# APPENDIX E
# PRELIMINARY ENVIRONMENTAL ASSESSMENT REPORT

# Agreement No. CE 92/2017 (CE)

# Site Formation and Infrastructure Works for Public Housing Development near Tan Kwai Tsuen, Yuen Long – Investigation, Design and Construction

# FINAL PRELIMINARY ENVIRONMENTAL ASSESSMENT REPORT

199086/BIN/103/Issue 1
March 2023

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

binnies

# Agreement No. CE 92/2017 (CE)

# Site Formation and Infrastructure Works for Public Housing Development near Tan Kwai Tuen, Yuen Long – Investigation, Design and Construction

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## Draft Preliminary Environmental Assessment Report

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*199086/BIN/092/Issue 3*

March 2023

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# 1 INTRODUCTION

## 1.1 Background

1.1.1 As a prevailing policy to increase land supply to meet the housing demand in the short, medium and long terms, the Government has identified sites in various districts with the potential to be developed for residential use. Amongst others, a site near Tan Kwai Tsuen (the Application Site), Yuen Long has been identified for public housing development. The location of the Application Site is indicated in **Figure 1.1**.

1.1.2 Binnies Hong Kong Limited was commissioned by the Civil Engineering and Development Department (CEDD) under Agreement No. CE 92/2017 (CE) Site Formation and Infrastructural Works for the Development near Tan Kwai Tsuen, Yuen Long – Investigation, Design and Construction for site formation and provision of essential infrastructures to support the housing development at the Application Site.

1.1.3 In accordance with the "Tong Yan San Tsuen Outline Zoning Plan No. S/YL-TYST/14", the current land use zoning of the Application Site is "Residential (Group A)2" ("R(A)2"). Under the 'Remarks' column in the Notes for R(A) use, for 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 6.5, and maximum building height of 205mPD, or the plot ratio and height of the existing building, whichever is the greater.

1.1.4 In view of the acute shortage of housing, the domestic plot ratio of the Application Site is proposed to be intensified to 6.5 with an aim to increase flat production. The Application Site will provide a total of 7,420 public housing units with planned population intake from 2030 by phases. An "Application for Permission under Section 16 of the Town Planning Ordinance" is being prepared for the Proposed Development in order to obtain planning permission from the Town Planning Board for minor relaxation of the following restrictions:

- Maximum plot ratios:
  - Phase 1: from 6.5 to 7.0 (i.e. domestic PR of 6.5 and non-domestic PR of 0.5)
  - Phase 2: from 6.5 to 7.2 (i.e. domestic PR of 6.5 and non-domestic PR of 0.7)
  - Phase 3: from 6.5 to 7.3 (i.e. domestic PR of 6.5 and non-domestic PR of 0.8)
- Maximum building heights:
  - Phase 1: from 205 mPD to 240 mPD
  - Phases 2 and 3: from 205 mPD to 235 mPD

## 1.2 Purpose of this Report

1.2.1 The purpose of this Preliminary Environmental Assessment (PEA) is to evaluate the potential environmental impacts associated with the proposed housing development (the Proposed Development) due to the proposed increase in maximum plot ratio and building height with respect to guidance for environmental considerations provided in Chapter 9 – Environment of the Hong Kong Planning Standards & Guidelines (HKPSG) to support the Section 16 planning application.

## 1.3 Scoping of Environmental Issues

1.3.1 The environmental implications associated with the proposed minor relaxation of OZP parameters and update of the preliminary layout plan for the Proposed Development have

been reviewed. The main environmental concerns are summarised below:

- Road traffic noise from the existing road network and proposed access roads to the Proposed Development;
- Fixed plant noise impact from the existing and planned noise sources to the Proposed Development;
- Fixed plant noise impact from the proposed public transportation interchange (PTI);
- Vehicular emissions from the existing roads to the proposed air sensitive receivers during operation phase;
- Odour from North West New Territories Refuse Transfer Station (NWNT RTS) to the Proposed Development;
- Odour from the proposed refuse collect points (RCPs) and wet market to the Proposed Development;
- Industrial emissions from active chimneys to the Proposed Development; and
- Construction dust impacts from the construction activities of the later phases to the earlier phases with of the Proposed Development with population intake.

1.3.2 Potential environmental impacts arising from the construction phase of the Proposed Development are anticipated to be of similar scale as addressed in the PER Report considering that the construction methodology, programme and scale of site formation and superstructure works would be similar due to the minor changes in the plot ratio and building height. Findings in the PER Report remains valid for the proposed minor relaxation of plot ratio and building height. The footprint of the Project is no larger than that assessed in the PER and the air sensitive receivers and noise sensitive receivers identified in the PER remains applicable, the findings in the PER Report concerning construction phase impact and land contamination implication therefore remains valid. As such, re-assessment for the environmental impacts arising during the construction phase and land contamination implication is deemed not necessary in this PEA report.

# 2 SITE LOCATION AND PRELIMINARY BUILDING LAYOUT

## 2.1 Site Location and Description

2.1.1 As shown in **Figure 1.1**, the Application Site is located on the south eastern side of Tan Kwai Tsuen and fronting Yuen Long Highway. Tan Kwai Tsuen South Fresh Water Service Reservoir and Tan Kwai Tsuen Salt Water Service Reservoir are located to the northeast of the Application Site. North West New Territories Refuse Transfer Station (NWNT RTS) is located ~200 m west to the Application Site.

2.1.2 The Application Site is currently occupied by village houses and vegetations. Based on site observation, the noise climate in vicinity of the Application Site is dominated by road traffic noise from the nearby Yuen Long Highway.

## 2.2 Preliminary Building Layout

2.2.1 Based on the preliminary scheme layout, the Proposed Development are divided into three phases located on different formation platforms. Phase 1 on the upper platform consists of two cross-shape 50-storey domestic blocks (i.e. Blocks A and B). There are 43 domestic storeys, one refuge floor, a ground floor and a 5-storey podium for both blocks.

2.2.2 Phase 2 on the middle platform consists of two cross-shape 51-storey domestic blocks (i.e. Blocks 4 and 5). There are 44 domestic storeys, a refuge floor, a ground floor and a 5-storey podium for both blocks.

2.2.3 Phase 3 on the lower platform consists of one cross-shape and two T-shape 60-storey domestic blocks (i.e. Blocks 1 to 3). There are 50 domestic storeys, two refuge floors, a ground floor and a 7-storey podium for all the three blocks.

2.2.4 For all the three phases, the podium consists of commercial, retail, carpark, and / or social welfare facilities underneath, subject to the detailed design. A covered public transportation interchange (PTI) is proposed within the podium of Phase 3, with the ingress and egress connecting to the proposed access road to the north of the Application Site. The multi-storey podium design increases the separation between the nearby carriageways (the proposed access road and Yuen Long Highway) and the residential premises. The podium itself can at the same time screen off traffic noise for residential units which are in close proximity to the roads. For all the domestic blocks, setback distances from Yuen Long Highway and the proposed access road are optimized to minimise the road traffic noise impact and the air quality impact as far as practicable.

2.2.5 The master layout plan of the Application Site is presented in **Appendix 2.1**.

2.2.6 The tentative population intake of the Proposed Development will be from 2030/31 by phases. Although the Proposed Development will have phased population intake, the gap between the intake year will only be about 1 year apart (year 2030/31 for Phase 1&2 and year 2031/32 for Phase 3). Hence, by the time the Phase 1&2 of the Proposed Development is occupied, the bulk of the construction work of the remaining phases would have completed and most of the remaining works are anticipated to be indoor fitting works. Hence, no significant potential environmental impact due to the phased population intake is anticipated.

## 2.3 Interfacing Projects

2.3.1 Notable potential interfacing projects in the vicinity of the Application Site include:

- CE 2/2011 (CE) - Hung Shui Kiu (HSK) New Development Area (NDA) Planning and Engineering Study - Investigation
- CE 35/2012 (CE) – Planning and Engineering Study for Housing Sites n Yuen Long South - Investigation
- CE 19/2015 (TP) - Preliminary Land Use Study for Lam Tei Quarry and the Adjoining Areas – Feasibility Study
- Development at Lam Tei North East
- CE 39/2018 - Strategic Cavern Areas to Accommodate Existing and Proposed Service Reservoirs in Lam Tei and Adjoining Area
- A/YL-TYST/1146 - Proposed Service Reservoirs in "Green Belt" Zone

2.3.2 The location of the above concurrent studies/projects are depicted in **Appendix 2.2.** For all the interfacing projects, close liaisons with relevant project proponents will be maintained to avoid conducting noisy and dusty construction activities (e.g. excavation) concurrently in close proximity to each other. Planning and review of construction schedule, as well as plant inventories and construction methodologies will be conducted with consideration of minimizing the cumulative environmental impacts. A summary of the concurrent studies/projects is provided as follows:

***Hung Shui Kiu New Development Area Planning and Engineering Study - Investigation***

2.3.3 According to the approved Environmental Impact Assessment Report (EIA report) of the Hung Shui Kiu New Development Area (HSKNDA) (Register No.: AEIAR-203/2016), the construction work commenced in year 2019 and would be completed in year 2038 tentatively. However, it is located more than 500m from the Application Site. Therefore, no significant cumulative impact is anticipated from the captioned project.

***Planning and Engineering Study for Housing Sites in Yuen Long South – Investigation***

2.3.4 According to the approved EIA Report of the Housing Sites in Yuen Long South (YLS) (Register No.: AEIAR-215/2017), part of the YLS development near the Tin Shui Wai West Interchange would overlap with this Project from year 2023 to 2026. According to Section 5.3.1 of YLS EIA Report, some works during Stage 1 (2020 – 2029) and Stage 2 (2022 – 2033) of the YLS construction activities will be conducted concurrently with the Project. However, it is located more than 500m from the Application Site. Therefore, no significant cumulative impact is anticipated from the captioned project.

***Preliminary Land Use Study for Lam Tei Quarry and the Adjoining Areas – Feasibility Study***

2.3.5 According to the Tuen Mun District Council document (2015_020), the proposed study sites and proposed cavern areas adjoining the existing Lam Tei Quarry under the subject study, with an area of around 66 ha and 206 ha respectively, are predominantly located in Tuen Mun. There will be a proposed cavern near the eastern and southern sides of the Site. A new dual-2 through road with cycle track is also proposed alongside Yuen Long Highway connecting to TSWWI, near the Site. This study is still under feasibility study, and its design and construction programme are very uncertain. Also, the Lam Tei quarrying contract will be terminated in 2023 and the quarry is located more than 500m from the Application Site. Therefore, there would be no overlap of construction works between the subject project and our site formation and infrastructure works, and the potential cumulative environmental impacts such as construction noise and dust are not expected.

***Development at Lam Tei North East***

2.3.6 Based on the Project Profile for Development at Lam Tei North East (LTNE) (Project Profile No. PP-642/2022), public housing, special industries (including relocation of NWNT RTS and brownfield operations) and community facilities, etc. are proposed for the LTNE development. The development also involves associated infrastructure works, including the necessary slope works, road works, potential sewage treatment works (STW) in cavern, sewerage works, drainage works, waterworks, utility works, etc. for serving the proposed land uses. The details and programme for the construction and operation for LTNE development have not been formulated at this stage. According to the Project Profile, the project proponent of LTNE development is aware that the Proposed Development might be a concurrent project. The status and information of the Proposed Development will be reviewed and with cumulative impacts addressed as appropriate during the LTNE development EIA study. The Proposed Development shall also be identified as one of the environmental sensitive receivers for the study.

***Strategic Cavern Areas to Accommodate Existing and Proposed Service Reservoirs in Lam Tei and Adjoining Area***

2.3.7 Based on the latest available information, the tentative construction period of the captioned project is scheduled to be from 2027 to 2033. Other detailed information, e.g. the construction methodologies, location of the open workfronts and planned portal(s), is unavailable in the public domain at this stage. The Proposed Development shall be taken into account as a potential concurrent project with the cumulative impacts assessed in the future environmental submission of the captioned project. The Proposed Development shall also be identified as one of the environmental sensitive receivers for the study.

***Proposed Service Reservoirs in "Green Belt" Zone***

2.3.8 The proposed service reservoirs will tentatively be completed in 2030 (for freshwater service reservoir) and 2032 (for flushing water service reservoir). However, detailed programme of the captioned project are currently unavailable in the public domain. Nevertheless, as it is located more than 500m from the Proposed Development, no significant cumulative impact is anticipated from the captioned project.

# 3 ROAD TRAFFIC NOISE IMPACT

## 3.1 Environmental Legislation, Policies, Standards and Criteria

3.1.1 The HKPSG provides guidance on the acceptable road traffic noise levels at noise sensitive uses which rely on the opened windows for ventilation. The relevant criteria are shown in **Table 3.1**.

**Table 3.1 Road Traffic Noise Planning Criteria**

| Common Noise Sensitive Uses | Road Traffic Noise, L10 (1-hour), dB(A) |
|---|---|
| All domestic premises including temporary housing accommodation | 70 |
| Hotels and hostels | 70 |
| Offices | 70 |
| Educational institutions including kindergartens, child care centres and all others where unaided voice communication is required | 65 |
| Places of public worship and courts of law | 65 |
| Hospitals, clinics, convalescences and residential care homes for the elderly<br>- diagnostic rooms<br>- wards | 55 |

Note: The above criteria apply to noise sensitive uses which rely on open window for ventilation and should be viewed as the maximum permissible noise levels assessed at 1 m from the external façades.

## 3.2 Potential Road Traffic Noise Impacts

3.2.1 Road traffic noise impact would be generated by Yuen Long Highway and the proposed access roads on the planned noise sensitive receivers (NSRs) of the Development. Potential road traffic noise impacts from the roads to the planned NSRs of the Development have already been assessed in the PER report under *Agreement No. CE 92/2017 (CE) Site Formation and Infrastructure Works for Public Housing Development near Tan Kwai Tsuen, Yuen Long – Investigation, Design and Construction*. The assessment results in the PER report has been extracted and presented in **Appendix 3.1** and summarized in **Table 3.2** for reference.

**Table 3.2 Summary of Traffic Noise Assessment Findings in PER**

| NSR Description | Noise Impact, $L_{10\ 1hr}$ dB(A) | |
|---|---|---|
| | AM Peak | PM Peak |
| Block 1 - facing Yuen Long Highway | 60 – 74 | 59 - 73 |
| Block 1 - facing away from Yuen Long Highway | 58 - 68 | 56 - 66 |
| Block 2 - facing the access road | 63 - 74 | 64 – 72 |
| Block 2 - facing away from the access road | 51 - 69 | 50 - 69 |
| Block 3 - facing Yuen Long Highway | 53 - 71 | 51 - 71 |
| Block 3 - facing away from Yuen Long Highway | 63 - 68 | 61 - 66 |
| Block 4 | 51 - 69 | 50 - 68 |
| Block 5 | 44 - 70 | 43 – 69 |
| Block 6 | 40 - 61 | 38 - 59 |
| Block 7 | 41 - 67 | 39 - 65 |
| Welfare Uses under Podium and Welfare Block in Phase 2 | 59 - 76 | 58 - 75 |
| Welfare Uses under Podium in Phase 3 | 59 - 76 | 58 – 75 |

3.2.2 Based on the preliminary development layout plan, noise exceedances of up to 4 dB(A) are anticipated at façades of Blocks 1 to 3 facing Yuen Long Highway, and the façade of Block 2 adjacent to the proposed access road. Noise levels at all façades of Blocks 4 to 7 comply with the noise criteria. Noise levels at all façades of the podiums of Phases 2 and 3 are anticipated to be higher than 55 dB(A). Subject to the uses and layout plans of the podiums, which are unavailable at this stage, mitigation measures would be required for the planned uses at the podiums. Based on the findings of the PER, the façades potentially prone to road traffic noise exceedance in the Proposed Development are indicated in **Figure 3.1**. For the additional storeys proposed under this Application, considering the relatively large distance from the ground level (at least 40 storeys), further increase in height would result in greater noise attenuation due to the increase in distance from the noise source (i.e. the roads). Therefore, the noise levels at the additional storeys higher up would be similar or less than those predicted at the top floors as presented in the PER report. It should be noted that the road traffic noise impacts will be further assessed in the Environmental Assessment Study (EAS) by Hong Kong Housing Authority (HKHA) based on the final design and layout of the Proposed Development as well as the latest traffic forecast with adequate mitigation measures to be recommended. The no. of storeys that require the proposed at-source mitigation measures in the PER report will be further reviewed in HKHA's EAS based on the final design of the Proposed Development in the detailed design stage.

## 3.3 Proposed Mitigation Measures

3.3.1 At-source mitigation measures in the form of provision of low noise road surfacing (LNRS) material and roadside barrier or enclosure have been studied and considered as infeasible due to site constraints as detailed in the PER report under Agreement No. CE 92/2017 (CE). At-receiver mitigation measures at the Development are therefore proposed. For the housing blocks, the provision of acoustic windows with up to 3.7dB(A) noise attenuation is recommended for the affected planned NSRs. As the building block arrangement in the current preliminary layout plan is generally similar to that assessed in the PER report, it is expected that the magnitude of noise impact with the current layout would be broadly similar and the provision of acoustic windows would be practical to mitigate the noise exceedances.

3.3.2 Based on the predicted noise levels at the welfare uses under the podium in Phases 2 and 3, diagnostic rooms and wards of clinics, of convalescences and of residential care homes for the elderly which rely on opened windows for ventilation are not recommended to be located at façades facing the access roads, as exceedance of the noise criteria of 55 dB(A) is anticipated. For the façades directly facing Yuen Long Highway and the proposed access roads, exceedance of 70 dB(A) is anticipated. Fixed windows with central air ventilation for all noise sensitive uses are recommended for these facades. For façades facing the proposed access road located under the podium of Block 4 and Block 5, educational institutions including kindergartens, child care centres which rely on opened windows for ventilation are not recommended as exceedance of the noise criteria of 65 dB(A) is anticipated. Otherwise, fixed windows with central air ventilation shall be provided to these uses to mitigate the potential road traffic noise impact. The proposed mitigation measures are indicated in **Figure 3.2**. The building layout and design of the podiums shall be further massaged in the detailed design, e.g. adjust the orientation of the opening windows, consider building setback, etc., as a way to further explore other possible noise mitigation measures in order to avoid the need for provision of fixed windows with central air ventilation as far as possible.

3.3.3 HKHA has undertaken to conduct an EAS in the detailed design stage to review and assess the road traffic noise impact with respect to the HKPSG and suitable mitigation measures will be

proposed based on the final design of the Proposed Development. HKHA has acknowledged and committed to implementing at-receiver noise mitigation measures at the public housing blocks, subject to the findings in the EAS.

3.3.4 With the implementation of the proposed mitigation measures, no noise exceedance is anticipated at the Proposed Development due to the road traffic from the existing road network and the proposed access roads.

# 4 FIXED NOISE SOURCES IMPACT

## 4.1 Potential Fixed Noise Sources Impacts

4.1.1 Five existing fixed plant noise sources within 300m of the boundary of the Application Site that may give rise to fixed plant noise impacts to the planned NSRs within the Application Site have been identified as listed below:

- NWNT RTS;
- Tan Kwai Tsuen South Fresh Water Service Reservoir;
- Tan Kwai Tsuen Salt Water Service Reservoir;
- Tan Kwai Tsuen North Fresh Water Service Reservoir; and
- Tan Kwai Tsuen Fresh Water Pumping Station.

