

RURAL AND NEW TOWN PLANNING COMMITTEE OF THE TOWN PLANNING BOARD

RNTPC Paper No. 2/15

**For Consideration by
the Rural and New Town Planning Committee on 27.2.2015**

**PROPOSED AMENDMENTS TO THE
APPROVED SO KWUN WAT OUTLINE ZONING PLAN NO. S/TM-SKW/11**

**PROPOSED AMENDMENTS TO
THE APPROVED SO KWUN WAT OUTLINE ZONING PLAN NO. S/TM-SKW/11**

1. Introduction

This paper is to seek Members' agreement that:

- (a) the proposed amendments to the approved So Kwun Wat Outline Zoning Plan (OZP) No. S/TM-SKW/11 as shown on the draft OZP No. S/TM-SKW/11A (**Attachment II**) and its Notes (**Attachment III**) are suitable for exhibition for public inspection under section 5 of the Town Planning Ordinance (the Ordinance); and
- (b) the revised Explanatory Statement (ES) of the OZP (**Attachment IV**) should be adopted as an expression of the Town Planning Board's (the Board's) planning intentions and objectives for the various land use zonings of the OZP and is suitable for published together with the draft OZP.

2. Status of the Current OZP

- 2.1. On 12 April 2011, 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/TM-SKW/11. On 6 May 2011, the approved So Kwun Wat OZP No. S/TM-SKW/11 (**Attachment I**) was exhibited for public inspection under section 9(5) of the Ordinance.
- 2.2. On 14 April 2014, the CE in C referred the approved So Kwun Wat OZP No. S/TM-SKW/11 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. On 15 May 2014, the reference back was notified in the Gazette under section 12(2) of the Ordinance.

3. Background

- 3.1. It was stated in the 2013 Policy Address that the Government would adopt a multi-pronged approach to build up land reserve with a view to meeting housing and other development needs. It was reaffirmed in the 2014 Policy Address that the Government would continue to review various land uses and rezone sites as appropriate for residential use. The Government has taken steps to review the "Green Belt" ("GB") sites in two stages. The Stage 1 review mainly focused on the "GB" sites which had been devegetated, deserted or formed and did not require extensive tree felling or slope cutting. The Stage 2 review covered the remaining "GB" sites which are located on the fringe of urban or new development areas with a relatively lower buffer or conservation value, including those sites which are close to existing developed areas or

public roads. The latter sites will have good potential for residential use as they are close to transport infrastructure and supporting facilities such as water supply and sewerage. Based on this, a site zoned “GB” to the west of Kwun Fat Street in So Kwun Wat is identified as suitable for housing development (**Attachment II**) as it is located on the fringe of Tuen Mun New Town and is close to existing developed areas and public roads.

- 3.2. The 2014 Policy Address also 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.
- 3.3. The proposed housing site identified is located in Tuen Mun East, which adjoins the Tuen Mun New Town. The maximum PR in Tuen Mun East within the Tuen Mun New Town falls within the Density Zone 3, i.e. a maximum PR of 3. To maximise 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. In the latest round of amendments to the Tuen Mun OZP in 2014, the PR of housing sites in Tuen Mun East are also increased to/pitched at 3.6 to 4. To ascertain the technical feasibility of the proposed housing site and the related increase in PR, technical review had been carried out for the amendment item (**Attachment VII**) by Transport Department, Highways Department, Water Supplies Department, Drainage Services Department and Environmental Protection Department to assess the feasibility of the proposed housing development and associated PR increase. Traffic, sewerage, water supply, drainage, air and noise impacts have been assessed, which are further elaborated in the technical review in paragraphs 4.11.1 to 4.11.6 below.
- 3.4. According to the Housing, Planning and Lands Bureau Technical Circular No. 1/06 on Air Ventilation Assessments (AVA) setting out the guidance for applying AVA for government projects, AVA would be required amongst others, for developments on sites of over 2 hectares (ha) and with an overall PR of 5 or above, sites located within breezeways, developments on waterfront sites with lot frontage exceeding 100m in length, or development proposals with total gross floor area (GFA) exceeding 100,000m². The site identified for proposed housing development has a proposed total GFA exceeding 100,000m². An AVA (by Expert Evaluation) (AVA EE) has been commissioned by the Planning Department (PlanD) to assess the likely impacts on the pedestrian wind environment under the amendment item (**Attachment V**). Based on the recommendations of the AVA EE, non-building areas (NBA) within the site are identified in order to maintain the wind permeability. The design of the future developments on this site will need to incorporate NBAs in accordance with the recommendations of the AVA EE. To allow design flexibility, no specific NBAs for the site will be incorporated on the OZP. The requirements as recommended in the AVA EE will be incorporated in the ES and lease. Should the future developer be able to justify with supporting study, variation to the NBAs as identified by the AVA EE may be considered under the lease.

- 3.5. To assess the visual impact of the proposed rezoning site for housing purpose, Visual Appraisal for the site has been undertaken by PlanD (**Attachment VI**). Photomontages are prepared to illustrate the possible visual impacts of the proposed development as shown on **Plans 5a to 5c**. Suitable vantage points frequently visited by the public are selected for illustration.
- 3.6. Inevitably, the existing vegetation will be affected by the proposed development and substantial tree felling will be necessary. Tree survey at the western part of the proposed site has been conducted. No Registered Old and Valuable Trees or Potentially Registrable Trees are recorded in the tree survey. No tree belonging to tree species included in the latest edition of the publication: Rare and Precious Plants of Hong Kong, issued by Agriculture Fisheries and Conservation Department have been identified. Tree survey for the rest of the site is still being conducted. Tree preservation and compensatory planting proposals will be provided for future housing developments in accordance with the Development Bureau (DEVB) Technical Circular (Works) No. 10/2013 for Government projects and Lands Department (LandsD) Land Administration Office Practice Note No. 7/2007 for private projects. Requirements for submission of tree preservation proposals and landscaping proposals/landscape master plan, where appropriate, will be included in the lease conditions.

4. Rezoning of the Site West of Kwun Fat Street (Proposed Amendment Item A)

The Site and its Surroundings

- 4.1. The site (about 6.03ha), which is elongated in shape, is located to the south of Tuen Mun Road, to the north of Castle Peak Road – Tai Lam, to the east of Siu Sau Village and to the west of Kwun Fat Street (**Plan 1**). The site is partly covered with vegetation in the west and partly occupied by a formed platform with temporary structures and squatters clustering on the eastern portion (**Plans 2, 3, 4a to 4d**).
- 4.2. The surrounding areas of the Site are :
- (a) to the immediate north of the site is Tuen Mun Road, across Tuen Mun Road is a sloping area covered by vegetation and a residential development namely Grandview Terrace is located to the further north;
 - (b) to the immediate east of the site is a building structure which falls within “R(C)2” zone;
 - (c) to the south of the site are residential developments within the Tuen Mun OZP including the Hillgrove, Aqua Blue, and the Aegean within “Residential (Group B)” (“R(B)”) zone and Fiona Garden, Castle Peak Villas and other villa houses within an area zoned “R(B)13”;
 - (d) a petrol filling station (without LPG facilities) zoned “Other Specified Uses (for “Petrol Filling Station” only) (“OU(PFS)”) is located immediately outside the southern boundary of the eastern portion of the site; and

- (e) to the west is an area zoned “R(B)” within Tuen Mun OZP, which has not been developed.

Rezoning Proposal

- 4.3. It is proposed to rezone the site from “GB” to “R(B)2”, with a maximum PR of 3.6 and a maximum building height of 80 metres above Principal Datum (mPD) for housing development. The sloping area and road embankments along Tuen Mun Road within the boundary of the rezoning site have been excluded from the net site area for calculation of PR purpose. The planning intention of the “R(B)2” zone is primarily for sub-urban medium-density residential developments in rural areas. The development parameters of the proposed housing development are as follows:

Zoning Area	:	6.03ha (about)
Development Site Area	:	3.38ha (about)
Maximum PR	:	3.6
Maximum Building Height	:	80mPD
Estimated No. of flats	:	2,000 (about)

Nature Conservation

- 4.4. According to the Director of Agriculture, Fisheries and Conservation, the site is sandwiched between Tuen Mun Road to the north and Castle Peak Road to the south with several man-made slopes fronting the roads. The western portion of the site is a wooded knoll and the eastern portion of the site is occupied by a number of squatters. Mainly common tree species or fruit trees are found on the site. As a result of the considerable human disturbance to the site, in general, its ecological value is not considered high.

Air Ventilation Assessments

- 4.5. The net site for residential development, with an area of 3.38ha, has an elongated shape located between Siu Sau Village on the west and the residential houses along Castle Peak Road on the south (i.e. Fiona Garden, the Aegean and the Hillgrove, etc). Under the prevailing wind from the east, south-east and south-south-east, developments within the site are expected to lead to decline in air ventilation performance in Siu Sau Village and committed developments in the eastern part of Tuen Mun East. With incoming prevailing wind from north and north-north-east, the wind shadow area of the developments would reach the existing residential area of Fiona Garden, the Aegean, and the northern most buildings of the Hillgrove, possibly inducing negative air ventilation impact. Considering the configuration of the site, the developments would likely form “wall-like” buildings which would further reduce the permeability of the site and block penetration of summer wind and sea breeze inland.
- 4.6. Considering the potential air ventilation impacts and the existing wind environment and wind corridors identified in the area, five NBAs, each of 20m in width, are recommended across the site in a generally north-south alignment.

They include an NBA measured 20m from the western zoning boundary of the site; one in alignment with Tsing Fat Street; one to the north of the “OU(PFS)” site one in alignment with Tsing Tai Road and the last one in alignment with Lok Yi Street. In addition to the NBAs, the AVA EE also recommended that the minimisation of podium should be encouraged and fulfilment of building separation requirements in accordance with the sustainable building design (SBD) Guidelines should be adopted where appropriate to minimise the potential impact due to development. To take forward the recommendation of the AVA EE, the requirements of NBAs will be incorporated into the ES and lease where appropriate. If the NBA requirements cannot be met, further quantitative AVA studies should be conducted to assess the air ventilation performance.

Visual and Landscape Appraisal

- 4.7. The site is located at the south-western part of the So Kwun Wat OZP. The adjacent neighbourhood area (including Tuen Mun East covered by the Tuen Mun OZP) has been developed as a low to medium density housing area. The site abuts Tuen Mun Road to the north, Castle Peak Road-Tai Lam to the south and Kwun Fat Street to the east. To the further south of the site, there are some existing private residential developments. The proposed maximum building height of the site is 80mPD and the adjoining developments have building heights ranged from about 20mPD to 60mPD including the Hillgrove, the Aegean, Silvern Garden, Fiona Garden, Furgo Development Centre and the Castle Bay.
- 4.8. Three local vantage points popular and accessible to the public are selected for conducting visual appraisal. When viewed from the promenade along Golden Beach at Hong Kong Gold Coast as indicated in the photomontage in **Plan 5a**, the proposed development at the site would be largely screened off by the Hong Kong Gold Coast Phase 1 and the resultant mass appears to be an extension of the planned developments with comparable building height. When viewed from the Beachfront adjacent to the Barbecue Spot by the Beach at Tai Lam towards the housing site as indicated in the photomontage in **Plan 5b**, the loss of visual openness due to blockage by the proposed development is tolerable as alternative open views are available in the setting. When viewed from the MacLehose Trail Section 10 as indicated in the photomontage in **Plan 5c**, the proposed development would be largely screened off by the planned housing sites in the Tuen Mun OZP and the natural setting. The scale of the proposed development would unlikely be incompatible with the future townscape in visual terms.
- 4.9. The NBAs recommended under the AVA EE will not only help address the air ventilation impacts, they also reduce the possible visual impact created by the proposed development by enhancing building permeability. In this connection, NBAs aligning to the existing streets perpendicular to Castle Peak Road-Tai Lam are recommended in order to promote building permeability of the proposed development. As such, significant visual impact due to the proposed rezoning is not anticipated.
- 4.10. The site is situated in an area of urban fringe landscape character dominated by wooded landscape and low-rise residential development. The proposed

rezoning is not incompatible with the surrounding landscape character given the changing land-use context of the Tuen Mun East area. As the site is located on steep slopes, clearance of some existing trees and vegetation would be required to implement the proposed residential development. To minimise any possible adverse impact to existing landscape resources, tree survey is being conducted to ascertain the species, sizes, condition and value of those existing trees as to whether they should be preserved if feasible. The project proponent of the development sites should incorporate landscape treatment into the future design of the development and preserve any valuable trees found on the site where possible. Existing trees of good quality should also be retained and integrated with the future development as far as possible.

Technical Assessments

- 4.11. As mentioned in paragraph 3.3 above, a preliminary technical review for the proposed housing site under the amendment item had been conducted by relevant departments to assess the feasibility of the site for housing development and for PR increase. In the review, the traffic, drainage, sewerage, water supply, air and noise impacts have been assessed. The findings conclude that the proposed amendments would not cause insurmountable problems on traffic and infrastructural capacity as well as on environmental aspects. The findings are summarised as follows:

Traffic

- 4.11.1. Commissioner for Transport considers that there will be no insurmountable problems arising from the proposed housing development on the assumption that the proposed junction improvement and the Castle Peak Road – Castle Peak Bay (CPR-CPB) widening works are completed before the occupation of the proposed housing developments.

Sewerage

- 4.11.2. Director of Environmental Protection advises that there is no existing public sewer in the vicinity to receive the discharge of sewage arising from the development on the proposed amendment item. The on-going Castle Peak Road Trunk Sewer project, which will extend the public sewerage coverage to Siu Lam and Tai Lam Chung, is in the construction stage and the design handling capacity has been fully allocated to the planned public housing, private residential developments and institutional facilities. Nevertheless, the developer of individual development within the site is required to carry out sewerage impact assessment (SIA) to assess the impacts on the sewerage system and environment associated with the development as well as the required mitigation measures to render the residual impacts of the development acceptable. He further advises that the developer(s) shall also make their own arrangements for the treatment and disposal of the sewage arising from individual development. These requirements would be included in the lease where appropriate. As such, the required sewage treatment and disposal facilities would not

cause insurmountable problems.

- 4.11.3. A new regional sewage treatment works and associate public sewerage collection system are being planned to serve the Tuen Mun East Area, including the proposed amendment item in So Kwun Wat OZP, in the long term. When the new public sewerage system is commissioned, the Government may require mandatory connection to the sewerage system. As such, the developers shall make provision at their own expense for the conveyance and connection of the sewage arising from the developments to the new sewerage system.

Drainage

- 4.11.4. According to Director of Drainage Services' record, the site is in an area where no public stormwater drainage maintained by Drainage Services Department is available for connection. The developer shall conduct a drainage impact assessment (DIA) and implement all the mitigation measures as identified in the DIA to ensure that it will not cause adverse drainage impact to the adjacent areas. The developer shall arrange his own stormwater disposal facilities to cater for the rain water falling onto or flowing to his site. These requirements would be included in the lease as appropriate. With the implementation of these requirements and measures, there should be no insurmountable drainage problems arising from the housing developments within the site.

Water Supply

- 4.11.5. Director of Water Supplies advises that the existing water supply infrastructure including water treatment works and Siu Lam Fresh Water Service Reservoir are adequate to meet the fresh and flushing water demand arising from the proposed housing site, but local improvement to the water mains in the distribution network and upgrading of Lok On Pai Sewerage Pumping Station supply system may be required.

Air and Noise Impact

- 4.11.6. According to the Director of Environmental Protection, the site is situated along heavily trafficked roads including Tuen Mun Road and Castle Peak Road – Tai Lam. It is subject to severe traffic related noise and vehicular emission impacts. The site shall adopt appropriate mitigation measures, in order to comply with the Hong Kong Planning Standards and Guidelines (HKPSG) requirements. Noise Impact Assessment (NIA) to address the potential traffic noise impact arising from Tuen Mun Road and Castle Peak Road, and air buffer distance (20m from the Tuen Mun Road and 5m from Castle Peak Road) should be provided to meet the HKPSG. These requirements will be included in the land lease conditions for future developer(s) to carry out.

- 4.12 The future developer(s) will be required to conduct the necessary impact assessments including DIA, NIA and SIA under the lease; and to implement the mitigation measures as identified in the assessments.

5. Provision of GIC Facilities and Open Space

- 5.1. The provision of GIC facilities and open space within the planning scheme area of the So Kwun Wat OZP has been assessed. The planned population including the population of the proposed housing development is about 16,955 persons, which has not reached a level that would warrant the provision of facilities on the basis of the standards recommended in the HKPSG, such as clinic/health centre or district library (**Attachment VIIIa**).
- 5.2. Since So Kwun Wat adjoins the eastern part of Tuen Mun District, the provision of GIC facilities in the Tuen Mun District will also meet the GIC demand of the So Kwun Wat population (**Attachment VIIIb**). Based on the planned population of about 590,215 for the Tuen Mun District, including the planned population of the Tuen Mun OZP, the Lam Tei Yick Yuen OZP, and the So Kwun Wat OZP (including the population of the proposed housing development), the provision of major GIC facilities in the district is generally sufficient. There will also be a surplus provision of local open space and district open space. There will be a shortage of 1,425 hospital beds in the Tuen Mun District but the provision of hospital beds is on regional basis which would be addressed by the Hospital Authority.

6. Proposed Amendments to the Matters shown on the OZP

Amendment Item A

A site to the west of Kwun Fat Street is proposed to be rezoned from “GB” to “R(B)2” with a maximum PR of 3.6 and a maximum building height of 80mPD (**Attachment II**).

7. Proposed Amendments to the Notes of the OZP

The proposed amendments to the Notes of the OZP with additions in italics and deletions in ‘~~crossed out~~’ are at **Attachment III** for Members’ consideration. The proposed amendments are summarised as follows:

The Notes of the “R(B)” zone is updated to include remarks for sub-zone “R(B)2”, to reflect the maximum PR for the new housing site as mentioned in paragraphs 4.1 and 4.3 above.

8. Revision to the Explanatory Statement of the OZP

The Explanatory Statement of the OZP has been revised to take into account the proposed amendments as mentioned in the above paragraphs. Opportunity is also

taken to update the general information to reflect the latest circumstances within the planning scheme area of the OZP. A copy of the revised ES with proposed additions highlighted in ***bold and italics*** and deletions in ~~‘crossed-out’~~ is at **Attachment IV**.

9. **Plan Number**

Upon exhibition for public inspection, the Plan will be renumbered as S/TM-SKW/12.

10. **Consultation**

10.1. Departmental consultation

The proposed amendments have been circulated to the following relevant bureaux/departments for comments. Their comments, if any, have been incorporated in the proposed amendments where appropriate.

- Secretary for Transport and Housing
- Secretary for Home Affairs
- Secretary for Education
- Secretary for Food and Health
- Secretary for Commerce and Economic Development
- District Lands Officer/Tuen Mun, Lands Department
- Chief Building Surveyor/New Territories West, Buildings Department
- Director of Environmental Protection
- Director of Agriculture, Fisheries and Conservation
- Commissioner for Transport
- Chief Highway Engineer/NT West, Highway Department
- Chief Engineer 5/Major Works Office (2), Major Works Project, Highway Department
- Project Manager/New Territories West, Civil Engineering and Development Department
- Chief Engineer/Mainland North, Drainage Services Department
- Chief Engineer/Development (2), Water Supplies Department
- Director of Electrical and Mechanical Services
- District Officer (Tuen Mun), Home Affairs Department
- Director of Social Welfare
- Director-General of Civil Aviation
- Government Property Administrator
- Director of Food and Environmental Health
- Head of Geotechnical Engineering Office, Civil Engineering and Development Department
- Director of Fire Services
- Director of Leisure and Cultural Services
- Director of Health
- Director of the Hong Kong Observatory (D of the HK Observatory)
- Director of Housing
- Commissioner of Police
- Executive Secretary (Antiquities and Monuments), Leisure and Cultural Services Department
- Chief Town Planner/Urban Design & Landscape, Planning Department

10.2. Public Consultation

- 10.2.1 On 6.1.2015, the Tuen Mun District Council (TMDC) was consulted and members of TMDC generally had no objection to the proposed amendments to the So Kwun Wat OZP. Members of TMDC expressed concern over the traffic impact and requested early consultation about the proposed amendments with the public. The draft extract of the minutes of the TMDC meeting is at **Attachment IX**.
- 10.2.2 On 7.2.2015, representatives of Planning Department attended a meeting with the local residents organised by a TMDC member. A letter was submitted to Planning Department and the Development Bureau at the meeting (**Attachment X**). In gist, there were concerns over the insufficient transport, infrastructure and community facilities in Tuen Mun East and that any increase in population would worsen the situation. As mentioned in paragraph 4.11 above, the traffic, drainage, sewerage, water supply, air and noise impacts have been assessed under preliminary technical review. The findings conclude that the proposed amendments would not cause insurmountable problems on traffic and infrastructural capacity as well as on environmental aspects. As explained in paragraph 5.2 above, there will also be sufficient provision of major GIC facilities and open space in the Tuen Mun East District to cater for the planned population.
- 10.2.3 The TMDC will be consulted again on the proposed amendments during the statutory exhibition period of the draft So Kwun Wat OZP No. S/TM-SKW/11A (to be renumbered as S/TM-SKW/12 upon exhibition) under section 5 of the Ordinance.

11. Decision Sought

Members are invited to:

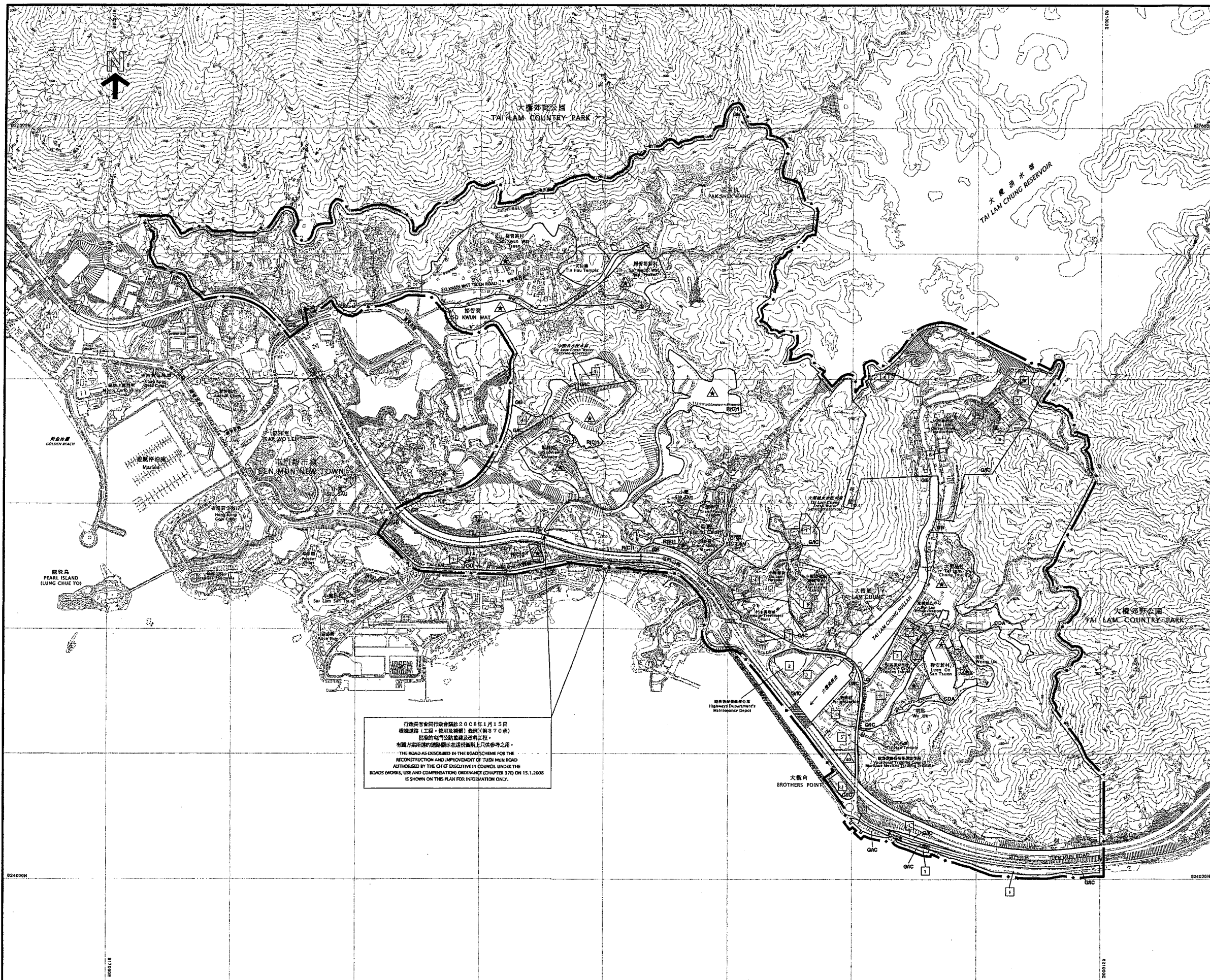
- (a) agree that the proposed amendments to the approved So Kwun Wat OZP No. S/TM-SKW/11 and that the draft So Kwun Wat OZP No. S/TM-SKW/11A at **Attachment II** (to be renumbered as S/TM-SKW/12 upon exhibition) and its Notes at **Attachment III** are suitable for exhibition for public inspection under section 5 of the Ordinance; and
- (b) adopt the revised ES at **Attachment IV** for the draft So Kwun Wat OZP No. S/TM-SKW/11A as an expression of the planning intention and objectives of the Board for various land use zones on the Plan and agree that the revised ES is suitable for exhibition together with the OZP.

12. Attachments

Attachment I	Approved So Kwun Wat Outline Zoning Plan No. S/TM-SKW/11 (reduced scale)
---------------------	--

Attachment II	Draft So Kwun Wat Outline Zoning Plan No. S/TM-SKW/11A
Attachment III	Notes of the Draft So Kwun Wat Outline Zoning Plan No. S/TM-SKW/11A
Attachment IV	Explanatory Statement of the So Kwun Wat Outline Zoning Plan No. S/TM-SKW/11A
Attachment V	Report on Expert Evaluation on Air Ventilation Assessment
Attachment VI	Visual Appraisal Report
Attachment VII	Summary of Technical Review
Attachment VIIa	Provision of Major Community Facilities and Open Space in So Kwun Wat
Attachment VIIb	Provision of Major Community Facilities and Open Space in Tuen Mun
Attachment IX	Draft extract of Minutes of Tuen Mun District Council meeting held on 6.1.2015
Attachment X	Letter submitted to Planning Department representatives at the residents' meeting dated 7.2.2015
Plan 1	Location Plan
Plan 2	Site Plan
Plan 3	Aerial Photo
Plans 4a to 4d	Site Photos
Plans 5a to 5c	Photomontages

**PLANNING DEPARTMENT
FEBRUARY 2015**



圖例
NOTATION

ZONES		地帶
COMPREHENSIVE DEVELOPMENT AREA	CDA	綜合發展區
RESIDENTIAL (GROUP B)	R(B)	住宅 (乙類)
RESIDENTIAL (GROUP C)	R(C)	住宅 (丙類)
VILLAGE TYPE DEVELOPMENT	V	鄉村式發展
GOVERNMENT, INSTITUTION OR COMMUNITY	GRC	政府、機構或社區
OPEN SPACE	O	休憩用地
OTHER SPECIFIED USES	OU	其他指定用途
GREEN BELT	GB	綠化地帶
COMMUNICATIONS		交通
MAJOR ROAD AND JUNCTION		主要道路及路口
ELEVATED ROAD		高架道路
MISCELLANEOUS		其他
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 (在主水平基準上若干米)
MAXIMUM BUILDING HEIGHT RESTRICTION AS STIPULATED ON THE NOTES		《註釋》內訂明最高建築物高度限制
MAXIMUM BUILDING HEIGHT (IN NUMBER OF STOREYS)		最高建築物高度 (樓層數目)
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	6.45	1.36	綜合發展區
RESIDENTIAL (GROUP B)	4.43	0.94	住宅 (乙類)
RESIDENTIAL (GROUP C)	22.13	4.67	住宅 (丙類)
VILLAGE TYPE DEVELOPMENT	32.33	6.83	鄉村式發展
GOVERNMENT, INSTITUTION OR COMMUNITY	65.76	13.88	政府、機構或社區
OPEN SPACE	0.78	0.16	休憩用地
OTHER SPECIFIED USES	0.14	0.03	其他指定用途
GREEN BELT	310.81	65.63	綠化地帶
NULLAH	9.07	1.92	明渠
MAJOR ROAD ETC.	21.69	4.58	主要道路等
TOTAL PLANNING SCHEME AREA	473.58	100.00	規劃範圍總面積

行政長官會同行政會議於2008年1月15日
根據《工程、規劃及地產》條例(第370章)
批准此項圖則。
有關方案所建議的規劃圖則只供參考之用。
THE ROAD AS DESCRIBED IN THE ROAD SCHEME FOR THE
RECONSTRUCTION AND IMPROVEMENT OF TUN MUN ROAD
AUTHORISED BY THE CHIEF EXECUTIVE IN COUNCIL UNDER THE
ROADS (WORKS, USE AND COMPOSITION) ORDINANCE (CHAPTER 370) ON 15.1.2008
IS SHOWN ON THIS PLAN FOR INFORMATION ONLY.

