RURAL AND NEW TOWN PLANNING COMMITTEE
OF THE TOWN PLANNING BOARD

RNTPC Paper No. 4/20

For Consideration by the
Rural and New Town Planning Committee on 21.8.2020

PROPOSED AMENDMENTS TO THE
APPROVED MA ON SHAN OUTLINE ZONING PLAN NO. S/MOS/22

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1. Introduction

This paper is to seek Members' agreement that:

(a) the proposed amendments to the approved Ma On Shan (MOS) Outline Zoning Plan (OZP) No. S/MOS/22 (**Attachment I**) as shown on the draft OZP No. S/MOS/22A (**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 planning intentions and objectives of the Town Planning Board (the Board) for the various land use zonings of the OZP, and is suitable for exhibition together with the draft OZP and its Notes.

2. Status of the Current OZP

2.1 On 5.1.2016, the Chief Executive in Council (CE in C) under section 9(1)(a) of the Ordinance, approved the draft MOS OZP, which was subsequently renumbered as S/MOS/22. On 15.1.2016, the approved MOS OZP No. S/MOS/22 (**Attachment I**) was exhibited for public inspection under section 9(5) of the Ordinance.

2.2 On 12.2.2019, the CE in C referred the approved MOS OZP No. S/MOS/22 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. On 22.2.2019, the reference back of the OZP was notified in the Gazette under section 12(2) of the Ordinance.

3. Background

3.1 According to the 2013 Policy Address, 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. To meet and expedite housing land supply in the short and medium terms, the Government has been carrying out various land use reviews on an on-going basis, including reviews on the Government land currently vacant, under Short Term Tenancies or different short-term or government uses, as well as the reviews on "Green Belt" ("GB") sites, with a view to identifying more suitable sites for conversion to residential use. As stated in the 2019 Policy Address, there is still a need to increase the supply of land for housing development in a persistent manner to meet the keen housing demands of the public.

3.2 To meet the pressing need for housing land supply and associated supporting Government, institution or community (GIC) facilities, seven "Green Belt" ("GB") sites at the fringe of MOS New Town have been identified. The two sites near the Cheung Muk Tau Village are proposed for housing developments (Items A and B1 on **Plan 1a**). As for the other five sites along Ma On Shan Tsuen Road (MOST Road) (Items C to G on **Plan 1b**), one at the lower end of the MOST Road is proposed for housing development with two nearby sites reserved for GIC uses to accommodate a water pumping station and a primary school, and one at an upper end of the MOST Road is another housing site with a nearby site for service reservoir use.

3.3 Engineering Feasibility Study (EFS) with technical assessments to support the proposed housing developments have been conducted by the Civil Engineering and Development Department (CEDD). According to the findings of the EFS, it is concluded that there is no insurmountable technical problem for the proposed housing developments and their associated GIC uses on the seven sites. According to the conceptual layouts of the EFS (**Attachments Va and Vc**), the proposed housing developments would provide a total of about 6,180 public housing units and 1,040 private housing units to accommodate about 20,430 people.

3.4 In connection with the above proposed amendments, opportunity has also been taken to rezone a strip of land near Cheung Muk Tau Village from "GB" to an area shown as 'Road' to reflect the existing situation (Item B2 on **Plan 1a**), and to rationalize the development boundary of the Sha Tin Cavern Sewage Treatment Works by rezoning a strip of land along Mui Tsz Lam Road near Chevalier Garden from "GB" to "Other Specified Uses" ("OU") annotated "Sewage Treatment Works" (Item H on **Plan 1c**).

4. The Amendment Sites

Public Housing Sites – Sites A, B1 and D

The Site and its Surroundings

Site A: East of the Cheung Muk Tau Village (Plans 1a, 2a, 3a and 4a)

4.1 Site A (about 1.46 ha), on government land, is located to the east of Cheung Muk Tau Village and the south of Symphony Bay Villa Rhapsody (with a building height restriction (BHR) of 55 mPD). It is relatively flat with site levels ranging between 30 mPD and 40 mPD without any encroachment onto the 'village environs' ('VE') of the Cheung Muk Tau Village and the Permitted Burial Ground No. TP/SKN1. It is mainly covered with vegetation and there are two graves and six clusters of Kam Taps (i.e. urns). A stream is running through the southeastern portion of the site. It falls within the consultation zone of the MOS Water Treatment Works.

4.2 To the north across Sai Sha Road are Symphony Bay Villa Concerto (with a BHR of 36 mPD), a site zoned "Residential (Group B) 5" ("R(B)5") (with a BHR of 95 mPD), Hong Kong Baptist Theological Seminary and Li Po Chun United World College. To the immediate south is the permitted burial ground. To the west across Sai Sha Road and Ma On Shan Bypass are MTR Wu Kai Sha Station, Lake Silver (with a BHR of 185 mPD) and Monte Vista (with a BHR of 130 mPD).

Site B1: West of the Cheung Muk Tau Village (Plans 1a, 2a, 3a and 4a)

4.3 Site B1 (about 1.38 ha), comprising government land and about 565m^2 of private lot, is located to the west of Cheung Muk Tau Village and bounded by Sai Sha Road and Ma On Shan Bypass in the north and west. It is currently accessible by a village track. The sloping ground is covered with vegetation and ascends from about 20 mPD in the north to about 40 mPD in the south. Same as Site A, Site B will not affect the 'VE' of the Cheung Muk Tau Village and the Permitted Burial Ground No. TP/SKN1. The eastern portion of the site falls within the consultation zone of the MOS Water Treatment Works.

4.4 To the north across Sai Sha Road are a site zoned "R(B)5" (with a BHR of 95 mPD), Symphony Bay Villa Concerto (with a BHR of 36 mPD) and Li Po Chun United World College. To the west across Sai Sha Road and Ma On Shan Bypass are MTR Wu Kai Sha Station, Lake Silver (with a BHR of 185 mPD) and Monte Vista (with a BHR of 130 mPD).

Site D: Lower end of Ma On Shan Tsuen (MOST) Road (Plans 1b, 2b, 3b and 4c)

4.5 Site D (about 2.26 ha), on government land, is located at the lower end of MOST Road. It is a green sloping ground covered with vegetation. The site levels range from 70 mPD to 100 mPD descending towards the northwest. A stream is running through the northeastern portion of the site. A fresh water pump house and some temporary structures are found within the site.

4.6 To the southeast is Ma On Shan Country Park. To the immediate northeast is Shun Yee San Tsuen consisting of graded historic buildings. Other residential developments including Yiu On Estate (with a BHR of 120 mPD), Park Belvedere (with a BHR of 130 mPD) and Kam Ying Court (with a BHR of 150 mPD) are located downhill at the opposite side of Ma On Shan Bypass.

Rezoning Proposal

4.7 As announced in the 2014 Policy Address, the Government considers that except for the north of Hong Kong Island and Kowloon Peninsula, which are more densely populated, it is feasible to generally increase the maximum domestic plot ratio currently permitted for the other density zones in the territory by around 20% as appropriate. Furthermore, in view of the increasing acute demand for public housing, the Executive Council agreed in December 2018 to allow further increase of domestic plot ratio for public housing sites by 10% (i.e up to 30% in total) where technically feasible.

4.8 Taking into account the above policy directive for intensification of the maximum plot ratio for public housing sites, the site context (including the levels of the site and its topography) and the recommendations of the EFS, Sites A, B1 and D are proposed to be rezoned from "GB" to Residential (Group A) 11" ("R(A)11") with the following proposed development parameters :

	Site A	**Site B1**	**Site D**
Site Area	1.46 ha	1.38 ha	2.26 ha
Maximum Plot Ratio	6.8(1)		
Maximum Building Height	165 mPD	165 mPD	225 mPD
Estimated No. of Flats (Estimated Population)	1,820 (5,100)	1,660 (4,650)	2,700 (7,560)

	Site A	Site B1	Site D
Social Welfare Facilities(2)	- Day Care Centre for the Elderly - Residential Care Home for the Elderly	- Neighbourhood Elderly Centre - An Office Base of On-site Pre-school Rehabilitation Services - Child Care Centre	- Neighbourhood Elderly Centre - Integrated Family Service Centre - District Support Centre for Persons with Disabilities - Home Care Service for Persons with Severe Disabilities (Sub-base) - An Office Base of On-site Pre-school Rehabilitation Services - Special Child Care Centre - Parents/Relatives Resource Centre - Day Care Centre for the Elderly - Child Care Centre
Other Facilities	- Retail Facilities	- Kindergarten - Retail Facilities	- Kindergarten - Retail Facilities
Parking Facilities	- To be provided with reference to the Hong Kong Planning Standards and Guidelines (HKPSG)		

Note :
(1) The maximum PR (6.8, including domestic of 6.5 and non-domestic of 0.3)
(2) Provision of social welfare facilities may be adjusted subject to the advice from the Social Welfare Department and Housing Department at detailed design stage
(3) GIC facilities proposed within the public housing developments sites in the "R(A)11" zone were assumed to be exempted from plot ratio calculation and were included as part of the technical assessment.

4.9 The conceptual layouts for the proposed public housing developments under the EFS are at **Attachments Va and Vb**. Varied building height profile with building separation is adopted to bring forth better urban design and air ventilation performance to the pedestrian environment. The tentative completion of the three public housing developments is anticipated to take place in phases commencing from 2030.

Private Housing Site – Site G

Site G: Upper end of MOST Road (Plans 1b, 2c, 3c and 4d)

The Site and its Surroundings

4.10 Site G (about 2.73 ha), on government land, is located at the upper end of MOST Road. It is generally covered with vegetation and dotted with buildings/structures. There are streams running through the site. Elongated in shape, the site has a large variation in topography from north to south with site levels between 140 mPD and 190 mPD.

4.11 To the east across MOST Road is Ma On Shan Country Park. To the south and west is generally bounded by the mountain range of Ma On Shan. The site is located at the southeast of Ma On Shan Bypass overlooking Heng On Estate (with a BHR of 120 mPD), Yiu On Estate (with a BHR of 120 mPD) and Yan On Estate (with a BHR of 140 mPD).

Rezoning Proposal

4.12 Having regard to the policy directive of increasing the maximum domestic plot ratio by 20%, the site context (at the upper end of MOST road with site levels ascending from 140mPD in the north to 190mPD in the south), the landscape character of the surrounding environment, and the recommendations of the EFS, Site G (about 2.73 ha) is proposed to be rezoned from "GB" to "R(B)6" with a maximum PR of 3.6 and a maximum building height (BH) of 250 mPD. According to the EFS, the proposed private housing development will provide about 1,040 flats for an estimated population of about 3,120. A 150-place residential care home for the elderly is also proposed to be incorporated in the proposed development.

4.13 The conceptual layout for the proposed housing development under the EFS is at **Attachment Vc**. Stepped building height profile is recommended to align with the surrounding topography.

GIC Sites – Sites C, E and F

Water Pumping Station Site - Site C: Lower end of MOST Road (Plans 1b, 2b, 3b and 4b)

The Site and its Surroundings

4.14 Site C (about 0.45 ha), on government land, is located at the lower end of MOST Road. Partly covered with vegetation, the site straddles over MOST Road and

man-made slopes. It is situated next to the Ma On Shan Fresh Water and Salt Water Service Reservoirs subject to a BHR of one storey.

Rezoning Proposal

4.15 Site C (about 0.45 ha) is proposed to be rezoned from "GB" to "Government, Institution or Community" ("G/IC") for a fresh water and salt water pumping station to provide sufficient feed to the proposed service reservoirs at Site F supporting the housing developments. To meet the operation and maintenance requirements, the pumping station is restricted to a maximum BH of 1 storey to house the pump sets, and the numerous installations, facilities and maintenance access at the outdoor area.

School Site - Site E: Lower end of MOST Road (Plans 1b, 2b, 3b and 4c)

The Site and its Surroundings

4.16 Site E (about 0.73 ha), on government land, is located at the lower end of MOST Road. It is mainly covered with vegetation on a sloping ground. Site D proposed for public housing development is located to its immediate northeast.

Rezoning Proposal

4.17 Site E (about 0.73 ha) is proposed to be rezoned from “GB” to “G/IC” for a 30-classroom primary school with a maximum BH of 8 storeys to support the proposed housing developments.

Service Reservoir Site - Site F: Upper end of MOST Road (Plans 1b, 2c, 3c and 4d)

The Site and its Surroundings

4.18 Site F (about 0.66 ha), on government land, is located at the upper end of MOST Road. It is covered with vegetation and some temporary structures. Ma On Shan Country Park is located to its east. To the west and south across MOST Road is Site G where private housing development is proposed.

Rezoning Proposal

4.19 Site F (about 0.66 ha) is proposed to be rezoned from “GB” to “G/IC” for a fresh water service reservoir and a salt water service reservoir (each of 1 storey with a small penthouse, maintenance access and air vents on the roof to meet the operation and maintenance requirements) in order to meet the requirement of the minimum residual head to serve the housing developments. The proposed maximum BH is 2 storeys.

Other Sites – Sites B2 and H

4.20 **Site B2** (about 0.4 ha), located to the immediate west of Site B1, is proposed to be rezoned from "GB" to an area shown as 'Road' to reflect the existing as-built condition (**Plans 1a, 2a, 3a and 4a**). It is on government land with a footpath and roadside amenities along Ma On Shan Bypass.

4.21 **Site H** (about 0.49 ha), located along Mui Tsz Lam Road near Chevalier Garden, forms part of an integral part of the Sha Tin Cavern Sewage Treatment Works (STW) (**Plans 1c, 2d, 3d and 4e**). It is also on government land and is currently used by the Drainage Services Department (DSD) as a works area. The construction and operation of the Sha Tin Cavern STW Project is governed by an Environmental Permit granted by the Director of Environmental Protection in 2017. While the rezoning procedure for the 98% of the STW site falling on area covered by the Sha Tin OZP had been completed in 2018, opportunity is taken to rezone the remaining 2% of the STW site falling within the MOS OZP from "GB" to "OU" annotated "Sewage Treatment Works" to rationalize the whole development boundary of the STW. With funding approval obtained in 2018, the Stage 1 works on site preparation and access tunnel construction for the relocation of Sha Tin Sewage Treatment Works to cavern at A Kung Kok is in progress. According to DSD, the target completion date for the Sha Tin Cavern STW is 2031.

5. Technical Assessments for the Seven Proposed Housing and GIC Sites

5.1 As mentioned in paragraph 3.3 above, EFS with technical assessments have been conducted by CEDD to assess the potential impacts arising from the seven proposed housing and GIC sites on traffic, environment, water supply, drainage, landscape, visual, air ventilation and other aspects. According to the findings of the EFS, it is concluded that there is no insurmountable technical problem for development of the seven proposed housing and GIC sites. A domestic PR of 6.5 and non-domestic PR of not exceeding 0.3 are adopted as a basis for technical assessments for public housing developments. To allow flexibility of the design of the proposed public housing developments, a maximum PR of 6.8 is proposed to be stipulated on the OZP where GIC facilities (including social welfare facilities) and public vehicle park are exempted from plot ratio calculation. As for the private housing site, a domestic PR of 3.6 is adopted as a basis for technical assessments and GIC facilities (including social welfare facilities) are exempted from plot ratio calculation.

Traffic Aspect

5.2 A Preliminary Traffic and Transport Impact Assessment (PTTIA) has been conducted to assess the traffic and transport impact arising from the proposed

housing developments. The findings of the PTTIA are summarized in Chapter 3 of the Final Report of the EFS (**Attachment VI**).

5.3 The proposed development sites are located at the eastern part (for Sites A and B1) and southern part (for Sites C to G) of the MOS New Town. Sites A and B1 are connected to Sai Sha Road through Nin Fung Road which is the access road to Cheung Muk Tau Village. Sites C, D, E, F and G are connected to Ma On Shan Road through MOST Road. There is currently no public transport service operating along Nin Fung Road and the access road to Cheung Muk Tau Village in close vicinity to Sites A and B1. There is also no public transport service operating along existing MOST Road around Sites D and G currently. There is one existing residents' service route serving Ma On Shan Tsuen and the Sunshine City with some special departures plying between Ma On Shan Tsuen and Yiu On Estate.

5.4 The key traffic arrangements proposed in the PTTIA of the EFS are as follows:

(a) A 7.3m wide single 2-lane carriageway with 2.75m wide footpath on both sides and a roundabout at the end of the new road is proposed as the access for Sites A and B1 (**Attachment Va**).

(b) The existing MOST Road is proposed to be re-aligned and upgraded to a 7.9m/7.3m wide single 2-lanes carriageway with 2.75m/2.0m wide footpath on both sides up to the private housing site (Site G). At the end of the new road, a cul-de-sac is proposed (**Attachment Vb**).

(c) On-street bus lay-bys are proposed for bus routes serving the public housing Sites A and B1 (**Attachment Va**). On-street lay-bys for bus, GMB and taxi are also proposed at the public housing Site D and the primary school Site E (**Attachment Vb**). A 40m long lay-by near the private housing site is proposed to cater for extra public transport services, including GMB and bus services, operating along the upgraded MOST Road (**Attachment Vc**).

(d) The critical junction assessment has indicated that the junction capacity of some existing road junctions would be close to an alerting level in the design year 2035. Road improvement works on such critical junctions, including altering Chak Cheung Street/Science Park Road roundabout to a signalized-controlled junction, providing an additional traffic island at the junction of Sai Sha Road/Kam Ying Road, widening the approaching arms to the junction of Sai Sha Road/Nin Wah Road/Nin Fung Road, and widening the exit arm at the junction of MOST Road and Hang Hong Street, are recommended (**Attachment VIII**).

(e) It is recommended that the provision of an additional lane by widening a section of Tate's Cairn Highway (South of Ma On Shan Road) from three

lanes to four lanes should be implemented (**Attachment VIII**). With the above-mentioned improvement measures and based on the preliminary capacity assessments for the key road links and junctions from the observed traffic data, except for the Tate's Cairn Highway across Shing Mun River (i.e. T6 Bridge) where travelling speed would be slightly slowed down and traffic queue would be built up at AM peak in the design year 2035, the critical road links and junctions can operate within their capacities. For T6 Bridge, the Government will investigate the improvement measures and will consult the public in due course.

5.5 Based on the preliminary capacity assessments for the key road links and junctions from the observed traffic data, except for T6 Bridge where traffic queue may occur at AM peak, the key road links and junctions could perform within their capacities.

Visual Aspect

5.6 According to the Visual Impact Assessment (VIA) for the seven proposed housing and GIC developments conducted by CEDD (Chapter 10 of the Final Report of the EFS at **Attachment VI**), two public housing sites (Sites A & B1) are located to the east and west of Cheung Muk Tau Village at the eastern part of the MOS New Town whilst one public housing site (Site D) and one private housing site (Site G) and three GIC sites (Site C, E & F) are located at the lower and upper ends of the MOST Road and at the southeast of Ma On Shan Bypass. Photomontages of the proposed housing sites and proposed GIC sites from the selected local vantage points are shown in **Attachments VIIa to VIIc**. Mitigation measures including avoidance of blockage of MOS Ridgeline, minimization of building mass and wall-like development, minimization of landscape fragmentation, alleviation of visual nuisance by suitable urban design such as visual corridor, suitable design of the proposed development by using appropriate building materials and colours, compensatory tree planting, amenity planting of housing sites and modified slopes and retaining structures are recommended.

5.7 Although the overall residual visual impacts of the proposed developments are considered as 'Moderately Adverse' to some of the key viewing points, the proposed developments are in line with the housing policy to optimize the land use and increase housing land supply for both public and private housing developments. Overall, with the high mountain backdrop, the building height of the proposed housing development would not affect the continuation of the MOS ridgeline. Despite the tall building blocks, their slim morphology allows greater flexibility in architectural and landscape design with wider building separation. As such, better visual permeability and air ventilation can be achieved.

Air Ventilation Aspect

5.8 An Air Ventilation Assessment Expert Evaluation (AVA (EE)) (Chapter 9 of the Final Report of the EFS at **Attachment VI**) has been conducted to assess the wind performance of the proposed public housing development[1]. The AVA(EE) concluded that the proposed developments would not have significant adverse impact on the surrounding environment in terms of air ventilation. Relevant mitigation measures and building design principles including building separations of 15m wide, maximization of building permeability, minimization of podium bulk with ground coverage of no more than 65%, building setback, provision of greenery of at least 20% and an overall target of 30% and avoidance of long continuous facades are recommended to alleviate the potential impact on the surrounding wind environment induced by the proposed developments. Quantitative AVAs should be carried out at the detailed design stage to optimize scheme design and to demonstrate that the wind performance of the future scheme would not have any significant air ventilation impact on the surroundings. The proposed public housing developments will be guided by an administrative planning brief. The requirement of the mitigation measures and quantitative AVAs will be incorporated in the planning brief for implementation. The Chief Town Planner/Urban Design and Landscape, Planning Department (CTP/UD&L, PlanD) has no adverse comment on the AVA (EE).

Landscape Aspect

5.9 The seven proposed housing and GIC sites would involve approximately 9.67 ha of land in total (including the housing sites of about 7.83 ha and the associated GIC facilities of about 1.84 ha). According to the Landscape Assessment (LA) (Chapter 11 of the Final Report of the EFS at **Attachment VI**) for the proposed housing and GIC sites, none of the identified Landscape Resources or Landscape Characteristic Areas will experience substantial residual impacts following mitigations during the operation phase. It is concluded that in accordance with the criteria and guidelines for evaluating and assessing impacts as stated in Annex 10 and 18 of the Environmental Impact Assessment Ordinance – Technical Memorandum, the overall landscape impacts of the proposed housing development are acceptable with mitigations during the construction and operation phases.

5.10 Landscape mitigation measures include protection of existing trees and minimization of felling or transplanting works, sensitive streetscape design to minimize potential adverse landscape impacts, maintaining green belt buffer between new road and existing Cheung Muk Tau village to minimize disturbance to villages, minimizing light spill and glare from street lighting, tree preservation and compensatory tree planting in accordance with Development Bureau

[1] Based on the proposed development parameters of the proposed private housing development at Site G, air ventilation assessment under the Housing, Planning and Lands Bureau Technical Circular No. 1/06 is not required.

Technical Circular (Works) No. 4/2020, realignment of footpath to existing graves, designating a minimum of 20% of the site area for greenery/amenity planting within the housing sites, sensitively sited and designed retaining walls, and adoption of climber plantings to blend in with existing landscape character.

5.11 According to a broad brush tree survey, there are 89 tree groups and about 3,560 existing trees within the project limit. A total of 117 species were recorded and all of them are common plant species. During the surveys, no registered or potential registrable Old and Valuable Trees (OVT) were identified according to the ETWB TC(W) No. 5/2020. Under the current proposal, about 2,780 trees would be removed, about 780 trees are preserved by in-situ retention, one tree may be considered for transplanting and about 2,900 new trees are proposed in the compensatory planting. Implementation of compensatory planting could generally achieve a ratio of at least 1:1 in terms of number. Further review and confirmation on the trees affected by the proposed public housing development will be conducted at the implementation stage. Pre-land sale tree surveys for the proposed private housing development will be conducted by Government to draw up the requirements of tree preservation in the lease condition.

Environmental Aspect

5.12 Preliminary Environmental Studies (PES) have been conducted to assess the environmental impacts arising from the proposed housing developments on air quality, noise, water quality, waste management, ecology, cultural heritage and land contamination. The findings are summarised in Chapter 8 of the Final Report of the EFS (**Attachment VI**). The PES concludes that no insurmountable environmental impact would be anticipated at the sites for GIC and housing developments. Environmental assessment study will be conducted at detailed design stage to ascertain any potential environmental impacts, including those related to road traffic noise and formulate the extent and details of the mitigation measures if required. The Director of Environmental Protection (DEP) has no objection to the rezoning proposals.

Ecological Impact Assessment

5.13 The PES covers an ecological impact assessment for the proposed housing sites and their surrounding areas. The proposed developments at Sites A and B1 and the connecting access road have avoided recognized site of conservation importance. Nine floral species and 11 faunal species of conservation interest were recorded within the study area of the Ecological Impact Assessment (EcoIA) of Sites A and B1 (i.e. within 500m envelope from the major site formation works and infrastructural works in relation to the respective site). Among them, 6 floral species of low abundance were recorded within the proposed works area. Transplantation or preservation of these species as far as practicable is recommended so that ecological impact to floral species would be alleviated to minimum. Woodland compensation / enhancement will be

implemented to the south of Site A. A large portion of marsh habitat adjacent to Site B1 and the watercourse located west of Site A will be retained. New drainage system will be implemented to ensure the natural water supply to the marsh habitat will not be adversely affected.

5.14 The proposed developments at Sites C to G including their ancillary slope works have avoided encroachment onto the Ma On Shan Country Park. Thirteen floral species and 15 faunal species of conservation interest were recorded / known to be present within the study area of the EcoIA (i.e. within 500m envelope from the major site formation works and infrastructural works (including the proposed pumping station at Site C and proposed service reservoirs at Site F) in relation to of Sites D, E and G). Among them, 4 floral species of low abundance were recorded within the proposed works area. Transplantation or preservation of these species as far as practicable is recommended so that ecological impact on these species would be alleviated to minimum. Two herpetofauna species of conservation interest, which are common and widespread in Hong Kong, were recorded within the study area and would be possibly affected by the proposed works. Translocation plan with details on capture methodology, programme and receptor site shall be submitted to Agriculture, Fisheries and Conservation Department (AFCD) for approval. Appropriate planting works will be arranged to form an on-site woodland compensation area on the proposed cut slopes to the south of Sites D and E. The remaining loss of woodland will be compensated by off-site planting at an area to the southwest of Ma On Shan Tsuen. Wildlife Crossing System Plan would be adopted at MOST Road to reduce the risk of road kill. Together with the implementation of the proposed mitigation measures and good environment site management, the overall ecological impact is considered not significant. AFCD has no adverse comment on the rezoning proposals.

Potential Heritage Impact

5.15 A baseline study has been conducted to identify any potential heritage impact due to the proposed housing developments and to recommend mitigation measures. The majority of the heritage resources including Shun Yee San Tsuen (part of Site Structures at Mining Settlement, Ma On Shan Iron Mine (Grade 3 historic buildings)), structures at the 110ML portal (part of Exterior Wall of Mines 110ML and 240ML, Ma On Shan (Grade 2 historic buildings)) and most of the Mineral Preparation Plant structures (Grade 3 historic building) would not be affected as they are excluded and separated by a buffer zone from the engineering works areas for the housing developments (**Plans 1b, 2b and 3b**). Although a pier (part of the Mineral Preparation Plant (Grade 3 historic buildings)) may be affected by the proposed upgrading works of MOST Road according to the preliminary design, effort will be made by CEDD to minimize the adverse impacts on it as far as practicable at the detailed design stage. In consultation with Antiquities and Monuments Office (AMO), CEDD will conduct a comprehensive heritage impact assessment at the subsequent investigation and implementation stage. AMO considers the preliminary design of the proposed

housing development and the ancillary infrastructure works acceptable at this stage.

Hazard Assessment

5.16 A hazard assessment on the Ma On Shan Water Treatment Works to the housing developments at Sites A and B1 has been conducted. The risk assessment reveals that the overall risk level due to the proposed developments resulting in a population increase will remain in the ALARP (As Low as Reasonably Practicable) region as given in the HKPSG. The hazard study concludes that the proposed development will not lead to an unacceptable overall risk. Chief Engineer/Construction, Water Supplies Department has no objection to the rezoning proposals.

Infrastructural Aspect

Drainage, Sewerage, Water Supply and Geotechnical Aspects

5.17 The EFS reveals that there is no insurmountable problem in terms of drainage, sewerage, water supply and geotechnical aspects, following the implementation of the proposed upgrading works and appropriate mitigation measures. The findings are summarised in Chapters 4 to 6 of the Final Report of the EFS (**Attachment VI**)

Land Requirement

5.18 Based on the land status records, the seven proposed housing and GIC sites (i.e. Items A, B1, C to G) are mostly located on government land. Resumption of about 565m^2 (subject to confirmation) of private lot is required for Site B1. About 2,308m^2 (subject to confirmation) of private lots are proposed to be acquired for the associated infrastructural works of Sites A and B1. Some crops, fruit trees, graves, Kam Taps and temporary structures that may be affected are identified within the sites. Subject to further confirmation at the subsequent stage, the clearance and compensation of the affected structures, graves and Kam Taps will be handled according to established procedures. No insurmountable issue is anticipated from the land acquisition viewpoint.

6. <u>Provision of GIC Facilities and Open Space</u>

6.1 Taking into account the proposed amendments mentioned above, the planned population of the MOS area would be about 251,300. As shown in the summary on existing and planned provision of GIC facilities and open space in MOS at **Attachment X**, the existing and planned provision of GIC facilities and open space are generally adequate to meet the demand of the overall planned population in accordance with the requirements of the HKPSG.

GIC Facilities

6.2 Although hospital (-1,382 beds) will be in deficit for the planned population in MOS, the provision of hospital beds is assessed on a wider district basis and can be addressed by the provision in the adjoining areas. Food and Health Bureau and Hospital Authority are going to implement the projects under the 10-year hospital development plan, including the redevelopment of Prince of Wales Hospital Phase II. Together with the CUHK teaching hospital and the extension of the Union Hospital, the provision of relevant facilities in MOS is adequate to meet the future demand for the healthcare services of the population in the long run.

6.3 According to the population-based planning standards for elderly services and facilities and child care centres recently incorporated into the HKPSG, there will be shortfalls in the area in community care services facilities, residential care homes for the elderly and child care centres. In view of the above, the relevant facilities have been incorporated into the proposed public and private housing developments. In applying the standards, the distribution of welfare facilities, the land supply in different districts, service demand as a result of the population growth and demographic changes as well as the provision of different welfare facilities have to be considered. As the HKPSG requirements for these three facilities are a long-term goal, the actual provision would be subject to the consideration of the Social Welfare Department in the planning and development process as appropriate.

Open Space

6.4 There is a surplus of planned district and local open space of about 3.01 ha and 21.74 ha respectively in the area.

7. Proposed Amendments to Matters shown on the Plan

The following amendments to the MOS OZP are proposed:

Amendment Item A (about 1.46 ha) (**Plan 2a**)

Rezoning of an area to the east of the Cheung Muk Tau Village, Sai Sha Road from "GB" to "R(A)11" with a maximum PR of 6.8 and a maximum BH of 165mPD as stipulated on the Plan.

Amendment Items B1 (about 1.38 ha) and B2 (about 0.4 ha) **(Plan 2a)**

Rezoning of an area to the west of the Cheung Muk Tau Village, Sai Sha Road from "GB" to "R(A)11" (Item B1) with a maximum PR of 6.8 and a maximum BH of 165mPD as stipulated on the Plan, and rezoning of a piece of land to the immediate west

of Site B1 from "GB" to an area shown as 'Road' (Item B2) to reflect the existing as-built condition.

Amendment Item C (about 0.45 ha) **(Plan 2b)**

Rezoning of an area at the lower end of Ma On Shan Tsuen Road from "GB" to "G/IC" with a maximum BH of 1 storey as stipulated on the Plan.

Amendment Item D (about 2.26 ha) **(Plan 2b)**

Rezoning of an area at the lower end of Ma On Shan Tsuen Road from "GB" to "R(A)11" with a maximum PR of 6.8 and a maximum BH of 225mPD as stipulated on the Plan.

Amendment Item E (about 0.73 ha) **(Plan 2b)**

Rezoning of an area at the lower end of Ma On Shan Tsuen Road from "GB" to "G/IC" with a maximum BH of 8 storeys as stipulated on the Plan.

Amendment Item F (about 0.66 ha) **(Plan 2c)**

Rezoning of an area at the upper end of Ma On Shan Tsuen Road from "GB" to "G/IC" with a maximum BH of 2 storeys as stipulated on the Plan.

Amendment Item G (about 2.73 ha) **(Plan 2c)**

Rezoning of an area at the upper end of Ma On Shan Tsuen Road from "GB" to "R(B)6" with a maximum PR of 3.6 and a maximum BH of about 250mPD as stipulated on the Plan.

Amendment Item H (about 0.49 ha) **(Plan 2d)**

Rezoning of an area along Mui Tsz Lam Road to the south of Chevalier Garden from "GB" to "OU" annotated "Sewage Treatment Works".

8. Proposed Amendments to the Notes of the OZP

8.1 The following proposed amendments have been incorporated in the draft Notes at **Attachment III** with addition in ***bold and italic*** and deletion in ~~single crossed out~~ for Members' consideration.

"R(A)" zone

8.2 In relation to the Amendments Items A, B1 and D as mentioned in paragraph 7 above, the Notes and the Remarks for "R(A)" zone will be revised to

incorporate the development restrictions for the "R(A)11" sub-area. In determining the maximum plot ratio for the "R(A)11" zone, any floor space that is constructed or intended for use solely as GIC facilities and public vehicle park, as required by the Government may be disregarded.

"R(B)" zone

8.3 In relation to the Amendment Item G mentioned in paragraph 7 above, the Notes and the Remarks for "R(B)" zone will be revised to incorporate the development restrictions for the "R(B)6" sub-area. In determining the maximum plot ratio for the "R(B)6" zone, any floor space that is constructed or intended for use solely as GIC facilities as required by the Government may be disregarded. The Notes for the "R(B)6" zone will also specify that social welfare facility is always permitted on land designated "R(B)6".

Technical Amendments

8.4 To incorporate the revised Master Schedule of Notes to Statutory Plan agreed by the Board on 28.12.2018, the following technical amendments will be made to the Notes to reflect 'Market' as a use subsumed under 'Shop and Services' under the Broad Use Terms and Definitions of Terms used in Statutory Plans:

(a) deletion of 'Market' from Column 1 use in "Commercial" and "OU" annotated "Railway Station and Public Transport Interchange with Commercial/Residential Development" zones;

(b) deletion of "Market' from Column 2 use in "Comprehensive Development Area", "R(B)" and "Village Type Development" zones; and

(c) revising 'Shop and Services' to 'Shop and Services (not elsewhere specified)' in Column 2 of "R(A)" and "G/IC" zones.

9. Revision to the Explanatory Statement of the OZP

The ES of the MOS OZP has been revised to reflect the above amendments and to update the general description of various land use zones where appropriate. The updated ES (with additions in ***bold and italics*** and deletion in ~~single crossed out~~) is attached at **Attachment IV** for Members' consideration.

10. Plan Number

Upon gazetting, the OZP will be numbered as S/MOS/23.

11. Consultation

Consultation with District Councils, Rural Committee and Meeting with Representatives of Ma On Shan Tsuen

11.1 CEDD and PlanD jointly consulted the Sai Kung North Rural Committee (SKNRC) on 23.6.2020, the Development and Housing Committee (DHC) of the Sha Tin District Council (STDC) on 30.6.2020 (meeting adjourned and resumed on 3.7.2020), and the Planning, Housing and Works Committee (PHWC) of the Tai Po District Council (TPDC) on 14.7.2020 on the findings of the EFS and the proposed amendments to the Ma On Shan OZP. At the request of a STDC member, a meeting with the representatives of Ma On Shan Tsuen was held on 13.7.2020.

Consultation with SKNRC on 23.6.2020

11.2 The SKNRC expressed unanimous objection and the main concerns are: (a) the proposed housing developments are not in line with the planning intention of "GB" zone to serve as buffer and safeguard it from encroachment by urban-type developments; (b) existing transport infrastructures are insufficient to support additional housing developments, in particular the congestion of Ma On Shan Road and the tunnels connecting Sha Tin and the Metro Area should be improved first; (c) the proposed housing developments at Sites A and B1 will undermine the semi-rural character of the area, destroy the tranquil environment they enjoyed, and will generate adverse and irreversible visual, air ventilation and landscape (including felling of 3,560 trees) impacts; and (d) impacts on the orchard, graves and Kam Taps in existence and fengshui. The Chairperson of SKNRC also suggested the Government to explore a new strategic trunk road running from Lung Shan Tunnel and then parallel to Tolo Highway, and connecting via a tunnel through Mui Tsz Lam to Sai Kung and Hang Hau, as well as a new elevated light rail connecting Wu Kai Sha, Sai Kung and Hang Hau.

11.3 On 14.7.2020, SKNRC submitted to PlanD questionnaires in three standard formats with hand-written comments (type 1: 78 objections, 3 no clear indication of stance; type 2: 98 objections and 4 no clear indication of stance; type 3: 64 objections and 1 no clear indication of stance) conveying the grave concerns from the residents near Sites A and B1. Samples of those questionnaires are at **Attachments XIa to XIc** and a full set of those questionnaires is deposited at the Town Planning Board Secretariat for Members' inspection. An objecting comment from a resident of Cheung Muk Tau Village was also received on 20.7.2020 (**Attachment XId**).

Consultation with STDC on 30.6.2020 and 3.7.2020

11.4 The main concerns raised by the members of DHC of STDC are: (a) the existing traffic problems in Ma On Shan, in particular the congestion at Tate's Cairn

Tunnel as well as the major roads and junctions connecting Ma On Shan with Sha Tin and Tai Po, such as Ma On Shan Road, A Kung Kok Street, Chak Cheung Street/Science Park Road roundabout and Shek Mun Roundabout are serious. With the planned residential development of 9,500 flats in Shap Sz Heung, the situation will be worsened. Hence, the existing traffic problems should be addressed first before having new housing developments; (b) inadequate road infrastructure to support the proposed housing and school developments along MOST Road; (c) the proposed developments and the associated works will affect over 2,700 trees and result in permanent irreversible adverse landscape and ecological impact and will undermine the function of "GB" zone to protect the Country Park, and the government should consider brownfield development first; (d) the proposed developments and widening of MOST Road will affect the historic structures relating to the Ma On Shan Iron Mine and undermine the integrity of the heritage clusters of Ma On Shan Iron Mine; (e) the proposed private housing development at Site G has to be justified, considering its more sensitive location and larger site area, but fewer flat production compared with other proposed housing developments (f) insufficient GIC, recreational and parking facilities to support the proposed housing development; and (g) adverse visual and air ventilation impacts.

11.5 The DHC passed a motion unanimously objecting the Amendment Items C to G (**Attachment XIIa**). DHC also passed another motion unanimously urging the TPDC to reject the proposed amendments Items A and B1 on the grounds that the two developments will overload the transport network of Ma On Shan for access to urban areas, and no housing development should be allowed before a comprehensive upgrading of the public transport system and the traffic network for Sha Tin and Ma On Shan (**Attachment XIIb**). On 30.6.2020, petition letters were received from two STDC members (**Attachment XIIc**). Objecting comment relayed by a STDC member was also received on 12.8.2020 (**Attachment XIId**).

Meeting with Villagers of Ma On Shan Tsuen on 13.7.2020

11.6 The main concerns raised by the representatives of Ma On Shan Tsuen are: (a) the use of Site G for housing development providing about 1,000 private flats is not cost-effective and is at the expense of the descendants of miners settled there for a long time. The private housing development would cause irreversible damage to the iron mine culture; (b) Sites F and G are at the fringe of the Ma On Shan Country Park and those developments would cause permanent and irreversible damage to the ecological environment of the country park as well as Ma On Shan Site of Special Scientific Interest; (c) the need for the service reservoirs at Site F and alternative location should be explored so as to minimize the number of structures to be affected; (d) inadequacy of MOST Road to support the proposed housing and school developments at Sites D, E and G especially in the case of emergency, and the traffic problem of Ma On Shan area in particular the bottlenecks at the Tate's Cairn Highway across Shing Mun River, Tate's Cairn Tunnel and Lion Rock

Tunnel; (e) geotechnical, environmental (including sewerage), heritage and ecological impacts and the public consultation arrangements.

11.7 Two petition letters, one from the villagers of Ma On Shan Tsuen with 39 signatures on 13.7.2020 (**Attachment XIIIa**) and the other on 16.7.2020 from a STDC member on behalf of the villagers (**Attachment XIIIb**) were received.

Consultation with TPDC on 14.7.2020

11.8 The main concerns raised by the members of PHWC of TPDC are: (a) the proposed housing developments on "GB" zone with PR of up to 6.8 are not in line with the planning intention of "GB" zone and would set an undesirable precedent, and the government has not made enough effort to increase housing land supply from brownfield sites in the meantime; (b) the planned developments at Tsiu Hang, Pak Shek Kok and Shap Sz Heung should be taken into account, and the effectiveness of the proposed traffic improvement measures are doubtful in mitigating the existing traffic problems at the junction of Sai Sha Road/Nin Wah Road/Nin Fung Road, and the bottlenecks at the road and railway networks connecting Sha Tin, Tai Po and the North with the urban areas, in particular Chak Cheung Street/Science Park Road roundabout, Tolo Highway near Sha Tin Racecourse and Tate's Cairn Highway near Sha Tin Hospital, and the MTR University Station; (c) instead of public housing developments, Sites A and B1 can be developed for job-related uses to promote home-job balance; and (d) the proposed housing developments at Sites A and B1 with PR of 6.8 and building height of 165mPD providing 3,480 flats for 9,750 persons will undermine the tranquil rural character, and generate irreversible adverse visual, air ventilation, landscape and ecological impacts.

11.9 The PHWC passed a motion objecting Amendment Items A and B1 (**Attachment XIVa**). A TPDC Member, on 14.7.2020, also submitted a petition letter (**Attachments XIVb**) enclosing online questionnaires in standard format with additional comments (197 objections, 2 no comment and 5 supporting comments), questionnaires in standard format with hand-written comments (8 objections and 2 supports) and signature forms containing 260 signatures from the residents in Ma On Shan and Sai Kung North. Samples of those questionnaires and signature forms are at **Attachments XIVc to XIVe** and a full set of those questionnaires and signature forms have been deposited at the meeting for Members' reference. Two petition letters from the Incorporated Owners of Villa Rhapsody [2] and Villa Concerto of Symphony Bay (**Attachments XIVf and XIVg**), and a petition letter from Villa Rhapsody Management Services Limited with signature forms containing 785 signatures[2] (petition letter and sample of signature forms at **Attachment XIVh** and a full set of the signature forms have been deposited at the meeting for Members' reference) were also received after the consultation meeting on 14.7.2020. Apart from those already mentioned in the above paragraphs, nearby residents

[2] Petition letters also received by the Board

and villagers are also concerned about the adverse traffic and environmental impacts during the construction stage.

PlanD's Responses

11.10 The Government has adopted a multi-pronged strategy to meet the pressing need for housing land supply, including carrying out various land use reviews on an on-going basis. The "GB" sites proposed for housing developments are located at the fringe of a large tract of "GB" zone, and are in proximity with existing roads. According to the findings of the EFS, it is concluded that there is no insurmountable technical problem for development of the seven proposed housing and GIC sites. Public housing at a PR of 6.8 is proposed at Sites A, B1 and D, and private housing at a PR of 3.6 is proposed at Site G, which is more suitable for medium-density development, in order to achieve a balanced development. Regarding the need for the fresh water and salt water service reservoirs at Site F, paragraph 4.19 above is relevant.

11.11 Regarding the concerns on insufficient transport infrastructures, paragraphs 5.2 to 5.5 above are relevant. Access to Sites A and B1 as well as re-alignment and upgrading of MOST Road have been proposed with laybys, which can cater for public transport services such as bus, GMB and taxi, so as to facilitate easy access to and from the proposed housing and school developments. As for the concerns on major trunk road infrastructure, as mentioned in paragraph 5.4 above, widening of the section of Tate's Cairn Highway (South of Ma On Shan Road) from three lanes to four lanes and road improvement works on critical junctions would be implemented, thereby allowing them to operate within their capacity. The Government will also investigate the improvement measures for the Tate's Cairn Highway across Shing Mun River. Suggestions on new strategic road and railway linkages have also been relayed to the Transport and Housing Bureau for consideration.

11.12 The proposed developments and the associated works are located outside the Ma On Shan Country Park. As mentioned in paragraphs 5.11, 5.13 and 5.14, with the implementation of the proposed mitigation measures such as Wildlife Crossing System and compensatory planting as well as good environment site management, the overall ecological impact is considered not significant.

11.13 The proposed developments have also avoided the majority of the heritage resources as they are excluded and separated by a buffer zone from the engineering works areas for the housing developments. As mentioned in paragraph 5.15, AMO considers the preliminary design of the proposed housing development and the ancillary infrastructure works acceptable at this stage. CEDD will also conduct a comprehensive heritage impact assessment in consultation with AMO in the subsequent investigation and implementation stage.

11.14 As shown in **Attachment X** and explained in paragraphs 6.2 and 6.3, the existing and planned provision of GIC facilities and open space are generally adequate to meet the demand of the overall planned population in accordance with the requirements of the HKPSG. The proposed public and private housing developments have also incorporated a variety of social welfare facilities including community care services facilities, residential care homes for the elderly and child care centres, of which the actual provision would be further considered by SWD in the planning and development process. As for the provision of parking facilities, the latest parking standards of the HKPSG will be made reference to.

11.15 Regarding the concerns on visual, air ventilation and landscape aspects, paragraphs 5.6 to 5.11 above are relevant. Appropriate mitigation measures will be adopted to minimize potential impacts and detailed assessments will be conducted in the detailed design and implementation stage also.

11.16 For the crops, fruit trees, graves, Kam Taps and temporary structures on Government land that may be affected by the proposed developments, as mentioned in paragraph 5.18 above, subject to further confirmation in the subsequent stage, the clearance and compensation will be handled according to established procedures.

11.17 In response to the motions passed by DHC of STDC at **Attachment XIIa** and PHWC of TPDC at **Attachment XIVa**, DEVB issued a letter on 17.8.2020 to each of the Committees (**Attachments XVa and XVb**) to further explain the need for rezoning to meet the housing needs and inform both STDC and TPDC that the Government decides to continue with the proposed rezoning and submission to the Committee on 21.8.2020. Members of the public can submit representations on the amendment items and provide comments on the representations in accordance with the Town Planning Ordinance.

Departmental Consultation

11.18 The proposed amendments to the OZP have been circulated to the following bureaux/departments for comment. No objection or adverse comments have been received and their comments (if any) have been incorporated into the proposed amendments to the OZP as appropriate.

(a) Secretary for Development;
(b) Head of Antiquities and Monuments Office;
(c) Secretary for Transport and Housing;
(d) Project Manager (North), CEDD;
(e) Principal Project Co-ordinator/Housing Projects 1, CEDD;
(f) District Lands Officer/Sha Tin, Lands Department;
(g) District Lands Officer/Tai Po, Lands Department;
(h) Director of Housing;
(i) Commissioner for Transport;

(j) District Officer/Sha Tin, Home Affairs Department;
(k) District Officer/Tai Po, Home Affairs Department;
(l) Secretary for Education;
(m) Director of Environmental Protection;
(n) Chief Building Surveyor/New Territories East (2) and Rail, Buildings Department;
(o) Chief Engineer/Mainland South, Drainage Services Department;
(p) Chief Engineer/Construction, Water Supplies Department;
(q) Director of Electrical and Mechanical Services;
(r) Director of Agriculture, Fisheries and Conservation;
(s) Director of Leisure and Cultural Services;
(t) Director of Social Welfare;
(u) Chief Highway Engineer/New Territories East, Highway Department;
(v) Head of Geotechnical Engineering Office, CEDD; and
(w) Chief Town Planner/Urban Design and Landscape, PlanD.

Public Consultation

11.19 If the proposed amendments are agreed by the Committee, the draft OZP (to be renumbered to S/MOS/23 upon exhibition) and its Notes will be exhibited under section 5 of the Ordinance for public inspection. Members of the public can submit representations on the OZP to the Board during the two-month statutory public inspection period.

12. Decision Sought

Members are invited to:

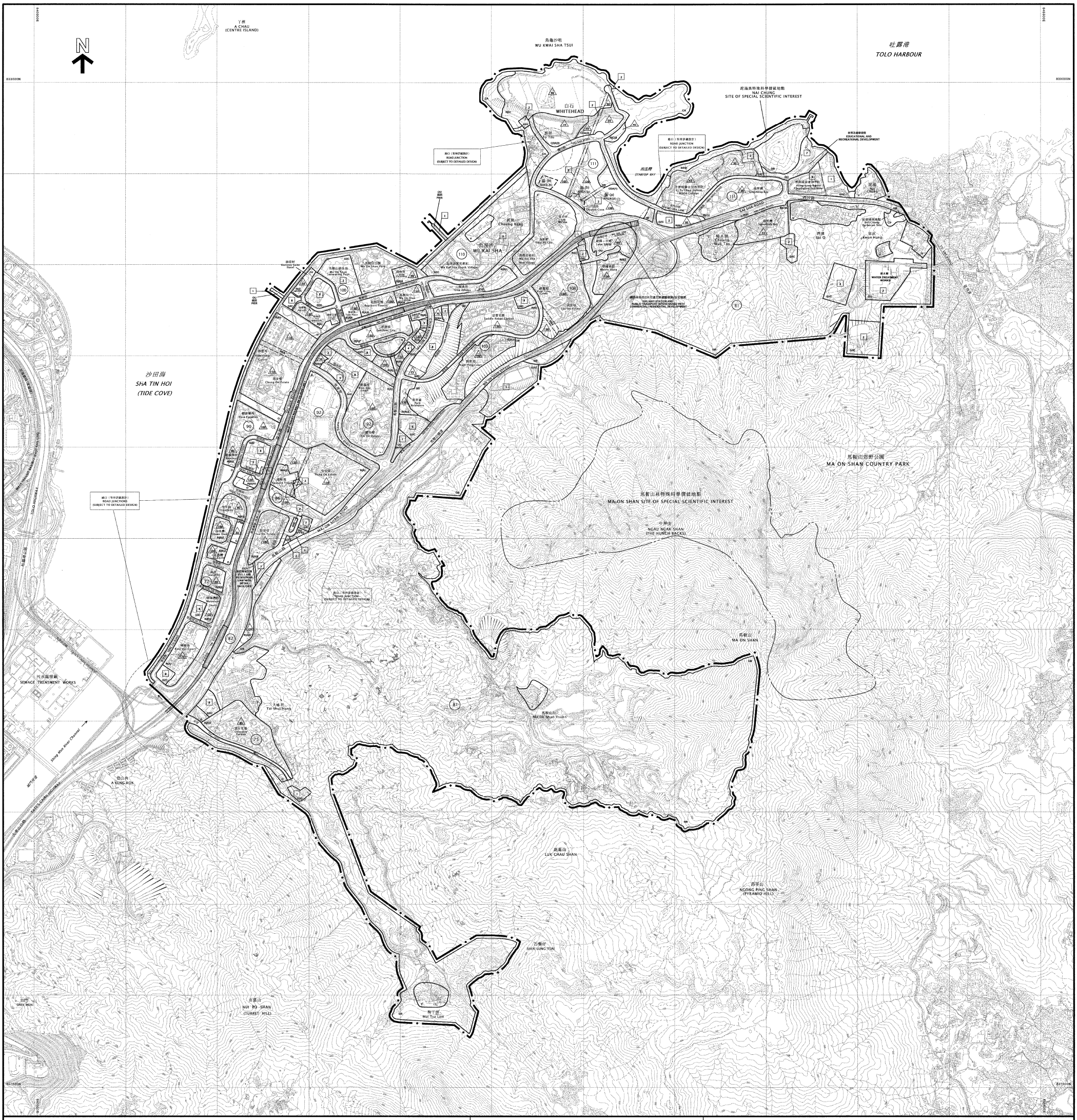
(a) agree to the proposed amendments to the approved Ma On Shan OZP No. S/MOS/22 as shown on the draft Ma On Shan OZP No. S/MOS/22A at **Attachment II** (to be renumbered as S/MOS/23 upon exhibition) and its Notes at **Attachment III** are suitable for exhibition for public inspection under section 5 of the Ordinance; and

(b) adopt the revised ES at **Attachment IV** for the draft Ma On Shan OZP No. S/MOS/22A (to be renumbered as S/MOS/23) as an expression of the planning intentions and objective of the Board for various land use zonings on the OZP and the revised ES will be published together with the OZP.

13. Attachments

Attachment I	Approved Ma On Shan OZP No. S/MOS/22 (reduced scale)
Attachment II	Draft Ma On Shan OZP No. S/MOS/22A
Attachment III	Revised Notes of Draft Ma On Shan OZP No. S/MOS/22A
Attachment IV	Revised Explanatory Statement of the Draft Ma On Shan OZP No. S/MOS/22A
Attachments Va to Vc	Conceptual Layout Plans for Amendment Items A, B1, D and G
Attachment VI	Final Report of the Engineering Feasibility Study
Attachments VIIa to VIIc	Viewpoints and Photomontages of the Proposed Housing Sites and Proposed GIC Sites
Attachment VIII	Proposed Traffic Improvement Works
Attachment IX	Summary of the Development Parameters of the Amendment Sites
Attachment X	Provision of Major Community Facilities and Open Space in Ma On Shan
Attachments XIa to XId	Questionnaires Received through Sai Kung North Rural Committee and a Comment Received from a Resident of Cheung Muk Tau Village
Attachments XIIa to XIId	Motions Passed by the Development and Housing Committee (DHC) of Sha Tin District Council, Petition Letters and Comment Received from STDC Members
Attachments XIIIa to VIIIb	Petition Letters from the Villagers of Ma On Shan Tsuen and a STDC Member on Behalf of the Villagers
Attachments XIVa to XIVh	Motion Passed by the Planning, Housing and Works Committee (PHWC) of Tai Po District Council, Petition Letters and Questionnaires Received from a TPDC Member, and Petition Letters Received from the Incorporated Owners of Villa Rhapsody, the Incorporated Owners of Villa Concerto of Symphony Bay and Villa Rhapsody Management Services Limited
Attachments XVa and XVb	The Administration's Letters to Development and Housing Committee of Sha Tin District Council and Planning, Housing and Works Committee of the Tai Po District Council on 17.8.2020
Plans 1a to 1c	Location Plans
Plans 2a to 2d	Site Plans
Plans 3a to 3d	Aerial Photos
Plans 4a to 4e	Site Photos

PLANNING DEPARTMENT
AUGUST 2020



圖例
NOTATION

ZONES — 地帶

COMMERCIAL	C	商業
COMPREHENSIVE DEVELOPMENT AREA	CDA	綜合發展區
RESIDENTIAL (GROUP A)	R(A)	住宅（甲類）
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/IC	政府、機構或社區
OPEN SPACE	O	休閒用地
RECREATION	REC	康樂
OTHER SPECIFIED USES	OU	其他指定用途
GREEN BELT	GB	綠化地帶
CONSERVATION AREA	CA	自然保育區
SITE OF SPECIAL SCIENTIFIC INTEREST	SSSI	具特殊科學價值地點
COUNTRY PARK	CP	郊野公園

COMMUNICATIONS — 交通

RAILWAY AND STATION (ELEVATED)		鐵路及車站（高架）
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
PLANNING AREA NUMBER	(75)	規劃區編號
BUILDING HEIGHT CONTROL ZONE BOUNDARY		建築物高度管制區界線
MAXIMUM BUILDING HEIGHT (IN METRES ABOVE PRINCIPAL DATUM)	130	最高建築物高度（在主水平基準上若干米）
MAXIMUM BUILDING HEIGHT (IN NUMBER OF STOREYS)	2	最高建築物高度（樓層數目）
PETROL FILLING STATION	P F S	加油站
NON-BUILDING AREA	NBA	非建築用地

土地用途及面積一覽表
SCHEDULE OF USES AND AREAS

USES	APPROXIMATE AREA & % 公頃 HECTARES	% 百分率	用途
COMMERCIAL	0.50	0.06	商業
COMPREHENSIVE DEVELOPMENT AREA	18.86	2.32	綜合發展區
RESIDENTIAL (GROUP A)	84.67	10.41	住宅（甲類）
RESIDENTIAL (GROUP B)	20.77	2.55	住宅（乙類）
RESIDENTIAL (GROUP C)	11.05	1.36	住宅（丙類）
VILLAGE TYPE DEVELOPMENT	30.88	3.80	鄉村式發展
GOVERNMENT, INSTITUTION OR COMMUNITY	63.77	7.84	政府、機構或社區
OPEN SPACE	38.71	4.76	休閒用地
RECREATION	14.95	1.84	康樂
OTHER SPECIFIED USES	13.02	1.60	其他指定用途
GREEN BELT	404.53	49.72	綠化地帶
CONSERVATION AREA	11.86	1.46	自然保育區
SITE OF SPECIAL SCIENTIFIC INTEREST	2.48	0.30	具特殊科學價值地點
COUNTRY PARK	0.60	0.07	郊野公園
RIVER CHANNEL	1.12	0.14	河道
MAJOR ROAD ETC.	95.77	11.77	主要道路等
TOTAL PLANNING SCHEME AREA	813.54	100.00	規劃範圍總面積

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２０１６年1月5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 5 JANUARY 2016

Ms Kinnie WONG 黃潔怡女士
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馬鞍山分區計劃大綱圖
TOWN PLANNING ORDINANCE, HONG KONG TOWN PLANNING BOARD
MA ON SHAN - OUTLINE ZONING PLAN

※ METRES 200 0 200 400 600 800 1,600 METRES ※

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/MOS/22

Attachment I of RNTPC Paper No. 4/20


丫洲
A CHAU
(CENTRE ISLAND)
烏龜沙咀
WU KWAI SHA TSUI
吐露港
TOLO HARBOUR
833000N
833000E
846000E
N
白石
WHITEHEAD
泥涌具特殊科學價值地點
NAI CHUNG
SITE OF SPECIAL SCIENTIFIC INTEREST
教育及康樂發展
EDUCATIONAL AND
RECREATIONAL DEVELOPMENT
路口（有待詳細設計）
ROAD JUNCTION
(SUBJECT TO DETAILED DESIGN)
海星灣
STARFISH BAY
To Tau
長庚
Cheung Kang
烏溪沙
WU KAI SHA
烏溪沙青年新村
Wu Kai Sha Youth Village
烏溪沙新村
Wu Kai Sha New Village
Kwai Po Tau
Lake Silver
Monte Vista
Villa Athena
Bayshore Towers
Sunshine City
Saddle Ridge Garden
Lee On Estate
Kam Tung Court
Kam Ying Court
Kam Eung Court
Chung On Estate
Vista Paradiso
Yu On Estate
Heng On Estate
Kam On Court
Yan On Estate
Kam Tai Court
Chevalier Garden
Ocean View
Mount Jade
Kam Hay Court
Park Belvedere
Ma On Shan Park
Ma On Shan Swimming Pool
Hotel
Marbella
Oceania
Sausalito
Tolo Place
Lai Ching Terrace
Lai Yuen
Lai Ching
Lai Tak Tsai
Lai Tak Tsuen
Lai Wo Hang
Lai Wo Tsai
Lai Yiu Court
Lai Yiu Estate
Lai Yuen Estate
Lai Chi Kok Estate
Lai Chi Kok Hospital
Lai Chi Kok Park
Lai Chi Kok Road
Lai Chi Kok Bridge
Lai Chi Kok Depot
Lai Chi Kok Amusement Park
Lai Chi Kok Entertainment Complex
Lai Chi Kok Shopping Centre
Lai Chi Kok Sports Centre
Lai Chi Kok Swimming Pool
Lai Chi Kok Tennis Centre
Lai Chi Kok Theatre
Lai Chi Kok Zoological Garden
Lai Chi Kok Botanical Garden
Lai Chi Kok Museum
Lai Chi Kok Art Gallery
Lai Chi Kok Library
Lai Chi Kok Post Office
Lai Chi Kok Police Station
Lai Chi Kok Fire Station
Lai Chi Kok Ambulance Depot
Lai Chi Kok Clinic
Lai Chi Kok Health Centre
Lai Chi Kok Dental Clinic
Lai Chi Kok Pharmacy
Lai Chi Kok Supermarket
Lai Chi Kok Bank
Lai Chi Kok Restaurant
Lai Chi Kok Hotel
Lai Chi Kok Guesthouse
Lai Chi Kok Youth Hostel
Lai Chi Kok Camping Ground
Lai Chi Kok Caravan Park
Lai Chi Kok Golf Course
Lai Chi Kok Driving Range
Lai Chi Kok Tennis Court
Lai Chi Kok Basketball Court
Lai Chi Kok Football Pitch
Lai Chi Kok Cricket Ground
Lai Chi Kok Rugby Ground
Lai Chi Kok Hockey Pitch
Lai Chi Kok Athletics Track
Lai Chi Kok Swimming Pool
Lai Chi Kok Diving Pool
Lai Chi Kok Water Polo Pool
Lai Chi Kok Synchronised Swimming Pool
Lai Chi Kok Aquatic Centre
Lai Chi Kok Sports Ground
Lai Chi Kok Recreation Ground
Lai Chi Kok Park
Lai Chi Kok Garden

~~APPROVED~~ *DRAFT* MA ON SHAN OUTLINE ZONING PLAN NO. S/MOS/22*A*

(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) (a) No action is required to make the existing use of any land or building conform to this Plan until there is a material change of use or the building is redeveloped.

(b) Any material change of use or any other development (except minor alteration and/or modification to the development of the land or building in respect of the existing use which is always permitted) or redevelopment must be always permitted in terms of the Plan or, if permission is required, in accordance with the permission granted by the Town Planning Board.

(c) For the purposes of subparagraph (a) above, "existing use of any land or building" means-

(i) before the publication in the Gazette of the notice of the first statutory plan covering the land or building (hereafter referred as 'the first plan'),

- a use in existence before the publication of the first plan which has continued since it came into existence; or

- a use or a change of use approved under the Buildings Ordinance which relates to an existing building; and

(ii) after the publication of the first plan,

- a use permitted under a plan which was effected during the effective period of that plan and has continued since it was effected; or

- a use or a change of use approved under the Buildings Ordinance which relates to an existing building and permitted under a plan prevailing at the time when the use or change of use was approved.

(4) 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.

(5) Road junctions, alignments of roads and railway tracks, and boundaries between zones may be subject to minor adjustments as detailed planning proceeds.

(6) Temporary uses (expected to be 5 years or less) of any land or building are always permitted as long as they comply with any other relevant legislation, the conditions of the Government lease concerned, and any other Government requirements, and there is no need for these to conform to the zoned use or these Notes. For temporary uses expected to be over 5 years, the uses must conform to the zoned use or these Notes.

(7) The following uses or developments are always permitted on land falling within the boundaries of the Plan except (a) where the uses or developments are specified in Column 2 of the Notes of individual zones or (b) as provided in paragraph (8) in relation to areas zoned "Site of Special Scientific Interest" or "Conservation Area":

(a) provision, maintenance or repair of plant nursery, amenity planting, open space, rain shelter, refreshment kiosk, road, bus/public light bus stop or lay-by, cycle track, Mass Transit Railway entrance, Mass Transit Railway structure below ground level, taxi rank, nullah, public utility pipeline, electricity mast, lamp pole, telephone booth, telecommunications radio base station, automatic teller machine and shrine;

(b) geotechnical works, local public works, road works, sewerage works, drainage works, environmental improvement works, marine related facilities, waterworks (excluding works on service reservoir) and such other public works co-ordinated or implemented by Government; and

(c) maintenance or repair of watercourse and grave.

(8) In areas zoned "Site of Special Scientific Interest" or "Conservation Area",

(a) the following uses or developments are always permitted:

(i) maintenance or repair of plant nursery, amenity planting, sitting out area, rain shelter, refreshment kiosk, road, watercourse, nullah, public utility pipeline, electricity mast, lamp pole, telephone booth, shrine and grave; and

(ii) geotechnical works, local public works, road works, sewerage works, drainage works, environmental improvement works, marine related facilities, waterworks (excluding works on service reservoir) and such other public works co-ordinated or implemented by Government; and

(b) the following uses or developments require permission from the Town Planning Board:

provision of plant nursery, amenity planting, sitting out area, rain shelter, refreshment kiosk, footpath, public utility pipeline, electricity mast, lamp pole, telephone booth and shrine.

(9) In any area shown as 'Road', all uses or developments except those specified in paragraph (7) above and those specified below require permission from the Town Planning Board:

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

(10) 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.

(11) In these Notes,

"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*** Ma On Shan Outline Zoning Plan No. S/MOS/22***A***

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COMMERCIAL

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 Commercial Bathhouse/ Massage Establishment Eating Place Educational Institution Exhibition or Convention Hall Government Use (not elsewhere specified) Hotel Information Technology and Telecommunications Industries Institutional Use (not elsewhere specified) Library ~~Market~~ Off-course Betting Centre Office 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 School Shop and Services Social Welfare Facility Training Centre Utility Installation for Private Project	Broadcasting, Television and/or Film Studio Flat Government Refuse Collection Point Hospital House Petrol Filling Station Residential Institution

Planning Intention

This zone is intended primarily for commercial developments, which may include shop, services, place of entertainment and eating place, functioning mainly as local shopping centre serving the immediate neighbourhood.

(Please see next page)

COMMERCIAL (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 building height in terms of metres above Principal Datum as stipulated on the Plan, or the height of the existing building, whichever is the greater.

(b) 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 3.0 or the plot ratio of the existing building, whichever is the greater.

(c) In determining the maximum plot ratio for the purposes of paragraph (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, provided such uses and facilities are ancillary and directly related to the development or redevelopment, may be disregarded.

(d) Where the permitted plot ratio as defined in Building (Planning) Regulations is permitted to be exceeded in circumstances as set out in Regulation 22(1) or (2) of the said Regulations, the plot ratio for the building on land to which paragraph (b) applies may be increased by the additional plot ratio by which the permitted plot ratio is permitted to be exceeded under and in accordance with the said Regulation 22(1) or (2), notwithstanding that the relevant maximum plot ratio specified in paragraph (b) above may thereby be exceeded.

(e) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the building height and/or plot ratio 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.

(f) Under exceptional circumstances, for developments and/or redevelopments, minor relaxation of the non-building area restrictions as shown on the Plan may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.

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
	Ambulance Depot Broadcasting, Television and/or Film Studio Commercial Bathhouse/ Massage Establishment Eating Place Educational Institution Exhibition or Convention Hall Field Study/Education/Visitor Centre Flat Government Refuse Collection Point Government Use (not elsewhere specified) Hotel House Institutional Use (not elsewhere specified) Library ~~Market~~ Off-course Betting Centre Office Petrol Filling Station Pier 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 Residential Institution School Shop and Services Social Welfare Facility Training Centre Utility Installation for Private Project

(Please see next page)

COMPREHENSIVE DEVELOPMENT AREA (Cont'd)

Planning Intention

This zone is intended for comprehensive development/redevelopment of the area for recreational, residential and/or commercial uses with the provision of open space and other supporting facilities. 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 (GFA) 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 urban design, landscaping and tree preservation proposals within the area;

(vi) programmes of development in detail;

(vii) an environmental assessment report including an ecological assessment 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;

(Please see next page)

COMPREHENSIVE DEVELOPMENT AREA (Cont'd)

Remarks (Cont'd)

(x) a visual impact assessment report to examine any possible visual impacts that may be caused by the proposed development and the proposed mitigation measures to tackle them;

(xi) an air ventilation assessment report to examine any possible air ventilation problems that may be caused by the proposed development and the proposed mitigation measures to tackle them; and

(xii) such other information as may be required by the Town Planning Board.

(b) The Master Layout Plan should be supported by an explanatory statement which contains an adequate explanation of the development proposal, including such information as land tenure, relevant lease conditions, existing conditions of the site, the character of the site in relation to the surrounding areas, principles of layout design, major development parameters, design population, types of GIC facilities, and recreational and open space facilities.

(c) On land designated "Comprehensive Development Area (1)", no new development, or addition, alteration and/or modification to or redevelopment of an existing building in Area (a) shall result in a total development and/or redevelopment in excess of a maximum domestic plot ratio of 3, a maximum non-domestic GFA of 10,000m^2, and a maximum building height in terms of number of storeys or metres above Principal Datum as stipulated on the Plan, or the plot ratio and height of the existing building, whichever is the greater . No building development is permitted in Area (b). A "stepped height" building profile descending from the southern part to the northern part of the site is required.

(d) On land designated "Comprehensive Development Area (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 GFA of 40,000m^2 and a maximum building height in terms of metres above Principal Datum as stipulated on the Plan, or the GFA and height of the existing building, whichever is the greater.

(e) On land designated "Comprehensive Development Area (3)", 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 GFA of 30,000m^2 and a maximum building height in terms of number of storeys or metres above Principal Datum as stipulated on the Plan, or the GFA and height of the existing building, whichever is the greater.

(Please see next page)

COMPREHENSIVE DEVELOPMENT AREA (Cont'd)

Remarks (Cont'd)

(f) In determining the maximum plot ratio/GFA for the purposes of paragraphs (c) to (e) 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 school or ~~Government, institution or community~~ ***GIC*** facilities, as required by the Government, may also be disregarded.

(g) In determining the maximum domestic plot ratio for the purpose of paragraph (c) above, area of any part of Area (a) that is occupied or intended to be occupied by free-standing purpose-designed schools as may be required by the Government, and Area (b) shall be deducted in calculating the relevant site area.

(h) In determining the maximum number of storeys for the purposes of paragraphs (c) and (e) above, any basement floor(s) may be disregarded.

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

RESIDENTIAL (GROUP A)

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 Flat Government Use (not elsewhere specified) House Library Market Place of Recreation, Sports or Culture Public Clinic Public Transport Terminus or Station (excluding open-air terminus or station) ***Public Vehicle Park (excluding container vehicle) (on land designated "R(A)11" only)*** Residential Institution School (in free-standing purpose-designed building only) Social Welfare Facility Utility Installation for Private Project	Commercial Bathhouse/ Massage Establishment Eating Place Educational Institution Exhibition or Convention Hall Government Refuse Collection Point Hospital Hotel Institutional Use (not elsewhere specified) Office Petrol Filling Station Place of Entertainment Private Club Public Convenience Public Transport Terminus or Station (not elsewhere specified) Public Utility Installation Public Vehicle Park (excluding container vehicle) ***(not elsewhere specified)*** Religious Institution School (not elsewhere specified) Shop and Services ***(not elsewhere specified)*** Training Centre

(Please see next page)

RESIDENTIAL (GROUP A) (Cont'd)

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
In addition, the following uses are always permitted (a) on the lowest three floors of a building, taken to include basements; or (b) in the purpose-designed non-residential portion of an existing building, both excluding floors containing wholly or mainly car parking, loading/unloading bays and/or plant room: Eating Place Educational Institution Institutional Use (not elsewhere specified) Off-course Betting Centre Office Place of Entertainment Private Club Public Convenience Recyclable Collection Centre School Shop and Services Training Centre	

Planning Intention

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

Remarks

(a) No new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of the maximum building height in terms of number of storeys or metres above Principal Datum as stipulated on the Plan, or the height of the existing building, whichever is the greater.

(Please see next page)

RESIDENTIAL (GROUP A) (Cont'd)

Remarks (Cont'd)

(b) On land designated "R(A)", no new development of or redevelopment to a domestic or non-domestic building shall result in a total development and/or redevelopment in excess of a maximum domestic plot ratio of 5, or a maximum non-domestic plot ratio of 9.5, as the case may be. For new development of or redevelopment to a building that is partly domestic and partly non-domestic, the plot ratio for the domestic part of the building shall not exceed the product of the difference between the maximum non-domestic plot ratio of 9.5 and the actual non-domestic plot ratio proposed for the building and the maximum domestic plot ratio of 5 divided by the maximum non-domestic plot ratio of 9.5.

(c) On land designated "R(A)", no 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 relevant maximum domestic and/or non-domestic plot ratio(s) stated in paragraph (b) above, or the domestic and/or non-domestic plot ratio(s) of the existing building, whichever is the greater, subject to, as applicable –

(i) the plot ratio(s) of the existing building shall apply only if any addition, alteration and/or modification to or redevelopment of an existing building is for the same type of building as the existing building, i.e. domestic, non-domestic, or partly domestic and partly non-domestic building; or

(ii) the maximum domestic and/or non-domestic plot ratio(s) stated in paragraph (b) above shall apply if any addition, alteration and/or modification to or redevelopment of an existing building is not for the same type of building as the existing building, i.e. domestic, non-domestic, or partly domestic and partly non-domestic building.

(d) On land designated "R(A)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 plot ratio of 3, or the plot ratio of the existing building, whichever is the greater.

(e) On land designated "R(A)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 3.8, or the plot ratio of the existing building, whichever is the greater.

(f) On land designated "R(A)3", 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 4.6, or the plot ratio of the existing building, whichever is the greater.

(Please see next page)

RESIDENTIAL (GROUP A) (Cont'd)

Remarks (Cont'd)

(g) On land designated "R(A)4", 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 54,544m^2 and a maximum non-domestic GFA of 7,620m^2, or the GFA of the existing building, whichever is the greater.

(h) On land designated "R(A)5", 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 GFA of 57,300m^2 and a maximum non-domestic GFA of 30,000m^2, or the GFA of the existing building, whichever is the greater.

(i) On land designated "R(A)6", 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 GFA of 40,400m^2 and a maximum non-domestic GFA of 5,650m^2, or the GFA of the existing building, whichever is the greater.

(j) On land designated "R(A)7", 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 GFA of 114,618m^2 and a maximum non-domestic GFA of 50,240m^2, or the GFA of the existing building, whichever is the greater.

(k) On land designated "R(A)8", 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 plot ratio of 6 and a maximum non-domestic plot ratio of 0.5, or the plot ratio of the existing building, whichever is the greater.

(l) On land designated "R(A)9", 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 plot ratio of 5.5 and a maximum non-domestic plot ratio of 0.3, or the plot ratio of the existing building, whichever is the greater.

(m) On land designated "R(A)10", no new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum plot ratio of 6, or the plot ratio of the existing building, whichever is the greater.

(Please see next page)

RESIDENTIAL (GROUP A) (Cont'd)

Remarks (Cont'd)

(n) ***On land designated "R(A)11", no new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum plot ratio of 6.8, or the plot ratio of the existing building, whichever is the greater.***

~~(n)~~ ***(o)*** In determining the maximum plot ratio for the purposes of paragraphs (b) to (f) and (k) to ***(n)*** above, the area of any part of the site that is occupied or intended to be occupied by free-standing purpose-designed buildings (including both developed on ground and on podium level) solely for accommodating Government, institution or community (GIC) facilities including school(s) as may be required by Government shall be deducted from calculation of the site area.

~~(o)~~ ***(p)*** In determining the maximum plot ratio/GFA for the purposes of paragraphs (b) to ~~(m)~~ ***(n)*** 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.

(q) ***In determining the maximum plot ratio for the purposes of paragraph (n) above, any floor space that is constructed or intended for use solely as public vehicle park and GIC facilities, as required by the Government may be disregarded.***

~~(p)~~ ***(r)*** Where the permitted plot ratio/GFA as defined in Building (Planning) Regulations is permitted to be exceeded in circumstances as set out in Regulation 22(1) or (2) of the said Regulations, the plot ratio/GFA for the building on land to which paragraphs (b) to ~~(m)~~ ***(n)*** above applies may be increased by the additional plot ratio by which the permitted plot ratio is permitted to be exceeded under and in accordance with the said Regulation 22(1) or (2), notwithstanding that the relevant maximum plot ratio/GFA specified in paragraphs (b) to ~~(m)~~ ***(n)*** above may thereby be exceeded.

~~(q)~~ ***(s)*** In determining the maximum number of storeys for the purposes of paragraph (a) above, any basement floor(s) may be disregarded.

~~(r)~~ ***(t)*** Based on the individual merits of a development or redevelopment proposal, minor relaxation of the building height and/or plot ratio/GFA restrictions stated in paragraphs (a) to ~~(m)~~ ***(n)*** above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.

~~(s)~~ ***(u)*** Under exceptional circumstances, for developments and/or redevelopments, minor relaxation of the non-building area restrictions as shown on the Plan 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) ***Social Welfare Facility (on land designated "R(B)6" 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~~ Off-course Betting Centre 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 School (not elsewhere specified) Shop and Services Social Welfare Facility ***(not elsewhere specified)*** Training Centre

Planning Intention

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

(Please see next page)

RESIDENTIAL (GROUP B) (Cont'd)

Remarks

(a) No new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of the maximum building height in terms of metres above Principal Datum as stipulated on the Plan, or the height of the existing building, whichever is the greater.

(b) On land designated "R(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 plot ratio of 3, or the plot ratio of the existing building, whichever is the greater.

(c) On land designated "R(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 5, or the plot ratio of the existing building, whichever is the greater.

(d) On land designated "R(B)3", 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 gross floor area (GFA) of 8,910m^2, or the GFA of the existing building, whichever is the greater.

(e) On land designated "R(B)4", 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 GFA of 15,500m^2, or the GFA of the existing building, whichever is the greater.

(f) On land designated "R(B)5", 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, or the plot ratio of the existing building, whichever is the greater.

(g) On land designated "R(B)6", 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, or the plot ratio of the existing building, whichever is the greater. In determining the maximum plot ratio, any floor space that is constructed or intended for use solely as GIC facilities, as required by the Government may be disregarded.

~~(g)~~ ***(h)*** In determining the maximum plot ratio/GFA for the purposes of paragraphs (b) to ~~(e)~~ ***(g)*** above, any floor space that is constructed or intended for use solely as car park, loading/unloading bay, plant room and caretaker's office, or caretaker's quarters and recreational facilities for the use and benefit of all the owners or occupiers of the domestic building or domestic part of the building, provided such uses and facilities are ancillary and directly related to the development or redevelopment, may be disregarded.

(Please see next page)

RESIDENTIAL (GROUP B) (Cont'd)

Remarks

~~(h)~~ ***(i)*** Based on the individual merits of a development or redevelopment proposal, minor relaxation of the building height and/or plot ratio/GFA restrictions stated in paragraphs (a) to ~~(f)~~ ***(g)*** above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.

RESIDENTIAL (GROUP C)

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Flat Government Use (Police Reporting Centre, Post Office only) House Utility Installation for Private Project	Ambulance Depot Eating Place Educational Institution Government Refuse Collection Point Government Use (not elsewhere specified) 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 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) On land designated "Residential (Group C)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 plot ratio of 1.0 and a maximum building height of 36mPD, or the plot ratio and height of the existing building, whichever is the greater.

(b) On land designated "Residential (Group C)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 1.5 and a maximum building height of 55mPD, or the plot ratio and height of the existing building, whichever is the greater.

(c) On land designated "Residential (Group C)3", 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 2.4 and a maximum building height of 40mPD, or the plot ratio and height of the existing building, whichever is the greater.

(d) In determining the maximum plot ratio for the purposes of paragraphs (a) to (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.

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

VILLAGE TYPE DEVELOPMENT

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Agricultural Use Government Use (Police Reporting Centre, Post Office only) House (New Territories Exempted House only) On-Farm Domestic Structure Religious Institution (Ancestral Hall only) Rural Committee/Village Office	Eating Place Flat Government Refuse Collection Point Government Use (not elsewhere specified)# 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 Houses by indigenous villagers. It is also intended to concentrate village type development within this zone for a more orderly development pattern, efficient use of land and provision of infrastructures and services. Selected commercial and community uses serving the needs of the villagers and in support of the village development are always permitted on the ground floor of a New Territories Exempted House. Other commercial, community and recreational uses may be permitted on application to the Town Planning Board.

Remarks

(a) No new development, or addition, alteration and/or modification to or redevelopment of an existing building (except development or redevelopment to those annotated with #) shall result in a total development and/or redevelopment in excess of a maximum building height of 3 storeys (8.23m) or the height of the existing building, 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 Quarantine Centre (in Government building only) Broadcasting, Television and/or Film Studio Cable Car Route and Terminal Building Eating Place (Canteen, Cooked Food Centre only) Educational Institution Exhibition or Convention Hall Field Study/Education/Visitor Centre Government Refuse Collection Point Government Use (not elsewhere specified) Hospital Institutional Use (not elsewhere specified) Library Market Pier Place of Recreation, Sports or Culture Public Clinic Public Convenience Public Transport Terminus or Station Public Utility Installation Public Vehicle Park (excluding container vehicle) Recyclable Collection Centre Religious Institution Research, Design and Development Centre Rural Committee/Village Office School Service Reservoir Social Welfare Facility Training Centre Wholesale Trade	Animal Boarding Establishment Animal Quarantine Centre (not elsewhere specified) Columbarium Correctional Institution Crematorium Driving School Eating Place (not elsewhere specified) Flat Funeral Facility Helicopter Landing Pad Holiday Camp Hotel House Marine Fuelling Station Off-course Betting Centre Office Petrol Filling Station Place of Entertainment Private Club Radar, Telecommunications Electronic Microwave Repeater, Television and/or Radio Transmitter Installation Refuse Disposal Installation (Refuse Transfer Station only) Residential Institution Sewage Treatment/Screening Plant Shop and Services ***(not elsewhere specified)*** Utility Installation for Private Project Zoo

Planning Intention

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

(Please see next page)

GOVERNMENT, INSTITUTION OR COMMUNITY (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 building height in terms of number of storeys or metres above Principal Datum as stipulated on the Plan, or the height of the existing building, whichever is the greater.

(b) In determining the maximum number of storeys for the purposes of paragraph (a) above, any basement floor(s) may be disregarded.

(c) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the 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.

RECREATION

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Agricultural Use Barbecue Spot Field Study/Education/Visitor Centre Government Use (Police Reporting Centre only) Holiday Camp On-Farm Domestic Structure Picnic Area Public Convenience Tent Camping Ground	Animal Boarding Establishment Broadcasting, Television and/or Film Studio Cable Car Route and Terminal Building Eating Place Golf Course Government Refuse Collection Point Government Use (not elsewhere specified) Helicopter Landing Pad Hotel Marina Pier Place of Recreation, Sports or Culture Place of Entertainment Private Club Public Utility Installation Public Vehicle Park (excluding container vehicle) Religious Institution Residential Institution Shop and Services Theme Park Utility Installation for Private Project Zoo

Planning Intention

This zone is intended primarily for comprehensive recreational developments for the use of the general public. It encourages the development of sports, active and/or passive recreation and tourism/eco-tourism. Major recreational/sports facilities and uses in support of the recreational developments may be permitted subject to planning permission.

Remarks

(a) No development shall result in a total development in excess of a maximum building height in terms of number of storeys or metres above Principal Datum as stipulated on the Plan, or the height of the existing building, whichever is the greater.

(b) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the 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.

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	Cable Car Route and Terminal Building Eating Place Government Refuse Collection Point Government Use (not elsewhere specified) Holiday Camp Pier 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 Tenting 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 "Pier" only

Government Use Pier	Eating Place Marine Fuelling Station Office Shop and Services (not elsewhere specified)

Planning Intention

This zone is primarily to provide land for pier use.

Remarks

(a) Kiosks not greater than $10m^2$ each in area and not more than 10 in number for use as shop and services are considered as ancillary to "Pier" use.

(b) 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 storeys as stipulated on the Plan, or the height of the existing building, whichever is the greater.

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

(Please see next page)

OTHER SPECIFIED USES (Cont'd)

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

For "Hotel" only

Hotel	Eating Place Exhibition or Convention Hall Government Use Place of Entertainment Private Club Shop and Services

Planning Intention

This zone is primarily to provide land for hotel use.

Remarks

(a) No new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum plot ratio of 7.0 and a maximum building height of 50mPD, or the plot ratio and height of the existing building, whichever is the greater.

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

(Please see next page)

OTHER SPECIFIED USES (Cont'd)

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

For "Railway Station and Public Transport Interchange with Commercial/Residential Development" only

Ambulance Depot
Eating Place
Educational Institution (in a commercial building or in the purpose-designed non-residential portion[@] of an existing building only)
Exhibition or Convention Hall
Flat
Government Use (not elsewhere specified)
Information Technology and Telecommunications Industries (in a commercial building or in the purpose-designed non-residential portion[@] of an existing building only)
Library
~~Market~~
Off-course Betting Centre
Office
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)
Railway Station
Religious Institution
Residential Institution
School (in free-standing purpose-designed school building, in a commercial building or in the purpose-designed non-residential portion[@] of an existing building only)
Shop and Services
Social Welfare Facility
Training Centre
Utility Installation for Private Project
Wholesale Trade
Broadcasting, Television and/or Film Studio
Commercial Bathhouse/ Massage Establishment
Educational Institution (not elsewhere specified)
Government Refuse Collection Point
Institutional Use (not elsewhere specified)
Petrol Filling Station
Recyclable Collection Centre
School (not elsewhere specified)

[@] Excluding floors containing wholly or mainly car parking, loading/unloading bay and/or plant room

(Please see next page)

OTHER SPECIFIED USES (Cont'd)

For "Railway Station and Public Transport Interchange with Commercial/Residential Development" only (Cont'd)

Planning Intention

This zone is primarily to provide land for railway station and a public transport interchange with commercial/residential development.

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 metres above Principal Datum as stipulated on the Plan, or the height of the existing building, whichever is the greater.

(b) 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 168,650m^2, a maximum non-domestic GFA of 4,000m^2 and a maximum GFA of 15,066m^2 for the public transport interchange, or the GFA of the existing building, whichever is the greater.

(c) In determining the maximum GFA for the purposes of paragraph (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. Any floorspace that is constructed or intended for use solely as railway station development, as required by the Government, may also be disregarded.

(d) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the building height and/or GFA 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.

(Please see next page)

OTHER SPECIFIED USES (Cont'd)

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

For "Educational and Recreational Development" only

Field Study/Education/Visitor Centre
Government Use (Police Reporting Centre only)
Park and Garden
Picnic Area
Playground/Playing Field
Public Convenience
Government Use (not elsewhere specified)
Pier
Place of Recreation, Sports or Culture
Public Utility Installation
Public Vehicle Park (excluding container vehicle)
Religious Institution
School
Utility Installation for Private Project

Planning Intention

This zone is primarily to provide land for educational and recreational development.

Remarks

(a) An applicant for permission for development on land designated "Other Specified Uses" annotated "Educational and Recreational Development" shall prepare a 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, positions, 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;

(iii) the details and extent of Government, institution or community and recreational facilities, public transport and parking facilities, and open space to be provided within the area;

(iv) the alignments, widths and levels of any roads and pedestrian linkages proposed to be constructed within the area;

(v) the landscaping and urban design proposals within the area;

(vi) programmes of development in detail; and

(vii) any other information as required by the Town Planning Board.

