Environmental Permit No. FEP-01/571/2019/A

Proposed Golf Course Development at Tai Po Lot No. 246 Shuen Wan

Environmental Team Leader Certification

Reference Document

Document to be Certified: Construction Phasing Plan

Date of Report: May 2024

Date received by ETL: 16 May 2024

Reference EP Condition

Environmental Permit Condition:

2.15

The Permit Holder shall review the phasing of the construction activities and, no later than four months before the commencement of construction of the Project, submit 4 hard copies and 1 electronic copy of a Construction Phasing Plan (CPP) to the Director for approval. The CPP shall be based on the recommendations of the approved Tree Preservation, Transplantation and Compensation Plan under Condition 2.14 of this Permit, and shall be designed with a view to minimising the potential adverse impacts on the Collared Crow including fragmentation on the roosting habitats, and to achieve the objectives of tree preservation and compensation as stated in Condition 2.14 (i) and (ii) of this Permit. The CPP shall take into account the trees to be retained and the species and density of the new trees to be planted for roosting habitats upon completion of site formation at each phase. The CPP shall be prepared by the Ecologist, certified by the ET Leader and verified by the IEC as conforming to the findings and recommendations of the approved EIA Report (Register No. AEIAR-221/2019) for approval of the Director. The phasing of construction activities recommended in the approved CPP shall be fully implemented during construction phase of the Project.

ETL Certification

I hereby certify that the above reference report complies with the above referenced condition of FEP-01/571/2019/A.

Mr. Calvin Leung

Environmental Team Leader

Date: 21 May 2024

Environmental Permit No. FEP-01/571/2019/A

Proposed Golf Course Development at Tai Po Lot No. 246 Shuen Wan

Independent Environmental Checker Verification

Reference Document

Document to be Verified: Construction Phasing Plan

Date of Report: May 2024

Date received by IEC: 16 May 2024

Reference EP Condition

Environmental Permit Condition:

2.15

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IEC Verification

I hereby verify that the above reference report complies with the above referenced condition of FEP-01/571/2019/A.

Mr. Adi Lee

Independent Environmental Checker

Date: 21 May 2024

Environmental Permit No. FEP-01/571/2019/A

Proposed Golf Course Development at Tai Po Lot No. 246 Shuen Wan

Ecologist's Signature Page

Reference Document

Document Prepared: Construction Phasing Plan

Date prepared by Ecologist: 16 May 2024

Reference EP Condition

Environmental Permit Condition: 2.15

The Permit Holder shall review the phasing of the construction activities and, no later than four months before the commencement of construction of the Project, submit 4 hard copies and 1 electronic copy of a Construction Phasing Plan (CPP) to the Director for approval. The CPP shall be based on the recommendations of the approved Tree Preservation, Transplantation and Compensation Plan under Condition 2.14 of this Permit, and shall be designed with a view to minimising the potential adverse impacts on the Collared Crow including fragmentation on the roosting habitats, and to achieve the objectives of tree preservation and compensation as stated in Condition 2.14 (i) and (ii) of this Permit. The CPP shall take into account the trees to be retained and the species and density of the new trees to be planted for roosting habitats upon completion of site formation at each phase. The CPP shall be prepared by the Ecologist, certified by the ET Leader and verified by the IEC as conforming to the findings and recommendations of the approved EIA Report (Register No. AEIAR-221/2019) for approval of the Director. The phasing of construction activities recommended in the approved CPP shall be fully implemented during construction phase of the Project.

Ecologist's Signature

I hereby confirm that I have prepared the above reference report according to the above referenced condition of FEP-01/571/2019/A.

Mr. Klinsmann Cheung Ecologist ð.

