Section 16 Planning Application for Proposed Minor Relaxation of the Maximum Domestic GFA of Site B for the Urban Renewal Authority Sai Yee Street/ Flower Market Road Development Scheme ("YTM-013"), Mong Kok, Kowloon

JUN 2026

Reference Number CHK50908510

TRAFFIC IMPACT ASSESSMENT REPORT

SYSTRA MVA

SECTION 16 PLANNING APPLICATION FOR PROPOSED MINOR RELAXATION OF THE MAXIMUM DOMESTIC GFA OF SITE B FOR THE URBAN RENEWAL AUTHORITY SAI YEE STREET/ FLOWER MARKET ROAD DEVELOPMENT SCHEME ("YTM-013"), MONG KOK, KOWLOON

TRAFFIC IMPACT ASSESSMENT REPORT

IDENTIFICATION TABLE	
Client/Project owner	Urban Renewal Authority
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1. INTRODUCTION

1.1 Background

1.1.1 The Urban Renewal Authority ("URA") has commenced the proposed Sai Yee Street / Flower Market Road Development Scheme (YTM-013) (the Scheme) under Section 25 of the Urban Renewal Authority Ordinance ("URAO") on 15 March 2024. On 8 April 2025, the draft Development Scheme Plan ("DSP") was approved by the Chief Executive in Council, and its decision was gazetted on 17 April 2025. The approved DSP No. S/K3/URA5/2 was exhibited for public inspection on the same day.

1.1.2 To optimize the utilization of the Scheme area and in view to the current unoptimistic office market sentiment with a high office vacancy rate and the Government's directive of suspending the sales of commercial sites, the URA proposes to increase the maximum domestic Gross Floor Area (GFA) to allow flexibility for future development to meet the market needs and enhance market attractiveness of the Scheme. A Section 16 planning application (S.16 Application) is proposed to seek for minor relaxation of domestic GFA in Sub-area (1) of Site B (the Whole Site B as the Application Site), zoned as "OU(MU)2" from 46,605 m² (equivalent to a Domestic Plot Ratio ("DPR") of 6.5) to 53,775 m² (equivalent to a DPR of 7.5), while keeping the total maximum GFA of Site B unchanged. The Application Site of the current S.16 Application will only cover Site B of the approved DSP.

1.1.3 This S.16 Application is a non-scheme-based submission. The notional design is prepared based on the proposed minor relaxation of the Approved DSP parameters. Under the non-scheme-based approach, the notional design and indicative development parameters provided are only for illustrative purposes and for conducting necessary technical assessments to demonstrate the impacts of the proposed minor relaxation. Except for any planning condition(s) to be imposed, the design of the future development will not be bounded by the notional design submitted in the S.16 Application.

1.1.4 MVA Hong Kong Limited is commissioned by the URA to conduct a Traffic Impact Assessment (TIA) to support the submission of the S.16 Planning Application to Town Planning Board (TPB) to seek for minor relaxation of maximum domestic GFA of Site B.

1.2 Study Objective

1.2.1 The main objective of this study is to examine the potential traffic impact generated by the proposed development on the adjacent local road and pedestrian network. The key tasks are summarized as follows:

- to assess the existing traffic conditions in the vicinity of the proposed development;
- to forecast traffic demands on the adjacent road and pedestrian network for the design years;
- to estimate the likely traffic generated by the proposed development during operation stage; and
- to assess the impact of the generated traffic on the adjacent road network during operation stage.

1.3 Report Structure

1.3.1 This TIA report is structured into the following chapters:

Chapter 2 – Proposed Development Context - presents the proposed development schedule, the proposed car parking provisions, pick-up/drop-off arrangement and the vehicular and pedestrian access arrangements.

Chapter 3 – Existing Traffic Conditions - describes the existing road network, public transport and pedestrian facilities in the vicinity of the proposed development, presents the traffic survey findings and assesses the existing traffic conditions.

Chapter 4 – Traffic Forecast - summarizes the methodology of traffic forecasts and presents the traffic generations and attractions of the proposed development.

Chapter 5 – Traffic Impact Assessment - presents the findings of the traffic impact assessment for the design year.

Chapter 6 – Summary and Conclusion - presents the findings of the study and conclusion regarding the traffic issue related to the proposed development.

