*		T					*						*			*				*							*			*		
Bischofia javanica	秋楓	Autumn Maple	Euphorbiaceae	*			T					*						*			*				*	*	*						*			*	
Blechnum orientale	烏毛蕨	Oriental Blechnum	Blechnaceae	*						F								*				*			*				*				*			
Boehmeria penduliflora var. loochooensis	密花苧麻	Dense-flowered False Nettle	Moraceae	*				*			*							*			*				*						*			*		
Bombax ceiba	木棉	Tree Cotton	Bombacaceae		*		T						*							*	*				*							*			*		
Bougainvillea spectabilis	葉子花	Beautiful Bougainvillea	Nyctaginaceae		*				W									*				*			*		*				*			*		
Breynia fruticosa	黑面神	Waxy Leaf	Euphorbiaceae	*				*					*					*				*			*					*				*		
Bridelia tomentosa	土密樹	Pop-gun Seed	Euphorbiaceae	*			T						*					*				*			*						*			*		

To be continued

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Table 5 - Plant Selection Matrix (Sheet 2 of 14)

Scientific Name		Lifespan			Ecological Value				Planting Mode				Ornamental Value												Tolerance - Environmental Factors							Tolerance - Soil Conditions				Slope Characteristics						Supply & Maintenance				Remarks			Other Aspects				Ref	
		Short Life Span (20 - 50 yr)	Medium Life Span (50 - 80 yr)	Long Life Span (80+ yr)	Flower nectar for insects	Larval foodplants for insects	Fruits for wildlife	Seeds for wildlife	Pit planting	Spot sowing	Hydroseeding	Stem cutting	Flower colour: R-red, W-white, Y-yellow, P-purple, Pi-pink	Flower type: S-single flower, I-Inflorescence, C-cluster, F-fig	Flower size: S-small, M-medium, L-large	Flowering period: 1-Jan, 2-Feb…etc., R-year round	Fruit colour: C-colourful, B-blue/black, D-dull in colour	Fruit size: S-small, M-medium, L-large	Fruit type: F-fleshy, C-fibrous capsule, A-acorn, P-pod, Co-cone	Fruiting period: D-dry season, W-wet season, R-year round	Foliage colour: Gl-light green, Gm-medium green, Gd-dark green, Red before falling	Foliage texture: F-fine, M-medium, W-waxy, R-rough	Bark colour: B-brown, D-dark brown, P-pale, G-green	Bark texture: N-normal, F-fibrous	Wind Tolerant	Salt Spray Tolerant	Fire Tolerant	Drought Tolerant	Pollution Tolerant	Light Tolerant	Shade Tolerant	Infertile soil	Loose soil	Compacted soil	Slightly acidic soil	Steep Slopes: slope gradient ≥ 45°	Gentle Slopes: slope gradient < 45 degrees	Exposed Slopes	Shady Slopes	Coastal Slopes	Roadside Locations	Seeds	Container grown seedlings: A-abundant; L-limited	Cost (S = standard; E = > standard)	Maintenance required (***See Note 2***)	Poisonous	Susceptible to disease	Bearing thorns etc	Suitable as ground cover	May be planted in the dry season	Herbs that turn yellow/ brown in dry seasons	Invasive (*) or potential invasive species (#), use with caution	GEO 2000	Other references / Recommendations
Acacia auriculiformis	***Continued***		*					*	*				Y	S	S		D	M	C	D	Gl	M	B	N	*	*		*	*	*				*							A	S	*					*	*
Acacia confusa		*							*			*	Y	S	S	3-10	D	M	C	D	Gm	M	B	N	*	*	*	*	*	*			*	*						*	*	A	S	*					*	*
Acacia mangium		*				*			*				Y	S	S	10	D	M	C		Gm	M	B	N	*		*	*	*	*		*		*						*	*	A	S	*					*	*
Acronychia pedunculata		*			*	*	*		*				W	S	S	4-8	D	S	F	D	Gd	M	D	N			*			*	*			*			*					L	E							*
Adinandra millettii		*			*		*		*				W	S	S	5-7	B	S	F	D	Gm	M	B	N	*			*	*	*		*			*	*	*	*			*		L	E							*
Aglaia ororata		*							*				Y	C	S	5-12	D	S	F	D	Gd	M	B	N						*	*		*			*	*	*	*		*		A	S							*
Ailanthus fordii			*						*				W	C	S	10-11	D	S	C	D	Gd	M	B	N					*		*			*			*		*		*		A	S							
Alangium chinense		*			?	?	*		*				Y	S	S	?	D	S	F	D	Gl	M	B	N						*	*			*			*					L	E							*
Albizia lebbeck		*							*				Y	C	M	5-9	D	L	P	D	Gl	M	B	N	*	*			*	*		*			*		*	*	*	A	S							*	
Alnus japonica			*						*					C	S	2-3	D	L	C	D	Gm	M	P	N				*				*			*			*		A	S								*
Alocasia macrorrhiza		*					*						W	S	M	R	C	S	F	D	Gl	W								*			*	*	*		*			A	S		*						*
Alysicarpus vaginalis		*							*				PR	I	S	5-11	D	M	P	D	Gm	F							*		*			*	*				*	A	S		*						*
Antirhea chinensis		*					*		*				Y	S	S	5-6	B	S	F	D	Gl	F	B	N						*		*			*	*		*			L	E							*
Aporusa dioica		*				*	*		*				W	C	S	1-12	C	S	F	D	Gm	M	B	N				*		*	*	*			*	*		*		*	L	E							*
Aquilaria sinensis			*		*			*	*				W	S	S	4	D	M	C	W	Gl	M	P	N							*					*		*			L	E							
Archidendron lucidum		?						?	*				W	C	M	4-6	C	L	F	D	Gm	M	P	N	?					*		*			*	*		*			L	E							
Ardisia crenata		*							*				W	S	S	5-6	C	S	F	D	Gd	M	B	N							*	*			*	*		*			L	E							*
Artocarpus hypargyreus				*					*				W	C	S	5-8	D	M	F	W	Gl	W	D	F					*		*	*			*	*		*			L	E						*	*
Axonopus affinis										*	*		W	I	S	4-10	D	S	C	W	Gl	F							*	*	*	*			*	*	*	*						*				*	*
Baeckea frutescens		*							*				W	S	S	2-9	D	S	C	W	Gl	M	B	N	*	*		*		*		*		*	*	*	*	*				L	E							*
Bambusa tuldoides		*							*												Gl	F	G	N	*				*		*	*			*		*	*			L	E						*	
Bauhinia championii		*							*				?	S	?	6-10	?	?	?	D	Gl	M	B	N						*				*	*						L	E							*
Bauhinia glauca		*											W	C	M	4-6	D	L	P	W	Gl	F	P	N					*	*		*			*	*	*	*		*								*	*
Bauhinia purpurea		*							*				R	S	L	7-11	D	L	P	W	Gl	M	P	N	*	*			*	*		*			*		*	*		*	A	S						*	*
Bauhinia variegata		*							*				R	S	L	7-11	D	L	P	W	Gl	M	P	N	*	*			*	*		*			*		*	*		*	A	S						*	*
Bischofia javanica				*		*	*		*				W	S	S	4-5	D	S	F	W	Gd	W	B	N							*					*		*			A	S							*
Blechnum orientale		*																			Gl	F							*		*	*			*	*		*							*			*
Boehmeria penduliflora var. loochooensis		*							*				RY	I	S	4-6	W	M	C	W	Gm	R	B	N	*			*	*			*		*		*	*	*			*	*	A	S							*
Bombax ceiba				*					*	*			R	S	L	3	D	L	C	W	Gl	M	P	N				*	*	*						*	*			*	*	A	S						*	
Bougainvillea spectabilis		*							*				R,P	S	S	12-5					Gm	F	B	N	*			*	*	*		*			*	*	*	*			*		A	S				*		*	*
Breynia fruticosa		*							*				P	S	S	4-9	D	S	F	D	Gm	M	B	N				*		*		*			*	*	*	*					L	E							*
Bridelia tomentosa		*				*	*		*				W	C	S	3-12	B	S	F	D	Gl	M	B	N				*		*	*	*			*	*	*	*	*				L	E						*	*

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Table 5 - Plant Selection Matrix (Sheet 3 of 14)

Scientific Name	Chinese Name	English Common Name	Family	Origin			Growth Habit				Plant Form							Characteristics										Normal Height					Growth Rate		
				Native	* - Exotic, # - Naturalised Exotic	Provenance	T-tree, C-conifer, P-palm, B-bamboo	Shrub	Climbing plant: C-climber, G-ground creeper, W-woody climber	Herb (F-fern, G-grass)	Rounded	Oval	Spreading	Domed	Vase	Columnar	Pyramidal	Evergreen	Semi-deciduous	Deciduous	Woody	Herbaceous	Annual	Biennial	Perennial	Strong vertical roots	Extensive lateral roots	Nitrogen Fixer	0 - 1 m	1 - 2 m	2 - 5 m	5 - 10 m	> 10 m	Fast Growing	Medium Growing	Slow Glowing
Broussonetia papyrifera	構樹	Paper Mulberry	Moraceae	*			T						*					*		*	*				*						*				
Calliandra haematocephala	朱纓花(紅絨球)	Pink Powder Puff	Mimosaceae		*			*			*							*			*				*					*				*		
Camellia caudata	長尾毛蕊茶(尾葉茶)	Tail-leaved Camellia	Theaceae	*			T						*					*			*				*						*				*	
Camellia crapnelliana	紅皮糙果茶(克氏茶)	Crapnell's Camellia	Theaceae	*			T				*							*			*				*							*			*	
Camellia oleifera	油茶	Oil-tea Tree	Theaceae	*			T					*						*			*				*						*					*
Camellia salicifolia	柳葉茶	Willow-leaved Camellia	Theaceae	*			T					*						*			*				*						*				*	
Cassia siamea	鐵刀木	Kassod Tree	Caesalpiniaceae		*		T									*		*			*				*							*	*			
Castanopsis fissa	黧蒴錐(裂斗錐栗)	Castnaopsis	Fagaceae	*			T					*						*			*				*			*				*	*			
Casuarina equisetifolia	木麻黃	Horsetail Tree	Casuarinaceae		*		T										*	*			*				*							*	*			
Celtis tetrandra subsp. *sinensis*	朴樹(相思樹)	Chinese Hackberry	Ulmaceae	*			T							*						*	*				*							*		*	
Choerospondias axillaris	南酸棗	Hog Plum	Anacardiaceae	*			T						*							*	*				*							*	*			
Cinnamomum camphora	樟樹	Camphor Tree	Lauraceae	*			T							*				*			*				*							*			*	
Clerodendrum fortunatum	白花燈籠（鬼燈籠)	Glorybower	Verbenaceae	*				*								*		*			*				*					*			*			
Crataeva unilocularis	樹頭菜	Spider Tree	Cappparidaceae		*		T					*								*	*				*							*	*			
Cratoxylum cochinchinense	黃牛木	Yellow Cow Wood	Guttiferae	*			T					*							*		*				*						*			*		
Cunninghamia lanceolata	杉木	China Fir	Taxodiaceae		*		C										*	*			*				*							*	*			
Cyclobalanopsis championii	嶺南青岡	Champion's Oak	Fagaceae	*			T					*						*			*				*			*							*	*
Cyclobalanopsis edithiae	華南青岡	Thick-leaved Oak	Fagaceae	*			T					*						*			*				*			*					*		*	
Cyclobalanopsis myrsinifolia	小葉青岡	Small-leaved Oak	Fagaceae	*			T						*					*			*				*			*							*	*
Cyclobalanopsis neglecta	竹葉青岡	Bamboo-leaved Oak	Fagaceae	*			T					*						*			*				*			*					*	*		
Cyclosorus parasiticus	華南毛蕨	Wood-fern	Thelypteridaceae	*						F								*				*			*				*					*		
Cynodon dactylon	狗牙根	Bermuda Grass	Gramineae	*						G												*			*				*					*		
Dalbergia benthamii	兩廣黃檀	Bentham's Rose-wood	Fabaceae	*					W											*	*				*			*						*		
Dalbergia hancei	藤黃檀	Scandent Rosewood	Fabaceae	*					W									*			*				*			*						*		
Daphniphyllum calycinum	牛耳楓	N.A.	Daphniphyllaceae	*			T						*					*			*				*						*					*
Daphniphyllum oldhamii	虎皮楠(交讓木)	N.A.	Daphniphyllaceae	*			T						*					*			*				*							*			*	
Delonix regia	鳳凰木	Flame Tree, Flame of the Forest	Mimosaceae		*		T							*						*	*				*		*						*		*	
Desmodium heterocarpon	假地豆	False Groundnut	Fabaceae	*				*				*						*			*		?				*	*					*			
Desmos chinensis	假鷹爪	Desmos	Annonaceae	*					W									*			*				*										*	
Dicranopteris pedata	芒萁	Dichotomy Forked Fern	Gleicheniaceae	*						F								*				*			*				*					*		
Dimocarpus longan	龍眼	Longan	Sapindaceae		#		T					*						*			*				*							*			*	
Diospyros morrisiana	羅浮柿	Morris's Persimmon	Ebenaceae	*			T						*					*			*				*							*			*	

To be continued

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Table 5 - Plant Selection Matrix (Sheet 4 of 14)

Scientific Name		Lifespan			Ecological Value				Planting Mode				Ornamental Value													Tolerance - Environmental Factors							Tolerance - Soil Conditions				Slope Characteristics						Supply & Maintenance				Remarks			Other Aspects				Ref	
		Short Life Span (20 - 50 yr)	Medium Life Span (50 - 80 yr)	Long Life Span (80+ yr)	Flower nectar for insects	Larval foodplants for insects	Fruits for wildlife	Seeds for wildlife	Pit planting	Spot sowing	Hydroseeding	Stem cutting	Flower colour: R-red, W-white, Y-yellow, P-purple, Pi-pink	Flower type: S-single flower, I-Inflorescence, C-cluster, F-fig	Flower size: S-small, M-medium, L-large	Flowering period: 1-Jan, 2-Feb…etc., R-year round	Fruit colour: C-colourful, B-blue/black, D-dull in colour	Fruit size: S-small, M-medium, L-large	Fruit type: F-fleshy, C-fibrous capsule, A-acorn, P-pod, Co-cone	Fruiting period: D-dry season, W-wet season, R-year round	Foliage colour: Gl-light green, Gm-medium green, Gd-dark green, Red before falling	Foliage texture: F-fine, M-medium, W-waxy, R-rough	Bark colour: B-brown, D-dark brown, P-pale, G-green	Bark texture: N-normal, F-fibrous	Wind Tolerant	Salt Spray Tolerant	Fire Tolerant	Drought Tolerant	Pollution Tolerant	Light Tolerant	Shade Tolerant	Infertile soil	Loose soil	Compacted soil	Slightly acidic soil	Steep Slopes: slope gradient ≥ 45°	Gentle Slopes: slope gradient < 45 degrees	Exposed Slopes	Shady Slopes	Coastal Slopes	Roadside Locations	Seeds	Container grown seedlings: A-abundant; L-limited	Cost (S = standard; E = > standard)	Maintenance required (***See Note 2***)	Poisonous	Susceptible to disease	Bearing thorns etc	Suitable as ground cover	May be planted in the dry season	Herbs that turn yellow/ brown in dry seasons	Invasive (*) or potential invasive species (#), use with caution	GEO 2000	Other references / Recommendations
Broussonetia papyrifera	***Continued***	*					*		*				?	S	M	3-5	C	M	F	W	Gm	M	B	N	*				*			*			*							L	E							*	*
Calliandra haematocephala		*							*				R	S	S	8-9	D	?	?	D	Gd	M	B	N						*	*					*	*					A	S	*							*
Camellia caudata		*			*				*				W	S	S	10-3	D	S	C	D	Gm	F	B	N				*		*		*				*		*				L	E								*
Camellia crapnelliana			*		*			*	*				W	S	L	10-12	D	L	C	D	Gd	R	D	N				*		*	*	*			*		*		*				L	E								*
Camellia oleifera		*			*				*				W	S	M	11-12	D	M	C	D	Gd	M	B	N	*			*		*		*			*	*	*	*				*	L	S								*
Camellia salicifolia		*			*				*				W	S	S	8-11	D	S	C	D	Gm	F	B	N				*		*		*			*		*		*				L	E								*
Cassia siamea		*							*				Y	C	S	10-11	D	M	C	D	Gm	M	B	N	*	*		*	*	*		*		*	*		*	*	*	*	*		L	E							*	
Castanopsis fissa			*					*	*	*			Y	I	M	4-5	D	M	A	D	Gm	M	B	N	*			*		*	*	*			*		*	*	*				L	E							*	*
Casuarina equisetifolia			*						*				R	S	S	4-5	D	S	C	W	Gd	M	D	N	*	*		*	*	*		*		*	*		*	*	*	*	*	*	A	S				*			*	
Celtis tetrandra subsp. *sinensis*				*	*	*	*		*				Y	C	S	3-4	C	S	F	W	Gl	M	B	N	*			*	*	*	*	*		*	*		*	*	*		*		L	E							*	*
Choerospondias axillaris			*				*		*				PR	C	S	4-8	C	M	F	D	Gm	M	D	N	*		*	*		*		*			*		*	*					L	E								*
Cinnamomum camphora				*			*	*	*				W	C	S	4-5	B	S	F	D	Gl	M	B	N							*	*			*		*		*				A	S							*	*
Clerodendrum fortunatum		*							*				W	S	S	?	C	S	F	W	Gl	F	G					*		*		*		*	*	*	*			*		L	E								
Crataeva unilocularis		*							*				WY	C	M	3-7	D	M	F	W	Gl	M	B	N	*			*	*	*		*				*	*			*	*	A	S								*
Cratoxylum cochinchinense		*			*				*				R	S	S	4-5	D	S	C	W	Gl	F	P	N	*			*	*	*	*	*		*		*	*	*	*		*	L	E							*	*
Cunninghamia lanceolata			*						*	*	*		W	I	M	1-5	D	L	Co	D	Gd	W	B	F	*			*		*		*		*	*		*	*			*	A	S								*
Cyclobalanopsis championii		*						*	*	*			Y	I	M	12-3	D	M	A	D	Gd	W	B	N	*			*		*	*	*			*	*	*	*				L	E								*
Cyclobalanopsis edithiae				*				*	*	*			Y	I	M	4-6	D	L	A	D	Gm	M	B	N						*	*	*			*		*					L	E								*
Cyclobalanopsis myrsinifolia		*						*	*	*			Y	I	M	6	D	M	A	D	Gm	M	B	N	*			*		*	*	*			*	*	*	*				L	E								*
Cyclobalanopsis neglecta				*				*	*	*			Y	I	M	6	D	M	A	D	Gl	M	B	N	*			*		*	*	*			*		*	*				L	E								*
Cyclosorus parasiticus		*																			Gl	M						*	*		*		*	*	*	*		*							*					*
Cynodon dactylon		*								*	*		W	I	S						Gl	F				*		*		*		*	*	*	*	*	*	*	*					*			*				*
Dalbergia benthamii		*											W	C	S	2-4	D	M	P	W	Gd	W	D	N				*		*		*			*	*	*	*		*	*	*	L	E								*
Dalbergia hancei		*											W	C	S	4-5	D	M	P	D	Gl	M	D	N				*		*		*			*	*	*	*				L	E								*
Daphniphyllum calycinum		*					*		*				W	C	S	5-8	B	S	F	D	Gl	M	P	N						*		*			*	*	*	*				L	E								*
Daphniphyllum oldhamii		*					*		*				W	C	S	?	B	S	F	D	Fl	M	P	N	*					*		*			*		*	*				L	E								*
Delonix regia				*	*				*				R	S	L	6-7	D	L	P	W	Gl	M	B	N						*					*		*					A	S							*	
Desmodium heterocarpon		*							*	*			P	C	S	7-10	D	M	P	D	Gl	M	B	N	*	*		*		*		*		*	*	*	*		*	*			L	E						*		*
Desmos chinensis		*			?	?	*						W	S	M	4-6	C	S	F	D	Gd	M	D	N							*				*	*		*														*
Dicranopteris pedata		*							*	*											Gl	R			*			*		*		*			*	*	*		*			L	E						*		*
Dimocarpus longan			*		*		*		*				Y	I	S	3-5	D	M	F	W	Gd	M	B	N	*					*					*		*					L	E								
Diospyros morrisiana		*					*		*	*			W	S	S	5-6	C	M	F	D	Gm	M	B	N				*		*	*	*			*		*	*				L	E								*

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Table 5 - Plant Selection Matrix (Sheet 5 of 14)

Scientific Name	Chinese Name	English Common Name	Family	Origin			Growth Habit				Plant Form							Characteristics											Normal Height					Growth Rate		
				Native	* - Exotic, # - Naturalised Exotic	Provenance	T-tree, C-conifer, P-palm, B-bamboo	Shrub	Climbing plant: C-climber, G-ground creeper, W-woody climber	Herb (F-fern, G-grass)	Rounded	Oval	Spreading	Domed	Vase	Columnar	Pyramidal	Evergreen	Semi-deciduous	Deciduous	Woody	Herbaceous	Annual	Biennial	Perennial	Strong vertical roots	Extensive lateral roots	Nitrogen Fixer	0 - 1 m	1 - 2 m	2 - 5 m	5 - 10 m	> 10 m	Fast Growing	Medium Growing	Slow Glowing
Diospyros vaccinioides	小果柿	Small Persimmon	Ebenaceae	*				*							*			*	*										*						
Diplospora dubia	狗骨柴	Common Tricalysia	Rubiaceae	*			T					*						*			*									*			*		
Dodonaea viscosa	車桑子	Clammy Hop Seed	Xanthophyllaceae	*				*			*							*			*								*		*			*		
Duranta erecta	假連翹	Golden Dewdrops	Verbenaceae		*			*					*					*			*								*					*		
Elaeocarpus chinensis	中華杜英	Chinese Elaeocarpus	Elaeocarpaceae	*			T						*					*			*											*			*	
Elaeocarpus sylvestris	山杜英	Woodland Elaeocarpus	Elaeocarpaceae	*			T						*					*			*											*				*
Embelia laeta	酸藤子	Twig-hanging Embelia	Myrsinaceae	*					W									*			*								*					*		
Endospermum chinense	黃桐	Endospermum	Euphorbiaceae	*			T						*					*			*											*			*	
Enkianthus quinqueflorus	吊鐘花	Chinese New Year Flower	Ericaceae	*				*					*							*	*											*				*
Epipremnum aureum	綠蘿(芋葉藤)	Ivy-arum	Araceae		*				G									*				*											*			
Eremochloa ciliaris	蜈蚣草	Ciliate Centipede-grass	Gramineae	*						G												*							*					*		
Eremochloa ophiuroides	假儉草	Common Centipede-grass	Gramineae	*						G												*							*					*		
Eucalyptus citriodora	檸檬桉	Lemon-scented Gum	Myrtaceae		*		T									*		*			*											*	*			
Eucalyptus robusta	大葉桉	Swamp Mahogany	Myrtaceae		*		T									*		*			*											*	*			
Eucalyptus tereticornis	細業桉	Forest Gray Gum	Myrtaceae		*		T									*		*			*											*	*			
Eurya chinensis	米碎花	Chinese Eurya	Theaceae	*				*			*							*			*									*				*		
Eurya nitida	細齒葉柃	Shining Eurya	Theaceae	*				*			*							*			*									*				*		
Ficus hirta	粗葉榕	Hairy Fig	Moraceae	*				*				*						*			*									*				*		
Ficus hispida	對葉榕	Opposite-leaved Fig	Moraceae	*			T						*					*			*										*			*		
Ficus microcarpa	榕樹(細葉榕)	Chinese Banyan	Moraceae	*			T				*							*			*											*	*			
Ficus pumila	薜荔	Creeping Fig	Moraceae	*					G									*			*								*							*
Ficus superba var. *japonica*	筆管榕	Japanese Superb Fig	Moraceae	*			T						*							*	*											*			*	
Ficus variegata var. *chlorocarpa*	青果榕	Common Red-stem Fig	Moraceae	*			T						*					*			*											*				*
Ficus variolosa	變葉榕	Varied-leaf Fig	Moraceae	*				*					*					*			*									*				*		
Ficus virens var. *sublanceolata*	大葉榕	Big-leaved Fig	Moraceae	*			T						*					*			*											*			*	
Garcinia oblongifolia	嶺南山竹子	Lingnan Garcinia	Guttiferae	*			T					*						*			*											*			*	
Gardenia jasminoides	梔子(水橫枝)	Cape Jasmine	Rubiaceae	*				*										*			*												*			
Glochidion lanceolarium	艾膠算盤子	Large-lezaved Abacus Plant	Euphorbiaceae	*				*				*						*			*											*			*	
Gordoria axillaris	大頭茶	Hong Kong Gordonia	Theaceae	*			T					*						*			*											*			*	
Grevillea robusta	銀樺	Silk Oak	Proteaceae		*		T									*		*			*											*		*		
Hedera helix	洋常春藤	Ivy	Araliaceae		*				C									*				*											*			
Helicteres angustifolia	山芝麻	Narrow-leaved Screwtree	Sterculiaceae	*				*								*		*			*									*						

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Table 5 - Plant Selection Matrix (Sheet 6 of 14)

Scientific Name		Lifespan			Ecological Value				Planting Mode				Ornamental Value												Tolerance - Environmental Factors							Tolerance - Soil Conditions				Slope Characteristics						Supply & Maintenance			Remarks			Other Aspects				Ref	
		Short Life Span (20 - 50 yr)	Medium Life Span (50 - 80 yr)	Long Life Span (80+ yr)	Flower nectar for insects	Larval foodplants for insects	Fruits for wildlife	Seeds for wildlife	Pit planting	Spot sowing	Hydroseeding	Stem cutting	Flower colour: R-red, W-white, Y-yellow, P-purple, Pi-pink	Flower type: S-single flower, I-Inflorescence, C-cluster, F-fig	Flower size: S-small, M-medium, L-large	Flowering period: 1-Jan, 2-Feb…etc., R-year round	Fruit colour: C-colourful, B-blue/black, D-dull in colour	Fruit size: S-small, M-medium, L-large	Fruit type: F-fleshy, C-fibrous capsule, A-acorn, P-pod, Co-cone	Fruiting period: D-dry season, W-wet season, R-year round	Foliage colour: Gl-light green, Gm-medium green, Gd-dark green, Red before falling	Foliage texture: F-fine, M-medium, W-waxy, R-rough	Bark colour: B-brown, D-dark brown, P-pale, G-green	Bark texture: N-normal, F-fibrous	Wind Tolerant	Salt Spray Tolerant	Fire Tolerant	Drought Tolerant	Pollution Tolerant	Light Tolerant	Shade Tolerant	Infertile soil	Loose soil	Compacted soil	Slightly acidic soil	Steep Slopes: slope gradient ≥ 45°	Gentle Slopes: slope gradient < 45 degrees	Exposed Slopes	Shady Slopes	Coastal Slopes	Roadside Locations	Seeds	Container grown seedlings: A-abundant; L-limited	Cost (S = standard; E = > standard)	Maintenance required (***See Note 2***)	Poisonous	Susceptible to disease	Bearing thorns etc	Suitable as ground cover	May be planted in the dry season	Herbs that turn yellow/ brown in dry seasons	Invasive (*) or potential invasive species (#), use with caution	GEO 2000	Other references / Recommendations	
Diospyros vaccinioides	***Continued***	*							*				W	S	S	5	B	S	F	D	Gm	M	B	N												*	*						L	E								*	*	
Diplospora dubia		*							*				Y	C	S	3-12	C	S	F	D	Gd	M	B	N	*											*	*						L	E									*	
Dodonaea viscosa		*							*				W	I	S	9-11	D	M	C	D	Gd	M	B	N	*											*	*						L	E									*	
Duranta erecta		*							*				Y	S	S	3-5	C	S	F	D	Gl	M	B	N												*		*					A	S	*							*	*	
Elaeocarpus chinensis		*					*		*	*			G	C	S	5-6	D	S	F	D	Gm	M	B	N												*	*						L	E									*	
Elaeocarpus sylvestris			*		*		*		*				W	C	S	4-5	B	S	F	D	Gm	M	B	N												*	*	*					L	E										
Embelia laeta		*					*		*				W	S	S	12-3	C	S	F	W	Gd	W	B	N	*											*	*						L	E										*
Endospermum chinense			*				*		*				?	C	S	5-8	D	S	F	D	Gm	M	D	N	*											*	*						L	E										
Enkianthus quinqueflorus		*			*				*				R	C	M	1-2	D	S	C	D	Gl	M	B	N	*											*	*						L	E										
Epipremnum aureum		*							*												Gl	M														*	*						A	S							*		
Eremochloa ciliaris		*								*	*		W	I	S		D	S	C		Gl	F			*	*										*	*															*	
Eremochloa ophiuroides		*								*	*		W	I	S		D	S	C		Gl	F			*	*										*	*															*	
Eucalyptus citriodora			*						*				W	C	M	4-9	D	S	C	D	Gl	M	B	N	*											*	*						A	S								*		
Eucalyptus robusta				*					*				W	C	M	4-9	D	S	C	D	Gm	M	B	N	*	*										*	*						A	S								*		
Eucalyptus tereticornis			*						*				W	C	M	6-8	D	S	C	D	Gm	M	B	N	*											*	*						A	S								*		
Eurya chinensis		*			*		*		*				W	C	S	11-12	B	S	F	W	Gd	M	D	N	*			*		*		*				*	*	*					L	E										*
Eurya nitida		*			*		*		*				W	C	S	11-1	B	S	F	W	Gd	M	D	N	*			*		*		*				*	*	*					L	E										*
Ficus hirta		*					*		*					F	S	R	B	S	F	R	Gd	R	B	N							*					*	*						L	E										
Ficus hispida		*			*				*					F	M	5-10	D	M	F	W	Gl	R	B	N							*	*				*			*				L	E										*
Ficus microcarpa				*	*	*	*		*					F	S	5-12	C	S	F	D	Gd	W	B	N	*			*		*	*	*				*		*	*	*			A	S								*	*	
Ficus pumila		*			*		*		*					F	L	4-12	D	L	F	D	Gd	W	B	N						*		*				*	*	*	*				A	S								*	*	
Ficus superba var. *japonica*			*		*		*		*					F	S	2-9	C	S	F	W	Gd	M	B	N				*		*	*	*				*		*	*				L	E										*
Ficus variegata var. *chlorocarpa*			*				*		*					F	S	5-12	R	M	F	D	Gl	M	B	N							*					*			*				L	E										
Ficus variolosa		*					*		*					F	S	2-12	B	S	F	D	Gl	M	B	N				*		*		*		*	*	*	*	*					L	E										
Ficus virens var. *sublanceolata*			*		*				*					F	?	4-10	C	?	F	W	Gl	M	B	N						*		*					*	*	*		*		A	S								*		
Garcinia oblongifolia		*			*		*		*				Y	S	S	4-5	C	M	F	D	Gd	W	D	N							*					*			*				L	E										*
Gardenia jasminoides		*					*		*			*	W	C	M	3-8	C	M	F	D	Gm	M	B	N	*			*		*		*				*	*	*					L	E										*
Glochidion lanceolarium		*							*				W	C	S	4-9	R	S	C	W	Gl	M	B	N				*		*	*	*				*	*	*				*	L	E										*
Gordoria axillaris		*			*				*	*			W	S	L	10-1	D	M	C	D	Gd	W	B	N	*	*	*	*	*	*		*		*	*	*	*	*		*	*			L	E								*	*	
Grevillea robusta			*						*				?	?	?	?	D	M	C	?	Gm	M	D	N		*		*	*	*		*				*	*			*			A	S								*		
Hedera helix		*							*												Gm	M						*	*		*				*	*		*		*		A	S							*		
Helicteres angustifolia		*											W	S	S	5-8	D	S	C	W	Gm	F	B	N				*		*		*			*	*	*	*															*	

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Table 5 - Plant Selection Matrix (Sheet 7 of 14)

Scientific Name	Chinese Name	English Common Name	Family	Origin			Growth Habit				Plant Form							Characteristics										Normal Height					Growth Rate		
				Native	* - Exotic, # - Naturalised Exotic	Provenance	T-tree, C-conifer, P-palm, B-bamboo	Shrub	Climbing plant: C-climber, G-ground creeper, W-woody climber	Herb (F-fern, G-grass)	Rounded	Oval	Spreading	Domed	Vase	Columnar	Pyramidal	Evergreen	Semi-deciduous	Deciduous	Woody	Herbaceous	Annual	Biennial	Perennial	Strong vertical roots	Extensive lateral roots	Nitrogen Fixer	0 - 1 m	1 - 2 m	2 - 5 m	5 - 10 m	> 10 m	Fast Growing	Medium Growing	Slow Glowing
Hibiscus rosa-sinensis	朱槿(大紅花)	Chinese Hibiscus	Malvaceae		*			*				*						*			*				*					*			*		
Hibiscus tiliaceus	黃槿	Cuban Bast	Malvaceae	*			T						*					*			*				*						*			*	
Ilex asprella	梅葉冬青	Rough-leaved Holly	Aquifoliaceae	*				*					*						*		*				*						*			*	
Ilex cinerea	灰冬青	Gray Holly	Aquifoliaceae	*			T						*					*			*				*						*			*	
Ilex rotunda	鐵冬青	Chinese Holly	Aquifoliaceae		*		T					*						*			*				*						*			*	
Ilex viridis	綠冬青(亮葉冬青)	Small-leaved Holly	Aquifoliaceae	*			T					*						*			*				*						*			*	
Indigofera spicata	鋪地木藍	Spicate Indigo	Fabaceae	*						*															*			*	*						
Ipomoea cairica	五爪金龍	Gairo Morning Glory	Convolvulaceae		#				G									*				*			*								*		
Itea chinensis	老鼠刺	Itea	Grossulariaceae	*			T					*						*			*				*						*			*	
Ixora chinensis	龍船花	Chinese Ixora	Rubiaceae	*				*										*			*				*							*			
Lantana camara	馬纓丹	Lantana	Verbenaceae		#			*			*							*			*				*					*			*		
Lantana montevidensis	小葉馬纓丹(舖地臭金鳳)	Trailing Lantana	Verbenaceae		*				W									*			*				*				*				*		
Ligustrum sinense	山指甲	Chinese Privet	Oleaceae	*				*					*					*			*				*						*			*	
Liquidambar formosana	楓香	Sweet Gum	Hamamelidaceae	*			T					*								*	*				*							*	*		
Litchi chinensis	荔枝	Lychee	Staphyleaceae		*		T					*						*			*				*	*						*		*	
Lithocarpus glaber	柯	Tanoak	Fagaceae	*			T					*						*			*				*			*						*	
Lithocarpus harlandii	港柯	Harland's Tanbark	Fagaceae	*			T					*						*			*				*			*						*	
Litsea cubeba	木薑子	Fragrant Litsea	Lauraceae	*			T					*								*	*				*						*			*	
Litsea glutinosa	潺槁樹	Pond Spice	Lauraceae	*			T					*						*			*				*							*		*	
Litsea rotundifolia var. *oblongifolia*	豺皮樟	Oblong-leaved Litsea	Lauraceae	*			T	*				*						*			*				*					*				*	
Lophostemon confertus	紅膠木	Brisbane Box	Myrtaceae		*		T									*		*			*				*							*	*		
Lygodium japonicum	海金沙	Climbing Fern	Gleicheniaceae	*						F								*				*			*				*				*		
Macaranga tanarius	血桐	Elephant's Ear	Euphorbiaceae	*			T							*				*			*				*		*					*			
Machilus breviflora	短序潤楠	Short-flowered Machilus	Lauraceae	*			T					*						*			*				*								*		*
Machilus chekiangensis	浙江潤楠	Chekiang Machilus	Lauraceae	*			T					*						*			*				*								*		*
Machilus pauhoi	刨花潤楠	Many-nerved Machilus	Lauraceae	*			T					*						*			*				*								*		*
Machilus velutina	絨毛潤楠	Woolly Machilus	Lauraceae	*			T					*						*			*				*								*		*
Maesa perlarius	鯽魚膽	N.A.	Myrsinaceae	*				*				*						*			*				*					*			*		
Magnolia grandiflora	荷花玉蘭	Bull Bay/ Southern Magnolia	Magnoliaceae		*		T						*					*			*				*							*			*
Mallotus paniculatus	白楸	Turn-in-the-wiind	Euphorbiaceae	*			T						*					*			*				*							*			
Mangifera indica	杧果	Mango	Anacardiaceae		*		T						*					*			*				*								*		*	
Melaleuca quinquenervia	白千層	Paper-bark Tree	Myrtaceae		*		T									*		*			*				*							*	*		

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Table 5 - Plant Selection Matrix (Sheet 8 of 14)

Scientific Name		Lifespan			Ecological Value				Planting Mode				Ornamental Value												Tolerance - Environmental Factors							Tolerance - Soil Conditions				Slope Characteristics						Supply & Maintenance			Remarks			Other Aspects					Ref	
		Short Life Span (20 - 50 yr)	Medium Life Span (50 - 80 yr)	Long Life Span (80+ yr)	Flower nectar for insects	Larval foodplants for insects	Fruits for wildlife	Seeds for wildlife	Pit planting	Spot sowing	Hydroseeding	Stem cutting	Flower colour: R-red, W-white, Y-yellow, P-purple, Pi-pink	Flower type: S-single flower, I-Inflorescence, C-cluster, F-fig	Flower size: S-small, M-medium, L-large	Flowering period: 1-Jan, 2-Feb…etc., R-year round	Fruit colour: C-colourful, B-blue/black, D-dull in colour	Fruit size: S-small, M-medium, L-large	Fruit type: F-fleshy, C-fibrous capsule, A-acorn, P-pod, Co-cone	Fruiting period: D-dry season, W-wet season, R-year round	Foliage colour: Gl-light green, Gm-medium green, Gd-dark green, Red before falling	Foliage texture: F-fine, M-medium, W-waxy, R-rough	Bark colour: B-brown, D-dark brown, P-pale, G-green	Bark texture: N-normal, F-fibrous	Wind Tolerant	Salt Spray Tolerant	Fire Tolerant	Drought Tolerant	Pollution Tolerant	Light Tolerant	Shade Tolerant	Infertile soil	Loose soil	Compacted soil	Slightly acidic soil	Steep Slopes: slope gradient ≥ 45°	Gentle Slopes: slope gradient < 45 degrees	Exposed Slopes	Shady Slopes	Coastal Slopes	Roadside Locations	Seeds	Container grown seedlings: A-abundant; L-limited	Cost (S = standard; E = > standard)	Maintenance required (***See Note 2***)	Poisonous	Susceptible to disease	Bearing thorns etc	Suitable as ground cover	May be planted in the dry season	Herbs that turn yellow/ brown in dry seasons	Invasive (*) or potential invasive species (#), use with caution	GEO 2000	Other references / Recommendations	
Hibiscus rosa-sinensis		*			*				*				R	S	L	1-12	D	M	C	D	Gd	M	B	N					*	*					*	*						A	S	*							*	*	
Hibiscus tiliaceus		*			*				*				Y	S	L	7-8	D	M	C	D	Gm	M	B	N	*	*			*	*		*			*	*				*		A	S								*	*	
Ilex asprella		*			?	*	*						W	S	S	5-8	B	S	F	D	Gl	F	D	N						*	*		*	*		*	*					L	E									*	
Ilex cinerea		*			?	?	*		*				?	?	?	3-4	C	S	F	D	Gd	M	D	N							*		*	*		*	*					L	E									*	
Ilex rotunda		*			?	?	*		*				W	S	S	3-4	C	S	F	F	Gd	M	B	N							*		*	*		*	*					A	E									*	
Ilex viridis		*			?	?	*		*				W	S	S	5-6	B	S	F	D	Gm	M	B	N							*		*	*		*	*					L	E									*	
Indigofera spicata		*				*			*				PR	I	S	4-11	D	M	P	?	Gm	F							*		*			*	*	*			*	A	S				*						*	
Ipomoea cairica		*							*				P	S	L						Gl	F			*	*		*	*	*		*		*	*	*	*	*	*	*		A	S				*			*	*		
Itea chinensis		*			*				*				W	I	S	4-5	D	S	C	W	Gm	M	B	N				*		*		*			*	*			*	*	L	E									*	
Ixora chinensis		*			*				*				R	C	S	2-11	?	?	?	?	Gm	W	B	N	*			*	*	*					*	*	*			*	A	S									*	
Lantana camara		*			*	*	*		*				R,Y	C	S	1-12	B	S	F	D,	Gl	M	P	N	*			*	*	*	*	*		*	*	*	*	*		*	A	S	*				*				*	
Lantana montevidensis		*			*				*				Pi	C	S	1-12	B	S	F	D,	Gl	M	P	N	*			*	*	*		*		*	*	*	*	*		*	A	S	*			*	*			*		
Ligustrum sinense		*				?	*		*				W	C	S	9-12	B	S	F	D	Gl	F	B	N				*	*		*	*		*	*	*		*		*	A	S								*	*	
Liquidambar formosana				*					*	*			W	S	S	4-6	D	M	C	D	Gl	F	B	N	*				*	*		*		*		*		*			A	S								*	*	
Litchi chinensis			*		*		*		*			*	Y	C	S	3-5	C	M	F	W	Gm	M	B	N						*			*			*			*		A	E									*	
Lithocarpus glaber			*					*	*	*			Y	I	M	7-11	D	M	A	D	Gm	M	B	N	*			*		*	*	*			*		*	*			L	E									*	
Lithocarpus harlandii				*				*	*	*			Y	I	M	5-6	D	M	A	D	Gd	M	B	N																	L	E										
Litsea cubeba		*			*		*		*				Y	C	S	2-3	B	S	F	D	Gl	F	B	N						*			*			*	*	*			L	E									*	
Litsea glutinosa			*		*		*		*				Y	C	S	5-6	B	S	F	W	Gm	M	B	N						*	*		*			*	*	*			L	E								*	*	
Litsea rotundifolia var. *oblongifolia*		*					*		*				Y	C	S	8-9	B	S	F	D	Gm	M	B	N						*			*			*	*	*			L	E									*	
Lophostemon confertus			*						*				W	S	S	5-7	D	S	C	D	Gd	M	B	N	*		*	*	*	*		*		*		*			*		A	S								*		
Lygodium japonicum		*																			Gl	F						*			*		*		*	*			*		L	E				*					*	
Macaranga tanarius		*			*			*	*				Y	C	S	4-5	B	S	F	W	Gl	M	B	N	*	*			*	*		*		*	*		*	*			A	S								*	*	
Machilus breviflora			*		*		*		*				Y	C	S	7-8	B	S	F	D	Gm	M	B	N	*			*		*	*	*			*	*	*				L	E								*	*	
Machilus chekiangensis				*	*		*		*				Y	C	S	12-1	B	S	F	W	Gm	M	B	N	*			*		*	*	*			*	*	*				L	E								*	*	
Machilus pauhoi				*	*		*		*				Y	C	S	?	B	S	F	?	Gm	M	B	N	*			*		*	*	*			*	*	*				L	E									*	
Machilus velutina				*	*		*		*				Y	C	S	12-1	B	S	F	D	Gm	M	B	N	*			*		*	*	*			*	*	*				L	E									*	
Maesa perlarius		*			*		*		*				W	C	S	3-4	W	S	F	W	Gl	M	B	N							*	*			*	*					L	E									*	
Magnolia grandiflora			*						*				W	S	L	5	D	L	C	?	Gd	W	D	N							*		*			*					A	E										
Mallotus paniculatus		*			*			*	*				W	C	S	7-10	D	S	C	D	Gl	M	B	N	*			*	*	*	*	*			*	*	*		*		L	E								*	*	
Mangifera indica			*						*				Y	I	S	2-4	C	L	F	W	Gd	W	B	N				*		*			*			*	*				A	E										
Melaleuca quinquenervia			*		*				*				W	C	M	11	D	S	C	D	Gm	M	B	N	*	*	*		*	*		*		*	*		*	*			A	S								*		

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Table 5 - Plant Selection Matrix (Sheet 9 of 14)

Scientific Name	Chinese Name	English Common Name	Family	Origin			Growth Habit				Plant Form							Characteristics											Normal Height					Growth Rate		
				Native	* - Exotic, # - Naturalised Exotic	Provenance	T-tree, C-conifer, P-palm, B-bamboo	Shrub	Climbing plant: C-climber, G-ground creeper, W-woody climber	Herb (F-fern, G-grass)	Rounded	Oval	Spreading	Domed	Vase	Columnar	Pyramidal	Evergreen	Semi-deciduous	Deciduous	Woody	Herbaceous	Annual	Biennial	Perennial	Strong vertical roots	Extensive lateral roots	Nitrogen Fixer	0 - 1 m	1 - 2 m	2 - 5 m	5 - 10 m	> 10 m	Fast Growing	Medium Growing	Slow Glowing
Melastoma candidum	野牡丹	Common Melastoma	Melastomaceae	*				*				*						*							*				*					*		
Melastoma dodecandrum	地茶	Twelve-stamened Melastoma	Melastomaceae	*					G	*								*				*			*				*					*		
Melastoma sanguineum	毛茶	Blood-red Melastoma	Melastomaceae	*				*				*						*							*					*				*		
Melia azedarach	楝(苦楝)	China-berry	Meliaceae		#		T					*								*					*							*		*		
Melicope pteleifolia	密茱萸(三桠苦)	Thin Evodia	Meliaceae	*			T					*							*						*						*			*		
Michelia alba	白蘭	White Jade Orchid Tree	Magnoliaceae		#		T					*						*			*				*							*			*	
Microcos nervosa (*paniculata*)	破布葉	Microcos	Tiliaceae	*			T							*				*			*				*						*			*		
Millettia nitida	亮葉崖豆藤	Glittering-leaved Millettia	Fabaceae	*					W									*			*				*			*								
Mussaenda pubescens	玉葉金花	Splash-of-white	Rubiaceae	*					W									*			*				*								*			
Myrica rubra	楊梅	Strawberry Tree	Myricaceae	*			T				*							*			*				*							*			*	
Nephrolepis auriculata	腎蕨	Tuberous Sword Fern	Nephrolepidaceae	*						F								*				*			*				*						*	
Nephrolepis hirsutula	毛葉腎蕨	Rough Sword Fern	Nephrolepidaceae	*						F								*				*			*				*						*	
Ormosia emarginata	凹葉紅豆	Emarginate-leaved Ormosia	Fabaceae	*			T					*						*			*				*			*								*
Ormosia pachycarpa	茸莢紅豆	Hairy-fruited Ormosia	Fabaceae	*			T					*						*			*				*			*				*			*	
Ormosia semicastrata	軟莢紅豆	Soft-fruited Ormosia	Fabaceae	*			T					*						*			*				*			*				*				*
Osmanthus fragrans	桂花	Kwai-Fah	Oleaceae		*		T						*					*			*				*							*			*	
Paederia scandens	雞矢藤	Chinese Fevervine	Rubiaceae	*					W									*			*				*								*			*	
Palhinhaea cernua	鋪地蜈蚣	Nodding Clunmoss	Lycopodiaceae	*						F								*				*			*				*					*		
Parthenocissus dalzielii	異葉爬牆虎	Diverse-leaved Creeper	Vitaceae		*				G										*			*			*				*					*		
Paspalum notatum	百喜草	Bahiagrass	Gramineae		*					G												*			*				*					*		
Philodendron cordatum	心葉喜樹蕉	Heart-leafed Philodendron	Araceae		*				C									*				*			*				*					*		
Phoenix hanceana	刺葵	Spiny Date Palm	Arecaceae	*			P											*			*				*						*					*
Phyllanthus emblica	餘甘子(油甘子)	Myrobalan	Euphorbiaceae	*			T						*							*	*				*						*					*
Phyllauthus cochinchinensis	越南葉下珠	Vietnam Leaf-flower	Euphorbiaceae	*				*								*		*			*				*				*						*	
Pinus elliottii	愛氏松	Slash Pine	Pinaceae		*		C										*	*			*				*								*	*		
Pittosporum tobira	海桐	Pittosporum	Pittosporaceae		#			*					*					*			*				*						*					*
Pityrogramma calomelanos	粉葉蕨	Silver Fern	Hemionitidaceae	*						F								*				*			*				*						*	
Psychotria asiatica	九節(山大刀)	Wild Coffee	Goodeniaceae	*				*				*						*			*				*					*				*		
Pteris semipinnata	半邊旗	Semi-pinnated Brake	Pteridaceae	*						F								*				*			*				*					*		
Pteris vittata	蜈蚣草	Ladder Brake	Pteridaceae	*						F								*				*			*				*					*		
Pyrus calleryana	豆梨	Callery Pear	Rosaceae	*			T						*							*	*				*						*				*	
Raphiolepis indica	石斑木(車輪梅、春花)	Hongkong Hawthorn	Rosaceae	*				*					*					*			*				*						*					*

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Table 5 - Plant Selection Matrix (Sheet 10 of 14)

Scientific Name		Lifespan			Ecological Value				Planting Mode				Ornamental Value												Tolerance - Environmental Factors							Tolerance - Soil Conditions				Slope Characteristics						Supply & Maintenance			Remarks			Other Aspects				Ref	
		Short Life Span (20 - 50 yr)	Medium Life Span (50 - 80 yr)	Long Life Span (80+ yr)	Flower nectar for insects	Larval foodplants for insects	Fruits for wildlife	Seeds for wildlife	Pit planting	Spot sowing	Hydroseeding	Stem cutting	Flower colour: R-red, W-white, Y-yellow, P-purple, Pi-pink	Flower type: S-single flower, I-Inflorescence, C-cluster, F-fig	Flower size: S-small, M-medium, L-large	Flowering period: 1-Jan, 2-Feb…etc., R-year round	Fruit colour: C-colourful, B-blue/black, D-dull in colour	Fruit size: S-small, M-medium, L-large	Fruit type: F-fleshy, C-fibrous capsule, A-acorn, P-pod, Co-cone	Fruiting period: D-dry season, W-wet season, R-year round	Foliage colour: Gl-light green, Gm-medium green, Gd-dark green, Red before falling	Foliage texture: F-fine, M-medium, W-waxy, R-rough	Bark colour: B-brown, D-dark brown, P-pale, G-green	Bark texture: N-normal, F-fibrous	Wind Tolerant	Salt Spray Tolerant	Fire Tolerant	Drought Tolerant	Pollution Tolerant	Light Tolerant	Shade Tolerant	Infertile soil	Loose soil	Compacted soil	Slightly acidic soil	Steep Slopes: slope gradient ≥ 45°	Gentle Slopes: slope gradient < 45 degrees	Exposed Slopes	Shady Slopes	Coastal Slopes	Roadside Locations	Seeds	Container grown seedlings: A-abundant; L-limited	Cost (S = standard; E = > standard)	Maintenance required (*See Note 2*)	Poisonous	Susceptible to disease	Bearing thorns etc	Suitable as ground cover	May be planted in the dry season	Herbs that turn yellow/ brown in dry seasons	Invasive (*) or potential invasive species (#), use with caution	GEO 2000	Other references / Recommendations
Melastoma candidum	*Continued*	*			*		*		*				Pi	S	L	5-7				D	Gl	R	B	N	*			*	*	*		*			*	*	*			*		L	E						*	*	*
Melastoma dodecandrum		*					*		?				Pi	S	M	5-7	C	S	F	W	Gm	M							*					*	*	*			*		L	E							*	*
Melastoma sanguineum		*			*		*		*				Pi	S	L	8-10				D	Gm	R	B	N	*			*	*	*		*			*	*	*			*		A	S							*	*
Melia azedarach		*			*	*	*		*	*			P	C	S	4-5				D	Gl	F	B	N	*			*	*	*		*			*		*			*		A	S						*	*	*
Melicope pteleifolia		*			*	*	*		*				W	C	S	11-12	B	S	C	D	Gl	F	B	N				*	*	*		*			*	*	*	*		*		L	E								*
Michelia alba				*					*				W	S	M	9-12	C	M	C		Gl	M	B	N						*							*			*		A	S						*	*	*
Microcos nervosa (paniculata)		*			*	*	*		*	*			W	C	S	6-7	B	M	F	D	Gm	M	B	N	*			*	*	*		*		*	*		*	*				L	E						*	*	*
Millettia nitida		*											Pi	S	M	5-9	D	M	P	D	Gd	M	B	N						*		*			*	*	*	*				L	E								*
Mussaenda pubescens		*							*				W	S	M	4-7	?	S	?	?	Gl	F	B	N				*		*	*	*			*	*	*	*	*			L	E				*				
Myrica rubra		*					*		*				R	I	S	3-4	C	M	F	W	Gd	M	B	N					*	*		*			*		*		*		*	L	E								*
Nephrolepis auriculata		*							*												Gm	M									*				*	*		*				A	S				*				*
Nephrolepis hirsutula		*							*												Gm	M									*				*	*		*				A	S				*				*
Ormosia emarginata			*						*	*			W	C	S	5-6	D	M	P	D	Gl	M	B	N						*			*		*		*				L	E								*
Ormosia pachycarpa				*				*	*	*			Pi	C	S	6-7	D	M	P	D	Gm	M	B	N						*			*		*		*				L	E								*
Ormosia semicastrata			*						*	*			W	C	S	4-5	D	M	P	D	Gm	M	B	N						*			*		*	*	*				L	E								*
Osmanthus fragrans			*						*				W	C	S	9-10	?	?	?	D	Gm	M	B	N						*		*				*	*				A	E								
Paederia scandens		*			*								W	S	S	6-11	D	S	?	D	Gm	M	P	N	*			*		*		*			*	*	*														*
Palhinhaea cernua		*																			Gl	R			*			*		*		*			*	*	*													*
Parthenocissus dalzielii		*							*												Gl	M			*							*		*	*	*	*	*		*		A	S						*		
Paspalum notatum		*								*	*		W	I	S		D	S	C		Gl	F			*	*		*		*		*	*	*	*	*	*	*	*	*	*		S						*		*
Philodendron cordatum		*							*												Gd	M							*		*				*	*		*				A	S						*		
Phoenix hanceana		*											Y	C	S	4-5	B	S	F	W	Gd	R	P	N				*	*	*					*	*	*			*		A	S						*		
Phyllanthus emblica		*			*		*		*				Y	C	S	4-6	D	M	F	W	Gd	M	B	N	*		*	*		*		*		*	*	*	*				L	E						*	*	*
Phyllauthus cochinchinensis		*							*				W	S	S	6-12	D	S	F	D	Gm	M	B	N	*			*		*		*	*	*	*	*	*				*	L	E								*
Pinus elliottii			*						*	*	*		P	C	M	?	D	L	Co	?	Gl	M	D	N	*			*	*	*		*		*	*		*	*				A	S						*		
Pittosporum tobira		*							*				W	C	S	6-8	C	M	C	D	Gd	R	B	N	*	*		*	*	*		*	*			*	*	*		*	*		A	S								*
Pityrogramma calomelanos		*																			Gl	M			*			*		*		*			*	*	*					L	E				*				*
Psychotria asiatica		*					*		*	*			W	C	S	1-12	C	S	F	D	Gd	W	D	N							*			*	*	*		*				L	E						*	*	*
Pteris semipinnata		*																			Gl	M			*			*	*		*	*			*	*		*		*									*		*
Pteris vittata		*																			Gl	M			*			*	*		*	*			*	*		*		*									*		*
Pyrus calleryana		*			*		*		*				W	S	M	2-4	D	M	F	D	Gl	F	D	N	*			*		*		*		*	*	*	*	*			*	*	L	E								*
Raphiolepis indica		*			*		*		*				W	C	S	2-4	B	S	F	D	Gd	M	D	N	*			*	*	*		*			*	*	*					L	E						*		*

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Table 5 - Plant Selection Matrix (Sheet 11 of 14)

Scientific Name	Chinese Name	English Common Name	Family	Origin			Growth Habit				Plant Form							Characteristics											Normal Height					Growth Rate		
				Native	* - Exotic, # - Naturalised Exotic	Provenance	T-tree, C-conifer, P-palm, B-bamboo	Shrub	Climbing plant: C-climber, G-ground creeper, W-woody climber	Herb (F-fern, G-grass)	Rounded	Oval	Spreading	Domed	Vase	Columnar	Pyramidal	Evergreen	Semi-deciduous	Deciduous	Woody	Herbaceous	Annual	Biennial	Perennial	Strong vertical roots	Extensive lateral roots	Nitrogen Fixer	0 - 1 m	1 - 2 m	2 - 5 m	5 - 10 m	> 10 m	Fast Growing	Medium Growing	Slow Glowing
Reevesia thyrsoidea	梭羅樹	Reevesia	Sterculiaceae	*			T						*					*			*				*								*		
Rhododendron mucronatum	白杜鵑	White Azalea	Ericaceae		*			*				*						*	*		*				*					*					*
Rhododendron pulchrum	錦繡杜鵑	Lovely Azalea	Ericaceae		*			*				*						*			*				*					*					*
Rhododendron pulchrum var. *phoeniceum*	紫杜鵑花	Purple Azalea	Ericaceae		*			*				*						*			*				*					*					*
Rhododendron simsii	紅杜鵑	Red Azalea	Ericaceae	*				*				*						*			*				*					*					*
Rhodoleia championii	紅花荷	Rhodoleia	Hamamelidaceae	*			T					*						*			*				*						*			*	
Rhodomyrtus tomentosa	桃金孃(崗棯)	Rose Myrtle	Myrtaceae	*				*			*							*			*				*					*			*		
Rhus chinensis	鹽膚木	Sumac	Anacardiaceae	*			T					*							*		*				*						*				
Rhus succedanea	木蠟樹(野漆樹)	Wax Tree	Anacardiaceae	*			T					*								*	*				*						*				
Rubus reflexus	鏽毛莓	Rusty-haired Raspberry	Rosaceae	*				*										*			*				*					*				*	
Salvia officinalis	鼠尾草	Japanese Sage	Labiatae	*						*												*	*					*							
Sapindus saponaria	無患子(木患子)	Soap Berry	Sapindaceae	*			T				*									*	*				*							*			*	
Sapium discolor	山烏桕	Mountain Tallow Tree	Euphorbiaceae	*			T						*							*	*				*								*		*	
Sapium sebiferum	烏桕	Chinese Tallow Tree	Euphorbiaceae	*			T					*								*	*				*								*		*	
Sarcandra glabra	草珊瑚	Sarcandra	Chloranthaceae	*				*					*					*			*				*				*					*	
Schefflera heptaphylla	鵝掌柴(鴨腳木)	Ivy Tree	Araliaceae	*			T						*					*			*				*								*	*	
Schima superba	木荷(荷樹)	Schima	Theaceae	*			T					*						*			*				*								*	*	
Scolopia chinensis	刺柊	Chinese Scolopia	Flacourtiaceae	*			T					*						*			*				*								*		
Selaginella uncinata	翠雲草	Blue Selaginella	Selaginellaceae	*						F								*				*			*				*					*	
Smilax China	菝葜	Greenbrier	Smilacaceae	*					W									*			*				*				*					*	
Sterculia lanceolata	假蘋婆	Scarlet Sterculia	Sterculiaceae	*			T						*						*		*				*								*	*	
Strophanthus divaricatus	羊角拗	Goat Horns	Apocynaceae	*					W									*			*				*									*	
Symplocos glauca	羊舌樹	Glaucous Sweet-Leaf	Symplocaceae	*			T						*					*			*				*								*		
Syzygium cumini	海南蒲桃	Jambolan Plum	Myrtaceae		*		T				*							*			*				*								*		*
Syzygium hancei	韓氏蒲桃	Hance's Syzygium	Myrtaceae	*			T				*							*			*				*									*	
Syzygium jambos	蒲桃	Rose Apple	Myrtaceae		#		T				*							*			*				*								*		
Tadehagi triquetrum	葫蘆茶	Triquetrous Tadehagi	Fabaceae	*				*				*						*			*				*			*	*					*	
Ternstroemia gymnanthera	厚皮香	Naked Anther Ternstroemia	Theaceae	*			T				*							*			*				*						*			*	
Tetracera asiatica	錫葉藤	Sandpaper Vine	Dilleniaceae	*					W									*			*				*										
Trema tomentosa	山黃麻	India-Charcoal Trema	Daphniphyllaceae	*			T						*					*			*				*						*			*	
Tutcheria championii	石筆木	Common Tutcheria	Theaceae	*			T				*							*			*				*							*			*	
Viburnum odoratissimum	珊瑚樹	Sweet Viburnum	Caprifoliaceae	*			T					*						*			*				*							*	*		

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Table 5 - Plant Selection Matrix (Sheet 12 of 14)