4.1.2 Upon the operation of the Proposed Development, the following planned infrastructure would be constructed. They are potential fixed plant noise sources:

- planned fresh water pumping station;
- planned flushing water service reservoir;
- planned fresh water service reservoir. and
- planned PTI

4.1.3 The locations of the existing and planned potential fixed plant noise sources are indicated in **Figure 4.1**.

4.1.4 Based on the PER report under Agreement No. CE 92/2017 (CE), these fixed noise sources are not expected to pose adverse noise impact at the Proposed Development. As the building block arrangement in the current preliminary layout plan is generally similar to that assessed in the PER report, the findings in the PER remains applicable for the current layout.

## 4.2 Proposed Mitigation Measures

4.2.1 No mitigation measure is required to combat noise impacts from the existing noise sources as the noise from the operation of the identified sources has been verified to be inaudible through site visits.

4.2.2 For the proposed potential noise sources at the planned fresh water pumping station, flushing water service reservoir and fresh water service reservoir, at-source mitigation measures, e.g. enclosing noise emitting parts, installation of silencer and locating louvres, exhausts or openings away from the NSRs as far as possible, would be considered to the proposed facilities to control the noise levels to comply with the relevant criteria.

4.2.3 For the proposed potential noise sources at the proposed PTI (under TD's management), HKHA would conduct the detailed design of the PTI and mitigation measures, if required, would be proposed based on the final design of the PTI.

4.2.4 With the implementation of appropriate at-source design measures by the future owners of the proposed fixed noise sources (i.e. WSD for the planned fresh water pumping station, planned flushing water service reservoir and planned fresh water service reservoir; and TD for the proposed PTI), no adverse fixed noise impact from the planned fixed noise source is anticipated.

# 5 POTENTIAL NOISE IMPACTS FROM THE PROPOSED PTI

## 5.1 Potential Noise Impacts from the Proposed PTI

5.1.1 A PTI is proposed in the podium of Phase 3, with the ingress and egress connecting to the proposed access road to the north of the Application Site, as shown in **Figure 5.1**. The detailed design of the PTI is not available at this stage.

5.1.2 As the stopping bays and islands in the PTI are covered under the podium of Phase 3, there will be no line of sight from the potential noise sources in the PTI (i.e. vehicle idling and engine starting) to the NSRs. The ingress and egress points of the PTI are designed to locate away from the NSRs, i.e. facing Yuen Long Highway, in order to minimize the potential noise impacts from the vehicular movements along the ingress and egress. As vehicles will not be idling on the ingress and egress road outside the podium area, loud engine starting noise will unlikely be generated on the ingress and egress road. Noise from the ingress and egress road outside the podium area will be similar to regular road traffic noise.

5.1.3 Subject to the detailed design of the PTI, mechanical ventilation system might be required for the PTI. The exhausts of the mechanical ventilation system would be a potential noise source. Mitigation measures, if required, would be proposed based on the final design of the PTI.

## 5.2 Proposed Mitigation Measures

5.2.1 In addition to the abovementioned noise mitigation measures which could be incorporated into the design of the PTI, if required, the provision of absorptive lining on ceiling and interior walls of the PTI could be considered to minimize the reverberance, subject to further review during detailed design stage of the PTI.

5.2.2 With the incorporation of appropriate mitigation measures into the design of the PTI, potential noise nuisance arising from the proposed PTI on the Proposed Development and other existing NSRs in the proximity is not anticipated.

# 6 AIR QUALITY IMPACT

## 6.1 Environmental Legislation, Policies, Standards and Criteria

### *Air Pollution Control Ordinance (Cap. 311)*

6.1.1 The Air Pollution Control (Amendment) Ordinance 2021 specifies Air Quality Objectives (AQOs), which are statutory limits for a number of pollutants, and the maximum number of times that they may be exceeded in a year for specified averaging periods. The prevailing AQOs, shown in **Table 6.1**, became effective since 1 January 2022 and are subject to review every five years.

**Table 6.1The Hong Kong Air Quality Objectives**

| Pollutant | Averaging Time | Concentration Limit (µg/m3) (1) | Number of Exceedances allowed per year |
|---|---|---|---|
| Sulphur dioxide, $SO_2$ | 10-minute | 500 | 3 |
| | 24-hour | 50 | 3 |
| Respirable suspended particulates, RSP ($PM_{10}$) (2) | 24-hour | 100 | 9 |
| | Annual | 50 | Not applicable |
| Fine suspended Particulates, FSP ($PM_{2.5}$) (3) | 24-hour | 50 | 35 (18) (4) |
| | Annual | 25 | Not applicable |
| Nitrogen dioxide, $NO_2$ | 1-hour | 200 | 18 |
| | Annual | 40 | Not applicable |
| Ozone, $O_3$ | 8-hour | 160 | 9 |
| Carbon monoxide, CO | 1-hour | 30,000 | 0 |
| | 8-hour | 10,000 | 0 |
| Lead | Annual | 0.5 | Not applicable |

Notes:
(1) All measurements of the concentration of gaseous air pollutants, i.e., sulphur dioxide, nitrogen dioxide, ozone and carbon monoxide, are to be adjusted to 293 K and 101.325 kPa
(2) Respirable suspended particulates in air with a nominal aerodynamic diameter of 10 µm or less
(3) Fine suspended particulates in air with a nominal aerodynamic diameter of 2.5 µm or less
(4) The number of exceedances allowed per year is 35. However, for Government projects, a more stringent standard shall be applied with the number of allowable exceedances of 18 days per year.

### *Hong Kong Planning Standards and Guidelines (HKPSG)*

6.1.2 The Hong Kong Planning Standards and Guidelines (HKPSG) is a Government manual of criteria for determining the scale, location and site requirements of various land uses and facilities. The purpose of the HKPSG is to provide general guidelines to ensure that, during the planning process, the Government will reserve adequate land to facilitate social and economic development and provide appropriate public facilities to meet the needs of the public.

6.1.3 Table 3.1 of the HKPSG provides the broad guidelines for locating active open spaces close to potentially polluting uses, viz. road traffic. The recommended buffer distances are reproduced in **Table 6.2**.

**Table 6.2 Recommended Minimum Buffer Distance from Roads**

| Pollution Source | Parameter | Buffer Distance | Permitted Uses |
|---|---|---|---|
| Road and Highways | Type of Road | | |
| | Trunk Road and Primary Distributor | > 20 m | Active and passive recreation uses |
| | | 3 – 20 m | Passive recreational uses |
| | | < 3 m | Amenity areas |
| | District Distributor | > 10 m | Active and passive recreational uses |
| | | < 10 m | Passive recreational uses |
| | Local Distributor | > 5 m | Active and passive recreational uses |
| | | < 5 m | Passive recreational uses |
| | Under Flyovers | - | Passive recreational uses |

Source: HKPSG Table 3.1: Guidelines on Usage of Open Space Site

6.1.4 Table 3.1 of the HKPSG also provides the broad guidelines for locating active open spaces close to potentially polluting uses, viz. industrial chimneys emissions. The recommended buffer distances are reproduced in **Table 6.3** .

**Table 6.3 Recommended Minimum Buffer Distance from Industrial Chimneys**

| Pollution Source | Parameter | Buffer Distance | Permitted Uses |
|---|---|---|---|
| Industrial Areas | Difference in Height between Industrial Chimney Exit and the Application Site | | |
| | < 20 m | > 200 m | Active and passive recreation uses |
| | | 5 – 200 m | Passive recreational uses |
| | 20 m – 30 m (*) | > 100 m | Active and passive recreational uses |
| | | 5 – 100 m | Passive recreational uses |
| | 30 m – 40 m | > 50 m | Active and passive recreational uses |
| | | 5 – 50 m | Passive recreational uses |
| | > 40 m | 10 m | Active & Passive recreational uses |

Source: HKPSG Table 3.1: Guidelines on Usage of Open Space Site
Notes:
(1) In situations where the height of chimneys is not known, use the set of guidelines marked with an asterisk for preliminary planning purpose and refine as and when more information is available.
(2) The buffer distance is the horizontal, shortest distance from the boundary of the industrial lot, the position of existing chimneys or the edge of road kerb, to the boundary of open space sites.
(3) The guidelines are generally applicable to major industrial areas but NOT individual large industrial establishments which are likely to be significant air pollution sources.
(4) Amenity areas are permitted in any situation.

6.1.5 Section 3.3.10 of the HKPSG recommends that a buffer distance of at least 200m from the air sensitive receivers (ASRs) should be provided for odour sources.

***Public Transport Interchange Air Quality Guideline***

6.1.6 A covered public transport interchange (PTI) has been proposed for the Development. According to Section 4.5 of the HKPSG, the design of the PTI should make reference to EPD's *Practice Note for Professional Persons for Control of Air Pollution in Semi-confined Public Transport Interchanges (ProPECC PN 1/22)*. Maximum allowable concentrations in the PTI have been recommended for several concerned air pollutants and are outlined in **Table 6.4** below. The exhaust (if any) of the covered PTI shall be located away from any air-sensitive

uses as far as possible.

**Table 6.4 Public Transport Interchange Air Quality Guideline**

| Air Pollutant | Maximum Concentration not to be Exceeded (μg/m³) (1) |
|---|---|
| | 1-hour Average |
| Carbon Monoxide (CO) | 30,000 |
| Nitrogen Dioxide ($NO_2$) | 200 |

Source: ProPECC PN 1/22 Table 1: Air Quality Guidelines
Note: (1) Expressed at the reference condition of 25°C and 101.325 kPa.

***Carparks Air Quality Guideline***

6.1.7 Carparks have been proposed for the Development. The design and operation of the proposed carparks should make reference to EPD's *Practice Note for Professional Persons for Control of Air Pollution in Car Parks (ProPECC PN 2/96)* such that the air quality guidelines set out in the *ProPECC PN 2/96* as summarized in **Table 6.5** are met under all conditions. The exhaust (if any) of the proposed car park shall be located away from any air-sensitive uses as far as possible.

**Table 6.5 Carparks Air Quality Guideline**

| Air Pollutant | Maximum Concentration not to be Exceeded (1) | | |
|---|---|---|---|
| | Averaging time | In μg/m³ | In ppm |
| Carbon Monoxide (CO) | 5 minutes | 115,000 | 100 |
| Nitrogen Dioxide ($NO_2$) | 5 minutes | 1,800 | 1 |

Source: ProPECC PN 2/96
Note: (1) Expressed at the reference condition of 25°C and 101.325 kPa.

## 6.2 Vehicular Emissions

6.2.1 The design of the Development has incorporated appropriate setback distance from the road network. Yuen Long Highway is the only existing road in close vicinity to the Development. According to the Annual Traffic Census (ATC) 2021 published by the TD, Yuen Long Highway is an Expressway. Access roads have been proposed for the Development. As advised by the Project Traffic Consultant and adopted in the PER, the proposed access roads are classified as Local Distributors, this classification has been approved by TD via email, dated 18 April 2023 (see Email Report attached in Appendix 4.1). As presented in **Table 6.2**, HKPSG's minimum requirements on the buffer distances from Yuen Long Highway (classified as Expressway) and the proposed access roads (classified as Local Distributor) are 20 m and 5 m respectively. **Figure 6.1** shows that all ASRs within the Application Site satisfy both requirements recommended in the HKPSG, except a small area of the podium near Block 1 and a small area of the podium near Block 4. There should not be any air sensitive uses (such as window opening for ventilation and fresh air intake) including recreation uses in open space located within the buffer distance. With the buffer distance requirement incorporated into the future design of the Proposed Development by HKHA, adverse impact from vehicular emission to the planned ASRs is not anticipated.

## 6.3 Odour Emissions

6.3.1 NWNT RTS located ~200 m west to the Application Site has been identified as the only potential source of odour located within 500 m from the Proposed Development. The major sources of odour at NWNT RTS are the waste tipping hall and the wastewater treatment plant

which are both located inside a fully enclosed tipping hall building and installed with odour removal units and maintained with negative pressure. Stringent odour management measures are implemented at NWNT RTS. The HKPSG's recommended buffer distance for odorous uses is 200 m. As shown in **Figure 6.2**, the residential blocks are located beyond 200 m from NWNT RTS, satisfying HKPSG's recommended buffer distance for odour. Part of the Application Site is within the 200 m radius from NWNT RTS. There should not be any air sensitive uses (such as window opening for ventilation and fresh air intake, etc.) including recreation uses in open space located within the buffer distance. Adverse impact from odour from NWNT RTS to the planned ASRs is not anticipated provided that no air sensitive uses would be located within the 200m buffer distance from the RTS.

6.3.2 Potential odour impact may also arise from transportation of collected refuse to and from NWNT RTS on the Proposed Development. As stipulated in the Amendment to Cap 354L Waste Disposal (Designated Waste Disposal Facility) Regulation, Refuse Collection Vehicles (RCVs) entering landfills or RTSs are statutorily required to be equipped with a metal tailgate cover and a waste water sump tank. The tailgate cover and the waste water sump tank must be suitably constructed and designed following the "Guidelines on the Design and Construction of Metal Tailgate Cover and Waste Water Sump Tank installed on Refuse Collection Vehicle", and in good working condition. The hopper and the compactor on the RCVs shall be enclosed by the metal tailgate cover to effectively mitigate the spread of odour. The operation of the RCVs shall following the "Code of Practice on the Operation of Refuse Collection Vehicles (RCVs)" compiled by EPD. With proper operation of RCVs, odour impact from the transportation of collected refuse to and from NWNT RTS using the RCVs is anticipated to be insignificant. In addition, the RCVs will be moving on the road. Therefore, odour impact from the transportation of collected refuse to and from NWNT RTS, if any, will be transient and temporary only.

6.3.3 Based on the Project Profile for LTNE development (Project Profile No. PP-642/2022), NWNT RTS would be relocated within the project site of the LTNE development. The engineering feasibility of the development including the relocation of NWNT RTS is still being studied. Thus, no detailed information including the proposed location and timeline of the relocation is available at this stage of the study. NWNT RTS constitute a Designated Project (DP) under the Environmental Impact Assessment Ordinance (EIAO), thus, its relocation would require a submission under the EIAO. Relevant odour emission from the relocated NWNT RTS to the Proposed Development shall be assessed under the statutory EIAO submission for NWNT RTS and/or other environmental deliverable under the LTNE study, if any, to ensure that no nearby ASRs including the Proposed Development will be subject to adverse odour impact from the operation of the relocated NWNT RTS.

6.3.4 Refuse collection points (RCPs) and a wet market are proposed for the Proposed Development. The detailed designs of the RCPs and wet market are unavailable at this stage of the study. In order to alleviate the potential odour impact from these facilities, mechanical ventilation and odour removal system will be provided for the RCPs and wet market to remove malodour in air discharged from these facilities. The ventilation exhausts will be designed to locate and orient away from the nearby ASRs as far as practicable. In addition, the RCPs will be properly cleansed immediately after each collection operation. Like other public RCPs, operational guidelines and monitoring mechanisms, such as regular checks and surprise inspections, by the Food and Environmental Hygiene Department (FEHD) will be in place to ensure proper operation of the RCPs. For the wet market, a sufficiently designed mechanical ventilation system will be provided. Similar to the arrangement for the RCPs, the ventilation exhausts for the wet market will be designed to locate and orient away from the

nearby ASRs as far as practicable. The wet market should be designed to allow for ease of cleaning and management. Good hygiene and effective operational and waste management practices are essential in ensuring that odour from the wet market is minimised. With appropriate design and management, no unacceptable odour impact from the operation of the proposed RCPs and wet market to the Proposed Development is anticipated.

## 6.4 Industrial Emissions

6.4.1 The chimneys at Pun Chun Sauce & Preserved Fruit Factory Ltd. have been identified as the industrial emissions located closest to the Application Site. As shown in **Figure 6.3**, the Application Site is located beyond 200 m from the nearest chimneys, satisfying HKPSG's recommended buffer distance for industrial uses of 200 m as presented in **Table 6.3**. With the provision of adequate buffer distances recommended in the HKPSG for chimneys, adverse air quality impacts are not anticipated at the Proposed Development.

6.4.2 As shown in **Appendix 2.2**, the proposed Lam Tei cavern site under LTNE development will be located less than 200 m to the southeast to the Proposed Development. The uses inside the cavern and the location of portal(s) are unavailable at this stage. Industrial emissions may arise from the industrial uses inside the cavern, if any, posing potential air quality impact to the Proposed Development. As discussed in **Section 2.3.6**, the potential air quality impact arising from the LTNE development on the nearby ASRs including the Proposed Development will be assessed under the LTNE development EIA study.

# 7 CONCLUSION

## 7.1 General

7.1.1 A Preliminary Environmental Assessment has been conducted to support the Section 16 planning application for proposed minor relaxation in maximum plot ratio and maximum building height for the proposed public housing development near Tan Kwai Tsuen, Yuen Long.

## 7.2 Road Traffic Noise Impact

7.2.1 Road traffic noise from Yuen Long Highway and the proposed access roads is anticipated to give rise to noise exceedance at the planned NSRs facing these roads at the Application Site. Mitigation measures in the form of acoustic windows for domestic uses and fixed windows with central air ventilation for other non-domestic uses have been proposed. With the mitigation measures in place, no unacceptable adverse noise impact to the Proposed Development is anticipated.

## 7.3 Fixed Noise Sources Impact

7.3.1 No adverse fixed noise impact is anticipated from the operation of the existing and planned facilities near the Application Site.

## 7.4 Potential Noise Impacts from the Proposed PTI

7.4.1 A covered PTI is proposed in the podium of Phase 3. The stopping bays and islands in the proposed PTI will be designed to have no line of sight to the nearby NSRs in order to avoid adverse noise impacts to the nearby NSRs. Other mitigation measures, such as placing the exhaust of the ventilation system away from the NSRs, provision of absorptive lining on ceiling and interior walls of the PTI, and provision of acoustic louvre and/or silencers to the exhaust of the ventilation system will be incorporated as necessary into the design of the PTI, subject to further review during detailed design, to further minimize the potential noise impacts. With the appropriate design measures incorporated into the PTI design, no adverse noise impact from the proposed PTI is anticipated.

## 7.5 Air Quality Impact

7.5.1 In order to satisfy the requirements recommended in the HKPSG, no air sensitive uses (such as window opening for ventilation and fresh air intake, etc.) including recreation uses in open space will be located within the buffer distance from roads. The recommendation will be incorporated into the design of the Proposed Development by the relevant departments, e.g. HKHA. As such, no insurmountable air quality impact on the Proposed Development at the Application Site is anticipated.