2. PROPOSED DEVELOPMENT CONTEXT

2.1 Overview

2.1.1 The Scheme is located in the north-eastern part of Mong Kok. The location of the Scheme is shown on **Drawing No. 2.1**. The Scheme has a total gross site area of 29,315m^2 and is divided into Site A and Site B.

2.1.2 The Application Site, i.e. Site B of the Scheme, is currently occupied by various leisure, recreation and GIC facilities, including Boundary Street Sports Centre No.1 and No.2, Boundary Street Recreation Ground, Sai Yee Street Children's Playground, Boundary Street Amenity Plot, Boundary Street Sports Centres, Sai Yee Street (Flower Market Road) Refuse Collection Point, Sai Yee Street Public Toilet, Leisure and Cultural Services Department ("LCSD") Boundary Street Plant Nursery and CLP Power Hong Kong Limited Boundary Street Sports Ground Substation. In addition, Site B also includes the whole of Flower Market Path, which is a public footpath. There is no private lot within Site B.

2.1.3 Site A of the Scheme (not forming the Application Site) comprises five land parcels occupied by low-rise residential/ composite buildings aged 60 and above.

2.1.4 According to the approved DSP of the Scheme, Site B, the Application Site, is zoned "Other Specified Uses (Mixed Use) 2" ("OU(MU)2"), and is further divided into Sub-area (1) and Sub area (2). Sub-area (1) of Site B will be for a high-rise development with a maximum domestic gross floor area ("GFA") of 46,605m^2 and a total GFA of 64,530 m^2, as well as a building height restriction ("BHR") of 150mPD adopting a stepped height profile. Sub-area (2) of "OU(MU)2" zone comprises the Waterway Park and ancillary retail/ commercial uses and LCDS's sports/ GIC facilities with a BHR of 30mPD. It has a maximum non-domestic GFA of 8,955 m^2.

2.1.5 Site A (not forming the Application Site) is zoned "Other Specified Uses (Mixed Use) 1" ("OU(MU)1") and it consists of 5 Sub-areas – Sub-areas (1) to (5) (i.e. Sites A1 – A5) . Site A1 will be developed for residential development cum commercial podium, with a BHR of 150mPD. Open space and 1-storey retail shops will be provided at Sites A2 to A5.

2.1.6 Under this minor relaxation application , the maximum domestic GFA of Sub-area (1) in Site B is proposed to increase from 46,605m^2 to approximately 53,775m^2, equivalent to an increase in DPR from 6.5 to 7.5 (see **Table 2-1**). The total GFA for Sub-area (1) remains at 64,530m^2 (PR = 9.0). The development parameters of Sub-area (2) of Site B remain the same as the under the previously endorsed DSP.

Table 2-1 Comparison between the Approved DSP and the Current S.16 Application Proposal (Site B)

DEVELOPMENT PARAMETERS OF SITE B	APPROVED DSP [A]			CURRENT S.16 APPLICATION [B]			DIFFERENCE [B] – [A] (% CHANGE)
Zoning	OU(MU)2			OU(MU)2			N/A
Gross Site Area of the Application Site (m^2)	About 24,870			About 24,870			N/A
	SUB-AREA (1)	SUB-AREA (2)	TOTAL [A]	SUB-AREA (1)	SUB-AREA (2)	TOTAL [B]	
Net Site Area (m^2) (for PR Calculation) (1)	About 7,170	About 17,700	About 24,870	About 7,170	About 17,700	About 24,870	N/A
Maximum GFA - Total GFA (m^2) - Domestic GFA (m^2)	64,530 46,605	8,955 N/A	73,485 46,605	64,530 53,775	8,955 N/A	73,485 53,775	N/A +15.4%
Maximum Building Height (mPD)	150	30	N/A	150	30	N/A	N/A

Note: (1) Subject to site survey.

2.2 Proposed Development Schedule

2.2.1 As shown in **Drawing No. 2.2**, a notional design is prepared based on the development parameters to demonstrate the proposed planning intention and development concepts of the Scheme. Compared with the notional design of the approved DSP, the current notional design for S.16 Application has only revised the design at Sub-area (1) of Site B, while keeping the notional design of other parts in the DSP unchanged. Both Site A and Site B will be taken into account to demonstrate the accumulated traffic impacts of the whole Scheme.