Date: 16/5/2024



Tai Po Golf Club Limited

Proposed Golf Course Development at Tai Po Lot No. 246 Shuen Wan

Construction Phasing Plan

Reference: 289499-REP-024-03

This report takes into account the particular instructions and requirements of our client. It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 289499

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Appendix

Appendix 1.1

Figure 1 of FEP-01/571/2019/A

Appendix 2.1

Figure 2 of FEP-01/571/2019/A

Appendix 2.2

Master Layout Plan

Appendix 2.3

Construction Phasing Plan

Appendix 2.4

Implementation Schedule of Recommended Mitigation Measures

1. Introduction

1.1 Project Background

- In June 2017, the Chief Executive in Council has agreed in principle to the government proposal to grant a piece of land in Tai Po in exchange for its private land in Sha Lo Tung which has high ecological values. Under the non-in-situ land exchange proposal, the piece of land at the Shuen Wan Restored Landfill in Tai Po will be granted and the Sha Lo Tung site would be considered by government for active conservation management to avoid degradation and damage for long-term public enjoyment. This land exchange proposal is a unique, exceptional and isolated case, adding the idea is technically feasible as the private land ownership is largely unified under one entity and both Sha Lo Tung and the land at the landfill site, which has been planned for golf course development, are located in Tai Po, as shown in Figure 1 of FEP-01/571/2019/A (extracted as **Appendix 1.1**). The non-in-situ land exchange proposal has been completed in July 2022, and the Project Site has been handed over to the Project Proponent (PP).
- 1.1.2 The Project is a Designated Project (DP) under Environmental Impact Assessment Ordinance (EIAO), and an Environmental Impact Assessment (EIA) study was conducted in 2017. The *Shuen Wan Golf Course EIA Report* was approved by the Director of Environmental Protection (DEP) on 5 July 2019 (AEIAR-221/2019) ("the approved EIA Report") with the Environmental Permit (EP, EP-571/2019) issued on 20 September 2019. An application of Further Environmental Permit (FEP) has been made by Tai Po Golf Club Limited (the PP) and FEP was issued on 29 November 2022 (FEP-01/571/2019). Besides, surrender of EP-571/2019 has been applied and approved on 9 December 2022. In addition, an application for variation of EP has been made on 16 May 2023 to amend FEP-01/571/2019, and the amended EP was issued on 6 June 2023 (FEP-01/571/2019/A).
- 1.1.3 Condition 2.15 of FEP-01/571/2019/A stipulates the Permit Holder shall submit a Construction Phasing Plan (CPP) to review the phasing of the construction activities and shall be designed with a view to minimising the potential adverse impacts on the Collared Crow (CC). The detail requirement will be discussed in **Section 2.2** of this CPP. According to Condition 2.15 of FEP-01/571/2019/A, the CPP shall also be based on the recommendations of the approved Tree Preservation, Transplantation and Compensation Plan (TPTCP) under Condition 2.14 of FEP-01/571/2019/A.

1.2 Purpose of the CPP

1.2.1 The CPP is prepared to comply with Condition 2.15 of FEP-01/571/2019/A. The CPP shall contain a proposed construction phasing with a view to minimising the potential adverse impacts on the CC including fragmentation on the roosting habitats, and to achieve the objectives of tree preservation and compensation as stated in Condition 2.14 (i) and (ii) of of FEP-01/571/2019/A.

1.3 Structure of the CPP

1.3.1 The structure of the CPP is given below:

Section 2 Describes the construction phasing plan.

Section 3 Summarises and concludes the findings.

2. Construction Phasing

2.1 CPP proposed during the EIA Stage

- 2.1.1 In accordance with the Chapter 10 of the approved EIA Report, the construction phasing should be designed to minimise the duration of possible indirect disturbance to the major preserved tree group as roost sites. Construction activities in the Project Site should be implemented by phases. This will enable existing plantation trees to be lost gradually, and new planting will also be provided gradually during the construction, rather than after all construction is finished as in other projects.
- An indicative construction phasing plan was designed during the EIA stage and it is provided as Figure 2 of FEP-01/571/2019/A (**Appendix 2.1**). Under this indicative plan, the construction will commence from landward side along Ting Kok Road. As such, the roosting habitats will not all be lost in one time, but by phases. Site re-profiling of the area near the core roosting area in the southern end would fall under the last phase (Area 3) of construction.
- 2.1.3 Besides, upon completion of site formation at each phase, landscape planting should be implemented immediately before the beginning of next phase such that new tree groups aiming for roosting site provision will be planted before site clearance in the next phase.