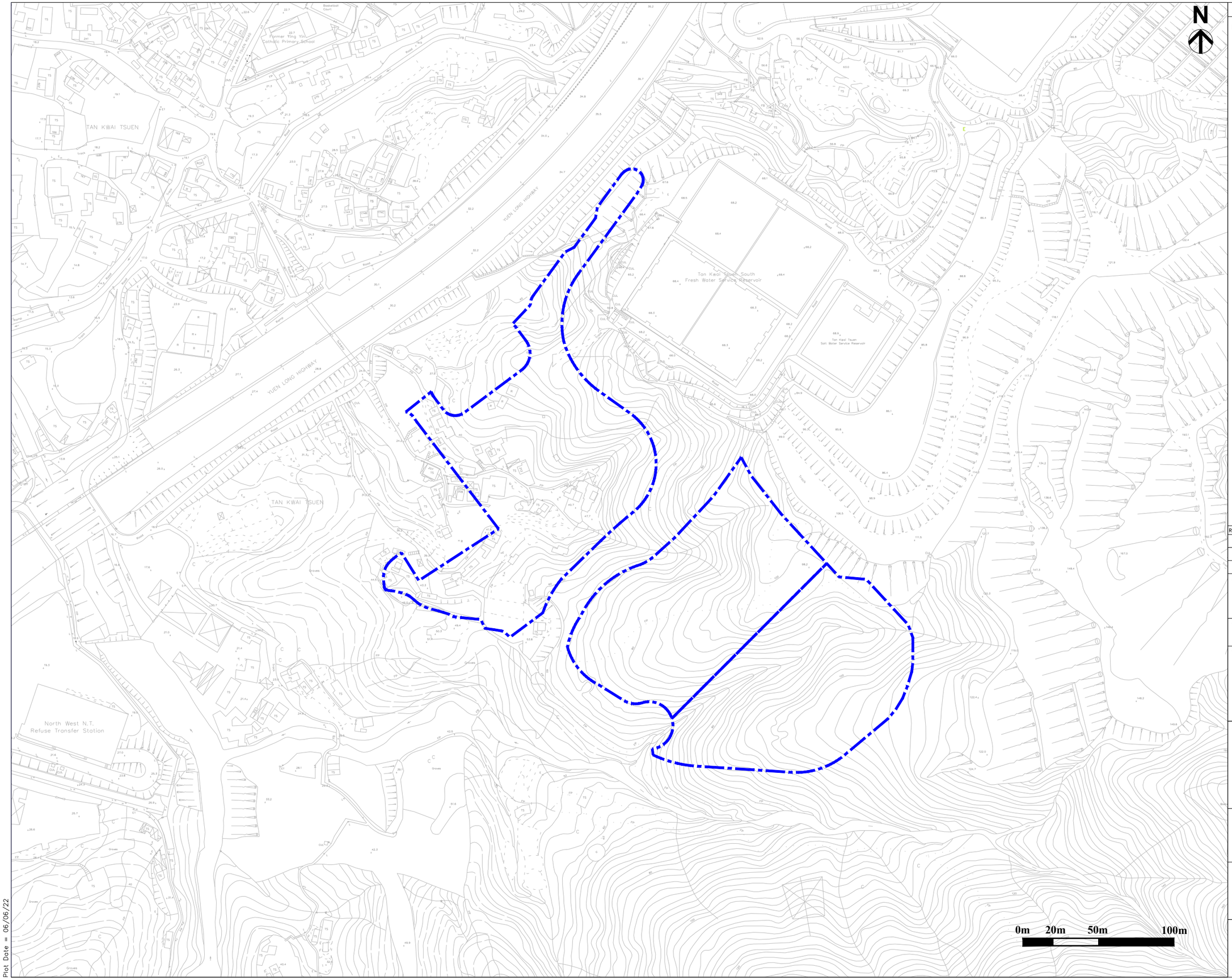
7.5.2 Residential blocks of the Proposed Development are located beyond 200 m from NWNT RTS. There should not be any air sensitive uses (such as window opening for ventilation and fresh air intake, etc.) including recreation uses in open space located within the HKPSG's recommended buffer distance of 200 m from NWNT RTS. With the compliance of the HKPSG buffer distance requirement and the stringent odour management measures implemented at NWNT RTS, no adverse odour impact on the Proposed Development is anticipated. NWNT RTS would be relocated under the LTNE development. Detailed information is not available at this stage. The potential odour impacts from the relocated NWNT RTS to the Proposed Development shall be addressed in the LTNE development study.

7.5.3 For the operation of the proposed RCPs and wet market of the Proposed Development, with proper design and management, no unacceptable odour impact is anticipated.

7.5.4 No active chimneys have been identified within HKPSG 's recommended buffer of 200m from the Application Site. Adverse air quality impacts due to industrial emission are not anticipated at the Development.

***END OF TEXT***

# FIGURE






LEGEND:

APPLICATION SITE

| Revision | Date | Description | | Initial |
|---|---|---|---|---|
| | Designed | Checked | Drawn | Checked |
| Initial | | | SN | KY |
| Date | | | 11/22 | 11/22 |

Approved

Agreement no.

CE 92/2017 (CE)

Agreement title

SITE FORMATION AND INFRASTRUCTURE WORKS FOR PUBLIC HOUSING DEVELOPMENTS NEAR TAN KWAI TSUEN, YUEN LONG – INVESTIGATION, DESIGN AND CONSTRUCTION

Drawing title

LOCATION OF THE APPLICATION SITE

Drawing No.

Figure 1.1

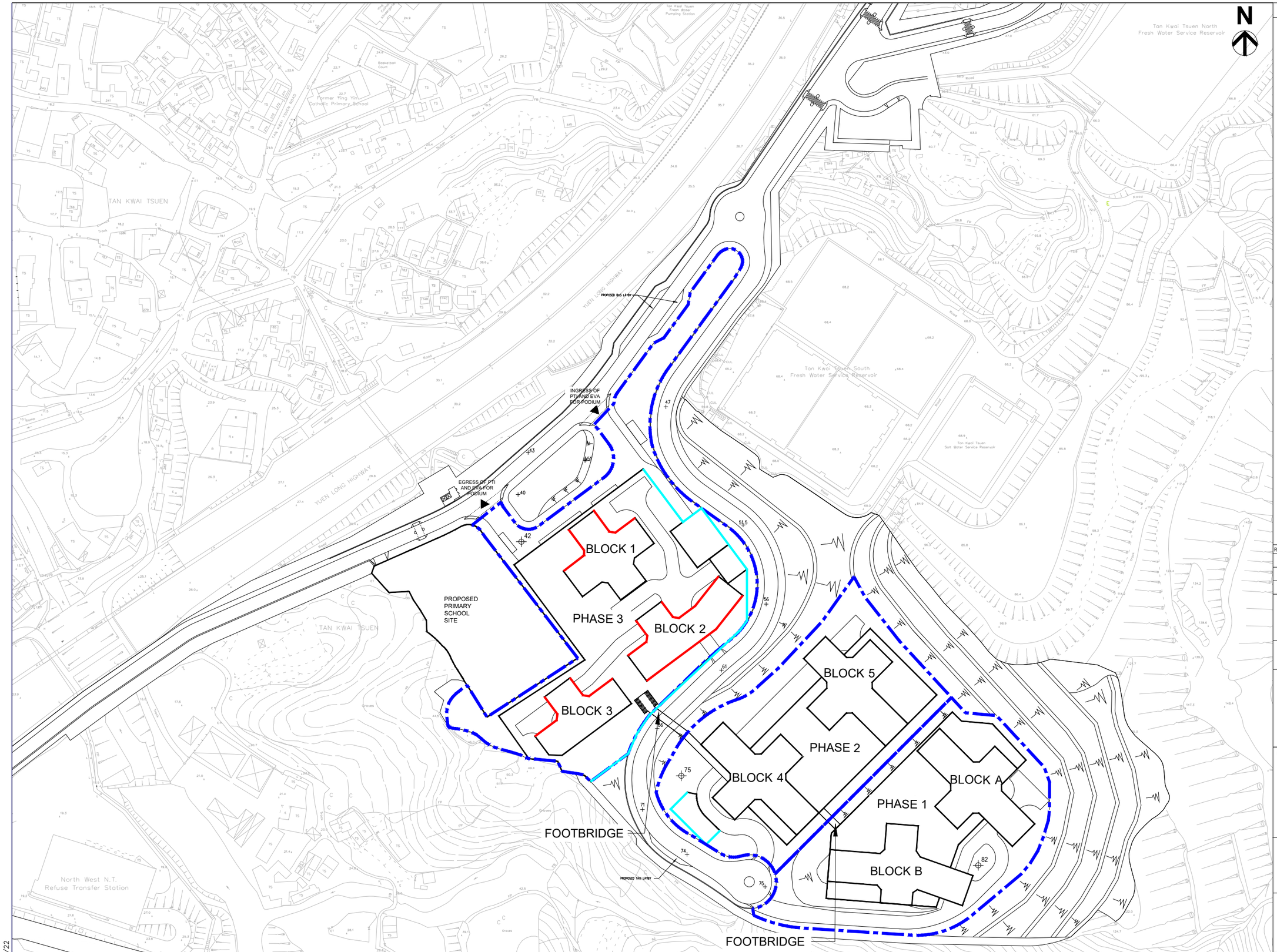
Scale

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

BINNIES HONG KONG LIMITED
賓尼斯工程顧問有限公司

Plot Date = 06/06/22

CAD Filename = Q:\Projects\BVTKTIDCEI00\04 Deliverables\07 S16 EA\01 Figures\EA_v2.0\Source\Figure 1.1 Location of Applicaiton Site.dwg






LEGEND:

APPLICATION SITE

FAÇADE POTENTIALLY PRONE TO ROAD TRAFFIC NOISE EXCEEDANCE

DOMESTIC BLOCK

PODIUM (SUBJECT TO THE USES)

| Revision | Date | Description | | Initial |
|---|---|---|---|---|
| | Designed | Checked | Drawn | Checked |
| Initial | | | SN | KY |
| Date | | | 11/22 | 11/22 |

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CE 92/2017 (CE)

Agreement title

SITE FORMATION AND INFRASTRUCTURE WORKS FOR PUBLIC HOUSING DEVELOPMENTS NEAR TAN KWAI TSUEN, YUEN LONG – INVESTIGATION, DESIGN AND CONSTRUCTION

Drawing title

LOCATION OF FAÇADES POTENTIALLY PRONE TO ROAD TRAFFIC NOISE EXCEEDANCE

Drawing No.

Figure 3.1

Scale

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

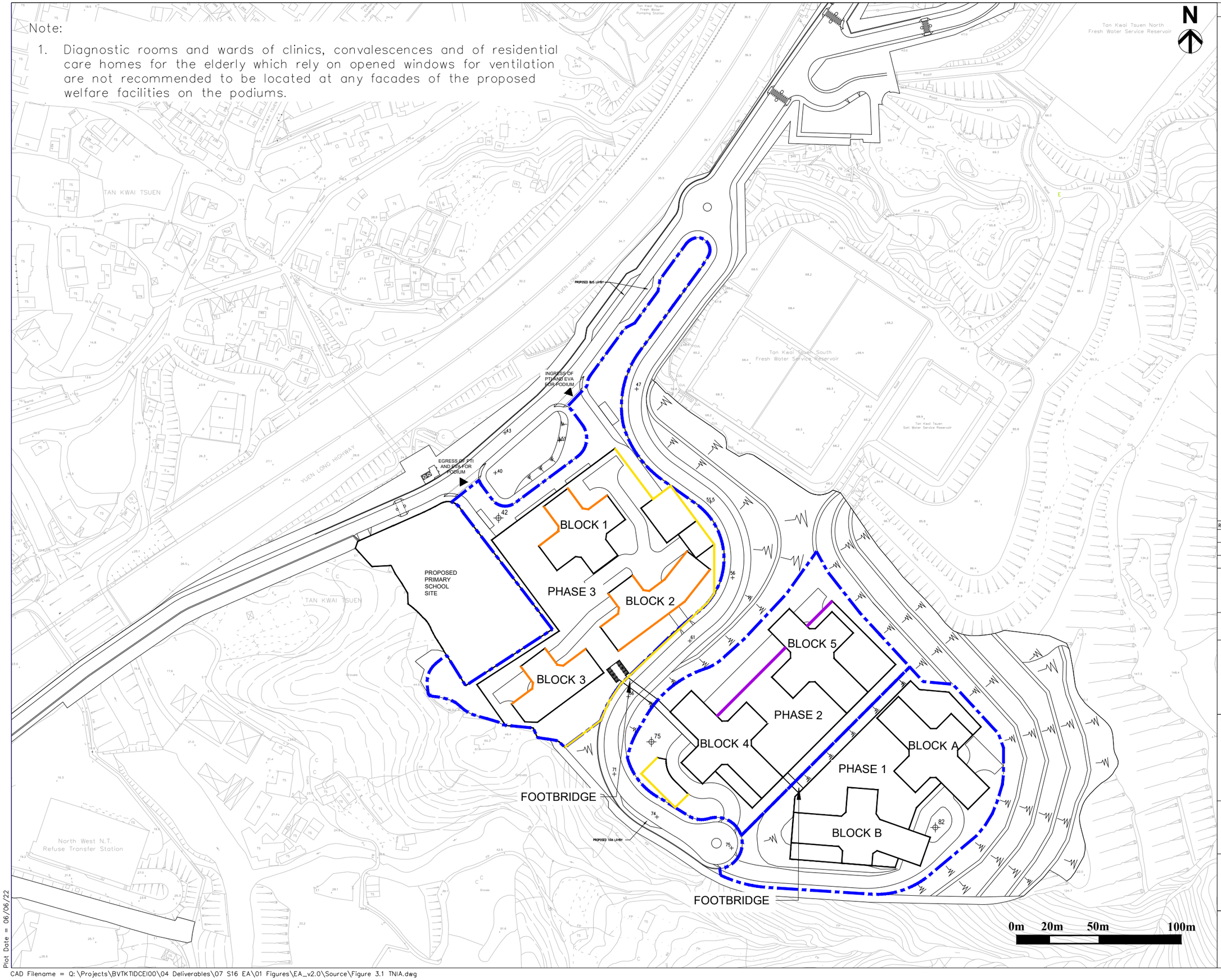
BINNIES HONG KONG LIMITED
賓尼斯工程顧問有限公司

Plot Date = Nov/22

CAD Filename = Q:\Projects\BVTKTIDCEI00\04 Deliverables\07 S16 EA\01 Figures\EA_v2.0\Source\Figure 3.1 TNIA.dwg

Note:

1. Diagnostic rooms and wards of clinics, convalescences and of residential care homes for the elderly which rely on opened windows for ventilation are not recommended to be located at any facades of the proposed welfare facilities on the podiums.






LEGEND:

- APPLICATION SITE
- ACOUSTIC WINDOWS
- FIXED WINDOWS WITH MECHANICAL AIR VENTILATION
- PROHIBITED FOR CLINICS, CONVALESCENCES AND HOMES FOR THE AGED DIAGNOSTIC ROOMS AND WARDS AND EDUCATIONAL INSTITUTIONS USES, INCLUDING KINDERGARTENS, CHILD CARE CENTRES, ETC. WHICH RELY ON OPENED WINDOWS FOR VENTILATION

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| Initial | | | SN | KY | |
| Date | | | 11/22 | 11/22 | |

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SITE FORMATION AND INFRASTRUCTURE WORKS FOR PUBLIC HOUSING DEVELOPMENTS NEAR TAN KWAI TSUEN, YUEN LONG – INVESTIGATION, DESIGN AND CONSTRUCTION

Drawing title

PROPOSED ROAD TRAFFIC NOISE MITIGATION MEASURES FOR PLANNED NOISE SENSITIVE RECEIVERS

Drawing No.

Figure 3.2

Scale

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

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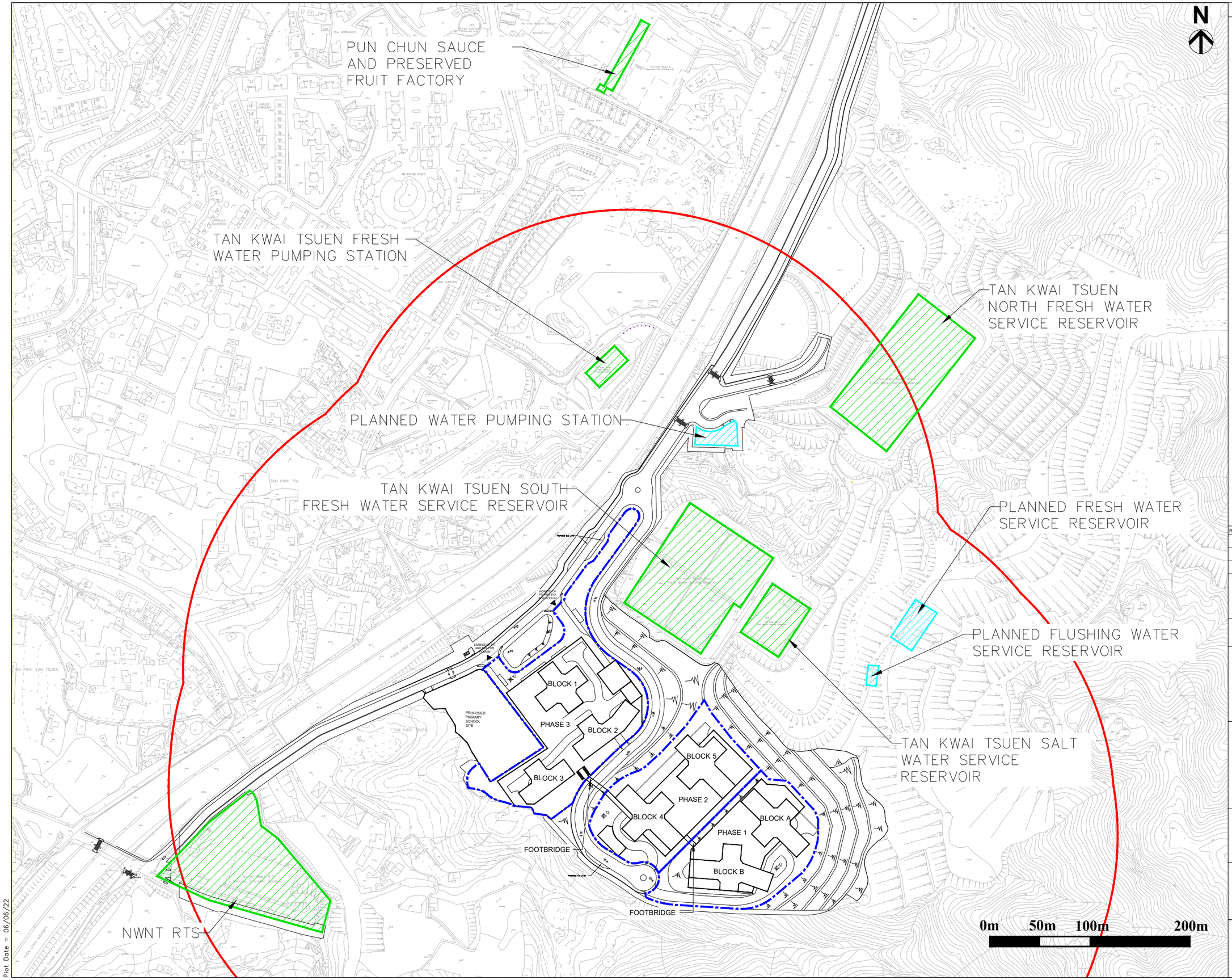
CAD Filename = Q:\Projects\BVTKTIDCEI00\04 Deliverables\07 S16 EA\01 Figures\EA_v2.0\Source\Figure 3.1 TNIA.dwg






LEGEND:

- APPLICATION SITE
- 300m ASSESSMENT AREA FOR FIXED PLANT NOISE IMPACT ASSESSMENT
- EXISTING POTENTIAL FIXED PLANT NOISE SOURCE
- PLANNED POTENTIAL FIXED PLANT NOISE SOURCE WITHIN THE DEVELOPMENT

| Revision | Date | Description | | | Initial |
|---|---|---|---|---|---|
| | | Designed | Checked | Drawn | Checked |
| Initial | | | | SN | KY |
| Date | | | | 11/22 | 11/22 |

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Agreement no.