2.2.2 Regarding the Application Site, under current notional design at Sub-area (1) of Site B, a development featuring 3 high-rise developments, including 2 residential towers and 1 mixed-use composite tower with residential/ hotel uses, along with retail/ recreation and GIC facilities at the podium level, is proposed. Ancillary parking and public vehicle park (PVP) are proposed at the basement levels in Site B. An at-grade open space, named as "Waterway Park", is proposed within Sub-area (2) of Site B. Ancillary retail facilities are proposed at ground floor and the Waterway Park to bring retail activities and vibrancy.

2.2.3 Compared to the approved Scheme for approved DSP, the major change is at Sub-area (1) of Site B, where the hotel/ office tower in the approved Scheme is changed to a composite tower of residential/ hotel tower, with the same height (130mPD) in the current S.16 Application.

2.2.4 The notional design of Site A is the same as the approved DSP and will be referenced for the purpose of technical assessments to support the S.16 Application. Site A1 is proposed to be developed into high-rise residential towers with retail podium, at-grade open space and basements for ancillary parking spaces and loading/ unloading bays. Sites A2-A5 are proposed to be developed into 1-storey retail blocks/ open space to create nodal points and continuation of retail frontages for the Flower Market.

2.2.5 To enhance walkability and connectivity of pedestrian circulation, the following potential pedestrian connections proposed in the approved DSP are maintained:

(i) Footbridge to connect between Site B and Tai Hang Tung Recreation Ground;
(ii) Subway to connect between Site A1 and Site B; and
(iii) Potential subway connection from Site A1 across Prince Edward Road West towards the Prince Edward MTR Station and/or the commercial spine along Nathan Road.

All these pedestrian footbridges/ subways shall be subject to technical feasibility, detailed design and agreement with relevant Government departments. Footbridge/ subways that fall outside DSP boundaries shall be under separate public works / revitalization initiatives not forming part of the Scheme.

2.2.6 Referring to the ownership, management and maintenance (M&M) of these connections, for connection (i), it will be designed to land at public pavement and is proposed to be handed over to TD/HyD for ownership, M&M upon completion. For connections (ii) and (iii), their ownership, M&M are subject to detailed design and further liaison with relevant Government departments before land grant execution.

2.2.7 The proposed development in Site A and Site B of the Scheme will be redeveloped in phases and the tentative completion year of the whole project is in 2036.

2.2.8 This assessment is prepared based on the current notional design of the S.16 Application. The following tables illustrate the development parameters and notional layout of the proposed development, which is subject to changes at detailed design stage. The proposed development schedule is summarized in **Tables 2-2** and **2-3**.

Table 2-2 Proposed Development Schedule for Sites A1 – A5

SITE	A1	A2	A3	A4	A5
Gross Site Area	About 3,570 m^2	About 268 m^2	About 123 m^2	About 233 m^2	About 251 m^2
	About 4,445 m^2				
Net Site Area (subject to survey)	About 2,640 m^2	About 239 m^2	About 109 m^2	About 202 m^2	About 198 m^2
	About 3,388 m^2				
Development Parameters under the Approved DSP					
Zoning	OU (MU)1				
Maximum Domestic GFA	28,798 m^2				
Maximum Total GFA	30,492 m^2				
At-grade Open Space	About 800 m^2				
Notional Design					
Domestic GFA (1)	23,716 m^2	-	-	-	-
Non-Domestic GFA (1)	6,576 m^2	-	-	100 m^2	100 m^2
Total GFA	30,492 m^2				
No. of building blocks (2)	2	-	-	1	1
Building Height	150 mPD	-	-	1 storey	1 storey
No. of Flats (2)	474	-	-	-	-
Average Flat Size (2)	50 m^2	-	-	-	-

Notes: (1) Under the proposed "OU(MU)" zoning, flexibility is allowed to interchange GFA of various compatible uses. The proposed mix in the current notional design is indicative only and subject to changes in detailed design stage.
(2) Number of blocks, number of flats and average flat size are indicative only and subject to detailed design.