Scientific Name		Lifespan			Ecological Value				Planting Mode				Ornamental Value													Tolerance - Environmental Factors							Tolerance - Soil Conditions				Slope Characteristics						Supply & Maintenance				Remarks			Other Aspects					Ref	
		Short Life Span (20 - 50 yr)	Medium Life Span (50 - 80 yr)	Long Life Span (80+ yr)	Flower nectar for insects	Larval foodplants for insects	Fruits for wildlife	Seeds for wildlife	Pit planting	Spot sowing	Hydroseeding	Stem cutting	Flower colour: R-red, W-white, Y-yellow, P-purple, Pi-pink	Flower type: S-single flower, I-Inflorescence, C-cluster, F-fig	Flower size: S-small, M-medium, L-large	Flowering period: 1-Jan, 2-Feb…etc., R-year round	Fruit colour: C-colourful, B-blue/black, D-dull in colour	Fruit size: S-small, M-medium, L-large	Fruit type: F-fleshy, C-fibrous capsule, A-acorn, P-pod, Co-cone	Fruiting period: D-dry season, W-wet season, R-year round	Foliage colour: Gl-light green, Gm-medium green, Gd-dark green, Red before falling	Foliage texture: F-fine, M-medium, W-waxy, R-rough	Bark colour: B-brown, D-dark brown, P-pale, G-green	Bark texture: N-normal, F-fibrous	Wind Tolerant	Salt Spray Tolerant	Fire Tolerant	Drought Tolerant	Pollution Tolerant	Light Tolerant	Shade Tolerant	Infertile soil	Loose soil	Compacted soil	Slightly acidic soil	Steep Slopes: slope gradient ≥ 45°	Gentle Slopes: slope gradient < 45 degrees	Exposed Slopes	Shady Slopes	Coastal Slopes	Roadside Locations	Seeds	Container grown seedlings: A-abundant; L-limited	Cost (S = standard; E = > standard)	Maintenance required (***See Note 2***)	Poisonous	Susceptible to disease	Bearing thorns etc	Suitable as ground cover	May be planted in the dry season	Herbs that turn yellow/ brown in dry seasons	Invasive (*) or potential invasive species (#), use with caution	GEO 2000	Other references / Recommendations	
Reevesia thyrsoidea		*			*			*	*	*			W	C	S	3-4	D	M	C	D	Gl	M	B	N	*		*	*	*			*			*	*	*		*			L	E							*	*	*
Rhododendron mucronatum		*			*				*				W	S	M	2-3	D	S	C	W	Gl	F	B	N				*		*	*			*	*	*	*		*			A	S							*	*	
Rhododendron pulchrum		*			*				*				Pi	S	M	2-4	D	S	C	W	Gl	F	B	N				*		*	*			*	*	*	*		*			A	S							*	*	
Rhododendron pulchrum var. phoeniceum		*			*				*				P	S	M	2-3	D	S	C	W	Gl	F	B	N				*		*	*			*	*	*	*		*			A	S							*	*	
Rhododendron simsii		*			*				*				R	S	M	2-3	D	S	C	W	Gl	F	B	N				*		*	*			*	*	*	*		*			A	S							*	*	
Rhodoleia championii			*		*				*				R	C	L	3-4	D	M	C	D	Gd	W	D	N							*	*			*		*						L	E							*	*	
Rhodomyrtus tomentosa		*			*		*		*				Pi	S	M	4-5	D	M	F	W	Gl	M	B	N	*	*	*	*	*	*		*	*	*	*	*	*	*		*	*		A	S							*	*	
Rhus chinensis		*					*						W	C	S	8-10	C	S	F	D	Gl	M	B	N						*					*	*	*			*			L	E								*	
Rhus succedanea		*					*						W	C	S	4-5	C	S	F	D	Gl	M	B	N						*						*	*						L	E								*	
Rubus reflexus		*					*		*				W	C	M	4-7	C	M	F	W	Gl	F	B	N				*	*	*		*			*	*	*						L	E			*					*	
Salvia officinalis		*							*			*	P	S	S	6-9					Gm	F						*		*					*	*					*	A	S				*					*	
Sapindus saponaria		*							*				W	C	S	3-5	D	M	C	D	Gm	M	D	N	*			*				*		*	*		*	*				L	E							*		
Sapium discolor		*			*	*		*	*				Y	C	S	4-6	D	M	C	D	Gl	F	B	N						*		*			*		*	*				L	E							*	*	
Sapium sebiferum		*			*	*		*	*				Y	C	S	4-8	D	M	C	D	Gl	F	B	N		*		*		*		*			*		*	*				L	E								*	
Sarcandra glabra		*					*		*				?	C	S	6	C	M	F	D	Gd	W	D	N							*		*			*	*		*				L	E						*			
Schefflera heptaphylla		*			*		*		*				W	C	S	11-12	B	S	F	D	Gm	M	P	N	*	*		*	*	*	*			*		*	*	*		*			A	S							*	*	
Schima superba			*		*				*				W	S	L	6-8	D	M	C	D	Gm	M	B	N	*		*	*	*	*		*		*	*		*	*		*	*		A	S							*	*	
Scolopia chinensis			*				*		*	*			Y	S	S	12-3	D	S	F	D	Gd	M	B	N	*	*		*		*		*			*		*	*		*	*		L	E			*					*	
Selaginella uncinata		*							*												Gl	F						*	*	*	*	*			*	*	*	*		*												*	
Smilax China		*			*		*		*				W	S	S	2-5	C	M	F	W	Gl	M	G	N	*			*		*		*		*	*	*	*		*	*		L	E			*	*				*	
Sterculia lanceolata			*		*			*	*	*			Pi	C	S	4-5	C	L	P	W	Gl	M	B	N							*				*		*		*			L	E								*	
Strophanthus divaricatus		*			?	?							W	S	S	3-7	D	L	C	D	Gd	M	D	N						*		*	*	*	*	*	*									*							*	
Symplocos glauca		*							*				W	C	S	4-8	D	M	F	W	Gd	M	B	N	*			*	*	*		*			*	*																*	
Syzygium cumini			*		*		*		*				W	C	S	2-3	D	S	F	D	Gm	M	B	N				*	*		*			*	*					*		A	S								*	
Syzygium hancei			*		*		*		*				W	C	S	7-9	D	S	F	D	Gm	M	B	N	*			*		*	*	*		*	*								L	E								*	
Syzygium jambos			*		*		*		*				W	C	L	3-4	D	L	F	W	Gd	M	B	N					*		*			*		*			*			A	S						#	*	*	
Tadehagi triquetrum		*							*				PR	S	S	6-10	D	M	P	D	Gl	M	G	N	*			*		*		*			*	*	*			*	*		L	S								*	
Ternstroemia gymnanthera		*			*			*	*				Y	S	S	5-7	C	M	C	W	Gm	M	B	N	*			*		*		*			*	*	*						L	E							*	*	
Tetracera asiatica		*											W	C	S	5-8	D	S	F	D	Gl	R				*		*		*		*			*	*	*		*				L	E								*	
Trema tomentosa		*					*		*				Y	C	S	12	D	S	F	W	Gl	M	B	N	*			*	*	*		*			*	*	*		*	*			L	E								*	
Tutcheria championii			*		*			*	*				W	S	L	6	D	M	C	D	Gm	W	B	N	*			*		*	*	*			*		*	*	*				L	E								*	
Viburnum odoratissimum			*				*		*				W	C	S	3-4	C	S	F	D	Gd	M	D	N	*	*			*	*	*				*		*	*	*	*	*		L	E								*	

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Table 5 - Plant Selection Matrix (Sheet 13 of 14)

Scientific Name	Chinese Name	English Common Name	Family	Origin			Growth Habit				Plant Form							Characteristics										Normal Height					Growth Rate			
				Native	* - Exotic, # - Naturalised Exotic	Provenance	T-tree, C-conifer, P-palm, B-bamboo	Shrub	Climbing plant: C-climber, G-ground creeper, W-woody climber	Herb (F-fern, G-grass)	Rounded	Oval	Spreading	Domed	Vase	Columnar	Pyramidal	Evergreen	Semi-deciduous	Deciduous	Woody	Herbaceous	Annual	Biennial	Perennial	Strong vertical roots	Extensive lateral roots	Nitrogen Fixer	0 - 1 m	1 - 2 m	2 - 5 m	5 - 10 m	> 10 m	Fast Growing	Medium Growing	Slow Glowing	
Washingtonia robusta	華盛頓葵	Petticoat Palm	Arecaceae		*		P											*			*				*								*			
Wedelia trilobata	三裂葉蟛蜞菊	N.A.	Asteraceae		#				G									*				*			*				*					*			
Zanthoxylum avicennae	簕欓花椒(簕欓)	Prickly Ash	Rutaceae	*			T						*					*			*				*						*						
Zoysia matrella	溝葉結縷草	Manila Grass	Gramineae	*						G												*			*				*					*			
Zoysia sinica	中華結縷草	N.A.	Gramineae	*						G												*			*				*					*			
Zoysia tenuifolia	細葉結縷草	Mascarene Grass	Gramineae		*					G												*			*				*					*			

To be continued

Notes:
(1) All names and nomenclature follow Wu et al, 2002 and Corlett et al. 2000.
(2) Maintenance requirements to be provided in Working Paper No. 2 following the commercial availability survey.
(3) ? - Denotes unkown property

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Table 5 - Plant Selection Matrix (Sheet 14 of 14)

Scientific Name		Lifespan			Ecological Value				Planting Mode				Ornamental Value													Tolerance - Environmental Factors							Tolerance - Soil Conditions				Slope Characteristics							Supply & Maintenance				Remarks			Other Aspects					Ref	
		Short Life Span (20 - 50 yr)	Medium Life Span (50 - 80 yr)	Long Life Span (80+ yr)	Flower nectar for insects	Larval foodplants for insects	Fruits for wildlife	Seeds for wildlife	Pit planting	Spot sowing	Hydroseeding	Stem cutting	Flower colour: R-red, W-white, Y-yellow, P-purple, Pi-pink	Flower type: S-single flower, I-Inflorescence, C-cluster, F-fig	Flower size: S-small, M-medium, L-large	Flowering period: 1-Jan, 2-Feb...etc., R-year round	Fruit colour: C-colourful, B-blue/black, D-dull in colour	Fruit size: S-small, M-medium, L-large	Fruit type: F-fleshy, C-fibrous capsule, A-acorn, P-pod, Co-cone	Fruiting period: D-dry season, W-wet season, R-year round	Foliage colour: Gl-light green, Gm-medium green, Gd-dark green, Red before falling	Foliage texture: F-fine, M-medium, W-waxy, R-rough	Bark colour: B-brown, D-dark brown, P-pale, G-green	Bark texture: N-normal, F-fibrous	Wind Tolerant	Salt Spray Tolerant	Fire Tolerant	Drought Tolerant	Pollution Tolerant	Light Tolerant	Shade Tolerant	Infertile soil	Loose soil	Compacted soil	Slightly acidic soil	Steep Slopes: slope gradient $\geq 45^{o}$	Gentle Slopes: slope gradient < 45 degrees	Exposed Slopes	Shady Slopes	Coastal Slopes	Roadside Locations	Seeds	Container grown seedlings: A-abundant; L-limited	Cost (S = standard; E = > standard)	Maintenance required (***See Note 2***)	Poisonous	Susceptible to disease	Bearing thorns etc	Suitable as ground cover	May be planted in the dry season	Herbs that turn yellow/ brown in dry seasons	Invasive (*) or potential invasive species (#), use with caution	GEO 2000	Other references / Recommendations
Washingtonia robusta	***Continued***		*						*												Gm	R	P	N	*	*		*	*	*												A	S								*		
Wedelia trilobata		*							*				Y	S	S	1-12					Gd	M			*	*			*	*	*			*								L	E							*		
Zanthoxylum avicennae		*			*		*		*				W	C	S	6-8	C	S	C	D	Gl	M	P	N	*	*			*		*	*	*			*	*	*	*	*	*		L	E									*
Zoysia matrella		*								*	*		W	I	S		D	S	C		Gl	F			*	*			*		*	*	*	*	*	*	*	*	*	*	*	*										
Zoysia sinica		*								*	*		W	I	S		D	S	C		Gl	F			*	*			*		*	*	*	*	*	*	*	*	*	*	*	*										
Zoysia tenuifolia		*								*	*		W	I	S		D	S	C		Gl	F			*	*			*		*	*	*	*	*	*	*	*	*	*	*	*										

Notes:
(1) All names and nomenclature follow Wu et al, 2002 and Corlett et al. 2000.
(2) Maintenance requirements to be provided in Working Paper No. 2 following the commercial availability survey.
(3) ? - Denotes unkown property

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Table 6 - List of Respondents to the Commercial Availability Survey

Company Name
Asia Landscaping Limited
Hong Kong Landscaping Company Limited
Oriental Landscapes Limited
Toyo Greenland Company Limited
Yee Sun Garden Limited

Table 7 - Summary of Commercial Availability Survey (9 July 2004) (Sheet 1 of 17)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details (See Note (7))
Acacia auriculiformis (耳果相思)	Seedling or whip	2.5-6	Y	Guang Zhou	7 days-6 months	100	F, W
	Seed	3-5	Y	Guang Dong	6 months	100	NA
	light standard	75	Y	Guang Zhou	3 months	NA	NA
	standard	180	Y	Guang Zhou	3 months	NA	NA
Acacia confuse (台灣相思)	Seedling or whip	2.5-6	Y	Guang Zhou	7 days-6 months	100	F, W
	seed	3-5	Y	Guang Dong	6 months	100	NA
	light standard	75	Y	Guang Zhou	3 months	NA	NA
	standard	180	Y	Guang Zhou	3 months	NA	NA
	heavy standard	350	Y	Guang Zhou	3 months	NA	NA
Acacia mangium (大葉相思)	Seedling or whip	2.5-6	Y	Guang Zhou	7 days-6 months	100	F, W
	seed	3-5	Y	Guang Dong	6 months	100	NA
	light standard	75	Y	Guang Zhou	3 months	NA	NA
	standard	180	Y	Guang Zhou	3 months	NA	NA
	heavy standard	350	Y	Guang Zhou	3 months	NA	NA
Acronychia pedunculata (山油柑)	Seedling or whip	3.5-5	Y	NA	7 days	100	F, W
Adinandra millettii (黃瑞木)	NA	NA	NA	NA	NA	NA	NA
Ailanthus fordii (常綠臭椿)	NA	NA	NA	NA	NA	NA	NA
Alangium chinense (八角楓)	Seedling or whip	3-8	Y	Guang Zhou	7 days-6 months	100	F, W
	light standard	75	Y	Guang Zhou	3 months	NA	NA
	standard	180	Y	Guang Zhou	3 months	NA	NA
	heavy standard	350	Y	Guang Zhou	3 months	NA	NA
Albizia lebbeck (大葉合歡)	Seedling or whip	2.5-6	Y	Guang Zhou	7 days-6 months	100	F, W
	seed	3-5	Y	Guang Dong	6 months	100	NA
	light standard	75	Y	Guang Zhou	3 months	NA	NA
	standard	180	Y	Guang Zhou	3 months	NA	NA
	heavy standard	350	Y	Guang Zhou	3 months	NA	NA

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Table 7 - Summary of Commercial Availability Survey (9 July 2004) (Sheet 2 of 17)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details (See Note (7))
Alocasia macrorrhiza (海芋)	Seedling or whip	3-5	Y	Guang Dong	7 days	100	F, W
	600 mm Ht	12	Y	Guang Zhou	3 months	NA	NA
Antirhea chinensis (毛茶)	NA	NA	NA	NA	NA	NA	NA
Aporusa dioica (銀柴)	Seedling or whip	3-9	Y	Guang Zhou	10 days-6 months	100	NA
Aquilaria sinensis (土沉香)	Seedling or whip	3-9	Y	Guang Zhou	10 days-6 months	100	NA
Archidendrom lucidum (亮葉猴耳環)	Seedling or whip	5	Y	NA	10 days	100	NA
Ardisia crenata (朱砂根)	NA	NA	NA	NA	NA	NA	NA
Artocarpus hypargyreus (白桂木)	Seedling or whip	5-8	Y	NA	7 days	100	F, W
Axonopus affinis (地毯草)	turf/m^2	10-25	Y	Guang Zhou	7 days-6 months	100 m^2	W
Baeckea frutescens (崗松)	Seedling or whip	3-7	Y	Guang Dong	10 days-6 months	100	NA
Bambusa tuldoides (花眉竹)	Seedling or whip	10-20	Y	Guang Dong	14 days-6 months	100	F, W
	1000 mm heavy	25	Y	NA	10 days	100	NA
	2.5 m ht, 3 branches bag	85	Y	Guang Zhou	3 months	NA	NA
Bauhinia championii (缺葉藤)	Seedling or whip	6	Y	NA	6 months	100	NA
Bauhinia glauca (粉葉羊蹄甲)	Seedling or whip	6-10	Y	Guang Dong	14 days-6 months	100	F, W
	climbing plant	3	Y	NA	10 days	100	NA
	Vine(500-1000 mm)	15-25	Y	Guang Zhou	3 months	NA	NA
Bauhinia purpurea (紅花羊蹄甲)	Seedling or whip	3.5-8	Y	Guang Zhou	10 days-3 months	100	F, W
	light standard	75	Y	Guang Zhou	3 months	NA	NA
	standard	180	Y	Guang Zhou	3 months	NA	NA
	heavy standard	350	Y	Guang Zhou	3 months	NA	NA

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Table 7 - Summary of Commercial Availability Survey (9 July 2004) (Sheet 3 of 17)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details (See Note (7))
Bauhinia variegate (宮粉羊蹄甲)	Seedling or whip	3-8	Y	Guang Zhou	10 days-6 months	100	F, W
	light standard	75	Y	Guang Zhou	3 months	NA	NA
	standard	180	Y	Guang Zhou	3 months	NA	NA
	heavy standard	350	Y	Guang Zhou	3 months	NA	NA
Bischofia javanica (秋楓)	Seedling or whip	3-6	Y	Guang Zhou	10 days-6 months	100	F, W
	light standard	75	Y	Guang Zhou	3 months	NA	NA
	standard	180	Y	Guang Zhou	3 months	NA	NA
	heavy standard	350	Y	Guang Zhou	3 months	NA	NA
Blechnum orientale (烏毛蕨)	NA	NA	NA	NA	NA	NA	NA
Bombax ceiba (木棉)	Seedling or whip	3.5-8	Y	Guang Zhou	10 days-6 months	100	NA
	seed	6-8	Y	Guang Dong	6 months	100	NA
	light standard	75	Y	Guang Zhou	3 months	NA	NA
	standard	50-180	Y	Guang Zhou	7 days-3 months	100	F, W
	heavy standard	350	Y	Guang Zhou	3 months	NA	NA
Bougainvillea spectabilis (葉子花)	Seedling or whip	6-8	Y	Guang Dong	10 days-6 months	100	NA
Breynia fruticosa (黑面神)	Seedling or whip	9	Y	Guang Zhou	3 months	NA	NA
Bridelia tomentosa (土密樹)	Seedling or whip	2.5-12	Y	Guang Zhou	7 days-6 months	100	F, W
	light standard	75	Y	Guang Zhou	3 months	NA	NA
Broussonetia papyrifera (構樹)	NA	NA	NA	NA	NA	NA	NA
Calliandra haematocephala (朱纓花(紅絨球))	Seedling or whip	3.5-4	Y	Guang Dong	7 days-6 months	100	F, W
	shrub	3.5	Y		10 days	100	NA
	600 mm Ht.	9	Y	Guang Zhou	3 months	NA	NA
Camellia caudata (長尾毛蕊茶(尾葉茶))	NA	NA	NA	NA	NA	NA	NA
Camellia crapnelliana (紅皮糙果茶(克氏茶))	NA	NA	NA	NA	NA	NA	NA
Camellia salicifolia (柳葉茶)	NA	NA	NA	NA	NA	NA	NA

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Table 7 - Summary of Commercial Availability Survey (9 July 2004) (Sheet 4 of 17)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details (See Note (7))
Cassia siamea (鐵刀木)	Seedling or whip	3-9	Y	Guang Zhou	10 days-6 months	100	NA
	per tree	50	Y	NA	NA	NA	NA
	light standard	75	Y	Guang Zhou	7 days-3 months	100	F, W
	standard	180	Y	Guang Zhou	3 months	NA	NA
	heavy standard	350	Y	Guang Zhou	3 months	NA	NA
Castanopsis fissa (黧蒴錐(裂斗錐栗))	Seedling or whip	2.5-9	Y	Guang Zhou	7 days-6 months	100	F, W
	light standard	75	Y	Guang Zhou	3 months	NA	NA
	standard	180	Y	Guang Zhou	3 months	NA	NA
	heavy standard	350	Y	Guang Zhou	3 months	NA	NA
Casuarina equisetifolia (木麻黃)	Seedling or whip	2.5-9	Y	Guang Zhou	7 days-6 months	100	F, W
	light standard	75	Y	Guang Zhou	3 months	NA	NA
	standard	180	Y	Guang Zhou	3 months	NA	NA
	heavy standard	350	Y	Guang Zhou	3 months	NA	NA
Celtis tetrandra subsp. Sinensis (朴樹(相思樹))	Seedling or whip	2.5-9	Y	Guang Zhou	7 days-6 months	100	F, W
	light standard	75	Y	Guang Zhou	3 months	NA	NA
	standard	180	Y	Guang Zhou	3 months	NA	NA
	heavy standard	Note (6)	NA	NA	NA	NA	NA
Choerospondias axillaris (南酸棗)	NA	NA	NA	NA	NA	NA	NA
Cinnamomum camphora (樟樹)	Seedling or whip	3-9	Y	Guang Zhou	7 days-6 months	100	NA
	light standard	75	Y	Guang Zhou	3 months	NA	NA
	standard	180	Y	Guang Zhou	3 months	NA	NA
	heavy standard	350	Y	Guang Zhou	3 months	NA	NA
Clerodendrum fortunatum (白花燈籠 (鬼燈籠))	Seedling or whip	3.5	Y	NA	10 days	100	NA
Cratoxylum cochinchinense (黃牛木)	Seedling or whip	3-9	Y	Guang Zhou	10 days-6 months	100	NA
	light standard	75	Y	Guang Zhou	3 months	NA	NA

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Table 7 - Summary of Commercial Availability Survey (9 July 2004) (Sheet 5 of 17)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details (See Note (7))
Cyclobalanopsis championii (嶺南青岡)	NA	NA	NA	NA	NA	NA	NA
Cyclobalanopsis edithiae (華南青岡)	NA	NA	NA	NA	NA	NA	NA
Cyclobalanopsis myrsinifolia (小葉青岡)	NA	NA	NA	NA	NA	NA	NA
Cyclobalanopsis neglecta (竹葉青岡)	NA	NA	NA	NA	NA	NA	NA
Cyclosorus parasiticus (華南毛蕨)	NA	NA	NA	NA	NA	NA	NA
Cynodon dactylon (狗牙根)	turf(/m^2)	18-30	Y	Guang Dong	7 days-3 months	100 m^2	NA
Dalbergia benthamii (兩廣黃檀)	Seedling or whip	7	N	NA	6 months	100	NA
Dalbergia hancei (藤黃檀)	Seedling or whip	7	N	NA	6 months	100	NA
Daphniphyllum calycinum (牛耳楓)	NA	NA	NA	NA	NA	NA	NA
Daphniphyllum oldhamii (虎皮楠(交讓木))	NA	NA	NA	NA	NA	NA	NA
Delonix regia (鳳凰木)	Seedling or whip	3.5-18	Y	Guang Zhou	10 days-6 months	100	F, W
	light standard	75	Y	Guang Zhou	3 months	NA	NA
	standard	180	Y	Guang Zhou	3 months	NA	NA
	heavy standard	350	Y	Guang Zhou	3 months	NA	NA
Desmodium heterocarpon (鳳凰木)	Seedling or whip	18	Y	Guang Dong	14 days	200	F, W
Desmos chinensis (假鷹爪)	NA	NA	NA	NA	NA	NA	NA
Dicranopteris pedata (芒萁)	NA	NA	NA	NA	NA	NA	NA

Table 7 - Summary of Commercial Availability Survey (9 July 2004) (Sheet 6 of 17)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details (See Note (7))
Dimocarpus longan (龍眼)	Seedling or whip	7-100	Y	Guang Dong	10 days-3 months	10	NA
	standard	1500	Y	Guang Zhou	3 months	NA	NA
	heavy standard	3500	Y	Guang Zhou	3 months	NA	NA
Diospyros morrisiana (羅浮柿)	Seedling or whip	3	Y	NA	10 days	100	NA
Diospyros vaccinioides (小果柿)	Seedling or whip	3.5-9	Y	Guang Zhou	10 days-6 months	100	NA
Diplospora dubia (狗骨柴)	NA	NA	NA	NA	NA	NA	NA
Dodonaea viscose (車桑子)	NA	NA	NA	NA	NA	NA	NA
Duranta erecta (假連翹)	Seedling or whip	3.5-8	Y	Guang Dong	7 days-6 months	100	F, W
	per shrub	2.5	Y	NA	NA	NA	NA
	600 mm	9	Y	Guang Zhou	3 months	NA	NA
Elaeocarpus chinensis (中華杜英)	Seedling or whip	7-50	Y	Guang Dong	10 days-6 months	100	NA
	light standard	95	Y	Guang Zhou	3 months	NA	NA
	standard	190	Y	Guang Zhou	3 months	NA	NA
	heavy standard	380	Y	Guang Zhou	3 months	NA	NA
Elaeocarpus sylvestris (山杜英)	Seedling or whip	7-50	Y	Guang Dong	10 days-6 months	100	NA
Embelia laeta (酸藤子)	NA	NA	NA	NA	NA	NA	NA
Endospermum chinense (黃桐)	NA	NA	NA	NA	NA	NA	NA
Enkianthus quinqueflorus (吊鐘花)	600 mm	15	Y	Guang Zhou	3 months	NA	NA
Epipremnum aureum (綠蘿(芋葉藤))	Seedling or whip	2.5-6	Y	Guang Dong	7 days-6 months	100	F, W
	300 mm	15	Y	Guang Zhou	3 months	NA	NA
Eremochloa ciliaris (蜈蚣草)	Seedling or whip	3	Y	NA	10 days	NA	NA
	turf(/m^2)	18	Y	Guang Dong	6 months	100	NA
Eremochloa ophiuroides (假儉草)	Seedling or whip	3	Y	NA	10 days	NA	NA
	turf(/m^2)	18	Y	Guang Dong	6 months	100	NA

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Table 7 - Summary of Commercial Availability Survey (9 July 2004) (Sheet 7 of 17)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details (See Note (7))
Eucalyptus citriodora (檸檬桉)	Seedling or whip	3-12	Y	Guang Zhou	7 days-6 months	100	F, W
	light standard	95	Y	Guang Zhou	3 months	NA	NA
	standard	195	Y	Guang Zhou	3 months	NA	NA
Eucalyptus robusta (大葉桉)	Seedling or whip	3-12	Y	Guang Zhou	7 days-6 months	100	F, W
	light standard	95	Y	Guang Zhou	3 months	NA	NA
	standard	195	Y	Guang Zhou	3 months	NA	NA
Eucalyptus tereticornis (細業桉)	Seedling or whip	3-12	Y	Guang Zhou	7 days-6 months	100	F, W
	light standard	95	Y	Guang Zhou	3 months	NA	NA
	standard	195	Y	Guang Zhou	3 months	NA	NA
	heavy standard	Note (6)	NA	NA	NA	NA	NA
Eurya chinensis (米碎花)	NA	NA	NA	NA	NA	NA	NA
Eurya nitida (細齒葉柃)	NA	NA	NA	NA	NA	NA	NA
Ficus hirta (粗葉榕)	Seedling or whip	3-12	Y	Guang Zhou	7 days-3 months	500	F, W
	light standard	95	Y	Guang Zhou	3 months	NA	NA
	standard	195	Y	Guang Zhou	3 months	NA	NA
	heavy standard	380	Y	Guang Zhou	3 months	NA	NA
Ficus hispida (對葉榕)	Seedling or whip	3.5-12	Y	Guang Zhou	10 days-6 months	100	NA
	light standard	95	Y	Guang Zhou	3 months	NA	NA
	standard	195	Y	Guang Zhou	3 months	NA	NA
	heavy standard	380	Y	Guang Zhou	3 months	NA	NA
Ficus microcarpa (榕樹(細葉榕))	Seedling or whip	2.5-12	Y	Guang Zhou	7 days-6 months	100	F, W
	light standard	95	Y	Guang Zhou	3 months	NA	NA
	standard	195	Y	Guang Zhou	3 months	NA	NA
	heavy standard	380	Y	Guang Zhou	3 months	NA	NA
Ficus pumila (薜荔)	Seedling or whip	4-6	Y	Guang Dong	7 days-6 months	100	F, W
	climbing plant	3	Y		10 days	NA	NA
	200 mm	12	Y	Guang Zhou	3 months	NA	NA

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Table 7 - Summary of Commercial Availability Survey (9 July 2004) (Sheet 8 of 17)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details (See Note (7))
Ficus superba var. japonica (筆管榕)	Seedling or whip	7	Y	Guang Dong	6 months	100	NA
Ficus variegata var. chlorocarpa (青果榕)	Seedling or whip	3.5-12	Y	Guang Zhou	10 days-6 months	100	NA
	light standard	95	Y	Guang Zhou	3 months	NA	NA
	standard	195	Y	Guang Zhou	3 months	NA	NA
Ficus variolosa (變葉榕)	Seedling or whip	7-12	Y	Guang Zhou	7 days-6 months	100	F, W
	light standard	95	Y	Guang Zhou	3 months	NA	NA
	standard	195	Y	Guang Zhou	3 months	NA	NA
	heavy standard	380	Y	Guang Zhou	3 months	NA	NA
Ficus virens var. sublanceolata (大葉榕)	Seedling or whip	3-12	Y	Guang Zhou	7 days-6 months	100	F, W
	light standard	95	Y	Guang Zhou	3 months	NA	NA
	standard	195	Y	Guang Zhou	3 months	NA	NA
	heavy standard	380	Y	Guang Zhou	3 months	NA	NA
Garcinia oblongifolia (嶺南山竹子)	NA	NA	NA	NA	NA	NA	NA
Gardenia jasminoides (梔子(水橫枝))	Seedling or whip	3.5-6	Y	Guang Dong	10 days-6 months	100	NA
	600 mm	12	Y	Guang Zhou	3 months	NA	NA
Gordoria axillaris (大頭茶)	Seedling or whip	4-15	Y	Guang Zhou	7 days-6 months	100	F, W
	heavy standard	Note (6)		NA	NA	NA	NA
Grevillea robusta (銀樺)	Seedling or whip	5-12	Y	Guang Zhou	7 days-6 months	100	F, W
	light standard	95	Y	Guang Zhou	3 months	NA	NA
	standard	195	Y	Guang Zhou	3 months	NA	NA
	heavy standard	Note (6)	NA	NA	NA	NA	NA
Hedera helix (洋常春藤)	Seedling or whip	12	Y	Guang Dong	6 months	100	NA
	climbing plant	3.5	Y	NA	10 days	NA	NA
	300 mm	15	Y	Guang Zhou	3 months	NA	NA
Helicteres angustifolia (山芝麻)	NA	NA	NA	NA	NA	NA	NA

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Table 7 - Summary of Commercial Availability Survey (9 July 2004) (Sheet 9 of 17)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details (See Note (7))
Hibiscus rosa-sinensis (朱槿(大紅花))	Seedling or whip	4-6	Y	Guang Dong	7 days-6 months	100	F, W
	shrub	3.5	Y	NA	10 days	NA	NA
	300-600 mm	9-15	Y	Guang Zhou	3 months	NA	NA
Hibiscus tiliaceus (黃槿)	Seedling or whip	4-9	Y	Guang Zhou	7 days-6 months	100	F, W
	light standard	85	Y	Guang Zhou	3 months	NA	NA
	standard	185	Y	Guang Zhou	3 months	NA	NA
	heavy standard	350	Y	Guang Zhou	3 months	NA	NA
Ilex asprella (梅葉冬青)	shrub	3.5	Y	NA	7 days	100	NA
Ilex cinerea (灰冬青)	Seedling or whip	10	Y	Guang Dong	6 months	100	NA
	shrub	3.5	Y	NA	7 days	100	NA
Ilex rotunda (鐵冬青)	Seedling or whip	10	Y	Guang Dong	6 months	100	NA
	shrub	3.5	Y	NA	7 days	100	NA
Ilex viridis (綠冬青(亮葉冬青))	Seedling or whip	10	Y	Guang Dong	6 months	100	NA
	shrub	3.5	Y	NA	7 days	100	NA
Ipomoea cairica (五爪金龍)	Seedling or whip	7	Y	Guang Dong	6 months	100	NA
	climbing plant	3.5	Y	NA	7 days	100	NA
Ixora chinensis (龍船花)	Seedling or whip	4-9	Y	Guang Dong	7 days-6 months	100	F, W
	shrub	5	Y	NA	7 days	100	NA
	300-600 mm	9-15	Y	Guang Zhou	3 months	NA	NA
Lantana camara (馬纓丹)	Seedling or whip	3-5	Y	Guang Dong	7 days-6 months	100	F, W
	ground cover	2	Y	NA	7 days	100	NA
	300 mm	9	Y	Guang Zhou	3 months	NA	NA
Lantana montevidensis (小葉馬纓丹(舖地臭金鳳))	Seedling or whip	3-5	Y	Guang Dong	7 days-6 months	100	F, W
	ground cover	2	Y	NA	7 days	100	NA
	300 mm	9	Y	Guang Zhou	3 months	NA	NA
Ligustrum sinense (山指甲)	Seedling or whip	4-6	Y	Guang Dong	7 days-6 months	100	F, W
	shrub	3	Y	NA	7 days	100	NA
	300-600 mm	9-15	Y	Guang Zhou	7 days-3 months	NA	NA

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Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details (See Note (7))
Liquidambar formosana (楓香)	Seedling or whip	3.5-12	Y	Guang Zhou	7 days-6 months	100	F, W
	light standard	95	Y	Guang Zhou	3 months	NA	NA
	standard	185	Y	Guang Zhou	3 months	NA	NA
Litchi chinensis (荔枝)	Seedling or whip	12-15	Y	Guang Dong	7 days-6 months	100	NA
	light standard	350	Y	Guang Zhou	3 months	NA	NA
	standard	850	Y	Guang Zhou	3 months	NA	NA
	heavy standard	Note (6)	NA	NA	NA	NA	NA
Lithocarpus glabra (柯)	Seedling or whip	4.5-15	Y	Guang Dong	7 days-6 months	100	F, W
Lithocarpus harlandii (港柯)	NA	NA	NA	NA	NA	NA	NA
Litsea cubeba (木薑子)	NA	NA	NA	NA	NA	NA	NA
Litsea glutinosa (潺槁樹)	Seedling or whip	7-9	Y	Guang Zhou	7 days-6 months	100	F, W
	light standard	95	Y	Guang Zhou	3 months	NA	NA
Litsea rotundifolia var. oblongifolia (豺皮樟)	Seedling or whip	3.5-15	Y	Guang Zhou	10 days-6 months	100	F, W
Lophostemon confertus (紅膠木)	Seedling or whip	3.5-12	Y	Guang Zhou	7 days-6 months	100	F, W
	light standard	95	Y	Guang Zhou	3 months	NA	NA
	standard	195	Y	Guang Zhou	3 months	NA	NA
	heavy standard	Note (6)	NA	NA	NA	NA	NA
Lygodium japonicum (海金沙)	NA	NA	NA	NA	NA	NA	NA
Macaranga tanarius (血桐)	Seedling or whip	5-9	Y	Guang Zhou	7 days-6 months	100	F, W
	light standard	85	Y	Guang Zhou	3 months	NA	NA
	standard	185	Y	Guang Zhou	3 months	NA	NA
	heavy standard	Note (6)	NA	NA	NA	NA	NA
Machilus breviflora (短序潤楠)	NA	NA	NA	NA	NA	NA	NA

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Machilus chekiangensis (浙江潤楠)	NA	NA	NA	NA	NA	NA	NA
Machilus pauhoi (刨花潤楠)	NA	NA	NA	NA	NA	NA	NA
Machilus velutina (絨毛潤楠)	NA	NA	NA	NA	NA	NA	NA
Maesa perlarius (鯽魚膽)	NA	NA	NA	NA	NA	NA	NA
Magnolia grandiflora (荷花玉蘭)	Seedling or whip	15	Y	Guang Dong	6 months	100	NA
	per tree	50	Y	NA	NA	NA	NA
	light standard	280	Y	Guang Zhou	7 days-3 months	100	F, W
	standard	550	Y	Guang Zhou	3 months	NA	NA
	heavy standard	850	Y	Guang Zhou	3 months	NA	NA
Mallotus paniculatus (白楸)	Seedling or whip	3-9	Y	Guang Zhou	7 days-6 months	100	F, W
Mangifera indica (杧果)	Seedling or whip	7-8	Y	Guang Dong	10 days-6 months	100	NA
	per tree	50	Y	NA	NA	NA	NA
	light standard	280	Y	Guang Zhou	7 days-3 months	100	F, W
	standard	550	Y	Guang Zhou	3 months	NA	NA
	heavy standard	850	Y	Guang Zhou	3 months	NA	NA
Melaleuca quinquenervia (白千層)	Seedling or whip	3-9	Y	Guang Zhou	7 days-6 months	100	F, W
	light standard	85	Y	Guang Zhou	3 months	NA	NA
	standard	185	Y	Guang Zhou	3 months	NA	NA
	heavy standard	350	Y	Guang Zhou	3 months	NA	NA
Melastoma candidum (野牡丹)	Seedling or whip	7-8	Y	Guang Dong	7 days-6 months	100	F, W
	shrub	3	Y	NA	10 days	NA	NA
	600 mm	15	Y	Guang Zhou	3 months	NA	NA
Melastoma dodecandrum (地茭)	Seedling or whip	5-7	Y	Guang Dong	7 days-6 months	100	F, W
	shrub	3	Y	NA	10 days	NA	NA
	300-600 mm	9-15	Y	Guang Zhou	3 months	NA	NA

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Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details (See Note (7))
Melastoma sanguineum (毛蕊)	Seedling or whip	5-8	Y	Guang Dong	7 days-6 months	100	F, W
	shrub	3	Y	NA	10 days	100	NA
	300-600 mm	9-15	Y	Guang Zhou	3 months	NA	NA
Melia azaderach (楝(苦楝))	Seedling or whip	3-8	Y	Guang Dong	10 days-6 months	100	NA
	light standard	85	Y	Guang Zhou	3 months	NA	NA
	standard	185	Y	Guang Zhou	3 months	NA	NA
	heavy standard	Note (6)	NA	NA	NA	NA	NA
Melicope pteleifolia (密茱萸(三椏苦))	Seedling or whip	3-9	Y	Guang Dong	10 days-6 months	100	NA
Michelia alba (白蘭)	Seedling or whip	10-12	Y	Guang Dong	10 days-6 months	100	NA
	per tree	35	Y	NA	NA	NA	NA
	light standard	85	Y	Guang Zhou	14 days-3 months	100	F, W
	standard	185	Y	Guang Zhou	3 months	NA	NA
Microcos nervosa (paniculata) (破布葉)	Seedling or whip	3.5	Y	NA	10 days	100	NA
Millettia nitida (亮葉崖豆藤)	NA	NA	NA	NA	NA	NA	NA
Mussaenda pubescens (玉葉金花)	Seedling or whip	18	Y	NA	14 days	300	F, W
	shrub	5-18	Y	NA	10 days	100	NA
Myrica rubra (楊梅)	NA	NA	NA	NA	NA	NA	NA
Ormosia emarginata (凹葉紅豆)	NA	NA	NA	NA	NA	NA	NA
Ormosia pachycarpa (茸荚紅豆)	NA	NA	NA	NA	NA	NA	NA
Ormosia semicastrata (軟荚紅豆)	NA	NA	NA	NA	NA	NA	NA

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Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details (See Note (7))
Osmanthus fragrans (桂花)	Seedling or whip	8-9	Y	Guang Dong	14 days-6 months	100	F, W
	shrub	7	Y	NA	10 days	100	NA
	standard	280	Y	Guang Zhou	3 months	NA	NA
	heavy standard	550	Y	Guang Zhou	3 months	NA	NA
Paederia scandens (雞矢藤)	NA	NA	NA	NA	NA	NA	NA
Palhinhaea cernua (鋪地蜈蚣)	NA	NA	NA	NA	NA	NA	NA
Parthenocissus dalzielii (異葉爬牆虎)	Seedling or whip	NA	NA	NA	NA	NA	NA
	climbing plant	4	Y	NA	10 days	100	NA
Paspalum notatum (百喜草)	Seedling or whip	NA	NA	NA	NA	100	NA
	seed(/kg)	35	Y	Guang Dong	7 days-6 months	25	NA
	(/m^2)	7	Y	NA	NA	NA	NA
Philodendron cordatum (心葉喜樹蕉)	Seedling or whip	8-25	Y	Guang Dong	14 days-6 months	100	F, W
	shrub	5	Y	NA	10 days	100	NA
	1 m	150	Y	Guang Zhou	3 months	NA	NA
Phoenix hanceana (刺葵)	Seedling or whip	35-80	Y	Guang Dong	14 days-6 months	100	NA
	per tree	500	Y	NA	NA	NA	NA
	light standard	Note (6)	NA	NA	NA	NA	NA
	standard	350	Y	Guang Zhou	14 days-3 months	10	F, W
	heavy standard	850	Y	Guang Zhou	3 months	NA	NA
Phyllanthus emblica (餘甘子(油甘子))	Seedling or whip	3.5-10	Y	Guang Zhou	10 days-6 months	100	F, W
Pinus elliottii (愛氏松)	Seedling or whip	3-8	Y	Guang Dong	10 days-6 months	100	F, W
Pityrogramma calomelanos (粉葉蕨)	NA	NA	NA	NA	NA	NA	NA
Psychotria asiatica (九節(山大刀))	Seedling or whip	3.5-9	Y	Guang Zhou	10 days-6 months	100	NA
Pteris semipinnata (半邊旗)	NA	NA	NA	NA	NA	NA	NA

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Table 7 - Summary of Commercial Availability Survey (9 July 2004) (Sheet 14 of 17)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details (See Note (7))
Pteris vittata (蜈蚣草)	NA	NA	NA	NA	NA	NA	NA
Raphiolepis indica (石斑木(車輪梅、春花))	Seedling or whip	8-12	Y	Guang Dong	14 days-6 months	100	F, W
	shrub	3.5	Y	NA	10 days	100	NA
	600 mm	15	Y	Guang Zhou	3 months	NA	NA
Reevesia thyrsoidea (梭羅樹)	NA	NA	NA	NA	NA	NA	NA
Rhododendron mucronatum (白杜鵑)	Seedling or whip	7-18	Y	Guang Dong	14 days-6 months	100	F, W
	shrub	6	Y	NA	10 days	100	NA
	300-600 mm	9-15	Y	Guang Zhou	3 months	NA	NA
Rhododendron pulchrum (錦繡杜鵑)	Seedling or whip	5-7	Y	Guang Dong	14 days-6 months	100	F, W
	shrub	6	Y	NA	10 days	100	NA
	300-600 mm	9-15	Y	Guang Zhou	3 months	NA	NA
Rhododendron pulchrum var. phoeniceum (紫杜鵑花)	Seedling or whip	4-7	Y	Guang Dong	7 days-6 months	100	F, W
	shrub	6	Y	NA	10 days	100	NA
	300-600 mm	9-15	Y	Guang Zhou	3 months	NA	NA
Rhododendron simsii (紅杜鵑)	Seedling or whip	4-7	Y	Guang Dong	7 days-6 months	100	F, W
	shrub	6	Y	NA	10 days	100	NA
	300-600 mm	9-15	Y	Guang Zhou	3 months	NA	NA
Rhodoleia championii (紅花荷)	Seedling or whip	7	Y	NA	10 days	100	NA
Rhodomyrtus tomentosa (桃金孃(崗棯))	Seedling or whip	3.5-8	Y	Guang Dong	7 days-6 months	100	F, W
	300-600 mm	9-15	Y	Guang Zhou	3 months	NA	NA
Rhus chinensis (鹽膚木)	Seedling or whip	5-9	Y	Guang Zhou	10 days-6 months	100	NA
Rhus succedanea (木蠟樹(野漆樹))	Seedling or whip	8-12	Y	Guang Zhou	10 days-6 months	100	NA
Rubus reflexus (鏽毛莓)	NA	NA	NA	NA	NA	NA	NA
Sapindus saponaria (無患子(木患子))	Seedling or whip	8-9	Y	Guang Dong	7 days-6 months	100	F, W

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Sapium discolor (山烏桕)	Seedling or whip	3-9	Y	Guang Zhou	7 days-6 months	100	F, W
	light standard	85	Y	Guang Zhou	3 months	NA	NA
	standard	185	Y	Guang Zhou	3 months	NA	NA
Sapium sebiferum (烏桕)	Seedling or whip	3-9	Y	Guang Zhou	7 days-6 months	100	F, W
	light standard	85	Y	Guang Zhou	3 months	NA	NA
	standard	185	Y	Guang Zhou	3 months	NA	NA
Sarcandra glabra (草珊瑚)	shrub	5	Y	NA	10 days	100	NA
Schefflera heptaphylla (鵝掌柴(鴨腳木))	Seedling or whip	5-8	Y	Guang Dong	7 days-6 months	100	F, W
	shrub	4	Y	NA	10 days	100	NA
	300-600 mm	9-15	Y	Guang Zhou	3 months	NA	NA
	light standard	Note (6)	NA	NA	NA	NA	NA
	standard	Note (6)	NA	NA	NA	NA	NA
Schima superba (木荷(荷樹))	Seedling or whip	5-12	Y	Guang Zhou	7 days-6 months	100	F, W
	light standard	95	Y	Guang Zhou	3 months	NA	NA
	heavy standard	Note (6)	NA	NA	NA	NA	NA
Scolopia chinensis (刺柊)	NA	NA	NA	NA	NA	NA	NA
Selaginella uncinata (翠雲草)	NA	NA	NA	NA	NA	NA	NA
Sterculia lanceolata (假蘋婆)	Seedling or whip	4-12	Y	Guang Zhou	7 days-6 months	100	F, W
	light standard	95	Y	Guang Zhou	3 months	NA	NA
	standard	195	Y	Guang Zhou	3 months	NA	NA
Strophanthus divaricatus (羊角拗)	NA	NA	NA	NA	NA	NA	NA
Symplocos glauca (羊舌樹)	NA	NA	NA	NA	NA	NA	NA
Syzygium cumini (海南蒲桃)	Seedling or whip	5-8	Y	Guang Dong	10-14 days	100	F, W
	light standard	85	Y	Guang Zhou	3 months	NA	NA
	standard	185	Y	Guang Zhou	3 months	NA	NA
	heavy standard	350	Y	Guang Zhou	3 months	NA	NA

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Syzygium hancei (韓氏蒲桃)	Seedling or whip	5	Y	Guang Dong	10 days	100	NA
Syzygium jambos (蒲桃)	Seedling or whip	5-8	Y	Guang Dong	10-14 days	100	F, W
	light standard	95	Y	Guang Zhou	3 months	NA	NA
	standard	195	Y	Guang Zhou	3 months	NA	NA
	heavy standard	380	Y	Guang Zhou	3 months	NA	NA
Ternstroemia gymnanthera (厚皮香)	Seedling or whip	5-10	Y	Guang Dong	10 days	100	NA
Tetracera asiatica (錫葉藤)	NA	NA	NA	NA	NA	NA	NA
Trema tomentosa (山黃麻)	NA	NA	NA	NA	NA	NA	NA
Tutcheria championii (石筆木)	Seedling or whip	8	Y	NA	14 days	300	F, W
Viburnum odoratissimum (珊瑚樹)	Seedling or whip	10	Y	Guang Dong	NA	NA	NA
Washingtonia robusta (華盛頓葵)	Seedling or whip	85	Y	Guang Dong	NA	NA	NA
	light standard	300	Y	NA	14 days	100	F, W
	per tree(1000 mm heavy)	500	Y	NA	10 days	10	NA
	standard	350	Y	Guang Zhou	3 months	NA	NA
	heavy standard	850	Y	Guang Zhou	3 months	NA	NA
Wedelia trilobata (三裂葉蟛蜞菊)	Seedling or whip	2	Y	Guang Dong	NA	NA	NA
	300 mm	6	Y	Guang Zhou	3 months	NA	NA
	ground cover	1.5	Y	NA	10 days	100	NA
Zanthoxylum avicennae (簕欓花椒(簕欓))	NA	NA	NA	NA	NA	NA	NA
Zoysia matrella (溝葉結縷草)	turf(/m^2)	12-25	Y	Guang Zhou	10 days-3 months	100	NA
Zoysia sinica (中華結縷草)	turf(/m^2)	12-25	Y	Guang Zhou	10 days-3 months	100	NA

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Zoysia tenuifolia (細葉結縷草)	turf(/m^2)	12-25	Y	Guang Zhou	10 days-3 months	100	NA

Notes:
(1) All information was provided by the landscape contractors up to 16 July 2004. No interpretation has been made.
(2) Refer to Appendix D for the data of the collected information.
(3) Capital cost of plant material supply is presented as the range of costs provided by the contractors.
(4) Ordering time is presented as the range of time periods provided by the contractors.
(5) The minimum order provided among the respondents is presented.
(6) Toyo Greenland Company Limited stated an availability, but did not supply information on the cost of the vegetation species (Appendix D).
(7) F denotes fertilitizing and W denotes watering.

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Table 8 - Selection Criteria Factors for the Site Trials

Factors	Consideration
Slope Gradient Note (1)	Factor A in Parts 1 and 2 of the Site Trials Note (2)
Appropriate Shading on Slope Note (1)	Factor B in Parts 1 and 2 of the Site Trials Note (2)
Exposure to Traffic Note (1)	Factor C in Parts 1 and 2 of the Site Trials Note (2)
Deep Shade	Factor for Part 3 of the Site Trials
Wind	Condition included in Factor B of Part 1 of the Site Trials
Light	Condition included in Factor B of Part 1 of the Site Trials
Pollution	Condition included in Factor C of Part 1 of the Site Trials
Geology	Use of geological name has not been used as a factor because of the variation of geochemical composition of Hong Kong Rock is predomiantly insignificant. Furthermore, geological name (such as granite / volcanic) is generic and do not reflect the variability of soil textures and geochemical composition of the various soil types.
Soil Conditions	The soil factors affection vegetation include soil texture, nutrient and water content. Loose sandy soil is typically more favourable than the compacted or clayey soil for vegetation growth. This factor is not considered because the variation of soil conditions of selected site is not significant.
Notes: (1) Refer to Figure 1 for details. (2) Part 1 of the site trials aims to test the performance of various vegetation species under different environmental conditions using pit-planting of container-grown seedling method, whilst Part 2 focuses on testing various less commonly used landcaping methods on man-made slopes.	

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Table 9 - Plant Species Recommended for Part 1 of the Site Trials [1] (Sheet 1 of 2)

Species	Chinese Name	Growth Form [2]
Species selected for part 1 site trial		
Cyclobalanopsis championii	嶺南青岡	Small tree
Diplospora dubia	狗骨柴	Shrub or small tree
Garcinia oblongifolia	嶺南山竹子	Small tree
Gardenia jasminoides	梔子(水橫枝)	Shrub
Ilex viridis	綠冬青(亮葉冬青)	Small tree
Reevesia thyrsoidea	梭羅樹	Small tree
Phyllanthus emblica	餘甘子(油甘子)	Shrub or small tree
Rhus succedanea	木蠟樹(野漆樹)	Shrub or small tree
Ternstroemia gymnanthera	厚皮香	Small tree
Rhodomyrtus tomentosa [3]	桃金孃(崗棯)	Shrub
Species not selected for part 1 site trial due to unavailability of seedlings		
Antirhea chinensis	毛茶	Shrub or small tree
Aporusa dioica	銀柴	Small tree
Boehmeria penduliflora var. *loochooensis*	密花苧麻	Shrub
Bridelia tomentosa	土密樹	Shrub or small tree
Broussonetia papyrifera	構樹	Small tree
Camellia caudate	長尾毛蕊茶(尾葉茶)	Small tree
Camellia oleifera	油茶	Small tree
Camellia salicifolia	柳葉茶	Small tree
Cratoxylum cochinchinense	黃牛木	Shrub or small tree
Cyclobalanopsis myrsinifolia	小葉青岡	Small tree
Elaeocarpus chinensis	中華杜英	Small tree
Enkianthus quinqueflorus	吊鐘花	Shrub
Eurya nitida	細齒葉柃	Shrub or small tree
Ficus hispida	對葉榕	Shrub or small tree
Ficus variolosa	變葉榕	Shrub or small tree

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Table 9 - Plant Species Recommended for Part 1 of the Site Trials [1] (Sheet 2 of 2)

Species	Chinese name	Growth Form [2]
Species not selected for part 1 site trial due to unavailability of seedlings (con't)		
Glochidion lanceolarium	艾膠算盤子	Shrub or small tree
Ilex asprella	梅葉冬青	shrub
Ilex cinerea	灰冬青	Shrub or small tree
Itea chinensis	老鼠刺	Shrub or small tree
Litsea cubeba	木薑子	Shrub or small tree
Ormosia emarginata	凹葉紅豆	Small tree
Pyrus calleryana	豆梨	Small tree
Rhododendron simsii	紅杜鵑	Shrub
Sapium discolor	山烏桕	Small tree

Notes: (1) Refer to Figure 2 and Appendix E for the selection criteria of the plant species for site trials.
(2) Small tree refers to tree with normal height of around 3 m in the wild.
(3) *Rhodomyrtus tomentosa* is known to grow well on man-made slopes and is included as control.

Table 10 - Mean Percentage Seedling Survival in Part 1 of the Site Trials (Sheet 1 of 3)

a. One month after planting

Species[1]	Chinese Name	Growth Form[2]	12SW-A/C129 (Least Favourable Site)				11NE-B/C824 (Moderate Site)				10NE-B/C77 (Favourable Site)			
			Plot 1	Plot 2	Plot 3	Mean %	Plot 1	Plot 2	Plot 3	Mean %	Plot 1	Plot 2	Plot 3	Mean %
Reevesia thyrsoidea	梭羅樹	Small tree	16	16	9	68.3	20	20	19	98.3	19	19	20	96.7
Rhodomyrtus tomentosa [3]	桃金孃(崗棯)	Shrub	20	17	13	83.3	19	20	20	98.3	20	20	20	100.0
Cyclobalanopsis championii	嶺南青岡	Small tree	19	18	15	86.7	20	19	20	98.3	19	20	18	95.0
Diplospora dubia	狗骨柴	Shrub or small tree	20	20	17	95.0	20	20	20	100.0	19	20	18	95.0
Gardenia jasminoides	梔子(水橫枝)	Shrub	18	17	9	73.3	18	19	20	95.0	19	20	15	90.0
Garcinia oblongifolia	嶺南山竹子	Small tree	20	16	15	85.0	20	19	20	98.3	19	20	20	98.3
Ilex viridis	綠冬青(亮葉冬青)	Small tree	19	14	12	75.0	20	19	18	95.0	20	20	16	93.3
Phyllanthus emblica	餘甘子(油甘子)	Shrub or small tree	20	19	19	96.7	20	20	20	100.0	17	12	17	76.7
Rhus succedanea	木蠟樹(野漆樹)	Shrub or small tree	20	18	8	76.7	15	19	20	90.0	11	14	10	58.3
Ternstroemia gymnanthera	厚皮香	Small tree	15	13	16	73.3	19	18	17	90.0	12	14	12	63.3
		Mean %	**93.5**	**84.0**	**66.5**	**81.3**	**95.5**	**96.5**	**97.0**	**96.3**	**87.5**	**89.5**	**83.0**	**86.7**
		s.d.	**9.1**	**10.7**	**18.7**	**9.6**	**8.0**	**3.4**	**5.4**	**3.8**	**16.4**	**16.1**	**17.2**	**15.1**

b. One year after planting

Species[1]	Chinese Name	Growth Form[2]	12SW-A/C129 (Least Favourable Site)					11NE-B/C824 (Moderate Site)					10NE-B/C77 (Favourable Site)				
			Plot 1	Plot 2	Plot 3	Mean %	s.d.	Plot 1	Plot 2	Plot 3	Mean %	s.d.	Plot 1	Plot 2	Plot 3	Mean %	s.d.
Reevesia thyrsoidea	梭羅樹	Small tree	11	15	6	53.3	22.5	19	20	18	95.0	5.0	19	17	20	95.0	8.7
Rhodomyrtus tomentosa (3)	桃金孃(崗棯)	Shrub	21	16	8	73.3	30.6	20	21	20	100.0	0.0	20	12	19	86.1	20.0
Cyclobalanopsis championii	嶺南青岡	Small tree	19	8	2	45.6	41.0	21	20	20	100.0	0.0	20	18	19	93.6	7.2
Diplospora dubia	狗骨柴	Shrub or small tree	14	15	3	53.3	33.3	20	18	14	88.2	16.0	20	11	13	73.3	23.6
Gardenia jasminoides	梔子(水橫枝)	Shrub	11	7	1	32.6	26.5	18	11	14	72.9	23.9	21	9	14	71.0	28.6
Garcinia oblongifolia	嶺南山竹子	Small tree	12	8	1	35.0	27.8	20	19	17	94.8	5.3	20	15	19	92.8	8.6
Ilex viridis	綠冬青(亮葉冬青)	Small tree	11	2	1	23.3	27.5	18	19	19	100.0	0.0	20	7	20	78.3	37.5
Phyllanthus emblica	餘甘子(油甘子)	Shrub or small tree	17	12	10	64.7	15.5	18	18	16	90.0	10.0	20	19	20	98.3	2.9
Rhus succedanea	木蠟樹(野漆樹)	Shrub or small tree	16	16	4	61.4	35.9	21	16	18	90.0	10.0	20	14	19	88.3	16.1
Ternstroemia gymnanthera	厚皮香	Small tree	12	7	1	33.3	27.5	19	18	14	85.2	15.0	20	10	17	78.3	25.7
		Mean %	**72.0**	**53.0**	**18.5**	**47.6**	**28.8**	**97.0**	**90.0**	**85.0**	**91.6**	**8.5**	**100.0**	**66.0**	**90.0**	**85.5**	**17.9**
		s.d.	**18.3**	**24.3**	**16.3**			**5.9**	**14.1**	**12.0**			**2.4**	**20.2**	**12.7**		

Notes:
(1) Refer to Figure 2 and Appendix E for the selection criteria of the plant species for site trials.
(2) Small tree refers to tree with normal height of around 3 m in the wild.
(3) Rhodomyrtus tomentosa is known to grow well on man-made slopes but are included as controls.
(4) Replacement planting of the same species was carried out following monitoring No. 1.
(5) 20 seedlings of each species were planted at each plot at each site.
(6) Replacement planting was carried out about a month for any dead plants after planting.

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Table 10 - Mean Percentage Seedling Survival in Part 1 of the Site Trials (Sheet 2 of 3)

c. ANOVA results and multiple comparisons of 1 year seedling survival between sites

ANOVA

Source	Type I			Type III		
	Wald Chi-Square	df	Sig. (*p*-value)	Wald Chi-Square	df	Sig. (*p*-value)
Slope	163.837	2	0.000	163.837	2	0.000

Multiple comparison (Bonferroni-Dunn Test)

(I) Slope No.	(J) Slope No.	Mean Difference (I-J)	Std. Error	Sig. (*p*-value)	95% Confidence Interval	
					Upper Bound	Lower Bound
1	2	-35.5212250(*)	4.4817788	0.000	-46.46192	-24.58053
	3	-30.4481240(*)	4.4817788	0.000	-41.388819	-19.507429
2	1	35.5212250(*)	4.4817788	0.000	24.58053	46.46192
	3	5.073101	4.4817788	0.782	-5.867594	16.013796
3	1	30.4481240(*)	4.4817788	0.000	19.507429	41.388819
	2	-5.073101	4.4817788	0.782	-16.013796	5.867594

Notes: Slope No. 1 = 12SW-A/C129 (Least Favourable Site).
Slope No. 2 = 11NE-B/C824 (Moderate Site).
Slope No. 3 = 10NE-B/C77 (Favourable Site).

Table 10 - Mean Percentage Seedling Survival in Part 1 of the Site Trials (Sheet 3 of 3)

d. ANOVA results and multiple comparisons of 1 year seedling survival within site

Feature No. 10NE-B/C77 (Favourable Site)

Source	Type III		
	Wald Chi-Square	df	Sig. (*p*-value)
Species	1.177	9	0.999
Block	5.444	1	0.020

Multiple comparison (Bonferroni-Dunn Test): Plot 1> Plot 3 > Plot 2

(I) Plot No.	(J) Plot No.	Mean Difference (I-J)	Std. Error	Sig. (*p*-value)	95% Confidence Interval	
					Upper Bound	Lower Bound
1	2	34.2559250(*)	4.8354398	0.000	21.913664	46.598186
	3	14.3953027(*)	4.8354398	0.018	2.053042	26.737563
2	1	-34.2559250(*)	4.8354398	0.000	-46.598186	-21.913664
	3	-19.8606224(*)	4.8354398	0.001	-32.202883	-7.518362
3	1	-14.3953027(*)	4.8354398	0.018	-26.737563	-2.053042
	2	19.8606224(*)	4.8354398	0.001	7.518362	32.202883

Feature No. 11NE-B/C824 (Moderate Site)

Source	Type III		
	Wald Chi-Square	df	Sig. (*p*-value)
Species	8.24	9	0.510
Block	56.839	1	0.000

Multiple comparison (Bonferroni-Dunn Test): Plot 1 > Plot 3; Plot 1 = Plot 2; Plot 2 = Plot 3

(I) Plot No.	(J) Plot No.	Mean Difference (I-J)	Std. Error	Sig. (*p*-value)	95% Confidence Interval	
					Upper Bound	Lower Bound
1	2	12.2601217	5.3336275	0.088	-1.353743	25.873986
	3	17.2954983(*)	5.3336275	0.009	3.681634	30.909363
2	1	-12.2601217	5.3336275	0.088	-25.873986	1.353743
	3	5.0353766	5.3336275	1.000	-8.578488	18.649241
3	1	-17.2954983(*)	5.3336275	0.009	-30.909363	-3.681634
	2	-5.0353766	5.3336275	1.000	-18.649241	8.578488

Feature No. 12SW-A/C129 (Least Favourable Site)

Source	Type III		
	Wald Chi-Square	df	Sig. (*p*-value)
Species	31.206	9	0.000
Block	182.231	1	0.000

Multiple comparison (Bonferroni-Dunn Test): Plot 1 > Plot 3; Plot 2 > Plot 3; Plot 1 = Plot 2

(I) Plot No.	(J) Plot No.	Mean Difference (I-J)	Std. Error	Sig. (*p*-value)	95% Confidence Interval	
					Upper Bound	Lower Bound
1	2	12.3244986	6.187398	0.170	-3.46858	28.117577
	3	35.6279130(*)	6.187398	0.000	19.834835	51.420991
2	1	-12.3244986	6.187398	0.170	-28.117577	3.46858
	3	23.3034144(*)	6.187398	0.002	7.510336	39.096493
3	1	-35.6279130(*)	6.187398	0.000	-51.420991	-19.834835
	2	-23.3034144(*)	6.187398	0.002	-39.096493	-7.510336

Notes: Slope No. 1 = 12SW-A/C129 (Least Favourable Site).
Slope No. 2 = 11NE-B/C824 (Moderate Site).
Slope No. 2 = 11NE-B/C824 (Moderate Site).

