

**RURAL AND NEW TOWN PLANNING COMMITTEE
OF THE TOWN PLANNING BOARD**

**RNTPC Paper No. 7/15
For Consideration by the
Rural and New Town
Planning Committee
on 8.5.2015**

**PROPOSED AMENDMENTS TO THE
DRAFT LUNG YEUK TAU AND KWAN TEI SOUTH
OUTLINE ZONING PLANNO. S/NE-LYT/15**

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OUTLINE ZONING PLAN NO. S/NE-LYT/15**

1. Introduction

This paper is to seek Members' agreement that:

- (a) the proposed amendments to the draft Lung Yeuk Tau and Kwan Tei South (LYT) Outline Zoning Plan (OZP) No. S/NE-LYT/15 as shown on the draft LYT OZP No. S/NE-LYT/15B (**Annex B**) and its Notes (**Annex C**) are suitable for exhibition for public inspection under section 7 of the Town Planning Ordinance (the Ordinance); and
- (b) the revised Explanatory Statement (ES) of the OZP (**Annex D**) is an expression of the Town Planning Board (the Board)'s planning intentions and objectives for various land use zones of the OZP, and is suitable for exhibition together with the OZP and its Notes.

2. Status of the Current OZP

- 2.1 On 1.6.2010, the Chief Executive in Council (CE in C), under section 9(1)(a) of the Ordinance, approved the draft LYT OZP, which was subsequently renumbered as S/NE-LYT/14. On 7.2.2012, the CE in C referred the approved OZP to the Board for amendment under section 12(1)(b)(ii) of the Ordinance.
- 2.2 On 16.3.2012, the draft LYT OZP No. S/NE-LYT/15, incorporating amendments mainly to rezone the major part of the ex-Burma Lines Military Site (known as the Queen's Hill site) from "Comprehensive Development Area" (originally intended for comprehensive residential cum open space development) and "Government, Institution or Community" ("G/IC") to "Government, Institution or Community (2)" ("G/IC(2)") to facilitate the development of self-financing post-secondary educational institutions and/or international school use, and to add a set of Notes for the "G/IC(2)" zone, was exhibited for public inspection under section 5 of the Ordinance. Upon expiry of the two-month exhibition period on 16.5.2012, one representation was received. On 8.6.2012, the Board decided that the representation was invalid as it was not related to the amendment items.
- 2.3 On 12.3.2013, the draft LYT OZP No. S/NE-LYT/15A was submitted to the CE in C for approval in accordance with section 8 of the Ordinance but the decision on the draft OZP was deferred by the CE in C pending further land use review. Since then, effort has been made by relevant departments to explore the suitable

land use of the Queen's Hill site. An engineering feasibility study (EFS) was also carried out to ascertain the feasibility of the land use proposal(s) and identify the infrastructural works required. On 14.4.2015, the CE in C ordered that the draft OZP be referred back to the Board for further amendment under section 9(1)(c) on the basis that the Queen's Hill site be developed for uses including public housing, private housing, international school and public open space.

3. The Proposed Amendments

- 3.1 It was stated in the 2013 Policy Address that the Government would adopt a multi-pronged approach to increase the land supply to meet the housing and other development needs of Hong Kong. To optimize the use of land, the Government has continued reviewing various land uses and rezoning sites as appropriate and, where the original intended use is no longer required, converting the land for housing development. The Queen's Hill site, which was readily available and entirely on government land, has potential for housing development, including public housing.
- 3.2 In July 2013, the Education Bureau (EDB) indicated that while there was no objection to the potential public housing development at the Queen's Hill site, consideration should be given to reserving a site for the development of a through-train international school.
- 3.3 On 29.1.2014, the proposal to release the western part of the Queen's Hill site for public housing development was announced in the Legislative Council Panel on Development and Panel on Housing Joint Meeting. It was also announced that the Government would conduct feasibility studies for the private housing and international school use in the eastern part of the Queen's Hill site.
- 3.4 The 2014 Policy Address announced that except for the north of Hong Kong Island and Kowloon Peninsula, which are more densely populated, the Government considers it feasible to generally increase the maximum domestic plot ratio (PR) currently permitted for the other "density zones" in the territory by around 20% as appropriate. In implementing these measures, the Government will duly consider factors such as traffic and infrastructural capacities, local characteristics, existing development intensity and the various possible impacts of the proposed development on the areas concerned.

Proposed Public Housing Development at the Western Part of Queen's Hill Site

Item A1 – Rezoning a site from "G/IC(2)" to "Residential (Group A)" ("R(A)") (about 13.56 ha)

Item A2 – Rezoning a site from "Residential (Group C)" ("R(C)") to "R(A)" (about 0.17 ha)

Item A3 – Rezoning two sites from "Agriculture" ("AGR") to "R(A)" (about 0.04 ha)

(Plans 1 to 3, 4a to 4c)

- 3.5 The proposed Item A site, involving Items A1 to A3 and covering a total site area of about 13.77 ha, is located about 2 km northeast of the Fanling/Sheung Shui New Town. The site is surrounded by Queen's Hill to the east, well-vegetated

knolls and Pat Sin Leng Country Park to the south and agricultural land intermixed with rural settlement to the north and west. The site is largely government land except about 0.15 ha of private land with temporary structures adjacent to Lung Ma Road (Photo 6 in **Plan 4c**). The site is currently accessible via a rural access of Lung Ma Road leading to Sha Tau Kok Road (**Plans 2 and 3**).

- 3.6 The site is at present largely zoned “G/IC(2)” on the LYT OZP and was originally intended primarily for the development of self-financing post-secondary educational institutions and/or international school use. Since the site is readily available and mainly government land, it is considered suitable for public housing development to meet the acute demand for public housing in the short to medium-term. EDB has been consulted and indicates no objection to the proposed development at the site provided that a site could be reserved for the development of a through-train international primary and secondary school (**Amendment Item C**).
- 3.7 The western part of the Queen’s Hill site is relatively flat and low-lying and close to the vehicular access of Lung Ma Road. It is considered more suitable for high-density public housing development including public rental housing (PRH) and Subsidised Sale Flats (SSF) (**Item A1**). For better layout and site utilization, two strips of land sandwiched between the site intended for public housing development and Lung Ma Road, and to the immediate north of the Queen’s Hill site (**Plan 2**) are proposed to be included in the public housing development (**Items A2 and A3**). To support the future population, two primary schools will be provided within the development site.
- 3.8 The site is located to the northeast of the Fanling/Sheung Shui New Town which is a density zone 2 with a PR of 5 according to the Hong Kong Planning Standards and Guidelines (HKPSG) and is close to vehicular access of Lung Ma Road. The technical feasibility of increasing the development intensity of the site by 20% which is up to PR 6 for the public housing development has been undertaken.

Rezoning Proposal

- 3.9 It is proposed to rezone the sites of Items A1, A2 and A3 from “G/IC(2)”, “R(C)” and “AGR” to “R(A)” for high-density public housing development, including PRH and SSF. A maximum PR of 6 and a maximum building height (BH) of 145mPD are proposed. It is estimated that the site could provide about 12,000 flats. Major development parameters for the proposed public housing development are summarized below:

Proposed Zoning	“R(A)”
Gross Site Area	about 13.77 ha
Maximum PR	6
Maximum GFA ^{Note 1}	about 551,400 m ² (incl. non-domestic GFA for a market, retail and commercial uses, a covered public transport terminus, and a

	government complex for a community hall and social welfare facilities)
Maximum BH	145mPD (about 40 storeys)
No. of Flats ^{Note 1}	about 12,000 units (about 8,840 units for PRH about 3,160 units for SSF)
No. of Blocks ^{Note 1}	13
Local Open Space ^{Note 1}	not less than 34,300 m ²
Car Parking and Loading/Unloading (L/UL) Facilities ^{Note 1}	- Private car (domestic): 433 - Private car (visitor): 18 - Motorcycle: 100 - L/UL (domestic): 13 - Bicycle: 801
Estimated Population ^{Note 1}	34,300

Note 1: Based on the latest draft development scheme prepared by the Housing Department (HD) for the public housing development at Queen’s Hill which is subject to change at the detailed design stage.

Proposed Private Housing Development at the Northeastern Part of Queen’s Hill Site

Item B – Rezoning a site from “G/IC(2)” to “Residential (Group B)” (“R(B)”) (about 3.97 ha)

(Plans 1 to 3 and 4d)

- 3.10 The proposed Item B site, covering an area of about 3.97 ha, is part of the “G/IC(2)” zone to the northeast of the proposed Queen’s Hill public housing development and to the south of the village settlement of Fu Tei Pai (**Plans 2 and 3**). The site is government land comprising platforms of different level scattered with vacant structures of the ex-Burma Lines Military Site. As the site is relatively isolated and enjoys views from the rural setting, it is considered suitable for medium-density private housing development to meet the long-term housing demand.
- 3.11 The northeastern part of the Queen Hill site is located further away from the Fanling/Sheung Shui New Town and is close to a small knoll of Queen’s Hill to its immediate east with a height of 85mPD. It is considered more suitable to make reference to the density zone 3, i.e. a maximum PR of 3 according to HKPSG, in stipulating the appropriate development intensity for the site proposed for private housing development. To maximize the development potential of this housing land, a PR of 3.6 is proposed, which is equivalent to the maximum of density zone 3 (i.e. PR 3) with a 20% increase.

Rezoning Proposal

- 3.12 It is proposed to rezone the site at Item B from “G/IC(2)” to “R(B)” for medium-density private housing development subject to a maximum PR of 3.6. To respect the ridgeline of Queen’s Hill, a maximum BH of 85mPD is proposed for the site. It is estimated that the site could provide about 1,900 flats. Major development parameters for the proposed private housing development are summarized below:

Proposed Zoning	“R(B)”
Gross Site Area	about 3.97 ha
Maximum PR	3.6
Maximum GFA	about 114,300m ²
Maximum BH	85mPD (about 17 storeys)
No. of Flats	about 1,900 units ^{Note 1}
Estimated Population	5,700 ^{Note 2}

Note 1: Based on an assumed average flat size of 60 m².

Note 2: Based on an assumed average PPOF of about 3.

Proposed International School Development at the Eastern Part of Queen’s Hill Site

Item C – Rezoning a site from “G/IC(2)” to “G/IC” (about 2.34 ha)

(Plans 1 to 3 and 4e)

3.13 The proposed Item C site, covering an area of about 2.34 ha, is entirely government land and comprises mainly some building structures of the ex-Burma Lines Military Site built on several platforms where dense tree clusters can be found (**Plans 2 and 3**). Taking into account its topography and secluded location, the site is considered suitable for international school development as requested by EDB.

Rezoning Proposal

3.14 It is proposed to rezone the site at Item C from “G/IC(2)” to “G/IC” for international school use.

Proposed Public Open Space at the Southern Part of Queen’s Hill Site

Item D – Rezoning a site from “G/IC(2)” to “Open Space” (“O”) (about 3.68 ha)

(Plans 1 to 3 and 4f)

3.15 The proposed Item D site, covering an area of about 3.68 ha and located to the south of the proposed Queen’s Hill public housing development, is proposed to be reserved for district open space use to meet the needs of the future population increase and the wider district. The site is characterized with extensive woodland and undulating terrain with pleasant greenery setting. A Hindu Temple, which is a Grade 3 historic building, is located in the east of the site (**Plans 2 and 3**). It is recommended that the design of the open space should pay due regard to preserving the existing woodlands and historic building, enhancing natural landscape, minimizing tree felling and reducing site formation work.

Rezoning Proposal

3.16 It is proposed to rezone the site at Item D from “G/IC(2)” to “O” for public open space use.

Proposed GIC Facilities at a Site near the Junction of Sha Tau Kok Road and Lung Ma Road

Item E – Rezoning a site from “R(C)” to “G/IC” (about 0.77 ha)

(Plans 1 to 3 and 4g)

- 3.17 The proposed Item E site, with an area of about 0.77 ha, comprises mainly government land currently being occupied by some structures for domestic use, and an existing CLP Hong Kong Ltd's electricity substation (ESS) near the junction of Sha Tau Kok Road and Lung Ma Road (**Plans 2 and 3**). To facilitate the Queen's Hill development and to meet the needs of the future population in the area, supporting GIC facilities including a new ESS, a sewage pumping station and a divisional fire station cum ambulance depot are required to be provided in the vicinity of the Queen's Hill site. The completion of these facilities would need to tally with the population in-take of the Queen's Hill public housing development tentatively scheduled for 2020/21. The site, which is located near the junction of Sha Tau Kok Road and Lung Ma Road and is in close proximity to the Queen's Hill site, is considered suitable for provision of these GIC facilities. Besides, as the construction of these GIC facilities there will affect the existing public toilet and refuse collection point, these two facilities will be reprovisioned within the site.

Rezoning Proposal

- 3.18 It is proposed to rezone the site at Item E from "R(C)" to "G/IC" for construction of the above-mentioned supporting GIC facilities.

4. Technical Considerations

- 4.1 Broad technical assessments on various aspects, including traffic, environment and infrastructure as well as landscape, visual and air ventilation aspects, have been conducted to ascertain the technical feasibility of the proposed zoning amendments. The adequacy of provision of open space and GIC facilities in the area has also been assessed.

Technical Assessments conducted by the Housing Department

- 4.2 Housing Department (HD) has conducted an environmental assessment study (EAS), visual appraisal (VA), air ventilation assessment (expert evaluation) (AVA(EE)) and tree survey for the proposed public housing development to ascertain that the proposed public housing development would not have unacceptable adverse impacts on the surroundings. A summary each of the various technical assessments carried out by HD are at **Appendices I to IV**.

Visual Aspect

- 4.3 The VA (**Appendix I and Drawings 4, 4a to 4g**) conducted by HD indicates that major visual changes to the existing natural landscape and rural character seem inevitable with the proposed public housing development in such rural setting. Nevertheless, the visual appraisal shows that the proposed development will not generate significant visual impact or adversely affect the visual amenity in the area when viewing from a distance at the vantage points at Fanling Railway Station, Lau Shui Heung Reservoir and Lau Shui Heung Country Trail (VP1, 5 and 6). The visual impact from the vantage points at Hung Leng children's

playground, Kwan Tei bus station and San Uk Tsuen sitting-out area (VP2, 7 and 8) in the surrounding public gathering places are minimal or slight as the view of the proposed development will be largely obstructed by existing vegetation and village neighbourhood.

- 4.4 The likely visual impact of the proposed development at vantage points at the peak of Tsung Shan and Lung Shan Temple (VP3 and 4) will be attenuated by the design features including adoption of various building separation/visual corridors, stepped BH, ample open space, 30% green coverage, green roof and other greening measures. The Chief Town Planner/Urban Design and Landscape, Planning Department (CTP/UD&L, PlanD) has no adverse comment on the VA. HD will continue to explore at the detailed design stage to enhance the visual interest of the proposed development.

Air Ventilation Aspect

- 4.5 HD has undertaken an AVA(EI) (**Appendix II**) to evaluate the potential air ventilation impacts on the pedestrian wind environment within and in the vicinity of the site due to the proposed public housing development. According to the wind data from Mesoscale Model (MM5) published by PlanD and the Hong Kong Observatory, the annual prevailing wind directions are from the north, northeast, east-north-east, east and east-south-east whereas the summer prevailing wind directions vary from the east-south-east, east and southeast. Compared to the condition without the proposed development, the ventilation performance at some areas is expected to be adversely affected, i.e. Ma Liu Shui San Tsuen under summer prevailing SE and ESE wind; low-rise house along Lung Ma Road under annual prevailing NE, ENE and E wind; and Po Kat Tsai under annual prevailing N wind.
- 4.6 Nevertheless, the impact on these localised areas could be reduced by adopting good design features in the development scheme, including the creation of the wind corridor along NE-SW direction (at least 100m) and adequate building separation between high-rise domestic blocks along NE-SW direction (at least 15m). These features are expected to facilitate annual prevailing winds including NE, ENE and E wind to flow across the site. The development also proposes to apply additional improvement measures, including the use of permeable structures at ground level at public housing blocks and creation of an air path along SE-NW direction which will facilitate summer prevailing winds including SE and ESE wind to penetrate the site.
- 4.7 With the above-mentioned features and measures, it is anticipated that the proposed development will not result in significant adverse air ventilation impact on the surrounding areas. The CTP/UD&L, PlanD has no adverse comment on the findings and recommendations of HD's AVA(EI). Nevertheless, given the large scale and tall buildings of the proposed public housing development, quantitative AVA study will be carried out at a later stage to assess the effectiveness of the proposed features and measures, and identify further focus area for improvement.

Environmental Aspect

- 4.8 Based on the EAS (**Appendix III**) conducted by HD for the proposed public housing development, as buffer distance of 5m between main access roads and residential units is provided and no industrial chimney is found within 200m buffer, adverse air quality impact from vehicular and industrial emission is not anticipated. The fixed noise assessment reveals that all residential units will comply with the noise criteria. Regarding the traffic noise impact, with the adoption of mitigation measure such as architectural fin, and installation of acoustic window, the predicted traffic noise levels at most of the noise sensitive receivers are expected to comply with HKPSG. With respect to the proposed public transport terminus (PTT) within the site, it will be covered by a landscape deck. By adopting the design considerations as stipulated in the HKPSG, no adverse noise impact is anticipated arising from the operation of the PTT. The Director of Environmental Protection (DEP) has no adverse comment on the EAS results. HD will further review the housing block layout and carry out environmental study to identify appropriate mitigation measures for enhancement at the detailed design stage.
- 4.9 The site investigation and laboratory testing conducted by HD identified that no soil or ground water remediation is required at the former building for munitions storage and the former vehicle repairing area within the site for public housing development while the soil samples collected from the former petrol filling station and underground fuel oil tank indicated that there are contaminants of heavy metal (lead and arsenic) within the site intended for public housing development. Nevertheless, it is recommended that the contaminated soil (about 75m³) could be rectified by cement solidification/stabilization method. Both the contamination assessment report and remediation action report have been approved by the Environmental Protection Department.

Tree Survey and Landscape Aspect

- 4.10 HD has conducted a preliminary tree survey (**Appendix IV**) to identify trees with high preservation and amenity value within the public housing development boundary. According to the survey findings, there is no recorded Old and Valuable Tree within the site. Most of the tree species identified are commonly found in Hong Kong except the species of *Aquilaria sinensis* (土沉香) and *Magnolia liliiflora* (紫玉蘭) which will be preserved as far as practicable.
- 4.11 Most of the trees within the proposed development will unavoidably be affected as extensive site formation and development works will be involved. In order to minimize and mitigate the impact of proposed public housing development, existing trees and vegetation will be retained as far as practicable. Tree transplanting within the site will be considered if retention in-situ is not feasible. Compensatory tree planting as stipulated in Development Bureau (DEVB) Technical Circular (Works) No. 10/2013 on 'Tree Preservation' will be provided as far as practicable to mitigate and offset for the trees unavoidably felled due to the proposed development. A detailed tree survey will be carried out at a later stage to provide the basis for tree treatment recommendations.

- 4.12 To maximize greening opportunity and achieve compatibility with the surrounding rural neighbourhood and natural habitat, a minimum of 30% greening coverage will be provided by HD in accordance with the planning brief to be prepared to guide the design and development of the proposed public housing development at the site. Reference will also be made to the prevailing guidelines from the Greening, Landscape and Tree Management Section of DEVB on tree preservation during development and tree transplanting.

Technical Assessments conducted by the Civil Engineering and Development Department

- 4.13 An engineering feasibility study (EFS) including various technical assessments on traffic, sewerage, drainage, water supply and environmental impacts and the need for providing the necessary infrastructure in the wider area to support the proposed public housing development at the Queen's Hill site taking account of the development parameters proposed at the site for public and private housing development, and international school use has been carried out by Civil Engineering and Development Department (CEDD) and completed in March 2015. An executive summary of the EFS is at **Appendix V**.
- 4.14 The preliminary traffic impact assessment (PTIA) reveals that all the junctions under assessment will be operating within acceptable capacity after implementation of the proposed improvement measures. Nevertheless, by year 2020 design case upon completion of development in Queen's Hill, some of the junctions assessed will be operating close to their capacities. Therefore, whilst there would be spare capacity to cater for the public housing development, it is recommended that the sites for private housing and international school at Queen's Hill should be completed later to tie in with the proposed Fanling Bypass (Eastern Section) which is tentatively scheduled for completion in 2023.
- 4.15 Lung Ma Road will have sufficient capacity to serve the additional traffic flow generated from Queen's Hill development after upgrading to a 7.3m wide single two-lane carriageway with lay-by at some sections, with 2m wide footpaths on both sides and a 3.5m cycle track on one side. A preliminary estimate of the public transport requirements to meet the demand has been conducted and the public transport operators are expected to adjust and enhance the schedules/frequencies/routings of their services or introduce new routes to meet the additional traffic demand in future. The PTIA has demonstrated that the Queen's Hill development would not cause any significant adverse traffic impact and is acceptable from the traffic point of view. The Commissioner for Transport (C for T) considers the PTIA acceptable in-principle.
- 4.16 A preliminary sewerage impact assessment was conducted and reveals that the projected flow in 2020 was the worst case scenario when the proposed public housing development is completed. In view of priority of this project, the sewage disposal arising from the proposed housing development could be met by temporary allocation of its treatment capacity at Shek Wu Hui Sewage Treatment Works previously committed for other longer term housing projects whereas the other planned developments at Queen's Hill site including the private housing and international school developments should not be completed before 2020. To tally with the population in-take of the Queen's Hill development, a sewage

pumping station is proposed at the junction of Sha Tau Kok Road and Lung Ma Road. In the long run, a site would need to be identified in the Fanling/Sheung Shui area for construction of a sewage treatment works.

- 4.17 An environmental assessment study (EAS) was carried out to identify any potential adverse environmental impact arising from the proposed infrastructural works for supporting the Queen's Hill development. The study reveals that there is no insurmountable environmental problem after the implementation of the proposed mitigation measures. Overall, the EAS concluded that the proposed development would not be environmentally unacceptable both at the construction and operation stages after the implementation of the proposed mitigation measures.
- 4.18 The preliminary drainage impact assessment (PDIA) and water supply study (WSS) also indicate that the existing/planned drainage and waterworks facilities have sufficient capacities to cater for the proposed housing development and there are no insurmountable problems on the drainage and water supply aspects. While temporary arrangement for water supply could be made to cope with the scheduled population in-take of the proposed public housing development in 2020/21, the construction of a new service reservoir with associated trunk and distribution network to cope with the Queen's Hill and other large scale developments in the North District would be required in the long run. The Chief Engineer/Mainland North, Drainage Services Department (CE/MS, DSD) and Chief Engineer/Development (2), Water Supplies Department (CE/Dev(2), WSD) consider the PDIA and WSS acceptable in-principle.

Overall Visual Appraisal conducted by the Planning Department

- 4.19 With respect to the overall visual impact of the proposed public housing, private housing and international school development, the visual appraisal for the Queen's Hill development (**Appendix VI** and **Plans 5, 5a to 5d**) conducted by PlanD concludes that while major visual changes to the existing natural landscape and rural character is inevitable, effort has been made to minimise the impacts to a more acceptable level including the adoption of stepped height profile, visual corridor, adequate building separation and maximization of the green coverage. The visual impact induced by the private housing is considered to be moderate as the proposed development intensity of PR 3.6 is much less than that of the public housing development. For the proposed international school, with reference to an indicative PR of 1.3 and BH of 6 to 7 storeys, its visual impact is unlikely to be significant. Nevertheless, the cumulative visual impact induced by all these developments is undeniably significant. To this respect, the prospective project proponent of these two housing sites would be required to demonstrate that the proposed developments can comply with the established government requirements, including Sustainable Building Design Guidelines (for example building separation, building setback and greenery coverage) to improve the overall visual quality.

Provision of Open Space and GIC Facilities

- 4.20 The provision of GIC facilities and open space within the planning scheme area of

the LYT OZP has been assessed. Based on a planned population of about 52,200 persons, including the estimated population of the proposed public and private housing development at the Queen's Hill site, the provision of social welfare and community facilities could generally meet the demand of the planned population (**Appendix VII**).

- 4.21 According to HKPSG, there will be a shortage of 291 hospital beds. The provision of hospital beds would be monitored and addressed by the Hospital Authority on a regional basis. Three kindergartens and two 30-classroom primary schools will need to be provided within the proposed public housing development to serve the needs of the future population. There will be a shortage of 79 secondary school classrooms and 31 primary school classrooms in the LYT OZP area. Nevertheless, it should be noted that the overall provision of secondary schools is assessed on a district basis and the situation will be closely monitored based on EDB's advice on the need to identify additional sites for school development in the long run.
- 4.22 In view of the anticipated increase in population, a site of about 3.68 ha has been identified for district open space use (**Amendment Item D**). Although there is shortfall of open space provision according to the HKPSG, the demand of open space could be partly met by the surplus provision of the open space in the adjoining areas such as Fanling/Sheung Shui New Town and the situation will be closely monitored with the Leisure and Cultural Services Department on the need to provide more public open space in the area. With respect to the provision of local open space, it would be provided within the housing developments at the Queen's Hill site to meet the needs of its future population.

5. Proposed Amendments to the Draft LYT OZP

The proposed amendments to the draft LYT OZP are shown on the draft Amendment Plan No. S/NE-LYT/15B at **Annex B**. Details of the amendment items are as follows:

- (a) **Item A1 (about 13.56 ha) (Plans 1 and 2)**
Rezoning of a site in the west of the Queen's Hill site from "G/IC(2)" to "R(A)" to facilitate public housing development with the stipulation of a maximum BH of 145 mPD.
- (b) **Item A2 (about 0.17 ha) (Plans 1 and 2)**
Rezoning of a site adjoining to Lung Ma Road and the west of the Queen's Hill site from "R(C)" to "R(A)" to facilitate public housing development with the stipulation of a maximum BH of 145 mPD.
- (c) **Item A3 (about 0.04 ha) (Plans 1 and 2)**
Rezoning of two sites with one site adjoining to Lung Ma Road and the west of the Queen's Hill site, and the another site to the immediate north of the Queen's Hill site from "AGR" to "R(A)" to facilitate public housing development with the stipulation of a maximum BH of 145 mPD.

- (d) Item B (about 3.97 ha) (Plans 1 and 2)
Rezoning of a site in the northeast of the Queen's Hill site from "G/IC(2)" to "R(B)" to facilitate private housing development with the stipulation of a maximum BH of 85 mPD.
- (e) Item C (about 2.34 ha) (Plans 1 and 2)
Rezoning of a site in the east of the Queen's Hill site from "G/IC(2)" to "G/IC" to facilitate international school development.
- (f) Item D (about 3.68 ha) (Plans 1 and 2)
Rezoning of a site in the south of the Queen's Hill site from "G/IC(2)" to "O" to facilitate public open space development.
- (g) Item E (about 0.77 ha) (Plans 1 and 2)
Rezoning of a site near the junction of Sha Tau Kok Road and Lung Ma Road to facilitate GIC facilities development.

6. Proposed Amendments to the Notes of the Draft LYT OZP

The proposed amendments to the Notes for these zones to incorporate the BH and/or PR restrictions are shown on the revised Notes of the OZP at **Annex C** (with addition in bold and italics and deletions ~~crossed-out~~). The major amendments include:

- (a) Incorporation of a set of Notes for the "R(A)" zone with the stipulation of a maximum PR of 6;
- (b) Incorporation of a set of Notes for the "R(B)" zone with the stipulation of a maximum PR of 3.6;
- (c) Incorporation of a set of Notes for the "O" zone; and
- (d) Deletion of a set of Notes for the "G/IC(2)" zone.

7. Explanatory Statement of the OZP

The ES of the OZP has been revised to take into account the proposed amendments as mentioned in paragraphs 5 and 6 above. Opportunity is also taken to update the general information in the ES to reflect the latest circumstances of the OZP. A copy of the revised ES is at **Annex D** (with the proposed addition in **bold** and *italics* and deletions ~~crossed-out~~).

8. Plan Number

Upon gazetting, the draft OZP will be renumbered as S/NE-LYT/16.

9. Consultation

Departmental Consultation

- 9.1 Relevant bureaux and departments were consulted on the proposed amendments. Comments of Director of Housing (D of H), S for Education, C for T, CE/MN, DSD, CE/Dev(2), WSD, DEP and CTP/UD&L, PlanD have been incorporated into the above paragraphs, where appropriate.
- 9.2 Apart from the above, the following departments have no objection to/no comment on the proposed amendments:
- (a) District Lands Officer/North, Lands Department;
 - (b) District Officer (North);
 - (c) Commissioner of Police;
 - (d) Director of Social Welfare;
 - (e) Director of Leisure and Cultural Services;
 - (f) Chief Architect/Central Management Division 2, Architectural Services Department;
 - (g) Chief Building Surveyor/New Territories West, Buildings Department;
 - (h) Chief Highway Engineer/New Territories East, Highways Department;
 - (i) Director of Electrical and Mechanical Services;
 - (j) Director of Fire Services;
 - (k) Director of Agriculture, Fisheries and Conservation;
 - (l) Head of Civil Engineering Office, Civil Engineering and Development Department;
 - (m) Project Manager (New Territories East), Civil Engineering and Development Department;
 - (n) Head of Geotechnical Engineering Office, Civil Engineering and Development Department; and
 - (o) Antiquities and Monuments Office, Leisure and Cultural Services Department.

Public Consultation

- 9.3 HD consulted the North District Council (NDC) on the proposed public housing development at the Queen's Hill site on 12.6.2014. NDC members, while expressing concerns mainly over the negative traffic impact, requested that the relevant departments complete a robust technical feasibility study and undertake all necessary infrastructural improvements such that the negative impact could be properly mitigated. NDC members requested the relevant departments to brief them again on the findings of the feasibility study and on the infrastructural improvements that will be undertaken. A copy of the extract minutes for the NDC held on 12.6.2014 is enclosed at **Appendix VIIIa**.
- 9.4 Following HD's consultation on the NDC on 12.6.2014, CEDD, HD and PlanD jointly consulted the NDC again on 9.10.2014. NDC rendered its support to the proposed public housing development at the Queen's Hill site but requested that the project be monitored by its housing and town planning working group. A copy of the extract minutes for the NDC held on 9.10.2014 is enclosed at **Appendix VIIIb**. Subsequently, a briefing was made to the NDC's housing and

town planning working group on 2.12.2014 including the proposal to include a strip of land between the Queen's Hill site and Lung Ma Road to the Queen's Hill development, and the need to provide an ESS at a site near the junction of Sha Tau Kok Road and Lung Ma Road to serve the development. Members of NDC's working group had no strong view on the land use proposals subject to technical assessments being undertaken by CEDD. A copy of the extract minutes for the NDC's working group held on 2.12.2014 is at **Appendix VIIIc**.

9.5 The NDC's housing and town planning working group was consulted again by PlanD and CEDD on 30.4.2015 on the finalised rezoning proposals in respect of the draft LYT OZP. Members of the NDC's working group generally supported the proposed amendments to the OZP.

10. Decision Sought

Members are invited to:

- (a) agree to the proposed amendments to the approved LYT OZP No. S/NE-LYT/15 as mentioned in paragraphs 5 and 6 above;
- (b) agree that the amendment Plan No. S/NE-LYT/15B at **Annex B** (to be renumbered to S/NE-LYT/16 upon gazetting) and its Notes at **Annex C** are suitable for exhibition for public inspection under section 7 of the Ordinance;
- (c) adopt the revised ES at **Annex D** as an expression of the planning intentions and objectives of the Board for various land use zones on the draft LYT OZP; and
- (d) agree that the revised ES at **Annex D** is suitable for exhibition for public inspection together with the draft OZP No. S/NE-LYT/15B (to be renumbered to S/NE-LYT/16 upon gazetting).

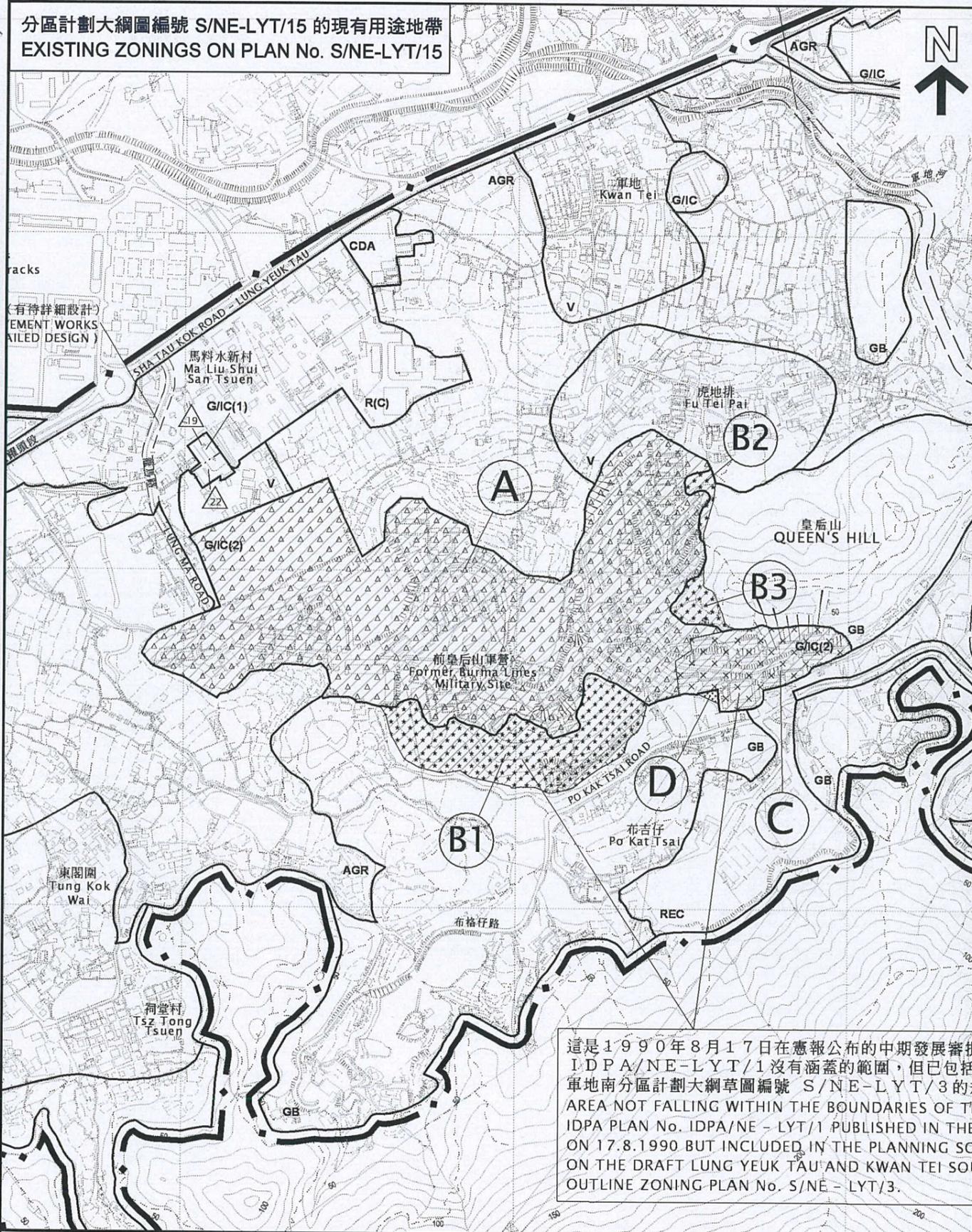
Attachments

Plan 1	OZP Comparison
Plan 2	Site Plan
Plan 3	Aerial Photo
Plans 4a to 4g	Site Photos
Plans 5, 5a to 5d	Viewpoints and Photomontages
Drawing 1	Indicative Development Scheme of Public Housing Development at Queen's Hill
Drawing 2	Indicative Development Scheme of Private Housing Development at Queen's Hill
Drawing 3	Indicative Development Scheme of International School at Queen's Hill
Drawings 4, 4a to 4g	Viewpoints and Photomontages for the Public Housing Development at Queen's Hill prepared by Housing Department
Annex A	Draft Lung Yeuk Tau and Kwan Tei South OZP No. S/NE-LYT/15 (A-3 size)

Annex B	Draft Lung Yeuk Tau and Kwan Tei South OZP No. S/NE-LYT/15B
Annex C	Revised Notes of the draft Lung Yeuk Tau and Kwan Tei South OZP No. S/NE-LYT/15B
Annex D	Revised Explanatory Statement of the draft Lung Yeuk Tau and Kwan Tei South OZP No. S/NE-LYT/15B
Appendix I	Visual Appraisal Report for Proposed Public Housing Development provided by HD
Appendix II	Air Ventilation Assessment (Expert Evaluation) for Proposed Public Housing Development provided by HD
Appendix III	Summary of Environmental Assessment Study and Land Contamination Studies for Proposed Public Housing Development provided by HD
Appendix IV	Summary of Preliminary Tree Survey for Proposed Public Housing Development provided by HD
Appendix V	Executive Summary for Infrastructures for Housing Development at Queen's Hill – Feasibility Study
Appendix VI	Visual Appraisal Report for Queen's Hill Development provided by PlanD
Appendix VII	Provision of Open Space and Major GIC facilities in the draft Lung Yeuk Tau and Kwan Tei South OZP No. S/NE-LYT/15 Planning Area
Appendix VIIIa	Extract of Minutes for North District Council dated 12.6.2014
Appendix VIIIb	Extract of Minutes for North District Council dated 9.10.2014
Appendix VIIIc	Extract of Minutes for North District Council's Housing and Town Planning Working Group dated 2.12.2014

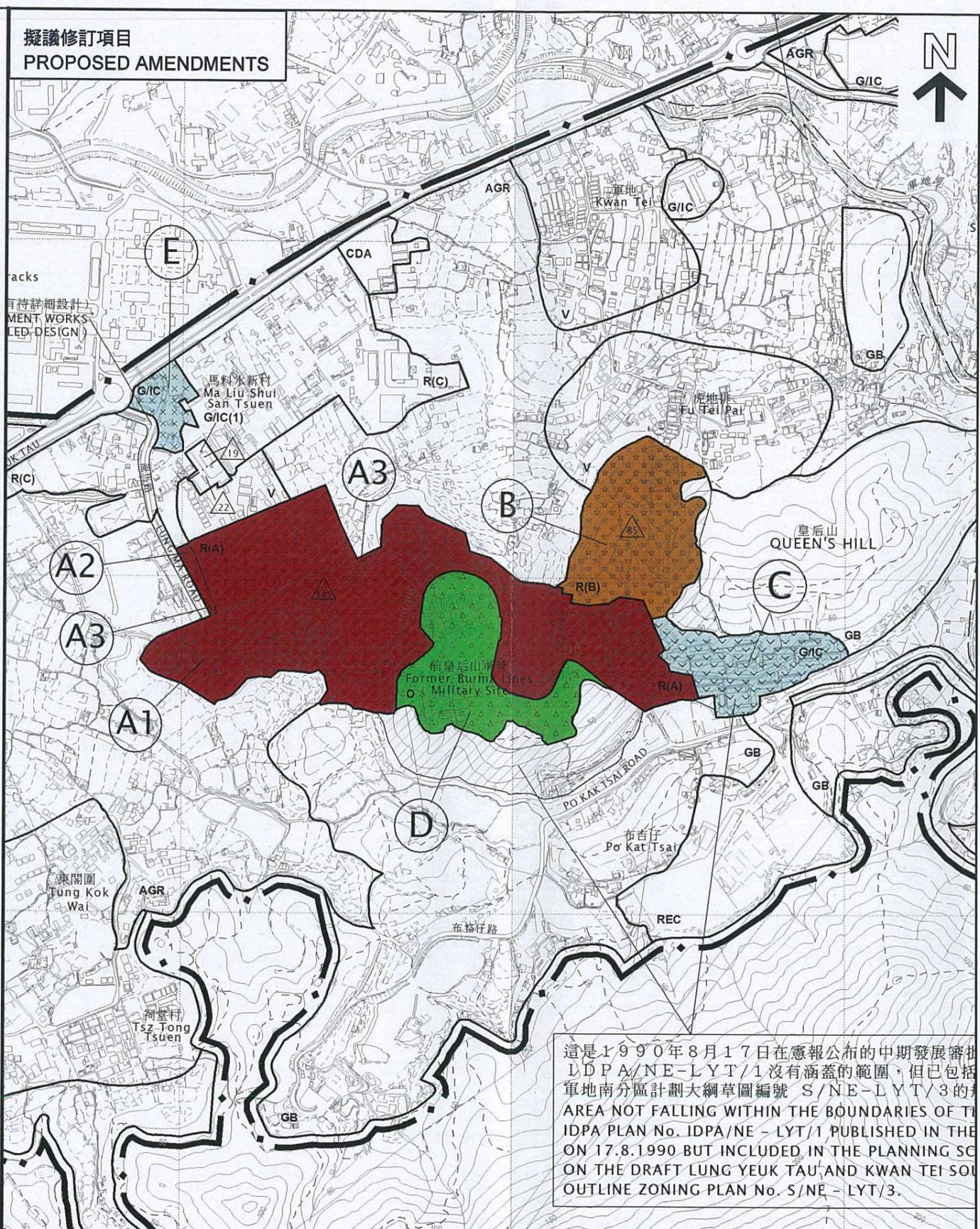
**PLANNING DEPARTMENT
MAY 2015**

分區計劃大綱圖編號 S/NE-LYT/15 的現有用途地帶
EXISTING ZONINGS ON PLAN No. S/NE-LYT/15



這是1990年8月17日在憲報公布的中期發展審批 IDPA/NE-LYT/1 沒有涵蓋的範圍，但已包括軍地南分區計劃大綱草圖編號 S/NE-LYT/3 的 AREA NOT FALLING WITHIN THE BOUNDARIES OF THE IDPA PLAN No. IDPA/NE-LYT/1 PUBLISHED IN THE GAZETTE ON 17.8.1990 BUT INCLUDED IN THE PLANNING SCHEME ON THE DRAFT LUNG YEUK TAU AND KWAN TEI SOUTH OUTLINE ZONING PLAN No. S/NE-LYT/3.

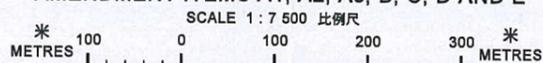
擬議修訂項目
PROPOSED AMENDMENTS



這是1990年8月17日在憲報公布的中期發展審批 IDPA/NE-LYT/1 沒有涵蓋的範圍，但已包括軍地南分區計劃大綱草圖編號 S/NE-LYT/3 的 AREA NOT FALLING WITHIN THE BOUNDARIES OF THE IDPA PLAN No. IDPA/NE-LYT/1 PUBLISHED IN THE GAZETTE ON 17.8.1990 BUT INCLUDED IN THE PLANNING SCHEME ON THE DRAFT LUNG YEUK TAU AND KWAN TEI SOUTH OUTLINE ZONING PLAN No. S/NE-LYT/3.

本摘要圖於2015年4月17日撥備，所根據的資料為於2012年3月16日核准的分區計劃大綱圖編號S/NE-LYT/15
EXTRACT PLAN PREPARED ON 17.4.2015 BASED ON OUTLINE ZONING PLAN No. S/NE-LYT/15 APPROVED ON 16.3.2012

位置圖 LOCATION PLAN
在龍躍頭及軍地南分區 計劃大綱草圖編號S/NE-LYT/15作出的擬議修訂
修訂項目A1、A2、A3、B、C、D及E
PROPOSED AMENDMENTS TO THE DRAFT LUNG YEUK TAU AND KWAN TEI SOUTH OUTLINE ZONING PLAN No. S/NE-LYT/15
AMENDMENT ITEMS A1, A2, A3, B, C, D AND E

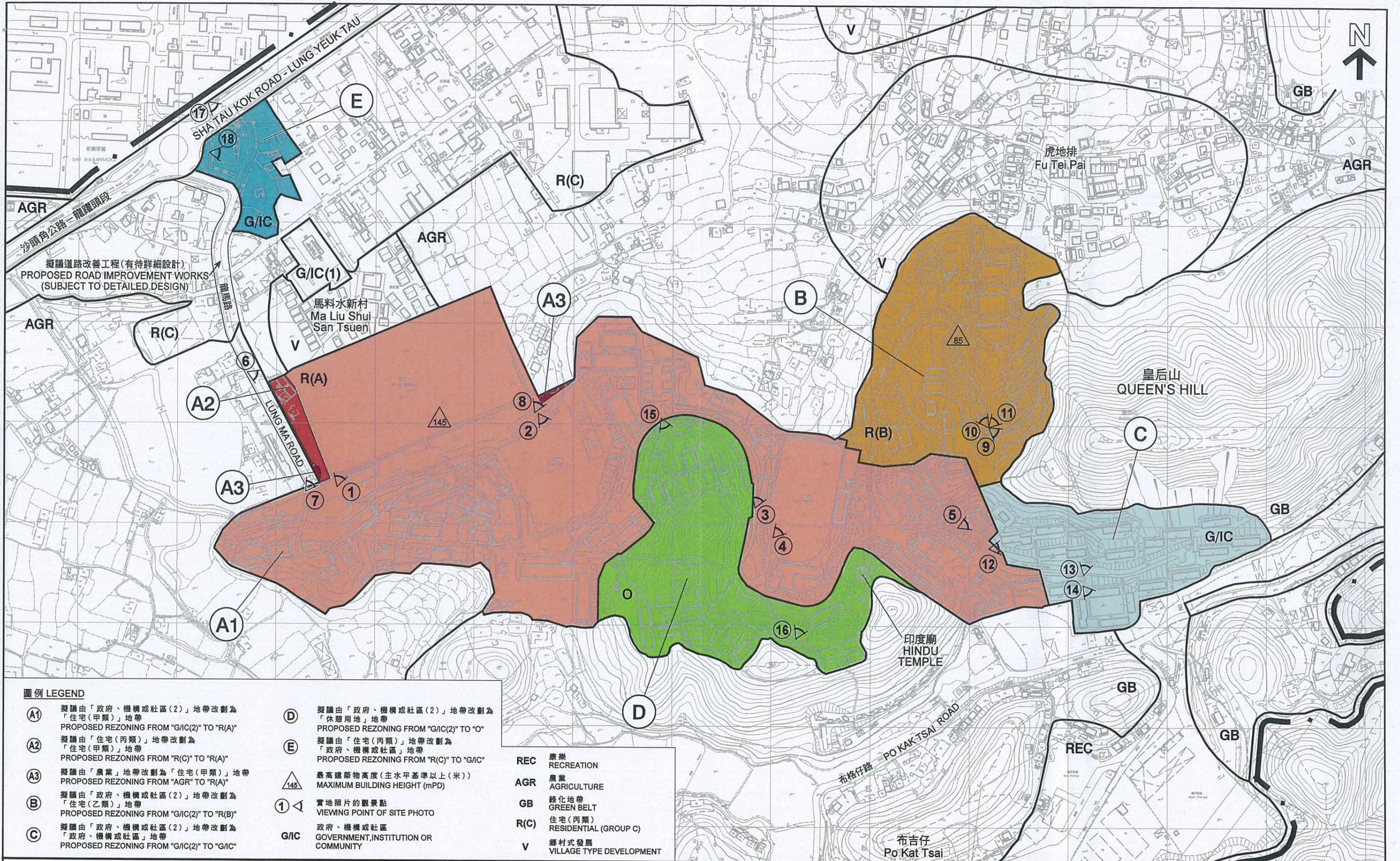


規劃署
PLANNING
DEPARTMENT



參考編號
REFERENCE No.
M/NE/15/17

圖 PLAN
1



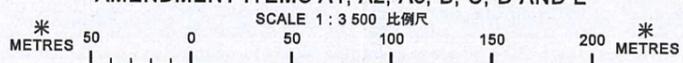
圖例 LEGEND

- A1** 擬議由「政府、機構或社區(2)」地帶改劃為「住宅(甲類)」地帶
PROPOSED REZONING FROM "G/IC(2)" TO "R(A)"
- A2** 擬議由「住宅(丙類)」地帶改劃為「住宅(甲類)」地帶
PROPOSED REZONING FROM "R(C)" TO "R(A)"
- A3** 擬議由「農業」地帶改劃為「住宅(甲類)」地帶
PROPOSED REZONING FROM "AGR" TO "R(A)"
- B** 擬議由「政府、機構或社區(2)」地帶改劃為「住宅(乙類)」地帶
PROPOSED REZONING FROM "G/IC(2)" TO "R(B)"
- C** 擬議由「政府、機構或社區(2)」地帶改劃為「政府、機構或社區」地帶
PROPOSED REZONING FROM "G/IC(2)" TO "G/IC"
- D** 擬議由「政府、機構或社區(2)」地帶改劃為「休憩用地」地帶
PROPOSED REZONING FROM "G/IC(2)" TO "O"
- E** 擬議由「住宅(丙類)」地帶改劃為「政府、機構或社區」地帶
PROPOSED REZONING FROM "R(C)" TO "G/IC"
- 145** 最高建築物高度(主水平基準以上)(米)
MAXIMUM BUILDING HEIGHT (MPD)
- 1** 實地照片的觀景點
VIEWING POINT OF SITE PHOTO
- G/IC** 政府、機構或社區
GOVERNMENT, INSTITUTION OR COMMUNITY

- REC** 康樂
RECREATION
- AGR** 農業
AGRICULTURE
- GB** 綠化地帶
GREEN BELT
- R(C)** 住宅(丙類)
RESIDENTIAL (GROUP C)
- V** 鄉村式發展
VILLAGE TYPE DEVELOPMENT

本摘要圖於2015年4月28日擬備，
所根據的資料為測量圖編號
3-SW-3C、3D、4C、8A、8B、8D、9A和9C
EXTRACT PLAN PREPARED ON 28.4.2015
BASED ON SURVEY SHEETS No.
3-SW-3C, 3D, 4C, 8A, 8B, 8D, 9A & 9C

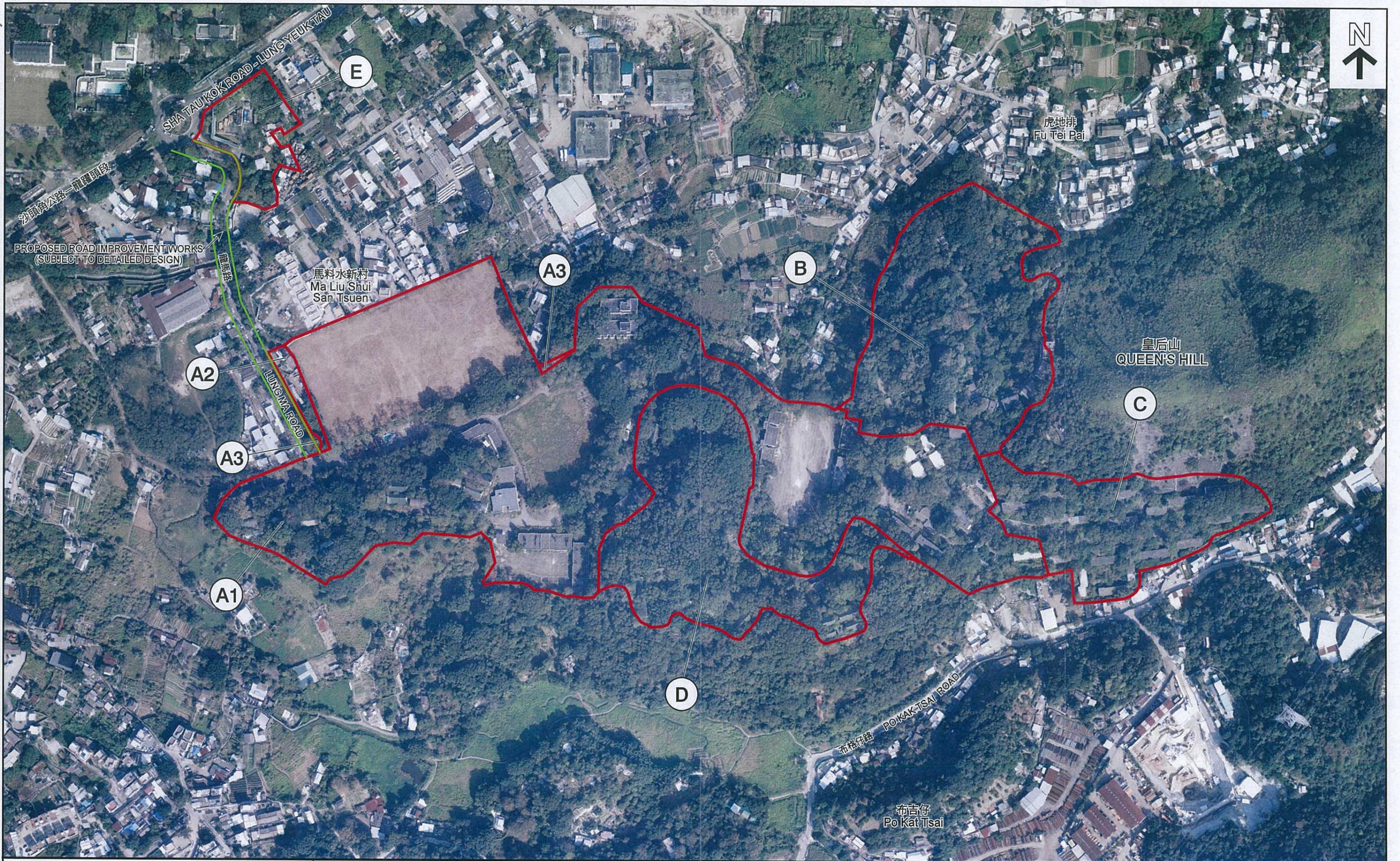
平面圖 SITE PLAN
在龍躍頭及軍地南分區計劃大綱草圖編號S/NE-LYT/15作出的擬議修訂
修訂項目A1、A2、A3、B、C、D及E
PROPOSED AMENDMENTS TO THE DRAFT LUNG YEUK TAU AND KWAN TEI SOUTH OUTLINE ZONING PLAN No. S/NE-LYT/15
AMENDMENT ITEMS A1, A2, A3, B, C, D AND E



規劃署
PLANNING DEPARTMENT
參考編號
REFERENCE No.
M/NE/15/17



圖 **PLAN**
2



本摘要圖於2015年4月17日擬備，
 所根據的資料為地政總署
 於2015年1月2日拍攝的航攝照片編號CS55313
 EXTRACT PLAN PREPARED ON 17.4.2015
 BASED ON AERIAL PHOTO No. CS55313
 TAKEN ON 2.1.2015 BY LANDS DEPARTMENT

航攝照片 AERIAL PHOTO

在龍躍頭及軍地南分區計劃大綱草圖編號S/NE-LYT/15作出的擬議修訂
 修訂項目A1、A2、A3、B、C、D及E
 PROPOSED AMENDMENTS TO THE DRAFT LUNG YEUK TAU AND KWAN TEI SOUTH OUTLINE ZONING PLAN No. S/NE-LYT/15
 AMENDMENT ITEMS A1, A2, A3, B, C, D AND E

規劃署
 PLANNING
 DEPARTMENT



參考編號
 REFERENCE No.
 M/NE/15/17

圖 PLAN
 3



1

項目A1
ITEM A1

攝於2015年1月19日的實地照片
SITE PHOTO TAKEN ON 19.1.2015



2

項目A1
ITEM A1

攝於2015年3月30日的實地照片
SITE PHOTO TAKEN ON 30.3.2015



3

項目A1
ITEM A1

攝於2015年1月19日的實地照片
SITE PHOTO TAKEN ON 19.1.2015

界線只作識別用
BOUNDARY FOR IDENTIFICATION PURPOSE ONLY

實地照片 SITE PHOTO

在龍躍頭及軍地南分區
計劃大綱草圖編號S/NE-LYT/15作出的擬議修訂
修訂項目A1
PROPOSED AMENDMENTS TO
THE DRAFT LUNG YEUK TAU AND KWAN TEI SOUTH
OUTLINE ZONING PLAN No. S/NE-LYT/15
AMENDMENT ITEM A1

**規劃署
PLANNING
DEPARTMENT**



參考編號
REFERENCE No.
M/NE/15/17

圖 PLAN
4a

本圖於2015年4月15日擬備，所根據的資料為攝於2015年1月19日及2015年3月30日的實地照片
PLAN PREPARED ON 15.4.2015 BASED ON SITE PHOTO TAKEN ON 19.1.2015 & 30.3.2015



項目A1
ITEM A1

攝於2015年1月19日的實地照片
SITE PHOTO TAKEN ON 19.1.2015



項目A1
ITEM A1

攝於2015年1月26日的實地照片
SITE PHOTO TAKEN ON 26.1.2015

實地照片 SITE PHOTO

在龍躍頭及軍地南分區
計劃大綱草圖編號S/NE-LYT/15作出的擬議修訂
修訂項目A1
PROPOSED AMENDMENTS TO
THE DRAFT LUNG YEUK TAU AND KWAN TEI SOUTH
OUTLINE ZONING PLAN No. S/NE-LYT/15
AMENDMENT ITEM A1

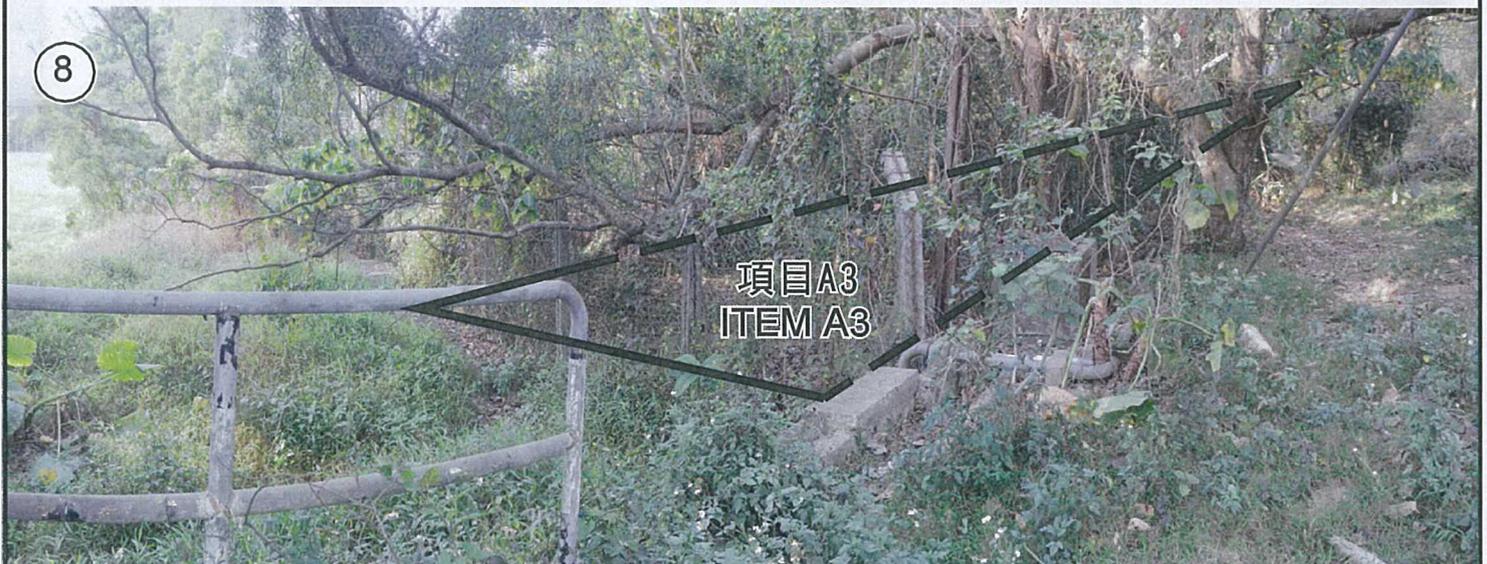
規劃署
PLANNING
DEPARTMENT



參考編號
REFERENCE No.
M/NE/15/17

圖 PLAN
4b

本圖於2015年4月15日擬備，所根據
的資料為攝於2015年1月19日及
2015年1月26日的實地照片
PLAN PREPARED ON 15.4.2015 BASED ON
SITE PHOTO TAKEN ON 19.1.2015 &
26.1.2015



界線只作識別用
BOUNDARY FOR IDENTIFICATION PURPOSE ONLY

實地照片 SITE PHOTO

本圖於2015年4月27日擬備，所根據的資料為攝於2015年3月30日的實地照片
PLAN PREPARED ON 27.4.2015 BASED ON SITE PHOTO TAKEN ON 30.3.2015

在龍躍頭及軍地南分區
計劃大綱草圖編號S/NE-LYT/15作出的擬議修訂
修訂項目A2及A3
PROPOSED AMENDMENTS TO
THE DRAFT LUNG YEUK TAU AND KWAN TEI SOUTH
OUTLINE ZONING PLAN No. S/NE-LYT/15
AMENDMENT ITEMS A2 & A3

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PLANNING
DEPARTMENT



參考編號
REFERENCE No.
M/NE/15/17

圖 PLAN
4c



實地照片 SITE PHOTO

在龍躍頭及軍地南分區
計劃大綱草圖編號S/NE-LYT/15作出的擬議修訂
修訂項目B
PROPOSED AMENDMENTS TO
THE DRAFT LUNG YEUK TAU AND KWAN TEI SOUTH
OUTLINE ZONING PLAN No. S/NE-LYT/15
AMENDMENT ITEM B

規 劃 署
PLANNING
DEPARTMENT



參考編號
REFERENCE No.
M/NE/15/17

圖 PLAN
4d

本圖於2015年4月15日擬備，所根據
的資料為攝於2015年1月26日
的實地照片
PLAN PREPARED ON 15.4.2015 BASED ON
SITE PHOTO TAKEN ON 26.1.2015



項目C
ITEM C



項目C
ITEM C



項目C
ITEM C

實地照片 SITE PHOTO

本圖於2015年4月15日擬備，所根據的資料為攝於2015年1月26日的實地照片
PLAN PREPARED ON 15.4.2015 BASED ON SITE PHOTO TAKEN ON 26.1.2015

在龍躍頭及軍地南分區
計劃大綱草圖編號S/NE-LYT/15作出的擬議修訂
修訂項目C
PROPOSED AMENDMENTS TO
THE DRAFT LUNG YEUK TAU AND KWAN TEI SOUTH
OUTLINE ZONING PLAN No. S/NE-LYT/15
AMENDMENT ITEM C

規 劃 署
PLANNING
DEPARTMENT



參考編號
REFERENCE No.
M/NE/15/17

圖 PLAN
4e



攝於2015年1月19日的實地照片
SITE PHOTO TAKEN ON 19.1.2015



攝於2015年3月30日的實地照片
SITE PHOTO TAKEN ON 30.3.2015

界線只作識別用
BOUNDARY FOR IDENTIFICATION PURPOSE ONLY

實地照片 SITE PHOTO

在龍躍頭及軍地南分區
計劃大綱草圖編號S/NE-LYT/15作出的擬議修訂
修訂項目A1及D
PROPOSED AMENDMENTS TO
THE DRAFT LUNG YEUK TAU AND KWAN TEI SOUTH
OUTLINE ZONING PLAN No. S/NE-LYT/15
AMENDMENT ITEMS A1 AND D

規 劃 署
PLANNING
DEPARTMENT



參考編號
REFERENCE No.
M/NE/15/17

圖 PLAN
4f

本圖於2015年4月27日擬備，所根據
的資料為攝於2015年1月19日及
2015年3月30日的實地照片
PLAN PREPARED ON 27.4.2015 BASED ON
SITE PHOTO TAKEN ON 19.1.2015 &
30.3.2015



17

項目E
ITEM E



18

項目E
ITEM E

界線只作識別用
BOUNDARY FOR IDENTIFICATION PURPOSE ONLY

實地照片 SITE PHOTO

在龍躍頭及軍地南分區
計劃大綱草圖編號S/NE-LYT/15作出的擬議修訂
修訂項目E
PROPOSED AMENDMENTS TO
THE DRAFT LUNG YEUK TAU AND KWAN TEI SOUTH
OUTLINE ZONING PLAN No. S/NE-LYT/15
AMENDMENT ITEM E

規劃署
PLANNING
DEPARTMENT



參考編號
REFERENCE No.
M/NE/15/17

圖 PLAN
4g

本圖於2015年4月15日擬備，所根據
的資料為攝於2015年3月30日
的實地照片
PLAN PREPARED ON 15.4.2015 BASED ON
SITE PHOTO TAKEN ON 30.3.2015



圖例 LEGEND

① ◀ 實地照片的觀景點
VIEWING POINT OF SITE PHOTO

主題地點界線只作識別用
SUBJECT SITE BOUNDARY
FOR IDENTIFICATION PURPOSE ONLY

合成照片的觀景點

VIEWPOINTS OF PHOTOMONTAGE

在龍躍頭及軍地南分區
計劃大綱草圖編號S/NE-LYT/15作出的擬議修訂
PROPOSED AMENDMENTS TO
THE DRAFT LUNG YEUK TAU AND KWAN TEI SOUTH
OUTLINE ZONING PLAN No. S/NE-LYT/15

SCALE 1 : 20 000 比例尺

METRES 200 0 200 400 600 800 1000 METRES

**規劃署
PLANNING
DEPARTMENT**



參考編號
REFERENCE No.
M/NE/15/17

**圖 PLAN
5**

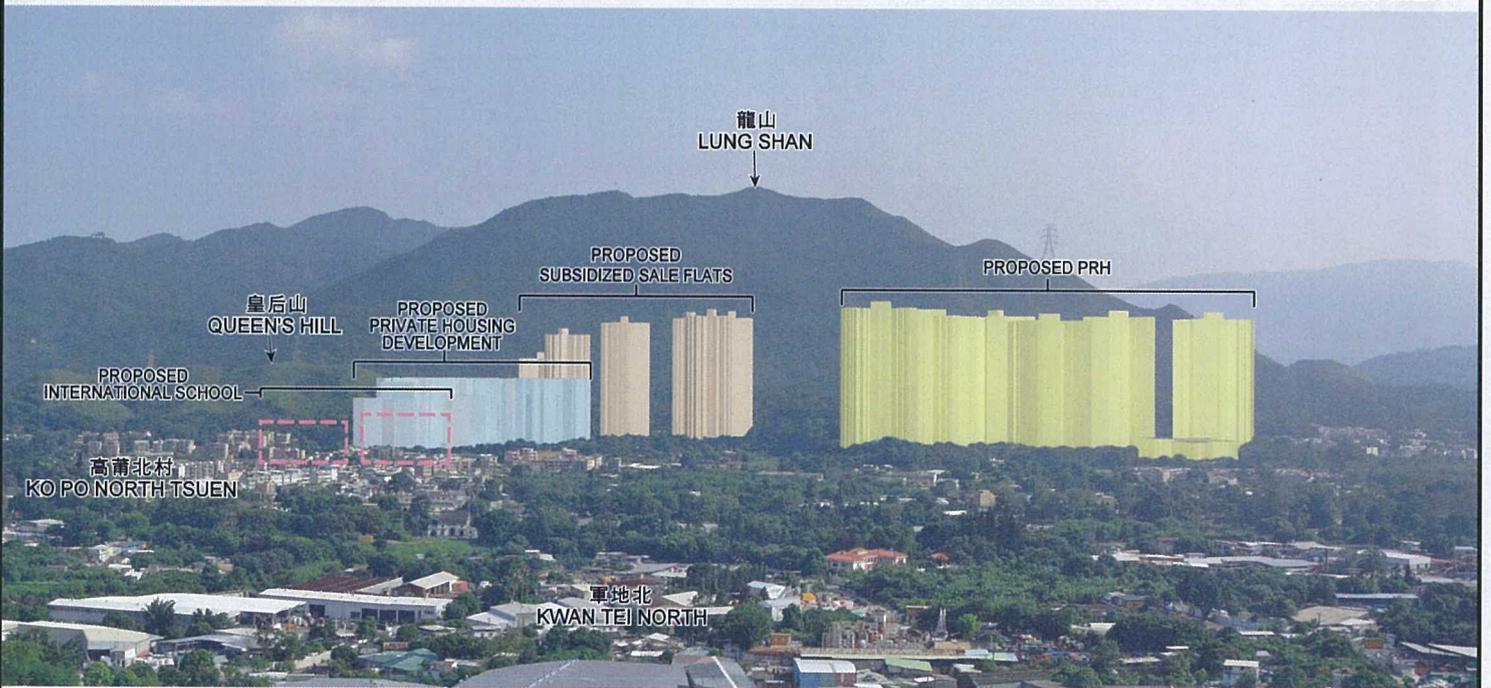
本圖於2015年4月27日擬備，
所根據的資料為系列HM20C編號3
PLAN PREPARED ON 27.4.2015
BASED ON SERIES HM20C SHEET 3

EXISTING VIEW

1



WITH DEVELOPMENT



本圖於2015年5月4日擬備
PLAN PREPARED ON 4.5.2015

合成照片於觀景點1
PHOTOMONTAGE AT VIEWPOINT 1

在龍躍頭及軍地南分區
計劃大綱草圖編號S/NE-LYT/15作出的擬議修訂
PROPOSED AMENDMENTS TO
THE DRAFT LUNG YEUK TAU AND KWAN TEI SOUTH
OUTLINE ZONING PLAN No. S/NE-LYT/15

規畫署
PLANNING
DEPARTMENT



參考編號
REFERENCE No.
M/NE/15/17

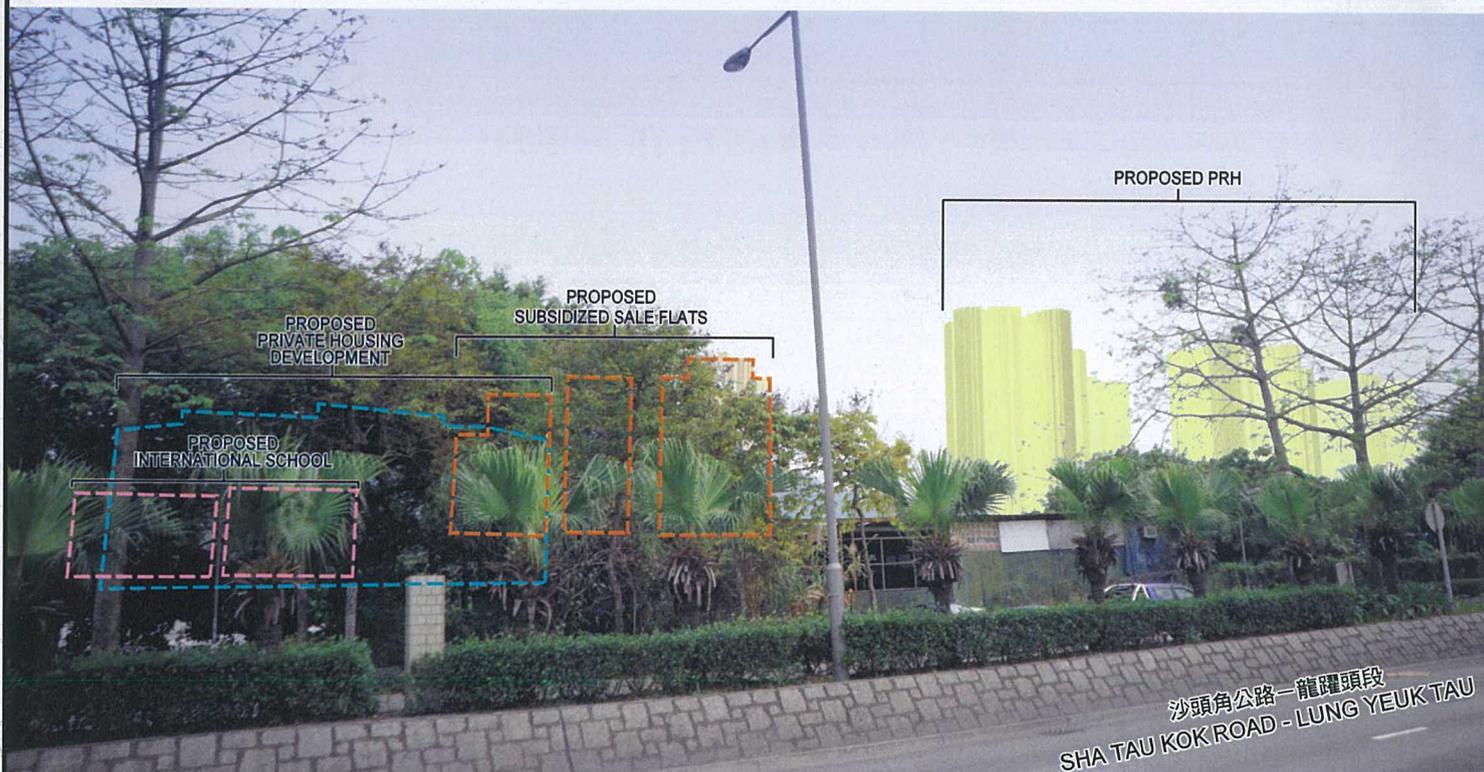
圖 PLAN
5a

EXISTING VIEW

2



WITH DEVELOPMENT



合成照片於觀景點2
PHOTOMONTAGE AT VIEWPOINT 2

在龍躍頭及軍地南分區
計劃大綱草圖編號S/NE-LYT/15作出的擬議修訂
PROPOSED AMENDMENTS TO
THE DRAFT LUNG YEUK TAU AND KWAN TEI SOUTH
OUTLINE ZONING PLAN No. S/NE-LYT/15

規劃署
PLANNING
DEPARTMENT



本圖於2015年5月4日擬備
PLAN PREPARED ON 4.5.2015

參考編號
REFERENCE No.
M/NE/15/17

圖 PLAN
5b

EXISTING VIEW

3

皇后山
QUEEN'S HILL
↓

WITH DEVELOPMENT

PROPOSED PRH

PROPOSED
SUBSIDIZED SALE FLATS

皇后山
QUEEN'S HILL
↓

PROPOSED
PRIVATE HOUSING
DEVELOPMENT

PROPOSED
INTERNATIONAL
SCHOOL

合成照片於觀景點3

PHOTOMONTAGE AT VIEWPOINT 3

在龍躍頭及軍地南分區
計劃大綱草圖編號S/NE-LYT/15作出的擬議修訂
PROPOSED AMENDMENTS TO
THE DRAFT LUNG YEUK TAU AND KWAN TEI SOUTH
OUTLINE ZONING PLAN No. S/NE-LYT/15

規劃署
PLANNING
DEPARTMENT



參考編號
REFERENCE No.
M/NE/15/17

圖 PLAN
5c

本圖於2015年5月4日擬備
PLAN PREPARED ON 4.5.2015

4



WITH DEVELOPMENT



本圖於2015年4月27日擬備
PLAN PREPARED ON 27.4.2015

合成照片於觀景點4
PHOTOMONTAGE AT VIEWPOINT 4

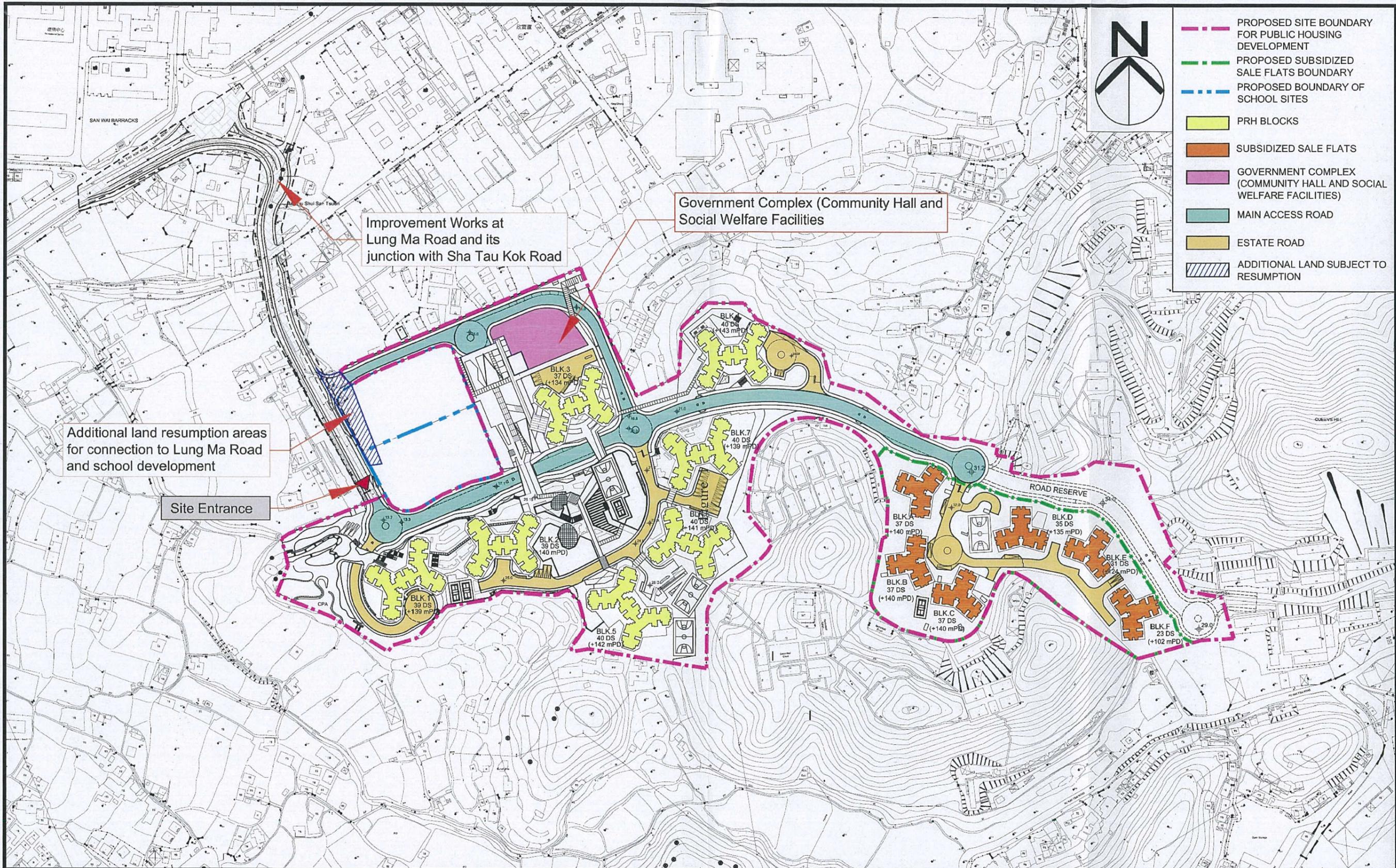
在龍躍頭及軍地南分區
計劃大綱草圖編號S/NE-LYT/15作出的擬議修訂
PROPOSED AMENDMENTS TO
THE DRAFT LUNG YEUK TAU AND KWAN TEI SOUTH
OUTLINE ZONING PLAN No. S/NE-LYT/15

規 劃 署
PLANNING
DEPARTMENT



參考編號
REFERENCE No.
M/NE/15/17

圖 PLAN
5d



PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL SITE, FANLING

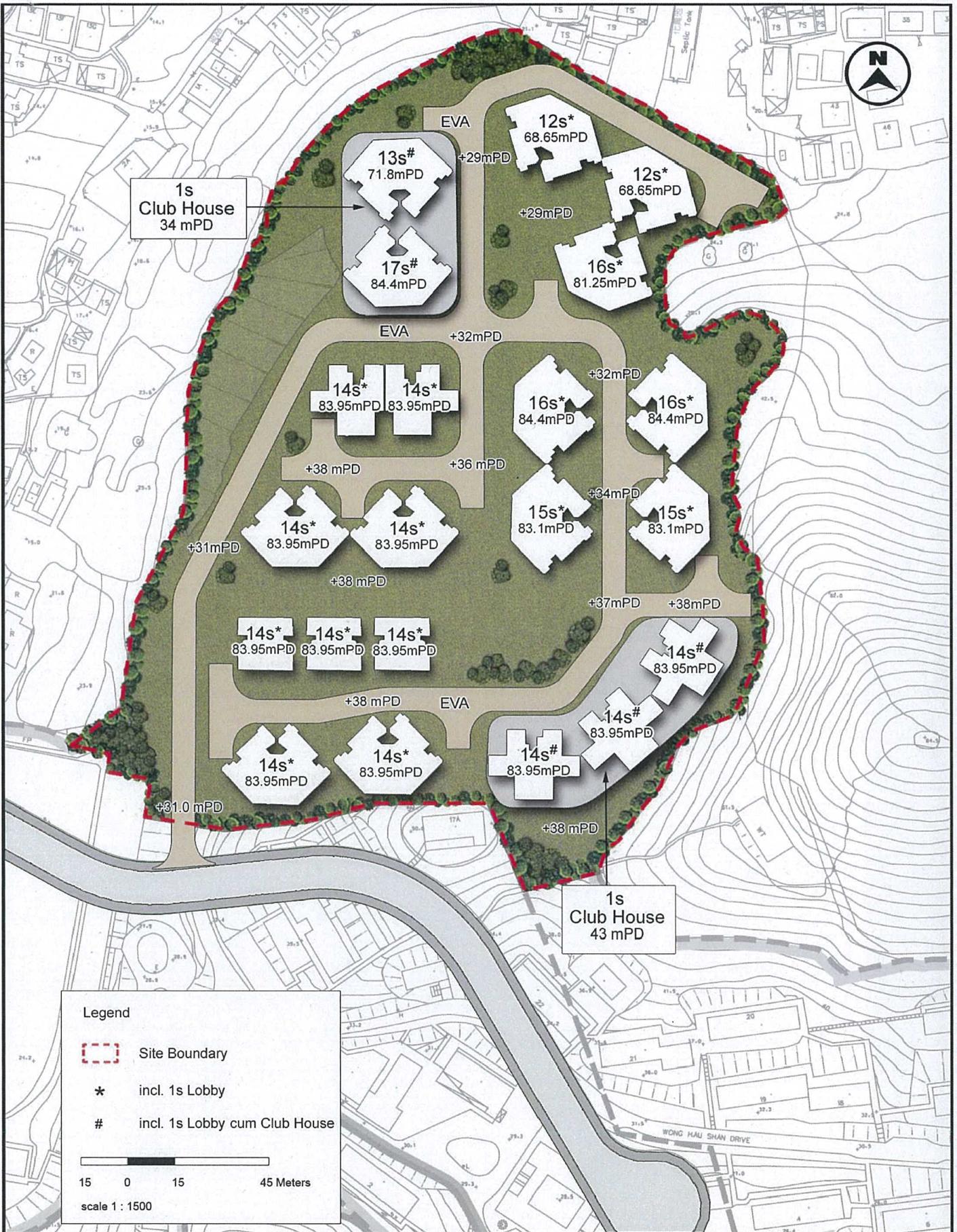
REMARKS: FOR REFERENCE ONLY AND SUBJECT TO CHANGE WHEN NECESSARY.