(Please see next page)

OTHER SPECIFIED USES (Cont'd)

For "Educational and Recreational Development" only (Cont'd)

Remarks (Cont'd)

(b) 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 gross floor area of 17,800m^2 and a maximum building height of seven storeys.

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

(Please see next page)

OTHER SPECIFIED USES (Cont'd)

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

For "Pedestrian Link with Retail Facilities" only

As specified on the Plan
Shop and Services

Planning Intention

This zone is primarily intended for the provision of a pedestrian link connecting the public housing developments on both sides of Ma On Shan Road. Retail facilities can be provided in the pedestrian link to help create a better walking experience.

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 of 1 storey as stipulated on the Plan, or the height of the existing building, whichever is the greater.

(b) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the building height restriction mentioned in paragraph (a) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.

(Please see next page)

OTHER SPECIFIED USES (Cont'd)

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
For All Other Sites (Not Listed Above)	
As Specified on the Plan	Government Use Public Utility Installation Utility Installation for Private Project

Planning Intention

This zone is primarily to provide/reserve land for specific purposes and uses.

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) as stipulated on the Plan, or the height of the existing building, whichever is the greater.

(b) In determining the relevant maximum number of storey(s) for the purposes of paragraph (a) above, any basement floor(s) may be disregarded.

(c) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the 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.

GREEN BELT

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Agricultural Use Barbecue Spot Country Park* Government Use (Police Reporting Centre only) Nature Reserve Nature Trail On-Farm Domestic Structure Picnic Area Public Convenience Tent Camping Ground Wild Animals Protection Area	Animal Boarding Establishment Broadcasting, Television and/or Film Studio Burial Ground Cable Car Route and Terminal Building Columbarium (within a Religious Institution or extension of existing Columbarium only) Crematorium (within a Religious Institution or extension of existing Crematorium only) Field Study/Education/Visitor Centre Flat Golf Course Government Refuse Collection Point Government Use (not elsewhere specified) Helicopter Landing Pad Holiday Camp House Marine Fuelling Station Petrol Filling Station Pier 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 School Service Reservoir Social Welfare Facility Utility Installation for Private Project Zoo

* Country Park means a country park or special area as designated under the Country Parks Ordinance (Cap. 208). All uses and developments require consent from the Country and Marine Parks Authority and approval from the Town Planning Board is not required.

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.

CONSERVATION AREA

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 Country Park* Nature Reserve Nature Trail On-Farm Domestic Structure Picnic Area Wild Animals Protection Area	Barbecue Spot Field Study/Education/Visitor Centre Government Refuse Collection Point Government Use (not elsewhere specified) Holiday Camp House (Redevelopment only) Pier Public Convenience Public Utility Installation Radar, Telecommunications Electronic Microwave Repeater, Television and/or Radio Transmitter Installation Tent Camping Ground Utility Installation for Private Project

* Country Park means a country park or special area as designated under the Country Parks Ordinance (Cap. 208). All uses and developments require consent from the Country and Marine Parks Authority and approval from the Town Planning Board is not required.

Planning Intention

This zoning is intended to protect and retain the existing natural landscape, ecological, topographical or archaeological features of the area for conservation, educational and research purposes and to separate sensitive natural environment such as Site of Special Scientific Interest from the adverse effects of development.

There is a general presumption against development in this zone. In general, only developments that are needed to support the conservation of the existing natural landscape or scenic quality of the area or are essential infrastructure projects with overriding public interest may be permitted.

Remarks

(a) No redevelopment, including alteration and/or modification to an existing house, shall result in a total redevelopment in excess of the plot ratio, site coverage and building height of the house which was in existence on the date of the publication in the Gazette of the notice of the draft Ma On Shan Outline Zoning Plan No. S/MOS/11.

(b) Any filling 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, shall not be undertaken or continued on or after the date of the publication in the Gazette of the notice of the draft Ma On Shan Outline Zoning Plan No. S/MOS/12 without the permission from the Town Planning Board under section 16 of the Town Planning Ordinance.

SITE OF SPECIAL SCIENTIFIC INTEREST

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Country Park*	Agricultural Use
Wild Animals Protection Area	Field Study/Education/Visitor Centre
	Government Use
	Nature Reserve
	Nature Trail
	On-Farm Domestic Structure
	Picnic Area
	Public Convenience
	Public Utility Installation
	Utility Installation for Private Project

* Country Park means a country park or special area as designated under the Country Parks Ordinance (Cap. 208). All uses and developments require consent from the Country and Marine Parks Authority and approval from the Town Planning Board is not required.

Planning Intention

The planning intention of this zone is to conserve and protect the features of special geological interest which are designated as Site of Special Scientific Interest (SSSI). It intends to deter human activities or developments within the SSSI.

There is a general presumption against development in this zone. No developments are permitted unless they are needed to support the conservation of the features of special scientific interest in the SSSI, to maintain and protect the existing character of the SSSI, or for educational and research purposes.

Remarks

Any filling 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, shall not be undertaken or continued on or after the date of the publication in the Gazette of the notice of the draft Ma On Shan Outline Zoning Plan No. S/MOS/12 without the permission from the Town Planning Board under section 16 of the Town Planning Ordinance.

COUNTRY PARK

Country Park means a country park or special area as designated under the Country Parks Ordinance (Cap. 208). All uses and developments require consent from the Country and Marine Parks Authority and approval from the Town Planning Board is not required.

Attachment IV of
RNTPC Paper No. 4/20

~~APPROVED~~ *DRAFT* MA ON SHAN OUTLINE ZONING PLAN NO. S/MOS/22*A*

EXPLANATORY STATEMENT

~~APPROVED~~ ***DRAFT*** MA ON SHAN OUTLINE ZONING PLAN NO. S/MOS/22***A***

EXPLANATORY STATEMENT

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~~APPROVED~~ *DRAFT* MA ON SHAN OUTLINE ZONING PLAN NO. S/MOS/22*A*

(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*** Ma On Shan Outline Zoning Plan (OZP) No. S/MOS/22***A***. 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

2.1 Under the power delegated by the then Governor, the then Secretary for Lands and Works, directed the Board on 10 July 1987, under section 3(1)(a) of the Town Planning Ordinance (the Ordinance), to prepare an outline zoning plan for the Ma On Shan area. Since the exhibition of the draft Ma On Shan OZP No. S/MOS/1 on 22 March 1991, the OZP had been amended three times to reflect the changing circumstances.

2.2 On 7 October 1997, the Chief Executive in Council (CE in C), under section 9(1)(a) of the Ordinance, approved the draft Ma On Shan OZP, which was subsequently renumbered as S/MOS/5. On 17 October 1997, the approved Ma On Shan OZP No. S/MOS/5 was exhibited for public inspection under section 9(5) of the Ordinance. On 26 October 1999, the CE in C referred the approved Ma On Shan OZP No. S/MOS/5 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. The OZP was subsequently amended twice to reflect the changing circumstances.

2.3 On 21 November 2000, the CE in C, under section 9(1)(a) of the Ordinance, approved the draft Ma On Shan OZP, which was subsequently renumbered as S/MOS/8. On 1 December 2000, the approved Ma On Shan OZP No. S/MOS/8 was exhibited for public inspection under section 9(5) of the Ordinance. On 25 September 2001, the CE in C referred the approved Ma On Shan OZP No. S/MOS/8 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. The OZP was subsequently amended four times to reflect changing circumstances.

2.4 On 5 October 2004, the CE in C, under section 9(1)(a) of the Ordinance, approved the draft Ma On Shan OZP, which was subsequently renumbered as S/MOS/13. On 15 October 2004, the approved Ma On Shan OZP No. S/MOS/13 was exhibited for public inspection under section 9(5) of the Ordinance. On 19 February 2008, the CE in C referred the approved Ma On Shan OZP No. S/MOS/13 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. The OZP was subsequently amended two times to reflect changing circumstances.

2.5 On 1 June 2010, the CE in C, under section 9(1)(a) of the Ordinance, approved the draft Ma On Shan OZP, which was subsequently re-numbered as S/MOS/16. On 11 June 2010, the approved Ma On Shan OZP No. S/MOS/16 was exhibited for public inspection under section 9(5) of the Ordinance. On 8 November 2011, the CE in C referred the approved Ma On Shan OZP No. S/MOS/16 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. The OZP was subsequently amended once to reflect changing circumstances.

2.6 On 30 July 2013, the CE in C, under section 9(1)(a) of the Ordinance, approved the draft Ma On Shan OZP, which was subsequently renumbered as S/MOS/18. On 9 August 2013, the approved Ma On Shan OZP No. S/MOS/18 was exhibited for public inspection under section 9(5) of the Ordinance. On 8 October 2013, the CE in C referred the approved Ma On Shan OZP No. S/MOS/18 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. The OZP was subsequently amended once to reflect changing circumstances.

2.7 On 2 December 2014, the CE in C, under section 9(1)(a) of the Ordinance, approved the draft Ma On Shan OZP, which was subsequently renumbered as S/MOS/20. On 12 December 2014, the approved Ma On Shan OZP No. S/MOS/20 was exhibited for public inspection under section 9(5) of the Ordinance. ~~On 3 February 2015, the CE in C referred the approved Ma On Shan OZP No. S/MOS/20 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. The reference back of the OZP was notified in the Gazette on 13 February 2015 under section 12(2) of the Ordinance.~~

2.8 ***On 3 February 2015, the CE in C referred the approved Ma On Shan OZP No. S/MOS/20 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance.*** ~~On 27 March 2015, the draft Ma On Shan OZP No. S/MOS/21, incorporating amendments~~ ***The OZP was subsequently amended*** to rezone a site to the east of Yiu Sha Road from ***"Government, Institution or Community" (***"G/IC"***)*** to "Residential (Group C)3" and a site at Hang Kin Street from "O" and an area shown as 'Road' to "Residential (Group A)10" ***("R(A)10")***, ***and*** was exhibited for public inspection under section 5 of the Ordinance. ~~During the two-month exhibition period, a total of 699 representations were received. On 19 June 2015, the representations were published for public comments. During the first three weeks of the publication period, a total of 25 comments were received. After giving consideration to the representations and comments on 25 September 2015, the Board decided not to propose any amendment to the draft OZP to meet the representations.~~ ***On 5 January 2016, the CE in C, under section 9(1)(a) of the Ordinance, approved the draft Ma On Shan OZP, which was subsequently renumbered as S/MOS/22. On 15 January 2016, the approved Ma On Shan OZP No. S/MOS/22 was exhibited for public inspection under section 9(5) of the Ordinance.***

2.9 ~~On 5 January 2016, the CE in C, under section 9(1)(a) of the Ordinance, approved the draft Ma On Shan OZP, which was subsequently renumbered as S/MOS/22. On 15 January 2016, the approved Ma On Shan OZP No. S/MOS/22 (the Plan) was exhibited for public inspection under section 9(5) of the Ordinance.~~ ***On 12 February 2019, the CE in C referred the approved Ma On Shan OZP No. S/MOS/22 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. The reference back of the OZP was notified in the Gazette on 22 February 2019 under section 12(2) of the Ordinance.***

2.10 On XX X 2020, the draft Ma On Shan OZP No. S/MOS/23 (the Plan) was exhibited for public inspection under section 5 of the Ordinance. The main admendments to the Plan include the rezoning of three housing sites to the east and west of Cheung Muk Tau Village and at the lower end of Ma On Shan Tsuen Road from "Green Belt" ("GB") to "R(A)11"; the rezoning of a housing site along Ma On Shan Tsuen Road from "GB" to "Residential (Group B)6"; the rezoning of three sites along Ma On Shan Tsuen Road from "GB" to "G/IC"; and the rezoning of a site along Mui Tsz Lam Road from "GB" to "Other Specified Uses" annotated "Sewage Treatment Works".

3. OBJECT OF THE PLAN

3.1 The object of the Plan is to indicate the broad land-use zones and major transport networks for Ma On Shan so that development and redevelopment within Ma On Shan can be put under statutory planning control. It also provides the planning framework for preparing more detailed non-statutory plans which form the basis for public works planning and site reservation for various uses.

3.2 The Plan is to illustrate the broad principles of development and planning control only. It is a small-scale plan and the transport alignments and boundaries between the land-use zones may be subject to minor adjustments as detailed planning proceeds.

3.3 Since the Plan is to show broad land use zonings, there would be situations in which small strips of land not intended for building development purposes and carry no development right under the lease, such as the areas restricted as non-building area (NBA) or for garden, slope maintenance and access road purposes, are included in the residential zones. The general principle is that such areas should not be taken into account in plot ratio and site coverage calculation. Development within residential zones should be restricted to building lots carrying development right in order to maintain the character and amenity of the Ma On Shan area and not to overload the road network in this area.

4. NOTES OF THE PLAN

4.1 Attached to the Plan is a set of Notes which shows the types of uses or developments which are always permitted within the 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 Ma On Shan area, being part of Sha Tin New Town, is located in the eastern New Territories along the southern shore of Tolo Harbour. The Planning Scheme Area (the Area), about 814 hectares in size, adjoins Sha Tin in the west, and extends as far as Kwun Hang in the east. To the south and east, it is bounded by Ma On Shan Country Park, whilst to the north and west, by Tolo Harbour and Sha Tin Hoi (Tide Cove) respectively.

5.2 Most of the existing and proposed developments between Tai Shui Hang and Wu Kai Sha are of relatively high intensity. They include housing developments as well as sites used for commercial and community facilities. The development concept of the Area is to achieve a descending building height profile from the highest part in the town centre, petering out towards the peripheries. East of Whitehead, a few villages are found scattered in a green and serene setting overlooking Tolo Harbour. Along the coast of Nai Chung is a strip of land identified as a "Site of Special Scientific Interest" ("SSSI") abutting some heavily vegetated knolls. Any development, which would significantly change the character of this part of the Area, should be avoided. Recreational as well as low-density residential or GIC uses are considered to be most suitable.

5.3 The boundary of the Area is shown by a heavy broken line on the Plan. For planning and reference purposes, the Area is sub-divided into a number of smaller planning areas as shown on the Plan.

6. POPULATION

According to the ~~2011 Census~~ ***2016 By-census***, the population of the Area was ***estimated by the Planning Department as*** about ~~202,450~~ ***209,700*** persons, comprising ~~125,700~~ ***120,950*** in public housing (including Home Ownership Schemes (HOS) and Private Sector Participation Scheme (PSPS)) and ~~76,750~~ ***88,750*** in private housing including village type development. It is estimated that the total planned population would be about ~~248,891~~ ***251,300***.

7. BUILDING HEIGHT RESTRICTIONS 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 aspiration for a better living environment, a review of the Ma On Shan OZP has been taken 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 views to the ridgelines) and to provide better control on the building height of developments in the Area, building height restrictions are imposed for the development zones on the Plan.

7.2 The stepped building height concept recommended in the Urban Design Guidelines with lower buildings on the waterfront/near major open spaces has been adopted, taking into account the local area context, the local wind environment, and the need to maintain visually compatible building masses in the wider setting. In view of the topography of the Area, there are different height bands generally increasing progressively from the waterfront to inland area and decreasing progressively from the town centre and the western and eastern gateway nodes to respect the distinct urban form of the new town. The proposed building height bands help preserve public views to the ridgelines, achieve a stepped height profile, and maintain visual permeability and wind penetration and circulation as far as possible.

7.3 Specific building height restrictions for the "G/IC" and "Other Specified Uses" ("OU") zones in terms of number of storeys or metres above Principal Datum (mPD), where appropriate, which mainly reflect the existing and planned building heights of developments, have been incorporated into the Plan to provide visual and spatial relief to the high density environment of the Area.

7.4 For any site which covers a relatively large area, the development should be designed with a view to providing a variation in the height profile within the site, whilst not exceeding the maximum building height specified on the Plan.

7.5 An Expert Evaluation on Air Ventilation Assessment (AVA) has been undertaken to assess the existing wind environment and the likely impact of the proposed building heights of the development sites within the Area on the pedestrian wind environment. The building height restrictions shown on the Plan have taken the findings of the AVA into consideration.

7.6 In general, a minor relaxation clause in respect of building height restrictions is incorporated into the Notes of the Plan in order to provide incentive for developments/redevelopments with planning and design merits. Each planning application under section 16 of the Ordinance 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 a 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.

7.7 However, for any existing building with building height already exceeding the building height restrictions in terms of mPD and/or number of storeys 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 except under exceptional circumstances.

8. NON-BUILDING AREAS

8.1 According to the findings of the AVA, the major prevailing annual winds come from the east and north-east direction. In the summer, the south-west background prevailing wind flows from Shing Mun River Channel unobstructed into the south-western part of the Area. This summer wind is very important for urban thermal comfort and air ventilation. The waterbody of Tolo Harbour can create some "southeast-northwest" land and sea breeze with a slight east-west thermally driven air movement across the Area. In terms of air ventilation, the layout of the Area performs well in that the road and open space networks provide an extensive network of airpaths for necessary air ventilation. There is no major air ventilation issue for the Area. However, to further improve the airpath network, the AVA recommends a few strips of non-building/low building areas for better air ventilation of the Area.

8.2 Taking into account the findings of the AVA and other relevant factors, such as site constraints and impacts on development/redevelopment potential, three strips of NBAs are proposed on the Plan as follows:

(a) a 25m-wide strip of land across the northern part of Kam Fung Court/Chung On Estate. The NBA passes through the existing landscaped area of the public housing site and will help improve the effectiveness of the Hang Hong Street airpath and improve the air ventilation of the area. The NBA should be taken into account upon future redevelopment of the estate;

(b) a 25m-wide strip of land across the south-western part of Lee On Estate. The NBA passes through the existing landscaped area and slope area and will improve the effectiveness of the Kam Ying Road airpath. The NBA should be taken into account upon future redevelopment of the estate; and

(c) a 15m-wide strip of land along the northern boundary of the "Commercial" ("C") site in Area 77. The NBA requirement will form part of the sale conditions of the "C" site. The NBA will improve the effectiveness of southeast and northwest airpaths in the area between Ocean View and STTL 548.

The NBA requirements will not apply to underground development. Moreover, a minor relaxation clause has been incorporated in the Notes of the relevant zones to allow minor relaxation of the stated NBA restrictions as shown on the Plan under exceptional circumstance.

8.3 Furthermore, in accordance with the recommendation of the AVA, 2-storey building height restrictions are imposed for three strips of land as follows:

(a) a 16m-wide strip of land across Heng On Estate/Kam On Court with a width similar to that of Hang Tai Road. The strip of land passes through the existing open space, landscaped area and portion of a shopping centre of Heng On Estate and will improve the effectiveness of Ma On Shan Road breezeway towards Ma On Shan Sports Ground. The 2-storey building height restriction should be taken into account upon future redevelopment of the estate; and

(b) two strips of land (15 m-wide each) within the "Comprehensive Development Area (1)" zone at Lok Wo Sha. The two strips of land are in line with the view corridors incorporated in the approved Master Layout Plan (MLP) for the Lok Wo Sha Development. The land strips are subject to a building height restriction of 2 storeys to cater for the height of a podium structure of the Lok Wo Sha Development under the approved MLP.

As the 2-storey building height restriction is stipulated for better air ventilation of the area, basement floor may be disregarded when determining the maximum number of storeys.

8.4 As for the town centre, the AVA recommended that the area bounded by Ma On Shan Bypass and the waterfront should be free of building or as permeable as possible (for example, include large voids in podium) upon redevelopment, if any. It is important to continue to intensify the greenery as much as possible in this area. Although the sites around the town centre have already been fully developed, this recommendation should be taken into account for planning consideration of any redevelopment of the area in future.

9. LAND-USE ZONINGS

9.1 Commercial ("C") : Total Area 0.50 ha

9.1.1 This zone is intended primarily for commercial developments, which may include shop, services, place of entertainment and eating place, functioning mainly as local shopping centre serving the immediate neighbourhood. A "C" site located on the northern side of Sai Sha Road in Planning Area 77 is planned for a commercial/office development to serve the local population.

9.1.2 In order to control the building density and avoid over-development, the site zoned "C" is restricted to a maximum non-domestic plot ratio of 3. Development and redevelopment within this zone is subject to maximum building height restriction as stipulated on the Plan, or the height of the existing building, whichever is the greater. Minor relaxation of the building height and/or plot ratio restrictions may be considered by the Board on application under section 16 of the Ordinance. The criteria given in paragraph 7.6 above would be relevant for assessment for minor relaxation of building height restrictions. Each application for minor relaxation of building height and/or plot ratio restrictions will be considered on its own merits.

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

9.2 Comprehensive Development Area ("CDA") : Total Area 18.86 ha

9.2.1 This zone is intended for comprehensive development/redevelopment of the area for recreational, residential and/or commercial uses with the provision of open space and other supporting facilities. 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.

9.2.2 Pursuant to section 4A(1) of the Ordinance, any development in this zone would require approval of the Board by way of a planning application under section 16 of the Ordinance. A MLP should be submitted in accordance with the requirements as specified in the Notes of the Plan for the approval of the Board pursuant to section 4A(2) of the Ordinance. A copy of the approved MLP will be made available for public inspection pursuant to section 4A(3) of the Ordinance.

9.2.3 This zoning comprises the "CDA(1)" site near Lok Wo Sha, and "CDA(2)" and "CDA(3)" sites at the southern part of the Whitehead headland:

(i) "CDA(1)" site near Lok Wo Sha : Total Area 12.74 ha

This site covers an extensive area occupied mainly by construction sites and two wooded areas in the western part of the site. A major part of a known archaeological site (i.e. the Wu Kai Sha Site of Archaeological Interest) also falls within the area.

The site is intended for medium-density residential and commercial development to be developed in a comprehensive manner. A 24-hour pedestrian walkway will be provided within the "CDA(1)" zone to connect with the Ma On Shan Rail (the MOS Rail) Wu Kai Sha Station to its south and a proposed covered footbridge to be provided by the Government to its north leading to the "CDA(2)" zone. This would serve the residents and visitors travelling between the railway station to its south and the recreational facilities at the Whitehead headland. As the southern side of the site is subject to road traffic noise from Sai Sha Road, adequate noise mitigation measures should be provided.

The site is divided into two sub-areas. Area (a), which comprises the central part of the site, is intended for medium-density residential development and is subject to a maximum domestic plot ratio of 3 and a maximum non-domestic gross floor area (GFA) of 10,000m^2, and a maximum building height in terms of number of storeys or mPD as stipulated on the Plan. A "stepped height" building profile descending from the southern part to the northern part of the site is required. ~~One primary school and one~~

~~secondary school or other~~ ~~c~~***C***ompatible GIC uses will be provided within this area. ~~The site area that will be occupied by free-standing purpose-designed schools will be deducted in calculating the relevant site area.~~ Existing trees within the area should be preserved as far as practicable. Area (b) includes two sites on the western side of the "CDA(1)" site which are designated as a NBA for tree preservation and replanting purposes and would not be accountable for site area calculation. Minor boundary adjustment of Areas (a) and (b) may be permitted at the MLP submission stage provided that the total NBA not accountable for site area calculation remains unchanged.

(ii) "CDA(2)" site at the southwestern part of the Whitehead headland : Total Area 3.77 ha

The site occupies the southwestern part of the Whitehead headland and comprises elevated platforms with vegetation on the slopes. It will be served by the local distributor road to the immediate south of the site. The site is intended for low to medium-density residential development to be developed in a comprehensive manner. It will be accessible to a proposed covered footbridge to be provided by the Government which will be connected to the 24-hour pedestrian walkway provided within the adjacent "CDA(1)" site. This would serve the residents and visitors travelling between Wu Kai Sha Station to its further south and the recreational facilities at the Whitehead headland. The site is subject to a maximum GFA of 40,000m^2 and a maximum building height in terms of mPD as stipulated on the Plan. Given its waterfront location, podium structure should be avoided.

(iii) "CDA(3)" site at the southeastern part of the Whitehead headland : Total Area 2.35 ha

The site occupies the southeastern part of the Whitehead headland and comprises elevated platforms with vegetation on the slopes. It will be served by the local distributor road to the immediate south of the site. The site is intended for low to medium-density residential development to be developed in a comprehensive manner. The site is subject to a maximum GFA of 30,000m^2 and a maximum building height in terms of number of storeys or mPD as stipulated on the Plan. Given its waterfront location, podium structure should be avoided.

9.2.4 Minor relaxation of the building height and/or plot ratio/GFA restrictions may be considered by the Board on application under section 16 of the Ordinance. The criteria given in paragraph 7.6 above would be relevant for assessment for minor relaxation of building height restrictions. Each application for minor relaxation of building height and/or plot ratio/GFA restrictions will be considered on its own merits.

9.2.5 However, for any existing building with plot ratio/GFA already exceeding the plot ratio/GFA restrictions as shown on the Notes of the

Plan, there is a general presumption against such application for minor relaxation except under exceptional circumstances.

9.3 Residential (Group A) ("R(A)") : Total Area ~~84.67~~ ***89.77*** ha

9.3.1 This zone is intended primarily for high-density residential developments. Commercial uses are always permitted on the lowest three floors of a building or in the purpose-designed non-residential portion of an existing building. The lowest three floors of a building include basements but exclude any floor used wholly or mainly for ancillary car parking, loading/unloading bay and/or plant room. Commercial uses on any floor above the lowest three floors will require planning permission from the Board.

9.3.2 Sites in Planning Areas 75, 77, 86, 90, 90B, 92, 100, 103 and 108 zoned for this purpose are intended for public housing development including public rental estates, HOS as well as PSPS. Within these developments, local open spaces and neighbourhood shopping and community facilities are provided to serve the needs of the residents.

9.3.3 Existing public rental estates include Yan On Estate and Heng On Estate in Planning Area 86, Chung On Estate in Planning Area 90, Yiu On Estate in Planning Area 92 and Lee On Estate in Planning Area 108. Six HOS developments have been completed. They ~~are~~ ***include*** Kam Tai Court in Planning Area 77, Kam On Court in Planning Area 86, Kam Fung Court in Planning Area 90, Kam Hay Court in Planning Area 92, Kam Ying Court in Planning Area 103 and Kam Lung Court in Planning Area 108. Two major PSPS developments have also been completed, one in Planning Area 75 - Chevalier Garden and the other in Planning Area 103 - Saddle Ridge Garden. Fok On Garden and Fu Fai Garden in Planning Area 100 are two smaller scale PSPS developments.

9.3.4 All the private "R(A)" developments at the town centre in Planning Area 100 have been completed and occupied.

9.3.5 Developments or redevelopments in areas zoned "R(A)" are subject to a maximum domestic plot ratio of 5 or a maximum non-domestic plot ratio of 9.5, or the plot ratio of the existing building, whichever is the greater. They are also subject to the maximum building height restrictions as stipulated on the Plan, or the height of the existing building, whichever is the greater. The stipulated plot ratio restriction is the maximum only. All public housing estates are also governed by planning briefs. Any increase in GFA/plot ratio must be supported by relevant assessment on the infrastructural implications e.g. traffic impact assessment, drainage impact assessment and sewage impact assessment.

9.3.6 The three sites occupied by Chevalier Garden, Kam On Court and Kam Ying Court are zoned "R(A)1", "R(A)2" and "R(A)3" respectively. They are subject to maximum plot ratio restrictions or the plot ratio of the existing building, whichever is the greater. Their plot ratio restrictions are as follows:

Site	Zoning	Maximum Total Plot Ratio
Chevalier Garden	"R(A)1"	3
Kam On Court	"R(A)2"	3.8
Kam Ying Court	"R(A)3"	4.6

They are also subject to the maximum building height restriction as stipulated on the Plan, or the height of the existing building, whichever is the greater.

9.3.7 The four sites occupied by Ma On Shan Centre, Bayshore Towers, Sunshine City Phase V (Tolo Place) and Sunshine City Phase IV are zoned "R(A)4", "R(A)5", "R(A)6" and "R(A)7" respectively. They are subject to maximum GFA restrictions or the GFA of the existing building, whichever is the greater. In order to ensure that essential commercial floorspace would be provided to serve the function of the town centre, non-domestic GFA restriction is specified. Their GFA restrictions are as follows:

Site	Zoning	Maximum Domestic GFA (m^2)	Maximum Non-domestic GFA (m^2)
Ma On Shan Centre	"R(A)4"	54,544	7,620
Bayshore Towers	"R(A)5"	57,300	30,000
Sunshine City Phase V (Tolo Place)	"R(A)6"	40,400	5,650
Sunshine City Phase IV	"R(A)7"	114,618	50,240

The above sites are also subject to the maximum building height restrictions as stipulated on the Plan, or the height of the existing building, whichever is the greater.

9.3.8 Yan On Estate and its proposed extension in Planning Area 86 is zoned "R(A)8" for public ~~rental~~ housing development and another piece of land opposite to Yan On Estate across Ma On Shan Road is zoned "R(A)9" for ~~HOS~~ ***subsidised sale flats*** development. Both sites are subject to maximum plot ratio restrictions or the plot ratio of the existing building, whichever is the greater. Their plot ratio restrictions are as follows:

Site	Zoning	Maximum Domestic Plot Ratio	Maximum Non-domestic Plot Ratio
Yan On Estate	"R(A)8"	6	0.5
Ma On Shan Road Site	"R(A)9"	5.5	0.3

They are also subject to the maximum building height restriction as stipulated on the Plan, or the height of the existing building, whichever is the greater.

9.3.9 In the "R(A)8" zone, a number of GIC facilities including a kindergarten, a Day Care Centre for the Elderly, a Supported Hostel for Physically/Mentally Handicapped Persons, a Special Child Care Centre, ~~and~~ an Early Education and Training Centre, ***a Residential Care Home***

for the Elderly and an Integrated Children and Youth Services Centre Sub-base, as well as ancillary recreation, retail and commercial facilities will be provided. ***The use of premises for GIC facilities would be subject to change to cope with the prevailing demand as requested by relevant departments.***

9.3.10 A piece of land at Hang Kin Street in Area 90B is zoned "R(A)10" for public housing development subject to a maximum plot ratio of 6 or the plot ratio of the existing building, whichever is the greater. It is also subject to a maximum building height restriction as stipulated on the Plan, or the height of the existing building, whichever is the greater. The western part of the land falls within a geological fault zone/an area with underground cavities and the northern boundary of the land is designated for Drainage Reserve. The eastern boundary of the land would also need to set back for access purpose. Such constraints ~~will~~ ***would*** be taken into account in ~~the design stage of~~ the proposed development. Besides, environmental assessment and sewerage impact assessment should be conducted and appropriate mitigation measures should be provided to minimize the potential impacts.

9.3.11 Three sites, one to the east and the other to the west of Cheung Muk Tau Village, and one at the lower end of Ma On Shan Tsuen Road are zoned "R(A)11" for housing developments subject to a maximum plot ratio of 6.8 or the plot ratio of the existing building, whichever is the greater. It is also subject to a maximum building height restriction as stipulated on the Plan, or the height of the existing building, whichever is the greater.

9.3.~~11~~***12*** At the detailed design stage, quantitative air ventilation studies will need to be conducted for the housing developments within the "R(A)8", "R(A)9", "R(A)10" and ***"R(A)11"*** sites to further refine the development layout and the relevant mitigation measures from the air ventilation perspectives.

9.3.~~12~~***13*** Planning brief(s) setting out the development parameters, design requirements and the relevant technical assessments to be conducted for individual public housing site(s) will be provided to guide the future development of the site(s).

9.3.~~13~~***14*** Minor relaxation of the building height and/or plot ratio/GFA restrictions may be considered by the Board on application under section 16 of the Ordinance. The criteria given in paragraph 7.6 above would be relevant for assessment for minor relaxation of building height restrictions. Each application for minor relaxation of building height and/or plot ratio/GFA restrictions will be considered on its own merits.

9.3.~~14~~***15*** However, for any existing building with plot ratio/GFA already exceeding the plot ratio/GFA restrictions as shown on the Notes of the Plan, there is a general presumption against such application for minor relaxation except under exceptional circumstances.

9.4 Residential (Group B) ("R(B)") : Total Area ~~20.77~~ ***23.50*** ha

9.4.1 This zone is intended primarily for medium-density residential developments where commercial uses serving the residential neighbourhood may be permitted on application to the Board. ~~This zone includes areas in the northern part of Planning Area 77, the southern part of Planning Area 90, the eastern part of Planning Area 92 and Planning Area 108, a site at Hang Kwong Street in Planning Area 92, a site at Ma Kam Street in Planning Area 103 and a site to the south of the existing Wu Kai Sha Youth Village in Planning Area 110 and a site at Lok Wo Sha Lane in Planning Area 111.~~

9.4.2 ~~Two of these "R(B)" sites which are designated for Sandwich Class Housing development have been completed. Other "R(B)" sites in the Area are planned for private residential developments.~~ ***This zone includes areas in the northern part of Planning Area 77, the southern part of Planning Area 90, the eastern part of Planning Area 92 and Planning Area 108, a site at Hang Kwong Street in Planning Area 92, a site at Ma Kam Street in Planning Area 103 and a site to the south of the existing Wu Kai Sha Youth Village in Planning Area 110, a site at Lok Wo Sha Lane in Planning Area 111 and a site along Ma On Shan Tsuen Road. On land designated "R(B)6", a 150-place Residential Care Home for the Elderly should also be provided at the site.***

9.4.3 The "R(B)" zone is sub-divided into a number of sub-areas. These sub-areas have different restrictions on the development intensity and these restrictions are specified in the Remarks in the Notes of the Plan. They are also subject to the maximum building height restrictions as stipulated on the Plan, or the height of the existing building, whichever is the greater. These restrictions are required to provide a variety of housing mix. Minor relaxation of the building height and/or plot ratio/GFA restrictions may be considered by the Board on application under section 16 of the Ordinance. The criteria given in paragraph 7.6 above would be relevant for assessment for minor relaxation of building height restrictions. Each application for minor relaxation of building height and/or plot ratio/GFA restrictions will be considered on its own merits.

9.4.4 However, for any existing building with plot ratio already exceeding the plot ratio/GFA restriction as shown in the Notes of the Plan, there is a general presumption against such application for minor relaxation except under exceptional circumstances.

9.5 Residential (Group C) ("R(C)") : Total Area 11.05 ha

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

9.5.2 Two sites at Cheung Muk Tau and a site in Whitehead in Planning Area 111 are zoned for this use. Plot ratio and building height restrictions are imposed in the Notes of the Plan for residential developments within this zoning. The zoning is further sub-divided into three sub-areas, each with its own specific plot ratio and building height restrictions. All these

restrictions are necessary for preserving the general amenity and the rural character of Planning Area 111 as well as ensuring that the development intensities will not overload the road network. In addition, these restrictions can ensure that the future development within this zone will be compatible with the nearby institution/community and recreational uses as well as the surrounding rural setting; and help to maintain the ridgeline of Ma On Shan as the backdrop of the Area as viewed from the other side of Tolo Harbour.

9.5.3 Minor relaxation of the building height and/or plot ratio restrictions may be considered by the Board on application under section 16 of the Ordinance. The criteria given in paragraph 7.6 above would be relevant for assessment for minor relaxation of building height restrictions. Each application for minor relaxation of building height and/or plot ratio restrictions will be considered on its own merits.

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

9.6 Village Type Development ("V") : Total Area 30.88 ha

9.6.1 The planning intention of this zone is to designate both existing recognised villages and areas of land considered suitable for village expansion. Land within this zone is primarily intended for development of Small Houses by indigenous villagers. It is also intended to concentrate village type development within this zone for a more orderly development pattern, efficient use of land and provision of infrastructures and services. Selected commercial and community uses serving the needs of the villagers and in support of the village development are always permitted on the ground floor of a New Territories Exempted House. Other commercial, community and recreational uses may be permitted on application to the Board. In order to ensure that any future development or redevelopment within these villages would retain the village character, a restriction of a maximum building height of 3 storeys (8.23m) or the height of the existing buildings, whichever is the greater, is imposed under this zoning.

9.6.2 Within the Area, there are altogether eight recognized villages covered by this zoning. They are Tai Shui Hang, Mui Tsz Lam, Ma On Shan Tsuen, Wu Kai Sha (comprising the areas of Cheung Kang, Wu Kwai Sha New Village, Kwai Po Lau and Lok Wo Sha), Cheung Muk Tau, Sai O, Nai Chung and Kwun Hang.

9.6.3 In the delineation of the boundaries of the proposed "V" zones, consideration has been given to the Small House demand forecast, the village 'environs' and geographical constraints.

9.6.4 As Mui Tsz Lam and Ma On Shan Tsuen are located at the hillslopes of Ma On Shan, building works for village housing and associated road access could result in excessive cutting of hillslopes and subsequent visual impact. Particular attention should therefore be paid to avoid

adverse visual impact caused by any proposed developments at these areas. The two villages also lie within the upper indirect water gathering grounds and in the vicinity of streams. As such, it would be necessary to ensure control on effluents from proposed developments at these areas.

9.6.5 According to the Territorial Land Drainage and Flood Control Strategy Study Phase I, Cheung Muk Tau is located within a flood plain which is subject to overland flow and inundation during heavy rainfall. Any development at this village should therefore be strictly controlled. To avoid aggravating flood risk in the area, proper drainage mitigation measures should be identified for implementation in conjunction with proposed developments at this village.

9.7 Government, Institution or Community ("G/IC") : Total Area ~~63.77~~ ***65.61*** ha

9.7.1 This zone is intended primarily for the provision of GIC 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.

9.7.2 Existing GIC facilities serving a wider community include Wu Kai Sha Youth Village in Planning Area 110, Li Po Chun United World College and a holiday centre for the elderly in Planning Area 111, and a regional police headquarters in Planning Area 103.

9.7.3 Existing/planned GIC facilities serving mainly the local community include a swimming pool complex, an indoor recreation centre cum library, a sub-divisional fire station, an ambulance depot cum training school, and a sports complex in Planning Area 92, a health and welfare building in Planning Area 90, a sewage pumping station and an electricity sub-station in Planning Area 86, a site for social welfare facilities and other GIC facilities in Area 100, the indoor recreation centre cum community hall and other facilities ~~to be considered by the Leisure and Cultural Services Department (LCSD)~~ at Area 103, and the indoor recreation centre at Lok Wo Sha Lane.

9.7.4 The "G/IC" sites in the area near the eastern end of Planning Area 81 have been developed as a service reservoir. Another "G/IC" site in the area is planned for the development of another service reservoir. The "G/IC" site in Planning Area 81 near Kam Ying Court has been developed as Ma On Shan Service Reservoir and Ma On Shan Salt Water Reservoir. The "G/IC" site near To Tau is planned for the development of a sewage pumping station.

9.7.5 The three "G/IC" sites along Ma On Shan Tsuen Road are reserved for a primary school, a pumping station, and a fresh water service reservoir and a salt water service reservoirs to support the planned housing developments.

9.7.~~5~~***6*** A number of primary and secondary schools have been provided and planned within the Area. Also included under this zoning are sites for

churches and telephone exchanges~~, and a proposed government office development~~.

9.7.~~6~~***7*** When detailed planning and development for the Area proceeds, local community facilities such as kindergartens and neighbourhood centres will be provided within the public housing estates and the large private residential developments.

9.7.~~7~~***8*** Development and redevelopment within the "G/IC" zone is subject to building height restrictions as stipulated on the Plan or the height of the existing building, whichever is the greater. Minor relaxation of the building height restrictions may be considered by the Board on application under section 16 of the Ordinance. Each application for minor relaxation of building height restriction will be considered on its own merits, taking into account the relevant criteria as set out in paragraph 7.6 above.

9.8 Recreation ("REC") : Total Area 14.95 ha

9.8.1 The site comprises a large piece of flat land at the northern part of the Whitehead headland. The planning intention of this zone is primarily for comprehensive recreational developments for the use of the general public. It encourages the development of sports, active and/or passive recreation and tourism/eco-tourism. Given its waterfront location, it may also be suitable for water-related recreational uses and the natural shoreline should be preserved as far as possible. Major recreational/sports facilities and uses in support of the recreational developments may be permitted subject to planning permission. The site is subject to a maximum building height in terms of number of storeys or mPD as stipulated on the Plan. Consideration should be given to keep the building height at the waterfront to a minimum to avoid potential visual impact.

9.8.2 Minor relaxation of the building height restriction may be considered by the Board on application under section 16 of the Ordinance. The criteria given in paragraph 7.6 above would be relevant for assessment for minor relaxation of building height restriction. Each application for minor relaxation of building height restriction will be considered on its own merits. Given its waterfront location, podium structures should be avoided.

9.9 Open Space ("O") : Total Area 38.71 ha

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

9.9.2 Open space provision in the Area is planned in the form of a continuous network. The open spaces are designed to link Ma On Shan Country Park to the shoreline of Tide Cove/Tolo Harbour. The main feature is the district open space on the waterfront in Planning Area 100, which has been developed as Ma On Shan Park to serve the Area. A waterfront

promenade running from Tai Shui Hang in the south up to Ma On Shan Park in the north has been completed.

9.9.3 In response to the "green finger" concept adopted in the overall planning of the Area, three strips of open spaces running in an east-west direction will be developed in the Area. They serve as green visual corridors separating the high-density developments. They are located to the south and to the north of Heng On Estate and to the north of Yiu On Estate.

9.9.4 In addition to the major open spaces as indicated on the Plan, local open spaces will also be provided within the public housing estates and the large private residential developments for the enjoyment of local residents.

9.10 Other Specified Uses ("OU") : Total Area ~~13.02~~ ***13.51*** ha

9.10.1 This zone is intended for specific development(s) and/or uses, which is/are specified in the annotation of the zone.

9.10.2 A site in the north-eastern part of Planning Area 108 has been developed for a railway station and a public transport interchange with a commercial/residential development. The Ma On Shan Rail terminates at this point and is provided with pedestrian linkages and bus feeder services to serve the surrounding areas. Developments or redevelopments in this "OU" site are subject to a maximum domestic GFA of 168,650m^2, a maximum non-domestic GFA of 4,000m^2 and a maximum GFA of 15,066m^2 for the public transport interchange, or the GFA of the existing building, whichever is the greater. The GFA of the railway station may be exempted from GFA calculation.

9.10.3 Ma On Shan Water Treatment Works at Kwun Hang in Planning Area 81 serves to provide chlorinated water to the Area.

9.10.4 Three existing petrol filling stations in Planning Areas 86 and 92 are also covered by this zoning.

9.10.5 The existing pier for Wu Kai Sha Youth Village in Planning Area 110 and a proposed pier in Planning Area 100 are also covered by this zoning.

9.10.6 In response to the recommendations of the Visitor and Tourism Study for Hong Kong, a site at the waterfront in Area 100 is designated and has been developed specifically for hotel use. Restrictions on plot ratio and building height are imposed on the site to ensure compatibility with the surrounding developments.

9.10.7 A site at Nai Chung is designated for educational and recreational development. Recreational uses compatible with the overall setting of the area are permitted as of right. The development of a school in this zone requires planning permission from the Board in order to ensure adequate planning control on the proposed use through the submission of layout plan. Moreover, development or redevelopment within the zone is subject to a maximum GFA of 17,800m^2 and a maximum building

height of seven storeys. Minor relaxation of the stated restrictions may be considered by the Board on application under section 16 of the Ordinance. Each proposal will be considered on its own merits. For any development on this site, special attention should be made to ensure no adverse impact on the surrounding environment (particularly the Nai Chung SSSI).

9.10.8 An "OU" annotated "Pedestrian Link with Retail Facilities" zone is indicated on the Plan to provide a pedestrian link connecting the public housing developments on both sides of Ma On Shan Road. This footbridge will serve as a major pedestrian connection for easy access to the Ma On Shan Town Centre and the Ma On Shan Rail Heng On Station. Given the length of the footbridge (about 100m), subject to the Housing Department (HD)'s feasibility study, some retail facilities can be provided along this walkway to help create a better walking experience. As the footbridge is located at the southern entrance of Ma On Shan and would be visually prominent, special consideration would be given by HD to its design so that it would serve to signify a gateway into the new town.

9.10.9 A site to the south of Chevalier Garden along Mui Tsz Lam Road in Planning Area 75 is designated as "OU" annotated "Sewage Treatment Works" to facilitate the relocation of the Sha Tin Sewage Treatment Works to cavern.

9.10.~~9~~***10*** Developments or redevelopments in the "OU" sites are subject to maximum building heights in terms of mPD or number of storeys as stipulated on the Plan or at the Notes of the Plan. Minor relaxation of the building height and/or plot ratio/GFA restrictions may be considered by the Board on application under section 16 of the Ordinance. The criteria given in paragraph 7.6 above would be relevant for assessment for minor relaxation of building height restrictions. Each application for minor relaxation of building height and/or GFA restrictions will be considered on its own merits.

9.10.~~10~~***11*** However, for any existing building with plot ratio/GFA already exceeding the plot ratio/GFA restrictions as shown on the Notes of the Plan, there is a general presumption against such application for minor relaxation except under exceptional circumstances.

9.11 Green Belt ("GB") : Total Area ~~404.53~~ ***393.96*** ha

9.11.1 The planning intention of this zone is primarily for defining the limits of urban and sub-urban development areas by natural features and to contain urban sprawl as well as to provide passive recreational outlets. The "GB" zone also provides a buffer between the developments in the Area and the adjacent Ma On Shan Country Park. There is a general presumption against development within this zone.

9.11.2 The land within this zoning comprises mainly the hill slopes to the south of Ma On Shan Bypass. The existing wooded knoll near Starfish Bay and the area to the southwest of Li Po Chun United World College are also under this zoning.

9.12 Conservation Area ("CA"): Total Area 11.86 ha

9.12.1 This zoning is intended to protect and retain the existing natural landscape, ecological, topographical or archaeological features of the Area for conservation, educational and research purposes and to separate sensitive natural environment such as the SSSI from the adverse impacts of development. There is a general presumption against development in this zone. In general, only developments that are needed to support the conservation of the existing natural landscape or scenic quality of the Area or the development is an essential infrastructure project with overriding public interest may be permitted. The coastal areas in the eastern and western parts of the Whitehead headland and along Starfish Bay and To Tau are zoned "CA" in recognition of their ecological and archaeological values.

9.12.2 The eastern and western coastal areas of the Whitehead headland include patches of dense, undisturbed and mature plantations which support a number of bird species. Starfish Bay has long been recognized as a site of ecological interest for academic investigation of inter-tidal habitats and the associated fauna. It is important both as a natural resource asset and because of its educational and scientific values. The "CA" zone at Starfish Bay together with the Nai Chung SSSI would form a continuous conservation belt along the coastline. In addition, the "CA" zone at To Tau covers a mature coastal woodland and a prehistoric archaeological site identified on the raised beach south of To Tau, which are of ecological and archaeological values respectively.

9.12.3 Uses in support of the conservation purposes such as nature reserve, field study centre, education centre and visitor centre are permitted as of right. New developments which are not necessary to support the conservation objectives are not permitted in this zone. Only a selective range of uses such as public convenience and refreshment kiosk which would have insignificant impact on the ecology, environment and infrastructural provision of the area may be permitted with or without conditions on application to the Board.

9.13 Site of Special Scientific Interest ("SSSI") : Total Area 2.48 ha

9.13.1 The planning intention of this zone is to conserve and protect the features of special geological interest which are designated as SSSI. It intends to deter human activities or developments within the SSSI. There is a general presumption against development in this zone. No developments are permitted unless they are needed to support the conservation of the features of special scientific interest in the SSSI, to maintain and protect the existing character of the SSSI, or for educational and research purposes.

9.13.2 The Nai Chung SSSI, which is of geological interest, was designated on 24 September 1982. It extends about 0.9 km along the coast of Nai Chung near Li Po Chun United World College. Within this SSSI, good contact of granite with sediments and traces of black carboneous shales are found. These are all rare geological features in Hong Kong.

9.14 Country Park ("CP") : Total Area 0.60 ha

9.14.1 Country Park means a country park or special area as designated under the Country Parks Ordinance (Cap. 208). All uses and developments require consent from the Country and Marine Parks Authority and approval from the Board is not required.

9.14.2 The only site in the Area covered by this zoning is Nai Chung Barbecue Site located along Sai Sha Road in Planning Area 81. This site forms part of Ma On Shan Country Park.

10. COMMUNICATIONS

10.1 A comprehensive transportation system comprising roads, pedestrian ways and cycle tracks has been planned for the Area. Only the major road networks (including trunk roads, primary and district distributors) are indicated on the Plan.

10.2 External road links are provided in three directions. Road T6 (comprising a bridge and road interchanges) links the Area with Tolo Highway for access to the northern New Territories. To the south-west, Ma On Shan Road provides connection to Tate's Cairn Tunnel which links up with East Kowloon. Sai Sha Road in the east gives direct access to Sai Kung. Internally, Ma On Shan Bypass, which connects Ma On Shan Road to Sai Sha Road, skirts the south-east of the main development area of the Area. A hierarchy of distributor roads has been planned to provide safe and convenient access to the various planning areas.

10.3 Extensive pedestrian and cycle track networks have been planned to link up the residential developments with open spaces, community facilities, and the Town Centre as far as possible. They are, wherever possible, segregated from the road network.

10.4 Initially, public transport was only provided by buses and green minibuses. The East Rail Extension – Tai Wai to Ma On Shan (the MOS Rail) was completed in 2004 and provides a convenient passenger link connecting Ma On Shan with Tai Wai via the Sha Tin hinterland. The MOS Rail is provided with interchange facilities with the existing East Rail in Tai Wai. The MOS Rail comprises five stations and a maintenance centre in Sha Tin. Four stations fall within Ma On Shan (Tai Shui Hang, Heng On, Ma On Shan and Wu Kai Sha).

10.5 A new ferry pier is proposed near Ma On Shan Park in Planning Area 100 to cater for possible ferry services, public vessels and pleasure boats.

11. UTILITY SERVICES

11.1 Water Supply

Fresh water supply and sea water supply for flushing are generally available to low-lying area in the Area. Fresh water supply is provided by Ma On Shan Water Treatment Works via Ma On Shan Fresh Water Primary and Secondary Service Reservoirs. Sea water supply is provided by Sha Tin Seafront Salt Water Pumping Station via Ma On Shan Salt Water Service Reservoir.

11.2 Sewage Treatment

The sewage in the Area will be pumped via rising mains to the Sewage Treatment Works in Planning Area 47 in Sha Tin. The Drainage Services Department is proceeding with the Stage III extension to the Sewage Treatment Works for completion in 2010. There is at present no sewer serving the area to the north of Lok Wo Sha in Area 111. The proposed development at Whitehead and the area near Lok Wo Sha will tie in with the upgrading of the sewerage system in the Ma On Shan area.

11.3 Public Utilities

Close liaison and consultation with the various utility companies have been maintained in the planning and development of the Area. Adequate provision has been made for utility networks and for installations such as telephone exchanges and electric sub-stations.

12. CULTURAL HERITAGE

12.1 Three sites of archaeological interest are located within the Area, namely Pak Kong – Mui Tsz Lam Trackway (partial), Wu Kai Sha Site of Archaeological Interest, and Che Ha Site of Archaeological Interest (partial). There are ~~two~~ ***seven*** graded historic buildings in the Area, namely Cheung Village House at No. 6 Tai Shui Hang (Grade 3) ~~and,~~ Cheung Village Houses at Nos. 16-18 Tai Shui Hang (Grade 3), ***Exterior walls of 240ML and 110ML, Ma On Shan Iron Mine (Grade 2), Mineral Preparation Plant, Ma On Shan Iron Mine (Grade 3), Site Structures at Mining Settlement, Ma On Shan Iron Mine (Grade 3), Lutheran Yan Kwong Church (Grade 3) and St. Joseph's Church (Grade 2)***.

12.2 ***On 19 March 2009, t***~~T~~he Antiquities ~~and~~ Advisory Board (AAB) released ***the list of 1,444 historic buildings, in which the building/structures within the Area have been accorded gradings. The AAB also*** released a number of new items in addition to the list of 1,444 historic buildings. These items are subject to the grading assessment by AAB. Details of the list of 1,444 historic buildings and its new items have been uploaded onto the official website of AAB at http://www.aab.gov.hk.

12.3 Prior consultation with the Antiquities and Monuments Office (AMO) ~~of LCSD~~ should be made if any development, redevelopment or rezoning proposals might affect the above sites/historic buildings**,** new items and their immediate environs.

12.4 If disturbance of the sites of archaeological interest is unavoidable, a detailed Archaeological Impact Assessment (AIA) conducted by a qualified archaeologist is required for development works within the sites. The archaeologist shall apply for a license to conduct the AIA under the Antiquities and Monuments Ordinance (Cap.53). A proposal of the AIA shall be submitted to AMO for agreement prior to applying for a license.

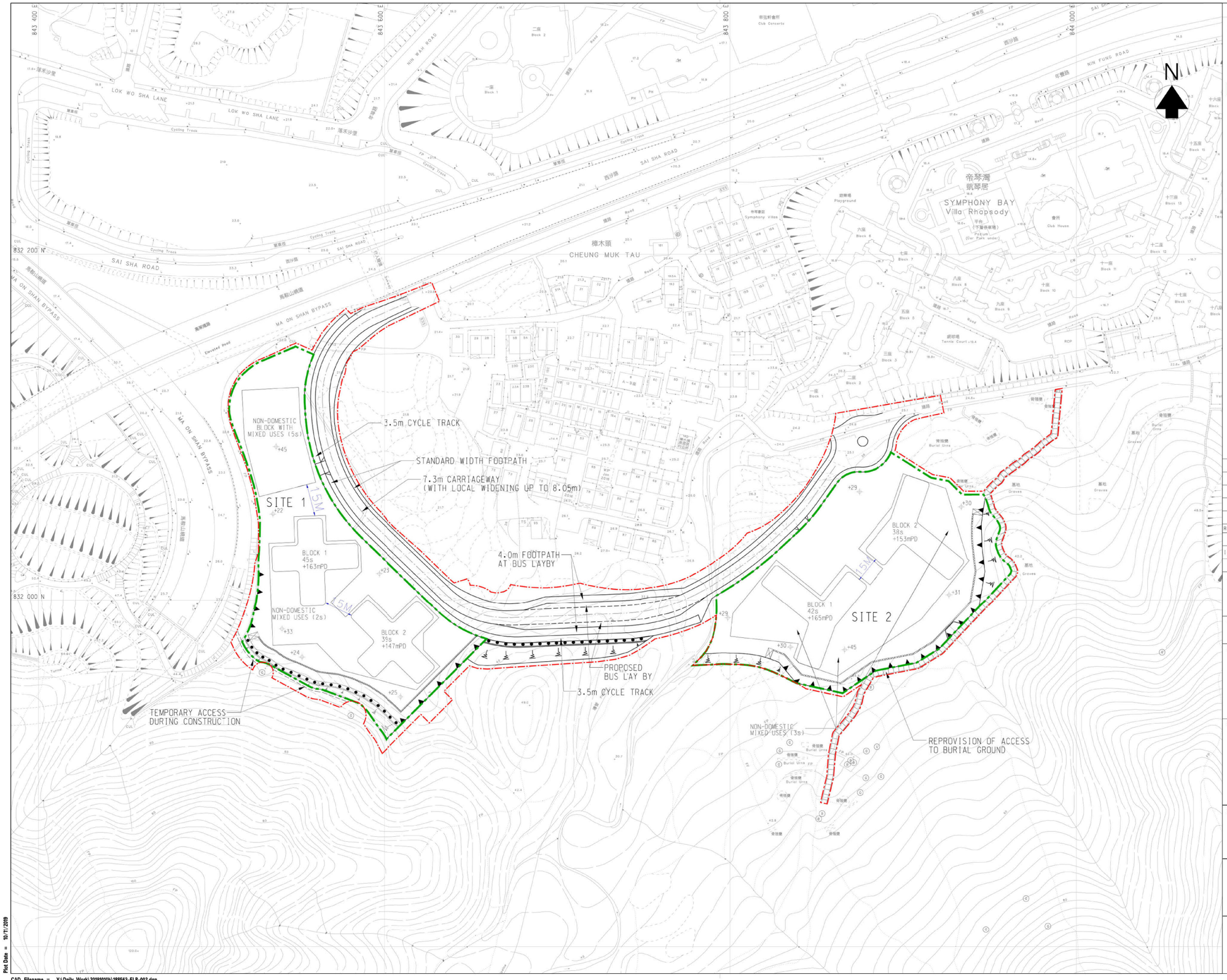
13. IMPLEMENTATION

13.1 Although existing uses non-conforming to the statutory zonings are tolerated, any material change of use and any other development/redevelopment must be always permitted in terms of the Plan or, if permission is required, in accordance with the permission granted by the Board. The Board has published a set of guidelines for the interpretation of existing use in the urban and new town areas. Any person who intends to claim an "existing use right" should refer to the guidelines and will need to provide sufficient evidence to support his claim. The enforcement of the zonings mainly rests with the Buildings Department, the Lands Department and the various licensing authorities.

13.2 The Plan provides a broad land-use framework within which more detailed non-statutory plans for the Area are prepared by the Planning Department. These detailed plans are used within the Government as the basis for public works planning and site reservation. Disposal of sites is undertaken by the Lands Department. Public works projects are co-ordinated by the Civil Engineering and Development Department in conjunction with the client departments and works departments, such as the Architectural Services Department and the Highways Department. In the course of implementation of the Plan, the Sha Tin District Council would be consulted as appropriate.

13.3 Planning applications to the Board will be assessed on individual merits. In general, the Board's consideration of the planning applications, will take into account all relevant planning considerations which may include the departmental outline development plans/layout plans, and Guidelines published by the Board. The outline development plan 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, and the Technical Services Division and the 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.

TOWN PLANNING BOARD
AUGUST 2020



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REMARKS:

1. FORMATION LEVELS WITHIN PUBLIC HOUSING SITES ARE SUBJECT TO CHANGE AT DETAILED DESIGN STAGE.

LEGEND:

- PROPOSED PUBLIC HOUSING SITE BOUNDARY
- PROPOSED SLOPE
- PROPOSED MASS CONCRETE / L-SHAPED RETAINING STRUCTURES
- PROPOSED BORED PILE WALL
- ASSESSMENT AREA
- PROPOSED CHECK DAM (SUBJECT TO DETAILED DESIGN)
- PROPOSED RIGID BARRIER (SUBJECT TO DETAILED DESIGN)

Revision	Date	Description	Initial
E	08/19	MINOR AMENDMENT	YLS
D	04/19	MINOR AMENDMENT	YLS
C	02/19	MINOR AMENDMENT	YLS
B	09/18	MINOR AMENDMENT	YLS
A	05/18	AMENDMENT DUE TO BOUNDARY CHANGE	YLS

	Designed	Checked	Drawn	Checked
Initial	JYC	CKW	SZ	LCH
Date	04/17	04/17	04/17	04/17

Approved

Agreement no.
CE 80/2014 (CE)

Project Title
SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN
- FEASIBILITY STUDY

Drawing Title
CONCEPTUAL LAYOUT PLAN AND SITE ACCESS ARRANGEMENT FOR SITES 1 AND 2

Drawing No.
188563/VIA/003

Scale
1 : 1000 (A1)
1 : 2000 (A3)

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

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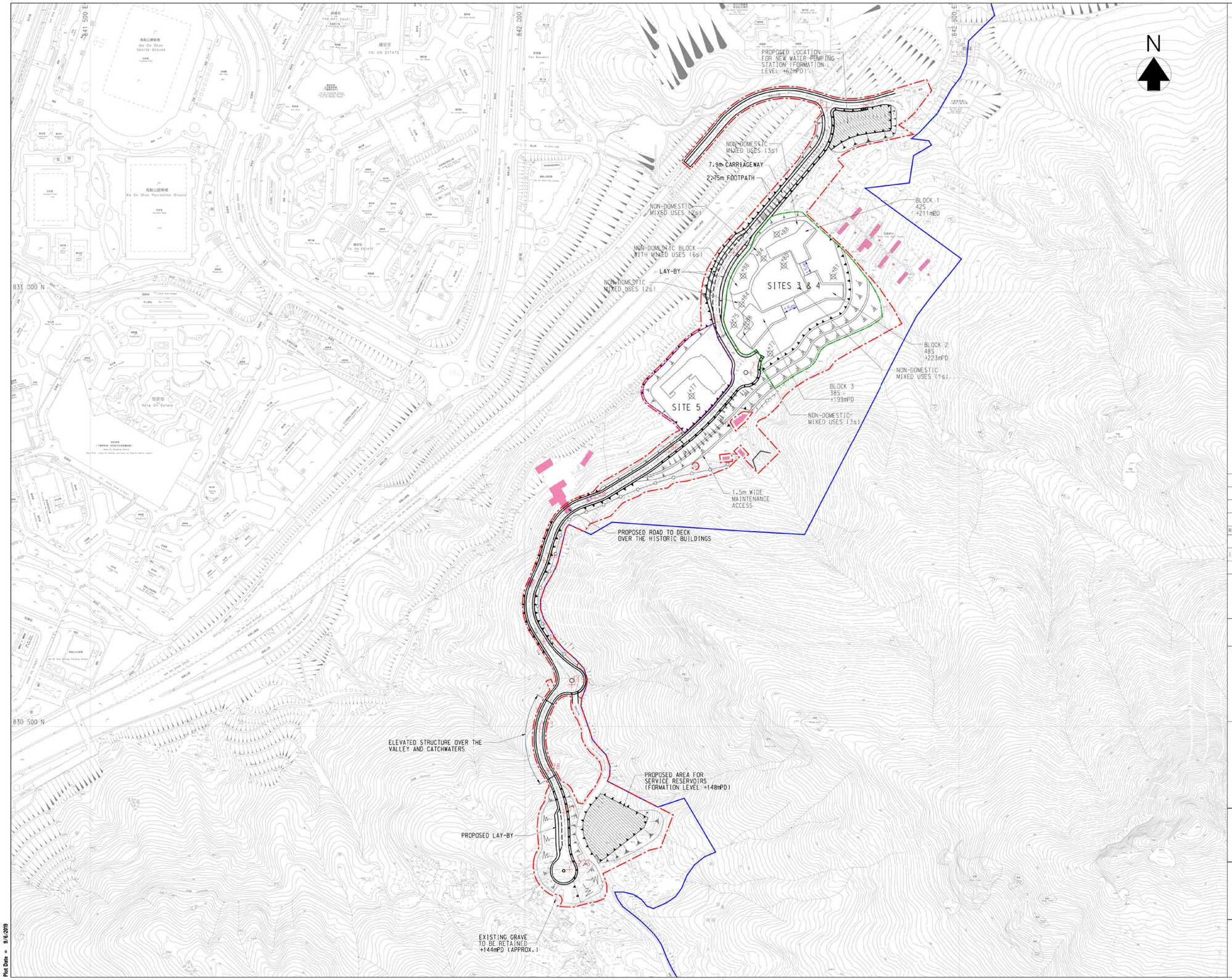
博威工程顧問有限公司

Plot Date = 10/11/2019

CAD Filename = Y:\Daily Work\20191010h\188563-ELP-002.dgn

Conceptual Layout Plan for Amendment Items A & B1
(For Reference Only and Subject to Design Review)



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REMARKS:

1. FORMATION LEVELS WITHIN PUBLIC HOUSING SITES ARE SUBJECT TO CHANGE AT DETAILED DESIGN STAGE.

LEGEND:

- PROPOSED SLOPE
- PROPOSED RETAINING WALL
- EXISTING ROAD LEVEL
- +65 PROPOSED ROAD LEVEL
- MOS COUNTRY PARK BOUNDARY
- PROPOSED PUBLIC HOUSING STTE BOUNDARY
- PROPOSED SCHOOL SITE BOUNDARY
- ASSESSMENT AREA
- GRADED HISTORIC BUILDING
- PROPOSED CHECK DAM (SUBJECT TO DETAILED DESIGN)
- PROPOSED RIGID BARRIER (SUBJECT TO DETAILED DESIGN)
- PROPOSED FLEXIBLE BARRIER (SUBJECT TO DETAILED DESIGN)

Revision	Date	Description	Initial
D	08/19	MINOR AMENDMENT	YLS
C	04/19	MINOR AMENDMENT	YLS
B	02/19	MINOR AMENDMENT	YLS
A	08/18	MINOR AMENDMENT	YLS

	Designed	Checked	Drawn	Checked
Initial	YLS	DH	SZ	LCH
Date	06/18	06/18	06/18	06/18

Approved

Agreement no.
CE 80/2014 (CE)

Project Title
SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title
CONCEPTUAL LAYOUT PLAN AND SITE ACCESS ARRANGEMENT FOR SITES 3 TO 5

Drawing No.
188563/VIA/103

Scale
1 : 2000 (A1)
1 : 4000 (A3)

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

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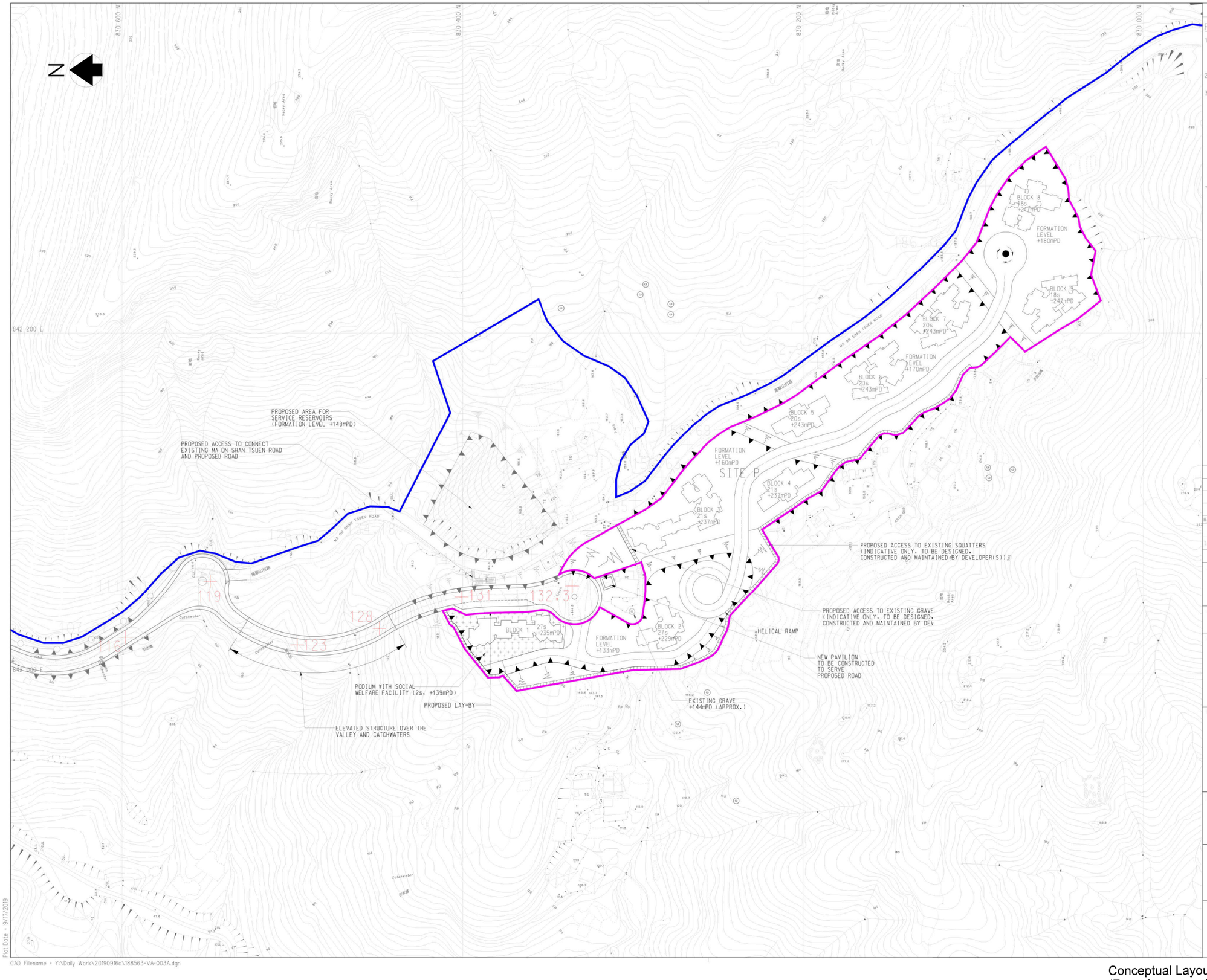
Plot Date = 9/6/2019
CAD Filename = Y:\Daily Work\20190904h\188563-VIA-103.dgn

Conceptual Layout Plan for Amendment Item D
(For Reference Only and Subject to Design Review)



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REMARKS:

1. SOME EXISTING ACCESSES TO THE NEARBY DWELLINGS / SQUATTER AREAS WOULD BE AFFECTED/ CUT-OFF BY THE PROPOSED PRIVATE LAND SALE SITES. THE RE-PROVISION OF THOSE ACCESSES ARE TO BE UNDERTAKEN BY THE DEVELOPER(S).
2. ASSOCIATED INFRASTRUCTURAL WORKS OF SITES 3 TO 5 ARE HALF-TONED.
3. ALL BLOCKS SHOWN ARE ONLY FOR THE PURPOSE OF ILLUSTRATING A FEASIBLE SCHEMATIC DESIGN FOR THE ASSESSMENT. THE FUTURE BUILDING LAYOUT WILL BE SUBJECT TO THE DESIGN OF THE DEVELOPER AND MAY NOT BE SQUARELY THE SAME.

LEGEND:

- PROPOSED PRIVATE HOUSING SITE BOUNDARY
- PROPOSED SLOPE
- PROPOSED RETAINING WALL
- 86.12 EXISTING ROAD LEVEL
- +65 PROPOSED ROAD LEVEL
- COUNTRY PARK BOUNDARY
- 4 FLATS PER STOREY
- 4 FLATS PER STOREY
- 5 FLATS PER STOREY
- 6 FLATS PER STOREY
- 6 FLATS PER STOREY
- 8 FLATS PER STOREY
- PROPOSED CHECK DAM (SUBJECT TO DETAILED DESIGN)
- PROPOSED FLEXIBLE BARRIER (SUBJECT TO DETAILED DESIGN)

Revision	Date	Description	Initial
D	08/19	MINOR AMENDMENT	YLS
C	06/19	MINOR AMENDMENT	YLS
B	03/19	MINOR AMENDMENT	YLS
A	11/18	MINOR AMENDMENT	YLS

	Designed	Checked	Drawn	Checked
Initial	YLS	DH	SZ	LCH
Date	06/18	06/18	06/18	06/18

Approved

Agreement no.
CE 80/2014 (CE)

Project Title
SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title
ASSUMED BUILDING BLOCK LAYOUT OF SITE P

Drawing No.
188563/VA/003

Scale
1 : 1000 (A1)
1 : 2000 (A3)

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

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Plot Date = 9/17/2019

CAD Filename = Y:\Daily Work\20190916c\188563-VA-003A.dgn

Conceptual Layout Plan for Amendment Item G
(For reference only)

Agreement No. CE 80/2014 (CE)

Site Formation and Infrastructural Works for Eight Housing Sites in Ma On Shan - Feasibility Study

FINAL REPORT

April 2020

(188563/B&V/067/Issue 3)

土木工程拓展署
Civil Engineering and Development Department

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Building a world of difference.

Agreement No. CE 80/2014 (CE)

Site Formation and Infrastructural Works for Eight Housing Sites in Ma On Shan – Feasibility Study

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Final Report

188563/B&V/067/Issue 3

April 2020

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LIST OF ABBREVIATIONS

Abbreviation	Meaning
AMO	Antiquities and Monuments Office
API	Aerial Photograph Interpretation
AQO	Air Quality Objectives
ASR	Air Sensitive Receiver
ATC	Annual Traffic Census
AVA	Air Ventilation Assessment
BDTM	Base District Traffic Model
C/HDG	Completely Decomposed to Highly Decomposed Granite
C&D	Construction & Demolition
CEDD	Civil Engineering and Development Department
DIA	Drainage Impact Assessment
DP	Designated Project
DSD	Drainage Services Department
EAS	Environmental Assessment Study
EB	Eastbound
EIAO	Environmental Impact Assessment Ordinance
EPD	Environmental Protection Department
FEP	Further Environmental Permit
FS	Feasibility Study
FSP	Fine Suspended Particulates
FW	Fresh Water
GB (Zoning)	Green Belt
GEO	Geotechnical Engineering Office
GFA	Gross Floor Area
GI	Ground Investigation
GLA	Government Land Allocations
GLL	Government Land License
GMB	Green Minibus
G/IC (Zoning)	Government, Institution or Community
HD	Housing Department
HKPSG	Hong Kong Planning Standards and Guidelines
I, D&C	Investigation, Design and Construction
LandsD	Lands Department
LCA	Landscape Characteristic Area
LR	Landscape Resource
MOS	Ma On Shan
MOSCP	Ma On Shan Country Park
MOSSPS	Ma On Shan Sewerage Pumping Station
MOST FWPH	Ma On Shan Tsuen Fresh Water Pump House
MOST FWT	Ma On Shan Tsuen Fresh Water Tank
MOSTR	Ma On Shan Tsuen Road

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Abbreviation	Meaning
MOSWTW	Ma On Shan Water Treatment Works
MOS108SPS	Ma On Shan 108 Pumping Station
NB	Northbound
NSR	Noise Sensitive Receiver
NTHS	Natural Terrain Hazard Study
OZP	Outline Zoning Plan
pcu	Passenger Car Unit
PES	Preliminary Environmental Study
PGA	Preliminary Geotechnical Appraisal
PME	Powered Mechanical Equipment
PPOF	Person Per Occupied Flat
PRH	Public Rental Housing
PTTIA	Preliminary Traffic and Transportation Impact Assessment
QPME	Quality Powered Mechanical Equipment
R (Zoning)	Residential
RC	Reserve Capacity
RCHE	Residential Care Home for the Elderly
RFC	Ratio of Flow to Capacity
RSP	Respirable Suspended Particulates
SB	Southbound
SSF	Subsidised Sale Flats
S/R	Service Reservoir
SW	Salt Water
SWL	Sound Power Level
TD	Transport Department
TGLA	Temporary Government Land Allocation
TPDM	Transport Planning & Design Manual
TPEDM	Territorial Population and Employment Data Matrices
TPRP	Tree Preservation and Removal Proposal
TSP	Total Suspended Particulates
VEB	Village Environ Boundary
VEP	Variation of Environmental Permit
VIA	Visual Impact Assessment
VP	Viewing Point
V/C Ratio	Volume to Capacity Ratio
WB	Westbound
WSD	Water Supplies Department
ZVI	Zone of Visual Influence

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1 INTRODUCTION

1.1 Project Background

1.1.1 Several sites at various locations in Ma On Shan (MOS), namely Sites 1 and 2 near Cheung Muk Tau Tsuen and Sites 3 to 5 as well as Sites A, C & D (finally combined and renamed to Site P) alongside Ma On Shan Tsuen Road (MOSTR) have been identified as potential sites for housing development. The locations of the proposed sites are shown in ***Figure 188563/ELP/001***.

1.1.2 Black & Veatch Hong Kong Limited (B&V) was commissioned by the Civil Engineering and Development Department (CEDD) under Agreement No. CE 80/2014 (CE) in April 2015 to undertake the Feasibility Study (FS) for the site formation and infrastructural works for supporting the proposed housing developments at the above sites.

1.2 Project Description

1.2.1 Throughout the study period under this Agreement, the boundaries of the proposed public and private housing sites have been refined for the purpose of optimising land utilisation and addressing site constraints. The developments situate at various locations in MOS. Amongst the proposed sites, Sites 1 to 4 are proposed for public housing development, whilst Site 5 is proposed for construction of primary school. In addition, the remaining sites (i.e. Sites A, C and D) are proposed for private housing development, which are combined and renamed to Site P.

1.2.2 The aim of this FS is to assess the feasibility of site formation and infrastructural works to support the proposed housing and school developments. The works in general include:

- Site formation works for ensuing developments, including slope cutting and earth filling works, as well as geotechnical works, earth retaining structures and natural terrain hazard mitigation measures;
- Road works (including construction of new roads, footpaths, improvement and upgrading of existing roads, provision of new junction etc.);
- Drainage and sewerage infrastructures;
- Environmental mitigation measures; and
- Other infrastructural works including water supply and utility services connections (by respective agencies or utility undertakings).

1.3 Objective of this Report

1.3.1 The purpose of this Final Report is to set out the key findings, recommendations and conclusions of the Study. It also includes the recommended scope of the site formation and infrastructural works.

1.3.2 The Final Report includes:

(a) findings, proposals and recommendations of the Study including the scope of the recommended site formation and infrastructural works; and

(b) the results of the technical assessments.

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2 PROPOSED DEVELOPMENT LAYOUT PLANS AND DEVELOPMENT PARAMETERS

2.1 General

2.1.1 This chapter describes the proposed layout plans and the development parameters for the proposed development sites.

2.2 Site Description

2.2.1 The locations of the housing sites are briefly described as follows: -

- Site 1 is located at the west of Cheung Muk Tau Tsuen, bounded by the Ma On Shan Bypass to the north and west. There is no existing public road serving Site 1. Also, the eastern portion of Site 1 falls within consultation zone of the Ma On Shan Water Treatment Works (MOSWTW), which is classified as a potentially hazardous installation under the Hong Kong Planning Standards and Guidelines (HKPSG).
- Site 2 is located at the south of Symphony Bay Villa Rhapsody, which can be reached by a village track. The site also falls within the consultation of the MOSWTW .
- Sites 3&4 and Site 5 are located at the mid-level of Mount Ma On Shan. These sites are currently served by Ma On Shan Tsuen Road.
- Site P (i.e. Sites A, C and D) is located at further uphill of Sites 3&4 and Site 5 serving by Ma On Shan Tsuen Road.

2.3 Background of the Planning of "Green Belt (GB)" Sites

2.3.1 The proposed housing developments will involve rezoning of the existing Green Belt (GB) zone. In fact, such a development within "GB" has been supported and initiated by the prevailing policies in order to increase the housing land supply and meet the keen housing demand in Hong Kong. The policies have also established the rationale to select the potential sites for housing developments. This section summarises the background of the planning of the developments within the "GB" site.

2013 Policy Address - s.73 Increasing Supply of Housing Land in Short to Medium Term

2.3.2 *"The Government will take a number of strong measures to increase housing land supply in the short to medium term including Government, Institution or Community (G/IC) sites and other Government sites which would be used for housing development, and other sites in Green Belt areas which are devegetated, deserted or formed and considered suitable for rezoning for residential use. Town planning process will commence in phases with the purpose of releasing more sites for housing development."*

2017 Policy Address - s.142 Land Supply

2.3.3 *"Over the years, the Government has proposed many strategies for increasing land supply, including reclamation outside the Victoria Harbour, reviewing land uses, increasing the development intensity of sites, developing rock cavern space, speeding up urban renewal, developing the Lantau Island, etc. The departments and organisations concerned are also undertaking studies on the utilization of land on the periphery of country parks and the use of brownfield sites in the New Territories. Many proposals on land supply have also been put forward in the community. Hence, it appears that what is lacking is not ideas on how to increase land supply but a broad consensus on the pros and cons, trade-offs and priorities of different options. However, if we continued to argue repeatedly and stayed indecisive, coupled with the long lead time for land production, the tight land supply in Hong Kong would only get worse, making it even more difficult for our people to realise their aspirations for home ownership."*

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2017 Policy Address - s.144 Housing Policy

2.3.4 *"Housing is not a simple commodity. Our community has a rightful expectation towards the Government to provide adequate housing. This is also fundamental to social harmony and stability. Therefore, while maintaining respect of a free market economy, the Government has an indispensable role to play in this area; Government will focus on home-ownership to enable our people to live happily in Hong Kong and call it their home. The Government will strive to build a housing ladder to rekindle the hopes of families in different income brackets to become home-owners; focusing on supply and based on the Long Term Housing Strategy, Government will step up our effort in increasing the supply of housing units; with insufficient land and when new supply is not yet available, Government will strive to optimise the existing housing resources to meet the housing needs of families that have long been on the waiting list for public rental housing (PRH) and to help residents in poor living conditions."*

Secretary for Development to Legislative Council on 24.1.2018

2.3.5 *"As part of the multi-pronged land supply strategy, through on-going land use reviews in the last few years, the Government has identified over 210 sites with potential for housing development in the short to medium term, including 77 "Green Belt" (GB) sites identified from the two-stage GB review and other land use reviews. The first stage of GB review mainly covered GB areas which were formed, deserted or de-vegetated, but possessed potential for residential development. The second stage of GB review covered GB zones in the fringe of built-up areas close to existing urban areas and new towns, and those vegetated areas with relatively less buffering effect and lower conservation value. As with other sites rezoned for housing purposes, in proposing rezoning of GB sites, the Government will according to the established mechanism and criteria assess a host of factors, including transport and infrastructure capacity, provision of community facilities, development constraints, potential impacts on the local environment, visual and air ventilation impacts, etc. to ensure that there will not be insurmountable impact to the local community, while providing objective information to devise appropriate mitigation measures."*

2019 Policy Address - s.18 Land Supply

2.3.6 *"To meet the keen housing demands of the public, we have to increase the supply of land for housing development in a persistent manner."*

2.4 Finalized Development Layout Plans and Development Parameters

2.4.1 The site boundaries have been further refined in the feasibility study from the initial indicative layout to develop an optimised development layout by considering the following key design rationales: -

a) Land

- Maximisation of land availability for house building;
- Minimisation of land resumption area;
- Avoidance of encroachment on Village Environ Boundary (VEB) as much as possible; and
- Minimisation of disturbance to the existing graves especially ancient graves.

b) Traffic

- Provision of standard access to and from the housing and school sites.

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c) Environmental

- Minimisation of nuisance to the environments;
- Avoidance of encroachment on Country Parks;
- Minimisation of disturbance to the built heritages; and
- Minimisation of generation of construction waste.

d) Cost and Programme

- Cost effective; and
- Programme of target population intake.

2.4.2 The finalised development layouts are shown in ***Figures 188563/ELP/002*** and ***003***, and are described as follows: -

- Site boundary of Site 1 has been adjusted to avoid the resumption of the existing graves and to minimise the encroachment onto the VEB of Cheung Muk Tau Tsuen.
- Some irregular sharp corners of Site 2 have been eliminated from the initial layout to form the finalised layout.
- The finalised site boundary of Sites 3&4 has been modified to avoid any impact on the historic buildings in Shun Yee San Tsuen and environment. In addition, Site 5 is proposed to be a school site instead of a housing site in view of the regional demand.
- To reduce the impact to Ma On Shan Country Park, Site P is proposed to be connected to Ma On Shan Tsuen Road and is combined as a single site for enhancing the development potential.

2.4.3 To meet the soaring demand for public housing units, the Government recommended in the Long Term Housing Strategy Annual Progress Report 2018 to enhance the development intensity of public housing sites for ongoing projects. In view of this, the technical assessments have taken into account the latest development parameters by adopting a higher domestic plot ratio for public housing Sites 1 to 4. Based on the finalised development layouts, the development parameters for the proposed public housing development and proposed private housing development have been updated and shown in **Table 2.1** below.

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Table 2.1 – Latest Development Parameters

Name of Site	Site Area (ha)	Current (Proposed) Zoning	Proposed Domestic Plot Ratio	Proposed Non-Domestic Plot Ratio	Housing Type	Approx. Flat Number	Approx. Population from Domestic (Non-Domestic) Plot Ratio
Site 1	1.38	GB (R)	6.5	Not exceeding 0.3	SSF	1660	4650 (460)
Site 2	1.46				SSF	1820	5100 (440)
Sites 3&4	2.26				SSF (Scenario A)	2370	6640 (680)
					PRH (Scenario B)	2700	7560 (680)
Site 5	0.73	GB (G/IC)	---	---	Other (School Site)	30 classrooms	900 (---)
Site P	2.73	GB (R)	3.6	---	Private	1040	3120 (150) (see note 3)

Notes:
1. To cater for the potential demand, various retail, welfare/community and public parking facilities are proposed to be provided in public housing sites as appropriate.
2. According to HKPSG, a minimum of 1m^2 per person of local open space should be provided for the private housing development at Site P.
3. To cater for the potential demand for welfare facilities within the local community, a Residential Care Home for the Elderly (RCHE) serving about 150 people is proposed to be provided within private housing development at Site P.

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2.5 Land Use Review on Site P

2.5.1 Site P lies within the Ma On Shan Outline Zoning Plan (OZP) No. S/MOS/22, an extract of which is shown in ***Figure 188563/LUR/002***. The land use planning control of the hillside woodland of the green belt, the villages of Shun Yee San Tsuen and Ma On Shan Tsuen, the residential developments, open space and the various G/IC sites are governed by the above mentioned OZP.

2.5.2 Site P is currently zoned "GB" and consists of roads and naturally vegetated hills with several upland streams draining off the eastern natural vegetated slopes. The vegetated man-made slopes along the south of the Ma On Shan Bypass and the naturally vegetated hills further south of Site P are also zoned "GB".

2.5.3 An existing formal grave near the outer boundary of Site P would be retained. No grave, other than this formal grave, was identified within Site P preliminarily.

2.5.4 The existing Ma On Shan Tsuen Road is proposed to be upgraded and extended to connect Site P. The access to the new pavilion and the existing grave near Site P will be reprovided.

2.5.5 The western boundary of Site P is further refined to eliminate irregular corners presented in the initial indicative layout. Such adjustment will enhance the flexibility for the design of building block layout.

2.5.6 The boundary of Site P has also been refined to avoid the impact to Ma On Shan Country Park, provide clearance of a temple (天后古媽) and cater for the irregular shape at the southeast corner.

2.5.7 The mild gradient over Site P with local inclination less than 20 degrees suggests that such topography would not impose insurmountable technical constraints to the proposed private development.

2.5.8 As shown in the aerial photograph in ***Figure 188563/LUR/002A***, a few structures with man-made features are found existed in the vicinity of Site P. To a certain extent, the natural landscape of these hillside areas has been disturbed. Extensive tree felling or slope cutting is not anticipated, and minimum environmental impacts is envisaged.

2.5.9 According to the land status information, Site P will affect government land only and no private land will be affected. Land resumption is therefore not required.

