Proposed Rezoning of the Site from "OU(B)" to "OU(Residential Care Home for the Elderly and Hotel" for a Proposed Composite Development with Residential Care Homes for the Elderly and Hotel at Nos. 107 – 109 Wai Yip Street, Kwun Tong S12A Amendment of Plan Application

Appendix 6

Sewerage Impact Assessment

Prepared by

Ramboll Hong Kong Limited

PROPOSED HOTEL DEVELOPMENT AND SOCIAL WELFARE FACILITIES AT 107-109 WAI YIP STREET, KWUN TONG, KOWLOON

SEWERAGE IMPACT ASSESSMENT



Date

14 November 2024

Prepared by

Crystal Lui Assistant Environmental Consultant

Signed

Approved by

Senior Manager

KTAWY107SI00

R8895_V3.1

Katie Yu

Signed

Project Reference

Document No.

No part of this document may be reproduced or transmitted, in any form or by any means electronic, mechanical, photographic, recording or otherwise, or stored in a retrieval system of any nature without the written permission of Ramboll Hong Kong Ltd, application for which shall be made to Ramboll Hong Kong Ltd, 21/F, BEA Harbour View Centre, 56 Gloucester Road, Wan Chai, Hong Kong.

Disclaimer: This report is made on behalf of Ramboll Hong Kong Ltd. No individual is personally liable in connection with the preparation of this report. By receiving this report and acting on it, the client or any third party relying on it accepts that no individual is personally liable in contract, tort or breach of statutory duty (including negligence).

Ramboll Hong Kong Limited 21/F, BEA Harbour View Centre 56 Gloucester Road, Wan Chai, Hong Kong Tel: (852) 3465 2888 Fax: (852) 3465 2899 Email: hkinfo@ramboll.com

Q:\Projects\KTAWY107EI00\04 Deliverables\02 SIA Report\R8895_v3.1.docx



CHAPTERS

			Page
1.	I	NTRODUCTION	1-1
	1.1	Background and Objectives	1-1
	1.2	Application Site and its Environ	1-1
	1.3	Proposed Development	1-1
2.	S	EWERAGE IMPACT ASSESSMENT	2-1
	2.1	Scope of Work	2-1
	2.2	Assessment Criteria and Methodology	2-1
	2.3	Existing and Future Sewerage System	2-1
	2.4	Wastewater Generated by the Proposed Development	2-2
	2.5	Assessment of Sewerage Impact	2-3
	2.6	Discussion	2-3
3.	0	VERALL CONCLUSION	

TABLES

Table 1.1	Development Schedule	1-1
Table 2.1	Estimated Peak Flow	2-2

FIGURES

Figure 1.1	Location of Application Site and its Environ
Figure 2.1	Existing and Proposed Sewerage System in the Vicinity of the Application Site
Figure 2.2	Existing and Proposed Sewerage System and Catchment Area in the Vicinity of the Application Site

APPENDICES

Appendix 2.1 Detailed Sewerage Impact Assessment Calculations



1. INTRODUCTION

1.1 Background and Objectives

- 1.1.1 According to the Approved Kwun Tong (South) Outline Zoning Plan (OZP) No. S/K14S/25, the Application Site falls within an area zoned "Other Specified Uses (Business)". The purpose of this submission is to seek permission from the Town Planning Board (the Board) in support of the Proposed Development at 107-109 Wai Yip Street (hereafter referred to as the "Application Site").
- 1.1.2 Ramboll Hong Kong Limited has been appointed by the Applicant to conduct this Sewerage Impact Assessment (SIA) in support of the Planning Application under the Town Planning Ordinance.

1.2 Application Site and its Environ

1.2.1 The Application Site area is about 1,171 m². It is located at the Kwun Tong Industrial Area bounded by Wai Yip Street to the south and Tai Yip Street to the north. The Application Site is sandwiched between industrial and commercial buildings to the west and east. **Figure 1.1** shows the location of the Application Site and its environ.

1.3 Proposed Development

1.3.1 The Proposed Development comprises a 33-storey building with 1 level of basement carpark. The building consists of 18 storeys of residential care home for the elderly (RCHE) and 11 storeys of hotel. It contains a GFA of about 16,856 m² for RCHE and hotel use. The development schedule of the proposed development is shown in **Table 1.1**.

Total Site Area	About 1,170.578m ²				
Plot Ratio	14.4				
Total GFA	Not more than 16,856.323m ²				
• RCHE	• 12,000m ²				
• Hotel	• 4,856.323m ²				
No. of Guestroom for Hotel	200 rooms				
No. of RCHE Bed Space	Not less than 302 and not more than 557				
Site Coverage	Not more than 60%				
Class of Site	Class A				
No. of Block	1				
Maximum Building Height	About +115mPD				
(Main Roof)					
No. of Storeys	33 (including 1 level of basement)				

Table 1.1 Development Schedule



1.3.2 Although the proposed maximum number of beds is 557, the RCHE GFA can accommodate up to 644 beds if adopting the minimum space per bed requirement for nursing home or care and attention home under Section 22(1) of the Residential Care Homes (Elderly Persons) Regulation. Therefore, the assessment assumption adopting 644 beds has been assumed as a worst case scenario in this SIA.



2. SEWERAGE IMPACT ASSESSMENT

2.1 Scope of Work

2.1.1 The aim of this SIA is to assess whether the capacity of the existing sewerage network serving the Application Site is sufficient to cope with the sewage flow from the Proposed Development.

2.2 Assessment Criteria and Methodology

- 2.2.1 The Commercial and Industrial Floor Space Utilization Survey (CIFSUS) conducted by the Planning Department has been used to determine the worker density for various economic activities and planned usage types.
- 2.2.2 Environmental Protection Department's (EPD's) Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning, Version 1 (GESF) has been referred to for the purposes of estimating the quantity of the sewage generated from the Proposed Development and the existing catchment area. Sewage flow parameters and global peaking factors in this document have been adopted for this SIA.
- 2.2.3 According to the GESF, the overall unit flow is composed of flows due to residents, employees and the associated activities. The following unit flow factors have been adopted in the SIA calculation in accordance with Tables T-1, T-2 and T-3 of the GESF:
 - Domestic: 0.19 m³/day (Institutional and Special Class)
 - Industrial: 0.53m³/day (Industrial Employee and J1 Manufacturing in East Kowloon)
 - Retail Trade: 0.28m³/day (Commercial Employee and J4 Wholesale & Retail)
 - Office: 0.08m³/day (Commercial Employee and J6 Finance, Insurance, Real Estate & Business Services)
 - Restaurant: 1.58m³/day (Commercial Employee and J10 Restaurants & Hotels)
 - Social Facilities: 0.28 m³/day (Commercial Employee and J11 Community, Social & Personal Services)
 - Storage: 0.18m³/day (Commercial Employee and J3 Transport, Storage & Communication)
- 2.2.4 The catchment inflow factor, PCIF of 1.1 (East Kowloon), is adopted in catchment calculations.

2.3 Existing and Future Sewerage System

- 2.3.1 According to the Drainage Record obtained from DSD, there are Ø225mm sewer pipes running along Tai Yip Street and the back lane of the Proposed Development, and Ø225mm and Ø400mm sewer pipes running along Wai Yip Street. The existing sewers in the vicinity of the Application Site are shown in **Figure 2.1**.
- 2.3.2 A new terminal manhole FTMH-01 (P1) will be constructed within the Application Site to collect sewage from the Proposed Development. A new Ø225mm polyethylene sewer pipe is proposed to connect the Proposed Development and the existing government manhole FMH4042668(S1) along Wai Yip Street.
- 2.3.3 Invert levels and pipe size of the proposed terminal manhole and existing manholes are shown in **Appendix 2.1.**



2.4 Wastewater Generated by the Proposed Development

- 2.4.1 Wastewater arising from the Proposed Development will be contributed by residents of the RCHE and the hotel, as well as employees of the RCHE, the hotel, restaurants and RCHE communal facilities. In addition, backwash of the water feature is also considered when assessing the sewage system capacity. Backwash of the water feature will only be conducted in non-peak hours to avoid potential overflow.
- 2.4.2 Detailed calculation of sewage generation from the Proposed Development is given in **Table 2.1** below.

Calculation for Sewage Generation Rate of	the Pro	posed Dev	elopment
1. Residential Care Homes for the Elderly (R 1a. Total no. of residents	CHE)	644	residents (<mark>644</mark> beds)
	-		
1b. Design flow of residents	=	190	litre/resident/day – (refer to Table T-1 of GESF – Domestic – Institutional and Special Class)
1c. Sewage generation rate from residents	=	122.4	m ³ /day
1d. Total no. of employees ^[1]	=	148	Employees
1e. Design flow of employees	=	<mark>280</mark>	Litre/employee/day – (refer to Table T-2 of GESF – J11 Community, Social & Personal Services)
1f. Sewage generation rate from employees	=	<mark>41.4</mark>	m ³ /day
2. Hotel			
2a. Assumed area	=	4856	m ²
2b. Assumed floor area per employee	=	71.4	m ² per employee – (refer to Table 8 of CIFSUS – Hotels and Boarding Houses, Private Commercials)
2c. Total number of employees	=	<mark>68</mark>	employees
2d. Design flow	=	1580	litre/employee/day – (refer to Table T-2 of GESF – J10 Restaurants & Hotels)
2e. Sewage generation rate	=	<mark>107.4</mark>	m ³ /day
3. RCHE F&B/ Restaurant			
3a. Assumed area	=	415	m²
3b. Assumed floor area per employee	=	19.6	m ² per employee – (refer to Table 8 of CIFSUS – Restaurants)
3c. Total number of employees	=	21	employees
3d. Design flow	=	1580	litre/employee/day – (refer to Table T-2 of GESF – J10 Restaurants & Hotels)
3e. Sewage generation rate	=	33.4	m³/day
4. RCHE Communal Facilities		1220	2
4a. Assumed area	=	1338	m ²
4b. Assumed floor area per employee	=	30.3	m ² per employee (refer to Table 8 of CIFSUS - Community, Social & Personal Services)
4c. Total number of employees	=	44	employees
4d. Design flow	=	280	litre/employee/day (refer to Table T-2 of GESF - J11 Community, Social & Personal Services)
4e. Sewage generation rate	=	12.4	m³/day
5. Water Feature (Outdoor) 5a. Volume of Water Feature	=	90.0	m ³
5b. Turnover Rate	=	6	hr
5c. Adopted Surface Loading Rate of Filter	=	50	m³/m²/hr
5d. Adopted Filter Area	=	0.3	m ²
5e. Backwash Duration	=	3	min/d
5f. Backwash flow rate	=	30	m³/m²/hr
5g. Design flow for Water Feature Backwashing	=	0.5	m³/day

Table 2.1 Estimated Peak Flow



Calculation for Sewage Generation Rate of tl 5h. Design flow for Water Feature Backwashing	= .	2.5				
Total Flow from the Proposed Development						
Flow Rate	=	<mark>317.0</mark>	m³/day			
Flow Rate with P_{CIF} (East Kowloon – 1.1)	=	<mark>348.7</mark>	m ³ /day (refer to Table T-4 of GESF – East Kowloon)			
Contributing Population	=	<mark>1292</mark>	people			
Peaking factor	=	6	refer to Table T-5 of GESF for a population of less than 5000 incl. stormwater allowance			
Peak Flow (excluding backwash of water feature)	=	<mark>24.2</mark>	litre/sec			
Peak Flow (including backwash of water feature)	=	<mark>26.7</mark>	litre/sec			
 Remark: [1] Build-up of staff under Code of Practice for RCHE Section 9.1.1 for Care and Attention Home: 1 health worker / nurse for every 30 residents, i.e. 644/30 = 23 nos. 1 care worker for every 20 residents, i.e. 644/20 = 34 nos. 1 ancillary worker for every 40 residents, i.e. 644/40 = 17 nos. General staff = 2 nos. Total staff = 74 nos. Assuming there are two shifts of staff, i.e. daytime and night-time, the total daily number of employees at the RCHE is 148. It should be noted that night-time requires less staff than daytime. Therefore, the current assumption serves as a conservative scenario. 						