DRAFT

DRAWING TITLE
MASTER LAYOUT PLAN FOR REZONING (SCHEME 60)
 DRAWING NO.
QH/SITE/A/S60/LO-01 (A)
 SCALE 1:1500 (A1), 1:3000 (A3)
 SOURCE

 **房屋署**
 HOUSING DEPARTMENT

DATE : 20150304



Potential Residential Development at Queen's Hill
Indicative Layout (P.R. 3.6)

PLANNING
DEPARTMENT



File Ref.

24/04/2014

參考編號
REFERENCE No. M/NE/15/17

繪圖 DRAWING 2



Potential International School Development at Queen's Hill Site
Indicative Layout (P.R. 1.3)

PLANNING
DEPARTMENT



File Ref.

1/4/2014

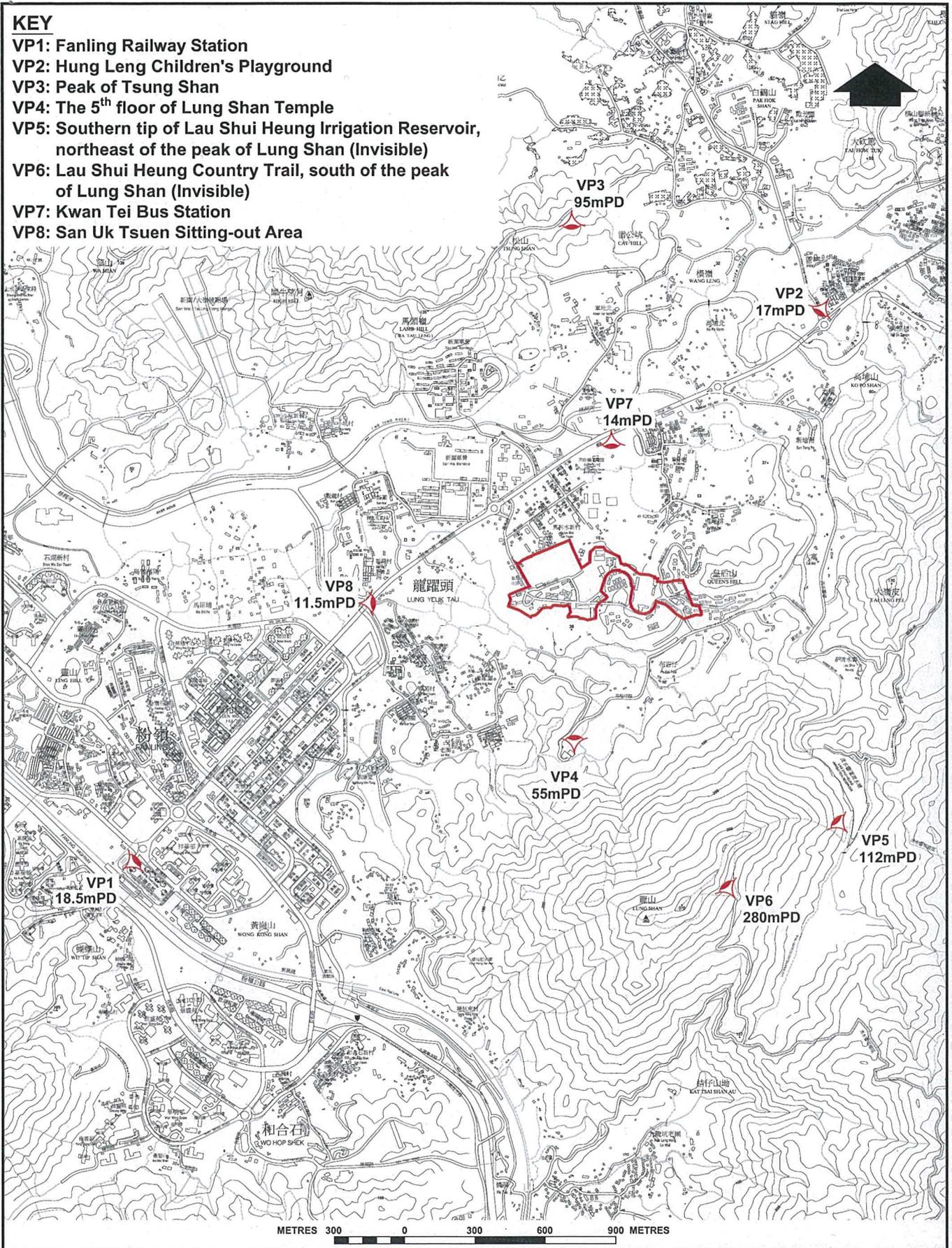
參考編號
REFERENCE No.

M/NE/15/17

繪圖 DRAWING 3

KEY

- VP1: Fanling Railway Station
- VP2: Hung Leng Children's Playground
- VP3: Peak of Tsung Shan
- VP4: The 5th floor of Lung Shan Temple
- VP5: Southern tip of Lau Shui Heung Irrigation Reservoir, northeast of the peak of Lung Shan (Invisible)
- VP6: Lau Shui Heung Country Trail, south of the peak of Lung Shan (Invisible)
- VP7: Kwan Tei Bus Station
- VP8: San Uk Tsuen Sitting-out Area



**VIEWPOINTS LOCATION PLAN
OF QUEEN'S HILL**



**HOUSING DEPARTMENT
PLANNING SECTION**

PLAN 1

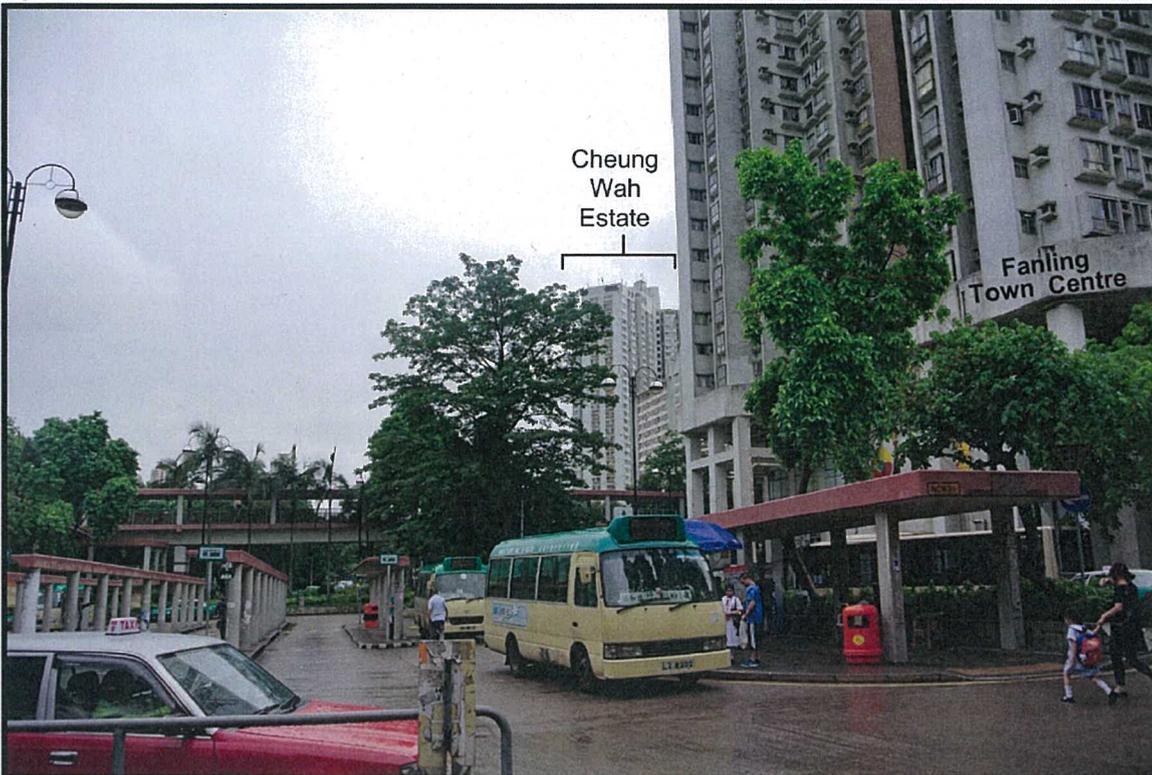
**DATE :
12. 11. 2014**

BASE EXTRACTED FROM SHT. Nos. 3-NW & 3-SW

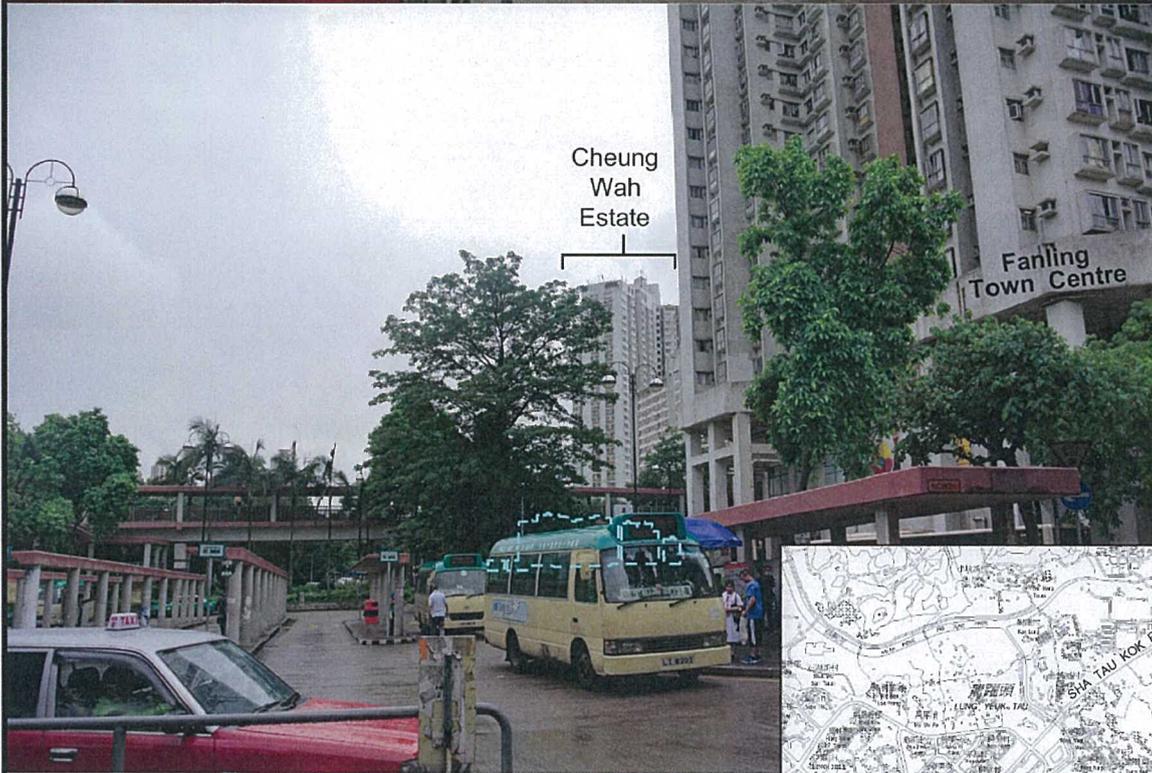
14_1282N_Plan1

參考編號
REFERENCE No. **M/NE/15/17**

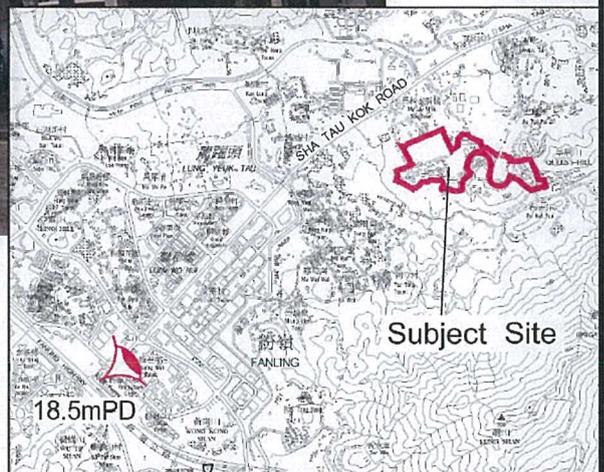
繪圖 **DRAWING 4**



Existing View



With Development



LEGEND:

- Proposed Development
- Behind Existing Features

**PHOTOMONTAGE AT VIEWPOINT 1
(VIEW FROM FANLING RAILWAY STATION)**

**HOUSING DEPARTMENT
PLANNING SECTION**

PLAN 2

**DATE :
28. 4. 2015**

15_0519N_VPI

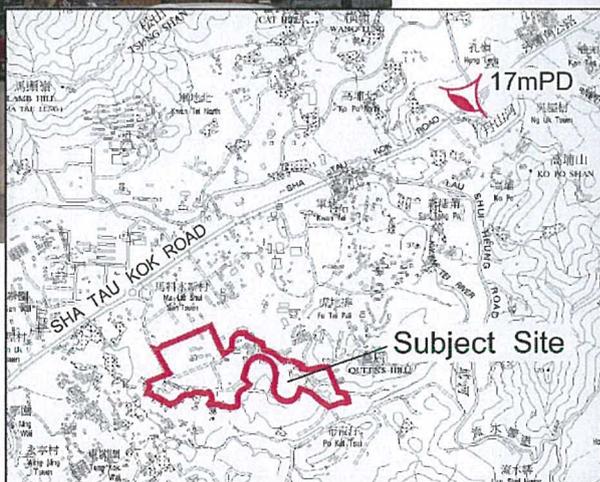
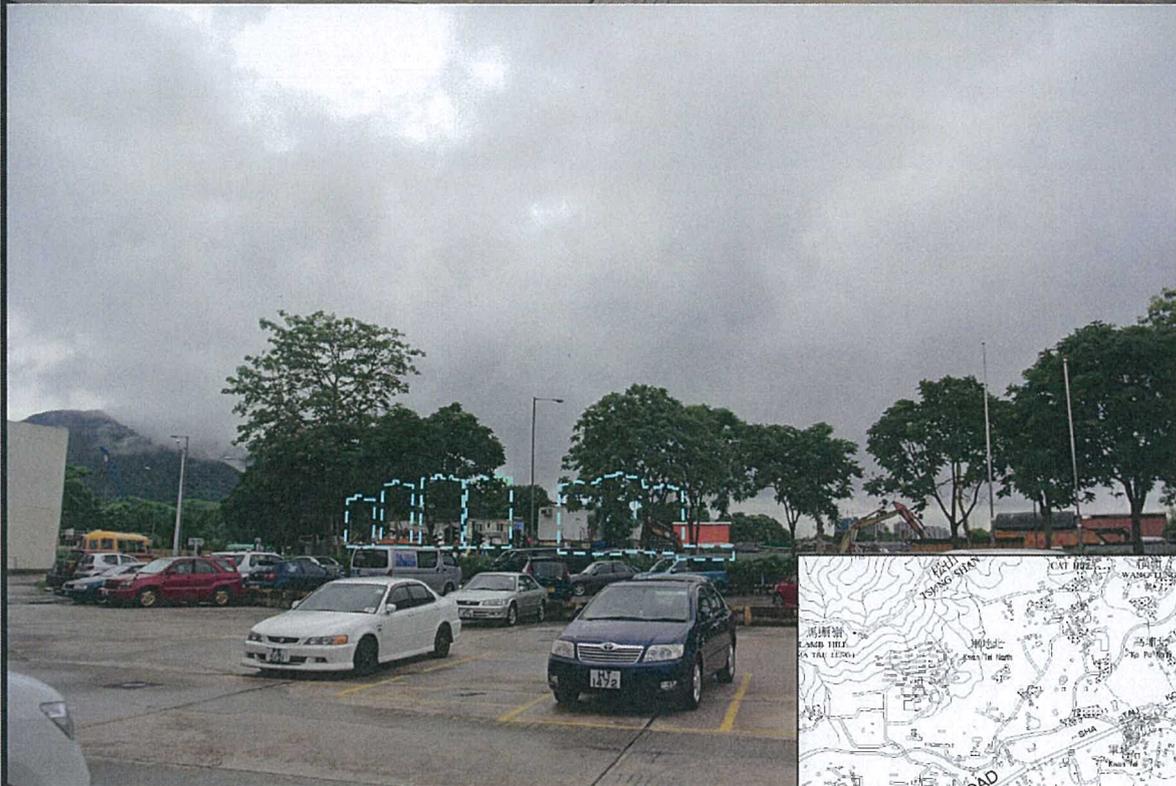
參考編號
REFERENCE No. **M/NE/15/17**

繪圖 **DRAWING 4a**

Existing
View



With
Development



LEGEND:

-  Proposed Development Behind Existing Features

**PHOTOMONTAGE AT VIEWPOINT 2
(VIEW FROM HUNG LENG CHILDREN'S
PLAYGROUND)**



**HOUSING DEPARTMENT
PLANNING SECTION**

PLAN 3

**DATE :
28. 4. 2015**

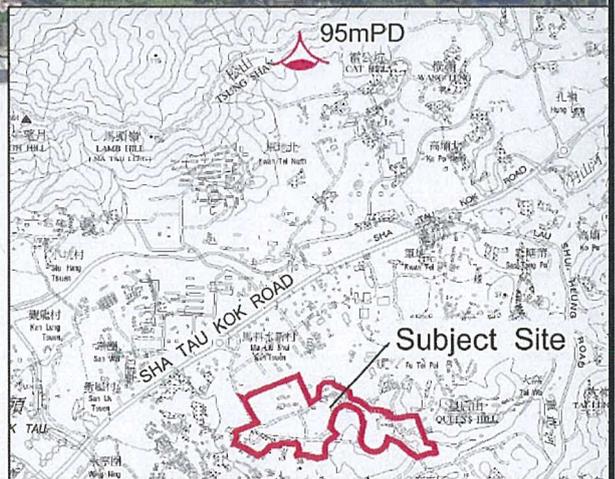
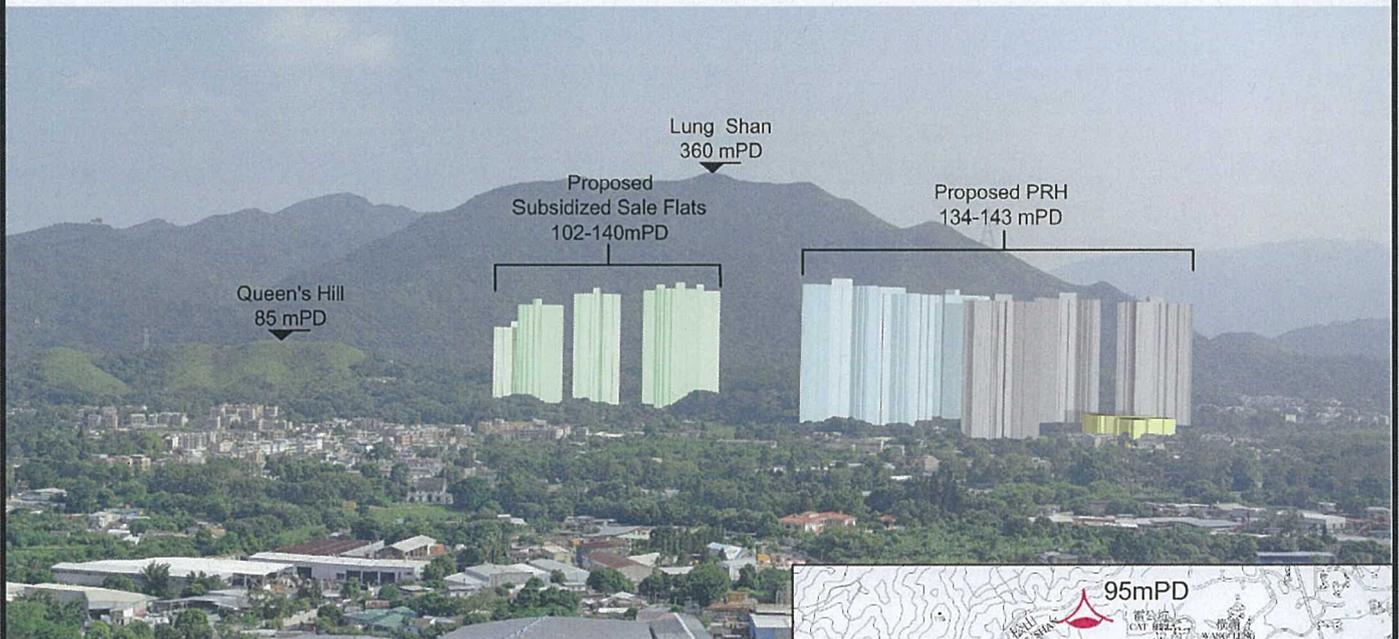
參考編號
REFERENCE No. **M/NE/15/17**

繪圖 **DRAWING 4b**

Existing View



With Development



**PHOTOMONTAGE AT VIEWPOINT 3
(VIEW FROM PEAK OF TSUNG SHAN)**



**HOUSING DEPARTMENT
PLANNING SECTION**

PLAN 4

**DATE :
28. 4. 2015**

15 0519N VP3

參考編號
REFERENCE No.

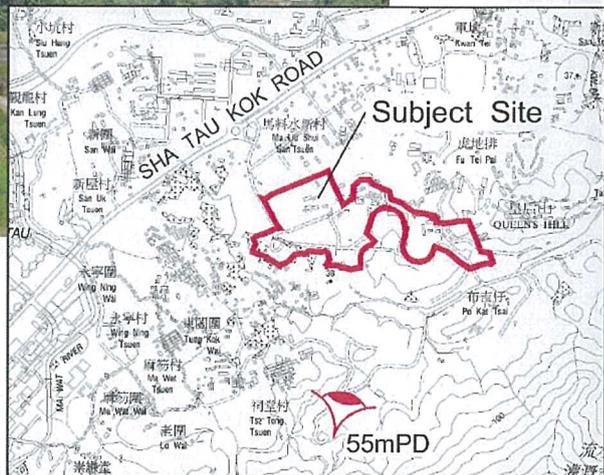
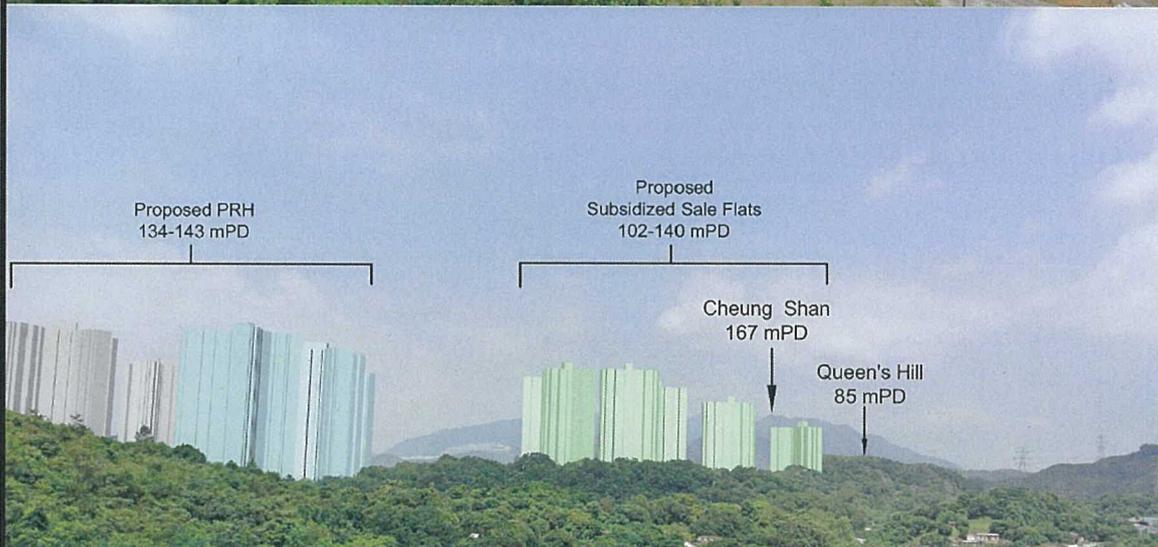
M/NE/15/17

繪圖 **DRAWING 4c**

Existing View



With Development



**PHOTOMONTAGE AT VIEWPOINT 4
(VIEW FROM THE 5th FLOOR
OF LUNG SHAN TEMPLE)**



**HOUSING DEPARTMENT
PLANNING SECTION**

PLAN 5

**DATE :
28. 4. 2015**

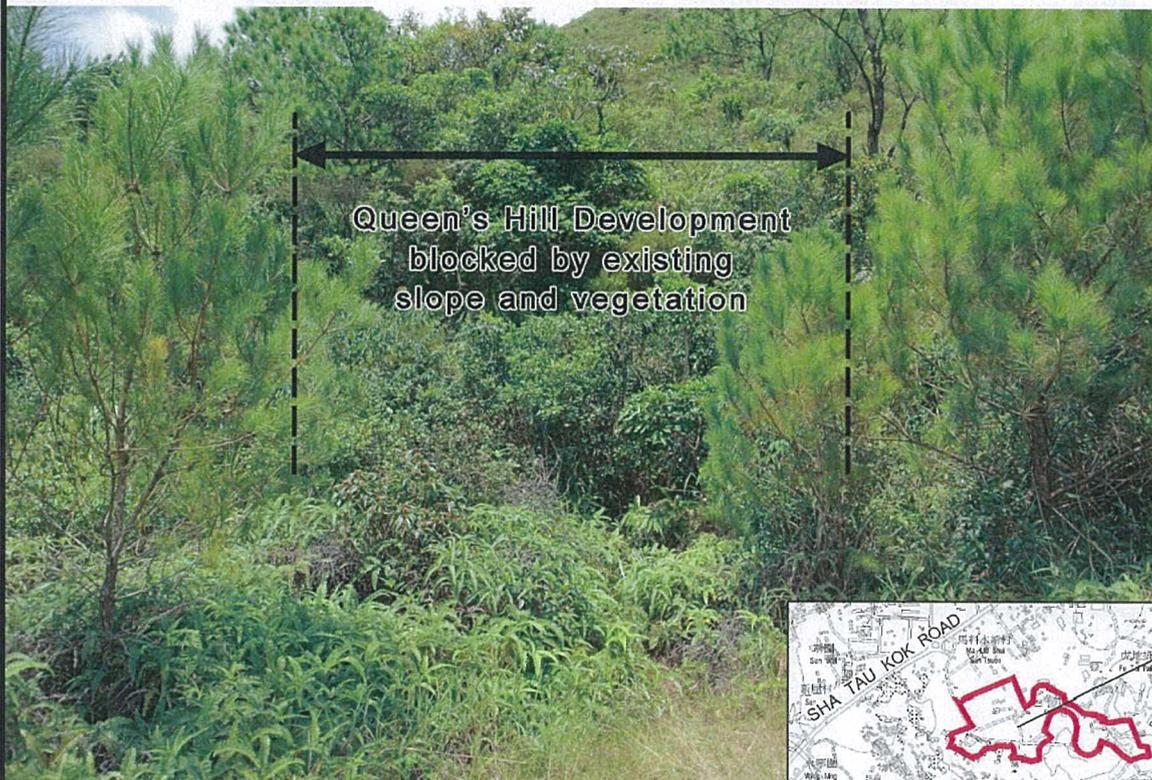
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參考編號
REFERENCE No. M/NE/15/17

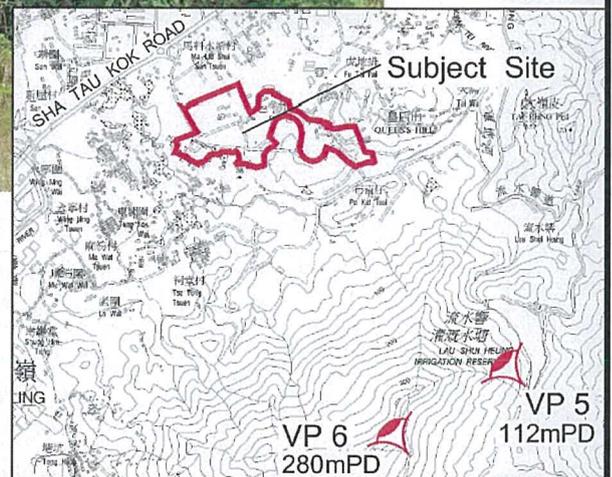
繪圖 DRAWING 4d



Viewpoint 5



Viewpoint 6



PHOTOMONTAGE AT VIEWPOINT 5
 (VIEW FROM SOUTHERN TIP OF LAU SHUI HEUNG IRRIGATION
 RESERVOIR, NORTHEAST OF THE PEAK OF LUNG SHAN)
 & PHOTOMONTAGE AT VIEWPOINT 6
 (VIEW FROM LAU SHUI HEUNG COUNTRY TRAIL,
 SOUTH OF THE PEAK OF LUNG SHAN)



HOUSING DEPARTMENT
 PLANNING SECTION

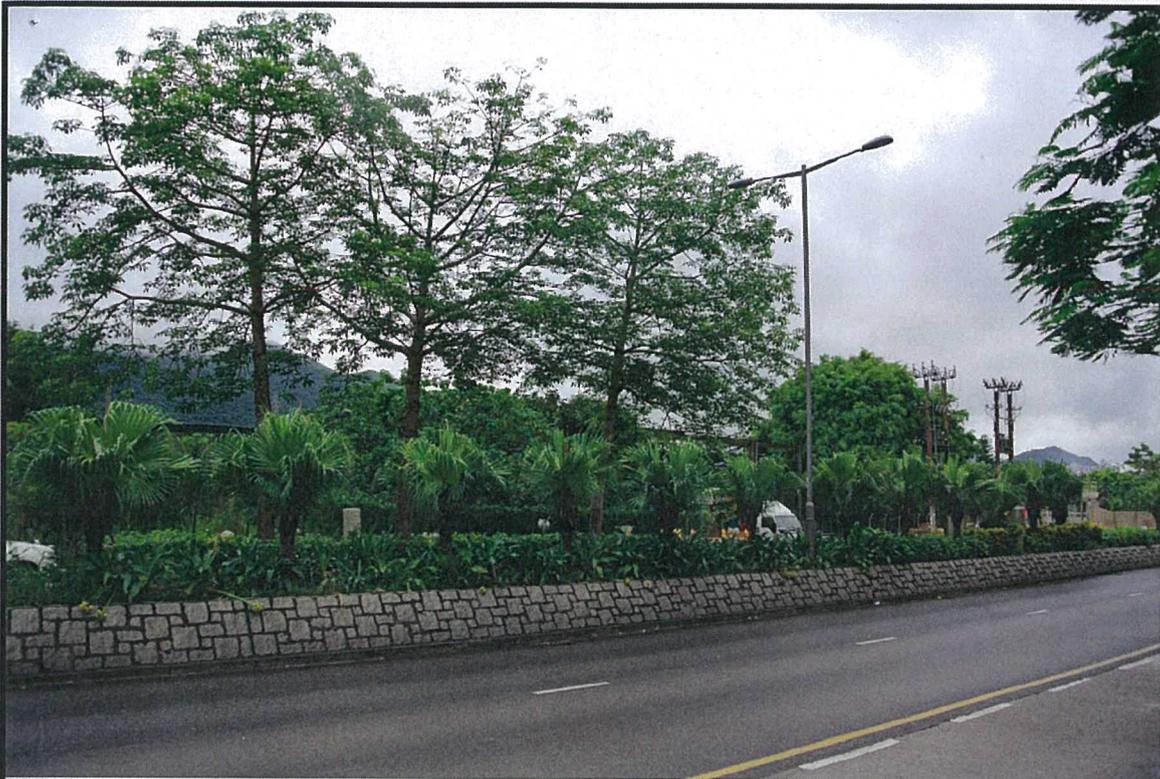
PLAN 6

DATE :
 28. 4. 2015

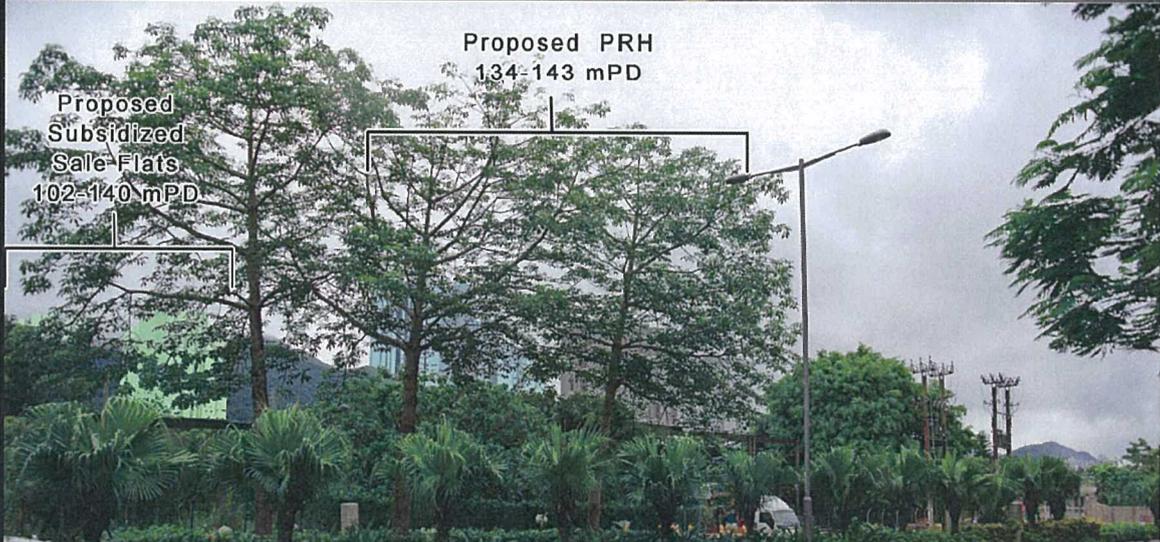
15_0519N_VP5-6

參考編號
 REFERENCE No. M/NE/15/17

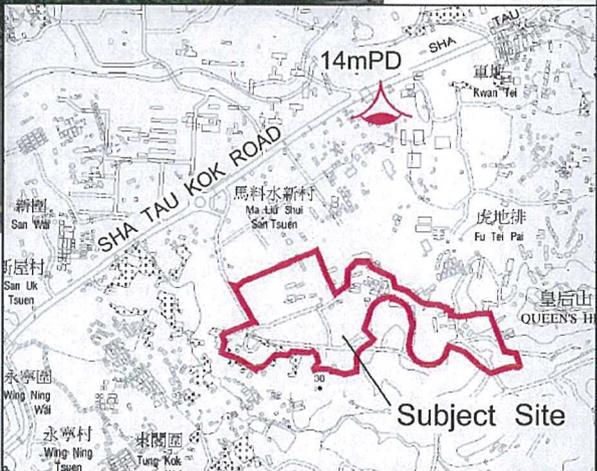
繪圖 DRAWING 4e



Existing View



With Development



**PHOTOMONTAGE AT VIEWPOINT 7
(VIEW FROM KWAN TEI BUS STATION)**

 **HOUSING DEPARTMENT
PLANNING SECTION**

PLAN 7

**DATE :
28. 4. 2015**

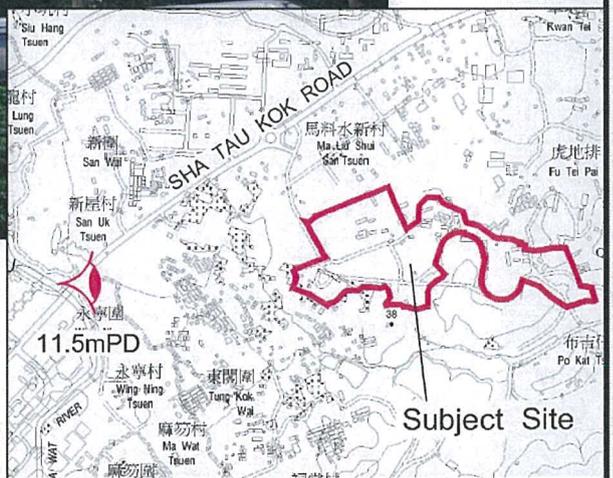
15_0519N_VP7



Existing View



With Development



**PHOTOMONTAGE AT VIEWPOINT 8
(VIEW FROM SAN UK TSUEN
SITTING-OUT AREA)**



**HOUSING DEPARTMENT
PLANNING SECTION**

PLAN 8

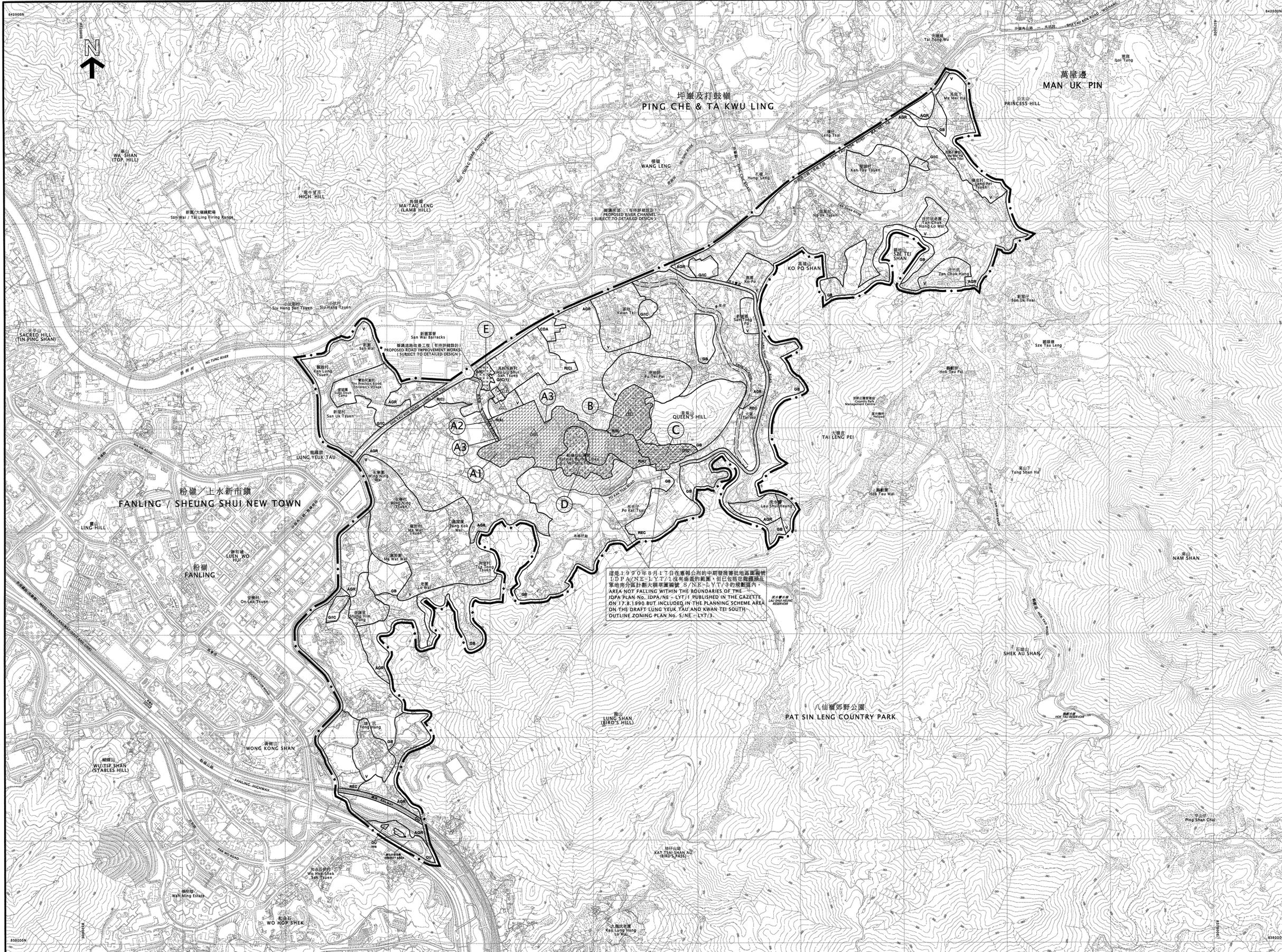
**DATE :
28. 4. 2015**

15_0519N_VP8

參考編號
REFERENCE No.

M/NE/15/17

繪圖 **DRAWING 4g**



圖例 NOTATION

ZONES		地帶
COMPREHENSIVE DEVELOPMENT AREA	CDA	綜合發展區
RESIDENTIAL (GROUP A)	RIA(A)	住宅(甲類)
RESIDENTIAL (GROUP B)	RIA(B)	住宅(乙類)
RESIDENTIAL (GROUP C)	RIA(C)	住宅(丙類)
VILLAGE TYPE DEVELOPMENT	V	鄉村式發展
GOVERNMENT, INSTITUTION OR COMMUNITY	GIC	政府、機構或社區
OPEN SPACE	O	休憩用地
RECREATION	REC	康樂
OTHER SPECIFIED USES	OU	其他指定用途
AGRICULTURE	AGR	農業
GREEN BELT	GB	綠化地帶
COMMUNICATIONS		
MAJOR ROAD AND JUNCTION		主要道路及路口
MISCELLANEOUS		
BOUNDARY OF PLANNING SCHEME		規劃範圍界線
BUILDING HEIGHT CONTROL ZONE BOUNDARY		建築物高度管制區界線
MAXIMUM BUILDING HEIGHT (IN METRES ABOVE PRINCIPAL DATUM)		最高建築物高度 (在主水平基準上)
PETROL FILLING STATION	P F S	加油站

土地用途及面積一覽表 SCHEDULE OF USES AND AREAS

USES	大約面積及百分比 APPROXIMATE AREA & %		用途
	公頃 HECTARES	% 百分比	
COMPREHENSIVE DEVELOPMENT AREA	0.80	0.21	綜合發展區
RESIDENTIAL (GROUP A)	13.78	3.65	住宅(甲類)
RESIDENTIAL (GROUP B)	3.97	1.05	住宅(乙類)
RESIDENTIAL (GROUP C)	10.38	2.75	住宅(丙類)
VILLAGE TYPE DEVELOPMENT	79.37	21.03	鄉村式發展
GOVERNMENT, INSTITUTION OR COMMUNITY	12.11	3.21	政府、機構或社區
OPEN SPACE	3.68	0.98	休憩用地
RECREATION	15.36	4.07	康樂
OTHER SPECIFIED USES	3.35	0.89	其他指定用途
AGRICULTURE	144.37	38.25	農業
GREEN BELT	81.70	21.67	綠化地帶
MAJOR ROAD ETC.	8.48	2.24	主要道路等
TOTAL PLANNING SCHEME AREA	377.43	100.00	規劃範圍總面積

這是在1999年8月17日在憲報公佈的中期發展審批地區圖編號 S/N E-L Y T/15 的範圍內，但不包括在該圖內，軍地南分區計劃大綱圖編號 S/N E-L Y T/3 的範圍內。 AREA NOT FALLING WITHIN THE BOUNDARIES OF THE IDPA PLAN No. S/N E-L Y T/3 PUBLISHED IN THE GAZETTE ON 17.8.1999 BUT INCLUDED IN THE PLANNING SCHEME AREA ON THE DRAFT LUNG YEUK TAU AND KWAN TEI SOUTH-OUTLINE ZONING PLAN No. S/N E-L Y T/3.

夾附的《註釋》屬這份圖則的一部分，現經修訂並按照城市規劃條例第7條展示。
THE ATTACHED NOTES ALSO FORM PART OF THIS PLAN AND HAVE BEEN AMENDED FOR EXHIBITION UNDER SECTION 7 OF THE TOWN PLANNING ORDINANCE

草圖編號 S/N E-L Y T/15 的建議修訂 PROPOSED AMENDMENTS TO DRAFT PLAN No. S/N E-L Y T/15

PROPOSED AMENDMENTS PUBLISHED UNDER SECTION 6C(2) OF THE TOWN PLANNING ORDINANCE	根據城市規劃條例第6C(2)條公佈的建議修訂
AMENDMENT ITEMS A1, A2, A3	修訂項目 A 1, A 2, A 3 項
AMENDMENT ITEM B	修訂項目 B 項
AMENDMENT ITEM C	修訂項目 C 項
AMENDMENT ITEM D	修訂項目 D 項
AMENDMENT ITEM E	修訂項目 E 項

(參看附表) (SEE ATTACHED SCHEDULE)

香港城市規劃委員會依據城市規劃條例擬備的龍躍頭及軍地南分區計劃大綱圖
TOWN PLANNING ORDINANCE, HONG KONG TOWN PLANNING BOARD
LUNG YEUK TAU & KWAN TEI SOUTH - OUTLINE ZONING PLAN

SCALE 1:7500 比例尺
METRES 0 200 400 600 800 1000 METRES

規劃署遵照城市規劃委員會指示準備
PREPARED BY THE PLANNING DEPARTMENT UNDER THE DIRECTION OF THE TOWN PLANNING BOARD

圖則編號 PLAN No. S/NE-LYT/15B

**DRAFT LUNG YEUK TAU AND KWAN TEI SOUTH
OUTLINE ZONING PLAN NO. S/NE-LYT/15B**

(Being a Draft Plan for the Purposes of the Town Planning Ordinance)

NOTES

(N.B. These form part of the Plan)

- (1) These Notes show the uses or developments on land falling within the boundaries of the Plan which are always permitted and which may be permitted by the Town Planning Board, with or without conditions, on application. Where permission from the Town Planning Board for a use or development is required, the application for such permission should be made in a prescribed form. The application shall be addressed to the Secretary of the Town Planning Board, from whom the prescribed application form may be obtained.
- (2) Any use or development which is always permitted or may be permitted in accordance with these Notes must also conform to any other relevant legislation, the conditions of the Government lease concerned, and any other Government requirements, as may be applicable.
- (3) No action is required to make the use of any land or building which was in existence immediately before the first publication in the Gazette of the notice of the interim development permission area plan conform to this Plan, provided such use has continued since it came into existence. Any material change of such use or any other development (except minor alteration and/or modification to the development of the land or building in respect of such use which is always permitted) must be always permitted in terms of the Plan or in accordance with a permission granted by the Town Planning Board.
- (4) A use or development of any land or building permitted under an earlier draft or approved plan including interim development permission area plan for the area and effected or undertaken during the effective period of that plan is always permitted under this Plan. Any material change of such use or any other development (except minor alteration and/or modification to the completed development of the land or building which is always permitted) must be always permitted in terms of the Plan or in accordance with a permission granted by the Town Planning Board.
- (5) Except to the extent that paragraph (3) or (4) applies, any use or development falling within the boundaries of the Plan and also within the boundaries of the interim development permission area plan, unless always permitted in terms of the Plan, shall not be undertaken or continued on or after the date of the first publication in the Gazette of the notice of the interim development permission area plan without permission from the Town Planning Board.

- (6) Any use or development of land or building falling within the boundaries of the Plan but not within the boundaries of the interim development permission area plan, unless always permitted in terms of the Plan, shall not be undertaken or continued on or after the date of the first publication in the Gazette of the notice of the draft Outline Zoning Plan No. S/NE-LYT/3 without permission from the Town Planning Board.
- (7) Except as otherwise specified by the Town Planning Board, when a use or material change of use is effected or a development or redevelopment is undertaken, as always permitted in terms of the Plan or in accordance with a permission granted by the Town Planning Board, all permissions granted by the Town Planning Board in respect of the site of the use or material change of use or development or redevelopment shall lapse.
- (8) Road junctions, alignment of roads and railway tracks, and boundaries between zones may be subject to minor adjustments as detailed planning proceeds.
- (9) The following uses or developments are always permitted on land falling within the boundaries of the Plan except where the uses or developments are specified in Column 2 of the Notes of individual zones:
 - (a) maintenance, repair or demolition of a building;
 - (b) provision, maintenance or repair of plant nursery, amenity planting, open space, rain shelter, refreshment kiosk, footpath, bus/public light bus stop or lay-by, cycle track, taxi rank, public utility pipeline, electricity mast, lamp pole, telephone booth, telecommunications radio base station, automatic teller machine and shrine;
 - (c) maintenance or repair of road, railway track, watercourse, nullah, sewer and drain;
 - (d) geotechnical works, local public works, road works, sewerage works, drainage works, environmental improvement works, marine related facilities and waterworks (excluding works on service reservoir) and such other public works co-ordinated or implemented by Government;
 - (e) rebuilding of New Territories Exempted House;
 - (f) replacement of an existing domestic building i.e. a domestic building which was in existence on the date of the first publication in the Gazette of the notice of the interim development permission area plan, by a New Territories Exempted House; and
 - (g) provision, maintenance or repair of a grave of an indigenous New Territories villager or a locally based fisherman and his family members for which permission has been obtained from Government.

- (10) In any area shown as 'Road', all uses or developments except those specified in paragraphs (9)(a) to (9)(d) and (9)(g) above and those specified below require permission from the Town Planning Board:

road, toll plaza, on-street vehicle park and railway track.

- (11) (a) Temporary use or development of any land or building not exceeding a period of two months is always permitted provided that no site formation (filling or excavation) is carried out and that the use or development is a use or development specified below:

structures for carnivals, fairs, film shooting on locations, festival celebrations, religious functions or sports events.

- (b) Except as otherwise provided in paragraph (11)(a), temporary use or development of any land or building not exceeding a period of three years requires permission from the Town Planning Board. Notwithstanding that the use or development is not provided for in terms of the Plan, the Town Planning Board may grant permission, with or without conditions, for a maximum period of three years, or refuse to grant permission.

- (c) Temporary use or development of land or building exceeding three years requires permission from the Town Planning Board in accordance with the terms of the Plan.

- (12) Unless otherwise specified, all building, engineering and other operations incidental to and all uses directly related and ancillary to the permitted uses and developments within the same zone are always permitted and no separate permission is required.

- (13) In these Notes, unless the context otherwise requires or unless as expressly provided below, terms used in the Notes shall have the meanings as assigned under section 1A of the Town Planning Ordinance.

"Existing building" means a building, including a structure, which is physically existing and is in compliance with any relevant legislation and the conditions of the Government lease concerned.

"New Territories Exempted House" means a domestic building other than a guesthouse or a hotel; or a building primarily used for habitation, other than a guesthouse or a hotel, the ground floor of which may be used as 'Shop and Services' or 'Eating Place', the building works in respect of which are exempted by a certificate of exemption under Part III of the Buildings Ordinance (Application to the New Territories) Ordinance (Cap.121).

**DRAFT LUNG YEUK TAU AND KWAN TEI SOUTH
OUTLINE ZONING PLAN NO. S/NE-LYT/15B**

Schedule of Uses

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COMPREHENSIVE DEVELOPMENT AREA	1
<i>RESIDENTIAL (GROUP A)</i>	3
<i>RESIDENTIAL (GROUP B)</i>	6
RESIDENTIAL (GROUP C)	38
VILLAGE TYPE DEVELOPMENT	5 10
GOVERNMENT, INSTITUTION OR COMMUNITY	7 12
GOVERNMENT, INSTITUTION OR COMMUNITY (1)	8 13
GOVERNMENT, INSTITUTION OR COMMUNITY (2)	9
<i>OPEN SPACE</i>	11 16
RECREATION	14 17
OTHER SPECIFIED USES	13 19
AGRICULTURE	14 20
GREEN BELT	16 22

COMPREHENSIVE DEVELOPMENT AREA

<p>Column 1</p> <p>Uses always permitted</p>	<p>Column 2</p> <p>Uses that may be permitted with or without conditions on application to the Town Planning Board</p>
--	--

Government Refuse Collection Point
 Government Use (not elsewhere specified)
 Industrial Use (Food Processing
 Factory/Workshop only)
 Public Utility Installation
 Utility Installation for Private Project

Planning Intention

This zone is intended for comprehensive redevelopment of an existing soy sauce factory.

Remarks

- (a) Pursuant to section 4A(2) of the Town Planning Ordinance, and except as otherwise expressly provided that it is not required by the Town Planning Board, an applicant for permission for development on land designated “Comprehensive Development Area” shall prepare a Master Layout Plan for the approval of the Town Planning Board and include therein the following information:
 - (i) the area of the proposed land uses, the nature, position, dimensions, and heights of all buildings to be erected in the area;
 - (ii) the proposed total site area and gross floor area for various uses, total number of flats and flat size, where applicable;
 - (iii) the details and extent of Government, institution or community (GIC) and recreational facilities, public transport and parking facilities, and open space to be provided within the area;
 - (iv) the alignment, widths and levels of any roads proposed to be constructed within the area;
 - (v) the landscape proposals within the area;
 - (vi) programmes of development in detail;
 - (vii) an environmental assessment report to examine any possible environmental problems that may be caused to or by the proposed development during and after construction and the proposed mitigation measures to tackle them;

(Please see next page)

COMPREHENSIVE DEVELOPMENT AREA (Cont'd)

Remarks (Cont'd)

- (viii) a drainage and sewerage impact assessment report to examine any possible drainage and sewerage problems that may be caused by the proposed development and the proposed mitigation measures to tackle them;
 - (ix) a traffic impact assessment report to examine any possible traffic problems that may be caused by the proposed development and the proposed mitigation measures to tackle them; and
 - (x) such other information as may be required by the Town Planning Board.
- (b) The Master Layout Plan should be supported by an explanatory statement which contains an adequate explanation of the development proposal, including such information as land tenure, relevant lease conditions, existing conditions of the site, the character of the site in relation to the surrounding areas, principles of layout design, major development parameters, design population, types of GIC facilities, and recreational and open space facilities.
- (c) No new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum non-domestic plot ratio of 0.9, a maximum non-domestic site coverage of 46% and a maximum building height of 12m, or the plot ratio, site coverage and height of the building which was in existence on the date of the first publication in the Gazette of the notice of the interim development permission area plan, whichever is the greater.
- (d) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the plot ratio/site coverage/building height restrictions stated in paragraph (c) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.

RESIDENTIAL (GROUP A)

<i>Column 1</i> <i>Uses always permitted</i>	<i>Column 2</i> <i>Uses that may be permitted with or without conditions on application to the Town Planning Board</i>
<i>Ambulance Depot</i>	<i>Commercial Bathhouse/ Massage Establishment</i>
<i>Flat</i>	<i>Eating Place</i>
<i>Government Use (not elsewhere specified)</i>	<i>Educational Institution</i>
<i>House</i>	<i>Exhibition or Convention Hall</i>
<i>Library</i>	<i>Government Refuse Collection Point</i>
<i>Market</i>	<i>Hospital</i>
<i>Place of Recreation, Sports or Culture</i>	<i>Hotel</i>
<i>Public Clinic</i>	<i>Institutional Use (not elsewhere specified)</i>
<i>Public Transport Terminus or Station (excluding open-air terminus or station)</i>	<i>Office</i>
<i>Residential Institution</i>	<i>Petrol Filling Station</i>
<i>School (in free-standing purpose-designed building only)</i>	<i>Place of Entertainment</i>
<i>Social Welfare Facility</i>	<i>Private Club</i>
<i>Utility Installation for Private Project</i>	<i>Public Convenience</i>
	<i>Public Transport Terminus or Station (not elsewhere specified)</i>
	<i>Public Utility Installation</i>
	<i>Public Vehicle Park (excluding container vehicle)</i>
	<i>Religious Institution</i>
	<i>School (not elsewhere specified)</i>
	<i>Shop and Services</i>
	<i>Training Centre</i>

(Please see next page)

RESIDENTIAL (GROUP A) (Cont'd)

In addition, the following uses are always permitted (a) on the lowest three floors of a building, taken to include basements; or (b) in the purpose-designed non-residential portion of an existing building, both excluding floors containing wholly or mainly car parking, loading/unloading bays and/or plant room:

Eating Place

Educational Institution

Institutional Use (not elsewhere specified)

Off-course Betting Centre

Office

Place of Entertainment

Private Club

Public Convenience

Recyclable Collection Centre

School

Shop and Services

Training Centre

Planning Intention

This zone is intended primarily for high-density residential developments. Commercial uses are always permitted on the lowest three floors of a building or in the purpose-designed non-residential portion of an existing building.

Remarks

- (a) *No new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum plot ratio of 6 and a maximum building height in terms of metres above Principal Datum as stipulated on the Plan, or the plot ratio and height of the building, which was in existence on the date of the first publication in the Gazette of the notice of the draft Lung Yeuk Tau and Kwan Tei South Outline Zoning Plan No. S/NE-LYT/3, whichever is the greater.*
- (b) *In determining the maximum plot ratio for the purposes of paragraph (a) above, any floor space that is constructed or intended for use solely as car park, loading/unloading bay, plant room and caretaker's office, or caretaker's quarters and recreational facilities for the use and benefit of all the owners or occupiers of the domestic building or domestic part of the building, provided such uses and facilities are ancillary and directly related to the development or redevelopment, may be disregarded.*

(Please see next page)

RESIDENTIAL (GROUP A) (Cont'd)

Remarks (Cont'd)

- (c) *Based on the individual merits of a development or redevelopment proposal, minor relaxation of the plot ratio and/or building height restrictions stated in paragraph (a) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.*

RESIDENTIAL (GROUP B)

<i>Column 1</i> <i>Uses always permitted</i>	<i>Column 2</i> <i>Uses that may be permitted with or without conditions on application to the Town Planning Board</i>
<i>Flat</i>	<i>Eating Place</i>
<i>Government Use (Police Reporting Centre, Post Office only)</i>	<i>Educational Institution</i>
<i>House</i>	<i>Government Refuse Collection Point</i>
<i>Library</i>	<i>Government Use (not elsewhere specified)</i>
<i>Residential Institution</i>	<i>Hospital</i>
<i>School (in free-standing purpose-designed building only)</i>	<i>Hotel</i>
<i>Utility Installation for Private Project</i>	<i>Institutional Use (not elsewhere specified)</i>
	<i>Market</i>
	<i>Office</i>
	<i>Petrol Filling Station</i>
	<i>Place of Entertainment</i>
	<i>Place of Recreation, Sports or Culture</i>
	<i>Private Club</i>
	<i>Public Clinic</i>
	<i>Public Convenience</i>
	<i>Public Transport Terminus or Station</i>
	<i>Public Utility Installation</i>
	<i>Public Vehicle Park</i>
	<i>(excluding container vehicle)</i>
	<i>Recyclable Collection Centre</i>
	<i>Religious Institution</i>
	<i>School (not elsewhere specified)</i>
	<i>Shop and Services</i>
	<i>Social Welfare Facility</i>
	<i>Training Centre</i>

Planning Intention

This zone is intended primarily for medium-density residential developments where commercial uses serving the residential neighbourhood may be permitted on application to the Town Planning Board.

(Please see next page)

RESIDENTIAL (GROUP B) (Cont'd)

Remarks

- (a) *No new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum plot ratio of 3.6 and a maximum building height in terms of metres above Principal Datum as stipulated on the Plan, or the plot ratio and height of the building, which was in existence on the date of the first publication in the Gazette of the notice of the draft Lung Yeuk Tau and Kwan Tei South Outline Zoning Plan No. S/NE-LYT/3, whichever is the greater.*
- (b) *In determining the maximum plot ratio for the purposes of paragraph (a) above, any floor space that is constructed or intended for use solely as car park, loading/unloading bay, plant room and caretaker's office, or caretaker's quarters and recreational facilities for the use and benefit of all the owners or occupiers of the domestic building or domestic part of the building, provided such uses and facilities are ancillary and directly related to the development or redevelopment, may be disregarded.*
- (c) *Based on the individual merits of a development or redevelopment proposal, minor relaxation of the plot ratio and/or building height restrictions stated in paragraph (a) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.*

RESIDENTIAL (GROUP C)

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Flat Government Use (Police Reporting Centre, Post Office only) House Utility Installation for Private Project	Ambulance Depot Eating Place Educational Institution# Government Refuse Collection Point Government Use (not elsewhere specified)# Institutional Use (not elsewhere specified)# Library Petrol Filling Station Place of Recreation, Sports or Culture Private Club Public Clinic Public Convenience Public Transport Terminus or Station Public Utility Installation# Public Vehicle Park (excluding container vehicle) Recyclable Collection Centre Religious Institution# Residential Institution Rural Committee/Village Office School# Shop and Services Social Welfare Facility# Training Centre

(Please see next page)

RESIDENTIAL (GROUP C) (Cont'd)

Planning Intention

This zone is intended primarily for low-rise, low-density residential developments where commercial uses serving the residential neighbourhood may be permitted on application to the Town Planning Board.

Remarks

- (a) No new development, or addition, alteration and/or modification to or redevelopment of an existing building (except development or redevelopment to those annotated with #) shall result in a total development and/or redevelopment in excess of a maximum plot ratio of 0.2 and a maximum building height of 2 storeys (6m) over 1 storey carport, or the plot ratio, site coverage and height of the building which was in existence on the date of the first publication in the Gazette of the notice of the interim development permission area plan, whichever is the greater.
- (b) In determining the maximum plot ratio for the purposes of paragraph (a) above, any floor space that is constructed or intended for use solely as carport, loading/unloading bay, plant room, caretaker's office and caretaker's quarters, or recreational facilities for the use and benefit of all the owners or occupiers of the domestic building or domestic part of the building, provided such uses and facilities are ancillary and directly related to the development or redevelopment, may be disregarded.
- (c) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the plot ratio/building height restrictions stated in paragraph (a) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.

VILLAGE TYPE DEVELOPMENT

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Agricultural Use Government Use (Police Reporting Centre, Post Office only) House (New Territories Exempted House only) On-Farm Domestic Structure Religious Institution (Ancestral Hall only) Rural Committee/Village Office	Burial Ground Eating Place Government Refuse Collection Point Government Use (not elsewhere specified)# House (not elsewhere specified) Institutional Use (not elsewhere specified)# Market Place of Recreation, Sports or Culture Public Clinic Public Convenience Public Transport Terminus or Station Public Utility Installation# Public Vehicle Park (excluding container vehicle) Religious Institution (not elsewhere specified)# Residential Institution# School# Shop and Services Social Welfare Facility# Utility Installation for Private Project

In addition, the following uses are always permitted on the ground floor of a New Territories Exempted House:

Eating Place
Library
School
Shop and Services

(Please see next page)

VILLAGE TYPE DEVELOPMENT (Cont'd)

Planning Intention

The planning intention of this zone is to designate both existing recognized villages and areas of land considered suitable for village expansion. Land within this zone is primarily intended for development of Small Houses by indigenous villagers. It is also intended to concentrate village type development within this zone for a more orderly development pattern, efficient use of land and provision of infrastructures and services. Selected commercial and community uses serving the needs of the villagers and in support of the village development are always permitted on the ground floor of a New Territories Exempted House. Other commercial, community and recreational uses may be permitted on application to the Town Planning Board.

Remarks

- (a) No new development, or addition, alteration and/or modification to or redevelopment of an existing building (except development or redevelopment to those annotated with #) shall result in a total development and/or redevelopment in excess of a maximum building height of 3 storeys (8.23m) or the height of the building which was in existence on the date of the first publication in the Gazette of the notice of the interim development permission area plan, whichever is the greater.
- (b) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the building height restriction stated in paragraph (a) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.
- (c) Any filling of pond, including that to effect a change of use to any of those specified in Columns 1 and 2 above or the uses or developments always permitted under the covering Notes (except public works co-ordinated or implemented by Government, and maintenance, repair or rebuilding works), shall not be undertaken or continued on or after the date of the first publication in the Gazette of the notice of the interim development permission area plan without the permission from the Town Planning Board under section 16 of the Town Planning Ordinance.

GOVERNMENT, INSTITUTION OR COMMUNITY

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Ambulance Depot Animal Quarantine Centre (in Government building only) Broadcasting, Television and/or Film Studio Eating Place (Canteen, Cooked Food Centre only) Educational Institution Exhibition or Convention Hall Field Study/Education/Visitor Centre Government Refuse Collection Point Government Use (not elsewhere specified) Hospital Institutional Use (not elsewhere specified) Library Market Place of Recreation, Sports or Culture Public Clinic Public Convenience Public Transport Terminus or Station Public Utility Installation Public Vehicle Park (excluding container vehicle) Recyclable Collection Centre Religious Institution Research, Design and Development Centre Rural Committee/Village Office School Service Reservoir Social Welfare Facility Training Centre Wholesale Trade	Animal Boarding Establishment Animal Quarantine Centre (not elsewhere specified) Columbarium Correctional Institution Crematorium Driving School Eating Place (not elsewhere specified) Flat Funeral Facility Holiday Camp House (other than rebuilding of New Territories Exempted House or replacement of existing domestic building by New Territories Exempted House permitted under the covering Notes) Off-course Betting Centre Office Petrol Filling Station Place of Entertainment Private Club Radar, Telecommunications Electronic Microwave Repeater, Television and/or Radio Transmitter Installation Refuse Disposal Installation (Refuse Transfer Station only) Residential Institution Sewage Treatment/Screening Plant Shop and Services Utility Installation for Private Project Zoo

Planning Intention

This zone is intended primarily for the provision of Government, institution or community facilities serving the needs of the local residents and/or a wider district, region or the territory. It is also intended to provide land for uses directly related to or in support of the work of the Government, organizations providing social services to meet community needs, and other institutional establishments.

GOVERNMENT, INSTITUTION OR COMMUNITY (1)

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Government Use (not elsewhere specified) Utility Installation for Private Project	Field Study/Education/Visitor Centre Institutional Use (not elsewhere specified) Place of Recreation, Sports or Culture Public Utility Installation Religious Institution Residential Institution Social Welfare Facility

Planning Intention

This zone is intended primarily for the development of a religious institution. Any development on land zoned “Government, Institution or Community (1)” shall be compatible and blend in harmoniously with its surrounding environment.

Remarks

- (a) No new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum plot ratio of 0.38, a maximum building height of 2 storeys (excluding basement(s)) and the maximum building heights in terms of metres above Principal Datum as stipulated on the Plan.
- (b) In determining the maximum plot ratio for the purpose of paragraph (a) above, any floor space that is constructed or intended for use solely as car park, loading/unloading bay and plant room, provided such uses and facilities are ancillary and directly related to the development or redevelopment, may be disregarded.
- (c) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the plot ratio/building height restrictions stated in paragraph (a) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.

GOVERNMENT, INSTITUTION OR COMMUNITY (2)

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
	Educational Institution Field Study/Education/Visitor Centre Government Use Holiday Camp Institutional Use— Place of Recreation, Sports or Culture Public Utility Installation— Religious Institution— Residential Institution School Social Welfare Facility— Utility Installation for Private Project

Planning Intention

~~This zone is intended primarily for the development of educational institutions and schools. The zoning is to facilitate appropriate planning control over the scale, design and layout of development, taking account of the natural landscape features of the site.~~

Remarks

- ~~(a) No new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum building height of 30 metres or the height of the existing building, which was in existence on the date of the first publication in the Gazette of the notice of the draft Lung Yeuk Tau and Kwan Tei South Outline Zoning Plan No. S/NE-LYT/3, whichever is the greater.~~
- ~~(b) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the building height restriction stated in paragraph (a) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.~~
- ~~(c) An application for permission for development shall prepare a layout plan and include the following information:
 - ~~(i) landscape and tree preservation proposals within the area;~~
 - ~~(ii) an urban design proposal to illustrate the urban design concept and principles adopted;~~~~

(Please see next page)

GOVERNMENT, INSTITUTION OR COMMUNITY (2) (Cont'd)

Remarks (Cont'd)

- ~~(iii) — a landscape and visual impact assessment report to examine any possible impact on landscape resources and characters and visual problems that may be caused to or by the proposed development and the proposed mitigation measures to tackle them;~~
- ~~(iv) — an air ventilation assessment report to examine any possible air ventilation problems that may be caused by the proposed development during and after construction and the proposed mitigation measures to tackle them;~~
- ~~(v) — an environmental assessment report to examine any possible environmental problems that may be caused to or by the proposed development during and after construction and the proposed mitigation measures to tackle them;~~
- ~~(vi) — a drainage and sewerage impact assessment report to examine any possible drainage and sewerage problems that may be caused by the proposed development and the proposed mitigation measures to tackle them;~~
- ~~(vii) — a traffic impact assessment report to examine any possible traffic problems that may be caused by the proposed development and the proposed mitigation measures to tackle them;~~
- ~~(viii) — a land contamination report to examine any possible problem that may be caused to the proposed development and the proposed mitigation measures to tackle them; —~~
- ~~(ix) — a geotechnical impact assessment report to examine any possible geotechnical impact that may be caused by the proposed development to the natural terrain or vice versa and the proposed hazard mitigation requirements to tackle them; and~~
- ~~(x) — such other information as may be required by the Town Planning Board.~~

OPEN SPACE

<i>Column 1</i> <i>Uses always permitted</i>	<i>Column 2</i> <i>Uses that may be permitted with or without conditions on application to the Town Planning Board</i>
<i>Aviary</i>	<i>Eating Place</i>
<i>Barbecue Spot</i>	<i>Government Refuse Collection Point</i>
<i>Field Study/Education/Visitor Centre</i>	<i>Government Use (not elsewhere specified)</i>
<i>Park and Garden</i>	<i>Holiday Camp</i>
<i>Pavilion</i>	<i>Place of Entertainment</i>
<i>Pedestrian Area</i>	<i>Place of Recreation, Sports or Culture</i>
<i>Picnic Area</i>	<i>Private Club</i>
<i>Playground/Playing Field</i>	<i>Public Transport Terminus or Station</i>
<i>Public Convenience</i>	<i>Public Utility Installation</i>
<i>Sitting Out Area</i>	<i>Public Vehicle Park</i>
<i>Zoo</i>	<i>(excluding container vehicle)</i>
	<i>Religious Institution</i>
	<i>Service Reservoir</i>
	<i>Shop and Services</i>
	<i>Tent Camping Ground</i>
	<i>Utility Installation for Private Project</i>

Planning Intention

This zone is intended primarily for the provision of outdoor open-air public space for active and/or passive recreational uses serving the needs of local residents as well as the general public.

RECREATION

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Agricultural Use Barbecue Spot Field Study/Education/Visitor Centre Government Use (Police Reporting Centre only) Holiday Camp On-Farm Domestic Structure Picnic Area Place of Recreation, Sports or Culture Public Convenience Rural Committee/Village Office Tent Camping Ground	Animal Boarding Establishment Broadcasting, Television and/or Film Studio Eating Place Flat Golf Course Government Refuse Collection Point Government Use (not elsewhere specified) Helicopter Landing Pad Hotel House (other than rebuilding of New Territories Exempted House or replacement of existing domestic building by New Territories Exempted House permitted under the covering Notes) Place of Entertainment Private Club Public Transport Terminus or Station Public Utility Installation Public Vehicle Park (excluding container vehicle) Religious Institution Residential Institution Shop and Services Theme Park Utility Installation for Private Project Zoo

(Please see next page)

RECREATION (Cont'd)

Planning Intention

This zone is intended primarily for the improvement of the environmental quality of the designated areas by offering incentives for low-density recreational development in the zone. It encourages the development of active and/or passive recreation and tourism. Uses in support of the recreational developments may be permitted subject to planning permission.

Remarks

- (a) No residential development (except 'New Territories Exempted House') shall result in a total development in excess of a maximum plot ratio of 0.2 and a maximum building height of 2 storeys (6m).
- (b) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the plot ratio and building height restrictions stated in paragraph (a) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.
- (c) Any filling of pond, including that to effect a change of use to any of those specified in Columns 1 and 2 above or the uses or developments always permitted under the covering Notes (except public works co-ordinated or implemented by Government, and maintenance, repair or rebuilding works), shall not be undertaken or continued on or after the date of the first publication in the Gazette of the notice of the interim development permission area plan without the permission from the Town Planning Board under section 16 of the Town Planning Ordinance.

OTHER SPECIFIED USES

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
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For “Railway” Only

Railway Track

Government Use
Public Utility Installation

Planning Intention

The planning intention of this zone is to reflect the land occupied by the railway tracks of Mass Transit Railway.

For “Petrol Filling Station” Only

Petrol Filling Station

Government Use
Public Utility Installation

Planning Intention

The planning intention of this zone is to allocate land for petrol filling station use.

For “Amenity Area” Only

Amenity Area

Government Use
Public Utility Installation
Utility Installation for Private Project

Planning Intention

The planning intention of this zone is to designate land for the development of nursery garden, landscape and amenity area.

AGRICULTURE

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Agricultural Use Government Use (Police Reporting Centre only) On-Farm Domestic Structure Public Convenience Religious Institution (Ancestral Hall only) Rural Committee/Village Office	Animal Boarding Establishment Barbecue Spot Burial Ground Field Study/Education/Visitor Centre Government Refuse Collection Point Government Use (not elsewhere specified) House (New Territories Exempted House only, other than rebuilding of New Territories Exempted House or replacement of existing domestic building by New Territories Exempted House permitted under the covering Notes) Picnic Area Place of Recreation, Sports or Culture (Horse Riding School, Hobby Farm, Fishing Ground only) Public Utility Installation Religious Institution (not elsewhere specified) School Utility Installation for Private Project

Planning Intention

This zone is intended primarily to retain and safeguard good quality agricultural land/farm/fish ponds for agricultural purposes. It is also intended to retain fallow arable land with good potential for rehabilitation for cultivation and other agricultural purposes.

Remarks

- (a) Any filling of pond, including that to effect a change of use to any of those specified in Columns 1 and 2 above or the uses or developments always permitted under the covering Notes (except public works co-ordinated or implemented by Government, and maintenance, repair or rebuilding works), shall not be undertaken or continued on or after the date of the first publication in the Gazette of the notice of the interim development permission area plan without the permission from the Town Planning Board under section 16 of the Town Planning Ordinance.

(Please see next page)

AGRICULTURE (cont'd)

Remarks (cont'd)

- (b) Any filling of land, including that to effect a change of use to any of those specified in Columns 1 and 2 above or the uses or developments always permitted under the covering Notes (except public works co-ordinated or implemented by Government, and maintenance, repair or rebuilding works), shall not be undertaken or continued on or after the date of the first publication in the Gazette of the notice of the draft Lung Yeuk Tau and Kwan Tei South Outline Zoning Plan No. S/NE-LYT/10 without the permission from the Town Planning Board under section 16 of the Town Planning Ordinance. This restriction does not apply to filling of land specifically required under prior written instructions of Government department(s) or for the purposes specified below:
- (i) laying of soil not exceeding 1.2m in thickness for cultivation; or
 - (ii) construction of any agricultural structure with prior written approval issued by the Lands Department.

GREEN BELT

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Agricultural Use Barbecue Spot Government Use (Police Reporting Centre only) Nature Reserve Nature Trail On-Farm Domestic Structure Picnic Area Public Convenience Tent Camping Ground Wild Animals Protection Area	Animal Boarding Establishment Broadcasting, Television and/or Film Studio Burial Ground Cable Car Route and Terminal Building Columbarium (within a Religious Institution or extension of existing Columbarium only) Crematorium (within a Religious Institution or extension of existing Crematorium only) Field Study/Education/Visitor Centre Flat Government Refuse Collection Point Government Use (not elsewhere specified) Helicopter Landing Pad Holiday Camp House (other than rebuilding of New Territories Exempted House or replacement of existing domestic building by New Territories Exempted House permitted under the covering Notes) Petrol Filling Station Place of Recreation, Sports or Culture Public Transport Terminus or Station Public Utility Installation Public Vehicle Park (excluding container vehicle) Radar, Telecommunications Electronic Microwave Repeater, Television and/or Radio Transmitter Installation Religious Institution Residential Institution Rural Committee/Village Office School Service Reservoir Social Welfare Facility Utility Installation for Private Project

(Please see next page)

GREEN BELT (Cont'd)

Planning Intention

The planning intention of this zone is primarily for defining the limits of urban and sub-urban development areas by natural features and to contain urban sprawl as well as to provide passive recreational outlets. There is a general presumption against development within this zone.

Remarks

Any filling of land/pond or excavation of land, including that to effect a change of use to any of those specified in Columns 1 and 2 above or the uses or developments always permitted under the covering Notes (except public works co-ordinated or implemented by Government, and maintenance, repair or rebuilding works), shall not be undertaken or continued on or after the date of the first publication in the Gazette of the notice of the interim development permission area plan without the permission from the Town Planning Board under section 16 of the Town Planning Ordinance.

**DRAFT LUNG YEUK TAU AND KWAN TEI SOUTH
OUTLINE ZONING PLAN NO. S/NE-LYT/15B**

EXPLANATORY STATEMENT

**DRAFT LUNG YEUK TAU AND KWAN TEI SOUTH
OUTLINE ZONING PLAN NO. S/NE-LYT/15B**

EXPLANATORY STATEMENT

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**DRAFT LUNG YEUK TAU AND KWAN TEI SOUTH
OUTLINE ZONING PLAN NO. S/NE-LYT/15B**

(Being a Draft Plan for the Purposes of the Town Planning Ordinance)

EXPLANATORY STATEMENT

Note: For the purposes of the Town Planning Ordinance, this statement shall not be deemed to constitute a part of the Plan.

1. **INTRODUCTION**

This Explanatory Statement is intended to assist an understanding of the draft Lung Yeuk Tau and Kwan Tei South Outline Zoning Plan (OZP) No. S/NE-LYT/15B. It reflects the planning intention and objectives of the Town Planning Board (the Board) for various land use zonings of the Plan.

