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宋梓華 Sung Tze Wah
FRICS FHKIS MSISV MCIREA ACIArb R.P.S.(GP)

吳恆廣 Ng Hang Kwong, BBS
FRICS FHKIS R.P.S.(GP)
Honorary World Valuer (WAVO)

宋樹鴻 Sung Shu Hung
FRICS MHKIS R.P.S.(GP)(PD) MCIREA
MHIREA BSc (Hons)

Consultant :

劉志光 Lau Chi Kwong
FRICS FHKIS ALS MHKIUS
R.P.S.(LS)(PFM) MSc

李霧儀 Lee Mo Yi
MPIA RPP MUDD BA (Hons)

林桂金 Daniel K.K. Lam
MRICS MHKIS MCIREA R.P.S.(GP) BSc

趙慧姿 Chiu Wai Chi
MRICS MHKIS MSc BBus (MKtg)

陳志凌 Elwyn C. Chan
RPE PMgr CEnv FIHE FCIOB MICE
MHKIE MSOE FCMI MCIArb MSc

潘孝維 Pun How Wai
B.Arch.HK RIBA

By Email and Hand

Date : 21 January 2026
Your Ref.: TPB/A/STT/26
Our Ref. : LDS/PLAN/7108

Secretary
Town Planning Board
15/F, North Point Government Offices
333 Java Road
North Point, Hong Kong

Dear Sir/Madam,

Application for Planning Permission for
Proposed Filling of Ponds for Permitted Innovation and Technology Hub (including Permitted Cargo Handling and Forwarding Facilities, Creative Industries, Eating Place, Flat (Staff Quarters only), Industrial Use, Information Technology and Telecommunications Industries, Office, Public Utility Installation, Research, Design and Development Centre, Shop and Services, Warehouse (excluding Dangerous Goods Godown)) at Lot No. 764 RP (Part) in D.D.99, San Tin, Yuen Long, N.T.
(Application No. A/STT/26)

We refer to the captioned application and submit herewith our response to departmental comments and relevant technical assessments and additional information for your consideration.

Should there be any queries, please contact our Ms. Cannis Lee or Ms. Yancy Fung at [redacted]

Yours faithfully,
For and on behalf of
Lawson David & Sung Surveyors Limited

Encl.

c.c. DPO/FSS&YLE (Attn.: Ms. Karen Chan) – By Email only
Client

Table 1: Responses to Comments from Government Departments on Planning Application No. A/STT/26 (21 January, 2026)

	COMMENTS	RESPONSES
1.	**Environmental Protection Department (EPD)**	
	Please note the following comments: **<u>Environmental Planning Perspective</u>**	
(a)	We consider that given the large scale and scope of the project (covering superstructures and pond filling), **adverse environmental impact such as water quality, waste management, sewage disposal/treatment impacts and noise impacts are anticipated**. However, there are no technical assessments provided by the applicant to demonstrate the environmental acceptability of the project including the potential environmental impacts arising from the development and any measures to mitigate such impacts. As such, the applicant is requested to address the potential environmental impacts in the form of EA and SIA so as to determine the environmental acceptability of the development proposal.	(a) Please refer to the Environmental Assessment (see **Annex A**) and Sewerage Impact Assessment (see **Annex B**) attached. EPD and DSD's comments received on 15 January 2026 on the SIA report have been addressed (see **Annex B**).
	<u>Interface with approved EIA report on the San Tin / Lok Ma Chau Development Node</u>	
(b)	Given CEDD is the project proponent, the applicant is asked to closely liaise with CEDD on the project implementation, and the compliance with the recommendations of the EIA report and approval conditions	(b) Noted.

COMMENTS		RESPONSES	
(c)	We will provide further comments on the planning application upon receipt of the technical assessments prepared by the applicant for determining the environmental acceptability of the development proposal.	(c)	Noted.
2.	**Agriculture, Fisheries and Conservation Department (AFCD)**		
	Please note the following comments:		
(a)	It is noted that the application site involves pond filling works which have interface with the site formation works to be carried out by CEDD as well as the approved EIA for San Tin/ Lok Ma Chau Development Node and its approval conditions. We would reserve our comments on the application upon resolution of the aforesaid interface issues.	(a)	Noted.
(b)	In Section 4.4 of the Planning Statement, it was stated that the applicant aims to establish a largescale I&T base for the emerging low-altitude economy interface in Hong Kong with a point-to-point low-altitude logistics linkage with Futian Free Trade Zone in Shenzhen. The proposed point-to-point low-altitude logistics linkage with Futian Free Trade Zone in Shenzhen would inevitably pass through the fishponds and wetlands in the proposed Sam Po Shue Wetland Conservation Park (SPS WCP), which forms part of the flight path for migratory birds. However, no specifics of such linkage, as well as the potential impacts from the perspectives of ecology and daily	(b)	The proposal is in response to the Chief Executive's 2024 Policy Address, in which the government promoted the concept of creating new productive forces through technological empowerment. Both the I&T sector and the low-altitude economy were highlighted as key industries for future development. The Application Site has the potential to become a large-scale pioneer base for the low-altitude cross-boundary interface between Hong Kong and Mainland China. Further exploration of future operations will be undertaken in liaison with the Government.

COMMENTS		RESPONSES	
	operation and management of the SPS WCP were provided in the Planning Statement and/or other application materials. We will provide more specific comments on the concerned planning application upon the receipt of additional information that addresses our above comments.		
(c)	The application site is in close proximity to a constructed wetland provisioned under a drainage project, namely San Tin Constructed Wetland (Lotus Pond). The applicant shall consider any indirect ecological impacts affecting the Lotus Pond arising from the project and the interface with other ongoing/planned projects in the vicinity, including the NNCP Management Agreement projects administered by CCO.	(c)	A methodology paper has been submitted to AFCD and comments from AFCD were received on 12.12.2025 (see **Annex C**). An EcoIA report will be submitted to address any ecological impacts.
3.	**Drainage Services Department (DSD)**		
	Please note the following comments:		
(a)	The site area covered by the application is substantial, and significant land and pond filling works are proposed under the application. A drainage impact assessment should be submitted to for DSD's acceptance prior to the commencement of works.	(a)	Please refer to Drainage Impact Assessment (see **Annex D**) attached.
(b)	Additionally, a sewerage impact assessment should be submitted for DSD's acceptance and SIG/EPD's approval to address the handling of sewerage generated from the	(b)	Please refer to Sewerage Impact Assessment (see **Annex B**) attached.

	COMMENTS		RESPONSES
	development under the application.		
4.	**Transport Department (TD)**		
	Please note the following comments:		
(a)	The applicant should provide a construction Traffic Impact Assessment (TIA) for its proposed pond filling as the associated mud dredging/earth filling works are anticipated to induce significant amount of vehicle trips.	(a)	Please refer to the Construction Traffic Impact Assessment (CTIA) (see **Annex E**) attached. TD's comments received on 14 January 2026 on the CTIA have been addressed.
(b)	It is noted that a total of 1,611 parking spaces and 506 loading/unloading spaces are proposed in Appendix 2 of the Planning Statement. Grateful if the applicant could advise the ratios adopted from HKPSG for the formulation of the proposed parking and loading/unloading provisions. For bicycle parking provision, the applicant should also make reference to Annex A of the checklist of TIA for Development Projects promulgated by Transport Department.	(b)	The nos. of parking spaces and loading/unloading spaces have been updated and the ratios adopted from HKPSG for the formulation of the proposed parking and loading/unloading provision is provided (see **Annex F**). The Applicant has made reference to Annex A of the checklist of TIA for Development Projects promulgated by Transport Department for bicycle parking provision. TD's comments received on 14 January 2026 on the parking table have been addressed.
(c)	Please provide details of the proposed automatic parking system mentioned in Section 4.7(c) of the Planning Statement.	(c)	Parking spaces for the proposed I&T hub will be mainly located at basement level, where an Automated Parking System (APS) is proposed to optimize space efficiency and minimize surface traffic. The proposed underground automatic parking system (APS) will serve both staff and visitors, and will also be available for public parking use upon appointment. The APS is therefore not limited solely to private use.

COMMENTS	RESPONSES
	The system will be designed and implemented in accordance with the "Guidelines for Implementing Mechanized Vehicle Parking Systems" issued by the Electrical and Mechanical Services Department (EMSD). One of the key design considerations is to provide sufficient and efficient parking facilities while minimizing land take and surface traffic impact on the site. The introduction of a high-efficiency automatic parking system helps optimize parking provision and supports the overall operational and environmental objectives of the development.
(d) In Section 4.13 of the Planning Statement, please clarify whether the transport lay-by for Green Minibus (GMB) is located within the Site or at Road L13.	(d) The transport lay-by for Green Minibus (GMB) is located within the Application Site (see plan below).

COMMENTS	RESPONSES
	
(e) Please coordinate with Civil Engineering and Development Department (CEDD) for the road works at	(e) Noted.

COMMENTS		RESPONSES
	Road L13 to enable the proposed vehicular access point.	
5.	**Innovation, Technology and Industry Bureau (ITIB)**	
	Please note that Innovation, Technology and Industry Bureau (ITIB) **does not support** the captioned application. Detailed considerations are set out below –	Please refer to the letters to ITIB dated 8.12.2025 and 15.1.2026 prepared by the Applicant's consultant (see **Annex G**).
(a)	**Not in line with "park-led" model for San Tin Technopole (STT) –** ITIB is inclined to adopt a "park-led" model for developing the land in STT. This is to ensure that the overall development of the area can be at any point of time in a more coordinated and holistic manner, have more synergy (in terms of, for example, industry mix and/or provision of shared facilities), and be closely in keeping with Hong Kong's strategic positioning vis-à-vis the fast-changing global I&T landscape at all time. **A more "fragmented" development mode by individual private lot owners/developers would and could unlikely achieve such objectives.**	
(b)	**Not in line with the planned uses of the I&T sites –** The Government's intention is to develop specific I&T uses in different I&T value chain (i.e. upstream (research and development ("R&D")), midstream (prototype or application development) or downstream (manufacturing) processes), the infrastructure and supporting facilities as required, etc. in STT. Based on the information provided by the applicant, the main development component is	

COMMENTS		RESPONSES	
	mainly related to the logistics industry albeit the applicant claimed that AI technology will be use and that these activities are still under Column 1 of the OZP. Logistics activities (smart and/or green or not)or pure use of AI/robotics in logistical processes do not fall under the industries planned for the subject I&T sites in STT (i.e. life and health technology; artificial intelligence and robotics, microelectronics and smart devices; advanced industries (e.g. new materials, energy and green technology, etc.)).		
6.	**District Lands Officer/Yuen Long, Lands Department (DLO/YL, LandsD)**		
	He has adverse comment on the application:		
(a)	The Application Site falls within portions of private lot, i.e. Lot no. 764 RP in D.D. 99, which is an old scheduled agricultural lot held under Block Government Lease. No structure shall be erected on the lot without prior written approval of the Government.	(a)	Noted. All existing structures on the Application Site will be removed for the proposed development.
(b)	No approval has been given for the development of the proposed "I&T Hub" as mentioned in para. 4 of the Planning Statement.	(b)	Noted.
7.	**Planning Department (PlanD)**		
	General Comments		
1.	Please provide the estimated number of working population and residential population (staff quarters) in the I&T hub. Please also clarify the number of units to be	1.	(a) Estimated number of working population =24,130 (b) Residential population (staff quarters) in the I&T hub = 7,650 (c) Number of units to be produced by the staff quarters =1,680

COMMENTS	RESPONSES
produced by the staff quarters.	Detail refer **Annex H1**.
2. As the site is located in close proximity to the birds' flight path, please advise whether bird-friendly design will be adopted for the development.	2. **Concept of Human–Bird Co-Living** The development adopts a "co-living with nature" concept, extracted diagram **Annex H2**, promoting harmonious coexistence between human activities and bird habitats. Rather than separating built form and ecology, the master plan integrates human use areas with protected ecological zones through careful spatial planning and design control. **Key principles include:** 1. **Spatial Zoning and Buffering** Human activities are concentrated within clearly defined zones, while bird habitats such as wetlands, rice fields, and water ponds are preserved and enhanced with appropriate buffer distances to minimize disturbance. 2. **Design for Shared Environment** Buildings and landscape features are designed to respond to bird movement and behavior, including aligned wind corridors, non-reflective building materials to avoid glare, and terraced massing to reduce visual and physical barriers along bird flight paths. 3. **Controlled Human Access (operation hours)** The eco-park visitor paths are managed through two key measures to minimize disturbance to wildlife: (i) the number and alignment of paths are designed in response to natural tidal conditions,

COMMENTS	RESPONSES
	primarily located at +5.5 to +6.0 m and locally at +6.5 m; and (ii) AI-based visitor headcount control will be implemented. Together, these measures help provide a favorable and well-protected environment for birds and other wildlife. Public access is carefully managed through limited and elevated eco-park pathways, designed around tidal levels, with AI-based visitor headcount control to prevent overcrowding and ecological stress. 4. **Habitat Enhancement within Human Landscape** Productive landscapes such as open rice fields and water ponds support bird feeding and nesting while also forming part of the human experience, fostering environmental awareness and stewardship. "城鄉共融" This co-living strategy ensures that human presence does not dominate the site but instead coexists with and supports the long-term sustainability of bird habitats and the wetland ecosystem. By integrating environmental well-being (E), social co-existence with nature (S), and robust management and governance mechanisms (G), the development aims to create long-term shared value. This approach supports ecological protection while enhancing human well-being and sustainable economic potential.
3. Please clarify the type of I&T industries involved for the I&T hub. In addition, please clarify how the proposed I&T	3. The proposed I&T hub will accommodate a range of innovation and technology industries, including robotics and automation, artificial

COMMENTS	RESPONSES
hub is related to low-altitude economy as mentioned in the planning statement.	intelligence (AI) development, data-driven technologies, clean and renewable energy technologies, and related smart manufacturing activities. The hub is envisioned as a pilot platform for the implementation of clean-energy systems, demonstrating the integration of advanced technologies into future living and working environments. The I&T hub is planned as a compact innovation ecosystem that supports the full industrial cycle—from research and development, prototyping, and testing to small-scale production, manufacturing, exhibition, and delivery—within a single integrated building cluster. This arrangement enhances operational efficiency, shortens innovation cycles, and supports collaboration between research, industry, and application. In relation to the Policy Address 2024 that low-altitude economy (LAE), the proposed I&T hub provides technological and infrastructural support for emerging low-altitude applications. LAE refers to economic activities utilizing airspace below 1,000 m, including drones, eVTOLs, and related systems for logistics, inspection, emergency response, environmental monitoring, and smart mobility. The hub's focus on robotics, AI, smart systems, and clean energy directly supports the development, testing, and deployment of LAE technologies. The integration of LAE-related research and applications within the I&T hub aligns with future smart-city development, promotes new

COMMENTS	RESPONSES
	industrial chains, and supports sustainable and innovative economic growth. Diagram of pg. 1 of Appendix 2 on MLP are showing the upstream, midstream and downstream to promote innovated design made in Hong Kong and be an intentional gateway. Upon further announcement on relevant policy and regulation of low-altitude transport arrangement by the government, the Applicant will also incorporate landing zones for low-altitude transportation within the proposed development. Further exploration of future operations will be undertaken in liaison with the Government.
4. Please advise if phased development will be adopted for the proposed I&T hub.	4. Phased development is proposed for the I&T hub to ensure seamless integration and continuous operation of the existing logistics centre and warehouse facilities. The phasing strategy allows development to proceed in stages while minimizing disruption and maintaining operational efficiency throughout the construction and implementation period.
5. Please advise the minimum site coverage of greenery for this site.	5. The proposal provides a total greenery area of approximately 107,601 m², representing about 65.9% of the site area. The greenery comprises landscaped areas at ground level, podium level, and roof level. The proposed greenery area, including that at MLP, exceeds the minimum site coverage of greenery requirement of not less than 30%

COMMENTS	RESPONSES
	of the overall site area, i.e. no less than 20,000 m², in accordance with PNAP APP-152. Please refer to **Annex H3** for details.
6. Please advise whether the proposed Eco-Park could be accessible by the public.	6. The proposed Eco-Park will be accessible to the public. The Eco-Park is designed as an inclusive and educational green space, incorporating environmental education trails, wind corridors, solar-energy features, and eco-tourism and learning elements. Public access is provided primarily from the eastern side of the site at transport lay-by by public transport or drive-in with APS parking system, with barrier-free pedestrian routes connecting to key amenities for users and occupants. The Eco-Park features permeable and eco-friendly paving materials and is spatially separated from vehicular traffic to ensure safety and environmental quality. The landscape design enhances visual permeability and provides accessible greenery, allowing the public to experience the ecological features of the site while minimizing disturbance to sensitive habitats.
7. Please clarify if the commercial uses in the commercial and staff quarter blocks are ancillary to the staff quarters/I&T hub.	7. The commercial uses within the commercial and staff quarter blocks are primarily ancillary to the staff quarters and the I&T hub, providing daily amenities and services for staff, workers, and hub users. In addition, these commercial uses are designed to also serve visitors and the surrounding community.

COMMENTS		RESPONSES	
			The commercial components are mainly located along the southern side of the site next to San Tin Tsuen Road that away from the pond and ecologically sensitive areas. This location provides convenient access for the existing village, supporting daily needs and encouraging community interaction. The integration of these commercial uses helps strengthen connectivity between the new development and the existing village, thereby softening and dissolving the physical and social boundary between them.
8.	Please clarify the location of different parking spaces, e.g. whether they will be located in basement level. Please also clarify whether any basement level will be involved in the proposed I&T hub.	8.	Parking spaces for the proposed I&T hub will be mainly located at basement level, where an Automated Parking System (APS) is proposed to optimize space efficiency and minimize surface traffic. At ground level, dedicated parking and operational areas will be provided for heavy goods vehicles (HGVs), light goods vehicles (LGVs), trailers, and container loading/unloading activities. Adequate queuing and waiting spaces will be allocated for each logistics block to ensure smooth operation and avoid traffic congestion. Basement level(s) will therefore be involved in the proposed I&T hub to accommodate parking functions, while ground-level areas are primarily reserved for logistics operations and vehicular circulation.
	Specific Comments		
9.	Para. 1.19 – noting that one of the intentions of the I&T hub is to accommodate the existing logistics operators	9.	As mentioned in Item 4 above, phased development is proposed to ensure a seamless transition from existing operations at the original

COMMENTS	RESPONSES
affected by the development of the San Tin Technopole, please explain the interim arrangement before the I&T hub is developed. Besides, noting that G/F of the seven I&T blocks are reserved for accommodating the affected logistics operators, please explain whether the floor space is sufficient.	location. The development is planned in clusters, with each block designed as a self-sustaining building accommodating a mix of uses, including warehouse functions at G/F ground floor level, and industrial and research and development (R&D) uses on the upper floors. As explained in Item 3 above, the self-contained and streamlined development approach enables feasible phased development and phased construction while maintaining operational continuity. Floor space planning and layout have been determined in accordance with the Hong Kong Planning Standards and Guidelines (HKPSG), with reference also made to the Unified Facilities Criteria (UFC) – Warehouses and Storage Facilities, to ensure logistics efficiency. The overall development and planning strategy aligns with relevant Government policies announced in 2023. Architects and infrastructure consultants with strong experience in logistics planning have been engaged at an early stage to support the formulation of an efficient and well-coordinated development proposal.
10. Pg. 5 of Appendix 2 – it is noted that a proposed plot ratio of 4.24 was mentioned across application form and the planning statement. However, a proposed PR of 4.5 was found on Pg. 5 of Appendix 2. Please clarify whether the plot ratio is 4.24 or 4.5.	10. The proposed plot ratio for the development is 4.24. The reference to a plot ratio of 4.5 on Pg.5 of Appendix 2 reflects an earlier design iteration. Following further refinement of the building layout, height restrictions, and site setting-out, the proposed plot ratio has been rationalized and finalized at approx.4.24.

COMMENTS	RESPONSES
	The proposed plot ratio of 4.24 is well within the maximum permissible plot ratio of 15 under the First Schedule of the Buildings Ordinance. The plot ratio for the proposed development will be further explored in detailed design stage.
11. Para. 4.7(c) – please clarify if the automatic parking system would not be a public vehicle park and whether it is only for the use of staff and visitors.	11. The proposed underground automatic parking system (APS) will serve both staff and visitors, and will also be available for public parking use upon appointment. The APS is therefore not limited solely to private use. The system will be designed and implemented in accordance with the "Guidelines for Implementing Mechanized Vehicle Parking Systems" issued by the Electrical and Mechanical Services Department (EMSD). One of the key design considerations is to provide sufficient and efficient parking facilities while minimizing land take and surface traffic impact on the site. The introduction of a high-efficiency automatic parking system helps optimize parking provision and supports the overall operational and environmental objectives of the development.
12. Para. 4.7(d) – please supplement the intention for setting up a visitor and education centre, and its operation hours.	12. With reference to the Outline Zoning Plan (OZP), a visitor and education centre is proposed as part of the I&T hub development. The facility aims to promote eco-tourism and environmental education along the site perimeter, showcasing the co-existence of development and nature, and reflecting the concept of **城**鄉共融 (urban–rural integration).

COMMENTS		RESPONSES	
			As mentioned under Item 1 above, Key Principle (3) on controlled access will be adopted. Public access within the Eco-Park will be carefully managed through controlled operation hours and designated pedestrian routes. In particular: (i) the number and alignment of eco-park pathways are designed in response to natural tidal conditions, primarily located at +5.5 m to +6.0 m and locally at +6.5 m; and (ii) AI-based visitor headcount control will be implemented, together with operational coordination with relevant Government departments. Public access is therefore provided through limited and elevated eco-park pathways, designed to prevent overcrowding and minimize ecological disturbance. These measures help ensure a well-protected and favorable environment for birds and other wildlife while allowing controlled public enjoyment and education.
	Appendix 2		
13.	Pg. 9 - For the whole transport layby, please clarify if the entire transport layby is solely for 1 GMB layby.	13.	A variety of public transport services will be provided along San Tin Tsuen Road. Sufficient lay-by space is proposed at the eastern corner of the site to form the transport lay-by, which is designed to accommodate more than one green minibus in accordance with planning requirements.
14.	Pg. 23 to 25 – please advise the respective levels for ground level, podium level MLP and typical level MLP.	14.	The respective levels of the development are as follows: • Ground level: approximately +6.0 mPD • Podium level (MLP): approximately +35.0 mPD

COMMENTS	RESPONSES
	• Roof level: approximately +75.0 mPD, in compliance with the maximum building height restriction under the relevant Outline Zoning Plan (OZP) • Details of other typical floor levels and Main Lobby Platform (MLP) levels are provided in **Annex H5** for reference.
15. Pg. 23 - Please clarify the meaning of Eco-R&D and whether it is an outdoor space. - Please clarify if the uses involved in the SMART Logistic Centre.	15. Eco-R&D refers to research and development activities related to ecological and environmental technologies. The proposed Eco-R&D areas comprise dedicated outdoor research and demonstration spaces, such as ecological floating islands, which are an environmental research initiative of interest to the Drainage Services Department (DSD) and also intended to showcase ecological R&D outcomes to the public. Refer **Annex H4** for example The Eco-R&D uses are separate from and not part of the SMART Logistics Centre. The SMART Logistics Centre accommodates logistics-related industrial and operational functions, whereas Eco-R&D areas are provided specifically for environmental research, testing, and public demonstration purposes.
16. Pg. 24 - Please clarify if the building blocks in the I&T hub are all interconnected with podium/bridge as shown on the podium level MLP. - Please clarify the use of 'Rice Field'.	16. All building blocks within the I&T hub are interconnected at podium level by podium decks and pedestrian bridges, as shown on the podium level MLP. The interconnected podium system also provides access to the Automated Parking System (APS) and other ancillary facilities.

COMMENTS	RESPONSES
	The green podium serves as a secure and segregated circulation layer, separating public access from upper-level user-only areas where necessary. It provides safe and convenient pedestrian connections between blocks, as well as leisure walking spaces. The podium landscaping also functions as a buffer zone to mitigate noise and visual impacts from ground-level logistics operations. Through the podium and bridge network, all blocks can access commercial areas, APS parking, and ancillary facilities without passing through ground-floor logistics and warehouse areas, thereby enhancing safety, operational efficiency, and overall productivity of the I&T hub. The proposed "Rice Field" refers to an urban farming and green roof concept integrated within the development. It functions as a multifunctional landscape element, providing accessible greenery, urban food production, rainwater management, microclimate moderation, and environmental education opportunities. In addition to environmental and social benefits, the rice field and green podium contribute to economic value by enhancing the quality of the working environment, improving place-making, and increasing the long-term attractiveness of the I&T hub to innovation-driven industries and talent. The integration of productive landscapes and public-oriented green spaces also supports eco-tourism, education-related activities, and community engagement, thereby generating indirect economic benefits and supporting sustainable, resilient development.

COMMENTS	RESPONSES
17. <u>Pg. 26</u> - The current master layout plan could not show sufficient essential details of the proposed scheme. Please supplement the MLP with the following: (i) building height for each building block (in both mPD level and no. of storeys); (ii) proposed uses (which should tally with those mentioned in pg. 8 to 9 of the planning statement); (iii) site formation level;(iv)run-in/out; and (v) transport layby (as shown on pg. 9 of Appendix 2 on MLP), and parking spaces, if any. - Please consider not blurring the landscape features on the ground level.	17. Refer to **Annex H5** for our proposal i) Annex H5-1 ii) Annex H5-3 to Annex H5-6 iii) Annex H5-1 iv) - v) Annex H5-1
18. According to the explanatory statement of the approved San Tin Technopole Outline Zoning Plan No. S/STT/2, provision of at least two effective breezeways/ air paths aligned in northwest to south-east direction across Area 19B is recommended. Hence, two 15m-wide NBAs are required under the endorsed Planning and Design Brief (full document available in the public domain). Please clarify if the required breezeways/air paths would be provided.	18. The recommended breezeways / air paths will be provided in accordance with the Explanatory Statement of the approved San Tin Technopole Outline Zoning Plan No. S/STT/2 and the endorsed Planning and Design Brief. The proposed development incorporates a total of six breezeways across the site, exceeding the minimum requirement of two 15 m-wide non-building areas (NBAs). These breezeways are generally aligned in the northwest–southeast direction to facilitate effective air ventilation across Area 19B. Refer to rendering **Annex H6** and **Annex H5-1** for the separate distance. The breezeways have been strategically planned with consideration of

COMMENTS	RESPONSES
	multiple design requirements, including ecological bird movement corridors, visual permeability, building separation, and safe and efficient circulation for container trucks and internal roads. At ground level, the breezeways provide a minimum clear width of approximately 19 m, with building separation ranging up to approximately 60 m through a step-terraced building design. The provision of multiple, wider-than-required breezeways enhances site permeability, improves micro-climatic performance, and ensures full compliance with the planning and urban design requirements of the OZP
19. Clarifications of the Applied Uses (a) Public Utility Installation	19. (a) The proposed PUI includes a cooling centre and a substation, which will provide utility services to the proposed I&T Hub and support the government's development of the San Tin Technopole.
(b) Visitor and Education Centre	(b) A visitor and education centre is proposed as an ancillary use to the I&T hub development. The facility aims to promote eco-tourism and environmental education along the site perimeter, showcasing the co-existence of development and nature, and reflecting the concept of **城**鄉共融 (urban–rural integration).
(c) Creative Industries	(c) The proposed I&T hub will accommodate a range of innovation and technology industries, including robotics and automation, artificial intelligence (AI) development, data-driven technologies, clean and renewable energy technologies, and related smart

COMMENTS		RESPONSES	
			manufacturing activities.
	Draft FI dated 5.1.2026		
20.	R-to-C item 2(c) – please supplement the methodology paper provided to AFCD on 12.12.2025 and AFCD's comments as part of the FI submission.	20.	Please refer to **Annex C**.
21.	Annex F – it is noted that the applicant of the planning application No. A/STT/26 is Kenwell Limited. Please explain the relationship between KS Solutions (the party who prepared the letter) and the applicant.	21.	The Applicant has appointed KS Solutions as their consultant.
22.	Para 1.3.4, Annex A– please clarify whether no pond filling works will be carried out prior to commencement of construction of ecologically enhanced fishpond.	22.	It is confirmed that no pond filling works will be carried out prior to commencement of construction of ecologically enhanced fishpond.
8.	**Urban Design and Landscape Section, Planning Department (UD&L, PlanD)**		
(a)	With reference to applicant's submission, the proposed filling of ponds will neither cause adverse landscape impact nor tree felling. Nevertheless, no information about the existing trees and landscape proposal have been provided.	(a)	It is noted that the Environmental Impact Assessment (EIA) Report submitted by the Civil Engineering and Development Department for the San Tin/Lok Ma Chau Development Node (Application No. EIA-302/2023) was approved with conditions by the EPD on 17 May 2024. The EIA report includes a tree survey and landscape impact assessment. As the Application Site is mainly occupied by ponds and a brownfield site, there are not many existing trees. Therefore, a tree survey and landscape proposal were not considered necessary.
(b)	The applicant should provide (i) a survey on trees (with site photos showing the existing conditions) with trees	(b)	See our response in 8(a).

COMMENTS	RESPONSES
treatment; and (ii) landscape proposal to ameliorate the impacts of ponds filling, as appropriate.	
(c) The applicant is advised that approval of the application does not imply approval of tree works, if any, such as pruning, transplanting and felling. Application for any tree works should be submitted direct to relevant authority(ies) for approval.	(c) Noted.

Annex A

Environmental Assessment

Prepared by

Ramboll Hong Kong Limited

S16 FOR PROPOSED FILLING OF PONDS FOR PERMITTED INNOVATION AND TECHNOLOGY HUB (INCLUDING PERMITTED CARGO HANDLING AND FORWARDING FACILITIES, CREATIVE INDUSTRIES, EATING PLACE, FLAT (STAFF QUARTERS ONLY), INDUSTRIAL USE, INFOMRATION TECHNOLOGY AND TELECOMMUNICATIONS INDUSTRIES, OFFICE, PUBLIC UTIITY INSTALATION, RESEARCH, DESIGN AND DEVELOPMENT CENTRE, SHOP AND SERVICES, WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN))
AT LOT 764 RP (PART) IN D.D. 99, SAN TIN, YUEN LONG, N.T.

ENVIRONMENTAL ASSESSMENT STUDIES REPORT

Date	**December 2025**
Prepared by	**Tak Wong** **Principal Environmental Consultant**
Signed	
Approved by	**Tony Cheng** **Senior Manager**
Signed	
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Ramboll Hong Kong Limited

21/F, BEA Harbour View Centre
56 Gloucester Road, Wan Chai, Hong Kong

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1. INTRODUCTION

1.1 Background and Objectives

1.1.1 The site is located at Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, New Territories (the subject site). The proposed development is intended to foster the Innovation and Technology (I&T) development in the San Tin Technopole and become a large-scale pioneer base for low-altitude cross-boundary interface between Hong Kong and mainland China.

1.1.2 The subject site, covering an area about 163,181 sqm, falls within an area zoned "Other Specified Uses" annotated "Innovation and Technology" ("OU(I&T)") on the Approved San Tin Technopole Outline Zoning Plan (OZP) No. S/STT/2 gazetted on 20.9.2024. According to the Notes of the OZP, the applied uses of the proposed development are all Column 1 uses of the "OU(I&T)" zone, which is always permitted. However, since the Application Site previously fell within the "Other Specified Uses" annotated "Comprehensive Development and Wetland Enhancement Area" zone on the Approved San Tin OZP No. S/YL-ST/8, any filling of ponds, including that to effect a change of use to any of the Column 1 or 2 uses, requires planning permission from the Town Planning Board.

1.1.3 The planning application proposed filling of ponds for permitted innovation and technology hub (including permitted cargo handling and forwarding facilities, creative industries, eating place, flat (staff quarters only), industrial use, information technology and telecommunications industries, office, public utility installation, research, design and development centre, shop and services, warehouse (excluding dangerous goods godown)).

1.1.4 An Indicative Development Scheme ("IDS") of the proposed redevelopment is provided in **Appendix 1.1**. The traffic forecast for traffic noise impact assessment purpose is provided by the Project Traffic Consultant – MVA Hong Kong Limited.

1.1.5 This Environmental Assessment Studies (EAS) is prepared in support of the S16 Planning Application. The intention of this EAS is to demonstrate that there are no unacceptable adverse environmental impacts as a result of the development under application.

1.2 Site Location and its Environs

1.2.1 As provided in **Section 1.1.2**, the subject site falls primarily within an area zoned "OU(I&T)", on the Approved San Tin Technopole Outline Zoning Plan (OZP) No. S/STT/2. The location of the subject site is shown in **Figure 1.1**.

1.2.2 The subject site is located at an area with ponds, village houses, open storage sites, vehicle repair workshops and vacant lands nearby. As shown in the approved OZP S/STT/2, a planned Road (L13) runs along southeast boundary of the subject site.

1.2.3 The Application Site is located within the project boundary of the future San Tin Technopole, in which the planning theme of the locality is to foster I&T development in Hong Kong. With reference to Revised Recommended Outline Development Plan (RODP) provided in *Figure 2.1* of approved Environmental Impact Assessment Report for the San Tin / Lok Ma Chau Development Node (AEIAR-261/2024), as extracted in **Appendix 1.2**, the areas surround the site to the southwest, northwest and northeast are planned for Innovation and Technology development with the planned San Tin Western Main Drainage Channel running along southwest of the application site. A planned Road (L13) is running adjacent to Application Site along its southeast boundary. To the further east of site separated by the planned road L13 are existing

village settlements such as Tsing Lung Tsuen, San Lung Tsuen, Fan Tin Tsuen, On Lung Tsuen and Yan Shau Wai.

1.3 Proposed Development

1.3.1 The proposed development includes seven 12-storey I&T blocks, three 19-storey commercial and staff quarter blocks, one 9-storey data centre, one 3-storey visitors and education centre, one 2-storey cooling centre and one 2-storey sub-station. As summarised in **Table 1.1** below. The ground floors of the I&T blocks will also allow relocation of existing logistics operations affected by land resumption of San Tin Technopole. The total Gross Floor Area (GFA) is about 691,498 sqm.

Table 1.1 Key Development Parameters

Item	Proposed
I&T Blocks (7 nos)	***G/F:*** Warehouse; Testing Area for modern logistics / low-altitude economy operations ***1/F to 2/F:*** Industrial Floors for operation and testing areas for modern logistics / low-altitude economy operations ***3/F to 6/F:*** R&D lads ***7/F to 11/F:*** R&D Offices
Commercial and Staff Blocks (4 nos)	***G/F to 1/F:*** Commercial Uses (shops, supermarkets, restaurants) ***2/F to 18/F:*** Staff Quarters
Automatic Parking System / Parking Centre	***G/F to 1/F:*** Automatic Parking System ***2/F to 8/F:*** Data Centre
Visitor and Education Centre & GIC Facilities	Public utility installations such as cooling center (2-storey) and substation (2-storey) Visitor and education center (3-storey)

1.3.2 The staff quarters at commercial and staff blocks will require natural ventilation. Other noise sensitive uses, including R&D labs and offices, will be provided with mechanical ventilation and do not rely on opened window for ventilation. The setback from openings and fresh air intakes of development to the adjacent planned Road L13 as well as internal road is at least 5m.

1.3.3 To facilitate energy conservation and better control of potential noise emission, majority of cooling capacity of the development will be centralized and provided from the 2-storey cooling centre.

1.3.4 No pond filling works will not be carried out prior to the commencement of construction of the ecologically enhanced fishponds at the planned Sam Po Shue Wetland Conservation Park (SPS WCP). In view of the detailed design for the first phase SPS

WCP will be completed in 2026/27, with construction of the park commencing immediately thereafter, it is expected that the proposed pond filling will be commenced in 2028 and the tentative completion year of proposed I&T hub development is around **year 2033**.

1.4 Appraisal of Environment Impact

1.4.1 As discussed in **Section 1.2.3**, the proposed I&T hub is located within project boundary of future San Tin Technopole and within planned areas for Innovation and Technology development in AEIAR-261/2024. The tentative operation year of proposed development is around year 2033.

1.4.2 Currently, there's existing open storage yards and car repairing workshops and logistic centre along Castle Peak Road as shown in **Figure 1.2**.

1.4.3 Based on the site visit on 12 November 2025, there are no active chimneys within 200m from the subject site. The planned road L13 is the classified as local road, and the relevant HKPSG buffer distance for vehicular emission is 5m from its road kerb.

1.4.4 The identified noise sources in the vicinity of the subject site includes road traffic noise from nearby road network, and car repairing workshops from the surrounding area.

2. ROAD TRAFFIC NOISE IMPACT ASSESSMENT

2.1 Introduction

2.1.1 This road traffic noise impact assessment is prepared to address road traffic noise impact on the noise sensitive uses of the proposed development and recommend mitigation measures where practicable to attenuate the impact.

2.2 Assessment Criteria

2.2.1 Noise standards are recommended in Chapter 9, "Environment", of the Hong Kong Planning Standards and Guidelines (HKPSG) for planning against possible noise impact from road traffic, railway and aircrafts. According to the guidelines, the maximum allowable road traffic noise level, measured in terms of L10(1 hr), at 1m away from openable window for ventilation for all domestic premises like the proposed development is recommended to be 70 dB(A).

2.3 Assessment Methodology

2.3.1 The assessment concerns the prediction of L10 (1-hour) traffic noise level at Noise Sensitive Receivers (NSRs) of the proposed development due to the projected traffic flow on the adjacent major road networks for year **2048**, which is considered as the worst case scenario within 15 years upon completion of the proposed development in year 2033. The PM peak hour traffic is higher than that in AM and was thus adopted for assessment as worst-case scenario. Traffic noise will be predicted using the model "RoadNoise", which has been used before in other similar NIA studies. The model has fully incorporated the procedures and methodology documented in "Calculation of Road Traffic Noise (CRTN)" (1988) published by the U.K. Department of Transport.

2.3.2 The subject site is affected by the road traffic noise from the nearby road network, such as the planned Road L13 and Castle Peak Road – San Tin Section. The road section within the 300m noise study area is shown in **Appendix 2.1**.

2.3.3 Traffic flow was predicted by the Project Traffic Consultant – MVA Hong Kong Limited. The information on traffic volume and percentage of heavy vehicle using these roads is attached in **Appendix 2.1**. The traffic forecast will be submitted to the Transport Department (TD) for comment, and TD's endorsement will be provided once it is available.

2.3.4 The predicted noise levels were then compared with the HKPSG noise criterion for assessing the impact. Practicable environmental mitigation measures have been recommended, where necessary.

2.4 Noise Sensitive Receivers (NSRs)

2.4.1 As discussed in **Section 1.3.2**, the staff quarter of proposed development will require natural ventilation. Other noise sensitive uses, including R&D labs and offices, visitors and education centre will be provided with mechanical ventilation and do not rely on opened window for ventilation.

2.4.2 A number of NSRs, which represent the opening of the staff quarter for prescribed ventilation purpose are selected for the assessment as they are likely to be impacted by traffic noise. All assessment points are taken at 1.2m above the floor level and 1m away from the facade opening of rooms with noise sensitive use (living rooms and bedrooms). **Figure 2.1** shows the location of the selected NSRs for road traffic noise impact assessment.

2.5 Assessment Result under Base Case Scenario

2.5.1 Modelling layout for Road Traffic Noise Impact Assessment is provided in **Appendix 2.2**. **Appendix 2.3** shows the predicted road traffic noise impacts on the selected NSRs at base case scenario. Noise exceedances are found with a maximum noise level of **71** dB(A) under base case scenario.

2.6 Use of Noise Mitigation Measures

2.6.1 In view of predicted traffic noise exceedance above, noise mitigation measures are considered. Innovative noise mitigation measures are being explored in recent years. According to EPD's website regarding innovative noise mitigation design and measures (http://www.epd.gov.hk/epd/Innovative/greeny/eng/index.html), different balconies and special design window systems have been implemented in public rental housing, private residential and hostel developments. In King Tai Court project, baffle type acoustic window is adopted for the residential dwellings with road traffic noise sound attenuation of about 4 to 8 dB(A) (i.e. additional noise reduction indoors when compared with case using conventional window; or the relative insertion loss of acoustic window and conventional window).

Consideration of Innovative Noise Mitigation Designs (INMD) in Practice Note (PN)

2.6.2 In the "*Practice Note on Application of Innovative Noise Mitigation Designs in Planning Private Residential Developments against Road Traffic Noise Impact*" in ProPECC PN 5/23 (PN), different configurations of Innovative Noise Mitigation Designs (INMD) in form of acoustic window and enhanced acoustic balcony are suggested. The configurations are listed out in **Table 2.1** and **Table 2.2** below.

Table 2.1 Key Parameters of Acoustic Window (Baffle Type) of the Reference Case in PN and the Associated Noise Reduction Effects

Type	Parameters [1]					RNR[2] in dB(A), Orientation[3]			
	Room Area, sqm	Inner Opening, sqm	Outer Opening, sqm	Overlapping Length, mm	Gap width between panels, mm	Parallel	30°-60°	30° + 1.5m fin	60° + 1.5m fin
PN_8sqm	8	0.5046	0.522	≥100	100 - 175	6.0	7.0	8.0	9.0
PN_18	18	1.125	1.125			7.0	8.0	9.0	10.0

[1] No other ventilation opening should be provided at the same room at noise exceedance location(s)

[2] RNR: Noise attenuation in terms of Relative Noise Reduction (RNR); Further reduction of 1.5dB(A) with application of Sound Absorptive Material (SAM) with Noise Reduction Coefficient (NRC) of not less than 0.7 applied at top and outer opening side of mullion.

[3] Orientation: Horizontal Angle to Dominant Line Source

Table 2.2 Key Parameters of Enhanced Acoustic Balcony (Baffle Type) of the Reference Case in PN and the Associated Noise Reduction Effects

Type	Parameters								RNR[2] in dB(A), Orientation[3]	
	Room Area, sqm	Min. Balcony Width, sqm	Min. Balcony Depth, mm	Min. Parapet Height [4], mm	Inner Opening, sqm	Outer Opening, sqm	Min. Overlapping Length, mm	Gap Width, mm	Parallel	30°-60°
EAB_PN_14	14	1440	1300	1450	2.265	2.541	100	100	8.0	11.0
EAB_PN_18	18	2055	1300		2.541	2.541			9.0	11.0

[1] No other ventilation opening should be provided at the same room at noise exceedance location(s)

[2] RNR: Noise attenuation in terms of Relative Noise Reduction (RNR); Further reduction of 1.5dB(A) with application of Sound Absorptive Material (SAM) with Noise Reduction Coefficient (NRC) of not less than 0.7 applied at top and outer opening side of mullion.

[3] Orientation: Horizontal Angle to Dominant Line Source

[4] In addition to solid parapet, **full height side** wall is provided on one side of balcony

Use of Acoustic Window with reference to PN 5/23

2.6.3 Predicted traffic noise level at some NSRs exceeded assessment criteria and are upto 71 dB(A) (i.e. 1 dB(A) noise exceedance). The sizes of these habitable rooms are about 12 sqm. Acoustic Window design would be referenced on configuration **PN_18** as listed in **Table 2.1** above, with sliding panel provided behind openable side-hung window at a gap width of 100mm, with overlapping length not less than 100mm and outer opening area will be limited to not more than **1.12 sqm**. For ease of reference, this configuration would be abbreviated as "**PN_18**" in this document.

Room Size Adjustment

2.6.4 It is understood that the room size will affect the sound attenuation performance of the acoustic window (baffle type), therefore, further adjustment is needed by using the equation "10 x log (R_{ref}/R_{design})", where R_{ref} and R_{design} refer to the area of the room of the reference case respectively. In addition, for conservative approach, the corrected noise level would not be greater than the reference case even the room size of the Proposed Development is larger than the reference case.

Relative Noise Reduction

2.6.1 The RNR evaluated for **PN_18** for abovementioned NSRs are presented in **Appendix 2.4**. For conservative purpose, the assumed noise reduction will be not higher than the predicted noise exceedance of 1 dB(A) in this assessment. Schematic diagram of INMD proposed are illustrated in **Appendix 2.5**. **Figure 2.2** indicates the location of proposed noise mitigation measures, i.e. those NSRs with predicted noise exceedance under the worst-case scenario.

2.6.2 In view of above, noise reduction of not less than 1 dB(A) is considered achievable. For conservative purpose, the assumed noise reduction will be not higher than the predicted noise exceedance level in this assessment.

2.7 Assessment Result of the Mitigated Scenario

2.7.1 The traffic noise impacts on the NSRs under mitigated scenario of the worst case scenario were predicted and provide in **Appendix 2.4**.

2.7.2 With the noise mitigation measures proposed, the Proposed Development would comply with the HKPSG road traffic noise standard criteria of 70 dB(A) (100% compliance).

3. FIXED NOISE SOURCE IMPACT ASSESSMENT

3.1 Assessment Criteria

3.1.1 Noise assessments will normally be conducted in accordance with the "Technical Memorandum for the Assessment of Noise from Places other than Domestic Premises, Public Places or Construction Sites" (IND-TM), published under the Noise Control Ordinance (NCO). The appropriate Acceptable Noise Level (ANL) can be determined based on the Area Sensitivity Rating (ASR). There are 4 types of area described in the IND-TM which are summarised in **Table 3.1.**

Table 3.1 Area Sensitivity of NSRs

Type of Area Containing NSR	Degree to which NSR is affected by Influencing Factors (IFs)		
	Not Affected	Indirectly Affected	Directly Affected
I. Rural area, including country parks, or village type developments	A	B	C
II. Low density residential area consisting of low-rise or isolated high-rise developments	A	B	C
III. Urban area	B	C	C
IV. Area other than those above	B	B	C

3.1.2 As discussed in **Section 2.4.1**, the staff quarters of the proposed I&T Hub will rely on opened window for ventilation and representative Noise Sensitive Receivers (NSRs) are selected for fixed noise source impact assessment as indicated in **Figure 3.1** and summarized in **Table 3.2** below. R&D labs, offices, visitor and education centre will be provided with mechanical ventilation and does not rely on opened window for ventilation and they are not selected as representative NSRs.

Table 3.2 Representative Noise Sensitive Receivers for industrial noise

NSRs		Type of Area Containing	Degree to which NSR is affected by Influencing Factors (IFs)	Identified ASR (Area Sensitivity Rating)
N01	Village House at Sun Lung Village	I. Rural area, including country parks, or village type developments	Not Affected	A
N11, N12	Staff Quarters of the Proposed Development	IV. Area other than those above	Not Affected	B

Notes: In any event, the Area Sensitivity Rating and the ANLs adopted in this report are only indicative and they are used for assessment only. Noise from fixed noise sources is controlled under the NCO. Therefore, the Noise Control Authority shall determine the noise impact on the basis of prevailing legislation and practices being in force, and taking into account of contemporary conditions/ situation of adjoining land uses.

Where the noise under investigation is being received within a building from a noise source located on or within the same or an adjoining building such that the noise is transmitted primarily through the structural elements of the building or buildings, the appropriate ANL

shall be 10 dB(A) less than the relevant ANL as shown above. A similar adjustment should be made to the relevant ANL if the point of assessment is at an internal location of a building in which the NSR is located.

3.1.3 The Acceptable Noise Level (ANL) for the proposed development is tabulated in **Table 3.3**

Table 3.3 Identified Area Sensitivity Rating and Acceptable Noise Level of NSRs in the subject site

Noise Sensitive Receivers (NSR)	Directly/ Indirectly Affected/ Not Affected	Area Sensitivity Rating (ASR)	Acceptable Noise Level (ANL)	
			Day and evening (0700 – 2300 hrs)	Night (2300 – 0700 hrs)
N01	Not Affected	A	60	50
N11, N12	Not Affected	B	65	55

3.2 Fixed Noise Sources and Impact Evaluation

Existing Noise Sources

3.2.1 A number of potential noise sources was identified to the south of Application Site located along Castle Peak Road – San Tin Section, including vehicle repair workshops and recycling station, as shown in **Figure 3.1**. Based on site observation on 12 November 2025, dominant noise climate along Application Site boundary was road traffic noise and operational noise from abovementioned potential noise sources were not noticeable. According to the operators of the vehicle repair workshops and recycling operators, the operation hours of these sources are within day time period (07:00 to 19:00 hours) only. Site visit photo and findings (operation hours) are provided in **Appendix 3.1**.

3.2.2 According to the layout design, the noise sensitive use which rely on opened window for ventilation, i.e. staff quarters, were located to the northern portion of Site which are more than 300m away from the abovementioned potential noise sources. In view of the operation nature of the potential noise sources, site observation and separation distance to noise sensitive use, no adverse noise impact is envisaged at the staff quarters due to operation of the existing potential noise sources.

Planned Noise Sources

3.2.3 There will be typical building equipment (i.e. pump room, transformer rooms, lift machine room, emergency generator rooms etc.) associated with sound emission from proposed building blocks. Besides, there is a planned 2-storey substation building as well as a 2-storey cooling centre building where majority of cooling equipment will be centralised there.

3.2.4 MVAC and E&M plants, such as pump units, transformers, emergency generator and lift machines, are not yet designed in this early stage. All E&M plants will be placed at enclosed plant rooms. The ventilation louvres, mechanical ventilation intakes or

exhausts of MVAC equipment and E&M plant rooms will be treated by silencers and enclosures as required.

3.2.5 The choice of equipment and the requirement of noise control measures, such as acoustic treatments by silencers and enclosures, will be determined during detailed design stage to ensure that the noise level at potentially affected NSRs will comply with the HKPSG noise criteria. The cumulative noise impact on nearby NSRs shall comply with statutory requirement under Noise Control Ordinance stipulated in IND-TM. For the design of plant noise control treatment, the plant noise shall be controlled and designed to meet the HKPSG requirement, i.e. 5 dB below ANL or the prevailing background noise level, whichever is the lower. The prevailing background noise levels shall be determined at detailed design stage, before construction commencement, for determining the planning criteria. The design requirement for the compliance to HKPSG criteria will be stated in the tender specification. The Contractor shall be responsible for the design of MVAC and E&M plants and associated mitigation measures.

Planned Substation

3.2.6 A substation is planned near the southeast boundary of site next planned road L13. The minimum separation from the substation to the nearest existing NSR at Sun Lung Tsuen (N01) is 295m. The minimum separation from the substation to planned staff quarters is 127m and partially screened by the planned 8-storey data centre in-between. Equipment inventory is not available at this stage of study. With the 2-storey building structure, any equipment with potential noise impact such as transformers and switchgears can be housed inside concrete envelop or semi-enclosed transformer base. Adverse noise impact due to the substation operation is not envisaged.

Planned Cooling Centre

3.2.7 Majority of cooling capacity of the development will be centralized and provided from the 2-storey cooling centre. There will be chilling equipment such as air-cooled chillers and cooling towers which are considered as potential noise sources. The equipment sound emission data and details are not available at this early stage. 24-hour operation of cooling centre is assumed in this study. The nearest existing NSR to the cooling centre is N01 (Sun Lung Tsuen) which is separated by not less than 300m horizontal distance and no adverse noise impact is envisaged.

3.2.8 To the northeast of cooling centre, there is planned commercial and staff quarter blocks located at 153m horizontal distance under the indicative development scheme. The inventory and quantity of noise emitting equipment of cooling centre are not available at this early stage of study. Based on design criteria (ANL-5) of $L_{eq,30min}$ 55 dB(A) at the night-time, accounting a 6 dB(A) tonality correction as conservative and 3 dB(A) façade reflection. The maximum allowable sound power level (SWL) from the cooling centre is preliminarily evaluated with respect to the design criteria, distance correction, tonality correction and façade correction which is 98 dB(A) (i.e. 55 dB(A) + 20 (153)+8 -6-3). This is conservative evaluation and the partial screening provided by the data centre building is yet to be considered.

3.2.9 With reference to typical sound power levels of ventilation equipment provided in "*Code of Practice on Ventilation System Noise Control*" (the "CoP") published by the Environmental Protection Department, typical sound power levels of air-cooled chillers and water-cooling towers ranged from 100 to 109 dB(A) as well as 96 to 105 dB(A) respectively. The overall sound emission due to chillers and cooling towers of the cooling centre may impose potential noise exceedance to design criteria without use of mitigation measures. Standard noise mitigation measures, such as noise barriers, acoustic enclosures with silencers, shall be allowed in the design of the cooling centre such that the level of the intruding noise at the façade of the nearest sensitive use comply with the noise criteria under HKPSG.

3.2.10 With reference to the "CoP", noise reduction uto 10 dB(A) is achievable by use of barrier or partial enclosure while noise reduction upto 30 dB(A) is achievable by use of complete enclosure with silencers. In addition, the direct line-of-sight from the proposed 2-storey cooling centre to the 18-storey commercial and staff quarter blocks will be partially screened by an 8-storey data centre block in-between subjected to building layout design in detailed design stage. The openable windows of the staff quarters are already avoided from directly facing the planned cooling centre. Therefore, with standard noise mitigation measures adopted and careful building design, no insurmountable noise impact due to the cooling centre operation is anticipated.

3.3 Conclusion

3.3.1 The noise sensitive use of proposed development is located of consideration distance (more than 300m) from existing noise sources. No adverse fixed noise impact is anticipated at the proposed development.

3.3.2 The choice of equipment and the requirement of noise control measures, such as acoustic treatments by silencers and enclosures, will be determined during detailed design stage to ensure that the noise level at potentially affected NSRs will comply with the HKPSG noise criteria. The design requirement for the compliance to HKPSG criteria will be stated in the tender specification. In view of the considerable separation allowed in the layout design, there would be no insurmountable noise impact from fixed noise sources of proposed Development to nearby noise sensitive receivers.

4. AIR QUALITY IMPACT ASSESSMENT

4.1 Introduction

4.1.1 The assessment qualitatively assesses the potential air quality impacts during construction phase and operational phase of the proposed development. For the operational phase, the impact due to the vehicular emissions from the surrounding roads and other possible emissions upon the sensitive receivers of the Proposed Development have been reviewed and compared the design with the recommended buffer distance in the Hong Kong Planning Standards and Guidelines (HKPSG). The potential odorous emission from the proposed development is also addressed.

4.2 Construction Phase Air Quality Impact

4.2.1 Demolition and construction works will induce potential fugitive dust and gaseous emissions. Individual environmental impacts during construction (including demolition) of the project have been qualitatively addressed in this section.

Legislation

4.2.2 Assessment criteria for aerial emission is based on the Hong Kong's Air Quality Objectives (AQOs), and the Technical Memorandum on Environmental Impact Assessment Process (EIAO-TM) for controlling air pollutants. The prevailing AQOs, effective since 11 April 2025, is summarised in **Table 4.1** below and adopted for the air quality impact assessment.

Table 4.1 Hong Kong Air Quality Objectives

Pollutant	Averaging time	Concentration limit [i] (μg/m³)	Number of exceedances allowed
Sulphur dioxide (SO_2)	10-minute	500	3
	24-hour	40	3
Respirable suspended particulates (PM_{10}) [ii]	24-hour	75	9
	Annual	30	Not applicable
Fine suspended particulates ($PM_{2.5}$) [iii]	24-hour	37.5	18
	Annual	15	Not applicable
Nitrogen dioxide (NO_2)	1-hour	200	18
	24-hour	120	9
	Annual	40	Not applicable
Ozone (O_3)	8-hour	160	9
	Peak Season	100	Not applicable
Carbon monoxide (CO)	1-hour	30,000	0
	8-hour	10,000	0
	24-hour	4000	0
Lead (Pb)	Annual	0.5	Not applicable

Notes:

[i] All measurements of the concentration of gaseous air pollutants, i.e. sulphur dioxide, nitrogen dioxide, ozone and carbon monoxide, are to be adjusted to a reference temperature of 293 Kelvin and a reference pressure of 101.325 kilopascal.

[ii] Respirable suspended particulates means suspended particles in air with a nominal aerodynamic diameter of 10μm or less.

[iii] Fine suspended particulates means suspended particles in air with a nominal aerodynamic diameter of 2.5μm or less.

Air Sensitive Receivers

4.2.3 There are villages, warehouse, factories, office and shops located within the 500m from the Subject Site, which are considered as representative Air Sensitive Receivers (ASRs). These representative ASRs are identified as shown in **Figure 4.1** and **Table 4.2** below.

Table 4.2 Representative Air Sensitive Receivers

Ref	Air Sensitive Receiver	Type	Shortest Distance from the Subject Site
A01	Customs Detector Dog Division Lok Ma Chau Dog Base	Office	496m
A02	Department of Health (Outbound) Office	Office	488m
A03	Yan Sau Wai	Village	269m
A04	Fan Tin Tsuen	Village	249m
A05	San Lung Tsuen	Village	145m
A06	Office of Chin Tai Logistics	Office	141m
A07	Garage	Factory	312m
A08	Hop Yick Sand Storage and Environment Recycling Station for Construction Waste	Factory	316m
A09	Mai Po Lung	Village	352m
A10	Northbound Travel for Hong Kong Vehicles Inspection San Tin Service Center	Factory	258m
A11	Falling Car Washing	Shop	282m
A12	Yau Kee Wheel and Battery	Shop	205m

Construction Air Quality

4.2.4 The application includes the pond filling for development of I&T hub. The future development comprises of I&T blocks, commercial and staff quarter blocks, data centre, visitors and education centre, cooling centre and sub-station. The I&T hub development occupies an area of about 163,181 sqm in total. The development includes earthworks (backfilling), foundation and basement construction and superstructure works. The tentative earthwork area, is estimated to be about 132,000 sqm. Yet, it shall be noted that final works areas are subjected to further site investigations and detailed construction design at later stage. Subjected to site investigation findings and

foundation design, pond filling is expected while no excavation or minimal excavation is expected at the moment. The design formation level is +6.0mPD and there is 644,600 m^3 of estimated fill material which will be imported from off-site, subject to further site investigations. According to the tentative programme, construction period is planned from January 2028 to December 2033, i.e. 60 months. There is tentatively 18 months for earthworks. Based on 7m^3 per truck and 12 working hour per day, there will be less than 18 trip of dump truck per hour travelling to and from the work site.

4.2.5 Fugitive dust and gaseous emissions will be the major potential source of air quality impact during the construction phase of the proposed development. Under the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation, only approved or exempted non-road mobile machineries (including mobile generator, air compressor, excavator, crawler crane, bulldozer, and etc.) with a proper label are allowed to be used in the construction site. In addition, dust potentially generated as a result of the concreting works for the construction of superstructure, floor slab, etc. would be insignificant as the concrete would be pre-mixed and transferred to the Subject Site by concrete lorry mixer. In view of the scale of work as abovementioned, it is anticipated that not more than 25 mechanical equipment such as excavator, dump truck, piling rig, mobile crane, concrete lorry mixer will be used simultaneously at the work site, adverse air quality impact is not anticipated during the construction state with mitigation measures in place.

4.2.6 The pond filling works will not be carried out prior to ecological enhancement at planned Sam Po Shue Wetland Conservation Park. The tentative pond filling and site formation works is expected for 18 months from Jan 2028 to June 2029 and the tentative completion of the development is Dec 2033.

4.2.7 The project is part of I&T development in the San Tin Technopole. The Application Site is within "Northwest" of the development of San Tin / Lok Ma Chau Development Node (ST/LMC Dev) with reference to AEIAR-261/2024. Concurrent period is expected for the proposed development and the development of ST/LMC Dev. Based on AEIAR-261/2024, the "North" and "Northwest" of ST/LMC Dev are within 500m of the Application Site.

4.2.8 With reference to the Preliminary Construction and Population Intake Schedule and Tentative Construction Programme in Appendix 2.1 and Appendix 2.2 of AEIAR-261/2024, majority of site formation works of the "North" and Northwest" of ST/LMC Dev would be completed in 1st quarter of year 2028, while there will be continued site formation for road works and site development works. Extracted programme information of AEIAR-261/2024 is provided in **Appendix 4.1** and summarised in **Table 4.3** below.

Table 4.3 Potential Concurrent Project

Project	Details	Concurrent Period [1]
"North" of ST/LMC Dev	Site Formation works	Q1 2028
	Site Development and Road works	Q1 2028 to Q1 2033
"Northwest" of ST/LMC Dev	Site Formation works	Q1 2028
	Site Development and Road works	Q1 2028 to Q1 2031

Notes:

[1] Based on Preliminary Construction and Population Intake Schedule and Tentative Construction Programme in Appendix 2.1 and Appendix 2.2 of AEIAR-261/2024

4.2.9 The major construction dust and gaseous emission would be from earthworks of the Application Site and 18 months have been allowed in the tentative programme. As the Application Site is part of the I&T development in the San Tin Technopole, concurrent construction with ST?LMC Dev is expected. Based on the abovementioned information, the expected concurrent period of earthworks of the Application site with site formation of majority of ST/LMC Dev in the vicinity is estimated to be about a quarter (i.e. Q1 2028) only. It is recommended that the future Contractor of the proposed development to closely liaise with concurrent projects to avoid cumulative air quality nuisance on nearby ASRs due to construction by programme arrangement of major dust and gaseous emission activities.

4.2.10 With abovementioned close liaison of concurrent projects, implementation of mitigation measures recommended in **Section 4.2.11** to **Section 4.2.21**, and that the separatin from the subject site to the neatest ASR is more than 140m, significant additional adverse air quality impact is not expected.

Mitigation Measures for Fugitive Dust and Gaseous Emission

4.2.11 With the implementation of sufficient suppression measures as stipulated under the APCO, Air Pollution Control (Construction Dust) regulation (Cap 311R) and good site practices (as detailed in **Section 4.2.16** to **4.2.19** below), fugitive dust and gaseous emission arising from the earthworks, etc. can be effectively suppressed through contractual clauses and close enforcement of the resident engineers. The Contractor(s) shall be required to follow the requirements of the Air Pollution Control (Construction Dust) Regulation which requires notification before carrying out demolition works or construction works and to adopt control measures while carrying out demolition activities or construction activities.

4.2.12 To mitigate potential air quality impacts, all control measures recommended in the Air Pollution Control (Construction Dust) Regulation, where applicable, shall be implemented. Relevant control measures include:

- The works area for site clearance shall be sprayed with water before, during and after the operation so as to maintain the entire surface wet;
- Restricting heights from which materials are to be dropped, as far as practicable to minimise the fugitive dust arising from unloading/ loading;
- Immediately before leaving a construction site, all vehicles shall be washed to remove any dusty materials from the bodies and wheels. However, all spraying of materials and surfaces should avoid excessive water usage;
- Where a vehicle leaving a construction site is carrying a load of dusty materials, the load shall be covered entirely by clean impervious sheeting to ensure that the dusty materials will not leak from the vehicle;
- For hoarding along site boundary, height of not less than 2.4 m high from ground level to be adopted where appropriate;
- Any stockpile of dusty materials shall be covered entirely by impervious sheeting; and/or placed in an area sheltered on the top and 4 sides;
- All dusty materials shall be sprayed with water immediately prior to any loading, unloading or transfer operation so as to maintain the dusty materials wet; and

- To reduce the traffic induced dust dispersion and re-suspension, the travelling speed of vehicles within the site should be controlled.

4.2.13 In addition, emission control during the construction phase shall be carried out in accordance with the requirements of the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation. The emissions of non-road mobile machinery (NRMMs) include mobile machines and vehicles powered by internal combustion engines used primarily off-road. All NRMMs operating on-site which are subject to the emissions control of the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation shall be approved/exempted (as the case may be) and affixed with the requisite approval/exemption labels. To mitigate potential air quality impact, exempted NRMMs shall be avoided as far as practicable.

4.2.14 Appropriate exhaust emissions controls should also be adopted as required under Air Pollution Control (Fuel Restriction) Regulation. Electric power supply shall be provided for on-site machinery as far as practicable and diesel generators shall be avoided to minimize the gaseous and Particulate Matter (PM) emissions.

4.2.15 The recommended mitigation measures for protection of nearby ASRs are described below:

Good Site Management

4.2.16 Good site management is important in reducing potential air quality impacts to an acceptable level. As a general guide, the contractor(s) shall maintain a high standard of housekeeping to prevent fugitive dust emissions. Loading, unloading, handling and storage of fuel, demolished debris and wastes or by-products should be carried out in a manner so as to minimise the release of visible dust emission.

4.2.17 Appropriate working methods should be devised and arranged to minimise dust emissions and to ensure any installed control system and/or measures are operated and/or implemented in accordance with their design merits. No free falling of debris should be allowed. Debris should be lowered by a hoist to the ground, preferably with an enclosed tunnel.

4.2.18 A high standard of housekeeping shall be maintained. Any piles of materials accumulated on or around the work areas shall be cleaned up regularly. Cleaning, repair and maintenance of all plant facilities within the work areas shall be carried out in a manner that does not generate fugitive dust emissions. Prior to cleaning, the materials should be handled properly to prevent fugitive dust emission.

4.2.19 Frequent mist spraying should be applied on dusty areas. The frequency of spraying will depend upon local conditions such as rainfall, temperature, wind speed and humidity. The amount of mist spraying should be just enough to dampen the materials without over-watering, which could result in surface water runoff.

Dust Emissions from Site Traffic

4.2.20 Dust emission from construction traffic is generated predominantly from the travelling of waste removal lorries. Areas within the Subject Site where there are regular vehicle movements should have a hard surface. Speed controls at an upper limit of 10km/hr should be imposed and their movements should be confined to designated roadways within the Subject Site. All dusty vehicle loads should have side and tail boards covered

by tarpaulin extending at least 300mm over the edges. Wheel-wash troughs and hoses should be provided at exit points of the Subject Site.

4.2.21 "Recommended Pollution Control Clauses for Construction Contracts" is available on the EPD website which set out the recommended air pollution control measures to be implemented by the contractor(s) during the construction stage of the Project.

4.2.22 With the adoption of good practices, adverse air quality impact during the construction stage is not anticipated.

4.3 Operational Phase - Vehicular Emissions Impact

4.3.1 The potential impact due to vehicular emissions from road traffic have been considered. Planned Road L13 is the major road segments close to the Project. In accordance with the HKPSG, the buffer distance between roads kerb and permitted uses is given in Table 3.1 of Chapter 9 of HKPSG.

4.3.2 The planned Road L13 is local road, according to the Table 3.1 of Chapter 9 of HKPSG, the recommended buffer distance is >5m for Local Distributor.

4.3.3 The indicative development plans layout showing the buffer distances from road kerbs is provided in **Figure 4.1**. The setback of the building façade to planned Road L13 is 10m, i.e. from the balcony edge to the kerb side of road is at least 5m. The setback of building façade of staff quarters to internal roads is 9m, i.e. from the balcony edge to the kerb side of road is at least 5m. The relevant HKPSG vehicular buffer distance is complied.

4.3.4 The fresh air intake location for the non-domestic portions (i.e. IT Blocks, Commercial uses of Commercial and Staff Blocks, Visitor and Education Centre & GIC Facilities) will be determined in the detailed design stage. However, the relevant HKPSG buffer distance would be fulfilled. The relevant figure is shown in **Figure 4.1**.

4.3.5 The buffer distances between the subject site and the nearby roads will comply with the recommended requirements; as such, it is considered that the Proposed Development would not be subject to unacceptable vehicular emission impact.

4.3.6 For the proposed carpark, ProPECC PN2/96 on Control of Air Pollution in Car Parks will be followed.

4.4 Operational Phase - Industrial Chimney Emissions Impact

4.4.1 Regarding the industrial chimney emissions, there is no active chimney nor odour emission source identified within 200m from the subject site based on the site visit carried on 12th November 2025.

4.5 Conclusion

4.5.1 The Application is for pond filling for I&T Hub development. The minimum buffer distances between road kerbs complied with for the staff quarters and the fresh air intake of other uses will be located outside the relevant HKPSG buffer distance. Therefore, no vehicular impact is anticipated.

4.5.2 Based on site visit, there is no active chimney within 200m from the Subject Site.

4.5.3 In conclusion, there will be no air sensitive use, openable windows or fresh air intake within the buffer zone and hence no potential adverse air quality impact is expected

for the proposed development with respect to traffic flow and operation of nearby industrial chimneys.

4.5.4 With the adoption of good practices, adverse air quality impact during the construction stage is not anticipated.

5. WASTE MANAGEMENT IMPLICATIONS

5.1 Introduction

5.1.1 This section reviews the types of waste that will arise during the construction and operation phases of the Project.

5.2 Environmental Legislation and Guidelines

5.2.1 References have been made to the following relevant Hong Kong legislation governing waste management and disposal. Directly relevant legislations include:

- The Waste Disposal Ordinance (Cap. 354) and subsidiary legislations, such as the Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C), set out requirements for the storage, handling and transportation of all types of wastes; Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N), set out the charges for public fill, sorting and landfill.
- Land (Miscellaneous Provisions) Ordinance (Cap 28);
- Public Health and Municipal Services Ordinance (Cap 132) – Public Cleansing and Prevention of Nuisance Regulation – control of disposal of general refuse;

5.2.2 Other relevant documents and guidelines that are applicable to waste management and disposal include:

- Project Administration Handbook for Civil Engineering Works (PAH).
- ETWB TCW No. 22/2003A - Additional Measures to Improve Site Cleanliness and Control Mosquito Breeding on Construction Sites;
- ETWB Technical Circular (Works) No. 19/2005 - Environmental Management on Construction Sites;
- DEVB TC(W) No.8/2010 - Enhanced Specification for Site Cleanliness and Tidiness (supersedes WBTC No.6/2002 and ETWB TCW No.6/2002A);

- Works Branch Technical Circular No. 2/93 - Public Dumps;
- Works Branch Technical Circular No. 2/93B - Public Filling Facilities;
- Works Bureau Technical Circular No. 12/2000 - Fill Management;
- Development Bureau Technical Circular (Works) No. 06/2010 - Trip-ticket System for Disposal of Construction and Demolition Materials;
- Practice Note for Authorized Persons and Registered Structural Engineers – Construction and Demolition Waste (PNAP ADV – 19) issued by the Buildings Department;

- Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes;
- A Guide to the Chemical Waste Control Scheme;
- Code of Practices and Guidelines for Asbestos Control and Handling; and
- ProPECC PN2/97 Handling of Asbestos Containing Materials in Building
- Works Branch Technical Circular (WBTC) No. 32/92, The Use of Tropical Hard Wood on Construction Site
- WBTC No. 19/2001 - Metallic Site Hoardings and Signboards;
- WBTC No. 12/2002, Specification Facilitating the Use of Recycled Aggregates
- Monitoring of Solid Waste in Hong Kong 2023;
- Relevant guidelines posted by EPD through EPD's website (https://www.epd.gov.hk/epd/english/environmentinhk/waste/manage_facility/ypark.html) and Y Park's website (https://www.ypark.hk/zh-hant/); and

- Guidelines on "Yard Waste Reduction and Treatment" issued by Development Bureau; and
- "Development Bureau Technical Circular (Works) No. 4/2020 Tree Preservation".

5.3 Impact Assessment

Construction Phase

5.3.1 The construction activities to be carried out for the proposed Project would generate a variety of wastes that can be divided into distinct categories based on their composition and ultimate method of handling. These activities include earthworks (pond filling), foundation, superstructure construction, building services installations and landscaping works. No or minimal excavation is expected, subjected to site investigation findings. The identified waste types include:

- Construction and demolition (C&D) materials, comprising inert and non-inert materials, from the construction works;
- Sediment from foundation works, subjected to site investigation findings
- chemical waste from any maintenance of construction plant and equipment;
- asbestos-containing materials (ACM), if any; and
- general refuse from the workforce

5.3.2 It is recommended that different types of wastes should be segregated, stored, transported and disposed of separately in accordance with EPD's required procedures. Inert C&D materials (or public fills) such as soil, rock, concrete, etc. should be re-used on-site as filling materials or off-site as public fill at public fills reception facilities. The non-inert C&D materials (or C&D waste) such as timber, yard waste, paper, etc. should be reused or recycled as far as possible. Landfill disposal should be considered as the last resort for waste handling.

5.3.3 C&D materials and sediment may be generated during construction. Suitable inert C&D material will be reused on-site (e.g. for backfilling) as far as practicable and surplus inert C&D material will be delivered to Public Fill Reception Facilities for beneficial reuse. Non-inert C&D material from excavation and other works should be handled in accordance with **Section 5.3.2**.

5.3.4 In case that sediment layer identified on-site, non-excavation ground improvement technique, such as Deep-Cement-Mixing (DCM), will be considered to avoid / minimize volume of sediment to be mucked-out / excavated during foundation works as practicable. Any mucked-out / excavated sediment (e.g. from foundation works) is proposed to be stabilized / solidified by mixing with cement so that mixture is suitable for reuse on-site. As there's no basement construction under the indicative development scheme, significant excavation of sediment is not anticipated and it is expected that all sediment excavated / mucked out, if any, will be stabilized / solidified as abovementioned for reuse on-site. In case there are inevitable need for marine disposal of sediment, "*Administrative Guidance – Management Framework for Disposal of Dredged/ Excavated Sediment"* shall be followed for testing and classification for determining the disposal arrangement for sediment and marine dumping permits shall be applied in accordance with Dumping at Sea Ordinance (Cap. 466). All handling of mucked-out / excavated sediment shall comply with the Waste Disposal Ordinance.

5.3.5 The clearance/pruning of existing vegetation to facilitate site access and site formation works will generate timber material and yard waste. These material shall be handled in accordance with the principles of reduce, reuse, and recycle (3Rs). The following guidelines shall be taken into account when handling yard waste:

- Relevant guidelines posted by EPD through EPD's website (https://www.epd.gov.hk/epd/english/environmentinhk/waste/manage_facility/ypark.html) and Y Park's website (https://www.ypark.hk/zh-hant/); and
- Guidelines on "Yard Waste Reduction and Treatment" issued by Development Bureau; and
- "Development Bureau Technical Circular (Works) No. 4/2020 Tree Preservation".

5.3.6 Specifically, to minimize the generation of yard waste, the project proponent shall:

- Avoid unnecessary removal or excessive pruning of trees. Preserve trees in their original locations and implement tree transplanting when on-site preservation is not feasible.
- Segregate various types of yard waste and shred wood to facilitate reuse and recycling.
- Reuse yard waste on-site for a variety of purposes (e.g., decomposition and composting, recreational and decorative uses, and mulching in planting areas, etc.).
- Identify recycling options (e.g. delivery to Y-park) for yard waste that cannot be directly reused on-site.
- Where yard waste generation is unavoidable, sorting of yard waste for recycling and reuse on-site should always be prioritized. Yard waste shall be separated from C&D material to facilitate recycling, such as delivering them to YPARK so as to minimize the quantity of waste to be disposed of at the landfill site. Where appropriate, the Contractor should be responsible to cut and shred the yard waste in order to meet the collection requirement of the recycling outlet for processing. Disposal of yard waste directly at landfills should only be regarded as the last resort when no alternatives are available.