CE 92/2017 (CE)

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SITE FORMATION AND INFRASTRUCTURE WORKS FOR PUBLIC HOUSING DEVELOPMENTS NEAR TAN KWAI TSUEN, YUEN LONG – INVESTIGATION, DESIGN AND CONSTRUCTION

Drawing title

LOCATION OF THE EXISTING AND PLANNED POTENTIAL FIXED PLANT NOISE SOURCES

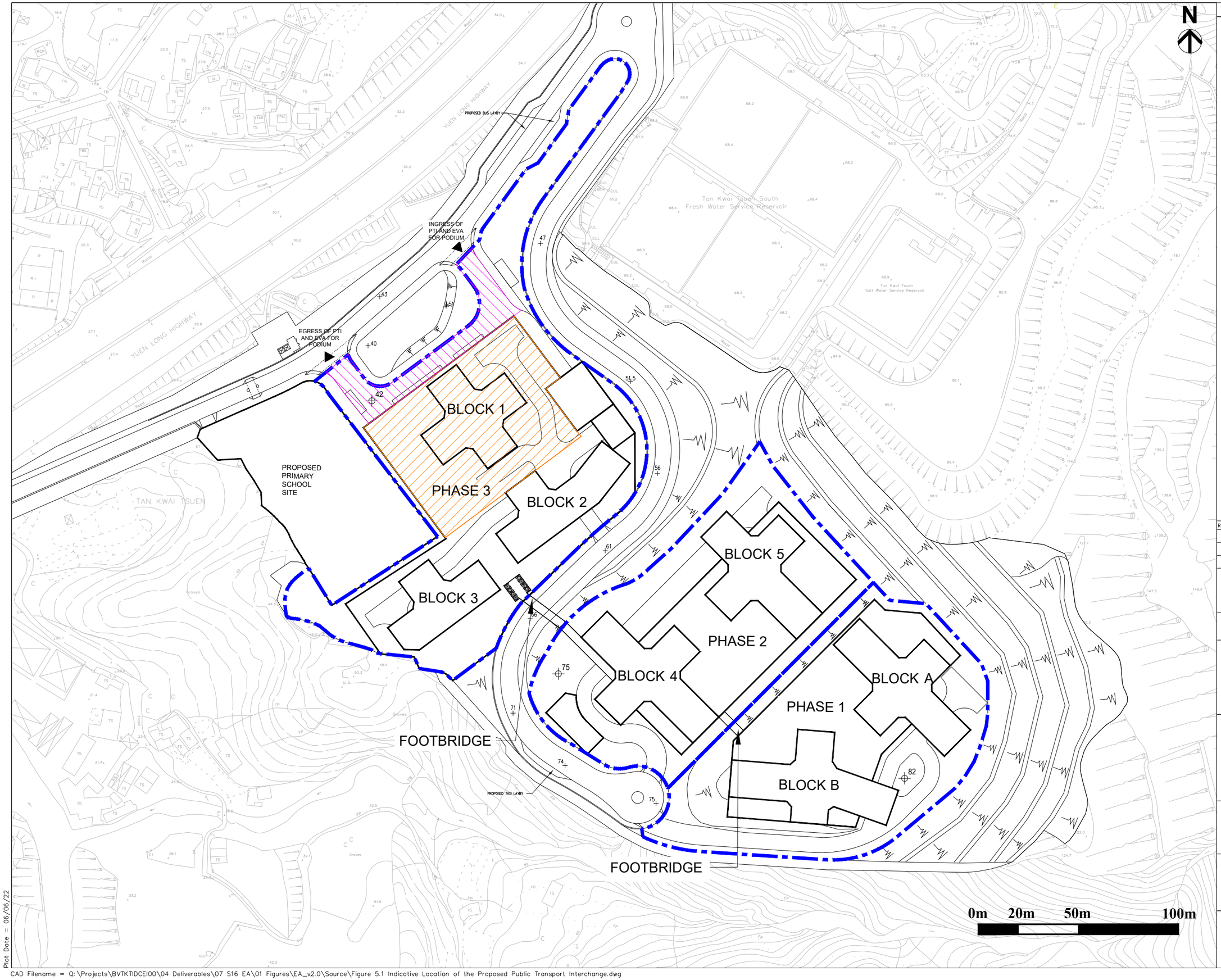
| Drawing No. | Scale |
|---|---|
| Figure 4.1 | |

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

BINNIES HONG KONG LIMITED
賓尼斯工程顧問有限公司

Plot Date = 06/06/22

CAD Filename = Q:\Projects\BVTKTIDCEI00\04 Deliverables\07 S16 EA\01 Figures\EA_v2.0\Source\Figure 4.1 Locations of the Existing and Planned Potential Fixed Plant Noise Sources.dwg






LEGEND:

- APPLICATION SITE
- PROPOSED PTI UNDER THE PODIUM
- INGRESS AND EGRESS OF THE PROPOSED PTI OUTSIDE THE PODIUM

| Revision | Date | Description | | | Initial |
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| | Designed | Checked | Drawn | Checked | |
| Initial | | | SN | KY | |
| Date | | | 11/22 | 11/22 | |

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Agreement no.
CE 92/2017 (CE)

Agreement title
SITE FORMATION AND INFRASTRUCTURE WORKS FOR PUBLIC HOUSING DEVELOPMENTS NEAR TAN KWAI TSUEN, YUEN LONG – INVESTIGATION, DESIGN AND CONSTRUCTION

Drawing title
INDICATIVE LOCATION OF THE PROPOSED PUBLIC TRANSPORT INTERCHANGE

Drawing No.
Figure 5.1

Scale

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

BINNIES HONG KONG LIMITED
賓尼斯工程顧問有限公司

Plot Date = 06/06/22

CAD Filename = Q:\Projects\BVTKTIDCEI00\04 Deliverables\07 S16 EA\01 Figures\EA_v2.0\Source\Figure 5.1 Indicative Location of the Proposed Public Transport Interchange.dwg

N

PART PLAN A

PART PLAN B

0.8 m

0.8 m

LEGEND:

- APPLICATION SITE
- HKPSG'S RECOMMENDED BUFFER DISTANCE OF 20m FOR TRUNK ROAD
- HKPSG'S RECOMMENDED BUFFER DISTANCE OF 5m FOR LOCAL DISTRIBUTORS
- AREA PROHIBITED FOR AIR SENSITIVE USES INCLUDING OPENABLE WINDOW, FRESH AIR INTAKE AND RECREATIONAL USE IN THE OPEN SPACE

REMARKS:
NO AIR SENSITIVE USES INCLUDING OPENABLE WINDOW, FRESH AIR INTAKE AND RECREATIONAL USE IN THE OPEN SPACE ARE ALLOWED WITHIN THE HKPSG'S RECOMMENDED BUFFER ZONES.

Former Ying Yin Catholic Primary School

TAN KWAI TSUEN ROAD

YUEN LONG HIGHWAY

PROPOSED B/S LAYBY

INGRESS OF PTI AND EVA FOR PODIUM

EGRESS OF PTI AND EVA FOR PODIUM

Tan Kwai Tsuen South Fresh Water Service Reservoir

BLOCK 1

PROPOSED PRIMARY SCHOOL SITE

PHASE 3

BLOCK 2

BLOCK 3

BLOCK 5

PHASE 2

BLOCK 4

BLOCK A

PHASE 1

BLOCK B

FOOTBRIDGE

PROPOSED TAXI LAYBY

FOOTBRIDGE

TAN KWAI TSUEN

0m 20m 50m 100m

| Revision | Date | Description | | | Initial |
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| | Designed | Checked | Drawn | Checked | |
| Initial | | | SN | KY | |
| Date | | | 11/22 | 11/22 | |

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Agreement no.
CE 92/2017 (CE)

Agreement title
SITE FORMATION AND INFRASTRUCTURE WORKS FOR PUBLIC HOUSING DEVELOPMENTS NEAR TAN KWAI TSUEN, YUEN LONG – INVESTIGATION, DESIGN AND CONSTRUCTION

Drawing title
HKPSG'S RECOMMENDED BUFFER DISTANCE FOR ROADS

Drawing No.
Figure 6.1

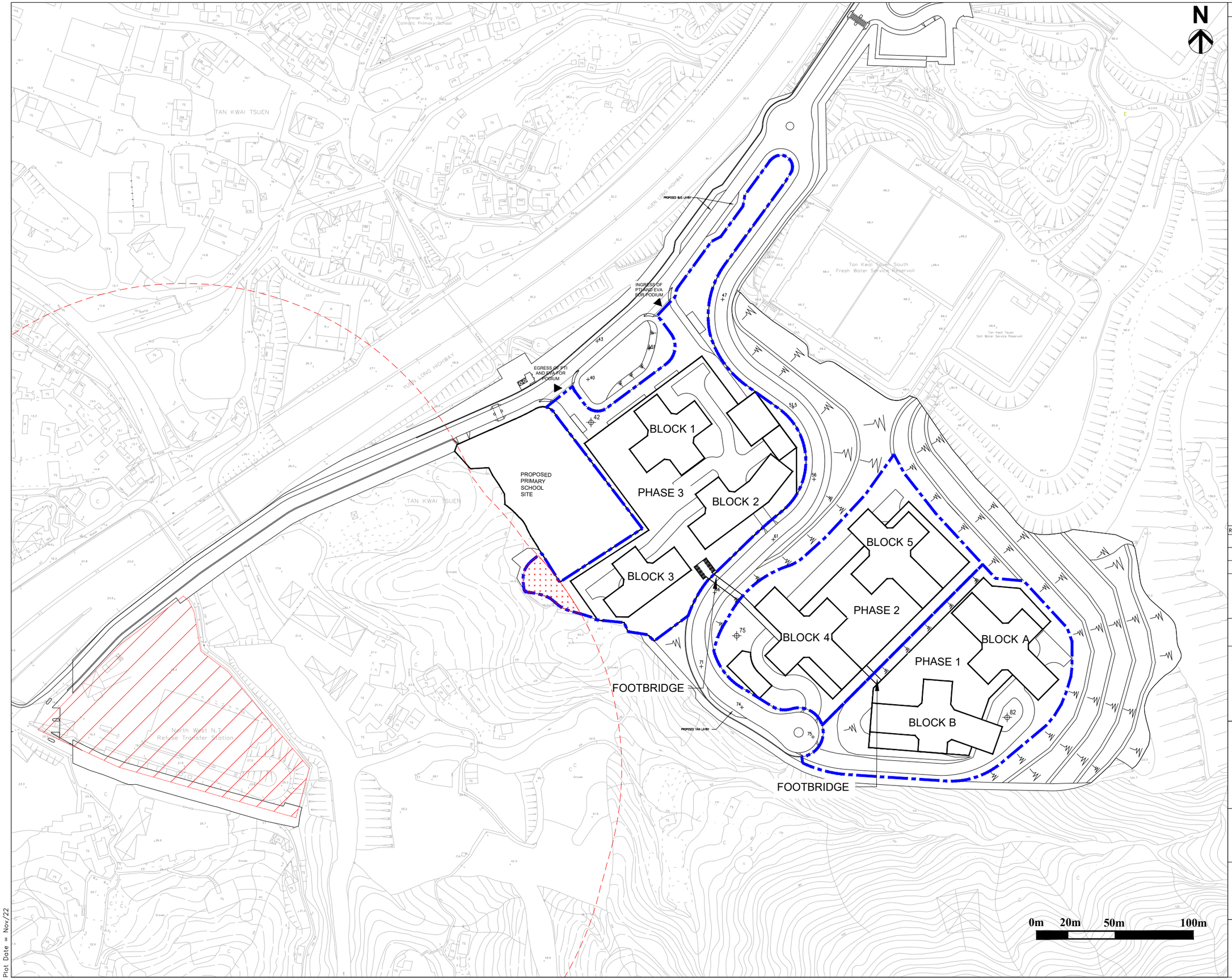
Scale

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

BINNIES HONG KONG LIMITED
賓尼新工程顧問有限公司

Plot Date = Nov/22

CAD Filename = Q:\Projects\BVTKTIDCEI00\04 Deliverables\07 S16 EA\01 Figures\EA_v2.0\Source\Figure 6.1 HKPSG Recommended Buffer Distance for Roads.dwg






LEGEND:

- APPLICATION SITE
- POTENTIAL SOURCE OF ODOUR (NWNT REFUSE TRANSFER STATION)
- 200m RADIUS FROM POTENTIAL SOURCE OF ODOUR
- AREA PROHIBITED FOR AIR SENSITIVE USES INCLUDING OPENABLE WINDOW, FRESH AIR INTAKE AND RECREATIONAL USE IN THE OPEN SPACE

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| | Designed | Checked | Drawn | Checked |
| Initial | | | SN | KY |
| Date | | | 11/22 | 11/22 |

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Agreement no.
CE 92/2017 (CE)

Agreement title
SITE FORMATION AND INFRASTRUCTURE WORKS FOR PUBLIC HOUSING DEVELOPMENTS NEAR TAN KWAI TSUEN, YUEN LONG – INVESTIGATION, DESIGN AND CONSTRUCTION

Drawing title
LOCATION OF POTENTIAL SOURCE OF ODOUR

Drawing No.
Figure 6.2

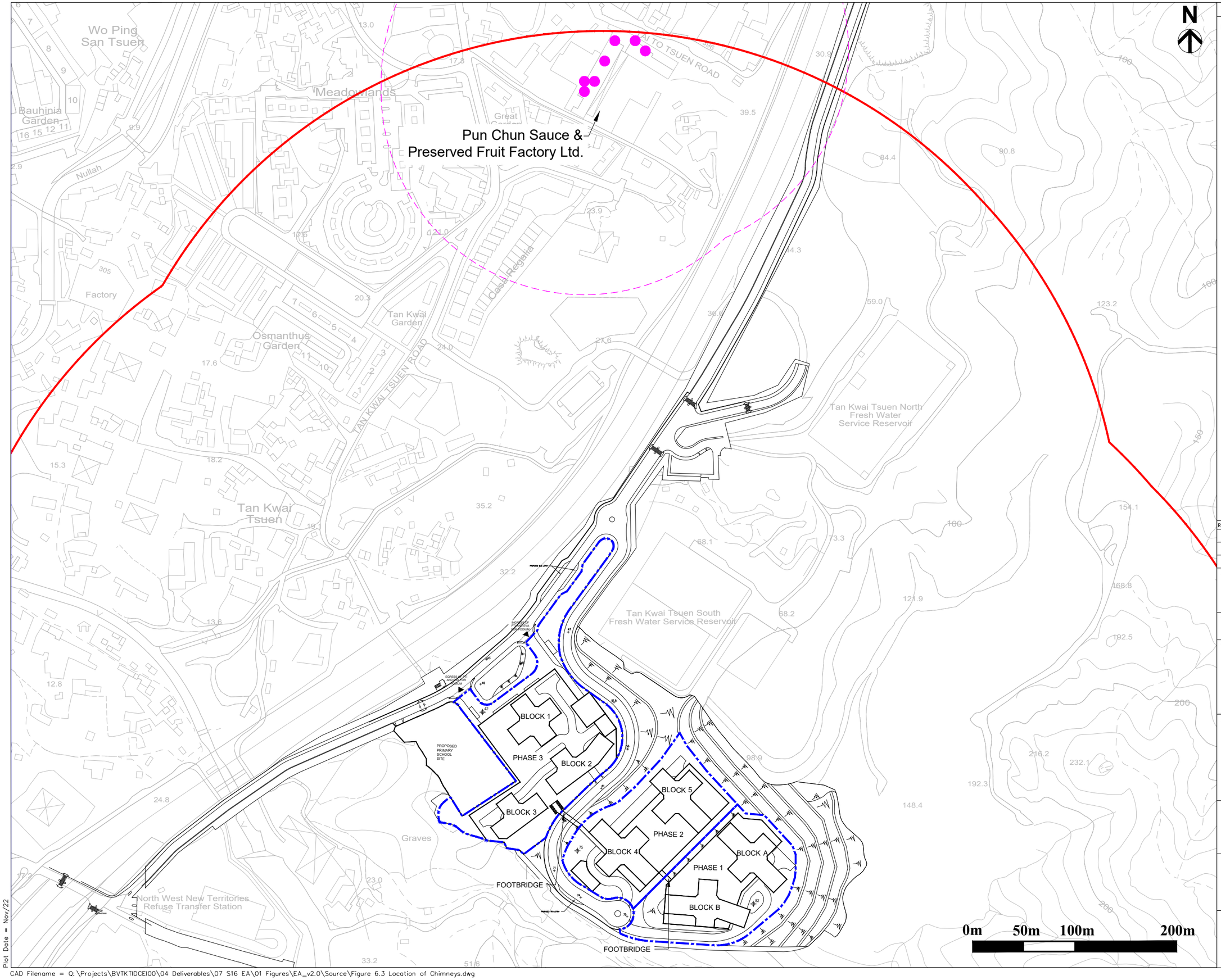
Scale

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

BINNIES HONG KONG LIMITED
賓尼斯工程顧問有限公司

Plot Date = Nov/22

CAD Filename = Q:\Projects\BVTKTIDCEI00\04 Deliverables\07 S16 EA\01 Figures\EA_v2.0\Source\Figure 6.2 Location of Source of Odour.dwg






LEGEND:

- APPLICATION SITE
- 500m AIR QUALITY IMPACT ASSESSMENT AREA
- IDENTIFIED ACTIVE CHIMNEYS
- 200m RADIUS FROM THE CHIMNEYS

| Revision | Date | Description | | Initial |
|---|---|---|---|---|
| | Designed | Checked | Drawn | Checked |
| Initial | | | SN | KY |
| Date | | | 11/22 | 11/22 |

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Agreement no.

CE 92/2017 (CE)

Agreement title

SITE FORMATION AND INFRASTRUCTURE WORKS FOR PUBLIC HOUSING DEVELOPMENTS NEAR TAN KWAI TSUEN, YUEN LONG – INVESTIGATION, DESIGN AND CONSTRUCTION

Drawing title

LOCATION OF IDENTIFIED ACTIVE CHIMNEYS

Drawing No.

Figure 6.3

Scale

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

BINNIES HONG KONG LIMITED
賓尼斯工程顧問有限公司

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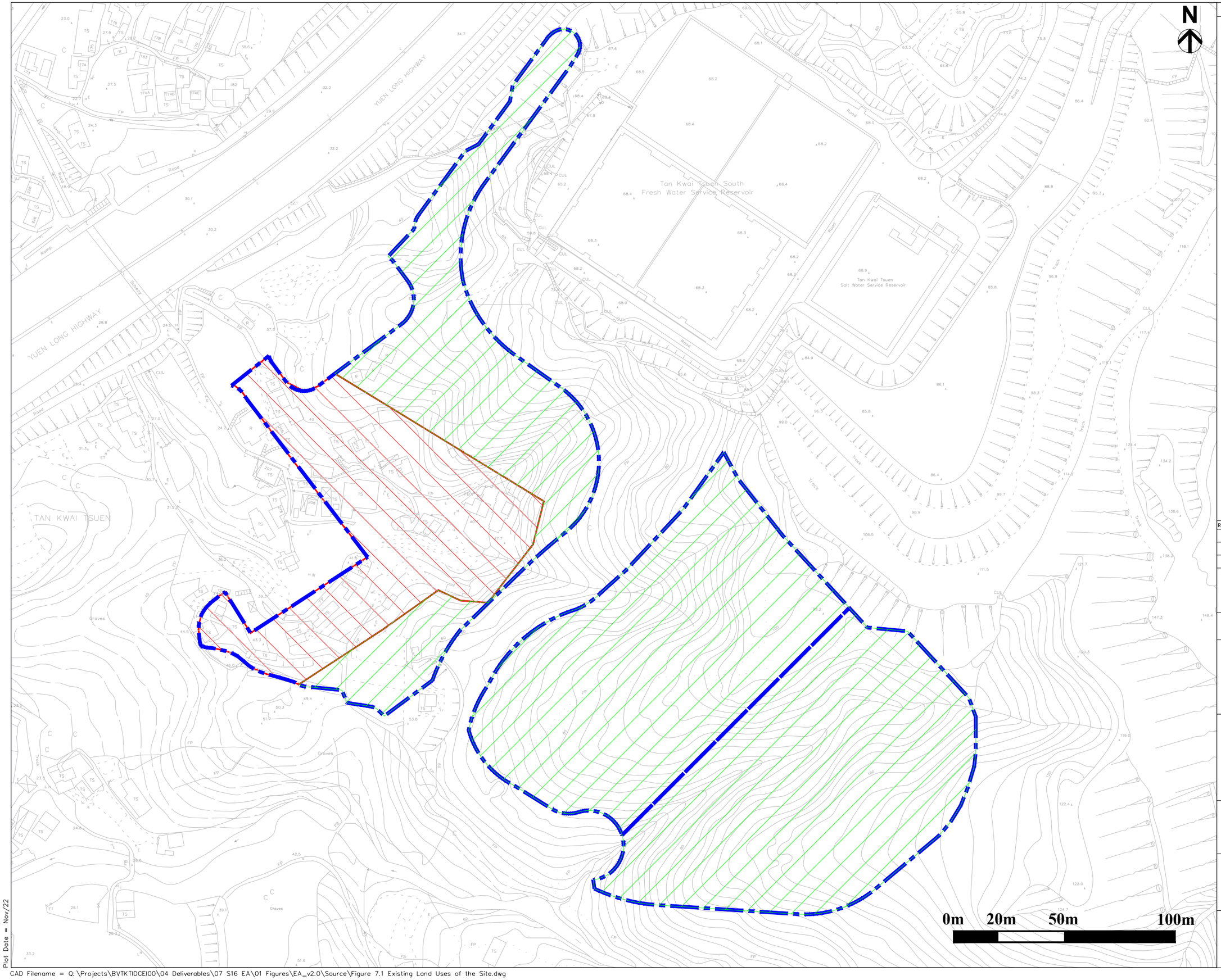
CAD Filename = Q:\Projects\BVTKTIDCEI00\04 Deliverables\07 S16 EA\01 Figures\EA_v2.0\Source\Figure 6.3 Location of Chimneys.dwg






LEGEND:

- APPLICATION SITE
- AREA OF VEGETATION AND SLOPE
- AREA OF VILLAGE HOUSES

| Revision | Date | Description | | | Initial |
|---|---|---|---|---|---|
| | Designed | Checked | Drawn | Checked | |
| Initial | | | SN | KY | |
| Date | | | 11/22 | 11/22 | |

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Agreement no.