2. **AUTHORITY FOR THE PLAN AND PROCEDURE**

- 2.1 The land within the Lung Yeuk Tau and Kwan Tei South OZP, except the “Government, Institution or Community (2)” and “Green Belt” zones at the former Burma Lines military site, was previously included in the Lung Yeuk Tau and Kwan Tei South Interim Development Permission Area (IDPA) Plan No. IDPA/NE-LYT/1 which was prepared by the Director of Planning and notified in the Gazette on 17 August 1990. The land within the IDPA Plan was subsequently included in the draft Lung Yeuk Tau and Kwan Tei South Development Permission Area (DPA) Plan No. DPA/NE-LYT/1, which was prepared by the Board and exhibited for public inspection under section 5 of the Town Planning Ordinance (the Ordinance) on 12 July 1991.
- 2.2 On 17 May 1993, under the power delegated by the then Governor, the then Secretary for Planning, Environment and Lands directed the Board, under section 3(1)(a) of the Ordinance, to prepare an OZP for the area of Lung Yeuk Tau and Kwan Tei South.
- 2.3 On 8 March 1994, the then Governor in Council, under section 9(1)(a) of the Ordinance, approved the draft Lung Yeuk Tau and Kwan Tei South DPA Plan, which was subsequently renumbered as DPA/NE-LYT/2.
- 2.4 On 1 July 1994, the draft Lung Yeuk Tau and Kwan Tei South OZP No. S/NE-LYT/1 was exhibited for public inspection under section 5 of the Ordinance. On 9 February 1999, the Chief Executive in Council (CE in C), under section 9(1)(a) of the Ordinance, approved the draft OZP, which was subsequently renumbered as S/NE-LYT/2. On 20 April 1999, the CE in C referred the approved OZP to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. The OZP was subsequently amended twice and exhibited for public inspection under the Ordinance.
- 2.5 On 27 June 2000, the CE in C, under section 9(1)(a) of the Ordinance, approved the

draft Lung Yeuk Tau and Kwan Tei South OZP, which was subsequently renumbered as S/NE-LYT/5. On 18 December 2001, the CE in C referred the approved OZP to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. The OZP was subsequently amended and exhibited for public inspection under section 5 of the Ordinance.

- 2.6 On 1 April 2003, the CE in C, under section 9(1)(a) of the Ordinance, approved the draft Lung Yeuk Tau and Kwan Tei South OZP, which was subsequently renumbered as S/NE-LYT/7. On 9 December 2003, the CE in C referred the approved OZP to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. The OZP was subsequently amended to incorporate amendments to the Notes of the OZP to reflect the revised Master Schedule of Notes to Statutory Plans endorsed by the Board and exhibited for public inspection under section 5 of the Ordinance.
- 2.7 On 1 February 2005, the CE in C, under section 9(1)(a) of the Ordinance, approved the draft Lung Yeuk Tau and Kwan Tei South OZP, which was subsequently renumbered as S/NE-LYT/9. On 12 April 2005, the CE in C referred the approved OZP to the Board for amendment under section 12(1)(b)(ii) of the Ordinance.
- 2.8 On 29 April 2005, the draft Lung Yeuk Tau and Kwan Tei South OZP No. S/NE-LYT/10, incorporating mainly amendments to the Notes for the “Agriculture” zone to include control on filling of land in the remarks, was exhibited for public inspection under section 5 of the Ordinance. During the exhibition period, two objections were received. On 21 April 2006, the Board gave further consideration to the objections and decided to propose an amendment to partially meet the objections by amending the Remarks in the Notes for the “Agriculture” zone to exempt filling of land specifically required under the written instructions of Government departments from the planning control. On 19 May 2006, the proposed amendment to the OZP was notified in the Gazette under section 6(7) of the Ordinance. No valid further objection was received during the notification period. On 14 July 2006, the Board agreed that the proposed amendment was a decision under section 6(9) of the Ordinance and the amendment should form part of the OZP.
- 2.9 On 24 February 2006, the draft Lung Yeuk Tau and Kwan Tei South OZP No. S/NE-LYT/11, incorporating amendment to the definition of “existing building” in the covering Notes, was exhibited for public inspection under section 7 of the Ordinance. No objection was received during the plan exhibition period.
- 2.10 On 17 October 2006, the CE in C, under section 9(1)(a) of the Ordinance, approved the draft Lung Yeuk Tau and Kwan Tei South OZP, which was subsequently renumbered as S/NE-LYT/12. On 19 February 2008, the CE in C referred the approved OZP to the Board for amendment under section 12(1)(b)(ii) of the Ordinance.
- 2.11 On 28 August 2009, the draft Lung Yeuk Tau and Kwan Tei South OZP No. S/NE-LYT/13, incorporating amendments mainly to rezone a site at Ma Liu Shui San Tsuen from “Residential (Group C)” (“R(C)”) and “Village Type Development” (“V”) to “Government, Institution or Community (1)” (“G/IC(1)”), to rezone another area in Ma Liu Shui San Tsuen near Lung Ma Road from “Agriculture” to “R(C)” and

“V” and to add a set of Notes for the “G/IC(1)” zone, was exhibited for public inspection under section 5 of the Ordinance. During the two-month exhibition period, a total of three representations were received. On 6 November 2009, the Board published the representations for three weeks for public comments and one comment was received. After giving consideration to the representations and comment on 5 February 2010, the Board decided not to propose any amendment to the draft OZP to meet the representations.

- 2.12 On 1 June 2010, the CE in C, under section 9(1)(a) of the Ordinance, approved the draft Lung Yeuk Tau and Kwan Tei South OZP, which was subsequently renumbered as S/NE-LYT/14. On 11 June 2010, the approved Lung Yeuk Tau and Kwan Tei South OZP No. S/NE-LYT/14 was exhibited for public inspection under section 9(5) of the Ordinance.
- 2.13 On 7 February 2012, the CE in C referred the approved Lung Yeuk Tau and Kwan Tei South OZP No. S/NE-LYT/14 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. The reference back of the OZP was notified in the Gazette on 17 February 2012 under section 12(2) of the Ordinance.
- 2.14 On 16 March 2012, the draft Lung Yeuk Tau and Kwan Tei South OZP No. S/NE-LYT/15 ~~(the Plan)~~, incorporating amendments mainly to rezone the former ex-Burma Lines Military Site from “Comprehensive Development Area” (“CDA”) and “G/IC” to “G/IC(2)” and “Green Belt” (“GB”) and to add a set of Notes for the “G/IC(2)” zone, was exhibited for public inspection under section 5 of the Ordinance. *During the two-month exhibition period, one representation was received. On 8 June 2012, the Board decided that the representation was invalid. On 12 March 2013, the draft Lung Yeuk Tau and Kwan Tei South OZP was submitted to the CE in C for approval in accordance with section 8 of the Ordinance. The CE in C decided that the decision on the draft Plan should be deferred. On 14 April 2015, the CE in C ordered that the draft Lung Yeuk Tau and Kwan Tei South OZP be referred to the Board for further consideration and amendment under section 9(1)(c).*
- 2.15 *On _____, the draft Lung Yeuk Tau and Kwan Tei South OZP No. S/NE-LYT/16 (the Plan), mainly incorporating amendments including the rezoning of the ex-Burma Lines Military Site (now known as Queen’s Hill site) from “G/IC(2)” to “R(A)”, “R(B)”, “G/IC” and “O” to facilitate housing, international school and public open space developments and the rezoning of a site at the junction of Sha Tau Kok Road and Lung Ma Road from “R(C)” to “G/IC” for providing government, institution or community facilities to serve the Queen’s Hill development, and addition of a set of the Notes for the “R(A)”, “R(B)” and “O” zones respectively, was exhibited for public inspection under section 7 of the Ordinance.*

3. OBJECT OF THE PLAN

- 3.1 The object of the Plan is to indicate the broad land use zonings for the area of Lung Yeuk Tau and Kwan Tei South so that development and redevelopment within the area can be put under statutory planning control. It also provides the planning

framework for preparing more detailed non-statutory plans which form the basis for public works planning and site reservation for various uses.

- 3.2 The Plan is to illustrate the broad principles of development and planning control only. It is a small-scale plan and the road alignments and boundaries between the land use zones may be subject to minor adjustments as detailed planning proceeds.
- 3.3 Since the Plan is to show broad land use zonings, there would be situations in which small strips of land not intended for building development purposes and carry no development right under the lease, such as the areas restricted as non-building area or for garden, slope maintenance and access road purposes, are included in the residential zones. The general principle is that such areas should not be taken into account in plot ratio and site coverage calculation. Development within residential zones should be restricted to building lots carrying development right in order to maintain the character and amenity of the area and not to overload the road network in this area.

4. NOTES OF THE PLAN

- 4.1 Attached to the Plan is a set of Notes which shows the types of uses or developments which are always permitted within the Planning Scheme Area and in particular zones and which may be permitted by the Board, with or without conditions, on application. The provision for application for planning permission under section 16 of the Ordinance allows greater flexibility in land use planning and control of development to meet changing needs.
- 4.2 For the guidance of general public, a set of definitions that explains some of the terms used in the Notes may be obtained from the Technical Services Division of the Planning Department and can be downloaded from the Board's website at <http://www.info.gov.hk/tpb>.

5. THE PLANNING SCHEME AREA

The Planning Scheme Area (the Area) covered by the Plan is about 377 ha. It is bounded by Sha Tau Kok Road in the north, Princess Hill in the north-east, Lung Shan in the south and Fanling/Sheung Shui New Town in the west. The boundary of the Area is shown by a heavy broken line on the Plan.

6. POPULATION

According to the ~~2011~~2006 By-Census, the population of the Area was about ~~10,550~~10,563 persons. It is estimated that the total planned population of the Area would be about ~~16,360~~52,200 persons.

7. OPPORTUNITIES AND CONSTRAINTS

7.1 Opportunities

7.1.1 Improved Accessibility

The accessibility of the Area has been enhanced by the dualling of Sha Tau Kok Road (Lung Yeuk Tau to Ping Che Road Section). Widening of Sha Tau Kok Road commenced in November 1995 and was completed in February 1999.

7.1.2 Good-Quality Agricultural Land

All the actively cultivated agricultural lots are worthy of preservation, particularly those located at the Kwan Tei and Ma Mei Ha areas. Moreover, Agriculture, Fisheries and Conservation Department (AFCD) has extended the Agricultural Land Rehabilitation Scheme to some parts of the Area and implemented programmes to improve the irrigation facilities.

7.2 Constraints

7.2.1 Traffic Aspect

The Area, in close proximity to the Fanling/Sheung Shui New Town, is located between the two boundary crossing points at Man Kam To and Sha Tau Kok. Various industrial and open storage uses have been established in the Area capitalising on locational advantage for being close to the boundary crossing. Traffic volume arising from both heavy goods vehicles and container trucks has increased noticeably along Sha Tau Kok Road.

7.2.2 Drainage Aspect

Parcels of land in the Area fall within the floodplain of the Tan Shan River and Kwan Tei River and are liable to flooding during rainstorm. The presence of extensive flood fringe areas at the north-eastern part of the Area have posed serious constraints on possible development within the Area.

7.2.3 Environmental Aspect

- (a) Extensive site formation works for operation of the unauthorised open storage and industrial uses have led to environmental degradation of the Area, which renders the land difficult to be reinstated to its original conditions. The situation is more apparent for areas along Sha Tau Kok Road and Lau Shui Heung Road.
- (b) Due to the increase in open storage/workshops in the Area, a lot of heavy vehicles are using Sha Tau Kok Road and this induces severe noise and air pollution to the areas along the road.
- (c) Due to booming regional development, the Shek Wu Hui Sewage

Treatment Works is approaching its design capacity and has only very limited spare capacity to accommodate additional flow. Further expansion is under planning. Before the treatment plant can actually be upgraded, the use of on-site sewage treatment and disposal facilities particularly for large-scale development would have to be considered as interim measure in the Deep Bay area. ~~They should preferably be connected back into the public sewerage once plant upgrading can be implemented due to the no net increase in pollution loading Discharge Policy pursued by the Environmental Protection Department.~~ ***The no net increase in pollution loading to Deep Bay policy by the Environmental Protection Department should be observed. The on-site sewage treatment and disposal facilities should preferably be connected back to public sewage once plant upgrading can be implemented.***

7.2.4 Fragmented Land Ownership

Almost 90% of land suitable for development in the Area are privately owned. The fragmented ownership of the land renders acquisition of land for comprehensive development very difficult.

8. GENERAL PLANNING INTENTION

- 8.1 The North East New Territories Development Strategy Review (NENT DSR) has formed the land use planning framework for the NENT. The NENT DSR indicates that the NENT could accommodate a share of the population growth and contribute to the economic development of the territory. Apart from urbanisation, the NENT DSR also recognises the potential recreational opportunities of the NENT in view of the high quality of natural environment and landscape amenity. A balance should therefore be maintained between facilitating development and conservation with the aim of promoting landscape protection.
- 8.2 High priority should be accorded to continue development and intensification of residential uses in the New Town areas. In rural areas, development should concentrate on identified residential nodes and village settlements. In order to minimise potential adverse impacts on existing settlements, it would be appropriate to consider limiting development to identified area.
- 8.3 The primary planning intention of the Area is to conserve the natural environment and to protect the active agricultural land, especially those located at the Kwan Tei and Ma Mei Ha areas. Besides, with improved accessibility of the Area, some areas will be designated for low-density recreational uses.
- 8.4 In the designation of various land use zones in the Area, considerations have been given to the natural environment, physical landform, existing settlements, availability of infrastructure and local development pressures. Other than the above, buildings and places of historical interest should be preserved in the Area as far as possible.

9. LAND USE ZONINGS

9.1 Comprehensive Development Area (“CDA”) : Total Area 0.80 ha

- 9.1.1 One site abutting Sha Tau Kok Road and adjoining Ma Liu Shui San Tsuen is designated as “CDA” in the Area. The planning intention of the “CDA” zone is to facilitate the comprehensive redevelopment of an existing soy sauce factory (mainly for the relocation of another soy sauce factory at Kwai Chung). In view of the surrounding areas which are predominantly rural and agricultural in character, a more stringent control on the layout, disposition of buildings and building height of the proposed soy sauce factory is required. The Notes stipulate that total development or redevelopment for this “CDA” site is subject to a maximum non-domestic plot ratio of 0.9, a maximum non-domestic site coverage of 46% and a maximum building height of 12m, or the plot ratio, site coverage and height of the building which was in existence on the date of the first publication in the Gazette of the notice of the IDPA plan, whichever is the greater.
- 9.1.2 To provide flexibility for innovative design adapted to the characteristics of particular sites, minor relaxation of the plot ratio, site coverage and building height restrictions stated in paragraph 9.1.1 above may be considered by the Board through the planning permission system. Each proposal will be considered on its individual planning merits.
- 9.1.3 Under Section 4A(2) of the Ordinance, the developer of this “CDA” zone is required to submit planning application in the form of a Master Layout Plan (MLP) together with relevant studies on traffic, environment, sewerage and drainage impacts for consideration of the Board. The requirement for submission of MLP would ensure that any proposed development would be implemented in a co-ordinated and comprehensive manner, and potential adverse impacts on the environment, traffic and drainage conditions would be properly considered and mitigated.
- 9.1.4 Upon approval of the Board, a copy of the approved MLP shall be made available for public inspection in the Land Registry pursuant to section 4A(3) of the Ordinance.

9.2 Residential (Group A) (“R(A)”) : Total Area 13.78 ha

- 9.2.1 *This zone is intended primarily for high-density residential developments. Commercial uses are always permitted on the lowest three floors of a building or in the purpose-designed non-residential portions of an existing building. The lowest three floors of a building include basements but exclude any floor used wholly or mainly for ancillary car parking, loading/unloading bay and/or plant room. Commercial uses on any floor above the lowest three floors will require planning permission from the Board.*
- 9.2.2 *A site at Queen’s Hill is zoned for this purpose intended for public housing development. Local open spaces, kindergartens, primary schools,*

recreational facilities, community hall, social welfare/community facilities, public transport terminus and neighbourhood shopping facilities will be provided to serve the needs of the residents and/or the wider district.

- 9.2.3** *Developments or redevelopments within this zone are subject to a maximum plot ratio of 6 and a maximum building height of 145mPD, or the plot ratio and height of the building which was in existence on the date of the first publication in the Gazette of the notice of the draft OZP No. S/NE-LYT/3 (i.e. 20 August 1999), whichever is the greater.*
- 9.2.4** *An Expert Evaluation on Air Ventilation Assessment (AVA EE) was conducted for the public housing development. To facilitate wind penetration through the public housing development, design features and mitigation measures including the creation of a wind corridor of at least 100m, building separation and air paths of sufficient width aligning with prevailing winds, empty bays at ground and first levels, and stepped height profile should be adopted. The development is proposed to apply additional improvement measures including the use of permeable structures at ground level and widening of the air path to facilitate penetration of summer prevailing winds. Details of these measures should be referred to the AVA EE report dated 2015.*
- 9.2.5** *At detailed design stage, quantitative air ventilation studies will need to be conducted for the public housing development to further refine the development layout and the relevant mitigation measures from the air ventilation perspectives.*
- 9.2.6** *As the site may be affected by potential natural terrain hazards and subject to flooding in the low-lying area, provision of appropriate hazard mitigation measures and upgrading of infrastructure may be required for future development on the site.*
- 9.2.7** *Minor relaxation of the plot ratio and/or building height restrictions for this zone may be considered by the Board on application under section 16 of the Ordinance. Each application for minor relaxation of plot ratio and/or building height restrictions will be considered on its own merits.*
- 9.2.8** *A planning brief setting out the planning parameters and the design requirements of public housing development at this zone will be provided to guide its future development.*

9.3 **Residential (Group B) (“R(B)”)** : Total Area 3.97 ha

- 9.3.1** *This zone is intended primarily for medium-density residential developments where commercial uses serving the residential neighbourhood may be permitted on application to the Board.*
- 9.3.2** *A site to the northeast of the Queen’s Hill public housing development and to the south of village development of Fu Tei Pai is zoned for this purpose intended for private housing development. The building height should*

respect the ridgeline of Queen's Hill at about 85mPD. In order not to jeopardize the infrastructure capacity, the population intake for this site should tie in with the completion of the proposed Fanling Bypass (Eastern Section) tentatively scheduled in 2023.

9.3.3 *Developments or redevelopments within this zone are subject to a maximum plot ratio of 3.6 and a maximum building height of 85mPD, or the plot ratio and height of the building which was in existence on the date of the first publication in the Gazette of the notice of the draft OZP No. S/NE-LYT/3 (i.e. 20 August 1999), whichever is the greater.*

9.3.4 *As the site may be affected by potential natural terrain hazards, provision of appropriate hazard mitigation measures and upgrading of infrastructure may be required for future development on the site.*

9.3.5 *Minor relaxation of the plot ratio and/or building height restrictions for this zone may be considered by the Board on application under section 16 of the Ordinance. Each application for minor relaxation of plot ratio and/or building height restrictions will be considered on its own merits.*

9.4 Residential (Group C) ("R(C)") : Total Area ~~41.34~~**10.38** ha

9.4.1 This zone is intended primarily for low-rise, low-density residential developments where commercial uses serving the residential neighbourhood may be permitted on application to the Board. The site of Ma Liu Shui San Tsuen in the Area consists of a number of low-density houses. This area is zoned "R(C)" with a view to reflecting the existing use. At the same time, private initiatives are encouraged to promote comprehensive low-rise and low-density residential developments mainly through land exchange or lease modification. The development parameters of the zone are restricted to a low level to control the growth in population in the area arising from redevelopment of residential units, so that the infrastructure in the Area will not be overloaded. In order to retain the rural character of the area and its surrounding areas, no new development or redevelopment (except those annotated with #) shall exceed a maximum plot ratio of 0.2 and a maximum building height of 2 storeys (6m) over 1 storey carport, or the plot ratio, site coverage and height of the building which was in existence on the date of the first publication in the Gazette of the notice of the IDPA plan, whichever is the greater. Footpaths of 1.6m wide should be provided on both sides of the existing access roads within the zone to cater for future population growth and to improve pedestrian safety in the area.

9.4.2 However, there are a number of industrial/open storage uses within this zone. The long-term planning intention is to upgrade the environment of this area by generally removing the non-compatible uses and to encourage low-density residential development with ancillary facilities.

9.4.3 It is envisaged that areas along Sha Tau Kok Road would be exposed to severe traffic noise impact. Self-protective design concept (i.e. proper layout plan design and implementation programme for such measures or

erection of noise screening structures by individual lot owners) should be imposed on new developments and redevelopments in the zone.

9.4.4 To provide flexibility for innovative design adapted to the characteristics of particular sites, minor relaxation of the plot ratio and building height restrictions stated in paragraph 9.2.1 above may be considered by the Board through the planning permission system. Each proposal will be considered on its individual planning merits.

9.5 Village Type Development (“V”) : Total Area 79.37 ha

9.5.1 The planning intention of this zone is to designate both existing recognized villages and areas of land considered suitable for village expansion. Land within this zone is primarily intended for development of Small Houses by indigenous villagers. It is also intended to concentrate village type development within this zone for a more orderly development pattern, efficient use of land and provision of infrastructures and services. Selected commercial and community uses serving the needs of the villagers and in support of the village development are always permitted on the ground floor of a New Territories Exempted House. Other commercial, community and recreational uses may be permitted on application to the Board.

9.5.2 The boundaries of the “V” zones are drawn up having regard to the village ‘environs’ of the recognized villages, the local topography, the existing land use pattern, the provision of infrastructural facilities, the approved applications for Small House development, the outstanding Small House applications, as well as the Small House demand forecast. Areas of difficult terrain, dense vegetation, burial grounds and streamcourses have been avoided. Village expansion areas and other infrastructural improvements will be guided by detailed layout plans whenever applicable.

9.5.3 The “V” zone covers the recognized villages in the Area, namely, Ma Mei Ha Village, Ma Mei Ha Leng Tsui Village, Leng Pei Tsuen, Kan Tau Tsuen, Tan Chuk Hang Lo Wai, Tan Chuk Hang Village, Ko Po Village, San Tong Po Village, Lau Shui Heung Village, Kwan Tei Village, Fu Tei Pai Village, Ma Liu Shui San Tsuen, San Wai, Kan Lung Tsuen, San Uk Tsuen, Wing Ning Wai, Wing Ning Tsuen, Tung Kok Wai, Tsz Tong Tsuen, Ma Wat Tsuen, Ma Wat Wai, Lo Wai, Shung Him Tong Village and Tong Hang Village.

9.5.4 Those “V” zones adjoining Sha Tau Kok Road, viz. San Uk Tsuen and Kwan Tei Village, would be exposed to severe traffic noise impact. In view of this, self-protective design concept should be incorporated into new and affected Small House developments. Proper layout plan design and firm implementation programme for noise mitigation measures or erection of noise screening structures by individual house owner should be required.

9.5.5 The “V” zones at Ma Mei Ha Village, Leng Pei Tsuen, Ko Po Village and Lau Shui Heung Village are located below steep natural terrain. Development at these areas may be affected by potential natural terrain

landslide hazards. Therefore, natural terrain hazard study and/or mitigation works may be required for any proposed development.

9.5.6 To provide flexibility for innovative design adapted to the characteristics of particular sites, minor relaxation of the building height restriction stated in the Notes may be considered by the Board through the planning permission system. Each proposal will be considered on its individual planning merits.

9.6 Government, Institution or Community (“G/IC”) : Total Area ~~32.56~~**12.11** ha

9.6.1 This zone is intended primarily for the provision of Government, institution or community facilities serving the needs of the local residents and/or a wider district, region or the territory. It is also intended to provide land for uses directly related to or in support of the work of the Government, organizations providing social services to meet community needs, and other institutional establishments. As detailed planning proceeds, land may be designated from other uses to this zoning to meet the envisaged demands of the growing population of this Area.

9.6.2 *A site to the east of the public housing development at Queen’s Hill is reserved for development of international school use. In order not to jeopardize the infrastructure capacity, the development of this site should tie in with the completion of the proposed Fanling Bypass (Eastern Section) tentatively scheduled in 2023. As the site may be affected by potential natural terrain hazards, provision of appropriate hazard mitigation measures and upgrading of infrastructure may be required for future development on the site.*

9.6.3 *A site at the junction of Sha Tau Kok Road and Lung Ma Road is reserved mainly for provision of a divisional fire station cum ambulance depot, a sewage pumping station and an electricity substation to serve the Queen’s Hill development and the wider district.*

9.6.4 The Precious Blood Children’s Village and its proposed extension and Suen Doh Camp are designated “G/IC” on the Plan. Four vacant school premises and the ex-Ko Po Agricultural Extension Office are retained “G/IC” to meet the long-term needs.

~~9.4.39.~~**6.5** A site in Ma Liu Shui San Tsuen is zoned “G/IC(1)” with ‘Religious Institution’ use under Column 2 in the Notes to retain control on the religious use through planning permission. This is intended primarily for the development of a religious institution (chapel) and its proposed extension. Any development on land zoned “G/IC(1)” shall be compatible and blend in harmoniously with its surrounding environment. No new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum plot ratio of 0.38, and a maximum building height of 2 storeys (excluding basement(s)) as well as not exceeding 19 metres above Principal Datum and 22 metres above Principal Datum respectively for the north-western and south-eastern part of the site, as demarcated by the pecked

line on the Plan. Minor relaxation of the plot ratio/building height restriction would be considered on application to the Board through the planning permission system. Each proposal will be considered on the individual planning merits.

- ~~9.4.4 The former Burma Lines military site in the central part of the Area is zoned "G/IC(2)" and intended primarily for the development of educational institutions and schools. The zoning is to facilitate appropriate planning control over the scale, design and layout of development, taking account of the natural landscape features of the site. Any development on the site would require the approval of the Board through planning application under section 16 of the Ordinance by preparing a layout plan with the support of a landscape, tree preservation, and urban design proposals, visual impact, air ventilation, and other technical assessments to demonstrate the sustainability of the development on landscape, visual, environmental, traffic, geotechnical and infrastructure terms.~~
- ~~9.4.5 The site is characterized with extensive woodland and undulating terrain, providing pleasant greenery setting for the Area. It is surrounded by Queen's Hill to the east; well vegetated knolls and Pat Sin Leng Country Park to the south; and agricultural land intermixed with rural settlement to the north and west.~~
- ~~9.4.6 Future development(s) within the zone should respect the natural topography and landscape to encourage provision of a quality green environment. Upon development within the site, due effort should be made on preserving existing woodlands, enhancing natural landscape, minimizing tree felling and reducing site formation works by siting developments largely within existing platforms and utilizing the existing roads as far as possible. Podium structures should be avoided as far as possible. For visual compatibility to integrate the development with the adjoining rural setting, a stepped building height profile ascending towards the hillside is recommended. Disposition and layout of future development(s) should be so designed providing north-south visual corridors within the site to allow visual permeability to the greenery backdrop of green knolls including Lung Shan to the south. Given the setting of the site, project proponents are encouraged to adopt innovative architectural design in one or more building(s) within the site to add visual and architectural interest to the Area. Due to the relatively large area of the site, more than one educational institution or school may be developed within the site. The scale, design and layout of each institution should be complementary to each other and be compatible with the rural character and high landscape amenity of the site and its surrounding areas.~~
- ~~9.4.7 Development(s) within this zone is subject to a maximum building height of 30 metres, or the height of the building which was in existence on the date of the first publication in the Gazette of the notice of the draft OZP No. S/NE-LYT/3 (i.e. 20 August 1999), whichever is the greater. Based on the individual merits of each proposal, minor relaxation of the building height restriction may be considered by the Board on application under section 16 of the Ordinance.~~

~~9.4.8 As the site may be affected by potential natural terrain hazards and subject to flooding in the low lying area, provision of appropriate hazard mitigation measures and upgrading of infrastructure may be required for future developments on the site. Besides, Lung Ma Road may need to be widened subject to further review.~~

9.7 “Open Space” (“O”) : Total Area 3.68 ha

9.7.1 *This zone is intended primarily for the provision of outdoor open-air public space for active and/or passive recreational uses serving the needs of local residents as well as the general public.*

9.7.2 *A site located to the south of the Queen’s Hill public housing development is reserved for district open space use. The site is characterized with extensive woodland and undulating terrain with pleasant greenery setting. A Hindu Temple, which is a Grade 3 historic building, is located in the east of the site. The design of the open space should pay due regard to preserving the existing woodlands and graded historic building, enhancing natural landscape, minimizing tree felling and reducing site formation work.*

9.8 Recreation (“REC”) : Total Area 15.35 ha

9.8.1 This zone is intended primarily for the improvement of the environmental quality of the designated areas by offering incentives for low-density recreational development in the zone. It encourages the development of active and/or passive recreation and tourism. Uses in support of the recreational developments may be permitted subject to planning permission.

9.8.2 Two sites are designated as “REC” zone on the Plan, viz. an area near Tong Hang Village at the southern part of the Area and a stretch of land along Lau Shui Heung Road leading to Po Kat Tsai. The two areas are at present occupied by some open storage and car-park uses. However, due to the close proximity of the former site to Tong Hang Village and the tranquil environment of the two “REC” sites, it is not the long-term intention to tolerate these non-conforming uses. With the “REC” zoning, it is intended to phase out the existing open storage uses and improve the environmental quality of the areas.

9.8.3 Recreational uses like holiday camp with sporting facilities, e.g. tennis courts and swimming pools, etc. are always permitted within this zone. However, the recreational development in this area should be restricted to low-density development so as not to overload the infrastructure of the area and create nuisance to the villagers. No residential development shall result in a total development in excess of a maximum plot ratio of 0.2 and a maximum building height of 2 storeys (6m). However, as part of the “REC” site in Tong Hang falls within a village ‘environ’, provision has been made in the Remarks of the Notes to allow for exemption for development of New Territories Exempted House from these restrictions.

- 9.8.4 Consideration may be given to upgrade the existing Lau Shui Heung Road and the road branching off Po Kat Tsai to 7.3m wide with 1.6m wide footpath on both sides of the road should there be a need to cater for any increased traffic demand and improve the accessibility of the “REC” site at Lau Shui Heung Road.
- 9.8.5 To provide flexibility for innovative design adapted to the characteristics of particular sites, minor relaxation of the plot ratio and building height restrictions stated in paragraph 9.5.3 above may be considered by the Board through the planning permission system. Each proposal will be considered on its individual planning merits.

9.9 Other Specified Uses (“OU”) : Total Area 3.35 ha

- 9.9.1 The planning intention of this zone is to allocate land for specified uses.
- 9.9.2 A strip of land at the southern part of the Area is zoned “OU (Railway)”. The land is occupied by the railway tracks of Mass Transit Railway Corporation.
- 9.9.3 Two parcels of land near Tong Hang are zoned “OU (Petrol Filling Station)” for an existing petrol filling station and a proposed petrol and liquefied petroleum gas filling station. The area to the south of Tong Hang zoned “OU (Amenity Area)” is intended for development of nursery garden, landscape and amenity area.

9.10 Agriculture (“AGR”) : Total Area ~~144.42~~ **144.37** ha

- 9.10.1 This zone is intended primarily to retain and safeguard good quality agricultural land/farm/fish ponds for agricultural purposes. Extensive active agricultural land is found in the Area. From agricultural point of view, all the active agricultural lots are worthy of preservation, particularly those located at the Kwan Tei and Ma Mei Ha areas which are good quality agricultural land. The zoned areas are well served by irrigation and marketing facilities for intensive farming. Agricultural Land Rehabilitation Scheme has been extended to these areas. Moreover, AFCD has been maintaining the irrigation weirs and channels at Ma Mei Ha. Improvement works to infrastructure, such as farm access, are also implemented under the Rural Public Works to promote agricultural activities in the Area.
- 9.10.2 This zone is also intended to retain fallow arable land with good potential for rehabilitation for cultivation and other agricultural purposes, and to encourage the re-cultivation of good arable land by providing improvement to irrigation, drainage and access.
- 9.10.3 As filling of land/pond may cause adverse drainage and environmental impacts on the adjacent areas, permission from the Board is required for such activities. However, filling of land specifically required under prior written instructions of Government department(s), or for the purposes of genuine

agricultural practice including laying of soil not exceeding 1.2m for cultivation, and construction of agricultural structure with prior written approval from the Lands Department is exempted from the control.

9.11 Green Belt (“GB”) : Total Area 81.79 ha

9.11.1 The planning intention of this zone is primarily for defining the limits of urban and sub-urban development areas by natural features and to contain urban sprawl as well as to provide passive recreational outlets. The zoned areas include foothills, lower hill slopes, spurs, isolated knolls, woodland, and permitted burial grounds for indigenous villagers.

9.11.2 The “GB” zone in the Area mainly consists of the mountainous areas at Po Kat Tsai which are covered by dense vegetation and woodland worthy of preservation, the Queen’s Hill near Lau Shui Heung and the dense, vegetated area to the north of Tong Hang. Moreover, some isolated knolls and burial grounds, etc. are also zoned “GB”.

9.11.3 The Area is separated by mountain ranges from the Pat Sin Leng Country Park. Some of the mountainous areas bordering the foothills of Tai Leng Pei and Lung Shan are zoned “GB” and served as a buffer in between. There is a general presumption against development within this zone. However, limited developments may be permitted if they are justified on strong planning grounds. Developments requiring planning permission from the Board will be assessed on their individual merits taking into account the relevant Town Planning Board Guidelines.

9.11.4 As filling of land/pond and excavation of land may cause adverse drainage impacts on the adjacent areas and adverse impacts on the natural environment, permission from the Board is required for such activities.

10. CULTURAL HERITAGE

10.1 A site of archaeological interest, namely the Queen’s Hill Site of Archaeological Interest, falls within the Plan boundary. A number of **declared monuments and graded** historic buildings are also located within the Area. Kun Lung Gate Tower, Enclosing Walls and Corner Watch Towers of Kun Lung Wai, Entrance Tower of Ma Wat Wai, Entrance Tower and Enclosing Walls of Lo Wai, Tang Chung Ling Ancestral Hall and Tin Hau Temple are declared monuments, whereas Shin Shut Study Hall (Grade 1), **Entrance Tower and Enclosing Wall of Tung Kok Wai** (Grade 1), the Main Building and Annex Block of Shek Lo (Grade 1), the Main Building and Entrance Gate of Kin Tak Lau (**both** Grade 1), Hung Leng Station (Grade 3), Yi Kung Lok Mansion (Grade 3), Tsung Kyam Church (Grade 3), Entrance Gate of Wing Ning Wai (Grade 3), Hindu Temple of ~~Burma Lines~~ **Queen’s Hill** (Grade 3), Nos. 1, ~~& 2 & 3~~ **Ko Po Tsuen** (Grade 3), **No. 3 Ko Po Tsuen** (Grade 3) and Entrance Hall of Nos. 4-7 Ko Po Tsuen (Grade 3) are graded historic buildings. All the above site of archaeological interest, declared monuments and graded historic buildings / structures are worthy of preservation.

10.2 *The Antiquities Advisory Board (AAB) also released a list of new items in addition to the list of 1,444 historic buildings. These items are subject to grading assessment by the AAB. Details of the list of 1,444 historic buildings and the new items have been uploaded onto the website of the AAB at <http://ww.aab.gov.hk>.*

10.3 Prior consultation with the Antiquities and Monuments Office (~~AMO~~) of the Leisure and Cultural Services Department (~~LCSD~~) should be made if any development, redevelopment or rezoning proposal might affect the above site of archaeological interest **declared monuments, graded historic buildings / structures, new items pending grading assessment**, and their immediate environs.

11. COMMUNICATIONS

11.1 Road Network

The Area is closely linked to Fanling/Sheung Shui New Town, Ping Che and Sha Tau Kok via the main road network of Sha Tau Kok Road and Ping Che Road. The Area is easily accessible. Within the Area, Lau Shui Heung Road runs along the central part of the Area in a north-south direction. The villages in the Area are accessible via roads and village tracks branching off Sha Tau Kok Road.

11.2 Transport Provision

The Area is served by public transport facilities, including green mini-buses, buses and taxis running between the Fanling/Sheung Shui New Town and the Ma Mei Ha area via Sha Tau Kok Road.

11.3 Road Improvement

Dualling of Sha Tau Kok Road from Lung Yeuk Tau to Ping Che Road (under Public Works Programme (PWP) Item No. 6528 TH) commenced in November 1995 and was completed in February 1999. A section of Sha Tau Kok Road from Lung Yeuk Tau to the junction at Ping Che Road has been widened to a dual 2-lane carriageway and additional pedestrian crossing facilities have been provided.

12. UTILITY SERVICES

12.1 Sewerage and Drainage Systems

12.1.1 The use of on-site treatment and disposal facilities, meeting effluent discharge standards prescribed by the Technical Memorandum as stipulated under the Water Pollution Control Ordinance, to support new development is acceptable as an interim measure prior to the availability of additional treatment capacity at the Shek Wu Hui Sewage Treatment Works. These on-site sewage treatment and disposal facilities should preferably be connected back into the public sewerage system once upgrading of the treatment plant and local sewerage is completed. ***The no net increase in pollution loading to Deep Bay policy pursued by the Environment***

Protection Department should be observed.

12.1.2 Areas along Ng Tung River and its tributaries are susceptible to flooding. In view of this, there are river training projects namely, “PWP Item No. 4125CD – Drainage Improvement from Tung Kok Wai to San Wai, Fanling” and “PWP Item No. 4151CD – Drainage improvement works in Lung Yeuk Tau, Kwan Tei South and Leng Tsai, Fanling”, to improve the local drainage system and reduce the risk of flooding in the areas of Lung Yeuk Tau.

12.2 Other Public Utility Services

12.2.1 Basic utilities like water, electricity and telephone services are provided by respective Government departments and utility companies to the Area.

12.2.2 The Hong Kong and China Gas Co. Ltd. has laid a medium gas main along Sha Tau Kok Road from Lung Yeuk Tau to Ping Che Road in conjunction with dualling of Sha Tau Kok Road by Highways Department.

13. IMPLEMENTATION

13.1 The Plan provides a broad land use framework for development control and implementation of planning proposals for the Area. More detailed plans will be prepared as a basis for public works planning and private developments.

13.2 At present, there is no definite programme for the provision of comprehensive infrastructure within the Area. The implementation process will be gradual and may stretch over a long period of time depending on the availability of resources. It will be undertaken through the participation of both the public and private sectors.

13.3 Notwithstanding the above, minor improvement works e.g. widening of access road and laying of utility services will be implemented through the Public Works Programme and the Rural Public Works as and when resources are available. Private developments will be effected principally through private sector initiatives to develop or redevelop their properties in accordance with the zoned uses indicated on the Plan, provided that their proposals meet Government requirements.

14. PLANNING CONTROL

14.1 The types of permitted developments and uses within the Area are listed in the Notes to the Plan. Unless otherwise specified, all building, engineering and other operations incidental to and all uses directly related and ancillary to the permitted developments and uses within the same zone are always permitted and no separate permission is required.

14.2 Uses of land or building which were in existence immediately before the first publication in the Gazette of the notice of the IDPA plan and which are not in compliance with the terms of the Plan may have adverse impact on the environment, drainage and traffic of the area. Although no action is required to make such use

conform to this Plan, any material change of such use or any other development (except minor alteration and/or modification to the development of the land or building in respect of such use which is always permitted) must be always permitted in terms of the Plan or, if permission is required, in accordance with a permission granted by the Board. The Board will consider these applications on their individual merits. Those alteration and/or modification works which may lead to an environmental improvement or upgrading to the Area may be considered favourably by the Board.

- 14.3 Planning applications to the Board will be assessed on individual merits. In general, the Board, in considering the planning applications, will take into account all relevant planning considerations which may include the departmental outline development plans and layout plans, and guidelines published by the Board. The outline development plans and layout plans are available for public inspection at the Planning Department. Guidelines published by the Board are available from the Board's website, the Secretariat of the Board and the Technical Services Division of the Planning Department. Application forms and Guidance Notes for planning application can be downloaded from the Board's website and are available from the Secretariat of the Board, and the Technical Services Division and relevant District Planning Office of the Planning Department. Applications should be supported by such materials as the Board thinks appropriate to enable it to consider the applications.
- 14.4 Any development, other than those referred to in paragraph 14.1 above or in conformity with this Plan or with the permission of the Board, undertaken or continued on or after 17 August 1990 on land included in a plan of the Lung Yeuk Tau and Kwan Tei South IDPA may be subject to enforcement proceedings under the Ordinance. Any filling of land/pond and excavation of land in the relevant zones on or after the exhibition of the specific plan referred to in the Notes of the relevant zones without the permission from the Board may also be subject to enforcement proceedings.

PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL

Visual Appraisal

April 2015



Hong Kong Housing Authority

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1. Site Particulars and Proposed Development

- 1.1 The Queen's Hill public housing site, (part of the Ex-Burma Lines Military Site) is located some 2km northeast of Fanling and Sheung Shui new town at Sha Tau Kok Road. The subject site comprises an area of 13.65 ha (gross site area) and is zoned as "G/IC(2)", "R(C)", "Green Belt" and "G/IC" on the draft Lung Yeuk Tau and Kwan Tei South OZP No. S/NE-LYT/15. The main access is via the existing substandard Lung Ma Road.
- 1.2 The subject site is readily available and largely on Government Land, except 0.14 ha of private land with temporary structures along Lung Ma Road. It was agreed in the Task Force Meeting on Wang Chau and Queen's Hill Site on 27 June 2013 that the subject site should be used for public housing development based on a planned PR of 6.0 and the building height of around 100mPD-140mPD subject to further studies, having regard to access to possible private housing development on the eastern part of the site. Under the present proposal, around 12,000 flats under total plot ratio of 6.0 with building height ranging from 102mPD to 143mPD would be produced in phases from 2020/21. There was no in-principle objection to the building height disposition/ profile discussed at the PD-HD Liaison Meeting on 6 November 2014, in view of the overriding need to increase housing supply and optimize development potential of the site to help meet the demand for public housing.
- 1.3 Sitting on series of platforms from 14mPD to 30mPD, the subject site is situated at the existing rural setting, comprising predominantly 2 to 3-storey village settlements intermixed with agricultural land and open storage uses, while the surrounding natural landscape including the well-vegetated Queen's Hill to its east and Lung Shan to the immediate east and south, serve as mountain backdrop for the site.
- 1.4 The proposed development is a mix with PRH and Subsidized Sale Flats development, with building height ranging from 102mPD to 143mPD. Whilst major visual changes to the existing natural landscape and rural character seem inevitable with the PRH development in such rural setting, effort has been made to mitigate the impacts. For instance, to allow some visual interest, the residential development is designed with building height profile ascending from north to south (from the lower school/ social welfare blocks to higher domestic blocks) and descending from west to east respecting the existing topography, trees/ vegetation, development platforms and the neighbourhood context of Queen's Hill. Moreover, to enhance building permeability, two large visual corridors of significant width are designed to preserve visual permeability and visual access to major visual resources including Tsung Shan and further Cheung Shan to the north and Lung Shan to the south. Building layout is designed to provide separation in building cluster and reduce façade length to promote

permeability. To respect the existing Pang's ancestral grave to the western end of the Site, the western tip of the Site would remain undeveloped as set back with greenery treatment (**Figure 1**). As the PRH portion of the site is segregated by the planned through road, the introduction of the footbridge system aims to provide a continuous covered passage for the convenience of the residents as well as to enhance the connectivity within the PRH portion of the site. Non-intrusive design landscaped with planters and shrubs and sitting area will be adopted into the footbridge system such that it can be integrated to the landscape gardens or roofs to which they are connected. Major development parameters are shown in **Table 1** below, while indicative site layout plan, height disposition and schematic site sections are shown in **Figures 1 to 4** respectively.

Table 1: Major Development Parameters of the Proposed Public Housing Development at Queen's Hill

Gross Site Area	13.65 (about)
Net Site Area	9.19 (about)
Flat Production	8,840 PRH flats (western portion) 3,160 Subsidized Sale Flats (eastern portion)
Maximum No. of Storeys or Building Height in mPD (approx.)	23 domestic storeys to 40 domestic storeys +102mPD to +143 mPD (main roof level)
Green Coverage	At least 30%
Other uses/ public facilities	Retail Facilities (2 storeys) Kindergartens (under domestic blocks) Primary schools PTT/ Community Hall/Social Welfare Complex At grade and basement car parking spaces RCP

2. Viewpoints

2.1 The proposed public housing development located at the town fringe will inevitably change the existing landscape in the area. This report provides an assessment on the likely visual effect that may be generated by the proposed development. A total of eight viewpoints (i.e. the critical visual sensitive receivers) have been identified in conjunction with the Urban Design and Landscape Section, Planning Department for this assessment (**Plan 1**). These viewpoints selected from different directions around the site generally represent the views of

pedestrian nodes which are accessible by the public and/ or from key public open spaces/recreational areas:

- Viewpoint 1:** Fanling Railway Station at Fanling Station Road, which is the major public passageway. (**Plan 2** refers)
- Viewpoint 2:** Hung Leng Children's Playground, which is a popular area for public enjoyment. (**Plan 3** refers)
- Viewpoint 3:** Peak of Tsung Shan, which is a hiking trail overlooking the proposed development from the north. (**Plan 4** refers)
- Viewpoint 4:** The 5th floor of Lung Shan Temple, which overlooks the proposed development from the view from Lung Shan at the south. (**Plan 5** refers)
- Viewpoint 5:** Southern tip of Lau Shui Heung Irrigation Reservoir, northeast of the peak of Lung Shan, which is a hiking trail at Lung Shan. (**Plan 6** refers)
- Viewpoint 6:** Lau Shui Heung County Trail, south of the peak of Lung Shan, which is a hiking trail at Lung Shan. (**Plan 7** refers)
- Viewpoint 7:** Kwan Tei Bus Station, which is a public gathering place. (**Plan 8** refers)
- Viewpoint 8:** View from San Uk Tsuen Sitting-out Area, which is an area for public enjoyment. (**Plan 9** refers)

3. Visual Appraisal

- 3.1 Eight photomontages (**Plans 2 to 8**) were prepared to illustrate the visual effect of the proposed development at the above viewpoints.

Viewpoint 1

- 3.2 This viewpoint outside the Fanling Railway Station is looking NE to the site at a distance of around 2km (**Plan 2**). The photomontage shows that the proposed development cannot be visible from the street level at this viewpoint. View towards the proposed development will be hidden behind the existing high-rise Fanling Town Centre and Cheung Wah Estate. It can be concluded that there is **insignificant** visual impact from this viewpoint.

Viewpoint 2

- 3.3 This viewpoint at Hung Leng Children's Playground, Fanling Station Road is looking SW to the site at a distance of around 1.5km (**Plan 3**). View towards the proposed public housing development at this distant viewpoint will be largely hidden behind the existing vegetation and village neighbourhood. Since the proposed development is largely invisible from the street level at this viewpoint, visual impact is not anticipated.

Viewpoint 3

- 3.4 This viewpoint at the hiking trail at the peak of Tsung Shan is looking south to the site at a distance of around 1.5km (**Plan 4**). The photomontage demonstrates the proposed development that will be visible from the peak of Tsung Shan and also illustrates the development profile in a wider context. It shows that a certain part of the green hillside will be blocked by the proposed development when viewed from this viewpoint. Whilst major visual changes to the existing natural landscape and rural character seem inevitable with the PRH development in such rural setting, effort has been made to mitigate the impacts.
- 3.5 The residential development is designed with stepped height profile ascending from north to south and descending from west to east respecting Queen's Hill in the east as far as feasible. In formulating the development layout of the public housing development, lower blocks, such as school blocks, PTT, Community Hall, cum Social Welfare Complex are placed in the northern portion of the Site to cater for a better transition with the low-rise village type development located to its north. Lower Subsidized Sale Flats blocks are also located in the eastern portion of the Site to tally with the mountain profile of Queen's Hill. The proposed building height profile also allows ample buffer distance between the skyline of the development and the ridgeline at the backdrop when viewed from this viewpoint. Provision of building separations (at least 15m) and two large visual corridors of 40m and 100m each and various building design with natural colour scheme and green features also allow visual permeability and better visual connections with the mountain and help to soften the massing of the development. Moreover, set back from the western end of the site to respect the existing Pang's ancestral grave for greenery treatment could respect the downward hillslope at the backdrop.
- 3.6 The proposed PRH development would contrast with the surrounding rural/natural setting particularly in terms of scale and heights, altering the visual character. Undeniably, its visual impact is **significant**. To further mitigate the visual impact from this viewpoint while maximizing flat production, we will carefully work out design measures, including application of a natural colour scheme for domestic blocks with appropriate façade design and treatment such as the provision of greening features and coloured patterns, etc., which will help add visual interest to the development. We will explore design measures to enhance the visual interest at the detailed design stage.

Viewpoint 4

- 3.7 This viewpoint at the 5th floor of Lung Shan Temple is looking north to the site at a closer distance of around 600m (**Plan 5**). The photomontage shows that the proposed development will be visible from this upper floor of the Temple. Due to the rural setting of

the subject site, the building mass of the proposed public housing development can be experienced. Same as Viewpoint 3, the building separations/ visual corridor of various widths allow visual permeability and better visual connections with the mountain and helps to soften the massing of the development. The effect of the building height ascending from north to south and descending from west to east respecting Queen's Hill in the east also add design interests to mitigate visual impact to the surrounding environment from this viewpoint. Further application of design measures including greening features and natural colour pattern for the domestic blocks would help mitigate the visual impact. .

Viewpoints 5 and 6

3.8 Both Viewpoint 5 at the Lau Shui Heung County Trail, south of the peak of Lung Shan and Viewpoint 6 at the Lau Shui Heung County Trail are looking NW to the site at a distance of around 1.4km (**Plan 6**). These viewpoints are the more easily public accessible areas at Lung Shan. The photomontages show that the proposed development cannot be visible from these higher levels at these viewpoints. View towards the proposed development will be screened by the existing vegetation and Lung Shan. It can be concluded that the visual impacts when viewed from various levels at the hiking trail around Lung Shan are considered **insignificant**.

Viewpoint 7

3.9 This viewpoint at the Kwan Tei Bus Station is looking south to the site at a closer distance of around 600m (**Plan 7**). The photomontage shows that the visual impact is **slight** since the proposed development is largely screened by the existing vegetation along Sha Tau Kok Road and the village neighbourhood. With further application of design measures including greening features and natural colour pattern for the domestic blocks, the proposed public housing development could more blend well within the natural setting.

Viewpoint 8

3.10 This viewpoint at the San Uk Tsuen Sitting-out Area is looking east to the site at a closer distance of around 600m (**Plan 8**). The photomontage shows that small part of the proposed development is visible from the street level at this viewpoint. The visual impact is **slight** since the proposed development is largely screened by the existing vegetation along Sha Tau Kok Road and the village neighbourhood. With further application of design measures including greening features and natural colour pattern for the domestic blocks, visual impact could be alleviated with the proposed public housing development being merged well within the village neighbourhood.

3.11 Based on the above appraisal, whilst major visual changes to the existing natural landscape

and rural character seem inevitable with the PRH development in such rural setting, effort has been made to mitigate the impacts to a more acceptable level. We will also take measures to reduce the building bulk as far as practicable at detailed design stage. The possible design measures to improve the visual outlook are summarized as below:

- The building height profile of the proposed development tallies with that was agreed in the Task Force Meeting on Wang Chau and Queen's Hill Site on 27 June 2013 and is in accordance with the restriction of not more than 145mPD as agreed in the PlanD-HD Liaison Meeting on 6 November 2014. The stepped effect of the building height ascending from north to south and descending from west to east respecting Queen's Hill in the east could help minimizing visual impacts to its neighbourhood.
- The blocks will be positioned to facilitate the 15m building separation requirement for ventilation consideration. Moreover, two large visual corridors of 40m and 100m each are designed to align visual resources of Tsung Shan to the north and Lung Shan to the south. It also results in visual relief by reducing the building mass and bulkiness of the blocks (**Figure 2**).
- The color scheme of the domestic blocks will be carefully worked out, together with appropriate facade design and treatments such as the provision of greening features and coloured patterns etc. which will help add visual interest to the development.
- We will endeavor to maximize the green coverage through planting and landscaping at various levels (i.e. 30% green coverage with half of greening at grade). Trees within the proposed development will be retained and preserved as far as possible in order to create a buffer and soften its interface with the surrounding. There is also set back from the western end of the site to respect the existing Pang's ancestral grave for greenery treatment. Vertical greening and roof top greening will also be explored as far as practicable to enhance the aesthetic value of the proposed development.

4. Conclusion

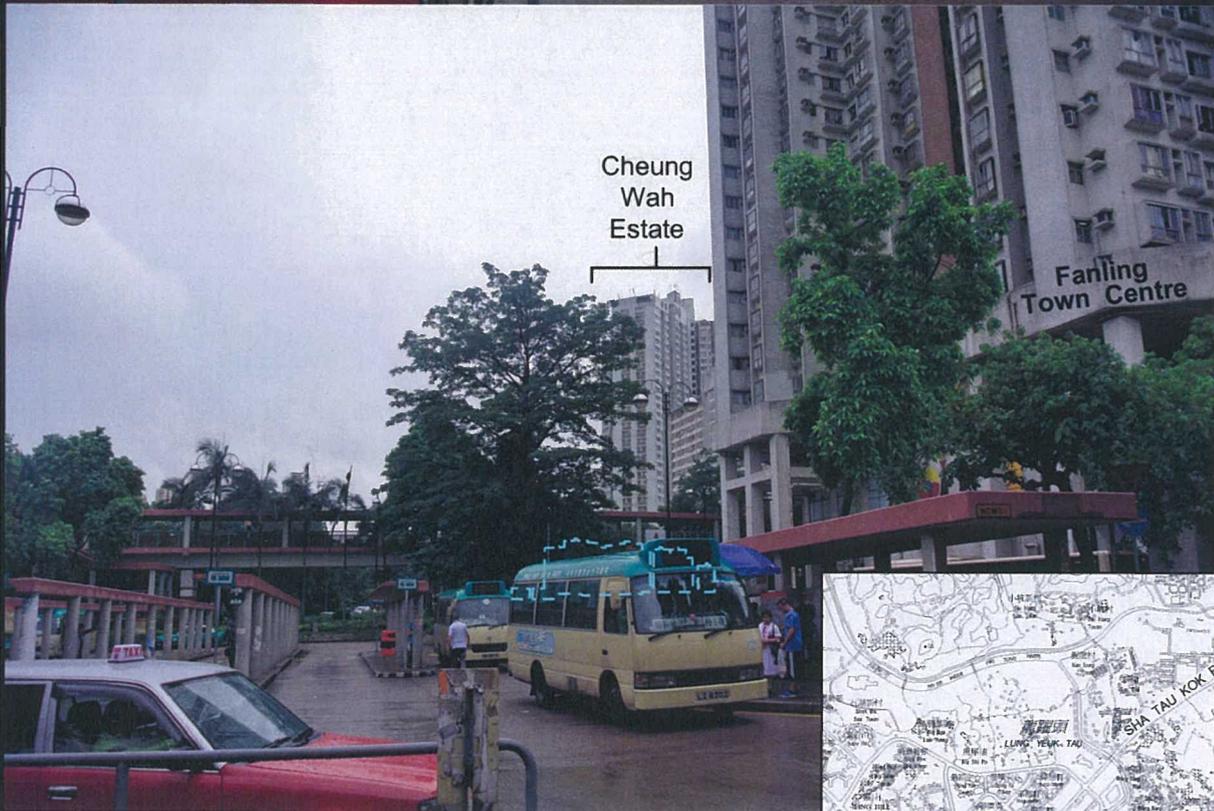
- 4.1 Whilst major visual changes to the existing natural landscape and rural character seem inevitable with the PRH development in such rural setting, effort has been made to mitigate the impacts. After the visual appraisal at the eight viewpoints, it can be found that the proposed public housing development will not generate significant visual impact or adversely affect the visual amenity in the area when viewing from a distance at Viewpoints 1, 5 and 6. The visual impact from Viewpoints 2, 7 and 8 in the surrounding public gathering

places are minimal or slight as the view of the proposed development will be largely obstructed by the existing vegetation and village neighbourhood. The likely visual impact of the proposed public housing development at Viewpoints 3 and 4 will be attenuated by the design features including adoption of various building separation/ visual corridors, stepped building height, ample open space, 30% green coverage, green roof and other greening measures. We will explore other design measures to enhance the visual interest at the detailed design stage.

Existing View

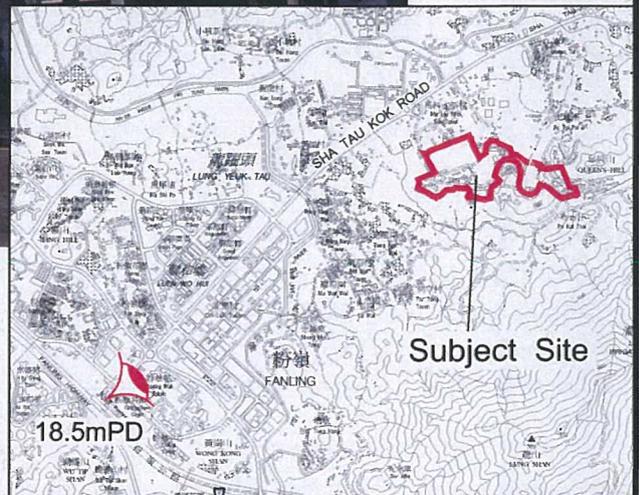


With Development



LEGEND:

-  Proposed Development Behind Existing Features



**PHOTOMONTAGE AT VIEWPOINT 1
(VIEW FROM FANLING RAILWAY STATION)**

 **HOUSING DEPARTMENT
PLANNING SECTION**

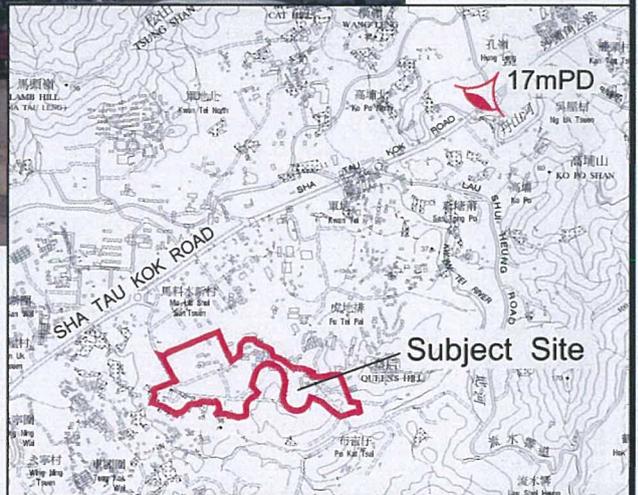
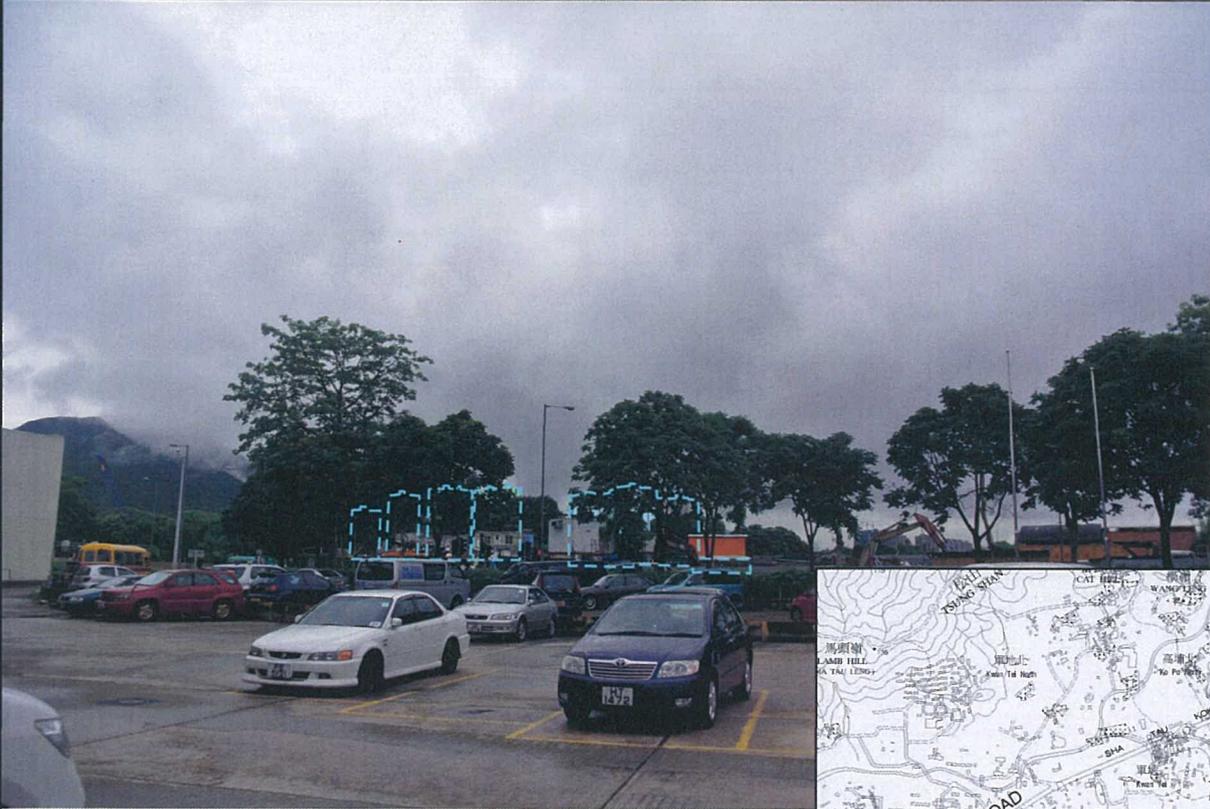
PLAN 2

DATE:
28. 4. 2015

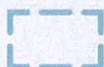
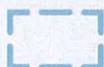
Existing View



With Development



LEGEND:

-  Proposed Development
-  Behind Existing Features

PHOTOMONTAGE AT VIEWPOINT 2
(VIEW FROM HUNG LENG CHILDREN'S PLAYGROUND)

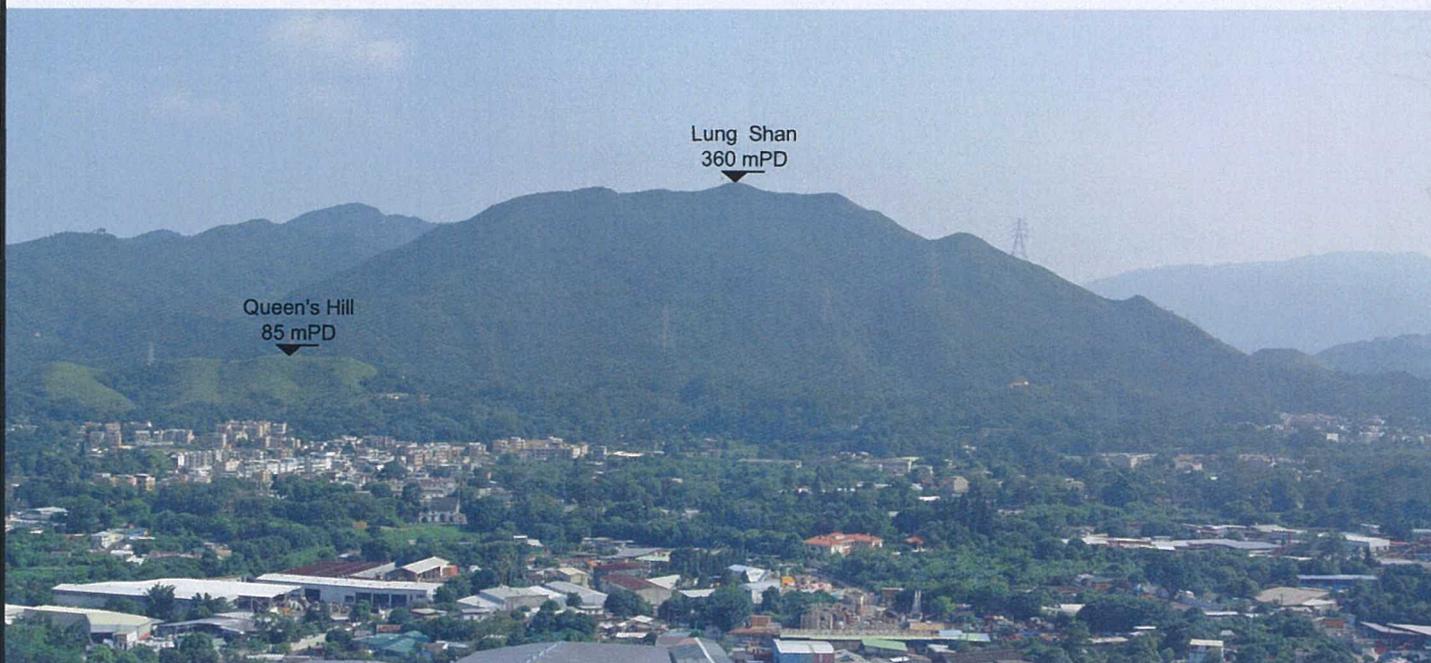


HOUSING DEPARTMENT
PLANNING SECTION

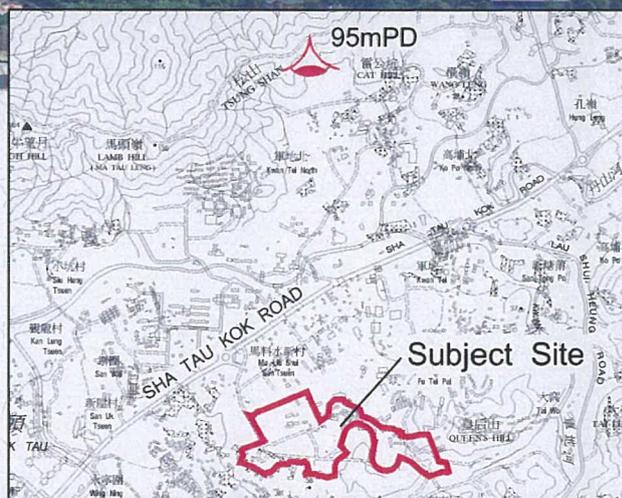
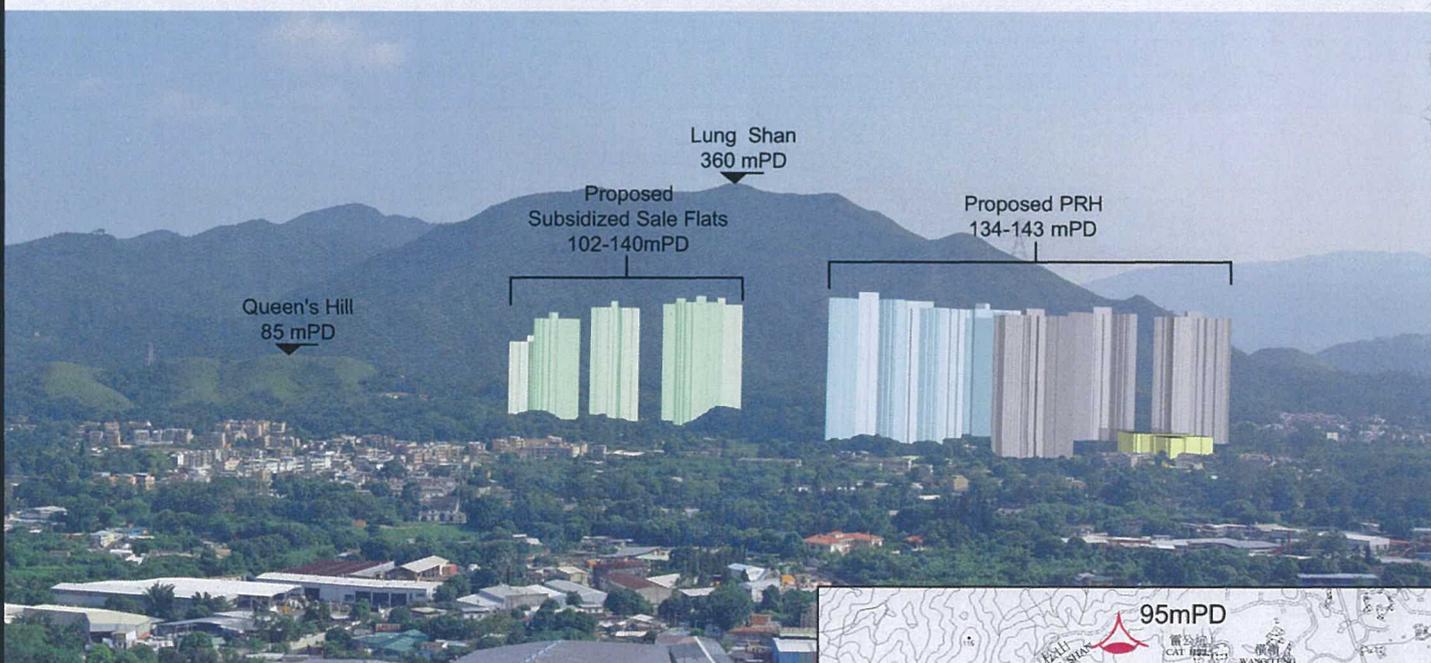
PLAN 3

DATE:
28. 4. 2015

Existing View



With Development



**PHOTOMONTAGE AT VIEWPOINT 3
(VIEW FROM PEAK OF TSUNG SHAN)**



**HOUSING DEPARTMENT
PLANNING SECTION**

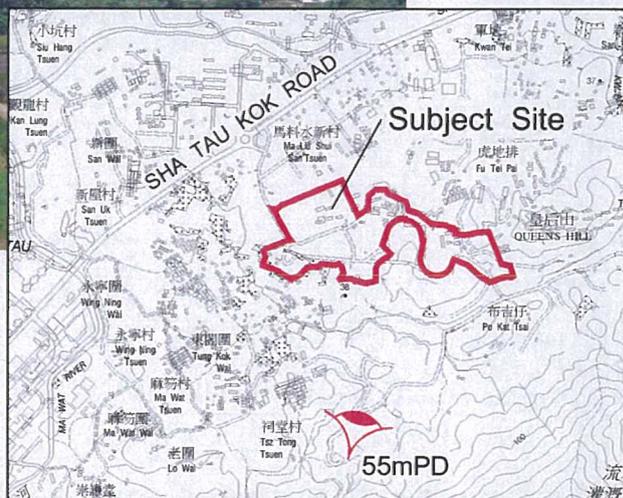
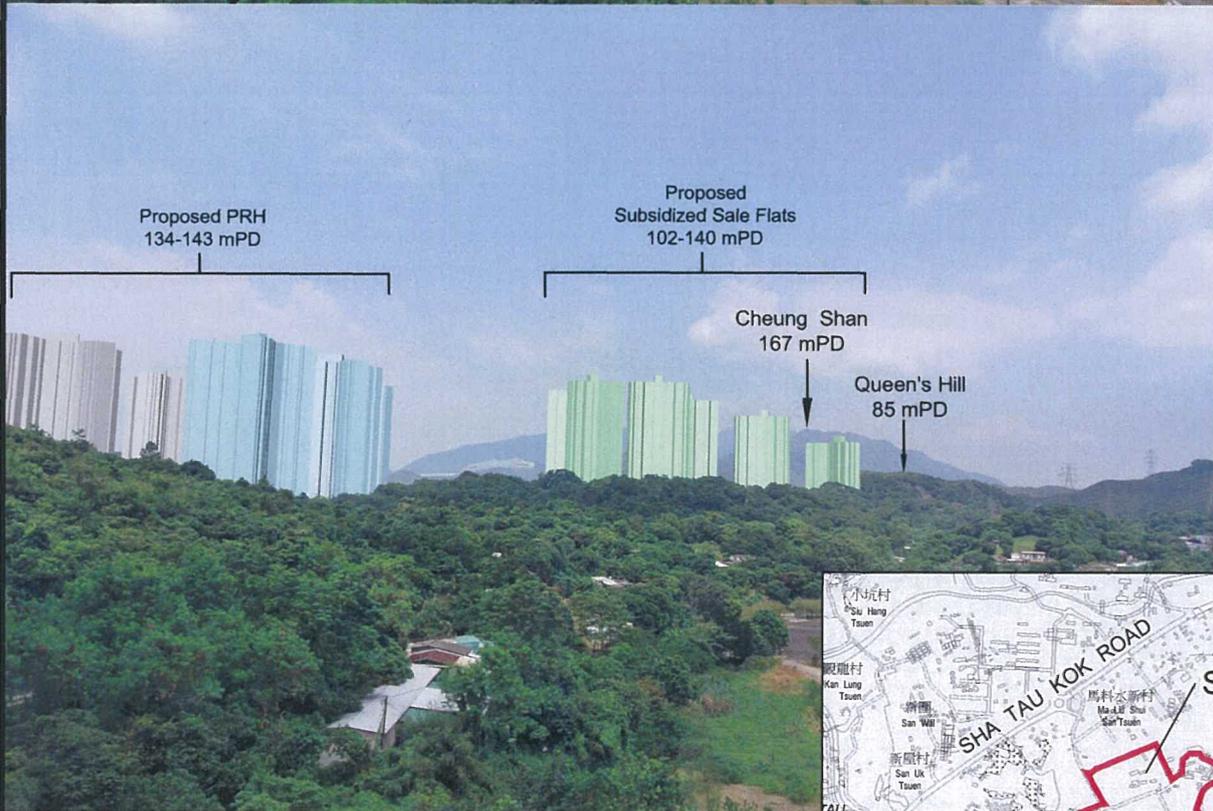
PLAN 4

**DATE :
28. 4. 2015**

Existing
View



With
Development



**PHOTOMONTAGE AT VIEWPOINT 4
(VIEW FROM THE 5th FLOOR
OF LUNG SHAN TEMPLE)**



**HOUSING DEPARTMENT
PLANNING SECTION**

PLAN 5

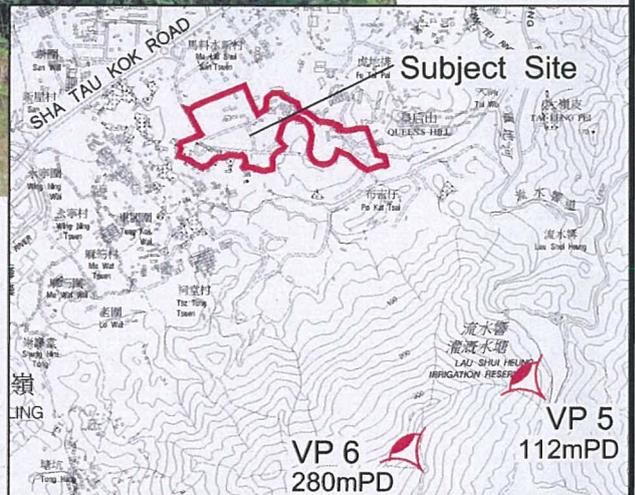
**DATE :
28. 4. 2015**



Viewpoint 5



Viewpoint 6



PHOTOMONTAGE AT VIEWPOINT 5
 (VIEW FROM SOUTHERN TIP OF LAU SHUI HEUNG IRRIGATION
 RESERVOIR, NORTHEAST OF THE PEAK OF LUNG SHAN)
 & PHOTOMONTAGE AT VIEWPOINT 6
 (VIEW FROM LAU SHUI HEUNG COUNTRY TRAIL,
 SOUTH OF THE PEAK OF LUNG SHAN)



HOUSING DEPARTMENT
 PLANNING SECTION

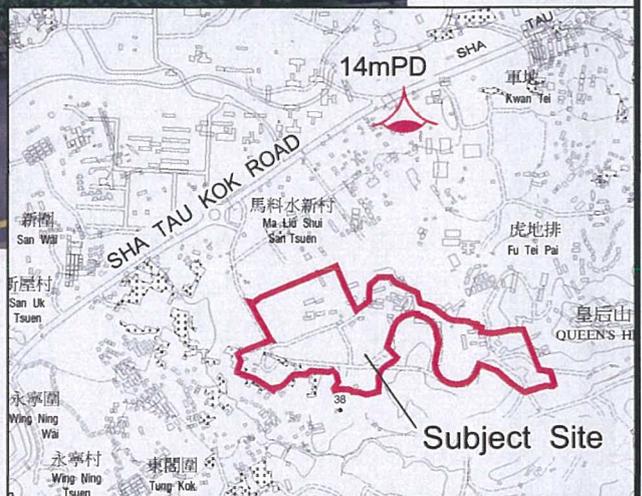
PLAN 6

DATE :
 28. 4. 2015

Existing View



With Development



**PHOTOMONTAGE AT VIEWPOINT 7
(VIEW FROM KWAN TEI BUS STATION)**



**HOUSING DEPARTMENT
PLANNING SECTION**

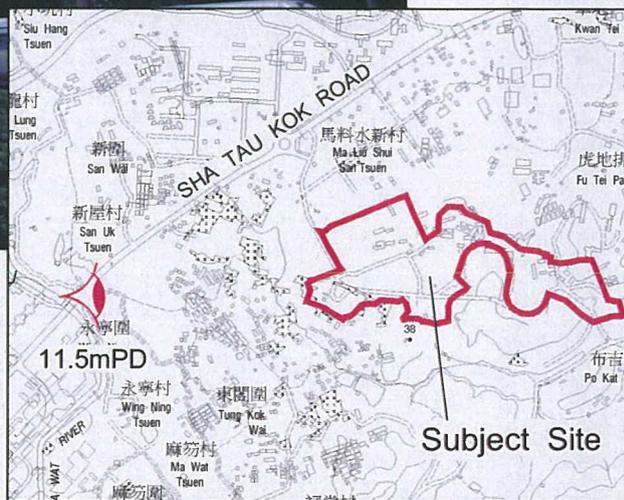
PLAN 7

**DATE :
28. 4. 2015**

Existing View



With Development



**PHOTOMONTAGE AT VIEWPOINT 8
(VIEW FROM SAN UK TSUEN
SITTING-OUT AREA)**



**HOUSING DEPARTMENT
PLANNING SECTION**

PLAN 8

**DATE :
28. 4. 2015**

Issue No : Issue 1
Issue Date : May 2015
Project No. : 1222

**AIR VENTILATION ASSESSMENT
FOR THE PROPOSED PUBLIC
HOUSING DEVELOPMENT AT
QUEEN'S HILL, FANLING**

EXPERT EVALUATION

Report Prepared by:
Allied Environmental Consultants Ltd.

COMMERCIAL-IN-CONFIDENCE

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Issue No : Issue 1
Issue Date : May 2015
Project No. : 1222

**AIR VENTILATION ASSESSMENT
FOR THE PROPOSED PUBLIC
HOUSING DEVELOPMENT AT
QUEEN'S HILL, FANLING**

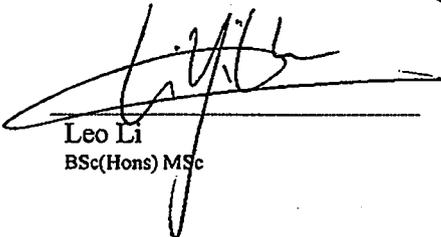
EXPERT EVALUATION

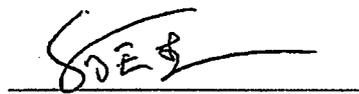
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APPENDIX A – SURROUNDING DEVELOPMENT DETAILS

EXECUTIVE SUMMARY

Hong Kong Housing Authority (HKHA) proposes to develop Public Housing at Queen's Hill, Fanling. The development comprises of high rise domestic blocks with flat production of about 12,000, and associated facilities such as a public transport terminus, retail facilities, social welfare facilities and community hall etc.

An Expert Evaluation on Air Ventilation Assessment (AVA-EE) to facilitate rezoning of the site was conducted to evaluate the potential air ventilation impacts on the pedestrian wind environment within and in the vicinity of the subject site due to the Project by comparing that to the condition without the Project. There are two schemes, Base Scheme and Proposed Scheme, for comparison in terms of their merits and demerits on air ventilation performance.

The subject site is currently occupied by various building structures and facilities, including football pitches and temporary housings of Queen's Hill former military camp. The site area is surrounded by low rise residential buildings of villages, whereas surrounding committed developments including a future private housing site and a future international school site located at the northeast and east respectively.

In accordance with the wind data from Mesoscale Model (MM5) published by PlanD and Hong Kong Observatory (HKO), N, NE, ENE, E and ESE winds are annual prevailing winds while ESE, E and SE winds are summer prevailing winds.

Compared to the condition without the project, ventilation performance at some areas is expected to be adversely affected by the Base Scheme Development. The affected areas are, mainly, Ma Liu Shui San Tsuen under summer prevailing SE and ESE wind; low-rise houses along Lung Ma Road under annual prevailing NE, ENE and E wind; and Po Kat Tsai under annual prevailing N wind.

Good design features are adopted in the Base Scheme, including the creation of air path along NE-SW direction south of Blocks 2-4, and adequate building separation between high rise domestic blocks along NE-SW direction. Together with the large separation between Public Rental Housing (PRH) site and Subsidized Sale Flats (SSF) site, these features would facilitate annual prevailing winds including NE, ENE and E wind to flow across the subject site.

Further to the adopted good design features, the proposed scheme design applies additional improvements, including use of permeable structures at ground level at Public Housing blocks and creation of an air path along SE-NW direction which facilitate summer prevailing winds including SE and ESE wind to penetrate the subject site.