Table 2-3 Proposed Development Schedule for Site B (the Application Site)

SITE B			
Gross Site Area	About 24,870 m^2		
Development Parameters under the Proposed S.16 Planning Application			
Zoning	OU(MU)2		
	Sub-area (1)	**Sub-area (2)**	**Total**
Net Site Area (subject to survey)	7,170 m^2	17,700 m^2	24,870 m^2
Maximum Domestic GFA	53,775 m^2	-	53,775 m^2
Maximum Total GFA	64,530 m^2	8,955 m^2	73,485 m^2
At-grade Open Space	About 8,800 m^2		
Notional Design			
Domestic GFA (1)	53,775 m^2	-	53,775 m^2
Non-Domestic GFA (1) - Retail (1) - Hotel (1) (5)	10,755 m^2 (5,755 m^2) (5,000 m^2)	8,955 m^2 (8,955 m^2) -	19,710 m^2 (14,710 m^2) (5,000 m^2)
Total GFA	73,485 m^2		
GIC GFA (to be exempted from GFA calculation) (3)	30,000 m^2		
No. of building blocks (2)	2 residential towers and 1 composite tower with residential and hotel uses on top of GIC/recreation/retail podia + 1 retail block		
Building Height	150mPD (Residential Towers) 130mPD (Composite Building) 1 storey (Retail Block)		
No. of Flats (2)	1,080	-	1,080
Average Flat Size (2)	50 m^2	-	50 m^2
Public Vehicle Park (4)	About 220 private car parking spaces + About 10 loading/unloading bays		

Notes: (1) Under the proposed "OU(MU)" zoning, flexibility is allowed to interchange GFA of various compatible uses. The proposed mix in the current notional design is indicative only and subject to changes in detailed design stage.
(2) Number of blocks, number of flats and average flat size are indicative only and subject to detailed design.
(3) The actual GIC GFA is subject to liaison with Government departments. As a conservative approach, about 30,000 m^2 GIC GFA is assumed in this assessment.
(4) Subject to liaison with Transport Department.
(5) For conservative purpose, parking provision and traffic forecast will be taken 100% office scenario for further assessment.

2.3 Internal Transport Facilities

2.3.1 Parking and servicing provision rates are proposed in accordance with the latest requirements as stipulated in the Hong Kong Planning Standards and Guidelines ("HKPSG") from Planning Department, as well as the proposed provision levels in the TIA under the approved DSP, to which TD had no in-principle objection. The provision of the parking and servicing facilities for Site A1 and Site B are summarized in the **Tables 2-4** to **2-7** respectively.

Table 2-4 Proposed Parking and Service Provision for Site A1 (Domestic)

INTERNAL TRANSPORT FACILITY	HKPSG REQUIREMENT	PROPOSED PROVISION
Private Car Parking	For average flat size 50 sqm: 1.2 spaces per 4 – 7 flats with adjustment factors (1) No. of flats = 474 Low-end: 474 / 7 x 1.2 x 0.75 x 0.9 = 55 nos. High-end: 474 / 4 x 1.2 x 0.75 x 0.9 = 96 nos. **Required range of provision = 55 – 96 nos.**	65
Visitors' Private Car Parking	5 visitor spaces per block with more than 75 unit No. of blocks with more than 75 units = 2 **Required spaces = 5 x 2 = 10 nos.**	10
Accessible Car Parking	2 spaces for 51 – 150 total car parking spaces Proposed total residential private car parking spaces = 65 + 10 = 75 nos. **Required spaces = 2 nos. (include in 75 nos.)**	2
Motorcycle Parking	1 space per 100 - 150 flats No. of flats = 474 Low-end: 474 / 150 x 1 = 4 nos. High-end: 474 / 100 x 1 = 5 nos. **Required range of provision = 4 – 5 nos.**	5
Loading and Unloading Bay	1 loading / unloading bay for goods vehicles within the site for every 800 flats or part thereof, subject to a minimum of 1 bay for each housing block No. of blocks = 2 **Required loading / unloading bays = 2 x 1 = 2 nos.**	2

Note: (1) Demand Adjustment Ratio (R1 = 1.2 for flat size of 40-70sqm), Accessibility Adjustment Ratio (R2 = 0.75 for rail accessibility < 500m) and Development Intensity Adjustment Ratio (R3 = 0.9 for Domestic PR >5.0 and ≤8.0) have been incorporated according to the latest HKPSG requirements.