2.2 Requirement of CPP under EP (FEP-01/571/2019/A)

As stipulated in Condition 2.15 of FEP-01/571/2019/A, the Permit Holder shall review the phasing of the construction activities and, no later than four months before the commencement of construction of the Project, submit 4 hard copies and 1 electronic copy of a CPP to the Director for approval. The CPP shall be based on the recommendations of the approved TPTCP under Condition 2.14 of FEP-01/571/2019/A, and shall be designed with a view to minimising the potential adverse impacts on the CC including fragmentation on the roosting habitats, and to achieve the objectives of tree preservation and compensation as stated in Condition 2.14 (i) and (ii) of FEP-01/571/2019/A. The CPP shall also take into account the trees to be retained and the species and density of the new trees to be planted for roosting habitats upon completion of site formation at each phase. The CPP shall be prepared by the Ecologist, certified by the Environmental Team (ET) Leader and verified by the Independent Environmental Checker (IEC) as conforming to the findings and recommendations of the approved EIA Report for approval of the DEP. The phasing of construction activities recommended in the approved CPP shall be fully implemented during construction phase of the Project.

2.3 Change of Golf Course Layout Plan

2.3.1 The proposed golf course layout plan has been modified since the EIA stage, elements of minimizing the potential impact to night roosting of CC and Black Kite (BK) have been added, the details are discussed in Section 2 of the TPTCP. Besides, with the consideration of the site constraints (i.e. in particular the Project Site was a landfill) and retrieval of detailed information (e.g. geotechnical) of the Project Site after handed over from the government, the master layout plan (MLP) of the proposed golf course is revised accordingly and has been submitted to and approved by Lands Department (**Appendix 2.2**). Thus, the construction phasing plan is then revised according to the site constraints and the approved MLP. The current CPP is shown in **Appendix 2.3**.

2.4 Recommendation of Tree Preservation, Transplantation and Compensation Plan (TPTCP)

- As stipulated in Condition 2.14 of FEP-01/571/2019/A, the Permit Holder shall submit a TPTCP. The TPTCP shall be prepared making reference to the conceptual layout plan in Figure 1 of FEP-01/571/2019/A (**Appendix 1.1**) and based on the findings of the approved Tree Survey Report under Condition 2.13 of the EP and shall provide details of measures for mitigation of the impact of the Project on night roosting of CC and BK.
- 2.4.2 The TPTCP has achieved the major principles for mitigation of the impact of the Project on night roosting of CC and BK, i.e.
 - i. Preservation of no less than 6.1 ha of existing tree groups within the Project Site, including the 1.2 ha core roosting area as shown in **Appendix 1.1.**
 - ii. Compensatory planting of no less than 10 ha of new trees within the Project Site.
- 2.4.3 The TPTCP has also maximized planting opportunities by planting trees in the following areas:
 - i. Existing space within the tree retained area, including the core roosting area, that is thinned and exposed as some trees were dead or collapsed due to recent bad weather.
 - ii. The area after removal of *Leucaena leucocephala*. As *Leucaena leucocephala* is considered as an undesirable species characterized by its aggressive and invasive growing habits, and its ability to prevent the natural succession of native species, all of the *Leucaena leucocephala* trees within the Project Site, except those within the core roosting area, will be removed.

2.5 CPP proposed under the current Stage

- 2.5.1 The current CPP has adopted the general principles of the construction phasing stated in the approved EIA Report as listed below, and the implementation schedule of the recommended mitigation measures is summarised in **Appendix 2.4**.
 - Enabling existing plantation trees to be lost gradually, so that the roosting habitats will not be impacted in one time;
 - The construction works near the core roosting area would fall under the last phase; and
 - New planting will be provided gradually.