2.5.10 Some existing temporary structures are identified within Site P currently. Some are them are covered by Government Land Licences (GLLs). The affected GLLs will be terminated to make way for the proposed development. Rehousing arrangement to eligible squatter occupants will be made accordingly. It is envisaged, through the re-housing arrangement, the level of objection, if any, would be reduced to a minimum.

2.5.11 The delimiting exercise of the boundary has taken into account the topography, structures nearby, environmental issue, and land requirement considerations to avoid any obstruction hindering the site formation, clearance and resumption of land. Hence, the boundary of Site P is justified.

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3 TRAFFIC AND TRANSPORTATION

3.1 General

3.1.1 This chapter provides a summary of the key findings in the Preliminary Traffic and Transportation Impact Assessment (PTTIA). The existing and planned road networks and traffic impacts due to the proposed developments are presented.

3.2 Existing Road Networks

3.2.1 The proposed development sites are located at the eastern side of the Ma On Shan area. Site 1 and Site 2 are now connected to Sai Sha Road through Nin Fung Road, which is the access road to Cheung Muk Tau Tsuen. On the other hand, Sites 3&4, 5, and Site P are connected to Ma On Shan Road through Ma On Shan Tsuen Road.

3.2.2 Currently, the roads leading to the sites include Nin Fung Road, the access road to Cheung Muk Tau Tsuen, Ma On Shan Tsuen Road, Sai Sha Road and Ma On Shan Road. They are described as follows:-

- Nin Fung Road is a single 2-lane local road running parallel to Sai Sha Road. It connects the existing Villa Rhapsody (Symphony Bay) as well as Cheung Muk Tau Tsuen with Sai Sha Road.
- The access road to Cheung Muk Tau Tsuen is a sub-standard single-track access road connecting the existing Cheung Muk Tau Tsuen and Nin Fung Road.
- Ma On Shan Tsuen Road comprises a single 2-lane local road partially and a single-track access road connecting uphill Ma On Shan Tsuen and the Ma On Shan Country Pa, and is connected to the downhill roundabout of Ma On Shan Road/Hang Hong Street.
- Sai Sha Road consists of a dual 3-lane carriageway (between Ma On Shan Road/Hang Tak Street and the roundabout of Sai Sha Road/Nin Wah Road/Nin Fung Road) and a single-2 lanes carriageway (between the roundabout of Sai Sha Road/Nin Wah Road/Nin Fung Road and Tai Mong Tsai Road). Sai Sha Road provides the connection between the Ma On Shan area and the Sai Kung area. In addition, its eastern end connects with Tai Mong Tsai Road leading to Sai Kung, whilst its western end connects with Ma On Shan Road leading to Kowloon and New Territories and Hang Tak Street leading to Sha Tin.
- Ma On Shan Road is a dual 3-lane carriageway between Hang Shun Street and the roundabout of Ma On Shan Road/Hang Hong Street, whilst it is a dual-2 lanes carriageway between roundabout of Ma On Shan Road/Hang Hong Street and Sai Sha Road.

3.3 Existing Traffic Conditions

3.3.1 Traffic surveys in form of manual classified counts had been carried out during the periods from 07:30 to 09:30 and from 17:00 to 19:00 on a typical weekday in year 2019 with a view to determining the existing traffic demand of the local road network in the Ma On Shan area during peak periods. The locations of the surveyed road links and junctions are shown in ***Figure No. 188563/TIA/001***.

3.3.2 According to observed traffic data, the AM and PM peak hour flows occur from 07:45 to 08:45 and from 17:45 to 18:45 respectively.

3.3.3 Existing road link performances are summarized in **Table 3.1** below.

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Table 3.1 - Existing Road Link Performance

Ref.	Road	Direction	Capacity (pcu/hr)	2019 Observed Flow (pcu/hr)		V/C Ratio	
				AM Peak	PM Peak	AM Peak	PM Peak
J5A	Slip Road from Tate's Cairn Highway (NB) to Tate's Cairn Highway (WB)	-	4000	2575	2445	0.64	0.61
J5B	Slip Road from Tate's Cairn Highway (EB) to Tate's Cairn Highway (SB)	-	4000	3405	1840	0.85	0.46
J5C	Slip Road from Ma On Shan Road (SB) to Tate's Cairn Highway (WB)	-	1900	1380	930	0.73	0.49
J5D	Slip Road from Tate's Cairn Highway (EB) to Ma On Shan Road (NB)	-	1900	1135	1370	0.60	0.72
J5B+J5D	Tate's Cairn Highway across Shing Mun River (T6 Bridge)	EB	4000	4540	3210	**1.14**	0.80
J5A+J5C		WB	4000	3955	3375	0.99	0.84
J12A	Slip Road from Ma On Shan Bypass (NB) to Sai Sha Road (WB)	-	1900	395	265	0.21	0.14
J12B	Slip Road from Sai Sha Road (EB) to Ma On Shan Bypass (SB)	-	4000	460	210	0.12	0.05
J12C	Slip Road of Sai Sha Road EB	-	1900	355	350	0.19	0.18
J12D	Slip Road of Sai Sha Road WB	-	1900	315	335	0.17	0.18
L1	Tolo Highway (North of Chak Cheung Road)	NB	8200	6450	7010	0.79	0.85
		SB	8200	7485	5945	0.91	0.73
L2	Science Park Road	NB	2850	1110	720	0.39	0.25
		SB	2850	865	925	0.30	0.32
L3	Tate's Cairn Highway (South of Ma On Shan Road)	NB	6100	3915	4000	0.64	0.66
		SB	6100	5985	3275	0.98	0.54
L4	A Kung Kok Street	Two-way	2000	1165	905	0.58	0.45
L5	Ma On Shan Road (Between Sai Sha Road Interchange and Ma On Shan Bypass)	NB	5250	1655	2025	0.32	0.39
		SB	5250	2470	1600	0.47	0.30
L6	Sai Sha Road (Between Kam Yin Road and Wu Kai Sha Road)	EB	2800	540	570	0.19	0.20
		WB	2800	660	520	0.24	0.19
L7	Ma On Shan Bypass	EB	6100	745	860	0.12	0.14
		WB	6100	1465	770	0.24	0.13
L8	Sai Sha Road (East of Nin Wah Road)	Two-way	2080	1605	1565	0.77	0.75
L9	Ma On Shan Tsuen Road	NB (uphill)	1040	15	15	0.01	0.01
		SB (downhill)	1040	40	20	0.04	0.02
L10	Access road to Cheung Muk Tau	Two-way	940	50	10	0.08	0.06

Note:
(1) According to TPDM Volume 2 Chapter 4 Table 4.6.8.1, +70% corrections to predicted flow was adopted for Main Line with 7% - 8% Uphill and 15% of Heavy Vehicle.

3.3.4 The existing operational performances of the key junctions are summarized in **Table 3.2** below:-

Table 3.2 - Existing Junction Performance

Ref.	Junction	Method of Control	2019 RC/RFC(1)	
			AM Peak	PM Peak
J1	Chak Cheung Street/Tolo Highway	Roundabout	0.71	0.63
J2	Chak Cheung Street/Science Park Road	Roundabout	0.84	0.76
J3	Chak Cheung Street/Sui Cheung Road	Roundabout	0.51	0.59
J4	Sui Cheung Street/Kiu Ha Road	Signal	>100%	>100%
J6	Sai Sha Road/Hang Fai Street	Roundabout	0.54	0.34
J7	Sai Sha Road/Hang Hong Street	Signal	38%	55%
J8	Sai Sha Road/On Yuen Street / On Luk Street	Signal	63%	70%
J9	Sai Sha Road/Ma On Shan Road/On Chiu Street	Signal	69%	98%
J10	Sai Sha Road/Kam Ying Road	Signal	79%	91%
J11	Sai Sha Road/Wu Kai Sha Road/Sha On Street	Roundabout	0.27	0.22
J13	Sai Sha Road/Nin Wah Road/Nin Fung Road	Roundabout	0.47	0.36
J14	On Chun Street/On Yuen Street	Signal	98%	>100%
J15	On Chun Street/On Chiu Street	Signal	>100%	>100%
J16	On Luk Street/On Shing Street (West)	Priority	0.32	0.41
J17	On Luk Street/On Shing Street (East)	Roundabout	0.29	0.50
J18A	Ma On Shan Road/On Luk Street (West)	Priority	0.15	0.23
J18B	Ma On Shan Road/On Luk Street (East)	Priority	0.17	0.17
J19	Ma On Shan Road/Kam Ying Road	Signal	>100%	>100%
J20	Ma On Shan Road/Hang Hong Street	Roundabout	0.36	0.30
J21	Ma On Shan Tsuen Road/Access Road to Ma On Shan Salt Water Service Reservoir	Priority	0.01	0.01

Note: (1) RC = Reserve Capacity, RFC = Ratio of Flow to Capacity

3.3.5 Based on the preliminary capacity assessments for the key road links and junctions from the observed traffic data, the key road links and junctions could perform within their capacities except for the eastbound of Tate's Cairn Highway across Shing Mun River (T6 Bridge) which is operating between 1.0 and 1.2 during AM peak, which means traffic speed is reduced.

3.4 Existing Public Transportation Services

3.4.1 In adjacent to the Sites 1 and 2, there is no public transport service operating along Nin Fung Road and the access road to Cheung Muk Tau Tsuen. At present, the closest bus/GMB stops are located at Sai Sha Road.

3.4.2 There are no public transport services operating along existing Ma On Shan Tsuen Road around Sites 3&4, 5 and Site P. Nevertheless, there is one existing residents' service Route No. NR84 serving Ma On Shan Tsuen and Ma On Shan Station (Sunshine City) with some special departures plying between Ma On Shan Tsuen and Yiu On Estate.

3.5 Proposed Access Arrangements and Public Transport Facilities

Proposed Access Arrangements

Sites 1 and 2

3.5.1 The access road to Cheung Muk Tau Tusen is currently a sub-standard single track access road. The access road will be partially re-constructed to include a roundabout near the Site 2 to connect with the proposed new road serving the Sites 1 and 2, whilst the new road will also connect with the existing Nin Fung Road. The proposed local road network serving for Sites 1 and 2 is shown on ***Figure No. 188563/ELP/002***.

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Sites 3&4, Site 5 and Site P

3.5.2 Ma On Shan Tsuen Road comprises a single 2-lane local road and single track access road. As shown on ***Figure No. 188563/ELP/003***, the existing junction of Ma On Shan Tsuen Road / access road to the Ma On Shan Salt Water Service Reservoir (J21) would be modified and relocated to form a priority junction to allow access to the Sites 3&4. Starting from this priority junction to the roundabout near Sites 3&4, the existing Ma On Shan Tsuen Road will be re-aligned and upgraded to 7.9m wide single 2-lane carriageway with 2.75m wide footpath on both sides of the carriageway. From the roundabout near Sites 3&4 to Site P, the carriageway will be 7.3m wide with 2.0m wide footpath. At the end of the upgraded Ma On Shan Tsuen Road (i.e. near Site P), there will be a proposed cul-de-sac.

3.5.3 The design of the proposed upgrading of Ma On Shan Tsuen Road meets the TPDM requirements. After the upgrading works of Ma On Shan Tsuen Road, the road section between the priority junction and the new roundabout near the access of the Sites 3&4 will not exceed 8% in gradient. Nevertheless, the remaining road section after the new roundabout until the cul-de-sac near the Site P has to be maintained around 10% gradient in order to re-join with the existing Ma On Shan Tsuen Road as soon as the topography allows, having regard to the need of avoiding conflicts with some graded heritage structures as far as possible.

Proposed Arrangement on Public Transport Facilities / Services

Sites 1 and 2

3.5.4 As shown in ***Figure 188563/ELP/002***, a pair of on-street bus laybys are proposed at the middle of the Site 1 and the Site 2 on the proposed new road with an aim to cater for two bus routes to serve both the Sites 1 & 2. Each proposed bus layby will be able to accommodate three buses for their terminal facilities. It is anticipated that the residents would probably rely on the bus services as their major transport mode.

Sites 3&4, Site 5

3.5.5 As shown in ***Figure 188563/ELP/003***, a pair of over 70m laybys (excluding taper) is proposed near Sites 3&4, which comprise a layby for two bus routes (total of 56m for four 12.8m bus stacking spaces), a 16m GMB stand for two 19-seats GMB, an around 25m taxi stand and a 50m general layby to cater the demand for the proposed housing developments together with the proposed school in Site 5.

Site P

3.5.6 Upon commission of Site P, there will be a population increase of about 3,120 persons along Ma On Shan Tsuen Road. As shown in ***Figure 188563/ELP/003***, a 40m long layby near Site P to cater for extra GMB services or resident's services operating along the upgraded Ma On Shan Tsuen Road is proposed to be provided to serve such increase due to the private development. The layby would be able to accommodate bus, GMB services or resident's services.

3.6 Approach for Traffic Forecast

Overview

3.6.1 In order to carry out the traffic forecast, the base year and future year traffic models for weekday AM & PM peaks are developed using the 2016-based Territorial Population and Employment Data Matrices (TPEDM), 2015 Base District Traffic Model (BDTM), 2017 Annual Traffic Census (ATC) Report and latest planning assumptions for providing traffic forecast.

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3.6.2 The population intake of the proposed developments will occur in years 2029 to 2032 tentatively. Thus, the design year adopted is year 2035 (3 years after latest population intake's year), which is the worst case scenario.

Future Year Networks & Planning Data Assumptions

3.6.3 The strategic highway network assumptions are presented in **Table 3.3** to **Table 3.6** for years 2021, 2026, 2031 and 2036 . **Table 3.7** shows the future railway network assumptions.

Table 3.3 2021 Strategic Road Network Assumptions

2021 Road Network Assumption (In Addition To Existing Network)	Configuration(1)
Kowloon	
Proposed Road Improvement Works in West Kowloon Reclamation Development – Phase 1	S1
Road Improvement Works for South East Kowloon Development	S2/D2/D3
New Territories	
Route 6 (formerly Route 11) – Tseung Kwan O – Lam Tin Tunnel	D2
Tuen Mun - Chek Lap Kok Link (Southern Connection to Tung Chung)	D2
Tuen Mun – Chek Lap Kok Link (Northern Connection)	D2
Widening of Tolo Highway/Fanling Highway between Island House Interchange and Fanling (Stage 2 – Section between Tai Hang and Wo Hop Shek Interchange)	D4
Connecting Road from Fanling Highway to Liantang/Heung Yuen Wai Boundary Control Point	D2
Dualling of Hiram's Highway between Clear Water Bay Road and Marina Cove	D2
Widening of section of Lin Ma Hang Road between Ping Che Road and Tsung Yuen Ha	S2(2)
Flyover from Kwai Tsing Interchange Upramp to Kwai Chung Road	S1
Improvements to Fan Kam Road	S2

Notes:
(1) Highway marked with D2 configuration represents a dual carriageway with 2 traffic lanes per direction. Likewise, highways marked with D3, D4 and D5 configuration represent dual carriageways with 3, 4 and 5 traffic lanes per direction respectively. A highway marked with S2 configuration is a single carriageway with 1 traffic lane per direction.
(2) The configuration of these proposed highways varies at different sections of the road.

Table 3.4 2026 Strategic Road Network Assumptions

2026 Road Network Assumption (In Addition To 2021 Road Network)	Configuration(1)
Kowloon	
New Slip Roads for West Kowloon Reclamation Development (Phase 1)	S1
Road Improvement Works in West Kowloon Reclamation Development (Widening of Nga Cheung Road)	S1
Road Improvement Works for South East Kowloon Development	S2/D2/D3
Route 6 (formerly Route 11) – Central Kowloon Route	D3
Route 6 (formerly Route 11) – Trunk Road T2 (Kai Tak – Cha Kwo Ling Link)	D2
Cross Bay Link at Tseung Kwan O	D2
Widening of Gascoigne Road Flyover	D2

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2026 Road Network Assumption (In Addition To 2021 Road Network)	Configuration(1)
New Territories	
North Lantau Road P1 (Tung Chung East to Tai Ho Section)	D2
Fanling Bypass Eastern Section	D2
Widening of section of Lin Ma Hang Road between Ping Yuen River and Ping Che Road	S2
Widening of section of Lin Ma Hang Road between Tsung Yuen Ha and Lin Ma Hang	S2
Widening of Fuk Hang Tsuen Road	S2
Upgrading of remaining sections of Kam Tin Road and Lam Kam Road	S2
Widening of Tai Po Road (existing remaining D2 Sha Tin Section)	D3
Widening of Castle Peak Road (Castle Peak Bay Section)	D2

Note:
(1) Highway marked with D2 configuration represents a dual carriageway with 2 traffic lanes per direction. Likewise, highways marked with D3, D4 and D5 configuration represent dual carriageways with 3, 4 and 5 traffic lanes per direction respectively. A highway marked with S2 configuration is a single carriageway with 1 traffic lane per direction.

Table 3.5 2031 Strategic Road Network Assumptions

2031 Road Network Assumption (In Addition To 2026 Network)	Configuration(1)
New Territories	
Widening of Tsuen Wan Road, Extension of Existing Vehicular Bridge at Texaco Road and the Associated Junction Improvement Works	D4/D5(2)
Tuen Mun Western Bypass (connecting Tuen Mun – Chek Lap Kok Link with Tsing Tin Road)	D2
Tuen Mun Western Bypass (connecting Tsing Tin Road with San Sang San Tsuen)	D2
Road Improvement Works in Hung Shui Kiu New Development Area	D2
Widening of Fanling Highway between Pak Shek Au Interchange and Po Shek Wu Interchange	D4
Dualling of Hiram's Highway between Marina Cove and Sai Kung Town(3)	D2
Trunk Road T4(4)	D2

Notes:
(1) Highway marked with D2 configuration represents a dual carriageway with 2 traffic lanes per direction. Likewise, highways marked with D3, D4 and D5 configuration represent dual carriageways with 3, 4 and 5 traffic lanes per direction respectively. A highway marked with S2 configuration is a single carriageway with 1 traffic lane per direction.
(2) The configuration of these proposed highways varies at different sections of the road.
(3) The TIA of the proposed highway is still ongoing and the programme is subject to further review.
(4) The tentative commissioning of the proposed highway is in year 2028.

Table 3.6 2036 Strategic Road Network Assumptions

2036 Road Network Assumption (In Addition To 2031 Network)	Configuration(1)
New Territories	
Road Improvement Works in Yuen Long South Development	D2
Route 11 (formerly Route 10) between North Lantau and Yuen Long comprising Lam Tei Tunnel, Tai Lam Chung Tunnel, So Kwun Wat Link Road and Tsing Lung Bridge	D3
North Lantau Road P1 (Tai Ho to Sunny Bay Section)	D2

Notes:

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(1) Highway marked with D2 configuration represents a dual carriageway with 2 traffic lanes per direction. Likewise, highways marked with D3, D4 and D5 configuration represent dual carriageways with 3, 4 and 5 traffic lanes per direction respectively. A highway marked with S2 configuration is a single carriageway with 1 traffic lane per direction.
(2) The configuration of these proposed highways varies at different sections of the road.
(3) No additional highway network will be assumed for year 2041.

Table 3.7 Railway Network Assumptions

By 2021 (In Addition to Existing Network)
Shatin to Central Link (Tai Wai to Hung Hom Section)
By 2026 (In Addition to Existing Network)
Shatin to Central Link (Hung Hom to Admiralty Section)
Northern Link and Kwu Tung Station
Tuen Mun South Extension
East Kowloon Line
West Rail Line (Hung Shui Kiu Station)
South Island Line (West)
North Island Line
Tung Chung West Extension
Tung Chung East Station
Siu Ho Wan Station
No additional railway network assumed for years 2031, 2036 and 2041

3.6.4 The additional traffic generated by the nearby planned/committed developments are also included in the traffic forecasts as shown in **Table 3.8**.

Table 3.8 Nearby Planned/Committed Developments

• Planning Application No. A/MOS/107, STTL 601, Whitehead CDA(3)
• Planning Application No. A/MOS/82, STTL 502, part of Whitehead CDA(1), i.e. Double Cove
• Planning Application No. A/NE-SSH/120, Shap Sze Heung CDA
• Planning Application No. Z/MOS/4
• Hang Tai Road MOS Area 86B Housing Project
• Ma On Shan Road Housing Project
• Hang Kin Street Housing Project
• Tai Po Town lot 213 & 214
• Tai Po Town lot 225-228
• HKSP Phase 3
• HKSP Expansion – Stage 1 (SPX1)
• STTL 611, Whitehead R(C) 3
• A/MOS/87, CDA(1) Whitehead; Residential development
• A/MOS/96, CDA(1) Whitehead; City University hostel development
• R(B)5, Residential development at Lok Wo Sha Lane

3.7 Operational Traffic Impact Assessment

3.7.1 Traffic forecasts have been developed for the design year 2035. The operational Traffic Impact Assessment identifies critical issues and recommends any associated traffic improvement schemes to alleviate the identified traffic problems as necessary.

Road Capacity Assessment

3.7.2 **Table 3.9** summarizes the traffic forecasts and V/C ratio assessments for scenarios with the proposed developments under the design year 2035.

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Table 3.9 – Road Link Capacity Assessments for Design Year 2035

Ref.	Road	Direction	Capacity (pcu/hr)	2035 Reference Scenario (Without Development)				2035 Design Scenario (With Development)			
				Flow (pcu)		V/C		Flow (pcu)		V/C	
				AM	PM	AM	PM	AM	PM	AM	PM
J5A	Slip Road from Tate's Cairn Highway (NB) to Tate's Cairn Highway (WB)	-	4000	2775	2765	0.69	0.69	2775	2765	0.69	0.69
J5B	Slip Road from Tate's Cairn Highway (EB) to Tate's Cairn Highway (SB)	-	4000	3410	2259	0.85	0.56	3410	2259	0.85	0.56
J5C	Slip Road from Ma On Shan Road (SB) to Tate's Cairn Highway (WB)	-	1900	1608	943	0.85	0.50	1797	1068	0.95	0.56
J5D	Slip Road from Tate's Cairn Highway (EB) to Ma On Shan Road (NB)	-	1900	1099	1431	0.58	0.75	1252	1571	0.66	0.83
J5B + J5D	Tate's Cairn Highway across Shing Mun River (T6 Bridge)	EB	4000	4,509	3,690	**1.13**	0.92	4,662	3,830	**1.17**	0.96
J5A+ J5C		WB	4000	4,383	3,708	**1.10**	0.93	4,572	3,833	**1.14**	0.96
J12A	Slip Road from Ma On Shan Bypass (NB) to Sai Sha Road (WB)	-	1900	667	559	0.35	0.29	667	559	0.35	0.29
J12B	Slip Road from Sai Sha Road (EB) to Ma On Shan Bypass (SB)	-	4000	823	412	0.21	0.10	823	412	0.21	0.10
J12C	Slip Road of Sai Sha Road EB	-	1900	594	557	0.31	0.29	692	643	0.36	0.34
J12D	Slip Road of Sai Sha Road WB	-	1900	573	509	0.30	0.27	666	576	0.35	0.30
L1	Tolo Highway (North of Chak Cheung Road)	NB	8200	7554	9058	0.92	**1.10**	7662	9114	0.93	**1.11**
		SB	8200	9288	7384	**1.13**	0.90	9368	7456	**1.14**	0.91
L2	Science Park Road	NB	2850	1600	1275	0.56	0.45	1600	1275	0.56	0.45
		SB	2850	1066	1259	0.37	0.44	1066	1259	0.37	0.44
L3	Tate's Cairn Highway (South of Ma On Shan Road)	NB	6100	5236	5388	0.86	0.88	5519	5650	0.90	0.93
		SB	6100	6918	4677	**1.13**	0.77	7256	4875	**1.19**	0.80
L4	A Kung Kok Street	Two-way	2000	1516	1279	0.76	0.64	1624	1322	0.81	0.66
L5	Ma On Shan Road (Between Sai Sha Road Interchange and Ma On Shan Bypass)	NB	5250	2508	3047	0.48	0.58	2944	3449	0.56	0.66
		SB	5250	3719	2496	0.71	0.48	4339	2841	0.83	0.54
L6	Sai Sha Road (Between Kam Yin Road and Wu Kai Sha Road)	EB	2800	780	734	0.28	0.26	894	822	0.32	0.29
		WB	2800	881	651	0.31	0.23	974	728	0.35	0.26
L7	Ma On Shan Bypass	EB	6100	1595	1775	0.26	0.29	1785	1947	0.29	0.32
		WB	6100	2554	1606	0.42	0.26	2818	1760	0.46	0.29
L8	Sai Sha Road (East of Nin Wah Road) (2)	EB	2800	1387	1613	0.50	0.58	1409	1624	0.50	0.58
		WB	2800	2001	1529	0.71	0.55	2017	1544	0.72	0.55
L9	Ma On Shan Tsuen Road	NB (uphill)	1040	72	81	0.07	0.08	430	415	0.41	0.40
		SB (downhill)	1040	106	82	0.10	0.08	579	348	0.56	0.33
L10	Access Road to Cheung Muk Tau	Two-way	940	75	55	0.10	0.08	679	519	0.72	0.55

Note:
(1) According to TPDM Volume 2 Chapter 4 Table 4.6.8.1, +70% corrections to predicted flow was adopted for Main Line with 7% - 8% Uphill and 15% of Heavy Vehicle.
(2) Under the Shap Sze Heung CDA, Sai Sha Road will be widened to dual-2 lanes carriageway.

3.7.3 The assessment results presented in **Table 3.9** indicate that with the proposed housing developments in place, the v/c ratio for the southbound and northbound of Tolo Highway at L1 will be slightly increased from 1.13 to 1.14 during AM peak and from 1.10 to 1.11 during PM peak respectively. The southbound of Tate's Cairn Highway (SB) at L3 will be increased

from 1.13 to 1.19 during AM peak in design year 2035 which means that traffic speed would be reduced. The V/C ratio for the eastbound and westbound of Tate's Cairn Highway across Shing Mun River (T6 Bridge) will be increased from 1.13 to 1.17 and from 1.10 to 1.14 respectively during AM peak.

3.7.4 To improve the capacity of L3, the Government proposed to provide an additional lane by widening this section of road from three lanes to four lanes. The capacity will be increased to 8200 pcu/hr and the v/c ratio will be reduced to 0.88. Subject to the further review and design in the Investigation stage, the Government will implement the associated improvement works before the year of overall population intake.

3.7.5 Based on the findings of the assessment, there will be only relatively mild impact on T6 Bridge arising from the proposed housing developments. In year 2035, the travelling speed on T6 Bridge will be slightly slowed down and traffic queue would be built up during AM peak. The Government will investigate the improvement measures of T6 Bridge and consult the public in due course.

Critical Junction Assessment

3.7.6 Based on the forecasted peak hour traffic flows, the operational performance of the identified critical junctions have been assessed for scenarios with the proposed developments under the design year 2035. The results are summarized in **Table 3.10**.

Table 3.10 Critical Junction Assessment in Design Year 2035

Ref.	Junction	Method of Control	RC/RFC[1]			
			2035 Reference Scenario (Without Development)		2035 Design Scenario (With Development)	
			AM	PM	AM	PM
J1[2]	Chak Cheung Street/Tolo Highway	Roundabout	0.70	0.55	0.73	0.58
J2	Chak Cheung Street/Science Park Road	Roundabout	0.88	0.75	0.91	0.79
J3	Chak Cheung Street/Sui Cheung Road	Roundabout	0.36	0.38	0.39	0.39
J4	Sui Cheung Street/Kiu Ha Road	Signal	>100%	>100%	>100%	>100%
J6	Sai Sha Road/Hang Fai Street	Roundabout	0.59	0.37	0.59	0.38
J7	Sai Sha Road/Hang Hong Street	Signal	30%	46%	29%	44%
J8	Sai Sha Road/On Yuen Street / On Luk Street	Signal	48%	57%	42%	51%
J9	Sai Sha Road/Ma On Shan Road/On Chiu Street	Signal	46%	75%	34%	65%
J10	Sai Sha Road/Kam Ying Road	Signal	33%	45%	15%	26%
J11	Sai Sha Road/Wu Kai Sha Road/Sha On Street	Roundabout	0.41	0.36	0.45	0.39
J13	Sai Sha Road/Nin Wah Road/Nin Fung Road	Roundabout	0.89	0.68	1.10	0.78
J14	On Chun Street/On Yuen Street	Signal	>100%	>100%	>100%	>100%
J15	On Chun Street/On Chiu Street	Signal	>100%	>100%	>100%	>100%
J16	On Luk Street/On Shing Street (West)	Priority	0.32	0.42	0.33	0.43

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Ref.	Junction	Method of Control	RC/RFC(1)			
			2035 Reference Scenario (Without Development)		2035 Design Scenario (With Development)	
			AM	PM	AM	PM
J17	On Luk Street/On Shing Street (East)	Roundabout	0.39	0.59	0.42	0.60
J18A	Ma On Shan Road/On Luk Street (West)	Priority	0.27	0.36	0.30	0.39
J18B	Ma On Shan Road/On Luk Street (East)	Priority	0.18	0.18	0.18	0.18
J19	Ma On Shan Road/Kam Ying Road	Signal	>100%	>100%	>100%	>100%
J20	Ma On Shan Road/Hang Hong Street	Roundabout	0.39	0.34	0.59	0.46
J21	Ma On Shan Tsuen Road/Access Road to Ma On Shan Salt Water Service Reservoir	Priority	0.16	0.12	0.84	0.58

Note:
(1) RC = Reserve Capacity, RFC = Ratio of Flow to Capacity
(2) Based on planned junction improvement scheme under The Chinese University of Hong Kong – Private Teaching Hospital study

3.7.7 The critical junction assessment has indicated that the capacity of some existing road junction would be close to an alerting level in the design year due to the proposed developments, including the roundabout of Chak Cheung Street / Science Park Road (J2), junction of Sai Sha Road / Kam Ying Road (J10) and junction of Sai Sha Road / Nin Wah Road / Nin Fung Road (J13). Thus, road improvement works on such critical junctions would be necessary.

Recommended Road Improvement Works

3.7.8 The Preliminary Traffic and Transport Impact Assessment has recommended the following junction improvement measures. The proposed improvement schemes are shown in **Appendix A**:

- To alter the roundabout of Chak Cheung Street / Science Park Road (J2)[1] to a signalized-controlled junction. As a synergy effect, CEDD will further review the junction performance of both junctions J1 and J2 in investigation stage and implement the improvement works, if appropriate, before the year of overall population intake;
- To enhance the method of traffic control at the junction of Sai Sha Road/Kam Ying Road (J10) by providing an additional traffic island;
- To widen the approaching arm of Sai Sha Road (WB) and Nin Fung Road (NB) at the junction of Sai Sha Road / Nin Wah Road / Nin Fung Road (J13); and
- To widen the exit arm at Ma On Shan Tsuen Road of Ma On Shan Road/Hang Hong Street (J20) to provide sufficient turning space for 12.8m bus.

3.7.9 A preliminary assessment for the scenario with such enhancement works has been conducted and the results are summarized in **Table 3.11** below.

[1] The proposed schemes are indicative only and are subjected to further review/ design in Investigation stage.

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Table 3.11 Junction Performance under Proposed Improvement Schemes

Ref.	Junction	Method of Control	RC/RFC	
			2035 Design Scenario (With Development)	
			AM	PM
J2	Chak Cheung Street/Science Park Road	Signal	53%	76%
J10	Sai Sha Road/Kam Ying Road	Signal	95%	>100%
J13	Sai Sha Road/Nin Wah Road/Nin Fung Road	Roundabout	0.82	0.78
J20	Ma On Shan Road/Hang Hong Street	Roundabout	0.47	0.46

3.7.10 As depicted in **Table 3.11**, there will be no undesirable performance for all critical junctions with the implementation of the proposed improvement schemes.

3.8 Summary

3.8.1 With the implementation of the proposed improvement works, it is anticipated the proposed developments will not induce insurmountable problem to the traffic network from traffic point of view.

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4 DRAINAGE AND SEWERAGE

4.1 General

4.1.1 This chapter aims to assess potential drainage and sewerage impacts that may arise from the proposed developments, and recommends the necessary improvement or upgrading works, if any.

4.2 Drainage

Existing Drainage Conditions

4.2.1 The proposed developments are located in the hilly terrain of Ma On Shan, which fall into drainage catchments currently served by a proper drainage system.

4.2.2 According to the DSD's location map for flooding blackspots, there is no flooding blackspot identified within the concerned drainage catchments.

Drainage Impact of the Proposed Development

4.2.3 The proposed development will incur the drainage impacts as follows: -

- Change in land use from unpaved to paved surface within the development areas resulting in an increase of the amount of runoff entering into the existing drainage system;
- Change in formation level and cross-fall in the development area causing an alteration of the overland flow patterns and discharge points into the drainage system resulting in a modification of catchment plans; and
- Create formation of the proposed development leading to intercept the flow of the existing streams.

4.2.4 A preliminary hydraulic analysis under a 200-year rainfall event has been conducted on the existing drainage system under the Preliminary Drainage and Sewerage Study. According to the results of the preliminary assessment, the proposed developments will generate additional runoff as a result of change of land use from unpaved to paved within the development areas and their associated infrastructural works.

4.2.5 Despite there will be additional runoff after the development, the design capacity of existing drainage system has a sufficient capacity to cater for the peak runoff based on the preliminary hydraulic analysis. Therefore, no adverse drainage impact is anticipated.

Recommendations

4.2.6 The surface runoff due to the developments is proposed to be conveyed to the nearby existing drainage system by constructing new drainage pipes ranging between 600mm and 1800mm in diameters as well as a cascade channel near Sites 3&4. The final location and alignment of these pipes are subject to review at Investigation, Design & Construction stage. The proposed drainage works for the development at Sites 1 to 5 and Site P are listed in **Table 4.1** below and shown in ***Figures 188563/DIA/007A, 007B, 008 and 009.***

Table 4.1 Proposed Drainage Works

Site	Proposed Drainage Works
Site 1	UC1: 600mm in 1:100 D1: 900mm in 1:100 (Option A)

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Site	Proposed Drainage Works
Site 2	UC2: 900mm in 1:100 D2: 750mm in 1:80
Sites 3, 4 & 5	UC3: 750mm in 1:10 D3: 1800mm in 1:80 Cascade Channel
Site P	UC3: 750mm in 1:10

4.2.7 Currently, the surface runoff from Site 1 is discharged to a 1350mm diameter pipe near the Ma On Shan Bypass. To properly convey the runoff from Site 1 to the downstream drainage system after development, two feasible options have been formulated. For Option A as shown in ***Figure No. 188563/DIA/007A***, a 900mm drainage pipe is proposed to collect the runoff of Site 1 and discharge to an existing sand trap in Nin Fung Road near the Symphony Villa. To enhance the capacity of the existing drainage system, upgrading of downstream pipe sections to 1200 to 1350 mm pipe could be considered. For Option B as shown in ***Figure No. 188563/DIA/007B***, the existing 1350mm diameter pipe near the Ma On Shan Bypass could be utilized for conveying the runoff from Site 1.

4.2.8 A detailed hydraulic analysis and design of the proposed drainage works should be carried out under another Drainage Impact Assessment (DIA) to be conducted in the subsequent Investigation, Design & Construction stage, to determine the final drainage scheme and ensure appropriate drainage mitigation measures would be implemented to cater for the latest site conditions and developments.

4.3 Sewerage

Existing Sewerage Conditions

4.3.1 The proposed developments will fall into the sewerage catchment of the Shatin Sewerage Treatment Works.

4.3.2 The sewerage from Wu Kai Sha and Whitehead are collected to the Ma On Shan 108 Pumping Station (MOS108SPS) and pumped to the downstream gravity sewer near Kam Lung Court, subsequently discharged into the Ma On Shan Sewerage Pumping Station and finally to the Shatin Sewerage Treatment Works.

4.3.3 The sewerage from Ma On Shan area would be collected to the Ma On Shan Sewerage Pumping Station (MOSSPS) and pumped to the Shatin Sewerage Treatment Works.

4.3.4 According to the existing sewerage records provided by DSD, there is no public sewerage within the proposed development areas (i.e. Sites 1 to 5 and Site P).

Sewerage Impact of the Proposed Development

4.3.5 The sewerage flow generated from the proposed developments is proposed to be conveyed to the Shatin Sewerage Treatment Works eventually. The developments will be connected to the adjacent sewerage network, and thus assessments on the adequacy of the existing sewerage system in accommodating the additional sewerage flow due to the proposed developments have been conducted.

4.3.6 The sewerage from Sites 1 and 2 is proposed to be discharged into the MOS108SPS via an existing twin 350mm gravity sewer, whilst this existing twin sewer will have sufficient

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capacity to accommodate the additional sewerage flow based on the preliminary hydraulic examination.

4.3.7 The sewerage from Sites 3 to 5 and Site P is proposed to be conveyed to the MOSSPS through the downstream sewers of the developments. According to the results of the hydraulic analysis, the downstream sewers would have sufficient capacities to cater for the peak sewerage flow after developments.

4.3.8 The MOS108SPS and the MOSSPS will be the sewerage discharging points for Sites 1 and 2, Sites 3 to 5 and Site P respectively. Based on the capacity checking on both sewerage pumping stations, the forecasted sewerage flow exceeds the pumping capacities of MOS108SPS and MOSSPS, and upgrading is required to cater for the additional sewerage due to the additional sewerage generation from the new population.

Recommendations

4.3.9 New sewers ranging from 225mm to 450mm in diameters are proposed to connect the proposed developments to the existing sewerage network. No upgrading works on the existing sewers are anticipated. The proposed sewerage works are shown in ***Figures 188563/SIA/001 to 003.***

4.3.10 The existing MOSSPS is proposed to be upgraded to cater for the additional sewerage flow. The sewerage assessment will be further reviewed in the Investigation, Design & Construction stage once more information on the proposed housing developments and the adjacent planned developments are available. In addition, project interface with "Agreement No. CE 30/2014 (DS) Relocation of Sha Tin Sewerage Treatment Works to Caverns: Caverns and Sewerage Treatment Works - Investigation, Design and Construction" will be resolved as appropriate before the commencement of the works.

4.3.11 The forecasted sewerage flow to the MOS108SPS merely exceeds the design capacity of the MOS108SPS, and therefore upgrading works by replacement of the existing sewerage pumps and upgrading of the associated downstream network may be necessary to cater for the forecasted sewerage flow. Further review and hydraulic modeling would be conducted when more information on the proposed housing developments and the adjacent planned developments are available at the subsequent Investigation, Design & Construction stage.

4.3.12 To ensure appropriate sewerage mitigation measures would be implemented to reflect the latest site conditions and developments, a comprehensive sewerage impact assessment (SIA) should be conducted in detailed design stage once more information, in particular the actual implementation programme and development parameters of the proposed housing developments and the adjacent planned developments, are available.

4.4 Summary

4.4.1 Following the implementation of the proposed drainage and sewerage works, no insurmountable issue is anticipated for the proposed developments from drainage and sewerage viewpoints.

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5 WATER SUPPLIES AND UTILITIES

5.1 General

5.1.1 This chapter aims to assess the potential water supply and utility impacts that may arise from the proposed developments, and recommends the necessary improvements or upgrading works, if any.

5.2 Existing Water Supply Systems

Fresh Water Supply

5.2.1 The Ma On Shan Water Treatment Works (MOSWTW) is the current major water source to the Ma On Shan area. Treated fresh water is transferred from the MOSWTW to the Ma On Shan Fresh Water (FW) Primary Service Reservoir (S/R), and then to the MOS FW S/R and the MOS No. 2 FW S/R.

5.2.2 The proposed housing sites are located in close vicinity of the fresh water supply zone served by the existing MOS FW S/R and the MOS No. 2 FW S/R.

5.2.3 Ma On Shan Tsuen Fresh Water Pump House (MOST FWPH) is currently located near Shun Yee San Tsuen to pump fresh water to the Ma On Shan Tsuen Road Fresh Water Tank.

Flushing Water Supply

5.2.4 The proposed housing sites are located in close vicinity to the salt water supply zone served together by the existing MOS Salt Water (SW) S/R, the MOS No. 2 SW S/R, and the MOS No. 3 SW S/R, which are all sourced from the Sha Tin Seafront SW Pumping Station.

5.3 Impacts of the Proposed Developments on Water Supply

Fresh Water Supply

Water Treatment Works

5.3.1 The MOSWTW serves the fresh water supply zone of the Ma On Shan area, whilst the proposed development sites are within the supply zone. Therefore, there is no necessity to re-arrange the water supply zone to feed the fresh water to the proposed housing development. Further, the existing MOS FW S/R and the MOS No. 2 FW S/R have sufficient capacity to support the proposed development. As such, it is envisaged that the development of the proposed housing sites will not affect the current zoning and capacity of the MOSWTW.

Fresh Water Service Reservoirs

5.3.2 According to the hydraulic examination on the water supply networks, the capacity of the existing fresh water service reservoirs could cater for the additional fresh water demand arising from the developments. However, the requirement on the residual head to Sites 3 to 5 and Site P could not be satisfied by the existing water supply systems since those sites would be formed at a high level ranging from 75 mPD to 140 mPD.

Ma On Shan Tsuen Fresh Water Pump House

5.3.3 The existing MOST FWPH is currently situated within the proposed development of Sites 3&4. It is considered that retaining the existing pump house in-situ, i.e. within the development area will reduce the developable area of Sites 3&4, causing a reduction in flat number production.

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Salt Water Supply

Salt Water Pumping Stations / Salt Water Service Reservoirs

5.3.4 The Sha Tin Seafront Salt Water Pumping Station is the source of the salt water supply to Ma On Shan area feeding three existing salt water reservoirs including MOS SW S/R, MOS No.2 SW S/R and MOS No.3 SW S/R as well as to the customers. However, the flushing water supply from the pumping station and the service reservoirs have already reached a startling level, which is unable to provide flushing water supply to cater for the development without any mitigation works.

5.3.5 Sites 3 to 5 and Site P will be formed at high elevations. If the developments connect to the existing water supply networks without any interim pressure boosting facilities, insufficient residual heads will be resulted .

Water Gathering Ground

5.3.6 According to the WSD's record drawing on water gathering ground, the proposed development areas do not fall into the WSD's Water Gathering Ground, and hence both short-term and long-term impacts on the Water Gathering Ground are not anticipated.

5.4 Recommendations for Water Supply

Fresh Water Supply

Sites 1 and 2

5.4.1 Based on the preliminary water supply analysis, there will be sufficient water capacity and residual heads from the existing fresh water supply zone in the Ma On Shan area to support the development of Sites 1 and 2. As such, there is no need to upgrade the existing water treatment works or construct a new water reservoir for the development in Sites 1 and 2.

5.4.2 DN 400 and DN 600 water mains as shown in ***Figure 188563/WSS/007*** and ***Figure 188563/WSS/014*** will be laid along Sai Sha Road and Kam Ying Road respectively to extend the water supply networks for the development of Sites 1 and 2, whilst the detailed alignments and connection points should be further investigated in Investigation, Design & Construction stage once more site information is available.

Sites 3 to 5

Provision of Fresh Water Service Reservoir

5.4.3 To meet the requirement of the minimum residual head, a new fresh water service reservoir is proposed to be constructed at the uphill side of Sites 3 to 5. It would therefore be preferable to construct the reservoir aside the Ma On Shan Tsuen Road (MOSTR) where the elevation is sufficiently high. The proposed fresh water service reservoir and its connections to Sites 3 to 5 is shown in ***Figures 188563/WSS/009 and 010.***

5.4.4 In addition to the water head requirement, there is also a combination of various site constraints governing the site selection and platform layout of the new service reservoir, including the existing Ma On Shan Country Park area at the uphill side of MOSTR, some existing graded historic building alongside MOSTR and deep valleys as well as steep slopes at the downhill side of MOSTR. Therefore, it is proposed to form a platform with a maximized flatted area of about 3,100 m^2 at +148mPD near Site P to accommodate the FW S/R. The proposed location not only avoids encroaching onto the country park area and damaging the existing historic buildings, but also allows the new structures to be situated on a cut slope generating less visual impacts. Furthermore, it could provide sufficient residual head of about 60m to support the development of Sites 3 to 5. However, to avoid excessive high

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pressure to Sites 3 to 5, pressure reducing valve will be installed at appropriate location. Details of pressure reducing valve will be further discussed with WSD in the Investigation, Design & Construction stage.

5.4.5 For supporting the development of Sites 3 to 5 and fire-fighting, a fresh water service reservoir with a capacity of 6,584 m^3 is proposed.

Relocation and Upgrading of Existing Ma On Shan Tsuen FW Pump House

5.4.6 To maximise the development potential of Sites 3 to 5 and provide sufficient fresh water to feed to the proposed FW S/R, it is proposed to relocate and upgrade the existing MOST FWPH. The location and layout of the proposed pumping station is shown in ***Figure 188563/WSS/009***.

5.4.7 The site for new pumping station would be lower than the existing MOS FW Primary S/R to provide a minimum suction head requirement of about 10m for pump operation. In addition, it would also be desirable to be situated near the existing fresh water trunk mains and MOSTR to avoid extensive pipe laying works.

5.4.8 The new pumping station will accommodate two pump sets. One will serve the new FW S/R for the development, whilst another will serve the existing Ma On Shan Tsuen Fresh Water Tank (MOST FWT) for providing water supply to the existing uphill customers.

5.4.9 To achieve cost and energy savings, the working pressure of the proposed water mains along MOSTR might be optimized/reduced by alternative water supply scheme(s), such as constructing a pump house with the MOST FW pump set installed at the platform of the proposed FW S/R. Any alternative water supply scheme(s) and its respective feasibility could be further explored in later Investigation, Design & Construction stage in consultation with WSD.

5.4.10 In addition, each pump set comprises a stand-by pump and duty pump(s) as well as a spare pump bay for facilitating operation and maintenance. Detailed arrangement and locations of the pump sets, pumping mains and pump output design will be further discussed with relevant departments in Investigation, Design & Construction stage.

Site P

5.4.11 The private development at Site P will be a single land sale site. The detailed water supply arrangement would be designed and constructed by the developer. However, to support the future private development, it is recommended to reserve the capacity of the new FW S/R. The private developer should further discuss with WSD regarding the water supply arrangement for the private development in the future.

5.4.12 Overall, a fresh water service reservoir with a capacity of 7,191 m^3 is required to cater for the daily potable water demand of the proposed developments at Sites 3 to 5 and P as well as the fire-fighting purpose.

Proposed fresh water mains

5.4.13 Diversion of existing fresh water mains within the development areas is proposed to maximize the flexibility of the developments. Detailed diversion schemes would be coordinated with relevant departments in Investigation, Design & Construction stage.

5.4.14 The proposed scheme for fresh water mains is shown in ***Figures 188563/WSS/007, 009 and 010***.

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Flushing Water Supply

Sites 1 and 2

5.4.15 Since the current capacity of the existing MOS SW S/R, MOS No.2 SW S/R and MOS No.3 SW S/R have already been insufficient to cater for the ultimate flushing water demand in salt water supply zone without consideration of the population intake of the five housing sites and school site, the flushing water supply will become sufficient to all proposed developments after the required expansion of the existing Ma On Shan SW S/R to be planned and implemented by other.

5.4.16 Direct connection with the flushing water supply zone to the expanded MOS SW S/R can provide sufficient flushing water supply and residual water head to Sites 1 and 2.

Sites 3 to 5

5.4.17 Given that the development of Sites 3 to 5 will be located at a relatively high formation level, a new salt water service reservoir (SW S/R) at a high level is required to provide the flushing water. As shown in ***Figures 188563/WSS/011 and 012***, the new SW S/R is proposed to be located at same platform of the proposed FW S/R with a view to reducing the site formation work and facilitating daily operation and maintenance.

5.4.18 To accommodate the increase of the flushing water demand from Sites 3 to 5, the capacity of new SW S/R should be about 262 m^3.

5.4.19 To deliver the flushing water from the existing flushing water supply zone to the new SW S/R, an extra pump set is proposed to be installed inside the new water pumping station. The pump set comprises a stand-by pump and duty pump(s) as well as a spare pump bay.

Site P

5.4.20 The flushing water supply system will be designed and constructed by the private developer for Site P, whilst further water supply arrangements should be further discussed with WSD when necessary. However, to support the future private housing development, it is recommended to reserve capacity of the new SW S/R for the potential flushing water consumption by the private site.

5.4.21 Overall, a storage capacity of around 355 m^3 is required for the proposed SWSR to cater for the flushing water demand of the proposed developments at Sites 3 to 5, A, C and D.

Proposed salt water mains

5.4.22 Currently, there is no salt water main connection to the proposed sites. The proposed scheme for salt water mains is shown in ***Figures 188563/WSS/008, 011 and 012***.

Indicative Development Parameters for Proposed Waterworks

Proposed Pumping Station

5.4.23 As shown in ***Figure No. 188563/WSS/009***, the gross site area and the net site area of the proposed site for the new fresh water and salt water pumping station are approximately 3,100 m^2 and 2,200 m^2 respectively. It is also envisaged that the proposed pumping station will be a 1-storey building with the footprint of about 480 m^2 and the maximum height of about 9 meters from the ground level subject to the subsequent detailed design. As such, the site coverage of the proposed pumping station will be about 15%, and the constructional gross floor area (GFA) will be approximately 430 m^2 with a 10% assumed GFA concession for ancillary uses and a plot ratio of about 0.2. Taking into account numerous valve chambers, flow meter chambers, surge vessels, pipeworks, retaining walls, landscape features, associated facilities and maintenance access which are essential to be installed/constructed

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at the outdoor area, the plot ratio of 0.2 is considered to be reasonable and acceptable for a fresh water and salt water pumping station.

Proposed Service Reservoirs

5.4.24 There will be two proposed service reservoirs, including fresh water and salt water service reservoirs, within the proposed site area near Site P. The gross site area and the net site area for the proposed service reservoirs are about 4,800 m^2 and 3,100 m^2 respectively. Subject to the subsequent detailed design, the footprints of the proposed fresh water and salt water service reservoirs are approximately 1,200 m^2 and 160 m^2 respectively, whilst the heights of the proposed fresh water and salt water service reservoirs are about 6 meters and 3 meters from the ground level.

5.4.25 Both proposed service reservoirs will be a one-storey structure with a small penthouse on the roof.

Smart Water Supply Initiatives

5.4.26 The application of the smart water supply initiatives for the proposed housing developments should be explored and implemented as far as possible. Details of the smart water supply initiatives will be worked out in the Investigation, Design & Construction stage. Close coordination with WSD will be necessary.

5.5 Existing Utilities

Power Supply

5.5.1 Near Site 1, there is a L.V. cable leaving the sub-station CHEUNG MUK TAU PRG 'B' 346329. The cable runs parallel to the Ma On Shan Bypass across Sai Sha Road. One of the L.V. cable runs along the peripheral footpath at the north-west of Site 1.

5.5.2 Near Site 2, there is an 11 kV transmission cable along the road to the Sai O Pumping Station. The cable enters the Pumping Station at its own sub-station SAI O PUMPING STN S/S 159447 behind the entrance.

5.5.3 Near Sites 3, 4 and 5, there is a L.V. cable and an 11 kV transmission cable running along Ma On Shan Tsuen Road. The L.V. cable leaves Ma On Shan Tsuen Road at the cul-de-sac and goes downhill. The 11 kV transmission cable also leaves Ma On Shan Tsuen Road at the cul-de-sac but it joins again uphill.

5.5.4 Near Site P, there is a 11 kV transmission cable joining the Ma On Shan Tsuen Road and running further uphill to the barbecue site. There is a sub-station at entrance of Ma On Shan Tsuen, namely PUN SHAN HA TSUEN S/S 093070, connecting the local network and the 11 kV transmission cable.

Gas Supply

5.5.5 Currently there are no existing gas mains within the area of the proposed five housing sites.

5.5.6 Near Site 1, there is a high pressure (HP) underground town gas transmission pipeline running across Sai Sha Road and the Ma On Shan Bypass. Some low pressure (LP) pipelines are found near the roundabout near Sai Sha Road and Nin Fung Road.

5.5.7 Near Sites 3 and 4, there is a HP underground town gas transmission pipeline running along Ma On Shan Tsuen Road from the roundabout near Hang On Estate to the intersection with the Ma On Shan Bypass. Local LP pipelines are found near the roundabout downhill.

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Communications

5.5.8 In the vicinity of the proposed five housing sites, there are telecommunication services owned by Hong Kong Telecommunications (HKT) Limited and Hutchison Global Communications Limited (HGC). These existing cables are all laid underground.

5.5.9 For Sites 1 and 2, there is no existing network as the sites are currently undeveloped land. Some ducts are recorded along Sai Sha Road on the as-built plans provided by the two telecommunication companies.

5.5.10 For Sites 3, 4, 5 and Site P, both HKT and HGC have their network extended as the sites are currently villages.

5.6 Findings and Recommendations on Utilities

5.6.1 The existing networks of electricity supply, gas supply, telecommunication service system and public lighting system have been reviewed under the Preliminary Utilities Study (US) conducted under the Study. The results of this Preliminary US have confirmed that there would be no critical conflicts between the proposed development with major utilities.

5.6.2 Street lighting are required along all public roads, and the lights shall be powered by low voltage cable from the CLP networks. Further liaison with CLP and HyD/Lighting is necessary at Investigation, Design & Construction stage for detailed arrangements.

5.6.3 A Quantitative Risk Assessment for the existing Hong Kong and China Gas Company Limited (HKCG) high pressure town gas pipeline has been conducted. It is concluded that the societal risks for both the construction and operational phases lie within the "Acceptable" region under Hong Kong Risk Guidelines, and no further specific mitigation measures are required.

5.6.4 With the extension of the existing networks by the service providers (in public areas) and HKHA (within the Site), it is concluded that the utility support to the development is technically feasible.

5.7 Summary

5.7.1 From water supply and utilities viewpoints, no insurmountable issue is anticipated for the proposed development.

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6 GEOTECHNICAL

6.1 General

6.1.1 This chapter aims to summarize the geological and geotechnical information about the housing sites and their vicinity, identify potential geotechnical impacts that may arise from the proposed developments, and recommend the necessary improvements or upgrading works, if any.

6.2 Ground Condition

6.2.1 The ground condition within Sites 1 and 2 has been determined from a review of desk study information as well as the existing ground investigation (GI) records and site specific GI results. The site-specific GI works for Sites 1 and 2 comprising 5 drillholes and 1 trial pit as shown in ***Figure 188563/PGA/003*** with associated in-situ testing were carried out under GI Term Contract "Contract No. GE/2015/24 Ground Investigation – New Territories East (Term Contract)".

6.2.2 The ground condition in the proximity of Sites 3, 4 & 5 and Site P has been determined from a review of desk study information as well as the existing GI records.

Sites 1 and 2

6.2.3 Site 1 comprised of mostly a flat terrain at north, and hilly terrain at south. The flat terrain is covered by a thin layer of Fill of 0.10 m - 9.50 m thick, underlain by Colluvium of 0.29 m – 7.00 m thick. Thickness of completely decomposed to highly decomposed granite (C/HDG) ranged from 0.11 m – 18.20 m and bedrock lies at 4.61 m – 26.14 m below ground level. According to existing drillhole record and site specific drillhole DH02, the hilly terrain is believed to be covered by a colluvium layer of approximately 3 m thick, underlain by saprolites at approximately 3 m thick. Different rock types (granite and siltstone) are noted in existing and site specific drillholes, suggesting a geological contact exists within the Site.

6.2.4 Site 2 consists of abandoned farmland at north and natural hillside at south. The site gently slopes down towards northwest. No GI was carried out within the site boundary of Site 2 in the FS stage. According to existing drillholes record, the thickness of the saprolite layer ranged from 5.00 m - 11.00 m, probably 1.00 m - 2.00 m thick fill layer exists above the saprolite at northwest corner.

6.2.5 Hong Kong Geological Survey Plan Sheet 7 shows that Sites 1 and 2 may be traversed by faults or shear zones. In general, the geology and the weathering profile at these potential faults/shear zones can be highly variable and complex. Weathering associated with faulting may lead to a very deep rockhead profile. Under these circumstances, practical difficulties might arise due to the installation of long pile foundations through the fault zones, and high building costs and long construction time might be resulted. Therefore, detailed field mapping and adequate ground investigations should be carried out in later I, D&C stage of the project to identify the suspected fault/shear zones for developing an optimal building block design.

Sites 3, 4 & 5

6.2.6 Thin layer of fill with thickness ranging from 0.20 m to 5.80 m is found in individual drillhole record. It generally comprises cobbles and boulders in sandy silt matrix. Colluvium with thickness ranging from 0.47 m to 15.23 m generally comprises of gravel and cobbles of rock fragments. Alluvium is encountered in occasional drillholes, thickness ranging from 0.50 m to 6.50 m. Underlying the colluvium layer is C/HDG, thickness ranging from 0.55 m to 29.60

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m. It generally comprises of slightly clayey sandy silt. Bedrock (Material weathering grade III or better, with a total core recovery of more than 85% of the grade) is encountered at level ranging from +91.67 mPD to +10.76mPD (5.32 m to 28.37 m below ground level). Meta-siltstone is encountered in occasional drillholes.

Site P

6.2.7 Site P was occupied by cottages and farmland. The site generally slopes down from east to west. The upper most layer in these sites is a thin layer of fill with maximum thickness of 3.00 m. It generally comprises cobbles and boulders in sandy silt matrix. Underlying the fill layer is colluvium layer with thickness ranging from 0.47 m to 6.95 m. Colluvium generally comprises silty fine to coarse sand. Underlying the colluvium layer is C/HDG, thickness ranging from 0.40 m to 5.30 m. It generally comprises slightly silty fine to coarse sand. Bedrock is encountered at 0.40 m to 10.55 m below ground level.

6.3 Existing Man-made Slopes and Retaining Walls

6.3.1 There are 17 man-made features identified within or in the vicinity of the works area for Sites 1 and 2; 66 features for Sites 3 to 5; and 39 features for Site P. Details are given in **Table 6.1** to **Table 6.3** below. The locations of the slope features are shown in ***Figures 188563/PGA/003A-C, 188563/PGA/203A-C and 188563/PGA/303***.

Table 6.1 Features identified within or in the vicinity of the works area for Sites 1 and 2 and the associated infrastructural works

(1)	7NE-D/C70^	(2)	7NE-D/R75	(3)	7NE-D/F154
(4)	7NE-D/R64	(5)	7NE-D/C264	(6)	7NE-D/F158
(7)	7NE-D/C305	(8)	7NE-D/FR162	(9)	7NE-D/F167
(10)	7NE-D/FR170	(11)	7NE-D/F124	(12)	7NE-D/R85
(13)	7NE-D/C123	(14)	7NE-D/CR55	(15)	7NE-D/R22
(16)	7NE-D/CR54	(17)	7NE-D/C138		

Note:

1. Feature marked with caret (^) is identified within Site 1.

Table 6.2 Features identified within or in the vicinity of the works area for Sites 3 to 5 and the associated infrastructural works

(1)	7NE-D/C175	(2)	7NE-D/C176	(3)	7NE-D/C177
(4)	7NE-D/C178	(5)	7NE-D/C179	(6)	7NE-D/C180
(7)	7NE-D/C181	(8)	7NE-D/C182	(9)	7NE-D/C183
(10)	7NE-D/C186	(11)	7NE-D/C189	(12)	7NE-D/C194*#
(13)	7NE-D/C203	(14)	7NE-D/C204	(15)	7NE-D/C205
(16)	7NE-D/C207	(17)	7NE-D/C220	(18)	7NE-D/C246
(19)	7NE-D/C255	(20)	7NE-D/C272	(21)	7NE-D/C282
(22)	7NE-D/C287	(23)	7NE-D/C288*	(24)	7NE-D/C289
(25)	7NE-D/C290	(26)	7NE-D/CR276	(27)	7NE-D/F112
(28)	7NE-D/F113	(29)	7NE-D/F127	(30)	7NE-D/F139*#
(31)	7NE-D/F143	(32)	7NE-D/F146	(33)	7NE-D/F147
(34)	7NE-D/F164	(35)	7NE-D/F27	(36)	7NE-D/F37
(37)	7NE-D/F41	(38)	7NE-D/F49	(39)	7NE-D/F50
(40)	7NE-D/F52	(41)	7NE-D/F60*	(42)	7NE-D/F61#
(43)	7NE-D/F66	(44)	7NE-D/F67*#	(45)	7NE-D/F69
(46)	7NE-D/F70	(47)	7NE-D/F74	(48)	7NE-D/F75
(49)	7NE-D/F76	(50)	7NE-D/F79	(51)	7NE-D/F80

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(52)	7NE-D/F81	(53)	7NE-D/F89	(54)	7NE-D/FR141
(55)	7NE-D/FR155	(56)	7NE-D/FR58	(57)	7NE-D/FR59
(58)	7NE-D/FR68	(59)	7NE-D/FR72	(60)	7NE-D/R35
(61)	7NE-D/R36	(62)	7NE-D/R41	(63)	7NE-D/R42
(64)	7NE-D/R44	(65)	7NE-D/R46	(66)	7NE-D/R47

Note:

1. Features marked with asterisk (*) are identified within Sites 3 & 4.
2. Features marked with hash (#) are identified within Site 5.

Table 6.3 Features identified within or in the vicinity of Site P

(1)	7NE-D/C173	(2)	7NE-D/C200	(3)	7NE-D/C201
(4)	7NE-D/C202	(5)	7NE-D/C208	(6)	7NE-D/C210
(7)	7NE-D/C211	(8)	7NE-D/C212	(9)	7NE-D/C213
(10)	7NE-D/C214	(11)	7NE-D/C215	(12)	7NE-D/C216
(13)	7NE-D/C217	(14)	7NE-D/C220@	(15)	7NE-D/C223
(16)	7NE-D/C234	(17)	7NE-D/C235	(18)	7NE-D/C236
(19)	7NE-D/C237	(20)	7NE-D/C238	(21)	7NE-D/C239
(22)	7NE-D/C242	(23)	7NE-D/C243	(24)	7NE-D/C244
(25)	7NE-D/C246@	(26)	7NE-D/CR199	(27)	7NE-D/CR240
(28)	7NE-D/DT1	(29)	7NE-D/DT2	(30)	7NE-D/DT6
(31)	7NE-D/DT7	(32)	7NE-D/F78	(33)	7NE-D/F80@
(34)	7NE-D/F81@	(35)	7NE-D/F82	(36)	7NE-D/F87
(37)	7NE-D/R44	(38)	7NE-D/R45	(39)	7SE-B/C180

Note:

1. The site formation and infrastructural works for Sites 3 to 5 would commence prior to site formation of Site P. Although the features marked with '@' falls within the boundaries of Site P, they may be affected/modified by the site formation and infrastructural works for Sites 3 to 5 instead.

6.3.2 As some of the features above will be trimmed or removed for the public housing development, the land administration arrangement for taking over the public housing sites would be processed in due course.

6.3.3 Those newly formed, cut or modified man-made slopes, retaining structures and natural terrain under the project will be registered and updated under WBTC No. 9/2000 or the prevailing technical circular accordingly.

6.4 Natural Terrain Hazard Study (NTHS)

6.4.1 A natural terrain hazard study (NTHS) has been carried out in accordance with GEO Report No. 138 (2nd edition) to identify any natural terrain hazards that might affect the proposed site formation and infrastructural works, estimate the likelihood of occurrence and scale of the potential natural terrain hazards, and to provide preliminary footprint of possible mitigation measures. The hazard models for the assessment were developed based on the findings of desk study and Aerial Photograph Interpretation (API).

6.4.2 Catchments satisfying the "Alert Criteria" of the GEO Report No. 138 are identified and classified under 3 main types, namely Open Hillslope (OH) catchment, Topographic Depression (TD) catchment and Channelised (CD) catchment based on the topography, chance of drainage/debris concentration, predicted location of discharge outlet for debris, predicted characteristics of debris path, entrainment potential and potential natural terrain hazard within the catchment.

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6.4.3 Based on the geomorphological characteristics of the catchments and the landslide history, the significance of the landslide hazards in each catchment has been qualitatively assessed in order to establish the scope of the hazard mitigation works. It should be noted that the results of this assessment are preliminary only and will be superseded by detailed NTHS carried out in later stages of the project when the development proposals and infrastructural layout are further advanced. The proposed mitigation works would also be reviewed in later stages.

6.4.4 The findings of the NTHS are summarized in the following sections.

Sites 1 and 2

6.4.5 Six (6) catchments (Catchments 1-1, 1-2, 1-3, 1-4, 1-5, 2-1) as shown in ***Figure 188563/PGA/022*** satisfy the "Alert Criteria" of the GEO Report No. 138. Therefore, a NTHS was carried out for these catchments.

6.4.6 Open hillslope landslides are identified to be distributed on the high and middle slope terrain unit in Catchments 1-4, 1-5 and 2-1, thus these catchments are classified as Open Hillslope (OH) catchments. The open hillslope landslides were predominantly at the middle terrain. These catchments do not have a conspicuous drainage channel or pronounced topographic depression based on the aerial photograph interpretation, and are susceptible to open hillslope landslide hazards.

6.4.7 Topographic depression is identified at Topographic Depression (TD) Catchments 1-1, 1-2 and 1-3. From aerial photograph interpretation, pronounced topographic depression without well-defined drainage channel is present at upper slope, and the topography is generally planar at lower slope. These catchments are susceptible to debris flow hazards.

6.4.8 Based on the geomorphological characteristics of the catchments and the landslide history, recommended hazard mitigation works are listed in **Table 6.4** below and the preliminary footprints are shown in ***Figure 188563/PGA/022***.

Table 6.4 Summary on Natural Terrain Hazard Study and Recommended Hazard Mitigation Works for Sites 1 and 2

Catchment No. (Type)	Landslide History	Summary	Recommended Hazard Mitigation Works
1-1 (TD)	1 Relict (Class B)	Low risk catchment as there is only 1 Class B Relict landslide. Nevertheless, assessment suggests that natural terrain hazards may occur in close vicinity of the development.	Construct rigid barrier at slope toe for Site 1.
1-2 (TD)	3 Relict (Class B)	Low risk catchment as all 3 landslides are Class B Relict landslides. Nevertheless, assessment suggests that natural terrain hazards may occur in close vicinity of the development.	

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Catchment No. (Type)	Landslide History	Summary	Recommended Hazard Mitigation Works
1-3 (TD)	No Record	Low risk catchment due to absence of landslide history. Nevertheless, assessment suggests that natural terrain hazards may occur in close vicinity of the development.	
1-4 (OH)	No Record	Low risk catchment due to absence of landslide history and gentle topology.	
1-5 (OH)	No Record	Low risk catchment due to absence of landslide history.	New man-made cut slope along the new access road will be formed at the catchment. No mitigation works proposed.
2-1 (OH)	1 Relict (Class B)	Low risk catchment due to gentle topology and that there is only 1 Class B Relict landslide. Nevertheless, assessment suggests that natural terrain hazards may occur in close vicinity of the development.	Construct rigid barrier at slope toe for Site 2.

Sites 3 to 5

6.4.9 Nine (9) catchments (Catchments S2, S3, R1, R2, R3, R4, R5, R8 and R9) as shown in ***Figure 188563/PGA/221*** satisfy the "Alert Criteria" of the GEO Report No. 138. Therefore, a NTHS was carried out for these catchments.

6.4.10 Open hillslope landslides are found distributed on the high and middle slope terrain unit and were identified in Catchments S2, R1, R2, R8 and R9, thus these catchments are classified as Open Hillslope (OH) catchments. The open hillslope landslide were predominantly identified at the middle terrain. These catchments do not have a conspicuous drainage channel or pronounced topographic depression based on the aerial photograph interpretation, and are susceptible to open hillslope landslide hazards. Rock fall and boulder fall hazards are imminent at upper terrain of Catchment R2.

6.4.11 Channelised debris flows were identified at Channalised (CD) Catchments S3 and R3 to R5. Incised drainage channels are present at these catchments and debris concentrates on the hillside surface. These catchments are susceptible to channelised debris flow hazards. There is low to medium entrainment potential for the catchments as there is no sign of extensive entrainable materials within stream bed and channel side. Rock fall and boulder fall hazards are imminent at upper terrain of Catchments R3 to R5.

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6.4.12 Based on the geomorphological characteristics of the catchments and the landslide history, recommended hazard mitigation works are listed in **Table 6.5** below and the preliminary footprints are shown in ***Figure 188563/PGA/221***.

Table 6.5 Summary on Natural Terrain Hazard Study and Recommended Hazard Mitigation Works for Sites 3 to 5

Catchment No. (Type)	Landslide History	Summary	Recommended Hazard Mitigation Works
S2 (OH)	3 Relict (Class A and Class C)	Low risk catchment as all 3 landslides are relict landslides. Nevertheless, assessment suggests that natural terrain hazards may occur in close vicinity of the development.	Construct rigid barrier at slope toe for Sites 3&4.
S3 (CD)	18 Relict (Class A, Class B and Class C)	Medium risk catchment due to multiple relict landslides and large size of catchment. Assessment suggests that natural terrain hazards may occur in close vicinity of the development.	Construct check dam at discharge point.
R1 (OH)	5 Relict (Class B)	Low risk catchment as all 5 landslides are Class B relict landslides. Nevertheless, assessment suggests that natural terrain hazards may occur in close vicinity of the development.	Construct flexible debris barrier at slope toe for the upgraded access road.
R2 (OH)	9 Relict (Class B and Class C)	Medium risk catchment as there are 9 relict landslides. Assessment suggests that natural terrain hazards may occur in close vicinity of the development.	Construct flexible debris barrier at slope toe for the upgraded access road.
R3 (CD)	1 Recent, 6 Relict (Class C)	Medium risk catchment due to multiple relict landslides and presence of recent landslide. Assessment suggests that natural terrain hazards may occur in close vicinity of the development.	Construct check dam at discharge point.

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Catchment No. (Type)	Landslide History	Summary	Recommended Hazard Mitigation Works
R4 (CD)	3 Recent, 9 Relict (Class C)	Low risk catchment due to the presence of existing access road which could act as a natural buffer to debris.	No mitigation works proposed.
R5 (CD)	1 Recent, 5 Relict (Class C)	Low risk catchment due to presence of anthropogenic terrace and structures formed at slope toe which could act as a natural buffer to debris.	No mitigation works proposed.
R8 (OH)	1 Relict (Class A)	Low risk catchment as there is only 1 Class A Relict landslide.	No mitigation works proposed.
R9 (OH)	No Record	Low risk catchment due to absence of landslide history.	Subject to stability analysis in subsequent ID&C stage, improvement works for the existing slope within Catchment R9 may be required.

Site P

6.4.13 Eleven (11) catchments (Catchments A1, A2, C2A, C2B, C3 to C7, D1 and D2) as shown in ***Figure 188563/PGA/318*** satisfy the "Alert Criteria" of the GEO Report No. 138. Therefore, a NTHS was carried out for these catchments.

6.4.14 Open hillslope landslides are identified to be distributed on the high and middle slope terrain unit in Catchments A2, C5, C6 and C7, thus these catchments are classified as Open Hillslope (OH) catchments. The open hillslope landslides were predominantly identified at the middle terrain. These catchments do not have a conspicuous drainage channel or pronounced topographic depression based on the aerial photograph interpretation, and are susceptible to open hillslope landslide hazards.

6.4.15 Channelised debris flows were identified at Channalised (CD) Catchments A1, C2A, C2B and C3. Incised drainage channels are present at these catchments and debris concentrates on the hillside surface. These catchments are susceptible to channelised debris flow hazards. There is low entrainment potential for the catchments due to shallow rock head and rocky channel bed.

6.4.16 Topographic depression is identified at Topographic Depression (TD) Catchments C4, D1 and D2. From aerial photograph interpretation, pronounced topographic depression without well-defined drainage channel is present at upper slope, and the topography is generally planar at lower slope. These catchments are susceptible to debris flow hazards.

6.4.17 Based on the geomorphological characteristics of the catchments and the landslide history, recommended hazard mitigation works are listed in **Table 6.6** below and the preliminary footprints are shown in ***Figure 188563/PGA/318***.

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Table 6.6 Summary on Natural Terrain Hazard Study and Recommended Hazard Mitigation Works for Site P

Catchment No. (Type)	Landslide History	Summary	Recommended Hazard Mitigation Works
A1 (CD)	3 Recent, 12 Relict (Class B and Class C)	Low risk catchment due to presence of a series of anthropogenic terrace at slope toe which could act as a natural buffer to debris.	No mitigation works proposed.
A2 (OH)	No Record	Low risk catchment due to absence of landslide history.	No mitigation works proposed.
C2A(CD)	No Record	Low risk catchment due to absence of landslide history.	No mitigation works proposed.
C2B (CD)	1 Relict (Class C)	Low risk catchment as there is only 1 Class C relict landslide.	No mitigation works proposed.
C3 (CD)	1 Recent, 4 Relict (Class A)	Medium risk catchment due to Class A relict landslides and 1 recent landslide.	Construct check dam at discharge point.
C4 (TD)	No Record	Low risk catchment due to absence of landslide history. Nevertheless, assessment suggests that natural terrain hazards may occur in close vicinity of the development.	Construct flexible debris barrier at slope toe.
C5 (OH)	No Record	Low risk catchment due to absence of landslide history. Nevertheless, assessment suggests that natural terrain hazards may occur in close vicinity of the development.	Construct flexible debris barrier at slope toe.
C6 (OH)	No Record	Low risk catchment due to absence of landslide history. Nevertheless, assessment suggests that natural terrain hazards may occur in close vicinity of the development.	Construct flexible debris barrier at slope toe.
C7 (OH)	No Record	Low risk catchment due to absence of landslide history.	No mitigation works proposed.

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Catchment No. (Type)	Landslide History	Summary	Recommended Hazard Mitigation Works
D1 (TD)	6 Relict (Class B and Class C)	Low risk catchment as all 6 landslides are relict landslides.	No mitigation works proposed.
D2 (TD)	No Record	Low risk catchment due to absence of landslide history.	No mitigation works proposed.

6.5 Findings and Recommendations

6.5.1 Preliminary Geotechnical Appraisals (PGA) have been conducted under the Study. According to the results of the PGA (including the assessment on the existing ground investigation works, geological condition, and geotechnical constraints), it is considered that the proposed geotechnical works which include mainly excavation works, slope works and earth retaining works for the Sites and the supporting infrastructure are technically feasible. The areas to be affected by the proposed geotechnical works are shown in ***Figures 188563/PGA/003A-C, 188563/PGA/203A-C*** and ***188563/PGA/303***.

6.5.2 It is recommended all relevant existing man-made slope features as identified in the PGA should be reviewed to assess the risk of landslide and necessary geotechnical works should be proposed in the later Investigation, Design and Construction stage. A detailed geotechnical assessment should be carried out for the recommended site formation layout at the later Investigation, Design & Construction stage to define the scope and programme of necessary geotechnical works to be carried out under the Project.

6.5.3 According to existing drillhole records, the bedrock within Sites 1 and 2 and Sites 3 to 5 is well below the proposed formation level, hence extensive rock breaking is not anticipated for these sites. Nevertheless, the geological conditions and the rockhead levels of the Sites should be reviewed, when necessary, in the subsequent I, D&C Stages. Since it is envisaged that all cut slope works will be excavated within colluvium and saprolite layer, the cut slopes should be kept to a maximum of 30 degrees to reduce stabilisation measures footprint. Also, no specific constraints on site formation are anticipated.

6.5.4 A natural terrain hazard study (NTHS) has been carried out in accordance with GEO Report No. 138 (2nd edition). The assessment identified that the areas of hillside within the study area contain potential open hillslope landslide, topographic depression and channelized debris flow hazards affecting the proposed developments. The qualitative assessment recommended that potential hazards shall be mitigated by debris barriers along boundaries of the sites and at the respective discharging points of the natural drainage lines/topographic depressions. The proposed locations and layouts of debris barriers in the form of rigid barriers, flexible barriers and check dams are shown in ***Figures 188563/ELP/002 and 003***. The implementation of such mitigation measures should be further discussed with HD and GEO in Investigation, Design & Construction stage once more ground information becomes available.

6.5.5 Whilst more geological and geotechnical information are collected from detailed field mapping and ground investigation in later stage of project, the findings in this report should be further reviewed and a detailed NTHS should be carried out.

6.6 Summary

6.6.1 In view of the preliminary findings from the geotechnical appraisals, no insurmountable issue is anticipated for the proposed development in the geotechnical aspect.

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7 LAND MATTERS

7.1 General

7.1.1 This chapter aims to summarize the key land requirement issues due to the proposed developments.

7.2 Land Resumption

7.2.1 Based on the land status records, about 2,873m^2 (subject to confirmation) of private lands in total are proposed to be acquired for the proposed public housing development at Site 1, Site 2 and their associated infrastructural works.

7.2.2 Approximately 52,200 m^2 of government land is required for the proposed public housing development at Site 1, Site 2 and their associated infrastructural works.

7.2.3 Approximately 85,200 m^2 of government land is required for the proposed public housing development at Sites 3 & 4, proposed school Site 5 and their associated infrastructural works.

7.2.4 Approximately 27,300 m^2 of government land is required for the proposed private housing development at Site P.

7.3 Crops, Fruit trees, Livestock Farm, Fish Pond

7.3.1 According to the site inspections and aerial photographs, no active use for livestock farms or fish ponds requiring clearance was observed within the works areas of the proposed public and private housing developments preliminarily. Nevertheless, it should be subject to further confirmation in the subsequent Investigation, Design & Construction (IDC) stage.

7.3.2 Ex-gratia Allowance ("EGA") may be payable to the affected cultivators for the loss of crops, farm installations and fixtures to land which must be used principally for agricultural purposes ("MPI").

7.4 Graves, Kam Taps (Urns) or Shrines

7.4.1 Two graves with six cluster of urns that would require clearance were identified within Site 2. The numbers of grave and urns affected has yet confirmed and subject to a comprehensive Grave Survey to be carried out in the subsequent I, D&C stage.

7.4.2 No graves were identified within Site 1, Sites 3 to 5 and Site P preliminarily. However, it should be subject to detailed grave survey to be carried out at later stage.

7.5 Buildings on Government Land

7.5.1 Based on aerial photographs and desk top study, a total of 60 buildings, including temporary structures, on government land that would require clearance, were identified within the works area of Sites 3 to 5 and Site P. No buildings or temporary structures were identified within Sites 1 and 2. It is suggested to further verify in I, D&C stage.

7.6 Access Provision

7.6.1 For Site 1, a footpath leading to two graves at its southern hillside behind is affected by the site formation works. Provision of temporary access at construction stage from the existing staircase to the graves is required. The proposed alignment of the access is shown in ***Figure 188563/ELP/002***.

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7.6.2 For Site 2, a footpath leading to the graves and burial ground at its southern hillside intersects with the Site. Reprovision of this footpath along the western periphery of Sites 2 is required. The proposed alignment of the footpath is shown in ***Figure 188563/ELP/002***.

7.6.3 Footpath to Shun Yee Sun Tsuen near Sites 3 & 4 is affected by the road widening and upgrading works of the existing Ma On Shan Tsuen Road.

7.6.4 Some accesses to the nearby dwellings or squatter areas would be affected or cut-off by Site P.

7.6.5 Unobstructed accesses or footpaths leading to the settlements and other nearby existing structures as mentioned in the above Sections 7.6.3 and 7.6.4, and re-provisioning of these accesses/footpaths alike, shall be provided during and after the implementation of works under the proposed developments. Indicative alignments of the re-provisioned accesses are shown in ***Figure 188563/ELP/003***.

7.7 Others

7.7.1 The laying of sewerage pipe would encroach onto "The Railway Protection Boundary of Ma On Shan Line" near Wu Kai Sha Station. The works within the Railway Protection Boundary shall comply with relevant guidelines and control criteria.

7.8 Summary

7.8.1 A preliminary land requirement study has been conducted to identify the land requirements of the proposed site formation and infrastructural works. It is anticipated that there would be no insurmountable issue from the land acquisition viewpoint.

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8 ENVIRONMENTAL

8.1 General

8.1.1 Preliminary Environmental Studies (PES) have been conducted as part of the feasibility study to assess the overall acceptability of any adverse environmental consequences that are likely to arise because of the proposed developments.

8.2 Environmental Impact Assessment Ordinance (EIAO)

8.2.1 The site formation and infrastructural works for the proposed developments do not fall within any Country Park, special area, conservation area, marine park, marine reserve, site of cultural heritage and site of special scientific interest. Hence, the proposed developments do not constitute to any Designated Project (DP) under Item Q.1 of EIAO Schedule 2.

8.2.2 The total footprint of the proposed works under this EFS is about 16.5 ha (i.e. less than 20 ha). Moreover, according to **Table 2.1**, the total population intake for the proposed developments is about 20,000 (i.e. less than 100,000). Therefore, DP as specified by Item 1 under Schedule 3 of the EIAO would not be involved.

8.2.3 As discussed in Chapter 4, the proposed developments would be connected to the existing public sewerage network via the proposed new sewerage pipes to cater for the sewerage flow generated from the new population. The sewerage connections would be completed by the time of population intake. Thus, the proposed developments would not involve DP as specified by Item P.2 of EIAO Schedule 2.

8.2.4 As advised by the Transport Department (TD), the proposed access road connecting Sites 1 and 2 as shown in ***Figure 188563/ELP/002***, as well as the upgraded Ma On Shan Tsuen Road connecting Sites 3 to 5 and Site P as shown in ***Figure 188563/ELP/003***, would be defined as Local Distributor roads. The proposed developments do not involve construction or major modification to expressway, trunk road, primary distributor road or district distributor road. Thus, the proposed developments do not constitute to Designated Project (DP) under Item A.1 of EIAO Schedule 2.

8.2.5 Major junction improvements involving material change to district distributor roads, i.e. Sai Sha Road, may constitute a DP under Item A.1 of EIAO Schedule 2. Nevertheless, the proposed junction improvement works at the roundabout of Sai Sha Road / Nin Wah Road / Nin Fung Road as shown in **Appendix A** only comprise minor modification and widening of one of the roundabout exit arms, and would unlikely involve material change. Subject to a more comprehensive review on the design during the subsequent Investigation, Design and Construction Stage, implications under the EIAO shall be confirmed in consultation with EPD.

8.2.6 There is a prevailing HyD's Environmental Permit EP-119/2002/A for "Sai Sha Road Widening between Kam Ying Road and Proposed Road T7 Junction". Subject to confirmation in the Investigation, Design and Construction Stage, it is anticipated that the additional traffic noise and air quality impacts generated by the minor widening works at the junction of Sai Sha Road / Kam Ying Road as shown in **Appendix A** may not be significant. Moreover, the proposed improvement works do not involve modification of noise barriers as covered by such HyD's Environmental Permit. Subsequently, variation to HyD's Environmental Permit would not be required. Implications under the EIAO shall be review and confirmed in consultation with EPD during the Investigation, Design and Construction Stage.

8.2.7 The upgraded Ma On Shan Tsuen Road would involve construction of a short section of elevated bridge over valley as shown in ***Figure 188563/ELP/003B*** to connect Site P.

Nevertheless, the proposed bridge section is about 93m in length (i.e. less than 100m). Therefore, the bridge would not involve DP under Item A.8 of EIAO Schedule 2.

8.2.8 In addition, a fresh water service reservoir and a salt water service reservoir will be proposed in the vicinity of Site P. The proposed fresh water service reservoir will be fed by the existing Ma On Shan (MOS) Fresh Water Service Reservoir (FW S/R) and MOS No. 2 FW S/R, and the proposed salt water service reservoir will be fed by the existing MOS Salt Water Service Reservoir (SW S/R), MOS No. 2 SW S/R and MOS No. 3 SW S/R, which are all sourced from the Sha Tin Seafront SW Pumping Station. The proposed waterworks would not involve construction or modification of primary reservoirs as specified by Item E.1 under Schedule 2 of the EIAO.

8.2.9 After the construction of Trunk Road T7 was completed, 4 Further Environmental Permits including FEP-01/057/2000/A, FEP-02/057/2000/A, FEP-03/057/2000/A and FEP-04/057/2000/A were granted to various government departments including Drainage Services Department (DSD), Leisure and Cultural Services Department (LCSD), Water Supplies Department (WSD) and Highways Department (HyD) respectively in 2012. The layout of the proposed site formation works of Sites 3 to 5 and the realignment of Ma On Shan Tsuen Road (proposed works) as well as the FEP of Trunk Road T7 in MOS have been reviewed. Their potential conflicts of the FEP with the proposed works are summarized in **Appendix B**. Implications under the EIAO shall be reviewed and confirmed in consultation with EPD and relevant technical authorities in the Investigation, Design and Construction Stage.

8.3 Air Quality

Potential Air Quality Impacts

8.3.1 In general, potential constructional air quality impacts would be mainly related to emission of fugitive dust including TSP, RSP and FSP from exposed site areas, including the excavation areas of the formation platform and cut slopes, movement of vehicles along unpaved roads, material handling and wind erosion of the sites.

8.3.2 Potential sources of air pollution during operation phase would be the vehicular emissions of NO_2, RSP and FSP from the surrounding roads, such as Ma On Shan Bypass and the new access roads to the proposed developments of the proposed sites.

Proposed Mitigation Measures

8.3.3 To mitigate dust impact, watering of the construction areas with frequency of once per hour with reference to the "Control of Open Fugitive Dust Sources" (USEPA AP-42) would be required to reduce dust generation from the construction activities of the proposed developments.

8.3.4 In addition, under the auspices of the Air Pollution Control (Construction Dust) Regulation, the Contractor will be required to ensure that dust control measures stipulated in the Regulation should be implemented to control dust emissions. The dust control measures shall also be incorporated into the Contract Specification where practicable as an integral part of good construction practice, such as:

(i) Use of regular watering to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather;

(ii) Use of frequent watering for particularly dusty construction areas and areas close to Air Sensitive Receivers (ASRs);

(iii) Side enclosure and covering of any aggregate or dusty material storage piles to reduce

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emissions. Where this is not practicable owing to frequent usage, watering shall be applied to aggregate fines;

(iv) Open stockpiles (if any) shall be avoided or covered. Prevent placing dusty material storage piles near ASRs;

(v) Use of 2.4m site hoarding;

(vi) Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations;

(vii) Establishment and use of vehicle wheel and body washing facilities at the exit points of the site;

(viii) Imposition of speed controls for vehicles on unpaved site roads, 8 km per hour is the recommended limit;

(ix) Routing of vehicles and position of construction plant should be at the maximum possible distance from ASRs;

(x) Every stock of more than 20 bags of cement or dry pulverized fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides;

(xi) Cement or dry PFA delivered in bulk should be stored in a closed silo fitted with an audible high level alarm which is interlocked with the material filling line and no overfilling is allowed; and

(xii) Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system.