2.5 Assessment of Sewerage Impact

- 2.5.1 Sewage generated from the Application Site will be discharged from the terminal manhole FTMH-01 (P1) via a polyethylene (PE) pipe, to existing manhole FMH4042668 (S1) of the public sewerage system as shown in **Figure 2.1**. Catchments in the vicinity of the Application Site are shown in **Figure 2.2**.
- 2.5.2 The estimated sewage flow of the Proposed Development and nearby catchments under existing conditions have been compared with the capacity of the existing sewerage system as shown in **Appendix 2.1 Table 3a**. For the estimated sewage flow of the Proposed Development and nearby catchments with approved planned developments, the results are shown in **Appendix 2.1 Table 3b**.

2.6 Discussion

- 2.6.1 According to the calculation results presented in Table 4 of **Appendix 2.1**, the capacity of the existing sewerage network is found to be sufficient to cater for the sewage generated from the Application Site under both existing conditions and with approved planned developments.
- 2.6.2 As such, no adverse sewerage impact resulting from the Proposed Development is anticipated. No sewerage upgrading work is required.



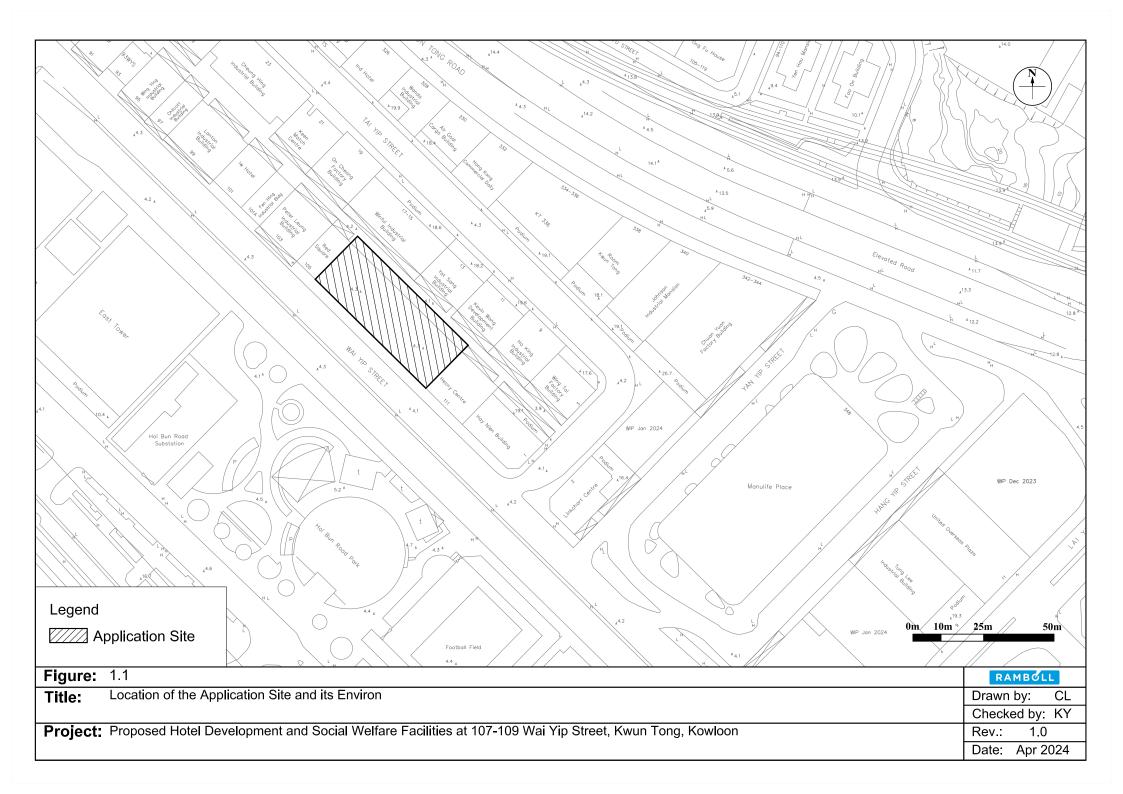
3. OVERALL CONCLUSION

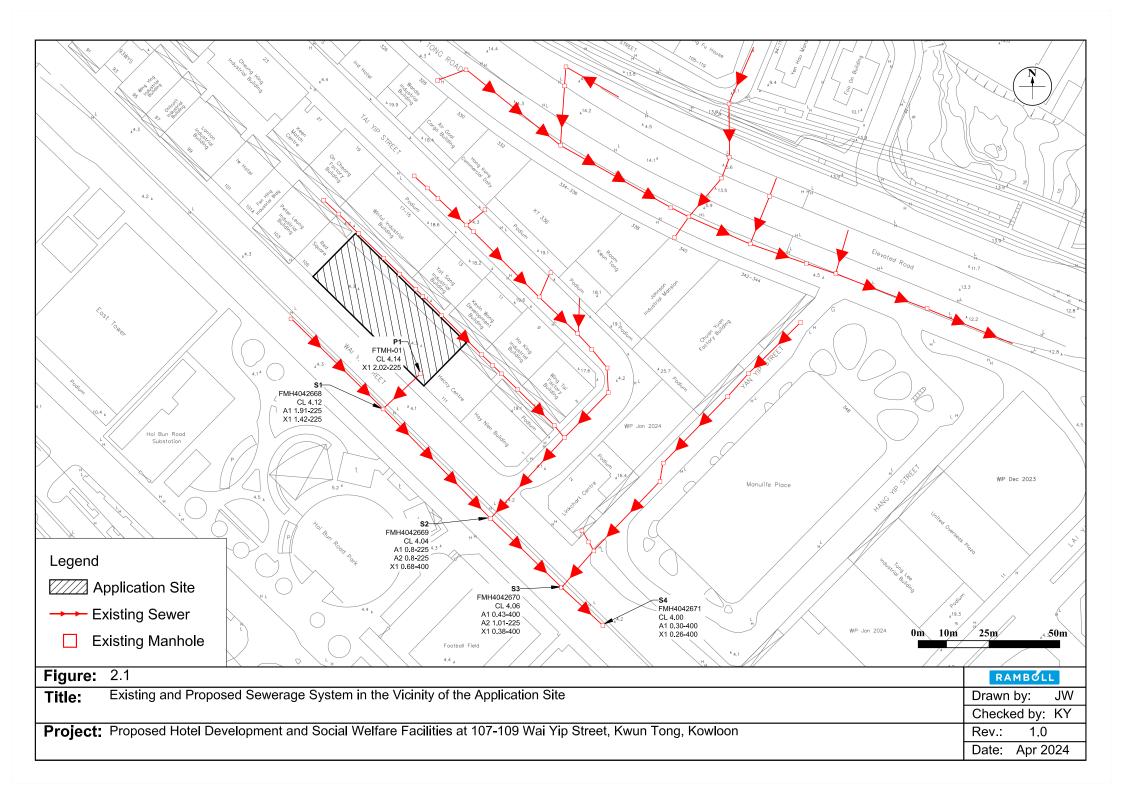
- 3.1.1 The potential sewerage impact arising from the Application Site has been quantitatively assessed by comparing the estimated sewage flow from the Proposed Development and the capacity of the existing sewerage system in the vicinity.
- 3.1.2 Based on the assessment findings, the capacity of the existing sewerage system would be sufficient to cater for the sewage generation from the Application Site and nearby catchments. No sewerage upgrading work is required.
- 3.1.3 This SIA confirms the feasibility of the Proposed Development in terms of its sewerage impact.

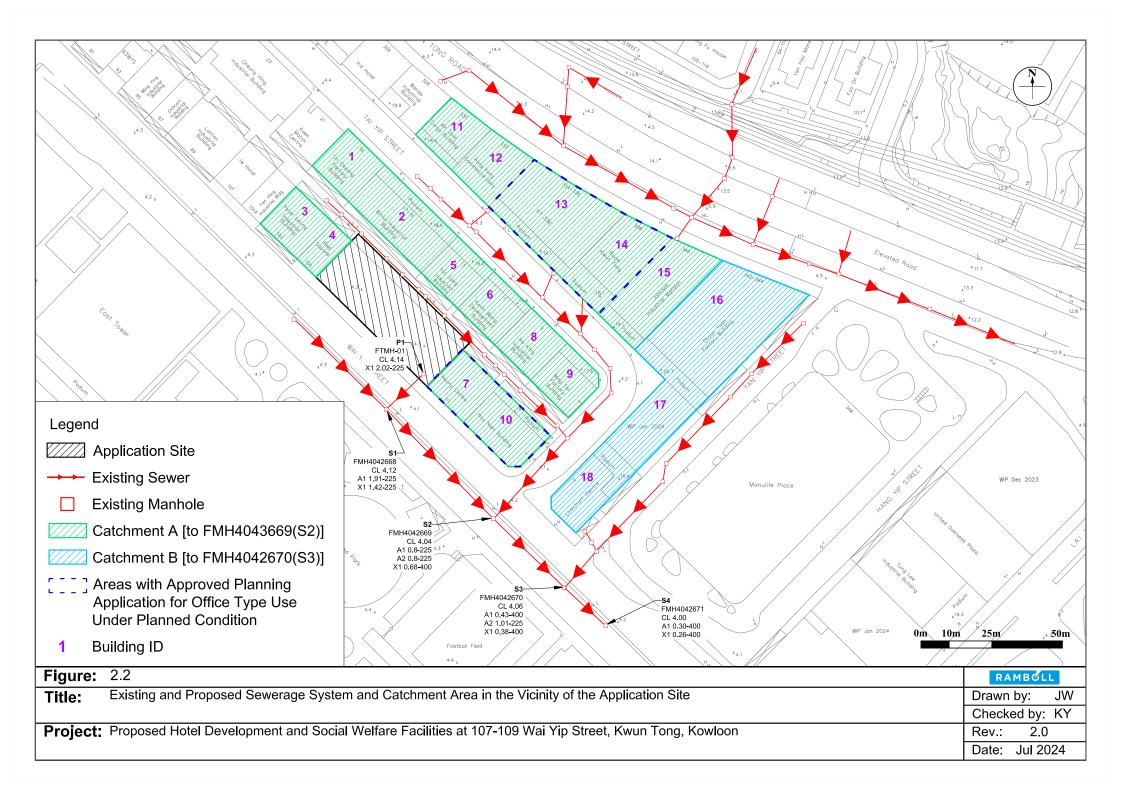


Figures









Appendix



Appendix 2.1

Detailed Sewerage Impact Assessment Calculations



Table 1 Calculation for Sewage Generation Rate of the Proposed Development at the Application Site