夾附的《註釋》屬這份圖則的一部分
THE ATTACHED NOTES ALSO FORM PART OF THIS PLAN

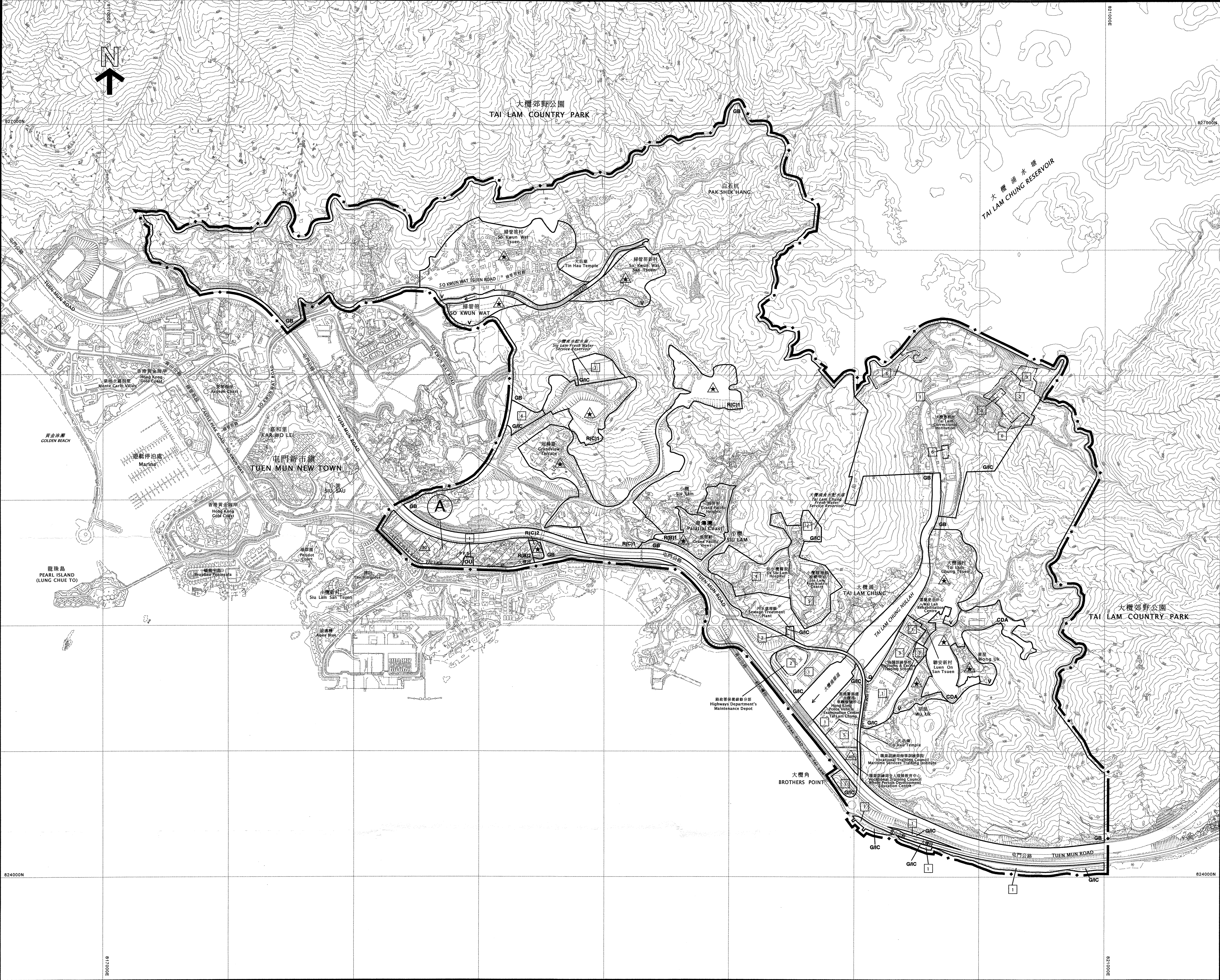
行政長官會同行政會議於2011年4月12日 根據城市
規劃條例第9(1)(a)條核准的圖則
APPROVED BY THE CHIEF EXECUTIVE IN COUNCIL UNDER
SECTION 9(1)(a) OF THE TOWN PLANNING ORDINANCE ON
12 APRIL 2011

Me Manda CHAN 陳詠雯女士
CLERK TO THE EXECUTIVE COUNCIL 行政會議秘書

香港城市規劃委員會依據城市規劃條例擬備的掃管笏分區計劃大綱圖
TOWN PLANNING ORDINANCE, HONG KONG TOWN PLANNING BOARD
SO KWUN WAT - OUTLINE ZONING PLAN

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

規劃署遵照城市規劃委員會指示擬備
PREPARED BY THE PLANNING DEPARTMENT UNDER
THE DIRECTION OF THE TOWN PLANNING BOARD
圖則編號
PLAN No. S/TM-SKW/11



圖例
NOTATION

ZONES		地帶
COMPREHENSIVE DEVELOPMENT AREA	CDA	綜合發展區
RESIDENTIAL (GROUP B)	R(B)	住宅（乙類）
RESIDENTIAL (GROUP C)	R(C)	住宅（丙類）
VILLAGE TYPE DEVELOPMENT	V	鄉村式發展
GOVERNMENT, INSTITUTION OR COMMUNITY	G/C	政府、機構或社區
OPEN SPACE	O	休憩用地
OTHER SPECIFIED USES	OU	其他指定用途
GREEN BELT	GB	綠化地帶

COMMUNICATIONS		交通
MAJOR ROAD AND JUNCTION		主要道路及路口
ELEVATED ROAD		高架道路

MISCELLANEOUS		其他
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 (在主水平基準上若干米)
MAXIMUM BUILDING HEIGHT RESTRICTION AS STIPULATED ON THE NOTES		《註釋》內訂明最高建築物高度限制
MAXIMUM BUILDING HEIGHT (IN NUMBER OF STOREYS)		最高建築物高度 (樓層數目)
PETROL FILLING STATION		加油站

土地用途及面積一覽表
SCHEDULE OF USES AND AREAS

USES	大約面積及百分率 APPROXIMATE AREA & %		用途
	公頃 HECTARES	% 百分率	
COMPREHENSIVE DEVELOPMENT AREA	6.45	1.36	綜合發展區
RESIDENTIAL (GROUP B)	10.46	2.21	住宅（乙類）
RESIDENTIAL (GROUP C)	22.13	4.67	住宅（丙類）
VILLAGE TYPE DEVELOPMENT	32.33	6.83	鄉村式發展
GOVERNMENT, INSTITUTION OR COMMUNITY	65.75	13.88	政府、機構或社區
OPEN SPACE	0.78	0.16	休憩用地
OTHER SPECIFIED USES	0.14	0.03	其他指定用途
GREEN BELT	304.78	64.36	綠化地帶
NULLAH	9.07	1.92	明渠
MAJOR ROAD ETC.	21.69	4.58	主要道路等
TOTAL PLANNING SCHEME AREA	473.58	100.00	規劃範圍總面積

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 5 條展示。
THE ATTACHED NOTES ALSO FORM PART OF THIS PLAN
AND HAVE BEEN AMENDED FOR EXHIBITION UNDER
SECTION 5 OF THE TOWN PLANNING ORDINANCE

核准圖編號 S / T M - S K W / 1 1 的修訂
AMENDMENT TO APPROVED PLAN No. S/TM-SKW/11

AMENDMENT EXHIBITED UNDER SECTION 5
OF THE TOWN PLANNING ORDINANCE

按照城市規劃條例第 5 條
展示的修訂

AMENDMENT ITEM A

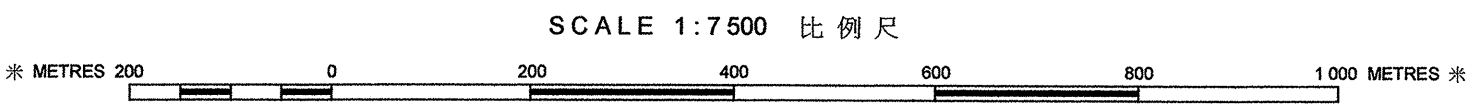
(參看附表)
(SEE ATTACHED SCHEDULE)

按照城市規劃條例第 5 條展示的
核准圖編號 S / T M - S K W / 1 1 的修訂
AMENDMENT TO APPROVED PLAN No. S/TM-SKW/11 EXHIBITED
UNDER SECTION 5 OF THE TOWN PLANNING ORDINANCE ON

SECRETARY
TOWN PLANNING BOARD

城市規劃委員會秘書

香港城市規劃委員會依據城市規劃條例擬備的掃管笏分區計劃大綱圖
TOWN PLANNING ORDINANCE, HONG KONG TOWN PLANNING BOARD
SO KWUN WAT - OUTLINE ZONING PLAN



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

圖則編號
PLAN No. S/TM-SKW/11A

APPROVED DRAFT SO KWUN WAT
OUTLINE ZONING PLAN NO. S/TM-SKW/114

(Being an ~~Approved~~ *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 draft 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 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 draft 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 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 draft 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 first draft outline zoning plan 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 draft 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, railway station 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).

APPROVED *DRAFT* SO KWUN WAT
OUTLINE ZONING PLAN NO. S/TM-SKW/114

Schedule of Uses

	<u>Page</u>
COMPREHENSIVE DEVELOPMENT AREA	1
RESIDENTIAL (GROUP B)	4
RESIDENTIAL (GROUP C)	6
VILLAGE TYPE DEVELOPMENT	8
GOVERNMENT, INSTITUTION OR COMMUNITY	10
OPEN SPACE	12
OTHER SPECIFIED USES	13
GREEN BELT	14

COMPREHENSIVE DEVELOPMENT AREA

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
	<p>Eating Place</p> <p>Educational Institution</p> <p>Flat</p> <p>Government Refuse Collection Point</p> <p>Government Use (not elsewhere specified)</p> <p>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)</p> <p>Institutional Use (not elsewhere specified)</p> <p>Library</p> <p>Market</p> <p>Off Course Betting Centre</p> <p>Office</p> <p>Place of Entertainment</p> <p>Place of Recreation, Sports or Culture</p> <p>Private Club</p> <p>Public Clinic</p> <p>Public Convenience</p> <p>Public Transport Terminus or Station</p> <p>Public Utility Installation</p> <p>Public Vehicle Park (excluding container vehicle)</p> <p>Recyclable Collection Centre</p> <p>Religious Institution</p> <p>Residential Institution</p> <p>Rural Committee /Village Office</p> <p>School</p> <p>Shop and Services</p> <p>Social Welfare Facility</p> <p>Utility Installation for Private Project</p>

(Please see next page)

COMPREHENSIVE DEVELOPMENT AREA (Cont'd)

Planning Intention

This zone is intended for comprehensive development/redevelopment of the area for residential use with the provision of commercial, open space and other supporting facilities, if any, to serve the residential neighbourhood. The zoning is to facilitate appropriate planning control over the development mix, scale, design and layout of development, taking account of various environmental, traffic, infrastructure and other constraints.

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 and urban design proposals within the area;
 - (vi) programmes of development in detail;
 - (vii) an environmental impact 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;
 - (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.

(Please see next page)

COMPREHENSIVE DEVELOPMENT AREA (Cont'd)

Remarks (Cont'd)

- (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 total gross floor area (GFA) of 105,990m² and a maximum building height of 18 storeys (70 *metres above Principal Datum* (mPD)).
- (d) In determining the maximum GFA for the purposes of paragraph (c) 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. Any floor space that is constructed or intended for use solely as public transport facilities, or GIC facilities, as required by the Government, may also be disregarded.
- (e) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the GFA/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 B)

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 Library Residential Institution School (in free-standing purpose-designed building only) Utility Installation for Private Project	Ambulance Depot Eating Place Educational Institution Government Refuse Collection Point Government Use (not elsewhere specified) Hospital Hotel Institutional Use (not elsewhere specified) Market Office Petrol Filling Station Place of Entertainment 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 Rural Committee /Village Office School (not elsewhere specified) Shop and Services Social Welfare Facility Training Centre

Planning Intention

This zone is intended primarily for sub-urban medium-density residential developments in rural areas 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) On land designated "Residential (Group B)1", 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 domestic gross floor area (GFA) of 97,120m², a maximum non-domestic GFA of 465m² and a maximum building height of 102mPD.
- (b) *On land designated "Residential (Group B)2", 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 the maximum building height in terms of mPD as stipulated on the Plan.*
- (b)(c) In determining the maximum GFA/*plot ratio* for the purposes of paragraphs (a) *and* (b) 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.
- (e)(d) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the GFA/*plot ratio*/building height restrictions stated in paragraphs (a) *and* (b) 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	Ambulance Depot
Government Use (Police Reporting Centre, Post Office only)	Eating Place
House	Educational Institution
Utility Installation for Private Project	Government Refuse Collection Point
	Government Use (not elsewhere specified)
	Hospital
	Hotel
	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

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.

(Please see next page)

RESIDENTIAL (GROUP C) (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 the maximum plot ratio, site coverage and building height specified below or the plot ratio, site coverage and height of the building which was in existence on the date of first publication in the Gazette of the notice of the draft development permission area plan, whichever is the greater:

<u>Sub-area</u>	<u>Maximum Plot Ratio</u>	<u>Maximum Site Coverage</u>	<u>Maximum Building Height</u>	
			<u>No. of Storey</u>	<u>Building Height</u>
R(C)1	0.4	—	3 storeys (excluding basement floor(s))	10.5m
R(C)2	0.6	40%	7 storeys (excluding basement floor(s))	24.5m

- (b) In determining the maximum plot ratio/site coverage 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/site coverage/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	Burial Ground
Government Use (Police Reporting Centre, Post Office only)	Eating Place
House (New Territories Exempted House only)	Flat
On-Farm Domestic Structure	Government Refuse Collection Point
Religious Institution (Ancestral Hall only)	Government Use (not elsewhere specified) #
Rural Committee /Village Office	House (not elsewhere specified)
	Institutional Use (not elsewhere specified)#
	Market
	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)
	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 House 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 draft 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.

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 Boarding Establishment
Animal Quarantine centre (in Government building only)	Animal Quarantine Centre (not elsewhere specified)
Broadcasting, Television and/or Film Studio	Columbarium
Correctional Institution	Crematorium
Eating Place (Canteen, Cooked Food Centre only)	Driving School
Educational Institution	Eating Place (not elsewhere specified)
Exhibition or Convention Hall	Firing Range
Field Study/Education/Visitor Centre	Flat
Government Refuse Collection Point	Funeral Facility
Government Use (not elsewhere specified)	Helicopter Fuelling Station
Hospital	Helicopter Landing Pad
Institutional Use (not elsewhere specified)	Holiday Camp
Library	Hotel
Market	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)
Pier	Marine Fueling Station
Place of Recreation, Sports or Culture	Off-course Betting Centre
Public Clinic	Office
Public Convenience	Petrol Filling Station
Public Transport Terminus or Station	Place of Entertainment
Public Utility Installation	Private Club
Public Vehicle Park (excluding container vehicle)	Radar, Telecommunications Electronic Microwave Repeater, Television and/or Radio Transmitter Installation
Recyclable Collection Centre	Refuse Disposal Installation (Refuse Transfer Station only)
Religious Institution	Residential Institution
Research, Design and Development Centre	Sewage Treatment/Screening Plant
Rural Committee /Village Office	Shop and Services
School	Utility Installation for Private Project
Service Reservoir	Zoo
Social Welfare Facility	
Training Centre	
Wholesale Trade	

(Please see next page)

GOVERNMENT, INSTITUTION OR COMMUNITY (Cont'd)

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.

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 the maximum building height in terms of number of storey(s) (excluding basement floor(s)) or mPD as stipulated on the Plan, or the height of the existing building which was in existence on the date of the publication in the Gazette of the notice of the So Kwun Wat OZP No. S/TM-SKW/10 on 7.5.2010, 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.

OPEN SPACE

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

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.

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
-----------------------------------	---

For "Petrol Filling Station" only

Petrol Filling Station

Government Use (not elsewhere specified)
Public Utility Installation

Planning Intention

This zone is intended primarily for the provision of petrol filling station.

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 the maximum building height in terms of number of storey (excluding basement floor(s)) as stipulated on the Plan.
- (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.

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	Animal Boarding Establishment
Barbecue Spot	Broadcasting, Television and/or Film Studio
Government Use (Police Reporting Centre only)	Burial Ground
Nature Reserve	Columbarium (within a Religious Institution or extension of existing Columbarium only)
Nature Trail	Crematorium (within a Religious Institution or extension of existing Crematorium only)
On-Farm Domestic Structure	Field Study / Education / Visitor Centre
Picnic Area	Firing Range
Public Convenience	Flat
Tent Camping Ground	Golf Course
Wild Animals Protection Area	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
	Zoo

(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 pond/land 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 publication in the Gazette of the notice of the draft So Kwun Wat Outline Zoning Plan No. S/TM-SKW/10 on 7.5.2010 without the permission from the Town Planning Board under section 16 of the Town Planning Ordinance.

~~APPROVED~~ *DRAFT* SO KWUN WAT OUTLINE ZONING PLAN NO. S/TM-SKW/11A

EXPLANATORY STATEMENT

EXPLANATORY STATEMENT

APPROVED *DRAFT* SO KWUN WAT OUTLINE ZONING PLAN NO. S/TM-SKW/114

	<u>CONTENTS</u>	<u>PAGE</u>
1.	INTRODUCTION	1
2.	AUTHORITY FOR THE PLAN AND PROCEDURE	1
3.	OBJECT OF THE PLAN	23
4.	NOTES OF THE PLAN	3
5.	THE PLANNING SCHEME AREA	3
6.	POPULATION	4
7.	<i>BUILDING HEIGHT RESTRICTION IN THE AREA</i>	5
78.	OPPORTUNITIES AND CONSTRAINTS	46
89.	GENERAL PLANNING INTENTION	58
910.	LAND USE ZONINGS	
910.1	Comprehensive Development Area	68
910.2	Residential (Group B)	69
910.3	Residential (Group C)	710
910.4	Village Type Development	811
910.5	Government, Institution or Community	912
910.6	Open Space	913
910.7	Other Specified Uses	1013
910.8	Green Belt	1013
1011.	TRANSPORT AND COMMUNICATION	1013
1112.	UTILITY SERVICES	1114
1213.	IMPLEMENTATION	1115
1314.	PLANNING CONTROL	1215

APPROVED-DRAFT SO KWUN WAT OUTLINE ZONING PLAN NO. S/TM-SKW/11A

(Being an ~~Approved~~ *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 ~~approved~~ *draft* So Kwun Wat Outline Zoning Plan (OZP) No. S/TM-SKW/11A. 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 So Kwun Wat OZP was previously included in the draft So Kwun Wat Development Permission Area (DPA) Plan No. DPA/TM-SKW/1 which was exhibited for public inspection under section 5 of the Town Planning Ordinance (the Ordinance) on 18 June 1993.
- 2.2 On 14 May 1996, the draft So Kwun Wat DPA Plan No. DPA/TM-SKW/1 was approved by the then Governor in Council under section 9(1)(a) of the Ordinance.
- 2.3 Under the power delegated by the then Governor, the then Secretary for Planning, Environment and Lands, directed the Board on 13 March 1995, under section 3(1)(a) of the Ordinance, to prepare an OZP for the So Kwun Wat area.
- 2.4 On 7 June 1996, the draft So Kwun Wat OZP No. S/TM-SKW/1 was exhibited for public inspection under section 5 of the Ordinance.
- 2.5 On 11 May 1999, the Chief Executive in Council (CE in C) under section 9(1)(a) of the Ordinance approved the draft OZP, which was renumbered as S/TM-SKW/2. On 22 June 1999, the CE in C referred the approved So Kwun Wat OZP No. S/TM-SKW/2 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. Since then, the OZP has been amended twice and exhibited for public inspection under section 5 or 7 of the Ordinance.
- 2.6 On 12 December 2000, the CE in C, under section 9(1)(a) of the Ordinance, approved the draft So Kwun Wat OZP, which was renumbered as S/TM-SKW/5. On 12 March 2002, the CE in C referred the approved OZP No. S/TM-SKW/5 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. Since then, the OZP has been amended once and exhibited for public inspection under section 5 of the Ordinance.
- 2.7 On 11 March 2003, the CE in C under section 9(1)(a) of the Ordinance, approved the draft So Kwun Wat OZP, which was subsequently renumbered as S/TM-SKW/7. On 8 July 2003, the CE in C referred the approved So Kwun Wat OZP No. S/TM-SKW/7 to the Board for amendment under section 12(1)(b)(ii) of the

Ordinance. Since then, the OZP has been amended once and exhibited for public inspection under section 5 of the Ordinance.

- 2.8 On 5 October 2004, the CE in C under section 9(1)(a) of the Ordinance, approved the draft So Kwun Wat OZP, which was subsequently renumbered as S/TM-SKW/9. ~~On 15 October 2004, the approved So Kwun Wat OZP No. S/TM-SKW/9 was exhibited under section 9(5) of the Ordinance.~~ ***On 3 November 2009, the CE in C referred the approved So Kwun Wat OZP No. S/TM-SKW/9 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance.***
- ~~2.9 On 3 November 2009, the CE in C referred the approved So Kwun Wat OZP No. S/TM-SKW/9 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance.~~
- 2.109 On 7 May 2010, the draft So Kwun Wat OZP No. S/TM-SKW/10, incorporating amendments mainly to rezone two sites at Siu Lam from "Government, Institution or Community" ("G/IC") to "Residential (Group C)1" ("R(C)1") and their peripheral areas from "G/IC" to "Green Belt" ("GB"), to revise the building height restrictions for "R(C)1" and "Residential (Group C)2" ("**R(C)2**") zones, to impose building height restrictions on "G/IC" and "Other Specified Uses" annotated "Petrol Filling Station" ("OU(PFS)") zones, to adjust the areas shown as "Road" and "Nullah" to reflect respectively the Tuen Mun Road improvement work and drainage project at So Kwun Wat Tsuen, and to adjust the zoning boundaries of some "G/IC" sites to be in line with their respective Government land allocation, was exhibited for public inspection under section 5 of the Ordinance. During the two-month exhibition period, a total of two representations were received. The representations were published for three weeks for public comment until 6 August 2010, and no comment was received. On 19 November 2010, after giving consideration to the representations under section 6B(1) of the Ordinance, the Board decided not to uphold the representations.
- 2.1110 On 12 April 2011, the CE in C, under section 9(1)(a) of the Ordinance, approved the draft So Kwun Wat OZP, which was subsequently renumbered as S/TM-SKW/11. On 6 May 2011, the approved So Kwun Wat OZP No. S/TM-SKW/11 ~~(the Plan)~~ was exhibited for public inspection under section 9(5) of the Ordinance.
- 2.11 ***On 14 April 2014, the CE in C referred the approved So Kwun Wat OZP No. S/TM-SKW/11 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. The reference back for the OZP was notified in the Gazette on 15 May 2014 under section 12(2) of the Ordinance.***
- 2.12 ***On _____ 2015, the draft So Kwun Wat OZP No. S/TM-SKW/12 (the Plan), incorporating amendments related to the rezoning of an area to the west of Kwun Fat Street from "GB" to "Residential (Group B)2" ("R(B)2"), was exhibited for public inspection under section 5 of the Ordinance.***

3. OBJECT OF THE PLAN

- 3.1 The object of the Plan is to indicate the broad land-use zonings for So Kwun Wat OZP area so that development and redevelopment within the Planning Scheme Area (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 control only. It is a small-scale plan and the transport alignments and boundaries between the land-use zones may be subject to minor alterations as detailed planning proceeds.
- 3.3 Since the Plan is to show broad land use zonings, there would be cases that small strips of land not intended for building development purposes and carry no development right under the lease, such as the areas restricted 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 calculations. 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.
- 3.4 The boundary of the Area is delineated having regard to physical and topographical features such as road, drainage channel and hills. Therefore, the Area boundary does not necessarily follow the Heung boundaries which are used for administration purpose only. Also, the name of the Plan is to follow that of the geographical area and has no implications on development rights, particularly Small House applications.

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 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 the 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

- 5.1 The Planning Scheme Area, covering an area of about 473.58 ha, is located to the south-east of Tuen Mun New Town. It is bounded to the north and the east by the dam of Tai Lam Chung Reservoir and the Tai Lam Country Park, to the south by Castle Peak Road and the coast, and to the west and south-west by the Tuen Mun New Town. The boundary of the Area is shown by a heavy broken line on the Plan.
- 5.2 The Area is situated along the southern coast of the North West New Territories (NWNT) near the south-eastern approach to the Tuen Mun New Town. It comprises three main valleys, namely So Kwun Wat Valley, Siu Lam Valley and Tai Lam Chung Valley, with intervening spurs rising to about 120 metres above Principal Datum (mPD). Land uses in the Area comprise mainly residential areas,

Government, institution or community (GIC) uses and village settlements. There are patches of farmland which are still under active cultivation in the So Kwun Wat valley.

- 5.3 The Area is fronting the sea to the south-east and various active marine traffic and navigational aids are found in the adjacent sea areas.
- 5.4 Since mid-1980's, there has been a widespread conversion of agricultural land for open storage uses in the New Territories. Such conversion of agricultural land to open storage sites has occurred in areas around So Kwun Wat Tsuen and the central flat land of Tai Lam Chung.
- 5.5 In recognition of the traditional burial right of the indigenous villagers and the locally based fishermen, some burial grounds have been preserved on the northern and eastern parts of the Area.
- 5.6 So Kwun Wat *Site of Archaeological Site Interest* and Tai Lam *Site of Archaeological Site Interest* are located within the Area. According to the list of historic buildings released by the Antiquities and Monument Office (AMO) of the Leisure and Cultural Services Department (LCSD) in April 2010, *Within the boundary of the Area*, there are two ~~graded and proposed~~ graded historic buildings/structures within the Area, i.e. Hum Ying Study Hall (*Grade 3*) and Jun Ying Study Hall (*Grade 3*) in So Kwun Wat Tsuen. All the *above sites of archaeological sites interest* and graded historic buildings/structures are worthy of preservation. *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://www.aab.gov.hk>.* 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 proposals might affect the above *sites of archaeological sites interest, graded historic buildings/structures, new items pending grading assessment* and their immediate environs. If disturbance of *to the sites of archaeological sites interest and sites of archaeological potential* is unavoidable, *the project proponent shall engage a professional archaeologist to conduct a detailed Archaeological Impact Assessment (AIA) for development works within the sites may be required by AMO to evaluate the archaeological impact imposed by the proposed works. If necessary, the archaeologist shall apply for a licence from the Antiquities Authority under the Antiquities and Monuments Ordinance (Cap. 53) for an archaeological field investigation and propose appropriate mitigation measures to the satisfaction of the AMO of the LCSD.*

6. POPULATION

- 6.1 According to the 2006 ~~2011~~ *By-census Census*, the population of the Area was about ~~6,100~~ *7,600* persons. The population concentrates in the residential developments of Grand Pacific Heights and Grand Pacific Views at Siu Lam and around several recognized villages and village settlements in the Area, including So Kwun Wat Tsuen, So Kwun Wat San Tsuen, Tai Lam Chung Tsuen, Wong Uk, Wu Uk, Luen On San Tsuen and some scattered cottages. It also includes the people residing in Government institutions.

- 6.2 Apart from usual natural growth in the existing villages, future expansion of population of the Area will be concentrated in the residential developments at Siu Lam and the "Comprehensive Development Area" zone at Tai Lam Chung. It is estimated that the planned population of the Area would be about 12,100 16,955 persons.

7. BUILDING HEIGHT RESTRICTION IN THE AREA

- 7.1 *In order to provide better planning control on the development intensity and building height upon development/redevelopment, to address public demand for greater certainty and transparency in the statutory planning system, and to meet the growing community aspirations for a better living environment, a review of the So Kwun Wat OZP has been taken in 2010 with a view to incorporating appropriate building height restrictions for various development zones to guide future development/redevelopment. In the absence of building height control, tall buildings may proliferate at random locations and the scale may be out-of-context in the locality, resulting in negative impacts on the visual quality of the Area and may sometimes obstruct air ventilation. In order to prevent excessively tall or out-of-context buildings, to preserve some key urban design attributes (e.g. stepped building height from the waterfront and preservation of public view to the ridgelines) and to provide better control on the building heights of developments in the Area, building height restrictions are imposed for the development zones on the Plan.*
- 7.2 *So Kwun Wat is generally a low-rise and low-density area. Most of the area is zoned "GB". The existing high-rise residential development in the area is within the area zoned "Residential (Group B)1" ("R(B)1"), which has a building height restriction of 102mPD. A medium-rise comprehensive residential development has been planned at Tai Lam Chung and is zoned "Comprehensive Development Area" ("CDA") and development within the "CDA" zone is subject to a maximum building height of 18 storeys (70 mPD). Another planned medium-rise residential development zoned "R(B)2" which is sandwiched between Tuen Mun Road and Castle Peak Road – Tai Lam has a building height restriction of 80mPD. The building height profile of other developable areas in So Kwun Wat is mainly low-rise. Under the extant OZP, developments within "Village Type Development" ("V") zone are restricted to 3 storeys (8.23m), developments within "R(C)1" zone are restricted to 3 storeys (excluding basement floor(s)) and 10.5m, and developments within "R(C)2" are restricted to 7 storeys (excluding basement floor(s)) and 24.5m.*
- 7.3 *Almost half of the developable land on the OZP is zoned "G/IC" and is mostly developed and being occupied by various GIC facilities. Major ones include the Tai Lam Correctional Institution at the northern end of Tai Lam Chung Nullah; Customs & Excise Training School, Vocational Training Council (VTC) Maritime Services Training Institute and VTC Whole Person Development Education Centre on the east bank of Tai Lam Chung Nullah; Siu Lam Psychiatric Centre, Tai Lam Chung Fresh Water Service Reservoir, Siu Lam Fresh Water Service Reservoir and a sewage treatment plant on the west bank of Tai Lam Chung Nullah. These facilities are all low-rise with building heights ranging from 1 to 6 storeys. To maintain the low building height profile within*

the Area and the semi-rural character, the “G/IC” sites have been restricted to maximum building height ranging from 1 to 6 storeys to reflect their existing building height or the building height agreed amongst relevant Government departments. The site for the VTC Whole Person Development Education Centre is restricted to 40mPD based on the design of the development. There is a petrol filling station in the Castle Peak Road – Tai Lam which is zoned “OU(PFS)”. To reflect the existing building height and to make reference with the lease restriction, the “OU(PFS)” site is restricted to 1 storey.

7.4 In 2015, an Expert Evaluation on air ventilation assessment (AVA EE 2015) was undertaken to assess the wind environment of the Area and the likely impact of the existing building heights of the development sites within the Area. The AVA EE 2015 also assessed the air ventilation impact of future development at the site zoned “R(B)2” located west of Kwun Fat Street with specific building height restrictions.

7.5 In general, a minor relaxation clause in respect of building height restrictions is incorporated into the Notes of the Plan in order to provide flexibility for developments/redevelopments with planning and design merits. Each planning application for minor relaxation of building height restriction will be considered on its own merits and the relevant criteria for consideration of such application are as follows:

- (a) amalgamating smaller sites for achieving better urban design and local area improvements;*
- (b) accommodating the bonus plot ratio granted under the Buildings Ordinance in relation to surrender/dedication of land/area for use as public passage/street widening;*
- (c) providing better streetscape/good quality street level public urban space;*
- (d) providing separation between buildings to enhance air and visual permeability; and*
- (e) other factors, such as site constraints, need for tree preservation, innovative building design and planning merits that would bring about improvements to townscape and amenity of the locality, provided that no adverse landscape and visual impacts would be resulted from the innovative building design.*

7.6 However, for existing buildings with building heights already exceeding the building height restrictions in terms of mPD and/or number of storey(s) as shown on the Notes of the Plan and/or stipulated on the Plan, there is a general presumption against such application for minor relaxation unless under exceptional circumstances.

78. OPPORTUNITIES AND CONSTRAINTS

78.1 Opportunities

Castle Peak Road and Tuen Mun Road provide access to the Area. Upgrading of Castle Peak Road *from Tsuen Wan to So Kwun Wat* to a dual 2-lane carriageway has been completed alleviating the previous traffic congestion problems in the Area. Besides, *reconstruction and improvement* works to Tuen Mun Road *has also been completed* is underway to further improve the traffic of the Area.

78.2 Constraints

78.2.1 ~~There is proposed sewerage works for So Kwun Wat and Tai Lam Chung. Future development proposals in the Area would need to demonstrate that they have satisfactory interim sewage treatment and disposal facilities pending completion of the new sewers and suitable arrangements for connection to the new sewers. A new regional sewage treatment works with the associated public sewer system are being planned to serve the Tuen Mun East, including the So Kwun Wat OZP area, in the long term. Prior to the commissioning of the new regional sewage treatment works and the associated public sewer system, the project proponents for the developments in the area shall make their own provision to treat and dispose of the sewage arising from the developments to meet the requirements of the Water Pollution Control Ordinance (WPCO). According to the Water Pollution Control (Sewerage) Regulation, the project proponents for the developments are required to make connection of the sewage arising from the developments to the new public sewer at their own costs when commissioned and so required by the Director of Environmental Protection.~~

78.2.2 There are two recognized villages in the Area namely, So Kwun Wat Tsuen (including So Kwun Wat San Tsuen) and Tai Lam Chung Tsuen (including Wong Uk and Wu Uk). Sufficient land will have to be reserved for their future expansion.

78.2.3 The potential sub-urban development area in the Area is confined to the valley floors. The steep slopes extending from the Tai Lam Country Park are not suitable for development and are generally zoned "Green Belt".

78.2.4 As mentioned in paragraph 5.6 above, So Kwun Wat *Site of Archaeological Site Interest* and Tai Lam *Site of Archaeological Site Interest* fall within the boundary of the Plan. *Within the boundary of the Area, there are two graded historic buildings, i.e. Hum Ying Study Hall (Grade 3) and Jun Ying Study Hall (Grade 3) in So Kwun Wat Tsuen.* These sites of archaeological interest *and graded historic buildings* are worthy of preservation and any development or redevelopment affecting them should be avoided as far as possible. *Prior* ~~to~~ consultation with the AMO of LCSD is required for any development *or redevelopment* affecting these sites of *archaeological interests and graded historic buildings*.

78.2.5 All developments within the Area are subject to the control of the Airport Height Restrictions (AHR) prescribed in Hong Kong Airport (Control of Obstructions) Ordinance (Cap.301) in respect of the Hong Kong International Airport at Chek Lap Kok. The complex pattern of AHR may result in a disparate restriction on permissible building height within the same development site. It is important to note that no building shall be

permitted to exceed the prescribed AHR. In the context of AHR, "building" includes the whole, or any part, of any building, mast, hoist or crane or other structure projecting skywards such as curb and cat ladder.

78.2.6 Much of the Area falls within the Consultation Zone of the existing Tai Lam Chung Pre-chlorination House. The design population for the area within the Consultation Zone should be within the limit set out in the relevant study reports.