5.3.7 The amount of chemical waste that will be generated from the construction work will depend on the Contractor's on-site maintenance practices and the number of mechanical plant and vehicles used on-site. Regarding the nature of the construction activities involved, chemical waste such as lubricating oil or solvent generated are not expected to be in large quantity. It is preliminarily estimated that less than 50L/month and hence approximately $3m^3$ of chemical waste will be generated during a tentative 60-month construction period. The amount of chemical waste to be generated shall be quantified in the Waste Management Plan (WMP) as part of the Environmental Management Plan (EMP) to be prepared by the Contractor in the construction stage.

5.3.8 The Contractor is required to register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation should be observed and complied with for control of chemical wastes.

5.3.9 Chemical wastes should be handled in accordance with the "*Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes"* and should be collected by licensed chemical waste collectors for subsequent disposal and appropriate treatment at licensed waste disposal facilities, for example the Chemical Waste Treatment Facility Centre in Tsing Yi. Mitigation and control requirements for chemical waste are provided in the "*Recommended Pollution Control Clauses for Construction Contracts*" available in EPD website mentioned the handling, storage and disposal of chemical wastes. Recommended key control measures are listed below:

Containers used for storage of chemical wastes should:

- Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed;
- Have a capacity of less than 450L unless the specifications have been approved by the EPD; and
- Display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Regulations.

The storage area for chemical wastes should:

- Be clearly labelled and used solely for the storage of chemical waste;
- Be enclosed on at least 3 sides;
- Have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest;
- Have adequate ventilation;
- Be covered to prevent rainfall entering (water collected within the bund must be tested and disposed of as chemical waste, if necessary); and
- Be arranged so that incompatible materials are appropriately separated.

Chemical waste should be disposed of:

- Via a licensed waste collector; and
- To a facility licensed to receive chemical waste, such as the CWTC which also offers a chemical waste collection service and can supply the necessary chemical waste storage containers.

With good management and site particles, adverse environmental impacts should not result.

5.3.10 The workers in the construction site and the site office will generate a variety of general refuse which requires disposal. It consists mainly of food waste, aluminum cans, waste paper etc. Since the information on the number of workers on-site is not available at this preliminary stage, a maximum of 150 workers working simultaneously and a waste generation rate of about 0.65 kg per worker per day are assumed. It is estimated that the daily amount of general refuse that would be generated is in the order of 98 kg.

5.3.11 The general waste management strategy is to avoid waste generation in the first place. Should it be unavoidable, reduction and segregation at-source should be exercised as far as practicable and recycling and reuse should be adopted at the same time to salvage all the recyclable and reusable materials as much as possible.

5.3.12 The Contractor(s) should be responsible for ensuring that waste is collected by approved waste collectors and appropriate measures are taken to minimise adverse impacts to the surrounding environment, such as dust generation. The Contractor(s) must also ensure that all necessary waste disposal permits are obtained.

5.3.13 The mitigation measures for construction phase are recommended based on the waste management hierarchy principles. Recommendations of (i) good site practices, (ii) waste reduction measures, (iii) waste collection, storage and transportation, (iv) Handling of Excavated C&D Material (v) On-site Sorting of C&D Materials and (v) Transportation of C&D Materials are described in following sub-sections.

(i) Good Site Practices

- Implementation of the recommended mitigation measures in the "*Recommended Pollution Control Clauses for Construction Contracts*" available in EPD website, to

minimise the potential environmental impacts resulting from the storage, handling and transportation of inert C&D materials, non-inert C&D materials, chemical wastes and general site wastes.

- The Contractor is required to prepare a Waste Management Plan (WMP) including areas described in PNAP ADV-19 and submit to the Project Proponent for agreement.
- The Contractor is required to nominate approved personnel, such as a site manager, to be responsible for good site practices, and making arrangements for collection of all wastes generated at the site and effective disposal to appropriate facilities.
- Training of site personnel in proper waste management and chemical waste handling procedures.
- The Contractor is required to maintain records of quantities of waste generated, recycled and disposed.
- Provision of sufficient waste and recyclable collection points and arrange regular collection for disposal and recycling/reuse.
- Covering material during heavy rainfall.
- Locating stockpiles to minimise potential air quality, water quality and visual impacts; and

(ii) Waste Reduction Measures

- Segregation and storage of different types of waste in different containers to enhance reuse or recycling of materials and their proper disposal. Recyclable materials such as paper, metal (e.g. cans), plastic and glass. Recyclable wastes shall be segregated from non-recyclable waste to be stored in enclosed bins or compaction units. Recyclable material shall be collected in appropriate frequency to ensure no over stacking of recyclable wastes.
- Separate labelled bins shall be provided to segregate aluminium cans from other general refuse generated by the work force, and to encourage collection of by individual collectors;
- Any unused chemicals or those with remaining functional capacity shall be recycled.
- The Contractor is encouraged to use recycled aggregates where appropriate
- Maximizing the use of reusable steel formwork to reduce the amount of C&D material. The excavated fill material shall be used on-site as backfill material as far as possible.
- For site hoardings and signboards, if applicable, all component should be specified in metal (using bolt and nut jointing method wherever possible) to reduce generation of C&D waste. Reference should be made to WBTC No. 19/2001.
- Sort out demolition debris and excavated materials from demolition works to recover reusable / recyclable portions (i.e. soil, rock, broken concrete, etc.);
- Inert C&D materials (or public fills) such as soil, rock, concrete, etc. should be re-used on-site as filling materials or off-site as public fill at public fills reception facilities.

- non-inert C&D materials (or C&D waste) such as timber, yard waste, paper, etc. should be reused or recycled as far as possible. Specific measures to minimize generation of yard waste shall also refer to **Section 5.3.6**
- Minimize over ordering of concrete, mortars and cement grout by doing careful check before ordering.
- Proper storage and site practices to minimise the potential for damage or contamination of construction materials.
- Non-excavation ground improvement technique is recommended for consideration as required to avoid / minimise excavation of sediment as far as practicable
- Any excavated sediment is proposed to be stabilized / solidified by mixing with cement so that mixture to be reused on-site.

(iii) Waste Storage, Collection and Transportation

- Provision of appropriate measures to minimize windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers.
- Non-inert C&D materials such as top soil should be handled and stored well to ensure secure containment of the materials;
- Ensuring that waste is collected by approved waste collectors and appropriate measures are taken to minimise adverse impacts to the surrounding environment.
- A reputable waste collector should be employed by the contractor to remove general refuse from the site on a daily basis in general.
- Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors, if applicable
- The Contractor is required to register as a chemical waste producer if chemical wastes would be produced from the construction activities;
- The Contractor is required to separate chemical wastes for special handling and appropriate treatment at the Chemical Waste Treatment Facility. Specific mitigation measures for handling of chemical waste shall also refer to **Section 5.3.9** to **Section 5.3.9**

(iv) Excavated C&D Materials;

- Inert C&D materials should be temporarily stored on-site for use as backfill where practicable. Surplus inert C&D materials should be delivered to Public Fill Reception Facilities (PFRFs).
- Inert C&D materials should be properly covered with tarpaulin or similar impervious sheeting to prevent dust nuisance and site runoff.

(v) On-site Sorting of C&D materials

- Prior to disposal of non-inert C&D materials, it is recommended that wood, steel, glass and other metals shall be separated for re-use and/or recycling; while Inert C&D materials shall be utilized as fill materials to minimise the quantity of waste to be disposed of to the landfill.

- The Contractor shall designate area for temporary storage of C&D materials in site layout and allocate space for on-site sorting as far as practicable.
- The Contractor shall be required via contractual requirement to implement a trip-ticket system with reference to DEVB TCW No. 06/2010 to ensure that the disposal of C&D materials is properly documented and verified.
- With reference to the DEVB TCW No. 6/2010, the Authorized Person (AP) shall write to the Public Fill Committee (PFC) through Fill Management Section of Civil Engineering and Development Division (CEDD) to request a designated disposal ground for incorporation into tender documents.
- The Contractor shall be prohibited from disposing of C&D materials to place other than the designated disposal ground, and any alternative disposal ground proposed by the Contractor shall comply with requirement in the DEVB TCW No. 6/2010 and approved by the Authorized Person (AP) in prior.
- The Contractor shall be required to install video recording system to monitor the vehicular exit/entrance of the site and checking the disposal records provided by disposal grounds against survey records routinely, if applicable.

(vi) Transportation of C&D Materials

- All dump trucks engaged on-site for delivery of inert and non-inert C&D material from the site to the designated disposal location, including PFRFs, landfill etc., should be equipped with Global Positioning System (GPS) or equivalent system for tracking and monitoring of their travel routings and parking locations by the Contractor to prohibit illegal dumping and landfilling of materials; and
- The data collected by GPS or equivalent system should be recorded properly to check and analyze the travel routing and parking locations of dump trucks engaged on site
- In order to avoid dust impacts, any vehicle leaving a works area carrying inert or non-inert C&D materials should have their load covered up before leaving the construction site

<u>Operation Phase</u>

5.3.14 The major portion of solid waste arising from the development will be municipal solid waste, as well as chemical waste from maintenance activities (e.g. building services) and lab operations. The storage and handling of such waste may give rise to adverse environmental effects.

Municipal Solid Waste

5.3.15 According to the Monitoring of Solid Waste in Hong Kong 2023 prepared by EPD, the domestic waste disposal per capita per day was 0.89 kg while the recovery rate of domestic waste was 21%. The domestic waste generation rate is calculated 1.127 kg per capita per day (0.89 / (1-21%)). The commercial and industrial disposal rate per capita per day was 0.55 per capita per day, while the recovery rate for commercial and industrial waste was 46%. The commercial waste generation is calculated 1.0 kg per capita per day.

5.3.16 By applying these figures to the projected maximum estimated population after occupation of the development, approximately 26.7 ton of municipal solid waste (including 7.6 ton of domestic waste and 19.1 ton of commercial and industrial waste)

would be generated from the proposed development per day, detailed estimation is provided in **Appendix 5.1**.

5.3.17 Municipal solid waste generation from the development will be collected and removed regularly by an appointed party. Waste separation and recycling will be implemented, where practicable. General refuse and non-recyclables will be stored in enclosed bins and disposed offsite on a regular basis for avoidance of pest and odour nuisance. Recycling bins for recyclable materials (including aluminium can, waste paper, glass bottles and plastic bottles) will be transported off-site for recycling on a regular basis. Provided that the environmental control measures are properly implemented, no adverse environmental impact would be anticipated with respect to solid waste management.

Chemical Waste

5.3.18 Chemical waste would be generated from maintenance activities (e.g. building services) and R&D lab operations. Chemical waste such as paints, lubricants and used batteries may be generated. This waste may pose environmental, health and safety hazards. Measures as stipulated in the Waste Disposal (Chemical Waste) (General) Regulation and the Code of Practice on the Packaging, Labelling and Storage of Chemical Waste should be strictly followed for the handling and disposal of chemical waste. The quantity of chemical waste to be generated during the operation is expected to be small and in the order of a few cubic metres per month.

5.3.19 Should any chemical waste be generated, the operator should register with EPD as a chemical waste producer. Chemical waste (e.g. spent lubricant oil) should be recycled at an appropriate facility as far as possible. For chemical waste that cannot be recycled, they are readily accepted for disposal of at the CWTC in Tsing Yi. This chemical waste should be collected periodically in drum- type containers by licensed chemical waste collectors. Provided that the handling, storage and disposal of chemical waste are in accordance with these requirements, adverse waste management implications, including the potential hazards, air and odour emissions, noise, wastewater discharge, ecology and public transport, associated with handling, storage and disposal of chemical waste during the operation phase of the Project are not expected.

5.4 Conclusion

5.4.1 Provided that the identified waste arising from the construction works are handled, transported and disposed of using approved methods and that the recommended good site practices are adhered to, adverse environmental impacts are not anticipated.

5.4.2 Waste will be removed regularly by an appointed party. Provided that the environmental control measures are properly implemented, no adverse environmental impact would be anticipated with respect to solid waste management.

6. WATER QUALITY IMPACT ASSESSMENT

6.1 Introduction

6.1.1 The subject site is located at San Tin Technopole of the Northern Metropolis. Within the 500m study area of the subject site, there are Water Sensitive Receivers (WSRs), such as ponds, semi-natural or modified water course, conservation area and mitigated wetlands as shown in **Figure 5.1** and summarised in **Table 6.1** below**.** Potential Water Quality Impact (WQI) of the construction and operation phases of the Proposed Development is addressed in the following section.

Table 6.1 Water Sensitive Receivers within 500m Study Boundary

WSR ID [1]	Description	Nature
P-N3	Continuous pond area at Sam Po Shue within WCA [2]	Ponds
P-N4	Continuous pond area at Sam Po Shue within WCA [2] (to south of P-N3)	Ponds
P-N5	Continuous pond area at San Tin within WCA [2]	Ponds
P-N6	Continuous pond area at San Tin within WBA [2]	Ponds
P-N7	Continuous pond area at San Tin within WBA [2]	Ponds
P-N13	Southern of Tsing Lung Tsuen	Ponds
WC-N3	San Tin Eastern Main Drainage Channel (STEMDC)	Modified watercourse
WC-N7	Sam Po Shue	Semi-natural watercourse
WC-N8	San Tin Western Main Drainage Channel (STWMDC)	Semi-natural watercourse
WC-N8a	Tsing Lung Tsuen (TLT) drainage channel, near Castle Peak Road – San Tin Section	Modified Watercourse
WC-N8b	Near Castle Peak Road – San Tin Section	Modified Watercourse
WC-N9	In Mai Po	Semi-natural watercourse
WC-N11	Hop Shing Wai	Semi-natural watercourse
WC-N14	Northeast of San Tin Stormwater Pumping Station	Modified watercourse
WC-N15	Near Fan Tin Tsuen	Semi-natural watercourse
WC-N15a	Along San Tin Tsuen Road	Modified watercourse
CA-N1	Conservation Area	Conservation Area
MW-N1	Along STEMDC	Mitigation wetland
MW-N2	Flood storage pond adjacent to San Tin Tsuen Road	Pond
MW-N3	Lotus Pond at San Tin, west of Tsing Lung Tsuen	Mitigation wetland

Notes:

[1] Reference is made to AEIAR-261/2024

[2] WCA: Wetland Conservation Area; WBA: Wetland Buffer Area

6.2 Project Construction Phase

6.2.1 The management and mitigation strategy of the wastewater generated from the construction work of the proposed development should be addressed and implemented. Environmental control measures have been proposed if considered necessary to reduce and minimize the identified water quality impacts on WSRs.

6.3 Relevant Legislation, Standards and Guidelines for Construction Phase

Water Pollution Control Ordinance (Cap.358)

6.3.1 The Water Pollution Control Ordinance (Cap. 358), in existence since 1980, is the major legislation relating to the protection and control of water quality in Hong Kong. According to the Ordinance and its subsidiary legislation, Hong Kong waters are divided into ten water control zones (WCZ). Corresponding statements of Water Quality Objectives (WQO) are stipulated for different water regimes (marine waters, inland waters, bathing beaches subzones, secondary contact recreation subzones and fish culture subzones) in each of the WCZ based on their beneficial uses. The assessment area is located within the Deep Bay WCZ.

ProPECC PN 1/94

6.3.2 The other relevant guideline is the Professional Persons Environmental Consultative Committee Practice Note 1/94 "Construction Site Drainage" (ProPECC PN 1/94) which provides guidelines for the handling and disposal of construction discharges. This ProPECC Note is generally applicable for control of site runoff and wastewater generated during the construction of the Project.

ProPECC PN 5/93

6.3.3 Another relevant guideline is the Professional Persons Environmental Consultative Committee Practice Note 5/93 "Drainage Plans subject to Comment by the Environmental Protection Department" (ProPECC PN 5/93) which provides guidelines for the drainage plan of the construction site. This ProPECC Note is generally applicable for control of discharge of storm drains, foul sewers, drainage of commercial and industrial wastewater. Also, the control of sewage treatment and disposal is stipulated in this ProPECC.

Technical Memorandum

6.3.4 Besides setting the WQOs, the WPCO controls effluent discharging into the WCZs through a licensing system. The Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters (TM-DSS) issued under Section 21 of the WPCO gives guidance on the permissible effluent discharges based on the type of receiving waters (foul sewers, storm water drains, inland and coastal waters). The limits given in the TM control the physical, chemical and microbial quality of effluents. Under the TM, effluents discharged into the sewerage system and the inshore and marine waters of the WCZ are subject to standards for particular volumes of discharge. These standards are defined by EPD and specified in licence conditions for any discharge within a WCZ. Any effluent discharge during the construction and operation of the Project would be required to comply with the required discharge standards.

6.4 Potential Impacts during the Construction of the Project

6.4.1 Site construction activities will inevitably have the potential to generate wastewater. As such works should be carried out in such a manner as to minimize adverse impacts on the water quality. Apart from general construction activities, pollution sources could include:

- Construction site runoff including spillage from ponds and general construction activities;
- Sewage generated by construction workforce; and
- Potential accidental spillage of chemicals, e.g. oil, diesel and solvents etc.

General Construction Activities

6.4.2 All works for proposed development are land-based with essential pond filling works. The land-based construction works and pond filling may have the potential to cause water pollution. If the pond stored water is not properly drained out prior to pond filling, there's potential of water spillage causing runoff with high concentration of suspended solids to nearby WSRs. Various types of construction activities would generate wastewater. These include general cleaning and polishing, wheel washing, dust suppression sprays and utility installation, which would contain high concentrations of suspended solids. Without proper control, these could lead to increase in suspended solids level in the neighbouring storm drain and WSRs.

6.4.3 Adoption of the guidelines and good site practices for handling and disposal of construction discharges as part of the construction site management practices (as given in **Section 6.5**) would minimise the potential impacts.

Construction Site Runoff

6.4.4 Construction Site surface runoff contains high levels of sediments, other suspended solids and contaminants. Potential sources of pollution include runoff and erosion from the site surfaces, drainage channels, bentonite slurries and other grouting materials, concrete washout and drainage from dust suppression sprays, fuel, oil and lubricants from construction vehicles and other equipment.

6.4.5 Sufficient silt removal facilities should be installed to settle out sediment prior to discharge. Such facilities shall be properly designed in accordance with guidelines from the Civil Engineering and Development Department (CEDD) to achieve the desired mitigating effect. Typically, a detention time not less than 5 minutes for maximum design flow of inlet should achieve adequate sediment removal. Channels or earth berm or sandbag barriers should be provided on site to properly direct surface runoff to such silt removal facilities. Sediment traps, channels and manholes should be maintained, and the deposited silt and grit should be removed on regular basis.

Sewage Effluent from Construction Workforce

6.4.6 Water pollution due to site facilities, e.g. toilets could be the source of pollution if appropriate measures are not implemented properly in respect of storage and discharge.

6.4.7 In this construction site, portable chemical toilets will be provided. According to "Reference Materials on Construction Site Welfare, health and safety measures" Section 5.6.10, chemical toilets should be provided at a minimum rate of about 1 per 25 workers. The facility should be serviced and cleaned by a specialist contractor at regular intervals. Sewage generated from the construction workforce will be contained in chemical toilets and be tanked away. It is anticipated construction workforce would not cause adverse water quality impact after implementation of all recommended measures.

Liquid Spillage

6.4.8 To prevent spillage of chemicals, including fuel, solvents, oils and lubricants, it is recommended that all stocks should be stored within proper containers and sited at sealed and paved areas, preferable surrounded by bunds.

6.4.9 "Recommended Pollution Control Clauses for Construction Contracts" (RPCC) also recommends appropriate wastewater control measures to be implemented at the construction site by the contractor. The RPCC is available on EPD website.

6.4.10 The quality of any effluent discharges from the construction site should meet the standards specified in the Technical Memorandum – Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters.

6.5 Mitigation Measures during the Construction of the Project

6.5.1 The site practices outlined in ProPECC PN 1/94 Construction Site Drainage should be implemented as far as practicable to minimise the potential water quality impacts from various construction activities and construction site runoff.

6.5.2 The Contractor is required to apply to the EPD for a discharge licence for discharge of effluent from the construction site under the WPCO. The discharge quality must meet the requirements specified in the discharge licence. All the runoff and wastewater generated from the works areas should be treated so that it satisfies all the standards listed in the TM-DSS. The beneficial uses of the treated effluent for other on-site activities such as dust suppression sprays, wheel washing and general cleaning etc., can minimise water consumption and reduce the effluent discharge volume. If monitoring of the treated effluent quality from the works areas is required during the construction phase, monitoring works should be carried out in accordance with the discharge license.

Removal / Filling of Ponds and Wet Areas

6.5.3 The water of ponds would probably sediment laden with certain level of pollutants and nutrients. Spillage of pond water to nearby water course and water bodies shall be avoided. All ponds to be removed should be isolated and not connected to existing watercourse and the water inside ponds will be drained out prior to any filling, excavation or construction of the areas.

6.5.4 Direct dumping of drained water from ponds to nearby water courses or water bodies shall not be allowed. The drained water shall be temporarily stored in appropriate storage tanks or containers for reuse-on-site as far as practicable and any surplus water should be treated and tinkered away for disposal at Sewage Treatment Works in compliance with Technical Memorandum for Effluents Discharged into Drainage and Sewerage System, Inland and Coastal Waters (TM-DSS). Dewatering or ponds shall be carried out in dry seasons as possible so as to minimise the quantity of drained water.

Polluted Water from Excavated Material

6.5.5 Excavated materials such as sediment would be of high water content and which are of certain level of pollution or nutrient concentration. Mitigation measures for handling and disposal of excavated materials and sediment shall refer to **Section 5.3**. No direct disposal of excavated materials into stormwater drainage system and nearby water bodies would be allowed.

Groundwater from Contaminated Areas, Contaminated Site Run-off and Wastewater from Decontamination

6.5.6 Any excavated contaminated material and exposed contaminated surface shall be properly housed or covered to avoid generation of contaminated runoff. Open stockpiling of contaminated materials should not be allowed. Any contaminated runoff or wastewater generated from land decontamination process should be properly collected ad diverted to wastewater treatment facilities (WTF) as necessary. The WTF shall deploy suitable treatment processes (e.g. oil interceptor / activated carbon) to reduce the pollution level to an acceptable standard and remove any prohibited

substances (e.g. total petroleum hydrocarbon) to an undetectable range. All treated effluent from wastewater treatment system shall meet relevant requirements stipulated under TM-DSS and either discharged into foul sewers or tinkered away for proper disposal.

6.5.7 No direct discharge of groundwater from contaminated areas should be adopted. Prior to any excavation works within the potentially contaminated areas, the baseline groundwater quality in these areas should be reviewed based on the past relevant site investigation data and any additional groundwater quality measurements to be performed with reference to "*Guidance Note for Contaminated Land Assessment and Remediation*" and the review results should be submitted to EPD for examination. If the review results indicated that the groundwater to be generated from the excavation works would be contaminated, this contaminated groundwater should be either properly treated or properly recharged into the ground in compliance with the requirements of the TM-DSS. If wastewater treatment is to be deployed for treating the contaminated groundwater, the wastewater treatment unit shall deploy suitable treatment processes (e.g. oil interceptor / activated carbon) to reduce the pollution level to an acceptable standard and remove any prohibited substances (such as total petroleum hydrocarbon) to an undetectable range. All treated effluent from the wastewater treatment plant shall meet the requirements as stated in the TM-DSS and should be either discharged into the foul sewers or tankered away for proper disposal.

6.5.8 If deployment of wastewater treatment is not feasible for handling the contaminated groundwater, groundwater recharging wells should be installed as appropriate for recharging the contaminated groundwater back into the ground. The recharging wells should be selected at places where the groundwater quality will not be affected by the recharge operation as indicated in Section 2.3 of TM-DSS. The baseline groundwater quality should be determined prior to the selection of the recharge wells and deposit a working plan to EPD prior to recharge. Pollution levels of groundwater to be recharged shall not be higher than pollutant levels of ambient groundwater at the recharge well. Groundwater monitoring wells should be installed near the recharge points to monitor the effectiveness of the recharge wells and to ensure that no likelihood of increase of groundwater level and transfer of pollutants beyond the site boundary. Prior to recharge, free products should be removed as necessary by installing the petrol interceptor. The Contractor should apply for a discharge licence under the WPCO through the Regional Office of EPD for groundwater recharge operation or discharge of treated groundwater.

Wheel Washing Water

6.5.9 The wheels of all vehicles should be washed before they leave a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. A wheel washing bay should be provided at every site exit if practicable. Wash water should be recycled whenever possible to minimise the generation of wastewater and should have sand and silt removed before discharging into storm drains. The section of construction road between the wheel washing bay and the public road should be paved with backfill to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.

6.5.10 Accumulation of Solid Waste Debris and refuse generated on-site should be collected, handled and disposed of properly to avoid entering nearby storm drains and inland watercourses. Stockpiles of cement and other construction materials should be kept covered when not being used.

6.5.11 Rubbish and litter from construction sites should also be collected and disposed offsite on a regular basis to prevent spreading of rubbish and litter from the site area.

Construction Site Runoff

6.5.12 Exposed soil surfaces should be covered by a tarpaulin or similar material during rainstorms to prevent the washing away of construction materials into any drainage system, watercourses and inshore water. Other measures which are proposed to be implemented before, during, and after rainstorms, as appropriate, are summarized in ProPECC PN 1/94. The surface run-off from construction sites as detailed below shall also be incorporated into the Construction Site Drainage Management Plan where practicable as an integral part of good practice:

- Surface run-off from construction sites should be discharged into storm drains via adequately designed sand/ silt removal facilities such as sand traps, silt traps and sediment basins. Channels or earth bunds or sand bag barriers should be provided on site to properly direct stormwater to such silt removal facilities. Perimeter channels at site boundaries should be provided where necessary.
- Sedimentation basins and sand traps designed in accordance with the requirements of ProPECC Note PN 1/94 should be installed at the construction site for collecting surface runoff.
- Silt removal facilities, channels and manholes should be maintained, and the deposited silt and grit should be removed regularly, and at the onset of and after each rainstorm to ensure that these facilities are functioning properly.
- Construction work should be programmed to minimize soil excavation works in rainy seasons (April to September). If excavation of soil could not be avoided in these months, temporarily exposed surfaces should be covered, and temporary access roads should be protected by crushed stone or gravel, as excavation proceeds.
- Slope exposure should be minimized where practicable especially during the wet season. Exposed soil surfaces should be protected from rainfall through covering the temporarily exposed slope surfaces with tarpaulin or the like.
- Earthworks final surfaces should be well compacted, and the subsequent permanent work or surface protection should be carried out immediately after the final surfaces are formed. Also, appropriate drainage like intercepting channels should be provided when necessary.
- Measures should be taken to minimize the ingress of rainwater into trenches. If excavation of trenches in wet seasons is necessary, they should be dug and backfilled in short sections. Rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities.
- Open stockpiles of construction materials (e.g. aggregates, sand and fill material) on sites should be covered with tarpaulin or similar fabric. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system.
- Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm runoff from getting into foul sewers. Discharge of surface runoff into foul sewers must always be prevented in order not to unduly overload the foul sewerage system.
- Precautions to be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent or forecast and actions to be taken during or after rainstorms.
- Drainage facilities must be adequate for the controlled release of storm flows.

- High loading of suspended solids in construction site runoff should be prevented through proper site management by the contractor.
- Haul roads should be protected by crushed rock, gravel or other granular materials (i.e. hard paved) to minimize discharge of contaminated runoff.

Accidental Spillage

6.5.13 Oils and fuels should only be used and stored in designated areas which have pollution prevention facilities. Common chemical cabinets would be used to store the fuel tanks and other chemical substances in order to prevent spillage of fuels and solvents to the nearby watercourses. All waste oils and fuels should be collected in designated tanks prior to disposal. Chemical wastes should be properly stored, collected and treated for compliance with the requirements set out in the Waste Disposal Ordinance and its subsidiary Waste Disposal (Chemical Waste)(General) Regulation. The relevant requirements are as follow:

- Storage in large containers only with the approval of the Director of Environmental Protection.
- Labelling of every container should be in proper format.
- Storage area for the containers should have adequate space and associated features such as at least 3 sides of wall, roof and ventilation system.
- During waste collection and delivery, waste producer and collector should follow the requirement for the trip ticket.

6.5.14 Drainage serving an open oil filling point, if any, should be connected to storm drains via a petrol interceptor with peak storm bypass, if present.

Sewage

6.5.15 Temporary sanitary facilities, such as sufficient chemical toilets, should be employed in the works areas. The toilet facilities should be more than 30 m away from any watercourses. A licensed contractor would be responsible for the cleaning and maintenance of the chemical toilets on a regular basis. The number of the temporary sanitary facilities required for the construction sites would be subject to later detailed design, the capacity of the chemical toilets, and contractor's site practices.

6.5.16 Notices would be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment during the construction of the Project. Regular environmental audit on the construction site would be conducted in order to provide an effective control of any malpractices and achieve continual improvement of environmental performance on site.

6.5.17 Provided that sewage is not discharged directly into storm drain or inland waters and temporary sanitary facilities are used and properly maintained, and subject to the adoption of good site practice and the proper implementation of recommendation under this Section by the contractor, no adverse water quality impact will be anticipated.

Groundwater

6.5.18 According to ProPECC PN 1/94, groundwater pumped out of wells etc. for the lowering of ground water level in basement or foundation construction, and groundwater seepage pumped out of tunnels or caverns under construction, if any, should be discharged into storm drains after the removal of silt in silt removal facilities.

Boring and Drilling Water

6.5.19 According to ProPECC PN 1/94, water used in ground boring and drilling for site investigation or rock/soil anchoring should as far as practicable be recirculated after

sedimentation. When there is a need for final disposal，the wastewater should be discharged into storm drains via silt removal facilities.

Bentonite Slurries

6.5.20 According to ProPECC PN 1/94, bentonite slurries used in diaphragm wall and bore-pile construction should be reconditioned and reused wherever practicable. If the disposal of a certain residual quantity cannot be avoided, the used slurry may be disposed of at the marine spoil grounds subject to obtaining a marine dumping licence from EPD on a case-by-case basis.

6.5.21 If the used bentonite slurry is intended to be disposed of through the public drainage system, it should be treated to the respective effluent standards applicable to foul sewers, storm drains or the receiving waters as set out in the WPCO Technical Memorandum on Effluent Standards.

6.6 Monitoring and Audit Requirements

6.6.1 Water quality impacts on the identified WSRs during the construction of the Project can be readily mitigated through implementation of standard mitigation measures and good housekeeping practices. Adverse water quality impact is not expected during construction of the Project. Water quality monitoring and audit is considered not necessary during the construction of the Project. However, regular site inspections should be taken to inspect the construction activities and works area in order to ensure the recommended mitigation measures are properly implemented

6.7 Potential Impacts and Mitigation Measures during Operation of the Project

6.7.1 As mentioned in **Section 6.1.1**, there are WSRs within the 500m study area of the proposed development, the management and mitigation strategy of the wastewater generated from the operation of the proposed development should be addressed and implemented.

6.8 Relevant Legislation, Standards and Guidelines for Operation Phase

6.8.1 The ProPECC PN 5/93, Drainage Plans subject to Comments by Environmental Protection Department, provides guidelines and practices for handling, treatment and disposal of various effluent discharges to stormwater drains and foul sewers, as discussed at **Section 6.3.3**. The design of site drainage and disposal of site effluents generated within the proposed development area should follow the relevant guidelines and practices as given in the ProPECC PN 5/93.

6.9 Storm Water Discharge

6.9.1 During operation, the surface runoff during rainfall events which is known as non-point source of pollution would be the only potential water quality impact. Fallen leaves, particles, litter from open areas, which is a source of organic and nutrient pollutants, can be washed into the drainage system during heavy rainfall if it is not properly controlled. Pollutants contributed by non-point source are often bound or adsorbed onto particles, thus an effective stormwater management system will be the removal of pollution sources prior to rainstorm and the provision of degritting/ screening facilities that collect sediment. As particles settle out, the associated pollutants will also settle out (then removed from stormwater).

6.9.2 Under normal condition, runoff carrying pollutants will not be generated in low rainfall intensity, but increased runoff may occur during heavy rainfall condition. The first flush flow would carry most of the pollutants and the subsequent overland flow generated from rainstorms is expected to be uncontaminated. Thus, prevention of "first

flush" pollution in stormwater runoff will be an effective way in controlling pollution at source and to abate pollutants.

6.10 Best Management Practices (BMPs) for Stormwater Discharge

6.10.1 Surface runoff can be controlled by good drainage design and implementation of BMPs. The proposed development has adopted the following BMPs:

- *Erosion Control*

  If uncontrolled, exposed surfaces may contribute to sediment laden in stormwater runoff and cause water pollution. The proposed development site is either hard paved or covered by landscaping area with appropriate planting species in order to eliminate any exposed surface.

- *Prevention of "First Flush" Pollution*

  Appropriate drainage system will be constructed for the proposed development in order to control its surface runoff. During detailed design, site drainage system of the development will be designed in such way that surface runoff from the proposed development will be directed towards the internal surface drains, where appropriate drainage system with control facilities will be proposed. Additional paved U-channels with screening facilities will also be provided along the edge of the development site to avoid uncontrolled spillage of runoff.

- *Devices for Removal of Pollutants*

  In addition to the above, screening facilities such as standard gully grating and trash grille, with spacing which is capable of screening off large substances such as fallen leaves and rubbish should be provided at the inlet of drainage system. It is expected that most of the large substances in stormwater runoff would be removed with such devices so as to prevent it from entering the drainage system. Road gullies with standard design and silt traps and oil interceptors should be incorporated during the detailed design to remove particles present in stormwater runoff.

6.11 Summary

6.11.1 Water quality impacts from construction are associated with the general construction activities, construction site run-off and sewage effluent from construction workforce, while the water quality impacts from operation are associated with normal urban surface runoff only. Potential water quality impacts can be controlled by implementing the recommended mitigation measures. With the implementation of mitigation measures, no adverse water quality impact on the identified WSRs is anticipated.

7. LAND CONTAMINATION

7.1 Objective

7.1.1 With reference to the EIA Report on the First Phase Development of the New Territories North – San Tin/ Lok Ma Chau Development Node (AEIAR-261/2024) (Hereinafter called the "EIA Report") conducted by Civil Engineering and Development Department (CEDD) in 2024, the potentially contamination sources identified in the EIA Report are within the Subject Site of this Supplementary Land Contamination Review.

7.1.2 According to the EIA Report, part of the Subject Site is identified as potentially contaminated site. The area that is within our Subject Site and identified as potentially contaminated site is shown in **Figure 7.1**.

7.1.3 The objective of this section is to assess the potential land contamination impact of the Subject Site.

7.2 Guidelines

7.2.1 This chapter has been prepared following the guidance and steps outlined in the guidelines published by EPD listed below:

- Guidance Manual for Use of Risk-Based Remediation Goals for Contaminated Land Management (RBRGs) (Guidance Manual), dated April 2023;
- Guidance Note for Contaminated Land Assessment and Remediation (Guidance Note), dated April 2023; and
- Practice Guide for Investigation and Remediation of Contaminated Land (Practice Guide), dated April 2023.

7.3 Review of Aerial Photographs and Historical Land Use

7.3.1 The development history of the Subject Site was reviewed using aerial photos covering the period 1963 – 2024. The aerial photos are presented in **Appendix 7.1** and the historical land use is summarized in **Table 7.1**.

Table 7.1 Historical Land Use

Period/ Year	Photo No.	Flying Height (ft.)	Site Description	Off-site Land Use
1963	1963-9967	3900	The Subject Site was a natural terrain.	North, South, West: Natural Terrain is observed. East: Natural Terrain is observed. Village houses are observed.
1973	07880R	12500	No significant change in land use in comparison with 1963.	North, East, South, West: No significant change in land use in comparison with 1963.
1983	50277	4000	The land use was changing to fishpond	North, East, South, West: The land use was changing to fishpond.
1993	A36427	4000	Containers/ trailer yards are observed at the south-west portion of the Subject Site. The	North, East, South: The surroundings are changed to fishponds.

Period/ Year	Photo No.	Flying Height (ft.)	Site Description	Off-site Land Use
			remaining portions are changed to fishponds.	West: Containers/ trailer yards are observed.
2003	CW51263R	4000	No significant change in land use in comparison with 1993.	North, East, South, West: No significant change in land use in comparison with 1993.
2013	CW100909 R	8000	No significant change in land use in comparison with 2003.	North, East, South, West: No significant change in land use in comparison with 2003.
2024	E219578C, E219579C	3000	No significant change in land use in comparison with 2013.	North, East, West: No significant change in land use in comparison with 1993. South: Some area is reclaimed.
Summary The site was/ is mainly a fishpond with the southwest portion occupied as storage.				

7.4 Findings in previous EIA

7.4.1 As mentioned in **Section 7.1.1**, EIA Report on the First Phase Development of the New Territories North – San Tin/ Lok Ma Chau Development Node (AEIAR-261/2024) was reviewed. Relevant sections from the EIA report are extracted and provided in **Appendix 7.2**.

7.4.2 Relevant findings from the EIA reports are summarized in the following sections.

EIA Report - the First Phase Development of the New Territories North – San Tin/ Lok Ma Chau Development Node (AEIAR-261/2024)

7.4.3 During the site observation, trailer and long vehicle parking was observed. Stacking containers storage was observed on site. Potential vehicle workshop and suspected refuelling was observed in aerial photo. Chemical waste producer record (No.088-094) indicated vehicle maintenance works undertaken on site. The possible contaminating activities may include release of oils and fuels and lubricants from vehicles, vehicle and equipment maintenance and refuelling the use of chemicals and solvents in maintenance activities.

7.5 Review of Environmental Information from Government Departments

7.5.1 The following departments of the Government of the Hong Kong Special Administration Region (HKSAR) were enquired on the availability of landuse status and records of land contamination and/or spillage for the Application Site. The replies correspondences are shown in **Appendix 7.3**.

Table 7.2 Departmental Replies Summary

Department	Departmental Ref	Date	Summary
Environmental Protection Department	N/A	4 December 2025	No record of spillage or leakage of chemicals within the Subject Site for the past 10 years.

Department	Departmental Ref	Date	Summary
Fire Services Department	Pending	Pending	Pending

Information from Departments of the Government of the HKSAR

7.5.2 The registry of chemical waste producers will be provided once available.

7.6 Site Inspection and Observation

7.6.1 Site inspection to the Subject Site was conducted in November 2025. The relevant photo record is shown in **Appendix 7.4**. The site walkover checklist is supplement in **Appendix 7.5**.

7.6.2 Southern portion of the Subject Site is currently occupied as industrial activities, including storage and car repairing (See **Photo 5** and **Photo 6**). Oil drum is observed near the car repairing workshop (See **Photo 6**). The possible contaminating activities may include release of oils and fuels and lubricants from vehicles, vehicle and equipment maintenance and refuelling the use of chemicals and solvents in maintenance activities. Therefore, potential land contamination is expected.

7.6.3 Site re-appraisal, Contamination Assessment Plan (CAP) and Contamination Assessment Report (CAR), if necessary, will be conducted and prepared in later stage after land acquisition. Remediation Action Plan (RAP) and Remediation Report (RR), if necessary, will also be prepared in the later stage to address all potential land contamination issues. No development works shall be commenced prior to EPD's agreement of the CAR or RR, if remediation is required.

7.7 Conclusion

7.7.1 A site appraisal, in the form of desktop review and site walkover, had been carried out in November 2025 to identify the past and current potentially contaminating land uses within the Application Site. Based on the desktop study and site appraisal, potential land contamination activities, such as car repairing. There is possibility of land contamination from potential spillage of fuel / lubricants at car repair workshop.

7.7.2 Upon land acquisition, a site re-appraisal should be conducted for the whole Application Site to review the latest landuse and site conditions and assess the land contamination potential prior to the preparation of a CAP. Site investigation and laboratory analysis should be proposed in the CAP.

7.7.3 It is recommended that a Contamination Assessment Plan (CAP) to be prepared by a land contamination specialist to further review of previous land information, identify potential locations of land contamination and propose sampling and testing strategy for site investigations and laboratory analysis. It should be noted that the CAP shall be approved by EPD prior to the commencement of the site investigation.

7.7.4 Upon approval of the CAP, the Project Proponent should conduct a land contamination assessment accordingly. The site investigation results and findings should be presented in a Contamination Assessment Report (CAR). Based on the site investigation results, if land contamination is confirmed with reference to the relevant Risk-Based Remediation Goals (RBRG) levels promulgated by the EPD, a Remediation Action Plan (RAP) shall be prepared to formulate the remediation methods and mitigation measures and no construction works or development should be carried out prior to EPD's agreement of the CAR or RR, if remediation is required

7.7.5 With implementation of above land contamination assessment procedures and remediation as required, potential contamination in existing soil would be treated and no insurmountable land contamination issue is anticipated.

8. CONCLUSION

8.1.1 The Application proposes filling of ponds for permitted innovation and technology hub (including permitted cargo handling and forwarding facilities, creative industries, eating place, flat (staff quarters only), industrial use, information technology and telecommunications industries, office, public utility installation, research, design and development centre, shop and services, warehouse (excluding dangerous goods godown)). In order to confirm the environmental acceptability of the Application, Noise Impact Assessment, Air Quality Impact Assessment, Waste Management Implication Assessment, Water Quality Impact Assessment and Land Contamination Review were carried out to examine the impacts associated with the Proposed Development.

Noise

8.1.2 With the noise mitigation measures proposed, the Proposed Development would comply with the HKPSG road traffic noise standard criteria of 70 dB(A) (100% compliance).

8.1.3 The noise sensitive use of proposed development is located more than 300m from existing noise sources. No adverse fixed noise impact is anticipated at the proposed development. The choice of equipment and the requirement of noise control measures of the proposed development will be determined during detailed design stage to ensure that the noise level at potentially affected NSRs will comply with the HKPSG noise criteria. The design requirement for the compliance to HKPSG criteria shall be stated in the tender specification. In view of the considerable separation allowed in the layout design, there would be no insurmountable noise impact from fixed noise sources of proposed Development to nearby noise sensitive receivers.

Air

8.1.4 No air sensitive uses, including openable windows and fresh air-intake of ventilation system, will be located within the vehicular emission buffer zone. Therefore, it is anticipated that the future residents would not be subject to unacceptable vehicular emission impact.

8.1.5 Based on site visits, there is no active chimney identified operating within 200m from the Development Site and therefore, significant chimney emission impact upon the proposed development is not anticipated. The Development Site would not be subject to insurmountable industrial emission impact.

Waste

8.1.6 Provided that the identified waste arising from the construction works are handled, transported and disposed of using approved methods and that the recommended good site practices are adhered to, adverse environmental impacts are not anticipated.

8.1.7 Waste will be removed regularly by an appointed party. Provided that the environmental control measures are properly implemented, no adverse environmental impact would be anticipated with respect to solid waste management.

Water

8.1.8 Water quality impacts from construction are associated with the general construction activities, construction site run-off and sewage effluent from construction workforce, while the water quality impacts from operation are associated with normal urban surface runoff only. Potential water quality impacts can be controlled by implementing the recommended mitigation measures. With the implementation of mitigation measures, no adverse water quality impact on the identified WSRs is anticipated.

Land Contamination

8.1.9 A site appraisal, in the form of desktop review and site walkover, had been had been carried out in November 2025 to identify the past and current potentially contaminating land uses within the Application Site. Based on the desktop study and site appraisal, potential land contamination activities, such as car repairing. There is possibility of land contamination from potential spillage of fuel / lubricants at car repair workshop.

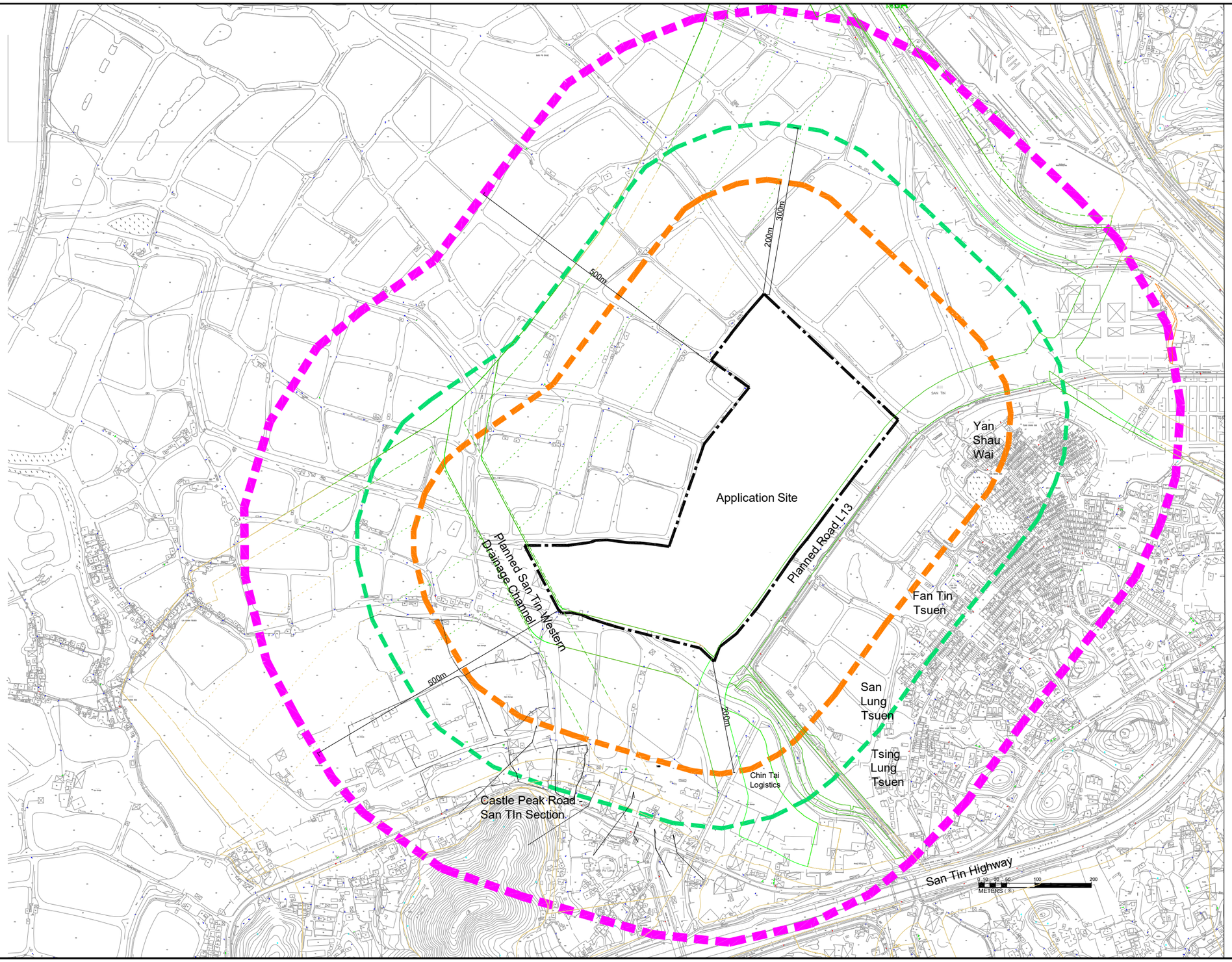
8.1.10 Upon land acquisition, a site re-appraisal should be conducted for the whole Application Site to review the latest landuse and site conditions and assess the land contamination potential prior to the preparation of a CAP. Site investigation and laboratory analysis should be proposed in the CAP.

8.1.11 CAP and CAR, if necessary, will be conducted and prepared in later stage after land acquisition. RAP and Remediation Report RR, if necessary, will also be prepared in the later stage to address all potential land contamination issues. No development works shall be commenced prior to EPD's agreement of the CAR or RR, if remediation is required.

8.1.12 With implementation of above land contamination assessment procedures and remediation as required, potential contamination in existing soil would be treated and no insurmountable land contamination issue is anticipated.

8.1.13 The environmental assessment study confirms the acceptability of the proposed development from environmental point of view.

Figures



Legend:

- Application Boundary
- 200m Study Boundary
- 300m Study Boundary
- 500m Study Boundary

Figure: 1.1	RAMBOLL
Title: Site Location Plan	Drawn by: TL
	Checked by: TW
Project: S16 Planning Application (No. A/STT/26)	Rev.: 1.0
	Date: Nov 2025

\\aphkfps3\Drive Q\Projects\LDSSTT26EI00\05 Assessments\00 DWG\LDSSTT26 BM25Lbw_SB 251127b.dwg

Application Site

Planned Road L13

Planned San Tin Western Drainage Channel

Yan Shau Wai

Fan Tin Tsuen

San Lung Tsuen

Tsing Lung Tsuen

P1 Proposed Substation

P2 Proposed Cooling Center

Open Storage

Vacant Site

Chin Tai Logistics

Logistics

Construction Plant Storage

Car Sales

Garage

Castle Peak Road - San Tin Section

San Tin Highway

S1 Fanling Car Washing (粉嶺洗車屋)

S2 Northbound Travel for Hong Kong Vehicles Inspection San Tin Service Center

S3 Yau Kee Wheel and Battery (有記膠輪電池)

S4 Hop Yick Sand Storage and Environment Recycling Station for Construction Waste

0 10 30 50 100 200
METERS (米)

Legend:

- Application Boundary
- 300m Study Boundary
- 500m Study Boundary

Figure: 1.2	RAMBOLL
Title: Environs of Application Site	Drawn by: TL
	Checked by: TW
Project: S16 Planning Application (No. A/STT/26)	Rev.: 1.0
	Date: Nov 2025

\\aphkfps3\Drive Q\Projects\LDSSTT26EI00\05 Assessments\00 DWG\LDSSTT26 BM25Lbw_SB 251127b.dwg

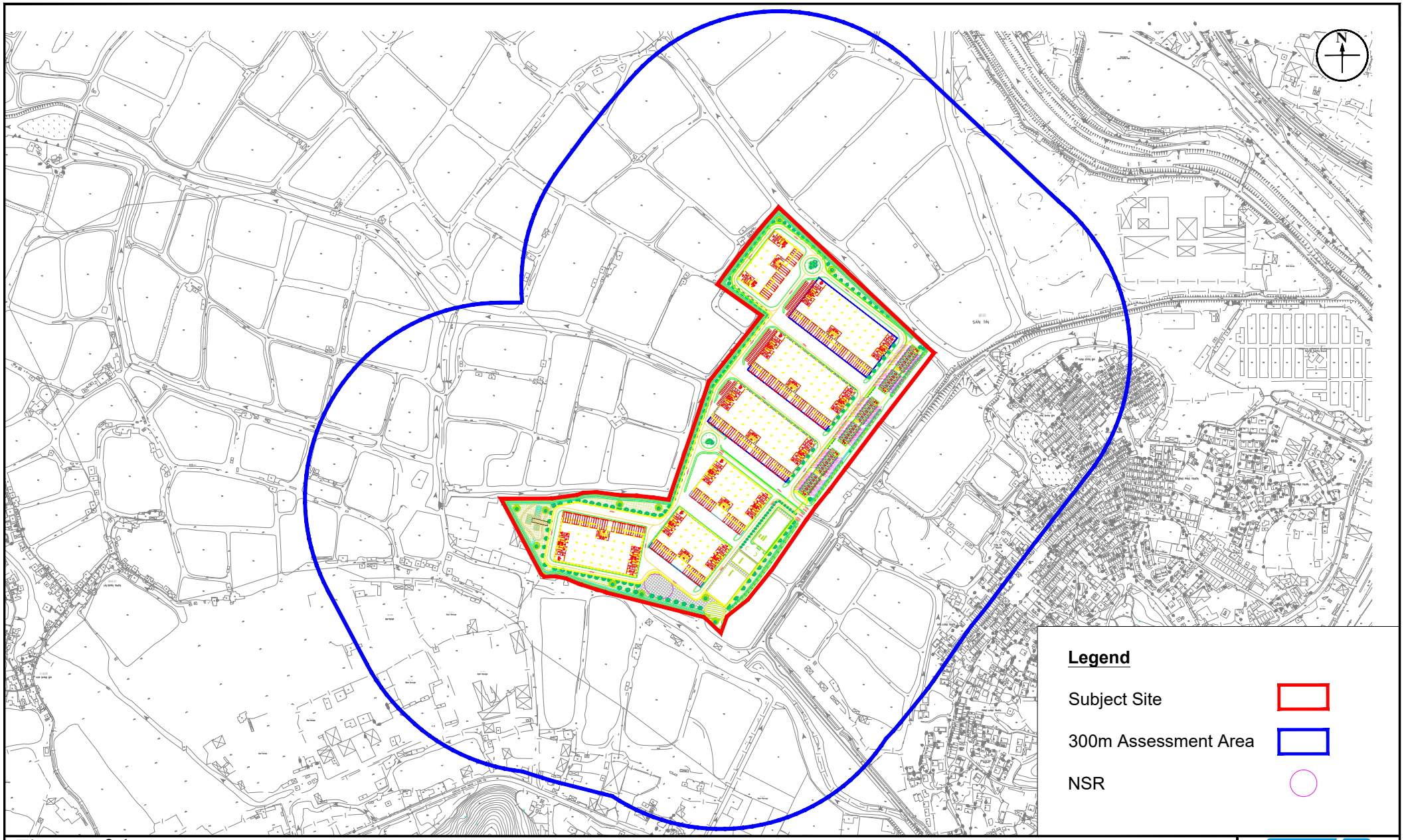


Figure: 2.1a

Title: Location of Representative Noise Sensitive Receivers (Overall)

Project: Proposed Filling of Ponds in for Permitted Innovation and Technology Hub at Lot 764 RP (Part) in D.D. 99, San Tin , Yuen Long, N.T.

RAMBOLL

Drawn by:	SC
Checked by:	TW
Rev.:	1.0
Date:	Nov 2025

\\aphkfps3\Drive Q\Projects\LDSSTT26EI00\05 Assessments\02 Noise\02 Traffic\TNIA.dwg

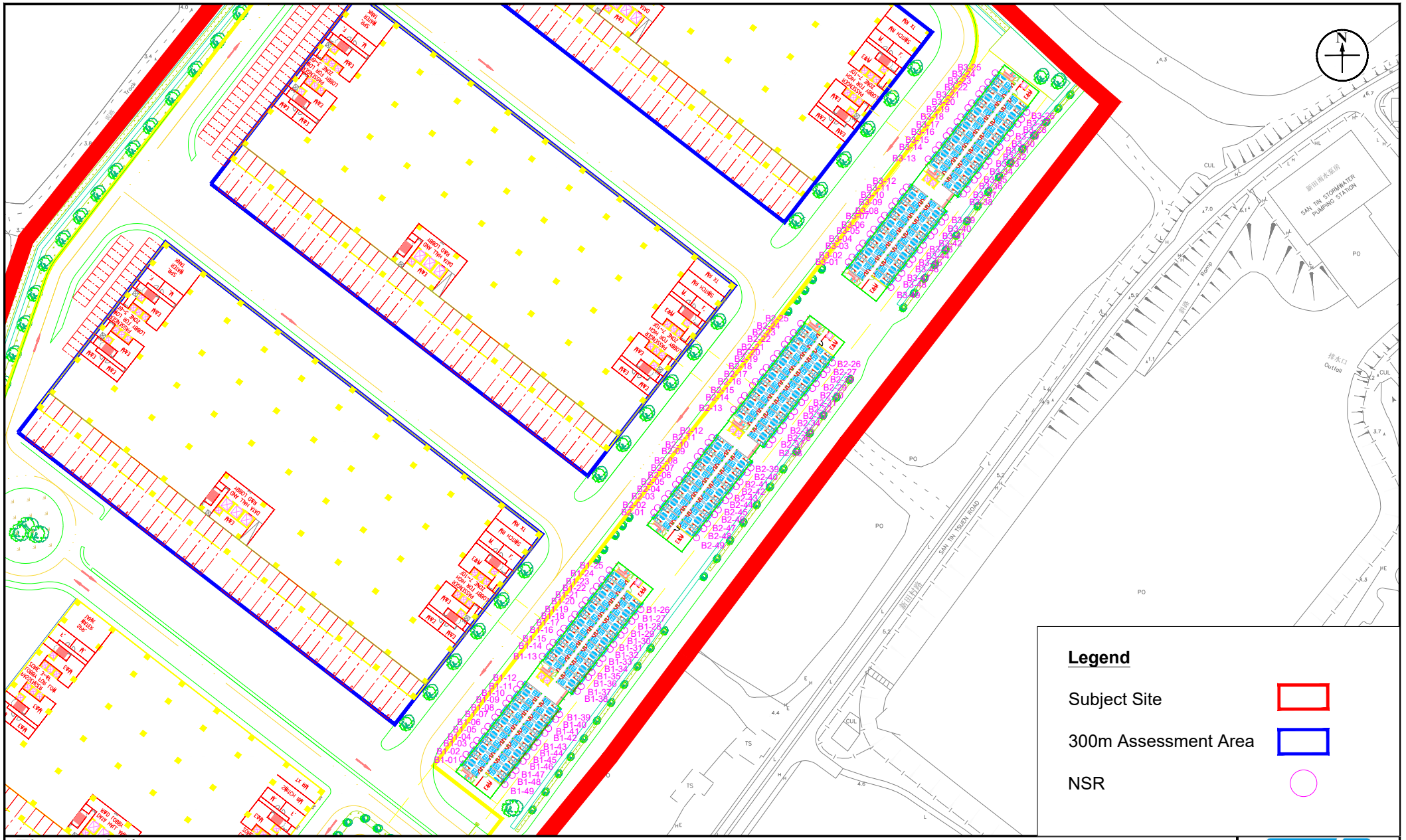


Figure: 2.1b

Title: Location of Representative Noise Sensitive Receivers (Zoomed)

Project: Proposed Filling of Ponds in for Permitted Innovation and Technology Hub at Lot 764 RP (Part) in D.D. 99, San Tin , Yuen Long, N.T.

RAMBOLL

Drawn by:	SC
Checked by:	TW
Rev.:	1.0
Date:	Nov 2025

\\aphkfps3\Drive Q\Projects\LDSSTT26EI00\05 Assessments\02 Noise\02 Traffic\TNIA.dwg

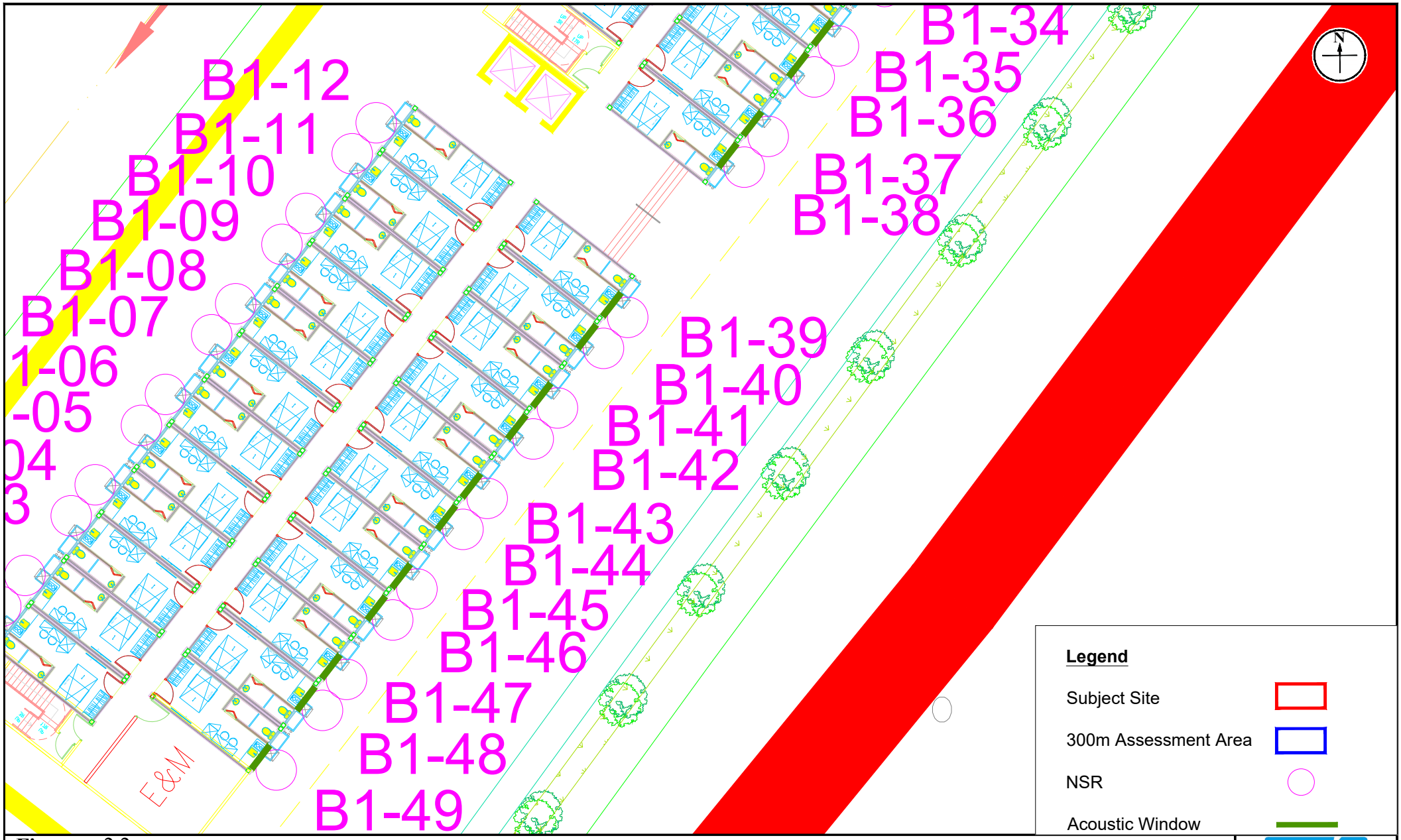


Figure: 2.2	RAMBOLL
Title: Proposed Noise Mitigation Measures (Block 1)	Drawn by: SC Checked by: TW
Project: Proposed Filling of Ponds in for Permitted Innovation and Technology Hub at Lot 764 RP (Part) in D.D. 99, San Tin , Yuen Long, N.T.	Rev.: 1.0 Date: Nov 2025

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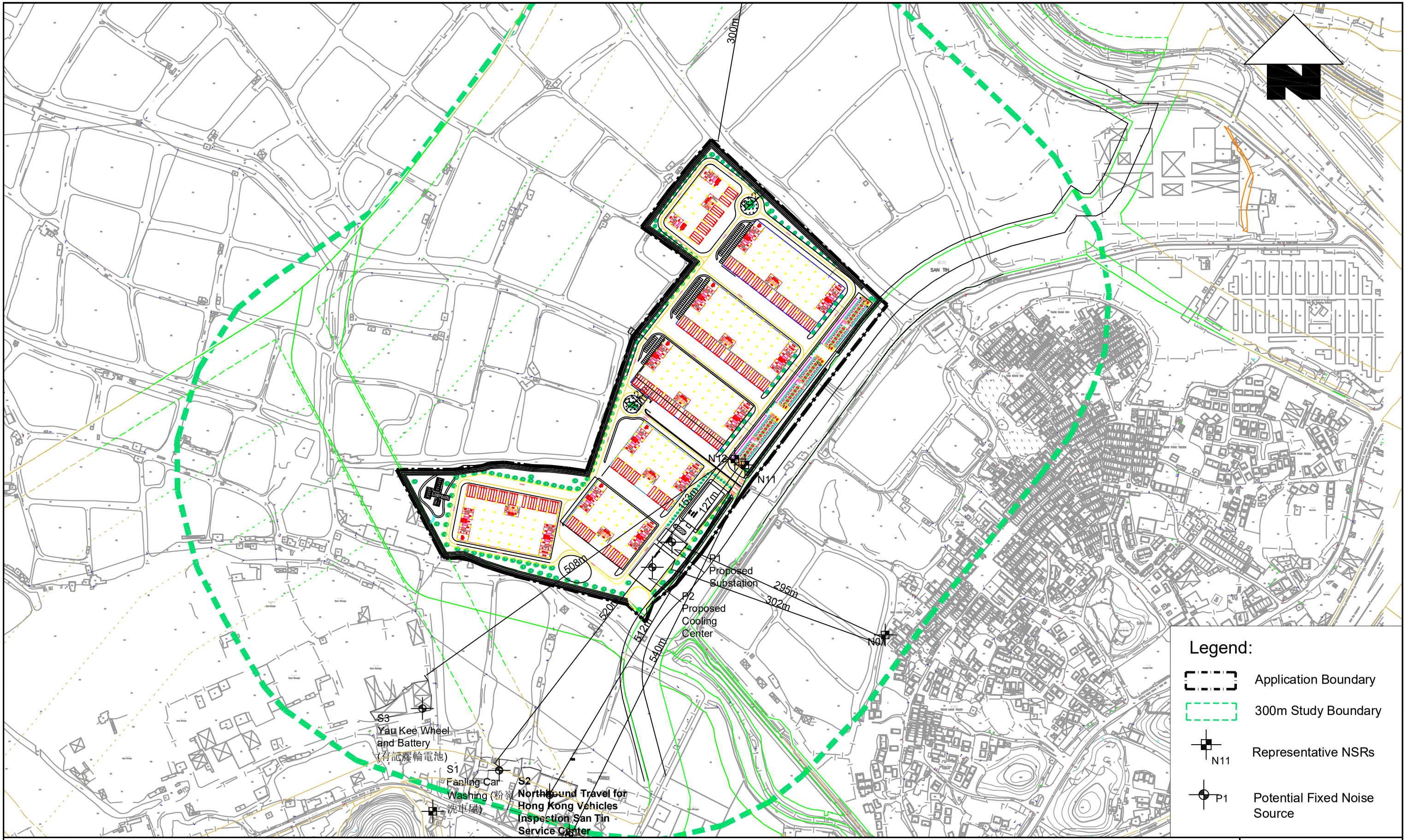

Figure: 3.1	RAMBOLL
Title: Representative NSRs for Fixed Noise Source Impact Assessment and Potential Fixed Noise Sources	Drawn by: TL Checked by: TW
Project: S16 Planning Application (No. A/STT/26)	Rev.: 1.0 Date: Nov 2025

\\aphkfps3\Drive Q\Projects\LDSSTT26EI00\05 Assessments\00 DWG\LDSSTT26 BM25Lbw_SB 251127b.dwg

\\aphkfps3\Drive Q\Projects\LDSSTT26EI00\05 Assessments\00 DWG\LDSSTT26 BM25Lbw_SB 251127b.dwg Fig 3.1 R NSRs for FNSIA ad FNS

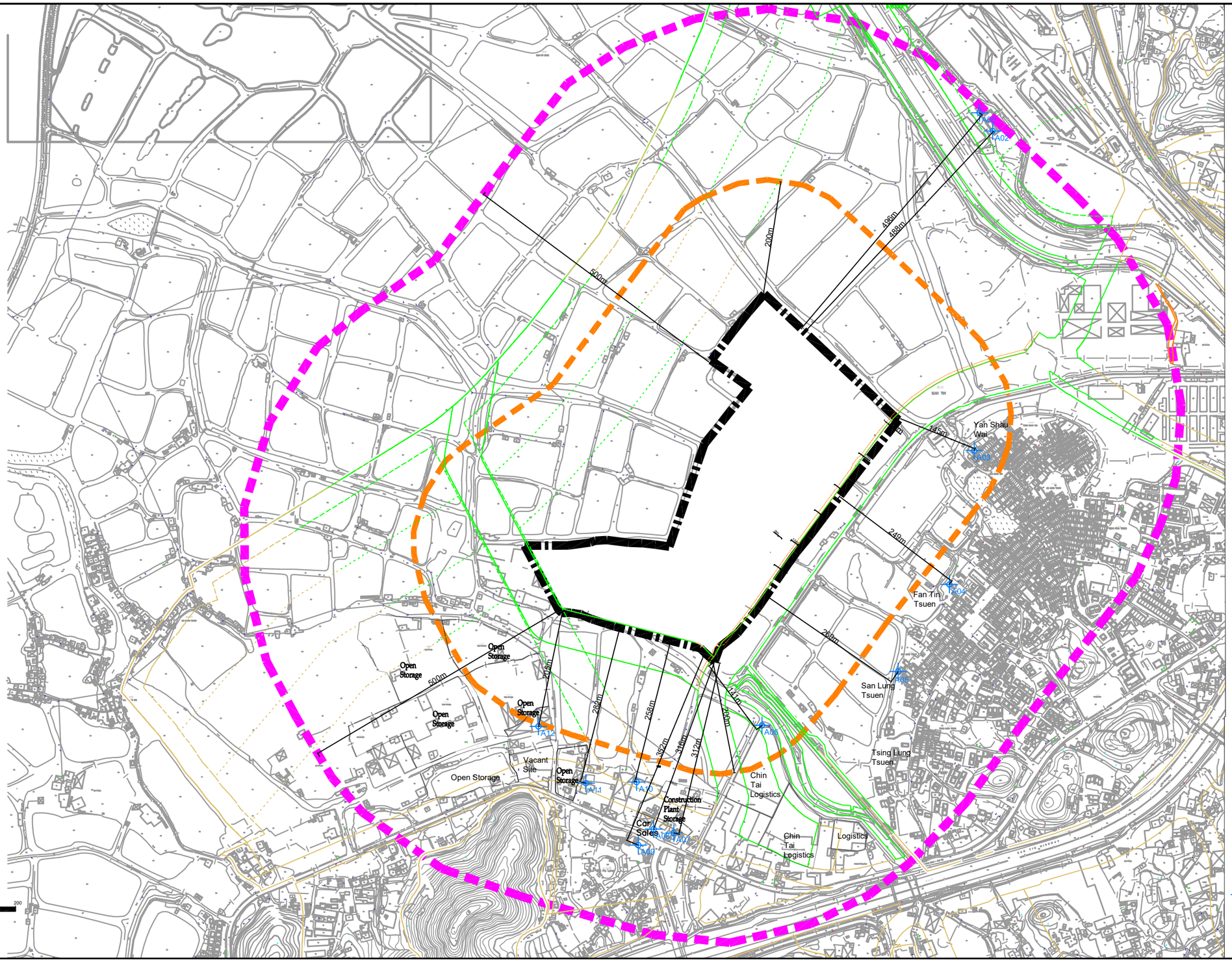

Figure: 4.1	RAMBOLL
Title: 500m Study Boundary and ASRs in the Vicinity	Drawn by: TL Checked by: TW
Project: S16 Planning Application (No. A/STT/26)	Rev.: 1.0 Date: Nov 2025

\\aphkfps3\Drive Q\Projects\LDSSTT26EI00\05 Assessments\00 DWG\LDSSTT26 BM25Lbw_SB 251127.dwg

\\aphkfps3\Drive Q\Projects\LDSSTT26EI00\05 Assessments\00 DWG\LDSSTT26 BM25Lbw_SB 251127.dwg, Fig 41 AQIA 500m

Remark

No air-sensitive uses including openable windows, fresh air intakes and recreational uses in the open space are allowed within the buffer zone.

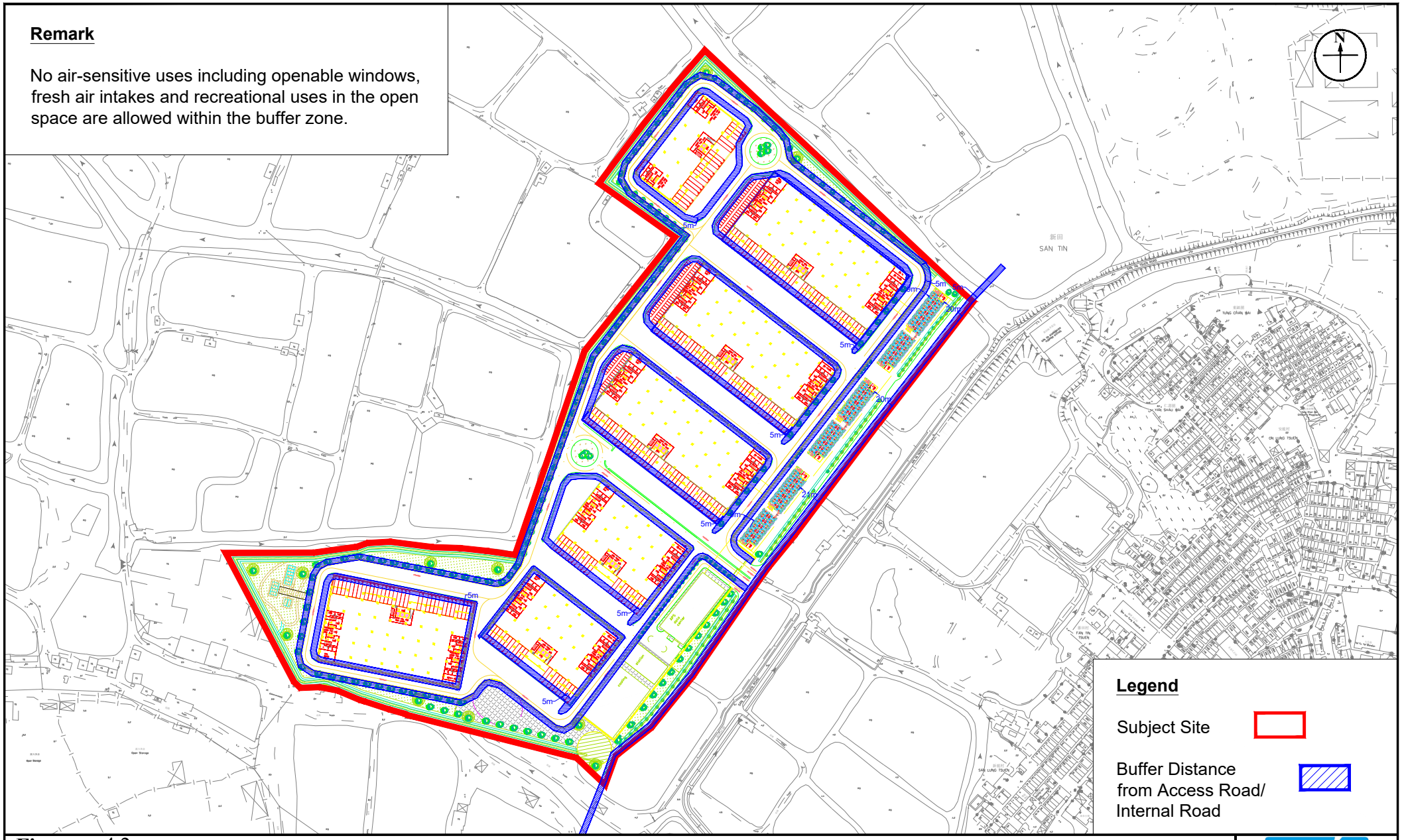

Figure: 4.2a

Title: Minimum Buffer Distance Required from the Kerb Side of Carriageways (Overall)

Project: S16 Application for Proposed Filling of Ponds at Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, N.T.

RAMBOLL

Drawn by:	SC
Checked by:	TW
Rev.:	1.0
Date:	Nov 2025

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Remark

No air-sensitive uses including openable windows, fresh air intakes and recreational uses in the open space are allowed within the buffer zone.