Fotal number of residents ¹	=	644 residents (644 beds)
Design flow of residents	=	190 litre/resident/day (refer to Table T-1 of GESF - Domestic - Institutional and Special Class)
Sewage generation rate	=	122.4 m ³ /day
Fotal number of employees ²	=	148 employees
Design flow of employees	=	280 litre/employee/day (refer to Table T-2 of GESF - J11 Community, Social & Personal Services)
Sewage generation rate	=	414 m ³ /day
Sewage generation rate	-	
Hotel		
ssumed area	=	4856 m ²
Assumed floor area per employee	=	71.4 m ² per employee (refer to Table 8 of CIFSUS - Hotels and Boarding Houses, Private Commercials)
Total number of employees	=	68 employees
Design flow	=	1580 litre/employee/day (refer to Table T-2 of GESF - J10 Restaurants & Hotels)
Sewage generation rate	=	107.4 m³/day
F&B / restaurant		
Assumed area	=	415 m ²
Assumed floor area per employee	=	19.6 m ² per employee (refer to Table 8 of CIFSUS - Restaurants)
Fotal number of employees	=	21 employees
Design flow	=	1580 litre/employee/day (refer to Table T-2 of GESF - J10 Restaurants & Hotels)
Sewage generation rate	=	33.4 m ³ /day
RCHE Communal Facilities		
Assumed area	=	1338 m ²
Assumed floor area per employee	_	30.3 m ² per employee (refer to Table 8 of CIFSUS - Community, Social & Personal Services)
Fotal number of employees	-	44 employee - (Tele to rabe of ciribio - community, social directional Services)
Design flow	-	44 employees 280 litre/employee/day (refer to Table T-2 of GESF - J11 Community, Social & Personal Services)
Sewage generation rate	=	12.4 m ³ /day
Water Feature (outdoor)		
Volume of Water Feature	=	90.0 m ³
Turnover Rate	=	6 hr
Adopted Surface Loading Rate of Filter	=	50 m ³ /m ² /hr
Adopted Filter Area	=	0.3 m ²
Backwash Duration	=	3 min/d
Backwash flow rate	=	30 m ³ /m ² /hr
Design flow for Water Feature Backwashing	=	0.5 m ³ /day
Design flow for Water Feature Backwashing	=	2.5 litre/sec
Total Flow from the Proposed Development		
Flow rate (excluding backwash of water feature)	=	317.0 m ³ /day
Flow rate with P_{CIF} (East Kowloon - 1.1)	=	348.7 m ³ /day (refer to Table T-4 of GESF - East Kowloon - 1.1)
Contributing population	=	
Peaking factor	=	6 (refer to Table T-5 of GESF for a population of less than 5000 incl. stormwater allowance)
Peak flow (excluding backwash of water feature)	=	24.2 litre/sec
Peak flow (including backwash of water feature)		
cak now (including backwash of water ledule)	-	

Note:

[1] As a conservative approach, the total number of elderly residents is assumed to be the maximum number of beds provided by the RCHE.
[2] Build-up of staff under Code of Practice for RCHE Section 9.1.1 for Care and Attention Home:
(1) 1 health worker / nurse for every 30 residents, i.e. 644/30 = 23 nos.
(2) 1 care worker for every 20 residents, i.e. 644/20 = 34 nos.
(3) 1 ancillary worker for every 40 residents, i.e. 644/40 = 17 nos.
(4) General staff = 2 nos.
Total staff = 74 nos.
Assuming there are two shifts of staff, i.e. daytime and night-time, the total daily number of employee at the RCHE is 148. It should be noted that night-time requires less staff than daytime. Therefore, the current assumption serves as a conservative scenario.
[3] For job types J10 and J11, the "per-employee" unit flow factor takes into account the flows of customers and/or tenants

Comment	Manhole	Manhole	Material	Pipe Dia.	Pipe Length	Invert Level 1	Invert Level 2	g	k _s	s	v	V	Area	Q	Estimated Capacity
Segment	Reference	Reference	Material	mm	m	mPD	mPD	m/s ²	m		m²/s	m/s	m ²	m³/s	L/s
P1-S1	FTMH-01	FMH4042668	PE	225	16.37	2.02	1.91	9.81	0.0015	0.007	0.000001	0.94	0.04	0.04	37
S1-S2	FMH4042668	FMH4042669	clayware	225	53.49	1.42	0.80	9.81	0.0006	0.012	0.000001	1.41	0.04	0.06	56
S2-S3	FMH4042669	FMH4042670	clayware	400	34.30	0.68	0.43	9.81	0.0006	0.007	0.000001	1.61	0.13	0.20	202
S3-S4	FMH4042670	FMH4042671	clayware	400	19.14	0.38	0.30	9.81	0.0006	0.004	0.000001	1.22	0.13	0.15	153

Table 2 Hydraulic Capacity of Existing and Proposed Sewers

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

(2) The values of ks = 0.6m is used for the calculation of slimed clayware sewer, poor condition @mean velocity = approximately 1.2m/s (based on Table 5: Recommended Roughness Values in Sewerage Manual)

(3) The values of ks = 1.5m is used for the calculation of proposed polyethylene sewer, poor condition @mean velocity = approximately 0.75m/s (based on Table 5: Recommended Roughness Values in Sewerage Manual)

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

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

Table 3a Calculation for Sewage generation rate of the Surrounding Building (Existing Condition) <u>Catchment A, discharges to FMH4042669 (S2)</u> 1. On Cheong Factory Building (19 Tai Yip Street)

I. On Cheong Factory Building (19 Tal Yi Industrial - Manufacturing

Assumed area Assumed floor area per employee Total number of employees Design flow Sewage generation rate

2. Winful Industrial Building (15-17 Tai Yip Street)

Industrial - Manufacturing Assumed area Assumed floor area per employees Total number of employees Design flow Sewage generation rate

3. Peter Leung Industrial Building (103 Wai Yip Street)

a) Industrial - Manufacturing Assumed area Assumed floor area per employee Total number of employees Design flow Sewage generation rate

b) Express delivery

Assumed area

Assumed floor area per employee Total number of employees Design flow Sewage generation rate

4. Red Square (105 Wai Yip Street)

Office Assumed area Assumed floor area per employee Total number of employees Design flow Sewage generation rate

F&B

Assumed area Assumed floor area per employee Total number of employees Design flow Sewage generation rate

5. Yat Sang Industrial Building Industrial - Manufacturing

Assumed area Assumed floor area per employee Total number of employees Design flow Sewage generation rate

6. Kevin Wong Development Building (11 Tai Yip Street)

Industrial - Manufacturing Assumed area Assumed floor area per employee Total number of employees Design flow Sewage generation rate 2510 m²

=

- = 43.5 m² per employee -- (refer to Table 8 of CIFSUS Manufacturing)
- = 58 employees
- = 530 litre/employee/day -- (refer to Table T-3 of GESF J1 Manufacturing in East Kowloon)
- = **30.6** m³/day
- = 6378 m²
- = 30.3 m² per employee -- (refer to Table 8 of CIFSUS Manufacturing I/O Buildings)
- = 210 employees
- = 530 litre/employee/day -- (refer to Table T-3 of GESF J1 Manufacturing in East Kowloon)
- = 111.5 m³/day
- = 2827 m²
- = 30.3 m² per employee -- (refer to Table 8 of CIFSUS Manufacturing I/O Buildings)
 - 93 employees
- = 530 litre/employee/day -- (refer to Table T-3 of GESF J1 Manufacturing in East Kowloon)
- = **49.4** m³/day
- = 201 m²

=

_

- m² per employee -- (refer to Table 8 of CIFSUS Financial, Insurance, Real Estate & Business Services I/O
- 22.7 Buildings)
- = 9 employees
- = 80 litre/employee/day -- (refer to Table T-2 of GESF J6 Finance, Insurance, Real Estate & Business Services)
- = **0.7** m³/day
- = 1739 m²
- = 18.2 m² per employee -- (refer to Table 8 of CIFSUS Financial, Insurance, Real Estate & Business Services)
- 96 employees
- = 80 litre/employee/day -- (refer to Table T-2 of GESF J6 Finance, Insurance, Real Estate & Business Services)
- = **7.7** m³/day
 - = 191 m²
 - = 19.6 m² per employee -- (refer to Table 8 of CIFSUS Restaurant)
- = 10 employees
- = 1580 litre/employee/day -- (refer to Table T-2 of GESF J10 Restaurants and Hotels)
- = 15.4 m³/day
- = 2928 m²
- = 43.5 m² per employee -- (refer to Table 8 of CIFSUS Manufacturing)
- 67 employees
- = 530 litre/employee/day -- (refer to Table T-3 of GESF J1 Manufacturing in East Kowloon)
- = **35.7** m³/day
- = 3809 m²
- = 30.3 m² per employee -- (refer to Table 8 of CIFSUS Manufacturing I/O Buildings)
- = 126 employees
- = 530 litre/employee/day -- (refer to Table T-3 of GESF J1 Manufacturing in East Kowloon)
- = **66.6** m³/day

Table 3a Calculation for Sewage generation rate of the Surrounding Building (Existing Condition)

7. Hecny Centre (111 Wai Yip Street)

- a) Office
 Assumed area
- Assumed floor area per employee Total number of employees
- Design flow Sewage generation rate

b) Retail

Assumed area Assumed floor area per employee Total number of employees Design flow Sewage generation rate

c) F&B

Assumed area Assumed floor area per employee Total number of employees Design flow Sewage generation rate