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Table 11 - Dates of Planting and Post-planting Inspections of Site Trials

Dates / Slope	12SW-A/C129	11NE-B/C824	10NE-B/C77	11NE-B/C380	Control Set-up in HKU*
Part 1					
First day of planting	14 Nov 2005	23 Sep 2005	18 Nov 2005	NA	NA
Date of first inspection	20 Nov 2005	10 & 14 Oct 2005	17 Dec 2005	NA	NA
Date of replacement plantig	27 Dec 2005	28 Oct & 4 Nov 2005	17 Mar 2006	NA	NA
Date of second inspection	12 May 2006	12 May 2006	19 May 2006	NA	NA
Date of third inspection	30 Sept 2006	30 Sept 2006	30 Sept 2006	NA	NA
Date of forth inspection	27 Dec 2006	27 Dec 2006	27 Dec 2006	NA	NA
Part 2a-Hydroseeding					
Planting dates	22 & 23 Mar 2006	30 & 31 Mar 2006	6 Apr 2006	NA	4 & 10 Apr 2006
Date of first inspection	12 May 2006	12 May 2006	19 May 2006	NA	NA
Date of second inspection	26 Jun 2006	26 Jun 2006	26 Jun 2006	NA	NA
Date of third inspection	14 Aug 2006	14 Aug 2006	14 Aug 2006	NA	NA
Date of forth inspection	30 Sept 2006	30 Sept 2006	30 Sept 2006	NA	NA
Date of fifth inspection	30 Oct 2006	30 Oct 2006	30 Oct 2006	NA	NA
Date of sixth inspection	29 Nov 2006	29 Nov 2006	29 Nov 2006	NA	NA
Date of seventh inspection	27 Dec 2006	27 Dec 2006	27 Dec 2006	NA	NA
Part 2b-Spot sowing					
Planting dates	22 & 23 Mar 2006	30 & 31 Mar 2006	6 Apr 2006	NA	4 & 10 Apr 2006
Date of first inspection	12 May 2006	12 May 2006	19 May 2006	NA	NA
Date of second inspection	26 Jun 2006	26 Jun 2006	26 Jun 2006	NA	NA
Date of third inspection	14 Aug 2006	14 Aug 2006	14 Aug 2006	NA	NA
Date of forth inspection	30 Sept 2006	30 Sept 2006	30 Sept 2006	NA	NA
Date of fifth inspection	30 Oct 2006	30 Oct 2006	30 Oct 2006	NA	NA
Date of sixth inspection	29 Nov 2006	29 Nov 2006	29 Nov 2006	NA	NA
Date of seventh inspection	27 Dec 2006	27 Dec 2006	27 Dec 2006	NA	NA
Part 2c-Stem cutting					
Planting dates	15 & 16 Mar 2006	24 & 25 Mar 2006	31 Mar & 1 Apr 2006	NA	8 & 9 Apr 2006
Date of first inspection	12 May 2006	12 May 2006	19 May 2006	NA	NA
Date of second inspection	26 Jun 2006	26 Jun 2006	26 Jun 2006	NA	NA
Date of third inspection	14 Aug 2006	14 Aug 2006	14 Aug 2006	NA	NA
Date of forth inspection	30 Sept 2006	30 Sept 2006	30 Sept 2006	NA	NA
Date of fifth inspection	30 Oct 2006	30 Oct 2006	30 Oct 2006	NA	NA
Date of sixth inspection	29 Nov 2006	29 Nov 2006	29 Nov 2006	NA	NA
Date of seventh inspection	27 Dec 2006	27 Dec 2006	27 Dec 2006	NA	NA
Part 3-Sodding / Pit-planting					
Planting dates	NA	NA	NA	21 Apr 2006	NA
Date of first inspection	NA	NA	NA	31 May 2006	NA
Date of second inspection	NA	NA	NA	26 Jun 2006	NA
Date of third inspection	NA	NA	NA	14 Aug 2006	NA
Date of forth inspection	NA	NA	NA	30 Sept 2006	NA
Date of fifth inspection	NA	NA	NA	30 Oct 2006	NA
Date of sixth inspection	NA	NA	NA	29 Nov 2006	NA
Date of seventh inspection	NA	NA	NA	27 Dec 2006	NA

Note: * The controls were checked weekly for 3 months and therefore the dates of inspection were not stated.

Table 12 - Species Recommended for Hydroseeding and Spot-sowing for Part 2 of the Site Trials

Species	Chinese Name	Germination Rate [Note]	Hydro-seeding	Spot-sowing
Species selected for part 2 hydroseeding site trial:				
Bridelia tomentosa	土蜜樹	88%	✓	x
Psychotria asiatica	九節	83%	✓	x
Rhus succedanea	野漆	93%	✓	x
Species selected for part 2 spot-sowing site trial:				
Cyclobalanopsis myrsinifolia	小葉青岡	50%	x	✓
Ormosia emarginata	凹葉紅豆	96%	x	✓
Reevesia thyrsoidea	梭羅樹	40-99%	x	✓
Species not selected for part 2 direct-seeding site trial due to unavailability of sufficient seeds:				
Ficus variolosa	變葉榕	> 76%	✓	x
Garcinia oblongifolia	嶺南山竹子	> 66%	x	✓
Pyrus calleryana	豆梨	78%	✓	x
Rhaphiolepis indica	車輪梅	100%	✓	x
Rhodomyrtus tomentosa	桃金孃(崗棯)	44-57%	✓	x
Schefflera heptaphylla	鵝掌柴	93%	✓	x

Note: Germination rate is based on germination test conducted in a local nursery (unpublished data) or according to 中國樹林誌編委會, 1981 and 陳存及、陳伙法, 2000.

Table 13 - Summary of the Selected Species for Part 2 of the Site Trials

Species / Quantity		10NE-B/C77	11NE-B/C824	12SW-A/C129
Direct Seeding - Hydroseeding				
Species	Chinese Name	Shrub Seeds Mixed in Hydroseeding Mix (per plot)		
Bridelia tomentosa	土蜜樹	50g/m^2 x 3	50g/m^2 x 3	50g/m^2 x 3
Psychotria asiatica	九節	50g/m^2 x 3	50g/m^2 x 3	50g/m^2 x 3
Rhus succedanea	野漆樹	50g/m^2 x 3	50g/m^2 x 3	50g/m^2 x 3
Direct Seeding - Spot-sowing				
Species	Chinese Name	No. of Seeds Planted (per plot)		
Cyclobalanopsis myrsinifolia	小葉青岡	20 nos.	20 nos.	20 nos.
Ormosia emarginata	凹葉紅豆	20 nos.	20 nos.	20 nos.
Reevesia thyrsoidea	梭羅樹	20 nos.	20 nos.	20 nos.
Stem-cutting				
Species	Chinese Name	No. of Cut Stems Planted (per plot)		
Gardenia jasminoides	梔子	20 nos.	20 nos.	20 nos.
Phyllanthus emblica	餘甘子 (油甘子)	20 nos.	20 nos.	20 nos.
Rhodomyrtus tomentosa	桃金孃	20 nos.	20 nos.	20 nos.
Schefflera heptaphylla	鵝掌柴	20 nos.	20 nos.	20 nos.

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Table 14 - Results of the Part 2a - Hydroseeding Site Trial

a. Overall mean number of germinated seedlings per square meter (i.e. a sub-plot) remaining alive at the end of the monitoring period and the germination rate of the controls

Slope		12SW-A/C129 (Least Favourable Site)		11NE-B/C824 (Moderate Site)		10NE-B/C77 (Favourable Site)		% Germination in Control
Species	Chinese Name	Mean	s.d.	Mean	s.d.	Mean	s.d.	
Bridelia tomentosa	土蜜樹	0	0	5	4.3	2	1.6	4
Psychotria asiatica	九節	6	13.9	20	14.8	26	17.7	24
Rhus succedanea	野漆樹	0	0	14	2.2	2	1.3	80

b. Mean No. of live germinated seedlings per square meter at 12SW-A/C129 (Least Favourable Site) over the monitoring period

Species	Chinese Name	May	June	Aug	Sept	Oct	Nov	Dec
Bridelia tomentosa	土蜜樹	0	0	0	0	0	0	0
Psychotria asiatica	九節	1	3	1	2	6	7	6
Rhus succedanea	野漆樹	0	0	0	0	0	0	0

c. Mean No. of live germinated seedlings per square meter at 11NE-B/C824 (Moderate Site) over the monitoring period

Species	Chinese Name	May	June	Aug	Sept	Oct	Nov	Dec
Bridelia tomentosa	土蜜樹	12	8	6	8	6	5	5
Psychotria asiatica	九節	0	42	42	74	34	22	20
Rhus succedanea	野漆樹	10	25	25	23	17	21	14

d. Mean No. of live germinated seedlings per square meter at 10NE-B/C77 (Favourable Site) over the monitoring period

Species	Chinese Name	May	June	Aug	Sept	Oct	Nov	Dec
Bridelia tomentosa	土蜜樹	5	6	7	6	6	1	2
Psychotria asiatica	九節	6	8	57	74	52	41	26
Rhus succedanea	野漆樹	16	31	35	29	11	3	2

Table 15 - Results of the Part 2b - Spot-sowing Site Trial

a. Overall mean number of germinated seedlings per plot remaining alive at the end of the monitoring period

Slope		12SW-A/C129 (Least Favourable Site)		11NE-B/C824 (Moderate Site)		10NE-B/C77 (Favourable Site)	
Species	Chinese Name	Mean	s.d.	Mean	s.d.	Mean	s.d.
Cyclobalanopsis myrsinifolia	小葉青岡	4.3	2.9	5.0	2.6	4.7	3.1
Ormosia emarginata	凹葉紅豆	0.7	1.2	2.7	1.2	1.0	1.0
Reevesia thyrsoidea	梭羅樹	0.0	0.0	0.3	0.6	0.3	0.6

b. Overall mean percentage number of germinated seedlings per plot remaining alive at the end of the monitoring period and the germination rate in the controls

Slope		12SW-A/C129 (Least Favourable Site)		11NE-B/C824 (Moderate Site)		10NE-B/C77 (Favourable Site)		% Germination in Control
Species	Chinese Name	Mean (%)	s.d.	Mean (%)	s.d.	Mean (%)	s.d.	
Cyclobalanopsis myrsinifolia	小葉青岡	21.7	14.4	25.0	13.2	23.3	15.3	12
Ormosia emarginata	凹葉紅豆	3.3	5.8	13.3	5.8	5.0	5.0	60
Reevesia thyrsoidea	梭羅樹	0.0	0.0	1.7	2.9	1.7	2.9	40

c. Mean No. of live germinated seedlings per plot at 12SW-A/C129 (Least Favourable Site) over the monitoring period

Species	Chinese Name	May-06	Jun-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06
Cyclobalanopsis myrsinifolia	小葉青岡	1.3	6.0	4.7	5.0	4.7	5.0	4.3
Ormosia emarginata	凹葉紅豆	0.0	0.3	0.3	0.3	0.3	1.3	0.7
Reevesia thyrsoidea	梭羅樹	0.3	0.0	0.0	0.0	0.3	0.0	0.0

d. Mean No. of live germinated seedlings per plot at 11NE-B/C824 (Moderate Site) over the monitoring period

Species	Chinese Name	May-06	Jun-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06
Cyclobalanopsis myrsinifolia	小葉青岡	0.7	1.7	3.0	3.3	4.3	4.0	5.0
Ormosia emarginata	凹葉紅豆	0.0	0.0	0.3	2.0	2.0	1.7	2.7
Reevesia thyrsoidea	梭羅樹	0.0	0.0	0.0	0.3	0.0	0.3	0.3

e. Mean No. of live germinated seedlings per plot at 10NE-B/C77 (Favourable Site) over the monitoring period

Species	Chinese Name	May-06	Jun-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06
Cyclobalanopsis myrsinifolia	小葉青岡	5.0	11.7	11.3	9.3	6.7	4.7	4.7
Ormosia emarginata	凹葉紅豆	0.0	0.7	0.3	0.7	1.3	0.7	1.0
Reevesia thyrsoidea	梭羅樹	0.0	0.0	0.3	0.3	0.3	0.3	0.3

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Table 16 - Species Recommended for Part 2c - Stem-cutting Site Trial

Species	Chinese Name	Post-fire Survival (%) Note (1)
Species selected for part 2 stem-cutting site trial:		
Gardenia jasminoides	梔子	96
Phyllanthus emblica Note (2)	餘甘子(油甘子)	NA
Rhodomyrtus tomentosa Note (2)	桃金娘	NA
Schefflera heptaphylla	鵝掌柴	96
Species not selected for part 2 stem-cutting site trial due to unavailability of sufficient cut stems:		
Aporusa dioica	銀柴	96
Bridelia tomentosa	土蜜樹	72
Cyclobalanopsis myrsinifolia	小葉青岡	92
Gordonia axillaris	大頭茶	82
Litsea cubeba	木薑子	77
Rhaphiolepis indica	車輪梅	76
Reevesia thyrsoidea	梭欒樹	88

Notes: (1) Post-fire survival is based on Hill *et al*. (2002).
(2) Known to re-sprout well from fire but was not tested by Hill *et al.* (2002).

Table 17 - Results of the Part 2c - Stem-cutting Site Trial

Mean number of live germinated stems by the end of the monitoring period (Total planted per species per plot in the filed = 20)

Slope	12SW-A/C129 (Least Favourable Site)		11NE-B/C824 (Moderate Site)		10NE-B/C77 (Favourable Site)		No. of Live Germinated Stems in Control (N=60)
Species	Mean	s.d.	Mean	s.d.	Mean	s.d.	
Rhodomyrtus tomentosa	1.0	1.7	0.3	0.6	4.3	1.5	0
Gardenia jasminoides	0.0	0.0	0.0	0.0	0.0	0.0	1
Phyllanthus emblica	0.7	0.6	0.0	0.0	0.3	0.6	0
Schefflera heptaphylla	0.0	0.0	1.7	2.9	0.6	2.6	0

Table 18 - Species Recommended for Part 3 of the Site Trials

Scientific Name	Chinese Name
Fern Species:	
**Blechnum orientale*	烏毛蕨
**Cyclosorus parasiticus*	華南毛蕨
**Dicranopteris pedata*	芒萁
**Lygodium japonicum*	海金沙
Nephrolepis auriculata	腎蕨
**Nephrolepis hirsutula*	毛葉腎蕨
**Pteris vittata*	蜈蚣草
**Pteris semipinnata*	半邊旗
**Pityrogramma calomelanos*	粉葉蕨
**Selaginella uncinata*	翠雲草
Herbs:	
Alocasia odora (*macrorrhizos*)	海芋
**Axonopus affinis*	地毯草
Epipremnum aureum	綠蘿
**Eremochloa ciliaris*	蜈蚣草
**Eremochloa ophiuroides*	假儉草
**Hedera helix*	洋常春藤
**Melastoma dodecandrum*	地茶
**Philodendron cordatum*	心葉喜樹蕉
**Zoysia matrella*	溝葉結縷草
**Zoysia sinica*	中華結縷草
**Zoysia tenuifolia*	細葉結縷草
*Note: Species are not tested under this Assignment due to insufficient availability.	

Table 19 - Summary of the Selected Species for Part 3 of the Site Trials

Species	Chinese Name	Type	Area of Planting	Approx. No. Needed
Nephrolepis auriculata	腎蕨	Fern	$9m^2$	1512
Alocasia odora (*macrorrhizos*)	海芋	Herb	$9m^2$	1188
Epipremnum aureum	綠蘿	Herb	$9m^2$	1512

Table 20 - Results of Part 3 of the Site Trials

a. Mean percentage coverage per plot over the monitoring period

Monitoring date		21-May-06		26-Jun-06		14-Aug-06		30-Sep-06		30-Oct-06		29-Nov-06		27-Dec-06	
Species	Chinese Name	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.
Alocasia odora	海芋	90.0%	30.0%	85.7%	33.3%	82.9%	32.2%	85.0%	32.8%	86.7%	32.8%	65.0%	37.4%	61.7%	35.2%
Epipremnum aureum	綠蘿	47.8%	36.6%	21.7%	36.9%	22.4%	32.8%	18.4%	32.0%	16.4%	32.8%	23.9%	35.0%	12.2%	29.2%
Nephrolepis auriculata	腎蕨	87.2%	10.0%	60.2%	34.2%	50.7%	34.4%	53.4%	45.7%	44.4%	37.3%	48.3%	41.4%	48.7%	37.9%

b. Percentage cover at each plot over the monitoring period

Plot	Sub-plot	Species	Monitoring Date						
			21-May-06	26-Jun-06	14-Aug-06	30-Sep-06	30-Oct-06	29-Nov-06	27-Dec-06
1	1	*A. odora*	100%	100%	100%	100%	100%	100%	50%
1	2	*A. odora*	100%	100%	100%	100%	100%	100%	50%
1	3	*A. odora*	100%	100%	90%	100%	90%	10%	80%
2	1	*A. odora*	100%	100%	100%	100%	100%	90%	90%
2	2	*A. odora*	100%	100%	80%	100%	100%	90%	90%
2	3	*A. odora*	10%	1%	1%	5%	0%	5%	5%
3	1	*A. odora*	100%	70%	75%	60%	90%	40%	100%
3	2	*A. odora*	100%	100%	100%	100%	100%	70%	80%
3	3	*A. odora*	100%	100%	100%	100%	100%	80%	10%
1	1	*E. aureum*	5%	1%	1%	2%	1%	3%	5%
1	2	*E. aureum*	10%	2%	5%	1%	1%	3%	5%
1	3	*E. aureum*	10%	0%	5%	1%	0%	1%	1%
2	1	*E. aureum*	70%	1%	10%	2%	2%	90%	1%
2	2	*E. aureum*	70%	10%	10%	10%	3%	10%	5%
2	3	*E. aureum*	100%	100%	100%	100%	100%	80%	90%
3	1	*E. aureum*	90%	70%	50%	30%	30%	15%	1%
3	2	*E. aureum*	50%	10%	20%	15%	10%	10%	1%
3	3	*E. aureum*	25%	1%	1%	5%	1%	3%	1%
1	1	*N. auriculata*	80%	30%	1%	0%	0%	0%	50%
1	2	*N. auriculata*	80%	80%	50%	75%	75%	90%	80%
1	3	*N. auriculata*	95%	90%	75%	80%	75%	70%	60%
2	1	*N. auriculata*	80%	2%	20%	1%	0%	0%	1%
2	2	*N. auriculata*	70%	20%	80%	5%	5%	0%	1%
2	3	*N. auriculata*	90%	80%	80%	100%	90%	100%	95%
3	1	*N. auriculata*	95%	100%	100%	100%	50%	30%	1%
3	2	*N. auriculata*	95%	70%	25%	100%	80%	85%	80%
3	3	*N. auriculata*	100%	70%	25%	20%	25%	60%	70%

LIST OF FIGURES

Classification of Favourable, Moderate and Least Favourable Site Conditions[1]

U_{ABC}		*Appropriate Shading on the Slope Surface (Factor B)* [3]			
		Yes - 1		No - 2	
		Exposure to Road Traffic (Factor C) [4]			
		No - 1	Yes 2	No - 1	Yes - 2
Slope Gradient (Factor A) [2]	Gentle - 1 ($\leq 45^o$)	Favourable (U_{111})	Moderate (U_{112})	Moderate (U_{121})	Moderate (U_{122})
	Steep - 2 ($> 45^o$)	Moderate (U_{211})	Moderate (U_{212})	Moderate (U_{221})	Least Favourable (U_{222})

Notes:

(1) U111 denotes the best site condition from the 8 combinations for plant establishment and U_{222} denotes the least favourable condition. Any other combinations of the three factors are classified as moderate condition.

(2) For Factor A, to compare the performance of vegetation species at different slope gradient, the selected sites should ideally be much smaller than 45^o for gentle slope and much larger than 45^o for steep slope in order to show the difference in slope gradient.

(3) Factor B denotes site with appropriate shading on the slope surface. For example, some shading in the summer afternoon for a couple of hours to avoid heat stress to the plants. This factor can be determined quantitvely by % PAR. This factor also reflects the parameter of exposure to wind.

(4) Factor C indicates the effect of wind turbulance from road traffic. Transport Department's AADT data can be used to indicate traffic flow. The parameter of pollution can also be reflected from this factor.

Figure 1 - Site Conditions Classifications for Parts 1 and 2 of the Site Trials

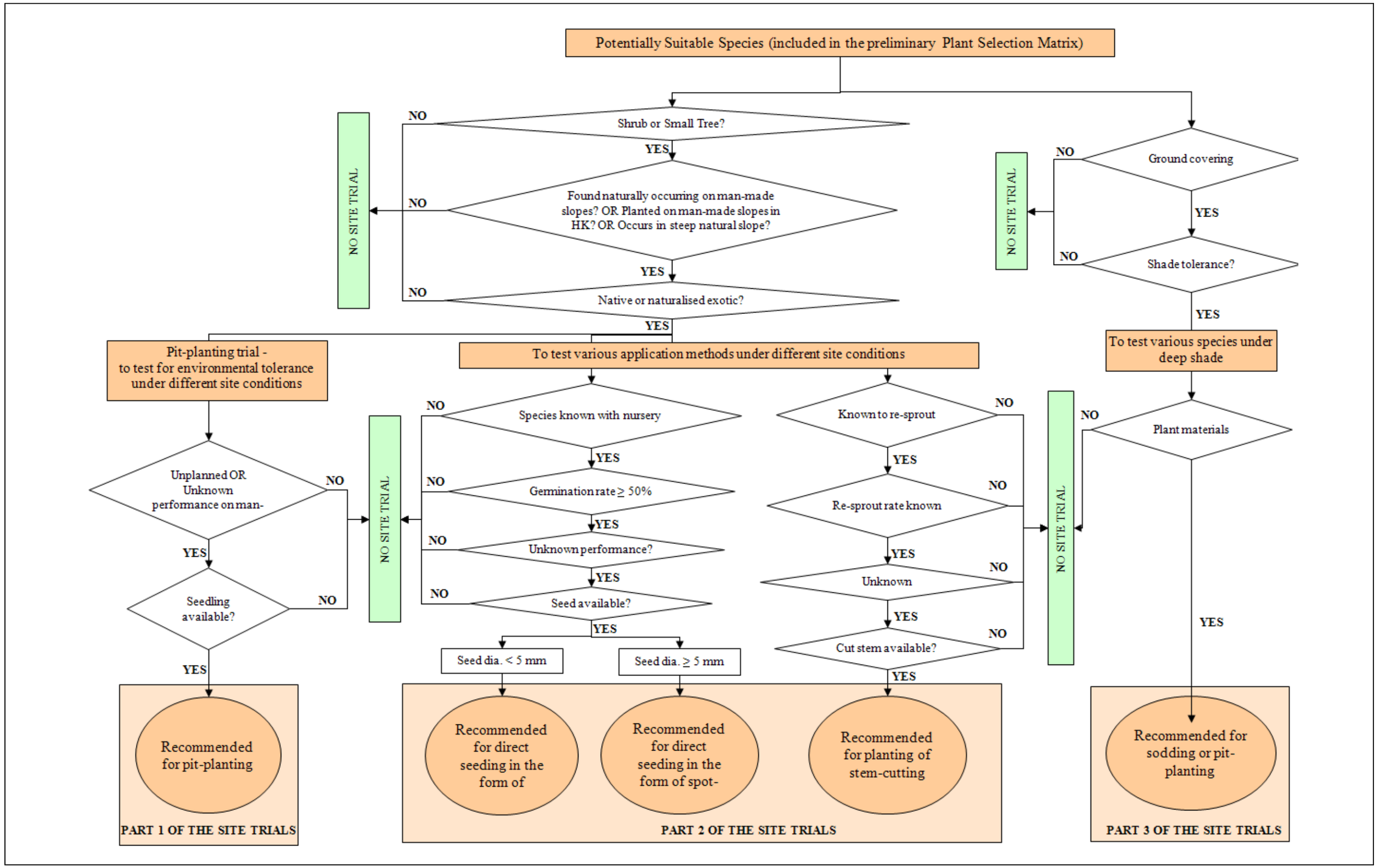

Figure 2 - Plant Selection Criteria of the Site Trials

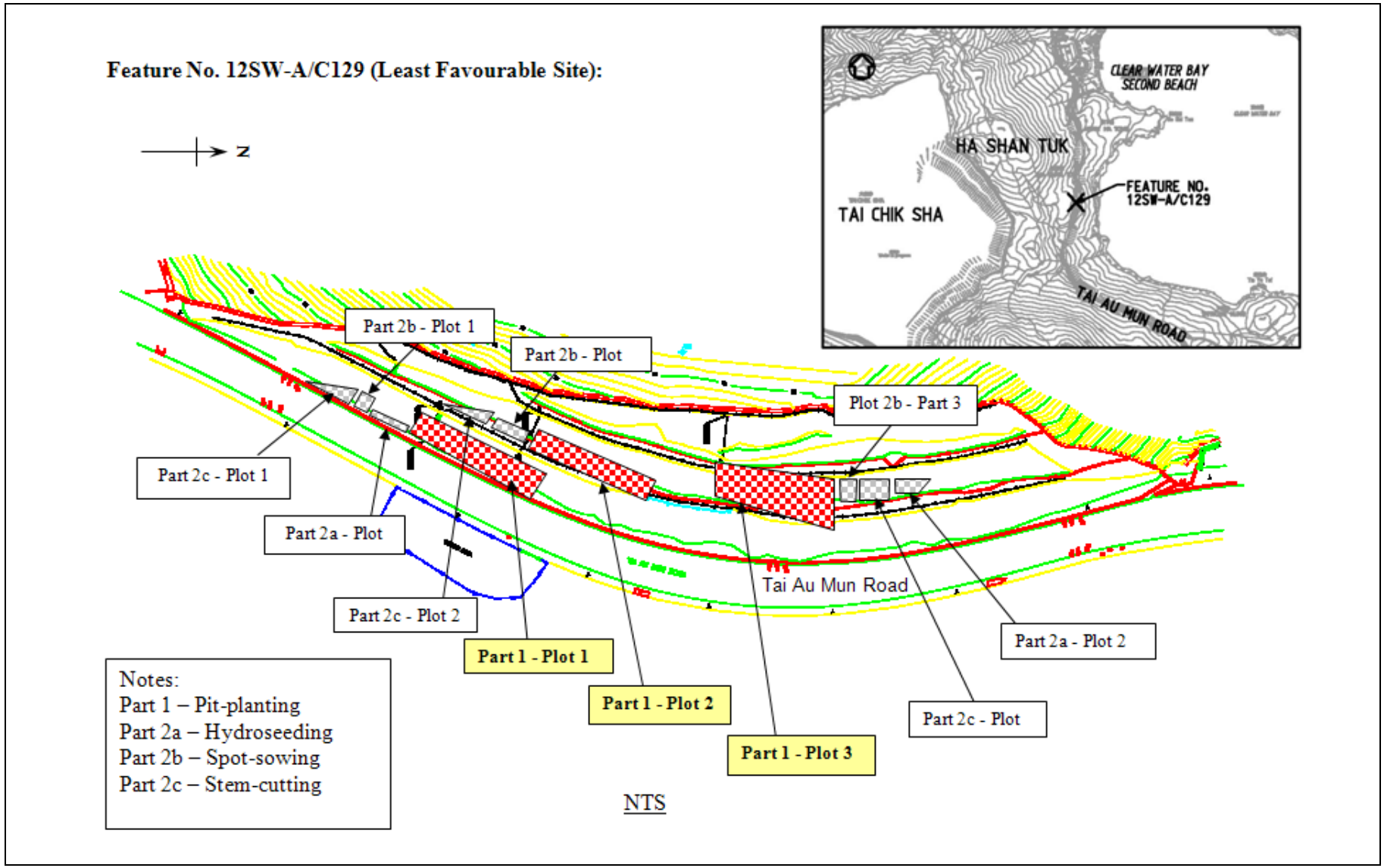

Figure 3 - Locations of Planting Plots for Part 1 of the Site Trials at Feature No. 12SW-A/C129

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Feature 12SW-A/C129 (Least Favourable Site):

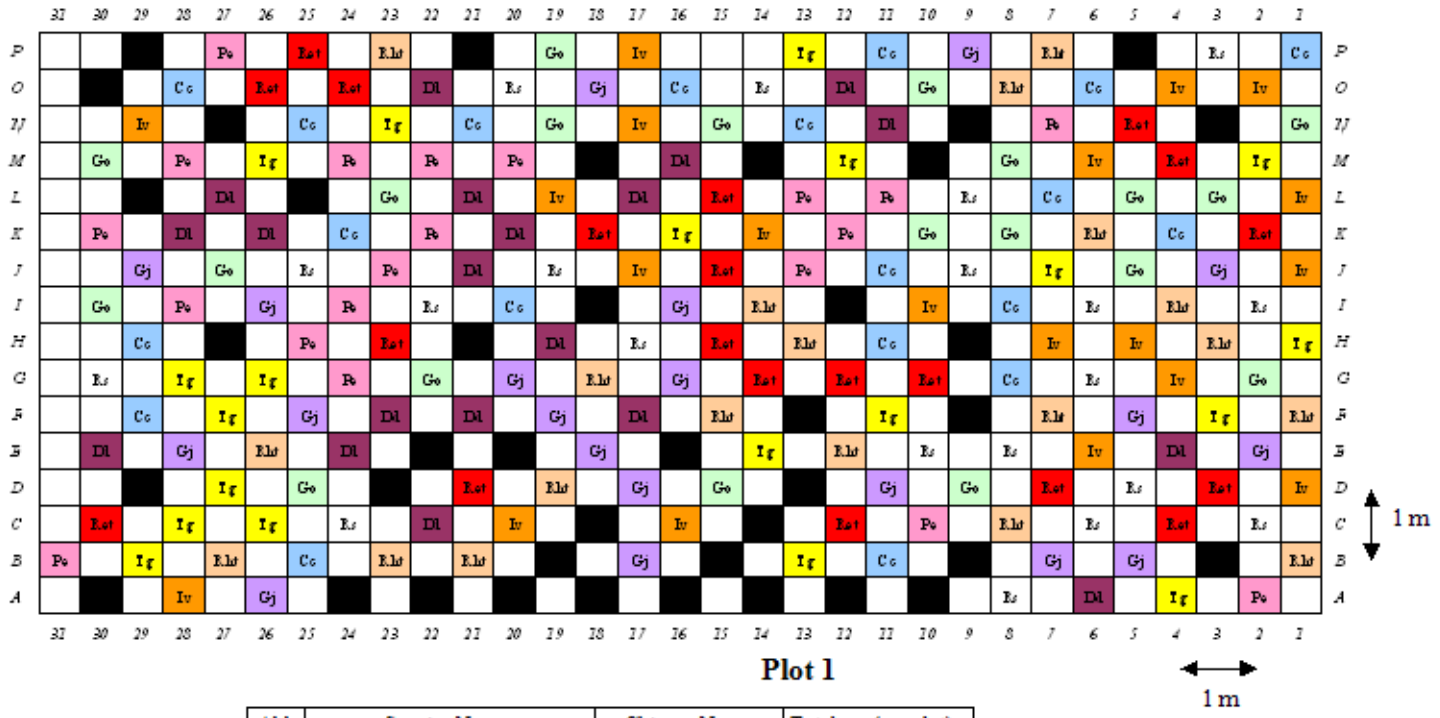
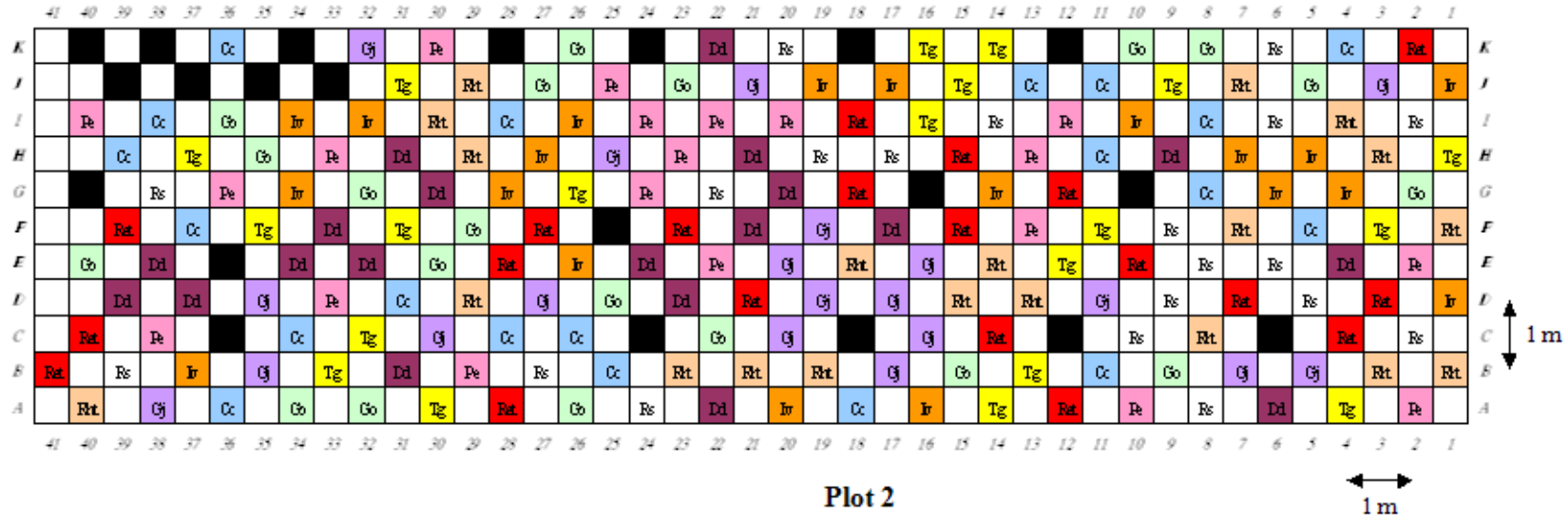


Abb.	Species Name	Chinese Name	Total no. (per plot)
Ret	*Reevesia thyrsoidea*	梭羅樹	20
Rht	*Rhodomyrtus tomentosa*	桃金娘(崗檢)	20
Cc	*Cyclobalanopsis championii*	嶺南青岡	20
Dd	*Diplospora dubia*	狗骨柴	20
Go	*Garcinia oblongifolia*	嶺南山竹子	20
Gj	*Gardenia jasminoides*	梔子	20
Iv	*Ilex viridis*	綠冬青(亮葉冬青)	20
Pe	*Phyllanthus emblica*	餘甘子(油甘子)	20
Rs	*Rhus succedanea*	木蠟樹(野漆樹)	20
Tg	*Ternstroemia gymnanthera*	厚皮香	20

Figure 4 - Arrangement of Planting Grids of Part 1 Site Trial at Feature No. 12SW-A/C129 (Sheet 1 of 3)

Feature 12SW-A/C129 (Least Favourable Site):



Plot 2

Abb.	Species Name	Chinese Name	Total no. (perplot)
Ret	*Reevesia thyrsoidea*	梭羅樹	20
Rht	*Rhodomyrtus tomentosa*	桃金娘(崗棯)	20
Cc	*Cyclobalanopsis championii*	嶺南青岡	20
Dd	*Diplospora dubia*	狗骨柴	20
Go	*Garcinia oblongifolia*	嶺南山竹子	20
Gj	*Gardenia jasminoides*	梔子	20
Iv	*Ilex viridis*	綠冬青(亮葉冬青)	20
Pe	*Phyllanthus emblica*	餘甘子(油甘子)	20
Rs	*Rhus succedanea*	木蠟樹(野漆樹)	20
Tg	*Ternstroemia gymnanthera*	厚皮香	20

Not used

Soil nail / Rock

Figure 4 - Arrangement of Planting Grids of Part 1 Site Trial at Feature No. 12SW-A/C129 (Sheet 2 of 3)

Feature 12SW-A/C129 (Least Favourable Site):

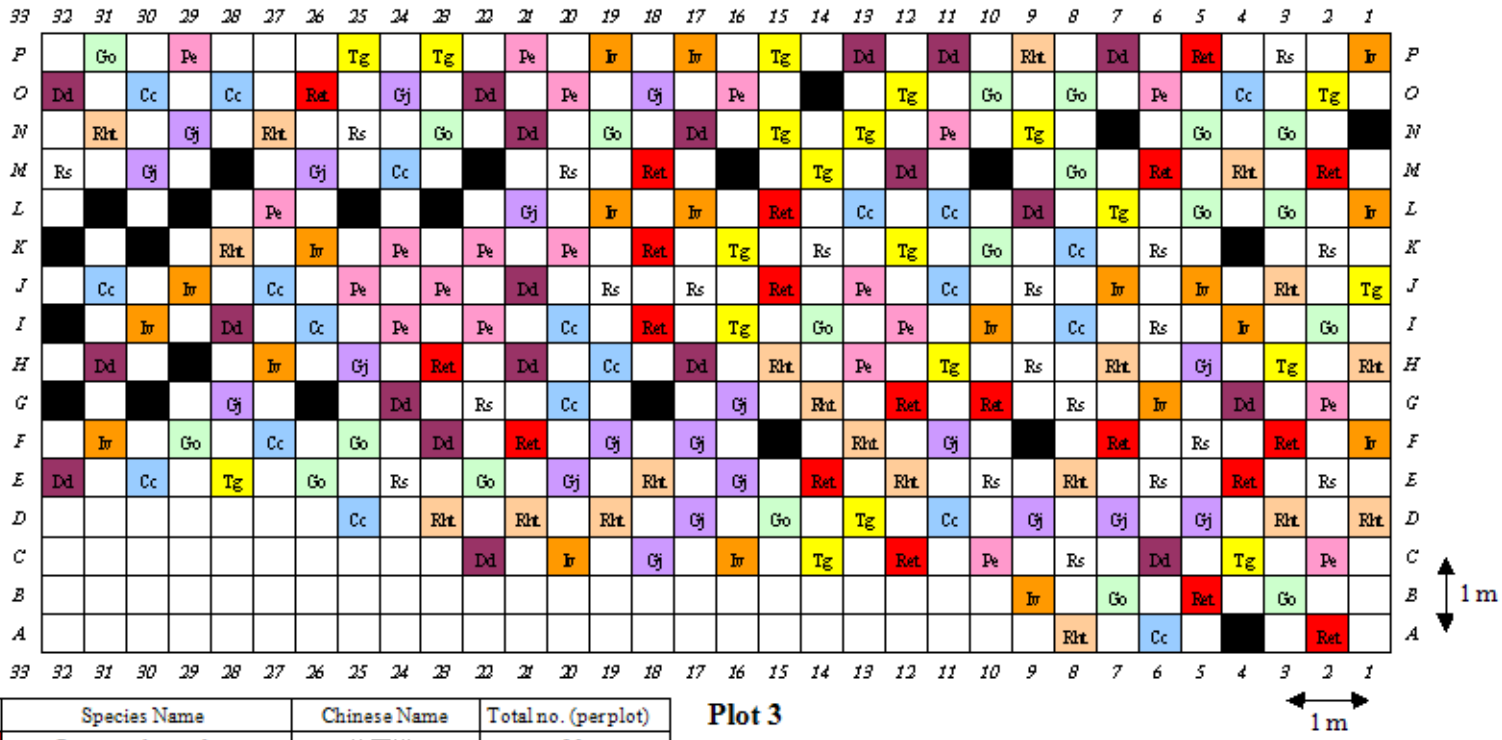


Abb.	Species Name	Chinese Name	Total no. (per plot)
Ret	*Reevesia thyrsoidea*	梭羅樹	20
Rht	*Rhodomyrtus tomentosa*	桃金娘(崗檢)	20
Cc	*Cyclobalanopsis championii*	嶺南青岡	20
Dd	*Diplospora dubia*	狗骨柴	20
Go	*Garcinia oblongifolia*	嶺南山竹子	20
Gj	*Gardenia jasminoides*	梔子	20
Iv	*Ilex viridis*	綠冬青(亮葉冬青)	20
Pe	*Phyllanthus emblica*	餘甘子(油甘子)	20
Rs	*Rhus succedanea*	木蠟樹(野漆樹)	20
Tg	*Ternstroemia gymnanthera*	厚皮香	20

Figure 4 - Arrangement of Planting Grids of Part 1 Site Trial at Feature No. 12SW-A/C129 (Sheet 3 of 3)

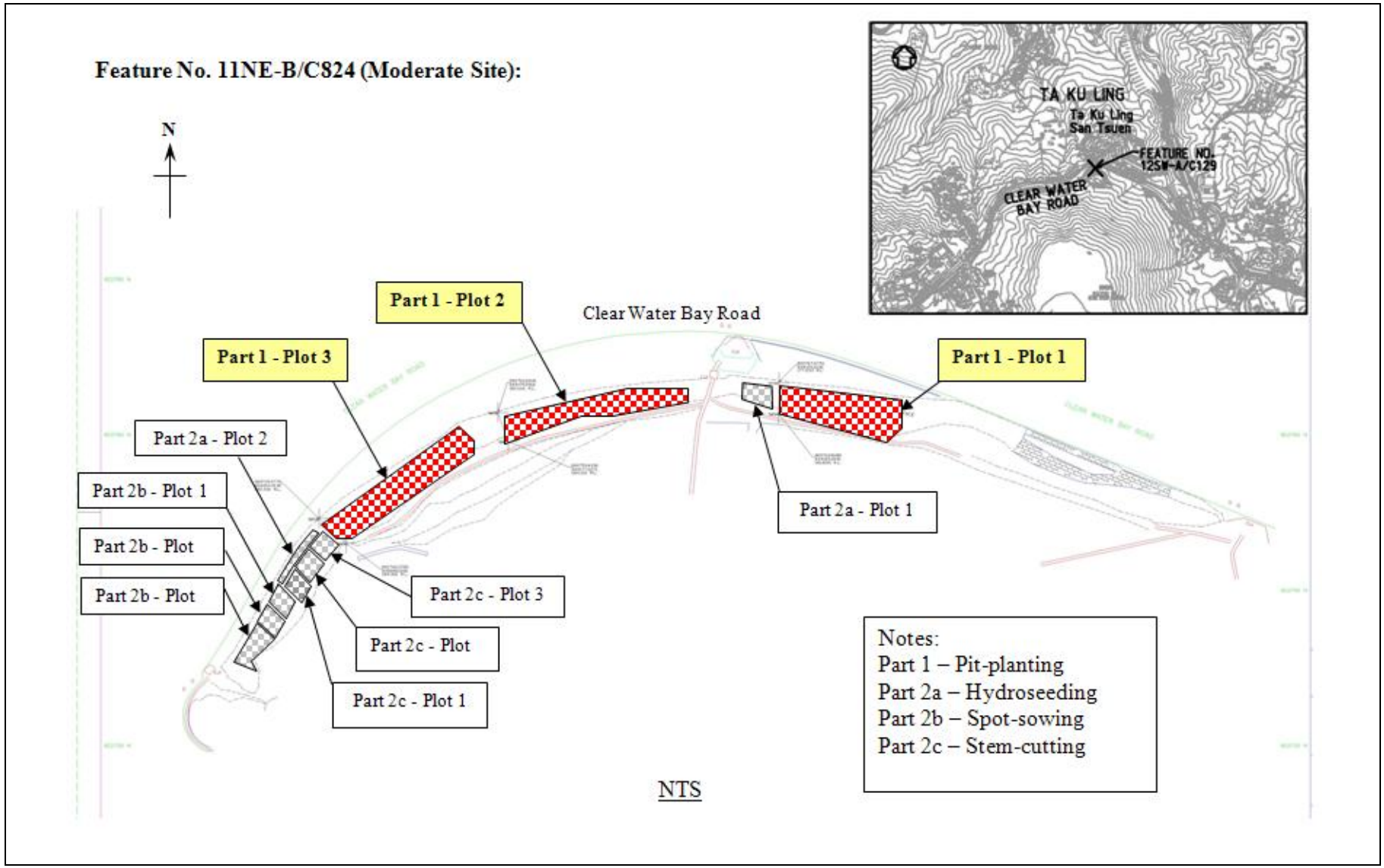


Figure 5 - Locations of Planting Plots for Part 1 of the Site Trials at Feature No. 11NE-B/C824

Feature No. 11NE-B/C824 (Moderate Site):

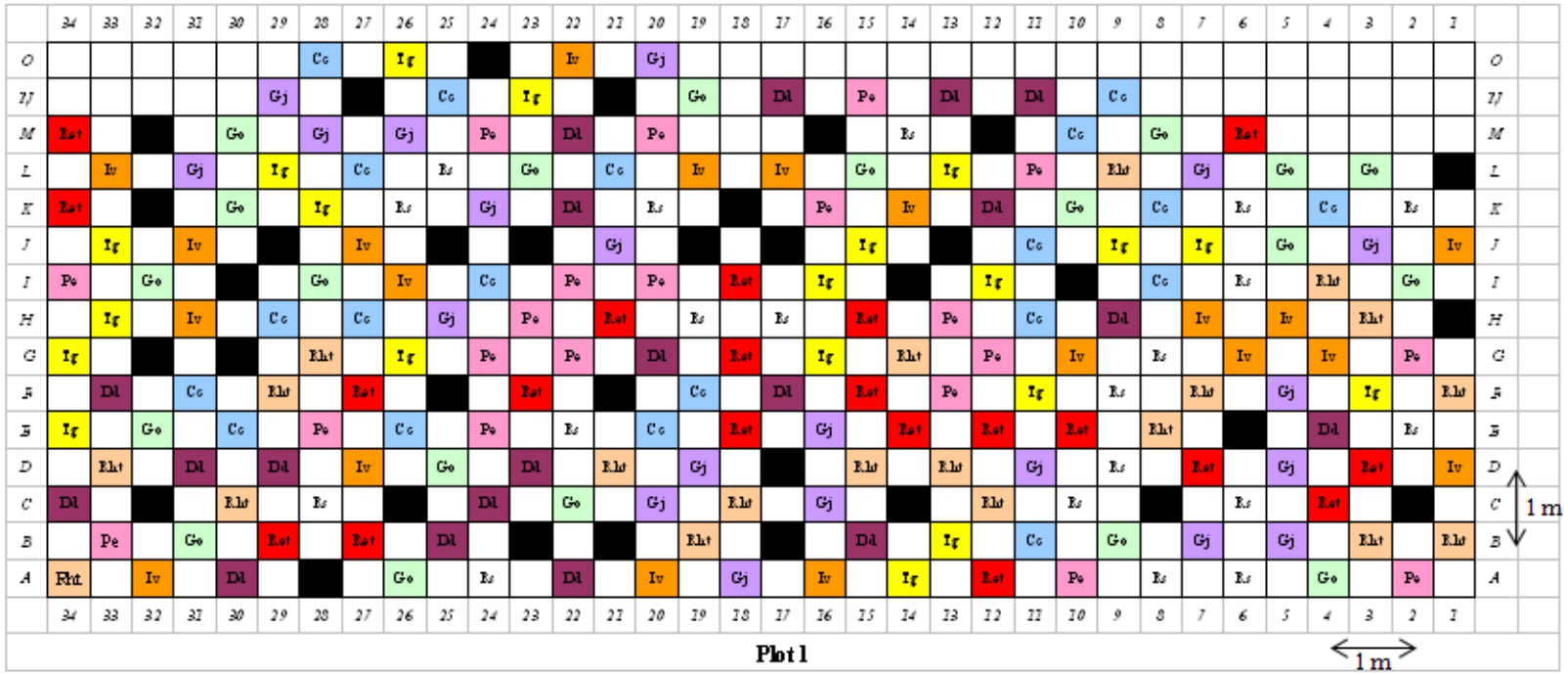


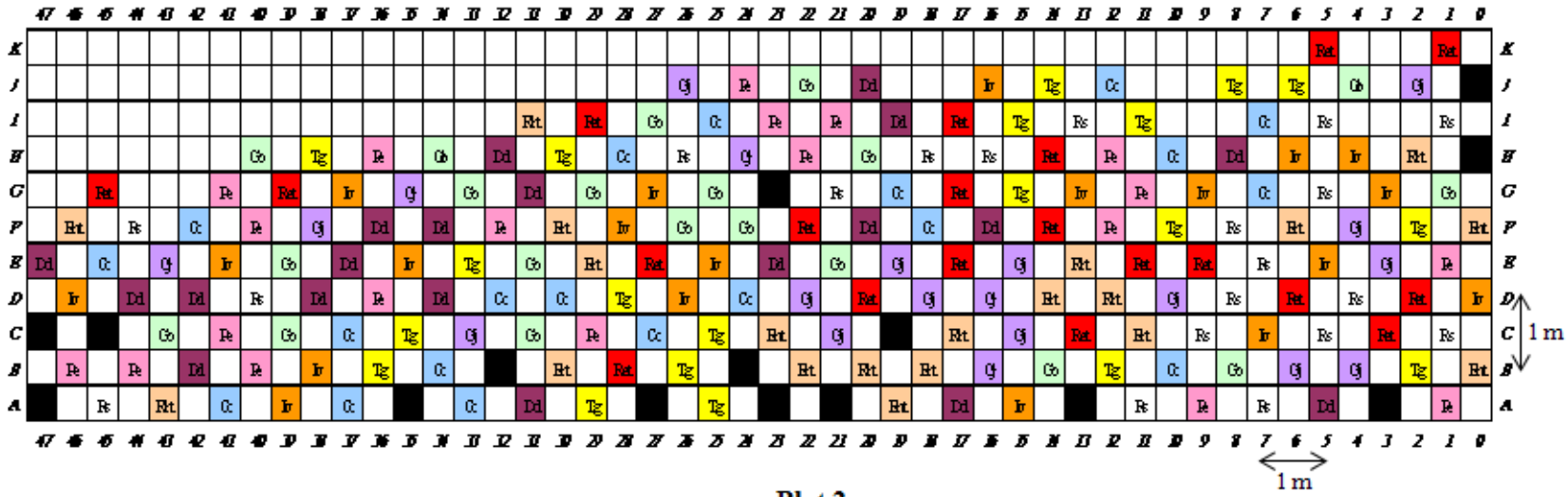
Abb.	Species Name	Chinese Name	Total no. (perplot)
Ret	*Reevesia thyrsoidea*	梭羅樹	20
Rht	*Rhodomyrtus tomentosa*	桃金娘(崗棯)	20
Cc	*Cyclobalanopsis championii*	嶺南青岡	20
Dd	*Diplospora dubia*	狗骨柴	20
Go	*Garcinia oblongifolia*	嶺南山竹子	20
Gj	*Gardenia jasminoides*	梔子	20
Iv	*Ilex viridis*	綠冬青(亮葉冬青)	20
Pe	*Phyllanthus emblica*	餘甘子(油甘子)	20
Rs	*Rhus succedanea*	木蠟樹(野漆樹)	20
Tg	*Ternstroemia gymnanthera*	厚皮香	20

Not used

Soil nail / Rock

Figure 6 - Arrangement of Planting Grids of Part 1 Site Trial at Feature No. 11NE-B/C824 (Sheet 1 of 3)

Feature No. 11NE-B/C824 (Moderate Site):



Plot 2

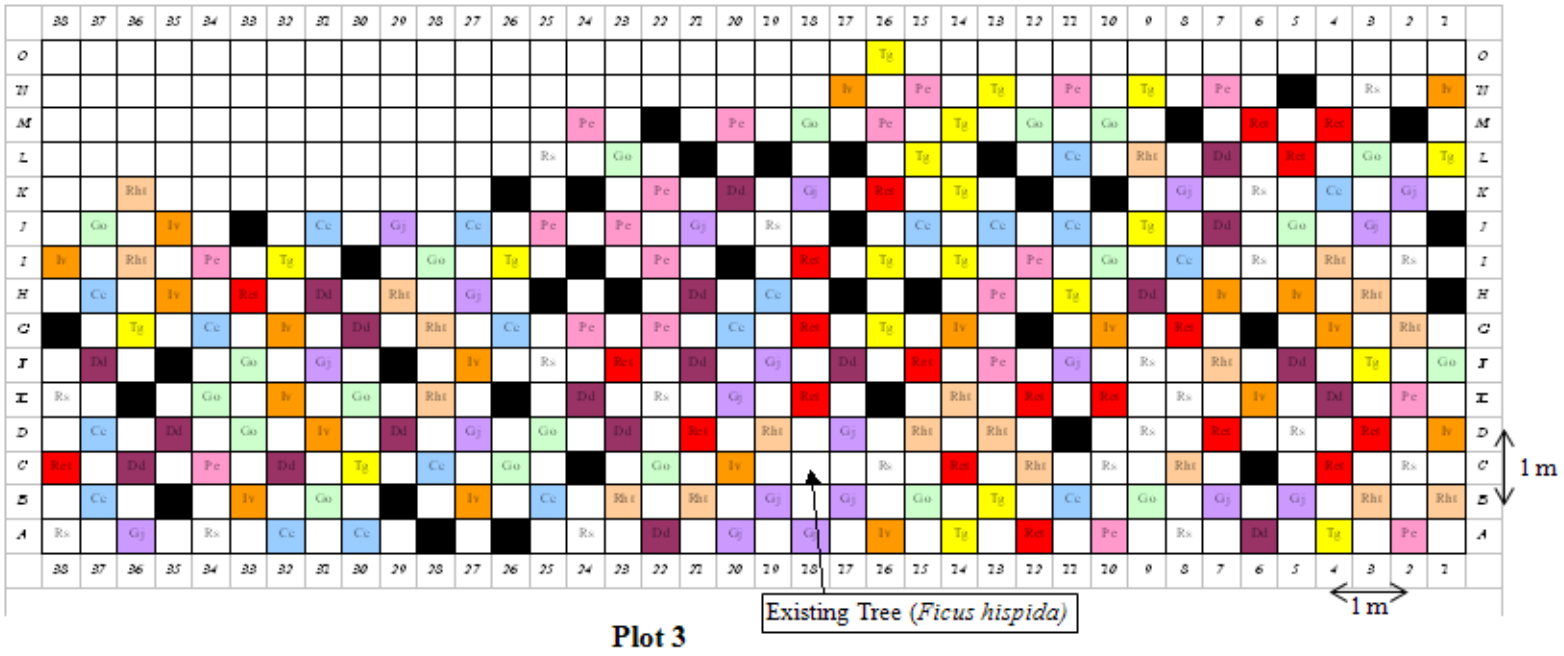
Abb.	Species Name	Chinese Name	Total no. (per plot)
Ret	*Reevesia thyrsoidea*	梭羅樹	20
Rht	*Rhodomyrtus tomentosa*	桃金娘(崗棯)	20
Cc	*Cyclobalanopsis championii*	嶺南青岡	20
Dd	*Diplospora dubia*	狗骨柴	20
Go	*Garcinia oblongifolia*	嶺南山竹子	20
Gj	*Gardenia jasminoides*	梔子	20
Iv	*Ilex viridis*	綠冬青(亮葉冬青)	20
Pe	*Phyllanthus emblica*	餘甘子(油甘子)	20
Rs	*Rhus succedanea*	木蠟樹(野漆樹)	20
Tg	*Ternstroemia gymnanthera*	厚皮香	20

Not used

Soil nail / Rock

Figure 6 - Arrangement of Planting Grids of Part 1 Site Trial at Feature No. 11NE-B/C824 (Sheet 2 of 3)

Feature No. 11NE-B/C824 (Moderate Site):



Plot 3

Abb.	Species Name	Chinese Name	Total no. (per plot)
Ret	*Reevesia thyrsoidea*	梭羅樹	20
Rht	*Rhodomyrtus tomentosa*	桃金娘(崗檢)	20
Cc	*Cyclobalanopsis championii*	嶺南青岡	20
Dd	*Diplospora dubia*	狗骨柴	20
Go	*Garcinia oblongifolia*	嶺南山竹子	20
Gj	*Gardenia jasminoides*	梔子	20
Iv	*Ilex viridis*	綠冬青(亮葉冬青)	20
Pe	*Phyllanthus emblica*	餘甘子(油甘子)	20
Rs	*Rhus succedanea*	木蠟樹(野漆樹)	20
Tg	*Ternstroemia gymnanthera*	厚皮香	20

Not used

Soil nail / Rock

Figure 6 - Arrangement of Planting Grids of Part 1 Site Trial at Feature No. 11NE-B/C824 (Sheet 3 of 3)

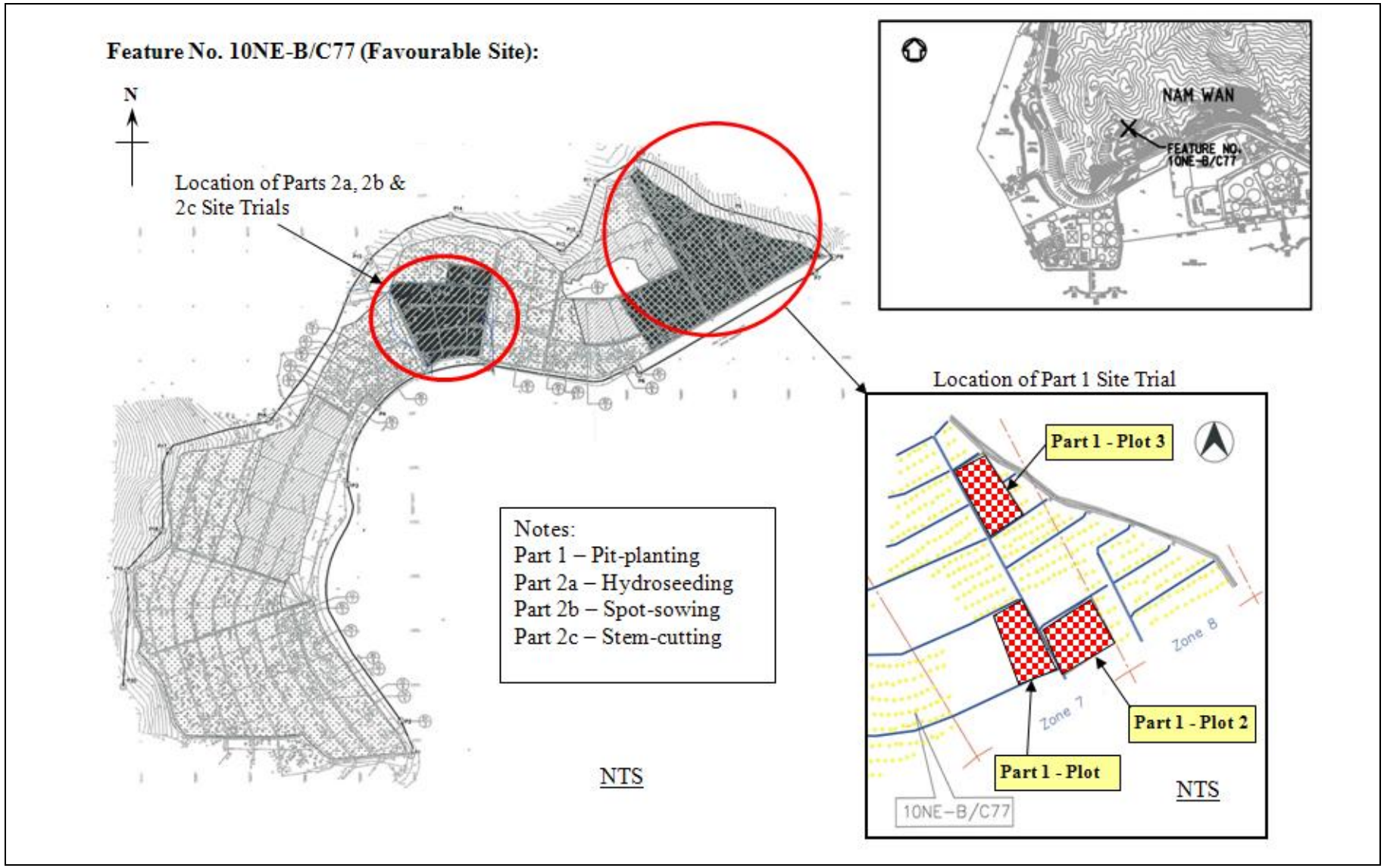


Figure 7 - Locations of Planting Plots for Part 1 of the Site Trials at Feature No. 10NE-B/C77

Feature No. 10NE-B/C77 (Favourable Site):

Plot 1

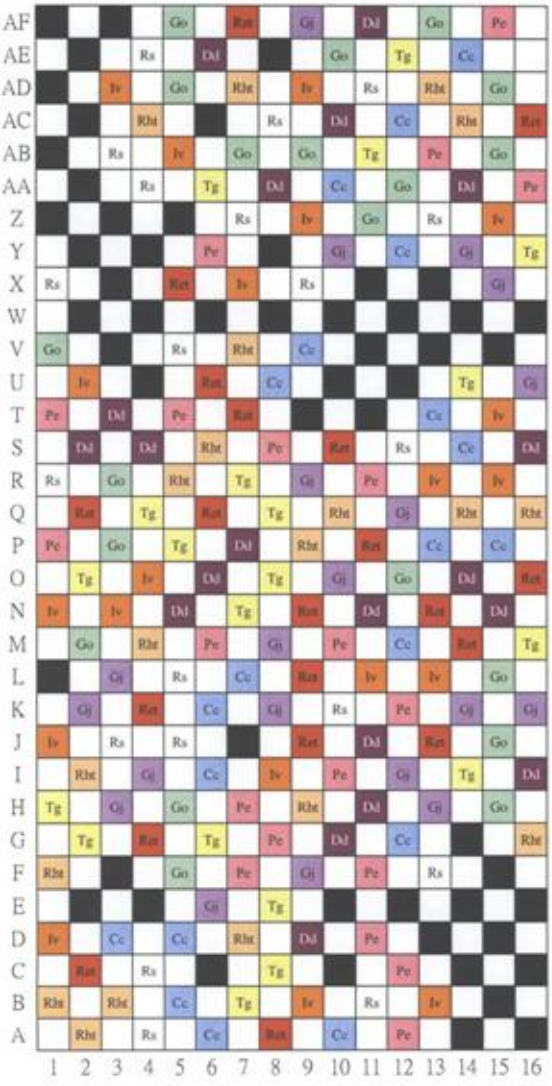


Abb.	Species Name	Chinese Name	Total no. (perplot)
Ret	*Reevesia thyrsoidea*	梭羅樹	20
Rht	*Rhodomyrtus tomentosa*	桃金娘（崗棯）	20
Cc	*Cyclobalanopsis championii*	嶺南青岡	20
Dd	*Diplospora dubia*	狗骨柴	20
Gj	*Garcinia oblongifolia*	嶺南山竹子	20
Go	*Gardenia jasminoides*	梔子	20
Iv	*Ilex viridis*	綠冬青（亮葉冬青）	20
Pe	*Phyllanthus emblica*	餘甘子（油甘子）	20
Rs	*Rhus succedanea*	木蠟樹（野漆樹）	20
Tg	*Ternstroemia gymnanthera*	厚皮香	20

Not used

Soil nail / Rock

Figure 8 - Arrangement of Planting Grids of Part 1 Site Trial at Feature No. 10NE-B/C77 (Sheet 1 of 3)

Feature No. 10NE-B/C77 (Favourable Site):

Plot 2

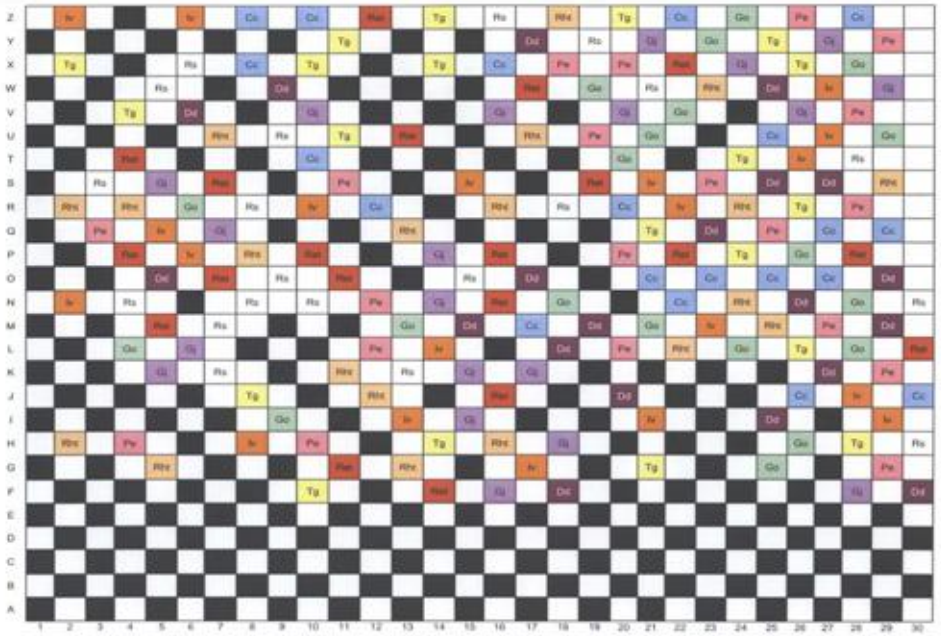


Abb.	Species Name	Chinese Name	Total no. (perplot)
Ret	*Reevesia thyrsoidea*	梭罗樹	20
Rht	*Rhodomyrtus tomentosa*	桃金娘（崗檢）	20
Cc	*Cyclobalanopsis championii*	嶺南青冈	20
Dd	*Diplospora dubia*	狗骨柴	20
Gj	*Garcinia oblongifolia*	嶺南山竹子	20
Go	*Gardenia jasminoides*	梔子	20
Iv	*Ilex viridis*	綠冬青（亮葉冬青）	20
Pe	*Phyllanthus emblica*	餘甘子（油甘子）	20
Rs	*Rhus succedanea*	木蠟樹（野漆樹）	20
Tg	*Ternstroemia gymnanthera*	厚皮香	20