8.3.5 Proper design of the housing development taking into account the air intake and window opening locations for ventilation is recommended to mitigate the air quality impact during the operation phase. It is also suggested that no window opening for ventilation or air intake should be located within the buffer distances of Ma On Shan Bypass and Ma On Shan Tsuen Road to avoid the nuisance due to vehicular emissions.

8.3.6 A distance of more than 50m is provided between Site 1 and the portal of Ma On Shan By-pass Slip Road. Detailed assessment would be carried out during the Investigation, Design & Construction stage of the housing development. If there is any air quality impact identified during the Investigation, Design & Construction stage, mitigation measures such as proposing non-air sensitive uses area, increase the elevation of the ASRs, etc should be proposed in order to minimise the air quality impact.

Residual Impacts

8.3.7 Based on the results from the quantitative assessment conducted for the proposed developments, with sufficient mitigation measures adopted including regular watering and other good site practices specified in the Air Pollution Control (Construction Dust) regulation, the predicted total suspended particulates, respirable suspended particulates and fine suspended particulates (TSP, RSP and FSP) concentrations at the Air Sensitive Receivers (ASRs) would be within the relevant criteria of the Hong Kong Air Quality Objectives (AQOs). Hence, no adverse residual impacts are anticipated.

8.3.8 No adverse impacts during operation phases from Ma On Shan Bypass, Ma On Shan Bypass Slip Road and the proposed new access roads connecting the sites would be anticipated, provided that the buffer distances, locations of air intake and window opening for ventilation

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would be considered in the design of the housing development. Impacts during operation phase of the Project from portal emission and proposed junction improvement work would be reviewed during the Investigation, Design and Construction Stage.

8.4 Noise

Potential Construction Noise Impacts

8.4.1 The potential sources of noise impact during the construction phase would be the use of Powered Mechanical Equipment (PME) for various construction activities. The major sources of noise would be from the construction activities during different stages for the site formation and infrastructure works.

8.4.2 There would be some utility installation works and road junction improvement works for the housing development. These works have been considered so as to predict the noise impact imposed on nearby Noise Sensitive Receivers (NSRs).

Potential Traffic Noise Impacts

8.4.3 The traffic noise impact would be generated by the roads surrounding on the proposed housing development (e.g. Ma On Shan Bypass) and the new access roads on the NSRs. Apart from the proposed new access roads, minor road improvement works were proposed for the development. It is anticipated that the minor improvement works would not have any additional traffic noise impact on the NSRs.

Fixed Noise Impact

8.4.4 The major fixed noise impact would be mainly generated by the proposed pumping station, proposed freshwater and salt water service reservoirs along Ma On Shan Tsuen Road. As noise mitigation measures such as enclosure of the pump, locating the air intake and exhaust by not facing noise sensitive receivers, provision of acoustic lourve for the air intake and exhaust, etc. will be proposed and implemented, it is anticipated that the fixed noise impact generated by these waterworks on the surrounding existing and planned NSRs would be minimal. A Preliminary Environmental Review for the pumping station and service reservoirs will be conducted by relevant government department in accordance with Technical Circular (Works) No. 13/2003 of the Works Bureau.

Proposed Mitigation Measures for Construction Noise Impacts

8.4.5 Noise mitigation measures for construction noise impacts include the use of quiet PMEs with lower Sound Power Level (SWL), Quality Powered Mechanical Equipment (QPME) and commonly used PME which are available in EPD's website, and also installation of temporary noise barriers and acoustic fabric for the PMEs to screen noise from the affected NSRs.

8.4.6 It is recommended in the study to use movable noise barriers at the PMEs. The barrier material shall have a density of at least 10kg/m^2 to provide effective noise screening. With reference to EIAO Guidance Note No. 9/2004, noise reduction of 5dB(A) and 10dB(A) can be achieved by direct application of the noise barriers to movable and stationary plant, respectively.

8.4.7 Enclosures with covers at the top and three sides and a surface density of at least 10kg/m^2 could be applied to screen noise from generally static machineries, such as generators.

8.4.8 Acoustic fabric with a surface density of at least 10kg/m^2 could be applied to screen noise from the drill rig and rock drill for work activities of earthworks (cut & fill) and construction of retaining wall.

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8.4.9 It is also recommended to implement good site practices as far as practicable so as to further reduce the noise levels at NSRs.

Proposed Mitigation Measures for Traffic Noise Impacts

8.4.10 In order to mitigate the road traffic noise impact generated by the proposed access roads, low noise road surface material would be proposed. The extent of the low noise road surface material proposed at the proposed access road should be reviewed in the subsequent Investigation, Design & Construction stage.

8.4.11 In order to mitigate the traffic noise impact generated by the nearby existing roads on the NSRs to the public housing development, acoustic windows are recommended. Furthermore, noise barriers are recommended for the proposed school.

8.4.12 If sensitive uses at the non-domestic blocks within the public housing sites are inevitable, the provision of acoustic insulation in accordance to Section 4.3.10 of Chapter 9 of the HKPSG is proposed as the last-resort in an attempt to alleviate the road traffic noise impact.

8.4.13 The above recommendations will be further investigated in the Environmental Assessment Study (EAS) in the detailed design stage.

Residual Impacts

8.4.14 As per the results from the quantitative assessment conducted for the proposed developments, during the construction phase, the predicted maximum noise levels at the representative NSRs would not exceed the day-time noise criteria of 75dB(A) for the residential developments as well as 70dB(A) (during non-examination period) and 65dB(A)(during the examination period) for the school during the construction activities for varying periods of time after the implementation of practical direct mitigation measures.

8.4.15 During the operation phase, with the implementation of recommended mitigation measures (i.e. provision of noise barriers, low noise road surfacing and acoustic window), it is anticipated that the operation noise levels at the domestic NSRs would be minimised to comply with the respective planning standards. For those non-domestic NSRs with anticipated noise levels not complying with the respective planning standards upon exhaust of direct mitigation measures such as avoidance of locating noise sensitive uses facing the roads and provision of low noise road surfacing, acoustic insulation will be provided as the "last-resort" to abate the excessive noise.

8.5 Water Quality

Potential Water Quality Impacts

8.5.1 The potential water quality impacts during the construction phase include general construction activities, construction site runoff, excavation of soil materials, diversion of existing stream courses, sewerage effluent from construction workforce and accidental spillage. Without proper control, these could lead to increase in suspended solids level, as well as increase in turbidity and reduce dissolved oxygen in the nearby watercourses.

8.5.2 Wastewater would also be generated from the accumulation of solid waste such as plastic package and construction material, and sewage effluent from the construction workforce during the construction phase. If uncontrolled, these could lead to deterioration in water quality. Contaminated discharge and sewage effluent could lead to increase in nutrient levels such as ammonia and nitrogen concentration, and lead to secondary water quality impacts including decreases in dissolved oxygen concentrations.

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8.5.3 The potential sources of water quality impacts during the operation phase include sewerage discharge from the development and surface runoff.

Proposed Mitigation Measures

8.5.4 The site practices outlined in ProPECC PN 1/94 Construction Site Drainage and ETWB TCW No. 5/2005 Protection of natural streams/ rivers from adverse impacts arising from construction works should be adopted as far as practicable to minimise the potential water quality impacts from various construction activities and construction site runoff.

8.5.5 All sewerage effluent from the development during the operation phase would be discharged into the public sewers and no discharge to the nearby watercourses should be allowed. Sufficient drainage system and pollution control facilities, such as gullies, silt traps and oil interceptors, shall be provided as appropriate to handle the potential pollution from urban runoff. These pollution control facilities should be cleaned and maintained regularly to ensure their effectiveness. Additional inspection and cleansing should be carried out before forecasted heavy rainfall. Recommendations in ProPECC PN 5/93 Drainage Plans Subject to Comment by the Environmental Protection Department would also be implemented.

Residual Impacts

8.5.6 During construction phase, all predicted impacts are able to be reduced to acceptable levels, provided that all recommended mitigation measures are implemented and all construction site/works area discharges comply with the Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters (TM-DSS) issued under Section 21 of the Water Pollution Control Ordinance (WPCO). In addition, application of discharge license under the WPCO shall be obtained before discharging effluent from construction site as a control of construction site discharge.

8.5.7 During operation phase, all predicted impacts are able to be minimise by discharge of all sewerage into the public sewer and providing and maintaining adequate drainage system and pollution control facilities. No residual water quality impacts would be anticipated.

8.6 Ecology

Sites 1 and 2

8.6.1 The proposed residential development at Site 1 and Site 2 and the connecting access road has avoided recognized site of conservation importance. The footprints of the Sites and design of the infrastructure works have been refined during the course of the assessment to minimise direct and indirect ecological impacts during construction phase. Habitats to be directly affected within the works area include Woodland, Orchard, Marsh, Open Field, Developed Area, Shrubland, Stream/Watercourse and Plantation.

8.6.2 9 floral species and 11 faunal species of conservation interest were recorded within the study area of the Ecological Impact Assessment. Among them, 6 floral species of low abundance, namely *Pavetta hongkongensis*, *Artabotrys hongkongensis*, *Gnetum luofuense*, *Diospyros vaccinioides, Eleocharis equisetina* and *Cibotium barometz* were recorded within the proposed works area and would be directly affected by the proposed works. A detailed vegetation survey of the affected floral species of conservation interest is recommended to be conducted to identify the affected individuals prior to the commencement of works. Transplantation or preservation of these species on site as far as practicable is recommended so that ecological impact to floral species would be alleviated to minimal.

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8.6.3 To compensate for the loss of woodland habitat, woodland compensation / enhancement will be implemented at three areas to the south of Site 2 as shown in ***Figure 188563/TS/002B***. A large portion of marsh habitat adjacent to Site 1 will also be retained. New drainage system will be implemented to ensure the natural water supply to the marsh habitat will not be adversely affected. The watercourse located west of Site 2 that supports 2 aquatic fauna species of conservation interest, including *Quasipaa exilispinosa* and *Cryptopotamon anacoluthon,* will be retained, and direct impact to the aquatic fauna is avoided.

8.6.4 Together with adaptation of proposed mitigation measures and good environment site management, the overall ecological impact of habitat, including both direct and indirect impact on habitats and species of conservation interest, was considered not significant. Nonetheless, good site practices are recommended to minimise the potential impacts to local ecology.

Sites 3 to 5, A, C & D

8.6.5 The proposed residential and school developments at Sites 3, 4, 5, A, C & D have avoided sites of recognized ecological importance and encroachment onto the Ma On Shan Country Park. The footprints of the Sites and design of the infrastructure works have been refined during the course of the assessment to minimise direct and indirect ecological impacts during construction phase. Habitats to be directly affected within the works area include Woodland, Stream/Watercourse, Developed Area and Plantation.

8.6.6 13 floral species and 15 faunal species of conservation interest were recorded within the study area of the Ecological Impact Assessment. Among them, 4 floral species of low abundance, namely *Aquilaria sinensis, Cibotium barometz, Diospyros vaccinioides* and *Gnetum luofuense*, were recorded within the proposed works area and would be directly affected by the proposed works. A detailed vegetation survey of the affected floral species of conservation interest is recommended to be conducted to identify the affected individuals prior to the commencement of works. Transplantation (except *Gnetum luofuense* which is not feasible to transplant) or preservation of these species on site as far as practicable is recommended so that ecological impact to floral species would be alleviated to minimal.

8.6.7 Two herpetofauna species of conservation interest, *Quasipaa exilispinosa* and *Plestiodon elegans*, were found in woodland and stream/watercourse within the study area respectively, which would be possibly affected by the proposed works. The two species were common and widespread in Hong Kong. To mitigate the ecological impact on the *Quasipaa exilispinosa*, capture and translocation surveys of the species shall be conducted. Translocation Plan with details on capture methodology, programme and receptor site shall be submitted to AFCD for approval before carrying out the fauna translocation. Meanwhile, *Plestiodon elegans* has high degree of mobility and no indirect impact on *Plestiodon elegans* due to the proposed works is anticipated.

8.6.8 To compensate for the loss of woodland and plantation habitats, woodland compensation / enhancement will be implemented. Appropriate planting works will be arranged to form an on-site woodland compensation area on the proposed cut slopes to the south of Sites 3, 4 and 5 as shown in ***Figure 188563/TS/004A***. The remaining loss of Woodland will be compensated by off-site planting at an area to the southwest of Ma On Shan Tsuen as shown in ***Figure 188563/TS/004B***.

8.6.9 Wildlife Crossing System Plan would be adopted at Ma On Shan Tsuen Road and thus reduce the risk of road kill. The herpetofauna species *Quasipaa exilispinosa* was recorded near the Ma On Shan Tsuen Road and is the primary target species for the proposed wildlife crossing system, whereas larger mammals were the secondary target species. A Wildlife Crossing

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System Plan with design detail of the proposed wildlife crossing system shall be submitted and agreed with AFCD prior to the commencement of the upgrading works of the Ma On Shan Tsuen Road.

8.6.10 Together with the implementation of other proposed mitigation measures and good environment site management, the overall ecological impact, including both direct and indirect impact on habitats and species of conservation interest, was considered not significant. Nonetheless, good site practices are recommended to minimise the potential impacts to local ecology during construction phase.

8.7 Waste Management

8.7.1 Construction & Demolition (C&D) materials will inevitably be produced during the construction phase of the Project. Waste generated during construction works includes inert and non-inert C&D materials, chemical waste and general refuse. Mitigation measures have been proposed following the avoidance-minimisation-reuse-recycling-disposal hierarchy:

- *Good Site Practices* - Appropriate waste handling, transportation and disposal methods for all waste arisings generated during the construction works should be implemented to ensure that construction wastes do not enter the nearby water sensitive receivers. In order to monitor the disposal of C&D material at landfills and public fill reception facility, as appropriate, and to control fly tipping, a trip-ticket system should be included as one of the contractual requirements to be implemented by the Contractor. Reference could be made to DEVB TCW No. 6/2010 for details.
- *Waste Reduction Measures* - Good management and control can prevent the generation of significant amounts of waste. Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices.
- *General Refuse* - General refuse should be stored in enclosed bins or compaction units separate from C&D material. A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D material. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light material.
- *Construction and Demolition Material* - The C&D material generated from site formation should be sorted on-site into inert C&D material and non-inert C&D materials. In order to minimise the impact resulting from collection and transportation of C&D material for off-site disposal, the excavated material comprising fill material should be reused on-site as backfilling material as far as practicable. Non-inert C&D materials, such as wood, plastic, steel and other metals should be reused or recycled and, as a last resort, disposed of to landfill. A suitable area should be designated within the site for temporary stockpiling of C&D material and to facilitate the sorting process. When disposing C&D material at a public fill reception facility, the material shall only consist of soil, rock, concrete, brick, inert building debris, aggregates and asphalt. The material shall be free from marine mud, household refuse, plastic, metals, industrial and chemical waste, animal and vegetable matter, and other material considered to be unsuitable by the Filling Supervisor. The potential for reuse of inert C&D materials within the Project will be rigorously explored throughout the course of the project in an effort to minimise off-site disposal.
- *Chemical Wastes* - If chemical wastes are produced at the construction site, the Contractor would be required to register with the EPD as a Chemical Waste Producer and to follow the guidelines stated in the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Good quality containers compatible with chemical wastes should be

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used. Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosives, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc. The Contractor shall use a licensed collector to transport and dispose of the chemical wastes generated at the Chemical Waste Treatment Centre at Tsing Yi, or other licenced facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.

8.7.2 Provided that there is strict control of C&D materials generated from construction works and that all arisings are stored, handled, transported and disposed of in accordance with the recommended mitigation measures, potential environmental impact is not expected.

8.7.3 The recommended mitigation measures can be enforced by incorporating them into the waste management requirements as part of the Environmental Management Plan. Environmental audit would be necessary to ensure the implementation of proper waste management practices during construction.

8.7.4 The operation phase of the proposed development is not expected to generate any significant waste. The quantities of general refuse arising from the proposed development would be low. As such, it is considered to have no adverse environmental impacts.

8.8 Land Contamination

8.8.1 Based on findings from desktop review and observations from the site survey, there is no historical or existing land use with potential contaminative activities identified within Sites 1, 2, 5, A, C and D. In view of the site history, Sites 3 & 4 are considered potentially contaminated due to past mining activities in the Ma On Shan Iron Mine. Nevertheless, it is recommended that site re-appraisal should be conducted prior to the development in order to reflect the latest land use changes. Further site inspection will be performed at a later stage, but prior to construction works, to clearly identify any potential land contamination issues for Sites 3 & 4.

8.9 Potential Heritage Impact

8.9.1 A baseline study, including desk-based review and field evaluation, was conducted to identify any potential heritage impact due to the proposed housing developments and recommend mitigation measures. According to the baseline study, three clusters of graded historic structures, a stone stele and three additional structures were identified within the Heritage Study Boundary.

8.9.2 The majority of the heritage resources in the Heritage Study Boundary, including Shun Yee San Tsuen, structures at the 110ML portal and most of the mineral preparation plant structures can be excluded and separated by a buffer zone from the engineering works areas for the housing development.

8.9.3 A few historic structures fall within the preliminary alignment of the proposed upgrading of Ma On Shan Tsuen Road. These structures will be retained or relocated to other locations within the mineral preparation plant area and 110ML area subject to the final alignment of the upgraded Ma On Shan Tsuen Road in consultation with Antiquities and Monuments Office (AMO) in the subsequent Investigation, Design & Construction stage. The upgrading works of the Ma On Shan Tsuen Road will allow for better, widened and safer access to the upper mining site and potential housing sites, while paths between the historic buildings allows for an enhanced linkage.

8.9.4 Since some heritage sites are found partly or wholly within the project site boundary, it is recommended that a comprehensive Heritage Impact Assessment should be conducted in

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subsequent Investigation stage, subject to the final decision by AMO. It is envisaged that further clarification of the proposed upgrading works of existing Ma On Shan Tsuen Road by indicating the road, widening areas and new works areas as well as provision of supplementary information including but not limited to 3D perspective and photomontage, etc. would be provided.

8.10 Hazard Assessment on Ma On Shan Water Treatment Works

8.10.1 The Ma On Shan Water Treatment Works (MOS WTW) is classified as a potentially hazardous installation under HKPSG. As Sites 1 and 2 fall within the consultation zone of MOS WTW, a hazard assessment on the MOS WTW has been conducted to evaluate the risk acceptability of the proposed sites due to operations of the MOS WTW.

8.10.2 The risk assessment on the overall risk level has been carried out for both construction and operation phases. The analysis revealed that the overall risk level due to the proposed development of Sites 1 and 2 resulting in a population increase will remain in the ALARP (As Low As Reasonably Practicable) region as given in the HKPSG. Therefore, the hazard study concluded that the proposed development will not lead to an unacceptable overall risk.[1]

8.11 Summary

8.11.1 Assessments in the aspects of air quality, noise, water quality, ecology, waste, land contamination, heritage and hazard were conducted under the study. It is anticipated that there would be no insurmountable issue from the environmental point of view.

[1] The Hazard Assessment will be reviewed based on the latest available project data during the Investigation and Design stage of the project, and a new HA will be conducted if the conclusions made in the current HA are not valid.

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9 AIR VENTILATION ASSESSMENT IN THE FORM OF EXPERT EVALUATION

9.1 General

9.1.1 Qualitative assessments of wind environments with the proposed public housing development at Sites 1 to 5 have been carried out based on the conceptual layouts.[1] The conceptual layouts of Sites 1 to 5 are shown in ***Figures 188563/VIA/003 and 103***.

9.2 Summary on Site Wind Availability and Air Ventilation Performance

Sites 1 and 2

9.2.1 For Sites 1 and 2, the annual winds mainly come from NE, ENE, E and ESE directions. During summers, the winds from E, ESE, SE, SW and WSW are the dominant wind directions.

9.2.2 Currently, there is no building structure within both Site 1 and Site 2. It is believed that the new high-rise development would partially obstruct wind flow to downstream areas.

9.2.3 Under the annual NE and ENE wind condition, the proposed development would not cause significant air ventilation impact to the downstream areas. Under E wind condition, the proposed development would have blockage of incoming E winds towards to the downstream areas such as Lake Silver, Monte Vista, Lee On Estate and Kam Lung Court. However, there is a wide separation between the proposed development and the nearby residential buildings (Lake Silver, Monte Vista). It is expected that the induced wind ventilation impact would be minimal.

9.2.4 Under ESE and summer SE wind direction, it is expected that Cheung Muk Tau Tsuen, Symphony Bay Villa Concerto and future development at STTL 605 would be under the wind shadow areas. Under summer SW and SSW wind condition, it is expected that the high-rise residential blocks of proposed development would provide wind blockage to the downstream areas (Cheung Muk Tau Tsuen and Symphony Bay Villa Rhapsody). However, the proposed building separations in the notional design would facilitate wind penetration and no significant impact would be induced to surrounding areas.

Sites 3 to 5

9.2.5 For Sites 3 to 5, it is concluded from the wind data that the annual winds mainly come from NNE, NE, ENE, E and ESE directions. During summers, the winds from E, SSE, SSW and SW are the dominant wind directions.

9.2.6 Currently, there is no high building structure within Sites 3 to 5. It is expected that the new high-rise development would obstruct wind to flow towards the downwind areas.

9.2.7 Under the annual NNE to ENE wind conditions, the proposed development would not cause significant air ventilation impact to the downstream areas. However, as the proposed school at Site 5 is located in the immediate downstream area of the proposed housing development at Sites 3 & 4 under ENE wind, wind availability at Site 5 will be affected. With the 15m building separation between Block 1 and Block 2, it is expected that the pedestrian wind comfort would be enhanced.

9.2.8 Under annual and summer E wind condition, the proposed development would induce blockage on the incoming E winds towards the downstream areas such as Yiu On Estate, Heng On Estate and Kam On Court. However, as those surrounding developments are far from Sites 3 & 4, it is expected that the potential impact will not be significant. Thus, it is expected that

[1] According to the development parameters of the proposed private housing site (Site P), air ventilation assessment under the Housing, Planning and Lands Bureau Technical Circular No.1/06 is not required.

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the ventilation impact on its surrounding is minimal. However, there may be potential impact of Sites 3 & 4 on Site 5 where is in the immediate wake region of the proposed development of Sites 3 & 4 under E wind.

9.2.9 Under annual ESE and summer SSE wind direction, the leeward areas include Park Belvedere, Yiu On Estate and Sunshine City. It is expected that the high-rise of proposed development would induce minimal wind blockage impact to the downstream areas as those surrounding developments are far from Sites 3 & 4. Under SSE wind, there is a 15m building separation along SSE to NNW wind direction between Block 2 and Block 3. More portion of SSE wind flow through the proposed garden inside Sites 3 & 4, and reach Park Belvedere.

9.2.10 Under summer SW and SSW wind condition, the prevailing winds would flow along Ma On Shan Bypass. It is expected that the wind performance on the other side of Ma On Shan Bypass (such as Park Belvedere, Yiu On Estate and Kam Ying Court) would not be worsen by the proposed buildings. On the contrary, the proposed development would partially block some prevailing SSW wind from flowing to leeward areas such as Shun Yee San Tsuen. Thus, the potential impact on the Shun Yee San Tsuen is anticipated. However, there is a 15m building separation along ENE to WSW wind direction between Block 1 and Block 2. For the SW incoming wind, it is expected that it can penetrate the Subject Site through setbacks from Ma On Shan Bypass and Ma On Shan Tsuen Road and the proposed building gaps (between the proposed non-domestic block & Block 3, and Block 1 & Block 2) to the surrounding areas (such as Shun Yee San Tsuen and Kam Ying Court). Thus, it is anticipated that the ventilation performance of the surrounding areas would not experience any significant impact.

9.3 Conclusions and Recommendations

9.3.1 In order to minimise the potential ventilation impacts, the conceptual layout of the proposed housing development has been carefully designed after a qualitative assessment of wind performance of the sites in consideration of the existing condition and the proposed indicative schemes. A preliminary assessment on site characteristics and wind availabilities has been conducted, which are indicated as follows:

For existing condition at Sites 1 and 2:

- The annual NE and ENE wind will be weakened by the surrounding mid-rise developments while the E and ESE wind will be weakened by existing hilly terrains.
- Summer winds will be weakened by existing hilly terrains before reaching Site 1 and Site 2.

For existing condition at Sites 3 to 5:

- The annual prevailing wind will be dominated by the surrounding mountains.
- Summer winds will provide good ventilation at and around the sites.

For indicative Scheme of Site 1 and Site 2:

- Wind shadow may be casted by the building blocks, which may affect wind availability at the downstream areas such as Monte Vista, Lee On Estate, Kam Lung Court and Symphony Bay Rhapsody under the annual prevailing NE wind, ENE wind, E wind, summer prevailing ESE wind and SE Wind.
- Building separations of 15m aligning with NE-SW is proposed to promote wind penetration through Site 1.
- Building separations of 15m aligning with NW-SE is proposed to promote wind penetration through Site 2.

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For indicative Scheme of Sites 3 & 4 and Site 5:

- Wind shadow may be casted by the building blocks, which may affect wind availability at the downstream areas such as Shun Yee San Tsuen under the summer prevailing SW wind.
- Two building separations of 15m wide aligned ENE-WSW and SSE-NNW directions is implemented to improve wind penetration through the Sites 3&4.
- Building setback from site boundary along Ma On Shan Bypass to promote wind penetration.
- Building separation between the non-domestic block (Site 5) and the closest domestic block (i.e. Block 3 of Sites 3 & 4) to promote wind penetration.

9.3.2 As discussed above, building design features proposed for the development would be beneficial to the air ventilation performance in the surrounding areas. Further recommended design principles for consideration at the Investigation, Design & Construction stage to facilitate wind penetration are listed below:

- Maximize building permeability with reference to the good design features suggested in PNAP APP-152;
- Minimization of podium bulk with ground coverage of no more than 65%;
- Building setback with reference to PNAP APP-152;
- For public housing, greenery of at least 20% and an overall target of 30% is aimed to be achieved, preferably at grade;
- Avoidance continuous long continuous façades; and
- Reference could also be made to recommendations of design measures in the Hong Kong Planning Standards and Guidelines.

9.3.3 Based on the findings of the study, it is revealed that the proposed developments would not incur significant adverse impacts to the surrounding environment in consideration of the location of the existing built areas and the provision of good design features.

9.3.4 A quantitative AVA study should be carried out in the Investigation, Design & Construction stage to show the wind performance of the future scheme which would not have any significant air ventilation impact on the surroundings and to optimize scheme design.

9.4 Summary

9.4.1 From the air ventilation point of view, no insurmountable issue is anticipated for the proposed development with the incorporation of good building design features.

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10 VISUAL IMPACTS

10.1 General

10.1.1 A Visual Impact Assessment (VIA) has been undertaken in accordance with Town Planning Board Guidelines on Submission of Visual Impact Assessment for Planning Applications to the Town Planning Board (TPB PG-No.41) to assess the impacts arising from the proposed public housing development and associated infrastructures for Sites 1 to 5 from visual perspectives.

10.1.2 The Visual Impact Assessment Area is defined by the visual envelope (Zone of Visual Influence, ZVI) of the proposed visually intrusive works of the proposed public housing development and associated infrastructures for Sites 1 to 5. ***Figures 188563/VIA/004*** and ***104*** refer.

10.1.3 A Visual Appraisal was conducted for the proposed private development at Site P to provide visual appraisal for the assumed private development.

10.2 Existing Visual Elements

Sites 1 and 2

10.2.1 Major visual resources of the region include the densely-vegetated Ma On Shan mountain and its ridgeline, natural coastline near Nai Chung and the seascape of Tolo Harbour. No major visual detractors were found within the ZVI.

10.2.2 The proposed works is located just outside the Ma On Shan town centre and this sub-urban fringe landscape is characterised by the less crowded setting in terms of both buildings and population. Both Site 1 and Site 2 are located at the edge of the sub-urban area. Site 1 currently consists of plantations and woodlands while Site 2 is an area covered with mixture of secondary woodland and orchards maintained by the local villagers.

10.2.3 The key visual corridor is the view towards the mountain range of Ma On Shan from the Tolo Harbour direction from the north.

10.2.4 The visual quality of the region to most of its public is generally within the range between medium to good.

Sites 3 to 5

10.2.5 Major visual resources of the region include the well vegetated Ma On Shan mountain and its ridgeline, and the seascape of Tolo Harbour.

10.2.6 Due to the significant differences in landscape characters at either side of the Ma On Shan Bypass, the visual quality of the two sides also varies. The visual quality of the area southeast of the Ma On Shan Bypass is considered high due to the well-preserved natural landscapes and lack of major urban developments at this side. The area northwest of the Bypass is the highly urbanised Ma On Shan Town Centre with the provision of amenity areas and urban greenery along roads and developments. The township is a neutral landscape and visual element which is neither regarded as a visual attractor nor visual detractor. The overall visual quality of this area is considered to be within the range of medium.

10.2.7 The key visual corridor is the view towards the mountain range of Ma On Shan from the Tolo Harbour direction from the north and northwest.

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10.3 Appraisal on Visual Changes

Sites 1 and 2

Visual Composition

10.3.1 Sites 1 and 2 as well as their associated road woks will situate at the edge of the rural area with wooded vegetations sandwiched between the Cheung Muk Tau Tsuen and Mount Ma On Shan. Currently, the two sites are not visible by most of the public viewers due to the moderately sheltering by the presence of the village houses of the Cheung Muk Tau Tsuen, medium-rise buildings of Symphony Bay and the Ma On Shan Bypass located at the north of the sites. In addition, the mountain range of Mt. Ma On Shan is over 600m in height on average in an east-west direction, which can also form a large screen at the south of the sites.

10.3.2 In terms of visual composition, the proposed development would reduce the visual amenity by replacing the existing natural vegetated landscape with two residential complexes at Sites 1 and 2. The existing environment of Sites 1 and 2 is currently blended with the rural village of "Cheung Muk Tau Tsuen" and Sai O, which are considered as a transitional landscape at the east of the highly urbanised Ma On Shan township and a certain visual and landscape buffer to the rural village type area at the east of Nai Chung and the natural geography at the Ma On Shan mountain range. As a matter of fact, the presence of the proposed development at Sites 1 and 2 would inevitably exert some negative impacts on such a buffering effect. Nevertheless, the proposed locations of Sites 1 and 2 have been designed to border directly the existing residential buildings including the Cheung Muk Tau Tsuen and Symphony Bay so that such impacts could be alleviated. It is considered that such an arrangement can avoid the fragmentation of the existing transitional landscape since no isolated sites would be located inside the visual resources characterised by natural vegetation.

10.3.3 In addition, the proposed access road to connect Sites 1 and 2 with existing Nin Fung Road is also considered in this appraisal. Under the preliminary design layout, the access road will be constructed with the similar level to the surrounding village houses by supporting with retaining structures. To minimise the potential visual impact arising from the access road and its associated retaining structures, some mitigation measures with landscape treatments on the structures should be considered.

Visual Obstruction

10.3.4 In order not to give rise to a significant visual obstruction to the views towards the ridgeline of Mt. Ma On Shan, the proposed building height at the roof level in Sites 1 and 2 should be duly designed and limited to about +165mPD, which could allow an approximate 430m (>70%) of buffer zone to the average 600m high ridgeline at the back. This height proposal is considered necessary to minimise any significant visual obstruction and visual incompatibility to the local visual context.

Visual Resources

10.3.5 In terms of visual resources, a total of about 3.6ha of woodland areas would be affected by the proposed works for Sites 1 and 2 and its associated infrastructures. Such resources, however are far beyond the views of most public viewers due to the blockage of the views by village houses of the Cheung Muk Tau Tsuen and the Ma On Shan Bypass. The replacement of the vegetated areas by public housing estates on the sites would generate some building masses and site formation that would induce visual changes to the rural setting.

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Effects on Public Viewers

10.3.6 A total of 6 public viewing points (VPs) are selected to present the visual changes to the assessment area and sensitive public viewers taking into account visual sensitivity, local significance and accessibility:

- *VP1 - Hikers from the East*
- *VP2 - Hikers from the South*
- *VP3 - Visitors of Ma On Shan Bypass Sitting-out Area*
- *VP4 - Road users of Sai Sha Road*
- *VP5 - Visitors of Nai Chung Beach*
- *VP6 - Travellers at Nai Chung Bus Stop*

10.3.7 The photomontages of the views at these viewing points are prepared based on the conceptual layout enclosed in ***Figure 188563/VIA/003*** and are shown in ***Figures 188563/VIA/005A-F***.

Sites 3 to 5

Visual Composition

10.3.8 Main construction items for Sites 3 to 5 include three residential building blocks, one school, one relocated pumping station, two water storage facilities and an associated access road connecting the sites to the existing transportation network. Currently, housing Sites 3&4 and school Site 5 are located at areas of either natural woodland or plantation woodland. Due to the comparatively larger scale of site formation and building works at these sites, and the fact that the proposed locations of these works are covered with mature vegetation, the housing and school sites would experience changes in visual composition. The proposed development would inevitably involve removal of existing trees within the site boundaries, thus altering greenery rural landscapes into urbanised land use and causing certain extent of degradation in visual quality to the affected area and its surroundings.

10.3.9 The proposed associated road works include two parts. Part of the proposed road is located northwest of Ma On Shan Bypass while another part is located southeast of Ma On Shan Bypass. The north-western section will make use of existing Ma On Shan Tsuen Road without road widening and new proposed alignment. This section will not experience any visual changes after the completion of the project. The south-eastern section will involve improvement and widening of an existing section of Ma On Shan Tsuen Road and construction of a new short road section alongside the existing Ma On Shan Tsuen Road for meeting the traffic requirement. As this section is part of the hiking path to Ma On Shan Country Park, the changes in the Ma On Shan Tsuen Road would be noticeable to the hikers. Though some existing vegetation within the proposed alignment would be removed, the large amount of offsite hillslope vegetation can still provide roadside greenery which resembles the landscape character similar to the current sceneries.

10.3.10 One pumping station is proposed at downhill of Sites 3 to 5 and two service reservoirs (for both fresh water and salt water supply services) are proposed uphill. As the height of the reservoirs and the pumping station are proposed to be around 15m, it is considered that the scale of such works is very low compared to the new building blocks nearby. By referring to the past examples of government waterworks being constructed in remote rural areas, it is anticipated that such proposed structures will not be visually intrusive from the hikers or other recreational users' perspectives.

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Visual Obstruction

10.3.11 All the three Sites 3 to 5 are located alongside the Ma On Shan Tsuen Road and situate at the southeast of the Ma On Shan Bypass. Currently, these proposed sites are either invisible or not obvious in the view of most of the publics due to blockage by dense vegetation around the area. The major mountain range of average height 550-600m (with maximum height reaching 677mPD at the Hunch Backs) running east-west direction forms the dominant backdrop of the proposed development.

10.3.12 In order to avoid significant visual obstruction to the views towards the ridgeline, the proposed building height at main roof level of the project would be carefully designed to about +223mPD which allows an approximate 330-380m (about 60%) buffer zone to the average 550-600m height ridgeline at the back. This building height is considered essential to minimise significant visual obstruction and visual incompatibility to the local visual context.

Visual Resources

10.3.13 In terms of visual resources, the proposed development would affect about 2.6 ha of woodland areas. As all the proposed Sites 3 to 5 and some associated infrastructures are located in the woodland margin downslope of the maturely vegetated Ma On Shan Mountain, disturbance to the existing vegetation would be unavoidable. The site formation of the public housing development would inevitably replace the vegetated area by building mass and induce visual changes to the original rural setting.

Effects on Public Viewers

10.3.14 A total of 8 public viewing points (VPs) are selected to present the visual changes to the assessment area and sensitive public viewers taking into account visual sensitivity, local significance and accessibility:

- *VP1 - Hikers from the Southeast*
- *VP2 - Hikers from the South*
- *VP3 - Hikers from the Southwest*
- *VP4 - Road users at Hang Hong Street Roundabout*
- *VP5 - Recreational Users of Kam Ying Court Playground*
- *VP6 - Recreational Users of Ma On Shan Promenade*
- *VP7 - Road users of Ma On Shan Road*
- *VP8 - Recreational Users of Pak Shek Kok Promenade*

10.3.15 The photomontages of the views at these viewing points are prepared based on the conceptual layout enclosed in ***Figure 188563/VIA/103*** and are shown in ***Figures 188563/VIA/105A-H***.

10.4 Findings and Recommendations

Recommended Mitigation Measures

10.4.1 To alleviate the potential visual impacts to the existing visual resources and visually sensitive receivers, the following design stage mitigation measures could be considered when developing the engineering designs during the detailed design stage:

- *DM1 Avoidance of Blockage of Ma On Shan Ridgeline* – the Ma On Shan ridgeline is one of the major visual resources in the region forming the spectacular backdrop in most views of the public. The building height of the development would be carefully designed to properly preserve the ridgeline of Ma On Shan.

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- *DM2 Minimization of Building Mass* – the development is designed to follow Building Department's APP-152 – *Sustainable Building Design Guidelines* to avoid continuous building mass and wall-like development; and visual corridor between each building blocks would be provided to allow visual penetration and prevention of significant visual obstruction. Apart from the inter-site arrangement, corridors of minimum width 15m would be allowed in between the building blocks inside each site to serve as both visual and air ventilation passageways.
- *DM3 Minimization of Landscape Fragmentation* – the location of the future housing development is proposed in areas as close to existing major infrastructures as possible to avoid fragmentation effect to the existing intact natural landscape in close vicinity to Country Park. The currently proposed location will be immediately adjoining the Ma On Shan Bypass to the north and a residential village of Shun Yee San Tsuen to the east. This could allow the development to be limited to the transitional landscape between the urbanised land use and the natural vegetation and therefore reduce the visual disturbance to practical minimum.
- *DM4 Alleviation of Visual Nuisance by Suitable Urban Design* – for meeting the air ventilation requirement, air passageways of minimum 15m width would be provided within the housing developments. These air ventilation corridors will at the same time can also act as visual corridors which will allow view passage and minimise visual obstruction by avoiding wall-like structures in front of the mountain range.

10.4.2 The construction phase mitigation measures listed below are recommended to be adopted from the commencement of construction and throughout the entire construction period:

- *CM1 Preservation of Existing Trees* – Existing trees designated to be retained in-situ shall be properly protected. Tree protection measures shall be undertaken in accordance with DEVB TC(W) 4/2020 on "Tree Preservation" and Guidelines on Tree Preservation during Development" by DEVB. Should removal of trees be unavoidable due to construction impacts, trees will be transplanted where technically feasible. This mitigation measure will be detailed in a separate *Tree Preservation and Removal Proposal* which is to be regulated by DEVB TC(W) 4/2020. Offsite vegetation should not be disturbed to preserve the local greenery by clear site demarcation. Approval for *Tree Preservation and Removal Proposal* shall be sought under DEVB TC(W) 4/2020 before commencement of works.
- *CM2 Decorative Screen Hoarding* – Decorative screen hoarding will be erected along areas of the construction works site boundary where the works site borders publicly accessible routes to screen undesirable views of the works site. It is proposed that the screening be compatible with the surrounding environment and where possible, non-reflective, recessive colours be used.
- *CM3 Proper Control of Site Construction Activities* – Construction site controls shall be enforced, where possible, to ensure that potential visual impacts arising from the construction phase activities are minimised. These construction site controls should include but not limited to the following:
    - Storage of materials should be carefully arranged to minimise potential visual impact.
    - The location and appearance of site accommodation should be carefully designed to minimise visual disturbance.
    - Site lighting should be carefully designed to prevent light spillage.
    - Extent of the works area and construction period should be minimised as far as practicable.
    - Temporary works areas should be reinstated at the earliest possible opportunity.

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10.4.3 The operational phase mitigation measures listed below are recommended to be adopted as early as possible so that they shall be in place prior to or right before the population intake:

- *OM1 Suitable design of the proposed development* – Use appropriate building materials and colours in built structures to avoid visual and glare disturbance.
- *OM2 Amenity Planting of Housing Sites (as far as feasible)* – Tree planting shall be provided as far as feasible in the housing sites for the purpose of landscape mitigation and enhancement of the housing sites to improve compatibility with the surrounding environment.
- *OM3 Compensatory Tree Planting* – Compensatory tree planting for all felled trees and affected shrub planting shall be provided as far as feasible to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the application for the *Tree Preservation and Removal Proposal* under DEVB TC(W) 4/2020 before commencement of works.
- *OM4 Amenity Planting of Modified Slopes and Retaining Structures* – Soft landscaping such as hydroseeding could be provided on proposed modified slopes while vertical greening shall be provided as far as feasible for retaining walls along access roads to improve the visual performance of the proposed infrastructures. Reference could be made to GEO Publication No. 1/2011 when designing the landscape treatments for the proposed modified slopes and retaining structures.

10.4.4 With the abovementioned recommended mitigation measures, the photomontages of the proposed public housing development at Sites 1 to 5 at various viewing points are shown in ***Figures 188563/VIA/005A-F*** and ***188563/VIA/105A-H***.

Overall Visual Impacts

10.4.5 The overall visual impacts due to the proposed developments at Sites 1 to 5 are within the range of **Moderately Adverse** as the developments would result in overall term negative effects after recommended mitigation measures to some of the identified key public viewing points.

10.5 Visual Appraisal for Site P

10.5.1 As the detailed development layout of the private housing development site shall be developed by the private developer in the future, this report has formulated some development assumptions to devise a preliminary development layout for the visual appraisal.

10.5.2 The development assumptions are listed as follows: -

- Gross Site Area: 2.7 ha (approx.)
- Net Site Area: 2.4 ha (approx.)
- Domestic Plot Ratio: 3.6
- Targeted Population: 3,120
- Floor to Floor Height: 3.15m
- Total Height of Lobby and Roof: 10m
- No. of Building Platforms: 4
  (Assumed formation levels of each platform at +133mPD, +160mPD, +170mPD, and +180mPD)
- Building Heights: Ranging from +229mPD to +247mPD

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- Local Open Space: 1m² per person *(based on the HKPSG)*
- Site Coverage: <33.33% *(based on the HKPSG)*
- Carpark provision: Basement Carparks

10.5.3 Based on the development assumptions above, a preliminary conceptual layout is formulated as illustrated in ***Figure 188563/VA/003***. Within the developable area of Site P, it could place nine (9) building blocks with storeys of ranging between 18-storey and 27-storey to accommodate the targeted population. Higher building blocks are located at the downhill side, but lower building blocks at the uphill side in order to suit the assumed formation level. As a result, the maximum building height within the private housing site will be at around +247mPD to be located at the most uphill platform.

10.5.4 In addition, social welfare facility, i.e. a residential care home for the elderly (RCHE) serving about 150 people, is proposed to be provided in the 2-storey podium at Block 1 to cater for the potential demand. It is recommended to provide the social welfare facility near the egress/ingress of the private development site, as illustrated in ***Figure No. 188563/VA/003***, to facilitate the operational requirement.

10.5.5 Six types of block layouts are proposed in the assumed development layout subject to the detailed design by the future private developer. The proposed block layouts could provide four to eight flats per storey.

10.5.6 Under the proposed layout, the site coverage and the local open space area are about 18%, and over 3,500 m² respectively, which could meet the requirements of the HKPSG.

10.5.7 The Appraisal Area is defined by the visual envelope (Zone of Visual Influence, ZVI) of development at Site P which is illustrated in ***Figure 188563/VA/004***. The visual envelope (ZVI) is determined by the anticipated field of views from all sensitive receivers to the proposed private housing development site. A total of 8 public viewing points (VPs) were selected taking into account visual sensitivity, local significance and accessibility to assess the visual influence to the public.

10.5.8 The photomontages demonstrating the visual influence of the proposed private housing development at each viewing point are illustrated in ***Figures 188563/VA/005A to 005H***.

10.5.9 It is recommended that mitigation measures as discussed in Section 10.4 could be adopted by the developer to mitigate the visual impacts during construction and operational phase due to the proposed private housing development.

10.6 Summary

10.6.1 Overall, with the high mountain backdrop, the building height of the proposed housing developments would not affect the continuation of the Ma On Shan ridgeline. Despite the tall building blocks, their slim morphology allows greater flexibility in architectural and landscape design with wider building separation. As such, better visual permeability and air ventilation can be achieved.

10.6.2 Although the overall visual impacts of the proposed developments are considered as 'Moderately adverse' to some of the key viewing points, the proposed developments are in line with the housing policy which optimize the land use and increase housing land supply for both public and private housing developments.

10.6.3 As revealed by the assessment results, with the implementation of suitable mitigation measures, it is anticipated the proposed development would not induce insurmountable visual impact.

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11 LANDSCAPE IMPACTS

11.1 General

11.1.1 Landscape Assessments and preliminary tree survey were conducted for all the potential housing sites such that the value of landscape can be determined, the likely impacts can be assessed, and feasible mitigation measures (if any) can be identified.

11.2 Tree Surveys

11.2.1 Broad brush tree group surveys were conducted from 2017 to 2019 for the proposed developments. The surveys have identified 89 tree groups and found approximately 3,560 trees within the project limit. A total of 117 species were recorded and all of them are common plant species. During the surveys, no registered or potentially registrable OVTs were identified according to the DEVB TC(W) No. 5/2020.

11.2.2 Further review and confirmation on the trees affected by the proposed public housing development will be conducted in I, D&C stage later. Pre-land sale tree surveys for the proposed private housing development, i.e. Site P could be conducted by LandsD to draw up the requirements of tree preservation in the lease conditions.

11.2.3 A summary on the estimated number of trees within the project limit is summarized in **Table 11.3** below:

Table 11.1 Summary on Estimated Number of Trees within the Project Limit

Location	Estimated No. of Trees
Site 1	380
Site 2	390
Sites 3&4	390
Site 5	200
Site P	245
Within / in the vicinity of Infrastructural Works for Sites 1 and 2	680
Within / in the vicinity of Infrastructural Works for Sites 3 to 5	1275

11.3 Summary on Landscape Assessment

11.3.1 None of the identified Landscape Resources (LRs) or Landscape Characteristic Areas (LCAs) will experience substantial residual impacts following mitigations during the operation phase. The greatest residual impact on a LR and LCA is Moderate on Day 1 and Slight at Year 10. It is therefore considered that in accordance with the criteria and guidelines for evaluating and assessing impacts as stated in Annex 10 and 18 of the EIAO-TM, the overall residual landscape impacts of the proposed housing development are acceptable with mitigations during the construction and operation phases.

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11.3.2 In terms of the broader landscape and planning context, the housing developments are proposed within the land zoned as Greenbelt (GB), the objective of which is to define the limits of urban/suburban development and within which there is generally a presumption against development. The urban area of Ma On Shan is currently contained north and east of the Ma On Shan Bypass, whilst south and east of which lies either Greenbelt or Country Park. The effect of the proposed developments will spread the development footprint of Ma On Shan over the Ma On Shan Bypass into Green Belt areas. The proposed housing sites occupy existing village areas within the greenbelt and therefore there is a precedent for settlement in the area. The landscape mitigation measures proposed including compensatory planting, greening and sensitive design in relation to the local context will help integrate the proposed housing sites into the surrounding Greenbelt. It is therefore considered that a landscape impact assessment of **Slightly Adverse** is consistent in terms of the broader landscape and planning context.

11.3.3 The proposed development will generate some unavoidable landscape impacts which are identified and addressed in the Landscape Assessments with the aim of avoiding (where practicable) and at the very least, minimising such impacts to within acceptable levels. There are opportunities, during the project's design, construction and operation stages, for incorporating mitigation measures which will contribute to reducing landscape impacts. These include optimizing the scale of the construction phase impacts, as well as designing and implementing mitigation measures which are sensitively integrated into the existing environment.

11.4 Landscape Mitigation Measures

11.4.1 The application of the following principles in the detailed design of the site formation works, geotechnical works, road works, waterworks, sewerage and drainage works, road junction improvement works and tree removal works for the proposed housing developments, can contribute to a reduction in the landscape impacts:

- Minimisation of the contractor's temporary works area, reduction of the bulk of construction works, the erection of decorative screens and hoardings, the control of night-time lighting, the minimisation of construction traffic and the construction period.
- Protection of existing trees and minimisation of felling or transplanting works.
- Streetscape shall be sensitively designed in a manner that responds to the existing village context, and minimises potentially adverse landscape impacts.
- Maintaining a greenbelt buffer between the new road and the existing Cheung Muk Tau Tsuen in order to minimize disturbance to the villagers.
- Street lighting shall follow government guidelines to minimise light spill and glare.
- Tree preservation and compensatory tree planting should be carried out in accordance with DEVB TC(W) No. 4/2020 – Tree Preservation. This requires a compensatory planting ratio of a minimum 1:1 by number where feasible.
- Realignment of footpath to existing graves, if possible.
- Tree preservation and compensatory tree planting should be carried out as far as practicable in accordance with DEVB TC(W) No. 4/2020 – Tree Preservation. The compensatory tree planting for site formation and infrastructure works would comprise whip and seedling planting on newly formed slopes. The detailed compensatory planting proposal shall be determined and agreed separately with relevant departments and shall be prepared as a part of Tree Preservation and Removal Proposals at Investigation,

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Design & Construction stage as suggested in the technical circulars DEVB TC(W) No. 4/2020 – Tree Preservation. Off-site compensatory planting could be explored in the Investigation, Design & Construction stage of the project if needed. The loss of greenery will be re-created, re-provided and re-established by new tree planting within the housing site as required by relevant technical circular and guidelines.

- A minimum of 20% of site area will be designated for greenery / amenity planting (including trees) within the housing sites. This will contribute to the overall greening and enhancement of amenity within the sites, offsetting the loss of existing trees under the site formation works. Further liaison with HD at Investigation, Design & Construction stage for greenery / amenity planting within the housing sites shall be required.

11.4.2 The proposed landscape mitigation measures for potential impacts generated during the construction and operation phases are described in **Table 11.1** and **Table 11.2**.

Table 11.2 Proposed Construction Phase Landscape Mitigation Measures

ID No.	Landscape Mitigation Measure
CM1	The construction area, contractor's temporary works areas and construction runoff should be minimized to avoid impacts on adjacent landscape.
CM2	All existing trees approved to be retained or transplanted shall be carefully protected before, during construction and after construction. A Detailed Tree Protection Specification shall be provided in the Contract. Under Specifications, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees or trees to be transplanted, including trees in contractor's works areas and adjacent to the site boundary. Early preparation of trees to be transplanted shall be undertaken to increase their likely survival rate following transplanting.
CM3	Erection of decorative mesh screens and construction hoardings around works areas in visually unobtrusive colours to minimise temporary impacts to landscape character.

Table 11.3 Proposed Operation Phase Landscape Mitigation Measures

ID No.	Landscape Mitigation Measure
OM1	Compensatory planting for all felled trees and affected shrub planting shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory planting shall be determined and agreed separately with Government during the Tree Felling Application process under the relevant technical circulars.
OM2	Streetscape (e.g. paving, signage, lighting etc.) shall be sensitively designed in a manner that responds to the existing context, and minimises potential adverse landscape impacts.

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ID No.	Landscape Mitigation Measure
OM3	Green coverage shall be provided within the housing developments.
OM4	Sensitively sited and designed retaining walls which minimise impacts to existing landform, streams and vegetation. Appropriate finishes to structures and adoption of climber plantings to blend in with existing landscape character.

11.5 Preliminary Tree Treatment Proposal

Overall

11.5.1 In order to preserve and protect the valuable tree resources, due consideration should be given to ensure that the existing trees identified within the area of the site formation and infrastructural works would not be unnecessarily be felled or pruned. Transplanting trees, in particular those with high conservation and amenity value, should be taken in to consideration given retaining in-situ is not viable and the trees are of good health condition and high survival rate after transplanting. Tree felling should be regarded as the last resort whenever preservation by retaining in-situ or transplanting is impractical. Furthermore, pursuant to DEVB TC(W) No. 5/2020, felling of OVTs and potentially registrable OVTs should only be permitted under very special circumstances with full justifications.

11.5.2 According to the preliminary estimation, among the 3,560 trees identified within the project limit, about 780 trees would not be affected by the proposed works and would be retained in-situ, while about 2,780 trees would require removal due to direct and unavoidable conflict with the proposed public and private housing developments. Among those 2,780 trees, 1 tree may be considered for transplanting. The remaining trees are not recommended for transplanting for their either low anticipated survival rate after transplanting or low amenity value.

11.5.3 According to the adopted guidelines for processing the Tree Preservation and Removal Proposals ("TPRP") arising from government projects, the project proponent is advised to apply and seek for blanket approval from LandsD pursuant to paragraph 29 of the DEVB TC(W) No. 4/2020.

11.5.4 A formal TPRP for tree removal application should be prepared in ensuing Investigation, Design & Construction stage when more detailed information is available. Under the TPRP, all trees within the works areas should be surveyed and assessed individually.

Preliminary Tree Preservation Proposal

11.5.5 A total of about 780 trees are proposed to be preserved by in-situ retention. All the retained trees will be properly protected throughout the construction period of the project. Tree protection measures shall be undertaken in accordance with "Guidelines on Tree Preservation during Development" by DEVB and Section 26 of General Specification for Civil Engineering Works (2006 Edition).

11.5.6 Two species of conservation interest including *Dalbergia odorifera* and *Ixonanthes reticulata* were identified within the works area as shown in ***Figures 188563/TS/002A and 004A***. Due to their vulnerable status, a total of six *Dalbergia odorifera* and six *Ixonanthes reticulata* are proposed to be retained in-situ, subject to the assessment to be conducted in later Investigation, Design & Construction stage.

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11.5.7 Due to large trunk diameter, one tree of *Ficus microcarpa* within Site P as shown in ***Figure 188563/TS/004A*** may be preserved by transplanting subject to the assessment to be conducted in the pre-land sale tree survey.

Preliminary Compensatory Planting Proposal

11.5.8 According to the latest project design, various project areas have been designated for tree planting to allow tree compensation and tree transplanting. Under the current proposal, about 2,900 new trees are proposed in the compensatory planting. Implementation of compensatory planting could generally achieve a ratio of at least 1:1 in terms of number. Options of compensation by off-site planting could be explored. Individual tree survey and coordination with relevant departments for off-site planting will be carried out in the subsequent Investigation, Design & Construction stage. The tentative locations of the compensatory planting are shown in ***Figures 188563/TS/002A to 004B.***

11.5.9 The quantity of trees will be subject to further review on planting arrangement during the ensuing Investigation, Design & Construction stage. However, this preliminary compensatory tree planting proposal could serve as a reference to the detailed tree preservation and removal proposal in that stage and regulated by DEVB TC(W) No. 4/2020 – Tree Preservation.

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12 IMPLEMENTATION PROGRAMME

12.1 General

12.1.1 This chapter presents the key milestones of the implementation programme for proposed developments.

12.2 Proposed Preliminary Implementation Programme

12.2.1 The key milestones of the preliminary implementation programme are as follows: -

- Commencement of site formation works for Site 1 by Q3 2023
- Commencement of site formation works for Site 2 by Q2 2024
- Commencement of infrastructural works for Sites 1 & 2 by Q3 2023
- Completion of site formation works for Sites 1 & 2 by Q4 2025
- Completion of infrastructural works for Sites 1 & 2 by Q2 2027
- Commencement of site formation works for Sites 3 to 5 by Q1 2024
- Commencement of infrastructural works for Sites 3 to 5 by Q1 2024
- Completion of site formation works for Sites 3 to 5 by Q1 2028
- Completion of infrastructural works for Sites 3 to 5 by Q1 2029

12.2.2 The implementation programme would be reviewed at I, D&C stage to reflect the latest changing circumstances as necessary.

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13 CONCLUSIONS

13.1.1 The proposed developments in Ma On Shan area have been studied under this FS, and the study concluded that there is no insurmountable problem in terms of traffic, environmental, geotechnical, services and utilities, land acquisition, heritage, air ventilation, visual and landscape aspects.

13.1.2 In support of the rezoning process of the sites, site formation layout plans have been prepared and relevant technical assessments have been conducted. It is revealed that the developments are technically feasible.

END OF TEXT

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FIGURES

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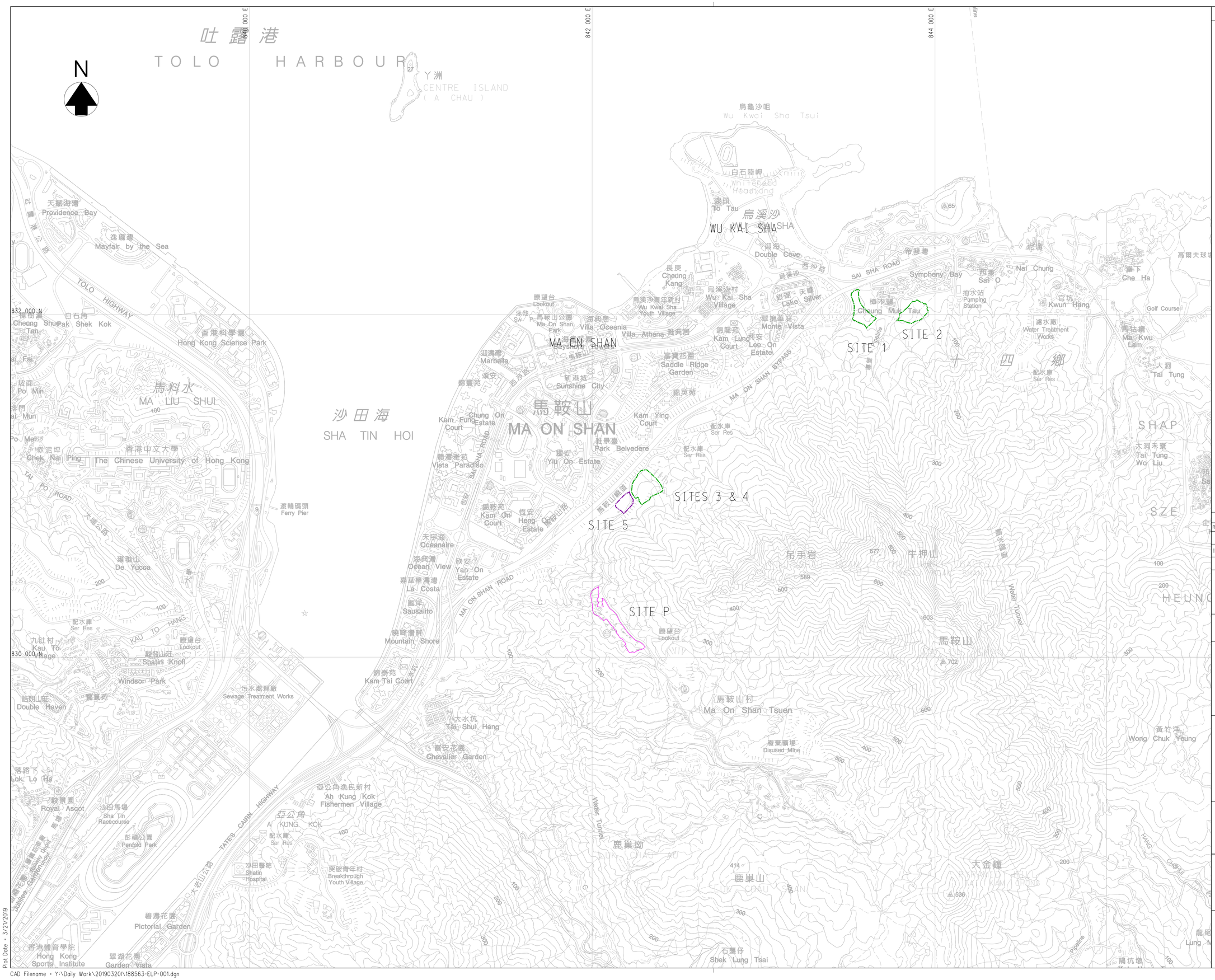

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LEGEND:

- PROPOSED PUBLIC HOUSING SITE BOUNDARY
- PROPOSED PRIVATE HOUSING SITE BOUNDARY
- PROPOSED SCHOOL SITE BOUNDARY

Revision	Date	Description	Initial
A	03/19	MINOR AMENDMENT	YLS

	Designed	Checked	Drawn	Checked
Initial	YLS	DH	SZ	LCH
Date	12/18	12/18	12/18	12/18

Approved

Agreement no.
CE 80/2014 (CE)

Project Title
SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title
GENERAL LAYOUT PLAN

Drawing No.
188563/ELP/001

Scale
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1 : 20000 (A3)

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CAD Filename = Y:\Daily Work\20190320\188563-ELP-001.dgn

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REMARKS:

1. FORMATION LEVELS WITHIN PUBLIC HOUSING SITES ARE SUBJECT TO CHANGE AT DETAILED DESIGN STAGE.

LEGEND:

- PROPOSED PUBLIC HOUSING SITE BOUNDARY
- PROPOSED SLOPE
- PROPOSED MASS CONCRETE / L-SHAPED RETAINING STRUCTURES
- PROPOSED BORED PILE WALL
- VEB OF CHEUNG MUK TAU
- PROPOSED CHECK DAM (SUBJECT TO DETAILED DESIGN)
- PROPOSED RIGID BARRIER (SUBJECT TO DETAILED DESIGN)

Revision	Date	Description	Initial
B	10/19	MINOR AMENDMENT	YLS
A	03/19	MINOR AMENDMENT	YLS

	Designed	Checked	Drawn	Checked
Initial	YLS	DH	SZ	LCH
Date	02/18	02/18	02/18	02/18

Approved

Agreement no.
CE 80/2014 (CE)

Project Title
SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title
PRELIMINARY ENGINEERING LAYOUT PLAN FOR SITES 1 & 2

Drawing No.
188563/ELP/002

Scale
1 : 1000 (A1)
1 : 2000 (A3)

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Plot Date = 11/21/2019

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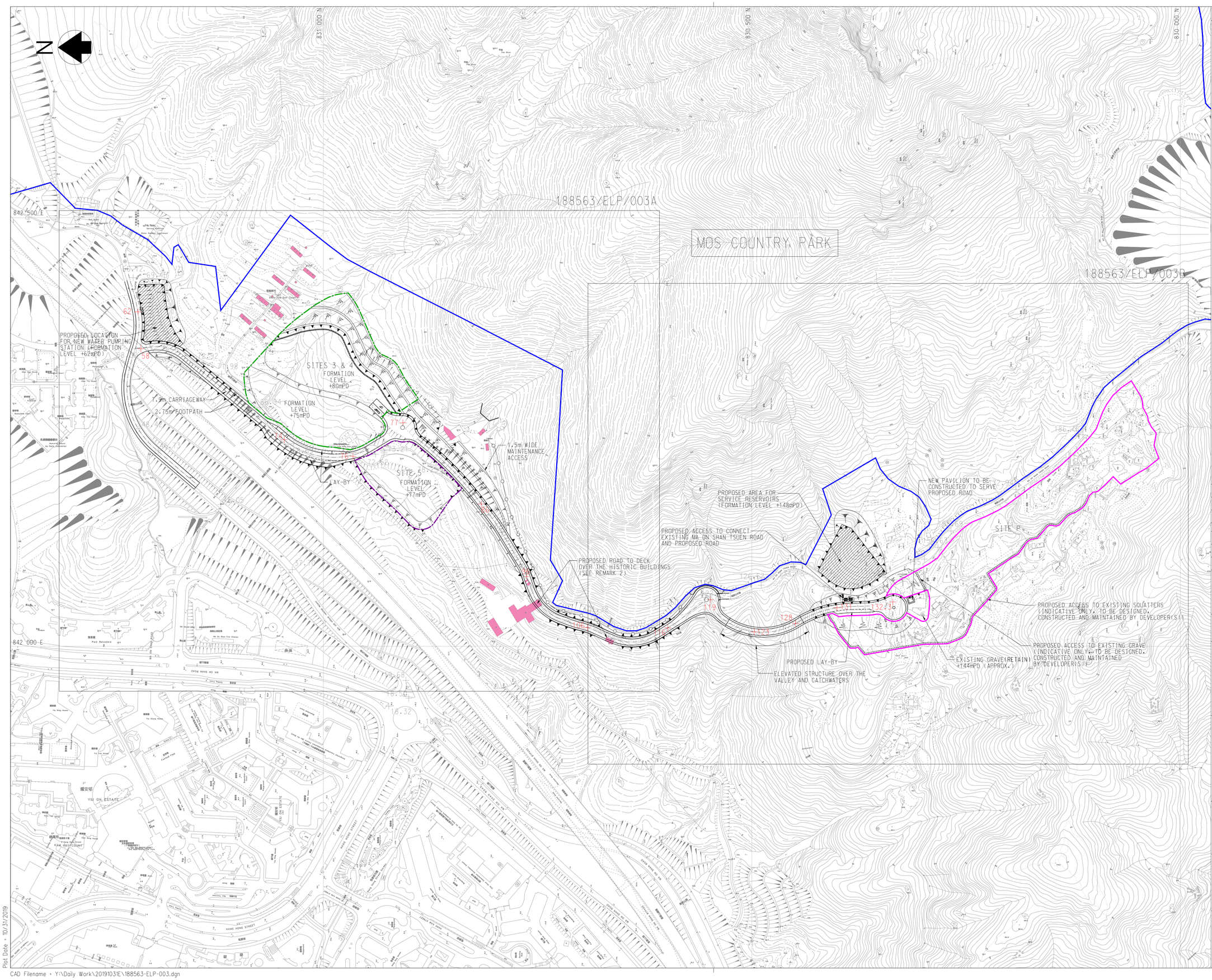

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REMARKS:

1. FORMATION LEVELS WITHIN PUBLIC HOUSING SITES ARE SUBJECT TO CHANGE AT DETAILED DESIGN STAGE.
2. SHORT BRIDGES FOR SPANNING OVER HISTORIC BUILDINGS.

LEGEND:

- PROPOSED PUBLIC HOUSING SITE BOUNDARY
- PROPOSED PRIVATE HOUSING SITE BOUNDARY
- PROPOSED SCHOOL SITE BOUNDARY
- PROPOSED SLOPE
- PROPOSED RETAINING WALL
- 66.12 EXISTING ROAD LEVEL
- +65 PROPOSED ROAD LEVEL
- COUNTRY PARK BOUNDARY
- GRADED HISTORIC BUILDING
- PROPOSED CHECK DAM (SUBJECT TO DETAILED DESIGN)
- PROPOSED FLEXIBLE BARRIER (SUBJECT TO DETAILED DESIGN)
- PROPOSED RIGID BARRIER (SUBJECT TO DETAILED DESIGN)

Revision	Date	Description	Initial
C	08/19	MINOR AMENDMENT	YLS
B	03/19	MINOR AMENDMENT	YLS
A	09/18	MINOR AMENDMENT	YLS

	Designed	Checked	Drawn	Checked
Initial	YLS	DH	SZ	LCH
Date	02/18	02/18	02/18	02/18

Approved

Agreement no.

CE 80/2014 (CE)

Project Title

SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title

PRELIMINARY ENGINEERING LAYOUT PLAN FOR SITES 3 TO 5 AND SITE P - KEY

(SHEET 1 OF 3)

Drawing No.

188563/ELP/003

Scale

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1 : 4000 (A3)

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NOTE:

1. FOR LEGEND REFER TO DRAWING NO. 188563/ELP/003.
2. SHORT BRIDGES FOR SPANNING OVER HISTORIC BUILDINGS.
3. FORMATION LEVELS WITHIN PUBLIC HOUSING SITES ARE SUBJECT TO CHANGE AT DETAILED DESIGN STAGE.

MOS COUNTRY PARK

PROPOSED LOCATION FOR NEW WATER PUMPING STATION (FORMATION LEVEL +62mPD)

SITES 3 & 4

FORMATION LEVEL +80mPD

FORMATION LEVEL +75mPD

SITE 5

FORMATION LEVEL +77mPD

7.9m CARRIAGEWAY

2.75m FOOTPATH

RAMP UP

LAY-BY

1.5m WIDE MAINTENANCE ACCESS

PROPOSED ROAD TO DECK OVER THE HISTORIC BUILDINGS (SEE REMARK 2)

CUL LINE A-A

Revision	Date	Description	Initial
B	03/19	MINOR AMENDMENT	YLS
A	09/18	MINOR AMENDMENT	YLS

	Designed	Checked	Drawn	Checked
Initial	YLS	DH	SZ	LCH
Date	02/18	02/18	02/18	02/18

Approved

Agreement no.

CE 80/2014 (CE)

Project Title

SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title

PRELIMINARY ENGINEERING LAYOUT PLAN FOR SITES 3 TO 5 AND SITE P

(SHEET 2 OF 3)

Drawing No.

188563/ELP/003A

Scale

1 : 1000 (A1)
1 : 2000 (A3)

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CEDD Civil Engineering and Development Department

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博威工程顧問有限公司

Plot Date = 4/16/2019

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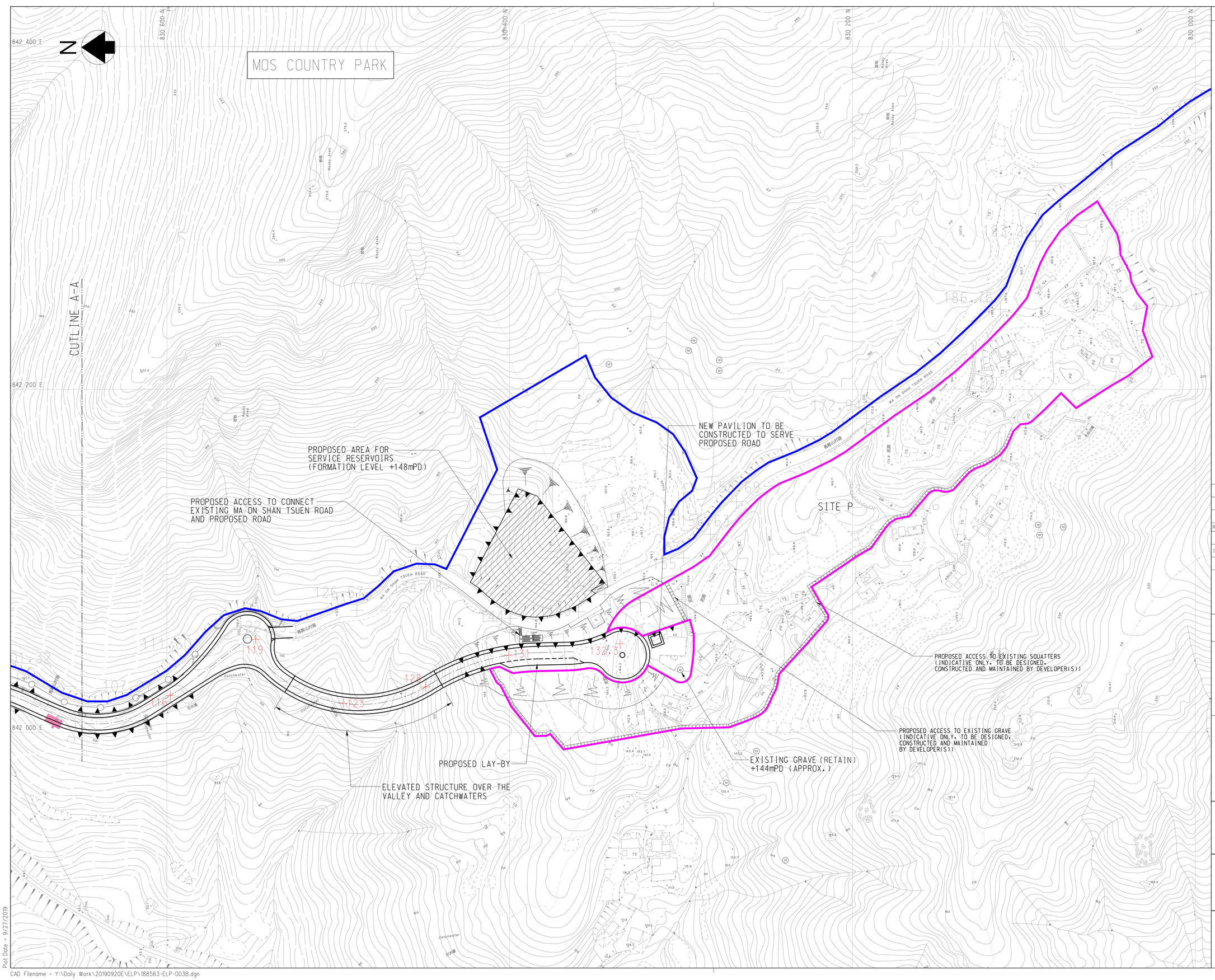

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NOTE:

1. FOR LEGEND REFER TO DRAWING NO. 188563/ELP/003.

Revision	Date	Description	Initial
C	08/19	MINOR AMENDMENT	YLS
B	03/19	MINOR AMENDMENT	YLS
A	09/18	MINOR AMENDMENT	YLS

	Designed	Checked	Drawn	Checked
Initial	YLS	DH	SZ	LCH
Date	02/18	02/18	02/18	02/18

Approved

Agreement no.

CE 80/2014 (CE)

Project Title

SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title

PRELIMINARY ENGINEERING LAYOUT PLAN FOR SITES 3 TO 5 AND SITE P

(SHEET 3 OF 3)

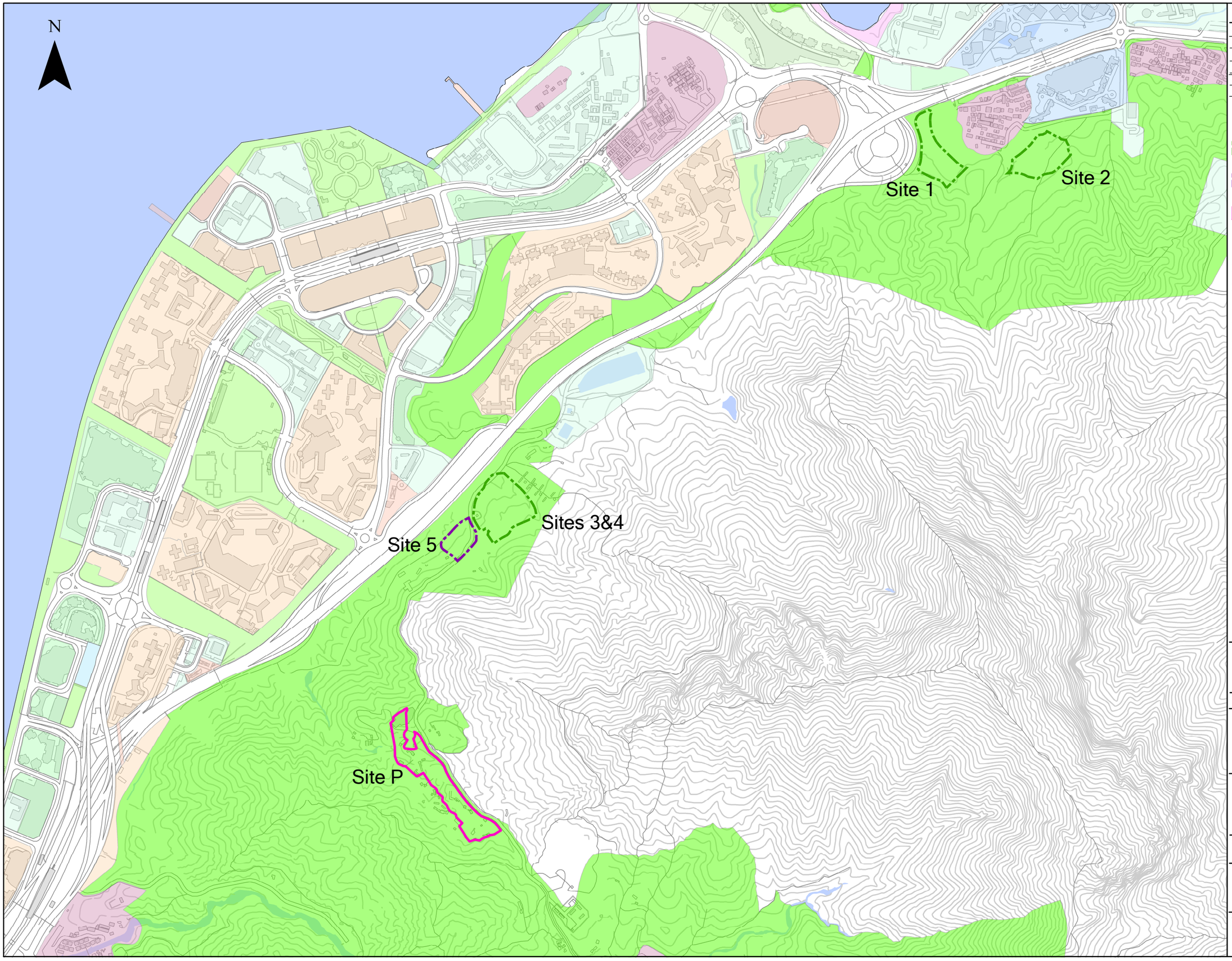
Drawing No.	Scale
188563/ELP/003B	1 : 1000 (A1) 1 : 2000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 9/27/2019

CAD Filename = Y:\Daily Work\20190920E\ELP\188563-ELP-003B.dgn



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	Designed	Reviewed	Drawn	Checked
Initial				
Date				

Revision	Date	Description	Initial

Legend

- Proposed Public Housing Site Boundary
- Proposed School Site Boundary
- Proposed Private Housing Site Boundary

Land Use

- C
- CA
- CDA
- G/IC
- GB
- O
- OU
- R(A)
- R(B)
- R(C)
- V

Approved

Agreement No. CE 80/2014 (CE)

Project Title

SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Figure Title

OUTLINE ZONING PLAN

Drawing No.	Scale
188563/LUR/002	1:10,000@ A3

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

Consultant

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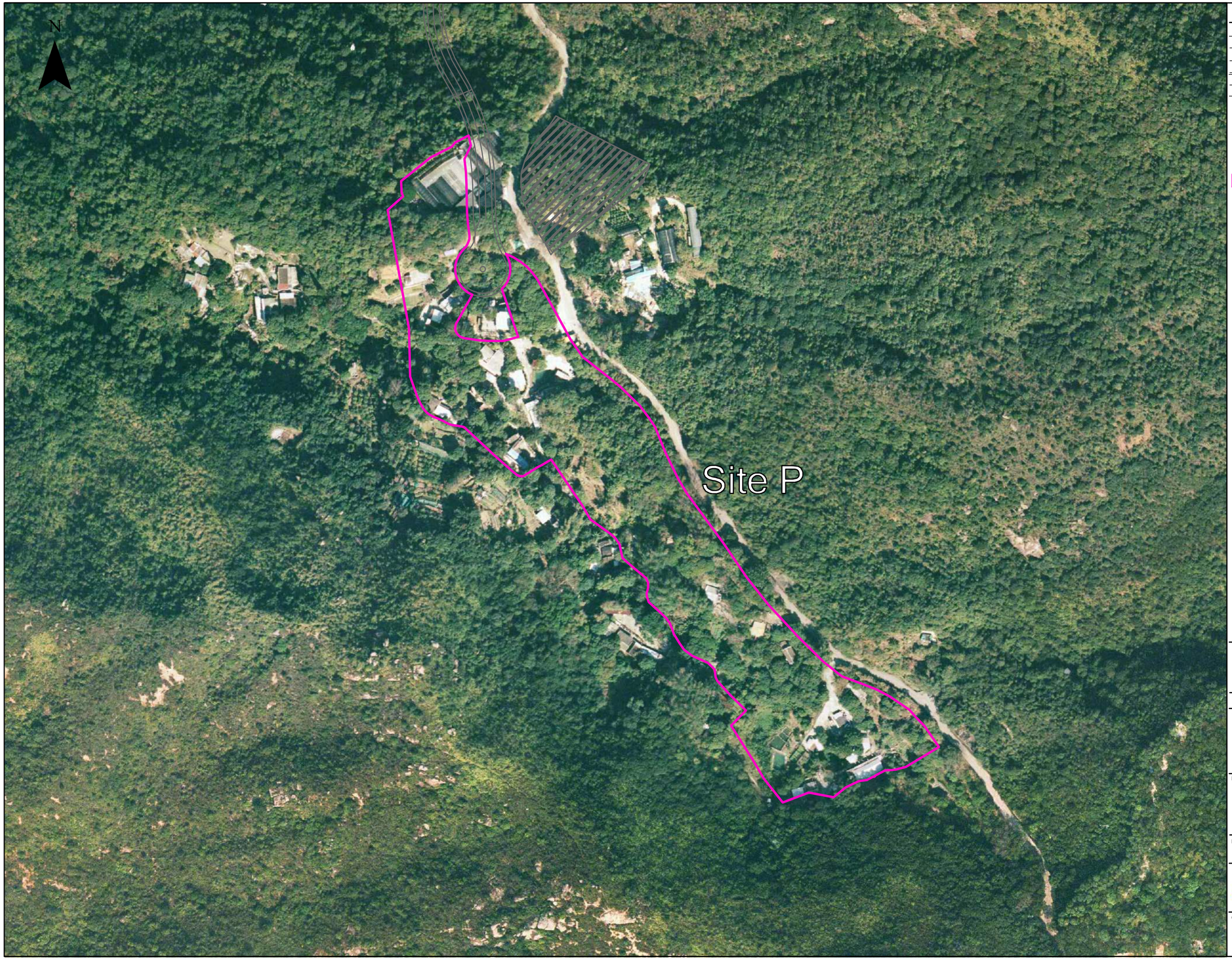

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	Designed	Reviewed	Drawn	Checked
Initial				
Date				

Revision	Date	Description	Initial

Note: Sites 3 to 5 and their associated works are half-toned.