8. Ho King Industrial Building (9 Tai Yip Street)

- Industrial Manufacturing
- Assumed area Assumed floor area per employee Total number of employees Design flow Sewage generation rate

9. Wing Tai Factory Building (3 Tai Yip Street)

Industrial - Manufacturing Assumed area Assumed floor area per employees Total number of employees Design flow Sewage generation rate

Storage

Assumed area Assumed floor area per employee Total number of employees Design flow Sewage generation rate

10. Hay Nien Building (1 Tai Yip Street)

Industrial - Manufacturing Assumed area Assumed floor area per employee Total number of employees Design flow Sewage generation rate

11. Air Goal Cargo Building (330 Kwun Tong Road)

Industrial - Manufacturing Assumed area Assumed floor area per employee Total number of employees Design flow Sewage generation rate

12. Hong Kong Commercial Daily (332 Kwun Tong Road)

Office	
Assumed area	
Assumed floor area per employee Total number of employees Design flow	

- 1772 m²
- = 18.2 m² per employee -- (refer to Table 8 of CIFSUS Financial, Insurance, Real Estate & Business Services)
 - 97 employees
- = 80 litre/employee/day -- (refer to Table T-2 of GESF J6 Finance, Insurance, Real Estate & Business Services)
- = **7.8** m³/day

=

=

=

=

- 253 m²
- = 28.6 m² per employee -- (refer to Table 8 of CIFSUS Retail Trade)
- 9 employees
- = 280 litre/employee/day -- (refer to Table T-2 of GESF J4 Wholesale & Retail)
- = 2.5 m³/day
- = 406 m²
- = 19.6 m² per employee -- (refer to Table 8 of CIFSUS Restaurants)
- = 21 employees
- = 1580 litre/employee/day -- (refer to Table T-2 of GESF J10 Restaurants and Hotels)
- = 32.7 m³/day
- = 2044 m²
- = 43.5 m² per employee -- (refer to Table 8 of CIFSUS Manufacturing)
- 47 employees
- = 530 litre/employee/day -- (refer to Table T-3 of GESF J1 Manufacturing in East Kowloon)
- = 24.9 m³/day
- = 3144 m²
- = 30.3 m² per employee -- (refer to Table 8 of CIFSUS Manufacturing I/O Buildings)
- 104 employees
- = 530 litre/employee/day -- (refer to Table T-3 of GESF J1 Manufacturing in East Kowloon)
- = **55.0** m³/day
- = 147 m²
- 250.0 m² per employee -- (refer to Table 8 of CIFSUS Storage)
- = 1 employees
- = 180 litre/employee/day -- (refer to Table T-2 of GESF J3 Transport, Storage & Communication)
- = 0.1 m³/day
- = 5842 m²

=

- = 30.3 m² per employee -- (refer to Table 8 of CIFSUS Manufacturing I/O Buildings)
 - 193 employees
- = 530 litre/employee/day -- (refer to Table T-3 of GESF J1 Manufacturing in East Kowloon)
- = 102.2 m³/day
- = 2309 m²
- 43.5 m² per employee -- (refer to Table 8 of CIFSUS Manufacturing)
- 53 employees
- = 530 litre/employee/day -- (refer to Table T-3 of GESF J1 Manufacturing in East Kowloon)
- = 28.2 m³/day
- = 2304 m²
- = 18.2 m² per employee -- (refer to Table 8 of CIFSUS Financial, Insurance, Real Estate & Business Services)
- = 127 employees
- = 80 litre/employee/day -- (refer to Table T-2 of GESF J6 Finance, Insurance, Real Estate & Business Services)

Table 3a Calculation for Sewage generation rate of the Surrounding Building (Existing Condition)