Under the proposed scheme development, there will still be adverse impact on the ventilation performance when compared to the condition without the Project. Affected area are identified as Ma Liu Shui San Tsuen under summer prevailing SE and ESE wind; low-rise houses along Lung Ma Road under annual prevailing NE, ENE and E wind; and Po Kat Tsai under annual prevailing N wind. However, the impact will be reduced as a result of improvements and good design features as compared with the Base Scheme. The following good design features in the proposed scheme has been considered:

- Maintain a wind corridor of not less than 100m between the SSF and the PRH sites
- A 40m building separation between PRH Blocks 2-3 and Blocks 5-8 above the retail facility along NE-SW direction
- A 20m air path in ENE-WSW alignment to the south of Block 3
- An air path of not less than 20m wide in the NW-SE alignment between PRH Blocks 5 & 6 to extend above the PTT to facilitate air ventilation at Ma Liu Shui San Tsuen
- Reduction in number of residential blocks at the SSF site to increase the building separation between blocks
- Empty bays at ground and first levels
- Stepping height profile which helps divert wind to pedestrian level

The following additional enhancement measures are recommended in the Expert Evaluation in order to further address the adverse impact and to optimize the air ventilation performance of the Proposed Scheme:

- Maximize the separation between Block 5 and Block 6 so that the air path during ESE and SE wind can be widened.
- Create empty bays at SSF blocks, for instance, Block C, D, E and F to alleviate the blockage of annual prevailing N wind to Po Kat Tsai.

Due to the large scale and tall buildings of the proposed development, it is important that all the good design measures and further enhancement measures are incorporated in the future development scheme. AVA Initial Study is recommended to quantitatively assess the effectiveness of the features deployed and identify any additional focus area.

1 INTRODUCTION

1.1.1 Hong Kong Housing Authority (HKHA) proposes to develop Public Housing and Subsidized Sale Flats at Queen's Hill, Fanling. The development comprises of:

- 13 number of domestic block with flat production of about 12,000
- Basement Car parks
- Public Transport Terminus (PTT)
- Retail Facilities
- Roof Garden and Ball Courts
- Public facilities including a Community Hall, Social Welfare Facilities

1.1.2 Allied Environmental Consultants Limited (AEC) was commissioned by HKHA to carry out an Expert Evaluation on Air Ventilation Assessment (AVA-EE) to qualitatively evaluate the potential air ventilation impacts due to the Project for facilitating rezoning of the site. The AVA-EE was carried out according to the air ventilation assessment framework as set out in *Technical Circular No. 1/06* issued jointly by Housing, Planning and Lands Bureau and Environment, Transport and Work Bureau (Technical Guide).

2 OBJECTIVE

2.1.1 The objective of the AVA-EE is to qualitatively review and evaluate the potential air ventilation impact on the pedestrian wind environment within and in the vicinity of the subject site due to the Project by comparing that to the condition without the Project.

3 SCOPE OF STUDY

3.1.1 The scope of study includes as follows:

- To identify any potentially affected areas due to the proposed building design including building heights, layout and deposition;
- To provide recommendations for alleviating the potential air ventilation impact identified;
- To identify any major wind corridors which should be preserved or reserved; and
- To advise whether any further study is required for concerned areas and the scope of the detailed study required.

4 SITE CHARACTERISTICS

4.1 Site Location and Surrounding Environment

- 4.1.1 The project is located at Queen's Hill Fanling as shown in *Figure 4.1*. The subject site encompasses an area of approximately 13.65 hectare with a plot ratio 6.0. It is immediate west of Queen's Hill surrounded by scattering groups of low-rise apartments in Ma Liu Shui Tsuen to the north and Lung Yeuk Tau Village to the west. The topography is relatively flat except for the hill range of Queen's Hill.
- 4.1.2 The site comprises of high-rise domestic towers, retail facilities and amenities. There are two schemes for comparison in terms of their merits and demerits on air ventilation performance.
- 4.1.3 The highest domestic block of the proposed development is of 41 storeys, which is about 120m tall (H). According to the Technical Guide, surrounding area of up to a perpendicular distance of 2H from the project boundary shall be included. Nonetheless, since the proposed development is large in scale, that of 500m from the project boundary is included in this evaluation to investigate also the potential impact on farer development. The surrounding developments within the 500m boundary are indicated in *Figure 4.1*. The details such as height profile and photographs of them are provided in *Appendix A*.
- 4.1.4 From *Figure 4.1* and *Appendix A*, the existing surrounding developments of the subject sites are mainly villages with 2-4 storey residential houses, storage houses, and low-rise structures of former Queen's Hill military camp.
- 4.1.5 Two planned developments are committed near the subject site, namely Site 2 and Site 3, which will be included as surrounding developments. Site 2 will be a private housing development, which located at north of proposed SSF site. Whereas Site 3 will be a school premise site, which located at east of proposed SSF site. Locations are illustrated in *Figure 4.1*.
- 4.1.6 Regarding and the former Queen's Hill military camp (Area B as shown in *Figure 4.1*), it is found to be abandoned and pedestrian access is not expected in general.
- 4.1.7 The surrounding developments are summarized in *Table 4.1* below:

Table 4.1 Summary of Surrounding Developments

	Surrounding Development	Remarks
1	Ma Liu Shui San Tsuen	-
2	Kwan Tei Tsuen	-
3	Fu Tei Pai	-
4	Tai Wo	-
5	Burma Lines/ Site 3 (Planned International School Site)	Current abandoned military camp / Future international school development which consists of 2 nos of school buildings of about 7-storey tall.
6	Po Kat Tsai	-
7	San Wai Barracks	-
8	Sun Wai	-
9	Sun Uk Tsuen	-
10	Wing Ning Wai	-
11	Wing Ning Tsuen	-
12	Tung Kok Wai	-
13	Ma Wat Tsuen	-
14	Tsz Tong Tsuen	-
15	Area A	Village houses along Lung ma Road
16	Area B	Abandoned military camp with no pedestrian access
17	Area C	Village houses in northern side of the project site, nearby Kwan Tei Tsuen
18	Area D	Scattered low-rise houses between Lung Yuek Tau and the subject site
19	Site 2 (Planned Private Housing Site)	Future housing development which consists of about 21 nos of domestic blocks of about 15-storey tall.

5 WIND AVAILABILITY

5.1 Wind Data from MM5

5.1.1 The wind data from Mesoscale Model (MM5) published by PlanD and Hong Kong Observatory (HKO) were adopted to investigate the wind performance of the proposed development under annual and summer prevailing wind conditions.

5.1.2 The MM5 data for the Subject Site at grid (26, 40) is presented in *Figure 5.1*. As shown in the Wind Rose, it is found that north eastern (NE), east north eastern (ENE), eastern winds (E) and east south eastern (ESE) wind dominate the annual wind direction. The most dominate annual prevailing wind is ENE.

5.2 Wind Data from HKO

5.2.1 As MM5 data only presents annual wind occurrence, the HKO wind data from the nearest weather station is used to investigate the monthly prevailing wind performance.

5.2.2 The nearest HKO automatic weather station is located in Ta Kwu Ling which is approximately 3km north of the project site. The location of Ta Kwu Ling automatic weather station is indicated in *Figure 5.2*.

5.2.3 According to the Wind Rose from the weather station of HKO, North (N), North East South Eastern (ESE) and Eastern (E) and South Eastern (SE) winds dominate both the annual and summer wind direction. The most dominate summer prevailing wind is SE. The annual and summer wind rose from HKO is shown in *Figure 5.3*.

5.2.4 Hence, for annual condition, N, NE, ENE, E and ESE winds will be discuss while E, ESE and SE winds will be discussed for summer condition.

6 EXPERT EVALUATION

6.1 Background

6.1.1 This AVA-EE qualitatively evaluates the impact of the proposed rezoning on the existing condition and comparison of ventilation performance in the environs with the base scheme and the proposed scheme in place respectively. The study area of air ventilation assessment is approximately 500m from the subject site boundary of the subject site. The conditions under annual and summer prevailing wind are considered where prevailing wind directions are adopted from MM5 and HKO. Building heights, street/road orientation and patterns, and open spaces have also been taken into account for evaluating the characteristics of wind environment.

6.2 Existing Condition

6.2.1 The subject site is located in a rural area with little development. Three football pitches and multiple low rise structures all within the site. These structures include an abandoned petroleum station and storage houses. The existing conditions of subject site (i.e. without the Project) are summarized on *Figure 6.1*.

Building Heights

6.2.2 The subject site is located west of Queen's Hill. The existing land use in the vicinity of the subject site is mainly villages, where low-rise houses and storage houses are located.

6.2.3 The majority of the existing residential buildings are houses and apartments which are about 2-3 storey tall. The building height is lower than 12m. The heights above datum of these buildings range from 17mPD to 25mPD. These buildings are low rise and scattered which are expected to have minimal impact on the oncoming land breezes and prevailing wind.

Road Pattern

6.2.4 About 300m to the northwest of the subject site is Sha Tau Kok Road Lung Yeuk Tau Portion, which is a primary distributor. Lung Ma road, which branches from it, brings traffic to the west of the subject site.

6.2.5 Since the buildings along the road are low-rise and scattered. The road pattern is expected to have minimal impact on the oncoming land breezes and prevailing wind.

Geographical Pattern

- 6.2.6 Due to the absence of bulky structures in the vicinity, hill ranges are the main influencing factors of wind availability at the subject site.
- 6.2.7 North and north east of the site is a relatively flat open area where villages scattered. East, southeast and south of the site are surrounded by hills and mountains. These hills include Queen's Hill (85mpd), Tai Leng Pei (170 mpd), Ko Po Shan (60mpd), Shek Au Shan (277 mpd) and Lung Shan (390mpd). Lamb Hill (130 mpd) is located to the north of the subject site. The locations of these hills are presented in *Figure 4.2*. Their effect on incoming wind direction will be discussed in the next section.

6.3 Annual Prevailing Wind Condition under Existing Condition

- 6.3.1 According to the wind availability study in Section 5, North (N), East north east (ENE), North eastern (NE), Eastern (E) and East south eastern (ESE) wind will be discussed for annual prevailing wind condition. The wind flow under these wind directions are indicated in *Figure 6.2a-e*.
- 6.3.2 The north of the project site is Ma Liu Shui San Tsuen and Kwan Tei Tsuen where terrain is flat and development are low rise village houses. Further to the north is Lamb Hill which is a hill of about 130 mPD. North (N) wind is blocked by Lamb Hill but is expected to reattach and flow across Ma Liu Shui San Tsuen and Kwan Tei Tsuen. It then flows across the Queen's Hill where the subject site located and then uphill to Lung Shan and Shek Au Shan south of the subject site. The wind pattern is illustrated in *Figure 6.2a*.
- 6.3.3 Since the relatively unrestricted incoming wind from ENE and NE, these two wind condition will be discussed together. Under east north eastern (ENE) and north eastern wind (NE), wind flows along Ko Po Shan and Tai Leng Pei to the flat area north east of the subject site. Since no bulky structure is erected along the path, it is expected the area enjoys north eastern wind from Queen's Hill to Lung Yeuk Tau throughout a year. The wind pattern is illustrated in *Figure 6.2b*.
- 6.3.4 Under eastern wind (E), taking topography into account, Tai Leng Pei and Queen's Hill east of the subject site will slow down the wind due to roughness. The subject site receives downhill wind from these two hills. The wind pattern is illustrated in *Figure 6.2c*.
- 6.3.5 Under east south eastern wind (ESE), taking topography into account, the hills south of the subject site, namely Shek Au Shan and part of Lung Shan, shield the incoming wind. The wind accelerates as it climbs and passes the hills; and decelerates as it descends towards the study area. On the whole, the wind velocity reaching the subject site will be reduced. Nonetheless, after taking turns at hill range, the wind direction across the site is expected to remain east south eastern (ESE). The wind pattern is illustrated in *Figure 6.2d*.
- 6.3.6 Since the surrounding urban area comprises of mainly scattered village houses, the temperature difference between hill and village area is small. Thus, the effect of katabatic wind is not significant.

6.4 Summer Wind Condition under Existing Condition

- 6.4.1 East south eastern (ESE), eastern (E) and south eastern (SE) winds are expected to be the summer prevailing wind condition.
- 6.4.2 The behaviour of ESE and E wind are discussed in annual prevailing wind condition in previous section. Therefore, only SE wind will be discussed in this section. The wind flow under SE wind is indicated in *Figure 6.2e*.
- 6.4.3 Similar to ESE wind, SE wind is shielded by Shek Au Shan and part of Lung Shan. The wind velocity reaching the subject site will be reduced. Nonetheless, after taking turns at hill range, the wind direction across the site is expected to remain south eastern (SE).
- 6.4.4 Since the surrounding urban area comprises of mainly scattered village houses, the temperature difference between hill and village area is small. Thus, the effect of katabatic wind is not significant when compared with a fully urbanized area.

6.5 Committed Development

- 6.5.1 A future private housing site (Site 2) and a future international school site (Site 3) are located immediate to the northeast and east of the proposed development respectively. The location and site boundary of the 2 sites are shown in *Figure 4.1*.
- 6.5.2 Site 2 consists of about 21 tower shaped domestic blocks of about 15-storey tall. The building height ranges from about 68mPD to 85 mPD. Since the buildings are relatively tall and large in number compared with the surrounding village houses, its bulkiness is expected to modulate the wind flow to its downwind area.
- 6.5.3 Site 3 consist of 2 blocks of school building of about 7-storey tall. The building heights are about 60 mPD. Due to the relatively small scale of development, its impact is limited to its immediate downwind area.
- 6.5.4 The analysis of wind performance in this expert evaluation will make reference to the condition with the committed developments but without the proposed development.

6.6 Annual Prevailing Wind Condition under Committed Development

- 6.6.1 With Site 2 (private housing site) and Site 3 (international school site) in place, annual prevailing N wind coming from Kwan Tei Tsuen and Fu Tei Pai will be modulated by Site 2, due to bulkiness of the private housing blocks. The eastern most of the subject site is at the potential wake region so the wind availability at the eastern most area will be reduced. The wind pattern is illustrated in *Figure 6.2.1a*.
- 6.6.2 Similar to existing condition, ENE wind and NE wind will be discussed together. Under these winds, wind flows along Ko Po Shan and Tai Leng Pei to Site 2 and Site 3 which is located at the north and south of Queen's Hill respectively. Wind flow to the east part of the subject site will be blocked by Site 2. As a result, the wind availability at the east part of the subject site will be reduced. Wind flows to the eastern most of the subject site will be blocked by Site 3. The impact is expected to be minimal due to the relatively low building height (7-storey school) and small affected area. The wind pattern is illustrated in *Figure 6.2.1b*.
- 6.6.3 Under eastern wind (E), Tai Leng Pei and Queen's Hill east of the subject site will slow down the wind due to roughness. The wind flow is further modulated by Site 2 and Site 3. The wind flow reaching the subject site is expected to be reduced. The wind pattern is illustrated in *Figure 6.2.1c*.

6.6.4 Under east south eastern wind (ESE), incoming wind from Lung Shan and Shek Au Shan flows across the subject site north western surrounding. Wind flow to the eastern most of the subject site will be blocked by Site 3. The impact is expected to be minimal due to the relatively low building height (7-storey school) and small affected area. Meanwhile, the wind flows across Queen's Hill to the north eastern surrounding of the subject site, eg. west part of Fu Tei Pai, will be modulated by Site 2. The wind pattern is illustrated in *Figure 6.2.1d*.

6.7 Summer Prevailing Wind Condition under Committed Development

6.7.1 East south eastern (ESE), eastern (E) and south eastern (SE) winds are expected to be the summer prevailing wind condition. E and ESE are covered in the annual wind. Therefore only SE wind will be discussed.

6.7.2 Under south eastern wind (SE), incoming wind from Lung Shan and Shek Au Shan flows across the subject site north western surrounding. Since wind flow to subject site is not modulated by Site 2 and Site 3, the wind pattern across the subject site is expected to be similar to existing condition. The wind flows across Queen's Hill to the north eastern surrounding of the subject site, eg. west part of Fu Tei Pai, will be modulated by Site 2 and Site 3. The wind pattern is illustrated in *Figure 6.2.1e*.

6.8 Base Scheme Development

6.8.1 The base scheme housing development comprises of 15 blocks of domestic building, a basement car park, retail facilities with a sky garden on roof floor, two school sites, multiple outdoor recreational facilities and social welfare facilities / community hall. The gross site area is approximately 13.65 ha. The development will be divided into public housing part for Public Rental Housing (PRH) and domestic blocks for Subsidized Sale Flats (SSF), providing about 12,000 unit of flat in total. The composition of the proposed scheme and the height profile of buildings of the proposed development are summarized in *Table 6.1*, *Figure 6.3* and *Figure 6.4* respectively.

	Base Scheme Development
Site Area	Around 13.65 ha
Plot Ratio	6.0 (overall)
No of Domestic Blocks	15
No of Storeys	Ranging from 18-41
No of flats	About 12,000 8,840 for Public Rental Housing (PRH) and 3,160 for Subsidized Sale Flats (SSF)
Facility	An underground car park, a public transport terminus, a retail facilities with a sky garden on roof floor, two school sites with a 5 storey school (about 30mPD) at each site, multiple outdoor recreational facilities and social welfare facilities / community hall
Building Height	15 blocks up to approximately 85mPD to 140mPD

Table 6.1 Base Scheme Development Details

6.8.2 No podium structure is design in SSF, whereas two podium structures are proposed in PRH as shown in Figure 6.3.

Good Design Features

6.8.3 Multiple good design features have been incorporated into the base scheme to enhance the air ventilation performance within the site and of the site surroundings. These features include:

- A separation of at least 100m between the public housing part (Block 1-7) and the SSF

part (Block A-F) as shown in *Figure 6.6*. The larger corridor provides air path between northeast and southwest of the project site mainly during north eastern and east north eastern wind direction. The wind corridor allows wind to penetrate through the site from Fu Tei Pai to Tung Kok Wai and other villages and wais in Lung Yeuk Tau. Hence, the effect on air ventilation performance of adjacent villages due to the proposed development would be reduced.

- A minimum 40m separation is allowed between PRH Blocks 3, 4 and Blocks 5, 6, 7, 8, which would enhance wind circulation. An air path is created above the retail facility (about 29 mPD) which allows air to flow from the north east to south west. This feature is illustrated in *Figure 6.6*. The air path runs across 2 deck over walkways between ground floor of PRH Block 4 and 8; and ground floor of PRH Block 4 and 7, and a retail facility of about 29mPD. The air path is less effective in channeling pedestrian air flow but still effective in bringing wind across the site.
- An air path of about 20m in width is identified under northeastern wind direction, which lies along the road south of Block 2, 3 and 4. This air path would bring wind to the immediate west across the subject site. The air movement along the air path is illustrated in *Figure 6.7*.
- Block D, E, F and G in SSF site adopt stepping height profile where the height increases from 85 mPD to 120 mPD from east to west. This feature can help catch annual prevailing E and ESE wind to the pedestrian level within site. Note that Site 3 is located immediate to the west of the SSF site. Given that the future schools in Site 3 are expected to be 7-storey tall i.e. shorter than domestic buildings in SSF site, wind catching effect due to stepping height profile is unaffected.

6.8.4 Besides the above major good design features, an 8m building separation between SSF Block A, B C and Block D are allowed as shown in *Figure 6.6*. It is expected to have slight improvement on the local wind environment at SSF site.

6.9 Impact under Base Scheme

Impacts to Surrounding Developments

Northern Wind

- 6.9.1 Annual prevailing northern wind will flow across the flat terrain at Ma Liu Shui San Tsuen and Kwan Tei Tsuen to the subject site. Wind path will be blocked by the structures of the proposed development. Some wind will flow along the wind corridor between PRH and SSF site to the southern hilly terrain.
- 6.9.2 There is no development at downwind area of PRH site. For SSF site, Po Kat Tsai is located at downwind area. Wind flow to other surrounding developments is not affected by the proposed development.
- 6.9.3 Wind flow to Po Kat Tsai will be modulated by the SSF buildings east of the subject site. The wind availability at this area will be reduced. The wind pattern under N wind is shown in *Figure 6.5a*.

North Eastern and East North Eastern Wind

- 6.9.4 Under annual prevailing ENE and NE wind, wind flows across Kwan Tei Tsuen and Fu Tei Pai to the PRH site while SSF site receives wind between Site 2 and Site 3. The wind corridor between PRH and SSF site channels north eastern wind to Tung Kok Wai. Some wind flow across the site along the air path south of Block 2, 3 and 4 to the immediate southwest of the site.
- 6.9.5 Kwan Tei Tsuen, Fu Tei Pai, Site 2 & 3, Tai Wo and Area C are at upwind area. Wind flows to Ma Liu Shui San Tsuen, Po Kat Tsai, San Wai Barracks, San Wai, San Uk Tsuen are not blocked by the proposed development. Ventilation to these areas is not expected to be affected by the proposed development. Whereas no pedestrian access to the abandoned military camp (Area B as shown in *Figure 4.1*), there are no sensitive receivers at this stage and the impact on Area B is negligible
- 6.9.6 Villages and 'Wais' in Lung Yuek Tau, namely, Wing Ning Wai, Wing Ning Tsuen, Tung Kok Wai, Ma Wat Tsuen and Tsz Tong Tsuen, Area A and Area D are located at downwind of the proposed development. Ventilation to these areas may be affected.

- 6.9.7 The large separation (at least 100m) between the public housing part and the SSF part acts as a wind corridor to facilitate wind flow across the site to Tung Kok Wai, Tsz Tong Tsuen and Ma Wat Tsuen. The impact on these areas by the proposed development is expected to be minimal.
- 6.9.8 Wing Ning Wai and Wing Ning Tsuen is located further away downwind at a distance of about 350m from the project site. It is expected to they would receive north eastern wind flowing across Ma Liu Shui San Tsuen north of the project site. The air path south of Block 2-4 across the site also channels northeastern wind across the site to Wing Ning Wai and Wing Ning Tsuen. The impact on these areas by the proposed development is expected to be minimal.
- 6.9.9 The scattered low-rise houses between Lung Yuek Tau and the subject site (Area D as shown in *Figure 4.1*) and low-rise houses along Lung Ma Road (Area A) are located at downwind area of the subject site. Due to their close proximity with the subject site, the wind availability at these areas would be reduced. The wind pattern under ENE and NE wind is shown in *Figure 6.5b*.
- 6.9.10 Area A is located directly downwind of the proposed school site. Its wind availability would be reduced.
- 6.9.11 The air path south of Block 2, 3 and 4 brings NE and ENE wind across the site to Area D. It reduces the wind blockage of the proposed development to Area D. However, the wind availability at Area D will still be affected.

Eastern Wind

- 6.9.12 Annual prevailing E wind to the subject site is blocked by Site 2 and Site 3. Wind flows north and south of Queen's Hill and across Queen's Hill between Site 2 & 3 to site. The air path south of Block 2, 3 and 4 allows wind to penetrate across the site. Some wind would be diverted southwest along the wind corridor between PRH and SSF block.
- 6.9.13 Area A, San Uk Tsuen and part of Wing Ning Wai are at downwind location of the subject site. For the other developments, it is anticipated that they would not be affected by the proposed development under E wind.
- 6.9.14 Since San Uk Tsuen and Wing Ning Wai are located far away at a distance of about 580m and 400m respectively from the subject site, the impact on these areas are expected to be minimal.

6.9.15 Area A is located directly downwind of the proposed school site. Its wind availability may be reduced. The wind pattern under E wind is shown in *Figure 6.5c*.

6.9.16 Although the abandoned military camp (Area B as shown in *Figure 4.1*) is located at downwind side of the proposed SSF site, there are no sensitive receivers at this stage and the impact on Area B is negligible.

South Eastern and East South Eastern Wind

6.9.17 Under annual prevailing ESE and summer prevailing SE wind, wind flow across the hilly terrain at southeast to the subject site.

6.9.18 The village Po Kat Tsai is at upwind area while wind flow to all villages and 'Wais' in Lung Yuek Tau, Tai Wo, Fu Tei Pai, Site 3, Kwan Tei Tsuen, Sun Wai and Area C are not affected by the proposed development. The south western most of Site 2 is at downwind location of the subject site.

6.9.19 Area A, Ma Liu Shui San Tsuen and San Wai Barrack are at downwind of the subject site. The development structures, especially the social welfare community hall and the Block 1, are anticipated to modulate the air ventilation path to Area A.

6.9.20 Air ventilation path to Ma Liu Shui San Tsuen is expected to be modulated by the domestic blocks within the subject development site.

6.9.21 San Wai Barracks is located about 350m north west of the project site. It encompasses a large area of about 10 hectare. Under ESE and SE wind, it is located at downwind of the subject site. However, since the barrack is located further away from the subject site, wind availability in San Wai Barrack is expected to be slightly modulated by the proposed development.

6.9.22 Immediate downwind of SSF (ie. Area west of Site 2) is of minimal development which is expected to be vacant. Incoming ESE and SE wind is expected to flow along the new road north of the SSF site to the south western most of Site 2. Therefore, the impact to the area is expected to be minimal. The wind pattern under ESE and SE wind is shown in *Figure 6.5d and 6.5e*.

Impacts to Developments within Site

Public Transport Terminus (PTT)

- 6.9.23 A public transport terminus (PTT) is located at the centre of Block 1-8. The tall and bulky structures would likely block N, ENE, E, ESE and SE wind from entering the PTT. The blockage is illustrated in *Figure 6.8*. Some of the wind can enter the PTT from the air path south of Block 1, 2 and 3 under ENE and E wind. However, no air path is present to channel ESE and SE wind to the PTT.
- 6.9.24 Besides, the ground level of the PTT is about 5 m lower than that of the surrounding domestic blocks. Due to the lower ground level (at about 19 mpd) and the possible blockage of wind by the tall domestic blocks, relatively low wind availability at the public transport terminus is anticipated.

School Site

- 6.9.25 Under SE and ESE wind, the school site is at the downwind location where prevailing winds are blocked by tall domestic blocks. No air path is present to channel ESE and SE wind into the site. Therefore, relatively low wind availability of the schools and their playgrounds are anticipated. The wind flow is shown in *Figure 6.9*.
- 6.9.26 Under prevailing wind directions of N, NE, ENE and E, school sites are either located at upwind location or free of blockage

Ball Courts

- 6.9.27 There are multiple basketball courts and badminton courts within the development. They are designated as B1 – B6 as shown in *Figure 6.3* for discussion.
- 6.9.28 B1 consists of two basketball courts and one badminton court located on the roof level (about 29 mPD) at the west part of the retail facility. B2 is the badminton court located on the roof level at the east part of the retail facility. B3 is the basketball court near Block 5. B4 is the badminton court located north of Block 8. B5 is the basketball court located between Block B and C in the SSF site while B6 consists of two badminton courts located between Block E and F in the SSF site.
- 6.9.29 Under annual prevailing winds from NE, ENE and E, B1, B2 and B3 are partly blocked whereas B5 is blocked by the domestic blocks. B4 is expected to receive undisturbed prevailing winds except prevailing E wind where the air path is slightly modulated by

Block 8. B6 receives wind from Queen's Hill between Site 2 and Site 3. Under annual prevailing N wind, air path to B1, B3, B5 and B6 will be blocked by upwind structures and developments.

6.9.30 Under summer prevailing ESE and SE wind, B3 enjoy undisturbed downhill wind from Queen's Hill. However, air path to B1, is partly blocked and that to B2, B4, B5 and B6 are blocked by their surrounding structures

6.9.31 In general, B4 and B6 will receive more wind in non summer period while B1 and B3 will receive more wind in summer period. However, wind availability at B2 and B5 will be modulated in both summer and non summer period.

Identified Problem Areas

6.9.32 Refer to the base scheme design, wind availability at nearby village houses and development within the subject site would be affected by the blockage of the subject site. The identified problem areas are summarized below.

- The building deposition which aligns with annual wind directions, such as ENE and NE winds, could minimize wind blockage in most of the time. Nevertheless, during summer prevailing such as SE and ESE winds, the deposition is expected to block the air path from southeast to the village houses of Ma Liu Shui San Tsuen and Area A located immediate to the north and northwest of the subject site. The wind availability at Ma Liu Shui San Tsuen and Area A will be affected.
- Scattered low-rise houses between Lung Yuek Tau and the subject site are located at immediate downwind of the subject site (Area D and Area A). The wind availability of these houses is expected to be reduced under annual prevailing ENE, NE and E winds.
- Po Kat Tsai is located downwind of the SSF site under annual prevailing N wind. The wind availability is expected to be reduced.
- The wind availability at the PTT is expected to be poor especially during ESE and SE wind due to the blockage of wind by surrounding tall domestic developments
- School site is located at the northwest of the subject site are at downwind location under SE and ESE wind. Air path to the schools are blocked by upwind domestic

blocks. The wind availability of the schools will be affected.

- Ball court at the roof level to the east of the retail facility (B2) and the one near Block B and C (B5) are blocked under annual and summer prevailing winds. The wind availability of these ball courts will be affected most of the time in a year.

6.10 Proposed Scheme Development

6.10.1 The proposed housing development comprises of 13 blocks of domestic building, a basement car park, and a retail facilities with a sky garden on roof floor, two school sites, multiple outdoor recreational facilities, social welfare facilities / community hall. The gross site area is approximately 13.65 ha. The development will be divided into public housing part (PRH) and domestic blocks for Subsidized Sale Flats (SSF), providing about 12,000 unit of flat in total. The composition of the proposed scheme and the height profile of buildings of the proposed development are summarized in *Table 6.2* and *Figure 6.10* respectively.

6.10.2 No podium structure is designed in SSF, whereas two podium structures are proposed in PRH. There are ground floor structures larger than typical floor footprint for some blocks. These GF structures are highlighted.

	Proposed Scheme Development
Site Area	Around 13.65 ha
Plot Ratio	6.0 (overall)
No of Domestic Blocks	13
No of Storeys	Ranging from 24-41
No of flats	About 12,000 8,840 for Public Rental Housing (PRH) and 3,160 for Subsidized Sale Flats (SSF)
Facility	Basement car parks, public transport terminus, a retail facilities with a sky garden on roof floor, two school sites with a 5 storeys tall (about 30 mPD) school at each site, multiple outdoor recreational facilities, social welfare facilities / community hall, community farm and children play area
Building Height	13 blocks up to approximately 102mPD to 143mPD

Table 6.2 Proposed Scheme Development Details

6.10.3 While the large separation between the public housing development and SSF development is maintained, alternative designs have been proposed to address the problems identified in the base scheme.

- 6.10.4 Proposed scheme had optimized the structure disposition, orientation and shapes. These improvements are made to alleviate the problems identified in the base scheme and enhance the air performance.
- 6.10.5 A piece of land at west of Block 1 is turned into community farm and children play area, where the previous social welfare community hall had been relocated.

Podium Plaza

- 6.10.6 A podium plaza was located at the centre of the PRH part. The roof of podium plaza is at the level of about 29 mPD. In order to create air path along NW to SE direction, large portion of podium plaza had been lowered to level of 25mPD, which is about the same level as the ground level of Block 5, 6 and 7. The PTT is located at the north of the subject site under a podium garden.

Decking Over Walkway

- 6.10.7 Two decking over walkways link the retail podium to the podium garden above PPT and Block 3 respectively. They are about 1.5m in thickness and leave at least 5.5m headroom from the street level.
- 6.10.8 Since the walkway structure is not bulky and relatively high from pedestrian level, they are not expected to affect the effectiveness of the air path along the road south of Block 3.

Good Design Features

- 6.10.9 Good design features in the Base scheme mentioned in Section 6.5.3 are considered to be beneficial in air ventilation aspect, and hence the proposed scheme will adopt the same good design features.
- 6.10.10 These features include an at least 100m wind corridor between PRH and SSF site, a 40m building separation of domestic blocks above the retail facility along NE-SW direction, and a 20m air path south of Block 3. These features in the proposed scheme are illustrated in *Figure 6.15* and *6.16* respectively.
- 6.10.11 In the proposed scheme, there are 6 domestic blocks at the SSF site in contrast to 7 blocks in the base scheme. As a result, there are changes in building separation. Overall, there is a 1m – 5m increase of separation between blocks while a 5m decrease in separation between Block B and C in proposed scheme. It reduces the building density of the area.

The building separation between BLK D and BLK A, B, C increases from 8m to 22m compared to the Base Scheme. This change is expected to create localized improvement but little enhancement to the surrounding area is expected.

6.10.12 In return, the height of domestic blocks at SSF site ranges from 100-140 mPD compared to 85 – 130 mPD of that in the base scheme.

6.10.13 Similar to Base Scheme, stepping height profile is adopted in SSF Block A, D, E and F. The height increases from 102 mPD to 140 mPD from east to west. This feature can help catch annual prevailing E and ESE wind to the pedestrian level within site.

6.10.14 Apart from the above mentioned design features, further improvements have been incorporated into the proposed scheme to further enhance the air ventilation performance within the site and of the site surroundings. These features include:

Permeable structures

6.10.15 The proposed scheme adopts permeable structure design at GF and 1F for Block 3, 4 -7 and 1F for Block 1. The design reduces building mass and increases permeability at pedestrian levels. The extent of empty bay is maximized where possible. The dimension and location of empty bays in the development are shown in *Figure 6.17* and *6.18*. It is expected to provide some wind ventilation at ground level within the site where open areas are located.

6.10.16 Empty bays at Block 2, 4 and 7 will be added to create localized improvement within the proposed development when compared with the base scheme, but little enhancement to the surrounding area is expected. Whereas those at Block 1, 5 and 6 will facilitate air flow from SE to NW across the subject site. They will be discussed in the following section.

Extra Air Paths along SE-NW direction

6.10.17 As mentioned in previous sections, a portion of Ma Liu Shui San Tsuen immediately to the northwest of the project site is expected to receive reduced wind availability under ESE and SE wind due to the blockage of buildings in the project site. To minimize the impact, three approaches are used to provide extra air path to the north western surroundings

1. *Create an air path along SE-NW direction*

Domestic blocks and retail blocks at the public housing part are re-positioned and an

about 30m opening (as shown in *Figure 6.13*) is made between the two largest retail block so that an air path can be created to channel wind from the SE to NW of the project site to improve the wind environment in Ma Liu Shui San Tsuen and the school site. With the air path in place, , the wind availability in Ma Liu Shui San Tsuen is expected to be improved compared to base scheme but would be slightly affected by the proposed development compared to the condition without the project..

2. *Empty Bays to facilitate air path along SE-NW direction*

Among the empty bays in the development, those at Block 1, 5 and 6 are designed to facilitate air flow from SE to NW across the subject site. There are empty bays from ground level up to 2F at one of the wings of both Block 5 and Block 6. It enhances the effectiveness of the air path created along SE-NW direction. GF of Block 1 is incorporated inside podium. So the 1F of Block 1 is at the same level as Block 5 and 6. 1F of Block 1 is almost completely empty except for its lift columns. The dimensions and locations of empty bays in the development are shown in *Figure 6.17* and *Figure 6.18*.

3. *Relocation of Public Transport Terminus (PTT)*

In the proposed development, the PTT is moved to the north of the subject site under a podium garden from the centre of PRH. Since the PTT is moved, the centre area allows fragmentation of the retail blocks which facilitates the air path along SE-NW direction to improve the wind environment in Ma Liu Shui San Tsuen.

6.10.18 By the enhancement, two additional air paths are created. *Figure 6.13 and 6.14* provide an illustration of the enhancement of air path across the site to Area A and Ma Liu Shui San Tsuen after the above two improvements.

6.10.19 The air paths between Block 5 and 6 also channel south eastern wind under ESE and SE wind to the downwind area where the school sites are located.

6.11 Impact under Proposed Scheme

Impact to Surrounding Developments

- 6.11.1 Due to similar site area and general building disposition, the wind pattern under the proposed scheme development is expected to be similar to that under base scheme development.
- 6.11.2 Nonetheless, with the incorporation of good design features discussed in the previous sections, additional air paths are created to channel wind across the subject site when compare with the base scheme. The impact to surrounding development under Propose Scheme is described as following:

Northern Wind

- 6.11.3 Annual prevailing northern wind will flow across the flat terrain at Ma Liu Shui San Tsuen and Kwan Tei Tsuen to the subject site. Wind path will be blocked by the structures of the proposed development when compared to the condition without proposed development. Some wind will flow along the wind corridor between PRH and SSF site to the southern hilly terrain.
- 6.11.4 There is no development at downwind area of PRH site. Wind flow to other surrounding developments is not affected by the proposed development under northern wind.
- 6.11.5 For SSF site, Po Kat Tsai is located at downwind area. Wind flow to Po Kat Tsai will be modulated by the SSF buildings east of the subject site. The wind availability at this area will be reduced when compared to the condition without proposed development. However, the increased building separation distances in the proposed scheme between BLK D and BLK A, B, C from 8m to 22m could slightly improve the wind availability when compare with the base scheme. The wind pattern under N wind is shown in *Figure 6.12a*.
- 6.11.6 Under annual N wind, there is no development at downwind area of the community farm and children play area, which are located at the western most of the site. The benefit of such open area instead of social community hall structure in Base Scheme is discussed under east south eastern and south eastern wind in the following section.

North Eastern and East North Eastern Wind

- 6.11.7 Under annual prevailing ENE and NE wind, wind flows across Kwan Tei Tsuen and Fu Tei Pai, Site 2 & 3 to the PRH site while SSF site receives wind between Site 2 and Site 3. The wind corridor between PRH and SSF site channels north eastern wind to Tung Kok Wai. Some wind flow across the site along the air path south of Block 3 to the immediate southwest of the site.
- 6.11.8 Kwan Tei Tsuen, Fu Tei Pai, Site 2 & 3, Tai Wo and Area C are located at upwind area, and hence wind flows to these areas would not be blocked by the proposed development. Ventilation to these areas is not expected to be affected by the proposed development.
- 6.11.9 Villages and 'Wais' in Lung Yuek Tau, namely, Wing Ning Wai, Wing Ning Tsuen, Tung Kok Wai, Ma Wat Tsuen and Tsz Tong Tsuen, Area A and Area D are located at downwind of the proposed development. Ventilation to these areas may be affected when compared to the condition without proposed development.
- 6.11.10 Wing Ning Wai and Wing Ning Tsuen is located further away downwind at about 350m from the project site. It is expected they would receive north eastern wind flowing across Ma Liu Shui San Tsuen north of the project site. The impact on these areas by the proposed development is expected to be minimal.
- 6.11.11 The large separation (at least 100m) between the public housing part and the SSF part acts as a wind corridor to facilitate wind flow across the site to Tung Kok Wai, Tsz Tong Tsuen and Ma Wat Tsuen. The impact on these areas by the proposed development is expected to be minimal.
- 6.11.12 The scattered low-rise houses between Lung Yuek Tau and the subject site (Area D as shown in *Figure 4.1*) and low-rise houses along Lung Ma Road (Area A) are located at downwind area of the subject site. Due to their close proximity with the subject site, the wind availability at these areas may be reduced when compared to the condition without proposed development. However, the north-western building structure group in proposed scheme will be setback toward south-eastern direction due to the addition of a 7m width road at the northwest site boundary, which is previously occupied by school sites in the base scheme. This building setback could reduce the wind blockage to Area A and Area D, especially under North Eastern and East North Eastern Wind, when compared with the base scheme. The wind pattern under ENE and NE wind is shown in *Figure 6.12b*.

6.11.13 The air path south of Block 3 brings north eastern wind across the site to Area D. It reduces the wind blockage of the proposed development to Area D. Although two decking over walkways layer across the air path, at least 5.5m headroom from the street level would be allowed. Since the walkway structure is not bulky and relatively high from pedestrian level, they are not expected to affect the effectiveness of the air path along the road south of Block 3. However, the wind availability at Area D will still be affected when compared to the condition without proposed development.

Eastern Wind

6.11.14 Annual prevailing E wind flows across Queen's Hill, between Site 2 & 3 and arrives the site. The air path south of Block 3 allows wind to penetrate across the site. Some wind would be diverted southwest along the wind corridor between PRH and SSF block.

6.11.15 Area A, San Uk Tsuen and part of Wing Ning Wai are at downwind location of the subject site. For the other developments, it is anticipated that they would not be affected by the proposed development under E wind.

6.11.16 Since San Uk Tsuen and Wing Ning Wai are located far away at about 580 and 400m respectively from the subject site, the impact on these areas are expected to be minimal when compared to the condition without proposed development.

6.11.17 Area A is located directly downwind of the social welfare block and proposed school site. Its wind availability would be reduced when compared to the condition without proposed development. However, the north-western building structure group in proposed scheme will be setback toward south-eastern direction due to the addition of a 7m width road at the northwest site boundary, which is previously occupied by school sites in the base scheme. This building setback could reduce the wind blockage to Area A and Area D, especially under Eastern Wind, when compare with the base scheme. The wind pattern under E wind is shown in *Figure 6.12c*.

South Eastern and East South Eastern Wind

6.11.18 Under annual prevailing ESE and summer prevailing SE wind, wind flow across the hilly terrain at southeast to the subject site.

6.11.19 The village Po Kat Tsai is at upwind area. Wind flow to all villages and 'Wais' in Lung Yuek Tau, Tai Wo, Fu Tei Pai, Site 3, Kwan Tei Tsuen, Sun Wai and Area C are not

affected by the proposed development whereas the south western most of Site 2 is at downwind location when compared to the condition without proposed development.

6.11.20 Area A, Ma Liu Shui San Tsuen and San Wai Barrack are at downwind of the subject site. The development structures, especially the social welfare community hall and the Block 1, are anticipated to modulate the air ventilation path to Area A.

6.11.21 Incoming ESE and SE wind is expected to flow along the new road north of the SSF site to the south western most of Site 2. Therefore, the impact to the area is expected to be minimal.

6.11.22 Area A, Ma Liu Shui San Tsuen and San Wai Barrack are at downwind of the subject site. Air path to Area A is blocked by Block 1, Block 2 and the podium structure below Block 2 when compared to the condition without proposed development. Nonetheless, since the western most area of the proposed scheme will turn into an open area of community farm in contrast to a social welfare block in base scheme, the wind blockage to Area A will be reduced when compared to the base scheme. The empty bay of Block 1 1F also provides additional air path for ESE and SE wind to flow across the site to Area A when compared to the base scheme.

6.11.23 When compare with the condition without proposed development, the proposed scheme is expected to impose adverse impact to wind availability at Ma Liu Shui San Tsuen under ESE and SE wind due to the building mass in the proposed development. However, due to the 30m separation between retail facilities and the empty bay at Block 5 and 6, the extra air path created is expected to channel wind from the southeast to northwest could alleviate the impact and hence improve the wind environment from base scheme.

6.11.24 San Wai Barracks is located about 350m north west of the project site. It encompasses a large area of about 10 hectare. Under ESE and SE wind, it is located at downwind of the subject site. However, since the barrack is located further away from the subject site, wind availability in San Wai Barrack is expected to be slightly modulated by the proposed development when compare with the condition without proposed development. Because of the relatively far distance, the design enhancement in the proposed scheme would have little improvement to this area and hence the potential impact is considered similar when compare with the base scheme. The wind pattern under ESE and SE wind is shown in *Figure 6.12d and 6.12e.*

6.11.25 Immediate downwind of SSF (ie. Area west of Site 2) is of minimal development which is expected to be vacant. Incoming ESE and SE wind is expected to flow along the new road north of the SSF site to the south western most of Site 2. Therefore, the impact to the area is expected to be minimal.

Impact to Developments within site

School Site

6.11.26 An area at the north-eastern part of the subject site is assigned as school site. The site is located at upwind location under annual prevailing N wind. When compare to the base scheme, the potential wind blockage in the proposed scheme on the school sites would be reduced, as less building structure laid at the upwind side of the school site, especially during summer prevailing winds, such as ESE and SE winds. In addition, the air path created between Block 5 and 6 along the retail facility is expected to channel summer prevailing ESE and SE winds to the school site, which is also considered as wind availability enhancement when compare to the base scheme.

6.11.27 As a result, the school site is expected to adequate wind environment under prevailing N, ESE and SE wind when compared to the base scheme.

6.11.28 However, it is at downwind area of the social welfare and community hall, Block 3 and PTT under annual NE, ENE and E wind. The air path to the school site will be blocked by these structures in lower zone. The blockage is illustrated in *Figure 6.19*.

Centre Podium Plaza (Open Area at Retail Facilities at 25mPD)

6.11.29 The area is located at the centre of PRH site at 25mPD. Ventilation opening was made along SE-NW direction to provide an air path channelling summer prevailing ESE and SE wind to the north west of the site. This area is located along the air path, thus, is expected to receive adequate wind during summer ESE and SE prevailing winds when compare to the base scheme.

6.11.30 However, air path of annual prevailing winds from the northeast quadrant will be blocked surrounding structures to its north and east.

6.11.31 In general, this area is expected to receive more wind in summer period compared to the rest of the year.

Podium Garden above PTT

6.11.32 The podium garden is located on top of the PTT at about 26 mPD. Under summer prevailing ESE and SE wind, it is expected to receive wind channelled by the air path between Block 5 and 6 along retail facility.

6.11.33 However, air path of annual prevailing winds from the northeast quadrant will be blocked by Block 3 and social and community hall to its east. The blockage is illustrated in *Figure 6.19*.

6.11.34 In general, this area is expected to receive more wind in summer period compared to the rest of the year.

Community Farm and Children Play Area

6.11.35 This area is located at the western most part of the subject site. It is expected to receive undisturbed wind under annual prevailing N, and summer prevailing SE wind.

6.11.36 Under annual prevailing NE, ENE and E wind, the air path south of Block 3 is expected to channel wind from the northeast to this area. Under summer prevailing ESE wind, its wind availability is expected to be slightly modulated by Block 1 at its upwind location.

6.11.37 In general, the area is expected to receive adequate wind most of the time throughout a year.

Ball courts

6.11.38 There are multiple basketball courts and badminton courts within the development. They are designated as B1 – B5 as shown in *Figure 6.10* for discussion.

6.11.39 B1 consists of two badminton courts located near Block 1. B2 consists of one basketball court and one badminton court located at the roof level (29 mPD) of retail facility. B3 consists of two basketball courts located south of Block 6. B4 and B5 are the badminton court located south of Block B and the basketball court west of Block D respectively

6.11.40 B1, B3 and B4 are located at upwind location under summer prevailing SE and ESE wind. B5 falls within a wide building gap. It is expected that these ball court areas can enjoy adequate wind in summer period.

6.11.41 Under annual prevailing winds from the northeast quadrant, B1 and B4 are mostly shielded by their surrounding structures whereas B2 and B3 are partly blocked under

annual prevailing winds from the northeast quadrant. B5 is mostly blocked by the development at Site 2.

6.11.42 In general, B1, B4 and B5 are expected to receive more wind in summer period. B3 is expected to receive wind most of the time of the year. However, wind availability at B2 is modulated by surrounding domestic blocks under most of the prevailing winds.

Identified Problem Area

6.11.43 Refer to the proposed scheme design, areas with adverse ventilation impact are summarized as following:

- When compare with the condition without proposed development, the proposed scheme is expected to impose slightly adverse impact to wind availability at Ma Liu Shui San Tsuen under ESE and SE wind due to the building mass in the proposed development. However, the extra air path between PRH Block 5 and Block 6 to channel wind from the southeast to northwest could alleviate the impact and hence improve the wind environment from Base scheme.
- Low-rise houses along Lung Ma Road (Area A). The wind availability of these houses is expected to be affected under annual prevailing ENE and NE wind.
- Po Kat Tsai is located downwind of the SSF site under annual prevailing N wind. The wind availability is expected to be reduced.
- The wind availability at the podium garden above the PTT is expected to be reduced under annual prevailing NE, ENE and E wind.
- School site is located at the northwest of the subject site are at downwind location under annual NE, ENE and E wind. Air path to the schools are blocked by upwind structures within the development. The wind availability of the schools will be affected
- The air ventilation at the ball court on the roof of retail facility (B2) is modulated by surrounding domestic blocks under most of the prevailing wind conditions.

6.12 Recommendation

6.12.1 The proposed scheme development has incorporated a wide range of good design features in consideration of the wind environment without proposed development. Nevertheless,

some of the features can be further enhanced to optimize the air performance within and beyond the project site.

1. Maximize the separation between Block 5 and Block 6 so that the air path during ESE and SE wind can be widened.
2. Create empty bays at SSF blocks, for instance, Block C, D, E and F to alleviate the blockage of annual prevailing N wind to Po Kat Tsai.

7 FUTURE STUDY

7.1.1 This study provides an overview of the existing wind environment and evaluates broad measures to minimise negative impacts and where appropriate, improvement to the proposed development. Nevertheless, due to the large scale and tall buildings of the proposed development, AVA Initial Study is recommended to quantitatively assess the effectiveness of the features deployed and identify any extra focus areas.

8 CONCLUSION

8.1.1 This EE-AVA Study aims at providing qualitative evaluation of wind performance of the subject site under condition without proposed development and proposed design option. The subject site is currently occupied by various building structures and facilities, including football pitches and temporary housings. The site will be positioned at elevation of from 14.0mPD to 30.0mPD where the site area is surrounded by low rise residential buildings.

8.1.2 Compared to the condition without the project, ventilation performance at some areas is expected to be adversely affected by the Base Scheme Development. The affected areas are, mainly, Ma Liu Shui San Tsuen under summer prevailing SE and ESE wind; low-rise houses along Lung Ma Road under annual prevailing NE, ENE and E wind; and Po Kat Tsai under annual prevailing N wind.

8.1.3 Good design features are adopted in the Base Scheme, including the creation of the air path along NE-SW direction south of Blocks 2-4, and adequate building separation between high rise domestic blocks along NE-SW direction. Together with the large separation between Public Rental Housing (PRH) site and Subsidized Sale Flats (SSF) site, these features would facilitate annual prevailing winds including NE, ENE and E wind to flow across the subject site.

8.1.4 Further to the adopted good design features, the proposed scheme design applies additional improvements, including use of permeable structures at ground level at Public Housing blocks and creation of an air path along SE-NW direction which facilitate summer prevailing winds including SE and ESE wind to penetrate the subject site

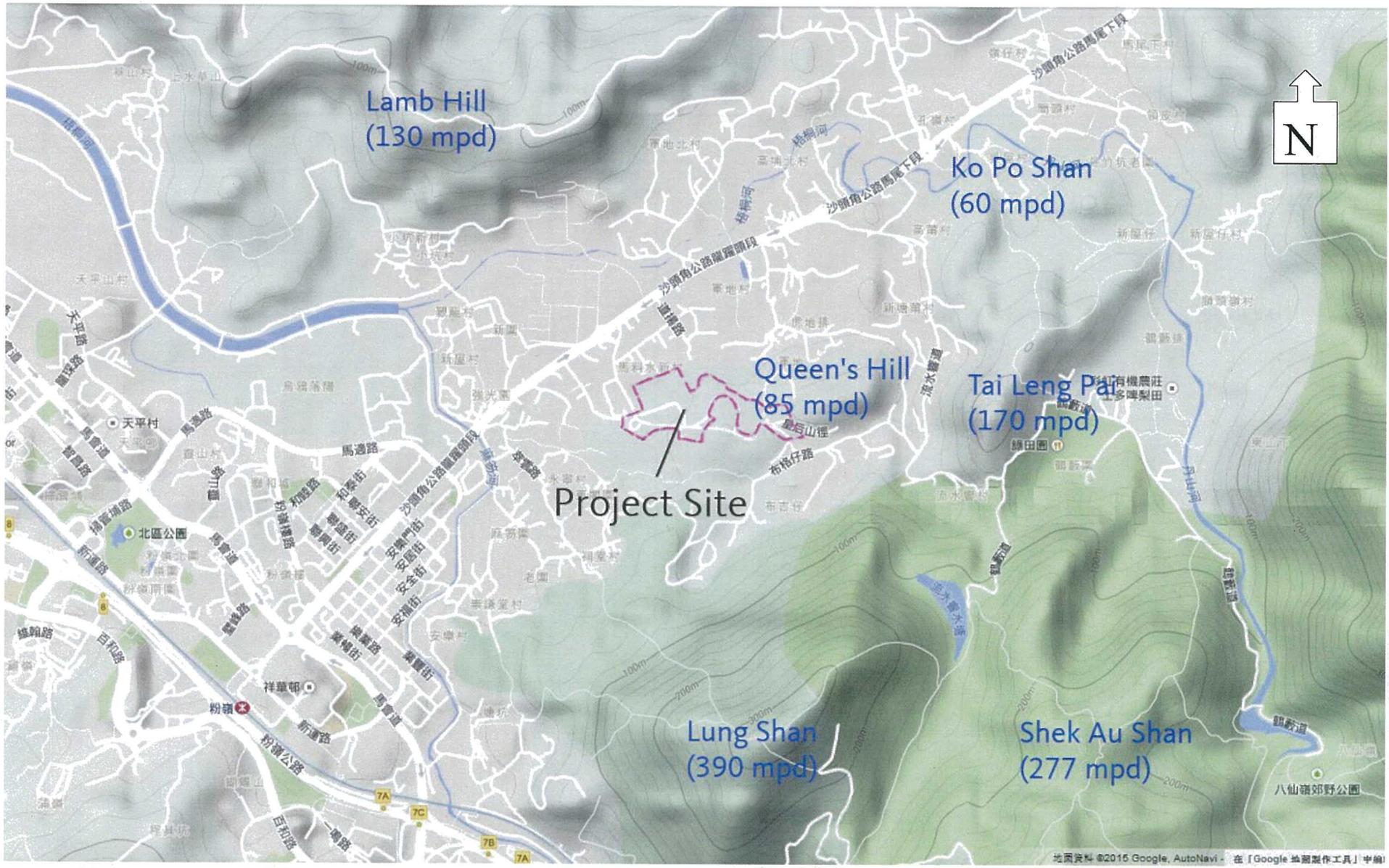
8.1.5 Under the proposed scheme development, there will still be adverse impact on the ventilation performance when compared to the condition without the Project. Affected area are identified as Ma Liu Shui San Tsuen under summer prevailing SE and ESE wind; low-rise houses along Lung Ma Road under annual prevailing NE, ENE and E wind; and Po Kat Tsai under annual prevailing N wind. However, the impact will be reduced as a result of improvements and good design features as compared with the Base Scheme. The following good design features in the proposed scheme has been considered.

- Maintain a wind corridor of not less than 100m between the SSF and the PRH sites
- A 40m building separation between PRH Blocks 2-3 and Blocks 5-8 above the retail facility along NE-SW direction
- A 20m air path in ENE-WSW alignment to the south of Block 3
- An air path of not less than 20m wide in the NW-SE alignment between PRH Blocks 5 & 6 to extend above the PTT to facilitate air ventilation at Ma Liu Shui San Tsuen
- Reduction in number of residential blocks at the SSF site to increase the building separation between blocks
- Empty bays at ground and first levels
- Stepping height profile which helps divert wind to pedestrian level

8.1.6 The following additional enhancement measures are recommended in the Expert Evaluation in order to further address the adverse impact and to optimize the air ventilation performance of the Proposed Scheme:

- Maximize the separation between Block 5 and Block 6 so that the air path during ESE and SE wind can be widened.
- Create empty bays at SSF blocks, for instance, Block C, D, E and F to alleviate the blockage of annual prevailing N wind to Po Kat Tsai.

- 8.1.7 Due to the large scale and tall buildings of the proposed development, it is important that all the good design measures and further enhancement measures are incorporated in the future development scheme. AVA Initial Study is recommended to quantitatively assess the effectiveness of the features deployed and identify any additional focus area.



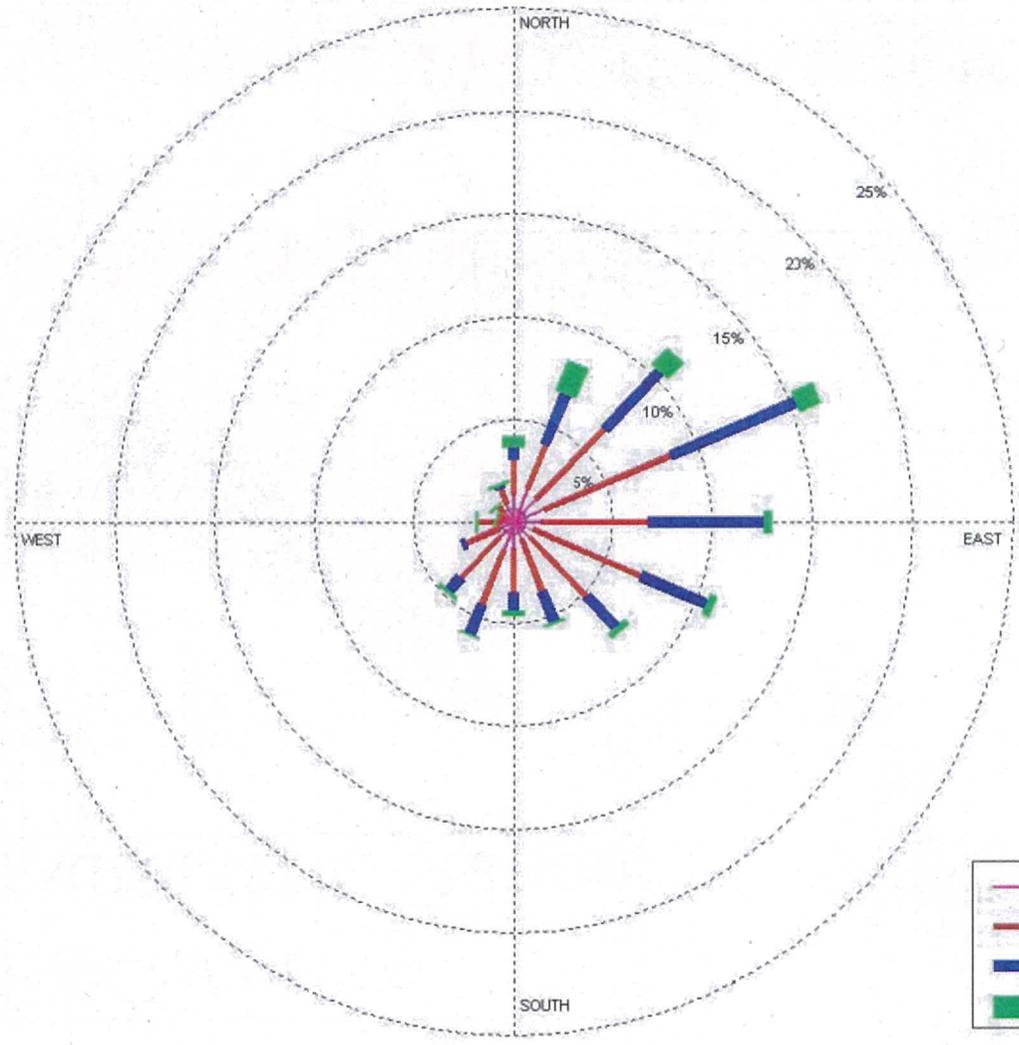
PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING
EXPERT EVALUATION
 Surrounding Hills

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Scale	Date



地圖資料 ©2015 Google, AutoNavi - 在「Google 地圖製作工具」中繪

Square:(26,40) Windrose in 16 Directions

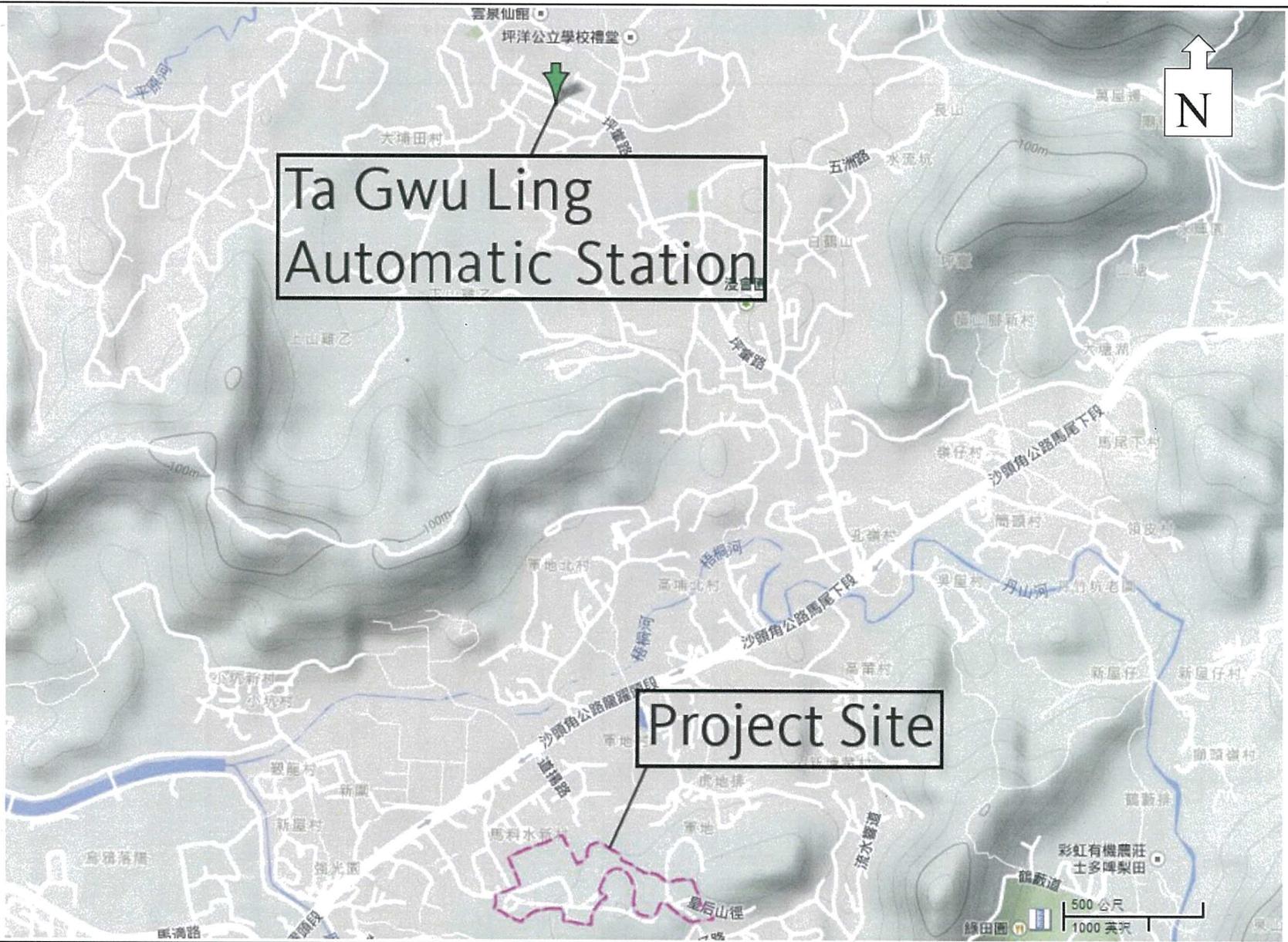


	0.1-3.2 m/s
	3.2-8.2 m/s
	8.3-14.2 m/s
	>14.2 m/s

PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING
EXPERT EVALUATION
 Wind Rose from MM5 at Grid 26,40

Figure No. 5.1	Rev.: 1
Scale	Date





Ta Gwu Ling Automatic Station

Project Site

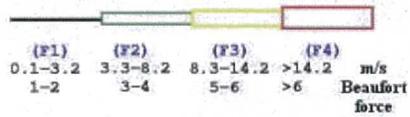
PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING
EXPERT EVALUATION
 Location of Ta Gwu Ling Automatic Weather Station

Figure No.	Rev.:
5.2	1
Scale	Date

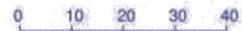


Annual and Summer wind roses for Ta Kwu Ling, 1986-2013

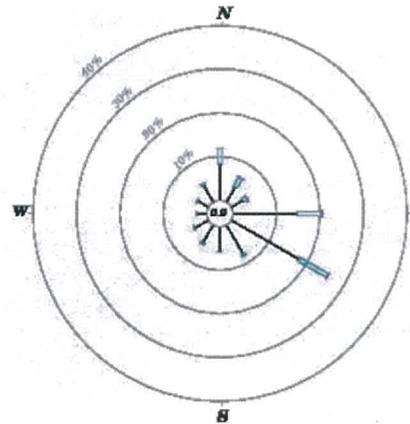
Wind Speed



Percentage Frequency

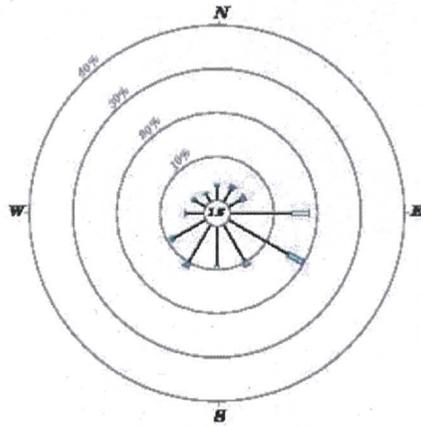


The number in the inner circle is the percentage frequency of occurrence of calm and variable winds.

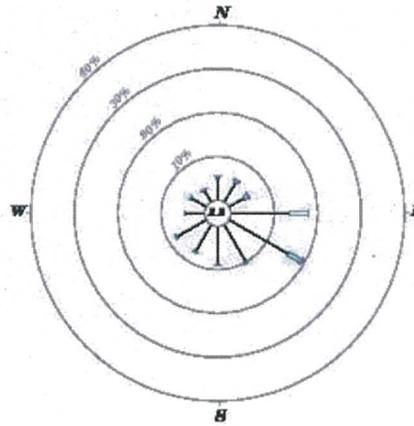


Year

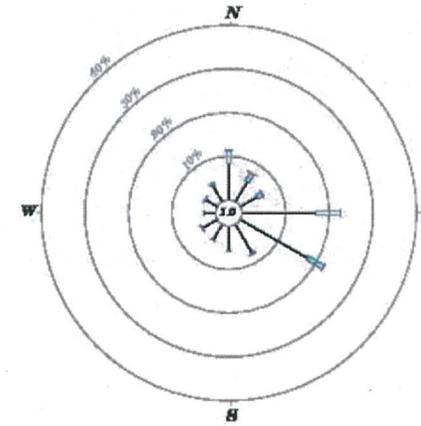
Legend



July



August



September

PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING

EXPERT EVALUATION

Annual and Summer Wind Rose from Hong Kong Observatory

Figure No.

5.3

Rev.:

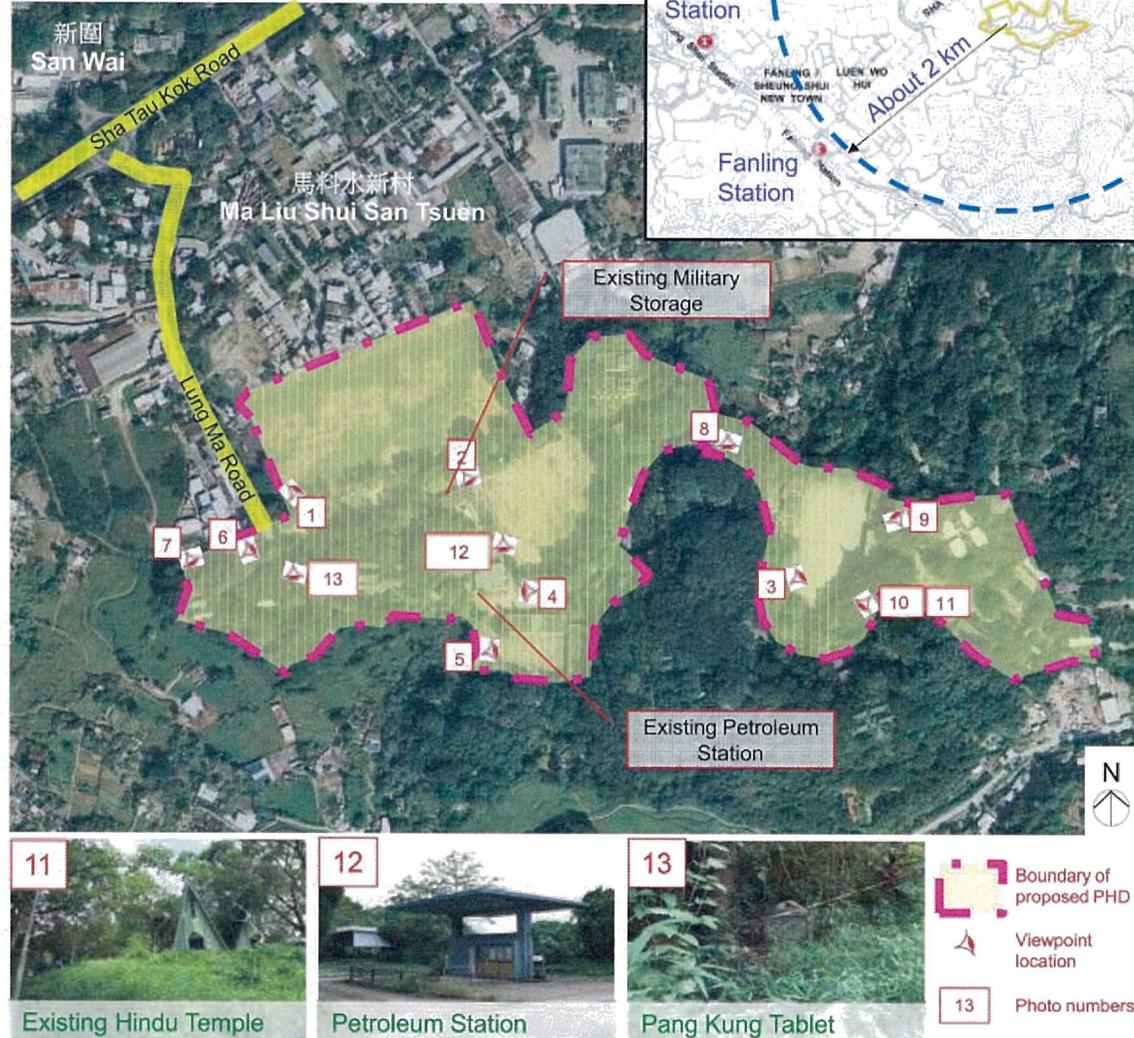
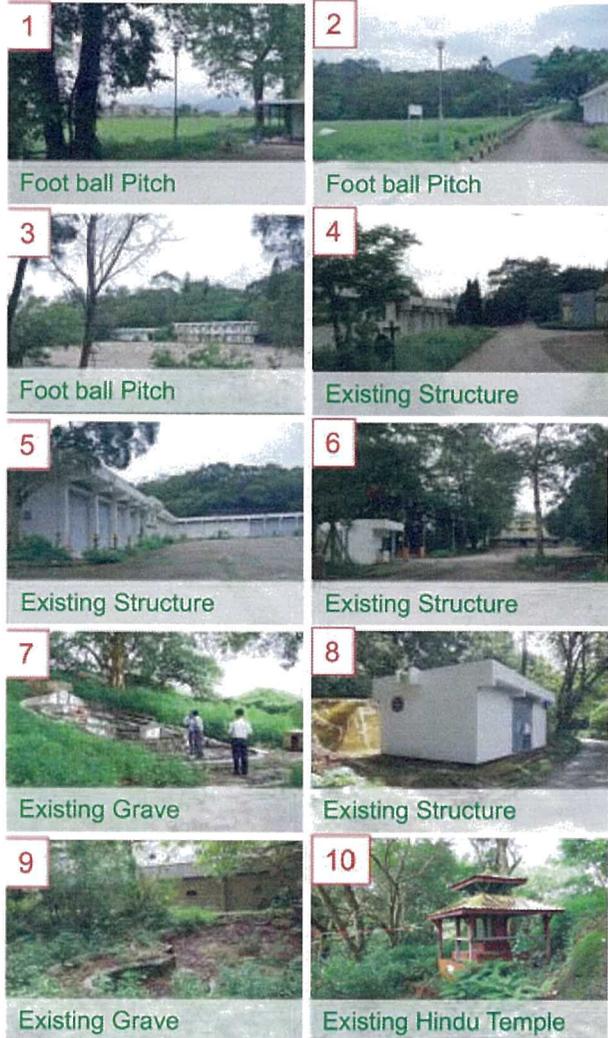
1

Scale

Date



The Site

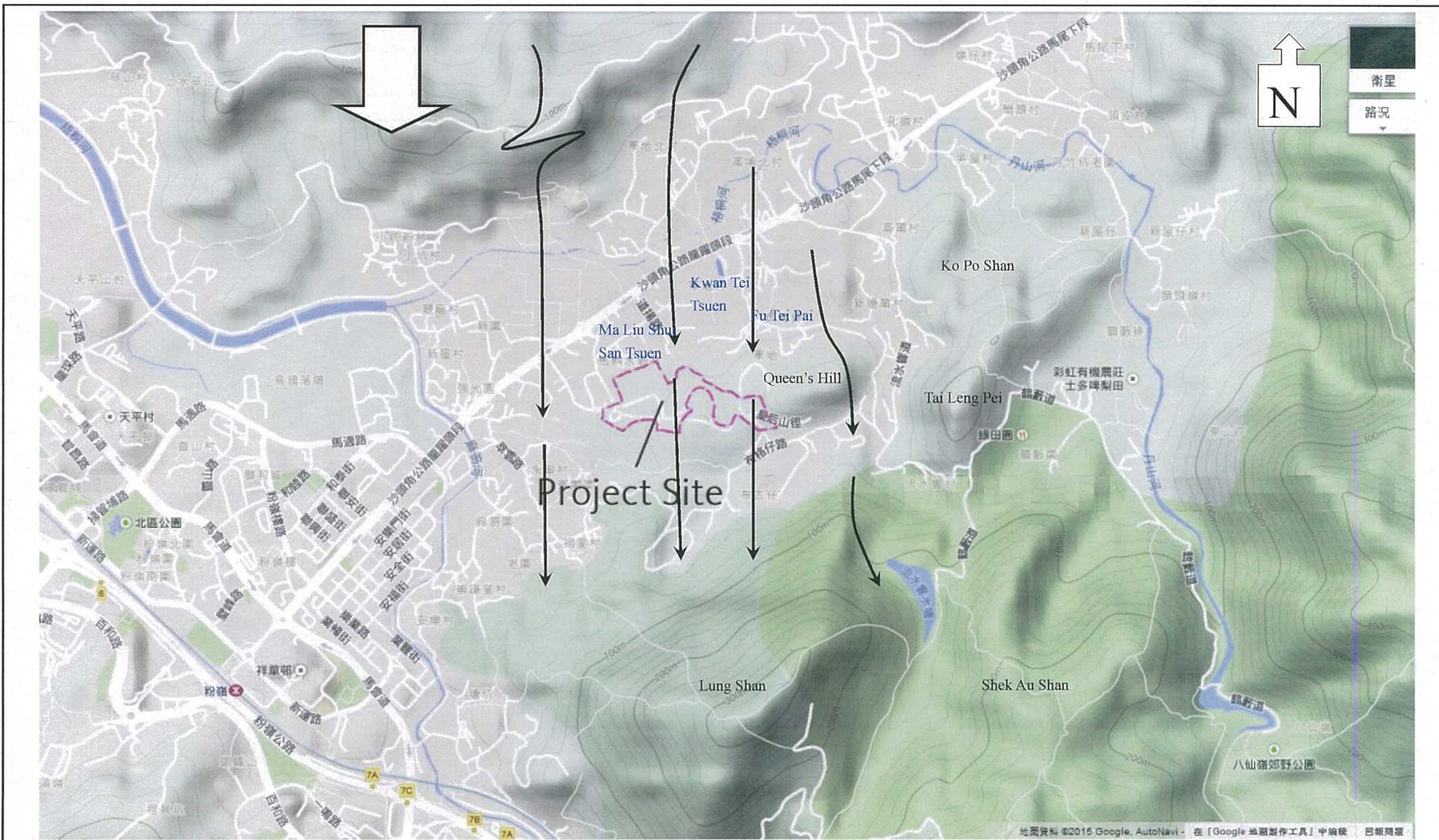


PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING

EXPERT EVALUATION
Location of Existing Structure

Figure No.	Rev.:
6.1	1
Scale	Date





PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING
EXPERT EVALUATION
 Northern Wind Flow Under Existing Condition

Figure No.	Rev.
6.2a	1
Scale	Date





PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING

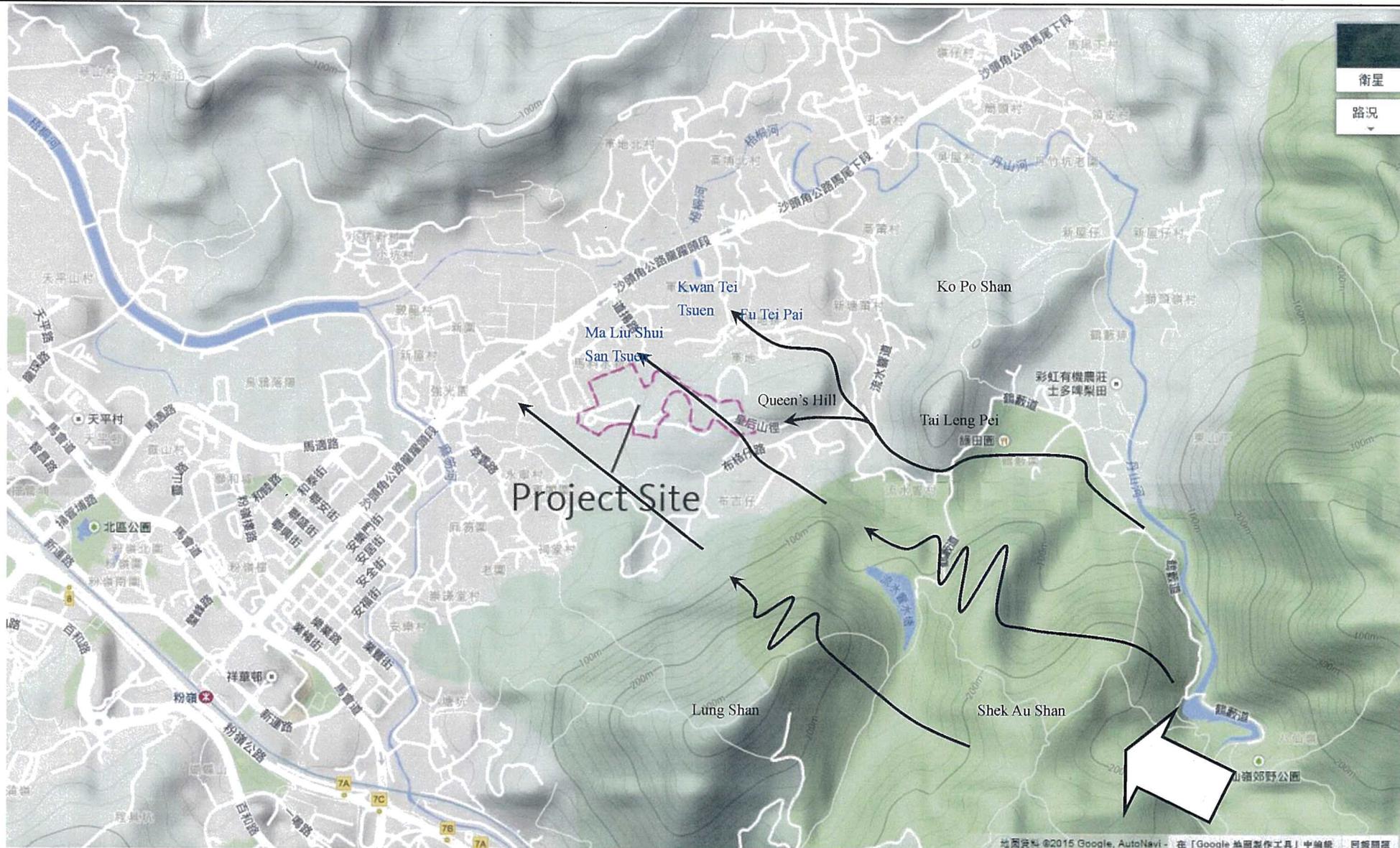
EXPERT EVALUATION

Eastern Wind Flow under Existing Condition

Figure No.	Rev.
6.2c	1
Scale	Date



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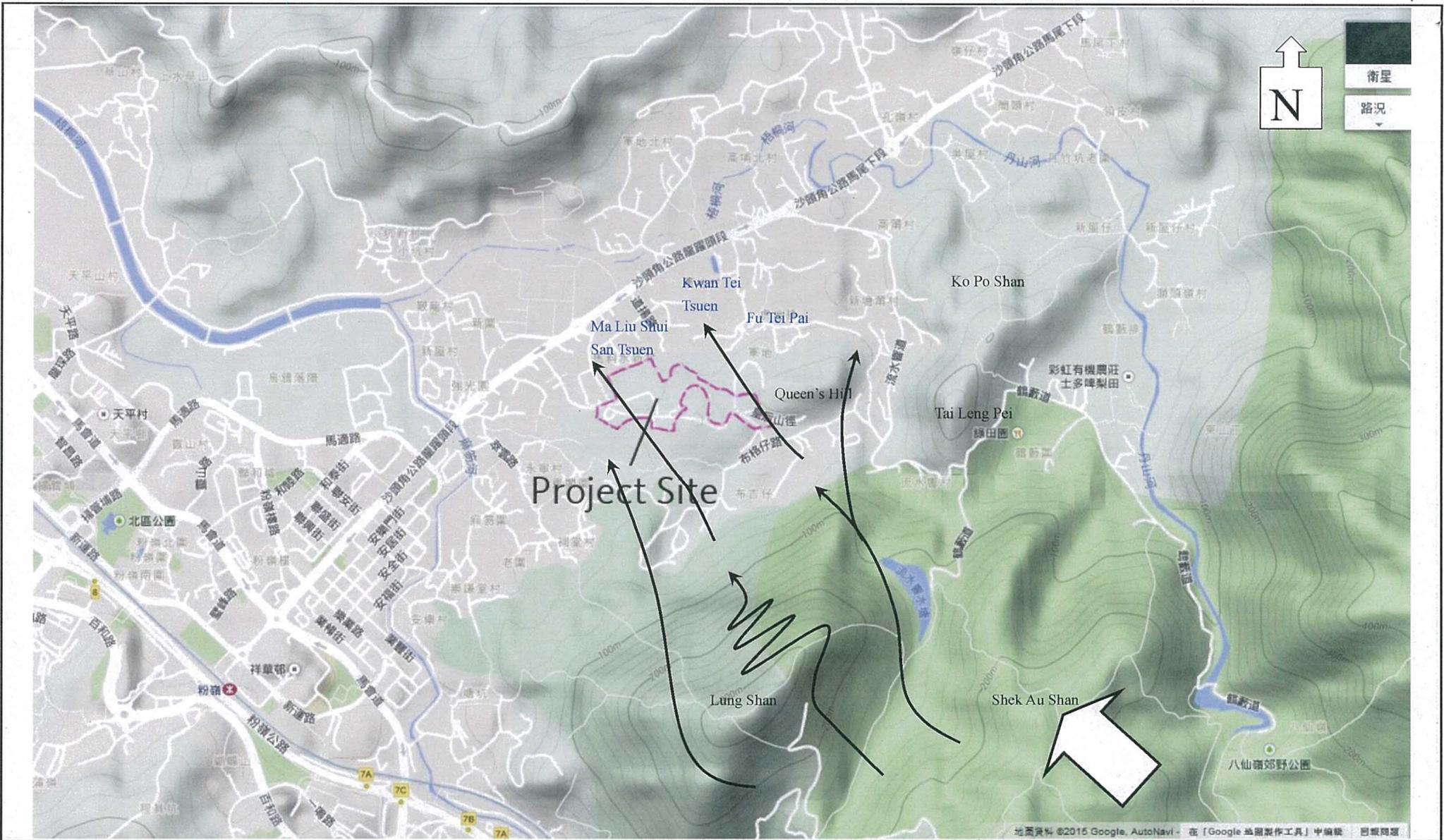


PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING
EXPERT EVALUATION
 East South Eastern Wind Flow under Existing Condition

Figure No.	Rev.:
6.2d	1
Scale	Date



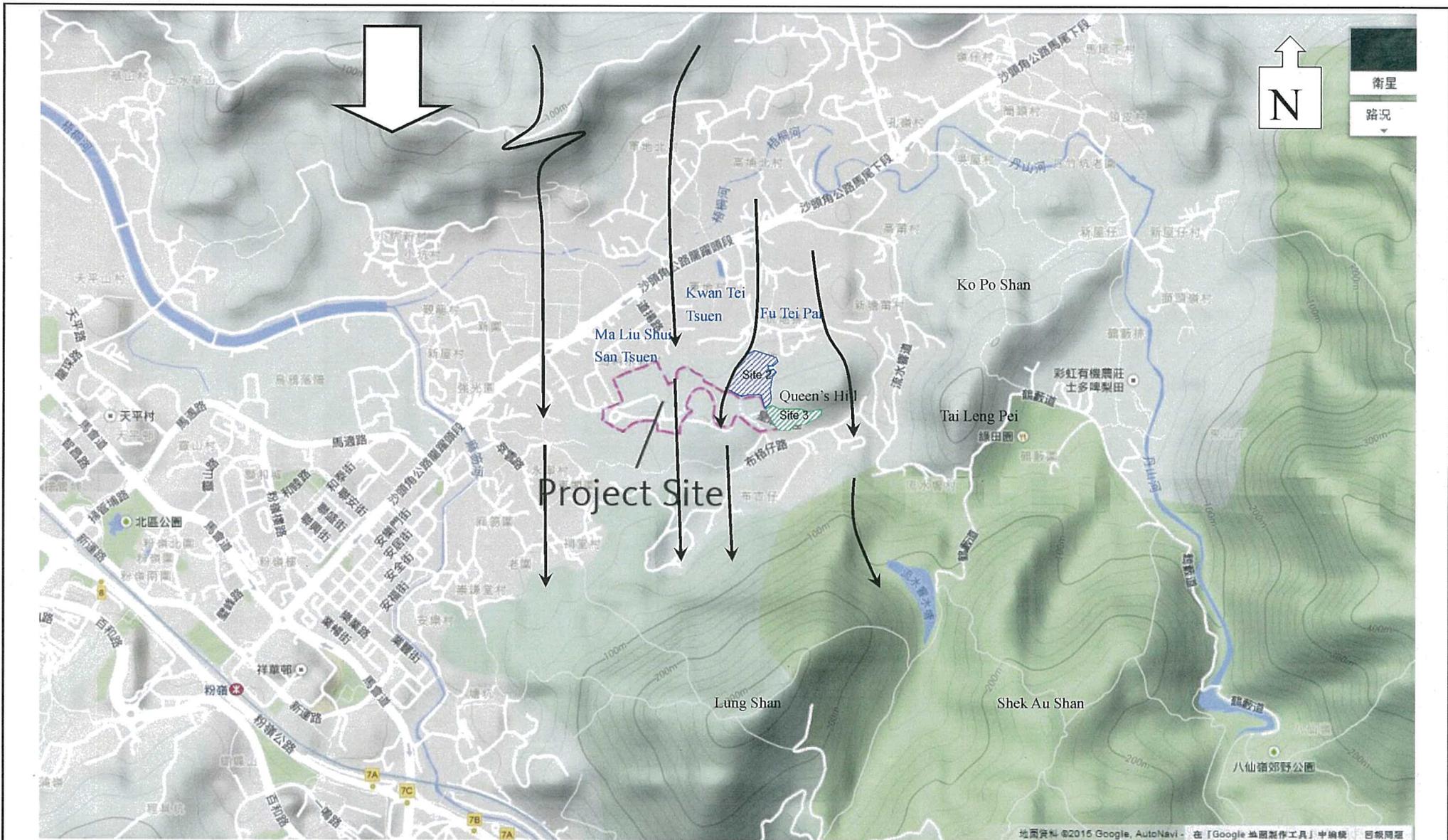
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PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING
EXPERT EVALUATION
 South Eastern Wind Flow under Existing Condition

Figure No.	Rev.
6.2e	1
Scale	Date





PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING

EXPERT EVALUATION

Northern Wind Flow with Committed Development

Figure No.