Not used

Soil nail / Rock

Figure 8 - Arrangement of Planting Grids of Part 1 Site Trial at Feature No. 10NE-B/C77 (Sheet 2 of 3)

Feature No. 10NE-B/C77 (Favourable Site):

Plot 3

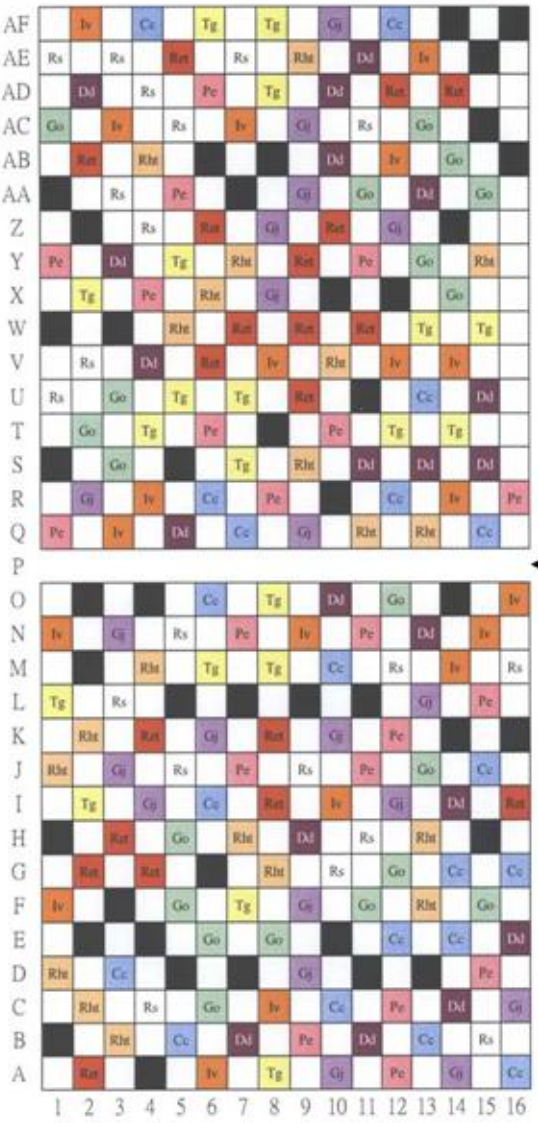


Abb.	Species Name	Chinese Name	Total no. (per plot)
Ret	*Reevesia thyrsoidea*	梭羅樹	20
Rht	*Rhodomyrtus tomentosa*	桃金娘（崗棯）	20
Cc	*Cyclobalanopsis championii*	嶺南青岡	20
Dd	*Diplospora dubia*	狗骨柴	20
Gj	*Garcinia oblongifolia*	嶺南山竹子	20
Go	*Gardenia jasminoides*	梔子	20
Iv	*Ilex viridis*	綠冬青（亮葉冬青）	20
Pe	*Phyllanthus emblica*	餘甘子（油甘子）	20
Rs	*Rhus succedanea*	木蠟樹（野漆樹）	20
Tg	*Ternstroemia gymnanthera*	厚皮香	20

Not used

Soil nail / Rock

Figure 8 - Arrangement of Planting Grids of Part 1 Site Trial at Feature No. 10NE-B/C77 (Sheet 3 of 3)

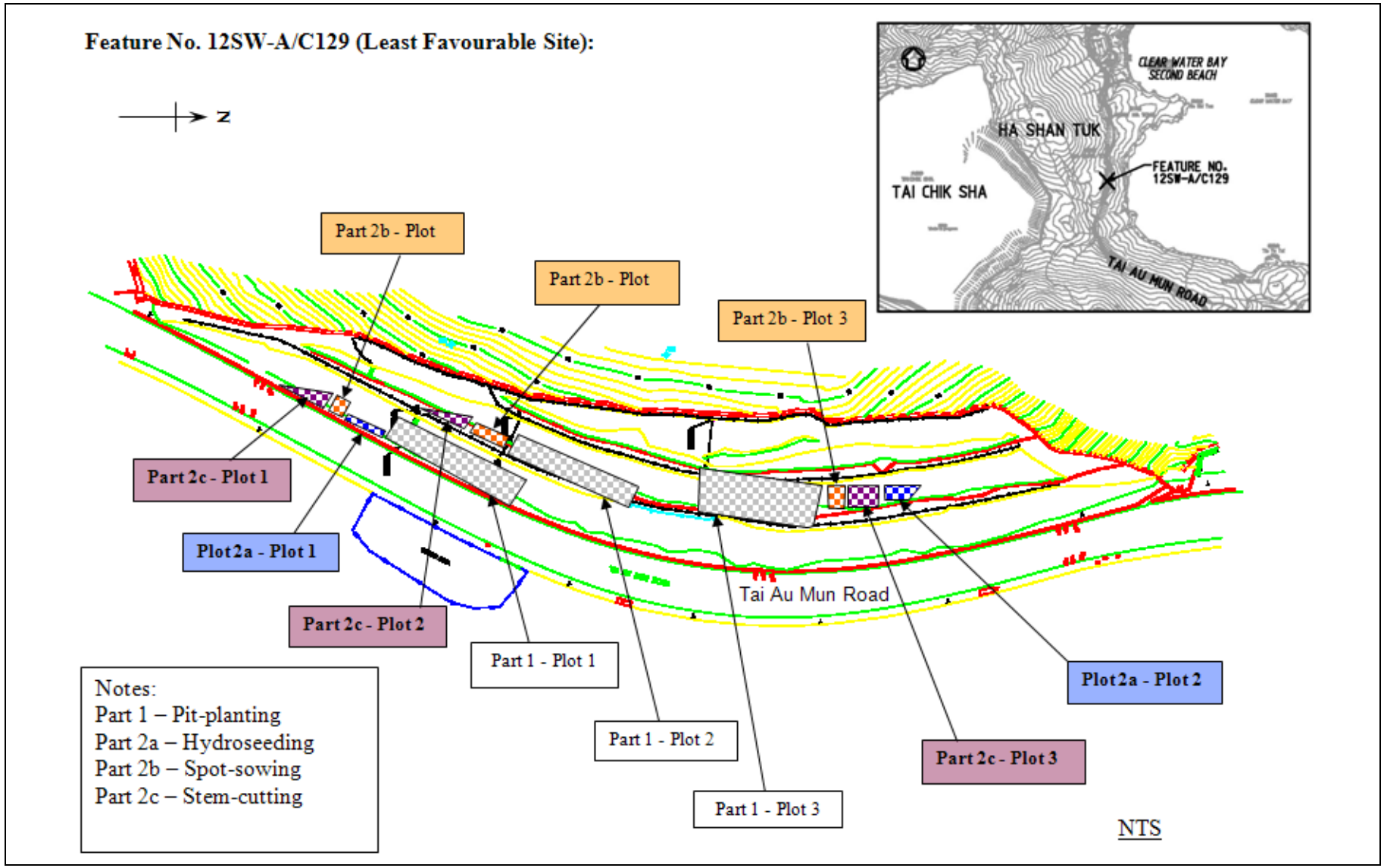


Figure 9 - Locations of Planting Plots for Part 2 of the Site Trials at Feature No. 12SW-A/C129

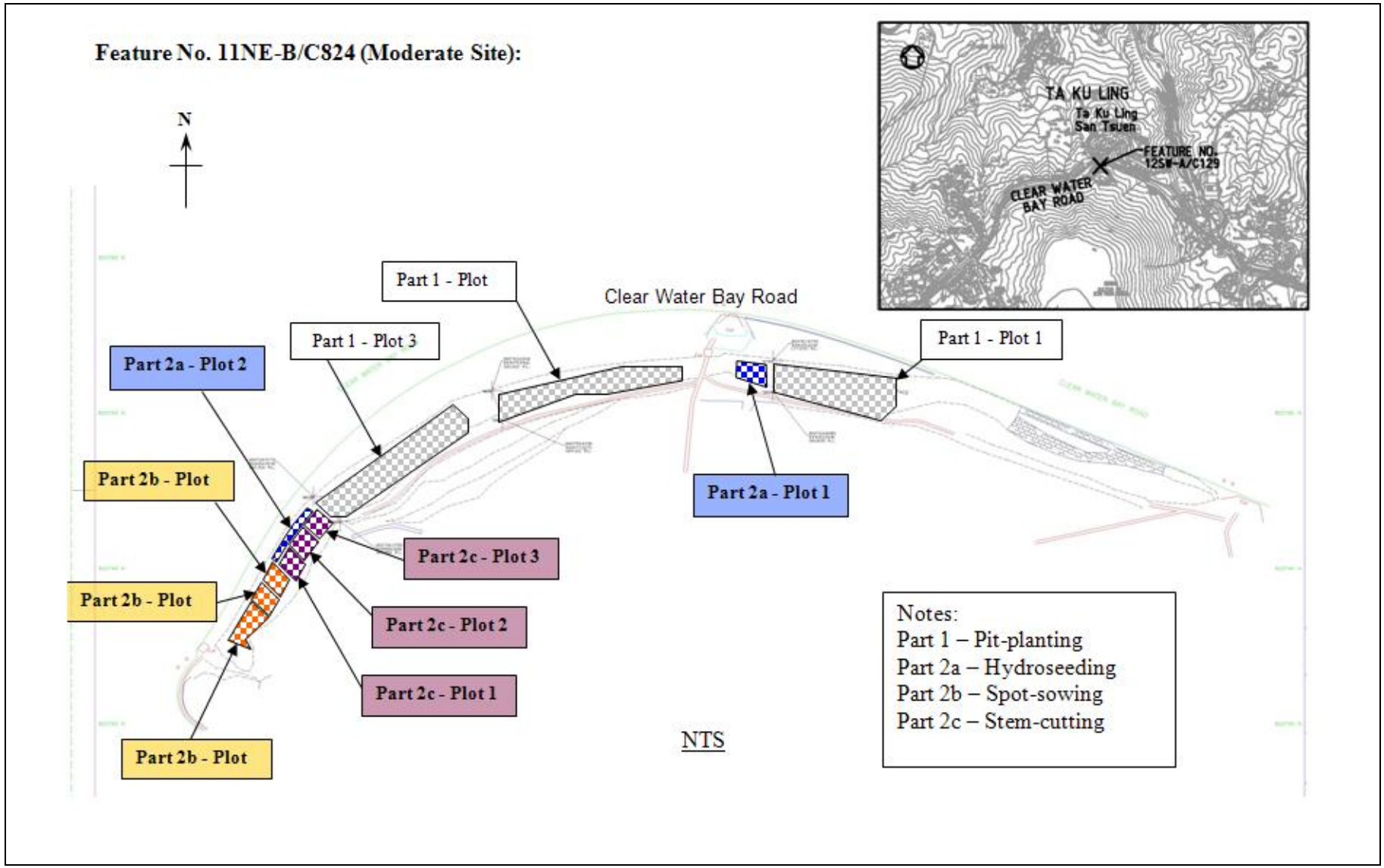


Figure 10 - Locations of Planting Plots for Part 2 of the Site Trials at Feature No. 11NE-B/C824

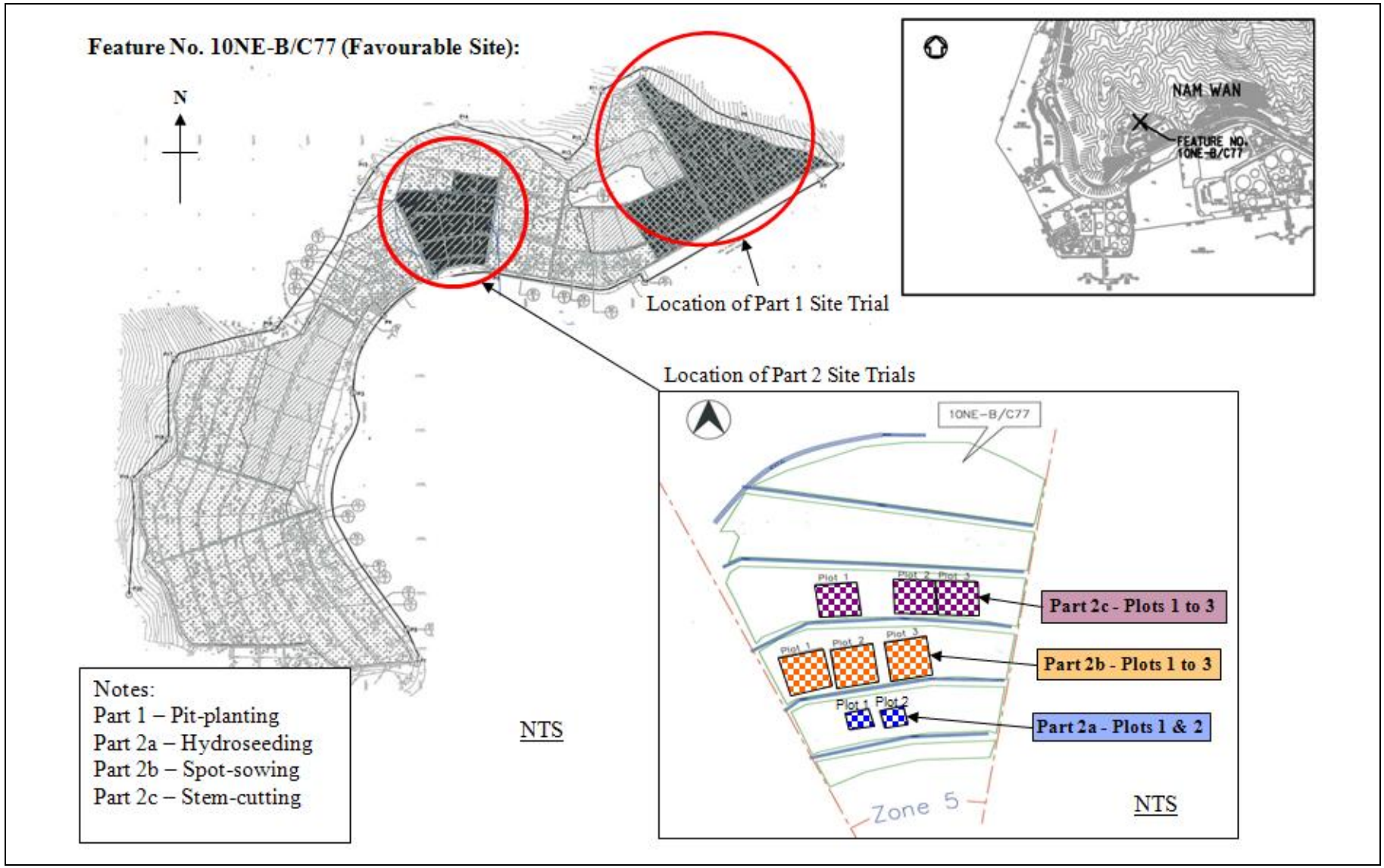


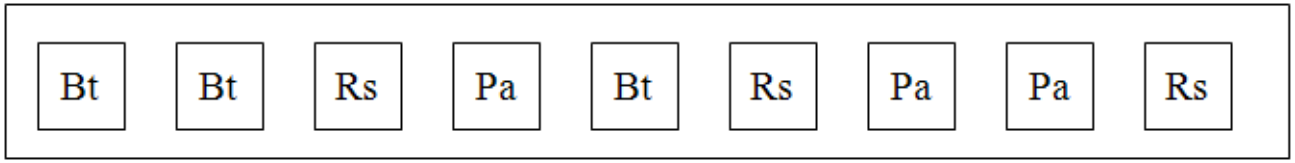
Figure 11 - Locations of Planting Plots for Part 2 of the Site Trials at Feature No. 10NE-B/C77

Feature No. 12SW-A/C129 (Least Favourable Site):

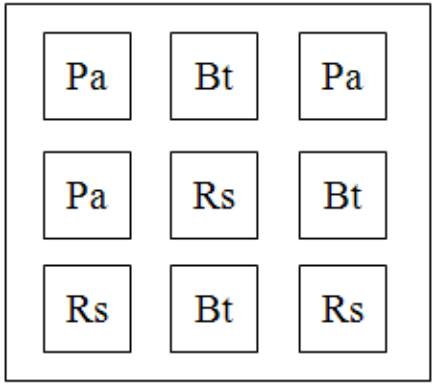
Part 2 - Direct-seeding Site Trial - Hydroseeding

Abb.	Species	Chinese Name	Total No. (per plot)
Bt	*Bridelia tomentosa*	土蜜樹	3
Pa	*Psychotria asiatica*	九節	3
Rs	*Rhus succedanea*	野漆樹	3

Hydroseeding - Plot 1



Hydroseeding - Plot 2



Dimensions of each sub-plot:

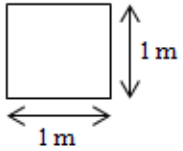


Figure 12 - Arrangement of Planting Grids of Part 2 Direct-seeding Site Trial at Feature No. 12SW-A/C129 (Sheet 1 of 3)

Feature No. 12SW-A/C129 (Least Favourable Site):

Part 2 - Direct-seeding Site Trial - Spot-sowing

Abb.	Species	Chinese Name	Total No. (Per
Cm	*Cyclobalanopsis myrsinifolia*	小葉青岡	20
Oe	*Ormosia emarginata*	凹葉紅豆	20
Ret	*Reevesia thyrsoidea*	梭羅樹	20

Spot-sowing - Plot 1

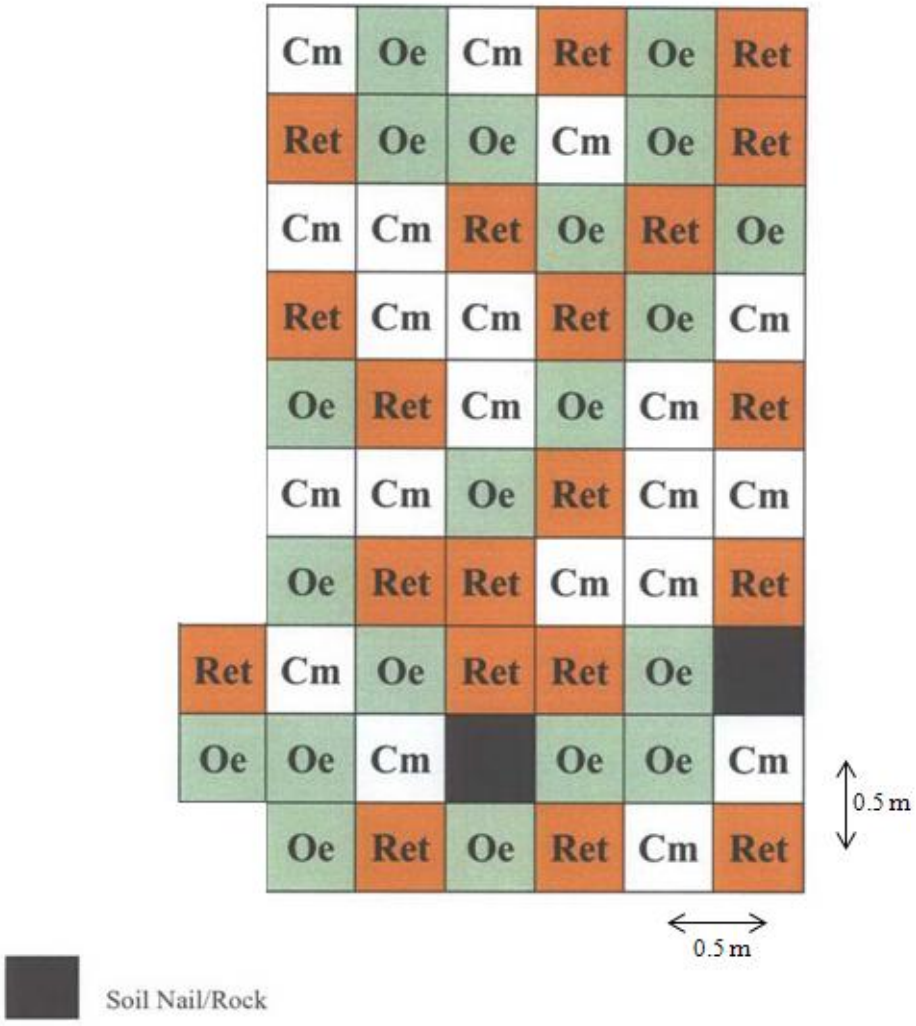


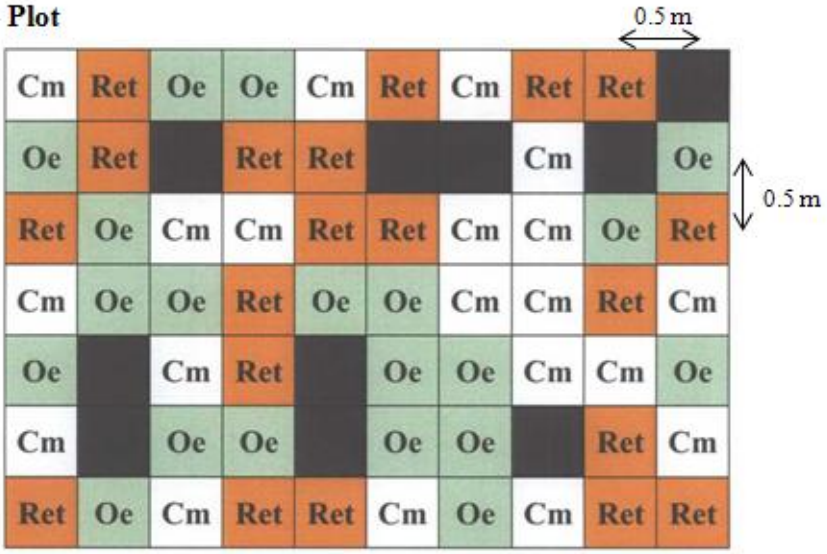
Figure 12 - Arrangement of Planting Grids of Part 2 Direct-seeding Site Trial at Feature No. 12SW-A/C129 (Sheet 2 of 3)

Feature No. 12SW-A/C129 (Least Favourable Site):

Part 2 - Direct-seeding Site Trial - Spot-sowing

Abb.	Species	Chinese Name	Total No. (Per
Cm	*Cyclobalanopsis myrsinifolia*	小葉青岡	20
Oe	*Ormosia emarginata*	凹葉紅豆	20
Ret	*Reevesia thyrsoidea*	梭羅樹	20

Spot-sowing - Plot



Spot-sowing - Plot 3

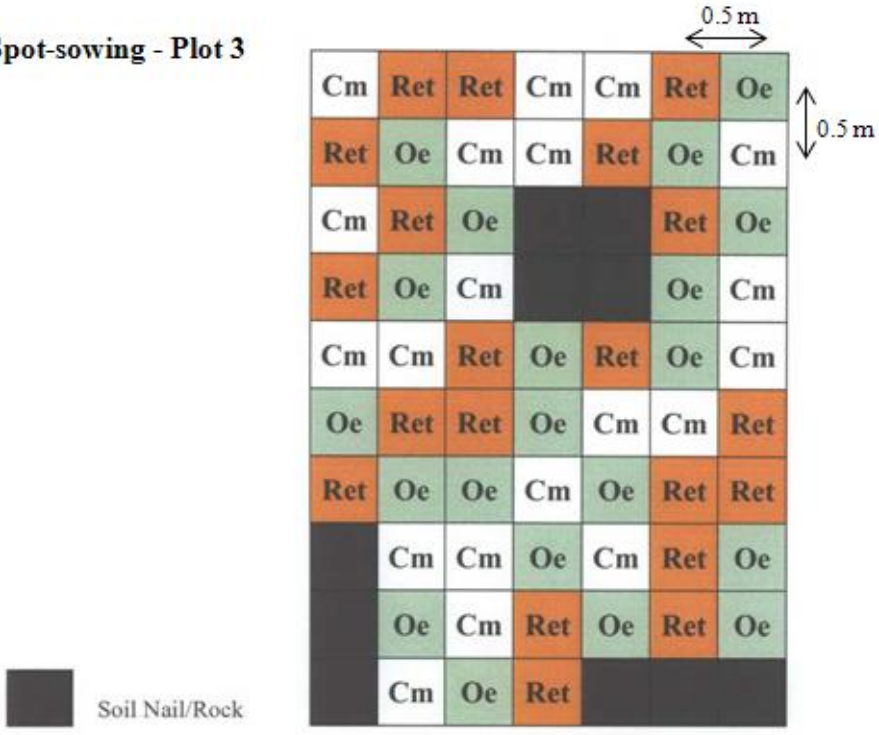


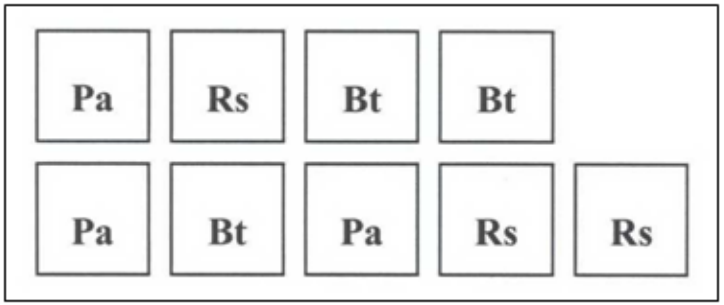
Figure 12 - Arrangement of Planting Grids of Part 2 Direct-seeding Site Trial at Feature No. 12SW-A/C129 (Sheet 3 of 3)

Feature 11NE-B/C824 (Moderate Site):

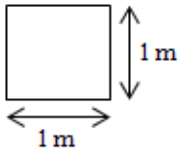
Part 2 - Direct-seeding Site Trial - Hydroseeding

Abb.	Species	Chinese Name	Total No. (per plot)
Bt	*Bridelia tomentosa*	土蜜樹	3
Pa	*Psychotria asiatica*	九節	3
Rs	*Rhus succedanea*	野漆樹	3

Hydroseeding - Plot 1



Dimensions of each sub-plot:



Hydroseeding - Plot 2

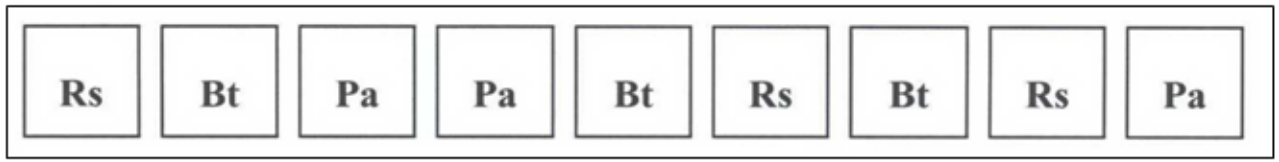


Figure 13 - Arrangement of Planting Grids of Part 2 Direct-seeding Site Trial at Feature No. 11NE-B/C824 (Sheet 1 of 3)

Feature 11NE-B/C824 (Moderate Site):

Part 2 - Direct-seeding Site Trial - Spot-sowing

Abb.	Species	Chinese Name	Total No. (Per
Cm	*Cyclobalanopsis myrsinifolia*	小葉青岡	20
Oe	*Ormosia emarginata*	凹葉紅豆	20
Ret	*Reevesia thyrsoidea*	棱羅樹	20

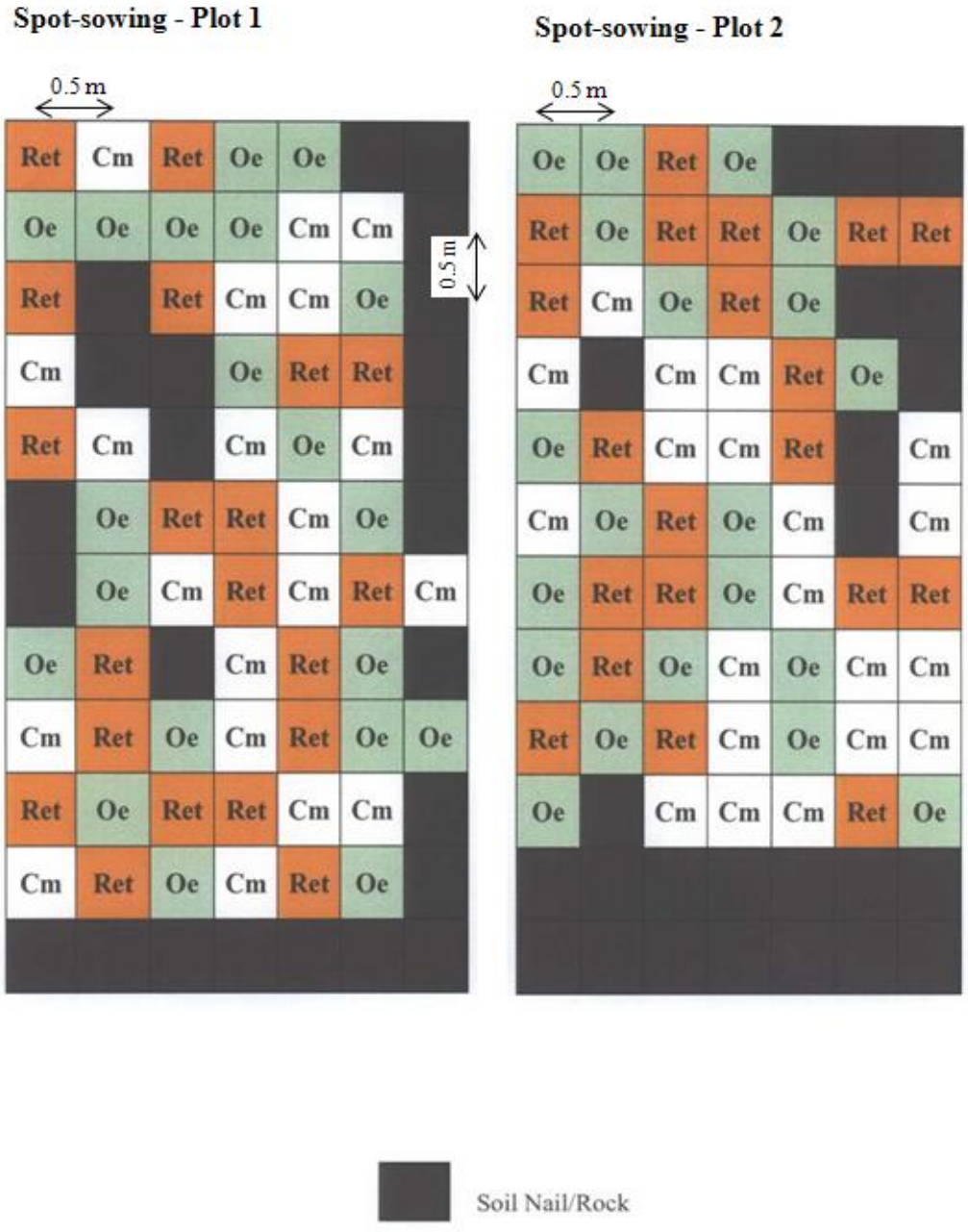


Figure 13 - Arrangement of Planting Grids of Part 2 Direct-seeding Site Trial at Feature No. 11NE-B/C824 (Sheet 2 of 3)

Feature 11NE-B/C824 (Moderate Site):

Part 2 - Direct-seeding Site Trial - Spot-sowing

Abb.	Species	Chinese Name	Total No. (Per
Cm	*Cyclobalanopsis myrsinifolia*	小葉青岡	20
Oe	*Ormosia emarginata*	凹葉紅豆	20
Ret	*Reevesia thyrsoidea*	棱羅樹	20

Spot-sowing - Plot 3

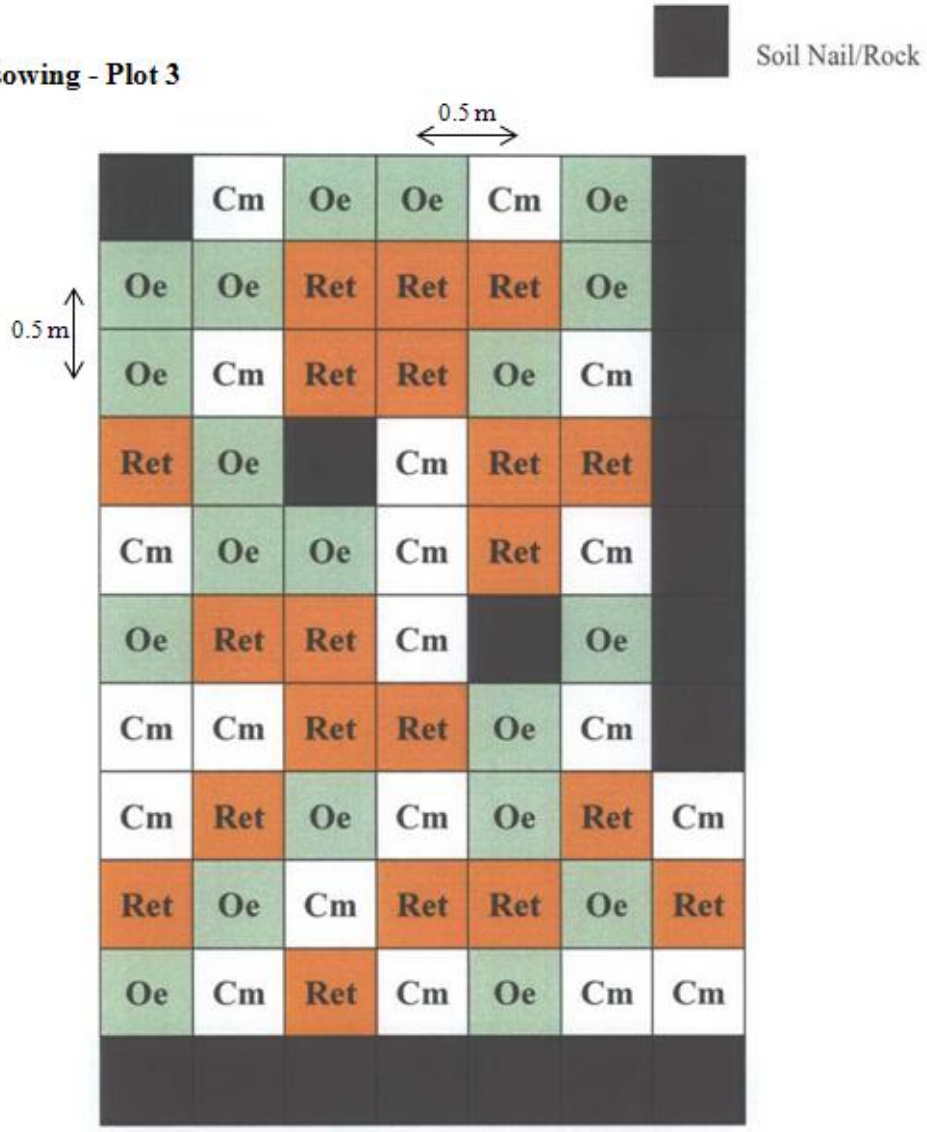


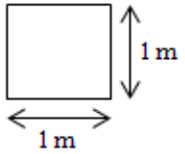
Figure 13 - Arrangement of Planting Grids of Part 2 Direct-seeding Site Trial at Feature No. 11NE-B/C824 (Sheet 3 of 3)

Feature No. 10NE-B/C77 (Favourable Site):

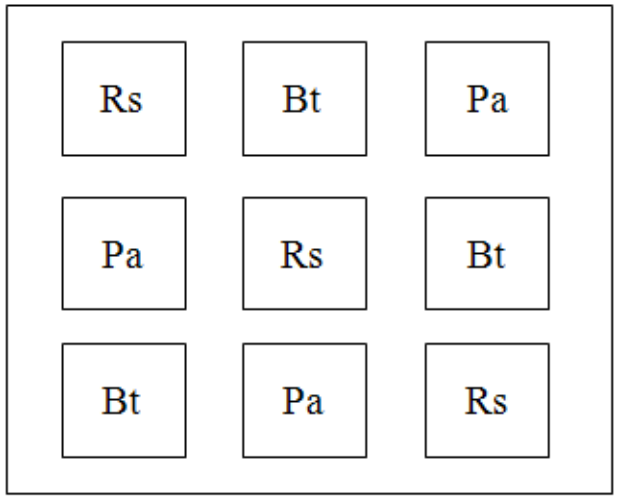
Part 2 - Direct-seeding Site Trial - Hydroseeding

Abb.	Species	Chinese Name	Total No. (per plot)
Bt	*Bridelia tomentosa*	土蜜樹	3
Pa	*Psychotria asiatica*	九節	3
Rs	*Rhus succedanea*	野漆樹	3

Dimensions of each sub-plot:



Hydroseeding - Plot 1



Hydroseeding - Plot 2

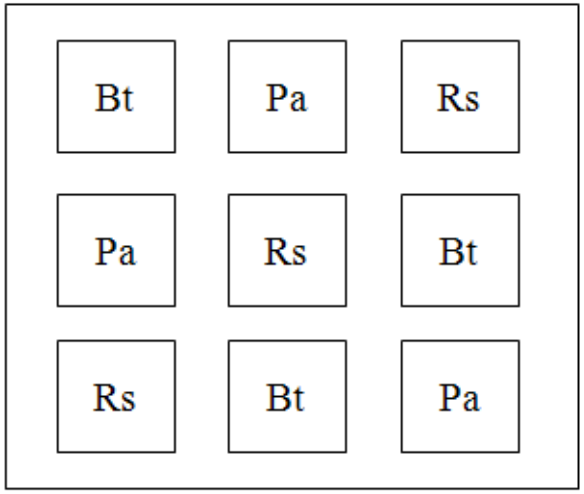


Figure 14 - Arrangement of Planting Grids of Part 2 Direct-seeding Site Trial at Feature No. 10NE-B/C77 (Sheet 1 of 3)

Feature No. 10NE-B/C77 (Favourable Site):

Part 2 - Direct-seeding Site Trial - Spot-sowing

Abb.	Species	Chinese Name	Total No. (Per
Cm	*Cyclobalanopsis myrsinifolia*	小葉青岡	20
Oe	*Ormosia emarginata*	凹葉紅豆	20
Ret	*Reevesia thyrsoidea*	棱羅樹	20

Spot-sowing - Plot 1

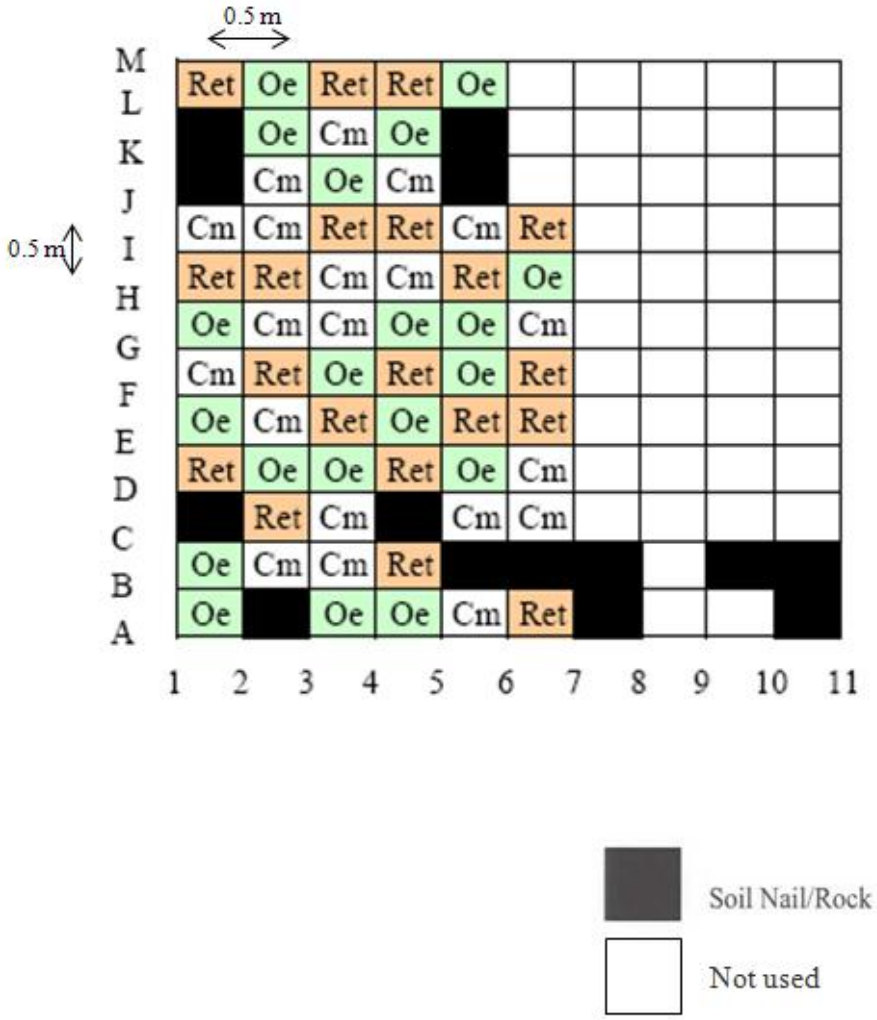


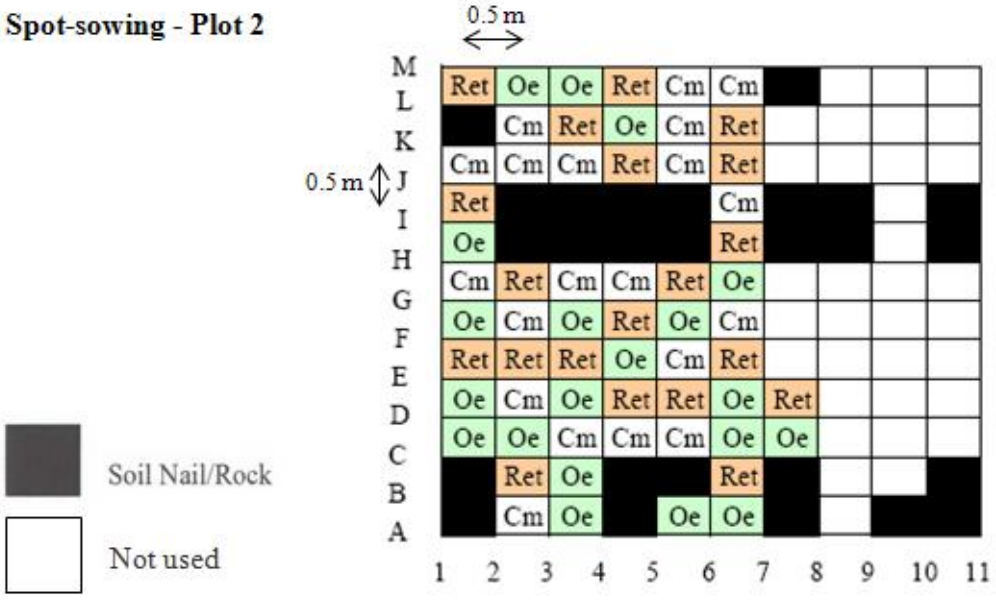
Figure 14 - Arrangement of Planting Grids of Part 2 Direct-seeding Site Trial at Feature No. 10NE-B/C77 (Sheet 2 of 3)

Feature No. 10NE-B/C77 (Favourable Site):

Part 2 - Direct-seeding Site Trial - Spot-sowing

Abb.	Species	Chinese Name	Total No. (Per
Cm	*Cyclobalanopsis myrsinifolia*	小葉青岡	20
Oe	*Ormosia emarginata*	凹葉紅豆	20
Ret	*Reevesia thyrsoidea*	棱羅樹	20

Spot-sowing - Plot 2



Spot-sowing - Plot 3

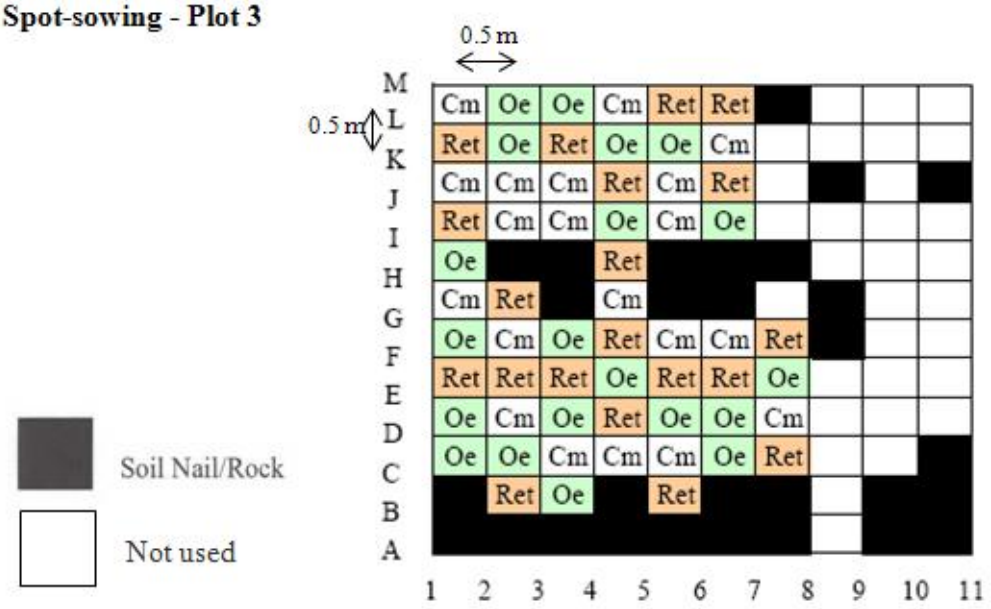


Figure 14 - Arrangement of Planting Grids of Part 2 Direct-seeding Site Trial at Feature No. 10NE-B/C77 (Sheet 3 of 3)

Feature No. 12SW-A/C129 (Least Favourable Site):

Part 2 - Stem-cutting Site Trial

Abb.	Species	Chinese Name	Total No. (per plot)
Rht	*Rhodomyrtus tomentosa*	桃金娘	20
Gj	*Gardenia jasminoides*	梔子	20
Pe	*Phyllanthus emblica*	餘甘子(油甘子)	20
Sh	*Schefflera heptaphylla*	鵝掌柴	20

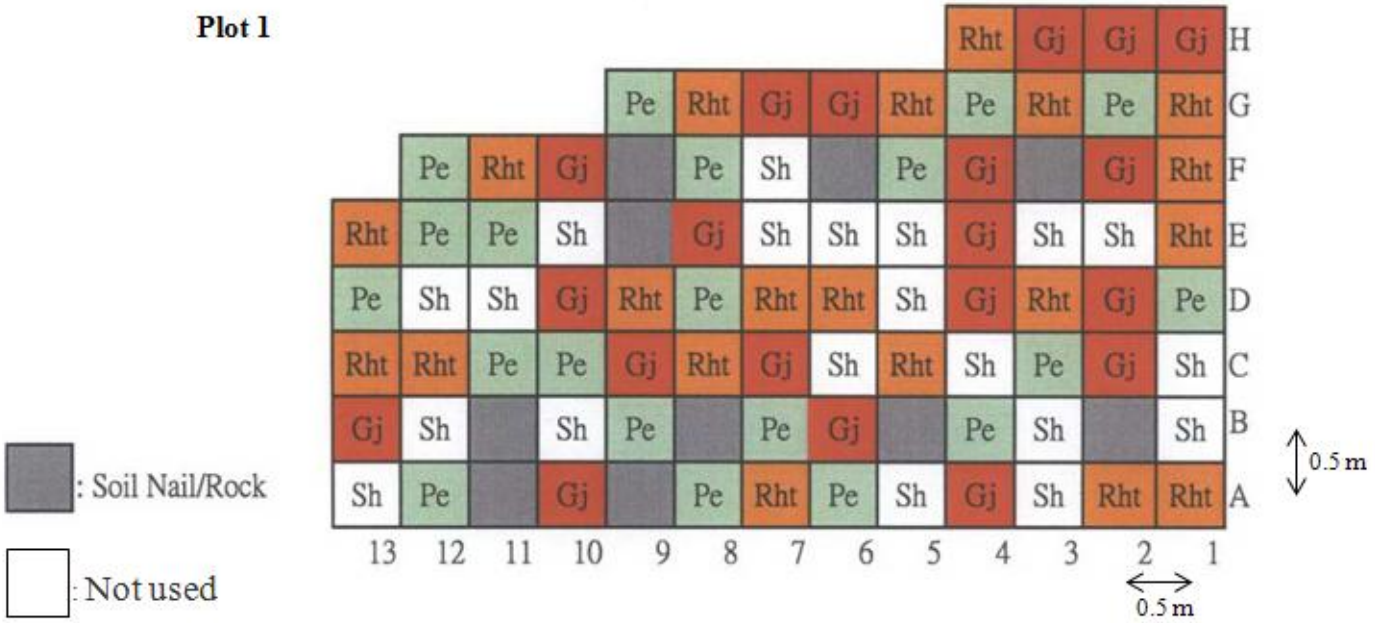


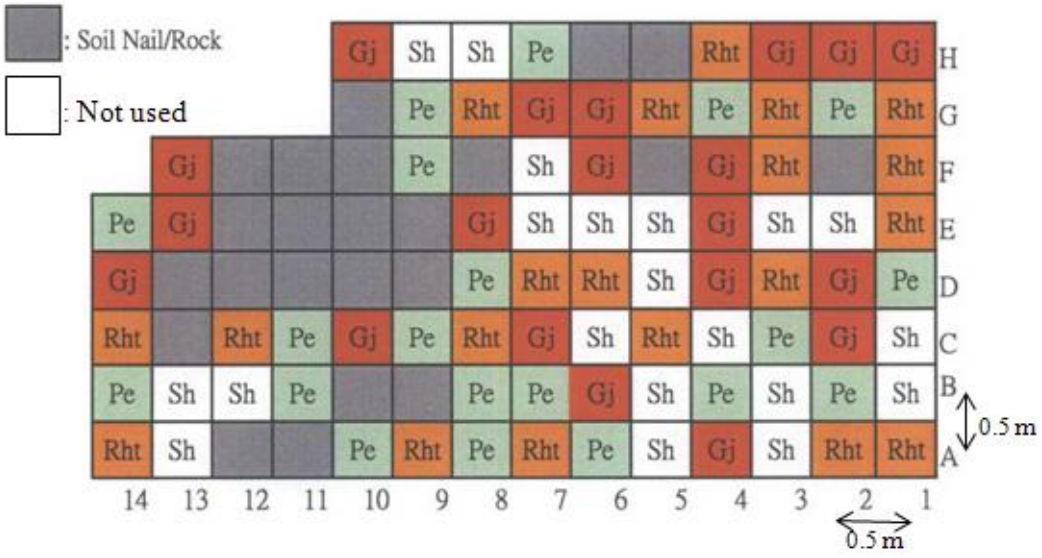
Figure 15 - Arrangement of Planting Grids of Part 2 Stem-cutting Site Trial at Feature No. 12SW-A/C129 (Sheet 1 of 2)

Feature No. 12SW-A/C129 (Least Favourable Site):

Part 2 - Stem-cutting Site Trial

Abb.	Species	Chinese Name	Total No. (per plot)
Rht	*Rhodomyrtus tomentosa*	桃金娘	20
Gj	*Gardenia jasminoides*	梔子	20
Pe	*Phyllanthus emblica*	餘甘子(油甘子)	20
Sh	*Schefflera heptaphylla*	鵝掌柴	20

Plot 2



Plot 3

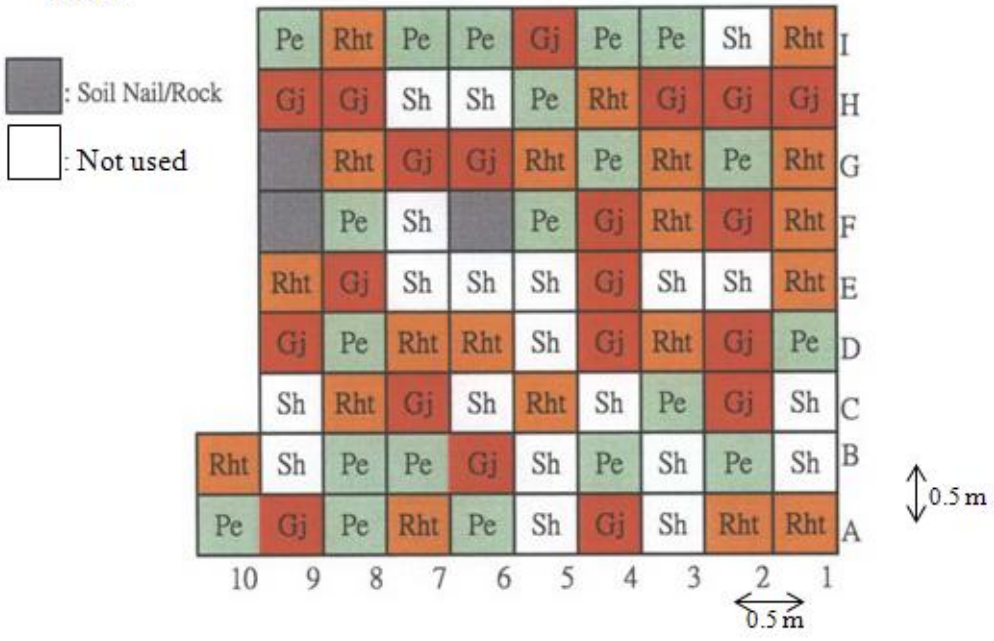


Figure 15 - Arrangement of Planting Grids of Part 2 Stem-cutting Site Trial at Feature No. 12SW-A/C129 (Sheet 2 of 2)

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Feature 11NE-B/C824 (Moderate Site):

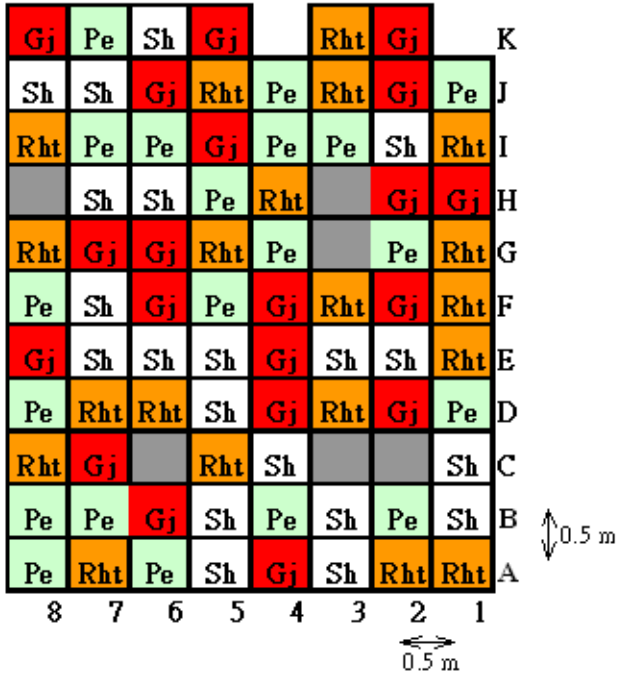
Part 2 - Stem-cutting Site Trial

Abb.	Species	Chinese Name	Total No. (per plot)
Rht	*Rhodomyrtus tomentosa*	桃金娘	20
Gj	*Gardenia jasminoides*	梔子	20
Pe	*Phyllanthus emblica*	餘甘子(油甘子)	20
Sh	*Schefflera heptaphylla*	鵝掌柴	20

: Not used

: Soil Nail/Rock

Plot 1



Plot 2

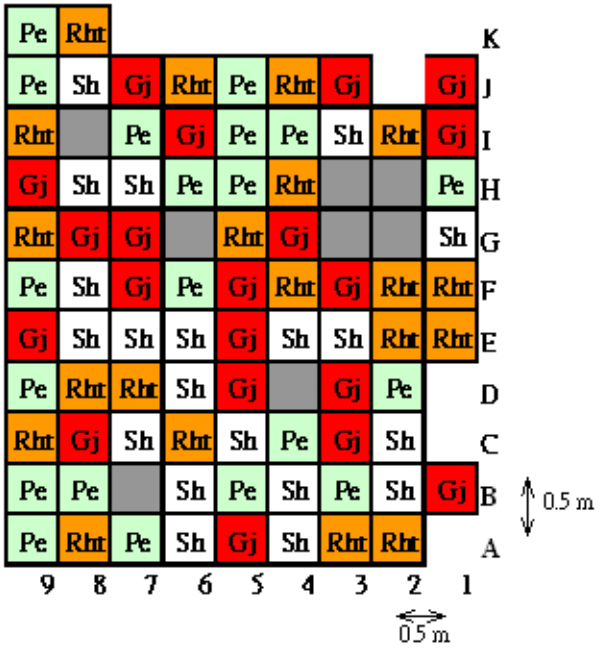


Figure 16 - Arrangement of Planting Grids of Part 2 Stem-cutting Site Trial at Feature No. 11NE-B/C824 (Sheet 1 of 2)

Feature 11NE-B/C824 (Moderate Site):

Part 2 - Stem-cutting Site Trial

Abb.	Species	Chinese Name	Total No. (per plot)
Rht	*Rhodomyrtus tomentosa*	桃金娘	20
Gj	*Gardenia jasminoides*	栀子	20
Pe	*Phyllanthus emblica*	餘甘子(油甘子)	20
Sh	*Schefflera heptaphylla*	鵝掌柴	20

Plot 3

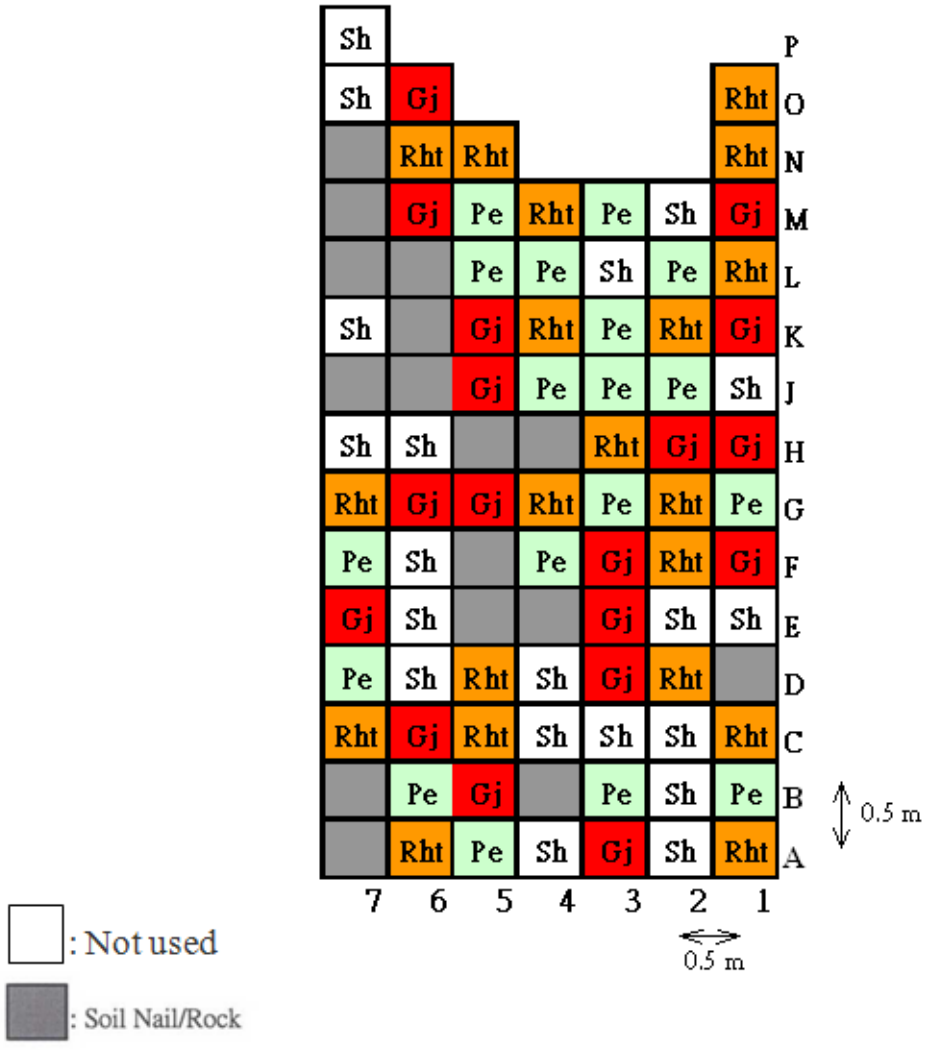


Figure 16 - Arrangement of Planting Grids of Part 2 Stem-cutting Site Trial at Feature No. 11NE-B/C824 (Sheet 2 of 2)

Feature No. 10NE-B/C77 (Favourable Site):

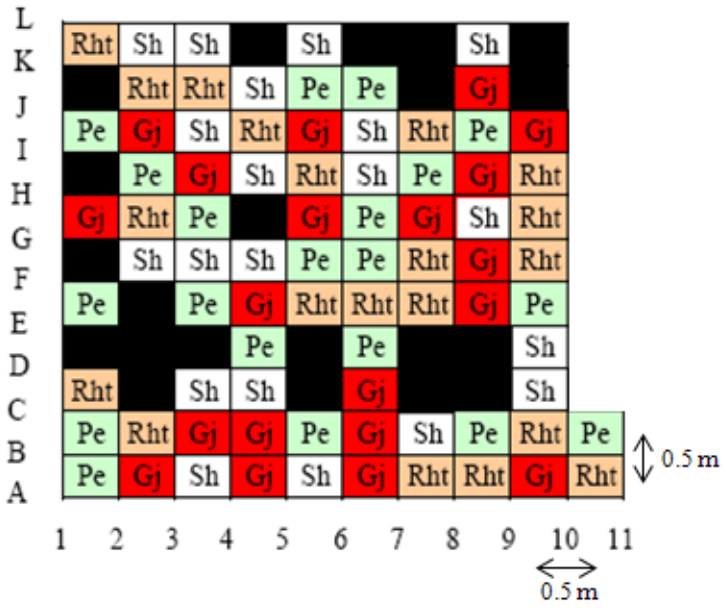
Part 2 - Stem-cutting Site Trial

Abb.	Species	Chinese Name	Total No. (per plot)
Rht	*Rhodomyrtus tomentosa*	桃金娘	20
Gj	*Gardenia jasminoides*	梔子	20
Pe	*Phyllanthus emblica*	餘甘子(油甘子)	20
Sh	*Schefflera heptaphylla*	鵝掌柴	20