Sewage generation rate = 10.1 m³/day

is For EartCorey Building (334-336 Kwun Tong Road) is For EartCorey Building (342-336 Kwun Tong Road) is Marken Tong Sale Marken Tong Road) is Marken Tong Sale Marken Tong Road) is Road Road Tong R	Table 3a Calculation for Sewage generation rate of the Surrounding Building (Existing Condition)	
Total and all and all and all all all all all all all all all al		
sums area = 733 m² sums area 533 m² 1100 m²	Diffice	
aminist or and per employee a 10.3 m/p ee employee. cefee to Table 8 of CERSUS - Manufacturing in East Kookoon) sign from a 300 mit/decipiopee. cefee to Table 8 of CERSUS - Manufacturing in East Kookoon) sign from a 300 mit/decipiopee. cefee to Table 8 of CERSUS - Manufacturing in East Kookoon) sign from a 300 mit/decipiopee. cefee to Table 8 of CERSUS - Storage) a lumber of employee a 600 m ² cefee to Table 8 of CERSUS - Storage) a lumber of employee a 600 m ² cefee to Table 8 of CERSUS - Storage) a lumber of employee a 600 m ² cefee to Table 7 of GEE - 11 Transport, Storage & Communication) a lumber of employee - 600 m ² cefee to Table 9 of CERSUS - Manufacturing - 100 Buildings) a lumber of employee - 600 m ² cefee to Table 9 of CERSUS - Manufacturing - 100 Buildings) a lumber of employee - 600 m ² cefee to Table 9 of CERSUS - Manufacturing - 100 Buildings) a lumber of employee - 100 mit/deployee - 600 m ² a sumed for a cent employee - 100 mit/deployee - 100 mit/deployee a lumber of employee - 100 mit/deployee - 100 mit/deployee a lumber of employee - 100 mit/deployee - 100 mit/deployee a lum		= 7833 m ²
la inumb of employees in a set of employee in a set of emplo		
sign from " - 530 florg/employed(sy - (refer to Table T.3 of GESF - 11 Manufacturing in East Kowloon) seege sensation rate - 137.0 m ² /dsr sumed for rate per employee - 6570 m ² sumed for rate per employee - 6570 m ² sumed for rate per employee - 6570 m ² sumed for rate per employee - 6570 m ² sumed for rate per employee - 6570 m ² sumed for rate per employee - 6570 m ² sumed for rate per employee - 4.7 m ² /dsr sumed for rate per employee - 7.0 m ² /dsr sumed for rate per employee - 100 m ² /dsr sumed for rate per employee - 100 m ² /dsr sumed for rate per employee - 100 m ² /dsr sumed for rate per employee - 100 m ² /dsr sumed for rate per employee - 100 m ² /dsr sumed for rate per employee - 100 m ² /dsr sumed for rate per employee - 100 m ² /dsr sumed for rate per employee - 10		
winde aroot note = 137.0 m²/dw biom structuring = 6570 m² surred aroot aroot per employee - (off to Table 6 of CPSUS - Storage) under aroot per employee - 200.0 m² per employee under aroot per employee - 4.7 m²/dw surred aroot per employee - 4.7 m²/dw surred aroot per employee - 100 m²/dw <		
Scone Kourn Cong (338 Kwun Tong Road) sing Scone Kourn Cong (338 Kwun Tong Road) sing Annotation Inte Scone Kourn Cong (338 Kwun Tong Road) Sing Annotation Inte Scone Kourn Cong Scone Sc		
is mad a non- samed for area per employee is more draw per employee is not area per employee is not area per employee is not area per employee is not area per employee is another draw is not area per employee is not area per employee is another draw is another draw i	ewage generation rate	= 137.0 m ⁻ /day
summa area on molyces = 05.00 m ² are employee (rafer to Table 8 of CIFSUS - Skorage) tail number of employees = 20 on porces 20 on porces sign for = 20 on porces 20 on porces sign for = 20 on porces 20 on porces sign for = 11 minubersyndigs (rafer to Table 8 of CIFSUS - Skorage) 20 on porces sign for = 57.7 m ² = 30 on porces 20 on porces sign for = 53.0 m por employee (rafer to Table 8 of CIFSUS - Manufacturing in East Kowtoon) = 53.0 m por employee (rafer to Table 7.3 of GESF - 11 Manufacturing in East Kowtoon) sign for = 53.0 m por employee (rafer to Table 8 of CIFSUS - Manufacturing in East Kowtoon) sign for = 53.0 m por employee (rafer to Table 8 of CIFSUS - Manufacturing in East Kowtoon) sign for = 53.0 m por employee (rafer to Table 8 of CIFSUS - Manufacturing in East Kowtoon) sign for = 53.2 m m ² /day = summa for comportse if an and porce if an and porce summa for comportse = 53.0 m ² /day =	4. Room Kwun Tong (338 Kwun Tong Road)	
sined for area per employees 20.0 m ² per employee 20.0 m ² per em	torage	
la number of employes in the second s	sumed area	= 6570 m ²
 a 180 literia maly and a subscription of 40 km munication (40 km munication) a wage generation rate a 4.7 m / day a wage generation rate a 5772 m² a sumed area a sumed from rate per employee a literia manufacturing a literia	ssumed floor area per employee	= 250.0 m ² per employee (refer to Table 8 of CIFSUS - Storage)
wage generation rate = 4.7 m/day t. Johnson Industrial Mansion (340 Kwun Tong Road) divital - Manufacturing = 5772 m ² summed floor area per employees sign flow = 303 m ² /generation yees = 190 employees = 190 empl	otal number of employees	
Johnson Judicitial Hansion (340 Kwun Tong Road) durtial - Manufacturing umon di nois umon di nois umon di nois rea per employee is primov = 572 pri ² 30.0 m ² per employee = 30.0 m ² per employee = 101.0 m ² /dev tab Flow of Catchment A, discharges to FMH402269 (S2) = 823.8 m ² /day tab Flow of Catchment A, discharges to FMH402269 (S2) = 823.8 m ² /day tab Flow of Catchment A, discharges to FMH402269 (S2) = 823.8 m ² /day tab Flow of Catchment A, discharges to FMH402269 (S2) = 823.8 m ² /day tab Flow of Catchment A, discharges to FMH402269 (S2) = 823.8 m ² /day tab Flow of Catchment A, discharges to FMH402269 (S2) = 823.8 m ² /day tab Flow of Catchment A, discharges to FMH402269 (S2) = 823.8 m ² /day tab Flow of Catchment A, discharges to FMH4026870 (S3) = 13246 m ² tab Flow of Catchment A, discharges to FMH4026870 (S3) = 162.7 m ² /day tab Flow of Catchment A, discharges to FMH402689 (S2) = 162.7 m ² /day tab Flow of Catchment A, discharges to FMH402689 (S2) = 10.0 m ² /day tab Flow of Catchment A, discharges to FMH402689 (S2) = 10.0 m ² /day tab Flow of Catchment A, discharges to FMH402670 (S3) = 10.0 m ² /day tab Flow of Catchment A, discharges to FMH4042670 (S3)	esign flow	= 180 litre/employee/day (refer to Table T-2 of GESF - J3 Transport, Storage & Communication)
dustrial Handfacturing 5772 m ² sumed for area per employee 5722 m ² sumed for area per employee 90 employee sign for 90 employee <td>ewage generation rate</td> <td>= 4.7 m³/day</td>	ewage generation rate	= 4.7 m ³ /day
auned area	5. Johnson Industrial Mansion (340 Kwun Tong Road)	
among for area per employee. (refer to Table B of CIFSUS - Manufacturing - I/O Buildings) is function of employees (refer to Table B of CIFSUS - Manufacturing - I/O Buildings) is function of employees (refer to Table B of CIFSUS - Manufacturing in East Kowloon) area for wage generation rate is flow of Catchment A, discharges to FMH4042669 (S2) is Chuan Yuan Factory Building (342-344 Kwun Tong Road) divitatal - Manufacturing is Chuan Yuan Factory Building (342-344 Kwun Tong Road) is Chuan Yuan Factory Building (342-344 Kwun Tong Road) divitatal - Manufacturing is Chuan Yuan Factory Building (342-344 Kwun Tong Road) is Dia Indiverse is Dia Indiverse	ndustrial - Manufacturing	
tal nuber of employees sign flow wage generation rate tal Flow of Catchment A, discharges to FMH4042669 (52) tal Flow of Catchment A, discharges to FMH4042670 (53) c, Chan Yuan February Building (542-344 Kwun Tong Road) dustrial - Manufacturing sumed floor area per employees sumed area sumed area	ssumed area	= 5772 m ²
tal nuber of employees sign flow wage generation rate tal Flow of Catchment A, discharges to FMH4042669 (52) tal Flow of Catchment A, discharges to FMH4042670 (53) c, Chan Yuan February Building (542-344 Kwun Tong Road) dustrial - Manufacturing sumed floor area per employees sumed area sumed area	ssumed floor area per employee	= 30.3 m ² per employee (refer to Table 8 of CIFSUS - Manufacturing - I/O Buildings)
sign for wage generation nate = 500 ittrig/employee/gdy - (refer to Table T-3 of GESF - 11 Manufacturing in East Kowloon) a 500 ittrig/employee/gdy - (refer to Table T-3 of GESF - 11 Manufacturing) tab Fow of Catchment A, discharges to FMH4042650 (52) = 823,8 m ³ /day tab Fow of Catchment A, discharges to FMH4042650 (53) : Chuan Vuan Factory Building (342-344 Kwun Tong Road) divitation Manufacturing summed floor area per employee tai number of employees sign floor area per employees tabut det floor area per employees sumed floor area per employees tal number of employees sign floor wage generation rate tal number of employees tal number of employees tai floor area per employees tal number of employees tal number of employees tal number of employees tal number of employees tal floor at a per employee tal floor at a per employees tal number of employees tal floor at a per employee tal floor at a floor at a floor at a per employee tal floor at a floo		
wage generation rate = 101.0 m ² /day tail Flow of Catchment A, discharges to FMH4042669 (S2) = 823.8 m ² /day tchment B, discharges to FMH4042669 (S2) = 823.8 m ² /day dustrial - Manufacturing sumed area sumed area s	esign flow	
inchment B, discharges to FMH4042670 (53) i. Chuan Yuan Factory Building (342-344 Kwun Tong Road) dixtrial - Manufacturing sumed for area per employee tal number of employees sign flow sign flow wage generation rate - Nong Gaptist Mospital (4 Tai Yip Street) wage generation rate - Nong Keng Baptist Mospital (4 Tai Yip Street) wage generation rate - Linckart Centre (2 Tai Yip Street) Reference: SIA report under Planning Application A/K14/782 sumed for area per employee sumed for area per employee sumed for area per employee - Linckart Centre (2 Tai Yip Street) rice sumed for area per employee - Linckart Centre (2 Tai Yip Street) rice sumed for area per employee - Linckart Centre (2 Tai Yip Street) rice sumed for area per employee - Sign flow sumed for area per employee - Sign flow - Sign f	ewage generation rate	
inchment B, discharges to FMH4042670 (53) i. Chuan Yuan Factory Building (342-344 Kwun Tong Road) dixtrial - Manufacturing sumed for area per employee tal number of employees sign flow sign flow wage generation rate - Nong Gaptist Mospital (4 Tai Yip Street) wage generation rate - Nong Keng Baptist Mospital (4 Tai Yip Street) wage generation rate - Linckart Centre (2 Tai Yip Street) Reference: SIA report under Planning Application A/K14/782 sumed for area per employee sumed for area per employee sumed for area per employee - Linckart Centre (2 Tai Yip Street) rice sumed for area per employee - Linckart Centre (2 Tai Yip Street) rice sumed for area per employee - Linckart Centre (2 Tai Yip Street) rice sumed for area per employee - Sign flow sumed for area per employee - Sign flow - Sign f	otal Flow of Catchment A. discharges to EMH4042660 (S2)	- 972.0 m ³ /day
i. Chany Yaan Factory Building (342-344 Kwun Tong Read) = 1334 m ² sumed area = 1334 m ² sumed nor area per employee = 43.5 m ² per employee- (refer to Table 8 of CIFSUS - Manufacturing) tal number of employees = 307 employeeday (refer to Table 7.3 of GESF - 11 Manufacturing in East Kowloon) wage generation rate = 162.7 m ³ /day r. Mog Kong Baptist Hospital (4 Tai Yip Street) Reference: Sta report under Planning Application A/k14/782 wage generation rate = 101.0 m ³ /day t. Linckhart Centre (2 Tai Yip Street) Reference: Conline building profile (https://www.interasia.com.hk/en/Kowloon-Building/Kwun-Tong/1563/Linkchart-Centre) free = 100 m ² sumed area = 010 m ²		= 823.8 iii /uay
dustrial - Manufacturing Instand area Instand	Catchment B, discharges to FMH4042670 (S3)	
sumed area _ 1334 m ² sumed foor area per employee - (refer to Table 8 of CIFSUS - Manufacturing) sumed foor area per employee - (refer to Table 8 of CIFSUS - Manufacturing) in East Kowloon) = 300 remployees sign flow - 162.7 m ² /day - 162.7 m ² /day - (refer to Table T-3 of GESF - 11 Manufacturing in East Kowloon) = 162.7 m ² /day = 181.6 m ² /day = 182.7 m ²		
sumed floor area per employee = A3.5 m ³ per employee (refer to Table 8 of CIFSUS - Manufacturing) tal number of employees = 300 sign flow = 302 wage generation rate = 102.7 m ³ /day z. Hong Kong Baptist Hospital (4 Tai Yip Street) Reference: SIA report under Planning Application A/K14/782 wage generation rate = 910.9 m ² Linkchart Centre (2 Tai Yip Street) Reference: Online building profile (https://www.interasia.com.hk/en/Kowloon-Building/Kwun-Tong/1563/Linkchart-Centre) Sumed area = 910.9 m ² sumed for area per employee = 181.6 m ³ /day at number of employees/day (refer to Table 8 of CIFSUS - Financial, Insurance, Real Estate & Business Services) = sing flow = 910.9 m ² sumed area = 910.9 m ² sumed floor area per employee = 181.2 m ³ per employee (refer to Table 8 of CIFSUS - Financial, Insurance, Real Estate & Business Services) sign flow = 384.3 m ³ /day = super of moloyees = 381.7 m ³ /day tal Flow at P1 (including Proposed Development) = 317.0 m ³ /day tal Flow at P1 (including Pro		
tal number of employees = 307 employees sign flow = 530 litre/employee/day (refer to Table T-3 of GESF - 11 Manufacturing in East Kowloon) wage generation rate = 162.7 m²/day r. Hong Kong Baptist Hospital (4 Tai Yip Street) Reference: SIA report under Planning Application A/K14/782 wage generation rate = 181.6 m²/day k. Linkchart Centre (2 Tai Yip Street) Reference: Online building profile (https://www.interasia.com.hk/en/Kowloon-Building/Kwun-Tong/1563/Linkchart-Centre) file m² sumed foar area per employee = 9109 m² sumed raea = 9109 m² sumed raea = 0109 m² sumed foar area per employee = 18.2 m² per employee - (refer to Table 8 of CIFSUS - Financial, Insurance, Real Estate & Business Services) tal number of employees = 801 ltre/employee/day (refer to Table T-2 of GESF - J6 Finance, Insurance, Real Estate & Business Services) sign flow = 317.0 m²/day tal Flow of Catchment B, discharges to FMH4042670 (S3) = 317.0 m²/day tal Flow at 21 (including Proposed Development) = 317.0 m²/day tal Flow at 52 (including proposed Development + Catchment A) = 1,140.8 m²/day tal Flow at 54 (including Proposed Development) = 317.0 m²/day tal Flow at 54 (including proposed D		
sign flow a 500 (three/employee/day (refer to Table T-3 of GESF - 11 Manufacturing in East Kowloon) = 162.7 m ³ /day - Hong Kong Baptist Hospital (4 Tai Yip Street) wage generation rate = 161.6 m ³ /day - Linkchart Centre (2 Tai Yip Street) fice = 181.6 m ³ /day - Sunda foro area per employees = 182.2 m ³ per employee (refer to Table 3 of CIFSUS - Financial, Insurance, Real Estate & Business Services) = 182.2 m ³ per employees (refer to Table 7-2 of GESF - 31 Kanuara, Real Estate & Business Services) = 182.2 m ³ per employees (refer to Table 8 of CIFSUS - Financial, Insurance, Real Estate & Business Services) = 00 litre/employee/day (refer to Table 7-2 of GESF - 36 Finance, Insurance, Real Estate & Business Services) = 00 litre/employee/day (refer to Table 7-2 of GESF - 36 Finance, Insurance, Real Estate & Business Services) = 00 litre/employee/day (refer to Table 7-2 of GESF - 36 Finance, Insurance, Real Estate & Business Services) = 00 litre/employee/day (refer to Table 7-2 of GESF - 36 Finance, Insurance, Real Estate & Business Services) = 00 litre/employee/day (refer to Table 7-2 of GESF - 36 Finance, Insurance, Real Estate & Business Services) = 00 litre/employee/day (refer to Table 7-2 of GESF - 36 Finance, Insurance, Real Estate & Business Services) = 00 litre/employee/day (refer to Table 7-2 of GESF - 36 Finance, Insurance, Real Estate & Business Services) = 00 litre/employee/day (refer to Table 7-2 of GESF - 36 Finance, Insurance, Real Estate & Business Services) = 00 litre/employee/day (refer to Table 7-2 of GESF - 36 Finance, Insurance, Real Estate & Business Services) = 00 litre/employee/day (refer to Table 7-2 of GESF - 36 Finance, Insurance, Real Estate & Business Services) = 00 litre/employee/day (refer to Table 7-2 of GESF - 36 Finance, Insurance, Real Estate & Business Services) = 00 litre/employee/day (refer to Table 7-2 of GESF - 36 Finance, Insurance, Real Estate & Business Services) = 00 litre/employee/da	ssumed floor area per employee	