CE 92/2017 (CE)

Agreement title

SITE FORMATION AND INFRASTRUCTURE WORKS FOR PUBLIC HOUSING DEVELOPMENTS NEAR TAN KWAI TSUEN, YUEN LONG – INVESTIGATION, DESIGN AND CONSTRUCTION

Drawing title

EXISTING LANDUSES OF THE APPLICATION SITE

Drawing No.

Figure 7.1

Scale

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

BINNIES HONG KONG LIMITED
賓尼斯工程顧問有限公司

Plot Date = Nov/22

CAD Filename = Q:\Projects\BVTKTIDCEI00\04 Deliverables\07 S16 EA\01 Figures\EA_v2.0\Source\Figure 7.1 Existing Land Uses of the Site.dwg

# APPENDIX 2.1

# MASTER LAYOUT PLAN

N

丹桂村
TAN KWAI TSUEN

元朗公路
YUEN LONG HIGHWAY

丹桂村配水庫
TAN KWAI TSUEN
FRESH WATER SERVICE
RESERVOIR

PROPOSED BUS LAYBY

INGRESS OF PTI AND EVA FOR PODIUM

EGRESS OF PTI AND EVA FOR PODIUM

PROPOSED PRIMARY SCHOOL SITE

**BLOCK 1**
TOTAL 60 STOREYS
(50 DOM-STOREY +
2 NO. REFUGE FLOORS +
G/F + 7-STOREY PODIUM)

**BLOCK 2**
TOTAL 60 STOREYS
(50 DOM-STOREY +
2 NO. REFUGE FLOORS +
G/F + 7-STOREY PODIUM)

**BLOCK 5**
TOTAL 51 STOREYS
(44 DOM-STOREY +
1 NO. REFUGE FLOOR +
G/F + 5-STOREY PODIUM)

**BLOCK A**
TOTAL 50 STOREYS
(43 DOM-STOREY +
1 NO. REFUGE FLOOR +
G/F + 5-STOREY PODIUM)

**BLOCK 3**
TOTAL 60 STOREYS
(50 DOM-STOREY +
2 NO. REFUGE FLOORS +
G/F + 7-STOREY PODIUM)

**BLOCK 4**
TOTAL 51 STOREYS
(44 DOM-STOREY +
1 NO. REFUGE FLOOR +
G/F + 5-STOREY PODIUM)

**BLOCK B**
TOTAL 50 STOREYS
(43 DOM-STOREY +
1 NO. REFUGE FLOOR +
G/F + 5-STOREY PODIUM)

PROPOSED TAXI LAYBY

FOOTBRIDGE
(CONNECT PHASES 1 &2)

BLOCK 1
BLOCK 2
PHASE 3
BLOCK 3
BLOCK 5
PHASE 2
BLOCK 4
BLOCK A
PHASE 1
BLOCK B

## LEGEND

- SITE BOUNDARY
- EVA / DRIVEWAY
- DOMESTIC BLOCK
- PODIUM (COMMERCIAL / RETAIL / CARPARK / MARKET / SOCIAL WELFARE FACILITIES / PTI UNDERNEATH)
- FOOTBRIDGE
- REFUSE COLLECTION POINT

DRAFT

PROJECT TITLE

**PUBLIC HOUSING DEVELOPMENT AT NEAR TAN KWAI TSUEN PHASES 1, 2 & 3**

DRAWING TITLE

# PROPOSED SITE LAYOUT PLAN

SCALE 1:1000 (A1) , 1:2000 (A3)

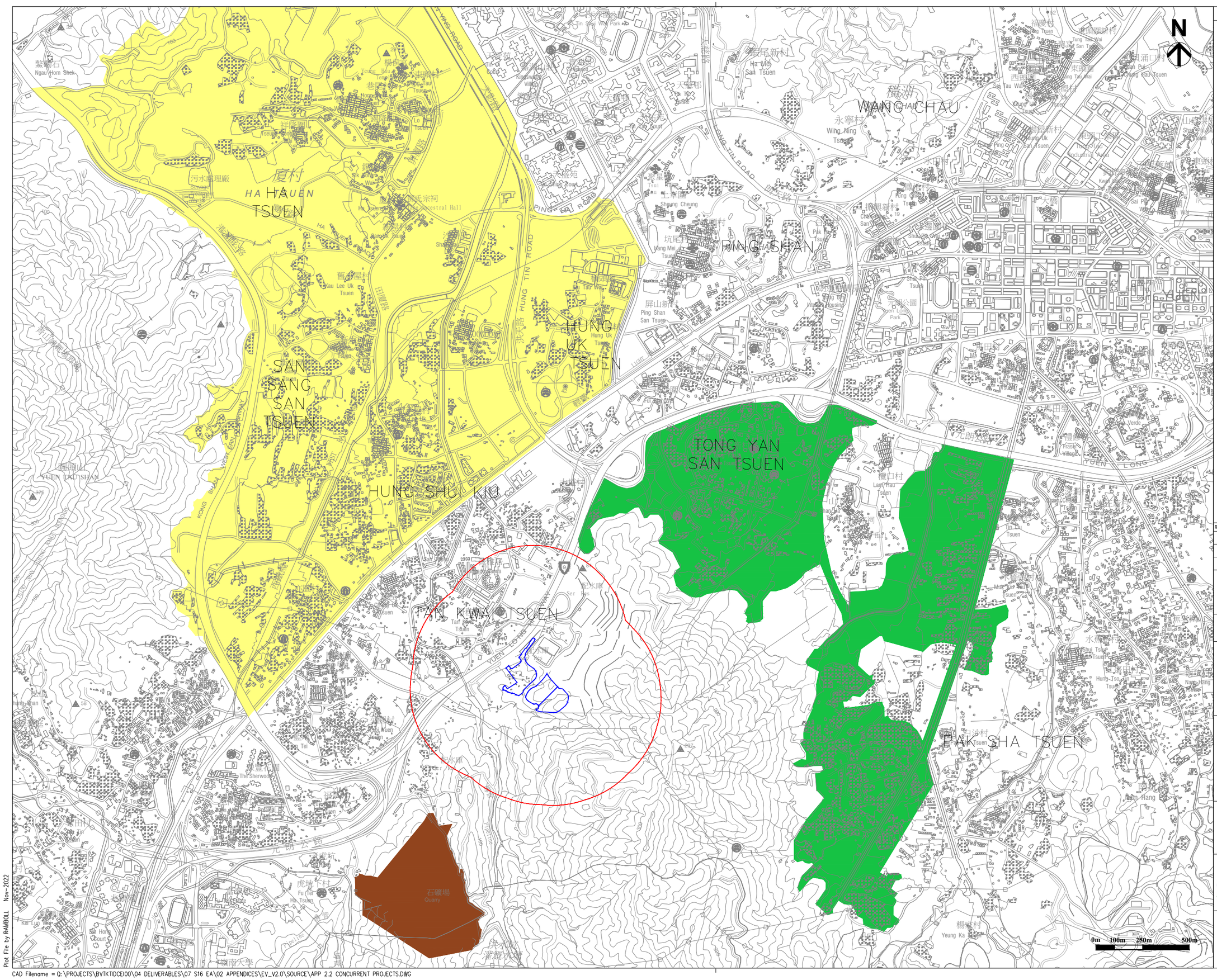
房 屋 署
HOUSING DEPARTMENT

DRAWING NO.
YL52/S16/A/LO-01

DATE:
13/6/2022

# APPENDIX 2.2

# LOCATIONS OF CONCURRENT PROJECTS






LEGEND:

- APPLICATION SITE
- 500m RADIUS FROM THE APPLICATION SITE
- HUNG SHUI KIU NEW DEVELOPMENT AREA
- YUEN LONG SOUTH POTENTIAL DEVELOPMENT AREA
- LAM TEI QUARRY AREA

| Revision | Date | Description | | Initial |
|---|---|---|---|---|
| | Designed | Checked | Drawn | Checked |
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| Date | | | 11/22 | 11/22 |

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Agreement no.

CE 92/2017 (CE)

Title

SITE FORMATION AND INFRASTRUCTURE WORKS FOR PUBLIC HOUSING DEVELOPMENT NEAR TAN KWAI TSUEN, YUEN LONG – INVESTIGATION, DESIGN AND CONSTRUCTION

Drawing Title

LOCATIONS OF CONCURRENT PROJECTS

Drawing No.

APPENDIX 2.2

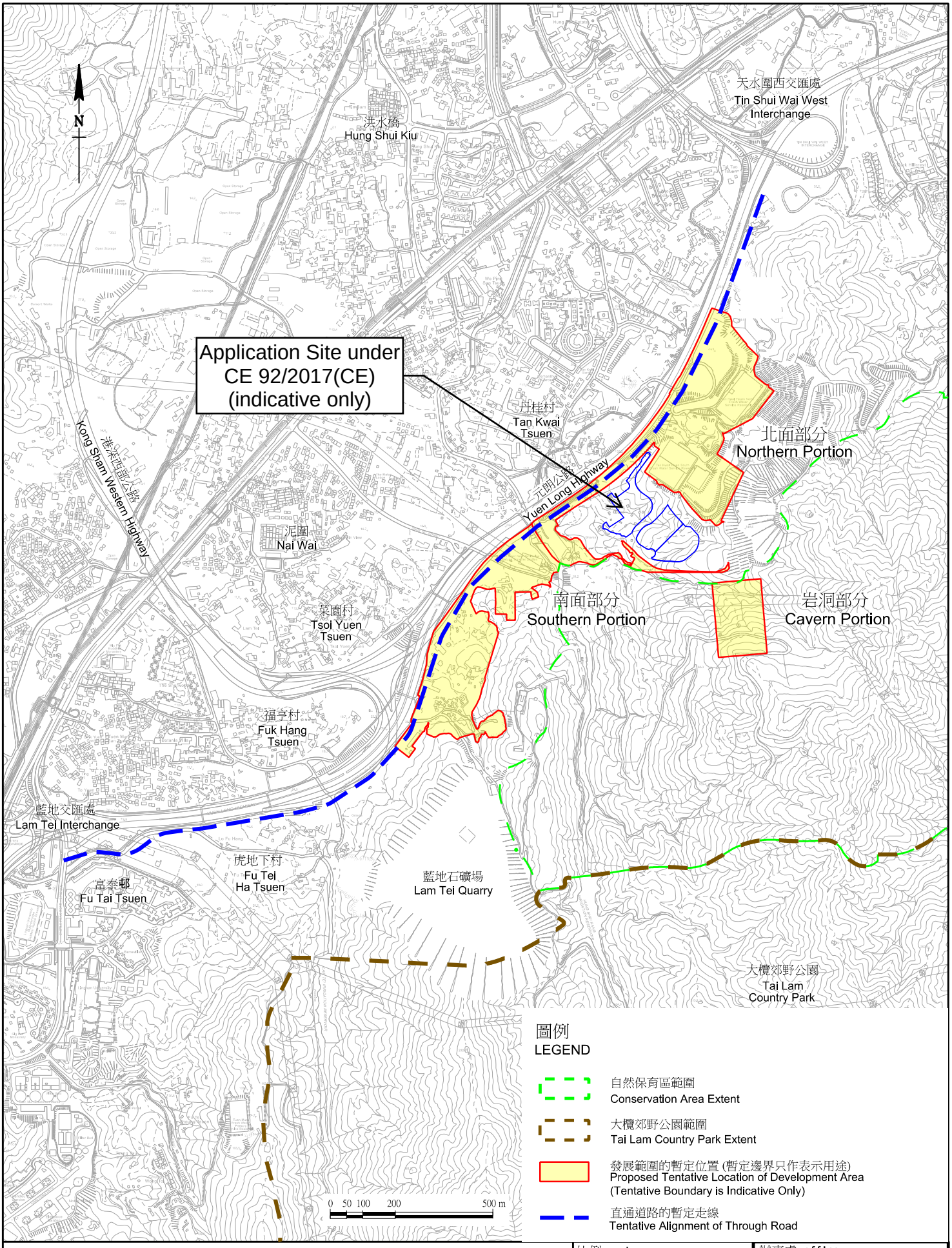
Scale

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

BINNIES HONG KONG LIMITED
賓尼斯工程顧問有限公司

Plot File by RAMBOLL Nov-2022

CAD Filename = Q:\PROJECTS\BVTKTIDCEI00\04 DELIVERABLES\07 S16 EA\02 APPENDICES\EV_V2.0\SOURCE\APP 2.2 CONCURRENT PROJECTS.DWG




圖則名稱 drawing title

藍地東北發展 - 位置圖

DEVELOPMENT AT LAM TEI NORTH EAST - LOCATION PLAN

比例 scale

1 : 15 000

圖則編號 drawing no.

WDOST-Z0300

辦事處 office

西拓展處

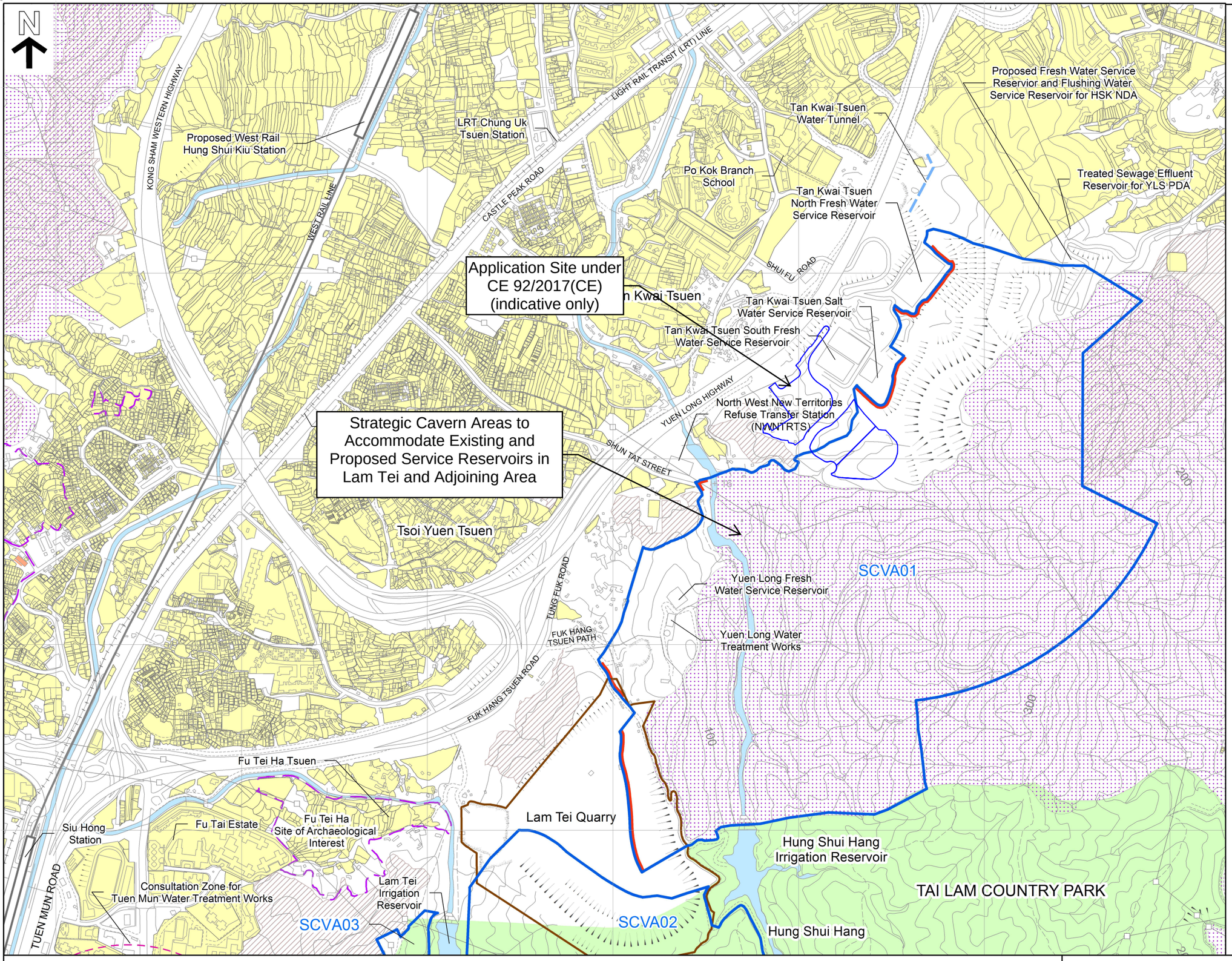
WEST DEVELOPMENT OFFICE

土木工程拓展署

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

A4 210mm X 297mm

A3




## Legend

- Strategic Cavern Area
- Extent of Potential Portal Locations
- Quarry
- Existing Railway Line
- Existing Light Rail
- Water Supplies Department Tunnel
- Reservoir / River / Nullah
- Site of Archaeological Interest
- Graded Historic Building
- Private Lot
- Burial Ground
- Consultation Zone of Potentially Hazardous Installation
- Major Conservation Area
- Country Park