- 2.5.2 Under the current CPP, there are 3 phases, i.e. Phase 1, Phase 2, and Phase 3 (which is further subdivided into Phase 3A and Phase 3B), and the area for construction of ancillary facilities (Phase 1 to Phase 3). Hence, the existing plantation trees will not be lost in one-go, but by phases. While the core roosting area will be preserved, and will be excluded in any construction phase. Besides, the core roosting area will be fenced off before commencement of construction phase.
- As the maintenance facilities building is an essential component before construction of the proposed golf course, it will be included in Phase 1. Besides, certain water storage tanks have to be constructed in Phase 1 in order to intercept any surface runoff for sedimentation as recommended in the approved EIA Report, and as required under EP Condition 2.40. Access will also be needed to connect the required site entry at Ting Kok Road to these structures, and also to the ancillary facilities site, which will be further discussed in coming sections. As the only viable route for access road and utilities is along the site perimeter which had no or low utilization as roosting sites, potential impacts to roosting CC have been minimized. Apart from the above works, Phase 1 will also include formation of rainwater overflow control along construction access to the proposed water storage tank, formation of earth retaining structures for soil fill in the subsequence phases and extension of existing slope toe around the site to form a base for the site formation above.
- 2.5.4 Phase 2 and Phase 3 are major soil filling phases, and the demarcation line between phase 2 and 3 works depends on the golf hole design. Phase 2, located at the eastern seaside, will commence first owing to the following engineering considerations:
 - a) Advantage in construction water control towards the sea. In original construction phasing, the soil filling works commence from the Ting Kok Road site towards the seaside whilst the flooding/ construction water control is located at the Ancillary Facilities (Appendix 2.1). Water throw is designed towards existing seawall. In current proposal, the major flooding/ construction water controlling tank is located at Phase 1 area with supplementary tank below the access road located adjoining Phase 2 (Appendix 2.3). With the current proposal, the construction water is directed towards inland area instead of towards the seaside to enable a better flooding/ construction water control.
 - b) Minimization of disturbance to rainwater overflow control completed in Phase 1 towards the sea.

- 2.5.5 Phase 3 is the last phase, and it is located at the western side of the Project Site including the area around the core roosting area. There is an existing road within Phase 3, the existing road will be used as site internal access during the whole construction period therefore it is retained to the last phase. This phase is further sub-divided into Phase 3A and Phase 3B, the construction works will start from Phase 3A to Phase 3B (from landward side to seaward side), to further minimize the potential impacts to the core roosting area.
- 2.5.6 The area for ancillary facilities is situated at the southeast part of the Project Site which is tally with proposed phasing plan under the EIA stage. Same as the proposal under the EIA stage, as the ancillary facilities building takes the longest time to build from foundation, superstructure, exterior and interior installation, it will span across the 3 phases.
- 2.5.7 To achieve one of the principles that the construction works near the core roosting area would fall under the last phase, the core roosting area is entirely surrounded by Phase 3B, i.e. the last construction phase. Effort has also been made on keeping the distance between the core roosting area and other construction phases as long as possible from engineering perspective.
- 2.5.8 Construction works will start from Phase 1 to Phase 2 and finally to Phase 3. Upon completion of site formation at each phase, landscape planting will be implemented immediately before the beginning of next phase such that new tree groups aiming for roosting site provision will be planted before the clearance in next phase, so that the affected CC can have alternative roosting sites.