wage generation rate = 162.7 m ³ /day P. Hong Kong Baptist Hospital (4 Tai Yip Street) Reference: SJA report under Planning Application A/K14/782 wage generation rate = 181.6 m ³ /day Sumed foor area per employee = 9109 m ² sumed foor area per employees = 9109 m ² sign flow = 501 employees sign flow = 0101 m ³ /day tal How of Catchment B, discharges to FMH4042670 (S3) = 384.3 m ³ /day tal Flow at S1 (including Proposed Development) = 317.0 m ³ /day tal Flow at S2 (including Proposed Development) = 317.0 m ³ /day tal Flow at S2 (including Proposed Development) = 1,140.8 m ³ /day tal Flow at S1 (including Proposed Development) = 31.7.0 m ³ /day tal Flow at S2 (including Proposed Development) = 31.7.0 m ³ /day tal Flow at S1 (including Proposed Development) = 31.7.0 m ³ /day tal Flow at S1 (including Proposed Development) = 31.7.0 m ³ /day tal Flow at S2 (including Proposed Development) = 31.7.0 m ³ /day tal Flow at S2 (including Proposed Development + Catchment A & B) = 1,52.5.2 m ³ /day b-bctal with Catchment A (A EB) = 348.7 m ³ /day tal Flow at S1 (including Proposed Development) = 348.7 m ³ /day </td <td>otal number of employees</td> <td></td>	otal number of employees	
7. Hong Kong Baptist Hospital (4 Tai Yip Street) Reference: SIA report under Planning Application A/K14/782 wage generation rate = 181.6 m³/day S. Linkchart Centre (2 Tai Yip Street) Reference: Online building profile (https://www.lnterasia.com.hk/en/Kowloon-Building/Kwun-Tong/1563/Linkchart-Centre) Wind area = 9109 m² sumed fora rea per employees = 18.2 m² per employee (refer to Table 8 of CIFSUS - Financial, Insurance, Real Estate & Business Services) tal number of employees = 00 litre/employees sign flow = 00 litre/employee vage generation rate = 00 litre/employee tat Flow of Catchment B, discharges to FMH4042670 (S3) = 384.3 m³/day the Total = 317.0 m³/day tal Flow at 11 (including Proposed Development) = 317.0 m³/day tal Flow at 51 (including Proposed Development + Catchment A) = 1,120.8 m²/day tal Flow at 51 (including Proposed Development + Catchment A & B) = 1,525.2 m²/day b-botal with Catchment Inflow Factor - East Kowloon = 1.1 = 348.7 m³/day tal Flow at 51 (including Proposed Development) = 348.7 m³/day tal Flow at 51 (including Proposed Development + Catchment A & B) = 1,525.2 m²/day b-botal with Catchment Inflow Factor - East Kowloon = 1.1 = 348.7 m³/day	esign flow	
wage generation rate = 181.6 m ³ /day k. Linkchart Centre (2 Tai Yip Street) ffce sumed area sumed floor area per employee tal number of employees sign flow wage generation rate = 9109 m ² sumed floor area per employee tal number of employees sign flow wage generation rate = 9109 m ² sumed floor area per employee tal number of employees sign flow wage generation rate = 0109 m ² sumed floor area per employee tal number of employees sign flow wage generation rate = 0101 m ² sumed floor area per employee tal number of employees sign flow wage generation rate = 380.1 ltre/employee/day (refer to Table T-2 of GESF - 36 Finance, Insurance, Real Estate & Business Services) = 40.1 m ³ /day tal Flow of Catchment B, discharges to FMH4042670 (S3) = 384.3 m ³ /day tal Flow at P1 (including Proposed Development) tal Flow at S1 (including Proposed Development) = 317.0 m ³ /day = 317.0 m ³ /day tal Flow at S2 (including Proposed Development + Catchment A & B) = 1,525.2 m ³ /day tal Flow at S2 (including Proposed Development + Catchment A & B) = 348.7 m ³ /day tal Flow at S1 (including Proposed Development + Catchment A & B) = 348.7 m ³ /day tal Flow at S2 (including Proposed Development + Catchment A & B) = 348.7 m ³ /day tal Flow at S1 (including Proposed Development) = 348.7 m ³ /day tal Flow at S2 (including Proposed Development) = 348.7 m ³ /day<	ewage generation rate	= 162.7 m ³ /day
b. Linkchart Centre (2 Tai Yip Street) fice Reference: Online building profile (https://www.interasia.com.hk/en/Kowloon-Building/Kwun-Tong/1563/Linkchart-Centre) fice sumed area = 9109 m ² sumed floor area per employee = 18.2. m ² per employees (refer to Table 8 of CIFSUS - Financial, Insurance, Real Estate & Business Services) tal number of employees = 010 gm ² usage generation rate = 001 line/employee/day (refer to Table 8 of CIFSUS - Financial, Insurance, Real Estate & Business Services) usage generation rate = 010 gm ² usage generation rate = 384.3 m ³ /day be-total = 317.0 m ³ /day tal Flow at 51 (including Proposed Development) = 317.0 m ³ /day tal Flow at 51 (including Proposed Development + Catchment A) = 1,125.2 m ³ /day tal Flow at 51 (including Proposed Development + Catchment A & B) = 1,525.2 m ³ /day tal Flow at 51 (including Proposed Development) = 348.7 m ³ /day tal Flow at 51 (including Proposed Development) = 348.7 m ³ /day tal Flow at 51 (including Proposed Development) = 348.7 m ³ /day tal Flow at 51 (including Proposed Development) = 348.7 m ³ /day tal Flow at 51 (including Proposed Development) = 348.7 m ³ /day tal Flow at 51 (including Proposed Development) = 348.	7. Hong Kong Baptist Hospital (4 Tai Yip Street)	
fice 9109 m ² sumed area sumed floor area per employee 18.2 m ² per employee (refer to Table 8 of CIFSUS - Financial, Insurance, Real Estate & Business Services) tal number of employees 501 employees sign flow 80 litre/employee/day (refer to Table 7-2 of GESF - J6 Finance, Insurance, Real Estate & Business Services) wage generation rate 40.1 m ³ /day tat Flow of Catchment B, discharges to FMH4042670 (S3) = 384.3 m ³ /day tat Flow at P1 (including Proposed Development) = 317.0 m ³ /day tat Flow at S1 (including Proposed Development) = 317.0 m ³ /day tat Flow at S2 (including Proposed Development + Catchment A) = 1,140.8 m ³ /day tat Flow at S4 (including Proposed Development + Catchment A & B) = 1,525.2 m ³ /day tat Flow at S2 (including Proposed Development) = 348.7 m ³ /day tat Flow at S2 (including Proposed Development) = 348.7 m ³ /day tat Flow at S2 (including Proposed Development) = 348.7 m ³ /day	iewage generation rate	= 181.6 m ³ /day
sumed area = 9109 m ² sumed floor area per employee = 18.2 m ² per employee (refer to Table 8 of CIFSUS - Financial, Insurance, Real Estate & Business Services) = 501 employees = 80 litre/employee/day (refer to Table T-2 of GESF - 16 Finance, Insurance, Real Estate & Business Services) = 40.1 m ³ /day = 384.3 m ³ /day = 317.0 m ³ /day = 317.0 m ³ /day = 317.0 m ³ /day = 1,525.2 m ³ /day = 1,525.2 m ³ /day	8. Linkchart Centre (2 Tai Yip Street)	Reference: Online building profile (https://www.interasia.com.hk/en/Kowloon-Building/Kwun-Tong/1563/Linkchart-Centre)
sumed floor area per employee = 18.2 m ² per employee (refer to Table 8 of CIFSUS - Financial, Insurance, Real Estate & Business Services) = 501 employees = 80 litre/employee/day (refer to Table T-2 of GESF - J6 Finance, Insurance, Real Estate & Business Services) = 40.1 m ³ /day = 384.3 m ³ /day = 384.3 m ³ /day = 317.0 m ³ /day = 1,140.8 m ³ /day = 1,525.2 m ³ /day = 1,525.2 m ³ /day = 348.7 m ³ /day = 1,254.9 m ³ /day	Office	
tal number of employees = 501 employees = 80 litre/employee/day (refer to Table T-2 of GESF - J6 Finance, Insurance, Real Estate & Business Services) = 40.1 m ³ /day = 40.1 m ³ /day = 384.3 m ³ /day = 384.3 m ³ /day = 317.0 m ³ /day = 317.0 m ³ /day = 1,525.2 m ³ /day = 348.7 m ³ /day = 1,525.2 m ³ /day = 348.7 m ³ /day = 1,525.2 m	ssumed area	
sign flow = 80 litre/employee/day (refer to Table T-2 of GESF - J6 Finance, Insurance, Real Estate & Business Services) wage generation rate = 30.1 m ³ /day tatal Flow of Catchment B, discharges to FMH4042670 (S3) = 384.3 m ³ /day tatal Flow at S1 (including Proposed Development) tal Flow at S1 (including Proposed Development) = tal Flow at S1 (including Proposed Development) = tal Flow at S2 (including Proposed Development + Catchment A) = tal Flow at S4 (including Proposed Development + Catchment A & B) = tal Flow at S1 (including Proposed Development) = tal Flow at S1 (including Proposed Development + Catchment A & B) = tal Flow at S1 (including Proposed Development) = tal Flow at S2 (including Proposed Development) = tal Flow at S2 (including Proposed Development) = stal Flow at S2 (including Proposed Development + Catchment A) = stal Flow at S2 (including Proposed Devel	ssumed floor area per employee	= 18.2 m ² per employee (refer to Table 8 of CIFSUS - Financial, Insurance, Real Estate & Business Services)
wage generation rate = 40.1 m³/day tat Flow of Catchment B, discharges to FMH4042670 (S3) = 384.3 m³/day b-total tal Flow at P1 (including Proposed Development) = 317.0 m³/day tal Flow at S1 (including Proposed Development) = 317.0 m³/day tal Flow at S2 (including Proposed Development) = 317.0 m³/day tal Flow at S2 (including Proposed Development + Catchment A) = 1,140.8 m³/day tal Flow at S4 (including Proposed Development + Catchment A & B) = 1,525.2 m³/day tal Flow at S1 (including Proposed Development) tal Flow at S1 (including Proposed Development) = 348.7 m³/day tal Flow at S1 (including Proposed Development) = 348.7 m³/day tal Flow at S1 (including Proposed Development) = 348.7 m³/day tal Flow at S1 (including Proposed Development) = 348.7 m³/day tal Flow at S2 (including Proposed Development) = 348.7 m³/day tal Flow at S2 (including Proposed Development) = 348.7 m³/day tal Flow at S2 (including Proposed Development) = 348.7 m³/day tal Flow at S2 (including Proposed Development + Catchment A) = 1,254.9 m³/day	otal number of employees	= 501 employees
wage generation rate = 40.1 m³/day tat Flow of Catchment B, discharges to FMH4042670 (S3) = 384.3 m³/day b-total tal Flow at P1 (including Proposed Development) = 317.0 m³/day tal Flow at S1 (including Proposed Development) = 317.0 m³/day tal Flow at S2 (including Proposed Development) = 317.0 m³/day tal Flow at S2 (including Proposed Development + Catchment A) = 1,140.8 m³/day tal Flow at S4 (including Proposed Development + Catchment A & B) = 1,525.2 m³/day tal Flow at S1 (including Proposed Development) tal Flow at S1 (including Proposed Development) = 348.7 m³/day tal Flow at S1 (including Proposed Development) = 348.7 m³/day tal Flow at S1 (including Proposed Development) = 348.7 m³/day tal Flow at S1 (including Proposed Development) = 348.7 m³/day tal Flow at S2 (including Proposed Development) = 348.7 m³/day tal Flow at S2 (including Proposed Development) = 348.7 m³/day tal Flow at S2 (including Proposed Development) = 348.7 m³/day tal Flow at S2 (including Proposed Development + Catchment A) = 1,254.9 m³/day	esign flow	= 80 litre/employee/day (refer to Table T-2 of GESF - J6 Finance, Insurance, Real Estate & Business Services)
ub-total = 317.0 m ³ /day tal Flow at P1 (including Proposed Development) = 317.0 m ³ /day tal Flow at S1 (including Proposed Development) = 317.0 m ³ /day tal Flow at S2 (including Proposed Development + Catchment A) = 1,140.8 m ³ /day tal Flow at S4 (including Proposed Development + Catchment A & B) = 1,525.2 m ³ /day ub-total with Catchment Inflow Factor - East Kowloon = 1.1 = 348.7 m ³ /day tal Flow at S1 (including Proposed Development) = 348.7 m ³ /day tal Flow at S1 (including Proposed Development) = 348.7 m ³ /day tal Flow at S2 (including Proposed Development) = 348.7 m ³ /day tal Flow at S2 (including Proposed Development) = 348.7 m ³ /day tal Flow at S2 (including Proposed Development) = 348.7 m ³ /day	ewage generation rate	
tal Flow at P1 (including Proposed Development) = 317.0 m³/day tal Flow at S1 (including Proposed Development) = 317.0 m³/day tal Flow at S2 (including Proposed Development + Catchment A & B) = 1,140.8 m³/day tal Flow at S4 (including Proposed Development + Catchment A & B) = 1,252.2 m³/day tal Flow at S1 (including Proposed Development) = 348.7 m³/day tal Flow at S1 (including Proposed Development) = 348.7 m³/day tal Flow at S1 (including Proposed Development) = 348.7 m³/day tal Flow at S1 (including Proposed Development) = 348.7 m³/day tal Flow at S1 (including Proposed Development) = 348.7 m³/day tal Flow at S1 (including Proposed Development) = 348.7 m³/day tal Flow at S1 (including Proposed Development) = 348.7 m³/day tal Flow at S2 (including Proposed Development + Catchment A) = 1,254.9 m³/day	otal Flow of Catchment B, discharges to FMH4042670 (S3)	= 384.3 m ³ /day
tal Flow at P1 (including Proposed Development) = 317.0 m³/day tal Flow at S1 (including Proposed Development) = 317.0 m³/day tal Flow at S2 (including Proposed Development + Catchment A & B) = 1,140.8 m³/day tal Flow at S4 (including Proposed Development + Catchment A & B) = 1,252.2 m³/day tal Flow at S1 (including Proposed Development) = 348.7 m³/day tal Flow at S1 (including Proposed Development) = 348.7 m³/day tal Flow at S1 (including Proposed Development) = 348.7 m³/day tal Flow at S1 (including Proposed Development) = 348.7 m³/day tal Flow at S1 (including Proposed Development) = 348.7 m³/day tal Flow at S1 (including Proposed Development) = 348.7 m³/day tal Flow at S1 (including Proposed Development) = 348.7 m³/day tal Flow at S2 (including Proposed Development + Catchment A) = 1,254.9 m³/day		
tal Flow at S1 (including Proposed Development) = 317.0 m³/day tal Flow at S2 (including Proposed Development + Catchment A) = 1,140.8 m²/day tal Flow at S4 (including Proposed Development + Catchment A & B) = 1,525.2 m³/day tal Flow at S4 (including Proposed Development + Catchment A & B) = 348.7 m³/day tal Flow at S1 (including Proposed Development) = 348.7 m³/day tal Flow at S1 (including Proposed Development) = 348.7 m³/day tal Flow at S1 (including Proposed Development) = 348.7 m³/day tal Flow at S2 (including Proposed Development) = 348.7 m³/day	<u>ub-total</u>	
tal Flow at S2 (including Proposed Development + Catchment A) = 1,140.8 m ³ /day tal Flow at S4 (including Proposed Development + Catchment A & B) = 1,525.2 m ³ /day ib-total with Catchment Inflow Factor - East Kowloon = 1.1 tal Flow at P1 (including Proposed Development) = 348.7 m ³ /day tal Flow at S1 (including Proposed Development) = 348.7 m ³ /day tal Flow at S2 (including Proposed Development + Catchment A) = 1,254.9 m ³ /day		
tal Flow at S4 (including Proposed Development + Catchment A & B) = 1,525.2 m ³ /day ib-total with Catchment Inflow Factor - East Kowloon = 1.1 tal Flow at P1 (including Proposed Development) = 348.7 m ³ /day tal Flow at S1 (including Proposed Development) = 348.7 m ³ /day tal Flow at S2 (including Proposed Development + Catchment A) = 1,254.9 m ³ /day	otal Flow at S1 (including Proposed Development)	
b-total with Catchment Inflow Factor - East Kowloon = 1.1 = 348.7 m ³ /day tal Flow at P1 (including Proposed Development) = 348.7 m ³ /day tal Flow at S1 (including Proposed Development) = 348.7 m ³ /day tal Flow at S2 (including Proposed Development + Catchment A) = 1,254.9 m ³ /day	otal Flow at S2 (including Proposed Development + Catchment A)	
tal Flow at P1 (including Proposed Development)=348.7 m³/daytal Flow at S1 (including Proposed Development)=348.7 m³/daytal Flow at S2 (including Proposed Development + Catchment A)=1,254.9 m³/day	otal Flow at S4 (including Proposed Development + Catchment A & B)	= 1,525.2 m ³ /day
tal Flow at S1 (including Proposed Development) = 348.7 m ³ /day tal Flow at S2 (including Proposed Development + Catchment A) = 1,254.9 m ³ /day	ub-total with Catchment Inflow Factor - East Kowloon = 1.1	
tal Flow at S2 (including Proposed Development + Catchment A) = 1,254.9 m ³ /day	otal Flow at P1 (including Proposed Development)	
tal Flow at S2 (including Proposed Development + Catchment A) = 1,254.9 m ³ /day	otal Flow at S1 (including Proposed Development)	= 348.7 m ³ /day
a = 1,0/7,7 m/day		= 1,254.9 m /day