Legend

Proposed Private Housing Site Boundary



Approved

Agreement No. CE 80/2014 (CE)

Project Title

SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Figure Title

AERIAL VIEW OF SITE P

Drawing No.	Scale
188563/LUR/002A	1:2,000 @ A3

CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

Consultant

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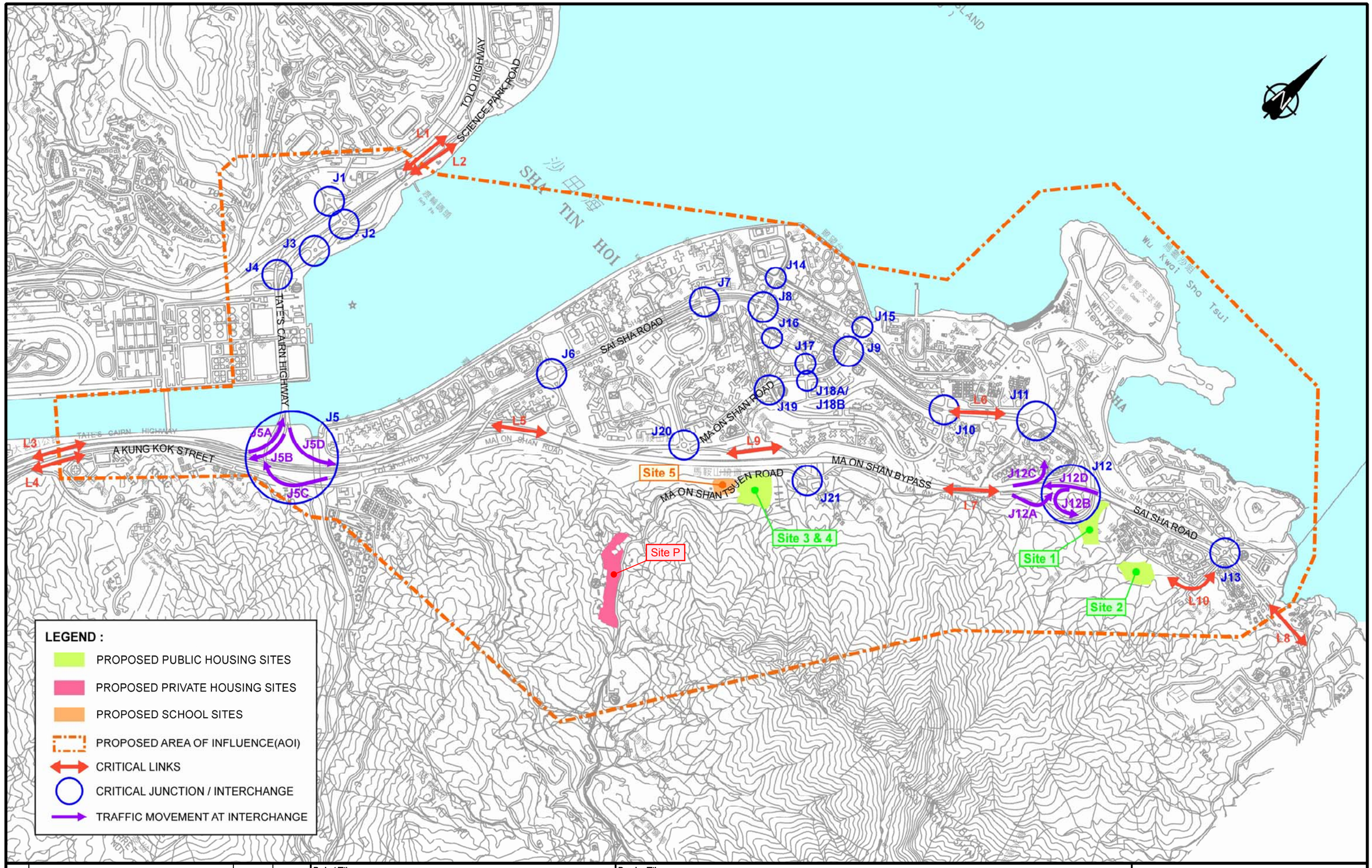


Rev.	Description	Checked	Date

Project Title

AGREEMENT NO. CE 80/2014 (CE) SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title

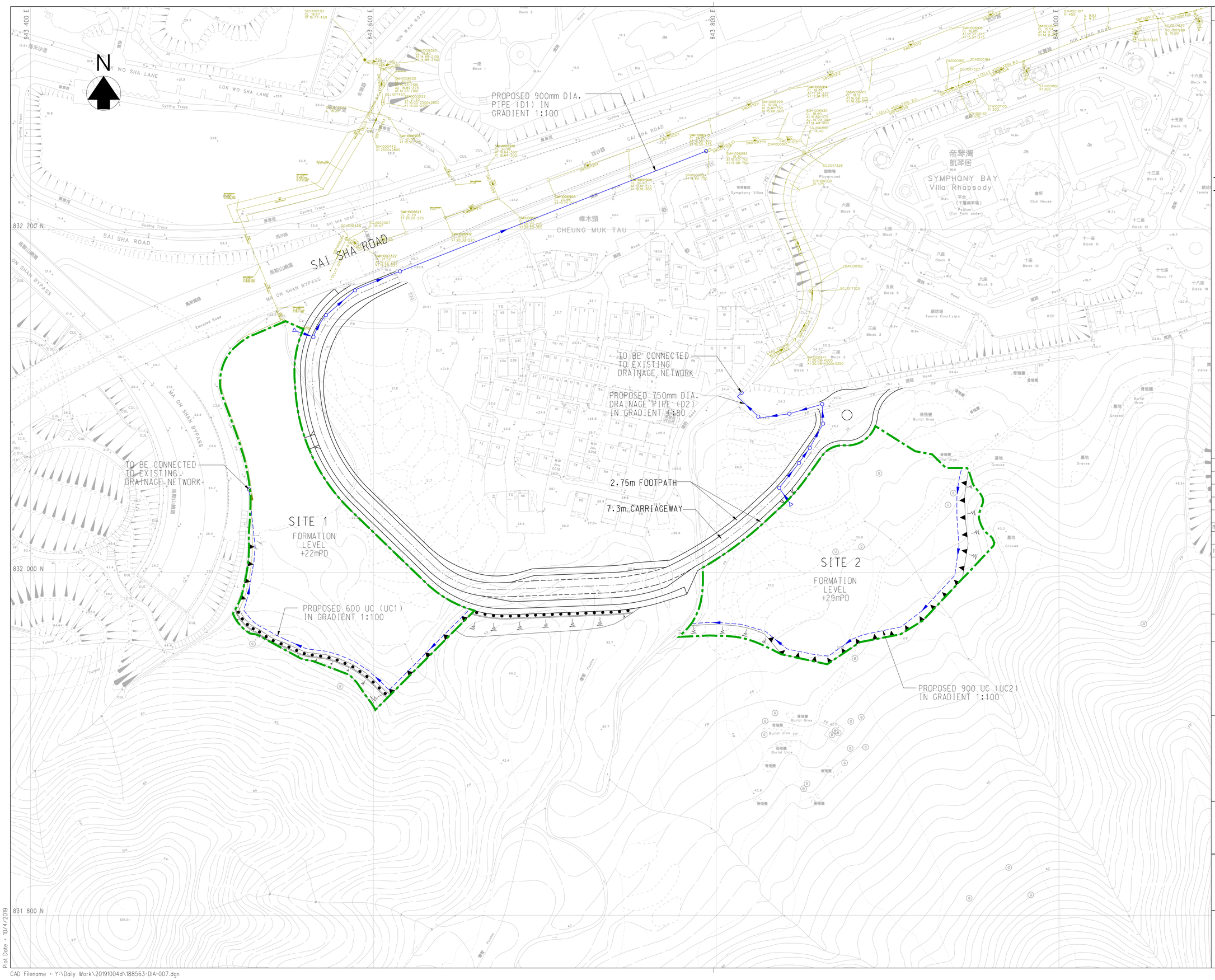
EXISTING ROAD NETWORK

Designed	Checked	Scale	Date	Drawing No.	Rev.
SFL	GPH	N.T.S.	OCT 2018	188563/TIA/001	

CEDD Civil Engineering and Development Department

BLACK & VEATCH HONG KONG LIMITED 博威工程顧問有限公司

MVA



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REMARK:

1. THE PROPOSED TERMINAL MANHOLES AND RELEVANT PIPES ARE BASED ON THE PRELIMINARY LAYOUT OF SITES FOR THE PURPOSE OF THIS EFS. THE FINAL LOCATION AND ALIGNMENT OF THESE MANHOLES/PIPES ARE SUBJECT TO CHANGE AT DETAILED DESIGN STAGE.
2. FORMATION LEVELS WITHIN PUBLIC HOUSING SITES ARE SUBJECT TO CHANGE AT DETAILED DESIGN STAGE.

LEGEND:

- PROPOSED PUBLIC HOUSING SITE BOUNDARY
- PROPOSED SLOPE
- PROPOSED RETAINING WALL
- PROPOSED BORED PILE WALL
- PROPOSED STORMWATER MANHOLE AND PIPE
- EXISTING DRAINAGE MANHOLE AND PIPE
- TERMINAL DRAINAGE MANHOLE

Revision	Date	Description	Initial
E	08/19	MINOR AMENDMENT	YLS
D	03/19	MINOR AMENDMENT	YLS
C	12/18	MINOR AMENDMENT	YLS
B	06/18	MINOR AMENDMENT	YLS
A	03/18	AMENDMENT DUE TO BOUNDARY CHANGE	YLS

	Designed	Checked	Drawn	Checked
Initial	RF	CKW	SZ	LCH
Date	08/15	08/15	08/15	08/15

Approved

Agreement no.
CE 80/2014 (CE)

Project Title
SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title
DRAINAGE SCHEME FOR SITES 1 AND 2 (OPTION A)

(SHEET 1 OF 4)

Drawing No.
188563/DIA/007A

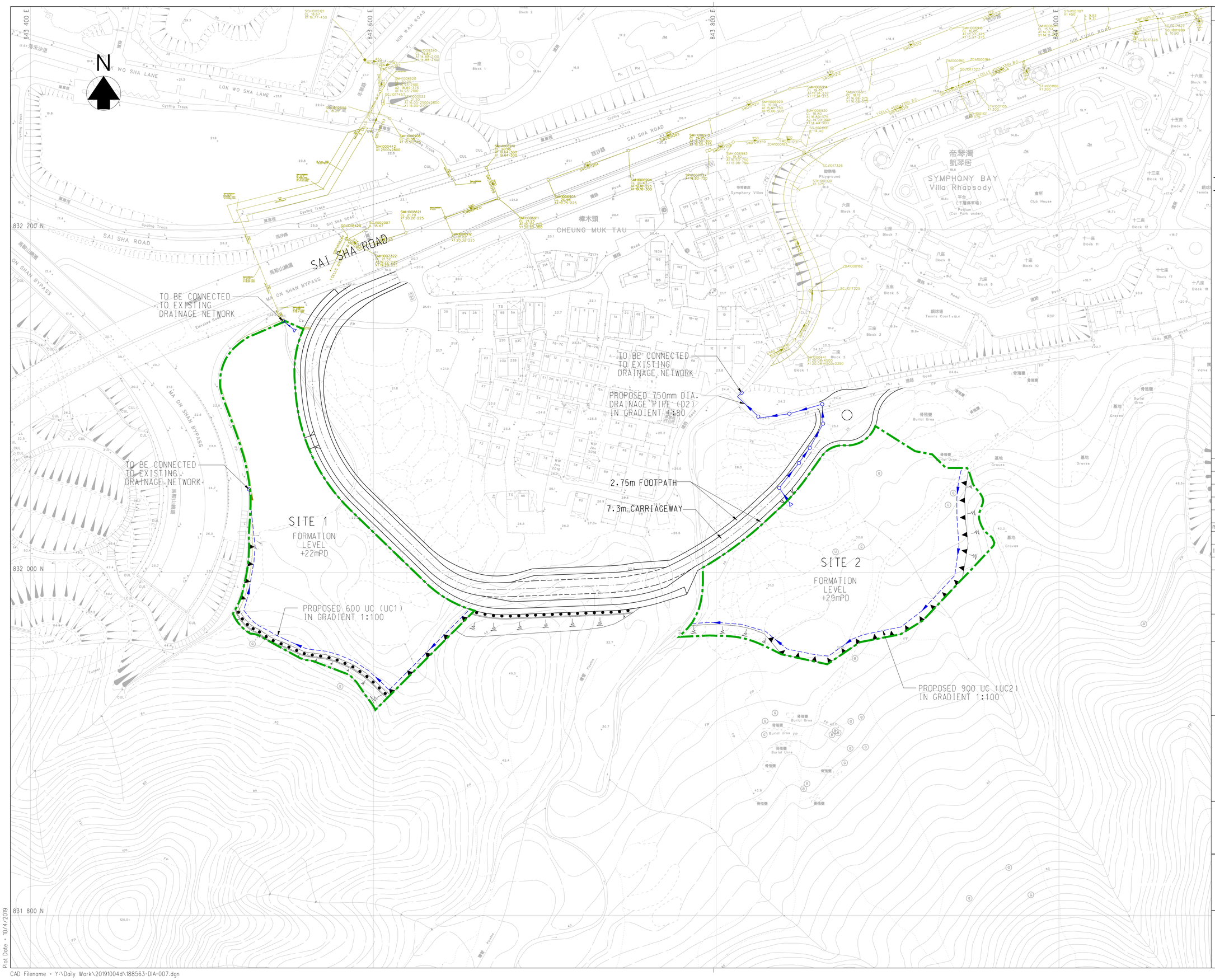
Scale
1 : 1000 (A1)
1 : 2000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 10/4/2019

CAD Filename = Y:\Daily Work\20191004d\188563-DIA-007.dgn



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REMARK:

1. THE PROPOSED TERMINAL MANHOLES AND RELEVANT PIPES ARE BASED ON THE PRELIMINARY LAYOUT OF SITES FOR THE PURPOSE OF THIS EFS. THE FINAL LOCATION AND ALIGNMENT OF THESE MANHOLES/PIPES ARE SUBJECT TO CHANGE AT DETAILED DESIGN STAGE.
2. FORMATION LEVELS WITHIN PUBLIC HOUSING SITES ARE SUBJECT TO CHANGE AT DETAILED DESIGN STAGE.

LEGEND:

- PROPOSED PUBLIC HOUSING SITE BOUNDARY
- PROPOSED SLOPE
- PROPOSED RETAINING WALL
- PROPOSED BORED PILE WALL
- PROPOSED STORMWATER MANHOLE AND PIPE
- EXISTING DRAINAGE MANHOLE AND PIPE
- TERMINAL DRAINAGE MANHOLE

Revision	Date	Description	Initial
E	08/19	MINOR AMENDMENT	YLS
D	03/19	MINOR AMENDMENT	YLS
C	12/18	MINOR AMENDMENT	YLS
B	06/18	MINOR AMENDMENT	YLS
A	03/18	AMENDMENT DUE TO BOUNDARY CHANGE	YLS

	Designed	Checked	Drawn	Checked
Initial	RF	CKW	SZ	LCH
Date	08/15	08/15	08/15	08/15

Approved

Agreement no.
CE 80/2014 (CE)

Project Title
SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title
DRAINAGE SCHEME FOR SITES 1 AND 2 (OPTION B)

(SHEET 2 OF 4)

Drawing No.
188563/DIA/007B

Scale
1 : 1000 (A1)
1 : 2000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 10/4/2019

CAD Filename = Y:\Daily Work\20191004d\188563-DIA-007.dgn

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N

831 200 N

831 000 N

830 800 N

842 000 E

842 200 E

842 400 E

MA ON SHAN ROAD

MA ON SHAN TSUEN ROAD

MA ON SHAN BYPASS

SHAN LAU ROAD

7.9m CARRIAGEWAY

2.75m FOOTPATH

PROPOSED LOCATION FOR NEW WATER PUMPING STATION (FORMATION LEVEL +62mPD)

FORMATION LEVEL +75mPD

SITES 3 & 4

FORMATION LEVEL +80mPD

SITE 5 FORMATION LEVEL +77mPD

PROPOSED 1800mm DIA. PIPE (D3) IN GRADIENT 1:80

RAMP UP

PROPOSED CATCHPIT

PROPOSED CASCADE CHANNEL

PROPOSED 750 UC (UC3) IN GRADIENT 1:10

CUT LINE B-B

水務署馬鞍山（海水）配水庫
Water Supplies Department Ma On Shan Salt Water Service Reservoir

信義新村
Shan Yee San Tsuen

馬鞍山消防局
Ma On Shan Fire Station

保基基督教馬鞍山學校
Po Leung Kuk Chang Kee Ting Primary School

REMARK:

1. THE PROPOSED TERMINAL MANHOLES AND RELEVANT PIPES ARE BASED ON THE PRELIMINARY LAYOUT OF SITES FOR THE PURPOSE OF THIS EFS. THE FINAL LOCATION AND ALIGNMENT OF THESE MANHOLES/PIPES ARE SUBJECT TO CHANGE AT DETAILED DESIGN STAGE.

2. FORMATION LEVELS WITHIN PUBLIC HOUSING SITES ARE SUBJECT TO CHANGE AT DETAILED DESIGN STAGE.

LEGEND:

- PROPOSED PUBLIC HOUSING SITE BOUNDARY
- PROPOSED SCHOOL SITE BOUNDARY
- PROPOSED SLOPE
- PROPOSED RETAINING WALL
- PROPOSED STORMWATER MANHOLE AND PIPE
- PROPOSED U-CHANNEL
- EXISTING DRAINAGE MANHOLE AND PIPE
- PROPOSED TERMINAL DRAINAGE MANHOLE
- COUNTRY PARK BOUNDARY

Revision	Date	Description	Initial
F	08/19	MINOR AMENDMENT	YLS
E	03/19	MINOR AMENDMENT	YLS
D	01/19	MINOR AMENDMENT	YLS
C	12/18	MINOR AMENDMENT	YLS
B	06/18	MINOR AMENDMENT	YLS
A	03/18	AMENDMENT DUE TO BOUNDARY CHANGE	YLS

	Designed	Checked	Drawn	Checked
Initial	RF	CKW	SZ	LCH
Date	08/15	08/15	08/15	08/15

Approved

Agreement no.
CE 80/2014 (CE)

Project Title
SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title
DRAINAGE SCHEME FOR SITES 3 TO 5

(SHEET 3 OF 4)

Drawing No.
188563/DIA/008

Scale
1 : 1000 (A1)
1 : 2000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 12/5/2019

CAD Filename = Y:\Daily Work\20191204f\188563-DIA-008.dgn

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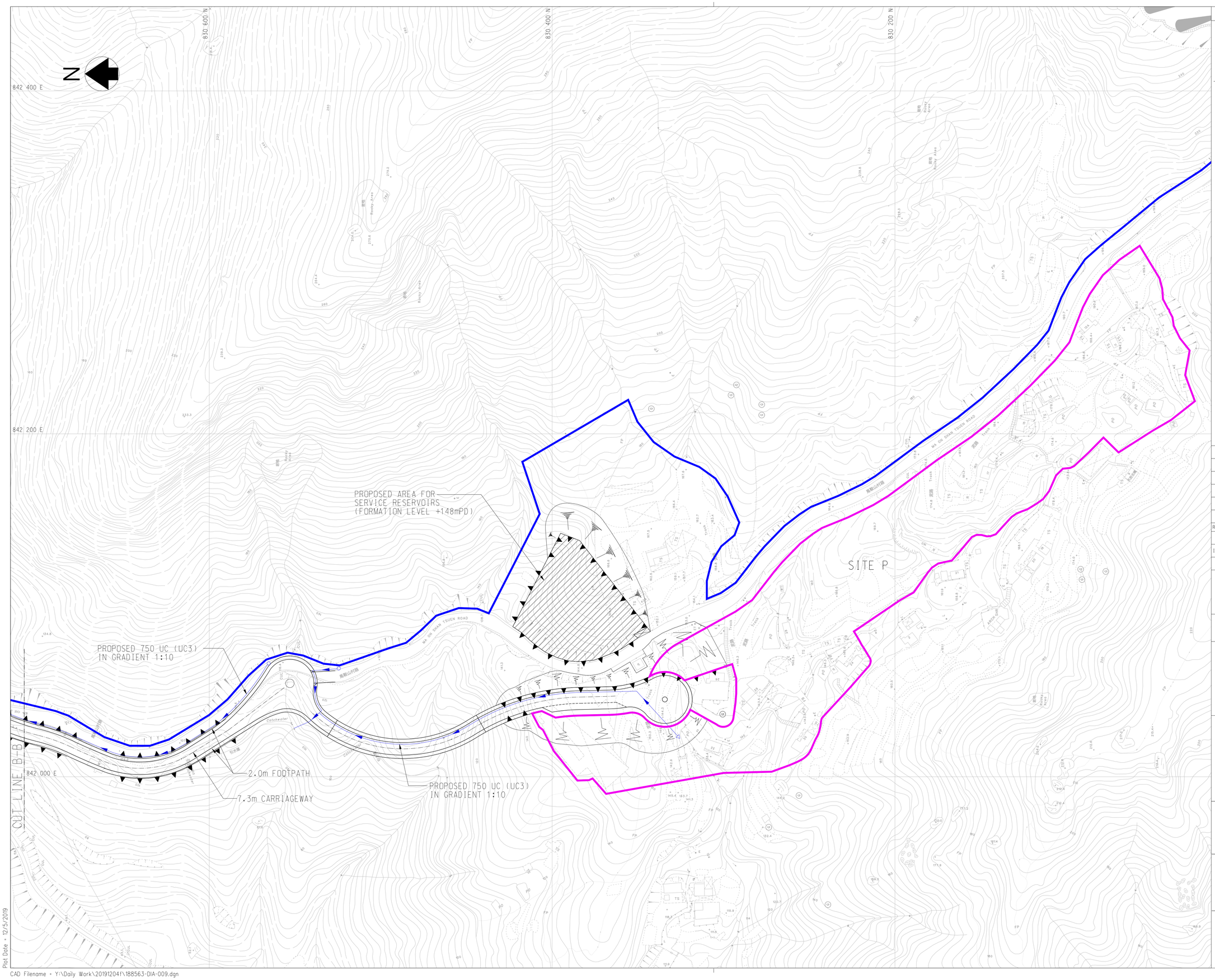

LEGEND:

- PROPOSED PRIVATE HOUSING SITE BOUNDARY
- PROPOSED SLOPE
- PROPOSED RETAINING WALL
- PROPOSED STORMWATER MANHOLE AND PIPE
- PROPOSED TERMINAL MANHOLE
- COUNTRY PARK BOUNDARY

Revision	Date	Description	Initial
F	08/19	MINOR AMENDMENT	YLS
E	06/19	MINOR AMENDMENT	YLS
D	01/19	MINOR AMENDMENT	YLS
C	12/18	MINOR AMENDMENT	YLS
B	06/18	MINOR AMENDMENT	YLS
A	03/18	AMENDMENT DUE TO BOUNDARY CHANGE	YLS

	Designed	Checked	Drawn	Checked
Initial	RF	CKW	SZ	LCH
Date	06/15	06/15	06/15	06/15

Approved

Agreement no.
CE 80/2014 (CE)

Project Title
SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title
DRAINAGE SCHEME FOR SITE P

(SHEET 4 OF 4)

Drawing No.
188563/DIA/009

Scale
1 : 1000 (A1)
1 : 2000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 12/5/2019

CAD Filename = Y:\Daily Work\20191204f\188563-DIA-009.dgn

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2. FORMATION LEVELS WITHIN PUBLIC HOUSING SITES ARE SUBJECT TO CHANGE AT DETAILED DESIGN STAGE.

LEGEND:

- PROPOSED PUBLIC HOUSING SITE BOUNDARY
- PROPOSED SLOPE
- PROPOSED RETAINING WALL
- PROPOSED BORED PILE WALL
- PROPOSED SEWAGE MANHOLE AND PIPE
- PROPOSED TERMINAL MANHOLE AND PIPE
- EXISTING SEWAGE MANHOLE AND PIPE

INSET A

Revision	Date	Description	Initial
E	08/19	MINOR AMENDMENT	YLS
D	06/19	MINOR AMENDMENT	YLS
C	03/19	MINOR AMENDMENT	YLS
B	06/18	MINOR AMENDMENT	YLS
A	03/18	AMENDMENT DUE TO BOUNDARY CHANGE	YLS

	Designed	Checked	Drawn	Checked
Initial	RF	CKW	SZ	LCH
Date	08/15	08/15	08/15	08/15

Approved

Agreement no.
CE 80/2014 (CE)

Project Title
SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title
SEWERAGE SCHEME FOR SITES 1 AND 2

(SHEET 1 OF 3)

Drawing No.
188563/SIA/001

Scale
1 : 1000 (A1)
1 : 2000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 10/4/2019

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REMARK:

1. THE PROPOSED TERMINAL MANHOLES AND RELEVANT PIPES ARE BASED ON THE PRELIMINARY LAYOUT OF SITES FOR THE PURPOSE OF THIS EFS. THE FINAL LOCATION AND ALIGNMENT OF THESE MANHOLES/PIPES ARE SUBJECT TO CHANGE AT DETAILED DESIGN STAGE.

2. FORMATION LEVELS WITHIN PUBLIC HOUSING SITES ARE SUBJECT TO CHANGE AT DETAILED DESIGN STAGE.

LEGEND:

- PROPOSED PUBLIC HOUSING SITE BOUNDARY
- PROPOSED SCHOOL SITE BOUNDARY
- PROPOSED SLOPE
- PROPOSED RETAINING WALL
- PROPOSED SEWAGE MANHOLE AND PIPE
- PROPOSED TERMINAL MANHOLE AND PIPE
- EXISTING SEWAGE MANHOLE AND PIPE
- COUNTRY PARK BOUNDARY

Revision	Date	Description	Initial
G	08/19	MINOR AMENDMENT	YLS
F	06/19	MINOR AMENDMENT	YLS
E	03/19	MINOR AMENDMENT	YLS
D	01/19	MINOR AMENDMENT	YLS
C	12/18	MINOR AMENDMENT	YLS
B	06/18	MINOR AMENDMENT	YLS
A	03/18	AMENDMENT DUE TO BOUNDARY CHANGE	YLS

	Designed	Checked	Drawn	Checked
Initial	RF	CKW	SZ	LCH
Date	08/15	08/15	08/15	08/15

Approved

Agreement no.
CE 80/2014 (CE)

Project Title
SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title
SEWERAGE SCHEME FOR SITES 3 TO 5

(SHEET 2 OF 3)

Drawing No.
188563/SIA/002

Scale
1 : 1000 (A1)
1 : 2000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 9/24/2019

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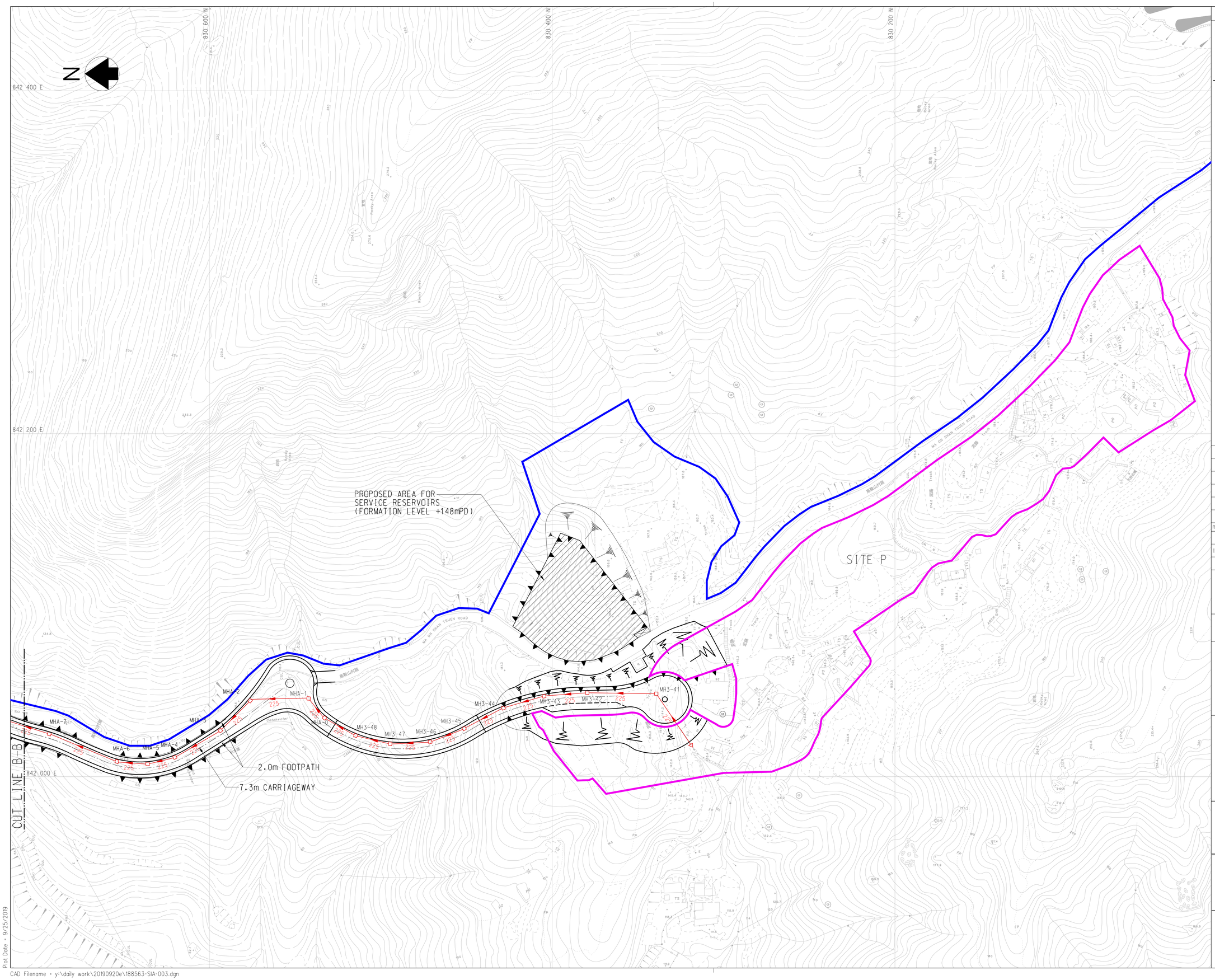

LEGEND:

- PROPOSED PRIVATE HOUSING SITE BOUNDARY
- PROPOSED SLOPE
- PROPOSED RETAINING WALL
- PROPOSED SEWAGE MANHOLE AND PIPE
- PROPOSED TERMINAL MANHOLE AND PIPE
- EXISTING SEWAGE MANHOLE AND PIPE
- COUNTRY PARK BOUNDARY

Revision	Date	Description	Initial
F	08/19	MINOR AMENDMENT	YLS
E	06/19	MINOR AMENDMENT	YLS
D	01/19	MINOR AMENDMENT	YLS
C	12/18	MINOR AMENDMENT	YLS
B	06/18	MINOR AMENDMENT	YLS
A	03/18	AMENDMENT DUE TO BOUNDARY CHANGE	YLS

	Designed	Checked	Drawn	Checked
Initial	RF	CKW	SZ	LCH
Date	06/15	06/15	06/15	06/15

Approved

Agreement no.
CE 80/2014 (CE)

Project Title
SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title
SEWERAGE SCHEME FOR SITE P

(SHEET 3 OF 3)

Drawing No.
188563/SIA/003

Scale
1 : 1000 (A1)
1 : 2000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 9/25/2019

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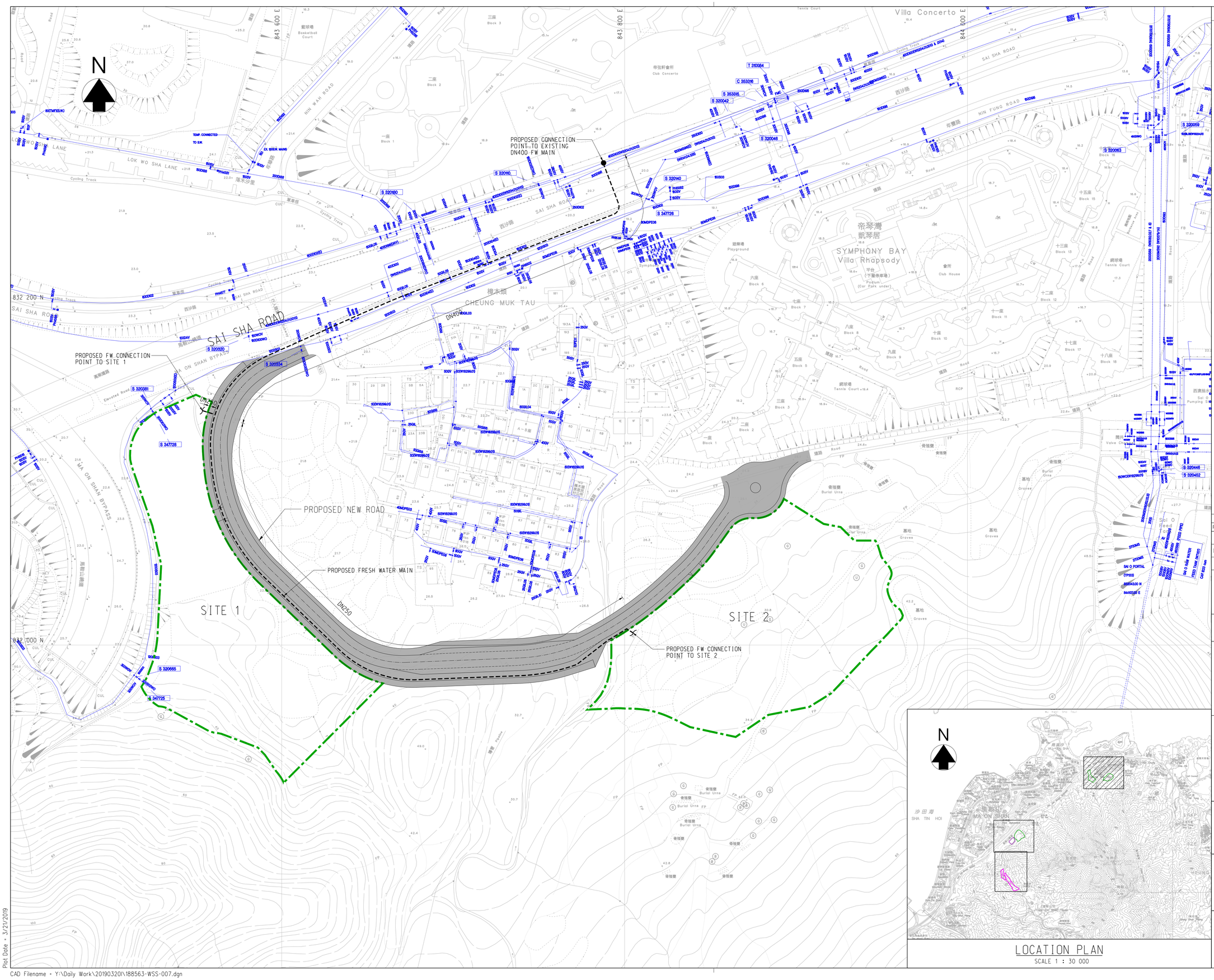

LOCATION PLAN

SCALE 1 : 30 000

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LEGEND:

- PROPOSED PUBLIC HOUSING SITE BOUNDARY
- NEW ROAD TO BE CONSTRUCTED UNDER THIS AGREEMENT
- PROPOSED FRESH WATER MAIN
- PROPOSED CONNECTION POINT
- EXISTING FRESH WATER MAINS

Revision	Date	Description			Initial
A	03/19	MINOR AMENDMENT			YLS
		Designed	Checked	Drawn	Checked
Initial		YLS	DH	SZ	LCH
Date		03/18	03/18	03/18	03/18

Approved

Agreement no.

CE 80/2014 (CE)

Project Title

SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title

PROPOSED WATER MAINS FOR SITES 1 & 2 (FRESH WATER)

Drawing No.

188563/WSS/007

Scale

1 : 1000 (A1)
1 : 2000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 3/21/2019

CAD Filename = Y:\Daily Work\20190320I\188563-WSS-007.dgn

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LEGEND:

- PROPOSED PUBLIC HOUSING SITE BOUNDARY
- NEW ROAD TO BE CONSTRUCTED UNDER THIS AGREEMENT
- PROPOSED SALT WATER MAIN
- PROPOSED CONNECTION POINT
- EXISTING SALT WATER MAINS

PROPOSED CONNECTION POINT TO EXISTING DN400 SW MAIN

PROPOSED SW CONNECTION POINT TO SITE 1

PROPOSED SW CONNECTION POINT TO SITE 2

PROPOSED NEW ROAD

PROPOSED SALT WATER MAIN

SITE 1

SITE 2

DN150

DN200

Revision	Date	Description	Initial
C	03/19	MINOR AMENDMENT	YLS
B	11/18	MINOR AMENDMENT	YLS
A	08/18	MINOR AMENDMENT	YLS

	Designed	Checked	Drawn	Checked
Initial	YLS	DH	SZ	LCH
Date	03/18	03/18	03/18	03/18

Approved

Agreement no.
CE 80/2014 (CE)

Project Title
SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN
- FEASIBILITY STUDY

Drawing Title
PROPOSED WATER MAINS FOR SITES 1 & 2 (SALT WATER)

Drawing No.
188563/WSS/008

Scale
1 : 1000 (A1)
1 : 2000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

LOCATION PLAN
SCALE 1 : 30 000

Plot Date = 3/21/2019

CAD Filename = Y:\Daily Work\20190320\188563-WSS-008.dgn

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LEGEND:

- PROPOSED PUBLIC HOUSING SITE BOUNDARY
- PROPOSED SCHOOL SITE BOUNDARY
- AREA TO BE REZONED FOR PROPOSED WATERWORKS
- NEW ROAD TO BE CONSTRUCTED UNDER THIS AGREEMENT
- PROPOSED FRESH WATER AND SALT WATER PUMPING STATION
- PROPOSED FRESH WATER MAIN – INLET (DN300)
- PROPOSED FRESH WATER MAIN – OUTLET (DN400)
- PROPOSED FRESH WATER MAIN (DN150)
- PROPOSED FRESH WATER MAIN (DN100)
- PROPOSED CONNECTION POINT
- EXISTING FRESH WATER MAINS
- EXISTING FRESH WATER MAINS TO BE DIVERTED
- EXISTING FRESH WATER MAINS TO BE REMOVED
- COUNTRY PARK BOUNDARY
- PROPOSED RETAINING WALL
- PROPOSED SLOPE

PROPOSED CONNECTION POINT TO EXISTING DN1000 FRESH WATER MAIN

PROPOSED LOCATION FOR NEW WATER PUMPING STATION (ONE STOREY STRUCTURE AT FORMATION LEVEL +62mPD)

PROPOSED CONNECTION POINT TO THE NEW PUMPING STATION

PROPOSED FRESH WATER AND SALT WATER PUMPING STATION

EXISTING DN1000 TRUNK WATER MAIN TO BE DIVERTED

EXISTING DN150 FW MAIN TO BE REMOVED

EXISTING PUMP HOUSE TO BE RELOCATED

EXISTING DN150 FW MAIN TO BE REMOVED

PROPOSED CONNECTION POINT TO SITES 3 & 4

PROPOSED CONNECTION POINT TO SITE 5

EXISTING DN150 FW MAIN TO BE REMOVED

PROPOSED FRESH WATER MAIN TO THE SITES

PROPOSED FRESH WATER MAIN TO THE PROPOSED FRESH WATER SERVICE RESERVOIR

SITES 3 & 4

SITE 5

MATCH LINE

FOR CONTINUATION SEE DRG. NO. 188563-WSS/010

LOCATION PLAN

SCALE 1 : 30 000

Revision	Date	Description	Initial
F	04/19	MINOR AMENDMENT	YLS
E	03/19	MINOR AMENDMENT	YLS
D	01/19	MINOR AMENDMENT	YLS
C	11/18	MINOR AMENDMENT	YLS
B	08/18	MINOR AMENDMENT	YLS
A	06/18	MINOR AMENDMENT	YLS

	Designed	Checked	Drawn	Checked
Initial	YLS	DH	SZ	LCH
Date	03/18	03/18	03/18	03/18

Approved

Agreement no.

CE 80/2014 (CE)

Project Title

SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN – FEASIBILITY STUDY

Drawing Title

PROPOSED WATER MAINS FOR SITES 3, 4 & 5 (FRESH WATER)

(SHEET 1 OF 2)

Drawing No.	Scale
188563/WSS/009	1 : 1000 (A1) 1 : 2000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 9/18/2019

CAD Filename = Y:\Daily Work\20190916c\188563-WSS-009.dgn



LOCATION PLAN
SCALE 1 : 30 000

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LEGEND:

- PROPOSED PRIVATE HOUSING SITE BOUNDARY
- AREA TO BE REZONED FOR PROPOSED WATERWORKS
- NEW ROAD TO BE CONSTRUCTED UNDER THIS AGREEMENT
- PROPOSED FRESH WATER SERVICE RESERVOIR
- PROPOSED SALT WATER SERVICE RESERVOIR
- PROPOSED FRESH WATER MAIN – INLET (DN300)
- PROPOSED FRESH WATER MAIN (DN150)
- PROPOSED FRESH WATER MAIN – OUTLET (DN400)
- PROPOSED CONNECTION POINT
- EXISTING FRESH WATER MAINS
- COUNTRY PARK BOUNDARY
- PROPOSED RETAINING WALL
- PROPOSED SLOPE

842 400 E
830 400 N
830 200 N
842 200 E
830 600 N
842 000 E

PROPOSED AREA FOR SERVICE RESERVOIRS (FORMATION LEVEL +148mPD)

PROPOSED NEW SALT WATER SERVICE RESERVOIR (ONE STOREY WITH PENTHOUSE AT THE ROOF)

PROPOSED NEW FRESH WATER SERVICE RESERVOIR (ONE STOREY WITH PENTHOUSE AT THE ROOF)

PROPOSED CONNECTION POINT TO EXISTING DN150 FW MAIN

PROPOSED INLET PIPE TO THE PROPOSED FRESH WATER SERVICE RESERVOIR

EXISTING DN150 FW MAIN TO BE REMOVED

PROPOSED OUTLET PIPE TO THE DOWNHILL HOUSING SITES

SITE P

MATCH LINE — FOR CONTINUATION SEE DRG. NO. 188563/WSS/009

Revision	Date	Description	Initial
G	08/19	MINOR AMENDMENT	YLS
F	04/19	MINOR AMENDMENT	YLS
E	03/19	MINOR AMENDMENT	YLS
D	01/19	MINOR AMENDMENT	YLS
C	11/18	MINOR AMENDMENT	YLS
B	08/18	MINOR AMENDMENT	YLS
A	06/18	MINOR AMENDMENT	YLS

	Designed	Checked	Drawn	Checked
Initial	YLS	DH	SZ	LCH
Date	03/18	03/18	03/18	03/18

Approved

Agreement no.
CE 80/2014 (CE)

Project Title
SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN – FEASIBILITY STUDY

Drawing Title
PROPOSED WATER MAINS FOR SITES 3, 4 & 5 (FRESH WATER)

(SHEET 2 OF 2)

Drawing No.
188563/WSS/010

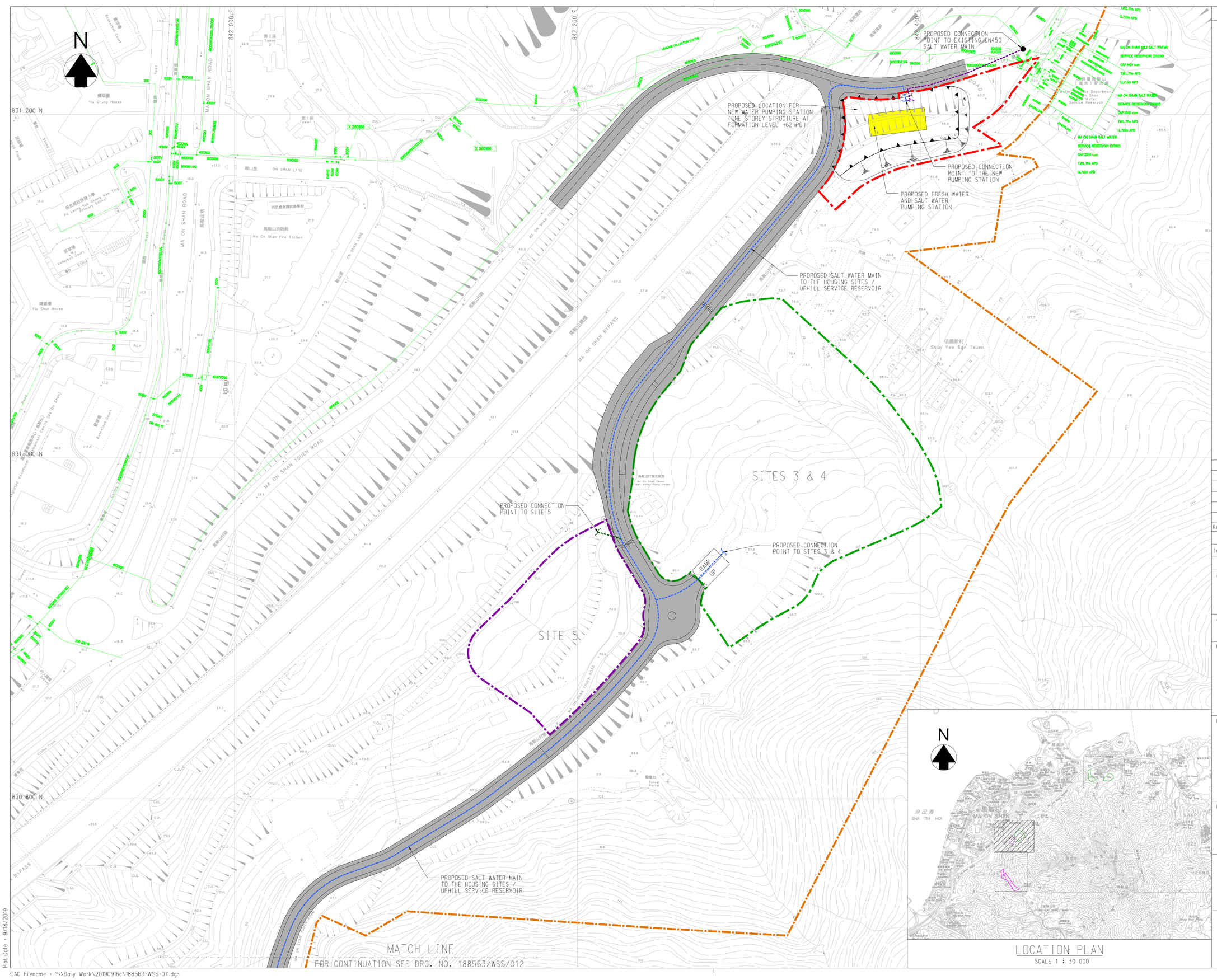
Scale
1 : 1000 (A1)
1 : 2000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 9/18/2019

CAD Filename = Y:\Daily Work\20190916c\188563-WSS-010.dgn



LOCATION PLAN
SCALE 1 : 30 000

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LEGEND:

- PROPOSED PUBLIC HOUSING SITE BOUNDARY
- PROPOSED SCHOOL SITE BOUNDARY
- AREA TO BE REZONED FOR PROPOSED WATERWORKS
- NEW ROAD TO BE CONSTRUCTED UNDER THIS AGREEMENT
- PROPOSED FRESH WATER AND SALT WATER PUMPING STATION
- PROPOSED SALT WATER MAIN (DN200)
- PROPOSED SALT WATER MAIN (DN450)
- PROPOSED SALT WATER MAIN (DN80)
- PROPOSED CONNECTION POINT
- EXISTING SALT WATER MAINS
- COUNTRY PARK BOUNDARY
- PROPOSED RETAINING WALL
- PROPOSED SLOPE

Revision	Date	Description	Initial
F	04/19	MINOR AMENDMENT	YLS
E	03/19	MINOR AMENDMENT	YLS
D	01/19	MINOR AMENDMENT	YLS
C	11/18	MINOR AMENDMENT	YLS
B	08/18	MINOR AMENDMENT	YLS
A	06/18	MINOR AMENDMENT	YLS

	Designed	Checked	Drawn	Checked
Initial	YLS	DH	SZ	LCH
Date	03/18	03/18	03/18	03/18

Approved

Agreement no.
CE 80/2014 (CE)

Project Title
SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title
PROPOSED WATER MAINS FOR SITES 3, 4 & 5 (SALT WATER)

(SHEET 1 OF 2)

Drawing No.
188563/WSS/011

Scale
1 : 1000 (A1)
1 : 2000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 9/18/2019

CAD Filename = Y:\Daily Work\20190916c\188563-WSS-011.dgn



LOCATION PLAN
SCALE 1 : 30 000

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LEGEND:

- PROPOSED PRIVATE HOUSING SITE BOUNDARY
- AREA TO BE REZONED FOR PROPOSED WATERWORKS
- NEW ROAD TO BE CONSTRUCTED UNDER THIS AGREEMENT
- PROPOSED FRESH WATER SERVICE RESERVOIR
- PROPOSED SALT WATER SERVICE RESERVOIR
- PROPOSED SALT WATER MAIN (DN200)
- PROPOSED CONNECTION POINT
- EXISTING SALT WATER MAINS
- COUNTRY PARK BOUNDARY
- PROPOSED RETAINING WALL
- PROPOSED SLOPE

842 400 E
830 400 N
830 200 N
830 600 N
842 200 E
842 000 E

PROPOSED AREA FOR SERVICE RESERVOIRS (FORMATION LEVEL +148mPD)

PROPOSED NEW SALT WATER SERVICE RESERVOIR (ONE STOREY WITH PENTHOUSE AT THE ROOF)

PROPOSED NEW FRESH WATER SERVICE RESERVOIR (ONE STOREY WITH PENTHOUSE AT THE ROOF)

PROPOSED SALT WATER MAIN TO THE HOUSING SITES / UPHILL SERVICE RESERVOIR

MA ON SHAN TSUEN ROAD

SITE P

MATCH LINE FOR CONTINUATION SEE DRG. NO. 188563/WSS/011

Revision	Date	Description	Initial
G	08/19	MINOR AMENDMENT	YLS
F	04/19	MINOR AMENDMENT	YLS
E	03/19	MINOR AMENDMENT	YLS
D	01/19	MINOR AMENDMENT	YLS
C	11/18	MINOR AMENDMENT	YLS
B	08/18	MINOR AMENDMENT	YLS
A	06/18	MINOR AMENDMENT	YLS

	Designed	Checked	Drawn	Checked
Initial	YLS	DH	SZ	LCH
Date	03/18	03/18	03/18	03/18

Approved

Agreement no.
CE 80/2014 (CE)

Project Title
SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title
PROPOSED WATER MAINS FOR SITES 3, 4 & 5 (SALT WATER)

(SHEET 2 OF 2)

Drawing No.
188563/WSS/012

Scale
1 : 1000 (A1)
1 : 2000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 9/18/2019

CAD Filename = Y:\Daily Work\20190916c\188563-WSS-012.dgn



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LEGEND:

- PROPOSED FRESH WATER MAINS
- PROPOSED CONNECTION POINT
- EXISTING FRESH WATER MAINS

Revision	Date	Description		Initial
	Designed	Checked	Drawn	Checked
Initial	YLS	DH	SZ	LCH
Date	03/18	03/18	03/18	03/18

Approved

Agreement no.

CE 80/2014 (CE)

Project Title

SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title

PROPOSED NEW FRESH WATER MAIN FOR SITES 1 & 2

Drawing No.

188563/WSS/014

Scale

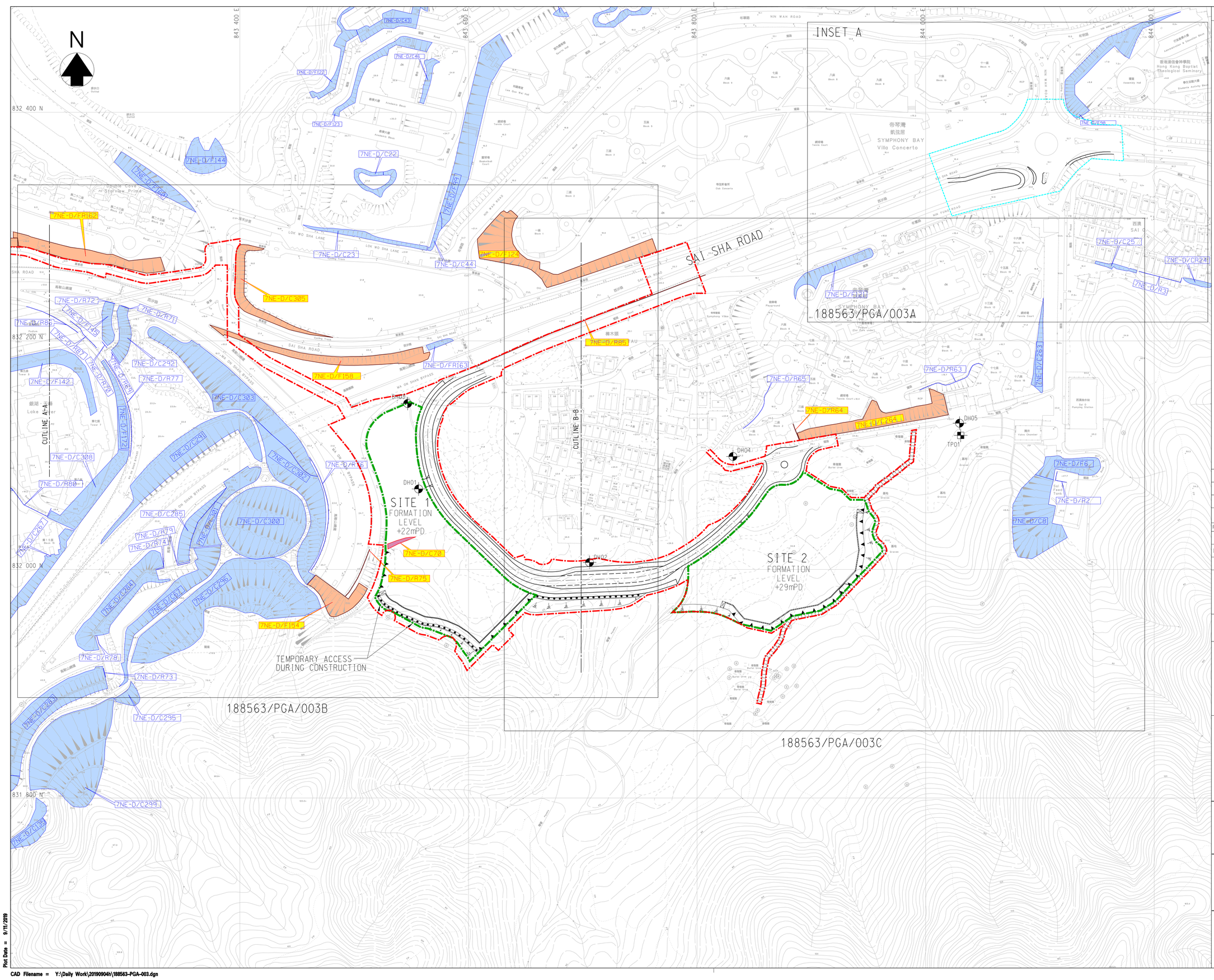
1 : 1000 (A1)
1 : 2000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 3/6/2018

CAD Filename = Y:\Daily Work\20180301c\188563-WSS-014.dgn



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NOTES:

1. FORMATION LEVELS WITHIN PUBLIC HOUSING SITES ARE SUBJECT TO CHANGE AT DETAILED DESIGN STAGE.

LEGEND:

- LIMIT OF WORKS AREA OF PROPOSED ROAD IMPROVEMENT WORKS
- PROPOSED PUBLIC HOUSING SITE BOUNDARY
- EXISTING MAN-MADE FEATURE
- PROPOSED CUT SLOPE
- PROPOSED MASS CONCRETE / L-SHAPED RETAINING STRUCTURES
- PROPOSED BORED PILE WALL
- LIMIT OF WORKS AREA OF SITES 1 AND 2 AND ASSOCIATED INFRASTRUCTURAL WORKS
- MAN-MADE FEATURE WITHIN OR IN THE VICINITY OF WORKS AREA
- MAN-MADE FEATURE WITHIN SITE 1
- PROPOSED CHECK DAM (SUBJECT TO DETAILED DESIGN)
- PROPOSED RIGID BARRIER (SUBJECT TO DETAILED DESIGN)
- SITE SPECIFIC DRILLHOLES
- SITE SPECIFIC TRIAL PITS

Revision	Date	Description	Initial
D	07/19	MINOR AMENDMENT	YLS
C	03/19	MINOR AMENDMENT	YLS
B	09/18	MINOR AMENDMENT	YLS
A	04/18	AMENDMENT DUE TO BOUNDARY CHANGE	YLS

	Designed	Checked	Drawn	Checked
Initial	RF	CKW	SZ	LCH
Date	06/15	06/15	06/15	06/15

Approved

Agreement no.

CE 80/2014 (CE)

Project Title

SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title

REGISTERED GEOTECHNICAL FEATURES WITHIN OR IN THE VICINITY OF SITES 1 AND 2 AND ASSOCIATED INFRASTRUCTURAL WORKS - KEY PLAN

(SHEET 1 OF 4)

Drawing No.

188563/PGA/003

Scale

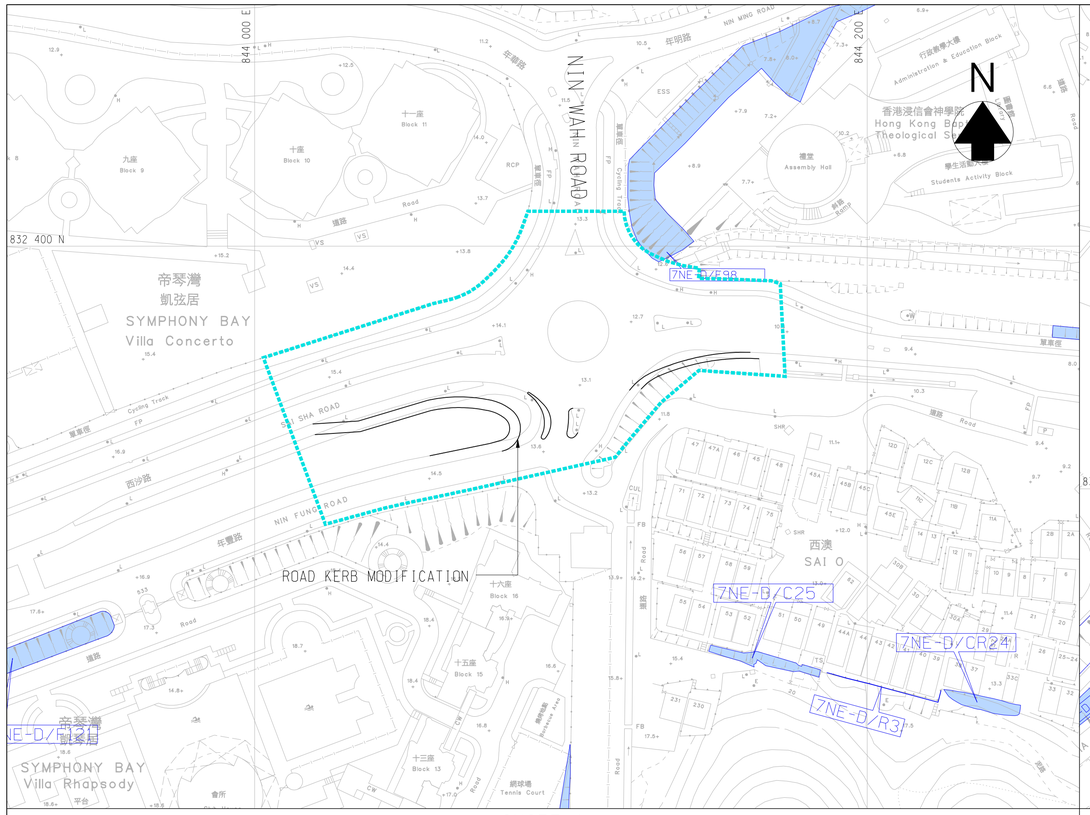
1 : 1500 (A1)
1 : 3000 (A3)

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

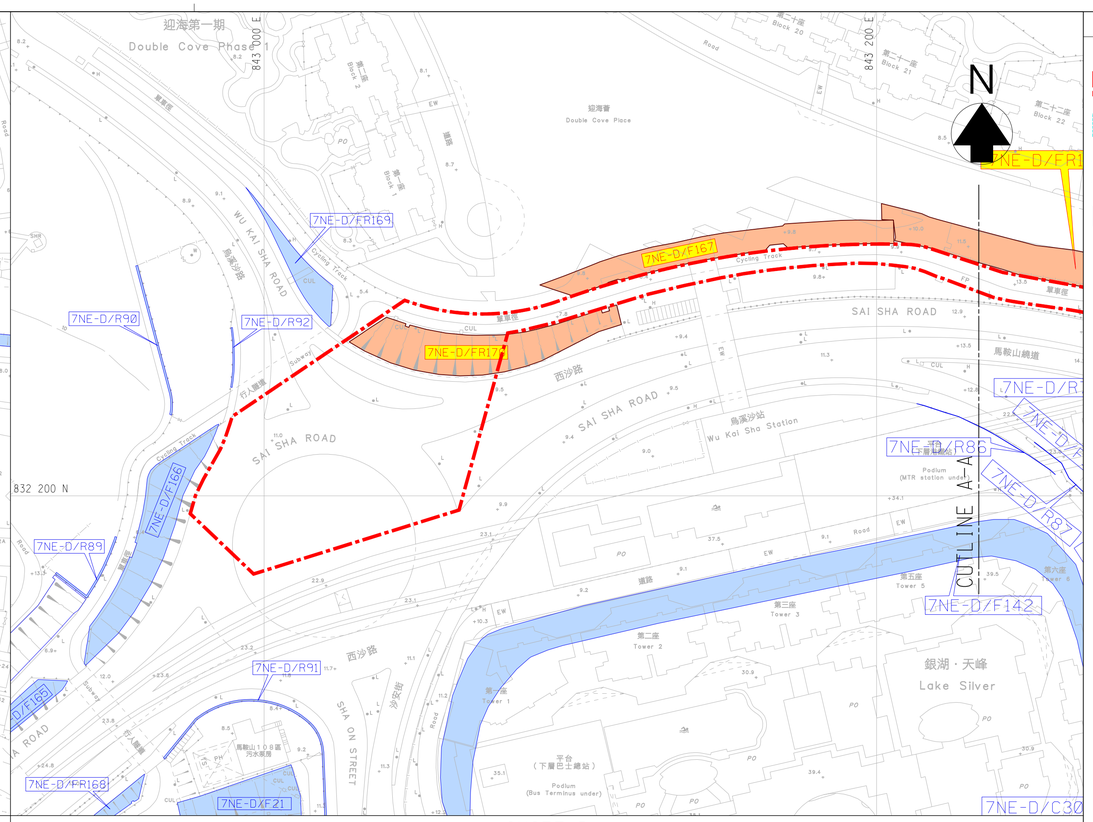
BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 9/11/2019

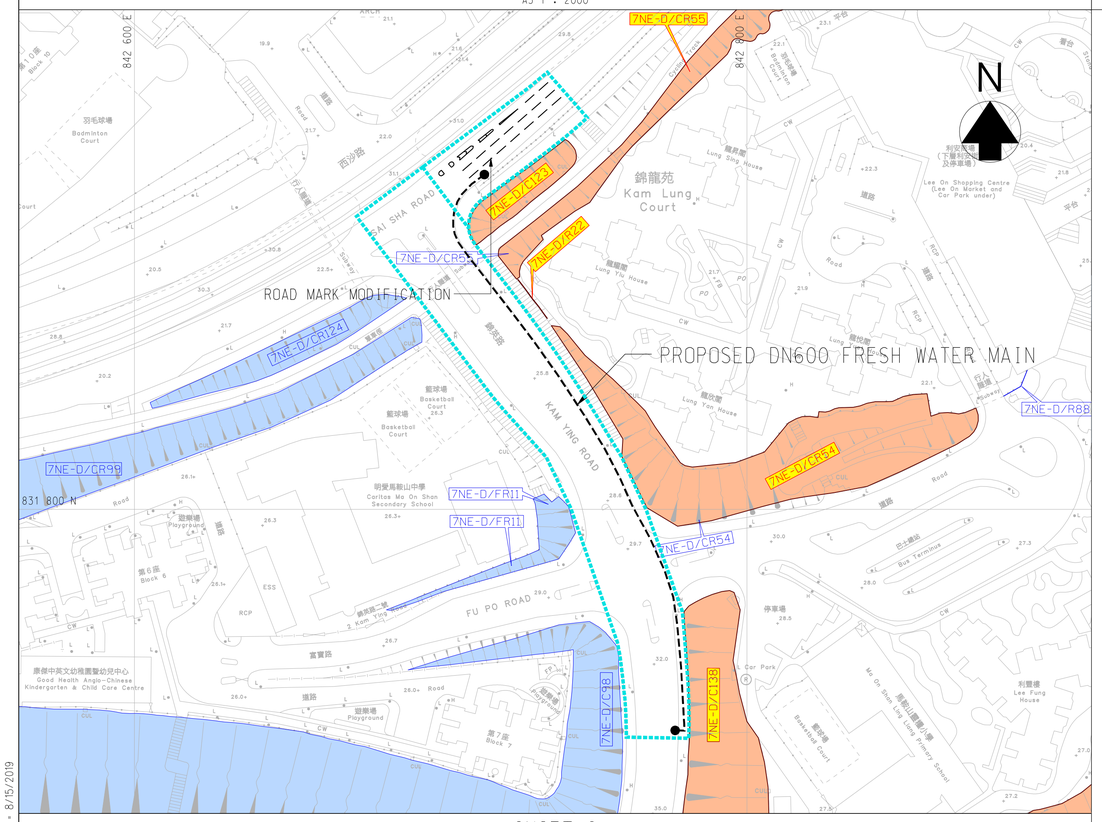
CAD Filename = Y:\Daily Work\20190904h\188563-PGA-003.dgn



INSET A
A1 1 : 1000
A3 1 : 2000



INSET B
A1 1 : 1000
A3 1 : 2000



INSET C
A1 1 : 1000
A3 1 : 2000

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LEGEND:

- LIMIT OF WORKS AREA OF SITES 1 AND 2 AND ASSOCIATED INFRASTRUCTURAL WORKS
- LIMIT OF WORKS AREA OF PROPOSED ROAD IMPROVEMENT WORKS / MAINLAYING WORKS
- EXISTING MAN-MADE FEATURE
- MAN-MADE FEATURE WITHIN OR IN THE VICINITY OF WORKS AREA
- PROPOSED WATER SUPPLY MAIN

Revision	Date	Description	Initial
C	07/19	MINOR AMENDMENT	YLS
B	09/18	MINOR AMENDMENT	YLS
A	04/18	MINOR AMENDMENT	YLS

	Designed	Checked	Drawn	Checked
Initial	RF	CKW	SZ	LCH
Date	05/17	05/17	05/17	05/17

Approved

Agreement no.
CE 80/2014 (CE)

Project Title
SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title
REGISTERED GEOTECHNICAL FEATURES WITHIN OR IN THE VICINITY OF SITES 1 AND 2 AND ASSOCIATED INFRASTRUCTURAL WORKS

(SHEET 2 OF 4)

Drawing No.
188563/PGA/003A

Scale
AS SHOWN

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 8/15/2019

CAD Filename = Y:\Daily Work\20190815\188563-PGA-003a.dgn

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NOTE:

1. FOR LEGEND REFER TO DRAWING NO. 188563/PGA/003.
2. FORMATION LEVELS WITHIN PUBLIC HOUSING SITES ARE SUBJECT TO CHANGE AT DETAILED DESIGN STAGE.

Revision	Date	Description	Initial
C	07/19	MINOR AMENDMENT	YLS
B	03/19	MINOR AMENDMENT	YLS
A	09/18	MINOR AMENDMENT	YLS

	Designed	Checked	Drawn	Checked
Initial	YLS	DH	SZ	LCH
Date	04/18	04/18	04/18	04/18

Approved

Agreement no.

CE 80/2014 (CE)

Project Title

SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title

REGISTERED GEOTECHNICAL FEATURES WITHIN OR IN THE VICINITY OF SITES 1 AND 2 AND ASSOCIATED INFRASTRUCTURAL WORKS

(SHEET 3 OF 4)

Drawing No.

188563/PGA/003B

Scale

1 : 800 (A1)
1 : 1600 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 9/11/2019

CAD Filename = Y:\Daily Work\20190904h\188563-PGA-003b.dgn

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NOTE:

1. FOR LEGEND REFER TO DRAWING NO. 188563/PGA/003.
2. FORMATION LEVELS WITHIN PUBLIC HOUSING SITES ARE SUBJECT TO CHANGE AT DETAILED DESIGN STAGE.

Revision	Date	Description	Initial
C	07/19	MINOR AMENDMENT	YLS
B	03/19	MINOR AMENDMENT	YLS
A	09/18	MINOR AMENDMENT	YLS

	Designed	Checked	Drawn	Checked
Initial	YLS	DH	SZ	LCH
Date	04/18	04/18	04/18	04/18

Approved

Agreement no.
CE 80/2014 (CE)

Project Title
SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title
REGISTERED GEOTECHNICAL FEATURES WITHIN OR IN THE VICINITY OF SITES 1 AND 2 AND ASSOCIATED INFRASTRUCTURAL WORKS

(SHEET 4 OF 4)

Drawing No.
188563/PGA/003C

Scale
1 : 800 (A1)
1 : 1600 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
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Plot Date = 8/30/2019

CAD Filename = Y:\Daily Work\20190827a\mark up 1\188563-PGA-003c.dgn

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NOTE:

1. SITE P IS HALF-TONED.
2. FORMATION LEVELS WITHIN PUBLIC HOUSING SITES ARE SUBJECT TO CHANGE AT DETAILED DESIGN STAGE.

LEGEND:

- LIMIT OF WORKS AREA OF SITES 3 TO 5 AND ASSOCIATED INFRASTRUCTURAL WORKS
- PROPOSED PUBLIC HOUSING SITE BOUNDARY
- PROPOSED SCHOOL SITE BOUNDARY
- PROPOSED PRIVATE HOUSING SITE BOUNDARY
- PROPOSED SLOPE
- PROPOSED RETAINING WALL
- +65 PROPOSED ROAD LEVEL
- 66.12 EXISTING ROAD LEVEL
- COUNTRY PARK BOUNDARY
- EXISTING MAN-MADE FEATURE
- MAN-MADE FEATURE WITHIN SITES 3 TO 5
- MAN-MADE FEATURE WITHIN OR IN THE VICINITY OF WORKS AREA
- PROPOSED CHECK DAM (SUBJECT TO DETAILED DESIGN)
- PROPOSED FLEXIBLE BARRIER (SUBJECT TO DETAILED DESIGN)
- PROPOSED RIGID BARRIER (SUBJECT TO DETAILED DESIGN)

Revision	Date	Description	Initial
C	08/19	MINOR AMENDMENT	YLS
B	02/19	MINOR AMENDMENT	YLS
A	10/18	MINOR AMENDMENT	YLS

	Designed	Checked	Drawn	Checked
Initial	YLS	DH	SZ	LCH
Date	04/18	04/18	04/18	04/18

Approved

Agreement no.

CE 80/2014 (CE)

Project Title

SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title

REGISTERED GEOTECHNICAL FEATURES WITHIN OR IN THE VICINITY OF SITES 3 TO 5 AND ASSOCIATED INFRASTRUCTURAL WORKS - KEY PLAN

(SHEET 1 OF 4)

Drawing No.

188563/PGA/203

Scale

1 : 2000 (A1)
1 : 4000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 11/1/2019

CAD Filename = Y:\Daily Work\20191031E\temp\188563-PGA-203-temp.dgn

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NOTE:

1. FOR LEGEND REFER TO DRAWING NO. 188563/PGA/203.
2. FORMATION LEVELS WITHIN PUBLIC HOUSING SITES ARE SUBJECT TO CHANGE AT DETAILED DESIGN STAGE.

Revision	Date	Description	Initial
C	07/19	MINOR AMENDMENT	YLS
B	02/19	MINOR AMENDMENT	YLS
A	10/18	MINOR AMENDMENT	YLS

	Designed	Checked	Drawn	Checked
Initial	YLS	DH	SZ	LCH
Date	04/18	04/18	04/18	04/18

Approved

Agreement no.
CE 80/2014 (CE)

Project Title
SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title
REGISTERED GEOTECHNICAL FEATURES WITHIN OR IN THE VICINITY OF SITES 3 TO 5 AND ASSOCIATED INFRASTRUCTURAL WORKS
(SHEET 2 OF 4)

Drawing No.
188563/PGA/203A

Scale
1 : 1000 (A1)
1 : 2000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 9/24/2019

CAD Filename = y:\daily work\20190920e\188563-PGA-203A.dgn

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NOTE:

1. FOR LEGEND REFER TO DRAWING NO. 188563/PGA/203.

MOS COUNTRY PARK

NEW PAVILION TO BE CONSTRUCTED TO SERVE PROPOSED ROAD

PROPOSED AREA FOR SERVICE RESERVOIRS (FORMATION LEVEL +148mPD)

PROPOSED ACCESS TO CONNECT EXISTING MA ON SHAN TSUEN ROAD AND PROPOSED ROAD

MA ON SHAN TSUEN ROAD

SITE P

PROPOSED ACCESS TO EXISTING SQUATTERS (INDICATIVE ONLY, TO BE DESIGNED, CONSTRUCTED AND MAINTAINED BY DEVELOPER(S))

PROPOSED ACCESS TO EXISTING GRAVE (INDICATIVE ONLY, TO BE DESIGNED, CONSTRUCTED AND MAINTAINED BY DEVELOPER(S))

EXISTING GRAVE +144mPD (APPROX.)

PROPOSED LAY-BY

ELEVATED STRUCTURE OVER THE VALLEY AND CATCHWATERS

MATCH LINE

FOR CONTINUATION REFER TO DRAWING REFERENCE NO.: 188563/PGA/203A & 203C

Revision	Date	Description	Initial
C	08/19	MINOR AMENDMENT	YLS
B	02/19	MINOR AMENDMENT	YLS
A	10/18	MINOR AMENDMENT	YLS

	Designed	Checked	Drawn	Checked
Initial	YLS	DH	SZ	LCH
Date	04/18	04/18	04/18	04/18

Approved

Agreement no.

CE 80/2014 (CE)

Project Title

SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title

REGISTERED GEOTECHNICAL FEATURES WITHIN OR IN THE VICINITY OF SITES 3 TO 5 AND ASSOCIATED INFRASTRUCTURAL WORKS

(SHEET 3 OF 4)

Drawing No.

188563/PGA/203B

Scale

1 : 1000 (A1)
1 : 2000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 11/1/2019

CAD Filename = Y:\Daily Work\20191031E\temp\188563-PGA-203B-temp.dgn

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NOTE:

1. FOR LEGEND REFER TO DRAWING NO. 188563/PGA/203.

Revision	Date	Description			Initial
	Designed	Checked	Drawn	Checked	
Initial	YLS	DH	SZ	LCH	
Date	04/18	04/18	04/18	04/18	

Approved

Agreement no.

CE 80/2014 (CE)

Project Title

SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title

REGISTERED GEOTECHNICAL FEATURES WITHIN OR IN THE VICINITY OF SITES 3 TO 5 AND ASSOCIATED INFRASTRUCTURAL WORKS

(SHEET 4 OF 4)

Drawing No.

188563/PGA/203C

Scale

1 : 1000 (A1)
1 : 2000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 9/24/2019

CAD Filename = y:\daily work\20190920e\188563-PGA-203C.dgn

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N

830 600 N
830 400 N
830 200 N
830 000 N
842 200 E
842 000 E

NEW PAVILION TO BE CONSTRUCTED TO SERVE PROPOSED ROAD

PROPOSED AREA FOR SERVICE RESERVOIRS (FORMATION LEVEL +148mPD)

PROPOSED ACCESS TO CONNECT EXISTING MA ON SHAN TSUEN ROAD AND PROPOSED ROAD

MA ON SHAN TSUEN ROAD

SITE P

PROPOSED ACCESS TO EXISTING SQUATTERS (INDICATIVE ONLY, TO BE DESIGNED, CONSTRUCTED AND MAINTAINED BY DEVELOPER(S))

PROPOSED ACCESS TO EXISTING GRAVE (INDICATIVE ONLY, TO BE DESIGNED, CONSTRUCTED AND MAINTAINED BY DEVELOPER(S))

EXISTING GRAVE +144mPD (APPROX.)

PROPOSED LAY-BY

ELEVATED STRUCTURE OVER THE VALLEY AND CATCHWATERS

Catchwater

REMARKS:

1. ASSOCIATED INFRASTRUCTURAL WORKS OF SITES 3 TO 5 ARE HALF-TONED.

LEGEND:

- PROPOSED PRIVATE HOUSING SITE BOUNDARY
- PROPOSED SLOPE
- PROPOSED RETAINING WALL
- EXISTING MAN-MADE FEATURE
- 66.12 EXISTING ROAD LEVEL
- +65 PROPOSED ROAD LEVEL
- COUNTRY PARK BOUNDARY
- EXISTING DRILLHOLES
- 1 1 SECTION
- MAN-MADE FEATURES WITHIN SITE P
- PROPOSED CHECK DAM (SUBJECT TO DETAILED DESIGN)
- PROPOSED FLEXIBLE BARRIER (SUBJECT TO DETAILED DESIGN)
- MAN-MADE FEATURES IN THE VICINITY OF SITE P

Revision	Date	Description	Initial
D	08/19	MINOR AMENDMENT	YLS
C	02/19	MINOR AMENDMENT	YLS
B	10/18	MINOR AMENDMENT	YLS
A	06/18	REVISION IN SITE BOUNDARIES	YLS

	Designed	Checked	Drawn	Checked
Initial	YLS	DH	SZ	LCH
Date	06/18	06/18	06/18	06/18

Approved

Agreement no.
CE 80/2014 (CE)

Project Title
SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title
REGISTERED GEOTECHNICAL FEATURES AND EXISTING GROUND INVESTIGATION RECORD FOR SITE P

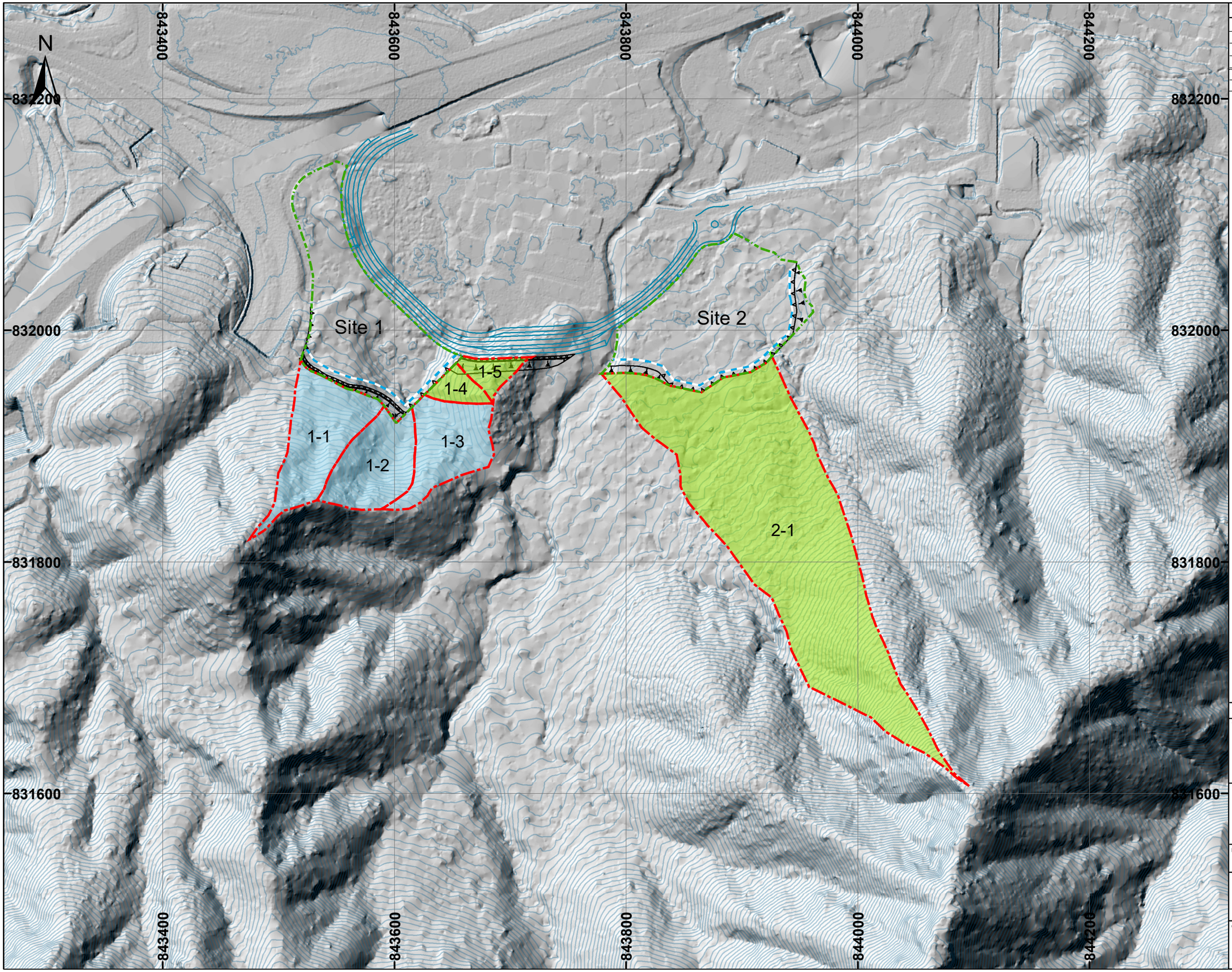
Drawing No.	Scale
188563/PGA/303	1 : 1000 (A1) 1 : 2000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 9/25/2019

CAD Filename = y:\daily work\20190920e\188563-PGA-303.dgn



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	Designed	Reviewed	Drawn	Checked
Initial	YLC	LCH	YLC	KHL
Date	03/17	03/17	03/17	03/17

Revision	Date	Description	Initial
B	05/19	Minor Amendment	YLS

Legend

- Proposed Public Housing Site Boundary
- Proposed Natural Terrain Hazard Study Area
- Proposed Geotechnical Works
- Proposed Road Works

Natural Terrain Hazards Mitigaiton Measures

- Rigid Barrier
- Check Dam

Potential Hazard

- Open Hillslope Landslide
- Topographic Depression

Agreement No. CE 80/2014 (CE)

Contract Title

SITE FORMATION AND INFRASTRUCTURE WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Figure Title

Schematic Layout of Recommended Mitigation Strategy for Sites 1 and 2

Drawing No.	Scale
188563/PGA/022	1:3,000 @ A3

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Consultant

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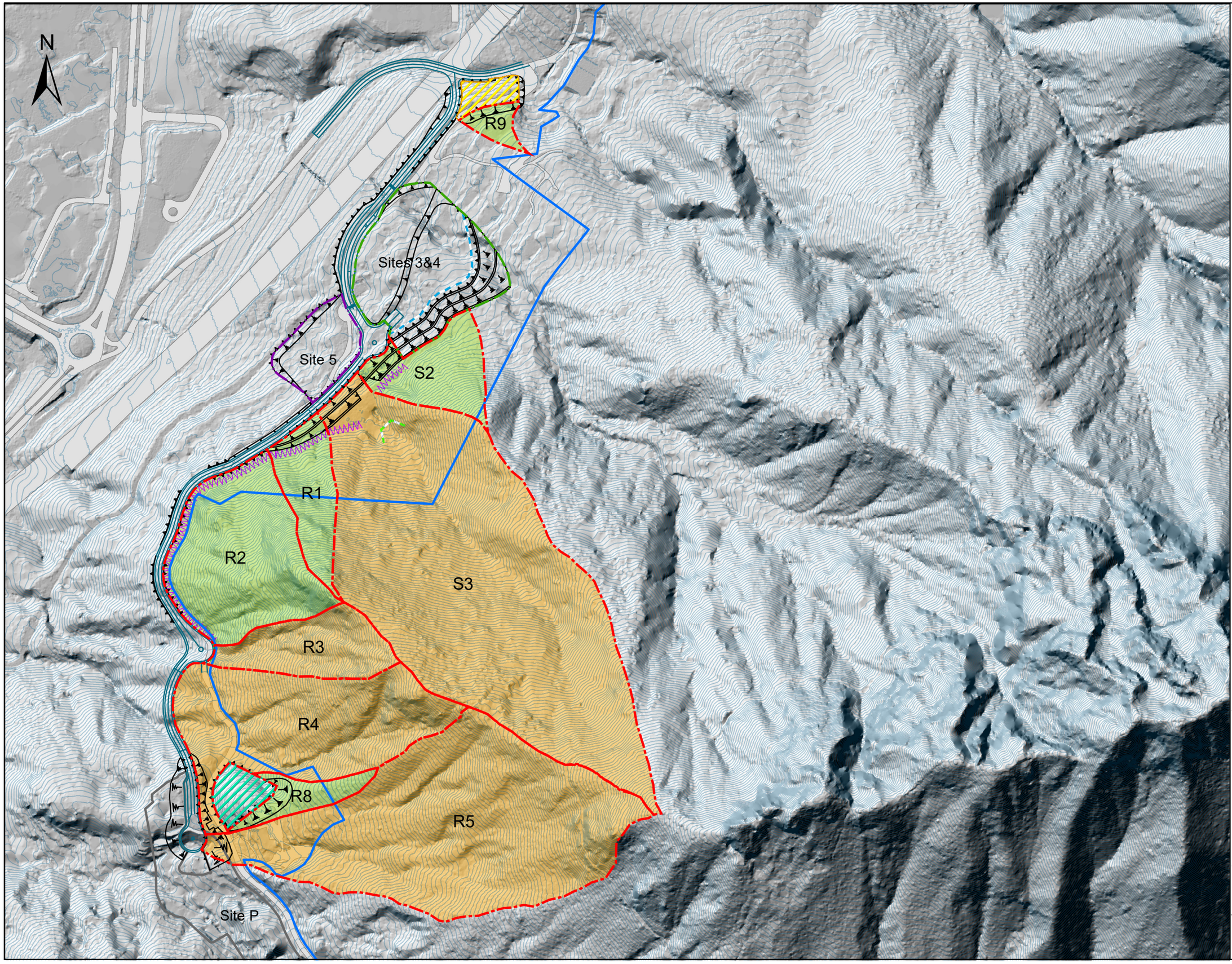

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	Designed	Reviewed	Drawn	Checked
Initial	YLC	LCH	YLC	KHL
Date	02/17	02/17	02/17	02/17

Revision	Date	Description	Initial
A	06/18	Minor Amendment	YLS

Note: Site P is half-toned.

Legend

- Proposed Natural Terrain Hazard Study
- Proposed Public Housing Site Boundary
- Proposed School Site Boundary
- Proposed Location of New Service Reservoirs
- Proposed Location of New Pumping Station
- Proposed Geotechnical Works
- Proposed Road Works
- Country Park Boundary

Natural Terrain Hazards Mitigaiton Measures

- Flexible Barrier
- Rigid Barrier
- Check Dam

Potential Hazard

- Channelized Debris Flow
- Open Hillslope Landslide

Approved

Agreement No. CE 80/2014 (CE)

Project Title

Site Formation and Infrastructural Works for Eight Housing Sites in Ma On Shan - Feasibility Study

Figure Title

Schematic Layout of Recommended Mitigation Strategy for Sites 3 to 5

Drawing No.	Scale
188563/PGA/221	1:4,000 @ A3

Client

CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

Consultant

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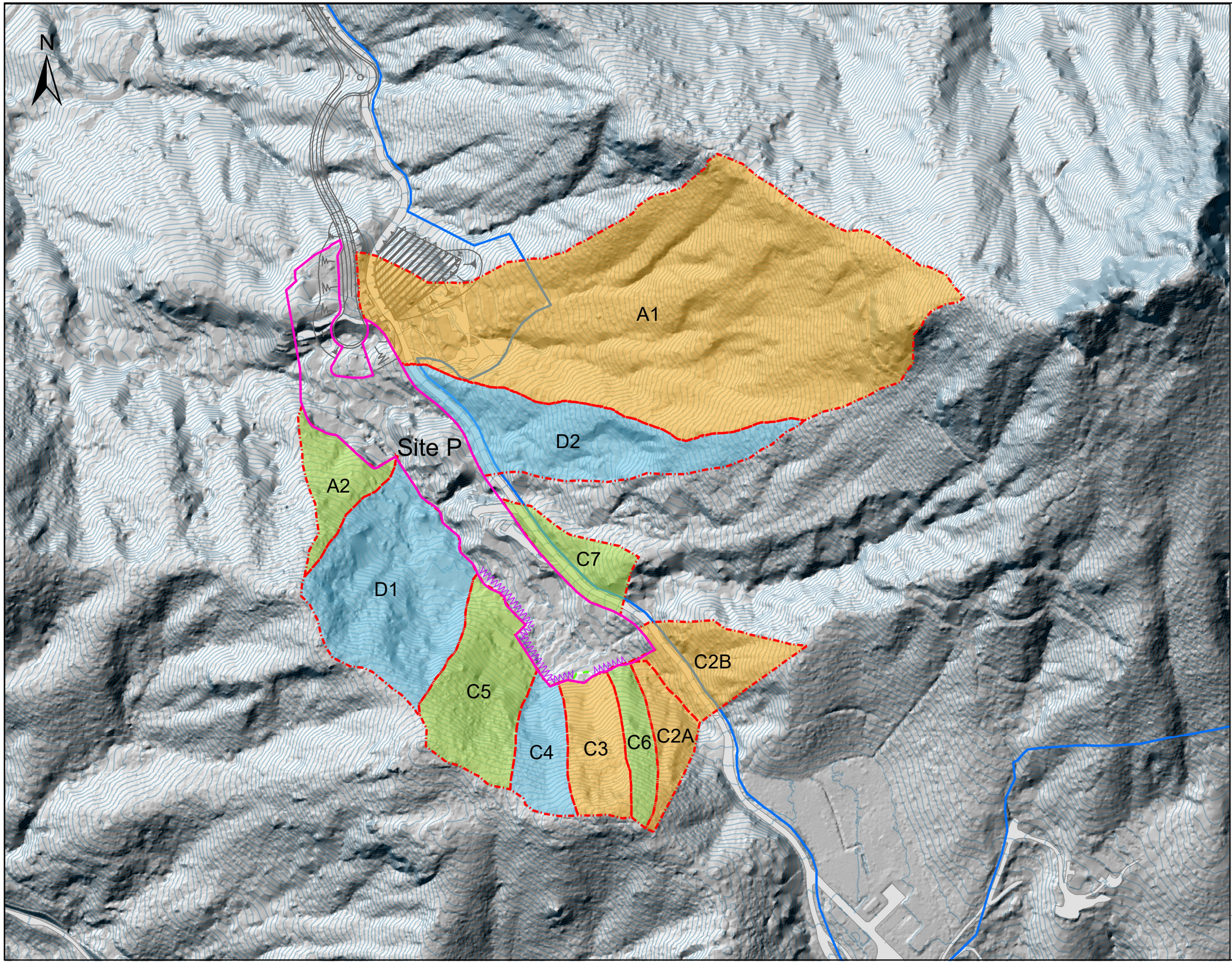

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	Designed	Reviewed	Drawn	Checked
Initial	YLC	VW	YLC	KHL
Date	06/15	06/15	06/15	06/15

Revision	Date	Description	Initial
B	08/19	MINOR AMENDMENT	YLS

Note: Sites 3 to 5 and their associated works are half-toned.