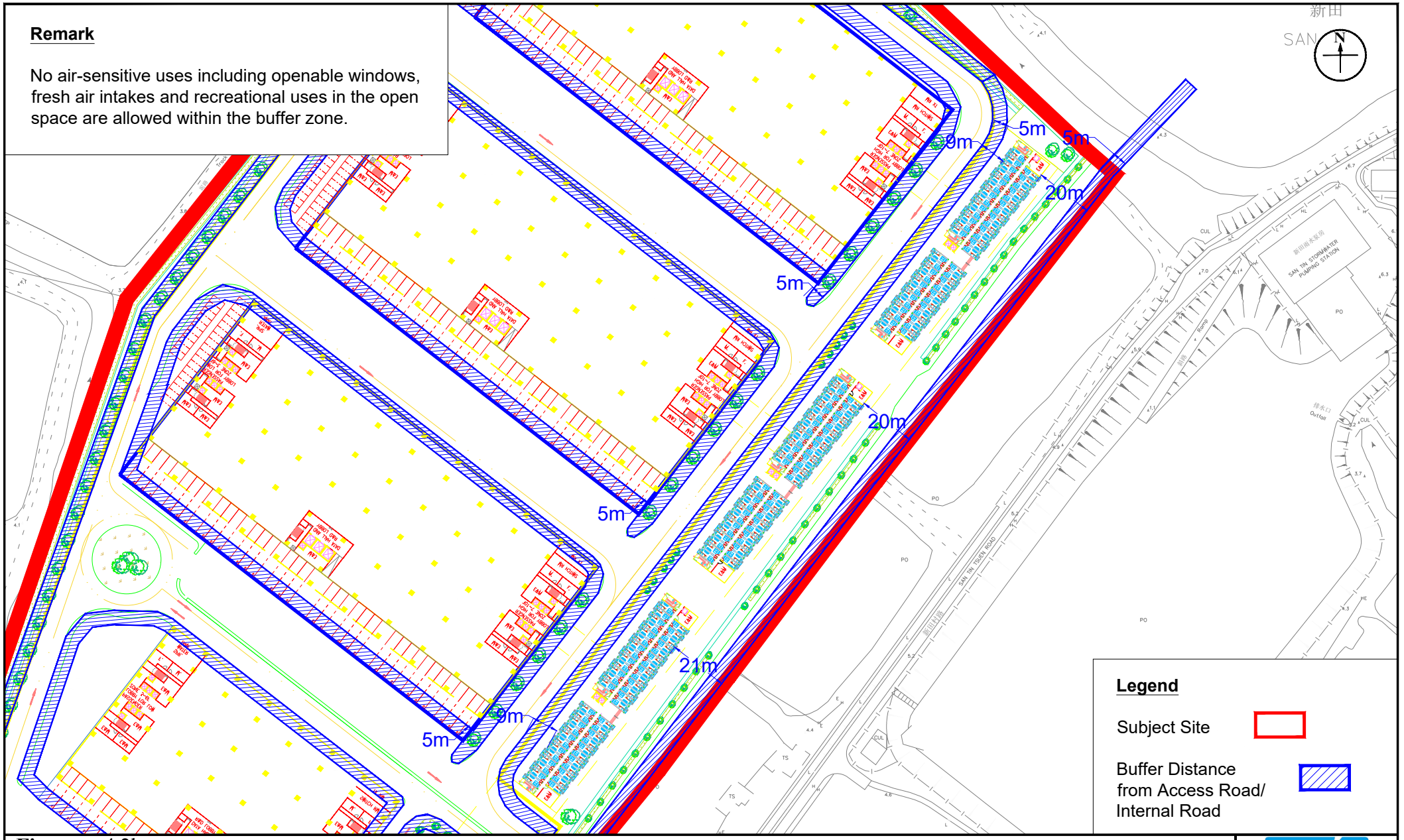

Figure: 4.2b

Title: Minimum Buffer Distance Required from the Kerb Side of Carriageways (Zoomed for Staff Quarter)

Project: S16 Application for Proposed Filling of Ponds at Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, N.T.

RAMBOLL

Drawn by:	SC
Checked by:	TW
Rev.:	1.0
Date:	Nov 2025

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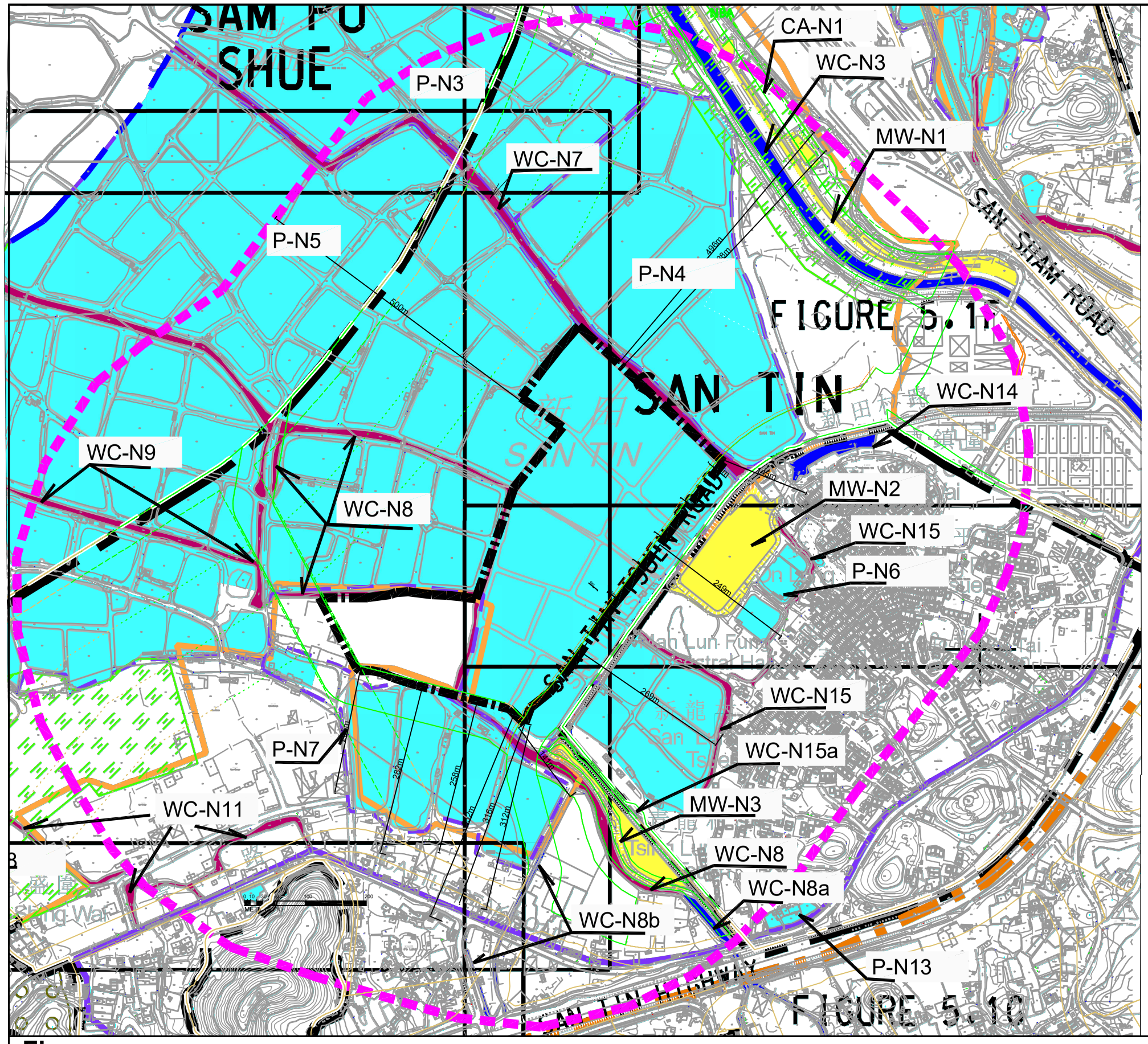

Legend:

- Application Boundary
- 500m Study Boundary
- BOUNDARY OF WETLAND CONSERVATION AREA
- BOUNDARY OF WETLAND BUFFER AREA
- POND
- NATURAL WATERCOURSE
- MODIFIED WATERCOURSE
- SEMI-NATURAL WATERCOURSE
- WET AGRICULTURAL LAND
- MITIGATION WETLAND
- SITE OF SPECIAL SCIENTIFIC INTEREST
- CONSERVATION AREA

Notes:
Reference is made to AEIAR - 261/ 2024

Figure: 6.1	
Title: Water Sensitive Receivers and 500m Study Boundary	Drawn by: TL Checked by: TW
Project: S16 Planning Application (No. A/STT/26)	Rev.: 1.0 Date: Nov 2025

\\aphkfps3\Drive Q\Projects\LDSSTT26EI00\05 Assessments\00 DWG\LDSSTT26 BM25Lbw_SB 251125.dwg

\\aphkfps3\Drive Q\Projects\LDSSTT26EI00\05 Assessments\00 DWG\LDSSTT26 BM25Lbw_SB 251125.dwg, WQIA 500m

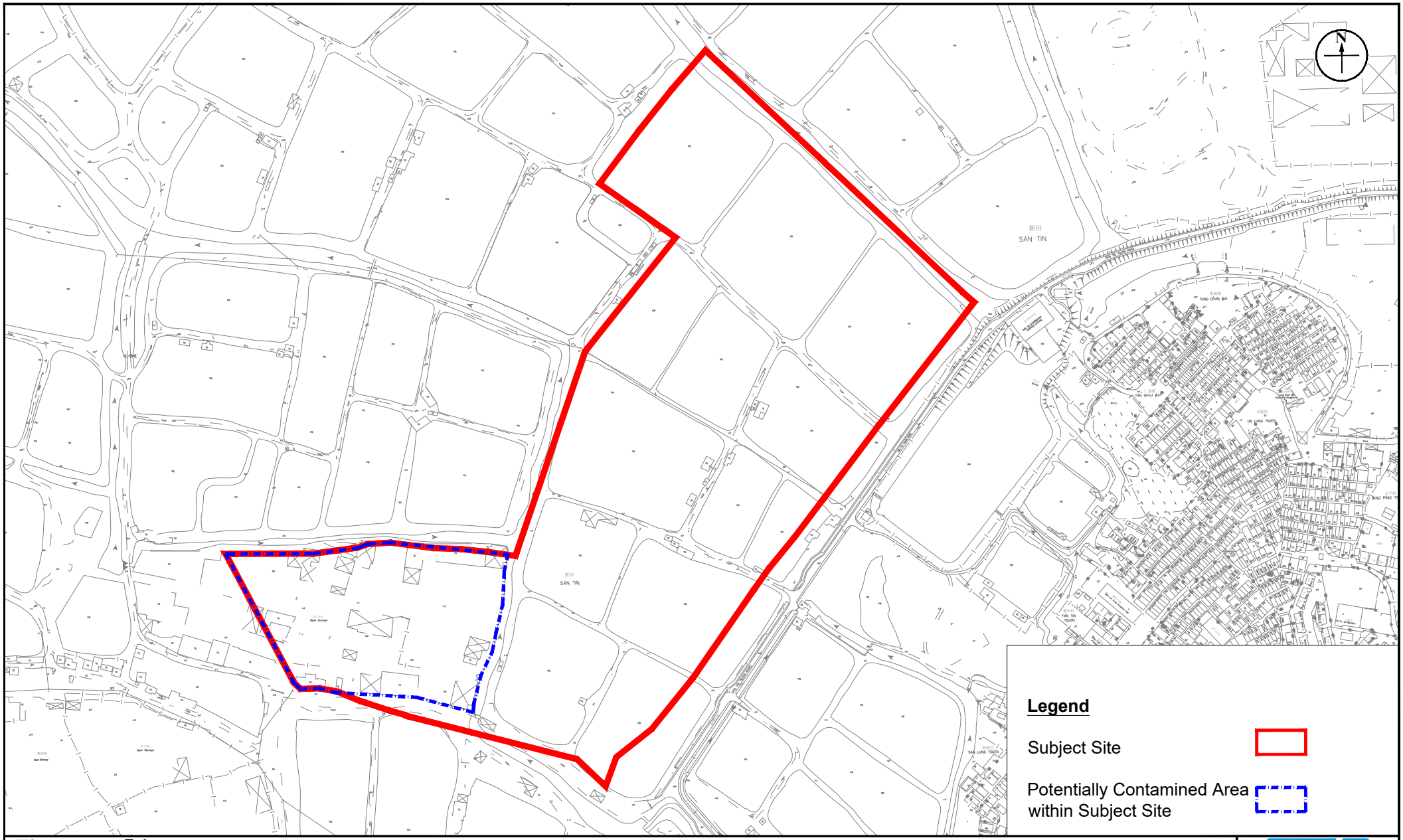

Figure: 7.1

Title: Potentially Contaminated Area within Subject Site

Project: S16 Application for Proposed Filling of Ponds at Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, N.T.

RAMBOLL

Drawn by:	SC
Checked by:	TW
Rev.:	1.0
Date:	Dec 2025

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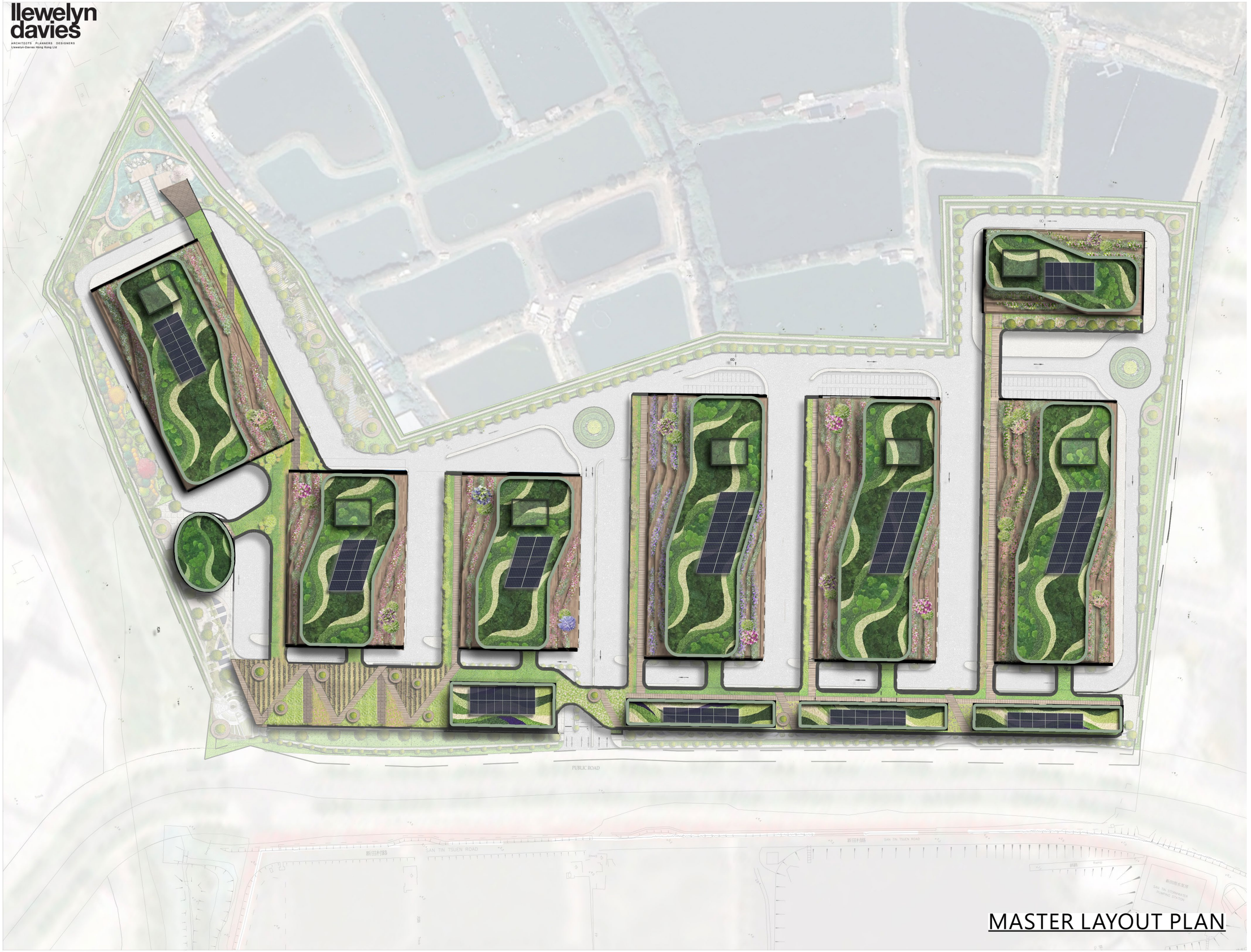
Appendix 1.1

Indicative Development Scheme

llewelyn davies

ARCHITECTS PLANNERS DESIGNERS

Llewelyn-Davies Hong Kong Ltd



MASTER LAYOUT PLAN

EXISTING FISH POND

LEGEND

1. SMART Logistic Center
2. Shops/ Supermarket
3. Automatic Parking System
4. Substation
5. Cooling Center
6. Tourist Center
7. Eco- R&D
8. Eco- Park

PUBLIC ROAD

SAN TIN TSUEN ROAD 新田村路

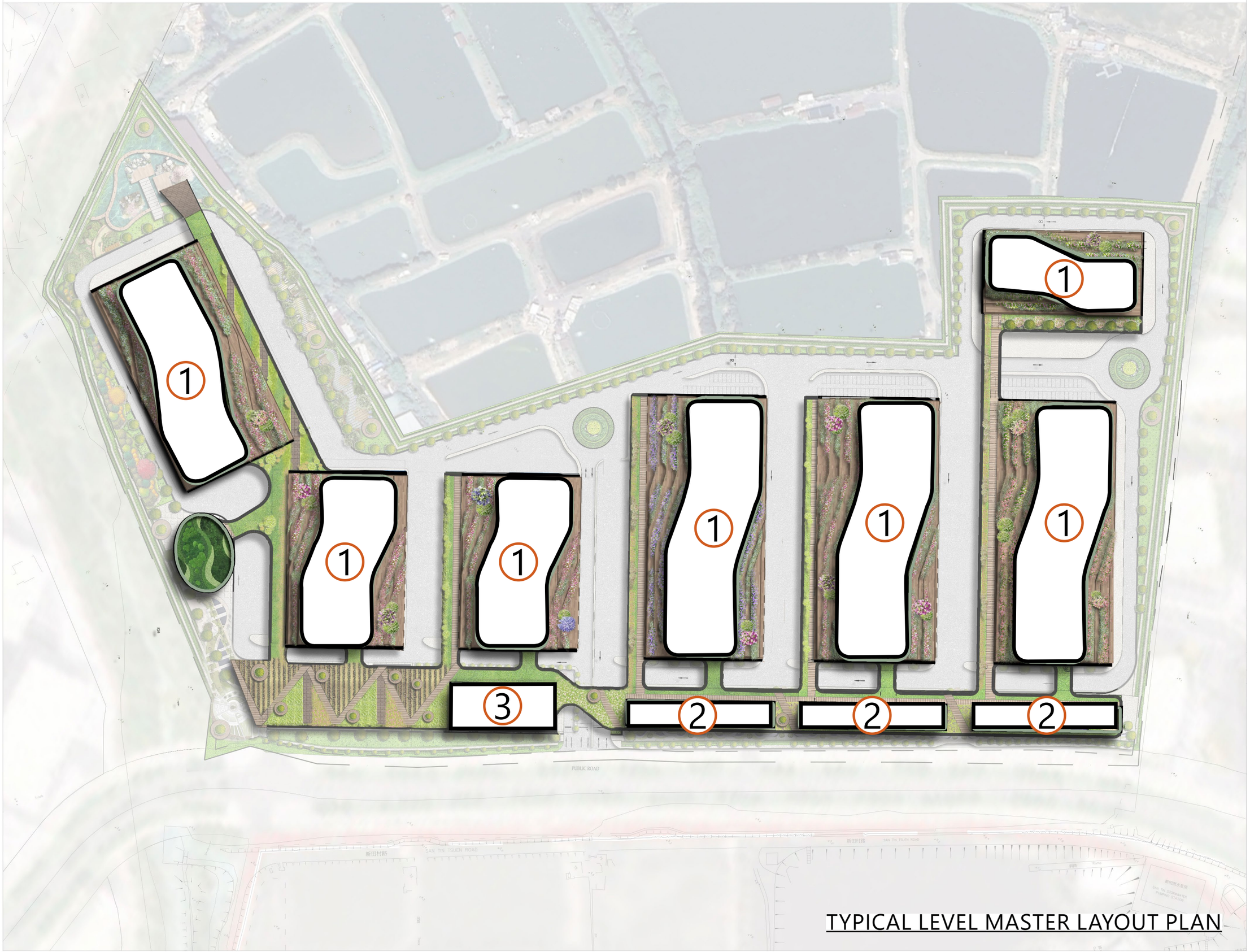
GROUND LEVEL MASTER LAYOUT PLAN

llewelyn davies
ARCHITECTS PLANNERS DESIGNERS
Llewelyn-Davies Hong Kong Ltd

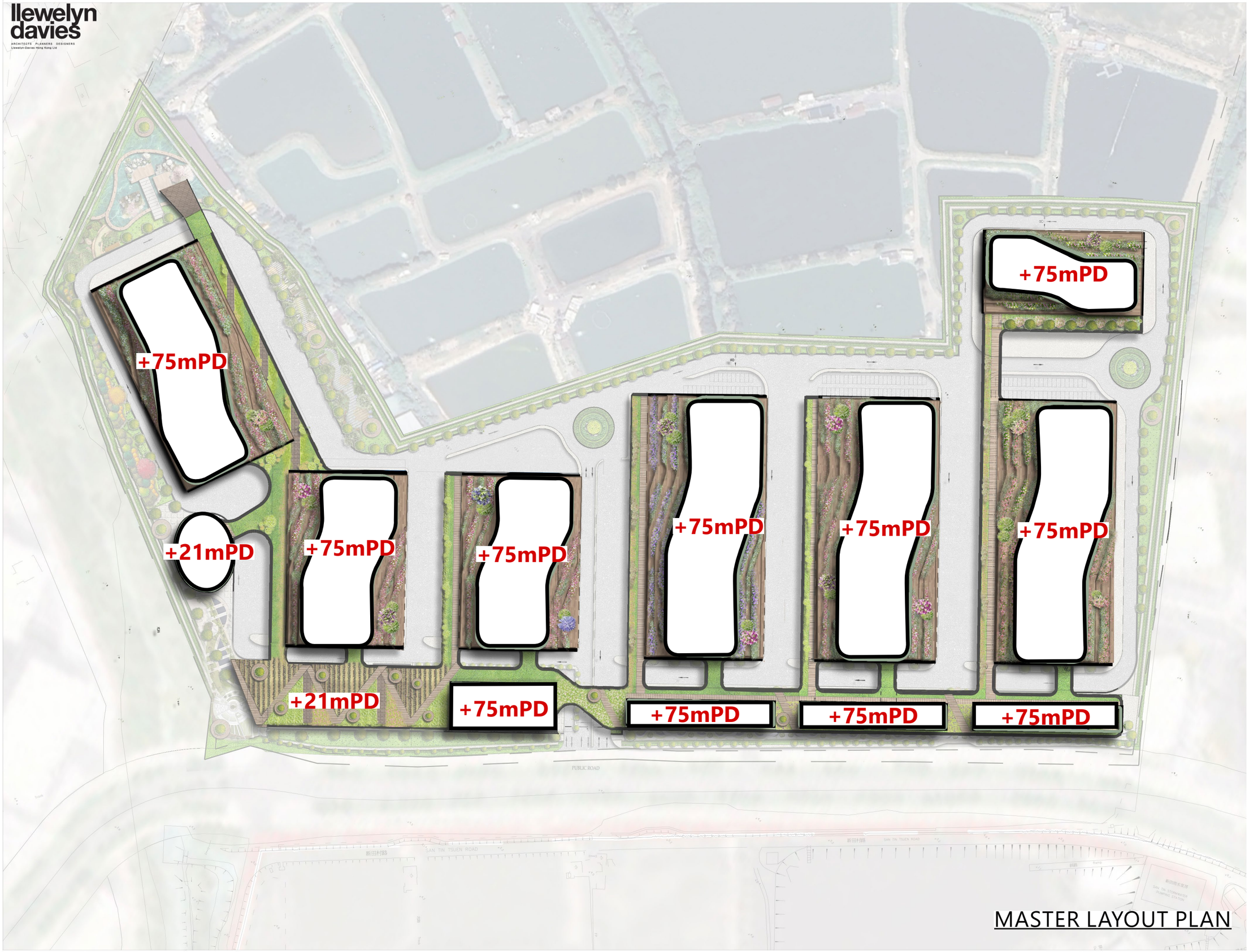
LEGEND

1 Industrial Floor
2 Anciliary Office
3 DATA Center
4 Rice Field
5 Education Classroom

PODIUM LEVEL MASTER LAYOUT PLAN



TYPICAL LEVEL MASTER LAYOUT PLAN



MASTER LAYOUT PLAN

Appendix 1.2

Extracted Information from AEIAR-261/2024

ISO A3 297mm x 420mm

Approved:

Checked:

Designer:

Project Management Initials:

LEGEND

- Project Boundary
- RSc — Public Housing
- R1 — Private Housing
- MU — Mixed Use
- V / V(1) — Village Type Development
- I&T — Innovation and Technology
- LSW — Logistics, Storage and Workshop
- OU — Other Specified Uses
- VB — Ventilation Building
- G/IC — Government, Institution or Community
- E — Education
- O — Open Space
- GB — Green Belt (✱with Permitted Burial Ground)
- A — Amenity
- Hong Kong-Shenzhen Innovation & Technology Park (Work In Progress)
- Road
- NBA — Non-building Area
- PTI — Public Transport Interchange
- TIH — Transport Interchange Hub
- P — Commercial Vehicle Park
- Performance Venues and Museum
- Library
- Indoor Sports Centre
- Swimming Pool Complex
- Market
- Urban Farm
- Flood Attenuation Facilities
- EcoHub
- C — Refuse Collection Point
- Green Fuel Station
- Electricity Substation
- District Cooling System
- SPS — Sewage Pumping Station
- SmPS — Stormwater Pumping Station
- Nature Excursion

Plot File by: $USER$
PATH: $FILE$
$DATE$

Hong Kong-Shenzhen Innovation & Technology Park

Lok Ma Chau Station

Shenzhen River

Possible Alignment and Stations of Proposed Northern Link Spur Line (indicative only, subject to study)

AFCD Fisheries Research Centre

HKPF Weigh Station

Customs Dog Base

Lok Ma Chau

Overhead Transmission Lines

Proposed Sam Po Shue Wetland Conservation Park

San Sham Road

East Rail Line (Lok Ma Chau Spur Line)

Government Data Centre Complex

Poon Uk Tsuen

To Planned Kwu Tung Station

San Tin Eastern Main Drainage Channel

Chau Tau

Kwu Tung North New Development Area

San Tin Western Main Drainage Channel

FANLING HIGHWAY

Refuse Transfer Station and Resource Recovery Facilities

Tung Chun Wai

Yan Sau Wai

Divisional Police Station and Related Facilities

HyD Depot

On Loong Tsuen

Wing Ping Tsuen

Divisional Fire Station cum Ambulance Depot and Staff Quarters

Fan Tin

San Loong Tsuen

Youth Facilities

Ki Lun Shan

Ching Loong Tsuen

San Tin Eastern Main Drainage Channel

AFCD Wetland Conservation Park Management Office

SAN TIN HIGHWAY

Cultural & Recreational Complex

Effluent Polishing Plant and Food Waste Pre-treatment Facilities

Shek Wu Wai

Mai Po Tsuen

Healthcare Facilities

Connecting Future Northern Metropolis Highway (indicative only)

FSD NT Workshop and Related Facilities

San Tin Barracks

Joint-user General Office Building and Clinics and Related Facilities

Dedicated Rehousing Estate

Water Reclamation Plant

GIC Complex

Ngau Tam Shan

Proposed Northern Link Main Line and San Tin Station (subject to detailed design)

San Tin Western Main Drainage Channel

Reclaimed and Fresh Water Service Reservoirs (indicative only)

Tam Mei Barracks

N

0 150 300 600 900m

AECOM

PROJECT
項目
FIRST PHASE DEVELOPMENT OF THE NEW TERRITORIES NORTH – SAN TIN / LOK MA CHAU DEVELOPMENT NODE – INVESTIGATION

CLIENT
業主
土木工程拓展署 Civil Engineering and Development Department
規劃署 Planning Department

CONSULTANT
工程顧問公司
AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 複核

STATUS
階段

SCALE 比例: A3 1:15000
DIMENSION UNIT 尺寸單位: METRES

DATE
日期
December 2023

KEY PLAN
索引圖

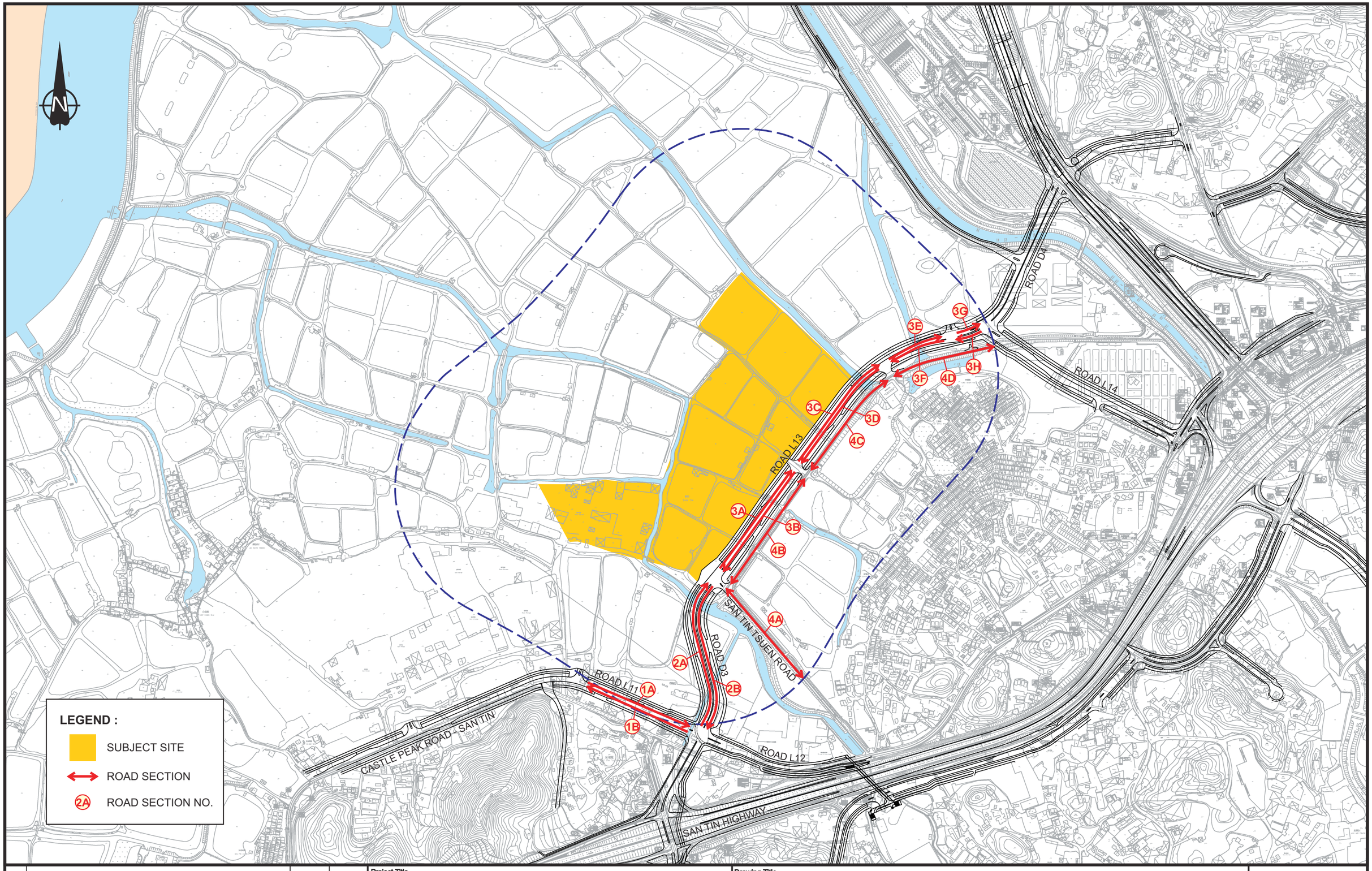
PROJECT NO. 項目編號: 60670882
AGREEMENT NO. 協議編號: CE 20/2021

SHEET TITLE
圖紙名稱
Revised Recommended Outline Development Plan

SHEET NUMBER
圖紙編號
60670882/A34/FIGURE 2.1

Appendix 2.1

Traffic Forecast for Year 2048



Rev.	Description	Checked	Date
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

Project Title

TRAFFIC CONSULTANCY SERVICES FOR
S16 PLANNING APPLICATION (NO. A/STT/26), D.D.99, SAN TIN

Drawing Title

ROAD LINK INDEX PLAN FOR NIA

Designed	Checked	Scale	Date	Drawing No.	Rev.
TOM	MYL	NTS	NOV 2025	SK1	-

SYSTRA MVA

CHK50888510/NIA/SK1.CDR/LLH/5NOV25

Original Size : A3

Year 2048 AM Peak Traffic Forecast

Ref. No. * / (Direction)	Road Name	2048 Design AM Peak Traffic Flows (veh / hr) (round-up to nearest 10)	HV% #
1A(EB)	Road L11 (Eastbound)	600	22%
1B(WB)	Road L11 (Westbound)	470	27%
2A(NB)	Road D3 (Northbound)	1,070	26%
2B(SB)	Road D3 (Southbound)	610	24%
3A(NB)	Road L13 (Northbound)	700	21%
3B(SB)	Road L13 (Southbound)	660	22%
3C(NB)	Road L13 (Northbound)	160	26%
3D(SB)	Road L13 (Southbound)	130	25%
3E(NB)	Road L13 (Northbound)	160	26%
3F(SB)	Road L13 (Southbound)	130	25%
3G(NB)	Road L13 (Northbound)	590	27%
3H(SB)	Road L13 (Southbound)	460	28%
4A(2-way)	San Tin Tsuen Road (2-way)	110	22%
4B(2-way)	San Tin Tsuen Road (2-way)	40	12%
4C(2-way)	San Tin Tsuen Road (2-way)	40	12%
4D(2-way)	San Tin Tsuen Road (2-way)	40	12%

Year 2048 PM Peak Traffic Forecast

Ref. No. * / (Direction)	Road Name	2048 Design PM Peak Traffic Flows (veh / hr) (round-up to nearest 10)	HV% #
1A(EB)	Road L11 (Eastbound)	620	15%
1B(WB)	Road L11 (Westbound)	510	15%
2A(NB)	Road D3 (Northbound)	1,170	14%
2B(SB)	Road D3 (Southbound)	660	15%
3A(NB)	Road L13 (Northbound)	730	16%
3B(SB)	Road L13 (Southbound)	690	16%
3C(NB)	Road L13 (Northbound)	170	16%
3D(SB)	Road L13 (Southbound)	140	14%
3E(NB)	Road L13 (Northbound)	170	16%
3F(SB)	Road L13 (Southbound)	140	14%
3G(NB)	Road L13 (Northbound)	650	14%
3H(SB)	Road L13 (Southbound)	500	15%
4A(2-way)	San Tin Tsuen Road (2-way)	110	15%
4B(2-way)	San Tin Tsuen Road (2-way)	40	9%
4C(2-way)	San Tin Tsuen Road (2-way)	40	9%
4D(2-way)	San Tin Tsuen Road (2-way)	40	9%

Note:

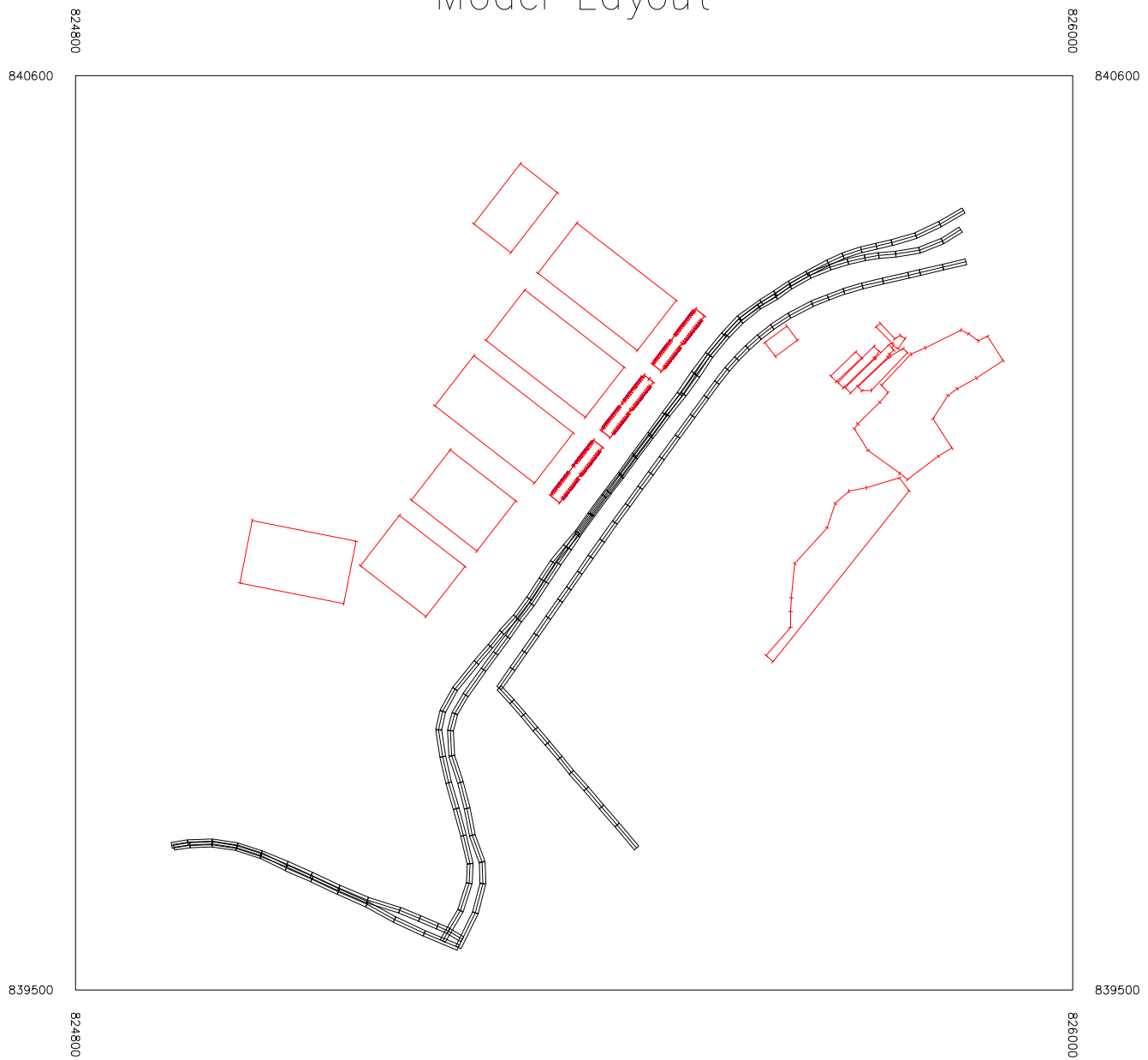
* Refer to SK1

Heavy vehicle (HV) percentage including the category of goods vehicles (GV) (comprise with vans, light goods vehicles (LGV), medium/heavy goods vehicles (MGV/HGV) and container trucks) and the category of public transport (PT) (comprise with public light buses (PLB), non-franchised buses (SPB) (including small coaches and large coaches) and franchised buses (FB))

Appendix 2.2

Modelling layout for Road Traffic Noise Impact Assessment

Model Layout



Appendix 2.3

Results of Road Traffic Noise Impact Assessment

(Base Scenario)

Predicted Road Traffic Noise (L10, dB(A)) at Representative Noise Assessment Points (NAPs) (AM Peak)

Base Case (Block 1)

Floor	NSR mPD	B1-01	B1-02	B1-03	B1-04	B1-05	B1-06	B1-07	B1-08	B1-09	B1-10	B1-11	B1-12	B1-13	B1-14	B1-15	B1-16	B1-17	B1-18	B1-19	B1-20	B1-21	B1-22	B1-23	B1-24	B1-25	B1-26	B1-27	B1-28	B1-29	B1-30	B1-31
2	14.5	39	39	39	39	39	39	39	39	39	39	39	39	39	38	38	38	38	38	38	38	38	38	38	38	38	70	70	70	70	70	70
3	18.1	39	39	39	39	39	39	39	39	39	39	39	39	38	38	38	38	38	38	38	38	38	38	38	38	37	69	70	70	70	70	70
4	21.7	39	39	39	39	39	39	39	39	39	39	39	39	38	38	38	38	38	38	38	38	38	38	38	38	37	69	70	70	70	70	70
5	25.4	39	39	39	39	39	39	39	39	39	39	39	39	38	38	38	38	38	38	38	38	38	38	38	37	37	69	69	69	70	70	70
6	29.0	39	39	39	39	39	39	39	39	39	39	39	38	38	38	38	38	38	38	38	38	38	37	37	37	37	69	69	69	69	70	70
7	32.6	39	39	39	39	39	39	39	39	39	38	38	38	38	38	38	38	38	38	38	38	38	37	37	37	37	69	69	69	69	69	69
8	36.3	39	39	39	39	39	39	38	38	38	38	38	38	38	38	38	38	38	38	38	37	37	37	37	37	37	69	69	69	69	69	69
9	39.9	39	39	39	38	38	38	38	38	38	38	38	38	38	38	38	38	38	37	37	37	37	37	37	37	37	68	69	69	69	69	69
10	43.5	39	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	37	37	37	37	37	37	37	37	37	68	68	69	69	69	69
11	47.1	38	38	38	38	38	38	38	38	38	38	38	38	38	38	37	37	37	37	37	37	37	37	37	37	37	68	68	68	68	69	69
12	50.8	38	38	38	38	38	38	38	38	38	38	38	38	38	37	37	37	37	37	37	37	37	37	37	37	36	68	68	68	68	68	68
13	54.4	38	38	38	38	38	38	38	38	38	38	38	37	37	37	37	37	37	37	37	37	37	37	37	36	36	68	68	68	68	68	68
14	58.0	38	38	38	38	38	38	38	38	38	38	38	37	37	37	37	37	37	37	37	37	37	36	36	36	36	67	68	68	68	68	68
15	61.7	38	38	38	38	38	38	38	37	37	37	37	37	37	37	37	37	37	37	37	36	36	36	36	36	36	67	67	67	68	68	68
16	65.3	38	38	38	38	38	38	38	38	37	37	37	37	37	37	37	37	37	37	37	37	36	36	36	36	36	67	67	67	67	68	68
17	68.9	40	40	40	40	39	39	39	39	39	39	39	39	39	39	39	39	38	38	38	38	38	38	38	38	38	67	67	67	67	67	68
18	72.6	44	44	44	43	43	43	43	43	43	43	42	42	42	42	42	42	42	42	42	41	41	41	41	41	41	67	67	67	67	67	67
Max Noise Level		**44**	**44**	**44**	**43**	**43**	**43**	**43**	**43**	**43**	**43**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**41**	**41**	**41**	**41**	**41**	**41**	**70**	**70**	**70**	**70**	**70**	**70**
Min Noise Level		**38**	**38**	**38**	**38**	**38**	**38**	**38**	**37**	**37**	**37**	**37**	**37**	**37**	**37**	**37**	**37**	**37**	**37**	**37**	**36**	**36**	**36**	**36**	**36**	**36**	**67**	**67**	**67**	**67**	**67**	**67**
No. Exceedance		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Floor	mPD	B1-32	B1-33	B1-34	B1-35	B1-36	B1-37	B1-38	B1-39	B1-40	B1-41	B1-42	B1-43	B1-44	B1-45	B1-46	B1-47	B1-48	B1-49
2	14.5	70	70	70	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71
3	18.1	70	70	70	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71
4	21.7	70	70	70	70	70	71	71	71	71	71	71	71	71	71	71	71	71	71
5	25.4	70	70	70	70	70	70	71	71	71	71	71	71	71	71	71	71	71	71
6	29.0	70	70	70	70	70	70	70	71	71	71	71	71	71	71	71	71	71	71
7	32.6	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	71	71	71
8	36.3	69	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
9	39.9	69	69	69	69	70	70	70	70	70	70	70	70	70	70	70	70	70	70
10	43.5	69	69	69	69	69	69	70	70	70	70	70	70	70	70	70	70	70	70
11	47.1	69	69	69	69	69	69	69	69	70	70	70	70	70	70	70	70	70	70
12	50.8	69	69	69	69	69	69	69	69	69	69	69	69	69	70	70	70	70	70
13	54.4	68	68	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69
14	58.0	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69	69	69	69
15	61.7	68	68	68	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69
16	65.3	68	68	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69	69
17	68.9	68	68	68	68	68	68	68	68	68	68	68	69	69	69	69	69	69	69
18	72.6	67	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68
Max Noise Level		**70**	**70**	**70**	**71**	**71**	**71**	**71**	**71**	**71**	**71**	**71**	**71**	**71**	**71**	**71**	**71**	**71**	**71**
Min Noise Level		**67**	**68**	**68**	**68**	**68**	**68**	**68**	**68**	**68**	**68**	**68**	**68**	**68**	**68**	**68**	**68**	**68**	**68**
No. Exceedance		**0**	**0**	**0**	**2**	**2**	**3**	**3**	**4**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**6**	**6**	**6**

Base Case (Block 2)

Floor	mPD	B2-01	B2-02	B2-03	B2-04	B2-05	B2-06	B2-07	B2-08	B2-09	B2-10	B2-11	B2-12	B2-13	B2-14	B2-15	B2-16	B2-17	B2-18	B2-19	B2-20	B2-21	B2-22	B2-23	B2-24	B2-25	B2-26	B2-27	B2-28	B2-29	B2-30	B2-31
2	14.5	37	37	37	36	36	36	36	36	36	36	36	36	36	36	35	35	35	35	35	35	35	35	35	35	35	67	67	67	67	67	67
3	18.1	37	37	36	36	36	36	36	36	36	36	36	36	35	35	35	35	35	35	35	35	35	35	35	35	35	67	67	67	67	67	67
4	21.7	37	37	36	36	36	36	36	36	36	36	36	36	35	35	35	35	35	35	35	35	35	35	35	35	35	67	67	67	67	67	67
5	25.4	37	36	36	36	36	36	36	36	36	36	36	36	35	35	35	35	35	35	35	35	35	35	35	35	35	66	66	66	66	66	66
6	29.0	37	36	36	36	36	36	36	36	36	36	36	35	35	35	35	35	35	35	35	35	35	35	35	35	35	66	66	66	66	66	66
7	32.6	37	36	36	36	36	36	36	36	36	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	66	66	66	66	66	66
8	36.3	37	36	36	36	36	36	36	36	35	35	35	35	35	35	35	35	35	35	35	35	35	35	34	34	34	66	66	66	66	66	66
9	39.9	36	36	36	36	36	36	35	35	35	35	35	35	35	35	35	35	35	35	35	34	34	34	34	34	34	66	66	66	66	66	66
10	43.5	36	36	36	36	35	35	35	35	35	35	35	35	35	35	35	35	34	34	34	34	34	34	34	34	34	65	65	65	65	65	65
11	47.1	36	36	36	35	35	35	35	35	35	35	35	35	35	34	34	34	34	34	34	34	34	34	34	34	34	65	65	65	65	65	65
12	50.8	36	36	35	35	35	35	35	35	35	35	35	35	34	34	34	34	34	34	34	34	34	34	34	34	34	65	65	65	65	65	65
13	54.4	36	35	35	35	35	35	35	35	35	35	35	34	34	34	34	34	34	34	34	34	34	34	34	34	34	65	65	65	65	65	65
14	58.0	36	35	35	35	35	35	35	35	35	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	64	64	65	65	65	65
15	61.7	36	35	35	35	35	35	35	35	34	34	34	34	34	34	34	34	34	34	34	34	34	33	33	33	33	64	64	64	64	64	64
16	65.3	36	35	35	35	35	35	35	35	35	34	34	34	34	34	34	34	34	34	34	34	34	33	33	33	33	64	64	64	64	64	64
17	68.9	38	38	37	37	37	37	37	37	37	36	36	36	36	36	36	36	35	35	35	35	35	35	35	35	35	64	64	64	64	64	64
18	72.6	41	41	41	40	40	40	40	40	40	39	39	39	39	39	39	39	39	38	38	38	38	38	38	38	39	64	64	64	64	64	64
Max Noise Level		**41**	**41**	**41**	**40**	**40**	**40**	**40**	**40**	**40**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**38**	**38**	**38**	**38**	**38**	**38**	**38**	**39**	**67**	**67**	**67**	**67**	**67**	**67**
Min Noise Level		**36**	**35**	**35**	**35**	**35**	**35**	**35**	**35**	**34**	**34**	**34**	**34**	**34**	**34**	**34**	**34**	**34**	**34**	**34**	**34**	**34**	**33**	**33**	**33**	**33**	**64**	**64**	**64**	**64**	**64**	**64**
No. Exceedance		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Floor	mPD	B2-32	B2-33	B2-34	B2-35	B2-36	B2-37	B2-38	B2-39	B2-40	B2-41	B2-42	B2-43	B2-44	B2-45	B2-46	B2-47	B2-48	B2-49
2	14.5	67	67	67	67	67	67	67	67	67	68	68	68	68	68	68	68	68	68
3	18.1	67	67	67	67	67	67	67	67	67	67	67	68	68	68	68	68	68	68
4	21.7	67	67	67	67	67	67	67	67	67	67	67	67	68	68	68	68	68	68
5	25.4	67	67	67	67	67	67	67	67	67	67	67	67	67	67	68	68	68	68
6	29.0	66	66	66	67	67	67	67	67	67	67	67	67	67	67	67	67	68	68
7	32.6	66	66	66	66	66	66	66	67	67	67	67	67	67	67	67	67	67	67
8	36.3	66	66	66	66	66	66	66	66	66	67	67	67	67	67	67	67	67	67
9	39.9	66	66	66	66	66	66	66	66	66	66	66	66	66	67	67	67	67	67
10	43.5	65	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	67	67
11	47.1	65	65	65	65	66	66	66	66	66	66	66	66	66	66	66	66	67	67
12	50.8	65	65	65	65	65	65	65	66	66	66	66	66	66	66	66	66	66	66
13	54.4	65	65	65	65	65	65	65	65	65	66	66	66	66	66	66	66	66	66
14	58.0	65	65	65	65	65	65	65	65	65	65	65	65	66	66	66	66	66	66
15	61.7	64	65	65	65	65	65	65	65	65	65	65	65	65	65	66	66	66	66
16	65.3	64	64	64	64	65	65	65	65	65	65	65	65	65	65	65	65	66	66
17	68.9	64	64	64	64	64	64	64	65	65	65	65	65	65	65	65	65	65	66
18	72.6	64	64	64	64	64	64	64	64	64	65	65	65	65	65	65	65	65	65
Max Noise Level		**67**	**67**	**67**	**67**	**67**	**67**	**67**	**67**	**67**	**68**	**68**	**68**	**68**	**68**	**68**	**68**	**68**	**68**
Min Noise Level		**64**	**64**	**64**	**64**	**64**	**64**	**64**	**64**	**64**	**65**	**65**	**65**	**65**	**65**	**65**	**65**	**65**	**65**
No. Exceedance		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Base Case (Block 3)

Floor	mPD	B3-01	B3-02	B3-03	B3-04	B3-05	B3-06	B3-07	B3-08	B3-09	B3-10	B3-11	B3-12	B3-13	B3-14	B3-15	B3-16	B3-17	B3-18	B3-19	B3-20	B3-21	B3-22	B3-23	B3-24	B3-25	B3-26	B3-27	B3-28	B3-29	B3-30	B3-31
2	14.5	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	34	34	34	34	34	34	66	66	66	66	66	66
3	18.1	35	35	35	35	35	35	35	35	35	35	35	35	35	34	34	34	34	34	34	34	34	34	34	34	34	66	66	66	66	66	66
4	21.7	35	35	35	35	35	35	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	66	66	66	66	66	66
5	25.4	35	35	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	66	66	66	66	66	66
6	29.0	35	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	66	66	66	66	66	66
7	32.6	35	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	65	65	65	65	65	65
8	36.3	35	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	65	65	65	65	65	65
9	39.9	35	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	65	65	65	65	65	65
10	43.5	35	34	34	34	34	34	34	34	34	34	34	34	34	33	33	33	33	33	33	33	33	33	33	33	33	65	65	65	65	65	65
11	47.1	34	34	34	34	34	34	34	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	64	64	64	64	64	64
12	50.8	34	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	64	64	64	64	64	64
13	54.4	34	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	64	64	64	64	64	64
14	58.0	34	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	64	64	64	64	64	64
15	61.7	34	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	63	63	63	64	64	64
16	65.3	34	33	33	33	33	33	33	33	33	33	33	33	33	33	33	32	32	32	32	32	32	32	32	32	32	63	63	63	63	63	63
17	68.9	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	34	34	34	34	34	34	34	35	63	63	63	63	63	63
18	72.6	38	38	38	38	38	38	38	38	38	38	38	38	38	37	37	37	37	37	37	37	37	37	37	38	38	63	63	63	63	63	63
Max Noise Level		**38**	**38**	**38**	**38**	**38**	**38**	**38**	**38**	**38**	**38**	**38**	**38**	**38**	**37**	**37**	**37**	**37**	**37**	**37**	**37**	**37**	**37**	**37**	**38**	**38**	**66**	**66**	**66**	**66**	**66**	**66**
Min Noise Level		**34**	**33**	**33**	**33**	**33**	**33**	**33**	**33**	**33**	**33**	**33**	**33**	**33**	**33**	**33**	**32**	**32**	**32**	**32**	**32**	**32**	**32**	**32**	**32**	**32**	**63**	**63**	**63**	**63**	**63**	**63**
No. Exceedance		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Floor	mPD	B3-32	B3-33	B3-34	B3-35	B3-36	B3-37	B3-38	B3-39	B3-40	B3-41	B3-42	B3-43	B3-44	B3-45	B3-46	B3-47	B3-48	B3-49
2	14.5	66	67	67	67	67	67	67	67	67	68	68	68	68	68	68	68	68	68
3	18.1	66	37	36	36	36	36	36	36	36	36	36	36	35	35	35	35	35	35
4	21.7	66	37	36	36	36	36	36	36	36	36	36	36	35	35	35	35	35	35
5	25.4	66	36	36	36	36	36	36	36	36	36	36	36	35	35	35	35	35	35
6	29.0	66	36	36	36	36	36	36	36	36	36	36	35	35	35	35	35	35	35
7	32.6	65	36	36	36	36	36	36	36	36	35	35	35	35	35	35	35	35	35
8	36.3	65	36	36	36	36	36	36	36	35	35	35	35	35	35	35	35	35	35
9	39.9	65	36	36	36	36	36	35	35	35	35	35	35	35	35	35	35	35	35
10	43.5	65	36	36	36	35	35	35	35	35	35	35	35	35	35	35	35	34	34
11	47.1	64	36	36	35	35	35	35	35	35	35	35	35	35	34	34	34	34	34
12	50.8	64	36	35	35	35	35	35	35	35	35	35	35	34	34	34	34	34	34
13	54.4	64	35	35	35	35	35	35	35	35	35	35	34	34	34	34	34	34	34
14	58.0	64	35	35	35	35	35	35	35	35	35	34	34	34	34	34	34	34	34
15	61.7	64	35	35	35	35	35	35	35	34	34	34	34	34	34	34	34	34	34
16	65.3	63	35	35	35	35	35	35	35	35	34	34	34	34	34	34	34	34	34
17	68.9	63	38	37	37	37	37	37	37	37	36	36	36	36	36	36	36	36	35
18	72.6	63	41	41	40	40	40	40	40	40	39	39	39	39	39	39	39	39	38
Max Noise Level		**66**	**67**	**67**	**67**	**67**	**67**	**67**	**67**	**67**	**68**	**68**	**68**	**68**	**68**	**68**	**68**	**68**	**68**
Min Noise Level		**63**	**35**	**35**	**35**	**35**	**35**	**35**	**35**	**34**	**34**	**34**	**34**	**34**	**34**	**34**	**34**	**34**	**34**
No. Exceedance		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

No. of Units:	2499
No. of Units with Exceedance:	67
Compliance Level:	97%
Max. Noise Level:	71

Appendix 2.4

Relative Noise Reduction (RNR) for

Innovative Noise Mitigation Measures (INMD) and

results of Road Traffic Noise Impact Assessment (Mitigated Scenario)

RNR adopted for all NSR with traffic noise exceedance

Project Case							Corrections			Reference Reduction				
NSR	Room	Room Area	Maximum Predicted Noise Level	Overlap / Gap [1]	Required OOA <=[3]	Provided OOA [4]	Room Area	Opening Area	Max RNR [5]	Config	Room Area	OOA [2]	Overlap / Gap [1]	Noise Reduction [5]
		sqm	L10,peak hr, dB(A)	mm/mm	sqm	sqm	dB(A)	dB(A)	dB(A)		sqm	sqm	mm/mm	dB(A)
B1-35	LIV	14.70	70.6	100 / 100	1.13	0.36	-0.88	0.00	**6.1**	PN_18	18	1.13	100 / 100	7.0
B1-36	LIV	14.70	70.6	100 / 100	1.13	0.36	-0.88	0.00	**6.1**	PN_18	18	1.13	100 / 100	7.0
B1-37	LIV	14.70	70.7	100 / 100	1.13	0.36	-0.88	0.00	**6.1**	PN_18	18	1.13	100 / 100	7.0
B1-38	LIV	14.70	70.8	100 / 100	1.13	0.36	-0.88	0.00	**6.1**	PN_18	18	1.13	100 / 100	7.0
B1-39	LIV	14.70	71.0	100 / 100	1.13	0.36	-0.88	0.00	**6.1**	PN_18	18	1.13	100 / 100	7.0
B1-40	LIV	14.70	71.0	100 / 100	1.13	0.36	-0.88	0.00	**6.1**	PN_18	18	1.13	100 / 100	7.0
B1-41	LIV	14.70	71.1	100 / 100	1.13	0.36	-0.88	0.00	**6.1**	PN_18	18	1.13	100 / 100	7.0
B1-42	LIV	14.70	71.1	100 / 100	1.13	0.36	-0.88	0.00	**6.1**	PN_18	18	1.13	100 / 100	7.0
B1-43	LIV	14.70	71.1	100 / 100	1.13	0.36	-0.88	0.00	**6.1**	PN_18	18	1.13	100 / 100	7.0
B1-44	LIV	14.70	71.1	100 / 100	1.13	0.36	-0.88	0.00	**6.1**	PN_18	18	1.13	100 / 100	7.0
B1-45	LIV	14.70	71.1	100 / 100	1.13	0.36	-0.88	0.00	**6.1**	PN_18	18	1.13	100 / 100	7.0
B1-46	LIV	14.70	71.2	100 / 100	1.13	0.36	-0.88	0.00	**6.1**	PN_18	18	1.13	100 / 100	7.0
B1-47	LIV	14.70	71.2	100 / 100	1.13	0.36	-0.88	0.00	**6.1**	PN_18	18	1.13	100 / 100	7.0
B1-48	LIV	14.70	71.2	100 / 100	1.13	0.36	-0.88	0.00	**6.1**	PN_18	18	1.13	100 / 100	7.0
B1-49	LIV	14.70	71.2	100 / 100	1.13	0.36	-0.88	0.00	**6.1**	PN_18	18	1.13	100 / 100	7.0

[1] **Gap / Overlap** Gap: Gap Width between interior sliding panel and exterior glazing, or between exterior glazing; Overlap: Overlapping Length

[2] **OOA** Outer Opening Area

[3] **Required OOA** The area of ventilation opening required under Building (Planning) Regulations and BEAM Plus requirements as advised by Project Architect

[4] **Provided OOA** The maximum OOA provided in design, complying with prescribed ventilation opening requirement under Building (Planning) Regulations.

[5] **RNR** *Reletive Noise Reduction* - For NSRs proposed with Noise Mitigation Measures (NMM), the presented noise level is not the actual noise level at the external façade after the application of NMM, and these noise level are only the equivalent noise level at 1m from the external facade after accounting the reduction in noise levels inside the flat offered by propsoed NMM. Max RNR: The maximum allowable RNR in subject case, taken into account the room area correction and opening area

Predicted Road Traffic Noise ILeq(1h) dB(A)1 at Representative Sensitive Receivers (Based on Year 2048 Traffic Forecast)
Noise Mitigation Measures Specification (Block 1)

Floor	NSR mPD	B1-01	B1-02	B1-03	B1-04	B1-05	B1-06	B1-07	B1-08	B1-09	B1-10	B1-11	B1-12	B1-13	B1-14	B1-15	B1-16	B1-17	B1-18	B1-19	B1-20	B1-21	B1-22	B1-23	B1-24	B1-25	B1-26	B1-27	B1-28	B1-29	B1-30	B1-31
2	14.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	18.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	21.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	25.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	29.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	32.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	36.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	39.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	43.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	47.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	50.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	54.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	58.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	61.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	65.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	68.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	72.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Floor	mPD	B1-32	B1-33	B1-34	B1-35	B1-36	B1-37	B1-38	B1-39	B1-40	B1-41	B1-42	B1-43	B1-44	B1-45	B1-46	B1-47	B1-48	B1-49
2	14.5	-	-	-	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18
3	18.1	-	-	-	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18
4	21.7	-	-	-	-	-	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18
5	25.4	-	-	-	-	-	-	-	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18
6	29.0	-	-	-	-	-	-	-	-	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18	PN_18
7	32.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	PN_18	PN_18	PN_18
8	36.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	39.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	43.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	47.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	50.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	54.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	58.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	61.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	65.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	68.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	72.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Schedule of Acoustic Window / Acoustic Balcony		Qtn.
PN_18	Acoustic Window (Ref.: PN 5/23), Room area: 18sqm	67

Remark:
For Block 2 & 3, as there are no exceedances, Acoustic Window/ Acoustic Balcony is not applicable.

Predicted Road Traffic Noise [L10(1h) dB(A)] at Representative Sensitive Receivers (Based on Year 2048 Traffic Forecast)
Relative Noise Reduction Adopted (Block 1)

Floor	NSR mPD	B1-01	B1-02	B1-03	B1-04	B1-05	B1-06	B1-07	B1-08	B1-09	B1-10	B1-11	B1-12	B1-13	B1-14	B1-15	B1-16	B1-17	B1-18	B1-19	B1-20	B1-21	B1-22	B1-23	B1-24	B1-25	B1-26	B1-27	B1-28	B1-29	B1-30	B1-31
2	14.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	18.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	21.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	25.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	29.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	32.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	36.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	39.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	43.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	47.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	50.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	54.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	58.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	61.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	65.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	68.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	72.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Floor	mPD	B1-32	B1-33	B1-34	B1-35	B1-36	B1-37	B1-38	B1-39	B1-40	B1-41	B1-42	B1-43	B1-44	B1-45	B1-46	B1-47	B1-48	B1-49
2	14.5	-	-	-	0.2	0.2	0.3	0.4	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8
3	18.1	-	-	-	0.1	0.1	0.2	0.3	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7
4	21.7	-	-	-	-	-	0.1	0.1	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.6
5	25.4	-	-	-	-	-	-	-	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4
6	29.0	-	-	-	-	-	-	-	-	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3
7	32.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	0.1
8	36.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	39.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	43.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	47.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	50.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	54.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	58.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	61.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	65.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	68.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	72.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Schedule of Acoustic Window / Acoustic Balcony	
PN_18	Acoustic Window (Ref.: PN 5/23), Room area: 18sqm

Remark:
For Blocks 2 & 3, as there are no exceedances, Acoustic Window/ Acoustic Balcony is not applicable.

Predicted Road Traffic Noise [L10(1h) dB(A)] at Representative Sensitive Receivers (Based on Year 2048 Traffic Forecast)
Mitigated Scenario (Block 1)

Floor	NSR mPD	B1-01	B1-02	B1-03	B1-04	B1-05	B1-06	B1-07	B1-08	B1-09	B1-10	B1-11	B1-12	B1-13	B1-14	B1-15	B1-16	B1-17	B1-18	B1-19	B1-20	B1-21	B1-22	B1-23	B1-24	B1-25	B1-26	B1-27	B1-28	B1-29	B1-30	B1-31
2	14.5	39	39	39	39	39	39	39	39	39	39	39	39	39	38	38	38	38	38	38	38	38	38	38	38	38	70	70	70	70	70	70
3	18.1	39	39	39	39	39	39	39	39	39	39	39	39	38	38	38	38	38	38	38	38	38	38	38	38	37	69	70	70	70	70	70
4	21.7	39	39	39	39	39	39	39	39	39	39	39	39	38	38	38	38	38	38	38	38	38	38	38	38	37	69	70	70	70	70	70
5	25.4	39	39	39	39	39	39	39	39	39	39	39	39	38	38	38	38	38	38	38	38	38	38	38	37	37	69	69	69	70	70	70
6	29.0	39	39	39	39	39	39	39	39	39	39	39	38	38	38	38	38	38	38	38	38	38	37	37	37	37	69	69	69	69	70	70
7	32.6	39	39	39	39	39	39	39	39	39	38	38	38	38	38	38	38	38	38	38	38	38	37	37	37	37	69	69	69	69	69	69
8	36.3	39	39	39	39	39	39	38	38	38	38	38	38	38	38	38	38	38	38	38	37	37	37	37	37	37	69	69	69	69	69	69
9	39.9	39	39	39	38	38	38	38	38	38	38	38	38	38	38	38	38	38	37	37	37	37	37	37	37	37	68	69	69	69	69	69
10	43.5	39	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	37	37	37	37	37	37	37	37	37	68	68	68	69	69	69
11	47.1	38	38	38	38	38	38	38	38	38	38	38	38	38	38	37	37	37	37	37	37	37	37	37	37	37	68	68	68	68	69	69
12	50.8	38	38	38	38	38	38	38	38	38	38	38	38	38	37	37	37	37	37	37	37	37	37	37	37	36	68	68	68	68	68	68
13	54.4	38	38	38	38	38	38	38	38	38	38	38	38	37	37	37	37	37	37	37	37	37	37	37	36	36	68	68	68	68	68	68
14	58.0	38	38	38	38	38	38	38	38	38	38	38	37	37	37	37	37	37	37	37	37	37	36	36	36	36	67	68	68	68	68	68
15	61.7	38	38	38	38	38	38	38	37	37	37	37	37	37	37	37	37	37	37	37	36	36	36	36	36	36	67	67	67	68	68	68
16	65.3	38	38	38	38	38	38	38	38	37	37	37	37	37	37	37	37	37	37	37	37	36	36	36	36	36	67	67	67	67	68	68
17	68.9	40	40	40	40	39	39	39	39	39	39	39	39	39	39	39	39	38	38	38	38	38	38	38	38	38	67	67	67	67	67	68
18	72.6	44	44	44	43	43	43	43	43	43	43	42	42	42	42	42	42	42	42	42	41	41	41	41	41	41	67	67	67	67	67	67
Max Noise Level		**44**	**44**	**44**	**43**	**43**	**43**	**43**	**43**	**43**	**43**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**41**	**41**	**41**	**41**	**41**	**41**	**41**	**70**	**70**	**70**	**70**	**70**	**70**
Min Noise Level		**38**	**38**	**38**	**38**	**38**	**38**	**38**	**37**	**37**	**37**	**37**	**37**	**37**	**37**	**37**	**37**	**37**	**37**	**37**	**36**	**36**	**36**	**36**	**36**	**36**	**67**	**67**	**67**	**67**	**67**	**67**
No. Exceedance		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Floor	NSR mPD	B1-32	B1-33	B1-34	B1-35	B1-36	B1-37	B1-38	B1-39	B1-40	B1-41	B1-42	B1-43	B1-44	B1-45	B1-46	B1-47	B1-48	B1-49
2	14.5	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
3	18.1	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
4	21.7	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
5	25.4	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
6	29.0	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
7	32.6	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
8	36.3	69	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
9	39.9	69	69	69	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
10	43.5	69	69	69	69	69	69	70	70	70	70	70	70	70	70	70	70	70	70
11	47.1	69	69	69	69	69	69	69	69	70	70	70	70	70	70	70	70	70	70
12	50.8	69	69	69	69	69	69	69	69	69	69	69	69	69	70	70	70	70	70
13	54.4	68	68	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69
14	58.0	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69	69	69	69
15	61.7	68	68	68	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69
16	65.3	68	68	68	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69
17	68.9	68	68	68	68	68	68	68	68	68	68	68	69	69	69	69	69	69	69
18	72.6	67	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68
Max Noise Level		**70**	**70**	**70**	**70**	**70**	**70**	**70**	**70**	**70**	**70**	**70**	**70**	**70**	**70**	**70**	**70**	**70**	**70**
Min Noise Level		**67**	**68**	**68**	**68**	**68**	**68**	**68**	**68**	**68**	**68**	**68**	**68**	**68**	**68**	**68**	**68**	**68**	**68**
No. Exceedance		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Schedule of Acoustic Window / Acoustic Balcony	
PN_18	Acoustic Window (Ref.: PN 5/23), Room area: 18sqm

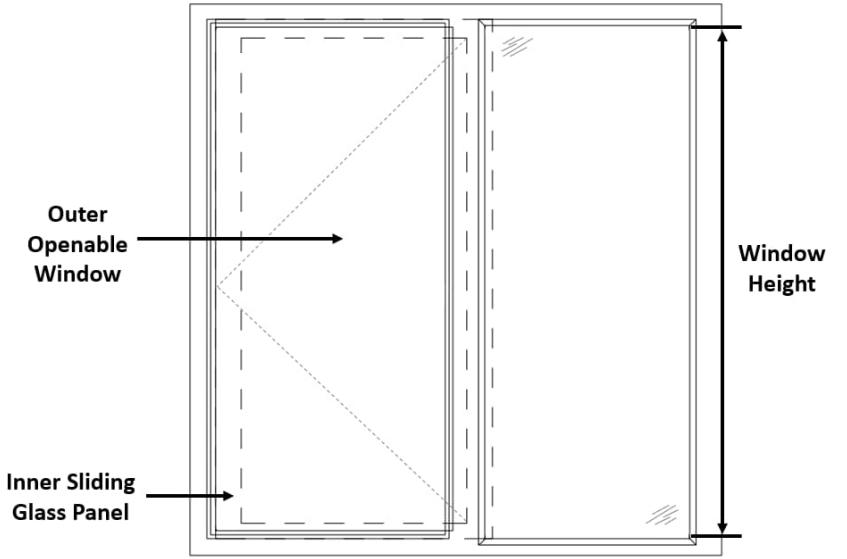
Max Noise Level (dB(A)) =	70
Total no. of Exceedance =	0
Total no. of units =	2499
% Compliance =	100%

Remark:
For Blocks 2 & 3, as there are no exceedances, Acoustic Window/ Acoustic Balcony is not applicable.

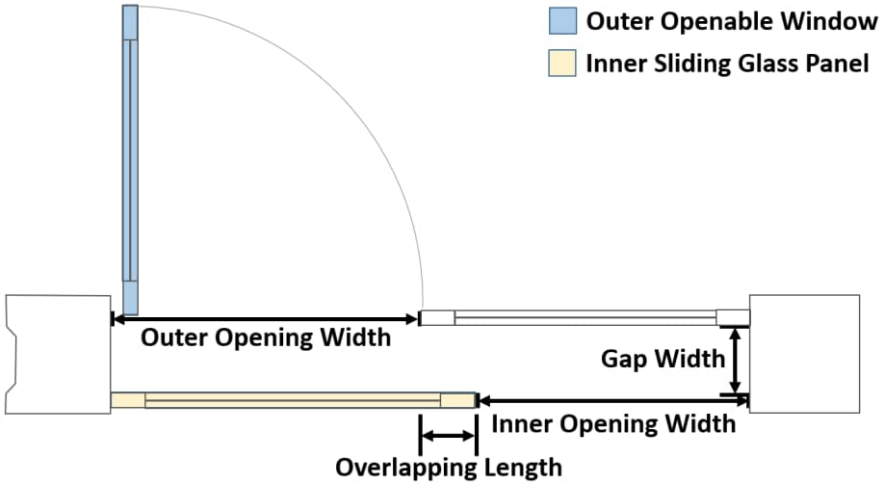
Appendix 2.5

Schematic Diagram of INMD Proposed

(I) Possible design of "Acoustic Window (Baffle Type)" for 8m² and 18m² habitable rooms (i.e. dining room, living room or bedroom)



INTERNAL VIEW (NOT TO SCALE)



PLAN (NOT TO SCALE)

Possible Designs of "Acoustic Window (Baffle Type)" for 8m² and 18m² rooms					
Room Size (m^2)	**Room Dimensions (mm^3)**	**Inner Window Opening (mm^2)**	**Outer Window Opening (mm^2)**	**Overlapping Length (mm)**	**Gap Width (mm)**
8	**3200 (W) x 2500 (D) x 3400 (H)**	**580 (W) x 870 (H)**	**600 (W) x 870 (H)**	**≥ 100**	**100 to 175**
18	**5300 (W) x 3390 (D) x 3400 (H)**	**750 (W) x 1500 (H)**	**750 (W) x 1500 (H)**	**≥ 100**	**100 to 175**

Notes:

a. These are feasible designs of AW(BT) for 8m² and 18m² rooms.

b. For optimum performance of noise reduction, the air gap should have a pane-to-pane overlapping length of ≥ 100mm and a gap width between 100mm and 175mm, with the inner sliding glass panel in a closed position. The window pane shall be ≥ 6mm in thickness.