Table 2-5 Proposed Parking and Service Provision for Site A1 (Non-Domestic)

INTERNAL TRANSPORT FACILITY	HKPSG REQUIREMENT	PROPOSED PROVISION
Private Car Parking (Retail)	Retail Development: 1 space per 150 – 300m^2 GFA GFA = 6,576 m^2 Low-end: 6,576 / 300 x 1 = 22 nos. High-end: 6,576 / 150 x 1 = 44 nos. **Required range of provision = 22 – 44 nos.**	33
Accessible Car Parking (Retail)	1 space for 1 – 50 total car parking spaces Proposed private car parking spaces (retail) = 33 nos. **Required space = 1 no. (include in 33 nos.)**	1
Motorcycle Parking (Retail)	Non-residential development: 5 to 10% of the total provision for private cars Proposed private car parking spaces (retail) = 33 nos. Low-end: 33 x 5 % = 2 nos. High-end: 33 x 10 % = 4 nos. **Required range of provision = 2 – 4 nos.**	4
Loading / Unloading Bay (Retail)	1 loading/ unloading bay for goods vehicles for every 800 to 1,200m^2, or part thereof, GFA. GFA = 6,576 m^2 Required spaces: Low-end: 6,576 / 1200 x 1 = 5.5 High-end: 6,576 / 800 x 1 = 8.2 **Required range of provision = 6 – 9 nos.**	6

Table 2-6 Proposed Parking and Service Provision for Site B (Domestic)

INTERNAL TRANSPORT FACILITY	HKPSG REQUIREMENT	PROPOSED PROVISION
Private Car Parking	For average flat size 50 sqm: 1.2 spaces per 4 – 7 flats with adjustment factors [(1)] No. of flats = 1,080 Low-end: 1,080 / 7 x 1.2 x 0.75 x 0.9 = 125 nos. High-end: 1,080 / 4 x 1.2 x 0.75 x 0.9 = 219 nos. **Required range of provision = 125 – 219 nos.**	219
Visitors' Private Car Parking	5 visitor spaces per block with more than 75 units No. of blocks with more than 75 units = 3 **Required spaces = 5 x 3 = 15 nos.**	15
Accessible Car Parking	3 spaces for 151 – 250 total car parking spaces Proposed total residential private car parking spaces = 219 + 15 = 234 nos. **Required spaces = 3 nos. (include in 234 nos.)**	3
Motorcycle Parking	1 space per 100 - 150 flats No. of flats = 1,080 Low-end: 1,080 / 150 x 1 = 8 nos. High-end: 1,080 / 100 x 1 = 11 nos. **Required range of provision = 8 – 11 nos.**	11
Loading and Unloading Bay	1 loading / unloading bay for goods vehicles within the site for every 800 flats or part thereof, subject to a minimum of 1 bay for each housing block No. of blocks = 3 **Required loading / unloading bays = 3 x 1 = 3 nos.**	3

Note: (1) Demand Adjustment Ratio (R1 = 1.2 for flat size of 40-70sqm), Accessibility Adjustment Ratio (R2 = 0.75 for rail accessibility < 500m) and Development Intensity Adjustment Ratio (R3 = 0.9 for Domestic PR >5.0 and ≤8.0) have been incorporated according to the latest HKPSG requirements.

Table 2-7 Proposed Parking and Service Provision for Site B (Non-Domestic)

INTERNAL TRANSPORT FACILITY	HKPSG REQUIREMENT	PROPOSED PROVISION
Private Car Parking (Retail)	Retail Development: 1 space per 150 – 300m^2 GFA GFA = 14,710 m^2 Low-end: 14,710 / 300 x 1 = 50 nos. High-end: 14,710 / 150 x 1 = 99 nos. **Required range of provision = 50 – 99 nos.**	99
Accessible Car Parking (Retail)	2 spaces for 51 – 150 total car parking spaces Proposed private car parking spaces (retail) = 99 nos. **Required spaces = 2 nos. (include in 99 nos.)**	2
Motorcycle Parking (Retail)	Non-residential development: 5 to 10% of the total provision for private cars Proposed private car parking spaces (retail) = 99 nos. Low-end: 99 x 5 % = 5 nos. High-end: 99 x 10 % = 10 nos. **Required range of provision = 5 – 10 nos.**	10
Loading / Unloading Bay (Retail)	1 loading/ unloading bay for goods vehicles for every 800 to 1,200m^2, or part thereof, GFA. GFA = 14,710m^2 Low-end: 14,710 / 1,200 = 13 nos High-end: 14,710 / 800 = 19 nos **Required range of provision = 13 – 19 nos.**	19
Private Car Parking (Office)	Office Development: For the first 15,000m^2 GFA: 1 car space per 150 – 200m^2 GFA. Above 15,000m^2 GFA: 1 car space per 200 – 300m^2 GFA. GFA = 5,000m^2 For first 15,000m^2, Low-end: 5,000 / 200 = 25 nos. High-end: 5,000 / 150 = 34 nos. **Required range of provision = 25 – 34 nos.**	34
Accessible Car Parking (Office)	1 space for 1 – 50 total car parking spaces Proposed private car parking spaces (retail) = 34 nos. **Required spaces = 1 no. (include in 34 nos.)**	2