89. GENERAL PLANNING INTENTION

- 89.1 The planning intention for the Area is to retain the semi-rural characteristics by preserving hill slopes and other natural features and designating sub-urban type of development in appropriate areas. The types of sub-urban developments include private residential development and village housing.
- 89.2 The emphasis of planning for the Area is to encourage environmental improvement, to preserve the natural setting and to stimulate physical upgrading of the area. It is envisaged that by providing incentives through appropriate upzoning, the remaining open storage yards could be removed and the environment could thereby be improved.
- 89.3 In the designation of various zones in the Area, considerations have been given to the natural environment, physical landform, existing settlements, land status, availability of infrastructure, local development pressures and various relevant planning studies. Other than the above, buildings and places of historical and archaeological interest should be preserved in the Area as far as possible.

910. LAND-USE ZONINGS

910.1 Comprehensive Development Area ("CDA"): Total Area: 6.45 ha

- 910.1.1 The planning intention of this zone is for comprehensive development/redevelopment of the area for residential use with the provision of commercial, open space and other supporting facilities, if any, to serve the residential neighbourhood. The zoning is to facilitate appropriate planning control over the development mix, scale, design and layout of development, taking account of various environmental, traffic, infrastructure and other constraints. Although existing uses are tolerated, pursuant to section 4A(1) of the Ordinance, any development/redevelopment on sites under this zoning requires planning permission under section 16 of the Ordinance. Pursuant to Section 4A(2) of the Ordinance, the applicant is required to submit a Master Layout Plan (MLP) together with information specified in the Notes for the approval of the Board. The intention is to ensure that development/redevelopment would be designed in a comprehensive manner, taking into account various planning considerations such as environmental quality, neighbourhood compatibility, infrastructural provision as well as traffic and phasing requirements. The approved MLP shall be made available for public inspection in the Land Registry pursuant to section 4A(3) of the Ordinance.

910.1.2 There is one "CDA" in the Area which is located on the eastern side of Tai Lam Chung Nullah. The site is largely vacant. The "CDA" is intended for sub-urban residential development and village housing which are compatible with the surrounding rural environment. In order not to block the direct sight line from the walking trails in the Country Park, the maximum building height should not exceed 70mPD and 18 storeys. Furthermore, to avoid creating a wall effect, building blocks should be in the range of 3 to 18 storeys. The maximum total gross floor area for this site is restricted to 105,990m².

910.1.3 The "CDA" site is in close proximity to Tai Lam Chung Tsuen, Wong Uk and Wu Uk. To meet the Small House demand, the developer concerned has to provide 80 Small House sites within the "CDA".

910.1.4 Care has to be taken to avoid damaging the high pressure gas main in the vicinity of the site when development of the zone proceeds.

910.1.5 To provide flexibility for innovative design adapted to the characteristics of particular sites, minor relaxation of the GFA/building height restrictions may be considered by the Board through the planning permission system. Each proposal will be considered on its individual merits.

910.2 Residential (Group B) ("R(B)"): Total Area: 4.43 10.46ha

910.2.1 The planning intention of this zone is primarily for sub-urban medium-density residential developments in rural areas where commercial uses serving the residential neighbourhood may be permitted on application to the Board. This zone covers the existing residential developments of Grand Pacific Heights and Grand Pacific Views at Siu Lam which are designated as "R(B)1". Developments and/or redevelopments within the "R(B)1" sub-area are subject to the following restrictions.

- (i) Maximum Domestic GFA : 97,120m²
- (ii) Maximum Non-domestic GFA : 465m²
- (iii) Maximum Building Height : 102mPD

910.2.2 As the "R(B)1" zone in Siu Lam is located adjacent to Tuen Mun Road and Castle Peak Road, noise mitigation measures such as the use of screening structures and the adoption of self-protective building layout are required.

10.2.3 To address the vehicular emission from Tuen Mun Road and Castle Peak Road, air buffer distance (20m from Tuen Mun Road and 5m from Castle Peak Road) is recommended to be provided to meet the Hong Kong Planning Standards and Guidelines requirements.

10.2.4 An area to the west of Kwun Fat Street is zoned "R(B)2". The developments within the area are subject to a maximum plot ratio of 3.6 and the building height restriction of 80mPD. As the "R(B)2" zone is falling within an area close to the AHR under the current two-runway system in the range of

87mPD to 89mPD, all structures, including roof-top structures of the development, should not exceed the AHR. According to the AVA EE 2015, five Non-Building-Areas (NBAs) are recommended to be incorporated within the area including a 20m-wide NBA measured from the western boundary of the "R(B)2" zone, a 20m-wide NBA in alignment with Tsing Fat Street, a 20m-wide NBA to the north of the "OU(PFS)" site, a 20m-wide NBA in alignment with Tsing Tai Road, and a 20m-wide NBA in alignment with Lok Yi Street. For the alignment of these NBAs, reference should be made to the AVA EE 2015. Due to the elongated shape of the site and the site configuration, these NBAs are recommended to facilitate wind penetration through the development sites within the area under both annual and summer prevailing winds. In addition to the NBAs, the AVA EE also recommended that minimisation of podium and fulfilment of building separation requirements in accordance with the Sustainable Building Design (SBD) Guidelines should be adopted where appropriate. To take forward the recommendations of the AVA EE 2015, the requirements for NBAs will be incorporated into the lease.

10.2.5 *As the "R(B)2" zone is located adjacent to Tuen Mun Road and Castle Peak Road, noise mitigation measures such as the use of screening structures and the adoption of self-protective building layout are required.*

910.2.36 To provide flexibility for innovative design adapted to the characteristics of particular sites, minor relaxation of the GFA/*plot ratio*/building height restrictions may be considered by the Board through the planning permission system. Each proposal will be considered on its individual merits.

910.3 Residential (Group C) ("R(C)"): Total Area: 22.13 ha

910.3.1 The planning intention of this zone is primarily for low-rise, low-density residential developments where commercial uses serving the residential neighbourhood may be permitted on application to the Board. This zone reflects the existing and committed residential developments and reserves lands for future sub-urban residential developments with ancillary supporting facilities.

910.3.2 For the zoned areas located adjacent to Tuen Mun Road and Castle Peak Road, noise mitigation measures such as the use of screening structures and the adoption of self-protective building layout are required.

910.3.3 There are two sub-areas within this zone, namely "Residential (Group C)1" and "Residential (Group C)2". Their locations and development parameters are described as follows:

(a) "Residential (Group C)1" ("R(C)1"): Total Area: 21.83 ha

The area to the north of Tuen Mun Road at Siu Lam is zoned "R(C)1". Residential developments and/or redevelopments within this zone are restricted to the following restrictions or the plot ratio and height of the existing building, whichever is the greater:

(i) Maximum Plot Ratio: 0.4

- (ii) Maximum Building Height: 10.5m
- (iii) Maximum No. of Storeys: 3 storeys (excluding basement floor(s))
- (b) "Residential (Group C)2" ("R(C)2"): Total Area: 0.30 ha

An area to the southwest of Siu Lam and north of Castle Peak Road – Tai Lam is zoned "R(C)2". Residential developments and/or redevelopments within this zone are restricted to the following restrictions or the plot ratio, site coverage and height of the existing building, whichever is the greater:

- (i) Maximum Plot Ratio: 0.6
- (ii) Maximum Site Coverage: 40%
- (iii) Maximum Building Height: 24.5m
- (iv) Maximum No. of Storeys: 7 storeys (excluding basement floor(s))

910.3.4 To provide flexibility for innovative design adapted to the characteristics of particular sites, minor relaxation of the plot ratio/site coverage/building height restrictions may be considered by the Board through the planning permission system. Each proposal will be considered on its individual merits.

910.3.5 However, for any existing building with plot ratio/site coverage/building height already exceeding the plot ratio/site coverage/building height restrictions as shown on the Notes of the Plan, there is a general presumption against such application for minor relaxation except under exceptional circumstances.

910.4 Village Type Development ("V"): Total Area: 32.33 ha

910.4.1 The planning intention of this zone is to designate both existing recognized villages and areas of land considered suitable for village expansion. Land within "V" 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.

910.4.2 The boundaries of the "V" zones are drawn up having regard to the existing "village environs", the anticipated Small House demand for the next ten years, traffic noise impact, topography, site constraints and the provision of public services. Village expansion areas and other infrastructural

improvements will be guided by detailed layout plans whenever applicable.

910.4.3 Recognized villages in the Area include So Kwun Wat Tsuen (including So Kwun Wat San Tsuen) and Tai Lam Chung Tsuen (including Wong Uk and Wu Uk). Since some of the land within the “village environs” of Tai Lam Chung Tsuen was previously used for open storage of containers, these areas had been included within the “CDA” zone and the future developer is required to provide serviced land within the “CDA” site for Small House development. Land in the “V” zone together with the areas to be formed and serviced by the developer concerned will provide adequate land to meet the anticipated Small House demand in the Area.

910.5 Government, Institution or Community (“G/IC”): Total Area: 65.75 ha

910.5.1 The planning intention of the “G/IC” zone is primarily for the provision of Government, institution and 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.

910.5.2 Extensive areas along both sides of Tai Lam Chung Nullah and at Siu Lam are zoned “G/IC” to reflect the existing and planned uses. Existing GIC facilities include the Tai Lam Correctional Institution, ~~the Siu Lam Hospital,~~ the Siu Lam Psychiatric Centre, the Siu Lam Fresh Water Service Reservoir and its extension, the Tai Lam Chung Fresh Water Service Reservoir, the **VTC Maritime Services Training Institute**, the Customs and Excise Training School, ~~the Highways Department’s Maintenance Depot,~~ the Tai Lam Chung Fire Station, ~~the ex-Tai Lam Chung Public School,~~ the Wai Lan Rehabilitation Centre, ~~the Bauhinia House which is a half way house, a weighstation and,~~ a sewage treatment plant **, and the VTC Whole Person Development Education Centre.**

910.5.3 A site to the east of the Customs and Excise Training School and to the west of the “CDA” zone in Tai Lam Chung is reserved for the Tuen Mun Sewerage – Eastern Coastal Sewerage Extension project and other Government works. ~~The Highways Department’s Maintenance Depot near Tai Lam Chung Nullah has been relocated to a site to its immediate north.~~ An area to the northwest of Grandview Terrace is reserved for a secondary school. ~~Two sites near Tai Lam Chung Nullah abutting Tuen Mun Road are planned for the development of bus bus interchanges.~~ **The site of the ex-Siu Lam Hospital is planned for a rehabilitation complex.**

910.5.4 The “G/IC” sites abutting Tuen Mun Road and Castle Peak Road will be exposed to high traffic noise. The Director of Environmental Protection has to be consulted if noise sensitive uses are proposed in these “G/IC” sites.

910.5.5 Developments and redevelopments in the “G/IC” sites are subject to building heights in terms of number of storeys (excluding basement floors(s)) or in terms of mPD as stipulated on the Plan or the height of the existing building, whichever is the greater. To provide flexibility for innovative design adapted to the characteristics of particular sites, minor relaxation of the building height restriction may be considered by the Board through the

planning permission system. Each proposal will be considered on its individual merits.

910.6 Open Space ("O"): Total Area: 0.78 ha

910.6.1 The planning intention of this zone is primarily to provide outdoor open-air public space for active and/or passive recreational uses serving the needs of local residents as well as the general public.

910.6.2 A strip of land along the eastern side of Tai Lam Chung Nullah is zoned "O" which is intended to be developed into a nullah-side promenade. Additional open space will be provided within the "R(B)", "R(C)" and "CDA" zones.

910.7 Other Specified Uses ("OU"): Total Area: 0.14 ha

910.7.1 The planning intention of this zone is to provide land for a petrol filling station.

910.7.2 The petrol filling station is located to the southwest of Siu Lam and north of Castle Peak Road - Tai Lam.

910.7.3 Developments and redevelopments in the site are subject to building height of 1 storey (excluding basement floor(s)) as stipulated on the Plan. To provide flexibility for innovative design adapted to the characteristics of particular sites, minor relaxation of the building height restriction may be considered by the Board through the planning permission system. Each proposal will be considered on its individual merits.

910.8 Green Belt ("GB"): Total Area: ~~310.81~~ 304.78ha

910.8.1 The planning intention of this zone is primarily to define 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 may include foothills, lower hill slopes, spurs, isolated knolls, woodland, traditional burial ground or vegetated land which occur at the urban fringe. There is a general presumption against development within this zone. However, limited developments may be permitted with or without conditions on application to the Board, and each application will be considered on its individual merits taking into account the relevant Town Planning Board Guidelines.

910.8.2 The extensive areas covered by the hilly slopes with exuberant natural vegetation within the Area are zoned "GB". Burial grounds for the indigenous villagers and locally based fishermen are also found in this zone.

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

1011. TRANSPORT AND COMMUNICATION

1011.1 Road Network

~~1011.1.1~~ The Area is served by Castle Peak Road and Tuen Mun Road. ***Reconstruction and improvement works to Tuen Mun Road has been completed*** ~~is underway to improve the overall traffic condition of the Area.~~

~~1011.1.2~~ Tai Lam Chung is now served by Tai Lam Chung Road, an important local distributor. The road has to be improved to tie in with the developments in the "CDA" zone at Tai Lam Chung.

~~1011.2~~ Transport Provision

The Area is currently served by buses, public light buses, and taxis. ~~The Bus-bus interchanges (BBI) at Tai Lam Chung will be constructed~~ ***is in operation.*** ~~The BBI will to facilitate interchanging of bus passengers between bus routes on Tuen Mun Road, between bus routes on Castle Peak Road and between bus routes on Tuen Mun Road and Castle Peak Road.~~

~~112.~~ UTILITY SERVICES

~~112.1~~ Water Supply

No capacity problem regarding water supply is envisaged, but suitable and new connections to some areas will need to be constructed by the future developers/project proponent and agreed with the relevant authorities.

~~112.2~~ Sewerage and Sewage Treatment

~~At present, there is no public sewer serving the Area. There is proposed sewerage works for to extend the public sewerage network to Siu Lam and Tai Lam Chung So Kwun Wat and Tai Lam Chung. Before the completion of the sewer system, developers have to provide suitable on-site sewage treatment and disposal facilities, and make provision for connection with the said public sewer when it is completed. A new regional sewage treatment works with the associated public sewer system are being planned to serve the Tuen Mun East, including the So Kwun Wat OZP area, in the long term. Prior to the commissioning of the new regional sewage treatment works and the associated public sewer system, the project proponents for the developments in the area shall make their own provision to treat and dispose of the sewage arising from the developments to meet the requirements of the WPCO. According to the Water Pollution Control (Sewerage) Regulation, the project proponents for the developments are required to make connection of the sewage arising from the development to the new public sewer at their own costs when commissioned and so required by the Director of Environmental Protection.~~

~~112.3~~ Electricity

The Area has long been supplied with electricity. It is anticipated that there will not be any problem in the provision of electricity supply to the Area.

~~112.4~~ Gas

Gas pipelines have been installed along Castle Peak Road from So Kwun Tan to Siu Lam.

~~12~~13. IMPLEMENTATION

~~12~~13.1 The Plan provides a broad land use framework for development control and implementation of planning proposals. More detailed plans will be prepared as a basis for public works planning and private developments.

~~12~~13.2 At present, there is no overall programme for the provision of infrastructure within the Area. The implementation process will be in stages and may stretch over a long period depending on the availability of resources. It will be undertaken through the participation of both the public and private sectors.

~~12~~13.3 The provision of infrastructure, e.g. road widening and laying of services, will be implemented through the Public Works Programme and the Local Public Works Improvement Programmes 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 use indicated on the Plan, provided that their proposals have met Government requirements.

~~13~~14. PLANNING CONTROL

~~13~~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.

~~13~~14.2 Uses of land or building which were in existence immediately before the first publication in the Gazette of the Notice of the draft DPA plan and which are not in compliance with the terms of the Plan may have adverse impacts 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.

~~13~~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 the 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 applications can be downloaded from the Board's website and are available from the Secretariat of the Board, 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.

~~13~~**14.4** Any development, other than those referred to in paragraph ~~13.1~~ **14.1** above or in conformity with this Plan or with the permission of the Board, undertaken or continued on or after 18 June 1993 on land included in a plan of the So Kwun Wat DPA, may be subject to enforcement proceedings under the Ordinance. Any filling of pond/land and excavation of land in the relevant zone on or after the exhibition of the specific plan referred to in the Notes of the relevant zone without the permission from the Board may also be subject to enforcement proceedings.

TOWN PLANNING BOARD
MAY 2011-FEBRUARY 2015



Planning Department


Agreement No. PLNQ 56/2012

**Category A1 - Term Consultancy for
Expert Evaluation and Advisory Services on
Air Ventilation Assessment**

An Instructed Project for So Kwun Wat

Expert Evaluation – Final Report

February 2015

	Name	Signature
Prepared & Checked:	Karl An / Simon Wong	<i>Simon</i>
Reviewed & Approved:	Anna Chung	

Version: Final

Date: 16th February 2015

Disclaimer

This Expert Evaluation – Final Report is prepared for Planning Department and is given for its sole benefit in relation to and pursuant to So Kwun Wat area and may not be disclosed to, quoted to or relied upon by any person other than Planning Department / identified recipient as requested under the Agreement with Planning Department without our prior written consent. No person (other than Planning Department) into whose possession a copy of this Expert Evaluation – Final Report comes may rely on this Expert Evaluation – Final Report without our express written consent and Planning Department may not rely on it for any purpose other than as described above.

AECOM Asia Co. Ltd.

11/F, Grand Central Plaza, Tower 2, 138 Shatin Rural Committee Road, Shatin, NT, Hong Kong
Tel: (852) 3105 8686 Fax: (852) 2317 7609 www.aecom.com

Table of Contents

	Page
1 INTRODUCTION.....	1
2 THE WIND ENVIRONMENT.....	4
3 TOPOGRAPHY AND THE WIND ENVIRONMENT	11
4 EXISTING CONDITIONS, LAND USE AND URBAN MORPHOLOGY.....	12
5 BREEZEWAYS AND WIND CORRIDORS WITHIN THE STUDY AREA	20
6 PROPOSED PROJECT AREA AND MAJOR DEVELOPMENTS.....	26
7 EXPERT EVALUATION ON THE PROJECT AREA	29
8 OTHER POTENTIAL SITE	32
9 FURTHER WORK.....	36
10 SUMMARY AND CONCLUSION	37

List of Figures

- Figure 1.1 Extent of So Kwun Wat Area
- Figure 2.1 Locations of Tuen Mun Government Office Weather Station, Tai Mo To Weather Stations and So Kwun Wat Area
- Figure 2.2 Annual Wind Rose of Tuen Mun Weather Station (1988 – 2013)
- Figure 2.3 Wind Rose (June to August) of Tuen Mun Government Office Weather Station (1988 – 2013)
- Figure 2.4 Annual Wind Rose of Tai Mo To Weather Station (2009 - 2013)
- Figure 2.5 MM5 Wind Data Extraction Location
- Figure 2.6 Annual Wind Rose at Extraction Location (left: 60m; middle: 120m; right: 450m)
- Figure 2.7 Summer Wind Rose at Extraction Location (left: 60m; middle: 120m; right: 450m)
- Figure 2.8 Wind Data Extraction Locations of the HKUST Wind Tunnel Experiment
- Figure 2.9 Annual and Summer Wind Rose extracted at 150m above ground at Position 2
- Figure 2.10 Summary of Prevailing Winds towards the Study Area
- Figure 3.1 Topography and Wind Environment of the Study Area
- Figure 4.1 Existing Building Height Profiles within So Kwun Wat Study Area in mPD
- Figure 4.2 Existing Building Height Profiles within Tuen Mun East Area in mPD
- Figure 4.3 Land Uses within So Kwun Wat Area
- Figure 4.4 Green Areas within So Kwun Wat Area
- Figure 5.1 Major Breezeways within/near the Study Area
- Figure 5.2 Wind Corridors within/near So Kwun Wat Tsuen
- Figure 5.3 Wind Corridors near Site A
- Figure 5.4 Major Wind Corridors near Tai Lam Chung
- Figure 6.1 Existing and Committed Developments in the vicinity of Site A
- Figure 6.2 Photos of Existing and Committed Developments in the vicinity Site A
- Figure 7.1 Recommended NBAs within Site A and major wind corridors nearby
- Figure 8.1 Existing and Committed Developments in the vicinity of Site B
- Figure 8.2 Photos of Existing Developments and Site with Committed Developments in the vicinity of Site B within the Southeast Region of the Study Area
- Figure 8.3 Major Wind Corridors in/near the Site B

1 INTRODUCTION

Background

- 1.1 The land use of the approved So Kwun Wat Outline Zoning Plan (OZP) No. S/TM-SKW/11 (the Plan) is being reviewed. It is considered necessary that an expert evaluation be conducted to analyse the existing wind environment, identify breezeways, as well as to assess the preliminary air ventilation impacts of the new development proposals and development restrictions to be imposed to guide future development or redevelopment.
- 1.2 In May 2014, AECOM Asia Company Ltd. (the Consultant) was commissioned by the Planning Department (PlanD) to undertake this expert evaluation study for an overall analysis of the Planning Area and Initial Planned Scenario with the new development proposals.
- 1.3 This expert evaluation report is based on the following materials given by the PlanD to the Consultant:
 - Base Map of the Study Area and its surroundings
 - Outline Zoning Plan of the So Kwun Wat Area and Tuen Mun New Town Area
 - Existing Building Height Profile for So Kwun Wat Area and Tuen Mun New Town Area
 - Tuen Mun New Town – Expert Evaluation (Final Report, May 2014)
- 1.4 In the preparation stage of the expert evaluation report, the Consultant has studied the given materials listed in paragraph 1.3 and carried out site visit and inspection.

Objectives of the Expert Evaluation Study

- 1.5 This expert evaluation identifies the major breezeways and problematic areas within the Study Area (the Study Area being the Planning Area of the So Kwun Wat OZP). Its objectives also include assessing the air ventilation impacts of the new development proposals and development restrictions to be incorporated into the OZP within the So Kwun Wat area. Analysis on the localized wind effects of a proposed development site located between Tuen Mun Road and Castle Peak Road east of Siu Sau, and another potential development site situated near Tak Bond Godown at the western shore of Tai Lam Chung Nullah will be provided and appropriate mitigation measures will be recommended. The expert evaluation study has made reference to Technical Circular No. 1/06 issued jointly by the then Housing, Planning and Lands Bureau and Environment, Transport and Work Bureau.
- 1.6 This Expert Evaluation Report aims to present the following findings in a systematic approach as follows:
 - Analyse the relevant wind data to understand the wind environment of the Study Area as well as its surroundings;
 - Identify and analyse the major topographical features of the Study Area and its immediate vicinity. In addition, greeneries / landscape characteristics of the Study Area and its surroundings will also be identified;
 - Identify and analyse the land use and built form of the Study Area including existing developments and committed future developments within / near the Study Area;
 - Based on the wind data, identify air paths and wind flow characteristics towards the Study Area through open spaces, streets, gaps and non-building areas between buildings, and stagnation / shadow zones if they exist;
 - Based on the analyses of existing urban conditions, identify existing good features that shall be retained/ strengthened at the same time spotting wind problematic regions that warrant attention;

- Based on the understanding of existing urban conditions, evaluate and compare qualitatively the prima facie impact, merits or demerits of the development proposals within the Study Area as proposed by the PlanD in terms of air ventilation performance. In addition, problematic areas will be highlighted and improvements and mitigation measures will be proposed with reference to the Urban Design Guidelines in the Hong Kong Planning Standards and Guidelines and also relevant statutory plans, building regulations and planning briefs; and
- Recommend appropriate technical methodologies if further quantitative AVA for the development sites are required.

Study Area

- 1.7 The Study Area covering So Kwun Wat is about 473.58 hectares. The Area is situated along the southern coast of the North West New Territories (NWNT) near the south-eastern approach to the Tuen Mun New Town. The Study Area is shown in **Figure 1.1**.

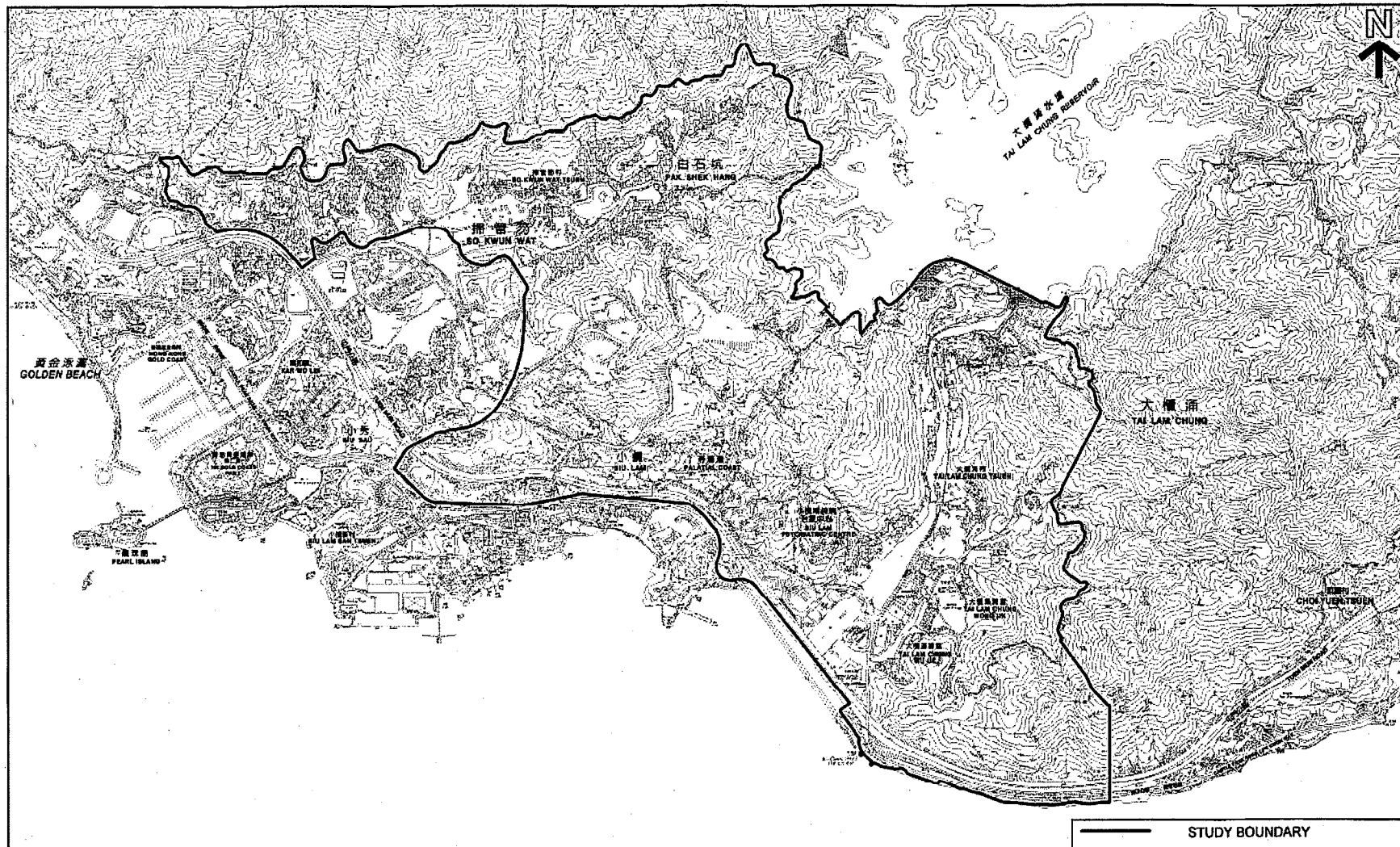


Figure 1.1 Extent of So Kwun Wat Area

2 THE WIND ENVIRONMENT

Wind Data from HKO Weather Stations

- 2.1 Natural wind availability is crucial to the investigation of wind ventilation performance. There are a total of 46 weather stations (See **Figure 2.1**) operated by Hong Kong Observatory (HKO) which provide reliable data on the wind environment in Hong Kong. The wind information and weather data from these stations provide reference to aid a general understanding of the surface wind environment especially near pedestrian level.

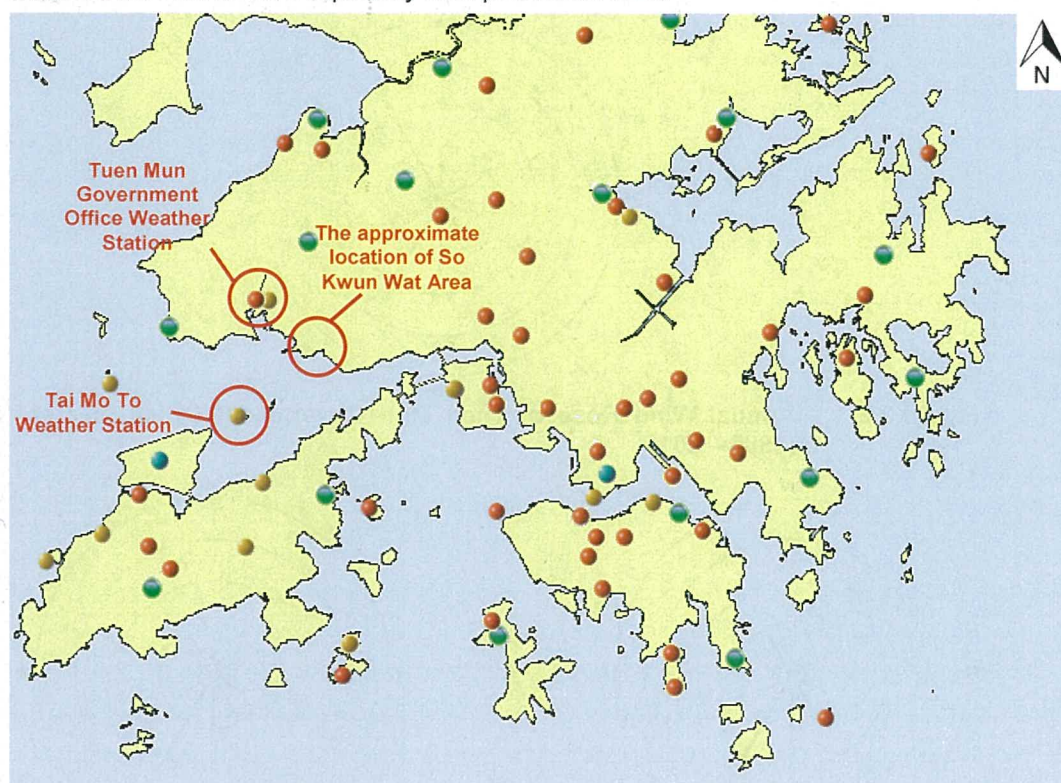


Figure 2.1 Location of Tuen Mun Government Office Weather Station, Tai Mo To Weather Station and So Kwun Wat Area

- 2.2 The Tuen Mun Government Office Weather Station is the nearest station from the Study Area. However, this weather station has a height of 69mPD. The wind data obtained from this station will be affected by local topography and building morphology. Nevertheless, the wind data from this automatic weather station is also presented as reference. **Figure 2.2** shows the annual wind rose from the Tuen Mun Government Office Weather Station and it is observed that the annual prevailing wind is from the NNE, SSE and S directions. **Figure 2.3** is the summer wind rose which shows that the summer prevailing wind is mainly from the S and SSE.

