Responses-to-Comments

Proposed Temporary Shop and Services and Eating Place with Ancillary Facilities for a Period of 6 Years in "Village Type Development" Zone
Lot 820 RP in D.D. 132, Tuen Mun, New Territories

(Application No. A/TM/590)

(i) The operation hours are revised to 12:00 pm to 11:00 pm daily, including public holidays. The layout of the proposed development is revised to meet the operational need (**Plan 1**).

(ii) A RtoC Table:

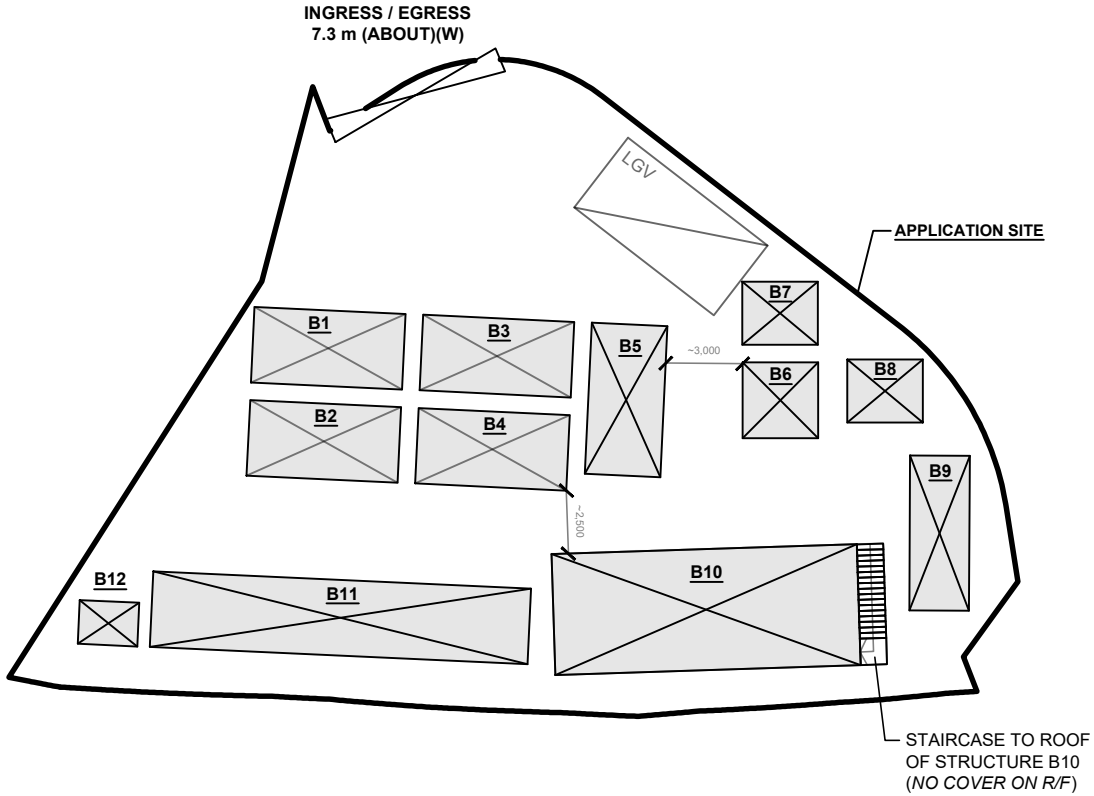
Departmental Comments		Applicant's Responses
1. Comments of the Commissioner for Transport (C for T) (Contact Person: Mr. San CHAN; Tel.: 2399 2426)		
(a)	Further to R-t-C item (c), please clarify whether the mentioned private car parks in vicinity to the Site have provided adequate parking spaces for visitors, as these private car parks may not offer hourly parking.	Noted. A revised plan showing the nearby private feepaying car parks is provided (**Annex I**). The nearest private fee-paying vehicle park is approximately 150m from the application site (the Site). As the Site is easily accessible by public transport services and private fee-paying vehicle parks, it is considered sufficient to accommodate the parking demand for the proposed development.
(b)	Further to R-t-C item (d), Tong Hang Road has public footpath only on the opposite side of the Site, and there is no pedestrian crossing across Tong Hang Road outside the ingress/egress of the Site, which would attract visitors walking on the carriageway near the Site boundary. As the road section is curved and sightline is restricted, safety hazards to pedestrians from/onto the Site are not fully eliminated by simply use of the proposed warning sign.	"Please Do Not Cross Here" traffic signs are proposed to be erected at Tong Hang Road outside the ingress/egress of the Site, to warn the pedestrians not to jaywalk.
(c)	Based on the enclosed photos, the Site is currently serving as a temporary parking lot. If the Site is converted into temporary shop and services and eating place, please clarify how the local parking demand can	As private fee-paying vehicle parks are provided in the vicinity of the Site to accommodate parking demand, illegal parking is therefore not anticipated (**Annex I)**.

	be addressed so as not to generate illegal parking in vicinity to Tong Hang Road.	
2. Comments of the District Lands Officer/Tuen Mun, Lands Department (DLO/TM, LandsD) (Contact Person: Mr. LEE Kwok Hing; Tel.: 2451 3249)		
(a)	After the site inspection on 23.4.2023, it revealed that the unauthorised structures including car porch, office and staff room identified during site inspection in February 2024 were removed. However, there was a meter room on the Lot covered by the planning application remained intact. The built-over area of the meter room proposed by the applicant as marked **structure B12 on the Layout Plan** (Plan 4 Rev.001) attached to the Supplementary Statement (i.e. 4m^2) is slightly smaller than on-site measurement (about 5.2m^2) conducted by LandsD. Please clarify the discrepancy of the build-over area of the meter room.	Please note that the concerned structure (i.e. Structure B12) has been demolished. A photographic record showing the existing condition of the Site is provided for your consideration (**Annex II**). The applicant will submit Short Term Wavier application (STW) to rectify the applied use after planning approval has been obtained from the Board. No structure is proposed for domestic use.
3. Comments of the Director of Environmental Protection (DEP) (Contact Person: Ms. Flora NG; Tel.: 2835 2319)		
(a)	As the nearest sensitive receivers are located only about 20 m from the subject site, the applicant is required to submit the detailed management proposal and control measures from noise (from visitors, generators, etc.), wastewater (from fast food booth, restaurant, etc.), sewage (from washroom) and lighting (from fast food booth, restaurant, open area, etc.) perspectives for EPD's review. The applicant is also required to justify their works / activities in detail between 2300 and 0200 so as to not causing any environmental nuisances and submit the Sewerage Impact Assessment (including treatment method) for EPD's approval.	The operation hours of the proposed development are revised to 12:00 pm to 11:00 pm daily, including public holiday. No public announcement system or any form of audio amplification system will be used at the Site during the planning approval period. A Sewerage Impact Assessment is provided by the applicant to mitigate the potential environmental nuisance generated by the proposed development (**Annex III**).