Reference for proposed Acoustic Window "**PN_18**"

Appendix 3.1

Site Survey Records

Site Visit Photos

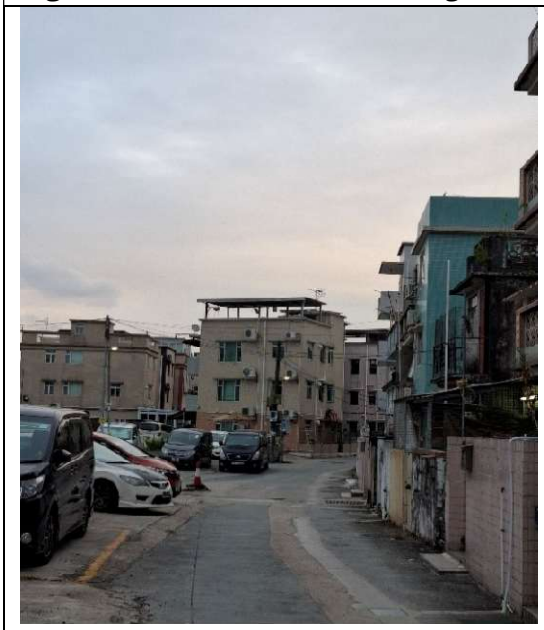

Left: *Open Storage along Castle Peak Road*
Right: *Vacant Site along Castle Peak Road*


Left: *Open Storage along Castle Peak Road*
Right: *Castle Peak Road – San Tin Section*


Left: *Fanling Car Washing*
Operation Hour: 09:00 to 18:30, Car Washing by high pressure water jet
Right: *Vehicle Sale / Open Storage*

Left: *Northbound Travel Hong Kong Vehicle Repair,* Registration Area, operation hours: 09:00 to 17:00
Right: *Northbound Travel Hong Kong Vehicle Repair, Vehicle Repair Area, operation hours: 09:00 to 17:30, Car Repair inside covered area*


Left: Hop Yick Sand Storage and Environment Recycling Sttion for Construction Waste (along Castle Peak Road about 324m to southwest of site)
Right: *Construction Plant Storage*




Left: *Tsing Lung Tsuen*
Right: *San Lung Tsuen*

Appendix 4.1

Extracted Programme Information of AEIAR-261/2024

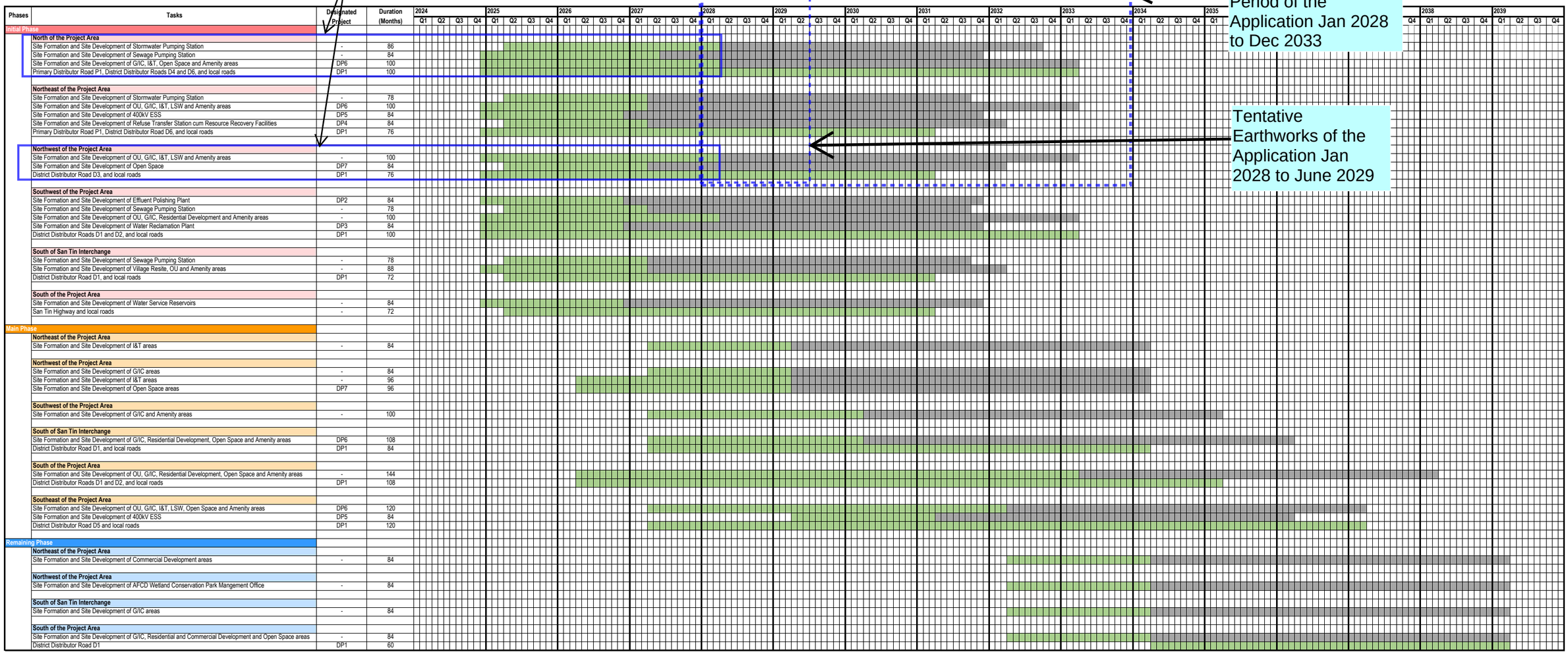
Appendix 2.2 Tentative Construction Programme

"North" and "Northwest" of ST/LMC Dev are within 500m of Application Site

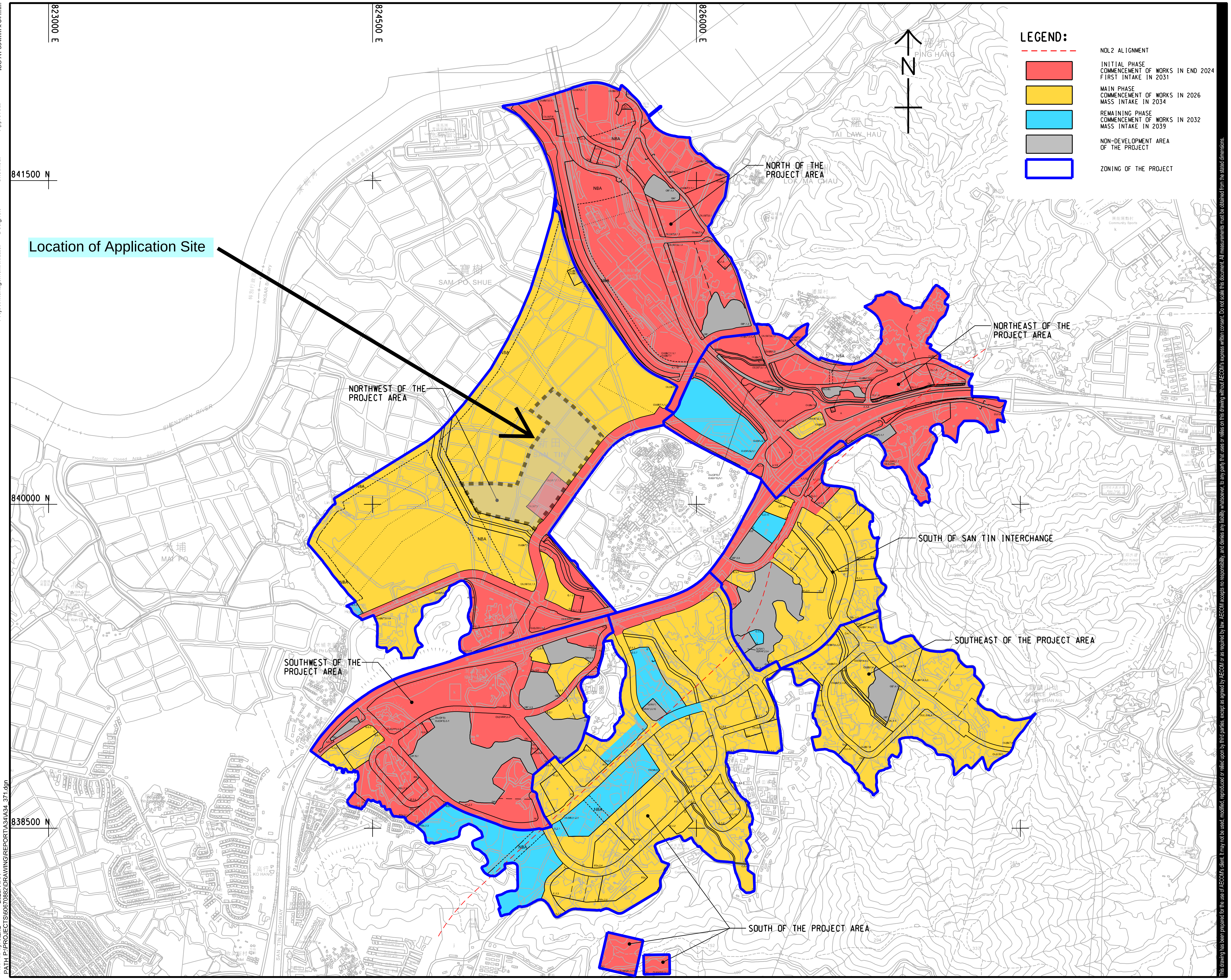
Tentative Construction Period of the Application Jan 2028 to Dec 2033

Tentative Earthworks of the Application Jan 2028 to June 2029

Phases	Tasks	Designated Project	Duration (Months)
Initial Phase			
	North of the Project Area		
	Site Formation and Site Development of Stormwater Pumping Station	-	86
	Site Formation and Site Development of Sewage Pumping Station	-	84
	Site Formation and Site Development of G/IC, I&T, Open Space and Amenity areas	DP6	100
	Primary Distributor Road P1, District Distributor Roads D4 and D6, and local roads	DP1	100
	Northeast of the Project Area		
	Site Formation and Site Development of Stormwater Pumping Station	-	78
	Site Formation and Site Development of OU, G/IC, I&T, LSW and Amenity areas	DP6	100
	Site Formation and Site Development of 400kV ESS	DP5	84
	Site Formation and Site Development of Refuse Transfer Station cum Resource Recovery Facilities	DP4	84
	Primary Distributor Road P1, District Distributor Road D6, and local roads	DP1	76
	Northwest of the Project Area		
	Site Formation and Site Development of OU, G/IC, I&T, LSW and Amenity areas	-	100
	Site Formation and Site Development of Open Space	DP7	84
	District Distributor Road D3, and local roads	DP1	76
	Southwest of the Project Area		
	Site Formation and Site Development of Effluent Polishing Plant	DP2	84
	Site Formation and Site Development of Sewage Pumping Station	-	78
	Site Formation and Site Development of OU, G/IC, Residential Development and Amenity areas	-	100
	Site Formation and Site Development of Water Reclamation Plant	DP3	84
	District Distributor Roads D1 and D2, and local roads	DP1	100
	South of San Tin Interchange		
	Site Formation and Site Development of Sewage Pumping Station	-	78
	Site Formation and Site Development of Village Resite, OU and Amenity areas	-	88
	District Distributor Road D1, and local roads	DP1	72
	South of the Project Area		
	Site Formation and Site Development of Water Service Reservoirs	-	84
	San Tin Highway and local roads	-	72
Main Phase			
	Northeast of the Project Area		
	Site Formation and Site Development of I&T areas	-	84
	Northwest of the Project Area		
	Site Formation and Site Development of G/IC areas	-	84
	Site Formation and Site Development of I&T areas	-	96
	Site Formation and Site Development of Open Space areas	DP7	96
	Southwest of the Project Area		
	Site Formation and Site Development of G/IC and Amenity areas	-	100
	South of San Tin Interchange		
	Site Formation and Site Development of G/IC, Residential Development, Open Space and Amenity areas	DP6	108
	District Distributor Road D1, and local roads	DP1	84
	South of the Project Area		
	Site Formation and Site Development of OU, G/IC, Residential Development, Open Space and Amenity areas	-	144
	District Distributor Roads D1 and D2, and local roads	DP1	108
	Southeast of the Project Area		
	Site Formation and Site Development of OU, G/IC, I&T, LSW, Open Space and Amenity areas	DP6	120
	Site Formation and Site Development of 400kV ESS	DP5	84
	District Distributor Road D5 and local roads	DP1	120
Remaining Phase			
	Northeast of the Project Area		
	Site Formation and Site Development of Commercial Development areas	-	84
	Northwest of the Project Area		
	Site Formation and Site Development of AFCD Wetland Conservation Park Mangement Office	-	84
	South of San Tin Interchange		
	Site Formation and Site Development of G/IC areas	-	84
	South of the Project Area		
	Site Formation and Site Development of G/IC, Residential and Commercial Development and Open Space areas	-	84
	District Distributor Road D1	DP1	60



Legend: Site Formation; Site Development



ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

Plot File by: RenS 2023/11/14

PATH: P:\PROJECTS\60670882\DRAWING\REPORT\A34\A34_371.dgn

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PROJECT 項目

FIRST PHASE DEVELOPMENT OF THE NEW TERRITORIES NORTH – SAN TIN / LOK MA CHAU DEVELOPMENT NODE – INVESTIGATION

CLIENT 業主

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

規劃署 Planning Department

CONSULTANT 工程顧問公司

AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS 分判工程顧問公司

ISSUE/REVISION 修訂

I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 複核

STATUS 階段

SCALE 比例 A3 1 : 16000

DIMENSION UNIT 尺寸單位 METRES

KEY PLAN 索引圖

PROJECT NO. 項目編號 60670882

AGREEMENT NO. 協議編號 CE 20/2021

SHEET TITLE 圖紙名稱

PRELIMINARY CONSTRUCTION AND POPULATION INTAKE SCHEDULE

SHEET NUMBER 圖紙編號

60670882/A34/APPENDIX 2.1

Appendix 5.1

Estimation Municipal Solid Waste Generation

Estimation of Commercial & Industrial Waste Generation

Building	Proposed Uses	GFA	CIFSUS [1]	Workers	Workers	Remarks
		sqm, about	Refrenced Economic Activities (ref: CIFSUS)	number per 100sqm GFA	Estimate	
I&T Block	Warehouse and Testing Area	56198	Storage	0.4	225	
	Modern Logistics / Low-altitude Economy	107890	Storage	1.4	1510	
	R&D Labs	200068	Manufacturing	2.3	4602	
	R&D Offices	219240	Financial, Insurance, Real Estate & Business Services	5.5	12058	
Commercial and Staff Quarter Block	Commercial (shops, supermarkets)(assume 70%)	9387	Retail Trade	3.5	329	
	Commercial (restaurants)(assume 30%)	4023	Restaurants	5.1	205	
Automatic Parking System .	Automatic Parking System	16290		0	0	Unmanned in general except property Management Staff
Data Centre	assume 5% GFA for property management staff	814.5	Financial, Insurance, Real Estate & Business Services	5.5	45	
	Data Centre	11403		0	0	
	assume 5% GFA for property management staff	570.2	Financial, Insurance, Real Estate & Business Services	5.5	31	Unmanned in general except property Management Staff
Visitor and Education Centre & GIC Facilities	Cooling Centre	3904		0	0	Unmanned in general
	sub-station	1430		0	0	Unmanned in general
	Visitor and Education Centre	2121	Community, Social & Personal Services	3.3	70	
				Total Estimated Workers	**19075**	

Per capita disposal Rate	kg / person / day	0.55	Commercial & Industrial
Recovery Rate	%	46%	Commercial & Industrial Waste
Per Capita Generation Rate	kg / person / day	**1.0**	Disposal Rate / (1 - Recovery Rate)
Wasate Generation Rate (Non-Domestic)	**ton / day**	**19.1**	Estimated Workers x Per Capita Generation Rate

Notes

[1] CIFSUS: Commercial and Industrial Floor Space Utilization Survey

[2] Plate 2.7, Monitoring of Soild Waste 2023

Estimation of Domestic Waste Genertion

Number of Units on Typical Floor	49	units	
Number of Storey for each Sstaff Quarter Block	17	Storeys	
Number of Staff Quarter Block	3	Blocks	
Total Number of Staff Quarter Units	2499	Units	
Average Household Size	2.7	persons per Unit	Yuen Long District, 2024 (https://www.censtatd.gov.hk/en/web_table.html?id=130-06806#)
Domestic Population Estimation	6747.3	Persons	
Domestic Waste Disposal Rate	0.89	kg / person / day	Monitoring of Solid Waste 2023
Recovery Rate of Domestic Waste	21%	percentage	Monitoring of Solid Waste 2023
Domestic Waste Generation Rate	1.127	kg / person / day	Disposal Rate / (1 - Recovery Rate)
Domestic Waste Generation	**7.6**	**ton / day**	Generation Rate x Domestic Population

Appendix 7.1 Aerial Photos

Appendix: 7.1a

Title: Aerial Photo (1963 - Ref No. 1963-9967)

Project: S16 Application for Proposed Filling of Ponds at Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, N.T.

RAMBOLL

Drawn by:	SC
Checked by:	TW
Rev.:	1.0
Date:	Dec 2025

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Appendix: 7.1b

Title: Aerial Photo (1973 - Ref No. 07880R)

Project: S16 Application for Proposed Filling of Ponds at Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, N.T.

RAMBOLL

Drawn by:	SC
Checked by:	TW
Rev.:	1.0
Date:	Dec 2025

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Appendix: 7.1c

Title: Aerial Photo (1983 - Ref No. 520277)

Project: S16 Application for Proposed Filling of Ponds at Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, N.T.

RAMBOLL

Drawn by:	SC
Checked by:	TW
Rev.:	1.0
Date:	Dec 2025

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Appendix: 7.1d

Title: Aerial Photo (1993 - Ref No. A36427)

Project: S16 Application for Proposed Filling of Ponds at Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, N.T.

RAMBOLL

Drawn by:	SC
Checked by:	TW
Rev.:	1.0
Date:	Dec 2025

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Appendix: 7.1e

Title: Aerial Photo (2003 - Ref No. CW51263R)

Project: S16 Application for Proposed Filling of Ponds at Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, N.T.

RAMBOLL

Drawn by:	SC
Checked by:	TW
Rev.:	1.0
Date:	Dec 2025

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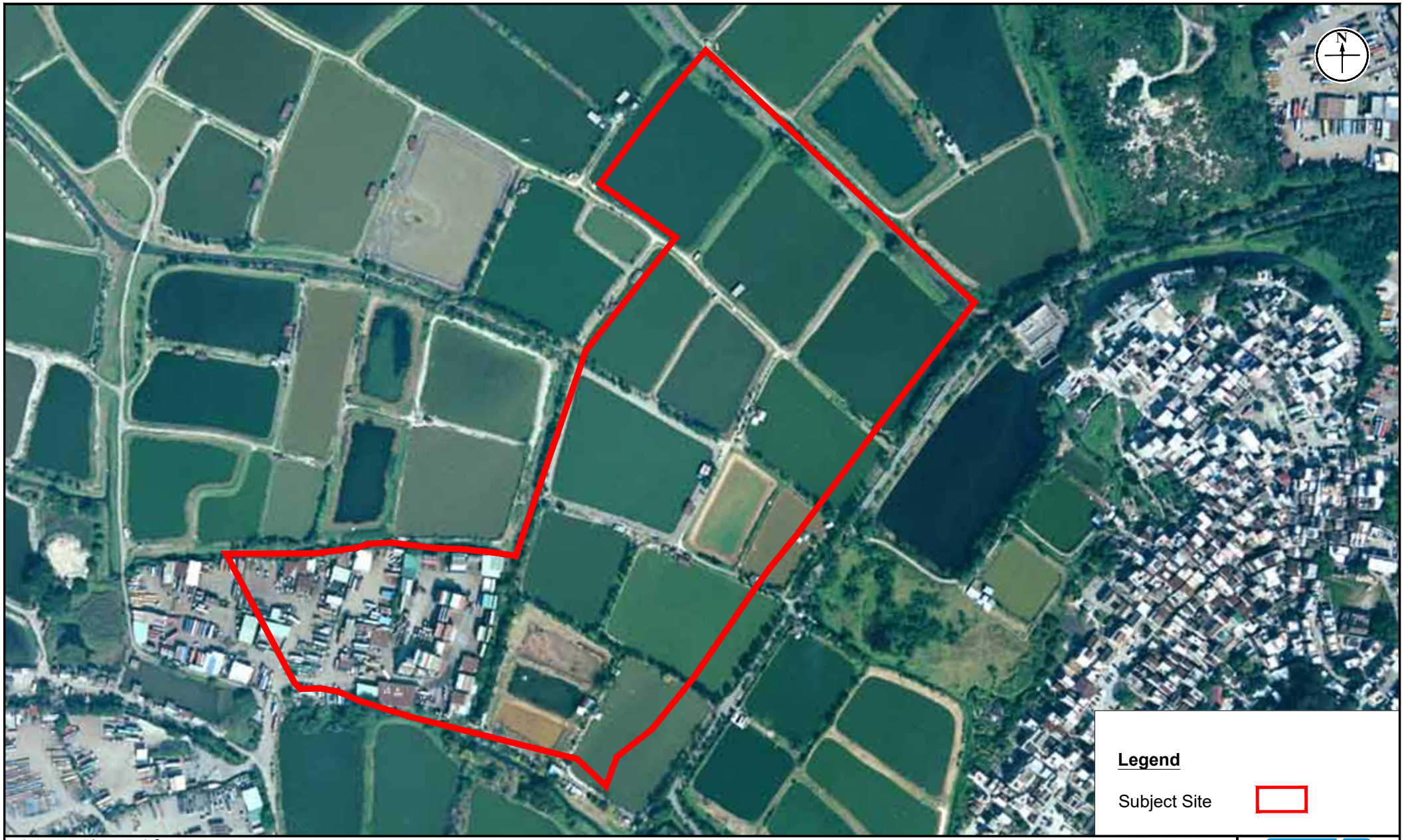

Appendix: 7.1f

Title: Aerial Photo (2013 - Ref No. CW100909RM)

Project: S16 Application for Proposed Filling of Ponds at Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, N.T.

RAMBOLL

Drawn by:	SC
Checked by:	TW
Rev.:	1.0
Date:	Dec 2025

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Appendix: 7.1g

Title: Aerial Photo (2024 - Ref No. E219578C & E219579C)

Project: S16 Application for Proposed Filling of Ponds at Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, N.T.

RAMBOLL

Drawn by:	SC
Checked by:	TW
Rev.:	1.0
Date:	Dec 2025

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Appendix 7.2 Relevant Sections from the EIA report (AEIAR-261/2024)

ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

LEGEND:

PROJECT BOUNDARY

POTENTIALLY CONTAMINATED SITE

824500 E

825000 E

825500 E

N

840000 N

839500 N

SAN TIN

HOP SHING WAI

SHEK WU WAI ROAD

W002 W003 W004 W101 W102 W103 W104 W105 W014 W015 W017 W020 W021 W025 W027 W028 W029 W030 W031 W032 W033 W035 W039 W043 W044 W045 W046 W047 W050 W051 W052 W053 W054 W055

Plot File by: ChowR 10/27/2023
PATH: C:\Data\Project\CE20 San Tin\dgn\A24c_V1\dgn\A24c_904.dgn

AECOM

PROJECT 項目

FIRST PHASE DEVELOPMENT OF THE NEW TERRITORIES NORTH – SAN TIN / LOK MA CHAU DEVELOPMENT NODE – INVESTIGATION

CLIENT 業主

土木工程拓展署 Civil Engineering and Development Department

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ISSUE/REVISION 修訂

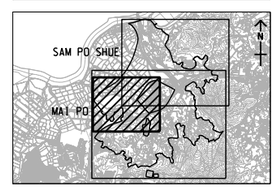
I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 複核

STATUS 階段

SCALE 比例
A3 1 : 5000

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN 索引圖 A3 1 : 160000



PROJECT NO. 項目編號
60670882

AGREEMENT NO. 協議編號
CE 20/2021

SHEET TITLE 圖紙名稱

LOCATION PLAN OF POTENTIALLY CONTAMINATED SITES (WESTERN PORTION)

SHEET NUMBER 圖紙編號

60670882/A24c/904

ID	English Name	Chinese Name	Address	Nature of Bussiness	Corresponding Site
067 *	CHUN YIP ENVIRONMENTAL RECYCLE LIMITED	駿業環保再生資源有限公司	DD102 Lot 1525, Shek Wu Wai San Tsuen, San Tin Yuen Long, N.T.	環保回收	S283
068	Kan Sin International Trading Limited	更先國際貿易有限公司	DD102 Lot 1517RP, Shek Wu Wai, San Tin, Yuen Long, N.T.	Destroy of material & process environmental treatment	S288
069	H2O & Au Environmental Recycling Company Limited	淼鑫再生資源有限公司	DD102 Lot 1517, Shek Wu Wai, San Tin, Yuen Long, N.T.	Waste Recycle	S288
070	ON FAT LUNG ELECTRICAL & METAL COMPANY	安發隆電器五金有限公司	DD102 Lot 1524 (Part), Shek Wu Wai, San Tin, Yuen Long, N.T. .	電器五金	S288
071	YAM Mei Chau	任美就	Site near lamp post VD8200, near Lot 1522 in DD102, Shek Wu Wai San Tsuen, San Tin, Yuen Long, N.T.	回收	S290
072	Hung Hing Electronic Commerce Limited	雄興電子貿易有限公司	Lots 1770, 1773, 1774, 1776, 1779, 1796, 1800, 1802, 1803, 1804, 1805 in DD102, 12B Shek Wu Wai, San Tin, Yuen Long, N.T.	廢五金．塑膠買賣	S304, S306, S307, S308, S309
073	Yee Hop Engineering Company Limited	義合工程有限公司	Lots 1255-1262, 1273 and 1276 in DD102, San Tin, Yuen Long, NT	Construction Plant Maintenance and Storage Compound	S316
074	HEHE RESOURCES LIMITED	和合資源有限公司	DD102 Lots 1242 (Part), 1243, 1244 (Part), 1245 (Part), 1253 (Part), 1254 (Part), 1258, 1274 and 1275, Shek Wu Wai, San Tin, Yuen Long, N.T.	倉庫	S317
075	Yu Sen Environmental Protection Technology Limited	羽森環保科技有限公司	Lot 1249 in DD102, No. 8 Wah Hing Road, Shek Wu Wai, San Tin, Yuen Long, New Territories	Waste recycling	S317
076	Man Sun Group Recycling Company, Limited	萬新集團環保有限公司	No. 8 Wah Hing Road, Lot 1249 in DD102, Shek Wu Wai, San Tin, Yuen Long, New Territories	Recycle Services	S317
077	XUNWEISHENG TECHNOLOGY LIMITED	訊緯盛科技有限公司	Lot 1225, 1227, 1228 & 1237 in DD102, Siu Hum Tsuen, San Tin, Yuen Long, N.T.	電子產品的科技開發與銷售和國際貿易	S318
078	SI HONG of TEN LONG TRADING CO.	天朗貿易公司的施紅	DD102 LOT 1204 - 1206, 1223 & 1224, SIU HUM TSUEN, SAN TIN, YUEN LONG, N.T.	Trading	S319
079	Wevo Asia Co. Limited	威乎亞洲有限公司	DD99 Lot 769RP, San Tin, Yuen Long, N.T.	General Trading	W014
080	Alent Hong Kong Limited - Enthone	確信電子有限公司 - 樂思化學	DD99 Lot 769, Ground Floor, Yuen Long, NT	Transportation & Warehouse	W014
081	Hong Kong Gold Gate Enterprise Ltd.	香港金門企業有限公司	Lot 769 in DD99, Caslte Peak Road - San Tin, Yuen Long, N.T.	Transportation	W014
082	Yau Kee Rubbertyre Ltd	有記膠輪有限公司	DD99 Lot 769 G, Mai Po Tsuen, San Tin, Yuen Long, N.T.(米埔中華車場路口內) near L/P FC4124	Rubbertyre	W014
083	Chung Way Transportation Company Limited	中匯運輸有限公司	DD99, Lot 769 S.A, Mai Po Lung, San Tin, Yuen Long, N.T.	中港運輸	W017
084	Hung Kai Engineering Company Limited	雄佳機械工程有限公司	Container 8, D.D.99 Lot 769, Mai Po Lon, San Tin , Yuen Long, N.T.	汽車維修vehicle maintenance	W017
085	Siu Wan Motor Reparation operated by Chan Siu Bik	陳笑碧經營的小雲汽車維修	D.D.99 Lot 769RP, Mai Po Lung, San Tin, Yuen Long, N.T.	汽車維修	W017
086 *	LEE SIK TIM		LOT 769 DD 99 MAI PO SAN TIN KUI NT	CAR REPAIRING	W017
087 *	HON KO ENGINEERING LIMITED	漢高工程有限公司	LOT 769 IN DD 99 MAI PO LUNG SAN TIN YUEN LONG NT	ENGINE REPAIRING	W017
088	SHUN HING MOTOR CAR WORKS	信興車房	LOT 764 IN DD99 LOK MA CHAU KWAI YING ROAD SAN TIN NT	MOTOR CAR REPAIRING	W020
089	TUNG LOK CAR SERVICE CENTRE		LOT 764 DD99 SAN TIN YUEN LONG NT	AUTOMOBILE MAINTENANCE	W020
090	SUK FAT SUN	粟發新	LOT 764 IN DD 99 MAI PO LUNG SAN TIN YUEN LONG NT	CAR REPAIRING	W020
091	MAGIC LINK (HK) LIMITED	誠商（香港）有限公司	MAI PO LUNG, SAN TIN, YUEN LONG, NEW TERRITORIES, D.D.99, LOT 764	IMPORT/EXPORT	W020
092 *	LI SHUI YUEN		LOT 764 DD 99 CASTLE PEAK RD, MAI PO YUEN LONG NT	CAR REPAIRING	W020
093 *	UNIVERSAL ENTERPRISE INTERNATIONAL LIMITED		LOT 764 IN DD 99 MAI PO YUEN LONG NT	CAR REPAIRING	W020
094 *	LEUNG YU CHEUNG		LOT 764 IN DD 99 MAI PO SAN TIN NT	CAR REPAIRING	W020
095 *	UPWING MACHINERY & MOTOR-VEHICLES SERVICES CO		LOT 15C, DD105, MAI PO LUNG SAN TIN, YUEN LONG, NT	VEHICLES REPAIRING	W021
096 *	WAH YAN TRADING CO.		LOT NO. 15C IN D.D. 105 MAI PO LUNG SAN TIN YUEN LONG NT	TRADING MOTOR PARTS	W021
097	SUN KONG MOTORING SERVICES LIMITED	新港汽車服務有限公司	194.S.C DD105, Mai Po Lung Village, Yuen Long, N.T.	汽車服務．維修．維護．保養。	W025
098 *	AH KWAN CAR CLEANING & SPRAYING		MAI PO LUNG TSUEN, NO 194, DD105 YUEN LONG NT	SERVICING OF MOTOR VEHICLE	W025
099 *	LI TAI HO		LOT 194 DD 105 MAI PO LUNG TSUEN YUEN LONG NT	CAR WASHING	W025

Site Background	
Company Name	九記行有限公司(櫃場)
Site ID	W020
Suspected Current Land Use / Activities	Trailer and container yard with vehicle parking, storage containers
Approximate Area (m^2)	39,804
Locations	North of Castle Peak Road - San Tin

Desktop Review	
Review of Outline Zoning Plan	Other Specified Uses (Comprehensive Development and Wetland Enhancement Area)
Principal Rock Types / Characters on the Geological Survey Map	Qa
Historical Land Use (Review of Historical Aerial Photos)	1963: Vacant Land 1973: Ponds 1982: No significant change in land use is observed in comparison with the land use from 1973 aerial photo. 1993: Trailer and container yard with vehicle parking, storage containers 2002: No significant change in land use is observed in comparison with the land use from 1993 aerial photo. 2006: No significant change in land use is observed in comparison with the land use from 2002 aerial photo. 2011: No significant change in land use is observed in comparison with the land use from 2006 aerial photo. 2014: No significant change in land use is observed in comparison with the land use from 2011 aerial photo. 2017: No significant change in land use is observed in comparison with the land use from 2014 aerial photo. 2020: No significant change in land use is observed in comparison with the land use from 2017 aerial photo. 2022: No significant change in land use is observed in comparison with the land use from 2020 aerial photo.
Reference of Historical Aerial Photos	Appendix A - Sheet 6, 10, 11
Lot No.	DD99 Lot 764 RP
Land Ownership Status	Private

Site Reconnaissance Information and Recommendation	
Date of Survey	Apr-22
Conducted by	Darren Chen and Ray Chow
Site Observation	Trailer and long vehicle parking was observed. Stacking containers storage was observed on site. Potential vehicle workshop and suspected refuelling activities was observed on site in aerial photo. Chemical waste producer record (No. 088 - 094) indicated vehicle maintenance works undertaken on site.
Potentially Contaminating Activities	<u>Current Activities and Information from FSD and EPD</u> The possible contaminating activities may include release of oils and fuels and lubricants from vehicles, vehicle and equipment maintenance and refuelling the use of chemicals and solvents in maintenance activities. Based on FSD/EPD information, there were no DGs / incident / spillage records for the site.
	<u>Past Activities</u> Trailer and container yard with vehicle parking, storage containers The possible contaminating activities may include release of oils and fuels and lubricants from vehicles, vehicle and equipment maintenance and refuelling the use of chemicals and solvents in maintenance activities.
References of Photographs of Site Reconnaissance	Appendix H - Figure 60670882/A24c/711
Recommended No. of Boreholes*	32
Recommended Grid Size in Practice Guide (in meters)*	31
Key Chemicals of Concern	Metals (e.g. chromium, copper, lead, manganese, nickel, zinc), PCRs, VOCs (e.g. acetone, BTEX, MTBE, and trichloroethene) and PAHs.
Necessity for Further Site Investigation	Yes
Future Land Use	OU(I&T)1.1.2, O.1.1 & OU(I&T)1.1.3
RBRGs	Lower of Urban Residential or Public Park

Note: The recommended testing and sampling protocol (i.e. grid size, no. of boreholes and key COCs) is only tentative and is subject to be reviewed after the sites are resumed by the Project Proponent.

*Determination of the number of boreholes and grid size is based on EPD Practice Guide for Investigation and Remediation of Contaminated Land (PG) as summarized below:

Area of Site (m^2)	**Grid Size**	**Min Number of Sampling Points**
100	6	3
500	13	3
1,000	13	6
2,000	13	12
4,000	17	14
5,000	17	17
8,000	17	28
10,000	19	29
30,000	31	32
90,000	51	35

^TBC: To be confirmed. The current land uses are warehouse or enclosed structure with no other historical potentially contaminated land uses identified. The presence and degree of contamination would greatly depend on the types of goods stored and actual site operation. For example, warehouses that stored general household goods (e.g. furniture and toys) are unlikely to cause contamination to the underlying soil and groundwater. A site re-appraisal within these sites are therefore required at the later stage of the development to (i) assess the nature of these warehouses / enclosed structures and site conditions, (ii) confirm the necessity for site investigation works and, if required, (iii) formulate the sampling and testing strategies.

Appendix I List of Surveyed Site in Category

Category [1]	Sites ID
Potentially Contaminated Sites	E008, E010, E013, E014, E033, E036, E041, E045, E050, E052, E055, E059, E062, E064, E069, E070, E071, E073, E080, E081, E082, E085, E087, E100, E101, S001, S002, S004, S005, S006, S007, S010, S011, S015, S021, S024, S025, S029, S030, S031, S034, S035, S044, S045, S048, S059, S067, S071, S072, S073, S080, S089, S090, S093, S098, S099, S101, S102, S107, S109, S111, S115, S119, S122, S127, S131, S134, S138, S140, S141, S143, S144, S146, S148, S155, S157, S160, S163, S164, S166, S168, S172, S175, S176, S177, S178, S179, S182, S187, S189, S190, S191, S193, S194, S196, S197, S201, S202, S210, S211, S215, S217, S220, S224, S231, S236, S239, S246, S247, S248, S254, S255, S260, S262, S264, S267, S273, S274, S275, S276, S280, S282, S283, S284, S286, S287, S288, S290, S291, S292, S293, S294, S301, S302, S304, S306, S307, S308, S309, S310, S313, S314, S315, S316, S317, S319, S321, S322, S323, S325, S326, S327, S329, S331, S333, S340, S341, S343, S345, S346, S350, W002, W003, W004, W014, W015, W017, W020, W021, W025, W027, W028, W029, W030, W031, W032, W033, W035, W039, W043, W044, W045, W046, W047, W050, W051, W052, W053, W054, W055, W101, W102, W103, W104 & W105
Sites Requiring Further Appraisal	E019, E025, E032, E039, E049, E054, E057, E058, E067, E072, E078, E084, E091, E093, E094, E096, E097, E099, E102, S003, S009, S026, S027, S033, S036, S038, S039, S050, S051, S056, S060, S062, S068, S076, S078, S079, S081, S082, S083, S085, S086, S087, S091, S092, S095, S096, S105, S110, S113, S117, S118, S121, S124, S125, S128, S132, S139, S186, S199, S218, S221, S225, S228, S242, S243, S245, S249, S250, S251, S252, S253, S257, S263, S265, S266, S269, S270, S272, S277, S279, S289, S303, S305, S311, S318, S324, S330, S332, S334, S335, S337, S338, S344, S347, S348, S349, W001, W010, W011, W012, W016, W018, W022, W023, W036 & W049
Sites not to be Developed	E021 & S203

PHOTO W020-1: AERIAL VIEW OF SITE W020

PHOTO W020-2: AERIAL VIEW OF SITE W020

PHOTO W020-3: SITE ENTRANCE OF W020

AECOM

PROJECT
項目

FIRST PHASE DEVELOPMENT OF THE NEW TERRITORIES NORTH – SAN TIN / LOK MA CHAU DEVELOPMENT NODE – INVESTIGATION

CLIENT
業主

土木工程拓展署
Civil Engineering and Development Department

規劃署
Planning Department

CONSULTANT
工程顧問公司

AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 複核

STATUS
階段

SCALE 比例
A3 1 : 1000

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號
60670882

AGREEMENT NO. 協議編號
CE 20/2021

SHEET TITLE
圖紙名稱

SITE INSPECTION FINDINGS AT SITE W020

SHEET NUMBER
圖紙編號

60670882/A24c/711

Appendix 7.3 Reply from Government Departments

Ref.: LDSSTT26EI00_0_0002L.25.docx

1 December 2025
By Post & Email

Environmental Protection Department
Environmental Compliance Division
Regional Office (North), Islands

Units 2202-15, 22/F, Tower 2
Grand Central Plaza,
138 Sha Tin Rural Committee Road,
Shatin, New Territories

Dear Mr. Ken Fung,

Request for Land Contamination Information at Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, N.T.

We are the environmental consultant who are commissioned to conduct a land contamination assessment for the Proposed Development at Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, N.T. Location of the subject site is shown in **Figure 1.1**.

According to the "Practice Guide for Investigation and Remediation of Contaminated Land" published by Environmental Protection Department (EPD) of the HKSAR, information including site history and other available information regarding the site shall be reviewed during the site appraisal to identify potential current and historical, on and off-site activities that could result in contamination of the site.

In view of this, we would like to request for the following information for our assessment.

1. Potentially contaminating activities that have occurred at the site such as storage and handling of chemicals, oils and/or hazardous waste, on-site waste disposal, burn pits, etc;

2. Accidents, fires, explosions, spillages and any pollution incidents attributed to the site and any remediation that has occurred at the site or neighbouring areas; and

3. Any land contamination assessment that has conducted at the site or neighbouring areas.

Your reply by 12 December 2025 is highly appreciated as it would be very helpful to our assessment. Should you have any queries, please do not hesitate to contact the undersigned at [redacted] or our Ms. Sally Chiu at [redacted]

Thank you very much for your attention.

Yours faithfully,
For and on behalf of
Ramboll Hong Kong Limited

Tak Wong
Principal Consultant

Encl.
Figure1.1 Location of Subject Site

Ramboll Hong Kong Limited 英環香港有限公司
21/F, BEA Harbour View Centre, 56 Gloucester Road, Wan Chai, Hong Kong [redacted]
www.ramboll.com

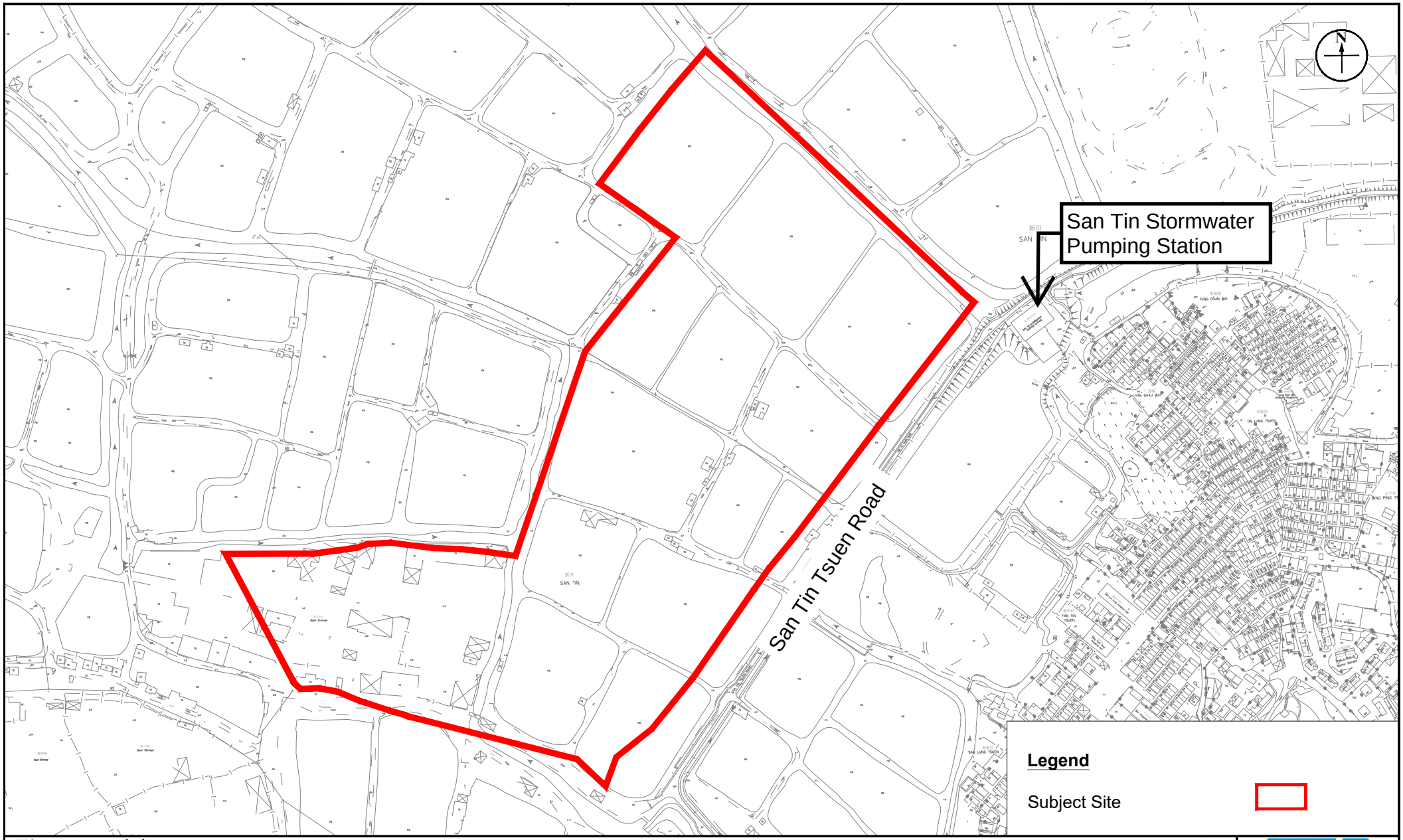


Figure: 1.1	RAMBOLL
Title: Site Location and its Environs	Drawn by: SC
	Checked by: TW
Project: S16 Application for Proposed Filling of Ponds at Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, N.T.	Rev.: 1.0
	Date: Dec 2025

\\aphkfps3\Drive Q\Projects\LDSSTT26EI00\05 Assessments\Fig 1.1_Site Boundary.dwg

Sally Chiu

From: kiufungng@epd.gov.hk
Sent: Thursday, 4 December 2025 5:46 pm
To: Sally Chiu
Cc: Tak Kwong Wong; Tony Cheng
Subject: Re: Request for Land Contamination Information at Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, N.T.

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Sally,

Regarding you enquiries in the email below, this Regional Office has no record of spillage or leakage of chemicals within the updated development area boundary and project site boundary as depicted in the location map enclosed for the past 10 years. You may like to check with other relevant parties or departments for such information as appropriate.

Concerning the records of registered chemical waste producers, a register of chemical waste producers is available for inspection in the Territorial Control Office of this department. If you would like to inspect, please contact Mr. Tim H. T. MAN at 2835 1017 for making appointment to view the records.

Should you have any query on the matter, please contact the undersigned at 3162 8418.

Regards,
Ken NG
Regional Office (North)
For Director of Environmental Protection

From: "Sally Chiu" [redacted]
To: "kiufungng@epd.gov.hk" <kiufun[redacted]ov.hk>
Cc: "Tak Kwong Wong" <[redacted]>, "Tony Cheng" <[redacted]>
Date: 01/12/2025 16:40
Subject: Request for Land Contamination Information at Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, N.T.

Dear Ken,

We are the environmental consultant who are commissioned to conduct a land contamination assessment for the Proposed Development at Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, N.T. Location of the subject site is shown in **Figure 1.1**.

According to the "Practice Guide for Investigation and Remediation of Contaminated Land" published by Environmental Protection Department (EPD) of the HKSAR, information including site history and other available information regarding the site shall be reviewed during the site appraisal to identify potential current and historical, on and off-site activities that could result in contamination of the site.

In view of this, we would like to request for the following information for our assessment.

1. Potentially contaminating activities that have occurred at the site such as storage and handling of chemicals, oils and/or hazardous waste, on-site waste disposal, burn pits, etc;

2. Accidents, fires, explosions, spillages and any pollution incidents attributed to the site and any remediation that has occurred at the site or neighbouring areas; and

3. Any land contamination assessment that has conducted at the site or neighbouring areas.

Your reply by 12 December 2025 is highly appreciated as it would be very helpful to our assessment. Should you have any queries, please do not hesitate to contact the undersigned at [redacted] or our Mr. Tak Wong at [redacted].

Thank you for your attention.

Kind regards

Sally Chiu

Assistant Environmental Consultant

[redacted]

[redacted]

Ramboll Hong Kong Limited

Ref.: LDSSTT26EI00_0_0003L.25.docx

1 December 2025
By Post & Email

Fire Services Department/ Management Group

9/F, Fire Services Headquarters Building,
1 Hong Chong Road,
Tsim Sha Tsui East, Kowloon,
Hong Kong

Dear Sir/ Madam,

Request for Land Contamination Information at Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, N.T.

We are the environmental consultant who are commissioned to conduct a land contamination assessment for the Proposed Development Proposed Development at Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, N.T. Location of the subject site is shown in **Figure 1.1**.

According to the "Practice Guide for Investigation and Remediation of Contaminated Land" published by Environmental Protection Department (EPD) of the HKSAR, information including site history and other available information regarding the site shall be reviewed during the site appraisal to identify potential current and historical, on and off-site activities that could result in contamination of the site.

In view of this, we would like to request for the following information for our assessment.

1. Potentially contaminating activities that have occurred at the site such as storage and handling of chemicals, oils and/or hazardous waste, on-site waste disposal, burn pits, etc;

2. Accidents, fires, explosions, spillages and any pollution incidents attributed to the site and any remediation that has occurred at the site or neighbouring areas; and

3. Any land contamination assessment that has conducted at the site or neighbouring areas.

Your reply by 12 December 2025 is highly appreciated as it would be very helpful to our assessment. Should you have any queries, please do not hesitate to contact the undersigned at [redacted] or our Ms. Sally Chiu at [redacted]

Thank you very much for your attention.

Yours faithfully,
For and on behalf of
Ramboll Hong Kong Limited

Tak Wong
Principal Consultant

Encl.
Figure 1.1 Location of Subject Site
Annex 2 Letter of Appointment

Ramboll Hong Kong Limited 英環香港有限公司
21/F, BEA Harbour View Centre, 56 Gloucester Road, Wan Chai, Hong Kong [redacted]
www.ramboll.com

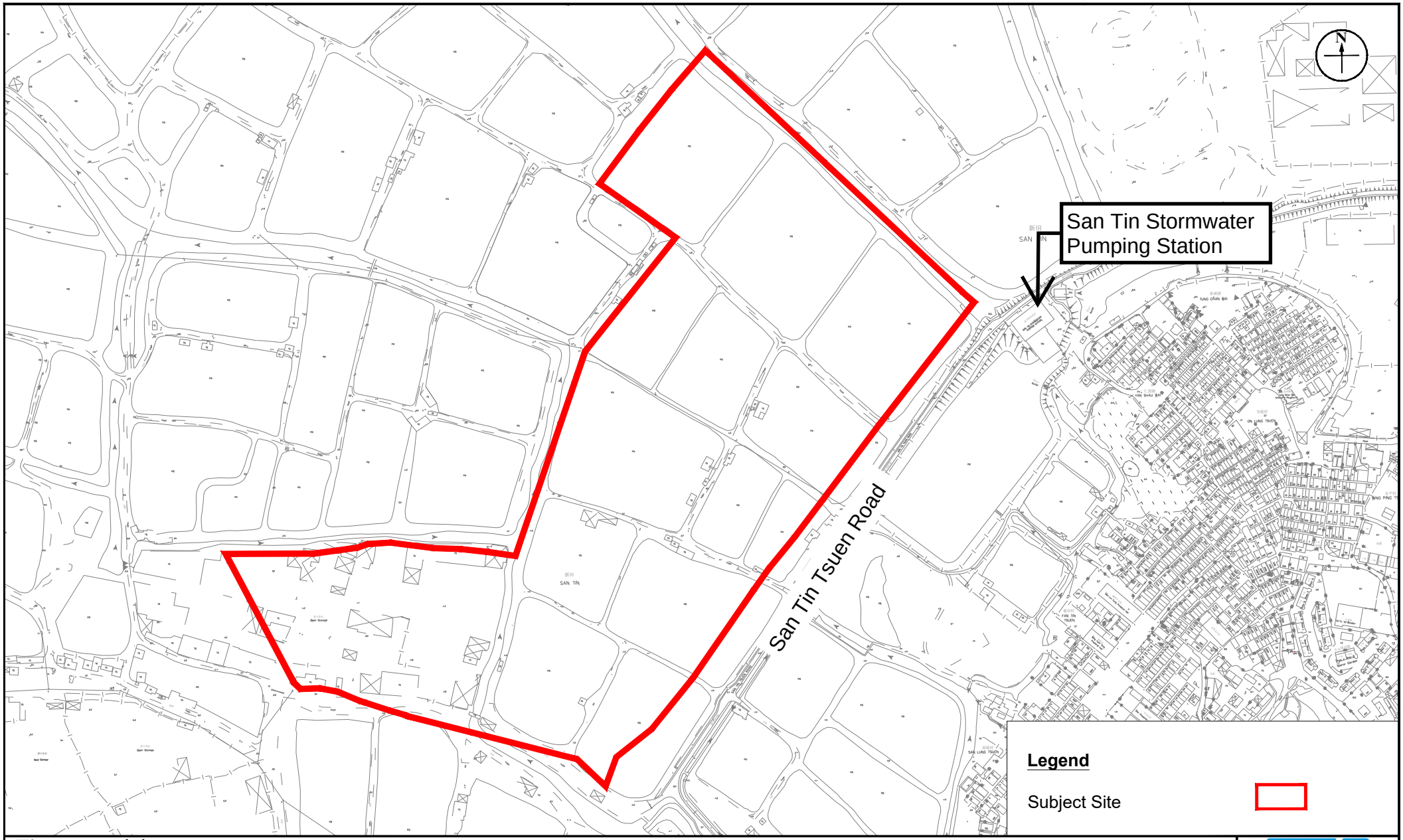


Figure: 1.1	RAMBOLL
Title: Site Location and its Environs	Drawn by: SC
	Checked by: TW
Project: S16 Application for Proposed Filling of Ponds at Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, N.T.	Rev.: 1.0
	Date: Dec 2025

\\aphkfps3\Drive Q\Projects\LDSSTT26EI00\05 Assessments\Fig 1.1_Site Boundary.dwg

RAMBOLL

Ref.: P6649.25_0_0001P.25_r1 11 September 2025

Kenwell Limited By Email
c/o Lawson David & Sung Surveyors Ltd.
Room 1601, 16/F., South China Building
1 Wyndham Street
Central, Hong Kong

Dear Sir/Madam,

Re: Environmental Consultancy Services for S16 Planning Application (No. A/STT/26) for Proposed Filling of Ponds for Permitted Innovation and Technology Hub (including Permitted Cargo Handling and Forwarding Facilities, Creative Industries, Eating Place, Flat (Staff Quarters only), Industrial Use, Information Technology and Telecommunications Industries, Office, Public Utility Installation, Research, Design and Development Centre, Shop and Services, Warehouse (excluding Dangerous Goods Godown)) at Lot No. 764 RP (Part) in D.D.99, San Tin, Yuen Long, N.T.

Thank you for inviting us to submit a fee proposal for the captioned and we are pleased to submit herewith a proposal for your kind consideration.

■ Technical Approach and Scope of Work

Ramboll Hong Kong Limited will provide environmental consultancy services to ascertain the environmental acceptability of the proposed development for ONE approval only.

1. Environmental Assessment

Ramboll Hong Kong Limited 英環香港有限公司
21/F, BEA Harbour View Centre, 56 Gloucester Road, Wan Chai, Hong Kong [redacted]
www.ramboll.com

Review of Land Contamination, Arsenic and Sediment

- Provide a clear and detailed account of the present land uses and the relevant past land use history with land contamination implications based on a desktop review and on-site appraisal;
- To retrieve existing site records kept by various Government departments to determine the potential extent of contamination for the site due to previous operations; and
- Identify any "hot spots" of potential land contamination.
- Identify any "hot spots" of potential Arsenic and sediment impact.
- Submissions for the detailed Land Contamination Assessment (e.g. Contamination Assessment Plan, Contamination Assessment Report and Remediation Action Plan), Arsenic and Sediment related assessments, any site investigation work, site supervision and laboratory testing works, and the appointment of the site investigation/decontamination contractor and laboratory are excluded.

Thank you for your attention and please feel free to contact the undersigned should you require further information.

Yours faithfully,
For and on behalf of
Ramboll Hong Kong Limited

David Yeung
Managing Director

Accepted by :

Signed :

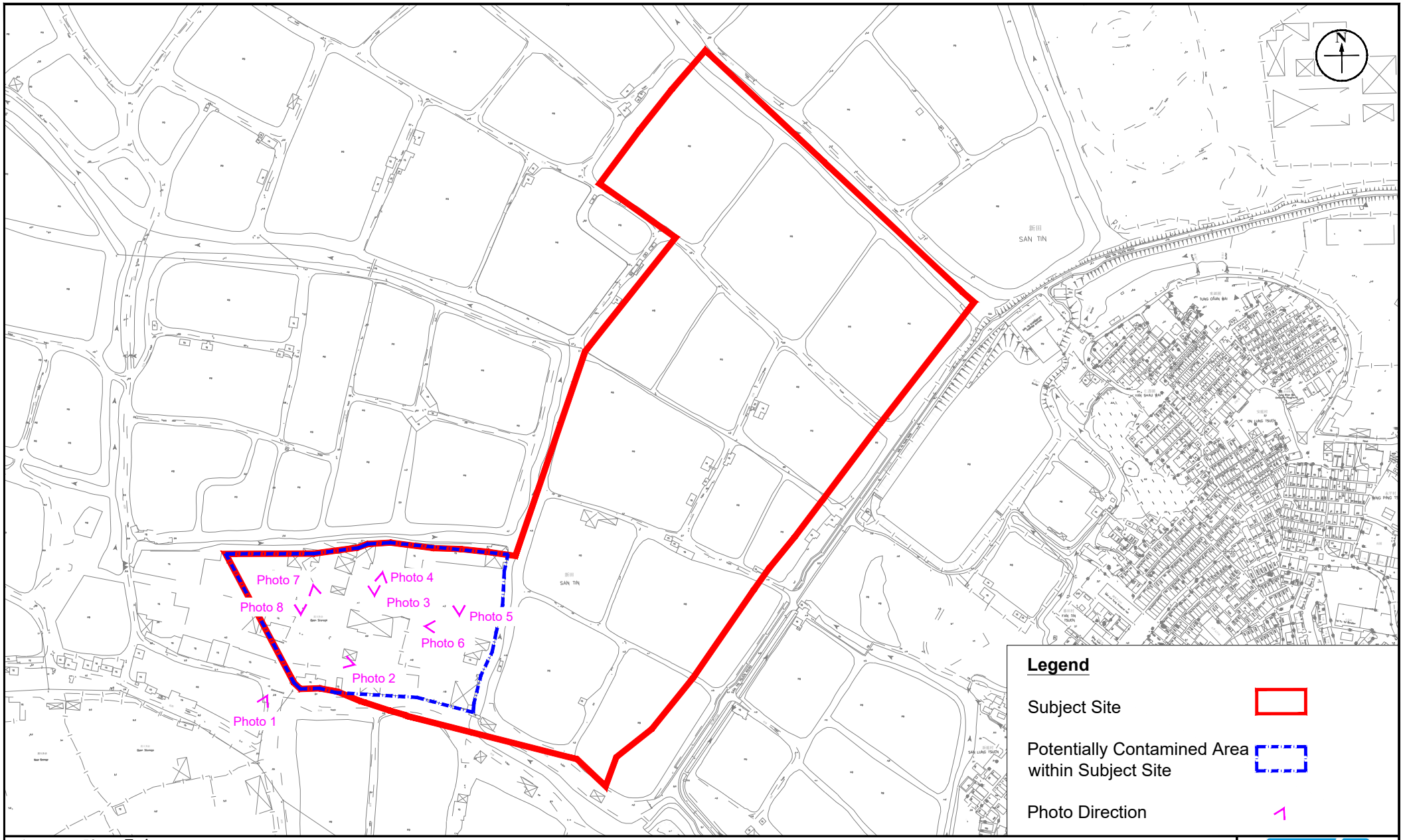
Name : Ng. T. B

Company :

Date : 13 Sept. 2025

*Q:\Proposal\2025\P6649.25_Lawson David_San Tin_S16*P6649.25_0_0001P.25_r1.docx

Appendix 7.4 Photo record for Site Inspection



Appendix: 7.4

Title: Photo Record for Site Inspection

Project: S16 Application for Proposed Filling of Ponds at Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, N.T.

RAMBOLL

Drawn by:	SC
Checked by:	TW
Rev.:	1.0
Date:	Dec 2025

\\aphkfps3\Drive Q\Projects\LDSSTT26EI00\05 Assessments\05 Land Con\Photo Record.dwg

Photo 1: It is the entrance of the open storage. The road is paved with concrete in good condition. No crack and oil stains are observed.

Photo 2: There is a canteen for the staff. The ground is paved with concrete. No crack and oil stains are observed.

Photo 3: Storage containers are observed. The ground is paved with concrete in good condition. No crack and oil stains are observed.

Photo 4: Long trucks are observed for transportation. The ground is paved with concrete in good condition. No crack and oil stains are observed.

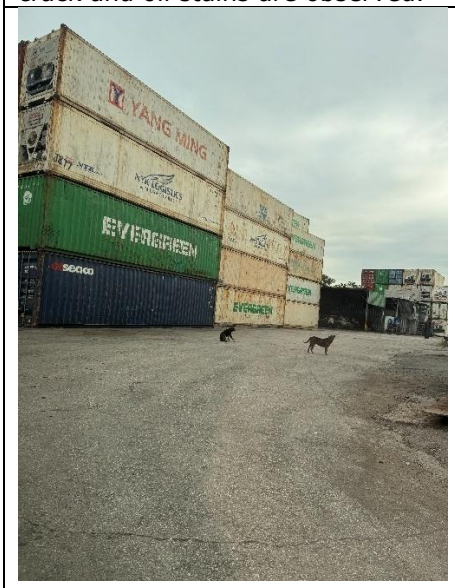


Photo 5: Storage containers are observed. The ground is paved with concrete in good condition. No crack and oil stains are observed.

Photo 6: Car repairing activities are observed. Oil drum is observed (circled in red). The ground is paved with concrete in good condition. No crack and oil stains are observed.

Photo 7: The area is used for temporary car parking. No car repairing activities are observed. The ground is paved with concrete with some cracks observed.

Photo 8: The road is paved with concrete in good condition. No crack and oil stains are observed.

Appendix 7.5 Site Walkover Checklist

Annex C1

Site Walkover Checklist

Date of Site Visit:

GENERAL SITE DETAILS

SITE OWNER/CLIENT Kenwell Limited

PROPERTY ADDRESS [redacted]

PERSON CONDUCTING THE QUESTIONNAIRE

NAME

POSITION

AUTHORIZED OWNER/CLIENT REPRESENTATIVE (IF APPLICABLE)

NAME

POSITION

TELEPHONE

SITE ACTIVITIES

Briefly describe activities carried out on site, including types of products/chemicals/materials handled. **Obtain a flow schematic if possible.**

Number of employees:	Full-time:	No Information can be provided
	Part-time:	No Information can be provided
	Temporary/Seasonal:	No Information can be provided
Maximum no. of people on site at any time:		No Information can be provided
Typical hours of operation:		No Information can be provided
Number of shifts:		No Information can be provided
Days per week:		No Information can be provided
Weeks per year:		No Information can be provided
Scheduled plant shut-down:		No Information can be provided

Detail the main sources of energy at the site: [PLEASE Advise]

Gas	~~Yes~~/No
Electricity	Yes/~~No~~
Coal	~~Yes~~/No
Oil	~~Yes~~/No
Other	~~Yes~~/No

SITE DESCRIPTION

This section is intended to gather information on site setting and environmental receptors on, adjacent or close to the site.

What is the total site area: ~163,100 m^2

What area of the site is covered by buildings (%): 0

Please list all current and previous owners/occupiers if possible. /

Is a site plan available? If yes, please attach. ~~Yes~~ /No

Are there any other parties on site as tenants or sub-tenants? ~~Yes~~/No

If yes, identify those parties: /

Describe surrounding land use (residential, industrial, rural, etc.) and identify neighbouring facilities and types of industry.

North: Fishpond

South: Fishpond

East: Fishpond

West: Mainly fishpond with some industrial activities

Describe the topography of the area (flat terrain, rolling hills, mountains, by a large body of water, vegetation, etc.).

It is mainly flat terrain

State the size and location of the nearest residential communities.

Yan Shau Wai Village Houses (~110m from the east of Subject Site)

Are there any sensitive habitats nearby, such as nature reserves, parks, wetlands or sites of special scientific interest?

No

Questionnaire with Existing Site Owner

		Yes/No	Notes
1.	What are the main activities/operations at the above address?		Fishpond, Temporary Storage
2.	How long have you been occupying the site?		Information not available
3.	Were you the first occupant on site? (If yes, what was the usage of the site prior to occupancy?)	No	
4.	Prior to your occupancy, who occupied the site?		Information not available
5.	What were the main activities/operations during their occupancy?		Information not available
6.	Have there been any major changes in operations carried out at the site in the last 10 years?	No	
7.	Have any polluting activities been carried out in the vicinity of the site in the past?		Information not available
8.	To the best of your knowledge, has the site ever been used as a petrol filling station/car service garage?		Information not available
9.	Are there any boreholes/wells or natural springs either on the site or in the surrounding area?	No	
10	Do you have any registered hazardous installations as defined under relevant ordinances? (If yes, please provide details.)	No	
11.	Are any chemicals used in your daily operations? (If yes, please provide details.)	No	
	• Where do you store these chemicals?		
12.	Material inventory lists, including quantities and locations available? (If yes, how often are these inventories updated?)	No	
13.	Has the facility produced a 1separate hazardous substance inventory?	No	
14.	Have there ever been any incidents or accidents (e.g. spills, fires, injuries, etc.) involving any of these materials? (If yes, please provide details.)		Information not available
15.	How are materials received (e.g. rail, truck, etc.) and stored on site (e.g. drums, tanks, carboys, bags, silos, cisterns, vaults and cylinders)?		Information not available
16.	Do you have any underground storage tanks? (If yes, please provide details.)	No	
	▪ How many underground storage tanks do you have on site?		
	▪ What are the tanks constructed of?		
	▪ What are the contents of these tanks?		
	▪ Are the pipelines above or below ground?		

	▪ If the pipelines are below ground, has any leak and integrity testing been performed?		
	▪ Have there been any spills associated with these tanks?		
17.	Are there any disused underground storage tanks?	No	
18.	Do you have regular check for any spillage and monitoring of chemicals handled? (If yes, please provide details.)	No	
19.	How are the wastes disposed of?		Information not available
20.	Have you ever received any notices of violation of environmental regulations or received public complaints? (If yes, please provide details.)		Information not available
21.	Have any spills occurred on site? (If yes, please provide details.)		Information not available
	• When did the spill occur?		
	• What were the substances spilled?		
	• What was the quantity of material spilled?		
	• Did you notify the relevant departments of the spill?		
	• What were the actions taken to clean up the spill?		
	• What were the areas affected?		
22.	Do you have any records of major renovation of your site or rearrangement of underground utilities, pipe work/underground tanks (If yes, please provide details.)		Information not available
23.	Have disused underground tanks been removed or otherwise secured (e.g. concrete, sand, etc.)?		Not applicable
24.	Are there any known contaminations on site? (If yes, please provide details.)	No	
25.	Has the site ever been remediated? (If yes, please provide details.)		Information not available

Observations

		Yes/No	Notes
1.	Are chemical storage areas provided with secondary containment (i.e. bund walls and floors)?	No	
2.	What are the conditions of the bund walls and floors?		The floor is mainly paved with concrete in good condition.
3.	Are any surface water drains located near to drum storage and unloading areas?	No	
4.	Are any solid or liquid waste (other than wastewater) generated at the site? (If yes, please provide details.)	No	
5.	Is there a storage site for the wastes?	No	
6.	Is there an on-site landfill?	No	
7.	Were any stressed vegetation noted on site during the site reconnaissance? (If yes, please indicate location and approximate size.)	No	
8.	Were any stained surfaces noted on-site during the site reconnaissance? (If yes, please provide details.)	No	
9.	Are there any potential off-site sources of contamination?	No	
10.	Does the site have any equipment which might contain polychlorinated biphenyls (PCBs)?	No	
11.	Are there any sumps, effluent pits, interceptors or lagoons on site?	No	
12.	Any noticeable odours during site walkover?	No	
13.	Are any of the following chemicals used on site: fuels, lubricating oils, hydraulic fluids, cleaning solvents, used chemical solutions, acids, anti-corrosive paints, thinners, coal, ash, oily tanks and bilge sludge, metal wastes, wood preservatives and polyurethane foam?	Yes	Oil drum is observed near the car repairing activity.

Annex B

Sewerage Impact Assessment

(Town Planning Board's Reference No.: TPB/A/STT/26)

Section 16 Planning Application for Proposed Filling of Ponds for Permitted Innovation and Technology Hub (including Permitted Cargo Handling and Forwarding Facilities, Creative Industries, Eating Place, Flat (Staff Quarters only), Industrial Use, Information Technology and Telecommunications Industries, Office, Public Utility Installation, Research, Design and Development Centre, Shop and Services, Warehouse (excluding Dangerous Goods Godown)) at Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, N.T.

(HT25108)

Sewerage Impact Assessment

January 2026

Prepared & Approved by:	LEE Kwok Cheung *MICE, MHKIE(Civil),* *RPE(CVL, ENV, GEL)(Registration No. RP0159301)* *Signature:*

何田顧問工程師有限公司
HO TIN & ASSOCIATES
CONSULTING ENGINEERS LIMITED
[redacted]

Table of Responses to Comments from Government Departments on Planning Application No. A/STT/26
(with respect to PlanD's messages of 15 January, 2026)

COMMENTS	RESPONSES
Drainage Services Department (CE/MN, DSD) (Contact: Ms. W. T. CHENG, tel. [redacted]	
SIA	
1. Please check with CEDD Agreement No. CE 20/2021 (CE)'s project team and extract the relevant pages showing what ADWF is reserved for the subject development site in the NDA's SIA. If excess is found, please carry out further assessment on the planned sewers and SPSs to demonstrate any mitigation works are needed, and provide the relevant details for review (if affirmative).	As advised by EPD, the proposed use, i.e. the subject proposed development, covered under the CEDD's Agreement No. CE 20/2021 First Phase Development of the New Territories North – San Tin / Lok Ma Chau Development Node – Investigation was estimated to generate sewage flow of less than 10,000 m^3/d. Now, the estimated sewage flow of the subject proposed development is about 8,372 m^3/d, i.e. <10,000 m^3/d and is therefore acceptable.
2. The SIA report needs to meet the satisfaction of SIG/EPD, the planning authority of sewerage infrastructure.	EPD's comments had been given and was catered in the updated SIA.
Director of Environmental Protection (Contact: Mr. Chris WONG, tel. [redacted])	
Sewerage Impact Assessment	
49. Based on the information in the SIA, the application site is located within the area of San Tin Technopole and it will generate sewage flow of ~28,000 m^3/d. However, according to the latest SIA under the CEDD's Agreement No. CE 20/2021 First Phase Development of the New Territories North – San Tin / Lok Ma Chau Development Node – Investigation, the proposed use covered under the study is estimated to generate sewage flow of less than 10,000 m^3/d. In view of substantial increase in the sewage flow estimate (in this SIA) for the same site and that the	The SIA has been updated and the latest sewage flow generated from the subject proposed development is less than 10,000 m^3/d, i.e. about 8,372 m^3/d.

COMMENTS	RESPONSES
capacity of San Tin Effluent Polishing Plant has been fully committed, the applicant should explore other feasible sewage disposal scheme(s) for handling the excessive sewage flow.	

CONTENT

FIGURES

List of Abbreviations

ADWF	Average Dry Weather Flow
C.I.	Cast Iron
EPD	Environmental Protection Department
GESF	EPD's Report No. EPD/TP 1/05 – 'Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning', Version 1.0
HTA	Ho Tin & Associates Consulting Engineers Limited
FMH / SM	Foul / Sewer Manhole
FTM / STM	Foul / Sewer Terminal Manhole
OZP	Outline Zoning Plan
PDWF	Peak Dry Weather Flow
SIA	Sewerage Impact Assessment
SM	Sewerage Manual Part 1 & 2 (DSD, 2013) and their corrigenda

1. Introduction

1.1. Ho Tin & Associates Consulting Engineers Limited was appointed by the Client to prepare this sewerage impact assessment (SIA) to support a Section 16 Planning Application for proposed filling of ponds for permitted innovation and technology hub (including permitted cargo handling and forwarding facilities, creative industries, eating place, flat (staff quarters only), industrial use, information technology and telecommunications industries, office, public utility installation, research, design and development centre, shop and services, warehouse (excluding dangerous goods godown)) ("the proposed development") at Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, N.T. ("the Application Site").

1.2. This report presents the SIA for the proposed development under the subject planning application.

1.3. The objectives of this SIA are to:-

- indicate any changes/increase in the sewage flow due to the proposed development under application;
- assess any potential sewage impacts of the proposed development on existing sewerage facilities in the concerned area; and
- propose mitigation measures and sewerage improvement scheme, if necessary, to minimize any adverse sewerage impacts.

1.4. The scope of this SIA includes:-

- general site description of the Application Site;
- identification of existing sewerage facilities of the concerned area;
- estimation of sewage flow of the proposed development;
- SIA on the existing sewerage facilities due to the increase in sewage flow caused by the proposed development; and
- proposal of new sewerage facilities to cater for the proposed development if found necessary.

2. The Application Site and Proposed Development

2.1. The Application Site comprises of Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, New Territories. It has an area of about 163,181m^2 and is located along the northwest side of San Tin Tsuen Road to the north of San Tin Highway. Majority of the Application Site is currently used as fish ponds with scattered residential dwellings, while the southwestern portion has been filled and used as storage/open storage yards, vehicle repair workshops, container vehicle park, and a logistics centre for over 20 years.

2.2. The Application Site is currently zoned "Other Specified Uses" annotated "Innovation and Technology" ("OU(I&T)") on the Approved San Tin Technopole Outline Zoning Plan (OZP) No. S/STT/2. The site location is shown in **Figure 1A**. It is proposed to develop the Application Site into a large-scale Innovation and Technology (I&T) hub, focusing on I&T development and low-altitude economy. The major development parameters and proposed GFA breakdown of the proposed development are summarized in Table 1.1 and 1.2 respectively in the following:

Table 1.1 Proposed Development Parameters

Parameter	**Details**
Site Area	About 163,181m^2
Plot Ratio (PR)	About 4.24
Total Gross Floor Area (GFA)	About 691,498m^2
Site Coverage	About 41%
No. of Blocks	14 comprising of: - Seven blocks of 12-storey I&T blocks - Three blocks of 19-storey commercial and staff quarters blocks - One block of 9-storey automatic parking system/ data centre - One block of 3-storey visitor & education centre - One block of 2-storey cooling centre - One block of 2-storey sub-station

Table 1.2 Proposed GFA Breakdown

Building	**Proposed Uses**	**GFA (approximate m^2)**	**Sub-total GFA (approximate m^2)**
I&T Blocks	Smart warehouse for storage of goods/ stocks, testing areas for modern logistics/ low-altitude economy operations	56,198	
	Industrial Floors	107,890	
	R&D Labs	200,068	
	R&D Offices	219,240	583,396

Building	**Proposed Uses**	**GFA (approximate m^2)**	**Sub-total GFA (approximate m^2)**
Commercial and Staff Quarter Blocks	Commercial Uses (including shops, supermarkets and restaurants, etc.)	13,410	
	Staff Quarters	59,544	72,954
Automatic Parking System/ Data Centre	Automatic Parking System	16,290	
	Data Centre	11,403	27,693
Visitor and Education Centre	Community, Social & Personal Services	2,121	2,121
Cooling Centre	Electricity Gas & Water	3,904	3,904
Substation	Electricity Gas & Water	1,430	1,430
		Grand Total GFA (approximate m^2) =	691,498

3. Existing Sewerage Conditions of the Subject Area

3.1. There is no existing public sewerage in the vicinity of the Application Site. The nearest existing public sewerage is that located near the section of San Tin Tsuen Road beside San Sham Road at about 500m to the northeast of the Application Site.

3.2. With reference to the EIA Report of the Agreement No. CE 20/2021 (CE) 'First Phase Development of the New Territories North – San Tin / Lok Ma Chau Development Node - Investigation' (January 2024), the existing nearby Shek Wu Hui Sewage Treatment Works and Yuen Long Sewage Treatment Works would not have enough capacity to treat the estimated additional sewage discharge arising from the studied areas which include the Application Site.

4. Proposed Sewerage Works

4.1. It is mentioned in the Notes to the Approved San Tin Technopole Outline Zoning Plan No. S/STT/2 that an area, i.e. the Area 3 in the Plan, is reserved for provision of an

effluent polishing plant (EPP) and food waste pre-treatment facilities to handle the sewage and food waste generated from the area demarcated in the OZP No. S/STT/2. The planned EPP will be designed up to tertiary level treatment standard. Besides, there are three proposed sewage pumping stations in Areas 5, 12A and 18 for collecting sewage flows from the areas and pumping to the planned EPP for treatment (refer to **Figure 2**). With reference to the EIA Report of the Agreement No. CE 20/2021 (CE) 'First Phase Development of the New Territories North – San Tin / Lok Ma Chau Development Node - Investigation' (January 2024), the planned EPP would have capacity of 125,000 m^3/day and was suggested to be in operation in two phases (the first phase capacity is 65,000 m^3/day in 2031 and the second phase capacity is 125,000 m^3/day in 2035).