Scale : 1:10,000

0 100 200 300 400 500

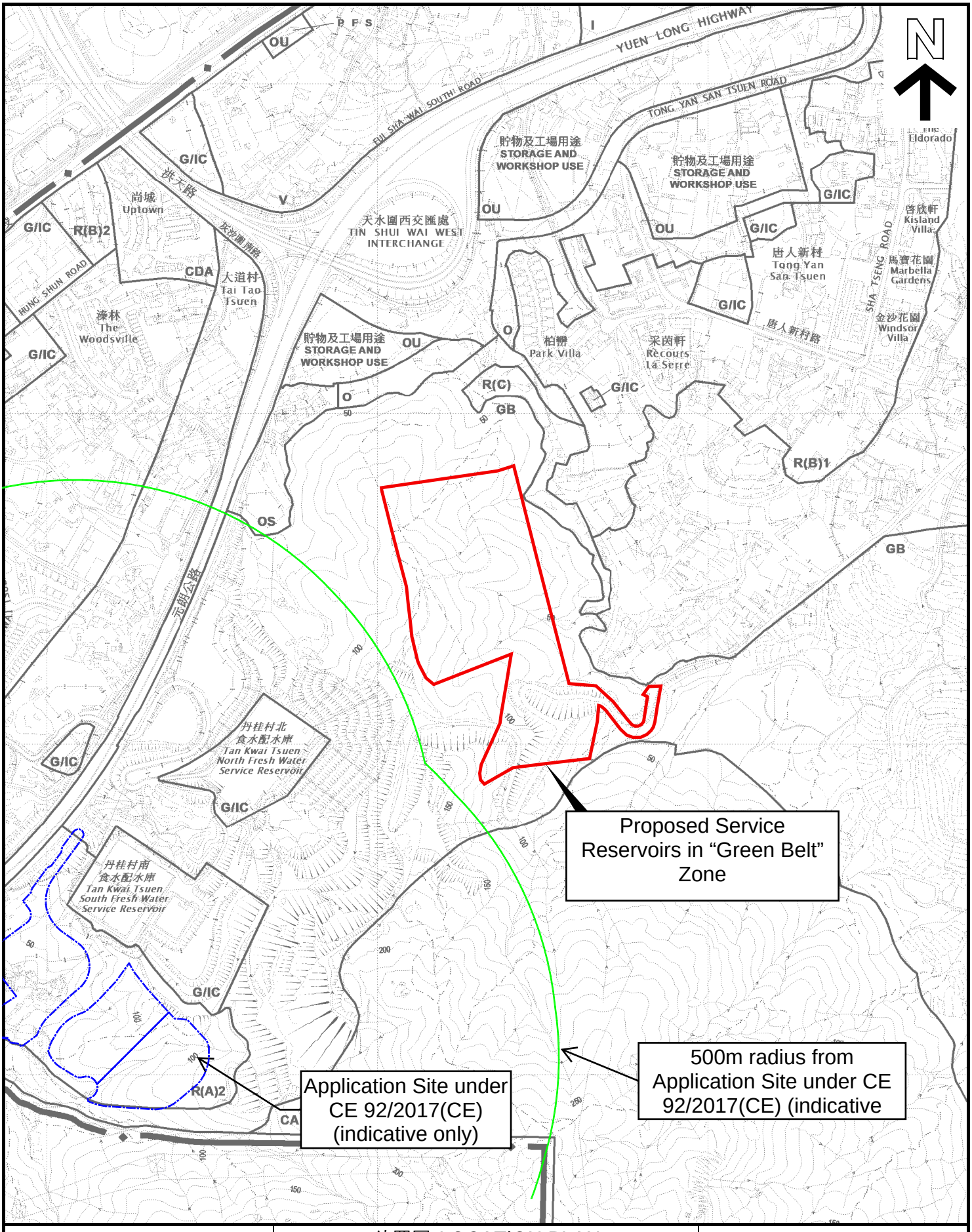
Meters

# REFERENCE DRAWING OF STRATEGIC CAVERN AREA NO. 01 - HUNG SHUI HANG

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT
PLANNING DEPARTMENT

DATE: NOVEMBER 2017
VERSION: 1

SCVA 01




## 位置圖 LOCATION PLAN

本摘要圖於2022年1月7日擬備，
所根據的資料為於2021年8月10日
核准的分區計劃大綱圖編號 S/YL-TYST/14
EXTRACT PLAN PREPARED ON 7.1.2022
BASED ON OUTLINE ZONING PLAN No.
S/YL-TYST/14 APPROVED ON 10.8.2021

SCALE 1 : 7 500 比例尺

米 METRES 100 0 100 200 300 米 METRES

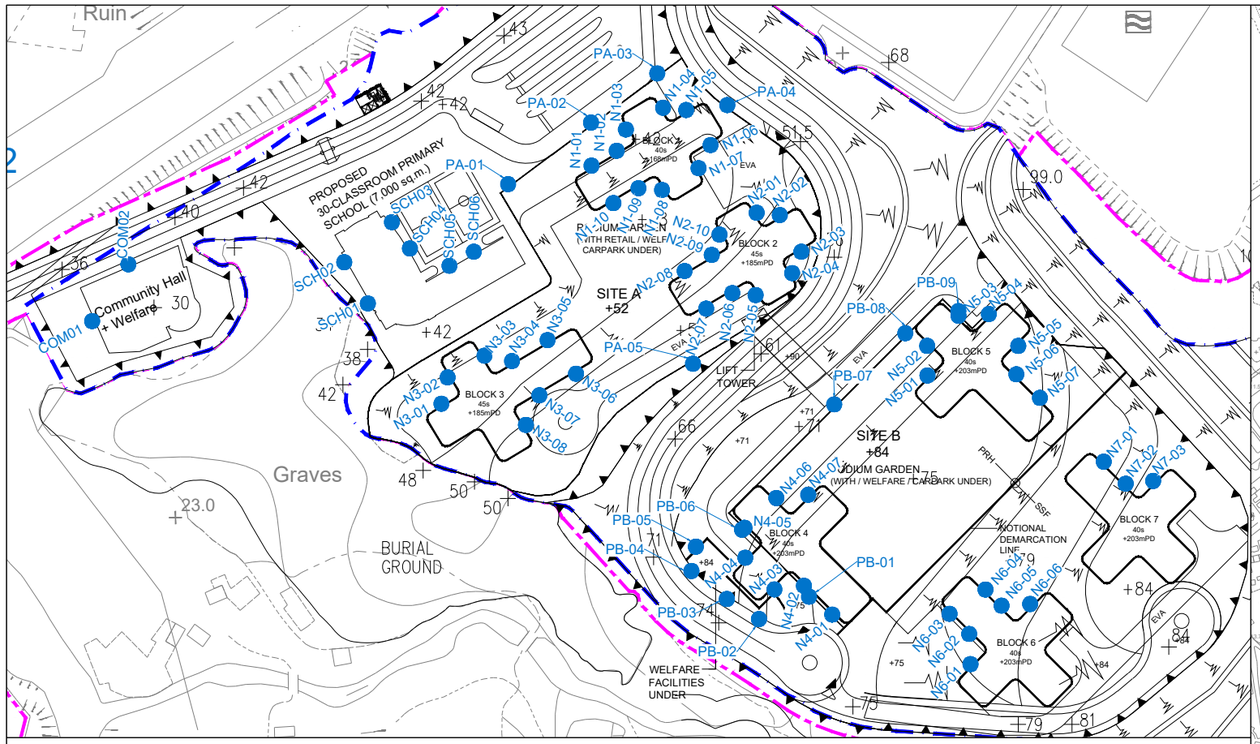
申請地點界線只作識別用
APPLICATION SITE BOUNDARY
FOR IDENTIFICATION PURPOSE ONLY

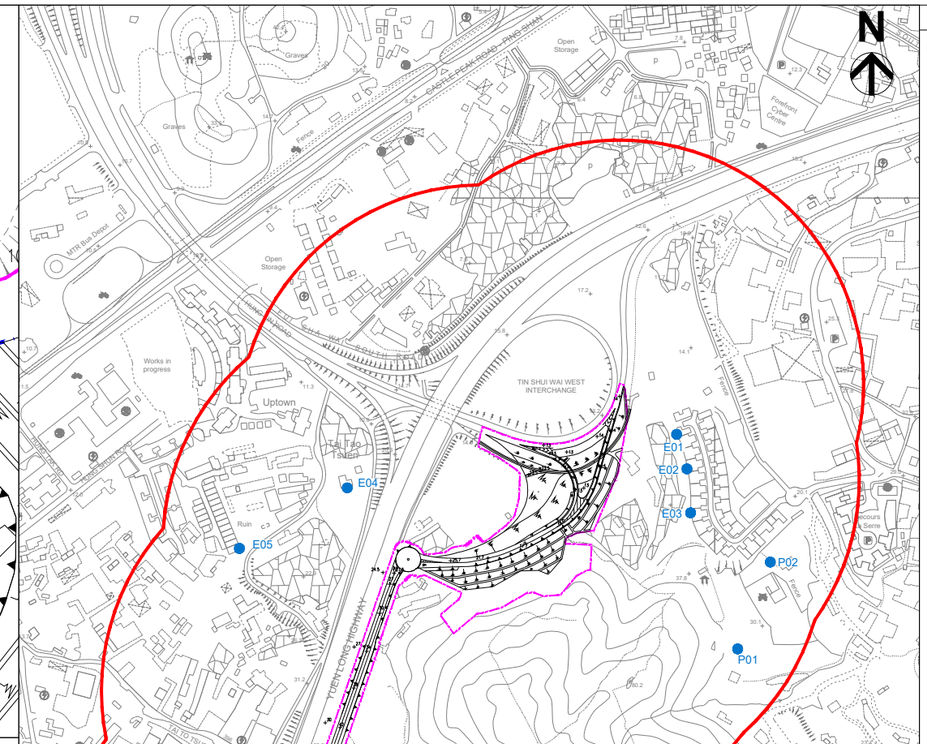
參考編號
REFERENCE No.

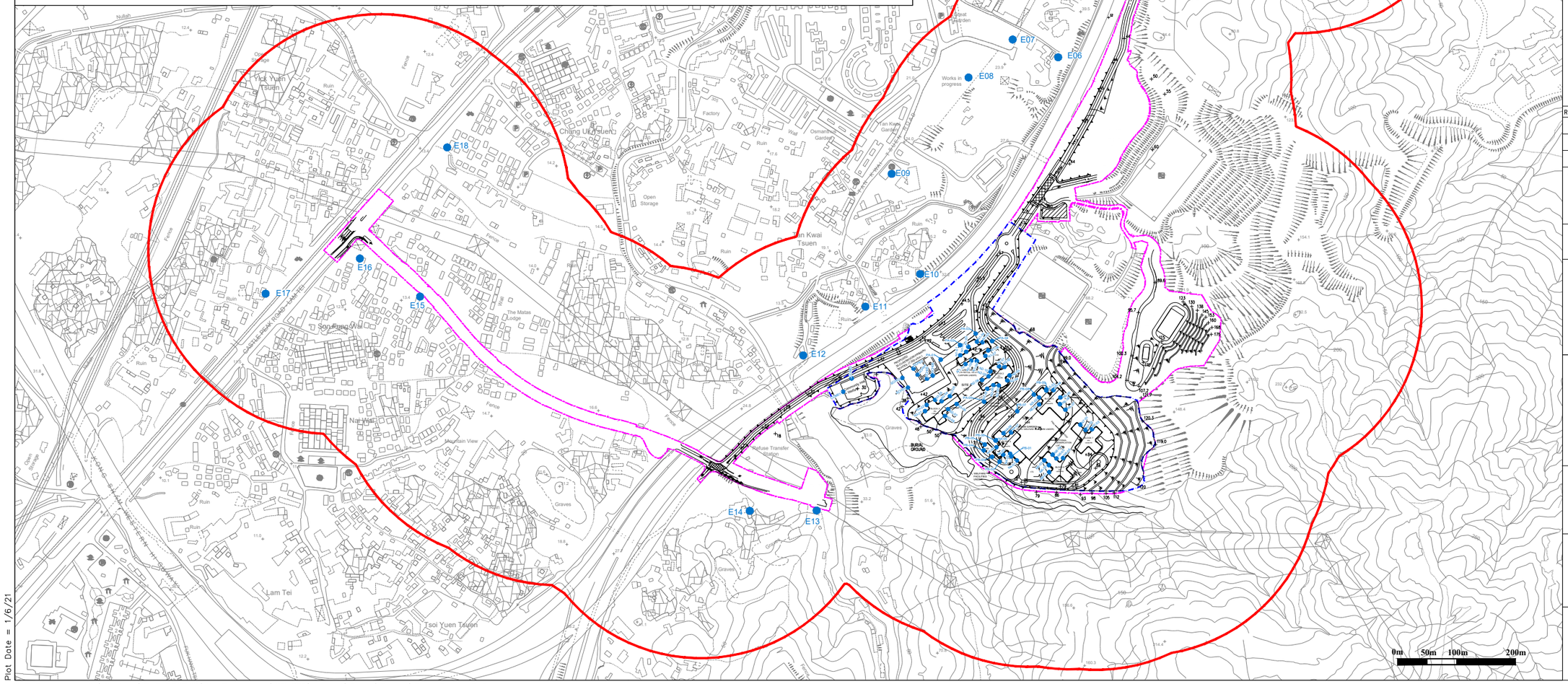
A/YL-TYST/1146

# APPENDIX 3.1

# SUMMARY OF ROAD TRAFFIC NOISE IMPACT ASSESSMENT RESULTS EXTRACTED FROM THE PER REPORT FOR AGREEMENT NO. CE 92/2017




CLOSE-UP PLAN FOR PLANNED RECEIVERS OF PROPOSED DEVELOPMENT



LEGEND:

- 300m ASSESSMENT AREA FOR ROAD TRAFFIC NOISE IMPACT ASSESSMENT
- PROJECT BOUNDARY
- PROPOSED SITE FOR PUBLIC HOUSING DEVELOPMENT AND ASSOCIATED GIC FACILITIES
- REPRESENTATIVE ROAD TRAFFIC NOISE SENSITIVE RECEIVER

| Revision | Date | Description | | Initial |
|---|---|---|---|---|
| | Designed | Checked | Drawn | Checked |
| Initial | | | KL | KY |
| Date | | | 01/21 | 01/21 |

Approved

Agreement no.
CE 92/2017 (CE)

Agreement title
SITE FORMATION AND INFRASTRUCTURE WORKS FOR PUBLIC HOUSING DEVELOPMENTS NEAR TAN KWAI TSUEN, YUEN LONG – INVESTIGATION, DESIGN AND CONSTRUCTION

Drawing title
ASSESSMENT AREA AND REPRESENTATIVE NOISE SENSITIVE RECEIVERS FOR OPERATIONAL ROAD TRAFFIC NOISE IMPACT ASSESSMENT

Drawing No.
Figure 4.3

Scale

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

Plot Date = 1/6/21

CAD Filename = Q:\Projects\BVTKTIDCEI00\04 Deliverables\02 PER\Issue 4\Figure\Source\Fig 4.3 to 4.6 TNIA.dwg

# Appendix 3.1 Summary of Road Traffic Noise Impact Assessment Results Extracted from the PER Report for Agreement No. CE 92/2017 (CE)

## Predicted Road Traffic Noise Impact (AM Peak) at NSRs under Unmitigated Scenario

| NSR ID[1] | NSR Description | Criterion, $L_{10\ 1hr}$ dB(A) | Noise Impact, $L_{10\ 1hr}$ dB(A)[2][3] | | | Project Road Contribution, dB(A)[3][4] | Mitigation Measures Required [Y/N] |
|---|---|---|---|---|---|---|---|
| | | | Existing Road | Project Road | Overall | | |
| PA-01 | Welfare Uses under Podium (Site A) | 55/65/70 [5] | 59 - 61 | 62 - 63 | 64 - 65 | 3.8 - 5.3 | - [6] |
| PA-02 | | | 54 - 60 | 58 - 59 | 59 - 62 | 2.5 - 5.4 | - [6] |
| PA-03 | | | 70 | 68 - 69 | 72 | 2.4 | Y |
| PA-04 | | | 57 - 59 | 75 - 76 | 75 - 76 | 17.3 - 17.8 | Y |
| PA-05 | | | 45 - 48 | 72 - 73 | 72 - 73 | 24.6 - 26.6 | Y |
| PB-01 | Welfare Uses under Podium (Site B) and the nearby Welfare Facilities Block | 55/65/70 [5] | 39 | 63 | 63 | 23.5 - 23.7 | - [6] |
| PB-02 | | | 50 | 73 - 74 | 73 - 74 | 23.1 - 23.7 | Y |
| PB-03 | | | 51 | 74 - 75 | 74 - 75 | 23.4 – 24.0 | Y |
| PB-04 | | | 59 - 60 | 75 - 76 | 76 | 16.0 - 17.5 | Y |
| PB-05 | | | 59 - 60 | 73 | 73 | 12.9 - 13.6 | Y |
| PB-06 | | | 58 - 59 | 64 - 66 | 65 - 67 | 7.2 - 8.1 | - [6] |
| PB-07 | | | 54 - 55 | 65 - 70 | 66 - 70 | 12.2 - 14.8 | - [6] |
| PB-08 | | | 57 - 59 | 66 - 69 | 67 - 69 | 10.1 - 11.4 | - [6] |
| PB-09 | | | 56 - 59 | 57 - 60 | 59 - 63 | 3.5 - 4.1 | - [6] |
| N1-01 | Planned NSRs of Block 1 | 70 | 63 - 74 | 57 - 63 | 64 - 74 | 0.3 - 1.1 | Y |
| N1-02 | | | 60 - 73 | 51 - 60 | 61 - 73 | 0.2 - 1.1 | Y |
| N1-03 | | | 59 - 72 | 50 - 60 | 60 - 72 | 0.2 - 1.1 | Y |
| N1-04 | | | 64 - 72 | 61 - 68 | 65 - 73 | 0.7 - 2.7 | Y |
| N1-05 | | | 61 - 73 | 61 - 69 | 64 - 74 | 0.6 - 4.7 | Y |
| N1-06 | | | 46 - 54 | 63 - 68 | 63 - 68 | N/A | N |
| N1-07 | | | 46 - 55 | 63 - 66 | 63 - 66 | N/A | N |
| N1-08 | | | 48 - 60 | 56 - 59 | 59 - 61 | N/A | N |
| N1-09 | | | 47 - 53 | 57 - 60 | 58 - 60 | N/A | N |
| N1-10 | | | 47 - 55 | 59 - 62 | 60 - 62 | N/A | N |
| N2-01 | Planned NSRs of Block 2 | 70 | 53 - 70 | 65 - 69 | 66 - 72 | 1.4 - 13.7 | Y |
| N2-02 | | | 53 - 70 | 64 - 69 | 67 - 72 | 1.1 - 14.2 | Y |
| N2-03 | | | 43 - 50 | 66 - 74 | 66 - 74 | 15.6 - 29.6 | Y |
| N2-04 | | | 45 - 53 | 65 - 74 | 66 - 74 | 12.4 - 28.8 | Y |
| N2-05 | | | 43 - 48 | 63 - 71 | 63 - 71 | 15.0 - 26.4 | Y |
| N2-06 | | | 43 - 49 | 64 - 70 | 64 - 70 | N/A | N |
| N2-07 | | | 43 - 50 | 65 - 71 | 65 - 71 | 14.7 - 26.3 | Y |
| N2-08 | | | 53 - 68 | 50 - 60 | 55 - 69 | N/A | N |
| N2-09 | | | 51 - 67 | 46 - 57 | 52 – 67 | N/A | N |
| N2-10 | | | 50 - 65 | 43 - 56 | 51 - 65 | N/A | N |
| N3-01 | Planned NSRs of Block 3 | 70 | 59 - 71 | 51 - 61 | 60 - 71 | 0.3 - 1.2 | Y |
| N3-02 | | | 59 - 70 | 51 - 60 | 60 - 71 | 0.3 - 1.1 | Y |
| N3-03 | | | 50 - 70 | 49 - 58 | 53 - 71 | 0.2 - 2.5 | Y |
| N3-04 | | | 52 - 70 | 47 - 59 | 54 - 71 | 0.2 - 1.1 | Y |
| N3-05 | | | 54 - 71 | 48 - 60 | 55 - 71 | 0.2 - 1 | Y |
| N3-06 | | | 44 - 50 | 63 - 68 | 64 - 68 | N/A | N |
| N3-07 | | | 44 - 50 | 63 - 67 | 63 - 67 | N/A | N |
| N3-08 | | | 44 - 49 | 63 - 67 | 63 - 67 | N/A | N |
| N4-01 | Planned NSRs of Block 4 | 70 | 41 - 50 | 60 - 65 | 61 - 65 | N/A | N |
| N4-02 | | | 39 - 44 | 60 - 64 | 60 - 64 | N/A | N |
| N4-03 | | | 39 - 44 | 51 - 65 | 51 - 65 | N/A | N |
| N4-04 | | | 54 - 63 | 63 - 68 | 64 - 69 | N/A | N |
| N4-05 | | | 59 - 62 | 64 - 67 | 66 - 68 | N/A | N |
| N4-06 | | | 54 - 65 | 53 - 66 | 57 - 68 | N/A | N |
| N4-07 | | | 53 - 66 | 51 - 66 | 55 - 69 | N/A | N |
| N5-01 | Planned NSRs of Block 5 | 70 | 52 - 64 | 51 - 67 | 54 - 68 | N/A | N |
| N5-02 | | | 49 - 60 | 54 - 67 | 55 - 67 | N/A | N |
| N5-03 | | | 61 - 70 | 55 - 62 | 62 - 70 | N/A | N |
| N5-04 | | | 60 - 70 | 60 - 63 | 63 - 70 | N/A | N |
| N5-05 | | | 42 - 50 | 41 - 61 | 45 - 61 | N/A | N |

| NSR ID(1) | NSR Description | Criterion, $L_{10\ 1hr}$ dB(A) | Noise Impact, $L_{10\ 1hr}$ dB(A)(2)(3) | | | Project Road Contribution, dB(A)(3)(4) | Mitigation Measures Required [Y/N] |
|---|---|---|---|---|---|---|---|
| | | | Existing Road | Project Road | Overall | | |
| N5-06 | | | 41 - 53 | 41 - 61 | 44 - 61 | N/A | N |
| N5-07 | | | 43 - 66 | 41 - 61 | 45 - 67 | N/A | N |
| N6-01 | Planned NSRs of Block 6 | 70 | 48 | 56 - 58 | 57 - 58 | N/A | N |
| N6-02 | | | 37 - 45 | 54 – 57 | 55 - 57 | N/A | N |
| N6-03 | | | 36 - 39 | 56 - 57 | 56 - 57 | N/A | N |
| N6-04 | | | 36 - 47 | 40 - 60 | 42 - 60 | N/A | N |
| N6-05 | | | 36 - 48 | 38 - 58 | 40 - 58 | N/A | N |
| N6-06 | | | 35 - 58 | 38 - 58 | 40 - 61 | N/A | N |
| N7-01 | Planned NSRs of Block 7 | 70 | 39 - 66 | 40 - 61 | 42 - 67 | N/A | N |
| N7-02 | | | 38 - 65 | 39 - 61 | 41 - 66 | N/A | N |
| N7-03 | | | 37 - 64 | 38 - 61 | 41 - 66 | N/A | N |