DEVELOPMENT PARAMETERS

APPLICATION SITE AREA	: 691 m^2	(ABOUT)
COVERED AREA	: 241 m^2	(ABOUT)
UNCOVERED AREA	: 450 m^2	(ABOUT)
PLOT RATIO	: 0.35	(ABOUT)
SITE COVERAGE	: 35 %	(ABOUT)
NO. OF STRUCTURE	: 12	
DOMESTIC GFA	: NOT APPLICABLE	
NON-DOMESTIC GFA	: 241 m^2	(ABOUT)
TOTAL GFA	: 241 m^2	(ABOUT)
BUILDING HEIGHT	: 3 m	(ABOUT)
NO. OF STOREY	: 1	

STRUCTURE	USE	COVERED AREA	GFA	BUILDING HEIGHT
B1 TO B5	SHOP AND SERVICES (FAST FOOD BOOTH)	18 m^2 (ABOUT) EACH	18 m^2 (ABOUT) EACH	3 m (ABOUT)(1-STOREY)
B6	SHOP AND SERVICES (FAST FOOD BOOTH)	9 m^2 (ABOUT)	9m^2 (ABOUT)	3 m (ABOUT)(1-STOREY)
B7	SHOP AND SERVICES (FAST FOOD BOOTH)	7.5 m^2 (ABOUT)	7.5 m^2 (ABOUT)	3 m (ABOUT)(1-STOREY)
B8	SHOP AND SERVICES (FAST FOOD BOOTH)	7.5 m^2 (ABOUT)	7.5 m^2 (ABOUT)	3 m (ABOUT)(1-STOREY)
B9	WASHROOM	15 m^2 (ABOUT)	15 m^2 (ABOUT)	3 m (ABOUT)(1-STOREY)
B10	EATING PLACE (RESTAURANT)	63 m^2 (ABOUT)	63 m^2 (ABOUT)	3 m (ABOUT)(1-STOREY)
B11	SHOP AND SERVICES (FAST FOOD BOOTH)	45 m^2 (ABOUT)	45 m^2 (ABOUT)	3 m (ABOUT)(1-STOREY)
B12	METER ROOM	4 m^2 (ABOUT)	4 m^2 (ABOUT)	3 m (ABOUT)(1-STOREY)
	TOTAL	**241 m^2** (ABOUT)	**241 m^2** (ABOUT)	



LOADING / UNLOADING PROVISIONS

NO. OF L/UL SPACE FOR LIGHT GOODS VEHICLE	: 1
DIMENSION OF PARKING SPACE	: 7 m (L) X 3.5m (W)

LEGEND

- APPLICATION SITE
- STRUCTURE
- LOADING / UNLOADING SPACE
- INGRESS / EGRESS

NORTH
W E
S

PLANNING CONSULTANT
R-Riches Property Consultants Ltd.

PROJECT
PROPOSED TEMPORARY SHOP AND SERVICES AND EATING PLACE WITH ANCILLARY FACILITIES FOR A PERIOD OF 6 YEARS

SITE LOCATION
LOT 820 RP IN D.D. 132, TUEN MUN, NEW TERRITORIES

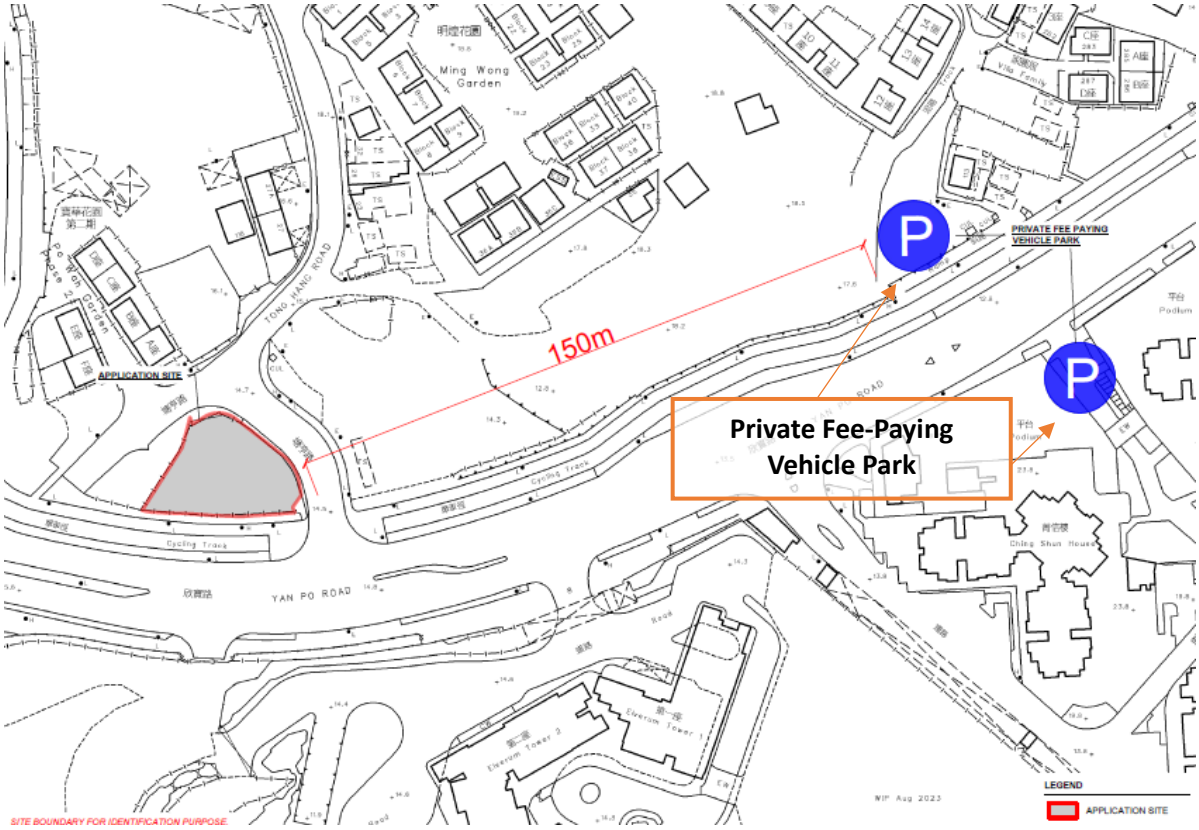
SCALE	1 : 300 @ A4
DRAWN BY: MN	DATE: 15.1.2024
REVISED BY: LT	DATE: 14.6.2024
APPROVED BY:	DATE:
DWG. TITLE	LAYOUT PLAN
DWG NO.: PLAN 1	VER.: 001

Annex I - Nearby Private Fee-Paying Vehicle Park

Proposed Temporary Shop and Services and Eating Place with Ancillary Facilities for a Period of 6 Years in "Village Type Development" Zone
Lot 820 RP in D.D. 132, Tuen Mun, New Territories