4.2. With reference to the Agreement No. CE 20/2021 (CE) 'First Phase Development of the New Territories North – San Tin / Lok Ma Chau Development Node - Investigation' (January 2024), the public road running along the southeast boundary of the Application Site and the public roads connecting with the planned EPP and sewage pumping station would be completed starting in 2031. Public sewerage serving the areas should also be completed under construction of the roads. Therefore, sewerage connection of private developments to the public sewerage shall be feasible upon completion of the nearby public roads. In order to tie in with the completion of the nearby public roads, EPP and the sewage pumping station, it is therefore proposed the proposed developments of the Application Site to be occupied not earlier that 2031, say, in 2033.

4.3. Sewage from the proposed buildings of the Application Site will be collected and carried down to the ground level via downpipes. Branch sewerage will be laid close to the blocks to receive sewage flows from the downpipes directly. The branch sewerage will then discharge into trunk sewerage which will run underneath the internal access roads and will connect to a proposed terminal sewerage manhole near the southern corner of the Application Site. Sewage pumping station(s) within the Application Site, if necessary, will be provided subject to detailed design at the later stage. It does not anticipate to have any technical difficulties in detailed design of the proposed sewerage system of the proposed development. A proposed sewerage management plan is shown in **Figure 3**.

4.4. The proposed terminal sewerage manhole of the Application Site will discharge the sewage into the public sewerage underneath the public road outside the boundary of the Application Site. The sewage will then from there be conveyed to the new sewage pumping station on the opposite side of San Tin Highway from which sewage will be pumped to the nearby planned EPP for appropriate treatment. An indicative sewage discharge route is shown in **Figure 4**.

5. Estimated Sewage Flows generated from the Application Site

5.1. Methodology and References

The sewerage impact assessment and sewage flow estimation are based on established guidelines and data sources, including:

- Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning (GESF), Environmental Protection Department (EPD);
- Hong Kong Planning Standards and Guidelines (HKPSG), Planning Department (PlanD);

Commercial / Institutional Type (Specific Trades)	**Unit Flow Factor (m^3/employee/day)** ***(including the 0.080 m^3/day of the UFF of employee)***	**Proposed Use in the Subject Application**
J2 - Electricity Gas & Water	0.330	• Cooling Centre • Substation
J3 - Transport, Storage & Communication	0.180	• Smart Warehouse (Storage of goods/stocks, Testing Areas for modern logistics/Low-altitude economy operations) • Industrial Floors (Operation and Testing Areas for modern logistics/Low-altitude economy operations) • Automatic Parking System • Data Centre
J6 - Finance, Insurance, Real Estate & Business Services	0.080	• R&D Offices
J10 - Restaurants & Hotels	1.580	• Commercial (including shops, supermarkets and restaurants, etc.) (to be conservative)

Commercial / Institutional Type (Specific Trades)	**Unit Flow Factor (m^3/employee/day) *(including the 0.080 m^3/day of the UFF of employee)***	**Proposed Use in the Subject Application**
J11 - Community, Social & Personal Services	0.280	• Visitor & Education Centre

- Sewerage Manual, Drainage Services Department (DSD);
- Commercial and Industrial Floor Space Utilization Survey (CIFSUS), (PlanD);
- Sewerage Record Plans based on GeoInfo Map (LandsD).

5.2. Unit Flow Factors (UFFs)

Unit flow factors (UFFs) are adopted from the GESF for domestic, commercial, institutional, and industrial activities, along with the CIFSUS for worker density estimation. The total unit flow generated from an employee in a particular trade is the sum of the unit flow factor of employee and the unit flow factor of commercial/industrial activities of a particular trade under consideration. (Notes of Table T-2 & T-3, GESF). The proposed different uses of the Application Site are categorized according to their types of generated flow with respect to the classification in the GESF in the following.

Table 5.2.1 Unit Flow Factor for Domestic Flows (referenced from the Table T-1 in GESF)

Residential Type	**Unit Flow Factor (m^3/person/day)**	**Proposed Use in the Subject Application**
Private R2	0.270	• Staff quarters

Table 5.2.2 Unit Flow Factor for Commercial and Institutional Flows (referenced from the Table T-2 in GESF)

Table 5.2.3 Unit Flow Factor for Industrial Flows (referenced from the Table T-3 in GESF)

Industrial Type	**Unit Flow Factor (m^3/person/day) *(including the 0.080 m^3/day of the UFF of employee)***	**Proposed Use in the Subject Application**
J1 Manufacturing – Territorial average	0.640	• R&D Labs

5.3. Catchment Inflow Factors (P_{CIF})

Catchment Inflow Factors (P_{CIF}) for the Yuen Long catchment is 1.00 (refer to Table T-4 in GESF).

5.4. Sewage Flow Estimation

According to section 11.3 of GESF, the peak flows can alternatively obtained by using the following formula:

Blocks	**Population Density per unit**	**Estimated population (= Nos. of Units x Population Density)**	**Adopted Assumption**
Staff Quarters	2.8	2,778	Assuming 60m^2 per unit
Blocks	**Worker Density Adopted {1} (workers per GFA (in 100m^2))**	**Estimated population (= GFA x Worker Density)**	**Adopted Planned Usage Types [Economic Activities]** See Note {1}
R&D Office	4.4	9,647	I/O Buildings [Business Services]
Commercial (including shops, supermarkets and restaurants, etc.)	6.0	805	I/O Buildings [Restaurants]
Automatic Parking System	5.7	929	I/O Buildings [Transport]
Data Centre	5.5	628	I/O Buildings [Communications]
Visitor & Education Centre	6.1	129	I/O Buildings [Community, Social & Personal Services]
Cooling Centre	3.4	133	All Types [All Economic Activities]

Substation	3.4	49	All Types [All Economic Activities]
Smart Warehouse	3.3	1,855	I/O Buildings [Manufacturing]
Industrial Floors	3.3	3,560	I/O Buildings [Manufacturing]
R&D Lab	3.3	6,602	I/O Buildings [Manufacturing]
Total		27,115	

$$Q_{PEAK} = Q_{AVERAGE} \times P$$

where Q_{PEAK} is the peak flow,
$Q_{AVERAGE}$ is the average dry weather flow, and
P is the peaking factor

The average dry weather flow (ADWF) is computed as follows:

$$ADWF = Population \times UFF$$

5.5. Estimation of Population

Worker density, measured as the average number of workers per 100m^2 of utilized GFA, was referenced from the CIFSUS (PlanD) to estimate the population of the proposed developments. The population estimation is summarised in Table 5.5 below:

Table 5.5 Estimation of Population

Note:

{1}: Table 8, CIFSUS (PlanD)

5.6. Estimation of total average dry weather flow

Using the calculated parameters from Tables 5.2.1, 5.2.2, 5.2.3 & 5.5, the ADWFs of corresponding activities and total ADWFs can be estimated for the proposed development. With reference to section 2.2 of GESF, the total average dry weather flow is given by:

$$Q_{AVERAGE} = (Q_{DOMESTIC} + Q_{COMMERCIAL} + Q_{INSTITUTIONAL} + Q_{INDUSTRIAL}) \times P_{CIF}$$

A summary of the ADWFs is stipulated in the below Table 5.6:

Table 5.6 Summary of ADWFs

Description	**Type**	**Estimated population**	**UFF (m^3/person/day)**	**ADWF (m^3/day)**
Domestic ($Q_{DOMESTIC}$)				
Staff Quarters	Private R2	2,778	0.270	750.06
Commercial and Institutional ($Q_{COMMERCIAL} + Q_{INSTITUTIONAL}$)				
Smart Warehouse (Storage of goods/stocks, Testing Areas for modern logistics/Low-altitude economy operations)	J3	1,855	0.180	333.90
Industrial Floors (Operation and Testing Areas for modern logistics/Low-altitude economy operations)	J3	3,560	0.180	640.80
R&D Offices	J6	9,647	0.080	771.76
Commercial (including shops, supermarkets and restaurants, etc.)	J10	806	1.580	1,273.48
Automatic Parking System	J3	929	0.180	167.22

Description	**Type**	**Estimated population**	**UFF (m^3/person/day)**	**ADWF (m^3/day)**
Data Centre	J3	628	0.180	113.04
Visitor & Education Centre	J11	129	0.280	36.12
Cooling Centre	J2	133	0.330	43.89
Substation	J2	49	0.330	16.17
Industrial ($Q_{INDUSTRIAL}$)				
R&D Labs	J1 (Manufacturing – Territorial average)	6,602	0.640	4,225.28
P_{CIF}				1.00
$Q_{AVERAGE}$				8,371.72 (about 13% and 7% of the capacity of the 1st phase, i.e. 65,000 m^3/day, and 2nd phase, i.e. 125,000 m^3/day, of the planned EPP respectively)

5.7. Peak flow estimation

With reference to section 12.1 of GESF, the contributing population is calculated as the total ADWF divided by 0.27 m³/person/day (unit contributing flow):

$$\text{Contributing Population} = \frac{\text{Calculated total average flow } (m^3/day)}{0.27\ (m^3/person/day)}$$

$$\text{Contributing Population} = \frac{8{,}371.72}{0.27} = 31{,}007 \text{ persons}$$

According to Table T-5 of GESF, the Peaking Factor P (excluding stormwater allowance) for facility with new upstream sewerage (for sewers) is:

$$P = \text{Max}\left(\frac{6}{N^{0.175}}, 1.6\right)$$

$$N = \frac{31{,}007}{1{,}000} = 31.01 \text{ thousands persons}$$

$$P = \text{Max}(3.29, 1.6) = 3.29$$

$$Q_{PEAK} = (8{,}371.72) * (3.29) = 27{,}542.96 \text{ m}^3/\text{day} = 318.78 \text{ l/s}$$

6. Potential Sewerage Impacts

6.1. The nearest proposed sewage pumping station of the subject proposed development is that located in the Area 5 on the opposite side of San Tin Highway. With reference to the CEDD Agreement No. CE 20/2021, 'First Phase Development of the New Territories North – San Tin / Lok Ma Chau Development Node – Investigation', the connecting road system which shall normally include public sewerage system in front of the subject site and the planned EPP and pumping station in the Area 5 would be completed by end 2031.

6.2. It is therefore considered that if the occupation of the subject proposed development is after 2031, say, 2033, its sewage discharge can be conveyed via the new public sewerage system to the new sewage pumping station and then to the new EPP for appropriate tertiary treatment. It would not cause any unacceptable adverse sewerage impacts upon the surroundings.

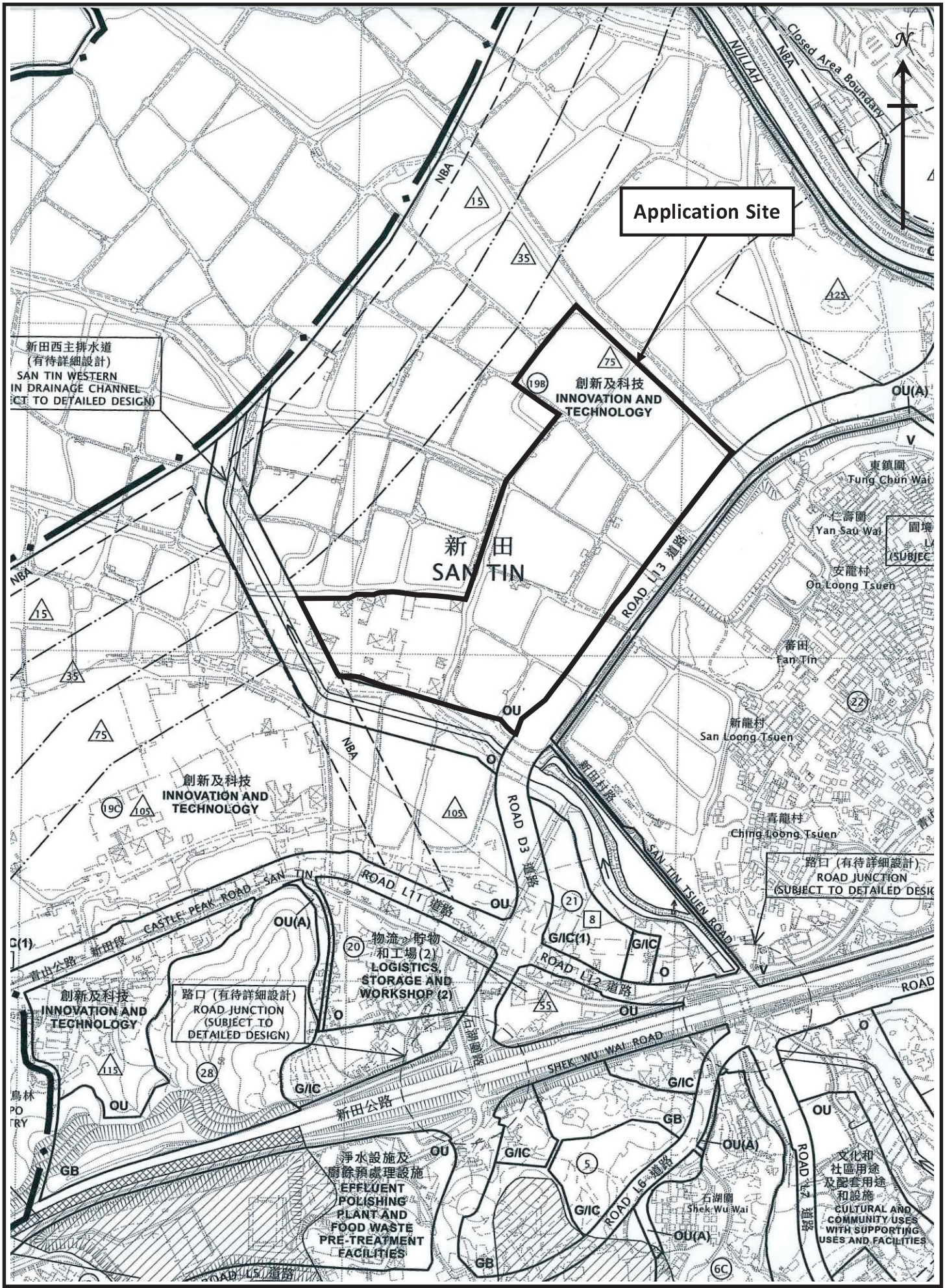
7. Conclusion and Recommendations

7.1. The peak sewage flow generated by the Application Site is estimated to be about 369.37 l/s. The average daily sewage flow generated by the Application Site is estimated to be about 8,371.72 m^3/day which is about 13% of the capacity of the first phase, i.e. 65,000 m^3/day, and 7% of the capacity of the second phase, i.e. 125,000m^3/day, of the planned EPP indicated in the Approved San Tin Technopole Outline Zoning Plan (OZP) No. S/STT/2.

7.2. In order not to cause any adverse sewerage impacts on the area, the occupation of the subject proposed development shall cope with the completion time of the new public sewerage system, sewage pumping station and EPP of the area which at present is targeted to be in 2033 the earliest.

7.3. Sewage generated from the subject proposed development will be collected and conveyed to the Government's new sewage pumping station and then to the new EPP which is purposedly built to cater for the sewage discharge generated from the area for appropriate tertiary treatment before discharged to nearby watercourse.

7.4. In conclusion, in accordance with the above mentioned arrangement, i.e. occupation of the subject proposed development after the actual commissioning date of new public sewerage system, new sewage pumping station and EPP of the area, the subject proposed development would not impose any unacceptable adverse sewerage impact upon the surroundings.



Location Plan
(Extract from Approved San Tin Technopole Outline Zoning Plan No. S/STT/2)

Figure 1A

1 : 7500

羅迅測計師行
Lawson David & Sung
SURVEYORS LIMITED
Property Consultants • Planning • Valuers • Auctioneers
Estate Agency Licence No. C-006328

REMARK:
THE BASE PLAN IS REPRODUCED FROM THE INFORMATION IN THE EXPLANATORY STATEMENT OF THE APPROVED SAN TIN TECHNOPOLE OZP NO. S/STT/2.

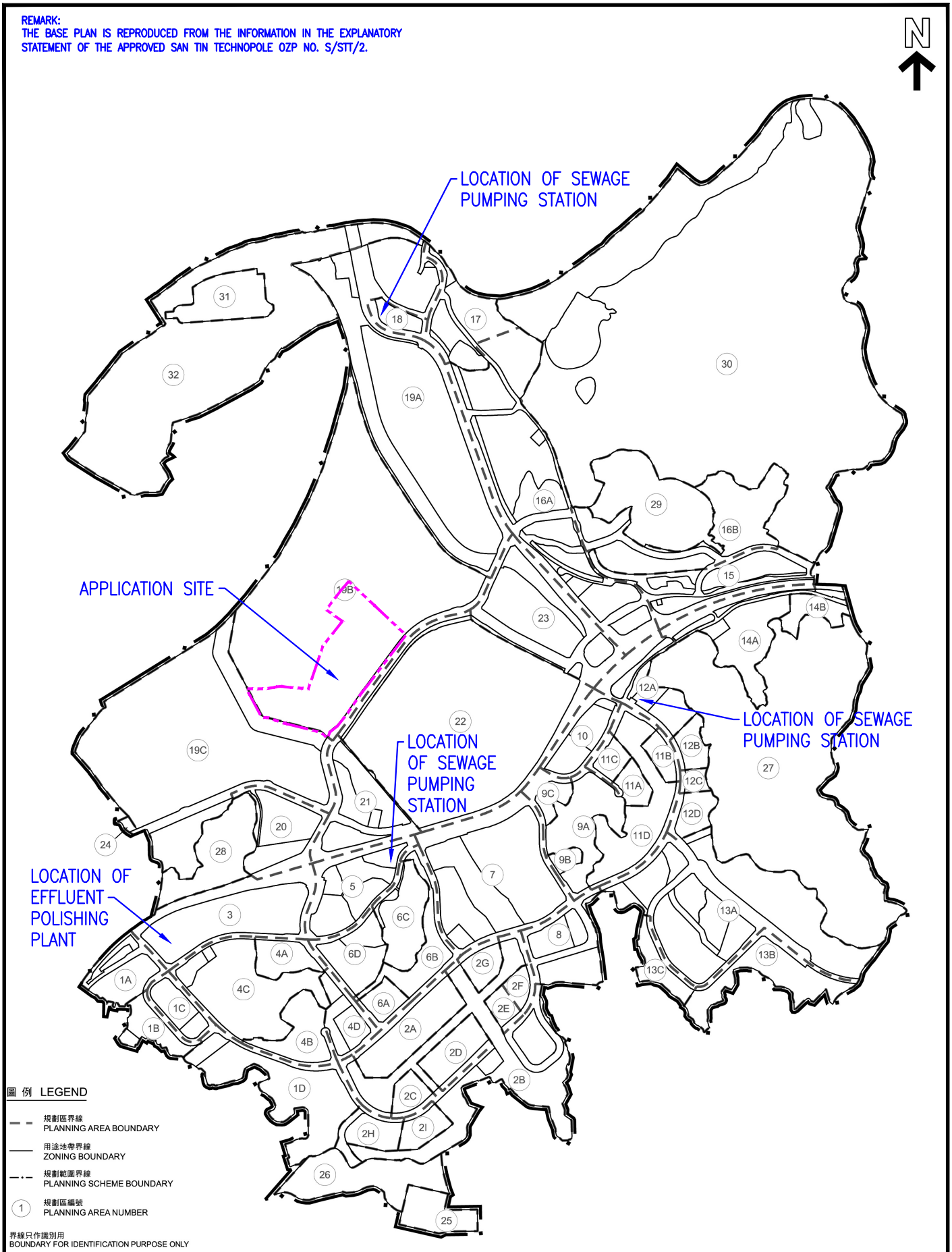


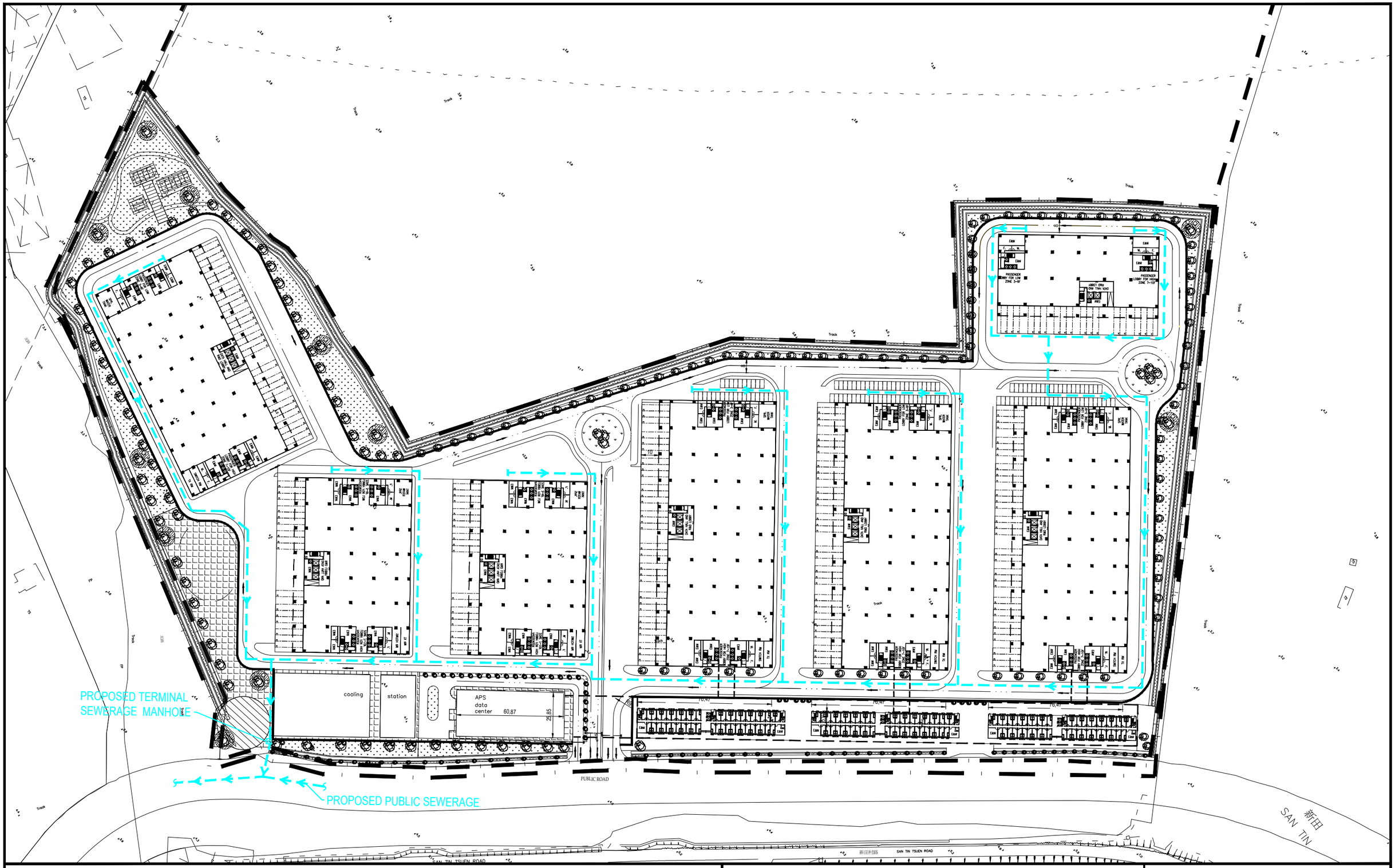
圖 例 LEGEND

- 規劃區界線 PLANNING AREA BOUNDARY
- 用途地帶界線 ZONING BOUNDARY
- 規劃範圍界線 PLANNING SCHEME BOUNDARY
- (1) 規劃區編號 PLANNING AREA NUMBER

界線只作識別用
BOUNDARY FOR IDENTIFICATION PURPOSE ONLY

PROJECT	何田顧問工程師有限公司 HO TIN & ASSOCIATES CONSULTING ENGINEERS LIMITED
TITLE INDICATIVE LOCATIONS OF THE PROPOSED SEWAGE POLISHING PLANT AND SEWAGE PUMPING STATION ON THE SAN TIN TECHNOPOLE OZP	SCALE
	DRAWING No. FIGURE 2

H:\25108_SanTin DD99\DRAWING\FIGURE 2_00.dwg, 16/10/2025 16:28:54



LEGEND:

PROPOSED SEWERAGE ROUTE COMPRISES OF SEWERAGE DRAIN PIPES, SEWERAGE MANHOLES AND SEWAGE PUMPING STATION IF NECESSARY (DETAILED DESIGN TO BE SUBMITTED AT THE LATER DETAILED DESIGN STAGE)

PROJECT

何田顧問工程師有限公司
HO TIN & ASSOCIATES
CONSULTING ENGINEERS LIMITED

TITLE

INDICATIVE SEWERAGE MANAGEMENT PLAN

SCALE 1 : 2000 @ A3

DRAWING No. FIGURE 3

H:\25108_SanTin DD99\DRAWING\FIGURE 3_00.dwg, 16/10/2025 16:57:48

REMARK:
THE BASE PLAN IS REPRODUCED FROM THE INFORMATION IN THE EXPLANATORY STATEMENT OF THE APPROVED SAN TIN TECHNOPOLE OZP NO. S/STT/2.

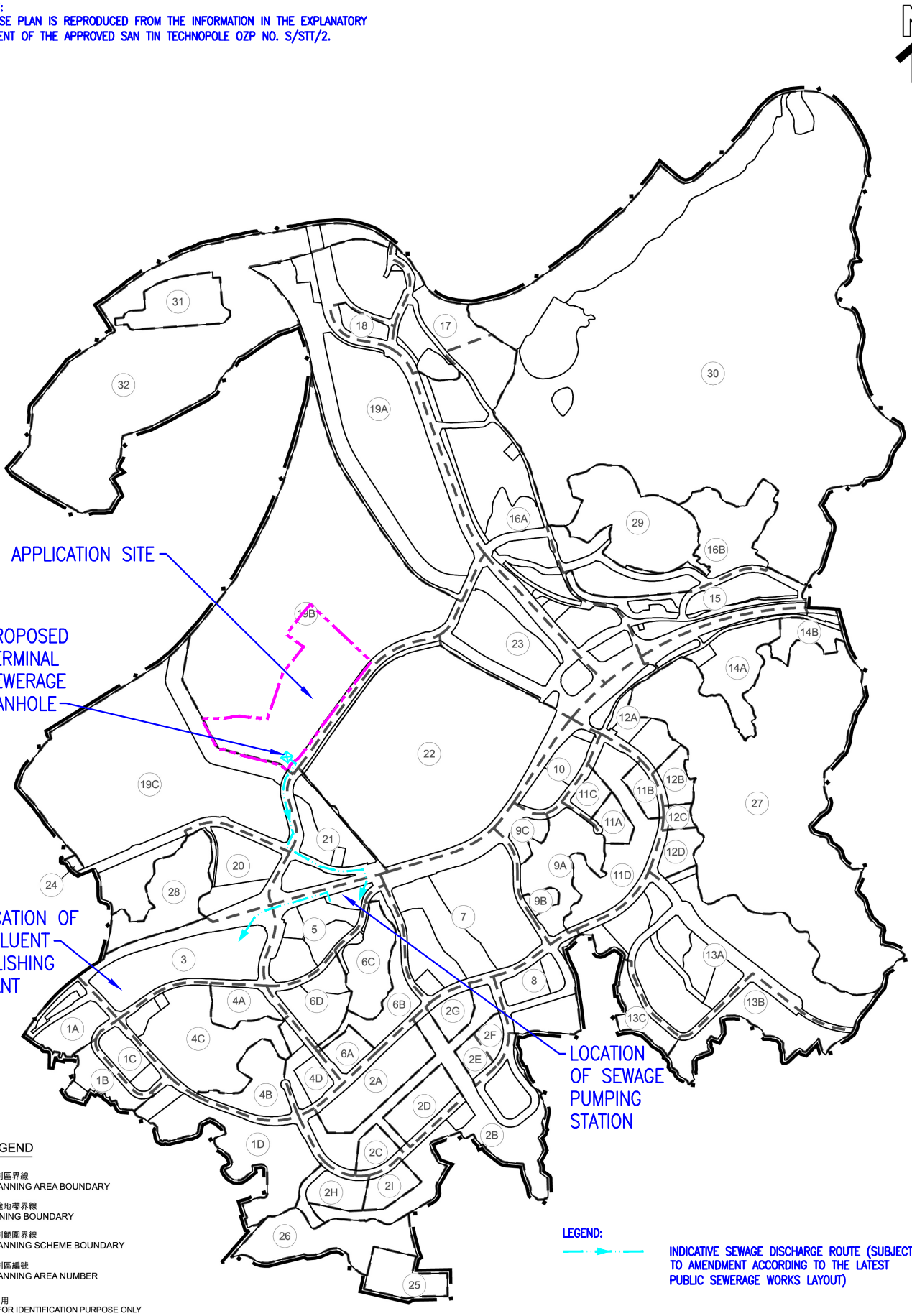


圖 例 LEGEND

- 規劃區界線 PLANNING AREA BOUNDARY
- 用途地帶界線 ZONING BOUNDARY
- 規劃範圍界線 PLANNING SCHEME BOUNDARY
- (1) 規劃區編號 PLANNING AREA NUMBER

界線只作識別用
BOUNDARY FOR IDENTIFICATION PURPOSE ONLY

LEGEND:
INDICATIVE SEWAGE DISCHARGE ROUTE (SUBJECT TO AMENDMENT ACCORDING TO THE LATEST PUBLIC SEWERAGE WORKS LAYOUT)

PROJECT	何田顧問工程師有限公司 HO TIN & ASSOCIATES CONSULTING ENGINEERS LIMITED	
TITLE: PROPOSED SEWAGE DISCHARGE ROUTE	SCALE	DRAWING No.: FIGURE 4

H:\25108_SanTin DD99\DRAWING\FIGURE 4_00.dwg, 16/10/2025 16:41:13

Annex C

Methodology Paper and
AFCD's comments on the Methodology Paper

Section 16 Planning Application
Proposed Filling of Ponds for Permitted Innovation and Technology Hub (including Permitted Cargo Handling and Forwarding Facilities, Creative Industries, Eating Place, Flat (Staff Quarters only), Industrial Use, Information Technology and Telecommunications Industries, Office, Public Utility Installation, Research, Design and Development Centre, Shop and Services, Warehouse (excluding Dangerous Goods Godown)) at Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, N.T.

Ecological Survey Methodology Paper

Ecosystems Limited

October 2025

1. PROJECT BACKGROUND

1.1. The 2013 Policy Address first stated the need to take forward further development of the New Territories North (NTN) with a view to developing a modern new town there, and the Government commissioned the Preliminary Feasibility Study on Developing NTN and an area in San Tin / Lok Ma Chau (STLMC) was identified as having potential for further development. In 2021, the Policy Address proposed to expand STLMC Development into San Tin Technopole together with the Hong Kong-Shenzhen Innovation and Technology Park (HSITP). AN Investigation Study including the statutory Environmental Impact Assessment (EIA) was carried out and approved in 2024 (AEIAR-261/2024).

1.2. The Application Site, about 16.3ha, is located at Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, N.T, which is within the Project Location of the approved EIA (**Figure 1**). The proposed Project is a comprehensive Innovation and Technology Hub development involving filling of ponds, the potential ecological impacts have been assessed with mitigation measures provided.

1.3. The Application Site falls within Wetland Conservation Area (WCA) and an area zoned as "Other Specified Uses" annotated "Innovation and Technology" ("OU(I&T)") on the Approved San Tin Technopole Outline Zoning Plan (OZP) No. S/STT/2 gazetted on 20.9.2024. Although the uses of the proposed development is under Column 1 of the planning intention (uses always permitted), the Application Site previously fell within the "Other Specified Uses" annotated "Comprehensive Development and Wetland Enhancement Area", any filling of ponds requires planning permission from the Town Planning Board.

1.4. In accordance with the TPB PG-No. 12C, ecological field investigation covering a period of not less than 12 months should be included, no matter a 12-month ecological survey was conducted for the approved EIA.

1.5. The purpose of this paper is to propose the survey methodology, and with the information of the approved EIA, for ecological impact assessment (EcoIA) to fulfill the requirements of the OZP.

2. ASSESSMENT AREA AND KEY ECOLOGICAL ISSUES

2.1. The proposed assessment area for the purpose of the terrestrial and aquatic ecological impact assessment shall include areas within 500m from the Application Site (**Figure 1**). Ecological field surveys shall be conducted over a 12-month period covering both wet and dry seasons.

2.2. Recognized sites of conservation importance and key ecological resources within the proposed 500m Assessment Area included but not limited to the following:

- Wildlife groups/habitats of conservation interest
- Conservation Areas ("CA"s)
- Deep Bay Wetland outside Ramsar Site Priority Site for Enhanced Conservation ("Priority Site")
- Inner Deep Bay and Shenzhen River Catchment Important Bird Area ("IBA")
- Mai Po Inner Deep Bay Ramsar Site ("Ramsar Site")
- Wetland Conservation Area ("WCA")
- Wetland Buffer Area ("WBA")

3. LEGISLATION AND STANDARDS

3.1. Ordinances and regulations that are relevant to this study include the following:

- Forests and Countryside Ordinance (Cap. 96) and its subsidiary legislation, the Forestry Regulations (Cap. 96A);
- Wild Animals Protection Ordinance (Cap. 170);
- Environmental Impact Assessment Ordinance (Cap. 499) and the associated Technical Memoranda (TM-EIAO); and
- The Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586) and its subsidiary legislation.

3.2. This study will also make reference to the following guidelines and standards:

- Hong Kong Planning Standards and Guidelines (HKPSG) Chapter 10, "Conservation";
- Town Planning Board Planning Guideline No. 12C – Application for Developments Within Deep Bay Area;
- PELB Technical Circular 1/97 Works Branch Technical Circular 4/97 "Guidelines for Implementing the Policy on Off-site Ecological Mitigation Measures";
- EIAO Guidance Note No. 6/2010 - Some Observations on Ecological Assessment from the Environmental Impact Assessment Ordinance Perspective;
- EIAO Guidance Note No. 7/2023 – Ecological Baseline Survey for Ecological Assessment; and
- EIAO Guidance Note No. 10/2023 – Methodologies for Terrestrial and Freshwater Ecological Baseline Surveys.

4. RESULTS OF PRELIMINARY REVIEWED LITERATURE

4.1. The preliminary findings of literature review focused on key ecological issues are presented below to identify data gap to justify survey methodology. A thorough review of existing information including approved EIA and planning application will be included in the full EcoIA report. The identified recognized sites of conservation importance and key ecological resources within the proposed 500m assessment area are indicated in **Figure 2**. Details are discussed in the following.

4.2. The Agriculture, Fisheries and Conservation Department (AFCD) has identified SPS WCP as the first park under its Strategic Feasibility Study on Wetland Conservation Parks System. This proposed 338 ha park will enhance Northern Metropolis ecological quality and biodiversity while offering public eco-education, recreation, and modernized aquaculture facilities. The park fulfills two primary objectives: first, enhancing ecological value, biodiversity,

and connectivity in Deep Bay through proactive conservation; second, compensating for San Tin Technopole development impacts through active management of 288 ha of wetlands and modernized aquaculture on 40 ha of fishponds, achieving no-net loss in ecological function, and about 10 ha reserved for other supporting facilities.

4.3. Mai Po Inner Deep Bay and Deep Bay Wetland outside Ramsar Site Priority Sites for Enhanced Conservation - The Hong Kong SAR Government's New Nature Conservation Policy (NNCP) selected 12 priority sites for enhanced conservation, including the Ramsar Site and Deep Bay wetland outside it, which are relevant to this submission. The NNCP introduced two schemes to protect ecologically important sites, especially privately owned ones: the Nature Conservation Management Agreement (MA) Scheme and the Public-Private Partnership (PPP) Scheme. The PPP Scheme allows limited development on less ecologically sensitive parts of a site (Developable Portion) provided that a conservation and management plan (CMP) is provided for the more sensitive part (Conservation Portion).

4.4. Mai Po Village site of Special Scientific Interest (SSSI) – An Area of the fund shui woodland is zoned as “SSSI” under the Approved Mai Po and Fairview Park Outline Zoning Plan (OZP) No. S/YL-MP/8. This “SSSI” zone was designated with a general presumption against development, and to conserve the undisturbed woodland that support the community of nesting and breeding ardeids at Mai Po Village Egretry. However, the egretry has moved partially outside the SSSI boundary. The SSSI is now located adjacent to the northern part of the original SSSI site. The egretry is located at least 300m outside of the Assessment Area.

4.5. The Wetland Conservation Area (WCA) was designated by Town Planning Board (TPB) to conserve the ecological value of the fishponds in the Deep Bay wetland ecosystem (TPB Guideline No. 12C). The WCA comprises existing active and abandoned fishponds within the Deep Bay wetland system continuous with the Mai Po Inner Deep Bay Ramsar Site, while the aim is to conserve the ecological value and functions of the fishponds as an integral part of the system. Except for permitted essential conservation or infrastructural works, no development involving pond-filling or other works detrimental to the ecological function of the wetland are allowed within the WCA. All essential works conducted within the WCA should comply with the “No- Net- Loss in Wetland” principle. The proposed Application Site is location within the WCA.

4.6. The Wetland Buffer Area (WBA) is approximately 500m in width and lies along the landward boundary of the WCA. The intention of the WBA is to protect the ecological integrity of wetland habitats within the WCA (TPB Guideline No. 12C). Development within the WBA causing negative impacts on the ecological value of the WCA should be avoided unless appropriate mitigation measures are implemented. However, residential or recreational developments may be approved with appropriate conditions where undesirable open storage area is removed and wetlands are restored. Such development should satisfy the “No-Net- Loss in Wetland “principle. Only a small portion of Assessment Area are outside the WBA in this Project.

4.7. Important Bird Area namely Inner Deep Bay and Shenzhen River catchment area. The Inner Deep Bay and Shenzhen River catchment, recognized as an Important Bird Area (IBA) by BirdLife International in 2004, is an estuarine region with diverse habitats, including freshwater wetlands, marine-coastal areas (intertidal mudflats and mangroves), and man-made habitats like fishponds, tidal shrimp ponds (gei wai), and oyster farms. Freshwater wetlands are located at Mai Po and Long Valley, a floodplain south of the Shenzhen River, now managed as Long Valley Nature Park by the AFCD. Mudflats line the Shenzhen River from Mai Po/Tsim Bei Tsui in Hong Kong to Fu Tian in Shenzhen, bordered by coastal mangroves. The inland area

includes farmland, fishponds, and shrimp ponds, surrounded by residential and industrial zones. The IBA is located within the proposed Application Site and Assessment Area.

4.8. Egretries – According to Anon (2022), Mai Po Lung Egretry is the third largest colony in Hong Kong. The Mai Po Lung Egretry is located within the assessment area, to the south of the Application Site. Little Egret (*Egretta garzetta*) and Chinese Pond Heron (*Ardeola bacchus*) were recorded utilising tree species *Ficus benjamina*, *Ficus microcarpa*, *Ficus virens*, *Litchi chinensis* and *Melaleuca leucadendra* as nesting substrates. Another egretry (Mai Po Village Egretry) is located outside the 500m Assessment Area.

4.9. San Tin Open Storage Area Day Roost - A small roosting colony of Black-crowned Night Herons was documented at San Tin Open Storage Area, where the birds primarily occupied Elephant's Ear trees (*Macaranga tanarius var. tomentosa*) positioned along pond embankments. The roosting site was situated within an environment characterized by busy open storage areas with considerable traffic and human activity. According to AEIAR-261/2024 - San Tin / Lok Ma Chau Development Node, the colony showed varying numbers over time, peaking at 20 birds in December 2021 and subsequently dropping to nine individuals by April 2022, and no records since May 2022.

4.10. San Tin Open Storage Area Night Roost - AEIAR-261/2024 reports that a night roost near San Tin Open Storage area was first identified within the EIA Assessment Area. Absent from prior studies, the roost consisted of a single, moderately sized India-rubber Tree (*Ficus elastica*) on a pond bund. Ardeids including Little Egret, Chinese Pond Heron, and Great Egret were present in low abundance (peak 53 individuals). Great Cormorants were not recorded.

4.11. San Tin Night Roost - A night roost in the San Tin area was identified within the Assessment Area during the kick-off survey of this Project. This roost was not reported in previous studies. It comprises a patch of *Sonneratia caseolaris* situated in a modified watercourse. Little Egret and Chinese Pond Heron were recorded at this night roost during the kick-off survey. The roost is located approximately 260 m northwest of the Application Site.

4.12. Lok Ma Chau Meander and San Tin Eastern Main Drainage Channel (STEMDC) - This meander was originally part of the natural Shenzhen River before channelization were carried out, subsequently restored as mitigation for fishpond habitat lost during river training activities. It now constitutes one of Hong Kong's largest remaining semi-natural riverine systems. The LMC Meander serves multiple ecological functions, providing foraging habitat and movement corridors for Eurasian Otter (*Lutra lutra*), roosting sites for waterbirds and various ardeids, and functioning as an aerial corridor facilitating avifauna movement between adjacent wetland habitats (CEDD & PlanD, 2013). A portion of the LMC Meander falls within the Project area boundaries.

4.13. Mitigation Wetlands – Three mitigation wetland were proposed under various designated projects within the Assessment Area, including the STEMDC and San Tin Constructed Wetland. The STEMDC construction under the "Main Drainage Channels and Poldered Village Protection Schemes for San Tin, NWNT" resulted in fishpond and wetland habitat loss. Approximately 16 ha of compensatory habitats were created, including the STEMDC wetland (small ponds and shallow marshes) east of STEMDC within the Project area (TDD, 1999). Additional mitigation included tidal channels, grasscrete lining, embankment planting, and water level/vegetation management at STWMDC and a flood storage pond near San Tin Tsuen Road. Drainage works near Tsing Lung Tsuen before 2000 resulted in fishpond loss during flood protection infrastructure construction. Compensatory measures created an artificial

wetland west of San Tin Tsuen Road, featuring planted wetland vegetation and shrub species, both of mitigation wetland within the Project area.

5. METHODOLOGY OF ECOLOGICAL SURVEY

5.1. Ecological field surveys will be carried out to verify ecological profile established from literature review, update baseline information, and fill identified information gaps to facilitate the establishment of complete ecological characters of the assessment area and to facilitate the ecological assessment.

5.2. Ecological field surveys are proposed to be carried out with a duration of 12 months covering both wet and dry seasons. Investigations should be carried out to verify the information collected and to fill in the information gaps as identified in literature review. The ecological survey programme covers terrestrial and aquatic habitats. A twelve-month ecological survey (conducting from September 2025 to August 2026) covering wet and dry seasons is proposed (see Section 6 for proposed survey programme).

5.3. The methodology of the ecological surveys will make reference to the relevant Guidance Notes (GN 7/2023 and GN 10/2023). Sampling locations for terrestrial and aquatic fauna are shown in **Figure 3**.

Ecological Survey Items

5.4. **Vegetation and habitat survey:** Vegetation surveys will be conducted by direct observation to record the diversity and dominance of plant species present in different habitat types. The locations of any plant species of conservation importance will be recorded. Identification of flora species and status in Hong Kong will be made with reference to Xing et al. (2000), Hu et al. (2003), Lai et al. (2008), Hong Kong Herbarium (2012), and Hong Kong Herbarium and South China Botanical Gardens (2007; 2008; 2009; 2011).

5.5. Terrestrial and aquatic habitats within the assessment area will be identified, sized and mapped. Ecological characteristics of each habitat type, including size, vegetation type, and species present, dominant species found, species diversity and abundance, community structure, ecological value and inter-dependence of the habitats and species, and presence of any features of ecological importance will be defined and characterized. Representative photographs of the habitat types and/or any important ecological features identified will be taken. A habitat map of suitable scale showing types and locations of terrestrial and aquatic habitats within the assessment area will be prepared from digital aerial photographs. The habitat map will then be checked during ground truthing. For areas that are inaccessible, aerial drones shall be used to capture photographs and videos to survey ecological features and verify habitats.

5.6. **Mammals survey:** The surveys shall focus on areas that may be utilized by terrestrial mammals. Field signs including droppings, footprints, diggings or burrows left by larger mammals shall be searched for. Mammal identification shall be made from the field signs encountered. Any mammals directly observed shall be recorded. Camera traps will be deployed in the Camera Trap Locations mentioned in **Figure 5.1**, the locations will serve as general guides and may be adjusted for appropriate angle of view depending on the latest site conditions and accessibility. Bat surveys shall be undertaken by surveyor(s) equipped with ultrasonic bat detector(s) along the terrestrial transects and at potential roosting, commuting,

foraging and drinking sites. Bat species will be identified through the detection of echolocation calls and direct observation. The acoustic information recorded will be analyzed using specialized software. Nomenclature of mammal follows Shek (2006).

5.7. **Birds survey:** The presence and abundance of avifauna species in various habitats shall be recorded. Avifauna shall be surveyed quantitatively using the transect count method along the walk-transects during early morning, day, dusk and night times. The location of any avifauna species of conservation importance encountered shall be recorded, along with notable behaviours (e.g. breeding behaviour such as nesting and the presence of recently fledged juveniles, roosting, and feeding activities and behaviors). Ornithological nomenclature follows Carey et al. (2001), Viney et al. (2005) and the most recently updated list from the Hong Kong Bird Watching Society.

5.8. **Egretry survey:** The existing information on the Mai Po Lung and Mai Po Village egretries is considered comprehensive and sufficient to support a robust impact assessment. Therefore, field surveys will be conducted twice within peak breeding season to verify the status of the egretries.

5.9. **Day roost and night roost survey:** The existing information on the San Tin Open Storage Day Roost and Night Roost is considered comprehensive and sufficient to support a robust impact assessment. Field survey will be conducted on two occasions solely to verify the status of these roosts.

5.10. **Winter flight path survey:** Winter flight path surveys for the waterbirds will be conducted at the proposed vantage points and will commence in both early morning and dusk. The survey time will be approximately 0.5 hours before sunrise, lasting for at least 2 hours for early morning; or 1 hour before sunset, lasting for at least 2 hours for dusk as far as possible. The exact times of sunrise and sunset on the survey date will be referenced from the Hong Kong Observatory. The vantage points will serve as general guides and may be adjusted for appropriate angle of view depending on the latest site conditions and accessibility, based on the judgment exercised during the survey. The flight paths of waterbirds will be tracked using high-powered binoculars to determine their general direction of flights whenever possible. If the ardeids fly out of sight before landing, the location where they disappear will be recorded.

5.11. **Herpetofauna (reptiles and amphibians) survey:** Within the assessment area, herpetofauna will be surveyed qualitatively along survey transects, with potential microhabitats (e.g., leaf litter, underneath rotten logs) searched and all reptiles and amphibians sighted recorded. Amphibian surveys will be conducted whenever possible on evenings following or during periods of rainfall, focusing on areas suitable for amphibians (e.g., forests, shrublands, grasslands, streams, catchwaters, fishponds, and marshes, if any), with records of calling amphibians forming the bulk of the data collected, supplemented, when possible, by visual observations of eggs, tadpoles, frogs, and toads. During reptile surveys, careful searches of appropriate microhabitats and refugia (e.g., stones, pond bunds, crevices, leaf litter/debris, rotten logs) will be undertaken, with all reptiles observed identified, and observations of exposed, basking, or foraging reptiles also recorded. The nomenclature of amphibians and reptiles will follow Chan et al. (2005) and Chan et al. (2006), respectively.

5.12. **Butterflies and odonates survey:** Butterflies and odonates (dragonflies and damselflies) within the assessment area will be surveyed along survey transects, with attention given to their potential habitats. The relative abundance of butterflies, dragonflies, and damselflies will

be recorded, along with any larvae and pupae encountered. The nomenclature of butterflies will follow Lo & Hui (2010), and that of odonates will follow Tam *et al.* (2011) and Reels (2019).

5.13. **Fireflies survey:** Firefly surveys will be carried out along the transects at day, dusk and night. During the surveys, fireflies observed, including larvae and adults, will be identified to the species level where possible. The locations of firefly species of conservation importance or any notable behaviors (e.g., breeding) will be recorded. The nomenclature and conservation status of fireflies (such as those endemic to Hong Kong) will follow Yiu (2023).

5.14. **Freshwater Community survey:** Daytime and surveys nighttime freshwater fish, and daytime freshwater invertebrate survey will be carried out during the wet season. Aquatic fauna, including freshwater macro-invertebrates (e.g. freshwater crabs, shrimps, freshwater molluscs and aquatic insect larvae) and fishes, within the assessment area will be studied by direct observation and active searching. The tentative aquatic sampling locations are shown in **Figure 5.1**. All freshwater fauna found will be identified to the lowest practicable taxonomic level and their abundance will be recorded. The nomenclature for fish and invertebrates will follows that available from the Hong Kong Biodiversity Information Hub and Dudgeon (1999) respectively.

6. SURVEY PROGRAMME

6.1. The proposed ecological survey programme is shown as follows (E: Early morning; D: Daytime U: Dusk; N: Night-time).

No. of Month	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Month	**Sep 2025**	**Oct 2025**	**Nov 2025**	**Dec 2025**	**Jan 2025**	**Feb 2025**	**Mar 2025**	**Apr 2025**	**May 2025**	**Jun 2025**	**Jul 2025**	**Aug 2026**
Season	**Wet**		**Dry**					**Wet**				
Vegetation and habitat		D			D			D			D	
Mammals	D, U, N	D, U, N	D, U, N	D, U, N	D, U, N	D, U, N	D, U, N	D, U, N	D, U, N	D, U, N	D, U, N	D, U, N
Birds	E, D, N	D, U, N	E, D, N	D, U, N	E, D, N	D, U, N	E, D, N	D, U, N	E, D, N	D, U, N	E, D, N	D, U, N
Winter Flight Path		D, U	E, D	D, U	E, D	D, U	E, D					
Reptiles		D, N						D, N		D, N		D, N
Amphibians		N						N		N		N
Butterflies		D	D					D		D		D
Odonates		D						D		D		D
Fireflies		D, U, N	D, U, N	D, U, N				D, U, N	D, U, N	D, U, N		
Freshwater fish and invertebrates		D, N						D, N		D, N		

7. REFERENCE

AECOM. 2024. Environmental Impact Assessment for San Tin / Lok Ma Chau Development Node(Application No. EIA-302/2023, Register No. AEIAR-261/2024).

Agriculture, Fisheries and Conservation Department (AFCD). (2004). Deep Bay Wetland outside Ramsar Site. Retrieved from: https://www.afcd.gov.hk/english/conservation/con_nncp/con_nncp_list/files/09_DeepBayWetland_Public_18_E.pdf

AFCD. 2025. Hong Kong Biodiversity Information Hub. Retrieved from: https://bih.gov.hk/en/species-database/index.html on 22 August 2025

AFCD 2006. List of Priority Site for Conservation. https://www.afcd.gov.hk/english/conservation/con_nncp/con_nncp_list/files/fung_yuen_e.pdf

Civil Engineering and Development Department (CEDD) & Planning Department (PlanD). (2013). Development of Lok Ma Chau Loop. EIA Report (AEIAR-176/2013).

Chan, K. F., Cheung, K. S., Ho, C. Y., Lam F. N. and Tang, W. S. 2005. *A Field Guide to the Amphibians of Hong Kong*. Agriculture, Fisheries & Conservation Department, Government of Hong Kong Special Administrative Region.

Chan, K. F., Cheung, K. S., Ho, C. Y., Lam F. N. and Tang, W. S. 2006a. *A Field Guide to the Venomous Land Snakes of Hong Kong*. Agriculture, Fisheries & Conservation Department, Government of Hong Kong Special Administrative Region.

Chan, K. F., Cheung, K. S., Ho, C. Y., Lam F. N. and Tang, W. S. 2006b. The Geckos of Hong Kong. *Hong Kong Biodiversity* 13: 1-9.

Chan, A. Cheung, J., Sze, P., Wong, A., Wong, E. and Yau, E. 2011. A review of the local restrictedness of Hong Kong Butterflies. *Hong Kong Biodiversity* 21: 1-12

Dudgeon, D. 1999. Tropical Asian Streams: Zoobenthos, Ecology and Conservation. Hong Kong University Press, Hong Kong.

Fellowes, J.R., Lau, M.W.N., Dudgeon, D., Reels, G.T., Ades, G.W.J., Carey, G.J., Chan, B.P.L., Kendrick, R.C., Lee, K.S., Leven, M.R., Wilson, K.D.P. and Yu, Y.T. 2002. Wild animals to watch: Terrestrial and freshwater fauna of conservation concern in Hong Kong. Memoirs of the Hong Kong Natural History Society No. 25, 123-160.

Fu, L. and Chin, C. M. 1992. China Plant Red Data Book. Science Press, Beijing.

HKBWS 2024. Hong Kong Bird Report 2024.

Hu, Q.M, Wu, T.L., Xia, N.H., Xing F.W., Lai, C.C.P., Yip, K.W. 2003. Rare and Precious Plants of Hong Kong. Agriculture, Fisheries and Conservation Department, The Government of the Hong Kong Special Administrative Region.

International Union of Conservation for Nature. 2023. The IUCN Red List of Threatened Species. Version 2022-2. Retrieved from: https://www.iucnredlist.org.

Jiang, Z.G., Jiang, J.P., Wang, Y.Z., Zhang, E., Zhang, Y.Y., Li, L.L., Xie, F., Cai, B., Cao, L., Zheng, G.M., Dong, L., Zhang, Z.W., Ding, P., Luo, Z.H., Ding, C.Q., Ma, Z.J., Tang, S.H., Cao, W.X., Li, C.W., Hu, H.J., Ma, Y., Wu, Y., Wang, Y.X., Zhou, K.Y., Liu, S.Y., Chen, Y.Y., Li, J.T., Feng, Z.J., Wang, Y., Wang, B., Li, C., Song, X.L., Cai, L., Zang, C.X., Zeng, Y., Meng, Z.B., Fang, H.X., and Ping, X.G., 2016. Red List of China's Vertebrates. Biodiversity Science, 24 (5), 500-551.

Karsen, S. J., W. N. Lau and A. Bogadek. 1998. *Hong Kong Amphibians and Reptiles*. Second Edition, Urban Council, Hong Kong.

Lee L.F., Lam S.K.S., Ng F.K.Y., Chan T.K.T. and Young M.L.C. 2004. *Field Guide to the Freshwater Fish of Hong Kong*. Friends of the Country Parks, Hong Kong.

Planning Department undated. Sites of Special Scientific Interest of Hong Kong.

Shek, C.T. 2006. *A Field Guide to the Terrestrial Mammals of Hong Kong*. Agriculture, Fisheries and Conservation Department, Hong Kong.

Siu, G.L. 2000. Orchidaceae of Hong Kong. *Memoirs of the Hong Kong Natural History Society* 23: 137-147.

Tam, T.W., Leung, K.S., Kwan, B.S.P., Wu, K.K.Y., Tang, S.S.H., So, I.W.Y., Cheng, J.C.Y., Yuen, E.F.M., Tsang, Y.M. and Hui, W.L. 2011. *Field Guide to the Dragonflies of Hong Kong*. Agriculture, Fisheries and Conservation Department, Hong Kong.

Territory Development Department (TDD). (1999). Main Drainage Channels and Poldered Village Protection Scheme for San Tin, NWNT. EIA Report (AEIAR-019/1999).

Town Planning Board (TPB). Statutory Planning Portal 3. 2025. Retrieved from: https://www.ozp.tpb.gov.hk/

Wu, S. H. and Lee, T. C. 2000. Pteridophytes of Hong Kong. *Memoirs of the Hong Kong Natural History* Society: 23:5-20.

Xing, F.W., Ng, S.C., Chau, L.K.C. 2000. Gymnosperms and angiosperms of Hong Kong. *Memoirs of the Hong Kong Natural History Society* 23: 21-136.

END

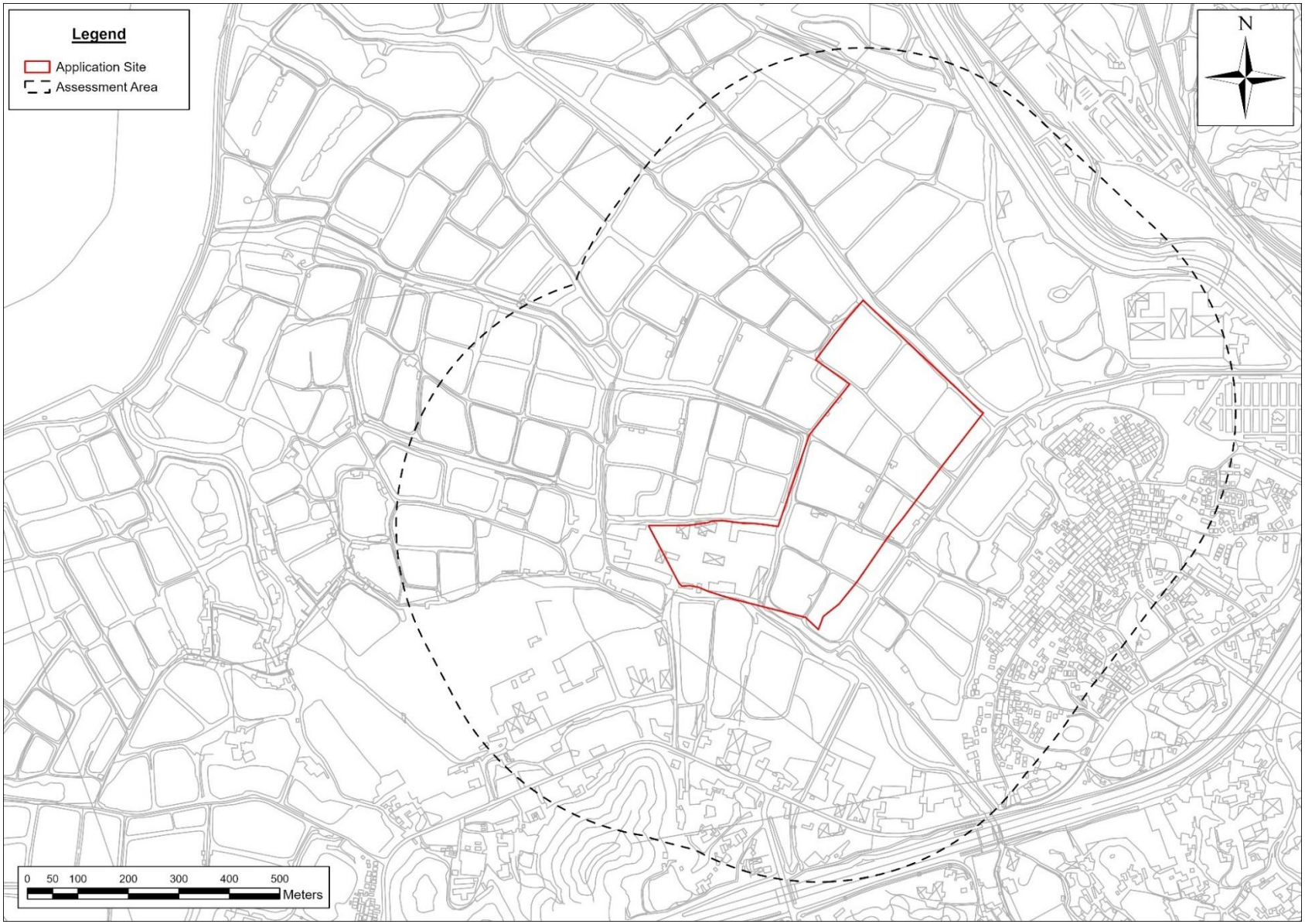


Figure 1 Application Site and 500m Assessment Area

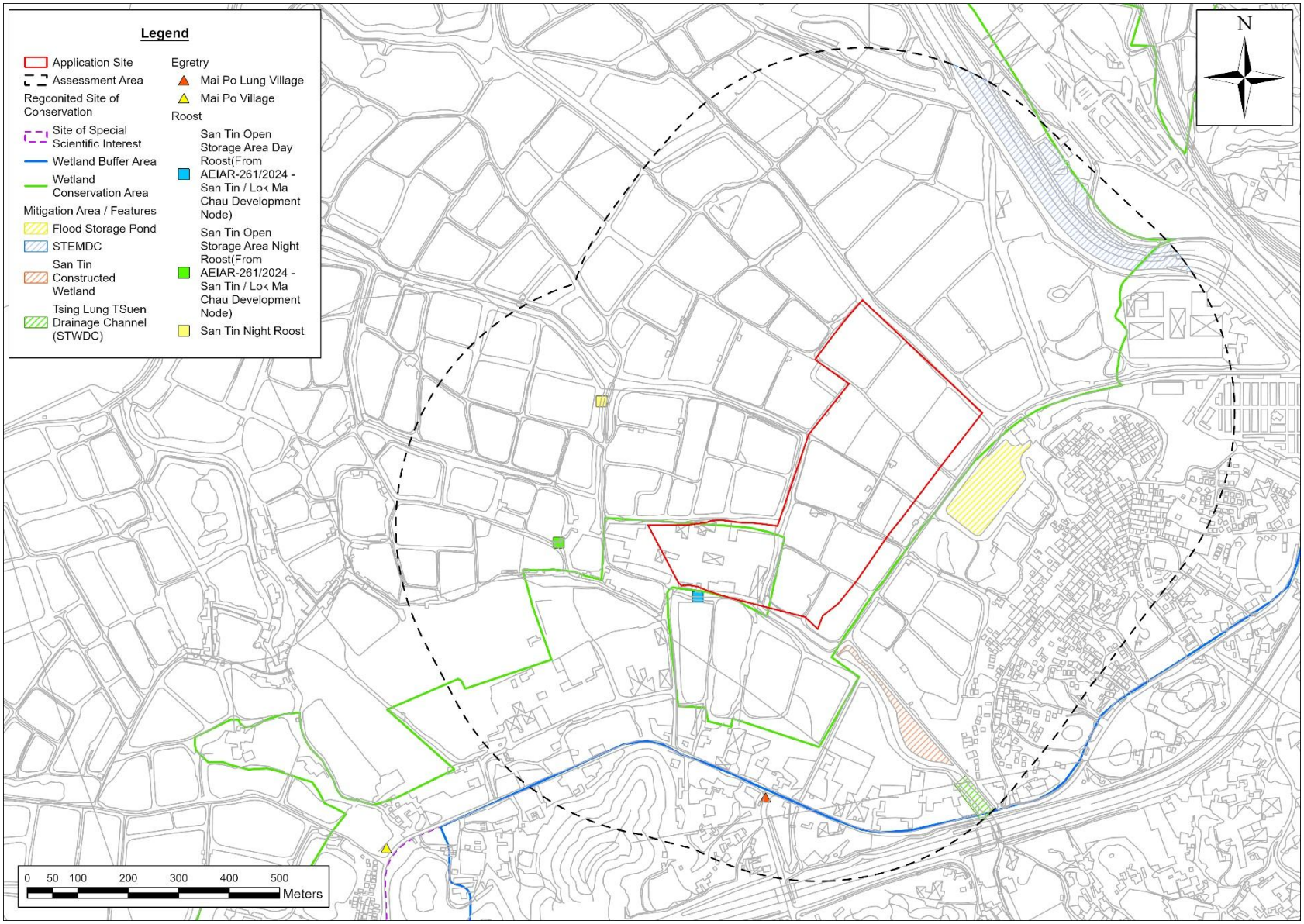


Figure 2 Indicative Location of the Identified Recognized Sites of Conservation Importance and Key Ecological Resources within the 500m Assessment Area

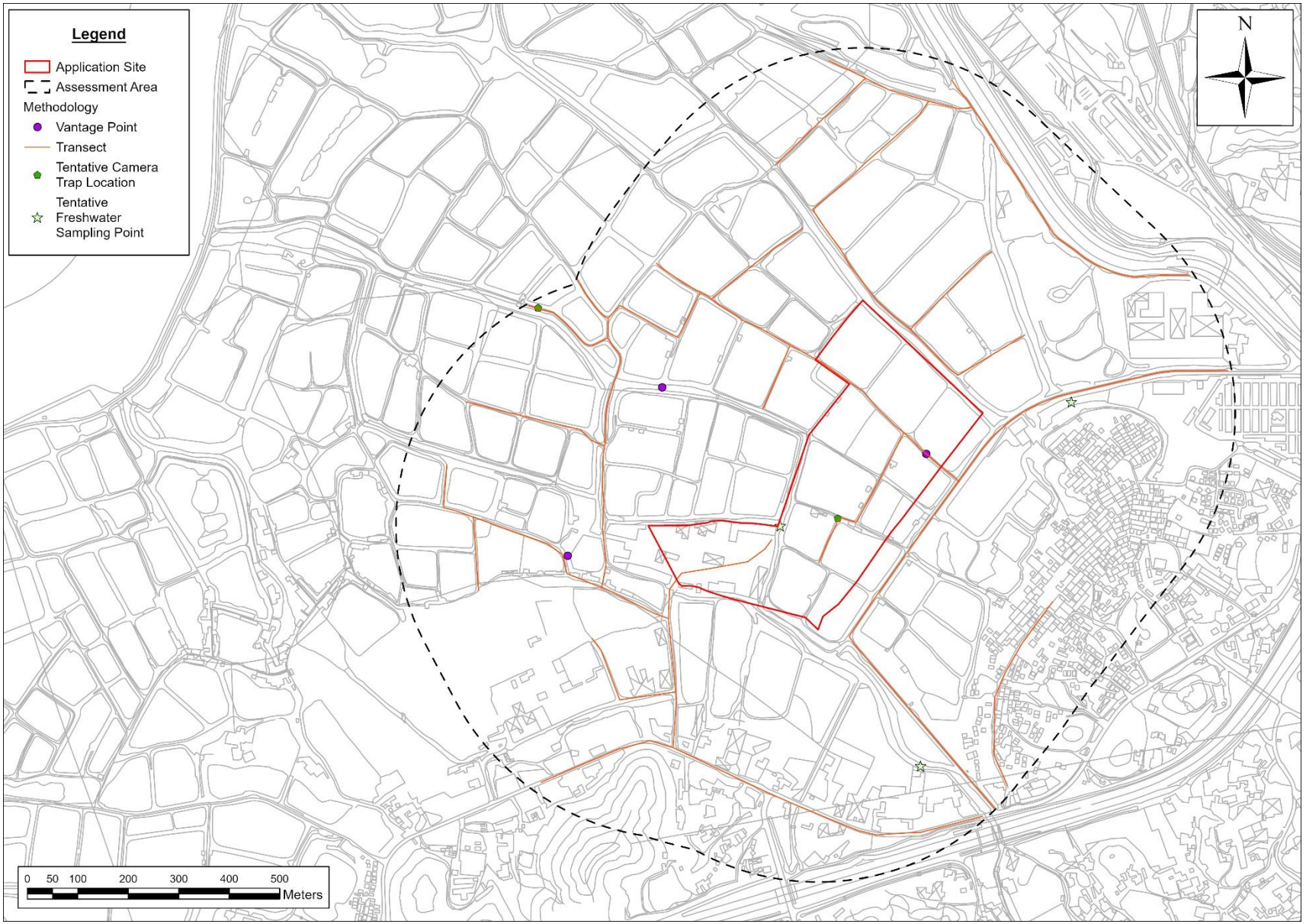


Figure 3 Proposed Transects and Sampling Points for Ecological Surveys

Planning Application No. A/STT/26
Comments from AFCD (Received on 12.12.2025)

S.5.6, S.5.14
Figure 5.1 is missing.

S.5.7

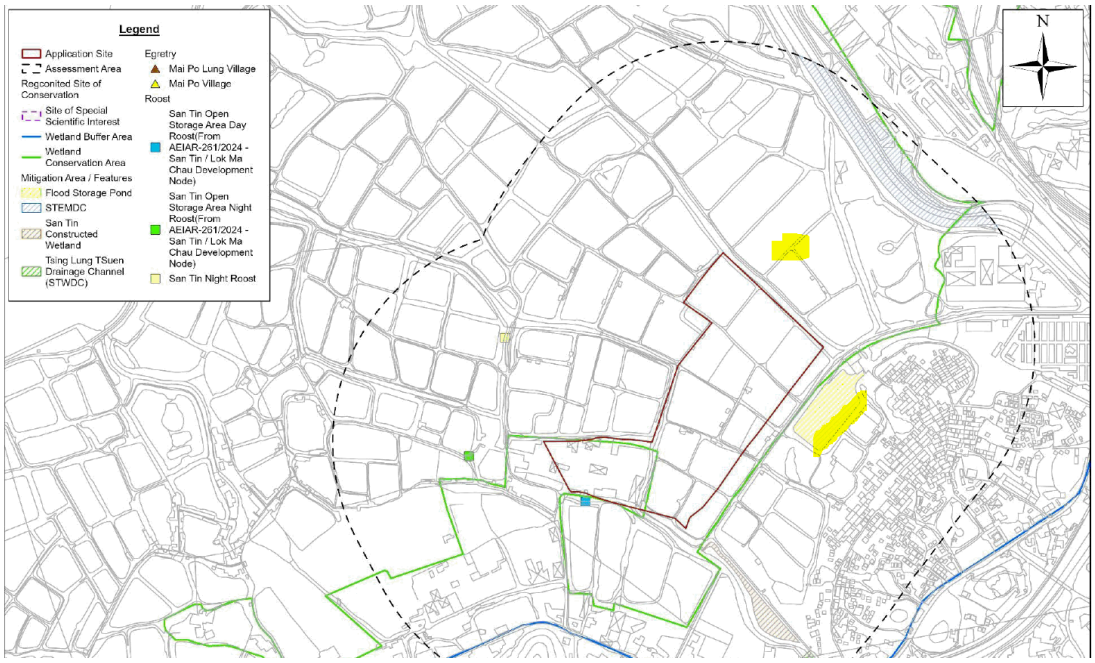
- Birds seen or heard should both be recorded in the survey.

S.5.8

- The egretry should be conducted monthly during the breeding season (Mar to Aug) to record the species, abundance of breeding ardeids, egretry boundary, substrate, flight height and flight line of the egretry. The flightline survey should be conducted at suitable vantage points and start approximately half an hour before sunrise and last for at least two hours.

S.5.9

- The surveys should also cover (1) the night roost to the northeast of the project site discovered as a part of the pre construction surveys of ST technopole, and (2) a day roost of Black-crowned Night Herons to the east of the project site.
- The survey should cover the entire 12 month period, and record species, abundance, substrate, location, extent and flight line and flight height of existing and potential night and day roosts of ardeids. The flightline survey should be conducted at suitable vantage points and commence approximately one hour before sunset and continue until nightfall (i.e. approximately 30 minutes after sunset).



S.5.10

- The survey time during sunrise period, rather than sunset period. Please remove this information "or 1 hour before sunset, lasting for at least 2 hours for dusk as far as possible"
- The survey should also record flight height.

S.6.1

The table should also include the roost and egretry survey.

S.2.2, S.4.3 & Figure 2

The STEMDC and San Tin Mitigation Wetlands located within the 500m assessment area are missing from the list of key ecological resources while the Mai Po Inner Deep Bay Ramsar Site which locates outside the 500m assessment area is included. Please review and update the subject submission.

S.4.13

Please specify the distances in between the project area and each of the mitigation wetlands, and whether records of species of conservation importance were noted in "the preliminary reviewed literature".

Figure 3

Please consider adding a transect/sampling points in STEMDC Mitigation Wetland.

From the perspective of the Sham Po Shue Wetland Conservation Park (SPS WCP):

Section 2.2

Please include the proposed Sam Po Shue Wetland Conservation Park as one of the recognized sites of conservation importance and key ecological resources within the proposed 500m Assessment Area.

Section 4.2

Please revise the Section to read: "~~The Agriculture, Fisheries and Conservation Department (AFCD) has identified~~ SPS WCP ~~as~~ is the first park to be established under ~~its Strategic Feasibility Study on~~ the Wetland Conservation Parks System proposed under the Northern Metropolis Development Strategy. This proposed 338 ha park will serve multiple functions: 1) enhance the ecological quality and biodiversity of the Northern Metropolis~~; ecological quality and biodiversity while offering public eco-education, recreation, and modernized aquaculture facilities~~ 2) compensate for ecological and fisheries impacts arising from development of San Tin Technopole, to achieve no-net-loss in ecological function; 3) provide quality outdoor eco-education and recreation facilities for public enjoyment; and 4) introduce ecologically friendly and modernized aquaculture in the park. The park ~~fulfills two primary objectives: first, enhancing ecological value, biodiversity, and connectivity in Deep Bay through proactive conservation; second, compensating for San Tin Technopole development impacts through active management of 288 ha of wetlands and modernized aquaculture on 40 ha of fishponds, achieving no-net loss in ecological function~~ will include 253 ha ecologically enhanced fishponds, 35 ha enhanced freshwater wetland habitat, 40 ha fisheries enhancement area, and about 10 ha reserved for eco-education, recreation and other supporting facilities."

Section 7

Please add the following reference under Section 7: "AFCD. (2024). Strategic Feasibility Study on the Development of Wetland Conservation Parks System under the Northern Metropolis Development Strategy. Study Report. October 2024. Available at https://www.afcd.gov.hk/english/conservation/con_wet/wcps_system/wcps_system.html. (Accessed in November 2025)."

Figure 2

The SPS WCP is missing from this Figure, please supplement accordingly.

Annex D

Drainage Impact Assessment

(Town Planning Board's Reference No.: TPB/A/STT/26)

Section 16 Planning Application for Proposed Filling of Ponds for Permitted Innovation and Technology Hub (including Permitted Cargo Handling and Forwarding Facilities, Creative Industries, Eating Place, Flat (Staff Quarters only), Industrial Use, Information Technology and Telecommunications Industries, Office, Public Utility Installation, Research, Design and Development Centre, Shop and Services, Warehouse (excluding Dangerous Goods Godown)) at Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, N.T.

(HT25108)

Drainage Impact Assessment (DIA) Report

November 2025

Prepared & Approved by:	K. C. LEE *MICE, MHKIE*

何田顧問工程師有限公司
HO TIN & ASSOCIATES
CONSULTING ENGINEERS LIMITED

CONTENT

FIGURE

1. Introduction

1.1 Ho Tin & Associates Consulting Engineers Limited (HTA) was appointed by the client to prepare a Drainage Impact Assessment (DIA) in support of a S16 Planning Application for proposed filling of ponds for permitted innovation and technology hub (including permitted cargo handling and forwarding facilities, creative industries, eating place, flat (staff quarters only), industrial use, information technology and telecommunications industries, office, public utility installation, research, design and development centre, shop and services, warehouse (excluding dangerous goods godown)) ("the proposed development") at Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, N.T. ("the Application Site").

1.2 This report presents the DIA for the proposed development at the Application Site.

2. Objectives of This DIA

2.1 The Application Site is situated in the lower reach of the Northern New Territories Drainage Master Plan Study Area. San Tin Eastern Main Drainage Channel was constructed and San Tin Western Main Drainage Channel was planned to alleviate the flooding problems of the areas. Besides, the San Tin Village Flood Protection Scheme has been implemented to protect seven low-lying villages in San Tin, Yuen Long against the risk of flood damage during heavy rainfalls.