<u>Catchment A, discharges to FMH4042669 (S2)</u>	
1. On Cheong Factory Building (19 Tai Yip Street)	
Industrial - Manufacturing	
Assumed area	$= 2510 \text{ m}^2$
Assumed floor area per employee	= 43.5 m ² per employee (refer to Table 8 of CIFSUS - Manufacturing)
Total number of employees	= 58 employees
Design flow	= 530 litre/employee/day (refer to Table T-3 of GESF - J1 Manufacturing in East Kowloon)
Sewage generation rate	= 30.6 m ³ /day
2. Winful Industrial Building (15-17 Tai Yip Street) Industrial - Manufacturing	
Assumed area	= 6378 m ²
Assumed floor area per employee	= 30.3 m ² per employee (refer to Table 8 of CIFSUS - Manufacturing - I/O Buildings)
otal number of employees	= 210 employees
Design flow	= 530 litre/employee/day (refer to Table T-3 of GESF - J1 Manufacturing in East Kowloon)
Sewage generation rate	= 111.5 m ³ /day
3. Peter Leung Industrial Building (103 Wai Yip Street)	
a) Industrial - Manufacturing	
Assumed area	$= 2827 m_{2}^{2}$
Assumed floor area per employee	= 30.3 m ² per employee (refer to Table 8 of CIFSUS - Manufacturing - I/O Buildings)
otal number of employees	= 93 employees
Design flow	= 530 litre/employee/day (refer to Table T-3 of GESF - J1 Manufacturing in East Kowloon)
Sewage generation rate	= 49.4 m ³ /day
b) Express delivery	
Assumed area	= 201 m ²
Assumed floor area per employee	= 22.7 m ² per employee (refer to Table 8 of CIFSUS - Financial, Insurance, Real Estate & Business Services - I/O Buildings)
Total number of employees	= 9 employees
Design flow	= 80 litre/employee/day (refer to Table T-2 of GESF - J6 Finance, Insurance, Real Estate & Business Services)
Sewage generation rate	= 0.7 m ³ /day
4. Red Square (105 Wai Yip Street)	
Office	
Assumed area	= 1739 m ²
Assumed floor area per employee	= 18.2 m ² per employee (refer to Table 8 of CIFSUS - Financial, Insurance, Real Estate & Business Services)
Total number of employees	= 96 employees
Design flow	= 80 litre/employee/day (refer to Table T-2 of GESF - J6 Finance, Insurance, Real Estate & Business Services)
Sewage generation rate	= 7.7 m ³ /day
F&B	
Assumed area	= 191 m ²
Assumed floor area per employee	= 19.6 m ² per employee (refer to Table 8 of CIFSUS - Restaurant)
Total number of employees	= 10 employees
Design flow Sewage generation rate	 = 1580 litre/employee/day (refer to Table T-2 of GESF - J10 restaurant and hotel) = 15.4 m³/day
5. Yat Sang Industrial Building Industrial - Manufacturing	
Assumed area	= 2928 m ²
Assumed floor area per employee	= 43.5 m^2 per employee (refer to Table 8 of CIFSUS - Manufacturing)
Total number of employees	= 67 employees
Design flow	= 530 (http://mpices
Sewage generation rate	= 35.7 m ³ /day
6. Kevin Wong Development Building (11 Tai Yip Street)	
Industrial - Manufacturing	
Assumed area	= 3809 m ²
Assumed floor area per employee	= 30.3 m ² per employee (refer to Table 8 of CIFSUS - Manufacturing - I/O Buildings)
Total number of employees	= 126 employees
Design flow	= 530 litre/employee/day (refer to Table T-3 of GESF - J1 Manufacturing in East Kowloon)
Sewage generation rate	= 66.6 m ³ /day
7. Proposed Office (111 Wai Yip Street, 1 Tai Yip Street)	Reference: Application No A/K14/809 (https://www.ozp.tpb.gov.hk/api/Perm/Gist?caseNo=A%2fK14%2f809⟨=EN&ext=pdf&dType=in)
Office	
Assumed area	= 13349 m ²
Assumed floor area per employee	= 18.2 m ² per employee (refer to Table 8 of CIFSUS - Financial, Insurance, Real Estate & Business Services)
Total number of employees	= 734 employees