(Application No. A/TM/590)

(i) Private fee-paying vehicle parks are provided in the vicinity of the Site to meet the parking need in case visitors commute to the Site by vehicle, details are as follows:



Annex II - Photographic Record

Proposed Temporary Shop and Services and Eating Place with Ancillary Facilities for a Period of 6 Years in "Village Type Development" Zone
Lot 820 RP in D.D. 132, Tuen Mun, New Territories

(Application No. A/TM/590)

(i) The concerned structure (i.e. B12) erected on the application site (the Site) has been demolished. A photograph record showing the existing condition of the Site is provided, details are as follows:

1

2

Prepared for

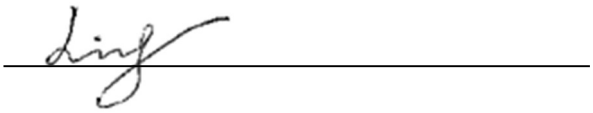
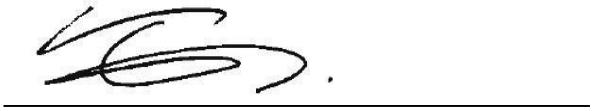
Edge Industrial Limited

Prepared by

Ramboll Hong Kong Limited

PROPOSED TEMPORARY SHOP AND SERVICES AND EATING PLACE WITH ANCILLARY FACILITIES FOR A PERIOD OF 6 YEARS'

SEWERAGE IMPACT ASSESSMENT

Date	**June 2024**
Prepared by	**Tony Ling** **Environmental Consultant**
Signed	
Approved by	**Tony Cheng** **Senior Manager**
Signed	
Project Reference	**RRGTMTSSSI00**
Document No.	**R9484_v1.0**

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CHAPTERS

TABLES

FIGURES

APPENDIX

1. INTRODUCTION

1.1 Background and Objectives

1.1.1 The applicant seeks permission from the Town Planning Board (the Board) to use Lot 820 RP in D.D. 132, Tuen Mun, New Territories (the Site) for Proposed Temporary Shop and Services and Eating Place with Ancillary Facilities for a Period of 6 Years.

1.1.2 To actively echo with the "Night Vibes Hong Kong" campaign, the applicant would like to operate a new shop and services (fast food booth) and eating place (restaurant) at the Site to provide a nighttime dining venue to serve nearby villages and workers. As the Site is located in an area dominated by various villages and residential development, the applied use is intended to alleviate the pressing demand for shop and services and eating place.

1.1.3 The Site falls within an area zoned as "Village Type Development" ("V") on the Draft Tuen Mun Outline Zoning Plan (OZP) No. S/TM/38. According to the Notes of the OZP, standalone 'shop and services' and 'eating place' are column 2 uses within the "V" zone, which requires permission from the Board. For temporary uses pf any land or building expected to be over 5 years, the use must conform to the zoned use or these Notes. As such, the 'temporary shop and services and eating place with ancillary facilities' for a period of 6 years requires planning permission from the Board.

1.1.4 Ramboll Hong Kong Limited is commissioned by Edge Industrial Limited to conduct the Sewerage Impact Assessment based on the Proposed Development scheme.

1.2 Application Site and its Environs

1.2.1 The Application Site occupies an area of 691m^2 and surrounded by various villages and residential development. It is bounded by Tong Hang Road to its North and East, Yan Po Road to its South and Hing Kwai Street to its West. **Figure 1** shows the location of the Application Site and its environs.

1.3 Proposed Development

1.3.1 Under the proposed scheme, 12 single-storey structures are proposed at the Application Site for shop and services (fast food booth), eating place (restaurant), storage of goods, meter room and washrooms. According to the latest design information, the total area for fast food booth and restaurant (Structure B1-B8, B10 & B11) is approximately 222m^2. Location of Building Structures is shown in **Figure 1**.

2. SEWERAGE IMPACT ASSESSMENT

2.1 Scope of Work

2.1.1 The aim of the study is to assess the potential sewerage impact of the Proposed Development, i.e. whether the capacity of the existing public sewerage network at the Application Site is sufficient to cope with the sewage from the Proposed Development. Drainage Record Plans from the Drainage Services Department (DSD) were obtained to facilitate the sewerage impact assessment.

2.2 Assessment Criteria and Methodology

2.2.1 Environmental Protection Department's (EPD's) Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning, Version 1.0 (GESF) is referred to estimate the quantity of the sewage generated from the proposed development and the existing development. Sewage flow parameters and global peaking factors in this document are adopted.

2.2.2 The Commercial and Industrial Floor Space Utilization Survey (CIFSUS) conducted by the Planning Department is used to determine the worker density for various economic activities and planned usage type.

2.2.3 According to the GESF, the overall unit flow is composed of flows due to employees and the associated activities. The following unit flow factors have been adopted in the SIA calculation in accordance with Tables T-1 and T-2 of the GESF:

- Residents: 0.19 m^3/day (Domestic – Public Rental)
- Residents: 0.27 m^3/day (Domestic – Private Housing R2)
- Restaurants: 1.58 m^3/day (Commercial Employee and J10 – Restaurants & Hotels)
- Storage: 0.18 m^3/day (Commercial Employee and J3 – Transport, Storage & Communication)

2.2.4 According to the Table 8 of CIFSUS, the worker density for Restaurants is 5.1 workers per 100m² GFA, which are then converted to 19.6m² area of land use per employee.

2.2.5 According to the Table 8 of CIFSUS, the worker density for Storage is 0.4 workers per 100m² GFA, which are then converted to 250m² area of land use per employee.

2.2.6 According to the Table T-4 of GESF, catchment inflow factor of 1.1 for Tuen Mun is applied in the assessment.

2.3 Assessment

2.3.1 An average household size of 2.5 is adopted according to 2021 Population Census - Household Characteristics of Population in Tertiary Planning Unit 423 and 428.

2.3.2 Detailed calculation of peak sewage flow from the Proposed Development is shown in **Appendix A - Table 1** and **Table 3** below.