2.2 The Application Site falls within the area zoned "Other Specified Uses" annotated "Innovation and Technology" ("OU(I&T)") on the Approved San Tin Technopole Outline Zoning Plan (OZP) No. S/STT/2. Under the approved OZP, the existing ponds are presumed to be filled up for the planned developments. It is therefore envisaged that the Government will address the drainage problems, if any, in the catchment region and will implement measures, if necessary.

2.3 This DIA therefore aims to deal with drainage provisions and flood control measures to the local area of the Application Site which shall include the lot itself and the surrounding grounds.

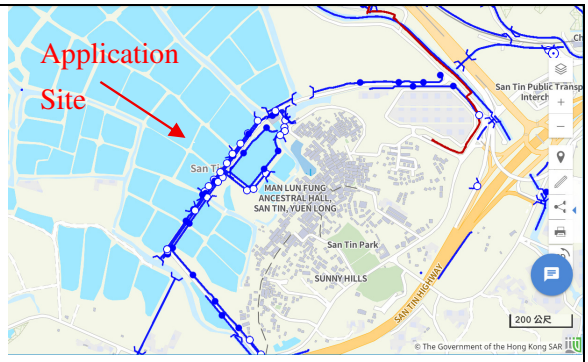
3. General Site Description and the Proposed Development

3.1 The site location is shown in **Figure 1A**. The Application Site comprises of Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, New Territories. It has an area of about 163,181m^2 and is located along the northwest side of San Tin Tsuen Road to the north of San Tin Highway. Majority of the Application Site is currently used as fish ponds with scattered residential dwellings, while the southwestern portion has been filled and used as storage/open storage yards, vehicle repair workshops, container vehicle park, and a logistics centre for over 20 years.

3.2 Site photos are shown below for information and the locations of the photo taking are shown in **Figure 2** of this DIA for reference:

<table>
<tr><td> 
</td><td> 
</td></tr>
<tr><td>Photo No. 1 – View from outside towards the northwestern boundary of the Application Site</td><td>Photo No. 2 – View of the southwestern portion of the Application Site</td></tr>
<tr><td> 
</td><td> 
</td></tr>
<tr><td>Photo No. 3 – View along San Tin Tsuen Road</td><td>Photo No. 4 – View from San Tin Tsuen Road towards the southeastern portion of the Application Site (1)</td></tr>
</table>

Photo No. 5 – View from San Tin Tsuen Road towards the southeastern portion of the Application Site (2)



Existing Public Drainage Layout extracted from the LandsD's website of 'Geoinfo' in October 2025

3.3 The Application Site is currently zoned "Other Specified Uses" annotated "Innovation and Technology" ("OU(I&T)") on the Approved San Tin Technopole Outline Zoning Plan (OZP) No. S/STT/2. It is proposed to develop the Application Site into a large-scale Innovation and Technology (I&T) hub, focusing on I&T development and low-altitude economy. The major development parameters of the proposed development are summarized in Table 2.3 in the following:

Table 2.3 Proposed Development Parameters

Parameter	Details
Site Area	About 163,181m^2
Plot Ratio (PR)	About 4.24
Total Gross Floor Area (GFA)	About 691,498m^2
Site Coverage	About 41%
No. of Blocks	14 comprising of: - Seven blocks of 12-storey I&T blocks - Three blocks of 19-storey commercial and staff quarters blocks - One block of 9-storey automatic parking system/ data centre - One block of 3-storey visitor & education centre - One block of 2-storey cooling centre - One block of 2-storey sub-station

3.4 Master Layout Plan of Ground Floor Plan and Roof Plan is shown in **Figure 3** and **4** respectively.

4. Existing Drainage System of the Area

4.1 The Application Site is situated at about 350m to the southwest of the San Tin Eastern Main Drainage Channel and at the immediate northeast side of the planned San Tin Western Main Drainage Channel.

4.2 With respect to the latest drainage information retrieved from the LandsD's website of Geoinfo, public stormwater drainage including two 3000mm (W) x 2000mm (H) box culverts, underground drains and surface channels, exist along San Tin Tsuen Road. The San Tin Stormwater Pumping Station is located on the southeast side of San Tin Tsuen Road opposite to the eastern corner of the Application Site.

4.3 The surface of San Tin Tsuen Road is at a level relatively higher than those on the both sides such that the road embankment would serve as a bund to protect the areas bounded by San Tin Tsuen Road and San Tin Highway from flooding caused by high tides at Deep Bay. Stormwater collected within the areas bounded by San Tin Tsuen Road and San Tin Highway would be discharged, when appropriate, via the San Tin Stormwater Pumping Station into the two 3000mm (W) x 2000mm (H) box culverts underneath San Tin Tsuen Road. The two box culverts discharge into an existing watercourse which runs along the southwestern boundary of the Application Site and conveys its flow towards the northwest into Shenzhen River.

4.4 At present, there are several stormwater intakes near San Tin Tsuen Road to allow the existing ponds within the Application Site to discharge. The intakes will convey the flows into an existing watercourse which runs along the northeastern boundary of the Application Site towards Shenzhen River. Except those at San Tin Tsuen, there is no other existing public stormwater drainage within the Application Site nor in its vicinity.

4.5 The existing levels of the ponds are ranging from +0.1mPD to +3.19mPD while the existing levels of the land are ranging from +0.82mPD to +5.36mPD. The concerned area is susceptible to both tidal and fluvial floods.

4.6 It is noticed that the San Tin Western Main Drainage Channel will be constructed along the southwestern boundary of the Application Site under CEDD's Agreement No. CE 15/2023 (CE) - 'First Phase Development of The New Territories North – San Tin / Lok Ma Chau Development Node – Investigation'. The Channel was scheduled to be completed before the mass intake of the area in 2034. In addition, flood retention facilities including retention ponds and three underground storage tanks are also planned in four "Open Space" zones on the southeast side of San Tin Highway to cater for the increase of surface runoff under the development of the upstream areas of the Application Site and the climate change effect.

5. Potential Drainage Impact

5.1 The proposed development at the Application Site will involve filling of pond and land of about 163,181m^2. In order to avoid both tidal and fluvial floods, the Application Site is proposed to be filled up to levels of not lower than +6.08mPD in general which is similar to the existing levels of San Tin Tsuen Road. With respect to the Table 8, 29, 30b and 31 in the Stormwater Drainage Manual Corrigendum No. 1/2022, the extreme sea level rise due to climate change and possible higher greenhouse gases emission scenarios in end of 21st century at Tsim Bei Tsui in 200 years return period would be +(4.78 + 0.47 + 0.26 + 0.27)mPD = +5.78mPD < +6.08mPD (allowing 0.3m for freeboard) which is then considered as appropriate.

5.2 The low lying areas bounded by San Tin Tsuen Road and San Tin Highway are protected from flooding by the road embankments in associated with the existing stormwater drainage system at San Tin Tsuen Road and the existing San Tin Stormwater Pumping Station. Filling of pond and land at the Application Site would be located outside San Tin Tsuen Road and would not obstruct any stormwater discharge route of the polder areas, it therefore would not cause adverse drainage effects upon the low lying areas on the opposite side of San Tin Tsuen Road. In addition, after completion of the San Tin Western Main Drainage Channel, flow from the polder areas between San Tin Tsuen Road and San Tin Highway can be discharged more effectively via the Channel.

5.3 It is anticipated to have no technical difficulties in designing internal drainage system of the Application Site. In view of its close proximity, it is proposed to discharge the stormwater flow from the Application Site directly into the San Tin Western Main Drainage Channel which runs along the southwestern boundary of the Application Site. Besides, completion of the internal drainage system of the Application Site shall tie in with

the latest programme of the San Tin Western Main Drainage Channel which at present is targeted to be completed in about 2034.

6. Proposed Drainage Works

6.1 The Application Site would be filled to levels not lower than +6.08mPD. Peripheral channels would be constructed to intercept surface runoff flowing across the site boundary. Peripheral channels would be constructed along the boundary of the Application Site to collect all surface runoff crossing the boundary. Underground drainage would be constructed within the Application Site to collect all the surface runoff including those from the peripheral channels and convey the runoff to a terminal stormwater manhole located at the western corner of the Application Site. The terminal stormwater manhole would discharge directly into the San Tin Western Main Drainage Channel.

6.2 Detailed design of the proposed drainage works will be submitted to relevant Government departments for approval at the later stage. No particular technical problem is envisaged. A Proposed Stormwater Drainage Management Plan is shown in **Figure 5**.

6.3 Nevertheless, aiming at improvement of the sustainability and resilience of Hong Kong's drainage system, application of blue-green drainage infrastructure which facilitates the infiltration of rainfall and the process of natural filtering to reduce the quantity and improve the quality of runoff, will be considered, where appropriate, under the subject proposed development at the later detailed design stage. Tentatively, green roofs, porous pavements and rainwater harvesting facilities will be recommended for consideration. The harvested water, if appropriate or after treatment, will be used for toilet flushing, drip irrigation, sprayed irrigation, water features, car washing and street cleansing, etc.

6.4 The subject proposed development is committed to obtain consents from parties/owners of adjacent relevant land/lots prior to commencement of the proposed drainage works outside the subject site and to maintain the completed drainage works to the satisfaction of relevant Government departments.

7. Conclusion

7.1 The Application Site will be filled up to levels not lower than +6.08mPD which is higher than the projected extreme sea level rise due to climate change and possible higher

greenhouse gases emission scenarios in end of 21st century. The Application Site would therefore not be flooded due to high tides.

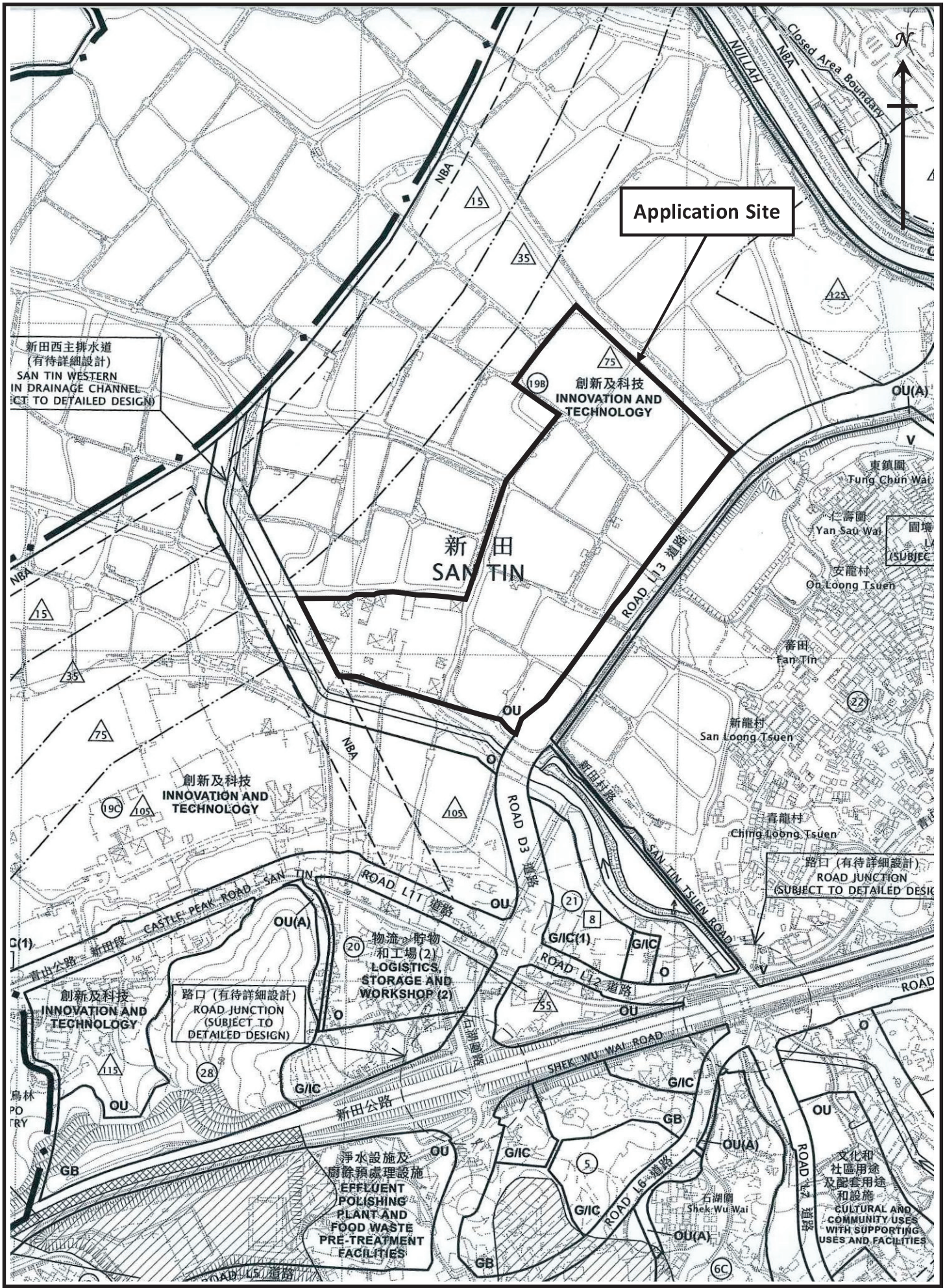
7.2 The Application Site is located on the opposite side of San Tin Tsuen Road which by nature is an embankment protecting the existing low lying areas bounded by San Tin Tsuen Road and San Tin Highway. The proposed filling works of the Application Site would not affect the existing drainage conditions of the concerned low lying areas. Besides, the existing stormwater discharge routes of the concerned low lying areas would not be disturbed.

7.3 Surface runoff within the Application Site would be properly managed by means of properly designed engineering drainage system of which the detailed design will be submitted to relevant Government departments for approval at the later stage. No insurmountable technical problem is anticipated.

7.4 Stormwater flow from the Application Site will be collected into a terminal stormwater manhole from which the flow will be discharged into the San Tin Western Main Drainage Channel which runs along the southwestern boundary of the Application Site. Completion of the internal drainage system of the Application Site shall tie in with the latest programme of the San Tin Western Main Drainage Channel which at present would be completed in about 2034.

7.5 The subject proposed development is committed to obtain consents from parties/owners of adjacent relevant land/lots prior to commencement of the proposed drainage works outside the subject site and to maintain the completed drainage works to the satisfaction of relevant Government departments.

7.6 In conclusion, the subject proposed development would not cause unacceptable adverse drainage impacts onto the surroundings.

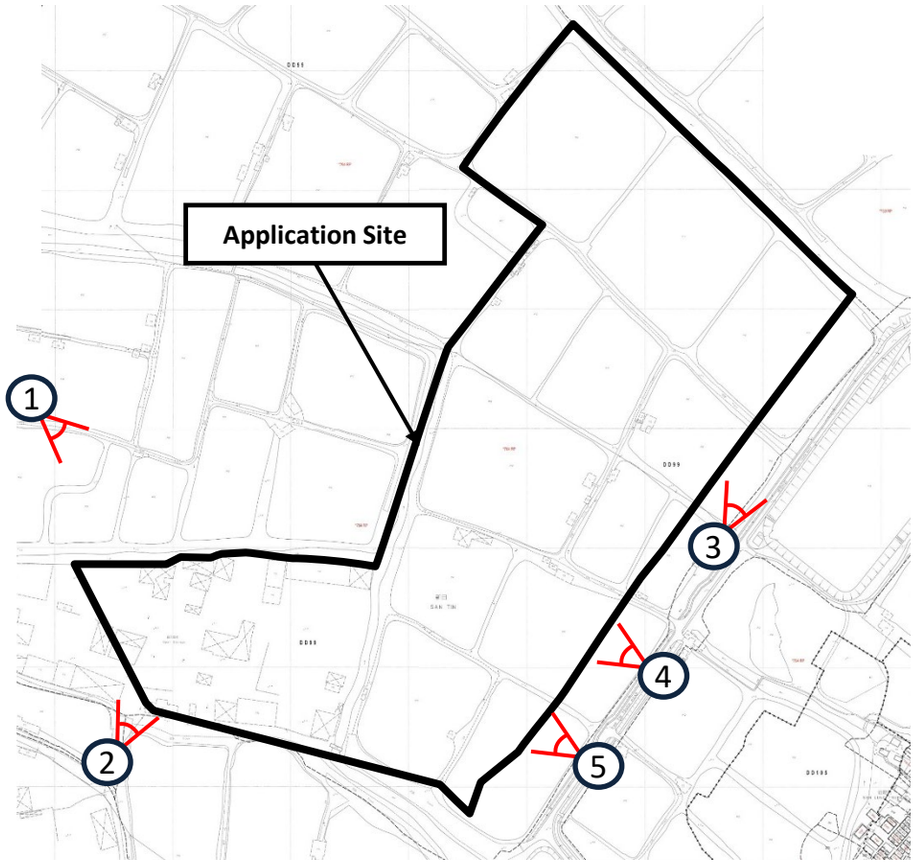


Location Plan
(Extract from Approved San Tin Technopole Outline Zoning Plan No. S/STT/2)

Figure 1A

1 : 7500

羅迅測計師行
Lawson David & Sung
SURVEYORS LIMITED
Property Consultants • Planning • Valuers • Auctioneers
Estate Agency Licence No. C-006328



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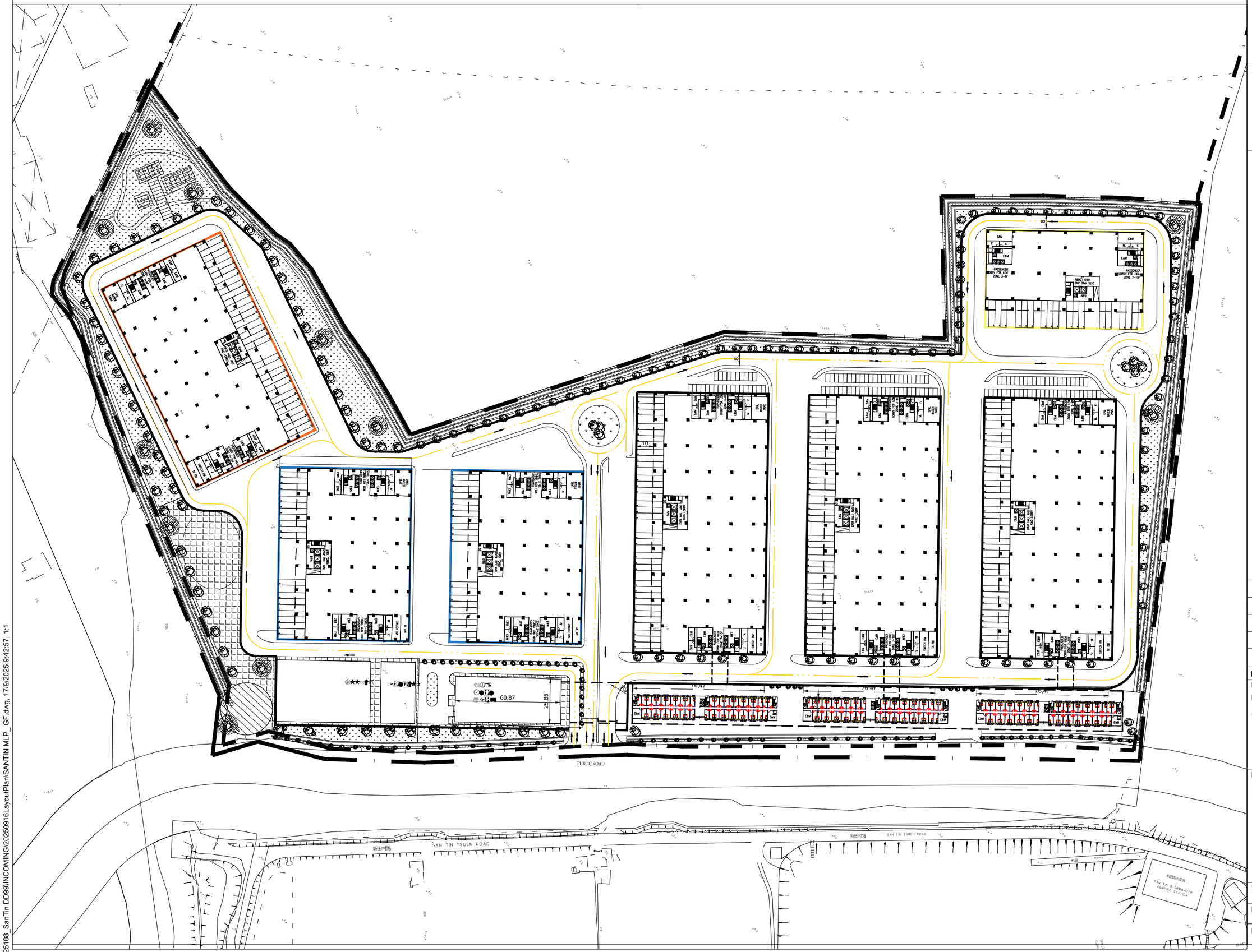
Viewpoint of the Photo

1 Photo No.

LOCATIONS OF PHOTO TAKING

FIGURE 2



CLIENT

Kenwell Limited

ARCHITECT

llewelyn davies

ARCHITECTS PLANNERS DESIGNERS

Llewelyn-Davies Hong Kong Ltd

GENERAL NOTE:

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3. READ THIS DRAWING IN CONNECTION WITH GENERAL ARCHITECTURAL PLANS, STRUCTURAL PLANS AND OTHER RELATED DRAWINGS.
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REV.	DATE	DESCRIPTION

PROJECT

PROPOSED LOGISTIC DEVELOPMENT IN SAN TIN TECHNOPOLE, LOT 764RP (PART) IN D.D. 99, SAN TIN, YUEN LONG, N.T.

DRAWING TITLE

MASTER LAYOUT PLAN
GROUND FLOOR PLAN

FIGURE 3

SCALE	DATE
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DRAWING NO.: 77216 / TYP / GP002	REV: –

1: 2000 @ A3

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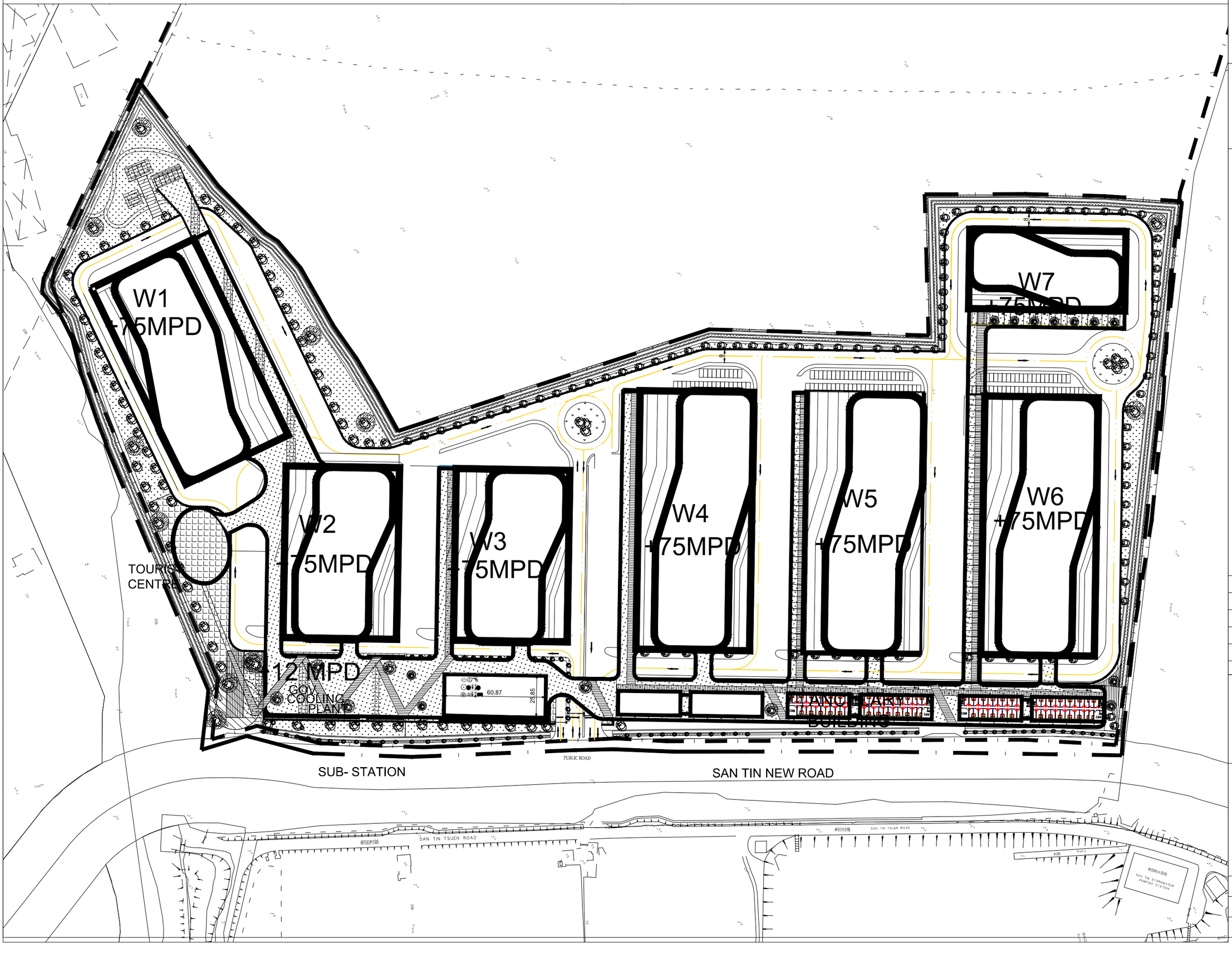

CLIENT

Kenwell Limited

ARCHITECT

llewelyn davies

ARCHITECTS PLANNERS DESIGNERS

Llewelyn-Davies Hong Kong Ltd

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REV.	DATE	DESCRIPTION

PROJECT

PROPOSED LOGISTIC DEVELOPMENT IN SAN TIN TECHNOPOLE, LOT 764RP (PART) IN D.D. 99, SAN TIN, YUEN LONG, N.T.

DRAWING TITLE

MASTER LAYOUT PLAN
ROOF PLAN

FIGURE 4

SCALE	DATE
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DRAWING NO.: 77216 / TYP / GP002	REV: –

1: 2000 @ A3

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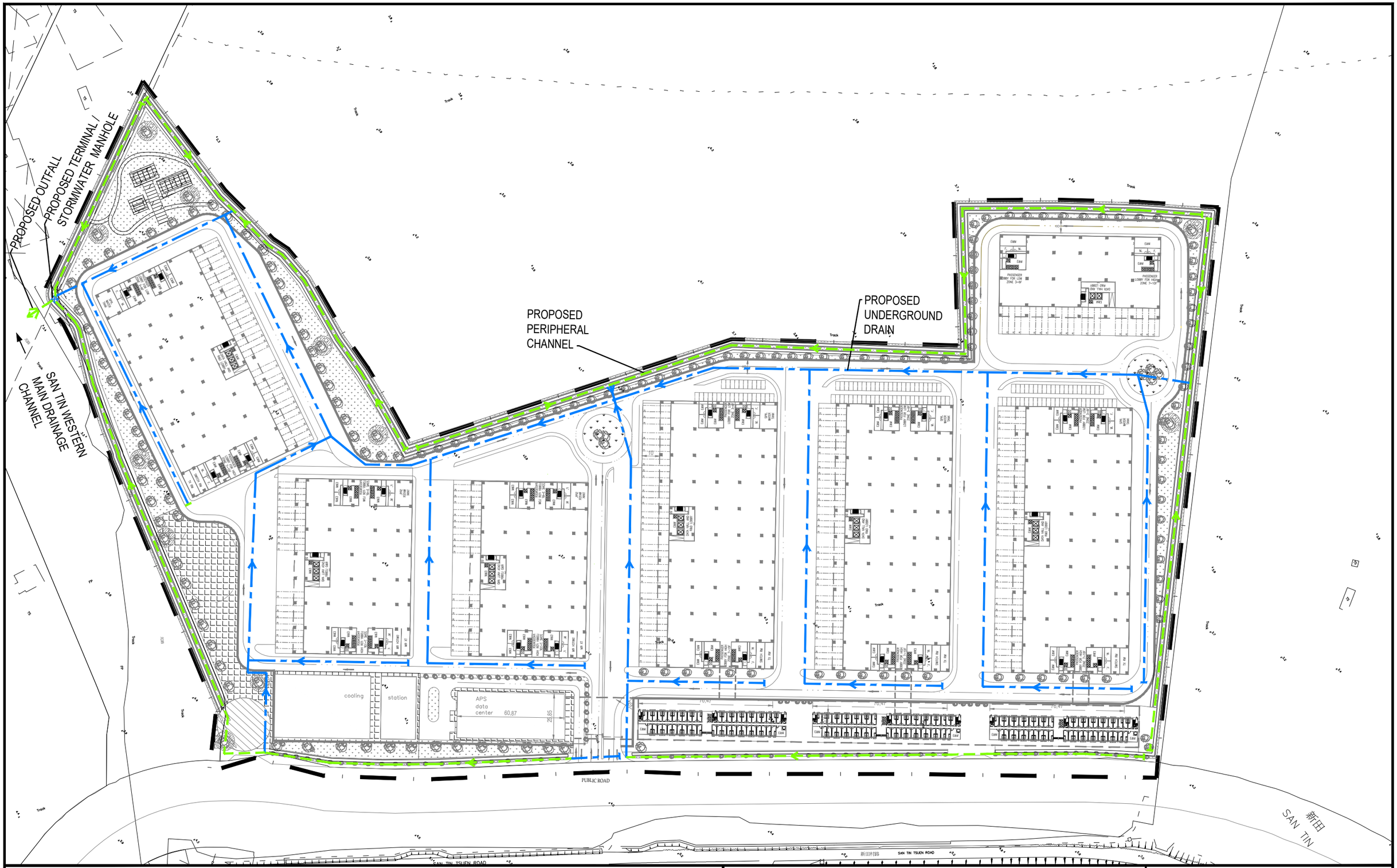

LEGEND:

PROPOSED PERIPHERAL CHANNEL

PROPOSED UNDERGROUND DRAIN

REMARK:
MANHOLES AND CATCHPITS AT JUNCTIONS ARE NOT SHOWN FOR CLARITY

PROJECT

何田顧問工程師有限公司
HO TIN & ASSOCIATES
CONSULTING ENGINEERS LIMITED

TITLE
PROPOSED STORMWATER DRAINAGE MANAGEMENT PLAN

SCALE
1 : 2000 @ A3

DRAWING No.
FIGURE 5

Annex E

Construction Traffic Impact Assessment

05/12/2025

Reference number CHK50888510

TRAFFIC CONSULTANCY SERVICES FOR S16 PLANNING APPLICATION (NO. A/STT/26), D.D. 99, SAN TIN

CONSTRUCTION TRAFFIC IMPACT ASSESSMENT REPORT

SYSTRA MVA

Proposed Filling of Ponds for Permitted Innovation and Technology Hub (including Permitted Cargo Handling and Forwarding Facilities, Creative Industries, Eating Place, Flat (Staff Quarters only), Industrial Use, Information Technology and Telecommunications Industries, Office, Public Utility Installation, Research, Design and Development Centre, Shop and Services and Warehouse (excluding Dangerous Goods Godown)) Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, New Territories (Planning Application No. A/STT/26)
Responses to Comments

Comments	Responses
Comments from Mr Victor MA, Commissioner for Transport, TD **Ref : By Email** **Dated : 14th January 2026** RtC 4(a): Annex D – CTIA	
a) **Section 3.1.2**: Please liaise with CEDD to check whether there will be any changes to the road network.	Noted. Please be advised that CEDD was liaised on 15th January 2026 regarding the road network in the vicinity of the Subject Site by year 2029 since the proposed pond filling as the associated mud dredging/earth filling works stage, which are scheduled to be completed by year 2029. Please refer to the relevant email to CEDD in **Appendix A**.
b) **Section 3.2.4**: Please liaise with PlanD and CEDD to ensure that population intake of nearby developments will be included in your assessment.	Noted. Please be advised that both PlanD and CEDD were liaised on 15th January 2026 regarding the population intake of nearby developments. Please refer to the relevant emails to CEDD and PlanD in **Appendices A & B,** respectively. According to the replied email from PlanD dated 19th January 2026 and the latest development schedule of the San Tin Technpole which is available in the public domain (https://nm-santintech.hk/en/implementation-arrangement/development-schedule/) as shown in **Appendix B**, it is noted that there are no major planned developments with population intake scheduled for the area in the vicinity of the Subject Site by year 2029 since the year 2029 is adopted as the design year for assessment of Construction Traffic Impact Assessment (CTIA) report. In light of the above, **Section 3.2.4** – Adopted Growth Factor (i.e. +0.50% per annum) is considered to be reasonable for estimation of future traffic flows for the CTIA report.

Comments	Responses
c) **Section 3.4**: Construction traffic arising from nearby infrastructures and developments (e.g. San Tin Technopole and NOL Spur Line) and the impact of their associated temporary traffic arrangements should be taken into account in the traffic forecast. Please also liaise with CEDD regarding the use of San Tin Tsuen Road as the construction vehicular accesses to the proposed development.	Noted. Please be advised that CEDD was liaised on 15th January 2026 regarding the construction traffic from nearby infrastructures and developments by year 2029, and the use of San Tin Tsuen Road as the construction vehicular accesses to the Subject Site. Please refer to the relevant email to CEDD in **Appendix A**. Based on the CITA, it is estimated that the flow of construction vehicles generated and attracted by the proposed pond filling site will be around 8 vehicles per hour and the assessed junctions will be operating within capacity during the AM and PM peak periods in year 2029 during construction. Therefore, it is anticipated that the impact of construction traffic to the surrounding road network will be insignificant.
d) **Tables 2.2** and **4.1**: Please include San Tin Interchange and the junction of slip roads of San Tin Highway and Shek Wu Wai Road in your assessment. In addition, please advise the storage/deposit sites for the mud dredging/earth filling materials and assess the critical junctions/links to/from the storage/deposit sites.	As illustrated in **Drawing No. 3.1** in the CITA report, please note that the proposed access routing for construction vehicles will not pass through San Tin Interchange and the junction of slip roads of San Tin Highway and Shek Wu Wai Road. Therefore, the junctions operation performance of the two aforesaid junctions will not be affected during the proposed filing of ponds stage. In addition, please be advised that the mud dredging/earth filling materials will be stored within the subject site.

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LIST OF TABLES

LIST OF DRAWINGS

1. INTRODUCTION

1.1. Background

1.1.1. The proposed development is situated at Lot 764RP (Part) in D.D. 99 San Tin, Yuen Long (the Subject Site). Currently, it is mainly occupied by ponds. The location of the Subject Site is illustrated in **Drawing No. 1.1**.

1.1.2. The Subject Site is currently zoned as "Other Specified Uses" annotated "Innovation and Technology" on the Approved San Tin Technopole Outline Zoning Plan No.: S/STT/2 (the "OZP"). In addition, the subject site previously fell within the "Other Specified Uses" annotated "Comprehensive Development and Weland Enhancement Area" zone on the Approved San Tin OZP No. S/YL-ST/8, such that any filling of ponds requires planning permission from the Board.

1.1.3. A Section 16 Planning Application A/STT/26 has been submitted and comments from Transport Department was received in late July 2025. It is noted that Transport Department's (TD) comment *"(a) The applicant should provide a construction Traffic Impact Assessment (TIA) for its proposed pond filling as the associated mud dredging / earth filling works are anticipated to induce significant amount of vehicle trips." was received* as per Planning Department's (PlanD's) email received on 24th July 2025

1.1.4. MVA Hong Kong Ltd. has been commissioned as the traffic consultant, to conduct the construction Traffic Impact Assessment in support of the Section 16 Planning Application for the Proposed Development.

1.1.5. The purpose of this study is to review on the traffic impact induced by its proposed pond filling as the associated mud dredging/earth filling works.

1.2. Study Objective

1.2.1. The scopes of this Traffic Report are as follows:

a) To undertake manual classified count traffic surveys to determine the existing traffic conditions in the vicinity of the Application Site;
b) To study and access the existing travel patterns, road and junction capacities in the local area adjacent to the Application Site;
c) To identify the potential traffic generation for the proposed pond filling as the associated mud dredging/earth filling works and carry out distribution and assignment of the generated traffic;
d) To estimate the future traffic flows for the design year on the surrounding local roads; and
e) To assessment the traffic impact due to the proposed pond filling works on the surrounding local road and junctions for the design year.

1.3. Structure of the Report

1.3.1. Following this introductory chapter, there are four further chapters.

1.3.2. **Chapter 2 – Existing Traffic Condition**, which describes the existing road network and public transport facilities in the vicinity of the Application Site, presents the summary of traffic count survey and assesses the existing traffic conditions.

1.3.3. **Chapter 3 – Traffic Forecast,** which summaries the methodology for future traffic forecasts.

1.3.4. **Chapter 4 – Construction Traffic Impact Assessment**, which presents the findings of the traffic impact assessment during the proposed pond filling works.

1.3.5. **Chapter 5 – Summary and Conclusion**, which summaries the findings of the study and presents the conclusions regarding the traffic issues associated with the proposed pond filling as the associated mud dredging/earth filling works.

2. EXISTING TRAFFIC CONDITION

2.1. Existing Road Network

2.1.1. The existing local road network is shown in **Drawing No. 2.1**.

2.1.2. The Application site is mainly served by the expressway San Tin Highway, and local distributors Castle Peak Road – San Tin and San Tin Tsuen Road.

2.1.3. San Tin Highway is an expressway. It is a dual carriageway with 3 lanes running along east-west direction, connecting to Yuen Long Highway and Fanling Highway at both ends.

2.1.4. Castle Peak Road – San Tin is a rural road. It is a single carriageway with two lanes connecting to Castle Peak Road – Mei Po to the west and Castle Peak Road – Chau Tau to the east. Currently, there are vehicular accesses for warehouses, open-air carpark and car repair shops, etc.

2.1.5. San Tin Tsuen Road is a feeder road. It is a single track access road with passing bay at some locations and connecting villages and ponds to Castle Peak Road – San Tin.

2.2. Existing Traffic Situation

2.2.1. To review the existing traffic situation in the study area, five critical junctions were identified for assessment of traffic impact purpose. They are listed in **Table 2.1** below.

Table 2.1 Critical Junctions for Assessment

Ref.	Junction	Method of Control
J1	Castle Peak Road – San Tin/Shek Wu Wai Road	Priority
J2	Castle Peak Road – San Tin/San Tin Tsuen Road	Priority
J3	Tun Yu Road/San Tin Tsuen Road	Priority
J4	Castle Peak Road – San Tin/San Tin Tsuen Road	Priority
J5	Castle Peak Road – San Tin/San Tin Highway Slip Road	Signal

2.2.2. The locations of the above five junctions are illustrated in **Drawing No. 2.1.**

2.2.3. In order to appraise the existing traffic conditions, a traffic survey in the form of manual classified count was conducted at a typical weekday in late September 2025 during 07:30-09:30 hours and 16:30-19:30 hours.

2.2.4. Analysis of the observed traffic data indicates that the AM and PM peak hour flows occurred during 7:30-8:30 hours and 17:45-18:45 hours respectively and the surveyed peak hour traffic flows are shown in **Drawing No. 2.2**.

2.2.5. Based on the observed traffic flows presented in **Drawing No. 2.2**, the existing operational performance of the surveyed junctions were assessed by calculating the reserve capacity (RC) for signalized junction and the ratio of flow to capacity (RFC) for priority junction.

2.2.6. Existing operational performance of the critical junctions and the results are listed in **Table 2.2** below.

Table 2.2 Year 2025 Existing Junctions Operational Performance

Ref.	Junction	Method of Control	Year 2025 RC/RFC (1)	
			AM Peak	PM Peak
J1	Castle Peak Road – San Tin/Shek Wu Wai Road	Priority	0.457	0.464
J2	Castle Peak Road – San Tin/San Tin Tsuen Road	Priority	0.074	0.132
J3	Tun Yu Road/San Tin Tsuen Road	Priority	0.008	0.042
J4	Castle Peak Road – San Tin/San Tin Tsuen Road	Priority	0.078	0.092
J5	Castle Peak Road – San Tin/San Tin Highway Slip Road	Signal	> 100%	> 100%

Note: (1) RC = Reserve Capacity for Signal Junction
RFC = Ratio of Flow to Capacity for Priority Junction

2.2.7. The assessment results in **Table 2.2** indicate that all critical junctions are at present operating within capacities.

2.3. Existing Public Transport Services

2.3.1. Under the existing condition, only one franchised bus service providing services in the vicinity of the subject site, and the route is listed in **Table 2.3**.

Table 2.3 Existing Public Transport Services in the Vicinity of Subject Site

Route No.	Origin – Destination	Frequency (minutes)
Franchised Bus Route		
76K	Long Ping Estate – Sheung Shui (Ching Ho)	20 - 30

3. FUTURE TRAFFIC FORECAST

3.1. Design Year

3.1.1. The tentative programme for the proposed pond filling as the associated mud dredging/earth filling works are scheduled to be completed by 2029. In order to assess the traffic impact of the proposed construction works, year 2029 is adopted as the design year for assessment.

3.1.2. It is anticipated that the future local road network will remain unchanged and there is no plan for any major road infrastructure in the vicinity by 2029. Therefore, reference (background) traffic flows for design year 2029 would be derived from the expected growth of traffic in the area with reference to the historical growth trend and area planning data and the planned future developments in the vicinity would also be taken into consideration.

3.2. Year 2029 Reference Traffic Flows

3.2.1. To forecast the 2029 traffic flows, an appropriate growth factor has to be identified reference. The derived growth factors were made to the historical growth trend and the population and employment projections with reference to the following information:

- Historical traffic data of the Annual Traffic Census (ATC) reports published annually by Transport Department in **Table 3.1**

Historical Trend

3.2.2. Transport Department has traffic count stations in the vicinity of the Subject Site where covers the key access junctions of the subject site. The A.A.D.T data from year 2019 to 2024 as reported in the latest Annual Traffic Census (ATC) are summarized in **Table 3.1**.

Table 3.1 Average Annual Daily Traffic (A.A.D.T.) Data

ATC Stn. No.	Road Section	A.A.D.T. (Vehicle/Day)						Annual Growth Rate (% p.a.)
		2019	2020	2021	2022	2023	2024	2019/2024
5257	Castle Peak Rd – Tam Mi, Mai Po & San Tin (Fairview Park Boulevard – Lok Ma Chau Rd)	11,910	11,420	11,880	11,520	10,740	11,170	-1.27%
5508	San Tin Highway (Fairview Park Boulevard – Lok Ma Chau Rd)	80,460	82,010	86,000	82,190	87,340	79,140	-0.33%
Total		**92,370**	**93,430**	**97,880**	**93,710**	**98,080**	**90,310**	**-0.45%**

Source: The Annual Traffic Census 2019 - 2024 as available on Transport Department's website

3.2.3. The A.A.D.T. flows in **Table 3.1** show that the overall average traffic growth on the road sections in the vicinity of the Subject Site decreased at the rate of -0.45% per annum from year 2019 to 2024.

Adopted Growth Factor

3.2.4. To produce a conservative assessment, it is therefore assumed to have a local traffic growth of +0.50% per annum, to cover the growth from observed year of 2025 to design year of 2029

for assessment. It is deemed sufficient to allow for any unexpected future growth as a result of some unexpected changes in land use or redevelopment in the area. This adopted growth rates would be able to ensure a conversative estimation of future traffic flows.

3.3. Traffic Generation during Construction

3.3.1. The construction works for the proposed pond filling as the associated mud dredging/earth filling works are scheduled to be completed by 2029. During the construction stage, the movement of construction vehicle be distributed evenly during 9-hour operation period (e.g. 08:00 – 18:00). It is planned that the concrete trucks will generate and attract from the existing pond at San Tin Tsuen Road and the mud dredging/earth filling materials storage site in mainland via Lok Ma Chau Control Point.

3.3.2. It is estimated that the flow of construction vehicles generated and attracted by the proposed pond filling site around 8 vehicles per hour (i.e. 8 vehicle x 2.5 pcu factor = about 20 pcu per hour), which has been assigned to San Tin Tsuen Road and Castle Peak Road – San Tin according to their routings during construction.

3.3.3. The proposed access routing for construction vehicles is shown in **Drawing No. 3.1**.

3.4. Traffic Forecasts

Year 2029 Reference Traffic Flows

3.4.1. As discussed in **Section 3.2**, the 2029 reference traffic flows (without Construction Flow of the proposed pond filling) were derived by applying the adopted growth rate of +0.50% p.a. on the 2025 observed traffic flows.

Year 2029 Construction Traffic Flows

3.4.2. The traffic flow due to the proposed pond filling works were then superimposed onto 2029 reference traffic flows to produce 2029 construction traffic flows. The construction traffic flows for the assessment year 2029 are calculated as follows and are presented in **Drawing No. 3.2**.

Year 2029 Construction Traffic Flows = (**Drawing No. 3.2**)	Year 2029 Reference Traffic Flows + traffic due to the proposed pond filling works

4. CONSTRUCTON TRAFFIC IMPACT ASSESSMENT

4.1. Junction Operational Assessment

4.1.1. The operational traffic impact assessments have been conducted for the derived year 2029 traffic forecasts during construction as shown in **Drawing No. 3.2**. The assessment results are summarised in **Table 4.1**.

Table 4.1 Year 2029 Junctions Operation Performance during Construction

Junction No.	Junction	Method of Control	Year 2029 Construction DFC/RC (1) [With Construction Traffic for the Proposed Pond Filling Works]	
			AM Peak	PM Peak
J1	Castle Peak Road – San Tin/Shek Wu Wai Road	Priority	0.480	0.495
J2	Castle Peak Road – San Tin/San Tin Tsuen Road	Priority	0.096	0.158
J3	Tun Yu Road/San Tin Tsuen Road	Priority	0.017	0.050
J4	Castle Peak Road – San Tin/San Tin Tsuen Road	Priority	0.086	0.094
J5	Castle Peak Road – San Tin/San Tin Highway Slip Road	Signal	> 100%	> 100%

Note: (1) RC = Reserve Capacity for Signal Junction
RFC = Ratio of Flow to Capacity for Priority Junction

4.1.2. **Table 4.1** have indicated that all the key access junctions will be operating within capacity during the AM and PM peak periods for year 2029 during construction.

5. SUMMARY AND CONCLUSION

5.1. Summary

5.1.1. The proposed development is situated at Lot 764RP (Part) in D.D. 99 San Tin, Yuen Long (the Subject Site). Currently, it is mainly occupied by ponds.

5.1.2. The Subject Site is currently zoned as "Other Specified Uses" annotated "Innovation and Technology" on the Approved San Tin Technopole Outline Zoning Plan No.: S/STT/2 (the "OZP"). In addition, the subject site previously fell within the "Other Specified Uses" annotated "Comprehensive Development and Weland Enhancement Area" zone on the Approved San Tin OZP No. S/YL-ST/8, such that any filling of ponds requires planning permission from the Board.

5.1.3. MVA Hong Kong Ltd. has been commissioned as the traffic consultant, to conduct the construction Traffic Impact Assessment in support of the Section 16 Planning Application for the Proposed Development.

5.1.4. The purpose of this study is to review on the traffic impact induced by its proposed pond filling as the associated mud dredging/earth filling works.

5.1.5. A traffic survey in the form of manual classified count was conducted at a typical weekday in late September 2025 during 07:30-09:30 hours and 16:30-19:30 hours. Analysis of the observed traffic data indicates that the AM and PM peak hour flows occurred during 7:30-8:30 hours and 17:45-18:45 hours respectively.

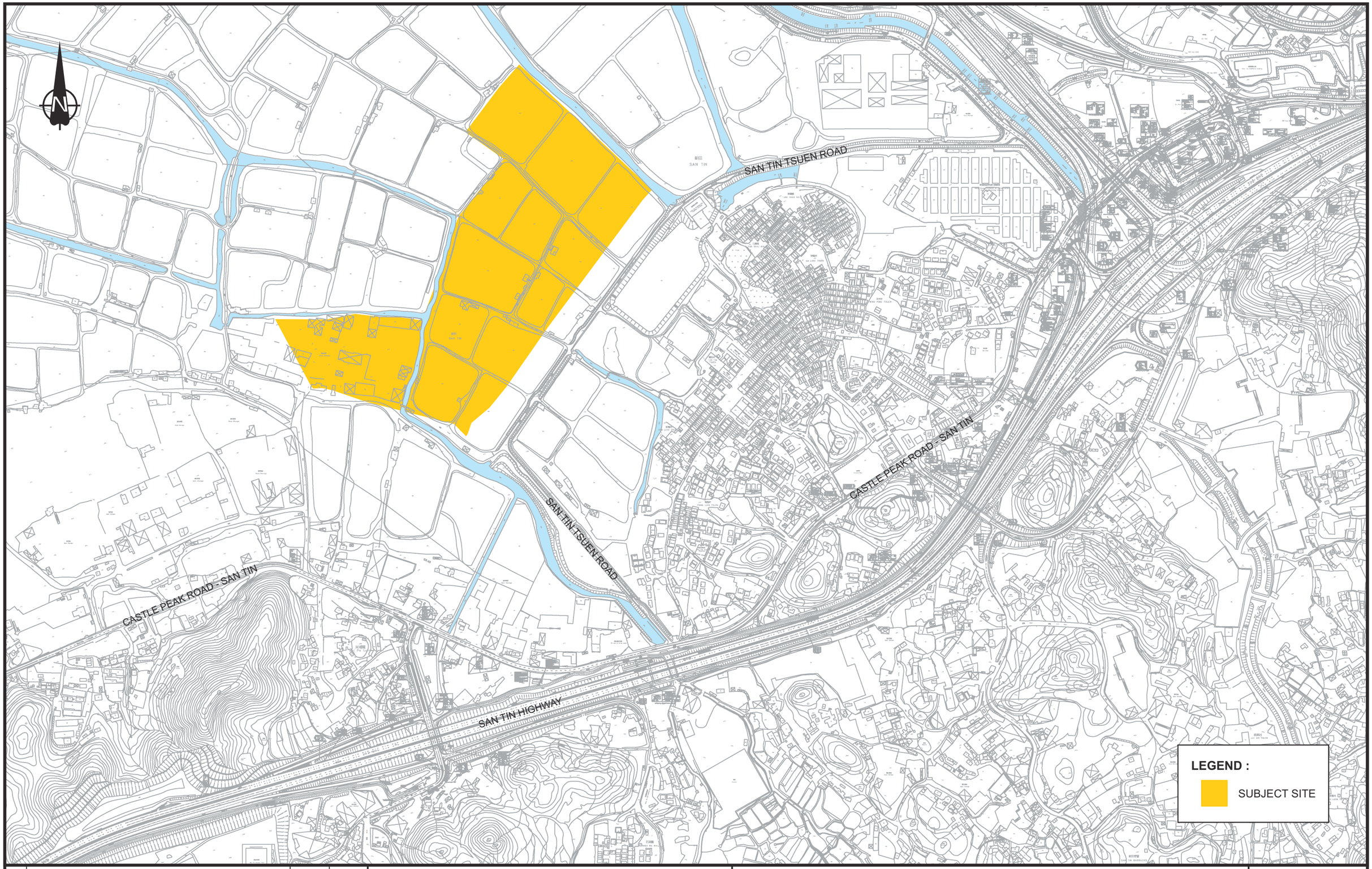
5.1.6. The tentative programme for the proposed pond filling as the associated mud dredging/earth filling works are scheduled to be completed by 2029. In order to assess the traffic impact of the proposed construction works, year 2029 is adopted as the design year for assessment.

5.1.7. To produce a conservative assessment, it is therefore assumed to have a local traffic growth of +0.50% per annum, to cover the growth from observed year of 2025 to design year of 2029 for assessment. It is deemed sufficient to allow for any unexpected future growth as a result of some unexpected changes in land use or redevelopment in the area. This adopted growth rates would be able to ensure a conversative estimation of future traffic flows.

5.1.8. The operational traffic impact assessments have been conducted for the derived year 2029 traffic forecasts during construction. The assessment results indicated that all the key access junctions will be operating within capacity during the AM and PM peak periods for year 2029 during construction.

5.2. Conclusion

5.2.1. In conclusion, the construction traffic impact assessment demonstrates that the traffic impact induced by its proposed pond filling as the associated mud dredging/earth filling works is minimal to the surrounding road network and it will be acceptable in traffic engineering point of view.



Rev.	Description	Checked	Date
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-	-	-	-
-	-	-	-
-	-	-	-

Project Title

TRAFFIC CONSULTANCY SERVICES FOR
S16 PLANNING APPLICATION (NO. A/STT/26), D.D.99, SAN TIN

Drawing Title

LOCATION OF THE SUBJECT SITE

Designed	Checked	Scale	Date	Drawing No.	Rev.
LYK	MYL	NTS	NOV 2025	1.1	-

SYSTRA MVA

CHK50888510/CTIA/F11.CDR/LLH/27NOV25

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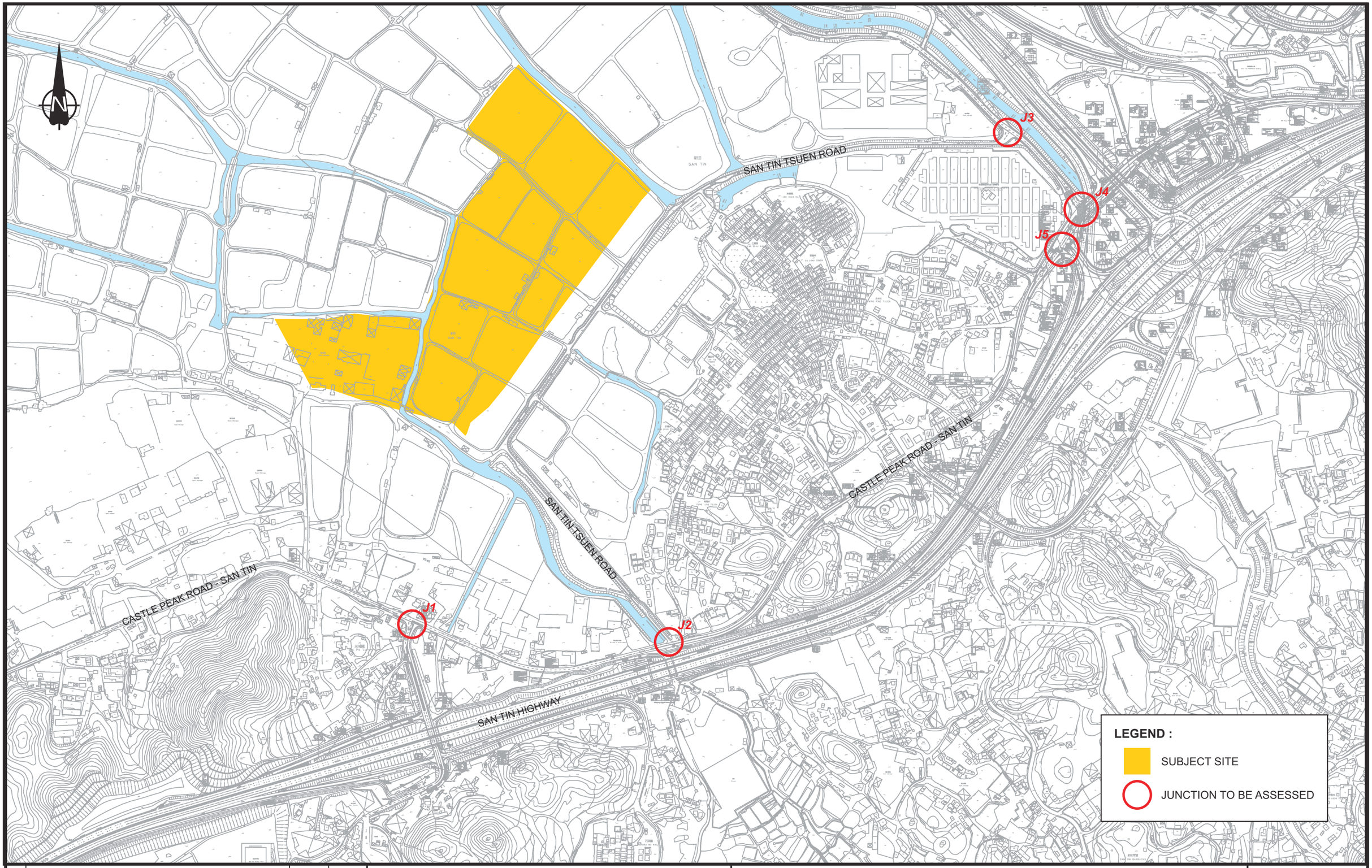

Rev.	Description	Checked	Date
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-	-	-	-

Project Title

TRAFFIC CONSULTANCY SERVICES FOR
S16 PLANNING APPLICATION (NO. A/STT/26), D.D.99, SAN TIN

Drawing Title

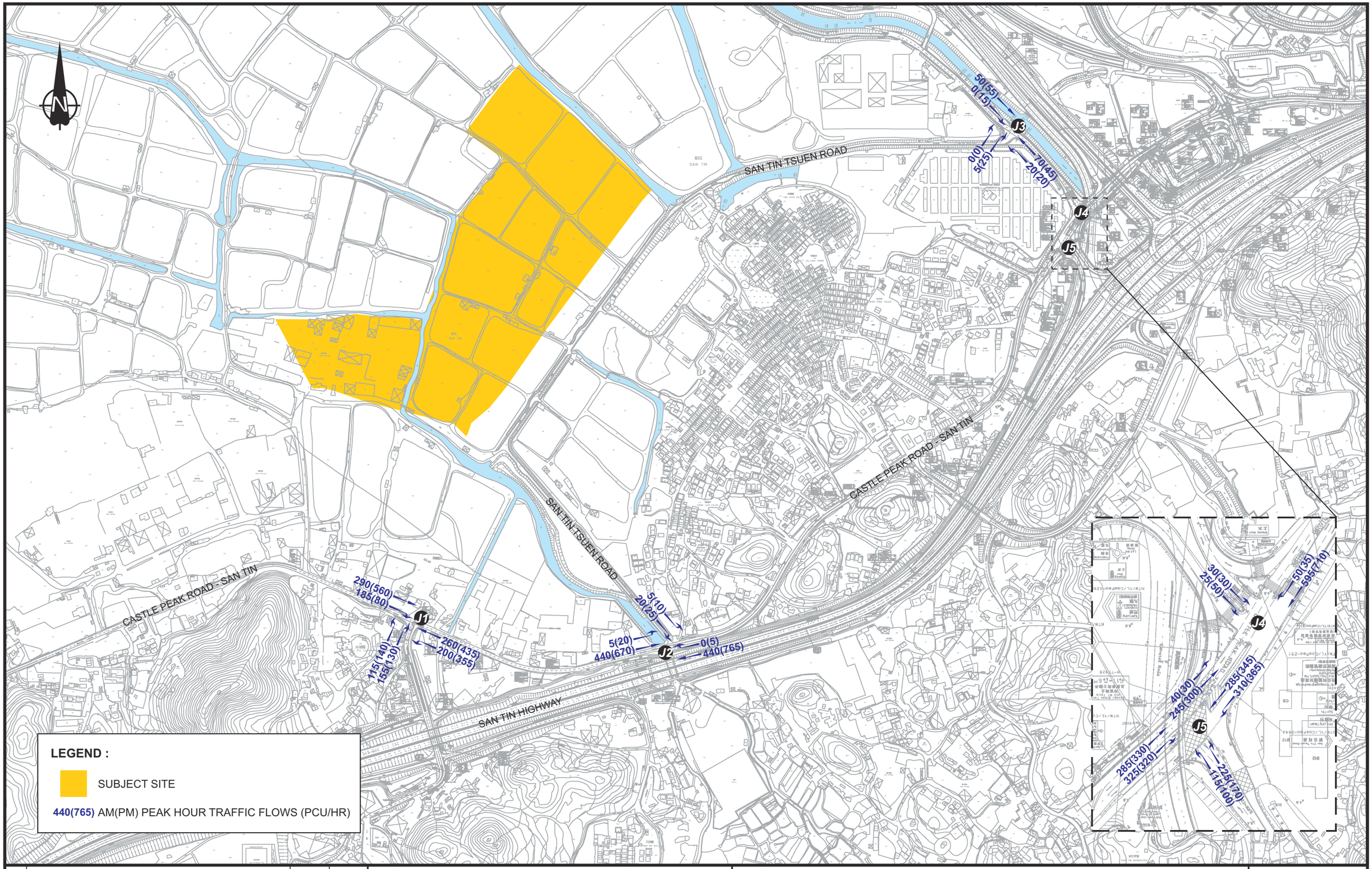
EXISTING LOCAL ROAD NETWORK

Designed	Checked	Scale	Date	Drawing No.	Rev.
LYK	MYL	NTS	NOV 2025	2.1	-

SYSTRA MVA

CHK50888510/CTIA/F21.CDR/LLH/27NOV25

Original Size : A3



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Project Title

TRAFFIC CONSULTANCY SERVICES FOR
S16 PLANNING APPLICATION (NO. A/STT/26), D.D.99, SAN TIN

Drawing Title

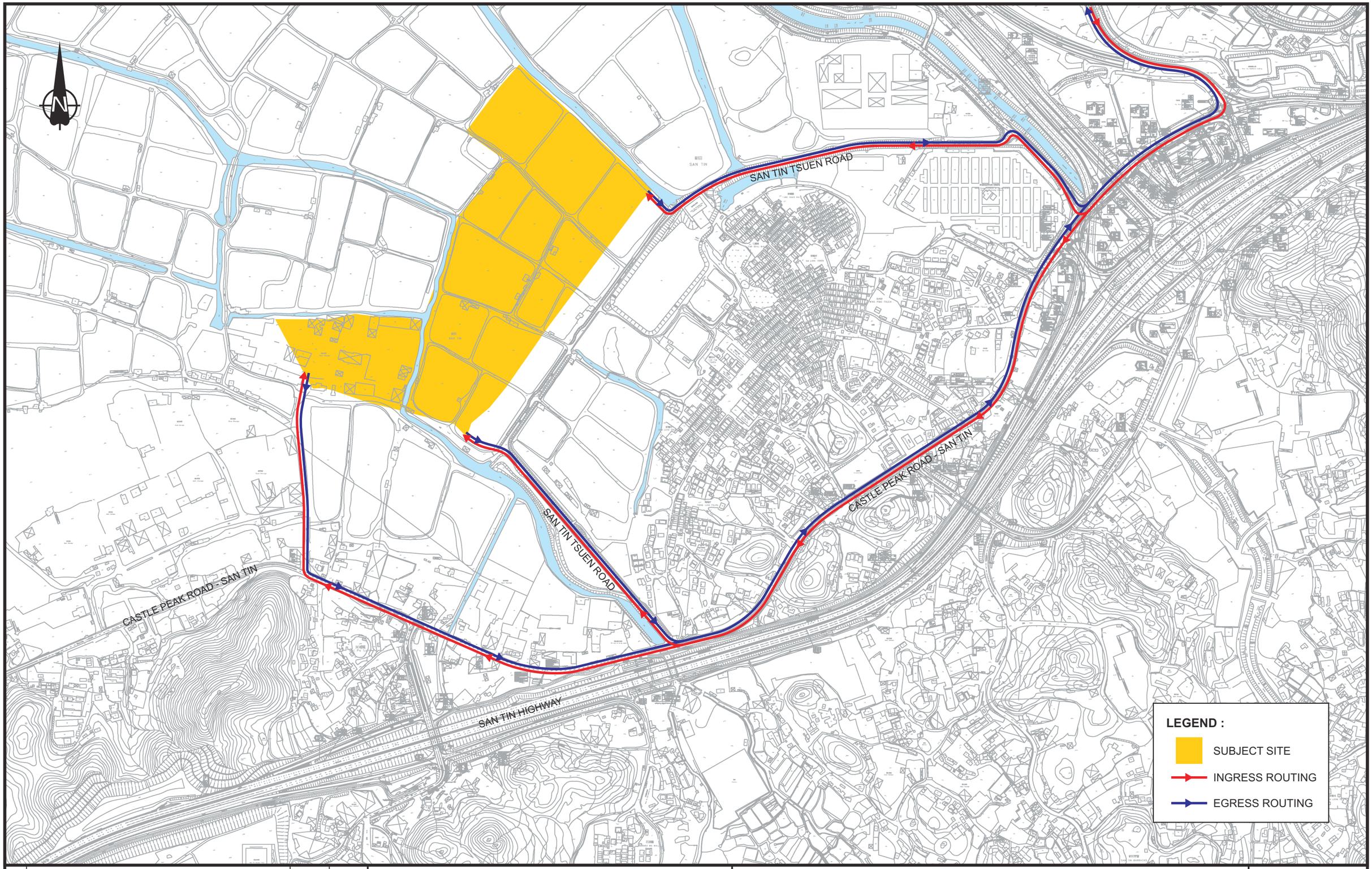
YEAR 2025 OBSERVED TRAFFIC FLOWS

Designed	Checked	Scale	Date	Drawing No.	Rev.
LYK	MYL	NTS	NOV 2025	2.2	-

SYSTRA MVA

CHK50888510/CTIA/F22.CDR/LLH/28NOV25

Original Size : A3



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-	-	-	-

Project Title

TRAFFIC CONSULTANCY SERVICES FOR
S16 PLANNING APPLICATION (NO. A/STT/26), D.D.99, SAN TIN

Drawing Title

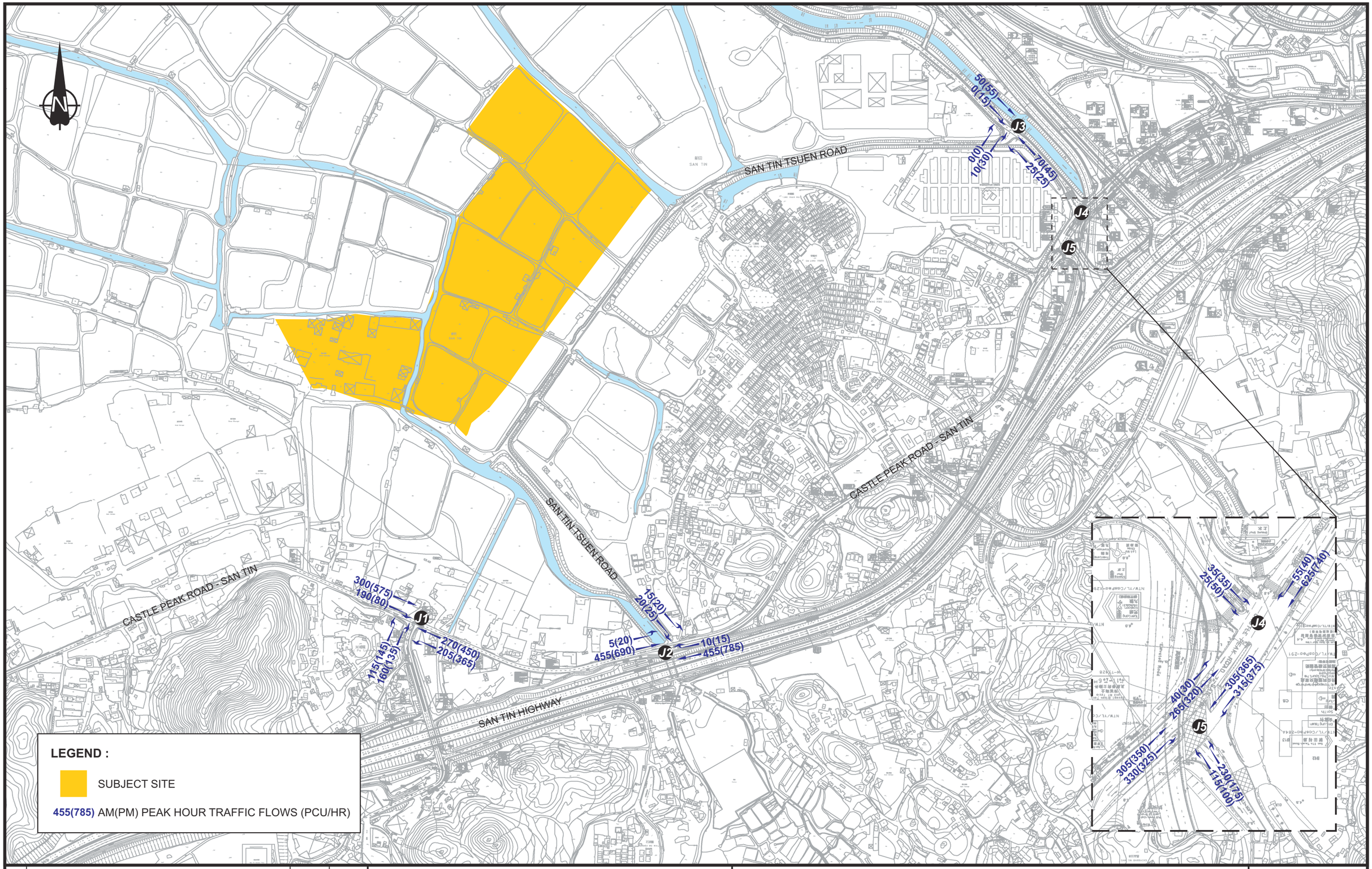
PROPOSED ACCESS ROUTING FOR CONSTRUCTION VEHICLE

Designed	Checked	Scale	Date	Drawing No.	Rev.
LYK	MYL	NTS	NOV 2025	3.1	-

SYSTRA MVA

CHK50888510/CTIA/F31.CDR/LLH/27NOV25

Original Size : A3



Rev.	Description	Checked	Date
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Project Title

TRAFFIC CONSULTANCY SERVICES FOR
S16 PLANNING APPLICATION (NO. A/STT/26), D.D.99, SAN TIN

Drawing Title

YEAR 2029 DESIGN TRAFFIC FLOWS

Designed	Checked	Scale	Date	Drawing No.	Rev.
LYK	MYL	NTS	DEC 2025	3.2	-

SYSTRA MVA

CHK50888510/CTIA/F32.CDR/LLH/2DEC25

Original Size : A3

Appendix A -

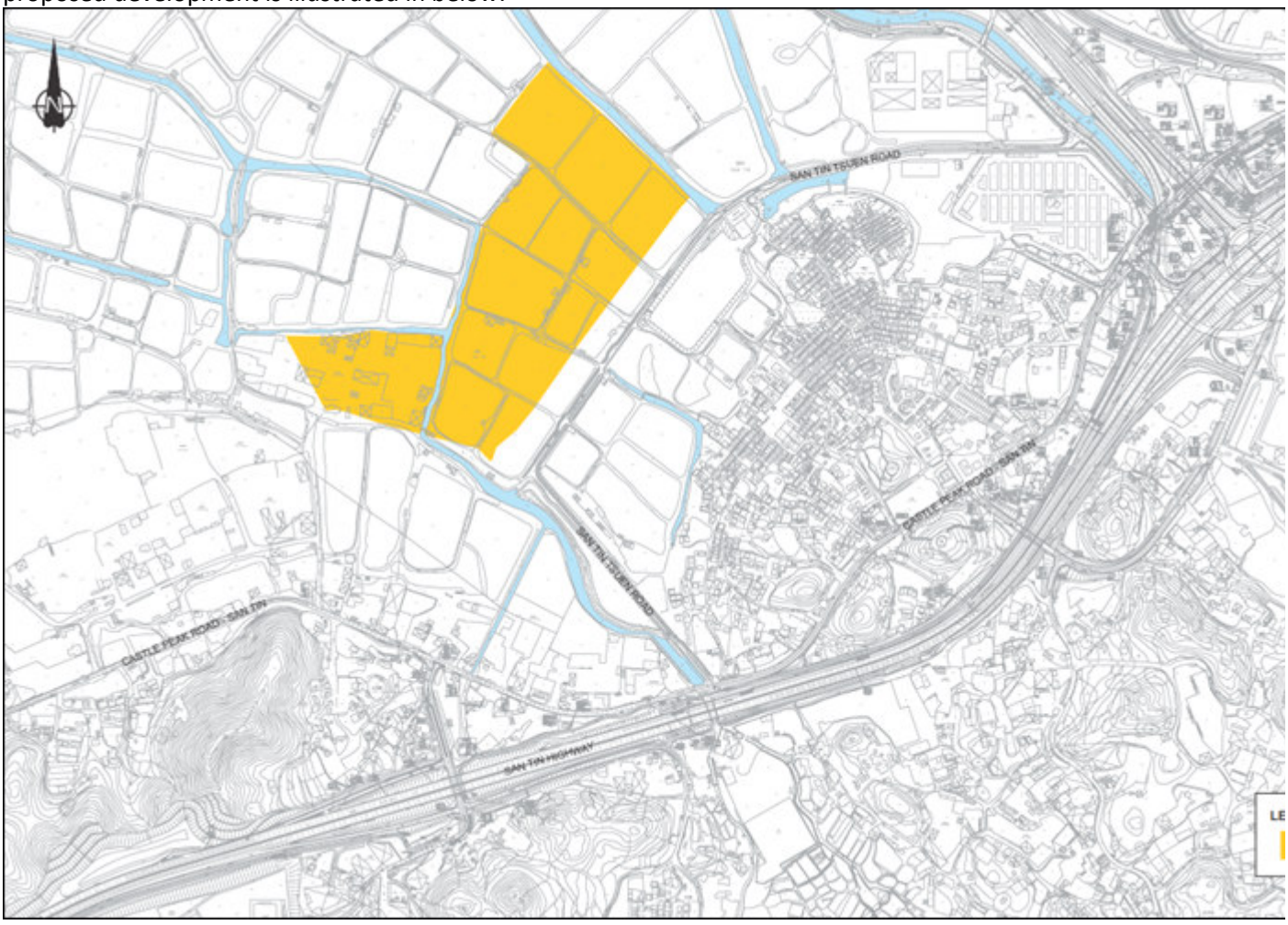
Liaison with CEDD dated 15th January 2026

From: LAM Questa
Sent: Thursday, January 15, 2026 5:30 PM
To: 'wpsuen@cedd.gov.hk'
Cc: Cannis Lee; CHAN Rebecca; MOK Moraine
Subject: Proposed Filling of Ponds for Permitted Innovation and Technology Hub at Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, New Territories (Planning Application No. A/STT/26)
Attachments: STT 26_Departmental Comments(draft FI)_20260114 (TD).pdf

Proposed Filling of Ponds for Permitted Innovation and Technology Hub (including Permitted Cargo Handling and Forwarding Facilities, Creative Industries, Eating Place, Flat (Staff Quarters only), Industrial Use, Information Technology and Telecommunications Industries, Office, Public Utility Installation, Research, Design and Development Centre, Shop and Services and Warehouse (excluding Dangerous Goods Godown) Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, New Territories (Planning Application No. A/STT/26)

Dear Ms. Suen,

We refer to our telephone conversation on 15th January 2025 regarding the planning application (Planning Application No. A/STT/26) for the proposed development in the future San Tin Technopole. The location of the proposed development is illustrated in below:



As per our telephone conversation, please be advised that a construction traffic impact assessment (CTIA) report was submitted to PlanD and circulated to TD in early Jan 2026 to review on the traffic impact induced by its

proposed pond filling as the associated mud dredging/earth filling works stage, which are scheduled to be completed by 2029.