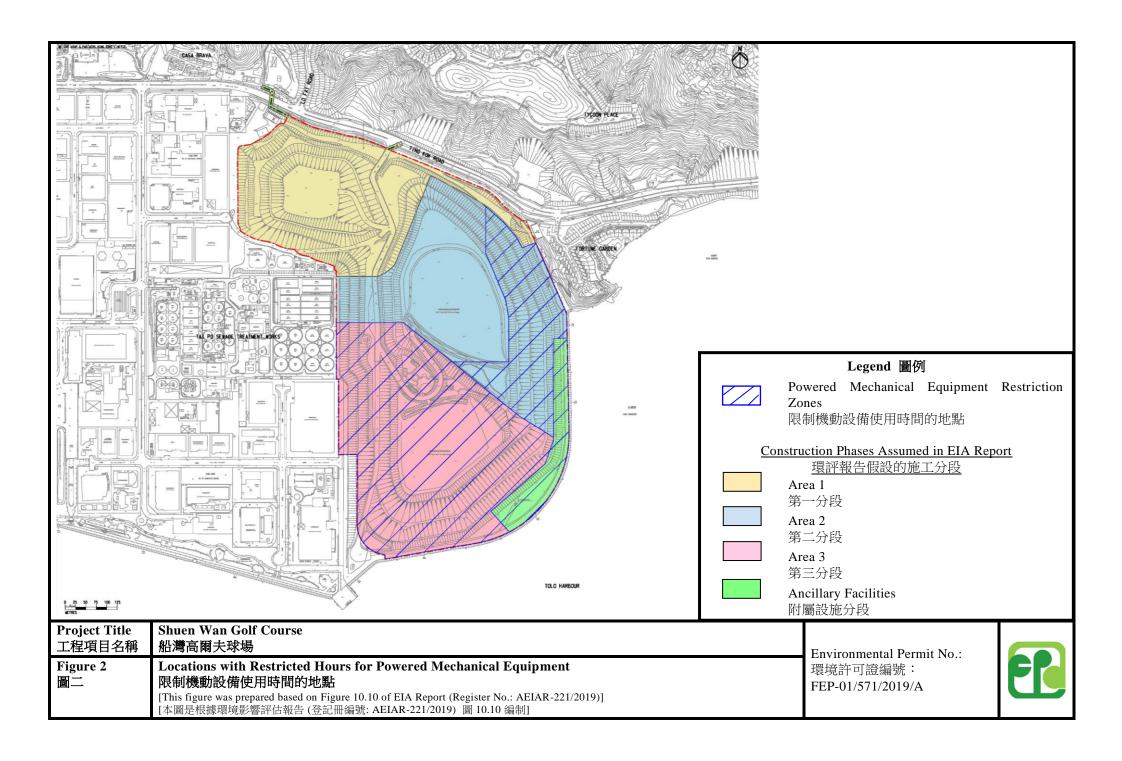
3. Conclusion

- 3.1.1 In order to minimize the potential construction adverse effect on CC, a proposed CPP is provided as **Appendix 2.3**, with the consideration of the site constraints and approved MLP (**Appendix 2.2**).
- 3.1.2 The currently proposed CPP is basically following the principles of minimizing the potential adverse impacts to CC proposed during the EIA stage:
 - a) The current CPP divides the construction phases into 3 phases, this can enable existing plantation trees to be lost gradually, so that the roosting habitats will not be impacted in one time.
 - b) The construction works near the core roosting area would fall under the last phase.
 - c) New planting will be provided gradually.