6.2.1a

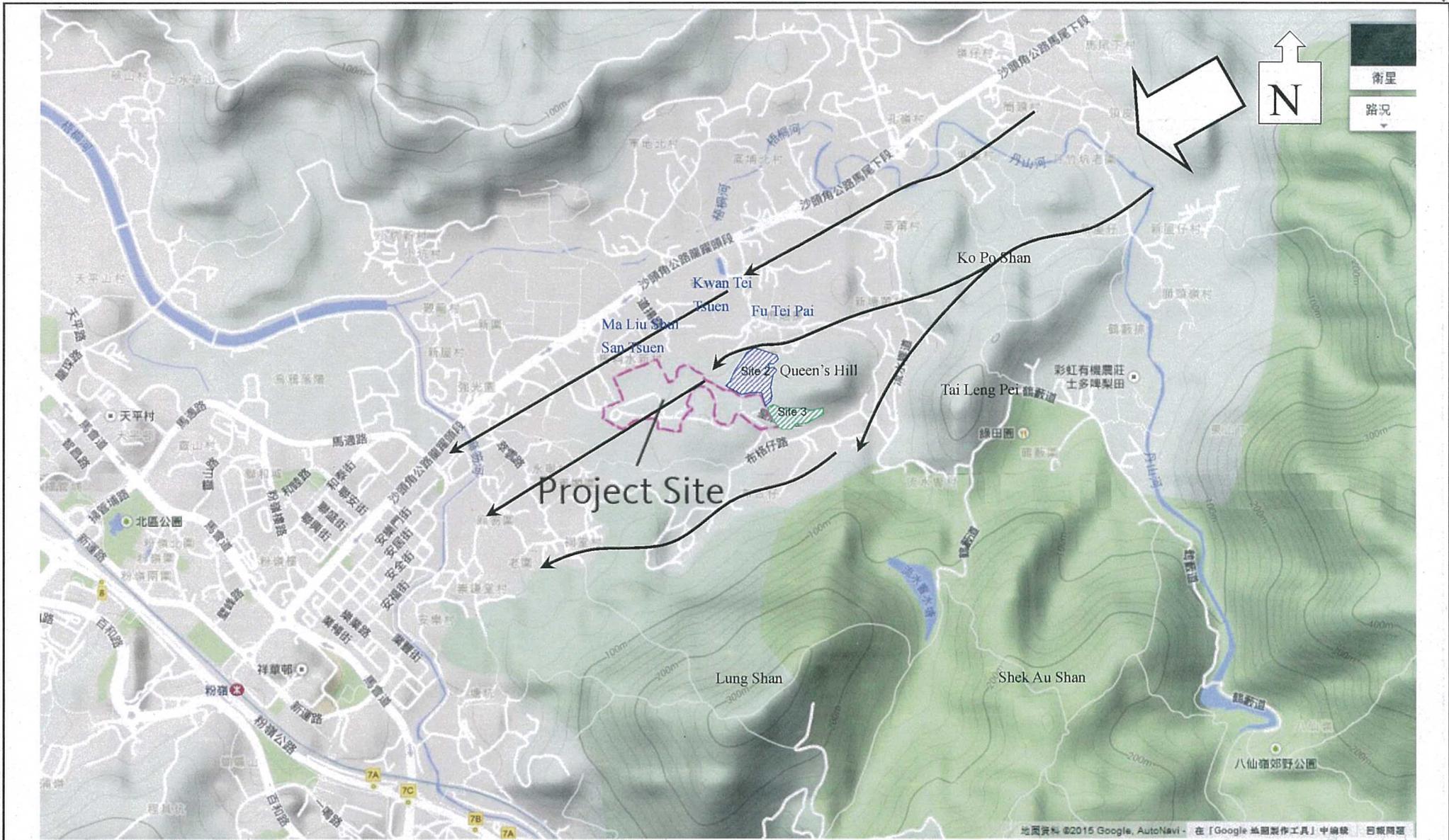
Rev.:

1

Scale

Date



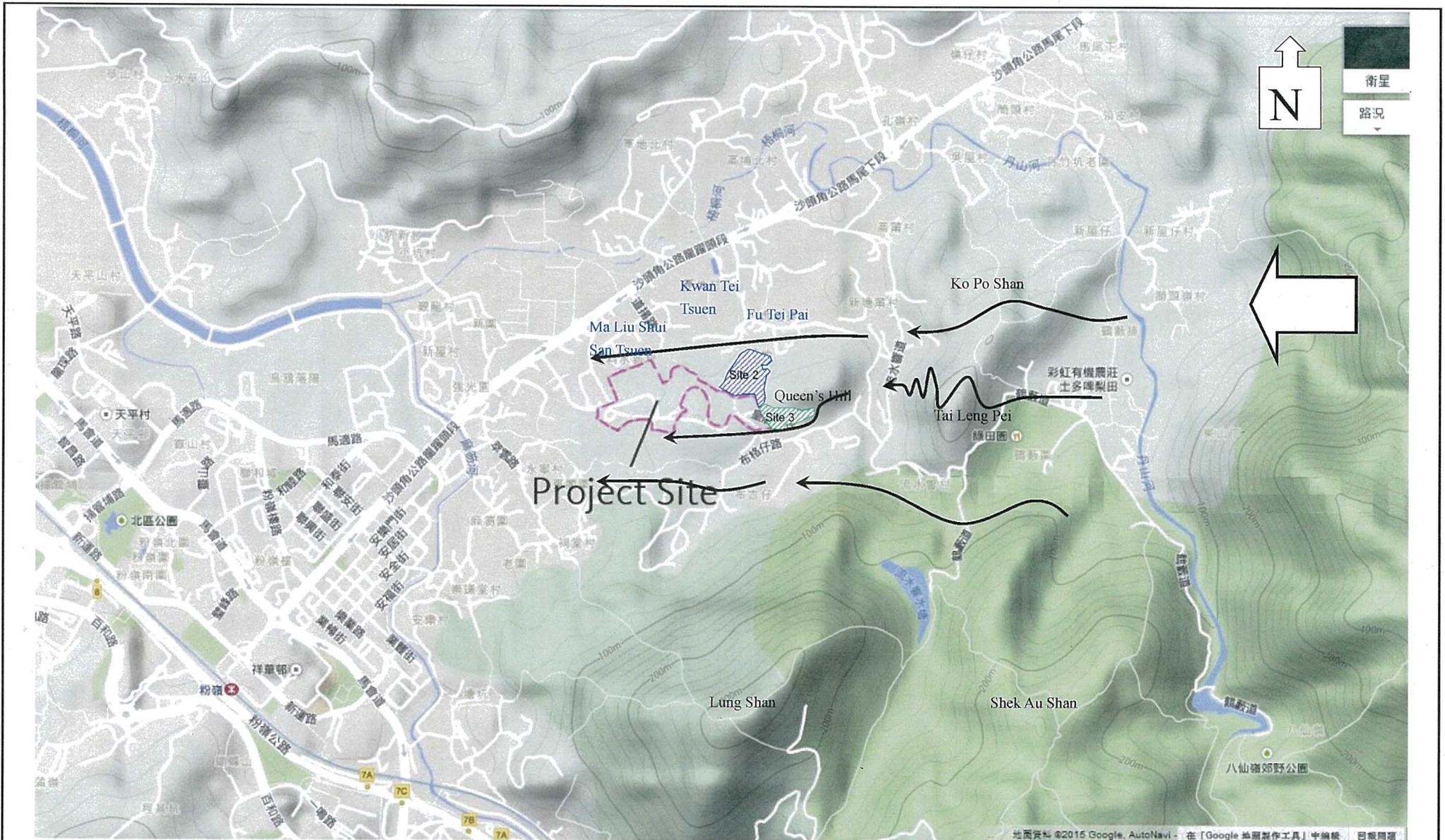


PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING
 EXPERT EVALUATION
 East North Eastern and North Eastern Wind Flow with Committed Development

Figure No.	Rev.:
6.2.1b	1
Scale	Date



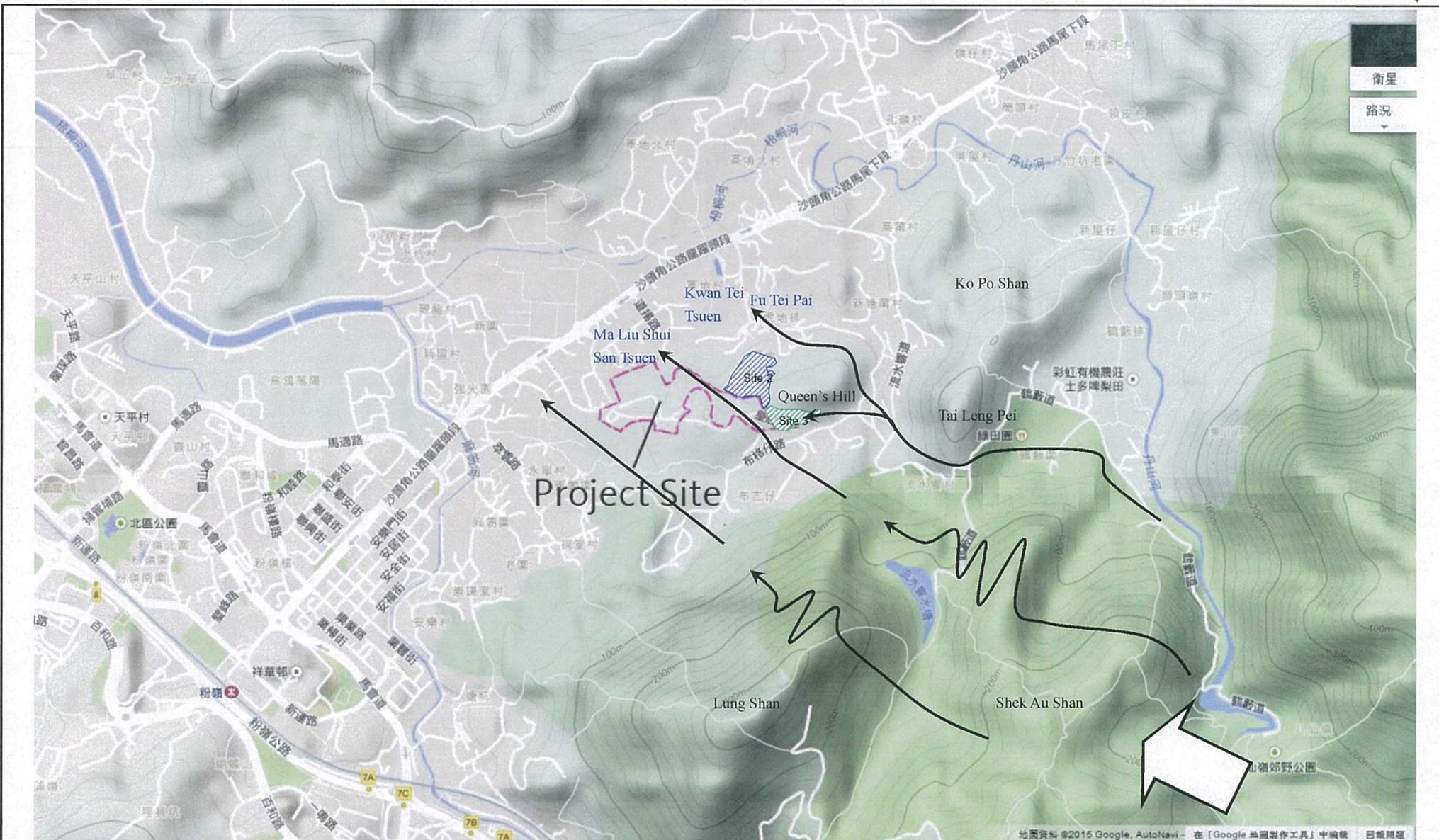
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PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING
EXPERT EVALUATION
 Eastern Wind Flow with Committed Development

Figure No.	Rev.:
6.2.1c	1
Scale	Date

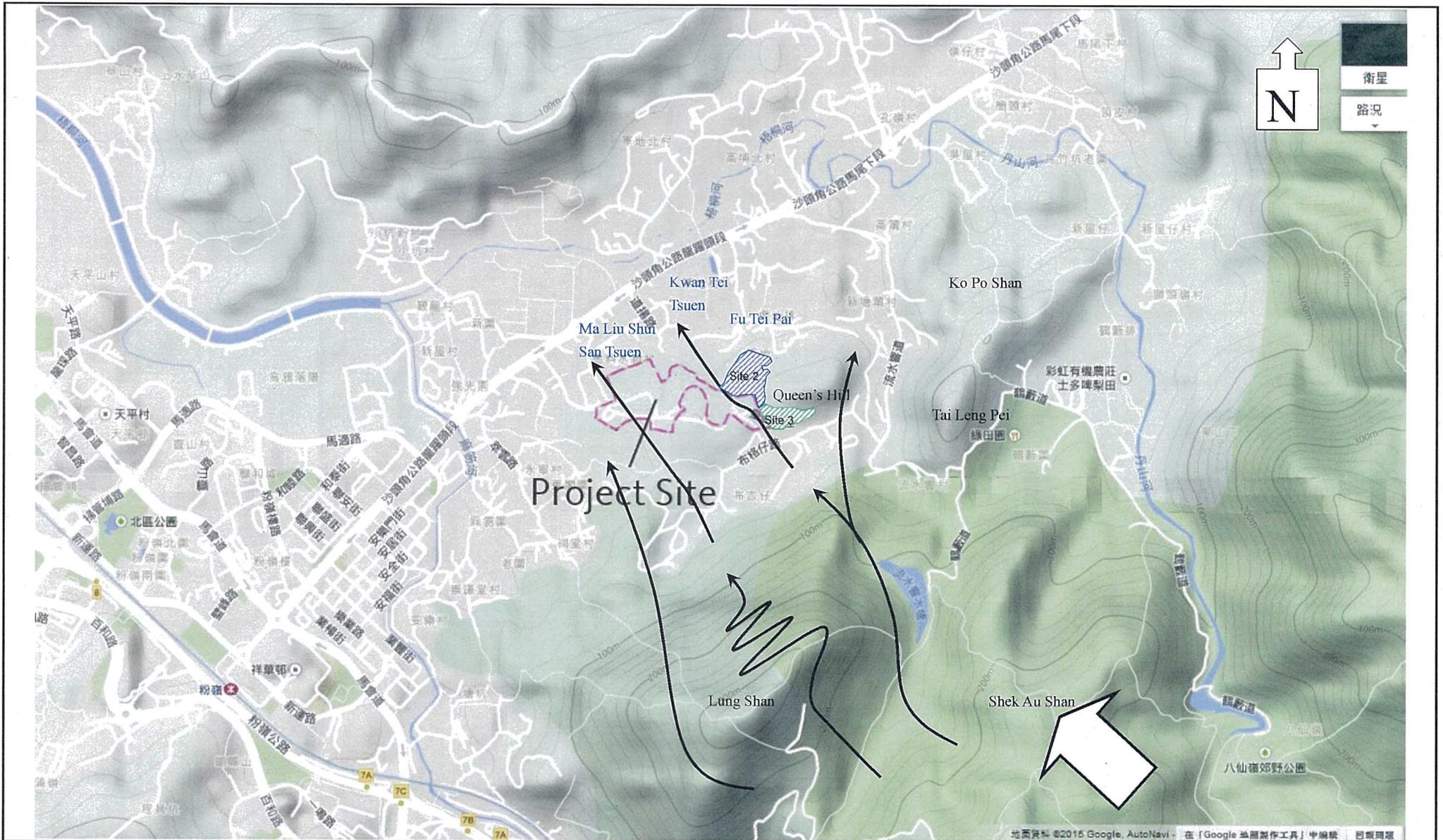




PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING
EXPERT EVALUATION
 East South Eastern Wind Flow with Committed Development

Figure No.	Rev.
6.2.1d	1
Scale	Date



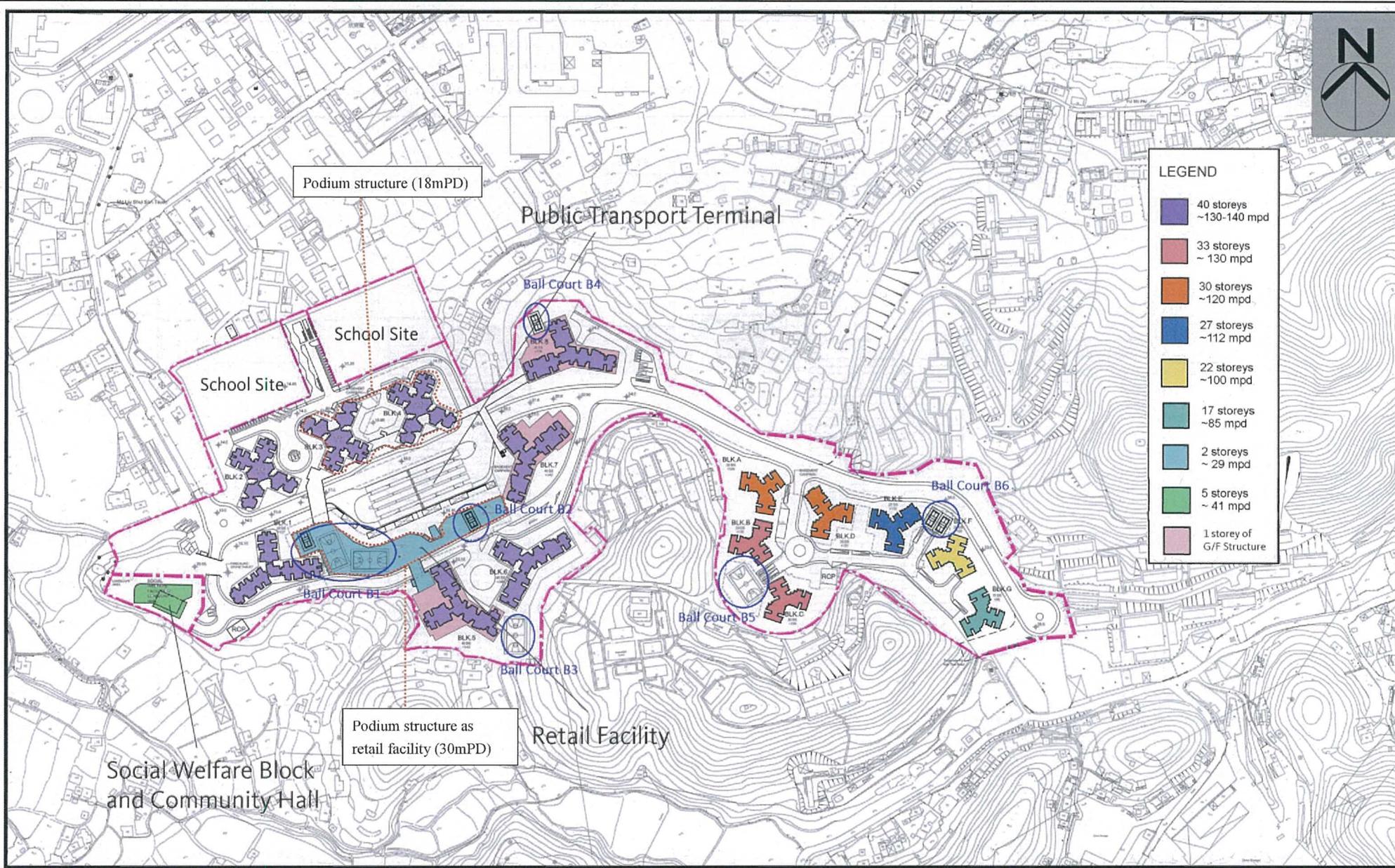


PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING
EXPERT EVALUATION
 South Eastern Wind Flow with Committed Development

Figure No.
6.2.1e

Rev.:
1





LEGEND	
	40 storeys ~130-140 mpd
	33 storeys ~ 130 mpd
	30 storeys ~120 mpd
	27 storeys ~112 mpd
	22 storeys ~100 mpd
	17 storeys ~85 mpd
	2 storeys ~ 29 mpd
	5 storeys ~ 41 mpd
	1 storey of G/F Structure

Podium structure (18mPD)

Public Transport Terminal

School Site

School Site

Retail Facility

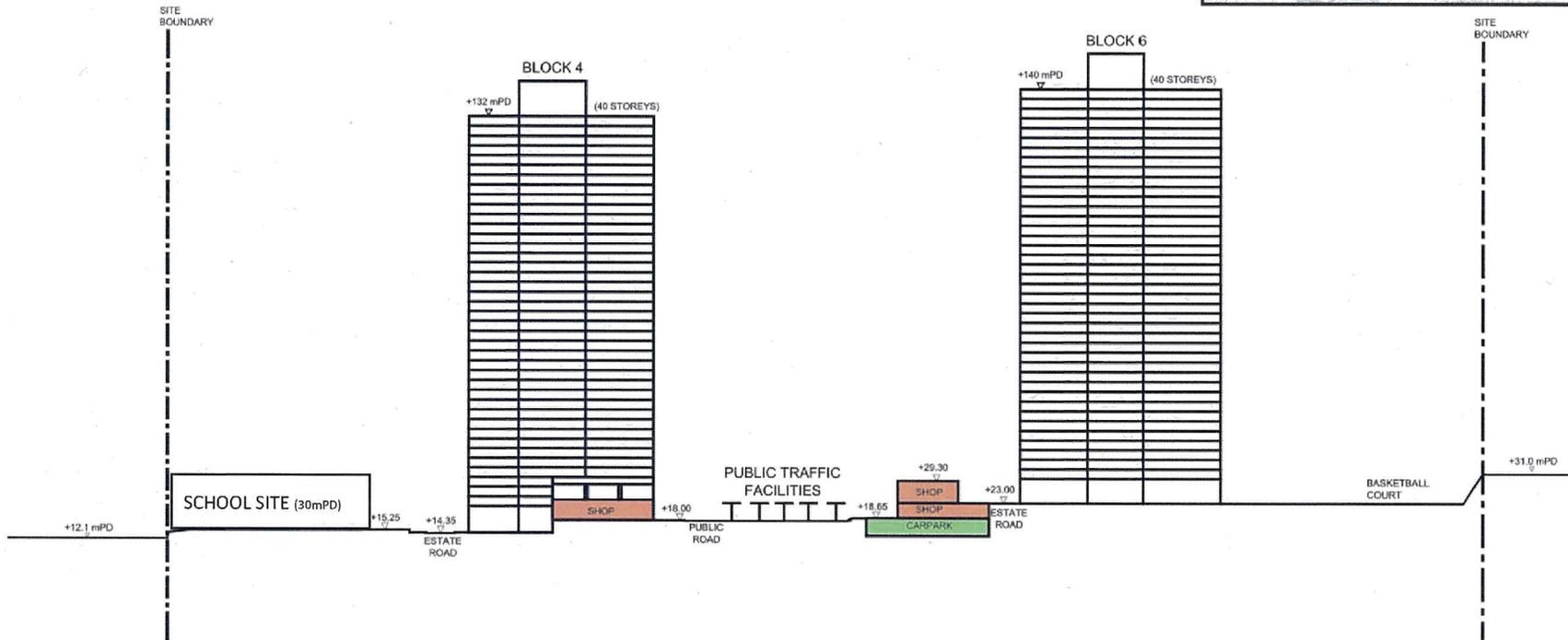
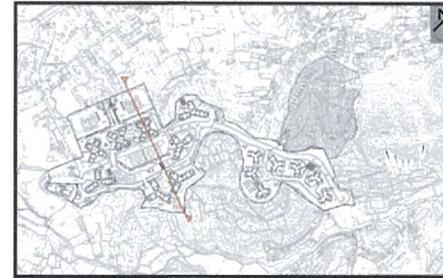
Social Welfare Block
and Community Hall

Podium structure as
retail facility (30mPD)

PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING
EXPERT EVALUATION
Layout and Height Profile of the Base Scheme Development

Figure No.	6.3	Rev.	3
Scale		Date	

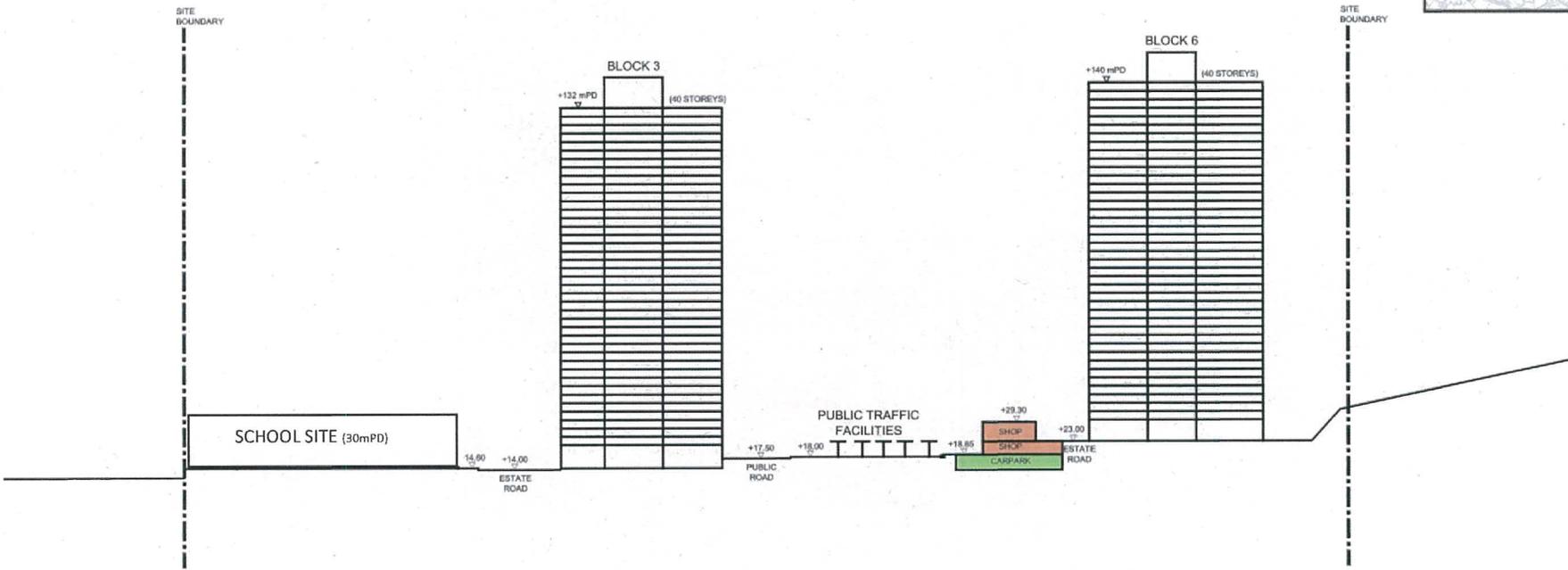




PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING
EXPERT EVALUATION
 Section View of the Base Scheme Development I

Figure No.	Rev.:
6.4a	3
Scale	Date





SECTION B-B
SCALE 1:1500

PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING

EXPERT EVALUATION

Section View of the Base Scheme Development II

Figure No.

6.4b

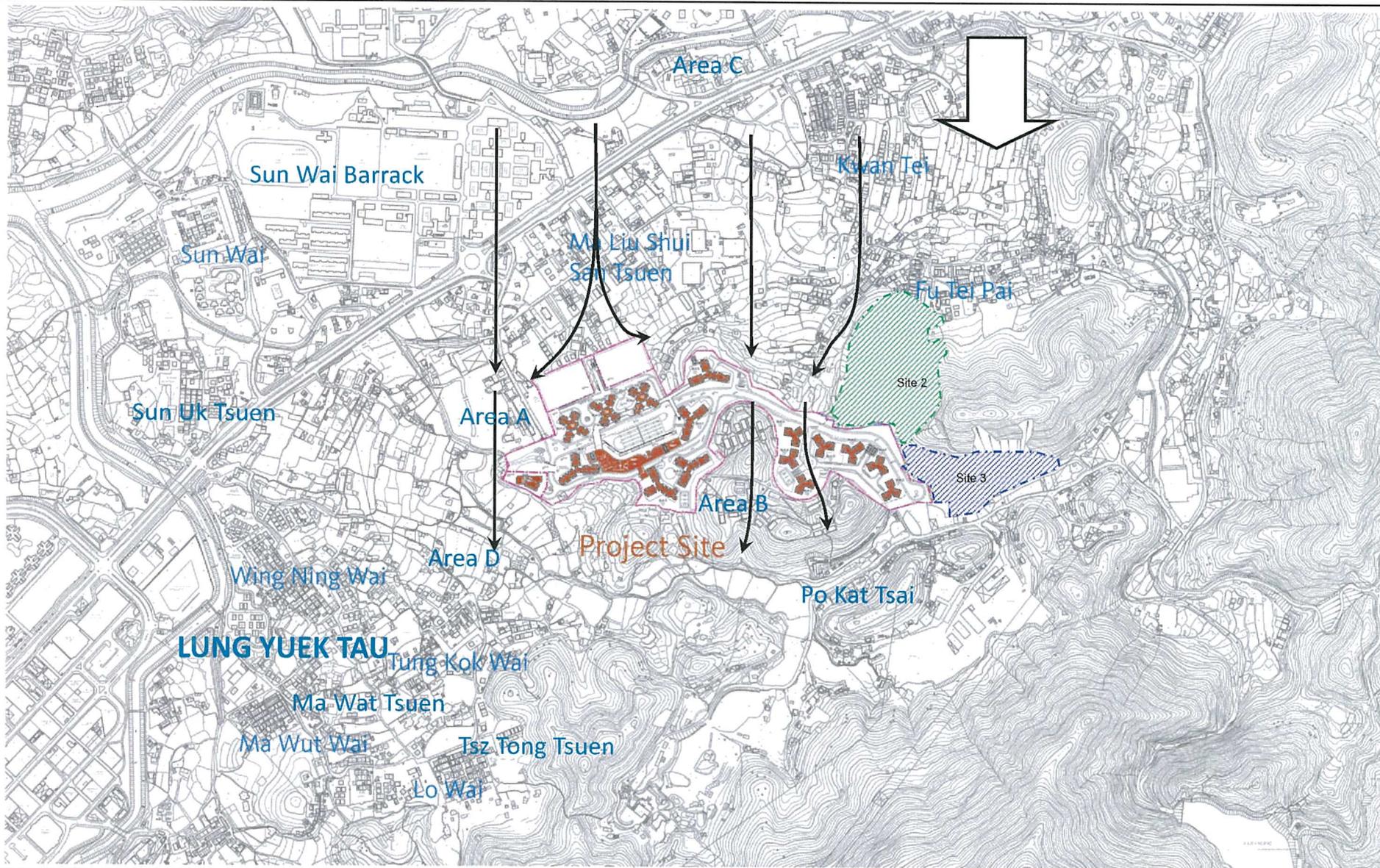
Rev.:

3

Scale

Date

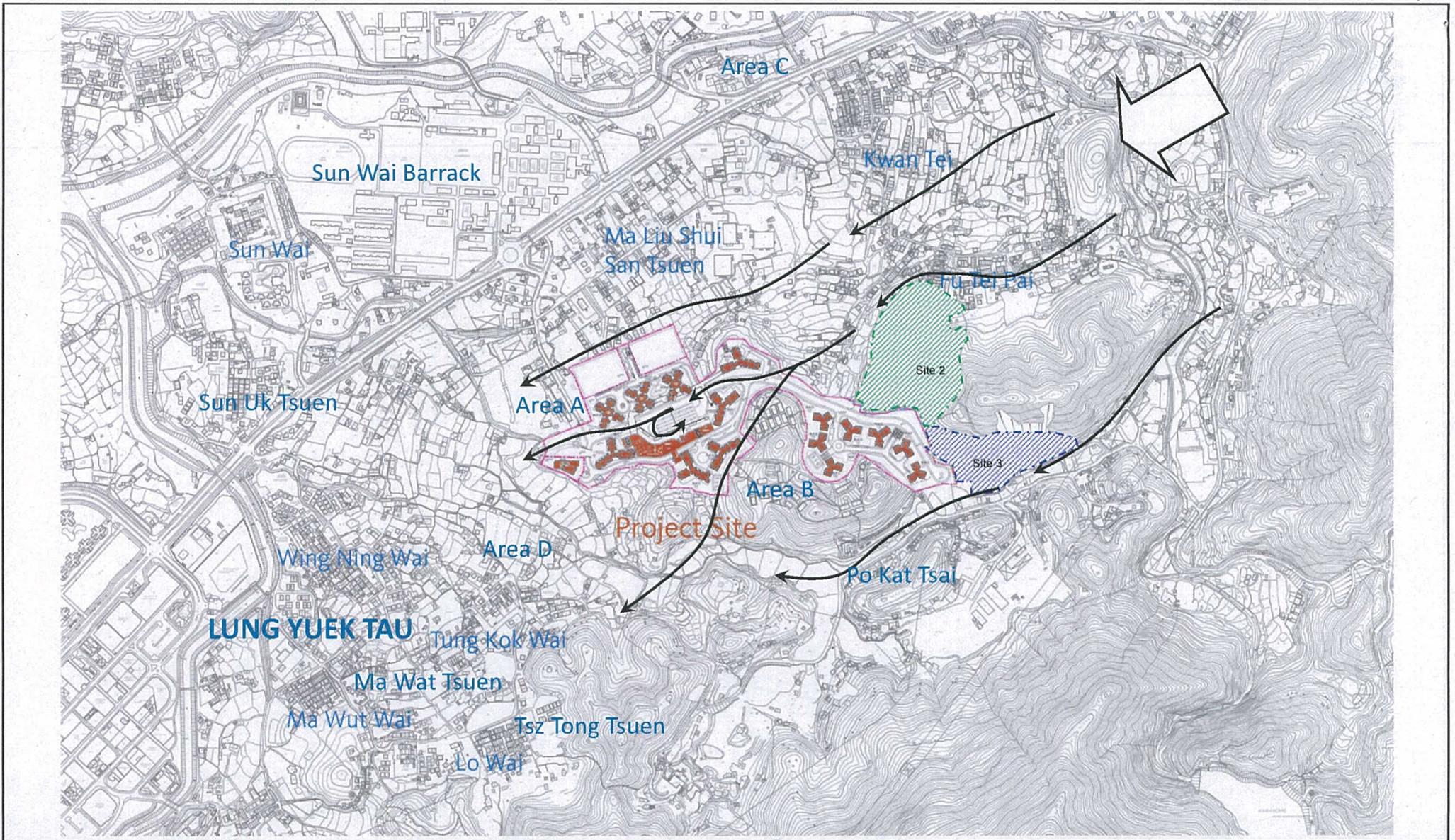




PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING
 EXPERT EVALUATION
 Northern Wind Flow under Base Scheme Development

Figure No.	Rev.:
6.5a	3
Scale	Date

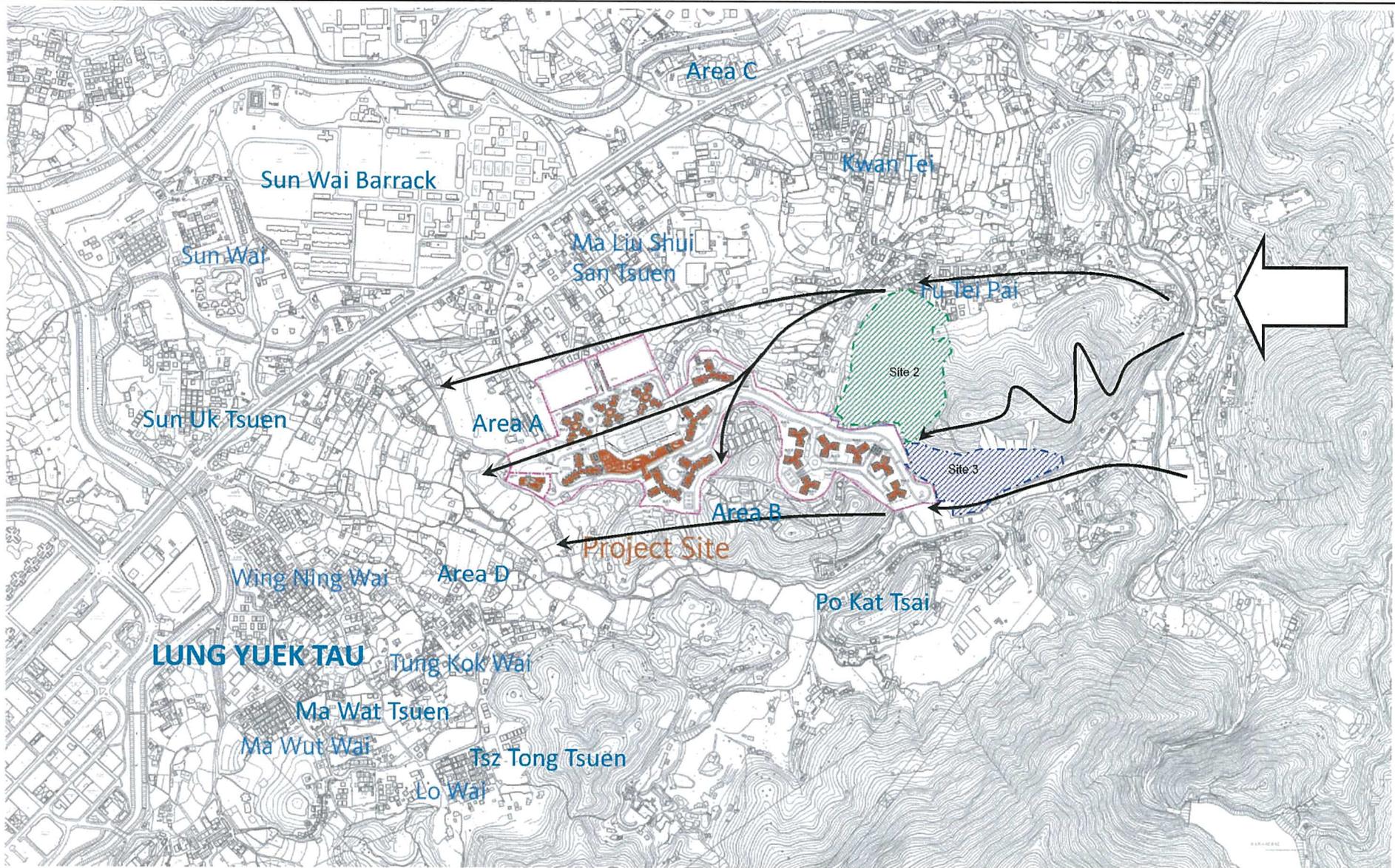




PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING
 EXPERT EVALUATION
 East North Eastern and North Eastern Wind Flow under Base Scheme Development

Figure No. 6.5b	Rev. 3
Scale	Date

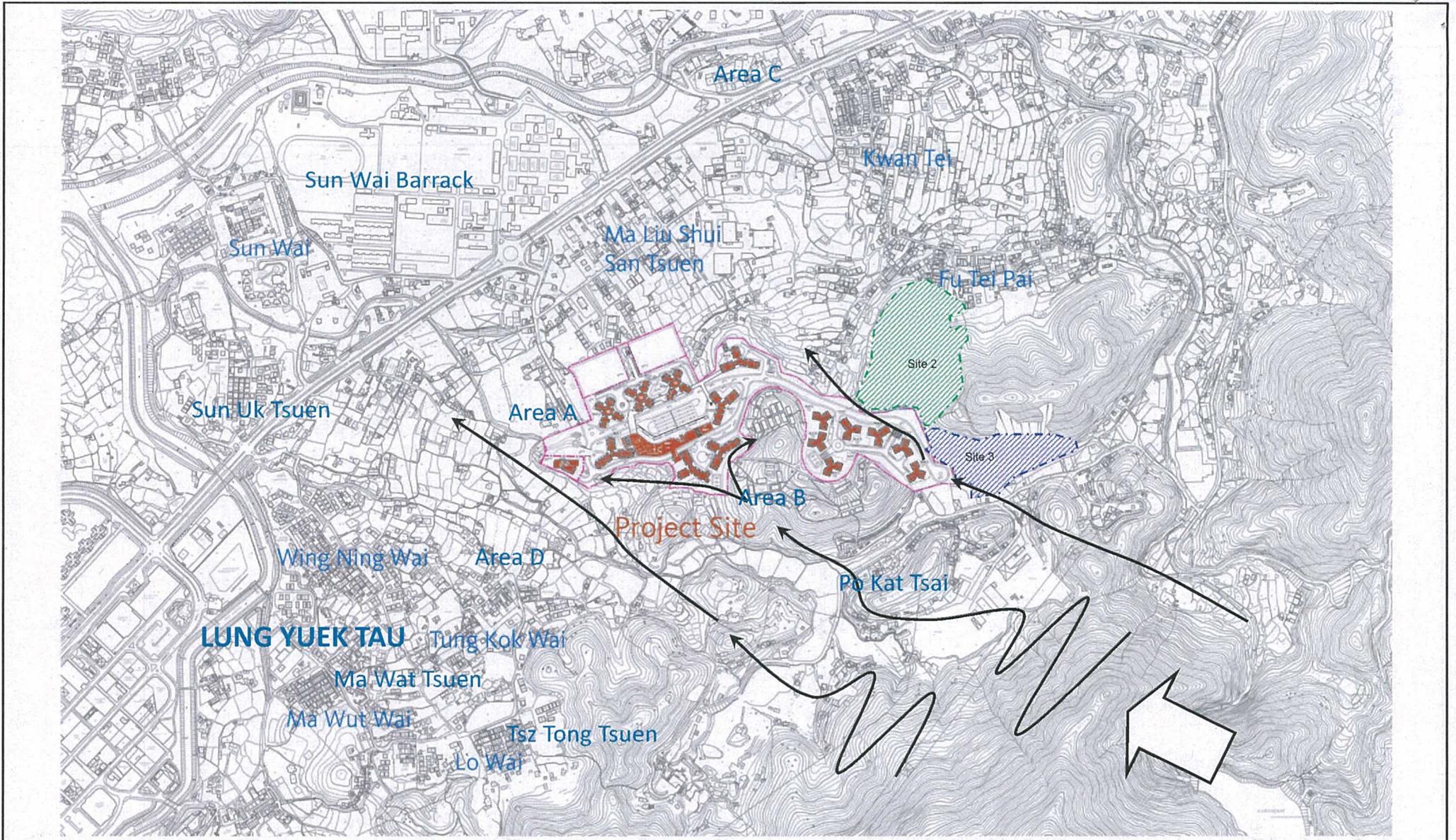




PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING
 EXPERT EVALUATION
 Eastern Wind Flow under Base Scheme Development

Figure No.	Rev.:
6.5c	3
Scale	Date

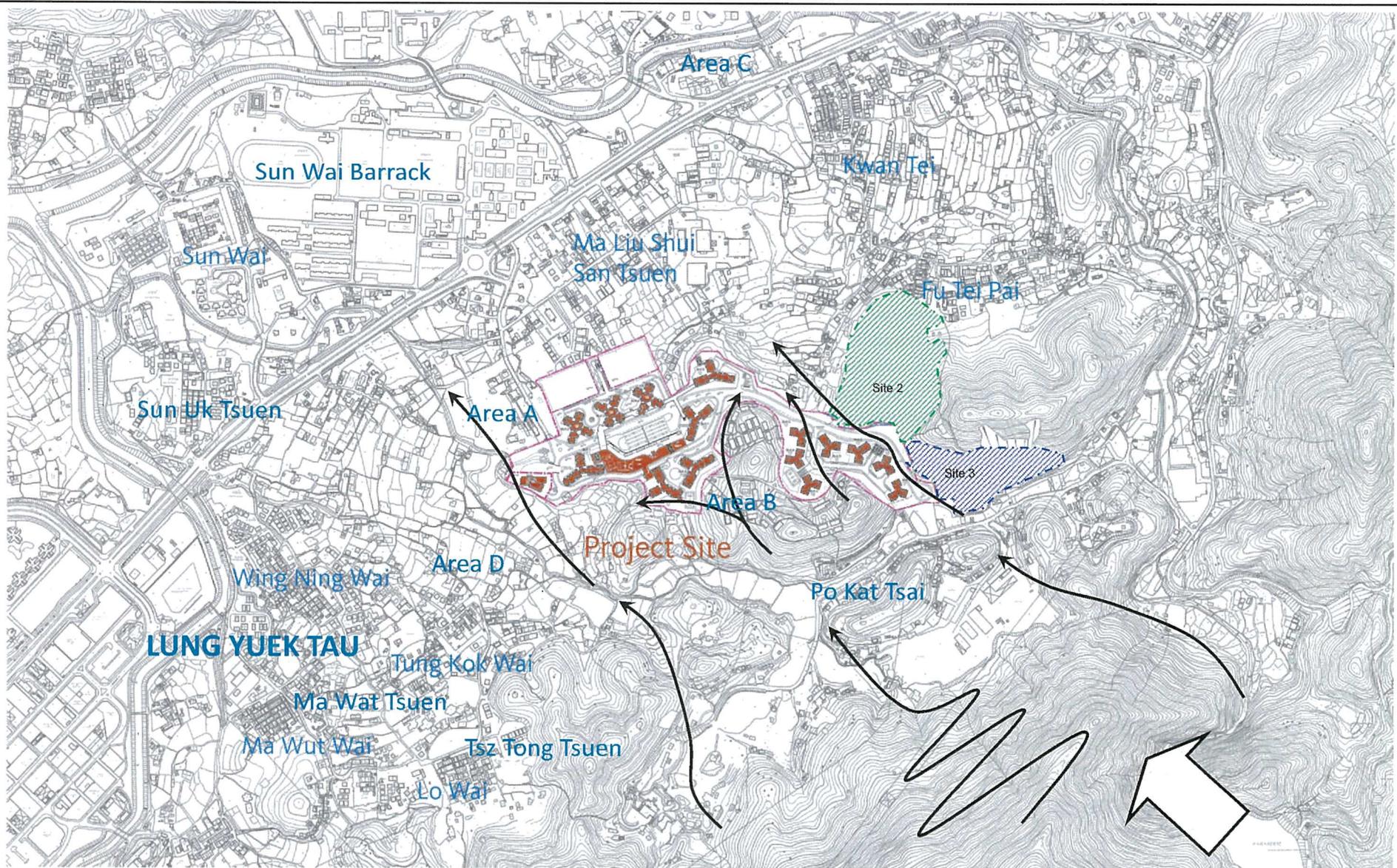




PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING
 EXPERT EVALUATION
 East South Eastern Wind Flow under Base Scheme Development

Figure No.	Rev.
6.5d	3
Scale	Date

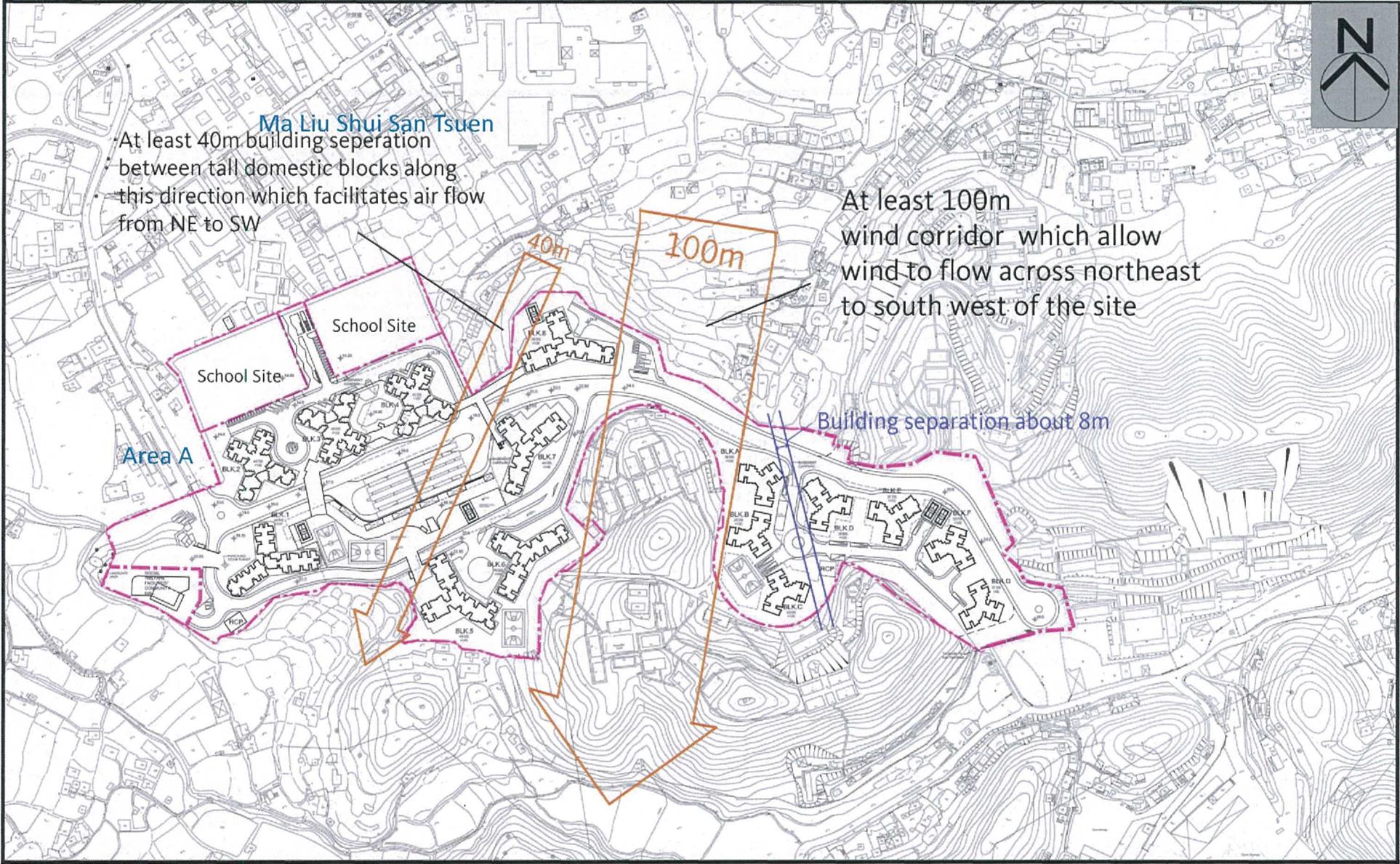




PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING
 EXPERT EVALUATION
 Southeastern Wind by the Base Scheme Development

Figure No.	Rev.:
6.5e	3
Scale	Date





PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING

EXPERT EVALUATION

Wind Corridor and Air Path in PRH Site and Building Separation in SSF Site in Base Scheme

Figure No.

6.6

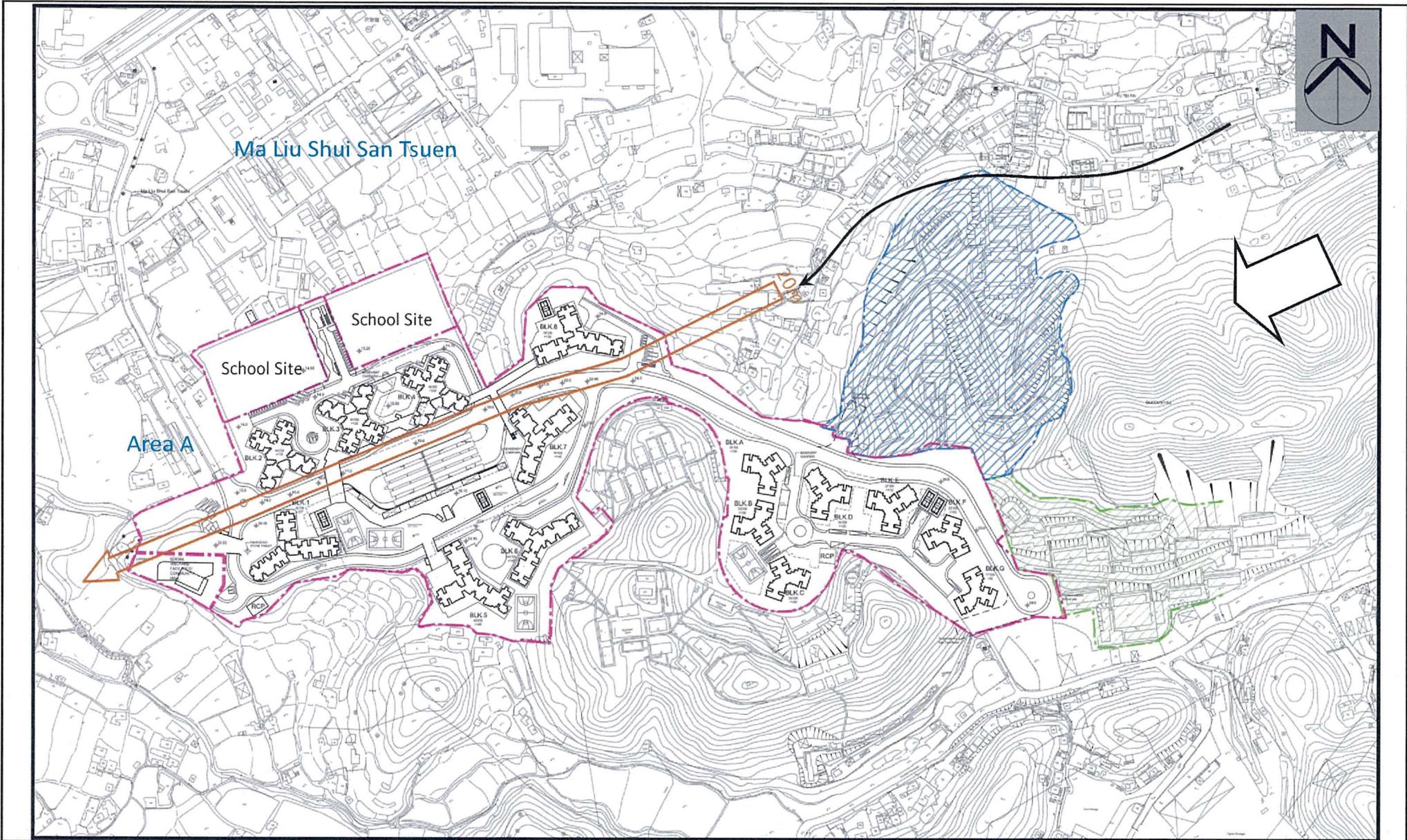
Rev.:

3

Scale

Date

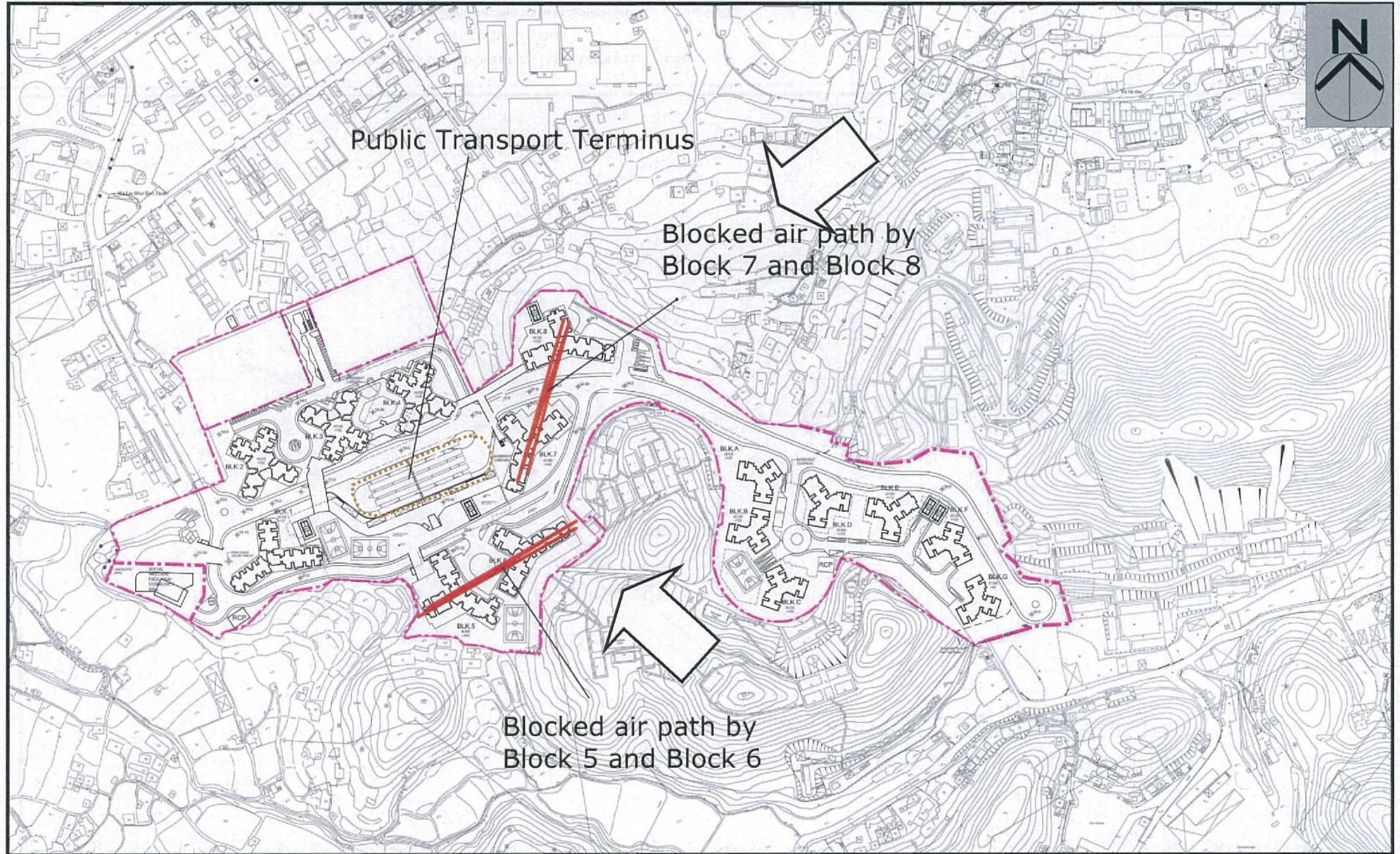




PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING
EXPERT EVALUATION
 Air Path under Annual Prevailing East North Eastern Wind in Base Scheme

Figure No.	Rev.:
6.7	3
Scale	Date





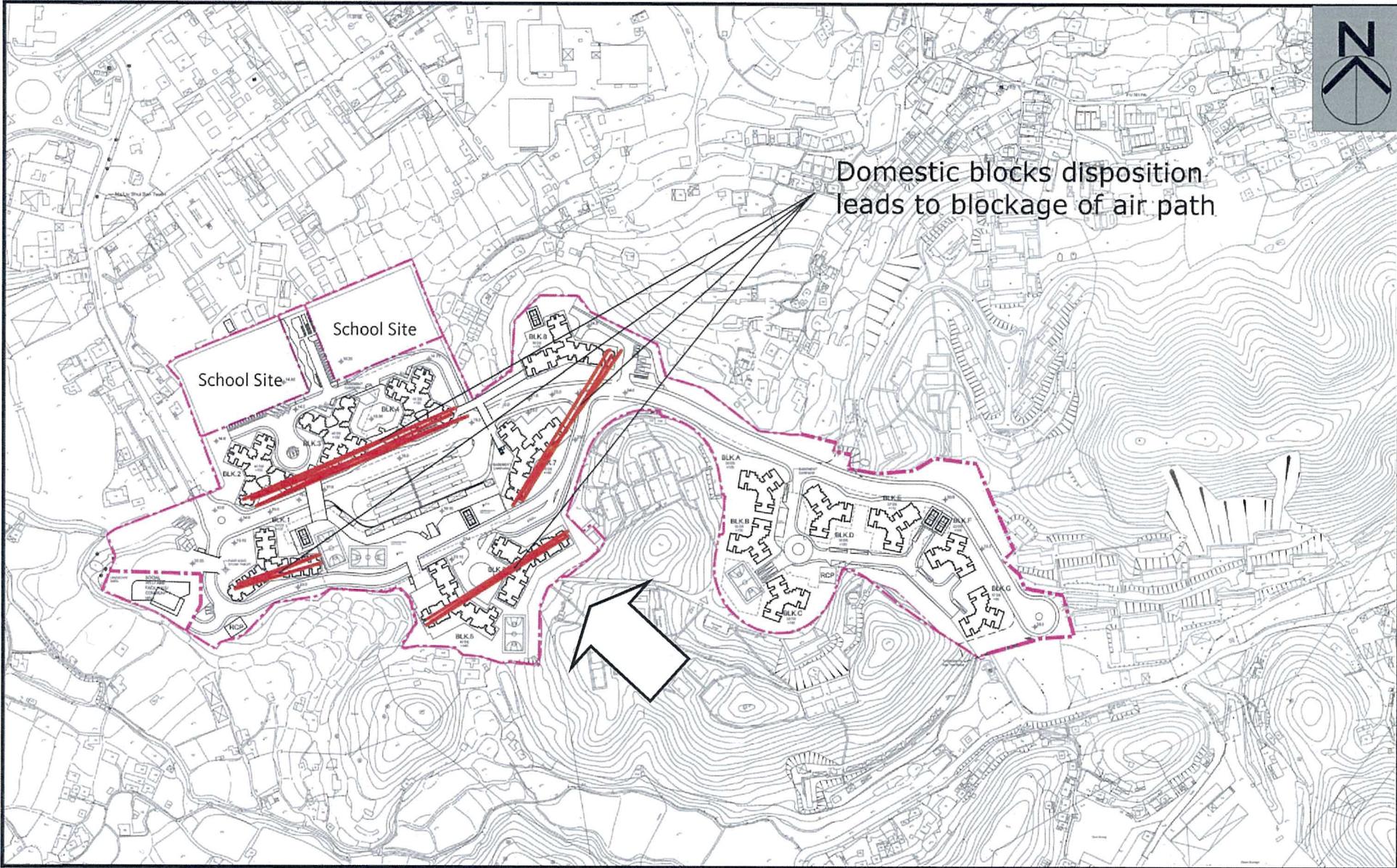
PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING
 EXPERT EVALUATION
 Blockage of Prevailing Wind to Public Transport Terminus

Figure No.	Rev.
6.8	2
Scale	Date





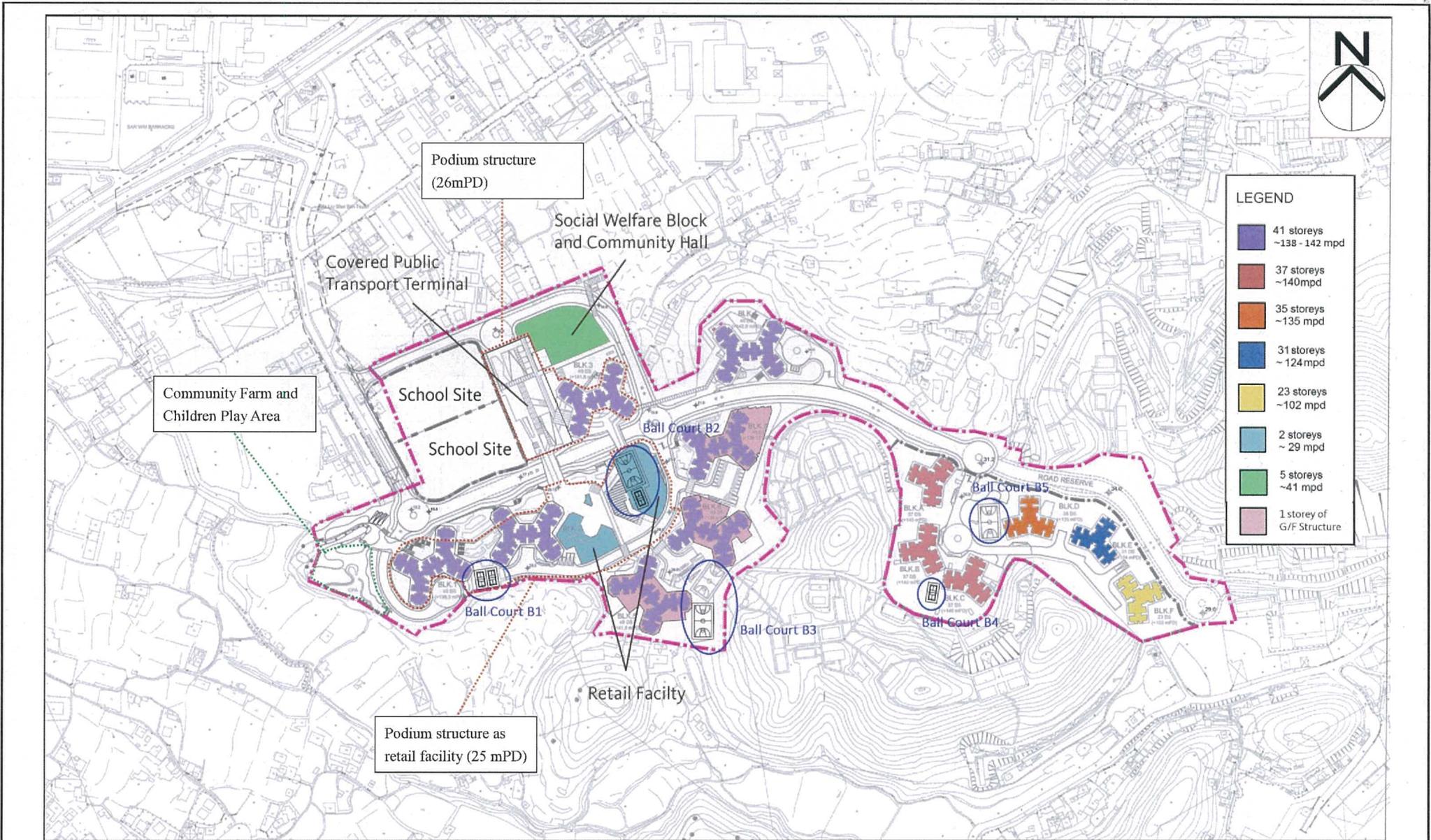
Domestic blocks disposition leads to blockage of air path



PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING
EXPERT EVALUATION
Blockage of South Eastern Wind to School Site

Figure No.	Rev.:
6.9	2
Scale	Date





PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING

EXPERT EVALUATION

Layout and Height Profile of the Proposed Development

Figure No.

6.10

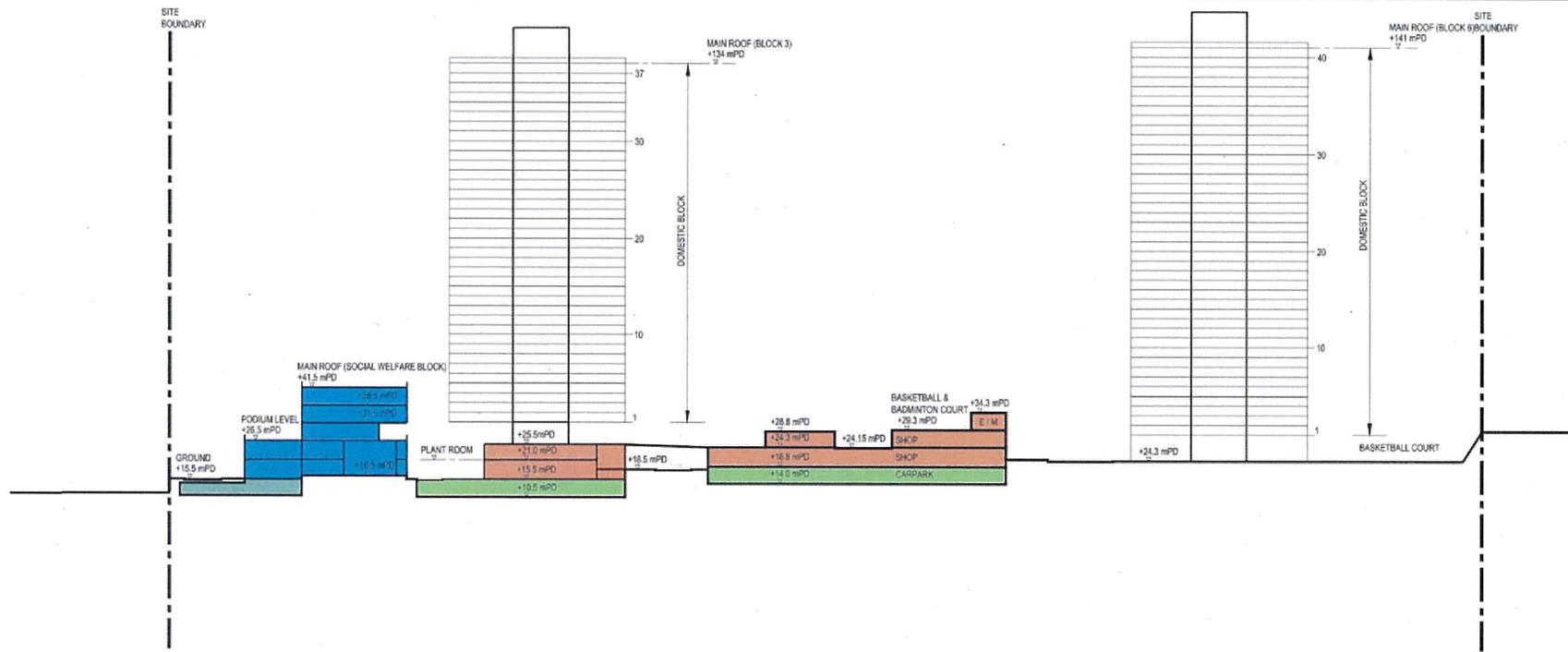
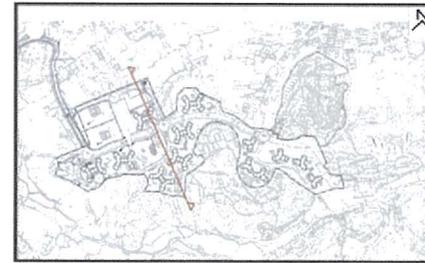
Rev.:

3

Scale

Date





SECTION A-A
SCALE 1:1500

PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING

EXPERT EVALUATION

Section Plan of the Proposed Development I

Figure No.