Based on TD's comment on the aforesaid CTIA report issued on 14th January 2026, we would like to seek for your advice/confirmation on the following items:

1) no change to the road network in the vicinity of the proposed development (the subject site highlighted in yellow colour in figure above) by year 2029
2) since the nearby developments will not be completed by year 2029, there is nil population intake of nearby developments by year 2029
3) no construction traffic arising from nearby infrastructures and developments (e.g. San Tin Technopole and NOL Spur Line) for road network in the vicinity of the proposed development by year 2029, otherwise, please advise the construction traffic routing and the estimated construction flows arising from nearby infrastructures and developments by year 2029
4) San Tin Tsuen Road can be used as the construction vehicular accesses to the proposed development

We would be grateful if you could provide your comment at your earliest convenience. Your support in this matter is greatly appreciated.

Should you have any queries or require further information, please do not hesitate to contact the undersigned at [redacted] or our Ms. Moraine Mok a[redacted]

Thank you very much for your kind attention.

Best Regards,

Questa Lam
Associate
[redacted]

SYSTRA MVA

22nd Floor • Genesis • 33-35 Wong Chuk Hang Road • Hong Kong
www.mvaasia.com

As part of Systra on-going corporate initiative, our email address will be switched to systra.com. Please use this email (qlam@systra.com) for any further correspondence. Thank you for attention.

Proposed Filling of Ponds for Permitted Innovation and Technology Hub (including Permitted Cargo Handling and Forwarding Facilities, Creative Industries, Eating Place, Flat (Staff Quarters only), Industrial Use, Information Technology and Telecommunications Industries, Office, Public Utility Installation, Research, Design and Development Centre, Shop and Services and Warehouse (excluding Dangerous Goods Godown))
Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, New Territories
(Planning Application No. A/STT/26)

Comments from Commissioner for Transport
(Contact Person: Mr Victor MA; Tel: 2399 2727)

RtC 4(a): Annex D – CTIA

(a) Section 3.1.2: Please liaise with CEDD to check whether there will be any changes to the road network.
(b) Section 3.2.4: Please liaise with PlanD and CEDD to ensure that population intake of nearby developments will be included in your assessment.
(c) Section 3.4: Construction traffic arising from nearby infrastructures and developments (e.g. San Tin Technopole and NOL Spur Line) and the impact of their associated temporary traffic arrangements should be taken into account in the traffic forecast. Please also liaise with CEDD regarding the use of San Tin Tsuen Road as the construction vehicular accesses to the proposed development.
(d) Tables 2.2 and 4.1: Please include San Tin Interchange and the junction of slip roads of San Tin Highway and Shek Wu Wai Road in your assessment. In addition, please advise the storage/deposit sites for the mud dredging/earth filling materials and assess the critical junctions/links to/from the storage/deposit sites.

Appendix B -

Liaison with PlanD dated

15th & 19th January 2026

From: Karen Kei Yee CHAN/PLAND <kkychan2@pland.gov.hk>
Sent: Monday, January 19, 2026 6:37 PM
To: LAM Questa
Cc: Cannis Lee; CHAN Rebecca; MOK Moraine; Pak Him CHIU/PLAND
Subject: Re: Proposed Filling of Ponds for Permitted Innovation and Technology Hub at Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, New Territories (Planning Application No. A/STT/26)

Dear Questa,

Based on latest development schedule of the San Tin Technpole which is available in the public domain (https://nm-santintech.hk/en/implementation-arrangement/development-schedule/) , we are not aware of any major planned development with population intake by year 2029 in the area shaded in green in your preceding email.

Regards,
Karen CHAN
TP/YLE2
FS&YLE DPO, PlanD
Tel. 3168 4041

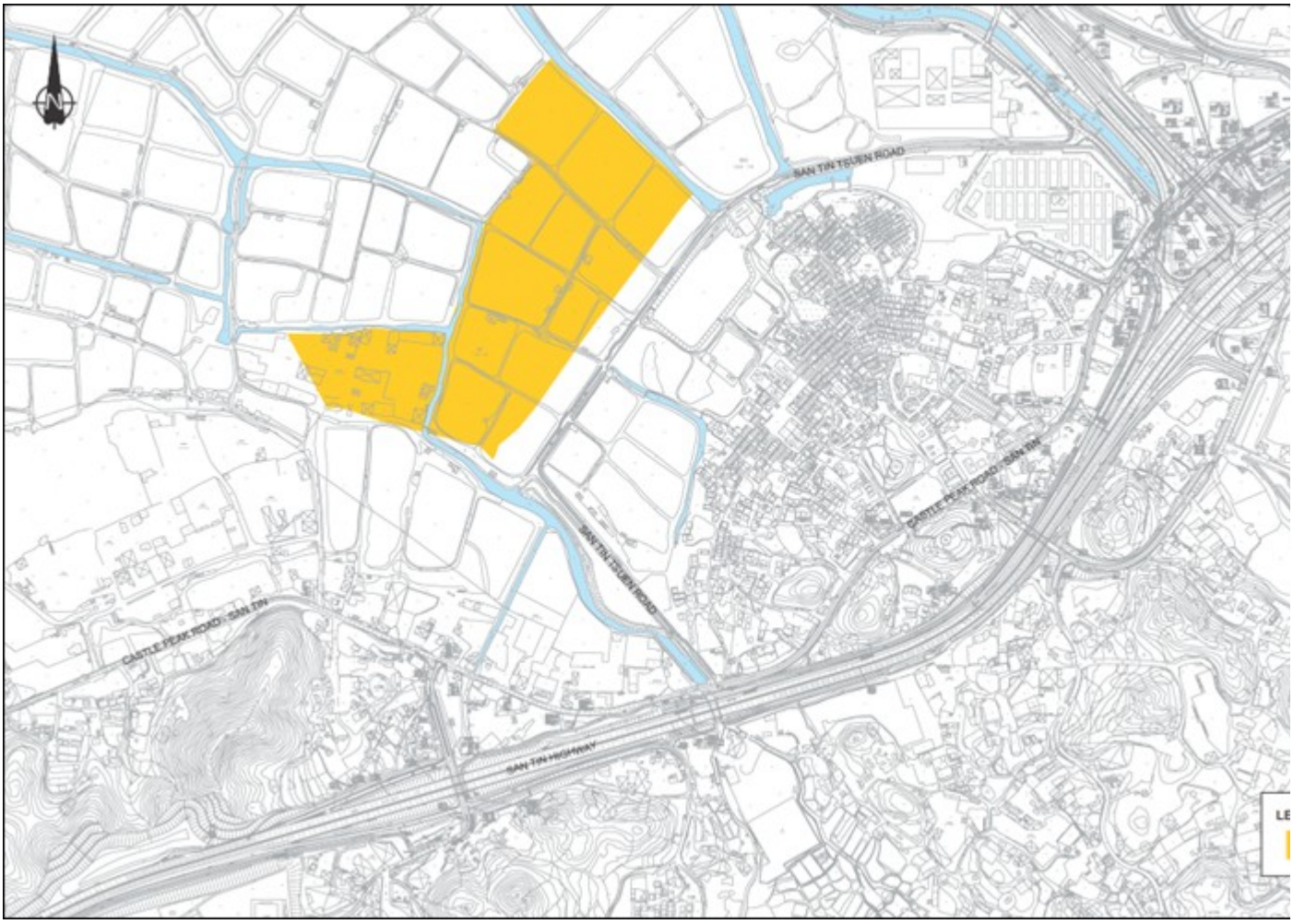
規劃署 Planning Department
透過規劃工作，使香港成為一個宜居、具競爭力和可持續發展的亞洲國際都會
We plan to make Hong Kong a Liveable • Competitive • Sustainable ASIA'S WORLD CITY

From: LAM Questa [redacted]
Sent: Thursday, January 15, 2026 6:10 PM
To: Karen Kei Yee CHAN/PLAND <kkychan2@pland.gov.hk>
Cc: Cannis Lee [redacted]; CHAN Rebecca [redacted]; MOK Moraine [redacted]
Subject: Proposed Filling of Ponds for Permitted Innovation and Technology Hub at Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, New Territories (Planning Application No. A/STT/26)

Proposed Filling of Ponds for Permitted Innovation and Technology Hub (including Permitted Cargo Handling and Forwarding Facilities, Creative Industries, Eating Place, Flat (Staff Quarters only), Industrial Use, Information Technology and Telecommunications Industries, Office, Public Utility Installation, Research, Design and Development Centre, Shop and Services and Warehouse (excluding Dangerous Goods Godown) Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, New Territories (Planning Application No. A/STT/26)

Dear Ms. Chan,

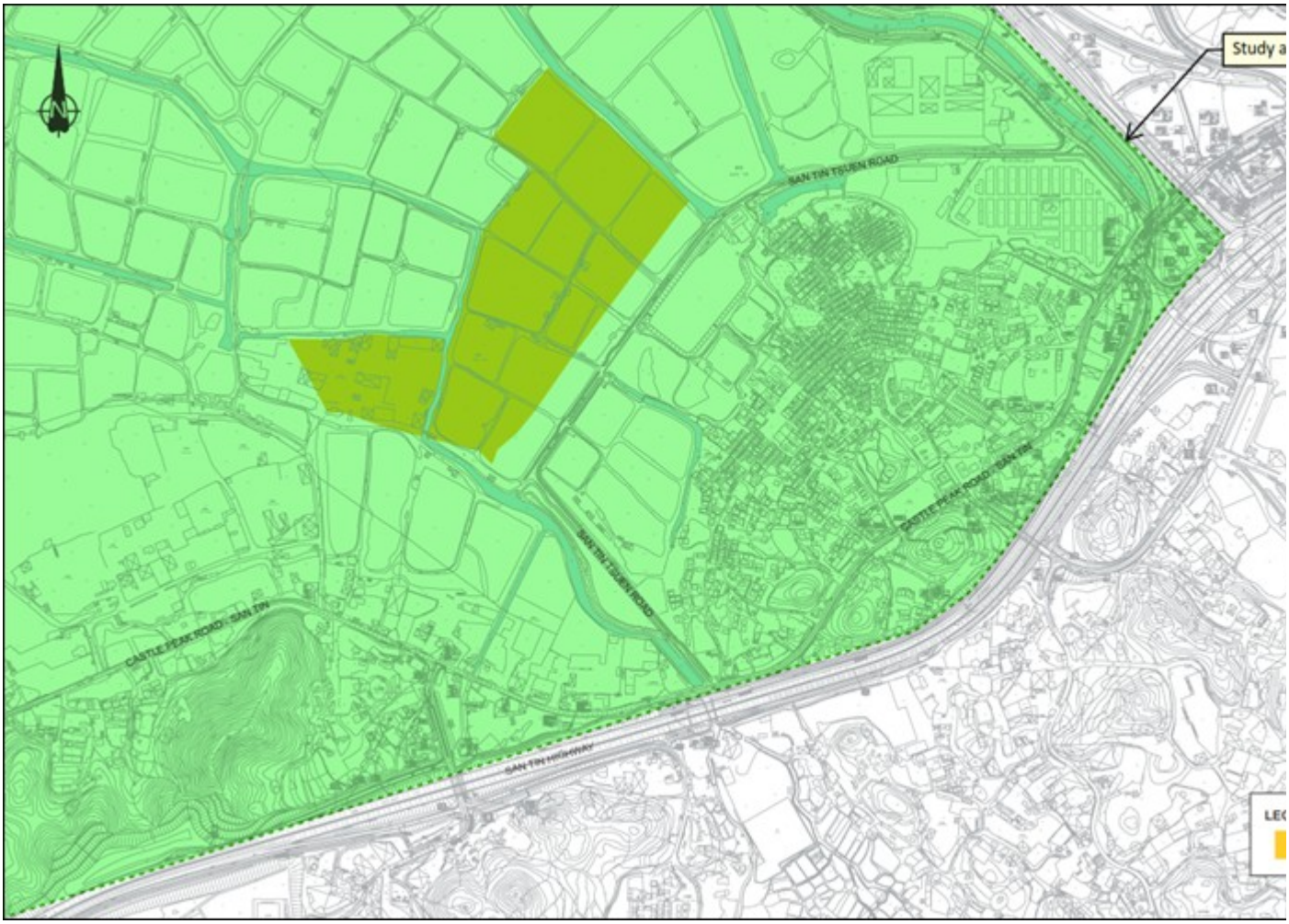
We refer to our telephone conversation on 15th January 2025 regarding the planning application (Planning Application No. A/STT/26) for the proposed development in the future San Tin Technopole. The location of the proposed development is illustrated in below:



As per our telephone conversation, please be advised that a construction traffic impact assessment (CTIA) report was submitted to PlanD and circulated to TD in early Jan 2026 to review on the traffic impact induced by its proposed pond filling as the associated mud dredging/earth filling works stage, which are scheduled to be completed by 2029.

Based on TD's comment on the aforesaid CTIA report issued on 14th January 2026, we would like to seek for your advice/confirmation on the following items:

2) since the nearby developments within the study area (as highlighted in green in figure below) will not be completed by year 2029, there is nil population intake of nearby developments by year 2029, otherwise, please advise the planning information of the nearby developments with population intake by year 2029



We would be grateful if you could provide your comment at your earliest convenience. Your support in this matter is greatly appreciated.

Should you have any queries or require further information, please do not hesitate to contact the undersigned at [redacted] or our Ms. Moraine Mok at [redacted]

Thank you very much for your kind attention.

Best Regards,

Questa Lam
Associate
[redacted]

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www.mvaasia.com

Proposed Filling of Ponds for Permitted Innovation and Technology Hub (including Permitted Cargo Handling and Forwarding Facilities, Creative Industries, Eating Place, Flat (Staff Quarters only), Industrial Use, Information Technology and Telecommunications Industries, Office, Public Utility Installation, Research, Design and Development Centre, Shop and Services and Warehouse (excluding Dangerous Goods Godown))
Lot 764 RP (Part) in D.D. 99, San Tin, Yuen Long, New Territories
(Planning Application No. A/STT/26)

Comments from Commissioner for Transport
(Contact Person: Mr Victor MA; Tel: 2399 2727)

RtC 4(a): Annex D – CTIA

(a) Section 3.1.2: Please liaise with CEDD to check whether there will be any changes to the road network.
(b) Section 3.2.4: Please liaise with PlanD and CEDD to ensure that population intake of nearby developments will be included in your assessment.
(c) Section 3.4: Construction traffic arising from nearby infrastructures and developments (e.g. San Tin Technopole and NOL Spur Line) and the impact of their associated temporary traffic arrangements should be taken into account in the traffic forecast. Please also liaise with CEDD regarding the use of San Tin Tsuen Road as the construction vehicular accesses to the proposed development.
(d) Tables 2.2 and 4.1: Please include San Tin Interchange and the junction of slip roads of San Tin Highway and Shek Wu Wai Road in your assessment. In addition, please advise the storage/deposit sites for the mud dredging/earth filling materials and assess the critical junctions/links to/from the storage/deposit sites.

https://nm-santintech.hk/en/implementation-arrangement/development-schedule/

Development Schedule

Works for the development area covered by the RODP are planned to be implemented in two phases. Phase 1 mainly covers the I&T land parcels to the north of San Tin Highway/Fanling Highway, some residential land to the south and the key infrastructure areas with road connections. Phase 2 covers the remaining area. Site formation for I&T land commenced in December 2024 with formed sites coming on stream in 2026 the earliest. I&T enterprises may start operation earlier than 2031 subject to time required for building construction. The first population intake will start from 2031, while bulk population intake will start from 2034, around the time when the NOL Main Line commences operation.

The site formation and infrastructure works under San Tin Technopole Phase 1 Stage 1 commenced in December 2024.

Works mainly covers

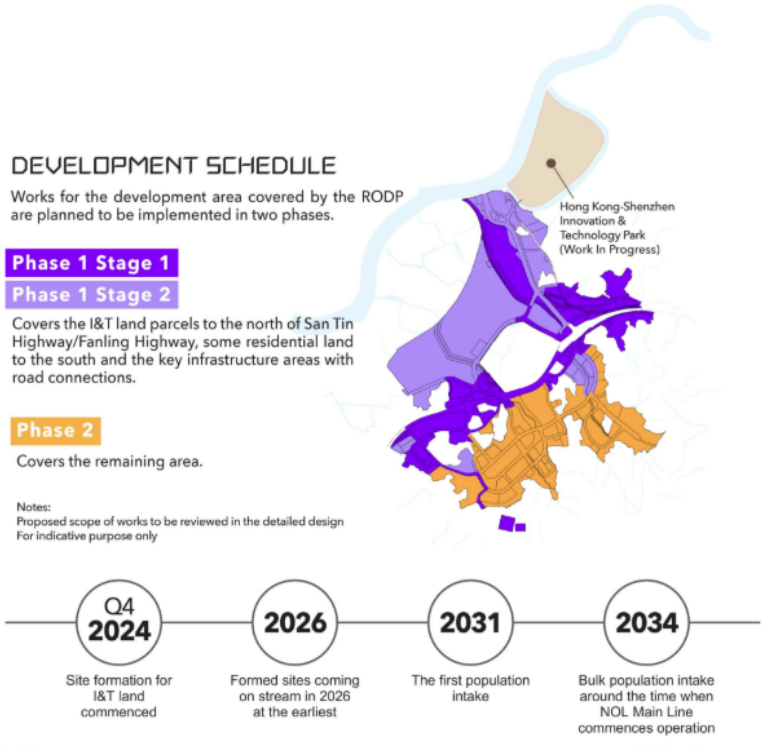
a. site clearance and formation (including geotechnical works and land decontamination works) for about 158 hectares ("ha") of land, to supply land for development of innovation and technology ("I&T") uses, logistics, housing, Government, Institute or Community ("GIC") facilities, open spaces, etc., and for construction of the road and infrastructure works in sub-paragraphs (b) and (c) below;

b. upgrading of a section of San Tin Highway of about 2 kilometres ("km"), construction of associated district distributors and local roads of about 8 km long in total, cycle tracks of about 8.5 km long and footpaths, and associated junction/road improvements;

c. construction of other engineering infrastructure works including drainage system, sewerage system (including two sewage pumping stations); water supply systems (including a fresh water service reservoir and a reclaimed water service reservoir with capacity of about 132 000 cubic metres ("m3 ") and 72 000 m3 respectively); revitalisation of drainage channels of around 2 400 metres ("m") long, greening and landscape works for open space and amenity area, as well as other associated works;

d. implementation of the environmental mitigation measures, environmental monitoring and audit ("EM&A") programme and construction supervision for the works mentioned in sub-paragraphs (a) to (c) above; and

e. detailed design for the expansion in development area (belonging to the works after Phase 1 Stage 1) after the Northern Metropolis Development Strategy was announced.



Annex F

Updated Parking and Loading/Unloading Spaces and Parking Ratios

Responses to Comments from the Transport Department dated 14 January 2026 on the Parking Table

COMMENTS	RESPONSES
1. Transport Department (TD)	
RtC 4(b): Annex E - Parking Table (e) Warehouse & Industrial (1) For L/UL requirement, please consider to adopt high-end L/UL provision instead of low end L/UL provision. (2) Please provide motorcycle parking spaces at high-end 10% rate for the proposed land uses. (3) Please review whether the proposed parking provisions, particularly for container vehicles, are sufficient to cater for the parking & L/UL demands of the proposed land uses.	(e) (1) Updated, please refer to **Annex F1** (2) Updated, please refer to **Annex F1** (3) A review of the proposed parking and L/UL provisions has been undertaken. Adequate parking spaces, including those for container vehicles, are provided. Dedicated loading/unloading bays and internal queuing spaces for container vehicles are incorporated within the site to avoid traffic impact on the surrounding road network. Please refer to **Annex F3** for details.
(f) R&D Lab & Office (1) For R&D Lab, please provide justifications for adopting HKPSG's rate for Industrial/Office Uses. (2) Please clarify why the parking requirements for Office under commercial facilities or Office/Business Buildings under business use of HKPSG are not adopted for R&D Office. Please adopt higher parking provision for office uses.	(f) (1) Updated, please refer to **Annex F1** (2) Updated, please refer to **Annex F1** (3) Updated, please refer to **Annex F1** (4) Updated, please refer to **Annex F1** (5) A review of the proposed parking and L/UL provisions has been undertaken. Adequate parking spaces, loading/unloading bays, and internal queuing areas are provided to cater for the anticipated demand, including that generated by R&D laboratory operations. Please refer to **Annex F3** for details.

COMMENTS	RESPONSES
(3) For L/UL requirement, please consider to adopt high-end L/UL provision instead of low end L/UL provision. (4) Please provide motorcycle parking spaces at high-end 10% rate for the proposed land uses. (5) Please review whether the proposed parking provisions, particularly for container vehicles, are sufficient to cater for the parking & L/UL demands of the proposed land uses.	
(g) Staff Quarter (1) For PC parking provision, please adopt high-end parking provision instead of low-end parking provision. (2) For MC parking provision, please provide 1 MC space per 100 flats.	(g) (1) Updated, please refer to **Annex F1** (2) Updated, please refer to **Annex F1**
(h) Commercial (1) Please provide motorcycle parking spaces at high-end 10% rate for the proposed land uses.	(h) (1) Updated, please refer to **Annex F1**
(i) Data Centre (1) Please provide motorcycle parking spaces at high-end 10% rate for the proposed land uses.	(i) (1) Updated, please refer to **Annex F1** (2) A review of the proposed parking and loading/unloading (L/UL) provisions has been undertaken. The proposed parking spaces,

COMMENTS		RESPONSES	
	(2) Please review whether the proposed parking provisions are sufficient to cater for the parking & L/UL demands of the proposed land uses.		together with dedicated L/UL bays and internal circulation arrangements, are considered sufficient to cater for the anticipated parking and operational demands of the Data Centre. Details of the Automated Parking System (APS), with the Data Centre located above, are shown in **Annex F2**.
(j)	Visitor Centre & Education (1) Please provide laybys for general pick-up/drop-off of PC, taxis and coaches. (2) Please provide motorcycle parking spaces at high-end 10% rate for the proposed land uses.	(j)	(1) Dedicated lay-by spaces for general pick-up and drop-off of private cars, taxis, and coaches will be provided at the eastern transport lay-by area. (2) Motorcycle parking spaces are provided at the high-end rate of 10% of the total car parking provision for the proposed Visitor Centre and Education uses. Details of the Automated Parking System (APS), with the data centre located above, are shown in **Annex F2**.
(k)	RtC 4(c): Please provide additional details of the proposed automatic parking system (APS). In addition, if the APS is located near the main entrance of the site, please demonstrate that vehicles waiting for the APS will not affect the traffic at the main entrance of the site.	(k)	Please refer to **Annex F2**.
(l)	RtC 4(d): Please clarify whether the internal roads within the development are able to cater for GMB and indicate its	(l)	(1) The internal roads within the development are not intended to cater for Green Minibus (GMB) operation. They are primarily

COMMENTS	RESPONSES
routing in the drawing. Also, please conduct a review on public transport to work out the public transport demand to be generated by the development with reference to the development scheme under para. 4.4 - 4.7 of the planning statement. The review shall also cover the capacity and adequacy of the public transport facilities to be provided thereat. It is premature at this stage to decide on the suitable public transport mode and its public transport facilities. We trust that the layby for GMB is for preliminary planning purpose only. The appropriate public transport facility to be provided shall be explored and examined in the requested review.	designed to serve logistics centre operations, including goods vehicles, as well as private cars associated with the buildings. Accordingly, GMB routing within the internal road network is not proposed. (2) A dedicated transport lay-by which is reserved at the eastern corner (will be review and enlarge) of the site to facilitate public transport services (including potential GMB provision for preliminary planning purposes. Private car parking is mainly accommodated at underground levels through an Automated Parking System (APS), with a limited number of surface parking spaces provided for logistics centre operational needs and private use by building occupants. Visitor arrival and transfer are facilitated via the transport lay-by and podium-level circulation, with pedestrian connections and vertical transport provided to access individual building blocks without passing through ground-level logistics areas. With reference to paragraphs 4.4 to 4.7 of the Planning Statement, a review of the public transport demand to be generated by the development will be undertaken to assess the capacity and adequacy of the proposed public transport facilities. The appropriate public transport mode and related facilities, including the need for GMB

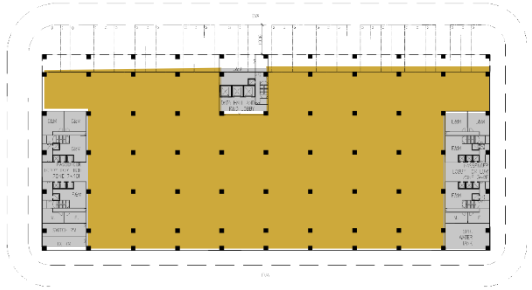
COMMENTS	RESPONSES
	services, will be further explored and examined as part of the detailed review at a later stage, in consultation with the relevant authorities. Please refer to **Annex F4**.

Annex F1 - PARKING TABLE

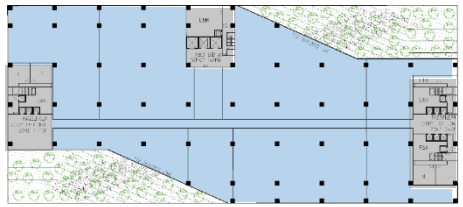
G/F MLP AT +6mPD

P/F MLP AT +21mPD

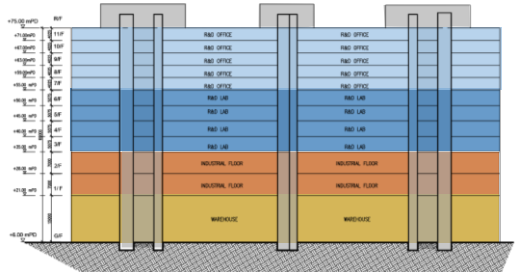
R/F MLP AT +75mPD



WAREHOUSE GF PLAN



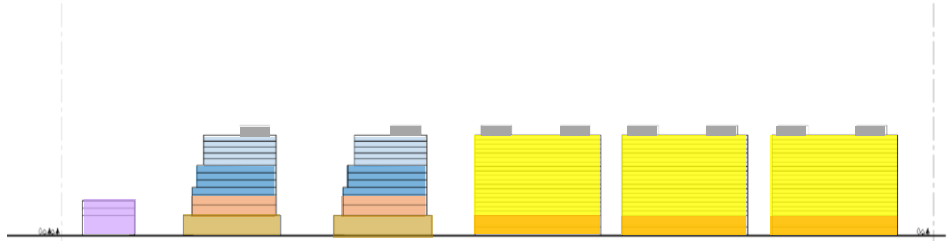
WAREHOUSE 11F PLAN



WAREHOUSE SETION

STAFF QUARTER

COMMERCIAL



Section A-A'

ITEM	PROPOSED					UNDER OZP
Application Site Area	163,181 sq.m. (about)					COMPLY
Proposed Zoning	"OU (I&T)"					COMPLY
Proposed Development	I&T Hub					INDUSTRY USE I&T
Proposed Plot Ratio	4.24 (about) , 4.50 (proposed)					Suggested P.R. 6
Site Coverage	41%(about)					
Uses	NAME		NO. OF Blocks	NO. OF Storeys	GFA	(Height: Not more than 75mPD in accordance to OZP requirement)
	W1-W7	WAREHOUSE	7	1	56,198	
	I1-I7	INDUSTRIAL	7	2	107,890	
	L1-L7	R&D LAB	7	4	200,068	
	O1-O7	R&D OFFICE	7	5	219,240	
	S1 S2 S3	STAFF QUARTER	3	17	59,544	
	C1 C2 C3	COMMERCIAL	3	2	13,410	
	A1	AUTOMATIC PARKING SYSTEM/	1	2	16,290	
	D1	DATA CENTRE	1	7	11,403	
	E1	VISITOR CENTRE & EDUCATION	1	3	2,121	
	G1	COOLING CENTRE	1	2	3,904	
	G2	SUBSTATION	1	2	1,430	
		PLANT ROOM	-	-	-	
TOTAL GFA	691,498 sq.m. (about)					-

Uses	NAME		NO. OF Blocks	NO. OF Storeys	GFA	L/UL												PARKING SPACE											
						REQUIRED BY HKPSG (CH.8) & THE CHECKLIST OF TIA FOR DEVELOPMENT PROJECTS						PROPOSED						REQUIRED BY HKPSG (CH.8) & THE CHECKLIST OF TIA FOR DEVELOPMENT PROJECTS						PROPOSED					
						TS	CS	LGVS	MGVS	HGVS	C	TS	CS	LGVS	MGVS	HGVS	C	PCPS	MPS	LGVPS	MGVPS	HGVPS	BPS	PCPS	MPS	LGVPS	MGVPS	HGVPS	BPS
	W1 - W7	WAREHOUSE	7	1	56,198	-	-	54	-	28	7	-	-	54	-	28	7	57	6	28	-	14	23	57	6	28	-	14	23
	I1- I7	INDUSTRIAL	7	2	107,890	-	-	101	-	54		-	-	101	-	54		108	11	51	-	27	44	108	11	51	-	27	44
	L1- L7	R&D LAB	7	4	200,068	-	-	99	-	53	7	-	-	99	-	53	7	334	34	50	-	26	334	334	34	50	-	26	334
	O1 - O7	R&D OFFICE	7	5	219,240	-	-	108	-	57		8	-	108	-	57		366	37	54	-	29	366	366	37	54	-	29	366
	S1 S2 S3	STAFF QUARTER	3	17	59,544	-	-	3			-	2	2	5			-	347	21	-	-	-	454	347	21	-	-	-	454
	C1 C2 C3	COMMERCIAL	3	2	13,410	-	-	17			-	2	2	20			-	90	9	-	-	-	68	90	9	-	-	-	68
	A1	AUTOMATIC PARKING SYSTEM/	1	2	16,290	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D1	DATA CENTRE	1	7	11,403	-	-	12	-	5	1	-	-	12	-	5	1	12	2	6	-	3	5	12	2	6	-	3	5
	E1	VISITOR CENTRE & EDUCATION	1	3	2,121	-	-	3			-	3	3	4			-	15	2	-	-	-	8	15	2	-	-	-	8
	G1	COOLING CENTRE	1	2	3,904	-	-	1	1		-	-	-	2	-	-	-	1	1	-	-	-	-	2	1	-	-	-	-
	G2	SUBSTATION	1	2	1,430	-	-	1	1		-	-	-	2	-	-	-	1	1	-	-	-	-	2	1	-	-	-	-
		PLANT ROOM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total					691,498 sq.m. (about)	-	-	598			15	15	7	604			15	1331	124	288			1302	1333	124	288			1302

Loading/Unloading Space

TS: Taxi Spaces
CS: Coach Spaces
LGVS: Light Goods Vehicle Spaces
MGVS: Medium Goods Vehicle Spaces
HGVS: Heavy Goods Vehicle Spaces

Parking Space

PCPS: Private Car Parking Spaces
MPS: Motorcycle Parking Spaces
LGVPS: Light Goods Vehicle Parking Spaces
MGVPS: Medium Goods Vehicle Parking Spaces
HGVPS: Heavy Goods Vehicle Parking Spaces

WAREHOUSE & INDUSTRIAL

WAREHOUSE & INDUSTRIAL – Private Car Parking Requirement & L/UL Requirement

Type of Development		Parking Requirements		Loading/unloading Requirements	
		Standards	Remarks	Standards	Remarks
General Industrial Use (GIU)	Industrial Use (I)	– Private car: 1 per 1 000-1 200m² GFA.	See Notes (3) – (4)	– 1 goods vehicle bay per 700-900m² GFA, 50% of which should be for parking of goods vehicles. – One container vehicle loading/unloading bay with turning circle of 11.6m outer radius should be provided for a site with dimensions not less than 45m x 40m.	See Notes (5) – (8) & (12)
	Industrial/ Office Uses (I/O)	– Private car: 1 per 600-750m² GFA.		– 1 goods vehicle bay per 1 000-1 200m² of 50% of the I/O GFA; and 1 per 2 000-3 000m² of the remaining 50% of the I/O GFA. – 50% of all the above required goods vehicle bays shall be for parking of goods vehicles. – 1 goods vehicle bay per 800-1 200m² for commercial GFA solely for loading/unloading. – One container vehicle loading/unloading bay with turning circle of 11.6m outer radius should be provided for a site with dimensions not less than 45m x 40m.	See Notes (5) – (12)

(Refer to Statement of Intent and General Notes for Section 4.1 for further guidance)

5. Goods vehicle provision is divided into 65 % LGV and 35 % HGV.

Extracted from HKPSG (Ch.8) Section 4.1: General Industrial Use (GIU) and Business Use ["OU(B)"]

NAME		NO. OF Blocks	NO. OF Storeys	GFA	L/UL						PARKING SPACE					
					REQUIRED BY HKPSG (CH.8) & THE CHECKLIST OF TIA FOR DEVELOPMENT PROJECTS						REQUIRED BY HKPSG (CH.8) & THE CHECKLIST OF TIA FOR DEVELOPMENT PROJECTS					
					TS	CS	LGVS	MGVS	HGVS	C	PCPS	MPS	LGVPS	MGVPS	HGVPS	BPS
W1-W7	WAREHOUSE	7	1	56,198	-	-	53	-	28	7	57	6	28	-	14	23
I1-I7	INDUSTRIAL	7	2	107,890	-	-	101	-	54		108	11	51	-	27	44

WAREHOUSE:

Private Parking Requirement = 56198/1000= 57

L/UL Requirement:
L/UL bay = 56198/700 = 81 (LGV: 53, HGV:28)
L//UL Parking = 56198/700 x 50% = 42 (LGV: 28, HGV:14)
Container = 7 (provide for each block)

INDUSTRIAL:

Private Parking Requirement = 107890/1000 = 108

L/UL Requirement:
L/UL bay = 107890/700 = 155(LGV: 101, HGV:54)
L//UL Parking = 107890/700 x 50% = 78(LGV: 51, HGV:27)
Container = 7 (provide for each block)

WAREHOUSE & INDUSTRIAL– Bicycle Parking Requirement & Motorcycle Parking Requirement

Guidelines on Provision of Bicycle Parking Spaces

Type of Development	Recommended Bicycle Parking Spaces Provision Standard
Residential	1 bicycle parking space per 5 flats for residents; 1 bicycle parking space per 45 flats for visitors
Primary School	1 bicycle parking space per 4 classrooms
Secondary School	1 bicycle parking space per 0.5 – 1 classroom
Tertiary School	1 bicycle parking space per 15 – 17 students
Office	1 bicycle parking space per 500 – 600m² GFA
Enterprise and Technology Park	1 bicycle parking space per 300 – 400m² GFA
Industrial/ Logistic	1 bicycle parking space per 2,500 – 2,700m² GFA
Port Back-up, Storage and Workshop Uses	1 bicycle parking space per 4,100 – 4,200m² GFA
Hospital	1 bicycle parking space per 20 employees
Sports Ground	1 bicycle parking space per 30 – 35 seats
Social Welfare	1 bicycle parking space per 3 – 4 employees
Performance Venue	1 bicycle parking space per 30 – 35 seats
Sports Centre	1 bicycle parking space per 150 m² GFA
Retail	1 bicycle parking space per 200 – 300 m² GFA
Market	1 bicycle parking space per 20 – 30m² GFA
Park	1 bicycle parking space per 125m² (capped at 600) or 50 spaces per entrance, whichever is higher
Public Transport Interchange	30 bicycle parking spaces per bus bay given there is Environmental Friendly Transport Services (EFTS); 45 given there is no EFTS
Rail Station	45 – 50 bicycle parking spaces per 10,000 population within the 2-km radius of the station

Extracted from Annex B of the checklist of TIA for Development Projects (November 2025 Edition)

(f) In all non-residential developments, additional parking spaces for motorcycles at the rate of 5 to 10% of the total provision for private cars with respect to each type of development should be provided. In the case of subsidised housing, the calculation shall

Extracted from HKPSG (Ch.8) Table 11 : Parking Standards - 3. General Notes

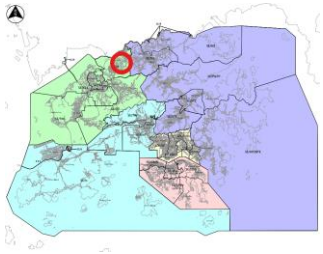
NAME		NO. OF Blocks	NO. OF Storeys	GFA	L/UL						PARKING SPACE					
					REQUIRED BY HKPSG (CH.8) & THE CHECKLIST OF TIA FOR DEVELOPMENT PROJECTS						REQUIRED BY HKPSG (CH.8) & THE CHECKLIST OF TIA FOR DEVELOPMENT PROJECTS					
					TS	CS	LGVS	MGVS	HGVS	C	PCPS	MPS	LGVPS	MGVPS	HGVPS	BPS
W1-W7	WAREHOUSE	7	1	56,198	-	-	53	-	28	7	57	6	28	-	14	23
I1-I7	INDUSTRIAL	7	2	107,890	-	-	101	-	54		108	11	51	-	27	44

WAREHOUSE:

Bicycle Parking Requirement = 56198/2500 = 23
Motorcycle Parking Requirement = 57 x 10% = 6

INDUSTRIAL:

Bicycle Parking Requirement = 107890/2500 = 44
Motorcycle Parking Requirement = 108 x 10% = 11



Under SE/B Division Traffic Engineering Divisional Boundary Of Transport Department (For Information Only)

R&D LAB & OFFICE

R&D LAB & OFFICE – Private Car Parking Requirement & L/UL Requirement

Type of Development		Parking Requirements		Loading/unloading Requirements	
		Standards	Remarks	Standards	Remarks
General Industrial Use (GIU)	Industrial Use (I)	– Private car: 1 per 1 000-1 200m² GFA.	See Notes (3) – (4)	– 1 goods vehicle bay per 700-900m² GFA, 50% of which should be for parking of goods vehicles. – One container vehicle loading/unloading bay with turning circle of 11.6m outer radius should be provided for a site with dimensions not less than 45m x 40m	See Notes (5) – (8) & (12)
	Industrial/ Office Uses (I/O)	– Private car: 1 per 600-750m² GFA.		– 1 goods vehicle bay per 1 000-1 200m² of 50% of the I/O GFA; and 1 per 2 000-3 000m² of the remaining 50% of the I/O GFA. – 50% of all the above required goods vehicle bays shall be for parking of goods vehicles. – 1 goods vehicle bay per 800-1 200m² for commercial GFA solely for loading/unloading. – One container vehicle loading/unloading bay with turning circle of 11.6m outer radius should be provided for a site with dimensions not less than 45m x 40m.	See Notes (5) – (12)

(Refer to Statement of Intent and General Notes for Section 4.1 for further guidance)

5. Goods vehicle provision is divided into 65 % LGV and 35 % HGV.

Extracted from HKPSG (Ch.8) Section 4.1: General Industrial Use (GIU) and Business Use ["OU(B)"]

NAME		NO. OF Blocks	NO. OF Storeys	GFA	L/UL						PARKING SPACE					
					REQUIRED BY HKPSG (CH.8) & THE CHECKLIST OF TIA FOR DEVELOPMENT PROJECTS						REQUIRED BY HKPSG (CH.8) & THE CHECKLIST OF TIA FOR DEVELOPMENT PROJECTS					
					TS	CS	LGVS	MGVS	HGVS	C	PCPS	MPS	LGVPS	MGVPS	HGVPS	BPS
L1-L7	R&D LAB	7	4	200,068	-	-	99	-	53	7	334	34	50	-	26	401
O1-O7	R&D OFFICE	7	5	219,240	8	-	108	-	57		366	37	54	-	29	439

R&D LAB:

Private Parking Requirement = 200068/600= 334

L/UL Requirement:
L/UL bay = 200068/2/1000 + 200068/2/2000 = 152 (LGV: 99, HGV:53)
L//UL Parking = (200068/2/1000 + 200068/2/2000) x 50%= 76(LGV: 50, HGV:26)
Container = 7 (provide for each block)

R&D OFFICE:

Private Parking Requirement = 219240/600 = 366

L/UL Requirement:
L/UL bay = 219240/2/1000 + 219240/2/2000 = 165 (LGV: 108, HGV:57)
L//UL Parking = (219240/2/1000 + 219240/2/2000) x 50%= 83(LGV: 54, HGV:29)
Container = 7 (provide for each block)

R&D LAB & OFFICE – Bicycle Parking Requirement & Motorcycle Parking Requirement

Guidelines on Provision of Bicycle Parking Spaces

Type of Development	Recommended Bicycle Parking Spaces Provision Standard
Residential	1 bicycle parking space per 5 flats for residents; 1 bicycle parking space per 45 flats for visitors
Primary School	1 bicycle parking space per 4 classrooms
Secondary School	1 bicycle parking space per 0.5 – 1 classroom
Tertiary School	1 bicycle parking space per 15 – 17 students
Office	1 bicycle parking space per 500 – 600m² GFA
Enterprise and Technology Park	1 bicycle parking space per 300 – 400m² GFA
Industrial/ Logistic	1 bicycle parking space per 2,500 – 2,700m² GFA
Port Back-up, Storage and Workshop Uses	1 bicycle parking space per 4,100 – 4,200m² GFA
Hospital	1 bicycle parking space per 20 employees
Sports Ground	1 bicycle parking space per 30 – 35 seats
Social Welfare	1 bicycle parking space per 3 – 4 employees
Performance Venue	1 bicycle parking space per 30 – 35 seats
Sports Centre	1 bicycle parking space per 150 m² GFA
Retail	1 bicycle parking space per 200 – 300 m² GFA
Market	1 bicycle parking space per 20 – 30m² GFA
Park	1 bicycle parking space per 125m² (capped at 600) or 50 spaces per entrance, whichever is higher
Public Transport Interchange	30 bicycle parking spaces per bus bay given there is Environmental Friendly Transport Services (EFTS); 45 given there is no EFTS
Rail Station	45 – 50 bicycle parking spaces per 10,000 population within the 2-km radius of the station

Extracted from Annex B of the checklist of TIA for Development Projects (November 2025 Edition)

(f) In all non-residential developments, additional parking spaces for motorcycles at the rate of 5 to 10% of the total provision for private cars with respect to each type of development should be provided. In the case of subsidised housing, the calculation shall

Extracted from HKPSG (Ch.8) Table 11 : Parking Standards - 3. General Notes

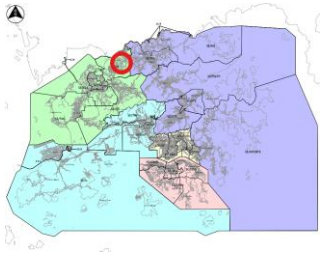
NAME		NO. OF Blocks	NO. OF Storeys	GFA	L/UL						PARKING SPACE					
					REQUIRED BY HKPSG (CH.8) & THE CHECKLIST OF TIA FOR DEVELOPMENT PROJECTS						REQUIRED BY HKPSG (CH.8) & THE CHECKLIST OF TIA FOR DEVELOPMENT PROJECTS					
					TS	CS	LGVS	MGVS	HGVS	C	PCPS	MPS	LGVPS	MGVPS	HGVPS	BPS
L1-L7	R&D LAB	7	4	200,068	-	-	99	-	53	7	334	34	50	-	26	401
O1-O7	R&D OFFICE	7	5	219,240	8	-	108	-	57		366	37	54	-	29	439

R&D LAB:

Bicycle Parking Requirement = 200068/500 = 401
Motorcycle Parking Requirement = 334 x 10% = 34

R&D OFFICE:

Bicycle Parking Requirement = 219240/500 = 439
Motorcycle Parking Requirement = 366 x 10% = 37



Under SE/B Division Traffic Engineering Divisional Boundary Of Transport Department (For Information Only)

STAFF QUARTER

STAFF QUARTER – Private Car Parking Requirement & L/UL Requirement

Table 11 Section 1 (cont'd)

Type of Development	Parking Requirements – Standards				Parking Requirements – Remarks	Loading/Unloading Requirements – Standards	Loading/Unloading Requirements – Remarks
2. Private Housing	- Private Car:				See Notes (1) – (2) & (6) – (8).	– Minimum of 1 loading / unloading bay for goods vehicles within the site for every 800 flats or part thereof, subject to a minimum of 1 bay for each housing block or as determined by the Authority. – Space should also be provided around each block for service vehicles.	
	Global Parking Standard (GPS)			1 car space per 4-7 flats			
	Demand Adjustment Ratio (R1)	Flat Size (FS) (m^2) (GFA)	FS ≤ 40	0.5			
			40 <FS ≤ 70	1.2			
			70 < FS ≤ 100	2.4			
			100 < FS ≤ 130	4.1			
			130 < FS ≤ 160	5.5			
			FS > 160	7.0			
	Accessibility Adjustment Ratio (R2)	Within a 500m-radius of rail station [see Note (6)]		0.75			
		Outside a 500m-radius of rail station [see Note (6)]		1.00			
	Development Intensity Adjustment Ratio (R3)	Domestic Plot Ratio (PR)	0.00< PR ≤ 1.00	1.30			
			1.00< PR ≤ 2.00	1.10			
			2.00< PR ≤ 5.00	1.00			
			5.00< PR ≤ 8.00	0.90			
			PR > 8.00	0.75			
	Parking Requirement = GPS x R1 x R2 x R3						

Private Housing

(6) A 25% discount should be applied to the provision of residential car parking spaces where over 50% of the site area of the development fall within a 500m radius of rail stations. The 500m-radius catchment area of a rail station should be drawn from the centre of the station irrespective of the configuration and layout of the station.

(7) The standard for the developments of flat size greater than 160m^2 is a minimum requirement. Request for provision beyond the standard will be considered by TD on a case-by-case basis.

(8) Visitor car parking for private residential developments with more than 75 units per block should be provided at 5 visitor spaces per block in addition to the requirements, or as determined by the Authority. For private residential developments with 75 units or less per block, the visitor car parking provision will be determined by TD on a case-by-case basis.

Extracted from HKPSG (Ch.8) Section 1 : Parking Standards for Residential Developments

NAME		NO. OF Blocks	NO. OF Storeys	GFA	L/UL						PARKING SPACE					
					REQUIRED BY HKPSG (CH.8) & THE CHECKLIST OF TIA FOR DEVELOPMENT PROJECTS						REQUIRED BY HKPSG (CH.8) & THE CHECKLIST OF TIA FOR DEVELOPMENT PROJECTS					
					TS	CS	LGVS	MGVS	HGVS	C	PCPS	MPS	LGVPS	MGVPS	HGVPS	BPS
S1 S2 S3	STAFF QUARTER	3	17	59,544	-	-	3			-	347	14	-	-	-	454

Blocks = 3
Flats each floor = 40
Storeys = 17
GPS = 3 x 40 x 17/ 4 = 510
R1 = 0.5 (FS = 15&30m2)
R2 = 1
R3 = 1.3 (PR = 59544/163181 = 0.36)

Parking Requirement
= GPS x R1 x R2 x R3 x R4
= 510 x 0.5 x 1 x 1.3
= 332
Vistors Parking Requirement
= 5 x 3 = 15
Total Parking Requirement
= **347**

L/UL Requirement
= **3**

STAFF QUARTER – Bicycle Parking Requirement

Guidelines on Provision of Bicycle Parking Spaces

Type of Development	Recommended Bicycle Parking Spaces Provision Standard
Residential	1 bicycle parking space per 5 flats for residents; 1 bicycle parking space per 45 flats for visitors
Primary School	1 bicycle parking space per 4 classrooms
Secondary School	1 bicycle parking space per 0.5 – 1 classroom
Tertiary School	1 bicycle parking space per 15 – 17 students
Office	1 bicycle parking space per 500 – 600m^2 GFA
Enterprise and Technology Park	1 bicycle parking space per 300 – 400m^2 GFA
Industrial/ Logistic	1 bicycle parking space per 2,500 – 2,700m^2 GFA
Port Back-up, Storage and Workshop Uses	1 bicycle parking space per 4,100 – 4,200m^2 GFA
Hospital	1 bicycle parking space per 20 employees
Sports Ground	1 bicycle parking space per 30 – 35 seats
Social Welfare	1 bicycle parking space per 3 – 4 employees
Performance Venue	1 bicycle parking space per 30 – 35 seats
Sports Centre	1 bicycle parking space per 150 m^2 GFA
Retail	1 bicycle parking space per 200 – 300 m^2 GFA
Market	1 bicycle parking space per 20 – 30m^2 GFA
Park	1 bicycle parking space per 125m^2 (capped at 600) or 50 spaces per entrance, whichever is higher
Public Transport Interchange	30 bicycle parking spaces per bus bay given there is Environmental Friendly Transport Services (EFTS); 45 given there is no EFTS
Rail Station	45 – 50 bicycle parking spaces per 10,000 population within the 2-km radius of the station

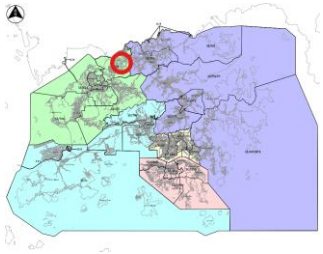
Extracted from Annex B of the checklist of TIA for Development Projects (November 2025 Edition)

NAME		NO. OF Blocks	NO. OF Storeys	GFA	L/UL						PARKING SPACE					
					REQUIRED BY HKPSG （CH.8） & THE CHECKLIST OF TIA FOR DEVELOPMENT PROJECTS						REQUIRED BY HKPSG （CH.8） & THE CHECKLIST OF TIA FOR DEVELOPMENT PROJECTS					
					TS	CS	LGVS	MGVS	HGVS	C	PCPS	MPS	LGVPS	MGVPS	HGVPS	BPS
S1 S2 S3	STAFF QUARTER	3	17	59,544	-	-	3			-	347	21	-	-	-	454

Blocks = 3
Flats each floor = 40
Storeys = 17

Total Flats = 3 x 40 x 17 = 2040

Bicycle Parking Requirement
= 2040/5 + 2040/45
= **454**



Under SE/B Division Traffic Engineering Divisional Boundary Of Transport Department (For Information Only)

STAFF QUARTER – Motorcycle Parking Requirement

(f) In all non-residential developments, additional parking spaces for motorcycles at the rate of 5 to 10% of the total provision for private cars with respect to each type of development should be provided. In the case of subsidised housing, the calculation shall be based on 1 motorcycle parking space per 110-250 flats excluding one person/two persons flats as well as non-residential elements. In the case of private housing, the calculation shall be based on 1 motorcycle parking space per 100-150 flats excluding

ii

non-residential elements. As a general guideline, parking spaces for motorcycles, whether on-street or off-street, should be 1m (width) x 2.4m (length). However, in cases of site constraint, a minimum standard of 1m (width) x 2m (length) could be considered acceptable.

Extracted from HKPSG (Ch.8) Table 11 : Parking Standards - 3. General Notes

NAME		NO. OF Blocks	NO. OF Storeys	GFA	L/UL						PARKING SPACE					
					REQUIRED BY HKPSG (CH.8) & THE CHECKLIST OF TIA FOR DEVELOPMENT PROJECTS						REQUIRED BY HKPSG (CH.8) & THE CHECKLIST OF TIA FOR DEVELOPMENT PROJECTS					
					TS	CS	LGVS	MGVS	HGVS	C	PCPS	MPS	LGVPS	MGVPS	HGVPS	BPS
S1 S2 S3	STAFF QUARTER	3	17	59,544	-	-	3			-	347	21	-	-	-	454

Blocks = 3
Flats each floor = 40
Storeys = 17

Total Flats = 3 x 40 x 17 = 2040

Motorcycle Parking Requirement
= 2040/ 100
= **21**

COMMERCIAL

COMMERCIAL – Private Car Parking Requirement & L/UL Requirement

Type of Development	Parking Requirements		Loading/Unloading Requirements	
	Standards	Remarks	Standards	Remarks
1. Retail	– 1 car space per 150 - 300m² GFA.	– Generally nil provision is permitted for small road-side retail shops which are mainly serving local residents. – Retail is taken to include restaurants and allied services commonly found in shopping complexes, but not retail markets apart from those integrated in location and design with the centre.	– 1 loading/ unloading bay for goods vehicles for every 800 to 1 200m², or part thereof, GFA.	– Large comprehensive developments may be allowed to adopt the low side of the provision due to economy of scale. – Points of access should not interrupt the main shopping frontage. – The manoeuvring of goods vehicles should be within the curtilages of the site; generally no reversing movement into/ from a public road will be permitted.

(Refer to Statement of Intent and General Notes for Section 3 for further guidance)

Extracted from HKPSG (Ch.8) Section 3 : Parking Standards for Commercial Facilities

NAME		NO. OF Blocks	NO. OF Storeys	GFA	L/UL						PARKING SPACE					
					REQUIRED BY HKPSG (CH.8) & THE CHECKLIST OF TIA FOR DEVELOPMENT PROJECTS						REQUIRED BY HKPSG (CH.8) & THE CHECKLIST OF TIA FOR DEVELOPMENT PROJECTS					
					TS	CS	LGVS	MGVS	HGVS	C	PCPS	MPS	LGVPS	MGVPS	HGVPS	BPS
C1 C2 C3	COMMERCIAL	3	2	13,410	-	-	17			-	90	9	-	-	-	68

Parking Requirement = 13410/150 = **90**

L/UL Requirement = 13410/800 = **17**

COMMERCIAL – Bicycle Parking Requirement & Motorcycle Parking Requirement

Guidelines on Provision of Bicycle Parking Spaces

Type of Development	Recommended Bicycle Parking Spaces Provision Standard
Residential	1 bicycle parking space per 5 flats for residents; 1 bicycle parking space per 45 flats for visitors
Primary School	1 bicycle parking space per 4 classrooms
Secondary School	1 bicycle parking space per 0.5 – 1 classroom
Tertiary School	1 bicycle parking space per 15 – 17 students
Office	1 bicycle parking space per 500 – 600m^2 GFA
Enterprise and Technology Park	1 bicycle parking space per 300 – 400m^2 GFA
Industrial/ Logistic	1 bicycle parking space per 2,500 – 2,700m^2 GFA
Port Back-up, Storage and Workshop Uses	1 bicycle parking space per 4,100 – 4,200m^2 GFA
Hospital	1 bicycle parking space per 20 employees
Sports Ground	1 bicycle parking space per 30 – 35 seats
Social Welfare	1 bicycle parking space per 3 – 4 employees
Performance Venue	1 bicycle parking space per 30 – 35 seats
Sports Centre	1 bicycle parking space per 150 m^2 GFA
Retail	1 bicycle parking space per 200 – 300 m^2 GFA
Market	1 bicycle parking space per 20 – 30m^2 GFA
Park	1 bicycle parking space per 125m^2 (capped at 600) or 50 spaces per entrance, whichever is higher
Public Transport Interchange	30 bicycle parking spaces per bus bay given there is Environmental Friendly Transport Services (EFTS); 45 given there is no EFTS
Rail Station	45 – 50 bicycle parking spaces per 10,000 population within the 2-km radius of the station

Extracted from Annex B of the checklist of TIA for Development Projects (November 2025 Edition)

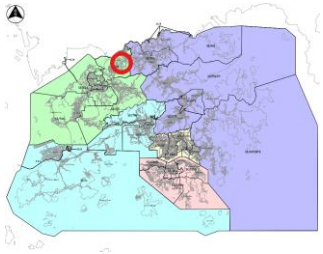
(f) In all non-residential developments, additional parking spaces for motorcycles at the rate of 5 to 10% of the total provision for private cars with respect to each type of development should be provided. In the case of subsidised housing, the calculation shall

Extracted from HKPSG (Ch.8) Table 11 : Parking Standards - 3. General Notes

NAME		NO. OF Blocks	NO. OF Storeys	GFA	L/UL						PARKING SPACE					
					REQUIRED BY HKPSG (CH.8) & THE CHECKLIST OF TIA FOR DEVELOPMENT PROJECTS						REQUIRED BY HKPSG (CH.8) & THE CHECKLIST OF TIA FOR DEVELOPMENT PROJECTS					
					TS	CS	LGVS	MGVS	HGVS	C	PCPS	MPS	LGVPS	MGVPS	HGVPS	BPS
C1 C2 C3	COMMERCIAL	3	2	13,410	-	-	17			-	90	9	-	-	-	68

Bicycle Parking Requirement = 13410/200 = **68**

Motorcycle Parking Requirement = 90 x 10% = **9**



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DATA CENTRE

DATA CENTRE – Private Car Parking Requirement & L/UL Requirement

Type of Development		Parking Requirements		Loading/unloading Requirements	
		Standards	Remarks	Standards	Remarks
General Industrial Use (GIU)	Industrial Use (I)	– Private car: 1 per 1 000-1 200m² GFA.	See Notes (3) – (4)	– 1 goods vehicle bay per 700-900m² GFA, 50% of which should be for parking of goods vehicles. – One container vehicle loading/unloading bay with turning circle of 11.6m outer radius should be provided for a site with dimensions not less than 45m x 40m.	See Notes (5) – (8) & (12)
	Industrial/ Office Uses (I/O)	– Private car: 1 per 600-750m² GFA.		– 1 goods vehicle bay per 1 000-1 200m² of 50% of the I/O GFA; and 1 per 2 000-3 000m² of the remaining 50% of the I/O GFA. – 50% of all the above required goods vehicle bays shall be for parking of goods vehicles. – 1 goods vehicle bay per 800-1 200m² for commercial GFA solely for loading/unloading. – One container vehicle loading/unloading bay with turning circle of 11.6m outer radius should be provided for a site with dimensions not less than 45m x 40m.	See Notes (5) – (12)

(Refer to Statement of Intent and General Notes for Section 4.1 for further guidance)

5. Goods vehicle provision is divided into 65 % LGV and 35 % HGV.

Extracted from HKPSG (Ch.8) Section 4.1: General Industrial Use (GIU) and Business Use ["OU(B)"]

NAME		NO. OF Blocks	NO. OF Storeys	GFA	L/UL						PARKING SPACE					
					REQUIRED BY HKPSG (CH.8) & THE CHECKLIST OF TIA FOR DEVELOPMENT PROJECTS						REQUIRED BY HKPSG (CH.8) & THE CHECKLIST OF TIA FOR DEVELOPMENT PROJECTS					
					TS	CS	LGVS	MGVS	HGVS	C	PCPS	MPS	LGVPS	MGVPS	HGVPS	BPS
D1	DATA CENTRE	1	7	11,403	-	-	12	-	5	1	12	2	6	-	3	5

Private Parking Requirement = 11403/1000= **12**

L/UL Requirement:
L/UL bay = 11403/700 = 17 (LGV: 12, HGV:5)
L//UL Parking = 11403/700 x 50%= 9(LGV: 6, HGV:3)
Container = 1 (provide for each block)

DATA CENTRE – Bicycle Parking Requirement & Motorcycle Parking Requirement

Guidelines on Provision of Bicycle Parking Spaces

Type of Development	Recommended Bicycle Parking Spaces Provision Standard
Residential	1 bicycle parking space per 5 flats for residents; 1 bicycle parking space per 45 flats for visitors
Primary School	1 bicycle parking space per 4 classrooms
Secondary School	1 bicycle parking space per 0.5 – 1 classroom
Tertiary School	1 bicycle parking space per 15 – 17 students
Office	1 bicycle parking space per 500 – 600m² GFA
Enterprise and Technology Park	1 bicycle parking space per 300 – 400m² GFA
Industrial/ Logistic	1 bicycle parking space per 2,500 – 2,700m² GFA
Port Back-up, Storage and Workshop Uses	1 bicycle parking space per 4,100 – 4,200m² GFA
Hospital	1 bicycle parking space per 20 employees
Sports Ground	1 bicycle parking space per 30 – 35 seats
Social Welfare	1 bicycle parking space per 3 – 4 employees
Performance Venue	1 bicycle parking space per 30 – 35 seats
Sports Centre	1 bicycle parking space per 150 m² GFA
Retail	1 bicycle parking space per 200 – 300 m² GFA
Market	1 bicycle parking space per 20 – 30m² GFA
Park	1 bicycle parking space per 125m² (capped at 600) or 50 spaces per entrance, whichever is higher
Public Transport Interchange	30 bicycle parking spaces per bus bay given there is Environmental Friendly Transport Services (EFTS); 45 given there is no EFTS
Rail Station	45 – 50 bicycle parking spaces per 10,000 population within the 2-km radius of the station

Extracted from Annex B of the checklist of TIA for Development Projects (November 2025 Edition)

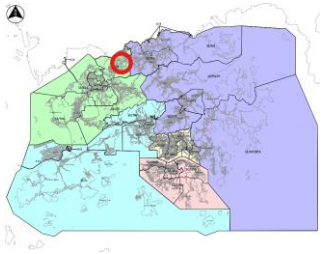
(f) In all non-residential developments, additional parking spaces for motorcycles at the rate of 5 to 10% of the total provision for private cars with respect to each type of development should be provided. In the case of subsidised housing, the calculation shall

Extracted from HKPSG (Ch.8) Table 11 : Parking Standards - 3. General Notes

NAME		NO. OF Blocks	NO. OF Storeys	GFA	L/UL						PARKING SPACE					
					REQUIRED BY HKPSG (CH.8) & THE CHECKLIST OF TIA FOR DEVELOPMENT PROJECTS						REQUIRED BY HKPSG (CH.8) & THE CHECKLIST OF TIA FOR DEVELOPMENT PROJECTS					
					TS	CS	LGVS	MGVS	HGVS	C	PCPS	MPS	LGVPS	MGVPS	HGVPS	BPS
D1	DATA CENTRE	1	7	11,403	-	-	12	-	5	1	12	2	6	-	3	5

Bicycle Parking Requirement= 11403/2500= **5**

Motorcycle Parking Requirement = 12 x 10% = **2**



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VISITOR CENTRE & EDUCATION

VISITOR CENTRE & EDUCATION – Private Car Parking Requirement & L/UL Requirement & Bicycle Parking Requirement & Motorcycle Parking Requirement

Type of Development	Parking Requirements		Loading/Unloading Requirements	
	Standards	Remarks	Standards	Remarks
1. Retail	– 1 car space per 150 - 300m² GFA.	– Generally nil provision is permitted for small road-side retail shops which are mainly serving local residents. – Retail is taken to include restaurants and allied services commonly found in shopping complexes, but not retail markets apart from those integrated in location and design with the centre.	– 1 loading/ unloading bay for goods vehicles for every 800 to 1 200m², or part thereof, GFA.	– Large comprehensive developments may be allowed to adopt the low side of the provision due to economy of scale. – Points of access should not interrupt the main shopping frontage. – The manoeuvring of goods vehicles should be within the curtilages of the site; generally no reversing movement into/ from a public road will be permitted.

(Refer to Statement of Intent and General Notes for Section 3 for further guidance)

Extracted from HKPSG (Ch.8) Section 3 : Parking Standards for Commercial Facilities

Retail	1 bicycle parking space per 200 – 300 m² GFA

Extracted from Annex B of the checklist of TIA for Development Projects (November 2025 Edition)

(f) In all non-residential developments, additional parking spaces for motorcycles at the rate of 5 to 10% of the total provision for private cars with respect to each type of development should be provided. In the case of subsidised housing, the calculation shall

Extracted from HKPSG (Ch.8) Table 11 : Parking Standards - 3. General Notes

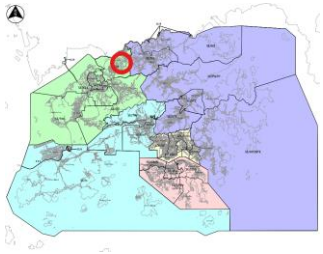
NAME		NO. OF Blocks	NO. OF Storeys	GFA	L/UL						PARKING SPACE					
					REQUIRED BY HKPSG (CH.8) & THE CHECKLIST OF TIA FOR DEVELOPMENT PROJECTS						REQUIRED BY HKPSG (CH.8) & THE CHECKLIST OF TIA FOR DEVELOPMENT PROJECTS					
					TS	CS	LGVS	MGVS	HGVS	C	PCPS	MPS	LGVPS	MGVPS	HGVPS	BPS
E1	VISITOR CENTRE & EDUCATION	1	3	2,121	-	-	3			-	15	2	-	-	-	8

Private Parking Requirement = 2121/150= **15**

L/UL Requirement:
L/UL bay = 2121/800 = **3**

Bicycle Parking Requirement= 2121/200= **8**

Motorcycle Parking Requirement = 15 x 10% = **2**



Under SE/B Division Traffic Engineering Divisional Boundary Of Transport Department (For Information Only)

COOLING CENTRE & SUBSTATION

COOLING CENTRE & SUBSTATION – Private Car Parking Requirement & L/UL Requirement & Motorcycle Parking Requirement

4. Electric Substations	– 66kV and above substation, one space for private car.	– To be provided in the open yard within each substation site.	– One M/HGV space.	– To be provided in the access corridor or open yard within each substation site.
	– 33kV substation, one space for private car.		– One LGV space.	– To be provided in the open yard within each substation site.

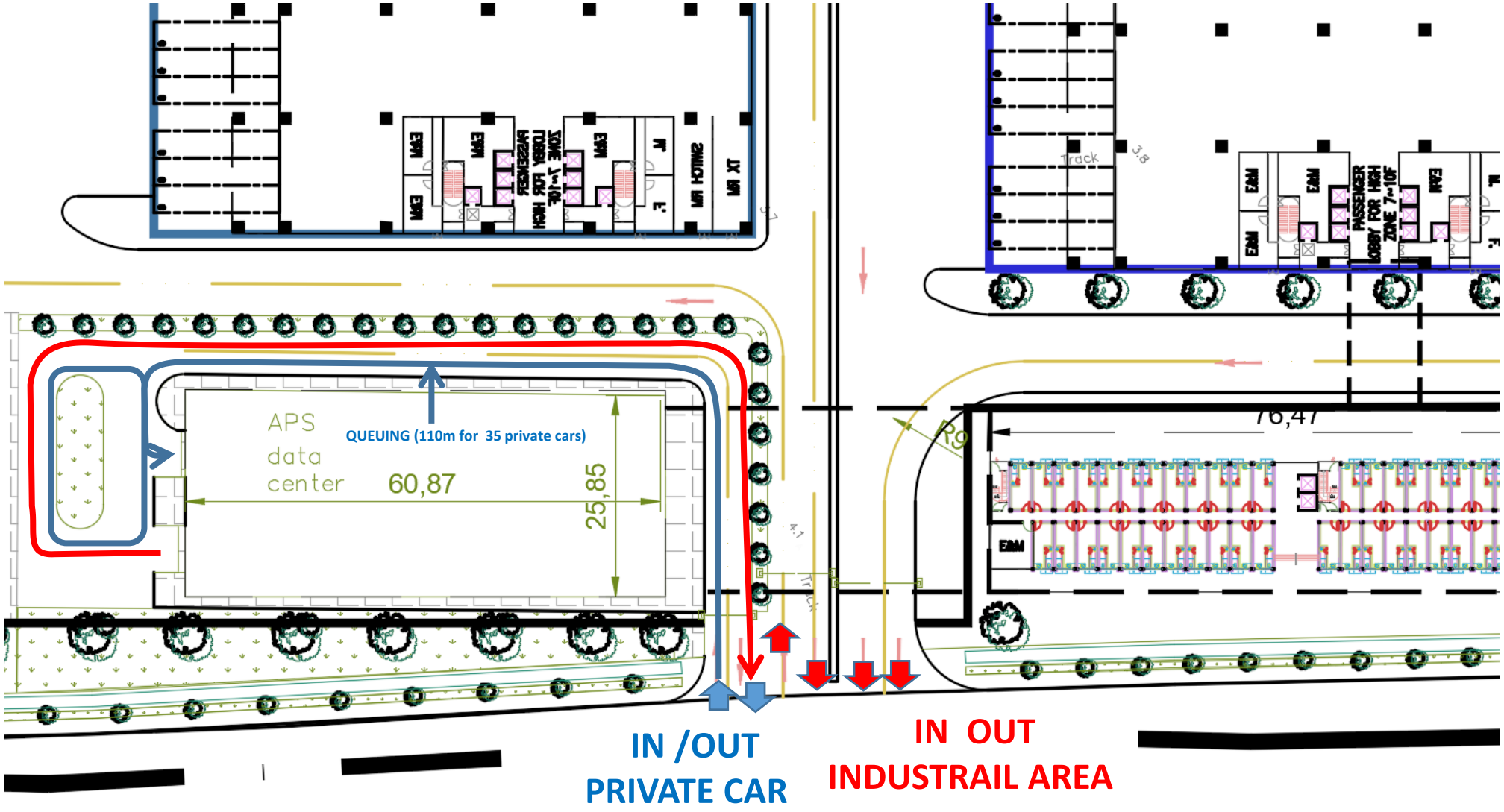
Extracted from HKPSG (Ch.8) Section 2 : Parking Standards for Community Facilities

(f) In all non-residential developments, additional parking spaces for motorcycles at the rate of 5 to 10% of the total provision for private cars with respect to each type of development should be provided. In the case of subsidised housing, the calculation shall

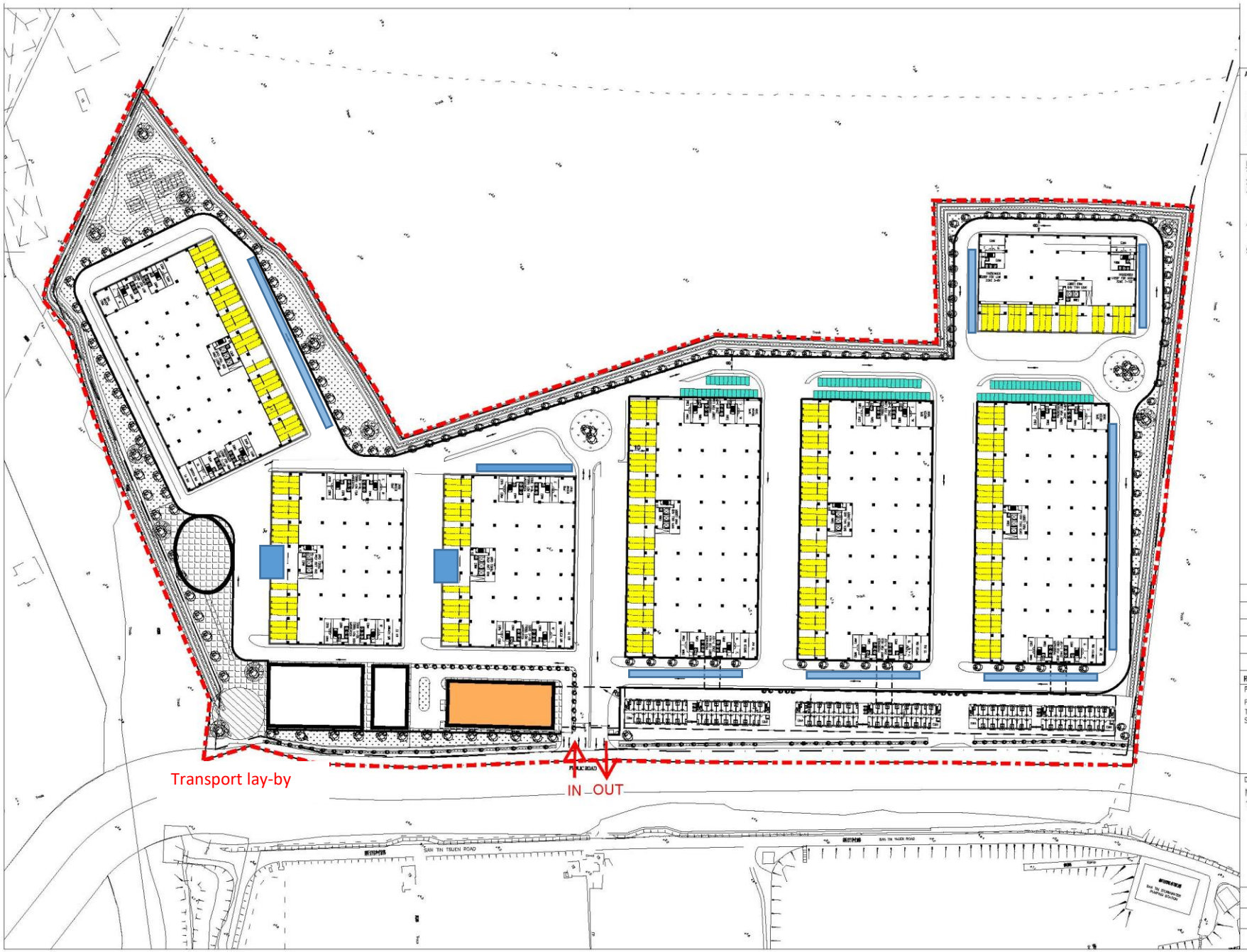
Extracted from HKPSG (Ch.8) Table 11 : Parking Standards - 3. General Notes

NAME		NO. OF Blocks	NO. OF Storeys	GFA	L/UL						PARKING SPACE					
					REQUIRED BY HKPSG (CH.8) & THE CHECKLIST OF TIA FOR DEVELOPMENT PROJECTS						REQUIRED BY HKPSG (CH.8) & THE CHECKLIST OF TIA FOR DEVELOPMENT PROJECTS					
					TS	CS	LGVS	MGVS	HGVS	C	PCPS	MPS	LGVPS	MGVPS	HGVPS	BPS
G1	COOLING CENTRE	1	2	3,904	-	-	1	1		-	1	1	-	-	-	-
G2	SUBSTATION	1	2	1,430	-	-	1	1		-	1	1	-	-	-	-

Annex F2 - APS


APS
data
center
60,87
25,85
QUEUING (110m for 35 private cars)
R9
76,47
IN /OUT
PRIVATE CAR
IN OUT
INDUSTRAIL AREA

Annex F3 - L/UL



Kenwell Limitec

ARCHITECT

llewelyn davies

ARCHITECTS PLANNERS DESIGNE

Llewelyn-Davies Hong Kong Ltd

GENERAL NOTE:

1. DO NOT SCALE OFF THIS DRAWING.
2. ALL DIMENSIONS TO BE CHECKED ON SI
3. READ THIS DRAWING IN CONNECTION WIT GENERAL ARCHITECTURAL PLANS, STRUCTURAL PLANS AND OTHER RELATEC DRAWINGS.
4. THE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCY FOUN THEREIN.
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Parking Space

Container Parking Space

Automatic Parking

Container Queuing

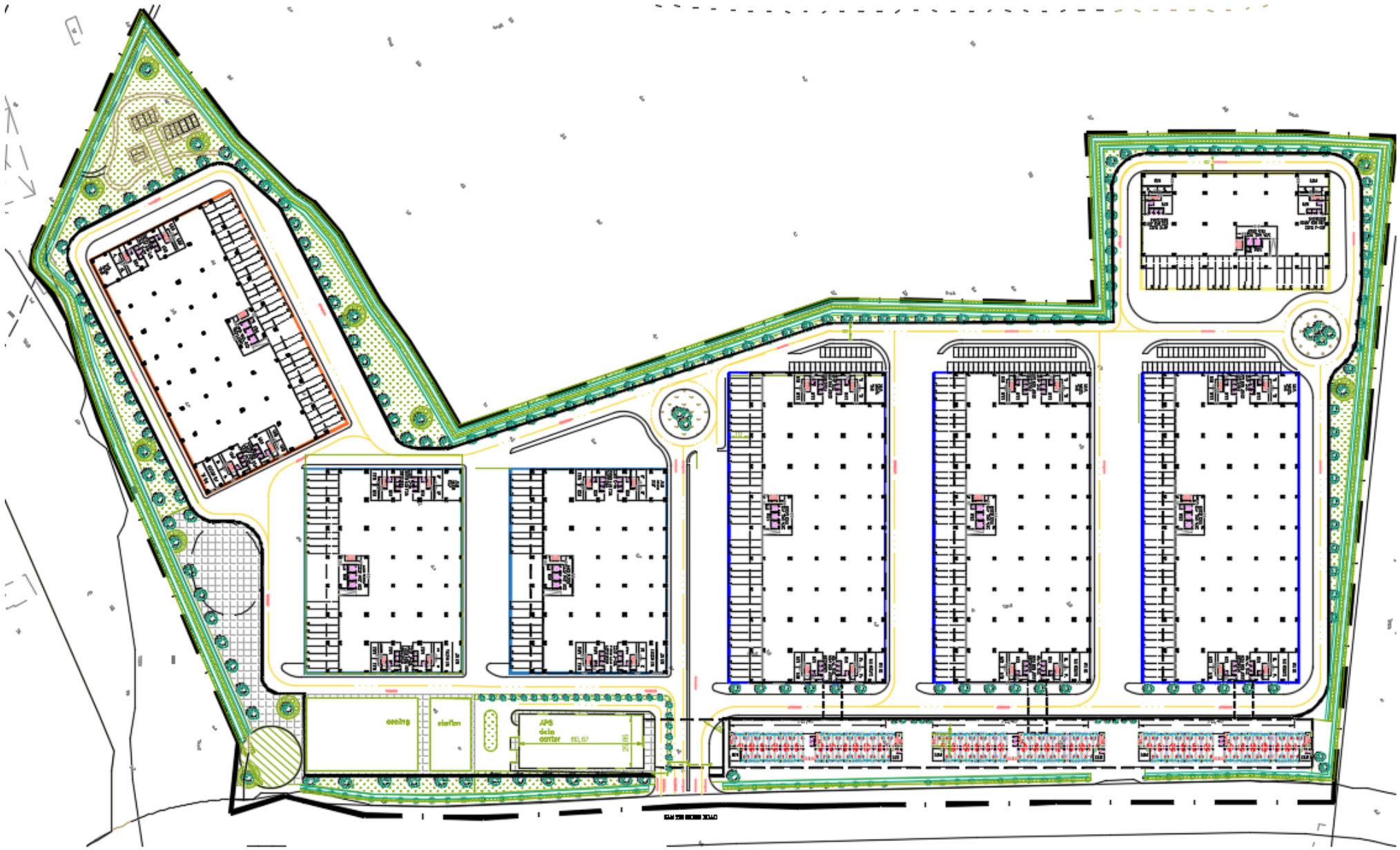
REV.	DATE	DESCRIPTION

PROJECT

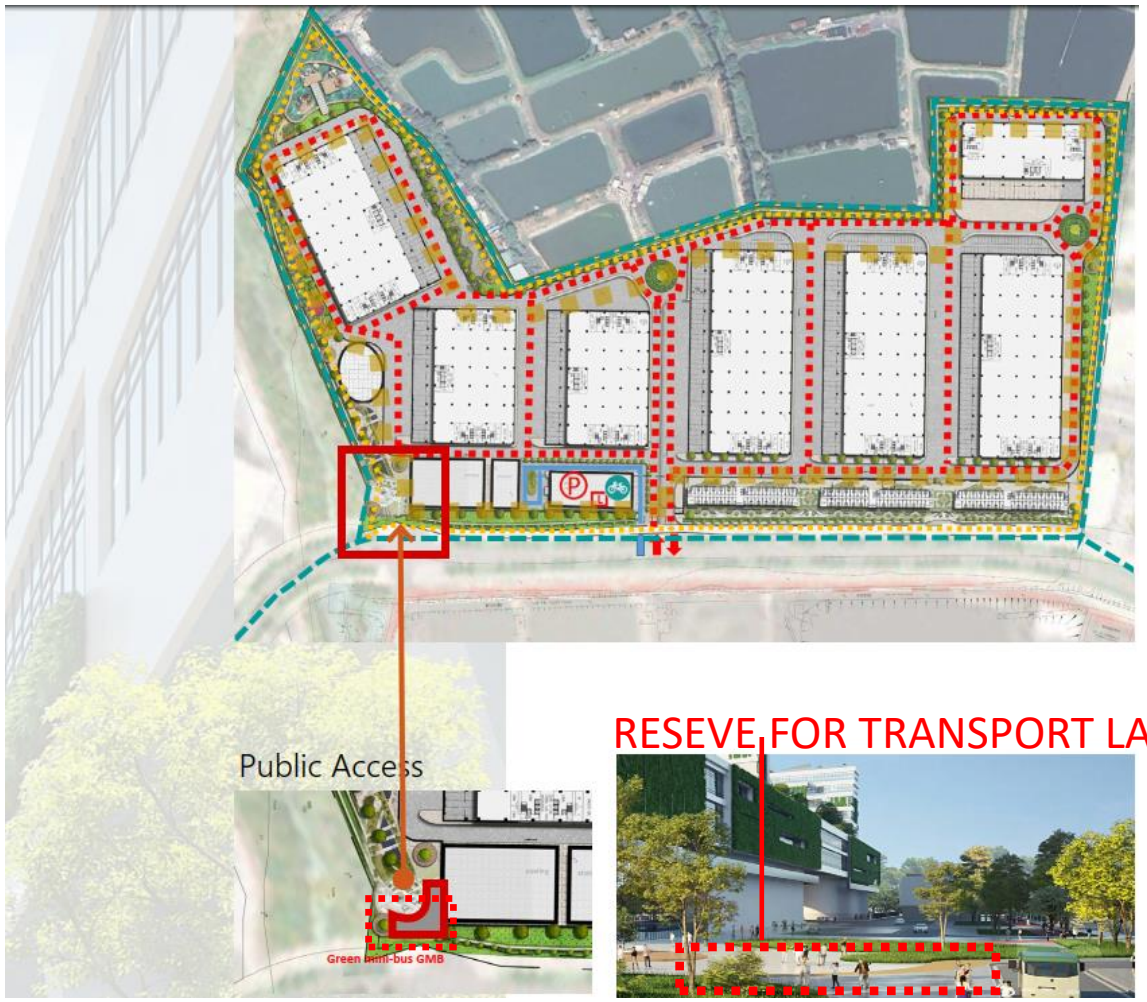
PROPOSED LOGISTIC DEVELOPMENT IN SAN T TECHNOPOLE, LOT 764RP (PART) IN D.D. 99 SAN TIN, YUEN LONG, N.T.