: Not used

: Soil Nail/Rock

Plot 1



Plot 2

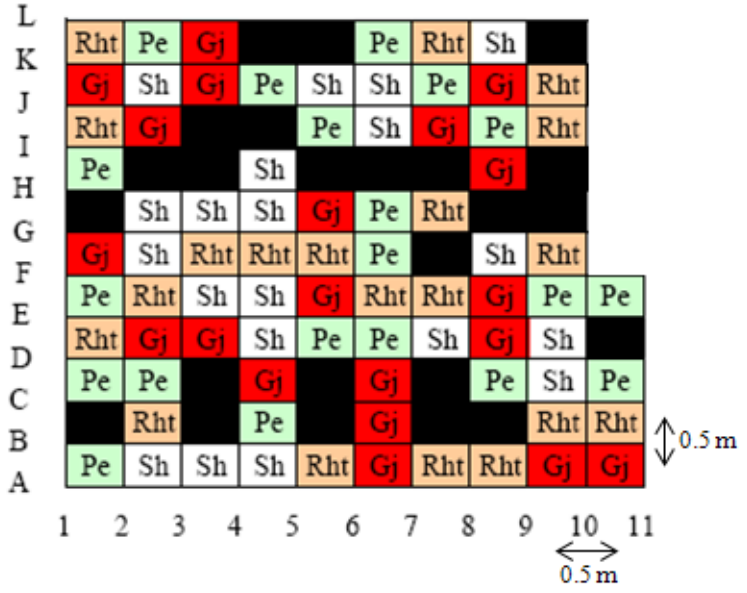


Figure 17 - Arrangement of Planting Grids of Part 2 Stem-cutting Site Trial at Feature No. 10NE-B/C77 (Sheet 1 of 2)

Feature No. 10NE-B/C77 (Favourable Site):

Part 2 - Stem-cutting Site Trial

Abb.	Species	Chinese Name	Total No. (per plot)
Rht	*Rhodomyrtus tomentosa*	桃金娘	20
Gj	*Gardenia jasminoides*	梔子	20
Pe	*Phyllanthus emblica*	餘甘子(油甘子)	20
Sh	*Schefflera heptaphylla*	鵝掌柴	20

: Not used

: Soil Nail/Rock

Plot 3

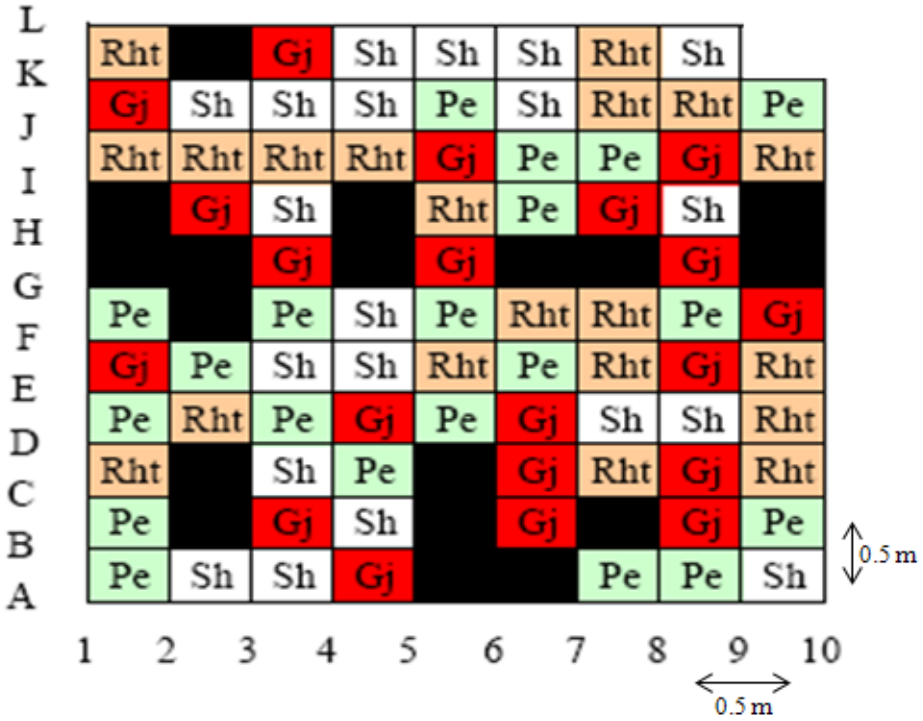


Figure 17 - Arrangement of Planting Grids of Part 2 Stem-cutting Site Trial at Feature No. 10NE-B/C77 (Sheet 2 of 2)

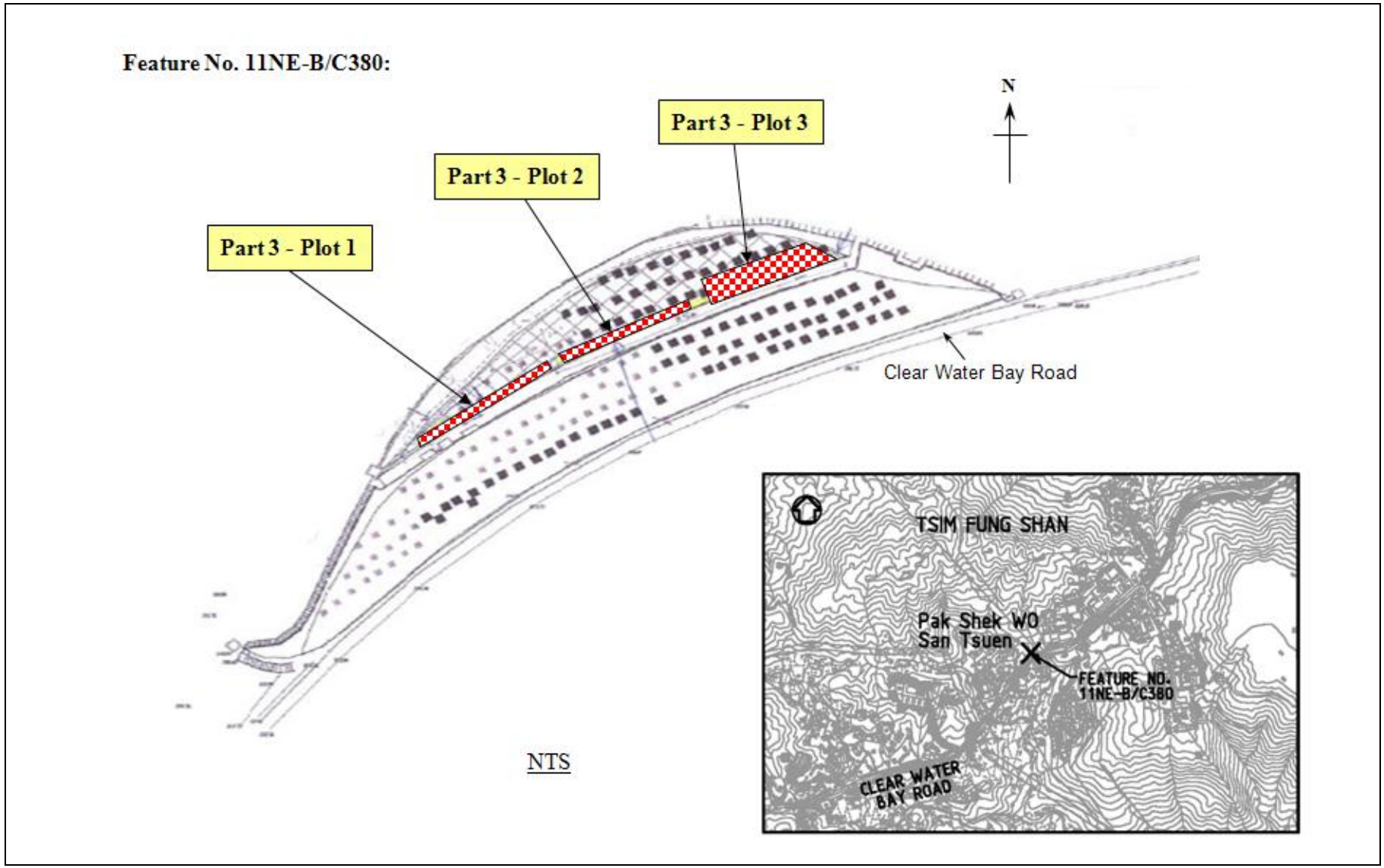
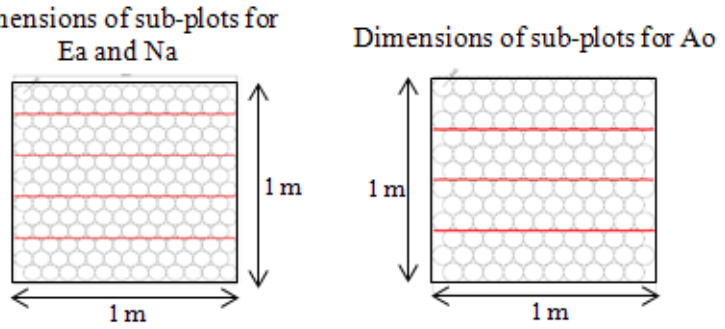


Figure 18 - Locations of Planting Plots for Part 3 of the Site Trials at Feature No. 11NE-B/C380

Total No.	Abb.	Species	Chinese Name
9	Ao	*Alocasia odora*	海芋
9	Ea	*Epipremnum aureum*	綠蘿
9	Na	*Nephrolepis auriculata*	腎蕨



Note: the red lines are wire mesh for support purposes

Plot 1

Ao	Ea	Ea	Na	Ea	Na	Ao	Na	Ao

Plot 2

Ao	Ea	Ea	Na	Ea	Na	Ao	Na	Ao

Plot 3

							Ao	
							Na	
Ao	Ea	Ea	Na	Ea	Na	Ao		

Figure 19 - Arrangement of Planting Grids of Part 3 Site Trial at Feature No. 11NE-B/C380

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LIST OF PLATES

(a) General view of seedlings

(b) Close-up view of an example of the seedlings

Plate 1 - Part 1 Site Trial (Sheet 1 of 2)

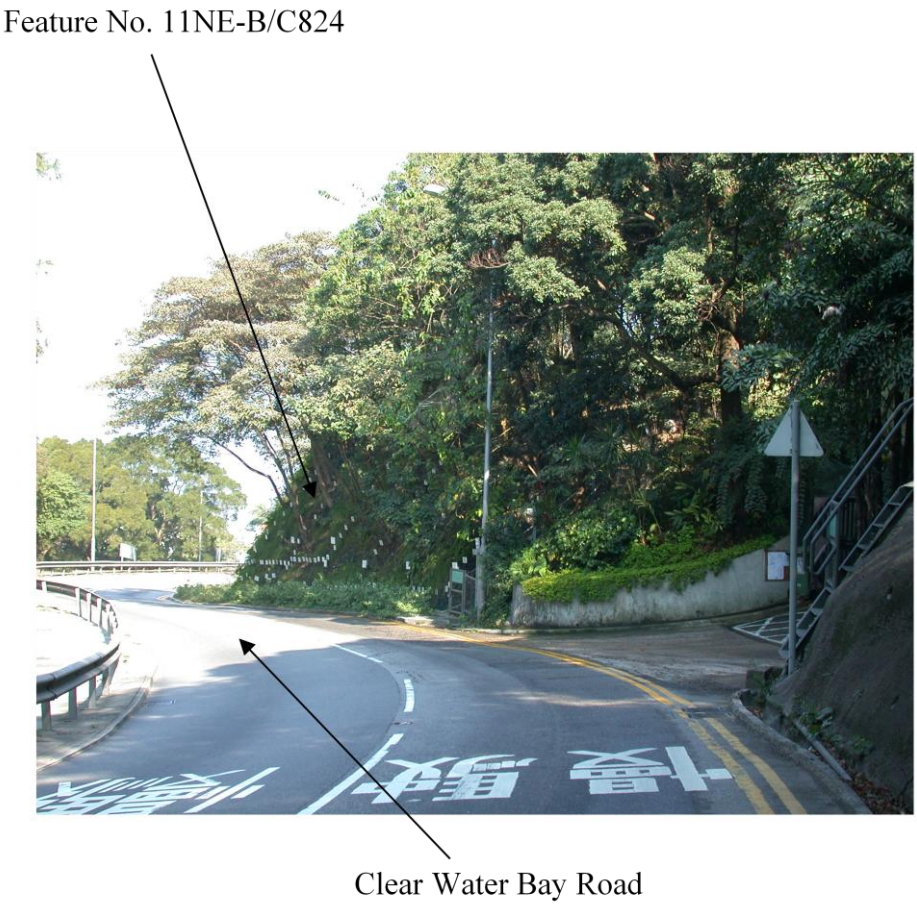
(c) General view of a planting hole

(d) View of seedling following trial planting

Plate 1 - Part 1 Site Trial (Sheet 2 of 2)

General view of Feature No. 12SW-A/C129 before upgrading works

Plate 2 - General View of Feature No. 12SW-A/C129 (Least Favourable Site)

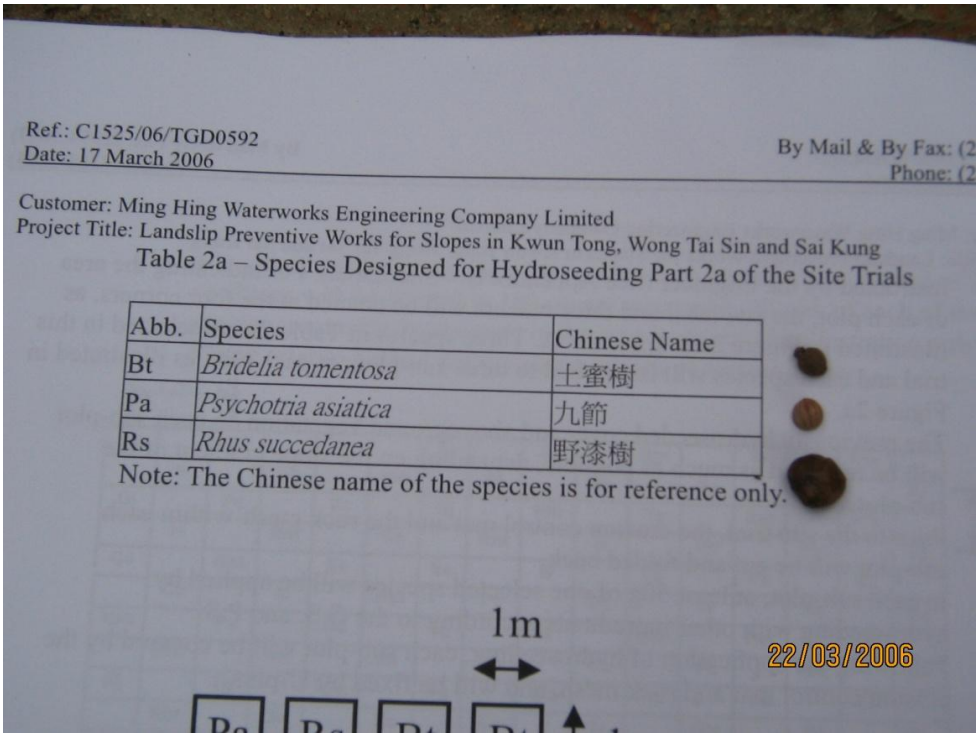


General view of Feature No. 11NE-B/C824 after site trial planting

Plate 3 - General View of Feature No. 11NE-B/C824 (Moderate Site)

A view of Feature No. 10NE-B/C77 after site trial planting

Plate 4 - General View of Feature No. 10NE-B/C77 (Favourable Site)



Ref.: C1525/06/TGD0592
Date: 17 March 2006

By Mail & By Fax: (2
Phone: (2

Customer: Ming Hing Waterworks Engineering Company Limited
Project Title: Landslip Preventive Works for Slopes in Kwun Tong, Wong Tai Sin and Sai Kung

Table 2a – Species Designed for Hydroseeding Part 2a of the Site Trials

Abb.	Species	Chinese Name
Bt	*Bridelia tomentosa*	土蜜樹
Pa	*Psychotria asiatica*	九節
Rs	*Rhus succedanea*	野漆樹

Note: The Chinese name of the species is for reference only.

(a) Close-up view of seeds selected for Part 2 hydroseeding site trial

(b) View of seeds mixing with hydroseeding mix

Plate 5 - Part 2 Hydroseeding Site Trial (Sheet 1 of 2)

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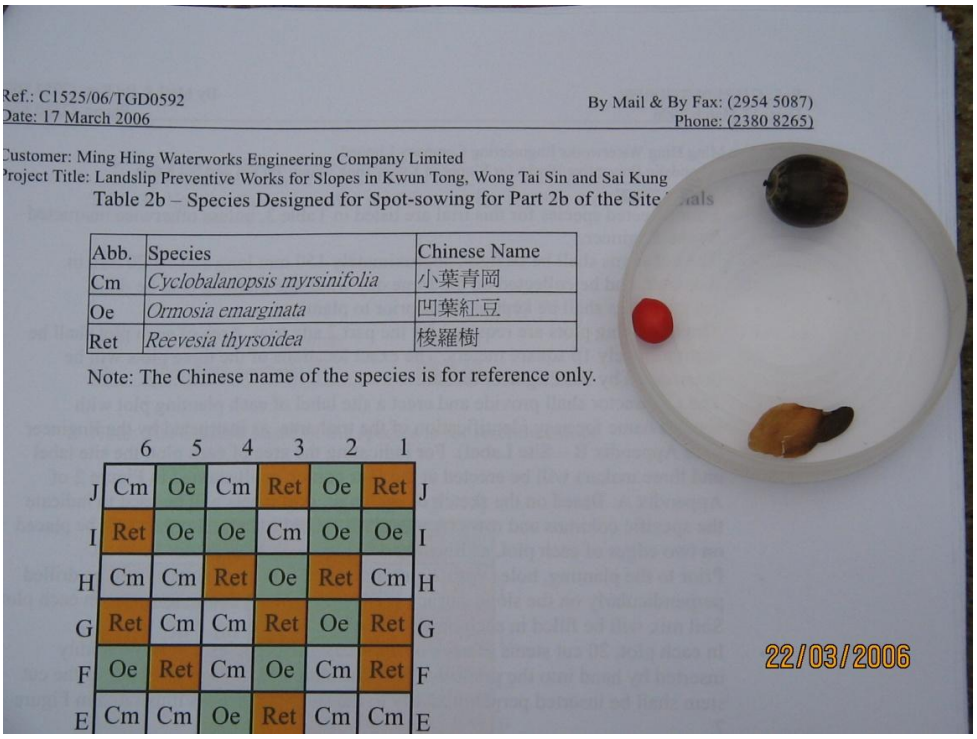
(c) View of a planting plot before application of hydroseeding

(d) View of the planting plot following application of hydroseeding

Plate 5 - Part 2 Hydroseeding Site Trial (Sheet 2 of 2)



Ref.: C1525/06/TGD0592
Date: 17 March 2006

By Mail & By Fax: (2954 5087)
Phone: (2380 8265)

Customer: Ming Hing Waterworks Engineering Company Limited
Project Title: Landslip Preventive Works for Slopes in Kwun Tong, Wong Tai Sin and Sai Kung

Table 2b – Species Designed for Spot-sowing for Part 2b of the Site Trials

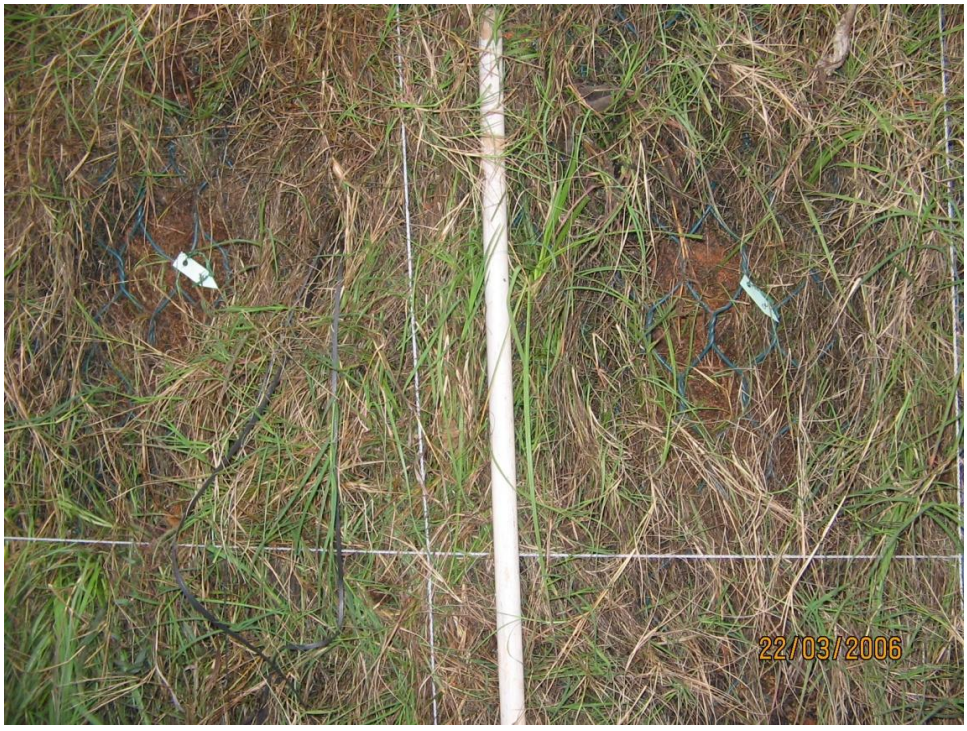
Abb.	Species	Chinese Name
Cm	*Cyclobalanopsis myrsinifolia*	小葉青岡
Oe	*Ormosia emarginata*	凹葉紅豆
Ret	*Reevesia thyrsoidea*	梭羅樹

Note: The Chinese name of the species is for reference only.

	6	5	4	3	2	1	
J	Cm	Oe	Cm	Ret	Oe	Ret	J
I	Ret	Oe	Oe	Cm	Oe	Oe	I
H	Cm	Cm	Ret	Oe	Ret	Cm	H
G	Ret	Cm	Cm	Ret	Oe	Ret	G
F	Oe	Ret	Cm	Oe	Cm	Ret	F
E	Cm	Cm	Oe	Ret	Cm	Cm	E

22/03/2006

(a) Close-up view of seeds selected for Part 2 spot-sowing site trial



(b) View of the planting area following spot-sowing
(Note: Each label tag indicates location of each seed planted underneath the slope surface.)

Plate 6 - Part 2 Spot-sowing Site Trial

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The germination tray of the control of Part 2a and b direct seeding site

Plate 7 - Control Set-up of Part 2 Seeding Site Trial

(a) General view of cut stems collected 24 hours prior to planting

(b) Close-up view cut stems being kept in water prior to planting

Plate 8 - Part 2 Stem-cutting Site Trial (Sheet 1 of 2))

(c) Planting of the cut stem

(d) View of the planting area following planting of cut stem

Plate 8 - Part 2 Stem-cutting Site Trial (Sheet 2 of 2))

Plate 9 - Control Set-up of Part 2 Stem-cutting Site Trial

(a) Close-up view of source of ground covering species for Part 3 Site Trial

(b) View showing site preparation of the site trial area

Plate 10 - Part 3 Ground Covering Species Site Trial (Sheet 1 of 2)

(c) View showing planting work in progress

(d) View of the site trial area after planting works

Plate 10 - Part 3 Ground Covering Species Site Trial (Sheet 2 of 2)

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APPENDIX A

PROJECT BRIEF

evidence that the feature is 'dangerous' or 'liable to become dangerous' in accordance with GEO Circular No. 24.

(e) The Consultants shall attend meetings with the GEO and, if required, other relevant parties to answer queries or appeals, etc., pertinent to the submitted papers or the Stage 2 Reports, if so directed by the DR.

(f) The Consultants shall check the effect of existing utilities within the vicinity of the features and take due consideration of the utilities in their stability assessment.

(g) The Consultants shall carry out survey work including vegetation clearance and scaffolding access as required for the Stage 2 Studies. The Consultants shall submit the survey specification and details of the surveyors engaged to the DR for approval.

(h) The Consultants shall carry out the administrative and technical activities required for accomplishing the Stage 2 Studies (see OP-19, CED Operation Procedures).

(i) If agreed by the DR, the Consultant shall undertake Stage 2 Studies for government features found to be up to current safety standards and not requiring Stage 3 Studies. The remuneration of the Consultants' fee for the services performed in respect of the Stage 2 Studies for government features shall be in accordance with Clause 5(xi) of the Schedule of Fees.

(vi) General

(a) The Consultants shall comply with all current Circulars, Instructions, Standards, Guides, Manuals and Technical Memoranda published by the Government of the Hong Kong Special Administrative Region, including those specified in Clause 10 of this Brief, which are relevant to the carrying out of the Assignment and as directed by the DR.

(b) The Consultants shall supply such information, documents and drawings as may be reasonably required by the DR for compliance with the appropriate Statutory Regulations, Government procedures, Instructions and Circulars in connection with the Project, and shall assist in answering queries on the Project.

(c) The Consultants shall conduct a study on the landscape application of vegetation species on man-made slopes (the Study):

(1) The main tasks of the Study are to:

(a) consolidate a list of vegetation species that are potentially suitable for application on man-made slopes and prepare a plant selection matrix of the vegetation species showing the growth characteristics, environmental tolerances, landscape uses, and other relevant information for each species;

(b) investigate the potential landscape application methods of the vegetation species in terms of the feasibility of applying the species in hydroseeding and pit-planting on man-made slopes, the commercial availability of their seeds and seedlings, and any other aspects that are considered appropriate;

(c) plan, arrange and supervise site trials of various potential species and landscape application methods; and

(d) draw conclusions from the site trials and incorporate findings in the plant selection matrix.

(2) The Consultants shall prepare the following documents:

(a) Before proceeding with the tasks required in Item (1), the Consultants shall prepare an Inception Report containing the following information for acceptance by the DR:

(i) details of the proposed methodology for carrying out the tasks in Item (1);

(ii) a timetable for the various activities related to the Study including the submission of the documents required in Items (2)(b), (c), & (d) and the arrangement of the seminar required in Item (3); and

(iii) presentation formats and outlines of contents of the documents required in Items (2)(b), (c), & (d).

(b) The Consultants shall prepare a Working Paper to document the consolidated list of vegetation species and the plant selection matrix of the vegetation species required in Item (1)(a).

(c) The Consultants shall prepare a Working Paper to document the findings of the investigation required in Item (1)(b) and the proposals for the site trials required in Item (1)(c).

(d) The Consultants shall prepare an interim Study Report as well as a final Study Report to document all the results and findings of the tasks required in Item (1) and to make recommendations giving a clear guidance on the use of the appropriate vegetation species and the plant selection matrix for different man-made slope

conditions.

(3) After completion of the interim Study Report, the Consultants shall arrange and conduct a seminar on the interim Study Report to the GEO for about 100 participants. The seminar shall cover details of the vegetation species that are potentially suitable for application on man-made slopes, details of the investigation carried out and the interim findings and the recommendations made.

(d) The co-ordination of all works in respect of utilities and other services, including reinstatement of roads as a result of the investigation and the associated stabilization measures, shall be the responsibility of the Consultants.

(e) The Consultants shall liaise and assist in negotiation with the relevant parties for any reprovisioning works that may be required as a result of the Assignment.

(f) The Consultants shall advise the school principals concerned of the progress of upgrading works to any features affecting schools, identify the need for contingency plans for the schools concerned and assist the schools to draw up a contingency plan as necessary in consultation with the DR.

(g) The Consultants shall prepare all the reports according to a standard and format approved by the DR. The Consultants shall ensure that all geotechnical submissions, including Stage 2 Study reports and Stage 3 Study reports, are acceptable to the relevant GEO District Divisions.

(h) The Consultants shall carry out six-monthly site safety audits for the GI works, LPM SOR Contract and LPM BOQ Contract. The Consultants shall submit to DR all records relating to the audits for the GI works, LPM SOR Contract and LPM BOQ Contract. Programmes for follow up audits shall be submitted for the DR's agreement as necessary.

(i) The Consultants shall prepare and submit a report summarising the results of all site safety audits carried out by the Consultants and/or the DR for the GI works, LPM SOR Contract and LPM BOQ Contract. Such report should identify commonly recurring problems and suggest reasons why partial compliance or non-compliance of audit items has occurred.

(j) The Consultants are required to prepare a Quality Site Supervision Plan (QSSP) in accordance with Clauses 6.2(ii)(s) & (w) and their own quality management system. The QSSP and its execution shall be subject to Employer's technical audits. The Consultants shall also review the QSSP with the site staff during the construction stage.

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APPENDIX B

QUESTIONNAIRE ON LANDSCAPE STUDY

Fax

To	Mr Leonard Tang/ Ms Irene Or (Tel: 2802 9228) Halcrow China Limited Suite 301, 3/F, Chinachem Golden Plaza 77 Mody Road, Kowloon, Hong Kong	**Fax** **Date**	2827 8352
From		**Fax** **Tel** **Pages**	

Subject: **AGREEMENT NO. CE 14/2003 (GE)**
10-year Extended LPM Project, Phase 4, Package C,
Kwun Tong, Wong Tai Sin and Sai Kung

QUESTIONNAIRE ON LANDSCAPE STUDY

Background:
Halcrow have been appointed by the Geotechnical Engineering Office, Civil Engineering Department to carry out the captioned agreement. As part of the LPM agreement, we are currently undertaking a study on application of various vegetation species for landscaping on man-made slopes in Hong Kong. As part of the study, we are seeking opinions from the practitioners on the landscape application. We would be grateful if you could complete the below questionnaire and return to us by fax before 23 April 2004.

This questionnaire should be read in conjunction with the enclosed Table 1 (6 pages).

Question 1:

From Table 1 and your experience, which vegetation species (at least 10 species, if possible) have been applied on man-made slope most often in the past 10 years? Please rate the greening effectiveness and maintenance requirement of the species of a scale from 1 to 5 (1-least effective and lowest maintenance, 5-most effective and highest maintenance).

Vegetation Species	Rating of Greening Effectiveness (1-least effective, 5-most effective)	Rating of Maintenance Requirement (1-lowest, 5-highest)

…../2

Question 2:

In your experience, what are the most critical factors for the growth of vegetation on man-made slopes?

Question 3:

Please name other species you would like to recommend which are not listed in Table 1.

Question 4:

Do you have any successful or interesting past experience you would like to share with us? (Please briefly describe the case(s) and we will contact you in person)

Supplementary Sheet to Question 1

Vegetation Species	Rating of Greening Effectiveness (1-least effective, 5-most effective)	Rating of Maintenance Requirement (1-lowest, 5-highest)

Table 1 - List of Potentially Suitable Species for Application on Man-made Slopes
(5 March 2004) (Sheet 1 of 6)

Scientific Name	**Chinese Name**	**English Common Name**
Acacia auriculiformis	耳果相思	Ear-leaved Acacia
Acacia confusa	台灣相思	Acacia
Acacia mangium	大葉相思	Big-leaved Acacia
Acronychia pedunculata	山油柑	Acronychia
Adinandra millettii	黃瑞木	Millett's Adinandra
Ailanthus fordii	常綠臭椿	Ailanthus
Alangium chinense	八角楓	Chinese Alangium
Alocasia macrorrhiza	海芋	Giant Alocasia
Albizia lebbeck	大葉合歡	Lebbeck Tree
Antirhea chinensis	毛 茶	Chinese Antirhea
Aporusa dioica	銀柴	Aporusa
Aquilaria sinensis	土沉香	Incense Tree
Archidendrom lucidum	亮葉猴耳環	Chinese Apea Ear-ring
Ardisia crenata	朱砂根	Hilo Holly
Artocarpus hypargyreus	白桂木	Silver-backed Artocarpus
Baeckea frutescens	崗松	Dwarf Mountain Pine
Bambusa tuldoides	花眉竹	Verdant Bamboo
Bauhinia championii	缺葉藤	Champion's Bauhinia
Bauhinia glauca	粉葉羊蹄甲	Climbing Bauhinia
Bauhinia purpurea	紅花羊蹄甲	Purple Camel's Foot
Bauhinia variegata	宮粉羊蹄甲	Camel's Foot Tree
Bischofia javanica	秋楓	Autumn Maple
Blechnum orientale	烏毛蕨	Oriental Blechnum
Bombax ceiba	木棉	Tree Cotton
Bougainvillea spectabilis	葉子花	Beautiful Bougainvillea
Breynia fruticosa	黑面神	Waxy Leaf
Bridelia tomentosa	土密樹	Pop-gun Seed
Broussonetia papyrifera	構樹	Paper Mulberry
Calliandra haematocephala	朱纓花(紅絨球)	Pink Powder Puff
Camellia caudate	長尾毛蕊茶(尾葉茶)	Tail-leaved Camellia
Camellia crapnelliana	紅皮糙果茶(克氏茶)	Crapnell's Camellia
Camellia salicifolia	柳葉茶	Willow-leaved Camellia
Cassia siamea	鐵刀木	Kassod Tree

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Table 1 - List of Potentially Suitable Species for Application on Man-made Slopes
(5 March 2004) (Sheet 2 of 6)

Scientific Name	**Chinese Name**	**English Common Name**
Castanopsis fissa	黧蒴錐(裂斗錐栗)	Castnaopsis
Casuarina equisetifolia	木麻黃	Horsetail Tree
Celtis tetrandra subsp. *sinensis*	朴樹(相思樹)	Chinese Hackberry
Choerospondias axillaris	南酸棗	Hog Plum
Cinnamomum camphora	樟樹	Camphor Tree
Clerodendrum fortunatum	白花燈籠（鬼燈籠)	Glorybower
Cratoxylum cochinchinense	黃牛木	Yellow Cow Wood
Cyclobalanopsis championii	嶺南青岡	Champion's Oak
Cyclobalanopsis edithiae	華南青岡	Thick-leaved Oak
Cyclobalanopsis myrsinifolia	小葉青岡	Small-leaved Oak
Cyclobalanopsis neglecta	竹葉青岡	Bamboo-leaved Oak
Cyclosorus parasiticus	華南毛蕨	Wood-fern
Dalbergia benthamii	兩廣黃檀	Bentham's Rose-wood
Dalbergia hancei	藤黃檀	Scandent Rosewood
Daphniphyllum calycinum	牛耳楓	N.A.
Daphniphyllum oldhamii	虎皮楠(交讓木)	N.A.
Delonix regia	鳳凰木	Flame Tree, Flame of the Forest
Desmodium heterocarpon	假地豆	False Groundnut
Demos chinensis	假鷹爪	Desmos
Dicranopteris pedata	芒萁	Dichotomy Forked Fern
Dimocarpus longan	龍眼	Longan
Diospyros morrisiana	羅浮柿	Morris's Persimmon
Diospyros vaccinioides	小果柿	Small Persimmon
Diplospora dubia	狗骨柴	Common Tricalysia
Duranta erecta	假連翹	Golden Dewdrops
Elaeocarpus chinensis	中華杜英	Chinese Elaeocarpus
Elaeocarpus sylvestris	山杜英	Woodland Elaeocarpus
Embelia laeta	酸藤子	Twig-hanging Embelia
Endospermum chinense	黃桐	Endospermum
Enkianthus quinqueflorus	吊鐘花	Chinese New Year Flower
Epipremnum aureum	綠蘿(芋葉藤)	Ivy-arum
Eucalyptus citriodora	檸檬桉	Lemon-scented Gum
Eucalyptus robusta	大葉桉	Swamp Mahogany

Table 1 - List of Potentially Suitable Species for Application on Man-made Slopes
(5 March 2004) (Sheet 3 of 6)

Scientific Name	**Chinese Name**	**English Common Name**
Eucalyptus robusta	大葉桉	Swamp Mahogany
Eucalyptus tereticornis	細葉桉	Forest Gray Gum
Eurya chinensis	米碎花	Chinese Eurya
Eurya nitida	細齒葉柃	Shining Eurya
Ficus hirta	粗葉榕	Hairy Fig
Ficus hispida	對葉榕	Opposite-leaved Fig
Ficus microcarpa	榕樹(細葉榕)	Chinese Banyan
Ficus pumila	薜荔	Creeping Fig
Ficus superba var. *japonica*	筆管榕	Japanese Superb Fig
Ficus variegata var. chlorocarpa	青果榕	Common Red-stem Fig
Ficus variolosa	變葉榕	Varied-leaf Fig
Ficus virens var. *sublanceolata*	大葉榕	Big-leaved Fig
Garcinia oblongifolia	嶺南山竹子	Lingnan Garcinia
Gardenia jasminoides	梔子(水橫枝)	Cape Jasmine
Gordoria axillaries	大頭茶	Hong Kong Gordonia
Grevillea robusta	銀樺	Silk Oak
Hedera helix	洋常春藤	Ivy
Helicteres angustifolia	山芝麻	Narrow-leaved Screwtree
Hibiscus rosa-sinensis	朱槿(大紅花)	Chinese Hibiscus
Hibiscus tiliaceus	黃槿	Cuban Bast
Ilex asprella	梅葉冬青	Rough-leaved Holly
Ilex cinerea	灰冬青	Gray Holly
Ilex rotunda	鐵冬青	Chinese Holly
Ilex viridis	綠冬青(亮葉冬青)	Small-leaved Holly
Ipomoea cairica	五爪金龍	Gairo Morning Glory
Ixora chinensis	龍船花	Chinese Ixora
Lantana camara	馬纓丹	Lantana
Lantana montevidensis	小葉馬纓丹(舖地臭金鳳)	Trailing Lantana
Ligustrum sinense	山指甲	Chinese Privet
Liquidambar formosana	楓香	Sweet Gum
Lithocarpus glabra	柯	Tanoak
Lithocarpus harlandii	港柯	Harland's Tanbark
Litsea cubeba	木薑子	Fragrant Litsea

Table 1 - List of Potentially Suitable Species for Application on Man-made Slopes
(5 March 2004) (Sheet 4 of 6)

Scientific Name	**Chinese Name**	**English Common Name**
Litsea glutinosa	潺槁樹	Pond Spice
Litsea rotundifolia var. *oblongifolia*	豺皮樟	Oblong-leaved Litsea
Lophostemon confertus	紅膠木	Brisbane Box
Lygodium japonicum	海金沙	Climbing Fern
Macaranga tanarius	血桐	Elephant's Ear
Machilus breviflora	短序潤楠	Short-flowered Machilus
Machilus chekiangensis	浙江潤楠	Chekiang Machilus
Machilus pauhoi	刨花潤楠	Many-nerved Machilus
Machilus velutina	絨毛潤楠	Woolly Machilus
Maesa perlarius	鯽魚膽	N.A.
Magnolia grandiflora	荷花玉蘭	Bull Bay / Southern Magnolia
Mallotus paniculatus	白楸	Turn-in-the-wiind
Mangifera indica	杧果	Mango
Melaleuca quinquenervia	白千層	Paper-bark Tree
Melastoma candidum	野牡丹	Common Melastoma
Melastoma sanguineum	毛蒽	Blood-red Melastoma
Melia azaderach	楝(苦楝)	China-berry
Melicope pteleifolia	密茱萸(三椏苦)	Thin Evodia
Michelia alba	白蘭	White Jade Orchid Tree
Microcos nervosa (*paniculata*)	破布葉	Microcos
Millettia nitida	亮葉崖豆藤	Glittering-leaved Millettia
Mussaenda pubescens	玉葉金花	Splash-of-white
Myrica rubra	楊梅	Strawberry Tree
Ormosia emarginata	凹葉紅豆	Emarginate-leaved Ormosia
Ormosia pachycarpa	茸莢紅豆	Hairy-fruited Ormosia
Ormosia semicastrata	軟莢紅豆	Soft-fruited Ormosia
Osmanthus fragrans	桂花	Kwai-Fah
Paederia scandens	雞矢藤	Chinese Fevervine
Palhinhaea cernua	鋪地蜈蚣	Nodding Clunmoss
Parthenocissus dalzielii	異葉爬牆虎	Diverse-leaved Creeper
Philodendron cordatum	心葉喜樹蕉	Heart-leafed Philodendron
Phoenix hanceana	刺葵	Spiny Date Palm

Table 1 - List of Potentially Suitable Species for Application on Man-made Slopes
(5 March 2004) (Sheet 5 of 6)

Scientific Name	**Chinese Name**	**English Common Name**
Phyllanthus emblica	餘甘子(油甘子)	Myrobalan
Pinus elliottii	愛氏松	Slash Pine
Pityrogramma calomelanos	粉葉蕨	Silver Fern
Psychotria asiatica	九節(山大刀)	Wild Coffee
Pteris semipinnata	半邊旗	Semi-pinnated Brake
Pteris vittata	蜈蚣草	Ladder Brake
Raphiolepis indica	石斑木(車輪梅、春花)	Hongkong Hawthorn
Reevesia thyrsoidea	梭羅樹	Reevesia
Rhododendron mucronatum	白杜鵑	White Azalea
Rhododendron pulchrum	錦繡杜鵑	Lovely Azalea
Rhododendron pulchrum var. *phoeniceum*	紫杜鵑花	Purple Azalea
Rhododendron simsii	紅杜鵑	Red Azalea
Rhodoleia championii	紅花荷	Rhodoleia
Rhodomyrtus tomentosa	桃金孃(崗棯)	Rose Myrtle
Rhus chinensis	鹽膚木	Sumac
Rhus succedanea	木蠟樹(野漆樹)	Wax Tree
Rubus reflexus	鏽毛莓	Rusty-haired Raspberry
Sapindus saponaria	無患子(木患子)	Soap Berry
Sapium discolor	山烏桕	Mountain Tallow Tree
Sapium sebiferum	烏桕	Chinese Tallow Tree
Sarcandra glabra	草珊瑚	Sarcandra
Schefflera heptaphylla	鵝掌柴(鴨腳木)	Ivy Tree
Schima superba	木荷(荷樹)	Schima
Scolopia chinensis	刺柊	Chinese Scolopia
Selaginella uncinata	翠雲草	Blue Selaginella
Sterculia lanceolata	假蘋婆	Scarlet Sterculia
Strophanthus divaricatus	羊角拗	Goat Horns
Symplocos glauca	羊舌樹	Glaucous Sweet-Leaf
Syzygium cumini	海南蒲桃	Jambolan Plum
Syzygium hancei	韓氏蒲桃	Hance's Syzygium
Syzygium jambos	蒲桃	Rose Apple
Ternstroemia gymnanthera	厚皮香	Naked Anther Ternstroemia

Table 1 - List of Potentially Suitable Species for Application on Man-made Slopes (5 March 2004) (Sheet 6 of 6)

Scientific Name	**Chinese Name**	**English Common Name**
Tetracera asiatica	錫葉藤	Sandpaper Vine
Trema tomentosa	山黃麻	India-Charcoal Trema
Tutcheria championii	石筆木	Common Tutcheria
Viburnum odoratissimum	珊瑚樹	Sweet Viburnum
Washingtonia robusta	華盛頓葵	Petticoat Palm
Wedelia trilobata	三裂葉蟛蜞菊	N.A.
Zanthoxylum avicennae	簕欓花椒(簕欓)	Prickly Ash

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APPENDIX C

QUESTIONNAIRE OF COMMERCIAL AVAILABILITY SURVEY

Table 1 - Commercial Availability of Vegetation Specie (Page 1 of 15)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Acacia auriculiformis (耳果相思)							
Acacia confusa (台灣相思)							
Acacia mangium (大葉相思)							
Acronychia pedunculata (山油柑)							
Adinandra millettii (黃瑞木)							
Ailanthus fordii (常綠臭椿)							
Alangium chinense (八角楓)							
Albizia lebbeck (大葉合歡)							
Alocasia macrorrhiza (海芋)							
Antirhea chinensis (毛茶)							
Aporusa dioica (銀柴)							
Aquilaria sinensis (土沉香)							

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Table 1 - Commercial Availability of Vegetation Specie (Page 2 of 15)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Archidendrom lucidum (亮葉猴耳環)							
Ardisia crenata (朱砂根)							
Artocarpus hypargyreus (白桂木)							
Axonopus affinis (地毯草)							
Baeckea frutescens (崗松)							
Bambusa tuldoides (花眉竹)							
Bauhinia championii (缺葉藤)							
Bauhinia glauca (粉葉羊蹄甲)							
Bauhinia purpurea (紅花羊蹄甲)							
Bauhinia variegata (宮粉羊蹄甲)							
Bischofia javanica (秋楓)							
Blechnum orientale (烏毛蕨)							

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Table 1 - Commercial Availability of Vegetation Specie (Page 3 of 15)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Bombax ceiba (木棉)							
Bougainvillea spectabilis (葉子花)							
Breynia fruticosa (黑面神)							
Bridelia tomentosa (土密樹)							
Broussonetia papyrifera (構樹)							
"Calliandra haematocephala (朱纓花(紅絨球))"							
"Camellia caudata (長尾毛蕊茶(尾葉茶))"							
"Camellia crapnelliana (紅皮糙果茶(克氏茶))"							
Camellia salicifolia (柳葉茶)							
Cassia siamea (鐵刀木)							
"Castanopsis fissa (黧蒴錐(裂斗錐栗))"							
Casuarina equisetifolia (木麻黃)							

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Table 1 - Commercial Availability of Vegetation Specie (Page 4 of 15)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Celtis tetrandra subsp. Sinensis (朴樹(相思樹))							
Choerospondias axillaris (南酸棗)							
Cinnamomum camphora (樟樹)							
"Clerodendrum fortunatum (白花燈籠 (鬼燈籠))"							
"Cratoxylum cochinchinense (黃牛木)"							
"Cyclobalanopsis championii (嶺南青岡)"							
"Cyclobalanopsis edithiae (華南青岡)"							
"Cyclobalanopsis myrsinifolia (小葉青岡)"							
"Cyclobalanopsis neglecta (竹葉青岡)"							
"Cyclosorus parasiticus (華南毛蕨)"							
Cynodon dactylon (狗牙根)							
"Dalbergia benthamii (兩廣黃檀)"							

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Table 1 - Commercial Availability of Vegetation Specie (Page 5 of 15)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Dalbergia hancei (藤黃檀)							
"Daphniphyllum calycinum (牛耳楓)"							
"Daphniphyllum oldhamii (虎皮楠(交讓木))"							
Delonix regia (鳳凰木)							
"Desmodium heterocarpon (鳳凰木)"							
Desmos chinensis (假鷹爪)							
Dicranopteris pedata (芒萁)							
Dimocarpus longan (龍眼)							
Diospyros morrisiana (羅浮柿)							
Diospyros vaccinioides (小果柿)							
Diplospora dubia (狗骨柴)							
Dodonaea viscose (車桑子)							

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Table 1 - Commercial Availability of Vegetation Specie (Page 6 of 15)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Duranta erecta (假連翹)							
Elaeocarpus chinensis (中華杜英)							
Elaeocarpus sylvestris (山杜英)							
Embelia laeta (酸藤子)							
Endospermum chinense (黃桐)							
Enkianthus quinqueflorus (吊鐘花)							
"Epipremnum aureum (綠蘿(芋葉藤))"							
Eremochloa ciliaris (蜈蚣草)							
Eremochloa ophiuroides (假儉草)							
Eucalyptus citriodora (檸檬桉)							
Eucalyptus robusta (大葉桉)							
Eucalyptus tereticornis (細業桉)							

Table 1 - Commercial Availability of Vegetation Specie (Page 7 of 15)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Eurya chinensis (米碎花)							
Eurya nitida (細齒葉柃)							
Ficus hirta (粗葉榕)							
Ficus hispida (對葉榕)							
Ficus microcarpa (榕樹(細葉榕))							
Ficus pumila (薜荔)							
"Ficus superba var. japonica (筆管榕)"							
"Ficus variegata var. chlorocarpa (青果榕)"							
Ficus variolosa (變葉榕)							
"Ficus virens var. sublanceolata (大葉榕)"							
"Garcinia oblongifolia (嶺南山竹子)"							
"Gardenia jasminoides (梔子(水橫枝))"							

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Table 1 - Commercial Availability of Vegetation Specie (Page 8 of 15)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Gordoria axillaris (大頭茶)							
Grevillea robusta (銀樺)							
Hedera helix (洋常春藤)							
Helicteres angustifolia (山芝麻)							
"Hibiscus rosa-sinensis (朱槿(大紅花))"							
Hibiscus tiliaceus (黃槿)							
Ilex asprella (梅葉冬青)							
Ilex cinerea (灰冬青)							
Ilex rotunda (鐵冬青)							
Ilex viridis (綠冬青(亮葉冬青))							
Ipomoea cairica (五爪金龍)							
Ixora chinensis (龍船花)							

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Table 1 - Commercial Availability of Vegetation Specie (Page 9 of 15)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Lantana camara (馬纓丹)							
"Lantana montevidensis (小葉馬纓丹(舖地臭金鳳))"							
Ligustrum sinense (山指甲)							
Liquidambar formosana (楓香)							
Litchi chinensis (荔枝)							
Lithocarpus glabra (柯)							
Lithocarpus harlandii (港柯)							
Litsea cubeba (木薑子)							
Litsea glutinosa (潺槁樹)							
"Litsea rotundifolia var. oblongifolia (豺皮樟)"							
Lophostemon confertus (紅膠木)							
Lygodium japonicum (海金沙)							

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Table 1 - Commercial Availability of Vegetation Specie (Page 10 of 15)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Macaranga tanarius (血桐)							
Machilus breviflora (短序潤楠)							
"Machilus chekiangensis (浙江潤楠)"							
Machilus pauhoi (刨花潤楠)							
Machilus velutina (絨毛潤楠)							
Maesa perlarius (鯽魚膽)							
Magnolia grandiflora (荷花玉蘭)							
Mallotus paniculatus (白楸)							
Mangifera indica (杧果)							
"Melaleuca quinquenervia (白千層)"							
Melastoma candidum (野牡丹)							
Melastoma dodecandrum (地菥)							

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Table 1 - Commercial Availability of Vegetation Specie (Page 11 of 15)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Melastoma sanguineum (毛蒽)							
Melia azaderach (楝(苦楝))							
"Melicope pteleifolia (密茱萸(三桠苦))"							
Michelia alba (白蘭)							
"Microcos nervosa (paniculata) (破布葉)"							
Millettia nitida (亮葉崖豆藤)							
Mussaenda pubescens (玉葉金花)							
Myrica rubra (楊梅)							
Ormosia emarginata (凹葉紅豆)							
Ormosia pachycarpa (茸荚紅豆)							
Ormosia semicastrata (軟荚紅豆)							
Osmanthus fragrans (桂花)							

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Table 1 - Commercial Availability of Vegetation Specie (Page 12 of 15)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Paederia scandens (雞矢藤)							
Palhinhaea cernua (鋪地蜈蚣)							
"Parthenocissus dalzielii (異葉爬牆虎)"							
Paspalum notatum (百喜草)							
"Philodendron cordatum (心葉喜樹蕉)"							
Phoenix hanceana (刺葵)							
"Phyllanthus emblica (餘甘子(油甘子))"							
Pinus elliottii (愛氏松)							
"Pityrogramma calomelanos (粉葉蕨)"							
"Psychotria asiatica (九節(山大刀))"							
Pteris semipinnata (半邊旗)							
Pteris vittata (蜈蚣草)							

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Table 1 - Commercial Availability of Vegetation Specie (Page 13 of 15)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
"Raphiolepis indica (石斑木(車輪梅、春花))"							
Reevesia thyrsoidea (梭羅樹)							
"Rhododendron mucronatum (白杜鵑)"							
"Rhododendron pulchrum (錦繡杜鵑)"							
Rhododendron pulchrum var. phoeniceum (紫杜鵑花)							
Rhododendron simsii (紅杜鵑)							
Rhodoleia championii (紅花荷)							
"Rhodomyrtus tomentosa (桃金孃(崗棯))"							
Rhus chinensis (鹽膚木)							
"Rhus succedanea (木蠟樹(野漆樹))"							
Rubus reflexus (鏽毛莓)							
"Sapindus saponaria (無患子(木患子))"							

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Table 1 - Commercial Availability of Vegetation Specie (Page 14 of 15)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Sapium discolor (山烏桕)							
Sapium sebiferum (烏桕)							
Sarcandra glabra (草珊瑚)							
"Schefflera heptaphylla (鵝掌柴(鴨腳木))"							
Schima superba (木荷(荷樹))							
Scolopia chinensis (刺柊)							
Selaginella uncinata (翠雲草)							
Sterculia lanceolata (假蘋婆)							
"Strophanthus divaricatus (羊角拗)"							
Symplocos glauca (羊舌樹)							
Syzygium cumini (海南蒲桃)							
Syzygium hancei (韓氏蒲桃)							

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Table 1 - Commercial Availability of Vegetation Specie (Page 15 of 15)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Syzygium jambos (蒲桃)							
"Ternstroemia gymnanthera (厚皮香)"							
Tetracera asiatica (錫葉藤)							
Trema tomentosa (山黃麻)							
Tutcheria championii (石筆木)							
Viburnum odoratissimum (珊瑚樹)							
Washingtonia robusta (華盛頓葵)							
Wedelia trilobata (三裂葉蟛蜞菊)							
"Zanthoxylum avicennae (簕欓花椒(簕欓))"							
Zoysia matrella (溝葉結縷草)							
Zoysia sinica (中華結縷草)							
Zoysia tenuifolia (細葉結縷草)							

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APPENDIX D

DATA OF COMMERCIAL AVAILABILITY SURVEY

Table D1 - Response to the Commercial Availability Survey from Company A (Sheet 1 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Acacia auriculiformis (耳果相思)	Whip	$ 4/ whip	Y	China	7 days	500 whips	Fertilizing, watering
Acacia confusa (台灣相思)	Whip	$ 4/ whip	Y	China	7 days	500 whips	Fertilizing, watering
Acacia mangium (大葉相思)	Whip	$ 4/ whip	Y	China	7 days	500 whips	Fertilizing, watering
Acronychia pedunculata (山油柑)	Whip	$ 5/ whip	Y	China	7 days	500 whips	Fertilizing, watering
Adinandra millettii (黃瑞木)							
Ailanthus fordii (常綠臭椿)							
Alangium chinense (八角楓)	Whip	$ 8/ whip	Y	China	7 days	500 whips	Fertilizing, watering
Albizia lebbeck (大葉合歡)	Whip	$ 4/ whip	Y	China	7 days	500 whips	Fertilizing, watering
Alocasia macrorrhiza (海芋)	Whip	$ 4/ whip	Y	China	7 days	500 whips	Fertilizing, watering
Antirhea chinensis (毛茶)							
Aporusa dioica (銀柴)							
Aquilaria sinensis (土沉香)							
Archidendrom lucidum (亮葉猴耳環)							
Ardisia crenata (朱砂根)							
Artocarpus hypargyreus (白桂木)	Whip	$ 8/ whip	Y	China	7 days	500 whips	Fertilizing, watering
Axonopus affinis (地毯草)	Grass	$ 25/ m2	Y	China	14 days	500 m2	Watering
Baeckea frutescens (崗松)							
Bambusa tuldoides (花眉竹)	Whip	$ 20/ whip	Y	China	14 days	300 whips	Fertilizing, watering
Bauhinia championii (缺葉藤)							
Bauhinia glauca (粉葉羊蹄甲)	Whip	$ 10/ whip	Y	China	14 days	300 whips	Fertilizing, watering

Table D1 - Response to the Commercial Availability Survey from Company A (Sheet 2 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Bauhinia purpurea (紅花羊蹄甲)	Whip	$ 8/ whip	Y	China	14 days	500 whips	Fertilizing, watering
Bauhinia variegata (宮粉羊蹄甲)	Whip	$ 8/ whip	Y	China	14 days	500 whips	Fertilizing, watering
Bischofia javanica (秋楓)	Whip	$ 5/ whip	Y	China	14 days	500 whips	Fertilizing, watering
Blechnum orientale (烏毛蕨)							
Bombax ceiba (木棉)	Std. tree	$ 50/ tree	Y	China	7 days	100 trees	Fertilizing, watering
Bougainvillea spectabilis (葉子花)							
Breynia fruticosa (黑面神)							
Bridelia tomentosa (土密樹)	Whip	$ 12/ whip	Y	China	7 days	500 whips	Fertilizing, watering
Broussonetia papyrifera (構樹)							
Calliandra haematocephala (朱纓花(紅絨球))	Whip	$ 4/ whip	Y	China	7 days	500 whips	Fertilizing, watering
Camellia caudata (長尾毛蕊茶(尾葉茶))							
Camellia crapnelliana (紅皮糙果茶(克氏茶))							
Camellia salicifolia (柳葉茶)							
Cassia siamea (鐵刀木)	Light std. tree	$ 50/ tree	Y	China	7 days	100 trees	Fertilizing, watering
Castanopsis fissa (黧蒴錐(裂斗錐栗))	Whip	$ 8/ whip	Y	China	7 days	500 whips	Fertilizing, watering
Casuarina equisetifolia (木麻黃)	Whip	$ 5/ whip	Y	China	7 days	500 whips	Fertilizing, watering
Celtis tetrandra subsp. *Sinensis* (朴樹(相思樹))	Whip	$ 5/ whip	Y	China	7 days	500 whips	Fertilizing, watering
Choerospondias axillaris (南酸棗)							
Cinnamomum camphora (樟樹)	Whip	$ 5/ whip	Y	China	7 days	500 whips	Fertilizing, watering

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Table D1 - Response to the Commercial Availability Survey from Company A (Sheet 3 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Clerodendrum fortunatum (白花燈籠 (鬼燈籠))							
Cratoxylum cochinchinense (黃牛木)							
Cyclobalanopsis championii (嶺南青岡)							
Cyclobalanopsis edithiae (華南青岡)							
Cyclobalanopsis myrsinifolia (小葉青岡)							
Cyclobalanopsis neglecta (竹葉青岡)							
Cyclosorus parasiticus (華南毛蕨)							
Cynodon dactylon (狗牙根)							
Dalbergia benthamii (兩廣黃檀)							
Dalbergia hancei (藤黃檀)							
Daphniphyllum calycinum (牛耳楓)							
Daphniphyllum oldhamii (虎皮楠(交讓木))							
Delonix regia (鳳凰木)	Whip	$ 18/ whip	Y	China	14 days	200 whips	Fertilizing, watering
Desmodium heterocarpon (鳳凰木)	Whip	$ 18/ whip	Y	China	14 days	200 whips	Fertilizing, watering
Desmos chinensis (假鷹爪)							
Dicranopteris pedata (芒萁)							
Dimocarpus longan (龍眼)							
Diospyros morrisiana (羅浮柿)							

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Table D1 - Response to the Commercial Availability Survey from Company A (Sheet 4 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
*Diospyros vaccinioides (*小果柿)							
*Diplospora dubia (*狗骨柴)							
Dodonaea viscose (車桑子)							
*Duranta erecta (*假連翹)	Whip	$ 8/ whip	Y	China	7 days	500 whips	Fertilizing, watering
*Elaeocarpus chinensis (*中華杜英)							
*Elaeocarpus sylvestris (*山杜英)							
*Embelia laeta (*酸藤子)							
*Endospermum chinense (*黃桐)							
*Enkianthus quinqueflorus (*吊鐘花)							
*Epipremnum aureum (*綠蘿(芋葉藤))	Whip	$ 3/ whip	Y	China	7 days	500 whips	Fertilizing, watering
Eremochloa ciliaris (蜈蚣草)							
Eremochloa ophiuroides (假儉草)							
*Eucalyptus citriodora (*檸檬桉)	Whip	$ 5/ whip	Y	China	7 days	500 whips	Fertilizing, watering
*Eucalyptus robusta (*大葉桉)	Whip	$ 5/ whip	Y	China	7 days	500 whips	Fertilizing, watering
*Eucalyptus tereticornis (*細業桉)	Whip	$ 5/ whip	Y	China	7 days	500 whips	Fertilizing, watering
*Eurya chinensis (*米碎花)							
*Eurya nitida (*細齒葉柃)							
*Ficus hirta (*粗葉榕)	Whip	$ 10/ whip	Y	China	7 days	500 whips	Fertilizing, watering
*Ficus hispida (*對葉榕)							

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Table D1 - Response to the Commercial Availability Survey from Company A (Sheet 5 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Ficus microcarpa (榕樹(細葉榕))	Whip	$ 4/ whip	Y	China	7 days	500 whips	Fertilizing, watering
Ficus pumila (薜荔)	Whip	$ 4/ whip	Y	China	7 days	500 whips	Fertilizing, watering
Ficus superba var. *japonica* (筆管榕)							
Ficus variegata var. *chlorocarpa* (青果榕)							
Ficus variolosa (變葉榕)	Whip	$ 7/ whip	Y	China	7 days	500 whips	Fertilizing, watering
Ficus virens var. *sublanceolata* (大葉榕)	Whip	$ 8/ whip	Y	China	7 days	500 whips	Fertilizing, watering
Garcinia oblongifolia (嶺南山竹子)							
Gardenia jasminoides (梔子(水橫枝))							
Gordoria axillaris (大頭茶)	Whip	$ 4/ whip	Y	China	7 days	500 whips	Fertilizing, watering
Grevillea robusta (銀樺)	Whip	$ 5/ whip	Y	China	7 days	500 whips	Fertilizing, watering
Hedera helix (洋常春藤)							
Helicteres angustifolia (山芝麻)							
Hibiscus rosa-sinensis (朱槿(大紅花))	Whip	$ 4/ whip	Y	China	7 days	500 whips	Fertilizing, watering
Hibiscus tiliaceus (黃槿)	Whip	$ 5/ whip	Y	China	7 days	500 whips	Fertilizing, watering
Ilex asprella (梅葉冬青)							
Ilex cinerea (灰冬青)							
Ilex rotunda (鐵冬青)							
Ilex viridis (綠冬青(亮葉冬青))							
Ipomoea cairica (五爪金龍)							

Table D1 - Response to the Commercial Availability Survey from Company A (Sheet 6 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Ixora chinensis (龍船花)	Whip	$ 4/ whip	Y	China	7 days	500 whips	Fertilizing, watering
Lantana camara (馬纓丹)	Whip	$ 3/ whip	Y	China	7 days	500 whips	Fertilizing, watering
Lantana montevidensis (小葉馬纓丹(舖地臭金鳳))	Whip	$ 3/ whip	Y	China	7 days	500 whips	Fertilizing, watering
Ligustrum sinense (山指甲)	Whip	$ 4/ whip	Y	China	7 days	500 whips	Fertilizing, watering
Liquidambar formosana (楓香)	Whip	$ 5/ whip	Y	China	7 days	500 whips	Fertilizing, watering
Litchi chinensis (荔枝)							
Lithocarpus glabra (柯)	Whip	$ 5/ whip	Y	China	7 days	500 whips	Fertilizing, watering
Lithocarpus harlandii (港柯)							
Litsea cubeba (木薑子)							
Litsea glutinosa (潺槁樹)	Whip	$ 8/ whip	Y	China	7 days	500 whips	Fertilizing, watering
Litsea rotundifolia var. *oblongifolia* (豺皮樟)	Whip	$ 15/ whip	Y	China	14 days	500 whips	Fertilizing, watering
Lophostemon confertus (紅膠木)	Whip	$ 5/ whip	Y	China	7 days	500 whips	Fertilizing, watering
Lygodium japonicum (海金沙)							
Macaranga tanarius (血桐)	Whip	$ 5/ whip	Y	China	7 days	500 whips	Fertilizing, watering
Machilus breviflora (短序潤楠)							
Machilus chekiangensis (浙江潤楠)							
Machilus pauhoi (刨花潤楠)							
Machilus velutina (絨毛潤楠)							
Maesa perlarius (鯽魚膽)							