6.11a

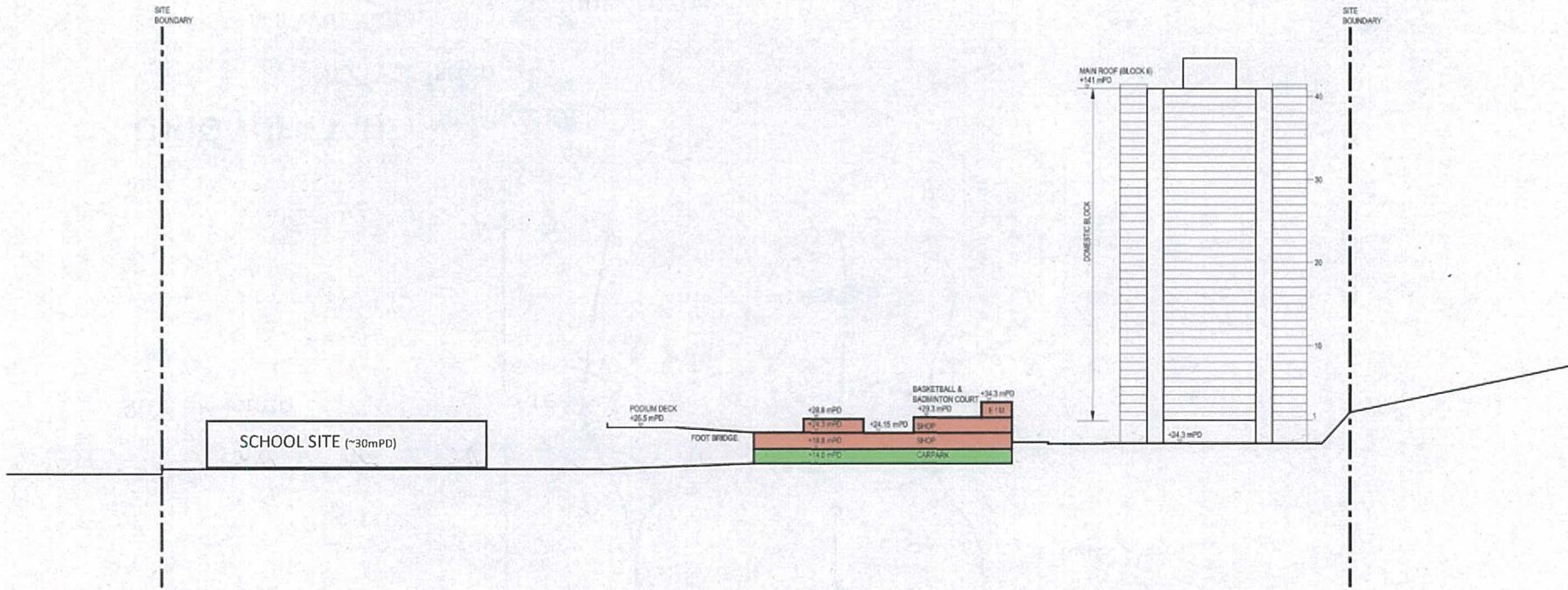
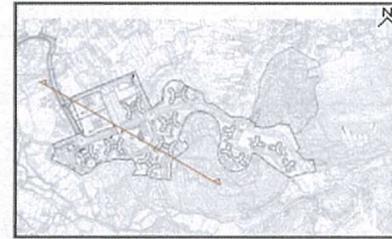
Rev.:

1

Scale

Date

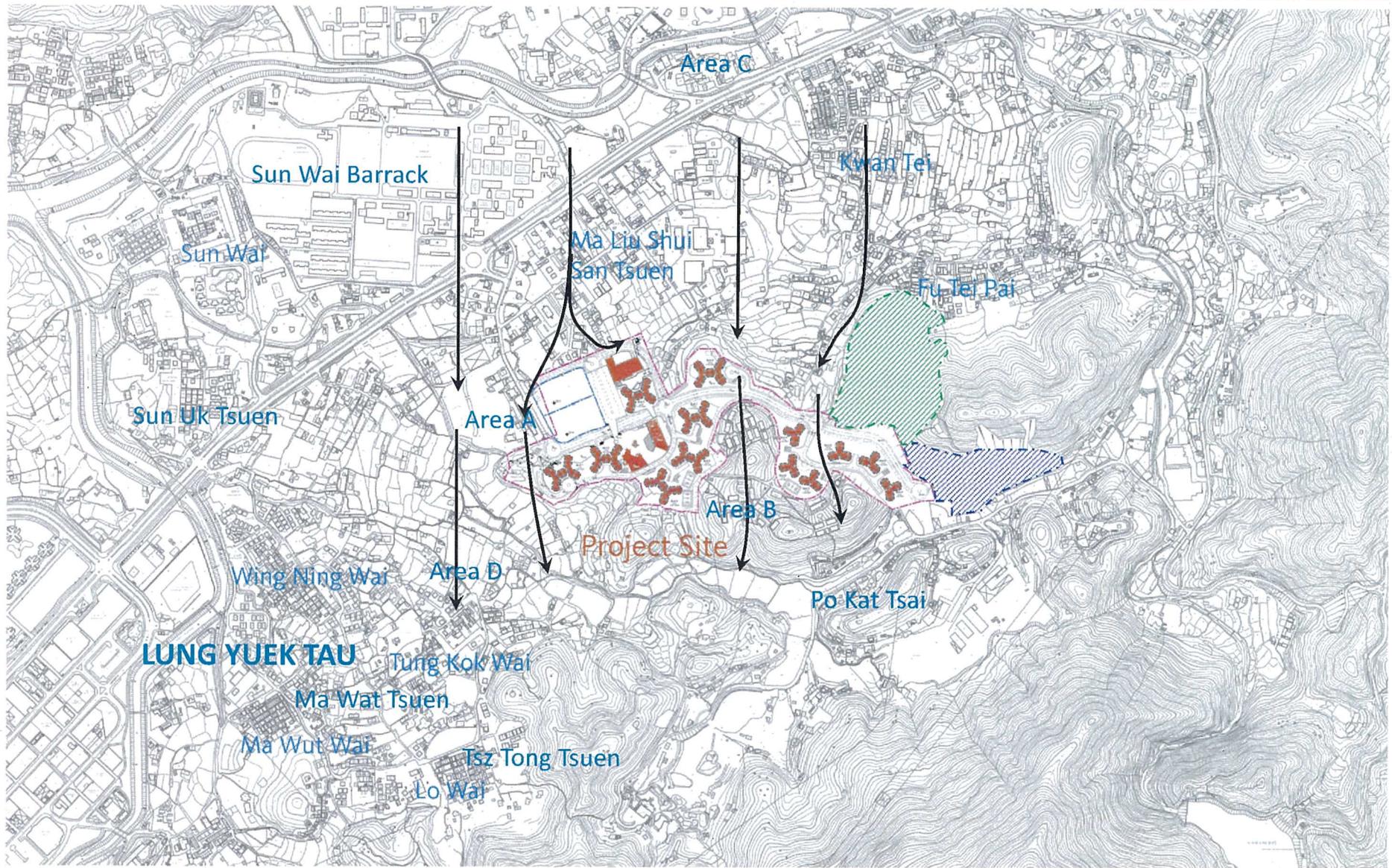




PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING
EXPERT EVALUATION
 Section Plan of the Proposed Development II

Figure No. 6.11b	Rev.: 2
Scale	Date





PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING
 EXPERT EVALUATION
 Northern Wind Flow under Proposed Scheme Development

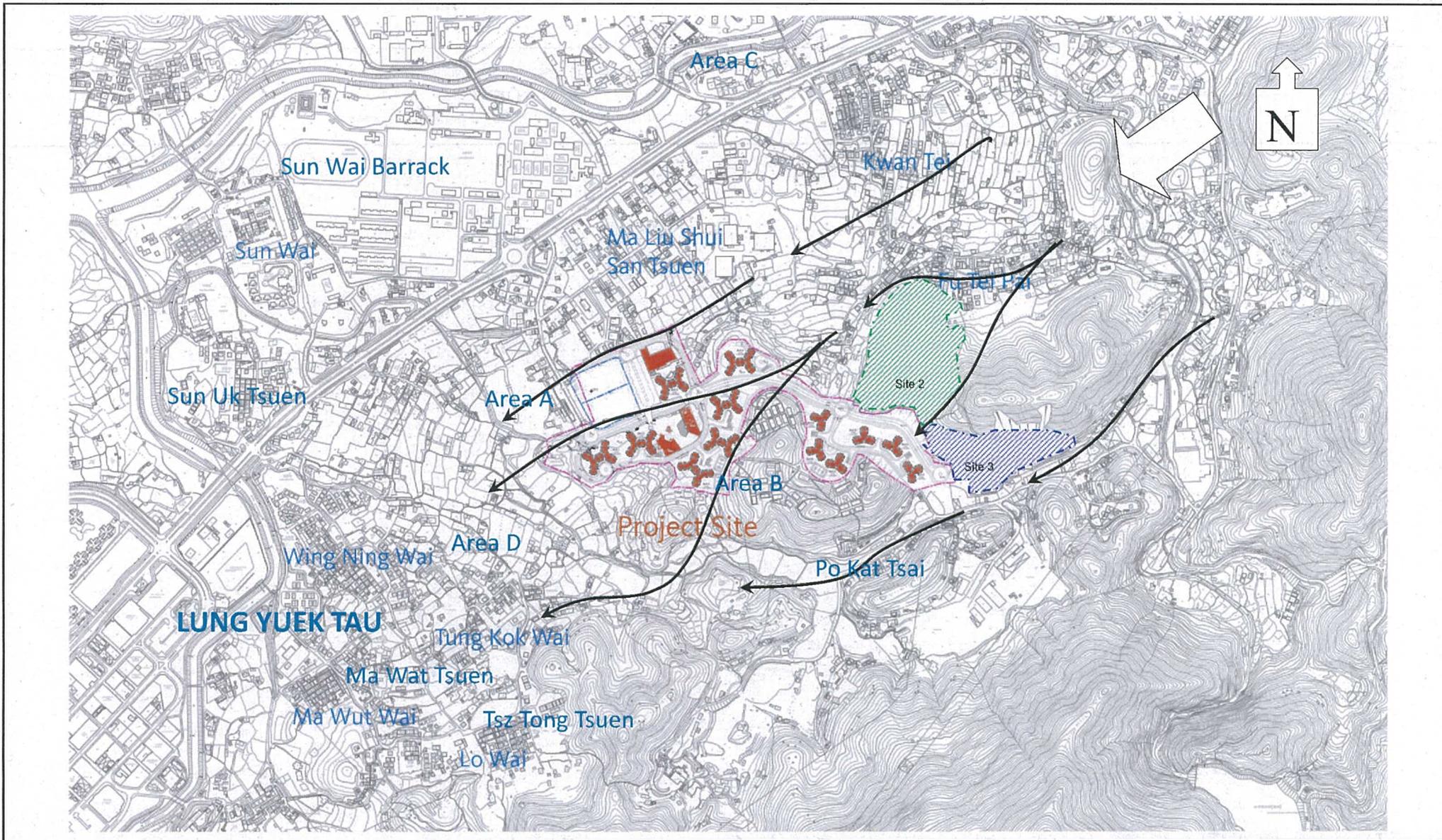
Figure No.

6.12a

Rev.:

1





PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING

EXPERT EVALUATION

East North Eastern and North Eastern Wind Flow under Proposed Scheme Development

Figure No.

6.12b

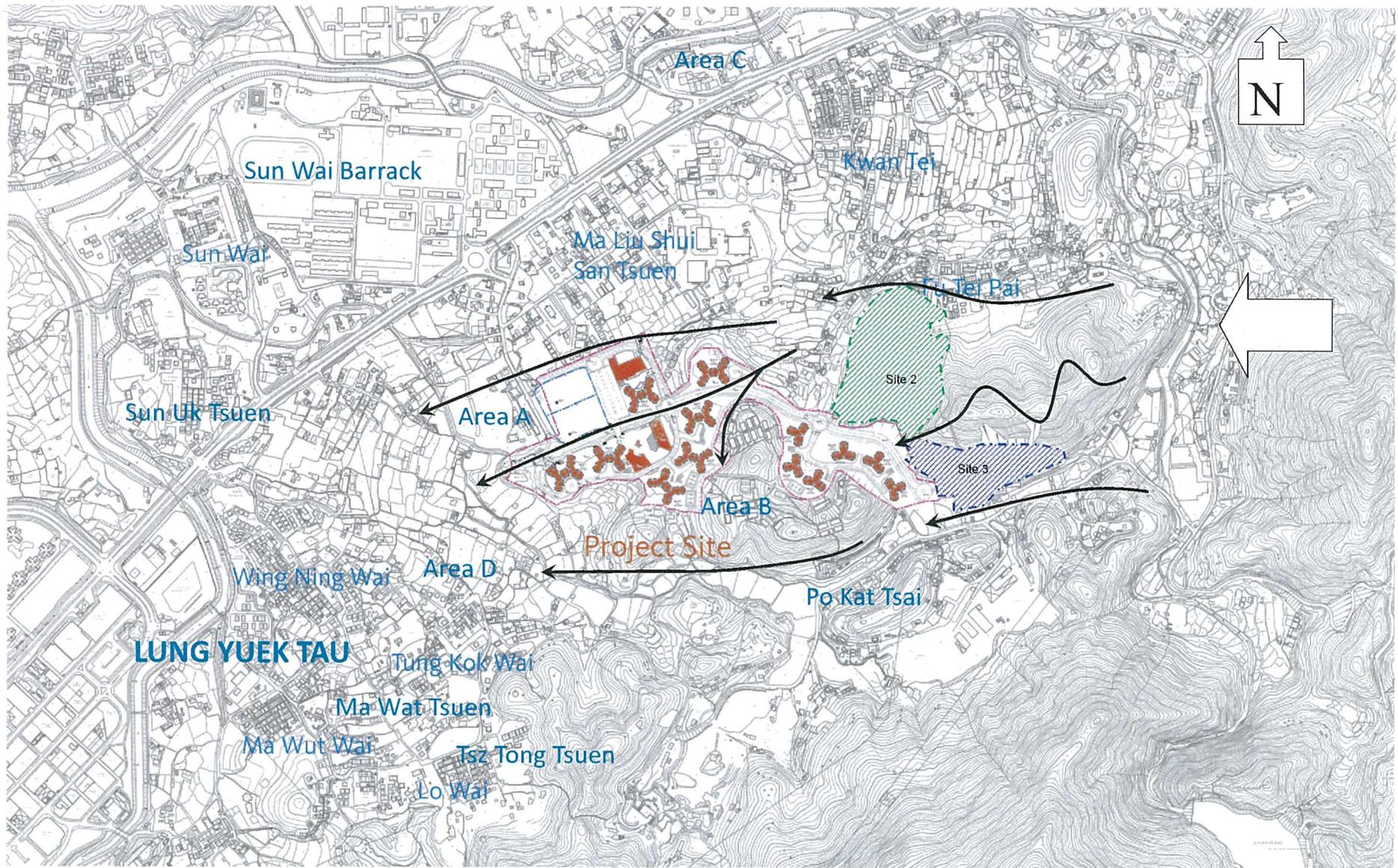
Rev.

2

Scale

Date

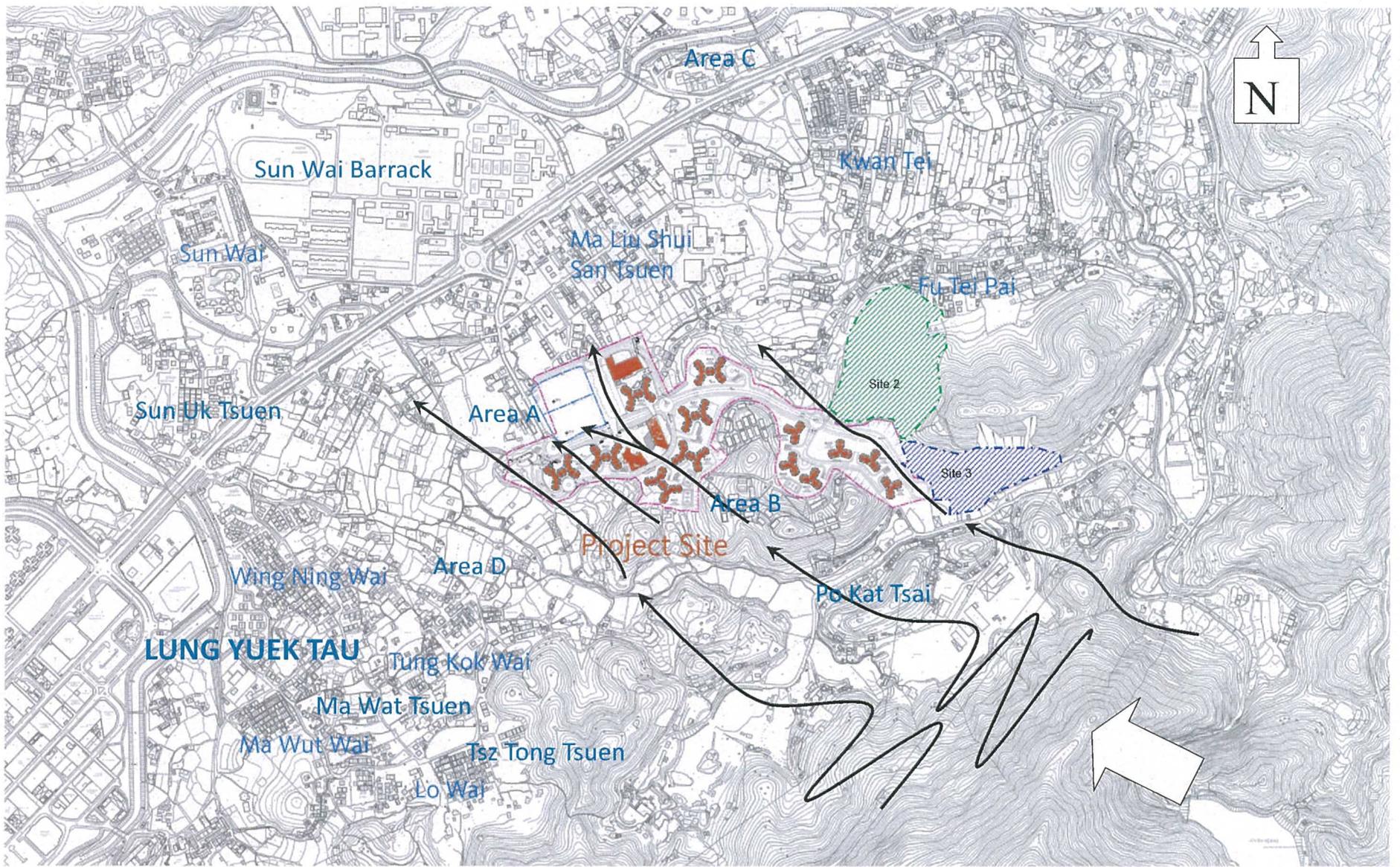




PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING
 EXPERT EVALUATION
 Eastern Wind Flow under Proposed Scheme Development

Figure No.	Rev.:
6.12c	2
Scale	Date

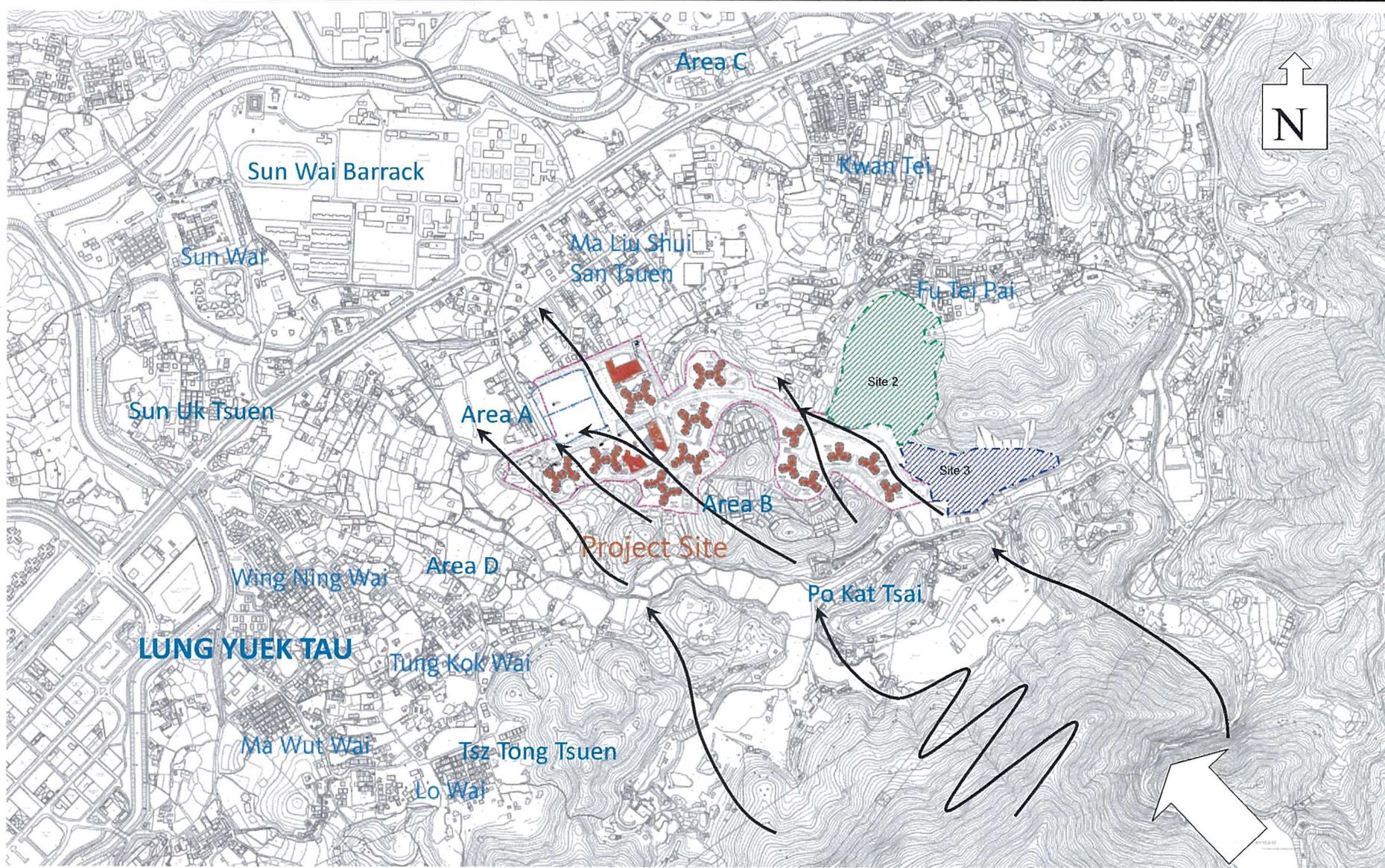




PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING
 EXPERT EVALUATION
 Eastern South Eastern Wind Flow under Proposed Scheme Development

Figure No.	Rev.:
6.12d	2
Scale	Date





PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING
 EXPERT EVALUATION
 Southeastern Wind Flow under Proposed Scheme Development

Figure No.

6.12e

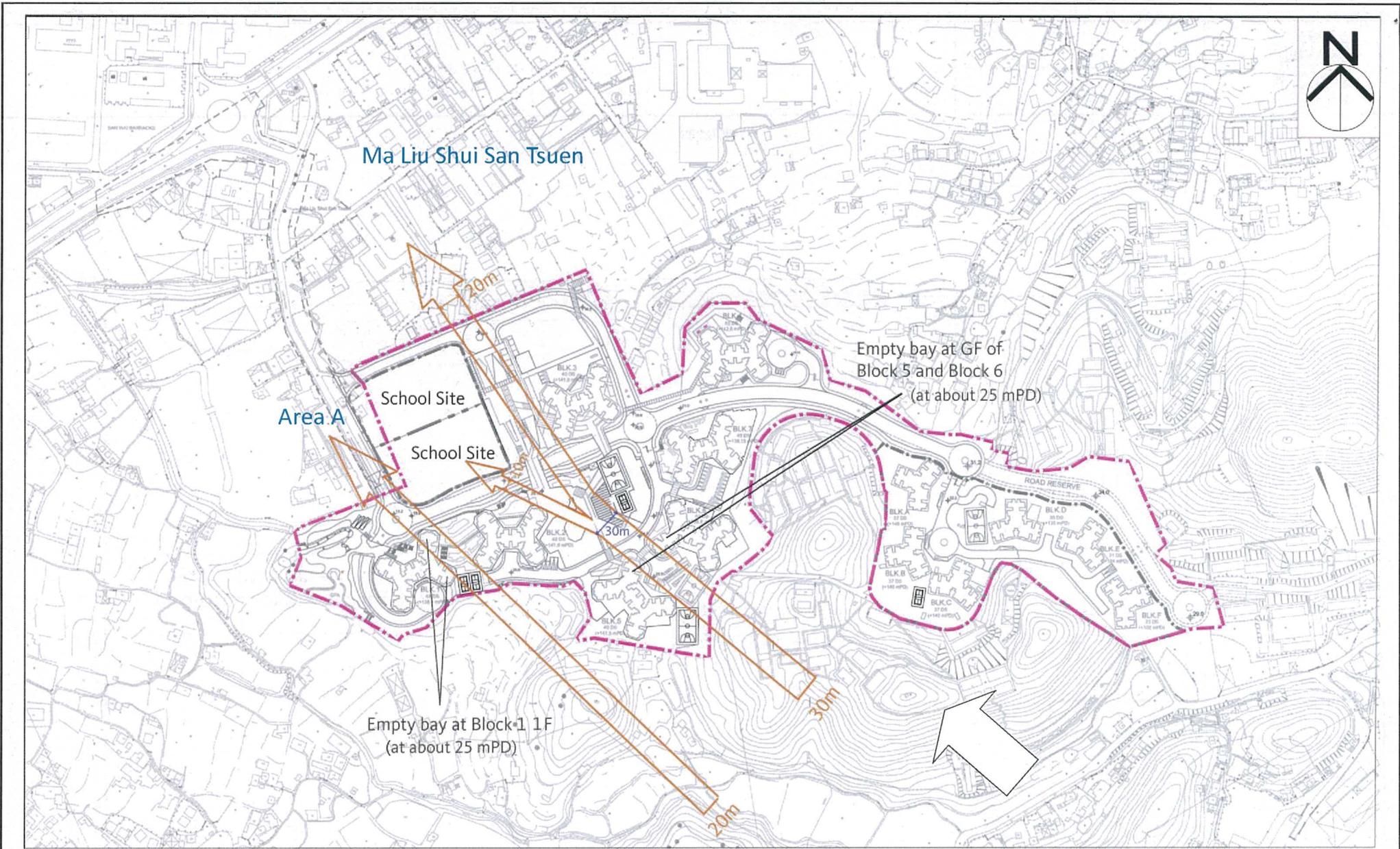
Rev.:

1

Scale

Date

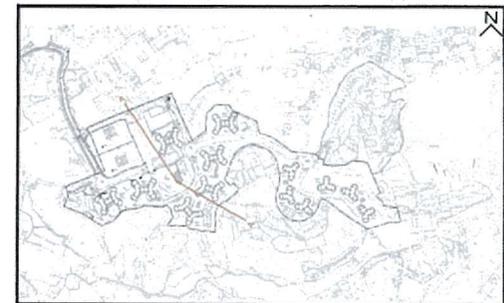




PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING
 EXPERT EVALUATION
 Enhancement of Air Paths under South Eastern and East South Eastern Wind

Figure No.	6.13	Rev.:	3
Scale		Date	

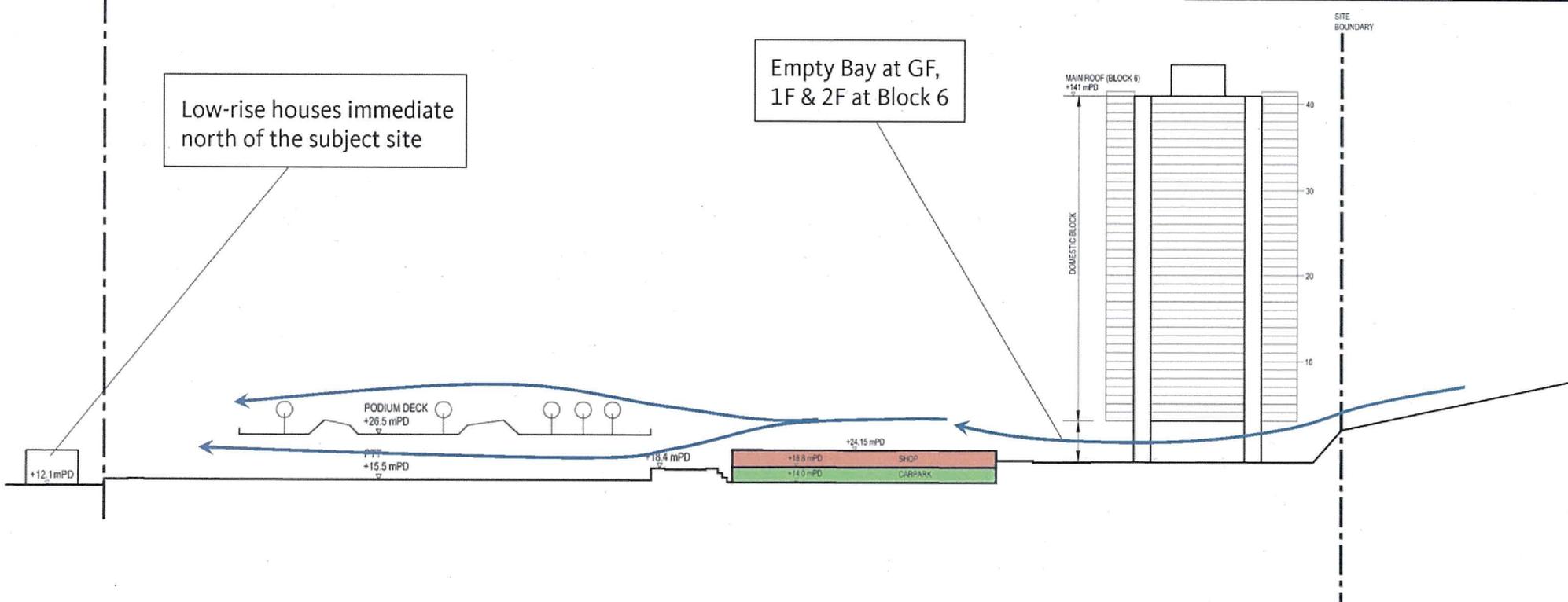




SITE BOUNDARY

Low-rise houses immediate north of the subject site

Empty Bay at GF, 1F & 2F at Block 6

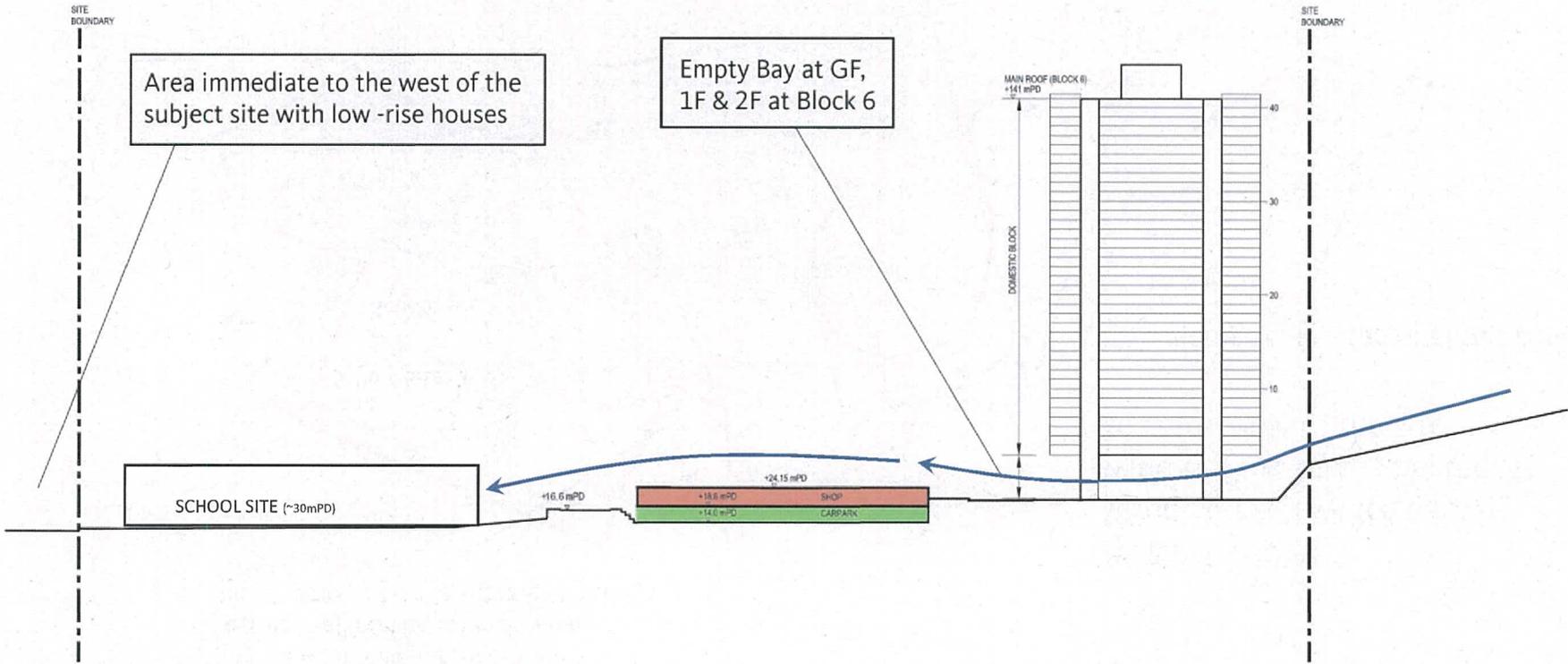


SECTION A-A

PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING
EXPERT EVALUATION
 Section View of Enhanced Air Path 1

Figure No.	Rev.:
6.14a	1
Scale	Date





SECTION B-B

PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING

EXPERT EVALUATION

Section View of Enhanced Air Path 2

Figure No. 6.14b	Rev.: 1
Scale	Date





Ma Liu Shui San Tsuen

At least 40m building separation between tall domestic blocks along this direction which facilitates air flow from NE to SW

At least 100m Wind corridor which allow wind to flow across northeast to southwest of the site

Area A

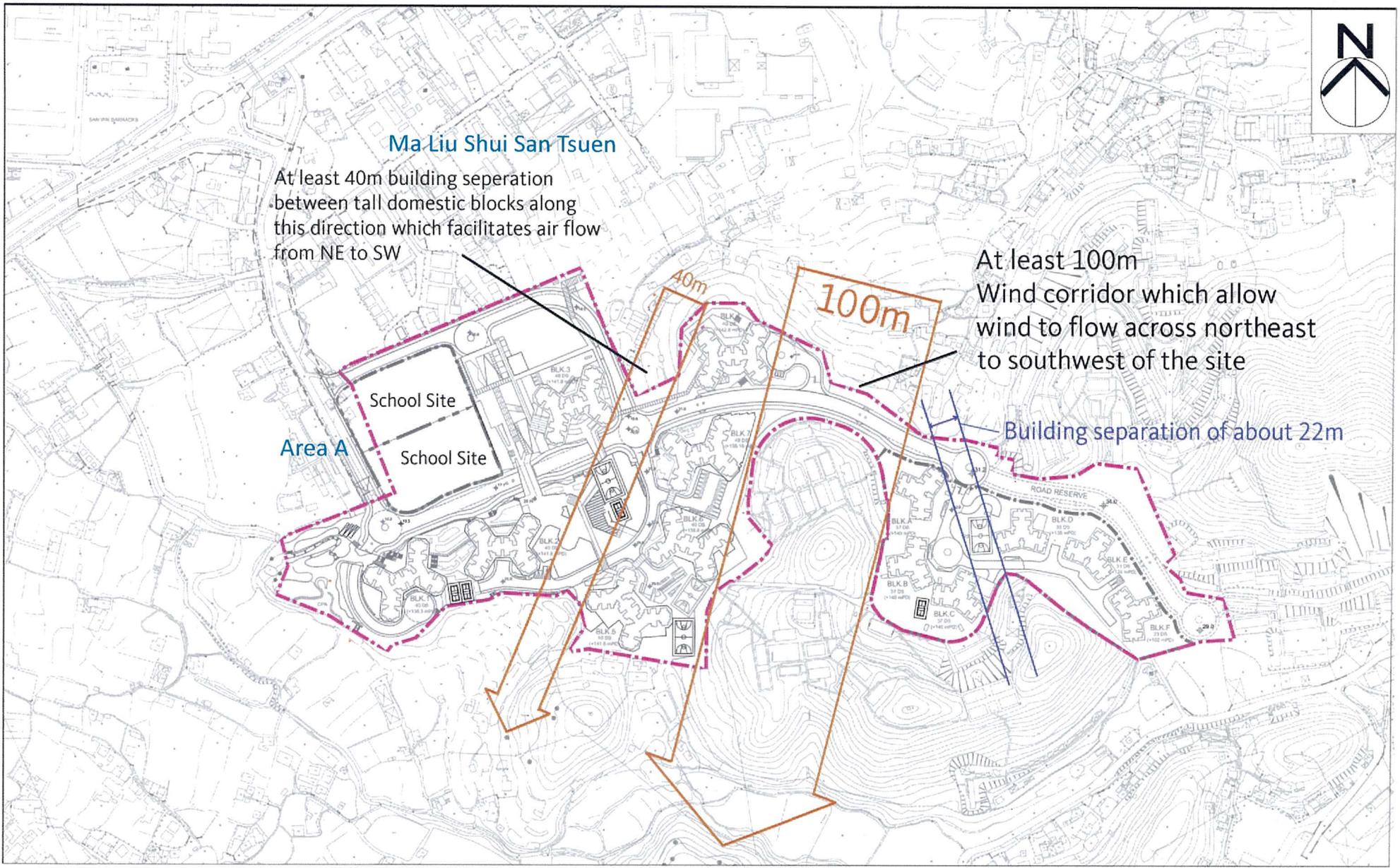
School Site

School Site

40m

100m

Building separation of about 22m



PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING

EXPERT EVALUATION

Wind Corridor and Air Path in PRH Site and Building Separation in SSF Site in Proposed Scheme

Figure No.

6.15

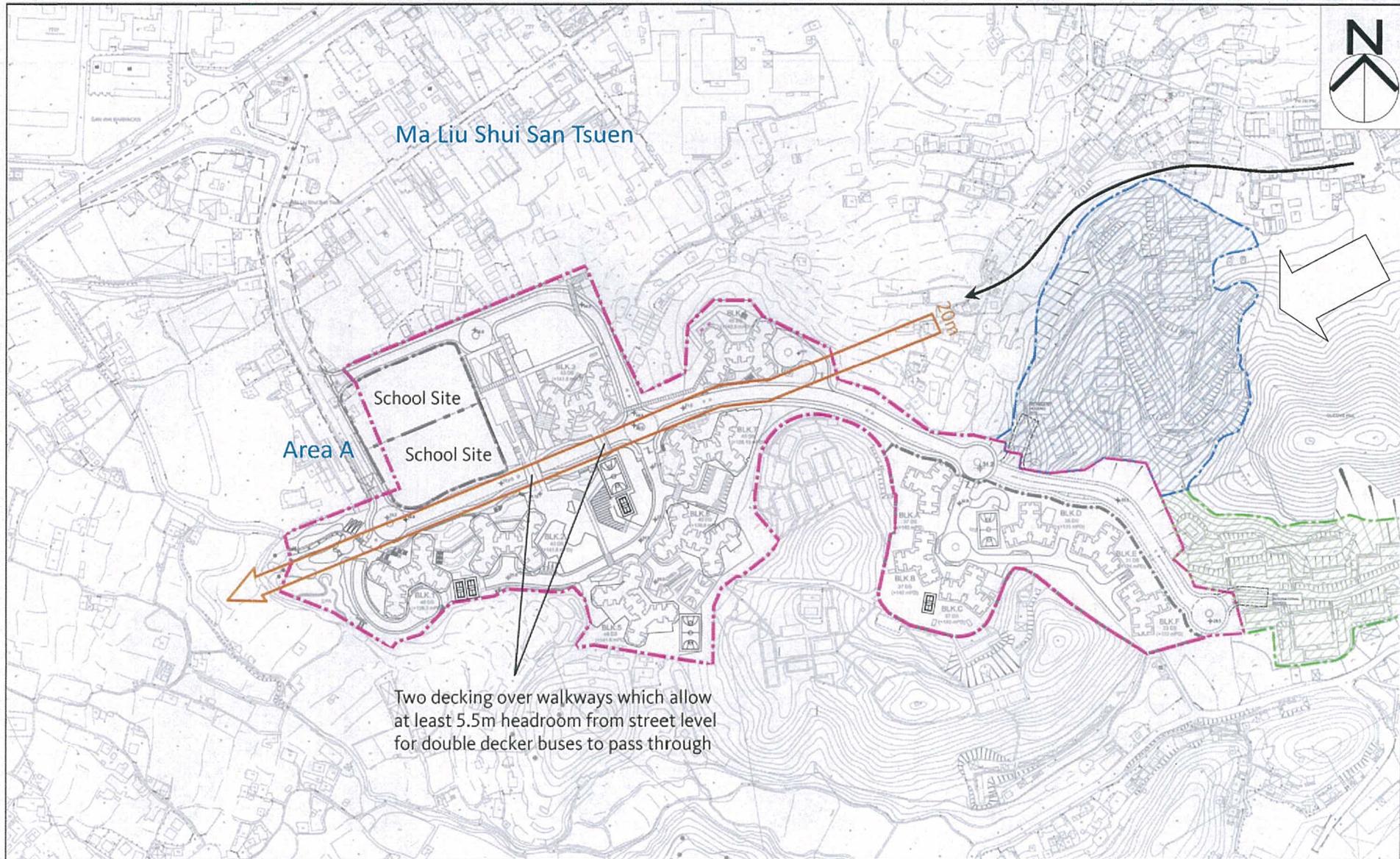
Rev.:

2

Scale

Date

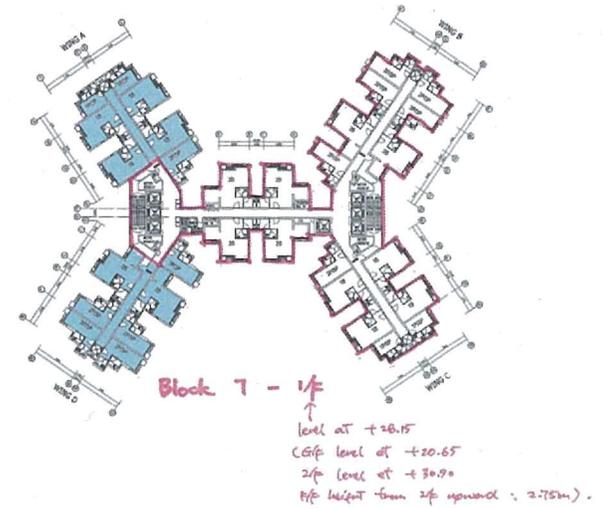
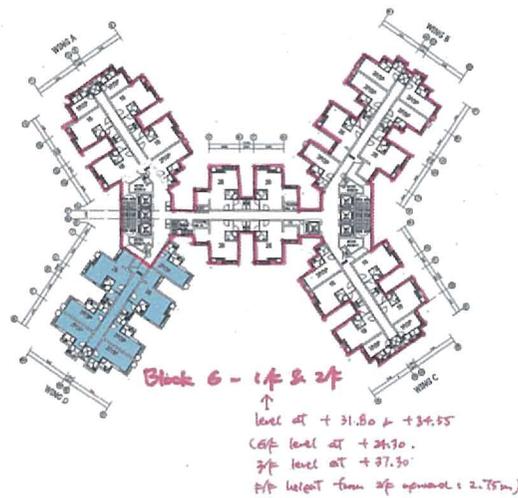
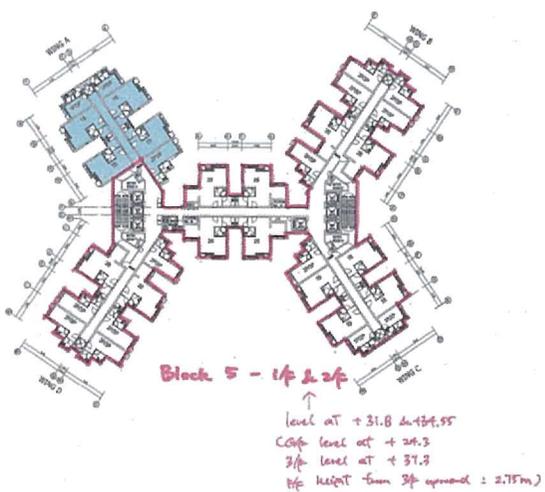
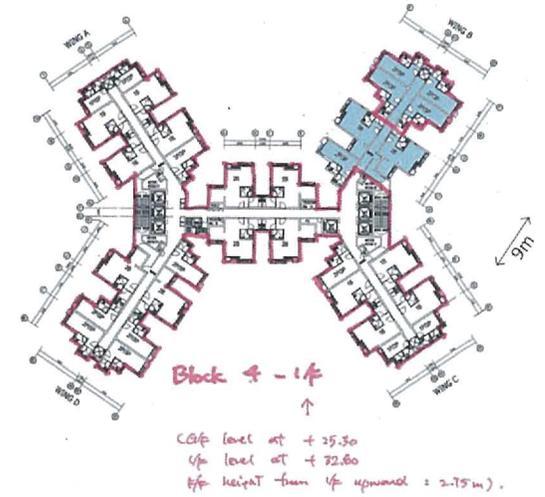
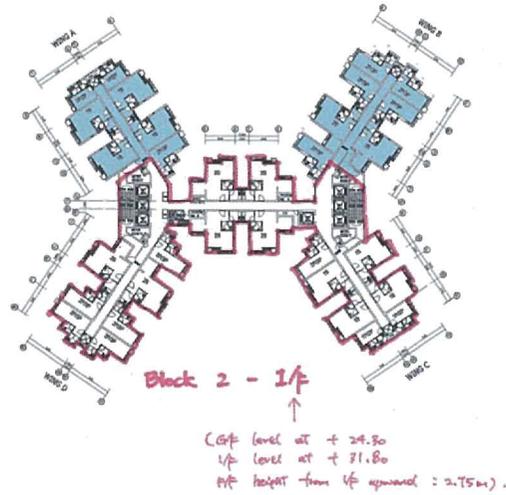
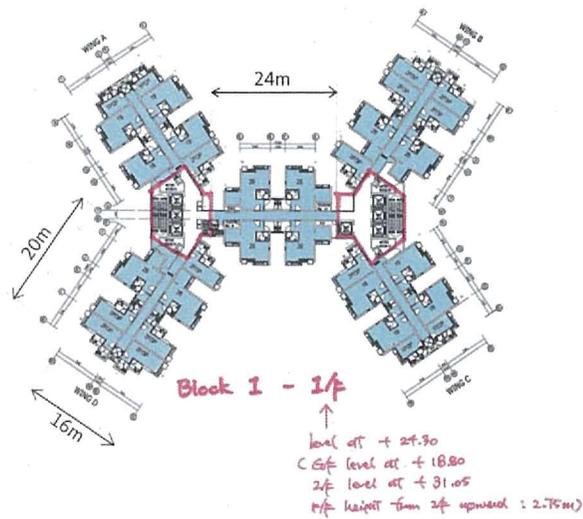




PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING
EXPERT EVALUATION
 Air Path under Annual Prevailing East North Eastern Wind in Proposed Scheme

Figure No.	Rev.:
6.16	1
Scale	Date





PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING

EXPERT EVALUATION

Empty Bays at Domestic Blocks (areas highlighted in blue)

Figure No.

6.17

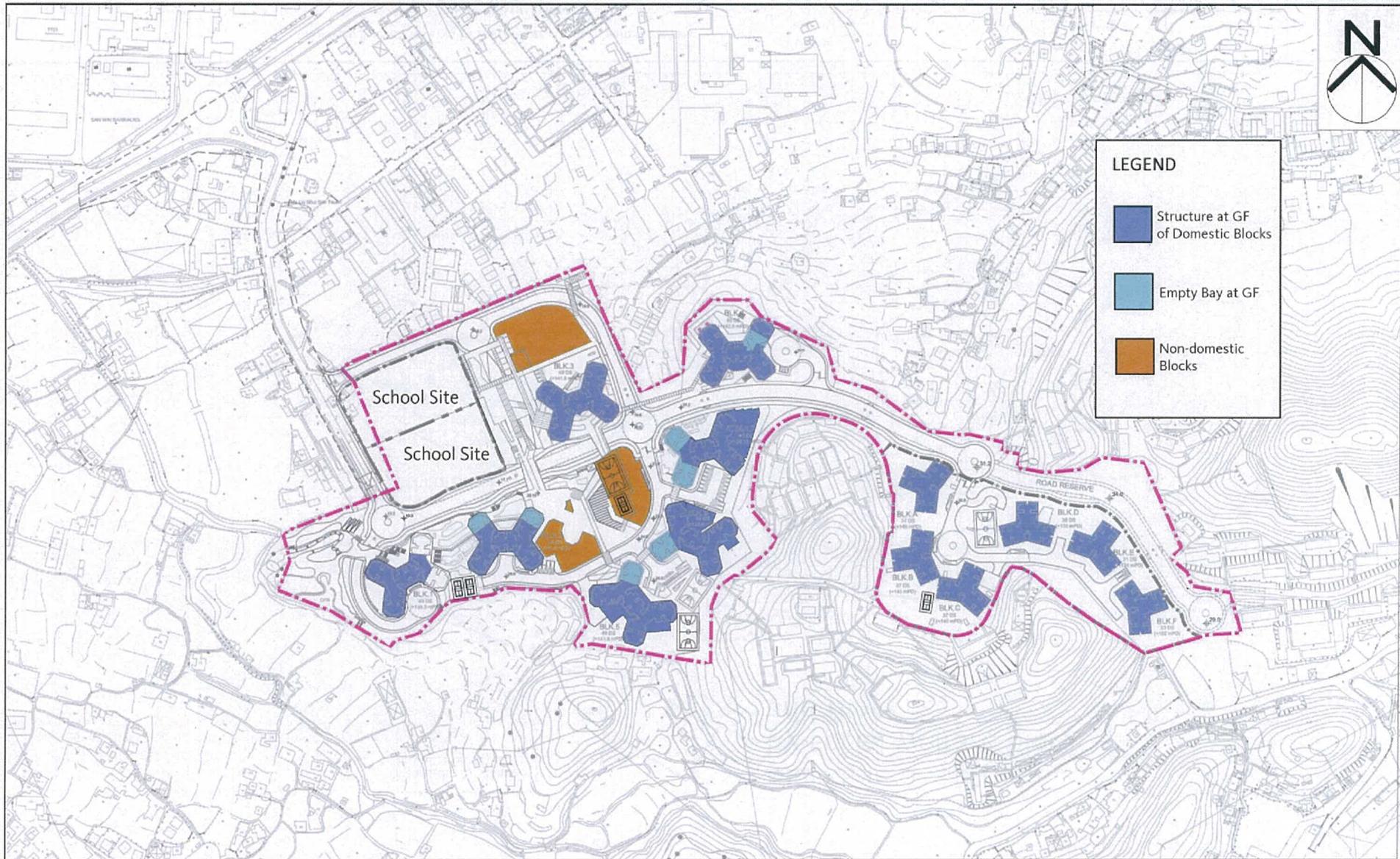
Rev.:

1

Scale

Date

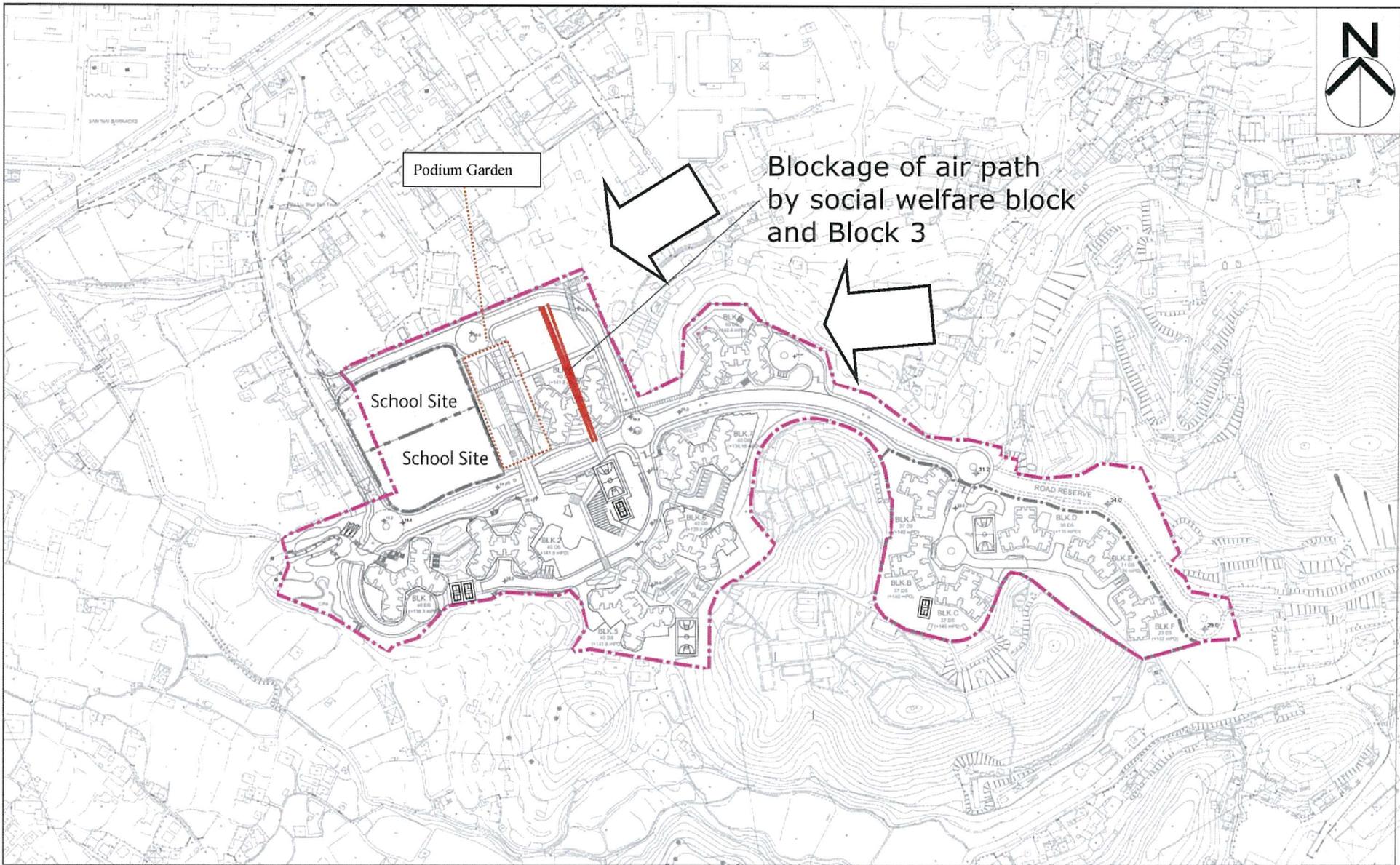




PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING
EXPERT EVALUATION
 Empty Bays at Ground Level of the Proposed Scheme Development

Figure No.	Rev.:
6.18	3
Scale	Date





PROPOSED PUBLIC HOUSING DEVELOPMENT AT QUEEN'S HILL, FANLING

EXPERT EVALUATION

Blockage of North Eastern and Eastern Wind to Podium Garden and School Site

Figure No.

6.19

Rev.:

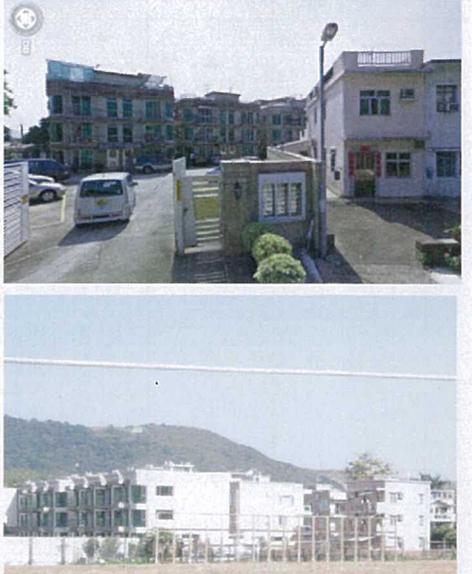
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Scale

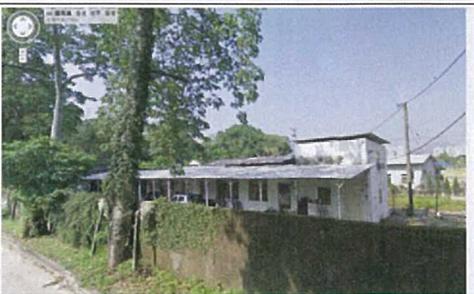
Date



APPENDIX A – SURROUNDING DEVELOPMENT DETAILS

	English Name	Chinese Name	Description	Approximate Ground Level mpd	Photograph
1	Ma Liu Shui San Tsuen	馬料水新村	A village north of the project site. It contains mainly low-rise houses. (3-4 storeys)	12	
2	Kwan Tei Tsuen	軍地村	A village northeast of the project site. It contains mainly low-rise houses. (3-4 storeys)	13	
3	Fu Tei Pai	虎地排	A village northeast of the project site. It contains mainly low-rise houses. (3-4 storeys)	14	
4	Tai Wo	大窩	An area eastern of the project site with low rise factory buildings. (2-3 storeys)	20	
5	Burma Lines/ Site 3 (Future International School Site)	皇后山軍營/ Site 3	An abandoned military camp. (2-4 storeys)/ Future international school development which consists of 2 nos of school buildings of about 7-storey tall.	40/ 60	 <p>(Burma Lines) Photo not available for Site 3</p>

					
6	Po Kat Tsai	布吉仔	An area with several low-rise houses. It is located south of the project site. (2-3 storeys)	22	
7	San Wai Barracks	新圍軍營	An active military camp with low-rise hostels. It is located at the northwest of the project site. (2-3 storeys)	10	
8	San Wai	新圍	A village northwest of the project site. It contains mainly low-rise houses. (3-4 storeys)	10	
9	San Uk Tsuen	新屋村	A village northwest of the project site. It contains mainly low-rise houses. (3-4 storeys)	10	
10	Wing Ning Wai	永寧圍	A village west of the project site. It contains mainly low-rise houses. (3-4 storeys)	10	

11	Wing Ning Tsuen	永寧村	A village west of the project site. It contains mainly low-rise houses. (3-4 storeys)	10	
12	Tung Kok Wai	東角圍	A village southwest of the project site. It contains mainly low-rise houses. (3-4 storeys)	15	
13	Ma Wat Tsuen	馬笏村	A village southwest of the project site. It contains mainly low-rise houses. (3-4 storeys)	14	
14	Tsz Tong Tsuen	祠堂村	A village southwest of the project site. It contains mainly low-rise houses. (3-4 storeys)	22	
15	Area A	-	An area with several low-rise houses. It is located immediate west of the project site. (1-2 storeys)	11	
16	Area B	-	Former Queen's Hill Military Camp (2-3 storeys)	30-35	

					
17	Area C	-	Mainly low-rise storage house (1-2 storeys)	10	
18	Area D	-	Low rise village house between Lung Yuek Tau and the subject site	15	Photos not available
19	Site 2 (Future Private Housing Site)	-	Future housing development which consists of about 21 nos of domestic blocks of about 15-storey tall.	65- 85	Photos not available

Summary of Environmental Assessment Study and Land Contamination Studies for
Proposed Public Housing Development at Queen's Hill

1. Background

- 1.1 The Queen's Hill public housing development site, including part of the Ex-Burma Lines Military Site and a small strip of Government and private land to the east of Lung Ma Road, is zoned "Government, Institution or Community (2)", "Residential (Group C)", "Agriculture" and "Green Belt" respectively on the draft Lung Yeuk Tau and Kwan Tei South Outline Zoning Plan (OZP) No. S/NE-LYT/15. The subject site was agreed by the Government in early 2014 for public housing development. To facilitate public housing development, amendments to the OZP are required to rezone the subject site to "Residential (Group A)".
- 1.2 To ascertain the feasibility of the proposed public housing development, the Hong Kong Housing Authority (HA) has carried out an Environment Assessment Study and Land Contamination Studies. Relevant results are summarised as follows:

2. Environmental Assessment Study (EAS)

- 2.1 The industrial emission assessment has been conducted to identify the potential industrial emission impacts and relevant environmental requirements during the operational phase of the proposed residential development. Since no chimney was found within 200m buffer distance from the site boundary during the site visit, no adverse air quality impacts due to industrial emission is anticipated. As the buffer distance of 5m between main access roads (classification: local distributor) and residential units is provided, no air quality impact of vehicular emission is anticipated.
- 2.2 The fixed noise assessment has been prepared to identify the potential fixed noise impacts and relevant environmental requirements during the operational phase of the proposed residential development. All predicted noise levels are lower than the noise criteria. Therefore, all residential units will comply with noise criteria.
- 2.3 The road traffic noise impact assessment was undertaken to evaluate the potential noise impacts arising from the nearby roads. With the adoption of mitigation measures such as architectural fin, and installation of acoustic window, the predicted traffic noise levels at most of the noise sensitive receivers will comply with the Hong Kong Planning Standards

and Guidelines (HKPSG)'s standard of 70 dB(A). HA will further review the block layouts and carry out environmental study to identify appropriate mitigation measures for enhancement.

- 2.4 The proposed public transport terminus (PTT) will be covered by a landscape deck. By adopting the design considerations as stipulated in the guideline of HKPSG, no adverse noise impact arising from the proposed PTT operation is anticipated.
- 2.5 Based on the assessment results, adverse impacts from industrial emission, fixed noise, road traffic noise and noise from the PTT are not anticipated.

3. Contamination Assessment Report (CAR) and Remediation Action Plan (RAP)

- 3.1 HA conducted site investigation and laboratory testing to estimate the nature and extent of contamination in accordance with the approved Contamination Assessment Plan (CAP). Findings of contamination assessments are summarised below:
 - (a) No soil or ground water remediation is required at the former building for munitions storage and the former vehicle repairing area.
 - (b) For former petrol filling station and underground fuel oil tank, the soil samples collected from boreholes found to have contaminants of Heavy Metal (Lead) and (Arsenic). The contaminated soil (about 75m³) will be rectified by Cement Solidification/Stabilization method.
- 3.2 The CAR and RAP Report has been approved. HA will carry out the land decontamination works under the Advanced Works Contract.

HOUSING DEPARTMENT

APRIL 2015

Summary of Preliminary Tree Survey
For Proposed Public Housing Development at Queen's Hill

1. A preliminary tree survey for the captioned project was carried out in August 2013. The survey consist of a preliminary assessment of existing trees on site in groups of different girth size, with respect to their species and appropriate quantities of each group by visual inspection and observation. The survey extent covers the area as shown in attached location plan (NR08/-/TS/LO-01).
2. Desktop study reveals that there is no recorded Old and Valuable Tree (OVT) within the proposed site boundary. The existing trees are surveyed in groups with no particular assessment made to health, structural condition and amenity value on individual trees. Most tree species identified are commonly found in Hong Kong. Several Incense Trees (*Aquilaria sinensis* 土沉香), which is protected under Cap 586- Protection of Endangered Species of Animals and Plants Ordinance, are identified within or in close proximity of the site boundary. *Magnolia liliiflora* (紫玉蘭) ,a species scheduled under Cap 96- Forest and Countryside Ordinance, is also identified during the field survey. Trees of protected species will be preserved as far as practicable.
3. There are no recommended treatments of tree (retain/ transplant/ fell) at this early stage as the recommendations is still subjected to detail tree survey and design development. As extensive site formation works expected, more than 90% of the existing trees is anticipated to be either transplanted or felled. A detailed tree survey will be carried out at due course to provide basis for tree treatment recommendations.
4. The Subject site in Queen's Hill is currently under the administration of Lands Department. As per our preliminary survey, approximately 1700 trees are identified within the site boundary. 250-300 trees are estimated with girth size over 1000mm.Existing trees surveyed are generally species commonly found in Hong Kong, with average health and amenity value. Some existing trees observed on site possessed cracked trunk, restricted root growth and pest inflections, resulting in poor structural and health conditions. It is also noted that some of the trees (*Ficus elastic*, *Ficus microcarpa* etc.) are within close proximity or even in contact with some of the building structure. Any alteration or demolition to the buildings is expected to have impacts the existing trees.

5. Accordingly to the Landscape Value Mapping of Hong Kong conducted by Planning Department in 2005, the current landscape character of the site belongs to lowland countryside landscape where existing trees is the key landscape resource. In order to minimize and mitigate the impact of proposed PRH development, existing trees and vegetation will be retained as far as practicable. Tree transplanting within proposed site will be considered if retention in-situ is not feasible. A green ratio of not less than 30% will be achieved to preserve the naturalistic character of the area and provide adequate greenery. However, given the scale of the proposed development, the character of the area is expected to shift gradually to Residential Urban Landscape upon completion of the development.
6. Further to the 30% greenery coverage mentioned above. Compensatory tree planting as stipulated in DEVB TC(W) No. 10/2013 will be provided as far as practicable to mitigate and offset for the trees unavoidably felled due to the development. Species and locations of the new planting will be carefully reviewed and selected to ensure compatibility with the development and its vicinity. Sufficient space on and above ground will be reserved to cater for establishment and long term stability and health of the selected species. The principle of “right tree for the right place” will be strictly adhered to.
7. Reference will also be made to prevailing guidelines from the Greening, Landscape and Tree Management Section of the Development Bureau on tree preservation during development and tree transplanting.

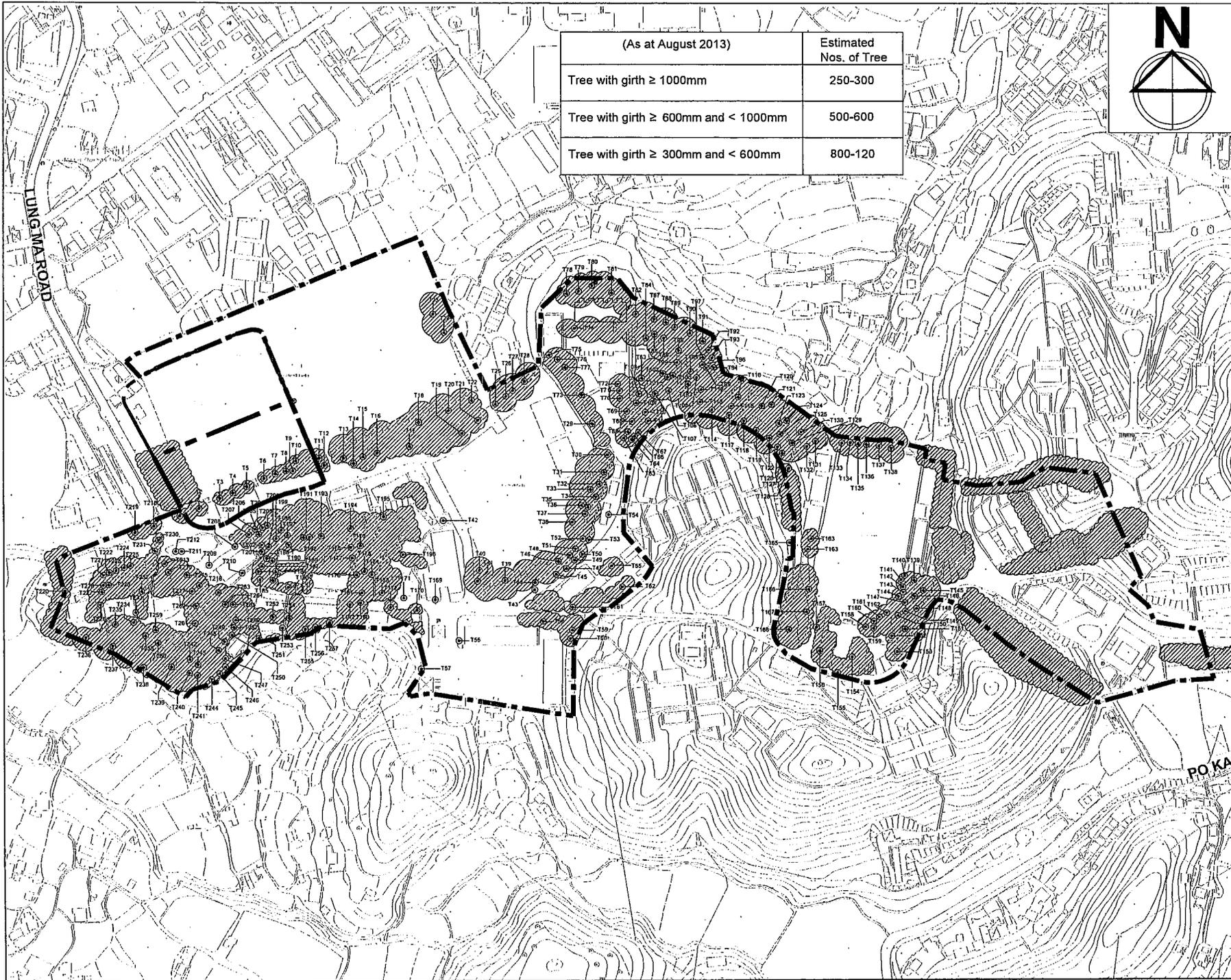
HOUSING DEPARTMENT
APRIL 2015

Preliminary Survey on Existing Trees on Site:

(Major Species & Estimated Quantity)

	Estimated Nos. of Tree	Tree Species
Tree with (girth ≥ 1000mm)	250-300	<p><i>Bombax ceiba</i> (木棉), <i>Ficus virens</i> (大葉榕), <i>Acacia confusa</i> (台灣相思), <i>Celtis sinensis</i> (朴樹), <i>Cinnamomum camphora</i> (樟), <i>Delonix regia</i> (鳳凰木), <i>Araucaria cunninghamii</i> (肯氏南洋杉), <i>Ficus elastica</i> (印度橡樹), <i>Eucalyptus robusta</i> (大葉桉), <i>Ficus microcarpa</i> (細葉榕), <i>Casuarina equisetifolia</i> (木麻黃), <i>Bauhinia variegata</i> (宮粉羊蹄甲), <i>Aleurites moluccana</i> (石栗), <i>Pterocarpus indicus</i> (紫檀), <i>Eucalyptus citriodora</i> (檸檬桉), <i>Syzygium jambos</i> (蒲桃), <i>Ficus religiosa</i> (菩提樹), <i>Michelia alba</i> (白蘭), <i>Dimocarpus logan</i> (龍眼), <i>Peltophorum pterocarpum</i> (雙翼豆), <i>Liquidambar formosana</i> (楓香), <i>Albizia lebbek</i> (大葉合歡), <i>Jacaranda mimosifolia</i> (藍花楹), <i>Spathodea campanulata</i> (火焰木), <i>Illex spp.</i> (冬青), <i>Lophostemon confertus</i> (紅膠木), <i>Ficus variegata</i> (青果榕)</p>
Tree with girth ≥ 600mm and <1000mm	500-600	<p><i>Acacia confusa</i> (台灣相思), <i>Aquilaria sinensis</i> (牙香樹), <i>Ficus hispida</i> (對葉榕), <i>Morus alba</i> (桑樹), <i>Macaranga tanarius</i> (血桐), <i>Celtis sinensis</i> (朴樹), <i>Hibiscus tiliaceus</i> (黃槿), <i>Dimocarpus logan</i> (龍眼), <i>Ficus variegata</i> (青果榕), <i>Thevetia peruviana</i> (黃花夾竹桃), <i>Juniperus chinensis 'Kaizuca'</i> (龍柏), <i>Bombax ceiba</i> (木棉), <i>Bauhinia variegata</i> (宮粉羊蹄甲), <i>Syzygium jambos</i> (蒲桃),</p>

		<p><i>Plumeria rubra</i> 'Acutifolia' (雞旦花), <i>Aleurites moluccana</i> (石栗), <i>Delonix regia</i> (鳳凰木), <i>Casuarina equisetifolia</i> (木麻黃), <i>Livistona chinensis</i> (蒲葵), <i>Bauhinia blakeana</i> (洋紫荊), <i>Jacaranda mimosifolia</i> (藍花楹), <i>Albizia lebeck</i> (大葉合歡), <i>Roystonea regia</i> (王棕), <i>Eucalyptus citriodora</i> (檸檬桉), <i>Cinnamomum camphora</i> (樟), <i>Citrus maxima</i> (柚), <i>Eucalyptus robusta</i> (大葉桉),</p>
Tree with girth ≥ 300mm and <600mm	800-1200	<p><i>Juniperus chinensis</i> 'Kaizuka' (龍柏), <i>Macaranga tanarius</i> (血桐), <i>Magnolia liliiflora</i> (紫玉蘭), <i>Acacia confusa</i> (台灣相思), <i>Celtis sinensis</i> (朴樹), <i>Morus alba</i> (桑樹), <i>Ficus variegata</i> (青果榕), <i>Delonix regia</i> (鳳凰木), <i>Araucaria cunninghamii</i> (肯氏南洋杉), <i>Leucaena leucocephala</i> (銀合歡), <i>Thevetia peruviana</i> (黃花夾竹桃), <i>Koelreuteria bipinnata</i> (複羽葉欒樹), <i>Bombax ceiba</i> (木棉), <i>Bauhinia variegata</i> (宮粉羊蹄甲), <i>Eucalyptus citriodora</i> (檸檬桉), <i>Alangium chinensis</i> (八角楓), <i>Ficus rumphii</i> (假菩提樹), <i>Cinnamomum camphora</i> (樟), <i>Albizia lebeck</i> (大葉合歡), <i>Ficus hispida</i> (對葉榕), <i>Citrus maxima</i> (柚), <i>Roystonea regia</i> (王棕), <i>Plumeria rubra</i> 'Acutifolia' (雞旦花), <i>Casuarina equisetifolia</i> (木麻黃), <i>Bridelia tomentosa</i> (土蜜樹), <i>Clausena lansium</i> (黃皮)</p>



(As at August 2013)	Estimated Nos. of Tree
Tree with girth \geq 1000mm	250-300
Tree with girth \geq 600mm and $<$ 1000mm	500-600
Tree with girth \geq 300mm and $<$ 600mm	800-120



NOTES

LEGEND :

- PROPOSED DEVELOPMENT BOUNDARY
- TREE WITH GIRTH \geq 1000mm
- GROUPS OF TREE

REVISIONS		INITIAL AND DESIGNATION	
NO	DESCRIPTION AND DATE	DMR1	CKD / ALTH

	NAME AND DESIGNATION	INITIAL	DATE
AUTHORISED	EVANS IJ SLAS		
CHECKED	FRANCIS CHU CHI FAI LA/S		
DRAWN	Y.S LAM STO/AZ4		
	IAN WONG CTA/A608		

PROJECT

QUEEN'S HILL

DRAWING TITLE

PRELIMINARY TREE SUVERY

SCALE A1 @ 1:250, A3 @ 1:250

DRAWING NO.

NR08 / - / TS / LO-01

SOURCE

ICU NO.



HOUSING DEPARTMENT

**Agreement No. CE 1/2014 (CE)
Infrastructures for Housing Development at Queen’s Hill - Feasibility Study**

Executive Summary on Final Report

(Revised Draft)

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LIST OF APPENDICES

APPENDIX A – Responses to Comments

LIST OF FIGURE

60319961/FR/Figure 1.1	Site Location Plan
60319961/FR/Figure 1.2	Layout Plan for Infrastructural Works for Proposed Developments at Queen’s Hill, Fanling

1. INTRODUCTION

1.1 Project Background

- 1.1.1.1 In the 2013 Policy Address announced in mid-January 2013, the Chief Executive set out that the top priority of the current-term Government is to tackle the housing problem. Government will increase and expedite the supply of subsidized housing in short to medium term. Timely provision of formed land and essential infrastructures is required to support the housing development.
- 1.1.1.2 Planning Department (PlanD) and Housing Department (HD) together with other relevant Government departments have jointly identified some potential public housing sites; and one of the potential housing development sites is at Queen's Hill. The Queen's Hill Development Site ("the Site") falls within part of the ex-Burma Lines Military Site for the British Army and the Hong Kong Police Force which has been abandoned since 2001. The Site is planned for mainly public housing (Site 1), private housing (Site 2) and International School use (Site 3). Location of the Site is shown in **60319961/FR/Figure 1.1**.
- 1.1.1.3 CEDD is tasked with the provision of essential infrastructures outside the Site to support the proposed development at Sites 1 to 3, and the associated facilities which may be required to support the entire Queen's Hill development at Sites A to C near Ma Liu Shui San Tsuen (QH Development here after). Location of the recommended Infrastructural Works is shown in **60319961/FR/Figure 1.2**.
- 1.1.1.4 HD has put forward proposals on the housing types, development parameters and planning layouts for Site 1. It is targeted to complete the public housing flats at Site 1 for population intake by March 2021. The Infrastructural Works have to be completed by March 2019 except the part of the sewerage works which has to be completed by December 2019 prior to the housing population intake.
- 1.1.1.5 An engineering feasibility study (EFS) is required to determine the scope of the Infrastructural Works outside the Site for supporting the development; and to assess the various impacts due to the provision of these infrastructures and suggest the necessary mitigation measures. The EFS will provide the essential engineering information/data for drawing up the Technical Feasibility Statement for implementing the Infrastructural Works.
- 1.1.1.6 AECOM Asia Co Ltd has been commissioned by the Civil Engineering and Development Department (CEDD) to undertake Agreement No. CE 1/2014 (CE) – Infrastructures for Housing Development at Queen's Hill – Feasibility Study.
- 1.1.1.7 The Agreement was commenced on 10 April 2014 and is scheduled to be completed in early 2015.

1.2 Development Parameter of QH Development

1.2.1.1 QH Development comprises of 6 sites¹. The planning parameters for Sites 1 is based on the information provided by Housing Department (HD) on 13 April 2015; while Site 2 and Site A are based on the information provided by PlanD in May 2014; and the population for Site 3 is assumed with reference to other similar type of development. These development parameters are appended in **Table 1.1** below:

Table 1.1 - Summary of Development Parameters⁽¹⁾

	Site 1	Site 2	Site 3	Site A	Site B	Site C
Area (ha) (about)	13.65	4	2.35	0.62	0.51	0.25
Development Type	PRH & HOS	Private Housing	International School	School	Sewage Pumping Station/ Community Facilities	Community Facilities
Estimated No. of Flats	PRH 8,840 HOS 3,160	2,670	-	-	-	-
Estimated Population	34,300	8,010	-	-	-	-
School	2 Primary Schools (30-Classroom) 3 Kindergartens (Two 8-Classroom & One 7-classroom)	-	1 School (60-Classroom)	1 School (24-Classroom)	-	-
Planned Year of Completion	2020/21	To Be Advised	To Be Advised	To Be Advised	To Be Advised	To Be Advised

Note:

(1) The above development parameters provided are broad-brush in nature for the Engineering Feasibility Study assessment purpose only and would be subject to change.

1.2.1.2 To adopt a conservative approach for the Study, an additional 10% increase is allowed to the estimated no. of flats and populations for the traffic forecast. The Development Parameters adopted in various technical assessments under the Study are shown in **Table 1.2**.

Table 1.2 - Summary of Development Parameters Adopted for the Study

	Site 1 ^(see notes)	Site 2	Total
Population	37,290	8,811	46,101

Notes:

(1) The population for Site 1 provided by HD in April 2014 was 33,900.

(2) An increase of 10% on the population for Site 1, which gives the population ceiling of 37,290, has been adopted in the Study (i.e. $33,900 \times 1.1 = 37,290$).

¹ Three sites, i.e. Sites A to C, near the junction of Sha Tau Kok Road and Lung Ma Road are included in the EFS for provision of the associated GIC facilities which may be required to support the entire Queen's Hill development. Details of the provision of these facilities have yet to be worked out at the IDC stage.

(3) The latest development parameters including the number of flats in Site 1 shall refer to relevant planning documents of HD.

2. PRELIMINARY TRAFFIC IMPACT ASSESSMENT

2.1.1.1 Preliminary Traffic Impact Assessment (PTIA) has been carried out for design years 2016, 2020, 2026 and 2031. A performance of total 14 road junctions (i.e. J1 to J14) (see Table 2.1) and 4 road links (see Table 2.2) within the Area Of Influence have been assessed under 21 nos. of study scenarios (see Table 2.3).

Table 2.1 – Road Junctions

No.	Junction	Control
J1	Po Shek Wu Road Interchange	Roundabout
J2	So Kwun Po Road Interchange	Roundabout
J3	Jockey Club Road / Ma Sik Road / So Kwun Po Road	Signal
J4	Ma Sik Road / Fan Leng Lau Road	Signal
J5	Ma Sik Road / Luen Chit Street	Signal
J6	Ma Sik Road / Wo Tai Street	Signal
J7	Sha Tau Kok Road / San Wan Road	Roundabout
J8	Sha Tau Kok Road / Jockey Club Road	Roundabout
J9	Sha Tau Kok Road / Lok Yip Road	Signal
J10	Sha Tau Kok Road / Luen On Street	Signal
J11	Sha Tau Kok Road / Ma Sik Road ⁽²⁾	Signal
J13	Sha Tau Kok Road / Sui Wan Road	Signal
J14	Sha Tau Kok Road / Lung Ma Road	Roundabout

Note: The locations of the road junctions are shown in 60319961/FR/Figure 1.2.

Table 2.2 – Road Links

No.	Link
RL 1	Fanling Bypass is a proposed dual-2-lane rural trunk road connecting Kwu Tung North and Fanling North New Development Areas (KTN & FLN NDAs) and Fanling Highway which is taken into consideration in years 2026 and 2031 scenarios.
RL 2	Liantang/Heung Yuen Wai Connection Road is a proposed dual-2-lane rural trunk road connecting future Liantang/Heung Yuen Wai Boundary Crossing Point and Fanling Highway.
RL 3	Lung Ma Road is in single-2 lane 2-way configuration with minimum width of 7.3m. Footpath and frontage accesses are provided along Lung Ma Road. It is also the sole accessing road to the Site connecting to Sha Tau Kok Road.
RL 4	Sha Tau Kok Road is a dual-2-lane rural road connecting the Site to other districts.