DRAWING TITLE

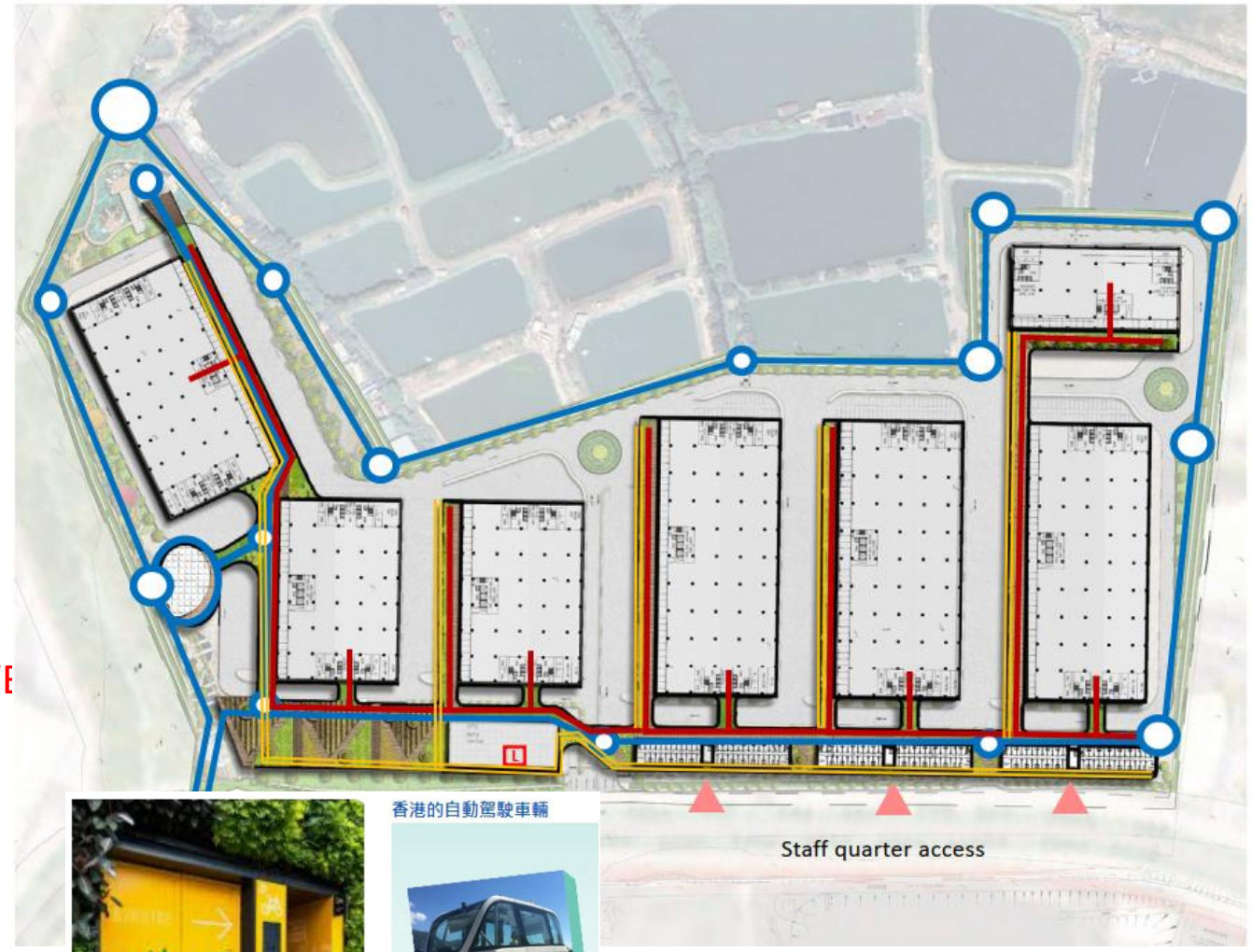
MASTER LAYOUT PLAN
1ST TO 2ND FLOOR PLAN


cooling
station
APS
data
center

Annex F4



RESEVE FOR TRANSPORT LAYE



香港的自動駕駛車輛

"Navya Arma"
(測試地點: 西九文化區)

LEGEND:

ECO loop for public access

Electricity auto-passenger mover

R&D level staff access

L Passengers lift lobby to podium level

Annex G

Strategic Clarification on the Proposed Land Use Amendment for
San Tin Technopole

(a) Letter to the Innovation, Technology and Industry Bureau dated 8.12.2025
(b) Letter to the Innovation, Technology and Industry Bureau dated 15.1.2026

Ks Solutions Limited

KS SOLUTIONS

Registered post

[redacted]

8th Dec 2025

The Innovation, Technology and Industry Bureau

20/F, West Wing, Central Government Offices

2 Tim Mei Avenue

Tamar, Hong Kong

Attention: Professor Dong SUN, JP

Dear Sir,

Strategic Clarification on the Proposed Land Use Amendment for San Tin Technopole

1. Please refer to Section 16 Planning Application (A/STT/26) dated May 2025, as attached at Appendix 1. We commend the Bureau's release of the ***San Tin Technopole I&T Industry Development Conceptual Outline***, which provides a clear roadmap for Hong Kong's ambition as an international I&T hub. We particularly note the directives on **pages 22–23**:

"Infrastructure support should target upstream-downstream integration of the industrial ecosystem… and incorporate industry-specific infrastructure to achieve efficient vertical integration."
"Convenient logistics facilities—including timely global delivery, efficient warehousing, precision packaging, and real-time tracking—are essential to enhance supply chain efficiency."

2. Yet, industry-specific infrastructure—such as GMP pilot workshops for life sciences, cleanroom packaging lines for microelectronics, application testbeds for AI robotics, and intelligent logistics systems for advanced manufacturing—is highly specialized and deeply coupled with production processes, making it difficult for a single centralized facility to serve all needs.

3. Our project's core value stated in our submission mentioned in Para. 1 above lies in adopting an "embedded industry-specific infrastructure" model -integrating pilot production, manufacturing, and smart logistics within each industrial building and further upgrading logistics space into a "supply chain finance enabler," thereby activating capital flows for I&T enterprises and truly realizing the Outline's vision of "efficient vertical integration."

4. Strategic Positioning: A Pilot for the "Technology–Industry–Finance" Virtuous Cycle

China's upcoming 15th Five-Year Plan emphasizes "new quality productive forces," which hinges on 打通 the bottlenecks between technological innovation, industrialization, and financial support. Hong Kong's I&T sector has long suffered from "strong technology, weak manufacturing, and scarce capital."

Our concerned project aspires to become STT's first **I&T value-realization hub**, establishing a closed-loop mechanism:
R&D → Pilot Validation → Small-Batch Manufacturing → Brand Orders → Custodied Inventory → Supply Chain Financing

This is not merely physical infrastructure, but **institutional innovation**—a foundational layer for value creation.

5. Unique Advantage: Real-World Demand Driving Innovation

While our current tenants are logistics operators, they represent a powerful network of multinational brands across food, fashion, and health products. This network offers I&T enterprises:

- High-frequency, multi-scenario validation opportunities;
- Rapid market feedback and commercialization pathways;
- Cross-sector collaboration as an innovation catalyst.

This "demand-driven innovation" model has been validated globally and aligns with trends like nearshoring and agile supply chains.

6. Industry Alignment with STT Priorities

Focus Sector	Key Facilities
Life & Health Tech	Temp-controlled pilot workshops, sterile zones, cold-chain sample management
AI & Robotics	Automated integration testbeds, sensor calibration platforms
Microelectronics & Smart Devices	Cleanroom packaging lines, EMC chambers, smart assembly units
Green Tech & Advanced Materials	Biodegradable processing demo lines, circular economy validation zones

7. Upgrading "Convenient Logistics" into a Finance Enabler

Building on the Outline's recognition of "efficient warehousing and real-time tracking," we propose:

- **Third-party custodied inventory** under attested control;
- **IoT + automation** for tamper-proof, real-time visibility;
- Use of this data as **collateral for supply chain finance**, enabling asset-light I&T firms to secure funding against verified inventory or confirmed orders.

This transforms logistics from a cost centre into a **credit node**, unlocking liquidity.

8. Embedded vs. Centralized: Complementary, Not Competitive

We understand the government may develop a centralized logistics hub. However, for **small-batch, high-mix, rapid-iteration advanced manufacturing** (e.g., C2M fashion, personalized health products), **embedded logistics modules within each building** offer superior efficiency:

- Minimizes inter-zone material movement;
- Enables end-to-end "design–prototype–produce–ship" cycles;
- Allocates 15–25% of floor area per building to internal logistics, serving only intra-park collaboration;
- Accepts phased adjustments to align with STT's overall rollout.

This approach fully aligns with the Outline's goal of "enhancing supply chain efficiency," while better serving flexible manufacturing needs.

9. Collaborative Role: Supporting Phase 1 Ecosystem

As our client's private project adjacent to Phase 1, we commit to:

- Opening logistics data APIs to Phase 1 enterprises for supply chain financing;
- Exploring with the future platform company the co-creation of a "Trusted STT Logistics Data Pool";
- Complying with government standards on warehousing, data security, and carbon emissions.

10. Global Reference

- **Germany's Fraunhofer**: Contract research enabled Industry 4.0 demo lines;
- **Japan's Tsukuba**: Shared prototyping workshops accelerated industrial adoption;
- **Singapore's A*STAR**: DBS offers IP-backed loans.

Our project will similarly enable "custodied inventory + supply chain finance" to unlock capital for innovators.

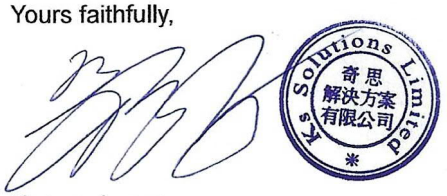
Conclusion

We aim to upgrade the Outline's "convenient logistics facilities" into a **comprehensive supply chain management infrastructure**, ensuring STT possesses not only technology and manufacturing, but also **liquid capital and efficient value realization**.

At a pivotal moment when China is advancing "new quality productive forces" and the "technology–industry–finance" virtuous cycle, our project aspires to serve as a **pilot for institutional innovation** in the Greater Bay Area—delivering a replicable, scalable private-sector model for Hong Kong's new-type industrialization.

We respectfully request the ITIB's favourable consideration of this application. If required, we like to make a presentation of the unique innovative ingredients that fall into the zoning ambit of government's innovative intentions as stated in Para.1 above.

Yours faithfully,



Kammy Leung
[redacted]

Founder, KS Solutions Limited
Vice Chairman, Hong Kong E-commerce Logistics Association
Executive Committee Member, Hong Kong Shipping and Logistics Association
Former General Manager, Cainiao Smart Logistics Network, HK
Former Director, ZTO International Logistics, HK

Encl.: Appendix 1 - Section 16 Planning Application (A/STT/26) dated May 2025

c.c. Clients

Development Bureau (Attn.: Ms. Bernadette Linn)

Deputy Financial Secretary (Attn.: Mr. Wong Wai Lun, Michael)

關於 KS Solutions Limited 及創辦人梁金源先生的背景說明

致：創新科技及工業局（ITIB）

KS Solutions Limited（奇思解決方案有限公司）由梁金源先生（Kammy Leung）於 2025 年 3 月創立，專注於產業整合、智慧基礎設施規劃及供應鏈數位化轉型，致力推動香港新型工業化與創科生態建設。

梁金源先生為資深物流與供應鏈戰略專家，擁有逾二十年跨領域實戰經驗，橫跨國際快遞、跨境電商、智慧物流生態及高附加值航空服務。其職涯始於 FedEx，歷任清關管理、機坪作業、分撥中心營運及亞太區樞紐運營等要職，並深度參與 2009 年 FedEx 亞太區樞紐由菲律賓遷移至廣州的重大項目，主導跨境陸路運輸與多式聯運流程設計，為粵港澳大灣區高效物流網絡奠定實務基礎。

其後，梁先生於 LINEX、中通國際等企業推動電商物流創新，建立自動化電商倉儲標準，並成功拓展國際網絡至澳洲、歐洲及日本市場。

2018 年，梁先生加入阿里巴巴旗下菜鳥網絡，出任香港總部總經理，期間實現多項突破：

- 成功打造香港首個跨境電商 OTC（非處方藥）合規解決方案；
- 建設機場物流園區內首個物聯網（IoT）智能倉庫，日均訂單處理量由數百躍升至數萬；
- 提出「Cargo Village」物流生態圈概念，成為「菜鳥智慧港」項目的核心架構；
- 主導「經珠港飛」貨運項目，善用港珠澳大橋實現空陸聯運，提升區域機場群協同效率；
- 代表菜鳥與中國商飛簽署《香港航空器材中心合作備忘錄》，籌建亞太航材供應鏈中心，支持國產飛機海外運營。

梁先生長期關注土地規劃與產業政策協同。2018 年曾參與團結香港基金「政策．正察」項目，以洪水橋地區倉庫為案例，探討電商物流與棕地發展的互動關係。任職菜鳥期間，積極倡議「產業 1+」及「四流合一」（商流、物流、訊息流、資金流），並就放寬

「菜鳥智慧港」部分樓宇用途作食品加工中心提出專案建議，雖因審批時程過長未能落地，但展現其推動多功能混合用途產業空間的前瞻性思維。

2025 年創立 KS Solutions 後，公司迅速展現執行力：

- 協助 GKE Metal Logistics 建立 LME 認可的金屬交割倉庫，三個月內引入逾 5,000 噸銅、鎳、錫交易，躍居香港市場首位；
- 作為國際知名諮詢公司外部顧問，參與「北部都會區」洪水橋發展區投標項目，提出「產業互聯多層解決方案產業園」概念，主張以物流產業為骨幹，拉動生物科技與智慧製造發展，並整合人工智能與綠色科技；
- 設計務實商業模型，確保項目財政表現符合投資者預期，同時契合公共政策目標。

梁先生現任香港電商物流協會副主席及香港航運物流協會執行委員會成員，持續推動行業創新轉型與可持續發展。

KS Solutions 的核心理念，是透過嵌入式產業基建與供應鏈金融增信機制，補足創科生態中「從技術到產品、從產品到資金」的關鍵缺口 - 這正是當前香港發展新質生產力所需之民間協作力量。

Background Brief: KS Solutions Limited and Mr. Kammy Leung

To: The Innovation, Technology and Industry Bureau **(ITIB)

KS Solutions Limited was founded by Mr. Kammy Leung in March 2025, with a mission to advance industrial integration, smart infrastructure planning, and supply chain digital transformation, thereby supporting Hong Kong's new-type industrialization and I&T ecosystem development.

Mr. Leung is a seasoned strategic expert in logistics and supply chain management, with over two decades of cross-sector experience spanning international express delivery, cross-border e-commerce, smart logistics ecosystems, and high-value-added aviation services.

He began his career at FedEx, holding key roles in customs clearance, ramp operations, hub distribution, and Asia-Pacific hub management. He played a pivotal role in the landmark 2009 relocation of FedEx's Asia-Pacific hub from the Philippines to Guangzhou, where he led the design of cross-border road transport and multimodal logistics workflows—laying practical foundations for the Greater Bay Area's efficient logistics network.

Subsequently, at LINEX and ZTO International, Mr. Leung drove e-commerce logistics innovation, establishing automated warehouse standards and successfully expanding international networks into Australia, Europe, and Japan.

In 2018, he joined Cainiao Smart Logistics Network (Alibaba Group) as General Manager, Hong Kong, delivering several breakthroughs:

- Launched Hong Kong's first compliant cross-border OTC e-commerce solution;
- Built the airport logistics park's first IoT-enabled smart warehouse, scaling daily order volume from hundreds to tens of thousands;
- Pioneered the "Cargo Village" logistics ecosystem concept, which became the architectural core of the "Cainiao Smart Gateway" project;
- Spearheaded the "Fly Via Zhuhai–Hong Kong" freight initiative, leveraging the Hong Kong–Zhuhai–Macau Bridge to enable seamless air-land intermodal transport and enhance regional airport cluster efficiency;
- Represented Cainiao in signing a Memorandum of Understanding with COMAC to establish a Hong Kong-based Aviation Spare Parts Centre, supporting overseas operations of domestically produced aircraft.

Mr. Leung has long engaged in brownfield land use planning. In 2018, he contributed to the Our Hong Kong Foundation's "Policy Insight" study, using two brownfield warehouses in Hung Shui Kiu as case studies to examine the nexus between e-commerce logistics and land development. During his tenure at Cainiao, he championed the "Industry 1+" and "Four-Flow Integration" (commercial, logistics,

information, and financial flows) frameworks. He also proposed re-zoning part of the Cainiao Smart Port for food processing - a submission that garnered positive inter-departmental feedback from the Development Bureau, Transport and Logistics Bureau, and Planning Department, though ultimately withdrawn due to prolonged approval timelines. This reflects his forward-looking vision for multi-functional, mixed-use industrial spaces.

Since founding KS Solutions in 2025, Mr. Leung has demonstrated rapid execution capability:

- Assisted GKE Metal Logistics in establishing an LME-approved metal delivery warehouse; within three months, the facility attracted over 5,000 metric tons of copper, nickel, and tin trading, becoming Hong Kong's market leader;
- Served as an external advisor to a leading international consultancy on the Northern Metropolis Hung Shui Kiu development bid, proposing an "Interconnected Multi-Storey Industrial Park" model that positions logistics as the backbone to catalyse biotech and smart manufacturing, integrated with AI and green technologies;
- Designed pragmatic commercial models that align investor returns with public policy objectives.

Mr. Leung currently serves as Vice Chairman of the Hong Kong E-commerce Logistics Association and Executive Committee Member of the Hong Kong Shipping and Logistics Association, actively promoting industry innovation and sustainable development.

At its core, KS Solutions seeks to bridge critical gaps in Hong Kong's I&T ecosystem—specifically, the transition from technology to product, and from product to capital—through embedded industrial infrastructure and supply chain finance enablers. This represents precisely the kind of private-sector collaboration needed to realize Hong Kong's ambition in developing new quality productive forces.

Ks Solutions Limited

KS SOLUTIONS

[redacted]

Registered Post

15 Jan 2026

The Innovation, Technology and Industry Bureau

20/F, West Wing, Central Government Offices

2 Tim Mei Avenue

Tamar, Hong Kong

Attention: Professor Dong SUN, JP

Dear Sir,

Strategic Submission in Support of the STT Land Use Amendment – Advancing New-Style Industrialisation

Please refer to my previous letter dated 8/12/2025, as attached in Appendix I. We appreciate your continued guidance and support for the industrial development of the Northern Metropolitan Area. Regarding the previously submitted urban planning application for this project as attached in Appendix II, we would like to supplement key strategic details to clarify how the project operationalises the national "new quality productive forces" strategy and the HKSAR Government's "new-style industrialisation" agenda, thereby reinforcing Hong Kong's role as a globally competitive supply chain hub.

I. Implementation Plan – A Phased Approach to Building an Ecosystem

The project will be developed in three stages:

- **Phase One (Infrastructure):** focuses on infrastructure, including site formation, roads, water, electricity, and other essential utilities.
- **Phase Two (Industrial Experimental Field Implementation)**: The project involves the construction of approximately eight 15-meter-high steel-structure buildings (each with two floors), providing approximately 1.6 million square feet of high-specification space, focusing on a "four-in-one" operating model (logistics + commerce + information + capital). Initially, it will pilot

the project in consumer goods industries such as food and apparel to validate the "manufacturing + logistics" upgrade path. Simultaneously, it will introduce LME-approved commodity delivery and warehousing companies, using basic metal inventory as an anchor to attract new materials and precision manufacturing companies to set up production lines, and collaborate with financial institutions to develop commodity spot financial products. The main logistics infrastructure includes a intermodal transport hub, a fully automated parcel sorting center + smart warehousing + LAE Vertiport, which will become the first and only logistics node in Hong Kong to integrate road-based freight with a certified LAE vertiport, directly enabling next-generation cross-border e-commerce and on-demand delivery.

- **Phase Three (Ecosystem Expansion):** The project will be constructed in phases, including a high-tech complex, a green data center, mixed-use office space, and conservation-oriented urban agricultural space, to achieve integrated "research-production-sales-finance"..

II. Methodology – Strength Through Partnership, Growth Through Tenants

One of the most critical challenges in any industrial park development is tenant acquisition. However, the applicant, Kenwell, and its affiliated consortium have operated logistics warehouses in the region for many years, currently managing six facilities with a total area of 43,030 square metres (approximately 463,000 square feet). Our tenants include international logistics companies such as Maersk, DB Schenker, Kerry Logistics, as well as numerous local SMEs. We serve over 50 brands, including Maxim's Group, Ferrero, Nestlé, Kinder, GAP, PUMA, Under Armour, Adidas, Skechers, FILA, and DKNY. Our annual rental income amounts to HKD 156 million. Moreover, many of our existing partners hold portfolios of additional domestic and international brands across various industries, ready for expansion when conditions are right.

Additionally, our partner Ks Solutions has a core client, GKE Metal Logistics Pte Ltd, which is one of the first LME-approved delivery warehouses in Hong Kong, accounting for more than half of stock in Hong Kong. The company is actively seeking land to expand its operations, aiming to bring 50,000 tonnes of non-ferrous metals into Hong Kong by 2026, requiring no less than 100,000 square feet of warehouse space.

We also note that the Hong Kong-Shenzhen Innovation and Technology Park (HSITP) has officially opened, attracting over 60 enterprises, a quarter of which are from overseas. Our Phase One facilities are ideally positioned to meet downstream needs such as R&D piloting, small-batch production, and logistics. These are real, tangible opportunities already within our grasp — the very seeds needed to catalyse development in the Northern Metropolis. We firmly believe that once the “industrial upgrading testbed” of Phase One is successfully launched, it will generate a strong magnet effect to attract more enterprises.

Financial projections indicate that Phase Two can achieve payback within five years. Beyond generating stable cash flow for Phase Three, this will build solid market confidence. More importantly, operational experience from Phase Two will enable us to refine and tailor Phase Three precisely to market demands.

III. Organisational Structure: Combining practical experience and industry resources

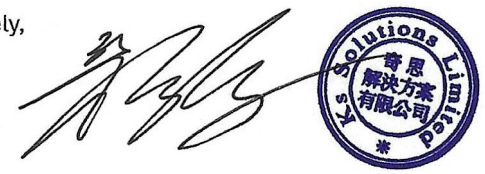
Member	Role	Core Competencies
Leader Union Development Limited	Fundraising, park design and operation	The Director of Leader Union previously led the construction and management of a 50-acre (approximately 100-hectare) toy factory in a production park in Guangdong Province.
Kenwell Limited	Existing customer transition, business development execution	The Director of Kenwell is currently the owner of logistics assets in the area and able to convert tenants immediately.
Ks Solutions	Industrial planning and introduction of the new economy	The Director of Ks Solutions is a former senior executive at Cainiao, FedEx, and ZTO Express, and a key figure in pushing for the LME warehouse to be located in Hong Kong.

IV. Strategic Value: Preserving and upgrading Hong Kong's logistics advantages to prevent industrial outflow.

This project does not replace the existing logistics industry but rather upgrades it instead of relocating it. Forcibly clearing out existing logistics facilities could lead many international brands to relocate to the Greater Bay Area or Southeast Asia, causing irreversible economic losses. We have chosen a pragmatic path: using real customers as a springboard, the supply chain as a carrier, and the "integration of four flows" as an engine, ultimately achieving the "new industrial closed-loop ecosystem" envisioned by STT.

Given the strategic alignment, financial viability, and tenant certainty outlined above, we respectfully propose that this project be recognised as a flagship demonstration of new-style industrialisation in the Northern Metropolis. We stand ready to work closely with your Bureau to realise this vision.

Your Sincerely,



Kammy Leung
[redacted]

Founder, KS Solutions Limited
Vice Chairman, Hong Kong E-commerce Logistics Association
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Former General Manager, Cainiao Smart Logistics Network, HK
Former Director, ZTO International Logistics, HK

Encl.: Appendix I - Letter dated 8 Dec 2025

Appendix II - Section 16 application with all enclosed documents

c.c. Development Bureau (Attn.: Ms. Linn Hon Ho, Bernadette)

Deputy Financial Secretary (Attn.: Mr. Wong Wai Lun, Michael)

Clients

Annex H

Additional Information in Response to the Comments from
the Planning Department

Annex H1 - CALCULATION FOR WORKER DENSITY

Table 2 : Guidelines for Worker Densities

Land Use		Worker Density
Business Use		20m² - 25m²/worker
General Industrial Use (GIU)	Industrial Use (I)	Existing Industrial Areas: 25m²/worker New Industrial Areas: 35m²/worker Warehouse: 700m²/worker
	Industrial/Office Use (I/O)	20m²/worker (all areas)
Special Industrial Use (SIU)	Industrial Estate (IE)	75m²/worker
	Science Park (SP)	15m²/worker
	Rural-Based Industrial Use (RI)	300 workers/ha
	Other Industrial Uses with Special Requirements (SI)	Vary as per functional needs

Extracted from HKPSG (Ch.5) Guidelines for Plot Ratios and Worker Densities Table 2 : Guidelines for Worker Densities

NAME		NO. OF Blocks	NO. OF Storeys	GFA
W1-W7	WAREHOUSE	7	1	56,198
I1-I7	INDUSTRIAL	7	2	107,890

WAREHOUSE:

No. of working population= 56198/700 = 81

INDUSTRIAL:

No. of working population= 107890/35 = 3083

Table 2 : Guidelines for Worker Densities

Land Use		Worker Density
Business Use		20m² - 25m²/worker
General Industrial Use (GIU)	Industrial Use (I)	Existing Industrial Areas: 25m²/worker New Industrial Areas: 35m²/worker Warehouse: 700m²/worker
	Industrial/Office Use (I/O)	20m²/worker (all areas)
Special Industrial Use (SIU)	Industrial Estate (IE)	75m²/worker
	Science Park (SP)	15m²/worker
	Rural-Based Industrial Use (RI)	300 workers/ha
	Other Industrial Uses with Special Requirements (SI)	Vary as per functional needs

Extracted from HKPSG (Ch.5) Guidelines for Plot Ratios and Worker Densities Table 2 : Guidelines for Worker Densities

NAME		NO. OF Blocks	NO. OF Storeys	GFA
L1-L7	R&D LAB	7	4	200,068
O1-O7	R&D OFFICE	7	5	219,240

R&D LAB:

No. of working population= 200068/20 = 10004

R&D OFFICE:

No. of working population= 219240/20 = 10962

WAREHOUSE:

No. of working population= 56198/700 = 81

INDUSTRIAL:

No. of working population= 107890/35 = 3083

R&D LAB:

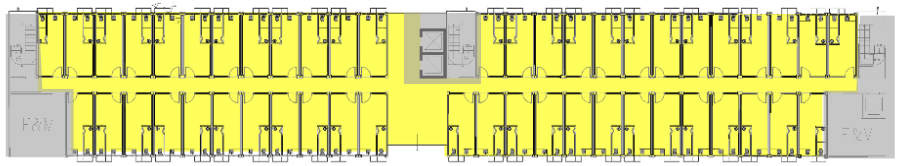
No. of working population= 200068/20 = 10004

R&D OFFICE:

No. of working population= 219240/20 = 10962

Total of working population=81+3083+10004+10962= 24130

STAFF QUARTER



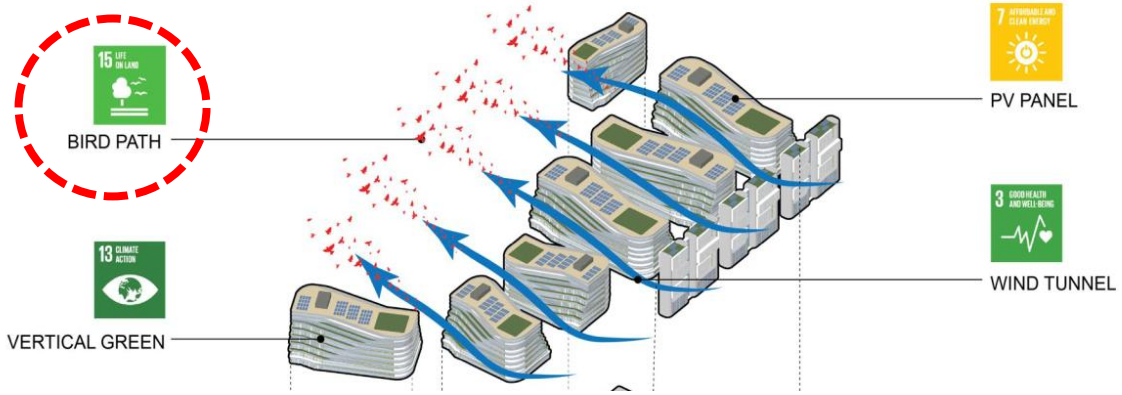
TYPICAL PLAN OF STAFF QUARTER

NAME		NO. OF Blocks	NO. OF Storeys	GFA
S1 S2 S3	STAFF QUARTER	3	17	59,544

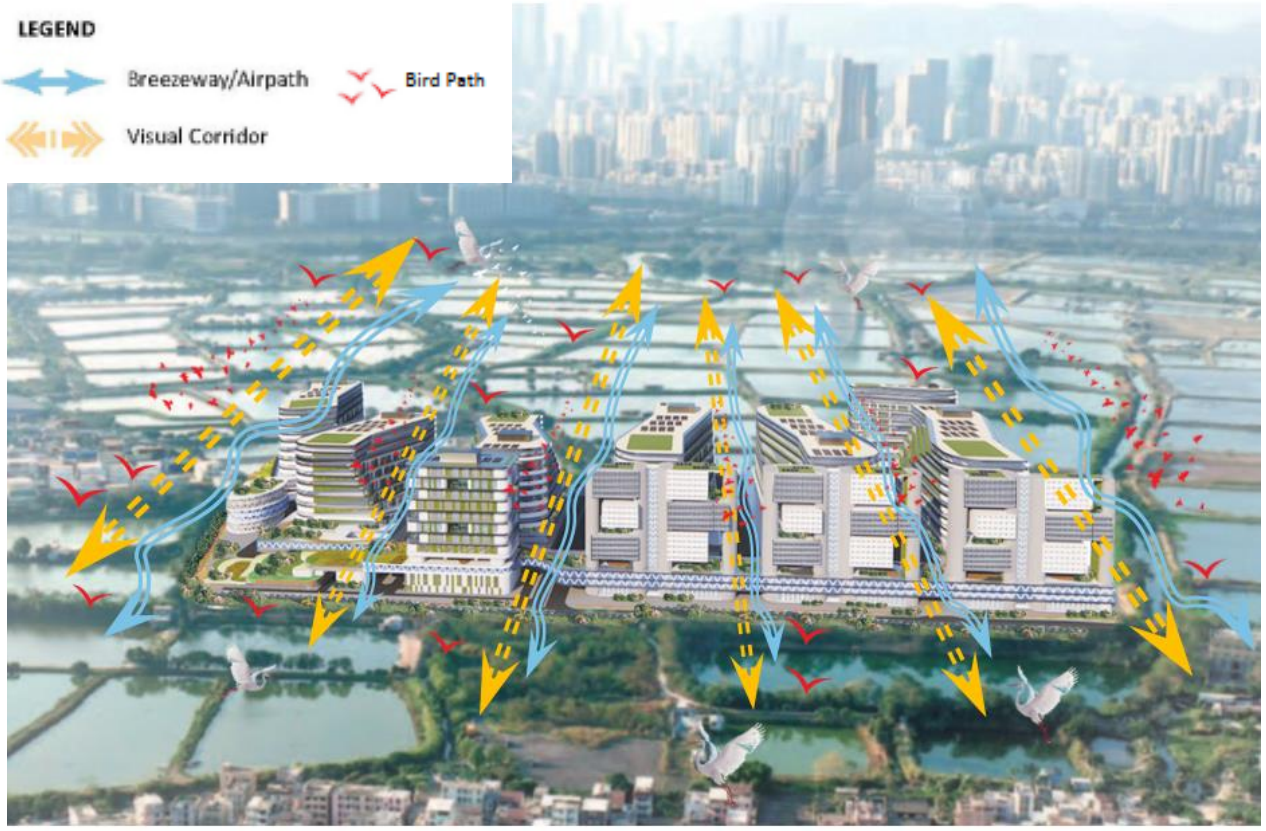
Blocks = 3
Units each floor = 40
1-2 units at each floor = 25
3-4 units at each floor = 25
Population each floor = 25 x 2 + 25 x 4 = 150
Storeys = 17

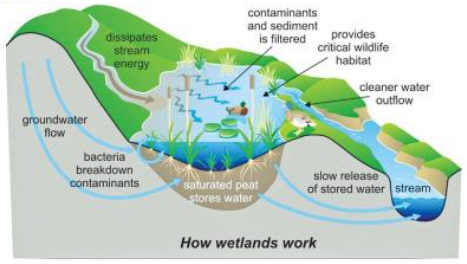
No. of residential population= 3 x 150 x 17 = 7650
No. of Units = 3 x 40 x 14 = 1680

Annex H2 - BIRD PATH



SUSTAINABILITY DESIGN DIAGRAM

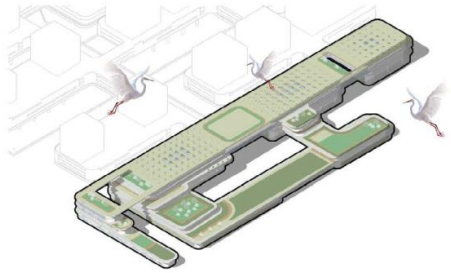




Educational path – show high /tide

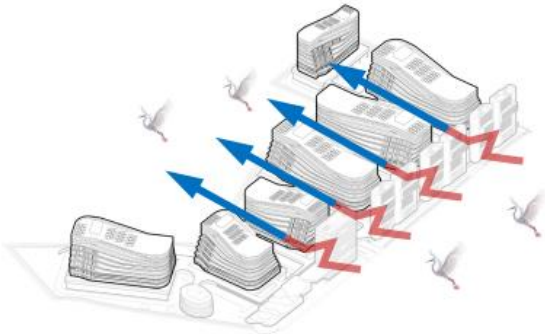
Tide In or flooding

Green Belt



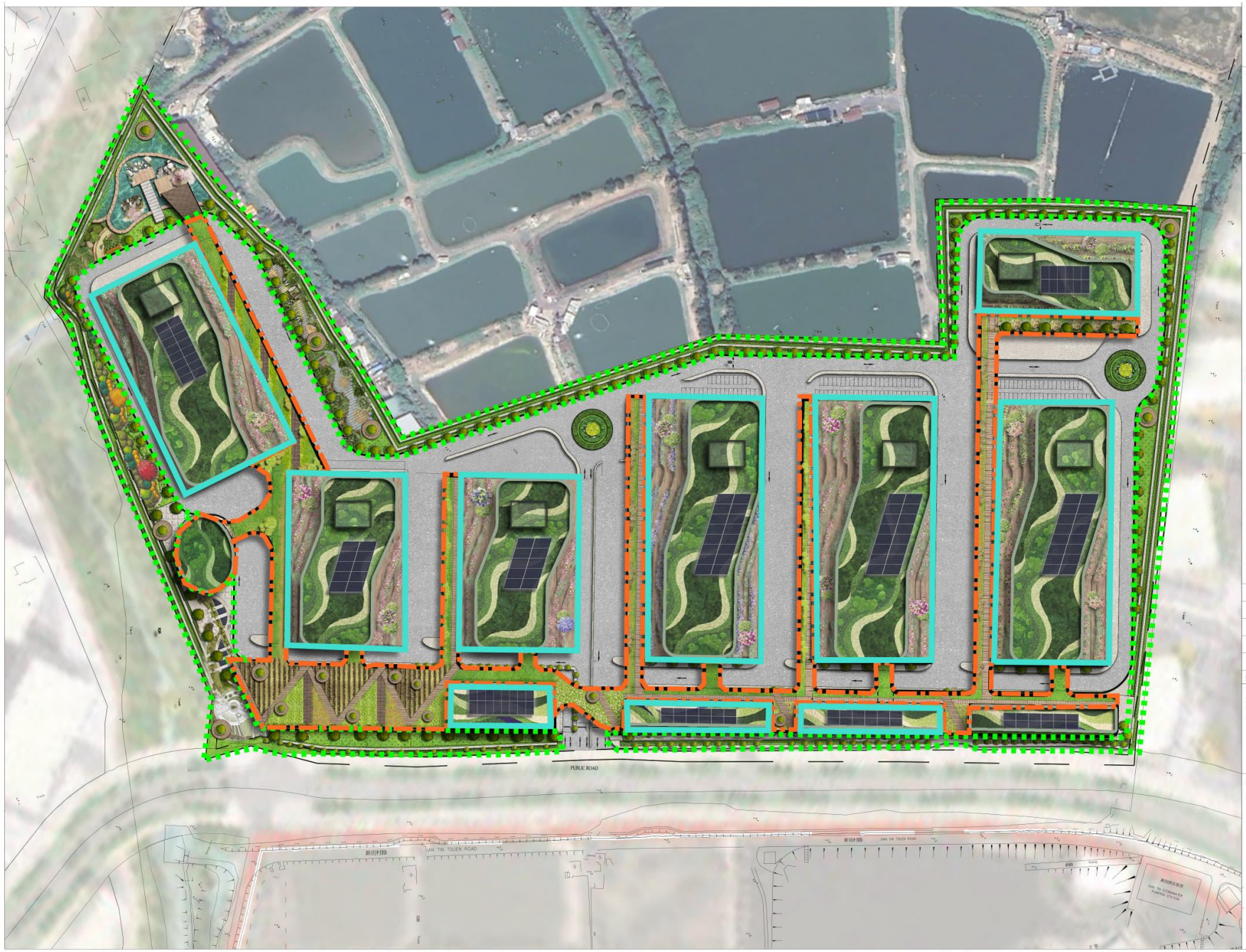
Eco Enhance

Breezeway



Annex H3 - MINIMUM SITE COVERAGE OF GREENERY

ANNEX H3



Kenwell Limitec

ARCHITECT

llewelyn davies

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Llewelyn-Davies Hong Kong Ltd

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G/F Landscape
33,632 sq.m

Podium Landscape
17,620 sq.m

Roof Landscape
56,349 sq.m

Total Landscape Area/Site Area
107,601sq.m/ 163,181sq.m*100%
=65.9%

REV.	DATE	DESCRIPTION

PROJECT

PROPOSED LOGISTIC DEVELOPMENT IN SAN T TECHNOPOLE, LOT 764RP (PART) IN D.D. 9S SAN TIN, YUEN LONG, N.T.

DRAWING TITLE

MASTER LAYOUT PLAN

Annex H4 - Eco-R&D

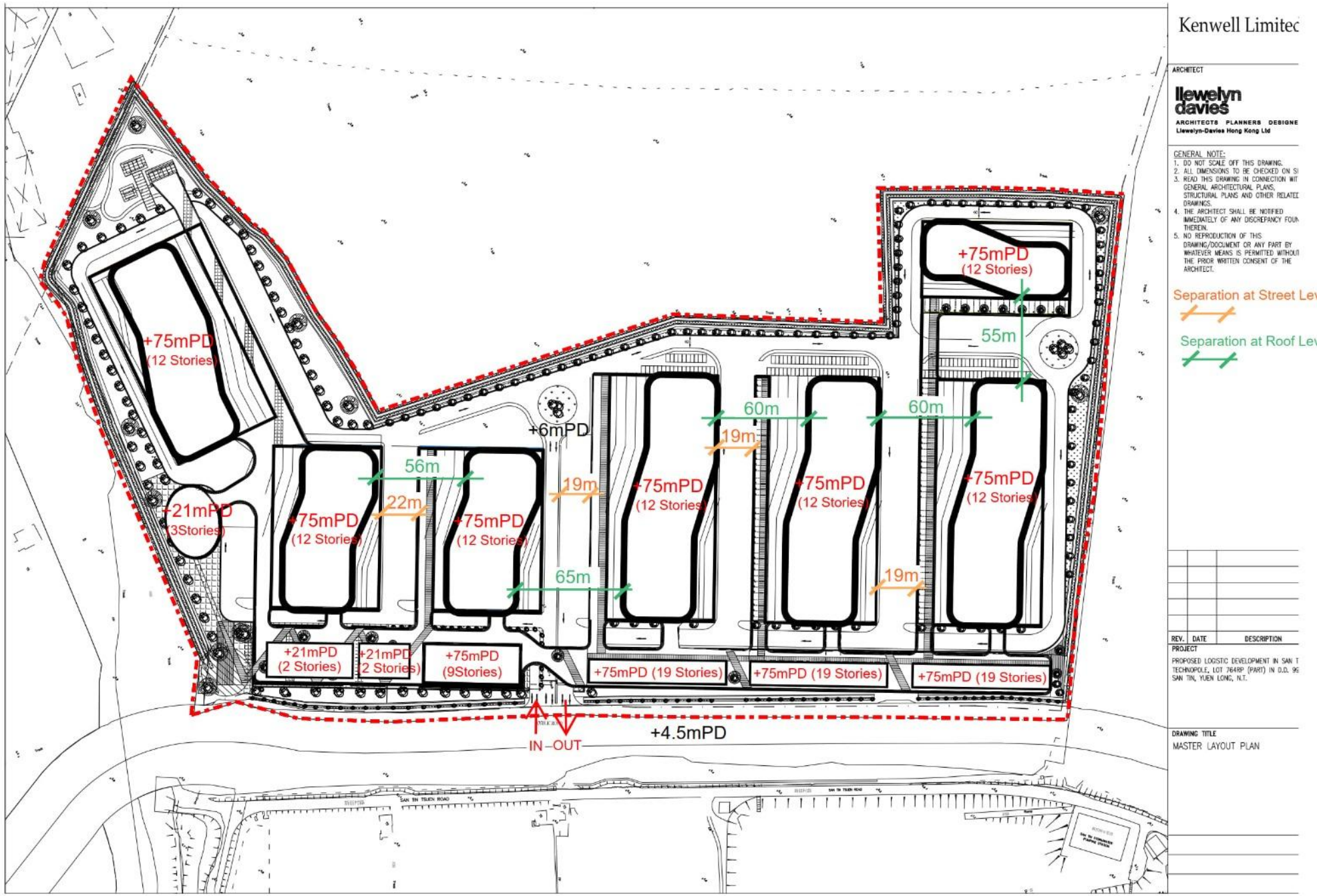
ANNEX H4
Eco-R&D
Example

Ecological Floating Island
生態浮島

Lush and tranquil setting of San Tin polder
新田蓄洪池環境恬靜，綠意盎然

Ecological floating island at the polder, with flowering plants to attract butterflies, birds and other wildlife
蓄洪池上的生態浮島種植了開花植物，吸引蝴蝶、雀鳥及其他野生動物

Annex H5 - LAYOUT



Kenwell Limited

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Separation at Street Level

Separation at Roof Level

REV.	DATE	DESCRIPTION

PROJECT

PROPOSED LOGISTIC DEVELOPMENT IN SAN T
TECHNOPOLE, LOT 764RP (PART) IN D.D. 9
SAN TIN, YUEN LONG, N.T.

DRAWING TITLE

MASTER LAYOUT PLAN

Kenwell Limitec

ARCHITECT

llewelyn davies

ARCHITECTS PLANNERS DESIGNE

Llewelyn-Davies Hong Kong Ltd

GENERAL NOTE:

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Parking Space

Container Parking Space

Automatic Parking

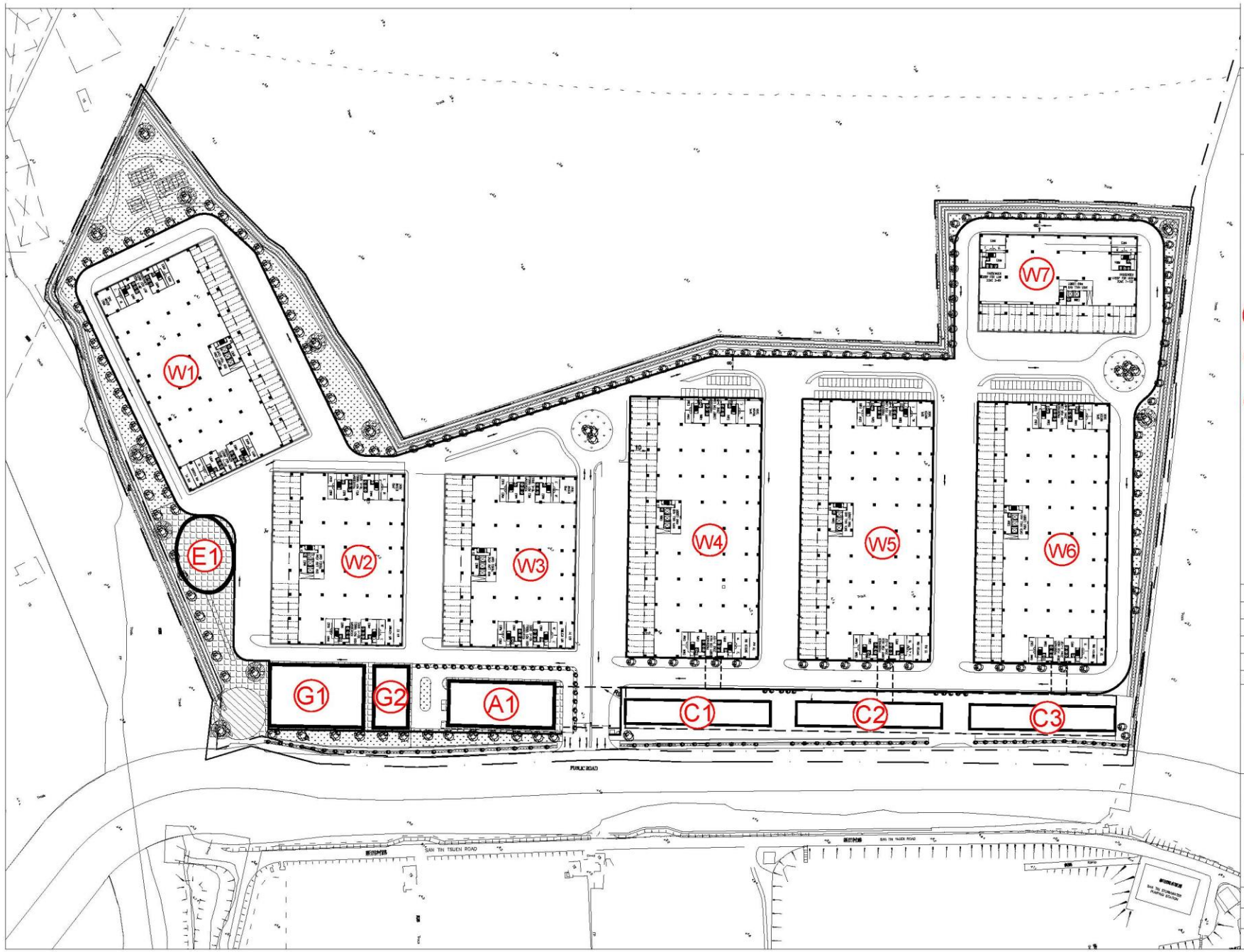
REV.	DATE	DESCRIPTION

PROJECT

PROPOSED LOGISTIC DEVELOPMENT IN SAN T TECHNOPOLE, LOT 764RP (PART) IN D.D. 99 SAN TIN, YUEN LONG, N.T.

DRAWING TITLE

MASTER LAYOUT PLAN
1ST TO 2ND FLOOR PLAN



Kenwell Limited

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llewelyn davies

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- (W) Warehouse
- (E) Visitor and Education Centre
- (G) GIC Facilities
- (A) Automatic Parking System
- (C) Commercial Uses

REV.	DATE	DESCRIPTION

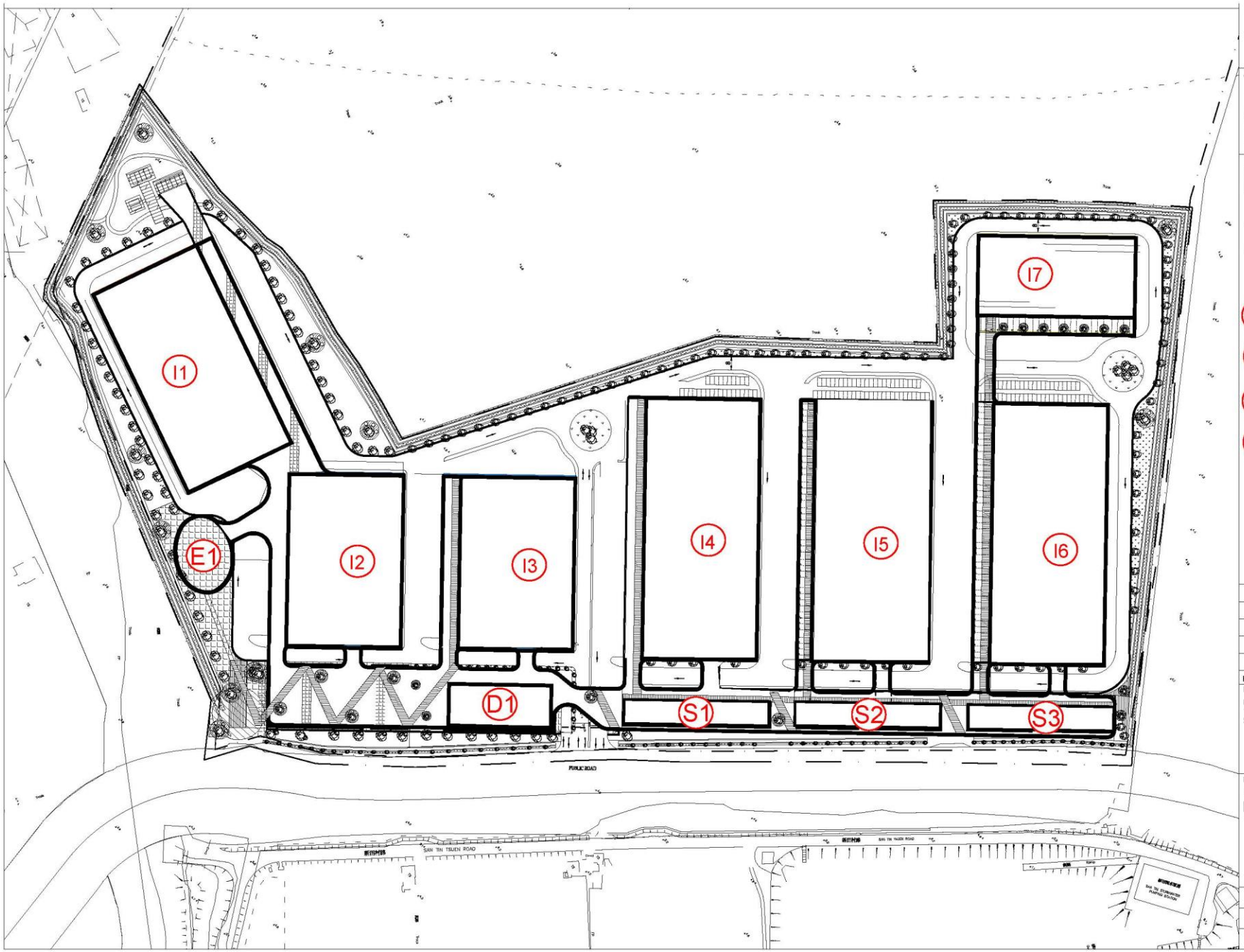
PROJECT

PROPOSED LOGISTIC DEVELOPMENT IN SAN T TECHNOPOLE, LOT 764RP (PART) IN D.D. 99 SAN TIN, YUEN LONG, N.T.

DRAWING TITLE

MASTER LAYOUT PLAN

Ground Floor Plan



Kenwell Limited

ARCHITECT

llewelyn davies

ARCHITECTS PLANNERS DESIGNE
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(I) Industrial Floors

(E) Visitor and Education Centre

(D) Data Centre

(S) Staff Quarters

REV.	DATE	DESCRIPTION

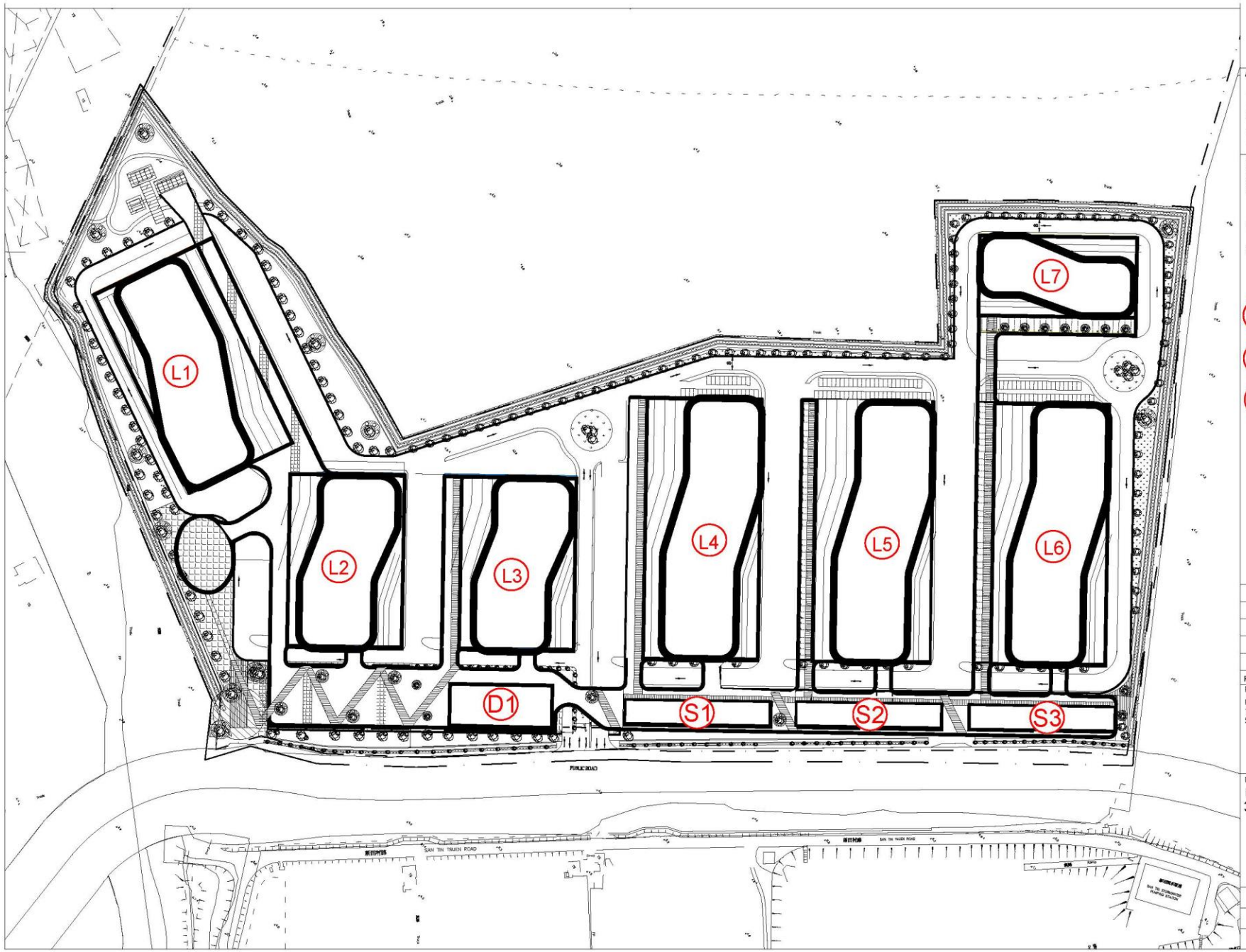
PROJECT

PROPOSED LOGISTIC DEVELOPMENT IN SAN T TECHNOPOLE, LOT 764RP (PART) IN D.D. 99 SAN TIN, YUEN LONG, N.T.

DRAWING TITLE

MASTER LAYOUT PLAN

Podium Floor Plan



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(L) R&D Labs

(D) Data Centre

(S) Staff Quarters

REV.	DATE	DESCRIPTION

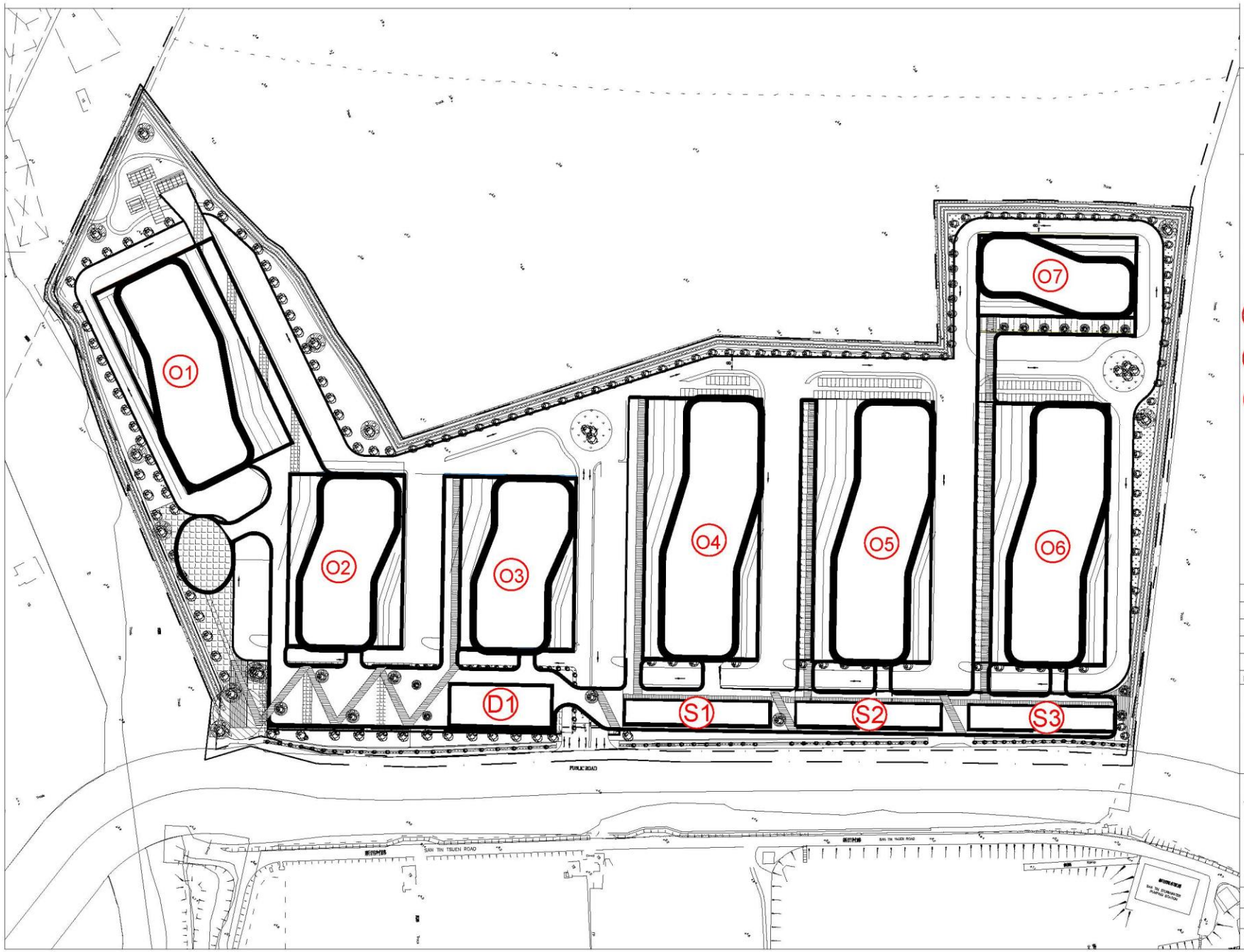
PROJECT

PROPOSED LOGISTIC DEVELOPMENT IN SAN T
TECHNOPOLE, LOT 764RP (PART) IN D.D. 99
SAN TIN, YUEN LONG, N.T.

DRAWING TITLE

MASTER LAYOUT PLAN

3/F-6/F Plan



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O R&D Offices

D Data Centre

S Staff Quarters

REV.	DATE	DESCRIPTION

PROJECT

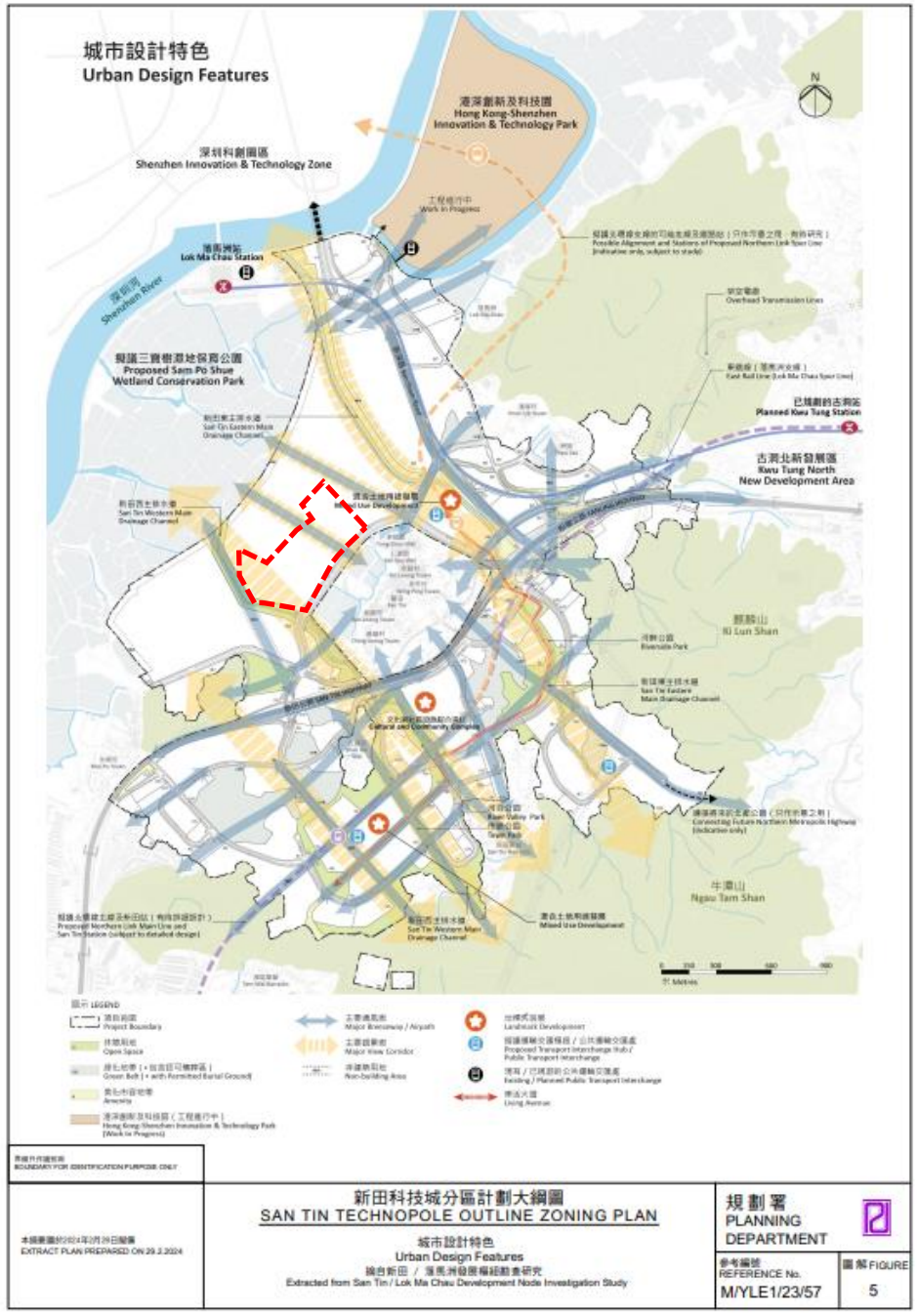
PROPOSED LOGISTIC DEVELOPMENT IN SAN T TECHNOPOLE, LOT 764RP (PART) IN D.D. 95 SAN TIN, YUEN LONG, N.T.

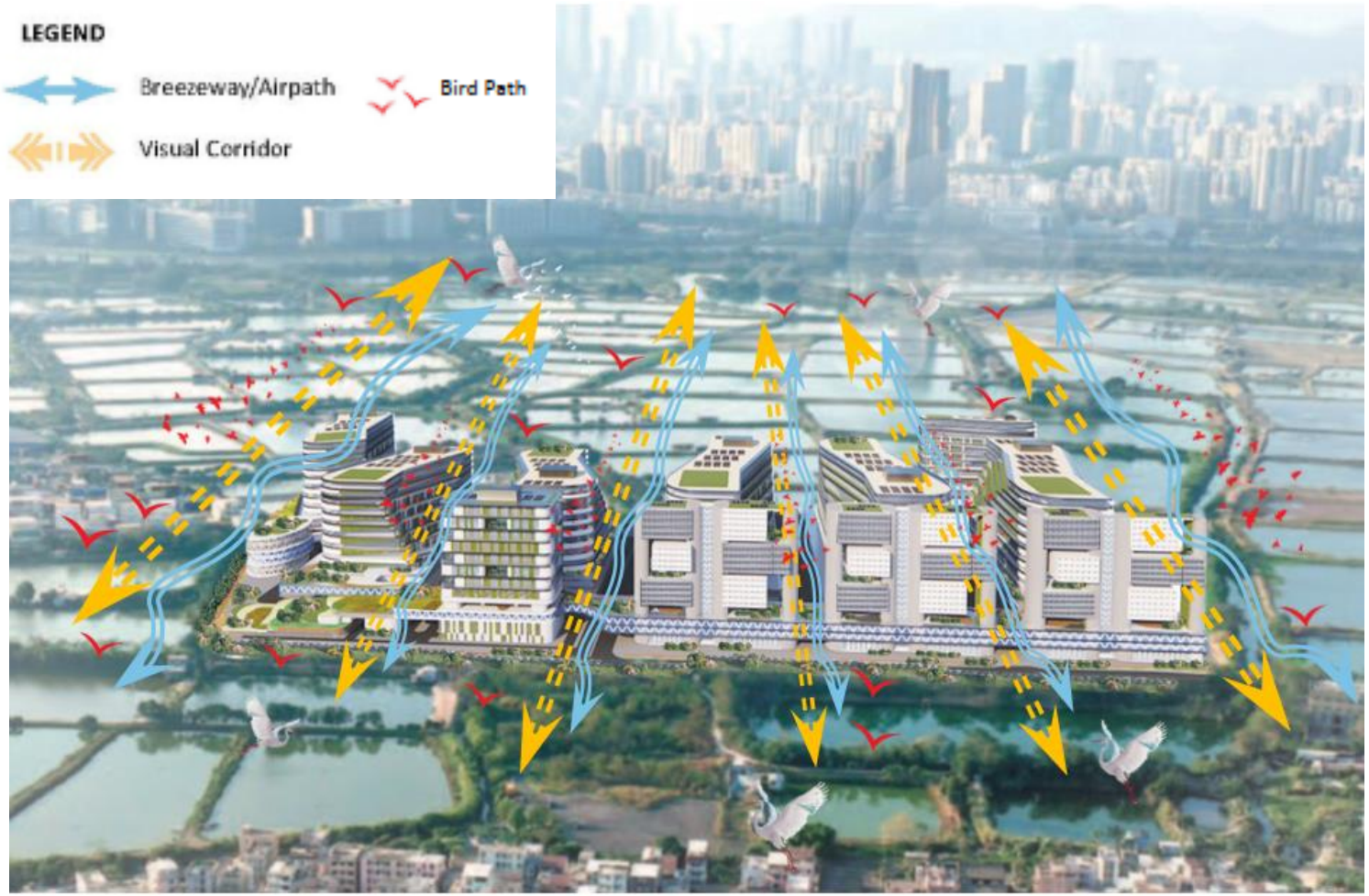
DRAWING TITLE

MASTER LAYOUT PLAN

7/F-11/F Plan

Annex H6 - BREEZEWAYS/AIR PATHS





Green Belt

Breezeway