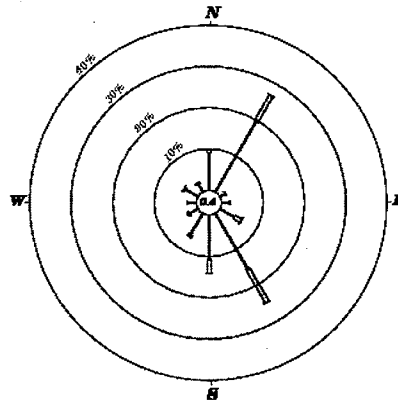


Figure 2.2 Annual Wind Rose of Tuen Mun Government Office Weather Station (1988 – 2013)

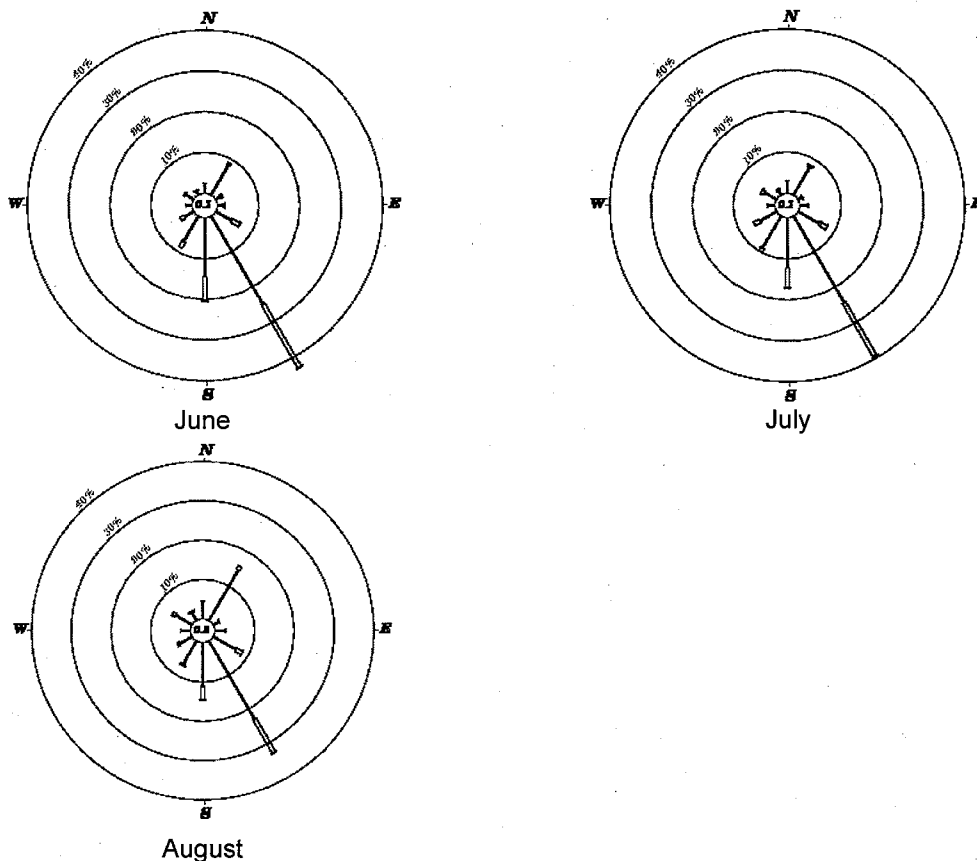


Figure 2.3 Wind Rose (June to August) of Tuen Mun Government Office Weather Station (1988 – 2013)

- 2.3 There is also another weather station located at the south-western side of the Study Area – Tai Mo To Weather Station. The recent five years annual wind roses are extracted from the Summary of Meteorological and Tidal Observations in Hong Kong as shown in **Figure 2.4**. Summer wind rose however is not provided in the summary report. The annual prevailing winds at Tai Mo To Weather Station are ESE and E.

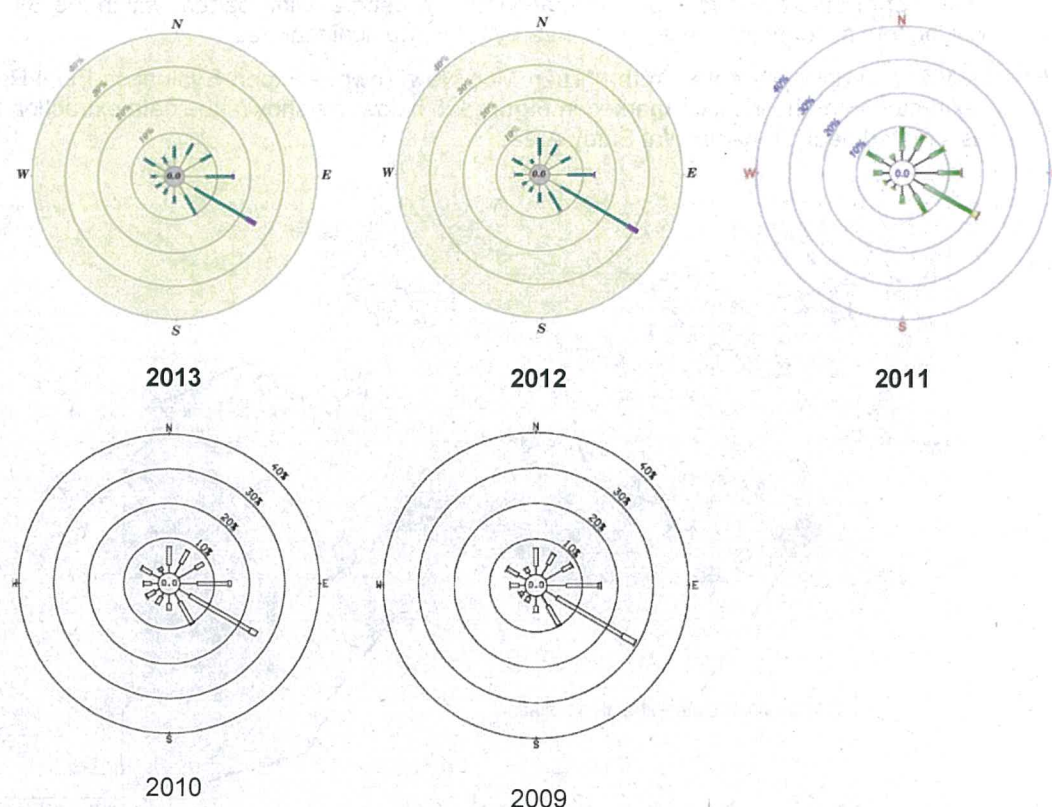


Figure 2.4 Annual Wind Roses of Tai Mo To Weather Station (2009-2013)

Wind Data from MM5 Model

- 2.4 Apart from the wind data from the HKO automatic weather station mentioned above, a set of wind simulation data obtained from the Fifth-Generation Penn State/NCAR Mesoscale Model (MM5) is presented in the “Tuen Mun New Town – Expert Evaluation Final Report” (May 2014). This set of data also provides information on the general wind pattern within the Study Area taking into account influence by the nearby topographical features.
- 2.5 MM5 wind data presented in the “Tuen Mun New Town – Expert Evaluation Final Report” is extracted from the location marked in **Figure 2.5** below. As shown, the data extraction location is situated near So Kwun Wat Study Area.

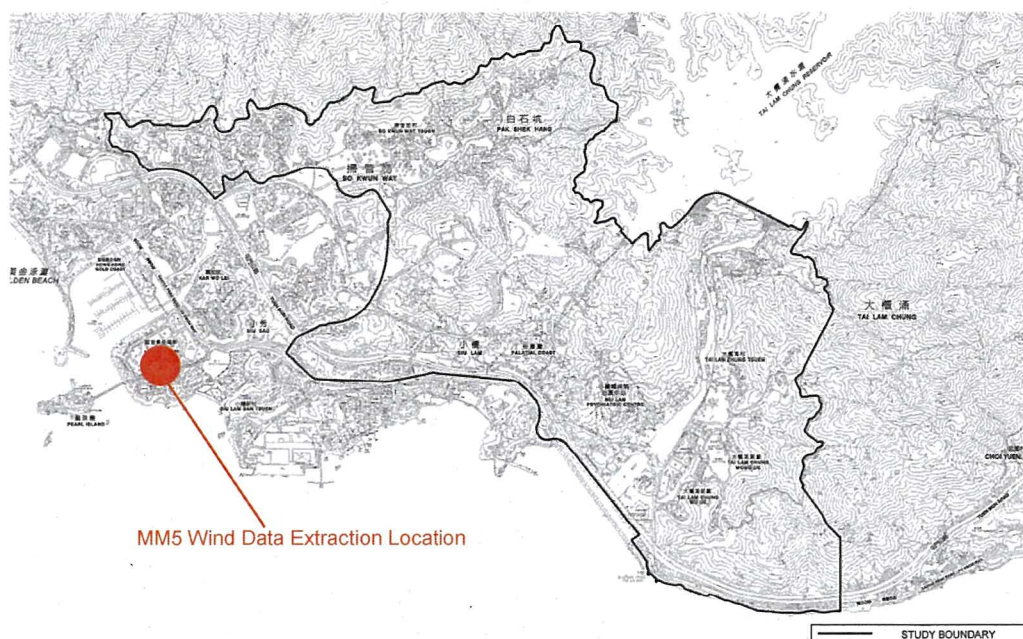


Figure 2.5 MM5 Wind Data Extraction Location

- 2.6 Based on the annual MM5 wind data in **Figure 2.6**, the annual prevailing wind towards the Study Area is mainly from the NE, E and SE directions. By referring to the summer MM5 wind data (**Figure 2.7**), the summer wind mainly comes from the SE direction, with observable portion coming from the S, SW and E directions.

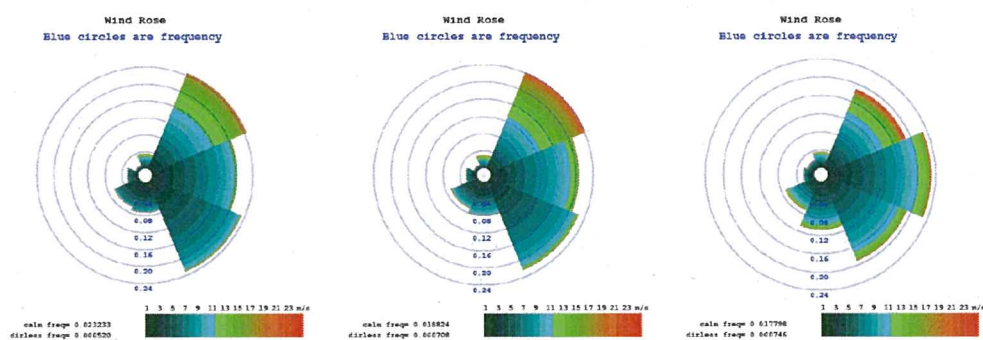


Figure 2.6 Annual Wind Rose at Extraction Location (left: 60m; middle: 120m; right: 450m)

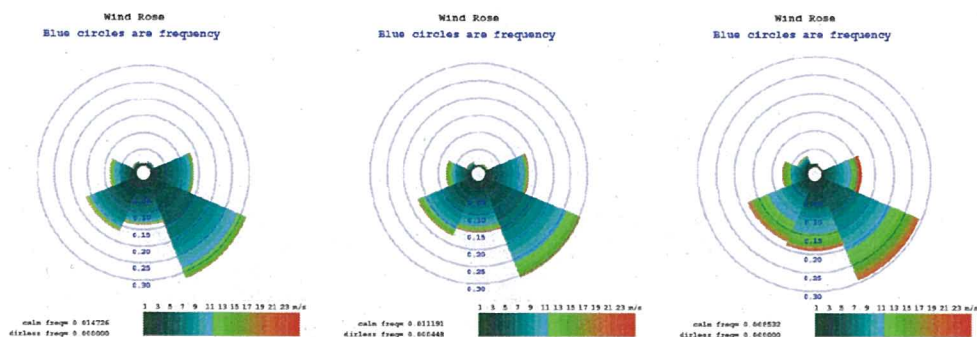


Figure 2.7 Summer Wind Rose at Extraction Location (left: 60m; middle: 120m; right: 450m)

Wind Data from Wind Tunnel Experiment

- 2.7 In the “Experimental Site Wind Availability Study for Tuen Mun East Area, Hong Kong”, wind characteristics in Tuen Mun East Area which is near the So Kwun Wat Study Area have been analysed by wind tunnel experiments. There are two measurement positions in the wind tunnel experiment as marked in **Figure 2.8**.

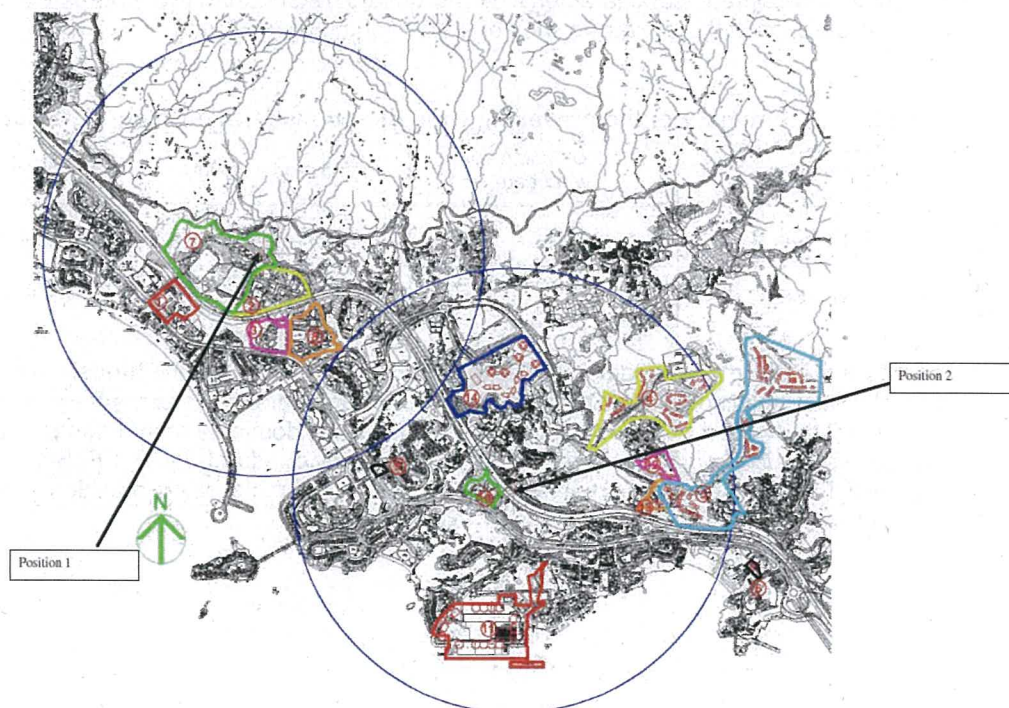


Figure 2.8 Wind Data Extraction Locations of HKUST Wind Tunnel Experiment

- 2.8 By referring to the wind tunnel experiment data at Position 2 as shown in **Figure 2.8**, the Study Area relies heavily on northeast quadrant winds, as they possess a total occurrence of around 70% in a year. It is noticed that the N, E and ENE winds have contributed around 50% of the annual winds. On the other hand, summer winds are mainly from the E and SW directions which contribute more than 10% individually during the summer period.

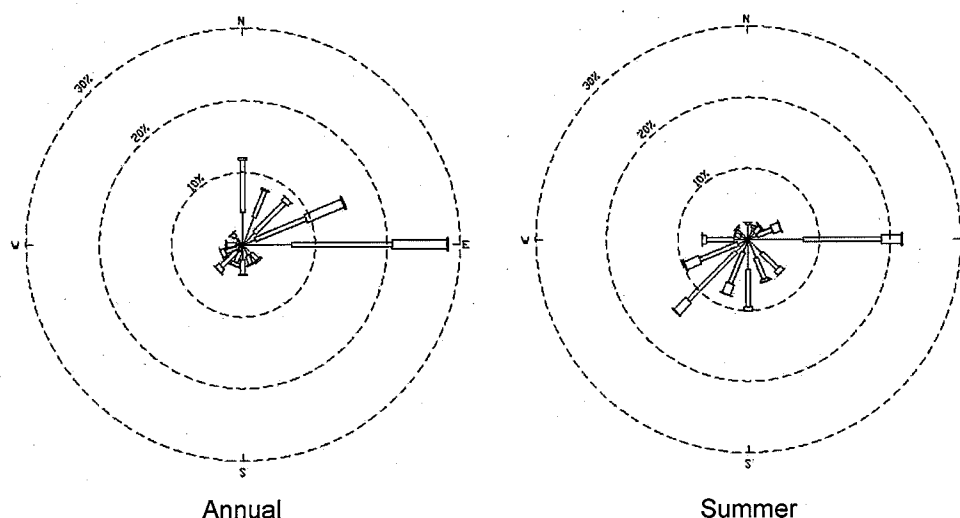


Figure 2.9 Annual and Summer Wind Roses extracted at 150m above ground at Position 2

2.9 **Table 2.1** shows the summary of the prevailing wind directions extracted from different wind data sources. As both HKO weather stations are located far from the Study Area and the surrounding topographical characteristics are quite different, the HKO data is excluded from the consideration of the prevailing wind directions of the Study Area.

Table 2.1 Summary of the prevailing wind directions from different data sources

	HKO Tuen Mun Government Office wind data	HKO Tai Mo To wind data	MM5 model (450m)	Wind Tunnel Experiment
Annual Wind	NNE, SSE, S	ESE, E	NE, E, SE	N, ENE, E
Summer Wind	S, SSE	--	E, SE, S, SW	E, SW

2.10 Based on the summary of data from the MM5 model and HKUST wind tunnel experiment, the annual prevailing winds are mainly from the north east quadrant with some from the south east quadrant. The N, NE, ENE, E and SE winds are the most dominate annual winds. In summer, the major prevailing winds come from east and southerly quadrant, i.e. E, SE, S and SW winds. **Figure 2.10** present the summary of the annual and summer wind directions towards the Study Area.

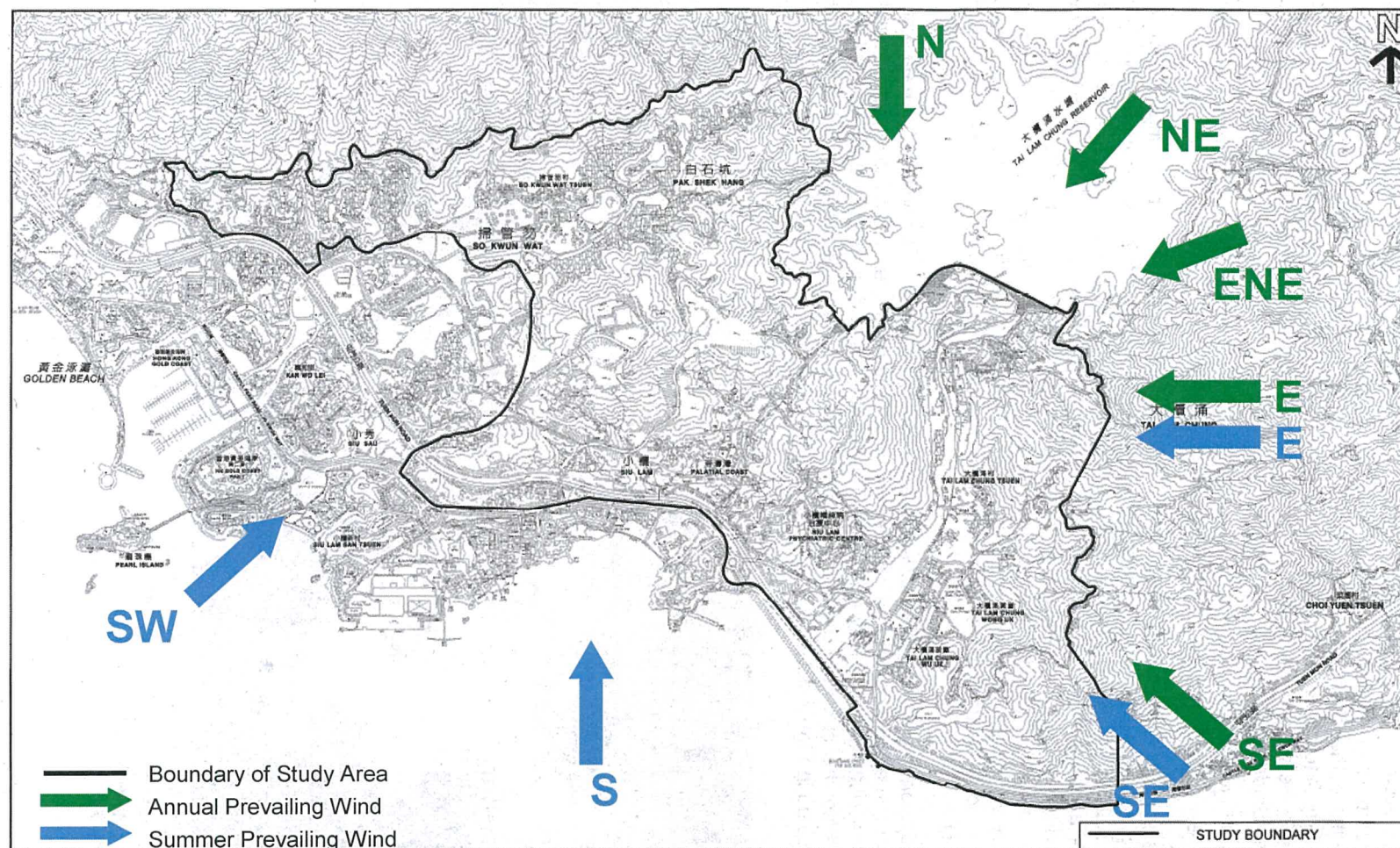


Figure 2.10 Summary of Prevailing Winds towards the Study Area

3 TOPOGRAPHY AND THE WIND ENVIRONMENT

- 3.1 **Figure 3.1** shows a digital elevation map of the Study Area. The Study Area is situated at the south west of Tai Lam Country Park and Tai Lam Chung Reservoir, fronting the sea of Urmston Road to its south and southwest. It is bordered by two large hilly terrains situated at its east/southeast and northwest boundary and with increasing gradient from west to east and from south to north respectively. A valley is formed by the two large hilly terrains. The highest point in the region near the Study Area is around 450mPD in height, located to the northwest of the Study Area.
- 3.2 The Study Area is traversed by two ridges with maximum height of about 140mPD. In between is some relatively low land area below 50mPD.
- 3.3 Due to the high hilly terrain at north / northwest (maximum height of approximately 450mPD) of the Study Area, the prevailing wind from the north is expected to be weakened before reaching the Study Area. The NE and ENE winds can penetrate into the Study Area freely as they are generally aligned with the direction of the valleys. There are also hilly terrains located to the easterly and south easterly directions of the Study Area. Hence, winds from E and SE would be shielded and reduced to reach the eastern region of the study Area. The S and SW wind can reach the south eastern part of the Study Area freely, but they will be weakened in flowing to the south western and north western most part as these areas are more remote from the sea shore.
- 3.4 In addition to the prevailing winds, since the Study Area is located near hilly terrain, katabatic (downhill) air movement from the nearby vegetated hill slopes and valleys can be expected, and facilitate the wind flow surrounding the northern and eastern part of the Study Area. The south/southeast part of the Study Area can benefit from the sea breeze. These winds are indicated in **Figure 3.1**.

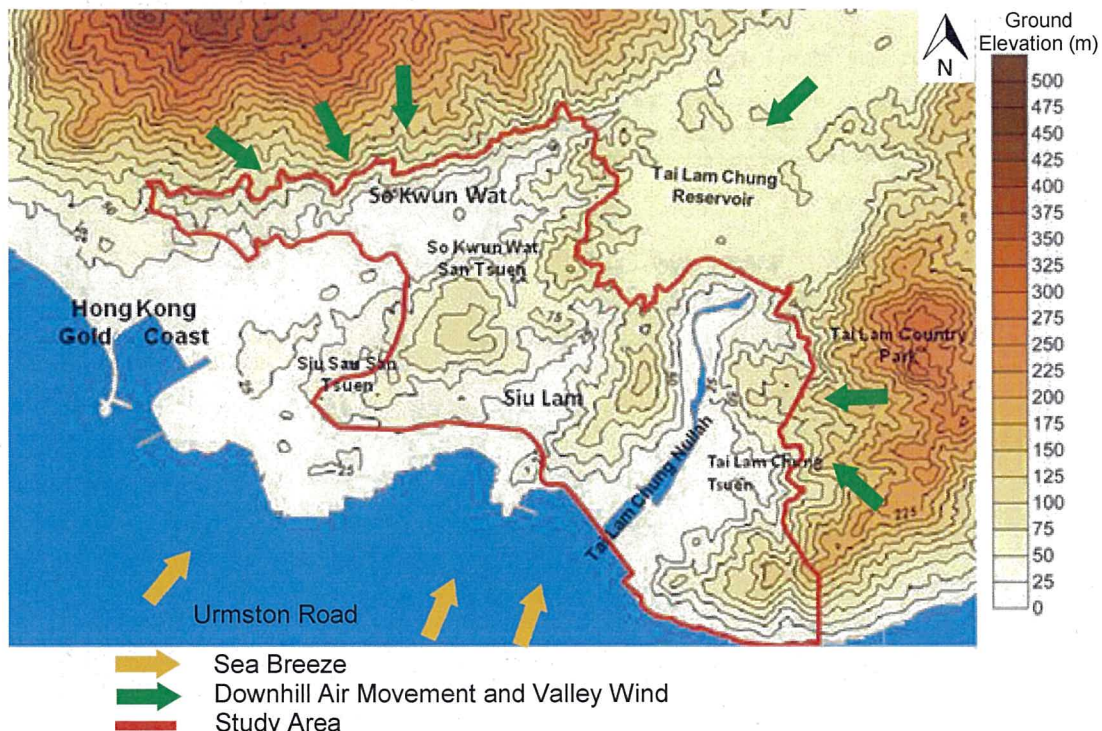


Figure 3.1 Topography and Wind Environment of the Study Area

4 EXISTING CONDITIONS, LAND USE AND URBAN MORPHOLOGY

Existing Conditions

- 4.1 The building heights of existing developments within the Study Area are shown in **Figure 4.1**. The heights of most of the existing developments within the Study Area are lower than 25mPD. These low-rise developments are located mainly at the north western and the south eastern sectors of the Study Area.
- 4.2 The existing development of Palatial Coast located in the central sector of Study Area is comparatively higher than the rest of the developments. Its building height range from 75mPD to 100mPD, and the buildings form continuous frontages which affect the wind environment of its immediate vicinity (e.g. Siu Lam Tsuen and the Christian Cherith Ministry Institute) under the easterly and southerly prevailing wind conditions.
- 4.3 In the immediate neighbourhood of the Study Area is the Tuen Mun East Area. Some of the buildings in Tuen Mun East are in areas adjoining the Study Area and would impose negative impacts on wind environment to the western most region of So Kwun Wat Area. The building height of the existing developments within this area is shown in **Figure 4.2**. While buildings within the portion of Tuen Mun East Area close to the Study Area are mostly low-rise structures at below 25mPD, there are a few mid-rise developments at 50mPD-75mPD. Meanwhile, the high-rise developments in Tuen Mun East Area including Hong Kong Gold Coast and Aegean Coast, are more than 300m away from the So Kwun Wat Area and are less likely to affect the wind environment in the Study Area.
- 4.4 A committed development with maximum building height at around 70mPD at the eastern part of the Study Area (see **Figure 4.1**) may impose certain impact on its immediate vicinity area (e.g. Wong Uk, Wu Uk, Luen On San Tsuen and Tai Lam Chung Tsuen) under the easterly and southerly prevailing wind condition.

Land Use and Urban Morphology within the Study Area

- 4.5 The Statutory Outline Zoning Plan (OZP) No. S/TM-SKW/11 is shown in **Figure 4.3**. The land use zones within the Study Area include "Green Belt", "Open Space", "Government, Institution or Community", residential zones, "Village Type Development", and "Comprehensive Development Area".

"Green Belt" and "Open Space"

- 4.6 It is noticed that most parts of the Study Area are zoned "Green Belt" ("GB") as depicted in **Figure 4.4**. As there is a general presumption against development within "GB" zones, it is not expected at this stage that any significant developments would exist within these areas to cause blockages against prevailing winds. Thus, the "GB" areas would not give rise to wind environment impacts to the whole Study Area. There is also a small strip of land zoned "Open Space" ("O") near Tai Lam Chung Nullah. Together with the areas zoned "GB", these relatively open areas are useful in facilitating air ventilation in the Study Area.

"Government, Institution or Community" ("G/IC")

- 4.7 There are three major areas designated as "G/IC" zone. The northern area is occupied by Tai Lam Correctional Institute located south of Tai Lam Reservoir. The other areas are located near the eastern and western shores of Tai Lam Chung Nullah, and are occupied by the Customs and Excise Training School and Maritime Services Training Institute and Siu Lam Psychiatric Centre respectively.
- 4.8 Tai Lam Correctional Institute consists of mostly low-rise developments ranging from 25mPD-30 mPD. It is surrounded by areas zoned "GB" to its east and west. The low-rise low-density nature of the development with separation distances between buildings are

unlikely to give rise to significant air ventilation impact on the existing developments located in its surroundings including the low-rise village houses to its south.

- 4.9 The other GIC developments (i.e. Customs and Excise Training School and Maritime Services Training Institute) on the eastern shore of Tai Lam Chung Nullah are also low-rise buildings at below 25mPD in height which are similar in nature to the development of Tai Lam Correctional Institute. Furthermore, given that there are open grounds near these two institutes, the developments in these "G/IC" areas are also unlikely to give rise to significant air ventilation impacts on the existing developments located in the surrounding. Meanwhile, Siu Lam Psychiatric Centre (ranging from 63-79mPD) on the western shore of Tai Lam Chung Nullah comprises buildings of around five storeys above ground and are sparsely scattered on the hill top. Considering the low-rise nature of these buildings, no significant blockages of winds are expected to be induced by these developments on its surrounding areas.
- 4.10 There are two other "G/IC" areas located south of So Kwun Wat Tsuen, i.e. the AD and FD of Pok Oi Hospital Mrs Cheng Yam On Millennium School and the Siu Lam Fresh Water Service Reservoir. The school development consists of a building of 8-storeys in height (58mPD), while the reservoir is a structure of 5m above ground. Owing to the low-rise nature of these G/IC facilities, it is not expected that they would cause any significant adverse impacts in terms of air ventilation.