Table 1 Peak Sewage Flow Calculation

Sewage Generation			
Proposed Development			
1. Fast Food Booth & Restaurant			
1a. Total Area	=	222	m^2
1b. Assumed floor area per employee	=	19.6	m^2 per employee -- (refer to Table 8 of CIFSUS - Restaurants)
1c. Assumed number of employees	=	11	employees
1d. Design flow		1.58	m^3/employee/day – (refer to Table T-2 of GESF – J10)
1e. Sewage generation rate	=	**17.90**	**m^3/day**
2. Storage			
2a. Total Area	=	15	m^2
2b. Assumed floor area per employee	=	250	m^2 per employee – (refer to Table 8 of CIFSUS - Storage)
2c. Assumed number of employees	=	0.1	employees
2d. Design flow	=	0.18	m^3/employee/day – (refer to Table T-2 of GESF – J3)
2e. Sewage generation rate	=	**0.01**	**m^3/day**
Peak Sewage Flow			
Total Sewage Flow from Proposed Development			
Total Sewage Flow Rate	=	17.91	m^3/day
Catchment Inflow Factor	=	1.1	(refer to Table T-4 of GESF – Tuen Mun)
Sewerage Flow Rate with Catchment Inflow Factor	=	19.7	m^3/day
Contributing Population	=	73	people
Peaking Factor	=	8	(refer to Table T-5 of GESF – For sewers, <1,000) (including stormwater allowance)
Peak Flow	=	**1.8**	**litre/sec**

2.3.3 The sewage generated from Proposed Development will be discharged to a proposed terminal manhole (S0) and conveyed to the existing public sewerage manhole FMH1067359 (S3) via two new manholes (S1 & S2 with Ø225mm sewer pipe) located at the west of the Site. The existing sewers in the vicinity of the Application Site and Catchments are shown in **Figure 3**.

2.3.4 The calculation of the sewage generation rate of the nearby catchments is shown in **Appendix A - Table 1**. Detailed calculation of the hydraulic capacity of the existing sewers near the Application Site is shown in **Appendix A - Table 2**.

2.4 Discussion

2.4.1 The potential sewerage impact of the Proposed Development has been quantitatively addressed. Based on the calculation of sewage generation, it is estimated that the total sewage flow from the Proposed Development would be 17.91m^3/day. With catchment inflow factor and peaking factor considered, the peak sewage flow from the Proposed Development would be 1.8 litre/sec.

2.4.2 As shown in **Appendix A – Table 3**, the existing sewerage system will have adequate capacity to cater for the proposed development and the nearby catchments, and the maximum contribution is 91.8%, which occurs in Segment S5-S6.

3. OVERALL CONCLUSION

3.1.1 12 single-storey structures are proposed at the Application Site for shop and services (fast food booth), eating place (restaurant), storage of goods, meter room and washrooms. The potential sewerage impact has been quantitatively addressed.

3.1.2 Based on the results from sewerage impact assessment, it is found that the capacity of the existing sewerage system serving the area would be sufficient to cater for the sewage generation from the proposed redevelopment and concerned catchment areas. Upgrading works of the existing sewers will therefore not be required.

Figures

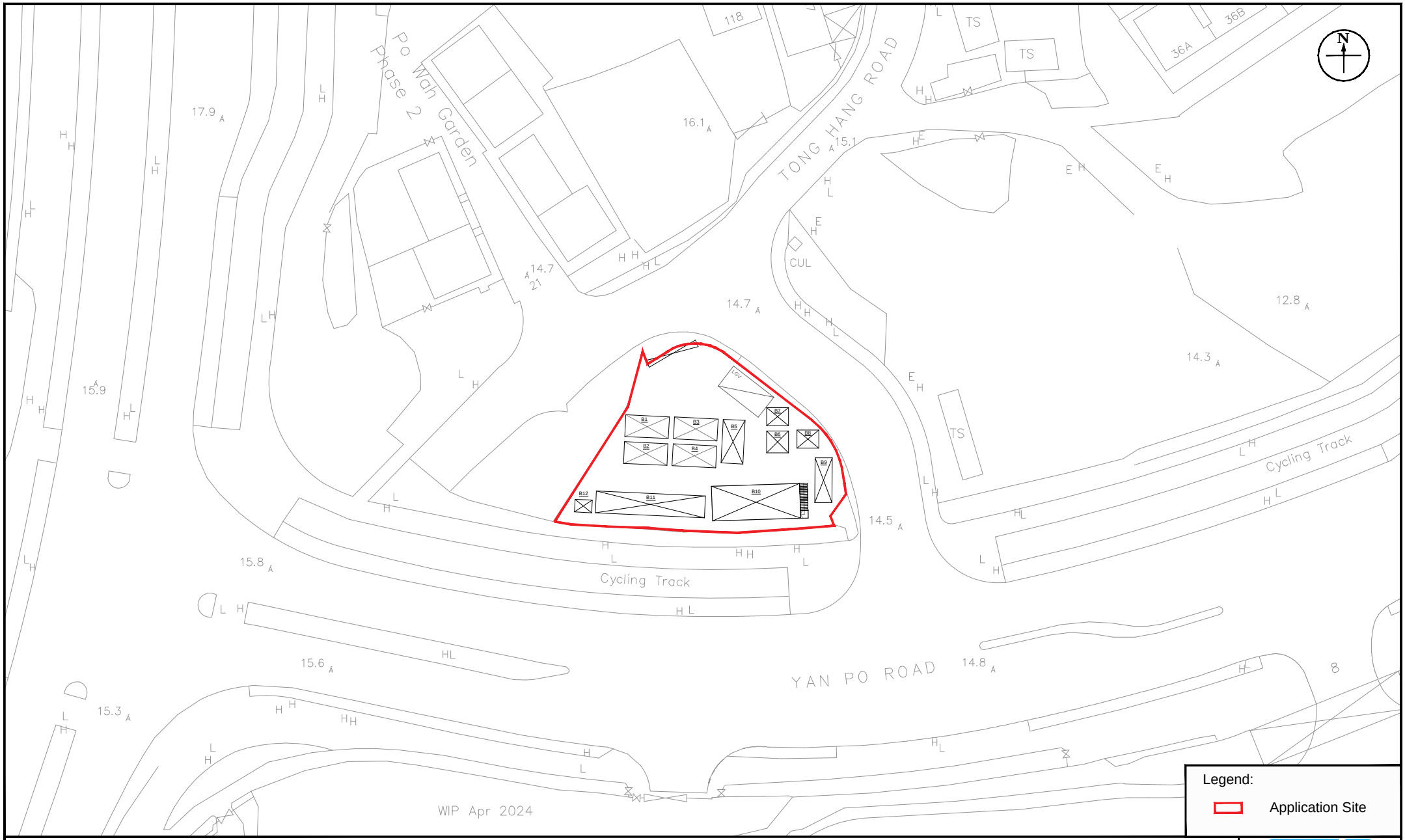

Figure: 1	RAMBOLL
Title: Location of Application Site	Drawn by: TL Checked by: TC
Project: Proposed Temporary Shop and Services and Eating Place with Ancillary Facilities for a Period of 6 Years	Rev.: 1.0 Date: Jun 2024