INTERNAL TRANSPORT FACILITY	HKPSG REQUIREMENT	PROPOSED PROVISION
Motorcycle Parking (Office)	Non-residential development: 5 to 10% of the total provision for private cars Proposed private car parking spaces (office) = 34 nos. Low-end: 34 x 5% = 2 nos. High-end: 34 x 10% = 4 nos. **Required range of provision = 2 – 4 nos.**	4
Loading / Unloading Bay (Office)	1 loading/unloading bay for goods vehicles for every 2,000 to 3,000m² or part thereof, GFA. GFA = 5,000m² Low-end: 5,000 / 3,000 = 2 nos. High-end: 5,000 / 2,000 = 3 nos. **Required range of provision = 2 – 3 nos.**	3

2.3.2 Similar to the approved DSP, a high-end parking ratio is adopted for all categories of parking requirements at Site B for the proposed development. The carparking provision standard of office is adopted for the proposed hotel for conservative purpose. In addition, a Public Vehicle Park (PVP) will be provided at Site B for public use. Given the early planning stage of the Scheme, the detailed layout of the PVP in Site B is subject to detailed design and the exact number of the car parking spaces can only be ascertained at design stage. However, it is preliminarily estimated that about 220 car parking spaces and about 10 loading/ unloading bays (subject to detailed design) could be provided in the PVP. The provision of PVP is considered beneficiary from traffic point view as there is only one carpark in the surrounding area of the proposed development which could provide such a large number of car parking spaces, where is at the Grand Century Plaza.

2.3.3 The actual provision of parking spaces, including the possibility to provide motorcycle spaces in the PVP will be explored at the detailed design stage. Nevertheless, under the current notional design, motorcycle spaces are provided for retail portion of the proposed development at Site B, which can be used by the public while visiting the development.

2.3.4 The car parking spaces provision for Site A1 could only be provided in a mid-range parking requirement, taken into account of the following considerations:

- a major portion of Site A1 covers the existing decked nullah and its reserve area, space allowed for excavation for basement carpark is highly restrained;
- Site A1 is proximate and easily accessible to public transport services, including both MTR station (Prince Edward Station) and major bus stops at Prince Edward Road West, Tung Choi Street and Nathan Road near Site A1 with lot of bus routes and GMB routes as shown in **Table 3-1**; and
- a Public Vehicle Park (PVP) is proposed at Site B of the Scheme to address the parking demand.

2.3.5 The summary of parking facilities provision of the Proposed Development is shown in **Table 2-8**.

Table 2-8 Summary of Proposed Parking Facilities of the Proposed Development

FACILITY	SITE A1 (NOS.)	SITE B (NOS.)	SITES A2 – A5 (NOS.) (4)	TOTAL
Residential Private Car Parking	65 (1)	219 (2)	-	284
Visitors' Private Car Parking	10 (1)	15 (1)	-	25
Non-domestic Private Car Parking – Retail	33 (1)	99 (2)	-	132
Non-domestic Private Car Parking – Office	-	34 (1)	-	34
Private Car Parking – GIC Uses (3)	-	35 (1)	-	35
Total Car Parking Spaces	**108**	**402**	**-**	**510**
Residential Motorcycle Parking	5	11	-	16
Non-domestic Motorcycle Parking – Retail	4	10	-	14
Non-domestic Motorcycle Parking – Office	-	4	-	4
Total Motorcycle Parking Spaces	**9**	**25**	**-**	**34**
Residential Loading and Unloading space	2	3	-	5
Non-domestic Loading and Unloading bay – Retail	6	19	-	25
Non-domestic Loading and Unloading bay – Office	-	3	-	3
Total Loading and Unloading Spaces	**8**	**25**	**-**	**33**
Public Vehicle Park (PVP)				
Private Car Parking	-	About 220	-	About 220
Loading / Unloading Bay	-	About 10	-	About 10

Notes: (1) Including 1 no. of accessible parking spaces for disabled person.
(2) Including 2 nos. of accessible parking spaces for disabled person.
(3) Since the use for the GIC in Site B are still not confirmed at this stage of the project and so it will assume 35 car parking spaces will be provided for conservative purpose.
(4) As the GFA of Sites A2 to A5 are very minor (around 100 sqm), and thus no car parking spaces will be provided for all Sites A2 to A5.