Notes:

(1) The assessment only includes NSRs which rely on opened windows for ventilation.

(2) Bolded values mean exceedance of the relevant noise criteria.

(3) Predicted noise levels and project road contributions are expressed in range unless the minimum and maximum values (rounded to the nearest whole number for noise impacts, and to the nearest one decimal place for project road contribution) are the same.

(4) Project Road Contribution is indicated as “N/A” if the overall levels comply with the noise criterion.

(5) For NSRs "PA" and "PB", the type of welfare use cannot be confirmed at this stage and the criteria for different uses vary. According to the HKPSG, 55 dB(A) shall be applied for diagnostic rooms and wards of clinics, convalescences and of residential care homes for the elderly which rely on opened windows for ventilation; 65 dB(A) shall apply to educational institutions, including kindergartens, child care centres, etc., which rely on opened windows for ventilation; and 70 dB(A) shall apply to hostels (including elderly homes), which rely on opened windows for ventilation.

(6) The requirement for mitigation measures will depend on the type of welfare use to be adopted.

## Predicted Road Traffic Noise Impact at NSRs under Mitigated Scenario (AM Peak)

| NSR ID(1) | NSR Description | Criterion, $L_{10\ 1hr}$ dB(A) | Overall Noise Impact, $L_{10\ 1hr}$ dB(A) (2) | Application of Acoustic Window [Y/N] | Application of Fixed Windows or Acoustic Insulation with Mechanical Air Ventilation [Y/N] |
|---|---|---|---|---|---|
| PA-01 | Proposed Welfare Uses under Podium (Site A) | 55/65/70 (3) | 62 - 64 | N | Y (4) |
| PA-02 | | | 59 - 62 | N | Y (4) |
| PA-03 | | | 72 | N | Y |
| PA-04 | | | 75 - 76 | N | Y |
| PA-05 | | | 72 - 73 | N | Y |
| PB-01 | Proposed Welfare Uses under Podium (Site B) and the nearby Welfare Facilities Block | 55/65/70 (3) | 63 | N | Y (4) |
| PB-02 | | | 73 - 74 | N | Y |
| PB-03 | | | 74 - 75 | N | Y |
| PB-04 | | | 76 | N | Y |
| PB-05 | | | 73 | N | Y |
| PB-06 | | | 65 - 67 | N | Y (1/F) (4)<br>Y (2/F – 3/F) (5) |
| PB-07 | | | 66 - 70 | N | Y (5) |
| PB-08 | | | 67 - 69 | N | Y (5) |
| PB-09 | | | 59 - 63 | N | Y (4) |
| N1-01 | Planned NSRs of Block 1 | 70 | 64 - 74 | Y | N |
| N1-02 | | | 60 - 73 | Y | N |
| N1-03 | | | 60 - 72 | Y | N |
| N1-04 | | | 65 - 73 | Y | N |
| N1-05 | | | 64 - 74 | Y | N |
| N1-06 | | | 63 - 68 | N | N |
| N1-07 | | | 63- 66 | N | N |
| N1-08 | | | 59 - 61 | N | N |
| N1-09 | | | 58 – 60 | N | N |
| N1-10 | | | 60 - 62 | N | N |
| N2-01 | Planned NSRs of Block 2 | 70 | 66 - 72 | Y | N |
| N2-02 | | | 67 - 72 | Y | N |
| N2-03 | | | 66 - 74 | Y | N |
| N2-04 | | | 66 - 74 | Y | N |
| N2-05 | | | 63- 71 | Y | N |
| N2-06 | | | 64 - 70 | N | N |
| N2-07 | | | 65 - 71 | Y | N |
| N2-08 | | | 54 - 69 | N | N |
| N2-09 | | | 52 - 67 | N | N |
| N2-10 | | | 51 - 65 | N | N |
| N3-01 | Planned NSRs of Block 3 | 70 | 60 - 71 | Y | N |
| N3-02 | | | 60 - 71 | Y | N |
| N3-03 | | | 53 - 71 | Y | N |
| N3-04 | | | 54 - 71 | Y | N |
| N3-05 | | | 55 - 71 | Y | N |
| N3-06 | | | 64 - 68 | N | N |
| N3-07 | | | 63 - 67 | N | N |
| N3-08 | | | 63 - 67 | N | N |
| N4-01 | Planned NSRs of Block 4 | 70 | 61 - 65 | N | N |
| N4-02 | | | 60 - 64 | N | N |
| N4-03 | | | 51 - 65 | N | N |
| N4-04 | | | 64 - 69 | N | N |
| N4-05 | | | 66 - 68 | N | N |
| N4-06 | | | 57 - 68 | N | N |
| N4-07 | | | 55 - 69 | N | N |
| N5-01 | Planned NSRs of Block 5 | 70 | 54 - 68 | N | N |
| N5-02 | | | 55 - 67 | N | N |
| N5-03 | | | 62 - 70 | N | N |
| N5-04 | | | 63 - 70 | N | N |
| N5-05 | | | 45 - 61 | N | N |

| NSR ID(1) | NSR Description | Criterion, $L_{10\ 1hr}$ dB(A) | Overall Noise Impact, $L_{10\ 1hr}$ dB(A) (2) | Application of Acoustic Window [Y/N] | Application of Fixed Windows or Acoustic Insulation with Mechanical Air Ventilation [Y/N] |
|---|---|---|---|---|---|
| N5-06 | | | 44 - 61 | N | N |
| N5-07 | | | 45 - 67 | N | N |
| N6-01 | Planned NSRs of Block 6 | 70 | 57 - 58 | N | N |
| N6-02 | | | 55 - 57 | N | N |
| N6-03 | | | 56 - 57 | N | N |
| N6-04 | | | 42 - 60 | N | N |
| N6-05 | | | 40 - 58 | N | N |
| N6-06 | | | 40 - 61 | N | N |
| N7-01 | Planned NSRs of Block 7 | 70 | 42 - 67 | N | N |
| N7-02 | | | 41 - 66 | N | N |
| N7-03 | | | 41 - 66 | N | N |

Notes:

(1) The assessment only includes NSRs which rely on opened windows for ventilation.

(2) Bolded values mean exceedance of the relevant noise criteria.

(3) For NSRs "PA" and "PB", the type of welfare use cannot be confirmed at this stage and the criteria for different uses vary. According to the HKPSG, 55 dB(A) shall be applied for diagnostic rooms and wards of clinics, convalescences and of residential care homes for the elderly which rely on openable windows for ventilation; 65 dB(A) shall apply to educational institutions, including kindergartens, child care centres, etc., which rely on opened windows for ventilation; and 70 dB(A) shall apply to hostels (including elderly homes), which rely on opened windows for ventilation.

(4) Only applicable if diagnostic rooms and wards of clinics, convalescences and of residential care homes for the elderly which rely on opened windows for ventilation is adopted.

(5) Only applicable if educational institutions or diagnostic rooms and wards of clinics, convalescences and of residential care homes for the elderly which rely on opened windows for ventilation is adopted.

(6) The provision of acoustic insulation with mechanical air ventilation is subject to further review.

# APPENDIX 4.1

# TD' NO COMMENT RECORD FOR PROPOSED ROAD TYPE

**From:** Victor YK MA <ykma@td.gov.hk>
**Sent:** Tuesday, April 18, 2023 4:04 PM
**To:** Lee, Eunice <LEESF@binnies.com>
**Cc:** Chung, Tommy <chungwl@binnies.com>; ivancpchan@cedd.gov.hk; Wilson KH MAN <wilsonkhman@td.gov.hk>
**Subject:** Re: CE92/2017 - Road Type of Proposed Access Road

Dear Eunice,

I have no comment on the proposed road type. Thanks.

Best regards,
Victor MA
E/YLW, TE/NTW
Transport Department
Tel: 2399 2422

From: "Lee, Eunice" <LEESF@binnies.com>
To: Victor YK MA <ykma@td.gov.hk>
Cc: Wilson KH MAN <wilsonkhman@td.gov.hk>, "ivancpchan@cedd.gov.hk" <ivancpchan@cedd.gov.hk>, "Chung, Tommy" <chungwl@binnies.com>
Date: 24/03/2023 12:00 PM
Subject: CE92/2017 - Road Type of Proposed Access Road

---

Dear Victor,

To facilitate the submission of Environmental Assessment Report, we would like to seek your confirmation on the road type of the proposed access road under the Study.

The proposed single-two lane access road (see attached **Figure 3.1**) between Shun Tat Street and Slip Road to/ from Tin Shui Wai West Interchange serves as a road within districts linking developments to the District Distributor Roads. Therefore, the proposed road type of the access road is recommended to be **Local Distributor**.

We shall be grateful if you could confirm the above road type **by 31 March 2023 (Friday)**. Thank you very much.

**Eunice Lee**
**Technical Director**

binnies
Enhancing lives, communities and the environment

Tel: **+852 26087415** | E-mail: **leesf@binnies.com**
**Binnies Hong Kong Limited** | 43/F AIA Kowloon Tower, 100 How Ming Street, Kwun Tong, Kowloon, Hong Kong

# APPENDIX 5.1

# RESPONSE TO COMMENTS RECORDS

## Responses to Comments on Draft Preliminary Environment Assessment Report (Issue 1)

1. Civil Engineering and Development Department, Civil Engineering Office, Housing Projects 3 Division, Landscape Section [from Miss CHAN Tai Fung, Sandy via email dated 03 August 2022]

| Comments | Responses |
|---|---|
| I refer to Binnies' submission under report ref. no. 199086/BIN/092/Issue 1 dated 29.7.2022. I have the following comments from landscape point of view for your consideration: | |
| General Comments<br><br>1. Please rename the report title as 'Preliminary Environmental Assessment Review Report' (PER) to tally with the scope of the additional services. | Noted. As this report is for planning application, it should be named as Preliminary Environmental Assessment Report (PEA). Also, we do not want this report to mix up with the Preliminary Environmental Review Report (PER) in the main study. |
| 2. There is no information on the landscape and visual impact in this report. Please provide a summary of the findings, conclusion and recommendation of the Landscape and Visual Impact Assessment (LVIA) in this report, with reference made to Clause 6.2.121(b) of the Brief. As this office has not yet received the LVIA, the Consultant shall consider conducting the LVIA prior/ in parallel to submission of PER. | Noted and the LVIA was submitted under separated submission. |

2. Civil Service Bureau, Civil Service College, National Studies and Training Services Unit [from Ms. WONG Wing Che, Olivia via email dated 04 August 2022]

| Comments | Responses |
|---|---|
| The Preliminary Environmental Assessment Report is not related to any sewerage planning issue that EPD/SIG can comment on. Please remove SIG/EPD from your circulation list for this submission in the future. | Noted with thanks. |

3. Leisure and Cultural Services Department, Administration Division, Planning Section, Planning Team 3 [from Mr. YEUNG Ho Long, Johnny via email dated 8 August 2022]

| Comments | Responses |
|---|---|
| I refer to your preceding email ref 199086-0541 | Noted with thanks. |

| Comments | Responses |
|---|---|
| dated 29 Jul, 2022.<br><br>Please be advised that LCSD has nil return on the subject report. | |

4. Drainage Services Department, Operations & Maintenance Branch, Mainland North Division, Yuen Long Section [from Mr. TANG Kin Ming via email dated 11 August 2022]

| Comments | Responses |
|---|---|
| In view that the hard copy is not submitted to DSD and the subject PER matters is not related to drainage matters, I presume this email is just for DSD's reference where no response is expected from DSD. | Noted with thanks. |

5. Drainage Services Department, Electrical and Mechanical Branch, Sewage Treatment Division 1, Sewage Treatment Division 1 Sub-Division 3 [from Mr. KWAN Yiu Keung, Dennis via email dated 12 August 2022]

| Comments | Responses |
|---|---|
| From O&M point of view of E&M sewage / stormwater facilities, we have no comment on the draft "Preliminary Environmental Assessment Report" for the captioned project.<br><br>Please consolidate a reply for ST1 and E&MP Divisions. | Noted with thanks. |

6. Environmental Protection Department, Environmental Assessment Division - Strategic Assessment Group [from Mr. Chris Tsui via email dated 26 August 2022 and 2 September 2022]

| Comments | Responses |
|---|---|
| I refer to the "Draft Preliminary Environmental Assessment Report" enclosed in your consultant's email dated 2022/07/29 for the S.16 application, below please find the comments. Comments from Noise perspective will be provided once available. | |
| 1. Section 1.3.2<br>(a) It is unclear to conclude that the findings of the previous PER report on the construction dust impact are still valid with limited | The minor changes in plot ratio and building height will not have significant impact on the construction programme |

| Comments | Responses |
|---|---|
| information. Even the footprint of the proposed project is no larger than that assessed in the PER stage, the consultant should check if there is any changes of the dusty materials to be handled, construction programme of the proposed development, concurrent projects and any updates of the nearby ASRs to confirm whether the PER findings are still valid. Please also check if there is any new concurrent projects that should be considered for cumulative dust impact. If yes, the cumulative dust impact may need to be re-assessed. | and scale of site formation. Hence, the findings in the PER remains valid for this S16 application for minor relaxation of plot ratio and building height. Section 1.3.2 has been revised.<br><br>Discussion on potential cumulative construction dust impact due to the concurrent projects has been added to Section 2.3. |
| (b) Please rectify the typo "…this PEA report." in the last line. | The typo has been rectified. |
| 2. Section 2.2.4<br>The applicant shall observe and follow EPD's ProPECC PN2/96 on Control of Air Pollution in Car Parks for the design and operation of the car parks. Car Parks should be designed such that the air quality guidelines set out in the PN are met under all conditions. The exhaust (if any) of the proposed car park shall be located away from any air-sensitive uses as far as possible. | Noted. Relevant information has been included in Section 6.1.7. |
| 3. Section 2.2.6<br>As the project is divided into 3 phases, please evaluate whether construction works of later phases would cause adverse dust impact on the population intake of earlier phases and address the impact in the section. | The interim environmental impact due to the phased intake has been added to this section. |
| 4. Section 6.1.5<br>Please add to the end of section 6.1.5 with "The exhaust (if any) of the covered PTI shall be located away from any air-sensitive uses as far as possible". | Section 6.1.7 (re-numbered) has been revised accordingly. |
| 5. Section 6.2.1<br>(a) The consultant should refer to the latest TD traffic census (i.e. ATC 2020) or provide TD's endorsement for the road types of the nearby roads (including Yuen Long Highway, the proposed access road in between Yuen Long Highway and the proposed housing site, and the proposed access road located within the proposed housing site). Please supplement. | According to the Annual Traffic Census (ATC) 2021 published by the TD, Yuen Long Highway is an Expressway. For the proposed access roads, they are classified as Local Distributors as advised by the Project Traffic Consultant and adopted in the EFS PER. Section 6.2.1 has been revised accordingly. |
| (b) Other than openable windows and fresh air | Section 6.2.1, 6.3.1, 7.5.1 and 7.5.2 have |

| Comments | Responses |
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| intake, please note that active recreational uses in open space should not be allowed within the buffer zone. Please supplement. Similar amendment should be applied to Section 6.3.1, 7.5.1 and 7.5.2. | been revised to include active recreation uses in open space as an air sensitive use. |
| 6. Section 6.3<br>According to the master layout plan, a RCP and a wet market will be located within the proposed development. Please justify if there is any odour arising from the proposed facilities and confirm if there are any other odour emission sources within 200m from the project site boundary. | Section 6.3.4 has been added to address the potential odour impacts from the proposed RCPs and wet market. |
| 7. Section 6.3.1<br>North West New Territories Refuse Transfer Station (NWNT RTS)<br>(a) The odour impact arising from transportation of collected refuse to and from the NWNT RTS on the proposed development shall also be addressed since the proposed housing site is located close to the existing NWNT RTS. Please supplement. | Section 6.3.2 has been added to address the potential odour impact arising from transportation of collected refuse to and from the NWNT RTS on the Proposed Development. |
| (b) Based on the Project Profile of Development of Lam Tei North East (PP-642/2022), the existing North West New Territories Refuse Transfer Station (NWNT RTS) is proposed to be relocated. Please clarify whether detailed information related to the relocation of NWNT RTS are available at this stage. If positive, please clarify whether the NWNT RTS would be relocated closer or further away from the proposed subject site and evaluate its odour impact on the proposed development. Otherwise, please state clearly if the relevant odour emission source would be assessed under the Lam Tei North East study to ensure that no nearby ASRs including the proposed development will be subject to adverse odour impact. | Section 6.3.3 has been added to address the relocation of NWNT RTS. |
| 8. Section 6.4.1<br>(a) We would like to remind the applicant that it should be the responsibility of the applicant and their consultants to ensure the validity of the chimney data by their own site surveys. Should the information of industrial chimneys be subsequently found to be | Noted. |