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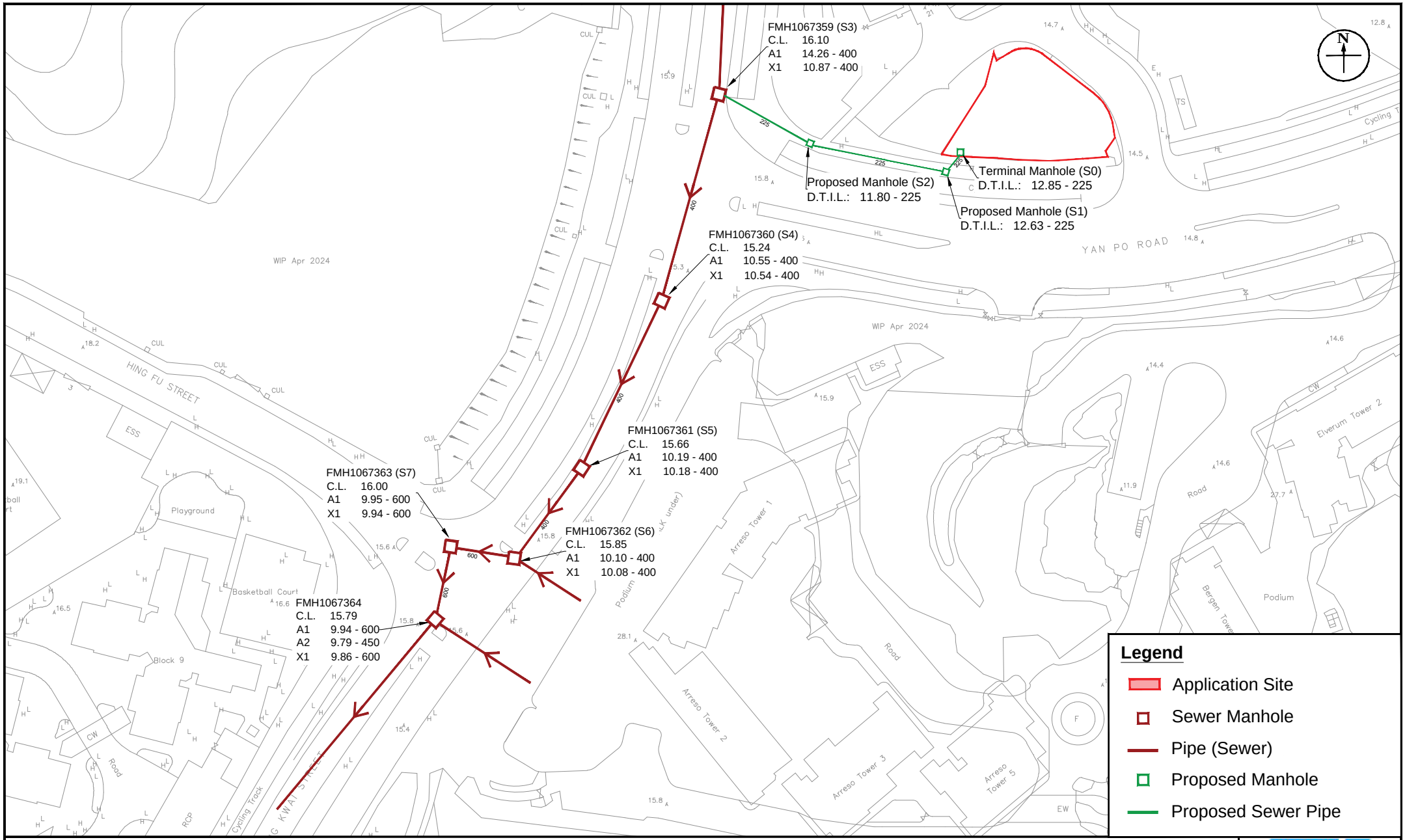

Figure: 2

Title: Existing Sewerage System in the Vicinity of the Application Site

Project: Proposed Temporary Shop and Services and Eating Place with Ancillary Facilities for a Period of 6 Years

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Checked by:	TC
Rev.:	1.0
Date:	Jun 2024

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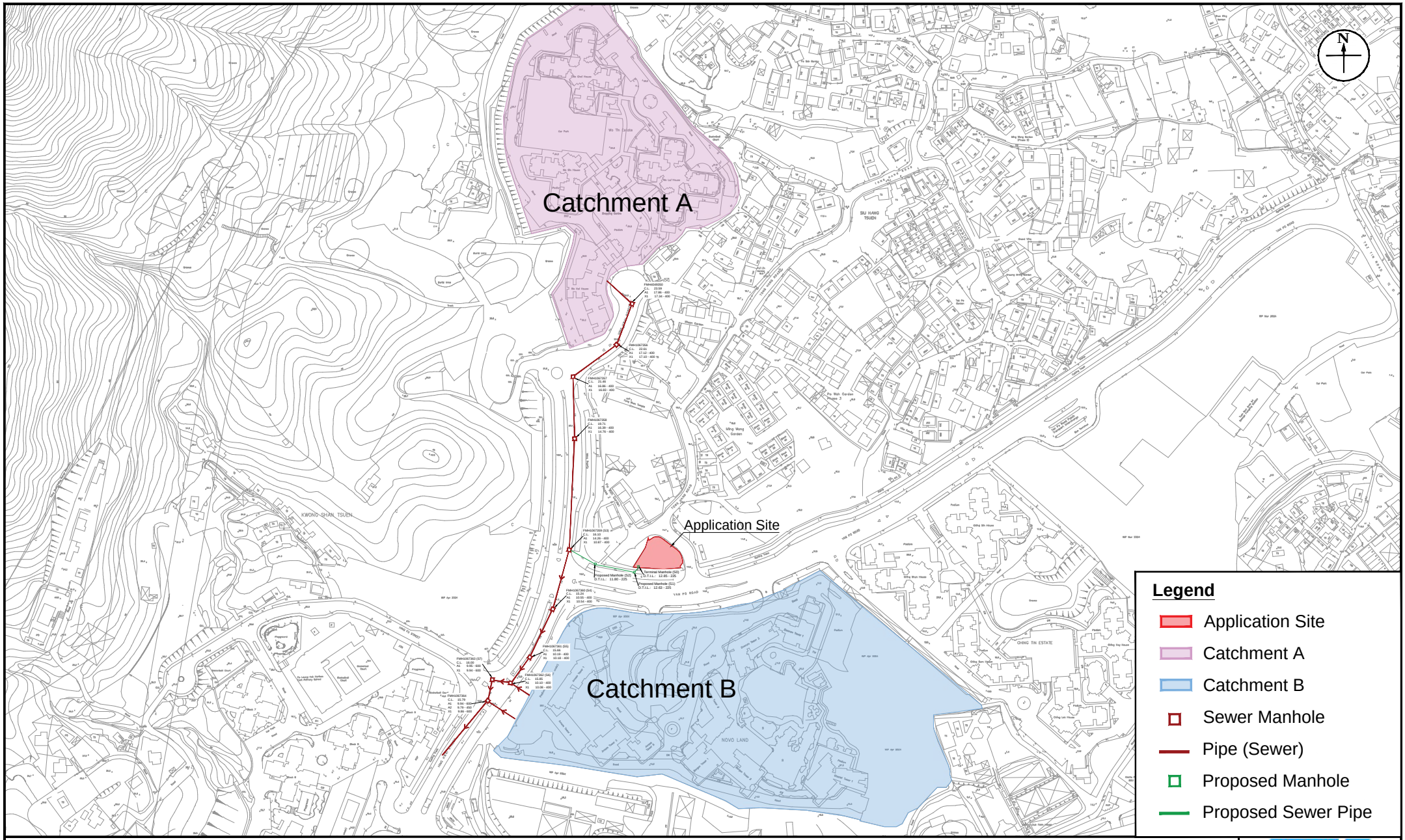