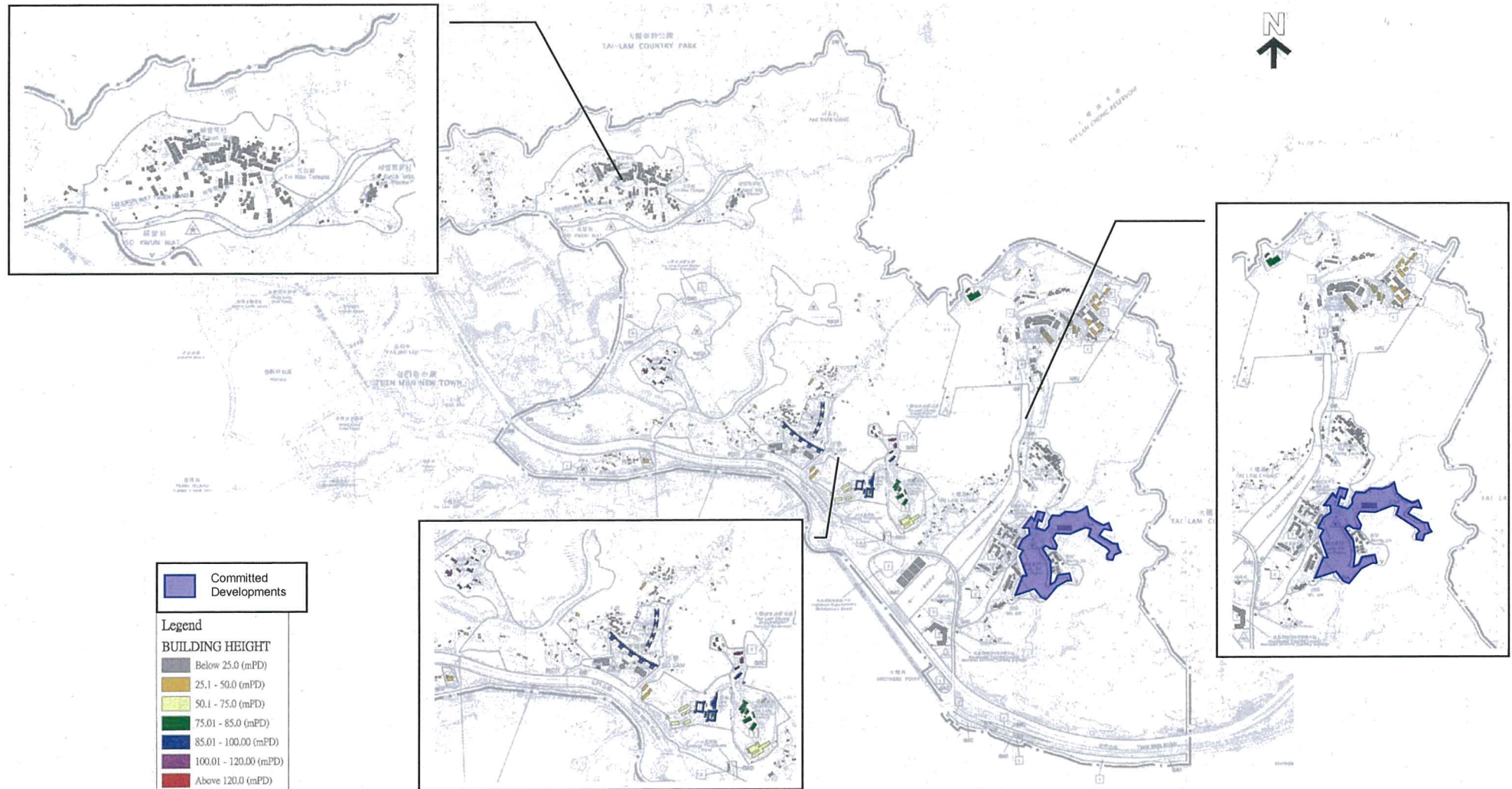


Figure 4.1 Existing Building Height Profiles within So Kwun Wat Study Area in mPD

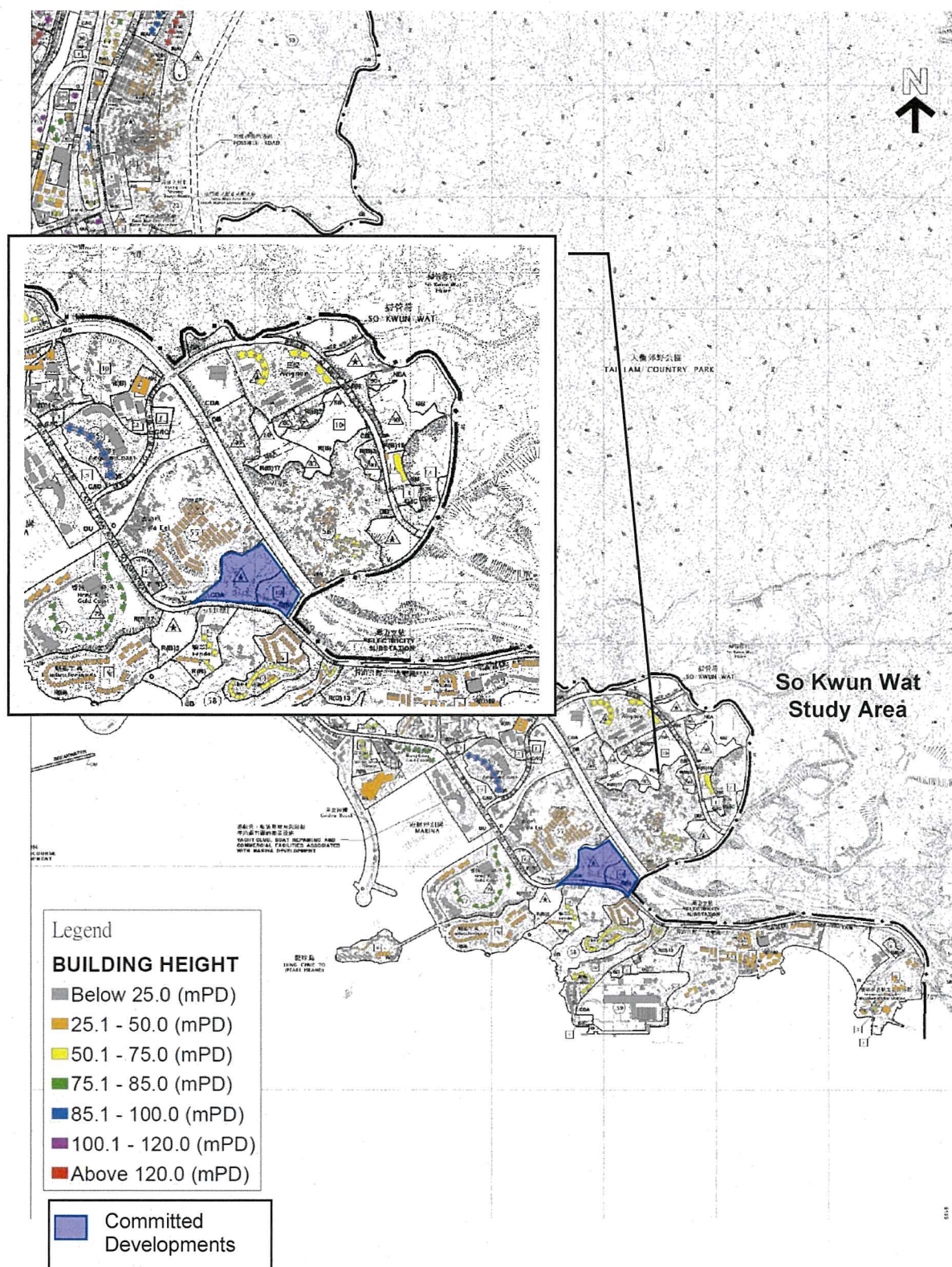


Figure 4.2 Existing Building Height Profiles within Tuen Mun East Area in mPD

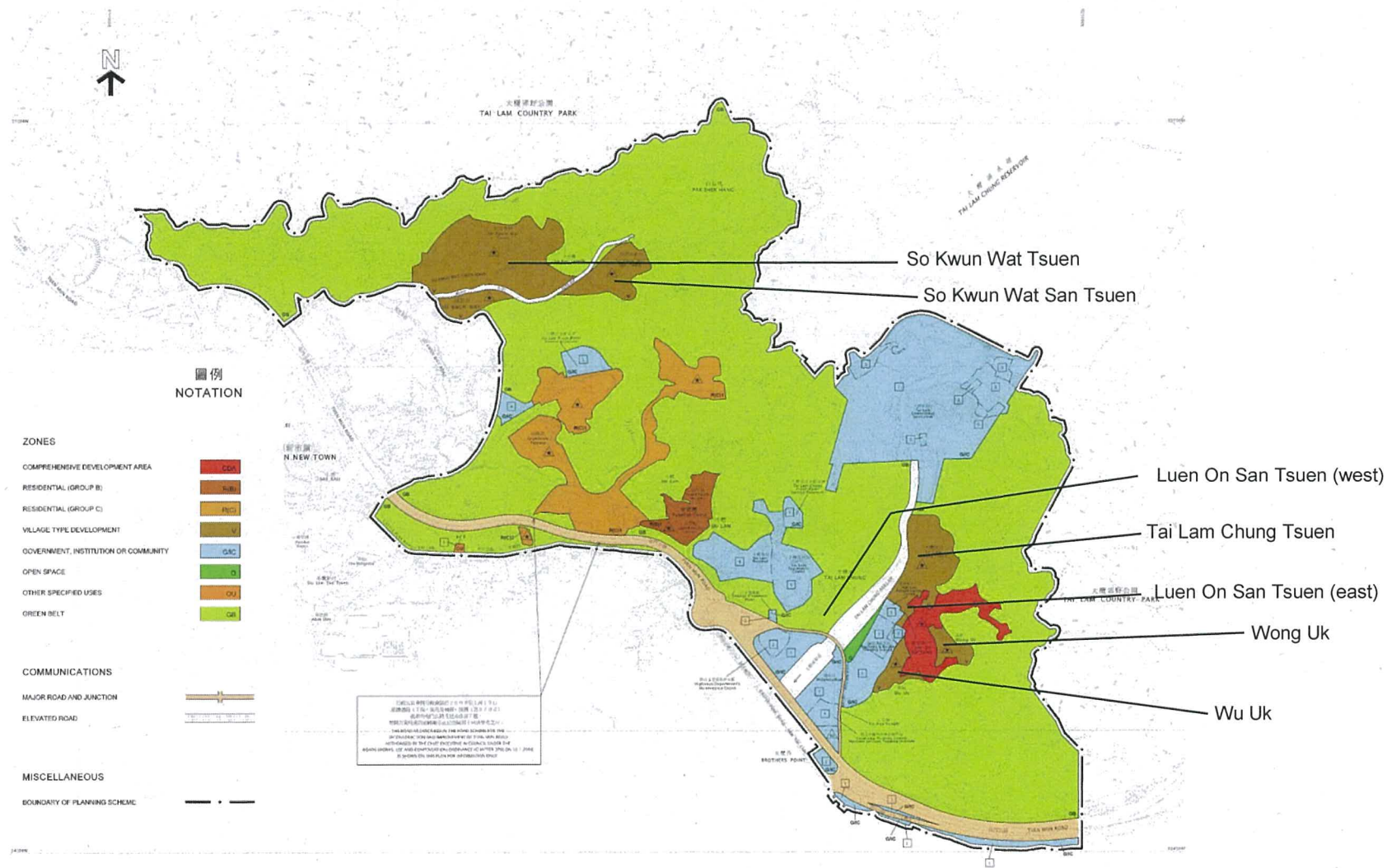


Figure 4.3 Land Uses within So Kwun Wat Area

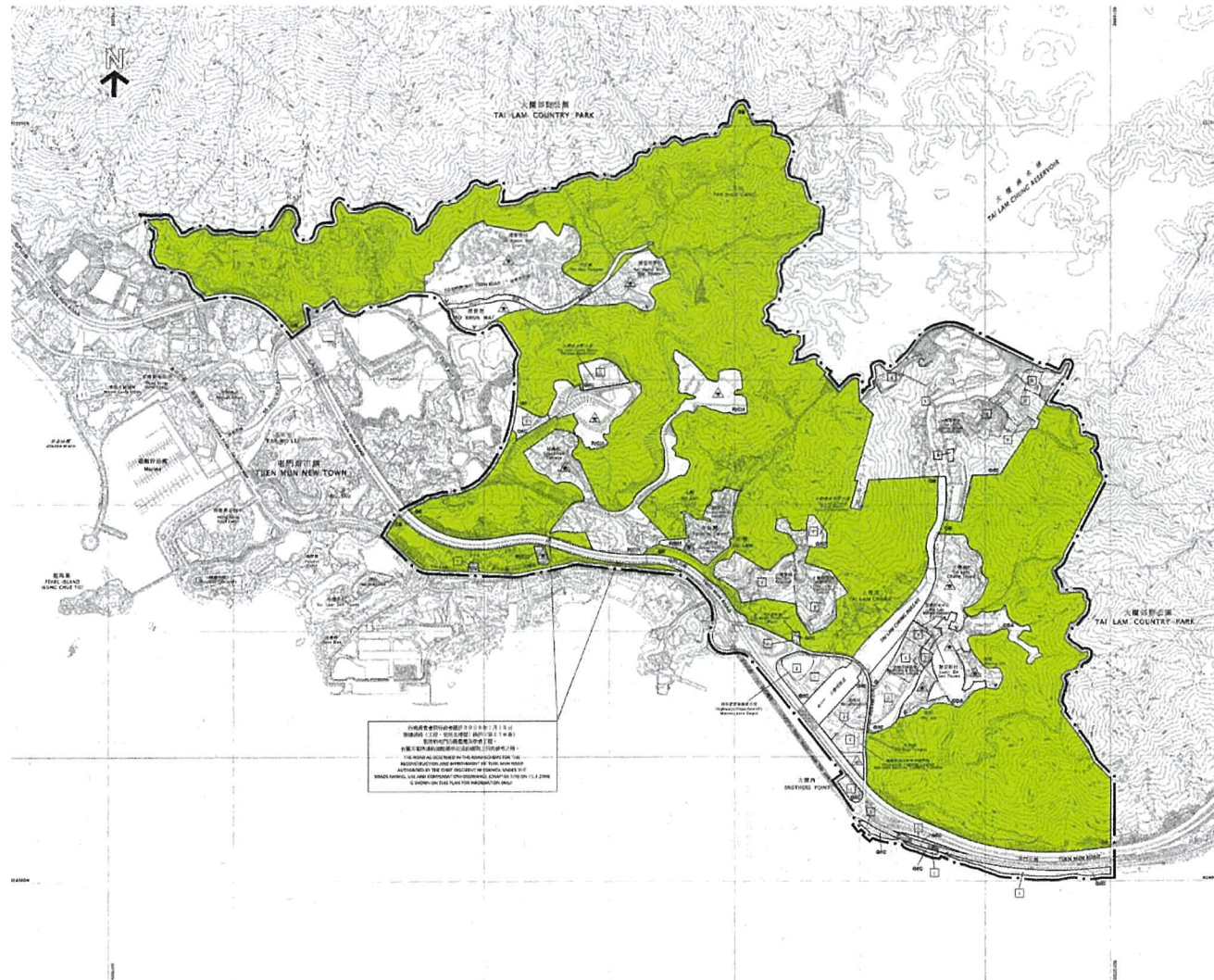


Figure 4.4 Green Areas within So Kwun Wat Area

Residential Land Uses

- 4.11 A large area to the west of Siu Lam is designated as "Residential (Group C)" ("R(C)") as shown in **Figure 4.3** above. Most existing developments in this "R(C)" area are the houses of Grandview Terrace. With the planning intention of "R(C)" areas primarily for low-rise low-density residential developments, future developments/redevelopments within this zone are not expected to cast severe air ventilation impacts on the surroundings.
- 4.12 To the east of the "R(C)" zone are land denoted as "Residential (Group B)" ("R(B)") Reflecting the high-rise residential blocks of Palatial Coast. These high-rise developments would impose adverse air ventilation impact to its immediate surrounding areas, as discussed in Paragraph 4.2.

"Village Type Development"

- 4.13 There are four areas designated as "Village Type Development" with So Kwun Wat Tsuen, So Kwun Wat San Tsuen, Tai Lam Chung Tsuen / Luen On San Tsuen (east), Wong Uk and Wu Uk as marked on **Figure 4.3**. Given that the developments in all of these villages are low-rise low density buildings at around 3 to 4-storeys in height, they would not cause significant blockage to the prevailing winds. It is not expected that these village developments would cause any adverse impact on the wind environments.

"Comprehensive Development Area"

- 4.14 There is one "Comprehensive Development Area" ("CDA") within the So Kwun Wat region, (**Figure 4.1**). It is located to the SE of Tai Lam Chung Tsuen and the proposed development has a maximum height at 70mPD. Since the developments of Wu Uk and the Customs and Excise Training School are located at the immediate downwind side of this "CDA" under the prevailing winds from the north and north eastern quadrant, development of the "CDA" is expected to shelter off a certain amount of winds towards the developments of Wu Uk and the Customs and Excise Training School.

Summary

- 4.15 With the current situation of and planning intention for the Study Area with mainly low-rise low-density buildings and only a few high-rise developments, the current air ventilation performance is considered satisfactory. Any future increase in building heights and/or development intensity in these areas is expected to cause deterioration in the current wind environment. Mitigation measures should be explored to alleviate the probable negative wind impacts arisen from such intensified future developments. It is essential that these future developments should adopt good design practices including provision of gaps between buildings to maintain wind permeability and avoiding blockage of existing wind corridors.

Existing and Committed Developments in Tuen Mun East area

- 4.16 There are several existing and proposed building developments within the adjoining Tuen Mun East area. They include both low-rise residential houses (such as Fiona Garden, The Castle Bay, Jade View Villa, etc.) and mid to high-rise residential buildings (including The Aegean, The Hillgrove, Peridot Court, Avignon etc.) with maximum height at around 75mPD. The low-rise houses are not expected to cause negative impact upon wind environments. However, the mid to high-rise residential blocks are likely to create blockages and impose unfavourable effect in terms of air ventilation performance to its downwind side under the SW summer winds. The affected areas are the "GB" zone located at the south western most regions and north western most portion of So Kwun Wat Study Area. While under the prevailing NE wind, these mid to high-rise developments are at the downwind side of the Study Area and would not affect the wind environment of the Study Area.

- 4.17 Other existing high-rise residential buildings in the area include the Hong Kong Gold Coast and Aegean Coast. Owing to the distances between these developments and the So Kwun Wat area at more than 300m, the So Kwun Wat Area is not expected to lie within the wind shadow region generated by these high-rise residential developments. Generally speaking, significant impact on the wind environment within the Study Area due to the blockage of these high-rise residential developments is not likely to occur.
- 4.18 An area with two committed developments within the Tuen Mun East area is indicated in **Figure 4.2**. It is bounded by Siu Sau Village, Tuen Mun New Town, Peridot Court and The Hillgrove, and the committed developments are mainly designed as mid-rise residential buildings with building heights ranging from 43mPD to 84mPD. Under the summer-SW wind, air ventilation performance at the part of Siu Sau Village near Tuen Mun Road may be slightly affected due to blockage of the prevailing wind by the committed developments. For the other prevailing wind directions, the committed developments are located at the downstream region of the Study Area and would not impose any adverse impact to its wind environment.

5 BREEZEWAYS AND WIND CORRIDORS WITHIN THE STUDY AREA

- 5.1 As mentioned in Section 2, the annual prevailing wind comes from the north east quadrant and south east quadrant while the summer wind comes from the east and southerly. By understanding the prevailing wind directions and studying the topography and building morphology within the So Kwun Wat area, major wind corridors are identified and discussed in the following paragraphs and illustrated in **Figure 5.1**.

Major breezeways within Study Area

- 5.2 There are three major valleys between the hill slopes within the Study Area: one runs along Tai Lam Chung Nullah (aligning in NNE to SSW direction), another in Siu Lam (aligning in NE to SW direction) and the third valley along Pak Shek Hang near So Kwun Wat Tsuen / So Kwun Wat Road (aligning in ENE to WSW direction), located in the eastern, middle and northwestern portions of the Study Area respectively. These valleys all penetrate the Study Area and serve as major breezeways under both major annual and summer prevailing winds.
- 5.3 The eastern breezeway follows the Tai Lam Chung Nullah which links up Tai Lam Chung Reservoir and the sea. It allows the annual N/ NE wind and summer S/ SW wind to penetrate through the Study Area. It helps to enhance the wind environment of Tai Lam Chung Tsuen / Luen On San Tsuen (east and west) and GIC developments (Customs and Excise Training School, etc.) in Tai Lam, under these prevailing winds.
- 5.4 The breezeway in the middle part of the Study Area mainly follows Siu Lam Road which connects Tai Lam Reservoir and the open space and the low-rise government developments at the sea front. It allows the summer SW wind to access the inland area and also allows the annual NE wind to penetrate in facilitating the air flows near the residential areas in Siu Lam
- 5.5 The nullah near So Kwun Wat Tsuen forms a major part of the northwest breezeway. This breezeway connects to the valley of Pak Shek Hang and allows the valley wind to penetrate across this part of the Study Area. Although there is a residential development (Avignon) on top of the nullah, there is a large separation within Avignon which aligns with the nullah and allows wind to flow along this breezeway freely. The breezeway further extends to So Kwan Tan and the sea shore area. This breezeway allows the annual ENE/E and summer SW wind to flow through and enhance the wind environment at So Kwun Wat Tsuen and So Kwun Wat San Tsuen.

Local wind corridors

- 5.6 There are three major regions in / near the Study Area that are frequently accessed by pedestrian. They are areas near So Kwun Wat Tsuen, along Castle Peak Road and Tai Lam Chung. The local wind corridors benefiting the wind environment of these areas are discussed as follow:

Wind corridors near So Kwun Wat Tsuen

- 5.7 As mentioned, the major northwest breezeway passes through this area of So Kwun Wat Tsuen. The low-rise nature of this area also allows the prevailing wind to flow through easily. Under the NE/ENE/E prevailing winds, So Kwun Wat Tsuen Road serves as wind corridor. Together with the major breezeway along the nullah, they further facilitate air flows through So Kwun Wat Tsuen and So Kwun Wat San Tsuen and ventilate the downstream area (Avignon, Aegean Coast and the waterfront area).
- 5.8 Under the S/SE winds, the prevailing wind can flow through freely as the upstream area are mainly open areas and low-rise residential development. There is no designated wind corridor as the wind can flow through freely and the wind environment is expected to be satisfactory under these prevailing wind directions.
- 5.9 The above mentioned wind corridors are shown and illustrated in **Figure 5.2**.

Wind corridors at Castle Peak Road (near Site A)

- 5.10 Under the E and ENE prevailing winds, Tuen Mun Road, Castle Peak Road (Section between Siu Lam and Siu Sau) and Tsing Tai Road which are parallel to one another, serve as wind corridors that enhance the wind permeability through the local area. These three wind corridors are shown in **Figure 5.3**. Under the SW summer winds, Tsing Fat Road and the "GB" zone between The Hillgrove and Peridot Court act as the wind corridors allowing SW wind and sea breeze to enter the inland area near Site A.
- 5.11 Lok Yi Street and a section of Tsing Tai Road next to Fiona Garden aligning north-south would facilitate the summer S wind to penetrate through to reach Site A area and areas further inland.

Wind corridors at Tai Lam Chung

- 5.12 At the south and south-western sides of So Kwun Wat Study Area are the sea and road network. There is little obstruction during summer and annual SE wind conditions.
- 5.13 The major breezeway and wind corridor at Tai Lam Chung are illustrated in **Figure 5.4**. The Tai Lam Chung Nullah acts as the major breezeway which allows the annual N/NE and summer S/SW wind to ventilate the area on the two sides of the nullah.
- 5.14 Castle Peak Road – Tai Lam section serves as a wind corridor enhancing wind permeability in the area near Siu Lam Psychiatric Centre under the annual and summer E prevailing wind direction. In the summer condition, it also facilitates wind flow from S/SE and sea breeze to Tai Lam Chung Road and ventilates the inland area.

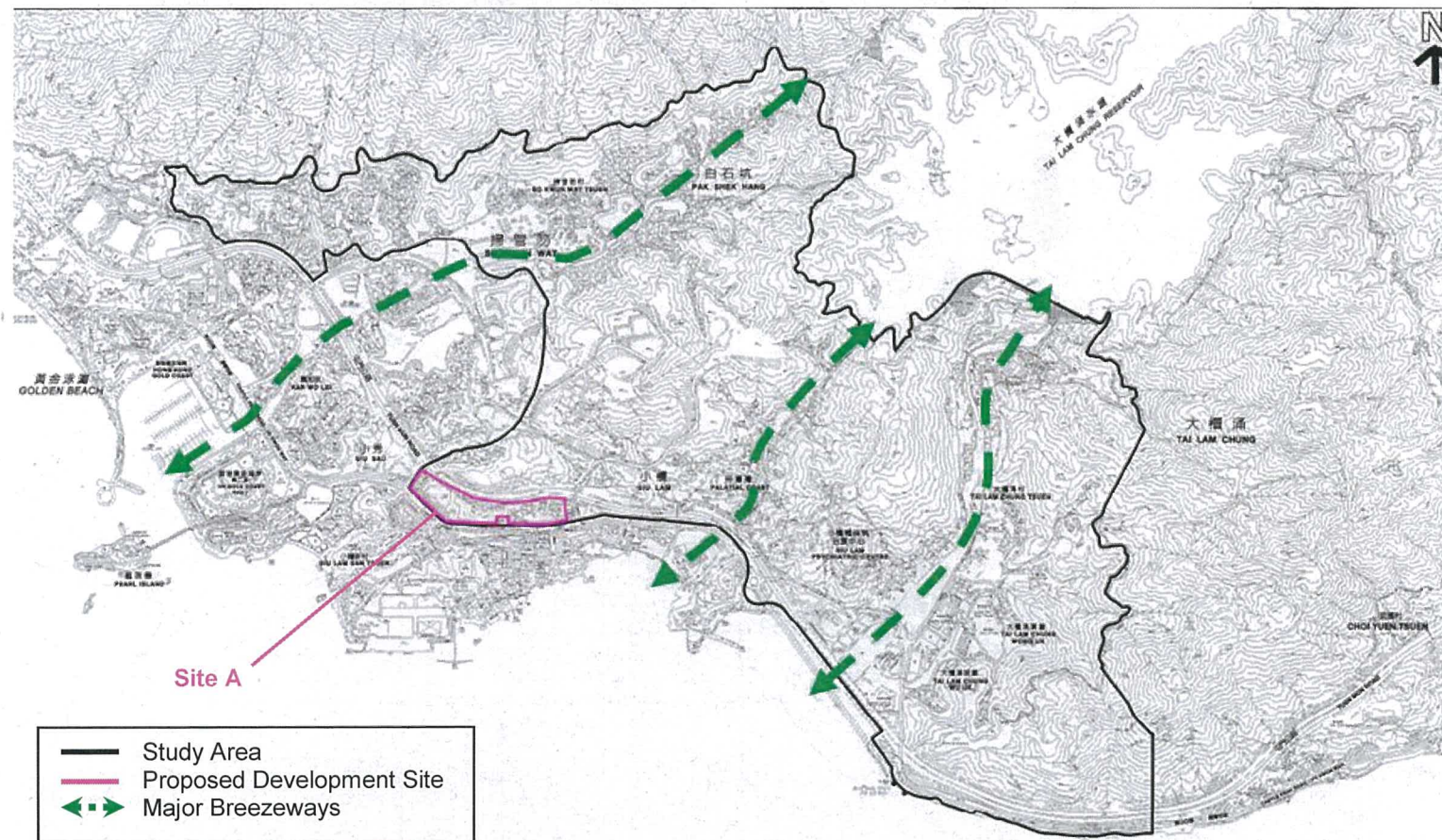


Figure 5.1 Major Breezeways within/near the Study Area

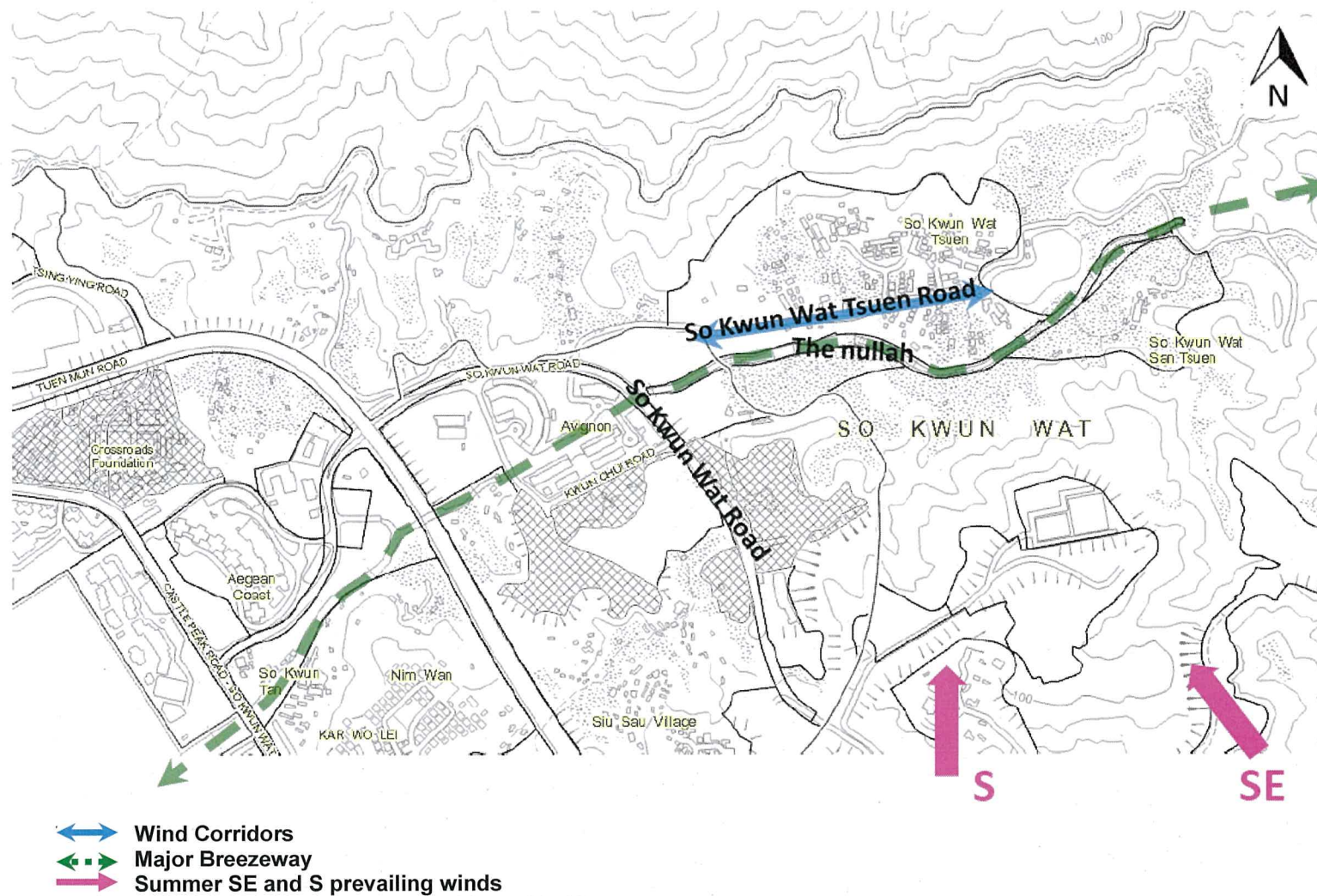
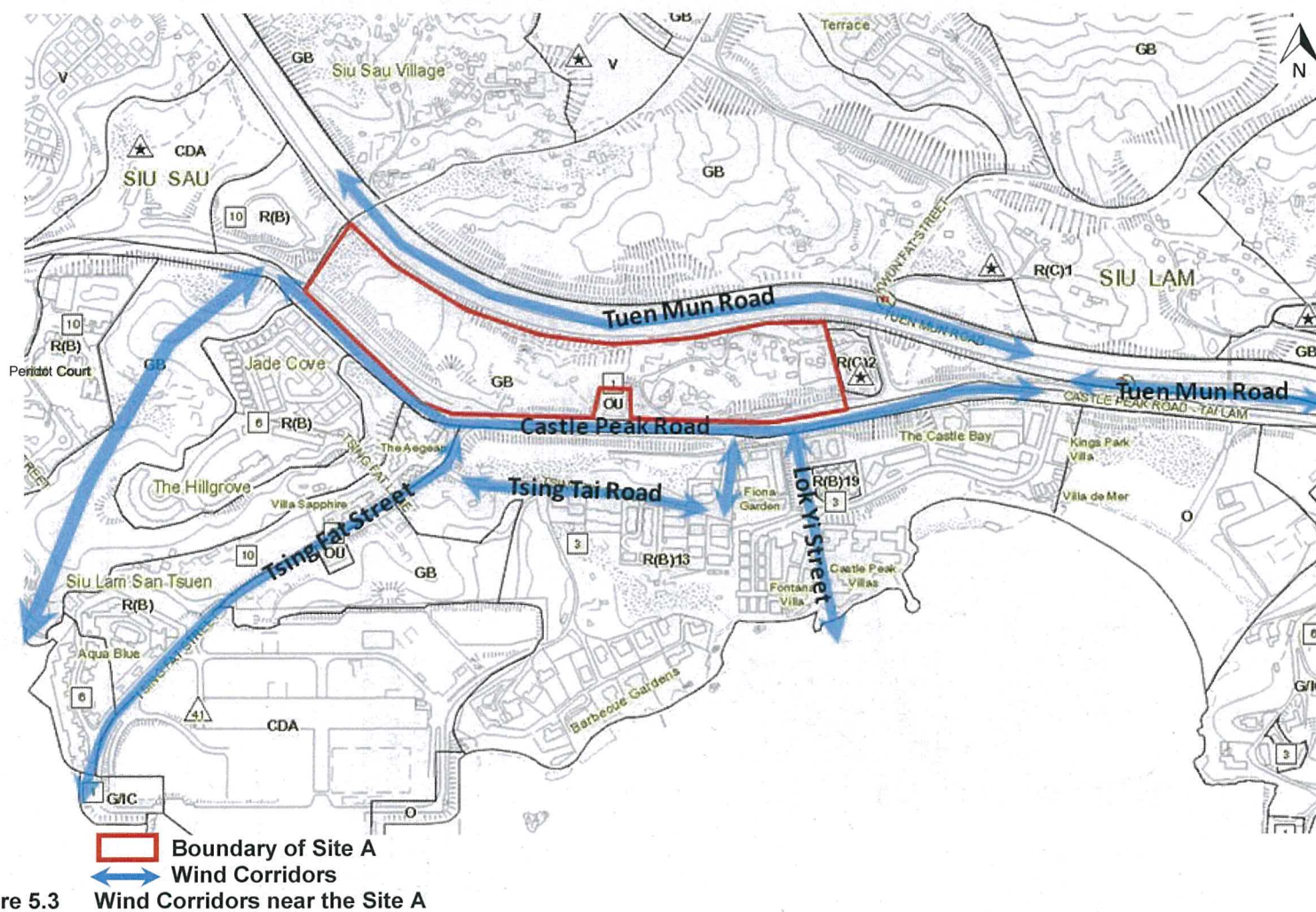
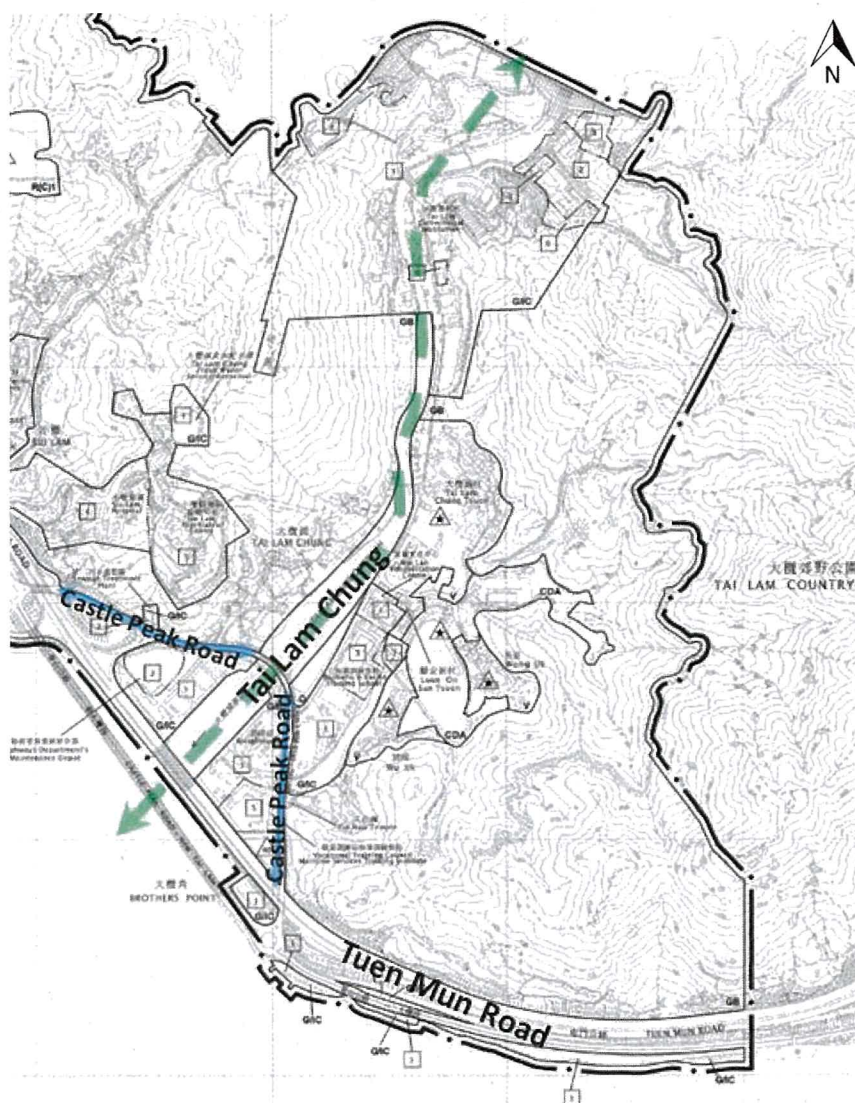


Figure 5.2 Wind Corridors within/near So Kwun Wat Tsuen





 Wind corridors
 Major Breezeway

Figure 5.4 Major Wind Corridors near Tai Lam Chung

6 PROPOSED PROJECT AREA AND MAJOR DEVELOPMENTS

- 6.1 A proposed amendment to the Approved So Kwun Wat OZP for housing development is shown in **Figure 6.1**. It is located between Tuen Mun Road and Castle Peak Road east of Siu Sau / Tuen Mun New Town (namely Site A hereafter)
- 6.2 Photos of the buildings near Site A are shown in **Figure 6.2** below.