Legend

Proposed Private Housing Site Boundary

Natural Terrain Hazards Study Area

Natural Terrain Hazards Mitigaiton Measures

Flexible Barrier

Check Dam

Country Park Boundary

Potential Hazard

Channelized Debris Flow

Open Hillslope Landslide

Topographic Depression

Approved

Agreement No. CE 80/2014 (CE)

Project Title

Site Formation and Infrastructural Works for Eight Housing Sites in Ma On Shan - Feasibility Study

Figure Title

Schematic Layout of Recommended Mitigation Strategy for Site P

Drawing No.
188563/PGA/318

Scale
1:3,000 @ A3

Client
CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

Consultant
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REMARKS:

1. FORMATION LEVELS WITHIN PUBLIC HOUSING SITES ARE SUBJECT TO CHANGE AT DETAILED DESIGN STAGE.

LEGEND:

- PROPOSED PUBLIC HOUSING SITE BOUNDARY
- PROPOSED SLOPE
- PROPOSED MASS CONCRETE / L-SHAPED RETAINING STRUCTURES
- PROPOSED BORED PILE WALL
- ASSESSMENT AREA
- PROPOSED CHECK DAM (SUBJECT TO DETAILED DESIGN)
- PROPOSED RIGID BARRIER (SUBJECT TO DETAILED DESIGN)

Revision	Date	Description	Initial
E	08/19	MINOR AMENDMENT	YLS
D	04/19	MINOR AMENDMENT	YLS
C	02/19	MINOR AMENDMENT	YLS
B	09/18	MINOR AMENDMENT	YLS
A	05/18	AMENDMENT DUE TO BOUNDARY CHANGE	YLS

	Designed	Checked	Drawn	Checked
Initial	JYC	CKW	SZ	LCH
Date	04/17	04/17	04/17	04/17

Approved

Agreement no.
CE 80/2014 (CE)

Project Title
SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title
CONCEPTUAL LAYOUT PLAN AND SITE ACCESS ARRANGEMENT FOR SITES 1 AND 2

Drawing No.
188563/VIA/003

Scale
1 : 1000 (A1)
1 : 2000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 10/11/2019

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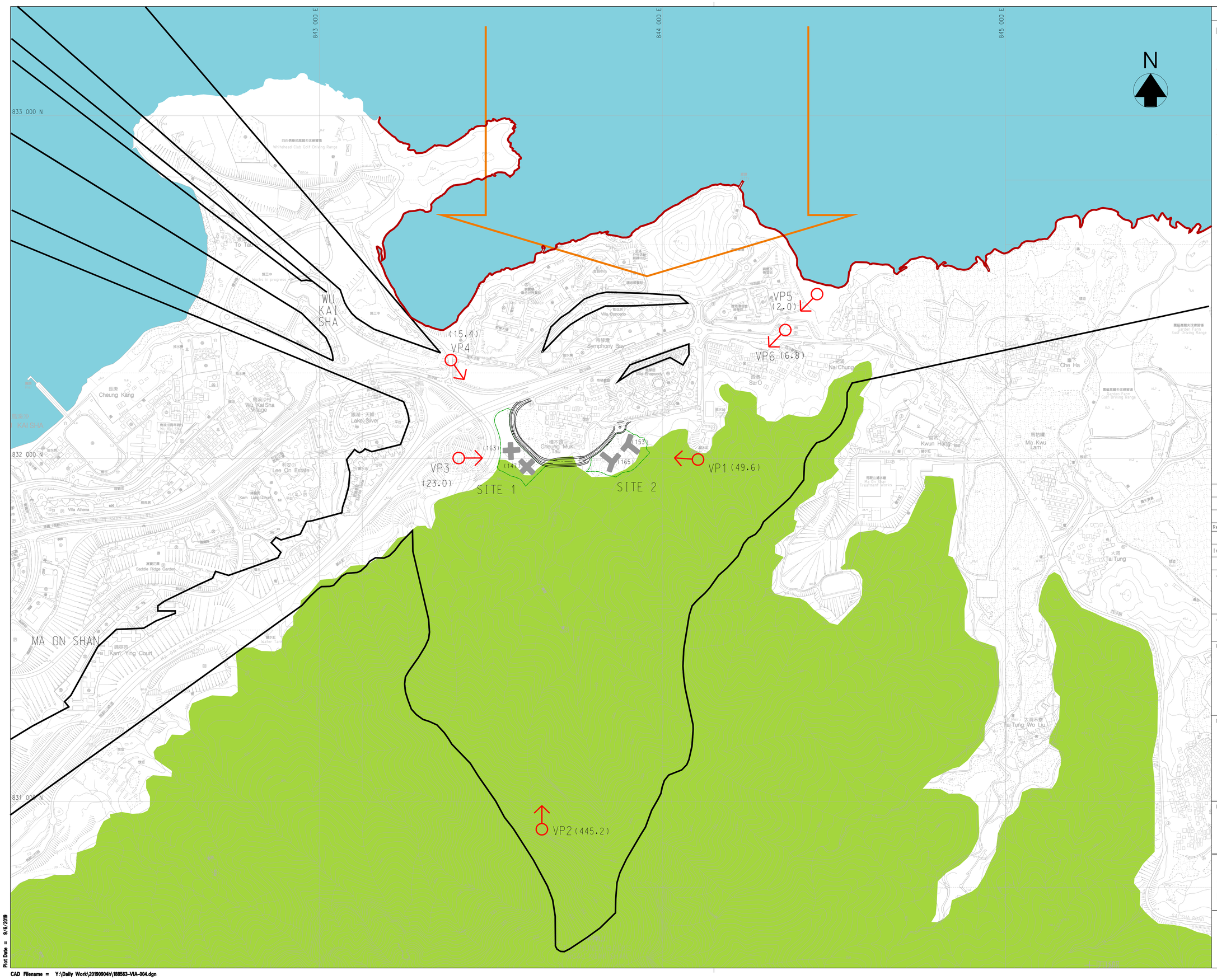

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LEGEND:

- PROPOSED PUBLIC HOUSING SITE BOUNDARY
- PUBLIC VIEWING POINT (VP)
- ZONE OF VISUAL INFLUENCE
- (49.6) HEIGHT IN mPD
- MAJOR VISUAL CORRIDOR
- MAJOR VISUAL RESOURCE - HILLSIDE VEGETATION AND RIDGELINE OF MA ON SHAN
- MAJOR VISUAL RESOURCE - SEASCAPE OF TOLO HARBOUR
- MAJOR VISUAL RESOURCE - NATURAL COASTLINE NEAR NAI CHUNG

Revision	Date	Description	Initial
C	08/19	MINOR AMENDMENT	YLS
B	09/18	MINOR AMENDMENT	YLS
A	05/18	AMENDMENT DUE TO BOUNDARY CHANGE	YLS

	Designed	Checked	Drawn	Checked
Initial	RF	CKW	SZ	LCH
Date	04/17	04/17	04/17	04/17

Approved

Agreement no.

CE 80/2014 (CE)

Project Title

SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title

PLAN OF PUBLIC VIEWING POINTS AND ZVI FOR SITES 1 AND 2

Drawing No.

188563/VIA/004

Scale

1 : 5000 (A1)
1 : 10000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 9/6/2019

CAD Filename = Y:\Daily Work\20190904h\188563-VIA-004.dgn



Existing View



Day 1 of Operation Phase without Mitigation Measures



Day 1 / Year 10 of Operation Phase with Mitigation Measures

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the design of the housing blocks is subject to review during the later detailed design stage

188563/VIA/005A Photomontage of Public Viewing Point VP1 for Sites 1 and 2 - Hikers from the East



Existing View



Day 1 of Operation Phase without Mitigation Measures



Day 1 / Year 10 of Operation Phase with Mitigation Measures

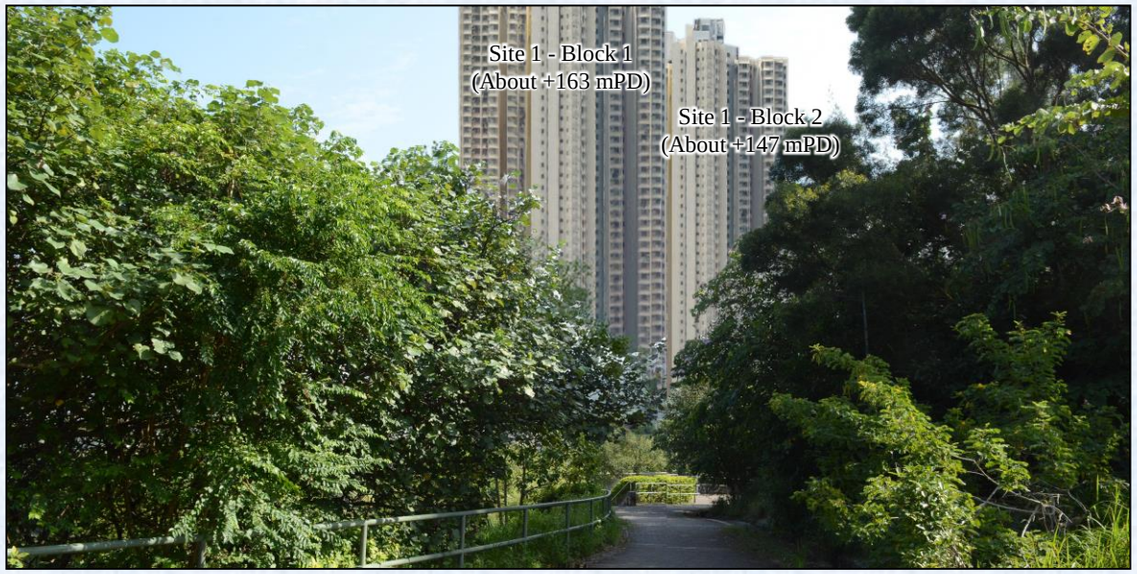
(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the design of the housing blocks is subject to review during the later detailed design stage

188563/VIA/005B Photomontage of Public Viewing Point VP2 for Sites 1 and 2 - Hikers from the South



Existing View



Day 1 of Operation Phase without Mitigation Measures



Day 1 / Year 10 of Operation Phase with Mitigation Measures

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the design of the housing blocks is subject to review during the later detailed design stage

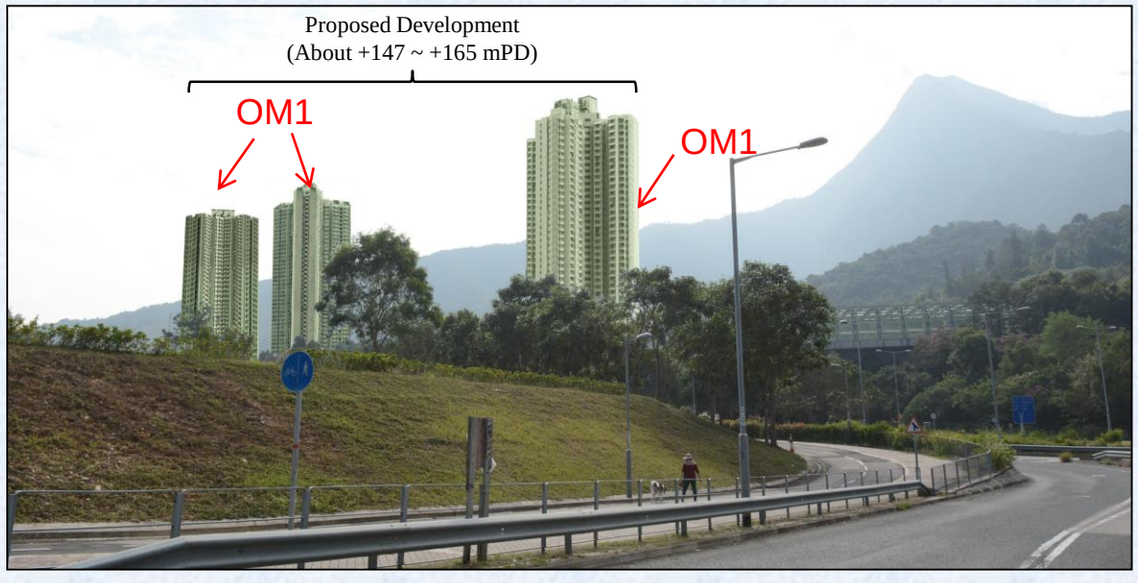
188563/VIA/005C Photomontage of Public Viewing Point VP3 for Sites 1 and 2 - Visitors of Ma On Shan Bypass Sitting-out Area



Existing View



Day 1 of Operation Phase without Mitigation Measures



Day 1 / Year 10 of Operation Phase with Mitigation Measures

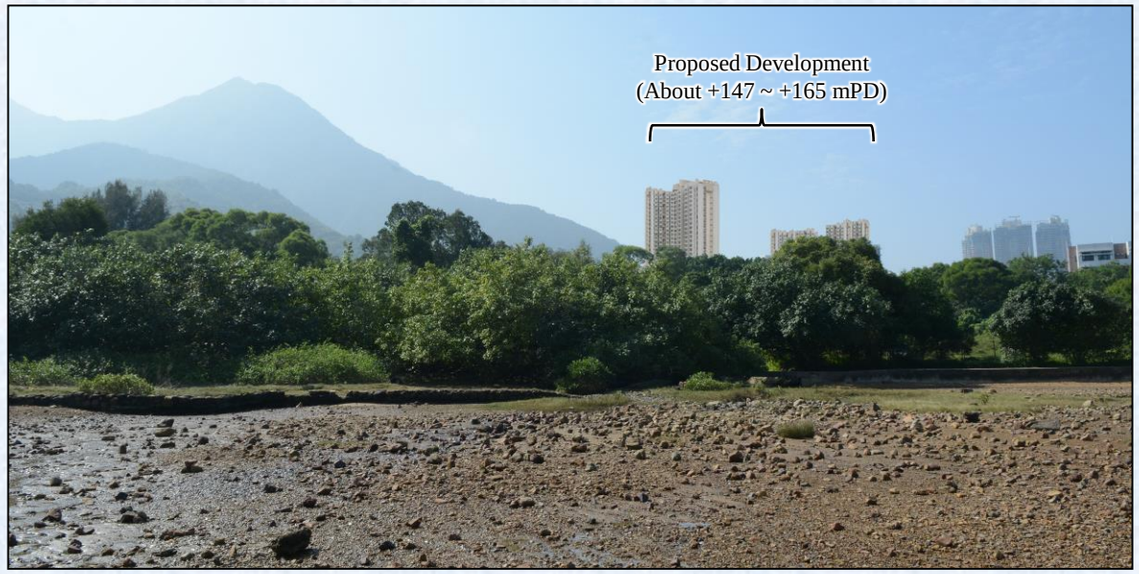
(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the design of the housing blocks is subject to review during the later detailed design stage

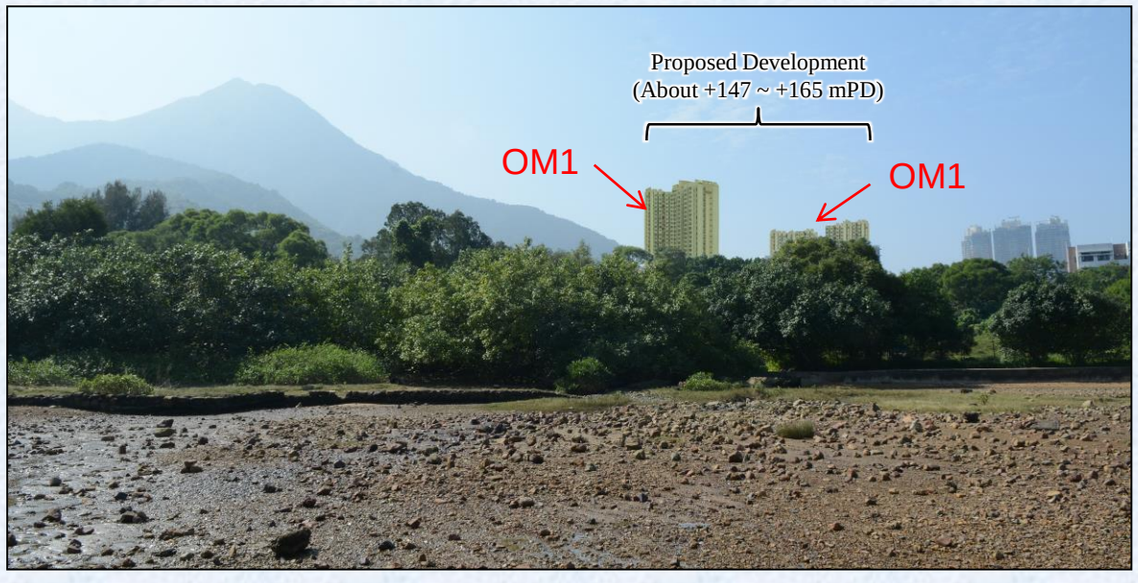
188563/VIA/005D Photomontage of Public Viewing Point VP4 for Sites 1 and 2 - Road users of Sai Sha Road (Sheet 4 of 6)



Existing View



Day 1 of Operation Phase without Mitigation Measures



Day 1 / Year 10 of Operation Phase with Mitigation Measures

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the design of the housing blocks is subject to review during the later detailed design stage

188563/VIA/005E Photomontage of Public Viewing Point VP5 for Sites 1 and 2 - Visitors at Nai Chung Beach



Existing View



Day 1 of Operation Phase without Mitigation Measures

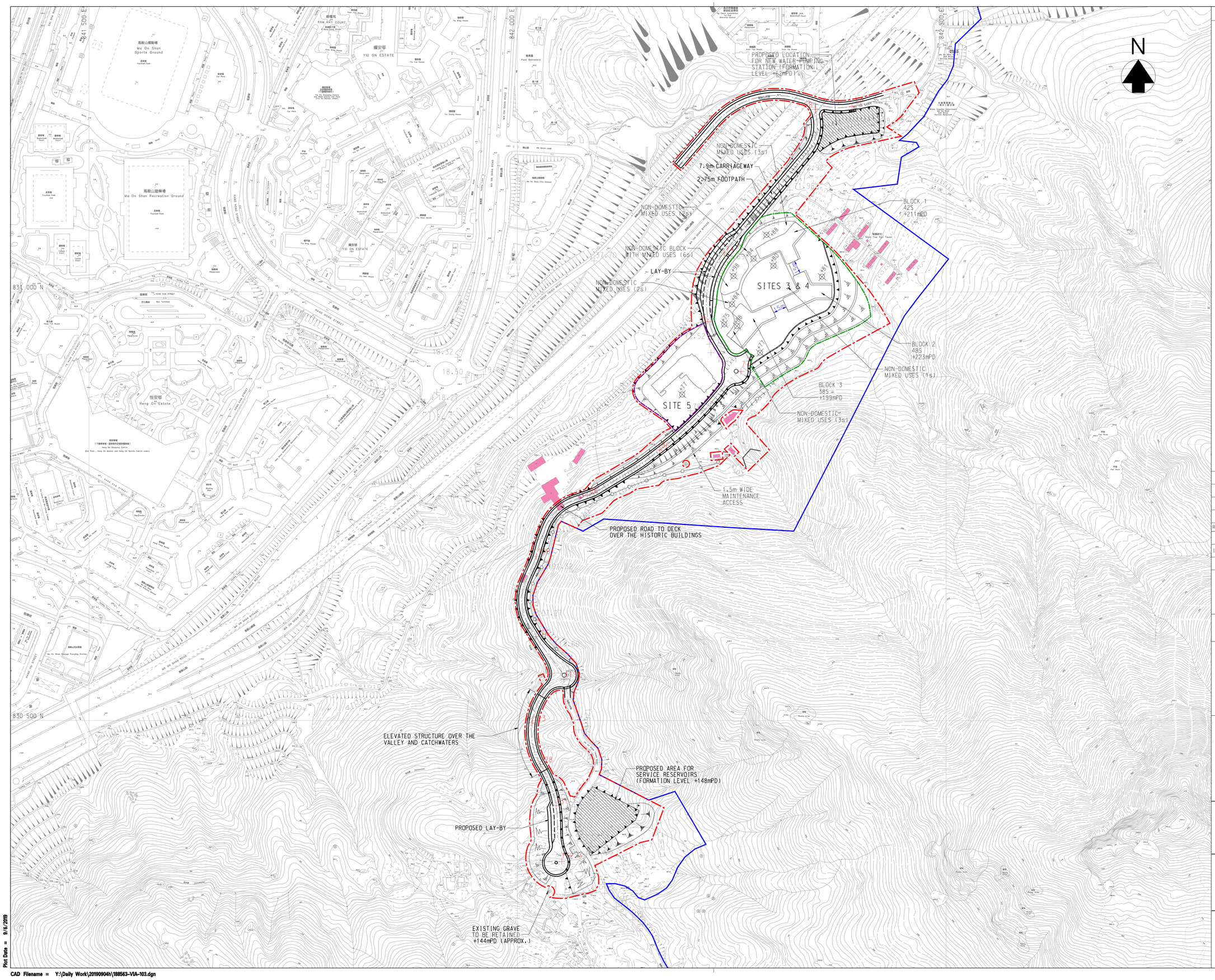


Day 1 / Year 10 of Operation Phase with Mitigation Measures

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the design of the housing blocks is subject to review during the later detailed design stage

188563/VIA/005F Photomontage of Public Viewing Point VP6 for Sites 1 and 2 - Travellers at Nai Chung Bus Stop



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REMARKS:

1. FORMATION LEVELS WITHIN PUBLIC HOUSING SITES ARE SUBJECT TO CHANGE AT DETAILED DESIGN STAGE.

LEGEND:

- PROPOSED SLOPE
- PROPOSED RETAINING WALL
- 66.12 EXISTING ROAD LEVEL
- +65 PROPOSED ROAD LEVEL
- MOS COUNTRY PARK BOUNDARY
- PROPOSED PUBLIC HOUSING STTE BOUNDARY
- PROPOSED SCHOOL SITE BOUNDARY
- ASSESSMENT AREA
- GRADED HISTORIC BUILDING
- PROPOSED CHECK DAM (SUBJECT TO DETAILED DESIGN)
- PROPOSED RIGID BARRIER (SUBJECT TO DETAILED DESIGN)
- PROPOSED FLEXIBLE BARRIER (SUBJECT TO DETAILED DESIGN)

Revision	Date	Description	Initial
D	08/19	MINOR AMENDMENT	YLS
C	04/19	MINOR AMENDMENT	YLS
B	02/19	MINOR AMENDMENT	YLS
A	08/18	MINOR AMENDMENT	YLS

	Designed	Checked	Drawn	Checked
Initial	YLS	DH	SZ	LCH
Date	06/18	06/18	06/18	06/18

Approved

Agreement no.

CE 80/2014 (CE)

Project Title

SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title

CONCEPTUAL LAYOUT PLAN AND SITE ACCESS ARRANGEMENT FOR SITES 3 TO 5

Drawing No.

188563/VIA/103

Scale

1 : 2000 (A1)
1 : 4000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 9/6/2019

CAD Filename = Y:\Daily Work\20190904h\188563-VIA-103.dgn

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LEGEND:

- PROPOSED PUBLIC HOUSING SITE BOUNDARY
- PROPOSED SCHOOL SITE BOUNDARY
- PUBLIC VIEWING POINT (VP)
- ZONE OF VISUAL INFLUENCE (ZVI)
- VISUAL CORRIDOR TOWARDS MA ON SHAN RIDGELINE
- (49.6) HEIGHT IN mPD

VP8 (6.3)
VP6 (6.0)
VP7 (6.9)
VP5 (56.8)
PROPOSED LOCATION FOR NEW WATER PUMPING STATION (FORMATION LEVEL +62mPD)
VP4 (18.0)
VP3 (92.9)
VP1 (430.0)
VP2 (300.0)
SITE 5
SITES 3 & 4
PROPOSED AREA FOR SERVICE RESERVOIRS (FORMATION LEVEL +148mPD)

Revision	Date	Description	Initial
C	08/19	MINOR AMENDMENT	YLS
B	02/19	MINOR AMENDMENT	YLS
A	09/18	MINOR AMENDMENT	YLS

	Designed	Checked	Drawn	Checked
Initial	YLS	DH	SZ	LCH
Date	06/18	06/18	06/18	06/18

Approved

Agreement no.
CE 80/2014 (CE)

Project Title
SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title
PLAN OF PUBLIC VIEWING POINTS AND ZVI FOR SITES 3 TO 5

Drawing No.
188563/VIA/104

Scale
1 : 7500 (A1)
1 : 15000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 9/6/2019

CAD Filename = Y:\Daily Work\20190904h\188563-VIA-104.dgn



Existing View



Day 1 of Operation Phase without Mitigation Measures



Day 1 / Year 10 of Operation Phase with Mitigation Measures

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the design of the housing blocks is subject to review during the later detailed design stage

188563/VIA/105A Photomontages of Public Viewing Point VP1 for Sites 3 to 5 - Hikers from the Southeast



Existing View



Day 1 of Operation Phase without Mitigation Measures



Day 1 of Operation Phase with Mitigation Measures



Year 10 of Operation Phase with Mitigation Measures

Note: the design of the housing and related non-domestic blocks is subject to review during the later detailed design stage

188563/VIA/105B Photomontages of Public Viewing Point VP2 for Sites 3 to 5 - Hikers from the South



Existing View



Day 1 of Operation Phase without Mitigation Measures



Day 1 / Year 10 of Operation Phase with Mitigation Measures

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the design of the housing blocks is subject to review during the later detailed design stage

188563/VIA/105C Photomontages of Public Viewing Point VP3 for Sites 3 to 5 - Hikers from the Southwest



Existing View



Day 1 of Operation Phase without Mitigation Measures



Day 1 / Year 10 of Operation Phase with Mitigation Measures

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the design of the housing blocks is subject to review during the later detailed design stage



Existing View



Day 1 of Operation Phase without Mitigation Measures



Day 1 / Year 10 of Operation Phase with Mitigation Measures

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the design of the housing blocks is subject to review during the later detailed design stage



Existing View



Day 1 of Operation Phase without Mitigation Measures



Day 1 / Year 10 of Operation Phase with Mitigation Measures

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the design of the housing blocks is subject to review during the later detailed design stage



Existing View



Day 1 of Operation Phase without Mitigation Measures



Day 1 / Year 10 of Operation Phase with Mitigation Measures

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the design of the housing blocks is subject to review during the later detailed design stage



Existing View



Day 1 of Operation Phase without Mitigation Measures



Day 1 / Year 10 of Operation Phase with Mitigation Measures

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the design of the housing blocks is subject to review during the later detailed design stage

188563/VIA/105H Photomontages of Public Viewing Point VP8 for Sites 3 to 5 - Recreational Users of Pak Shek Kok Promenade

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N

830 600 N
830 400 N
830 200 N
830 000 N
842 200 E
842 000 E

PROPOSED AREA FOR SERVICE RESERVOIRS (FORMATION LEVEL +148mPD)

PROPOSED ACCESS TO CONNECT EXISTING MA ON SHAN TSUEN ROAD AND PROPOSED ROAD

MA ON SHAN TSUEN ROAD

PODIUM WITH SOCIAL WELFARE FACILITY (2s, +139mPD)

PROPOSED LAY-BY

ELEVATED STRUCTURE OVER THE VALLEY AND CATCHWATERS

FORMATION LEVEL +160mPD

SITE P

BLOCK 1
27s
+235mPD

BLOCK 2
27s
+229mPD

BLOCK 3
21s
+237mPD

BLOCK 4
21s
+237mPD

BLOCK 5
20s
+243mPD

BLOCK 6
20s
+243mPD

FORMATION LEVEL +170mPD

BLOCK 7
20s
+243mPD

BLOCK 8
18s
+247mPD

BLOCK 9
18s
+247mPD

FORMATION LEVEL +180mPD

FORMATION LEVEL +133mPD

HELICAL RAMP

NEW PAVILION TO BE CONSTRUCTED TO SERVE PROPOSED ROAD

EXISTING GRAVE +144mPD (APPROX.)

PROPOSED ACCESS TO EXISTING SQUATTERS (INDICATIVE ONLY, TO BE DESIGNED, CONSTRUCTED AND MAINTAINED BY DEVELOPER(S))

PROPOSED ACCESS TO EXISTING GRAVE (INDICATIVE ONLY, TO BE DESIGNED, CONSTRUCTED AND MAINTAINED BY DEV

Catchwater

REMARKS:

1. SOME EXISTING ACCESSES TO THE NEARBY DWELLINGS / SQUATTER AREAS WOULD BE AFFECTED/ CUT-OFF BY THE PROPOSED PRIVATE LAND SALE SITES. THE RE-PROVISION OF THOSE ACCESSES ARE TO BE UNDERTAKEN BY THE DEVELOPER(S).
2. ASSOCIATED INFRASTRUCTURAL WORKS OF SITES 3 TO 5 ARE HALF-TONED.
3. ALL BLOCKS SHOWN ARE ONLY FOR THE PURPOSE OF ILLUSTRATING A FEASIBLE SCHEMATIC DESIGN FOR THE ASSESSMENT. THE FUTURE BUILDING LAYOUT WILL BE SUBJECT TO THE DESIGN OF THE DEVELOPER AND MAY NOT BE SQUARELY THE SAME.

LEGEND:

- PROPOSED PRIVATE HOUSING SITE BOUNDARY
- PROPOSED SLOPE
- PROPOSED RETAINING WALL
- 66.12 EXISTING ROAD LEVEL
- +65 PROPOSED ROAD LEVEL
- COUNTRY PARK BOUNDARY
- 4 FLATS PER STOREY
- 4 FLATS PER STOREY
- 5 FLATS PER STOREY
- 6 FLATS PER STOREY
- 6 FLATS PER STOREY
- 8 FLATS PER STOREY
- PROPOSED CHECK DAM (SUBJECT TO DETAILED DESIGN)
- PROPOSED FLEXIBLE BARRIER (SUBJECT TO DETAILED DESIGN)

Revision	Date	Description	Initial
D	08/19	MINOR AMENDMENT	YLS
C	06/19	MINOR AMENDMENT	YLS
B	03/19	MINOR AMENDMENT	YLS
A	11/18	MINOR AMENDMENT	YLS

	Designed	Checked	Drawn	Checked
Initial	YLS	DH	SZ	LCH
Date	06/18	06/18	06/18	06/18

Approved

Agreement no.
CE 80/2014 (CE)

Project Title
SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title
ASSUMED BUILDING BLOCK LAYOUT OF SITE P

Drawing No.
188563/VA/003

Scale
1 : 1000 (A1)
1 : 2000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 9/17/2019

CAD Filename = Y:\Daily Work\20190916c\188563-VA-003A.dgn



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LEGEND:

- PROPOSED PRIVATE HOUSING SITE BOUNDARY
- PUBLIC VIEWING POINT (VP)
- ZONE OF VISUAL INFLUENCE (ZVI)
- (49.6) HEIGHT IN mPD
- MAJOR VISUAL CORRIDOR

Revision	Date	Description	Initial
B	03/19	MINOR AMENDMENT	YLS
A	11/18	MINOR AMENDMENT	YLS

	Designed	Checked	Drawn	Checked
Initial	YLS	DH	SZ	LCH
Date	06/18	06/18	06/18	06/18

Approved

Agreement no.
CE 80/2014 (CE)

Project Title
SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title
PLAN OF PUBLIC VIEWING POINTS AND ZVI FOR SITE P

Drawing No.
188563/VA/004

Scale
1 : 5000 (A1)
1 : 10000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 4/16/2019

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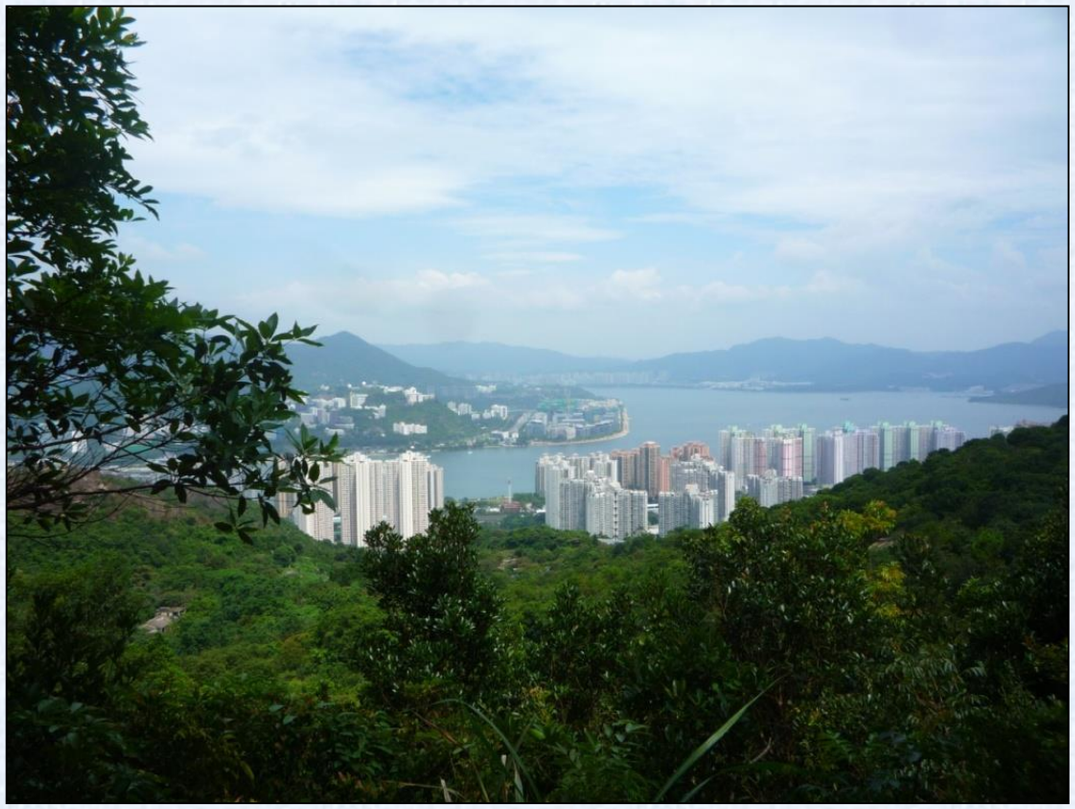


Existing View



Day 1 / Year 10 of Operation Phase

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the housing blocks are subject to design by private developer(s).

188563/VA/005A Photomontage of Public Viewing Point VP1 for Site P - Hikers from the Southeast



Existing View



Day 1 / Year 10 of Operation Phase

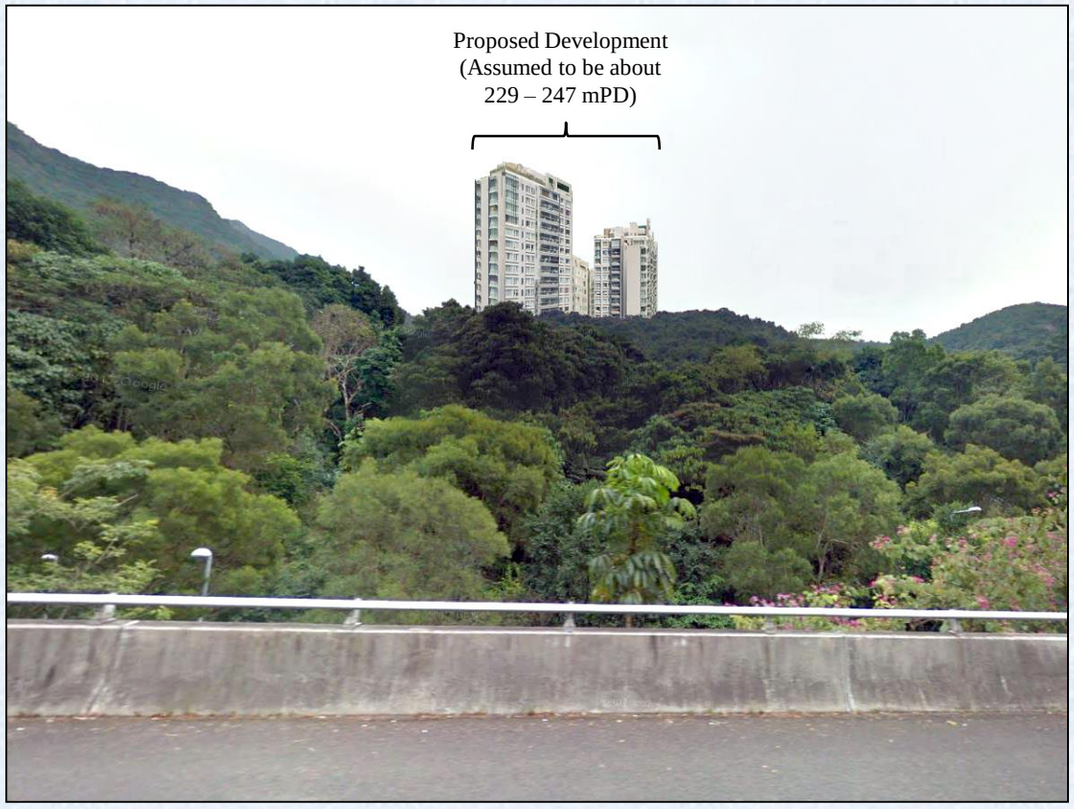
(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the housing blocks are subject to design by private developer(s).

188563/VA/005B Photomontage of Public Viewing Point VP2 for Site P - Road Users at Hang Hong Street Roundabout



Existing View

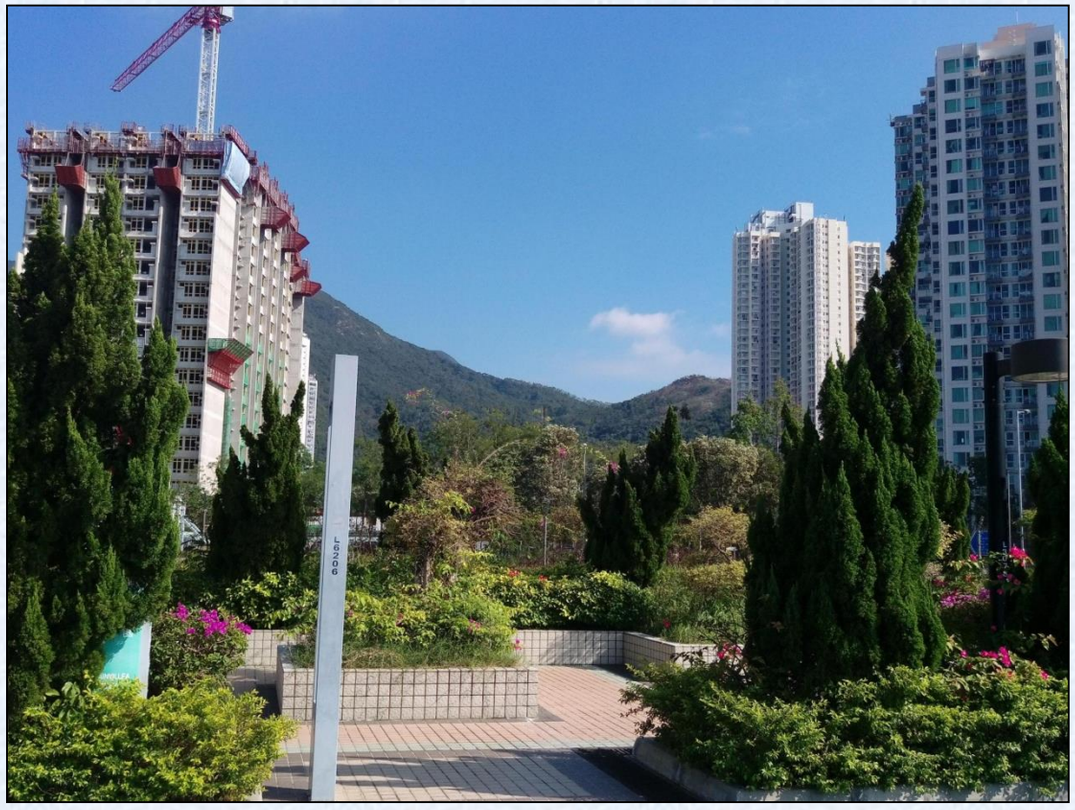


Day 1 / Year 10 of Operation Phase

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the housing blocks are subject to design by private developer(s).

188563/VA/005C Photomontage of Public Viewing Point VP3 for Site P - Road Users at Ma On Shan Bypass



Existing View



Day 1 / Year 10 of Operation Phase

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the housing blocks are subject to design by private developer(s).



Existing View



Day 1 / Year 10 of Operation Phase

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the housing blocks are subject to design by private developer(s).

188563/VA/005E Photomontage of Public Viewing Point VP5 for Site P - Recreational Users at Heng Fai Street Park



Existing View



Day 1 / Year 10 of Operation Phase

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the housing blocks are subject to design by private developer(s).

188563/VA/005F Photomontage of Public Viewing Point VP6 for Site P - Road Users at Ma On Shan Road



Existing View



Day 1 / Year 10 of Operation Phase

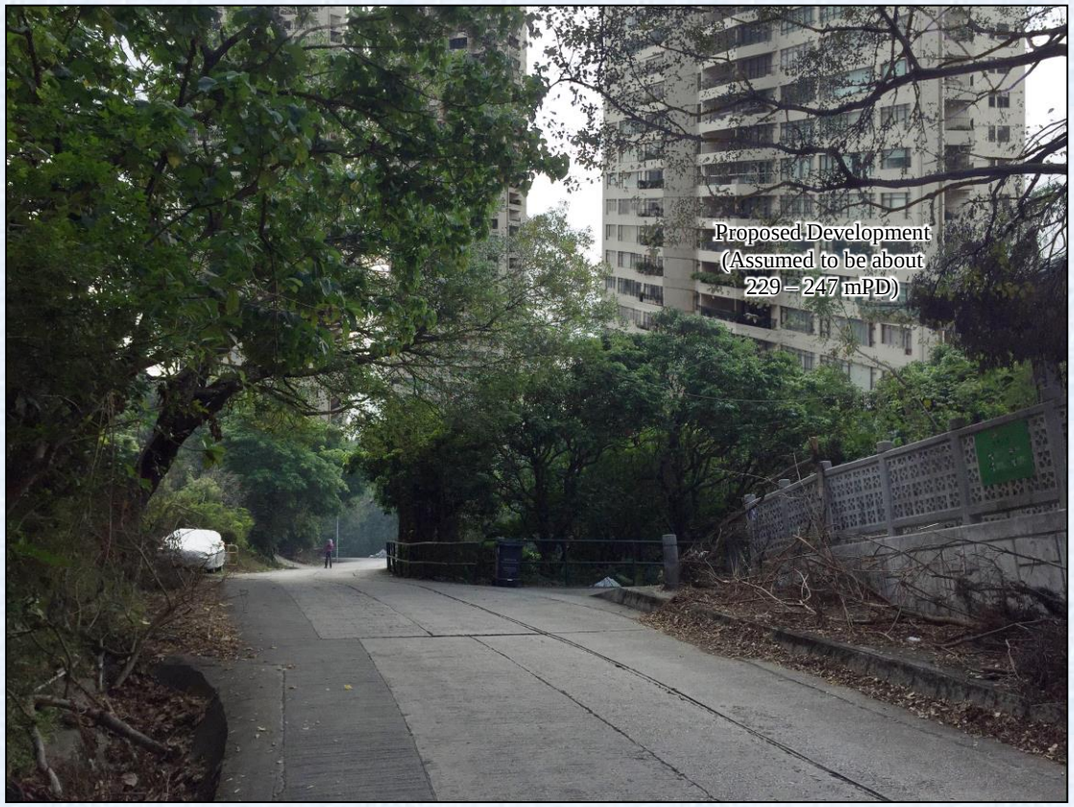
(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the housing blocks are subject to design by private developer(s).

188563/VA/005G Photomontage of Public Viewing Point VP7 for Site P - Pedestrians at Hang Hong Street



Existing View

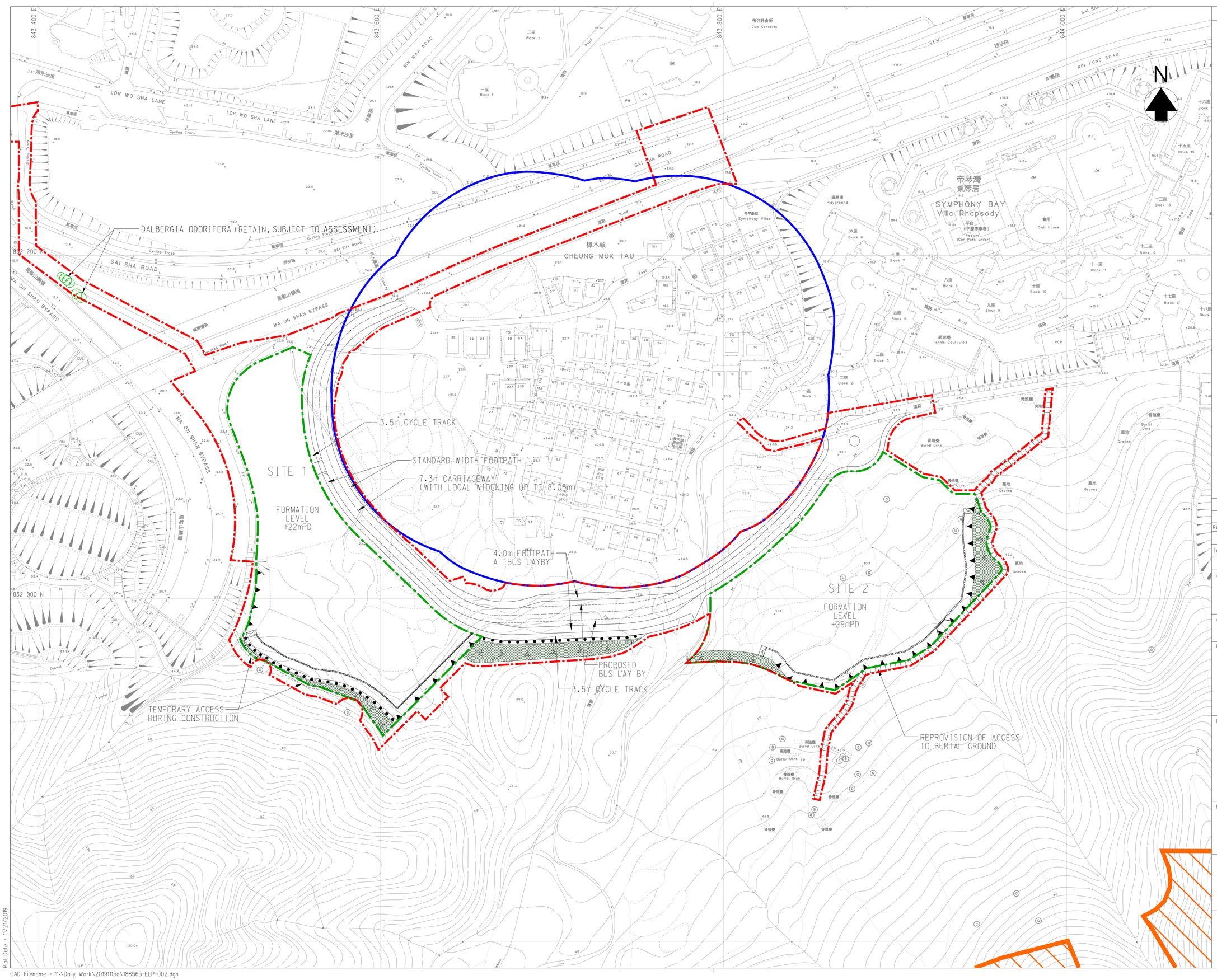


Day 1 / Year 10 of Operation Phase

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the housing blocks are subject to design by private developer(s).

188563/VA/005H Photomontage of Public Viewing Point VP8 for Site P - Hikers at Ma On Shan Tsuen Road



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REMARKS:

1. FORMATION LEVELS WITHIN PUBLIC HOUSING SITES ARE SUBJECT TO CHANGE AT DETAILED DESIGN STAGE.

LEGEND:

- PROPOSED PUBLIC HOUSING SITE BOUNDARY
- PROPOSED SLOPE
- PROPOSED MASS CONCRETE / L-SHAPED RETAINING STRUCTURES
- PROPOSED BORED PILE WALL
- VEB OF CHEUNG MUK TAU
- PROPOSED CHECK DAM (SUBJECT TO DETAILED DESIGN)
- PROPOSED RIGID BARRIER (SUBJECT TO DETAILED DESIGN)
- TREE OF SPECIES OF CONSERVATION INTEREST (DALBERGIA ODORIFERA)
- LIMIT OF WORKS AREA OF ASSOCIATED INFRASTRUCTURAL WORKS
- TENTATIVE LOCATION OF PROPOSED COMPENSATORY PLANTING (SUBJECT TO ASSESSMENT)
- TENTATIVE LOCATION OF PROPOSED WOODLAND COMPENSATION (SUBJECT TO ASSESSMENT)

Revision	Date	Description			Initial
B	10/19	MINOR AMENDMENT			YLS
A	03/19	MINOR AMENDMENT			YLS
	Designed	Checked	Drawn	Checked	
Initial	YLS	DH	SZ	LCH	
Date	02/18	02/18	02/18	02/18	

Approved

Agreement no.

CE 80/2014 (CE)

Project Title

SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title

PRELIMINARY TREE TREATMENT PROPOSAL

(SHEET 1 OF 5)

Drawing No.

188563/TS/002A

Scale

1 : 1000 (A1)
1 : 2000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 11/21/2019

CAD Filename = Y:\Daily Work\20191115a\188563-ELP-002.dgn

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SITE 2

FORMATION LEVEL +29mPD

REPROVISION OF ACCESS TO BURIAL GROUND

832 000 N

831 800 N

831 600 N

843 800 E

844 000 E

844 200 E

N

REMARKS:

1. FORMATION LEVELS WITHIN PUBLIC HOUSING SITES ARE SUBJECT TO CHANGE AT DETAILED DESIGN STAGE.

LEGEND:

- PROPOSED PUBLIC HOUSING SITE BOUNDARY
- PROPOSED SLOPE
- PROPOSED MASS CONCRETE / L-SHAPED RETAINING STRUCTURES
- PROPOSED BORED PILE WALL
- VEB OF CHEUNG MUK TAU
- PROPOSED CHECK DAM (SUBJECT TO DETAILED DESIGN)
- PROPOSED RIGID BARRIER (SUBJECT TO DETAILED DESIGN)
- LIMIT OF WORKS AREA OF ASSOCIATED INFRASTRUCTURAL WORKS
- TENTATIVE LOCATION OF PROPOSED COMPENSATORY PLANTING (SUBJECT TO ASSESSMENT)
- TENTATIVE LOCATION OF PROPOSED WOODLAND COMPENSATION (SUBJECT TO ASSESSMENT)

Revision	Date	Description	Initial
B	10/19	MINOR AMENDMENT	YLS
A	03/19	MINOR AMENDMENT	YLS

	Designed	Checked	Drawn	Checked
Initial	YLS	DH	SZ	LCH
Date	02/18	02/18	02/18	02/18

Approved

Agreement no.
CE 80/2014 (CE)

Project Title
SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title
PRELIMINARY TREE TREATMENT PROPOSAL

(SHEET 2 OF 5)

Drawing No.
188563/TS/002B

Scale
1 : 1000 (A1)
1 : 2000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 1/9/2020

CAD Filename = Y:\Daily Work\20200108\188563-ELP-002-TEMP.dgn

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NOTE:

1. FORMATION LEVELS WITHIN PUBLIC HOUSING SITES ARE SUBJECT TO CHANGE AT DETAILED DESIGN STAGE.
2. SHORT BRIDGES FOR SPANNING OVER HISTORIC BUILDINGS.

LEGEND:

- PROPOSED PUBLIC HOUSING SITE BOUNDARY
- PROPOSED SCHOOL SITE BOUNDARY
- PROPOSED SLOPE
- PROPOSED RETAINING WALL
- EXISTING ROAD LEVEL
- PROPOSED ROAD LEVEL
- COUNTRY PARK BOUNDARY
- GRADED HISTORIC BUILDING
- PROPOSED CHECK DAM (SUBJECT TO DETAILED DESIGN)
- PROPOSED FLEXIBLE BARRIER (SUBJECT TO DETAILED DESIGN)
- PROPOSED RIGID BARRIER (SUBJECT TO DETAILED DESIGN)
- LIMIT OF WORKS AREA OF ASSOCIATED INFRASTRUCTURAL WORKS
- TENTATIVE LOCATION OF PROPOSED COMPENSATORY PLANTING (SUBJECT TO ASSESSMENT)
- TENTATIVE LOCATION OF PROPOSED WOODLAND COMPENSATION (SUBJECT TO ASSESSMENT)

Revision	Date	Description	Initial
B	03/19	MINOR AMENDMENT	YLS
A	09/18	MINOR AMENDMENT	YLS

	Designed	Checked	Drawn	Checked
Initial	YLS	DH	SZ	LCH
Date	02/18	02/18	02/18	02/18

Approved

Agreement no.
CE 80/2014 (CE)

Project Title
SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title
PRELIMINARY TREE TREATMENT PROPOSAL

(SHEET 3 OF 5)

Drawing No.
188563/TS/003A

Scale
1 : 1000 (A1)
1 : 2000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 4/16/2019

CAD Filename = Y:\Daily Work\20190409m\188563-ELP-003A.dgn

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MOS COUNTRY PARK

842 400 E

842 200 E

842 000 E

830 600 N

830 400 N

830 200 N

830 000 N

CUTLINE A-A

PROPOSED AREA FOR SERVICE RESERVOIRS (FORMATION LEVEL +148mPD)

PROPOSED ACCESS TO CONNECT EXISTING MA ON SHAN TSUEN ROAD AND PROPOSED ROAD

IXONANTHES RETICULATA (RETAIN, SUBJECT TO ASSESSMENT)

FICUS MICROCARPA (TRANSPLANT, SUBJECT TO ASSESSMENT)

NEW PAVILION TO BE CONSTRUCTED TO SERVE PROPOSED ROAD

SITE P

PROPOSED ACCESS TO EXISTING SQUATTERS (INDICATIVE ONLY, TO BE DESIGNED, CONSTRUCTED AND MAINTAINED BY DEVELOPER(S))

PROPOSED ACCESS TO EXISTING GRAVE (INDICATIVE ONLY, TO BE DESIGNED, CONSTRUCTED AND MAINTAINED BY DEVELOPER(S))

EXISTING GRAVE (RETAIN) +144mPD (APPROX.)

PROPOSED LAY-BY

ELEVATED STRUCTURE OVER THE VALLEY AND CATCHWATERS

LEGEND:

- PROPOSED PRIVATE HOUSING SITE BOUNDARY
- PROPOSED SLOPE
- PROPOSED RETAINING WALL
- 66.12 EXISTING ROAD LEVEL
- +65 PROPOSED ROAD LEVEL
- COUNTRY PARK BOUNDARY
- PROPOSED CHECK DAM (SUBJECT TO DETAILED DESIGN)
- PROPOSED FLEXIBLE BARRIER (SUBJECT TO DETAILED DESIGN)
- LIMIT OF WORKS AREA OF SITES 3 TO 5 AND ASSOCIATED INFRASTRUCTURAL WORKS
- TREE OF SPECIES OF CONSERVATION INTEREST (IXONANTHES RETICULATA)
- TREE OF LARGE TRUNK DIAMETER (FICUS MICROCARPA)
- TENTATIVE LOCATION OF PROPOSED COMPENSATORY PLANTING (SUBJECT TO ASSESSMENT)
- TENTATIVE LOCATION OF PROPOSED WOODLAND COMPENSATION (SUBJECT TO ASSESSMENT)

Revision	Date	Description	Initial
C	08/19	MINOR AMENDMENT	YLS
B	03/19	MINOR AMENDMENT	YLS
A	09/18	MINOR AMENDMENT	YLS

	Designed	Checked	Drawn	Checked
Initial	YLS	DH	SZ	LCH
Date	02/18	02/18	02/18	02/18

Approved

Agreement no.

CE 80/2014 (CE)

Project Title

SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title

PRELIMINARY TREE TREATMENT PROPOSAL

(SHEET 4 OF 5)

Drawing No.

188563/TS/004A

Scale

1 : 1000 (A1)
1 : 2000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 9/27/2019

CAD Filename = Y:\Daily Work\20190920E\ELP\188563-ELP-003B.dgn

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IXONANTHES RETICULATA
(RETAIN, SUBJECT TO
ASSESSMENT)

FICUS MICROCARPA
(TRANSPLANT,
SUBJECT TO ASSESSMENT)

SITE P

NEW PAVILION TO BE
CONSTRUCTED TO SERVE
PROPOSED ROAD

PROPOSED ACCESS TO EXISTING SQUATTERS
(INDICATIVE ONLY, TO BE DESIGNED,
CONSTRUCTED AND MAINTAINED BY DEVELOPER(S))

PROPOSED ACCESS TO EXISTING GRAVE
(INDICATIVE ONLY, TO BE DESIGNED,
CONSTRUCTED AND MAINTAINED
BY DEVELOPER(S))

EXISTING GRAVE (RETAIN)
TO BE RETAINED
+144mPD (APPROX.)

MA ON SHAN TSUEN ROAD

830 000 N
830 200 N
830 000 N
842 200 E
842 000 E
841 800 E

LEGEND:

- PROPOSED PRIVATE HOUSING SITE BOUNDARY
- PROPOSED SLOPE
- PROPOSED RETAINING WALL
- 66.12 EXISTING ROAD LEVEL
- +65 PROPOSED ROAD LEVEL
- COUNTRY PARK BOUNDARY
- LIMIT OF WORKS AREA OF SITES 3 TO 5 AND ASSOCIATED INFRASTRUCTURAL WORKS
- TREE OF SPECIES OF CONSERVATION INTEREST (IXONANTHES RETICULATA)
- TREE OF LARGE TRUNK DIAMETER (FICUS MICROCARPA)
- TENTATIVE LOCATION OF PROPOSED COMPENSATORY PLANTING (SUBJECT TO ASSESSMENT)
- TENTATIVE LOCATION OF PROPOSED WOODLAND COMPENSATION (SUBJECT TO ASSESSMENT)

Revision	Date	Description	Initial
C	08/19	MINOR AMENDMENT	YLS
B	03/19	MINOR AMENDMENT	YLS
A	09/18	MINOR AMENDMENT	YLS

	Designed	Checked	Drawn	Checked
Initial	YLS	DH	SZ	LCH
Date	02/18	02/18	02/18	02/18

Approved

Agreement no.
CE 80/2014 (CE)

Project Title
SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title
PRELIMINARY TREE TREATMENT PROPOSAL

(SHEET 5 OF 5)

Drawing No.
188563/TS/004B

Scale
1 : 1000 (A1)
1 : 2000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

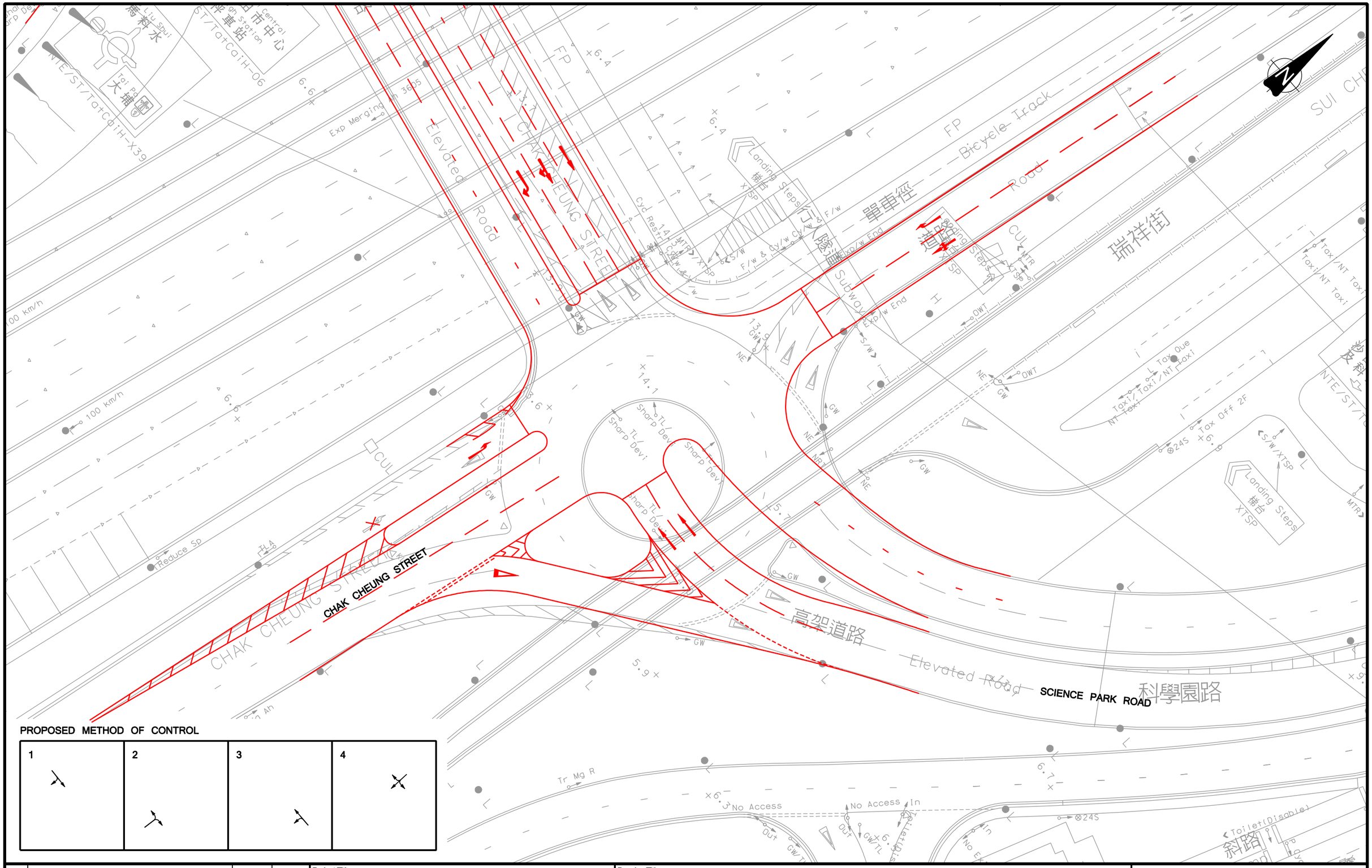
Plot Date = 1/9/2020

CAD Filename = Y:\Daily Work\20200108\188563-ELP-003B-TEMP.dgn

APPENDIX A

Layouts of Proposed Junction Improvement

再造紙
recycled paper



PROPOSED METHOD OF CONTROL

1	2	3	4

Rev.	Description	Checked	Date
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-	-	-	-
-	-	-	-
-	-	-	-

Project Title

AGREEMENT NO. CE 80/2014 (CE) SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title

PROPOSED IMPROVEMENT SCHEME AT JUNCTION OF CHAK CHEUNG STREET / SCIENCE PARK ROAD (J2)

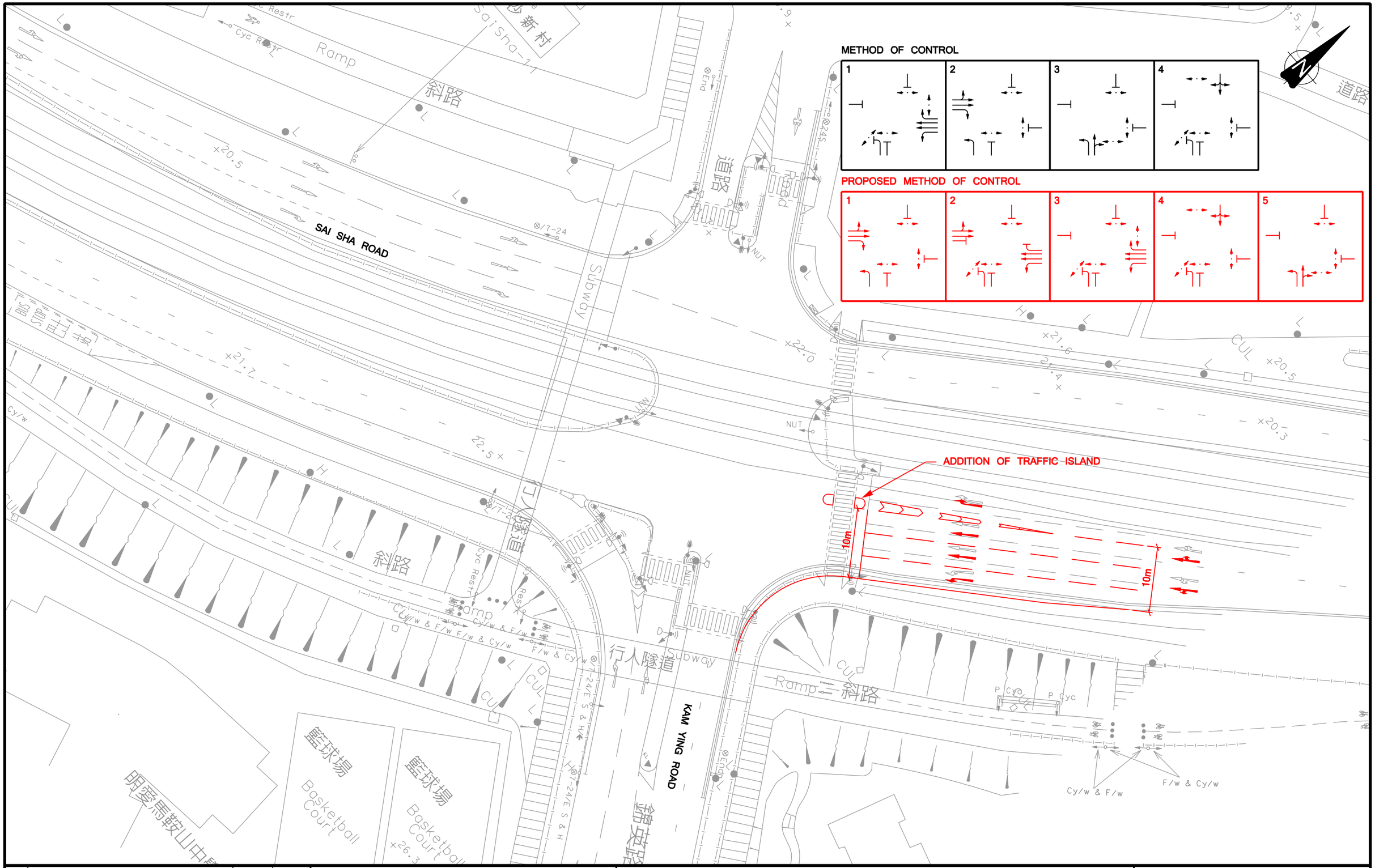
Designed	Checked	Scale	Date	Drawing No.	Rev.
SFL	GPH	1:500(A3)	NOV 2019	APPENDIX A	-

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

BLACK & VEATCH HONG KONG LIMITED 博威工程顧問有限公司

MVA SYSTRA GROUP

CHK50454810/TIA/F52.DGN/CKC/19NOV19



Rev.	Description	Checked	Date
D	MINOR AMENDMENT	GPH	10SEP18
C	MINOR AMENDMENT	GPH	21JUN18
B	MINOR AMENDMENT	GPH	01JUN16
A	MINOR AMENTMENT	GPH	29APR16

Project Title

AGREEMENT NO. CE 80/2014 (CE) SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title

PROPOSED IMPROVEMENT SCHEME AT JUNCTION OF SAI SHA ROAD / KAM YING ROAD (J10)

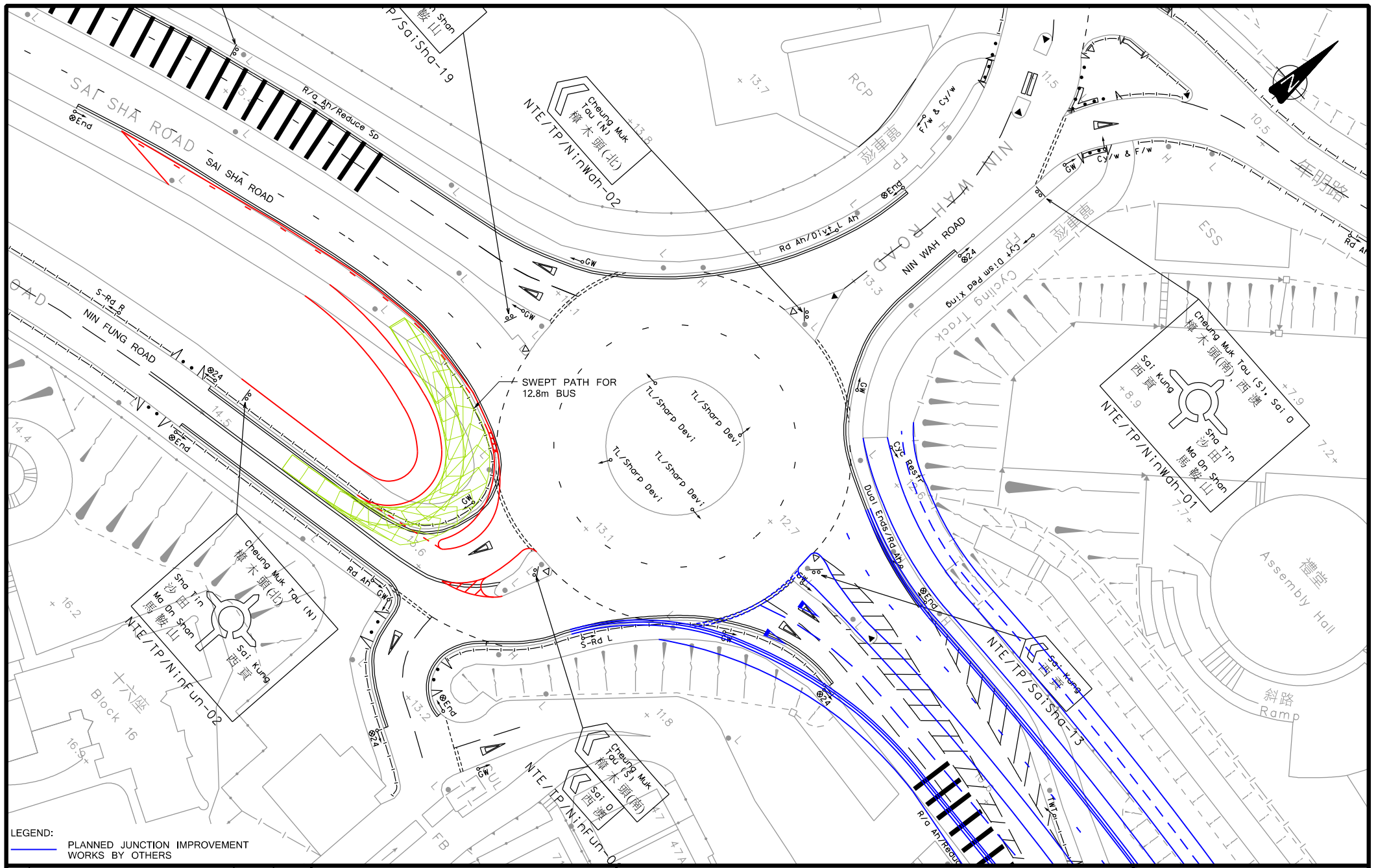
Designed	Checked	Scale	Date	Drawing No.	Rev.
SFL	GPH	1:500(A3)	NOV 2019	APPENDIX A	D

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

BLACK & VEATCH HONG KONG LIMITED 博威工程顧問有限公司

MVA

CHK50111810/TIA/F53-D.DGN/CPW/10SEP18



Rev.	Description	Checked	Date
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

Project Title

AGREEMENT NO. CE 80/2014 (CE) SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title

PROPOSED JUNCTION LAYOUT OF SAI SHA ROAD / NIN WAH ROAD / NIN FUNG ROAD (J13)

Designed	Checked	Scale	Date	Drawing No.	Rev.
SFL	GPH	1:500(A3)	JAN 2020	APPENDIX A	-

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

BLACK & VEATCH HONG KONG LIMITED 柏威工程顧問有限公司

MVA

CHK50454810/TIA/F54A.DGN/DAL/02JAN20

SWEPT PATH FOR 12.8m BUS

HANG HONG STREET

MA ON SHAN ROAD

MA ON SHAN TSUEN ROAD

EXISTING ISLAND TO BE SETBACK

Rev.	Description	Checked	Date
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

Project Title

AGREEMENT NO. CE 80/2014 (CE) SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title

PROPOSED IMPROVEMENT SCHEME AT JUNCTION OF MA ON SHAN ROAD / HANG HONG STREET (J20)

Designed	Checked	Scale	Date	Drawing No.	Rev.
SFL	GPH	1:500(A3)	NOV 2019	APPENDIX A	-

土木工程拓展署 Civil Engineering and Development Department

BLACK & VEATCH HONG KONG LIMITED 博威工程顧問有限公司

MVA SYSTRA GROUP

CHK50454810/TIA/F54.DGN/CKC/19NOV19

APPENDIX B

Summary of Potential Conflicts between the FEPs of Trunk Road T7 and the Proposed Works

再造紙
recycled paper

Appendix B
Summary of Potential Conflicts between the FEPs of Trunk Road T7 and the Proposed Works

FEP No.	Permit Holder	Conflict with proposed works	Relevant Figures in the FEP	Mitigation Measures to maintain its function	Comment from Permit Holders
FEP-01/057/2000/A	DSD	Alignment of existing drainage system across MOS Tsuen Road	Figures 1, D1, D4 and D5	• Reprovision by revising its design and alignment	No comment.
FEP-02/057/2000/A	LCSD	Landscape areas are not affected finally	Figures 1, L1, L5 and L6	N/A	No comment.
FEP-03/057/2000/A	WSD	Landscape area are not affected	Figures 1 and W1	N/A	No comment.
FEP-04/057/2000/A	HyD	Drainage system and landscape areas along MOS Tsuen Road	Figures 1, H1, H5, H6, H13, H16, H17	• Reprovision of the drainage system • Compensate 1:1 affected landscape area	No comment.