Figure: 3

Title: Existing Sewerage System and Catchment Areas in the Vicinity of the Application Site

Project: Proposed Temporary Shop and Services and Eating Place with Ancillary Facilities for a Period of 6 Years

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Checked by:	TC
Rev.:	1.0
Date:	Jun 2024

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Appendix 1 Detailed Sewerage Impact Assessment Calculations

Table 1a Calculation for Sewage Generation Rate of the Existing Surrounding Building (Catchment A)

Catchment A

1. Wo Tin Estate

1a. Total number of units	=	4200	units
1b. Total number of residents	=	10500	people -- (avg household size of 2.5 from 2021 Population Census - Tertiary Planning Unit 423 and 428)
1c. Design flow	=	190	litre/person/day -- (Public Rental in Table T-1 of GESF)
1d. Sewage Generation rate	=	**1995.0**	m^3/day

Total Flow at S3 Manhole (FMH1067359) from Catchment A

Flow Rate	=	1995.0	m^3/day
Flow Rate with Catchment Inflow Factor	=	2194.5	m^3/day (refer to Table T-4 of GESF - Tuen Mun)
Contributing Population	=	8128	people
Peaking factor	=	5	Refer to Table T-5 of GESF for population 5,000 - 10,000 incl. stormwater allowance
Peak Flow	=	**127.0**	litre/sec

Remarks

1. Number of flat units of Wo Tin Estate is referenced from Website of Housing Society.
[https://www.housingauthority.gov.hk/tc/global-elements/estate-locator/detail.html?propId=1&id=1667440039862&dist=4]

Table 1b Calculation for Sewage Generation Rate of the Proposed Development

Proposed Development

1. Fast Food Booth & Restaurant

1a. Total Area	=	222	m^2
1b. Assumed floor area per employee	=	19.6	m^2 per employee -- (refer to Table 8 of CIFSUS - Restaurants)
1c. Assumed number of employees	=	11	employees
1d. Design flow for commercial activities	=	1580	litre/employee/day -- (refer to Table T-2 of GESF - J10)
1e. Sewage Generation rate	=	**17.90**	m^3/day

2. Storage

2a. Total Area	=	15	m^2
22b. Assumed floor area per employee	=	250.0	m^2 per employee -- (refer to Table 8 of CIFSUS - Storage)
2c. Assumed number of employees	=	0.1	employees
2d. Design flow for commercial activities	=	180	litre/employee/day -- (refer to Table T-2 of GESF - J3)
2e. Sewage Generation rate	=	**0.01**	m^3/day

Total Flow at S0 Terminal Manhole from Proposed Development

Flow Rate	=	17.91	m^3/day
Flow Rate with Catchment Inflow Factor	=	19.7	m^3/day (refer to Table T-4 of GESF - Tuen Mun)
Contributing Population	=	73	people
Peaking factor	=	8	Refer to Table T-5 of GESF for population <1,000 incl. stormwater allowance
Peak Flow	=	**1.8**	litre/sec

Total Flow at S3 Manhole (FMH1067359) - Proposed Development and Catchment A

Flow Rate	=	2012.9	m^3/day
Flow Rate with Catchment Inflow Factor	=	2214.2	m^3/day (refer to Table T-4 of GESF - Tuen Mun)
Contributing Population	=	8201	people
Peaking factor	=	5	Refer to Table T-5 of GESF for population 5,000-10,000 incl. stormwater allowance
Peak Flow	=	**128.1**	litre/sec

Table 1c Calculation for Sewage Generation Rate of the Existing Surrounding Building (Catchment B)

Catchment B

1. Novo Land

1a. Total number of units	=	4051	units
1b. Total number of residents	=	10128	people -- (avg household size of 2.5 from 2021 Population Census - Tertiary Planning Unit 423 and 428)
1c. Design flow	=	270	litre/person/day -- (Private R2 in Table T-1 of GESF)
1d. Sewage Generation rate	=	**2734.4**	m^3/day

2. Clubhouse

2a. Assumed Area	=	5241.0	m^2
2b. Assumed floor area per employee	=	30.3	m^2 per worker -- (refer to Table 8 of CIFSUS - Community, Social & Personal Services)
2c. Total number of employees	=	173	employees
2d. Design flow for commercial activities	=	280.0	litre/employee/day -- (refer to Table T-2 of GESF - J11)
2e. Sewage Generation rate	=	**48.4**	m^3/day

3. Swimming Pool

3a. Assumed Area of Swimming Pool	=	800	m^2
3b. Average Depth of Water	=	1.25	m (ordinary assumption)
3c. Volume of Swimming Pool (Ordinary Assumption)	=	1000.0	m^3
3d. Turnover Rate	=	6	hr
3e. Required Surface Loading Rate of Filter	=	167	m^3/m^2/hr
3f. Filter Areas required	=	1.0	m^2
3g. Adopted Surface Loading Rate of Filter	=	50	m^3/m^2/hr
3h. Adopted Filter Area	=	3.3	m^2
3i. Backwash Duration	=	7	min/d
3j. Backwash flow rate	=	30	m^3/m^2/hr
3k. Design flow for Swimming Pool Backwashing	=	11.7	m^3/day
3l. Design flow for Swimming Pool Backwashing	=	**27.78**	litre/sec

Total Flow at S6 Manhole (FMH1067362) from Catchment C

Flow Rate	=	1391.4	m^3/day
Flow Rate with Catchment Inflow Factor	=	1530.6	m^3/day (refer to Table T-4 of GESF - Tuen Mun)
Contributing Population	=	5669	people
Peaking factor	=	5	Refer to Table T-5 of GESF for population 5,000 - 10,000 incl. stormwater allowance
Peak Flow	=	**88.6**	litre/sec
Peak Flow with Backwash from Swimming Pool	=	**102.5**	litre/sec

Total Flow at S6 Manhole (FMH1067362) , including Proposed Development and Catchment A and Catchment B

Flow Rate	=	3404.3	m^3/day
Flow Rate with Catchment Inflow Factor	=	3744.8	m^3/day (refer to Table T-4 of GESF - Tuen Mun)
Contributing Population	=	13870	people
Peaking factor	=	4	Refer to Table T-5 of GESF for population 10,000-50,000 incl. stormwater allowance
Peak Flow	=	**173.4**	litre/sec
Peak Flow with Backwash from Swimming Pool	=	**187.3**	litre/sec

Remarks

1. Number of flat units of Novo Land is referenced from Website of Centanet.
[https://hk.centanet.com/estate/NOVO-LAND/3-BGPPWPPRPE]
2. Sewerage generated from Novo Land would be discharged to existing public swerage network through Pipe (FWD1101654) and Pipe (FWD110653), which connects to Manhole FMH1067362 and Manhole FMH1067364 separately. In view of this, sewerage generated from Novo Land is assumed to be discharged to Manhole FMH1067362 and Manhole FMH1067364 equally.