2.4 Vehicular Access Arrangement

2.4.1 The proposed runs-in/out in Site A1 and Site B are the same as the TIA under the approved DSP. One run-in/out of Site A1 would be in all movement arrangement, which all vehicles could access to/from Fa Yuen Street as shown in **Drawing No 2.2**. The future major vehicular ingress/egress routings accessing Site A1 are shown in **Drawing No. 2.3**.

2.4.2 As shown in **Drawing No. 2.3**, vehicles from Kowloon East / New Territories East / Hong Kong will travel via Prince Edward Road West and Sai Yee Street to enter the development at Site A1. Vehicles from Kowloon West / New Territories West sides will travel via Cheung Sha Wan Road and Boundary Street to enter the development. Vehicles from Kowloon Central will travel via Sai Yee Street to enter the development. Vehicles from Shek Kip Mei will travel via Tai Hang Tung Road, Boundary Street, Knight Street, Prince Edward Road West and Sai Yee Street to enter the development. Vehicles leaving the development

toward Hong Kong / Kowloon Central sides will mainly travel via Prince Edward Road West and Nathan Road. Vehicles leaving the development toward Kowloon West / New Territories West sides will mainly travel via Prince Edward Road West and Portland Street. Vehicles leaving the development toward Kowloon East / New Territories East sides will mainly travel via Tung Choi Street and Boundary Street.

2.4.3 Two run-in/outs will be provided for Site B. One will be located at Boundary Street near Sai Yee Street which would be in all movement arrangement, all vehicles could access to/from Boundary Street. The other access will be located at the junction of Boundary Street / Tai Hang Tung Road which would be in ingress movement only for vehicles from Boundary Street as shown in **Drawing No 2.2**. The two run in/outs will be used by both ancillary car park for the development of Site B and the PVP. Proper management measures/ arrangement will be adopted in the future for different operational needs of the ancillary car park and the PVP. To ensure that no over-spill of queuing vehicles onto the public roads, subject to detailed design, the ticketing gate will be located at a deeper level to utilise the internal ramp as queueing spaces. With the proposed PVP, the two run-in/outs approach of Site B will help relieve the potential traffic bottleneck (J/O Prince Edward Road West / Sai Yee Street) caused by the converging trips reaching the vicinity of the Scheme area. The future major vehicular ingress/egress routings accessing Site B are shown in **Drawing No. 2.4**.

2.4.4 As shown in **Drawing No. 2.4**, for vehicles from Kowloon Central access to the development at the run-in/out at Boundary Street near Sai Yee Street, it will travel via Sai Yee Street. Vehicles from Kowloon West / New Territories West will travel via Cheung Sha Wan Road and Boundary Street to enter the development. For vehicles from Hong Kong / New Territories East / Kowloon East / Shek Kip Mei, it could be diverted from Sai Yee Street to the run-in at the junction of Boundary Street / Tai Hang Tung Road, it will travel via Prince Edward Road West and Embankment Road.

2.4.5 Vehicles leaving the development toward Kowloon East / Hong Kong / New Territories East sides will mainly travel via Boundary Street. Vehicles leaving the development toward Kowloon West / New Territories West sides will mainly travel via Boundary Street, Knight Street, Prince Edward Road West (including the flyover) and Lai Chi Kok Road. Vehicles leaving the development toward Kowloon Central will mainly travel via Boundary Street, Knight Street, Prince Edward Road West and Sai Yee Street. Vehicles leaving the development toward Shek Kip Mei will mainly travel will travel via Boundary Street eastbound, Knight Street and Embankment Road, Boundary Street westbound and Tai Hang Tung Road.

3. EXISTING TRAFFIC CONDITIONS

3.1 Existing Road Network

3.1.1 The existing road network in the vicinity of the proposed development at Mong Kok is shown in the location plan in **Drawing No. 2.1**.

3.1.2 The proposed development (Site A1 to A5 and Site B) is bounded by Boundary Street to the north, Fa Yuen Street to the east, Prince Edward Road West to the south and Yuen Po Street to the west.

3.1.3 Boundary Street and Prince Edward Road West act as the key primary distributors for the traffic access to/from the development.