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LEGEND:

- PROPOSED PUBLIC HOUSING SITE BOUNDARY
- PUBLIC VIEWING POINT (VP)
- ZONE OF VISUAL INFLUENCE
- (49.6) HEIGHT IN mPD
- MAJOR VISUAL CORRIDOR
- MAJOR VISUAL RESOURCE - HILLSIDE VEGETATION AND RIDGELINE OF MA ON SHAN
- MAJOR VISUAL RESOURCE - SEASCAPE OF TOLO HARBOUR
- MAJOR VISUAL RESOURCE - NATURAL COASTLINE NEAR NAI CHUNG

Revision	Date	Description	Initial
C	08/19	MINOR AMENDMENT	YLS
B	09/18	MINOR AMENDMENT	YLS
A	05/18	AMENDMENT DUE TO BOUNDARY CHANGE	YLS

	Designed	Checked	Drawn	Checked
Initial	RF	CKW	SZ	LCH
Date	04/17	04/17	04/17	04/17

Approved

Agreement no.
CE 80/2014 (CE)

Project Title
SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN - FEASIBILITY STUDY

Drawing Title
PLAN OF PUBLIC VIEWING POINTS AND ZVI FOR SITES 1 AND 2

Drawing No.
188563/VIA/004

Scale
1 : 5000 (A1)
1 : 10000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 9/6/2019
CAD Filename = Y:\Daily Work\20190904h\188563-VIA-004.dgn



Existing View



Day 1 of Operation Phase without Mitigation Measures



Day 1 / Year 10 of Operation Phase with Mitigation Measures

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the design of the housing blocks is subject to review during the later detailed design stage

188563/VIA/005A Photomontage of Public Viewing Point VP1 for Sites 1 and 2 - Hikers from the East



Existing View



Day 1 of Operation Phase without Mitigation Measures



Day 1 / Year 10 of Operation Phase with Mitigation Measures

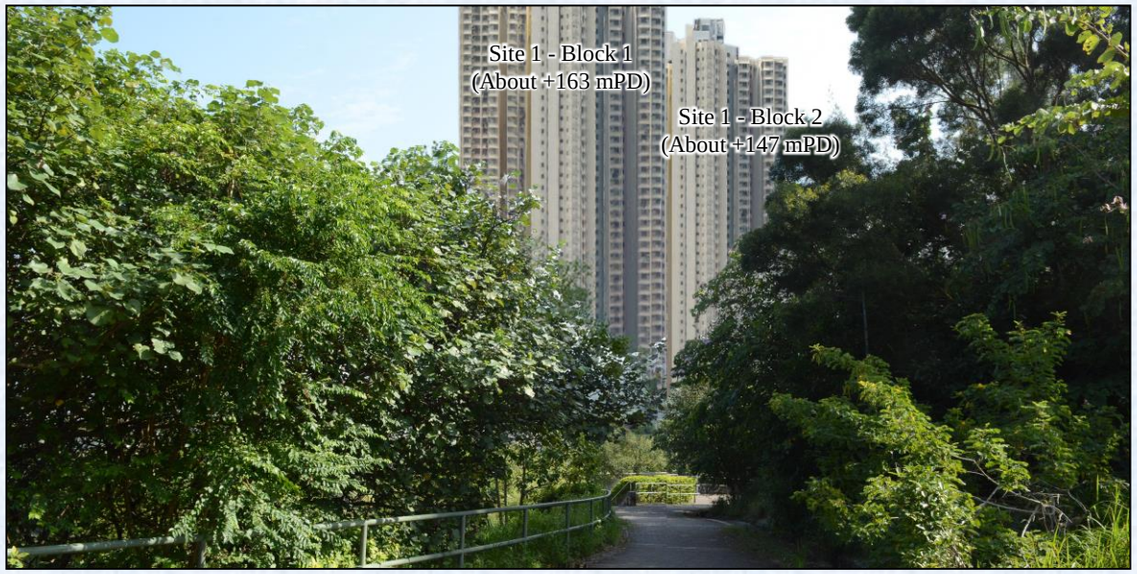
(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the design of the housing blocks is subject to review during the later detailed design stage

188563/VIA/005B Photomontage of Public Viewing Point VP2 for Sites 1 and 2 - Hikers from the South



Existing View



Day 1 of Operation Phase without Mitigation Measures



Day 1 / Year 10 of Operation Phase with Mitigation Measures

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the design of the housing blocks is subject to review during the later detailed design stage

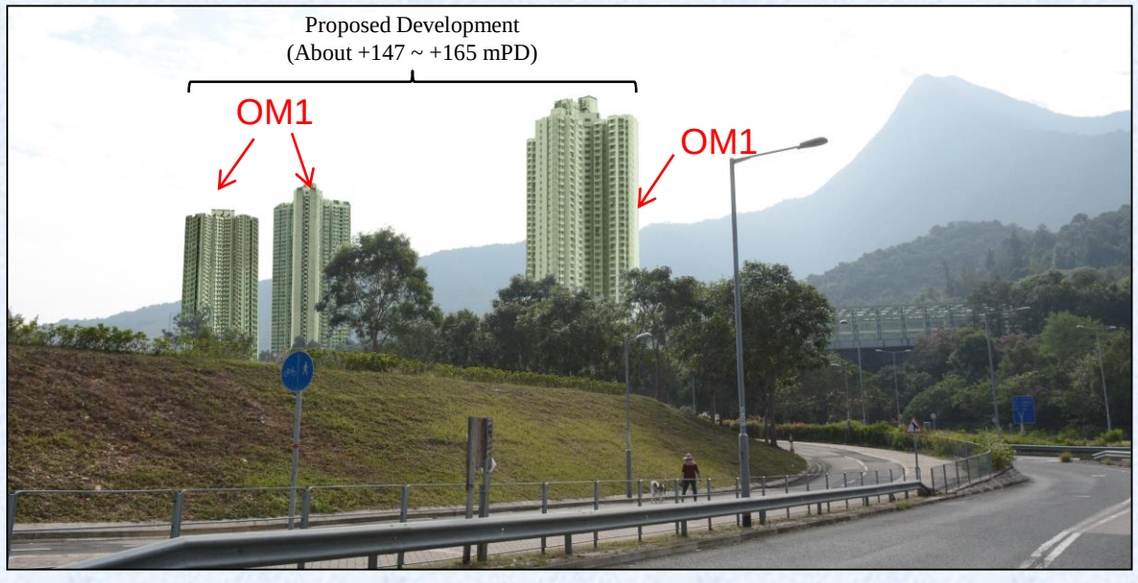
188563/VIA/005C Photomontage of Public Viewing Point VP3 for Sites 1 and 2 - Visitors of Ma On Shan Bypass Sitting-out Area



Existing View



Day 1 of Operation Phase without Mitigation Measures



Day 1 / Year 10 of Operation Phase with Mitigation Measures

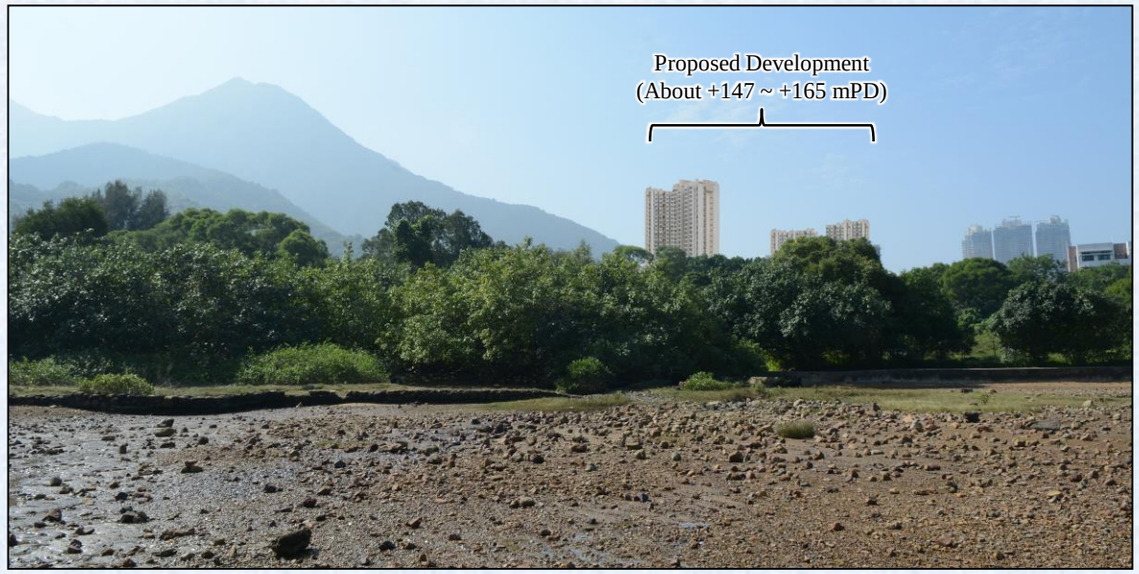
(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the design of the housing blocks is subject to review during the later detailed design stage

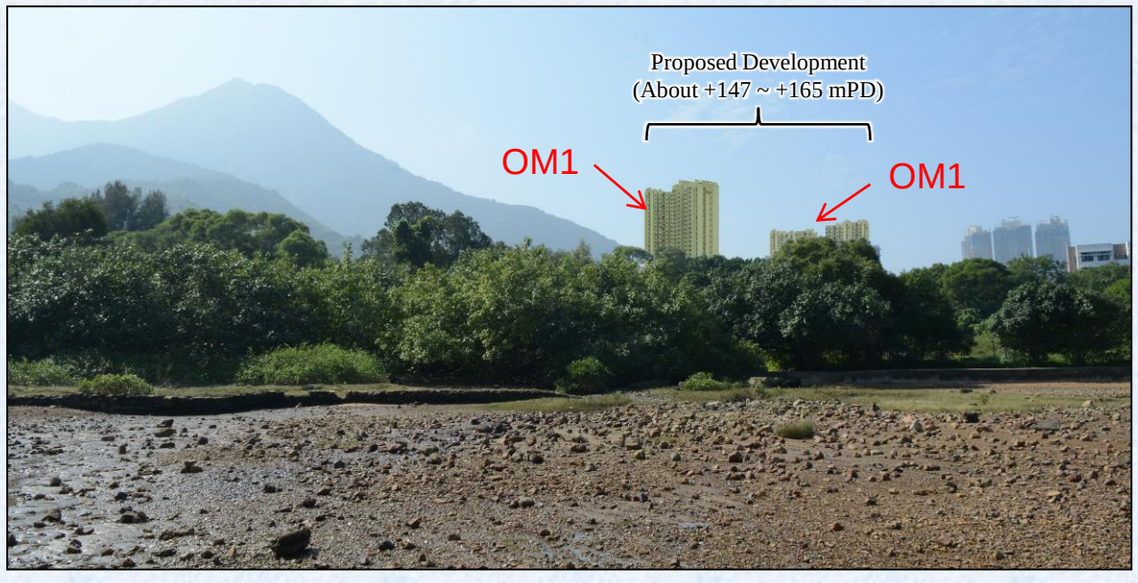
188563/VIA/005D Photomontage of Public Viewing Point VP4 for Sites 1 and 2 - Road users of Sai Sha Road (Sheet 4 of 6)



Existing View



Day 1 of Operation Phase without Mitigation Measures



Day 1 / Year 10 of Operation Phase with Mitigation Measures

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the design of the housing blocks is subject to review during the later detailed design stage

188563/VIA/005E Photomontage of Public Viewing Point VP5 for Sites 1 and 2 - Visitors at Nai Chung Beach



Existing View



Day 1 of Operation Phase without Mitigation Measures

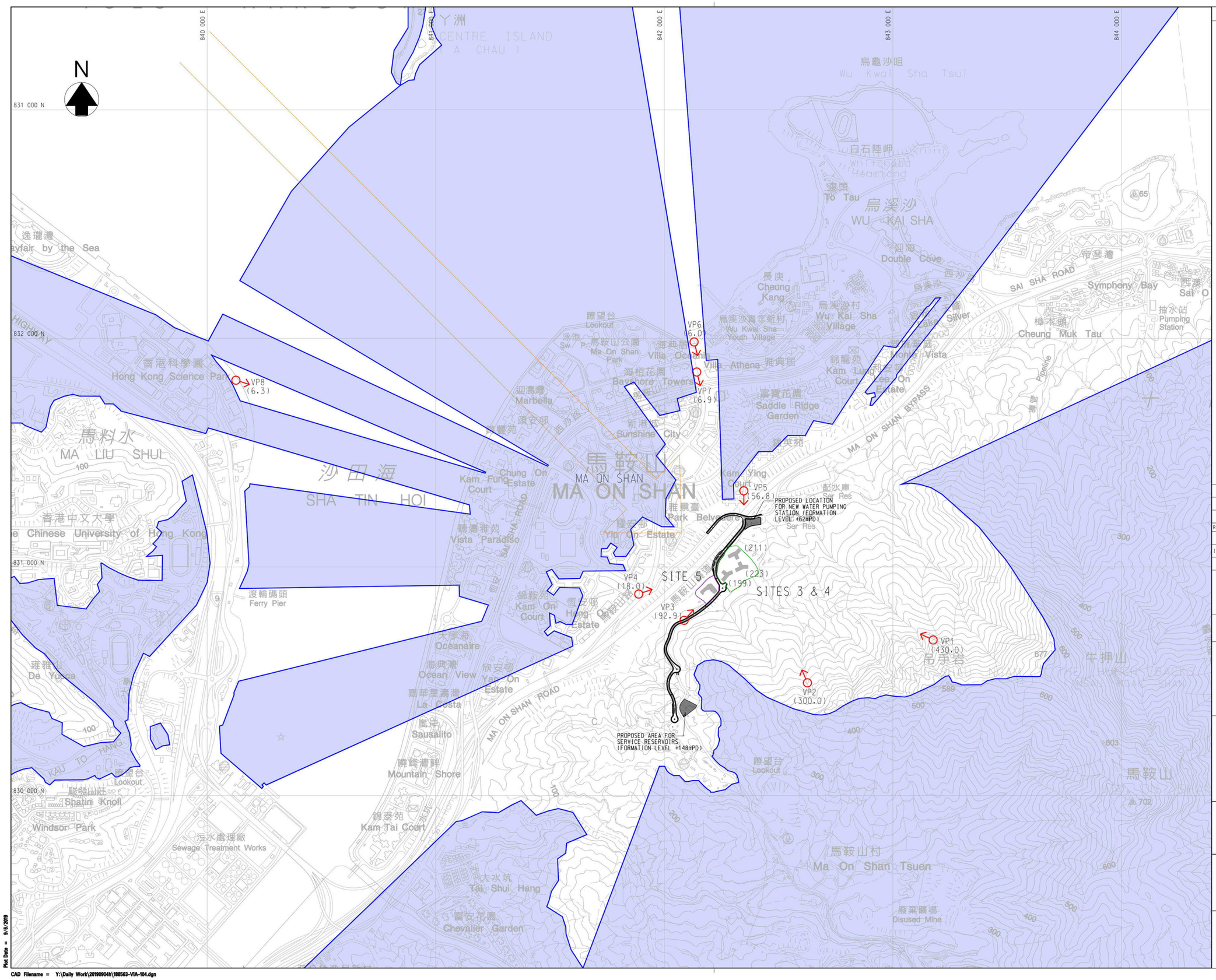


Day 1 / Year 10 of Operation Phase with Mitigation Measures

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the design of the housing blocks is subject to review during the later detailed design stage

188563/VIA/005F Photomontage of Public Viewing Point VP6 for Sites 1 and 2 - Travellers at Nai Chung Bus Stop



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LEGEND:

- PROPOSED PUBLIC HOUSING SITE BOUNDARY
- PROPOSED SCHOOL SITE BOUNDARY
- PUBLIC VIEWING POINT (VP)
- ZONE OF VISUAL INFLUENCE (ZVI)
- VISUAL CORRIDOR TOWARDS MA ON SHAN RIDGELINE
- (49.6) HEIGHT IN mPD

Revision	Date	Description	Initial
C	08/19	MINOR AMENDMENT	YLS
B	02/19	MINOR AMENDMENT	YLS
A	09/18	MINOR AMENDMENT	YLS

	Designed	Checked	Drawn	Checked
Initial	YLS	DH	SZ	LCH
Date	06/18	06/18	06/18	06/18

Approved

Agreement no.
CE 80/2014 (CE)

Project Title
SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN
- FEASIBILITY STUDY

Drawing Title
PLAN OF PUBLIC VIEWING POINTS AND ZVI FOR SITES 3 TO 5

Drawing No.
188563/VIA/104

Scale
1 : 7500 (A1)
1 : 15000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
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Plot Date = 9/6/2019

CAD Filename = Y:\Daily Work\20190904h\188563-VIA-104.dgn



Existing View



Day 1 of Operation Phase without Mitigation Measures



Day 1 / Year 10 of Operation Phase with Mitigation Measures

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the design of the housing blocks is subject to review during the later detailed design stage

188563/VIA/105A Photomontages of Public Viewing Point VP1 for Sites 3 to 5 - Hikers from the Southeast



Existing View



Day 1 of Operation Phase without Mitigation Measures



Day 1 of Operation Phase with Mitigation Measures



Year 10 of Operation Phase with Mitigation Measures

Note: the design of the housing and related non-domestic blocks is subject to review during the later detailed design stage

188563/VIA/105B Photomontages of Public Viewing Point VP2 for Sites 3 to 5 - Hikers from the South



Existing View



Day 1 of Operation Phase without Mitigation Measures



Day 1 / Year 10 of Operation Phase with Mitigation Measures

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the design of the housing blocks is subject to review during the later detailed design stage

188563/VIA/105C Photomontages of Public Viewing Point VP3 for Sites 3 to 5 - Hikers from the Southwest



Existing View



Day 1 of Operation Phase without Mitigation Measures



Day 1 / Year 10 of Operation Phase with Mitigation Measures

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the design of the housing blocks is subject to review during the later detailed design stage



Existing View



Day 1 of Operation Phase without Mitigation Measures



Day 1 / Year 10 of Operation Phase with Mitigation Measures

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the design of the housing blocks is subject to review during the later detailed design stage



Existing View



Day 1 of Operation Phase without Mitigation Measures



Day 1 / Year 10 of Operation Phase with Mitigation Measures

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the design of the housing blocks is subject to review during the later detailed design stage



Existing View



Day 1 of Operation Phase without Mitigation Measures



Day 1 / Year 10 of Operation Phase with Mitigation Measures

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the design of the housing blocks is subject to review during the later detailed design stage



Existing View



Day 1 of Operation Phase without Mitigation Measures



Day 1 / Year 10 of Operation Phase with Mitigation Measures

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the design of the housing blocks is subject to review during the later detailed design stage

188563/VIA/105H Photomontages of Public Viewing Point VP8 for Sites 3 to 5 - Recreational Users of Pak Shek Kok Promenade



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LEGEND:

- PROPOSED PRIVATE HOUSING SITE BOUNDARY
- PUBLIC VIEWING POINT (VP)
- ZONE OF VISUAL INFLUENCE (ZVI)
- (49.6) HEIGHT IN mPD
- MAJOR VISUAL CORRIDOR

Revision	Date	Description	Initial
B	03/19	MINOR AMENDMENT	YLS
A	11/18	MINOR AMENDMENT	YLS

	Designed	Checked	Drawn	Checked
Initial	YLS	DH	SZ	LCH
Date	06/18	06/18	06/18	06/18

Approved

Agreement no.
CE 80/2014 (CE)

Project Title
SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN MA ON SHAN
- FEASIBILITY STUDY

Drawing Title
PLAN OF PUBLIC VIEWING POINTS AND ZVI FOR SITE P

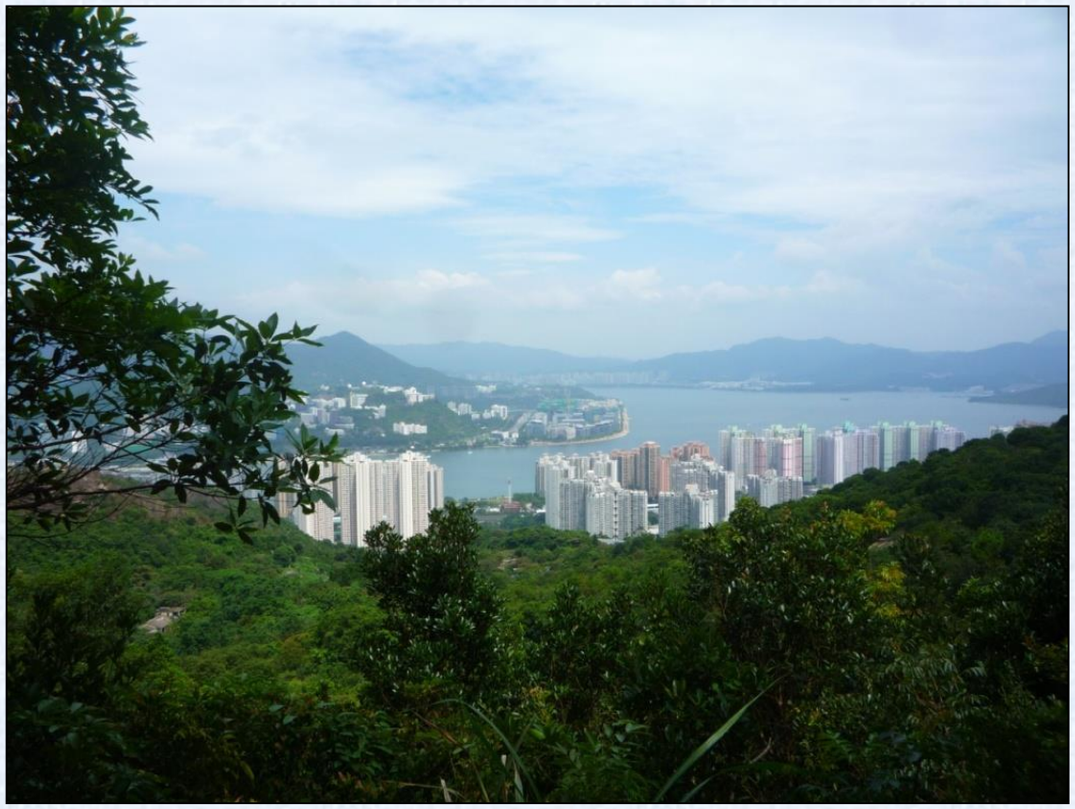
Drawing No.
188563/VA/004

Scale
1 : 5000 (A1)
1 : 10000 (A3)

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 4/16/2019
CAD Filename = Y:\Daily Work\20190409m\188563-VA-004-R.dgn



Existing View



Day 1 / Year 10 of Operation Phase

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the housing blocks are subject to design by private developer(s).

188563/VA/005A Photomontage of Public Viewing Point VP1 for Site P - Hikers from the Southeast



Existing View



Day 1 / Year 10 of Operation Phase

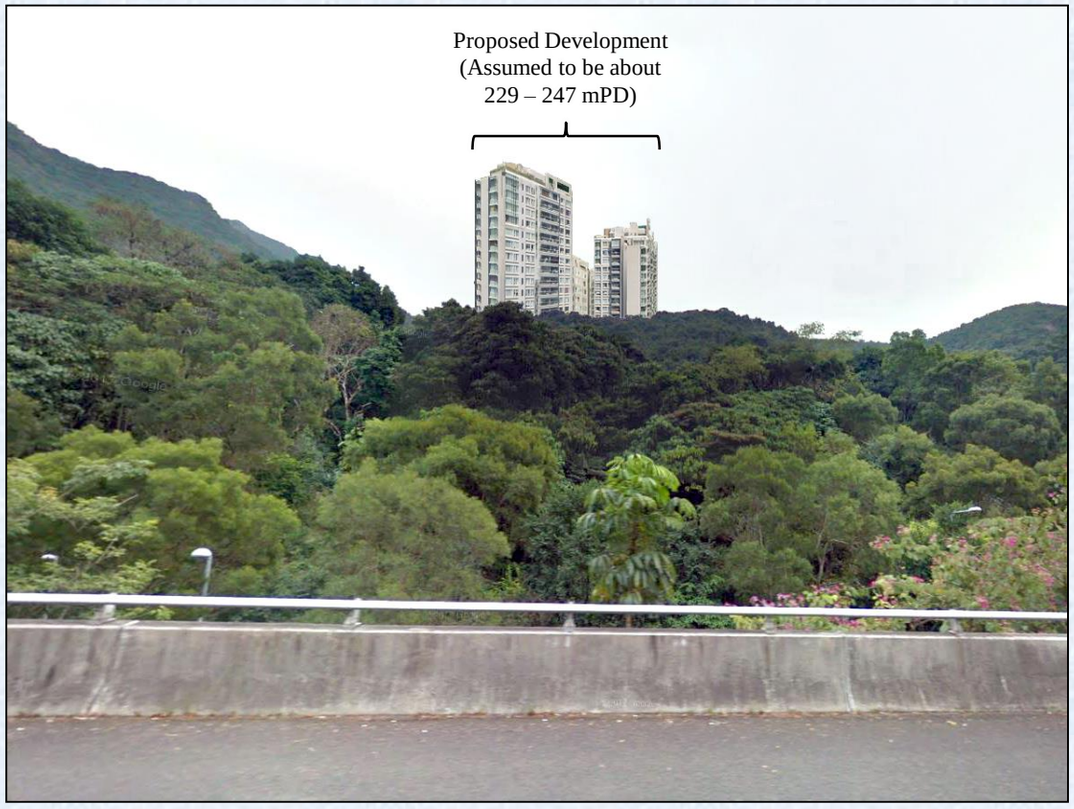
(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the housing blocks are subject to design by private developer(s).

188563/VA/005B Photomontage of Public Viewing Point VP2 for Site P - Road Users at Hang Hong Street Roundabout



Existing View

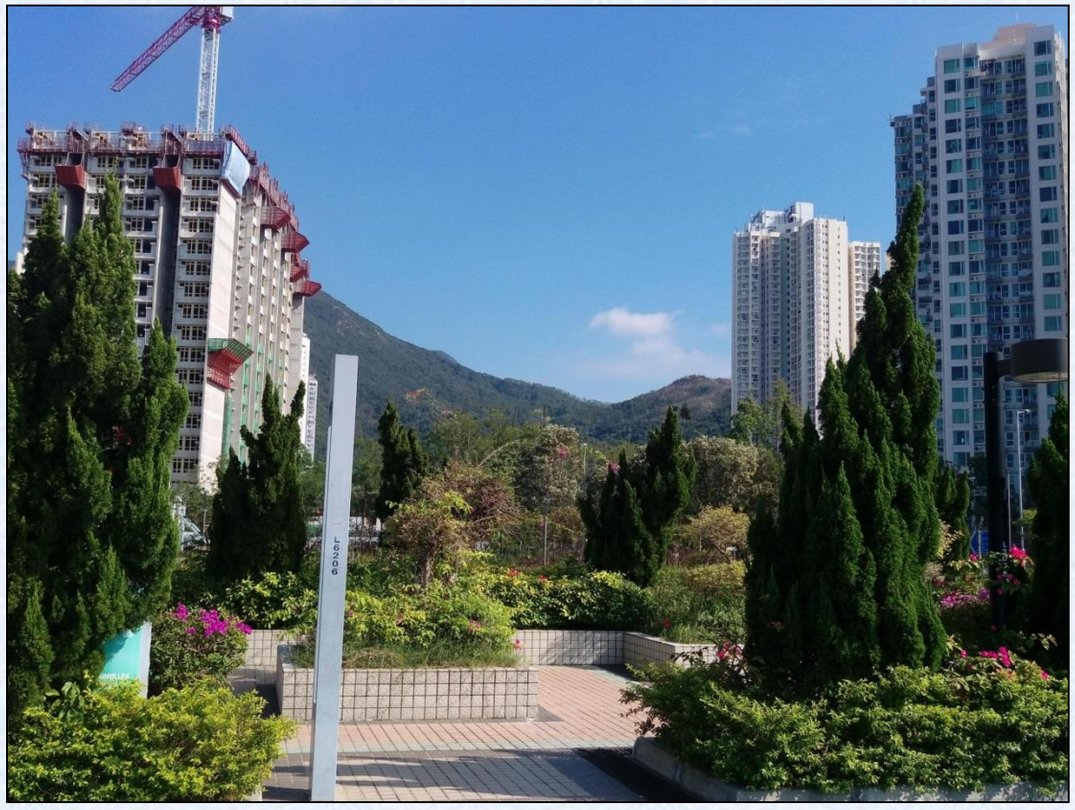


Day 1 / Year 10 of Operation Phase

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the housing blocks are subject to design by private developer(s).

188563/VA/005C Photomontage of Public Viewing Point VP3 for Site P - Road Users at Ma On Shan Bypass



Existing View



Day 1 / Year 10 of Operation Phase

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the housing blocks are subject to design by private developer(s).



Existing View



Day 1 / Year 10 of Operation Phase

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the housing blocks are subject to design by private developer(s).

188563/VA/005E Photomontage of Public Viewing Point VP5 for Site P - Recreational Users at Heng Fai Street Park



Existing View



Day 1 / Year 10 of Operation Phase

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the housing blocks are subject to design by private developer(s).

188563/VA/005F Photomontage of Public Viewing Point VP6 for Site P - Road Users at Ma On Shan Road



Existing View



Day 1 / Year 10 of Operation Phase

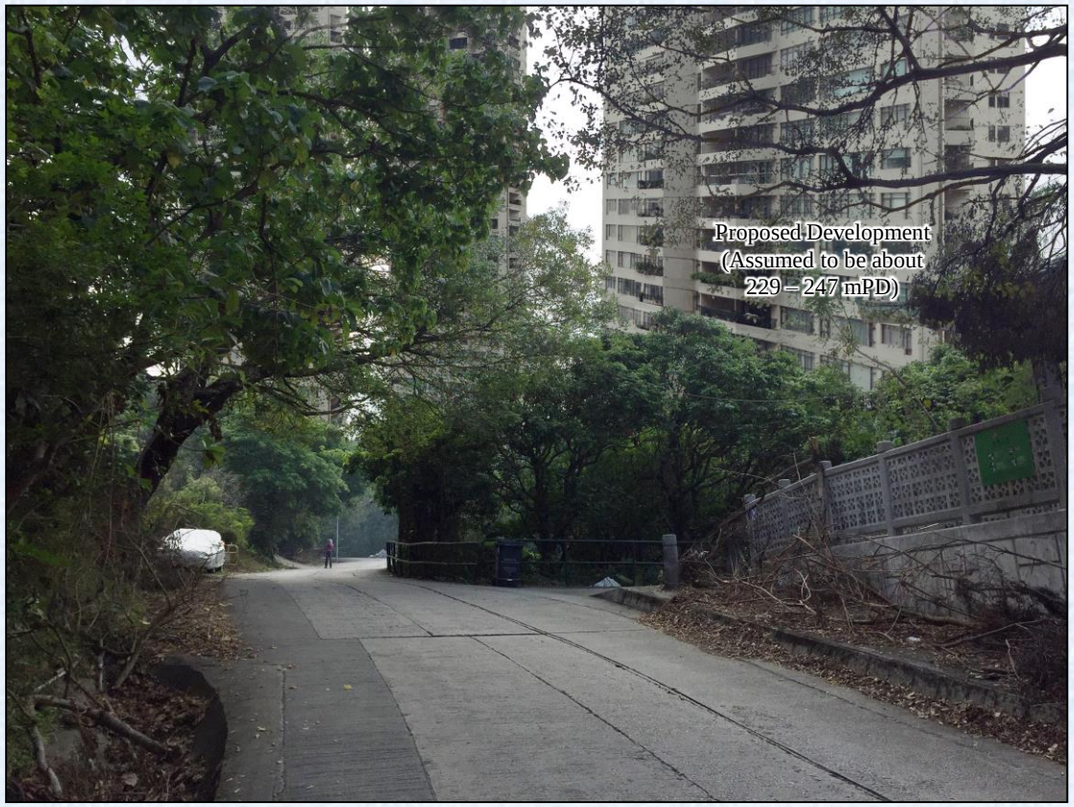
(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the housing blocks are subject to design by private developer(s).

188563/VA/005G Photomontage of Public Viewing Point VP7 for Site P - Pedestrians at Hang Hong Street



Existing View



Day 1 / Year 10 of Operation Phase

(No visual difference is anticipated between Day 1 and Year 10 of Operation)

Note: the housing blocks are subject to design by private developer(s).

188563/VA/005H Photomontage of Public Viewing Point VP8 for Site P - Hikers at Ma On Shan Tsuen Road

LEGEND:

- 公共房屋發展用地 PUBLIC HOUSING SITES
- 私人房屋發展用地 PRIVATE HOUSING SITES
- 學校發展用地 SCHOOL SITE
- 擬議路口改善工程 PROPOSED JUNCTION IMPROVEMENT WORKS
- 擬議路段改善工程 PROPOSED PORTION OF ROAD IMPROVEMENT WORKS

沙田海
SHA TIN HOI

馬鞍山
MA ON SHAN

馬鞍山
MA ON SHAN

SAI SHA ROAD 西沙路

樟木頭村以西
CHEUNG MUK TAU TSUEN WEST

樟木頭村以東
CHEUNG MUK TAU TSUEN EAST

馬鞍山競道

MA ON SHAN BYPASS

馬鞍山村路下段
LOWER PORTION OF MA ON SHAN TSUEN ROAD

馬鞍山村路上段
UPPER PORTION OF MA ON SHAN TSUEN ROAD

MA ON SHAN TSUEN ROAD 馬鞍山村路

吐露港公路 TOLO HIGHWAY

圖則名稱 drawing title

建議的房屋和學校發展用地及擬議交通改善工程
PROPOSED SCHOOL SITE AND HOUSING DEVELOPMENT AND ASSOCIATED TRAFFIC IMPROVEMENT WORKS

圖號 drawing no. 附件3 ANNEX 3

比例 scale 1:15 000

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土木工程拓展署
CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

ANNEX3.DGN

A3 297X420

Summary of the Development Parameters of the Amendment Sites

Proposed Amendments	Location	Site Area (ha, about)	Current Zoning	Proposed Zoning	Maximum Plot Ratio	Proposed Building Height Restriction (mPD)	Approximate Flat Number	Approximate Population
Housing Sites								
A	East of the Cheung Muk Tau Village	1.46	GB	R(A)11	6.8	165mPD	1,820	5,100
B1	West of the Cheung Muk Tau Village	1.38	GB	R(A)11	6.8	165mPD	1,660	4,650
D	Lower end of Ma On Shan Tsuen Road	2.26	GB	R(A)11	6.8	225mPD	2,700	7,560
G	Upper end of Ma On Shan Tsuen Road	2.73	GB	R(B)6	3.6	250mPD	1,040	3,120
GIC Sites								
C	Lower end of Ma On Shan Tsuen Road	0.45	GB	G/IC	-	1 storey	-	-
E	Lower end of Ma On Shan Tsuen Road	0.73	GB	G/IC	-	8 storeys	-	-

F	Upper end of Ma On Shan Tsuen Road	0.66	GB	G/IC	-	2 storeys	-	-
Other Sites								
B2	West of the Cheung Muk Tau Village	0.4	GB	Road	-	-	-	-
H	Mui Tsz Lam Road	0.49	GB	OU(Sewage Treatment Works)	-	-	-	-

Provision of Major Community Facilities and Open Space in Ma On Shan New Town

Type of Facilities	Hong Kong Planning Standards and Guidelines (HKPSG[1])	HKPSG Requirement (based on planned population)	Provision		Surplus/ Shortfall (against planned provision)
			Existing Provision	Planned Provision (including Existing Provision)	
District Open Space	10 ha per 100,000 persons[#]	24.30 ha	20.68 ha	27.31 ha	+3.01 ha
Local Open Space	10 ha per 100,000 persons[#]	24.30 ha	40.23 ha	46.04 ha	+21.74 ha
Secondary School	1 whole-day classroom for 40 persons aged 12-17	259 classrooms	352 classrooms	352 classrooms	+93 classrooms
Primary School	1 whole-day classroom for 25.5 persons aged 6-11	325 classrooms	308 classrooms	386 classrooms	+61 classrooms
Kindergarten/ Nursery	34 classrooms for 1,000 children aged 3 to 6	116 classrooms	152 classrooms	159 classrooms	+43 classrooms
District Police Station	1 per 200,000 to 500,000 persons	0	1	1	+1
Divisional Police Station	1 per 100,000 to 200,000 persons	1	1	1	0
Hospital	5.5 beds per 1,000 persons	1,382	0	0	-1,382[2]
Clinic/Health Centre	1 per 100,000 persons	2	1	2	0
Magistracy (with 8 courtrooms)	1 per 660,000 persons	0	0	0	0
Integrated Children and Youth Services Centre	1 for 12,000 persons aged 6-24	3	5	5	+2

Type of Facilities	Hong Kong Planning Standards and Guidelines (HKPSG[1])	HKPSG Requirement (based on planned population)	Provision		Surplus/ Shortfall (against planned provision)
			Existing Provision	Planned Provision (including Existing Provision)	
Integrated Family Services Centre	1 for 100,000 to 150,000 persons	2	2	3	+1
District Elderly Community Centres	One in each new development area with a population of around 170,000 or above	N.A.	1	1	N.A.
Neighbourhood Elderly Centres	One in a cluster of new and redeveloped housing areas with a population of 15,000 to 20,000 persons, including both public and private housing	N.A.	3	6	N.A.
Community Care Services Facilities	17.2 subsidised places per 1,000 elderly persons aged 65 or above	1,365[3]	203	491	-874[4]
Residential Care Homes for the Elderly	21.3 subsidised beds per 1,000 elderly persons aged 65 or above	1,691	88	548	-1,143[4]
Child Care Centre	100 aided places per 25,000 persons	972	105	305	-667[4]
Library	1 district library for every 200,000 persons	1	1	1	0
Sports Centre	1 per 50,000 to 65,000 persons	4	2	4	0
Sports Ground/ Sport Complex	1 per 200,000 to 250,000 persons	1	1	1	0
Swimming Pool Complex – Standard	1 complex per 287,000 persons	1	1	1	0

Note:

1. The planned population of Ma On Shan New Town would be about 243,000 persons. If including transients, the overall planned population is about 251,300. All population figures have been adjusted to the nearest hundred.
2. Provision of hospital services are assessed by Hospital Authority on a separate regional basis.
3. There is no rigid distribution between centre-based CCS and home-based CCS stated in the Elderly Services Programme Plan. Nonetheless, in general, 60% of CCS demand will be provided by home-based CCS and the remaining 40% will be provided by centre-based CCS.
4. These are the long-term targets toward which the provision of services and facilities would be adjusted subject to the consideration of the SWD in the planning and development process. It may not be appropriate to compare the standards with the provision of services and facilities which are assessed by SWD on a separated cluster/district basis. PlanD and SWD will work closely together to ensure that additional GIC facilities will be included in new and redevelopment proposals from both public and private sectors.

The requirements exclude planned population of transients.

June 2020

有關: 馬鞍山區可供房屋發展用地可行性研究問卷 No.:(72)

意向問卷回條

致: 樟木頭村全體居民

規劃署於二零二零年六月二十三日發出簡介文件，就馬鞍山區可供房屋發展用地可行性研究上提出建議方案。該方案提議於樟木頭以東及樟木頭以西之綠化地帶發展公營房屋，單位合共約3,480個，預計人口約9,750人。

就上述房屋發展方案，本人意見為: □贊成 ☑反對 □無意見

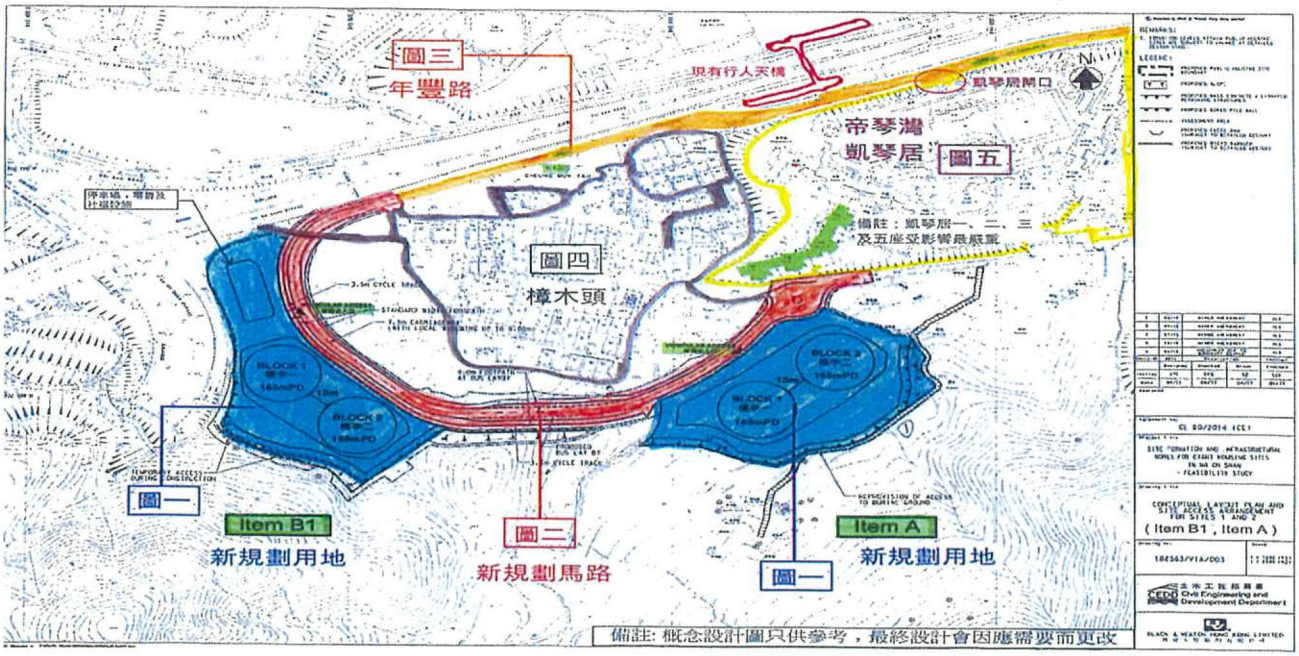
村代表意見:

守護樟木頭，反對政府帶頭毀滅綠化地帶，制造屏風樓及馬路包圍本村，令居民安寧和諧社區生活被破壞，嚴重損害身心健康，有被滅村之虞。

業主資料:

業戶姓名: 任玉嫦 簽署: 任

單位: [redacted] 座 [redacted] 樓 [redacted] 室 日期: 10/7/2020



圖一：四棟公屋及商場會製造屏風樓效應，嚴重影響空氣流通。

圖二：新規劃馬路破壞生態。

圖三：年豐路無法負荷新增的車流量。

NO : (53)

有關 ： 馬鞍山區可供房屋發展用地可行性研究問卷

意向問卷回條

致 ： 規劃署 或 政府有關部門

規劃署於二零二零三年六月二十三日發出簡介文件 ，就馬鞍山區可供房屋發展用地可行性研究上提出建議方案 . 該方案提議於樟木頭村以東及樟木頭村以西之綠化地帶發展公營房屋 ，單位合共約 **3,480** 個 ，預計人口約 **9,750** 人 .

就上述房屋發展方案 ，本人意見為 ：

☐ 贊成

☑ 反對

☐ 無意見

原因 / 意見

住戶姓名 ： 李凱昌　　簽署 ： Shian　　日期 ： 5/7/20

居民請於以下☑所住屋苑 ：

(1) 樟木頭村 ☐　**(2)** 西澳村 ☑　**(3)** 泥涌村 ☐

(4) 官坑村 ☐　**(5)** 崔下村 ☐　**(6)** 馬牯纜村 ☐

No.:(24)

有關: 馬鞍山區可供房屋發展用地可行性研究問卷

意向問卷回條

致: 馬鞍山居民/行山人士

規劃署於二零二零年六月二十三日發出簡介文件，就馬鞍山區可供房屋發展用地可行性研究上提出建議方案。該方案提議於樟木頭以東及樟木頭以西之綠化地帶發展公營房屋，單位合共約 3,480 個，預計人口約 9,750 人。

就上述房屋發展方案，本人意見為:

☐ 贊成
☑ 反對
☐ 無意見

原因/意見: 要綠色地帶. 不要石屎森林

業主資料:

業戶姓名: 劉德芳

簽署: 劉德芳

單位: _____ 座 _____ 樓 _____ 室

日期: 24-6-2020

居民請於以下☑所住屋苑:

1) 樟木頭村	☐	6) 翠雍華庭	☐
2) 西澳村	☐	7) 利安邨	☑
3) 帝琴灣	☐	8) 錦英苑	☐
4) 迎海	☐	9) 富寶花園	☐
5) 銀湖天峯	☐	10)其他: _____	

*註明:

合作問卷單位: 1) 樟木頭村代表
2) 保護大自然環境人士代表

tspd	----- Forwarded by tspd/PLAND/HKSARG on 03/...	03/08/2020 09:41:02

From: tspd/PLAND/HKSARG
To: enquire@pland.gov.hk
Date: 03/08/2020 09:41
Subject: Fw: 馬鞍山分區計劃大綱圖

----- Forwarded by tspd/PLAND/HKSARG on 03/08/2020 09:40 -----

From: [redacted]
To: <tspd@pland.gov.hk>
Date: 20/07/2020 17:33
Subject: 馬鞍山分區計劃大綱圖

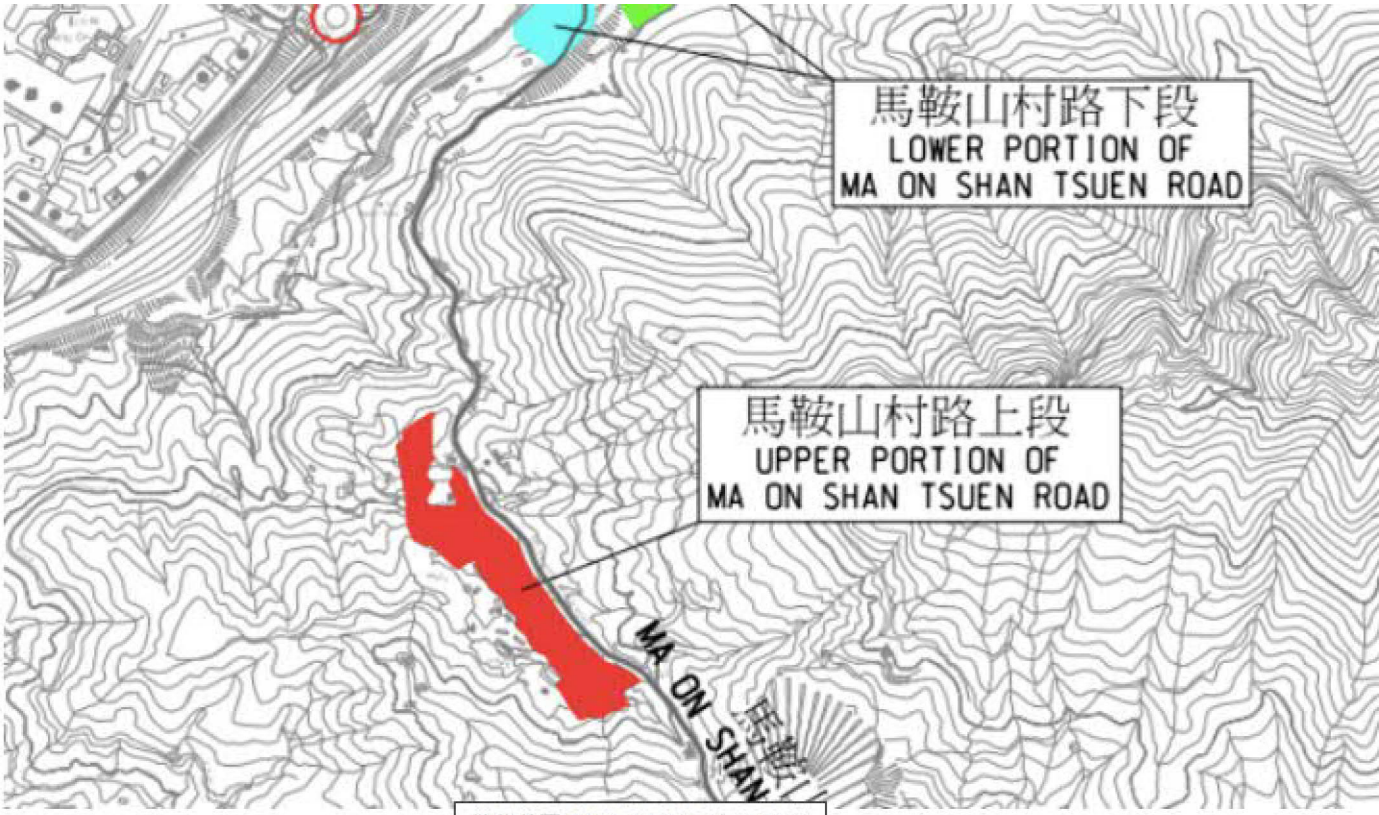
Dear Sir or Madam,

I am a resident of Cheung Muk Tau Village.

After reviewing the proposal, I strongly against the proposed residential development of the "green belt " area.
It would have a detrimental impacts on the environment and air quality.

Please relay my message to appropriate committee, thanks!

Regards,
Grace Leung



《馬鞍山分區計劃大綱圖》的擬議修訂項目

修訂項目	位置	面積(公頃，約)	現時地帶	擬議地帶	最高地積比率	擬議建築物高度限制(主水平基準/層)	單位(約)	預計人口
擬議房屋發展用地								
A	西沙路樟木頭村以東	1.46	綠化地帶	住宅(甲類)11	6.8	主水平基準上165米	1,820	5,100
B1	西沙路樟木頭村以西	1.38	綠化地帶	住宅(甲類)11	6.8	主水平基準上165米	1,660	4,650
D	馬鞍山村路下段	2.26	綠化地帶	住宅(甲類)11	6.8	主水平基準上225米	2,700	7,560
G	馬鞍山村路上段	2.73	綠化地帶	住宅(乙類)6	3.6	主水平基準上250米	1,040	3,120
擬議政府、機構或社區用地								
C	馬鞍山村路下段	0.45	綠化地帶	政府、機構或社區	-	1層	-	-
E	馬鞍山村路下段	0.73	綠化地帶	政府、機構或社區	-	8層	-	-
F	馬鞍山村路上段	0.66	綠化地帶	政府、機構或社區	-	2層	-	-

容溟舟先生動議
反對在現有基建設施未有改善前，將馬鞍山八個可供房屋發展用地改劃作住宅用途

背景

土木工程拓展署於2014年4月批出「馬鞍山區八個可供房屋發展用地的地盤平整和基礎設施工程」的可行性研究合約(招標合約編號第CE 80/2014 (CE))，計劃興建資助房屋。有關項目牽涉用地毗鄰馬鞍山郊野公園，標注的發展範圍更包括馬鞍山村和信義新村；然而政府在批出有關合約前，並沒有向議會及公眾進行諮詢甚至通知。自項目開始以來，公眾和議員都提出了不少質疑，關注項目對就近的古蹟、生態、交通以至社區配套的影響，意見綜合如下：

1. 有關項目欠缺完善交通網絡支援。現時，馬鞍山的人口和車流已經飽和，進出馬鞍山的交通樞紐——馬鞍山路、亞公角街及石門迴旋處，以至沙田區多條隧道及主要道路，在上下午繁忙時間皆極度擠塞。再者錦暉苑、錦駿苑、欣安邨二期即將落成，未來還有西貢十四鄉發展項目、新界東北發展區、皇后山及大埔九區而增加的人口、再加上科學園三期擴建的就職人流，如在馬鞍山郊野公園一帶發展房屋項目，屆時只會令交通情況更不勝負荷。

2. 有關項目包括興建一所30個班房的小學校舍，該處附近欠缺公共交通，學生和教職員往返校舍，如非步行則必須倚靠私人交通公具。承上所言，馬鞍山區的交通網絡已經飽和，學生、教職員和家長駕駛私人交通公具，必會令附近道路的擠塞情況更為惡劣。

3. 有關項目用地涉及馬鞍山郊野公園邊陲，擬發展範圍包括綠化地帶。市民間流傳稱道的「馬鞍山三寶」——鐵礦、杜鵑花及赤麝，皆在馬鞍山郊野公園，該處的自然環境不但是多種野生動植物的棲息之地，更有珍貴的礦場古蹟。我們擔心有關項目會對該處的生態環境造成不可逆轉的破壞，因城市發展而置保育、人文於不顧。

4. 馬鞍山村、信義新村和馬鞍山郊野公園內，欠缺大型住宅區所需的公共設施，如供水、排污、電力等系統，非常不便。需加建食

水及沖廁水的管道和配水庫，更要興建排污系統。以上工程皆極之貼近郊野公園的範圍，工程對該處的生態環境將有機會構成不可逆轉的影響。

動議

沙田區議會發展及房屋委員會理解香港市民對房屋需求殷切，然而政府沒有全盤改善沙田區內道路網絡，以疏導馬鞍山及西貢樟木頭和十四鄉的發展項目所帶來的人口增長而衍生的額外車流，有關項目更對馬鞍山郊野公園一帶的自然環境構成不可逆轉的破壞。因此，沙田區議會發展及房屋委員會強烈反對政府於馬鞍山郊野公園毗鄰的用地(即馬鞍山分區計劃大綱核准圖編號S/MOS/22的修訂C、D、E、F及G項)改劃為發展資助房屋、私人房屋項目及相關的配套設施。

動議人：容溟舟
和議人：陳珮明、丁仕元、鄭仲恒、許立燊、周曉嵐、冼卓嵐、吳錦雄、李志宏

臨時動議

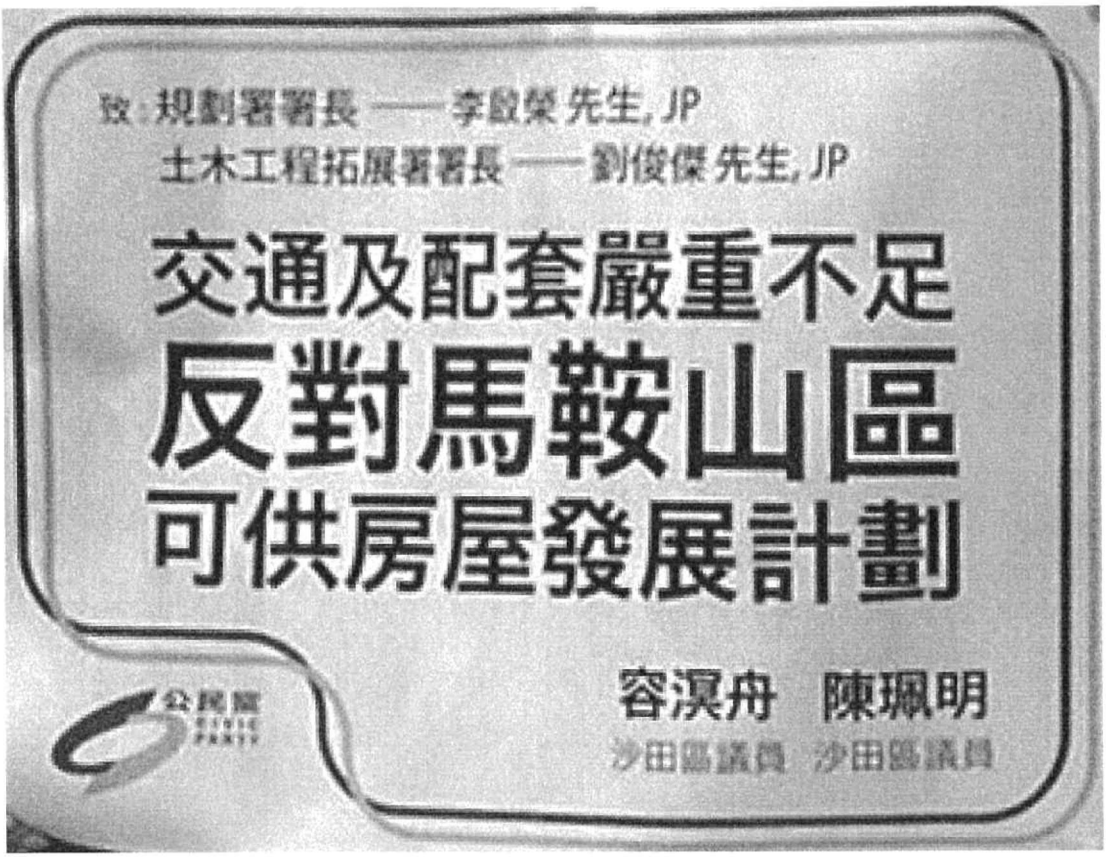
背景：

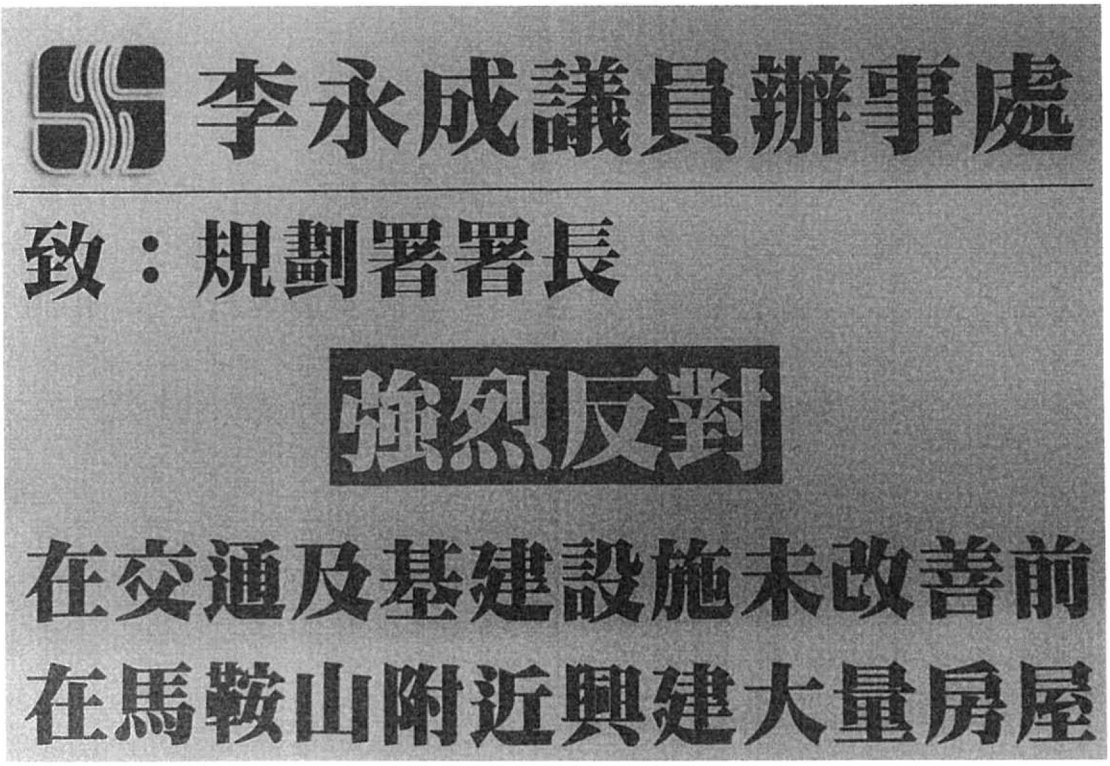
馬鞍山區可供房屋發展用地的地盤平整和基礎設施工程－可行性研究(CE 80/2014)其中的兩個位於樟木頭的房屋發展項目雖屬大埔西貢北區議會選區的範圍，但卻倚賴馬鞍山區的公共交通網絡及道路網絡通往市區，故此促請大埔區議會為著馬鞍山區居民的福祉，在馬鞍山及沙田區尚未完善公共交通及道路網絡的情況下，否決規劃署修訂馬鞍山分區計劃大綱核准圖編號 S/MOS/22 的修訂項目 A 及 B1。

動議措詞：

沙田區議會發展及房屋委員會促請大埔區議會否決規劃署修訂馬鞍山分區計劃大綱核准圖編號S/MOS/22的修訂項目A及B1，並一同責成運輸署大埔高級運輸主任與沙田區議會商討如何解決十四鄉及西貢北一帶的發展項目對馬鞍山及沙田區公共交通道路網絡及社區配套構成的壓力。

動議人：陳珮明
和議人：容溟舟、丁仕元、李志宏、許立桑、鄭仲恒


致：規劃署署長——李啟榮先生, JP
土木工程拓展署署長——劉俊傑先生, JP
交通及配套嚴重不足
反對馬鞍山區
可供房屋發展計劃
容溟舟 陳珮明
沙田區議員 沙田區議員


李永成議員辦事處
致：規劃署署長
強烈反對
在交通及基建設施未改善前
在馬鞍山附近興建大量房屋

本處編號: 200812(1)

規劃署
地區規劃處
新界區規劃部
沙田、大埔及北區規劃處
沙田、大埔及北區規劃專員
朱霞芬 女士

Shatin, Tai Po & North
District Planning Office
12 AUG 2020
RECEIVED

朱專員：

強烈反對在樟木頭附近綠化地帶轉為住宅用途

本人近日再次接獲烏溪沙區居民的意見，表示強烈反對將樟木頭一帶綠化地帶轉為住宅用途，以免使馬鞍山對外交通負荷進一步惡化。

本人特函　貴署轉達居民的意見，如有任何垂詢，歡迎致電23289872聯絡本人助理蔡小姐，敬希賜覆，為荷。並頌
籌祺

沙田區議員(烏溪沙選區)
李永成謹啟
(蔡敏婷代行)

致：規劃署

敬啟者，知悉規劃署對馬鞍山用地的規劃進行咨詢會，對於該咨詢會有以下的意見：

1. 規劃署在沒有提供任何詳細資料的情況下(或在咨詢會前 1-2 日極短的時間提供有限的資料)，向村民作出有關咨詢是不適當的。因為，這種情況就如將要起一座摩天大廈的時候，有個成年人跟一個幼稚園的小朋友講：你覺得起一座摩天大廈好嗎？對於一個幼稚園小朋友的認知來說，起一座摩天大廈的資金概念、對環境交通人流的影響、對社會發展等各種情況的影響都是一遍空白的，這種咨詢真的會有意義嗎？同樣，馬鞍山村用地的發展，在政府完全沒有提供任何資料予村民的情況下，村民是根據甚麼來提供正確的意見給予規劃署呢？當然，提供有關詳細資料的責任理應在政府的其它部門，但對於村民得到的資料是一遍空白的情況下被咨詢，村民的腦裡只會呈現出以個人利益為前題的意見，那就是反對發展，或是如何賠償，或是如何妥善安排等狹窄的意見，假如規劃署只想得到這種意見的話，只需要建議政府向村民提供一份賠償及安置的方案，再由村民在賠償方排方案中提出意見來得更有意義而不需進行有關的咨詢會了。

2 有關馬鞍山用地，規劃署只向馬鞍山村民作出咨詢更是非常不妥當的，因為，馬鞍山村的用地是位處於馬鞍山郊野公園的最邊緣地帶，這種對效野公園造成不可逆轉的破壞發展是必須向全港市民作出咨詢的，因為馬鞍山郊野公園不祇是屬于馬鞍山村村民或沙田區市民的，這是屬於全港市民的切身利益的，簡單地向馬鞍山村或沙田區市民作出咨詢，其結果可能只會出現對沙田區市民有利而損害了沙田區以外的全港市民的利益。

總結上述情況，有關馬鞍山土地發展，規劃署是應向全港民作出咨詢的，而不是只向馬鞍山或沙田區的市民作出咨詢。

另外，根據城規會的馬鞍山城市規劃大綱圖中顯然(見附件 1 圖)，馬鞍山郊野公園中有一幅 118 公頃被列為【具特殊科學地點】的土地。而在全香港被納入【具特殊科學地點】的地點共有 67 個，其中超過 100 公頃的有 15 個，而位處馬山郊野公園的【具特殊科學地點】(以下簡稱【特殊地】) 就是其中之一。馬鞍山【特殊地】於 1976 年 3 月註冊成為【特殊地】，任何地點成為【特殊地】都是需要進行各種專業的審議才能被納入的，因此要成為【特殊地】是非常不容易的，而馬鞍山【特殊地】由 1976 年至今，一直都是在註冊列內的，所以馬安山【特殊地】對於全港市民而言是一個非常珍貴的保護地點。根據馬鞍山城市規劃大綱圖 的 1 比 50 圖量度得出來的資料(如有錯誤請作出指正)，馬鞍山信義新村及馬鞍山半山村距離【特殊地】大約只有 350 米(請參考附頁)，而信義新村及馬鞍山半山村就是屬於上述擬發展項目中的 F 及 G 的用地當中(以下簡稱 F 及 G 用地)。

對於馬安山 F 及 G 用地的發展有以下的疑問向規劃署提出；

1. 根據法例，規則署是有法定權力對任何【特殊地】的發展有最終的審批權，由於上述 F 及 G 用地距離【特殊地】只有大約 350 米，用常識推論，F 及 G 用地的發展必然對【特殊地】做成永久而不能逆轉的破壞。請問上述 F 及 G 用地的發展對【特殊地】怎麼不會構成永久而不可逆轉的破壞？貴署是以甚麼理據去批準 F 及 G 用地的發展呢？

對於要發展一個對【特殊地】構成不可逆轉的永久破壞，相信是需要用以下的基本資料作出考慮的，以下的考慮因素簡稱【效益因素】；

該發展項目的效益一定大於對全港市民造成的利益損害，這種發展效益和全港市民的利益是能夠用數據量度出來的，而這些數據是需要各種專業行業進行研究分析才能推算出來的，例如：當發展 F 及 G 用地的時候，對馬鞍山的【特殊地】造成的破壞而帶來甚麼影響？而發展 F 及 G 用地後，對社會帶來了甚麼效益？只要用以上兩種數據才能量度出發展 F 及 G 用地的可行性，尤其是馬鞍山半山村的 G 用地。

2. 在郊野公園發展的項目中，環保排污系統的要求是十分嚴格的，這種環保排污系統的造價也是十分昂貴的。另外，在郊野公園完成發展的項目後，對於郊野公園日後將帶來甚應的影響，而確保維持減少這些影響所帶來的費用也是一個十分昂貴的費用。

綜合上述【效益因素】及第 2 點的環保排污系統及項目發展後的維護費用問題，請問規則署：在上述 F 及 G 用地的發展項目當中所獲得的效益真的能夠抵償對馬鞍山【特殊地】所帶來永久而不可逆轉的破壞？尤其是馬鞍山半山村 G 用地的發展，該用地只是提供建造豪宅，而這個地盤只提供 1,040 個可供 3,120 人居住的豪宅單位，只是為了提供 3,120 人居住的豪宅單位，而不惜動用約 20 億元的道路及地盤平整工地的金額，及不惜永久而不可逆轉地破壞對全港市民有深遠影響的【特殊地】？還要不惜動用納稅人的金錢去建造非常昂貴的環保排污系統去服務這個豪宅項目？

綜合上述 1 及 2 點，F 及 G 用地距離馬鞍山【特殊地】大約只有 350 米，規劃署是有責任解答是用甚麼理據批準 F 及 G 的發展不會對【特殊地】構成永久而不可逆轉的破壞？而政府提出的補償方案是無法改變對【特殊地】造成永久而不可逆轉破壞的事實，用補償的方案只是一種掩耳盜鈴去逃避事實的方法，根本是沒有解答所提出的問題的。另外，規劃署更有責任作出解答 F 及 G 用地的發展中，有關上述【效益因素】提出的只為了提供 3,120 人居住的豪宅單位，而不惜動用非常昂貴的環保排污系統及道路及地盤平整的費用的問題，及對馬鞍山【特殊地】做成永久破壞的代價也要推行的問題，以及向全港市民作出廣泛咨詢的問題，上述道些問題規劃署都應作出解答的。

由上述綜合所得，政府假如只是因為發展 F 及 G 用地的話，理應不會動用如此龐大的費用及負出對馬山【特殊地】造成巨大破壞的代價，而仍要發展 F 及 G 用地的，規劃署亦應向市民解答有關的疑問。

因此，規劃署對於馬鞍山 F 及 G 用地的發展，是應該展開全港性市民的咨詢，並提供詳細的發展資料，包括在 F 及 G 用地中的環保排污系統的詳細建造資料及費用，而不是只向馬鞍山村村民或沙田區的市民作出咨詢。

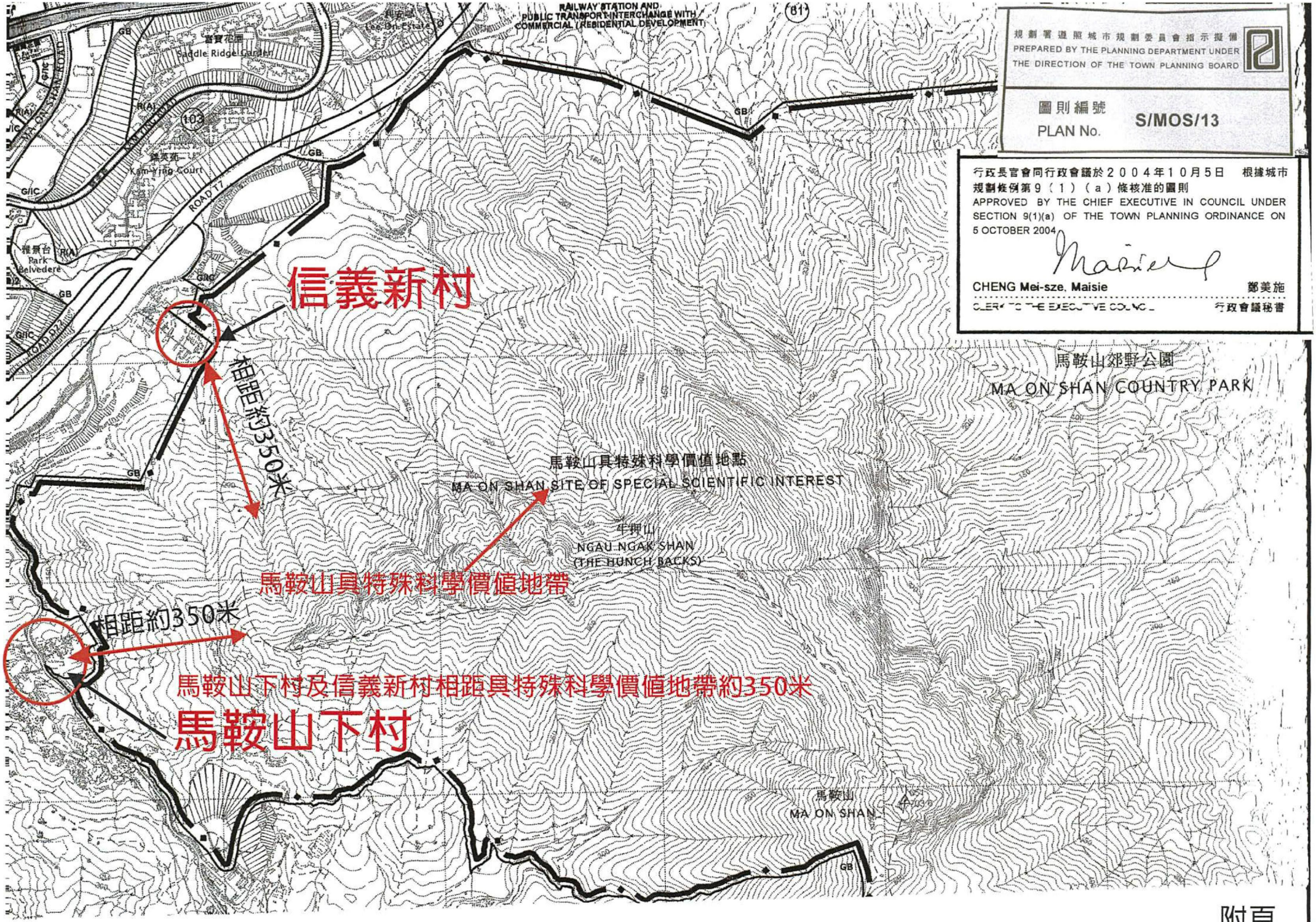
最後，由於 F 及 G 對馬鞍山【特殊地】及環保排污系統及各種昂貴的費用所負出的代價，是否應考慮將 F 及 G 的發展項目移往其它地區？當然政府會提出其它地區也會遇到很大的壓力，正是因為這樣，政府就應公佈詳細資料向全港市民公開咨詢，這才能有效地得到市民廣泛的支持。

馬鞍山村村民聯署如下；

何建伟
王平發
高文龍
林長運
林曼君
王偉傑
王美玲
林振峰
何浩勳
何楚家
何楚庭
林長到
文瑞琨
林景瀛
高少波
高培材

高文傑
黃志良
王美芳
劉娟
王狄詩
洪香貞
蔡慧儀
楊映山
吳遲卿
林建波
林蟬貞
林健明
林長才
王少傑

林楚娥
楊基強
楊昭安
楊喻喬
林志明
李子濠
黃明雄
龐基妹
李俊益



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/MOS/13

行政長官會同行政會議於２００４年１０月５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 5 OCTOBER 2004

CHENG Mei-sze, Maisie 鄭美施
CLERK TO THE EXECUTIVE COUNCIL 行政會議秘書

附頁

敬啟者：

《馬鞍山分區計劃大綱核准圖編號S/MOS/22》之公眾意見

於2020年7月13日上午10時，我們馬鞍山村代表與沙田區議員容溟舟、沙田規劃專員及土木工程拓展署人員會面，就標題事宜作出討論。於會上，我們對《馬鞍山分區計劃大綱核准圖編號S/MOS/22》的擬議修訂項目（下稱「S/MOS/22」）有以下意見：

1. S/MOS/22中的G項建議改劃為（住宅(乙類）6），以興建私營房屋。本港的住屋需求殷切，村民理解政府覓地發展公共房屋；但私營房屋對於減輕基層的住屋壓力並無幫助，而且相關發展對現有馬鞍山村寮屋區及對礦工後裔的聚居地及礦場文化做成不可逆轉的破壞。因此，我們反對改劃G項興建私營房屋。

2. S/MOS/22中的D項建議改劃為(住宅(甲類）11)及E項建議改劃為(政府、機構或社區用地)興建一所30間課室的小學位處馬鞍山村路(舊稱良友路)下段入口，而馬鞍山村路是山上眾多村民進出的唯一通道。馬鞍山村路過往多次因颱風襲港，導致山泥傾瀉及大量塌樹而被阻塞。我們擔心上述地區發展後帶來額外人流，工程期間不但可能會造成阻礙，項目落成後新增7,560人口及約1,000師生。一旦發生意外、村民需要緊急援助或遇惡劣天氣，有可能令村民被困，危及我們的性命安全。故此，我們認為D項並不適合作為公營房屋的用途和E項並不適合作小學用途。

3. S/MOS/22中的F項建議改劃為(政府、機構或社區用地）興建一所貯水設施，如D、E及G項不作發展，F項便無須改劃。

4. 馬鞍山區對外交通已飽和，不少市民皆反映上下午繁忙時間，馬鞍山路、亞公角街及石門迴旋處，以至沙田區多條對外隧道交通擠塞情況嚴重。未來更有馬鞍山路及西貢樟木頭和十四鄉的發展項目，人口增長而衍生的車流定必令馬鞍山區的對外交通百上加斤。在未有完善交通規劃

以應付增長人口前，我們不同意S/MOS/22房屋發展。

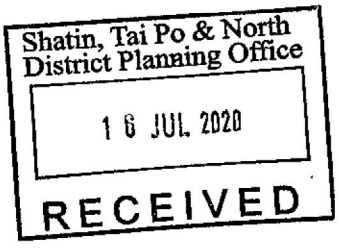
祝工作愉快！

此致

規劃署沙田、大埔及北區規劃專員——朱霞芬女士



二零二零年七月十五日



臨時動議：

大埔區議會規劃、房屋及工程委員會強烈反對“馬鞍山區可供房屋發展用地的地盤平整和基礎設施工程—可行性研究”及《馬鞍山分區計劃大綱核准圖編號S/MOS/22》擬議修訂項目內的 A 項及 B1 項。

動議人：李耀斌議員

和議人：譚爾培議員

致 土拓署、規劃署：

就著馬鞍山分區計劃大綱核准圖編號 S/MOS/22，我們於網上設問卷及開設街站諮詢樟木頭附近居民的意見，截於 2020 年 7 月 14 日，我們共收到 214 則回覆。當中有 94.4%受訪者反對、4.7%受訪者贊成、0.9%受訪者沒有意見、0.5%受訪者有其他意見。

整理問卷後，受訪者主要反對的原因以下：

1. 交通：交通配套不足，上班時間交通擠塞是非常嚴重的。將來亦會有私營房屋坐落於十四鄉，人口增長近 4 萬人口左右，車流量亦會增加。
2. 綠化地：破壞馬鞍山郊野公園綠化地， 破壞大自然， 令居民生活 及健康質素受到影響
3. 環境與景觀：相關計劃涉帝琴灣南面農地和祖墳地，及西面松林兩處綠化帶，還有耀安、錦英對上馬鞍山村的綠化帶，是為又一郊野公園邊陲地帶的發展計劃。此例一開又成往後的慣例。樓高 40 層更嚴重影響馬鞍山的景觀，相關工程亦會為居民帶來不便。根據該研究報告，該等地塊範圍內一共有約 3,560 棵樹木，興建較高密度的房屋，勢必要大量砍伐樹木。

另附居民的 214 個詳細的意見，以及 260 反對的聯署。

本人懇請 貴署安排官員親自到場和居民溝通，聆聽居民意見。現在方案實在難以令人接受，會為區內帶來很大的問題，屆時你們將要為規劃不善負責。

敬祝
鈞安

譚爾培
大埔西貢北區議員
電話：[redacted]

意向問卷回條(馬鞍山分區計劃大綱核准圖編號S/MOS/22)

鑒於規劃處申請改劃用地，打算在樟木頭及馬鞍山興建新公共屋邨(馬鞍山分區計劃大綱核准圖編號S/MOS/22)，該方案提議於樟木頭以東及以西之綠化地帶發展公營房屋，單位合共約3480個，預計人口約9750人。譚爾培區議員辦事處希望藉著此問卷收集居民的意見。

就上述方案，你的意見是: *

- (●) 贊成
- ( ) 反對
- ( ) 沒有意見

贊成或反對的原因/意見:

提供足夠房屋給市民

所居住的村 *

凱弦居

Google 並未認可或建立這項內容。

Google 表單



意向問卷回條

鑒於規劃處申請改劃用地，打算在樟木頭及馬鞍山興建新公共屋邨

(馬鞍山分區計劃大綱核准圖編號 S/MOS/22)，本人的意見如下為：

- ☐ 贊成
- ☑ 反對
- ☐ 沒有意見

原因/意見

欠缺完善交通配套，很失望

個人資料

姓名: _____ (村: _____)

簽署: [signature]

日期: 6.7.2020

本人為西貢北/馬鞍山居民，強烈反對政府於馬鞍山及樟木頭興建公營房屋(馬鞍山分區計劃大綱核准圖編號S/MOS/22)，此計劃會為馬鞍山及西貢北帶來非常嚴重的影響。本人同意以下簽名聯署送到政府，以表達反對意見。

Yuen Sok Kwan	[illegible]	Matthew
Lee Kit Fai	[illegible]	Thomas Law
~~Rocky~~	麥雯芳	Jessie
King	[illegible]	K. S. ~~[illegible]~~
Diana Ho	Tiffany Ng	Woo [illegible]
Grace Leung	SEAN	[illegible]
[illegible]	Chloe	芳
Hung Wai Lau	[illegible]	

Total: 260 signatures

<<馬鞍山分區計劃大綱核准圖編號 S/MOS/22>>的擬議修訂項目

敬啟者: 就有關<<馬鞍山分區計劃大綱核准圖編號 S/MOS/22>>的擬議修訂項目，帝琴灣凱琴居業戶作出強烈反對。現將上述修訂項目對本區造成的影響/危害/毀滅自然生態環境等情況，簡略列舉以示不滿:

1) 圖<一>擬興建四座公屋，樓高約 40-50 層高，每座長度直徑 60 米 x4 座，將來有 2 個 120 米長 x165 米高屏障，會出現以下危害:
   a)阻擋空氣流通
   b)阻擋太陽光線
   c)阻擋山脊視線
   d)原本綠化地帶消失
   e)建議中興建大廈共有 3,480 單位，可居住人口共 9,750 人，估計最少有 10,440 部冷氣機，每天碳排放量，將嚴重危害本區市民/生態環境，造成不可逆轉的長期污染。

2) 圖<一> 及圖 <二>原本有 3,560 棵天然大樹將被砍伐，祖墳要被逼遷。

3) 天然利益: 依專家計算，每棵超過 50 年的大樹總排放氧氣可給人類帶來價值 30 萬美元，故 3,560 棵樹木，總計損失價值 10 億 6 千 8 百萬美元，還未計算可永遠持續增值，這是上天給人類的無價之寶。政府盲目規劃，竟將無價天然環境毀滅，簡直匪夷所思。

4) 圖<三>年豐路只有雙線單行車路，現有車輛流量已經飽和，圖<一>加建停車場將可泊 400 車輛，若加上屋苑物流大型貨車 / 校巴 / 公共巴士等的增加，超額的車輛流量會令年豐路根本不能負荷，導致凱琴居閘口出車/行人/學童橫過年豐路時構成極度擠塞與危險，變相在年豐路埋下計時炸彈。年豐路及西沙路每星期均發生數宗車禍，附相片 1-3 參照。改劃後，惡劣的交通情況更不可預計，大量的人口遷入西貢北，勢必加劇馬鞍山區現時早晚繁忙時間對外交通的堵塞情況與及加重對馬鐵的負擔。

5) 圖<四>整個樟木頭及現有馬鞍山郊野公園一帶，屬緩衝的綠化地帶，一向都受保護，日後圖<一>及圖<二>綠化地帶被毀滅，換來石矢森林，危機隱藏:
   - 居民生活將被長期壓迫
   - 原有馬鞍山天然緩衝的樹林被毀滅
   - 建設時耗動地層，破壞地下水，有機會形成山泥傾瀉/山洪爆發，從而引發泥石流，對樟木頭村/帝琴灣二邨/峻源/銀湖天峰/烏溪沙馬鐵/迎海居民而言，都埋下了計時炸彈

6) 圖<五>凱琴居第 1 至 3 座首當其衝，受到圖<一>及圖<二>影響。危害包括:
   a) 原本綠化地帶消失
   b) 換來 120 米長 x165 米高石矢屏風一幅
   c) 阻擋空氣/太陽光線/山脊視線/噪音滋擾

7) 圖<六>為現在照片，顯示全部是綠化地帶，馬鞍山郊野邊陲天然森林地帶裡藏罕有動物棲息，包括: 赤麝/蟒蛇/松鼠/珍貴鵲鳥/蝴蝶等等。當大片樹林遭砍伐後，危害繼而出現，當中的寶貴資源被毀滅，含氧量大減、碳排放大增，嚴重損害市民健康。

8) 翻查資料，帝琴灣整區屬低密度發展「住宅」(丙類)(在法定大綱圖劃為丙類)，凱琴居發展地積比(樓面面積與地皮面積的倍數)是 3 倍 ；凱弦居是 1.5 倍 ；而擬建公屋將會是 6.8 倍，此發展會嚴重破壞原有規劃的低密度環境，也即時摧毀居民選擇入住西貢北的原意。

綜觀 S/MOS/22 的擬議修訂項目，由圖<一>至圖<六>明顯很不協調，人口分佈更加不和諧。

a) 樟木頭祖先非常有智慧在建立圍村時已遠離馬鞍山腳之綠化緩衝地帶，以避免耗動馬鞍山根基。
b) 整個帝琴灣南北邨亦是低密度設計，幾十年來，這小區保持協調與和諧生活。
c) 本區居民已經習慣和諧寧靜的生活環境。
d) 當新規劃展開後，將令本區美麗環境永久消失，對居民所帶來之精神傷害不容否認。
e) 整項工程由展開到完工需時 6-8 年，本區居民每天都擔驚受怕，因為"危機處處"。
f) 整個樟木頭村/帝琴灣凱琴居屋苑將被四個大屏風包圍住，即時打破現有和諧的社區生活。
g) 規劃官員為了"跑數"急就章，明顯沒有深思熟慮，盲目規劃，毀滅大量天然珍貴價值，以為簡單地可解決市民的居住問題，然而弊大於利，極不對稱，更製造大量社會矛盾，與特首所提倡的和諧論背道而馳。

總結而言，此項錯誤規劃造成不可逆轉的環境破壞，導致社區不和諧，居民精神健康受損，官員怎樣補償給市民? 若強行通過改劃，居民將產生大量怨氣，對政府極度不滿，結果兩敗俱傷。因此，本屋苑堅決反對通過此項修訂計劃，也促請政府停止與民為敵，並誠意邀請貴 署及相關部門於一個月內到帝琴灣一行，向業戶交代改劃詳情以紓解居民的疑慮。隨信附上本苑業戶反對改劃綠化地帶的問卷調查報告及居民的聯署簽名報告供查閱。感謝垂注。

此致

大埔區議會主席

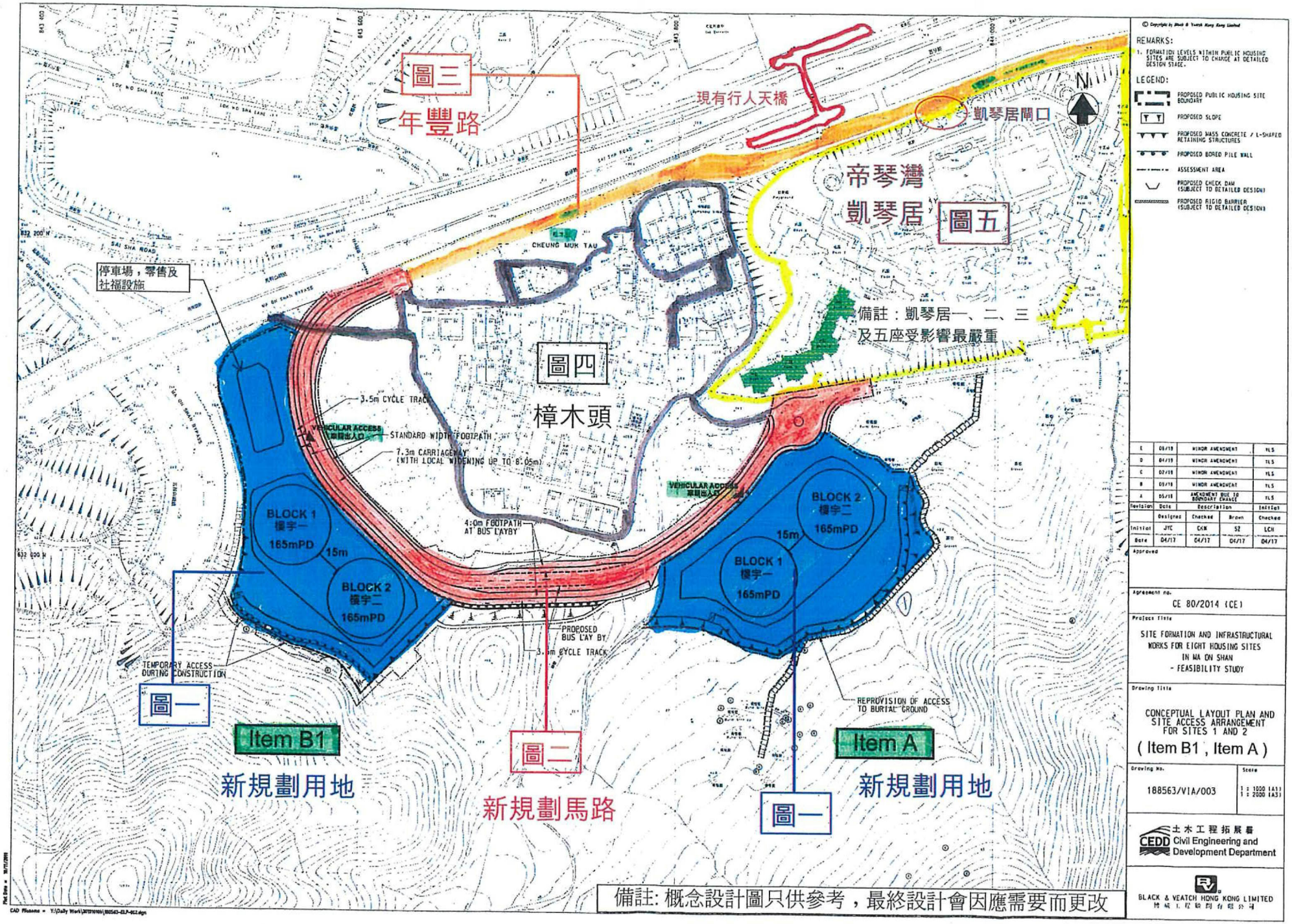
凱琴居業主立案法團
第六屆管理委員會主席

林亞隆先生謹啟

2020 年 7 月 11 日

副本送:

1. 規劃署署長 ←
2. 城規會主席
3. 土木工程拓展署署長
4. 西貢北約鄉事委員會主席
5. 西貢北區議員譚爾培先生
6. 地區顧問李華光先生


圖三
年豐路
現有行人天橋
凱琴居閘口
帝琴灣
凱琴居
圖五
停車場，零售及社福設施
備註：凱琴居一、二、三及五座受影響最嚴重
圖四
樟木頭
CHEUNG MUK TAU
SAI SHA ROAD
3.5m CYCLE TRACK
VEHICULAR ACCESS
車輛出入口
STANDARD WIDTH FOOTPATH
7.3m CARRIAGEWAY
(WITH LOCAL WIDENING UP TO 8.05m)
4.0m FOOTPATH
AT BUS LAYBY
BLOCK 1
樓宇一
165mPD
15m
BLOCK 2
樓宇二
165mPD
PROPOSED
BUS LAY BY
3.5m CYCLE TRACK
TEMPORARY ACCESS
DURING CONSTRUCTION
REPROVISION OF ACCESS
TO BURIAL GROUND
圖一
Item B1
新規劃用地
圖二
新規劃馬路
Item A
新規劃用地
圖一
備註: 概念設計圖只供參考，最終設計會因應需要而更改
REMARKS:
1. FORMATION LEVELS WITHIN PUBLIC HOUSING SITES ARE SUBJECT TO CHANGE AT DETAILED DESIGN STAGE.
LEGEND:
PROPOSED PUBLIC HOUSING SITE BOUNDARY
PROPOSED SLOPE
PROPOSED MASS CONCRETE / L-SHAPED RETAINING STRUCTURES
PROPOSED BORED PILE WALL
ASSESSMENT AREA
PROPOSED CHECK DAM (SUBJECT TO DETAILED DESIGN)
PROPOSED RIGID BARRIER (SUBJECT TO DETAILED DESIGN)
Agreement no.
CE 80/2014 (CE)
Project Title
SITE FORMATION AND INFRASTRUCTURAL WORKS FOR EIGHT HOUSING SITES IN WA ON SHAN - FEASIBILITY STUDY
Drawing Title
CONCEPTUAL LAYOUT PLAN AND SITE ACCESS ARRANGEMENT FOR SITES 1 AND 2
(Item B1 , Item A)
Drawing no.
188563/VIA/003
Scale
1 : 1000 (A1)
1 : 2000 (A3)
土木工程拓展署
CEDD Civil Engineering and Development Department
BLACK & VEATCH HONG KONG LIMITED


圖一
(原貌)


45-50層，
樓高約165米
圖一
(規劃後)


圖二
(原貌)


圖二
(規劃後)


圖三
(原貌)


圖三
(規劃後)


圖四
(原貌)


圖四
(規劃後)

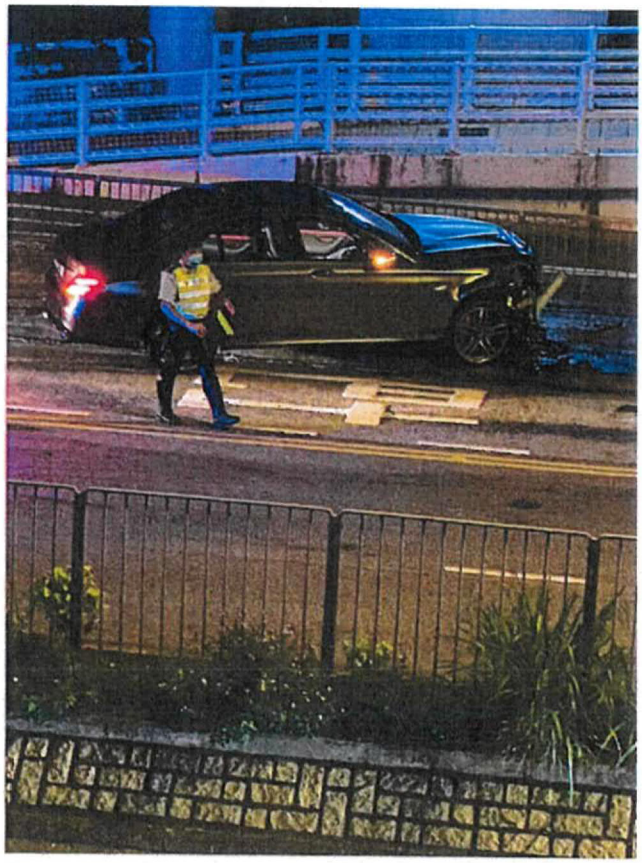

圖五
(原貌)

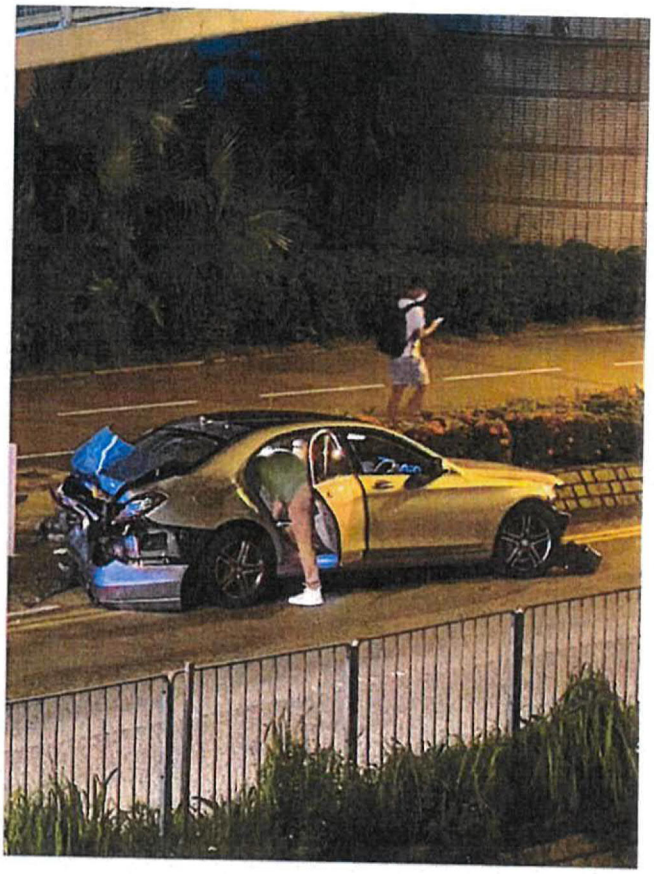

圖五
(規劃後)


圖六
(原貌)


45-50層，
樓高約165米
四層高商場
/停車場
圖六
(規劃後)







帝琴灣　凱弦居　業主立案法團

THE INCORPORATED OWNERS OF VILLA CONCERTO, SYMPHONY BAY

香港北角
渣華道 333 號
北角政府合署 17 樓
規劃署署長
李啟榮先生，太平紳士

6-20 1/1/1

有關: 關注馬鞍山區可供房屋發展用地

本苑法團十分關注　貴署於二零二零年六月二十三日發出的簡介文件，就馬鞍山區可供房屋發展用地可行性研究上提出建議方案 ： 於樟木頭以東及樟木頭以西之綠化地帶發展公營房屋，單位合共約 3,480 個，預計人口增加超過一萬人。

本苑法團一直支持政府積極尋找合適土地，以興建更多公營房屋解決民生所需，然而我們認為建議中的選址並不合適興建公營房屋，主要原因如下:

一) 建議方案勢必令本區之交通構成重大負荷，西沙路和年豐路及年華路的擴闊工程嚴重影響本苑區民出入 ；
二) 日後新增的巴士路線進一步加重本苑及鄰近地區的交通負荷 ；
三) 動工的 5 至 6 年期間對本苑及鄰近地區造成環境影響，塵土飛揚影響居民健康。

經本苑綜合上述考慮對　貴署的建議方案有所保留，希望政府能夠審慎考慮發展方向，未來繼續與本苑住戶加強溝通。

如有任何查詢，請致電本苑服務處 2633 1380 與物業經理吳先生聯絡。

帝琴灣凱弦居業主立案法團第八屆管理委員會主席

伍占美

二零二零年七月十三日

副本抄送: 大埔民政事務專員陳巧敏 女士, JP
大埔區議會主席關永業 先生
大埔區議會議員譚爾培區 議員
帝琴灣凱琴居業主立案法團主席林亞龍 先生
帝琴灣凱弦居業主立案法團第八屆管理委員會委員

啟勝管理服務有限公司
KAI SHING MANAGEMENT SERVICES LIMITED

Our Ref : VR-L157-20

敬啟者：

有關: <<馬鞍山分區計劃大綱核准圖編號 S/MOS/22>>的擬議修訂項目

服務處為了解凱琴居業戶就上述項目的意向，於六月底以一戶一問卷形式徵詢本苑所有業戶的意見，共收回 243 份問卷，當中 236 份(佔 97%)表示反對，而贊成及無意見的分別只有 3 份(佔 1%)及 4 份(佔 2%)，問卷結果顯示絕大部份本苑居民對上述項目極為不滿，他們的意見大致歸納如下:

1. 破壞綠化及周邊自然生態環境，有違原先土地用途的方向；
2. 生活配套不足以應付增加之人口，尤其交通配套方面；
3. 其他如治安轉差、遮擋景觀及破壞風水等問題。

有見及此，本苑法團已就反對上述項目共取得 785 名居民的簽名。服務處現將本函及有關問卷及居民聯署簽名交 貴署以表達本苑居民的意見及立場，促請 貴署聽取民意，保護綠化地帶，盡快取消此項修訂計劃。敬希垂注。

如對上述事宜有任何查詢，歡迎致電 2630 8300 與本人聯絡。

此致
規劃署署長

凱琴居服務處
物業及設施經理
黃英傑 謹啟

2020 年 7 月 13 日
副本送:
城規會主席
土木工程拓展署署長
大埔區議會主席
西貢北約鄉事委員會主席
西貢北區議員譚爾培先生
地區顧問李華光先生

DATE 11/7/2020

馬鞍山區可供房屋發展用地可行性研究問卷

	贊成	反對	無意見
T1		13	
T2		10	1
T3		12	
T5		16	
T6	1	15	
T7		10	
T8		11	1
T9	1	9	
T10		26	1
T11		23	
T12		10	
T13		11	
T15		6	
T16	1	27	
T17		22	
T18		15	1
	3	236	4

	贊成	反對	無意見
百分比	1%	97%	2%

總數	243



帝琴灣居民聯署簽名

表格數量	簽名總數
47	785

DATE: 11-7-2020

VILLA RHAPSODY MANAGEMENT SERVICES LIMITED 凱琴居服務處

凱琴居業主立案法團

本人為西貢帝琴灣凱琴居居民，強烈反對政府於馬鞍山及樟木頭興建公營房屋（馬鞍山分區計劃大綱核准圖編號S/MOS/22），此計劃會為馬鞍山及西貢北帶來非常嚴重的影響。本人同意以下簽名聯署送到政府，以表達反對意見。



Total: 785 signatures

政府總部
發展局
規劃地政科

香港添馬添美道二號
政府總部西翼十七樓

Planning and Lands Branch
Development Bureau
Government Secretariat

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來函檔號 Your Ref.