Table 2.3 - Study Scenarios

Scenario	Year	Site 1	Site 2	Site 3	Site A, B & C	Known Dev. Projects	Fanling Bypass	LT/HYW BCP	Remark
1	2016	X	X	X	X	X	X	X	2016 Reference Case
2	2016	X	X	X	X	X	X	X	2016 Reference Case (With LT/ HYW BCP Construction Traffic)
3	2016	X	X	X	X	X	X	X	2016 Design Case (With LT/ HYW BCP and QH Construction Traffic)
4	2020	X	X	X	X	X	X	X	2020 Reference Case (Without LT/ HYW BCP)
5	2020	X	X	X	X	√	X	X	2020 Reference Case With Know Development Projects (Without LT/ HYW BCP)
6	2020	√	X	X	X	X	X	X	2020 Design Case (Site 1) With LT & KTN & FLN NDAs Construction Traffic (Without LT/ HYW BCP)
7	2020	√	X	X	X	√	X	X	2020 Design Case (Site 1) With Know Development Projects and With LT & KTN & FLN NDAs Construction Traffic (Without LT/ HYW BCP)
8	2020	√	√	√	√	√	X	X	2020 Design Case (Site 1-3 & A-C) With Know Development Projects (Without LT/ HYW BCP)
9	2020	X	X	X	X	X	X	√	2020 Reference Case (With LT/ HYW BCP)
10	2020	X	X	X	X	√	X	√	2020 Reference Case With Know Development Projects (With LT/ HYW BCP)
11	2020	√	X	X	X	X	X	√	2020 Design Case (Site 1) (With LT/ HYW BCP)
12	2020	√	X	X	X	√	X	√	2020 Design Case (Site 1) With Know Development Projects (With LT/ HYW BCP)
13	2020	√	√	√	√	√	X	√	2020 Design Case (Site 1-3 & A-C) With Know Development Projects (With LT/ HYW BCP)
14	2026	X	X	X	X	X	√	√	2026 Reference Case
15	2026	X	X	X	X	√	√	√	2026 Reference Case With Know Development Projects
16	2026	√	√	√	√	X	√	√	2026 Design Case (Site 1-3 & A-C)
17	2026	√	√	√	√	√	√	√	2026 Design Case (Site 1-3 & A-C) With Know Development Projects
18	2031	X	X	X	X	X	√	√	2031 Reference Case
19	2031	X	X	X	X	√	√	√	2031 Reference Case With Know Development Projects
20	2031	√	√	√	√	X	√	√	2031 Design Case (Site 1-3 & A-C)
21	2031	√	√	√	√	√	√	√	2031 Design Case (Site 1-3 & A-C) With Know Development Projects

- 2.1.1.2 All the assessed junctions will be operating with acceptable capacity with proposed improvement except for year 2020 design case (Sites 1-3, A-C) without LT/HYW BCP, J3, J4, J10, J11, J13 and J14 will be operating close to their capacities and J11 will be operating close to its capacity even with LT/HYW BCP is in place. Therefore, it is recommended that Sites 2, 3, A and C should be completed after Fanling Bypass is in place unless otherwise found viable whereas Site B has to be developed for provision of the essential GIC facilities to support the Queen's Hill development.
- 2.1.1.3 Junction improvements for J1, J2, J3, J4, J8, J9, J10, J11, J13 and J14 should be completed by Year 2020 before population intake at Site 1. While the proposed road improvement works at J3, J4, J5, J11 and J12 for the design year 2026 and 2031 is recommended to be further reviewed and implemented under KTN and FLN NDAs subject to the timely availability of lands.
- 2.1.1.4 Lung Ma Road will have sufficient capacity to serve for the increase traffic flow generated from QH Development after upgrading to a 7.3m wide single two-lane carriageway with 3m wide emergency lay-by at some sections, 2m wide footpaths on both sides, and 3.5m side cycle track on one side, even under emergency situation when a double decked public bus break down and occupied one of the traffic lanes.
- 2.1.1.5 Connection of QH site to the Po Kak Tsai Road as alternative access for QH Site will not be considered under this Project because the future upgraded Lung Ma Road will have adequate capacity to serve for the whole QH Development even under emergency situation. Moreover, the existing Po Kak Tsai Road is a non-HyD standard road, upgrading of this road to meet the required standard for either alternative /emergency access require acquisition and clearance of private land, which would take considerable time and the works could not be completed by the prescribed time for supporting the target population intake of Site 1 as stated in paragraph 1.1.1.4. Given the ongoing NT North Study will examine the long-term development potential of the area, the accessibility of the Lung Yeuk Tau area may be improved as a whole subject to the future planning of this area.
- 2.1.1.6 All analyzed results revealed that the assessed road links would be performing with ample spare capacity in Years 2020, 2026 and 2031.
- 2.1.1.7 All the assessed junctions will be operating with acceptable capacity in Year 2016 for Scenario 3 (i.e. Year 2016 with Liantang/ HYW BCP and QH construction traffic) and no improvement works is required.
- 2.1.1.8 A preliminary estimate of the Public Transport (PT) requirements to meet the demand is also conducted. The public transport operators are expected to adjust and enhance the schedules / frequencies / routings of their services or introduce new routes to meet the additional demand in the area. The recommendations for public transport services are subject to the acceptance of the Transport Department and the operators of the proposed public transport services.
- 2.1.1.9 The proposed junction improvement works are required to be further elaborated taken into account TD's comments as provided in the Final TIA report in IDC Study.
- 2.1.1.10 In conclusion, the PTIA study has demonstrated that the QH Development will not cause any significant traffic impact and is acceptable from the traffic point of view when the proposed improvement works are implemented.

3. PRELIMINARY SEWERAGE IMPACT ASSESSMENT

- 3.1.1.1 Preliminary Sewerage Impact Assessment (SIA) covered under this study involves the impacts on the Shek Wu Hui Sewage Treatment Works (SWHSTW) and the trunk sewerage networks as a consequence of the additional sewage discharge from the QH Development under different schemes. Two conditions namely (i) Baseline condition and (ii) Ultimate condition are evaluated for the sewerage system under the PSIA.
- 3.1.1.2 The Baseline condition assessment includes the cases with and without flow diversion from existing Ng Chau South Road SPS. Ultimate condition assessment also includes two cases, one discharging sewage from QH Development at upstream of existing San Wai Barrack Sewage Pumping Station (SWBSPS) and the other at downstream of Yip Cheong Street SPS (YCSSPS), and provides a basis for comparison of the sewerage impact against the Ultimate condition.
- 3.1.1.3 For assessment of impact to SWHSTW, scenarios at existing, year 2020, 2024 and 2031 have been studied.
- 3.1.1.4 Two conditions, namely the Baseline and Ultimate conditions for with and without QH Development have been simulated using the hydraulic model. Based on the model results, the existing trunk sewer system between SWBSPS and YCSSPS would not have sufficient capacity to handle extra flow from QH Development mainly due to the constraint in the capacity the existing SPSs. However, upgrading of these SPSs is considered not feasible due to the lack of available land.
- 3.1.1.5 Four sewerage schemes were studied, and all of them will not impose unacceptable adverse sewerage impact to the existing sewerage system. These sewerage schemes are listed below:
- Scheme A - Direct pumping of all sewage generated from QH Development to Shek Wu Hui Sewage Treatment Works (SWHSTW) via sewage rising mains to be laid along Sha Tau Kok Road and river embankment of Ma Wat River / Ng Tau River;
 - Scheme B - Pumping of all sewage generated from QH Development to existing sewage manhole downstream of YCSSPS via sewage rising mains to be laid along Sha Tau Kok Road;
 - Scheme C - Pumping of part of sewage generated from QH Development to existing sewage manhole downstream of YCSSPS via sewage rising mains to be laid along Sha Tau Kok Road; and remaining part of sewage to be treated in a proposed on-site STW next to Site 1; and
 - Scheme D - Treat all sewage generated from QH Development in a proposed on-site STW next to Site 1.

- 3.1.1.6 Provision of on-site STW is worth to consider as long term strategy sewage treatment facilities planning. On-site STW would help in alleviate the capacity problem of SWHSTW as mentioned above, and also enable the efficient local reuse of effluent in line with the Government's long term strategy in promoting effluent reuse, which got merit in the sustainable development point of view. Moreover, the decentralization of sewage treatment facilities could also reduce the risk of pollution to Deep Bay in case of serious breakdown in SWHSTW, and the on-site STW at Queen's Hill proposed under Schemes C and D would be completed far beyond the tentative completion of public housing development for population intake as stated in paragraph 1.1.1.4.
- 3.1.1.7 As completion of sewerage system to meet population intake for Queen's Hill public housing site (Site 1) is the prime consideration under this Project, sewerage scheme that could achieve this deadline would be set with priority.
- 3.1.1.8 Both Schemes A and B could meet the target completion date as stated in paragraph 1.1.1.4; however, in view of risk to completion programme, potential traffic impact, and difficulties in future maintenance of proposed SRM, Scheme B is considered less desirable than Scheme A.
- 3.1.1.9 Operation and maintenance of long rising mains is not desirable in view of the high pumping cost, septicity problem, and higher risk of pipe burst than gravity sewer. Therefore, the direct discharge of sewage from QH Development to SWHSTW is considered as interim solution and long term solution for combining the sewerage system with KTN and FLN NDAs should be further explored in order to shorten the pumping distance as well as the sewage retention time. The feasibility of accommodating the sewage generated from the Phase 1 development in the FLN NDAs in the proposed sewage rising mains of QH Development will also be explored in IDC stage of the Project.
- 3.1.1.10 The proposed laying of twin sewage rising mains along the river embankments of Ma Wat River and Ng Tung River to SHWSTW could be considered as a temporary arrangement. Provision of tee branch connection to the trunk sewer to be constructed under the Fanling North NDA development will be further investigated in the I&DC stages of both the Fanling North NDA development and Queen's Hill Development projects.
- 3.1.1.11 Since SWHSTW expansion is being carried out in a live plant and part of the treatment units have to be terminated for upgrade during construction, the actual treatment capacity of SWHSTW is less than the planned capacity as shown in Tables 3.1 and 3.2 respectively. The exact treatment capacity of SWH STW during each phase of upgrading should be subjected to review based on the proposed upgrading method and sequence to be advised by DSD.

Table 3.1 – Expansion Capacity of SWHSTW in Phases

Expansion Phases	Treatment Capacity (m ³ /d)		Tentative Year of Commissioning
	Increased By	Total	
Existing	-	93,000	-
Phase 1A Advanced Works	20,000	105,000*	Mid 2018
Phase 1A Main works	40,000	133,000^	End 2023 (major sewage and

Expansion	Treatment Capacity (m ³ /d)		Tentative Year of
			sludge treatment facilities completed by End 2021)
Phase 1B	20,000	153,000	End 2023
Phase 2	37,000	190,000	2030 [#]

* Actual capacity factored due to live plant upgraded as advised by DSD.

^ Major sewage and sludge treatment facilities completed by end 2021

Programme to be reviewed by KTN & FLN NDAs development programme

Table 3.2 – SWHSTW Flow Build-up Projection without QH Development

Year	Treatment Capacity (m ³ /d) (A)	Flow Projection (m ³ /d) (With Full flow from QH Development by 2020) (B)	Flow Projection (m ³ /d) (With flow from Site 1 by 2020*) (C)
Existing (2014)	93,000	83,800	83,800
2020	105,000	115,850	111,925
2021	133,000	116,450	112,525
2022	133,000	117,950	114,025
2023	153,000	138,650	134,725
2024	153,000	156,350	152,425
2030	190,000	200,850	196,925
After 2031	190,000	206,850	202,925

* Excluded 11.55% contingency flow

- 3.1.1.12 As confirmed by EPD/SIG in Project Steering Group (PSG) meeting on 25 August 2014 and subsequent discussions, sufficient resources and treatment capacity of SWHSTW would be reserved for the demand of Site 1 of Queen's Hill Housing Development.
- 3.1.1.13 An assessment of constructing one or more permanent STW for Queen's Hill Development on several potential sites identified has already conducted; they were either objected by other departments or cannot be developed in time to suit the population intake. As there are no other suitable sites in the vicinity of Queen's Hill for a permanent STW, it is therefore necessary to search for suitable permanent STW sites further away to re-provide the treatment capacities. However, this further site search and assessment work is beyond the ambit of this consultancy but it is recommended that these sites should preferably be located in close proximity to population clusters furthest away from Shek Wu Hui STW.

- 3.1.1.14 The PSG meeting of 25.8.2014 acknowledged that there will be long term capacity deficit problem for SWHSTW and a long term solution would need to be developed in due course. This Study already reviewed the feasibility of a new permanent STW nearby, and although the outcome was negative, it had further recommended to explore the possibility of another new permanent STW to serve major population cluster furthest away from QHD. As reported by EPD/SIG, relevant departments were already requested to conduct a preliminary site search / evaluation exercise. In parallel, alternative options to provide additional sewage treatment infrastructure is also being investigated and developed under the ongoing KTN & FLN NDAs project, and the forthcoming SWHSTW Phase 1A DC consultancy may also explore the technical feasibility of further increasing its capacity.
- 3.1.1.15 The proposed public sewerage system to be provided at Lung Ma Road will be adequate to cater for all Site 1, Site 2 and Site 3. Sewer connections from Site 2 and Site 3 to the public sewerage system will be determined separately by the respective developers/project proponents and subjected to the availability of treatment capacity of the receiving Sewage Treatment Works.

4. PRELIMINARY DRAINAGE IMPACT ASSESSMENT

- 4.1.1.1 Preliminary Drainage Impact Assessment (PDIA) is prepared to identify any potential adverse impact on the existing drainage system due to the additional storm runoff discharge from QH Development and recommend measures for mitigation such impacts being identified.
- 4.1.1.2 Drainage Services Department (DSD) has implemented drainage improvement works under PWP items 151CD and 125CD to improve the local drainage condition as well as providing sufficient drainage provision to cope with future developments in the area. The catchment of the constructed box culvert under PWP 125CD cover the whole Site 1 and Site 2, the western portion of Site 3 and Lung Ma Road.
- 4.1.1.3 An InfoWorks-ICM model is developed to verify the design of the aforesaid completed drainage improvement works. As revealed by the model results, 300mm freeboard can be maintained under the 1in50yr rainstorm scenario and therefore no drainage impact is anticipated.
- 4.1.1.4 For Site 1, runoff can be directly discharged to the as-constructed 4000(W) x 2500(D) box culvert (Tung Kok Wai Box Culvert) at the western tip of Site 1.
- 4.1.1.5 For Site 2 and Site 3, runoff can be discharged to the Tung Kok Wai Box Culvert at the western tip of Site 1 through internal drainage system of Site 1. Drainage connections from Site 2 and Site 3 to the public drainage system (e.g. Tung Kok Wai Box Culvert) will be determined separately by the respective developers/project proponents.
- 4.1.1.6 Subject to the site formation design of Site 3, the eastern portion of Site 3 may not be feasible to discharge to the public drainage system at Tung Kok Wai Box Culvert. In such circumstance, a detention tank may be required. The future land user shall review the need for the detention tank after confirming the site formation design and the paved ratio of Site 3 in due course.
- 4.1.1.7 Drainage works within Site 2 and 3 should be designed and constructed by the end users of these two sites, to avoid constraints their site layout design.
- 4.1.1.8 For road widening works at Lung Ma Road, proposed sewage pumping station and planned developments at Sites A to B, their runoff can be conveyed by the proposed drains, with pipe size ranging from DN225 to DN1050, underneath Lung Ma Road and then discharged to the 3000(W) x 1400(D) cross road box culvert near Hai Wing Road.
- 4.1.1.9 Twin sewage rising mains proposed under one of the sewerage schemes would be laid underneath channel bed when crossing Ma Wat River and Shek Sheung River to avoid affecting drainage performance and visual impact. Moreover, leakage collection systems should be provided all along the sewage rising mains to be laid underneath river embankment to avoid affect its stability and impose flood risk.
- 4.1.1.10 The developers of respective Site should provide peripheral drain/channel at the earliest stage of construction period to intercept all runoff coming from Ma Liu Shui San Tsuen, adjoining areas and Queen's Hill Development Site (inclusive of the school sites), in order to reduce the risk of flooding to Ma Liu Shui San Tsuen.

- 4.1.1.11 From this assessment, it can be concluded that the QH Development can be completed without aggravating the flooding conditions within, upstream or downstream of QH Development.
- 4.1.1.12 In fulfillment of the Brief in respect of holistic planning, this PDIA shows that Tung Kok Wai box culvert has the capacity to take runoff from all three Sites 1, 2 and 3 of QH as a conservative approach. In the event that the runoff from Site 2 (4 ha) and Site 3 (2.25 ha) is not conveyed to Tung Kok Wai box culvert in future for any reason, the developer/project proponent of either site should be required to carry out a separate DIA on his own for DSD approval.
- 4.1.1.13 Submission of Drainage Impact Assessment is required in the IDC stage of the Project as per ETWB TC(W) No. 2/2006.

5. WATER SUPPLY STUDY

- 5.1.1.1 The total demands on potable water and flushing water for Queen's Hill Site and the associated supporting sites (i.e. sewage pumping station, fire station and other necessary facilities located in Sites A, B and/or C) are 8,798m³/d and 3,513 m³/d respectively. Since there is no sea water supply to the development site at population intake in year 2020, potable water will be used for flushing. The estimated total demand on fresh water is 12,311 m³/d, say 13,000 m³/d.
- 5.1.1.2 Sheung Shui Water Treatment Works (SSWTW) can cope with a mean daily demand of 146 million liters per day (MLD) while the existing Fresh Water Services Reservoirs (FWSRs) can cope with a mean daily demand of 120 MLD. In 2013, the fresh water demand in Sheung Shui / Fanling (SSF) areas has already reached 129 MLD and exceeded the design storage capacity. A capital works project with PWP Item No. 9350WF for the construction of a service reservoir with a capacity of about 24,000 m³ and laying of associated trunk and distribution mains was included in 2013 Resources Allocation Exercise (RAE). Upon commissioning of the project in around 2019, the storage capacity of FWSRs can cope with a mean daily demand of 145 MLD.
- 5.1.1.3 With the additional water demand of 13 MLD from the Queen's Hill Development, the total water demand in 2020 will reach 142 MLD. This demand projection is on low-side as there are other on-going housing projects with population intake before 2020, which have not been taken into account. In this regard, both the situations of SSWTW and the water supply network will be under stress.
- 5.1.1.4 As an interim measure, temporary arrangement could be made with the proposed service reservoir under PWP Item No. 9350WF in order to cope with the scheduled population intake in 2020/2021. In the long run, WSD advised that another capital works project with PWP Item No. 9355WF - "Water Supply to New Housing Developments in Sheung Shui and Fanling" was included in 2014 RAE. It aims to construct a service reservoir with a capacity of about 55,000 m³ with associated trunk and distribution networks in order to cope with Queen's Hill and other large scale developments. The construction works are anticipated to commence in 2018 for completion in 2021.
- 5.1.1.5 There are two DN600 and one DN300 fresh water mains underneath Sha Tau Kok Road – Lung Yeuk Tau. To cope with the water demand of the Site, one DN400 and one DN250, tapping to the DN600 fresh watermain underneath Sha Tau Kok Road, are proposed underneath Lung Ma Road for potable water supply and flushing water supply respectively to the Site and the supporting sites respectively.
- 5.1.1.6 The future upgraded public water supply system at Lung Ma Road will be adequate to cater for all Site 1, Site 2 and Site 3. Water supply connections from Site 2 and Site 3 to the public water supply system will be determined separately by the respective developers/project proponents.
- 5.1.1.7 WSD shall maintain a total available head in the existing water mains at junction of Sha Tau Kok Road and Lung Ma Road at around 50m (for both fresh water and flushing) for supplying to Site 1, Site 2 and Site 3. Pressure reducing valve(s) will be installed at Lung Ma Road for controlling the supply head.

- 5.1.1.8 For Site 1, the finished floor levels of the site (including the main roads) will be varied from about 13mPD to 32mPD. The designer of the development shall note the uphill terrain of this site. Provisions of booster pumps and header tank system for conveying potable and flushing water to the building blocks and facilities at higher ground/extremity of the site will be required.
- 5.1.1.9 For Sites 2 & 3, the levels of the sites may exceed 35mPD. The residual head at the entrance to Sites 2 and 3, as well as the extremity of Site 1 (i.e. Ground Level ~ +30mPD) may not be sufficient to effect a direct supply to the roof tank of the premises. Therefore, private sumps and pump systems may be required to effect adequate water supply internally.
- 5.1.1.10 The project proponent(s) of the respective sites should be responsible to provide sump and pump systems and installation of storage cistern(s) inside their sites, if appropriate, for maintaining the required head for fresh/flushing water supply and fire fighting services to their premises. Suitable and thorough space(s) should be allowed for the installation of storage cistern(s) during the planning of design stages of their projects.
- 5.1.1.11 Water supply to Sites A and B can be conveyed either by the new fresh water mains to be laid in Lung Ma Road or the existing fresh water mains in Sha Tau Kok Road – Lung Yeuk Tau subject to the layout design of the sites, whilst water supply to Site C can be conveyed by the existing fresh water mains in Sha Tau Kok Road – Lung Yeuk Tau. There are sufficient pressure heads for supplying water by gravity from the public mains to these sites. The connection works to the existing water mains will be carried out by WSD. The cost of the diversion and connection works shall be borne by the respective proposed project proponent.
- 5.1.1.12 The works shall comply with WSD's requirements of "Conditions of Working in the Vicinity of Waterworks Installations" and "Conditions of Working within Gathering Grounds".

6. ENVIRONMENTAL ASSESSMENT STUDY

6.1 General

6.1.1.1 Environmental Assessment Study (EAS) is prepared to identify any potential adverse environmental impact caused by the proposed infrastructure works for supporting QH Development, and recommend measures for mitigation the impacts.

6.1.1.2 Based on the current design of proposed infrastructural works, only the proposed sewage pumping station (SPS) was identified as a DP under the EIAO. A project profile for the SPS would be prepared for direct application of Environmental Permit (EP) or for application of EIA study brief in accordance with the Technical Memorandum on EIA Process.

6.2 Air Quality Impact

6.2.1.1 During the operational phase of the Project, with sufficient buffer distance between the widening road / road junctions and Air Sensitive Receivers (ASRs), traffic emission impact from the proposed infrastructure works on the ASRs is not expected.

6.2.1.2 The fully covered design of the odour sources of the proposed SPS and the installation of deodorization units at the exhaust of ventilation system will provide adequate control of potential odour impact. Adverse odour impact arising from the Project is not anticipated.

6.3 Noise Impact

6.3.1.1 The Junction Improvement Works would not affect the designed capacity of the road section. As there is no alignment (horizontal or vertical) change on the Junctions J3, J4, J13 & J14, the separation distance between the alignment and the nearby Noise Sensitive Receivers (NSRs) are remain unchanged. Adverse traffic noise impact on their nearby NSRs is not expected. For the Junctions J8, J9 and J11, the changes in predicted noise levels due to Junction Improvement Works are all below 1.0 dB(A), therefore the potential traffic noise impact on these NSRs due to Junction Improvement works would be considered insignificant and mitigation measures are not required.

6.3.1.2 The potential road traffic noise impacts arising from the widening of Lung Ma Road and its associated slip road have been assessed. Practicable traffic noise mitigation measures are formulated for the existing and planned NSRs with predicted noise levels exceeding the traffic noise criteria. With the proposed noise barriers, semi-enclosures and non-noise sensitive use areas in place, the predicted overall noise levels at some of the NSRs would still exceed the noise limit. For these NSRs, the predicted traffic noise level due to the road sections within the Project does not exceed (i.e. "New" road) the criteria by 1.0 dB(A) or more. The "New" road noise contribution to the overall traffic noise level would be less than 1.0 dB(A) and the "New" road noise levels at these NSRs would all be below criterion. It should be noted that such noise exceedances at the representative NSRs are due to the existing roads.

6.3.1.3 With the implementation of mitigation measure including good housekeeping practices, proper design of location of the exhaust fan and opening for ventilation and machine room doors away from surrounding NSRs, no adverse fixed plant noise impact from the operation of the sewage pumping station would be anticipated.

6.4 Water Quality Impact

6.4.1.1 Except the potential emergency sewage bypass from proposed sewage pumping station, there are no water quality impact is anticipated during the operation stage of other proposed infrastructure works under this Project. For the potential water quality impact to the nearby watercourses due to emergency sewage bypass, various precautionary measures are proposed to be incorporated in the design of the sewage pumping stations to avoid emergency bypass of sewage to the maximum practicable extent. With the incorporation of these proposed precautionary measures, the possibility of emergency sewage bypass would be extremely remote.

6.5 Waste Management Implications

6.5.1.1 Screening, solid waste, silt and debris would arise from the operation of the proposed SPS. In view of the limited amount (approximately 4.4 m³) of these wastes arising, the impact of its disposal at landfill would be minimal. The generation of chemical wastes is expected to be very small and no adverse environmental impacts are envisaged. Good waste management practices have been recommended to ensure that adverse environmental impacts from the handling and disposal of operational wastes are prevented or minimized. It is concluded that no unacceptable environmental impacts would result from the operation of the proposed sewerage and SPS.

6.5.1.2 For land contamination, most of the project area is situated on roads or undeveloped / vegetated areas where land contamination issues are not anticipated. Nevertheless, a detailed land contamination assessment, according to EPD's Guidance Note, Guidance Manual and Practice Guide, will be conducted at IDC stage of the project to confirm whether there is any land contamination issue due to past and/or present land uses within the project area. The assessment will include site appraisal to identify any current/historical contaminated land uses and, if necessary, intrusive site investigation to confirm the presence and nature of contaminated soil and groundwater. Any identified contaminated soil and groundwater would need to be properly treated according to EPD's prevailing guidelines.

6.6 Ecology Impact

6.6.1.1 Indirect impacts such as water quality, noise and air quality could potentially affect the habitats (e.g. Ng Tung River) and sites of conservation importance (e.g. egrettries) located in the vicinity of the proposed works and the species they support. With the implementation of good site practices and appropriate mitigation measures, ecological impacts are anticipated to be acceptable during operational phase.

6.7 Cultural Heritage Impact

6.7.1.1 The proposed road widening works site at Lung Ma Road falls partly within the Queen's Hill Site of Archaeological Interest. Site inspection by AMO is required in the course of excavation works in the site of archaeological interest.

6.7.1.2 For the rest of the proposed works which falls within 50 meters from the boundary of the Queen's Hill Site of Archaeological Interest, AMO should be informed at once in case of discovery of antiquities or supposed antiquities in the course of excavation works.

6.7.1.3 Fanling Magistracy is a Grade 3 historic building that falls within 25m from the improvement works at Junction Sha Tau Kok Road/Jockey Club Road (J8). Indirect impact to this graded historic building may be caused by ground-borne vibration induced from construction works, vibration, crack and settlement monitoring is recommended to be conducted in construction stage.

6.8 Landscape and Visual Impact

6.8.1.1 Significant changes in existing hard landscape is not anticipated; however, some of the existing trees within the proposed works boundary will be affected.

6.8.1.2 For visual impact, with the implementation of proposed mitigation measures such as tree planting and appropriate architectural design, there would still be moderate residual impact during operation phase on Travelling Visual Sensitive Receivers (VSRs) along Sha Tau Kok Road and Lung Ma Road and there would be insubstantial residual impact during operation phase on Residential VSRs at Ma Liui Shui San Tsuen due to the proposed pumping station.

6.9 Environmental Monitoring and Audit Requirements

6.9.1.1 As no adverse environmental impact would be expected with the implementation of the recommended mitigation measures, no monitoring on dust, noise, water quality, waste management, ecology, and landscape & visual impact is considered necessary during construction phases. However, environmental site audit and regular site inspection are recommended to ensure all control measures are implemented effectively.

6.9.1.2 While for cultural heritage, regularly monitoring of ground-bourne vibration shall be conducted for the Fanling Magistracy to ensure that Alert/Alarm/Action system (3A system) should be adopted for transient vibration.

6.9.1.3 No EM&A requirement would be required for operational phase.

6.10 Conclusions

6.10.1.1 Overall, the EAS has predicted that the Project would be environmentally acceptable with the implementation of the proposed mitigation measures for construction and operation phases.

6.10.1.2 As the proposed noise barrier along Lung Ma Road may draw public concern, further consultation to the adjacent lands user on the proposed barrier in subsequent design stage is recommended.

6.10.1.3 The EAS has been conducted based on the preliminary design of the proposed infrastructure works and will be subject to further review and update in the subsequent Preliminary Environmental Review (PER) during Investigation, Design Construction (IDC) stage.

7. SCOPE OF OPTIMAL SCHEME OF INFRASTRUCTURAL WORKS

7.1 Proposed Road Works

7.1.1.1 The scope of proposed road improvement works to be implemented under this project for supporting population intake of public housing development at Site 1 before 2020 are listed as follows:

- Improvement to existing road junctions at the following locations:-
 - i. Junction (J1) – Po Shek Wu Road Interchange;
 - ii. Junction (J2) – So Kwun Po Road Interchange;
 - iii. Junction (J3) – So Kwun Po Road / Jockey Club Road / Ma Sik Road;
 - iv. Junction (J4) – Ma Sik Road / Fan Leng Lau Road;
 - v. Junction (J8) – Sha Tau Kok Road / Jockey Club Road;
 - vi. Junction (J9) – Sha Tau Kok Road / Lok Yip Road / Fan Leng Lau Road;
 - vii. Junction (J10) – Sha Tau Kok Road / Luen On Street;
 - viii. Junction (J11) – Sha Tau Kok Road / Ma Sik Road / On Kui Street;
 - ix. Junction (J13) – Sha Tau Kok Road / Sui Wan Road; and
 - x. Junction (J14) – Sha Tau Kok Road / Lung Ma Road.
- Improvement to existing road links at the following locations:-
 - i. Widening of Sha Tau Kok Road between its junctions with Ma Sik Road (J11) and Sui Wan Road (J13) ; and
 - ii. Widening of Lung Ma Road associated slip road with Sha Tau Kok Road (J14)

7.1.1.2 The following road junctions are identified close to or over their capacities in design year 2026 and 2031, and are recommended to be further reviewed and implemented under KTN & FLN NDAs.

- i. Junction (J1) – Po Shek Wu Road Interchange;
- ii. Junction (J3) – So Kwun Po Road / Jockey Club Road / Ma Sik Road;
- iii. Junction (J4) – Ma Sik Road / Fan Leng Lau Road;
- iv. Junction (J5) – Ma Sik Road / Luen Chit Street;
- v. Junction (J11) – Sha Tau Kok Road / Ma Sik Road / On Kui Street; and

vi. Junction (J13) – Sha Tau Kok Road / Sui Wan Road

7.2 Proposed Sewerage Works

7.2.1.1 The scope of sewerage works recommended under Scheme A is listed below:

- (a) Laying approx. 0.4km long 750mm diameter gravity sewer along Lung Ma Road from boundary of Site 1 to proposed Sewage Pumping Station (SPS) at Site B for collection of sewage generated from Sites 1 to 3.
- (b) Construction of a SPS at Site B with capacity up to 10,850m³/day at Average Dry Weather Flow (ADWF) (herein after named as “ Lung Ma Road SPS”) with about 60 to 70m head; and
- (c) Laying approx. 5.2km long twin 400mm diameter sewage rising mains (SRM) primarily routed along Lung Ma Road, Sha Tau Kok Road, and maintenance accesses of Ma Wat River & Nga Tung River using open cut method and/or trenchless construction method.

7.3 Proposed Drainage Works

7.3.1.1 As existing 4000mm x 2500mm box culvert (i.e. Tung Kok Wai Box Culvert) have sufficient capacity to cater for storm runoff from Site 1, 2 and 3 of QH Development and the existing 3000mm x 1400mm box culvert underneath Lung Ma Road have sufficient capacity to cater for storm runoff from Lung Ma Road and Sites A to C. Therefore, the scope of drainage works proposed under this Project are listed below:

- (a) Laying ~210m long 600mm diameter road drain underneath and along Lung Ma Road from boundary of Site 1 to the existing 3000mm x 1400mm box culvert near Hai Wing Road for collection of runoff from Lung Ma Road.
- (b) Laying ~170m long 1,050mm diameter road drain underneath and along Lung Ma Road from branch road to Site B to the existing 3000mm x 1400mm box culvert near Hai Wing Road for collection of runoff from Lung Ma Road and Sites A and B; and
- (c) Construct road gullies and road drains along Lung Ma Road.

7.4 Proposed Water Supply Works

7.4.1.1 The scope of water supply works proposed under this Project are listed below:

- (a) Laying approx. 0.4km long 400mm diameter fresh water mains underneath and along Lung Ma Road from existing 600mm fresh water mains at Sha Tau Kok Road / Lung Ma Road roundabout to the boundary of Site 1.
- (b) Laying approx. 0.4km long 250mm diameter flushing water mains underneath and along Lung Ma Road from existing 600mm fresh water mains at Sha Tau Kok Road / Lung Ma Road roundabout to the boundary of Site 1.

7.5 Proposed Landscaping Works and Environmental Mitigation Measures

7.5.1.1 The scope of landscaping works include felling, transplanting and new planting of trees as:

- (a) Felling 276 no. of trees along Lung Ma Road, Sha Tau Kok Road, and in Site B;
- (b) Transplanting 41 no. of trees at Lung Ma Road and Sha Tau Kok Road; and
- (c) Planting 55 nos. of compensatory trees at Lung Ma Road, Sha Tau Kok Road and the site of sewage pumping station in Site B.
- (d) Planting 88 nos. of compensatory trees in the school sites at Site 1 and 12 nos. of compensatory trees along part of the boundary of Site B.

7.5.1.2 The scope of noise mitigation measures works for Lung Ma Road widening works include the following:

- (a) Constructing 150m long 2m High Vertical Noise Barrier along the North Bound of Lung Ma Road;
- (b) Constructing 90m long 4m High Vertical Noise Barrier along the South Bound of Lung Ma Road; and
- (c) Applying 280m Low Noise Road Surfacing along both North Bound and South Bound of Lung Ma Road between the entrance of Site 1 and near its junction with Hai Wing Road.

The proposed adoption of LNRS will be further reviewed in the investigation and detailed design stages of the project.

7.6 Proposed Utilities Installations

7.6.1.1 Proposed sewerage, drainage and waterworks installations have been discussed in sections 7.2, 7.3 and 7.4 of the report.

7.6.1.2 No new telecommunication cables and power cables are proposed to be installed under this Project. However, utilities (including new telecommunication cables, power cables and town gas supply, etc) to support Queen's Hill developments will be required for laying via Lung Ma Road. Liaisons among PlanD/CEDD/HD/EDB/ArchSD/relevant stakeholders/utilities undertakers shall be made for the timely completion of utilities installations to meet the completion of public housing development and other developments within the Queen's Hill site.

7.7 Proposed Geotechnical Works

7.7.1.1 No geotechnical works are proposed under this Project and no man-made geotechnical features which could affect or be affected by the proposed development are identified. The scope of geotechnical works would be further reviewed together with other proposed works in the IDC stage of the project.

8. LAND REQUIREMENT FOR OPTIMAL SCHEME OF INFRASTRUCTURAL WORKS

- 8.1.1.1 The proposed scheme for Lung Ma Road widening was firstly gazetted in April 2006 and authorized in February 2007 by HyD. As further modification of the layout of Lung Ma Road was recommended under this feasibility study, amendment gazette under Road (Works, Use and Compensation) Ordinance (Cap 370) would be required under the subsequent design stage of this project.
- 8.1.1.2 The proposed sewerage system including the gravity sewer along Lung Ma Road, sewage pumping station at Site B and its associated sewage rising mains will be gazetted under Road (Works, Use and Compensation) Ordinance (Cap 370) as applied by Section 26 of the Water Pollution Control (Sewerage) Regulation (Cap 358 Subsidiary Legislation) under the subsequent design stage of this project.
- 8.1.1.3 The land status, affected existing land areas and land requirement for the proposed Infrastructural Works obtained from CEDD through LIC system in April 2014 have been studied. No resumption of private lands and clearance of livestock, fish pond, graves, kam taps, urns, and shrines will be required for proposed Infrastructure Works.
- 8.1.1.4 In general, all proposed infrastructure works will be conducted within Government lands under the jurisdiction of HyD or LandsD. Excavation permit (XP) and Simplified Temporary Lands Allocation (STLA) should be obtained from HyD and LandsD for execution of proposed infrastructure works.
- 8.1.1.5 Some of the works will conflict with existing STLA, GLA, ROW, CLL, WWR, and MTR's vesting boundary. Consents / permission should be obtained from relevant authorities such as LCSD, WSD, DSD, etc. for securing the lands for both temporary and permanent works proposed under this Project.

9. PROGRAMME, PHASING OF WORKS, CONTRACT STRATEGY AND COST ESTIMATE

9.1.1 Programme and Implementation Strategy

9.1.1.1 To facilitate the population intake programme for public housing at Site 1 in Queen's Hill, all the proposed Infrastructural Works shall be completed by March 2019 except part of the sewerage works (i.e. sewage pumping station and sewage rising mains) shall be completed by December 2019.

9.1.1.2 The project is assumed to commence in February 2015 and completed by June 2021. The Investigation and Design Phases will take about 19 months, assuming 8 months for Investigation Phase, 7 months for Design Phase and 4 months for Tender Phase while the Construction Phase will take about 64 months including 40 months of construction period. The milestone dates of the key activities are summarized as follows:-

Milestone Dates of the Key Activities

<u>Key Activities</u>	<u>Milestone Dates</u>
Commencement of the Investigation Phase	February 2015
Consultations for Gazette*	April 2015
Gazetting under CAP 370 and CAP 358AL	July 2015
Commencement of the Design Phase	October 2015
Submission of the Finalized Tender Document	April 2016
Gazetting of Tender Invitation	May 2016
Tender Award	September 2016
Commencement of the Construction Phase	September 2016
Substantial Completion of the Works Contract	December 2019
Finalization of Account of Works Contract	December 2021

*Public Consultation with North District Council (NDC) was conducted on 9 October 2014 at the Feasibility Study stage of the Project, and no objection was received at the meeting. Review on the need of public consultation should be conducted at IDC prior to gazetting of the works.

9.1.1.3 Since the Infrastructural Works tender will be put out to tender in 2016, New Engineering Contract (NEC3) will be used. The Infrastructural Works will be packaged in a single works contract. The 'Remeasurement priced contract' (Option B) and 'Target Cost contract' (Options C & D) in NEC3 Engineering and Construction Contract are considered applicable for use in the contract.

9.1.1.4 No advance works are identified to be necessary for the project.

9.1.2 Cost Estimation

9.1.2.1 The proposed Infrastructural Works discussed consists road works, sewerage works, drainage works, water supply works, landscaping works and noise mitigation works.

9.1.2.2 Under this project, the total capital cost (including contract cost, GI, consultants fee, RSS, and contingency) for and annual recurrent cost are approximately **HK\$833M** and **HK\$8.83M** respectively.

Appendices

Agreement No. CE 1/2014 (CE)
Infrastructures for Housing Development at Queen's Hill – Feasibility Study
Submission of Executive Summary on Final Report (Draft)

Responses to Comments

<u>No.</u>	<u>Comments Received</u>	<u>Date Received</u>	<u>Reference</u>
1	Civil Engineering and Development Department Civil Engineering Office Special Duties (Works) Division	20 Mar 2015	(Received by email)
2	Housing Department Development and Construction Division Project Sub-division 3 Civil Engineering Section 2	13 Apr 2015	(Received by email)
3	Planning Department District Planning Branch New Territories District Planning Division Sha Tin, Tai Po and North District Planning Office	1 Apr 2015	(Received by email)
4	Drainage Services Department Operations & Maintenance Branch, Mainland North Division, North Division	30 Mar 2015	(270646) in MN 8/0/CE0114/0
5	Home Affairs Department North District Office	24 Mar 2015	(Received by email)
6	Lands Department Lands Administration Office, District Lands Office, North	26 Mar 2015	(12) in DLONR 317/NMS/00 Pt. 6
7	Environmental Protection Department Water Policy Division Sewerage Infrastructure Group Regional Sewerage Infrastructure Planning Section (Yuen Long & North District)	25 Mar 2015	(Received by email)
8	Environmental Protection Department Environmental Assessment Division Assessment and Noise Group Sheung Shui, Fanling, Tai Po Section (5)	19 Mar 2015	(Received by email)
9	Transport Department NT Regional Office Traffic Engineering (NTE) Division North Section	19 Mar 2015	() NR 171/200-308
10	Highways Department New Territories Region, New Territories East District and Maintenance Division, NE New Territories	31 Mar 2015	(UW4P) in HyD NT/13-13/1/8-N

<u>No.</u>	<u>Comments Received</u>	<u>Date Received</u>	<u>Reference</u>
11	Water Supplies Department Operations Branch, New Territories East Region Kowloon Bay Office - 11 Tai Yip Lane Kowloon Bay, Kowloon	13 April 2015	(10) in WSD/NTE 1744/2109/2014 Pt.3
12	Water Supplies Department Development Branch, Development (2) Division Planning Unit	17 Mar 2015	(15) in WSD 3066/198/14 Pt. 3
13	Civil Engineering and Development Department Geotechnical Engineering Office Mainland East Division Mainland East 4 Section	20 Mar 2015	() in GCME 2/B1/113
14	Leisure and Cultural Services Department Leisure Services Branch, Planning Section	30 Mar 2015	() in LCS 2/HQ 712/14(3) II
15	Education Bureau Planning, Infrastructure and School Places Allocation Branch Infrastructure & Research Support Division School Building Section, School Building Team	30 Mar 2015	(Received by email)
16	Agriculture, Fisheries and Conservation Department Headquarters Conservation Branch Nature Conservation (North) Division	18 Mar 2015	(Received by email)
17	Civil Engineering and Development Department New Territories East Development Office Office Branch 1 Project Division (3)	31 Mar 2015	() in NTE-NTN 5/3/164

Agreement No. CE 1/2014 (CE)
 Infrastructures for Housing Development at Queen's Hill – Feasibility Study

Submission of Outline Landscape Plan (Revised Final)

Responses to Comments

Item	Comments	Responses
1	<p>Civil Engineering and Development Department Civil Engineering Office Special Duties (Works) Division</p>	
	Please note my comments to the subject submission as follows:-	
	(i) The executive summary shall include the findings in Report on Existing and Proposed Utilities and Outline Landscape Report.	The findings in the Report on Existing and Proposed Utilities and Outline Landscape Plan were summarized in sections 7.6 and 7.5 respectively.
	(ii) Table 1.1 – It appears that the parameters for Site 1 in Table 1.1 does not tally with the parameters adopted in previous assessment studies. Please clarify and suggest to present his revised set of parameters as a footnote only and revise para. 1.2.1.2 accordingly. For the revised Final Report. Please also take note of this comment.	<p>Please be advised that the development parameters for Site 1 has been updated in Table 1.1 as advised by Housing Department.</p> <p>The development parameters adopted in previous assessment studies are shown in Table 1.2.</p>
	(iii) Para. 3.1.1.10 - Please rewrite the paragraph as " As confirmed by EPD/SIG in Project Steering Group meeting on 25 August 2014 and subsequent discussions, sufficient resources and treatment capacity of SWHSTW would be reserved for the demand of Site 1 of Queen's Hill Housing Development.". For the revised Final Report, please also take note of this comment.	Please be advised that the said paragraph has been amended as suggested (see paragraph 3.1.1.12).
	(iv) In accordance with Clause 6.14.2 of the Brief, please also submit the Executive Summary in Chinese version for our review.	Please be advised that the Executive Summary in Chinese version will be submitted once the English version has been finalized and agreed with all project stakeholders.
2	<p>Housing Department Development and Construction Division Project Sub-Division 3 Civil Engineering Section 2</p>	
	Please note the below HD's comments for your consideration:	

<u>Item</u>	<u>Comments</u>	<u>Responses</u>
	<p>1. Table 1.1, para. 1.2.1.1, 1.2.1.2 & 1.2.1.3 - Based on the latest draft Planning Brief provided to CEDD via HD email of 31.3.2015, AECOM may consult with CEDD and update the latest development parameters of Site 1 (public housing site) as follows:</p> <ul style="list-style-type: none"> • Estimated No. of Flats: about 8,840 (PRH) and about 3,160 (HOS) • Estimated Population: about 34,300 • Planned Year of Completion: 2020/21 	<p>Please be advised that Table 1.1, para. 1.2.1.1, 1.2.1.2 and 1.2.1.3 have been updated as follows:-</p> <ul style="list-style-type: none"> • The development parameters of Site 1 have been updated in Table 1.1 under paragraph 1.2.1.1. • The development parameters adopted in previous assessment studies are shown in Table 1.2 under revised paragraph 1.2.1.2, • The sources of planning assumption stated in paragraph 1.2.1.3 have been subsumed in paragraph 1.2.1.1.
	<p>2. Para. 1.1.1.4, 3.1.1.6, 3.1.1.7, 3.1.1.8 - the tentative completion of public housing development for population intake should be 3/2021;</p>	<p>Please be advised that para. 1.1.1.4, 3.1.1.6, 3.1.1.7 & 3.1.1.8 have been updated accordingly.</p>
	<p>3. Para. 7.5.1.1(d) - the consultant should clarify in the report that the 88 nos. of compensatory trees at Site 1 is not referring to the housing site. CEDD/AECOM should seek agreement with EDB/ArchSD for planting the proposed trees within their primary school sites.</p>	<p>Noted and Para. 7.5.1.1(d) has been amended accordingly to clarify that the 88 nos. of compensatory trees are proposed to be planted in the school sites at Site 1.</p>
	<p>4. Para. 1.1.1.2 and Figure 1.1 - Boundary of Site 1 should include a strip of private lands along Lung Ma Road to be resumed by EDB under their primary schools development. AECOM may consult with CEDD for the update Development Boundary Plan of Site 1 (to be provided to CEDD separately) and amend Figure 1.1.</p>	<p>The updated boundary of Site 1 will be incorporated into the separate technical assessment report for rezoning of Queen's Hill site.</p>
	<p>5. Para. 2.1.5 - Please amend to read as "Moreover, existing Po Kak Tsai Road is a non-HyD standard road, upgrading of this road to meet the required standard for either alternative /emergency access require acquisition and clearance of private lands, which would be further investigated under NT North Study NTN NDAs project."</p>	<p>Please be advised that paragraph 2.1.1.5 has been amended as suggested by various parties.</p>
	<p>6. Para.4.1.1.5 - Please amend to read as "For Site 2 and Site 3, runoff can be discharged to the Tung Kok Wai Box Culvert at the western tip of Site 1. through internal drainage system of Site 1. Drainage connections from Site 2 and Site 3 to the public drainage system (e.g. Tung Kok Wai Box Culvert) will be determined separately by the respective developers/project proponents."</p>	<p>Noted, and paragraph 4.1.1.5 has been amended accordingly.</p>

<u>Item</u>	<u>Comments</u>	<u>Responses</u>
	<p>7. Para.5.1.1.8 - In our recent meeting with WSD, WSD requested the residual head at fire hydrants along the future public road (road levels varies from about 13mPD to 32mPD) should be maintained at 20m (as minimum). As it is not appropriate for HA to provide booster pumps and header tank system to maintain the public fire hydrants along future public road with 20m residual head as requested by WSD. Please review with WSD on this matter and revise this para as "For Site 1, the road levels of proposed main road for future handover to the Government for management and maintenance will be varied from about 13mPD to 32mPD. Adequate residual head will be provided from the public water supply system for water main connection to Site 1 to maintain the required residual water head of 20m (as minimum) for all future public fire hydrants along the main road at Site 1 to cater the site topography."</p>	<p>Please be advised that further liaison among relevant parties should be conducted in the IDC stage of the project to discuss the requirements of street hydrant along the main roads in Site 1.</p>
	<p>8. CEDD is reminded to arrange with the consultant on conducting the remaining Stage 2 Archaeological Survey as appropriate.</p> <p>Below EDB's email of 31.3.2015 refers. Grateful if CEDD/AECOM could update the below paras to reflect the traffic and infrastructures supports to primary schools requested by EDB:</p> <ul style="list-style-type: none"> • Para. 2.1.1.9 - Please add "Consultation with EDB/ArchSD/HD/TD for primary schools run-ins and road connections to Site 1 upon land resumption of a strip of private lands along Lung Ma Road by the Government under primary schools development project." • Para. 4.1.1.8 - Please amend to read as "For road widening works at Lung Ma Road, proposed primary schools, proposed sewage..." • Para. 7.1.1.1 (Widening of Lung Ma Road) - Please amend to read as "Widening of Lung Ma Road, including associated slip road, run-ins for primary school sites and road connection to Site 1." • Para. 7.2.1.1 - Please amend to read as "... for collection of sewage generated from Sites 1 to 3, including sewer 	<p>Noted.</p> <p>Please be advised that relevant suggested amendments with regard to the school sites in Site 1 should be addressed in the separate technical assessment report for rezoning of Queen's Hill site accordingly.</p>

Item	Comments	Responses
	<p>connections to primary school sites and Site 1;"</p> <ul style="list-style-type: none"> • Para. 7.3.1.1 - Please amend to read as "... for collection of runoff from Lung Ma Road, including drainage connections to primary school sites and Site 1;" • Para.7.4.1.1 (a) and (b) - Please amend to read as "... to the boundary of Site 1, including water supply connections to primary school sites and Site1;" • Para.7.6.1.2 - Please amend to read as "... Liaisons among PlanD/CEDD/HD/EDB/ArchSD/relevant stakeholders/utilities undertakers shall be made ..." • Please add a new Para. 8.1.1.6 as "A strip of private lands between Site 1 and Lung Ma Road will be resumed by the Government for the proposed primary schools development and associated road connections under separate project." 	
3	<p>Planning Department District Planning Branch New Territories District Planning Division Sha Tin, Tai Po and North District Planning Office</p>	
	<p>I append below our comments on the draft Executive Summary on Final Report of the captioned study for your consideration and further action please.</p>	
	<p>General</p>	
	<p>(i) I notice that the no. of flats for PRH and HOS and the design population are different from the latest revised scheme provided by Housing Department (HD). While it is understood that the development parameters were provided by HD at the outset of the Study, it is still advisable to incorporate the latest development scheme / parameters in the relevant report as it would form part of the forthcoming Town Planning Board submission as well as be browsed by the public upon the completion of the study. In this regard, you may wish to consult HD direct.</p>	<p>Please be advised that the development parameters of Site 1 have been updated in Table 1.1 as per HD's advice.</p>
	<p>(ii) The consultant is reminded that the ES</p>	<p>Noted.</p>

<u>Item</u>	<u>Comments</u>	<u>Responses</u>
	report should be well structured and self-contained. The quality of the figures should be improved in particular the text on the plans is illegible. Please consider to revise the font type and/or size to make it easier to read. Besides, the abbreviations used in the report should be properly referenced.	
	Specific	
	(i) Para. 1.1.1.2 – Please revise the text in line 6 to read as “The Site is planned for mainly public housing (Site 1), private housing (Site 2) and International School use (Site 3). Besides, the term “ex-Queen’s Hill Camp” in line 4 should be read as “ex-Burma Lines Military Site”.	Noted, and paragraph 1.1.1.2 has been amended accordingly.
	(ii) Para. 1.1.1.4 – Please consult HD whether the development programme in respect of Site 1 is still up-to-date and needs to be revised.	Noted, the development programme of Site 1 has been updated as per HD’s advice.
	(iii) Para. 1.1.1.7 – Would it be more appropriate to revise the study schedule to read as “and is scheduled to be completed in early 2015”?	Noted, and paragraph 1.1.1.7 has been amended accordingly.
	(iv) Table 1.1 – The estimated no. of flats and population are different from the latest scheme proposed by HD. Besides, please use the long form for “TBA”.	Please be advised that the development parameters of Site 1 have been updated in Table 1.1 as per HD’s advice.
	(v) Para. 1.2.1.2 – Please clarify why the Site 1 would only allow 5.63% buffer (which is an odd figure) in no. of flats and population whereas the Site 2 would allow 10% buffer. Besides, the flat no. for HOS is 2,790 as stated in Table 1.1 which is higher than 2,640 mentioned in Table 1.2 for development parameters adopted for the Study.	Please be advised that paragraph 1.2.1.2 and Table 1.2 summarized the development parameters adopted in the previous technical assessments. Please refer to the amended that paragraph 1.2.1.2 and Table 1.2 for the sake of clarity.
	(vi) Para. 1.2.1.3 – Instead of using a paragraph, you may wish to put the text in the form of a footnote to Table 1.2 to indicate the source of the planning assumptions adopted.	Please be advised that the source of planning assumptions have been subsumed in paragraph 1.2.1.1.
	(vii) Para. 2.1.1.1 – Please add “(PTIA)” after the Preliminary Traffic Impact Assessment so that the abbreviation could be quoted in the subsequent paragraphs.	Noted, and the suggested amendment has been made accordingly.
	(viii) Table 2.1 – The Road Junctions as mentioned in the table should be properly referenced.	Noted, and a note has been added for Table 1.2.
	(ix) Para. 2.1.1.2 – In view that Sites A to C are intended for providing supporting GIC facilities to support the entire Queen’s Hill development, please critically review	Noted, and recommended intake year of these sites should be further reviewed in the IDC stage of the project in consultation with

<u>Item</u>	<u>Comments</u>	<u>Responses</u>
	whether it is appropriate to state in the ES as well as other study reports that these three sites should be completed after the proposed Fanling Bypass is in place, which is tentatively scheduled for 2026.	relevant authorities.
	(x) Para. 2.1.1.5 – Please rewrite this paragraph to give readers a clear explanation on why the Po Kak Tsai Road will not be considered as a secondary vehicular access for the Queen's Hill development at this stage. Besides, please clarify whether 'NTN NDAs project' refers to the ongoing 'Preliminary Feasibility Study on Developing the New Territories North', i.e. NT North Study.	Please be advised that paragraph 2.1.1.5 has been amended as suggested by various parties.
	(xi) Para. 2.1.1.9 – Please clarify the meaning of 'proposed road scheme with split phase and staggered crossing' as mentioned in the first bullet under this paragraph. Please also clarify the meaning of 'CTE's approval on a case-by-case basis' in the text.	Please be advised that paragraph 2.1.1.9 has been amended as per the comments from Transport Department.
4	Drainage Services Department Operations & Maintenance Branch Mainland North Division, North Division	
	We refer to your above referenced letter dated 13.3.2015 enclosing the captioned Summary and we have the following comments:-	
	(i) Please highlight in the Summary that the proposed laying of twin sewage rising mains along the river embankments of Ma Wat River and Ng Tung River to SHWSTW should be regarded as a temporary arrangement. Provision of tee branch connection to the trunk sewer to be constructed under the Fanling North NDA development will be further investigated in the I&DC stages of both the Fanling North NDA development and Queen's Hill Development projects.	Please refer to paragraph 3.1.1.9 as suggested to be added by EPD/SIG.
	(ii) DIA submission in design stage is required which should be mentioned in Section 4 of the Summary.	The requirements of DIA submission has been added in a new Para. 4.1.1.13.
	This is a coordinated reply of CE/LD, CE/SP, CE/DP, CE/ST1, CE/E&MP, SE/BCM and CE/MN of DSD.	Noted.

Item	Comments	Responses
5	Home Affairs Department North District Office	
	It is noted the report has put down market that that there maybe a need to review whether there is a need to conduct public consultation at IDC prior to gazetting of the works. No further comments from this office, please.	No comment is noted.
6	Lands Department Lands Administration Office, District Lands Office, North	
	As per para. 8.1.1.3 of the above report, no resumption of private land is required but clearance of livestock, fish pond, graves, kam taps, arms, and shrines will be required for the proposed infrastructure works. Besides, it is noted from para. 9.1.1.2 of the report, the milestone date of the Commencement of the Construction Phase is in September 2016. In assessing the milestone dates, please bear in mind that the estimated time required for carrying out the site clearance is roughly about 18 to 24 months upon the project proponent initiates to submit a Clearance Application Form to Lands Department. The site could only be handed over to the respective government departments for construction upon site clearance.	Noted, and the project programme will be further reviewed in the IDC stage of the project in order to ensure timely submission of Clearance Application Form to Lands Department for processing.
7	Environmental Protection Department Water Policy Division Sewerage Infrastructure Group Regional Sewerage Infrastructure Planning Section (Yuen Long & North District)	
	I refer to your letter dated 13 March 2015 enclosing the Executive Summary on Final Report (Draft) of the captioned project and I have the following coments.	
	(i) S.3.1.1.6 mentioned about the shortcoming of the on-site STW scheme. Please also mention the potential benefit of the on-site STW scheme to form a comprehensive evaluation by referring to S.3.7.1.6 in the Draft Final Report (quoted below). <i>"S.3.7.1.6 On-site STW would help in alleviate the capacity problem of SWHSTW as mentioned above, and also enable the efficient local reuse of effluent in line with the Government's long term</i>	Noted, and S.3.1.1.6 has been amended accordingly.

<u>Item</u>	<u>Comments</u>	<u>Responses</u>
	<p><i>strategy in promoting effluent reuse, which got merit in the sustainable development point of view. Moreover, the decentralization of sewage treatment facilities could also reduce the risk of pollution to Deep Bay in case of serious breakdown in SWHSTW."</i></p>	
	<p>(ii) S.3.1.1.6 and S.3.1.1.8 suggested that Scheme A was more desirable than other schemes. As such, it is worth to highlight in the executive summary the long-term solution to circumvent the associated operation and maintenance limitations of Scheme A by referring to S.3.7.1.3 in the Draft Final Report (quoted below).</p> <p><i>"S.3.7.1.3 Operation and maintenance of long rising mains is not desirable in view of the high pumping cost, septicity problem, and higher risk of pipe burst than gravity sewer. Therefore, provision for branch connection to the gravity system to be constructed under Fanling North NDA development is recommended. The overall pumping distance will then be reduced to around 1.5km only ultimately, and the average sewage retention time will be reduced to less than 1 hour. Detailed feasibility of provision of such branch connection would be further investigated in the I&DC stages of both the Fanling North NDA development and QH Development project."</i></p>	<p>Please refer to S. 3.1.1.9.</p>
	<p>(iii) Table 3.2 should be updated by referring to Table 3.10 in the Draft Final Report to show the flow build-up projection of SWHSTW taking into account the sewage flow generated from QH development to accurately reflect the capacity deficit problem faced by SWHSTW.</p>	<p>Noted, and Table 3.2 has been updated accordingly.</p>
	<p>(iv) S.3.1.1.10 should be revised as follows <i>"As clarified by EPD/SIG in Project Steering Group (PSG) meeting on 25 August 2014, the projected flow in 2020 (i.e. Agreement No. CE 1/2014 (CE) Infrastructures for Housing Development at Queen's Hill - Feasibility Study - 105,000m³/d) was the worst case scenario and would only occur if the QH Development and all other newly completed projects reached 100% occupancy, and the backup contingency</i></p>	<p>Please be advised that the paragraph has been amended as suggested by CEDD (see paragraph 3.1.1.12.</p>

<u>Item</u>	<u>Comments</u>	<u>Responses</u>
	<p>allowed in the QHD's estimate was also fully used up. EPD/SIG then advised that..." to align with S.3.7.1.4 in the Draft Final Report.</p>	
	<p>(v) Please add a separate paragraph in the executive summary to highlight the capacity deficit problem faced by SWHSTW by referring to S.3.7.1.0 in the Draft Final Report (quoted below).</p> <p><i>"S.3.7.1.10 The PSG meeting of 25.8.2014 acknowledged that there will be long term capacity deficit problem for SWHSTW and a long term solution would need to be developed in due course. This Study already reviewed the feasibility of a new permanent STW nearby, and although the outcome was negative, had further recommended to explore the possibility of another new permanent STW to serve major population cluster furthest away from QHD. As reported by EPD/SIG, relevant departments were already requested to conduct a preliminary site search / evaluation exercise. In parallel, alternative options to provide additional sewage treatment infrastructure is also being investigated and developed under the ongoing NTN development study, and the forthcoming SWHSTW Phase 1A DC consultancy may also explore the technical feasibility of further increasing its capacity."</i></p>	<p>Please refer to newly inserted S.3.1.1.14.</p>
	<p>(vi) The "5.2m" in S.7.2.1.1(c) should read as "5.2km".</p>	<p>Noted, and the typo has been amended accordingly.</p>
<p>3</p>	<p>Environmental Protection Department Environmental Assessment Division Assessment and Noise Group Sheung Shui, Fanling, Tai Po Section (5)</p>	
	<p>Noting from CEDD that there will be future detailed technical assessment in the detailed design stage in addressing our previous comments on the EAS, we thus have no comment on the subject draft ES, except to request the incorporation of the following information from the EAS into the subject draft ES:</p>	<p>No comment is noted.</p>
	<p>(i) To add "or for application of EIA Study Brief in accordance with the Technical Memorandum on EIA Process" from S.1.2.1.5 of EAS into S.6.1.1.2 of the subject draft ES</p>	<p>Noted, and S.6.1.1.2 has been updated accordingly.</p>

<u>Item</u>	<u>Comments</u>	<u>Responses</u>
	(ii) To incorporate S.1.2.1.3 from the EAS after S.6.5 (i.e. "For land contamination, most of the project area is situated on roads or undeveloped / vegetated areas where land contamination issues are not anticipated. Nevertheless, a detailed land contamination assessment,..., will be conducted at the IDC stage...Any identified contaminated soil and groundwater would need to be properly treated according to EPD's prevailing guidelines.")	Noted, and the suggested paragraph has been added in S.6.5.1.2.
	(iii) To incorporate S.1.2.1.4 from EAS into S.6.10 of the draft ES (i.e. "The EAS has been conducted based on the preliminary design of the proposed infrastructure works and will be subject to further review and update in the subsequent Preliminary Environmental Review (PER) during Investigation, Design, Construction (IDC) stage.")	Noted, and the suggested paragraph has been added in S.6.10.1.3.
	(iv) Regarding ecology, heritage and landscape & visual, it is better for AFCD, LCSD and PlanD to comment since we are not in a position to comment on these issues.	Noted, and comments from AFCD, LCSD and PlanD have also been sought accordingly.
9	Transport Department NT Regional Office Traffic Engineering (NTE) Division North Section	
	Please note my comment on the captioned report as below:	
	(i) Para 2.1.1.8 – Please do not mention "double-decker" buses. Please do not mention headway of 1 minute for bus and GMB. Alternatively, the report may mention the estimated no. of passengers during peak hour to be handled by public transport.	Noted, and paragraph 2.1.1.8 has been amended accordingly.
	(ii) Para 2.1.1.9 – Details of further actions are not required to list in this report. Suggest only keeping the first sentence is enough.	Noted, and paragraph 2.1.1.9 has been amended accordingly.
	(iii) Para 7.1.1.2 – Appendix E2 is not found in this report.	Please note that there should be no Appendix E2 to be attached in this report. Relevant text in Para. 7.1.1.2 has been amended accordingly.
10	Highways Department New Territories Region, New Territories East District and Maintenance Division, NE New Territories	

Item	Comments	Responses
	Our comments from highways viewpoint are as below for your review please:	
	<p>(i) Paragraph 7.5.1.2:</p> <p>As previously commented by this office on your Working Paper for Low Noise Road Surfacing (LNRS) Proposal at Lung Ma Road, it is understood that the traffic volume for the at-grade junction with Hai Wing Road would be further investigated during detailed design stage of the captioned development, and the design of road surfacing at this junction will be reviewed accordingly. In this connection, this office shall be consulted again in due course regarding the adoption of LNRS at this road junction. Therefore, it is suggested to add the statement "The proposed adoption of LNRS will be further reviewed in the investigation and detailed design stages of the project." Under this paragraph.</p>	Noted and the suggested sentence has been added in Para 7.5.1.2 accordingly.
1	<p>Water Supplies Department Operations Branch, New Territories East Region Kowloon Bay Office, 41 Tai Ip Lane Kowloon Bay, Kowloon</p>	
	<p>Your above quoted letter dated 13.3.2015 refers.</p> <p>I have no comment please.</p>	No comment is noted.
2	<p>Water Supplies Department Development Branch Development (2) Division Planning Unit</p>	
	<p>Our comments are as follows:-</p> <p>(i) Paragraph 5.1.1.8 is suggested to revise as: "For Site 1, the level of the site (majority) is at around 15mPD to 25mPD. As such, the residual head at the water mains connecting to Site (i.e. at Lung Ma Road entrance to Site 1) will be around 20m (as minimum). The designer of the development shall note the uphill terrain of this site. Provisions"</p>	Noted, and the suggested deletion has been made in Paragraph 5.1.1.8 accordingly.
	<p>(ii) Paragraph 5.1.1.9 is suggested to revise as: "For Sites 2 & 3, the levels of the sites may exceed 35mPD. The residual head at the entrance to Sites 2 & 3, as well as the extremity of Site 1 (i.e. Ground Level ~ +30 mPD), may be less than 10m. The residual head at their entrances may not be sufficient to effect a direct supply to the roof tank of the premises. Therefore, ..."</p>	Noted, and the suggested deletion has been made in Paragraph 5.1.1.9 accordingly.

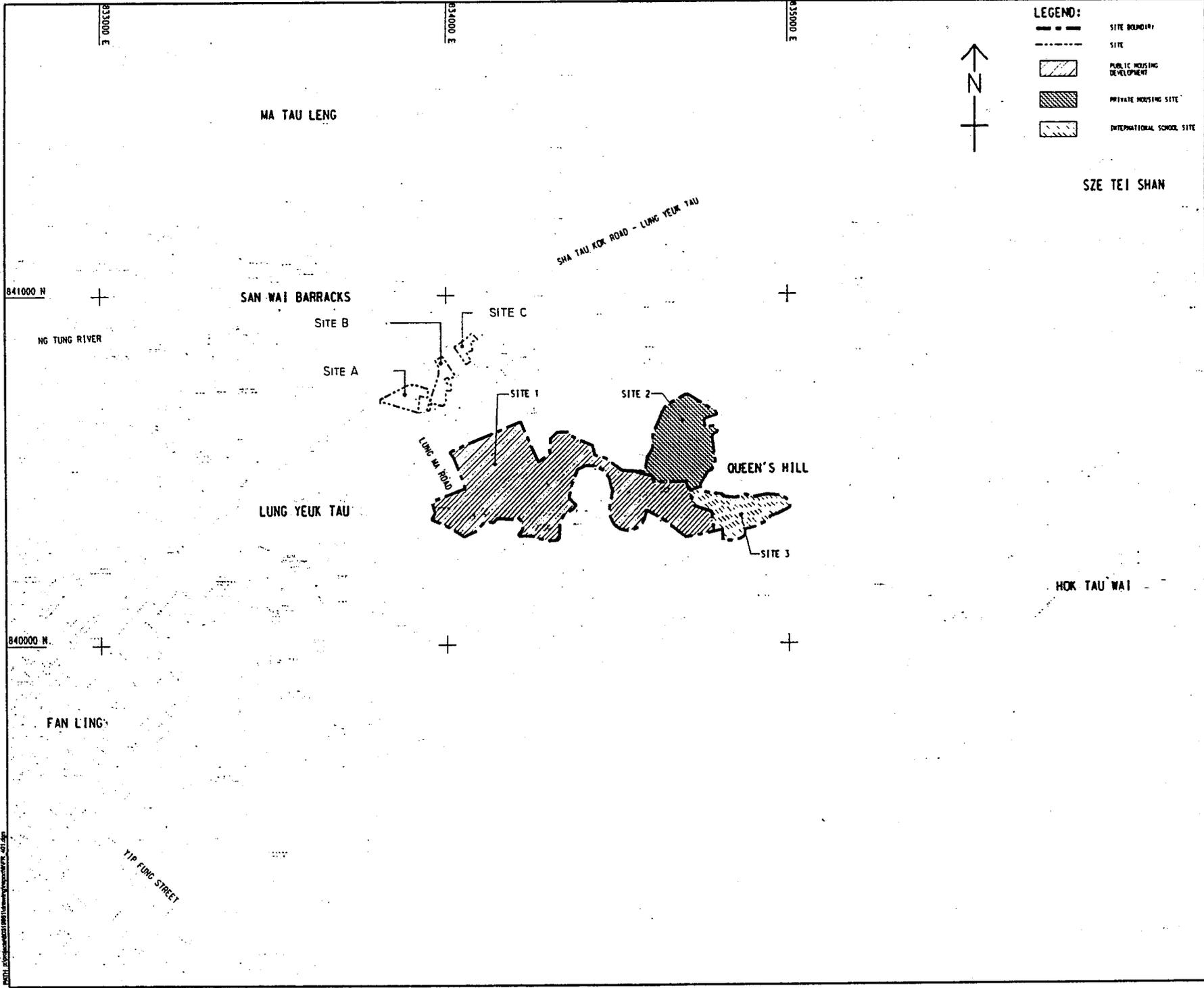
<u>Item</u>	<u>Comments</u>	<u>Responses</u>
13	Civil Engineering and Development Department Geotechnical Engineering Office Mainland East Division Mainland East 4 Section	
	<p>Please note that our comment on the draft Final Report regarding geotechnical impact and the scope of geotechnical works required in the subsequent stages of the project was given in dated 25.11.2014. As the required geotechnical assessment has not been covered in the enclosed Summary, please request your Consultants to review the Final Report and the Executive Summary taking our previous comment into consideration.</p>	<p>Please be advised that No geotechnical works are proposed under this Project and no man-made geotechnical features which could affect or be affected by the proposed development are identified. The scope of geotechnical works would be further reviewed together with other proposed works in the IDC stage of the project (see newly added section S.7.7.)</p>
14	Leisure and Cultural Services Department Leisure Services Branch, Planning Section	
	<p>I refer to your letter dated 13.3.2015 and would like to submit a nil return.</p>	<p>Noted.</p>
15	Education Bureau Planning, Infrastructure and School Places Allocation Branch Infrastructure & Research Support Division School Building Section, School Building Team	
	<p>I refer to your letter ref. YHH:JTKP:ntsk:60319961/6.2-2015003533W dated 13 March 2015 regarding the caption and would like to comment on the following items in your report.</p>	
	<p>(i) Traffic impact assessment</p> <p>Starting from 2019, there will be vehicles entering the site for school construction works. Do consider the construction traffic prediction by including the estimation of suitable amount of vehicles during the construction period of the two schools (i.e. between 2019 and mid-2021)</p>	<p>Please be advised that the traffic impact assessment conducted previously had taken into account all construction traffic generated from the sites at Queen's Hill.</p>
	<p>(ii) Sewage & Drainage impact assessment</p> <p>The storm water drainage and sewage arrangement along Lung Ma Road should also cater for the needs of the school sites. Connection of the pipes should be constructed to cater for the storm water and sewage of the schools.</p>	<p>Noted, and this has been addressed in the separate technical assessment report for rezoning of Queen's Hill site, and will be addressed in the IDC stage of the project.</p>
	<p>(iii) Water supply study</p> <p>The design of water supply along Lung Ma</p>	<p>Noted, and this has been addressed in the</p>

<u>Item</u>	<u>Comments</u>	<u>Responses</u>
	Road should cater for the need of the school sites just next to Lung Ma Road. Two water separate supply connections are needed for the two school sites.	separate technical assessment report for rezoning of Queen's Hill site, and will be addressed in the IDC stage of the project.
	On top of the items mentioned above related to your report, I would also like to draw your attention on the following four items.	
	(iv) In the proposed road widening of Lung Ma Road, there is no need to have any bus lay-by in front of the school site (i.e. the present football field) as the entrance of the schools and the run-ins will be situated right in front of the lay-by. At the same time, we need a pedestrian crossing for the students along Lung Ma Road and near to the school sites;	Noted, and this will be addressed in the IDC stage of the project.
	(v) For the trees along Lung Ma Road, please note that the replanting of the trees are infeasible to be situated in front of the school sites as the entrances/run-ins of the schools will be situated there. The replanting of the trees is also improper to locate inside the future school sites (i.e. the present football field) due to the future development of the schools;	Noted, and this will be addressed in the IDC stage of the project.
	(vi) The electricity, town gas, telecommunication and broadcasting service routes should also be made available for the school sites. Connections/junctions should be provided to the school sites; and	Noted, and this will be addressed in the IDC stage of the project.
	(vii) Please be reminded that the school development in Queen's Hill is separated from the housing developments conducted by the Housing Department. In brief, the infra-structural facilities provided to the school sites are independent from the housing sites	Noted, and this will be addressed in the IDC stage of the project.
18	Agriculture, Fisheries and Conservation Department Headquarters Conservation Branch Nature Conservation (North) Division	
	Please be advised that I have no comment on the captioned.	No comment is noted.

<u>Item</u>	<u>Comments</u>	<u>Responses</u>
17	Civil Engineering and Development Department New Territories East Development Office Office Branch 1 Project Division (3)	
	With reference to your letter dated 13 March 2005 enclosing the Executive Summary on Final Report (Draft) for the captioned agreement, please note that I have no comment on the submission from project interface point of view.	No comment is noted.

Figures

Project Management Institute: Designer: Checked: Approved: BCOA1 (Barracks & MA Leng)



LEGEND:

- SITE BOUNDARY
- SITE
- [Diagonal lines /] PUBLIC HOUSING DEVELOPMENT
- [Diagonal lines \] PRIVATE HOUSING SITE
- [Cross-hatch] INTERNATIONAL SCHOOL SITE

AECOM

PROJECT NO. CE1/2014 (CE) - INFRASTRUCTURES FOR HOUSING DEVELOPMENT AT QUEEN'S HILL - FEASIBILITY STUDY

CLIENT: 土木工務發展署
Civil Engineering and Development Department

CEDD

CONSULTANT
AECOM Asia Company Ltd.
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SUB-CONSULTANTS

REVISION

NO.	DATE	DESCRIPTION	CHK.

STATUS

SCALE: 1:1000 DIMENSION UNIT: METRE

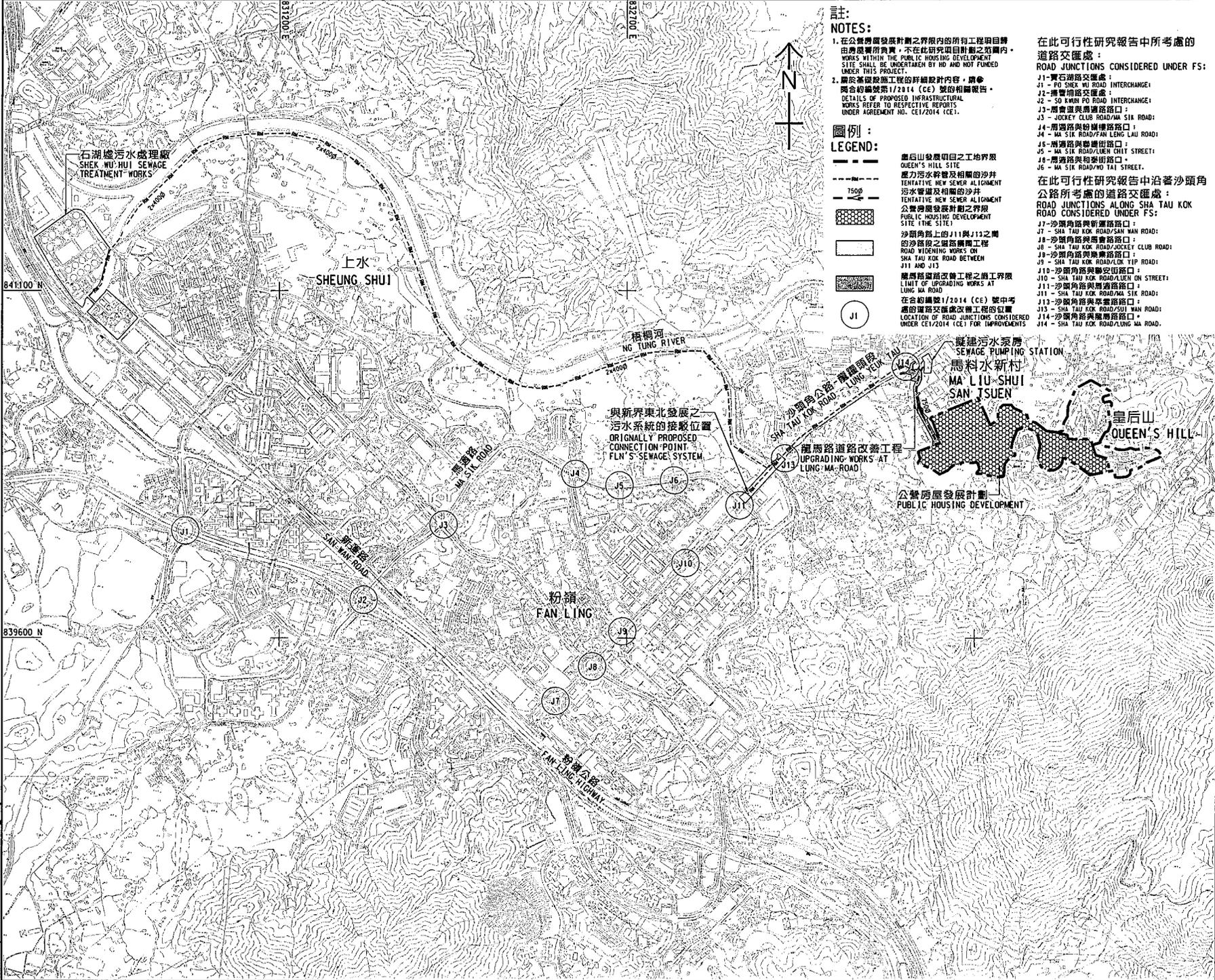
KEY PLAN

PROJECT NO. 60319061 CONTRACT NO. CE1/2014 (CE)

SHEET TITLE: SITE LOCATION PLAN

SHEET NUMBER: 60319061/FR/FIGURE 1.1

83011 841mm x 841mm
 Approved
 Checked
 Design
 Project Management Office
 841100 N
 839600 N
 832100 E
 831000 E
 2018/04/18
 P:\01 File by LON\00P
 P:\01 File by LON\00P
 P:\01 File by LON\00P



註:
NOTES:

1. 在公營房屋發展計劃之界線內的所有工程項目均由發展商負責，不在此研究項目計劃之範圍內。
WORKS WITHIN THE PUBLIC HOUSING DEVELOPMENT SITE SHALL BE UNDERTAKEN BY HO AND NOT FUNDED UNDER THIS PROJECT.
2. 關於基礎設施工程的詳細設計內容，請參閱合約編號第 1/2014 (CE) 號的相關報告。
DETAILS OF PROPOSED INFRASTRUCTURAL WORKS REFER TO RESPECTIVE REPORTS UNDER AGREEMENT NO. CE1/2014 (CE).

圖例:
LEGEND:

- 皇后山發展項目之地界線
QUEEN'S HILL SITE
- 壓力污水幹管及相關的沙井
TENTATIVE NEW SEWER ALIGNMENT
- 污水管溝及相關的沙井
TENTATIVE NEW SEWER ALIGNMENT
- 公營房屋發展計劃之界線
PUBLIC HOUSING DEVELOPMENT SITE (THE SITE)
- 沙頭角路上由 J11 與 J13 之間的沙頭角路之道路擴闊工程
ROAD WIDENING WORKS ON SHA TAU KOK ROAD BETWEEN J11 AND J13
- 龍馬路道路改善工程之施工界限
LIMIT OF UPGRADING WORKS AT LUNG MA ROAD
- 在合約編號 1/2014 (CE) 號中考慮的建議改善工程的位置
LOCATION OF ROAD IMPROVEMENTS CONSIDERED UNDER CE1/2014 (CE) FOR IMPROVEMENTS

在此可行性研究報告中所考慮的道路交匯處：
ROAD JUNCTIONS CONSIDERED UNDER FS:

- J1 - 寶石湖路交匯處；
J1 - PO SHEK WU ROAD INTERCHANGE;
- J2 - 馬車路交匯處；
J2 - SO KWAI PO ROAD INTERCHANGE;
- J3 - 廣會道與馬路路口；
J3 - WONG WAI WAI ROAD/MA SIK ROAD;
- J4 - 馬路與粉嶺樓路口；
J4 - MA SIK ROAD/FAN LING LAU ROAD;
- J5 - 馬路與粉嶺樓街路口；
J5 - MA SIK ROAD/LOEN CHIT STREET;
- J6 - 馬路與粉嶺樓街路口；
J6 - MA SIK ROAD/PO TAI STREET.

在此可行性研究報告中沿著沙頭角公路所考慮的道路交匯處：
ROAD JUNCTIONS ALONG SHA TAU KOK ROAD CONSIDERED UNDER FS:

- J7 - 沙頭角路與新豐路路口；
J7 - SHA TAU KOK ROAD/SAN MAN ROAD;
- J8 - 沙頭角路與馬路路口；
J8 - SHA TAU KOK ROAD/WONG WAI WAI ROAD;
- J9 - 沙頭角路與馬路路口；
J9 - SHA TAU KOK ROAD/LOEN CHIT STREET;
- J10 - 沙頭角路與安街路口；
J10 - SHA TAU KOK ROAD/LOEN ON STREET;
- J11 - 沙頭角路與馬路路口；
J11 - SHA TAU KOK ROAD/MA SIK ROAD;
- J12 - 沙頭角路與馬路路口；
J12 - SHA TAU KOK ROAD/SUI MAN ROAD;
- J13 - 沙頭角路與馬路路口；
J13 - SHA TAU KOK ROAD/LOEN ON STREET;
- J14 - 沙頭角路與馬路路口；
J14 - SHA TAU KOK ROAD/LUNG MA ROAD.