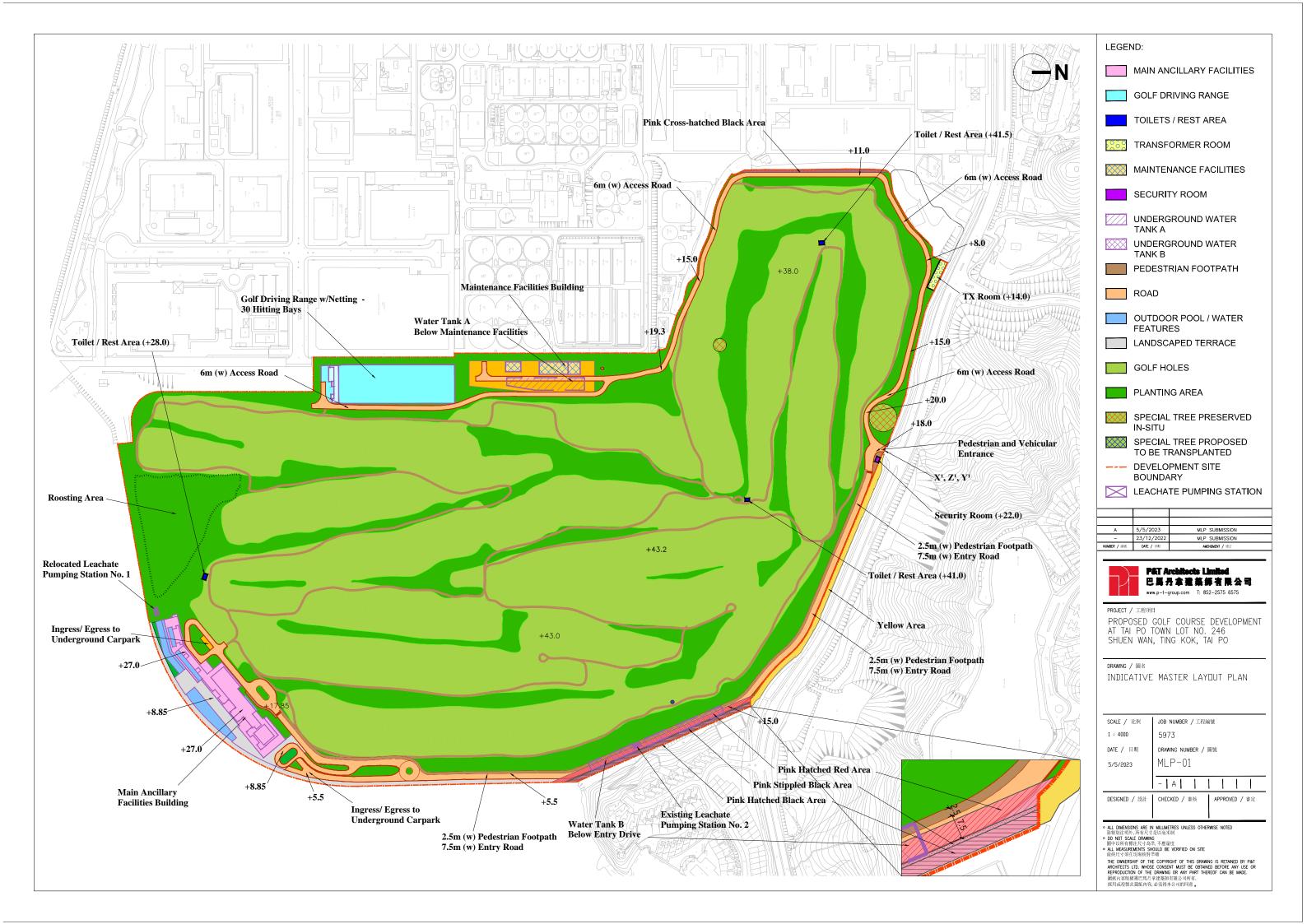
Figure 1 of FEP-01/571/2019/A



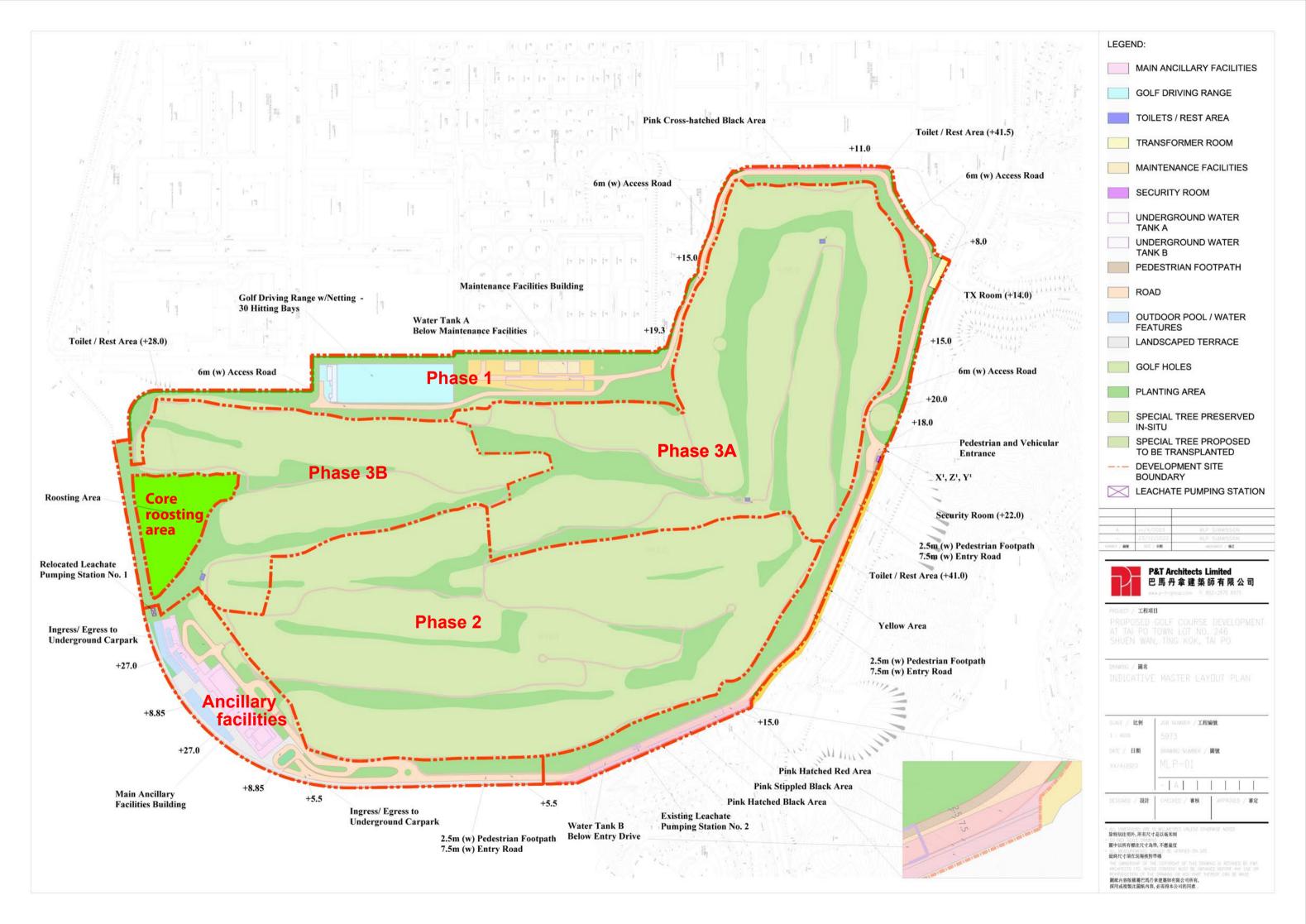
Figure 2 of FEP-01/571/2019/A



Master Layout Plan



Construction Phasing Plan



Implementation Schedule of Recommended Mitigation Measures

Construction Phasing Plan Implementation Schedule Shuen Wan Golf Course

CPP Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location	Implementation Stage
S2.5.2 - S2.5.7	 To carry out the construction works by phases according to the current CPP in Appendix 2.3, which can: Enable existing plantation trees to be lost gradually, so that the roosting habitats will not be impacted in one time. Allow the construction works near the core roosting area would fall under the last phase. 	To minimise duration of impact	Contractor	Works area	Construction stage
S2.5.2	The core roosting area will be fenced off before commencement of construction phase	To further protect the core roosting area from construction disturbance	Contractor	Around the core roosting area	Construction stage
S2.5.8	Planting of new trees: Upon completion of site formation at each phase, landscape planting will be implemented immediately before the beginning of next phase such that new tree groups aiming for roosting site provision will be planted before site clearance in the next phase.	To compensate plantation loss and provide roosting sites for Black Kite and Collared Crow	Contractor	The Project Site	Construction stage