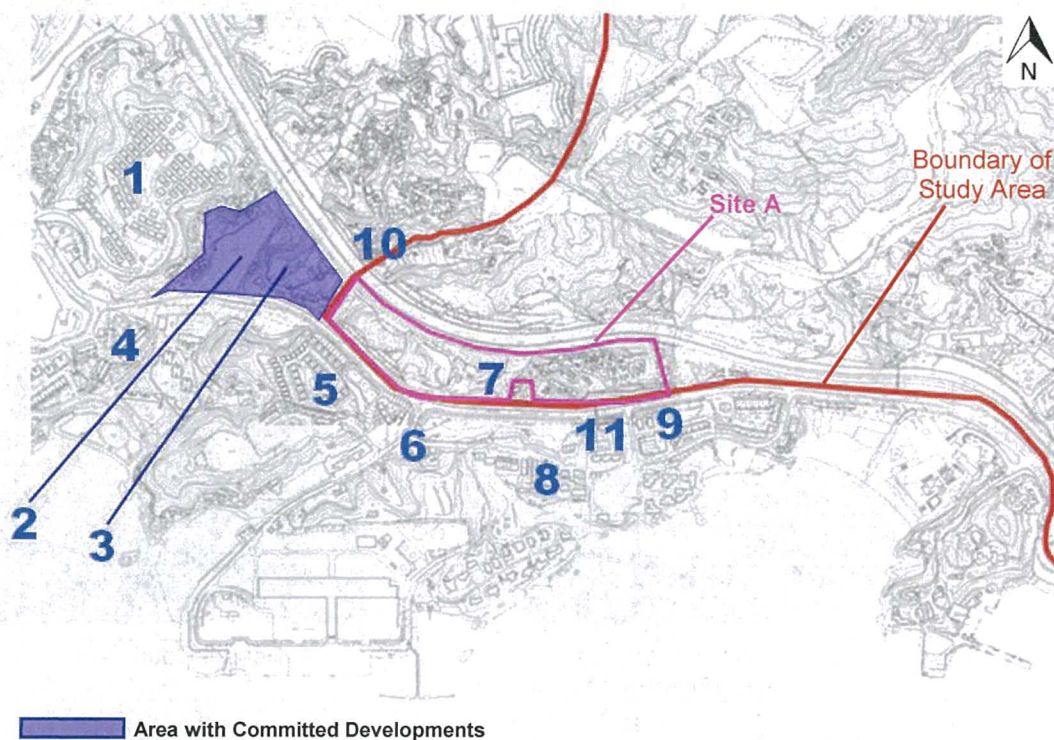










Figure 6.1 Existing and Committed Developments in the vicinity of Site A

	
1. Nim Wan	2. Area with Committed Development zoned "CDA"
	
3. Area with Committed Development zoned "R(B)"	4. Peridot Court
	
5. The Hillgrove	6. The Aegean
	
7. Site A	8. Houses at Tsing Tai Road

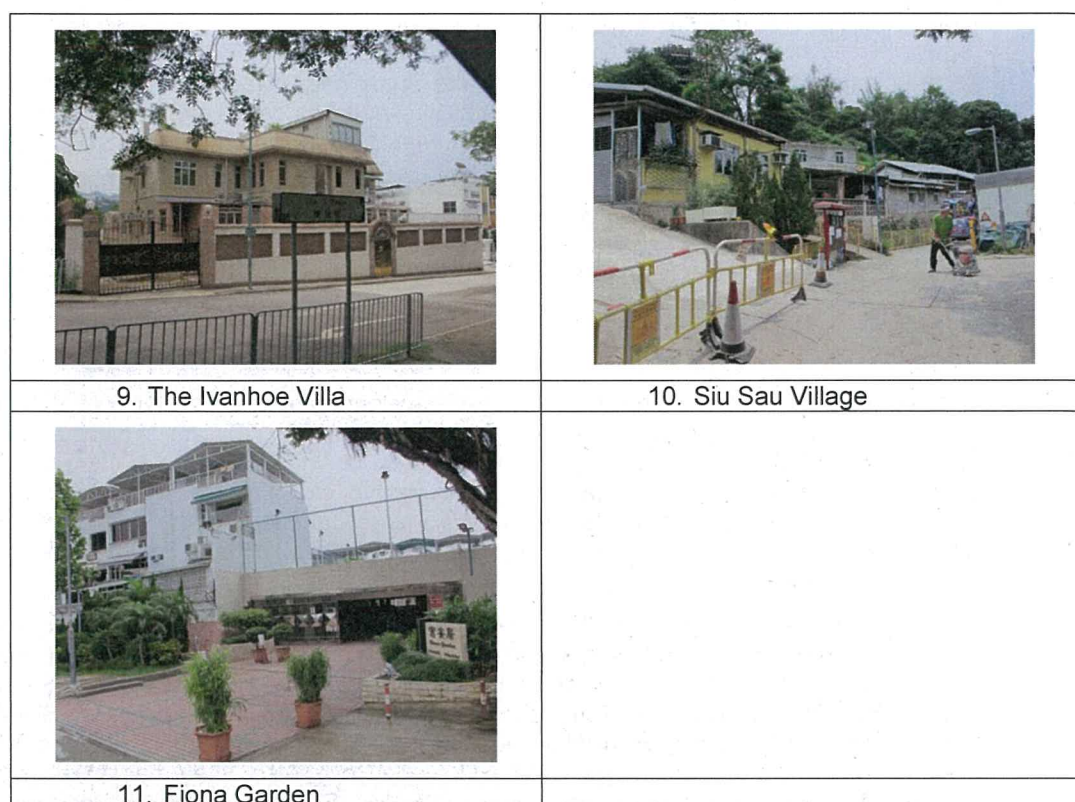


Figure 6.2 Photos of Existing Developments and Sites with Committed Developments in the vicinity of Site A

7 EXPERT EVALUATION ON THE PROJECT AREA

- 7.1 As mentioned, a Project Area located within the Study Area of So Kwun Wat, namely Site A, has been targeted for housing development. Its air ventilation performance has been assessed based on development parameters provided by PlanD.
- 7.2 The evaluation will also be based on existing topography and morphology, future development of the surrounding and wind environment. Specific measures such as breezeways, open spaces and building gaps would be recommended for enhancing wind permeability through the local region and promoting air ventilation performance.

Site A

- 7.3 Site A is planned for mid to high-rise residential developments with a site area of about 6.03ha. The proposed maximum building height of Site A is around 80mPD. This site has an elongated shape located between Siu Sau Village and the residential development along Castle Peak Road (i.e. Fiona Garden, The Aegean and The Hillgrove, etc). The area is currently designated as "GB". Considering the site configuration and other circumstances, the developments within this site would probably form "wall-like" buildings with continuous façade affecting wind penetration in the area.
- 7.4 There are several existing / committed developments in the west and southwest vicinity of Site A including an adjacent committed development zoned "R(B)" located at Tuen Mun East area, Jade Cove and The Aegean. The buildings within these developments fronting Site A area, ranging from 35mPD to around 70mPD in height, may create wind blockage on Site A under the summer SW prevailing wind. However, the SW wind can enter the site from sea front through the wind corridor along the "GB" next to Jade Cove. Also, Site A has an relatively open exposure to the prevailing winds from the N, ENE, NE, SE and S since the upstream vicinity areas in these directions are open ground or occupied only by low-rise developments (i.e. Fiona Garden, Castle Bay, which are no higher than 3-storeys) and village type developments (Siu Sau Village) with various streets serving as wind corridors.
- 7.5 In general, the building with height H is possible to have a wind environment influence area (wind shadow area) of approximately H extended from the building to its downwind side. Decline in terms of air ventilation performance is likely to occur within the wind shadow area. Under the incoming N winds, the affected areas induced by the future development clusters in Site A may reach the existing residential area of Fiona Garden, The Aegean, and the northern most buildings of Jade Cove.
- 7.6 While under the prevailing wind from E and SE, the influenced area generated by Site A developments may reach the eastern portion of the committed development in Tuen Mun East and Siu Sau Village. Thus, slightly decline in terms of air ventilation performance can be expected under these prevailing winds in the aforementioned areas after the construction of developments in Site A.
- 7.7 Under the S and SW winds, the wake region would reach the hill slope / "GB" located to the north and northeast of Site A and may cause impact on the wind environments there. However, owing to the lack of pedestrian access in these areas, it is not expected that the developments in Site A would cause significant impacts upon the pedestrian wind comfort in the vicinity under these summer prevailing winds.
- 7.8 In order to reduce the potential impact of development in Site A to the surrounding area, 5 non-building-areas (NBAs) are recommended as shown in **Figure 7.1**.
- 7.9 The detailed discussion and recommended mitigation measures are as follows:
- An NBA of around 20m in width measured from the western zoning boundary of Site A is proposed. This air path aligning in approximately NNE to SSW would allow penetration of winds towards Jade Cove area under the N prevailing winds. Under the summer southerly wind, the blockage against Siu Sau Village is also expected to be alleviated through this air path.

- A 20m wide NBA is recommended to align with Tsing Fat Street to facilitate annual and summer winds. This NBA would extend the wind corridor of Tsing Fat Street, and facilitate the sea-land breeze as well as southern prevailing winds through Site A into the inland region. Under the N and NE winds, this NBA would be effective in reducing the wind shelter of development in Site A on The Aegean and Tsing Fat Street.
- An NBA of 20m in width is recommended to the north of the existing petrol filling station. Considering the long lot frontage of Site A along Castle Peak Road, this NBA would be required to ensure the permeability of the site making use of the relatively open petrol filling station to facilitate northerly and southerly prevailing winds.
- Two NBAs of 20m in width are proposed to align with Tsing Tai Road and Lok Yi Street respectively. These two NBAs are expected to mitigate the blockage of winds against Fiona Garden / Ivanhoe Villa under the annual prevailing winds.

7.10 Further to the proposed NBAs, general mitigation measures are recommended for the Project Area, i.e. (i) encouragement to minimize the podia for enhancing air ventilation at pedestrian level based on Chapter 11 of the Hong Kong Planning Standards and Guidelines (HKPSG); and (ii) the need to fulfil the requirement of building separation in accordance with the Sustainable Building Design (SBD) Guidelines (APP-152) where appropriate.

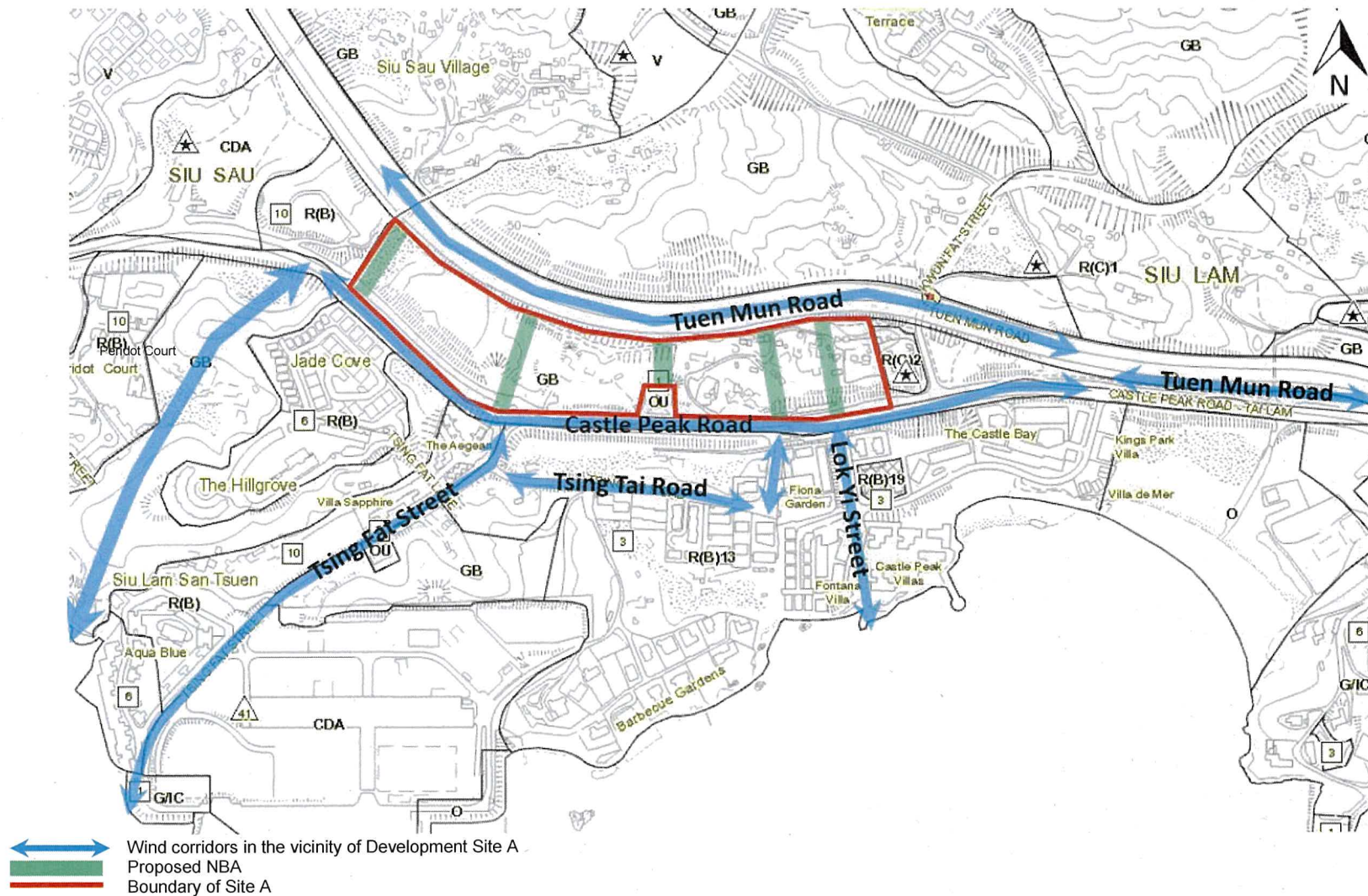


Figure 7.1 Recommended NBAs within Site A and major wind corridors nearby

8 OTHER POTENTIAL SITE

8.1 In addition to the proposed Site A, another potential site has been identified for housing development (namely Site B hereafter). It involves an area currently zoned “G/IC” on the western shore of Tai Lam Chung Nullah (**Figure 8.1**). It is mainly comprised of a site accommodating the existing Tak Bond Godown (next to Tai Lam Nullah) and a parking area with an access road in between. This “G/IC” zone is bounded by sections of Castle Peak Road and Tuen Mun Road. At the time of the air ventilation assessment, the boundary and development parameters of Site B are yet to be finalized, subject to detailed study. However, according to the Airport Height Restriction (AHR), the existing Tak Bond Godown site and the parking area are subject to height restrictions of 99mPD and 100mPD respectively. Hence, for the air ventilation assessment on Site B, the assessment is conducted based on the “G/IC” zoning boundary and on future developments at the maximum potential height of 100mPD.

8.2 For Site B, the buildings to the east and north are all low-rise developments, and those to its northwest are mid to high-rise buildings of Palatial Coast (with a distance of around 400m away from Site B). The committed development to the further NE of Site B will be a residential development at maximum 70mPD. Photos of the buildings near Site B are shown in **Figure 8.2**.

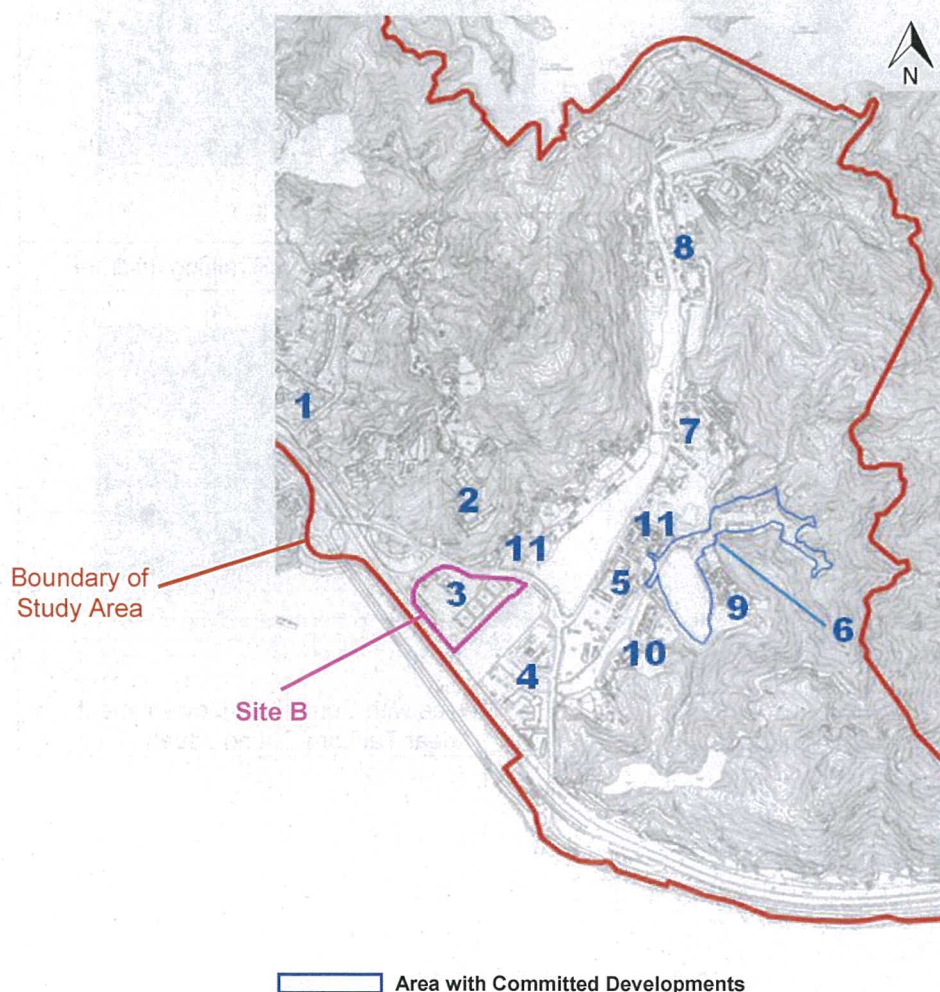








Figure 8.1 Existing and Committed Developments in the vicinity of Site B

	
<p>1. Palatial Coast</p>	<p>2. Siu Lam Psychiatric Centre</p>
	
<p>3. Tak Bond Godown</p>	<p>4. Maritime Services Training Institute</p>
	
<p>5. Customs and Excise Training School</p>	<p>6. Area with Committed Development near Tai Lam Chung Tsuen</p>






	
<p>7. Tai Lam Chung Tsuen</p>	<p>8. Tai Lam Correctional Institute</p>
	
<p>9. Tai Lam Chung Wong Uk</p>	<p>10. Tai Lam Chung Wu Uk</p>
	
<p>11. Luen On San Tsuen (East and West)</p>	

Figure 8.2 Photos of Existing Developments and Site with Committed Developments in the vicinity of Site B within the Southeast Region of the Study Area

- 8.3 Site B is located on Tai Lam Chung Nullah as shown in **Figure 8.3**. Sea-land breeze are expected to reach this region with little obstruction. The wind environment at Site B and its nearby areas is expected to be satisfactory under the summer S, SE and SW wind condition.

- 8.4 There are a few GIC developments located to the north and east of Site B, including Siu Lam Psychiatric Centre, Maritime Services Training School and Customs and Excise Training School, etc. Due to the relative far distances between these buildings and Site B (approximately 100m), these developments would not induce significant impact to the wind environment of Site B under the annual north eastern quarter prevailing winds.
- 8.5 As mentioned, there is a committed development with a proposed building height of around 70mPD at the “CDA” site located east of Tai Lam Chung Wong Uk area. Given the distance between this “CDA” and Site B of more than 200m, it is not likely that the “CDA” development will induce adverse impact to the wind environment of Site B.
- 8.6 In general, a building of height of H would possibly generate a wind wake approximately H from the building. Thus the wind wake induced by Site B developments is likely to lower the air ventilation performance within the 100m area from the site on the leeward side. Under the annual north eastern quadrant winds, the affected area is likely to be Tuen Mun Road and the open sea. However, due to the lack of pedestrian access within this area, it is not expected it will give rise to pedestrian wind comfort issues.
- 8.7 Under the summer southerly winds, the wake area of Site B is likely to reach the southernmost portion of Luen On San Tsuen (west) at the western shore of Tai Lam Chung Nullah and Siu Lam Psychiatric Centre. Slight decline in terms of wind performance at these locations are expected.
- 8.8 It is therefore recommended to incorporate an NBA of at least 15m wide in the north-south alignment. It could make use of the existing road between Tak Bond Godown and the parking area as the NBA to create an air path in redirecting the southerly prevailing winds as well as the sea-land breeze towards the area of Castle Peak Road near Siu Lam Psychiatric Centre and the Luen On San Tsuen (west) (**Figure 8.3**). This air path would also facilitate the air flow under the annual NE prevailing winds and enhance the wind permeability at Site B.
- 8.9 To further minimize the potential impact that may induced by future developments at Site B to the surrounding environment, general mitigation measures are recommended, i.e. (i) encouragement to minimize the podia for enhancing air ventilation at pedestrian level based on Chapter 11 of the HKPSG; and (ii) the need to fulfil the requirement of building separation in accordance with the SBD Guidelines (APP-152) where appropriate.

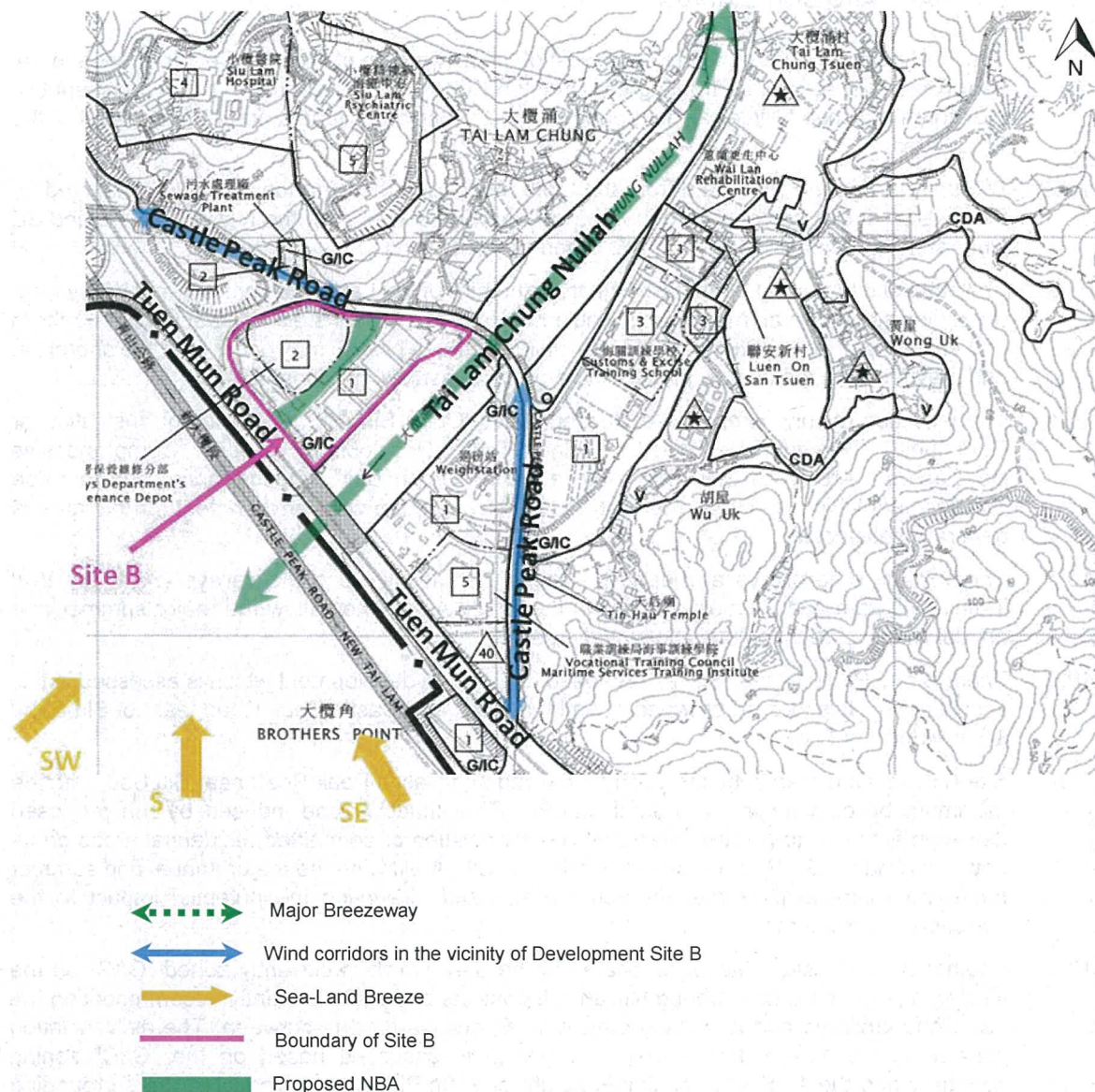


Figure 8.3 Major Wind Corridors in/near the Site B

9 FURTHER WORK

- 9.1 The current wind environment of the Study Area is considered satisfactory given that the area is relatively open with mainly green belt, open space and low-rise developments. Given that NBAs are recommended for the potential development sites, the Study Area would have no major air ventilation issues. If the requirements of the NBAs cannot be met, further quantitative AVA studies should be conducted to assess the air ventilation performance.

10 SUMMARY AND CONCLUSION

- 10.1 The Study Area is situated to the southwest of the hilly terrain of Tai Lam Country Park and Tai Lam Reservoir, as well as fronting the Urmston Road Sea to its south. The highest spot of the aforementioned hilly terrain is around 450mPD in height, situated north to northwest of the Study Area.
- 10.2 By summarizing the wind data from the MM5 model and the wind tunnel study conducted by the HKUST, it can be concluded that the annual wind comes from the N, NE, ENE, E and SE while summer wind come from E, SE, S and SW directions.
- 10.3 The katabatic (downhill) air movements from the hills of Tai Lam Country Park and valley wind are expected. These air movements would help improve the wind environment in the northern and eastern part of the Study Area. Meanwhile, sea-land breeze may occur near the shoreline, and may facilitate the air flow in the southern/southeast part of Study Area.
- 10.4 The land use mainly composes of "Green Belt", "Open Space", "Government, Institution or Community", residential zones, "Village Type Development", and "Comprehensive Development Area". As there are quite a lot of "Green Belt", "Open Space" and low rise development which facilitates the wind to flow through, the wind environment for this area is generally satisfactory.
- 10.5 Three major breezeways are identified which are mainly along the valleys (So Kwun Wat Tsuen, Siu Lam and Tai Lam Chung) in the Study Area. They allow the major summer and annual winds to ventilate the whole study area.
- 10.6 There is one Project Area (Site A) proposed for housing development which is assessed in this assignment. It is located between Tuen Mun Road and Castle Peak Road, east of Siu Sau / Tuen Mun New Town.
- 10.7 Site A covers the area between Tuen Mun Road and Castle Peak Road near Siu Sau, with the maximum building height of around 80mPD. The shadow zone induced by the proposed developments in Site A could reach the nearby existing or committed residential areas on its downwind side. 5 NBAs are recommended for Site A allowing the major annual and summer prevailing winds to penetrate through the site and alleviating the potential impact to the surrounding environment.
- 10.8 Another potential site (Site B) is located in the area which is currently zoned "G/IC" on the western shore of Tai Lam Chung Nullah. It consists of the site currently accommodating the Tak Bond Godown and a parking area with an access road in-between. The air ventilation performance of future developments in Site B is assessed based on the "G/IC" zoning boundary and the AHR at a maximum height of 100mPD. Certain impact to the surrounding wind environment is expected when compared to the existing condition. An NBA is recommended to make use of the north-south aligned access road within Site B in order to facilitate the sea breeze to enter the inland area.
- 10.9 To further minimize the potential impact that may be induced by developments at Site A and Site B to the surrounding environment, general mitigation measures are recommended in minimizing the podia for enhancing air ventilation at pedestrian level based on Chapter 11 of the HKPSG; and in fulfilling the requirement of building separation in accordance with the SBD Guidelines (APP-152) where appropriate.
- 10.10 Given that NBAs are recommended for the potential development sites, the Study Area would have no major air ventilation issues. If the requirements of the NBAs cannot be met, further quantitative AVA studies should be conducted to assess the air ventilation performance.