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Table D1 - Response to the Commercial Availability Survey from Company A (Sheet 7 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Magnolia grandiflora (荷花玉蘭)	Light std. tree	$ 50/ tree	Y	China	7 days	100 trees	Fertilizing, watering
Mallotus paniculatus (白楸)	Whip	$ 5/ whip	Y	China	7 days	300 whips	Fertilizing, watering
Mangifera indica (杧果)	Light std. tree	$ 50/ tree	Y	China	7 days	100 trees	Fertilizing, watering
Melaleuca quinquenervia (白千層)	Whip	$ 8/ whip	Y	China	7 days	300 whips	Fertilizing, watering
Melastoma candidum (野牡丹)	Whip	$ 8/ whip	Y	China	7 days	300 whips	Fertilizing, watering
Melastoma dodecandrum (地菥)	Whip	$ 5/ whip	Y	China	7 days	300 whips	Fertilizing, watering
Melastoma sanguineum (毛菥)	Whip	$ 5/ whip	Y	China	7 days	300 whips	Fertilizing, watering
Melia azaderach (楝(苦楝))							
Melicope pteleifolia (密茱萸(三桠苦))							
Michelia alba (白蘭)	Light std. tree	$ 35/ tree	Y	China	14 days	100 trees	Fertilizing, watering
Microcos nervosa (*paniculata*) (破布葉)							
Millettia nitida (亮葉崖豆藤)							
Mussaenda pubescens (玉葉金花)	Whip	$ 18/ whip	Y	China	14 days	300 whips	Fertilizing, watering
Myrica rubra (楊梅)							
Ormosia emarginata (凹葉紅豆)							
Ormosia pachycarpa (茸莢紅豆)							
Ormosia semicastrata (軟莢紅豆)							
Osmanthus fragrans (桂花)	Whip	$ 8/ whip	Y	China	14 days	300 whips	Fertilizing, watering
Paederia scandens (雞矢藤)							

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Table D1 - Response to the Commercial Availability Survey from Company A (Sheet 8 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
*Palhinhaea cernua (*鋪地蜈蚣)							
Parthenocissus dalzielii (異葉爬牆虎)							
Paspalum notatum (百喜草)							
Philodendron cordatum (心葉喜樹蕉)	Whip	$ 8/ whip	Y	China	14 days	100 whips	Fertilizing, watering
*Phoenix hanceana (*刺葵)	Std. tree	$ 500/ tree	Y	China	14 days	10 trees	Fertilizing, watering
Phyllanthus emblica (餘甘子(油甘子))	Whip	$ 10/ whip	Y	China	14 days	100 whips	Fertilizing, watering
Pinus elliottii (愛氏松)	Whip	$ 8/ whip	Y	China	14 days	300 whips	Fertilizing, watering
Pityrogramma calomelanos (粉葉蕨)							
Psychotria asiatica (九節(山大刀))							
Pteris semipinnata (半邊旗)							
Pteris vittata (蜈蚣草)							
Raphiolepis indica (石斑木(車輪梅、春花))	Whip	$ 12/ whip	Y	China	14 days	300 whips	Fertilizing, watering
Reevesia thyrsoidea (梭羅樹)							
Rhododendron mucronatum (白杜鵑)	Whip	$ 18/ whip	Y	China	14 days	300 whips	Fertilizing, watering
Rhododendron pulchrum (錦繡杜鵑)	Whip	$ 5/ whip	Y	China	14 days	300 whips	Fertilizing, watering
Rhododendron pulchrum var. *phoeniceum* (紫杜鵑花)	Whip	$ 4/ whip	Y	China	7 days	300 whips	Fertilizing, watering
Rhododendron simsii (紅杜鵑)	Whip	$ 4/ whip	Y	China	7 days	300 whips	Fertilizing, watering
Rhodoleia championii (紅花荷)							

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Table D1 - Response to the Commercial Availability Survey from Company A (Sheet 9 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Rhodomyrtus tomentosa (桃金孃(崗棯))	Whip	$ 5/ whip	Y	China	7 days	300 whips	Fertilizing, watering
Rhus chinensis (鹽膚木)							
Rhus succedanea (木蠟樹(野漆樹))							
Rubus reflexus (鏽毛莓)							
Sapindus saponaria (無患子(木患子))	Whip	$ 8/ whip	Y	China	7 days	300 whips	Fertilizing, watering
Sapium discolor (山烏桕)	Whip	$ 5/ whip	Y	China	7 days	300 whips	Fertilizing, watering
Sapium sebiferum (烏桕)	Whip	$ 4/ whip	Y	China	7 days	300 whips	Fertilizing, watering
Sarcandra glabra (草珊瑚)							
Schefflera heptaphylla (鵝掌柴(鴨腳木))	Whip	$ 5/ whip	Y	China	7 days	300 whips	Fertilizing, watering
Schima superba (木荷(荷樹))	Whip	$ 6/ whip	Y	China	7 days	300 whips	Fertilizing, watering
Scolopia chinensis (刺柊)							
Selaginella uncinata (翠雲草)							
Sterculia lanceolata (假蘋婆)	Whip	$ 8/ whip	Y	China	7 days	300 whips	Fertilizing, watering
Strophanthus divaricatus (羊角拗)							
Symplocos glauca (羊舌樹)							
Syzygium cumini (海南蒲桃)	Whip	$ 8/ whip	Y	China	14 days	300 whips	Fertilizing, watering
Syzygium hancei (韓氏蒲桃)							
Syzygium jambos (蒲桃)	Whip	$ 8/ whip	Y	China	14 days	300 whips	Fertilizing, watering
Ternstroemia gymnanthera (厚皮香)							

Table D1 - Response to the Commercial Availability Survey from Company A (Sheet 10 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Tetracera asiatica (錫葉藤)							
Trema tomentosa (山黃麻)							
Tutcheria championii (石筆木)	Whip	$ 8/ whip	Y	China	14 days	300 whips	Fertilizing, watering
Viburnum odoratissimum (珊瑚樹)							
Washingtonia robusta (華盛頓葵)	Light std. tree	$ 300/ tree	Y	China	14 days	100 trees	Fertilizing, watering
Wedelia trilobata (三裂葉蟛蜞菊)							
Zanthoxylum avicennae (簕欓花椒(簕欓))							
Zoysia matrella (溝葉結縷草)							
Zoysia sinica (中華結縷草)							
Zoysia tenuifolia (細葉結縷草)							

Table D2 - Response to the Commercial Availability Survey from Company B (Sheet 1 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable) (DAYS)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Acacia auriculiformis (耳果相思)	Seedling	$2.50	Y	Y	10	100 NOS	
Acacia confusa (台灣相思)	Seedling	$2.50	Y	Y	10	100 NOS	
Acacia mangium (大葉相思)	Seedling	$2.50	Y	Y	10	100 NOS	
Acronychia pedunculata (山油柑)	Seedling	$3.50	Y	Y	10	100 NOS	
Adinandra millettii (黃瑞木)							
Ailanthus fordii (常綠臭椿)							
Alangium chinense (八角楓)							
Albizia lebbeck (大葉合歡)	Seedling	$2.50	Y	Y	10	100 NOS	
Alocasia macrorrhiza (海芋)	Seedling	$3.50	Y	Y	10	100 NOS	
Antirhea chinensis (毛茶)							
Aporusa dioica (銀柴)	Seedling	$3.50	Y	Y	10	100 NOS	
Aquilaria sinensis (土沉香)	Seedling	$3.50	Y	Y	10	100 NOS	
Archidendrom lucidum (亮葉猴耳環)	Seedling	$5	Y	Y	10	100 NOS	
Ardisia crenata (朱砂根)							
Artocarpus hypargyreus (白桂木)	Seedling	$5	Y	Y	10	100 NOS	
Axonopus affinis (地毯草)	Turf	$25 /$m^2$	Y	Y	7	100 m^2	
Baeckea frutescens (崗松)	Seedling	$3	Y	Y	10	100 NOS	
Bambusa tuldoides (花眉竹)	1000 mm high	$25	Y	Y	10	100 NOS	
Bauhinia championii (缺葉藤)							
Bauhinia glauca (粉葉羊蹄甲)	Climbing plants	$3	Y	Y	10	100 NOS	

Table D2 - Response to the Commercial Availability Survey from Company B (Sheet 2 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable) (DAYS)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Bauhinia purpurea (紅花羊蹄甲)	Seedling	$3.50	Y	Y	10	100 NOS	
Bauhinia variegata (宮粉羊蹄甲)	Seedling	$3	Y	Y	10	100 NOS	
Bischofia javanica (秋楓)	Seedling	$3	Y	Y	10	100 NOS	
Blechnum orientale (烏毛蕨)							
Bombax ceiba (木棉)	Seedling	$3.50	Y	Y	10	100 NOS	
Bougainvillea spectabilis (葉子花)	Seedling	$8	Y	Y	10	100 NOS	
Breynia fruticosa (黑面神)							
Bridelia tomentosa (土密樹)	Seedling	$2.50	Y	Y	10	100 NOS	
Broussonetia papyrifera (構樹)							
Calliandra haematocephala (朱纓花(紅絨球))	Shrubs	$3.50	Y	Y	10	100 NOS	
Camellia caudate (長尾毛蕊茶(尾葉茶))							
Camellia crapnelliana (紅皮糙果茶(克氏茶))							
Camellia salicifolia (柳葉茶)							
Cassia siamea (鐵刀木)	Seedling	$3	Y	Y	10	100 NOS	
Castanopsis fissa (黧蒴錐(裂斗錐栗))	Seedling	$2.50	Y	Y	10	100 NOS	
Casuarina equisetifolia (木麻黃)	Seedling	$2.50	Y	Y	10	100 NOS	
Celtis tetrandra subsp. *Sinensis* (朴樹(相思樹))	Seedling	$2.50	Y	Y	10	100 NOS	
Choerospondias axillaris (南酸棗)							
Cinnamomum camphora (樟樹)	Seedling	$3	Y	Y	10	100 NOS	

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Table D2 - Response to the Commercial Availability Survey from Company B (Sheet 3 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable) (DAYS)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Clerodendrum fortunatum (白花燈籠 (鬼燈籠))	Seedling	$3.50	Y	Y	10	100 NOS	
Cratoxylum cochinchinense (黃牛木)	Seedling	$5	Y	Y	10	100 NOS	
Cyclobalanopsis championii (嶺南青岡)							
Cyclobalanopsis edithiae (華南青岡)							
Cyclobalanopsis myrsinifolia (小葉青岡)							
Cyclobalanopsis neglecta (竹葉青岡)							
Cyclosorus parasiticus (華南毛蕨)							
Cynodon dactylon (狗牙根)	Turf	$30 / m^2	Y	Y	7	100 m^2	
Dalbergia benthamii (兩廣黃檀)							
Dalbergia hancei (藤黃檀)							
Daphniphyllum calycinum (牛耳楓)							
Daphniphyllum oldhamii (虎皮楠(交讓木))							
Delonix regia (鳳凰木)	Seedling	$3.50	Y	Y	10	100 NOS	
Desmodium heterocarpon (鳳凰木)							
Desmos chinensis (假鷹爪)							
Dicranopteris pedata (芒萁)							
Dimocarpus longan (龍眼)	Whip	$100	Y	Y	10	10 NOS	
Diospyros morrisiana (羅浮柿)	Seedling	$3	Y	Y	10	100 NOS	

Table D2 - Response to the Commercial Availability Survey from Company B (Sheet 4 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable) (DAYS)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
*Diospyros vaccinioides (*小果柿)	Seedling	$3.50	Y	Y	10	100 NOS	
*Diplospora dubia (*狗骨柴)							
Dodonaea viscose (車桑子)							
*Duranta erecta (*假連翹)	Shrubs	$2.50	Y	Y	7		
*Elaeocarpus chinensis (*中華杜英)	Whip	$50	Y	Y	10		
*Elaeocarpus sylvestris (*山杜英)	Whip	$50	Y	Y	10		
*Embelia laeta (*酸藤子)							
*Endospermum chinense (*黃桐)							
*Enkianthus quinqueflorus (*吊鐘花)							
*Epipremnum aureum (*綠蘿(芋葉藤))	Seedling	$2.50	Y	Y	10		
Eremochloa ciliaris (蜈蚣草)	Seedling	$3	Y	Y	10		
Eremochloa ophiuroides (假儉草)	Seedling	$3	Y	Y	10		
*Eucalyptus citriodora (*檸檬桉)	Seedling	$3	Y	Y	10		
*Eucalyptus robusta (*大葉桉)	Seedling	$3	Y	Y	10		
*Eucalyptus tereticornis (*細業桉)	Seedling	$3	Y	Y	10		
*Eurya chinensis (*米碎花)							
*Eurya nitida (*細齒葉柃)							
*Ficus hirta (*粗葉榕)	Seedling	$3	Y	Y	10		
*Ficus hispida (*對葉榕)	Seedling	$3.50	Y	Y	10		
*Ficus microcarpa (*榕樹(細葉榕))	Seedling	$2.50	Y	Y	10		

Table D2 - Response to the Commercial Availability Survey from Company B (Sheet 5 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable) (DAYS)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Ficus pumila (薜荔)	Climbing plants	$3	Y	Y	10		
Ficus superba var. *japonica* (筆管榕)							
Ficus variegata var. *chlorocarpa* (青果榕)	Seedling	$3.50	Y	Y	10		
Ficus variolosa (變葉榕)							
Ficus virens var. *sublanceolata* (大葉榕)	Seedling	$3	Y	Y	10		
Garcinia oblongifolia (嶺南山竹子)							
Gardenia jasminoides (梔子(水橫枝))	Seedling	$3.50	Y	Y	10		
Gordoria axillaris (大頭茶)	Seedling	$4	Y	Y	10		
Grevillea robusta (銀樺)	Seedling	$7	Y	Y	10		
Hedera helix (洋常春藤)	Climbing plants	$3.50	Y	Y	10		
Helicteres angustifolia (山芝麻)							
Hibiscus rosa-sinensis (朱槿(大紅花))	Shrubs	$3.50	Y	Y	10		
Hibiscus tiliaceus (黃槿)	Seedling	$4	Y	Y	10		
Ilex asprella (梅葉冬青)	Shrubs	$3.50	Y	Y	7	100 NOS	
Ilex cinerea (灰冬青)	Shrubs	$3.50	Y	Y	7	100 NOS	
Ilex rotunda (鐵冬青)	Shrubs	$4.50	Y	Y	7	100 NOS	
Ilex viridis (綠冬青(亮葉冬青))	Shrubs	$5.50	Y	Y	7	100 NOS	
Ipomoea cairica (五爪金龍)	Climbing plants	$3.50	Y	Y	7	100 NOS	
Ixora chinensis (龍船花)	Shrubs	$5	Y	Y	7	100 NOS	

Table D2 - Response to the Commercial Availability Survey from Company B (Sheet 6 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable) (DAYS)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Lantana camara (馬纓丹)	Grand cover	$2	Y	Y	7	100 NOS	
Lantana montevidensis (小葉馬纓丹(舖地臭金鳳))	Grand cover	$2	Y	Y	7	100 NOS	
Ligustrum sinense (山指甲)	Shrubs	$3	Y	Y	7	100 NOS	
Liquidambar formosana (楓香)	Seedling	$3.50	Y	Y	7	100 NOS	
Litchi chinensis (荔枝)	Seedling	$12	Y	Y	7	100 NOS	
Lithocarpus glabra (柯)	Seedling	$4.50	Y	Y	7	100 NOS	
Lithocarpus harlandii (港柯)							
Litsea cubeba (木薑子)							
Litsea glutinosa (潺槁樹)	Seedling		Y	Y	7	100 NOS	
Litsea rotundifolia var. *oblongifolia* (豺皮樟)	Seedling	$3.50	Y	Y	10	100 NOS	
Lophostemon confertus (紅膠木)	Seedling	$3.50	Y	Y	10	100 NOS	
Lygodium japonicum (海金沙)							
Macaranga tanarius (血桐)	Seedling	$7	Y	Y	10	100 NOS	
Machilus breviflora (短序潤楠)							
Machilus chekiangensis (浙江潤楠)							
Machilus pauhoi (刨花潤楠)							
Machilus velutina (絨毛潤楠)							
Maesa perlarius (鯽魚膽)							
Magnolia grandiflora (荷花玉蘭)							

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Table D2 - Response to the Commercial Availability Survey from Company B (Sheet 7 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable) (DAYS)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Mallotus paniculatus (白楸)	Seedling	$3	Y	Y	10	100 NOS	
Mangifera indica (杧果)	Seedling	$8	Y	Y	10	100 NOS	
Melaleuca quinquenervia (白千層)	Seedling	$3	Y	Y	10	100 NOS	
Melastoma candidum (野牡丹)	Shrubs	$3	Y	Y	10	100 NOS	
Melastoma dodecandrum (地菥)	Shrubs	$3	Y	Y	10	100 NOS	
Melastoma sanguineum (毛菥)	Shrubs	$3	Y	Y	10	100 NOS	
Melia azaderach (楝(苦楝))	Seedling	$3	Y	Y	10	100 NOS	
Melicope pteleifolia (密茱萸(三桠苦))	Seedling	$3	Y	Y	10	100 NOS	
Michelia alba (白蘭)	Seedling	$12	Y	Y	10	100 NOS	
Microcos nervosa (*paniculata*) (破布葉)	Seedling	$3.50	Y	Y	10	100 NOS	
Millettia nitida (亮葉崖豆藤)							
Mussaenda pubescens (玉葉金花)	Shrubs	$5	Y	Y	10	100 NOS	
Myrica rubra (楊梅)							
Ormosia emarginata (凹葉紅豆)							
Ormosia pachycarpa (茸荚紅豆)							
Ormosia semicastrata (軟荚紅豆)							
Osmanthus fragrans (桂花)	Shrubs	$7	Y	Y	10	100 NOS	
Paederia scandens (雞矢藤)							
Palhinhaea cernua (鋪地蜈蚣)							

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Table D2 - Response to the Commercial Availability Survey from Company B (Sheet 8 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable) (DAYS)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Parthenocissus dalzielii (異葉爬牆虎)	Climbing plants	$4	Y	Y	10	100 NOS	
Paspalum notatum (百喜草)	Seed	$7/$m^2$	Y	Y	7	100 NOS	
Philodendron cordatum (心葉喜樹蕉)	Shrubs	$5	Y	Y	10	100 NOS	
Phoenix hanceana (刺葵)	Seedling	$80	Y	Y	14	100 NOS	
Phyllanthus emblica (餘甘子(油甘子))	Seedling	$3.50	Y	Y	10	100 NOS	
Pinus elliottii (愛氏松)	Seedling	$3	Y	Y	10	100 NOS	
Pityrogramma calomelanos (粉葉蕨)							
Psychotria asiatica (九節(山大刀))	Seedling	$3.50	Y	Y	10	100 NOS	
Pteris semipinnata (半邊旗)							
Pteris vittata (蜈蚣草)							
Raphiolepis indica (石斑木(車輪梅、春花))	Shrubs	$3.50	Y	Y	10	100 NOS	
Reevesia thyrsoidea (梭羅樹)							
Rhododendron mucronatum (白杜鵑)	Shrubs	$6	Y	Y	10	100 NOS	
Rhododendron pulchrum (錦繡杜鵑)	Shrubs	$6	Y	Y	10	100 NOS	
Rhododendron pulchrum var. *phoeniceum* (紫杜鵑花)	Shrubs	$6	Y	Y	10	100 NOS	
Rhododendron simsii (紅杜鵑)	Shrubs	$6	Y	Y	10	100 NOS	
Rhodoleia championii (紅花荷)	Seedling	$7	Y	Y	10	100 NOS	
Rhodomyrtus tomentosa (桃金孃(崗棯))	Seedling	$3.50	Y	Y	10	100 NOS	

Table D2 - Response to the Commercial Availability Survey from Company B (Sheet 9 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable) (DAYS)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Rhus chinensis (鹽膚木)	Seedling	$5	Y	Y	10	100 NOS	
Rhus succedanea (木蠟樹(野漆樹))	Seedling	$12	Y	Y	10	100 NOS	
Rubus reflexus (鏽毛莓)							
Sapindus saponaria (無患子(木患子))							
Sapium discolor (山烏桕)	Seedling	$3	Y	Y	10	100 NOS	
Sapium sebiferum (烏桕)	Seedling	$3	Y	Y	10	100 NOS	
Sarcandra glabra (草珊瑚)	Shrubs	$5	Y	Y	10	100 NOS	
Schefflera heptaphylla (鵝掌柴(鴨腳木))	Shrubs	$4	Y	Y	10	100 NOS	
Schima superba (木荷(荷樹))	Seedling	$5	Y	Y	10	100 NOS	
Scolopia chinensis (刺柊)							
Selaginella uncinata (翠雲草)							
Sterculia lanceolata (假蘋婆)	Seedling	$4	Y	Y	10	100 NOS	
Strophanthus divaricatus (羊角拗)							
Symplocos glauca (羊舌樹)							
Syzygium cumini (海南蒲桃)	Seedling	$5	Y	Y	10	100 NOS	
Syzygium hancei (韓氏蒲桃)	Seedling	$5	Y	Y	10	100 NOS	
Syzygium jambos (蒲桃)	Seedling	$5	Y	Y	10	100 NOS	
Ternstroemia gymnanthera (厚皮香)	Seedling	$5	Y	Y	10	100 NOS	
Tetracera asiatica (錫葉藤)							

Table D2 - Response to the Commercial Availability Survey from Company B (Sheet 10 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable) (DAYS)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Trema tomentosa (山黃麻)							
Tutcheria championii (石筆木)							
Viburnum odoratissimum (珊瑚樹)							
Washingtonia robusta (華盛頓葵)	1000 mm high	500	Y	Y	10	10 NOS	
Wedelia trilobata (三裂葉蟛蜞菊)	Grand cover	$1.50	Y	Y	10	100 NOS	
Zanthoxylum avicennae (簕欓花椒(簕欓))							
Zoysia matrella (溝葉結縷草)	Turf	25 /m^2	Y	Y	10	100 NOS	
Zoysia sinica (中華結縷草)	Turf	25 /m^2	Y	Y	10	100 NOS	
Zoysia tenuifolia (細葉結縷草)	Turf	25 /m^2	Y	Y	10	100 NOS	

Table D3 - Response to the Commercial Availability Survey from Company C (Sheet 1 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Acacia auriculiformis (耳果相思)	Whip / L. Std / Std.	6/75/180	Y	Guang Zhou	3 months	No minimum Order required	
Acacia confusa (台灣相思)	Whip / L. Std / Std. / H Std	6/75/180/350	Y	Guang Zhou	3 months	No minimum Order required	
Acacia mangium (大葉相思)	Whip / L. Std / Std. / H Std	6/75/180/350	Y	Guang Zhou	3 months	No minimum Order required	
Acronychia pedunculata (山油柑)							
Adinandra millettii (黃瑞木)							
Ailanthus fordii (常綠臭椿)							
Alangium chinense (八角楓)	Whip / L. Std / Std. / H Std	6/75/180/350	Y	Guang Zhou	3 months	No minimum Order required	
Albizia lebbeck (大葉合歡)	Whip / L. Std / Std. / H Std	6/75/180/350	Y	Guang Zhou	3 months	No minimum Order required	
Alocasia macrorrhiza (海芋)	600 mm Ht.	12	Y	Guang Zhou	3 months	No minimum Order required	
Antirhea chinensis (毛茶)							
Aporusa dioica (銀柴)	Whip	9	Y	Guang Zhou	3 months	No minimum Order required	
Aquilaria sinensis (土沉香)	Whip	9	Y	Guang Zhou	3 months	No minimum Order required	
Archidendrom lucidum (亮葉猴耳環)							
Ardisia crenata (朱砂根)							
Artocarpus hypargyreus (白桂木)							
Axonopus affinis (地毯草)	m^2	$ 25/ m^2	Y	Guang Zhou	3 months	No minimum Order required	
Baeckea frutescens (崗松)							
Bambusa tuldoides (花眉竹)	2.5 m Ht. 3 branches/ Bag	85	Y	Guang Zhou	3 months	No minimum Order required	
Bauhinia championii (缺葉藤)							

Table D3 - Response to the Commercial Availability Survey from Company C (Sheet 2 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Bauhinia glauca (粉葉羊蹄甲)	500-1000 mm long	15-25	Y	Guang Zhou	3 months	No minimum Order required	
Bauhinia purpurea (紅花羊蹄甲)	Whip / L Std. /Std. /H. Std	6/75/180/350	Y	Guang Zhou	3 months	No minimum Order required	
Bauhinia variegata (宮粉羊蹄甲)	Whip / L Std. /Std. /H. Std	6/75/180/350	Y	Guang Zhou	3 months	No minimum Order required	
Bischofia javanica (秋楓)	Whip / L Std. /Std. /H. Std	6/75/180/350	Y	Guang Zhou	3 months	No minimum Order required	
Blechnum orientale (烏毛蕨)							
Bombax ceiba (木棉)	Whip / L Std. /Std. /H. Std	6/75/180/350	Y	Guang Zhou	3 months	No minimum Order required	
Bougainvillea spectabilis (葉子花)							
Breynia fruticosa (黑面神)	Whip	9	Y	Guang Zhou	3 months	No minimum Order required	
Bridelia tomentosa (土密樹)	Whip / L. Std.	$9-75	Y	Guang Zhou	3 months	No minimum Order required	
Broussonetia papyrifera (構樹)							
Calliandra haematocephala (朱纓花(紅絨球))	6mm Ht.	9	Y	Guang Zhou	3 months	No minimum Order required	
Camellia caudate (長尾毛蕊茶(尾葉茶))							
Camellia crapnelliana (紅皮糙果茶(克氏茶))							
Camellia salicifolia (柳葉茶)							
Cassia siamea (鐵刀木)	Whip / L Std. /Std. /H. Std	6/75/180/350	Y	Guang Zhou	3 months	No minimum Order required	
Castanopsis fissa (黧蒴錐(裂斗錐栗))	Whip / L Std. /Std. /H. Std	6/75/180/350	Y	Guang Zhou	3 months	No minimum Order required	
Casuarina equisetifolia (木麻黃)	Whip / L Std. /Std. /H. Std	6/75/180/350	Y	Guang Zhou	3 months	No minimum Order required	
Celtis tetrandra subsp. *Sinensis* (朴樹(相思樹))	Whip/ L. Std. /Std.	6/75/180	Y	Guang Zhou	3 months	No minimum Order required	

Table D3 - Response to the Commercial Availability Survey from Company C (Sheet 3 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
*Choerospondias axillaris (*南酸棗)							
*Cinnamomum camphora (*樟樹)	Whip / L Std. /Std. /H. Std	6/75/180/350	Y	Guang Zhou	3 months	No minimum Order required	
*Clerodendrum fortunatum (*白花燈籠 (鬼燈籠))							
*Cratoxylum cochinchinense (*黃牛木)	Whip/ L. Std.	9/75	Y	Guang Zhou	3 months	No minimum Order required	
*Cyclobalanopsis championii (*嶺南青岡)							
*Cyclobalanopsis edithiae (*華南青岡)							
*Cyclobalanopsis myrsinifolia (*小葉青岡)							
*Cyclobalanopsis neglecta (*竹葉青岡)							
*Cyclosorus parasiticus,(*華南毛蕨)							
*Cynodon dactylon (*狗牙根)							
*Dalbergia benthamii (*兩廣黃檀)							
*Dalbergia hancei (*藤黃檀)							
*Daphniphyllum calycinum (*牛耳楓)							
*Daphniphyllum oldhamii (*虎皮楠(交讓木))							
*Delonix regia (*鳳凰木)	Whip / L Std. /Std. /H. Std	9'/75/180/350	Y	Guang Zhou	3 months	No minimum Order required	
*Desmodium heterocarpon (*鳳凰木)							
*Desmos chinensis (*假鷹爪)							
*Dicranopteris pedata (*芒萁)							
*Dimocarpus longan (*龍眼)	Std. / H. Std.	1500/3500	Y	Guang Zhou	3 months	No minimum Order required	

Table D3 - Response to the Commercial Availability Survey from Company C (Sheet 4 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
*Diospyros morrisiana (*羅浮柿)							
*Diospyros vaccinioides (*小果柿)	Whip	9	Y	Guang Zhou	3 months	No minimum Order required	
*Diplospora dubia (*狗骨柴)							
Dodonaea viscose (車桑子)							
*Duranta erecta (*假連翹)	600 mm Ht.	9	Y	Guang Zhou	3 months	No minimum Order required	
*Elaeocarpus chinensis (*中華杜英)	L Std. / Std. /H. Std.	95/190/380	Y	Guang Zhou	3 months	No minimum Order required	
*Elaeocarpus sylvestris (*山杜英)							
*Embelia laeta (*酸藤子)							
*Endospermum chinense (*黃桐)							
*Enkianthus quinqueflorus (*吊鐘花)	600 mm	15	Y	Guang Zhou	3 months	No minimum Order required	
*Epipremnum aureum (*綠蘿(芋葉藤))	300 mm	15	Y	Guang Zhou	3 months	No minimum Order required	
Eremochloa ciliaris (蜈蚣草)							
Eremochloa ophiuroides (假儉草)							
*Eucalyptus citriodora (*檸檬桉)	Whip / L. Std. /Std.	12/95/195	Y	Guang Zhou	3 months	No minimum Order required	
*Eucalyptus robusta (*大葉桉)	Whip / L. Std. /Std.	12/95/195	Y	Guang Zhou	3 months	No minimum Order required	
*Eucalyptus tereticornis (*細業桉)	Whip / L. Std. /Std.	12/95/195	Y	Guang Zhou	3 months	No minimum Order required	
*Eurya chinensis (*米碎花)							
*Eurya nitida (*細齒葉柃)							
*Ficus hirta (*粗葉榕)	Whip/ L Std./ Std./ H. Std.	12/95/195/380	Y	Guang Zhou	3 months	No minimum Order required	

Table D3 - Response to the Commercial Availability Survey from Company C (Sheet 5 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Ficus hispida (對葉榕)	Whip/ L Std./ Std./ H. Std.	12/95/195/380	Y	Guang Zhou	3 months	No minimum Order required	
Ficus microcarpa (榕樹(細葉榕))	Whip/ L Std./ Std./ H. Std.	12/95/195/380	Y	Guang Zhou	3 months	No minimum Order required	
Ficus pumila (薜荔)	200 mm	12	Y	Guang Zhou	3 months	No minimum Order required	
Ficus superba var. *japonica*	(筆管榕)						
Ficus variegata var. *chlorocarpa* (青果榕)	Whip/ L Std./ Std.	12/95/195	Y	Guang Zhou	3 months	No minimum Order required	
Ficus variolosa (變葉榕)	Whip/ L Std./ Std./ H. Std.	12/95/195/380	Y	Guang Zhou	3 months	No minimum Order required	
Ficus virens var. *sublanceolata* (大葉榕)	Whip/ L Std./ Std./ H. Std.	12/95/195/380	Y	Guang Zhou	3 months	No minimum Order required	
Garcinia oblongifolia	(嶺南山竹子)						
Gardenia jasminoides (梔子(水橫枝))	600 mm	12	Y	Guang Zhou	3 months	No minimum Order required	
Gordoria axillaris (大頭茶)	Whip	15	Y	Guang Zhou	3 months	No minimum Order required	
Grevillea robusta (銀樺)	Whip/ L. Std./ Std.	12/95/195	Y	Guang Zhou	3 months	No minimum Order required	
Hedera helix (洋常春藤)	300 mm	15	Y	Guang Zhou	3 months	No minimum Order required	
Helicteres angustifolia (山芝麻)							
Hibiscus rosa-sinensis (朱槿(大紅花))	300-600 mm	9 to 15	Y	Guang Zhou	3 months	No minimum Order required	
Hibiscus tiliaceus (黃槿)	Whip/ L Std./ Std./ H. Std.	12/95/195/380	Y	Guang Zhou	3 months	No minimum Order required	
Ilex asprella (梅葉冬青)							
Ilex cinerea (灰冬青)							
Ilex rotunda (鐵冬青)							
Ilex viridis (綠冬青(亮葉冬青))							

Table D3 - Response to the Commercial Availability Survey from Company C (Sheet 6 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Ipomoea cairica (五爪金龍)							
Ixora chinensis (龍船花)	300 - 600 mm	$ 9-15	Y	Guang Zhou	3 months	No minimum Order required	
Lantana camara (馬纓丹)	300 mm	9	Y	Guang Zhou	3 months	No minimum Order required	
Lantana montevidensis (小葉馬纓丹(舖地臭金鳳))	300 mm	9	Y	Guang Zhou	3 months	No minimum Order required	
Ligustrum sinense (山指甲)	300 - 600 mm	$ 9-15	Y	Guang Zhou	3 months	No minimum Order required	
Liquidambar formosana (楓香)	Whip/ L Std. / Std.	12/95/185	Y	Guang Zhou	3 months	No minimum Order required	
Litchi chinensis (荔枝)	L. Std./ Std.	350/850	Y	Guang Zhou	3 months	No minimum Order required	
Lithocarpus glabra (柯)							
Lithocarpus harlandii (港柯)							
Litsea cubeba (木薑子)							
Litsea glutinosa (潺槁樹)	Whip/ L. Std.	$ 9-15	Y	Guang Zhou	3 months	No minimum Order required	
Litsea rotundifolia var. *oblongifolia* (豺皮樟)	Whip	9	Y	Guang Zhou	3 months	No minimum Order required	
Lophostemon confertus (紅膠木)	Whip/ L. Std./ Std.	12/95/195	Y	Guang Zhou	3 months	No minimum Order required	
Lygodium japonicum (海金沙)							
Macaranga tanarius (血桐)	Whip/ L. Std./ Std.	9/85/185	Y	Guang Zhou	3 months	No minimum Order required	
Machilus breviflora (短序潤楠)							
Machilus chekiangensis (浙江潤楠)							
Machilus pauhoi (刨花潤楠)							
Machilus velutina (絨毛潤楠)							

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Table D3 - Response to the Commercial Availability Survey from Company C (Sheet 7 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Maesa perlarius (鯽魚膽)							
Magnolia grandiflora (荷花玉蘭)	L Std. / Std. /H. Std.	280/550/850	Y	Guang Zhou	3 months	No minimum Order required	
Mallotus paniculatus (白楸)	Whip	9	Y	Guang Zhou	3 months	No minimum Order required	
Mangifera indica (杧果)	L Std. / Std. /H. Std.	280/550/850	Y	Guang Zhou	3 months	No minimum Order required	
Melaleuca quinquenervia (白千層)	Whip/ L Std./ Std./ H. Std.	9/85/185/350	Y	Guang Zhou	3 months	No minimum Order required	
Melastoma candidum (野牡丹)	600 mm	15	Y	Guang Zhou	3 months	No minimum Order required	
Melastoma dodecandrum (地菥)	300-600 mm	$ 9-15	Y	Guang Zhou	3 months	No minimum Order required	
Melastoma sanguineum (毛菥)	300-600 mm	$ 9-15	Y	Guang Zhou	3 months	No minimum Order required	
Melia azaderach (楝(苦楝))	L. Std./ Std.	85/185	Y	Guang Zhou	3 months	No minimum Order required	
Melicope pteleifolia (密茱萸(三椏苦))							
Michelia alba (白蘭)	L. Std./ Std.	85/185	Y	Guang Zhou	3 months	No minimum Order required	
Microcos nervosa (*paniculata*) (破布葉)							
Millettia nitida (亮葉崖豆藤)							
Mussaenda pubescens (玉葉金花)							
Myrica rubra (楊梅)							
Ormosia emarginata (凹葉紅豆)							
Ormosia pachycarpa (茸莢紅豆)							
Ormosia semicastrata (軟莢紅豆)							
Osmanthus fragrans (桂花)	Std. / H. Std.	280/550	Y	Guang Zhou	3 months	No minimum Order required	

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Table D3 - Response to the Commercial Availability Survey from Company C (Sheet 8 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Paederia scandens (雞矢藤)							
Palhinhaea cernua (鋪地蜈蚣)							
Parthenocissus dalzielii (異葉爬牆虎)							
Paspalum notatum (百喜草)							
Philodendron cordatum (心葉喜樹蕉)	1 m	150	Y	Guang Zhou	3 months	No minimum Order required	
Phoenix hanceana (刺葵)	Std. / H. Std.	350/850	Y	Guang Zhou	3 months	No minimum Order required	
Phyllanthus emblica (餘甘子(油甘子))	Whip	9	Y	Guang Zhou	3 months	No minimum Order required	
Pinus elliottii (愛氏松)							
Pityrogramma calomelanos (粉葉蕨)							
Psychotria asiatica (九節(山大刀))	Whip	9	Y	Guang Zhou	3 months	No minimum Order required	
Pteris semipinnata (半邊旗)							
Pteris vittata (蜈蚣草)							
Raphiolepis indica (石斑木(車輪梅、春花))	600 mm	15	Y	Guang Zhou	3 months	No minimum Order required	
Reevesia thyrsoidea (梭羅樹)							
Rhododendron mucronatum (白杜鵑)	300-600 mm	9 to 15	Y	Guang Zhou	3 months	No minimum Order required	
Rhododendron pulchrum (錦繡杜鵑)	300-600 mm	9 to 15	Y	Guang Zhou	3 months	No minimum Order required	
Rhododendron pulchrum var. *phoeniceum* (紫杜鵑花)	300-600 mm	9 to 15	Y	Guang Zhou	3 months	No minimum Order required	
Rhododendron simsii (紅杜鵑)	300-600 mm	9 to 15	Y	Guang Zhou	3 months	No minimum Order required	
Rhodoleia championii (紅花荷)			Y	Guang Zhou	3 months	No minimum Order required	

Table D3 - Response to the Commercial Availability Survey from Company C (Sheet 9 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Rhodomyrtus tomentosa (桃金孃(崗檢))		$ 5/ whip	Y	Guang Zhou	3 months	No minimum Order required	
Rhus chinensis (鹽膚木)			Y	Guang Zhou	3 months	No minimum Order required	
Rhus succedanea (木蠟樹(野漆樹))			Y	Guang Zhou	3 months	No minimum Order required	
Rubus reflexus (鏽毛莓)			Y	Guang Zhou	3 months	No minimum Order required	
Sapindus saponaria (無患子(木患子))		$ 8/ whip	Y	Guang Zhou	3 months	No minimum Order required	
Sapium discolor (山烏桕)		$ 5/ whip	Y	Guang Zhou	3 months	No minimum Order required	
Sapium sebiferum (烏桕)		$ 4/ whip	Y	Guang Zhou	3 months	No minimum Order required	
Sarcandra glabra (草珊瑚)			Y	Guang Zhou	3 months	No minimum Order required	
Schefflera heptaphylla (鵝掌柴(鴨腳木))		$ 5/ whip	Y	Guang Zhou	3 months	No minimum Order required	
Schima superba (木荷(荷樹))		$ 6/ whip	Y	Guang Zhou	3 months	No minimum Order required	
Scolopia chinensis (刺柊)			Y	Guang Zhou	3 months	No minimum Order required	
Selaginella uncinata (翠雲草)			Y	Guang Zhou	3 months	No minimum Order required	
Sterculia lanceolata (假蘋婆)		$ 8/ whip	Y	Guang Zhou	3 months	No minimum Order required	
Strophanthus divaricatus (羊角拗)			Y	Guang Zhou	3 months	No minimum Order required	
Symplocos glauca (羊舌樹)			Y	Guang Zhou	3 months	No minimum Order required	
Syzygium cumini (海南蒲桃)		$ 8/ whip	Y	Guang Zhou	3 months	No minimum Order required	
Syzygium hancei (韓氏蒲桃)			Y	Guang Zhou	3 months	No minimum Order required	
Syzygium jambos (蒲桃)		$ 8/ whip	Y	Guang Zhou	3 months	No minimum Order required	

Table D3 - Response to the Commercial Availability Survey from Company C (Sheet 10 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Ternstroemia gymnanthera (厚皮香)			Y	Guang Zhou	3 months	No minimum Order required	
Tetracera asiatica (錫葉藤)			Y	Guang Zhou	3 months	No minimum Order required	
Trema tomentosa (山黃麻)			Y	Guang Zhou	3 months	No minimum Order required	
Tutcheria championii (石筆木)		$ 8/ whip	Y	Guang Zhou	3 months	No minimum Order required	
Viburnum odoratissimum (珊瑚樹)			Y	Guang Zhou	3 months	No minimum Order required	
Washingtonia robusta (華盛頓葵)		$ 300/ tree	Y	Guang Zhou	3 months	No minimum Order required	
Wedelia trilobata (三裂葉蟛蜞菊)			Y	Guang Zhou	3 months	No minimum Order required	
Zanthoxylum avicennae (簕欓花椒(簕欓))			Y	Guang Zhou	3 months	No minimum Order required	
Zoysia matrella (溝葉結縷草)			Y	Guang Zhou	3 months	No minimum Order required	
Zoysia sinica (中華結縷草)			Y	Guang Zhou	3 months	No minimum Order required	
Zoysia tenuifolia (細葉結縷草)			Y	Guang Zhou	3 months	No minimum Order required	

Table D4 - Response to the Commercial Availability Survey from Company D (Sheet 1 of 3)

Species Name		Form of Plant Material Supply				
		Seeding	Whip	Light Standard	Standard	Heavy Standard
Acacia auriculiformis	耳果相思		✓	✓		
Acacia confusa	台灣相思					✓
Acacia mangium	大葉相思	✓	✓	✓		✓
Albizia lebbeck	大葉合歡	✓	✓	✓	✓	✓
Bauhinia variegata	宮粉羊蹄甲	✓				
Bombax ceiba	木棉					✓
Bougainvillea spectabilis	葉子花	✓				
Calliandra haematocephala	紅絨球	✓				
Cassia siamea	鐵刀木	✓	✓		✓	✓
Castanopsis fissa	裂斗錐栗		✓			
Casuarina equisetifolia	木麻黃		✓			
Celtis sinensis	朴樹		✓			✓
Cinnamomum camphora	樟	✓			✓	✓
Clerodendrum fortunatum	鬼燈籠	✓				
Dimocarpus longan	龍眼		✓			✓
Duranta erecta	假連翹	✓	✓			
Eucalyptus citriodora	檸檬桉		✓			
Eucalyptus robusta	大葉桉		✓			
Eucalyptus tereticornis	細葉桉		✓			✓
Ficus hispida	對葉榕		✓			
Ficus microcarpa	細葉榕	✓	✓			✓

Table D4 - Response to the Commercial Availability Survey from Company D (Sheet 2 of 3)

Species Name		Form of Plant Material Supply				
		Seeding	Whip	Light Standard	Standard	Heavy Standard
Ficus pumila	薜荔	✓				
Ficus virens var. sublanceolata	大葉榕		✓			✓
Gardenia jasminoides	水橫枝	✓				
Gordonia axillaris	大頭茶		✓			✓
Grevillea robusta	銀樺				✓	✓
Hedera helix	常春藤	✓				
Hibiscus rosa sinensis	大紅花	✓				
Hibiscus tiliaceus	黃槿		✓		✓	✓
Ixora chinensis	龍船花	✓				
Lantana camara	馬纓丹	✓				
Lantana montevidensis	鋪地臭金鳳	✓				
Ligustrum sinense	山指甲	✓				
Liquidambar formosana	楓香				✓	
Litchi chinensis	荔枝				✓	✓
Litsea glutinosa	潺槁樹		✓			
Lophostemon conferta	紅膠木		✓			✓
Macaranga tanarius	血桐				✓	✓
Magnolia grandiflora	荷花玉蘭				✓	✓
Mallotus paniculatus	白楸	✓	✓			
Mangifera indica	杧果					✓
Melaleuca leucadendron L.	白千層			✓	✓	✓

Table D4 - Response to the Commercial Availability Survey from Company D (Sheet 3 of 3)

Species Name		Form of Plant Material Supply				
		Seeding	Whip	Light Standard	Standard	Heavy Standard
Melastoma sanguineum	毛稔	✓	✓			
Melia azedarach L.	楝(苦楝)(森樹)		✓			✓
Mussaenda pubescens	玉葉金花	✓				
Osmanthus fragrans	桂花	✓			✓	✓
Phoenix hanceana	刺葵			✓		
Pinus elliottii	濕地松	✓				
Psycotria rubra	九節	✓				
Raphiolepis indica	車輪梅	✓				
Rhododendron pulchrum	紫杜鵑	✓				
Rhododendron pulchrum var. phoeniceum	錦繡杜鵑	✓				
Rhododendron simsii	紅杜鵑	✓				
Rhodomyrtus tomentosa	桃金孃	✓				
Rhus chinensis	鹽膚木	✓				
Sapium discolor	山烏桕	✓				
Sapium sebiferum	烏臼		✓			
Schefflera octophylla	鴨腳木	✓	✓	✓	✓	
Schima superba	木荷				✓	✓
Sterculia lanceolata	假蘋婆	✓			✓	
Syzygium cumini	海南蒲桃		✓			✓
Syzygium jambos	蒲桃		✓			✓

Table D5 - Response to the Commercial Availability Survey from Company E (Sheet 1 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Acacia auriculiformis (耳果相思)	Seedling / Whip/ Seed	$ 3-5	N	Guang Dong	6 months	100 NOS	
Acacia confusa (台灣相思)	Seedling / Whip/ Seed	$ 3-5	N	Guang Dong	6 months	100 NOS	
Acacia mangium (大葉相思)	Seedling / Whip/ Seed	$ 3-5	N	Guang Dong	6 months	100 NOS	
Acronychia pedunculata (山油柑)							
Adinandra millettii (黃瑞木)	Seedling / Whip/ Seed	$ 3-5	N	Guang Dong	6 months	100 NOS	
Ailanthus fordii (常綠臭椿)	Seedling / Whip/ Seed	$ 3-5	N	Guang Dong	6 months	100 NOS	
Alangium chinense (八角楓)	Seedling / Whip	$ 3-5	N	Guang Dong	6 months	100 NOS	
Albizia lebbeck (大葉合歡)	Seedling / Whip /Seed	$ 3-5	N	Guang Dong	6 months	100 NOS	
Alocasia macrorrhiza (海芋)	Seedling	$ 3-5	N	Guang Dong	6 months	100 NOS	
Antirhea chinensis (毛茶)							
Aporusa dioica (銀柴)	Seedling	$ 3-5	N	Guang Dong	6 months	100 NOS	
Aquilaria sinensis (土沉香)	Seedling	$ 3-5	N	Guang Dong	6 months	100 NOS	
Archidendrom lucidum (亮葉猴耳環)							
Ardisia crenata (朱砂根)							
Artocarpus hypargyreus (白桂木)							
Axonopus affinis (地毯草)	Turf	$ 10/m^2	N	Guang Dong	6 months	500 / m^2	
Baeckea frutescens (崗松)	Seedling / Whip	$7	N	Guang Dong	6 months	100 NOS	
Bambusa tuldoides (花眉竹)	Whip	$10	N	Guang Dong	6 months	100 NOS	
Bauhinia championii (缺葉藤)	Seedling	$6	N	Guang Dong	6 months	100 NOS	
Bauhinia glauca (粉葉羊蹄甲)	Seedling	$6	N	Guang Dong	6 months	100 NOS	

Table D5 - Response to the Commercial Availability Survey from Company E (Sheet 2 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Bauhinia purpurea (紅花羊蹄甲)							
*Bauhinia variegata (*宮粉羊蹄甲)	Seedling / Whip	$6	N	Guang Dong	6 months	100 NOS	
*Bischofia javanica (*秋楓)	Seedling / Whip	$6	N	Guang Dong	6 months	100 NOS	
*Blechnum orientale (*烏毛蕨)							
*Bombax ceiba (*木棉)	Seedling /Whip / Seed	$ 6-8	N	Guang Dong	6 months	100 NOS	
*Bougainvillea spectabilis (*葉子花)	Seedling / Whip	$6	N	Guang Dong	6 months	100 NOS	
*Breynia fruticosa (*黑面神)							
*Bridelia tomentosa (*土密樹)	Seedling / Whip	$ 6-8	N	Guang Dong	6 months	100 NOS	
*Broussonetia papyrifera (*構樹)							
*Calliandra haematocephala (*朱纓花(紅絨球))	Seedling / Whip	$3.50	N	Guang Dong	6 months	100 NOS	
*Camellia caudata (*長尾毛蕊茶(尾葉茶))							
*Camellia crapnelliana (*紅皮糙果茶(克氏茶))							
*Camellia salicifolia (*柳葉茶)							
*Cassia siamea (*鐵刀木)	Seedling / Whip	$3-5	N	Guang Dong	6 months	100 NOS	
*Castanopsis fissa (*黧蒴錐(裂斗錐栗))	Seedling / Whip	$3-5	N	Guang Dong	6 months	100 NOS	
*Casuarina equisetifolia (*木麻黃)	Seedling / Whip	$3-5	N	Guang Dong	6 months	100 NOS	
Celtis tetrandra subsp. *Sinensis (*朴樹 (相思樹))	Seedling / Whip	$3-5	N	Guang Dong	6 months	100 NOS	
*Choerospondias axillaris (*南酸棗)							
*Cinnamomum camphora (*樟樹)	Seedling / Whip	$3-5	N	Guang Dong	6 months	100 NOS	

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Table D5 - Response to the Commercial Availability Survey from Company E (Sheet 3 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Clerodendrum fortunatum (白花燈籠 (鬼燈籠))							
Cratoxylum cochinchinense (黃牛木)	Seedling / Whip	$3-5	N	Guang Dong	6 months	100 NOS	
Cyclobalanopsis championii (嶺南青岡)							
Cyclobalanopsis edithiae (華南青岡)							
Cyclobalanopsis myrsinifolia (小葉青岡)							
Cyclobalanopsis neglecta (竹葉青岡)							
Cyclosorus parasiticus (華南毛蕨)							
Cynodon dactylon (狗牙根)	Turf	$18/$m^2$	N	China	3 months	500 m^2	
Dalbergia benthamii (兩廣黃檀)	Seedling / Whip	$7	N	China	6 months	100 NOS	
Dalbergia hancei (藤黃檀)	Seedling / Whip	$7	N	China	6 months	100 NOS	
Daphniphyllum calycinum (牛耳楓)							
Daphniphyllum oldhamii (虎皮楠(交讓木))							
Delonix regia (鳳凰木)	Seedling / Whip	$ 3.5-5	N	China	6 months	100 NOS	
Desmodium heterocarpon (鳳凰木)							
Desmos chinensis (假鷹爪)							
Dicranopteris pedata (芒萁)							
Dimocarpus longan (龍眼)	Seedling / Whip	$7	N	China	6 months	100 NOS	
Diospyros morrisiana (羅浮柿)							

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Table D5 - Response to the Commercial Availability Survey from Company E (Sheet 4 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
*Diospyros vaccinioides (*小果柿)	Seedling / Whip	$6	N	China	6 months	100 NOS	
*Diplospora dubia (*狗骨柴)							
Dodonaea viscose (車桑子)							
*Duranta erecta (*假連翹)	Seedling / Whip	$3.50	N	Guang Dong	6 months	100 NOS	
*Elaeocarpus chinensis (*中華杜英)	Seedling / Whip	$7.00	N	Guang Dong	6 months	100 NOS	
*Elaeocarpus sylvestris (*山杜英)	Seedling / Whip	$7.00	N	Guang Dong	6 months	100 NOS	
*Embelia laeta (*酸藤子)							
*Endospermum chinense (*黃桐)							
*Enkianthus quinqueflorus (*吊鐘花)							
*Epipremnum aureum (*綠蘿(芋葉藤))	Seedling	$6.00	N	Guang Dong	6 months	100 NOS	
Eremochloa ciliaris (蜈蚣草)	Turf	$18.00	N	Guang Dong	6 months	100 NOS	
Eremochloa ophiuroides (假儉草)	Turf	$18.00	N	Guang Dong	6 months	100 NOS	
*Eucalyptus citriodora (*檸檬桉)	Seedling / Whip	$7.00	N	Guang Dong	6 months	100 NOS	
*Eucalyptus robusta (*大葉桉)	Seedling / Whip	$7.00	N	Guang Dong	6 months	100 NOS	
*Eucalyptus tereticornis (*細業桉)	Seedling / Whip	$7.00	N	Guang Dong	6 months	100 NOS	
*Eurya chinensis (*米碎花)							
*Eurya nitida (*細齒葉柃)							
*Ficus hirta (*粗葉榕)							
*Ficus hispida (*對葉榕)	Seedling / Whip	$6.00	N	Guang Dong	6 months	100 NOS	
*Ficus microcarpa (*榕樹(細葉榕))	Seedling / Whip	$6.00	N	Guang Dong	6 months	100 NOS	

Table D5 - Response to the Commercial Availability Survey from Company E (Sheet 5 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Ficus pumila (薜荔)	Seedling	$6.00	N	Guang Dong	6 months	100 NOS	
Ficus superba var. *japonica* (筆管榕)	Seedling / Whip	$7.00	N	Guang Dong	6 months	100 NOS	
Ficus variegata var. *chlorocarpa* (青果榕)	Seedling / Whip	$7.00	N	Guang Dong	6 months	100 NOS	
Ficus variolosa (變葉榕)	Seedling / Whip	$7.00	N	Guang Dong	6 months	100 NOS	
Ficus virens var. *sublanceolata* (大葉榕)	Seedling / Whip	$7.00	N	Guang Dong	6 months	100 NOS	
Garcinia oblongifolia (嶺南山竹子)							
Gardenia jasminoides (梔子(水橫枝))	Seedling / Whip	$6.00	N	Guang Dong	6 months	100 NOS	
Gordoria axillaris (大頭茶)	Seedling / Whip	$10.00	N	Guang Dong	6 months	100 NOS	
Grevillea robusta (銀樺)	Seedling / Whip	$7.00	N	Guang Dong	6 months	100 NOS	
Hedera helix (洋常春藤)	Seedling	$12.00	N	Guang Dong	6 months	100 NOS	
Helicteres angustifolia (山芝麻)							
Hibiscus rosa-sinensis (朱槿(大紅花))	Seedling / Whip	$6.00	N	Guang Dong	6 months	100 NOS	
Hibiscus tiliaceus (黃槿)	Seedling / Whip	$7.00	N	Guang Dong	6 months	100 NOS	
Ilex asprella (梅葉冬青)							
Ilex cinerea (灰冬青)	Seedling / Whip	$10.00	N	Guang Dong	6 months	100 NOS	
Ilex rotunda (鐵冬青)	Seedling / Whip	$10.00	N	Guang Dong	6 months	100 NOS	
Ilex viridis (綠冬青(亮葉冬青))	Seedling / Whip	$10.00	N	Guang Dong	6 months	100 NOS	
Ipomoea cairica (五爪金龍)	Seedling	$7.00	N	Guang Dong	6 months	100 NOS	
Ixora chinensis (龍船花)	Seedling / Whip	$9.00	N	Guang Dong	6 months	100 NOS	

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Table D5 - Response to the Commercial Availability Survey from Company E (Sheet 6 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Lantana camara (馬纓丹)	Seedling	$5.00	N	Guang Dong	6 months	100 NOS	
Lantana montevidensis (小葉馬纓丹(舖地臭金鳳))	Seedling	$5.00	N	Guang Dong	6 months	100 NOS	
Ligustrum sinense (山指甲)	Seedling / Whip	$6.00	N	Guang Dong	6 months	100 NOS	
Liquidambar formosana (楓香)	Seedling / Whip	$9.00	N	Guang Dong	6 months	100 NOS	
Litchi chinensis (荔枝)	Seedling / Whip	$15.00	N	Guang Dong	6 months	100 NOS	
Lithocarpus glabra (柯)	Seedling / Whip	$15.00	N	Guang Dong	6 months	100 NOS	
Lithocarpus harlandii (港柯)							
Litsea cubeba (木薑子)							
Litsea glutinosa (潺槁樹)	Seedling / Whip	$7.00	N	Guang Dong	6 months	100 NOS	
Litsea rotundifolia var. *oblongifolia* (豺皮樟)	Seedling / Whip	$9.00	N	Guang Dong	6 months	100 NOS	
Lophostemon confertus (紅膠木)	Seedling / Whip	$9.00	N	Guang Dong	6 months	100 NOS	
Lygodium japonicum (海金沙)							
Macaranga tanarius (血桐)	Seedling /Whip	$8.00	N	Guang Dong	6 months	100 NOS	
Machilus breviflora (短序潤楠)							
Machilus chekiangensis (浙江潤楠)							
Machilus pauhoi (刨花潤楠)							
Machilus velutina (絨毛潤楠)							
Maesa perlarius (鯽魚膽)							
Magnolia grandiflora (荷花玉蘭)	Seedling / Whip	$15.00	N	Guang Dong	6 months	100 NOS	

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Table D5 - Response to the Commercial Availability Survey from Company E (Sheet 7 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Mallotus paniculatus (白楸)	Seedling / Whip	$9.00	N	Guang Dong	6 months	100 NOS	
Mangifera indica (杧果)	Seedling / Whip	$7.00	N	Guang Dong	6 months	100 NOS	
Melaleuca quinquenervia (白千層)	Seedling / Whip	$7.00	N	Guang Dong	6 months	100 NOS	
Melastoma candidum (野牡丹)	Seedling / Whip	$7.00	N	Guang Dong	6 months	100 NOS	
Melastoma dodecandrum (地菥)	Seedling / Whip	$7.00	N	Guang Dong	6 months	100 NOS	
Melastoma sanguineum (毛菥)	Seedling / Whip	$8.00	N	Guang Dong	6 months	100 NOS	
Melia azaderach (楝(苦楝))	Seedling / Whip	$8.00	N	Guang Dong	6 months	100 NOS	
Melicope pteleifolia (密茱萸(三椏苦))	Seedling / Whip	$9.00	N	Guang Dong	6 months	100 NOS	
Michelia alba (白蘭)	Seedling / Whip	$10.00	N	Guang Dong	6 months	100 NOS	
Microcos nervosa (*paniculata*) (破布葉)							
Millettia nitida (亮葉崖豆藤)							
Mussaenda pubescens (玉葉金花)							
Myrica rubra (楊梅)							
Ormosia emarginata (凹葉紅豆)							
Ormosia pachycarpa (茸荚紅豆)							
Ormosia semicastrata (軟荚紅豆)							
Osmanthus fragrans (桂花)	Seedling /Whip	$9.00	N	Guang Dong	6 months	100 NOS	
Paederia scandens (雞矢藤)							
Palhinhaea cernua (鋪地蜈蚣)							

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Table D5 - Response to the Commercial Availability Survey from Company E (Sheet 8 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Parthenocissus dalzielii (異葉爬牆虎)							
Paspalum notatum (百喜草)	Seed	$ 35 / kg	N	Guang Dong	6 months	25 kg	
Philodendron cordatum (心葉喜樹蕉)	Seedling / Whip	$25.00	N	Guang Dong	6 months	100 NOS	
Phoenix hanceana (刺葵)	Seedling / Whip	$35.00	N	Guang Dong	6 months	100 NOS	
Phyllanthus emblica (餘甘子(油甘子))	Seedling / Whip	$10.00	N	Guang Dong	6 months	100 NOS	
Pinus elliottii (愛氏松)	Seedling / Whip	$8.00	N	Guang Dong	6 months	100 NOS	
Pityrogramma calomelanos (粉葉蕨)			N	Guang Dong	6 months	100 NOS	
Psychotria asiatica (九節(山大刀))	Seedling / Whip	$8.00	N	Guang Dong	6 months	100 NOS	
Pteris semipinnata (半邊旗)			N	Guang Dong	6 months	100 NOS	
Pteris vittata (蜈蚣草)			N	Guang Dong	6 months	100 NOS	
Raphiolepis indica (石斑木(車輪梅、春花))	Seedling / Whip	$8.00	N	Guang Dong	6 months	100 NOS	
Reevesia thyrsoidea (梭羅樹)			N	Guang Dong	6 months	100 NOS	
Rhododendron mucronatum (白杜鵑)	Seedling / Whip	$7.00	N	Guang Dong	6 months	100 NOS	
Rhododendron pulchrum (錦繡杜鵑)	Seedling / Whip	$7.00	N	Guang Dong	6 months	100 NOS	
Rhododendron pulchrum var. *phoeniceum* (紫杜鵑花)	Seedling / Whip	$7.00	N	Guang Dong	6 months	100 NOS	
Rhododendron simsii (紅杜鵑)	Seedling / Whip	$7.00	N	Guang Dong	6 months	100 NOS	
Rhodoleia championii (紅花荷)							
Rhodomyrtus tomentosa (桃金孃(崗棯))	Seedling / Whip	$8.00	N	Guang Dong	6 months	100 NOS	

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Table D5 - Response to the Commercial Availability Survey from Company E (Sheet 9 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Rhus chinensis (鹽膚木)	Seedling / Whip	$9.00	N	Guang Dong	6 months	100 NOS	
Rhus succedanea (木蠟樹(野漆樹))	Seedling / Whip	$8.00	N	Guang Dong	6 months	100 NOS	
Rubus reflexus (鏽毛莓)			N	Guang Dong	6 months	100 NOS	
Sapindus saponaria (無患子(木患子))	Seedling / Whip	$9.00	N	Guang Dong	6 months	100 NOS	
Sapium discolor (山烏桕)	Seedling / Whip	$8.00	N	Guang Dong	6 months	100 NOS	
Sapium sebiferum (烏桕)	Seedling / Whip	$8.00	N	Guang Dong	6 months	100 NOS	
Sarcandra glabra (草珊瑚)			N	Guang Dong	6 months	100 NOS	
Schefflera heptaphylla (鵝掌柴(鴨腳木))	Seedling / Whip	$8.00	N	Guang Dong	6 months	100 NOS	
Schima superba (木荷(荷樹))	Seedling / Whip	$8.00	N	Guang Dong	6 months	100 NOS	
Scolopia chinensis (刺柊)			N	Guang Dong	6 months	100 NOS	
Selaginella uncinata (翠雲草)			N	Guang Dong	6 months	100 NOS	
Sterculia lanceolata (假蘋婆)	Seedling / Whip	$9.00	N	Guang Dong	6 months	100 NOS	
Strophanthus divaricatus (羊角拗)							
Symplocos glauca (羊舌樹)							
Syzygium cumini (海南蒲桃)	Seedling / Whip	$8.00					
Syzygium hancei (韓氏蒲桃)							
Syzygium jambos (蒲桃)	Seedling / Whip	$8.00					
Ternstroemia gymnanthera (厚皮香)	Seedling	$10.00					
Tetracera asiatica (錫葉藤)							

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Table D5 - Response to the Commercial Availability Survey from Company E (Sheet 10 of 10)

Species Name	Form of Plant Material Supply (Seedling or Whip / Seed / Others - Please specify)	Capital Cost of Plant Material Supply (HK$ per Seedling or Whip / HK$ per m^2 of Hydroseeding / Others - Please specify)	Availability in Hong Kong (Y/N)	Source (if applicable)	Ordering Time (if applicable)	Minimum Order (No. of Seedling or Whip / m^2 of Hydroseeding / Others - Please specify)	Planting and Maintenance Requirement Details
Trema tomentosa (山黃麻)							
Tutcheria championii (石筆木)							
Viburnum odoratissimum (珊瑚樹)	Seedling	$10.00					
Washingtonia robusta (華盛頓葵)	Seedling / Whip	$85.00					
Wedelia trilobata (三裂葉蟛蜞菊)	Seedling	$2.00					
Zanthoxylum avicennae (簕欓花椒(簕欓))							
Zoysia matrella (溝葉結縷草)	Turf	$12.00					
Zoysia sinica (中華結縷草)	Turf	$12.00					
Zoysia tenuifolia (細葉結縷草)	Turf	$12.00					