Table 3b Calculation for Sewage generation rate of the Existing Surrounding Building (Planned Condition) Design flow	= 80 litre/employee/day (refer to Table T-2 of GESF - J6 Finance, Insurance, Real Estate & Business Services)
Sewage generation rate	= 58.7 m ³ /day
8. Ho King Industrial Building (9 Tai Yip Street)	
Industrial - Manufacturing	
Assumed area	= 2044 m ²
Assumed floor area per employee	= 43.5 m ² per employee (refer to Table 8 of CIFSUS - Manufacturing)
Total number of employees Design flow	 47 employees 530 litre/employee/day (refer to Table T-3 of GESF - J1 Manufacturing in East Kowloon)
Sewage generation rate	= 24.9 m ³ /day
9. Wing Tai Factory Building (3 Tai Yip Street) Industrial - Manufacturing	
Assumed area	= 3144 m ²
Assumed floor area per employee	= 30.3 m ² per employee (refer to Table 8 of CIFSUS - Manufacturing - I/O Buildings)
Total number of employees	= 104 employees
Design flow	 = 530 litre/employee/day (refer to Table T-3 of GESF - J1 Manufacturing in East Kowloon) = 55 0 m³/day
Sewage generation rate	= 55.0 m ³ /day
Storage	
Assumed area	= 147 m ²
Assumed floor area per employee Total number of employees	 = 250.0 m² per employee (refer to Table 8 of CIFSUS - Storage) = 1 employees
Design flow	 I employees 180 litre/employee/day (refer to Table T-2 of GESF - Transport, Storage & Communication)
Sewage generation rate	$= 0.1 m^3/day$
10 Hay Nian Duilding (1 Tai Vin Stuast)	
10. Hay Nien Building (1 Tai Yip Street) Industrial - Manufacturing	
Assumed area	= 5842 m ²
Assumed floor area per employee	= 30.3 m ² per employee (refer to Table 8 of CIFSUS - Manufacturing - I/O Buildings)
Total number of employees	= 193 employees
Design flow	= 530 litre/employee/day (refer to Table T-3 of GESF - J1 Manufacturing in East Kowloon)
Sewage generation rate	= 102.2 m ³ /day
11. Air Goal Cargo Building (330 Kwun Tong Road)	
Industrial - Manufacturing Assumed area	= 2309 m ²
Assumed floor area per employee	= 2309 m ² = 43.5 m ² per employee (refer to Table 8 of CIFSUS - Manufacturing)
Total number of employees	= 53 employees
Design flow	= 530 litre/employee/day (refer to Table T-3 of GESF - J1 Manufacturing in East Kowloon)
Sewage generation rate	= 28.2 m ³ /day
12. Hong Kong Commercial Daily (332 Kwun Tong Road)	
Office	
Assumed area	= 2304 m ²
Assumed floor area per employee Total number of employees	 = 18.2 m² per employee (refer to Table 8 of CIFSUS - Financial, Insurance, Real Estate & Business Services) = 127 employees
Design flow	 a bin project 80 litre /employee/day (refer to Table T-2 of GESF - J6 Finance, Insurance, Real Estate & Business Services)
Sewage generation rate	= 10.1 m ³ /day
13. Planned Development (334-336 & 338 Kwun Tong Road) Office	Reference: Application no A/K14/804 (https://www.ozp.tpb.gov.hk/api/Perm/Gist?caseNo=A%2fK14%2f804⟨=EN&ext=pdf&dType=in)
Assumed area	= 23211 m ²
Assumed floor area per employee	= 18.2 m ² per employee (refer to Table 8 of CIFSUS - Financial, Insurance, Real Estate & Business Services)
Total number of employees	= 1277 employees
Design flow Sewage generation rate	 80 litre/employee/day (refer to Table T-2 of GESF - J6 Finance, Insurance, Real Estate & Business Services) 102.1 m³/day
14. Johnson Industrial Mansion (340 Kwun Tong Road) Industrial - Manufacturing	
Assumed area	= 5772 m ²
Assumed floor area per employee	= 30.3 m ² per employee (refer to Table 8 of CIFSUS - Manufacturing - I/O Buildings)
Total number of employees	= 190 employees
Design flow	= 530 litre/employee/day (refer to Table T-3 of GESF - J1 Manufacturing in East Kowloon)
Sewage generation rate	= 101.0 m ³ /day
Total Flow of Catchment A, discharges to FMH4042669 (S2)	= 799,9 m ³ /day

Table 3b Calculation for Sewage generation rate of the Existing Surrounding Building (Planned Condition)

<u>Catchment B, discharges to FMH4042670 (S3)</u> 16. Chuan Yuan Factory Building (342-344 Kwun Tong Road)	
Industrial - Manufacturing	
Assumed area	= 13344 m ²
Assumed floor area per employee	 = 43.5 m² per employee (refer to Table 8 of CIFSUS - Manufacturing)
Total number of employees	= 307 employees
Design flow	= 530 litre/employee/day (refer to Table T-3 of GESF - J1 Manufacturing in East Kowloon)
Sewage generation rate	= 162.7 m ³ /day
17. Hong Kong Baptist Hospital (4 Tai Yip Street)	Reference: SIA report under Planning Application A/K14/782
Sewage generation rate	= 181.6 m ³ /day
18. Linkchart Centre (2 Tai Yip Street) Office	Reference: Online building profile (https://www.interasia.com.hk/en/Kowloon-Building/Kwun-Tong/1563/Linkchart-Centre)
Assumed area	= 9109 m ²
Assumed floor area per employee	 18.2 m² per employee (refer to Table 8 of CIFSUS - Financial, Insurance, Real Estate & Business Services)
Total number of employees	= 501 employees
Design flow	= 80 litre/employee/day (refer to Table T-2 of GESF - J6 Finance, Insurance, Real Estate & Business Services)
Sewage generation rate	= 40.1 m ³ /day
Total Flow of Catchment B, discharges to FMH4042670 (S3)	= 384.3 m ³ /day

Sub-total Total Flow at S0 (including Proposed Development) =	317.0 m ³ /day
Total Flow at S1 (including Proposed Development) =	317.0 m³/day
Total Flow at S2 (including Proposed and Planned Development + Catchment A) =	1,117.0 m³/day
Total Flow at S4 (including Proposed and Planned Development + Catchment A & B) =	1,501.3 m ³ /day
<u>Sub-total with Catchment Inflow Factor - East Kowloon = 1.1</u> Total Flow at S0 (including Proposed Development) =	348.7 m ³ /day
Total Flow at S1 (including Proposed Development) =	348.7 m³/day
Total Flow at S2 (including Proposed and Planned Development + Catchment A) =	1,228.7 m ³ /day

Table 4a Comparision of the Hydraulic Capacity of Existing Sewers for Sewerage generated from the Proposed Development and Surrounding Catchment Areas (Existing Condition)

Hydrualic Capacity of Existing Sewers

Segment	Manhole Reference	Manhole Reference	Pipe Dia. (mm)	Pipe Length (m)	Gradient	Fatimated Compains	the Proposed	Contribution from the Proposed Development only (%)	Status			Contributing Population	Peaking	Peak Flow from the Proposed Development and Catchment Areas (Without Water Feature Backwash) (L/s)	Water Feature Backwash (L/s)	(With Water	Contribution from the Proposed Development and the Surrounding Catchment Areas (%)	Status
P1-S1	FTMH-01	FMH4042668	225	16.4	0.007	37	24.2	64.8%	OK	-	348.7	1,292	6	24.2	2.5	26.7	71.5%	OK
S1-S2	FMH4042668	FMH4042669	225	53.5	0.012	56	24.2	43.2%	OK	-	348.7	1,292	6	24.2	2.5	26.7	47.7%	OK
S2-S3	FMH4042669	FMH4042670	400	34.3	0.007	202	24.2	12.0%	OK	А	1254.9	4,648	6	87.1	2.5	89.6	44.3%	OK
S3-S4	FMH4042670	FMH4042671	400	19.1	0.004	153	24.2	15.9%	OK	A + B	1677.7	6,214	5	97.1	2.5	99.6	65.2%	OK

Table 4b Comparision of the Hydraulic Capacity of Existing Sewers for Sewerage generated from the Proposed Development and Surrounding Catchment Areas (Planned Condition)

Hydrualic Capacity of Existing Sewers

Segment	Manhole Reference	Manhole Reference	Pipe Dia. (mm)	Pipe Length (m)	Gradient	Ectimated Canacity	the Proposed	Contribution from the Proposed Development only (%)	Statue			Contributing Population	Реакіпд	Peak Flow from the Proposed Development and Catchment Areas (Without Water Feature Backwash) (L/s)	Water Feature Backwash (L/s)	Peak Flow from the Proposed Development and Catchment Areas (With Water Feature Backwash) (L/s)	Development and the Surrounding Catchment Areas (%)	Status
P1-S1	FTMH-01	FMH4042668	225	16.4	0.007	37	24.2	64.8%	OK	-	348.7	1,292	6	24.2	2.5	26.7	71.5%	OK
S1-S2	FMH4042668	FMH4042669	225	53.5	0.012	56	24.2	43.2%	OK	-	348.7	1,292	6	24.2	2.5	26.7	47.7%	OK
S2-S3	FMH4042669	FMH4042670	400	34.3	0.007	202	24.2	12.0%	OK	A	1228.7	4,551	6	85.3	2.5	87.8	43.4%	OK
S2-S3	FMH4042670	FMH4042671	400	19.1	0.004	153	24.2	15.9%	OK	A + B	1651.4	6,116	5	95.6	2.5	98.1	64.2%	OK