Table 2 Hydraulic Capacity of Existing Sewers

Segment	Manhole Reference	Manhole Reference	Pipe Dia.	Pipe Length	Invert Level 1	Invert Level 2	g	k_s	s	v	V	Area	Q	Estimated Capacity	Remarks
			mm	m	mPD	mPD	m/s^2	m		m^2/s	m/s	m^2	m^3/s	L/s	
S0-S1	S0	S1	225	4.3	12.85	12.63	9.81	0.00060	0.052	0.000001	2.99	0.04	0.12	119	-
S1-S2	S1	S2	225	30.7	12.63	11.80	9.81	0.00060	0.027	0.000001	2.16	0.04	0.09	86	-
S2-S3	S2	FMH1067359	225	21.9	11.80	10.87	9.81	0.00060	0.042	0.000001	2.71	0.04	0.11	108	-
S3-S4	FMH1067359	FMH1067360	400	46.6	10.87	10.55	9.81	0.00060	0.007	0.000001	1.56	0.13	0.20	196	-
S4-S5	FMH1067360	FMH1067361	400	40.1	10.54	10.19	9.81	0.00060	0.009	0.000001	1.76	0.13	0.22	222	-
S5-S6	FMH1067361	FMH1067362	400	22.9	10.18	10.10	9.81	0.00060	0.003	0.000001	1.11	0.13	0.14	140	-
S6-S7	FMH1067362	FMH1067363	400	12.0	10.08	9.95	9.81	0.00060	0.011	0.000001	1.96	0.13	0.25	247	-

Remarks: (1) g=gravitational acceleration; k_s=equivalent sand roughness; s=gradient; v=kinematic viscosity of water; V=mean velocity

(2) Table 2a: The value of k_s = 0.6mm is used for the calculation of slimed clayware sewer, poor condition (based on Table 5: Recommended roughness values in Sewerage Manual)

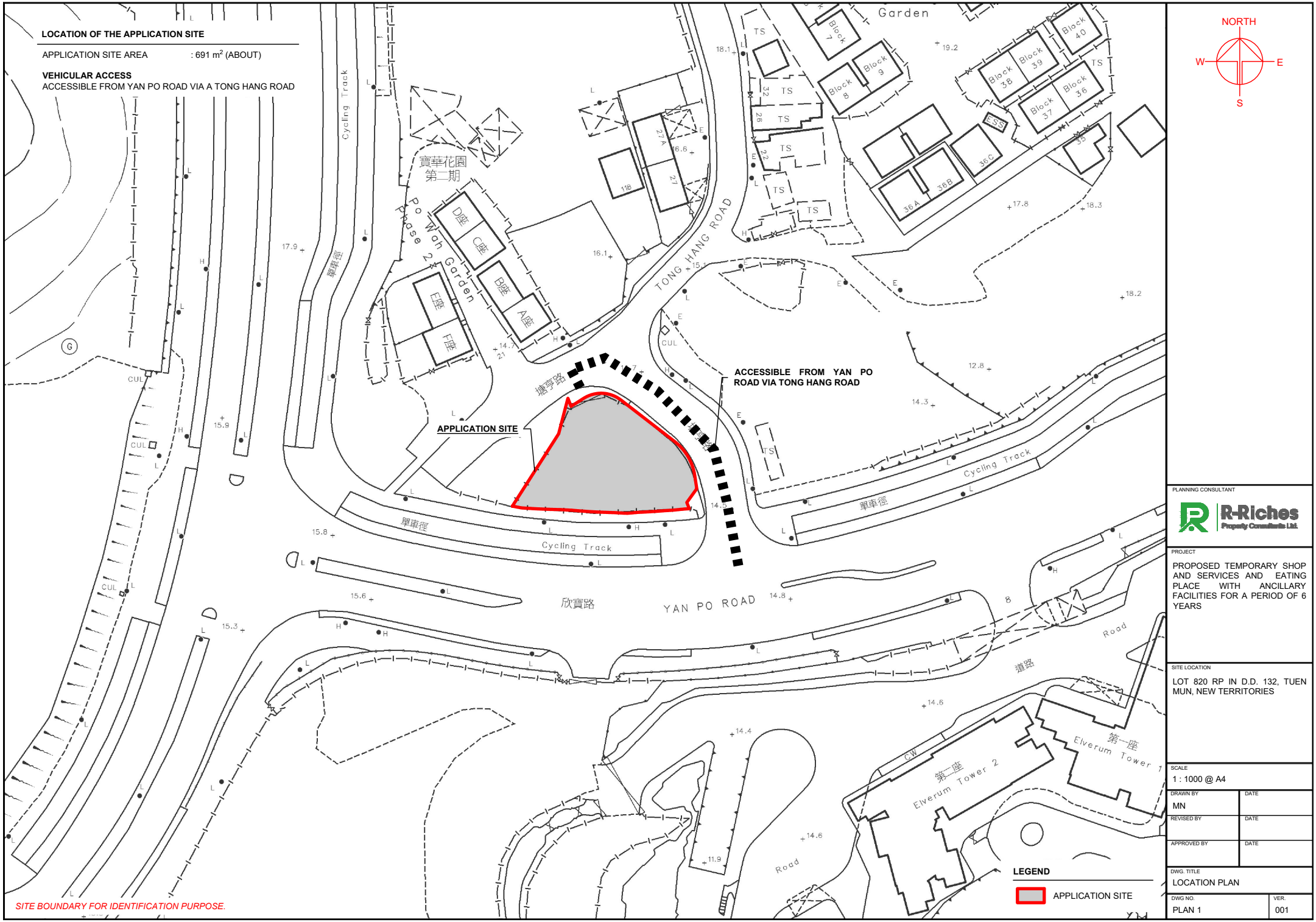
(3) The value of velocity (V) is referred to the Tables for the hydraulic design of pipes, sewers and channels (8th edition)

(4) Equation used: $$V=-\sqrt{(8gDs)}\log\left(\frac{k_s}{3.7D}+\frac{2.51v}{D\sqrt{(2gDs)}}\right)$$

Table 3 Hydraulic Capacity of Existing Sewers for Sewerage generated from the Proposed Development and Surrounding Catchment Areas