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APPENDIX E

SELECTION CRITERIA OF THE SELECTED VEGETATION SPECIES FOR THE SITE TRIALS

Table E1 - Selection Criteria of the Selected Vegetation Species for the Site Trials (Sheet 1 of 4)

Selection criteria No.:		1	2	3	4	5		6	7	8	9			10		11	12	
Scientific name	**Chinese name**	**Shrub or small tree**	**Found naturally occurring on man-made slopes in Hau & Leung 2004a, b OR Planted on man-made slopes in HK OR Occurs in steep natural slopes in HK**	**Native or naturalised exotic**	**Unplanned OR Unknown performance when planted on man-made slopes**	**Seedling materials may be available**	**Recommended for Part 1 site trial (Y for 1,2,3,4,5)**	**Species known with nursery germination rate ≥ 50%**	**Seeds may be available**	**Seed diameter < 5 mm**	**Seed diameter ≥ 5 mm**	**Recommended for Part 2 - Hydroseeding (Y for 1,2,3,6,7,8)**	**Recommended for Part 2 - Spot-sowing (Y for 1,2,3,6,7,9)**	**Known to have high re-sprout rate from burning**	**Recommended for Part 2-Stem cutting (Y for 1,2,3,10,5)**	**Ground covering vegetation**	**Shade tolerant**	**Recommended for Part 3 site trial (Y for 11,12)[Note (4)]**
Acacia auriculiformis	耳果相思	N	Y	N	N	Y	N[(1)]	Y	Y	Y	N	N[(1)]	N[(1)]	N	N[(1)]	N	N	N[(1)]
Acacia confusa	台灣相思	N	Y	N	N	Y	N[(1)]	Y	Y	Y	N	N[(1)]	N[(1)]	N	N[(1)]	N	N	N[(1)]
Acacia mangium	大葉相思	N	Y	N	N	Y	N[(1)]	Y	Y	Y	N	N[(1)]	N[(1)]	N	N[(1)]	N	N	N[(1)]
Acronychia pedunculata	山油柑	Y	Y	Y	Y	N	N[(1)]	U	N	N	Y	N[(1)]	N[(1)]	U	N[(1)]	N	Y	N[(1)]
Adinandra millettii	黃瑞木	Y	Y	Y	Y	N	N[(1)]	U	N	Y	N	N[(1)]	N[(1)]	U	N[(1)]	N	N	N[(1)]
Aglaia ororata	米仔蘭	Y	N	N	Y	Y	N[(1)]	U	U	Y	N	N[(1)]	N[(1)]	U	N[(1)]	N	Y	N[(1)]
Ailanthus fordii	常綠臭椿	N	Y	Y	N	Y	N[(1)]	U	Y	N	Y	N[(1)]	N[(1)]	U	N[(1)]	N	Y	N[(1)]
Alangium chinense	八角楓	N	Y	Y	Y	Y	N[(1)]	Y	N	N	Y	N[(1)]	N[(1)]	U	N[(1)]	N	Y	N[(1)]
Albizia lebbeck	大葉合歡	N	N	N	Y	Y	N[(1)]	Y	Y	N	Y	N[(1)]	N[(1)]	U	N[(1)]	N	N	N[(1)]
Alnus japonica	赤楊	N	Y	N	N	Y	N[(1)]	Y	Y	N	Y	N[(1)]	N[(1)]	U	N[(1)]	N	N	N[(1)]
Alocasia odora (macrorrhizos)	海芋	N	Y	Y	Y	Y	N[(1)]	U	N	N	Y	N[(1)]	N[(1)]	U	N[(1)]	Y	Y	Y
Alysicarpus vaginalis	鏈莢豆	N	Y	Y	N	Y	N[(1)]	U	U	Y	N	N[(1)]	N[(1)]	U	N[(1)]	Y	N	N[(1)]
Antirhea chinensis	毛 茶	Y	Y	Y	Y	Y	Y	Y	N	Y	N	N[(1)]	N[(1)]	U	N[(1)]	N	Y	N[(1)]
Aporusa dioica	銀柴	Y	Y	Y	Y	Y	Y	Y	N	Y	N	N[(1)]	N[(1)]	Y	Y	N	Y	N[(1)]
Aquilaria sinensis	土沉香	N	Y	Y	Y	Y	N[(1)]	N	N	N	Y	N[(1)]	N[(1)]	U	N[(1)]	N	Y	N[(1)]
Archidendron lucidum	亮葉猴耳環	Y	Y	Y	Y	N	N[(1)]	Y	N	N	Y	N[(1)]	N[(1)]	U	N[(1)]	N	N	N[(1)]
Ardisia crenata	朱砂根	Y	Y	Y	N	Y	N[(1)]	U	N	N	Y	N[(1)]	N[(1)]	U	N[(1)]	N	Y	N[(1)]
Artocarpus hypargyreus	白桂木	N	Y	Y	Y	Y	N[(1)]	Y	N	Y	N	N[(1)]	N[(1)]	U	N[(1)]	N	Y	N[(1)]
Axonopus affinis	地毯草	N	N	N	Y	Y	N[(1)]	U	Y	Y	N	N[(1)]	N[(1)]	U	N[(1)]	Y	Y	Y
Baeckea frutescens	崗松	Y	Y	Y	Y	N	N[(1)]	U	N	Y	N	N[(1)]	N[(1)]	U	N[(1)]	N	N	N[(1)]
Bambusa tuldoides	花眉竹	N	N	Y	Y	Y	N[(1)]	U	N	U	U	N[(1)]	N[(1)]	U	N[(1)]	N	Y	N[(1)]
Bauhinia championii	缺葉藤	N	Y	Y	Y	N	N[(1)]	U	N	N	Y	N[(1)]	N[(1)]	U	N[(1)]	N	N	N[(1)]
Bauhinia glauca	粉葉羊蹄甲	N	Y	Y	Y	N	N[(1)]	U	N	N	Y	N[(1)]	N[(1)]	U	N[(1)]	N	N	N[(1)]
Bauhinia purpurea	紅花羊蹄甲	N	N	N	Y	Y	N[(1)]	U	Y	N	Y	N[(1)]	N[(1)]	U	N[(1)]	N	N	N[(1)]
Bauhinia variegata	宮粉羊蹄甲	N	Y	Y	Y	Y	N[(1)]	U	Y	N	Y	N[(1)]	N[(1)]	U	N[(1)]	N	N	N[(1)]
Bischofia javanica	秋楓	N	Y	Y	Y	Y	N[(1)]	N	Y	Y	N	N[(1)]	N[(1)]	U	N[(1)]	N	Y	N[(1)]
Blechnum orientale	烏毛蕨	N	Y	Y	Y	N	N[(1)]	U	N	Y	N	N[(1)]	N[(1)]	U	N[(1)]	Y	Y	Y
Boehmeria penduliflora var. loochooensis	密花苧麻	Y	Y	Y	Y	Y	Y	U	Y	Y	N	N[(1)]	N[(1)]	U	N[(1)]	N	N	N[(1)]
Bombax ceiba	木棉	N	Y	N	Y	Y	N[(1)]	Y	Y	Y	N	N[(1)]	N[(1)]	U	N[(1)]	N	N	N[(1)]
Bougainvillea spectabilis	葉子花	N	Y	N	N	Y	N[(1)]	U	Y	Y	N	N[(1)]	N[(1)]	U	N[(1)]	N	N	N[(1)]
Breynia fruticosa	黑面神	Y	Y	Y	Y	N	N[(1)]	U	N	Y	N	N[(1)]	N[(1)]	U	N[(1)]	N	N	N[(1)]
Bridelia tomentosa	土密樹	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y	Y	N	Y	N[(1)]
Broussonetia papyrifera	構樹	Y	Y	Y	Y	Y	Y	U	N	Y	N	N[(1)]	N[(1)]	U	N[(1)]	N	N	N[(1)]
Calliandra haematocephala	朱纓花(紅絨球)	Y	N	N	Y	Y	N[(1)]	U	Y	U	U	N[(1)]	N[(1)]	U	N[(1)]	N	N	N[(1)]
Camellia caudata	長尾毛蕊茶 (尾葉茶)	Y	Y	Y	Y	Y	Y	U	N	N	Y	N[(1)]	N[(1)]	U	N[(1)]	N	N	N[(1)]
Camellia crapnelliana	紅皮糙果茶 (克氏茶)	N	Y	Y	Y	Y	N[(1)]	Y	N	N	Y	N[(1)]	N[(1)]	U	N[(1)]	N	Y	N[(1)]
Camellia oleifera	油茶	Y	Y	Y	Y	Y	Y	N	Y	N	Y	N[(1)]	N[(1)]	U	N[(1)]	N	N	N[(1)]
Camellia salicifolia	柳葉茶	Y	Y	Y	Y	Y	Y	U	N	N	Y	N[(1)]	N[(1)]	U	N[(1)]	N	N	N[(1)]
Cassia siamea	鐵刀木	Y	Y	N	Y	Y	N[(1)]	N	Y	N	Y	N[(1)]	N[(1)]	U	N[(1)]	N	N	N[(1)]
Castanopsis fissa	鬆蒴錐 (裂斗錐栗)	N	Y	Y	Y	Y	N[(1)]	Y	Y	N	Y	N[(1)]	N[(1)]	Y	N[(1)]	N	Y	N[(1)]
Casuarina equisetifolia	木麻黃	N	Y	N	N	Y	N[(1)]	Y	Y	Y	N	N[(1)]	N[(1)]	U	N[(1)]	N	N	N[(1)]
Celtis sinensis	朴樹(相思樹)	N	Y	Y	Y	Y	N[(1)]	Y	N	Y	N	N[(1)]	N[(1)]	U	N[(1)]	N	Y	N[(1)]
Choerospondias axillaris	南酸棗	N	Y	Y	Y	Y	N[(1)]	Y	Y	N	Y	N[(1)]	N[(1)]	Y	N[(1)]	N	N	N[(1)]
Cinnamomum camphora	樟樹	N	Y	Y	Y	Y	N[(1)]	U	Y	Y	N	N[(1)]	N[(1)]	U	N[(1)]	N	Y	N[(1)]
Clerodendrum fortunatum	白花燈籠 (鬼燈籠)	Y	Y	Y	Y	N	N[(1)]	U	N	Y	N	N[(1)]	N[(1)]	U	N[(1)]	N	N	N[(1)]
Crataeva unilocularis	樹頭菜	Y	N	N	Y	Y	N[(1)]	U	Y	Y	N	N[(1)]	N[(1)]	U	N[(1)]	N	N	N[(1)]
Cratoxylum cochinchinense	黃牛木	Y	Y	Y	Y	Y	Y	N	Y	Y	N	N[(1)]	N[(1)]	U	N[(1)]	N	Y	N[(1)]
Cunninghamia lanceolata	杉木	N	N	N	Y	Y	N[(1)]	N	Y	Y	N	N[(1)]	N[(1)]	U	N[(1)]	N	N	N[(1)]
Cyclobalanopsis championii	嶺南青岡	Y	Y	Y	Y	Y	Y	U	N	N	Y	N[(1)]	N[(1)]	U	N[(1)]	N	Y	N[(1)]
Cyclobalanopsis edithiae	華南青岡	Y	N	Y	Y	Y	N[(1)]	Y	N	N	Y	N[(1)]	N[(1)]	U	N[(1)]	N	Y	N[(1)]
Cyclobalanopsis myrsinifolia	小葉青岡	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y	Y	Y	N	Y	N[(1)]
Cyclobalanopsis neglecta	竹葉青岡	N	Y	Y	Y	Y	N[(1)]	Y	Y	N	Y	N[(1)]	N[(1)]	Y	N[(1)]	N	Y	N[(1)]
Cyclosorus parasiticus	華南毛蕨	N	Y	Y	Y	N	N[(1)]	U	N	Y	N	N[(1)]	N[(1)]	U	N[(1)]	Y	Y	Y
Cynodon dactylon	狗牙根	N	Y	Y	N	Y	N[(1)]	U	Y	Y	N	N[(1)]	N[(1)]	U	N[(1)]	Y	N	N[(1)]
Dalbergia benthamii	兩廣黃檀	N	Y	Y	Y	N	N[(1)]	U	N	N	Y	N[(1)]	N[(1)]	U	N[(1)]	N	N	N[(1)]
Dalbergia hancei	藤黃檀	N	Y	Y	Y	N	N[(1)]	U	N	N	Y	N[(1)]	N[(1)]	U	N[(1)]	N	N	N[(1)]

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Table E1 - Selection Criteria of the Selected Vegetation Species for the Site Trials (Sheet 2 of 4)

Selection criteria No.:		1	2	3	4	5	Recommended for Part 1 site trial (Y for 1,2,3,4,5)	6	7	8	9	Recommended for Part 2 - Hydroseeding (Y for 1,2,3,6,7,8)	Recommended for Part 2 - Spot-sowing (Y for 1,2,3,6,7,9)	10	Recommended for Part 2-Stem cutting (Y for 1,2,3,10,5)	11	12	Recommended for Part 3 site trial (Y for 11,12)[Note (4)]
Scientific name	**Chinese name**	**Shrub or small tree**	**Found naturally occurring on man-made slopes in Hau & Leung 2004a, b OR Planted on man-made slopes in HK OR Occurs in steep natural slopes in HK**	**Native or naturalised exotic**	**Unplanned OR Unknown performance when planted on man-made slopes**	**Seedling materials may be available**		**Species known with nursery germination rate ≥ 50%**	**Seeds may be available**	**Seed diameter < 5 mm**	**Seed diameter ≥ 5 mm**			**Known to have high re-sprout rate from burning**		**Ground covering vegetation**	**Shade tolerant**	
Daphniphyllum calycinum	牛耳楓	Y	N	Y	Y	Y	N(1)	Y	N	N	Y	N(1)	N(1)	U	N(1)	N	N	N(1)
Daphniphyllum oldhamii	虎皮楠(交讓木)	Y	N	Y	Y	Y	N(1)	U	N	N	Y	N(1)	N(1)	U	N(1)	N	N	N(1)
Delonix regia	鳳凰木	N	N	N	Y	Y	N(1)	U	Y	N	Y	N(1)	N(1)	U	N(1)	N	N	N(1)
Desmodium heterocarpon	假地豆	Y	Y	Y	Y	N	N(1)	U	N	Y	N	N(1)	N(1)	U	N(1)	Y	N	N(1)
Desmos chinensis	假鷹爪	N	Y	Y	Y	N	N(1)	U	N	Y	N	N(1)	N(1)	U	N(1)	N	Y	N(1)
Dicranopteris pedata	芒萁	N	Y	Y	Y	N	N(1)	U	N	Y	N	N(1)	N(1)	Y	N(1)	Y	Y	Y
Dimocarpus longan	龍眼	N	Y	Y	N	Y	N(1)	U	Y	N	Y	N(1)	N(1)	U	N(1)	N	N	N(1)
Diospyros morrisiana	羅浮柿	Y	N	Y	Y	Y	N(1)	U	Y	N	Y	N(1)	N(1)	U	N(1)	N	Y	N(1)
Diospyros vaccinioides	小果柿	Y	N	Y	Y	Y	N(1)	Y	N	N	Y	N(1)	N(1)	U	N(1)	N	Y	N(1)
Diplospora dubia	狗骨柴	Y	Y	Y	Y	Y	Y	U	N	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Dodonaea viscosa	車桑子	Y	N	Y	Y	U	N(1)	U	Y	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Duranta erecta	假連翹	Y	N	N	Y	Y	N(1)	U	Y	Y	N	N(1)	N(1)	U	N(1)	N	Y	N(1)
Elaeocarpus chinensis	中華杜英	Y	Y	Y	Y	Y	Y	U	N	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Elaeocarpus sylvestris	山杜英	N	Y	Y	Y	Y	N(1)	Y	N	Y	N	N(1)	N(1)	U	N(1)	N	Y	N(1)
Embelia laeta	酸藤子	N	Y	Y	Y	N	N(1)	U	N	Y	N	N(1)	N(1)	U	N(1)	Y	N	N(1)
Endospermum chinense	黃桐	N	N	Y	Y	Y	N(1)	U	N	Y	N	N(1)	N(1)	U	N(1)	N	Y	N(1)
Enkianthus quinqueflorus	吊鐘花	Y	Y	Y	Y	Y	Y	N	N	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Epipremnum aureum	綠蘿(芋葉藤)	N	Y	N	N	Y	N(1)	U	Y	Y	N	N(1)	N(1)	U	N(1)	Y	Y	Y
Eremochloa ciliaris	蜈蚣草	N	Y	Y	Y	N	N(1)	U	Y	Y	N	N(1)	N(1)	U	N(1)	Y	Y	Y
Eremochloa ophiuroides	假儉草	N	Y	Y	Y	U	N(1)	U	Y	Y	N	N(1)	N(1)	U	N(1)	Y	Y	Y
Eucalyptus citriodora	檸檬桉	N	Y	N	N	Y	N(1)	Y	Y	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Eucalyptus robusta	大葉桉	N	Y	N	N	Y	N(1)	Y	Y	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Eucalyptus tereticornis	細業桉	N	Y	N	N	Y	N(1)	U	Y	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Eurya chinensis	米碎花	Y	Y	Y	Y	N	N(1)	U	N	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Eurya nitida	細齒葉柃	Y	Y	Y	Y	Y	Y	N	N	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Ficus hirta	粗葉榕	Y	Y	Y	Y	N	N(1)	U	N	Y	N	N(1)	N(1)	U	N(1)	N	Y	N(1)
Ficus hispida	對葉榕	Y	Y	Y	Y	Y	Y	U	Y	Y	N	N(1)	N(1)	U	N(1)	N	Y	N(1)
Ficus microcarpa	榕樹(細葉榕)	N	Y	Y	N	Y	N(1)	U	Y	Y	N	N(1)	N(1)	U	N(1)	N	Y	N(1)
Ficus pumila	薜荔	N	Y	Y	N	Y	N(1)	U	Y	Y	N	N(1)	N(1)	U	N(1)	Y	N	N(1)
Ficus superba var. *japonica*	筆管榕	N	Y	Y	Y	Y	N(1)	U	Y	Y	N	N(1)	N(1)	U	N(1)	N	Y	N(1)
Ficus variegata var. *chlorocarpa*	青果榕	N	Y	Y	Y	N	N(1)	U	Y	Y	N	N(1)	N(1)	U	N(1)	N	Y	N(1)
Ficus variolosa	變葉榕	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	U	N(1)	N	N	N(1)
Ficus virens var. *sublanceolata*	大葉榕	N	Y	Y	Y	N	N(1)	U	Y	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Garcinia oblongifolia	嶺南山竹子	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y	U	N(1)	N	Y	N(1)
Gardenia jasminoides	梔子(水橫枝)	Y	Y	Y	Y	Y	Y	N	N	Y	N	N(1)	N(1)	Y	Y	N	N	N(1)
Glochidion lanceolarium	艾膠算盤子	Y	Y	Y	Y	Y	Y	U	Y	Y	N	N(1)	N(1)	U	N(1)	N	Y	N(1)
Gordoria axillaris	大頭茶	Y	Y	Y	N	Y	N(1)	N	Y	Y	N	N(1)	N(1)	Y	Y	N	N	N(1)
Grevillea robusta	銀樺	Y	Y	N	N	Y	N(1)	Y	Y	N	Y	N(1)	N(1)	U	N(1)	N	N	N(1)
Hedera helix	洋常春藤	N	Y	N	N	Y	N(1)	U	U	Y	N	N(1)	N(1)	U	N(1)	Y	Y	Y
Helicteres angustifolia	山芝麻	Y	Y	Y	Y	N	N(1)	U	N	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Hibiscus rosa-sinensis	朱槿(大紅花)	Y	N	N	Y	Y	N(1)	U	Y	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Hibiscus tiliaceus	黃槿	Y	N	Y	Y	Y	N(1)	Y	Y	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Ilex asprella	梅葉冬青	Y	Y	Y	Y	Y	Y	N	N	Y	N	N(1)	N(1)	U	N(1)	N	Y	N(1)
Ilex cinerea	灰冬青	Y	Y	Y	Y	Y	Y	U	N	Y	N	N(1)	N(1)	U	N(1)	N	Y	N(1)
Ilex rotunda	鐵冬青	N	Y	Y	Y	Y	N(1)	N	N	Y	N	N(1)	N(1)	U	N(1)	N	Y	N(1)
Ilex viridis	綠冬青 (亮葉冬青)	Y	Y	Y	Y	Y	Y	Y	N	Y	N	N(1)	N(1)	U	N(1)	N	Y	N(1)
Indigofera spicata	鋪地木藍	N	N	Y	Y	Y	N(1)	U	Y	Y	N	N(1)	N(1)	U	N(1)	Y	N	N(1)
Ipomoea cairica	五爪金龍	N	Y	N	Y	Y	N(1)	U	N	Y	N	N(1)	N(1)	U	N(1)	Y	N	N(1)
Itea chinensis	老鼠刺	Y	Y	Y	Y	Y	Y	U	Y	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Ixora chinensis	龍船花	Y	N	Y	Y	Y	N(1)	U	Y	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Lantana camara	馬纓丹	Y	Y	Y	N	Y	N(1)	U	U	Y	N	N(1)	N(1)	U	N(1)	N	Y	N(1)
Lantana montevidensis	小葉馬纓丹 (鋪地臭金鳳)	N	Y	N	Y	Y	N(1)	U	U	Y	N	N(1)	N(1)	U	N(1)	Y	N	N(1)
Ligustrum sinense	山指甲	Y	Y	Y	N	Y	N(1)	U	Y	Y	N	N(1)	N(1)	U	N(1)	N	Y	N(1)
Liquidambar formosana	楓香	N	N	Y	Y	Y	N(1)	N	Y	Y	N	N(1)	N(1)	Y	N(1)	N	N	N(1)
Litchi chinensis	荔枝	N	N	Y	Y	Y	N(1)	Y	Y	N	Y	N(1)	N(1)	U	N(1)	N	N	N(1)
Lithocarpus glaber	柯	N	Y	Y	Y	Y	N(1)	Y	Y	N	Y	N(1)	N(1)	U	N(1)	N	Y	N(1)
Lithocarpus harlandii	港柯	N	N	Y	Y	Y	N(1)	N	N	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)

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Table E1 - Selection Criteria of the Selected Vegetation Species for the Site Trials (Sheet 3 of 4)

Selection criteria No.:		1	2	3	4	5	Recommended for Part 1 site trial (Y for 1,2,3,4,5)	6	7	8	9	Recommended for Part 2 - Hydroseeding (Y for 1,2,3,6,7,8)	Recommended for Part 2 - Spot-sowing (Y for 1,2,3,6,7,9)	10	Recommended for Part 2-Stem cutting (Y for 1,2,3,10,5)	11	12	Recommended for Part 3 site trial (Y for 11,12)[Note (4)]
Scientific name	**Chinese name**	**Shrub or small tree**	**Found naturally occurring on man-made slopes in Hau & Leung 2004a, b OR Planted on man-made slopes in HK OR Occurs in steep natural slopes in HK**	**Native or naturalised exotic**	**Unplanned OR Unknown performance when planted on man-made slopes**	**Seedling materials may be available**		**Species known with nursery germination rate ≥ 50%**	**Seeds may be available**	**Seed diameter < 5 mm**	**Seed diameter ≥ 5 mm**			**Known to have high re-sprout rate from burning**		**Ground covering vegetation**	**Shade tolerant**	
Litsea cubeba	木薑子	Y	Y	Y	Y	Y	Y	N	N	Y	N	N(1)	N(1)	Y	Y	N	N	N(1)
Litsea glutinosa	潺槁樹	N	Y	Y	Y	Y	N(1)	Y	Y	N	Y	N(1)	N(1)	U	N(1)	N	Y	N(1)
Litsea rotundifolia var. *oblongifolia*	豺皮樟	Y	Y	Y	N	Y	N(1)	Y	N	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Lophostemon confertus	紅膠木	N	Y	N	N	Y	N(1)	U	Y	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Lygodium japonicum	海金沙	N	Y	Y	Y	N	N(1)	U	N	Y	N	N(1)	N(1)	U	N(1)	Y	Y	Y
Macaranga tanarius	血桐	N	Y	Y	N	Y	N(1)	N	N	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Machilus breviflora	短序潤楠	N	Y	Y	Y	Y	N(1)	U	U	N	Y	N(1)	N(1)	Y	N(1)	N	Y	N(1)
Machilus chekiangensis	浙江潤楠	N	Y	Y	Y	Y	N(1)	Y	U	N	Y	N(1)	N(1)	U	N(1)	N	Y	N(1)
Machilus pauhoi	刨花潤楠	N	Y	Y	Y	Y	N(1)	U	U	N	Y	N(1)	N(1)	U	N(1)	N	Y	N(1)
Machilus velutina	絨毛潤楠	N	Y	Y	Y	Y	N(1)	Y	N	N	Y	N(1)	N(1)	U	N(1)	N	Y	N(1)
Maesa perlarius	鯽魚膽	Y	Y	Y	Y	N	N(1)	N	N	Y	N	N(1)	N(1)	U	N(1)	N	Y	N(1)
Magnolia grandiflora	荷花玉蘭	Y	N	N	Y	Y	N(1)	U	Y	U	U	N(1)	N(1)	U	N(1)	N	Y	N(1)
Mallotus paniculatus	白楸	N	Y	Y	N	Y	N(1)	Y	Y	Y	N	N(1)	N(1)	N	N(1)	N	Y	N(1)
Mangifera indica	杧果	N	N	N	Y	Y	N(1)	U	Y	N	Y	N(1)	N(1)	U	N(1)	N	N	N(1)
Melaleuca quinquenervia	白千層	N	Y	N	N	Y	N(1)	U	Y	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Melastoma candidum	野牡丹	Y	Y	Y	N	Y	N(1)	U	Y	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Melastoma dodecandrum	地菺	N	Y	Y	Y	Y	N(1)	U	U	N	Y	N(1)	N(1)	U	N(1)	Y	Y	Y
Melastoma sanguineum	毛菺	Y	Y	Y	N	Y	N(1)	U	Y	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Melia azedarach	楝(苦楝)	N	Y	Y	Y	Y	N(1)	Y	Y	N	Y	N(1)	N(1)	U	N(1)	N	N	N(1)
Melicope pteleifolia	密茱萸(三桠苦)	Y	Y	Y	N	N	N(1)	N	N	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Michelia alba	白蘭	N	N	N	Y	Y	N(1)	U	U	N	Y	N(1)	N(1)	U	N(1)	N	N	N(1)
Microcos nervosa (*paniculata*)	破布葉	N	Y	Y	Y	Y	N(1)	N	Y	N	Y	N(1)	N(1)	U	N(1)	N	N	N(1)
Millettia nitida	亮葉崖豆藤	N	Y	Y	Y	N	N(1)	U	N	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Mussaenda pubescens	玉葉金花	Y	Y	Y	Y	U	N(1)	U	N	Y	N	N(1)	N(1)	U	N(1)	N	Y	N(1)
Myrica rubra	楊梅	N	N	Y	Y	Y	N(1)	Y	Y	N	Y	N(1)	N(1)	U	N(1)	N	N	N(1)
Nephrolepis auriculata	腎蕨	N	Y	Y	Y	Y	N(1)	U	N	Y	N	N(1)	N(1)	U	N(1)	Y	Y	Y
Nephrolepis hirsutula	毛葉腎蕨	N	Y	Y	Y	Y	N(1)	U	N	Y	N	N(1)	N(1)	U	N(1)	Y	Y	Y
Ormosia emarginata	凹葉紅豆	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y	U	N(1)	N	Y	N(1)
Ormosia pachycarpa	茸荚紅豆	N	Y	Y	Y	Y	N(1)	U	N	N	Y	N(1)	N(1)	U	N(1)	N	Y	N(1)
Ormosia semicastrata	軟荚紅豆	N	Y	Y	Y	Y	N(1)	Y	Y	N	Y	N(1)	N(1)	U	N(1)	N	Y	N(1)
Osmanthus fragrans	桂花	Y	N	N	Y	Y	N(1)	U	Y	N	Y	N(1)	N(1)	U	N(1)	N	N	N(1)
Paederia scandens	雞矢藤	N	Y	Y	Y	N	N(1)	U	N	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Palhinhaea cernua	鋪地蜈蚣	N	Y	Y	Y	N	N(1)	U	N	Y	N	N(1)	N(1)	Y	N(1)	Y	N	N(1)
Parthenocissus dalzielii	異葉爬牆虎	N	Y	N	N	Y	N(1)	U	N	Y	N	N(1)	N(1)	U	N(1)	Y	N	N(1)
Paspalum notatum	百喜草	N	Y	N	N	Y	N(1)	U	Y	Y	N	N(1)	N(1)	U	N(1)	Y	N	N(1)
Philodendron cordatum	心葉喜樹蕉	N	N	N	Y	Y	N(1)	U	Y	Y	N	N(1)	N(1)	U	N(1)	Y	Y	Y
Phoenix hanceana	刺葵	Y	Y	Y	Y	N	N(1)	U	U	N	Y	N(1)	N(1)	U	N(1)	N	N	N(1)
Phyllanthus emblica	餘甘子(油甘子)	Y	Y	Y	Y	Y	Y	U	Y	N	Y	N(1)	N(1)	Y	Y	N	N	N(1)
Phyllauthus cochinchinensis	越南葉下珠	Y	Y	Y	Y	N	N(1)	U	Y	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Pittosporum tobira	海桐	Y	Y	N	Y	Y	N(1)	U	N	U	U	N(1)	N(1)	U	N(1)	N	N	N(1)
Pityrogramma calomelanos	粉葉蕨	N	Y	Y	Y	N	N(1)	U	N	Y	N	N(1)	N(1)	U	N(1)	Y	Y	Y
Psychotria asiatica	九節(山大刀)	Y	Y	Y	N	Y	N(1)	Y	Y	Y	N	Y	N	U	N(1)	N	Y	N(1)
Pteris semipinnata	半邊旗	N	Y	Y	Y	N	N(1)	U	N	Y	N	N(1)	N(1)	U	N(1)	Y	Y	Y
Pteris vittata	蜈蚣草	N	Y	Y	Y	N	N(1)	U	N	Y	N	N(1)	N(1)	U	N(1)	Y	Y	Y
Pyrus calleryana	豆梨	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	U	N(1)	N	N	N(1)
Rhaphiolepis indica	石斑木(車輪梅、春花)	Y	Y	Y	N	Y	N(1)	Y	Y	Y	N	Y	N	Y	Y	N	N	N(1)
Reevesia thyrsoidea	梭羅樹	Y	Y	Y	N	Y	Y	Y	Y	N	Y	N	Y	Y	Y	N	N	N(1)
Rhododendron mucronatum	白杜鵑	Y	Y	N	Y	Y	N(1)	U	U	Y	N	N(1)	N(1)	U	N(1)	N	Y	N(1)
Rhododendron pulchrum	錦繡杜鵑	Y	Y	N	Y	Y	N(1)	U	U	Y	N	N(1)	N(1)	U	N(1)	N	Y	N(1)
Rhododendron pulchrum var. *phoeniceum*	紫杜鵑花	Y	Y	N	Y	Y	N(1)	U	U	Y	N	N(1)	N(1)	U	N(1)	N	Y	N(1)
Rhododendron simsii	紅杜鵑	Y	Y	Y	Y	Y	Y	U	U	Y	N	N(1)	N(1)	U	N(1)	N	Y	N(1)
Rhodoleia championii	紅花荷	Y	N	Y	Y	Y	N(1)	N	Y	Y	N	N(1)	N(1)	U	N(1)	N	Y	N(1)
Rhodomyrtus tomentosa	桃金孃(崗稔)	Y	Y	Y	N	Y	Y(2)	Y	Y	Y	N	Y	N	Y	Y	N	N	N(1)
Rhus chinensis	鹽膚木	Y	Y	Y	Y	N	N(1)	U	N	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Rhus succedanea	木蠟樹(野漆樹)	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	U	N(1)	N	N	N(1)
Rubus reflexus	鏽毛莓	Y	Y	Y	Y	N	N(1)	U	N	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Salvia officinalis	鼠尾草	N	N	Y	Y	Y	N(1)	U	Y	Y	N	N(1)	N(1)	U	N(1)	Y	N	N(1)

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Table E1 - Selection Criteria of the Selected Vegetation Species for the Site Trials (Sheet 4 of 4)

Selection criteria No.:		1	2	3	4	5		6	7	8	9			10		11	12	
Scientific name	**Chinese name**	**Shrub or small tree**	**Found naturally occurring on man-made slopes in Hau & Leung 2004a, b OR Planted on man-made slopes in HK OR Occurs in steep natural slopes in HK**	**Native or naturalised exotic**	**Unplanned OR Unknown performance when planted on man-made slopes**	**Seedling materials may be available**	**Recommended for Part 1 site trial (Y for 1,2,3,4,5)**	**Species known with nursery germination rate ≥ 50%**	**Seeds may be available**	**Seed diameter < 5 mm**	**Seed diameter ≥ 5 mm**	**Recommended for Part 2 - Hydroseeding (Y for 1,2,3,6,7,8)**	**Recommended for Part 2 - Spot-sowing (Y for 1,2,3,6,7,9)**	**Known to have high re-sprout rate from burning**	**Recommended for Part 2-Stem cutting (Y for 1,2,3,10,5)**	**Ground covering vegetation**	**Shade tolerant**	**Recommended for Part 3 site trial (Y for 11,12)[Note (4)]**
Sapindus saponaria	無患子(木患子)	N	N	Y	Y	U	N(1)	Y	Y	N	Y	N(1)	N(1)	U	N(1)	N	N	N(1)
Sapium discolor	山烏桕	Y	Y	Y	Y	Y	Y	N	Y	Y	N	N(1)	N(1)	N	N(1)	N	N	N(1)
Sapium sebiferum	烏桕	N	Y	Y	Y	Y	N(1)	Y	Y	N	Y	N(1)	N(1)	U	N(1)	N	N	N(1)
Sarcandra glabra	草珊瑚	Y	Y	Y	Y	N	N(1)	U	N	Y	N	N(1)	N(1)	U	N(1)	N	Y	N(1)
Schefflera heptaphylla	鵝掌柴(鴨腳木)	Y	Y	Y	N	Y	N(1)	Y	Y	Y	N	Y	N	Y	Y	N	Y	N(1)
Schima superba	木荷(荷樹)	N	Y	Y	Y	Y	N(1)	N	Y	Y	N	N(1)	N(1)	Y	N(1)	N	N	N(1)
Scolopia chinensis	刺柊	Y	N	Y	Y	Y	N(1)	Y	N	N	Y	N(1)	N(1)	U	N(1)	N	N	N(1)
Selaginella uncinata	翠雲草	N	Y	Y	Y	Y	N(1)	U	N	Y	N	N(1)	N(1)	U	N(1)	Y	Y	Y
Smilax China	菝葜	N	Y	Y	Y	U	N(1)	U	Y	N	Y	N(1)	N(1)	U	N(1)	N	N	N(1)
Sterculia lanceolata	假蘋婆	N	Y	Y	Y	Y	N(1)	Y	Y	N	Y	N(1)	N(1)	N	N(1)	N	Y	N(1)
Strophanthus divaricatus	羊角拗	N	Y	Y	Y	U	N(1)	U	N	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Symplocos glauca	羊舌樹	Y	N	Y	Y	U	N(1)	U	N	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Syzygium cumini	海南蒲桃	Y	Y	N	Y	Y	N(1)	Y	Y	N	Y	N(1)	N(1)	U	N(1)	N	Y	N(1)
Syzygium hancei	韓氏蒲桃	N	Y	Y	Y	Y	N(1)	Y	Y	N	Y	N(1)	N(1)	U	N(1)	N	Y	N(1)
Syzygium jambos	蒲桃	N	Y	Y	Y	Y	N(1)	U	Y	N	Y	N(1)	N(1)	U	N(1)	N	Y	N(1)
Tadehagi triquetrum	葫蘆茶	Y	Y	Y	Y	N	N(1)	U	Y	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Ternstroemia gymnanthera	厚皮香	Y	Y	Y	Y	Y	Y	U	N	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Tetracera asiatica	錫葉藤	N	Y	Y	Y	N	N(1)	U	N	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Trema tomentosa	山黃麻	Y	Y	Y	Y	N	N(1)	Y	N	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Tutcheria championii	石筆木	N	Y	Y	Y	Y	N(1)	U	Y	N	Y	N(1)	N(1)	U	N(1)	N	Y	N(1)
Viburnum odoratissimum	珊瑚樹	N	Y	Y	Y	Y	N(1)	Y	Y	Y	N	N(1)	N(1)	U	N(1)	N	Y	N(1)
Washingtonia robusta	華盛頓蒸	Y	Y	N	Y	Y	N(1)	U	Y	U	U	N(1)	N(1)	U	N(1)	N	N	N(1)
Wedelia trilobata	三裂葉蟛蜞菊	N	Y	N	N	Y	N(1)	U	U	Y	N	N(1)	N(1)	U	N(1)	Y	N	N(1)
Zanthoxylum avicennae	簕欓花椒(簕欓)	Y	Y	Y	N	Y	N(1)	N	Y	Y	N	N(1)	N(1)	U	N(1)	N	N	N(1)
Zoysia matrella	溝葉結縷草	N	N	Y	Y	Y	N(1)	U	Y	Y	N	N(1)	N(1)	U	N(1)	Y	Y	Y
Zoysia sinica	中華結縷草	N	N	Y	Y	Y	N(1)	U	Y	Y	N	N(1)	N(1)	U	N(1)	Y	Y	Y
Zoysia tenuifolia	細葉結縷草	N	N	N	Y	Y	N(1)	U	Y	Y	N	N(1)	N(1)	U	N(1)	Y	Y	Y

Hau, B.C.H and Leung, G.P.C. 2004a. Performance Assessment of Greening Techniques and Vegetation Species on Slopes - Task 1 Final Summary Report: Performance Assessment of Greening Techniques. Civil Engineering Department, Hong Kong SAR Government.
Hau, B.C.H and Leung, G.P.C. 2004b. Performance Assessment of Greening Techniques and Vegetation Species on Slopes - Task 2 Final Summary Report: Performance Assessment of Vegetation Species. Civil Engineering Department, Hong Kong SAR Government.

Legend:
- Y - Yes
- N - No
- U - Unknown

Notes:

(1) Species is not recommended for site trials under this study.
(2) Control species for Part 1 of the site trials.
(3) Refer to Figure 2 for the flow chart.
(4) Availability will be determined at later stage, if seedling is not available, then refer to Note (1).

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APPENDIX F

SECTION 3 OF PARTICULAR SPECIFICATION FOR GE/2004/28

SECTION 3

LANDSCAPE SOFTWORKS AND ESTABLISHMENT WORKS

GENERAL

Weather and ground conditions 3.06A1

GS Clause 3.06 shall become its sub-clause (1) and add the following sub-clauses to GS Clause 3.06:

(2) Planting shall take place in suitable weather conditions. Planting shall not take place in weather conditions which will result in initial drying out of root systems and/or scorching of leaves. Ideally planting shall take place in overcast or moist conditions. If planting has to be carried out in sun or drying winds, plants awaiting planting shall at all times be covered to prevent drying out.

(3) The Contractor shall cease planting immediately when in the opinion of the Engineer the weather conditions are not as defined above. Planting shall be carried out between 1st April and 31st August, unless otherwise agreed in writing by the Engineer.

Add the following Clause after GS Clause 3.07:-

Landscape Softworks and Establishment Works by specialist landscape contractor 3.07A1

(1) If the Contractor is not included in the "List of Approved Suppliers of Materials and Specialist Contractors for Public Works" under the category of "Landscaping: Class I – General Landscape Work", he shall enter into a written sub-contract with a specialist contractor pursuant to SCC Clause 7 to carry out all the Landscape Softworks and Establishment Works, except hydroseeding, but including tree felling and transplanting.

If the Contractor is not included in the "List of Approved Suppliers of Materials and Specialist Contractors for Public Works" under the category of "Landscaping: Class II – Hydroseeding", he shall enter into a written sub-contract with a specialist contractor pursuant to SCC Clause 7 to carry out all hydroseeding works.

(3) In addition to the general requirements of the Contract, the Contractor shall demonstrate that the proposed specialist contractor referred to in PS Clauses 3.07A1(1) and 3.07A1(2) has sufficient experience and skilled labour to undertake the works specified.

MATERIALS

Seedling trees 3.11S1

Delete GS Clause 3.11 sub-clauses (a) and (e) and replace with the following :

(a) more than 1 year but less than 2 years old,

(b) grown in a container at least 75 mm diameter and 100 mm deep or a tube at least 60 mm diameter and 150 mm long.

Whip trees 3.12S1

Delete GS Clause 3.12 sub-clauses (a) and (e) and replace with the following :

(a) between 2 and 3 years old,

(e) grown in a container at least 125 mm diameter and 200 mm deep.

Light standard trees 3.13S1 Delete GS Clause 3.13 sub-clauses (b) and (e) and replace with the following :

(b) stem diameter of between 20 mm and 35 mm measured at a height of 1 metre above the root collar,

(e) rootball at least 300 mm diameter and 300 mm deep.

Standard trees 3.14S1 Delete GS Clause 3.14 sub-clauses (b) and (e) and replace with the following :

(b) stem diameter of between 36 mm and 60 mm measured at a height of 1 metre above the root collar,

(e) rootball at least 450 mm diameter and 350 mm deep..

Heavy standard trees 3.15S1 Delete GS Clause 3.15 sub-clauses (b) and (e) and replace with the following :

(b) stem diameter of between 61 mm and 100 mm measured at a height of 1 metre above the root collar,

(e) rootball at least 600 mm diameter and 400 mm deep.

Small shrubs 3.16S1 Delete GS clause 3.16 sub-clauses (c) and (d) and replace with the following :

(c) height of between 300 mm and 600 mm above soil level, which shall be defined as shrub species according to Checklist of Hong Kong Plant published by the Agriculture, Fisheries and Conservation Department in 2001; and

(d) grown and supplied in a container at least 125 mm diameter and 150 mm deep.

Large shrubs 3.17S1 Delete GS Clause 3.17 sub-clauses (c) and (d) and replace with the following :

(c) height exceeding 600 mm above soil level, which shall be defined as shrub species according to Checklist of Hong Kong Plant published by the Agriculture, Fisheries and Conservation Department in 2001; and

(d) grown and supplied in a container at least 150 mm diameter and 200 mm deep.

Conifers 3.18S1 Delete GS Clause 3.18 sub-clause (c) and replace with the following :

(c) small conifer shall have a total height of between 1500 mm and 2500 mm above the root collar, and large conifer shall have a total height of between

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2501 mm and 3500 mm above the root collar.

Palms 3.19S1 Delete GS Clause 3.19 and replace with the following :

Palms shall have the following characteristics :

(a) well developed upright habit and vigorous fronds with good symmetry and a well developed vigorous root system,

(b) small palm shall have a minimum stem height above soil level to the base of the lowest frond as specified below and a rootball of at least 300 mm diameter and 300 mm depth;

(c) medium or large palm shall have a minimum stem height above soil level to the base of the lowest frond as specified below and a rootball of at least 500 mm diameter and 500 mm depth;

(d) palms are divided into five groups of species, being Groups A to E, as shown on the List of Plant Materials in Particular Specification Appendix O,

(e) the minimum stem height to the base of the lowest frond for various sizes and groups of palms are specified as follows :

Group	Small	Medium	Large
A	300-500 mm	501-1000 mm	1001-1500 mm
B	500-1000 mm	1001-1500 mm	1501-2500 mm
C	500-1000 mm	1001-1500 mm	1501-2500 mm
D	1000-1500 mm	1501-2000 mm	2001-3000 mm
E	500-1000 mm	1001-1500mm	

Bamboo 3.20S1 Delete GS Clause 3.20 sub-clauses (b) and (c) and replace with the following :

(b) for single stem species, small bamboo shall have a single shoot or trunk with a height of between 600 mm and 900 mm above soil level and large bamboo shall have a single shoot or trunk with a height exceeding 900 mm above soil level,

(c) for multi-stemmed species, small bamboo shall have a clump of at least three stems with a height of between 600 mm and 900 mm above soil level and large bamboo shall have a clump of at least three stems with height exceeding 900 mm above soil level.

Herbaceous plants 3.21S1 Delete GS Clause 3.21 sub-clauses (a) and (c) and replace with the following :

(a) at least ten well developed vigorous shoots, unless unobtainable for particular species,

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(c) height not less than 150 mm above soil level.

Add the following Clauses after GS Clause 3.21:-

Ground cover plants 3.21A1 Ground cover plants shall have all the following characteristics:

(a) well developed vigorous shoots,
(b) well developed vigorous root system,

(c) height of not less than 150 mm above soil level, and

(d) grown and supplied in a container at least 100 mm diameter and 150 mm deep.

Climbers 3.21A2 Climbers shall have all the following characteristics:

(a) at least one year old,

(b) at least four vigorous one year old shoots at least 600 mm long,

(c) well developed, vigorous root system, and

(d) grown and supplied in a container at least 100 mm diameter and 150 mm deep.

Containerised plants 3.22A1 GS Clause 3.22 shall become its sub-clause (1) and add the following sub-clause to GS Clause 3.22 :

(2) Containerised plants shall be well watered before despatch from the nursery and shall remain in the containers until required for planting.

Grass seed 3.23S1 Delete GS Clause 3.23 and replace with the following :

(1) All seed shall be covered by an appropriately numbered seed analysis report or certificate. The numbered certificates shall always refer to the number on the seed sacks. The report or certificate shall have been issued within six months of the date of use of the seed. All seed used must be true to label. Seed quality shall be gauged by purity, germination percentage and freedom from weeds and disease.

(2) The minimum germination percentage of the grass seeds over a 7 day test period shall be 90% for each grass species.

Add the following Clauses after GS Clause 3.23S1 :

Standard hydroseeding mix 3.23A1 (1) Between April and August inclusive, the minimum spreading rate shall be 25 g/sq.m. The mix proportions shall lie within the following limits :

Species	**Rate**
Cynodon dactylon (Bermuda grass)	13 – 15 g/sq.m.
Paspalum notatum (Bahia grass)	8 – 10 g/sq.m.
Other species from list below :	1 – 4 g/sq.m.
- *Chloris gayana* (Rhodes grass)	
- *Eragrostis curvula* (Weeping	

lovegrass) (2% max)	
- *Eremochloa ophiuroides* (Centipede grass)	
- Cenchrus *ciliaris* (Buffel grass)	
TOTAL	25 g/sq.m. (minimum)

(2) Between September and March inclusive, the minimum spreading rate shall be 30 g/sq.m. and shall consist of :

Species	**Rate**
Cynodon dactylon (Bermuda grass)	15 g/sq.m.
Paspalum notatum (Bahia grass)	10 g/sq.m.
Lolium perenne (Manhattan rye grass)	5 g/sq.m.
TOTAL	30 g/sq.m. (minimum)

Native grass seed mix 3.23A2 Where native grass species are specified on the Drawings, the hydroseeding mix shall consist of the following species. These shall be applied at a rate of 30 g/sq.m.

Grass Species	**% by rate**
Cynodon dactylon (Bermuda grass)	30 %
Paspalum notatum (Bahia grass)	30 %
Axonopus compressa (Carpet grass)	12 %
Lolium perenne (Manhattan Rye grass)	7%
Chloris gayana (Rhodes grass)	3%
Eragrostis curvula (Weeping love grass)	3%
Eremochloa ophuroides (Smooth lawn grass)	3%
Eremochloa ciliaris (Centipede grass)	3%
Cenchrus ciliaris (Sandbur)	3%
Digitaria barbata (Crabgrass)	3%
Zoysia matrella (Manila grass)	3%

Grass and tree seed mix 3.23A3 (1) The hydroseeding mixes in this Clause shall not be applied on slopes with gradient steeper than 45 degrees.

(2) Between April and August inclusive, the minimum spreading rate shall be 30 g/sq.m. The mix proportions shall lie within the following limits :

Species	**Rate**
Cynodon dactylon (Bermuda grass)	13 – 15 g/sq.m.
Paspalum notatum (Bahia grass)	8 – 10 g/sq.m.
Other species from the list below:	1 – 4 g/sq.m.
Chloris gayana (Rhodes grass)	
Eragrostis curvula (Weeping lovegrass) (2% max)	
Eremochloa ophiuroides (Centipede	

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grass)	
Cenchrus ciliaris (Buffel grass)	
Tree species from the list below	5 g/sq.m.
TOTAL	30 g/sq.m. (minimum)

(3) There shall be a minimum of four of the following tree species included in the mix :

Acacia mangium
Albizia lebbeck
Alnus japonica
Cassia siamea
Mallotus paniculatus
Macaranga tanarius
Sapium discolor
Schefflera heptaphylla

The following species shall not be used :

Acacia confusa
Casuarina equisetifolia

(4) Between September and March inclusive, the minimum spreading rate shall be 35 g/sq.m. and shall consist of :

Species	**Rate**
Cynodon dactylon (Bermuda grass)	15 g/sq.m.
Paspalum notatum (Bahia grass)	10 g/sq.m.
Lolium perenne (Manhattan rye grass)	5 g/sq.m.
Tree species from the list in sub-clause (3) of this Clause	5 g/sq.m.
TOTAL	35 g/sq.m. (minimum)

(5) All tree seeds, except the Acacia species, shall be soaked for 4 to 8 hours in water at room temperature immediately before mixing with other ingredients of the hydroseeding mix.

Add the following Clauses after GS Clause 3.25 :

List of plant materials 3.25A1 The Contractor shall ensure adequate supplies of those plants shown on the List of Plant Materials in Particular Specification Appendix N that may normally be ordered under the Contract.

Source of plant materials 3.25A2 The Contractor shall obtain all plant materials from a recognised cultivated source and not from the wild. The Contractor shall state the source of all plant materials, in good time before planting so that the Engineer may inspect the nursery and agree on a selection of all plant materials for approval. All plant materials subsequently delivered to the Site shall be to at least the same standard in all respects as that approved. The Contractor shall note that in order to provide all the plant materials as specified it may be necessary for him to grow the materials in his own nursery in advance of commencing planting works

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on the Site.

Substitution of plant materials 3.25A3

(1) As soon as the Contractor is aware that any of the specified plant material is not available, he shall notify the Engineer in order that suitable substitutes can be considered. The Contractor shall also propose substitutes which are similar in height, shape, flowering characteristics and function as the original species.

(2) The Contractor shall have photographs taken of approved samples for each species and plant size to be used. The photographs shall be used as a standard to which similar species to be supplied and planted in the Contract shall be equivalent.

(3) Any changes, such as planting densities, necessitated by the need for substituting species shall be at no extra cost to the Contract.

(4) No substitute shall be made without the prior written approval of the Engineer.

Plant materials to be as specified 3.25A4

All plant materials shall be true to species, healthy, and free from pests, disease, parasites, discoloration and mechanical damage, and shall not be less than the minimum sizes specified. Plants having any habit or growth other than that specified shall be considered unacceptable.

Plant name 3.25A5

In the event that botanical name, English common name and Chinese common name are given for any plant specified, the botanical name shall always take precedence.

Soil mix 3.26S1

Delete GS Clause 3.26 and replace with the following :

(1) Soil mix shall be a free draining material of a sandy loam character, and shall be evenly textured, fertile, and dark brown or black in colour.

(2) Soil mix shall be composed of 2 parts of friable, completely decomposed granite as PS Clause 3.27A1 to 1 part of soil conditioner as GS Clause 3.27 and PS Clause 3.27S1 by volume.

(3) Soil mix shall be free from all impurities including pernicious weeds, roots, sticky clays, salt, non-soil material, chemical contamination such as oils and cement, stones exceeding 50 mm in diameter, the materials stated in GS Clause 6.07(2) and any other deleterious materials.

(4) Soil mix shall comply with the following :

pH value	:	5.5 - 7.5
% organic matter	:	not less than 7.5%
% organic carbon	:	2.0 - 3.0
% total nitrogen	:	0.09 - 0.15
Carbon/Nitrate ratio	:	25:1 - 45:1
Available phosphate (P_2O_5)	:	7mg/100g - 10mg/100g
Exchangeable potassium (K_2O)	:	15mg/100g - 30mg/100g
Cation Exchange Capacity	:	16 - 20 m.e. %

(5) The Contractor shall supply a representative 2 kg sample of soil mix to the Engineer with a certificate indicating the source for the

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approval of the Engineer. Approval to the sample must be obtained before bulk delivery commences, and approval of the sample will not preclude the right of the Engineer to reject any imported material which in the opinion of the Engineer falls appreciably below the standard of the sample. The sample shall be retained by the Engineer in a location on the Site which will allow inspection and comparison throughout the period of the Contract.

(6) Soil mix delivered and installed on Site shall be tested for the characteristics specified in sub-clause (4) of this Clause. Soil test shall be arranged by the Contractor and carried out by an approved reputable firm or institute at the Contractor's cost, and the report shall be submitted to the Engineer for approval.

(7) If the results of the test show that the soil mix does not meet the characteristics specified in sub-clause (4) of this Clause, then the Contractor shall make good at his own cost the soil mix by bringing it to the characteristics specified. The Contractor shall obtain approval for his proposed remedial measures from the Engineer before undertaking any work.

(8) The Contractor shall ensure that soil mix heaps are properly maintained and that soil mix shall be placed in its final position within 12 months of importation to the Site or, for site strip material, deposition for storage on the Site. Weed control shall be carried out by spraying with approved weed killer.

(9) If the period between the soil test as required in sub-clause (6) of this Clause and the commencement of any deposition of soil mix in its final position exceeds 12 months then the Contractor shall carry out a second soil test as sub-clause (6) of this Clause. If this second soil test shows that the soil mix has deteriorated in quality and does not meet the characteristics specified in sub-clause (4) of this Clause, the Contractor shall make good at his own cost the soil mix by bringing it to the characteristics specified.

(10) The Contractor shall give the Engineer four weeks notice of his intention to commence any deposition of soil mix in its final position in order to allow for the results of the soil test to be available before commencing the soiling operation.

(11) After the soil sample as sub-clause (5) of this Clause and the results of the soil test as sub-clauses (6) and (7) of this Clause have been approved by the Engineer, no change in the source of soil mix shall be allowed without the prior approval of the Engineer.

(12) If the Contractor prepares soil mix on the Site, mixing shall not take place during periods of heavy rain, nor when the soil is saturated. Mixing operations shall cease if the moisture content of the soil mix is too high to achieve thorough mixing of the soil conditioner with soil mix.

(13) The Contractor shall be responsible for ensuring that the soil mix maintains its specified quality between deposition and the planting operations.

Soil conditioner 3.27S1 Delete GS Clause 3.27 sub-clauses (1) (a) and (2) and replace with the

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following, and add sub-clauses (3) and (4) :

(1) (a) pH between 5.0 and 7.0.

(2) Soil conditioner shall be properly composted organic material with stable composition. Composted organic material shall not be liable to decompose further generating heat or to give off either toxic or obnoxious fumes.

(3) The Contractor shall produce a certificate of analysis stating the composition and physical and chemical characteristics of the soil conditioner as stipulated in sub-clauses (1) and (2) of this Clause. The analysis shall be carried out by a laboratory approved by the Engineer.

(4) A sample of 0.5 kg shall be submitted to the Engineer for approval before importation and use.

Add the following Clauses after GS Clause 3.27 :

Completely decomposed granite 3.27A1 Completely decomposed granite shall be as described in Geoguide 3, Guide to Rock and Soil Descriptions 1988 Edition.

Imported subsoil 3.27A2 Imported subsoil shall be evenly textured, good clean completely decomposed granite as PS Clause 3.27A1, free from all impurities including pernicious weeds, roots, sticky clays, salt, non-soil material, chemical contamination such as oils and cement, stones exceeding 50 mm in diameter, the materials stated in GS Clause 6.07(2) and any other deleterious materials. A sample of 2 kg of the imported subsoil shall be submitted to the Engineer for approval before importation and use.

Water retaining crystals 3.27A3 (1) Water retaining crystals for pit planting shall be an approved synthetic polymer crystal such as a cross-linked Potassium Polyacrylate / Polyacrylamide co-polymer or equivalent and approved by the Engineer. It is designed to absorb more than 40 times their weight in water and provide a long-term reservoir of moisture available to plants.

(2) The polymer shall be physically stable and shall not be degraded by chemicals. It shall be compatible with all fertilisers and soil ameliorants and shall be non-toxic and with a neutral pH value.

(3) Water retaining crystals shall be supplied in sealed, waterproof containers and kept dry at all times.

Root activator 3.27A4 Root activator shall be a chemical which contains plant hormones G.A. and IAA, and which can activate root growth.

Sealant 3.27A5 Sealant shall be an approved fungicidal bituminous sealing compound.

Sacks, bags, containers and the like 3.27A6 The Contractor shall retain for inspection by the Engineer all sacks, bags, containers and the like in which fertiliser, mulch, seed mix, pesticides, herbicides and the like are supplied and shall not dispose of these without the consent of the Engineer.

Fertilizer 3.30S1 Delete GS Clause 3.30 sub-clause (5) and replace with the following:

(5) Chemical fertilizers shall be stored in waterproof sealed bags

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under shelter away from water and direct sunlight.

Protective fabric material 3.33S1 Delete GS Clause 3.33 and replace with the following:

Protective fabric material for hydroseeding shall be a proprietary type of biodegradable fabric approved by the Engineer. The fabric shall be a light weight, non-toxic, porous, translucent cellulose netting with thickness of 1 mm or less. The fabric shall not degrade within 100 days after application or until the specified grass cover has been established.

Add the following Clause after GS Clause 3.33:

U-pins 3.33A1 U-pins for securing erosion control mat around planting pits in the hydroseeded area shall be aluminium wire, bent to form a 'U' shape, with a diameter, length spacing of prongs sufficient to securely attach the mat to the slope face. The Contractor shall demonstrate to the satisfaction of the Engineer that the size and shape of the u-pins is sufficient to ensure that the specified erosion control mat is securely fastened.

SUBMISSIONS

Particulars of seed mixture, turf, sprigs, soil conditioner and water 3.34A1 Add the following sub-clauses to GS Clause 3.34:

(1) (f) a certificate of analysis for soil mix including details of the composition and results of tests for the characteristics specified in PS Clause 3.26S1(4).

Particulars of hydroseeding 3.35S1 Delete GS Clause 3.35 sub-clause (1)(a) and replace with the following:

(1) (a) species and rate of application of seed,

Sample of materials 3.36S1 Delete GS Clause 3.36 sub-clauses (1)(c) and (1)(d) and (2) and replace with the following, and add sub-clauses (1)(e) to (1)(g) :

(c) sprigs,

(d) soil mix of 2 kg as PS Clause 3.26S1(5),

(e) soil conditioner of 0.5 kg as PS Clause 3.27S1(4),

(f) imported subsoil of 2 kg as PS Clause 3.27A2, and

(g) mulch of 0.5 kg.

(2) (a) Samples of each species of plant materials to be planted on the Site shall be made available at a nursery in Hong Kong for inspection and approval by the Engineer prior to delivery to the Site.

(b) Any plant material which does not conform to the Specification or the approved standard shall be rejected by the Engineer, and shall be replaced by the Contractor with the material of appropriate standard.

HANDLING, STORAGE AND TRANSPORT

Handling and storage of root balled stock 3.37S1

Delete GS Clause 3.37 and replace with the following :

(1) Root pruning and undercutting of the root system of rootballed stock to the specified size of rootball shall be carried out twelve months or as instructed by the Engineer before lifting from the nursery.

(2) Plants grown in the open ground shall be well watered prior to lifting and shall be lifted carefully to ensure the specified root ball is obtained with minimum disturbance to the roots. At the time of lifting, the rootball and the trunk from soil level to the lower branches of light standard trees, standard trees, heavy standard trees, large palm and large conifers shall be securely wrapped to prevent loss of soil and moisture using moist hessian, straw or other material agreed by the Engineer. The wrapping material shall not be removed until the plant is required for planting.

Transport of plants 3.39S1

Delete GS Clause 3.39 and replace with the following :

(1) Plants shall be wrapped and protected to prevent mechanical damage during lifting and transportation. The trunk from soil level to the lower branches of light standard tree, standard trees, heavy standard trees, large palm and large conifers shall be securely wrapped to prevent mechanical damage using moist hessian, straw or other material agreed by the Engineer. Any plant material which is to be removed while in leaf shall be covered with tarpaulin during transport to reduce excessive transpiration.

(2) Damaged plants shall be rejected by the Engineer and the Contractor shall replace such damaged material. If the Engineer permits damaged plants to be used, damaged material shall be pruned as stated in GS Clause 3.82.

Storage of plants 3.40A1

Add the following sub-clause to GS Clause 3.40:

(3) The Contractor shall seek the written approval of the Engineer on the storage of plants on the Site, including its method, equipment and facilities for storage.

Storage of trees and shrubs 3.41A1

GS Clause 3.41 shall become its sub-clause (1) and add the following sub-clauses to GS Clause 3.41:

(2) Any bare-rooted plant material shall be heeled into the ground with all the roots covered by soil-mix.

(3) Where trees and shrubs are delivered to the Site with shoots and branches bundled, all tying materials shall be removed immediately after arrival to the Site to prevent heating up and subsequent defoliation.

PRE-PLANTING WORKS

Delete GS Clause 3.49 and replace with the following :

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Amelioration of soil in planting pits 3.49S1

(1) Where plants are required to be pit planted into the existing soil bodies, soil conditioner and other ameliorants shall be mixed with the soil excavated from the pit, and then back filled into the pit.

Planting in pits (pit size in mm)	Materials to be incorporated into the existing soil excavated from the pit (per pit)		
	Soil conditioner	Pre-planting Fertilizer	Water Retaining Crystals
(a) Climbers, ground covers and herbaceous plants (150x150x150)	1/3 of the volume of the pit	20 g	5 g
(b) Whip trees, seedling trees and shrubs (200x200x200)		50 g	10 g
(c) Light standard trees, standard trees, bamboos, small conifers, small palms and medium palms (350x350x350)		150 g	30 g
(d) Heavy standard trees, large conifers and large palms (800x800x550)		250 g	50 g

(2) Where plants are required to be pit planted into cement soil which has been placed above a rock fill body soil, the bottom of the pit shall be lined with a high density polyurethane sheet.