**VISUAL APPRAISAL IN RELATION TO
PROPOSED AMENDEMENTS TO
SO KWUN WAT OUTLINE ZONING PLAN
NO. S/TM-SKW/11**



**PLANNING DEPARTMENT
FEBRUARY 2015**

1. **Purpose**

- 1.1 An amendment is made to the approved So Kwun Wat Outline Zoning Plan (OZP) No. S/TM-SKW/11 to introduce an additional residential site in order to meet the pressing need for housing.
- 1.2 Further development inducing more development scale, form and massing would inevitably incur visual changes to the locality affecting its spatial relationship with the overall townscape or surrounding landscape. The purpose of this appraisal is to assess the potential visual impact. The appraisal could facilitate the Rural and New Town Planning Committee of the Town Planning Board to visualise the three-dimensional relationship of the development in the proposed housing site with the surrounding context.

2. **Methodology**

The visual impact of the proposed housing sites will be assessed by adopting the following methodology:

- (a) Identification of the overall visual context and character within the wider contexts of the areas in Tuen Mun East and So Kwun Wat.
- (b) Identification and selection of vantage points is fundamental for undertaking the assessment on the possible visual impact arising from the development proposal on the respective housing site. The vantage points should be easily accessible and popular to the public and/or tourists and be able to demonstrate the visual impact of the proposed development on the housing site onto the overall townscape or adjacent neighbourhood area. Important views to special landmarks, valued landscape features, water body, ridgelines, etc should be assessed where possible.
- (c) Identification of the scale of the developments on the proposed housing site using computer-generated photomontages to illustrate the visual impact and their significance from the vantage points, visual appraisal to evaluate the overall visual impact of the proposed housing development is undertaken. The cumulative impact with any known planned developments as permitted by the OZP would be taken into account where possible. Any design features or mitigation measures that help moderate the visual impact of the developments shall be discussed.

3. The Proposed Development

- 3.1. The site currently zoned "Green Belt" ("GB") is proposed to rezone as "Residential (Group B)2" ("R(B)2"). The proposed development parameters are as follows:

Zoning Area:	6.03ha (about)
Development Site Area:	3.38ha (about)
Maximum PR:	3.6
Maximum Building Height:	80mPD

- 3.2. The adjacent neighbourhood area (including Tuen Mun East covered by the Tuen Mun OZP) has been developed as a low to medium density housing area with Tuen Mun Road and Castle Peak Road as the two major traffic corridors linking Tuen Mun Town and Sham Tseng/Tsuen Wan. The site abuts Tuen Mun Road to the north, Castle Peak Road – Tai Lam and an area zoned "Other Specified Uses (Petrol Filling Station)" ("OU(PFS)") to the south and Kwun Fat Street to the east. To the further south of the site, there are some existing private residential developments, with building heights ranging from 20mPD to 60mPD.
- 3.3. The Green Belt (GB) site for proposed development is disturbed and of low ecological value. The western part of the site is occupied by a vegetated slope, while the eastern part of the site is occupied by some temporary squatters. The site mainly falls within a piece of Government Land with some private lots inside.

Visual Appraisal

- 3.4. A total of 3 local vantage points have been selected for assessing the visual impact of the proposed housing development. Photomontages to illustrate the visual changes and the resultant spatial relationship of the townscape as viewed from the selected vantage points are shown at **Plans 5a to 5c**.

(a) VP 1 –Promenade along Golden Beach, Hong Kong Gold Coast

The promenade along Golden Beach at the Hong Kong Gold Coast is selected as a vantage point. This area is easily accessible and is popular to both visitors and local residents. Photomontage to illustrate the possible visual impact of the proposed housing development to recreational users at the promenade is at **Plan 5a**. Two planned developments located to the west of the subject site with development parameters in compliance with the Tuen Mun OZP are also reflected in the photomontage. The proposed maximum building height of the subject site is 80mPD and the adjoining existing and planned developments ranges from about 30mPD to 80mPD. When viewed from the Golden Beach, the proposed development at the

subject site is largely screened off by the Hong Kong Gold Coast Phase 1 and the resultant mass appears to be an extension of the two planned developments with comparable building height. Significant visual impact from this is not anticipated.

(b) VP 2 – Beachfront adjacent to the barbecue spot by the Beach, Tai Lam

This vantage point at the beachfront adjacent to a privately owned barbecue spot is selected as it is popular to the public for leisure and frequently visited by the locals. Photomontage to illustrate the possible visual impact of the proposed housing development to recreational users at the beachfront is at **Plan 5b**. Clusters of low-rise residential developments including Castle Peak Villas and Villa De Mer are located to the south of the subject site across Castle Peak Road – Tai Lam along the beachfront with building height ranging from about 20mPD to 40mPD. When viewed from the vantage point towards the housing site, although the proposed housing development at the subject site brings about more development bulk to the locality reducing some sky views, the overall impact with regard to loss of visual openness is tolerable as there are alternative open views in the setting. Besides, it is acknowledged that the development proposal at the site still generally aligns with the overall urban design principle in the area with building height profile stepping up from about 20mPD to 40mPD along the seafront towards 80mPD in the inland. Significant visual impact is not anticipated.

(c) VP 3 – Maclehose Trail Section 10

Vantage point at the Maclehose Trail Section 10, Tai Lam Country Park is selected as it is popular to the tourists for leisure. Photomontage to illustrate the possible visual impact of the proposed housing development in a wider area context and to recreational users visiting the trail is at **Plan 5c**. When viewed from the vantage point, the proposed housing development at the subject site would be screened off by the planned housing sites in the Tuen Mun OZP and the natural setting. Upon completion of all these developments on the respective housing sites, it has to be admitted that the magnitude of visual changes would be substantial. Owing to the cumulative impact, the general character of the townscape would ultimately be transformed. That said, it is anticipated that development on the proposed housing site in So Kwun Wat would integrate with such urban fabric in the future townscape. Moreover, while the proposed housing site is not visible from this vantage point, it is unlikely that its proposed development scale would be incompatible in visual terms with the future townscape.

4. Conclusion

4.1 Based on the visual appraisal, the proposed housing development at the subject site will mainly be screened off by existing/planned developments and natural landscape when viewing from VP1 and VP3. While viewing from VP2, the proposed development may diminish some visual openness of the setting but the overall impact is not unacceptable, given that the development scale generally aligns with the overall urban design principle in the area with building height profile stepping up from about 20mPD to 40mPD along the seafront towards 80mPD in the inland.

4.2 Although there would be inevitably a slight reduction of visual openness to the immediate vicinity of proposed development due to the involvement of a rezoning of the site from non-development use to development use, Non-building Areas (NBAs) aligning to the existing streets perpendicular to Castle Peak Road – Tai Lam have been assigned as wind corridors which serve also as visual corridors and they may help provide building permeability of the proposed development. It is considered that, while the character of the overall townscape would be transformed, the proposed housing development would not be visually incompatible in the transformed context comprising a span of high-rise developments. As such, significant visual impact due to the proposed rezoning is not anticipated.

Attachments

Plan 1	Location Plan
Plan 2	Site Plan
Plan 3	Aerial Photo
Plans 4a to 4d	Site Photos
Plans 5a to 5c	Photomontages

**Summary of Technical Reviews for the Proposed Amendments to
the Approved So Kwun Wat Outline Zoning Plan No. S/TM-SKW/11**

1. Background

- 1.1 In April 2014, a preliminary technical review for the proposed amendment items in Tuen Mun East (TME) under the proposed amendments to the approved Tuen Mun Outline Zoning Plan (OZP) No. S/TM/31 was conducted by relevant departments to assess the feasibility of these sites for housing developments and for plot ratio (PR) increase. The findings in the review concluded that the proposed amendments to the approved Tuen Mun OZP No. S/TM/31 would not cause insurmountable problems on traffic and infrastructural capacity as well as on environmental aspects.
- 1.2 The proposed amendments to the approved So Kwun Wat OZP No. S/TM-SKW/11 involves a site to the west of Kwun Fat Street from “Green Belt” (“GB”) to “Residential (Group B)2” (“R(B)2”), with a maximum PR of 3.6 and a maximum building height of 80 metres above Principal Datum (mPD). It is considered that preliminary technical review for the proposed amendments to the So Kwun Wat OZP is required with an aim to assess the feasibility of the site for housing developments and for PR increase. In this review, the traffic, drainage, sewerage, water supply, air and noise impacts have been assessed. The findings have concluded that the housing developments within the proposed amendment would not cause insurmountable problems on traffic and infrastructural capacity as well as on environmental aspects. The findings are as follows.

2. Technical Review

2.1 Traffic Review by Transport Department

- 2.1.1 Under the Highways Department’s (HyD) project “Widening of Castle Peak Road – Castle Peak Bay” (CPR-CPB), traffic impact assessments (TIA) have been carried out in the investigation and detailed design stages for the traffic in the TME area. The purpose of the traffic review is to assess

whether the CPR-CPB could be able to cater for the traffic growth due to the proposed OZP amendments and other potential planned developments in TME area. The area of influence (AOI) of the traffic model in the TIA covers the area in TME (from Sam Shing to Siu Lam). The traffic generation and attraction to the CPR-CPB within the area have been reviewed to examine the impact and proposed corresponding improvement measures.

Traffic Review

2.1.2 The existing CPR-CPB is a local road with single 2-lane configuration to serve the residents in TME area towards Tsuen Wan and Tuen Mun. Public transport like green mini-bus, bus, and private cars are the major transport for the locals. Based on the observed link capacity and junction performance assessment in the TIA, the current link capacity and junction performance in CPR-CPB are not overloaded. However, some existing junctions have occasionally suffered from traffic congestion in different time period, like Tsing Yung Street (J5), Tsing Ying Road roundabout (J6) in the morning peak of weekdays, and Sam Shing Street (J2) and Golden Beach Path (J7) in the weekend (**Plan 1**).

2.1.3 Considering Planning Department's (PlanD) proposed amendments to the Tuen Mun OZP No. S/TM/31 in April 2014 and the current round of proposed amendment to the So Kwun Wat OZP No. S/TM-SKW/11, future potential housing developments and natural growth of traffic within the AOI, the existing CPR-CPB is found to be overloaded in both the junctions ($RC^1 < 0$ or $DFC^2 > 1.0$) and link ($v/c^3 \geq 1.2$) capacity if there are no future junction improvement and road widening works.

Recommendations

2.1.4 Proposed junction improvement works for the Junctions J2 (Sam Shing Street), J5 (Tsing Yung Street), J6 (Tsing Ying

Road) and J7 (Golden Beach Path) in CPR-CPB are required to be completed before 2019 (Plans 2-5 attached) in order to meet the traffic demand from anticipated intake of the proposed housing developments and other sites. After the completion of the widening of CPR-CPB to dual 2-lanes configuration with associated junction improvement works under CPR-CPB in 2019 (**Plan 1** attached), together with the junction improvement works at J12 (Kwun Fat Street) and J13 (Tsing Fat Street), the junction DFC will be 0.95. In future, it will provide a reserve for the additional traffic generated from further potential developments in the area.

Conclusion

- 2.1.5 The traffic review conducted for PlanD's latest proposed OZP amendments for TME concludes that from traffic engineering point of view, the proposed junction improvement and road widening for the CPR-CPB mentioned in paragraph 2.1.4 could accommodate the traffic from the housing developments under the OZP amendments, other potential housing developments and natural growth of traffic demand in TME. Detailed design will be carried out to affirm the proposed junction improvement arrangement and to make any necessary minor adjustment if necessary at later stage.

2.2 Drainage Assessment by Drainage Services Department

- 2.2.1 The review provides an overview and quick assessment of the drainage aspect for the consideration of the feasibility of the proposed amendments to the So Kwun Wat OZP. The review could not be used to replace the Drainage Proposal or Drainage Impact Assessment (DIA). The project proponent of individual development is required to demonstrate that with the implementation of necessary mitigation measures or diversion measures, the development proposal will not cause an unacceptable increase in the risk of flooding in the area.

- 2.2.2 Based on a preliminary assessment of the drainage aspect, the below findings and recommendations are listed from public drainage point of view:-

According to DSD's drainage record, the site is in an area where no public stormwater drainage maintained by DSD is currently available for connection. Developments on the site shall conduct a DIA and implement all the mitigation measures as identified in the DIA to ensure that it will not cause adverse drainage impact to the adjacent areas. The project proponent of the developments shall arrange his own stormwater disposal facilities to cater for the rain water falling onto or flowing to his site.

- 2.2.3 Based on the above, it is concluded that there are no insurmountable drainage problems foreseen for the housing developments within the site.

2.3 Sewerage Review by Environmental Protection Department

- 2.3.1 The purpose of the review is to facilitate consideration of the feasibility of the proposed amendments to the So Kwun Wat OZP. The review is not meant to replace the Sewerage Impacts Assessment (SIA), as project proponent of individual development still needs to conduct SIA to assess the impacts to the sewerage system and environment associated with the development and propose mitigation measures to ensure that the residual impacts of the development are acceptable.

Sewerage Infrastructure Review

- 2.3.2 There is no existing public sewer in the vicinity to receive the discharge of sewage arising from developments on the site. The on-going Castle Peak Road Trunk Sewer project, which will extend the public sewerage coverage to Siu Lam and Tai Lam Chung, is in the construction stage and the design handling capacity has been fully allocated to the planned

public housing, private residential developments and institutional facilities.

2.3.3 Developer(s) shall also make their own arrangements for the treatment and disposal of the sewage arising from individual developments. The required sewage treatment and disposal facilities would not cause insurmountable problems.

2.3.4 A new regional sewage treatment works and the associated public sewerage collection system are being planned to serve the TME Area, including the proposed amendment site in So Kwun Wat OZP, in the long term. When the new public sewerage system is commissioned, the Government may require mandatory connection to the sewerage system. As such, the developers shall make provision at their own expense for the conveyance and connection of the sewage arising from the developments to the new sewerage system.

2.4 Water Supply Review by Water Supplies Department

2.4.1 The review is to carry out preliminary assessment on the adequacy of the existing water supply system to cater for the proposed developments within the amendment site on the So Kwun Wat OZP.

Fresh Water Supply

2.4.2 The proposed amendment site on So Kwun Wat OZP is within the fresh water supply zone of the existing Siu Lam Fresh Water Service Reservoir. The existing service reservoir has adequate capacity to meet the fresh water demand arising from the developments within the site.

2.4.3 The source of fresh water of Siu Lam Fresh Water Service Reservoir is from Tuen Mun Water Treatment Works. The overall water treatment works in New Territories West has adequate capacity to meet the fresh water demand arising

from the new developments.

- 2.4.4 Fresh water is distributed to the site from Siu Lam Fresh Water Service Reservoir via the existing water distribution trunk mains along So Kwun Wat Road and Castle Peak Road. Local improvement to the water mains in the distribution network may be required.

Flushing Water Supply

- 2.4.5 The proposed amendment site on the So Kwun Wat OZP is within the temporary mains flushing supply zone of the existing Siu Lam Fresh Water Service Reservoir. The existing service reservoir can cater for the flushing water demand arising from the site, but local improvement to the water mains in the distribution network may be required.
- 2.4.6 The site falls within the salt water flushing supply zone of the future Lok On Pai Salt Water Pumping Station (LOPSWPS), for which the construction work is substantially completed. No allowance has been made in the LOPSWPS supply system for flushing water supply to the TME housing developments. Some of the pumping capacity of the salt water supply system may be reallocated to meet the flushing water demand of the site. However, there may be a need to upgrade LOPSWPS supply system. The required upgrading works would not be insurmountable.

Preliminary Findings

- 2.4.7 The existing water supply infrastructure including water treatment works and service reservoir are adequate to meet the fresh and flushing water demand arising from the proposed amendment site in TME under the proposed amendments to the So Kwun Wat OZP, but local improvement to the water mains in the distribution network and upgrading of LOPSWPS supply system may be required.

2.5 Air and Noise Impact Review by Environmental Protection Department

- 2.5.1 The site is located along heavily trafficked roads including Tuen Mun Road and Castle Peak Road – Tai Lam, and will be subject to severe traffic related noise and vehicular emissions impacts. The site will have to adopt appropriate mitigation measures, in order to comply with the Hong Kong Planning Standards and Guidelines (HKPSG) requirements. Noise Impact Assessment to assess traffic noise impacts and mitigation measures to address the potential traffic noise impact arising from Tuen Mun Road and Castle Peak Road, and air buffer distance should be provided to meet the HKPSG. These requirements will be included in the land lease conditions for future developer to carry out.

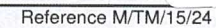
3. Conclusion & Way Forward

- 3.1 The traffic and other technical reviews confirm that the proposed developments on the So Kwun Wat OZP and the associated PR increase in TME are acceptable and would not overload the traffic and infrastructural capacity. There is a need for road junction improvement works and widening of CPR-CPB, and operation of the access road within the site mentioned in paragraph 2.1.4 by 2019. Concerned works departments would take necessary actions to provide the required infrastructures to facilitate the proposed housing developments.
- 3.2 There are also no insurmountable problems for the proposed developments within the site in environmental terms. The Site is subject to noise and vehicular emissions impacts, Noise Impact Assessment and air buffer distance would be required under the lease to mitigate any possible environmental impact.

¹ The performance of a signalised road junction is indicated by its reserve capacity (RC). A positive RC indicates that the road junction is operating with spare capacity. A negative RC indicates that the junction is overloaded, resulting in traffic queues and longer delay time.

² The performance of a roundabout and a priority junction is indicated by the design flow/capacity (DFC) ratio. A DFC ratio less than 1.0 indicates that the road junction is operating within design capacity. A DFC ratio greater than 1.0 indicates that the junction is overloaded, resulting in traffic queues and longer delay time.

³ V/C (volume/capacity) ratio is normally used to reflect traffic situation during peak hours. A v/c ratio equal to or less than 1.0 means that the road has sufficient capacity to cope with the volume of vehicular traffic under consideration. A v/c ratio below 1 is considered acceptable. A v/c ratio above 1.0 indicates the onset of mild congestion and a v/c ratio between 1.0 and 1.2 would indicate a manageable degree of congestion. Above 1.2 indicates more serious congestion with traffic speeds progressively deteriorating with further increase in traffic and such v/c ratios are considered unacceptable.



Provision of GIC Facilities and Open Space in So Kwun Wat

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	1.65ha	0.00ha	0.78ha	-0.87ha
Local Open Space	10 ha per 100,000 persons	1.65ha	0.34 ha	1.65 ha	0ha
Secondary School	1 whole-day classroom for 40 persons aged 12-17	16 classrooms	0 classrooms	0 classrooms	-16 classrooms
Primary School	1 whole-day classroom for 25.5 persons aged 6-11	28 classrooms	0 classrooms	0 classrooms	-28 classrooms
Kindergarten/ Nursery	26 classrooms for 1,000 children aged 3 to 6	11 classrooms	2 classrooms	2 classrooms	-9 classrooms
District Police Station	1 per 200,000 to 500,000 persons	0.03	0.00	0.00	-0.03
Divisional Police Station	1 per 100,000 to 200,000 persons	0.08	0.00	0.00	-0.08
Hospital	5.5 beds per 1,000 persons	94 beds	0 beds	0 beds	-94 beds*
Clinic/Health Centre	1 per 100,000 persons	0.17	0.00	0.00	-0.17
Magistracy (with 8 courtrooms)	1 per 660,000 persons	0.03	0.00	0.00	-0.03
Integrated Children and Youth Services Centre	1 for 12,000 persons aged 6-24	0.20	0.00	0.00	-0.20
Integrated Family Services Centre	1 for 100,000 to 150,000 persons	0.11	0.00	0.00	-0.11
Library	1 district library for every 200,000 persons	0.08	0.00	0.00	-0.08
Sports Centre	1 per 50,000 to 65,000 persons	0.25	0.00	0.00	-0.25
Sports Ground/ Sport Complex	1 per 200,000 to 250,000 persons	0.07	0.00	0.00	-0.07
Swimming Pool Complex - standard	1 complex per 287,000 persons	0.06	0.00	0.00	-0.06

* Hospital bed provision is determined on a regional basis. The regional deficit would be addressed by Food and Health Bureau and Hospital Authority.

Provision of GIC Facilities and Open Space in Tuen Mun

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	56.51 ha	63.77ha	103.36ha	+46.85ha
Local Open Space	10 ha per 100,000 persons	56.51ha	103.23 ha	118.13ha	+61.62ha
Secondary School	1 whole-day classroom for 40 persons aged 12-17	704 classrooms	999 classrooms	1029 classrooms	+325 classrooms
Primary School	1 whole-day classroom for 25.5 persons aged 6-11	1000 classrooms	1052 classrooms	1176 classrooms	+176 classrooms
Kindergarten/ Nursery	26 classrooms for 1,000 children aged 3 to 6	288 classrooms	346 classrooms	363 classrooms	+75 classrooms
District Police Station	1 per 200,000 to 500,000 persons	1.18	1.00	1.00	-0.18
Divisional Police Station	1 per 100,000 to 200,000 persons	2.95	2.00	3.00	+0.05
Hospital	5.5 beds per 1,000 persons	3247 beds	1822 beds	1822 beds	-1425 beds*
Clinic/Health Centre	1 per 100,000 persons	5.90	3.00	5.00	-0.90
Magistracy (with 8 courtrooms)	1 per 660,000 persons	0.90	1.00	1.00	+0.10
Integrated Children and Youth Services Centre	1 for 12,000 persons aged 6-24	7.55	13.00	13.00	+5.45
Integrated Family Services Centre	1 for 100,000 to 150,000 persons	3.77	4.00	4.00	+0.23
Library	1 district library for every 200,000 persons	2.95	3.00	3.00	+0.05
Sports Centre	1 per 50,000 to 65,000 persons	8.69	5.00	8.00	-0.69
Sports Ground/ Sport Complex	1 per 200,000 to 250,000 persons	2.26	1.00	3.00	+0.74
Swimming Pool Complex - standard	1 complex per 287,000 persons	1.97	2.00	2.00	+0.03

* Hospital bed provision is determined on a regional basis. The regional deficit would be addressed by Food and Health Bureau and Hospital Authority.

負責人

屯門區議會第二十次會議
會議記錄(初稿)摘錄

日期：2015年1月6日(星期二)

時間：上午9時34分

地點：屯門區議會會議室

(b) 擬議修訂《掃管笏分區計劃大綱核准圖》

(屯門區議會文件 2015 年第 4 號)

79. 副主席歡迎規劃署高級城市規劃師/屯門1何婉貞女士出席是次會議。

80. 規劃署何女士以投影片向議員簡介文件內容，有關詳情見附件二。她表示，署方擬議將位於掃管笏冠發街以西一幅「綠化地帶」土地，改劃為「住宅(乙類)2」地帶，該地帶擬議最高地積比率為3.6倍，高度限制則為主水平基準上80至85米。以地盤淨面積計算，估計可提供約122 000平方米總樓面面積，可供發展約2 000個住宅單位。署方已就擬議修訂項目諮詢了各相關政府部門(包括：環境保護署、渠務署、路政署、運輸署及地政總署等)，並認為有關擬議修訂不會對現有的基礎設施、交通、社區及休憩用地需求構成負面影響。雖然如此，如有需要，當局亦會提供相關措施，確保建議不會對當區構成重大影響。此外，署方亦已就該地的生態價值及保育樹木方面進行研究，並為有關視覺、交通、環境及空氣等方面進行影響評估。最後，她請議員就上述的土地用途修訂建議提出意見，以便署方將有關意見提交予城市規劃委員會(下稱城規會)考慮。如城規會同意有關修訂項目，將會根據《城市規劃條例》第5條展示該修訂大綱草圖，作為期兩個月的公眾諮詢工作。

81. 有議員表示，由於規劃署已準備將計劃呈交城規會考慮，故估計相關的規劃工作已近尾聲。為此，她希望署方能盡快就有關改劃諮詢當區居民的意見，並交代將計劃呈交城規會的預計時間。此外，她知悉在改劃範圍附近有一幅土地已被列入賣地表，而該土地面積約為一公頃，如連同文件的擬議改劃範圍一併計算，則整體面積已超過六公頃。她擔心如署方未有為該區增設商戶設施，則新增的約2 000伙居民將來亦須前往黃金海岸及置樂一帶購物。除了會構成不方便之外，亦可能會令交通擠塞的情況變得更為嚴重。另一方面，文件中的改劃範圍涉及寮屋土地，為讓寮屋居民知悉有關改劃，她建議署方盡快諮詢他們的意見。

82. 規劃署林專員表示，上述議員提及已被納入賣地表的土地已包括於是次改劃的範圍之中。此外，規劃署主要負責改劃方面的工作，有關清析



朱順雅屯門區議員辦事處

電話 | 24630889

傳真 | 31010120

電郵 | beatrice_chu@dphk.org

地址 | 屯門海榮路 9 號萬能閣 725 室

本處檔號：OUT-DB-20150207-HF610 BC

發展局局長陳茂波先生

規劃署署長凌嘉勤先生

於 2015 年 2 月 7 日

屯門東未來規劃諮詢大會遞交

陳先生、凌先生：

有關：建議在青山公路愛琴海岸及星堤建公營房屋及修改多幅土地用途事宜

發展局及規劃署在 2015 年 1 月區議會大會提出以下改劃建議，包括：—

- 一． 2015 年 1 月份屯門區議會大會議程四，提出修改<<掃管笏分區計劃大綱核准圖>>，建議將大欖近小秀村約 5.3 公頃，約 12 萬平方米的綠化地帶，改作密度 3.6 倍的住宅發展，預計可提供 2,000 個單位。
- 二． 2015 年 1 月份屯門區議會大會議程二，提出準備在 2015-2017 年更改六幅位於掃管笏、大欖一帶的政府、機構及社區和綠化地帶用地，作公營/私營房屋發展：—

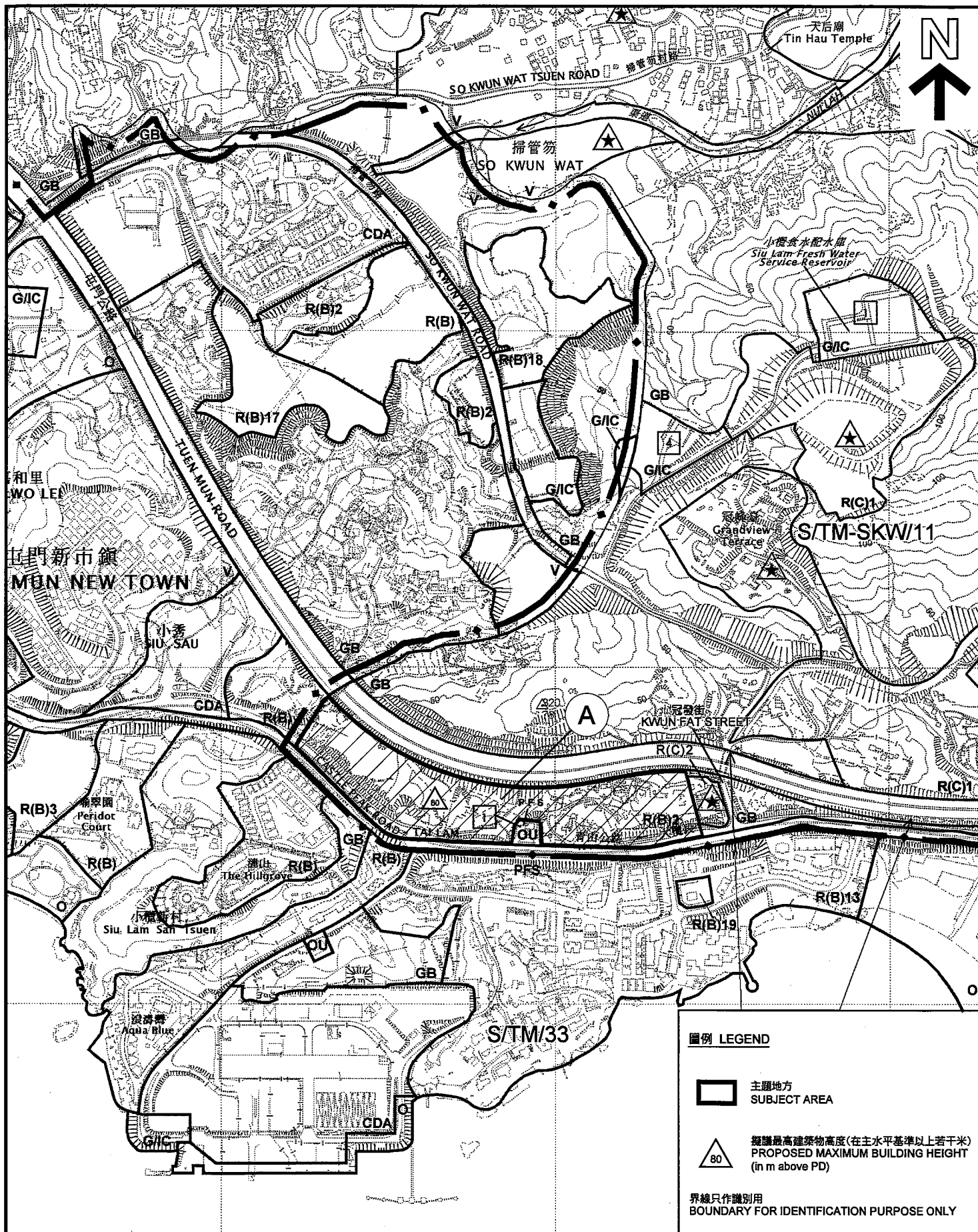
地點	目前用途	房屋類型	預計發展年份
屯門掃管笏堤岸以北	GB	私營	2015-2016
屯門順德聯誼總會李金小學以西	G/IC, GB	公營	2016-2017 以後
屯門掃管笏小秀(北面部份)	GB	公營	2016-2017 以後
屯門掃管笏愛琴灣以北	GB	私營	2016-2017 以後
屯門掃管笏富安居以北	GB	私營	2016-2017 以後
屯門大欖涌	G/IC	公營	2016-2017 以後

查規劃署在 2014 年已先後在上述區域改劃九幅土地為住宅用地（約佔地 15 公頃），有關更改帶來近 8000 戶房屋，新增人口預計超過 25,000 人。上述改劃在缺乏完善諮詢下，於 2014 年 11 月在城規會匆匆通過，完全漠視民意。這些大幅改動，無疑對早年因青山公路被定位為低密度住宅區而決定遷入的居民不公平。

現政府又再提出在 2015 年至 2017 年，佔地超過 20 公頃的改劃方案，令社區人口倍數遞增之同時，卻隻字不提交通、社區配套如何配合，本人認為只管建屋，其他關乎民生的安排卻欠奉，是既不合理、又不負責任的規劃，不能接受！

民主黨在 2015 年 1-2 月期間，向青山公路掃管笏一帶居民作出街頭諮詢，

回函請引本處檔號



本摘要圖於2015年2月13日擬備，
所根據的資料為於2011年4月12日
核准的分區計劃大綱圖編號 S/TM-SKW/11
EXTRACT PLAN PREPARED ON 13.2.2015
BASED ON OUTLINE ZONING PLAN No.
S/TM-SKW/11 APPROVED ON 12.4.2011