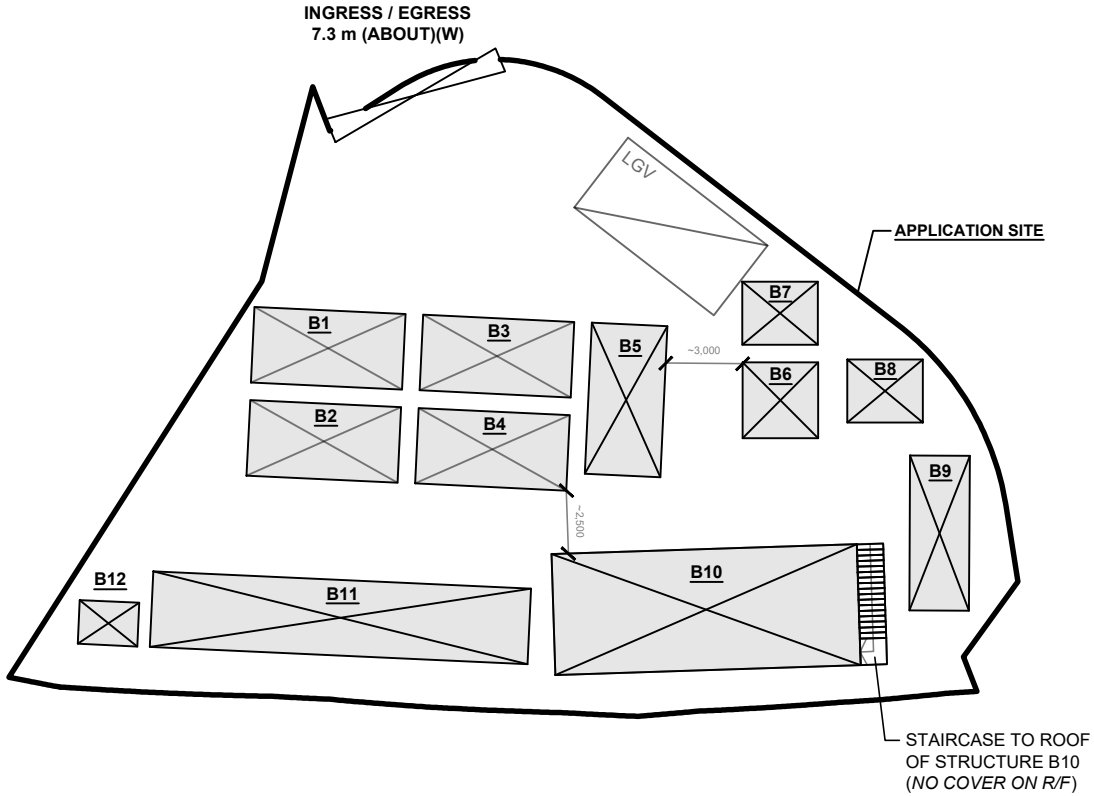
Segment	Pipe Dia. (mm)	Pipe Length (m)	Gradient	Estimated Capacity (L/s)	Estimated Flow including the Proposed Development and surrounding Catchment Areas (L/s)	Contributed by the Proposed Development and the Surrounding Catchment Areas (%)	Status	Remarks
S0-S1	225	4.3	0.051	118	1.8	1.5%	OK	-
S1-S2	225	30.7	0.048	115	1.8	1.6%	OK	-
S2-S3	225	21.9	0.042	108	1.8	1.7%	OK	-
S3-S4	400	46.6	0.007	196	128.1	65.3%	OK	-
S4-S5	400	40.1	0.009	222	128.1	57.8%	OK	-
S5-S6	400	22.9	0.003	140	128.1	91.8%	OK	-
S6-S7	400	12.0	0.011	247	187.3	76.0%	OK	-

Appendix 2 Schematic Layout Plans


LOCATION OF THE APPLICATION SITE
APPLICATION SITE AREA : 691 m² (ABOUT)
VEHICULAR ACCESS
ACCESSIBLE FROM YAN PO ROAD VIA A TONG HANG ROAD
NORTH
W
E
S
APPLICATION SITE
ACCESSIBLE FROM YAN PO ROAD VIA TONG HANG ROAD
TONG HANG ROAD
YAN PO ROAD
Cycling Track
單車徑
塘亨路
欣寶路
寶華花園第二期
Po Wah Garden Phase 2
Elverum Tower 1
Elverum Tower 2
Road
道路
SITE BOUNDARY FOR IDENTIFICATION PURPOSE.
LEGEND
APPLICATION SITE
PLANNING CONSULTANT
R-Riches Property Consultants Ltd.
PROJECT
PROPOSED TEMPORARY SHOP AND SERVICES AND EATING PLACE WITH ANCILLARY FACILITIES FOR A PERIOD OF 6 YEARS
SITE LOCATION
LOT 820 RP IN D.D. 132, TUEN MUN, NEW TERRITORIES
SCALE
1 : 1000 @ A4
DRAWN BY
MN
DATE
REVISED BY
DATE
APPROVED BY
DATE
DWG. TITLE
LOCATION PLAN
DWG NO.
PLAN 1
VER.
001

DEVELOPMENT PARAMETERS

APPLICATION SITE AREA	: 691 m^2	(ABOUT)
COVERED AREA	: 241 m^2	(ABOUT)
UNCOVERED AREA	: 450 m^2	(ABOUT)
PLOT RATIO	: 0.35	(ABOUT)
SITE COVERAGE	: 35 %	(ABOUT)
NO. OF STRUCTURE	: 12	
DOMESTIC GFA	: NOT APPLICABLE	
NON-DOMESTIC GFA	: 241 m^2	(ABOUT)
TOTAL GFA	: 241 m^2	(ABOUT)
BUILDING HEIGHT	: 3 m	(ABOUT)
NO. OF STOREY	: 1	



LOADING / UNLOADING PROVISIONS

NO. OF L/UL SPACE FOR LIGHT GOODS VEHICLE	: 1
DIMENSION OF PARKING SPACE	: 7 m (L) X 3.5m (W)

LEGEND

- APPLICATION SITE
- STRUCTURE
- LOADING / UNLOADING SPACE
- INGRESS / EGRESS

NORTH
W E
S

PLANNING CONSULTANT
R-Riches Property Consultants Ltd.

PROJECT
PROPOSED TEMPORARY SHOP AND SERVICES AND EATING PLACE WITH ANCILLARY FACILITIES FOR A PERIOD OF 6 YEARS

SITE LOCATION
LOT 820 RP IN D.D. 132, TUEN MUN, NEW TERRITORIES

SCALE
1 : 300 @ A4

DRAWN BY	DATE
MN	15.1.2024
REVISED BY	DATE
LT	17.6.2024
APPROVED BY	DATE

DWG. TITLE
LAYOUT PLAN

DWG NO.	VER.
PLAN 4	001