AECOM

PROJECT
粉嶺皇后山發展之基礎設施工程 - 可行性研究
INFRASTRUCTURAL WORKS FOR PROPOSED DEVELOPMENTS AT QUEEN'S HILL, FANLING - FEASIBILITY STUDY

CLIENT
土木工程拓展署
CEDD Civil Engineering and Development Department

CONSULTANT
AECOM Asia Company Ltd.
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SUB-CONSULTANTS
S&B

ISSUE/REVISION	NO.	DATE	DESCRIPTION	CHK.

SCALE
A1: 1:7500
DIMENSION UNIT
METRES

KEY PLAN

PROJECT NO.
60319961
CONTRACT NO.
CE1/2014 (CE)

SHEET TITLE
粉嶺皇后山發展之基礎設施工程發展藍圖
LAYOUT PLAN FOR INFRASTRUCTURAL WORKS FOR PROPOSED DEVELOPMENT AT QUEEN'S HILL, FANLING

SHEET NUMBER
60319961/FR/FIGURE 1.2

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**VISUAL APPRAISAL FOR THE
PROPOSED HOUSING AND INTERNATIONAL
SCHOOL DEVELOPMENTS AT QUEEN'S HILL,
FANLING**



**PLANNING DEPARTMENT
APRIL 2015**

Visual Appraisal
for the Proposed Housing and International School Developments
at Queen's Hill, Fanling

Background

1. This Visual Appraisal is prepared in respect of the Queen's Hill site (major part of the ex-Burma Lines Military Site) which falls mainly within an area zoned "Government, Institution or Community (2)" ("G/IC(2)")¹ with a minor portion within an area zoned "Residential (Group C)" ("R(C)") and "Agriculture" ("AGR") on the draft Lung Yeuk Tau and Kwan Tei South OZP No. S/NE-LYT/15. The main access to the Queen's Hill site is via the existing substandard Lung Ma Road which has yet to be upgraded to serve the future developments. The "G/IC(2)" zone is originally intended for development of self-financing post-secondary educational institutions and/or international school use. Since the Queen's Hill site is readily available and mainly government land, it is considered to have potential for housing development, including public housing, to meet the acute demand for public housing in the short to medium-term in the territory. Education Bureau (EDB) has been consulted and indicates no objection to the development proposal provided that an alternative site be reserved there for the development of a through-train international school. As such, the Queen's Hill site is proposed to be developed for uses including public housing, private housing, international school and public open space.

Purpose

2. The purpose of this visual appraisal (VA) is to examine the possible visual impact of the proposed housing and international school developments on the surrounding areas in terms of the development scale and its spatial relationship with the surrounding environment. The respective appraisal area is delineated to cover the area of visual influence within which the respective proposed housing and international school developments could be visible from key sensitive viewers, e.g. pedestrian, motorists, hikers. The extent of the appraisal area is set out with regard to the scale of the respective proposed housing and international school developments, the site context, the distance and location of the sensitive viewers. This VA could facilitate the Rural and New Town Planning Committee of the Town Planning Board to visualise the three-dimensional relationship of the proposed housing and international school developments with the surrounding context and to consider the possible visual effects in making a decision.

¹ The area of the Queen's Hill site zoned "G/IC(2)" on the draft Lung Yeuk Tau and Kwan Tei South OZP No. S/NE-LYT/15 is about 23.6 ha.

The Queen's Hill Site and Its Surroundings

3. The Queen's Hill site is characterized by extensive woodland and undulating terrain, providing pleasant greenery setting for the area. It is surrounded by Queen's Hill to the east; well-vegetated knolls and Pat Sin Leng Country Park to the south; and agricultural land intermixed with rural settlement to the north and west. The southern and eastern slopes offer scenic views of the country park and Queen's Hill.
4. The Queen's Hill site is large and characterized by its varied topography, mature vegetation and attractive views to the countryside both to the north and south. It comprises some large flat open spaces, currently occupied by various playing fields, interspersed with existing development platforms within a mature landscape setting. The internal circulation comprises a roadway network that generally runs east-west, linking the two ends of the Queen's Hill site. The overall appearance is of an attractive and mature landscape and existing vacant buildings, mainly low-rises, within the Queen's Hill site is screened and not easily visible from the surrounding areas. The main access to the Queen's Hill site is via Sha Tau Kok Road and Lung Ma Road.
5. The area is surrounded by the "Village Type Development" ("V") zone of Fu Tei Pai in the north-east, "Green Belt" ("GB") zones of Queen's Hill and vegetated slopes in the east and south respectively. "Agriculture" ("AGR") zones intermixed with rural settlements in the west and north respectively and "V" zone of Ma Liu Shui San Tsuen in the north-west. Most of the developments in the vicinity are low-rise village houses of 3 storeys.

Proposed Developments at the Queen's Hill Site

6. The Queen's Hill site is proposed for uses including public housing, private housing, international school and public open space as follows:

Proposed Public Housing Development at the Western Part of Queen's Hill Site

- 6.1 The western part of the Queen's Hill site, comprises an area of 13.65 ha (gross site area), is relatively flat and low-lying and close to the vehicular access of Lung Ma Road. It is considered suitable for high-density public housing development including public rental housing (PRH) and Subsidized Sale Flats (SSF) in order to meet the acute shortage of housing units in the territory in the short to medium-term. It is proposed to rezone the western part of the Queen's Hill site from "G/IC(2)", "R(C)" and "AGR" to "R(A)" for high-density public housing development with a maximum plot ratio (PR) of 6 and a maximum building height (BH) of 145mPD. It is estimated that the site could provide about 12,000 flats.

Proposed Private Housing Development at the North-eastern Part of Queen's Hill Site

6.2 The site, covering a site area of about 4 ha, is part of a "G/IC(2)" zone to the northeast of the Queen's Hill public housing development and to the south of village settlement of Fu Tei Pai. The site is entirely government land and comprises platforms of different level scattered with vacant structures previously used as quarters/offices of the ex-Burma Lines Military Site. As the site is relatively isolated and enjoys views from the rural setting, it is considered suitable for medium-density private housing development to meet the long-term housing demand. The northeastern part of the Queen Hill site is relatively located further away from the Fanling/Sheung Shui New Town and is close to a small knoll of Queen's Hill to its immediate east with a height of about 85mPD. It is proposed to rezone the site from "G/IC(2)" to "R(B)" for medium-density private housing development subject to a maximum PR of 3.6. To respect the ridgeline of Queen's Hill, a maximum BH of 85mPD is proposed for the site. It is estimated that the site could provide about 1,920 flats.

Proposed International School Development at the Eastern Part of Queen's Hill Site

6.3 The site, covering a site area of about 2.34 ha, is entirely government land and comprises mainly some building structures previously used as quarters of the ex-Burma Lines Military Site built on several platforms. The site is covered by dense woodland and trees. Taking into account its topography and secluded location, the site is considered suitable for international school development. It is proposed to rezone the site from "G/IC(2)" to "G/IC" for international school use. Based on the advice of EDB, an assumed PR of 1.3 is adopted in the visual appraisal.

Viewpoints

7. The proposed housing and international school developments located at the fringe of the Fanling/Sheung Shui New Town will inevitably change the existing landscape in the area. This report provides an assessment of the likely visual effect that may be generated by these proposed developments (The appraisal of the proposed PRH and SSF development is covered by a separate VA prepared by the Housing Department at Appendix I). A total of four viewpoints (i.e. the critical visual sensitive receivers) have been identified (**Plan 1**). These viewpoints selected from different directions around the Queen's Hill site generally represent the views of the proposed developments from pedestrian nodes or areas of local significance which are accessible by the public and/or from key public open spaces/recreational areas:

Viewpoint 1: The Peak of Tsung Shan, which is a hiking trail overlooking the proposed developments from the north (**Plan 2**).

Viewpoint 2: Kwan Tei Bus Station, which is a public gathering place (**Plan 3**).

Viewpoint 3: The 5th floor of Lung Shan Temple, which overlooks the proposed

developments from the south (**Plan 4**).

Viewpoint 4: View from San Uk Tsuen Sitting-out Area, which is an area for public enjoyment (**Plan 5**).

Visual Appraisal

8. Notional schematic layouts to reflect the building bulk of the respective developments based on the proposed development parameters are adopted for the purpose of VA. Four photomontages (**Plans 2 to 5**) have been prepared to illustrate the visual effect of the proposed developments at the above viewpoints.

Viewpoint 1

- 8.1 This viewpoint from the hiking trail at the peak of Tsung Shan is looking south to the Queen's Hill site at a distance of around 1.5 km illustrates the development profile in a wider context (**Plan 2**). Within such viewshed, Queen's Hill which is a knoll (with its topography level to 85mPD) may not be featured as a prominent visual resource. Comparatively, Lung Shan functions as the major mountain backdrop in the area context. The photomontage demonstrates that the proposed developments will be pronouncedly visible from the peak of Tsung Shan and also. It shows that a certain part of the green hillslope will be blocked by the proposed developments when viewed from this viewpoint. Substantial visual changes to the existing natural landscape/ rural character thus fundamentally affecting the visual amenities would seem inevitable with the proposed public housing and private housing development as well as international school use in such rural setting.
- 8.2 Upon development, this viewshed would be prominently characterized by the proposed PRH housing and SSF development reserved on the sites on the western side, whereas the proposed private housing development and international school development would inevitably conducive to an aggregate development mass. The resultant visual composition would be a contrast to the existing rural setting. Nevertheless, effort been made to mitigate the visual impacts. To reduce the visual predominance of the public housing development, it is designed with stepped height profile ascending from north to south and descending from west to east respecting Queen's Hill in the east as far as possible. In formulating the development scheme of the public housing development, lower blocks, such as school blocks, Public Transport Terminus, Community Hall cum Social Welfare Complex will be placed in the northern portion of the site to cater for a better transition to the low-rise village house developments located to its north. Lower SSF blocks are also located in the eastern portion of the site to tally with the mountain profile of Queen's Hill. The proposed building height profile also allows ample buffer distance between the skyline of the development and the

ridgeline of Lung Shan at the backdrop when viewed from this viewpoint. Provision of building separations (at least 15m) and two large visual corridors of 40m and 100m each and various building design with natural colour scheme and green features also allow visual permeability and better visual connections with the mountain and help to soften the massing of the development.

- 8.3 On the eastern side which is reserved for medium-density private housing subject to a BH restriction of 85mPD, it is the same height of the small knoll of Queen's Hill. The overall PR for the private housing is restricted to 3.6 which is much lower than the public housing development and basement development would be allowed in order not to impose significant constraint on the overall development. For the international school development in the east, while no development intensity and BH restrictions are imposed under the proposed "G/IC" zone, EDB has advised that the school development adopt a PR of about 1.3 with reference to other international schools in the territory. With reference to the development intensity of 1.3, the school development could be as low as 6 to 7 storeys. View towards the proposed school development will be shielded behind the proposed private housing development and Queen's Hill. It can be concluded that there is insignificant visual impact from this view point.
- 8.4 The proposed public housing development would contrast with the surrounding rural/natural setting particularly in terms of scale and heights, altering the visual character. Undeniably, its visual impact is significant. To further mitigate the visual impact from this viewpoint while maximizing flat production, the design measures, including application of a natural colour scheme for domestic blocks with appropriate façade design and treatment such as the provision of greening features and coloured patterns, etc. which will help add visual interest to the development, will be worked out carefully at the detailed design stage. Comparatively, the private housing development with a smaller development scale, i.e. BH restriction of 85mPD and PR of 3.6, its visual impact to the surroundings is considered less significant than that due to the PRH development. Given that the international school site is designated with a lower development intensity and would be shielded from this viewpoint, it is unlikely to further induce adverse visual impact..

Viewpoint 2

- 8.5 This viewpoint taken at an area of local significance at the Kwan Tei Bus Station is looking south to the Queen's Hill site at a closer distance of around 600 m (**Plan 3**). The photomontage shows that the visual impact is slight since the proposed public housing development is largely screened by the existing vegetation along Sha Tau Kok Road and the village neighbourhood. The proposed private housing and international school developments will be completely hidden behind the existing vegetation. It can

be concluded that there is insignificant visual impact from this viewpoint.

- 8.6 Nevertheless, to mitigate the slight visual impact arising from the proposed public housing development, the application of design measures including greening features and natural colour pattern for the domestic blocks at the detailed design stage, thus the proposed public housing development could more blend well with the natural setting.

Viewpoint 3

- 8.7 This viewpoint taken at the 5th floor of Lung Shan Temple is looking north to the Queen's Hill site at a closer distance of around 600 m (**Plan 4**). The photomontage shows that the proposed development will be visible from this upper floor of the Temple. In contrast to the rural setting of the Queen's Hill site, the building mass of the proposed public housing development would be prominently visible. The resultant visual composition would incur loss of visual openness and the existing visual amenity would inevitably be affected. While the impact is mostly due to the proposed large-scale PRH and SSF development, the private housing development with a lesser intensity of PR 3.6 and subject to a BH restriction of 85mPD would be largely hidden behind the proposed SSF. In this regard, the visual impact is comparatively not significant. For the international school development, it is hidden behind the hill and is completely invisible.
- 8.8 To mitigate the visual impact for the proposed public housing development, the building separation/visual corridor of various widths allow visual permeability and better visual connections with the hill and helps soften the massing of the development. The effect of the BH ascending from north to south and descending from west to east respecting Queen's Hill in the east also add design interests to mitigate visual impact to the surrounding environment from this viewpoint. Further application of design measures including greening features and natural colour pattern for the domestic blocks at the detailed design stage would help mitigate the visual impact.

Viewpoint 4

- 8.9 This viewpoint at the San Uk Tsuen Sitting-out Area is looking east to the Queen's Hill site at a closer distance of around 600 m (**Plan 5**). The photomontage shows that small part of the proposed PRH development is visible from the street level at this viewpoint. The visual impact is slight since the proposed development is largely screened by the existing vegetation along Sha Tau Kok Road and the village neighbourhood. The SSF, private housing and the international school developments are completely invisible from this view point. As such, it is expected that the proposed developments on the Queen's Hill site as viewed from this direction would be partially screened by the vegetation and rural settlement.

8.10 To mitigate the slight visual impact from the PRH, the design measures including greening features and natural colour pattern for the domestic blocks, visual impact could be adopted at the detailed design stage.

Conclusion

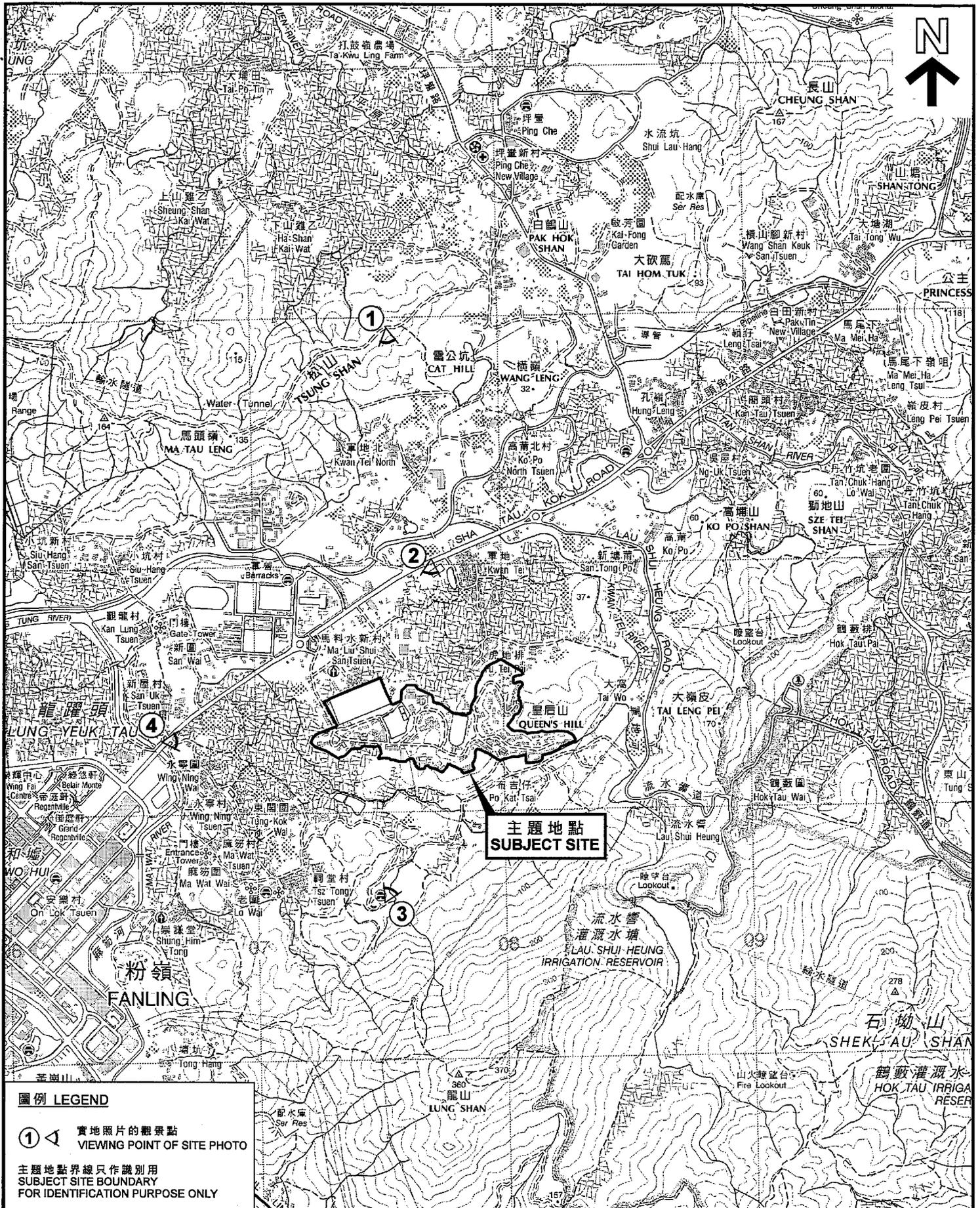
9. Based on the above appraisal, while major visual changes to the existing natural landscape and rural character seem inevitable with the PRH and SSF developments in such a rural setting, effort has been made to mitigate/minimize the impacts to a more acceptable level. Besides, measures would be taken to reduce the building bulk as far as practicable at the detailed design stage. The possible design measures including the introduction of stepped height profile, visual corridor, harmonized colour scheme, proper building separation, maximization of the green coverage would help improve the overall visual outlook.
10. The visual impact induced by the private housing is considered moderate as the development intensity will be far less than that of the public housing development. Nevertheless, the cumulative impact induced by all these developments at Queen's Hill is undeniably significant. Prospective project proponents of these two sites would be required to demonstrate that the proposed developments can comply with the established government requirements, including Sustainable Building Design Guidelines (including building separation, building setback and greenery coverage) promulgated in the Practice Note for Authorized Persons, Registered Structural Engineers and Registered Engineers APP-152 issued by the Building Authority in order to implement building design to foster a quality and sustainable built environment and to improve the visual quality. For international school, with reference to plot ratio of 1.3 and building height of 6 to 7 storeys, is unlikely to have significant visual impact.

Attachments

- Plan 1** Location of the four viewpoints
- Plan 2** Photomontage viewing from the Peak of Tsung Shan
- Plan 3** Photomontage viewing from Kwan Tei Bus Station
- Plan 4** Photomontage viewing from the 5th floor of Lung Shan Temple
- Plan 5** Photomontage viewing from San Uk Tsuen Sitting-out Area

PLANNING DEPARTMENT

APRIL 2015



圖例 LEGEND

① ◁ 實地照片的觀景點
VIEWING POINT OF SITE PHOTO

主題地點界線只作識別用
SUBJECT SITE BOUNDARY
FOR IDENTIFICATION PURPOSE ONLY

合成照片的觀景點

VIEWPOINTS OF PHOTOMONTAGE

在龍躍頭及軍地南分區
計劃大綱草圖編號S/NE-LYT/15作出的擬議修訂
PROPOSED AMENDMENTS TO
THE DRAFT LUNG YEUK TAU AND KWAN TEI SOUTH
OUTLINE ZONING PLAN No. S/NE-LYT/15

SCALE 1 : 20 000 比例尺

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PLANNING
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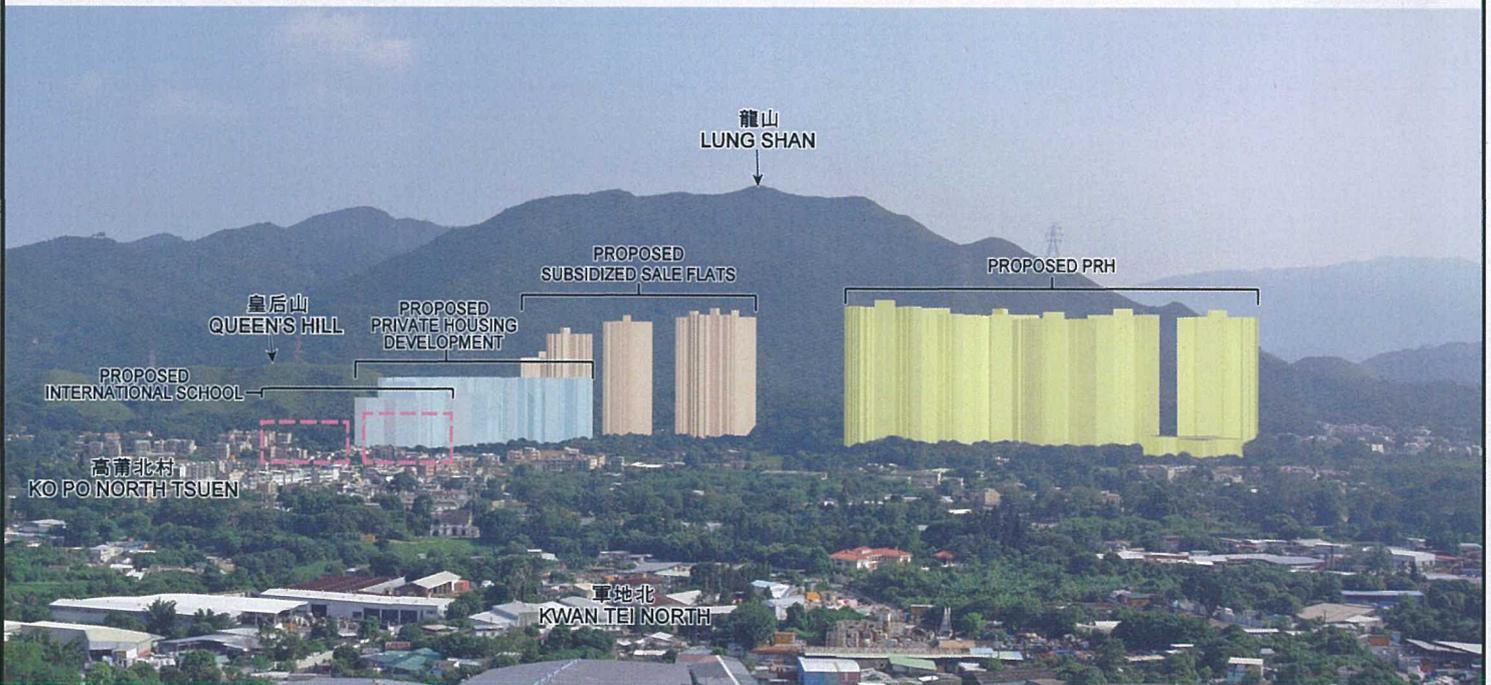


參考編號
REFERENCE No.
M/NE/15/28A

圖 PLAN
1

本圖於2015年5月4日擬備，
所根據的資料為系列HM20C編號3
PLAN PREPARED ON 4.5.2015
BASED ON SERIES HM20C SHEET 3

1



合成照片於觀景點1

PHOTOMONTAGE AT VIEWPOINT 1

在龍躍頭及軍地南分區
 計劃大綱草圖編號S/NE-LYT/15作出的擬議修訂
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 M/NE/15/28A

圖 PLAN
 2

EXISTING VIEW

2



沙頭角公路—龍躍頭段
SHA TAU KOK ROAD - LUNG YEUK TAU

WITH DEVELOPMENT



沙頭角公路—龍躍頭段
SHA TAU KOK ROAD - LUNG YEUK TAU

合成照片於觀景點2
PHOTOMONTAGE AT VIEWPOINT 2

在龍躍頭及軍地南分區
計劃大綱草圖編號S/NE-LYT/15作出的擬議修訂
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REFERENCE No.
M/NE/15/28A

圖 PLAN
3

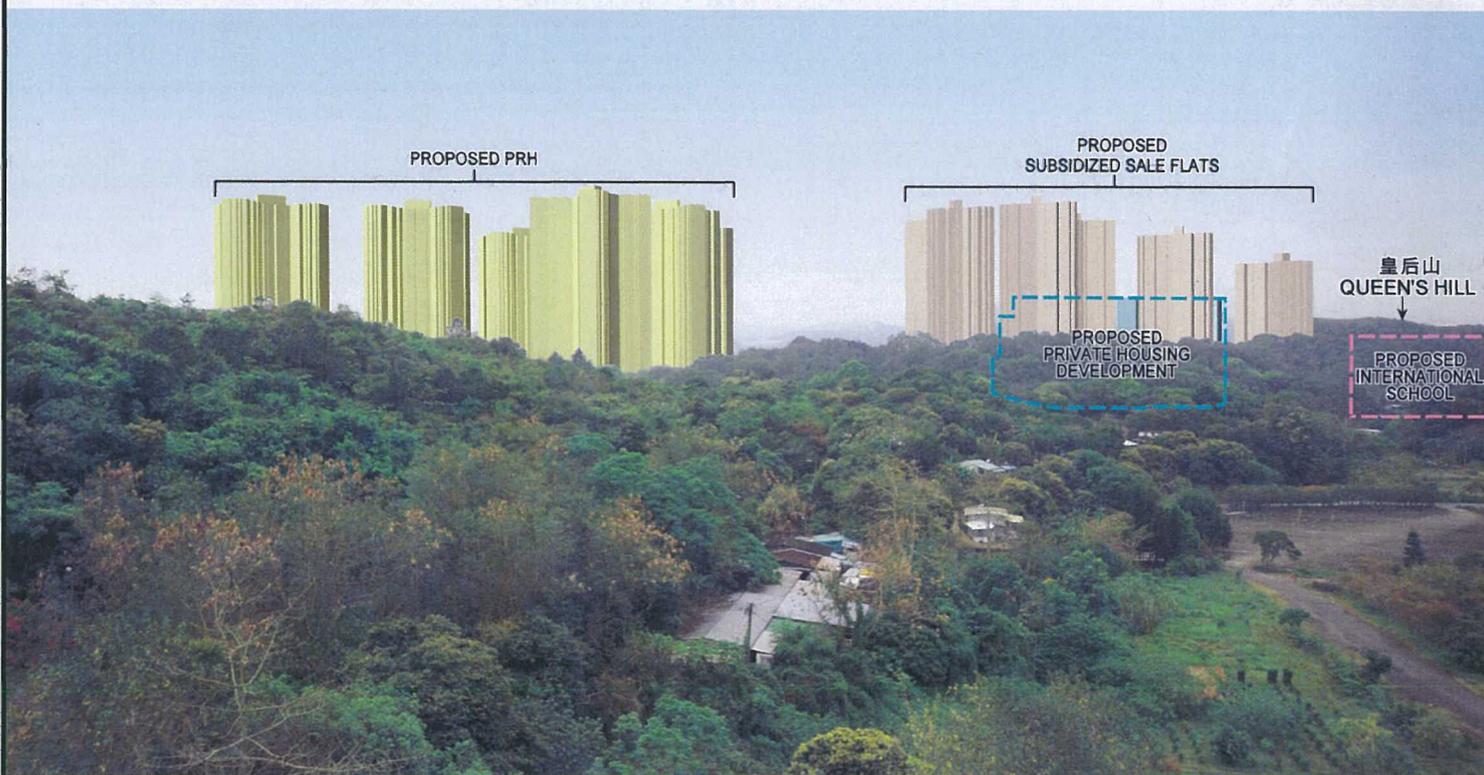
本圖於2015年5月4日擬備
PLAN PREPARED ON 4.5.2015

EXISTING VIEW

3



WITH DEVELOPMENT



合成照片於觀景點3
PHOTOMONTAGE AT VIEWPOINT 3

在龍躍頭及軍地南分區
計劃大綱草圖編號S/NE-LYT/15作出的擬議修訂
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M/NE/15/28A

圖 PLAN
4

本圖於2015年5月4日擬備
PLAN PREPARED ON 4.5.2015

4



WITH DEVELOPMENT



合成照片於觀景點4

PHOTOMONTAGE AT VIEWPOINT 4

在龍躍頭及軍地南分區

計劃大綱草圖編號S/NE-LYT/15作出的擬議修訂

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規劃署

PLANNING
DEPARTMENT



本圖於2015年5月4日擬備
PLAN PREPARED ON 4.5.2015

參考編號
REFERENCE No.

M/NE/15/28A

圖 PLAN

5

**Provision of Open Space and Major GIC Facilities in
Draft Lung Yeuk Tau & Kwan Tei South Outline Zoning Plan No. S/NE-LYT/15 Planning Area**
(as at May 2015)

Type of Facilities	Hong Kong Planning Standards and Guidelines (HKPSG)	HKPSG Requirement (based on planned population)	Provision		Surplus/ Shortfall (against planned provision)
			Existing Provision	Planned Provision	
District Open Space	10 ha per 100,000 persons	5.25ha	0	3.7	-1.55ha
Local Open Space	10 ha per 100,000 persons	5.25ha	0.87	4.3	-0.95ha
Secondary School	1 whole-day classroom for 40 persons aged 12 -17	78.65 classrooms	0	0	-78.65 classrooms
Primary School	1 whole-day classroom for 25.5 persons aged 6 - 11	91.46 classrooms	0	60	-31.46 classrooms
Kindergarten/ Nursery	24 classrooms for 1,000 children aged 3 to 6	23.74 classrooms	0	23	-0.74 classrooms
Hospital #	5.5 beds per 1,000 persons	291.38 beds	0	0	-291.38 beds
Clinic/Health Centre	1 per 100,000 persons	0.53	0	0	-0.53
Divisional Police Station	1 per 100,000 to 200,000 persons	0.26	0	0	-0.26
Magistracy (with 8 courtrooms)	1 per 660,000 persons	0.08	0	0	-0.08
Divisional Fire Station	No specific population standard	N.A.	0	1	N.A.
Ambulance Station/Depot	No specific population standard	N.A.	0	1	N.A.
Sports Centre	1 per 50,000 to 65,000 persons	0.81	0	0	-0.81
Sports Ground/ Sports Complex	1 per 200,000 to 250,000 persons	0.21	0	0	-0.21

Type of Facilities	Hong Kong Planning Standards and Guidelines (HKPSG)	HKPSG Requirement (based on planned population)	Provision		Surplus/ Shortfall (against planned provision)
			Existing Provision	Planned Provision	
Swimming Pool Complex - standard	1 complex per 287,000 persons	0.18	0	0	-0.18
Community Hall	No specific population standard	N.A.	0	1	N.A.
Integrated Children and Youth Services Centre	1 for 12,000 persons aged 6-24	0.89	0	1	+0.11
Integrated Family Services Centre	1 for 100,000 to 150,000 persons	0.35	0	0	-0.35
Neighbourhood Elderly Centre	No specific population standard	N.A.	0	1	N.A.
Day Care Centre for the Elderly	No specific population standard	N.A.	0	1	N.A.
Residential Care Home for the Elderly	No specific population standard	N.A.	0	1	N.A.
Library	1 district library for every 200,000 persons	0.26	0	0	-0.26
Post Office	1 per not less than 30,000 persons	1.74	0	0	-1.74

Provision of hospitals is determined within a regional context and the Hospital Authority and Food and Health Bureau should comprehensively review the overall demand and provision of hospital facilities in the territory and determine whether there is a need for site reservation for hospitals to meet the demand.

開會辭

主席歡迎各位議員和部門代表出席北區區議會第 16 次會議，並特別歡迎首次列席會議的社會福利署署理大埔及北區福利專員林志明先生，林先生代替正在放取退休前假期的余廖美儀女士出席會議。

第 1 項——通過上次會議記錄

2. 主席表示，有關 2014 年 4 月 10 日舉行的北區區議會第 15 次會議的記錄，秘書處沒有收到修訂建議。
3. 大會通過上述會議記錄。

(劉國勳議員和曾勁聰議員於此時到席。)

討論事項

第 2 項——粉嶺皇后山公營房屋發展計劃 (北區區議會文件第 23/2014 號)

4. 主席代表北區區議會歡迎下列房屋署代表列席會議：

總建築師／5	譚瑰儀女士
高級建築師／32	程林桂珍女士
規劃師／9	黎倩君女士
土木工程師／22	關大明先生
5. 譚瑰儀女士利用投影片介紹文件內容，包括背景、主要發展參數、促進城鄉融合和文化保育的規劃概念、相關的技術評估，和與各有關部門就此項發展的聯繫。

(葉曜丞議員於此時到席。)

6. 鄧根年議員提出下列問題、意見和建議：

- (a) 他了解香港市民對公共租住房屋(下稱「公屋」)的需求殷切，不反對公營房屋發展，但詢問是否必須選址粉嶺皇后山發展公營房屋；
- (b) 當局在興建打鼓嶺堆填區時，曾承諾擴闊全線沙頭角公路，但當局並沒有兌現諾言；
- (c) 現時北區設有多項厭惡性設施，如骨灰龕、屠房、污水處理廠和堆填區等，但當局並沒有向北區居民提供特別補償，他詢問是次計劃(下稱「發展計劃」)對北區居民有甚麼好處；
- (d) 現時北區多項公共配套設施(如醫院、學校和道路等)已經飽和，例如北區醫院的非緊急救護服務輪候時間十分長，北區亦出現學位不足的問題，北區的配套設施不足以應付發展計劃，當局必須先提供足夠配套設施，才能有效推展發展計劃；
- (e) 粉嶺皇后山附近有多條村落，包括馬料水新村、軍地村、高埔村、虎地排、流水響和龍躍頭等，發展計劃將會影響該等村落，他詢問當局發展計劃將如何配合該等村落的發展；
- (f) 如當局未能充分提供各項配套設施，他不會支持發展計劃。

(陳崇輝議員於此時到席。)

7. 羅世恩議員提出下列意見和建議：

- (a) 民主黨認同當局復建「居者有其屋」(下稱「居屋」)單位和興建公屋的方向，並認同當局應尋覓合適土地興建公營房屋，以滿足市民對房屋的需求；
- (b) 現時沙頭角公路的承載力已接近飽和，他擔心發展計劃會加劇該道路的擠塞問題。當局仍在進行交通影響評估，故並未知道附近道路能否應付上述發展項目，他對當局選址粉

嶺皇后山發展公營房屋有所保留；

- (c) 他關注現時區內的渠務系統能否應付人口增長造成的需求，請當局深入研究發展計劃會否帶來渠務問題；
 - (d) 他相信上述公營房屋發展項目落成後，將有大量居民須來往市區上班，擔心在繁忙時間會有大量居民在公共交通交匯處等候公共汽車；
 - (e) 發展計劃只有一條龍馬路連接沙頭角公路，如遇上交通事故，將對居民造成嚴重不便，他建議當局增加連接皇后山與沙頭角公路的道路數量；
 - (f) 北區現正面對泊車設施不足的問題，但發展計劃並沒有提供大型汽車泊車位，他擔心會加劇區內違例泊車的情況，使交通擠塞問題變得更嚴重；
 - (g) 他建議當局就發展計劃於區內舉行公眾諮詢會；
 - (h) 由於現時的交通配套設施不足以應付預計新增的人口，他建議當局適當地降低地積比率；
 - (i) 他認為當局應先進行交通影響評估，讓北區區議會可參考評估結果，考慮是否支持發展計劃。
8. 溫和達議員表示，他原則上支持當局興建公屋和復建居屋。他提出下列意見和建議：

- (a) 他擔心發展計劃會加重區內社區設施(如學校和郵局等)和交通配套設施(如沙頭角公路等)的負擔，影響居民的生活；
- (b) 他擔心發展計劃會加重沙頭角公路的交通壓力，詢問當局會否在皇后山東面加設一條連接蓮塘口岸高速公路的道路，方便皇后山居民來往市區；
- (c) 他認為發展計劃的地積比率相當高；

(d) 他建議當局在發展計劃中提供固定單車停泊位，以方便居民。

9. 彭振聲議員認為當局未有詳細考慮各項因素便推出發展計劃，做法比較倉促。他提出下列意見和建議：

(a) 現時沙頭角公路已經非常繁忙，他擔心發展計劃會使沙頭角公路更擠塞，建議當局就發展計劃委託顧問公司進行交通影響評估；

(b) 他擔心將來粉嶺皇后山公營房屋項目居民的就業問題；

(c) 他對當局把位於粉嶺皇后山粉嶺圍彭氏始祖的古墓剔出發展計劃表示不滿。當局在古墓附近發展上述計劃，將會影響當地的風水。該古墓已有八百多年歷史，每年春秋二祭均有數百名彭氏子孫到該處祭祀，但當局既沒有在發展計劃中對上述古墓進行保育，亦沒有規劃道路連接該古墓。他請當局原址保留上述古墓和墓界石，並對其進行適當保育。

10. 賴心議員表示，他不明白房屋署為何不聯同其他部門就發展計劃的配套設施一同諮詢區議會。他認為當局必須提供足夠的配套設施和就業機會，才能有效推展發展計劃。

11. 侯金林議員提出下列問題、意見和建議：

(a) 北區有多個公屋項目陸續落成，使區內人口大幅增加超過 7 萬，佔北區現時人口約兩成，並使北區成為一個以基層為主的區域，造成人口分布不均；

(b) 他認為當局必須詳細考慮發展計劃對區內各項公共服務(如醫療服務)和交通服務(如港鐵和巴士服務)所造成的壓力，以及居民未來的就業問題；

(c) 北區居民現已承受多項厭惡性設施造成的影響，新增人口亦會為現有居民帶來影響，如就業競爭，他請當局關注有關問題；

- (d) 他詢問發展計劃將為附近鄉村和北區居民帶來甚麼好處；
- (e) 除非當局能解決上述問題，否則他將反對發展計劃。

12. 劉國勳議員提出下列意見和建議：

- (a) 本港市民對公屋的需求殷切，北區也有不少居民等候公屋多年，部分居民曾向他表示希望可獲分配北區的公屋單位，反映北區有興建公屋的需求，因此議員支持於區內發展公營房屋的方向；
- (b) 他認為發展計劃會使沙頭角公路的擠塞問題惡化，建議當局擴闊沙頭角公路；
- (c) 他建議在擬建的北環線加入粉嶺北站、坪輦站，蓮塘口岸站和皇后山站，讓將來遷入皇后山的居民可直接乘搭鐵路往返各區，減輕路面的交通負荷；
- (d) 他建議當局於粉嶺公路興建大型巴士轉乘站，以方便居民來往市區；
- (e) 他認為當局在推行公營房屋發展計劃時，除了考慮市民對公營房屋的需求外，相關政府部門亦應作出配合，提供適當的社區和交通配套設施，改善區內環境，以惠及區內居民；
- (f) 他認為當局在皇后山發展大型公營房屋計劃，比於其他面積較小的土地興建單棟式公營房屋可取；
- (g) 政府現正就沙頭角公路和鐵路發展進行研究，他建議當局在該兩項研究完成後，再就發展計劃諮詢區議會。

13. 葉耀丞議員提出下列意見和建議：

- (a) 現時由龍馬路轉往沙頭角公路，再駛往聯和墟的路段已十分擠塞，他擔心發展計劃會使該道路的擠塞問題惡化；
- (b) 他建議開闢一條貫穿皇后山直達吐露港公路的隧道，為居民

提供多一條往返皇后山的道路；

(c) 如當局不能解決上述問題，他不會支持發展計劃。

14. 藍偉良議員提出下列意見和建議：

(a) 社區和交通配套設施是公營房屋發展計劃的重要部分，他以清河邨為例，由於社區和交通配套設施不足，居民須花費不少時間跨區就業，生活成本甚高；

(b) 香港市民雖然對公營房屋的需求殷切，但他促請當局先做好發展計劃的規劃工作，並提供足夠的交通配套設施；

(c) 他認為上水第 30 區鄰近鐵路站，交通網絡亦較完善，他建議當局在該區發展公營房屋項目。

15. 姚銘議員提出下列意見和建議：

(a) 他建議於發展計劃中，興建可容納大型汽車和私家車的多層停車場，以滿足於北區居住或工作的跨境司機的需要，並舒緩北區泊車位不足的問題；

(b) 他建議於發展計劃中引入小商店，使當區居民也能於該處經營店舖；

(c) 他認為應加快推展北區醫院的擴建計劃，以應付人口增長和北區未來的發展；

(d) 他認為當局須解決交通問題，例如於粉嶺公路設立大型巴士轉乘站和改善沙頭角公路的擠塞問題。

16. 李國鳳議員表示粉嶺區鄉事委員會支持發展計劃，但當局須為發展計劃提供足夠的交通配套設施。他認同鄧根年議員所指，當局在興建打鼓嶺堆填區時，沒有兌現擴建沙頭角公路的承諾，但他認同有設置垃圾堆填區等厭惡性設施的需要，他對當局於區內設置厭惡性設施表示容忍。

17. 鄧根年議員表示，他預計當局會在皇后山的東北面和南面有其他發展計劃。如果當局未能充分提供各項配套設施，他不會支持相關計劃。

18. 譚瑰儀女士回應表示，署方知悉議員關注發展計劃對附近環境造成的影響、保育問題和會否提供足夠的配套設施，包括道路網絡、各項社會福利設施和教育配套設施。

19. 關大明先生補充說，土木工程拓展署正就發展計劃進行技術可行性研究，包括交通影響、渠務和基建設施等方面的評估，當局會根據評估結果提出改善建議，確保發展計劃不會對附近交通和環境造成影響。當局會在改劃土地用途階段，再次諮詢北區區議會。

20. 程林桂珍女士就議員的提問、意見和建議作綜合回應如下：

- (a) 現時基層市民對公屋的需求殷切，申請輪候公屋的數字非常龐大，社會各界均希望政府加快興建公屋；
- (b) 署方一直秉承「地盡其用」和「具成本效益，可持續發展」的宗旨，於各區尋找合適土地發展公屋。署方會在規劃基建設施許可和不影響環境質素的情況下，增加房屋供應；
- (c) 當局會因應社區設施和基礎建設容許的情況下，考慮地段的地積比率和建屋量；
- (d) 署方現正就發展計劃進行包括交通、環境、空氣流通、景觀和配套設施等多方面的研究，亦會與相關部門進行磋商和研究，確保發展計劃不會對北區造成壓力；
- (e) 發展計劃將提供約 10 000 平方米零售設施、社區會堂、學校、社會福利設施和公共交通總站等配套設施，公共交通總站將提供 6 條巴士線、3 條小巴線和設置的士站；
- (f) 因應彭氏宗族提供的意見，署方會考慮為彭氏墓地提供合適的行人通道和車輛停泊位，以方便彭氏族人祭祀，亦會考慮儘量原址保留彭氏墓界石。在發展計劃中，靠近彭氏墓地的

範圍將會引入園林綠化，營造祥和雅致的氣氛，旁邊又建議設置一所低層綜合社區會堂和福利設施大樓；

- (g) 署方在發展計劃提供的泊車位數目，將按照《香港規劃標準與準則》的標準，在可行範圍下，儘量提供較高標準的泊車位數目；
 - (h) 土木工程拓展署現正就皇后山的整體發展進行技術可行性研究，署方明白議員關注發展計劃的交通配套設施，當局現正進行相關交通影響評估，預計於本年 8 月將有初步評估結果；
 - (i) 有關部門現正進行馬適道與沙頭角公路交界的改善工程，預計於本年年年底前完成。當蓮塘／香園圍口岸的連接路落成後，來往區內和區外的交通將會進一步改善；
 - (j) 預計當局在本年 10 月改劃土地用途階段時，會諮詢北區區議會；
 - (k) 由於發展計劃的住宅單位須於 2019/2020 年度落成，時間緊迫，香港房屋委員會(下稱「房委會」)和相關政府部門會全力配合發展計劃，以滿足市民對公屋的需求。署方在諮詢北區區議會後，會緊貼地展開下一步工作，包括向房委會申請撥款和安排各項工程。署方希望北區區議會支持發展計劃。
21. 蘇震國先生回應議員的提問、意見和建議如下：
- (a) 當局會優先考慮利用已完成土地平整工程的土地(如皇后山土地)發展公屋，以盡快滿足市民對公屋的需求；
 - (b) 署方現正進行一項有關新界北部地區發展潛力的研究，以探討除古洞北和粉嶺北新發展區外，鄰近地區的發展潛力，同時也會研究皇后山周邊地區，如流水響、軍地和龍躍頭等地點未來的基建配套；
 - (c) 對皇后山的擬議發展，當局正進行有關的可行研究，包括交通影響評估，以確保新界北地區現在及即將建成道路網的流

量和承載量能配合發展，有關評估將涵蓋運輸管理(如巴士路線安排)等範疇，以滿足居民所需；

- (d) 當局會在審視各項評估結果後，決定發展計劃建議的發展參數是否可行，如發現皇后山和附近的配套設施不足以應付現時建議的發展參數，當局會研究對應措施及考慮修改有關發展參數；
- (e) 當局會在改劃《龍躍頭分區計劃大綱草圖》時，再次諮詢北區區議會。

22. 藍偉良議員補充表示，以清河邨為例，該邨約有三萬人口，他曾向運輸署爭取於該區增設來往市區的巴士路線，但當局指該邨附近的道路承載力不足以應付新增的巴士路線。他請當局在規劃公營房屋發展計劃時，需要確保運輸設施能配合房屋發展的要求。現階段他不支持上述發展計劃。

23. 鄧根年議員補充表示，現時鄧氏有兩座約有四百年歷史的古墳位於皇后山，他請當局在規劃時提供適當的保護。

24. 主席總結表示，北區區議會明白社會對公營房屋的需求殷切，但認為新發展項目應可同時改善原有居民的生活，希望當局聆聽議員的意見和釋除他們的憂慮。北區區議會現時不會對發展計劃表示支持或反對，有關部門可先跟進發展計劃。當局須就改劃土地用途方案，連同其他相關規劃項目(包括交通規劃等)諮詢北區區議會。

(李國鳳議員於此時離席。)

~~第 3 項~~ ~~第五屆全港運動會籌備工作匯報~~ (北區區議會文件第 24/2014 號)

25. ~~康樂及文化事務署北區康樂事務經理譚樂儀女士~~介紹文件，並建議區議會組織第五屆全港運動會(下稱「港運會」)北區代表團和成立北區選拔委員會，以處理港運會的事宜。

~~26. 姚銘議員表示，北區足球會有足夠相關經驗和能力選拔本~~

北區區議會2014年10月9日
第18次會議記錄摘要

負責人

未克出席者

侯志強議員	因事請假
廖國華議員	因事請假
李國鳳議員	因事請假
林麗芳議員	因病請假
葉曜丞議員, MH	缺席

開會辭

主席歡迎各位議員和部門代表出席北區區議會第 18 次會議，並特別歡迎首次列席會議的社會福利署大埔及北區福利專員鄧菲烈先生和地政總署署理北區地政專員何雪亮女士。

2. 大會備悉並批准侯志強議員、廖國華議員、李國鳳議員和林麗芳議員的休假申請。

第 1 項——通過上次會議記錄

3. 主席表示，有關 2014 年 7 月 31 日舉行的北區區議會第 17 次會議的記錄，秘書處沒有收到修訂建議。

4. 大會通過上述會議記錄。

討論事項

第 2 項——粉嶺前皇后山軍營用地發展計劃
(北區區議會文件第 49/2014 號)

5. 主席代表北區區議會歡迎下列代表列席會議：

房屋署總建築師(4)	翁德玲女士
規劃署高級城市規劃師／北區	鄧永強先生

土木工程拓展署總工程師／ 專責事務(工程)	陳錦信先生
土木工程拓展署專責事務(工程)部 高級工程師／4	鍾永康先生
艾奕康有限公司執行董事	陳子威先生

6. 翁德玲女士表示，房屋署曾於 2014 年 6 月 12 日就粉嶺前皇后山軍營用地的公營房屋發展計劃諮詢北區區議會，當時議員表示雖然明白市民對公營房屋需求殷切，但對該發展計劃對北區交通和居民生活等方面所造成的影響感到憂慮，議員亦希望了解署方進行交通影響評估的結果。署方於會議後跟進了議員的意見，於今天再次就粉嶺前皇后山軍營用地發展計劃(下稱「發展計劃」)諮詢北區區議會。她請土木工程拓展署代表介紹就發展計劃進行的交通影響評估，以及請規劃署代表介紹北區區議會文件第 49/2014 號。

(李冠洪議員於此時到席。)

7. 鍾永康先生利用投影片介紹文件。有關投影片載列於附件一。

8. 鄧永強先生介紹區議會文件第 49/2014 號。

9. 翁德玲女士表示，不少議員曾在區議會會議上表達對發展計劃各項配套設施的關注。署方跟進了議員的意見，現補充資料如下：

- (a) 有關醫療設施負荷的問題，署方曾諮詢醫院管理局和衛生署等部門的意見。醫院管理局表示，公共醫療服務的規劃以聯網為基礎，為配合整個北區人口未來的醫療需要，當局已在北區醫院相鄰地段預留一幅面積約三公頃的土地，以便在有需要時作擴建醫院之用，提供更多病床和增加服務量；
- (b) 在就業方面，當局預計粉嶺北和古洞北的新發展區將可提供約 37 000 個新增就業機會。根據《古洞北分區計劃大綱草圖》和《粉嶺北分區計劃大綱草圖》，古洞北和粉嶺北新發展區已預留土地供發展作商業、寫字樓和零售設施等用途，

預計可提供不同種類的就業機會；

- (c) 是次發展計劃將提供約 11 000 個公營房屋單位，當中包括八千多個公共租住房屋(下稱「公屋」)單位和二千多個「居者有其屋(下稱「居屋」)計劃」單位，署方希望上述公營房屋單位除了滿足部分市民對公屋的需求外，亦可提供房屋階梯，讓北區居民透過居屋計劃置業；
 - (d) 發展計劃將提供一個社區會堂、兩間小學和三間幼稚園，社會福利設施則包括綜合家庭服務中心、綜合青少年服務中心、長者鄰舍中心、安老院舍和幼兒中心。這些設施除了可滿足皇后山公營房屋發展計劃新增人口的需要外，亦可服務整個社區。
10. 溫和輝議員提出下列問題、意見和建議：
- (a) 他明白市民對公屋的需求殷切；
 - (b) 他擔心發展計劃會令區內的交通擠塞問題惡化。他以親身經歷為例，由於今早萊洞和馬尾下至坪嶺一帶的道路，以及龍馬路迴旋處出現交通擠塞的情況，因此他駕車花了約 40 分鐘才能從沙頭角抵達北區政府合署；
 - (c) 上述交通影響評估未能真實反映沙頭角居民面對的交通擠塞問題。根據運輸署的資料，沙頭角公路每小時可承載的汽車流量約為 800 架次，但該公路有多個路口、交通燈位和迴旋處，大量村民亦會駕駛車輛從各個路口駛往該公路，令公路上的汽車往往須多次停車或減慢車速，故此，他認為該公路並不能承載每小時約 800 架次的汽車流量；
 - (d) 雖然現時於萊洞進行的道路改善工程將來或可分流沙頭角來往九龍的交通流量，但根據地政總署的資料，現時馬尾下段和軍地等村落有多個興建新界豁免管制屋宇(下稱「小型屋宇」)的申請，他估計未來數年將有數百間小型屋宇單位陸續落成，部分村民將會駕駛私家車或出外就業，將加重沙頭角公路的負荷，他詢問當局在進行交通影響評估時，有否考慮新增的村民和汽車對沙頭角公路交通的影響；

- (e) 他建議當局考慮擴闊沙頭角公路，把該公路每小時承載的汽車流量增至 2 000 架次，否則沙頭角公路將難以負荷上述發展計劃，令交通擠塞問題惡化。

(陳崇輝議員於此時到席。)

11. 溫和達議員提出下列意見和建議：

- (a) 他今早駕車由沙頭角前往北區政府合署時，由於在軍地一帶擠塞了約 15 分鐘，因此花了約 30 分鐘才能抵達北區政府合署，正好反映沙頭角居民現時面對的交通問題；
- (b) 他認為剛才播放有關交通流量評估的模擬片段不能反映現實情況。在現實中，巴士須在每個鄉村旁邊的巴士站上落客，不能使用中線和快線，令沙頭角公路的交通擠塞問題惡化，因此以現時的人口計算，沙頭角公路的交通負荷已相當沉重；
- (c) 他相信北區居民願意承擔發展公營房屋項目的責任，以滿足香港市民對公營房屋的需求，但當局亦應增撥資源解決發展計劃為北區的醫療、就學、就業和交通等方面帶來的壓力；
- (d) 當局早前曾就發展計劃諮詢議員的意見，但他認為是次討論文件並沒有充分反映議員的意見；
- (e) 位於孔嶺和大塘湖的一段沙頭角公路將連接即將落成的龍山隧道，駕駛人士可使用該路段往返九龍，但發展計劃並沒有規劃由粉嶺前皇后山軍營用地右轉至孔嶺和大塘湖一段沙頭角公路的配套設施，他對此表示失望。他擔心發展計劃完成後，上述路段不能負荷新增的汽車流量；
- (f) 他希望當局在推行發展計劃前，先改善區內的道路。他認為當局在 2019 年 3 月才展開道路改善工程，實屬太遲，擔心在道路改善工程完成前，發展計劃已令沙頭角公路癱瘓；
- (g) 現時粉嶺多項基礎配套設施未及完善，如港鐵粉嶺站已相

當繁忙，亦缺乏卸貨區，他擔心發展計劃會加重區內基礎配套設施的壓力；

- (h) 聯和墟將有房屋項目落成，他擔心發展計劃會加重聯和墟往返港鐵粉嶺站的一段沙頭角公路的交通負荷；
- (i) 他希望當局在粉嶺發展新社區時，建設一些「城鄉並融」的社區和購物設施(如郵局、圖書館和社區會堂)，讓村民和將來的新增人口可在聯和墟附近的地點使用社區設施，達至自給自足；
- (j) 北區居民在申請房屋調遷計劃時，往往被編配往天水圍的單位，使很多公屋租戶被迫與家庭成員分開。他認為當局日後在區內推行公營房屋項目時，應優先安排該等公屋租戶原區調遷；
- (k) 他建議於發展計劃提供中學，讓居民可於該區上學，無須前往粉嶺或上水等地方上學，避免加重區內的交通負荷；
- (l) 現時需要公營醫療服務的北區居民均獲編配往北區醫院，但粉嶺、沙頭角和打鼓嶺的鄉郊居民利用沙頭角公路前往北區醫院和其他社區設施時須途經多個交通「樽頸」位置，令居民生活非常不便。他認為北區居民將來可直接由龍山隧道前往大埔那打素醫院和沙田威爾斯親王醫院，故不一定須編配往北區醫院。

(彭振聲議員於此時到席。)

12. 鄧根年議員提出下列意見：

- (a) 北區區議員曾在不同場合向當局反映對發展計劃的意見；
- (b) 在 18 區中，只有北區願意於區內推行公營房屋發展計劃。雖然現時北區已有多項厭惡性設施(如屠房、堆填區、污水處理廠和骨灰龕等)，但北區居民和區議員明白市民對公屋需求殷切，因此仍願意接受於區內推行公營房屋計劃；

- (c) 他認為當局在推行發展計劃前，應先改善區內的交通(如擴闊沙頭角公路和改善龍馬路的接駁系統等)、社區配套和環境問題；
- (d) 他擔心現時區內的交通和醫療配套難以應付將來的新增人口，他舉例指，現時港鐵粉嶺站於上班和上學時間已非常繁忙，乘客需要等候多時才能乘搭列車；北區醫院急症的輪候時間亦相當長，他促請有關當局妥善作出規劃；
- (e) 當局應就發展計劃充分諮詢北區原有居民，亦應照顧他們的需要；
- (f) 他請當局憑着良心為廣大市民服務，如當局可解決上述交通和環境等問題，他會支持發展計劃，但如當局未能解決上述問題，他會聯同居民大力提出反對。

13. 賴心議員提出下列意見和建議：

- (a) 他是北區交通調查工作小組的主席，認為上述交通影響評估未能真實反映區內的交通狀況，他以馬適路與沙頭角公路—龍躍頭段交界處的汽車流量為例，無論是北區交通調查工作小組去年完成的「北區交通幹道及樞紐汽車流量調查」，還是根據他的觀察，該處的汽車流量普遍甚高和經常出現交通擠塞的情況；
- (b) 雖然當局已預留土地擴展北區醫院，而在新界東北發展計劃中，當局亦將發展一些新的社區設施，但發展計劃將在上述社區設施落成前完成，新增人口將令區內配套設施不足的問題惡化，他認為當局欠缺長遠規劃，北區居民或需忍受 10 至 20 年公共設施不足的問題；
- (c) 當局在發展房屋項目時，須照顧區內原有居民的需要和及時增加或改善區內的配套設施；
- (d) 政府只在推展新工程時，才表現出「有商有量」，他以沙頭角公路為例，地區人士多年來均向當局反映該公路的問題，但當局曾表示該道路不能擴建和只能維持原狀。現時

當局推展發展計劃，則表示可改善該公路部分路段，他認為當局的做法有欠妥善；

- (e) 他贊成溫和達議員所稱，當局應在發展計劃提供中學，以及日後在區內推行公營房屋項目時，優先安排北區的公屋租戶原區調遷；
- (f) 他請當局就發展計劃作長遠規劃，及早建設和改善相關配套設施，相信這樣做較容易得到區議會支持。

14. 黃宏滔議員表示，在北區的醫療設施方面，發展計劃只集中談及北區醫院而沒有談及基礎醫療。現時北區只有石湖墟賽馬會普通科門診診所和粉嶺家庭醫學中心兩所普通科門診診所，為北區居民提供基礎醫療服務。當局估計上述發展項目將為粉嶺帶來接近 4 萬居住人口，將加重粉嶺家庭醫學中心的負擔。他明白公共醫療服務的規劃以聯網為基礎，但如區內居民須前往沙田或大埔的普通科門診診所才能享用基礎醫療服務，將較為不便。他請相關部門和衛生署溝通，以確定區內的基礎醫療服務是否足以應付北區未來居住人口的需要。

15. 王潤強議員表示，當局在發展計劃預留土地興建國際學校，但他認為國際學校的對象主要是區外學生，大部分居住於發展區的學生仍須前往粉嶺或上水的學校上課，擔心會加重區內交通的負擔，請當局再檢視發展計劃中的學校發展模式。

16. 陳崇輝議員提出下列意見和建議：

- (a) 他今天花了不少時間才能從打鼓嶺抵達北區政府合署，這反映區內的交通情況未如理想；
- (b) 當局在規劃時不應再使用「中央商務區」的概念，即集中在某一區域發展商業，如中環等，而把居住人口集中在另一區域，使居民須在上下班和上下課的繁忙時間一同從居所前往區外上班和上學或返回居所，加重基礎配套設施的負荷。他建議在發展計劃中提供足夠的社區設施，以及就業和就學機會。

17. 彭振聲議員表示原則上不反對發展計劃，並提出下列意見和建議：

- (a) 粉嶺圍彭氏始祖的古墓位於粉嶺皇后山發展計劃的旁邊，該古墓已有八百多年歷史，他請當局在發展範圍和古墓之間預留空間，進行適當的綠化工程。他與房屋署早前已就上述意見達成初步共識；
- (b) 他希望當局宏觀地規劃發展計劃，特別考慮沙頭角公路的負荷能力。

18. 侯金林議員認為發展計劃將為北區帶來不少問題，他提出下列問題、意見和建議：

- (a) 現時沙頭角公路已很擠塞，但當局並沒有因應未來的新增人口而實質地改善沙頭角公路；
- (b) 發展計劃將增加約 39 500 人口，這些新增人口將與區內原有居民競爭現有社區資源，影響區內原有居民享用社區設施的機會，但當局並沒有解決上述問題；
- (c) 他估計在上述新增人口中，約有一萬多新增人口為勞動人口，但現時港鐵服務在繁忙時間已接近飽和，他詢問當局如何解決交通問題；
- (d) 他認為當局如未能解決上述問題，便貿然推行發展計劃，將會影響現時北區居民的生活，並造成矛盾和分化；
- (e) 他認同現時香港市民對公營房屋的需求很大，故支持政府發展有關項目，但當局必須先確保有關項目可惠及當區居民，才推展有關計劃；
- (f) 他建議當局先按議員和相關部門的意見修訂發展計劃。

19. 劉國勳議員提出下列問題、意見和建議：

- (a) 他認同香港市民對公屋的需求殷切，現時公屋輪候冊的輪

候數字龐大，他亦曾接獲不少區內居民因輪候公屋問題而求助的個案。此外，不少原本居住在北區的居民被編配往天水圍區或屯門區的公屋單位，有的甚至輪候公屋多年仍未獲分配單位。他支持當局在區內發展公屋，令更多北區居民可獲派區內的房屋；

- (b) 他請當局檢討現時頗為落後的規劃模式。現時當局在發展新社區時，往往先安排居民遷入該區，待人口達到某一目標後，才相應發展社區和交通配套，令區內原有居民和新增居民須先忍受數年社區和交通配套設施不足的日子。他認為當局應按照預計的新增人口數量發展足夠的社區和交通配套設施；
- (c) 現時北區有多個發展項目，如新界東北發展項目、皇后山發展項目和落馬洲河套地區發展項目等，亦有多個公屋發展計劃，每個發展計劃都會帶來新增人口，累積下來的新增人口將大幅增加北區整體的居住人口。他認為當局由於未能就個別房屋發展項目向立法會財務委員會申請相關公共配套工程的撥款，所以未能同時考慮區內的整體規劃發展，他請當局檢討有關做法；
- (d) 他很關注發展計劃帶來的交通問題。現時沙頭角公路所能承載的車流量已接近飽和，他擔心發展計劃會加重該公路的負荷和區內其他地點(如區內的迴旋處等)的交通壓力，影響居民的生活；
- (e) 他建議在擬建的北環線加入粉嶺北站、皇后山站、坪輦站和蓮塘口岸站，以疏導人流。他請當局妥善進行交通規劃；
- (f) 在就業方面，發展計劃將令逾萬名勞動人口遷入北區，但北區缺乏商業規劃用地，他建議當局參考新蒲崗和觀塘，進一步發展安樂村工業區，為皇后山和附近一帶居民提供更多工商業就業機會。他相信此舉既可為北區居民提供更多元化的就業機會，亦可舒緩區內的交通壓力；
- (g) 無論區議會是否通過發展計劃，他亦希望當局就發展計劃與區議會和市民定期和緊密聯繫。

20. 羅世恩議員提出下列意見和建議：

- (a) 顧問公司建議提升龍馬路至符合要求的雙線車道，以他理解，雙線車道是指雙程單線行車道路，他認為如發生兩車逆線迎頭相撞的意外，將會癱瘓該路，使居民難以離開皇后山，而設置避車處和把部分路段擴闊至三線行車也不足以解決上述問題，因此必須把龍馬路再擴闊；
- (b) 除剛才議員提及沙頭角公路南行方向(即往港鐵粉嶺站方向)經常出現交通擠塞問題外，於下課繁忙時間，沙頭角公路北行方向也經常出現交通擠塞問題。此外，於下午3時至5時期間，不少重型車輛使用沙頭角公路轉入樂業路一段道路，導致擠塞。他認為只改善馬適路、馬會道和沙頭角公路等道路並不足夠，建議延長由沙頭角公路右轉樂業路的線路或擴闊沙頭角公路，才可理順沙頭角公路的交通情況。

21. 曾勁聰議員提出下列問題、意見和建議：

- (a) 全港和北區居民對公屋的需求甚大，因此北區居民普遍歡迎當局在區內興建公屋；
- (b) 當局在北區發展公屋時，不可犧牲北區原有居民的利益，須顧及他們在交通和其他設施方面的需要；
- (c) 雞嶺迴旋處連接區內重要幹道，根據北區交通調查工作小組去年完成的「北區交通幹道及樞紐汽車流量調查」，雞嶺迴旋處現時所能負荷的車流量已接近飽和，他擔心發展計劃帶來約4萬新增人口將加重該迴旋處的負擔，故此當局應在該迴旋處進行大規模改善工程；
- (d) 他同意東鐵線的客流量已接近飽和；
- (e) 他請當局仔細檢討港鐵粉嶺站和其附近巴士和小巴上落客站的吞吐量是否足夠應付未來的新增人口。此外，現時港鐵粉嶺站缺乏由地面往一樓的升降機，他認為當局在推行發展計劃時，應一併考慮港鐵粉嶺站的改善工程，以應付發展計

劃新增人口的需要；

- (f) 他詢問當局發展計劃將提供多少街市和商鋪設施，以及是否足夠應付發展計劃新增人口的購物需要。

22. 藍偉良議員認為發展計劃牽涉整個北區的規劃，建議運輸及房屋局積極考慮發展架空鐵路和隧道，以應付北區未來新增人口的需要。

23. 翁德玲女士感謝議員的意見。她補充說，當局將預留約一萬平方米的樓面面積作零售用途，當中包括一個濕貨街市、餐飲設施和小商鋪等，除滿足新發展區未來居民的需要外，亦希望可服務皇后山周邊地區的居民。

24. 陳錦信先生就議員關於發展計劃的交通配套設施提出的意見回應如下：

- (a) 土木工程拓展署認同新發展項目不應為北區原有交通設施帶來不必要的壓力，署方會盡力做好是次發展項目的交通規劃；
- (b) 剛才議員就交通影響方面提出的意見主要分為兩個層面，一是北區整體對外的交通安排，二是因應發展計劃而新增汽車流量對區內道路交通造成的影響。他希望相關部門可就議員就第一個層面提出的意見作出補充，而他會集中回應議員就第二個層面提出的意見；
- (c) 署方明白議員關注發展計劃，署方委聘的顧問公司已就發展計劃進行交通影響評估。就龍馬路而言，該路將由現時的 6 米闊擴闊至 7.3 米闊的標準單線雙程行車道路。顧問公司擬議在道路兩旁提供一條兩米闊的行人路和一條 3.5 米闊的單車徑，該單車徑將接駁沙頭角公路的單車徑；
- (d) 署方明白議員憂慮龍馬路出現兩車逆線迎頭相撞意外時將癱瘓該路，將在詳細設計階段研究如何解決上述問題；
- (e) 就龍馬路問題，署方承諾在詳細設計階段，會研究當交通流

量達至哪個水平時，便須增加行車線來紓緩交通，及評估相應所需要額外徵收的土地範圍和增設防止噪音滋擾設施的需要等，希望上述研究對政府部門日後規劃整體北區發展時具參考作用；

- (f) 就沙頭角公路—龍躍頭段，署方有針對性改善措施，署方明白部分議員認為這些改善措施只屬「少修少補」，但礙於發展計劃的規模所限，此項計劃未能處理北區整體的交通問題；
- (g) 署方已針對因發展計劃而新增的汽車流量擬議道路改善工程，相信發展計劃不會對區內交通帶來重大的負面影響。

25. 翁德玲女士補充如下：

- (a) 是次部門主要介紹發展計劃和對北區將會造成的影響，故她沒法就北區的整體規劃(如北區整體的就業情況等)作出具體回應。就基礎醫療設施而言，署方將向衛生署反映議員的意見。就社區設施而言，她會向教育局反映議員建議於發展計劃範圍內提供中學，以方便居民就學和舒緩周邊地區交通壓力的意見；
- (b) 發展計劃將預留土地建造交通交匯處，初步構想將會設置五條巴士線和三條專線小巴線的候車位，署方將會因應未來人口和北區公共交通的整合情況，再與相關部門和巴士公司商討和編排上述線路的具體行車路線。

26. 鍾永康先生補充如下：

- (a) 署方預計擬議道路改善工程將在 2016 年下半年展開，並計劃在有關公屋發展計劃於 2019 年落成前完成；
- (b) 龍山隧道建造工程現正進行，預計通車時間可配合發展計劃的目標入伙期，並可分流該區的汽車流量；
- (c) 粉嶺繞道的改善工程將有助分流區內整體交通，該繞道有望於 2023 年通車；

- (d) 署方曾與運輸署商討發展計劃的交通配套安排，署方了解現時有直接來往北區與市區的巴士試辦路線。署方會按未來人口需要繼續與運輸署商討有關巴士路線的安排。

27. 鄧永強先生補充如下：

- (a) 根據《香港規劃標準與準則》，每 10 萬人便須設立一所普通科診療所或健康中心。按此標準和北區現時的人口計算，北區需要三間普通科診療所或健康中心，現時署方已規劃了三間普通科診療所或健康中心，相信可大致滿足北區現有居民的需要；
- (b) 署方會再與衛生署商討是否須因應發展計劃而增健普通科診療所或健康中心，以滿足新增人口的需求；
- (c) 對於有議員建議進一步利用安樂村工業區提供更多區內就業機會，署方會不時檢討全港各區工業用地的規劃，預計可有助於北區提供更多就業機會。

28. 鄧根年議員表示，由於發展計劃距離龍山隧道流水響出口處只有約 1.5 公里，建議當局於該出口處增設緩衝位置，以避免出現意外時癱瘓附近交通。

29. 侯金林議員不同意有關部門的回應，他補充如下：

- (a) 他認為議員已向有關部門反映發展計劃未來可預見的問題和議員的憂慮，但當局只表示日後會因應發展計劃落實後的情況再作跟進，他不認同這做法。有關部門在推展發展計劃前，應未雨綢繆，及早做好規劃，不應在發展計劃完成並出現問題後，才因應情況跟進或採取補救措施。他認為這只是把處理問題的責任轉嫁未來的區議會和區議員，有關部門的做法不負責任；
- (b) 如有關部門不切實跟進議員的意見，他不會支持發展計劃。

30. 翁德玲女士補充如下：

- (a) 署方會在發展計劃落成前二至三年與運輸署和巴士公司商討具體巴士行車路線；
- (b) 她希望將來發展計劃涵蓋的設施可同時服務北區其他居民；
- (c) 她認同以「城鄉共融」的概念推展發展計劃，並希望締造一個舒適和與周邊環境融合的新社區；
- (d) 署方將就發展計劃的各項配套設施與相關部門緊密聯繫。

31. 主席表示，由於李國鳳議員因事未能出席會議，因此他代為轉述李國鳳議員的意見。李國鳳議員表示希望當局在推出發展計劃時，必須妥善研究交通配套措施，避免因發展而導致區內交通不勝負荷。對整體發展而言，他深表支持。

32. 主席總結表示，北區區議會明白市民對公營房屋需求殷切，因此願意承擔於北區推行發展公營房屋項目的責任，但議員亦對發展計劃表示擔憂，希望有關部門了解和跟進議員的意見。他認為任何發展項目均應為該區原有居民帶來更優質的環境和更好的生活，而不應帶給他們困擾、麻煩和憂慮，這是發展的大前提，希望當局接納和切實考慮議員的意見。他建議有關部門定期與北區區議會轄下的北區房屋及城市規劃工作小組舉行會議，以解決議員提出的問題和保證上述發展計劃順利進行。他詢問議員是否同意上述建議。其他議員沒有提出異議。他請有關部門繼續跟進發展計劃，並定期與工作小組舉行會議。

房屋署
規劃署
土木工程
拓展署

~~第4項 動議：「北區區議會支持全國人大常務委員會就行政長官普選安排作出決定，讓市民可於2017年一人一票普選行政長官，令選舉制度能循序漸進地發展，期望社會各界依據人大常委會的決定，和平理性進行討論，共同促成政改方案獲得通過。」~~

~~(北區區議會文件第51/2014號)~~

~~33. 主席表示，由於負責介紹第3項議程討論文件的部門代表尚~~

北區區議會北區房屋及城市規劃
工作小組2014年12月2日第13次會議摘要

~~葉沛璣女士~~ ~~土木~~工程拓展署工程師／13／專責事務
(工程)

未克出席者

侯志強議員	因事請假
廖國華議員	因事請假
鄧根年議員, MH	因事請假
姚銘議員	因事請假

開會辭

~~主席~~歡迎各成員和部門代表出席會議。

- ~~2. 工作小組備悉並批准侯志強議員、廖國華議員、鄧根年議員和姚銘議員的休假申請。~~

第 1 項——粉嶺皇后山公營房屋發展計劃進展

3. 主席歡迎規劃署沙田、大埔及北區規劃專員蘇震國先生、規劃署高級城市規劃師／北區鄧永強先生、房屋署總建築師(4)翁德玲女士、房屋署高級建築師(12)黃少芬女士、土木工程拓展署高級工程師／4／專責事務(工程)鍾永康先生和工程師／13／專責事務(工程)葉沛璣女士參與這項討論，並請蘇震國先生報告粉嶺皇后山公營房屋發展計劃(下稱「皇后山計劃」)的進展。

4. 蘇震國先生利用投影片介紹皇后山計劃的進展，有關投影片載於附件。

5. 彭振聲議員提出下列意見和問題：

- (a) 使用皇后山計劃用地(下稱「計劃用地」)與龍馬路之間的一幅狹長土地作為車輛通道可紓緩計劃用地內的交通，但該車輛通道的出入口或會形成「樽頸」地帶；

(b) 房屋署可否提供皇后山計劃最新的總體規劃圖。

6. 翁德玲女士表示，由於房屋署現正調整皇后山計劃的細節，因此尚未能提供最新的總體規劃圖。她利用投影片第 9 頁介紹皇后山計劃的住宅大廈、零售設施、公共車輛總站、小學和社區設施分布。她表示皇后山計劃共提供 11 000 個單位，當中 6 座住宅大廈為「居者有其屋計劃」單位，7 座住宅大廈為公營出租房屋。如可使用計劃用地與龍馬路之間的一幅狹長土地作為車輛通道，小學的車輛出入口便可設於龍馬路附近，車輛無需駛入屋邨。

7. 藍偉良議員詢問房屋署是否不會否考慮再額外徵收龍馬路的私人土地作廣闊道路之用。

8. 翁德玲女士回應說，建議修訂項目的道路系統與原來的設計一樣，只是計劃用地與龍馬路之間的一段狹長土地將另作小學的額外入口和通道，以作分流之用。

9. 藍偉良議員建議房屋署於龍馬路近彭氏祖墳方向預留用地作為校巴上落處，以免乘坐校巴的學童須橫過馬路往返學校。

10. 翁德玲女士回應說，房屋署編排兩所學校的位置時，已考慮於適當位置設置校巴上落處，希望乘坐校巴的學童無須橫過馬路。

11. 蘇西智議員贊成皇后山計劃的擬議修訂項目，並提出下列意見和建議：

(a) 把公共車輛總站移至住宅大廈對出位置可減少車輛對居民造成的影響；

(b) 請有關部門留意徵收皇后山計劃所需私人土地的進展；

(c) 建議路政署和相關部門興建一條連接皇后山計劃和港鐵粉嶺站途經布格仔路的單車徑和相應單車停泊位。

12. 柯倩儀議員詢問皇后山計劃的公共車輛總站會否設有上蓋。

13. 翁德玲女士回應說，皇后山計劃的公共車輛總站設有上蓋，並會於上蓋設置花園，以增加皇后山計劃的綠化休憩空間。

14. 侯金林議員詢問皇后山計劃會否興建有蓋行人通道，方便居民前往公共車輛總站。

15. 翁德玲女士回應說，皇后山計劃內的主要通道為有蓋行人通道，在可行的情況下，房屋署希望達到人車分隔的效果。

16. 主席提出下列意見和建議：

- (a) 請房屋署留意行人通道上蓋的設計。他指出，雍盛苑的行人通道上蓋設計較高和窄，因此，該有蓋行人通道內的行人仍受雨水影響；
- (b) 贊成蘇西智議員有關興建單車徑的建議，並理解布格仔路或未能興建一條標準單車徑；
- (c) 上水 3、4 號用地計劃鄰近公營房屋彩園邨，購物方便，而皇后山計劃位於鄉郊，附近沒有其他屋苑，因此皇后山計劃十分需要零售設施，建議房屋署提高皇后山計劃零售設施的樓面面積。

17. 翁德玲女士回應如下：

- (a) 皇后山計劃需要提供足夠的零售設施，以滿足將來 35 000 人口和周邊市民的需要。皇后山計劃將會設有濕貨街市、超級市場、中式酒樓、各類型食肆、診所和各類零售商店等，零售設施將設於近龍馬路的出入口和公共車輛總站對面，方便市民購物；
- (b) 她解釋設計有蓋行人通道上蓋的高度時，須考慮地形和車輛出入等因素。就皇后山計劃，房屋署會在地積比率的限制內儘量善用可建樓面面積作住宅用途，由於有蓋行人通道亦會佔用樓面面積，因此房屋署於設計皇后山計劃的有蓋行人通道時，須作通盤考慮，在提供一條有效用的有蓋行人通道之餘，亦不會對可提供的住宅單位數量造成太大影響；

- (c) 有關於布格仔路興建單車徑的建議，她介紹皇后山計劃的主幹道設有單車徑。佔地 13 多公頃的皇后山計劃是一個公共房屋發展項目，而她只能就皇后山計劃內的範疇作出跟進工作。議員亦曾於 2014 年 10 月 9 日舉行的北區區議會會議上就皇后山計劃周邊道路網絡表示關注，而土木工程拓展署亦於會議上表示於日後進行相關的大型檢討工作時才會考慮該部分。

18. 黃宏滔議員提出下列意見、問題和建議：

- (a) 房屋署應為零售設施提供相關的支援，如卸貨區；
- (b) 詢問皇后山計劃的公共車輛總站樓層數目，現時很多北區的公營房屋如清河邨的公共車輛總站空間不足，導致屋邨發展後沒有空間增加巴士路線。由於皇后山計劃處於鄉郊，居民須乘坐接駁小巴或的士前往市區，他擔心現有的公共車輛總站未能應付巴士、小巴、的士和客貨車的需求，建議興建多層公共車輛總站；
- (c) 建議運用公共車輛總站上蓋一半的空間興建康樂設施，如籃球場或小型足球場。

19. 賴心議員提出下列意見和建議：

- (a) 公共車輛總站應預留空間，以應付未來的發展需要；
- (b) 贊成主席有關增加零售設施的建議；
- (c) 以彩園邨為例，區內已發展的公營房屋面對車輛停泊位不足的問題，建議皇后山計劃興建足夠的車輛停泊位；
- (d) 認同主席有關有蓋行人通道的意見，建議房屋署設計的有蓋行人通道須於下雨時能遮擋雨水，如祥華邨的有蓋行人通道；
- (e) 就北區對外的交通安排表示關注，特別是沙頭角公路的承載能力。

20. 彭振聲議員就沙頭角公路往粉嶺方向全日塞車的問題表示關注，認為有需要於接駁龍馬路的沙頭角公路路段增加一條行車線。

21. 鍾永康先生回應說，土木工程拓展署曾於 2014 年 10 月 9 日舉行的北區區議會會議上報告，土木工程拓展署已就皇后山計劃進行包括交通方面的可行性評估，並將會招聘顧問公司就皇后山計劃可行性評估的建議進行探討和詳細設計。顧問公司定會研究議員提出的意見，然後向工作小組報告研究所得的初步結果。

22. 工作小組支持皇后山計劃的擬議修訂項目。

23. 主席請有關部門適時向工作小組報告最新進展。

規劃署
房屋署
土木工程
拓展署

~~第 2 項——其他事項~~

24. 成員沒有提出其他事項討論。

~~第 3 項——下次會議日期~~

25. 主席表示，下次會議日期將由秘書處另行通知。

26. 會議於上午 12 時 28 分結束。

北區區議會秘書處
2015 年 4 月