| Comments | Responses |
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| incorrect, the assessment result as presented in the application would be invalidated. | |
| (b) It is noted that the proposed Lam Tei Cavern site would be located to the north of the proposed development. Please evaluate whether there would be any potential emission from the proposed Lam Tei Cavern site and address the potential air quality impact on the proposed development in this section. Or state clearly if the potential air quality impact arising from the Lam Tei cavern project on the nearby ASRs including the proposed development will be assessed under the EIA study. | Sections 2.3.6 and 6.4.2 have been added to address the proposed Lam Tei Cavern under the Development at Lam Tei North East. |
| 9. Figure 6.1 | |
| (a) Please show the buffer zone for the whole section of the proposed access road leading to the end of the proposed development in Figure 6.1 to demonstrate that there will be no nearby ASRs including the air sensitive use of the proposed development within the buffer zone. | Figure 6.1 has been revised to show the buffer zone for the whole section of the proposed access road leading to the end of the proposed development. |
| (b) Please clarify if the proposed access road in between Yuen Long Highway and the proposed housing site is not covered under this project. Otherwise, the buffer zone for the whole section of this proposed access road should be shown in the figure. | Please note that said proposed access road is not covered under this Planning Application. |
| (c) Please provide a remark in Figure 6.1 to state clearly that no air-sensitive uses including openable window, fresh air intake and recreational use in the open space is allowed within the buffer zone. | A remark has been included in Figure 6.1. |
| 10. Figure 6.2<br>Please highlight the area of the proposed development which located within 200m from the NWNT RTS and mark clearly that no air-sensitive uses including openable window, fresh air intake and recreational use in the open space would be located within this area. | Figure 6.2 has been revised to highlight the area of the proposed development which located within 200m from the NWNT RTS. It has been marked in the legend that no air-sensitive uses including openable window, fresh air intake and recreational use in the open space would be located within the area. |
| Further to my previous email dated 2022/08/26, below please find the comments from Noise perspective: | |

| Comments | Responses |
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| **Noise**<br>General<br>It is understood that this Preliminary Environment Assessment (PEA) Report is to support a s16 application for relaxation of maximum plot ratio and building height for the proposed public housing site near Tan Kwai Tsuen. The PEA makes reference to the previous Preliminary Environmental Review (PER) conducted in 2021 under the Contract CE 92/2017 (CE). Please advise if this PEA is a stand-alone document to support this s16 application. If so, the consultant need extract the relevant parts and findings from the PER and present them in this PEA report. | This PEA is a stand-alone document to support this S16 application. Relevant parts and findings from the PER have been extracted and presented in this PEA Report. |
| Specific<br>The proposed development is tentatively scheduled for completion in 2030/2031. Other planning service reservoir projects in the vicinity, namely CE 39/2018 - Strategic Cavern Areas to Accommodate Existing and Proposed Service Reservoirs in Lam Tei and Adjoining Area, A/YL-TYST/1155 - Proposed Service Reservoirs and Public Utility Installation with Associated Excavation and Filling of Land and A/YL-TYST/1146 - Proposed Service Reservoirs in "Green Belt" Zone, are also in progress. Please ensure the cumulative construction noise impact is addressed for all concurrent projects, such as exploring the use of quiet construction method and reviewing the construction schedule and plant inventory if necessary. In addition, the project proponent/consultant should keep close liaisons with relevant project proponents and keep in view interfacing issues of the concurrent projects. | Section 2.3 have been added to address the concurrent projects. |
| We have no objection for the consultant to make reference to the previous PER conducted in 2021 under the Contract CE 92/2017 (CE). However, as this study is to support the increase of plot ratio and building height for the site, the consultant has yet to demonstrate the NSRs at the proposed increased floors would also meet the HKPSG. | Section 3.2.2 has been revised to demonstrate the NSRs at the proposed increased floors would also meet the HKPSG for road traffic noise impact.<br>For other noise impact assessments, the shortest horizontal distance was considered in the assessments, and the building height was not taken into account. |

| Comments | Responses |
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| S.3.3.1 - "Indirect mitigation measures" should be revised as "at-receiver mitigation measures" to avoid confusion. | S.3.3.1 has been revised accordingly. |
| S.3.2 – The location of NSRs and the predicted traffic noise level should be extracted from the PER and summarized in this PEA for easy reference if this PEA is a stand-alone document to support this s16 application. | Predicted traffic noise levels extracted from the PER have been provided in Appendix 3.1. Section 3.2.1 and 3.2.2 have been updated accordingly. |
| S.3.3.2 – Noted from the PEA, the consultant proposed fixed windows with central air ventilation for the proposed welfare uses and education institutions to mitigate the potential road traffic noise impact. The applicant/consultant is encouraged to explore noise mitigation measures, such as the orientation of the opening windows and building setback, etc., for the proposed welfare use and education institutions as far as practicable. | Section 3.3.2 has been revised. |
| S.3.3.3 and S.4.2.3 - Please clarify if HKHA has (i) acknowledged and committed to implementing at receiver noise mitigation measures at the public housing blocks and (ii) has undertaken to conduct EAS at a later stage. If affirmative, please state so explicitly in this section. | The report has been circulated to HKHA. Section 3.3.3 and 4.2.3 have been revised. |

7. Agriculture, Fisheries and Conservation Department, Headquarters, Conservation Branch, Nature Conservation (North) Division, Nature Conservation Section (Yuen Long) [from Dr. WONG Kam Yan, Azaria via email dated 3 November 2022]

| Comments | Responses |
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| I have no comments on the submission. | Noted with thanks. |

8. Housing Department, Development and Construction Division, Project Sub-division 3, Civil Engineering Section 2 [from Ms. LEE Hoi Yan, Joyce via email dated 6 September 2022]

| Comments | Responses |
|---|---|
| 1. <u>Section 3.2</u><br><br>Please confirm and provide TD's approval of traffic forecast data for the traffic noise assessment of this study. | Traffic noise impact is appraised in qualitative manner for this Preliminary Environmental Assessment. Hence, traffic forecast data has not been used. |

| Comments | Responses |
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| 2. Section 4.2.2<br><br>Please provide confirmation from WSD that the proposed potential noise sources in Fig. 4.1 (i.e. planned reservoirs and pumping stations) would incorporate at-source mitigation measures to control the noise levels to comply with the relevant criteria. | Noted and the report will be circulated to WSD. |
| 3. Section 4.2.3<br>Based on the consultant's findings, the para should be re-write as:<br>*"In detailed design stage, HKHA will conduct an EAS which will qualitatively assess the existing fixed noise sources to determine if the findings in Section 4.2.1 of this PEA would remain valid. For potential fixed noise sources, since at-source mitigation measures would be incorporated to the proposed facilities to control the noise levels to comply with relevant criteria. No further assessment is considered required under future HKHA's EAS.* | Kindly note that we are not in the position to propose the scope and assessment approach (qualitative or quantitative, etc.) of the future EAS in this PEA.<br>In general, the fixed plant noise impact assessment is recommended to be further reviewed based on the final design of the proposed Development in the EAS. |
| 4. Section 4.2.4<br>Please add the following wording:<br>*"With the implementation of appropriate at-source mitigation measures by owner of proposed fixed noise source (i.e. WSD), no adverse fixed noise impact from the planned fixed noise source is anticipated.* | Section 4.2.4 has been revised. |
| 5. Section 5.1.1 and Figure 5.1<br><br>The consultant has based certain findings on PER report under Agreement No. CE92/2017 (CE). Referring to the PER Section 4.5.10 on Fixed Plant Noise Impact, the Consultant stated that the ingress and egress to the PTI has no direct line of sight to NSRs (refer attached extracted from PER). This appears not the case with the current layout. Please demonstrate no line of sight by sections.<br><br>Some portion of PTI is outside the covered podium area. To avoid misunderstanding, please seek explicit confirmation from EPD | Potential noise impacts along the ingress and egress outside the covered podium area have been addressed in Section 5.1.2.<br>The ingress and egress have been indicated in Figure 5.1 as well. |

| Comments | Responses |
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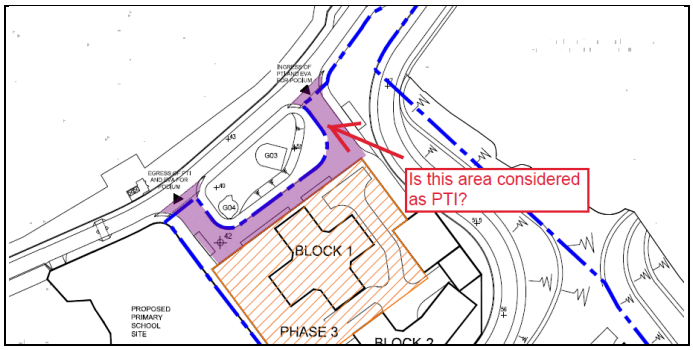
| that the shaded area is not required to be considered as part of PTI, and therefore can have direct line of sight from NSRs.<br><br>  | |
| 6. <u>Section 5.2.1 & 5.2.2</u><br><br>The reported recommended that *"absorptive lining to be provided on ceiling and interior walls of the PTI"* and *"Acoustic louvre and/or silencers to be provided for the exhausts of the mechanical ventilation system"*. Since the PTI will be handed over to other government departments (i.e. not HKHA) for future management and maintenance. These government departments in-principle agreement should be sought before such measures should be mentioned in the report. | Noted. The report has been circulated to the relevant departments. |
| 7. <u>Section 6.3.1 and Figure 6.2</u><br><br>For portion of site within 200m of odorous source (NWNT RTS), please clarify if any Active or Passive Recreation uses are permitted.<br><br>For clarity, please indicate the area within the buffer distance and specify the permitted usage in Fig 6.2. | Air sensitive uses (such as window opening for ventilation and fresh air intake, etc.) including active recreation uses in open space are not permitted in the 200m buffer distance. Section 6.3.1 has been revised.<br>Non-permitted usages have been marked on Figure 6.2. Uses which are not listed are permitted. |
| We presume this Draft Preliminary Environmental Assessment Report is a supporting technical assessment prepared for the | |

| Comments | Responses |
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| upcoming S16 planning application. Please note our comments below: | |
| 1. Figures – The application site boundary should match with our public housing site boundary for the S16 planning application. Please revise as appropriate and be reminded that the latest site boundary should apply to all the figures in Planning Statement and other supporting technical assessments of the S16 planning application. | The figures have been updated to tally with the site boundary in the S16 planning application. |
| 2. Para. 1.1.1 – It is suggested to revise the second sentence as follow: "*Amongst others, a site near Tan Kwai Tsuen (the Application Site), Yuen Long has been identified* ~~***as one of the potential sites***~~ *for public housing development*~~***s***~~*.*". | Section 1.1.1 has been revised accordingly. |
| 3. Para. 1.1.4 – It is suggested to supplement the following as the purpose of the S16 planning application: "*In view of the acute shortage of housing, the domestic PR of the Application Site is proposed to be intensified to 6.5 with an aim to increase flat production. The Application Site will provide a total of 7,420 public housing units with planned population intake from 2030 by phases.*".<br>Besides, please specify the proposed minor relaxation of plot ratio and building height restrictions for the S16 planning application as follow:<br>Maximum plot ratios:<br>- Phase 1: from 6.5 to 7.0 (i.e. domestic PR of 6.5 and non-domestic PR of 0.5)<br>- Phase 2: from 6.5 to 7.2 (i.e. domestic PR of 6.5 and non-domestic PR of 0.7)<br>- Phase 3: from 6.5 to 7.3 (i.e. domestic PR of 6.5 and non-domestic PR of 0.8)<br>Maximum building heights: | Section 1.1.4 has been revised accordingly. |

| Comments | Responses |
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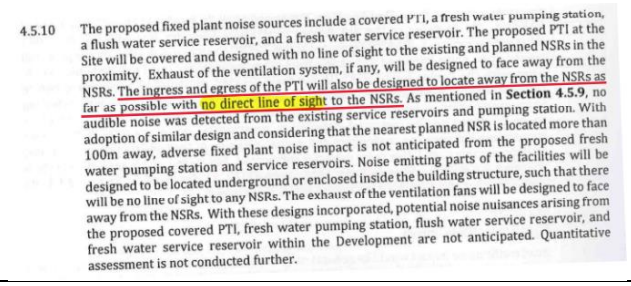
| - Phase 1: from 205 mPD to 240 mPD<br>- Phases 2 and 3: from 205 mPD to 235 mPD | |
| 4. Section 2.2.6 – It is suggested to revise as: "*The tentative population intake of the proposed Development will be* ***from 2030 by phases*** ~~***in year 2030/2031***~~*.*". | Section 2.2.6 has been revised accordingly. |
| 5.  4.5.10 The proposed fixed plant noise sources include a covered PTI, a fresh water pumping station, a flush water service reservoir, and a fresh water service reservoir. The proposed PTI at the Site will be covered and designed with no line of sight to the existing and planned NSRs in the proximity. Exhaust of the ventilation system, if any, will be designed to face away from the NSRs. The ingress and egress of the PTI will also be designed to locate away from the NSRs as far as possible with no direct line of sight to the NSRs. As mentioned in **Section 4.5.9**, no audible noise was detected from the existing service reservoirs and pumping station. With adoption of similar design and considering that the nearest planned NSR is located more than 100m away, adverse fixed plant noise impact is not anticipated from the proposed fresh water pumping station and service reservoirs. Noise emitting parts of the facilities will be designed to be located underground or enclosed inside the building structure, such that there will be no line of sight to any NSRs. The exhaust of the ventilation fans will be designed to face away from the NSRs. With these designs incorporated, potential noise nuisances arising from the proposed covered PTI, fresh water pumping station, flush water service reservoir, and fresh water service reservoir within the Development are not anticipated. Quantitative assessment is not conducted further. | Section 5.1.2 has been revised. |

9. Education Bureau, Planning, Infrastructure and School Places Allocation Branch, Infrastructure, International School and Statistics Division, School Building Section, School Building Team [from Miss LAM Hoi Ki, Carol via email dated 27 September 2022]

| Comments | Responses |
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| In consultation with our works agent, ArchSD, we have no comment on the captioned report. | Noted with thanks. |

10. Leisure and Cultural Services Department, Administration Division, Planning Section, Planning Team 3 [from Mr. YEUNG Ho Long, Johnny via email dated 5 October 2022]

| Comments | Responses |
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| I refer to your letter ref. 199086-0541 dated 29 Jul, 2022.<br><br>Please register a nil return from LCSD. Thanks. | Noted with thanks. |

11. Antiquities and Monuments Office [from Mr. Chun-fei FAN via email dated 28 October 2022]

| Comments | Responses |
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| I refer to the captioned submission for Agreement No. CE 92/2017 (CE) Site Formation and Infrastructure Works for Public Housing Developments near Tan Kwai Tsuen, Yuen Long – | |

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| Investigation, Design and Construction Draft Preliminary Environment Assessment Report (Issue 1) with a covering letter dated 29 July 2022.<br><br>Please be informed that the Antiquities and Monuments Office has the following comments from the archaeological and built heritage conservation perspective: | |
| **Archaeology**<br><br>1. Please provide the justification of not including cultural heritage in the Draft Preliminary Environmental Assessment Report for the further comment of AMO. | Noted. The minor changes in plot ratio and building height will not have adverse impact on cultural heritage point of view. The findings in the previous approved Preliminary Environmental Review for CE92/2017 (CE) remains valid. We will not provide any assessment for this S16 application which is for the minor relaxation of plot ratio and building height only. |
| **Built Heritage**<br><br>2. Please be reminded that if there are any buildings / structures both at grade level and underground which were built in or before 1969, the project proponent is required to alert AMO in an early stage or once identified. | Noted. We will alert AMO for any buildings/structures found at grade level and underground which were built in or before 1969 once identified. |

## Responses to Comments on Draft Preliminary Environment Assessment Report (Issue 2)

1. Environmental Protection Department, Environmental Assessment Division, Strategic Assessment Group [from Mr. Chris TSUI via email dated 17 February 2023]

| Comments | Responses |
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| **Air Quality** | |
| 1. Section 1.3.2 and R+C 1(a) - Please review whether there are any updates on the ASRs to confirm that the findings of PER are still valid. | ASRs identified in the PER remains valid. Section 1.3.2 has been revised. |
| 2. Section 6.2.1<br>i) Please provide the correspondence from TD to support that the proposed access roads can be considered as local distributors.<br>ii) Please revise "active recreational uses" as "recreation uses" in the 3rd last line. Similar amendment shall be applied to Sections 6.3.1,7.5.1 and 7.5.2.<br>iii) Please revise "recommendation" to read "buffer distance requirement" in 2nd last line. | i) Please find the correspondence attached.<br>ii) Text has been revised.<br>iii) Text has been revised. |

2. Housing Department, Development and Construction Division, Project Sub-division 3, Civil Engineering Section 2 [from Ms. LEE Hoi Yan, Joyce via email dated 13 February 2023]

| Comments | Responses |
|---|---|
| **Prelim Environmental Assessment** | |
| It is noted that a number of comments made to PEA (issues 1 & 2) have not been fully addressed. A number of assumptions made in this report requires effort / commitment form other departments, their attention and confirmation shall be sought. We are concerned esp the traffic noise, fixed noise and the PTI, which would have significant impact on the development potential of the housing site: | - |
| (1) Please clarify if this PEA is a standalone document or it shall be read in conjunction with the PER (issue 3) of August 2021. Please advise if traffic noise is assessed, based on the traffic forecast submitted in the PER. Please clarify if endorsement by TD and no | This PEA is a standalone document and has summarized the key PER findings required for assessment in the report. The evaluation in this PEA has made reference to the findings of the previous PER based on the traffic forecast adopted in the PER. |

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| objection by EPD have been sought. | The updated Technical Note of Traffic Forecast for Preliminary Environmental Review was submitted to TD for endorsement and this PEA report was also submitted to EPD for comment. |
| (2) In your response to our comments on fixed noise source, it was mention that "... implementation of appropriate at-source design measures by the future owners (i.e. WSD) ... no adverse fixed noise impact is anticipated". Please clarify if WSD's confirmation has been sought. | Waterworks design have been circulated to WSD for comment. |
| (3) There is an uncovered part of PTI (as shown in Fig 5.1), but it was stated in the report that there will be no line of site. Would you kindly clarify with EPD if these areas would be defined as part of the PTI, which will have significant impact for all units of blocks 1, 2 and 3 having a view to the NW, N, NE directions. | We understand that all bus bays and islands will be located within the PTI area under the podium. Hence, the podium will provide full screening to noise associated with vehicle idling and engine starting. Section 5.1.2 has been revised. |
| (4) Please seek the M&M parties' agreement for noise mitigation measures proposed for the PTI. Otherwise, you may have to adjust your assumptions. | Section 5.2.1 has been revised. |
| (5) Please also refer to comments provided before your formal planning application and incorporate accordingly. | Response to comment made prior to formal planning application will be provided separately. The necessary changes have been incorporated where appropriate in the revised PEA Report. |

## Responses to Comments on Final Preliminary Environment Assessment Report (Issue 1)

1. Environmental Protection Department, Environmental Assessment Division, Territory North Group [from Mr. Kidman KONG via email dated 17 May 2023]

| Comments | Responses |
|---|---|
| 1. Section 6.1.6 – Please note that the latest Practice Note for Control of Air Pollution in Semi-Confined Public Transport Interchanges (ProPECC PN1/22) has been published. The applicant should follow the latest ProPECC PN 1/22 for the design and operation of the PTI. Please revise this section and update Table 6.4 accordingly. | Noted and revised accordingly. |
| 2. Section 6.2.1 and R-t-C 2(i) – TD's endorsement for the road type of the proposed access roads could not be found in the report. Please follow up and supplement. | Noted. The no comments record from TD is attached in Appendix 4.3. |