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沙田民政事務處
沙田區議會秘書處
(經辦人：袁俊傑先生)

容溟舟議員動議
反對在現有基建設施未有改善前，
將馬鞍山八個可供房屋發展用地改劃作住宅用途

就容溟舟議員於今年 7 月 3 日沙田區議會發展及房屋委員會(發房會)會議上提出並獲得通過的動議，經徵詢相關部門後，本局現回應如下：

政府一直以多管齊下的方式增加土地供應，以應付本港房屋及其他發展需要。香港土地資源有限，要在較短時間內增加和加快房屋土地的供應，政府必須盡量善用現有市區和新市鎮的已建設土地和周邊鄰近基建設施的地帶。就此，透過各項土地用途檢討工作，政府在全港物色到超過 210 幅短中期房屋用地，當中包括建議把位於馬鞍山的 4 幅用地改劃作公營和私營房屋發展。

在 2020 年 6 月 30 日及 7 月 3 日的沙田區議會發房會會議上，規劃署、土木工程拓展署、運輸署及房屋署代表向議員介紹擬議在

馬鞍山 4 幅土地作房屋發展和 3 幅土地作政府、機構或社區用途以支援這些房屋發展的計劃，並聆聽議員的意見。我們理解議員及地區人士對擬議房屋發展的關注。一如以往，在提出有關發展建議前，政府會進行研究和詳細考慮發展會帶來的影響，以評估及確立在馬鞍山「綠化地帶」用地發展房屋的可行性。就當中擬作公營/私營房屋及支援配套發展的 7 幅用地，土木工程拓展署已於 2020 年年中完成可行性研究(下稱「研究」)，經考慮包括交通、基建、環境、景觀、視覺和空氣流通等方面的潛在影響，預期這 7 幅土地用作房屋及政府、機構或社區發展沒有無法克服的技術問題。

交通影響

我們理解地區人士對交通負荷及配套方面的關注。土木工程拓展署進行的研究已就擬議發展進行初步交通及運輸影響評估，包括考慮將來馬鞍山區內主要相關路段的行車情況。評估範圍已包括大老山公路、亞公角街、吐露港公路、馬鞍山繞道及西沙路等主要進出馬鞍山的道路及交匯處。按研究建議，政府會於數個主要進出馬鞍山的道路及路口進行改善工程，當中主要包括：

(i) 將澤祥街/科學園道的迴旋處，改為交通燈控制路口;
(ii) 優化於西沙路/錦英路路口之燈號控制;
(iii) 於西沙路/年華路/年豐路迴旋處，擴闊西沙路西行車道及年豐路行車道的一段行車路;
(iv) 於馬鞍山村路/馬鞍山路/恆康街迴旋處，擴闊迴旋處出口處至馬鞍山村路的一段行車路;和
(v) 於亞公角漁民新村對出的一段大老山公路南行線，由三線行車擴闊至四線行車。

研究結果顯示，以上緩解措施落實後，除 T6 跨海橋仍於繁忙時段會出現車龍外，擬議房屋發展項目不會帶來不可接受的交通影響。

現時政府亦正進行一系列的交通改善措施，以紓緩沙田及新界東北來往市區的交通擠塞情況，包括正進行的大埔公路(沙田段)擴闊工程，將介乎沙田廣場至民和樓之間的路段由雙程雙線分隔行

車道擴闊至雙程三線分隔行車道。當工程完成後，大埔公路(沙田段)以至沙田區內道路的交通情況將得以改善。有關工程已於 2018 年 7 月展開，預計在 2023 年完成。另外，土木工程拓展署正就興建 T4 號主幹路進行勘查研究。T4 號主幹路將會提供一條雙程雙線分隔行車道，連接沙田路及城門隧道公路／青沙公路，使車輛可直接往來馬鞍山及荃灣／西九龍，而不需要經過沙田區內的道路，以進一步改善區內交通。有關研究預計將於 2021 年初完成。此外，勘查研究亦將審視及建議改善石門交匯處以及沙田區內其他相關路口，建議興建由亞公角街往大老山公路的專用道路，減少因馬鞍山車輛須經石門交匯處往大老山公路所造成的交通擠塞。隨後，土木工程拓展署會為工程項目進行相關的法定程序及設計工作，並於完成上述工作後，就項目向立法會申請撥款。

就議員對擬建小學對外交通連接的關注，根據《香港規劃標準與準則》，學校範圍內將設置最少 10 個停車處(包括最少 3 個校巴停車處)及最少 6 個汽車停泊位。為了加強交通配套以滿足學校以至毗鄰擬議公營房屋的一般上落客需求，研究建議將馬鞍山村路擴闊及提升至一條包括闊 7.3 米兩線行車道和闊 2 至 2.75 米行人路的道路。該道路下段將預留長度約 56 米的巴士站以容納四輛巴士停泊，一個長度約 16 米的小巴站以容納兩部 19 座專線小巴停泊，以及一個長度約 25 米之的士站及長度約 50 米的停車灣。另外，擴闊後的馬鞍山村路上段亦會預留長度約 40 米的停車灣，以容納巴士或專線小巴等公共運輸服務照顧居民出行需要。

<u>文物保育影響</u>

根據研究，馬鞍山村路一帶現存有一些與礦場相關的已評級歷史建築，當中並無法定古蹟。我們會致力保護有關歷史建築免受擬議發展影響。根據目前的初步設計，由於擬議房屋發展用地與大部分文物建築(包括信義新村及選礦廠的構築物等)保持一定距離，所以該等歷史建築物並不受影響；只有選礦廠旁的其中一條支柱(現評爲三級歷史建築)可能會受到馬鞍山村路擴闊工程的走線所影響。古物古蹟辦事處認為現階段擬議房屋發展及相關基礎設施的初步設計可以接受，並要求土木工程拓展署在稍後的調查及詳細設計階段，進行有關的文物影響評估，並在施工期間配合緩解和監察措

施，以確保減低對歷史建築物的影響。

環境和生態影響

是次擬議房屋發展用地位於當區「綠化地帶」的邊緣，並臨近已發展區域及現有道路，而用地內並沒有發現具重要保育價值的棲息地，也沒有具重要生態價值的河流，範圍內沒有發現古樹名冊內的樹木。事實上，擬議發展及相關工程均位於馬鞍山郊野公園範圍以外。技術評估顯示大部份現有生態環境可透過實施緩解措施減低影響，緩解措施包括林地補償/改善。根據顧問的建議，將按 1:1 林地補償/改善，例如於馬鞍山村路的發展用地，預計會在發展範圍內約 1 公頃的人工斜坡種植林地，餘下 0.8 公頃預計在鄰近地貌的山林地方作林地種植，整體而言不會對生態構成明顯影響。

總結

要提供足夠土地達到十年建屋目標，是政府和社會需要共同面對的一項艱鉅挑戰。在過程中非常重要的一環，便是要取得區議會、地區及居民的支持和體諒，而整個社會亦有必要作出艱難的選擇和取捨。面對香港市民迫切的住屋需要，特別是一眾正輪候公屋、住屋環境亟待改善的基層市民，政府十分希望上述房屋發展建議能獲得區議員的支持。

下一步

在本年 6 月及 7 月期間，政府團隊已分別向沙田區議會、大埔區議會及西貢北約鄉事委員會匯報研究結果及就《馬鞍山分區計劃大綱圖》(下稱「大綱圖」)的擬議修訂項目進行諮詢，並聆聽議員的意見。為推展有關房屋發展，政府須根據《城市規劃條例》(下稱《條例》)改劃土地用途。規劃署將於 2020 年 8 月 21 日就有關擬議房屋發展的大綱圖修訂項目，連同區議會、鄉事委員會以及政府部門的意見，一併提交城市規劃委員會(下稱「城規會」)轄下鄉郊及新市鎮規劃小組委員會(以下簡稱「小組委員會」)考慮。如小組委員會同意有關擬議修訂項目，城規會將根據《條例》第 5 條展示圖則及諮詢公眾，為期兩個月。屆時，各議員及公眾人士可對修

訂項目作出申述和提出意見。按現時《條例》訂明，申述人和提意見人將獲邀出席城規會會議，直接向城規會委員作口頭陳述和表達意見。我們亦會繼續聆聽議員及居民的意見，務求在善用土地資源和增加房屋供應的同時，能釋除地區對交通、文物及生態保育等方面的疑慮。

感謝各議員對馬鞍山區發展所提出的寶貴意見及關注。

發展局局長

（雷裕文 雷裕文 代行）

2020 年 8 月 17 日

副本送：

土木工程拓展署	（經辦人：胡泰安先生）
規劃署沙田、大埔及北區規劃處	（經辦人：朱霞芬女士）
運輸署	（經辦人：倪曉勤先生）
房屋署	（經辦人：王以琳女士）
沙田民政事務處	（經辦人：黃添培先生）

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規劃地政科

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大埔區議會秘書處
(經辦人：李裕修先生)

李耀斌議員臨時動議
大埔區議會規劃、房屋及工程委員會強烈反對
"馬鞍山區可供房屋發展用地的地盤平整和基礎設施工程
– 可行性研究"及《馬鞍山分區計劃大綱核准圖
編號 S/MOS/22》擬議修訂項目內的 A 項及 B1 項

就李耀斌議員於今年 7 月 14 日大埔區議會規劃、房屋及工程委員會會議上提出並獲得通過的臨時動議，經徵詢相關部門後，本局現回應如下：

政府一直以多管齊下的方式增加土地供應，以應付本港房屋及其他發展需要。香港土地資源有限，要在較短時間內增加和加快房屋土地的供應，政府必須盡量善用現有市區和新市鎮的已建設土地和周邊鄰近基建設施的地帶。就此，透過各項土地用途檢討工作，政府在全港物色到超過 210 幅短中期房屋用地，當中包括建議把位於馬鞍山的 4 幅用地改劃作公營和私營房屋發展。

在 2020 年 7 月 14 日的規劃、房屋及工程委員會會議上，規劃署、土木工程拓展署、運輸署及房屋署代表向議員介紹擬議在馬鞍山 4 幅土地作房屋發展和 3 幅土地作政府、機構或社區用途以支援這些房屋發展的計劃，並聆聽議員的意見。我們理解議員及地區人士對擬議房屋發展的關注。一如以往，在提出有關發展建議前，政府會進行研究和詳細考慮發展會帶來的影響，以評估及確立在馬鞍山「綠化地帶」用地發展房屋的可行性。就當中擬作公營/私營房屋及支援配套發展的 7 幅用地，土木工程拓展署已於 2020 年年中完成可行性研究(下稱「研究」)，經考慮包括交通、基建、環境、景觀、視覺和空氣流通等方面的潛在影響，預期這 7 幅土地用作房屋及政府、機構或社區發展沒有無法克服的技術問題。

交通影響

我們理解地區人士對交通負荷及配套方面的關注。土木工程拓展署進行的研究已就擬議發展進行初步交通及運輸影響評估，包括考慮將來馬鞍山區內主要相關路段的行車情況。評估範圍已包括大老山公路、亞公角街、吐露港公路、馬鞍山繞道及西沙路等主要進出馬鞍山的道路及交匯處。按研究建議，政府會於數個主要進出馬鞍山的道路及路口進行改善工程，當中主要包括：

(i) 將澤祥街/科學園道的迴旋處，改為交通燈控制路口;
(ii) 優化於西沙路/錦英路路口之燈號控制;
(iii) 於西沙路/年華路/年豐路迴旋處，擴闊西沙路西行車道及年豐路行車道的一段行車路;
(iv) 於馬鞍山村路/馬鞍山路/恆康街迴旋處，擴闊迴旋處出口處至馬鞍山村路的一段行車路;和
(v) 於亞公角漁民新村對出的一段大老山公路南行線，由三線行車擴闊至四線行車。

研究結果顯示，以上緩解措施落實後，除 T6 跨海橋仍於繁忙時段會出現車龍外，擬議房屋發展項目不會帶來不可接受的交通影響。

現時政府亦正進行一系列的交通改善措施，以紓緩沙田及新界東北來往市區的交通擠塞情況，包括正進行的大埔公路(沙田段)擴闊工程，將介乎沙田廣場至民和樓之間的路段由雙程雙線分隔行車道擴闊至雙程三線分隔行車道。當工程完成後，大埔公路(沙田段)以至沙田區內道路的交通情況將得以改善。有關工程已於 2018 年 7 月展開，預計在 2023 年完成。另外，土木工程拓展署正就興建 T4 號主幹路進行勘查研究。T4 號主幹路將會提供一條雙程雙線分隔行車道，連接沙田路及城門隧道公路／青沙公路，使車輛可直接往來馬鞍山及荃灣／西九龍，而不需要經過沙田區內的道路，以進一步改善區內交通。有關研究預計將於 2021 年初完成。此外，勘查研究亦將審視及建議改善石門交匯處以及沙田區內其他相關路口，建議興建由亞公角街往大老山公路的專用道路，減少因馬鞍山車輛須經石門交匯處往大老山公路所造成的交通擠塞。隨後，土木工程拓展署會為工程項目進行相關的法定程序及設計工作，並於完成上述工作後，就項目向立法會申請撥款。

環境和生態影響

是次擬議房屋發展用地位於當區「綠化地帶」的邊緣，並臨近已發展區域及現有道路，而用地內並沒有發現具重要保育價值的棲息地，也沒有具重要生態價值的河流，範圍內沒有發現古樹名冊內的樹木。事實上，擬議發展及相關工程均位於馬鞍山郊野公園範圍以外。技術評估顯示大部份現有生態環境可透過實施緩解措施減低影響，緩解措施包括林地補償/改善。根據顧問的建議，將按 1:1 林地補償/改善，例如於樟木頭村附近的發展用地，預計會在發展範圍附近約 2.5 公頃鄰近地貌的山林地方作林地種植，整體而言不會對生態構成明顯影響。

總結

要提供足夠土地達到十年建屋目標，是政府和社會需要共同面對的一項艱鉅挑戰。在過程中非常重要的一環，便是要取得區議會、地區及居民的支持和體諒，而整個社會亦有必要作出艱難的選擇和取捨。面對香港市民迫切的住屋需要，特別是一眾正輪候公

屋、住屋環境亟待改善的基層市民，政府十分希望上述房屋發展建議能獲得區議員的支持。

下一步

在本年6月及7月期間，政府團隊已分別向沙田區議會、大埔區議會及西貢北約鄉事委員會匯報研究結果及就《馬鞍山分區計劃大綱圖》(下稱「大綱圖」)的擬議修訂項目進行諮詢，並聆聽議員的意見。為推展有關房屋發展，政府須根據《城市規劃條例》(下稱《條例》)改劃土地用途。規劃署將於2020年8月21日就有關擬議房屋發展的大綱圖修訂項目，連同區議會、鄉事委員會以及政府部門的意見，一併提交城市規劃委員會(下稱「城規會」)轄下鄉郊及新市鎮規劃小組委員會(以下簡稱「小組委員會」)考慮。如小組委員會同意有關擬議修訂項目，城規會將根據《條例》第5條展示圖則及諮詢公眾，為期兩個月。屆時，各議員及公眾人士可對修訂項目作出申述和提出意見。按現時《條例》訂明，申述人和提意見人將獲邀出席城規會會議，直接向城規會委員作口頭陳述和表達意見。我們亦會繼續聆聽議員及居民的意見，務求在善用土地資源和增加房屋供應的同時，能釋除地區對交通、文物及生態保育等方面的疑慮。

感謝各議員對馬鞍山區發展所提出的寶貴意見及關注。

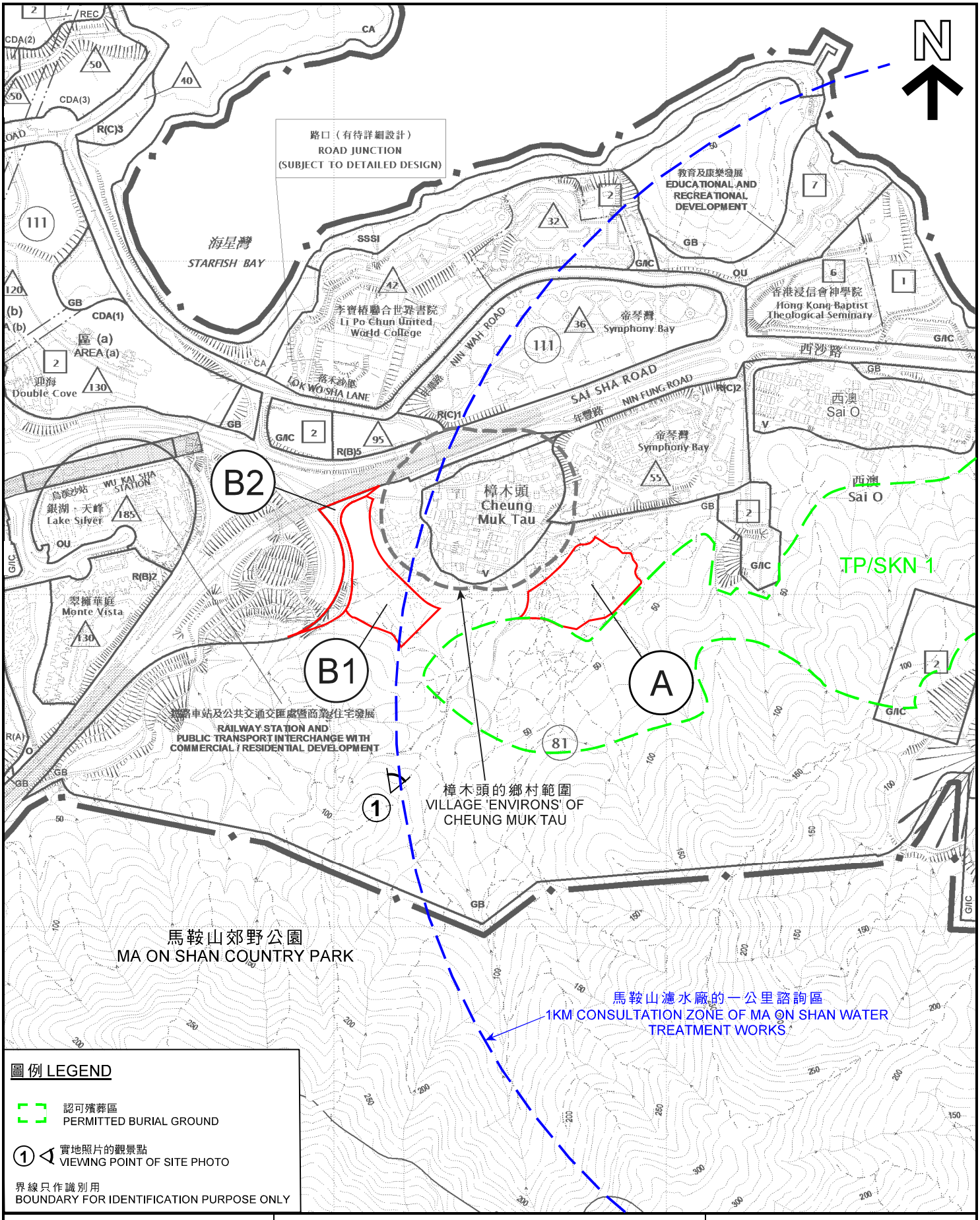
發展局局長

（雷裕文　雷裕文　代行）

2020年8月17日

副本送：

土木工程拓展署	（經辦人：胡泰安先生）
規劃署沙田、大埔及北區規劃處	（經辦人：朱霞芬女士）
運輸署	（經辦人：倪曉勤先生）
房屋署	（經辦人：王以琳女士）
大埔民政事務處	（經辦人：梁穎然女士）



圖例 LEGEND

- 認可殯葬區 PERMITTED BURIAL GROUND
- ① 實地照片的觀景點 VIEWING POINT OF SITE PHOTO
- 界線只作識別用 BOUNDARY FOR IDENTIFICATION PURPOSE ONLY

本摘要圖於2020年7月15日擬備，
所根據的資料為於2016年1月5日
核准的分區計劃大綱圖編號S/MOS/22

EXTRACT PLAN PREPARED ON 15.7.2020
BASED ON OUTLINE ZONING PLAN No.
S/MOS/22 APPROVED ON 5.1.2016

位置圖 LOCATION PLAN

項目A、B1及B2
ITEMS A, B1 & B2

在馬鞍山分區計劃大綱核准圖編號S/MOS/22作出的擬議修訂
PROPOSED AMENDMENTS TO THE APPROVED
MA ON SHAN OUTLINE ZONING PLAN No. S/MOS/22

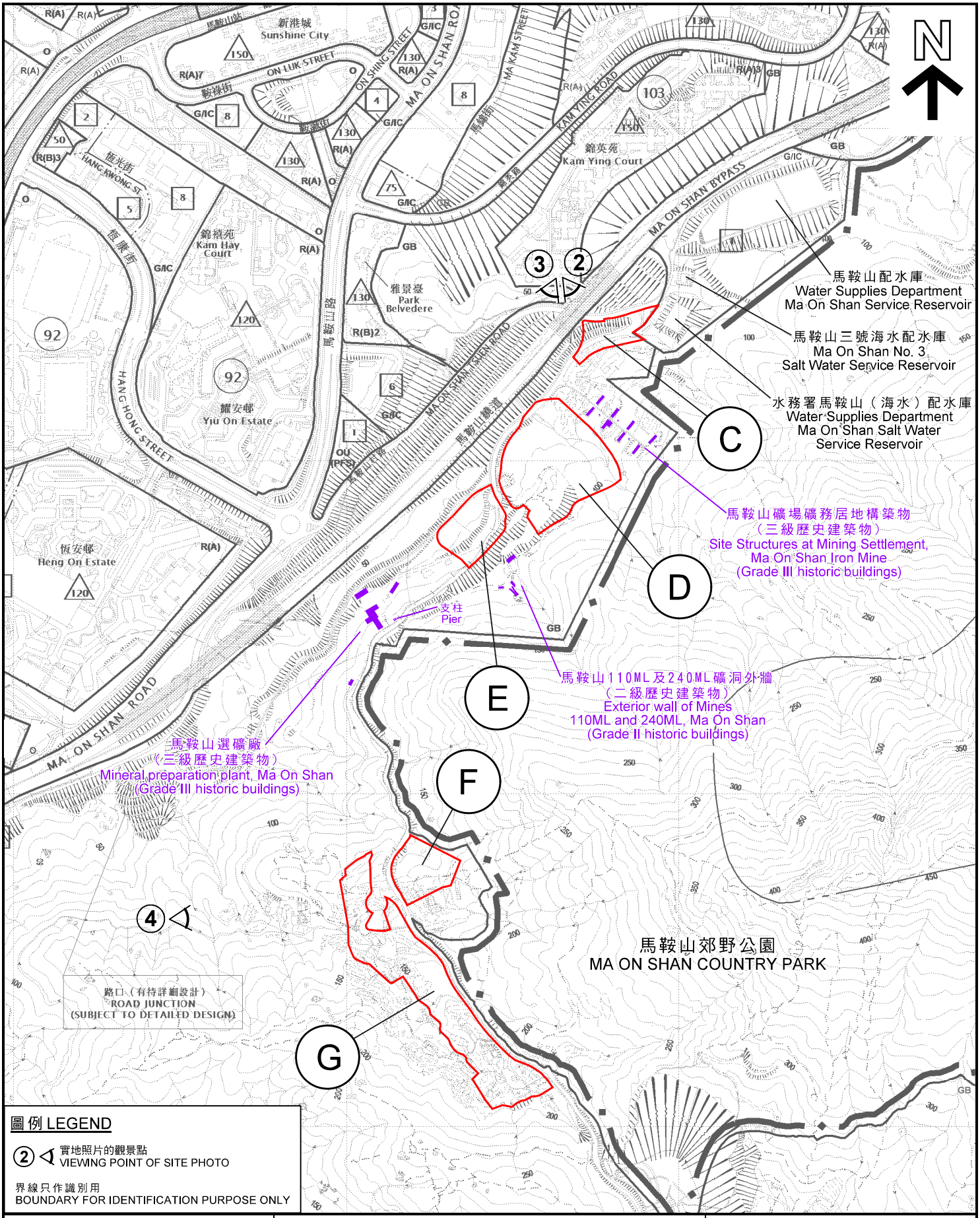
SCALE 1 : 7 500 比例尺

米 METRES 100 0 100 200 300 米 METRES

規劃署
PLANNING
DEPARTMENT

參考編號
REFERENCE No.
M/ST/20/5

圖 PLAN
1a



圖例 LEGEND

② 實地照片的觀景點
VIEWING POINT OF SITE PHOTO

界線只作識別用
BOUNDARY FOR IDENTIFICATION PURPOSE ONLY

本摘要圖於2020年7月21日擬備，
所根據的資料為於2016年1月5日
核准的分區計劃大綱圖編號S/MOS/22

EXTRACT PLAN PREPARED ON 21.7.2020
BASED ON OUTLINE ZONING PLAN No.
S/MOS/22 APPROVED ON 5.1.2016

位置圖 LOCATION PLAN
項目C、D、E、F及G
ITEMS C, D, E, F & G

在馬鞍山分區計劃大綱核准圖編號S/MOS/22作出的擬議修訂
PROPOSED AMENDMENTS TO THE APPROVED
MA ON SHAN OUTLINE ZONING PLAN No. S/MOS/22

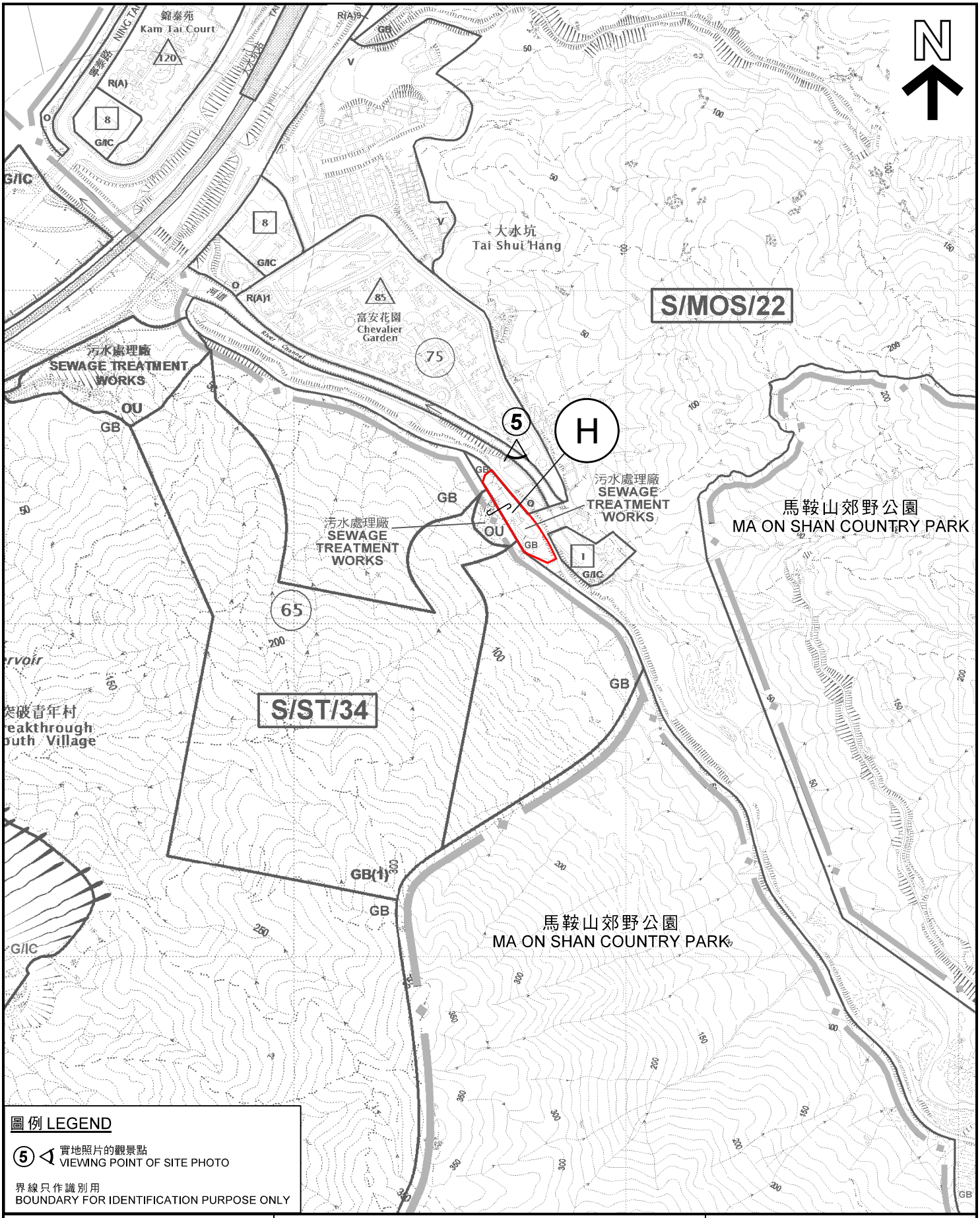
SCALE 1 : 7 500 比例尺

米 METRES 100 0 100 200 300 米 METRES

規劃署
PLANNING DEPARTMENT

參考編號
REFERENCE No.
M/ST/20/5

圖 PLAN
1b



圖例 LEGEND

⑤ 實地照片的觀景點
VIEWING POINT OF SITE PHOTO

界線只作識別用
BOUNDARY FOR IDENTIFICATION PURPOSE ONLY

本摘要圖於2020年7月15日擬備，
所根據的資料為於2016年1月5日
核准的分區計劃大綱圖編號S/MOS/22
及於2018年5月29日
核准的分區計劃大綱圖編號S/ST/34
EXTRACT PLAN PREPARED ON 15.7.2020
BASED ON OUTLINE ZONING PLANS No.
S/MOS/22 APPROVED ON 5.1.2016 AND
S/ST/34 APPROVED ON 29.5.2018

位置圖 LOCATION PLAN
項目H
ITEM H

在馬鞍山分區計劃大綱核准圖編號S/MOS/22作出的擬議修訂
PROPOSED AMENDMENTS TO THE APPROVED
MA ON SHAN OUTLINE ZONING PLAN No. S/MOS/22

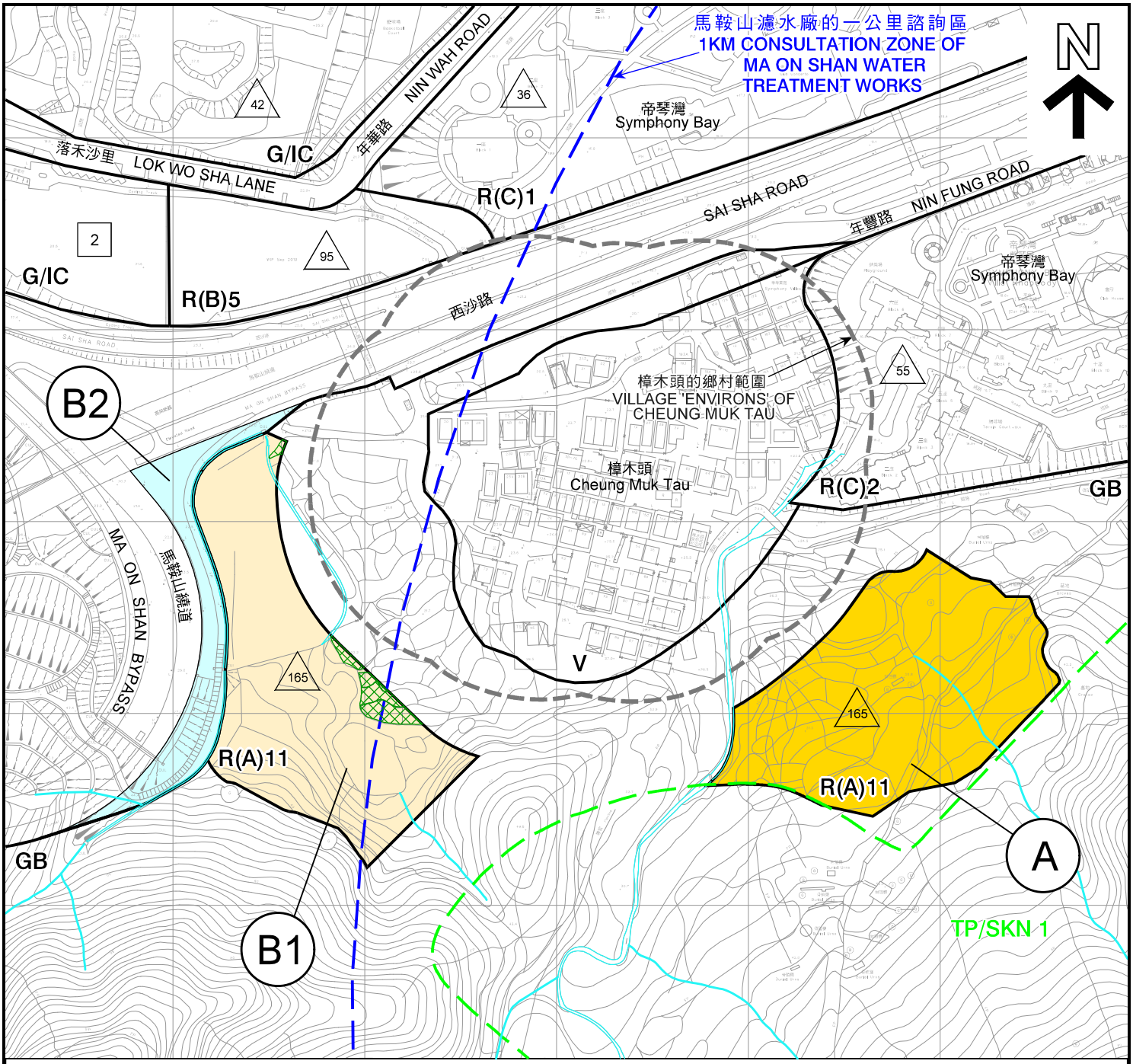
SCALE 1 : 7 500 比例尺

米 METRES 100 0 100 200 300 米 METRES

規劃署
PLANNING DEPARTMENT

參考編號
REFERENCE No.
M/ST/20/5

圖 PLAN
1c



圖例 LEGEND

A	由「綠化地帶」改劃為「住宅（甲類）11」 AREA TO BE REZONED FROM "GREEN BELT" TO "RESIDENTIAL (GROUP A) 11"	B1	由「綠化地帶」改劃為「住宅（甲類）11」 AREA TO BE REZONED FROM "GREEN BELT" TO "RESIDENTIAL (GROUP A) 11"		
B2	由「綠化地帶」改劃為道路 AREA TO BE REZONED FROM "GREEN BELT" TO AREA SHOWN AS "ROAD"		認可殯葬區 PERMITTED BURIAL GROUND		修訂項目地點內的現有溪澗 EXISTING STREAM WITHIN OR NEAR THE AMENDMENT SITE
165	最高建築物高度（在主水平基準上若干米） MAXIMUM BUILDING HEIGHT (IN METRES ABOVE PRINCIPAL DATUM)	2	最高建築物高度（樓層數目） MAXIMUM BUILDING HEIGHT (IN NUMBER OF STOREYS)		私人土地 PRIVATE LAND

R(A)	住宅（甲類） RESIDENTIAL (GROUP A)	R(B)	住宅（乙類） RESIDENTIAL (GROUP B)	R(C)	住宅（丙類） RESIDENTIAL (GROUP C)
V	鄉村式發展 VILLAGE TYPE DEVELOPMENT	G/IC	政府、機構或社區 GOVERNMENT,INSTITUTION OR COMMUNITY	GB	綠化地帶 GREEN BELT

界線只作識別用
BOUNDARY FOR IDENTIFICATION PURPOSE ONLY

本摘要圖於2020年8月13日擬備，
所根據的資料為測量圖編號
7-NE-19B、19D、20A及20C

EXTRACT PLAN PREPARED ON 13.8.2020
BASED ON SURVEY SHEETS No.
7-NE-19B,19D, 20A AND 20C

平面圖 SITE PLAN
項目A、B1及B2
ITEMS A, B1 & B2

在馬鞍山分區計劃大綱核准圖編號S/MOS/22作出的擬議修訂
PROPOSED AMENDMENTS TO THE APPROVED
MA ON SHAN OUTLINE ZONING PLAN No. S/MOS/22

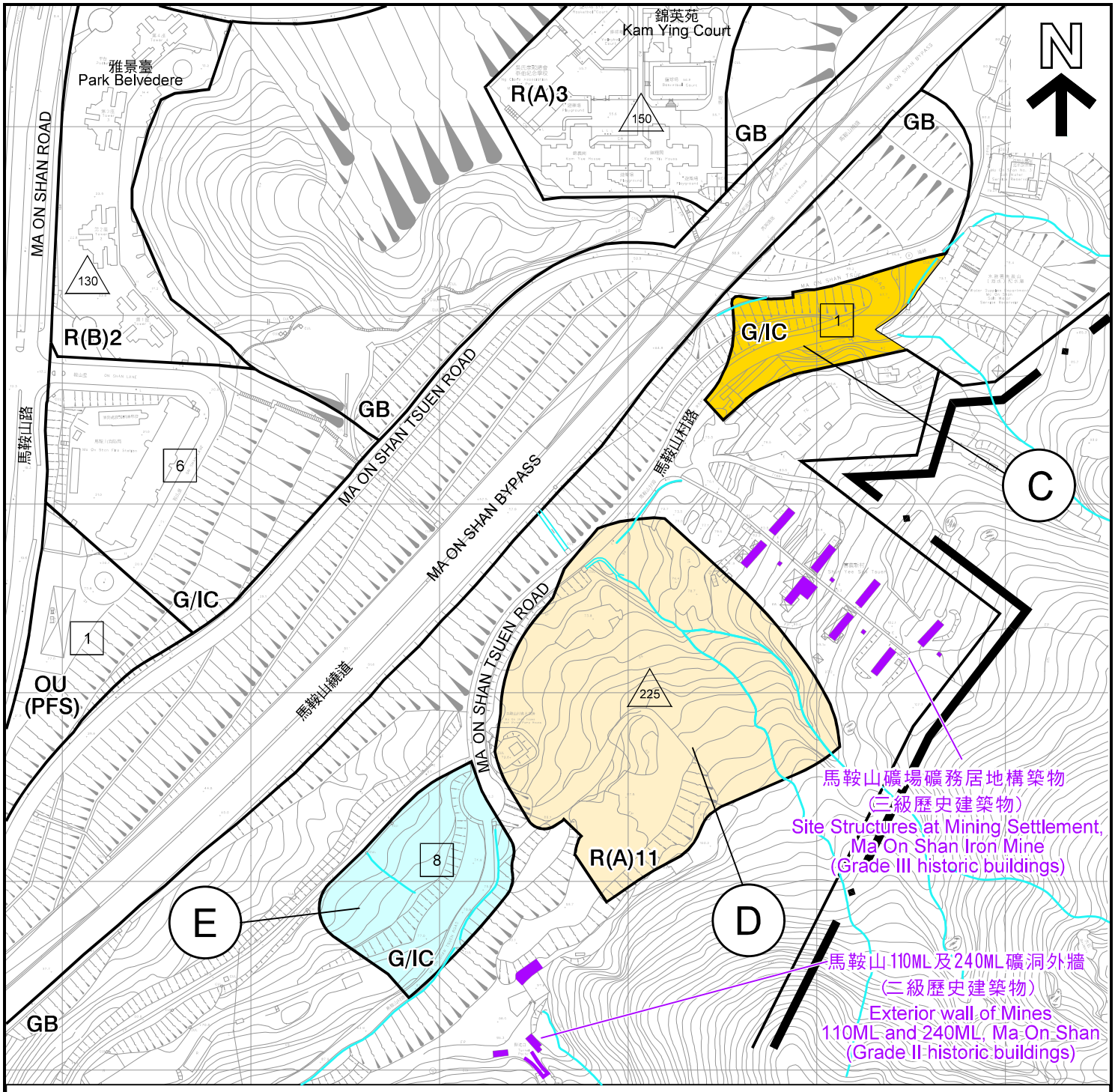
SCALE 1 : 3 000 比例尺

米 METRES 50 0 50 100 米 METRES

規劃署
PLANNING DEPARTMENT

參考編號
REFERENCE No.
M/ST/20/5

圖 PLAN
2a



圖例 LEGEND

C — 由「綠化地帶」改劃為「政府、機構或社區」
AREA TO BE REZONED FROM "GREEN BELT"
TO "GOVERNMENT, INSTITUTION OR COMMUNITY"

E — 由「綠化地帶」改劃為「政府、機構或社區」
AREA TO BE REZONED FROM "GREEN BELT"
TO "GOVERNMENT, INSTITUTION OR COMMUNITY"

D — 由「綠化地帶」改劃為「住宅（甲類）11」
AREA TO BE REZONED FROM "GREEN BELT" TO
"RESIDENTIAL (GROUP A) 11"

修訂項目地點內的現有溪澗
EXISTING STREAM WITHIN
OR NEAR THE AMENDMENT SITE

R(A) 住宅（甲類）RESIDENTIAL (GROUP A)

R(B) 住宅（乙類）RESIDENTIAL (GROUP B)

OU 其他指定用途 OTHER SPECIFIED USES

GB 綠化地帶 GREEN BELT

G/IC 政府、機構或社區 GOVERNMENT,INSTITUTION OR COMMUNITY

界線只作識別用
BOUNDARY FOR IDENTIFICATION PURPOSE ONLY

225 最高建築物高度（在主水平基準上若干米）
MAXIMUM BUILDING HEIGHT
(IN METRES ABOVE PRINCIPAL DATUM)

8 最高建築物高度（樓層數目）
MAXIMUM BUILDING HEIGHT
(IN NUMBER OF STOREYS)

本摘要圖於2020年7月21日擬備，
所根據的資料為測量圖編號
7-NE-18D、19C、23B及24A

EXTRACT PLAN PREPARED ON 21.7.2020
BASED ON SURVEY SHEETS No.
7-NE-18D, 19C, 23B AND 24A

平面圖 SITE PLAN
項目C、D及E
ITEMS C, D & E

在馬鞍山分區計劃大綱核准圖編號S/MOS/22作出的擬議修訂
PROPOSED AMENDMENTS TO THE APPROVED
MA ON SHAN OUTLINE ZONING PLAN No. S/MOS/22

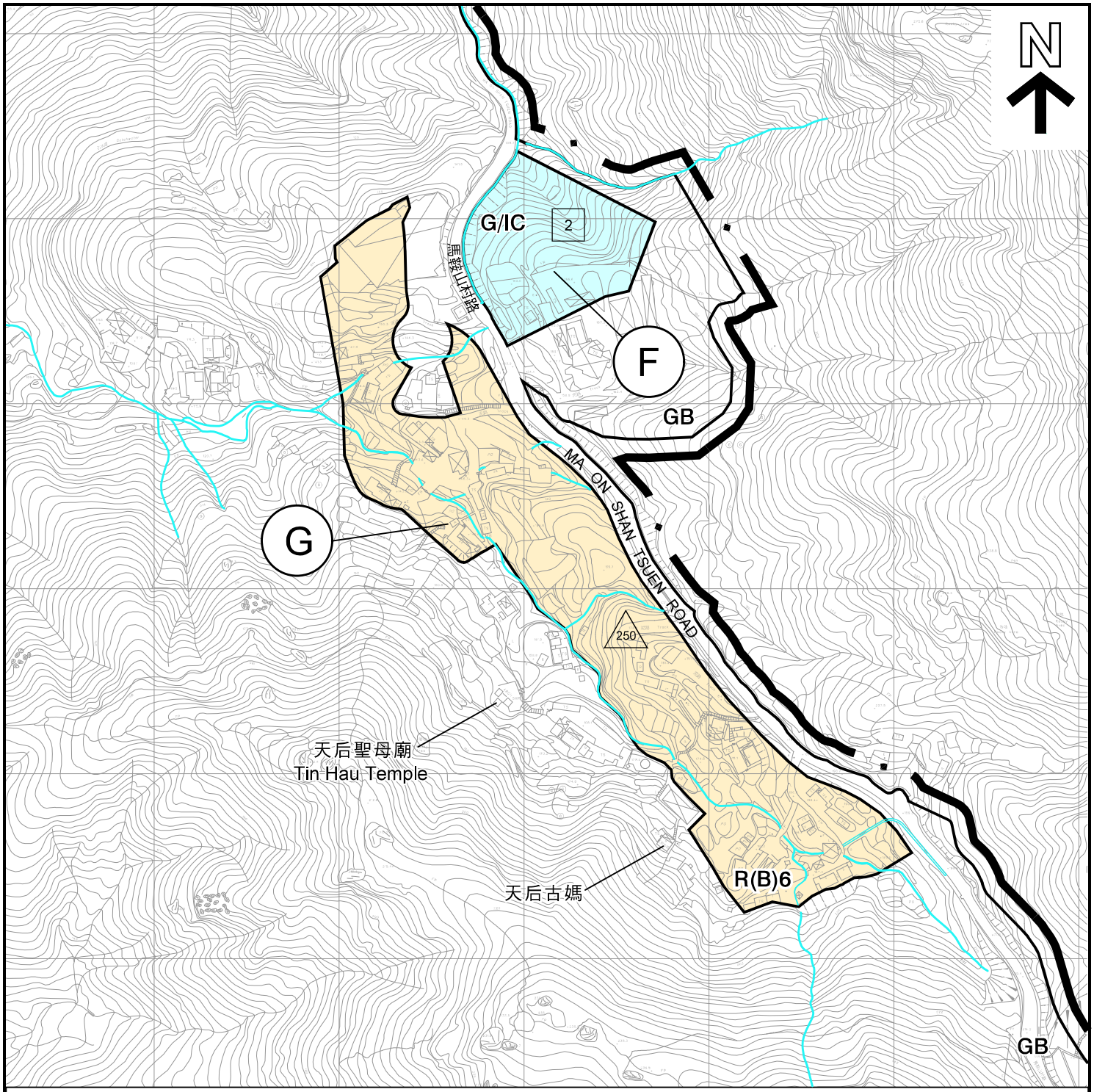
SCALE 1 : 3 000 比例尺

米 METRES 50 0 50 100 米 METRES

規劃署
PLANNING DEPARTMENT

參考編號
REFERENCE No.
M/ST/20/5

圖 PLAN
2b



圖例 LEGEND

F — 由「綠化地帶」改劃為「政府、機構或社區」
AREA TO BE REZONED FROM "GREEN BELT" TO "GOVERNMENT, INSTITUTION OR COMMUNITY"

G — 由「綠化地帶」改劃為「住宅（乙類）6」
AREA TO BE REZONED FROM "GREEN BELT" TO "RESIDENTIAL (GROUP B) 6"

250 — 最高建築物高度（在主水平基準上若干米）
MAXIMUM BUILDING HEIGHT (IN METRES ABOVE PRINCIPAL DATUM)

2 — 最高建築物高度（樓層數目）
MAXIMUM BUILDING HEIGHT (IN NUMBER OF STOREYS)

R(B) 住宅（乙類）RESIDENTIAL (GROUP B)

G/IC 政府、機構或社區 GOVERNMENT,INSTITUTION OR COMMUNITY

GB 綠化地帶 GREEN BELT

修訂項目地點內的現有溪澗 EXISTING STREAM WITHIN OR NEAR THE AMENDMENT SITE

界線只作識別用
BOUNDARY FOR IDENTIFICATION PURPOSE ONLY

本摘要圖於2020年7月21日擬備，
所根據的資料為測量圖編號
7-SE-3B及4A和7-NE-23D及24C

EXTRACT PLAN PREPARED ON 21.7.2020
BASED ON SURVEY SHEETS No.
7-SE-3B & 4A AND 7-NE-23D & 24C

平面圖 SITE PLAN
項目F及G
ITEMS F & G

在馬鞍山分區計劃大綱核准圖編號S/MOS/22作出的擬議修訂
PROPOSED AMENDMENTS TO THE APPROVED MA ON SHAN OUTLINE ZONING PLAN No. S/MOS/22

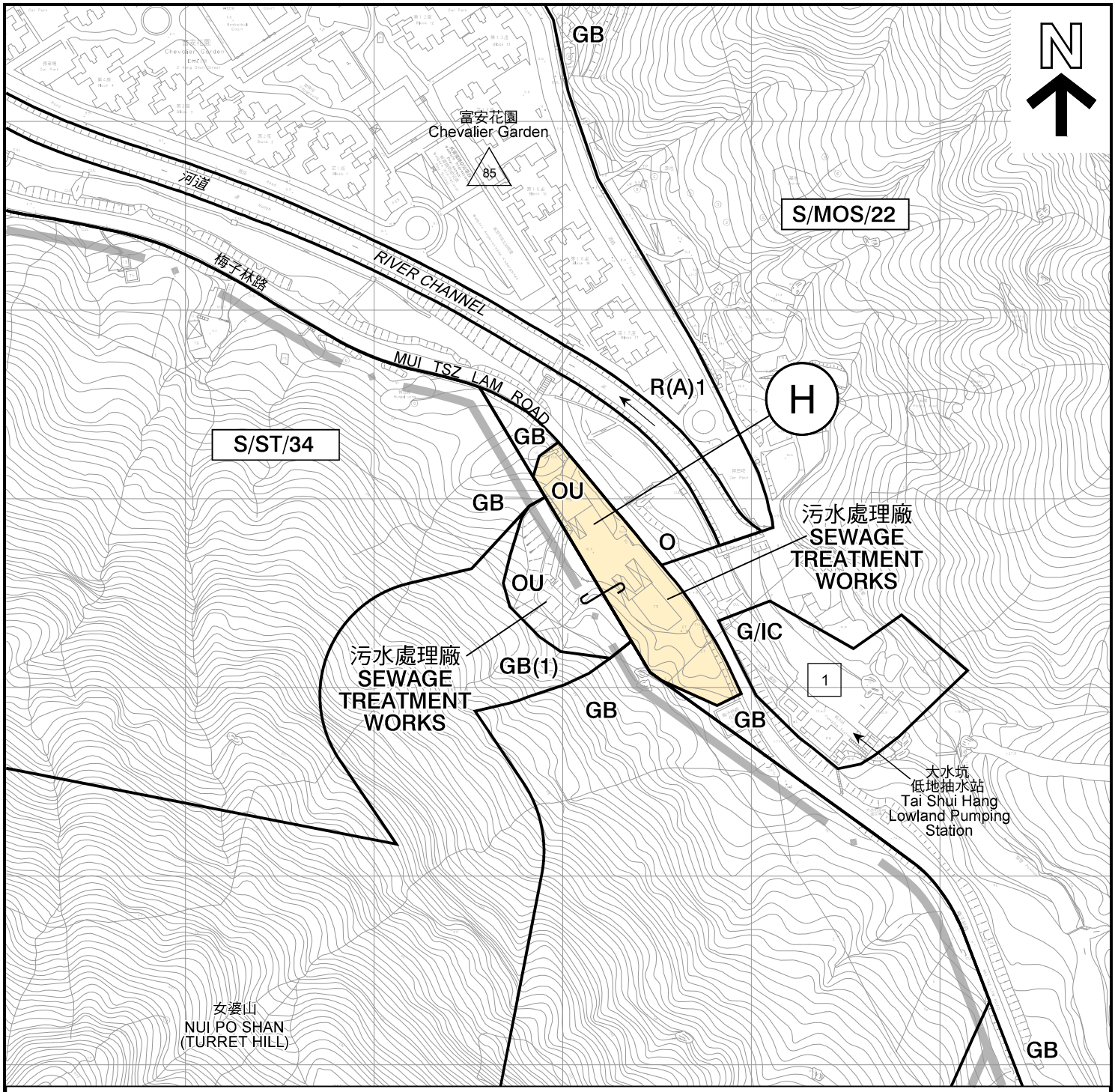
SCALE 1 : 3 000 比例尺

米 METRES 50 0 50 100 米 METRES

規劃署
PLANNING DEPARTMENT

參考編號
REFERENCE No.
M/ST/20/5

圖 PLAN
2c



圖例 LEGEND

H	由「綠化地帶」 地帶改劃為「其他指定用途」註明「污水處理廠」 AREA TO BE REZONED FROM "GREEN BELT" TO "OTHER SPECIFIED USES" ANNOTATED "SEWAGE TREATMENT WORKS"
85	最高建築物高度（在主水平基準上若干米） MAXIMUM BUILDING HEIGHT (IN METRES ABOVE PRINCIPAL DATUM)
1	最高建築物高度（樓層數目） MAXIMUM BUILDING HEIGHT (IN NUMBER OF STOREYS)
R(A)	住宅（甲類） RESIDENTIAL (GROUP A)
G/IC	政府、機構或社區 GOVERNMENT,INSTITUTION OR COMMUNITY
O	休憩用地 OPEN SPACE
OU	其他指定用途 OTHER SPECIFIED USES
GB	綠化地帶 GREEN BELT

界線只作識別用
BOUNDARY FOR IDENTIFICATION PURPOSE ONLY

本摘要圖於2020年6月11日擬備，
所根據的資料為測量圖編號
7-SE-3A、3B、3C及3D

EXTRACT PLAN PREPARED ON 11.6.2020
BASED ON SURVEY SHEETS No.
7-SE-3A, 3B, 3C AND 3D

平面圖 SITE PLAN

項目H
ITEM H

在馬鞍山分區計劃大綱核准圖編號S/MOS/22作出的擬議修訂
PROPOSED AMENDMENTS TO THE APPROVED
MA ON SHAN OUTLINE ZONING PLAN No. S/MOS/22

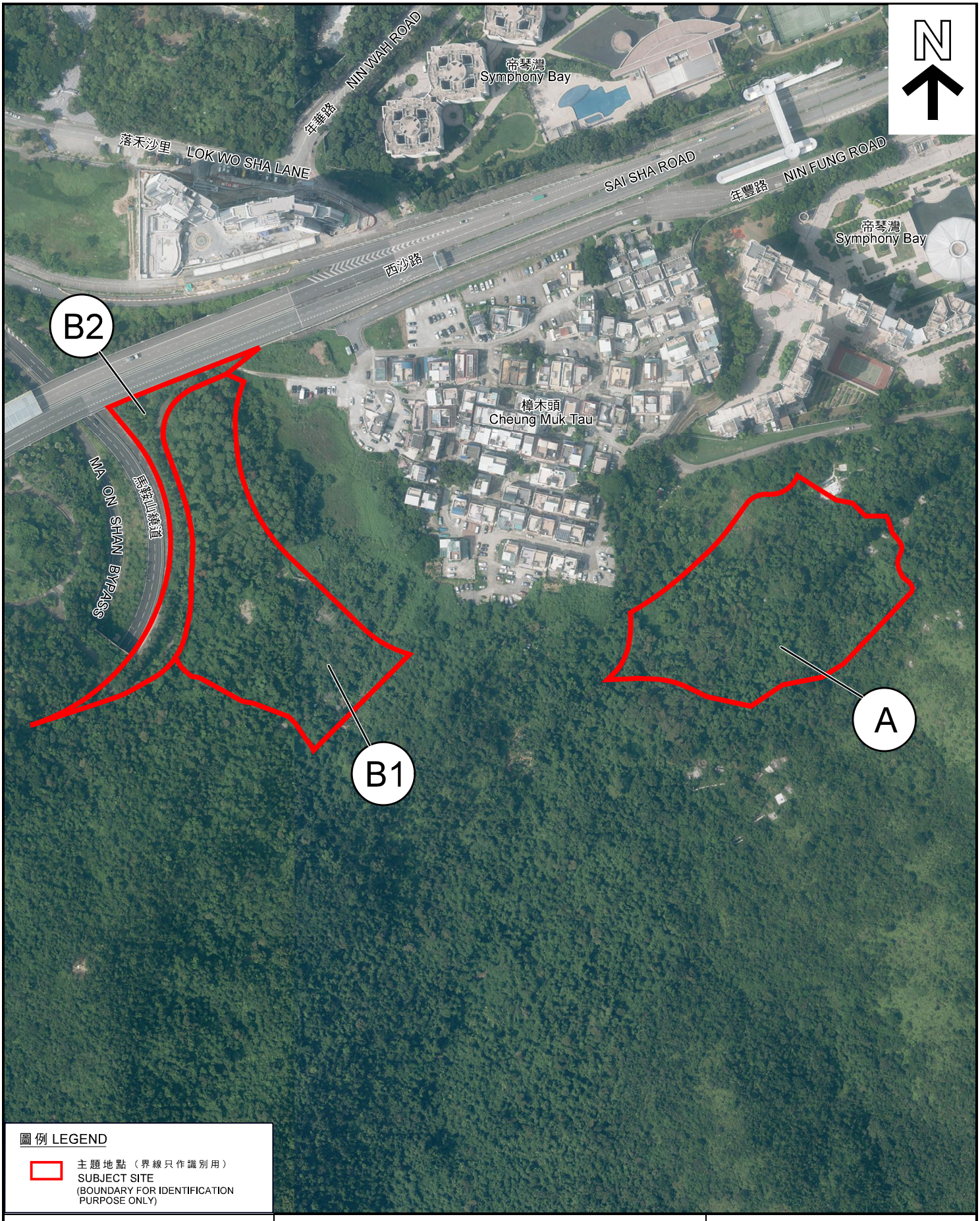
SCALE 1 : 3 000 比例尺

米 METRES 50 0 50 100 米 METRES

規劃署
PLANNING DEPARTMENT

參考編號
REFERENCE No.
M/ST/20/5

圖 PLAN
2d



圖例 LEGEND

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

本摘要圖於2020年4月14日擬備，
所根據的資料為於2019年9月12日
拍得的航攝照片編號
E063632C及E063636C

EXTRACT PLAN PREPARED ON 14.4.2020
BASED ON AERIAL PHOTOS No.E063632C
AND E063636C TAKEN ON 12.9.2019

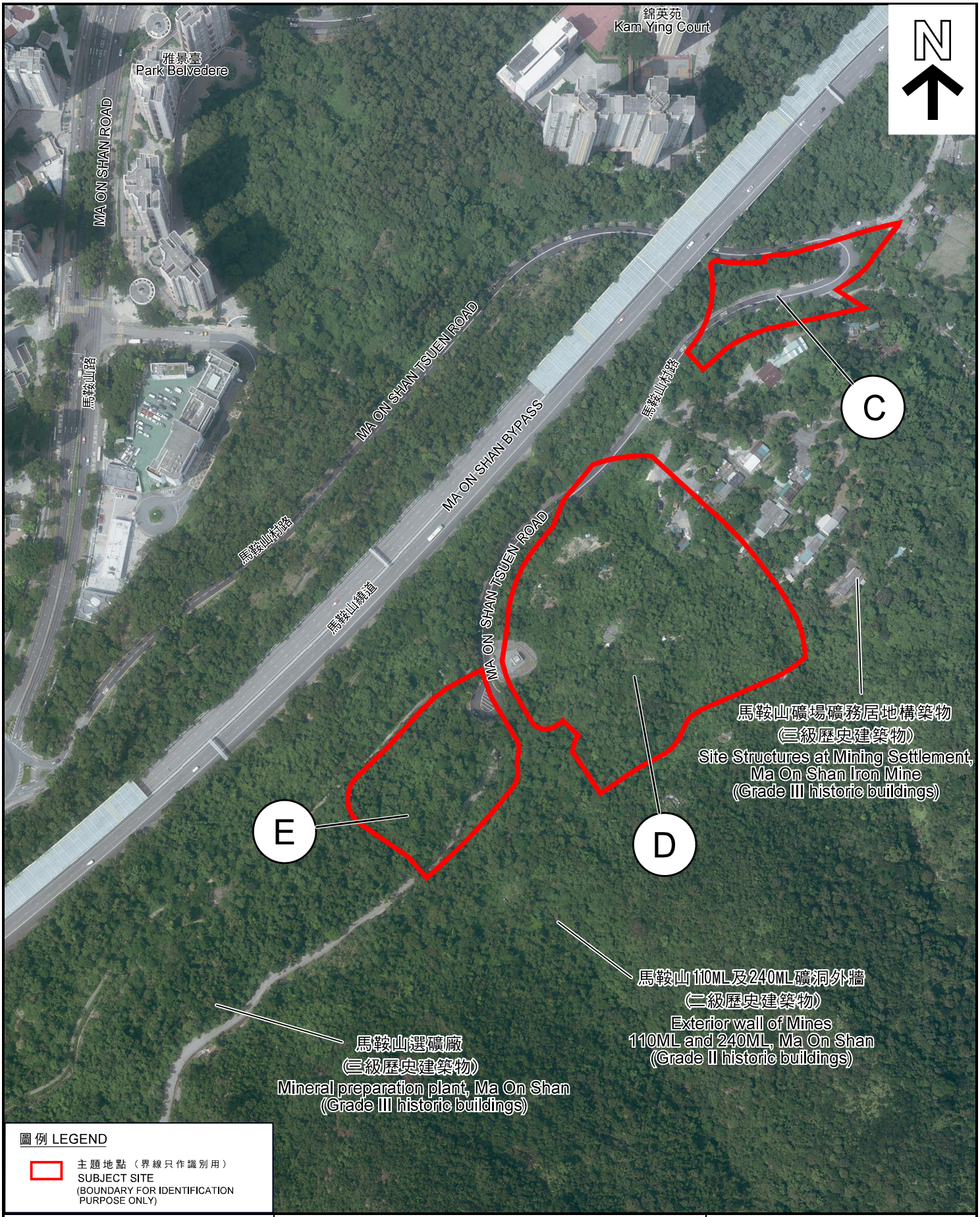
航攝照片 AERIAL PHOTO
項目A、B1及B2
ITEMS A, B1 & B2

在馬鞍山分區計劃大綱核准圖編號S/MOS/22作出的擬議修訂
PROPOSED AMENDMENTS TO THE APPROVED
MA ON SHAN OUTLINE ZONING PLAN No. S/MOS/22

規劃署
PLANNING DEPARTMENT

參考編號
REFERENCE No.
M/ST/20/5

圖 PLAN
3a



圖例 LEGEND

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

本摘要圖於2020年7月15日擬備，
所根據的資料為於2019年9月12日
拍得的航攝照片編號E063104C

EXTRACT PLAN PREPARED ON 15.7.2020
BASED ON AERIAL PHOTO No. E063104C
TAKEN ON 12.9.2019

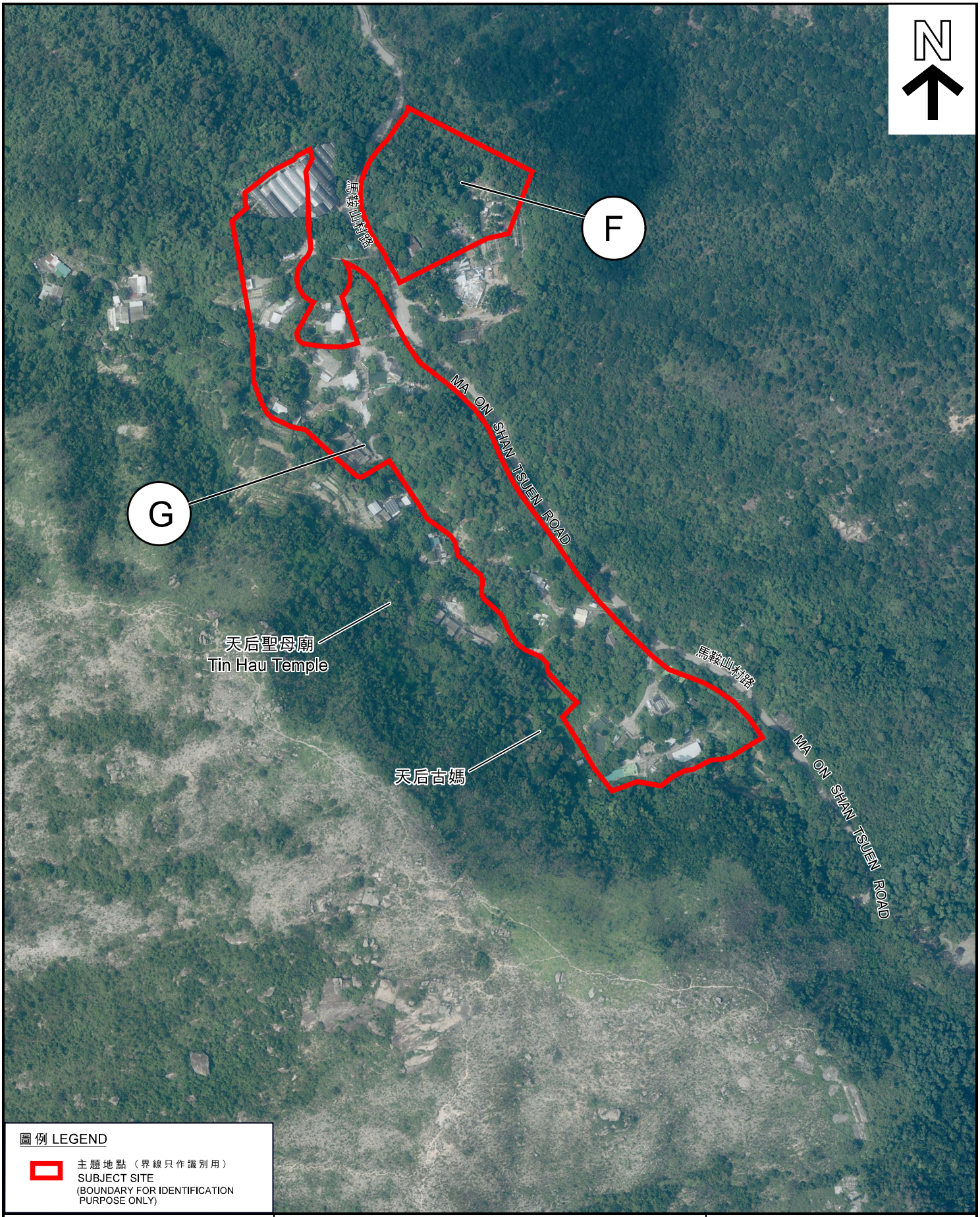
航攝照片 AERIAL PHOTO
項目C、D及E
ITEMS C, D & E

在馬鞍山分區計劃大綱核准圖編號S/MOS/22作出的擬議修訂
PROPOSED AMENDMENTS TO THE APPROVED
MA ON SHAN OUTLINE ZONING PLAN No. S/MOS/22

規劃署
PLANNING DEPARTMENT

參考編號
REFERENCE No.
M/ST/20/5

圖 PLAN
3b



圖例 LEGEND

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

本摘要圖於2020年7月15日擬備，
所根據的資料為於2019年9月12日
拍得的航攝照片編號E063594C

EXTRACT PLAN PREPARED ON 15.7.2020
BASED ON AERIAL PHOTO No. E063594C
TAKEN ON 12.9.2019

航攝照片 AERIAL PHOTO
項目 F 及 G
ITEMS F & G

在馬鞍山分區計劃大綱核准圖編號S/MOS/22作出的擬議修訂
PROPOSED AMENDMENTS TO THE APPROVED
MA ON SHAN OUTLINE ZONING PLAN No. S/MOS/22

規劃署
PLANNING DEPARTMENT

參考編號
REFERENCE No.
M/ST/20/5

圖 PLAN
3c



圖例 LEGEND

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

本摘要圖於2020年7月15日擬備，
所根據的資料為於2019年9月12日
拍得的航攝照片編號E064165C

EXTRACT PLAN PREPARED ON 15.7.2020
BASED ON AERIAL PHOTO No. E064165C
TAKEN ON 12.9.2019

航攝照片 AERIAL PHOTO
項目H
ITEM H

在馬鞍山分區計劃大綱核准圖編號S/MOS/22作出的擬議修訂
PROPOSED AMENDMENTS TO THE APPROVED
MA ON SHAN OUTLINE ZONING PLAN No. S/MOS/22

規劃署
PLANNING DEPARTMENT

參考編號
REFERENCE No.
M/ST/20/5

圖 PLAN
3d



界線只作識別用
BOUNDARY FOR IDENTIFICATION PURPOSE ONLY

本圖於2020年6月1日擬備，所根據的
資料為攝於2020年5月20日的實地照片
PLAN PREPARED ON 1.6.2020
BASED ON SITE PHOTO TAKEN ON
20.5.2020

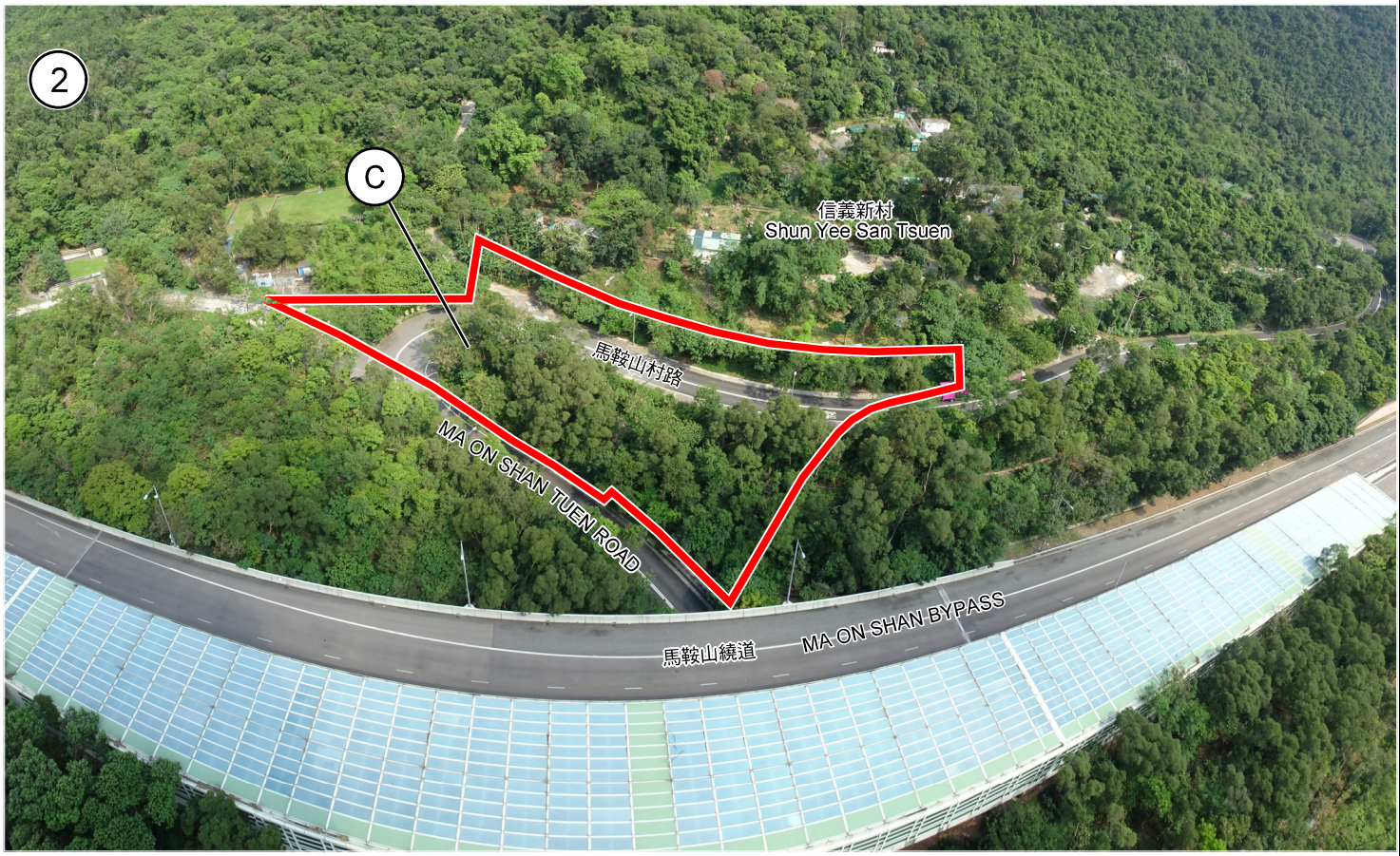
實地照片 SITE PHOTO
項目A、B1及B2
ITEMS A, B1 & B2

在馬鞍山分區計劃大綱核准圖編號S/MOS/22作出的擬議修訂
PROPOSED AMENDMENTS TO THE APPROVED
MA ON SHAN OUTLINE ZONING PLAN No. S/MOS/22

規劃署
PLANNING
DEPARTMENT

參考編號
REFERENCE No.
M/ST/20/5

圖 PLAN
4a



界線只作識別用
BOUNDARY FOR IDENTIFICATION PURPOSE ONLY

本圖於2020年5月15日擬備，所根據的資料為攝於2020年5月11日的實地照片
PLAN PREPARED ON 15.5.2020
BASED ON SITE PHOTO TAKEN ON 11.5.2020

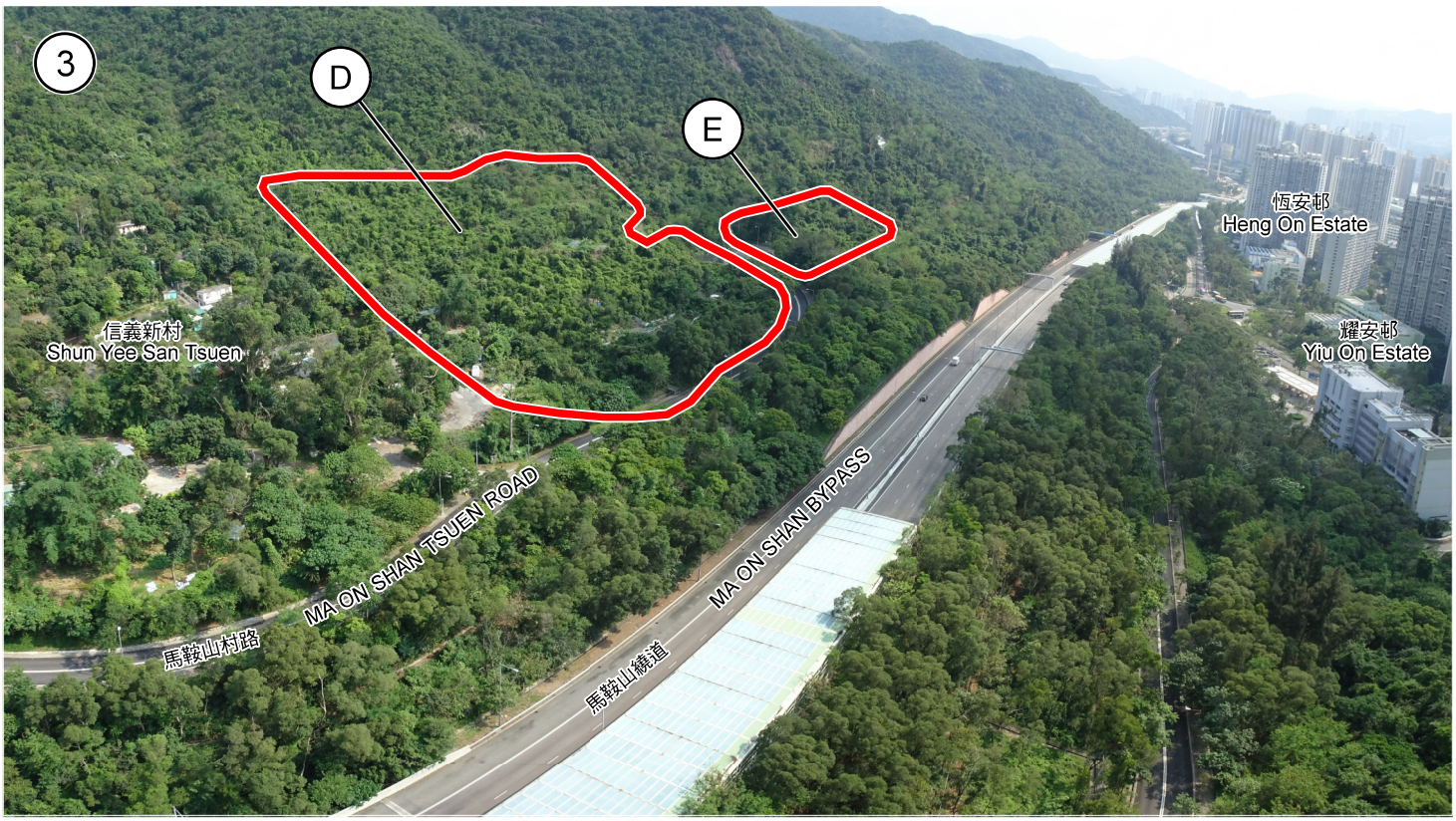
實地照片 SITE PHOTO
項目C
ITEM C

在馬鞍山分區計劃大綱核准圖編號S/MOS/22作出的擬議修訂
PROPOSED AMENDMENTS TO THE APPROVED
MA ON SHAN OUTLINE ZONING PLAN No. S/MOS/22

規劃署
PLANNING DEPARTMENT

參考編號
REFERENCE No.
M/ST/20/5

圖 PLAN
4b



界線只作識別用
BOUNDARY FOR IDENTIFICATION PURPOSE ONLY

本圖於2020年5月15日擬備，所根據的資料為攝於2020年5月11日的實地照片
PLAN PREPARED ON 15.5.2020
BASED ON SITE PHOTO TAKEN ON 11.5.2020

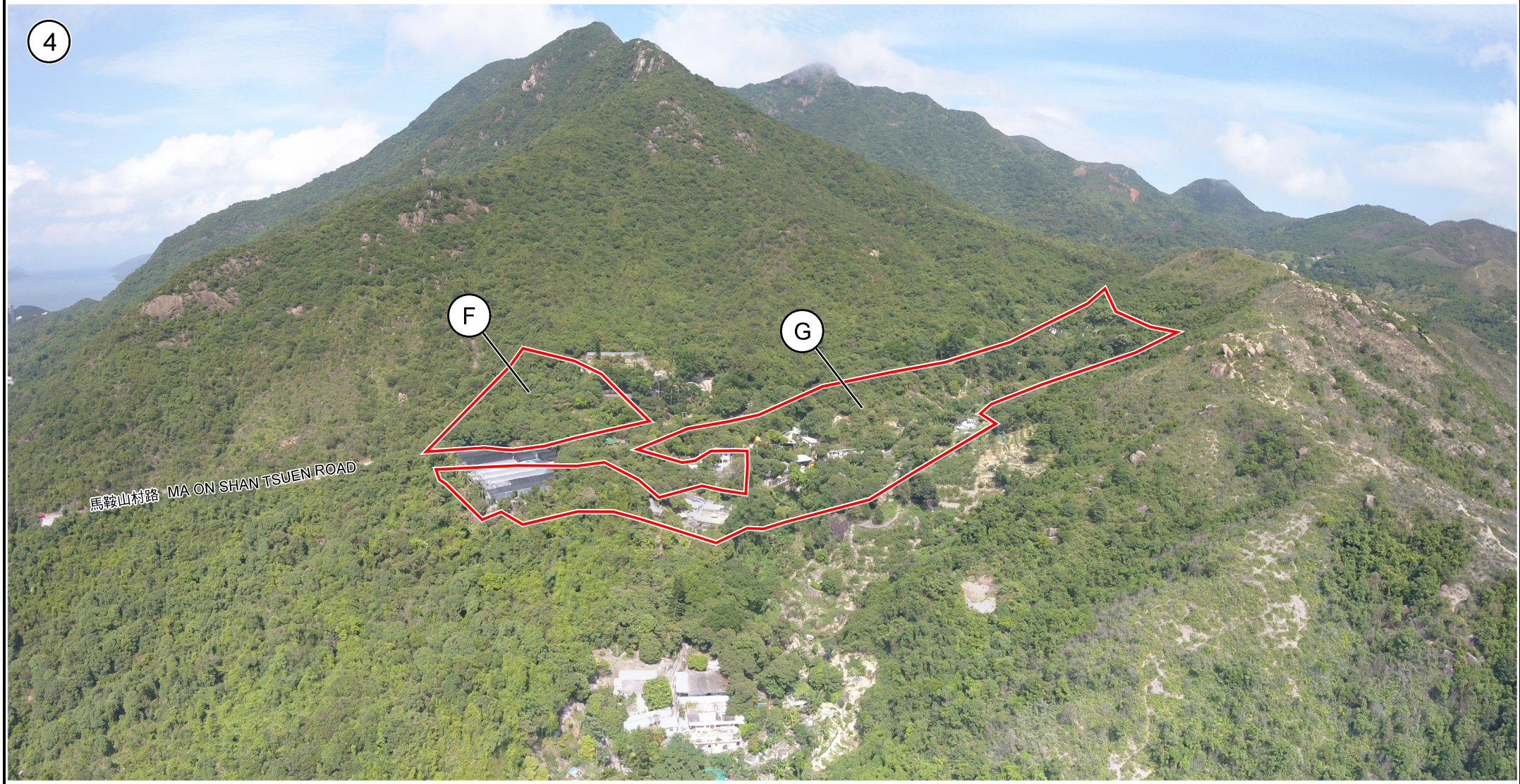
實地照片 SITE PHOTO
項目D及E
ITEMS D & E

在馬鞍山分區計劃大綱核准圖編號S/MOS/22作出的擬議修訂
PROPOSED AMENDMENTS TO THE APPROVED
MA ON SHAN OUTLINE ZONING PLAN No. S/MOS/22

規劃署
PLANNING DEPARTMENT

參考編號
REFERENCE No.
M/ST/20/5

圖 PLAN
4c



界線只作識別用
BOUNDARY FOR IDENTIFICATION PURPOSE ONLY

本圖於2020年6月1日擬備，所根據的
資料為攝於2020年5月15日的實地照片
PLAN PREPARED ON 1.6.2020
BASED ON SITE PHOTO TAKEN ON
15.5.2020

實地照片 SITE PHOTO
項目 F 及 G
ITEMS F & G

在馬鞍山分區計劃大綱核准圖編號S/MOS/22作出的擬議修訂
PROPOSED AMENDMENTS TO THE APPROVED
MA ON SHAN OUTLINE ZONING PLAN No. S/MOS/22

規劃署
PLANNING
DEPARTMENT

參考編號
REFERENCE No.
M/ST/20/5

圖 PLAN
4d



界線只作識別用
BOUNDARY FOR IDENTIFICATION PURPOSE ONLY

本圖於2020年5月15日擬備，所根據的資料為攝於2020年5月11日的實地照片
PLAN PREPARED ON 15.5.2020
BASED ON SITE PHOTO TAKEN ON 11.5.2020

實地照片 SITE PHOTO
項目H
ITEM H

在馬鞍山分區計劃大綱核准圖編號S/MOS/22作出的擬議修訂
PROPOSED AMENDMENTS TO THE APPROVED
MA ON SHAN OUTLINE ZONING PLAN No. S/MOS/22

規劃署
PLANNING DEPARTMENT

參考編號
REFERENCE No.
M/ST/20/5

圖 PLAN
4e