修訂地點A的位置圖
LOCATION PLAN OF AMENDMENT SITE

於掃管笏分區計劃大綱核准圖編號S/TM-SKW/11內
擬就掃管笏土地用途作出修訂
PROPOSED AMENDMENTS TO THE LAND USE ZONINGS
IN SO KWUN WAT ON THE APPROVED SO KWUN WAT
OUTLINE ZONING PLAN No. S/TM-SKW/11

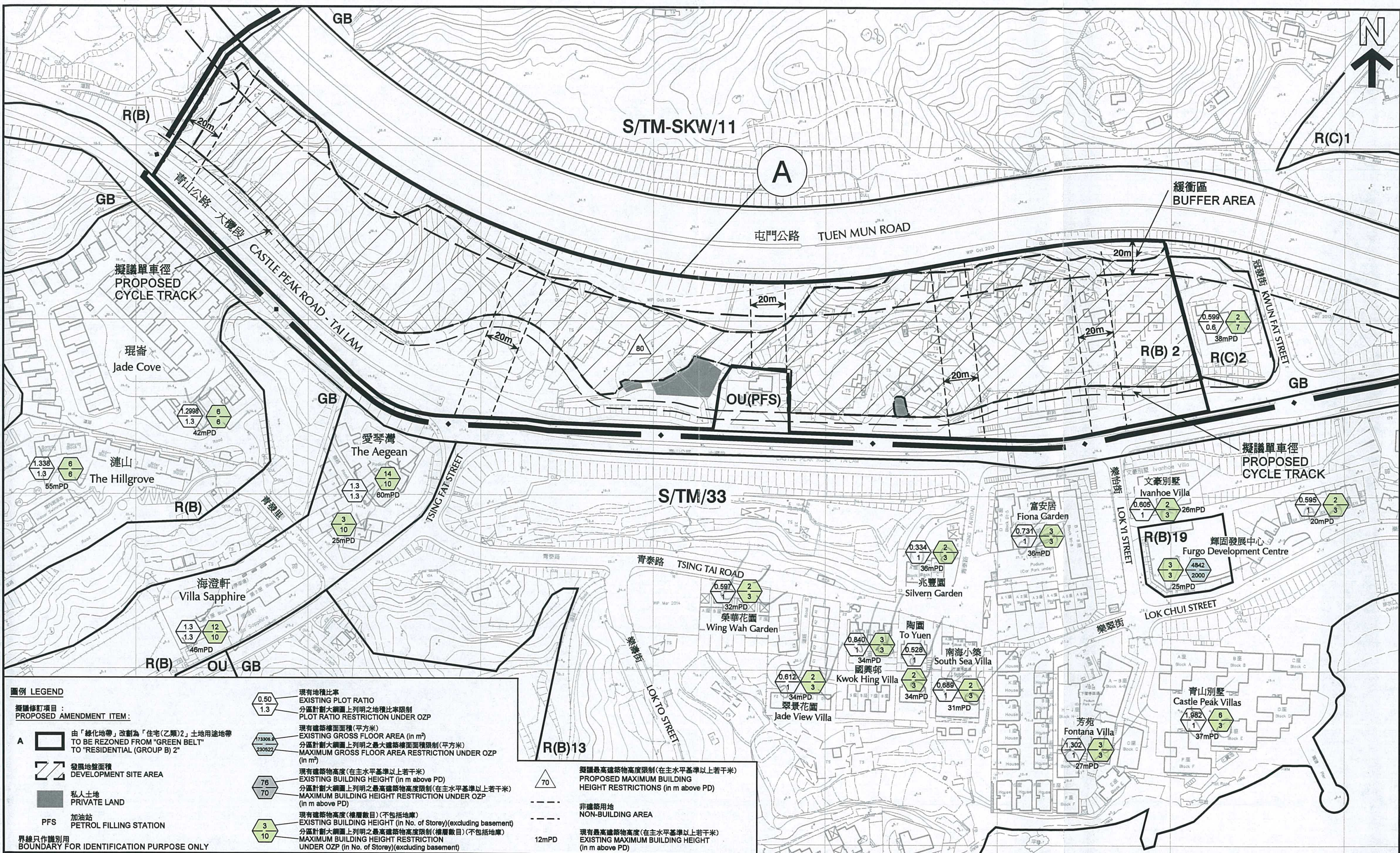
SCALE 1 : 7 500 比例尺
米 100 0 100 200 300 米
METRES

規劃署
PLANNING
DEPARTMENT



參考編號
REFERENCE No.
M/TM/15/3

圖 PLAN
1



平面圖 SITE PLAN

本摘要圖於2015年2月17日製備，所根據的資料為測量圖編號 6-SW-18C, 18D, 23A和23B
EXTRACT PLAN PREPARED ON 17.2.2015
BASED ON SURVEY SHEETS No. 6-SW-18C, 18D, 23A & 23B

掃管笏分區計劃大綱核准圖編號S/TM-SKW/11的擬議修訂 - 項目A
PROPOSED AMENDMENT TO THE APPROVED
SO KWUN WAT OUTLINE ZONING PLAN NO. S/TM-SKW/11 - ITEM A

SCALE 1:2 000 比例尺
METRES 40 0 40 80 METRES

規劃署
PLANNING DEPARTMENT



參考編號 REFERENCE No.
M/TM/15/3

圖 PLAN
2



圖例 LEGEND



主理地方(界線只作識別用)
SUBJECT AREA
(BOUNDARY FOR IDENTIFICATION
PURPOSE ONLY)

本摘要圖於2015年2月13日擬備，所根據
的資料為地政總署於2013年7月12日拍得
的航攝照片編號 CS44279

EXTRACT PLAN PREPARED ON 13.2.2015
BASED ON AERIAL PHOTO No.
CS44279 TAKEN ON 6.11.2013
BY LANDS DEPARTMENT

修訂地點的航攝照片 AERIAL PHOTO OF AMENDMENT SITE

於掃管笏分區計劃大綱核准圖編號S/TM-SKW/11內
擬就掃管笏土地用途作出修訂

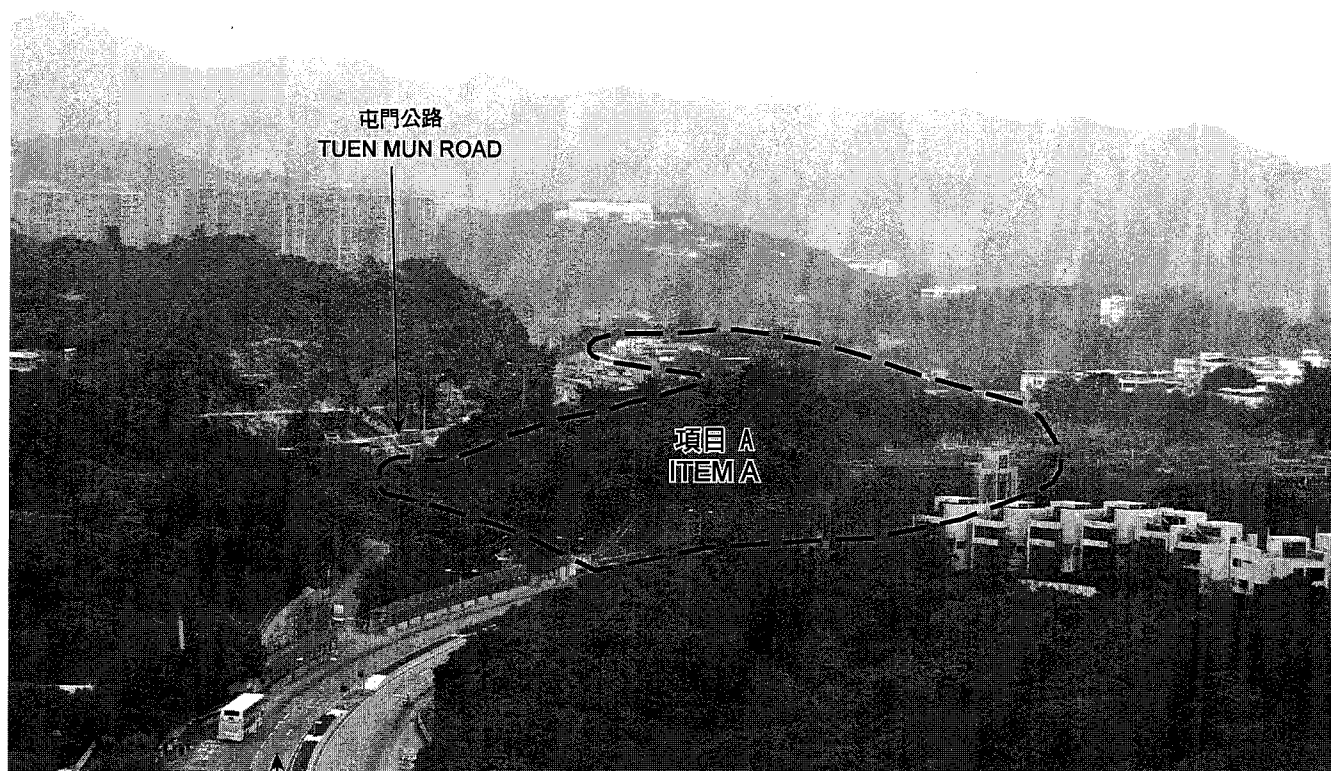
PROPOSED AMENDMENTS TO THE LAND USE ZONINGS
IN SO KWUN WAT ON THE APPROVED SO KWUN WAT
OUTLINE ZONING PLAN NO. S/TM-SKW/11

規劃署
PLANNING
DEPARTMENT



參考編號
REFERENCE No.
M/TM/15/3

圖 PLAN
3



屯門公路
TUEN MUN ROAD

項目 A
ITEM A

青山公路 - 大欖段
CASTLE PEAK ROAD - TAI LAM

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

本圖於2014年1月16日擬備，所根據的
資料為攝於2015年12月10日的實地照片
PLAN PREPARED ON 16.1.2015
BASED ON SITE PHOTO
TAKEN ON 10.12.2014

實地照片 SITE PHOTO

掃管笏分區計劃大綱核准圖編號S/TM-SKW/11的擬議修訂
- 項目A

PROPOSED AMENDMENTS TO
APPROVED SO KWUN WAT
OUTLINE ZONING PLAN No. S/TM-SKW/11
- ITEM A

規劃署
PLANNING
DEPARTMENT



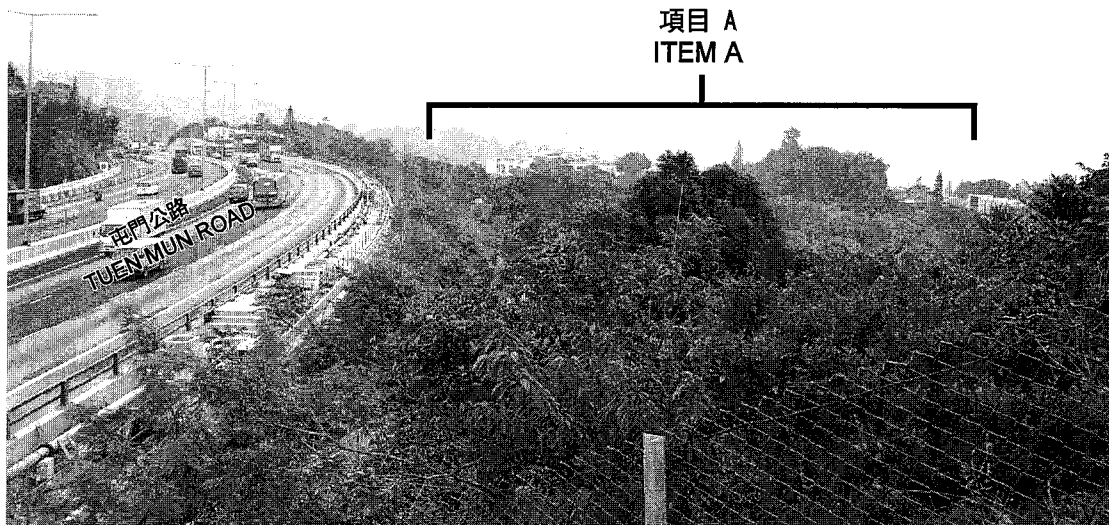
參考編號
REFERENCE No.
M/TM/15/3

圖 PLAN
4a

項目 A
ITEM A



項目 A
ITEM A



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

本圖於2015年1月16日擬備，所根據的
資料為攝於攝於2014年12月10日的實地照片
PLAN PREPARED ON 16.1.2015
BASED ON SITE PHOTO
TAKEN ON 10.12.2014

實地照片 SITE PHOTO

掃管笏分區計劃大綱核准圖編號S/TM-SKW/11的擬議修訂
- 項目A

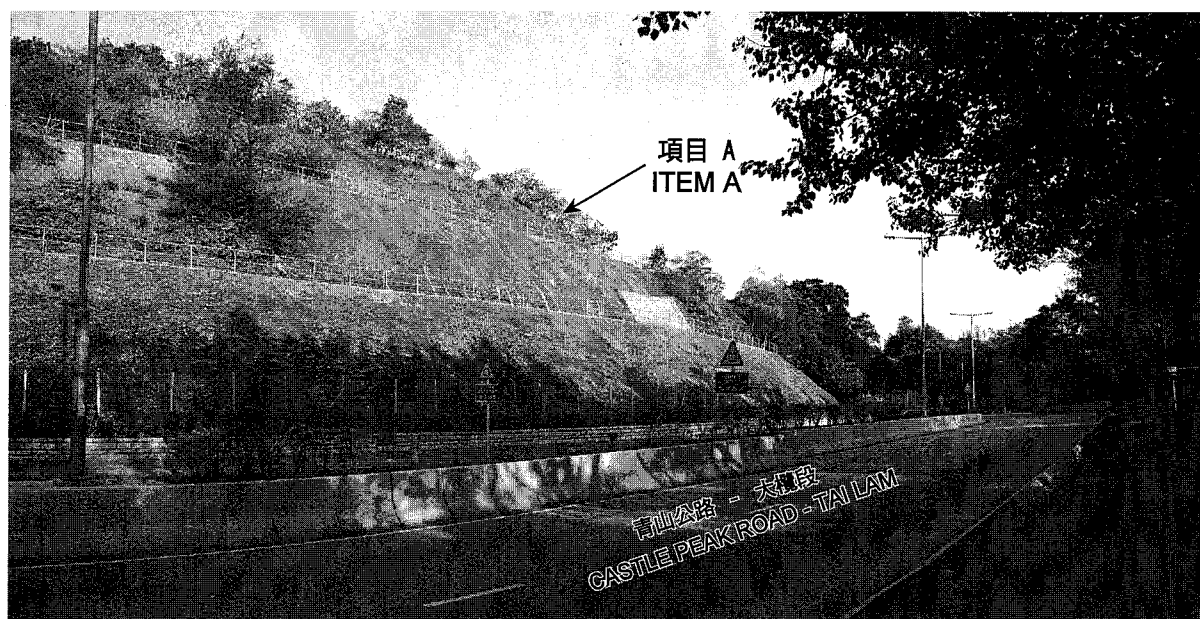
PROPOSED AMENDMENTS TO
APPROVED SO KWUN WAT
OUTLINE ZONING PLAN No. S/TM-SKW/11
- ITEM A

規劃署
PLANNING
DEPARTMENT



參考編號
REFERENCE No.
M/TM/15/3

圖 PLAN
4b



本圖於2015年1月16日擬備，所根據的
資料為攝於2014年12月16日的實地照片
PLAN PREPARED ON 16.1.2015
BASED ON SITE PHOTO
TAKEN ON 16.12.2014

實地照片 SITE PHOTO

掃管笏分區計劃大綱核准圖編號S/TM-SKW/11的擬議修訂
- 項目A

PROPOSED AMENDMENTS TO
APPROVED SO KWUN WAT
OUTLINE ZONING PLAN No. S/TM-SKW/11
- ITEM A

規劃署
PLANNING
DEPARTMENT



參考編號
REFERENCE No.
M/TM/15/3

圖 PLAN
4c



本圖於2015年1月16日擬備，所根據的資料為攝於攝於2014年12月10日及2014年12月16日的實地照片
 PLAN PREPARED ON 16.1.2015
 BASED ON SITE PHOTO
 TAKEN ON 10.12.2014 & 16.12.2014

實地照片 SITE PHOTO
 掃管笏分區計劃大綱核准圖編號S/TM-SKW/11的擬議修訂
 - 項目A
**PROPOSED AMENDMENTS TO
 APPROVED SO KWUN WAT
 OUTLINE ZONING PLAN No. S/TM-SKW/11
 - ITEM A**

**規 劃 署
 PLANNING
 DEPARTMENT**



參考編號
 REFERENCE No.
M/TM/15/3

**圖 PLAN
 4d**

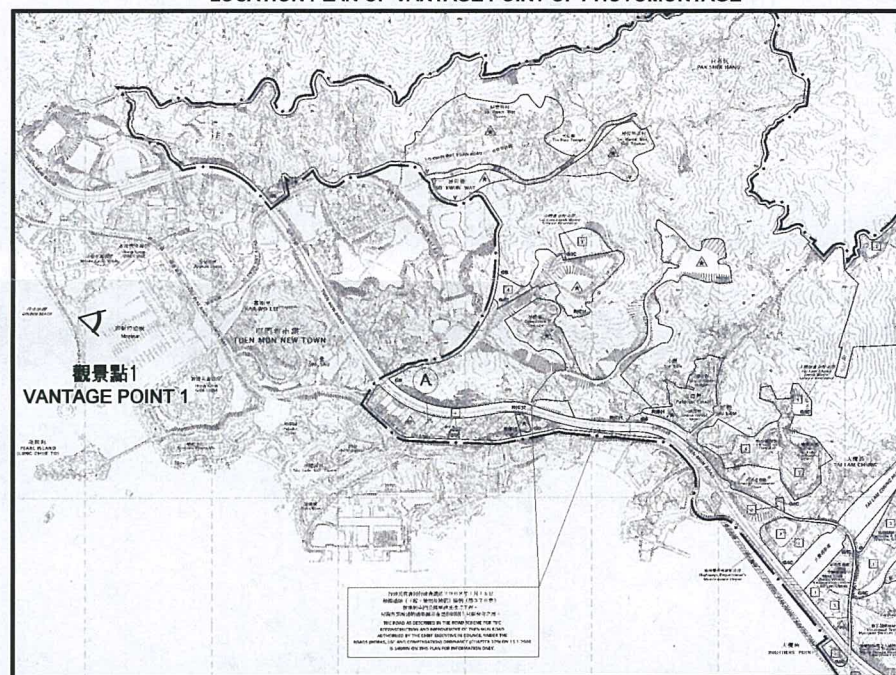


現有景觀 EXISTING VIEW



合成照片 PHOTOMONTAGE

合成照片的觀景點的位置圖
LOCATION PLAN OF VANTAGE POINT OF PHOTOMONTAGE



申請地點界線只作識別用
APPLICATION SITE BOUNDARY FOR IDENTIFICATION PURPOSE ONLY

本圖於2015年2月13日擬備，所根據的資料為攝於2014年11月6日及2014年11月7日的實地照片
PLAN PREPARED ON 13.2.2015
BASED ON SITE PHOTO
TAKEN ON 6.11.2014 & 7.11.2014

合成照片 PHOTOMONTAGE

擬議住宅發展修訂項目A的合成照片（觀景點1）
PHOTOMONTAGE OF PROPOSED RESIDENTIAL DEVELOPMENT
AMENDMENT ITEM A (VANTAGE POINT 1)

規劃署
PLANNING
DEPARTMENT



參考編號
REFERENCE No.
M/TM/15/3

圖 PLAN
5a

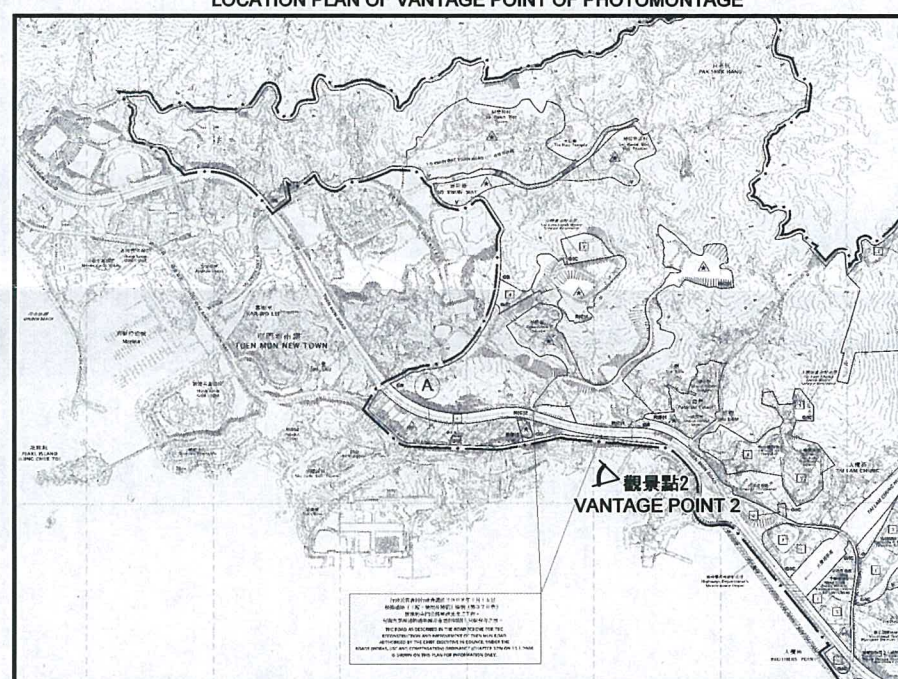


現有景觀 EXISTING VIEW



合成照片 PHOTOMONTAGE

合成照片的觀景點的位置圖
LOCATION PLAN OF VANTAGE POINT OF PHOTOMONTAGE



申請地點界線只作識別用
APPLICATION SITE BOUNDARY FOR IDENTIFICATION PURPOSE ONLY

本圖於2015年2月13日擬備，所根據的資料為攝於2014年11月6日及3
2014年11月7日的實地照片
PLAN PREPARED ON 13.2.2015
BASED ON SITE PHOTO
TAKEN ON 6.11.2014 & 7.11.2014

合成照片 PHOTOMONTAGE

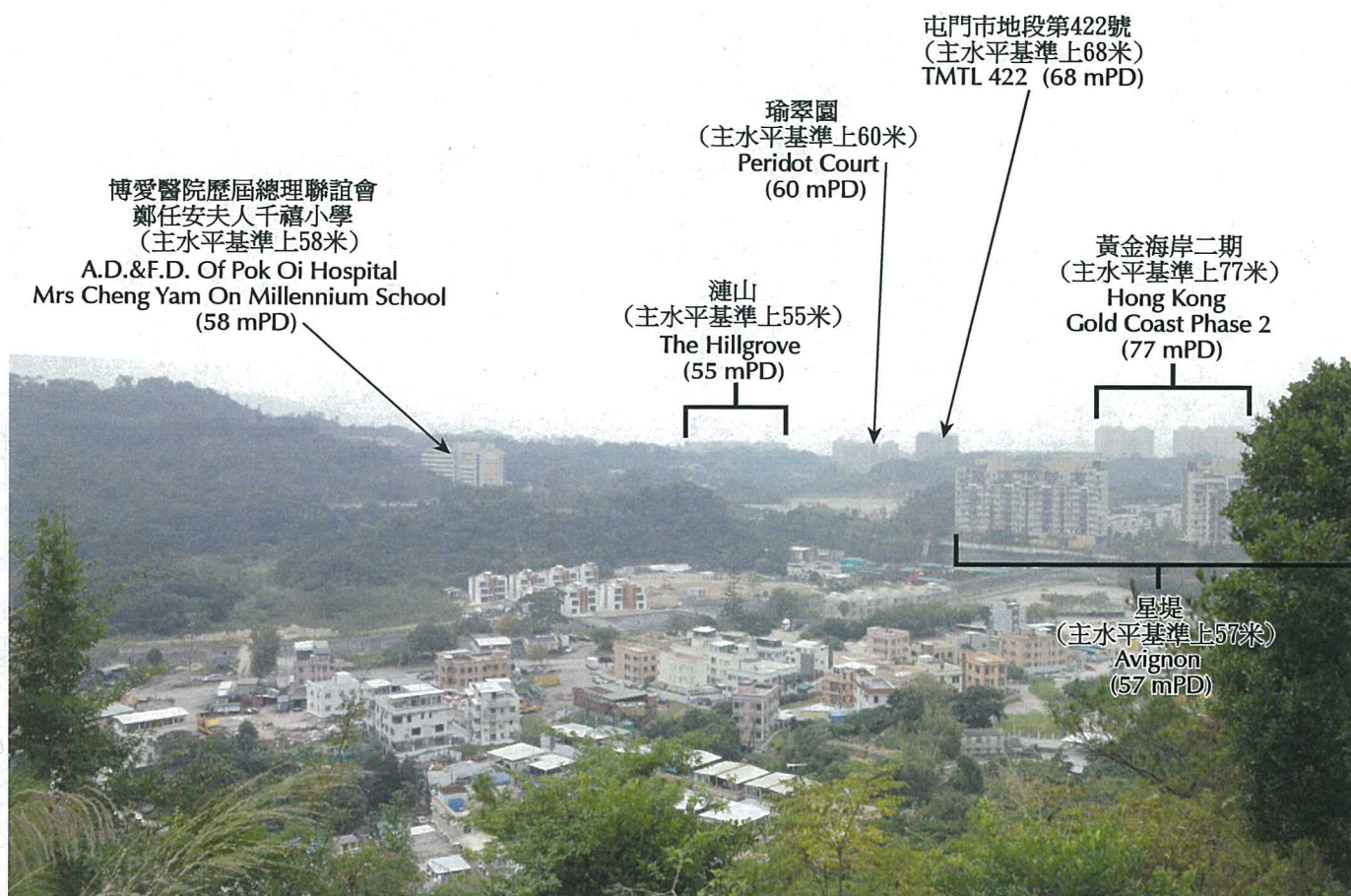
擬議住宅發展修訂項目A的合成照片（觀景點2）
PHOTOMONTAGE OF PROPOSED RESIDENTIAL DEVELOPMENT
AMENDMENT ITEM A (VANTAGE POINT 2)

規劃署
PLANNING
DEPARTMENT

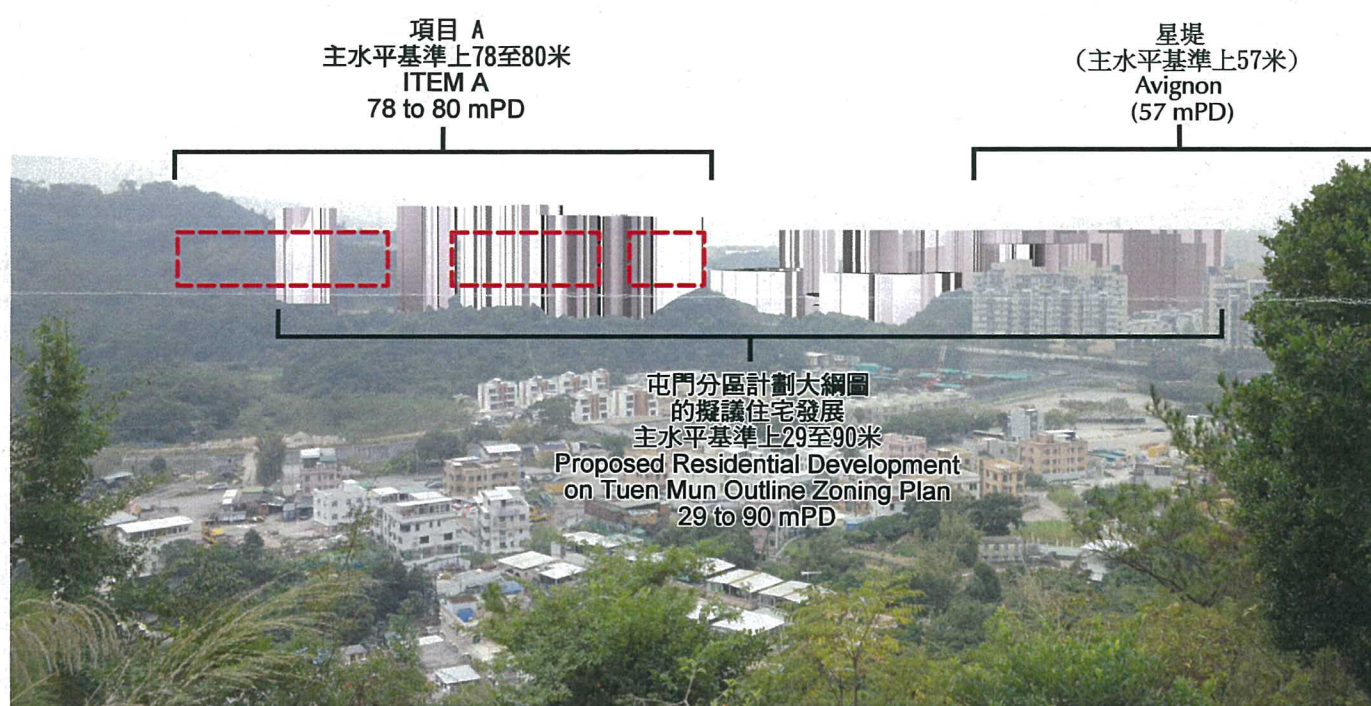


參考編號
REFERENCE No.
M/TM/15/3

圖 PLAN
5b

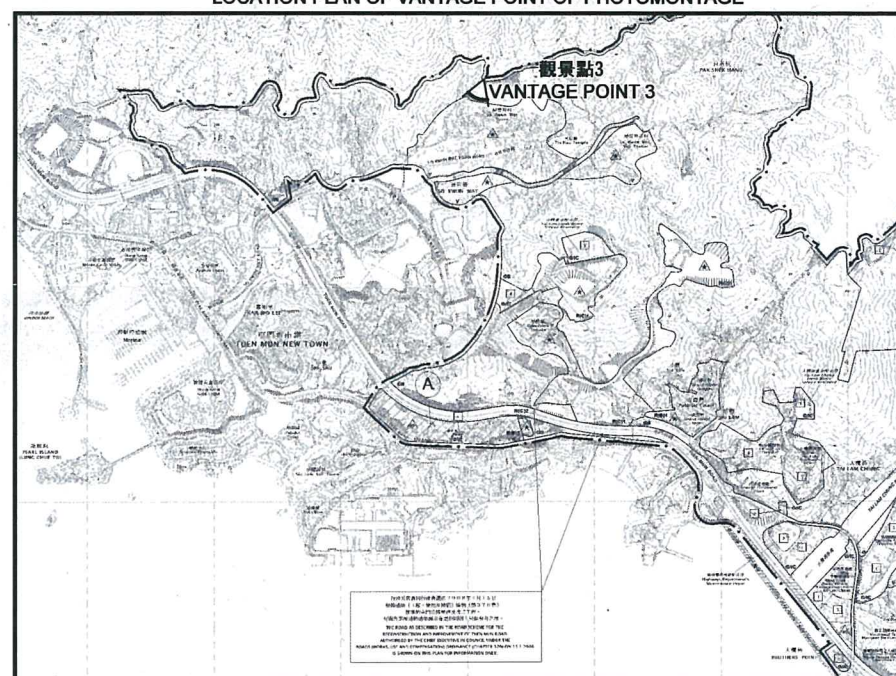


現有景觀 EXISTING VIEW



合成照片 PHOTOMONTAGE

合成照片的觀景點的位置圖
LOCATION PLAN OF VANTAGE POINT OF PHOTOMONTAGE



申請地點界線只作識別用
APPLICATION SITE BOUNDARY FOR IDENTIFICATION PURPOSE ONLY

本圖於2015年2月13日擬備，所根據的資料為攝於2014年12月10日的實地照片
PLAN PREPARED ON 13.2.2015
BASED ON SITE PHOTO
TAKEN ON 10.12.2014

合成照片 PHOTOMONTAGE
擬議住宅發展修訂項目A的合成照片（觀景點3）
PHOTOMONTAGE OF PROPOSED RESIDENTIAL DEVELOPMENT
AMENDMENT ITEM A (VANTAGE POINT 3)

規劃署
PLANNING
DEPARTMENT



參考編號
REFERENCE No.
M/TM/15/3

圖 PLAN
5c