Soiling for raised planters, core hole planters and pavement pits

3.49S2

(1) All existing soil material in at-grade tree pits, raised planters, and core hole planters shall be excavated and disposed of off the Site, and shall be replaced with soil mix to the depth stated below. Pre-planting fertilizer and water retaining crystals shall be thoroughly mixed in at the quantities stated below:

Situation	Soil Mix	Materials to be incorporated into the soil mix	
		Pre-planting Fertilizer	Water Retaining Crystals
Toe and berm planter	Soil mix, with depth as shown on the Drawings, plus 100 mm deep aggregate drainage layer covered with filter membrane, all to full width of planter	250 g per cu.m	100 g per cu.m
Core hole planters	Soil mix to full width of core hole, 300 mm deep plus surface filter membrane layer to prevent soil wash out	100 g per planting hole	10 g per planting hole
Pavement pits	Soil mix to full width of pit, 1200 mm deep, plus 100 mm dia. slotted UPVC drainage pipes wrapped around base of pit, 1000x1000 impermeable root barriers along two sides of pit (to be installed as directed)	250 g per pit	

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Handling of soil mix 3.49S3

(1) Placing and spreading of soil mix shall not take place during periods of heavy rains, nor when the soil mix is saturated. When, in the opinion of the Engineer, conditions are unsuitable for placing and spreading of soil mix, operations shall cease and shall only be resumed when authorised by the Engineer. After soiling, areas are to be protected from further compaction and trafficking.

(2) The Contractor shall take all necessary preventative measures to control erosion and siltation. The Contractor shall restore or replace on the Site, including those which have been both the subject of a certificate of completion of the works and on which broadcast seeding or hydroseeding is required to be carried out, which erodes, silts up or is otherwise damaged.

PLANTING

Add the following Clauses after GS Clause 3.54 :

Notice and instructions 3.54A1

In respect to Landscape Softworks and Establishment Works, the Contractor shall give a 48 hours notice to the Engineer, of his intention to commence any one of the following operations: ground preparation, soiling, setting out, planting, hydroseeding, pruning of existing and newly planted vegetation, fertilising, visits to carry out Establishment Works. The Contractor shall undertake any remedial Landscape Softworks and Establishment Works within 24 hours after an instruction is given by the Engineer. For any Site, as directed by the Engineer, trial planting for inspection and measurement to be carried out, the Contractor shall follow the guidelines as required by the Engineer for the planting works.

Setting out 3.54A2

(1) The Contractor shall be responsible for accurately setting out according to the Drawings all areas to be planted to the satisfaction of the Engineer prior to the commencement of planting, and shall rectify errors in setting out at his own expense. Any discrepancy in the Site area between that shown on the plans and the actual area on the ground shall be notified to the Engineer as soon as it is discovered and prior to commencement of any relevant operations.

(2) Tree and shrub areas shall be marked in outline with 25 mm diameter bamboo poles, spaced not less than 15 m apart. The pegs shall be not less than 750 mm long and shall be firmly driven 300 mm into the ground. The top 300 mm of each peg shall be painted white.

(3) The Contractor shall mark out the required planting interval with canes, stones, chalk or other suitable markers along the longest edge of the area to be planted.

(4) The first row of plants shall be at the required distance from the edge and directly in line with each marker. In the case of planting areas edged by kerbs, walls, drainage channels, and the like, the first row of plants shall be planted as close to the edge of foundations as permitted. In the case of planting areas adjacent to other planting areas, the first row of plants shall be planted at a distance which is half the specified planting distance for that species from the edge.

(5) The second row shall be at the required distance from the first row. The pattern will be repeated over the whole planting area.

(6) In the case of woodland mix planting, the plants shall be planted in positions indicated on the Drawings.

(7) The approximate numbers of plants to be planted per half day shall be set out by laying them down beside the hole in which they are to be planted. Plants shall not be removed from their containers until planting works take place. All setting out shall be approved by the Engineer.

(8) During the setting out of the planting, the Contractor shall notify the Engineer of the position of any tree or group of trees which occur within the following tolerance :

(a) trees to be planted in verges adjacent to major and secondary roads (design speed greater than 50 km/hr), with a distance from the edge of the road less than 1.3 m.

(b) trees to be planted in verges adjacent to minor roads (design speed 50 km/hr or less), with a distance from the edge of the road less than 0.8 m.

(c) large shrubs to be planted within 1.0 m of the road edge, or small shrubs to be planted within 0.3 m of the road edge. (The above dimensions do not apply where crash barriers are provided between the planting and the carriageway or where planting is located within a raised planter bed).

(d) trees within 5 m of a road lamp stand.

(e) trees which obscure traffic signs, signals, etc.

(f) trees within 1.5 m of a fire hydrant.

The Contractor shall notify the Engineer of any of the above situations prior to carrying out any relevant works in those areas.

Staking, tying and guying 3.57S1 Delete GS Clause 3.57 sub-clause (3) and replace with the following :

(3) Bamboo stakes shall be used in locations as stated in the Contract. Bamboo stakes shall be securely tied with “scaffold tie” to form a tripod not exceeding 60% of the overall height of the plant. The plant shall be secured to the tripod as stated in GS Clause 3.57(1) and (2).

Mulching 3.58S1 Delete GS Clause 3.58 and replace with the following:

(1) After planting and watering mulch shall be spread to a consolidated thickness of 75 mm on areas where specified.

(2) Mulch shall be dished around the base of the plants. The Contractor shall take care not to damage the plant material during mulching operations. Mulch shall be applied after planting and watering have taken place.

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Pit planting of whips, seedlings, shrubs, climbers, ground covers and herbaceous plants 3.60S1

Delete GS Clause 3.60 sub-clause (1) and replace with the following:

(1) For pit planting of whips, seedlings, shrubs, climbers, ground covers and herbaceous plants into the existing soil, pits shall be dug to the specified size and soil conditioner, pre-planting fertilizer and water retaining crystals shall be thoroughly incorporated into the existing soil excavated from the pits prior to backfilling, pursuant to PS Clause 3.49S1.

Add the following Clauses after GS Clause 3.60 :

Planting in core hole planters 3.60A1

(1) The Contractor shall make any necessary opening in any hard surface cover to the slope, to allow a 150 mm diameter hole to be drilled into the face of the slope as shown on the Drawings.

(2) Climbers, ground covers or herbaceous plants shall be planted in core hole planters at the quantity specified on the Drawings. The soil at the bottom of the core hole shall be loosened to a depth of 50 mm. Pre-planting fertilizer and water retaining crystals shall be thoroughly mixed with the soil mix of each core hole prior to backfilling, pursuant to PS Clause 3.49S2.

(3) The core hole planter shall be thoroughly watered immediately following planting.

Pit planting of light standard trees, standard trees, bamboos, small conifers, small palms and medium palms 3.61S1

Delete GS Clause 3.61 and replace with the following:

(1) For pit planting of light standard trees, standard trees, bamboos, small conifers, small palms and medium palms into the existing soil, pits shall be dug to the appropriate size and soil conditioner, pre-planting fertilizer and water retaining crystals shall be thoroughly incorporated into the existing soil excavated from the pits prior to backfilling, pursuant to PS Clause 3.49S1.

(2) Each tree shall be secured using bamboo tripod staking.

Pit planting of heavy standard trees, large conifers and large palms 3.62S1

Delete GS Clause 3.62 and replace with the following:

(1) For pit planting of heavy standard trees, large conifers and large palms into the existing soil, pits shall be dug to the appropriate size and soil conditioner, pre-planting fertilizer and water retaining crystals shall be thoroughly incorporated into the existing soil excavated from the pits prior to backfilling, pursuant to PS Clause 3.49S1. Drainage pipes and root barriers shall be installed prior to backfilling and planting in the case of planting in pavement areas.

(2) Each tree shall be secured using metal staking or tree guard in the case of planting in pavement areas.

Add the following Clauses after GS Clause 3.64.

Planting into previously hydroseeded areas 3.64A1

In programming the planting works, sufficient time shall be allowed for the hydroseeding to establish and provide 90% cover, to the satisfaction of the Engineer, and when instructed by the Engineer grass shall then be cut to a height of not less than 50 mm above ground level, before the notch/pit planting operations commence.

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Planting into and adjacent to existing vegetation 3.64A2

(1) Where planting works are required within and adjacent to existing vegetation, existing shrubs shall be pruned and existing grass or other herbaceous plants shall be cut to a height of not less than 50 mm above ground level but not pulled out by equipment in any circumstances.

(2) The Contractor shall obtain agreement of the Engineer prior to commencing the vegetation clearance.

(3) The Contractor shall be responsible for removing all rubbish and cut vegetation from the Site and reinstating any existing planted areas affected by the planting works to the satisfaction of the Engineer.

Planting in raised planters 3.64A3

Trees, conifers, palms, bamboos, shrubs, ground covers, herbaceous plants and climbers in raised planters such as toe planters and berm planters shall be planted in pits dug to the appropriate size pursuant to PS Clause 3.49S1, into the previously placed soil mix incorporated with pre-planting fertilizer and water retaining crystals pursuant to PS Clause 3.49S2.

Planting on erosion control mat 3.64A4

(1) In areas where erosion control mat has been laid, the Contractor shall prepare trial panels demonstrating the technique for pit planting through the erosion control mat (panel size min. 4 m x 4 m / 9 no. pits) in-situ, as instructed by the Engineer. Approval of the sample should be obtained from the Engineer prior to commencement of planting through erosion control mat generally.

(2) The sequence of pit planting through erosion control mat shall be as follows:

(a) Plastic container around plant shall be completely removed and disposed of off the Site.

(b) Erosion control mat shall be cut in 'T' shape with sharp knife and flaps folded back to allow pit to be excavated. Complete holes shall not be cut in the erosion control mat.

(c) Pit planting shall be carried out pursuant to PS Clauses 3.60S1, 3.61S1 and 3.62S1. Soil excavated from the pit shall be spread on surrounding areas.

(d) Plants shall be planted at correct level with respect to surrounding slope face and heeled in to create slight depression in slope around plant.

(e) Flaps folded back into original position and secured with 200 mm long aluminium U-pin as PS Clause 3.33A1.

(f) Plants shall be planted in staggered rows, at spacing as specified on the Drawings or as instructed by the Engineer.

Watering after planting 3.64A5

Immediately after planting, all plants shall be thoroughly watered with fresh water such that the roots of the plants are soaked. All plants

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shall continue to be watered to the field capacity with fresh water for the duration of the Works Order.

GRASSING

Application of hydroseeding 3.68S1

Delete GS Clause 3.68 sub-clause (3) and replace with the following, and add sub-clauses (6), (7), (8) and (9) :

(3) Soil binders shall be applied at a minimum rate of 25 g/m^2 or as recommended by the manufacturer. Dye shall be used to demonstrate that adequate cover has been achieved, unless in the opinion of the Engineer runoff or water courses will be coloured to an unacceptable level. Where used, dye shall be added at a maximum recommended rate of 0.50 g/m^2.

(6) The area to be hydroseeded shall be moistened immediately prior to hydroseeding.

(7) Mulch shall be applied at a minimum rate of 200 g/m^2.

(8) At the time of spraying, hydroseeding fertiliser shall be applied at a minimum rate of 100 g/m^2.

(9) After spraying, the Contractor shall water the hydroseeded areas as often as is required to keep the ground evenly moist.

Add the following Clause after GS Clause 3.68:

Hydroseeding with use of erosion control mat 3.68A1

On areas where erosion control mat is used, the sequence of hydroseeding shall be as follows :

Medium/Light Duty Mat		Heavy Duty Mat	
(i)	Form slope profile	(i)	Form slope profile
(ii)	Hydroseed without protective material	(ii)	Place erosion control mat
(iii)	Place erosion control mat	(iii)	Top-dress with fine soil
(iv)	Top-dress with fine soil	(iv)	Hydroseed with protective material
(v)	Water	(v)	Water

Protective material 3.69S1

Delete GS Clause 3.69 and replace with the following:

Immediately following spraying of hydroseeding slurry, protective fabric material shall be laid and spiked or stapled to the soil surface with a minimum of 150 mm overlap to prevent soil erosion. On sloping ground, the material shall be laid along the greatest slope and shall be made to fully adhere to the hydroseeded surface by sprinkling with water with an approved spray. Care must be taken not to sprinkle excessive water onto the slope causing erosion of the slope. The material shall also be applied to all areas to be subsequently re-sprayed. At the end of the Maintenance Period, all remaining protective fabric material shall be removed from the slope and properly disposed of off Site.

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ESTABLISHMENT WORKS

Establishment Works 3.75A1

Add the following sub-clause to GS Clause 3.75 :

(4) The Contractor shall report to the Engineer before and after carrying out any Establishment Works. Reports shall be submitted in duplicate on forms provided by the Contractor and of a style approved by the Engineer.

Replacement of plants and grass 3.77S1

Delete GS Clause 3.77 sub-clause (1) and replace with the following:

(1) The Contractor shall replace any plant during the period for Establishment Works which is, in the opinion of the Engineer, dead, dying, ailing or no longer conforming to the Specification. The Contractor shall carry out the replacement planting within two weeks of identification or any other period as agreed by the Engineer, using plant material of a similar size to that already established. Measures shall be taken to ensure satisfactory establishment of the replacement plants before the end of the period for Establishment Works.

Add the following Clauses after GS Clause 3.77:

Vandalism damage 3.77A1

The Contractor shall be responsible for replacing dead or damaged plants resulting from vandalism at his own cost unless he meets the following requirements:

(a) The Contractor submits written claims to the Engineer within three working days of the event happening,

(b) The Contractor proves that such death or damage was caused by circumstances outside his control, and

(c) The Contractor carries out the replanting works satisfactorily as specified.

Tropical cyclone damage 3.77A2

(1) Within 48 hours of tropical cyclone warning signal No. 8 or above being lowered, the Contractor shall make a photographic record and detailed report of all plant damage and replant all plants blown over or damaged and firm up all other plants.

(2) Within five days of tropical cyclone warning signal No. 8 or above being lowered, the Contractor shall remove dead plants, clear the Site of all debris, and provide the photographic record and report required in sub-clause (1) of this Clause to the Engineer.

(3) The Contractor shall be responsible for the replanting works referred to in sub-clause (1) of this Clause at his own cost unless he meets the following requirements:

(a) The Contractor submits written claims to the Engineer within one month of the end of the tropical cyclone, and

(b) The Contractor carries out the replanting works

satisfactorily as specified.

Security and adjustment of stakes, ties and guys 3.78S1 Delete GS Clause 3.78 and replace with the following:

(1) The Contractor shall be responsible for the security and, where necessary, adjustment of the stakes, ties and guys throughout the period for Establishment Works, for the healthy growth of the plants.

(2) Any broken, damaged or unsatisfactory stakes, ties and guys shall be replaced. Any ties which are causing chafing or abrasion of the plant shall be appropriately slackened. Any ties which are loosened shall be appropriately tightened. Guying turnbuckles shall be adjusted as necessary to ensure guys are taut. The Contractor shall carry out an inspection of the stakes, ties and guys each month for this purpose. The Contractor shall carry out the necessary replacement or adjustment within two days of identification or the Engineer's instruction or any other period as agreed by the Engineer.

Firming up plants 3.79S1 Delete GS Clause 3.79 and replace with the following:

Plants which become loose as a result of wind rock or other causes shall be firmed up. The Contractor shall carry out an inspection of the plants each month and after heavy rain or wind for this purpose. The Contractor shall carry out the necessary firming-up within two days of identification or the Engineer's instruction or any other period as agreed by the Engineer.

Watering 3.80A1 Add the following sub-clause to GS Clause 3.80:

(4) Save as stated in sub-clause (3) of this Clause, all plants shall be watered throughout the period for Establishment Works on every day that the rainfall is less than 5mm per day except for the day following a day that rainfall exceeds 20mm per day or when the soil profile is moist.

Weeding 3.81S1 Delete GS Clause 3.81 sub-clause (2) and replace with the following, and add sub-clauses (4) & (5) to GS Clause 3.81:

(2) Weeding shall be carried out by hand or by mechanical methods agreed by the Engineer in such a manner that damage to the grass and planted areas will not be caused. The Contractor shall dispose of all weed, litter and rubbish resulting from the weeding operation from the Site. Any mulch or soil disturbed or removed during the weeding operation shall be replaced.

(4) Any *Mikania micrantha* found within the Site is considered as weeds and shall be removed by the Contractor once it is identified or when instructed by the Engineer throughout the period for Establishment Works. The clearance of *Mikania micrantha* shall be carried out by hand or by mechanical methods and shall involve removal of the roots and the aerial parts. If *Mikania micrantha* is found twinning on structures, fences, posts or tall plants, the aerial parts of *Mikania micrantha* up to at least 2m above soil level shall be removed. All parts of *Mikania micrantha*, litter and other rubbish resulting from the clearance operation shall be collected, properly packed and disposed of from the Site to prevent regeneration and proliferation of the cut parts of *Mikania micrantha*. In removing

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Mikania micrantha, the Contractor shall avoid causing disturbance to the wildlife in the proximity of the Site.

(5) The Contractor shall complete weeding within 7 days of the Engineer's instruction.

Pruning 3.82S1 Delete GS Clause 3.82 and replace with the following:

The Contractor shall comply with the following when carrying out the pruning work:

(a) All necessary tools and equipment, and physical support, shall be provided and all necessary safety precautions shall be taken to protect the people engaged in the pruning work as well as the people and property in the vicinity.

(b) All pruning work shall be carried out in accordance with good horticultural practice and the recommendations of BS 3998.

(c) Pruning and removal of branches shall be done using sharp, clean implements to give a single flat, sloping face.

(d) Ragged, rough edges of bark or wood shall be trimmed cleanly from around wounds with a sharp knife to the minimum extent that is necessary so as to hasten wound closure, and twigs less than 15 mm diameter shall be cut with sharp secateurs.

(e) Pruning shall be carried out with the cut just above and sloping away from an outward facing healthy bud, and removal of branch shall be carried out by having the final cut of the last branch segment made just outside the branch collar when it is present or at an angle being the mirror image of the branch bark ridge when there is no branch collar, so that no part of the stem is damaged or torn, and no snags or stumps are left.

(f) Large branches shall be removed in stages beginning with the removal of the main weight of the branch from perimeter of crown in towards the trunk and with the final cut of the last branch segment made in a way as described in sub-clause (e) of this Clause, without leaving a stub and damaging the bark.

(g) All cuts shall be made to avoid splintering or tearing of bark that would catch water and encourage rot, and cracks, cavities or rotten wood shall be cut back with a clean, sharp implement to remove the dead, damaged and decayed tissue without damaging the living tissue.

(h) Topping, that is cutting off all of the top branches to the same height, shall not be carried out in any circumstances.

(i) Unless otherwise instructed by the Engineer, any cuts or wounds shall be left uncovered instead of being painted with wound dressing or coating to avoid water retention and disease development.

(j) Any material pruned from the plants shall be removed from the Site as soon as possible.

(k) Any adjacent areas affected by the pruning work shall be reinstated.

Grass cutting 3.83S1 Delete GS Clause 3.83 and replace with the following :

(1) Grassed areas shall be cut by manual or mechanical methods agreed by the Engineer and in a manner that does not cause pulling of roots or damage to planting in or near the grassed area. All cuttings shall be raked off and disposed of within 24 hours after cutting.

(2) Grass in all hydroseeded areas shall be reduced by cutting to a height of 100 mm when grass cutting is instructed by the Engineer.

(3) Grassed areas shall be weed free in accordance with GS Clause 3.81 before any grass cutting is carried out.

Litter collection 3.84S1 Delete GS Clause 3.84 and replace with the following :

(1) All litter exposed by grass cutting shall be gathered up and disposed of within 24 hours.

(2) All litter/rubbish in the planting areas shall be removed from the Site. Litter/rubbish removal shall be completed within 7 days of the Engineer's instruction.

Post-planting fertilizer 3.85S1 Delete GS Clause 3.85 and replace with the following:

Unless otherwise directed or agreed by the Engineer, post-planting fertilizer shall be applied not less than 100 days, and not more than 300 days, after grassing or planting, at a rate as stated in the Contract.

Control of pests and disease 3.86S1 Delete GS Clause 3.86 and replace with the following :

(1) The Contractor shall regularly check for any insect attack or fungal infestation particularly during known periods of activity.

(2) The Contractor shall report to the Engineer any such occurrence and shall carry out remedial eradication by use of sprayed pesticide, insecticide or fungicide, in accordance with the manufacturer's instructions. Use of such sprays is to be with care and to have due regard to the safety and convenience of the general public and be in accordance with the Hong Kong Government Environmental Guidelines. It shall be carefully controlled to avoid unnecessary dispersion.

Mulching 3.88S1 Delete GS Clause 3.88 and replace with the following:

(1) All mulch which is disturbed by replacement planting, firming up, pruning, weeding or watering shall be made good. Additional mulching over areas of forking or over areas disturbed by others shall

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be carried out if instructed by the Engineer.

(2) When mulching is instructed by the Engineer during the period for Establishment Works, the Contractor shall carry out application of mulch to a thickness of 75 mm unless otherwise agreed by the Engineer. The final mulching operation shall be carried out in the last month of the period for Establishment Works.

(3) Mulching to ground cover areas shall not be undertaken once ground cover plants have successfully established and there are no bare areas of soil.

Add the following Clauses after GS Clause 3.92 :

PRESERVATION AND PROTECTION OF EXISTING VEGETATION

Definitions 3.93A1 (1) "Tree" means a plant with diameter at breast height measuring 95 mm or more. Plants growing on retaining structures shall also be measured and considered.

(2) "Diameter at breast height" means the diameter of the trunk of the plant measured at a height of 1.3 m above ground level. For trunk with an obviously elliptical cross-section, the diameter at breast height shall be the average of any two diameter measurements taken at right-angle.

(3) "Tree crown spread" means the diameter of the tree crown defined by the outermost branches of the tree.

(4) "Tree height" means the height from ground level to the top of the tree.

(5) "Dripline" of a tree means the imaginary vertical plumb line that extends downward from the tips of the outermost tree branches and intersects the ground.

(6) "Tree protection zone" means an area the perimeter of which is defined by the dripline of the tree.

(7) "Preserved tree" means an existing tree not earmarked to be felled, which may be a tree to be retained at its existing location, a tree at its existing location prior to transplanting, or a tree transplanted within the Site.

(8) "Arboricultural work" means any work related to the cultivation and care of trees for any purpose other than timber production, including but not limited to planting, replanting, transplanting, tree surgery work and control of pest and disease.

Specialist contractor 3.94A1 If the Contractor is not included in the "List of Approved Suppliers of Materials and Specialist Contractors for Public Works" under the category of "Landscaping: Class I – General Landscape Work", he shall enter into a written sub-contract with a specialist contractor pursuant to SCC Clause 31 to carry out the arboricultural work to trees, including but not limited to planting, replanting, transplanting, tree surgery work, and control of pest and disease.

Programming 3.95A1 The Contractor shall fully allow the effects of preservation and protection of existing trees in his programme, the method of operation and construction, and the vehicular access for the Works.

Preservation and protection of existing trees 3.96A1 The Contractor shall assign a person to oversee the implementation of preservation and protection to existing trees. The person assigned shall be working full-time on the Site but not necessarily working solely for matters related to preservation and protection to existing trees. The Contractor shall also comply with the requirements as stipulated in sub-clauses (1) to (5) of this Clause, unless otherwise directed or agreed by the Engineer.

The Contractor shall carry out a tree survey for each Works Order for works other than Establishment Works and submit the survey record to the Engineer within 14 days of the date for commencement of a Works Order.

The tree survey record shall cover all existing trees present within the Site or within 2 m of the site boundary and any other trees likely to be affected by the Works. The tree survey record shall be in the form of an A4-sized, bound report which shall bear a report cover indicating the Contract number, Contract title, Works Order number, and date of the report and shall include the following documents, the formats of which shall be agreed by the Engineer prior to submission of the report:

(a) a tree survey plan showing the locations of all existing trees and identifying the following:

  (i) which trees are earmarked under the Works for retention at their existing locations,
  (ii) which trees are earmarked under the Works for transplanting,
  (iii) which trees are earmarked under the Works for felling, and
  (iv) which trees are not recorded under the Works and their treatment is yet to be instructed by the Engineer,

(b) a tree schedule comprising the following information:

  (i) botanical name of the tree species and the identity code/number as shown on the tree survey plan,
  (ii) diameter at breast height of the tree,
  (iii) tree crown spread,
  (iv) tree height,
  (v) condition of the tree including its form and health (highlighting any structural defects or

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unhealthy or decaying symptoms which may pose danger to the public if the tree falls), amenity value, survival rate after transplanting and special features, and

(vi) existing ground level at the trunk base, and

(c) photographic record for each individual tree and tree group complying with the following:

(i) all photographs shall be date-stamped to indicate the dates that the photographs are taken and shall be well-annotated, and

(ii) the photograph of each tree shall show clearly the whole tree as far as possible, the identification number of the tree, and the status of the tree as identified by the labelling or marking system on the Site as required in sub-clause (3) of this Clause,

(3) The Contractor shall mark on the Site with labelling or marking systems to identify trees of different status in accordance with the classification in sub-clauses (2)(a)(i) to (iv) of this Clause. The Contractor shall comply with the following in providing the identification labelling or marking systems:

(a) the identification labelling or marking systems for different tree status shall be in different colours and be clearly distinguishable,

(b) the identification labelling or marking system for the preserved trees shall be made of durable materials that are non-injurious to the trees, be placed at a position not easily accessible to the public, and be attached in such a manner that allows for the growth of the trees and does not injure the trees,

(c) the identification labelling or marking systems and the on-site status identification of trees shall be agreed by the Engineer and installed prior to the commencement of site clearance, demolition, construction of permanent or temporary works, and any other site operations which may affect the trees, and

(d) the Contractor shall reinstate or replace where necessary the identification labelling or marking systems for the preserved trees and shall remove these identification labelling or marking systems from the Site upon completion of the Works Order for works other than Establishment Works, or earlier if so directed by the Engineer.

(4) The limits of site clearance shall be agreed by the Engineer on the Site before site clearance commences. The Contractor shall comply with the following requirements in respect of tree removal, either by felling or by transplanting:

(a) in respect of tree felling, the Contractor shall:

(i) fell only those trees earmarked for such under the Works and labeled for such on the Site pursuant to sub-clause (3) of this Clause or those as directed or approved by the Engineer,
(ii) take all necessary precautions to protect the people engaged in the tree felling work as well as the people and property in the vicinity,
(iii) fell the trees by cutting them near the ground, with their stumps ground rather than pulled so that the roots of the nearby plants to be retained are not injured,
(iv) remove the stumps and rootballs of the felled trees carefully to avoid causing damage to the roots of the nearby plants to be retained, where it is necessary to have such removal as directed by the Engineer; and
(v) remove all debris, wood, and roots where necessary pursuant to sub-clause (4)(a)(iv) of this Clause, from the trees felled from the Site as soon as possible,

(b) in respect of tree transplanting, either within or off the Site, the Contractor shall:

(i) transplant only those trees earmarked for such under the Works and labeled for such on the Site pursuant to sub-clause (3) of this Clause or those as directed or approved by the Engineer, and
(ii) commence any work related to tree transplanting on the Site only after the Contractor's compliance with the requirements stipulated to be completed prior to commencing the tree transplanting work, and

(c) where it is found necessary for the completion of the Works to remove, either by felling or by transplanting, any trees other than those earmarked for such under the Works or those directed or approved for such during the progress of the Works by the Engineer, the Contractor shall:

(i) report to the Engineer the necessity of such tree removal,
(ii) provide all reasonable assistance as required by the Engineer in the tree survey and the justification for the proposed tree removal with substantiation and the necessary details such as site formation plan and architectural or engineering drawings, for the Engineer's preparation of the tree felling or transplanting application for the tree removal, and
(iii) fell or transplant the trees only after the Engineer's approval to the tree removal which shall normally be given only after the tree felling or transplanting application has been approved by the government approving

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authority.

(5) For the preserved trees, the Contractor shall exercise the greatest care to avoid any damage to them and shall comply with the following:

(a) take all necessary precautions to ensure that:

(i) no nails or other fixings shall be driven into the trees, including the exposed tree roots,

(ii) no fencing, services, or signs other than the identification labels or markings required under sub-clause (3) of this Clause shall be attached to any part of the trees,

(iii) no trees shall be used as anchorages for ropes or chains used in guying or pulling or for equipment used for removing stumps, roots or other trees, or for any other purposes,

(iv) no soil, materials, equipment or machinery shall be stockpiled or stored within the tree protection zones,

(v) no site offices, workshops, canteens, containers or similar structures shall be installed within the tree protection zones,

(vi) petrol, oil, bitumen, creosote, cement and other materials likely to be injurious to the trees shall be kept away from the tree protection zones, and any accidental spills of these materials shall be cleaned up immediately,

(vii) excessive water shall be drained away from the tree protection zones to prevent damage to tree roots by asphyxiation,

(viii) the surface on slopes shall be shaped so that water will not drain to the tree trunks but bypass them,

(ix) no passage or parking of vehicles and no operation of equipment or machinery shall take place within the tree protection zones unless otherwise agreed by the Engineer,

(x) no stripping of surface vegetation or top layer of soil shall be carried out within the tree protection zones unless otherwise agreed by the Engineer,

(xi) no fires shall be lit within the tree protection zones or in a position where the flames will likely extend to within 5 m of foliage, branches or trunks of the trees, bearing in mind the size of the fire and the wind direction,

(xii) no concrete mixing, gas tank filling, paintbrush and tool cleaning, or equipment maintenance shall be carried out within the tree protection zones,

(xiii) any necessary scarification or cultivation within the tree protection zones shall be carried out carefully by hand so as not to cause damage to the trees, in particular the

bark and the roots,

(xiv) any equipment, in particular delivery vehicles, overhead cranes, mechanical excavations, drilling rigs and piling rigs, shall be carefully operated so as not to cause striking of the trunks, branches, foliage or root collars of the trees,

(xv) the trees to be felled that are adjacent to, or that lie within a continuous canopy of, the preserved trees, shall be carefully removed, and if necessary in sections but not using bulldozers in any circumstances, so as not to cause damage to the preserved trees such as scraping bark off trunks or breaking branches of trees,

(xvi) where it is necessary to use herbicides to kill any vegetation, herbicides that can leach through the soil, such as the products containing sodium chlorate, and any other herbicides that are injurious to the trees shall not be used,

(xvii) allowance shall be made for the slope of the ground so that damaging materials such as concrete washings, mortar or diesel oil cannot run towards the trees,

(xviii) alkaline clays or limestones shall not be used for filling or paving, concrete shall be mixed on a thick plastic tarpaulin or outside the Site, and mixing trucks shall not be rinsed out on the Site, so as not to cause changes, in particular increases, in soil pH, and

(xix) all building debris and chemical wastes shall be hauled away for proper disposal, and in any circumstances shall not be burned or buried on the Site or be disposed of by pouring them on the soil within the Site,

(b) repair any damage to the trees in accordance with the requirements stipulated in PS Clause 3.104A1,

(c) where the passage or parking of vehicles or the operation of equipment or machinery within the tree protection zones as referred to in sub-clause (5)(a)(ix) of this Clause is considered necessary and is agreed by the Engineer, carry out the following measures to reduce soil compaction:

(i) minimise the traffic of the vehicles, equipment or machinery, and

(ii) confine the passage or parking of vehicles or operation of equipment or machinery to the areas laid with temporary protective mulching as stipulated in sub-clause (2) of PS Clause 3.97A1 and with double, overlapping, thick metal sheet coverings, or other materials of equivalent strength as agreed by the Engineer, placed on top,

(d) where it is necessary to clear the existing undergrowth within the tree protection zones to allow access and visibility for, and operation of any construction work,

(i) shrubs shall be pruned and grass or other herbaceous plants shall be cut to a height of not less than 50 mm above the ground level but not pulled out by equipment in any circumstances, and

(ii) the agreement of the Engineer shall be obtained prior to commencing the vegetation clearance,

(e) protect the preserved trees, where necessary, from increased exposure to sun and wind due to removal of adjacent trees,

(f) align all routes of the overhead services within the Site and all access routes to the Site or within the Site away from the preserved trees as far as possible and seek the Engineer's approval to the alignment,

(g) report to the Engineer of any preserved tree having structural defects or unhealthy or decaying symptoms which may pose danger to the public if the tree falls,

(h) update the photographic record taken in accordance with sub-clause (2)(c) of this Clause and submit a report on the updated photographic record to the Engineer at bimonthly intervals or at intervals agreed by the Engineer, complying with the following:

(i) each of the reports shall comprise all preserved trees,

(ii) each of the reports shall be in the form of an A4-sized, bound document which shall bear a report cover indicating the Contract number, Contract title, Works Order number, and date of the report,

(iii) the format of the reports shall be agreed by the Engineer prior to submission of the first report,

(iv) all photographs shall be date-stamped to indicate the dates that the photographs are taken and shall be well-annotated,

(v) the photograph of each tree shall show clearly the whole tree as far as possible, the identification number of the tree, and the status of the tree as identified by the labelling or marking system on the Site as required in sub-clause (3) of this Clause, and

(vi) each of the reports shall include details of any damage caused to the trees and any signs of health deterioration of the trees in the reporting period, accompanied with photographic record of the damage and the tree deterioration.

Protection from physical damage and soil compaction by construction activities

3.97A1 (1) The Contractor shall provide temporary protective hessian armouring around tree trunks to protect the preserved trees. When instructed by the Engineer, the Contractor shall provide temporary protective hessian and plank armouring as an alternative to the same trees for enhanced protection. Details of the temporary protective hessian armouring and hessian and plank armouring are shown in Drawing No. TP2 at Appendix O to the Particular Specification.

(2) When instructed by the Engineer, the ground of the tree protection zones of the trees referred to in the sub-clause (1) of this Clause shall be protected from damage by construction activities through the use of temporary protective mulching. The Contractor may also be instructed to lay thick metal sheet coverings or other materials of equivalent strength as agreed by the Engineer on top of the temporary protective mulching to provide additional protection from soil compaction due to passage or operation of equipment or machinery. Details of the temporary protective mulching are shown in Drawing No. TP3 at Appendix O to the PS.

(3) The Contractor shall complete erection of the temporary protective armouring and application of the temporary protective mulching prior to the commencement of site clearance, demolition, construction of permanent or other temporary works, and any other site operations which may affect the trees.

(4) The Contractor shall remove the temporary protective armouring and the temporary protective mulching from the Site upon completion of the Works, or earlier if so directed by the Engineer. The Contractor shall not remove or relocate the temporary protective armouring or the temporary protective mulching without the prior agreement of the Engineer.

Protection from changes in ground levels

3.98A1 (1) Without the prior approval of the Engineer, the Contractor shall not change the existing ground levels within the tree protection zones of the preserved trees unless the Works Order explicitly requires such changes.

(2) Where it is necessary for the completion of the Works to reduce/raise the existing ground level around a preserved tree which will result in a lowering/rise of the existing ground level within the tree protection zone, the Contractor shall carry out permanent protective work for the preserved trees in accordance with the details given in the Drawings or as provided by the Engineer.

(3) Before commencing the construction of the permanent protective work to accommodate reduction/raise in the ground level pursuant to sub-clause (2) of this Clause, the Contractor shall submit method statements, including construction details, for the work for the Engineer's approval. The Contractor shall commence the construction of the permanent protective work only after the Engineer's approval to the method statements has been given.

(4) The Contractor shall follow the requirements stipulated in PS Clause 3.99A1 regarding excavation and cutting of tree roots and shall maintain balanced moisture content in the tree and in the soil after construction of the permanent protective work, by carrying out necessary precautionary measures such as crown thinning, watering and mulching.

Protection from excavation including trenching

3.99A1 (1) Without the prior approval of the Engineer, the Contractor shall not carry out excavation within the tree protection zones of the preserved trees unless the Works Order explicitly requires such excavation work. For the approved excavation work within the tree protection zones, the Contractor shall comply with the following requirements:

(a) obtain agreement from the Engineer to the detailed locations and extent of the excavations before commencing any excavation work,

(b) carry out the following before commencing any cutting work to the aerial roots or underground roots of the preserved trees:

(i) determine the locations of the major roots and the bulk of the absorbing roots so as to keep the cutting of tree roots to a minimum and to preserve the tap roots, sinker roots and support roots of the trees in any circumstances,
(ii) obtain agreement from the Engineer to the extent of root cutting on the Site, and
(iii) where the stability of the trees is likely to be jeopardised, comply with the requirements stipulated in PS Clauses 3.101A(1) to (3),

(c) submit to the Engineer photographic records showing the condition of the affected trees and the agreed extent of excavations and root cuttings as marked on the Site prior to commencement of the excavation work and root cutting work and thereafter submit photographic records showing the condition of the affected trees and the progress of the excavation work and root cutting work at weekly intervals until backfilling of the excavations is complete,

(d) excavate the trench on the paved side of the tree if one exists,

(e) pile the excavated materials outside the tree protection zones to reduce soil compaction,

(f) carry out the excavations carefully so as not to damage the bark and root collars of the preserved trees, and

(g) maintain balanced moisture content in the trees and in the soil after backfilling of the excavations, by carrying out necessary precautionary measures such as crown thinning, watering and mulching.

(2) The Contractor shall take the following precautions when carrying out excavation that involves cutting of the roots of the preserved trees:

(a) excavation shall be carried out using only hand-held tools such as hoe and spade, but not mechanical

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diggers or bulldozers in any circumstances,

(b) whenever roots are encountered and before root cutting is carried out, soil shall be carefully forked away from the roots using hand-held tools up to the edge along which root cutting is required,

(c) root cutting shall be carried out carefully using sterilised hand-held pruning tools, and roots greater than 25 mm in diameter shall be pruned carefully so as not to result in shattered and frayed roots,

(d) any roots damaged during excavation shall be cut back cleanly with sharp tools to undamaged tissue and treated with an approved fungicidal dressing prior to backfilling,

(e) all cut and exposed roots shall be prevented from drying out during excavation by adopting the following measures until backfilling, unless otherwise agreed by the Engineer:

(i) wrap the tap roots, sinker roots, support roots, and roots with diameter exceeding 50 mm, which shall not be cut, with hessian, straw or other porous, absorbent fabric once they are exposed,
(ii) hang thick hessian or other porous, absorbent fabric from top of the cut surface over the exposed roots and soil immediately after root cutting, and
(iii) mist the hessian or fabric in a frequency that keeps the roots and the soil at the cut surface moist all the time,

(f) the hessian, straw or other porous, absorbent fabric stipulated in sub-clause (2)(e)i) of this Clause and the hessian or fabric stipulated in sub-clause (2)(e)ii) of this Clause shall be removed immediately before backfilling, and

(g) excavations shall be backfilled with soil mix incorporated with slow release fertiliser at a rate of 500 g/m^3 or at a rate as directed by the Engineer to a level not higher than the original soil level at the root collar.

Protection from drilling 3.100A1 (1) Without the prior approval of the Engineer, the Contractor shall not carry out drilling, such as soil nailing and drilling for bore holes, rock bolts or dowels, within the tree protection zones of the preserved trees unless the Contract explicitly requires such drilling work within the tree protection zones. For the approved drilling work within the tree protection zones, the Contractor shall comply with the following requirements:

(a) obtain agreement from the Engineer to the detailed locations and extent of the drill holes before commencing any drilling work, bearing in mind that

the drill holes shall be located in such a way that the structures to be placed into the drill holes, including the surface elements of the structures such as soil nail heads, are at a minimum distance of 500 mm from the trunks of the preserved trees unless otherwise agreed by the Engineer in exceptional circumstances, and

(b) carry out the following before commencing any cutting work to the aerial roots or underground roots of the preserved trees:

(i) determine the locations of their major roots and the bulk of the absorbing roots so as to keep the cutting of tree roots to a minimum and to preserve the tap roots, sinker roots and support roots of the trees in any circumstances,
(ii) obtain agreement from the Engineer to the extent of root cutting on the Site, and
(iii) where the stability of the trees is likely to be jeopardised, comply with the requirements stipulated in PS Clauses 3.101A(1) to (3),

(c) carry out the drilling work carefully so as not to damage the branches, foliage, trunk, bark and root collars of the preserved trees when gaining access for, supporting, mobilising, positioning and operating the drilling rig, and

(d) maintain balanced moisture content in the trees and in the soil after the drilling work, by carrying out necessary precautionary measures such as crown thinning, watering and mulching.

(2) The Contractor shall take the following precautions when carrying out drilling work that involves cutting of the roots of the preserved trees:

(a) drilling work and root cutting work shall be carried out carefully,

(b) roots greater than 25 mm in diameter shall be pruned carefully in order to prevent shattered and frayed roots, and

(c) any roots damaged during drilling shall be cut back cleanly with sharp tools to undamaged tissue and treated with an approved fungicidal dressing.

Protection from instability 3.101A1 (1) Where the Works involve cutting of any major roots or other major parts of the preserved trees or any other works that may jeopardise the stability of the preserved trees, the Contractor shall install all necessary physical support for the preserved trees to ensure their stability. The Contractor shall pay particular attention to the preserved trees growing on retaining structures in order to prevent the trees from being dislodged from its position as a result of inadequate support.

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(2) The physical support for the preserved trees shall be installed securely prior to commencement of the root cutting, tree pruning or any other works that may affect the stability of the trees. Before commencing the installation of the physical support measures, the Contractor shall submit method statements for the support measures to the Engineer for approval. The Contractor shall commence the installation of the support measures only after the Engineer's approval to the method statements.

(3) The physical support for the preserved trees shall be securely founded in footings independent of existing walls or building structures or in other supporting systems as appropriate, without interfering with other works, other existing features, and the preserved trees. Where the affected tree is growing on a retaining structure, the Contractor shall make a detailed assessment to estimate the weight of the tree and identify the best position of supporting the tree in relation to its overall spread and centre of gravity. The method statements for the support measures in respect of the trees growing on retaining structures shall include the following information:

(a) details of the form of construction and where requested by the Engineer structural design calculation for the support measures, demonstrating the bearing capacity of each element,

(b) details of the foundation of the support measures, demonstrating that the support measures shall not interfere with other works, other existing features, and the preserved trees and shall not affect the stability of the retaining structure,

(c) means of securing the tree to the supporting measures, including how cups and ties are adjusted to the form of the tree, and

(d) method of fabrication and erection on the Site.

(4) The Contractor shall remove the physical support for the preserved trees from the Site upon completion of the Works Order for works other than Establishment Works, or earlier if so directed by the Engineer. The Contractor shall not remove or relocate the physical support for the trees without the prior agreement of the Engineer.

Pruning of preserved trees 3.102A1

(1) Without the prior approval of the Engineer, the Contractor shall not carry out pruning to the preserved trees unless the pruning work is required under the Works Order or is directed by the Engineer. The Contractor shall notify the Engineer of any preserved trees whose branches interfere with the Works and thus require pruning. The Contractor shall carry out the approved pruning work during the site clearance stage unless otherwise instructed or agreed by the Engineer.

(2) The Contractor shall comply with the requirements stipulated in PS Clause 3.82S1 when carrying out the pruning work.

Control of pest and disease for preserved trees 3.103A1

(1) The Contractor shall take all necessary precautionary measures to protect the preserved trees from pest and disease attack and all necessary control measures to eradicate pest and disease from the infected trees.

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(2) Before commencing the application of the pest and disease control measures, the Contractor shall submit method statements for the control measures to the Engineer for approval. The Contractor shall commence the application of the control measures only after obtaining the Engineer's approval to the method statements.

(3) The method statements for the pest and disease control measures shall cover, amongst other aspects as required by the Engineer, the pesticide or fungicide to be used and any other necessary associated arboricultural work to the infected areas.

(4) The Contractor shall comply with the following requirements in applying the pest and disease control measures:

(a) environmentally friendly measures shall be adopted, and

(b) safety precautions as the manufacturer's instruction shall be strictly followed in using pesticide or fungicide so as to avoid causing danger or harm to the public and the environment

Repair of damage to preserved trees and other affected plants

3.104A1 (1) The Contractor shall carry out all necessary work of repair of any damage to the preserved trees and any other plants affected. All necessary work of repair of damage shall be carried out at the Contractor's own expense if the necessity for such work is, in the opinion of the Engineer, due to neglect or failure on the part of the Contractor to comply with any obligation expressed or implied on the Contractor's part under the Contract.

(2) The work of repair of damage as referred to in sub-clause (1) of this Clause shall include the following:

(a) all necessary arboricultural work to the preserved trees and any other plants damaged, which may include:

(i) tree surgery work to remove dead, damaged, diseased or hazardous parts, to repair wounds, or to provide cables or braces for additional support,
(ii) watering and/or mulching in case of water deficiency, and
(iii) applying appropriate fertilizers in case of nutrient deficiency,

(b) the replacement planting pursuant to sub-clause (7) of this Clause for the trees and any other plants damaged to an extent as described in sub-clause (6) of this Clause and the subsequent Establishment Works for the new plants for 1 year, when instructed by the Engineer, and

(c) any other reinstatement work necessary to bring the damaged plants to their original condition prior to the occurrence of the damage, as directed by the Engineer.

(3) The Contractor shall notify the Engineer of any damage to the

preserved trees and other affected plants within the same day of the occurrence of damage and shall submit to the Engineer within 7 days of the occurrence of damage, a report comprising the following information in a format agreed by Engineer:

(a) the timing of the damage,

(b) the nature and extent of the damage,

(c) photographic records of the damage,

(d) the proposed work of repair of the damage, and

(e) the proposed protection measures to avoid recurrence of similar incident.

(4) When directed by the Engineer, the Contractor shall firm up and secure all dislodged trees and any other dislodged plants and shall treat all wounds of the damaged trees/plants within 3 days of the occurrence of the damage.

(5) Save as stated in sub-clause (4) of this Clause, the Contractor shall not carry out any work of repair of the damage prior to the Engineer's acceptance of the report as required in sub-clause (3) of this Clause.

(6) The Contractor shall provide replacement planting of the damaged trees and any other affected plants under the following circumstances:

(a) in the opinion of the Engineer the damaged trees/plants are dead,

(b) in the opinion of the Engineer, the trees/plants have been substantially damaged, resulting in one or more of the following conditions:

(i) that imminent death of the trees/plants within the coming growing season is predicted,
(ii) that the structural integrity of the damaged trees/plants is permanently compromised and consequently the trees/plants become an irreparable public hazard,
(iii) that any major parts of the damaged trees/plants have been lost and consequently their form, habit and balance have been grossly altered so that their function cannot be reasonably recovered or the trees/plants are causing harm to other preserved trees.

(7) When instructed by the Engineer, the Contractor shall carry out the following:

(a) removal of the damaged trees/plants for which replacement planting as sub-clause (6) of this Clause is required, in accordance with the following requirements:

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(i) for the removal of the damaged trees, the Contractor shall prepare a tree felling application document to the Engineer's satisfaction and provide any other assistance or information as required by the Engineer, for the Engineer's application for approval to the felling of the damaged trees from the government approving authority,

(ii) the Contractor shall fell the damaged trees only after the Engineer's approval to the tree felling, which shall normally be given only after the tree felling application has been approved by the government approving authority, and

(iii) the Contractor shall remove the damaged plants from the Site, and

(b) replacement planting of new plants in accordance with the following requirements:

(i) the Contractor shall complete the replacement planting within 28 days from the Engineer's instruction or other time duration as agreed by the Engineer, and

(ii) for replacement planting, the Contractor shall plant new plants of the same species and of similar size and form as the damaged plants prior to the damage or provide other alternative replacement planting as agreed by the Engineer.

Transplanting of existing trees

3.105A1 (1) For the purpose of this Clause, palms and conifers are also considered as trees.

(2) The Contractor shall submit and obtain approval from the Engineer, prior to any works to the trees on the Site, a detailed method statement and programme for transplanting the existing trees, outlining the method, sequencing, timing of operations, and the location and type of machinery to be used for the following operations:

(a) protection before lifting and transplanting,
(b) root pruning,
(c) crown pruning,
(d) excavating trenches for rootball preparation,
(e) design and construction of supporting measures,
(f) attaching lifting gear to the trees,
(g) protection during transit,
(h) temporary holding nursery, if required,
(i) lifting,
(j) transportation to new location, including routing,
(k) preparation of receptor site,
(l) placement, backfilling, mulching and securing at receptor site,
(m) backfilling and making good the donor site,
(n) schedule of Establishment Works during the period for Establishment Works.

(3) Any tree transplanted or to be transplanted that dies or is

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damaged, due to the Contractor's poor workmanship or lack of care during any stage of the transplanting operation, including the period for Establishment Works, shall be replaced at his own expense with a tree of the same species and of a similar size, (no matter what that might be) in the final location indicated for the transplanted tree. No reduction in overall time of operations will be allowed if transplanted tree has to be replaced.

(4) The dimensions of the rootball of trees to be transplanted shall be determined by the Contractor so as to ensure survival of the plant.

(5) Rootball box sizes shall vary depending on the tree rootball size. Allowance shall be made such that there is 150 mm (minimum) clearance between the rootball edge to the sides and 300 mm to the bottom of the rootball box. This clearance shall be filled with moist peat. Trench size shall be 300 mm wide and 1000 mm deep (minimum).

(6) The Contractor shall allow the tree transplanting works in his programme of Works in such a way that the root pruning to the specified size of rootball shall commence as early as possible so as to ensure maximum fibrous root growth prior to transplanting operations.

(7) Root pruning shall be done in three stages. The period between each root pruning stage shall be as follows, unless otherwise directed or agreed by the Engineer :

(a) Trees with diameter at breast height not exceeding 200 mm : 30 days
(b) Trees with diameter at breast height exceeding 200 mm but not exceeding 350 mm : 45 days
(c) Trees with diameter at breast height exceeding 350 mm : 60 days.

(8) The three stages of root pruning shall be as follows :

(a) The first stage shall involve cutting two parallel straight trenches on two sides of the proposed rootball.
(b) The second stage shall involve cutting two parallel straight trenches on the remaining two sides of the proposed rootball.
(c) The last stage shall be the cutting of the underside of the rootball and the transplanting of the tree to the rootball box.

(9) The Contractor shall take all necessary precautions to ensure that no damage is done to the tree during the lifting and transportation processes.

(10) Root activator shall be applied at regular intervals according to the manufacturer's instruction.

(11) Transplanting operations shall be timed so as to enable transplanting of the trees direct to the areas of proposed planting. No lifting and transplanting operations shall commence until either the receptor sites or the holding nursery are fully prepared as specified. Any tree uplifted must be transplanted and watered on the same day.

(12) Lifting and transplanting operations shall be carried out only following a period of consistent rainfall which has thoroughly watered the trees to the satisfaction of the Engineer or following a thorough watering of the trees by the Contractor at a rate determined by the Engineer.

(13) Trees shall be lifted carefully to avoid damage to roots and to obtain the specified size of rootball. Roots shall be cut free from ground, not pulled, using a suitable implement to give a clean cut. All roots greater than 50mm diameter shall be treated with an approved sealant.

(14) All trees to be transplanted shall be wrapped and protected to prevent mechanical damage during lifting and transportation. They shall also be protected against excessive sunlight, wind and drought. Care shall be taken in packing to prevent over-heating with its resultant loss of foliage. Damaged trees shall be rejected by the Engineer. Damaged trees which are not so rejected shall be carefully pruned, complying with the requirements stipulated in PS Clause 3.82S1.

(15) Trees transplanted direct to the receptor sites are to be planted in accordance with the Specification.

(16) Trees transplanted to the holding nursery are to be containerized prior to planting, using containers appropriate to the specified rootball size. They shall be planted in an upright position, allowing adequate space for growth, and tied and staked securely to avoid damage to the tree stems, all to the satisfaction of the Engineer. Immediately following planting the trees shall be watered thoroughly to ensure a thorough soaking of the roots.

(17) Trees shall be treated with Establishment Works immediately after transplanting works, for a period of 12 months. Such Establishment Works shall include all measures necessary to establish and maintain the trees in an acceptable vigorous and healthy growing condition.

(18) Immediately after transplanting, the base of the trees shall be well watered to thoroughly soak the rootball. The trees shall be well watered in the evening and early morning only. Watering shall be carried out daily during the dry season, generally from September to April. Watering shall be carried out as required during the wet season.

(19) Firming up of the trees and tree stakes shall be undertaken from time to time during the period for Establishment Works and particularly after heavy rain and/or wind.

(20) Two applications of fertilizer, one in early Spring and one in early Autumn, shall be made as directed by the Engineer.

(21) Rootball areas shall be kept free of weeds at all time.

Other references 3.106A1 (1) The Contractor's attention is also drawn to the latest editions of the following British Standards and British Standard Code of Practice for general reference:

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BS 3998	Recommendations for tree work
BS 4043	Recommendations for transplanting root-balled trees
BS 4428	Code of practice for general landscape operations (excluding hard surfaces)
BS 5837	Guide for tree in relation to construction

(2) The provisions contained in this Particular Specification and the Drawings shall prevail over the provisions contained in the documents listed in the sub-clause (1) of this Clause.

HYDRO-MULCHING

General Requirements 3.107A1

(1) Hydro-mulching is a vegetation treatment to non-soil slope surfaces such as sprayed concrete, no fines concrete, concrete buttresses, rock or chunam. It shall be carried out as shown on the Drawings or as directed by the Engineer.

(2) The Contractor shall propose a proprietary hydro-mulching system that complies with this specification and shall submit at least 3 years records proving the performance of the proposed system for the approval of the Engineer.

(3) The Contractor shall provide a hydro-mulching system that is applicable for use on a hard surfaced slope that has a slope angle greater than 55°.

(4) Hydro-mulching shall be carried out in accordance with this specification and the manufacturers and suppliers recommendations.

Seeds 3.108A1

(1) The origin of grass seeds and the name of the supplier shall be stated on the containers.

(2) The quality of grass seed shall be gauged by it's purity, germination percentage and freedom from weeds. The total weed seed content shall not exceed 0.5% by total mass and the total content of other crop seeds shall not exceed 1% by total mass.

(3) The application rate for the work should be as follows :

Cynodon dactylon (Bermuda grass)	13 – 15 g/sq.m.
Paspalum notatum (Bahia grass)	8 – 10 g/sq.m.
TOTAL	25 g/sq.m. (minimum)

(4) For hydro-mulching outside the planting season the following shall be added to the mix :

Lolium perenne (Rye Grass)	5 g/sq.m
	30 g/sq.m (minimum)

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Soil mix for hydro-mulching 3.109A1

(1) Soil mix for hydro-mulching shall be a proprietary product approved by the Engineer that has high gas permeability, high water retaining capacity, is resistant to drying and resistant to erosion by rain and comprises the following main ingredients :

Long lasting fertilizer
Water soluble fertilizer
Composted organic fertilizer
Water retaining polymer
Organic moisture retaining agent
Binding agent
Germination stimulator

(2) Soil mix for hydro-mulching shall comply with the following :

-	pH value	6.0 to 7.5
-	Moisture content	30% to 35%
-	% organic matter (dry weight)	50% to 90%
-	% organic carbon (dry weight)	40% to 60%
-	% total nitrogen (dry weight)	0.1% to 1.5%
-	Carbon : Nitrogen ratio	35:1 to 50:1
-	Dry density	400 to 450 kg/m³
-	Saturated density	350 to 400 kg/m³

Wire Net 3.110A1 Wire net shall be PVC coated twisted rhombic galvanized wire mesh of minimum diameter 2.5mm with maximum opening of 50 mm.

Auxiliary Anchor 3.111A1 Auxiliary anchor shall be 16 mm diameter, 400 mm long galvanized mild steel.

Sub-anchor 3.112A1 Sub-anchor shall be 8 mm diameter, 200 mm long galvanized mild steel.

Soil bag for hydro-mulching 3.113A1 Soil bag for hydro-mulching shall be a UV resistant PVC product or equivalent material.

Protective fabric 3.114A1 Protective material shall be biodegradable non-toxic, translucent, porous and no greater than 1 mm thick, stapled to the surface after hydro-mulching with a minimum of 150 mm overlap between sheets of protective fabric. The fabric shall not degrade after application until the specified grass cover has been established.

Erosion control mat for hydro-mulching 3.115A1 Erosion control mat shall be approved coir mesh or equivalent material. It shall be 100% natural organic coir fibre product and shall be biodegradable within 5 years after application.

Trial panel 3.116A1 The Contractor shall demonstrate the performance and application rate of the proposed hydro-mulching meets the specification by undertaking a trial panel (10m by 5m in size) at least 6 months prior to the commencement of any hydro-mulching works. The trial panel construction shall be witnessed by the Engineer's Representative and shall be subject to the approval of the Engineer prior to use of the proposed hydro-mulching system. The location for construction of the trial panel shall be notified by the Engineer.

Ground cleaning prior to hydro-mulching 3.117A1 Before applying the hydro-mulching mixture, the Contractor shall remove all debris, litter, loose stones and other objects, which may prevent the hydro-mulching mixture from adhering to the slope

surface.

Installation of soil bag 3.118A1 Soil bags shall be filled with soil mix for hydro-mulching, joined together by PVC coated galvanized wire string and fixed in place by 2 subanchors per soil bag.

Laying of wire net 3.119A1 The rhombic galvanized wire mesh shall be laid on the prepared slope surface and fixed by auxiliary anchors at 1200 mm centres along the crest and any berm or flat area. In addition a minimum of 50 subanchors shall be used for every 100 sq.m of slope surface to fix the wire mesh in place.

Application of hydro-mulching 3.120A1 (1) Soil mix for hydro-mulching, seeds and water shall be thoroughly mixed in the mixed into the spraying machine in the appropriate proportions prior to application.

(2) The resulting mixture shall be sprayed onto the prepared surface until sufficient a minimum thickness of 50 mm is achieved to cover the whole area to be hydro-mulched.

(3) Access into hydro-mulched areas should be restricted to workers who are fixing erosion control mat and protective fabric only. No further works shall be carried out in areas that have been hydro-mulched.

Installation of erosion control mat 3.121A1 Erosion control mat for hydro-mulching shall be laid on the hydro-mulched surface and fixed in place with 200 mm long steel u-shaped pins at 1000 mm centres.

PLANTER TUBES

Planter tubes 3.122A1 (1) Planter tube shall be a perforated bio-polymer tube filling with fiber soil material. A sprig of ground cover or climber shall be planted inside the tube. The species of the plants shall be ordered by the Engineer.

(2) The perforated bio-polymer tubes shall be biodegradable and compostable. The diameters of the top and bottom openings of the tube shall be at least 35mm and 25mm, respectively. The difference between the diameters of the openings shall be ranged from 8mm to 10mm. The length of the tube shall be at least 170mm. The openings in the perforated tube, excluding the top and bottom openings, shall cover approximately one-third of the circumference of the tube.

(3) Composition and properties of the fiber soil shall be as follows:

Ingredients	Application Rate (per m^3)
(a) High grade peatmoss	600 litre
(b) Wood chip compost	400 litre
(c) Chemical fertilizer (N:P:K = 13:3:11)	0.36kg
(d) Chemical fertilizer (N:P:K = 4:17:4)	1.19kg
(e) Perlite powder	4.02kg
(f) Acrylic polymer granules	0.05kg
(g) Bonding agent	9.3kg
(h) Germination stimulator	1kg

Properties

(a) pH value	6.0 to 7.5
(b) Moisture content	30% to 35%
(c) Organic matter content (dry weight)	50% to 90%
(d) Organic Carbon content (dry weight)	40% to 60%
(e) Total Nitrogen content (dry weight)	0.1 % to 1.5%
(f) Carbon : Nitrogen ratio	35:1 to 50:1
(g) Dry density	400kg/m³ to 450kg/m³
(h) Saturated density	350kg/m³ to 400kg/m³

(4) A sprig of ground cover shall have a height of not less than 150mm above the top of the tube. The root of the ground cover shall be embedded inside the tube at 150mm deep. The sprig shall have more than one healthy node and shall comply the characteristic specified in PS sub-clause 3.21A1(a) and (b).

(5) A sprig of climber shall have a vigorous main shoot at least 600mm long above the top of the tube. The root of the climber shall be embedded inside the tube at 150mm deep. The sprig shall comply the characteristic specified in PS sub-clause 3.21A2(a) and (c).

(6) The holes for installation of the planter tubes on slope shall be formed by drilling. The gap between the hole and the tube shall be filled up with the soil mix.

(7) The planter tubes must be supplied by the sub-contractor of Landscaping Class I – General Landscape Work in the List of Approved Suppliers of Materials and Specialist Contractors for Public Works.

Particulars of materials and method for installation 3.123A1

The following particulars of materials and methods for installation of the planter tubes shall be submitted to the Engineer for approval at least a month prior to the installation works:

(a) samples and manufacturer's literature including details of nursery vegetation;
(b) a test report for the fiber soil proving its composition and properties;
(c) method of installation.

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土力工程處刊物及訂購資料

A selected list of major GEO publications is given in the next page. An up-to-date full list of GEO publications can be found at the CEDD Website http://www.cedd.gov.hk on the Internet under "Publications". Abstracts for the documents can also be found at the same website. Technical Guidance Notes are published on the CEDD Website from time to time to provide updates to GEO publications prior to their next revision.

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MAJOR GEOTECHNICAL ENGINEERING OFFICE PUBLICATIONS
土力工程處之主要刊物

GEOTECHNICAL MANUALS

Geotechnical Manual for Slopes, 2nd Edition (1984), 300 p. (English Version), (Reprinted, 2000).

斜坡岩土工程手冊(1998)，308頁(1984年英文版的中文譯本)。

Highway Slope Manual (2000), 114 p.

GEOGUIDES

Geoguide 1	Guide to Retaining Wall Design, 2nd Edition (1993), 258 p. (Reprinted, 2007).
Geoguide 2	Guide to Site Investigation (1987), 359 p. (Reprinted, 2000).
Geoguide 3	Guide to Rock and Soil Descriptions (1988), 186 p. (Reprinted, 2000).
Geoguide 4	Guide to Cavern Engineering (1992), 148 p. (Reprinted, 1998).
Geoguide 5	Guide to Slope Maintenance, 3rd Edition (2003), 132 p. (English Version).
岩土指南第五冊	斜坡維修指南，第三版(2003)，120頁(中文版)。
Geoguide 6	Guide to Reinforced Fill Structure and Slope Design (2002), 236 p.
Geoguide 7	Guide to Soil Nail Design and Construction (2008), 97 p.

GEOSPECS

Geospec 1	Model Specification for Prestressed Ground Anchors, 2nd Edition (1989), 164 p. (Reprinted, 1997).
Geospec 3	Model Specification for Soil Testing (2001), 340 p.

GEO PUBLICATIONS

GCO Publication No. 1/90	Review of Design Methods for Excavations (1990), 187 p. (Reprinted, 2002).
GEO Publication No. 1/93	Review of Granular and Geotextile Filters (1993), 141 p.
GEO Publication No. 1/2000	Technical Guidelines on Landscape Treatment and Bio-engineering for Man-made Slopes and Retaining Walls (2000), 146 p.
GEO Publication No. 1/2006	Foundation Design and Construction (2006), 376 p.
GEO Publication No. 1/2007	Engineering Geological Practice in Hong Kong (2007), 278 p.
GEO Publication No. 1/2009	Prescriptive Measures for Man-Made Slopes and Retaining Walls (2009), 76 p.

GEOLOGICAL PUBLICATIONS

The Quaternary Geology of Hong Kong, by J.A. Fyfe, R. Shaw, S.D.G. Campbell, K.W. Lai & P.A. Kirk (2000), 210 p. plus 6 maps.

The Pre-Quaternary Geology of Hong Kong, by R.J. Sewell, S.D.G. Campbell, C.J.N. Fletcher, K.W. Lai & P.A. Kirk (2000), 181 p. plus 4 maps.

TECHNICAL GUIDANCE NOTES

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