3.1.4 The local streets surrounding the proposed developments such as Fa Yuen Street, Playing Field Road, Sai Yee Street and Flower Market Road are either provided with metered parking spaces, or are characterised by intensive kerbside activities, and are mainly in one-way directional traffic movement.

3.2 Public Transport Services

3.2.1 There is a well-established public transport system including railway, franchised buses, green mini-buses and taxis in the area surrounding the proposed developments. The details of the public transport services are summarized in **Table 3-1** and the location of public transport facilities are shown in **Drawing No. 3.1**.

3.2.2 There are currently 2 MTR stations (Prince Edward Station and Mong Kok East Station) located within 500m walking distance from the subject sites, and around 120 nos. of bus routes and 20 nos. of GMB routes serving the vicinity of subject sites.

Table 3-1 Public Transport Services in the vicinity of the Proposed Development

Franchised Bus

ROUTE NO.	ROUTING			FREQUENCY (MINUTES)
1	Chuk Yuen Estate	<->	Star Ferry	8-25
1A	Sau Mau Ping (Central)	<->	Star Ferry	7-20
2	Cheung Sha Wan (So Uk Estate)	<->	Star Ferry	15-20
2A	Mei Foo	<->	Lok Wah	10-25
2D	Wong Tai Sin	<->	Chak On Estate	20-30
2X	Choi Fook	<->	Mei Foo	20-30
3C	Tsz Wan Shan (North)	<->	China Ferry Terminal	12-30
3X(2)	Tsz Wan Shan (North)	->	China Ferry Terminal	15-35
	Jordan (West Kowloon Station)	->	Tsz Wan Shan (North)	30
6	Lai Chi Kok	<->	Star Ferry	8-25
6C	Kowloon City Ferry	<->	Mei Foo	10-25

ROUTE NO.	ROUTING			FREQUENCY (MINUTES)
6D	Ngau Tau Kok	<->	Mei Foo	12-30
6E(2)	Lei Yue Mun Estate	->	Cheung Sha Wan (So Uk Estate)	07:40 (1 departure)
	Cheung Sha Wan (So Uk Estate)	->	Lei Yue Mun Estate	18:05 (1 departure)
6F	Kowloon City Ferry	<->	Cheung Sha Wan (Lai Kok Estate)	25-35
6P(2)	Lei Yue Mun Estate	<->	Cheung Sha Wan (So Uk Estate)	20
12A	Cheung Sha Wan (Hoi Tat Estate)	<->	Whampoa Garden	10-30
13P(2)	Po Tat	->	Cheung Sha Wan (Lai Kok Estate)	07:40 (1 departure)
20A	Kai Tak Cruise Terminal	<->	West Kowloon Station	20-40
24	Kai Yip	<->	Mong Kok (Circular)	25-35
27	Shun Tin	<->	Mong Kok (Circular)	6-20
30X	Tsuen Wan (Allway Gardens)	<->	Whampoa Garden	13-30
32	Olympic Station	<->	Tsuen Wan (Shek Wai Kok)	20-30
33A	Tsuen Wan (Nina Tower)	<->	Mong Kok (Park Avenue)	17-30
35A	Kwai Chung (On Yam Estate)	<->	Tsim Sha Tsui East	5-20
35X(1)	Kwai Chung (On Yam Estate)	<->	Tsim Sha Tsui East	20-30
36B	Lei Muk Shue	<->	Jordan (West Kowloon Station)	12-25
36X(2)	Lei Muk Shue	<->	Tsim Sha Tsui East (Mody Road)	20-30
37	Olympic Station	<->	Kwai Shing (Central)	10-20
41A	Tsing Yi (Cheung On Estate)	<->	Tsim Sha Tsui East	10-25
42	Tsing Yi (Cheung Hong Estate)	<->	Shun Lee	15-25
42A	Tsing Yi (Cheung Hang Estate)	<->	Jordan (West Kowloon Station)	4-20
43C(1)	Tsing Yi (Cheung Hong Estate)	<->	Island Harbourview	15-33
44	Mong Kok East Station	<->	Tsing Yi Estate	9-25
45	Kowloon City Ferry	<->	Kwai Chung (Lai Yiu Estate)	20-40
50	Tuen Mun (Ching Tin Estate)	<->	Kowloon Station	20-30
52X	Tuen Mun Central	<->	Mong Kok (Park Avenue)	6-25
52P	So Kwun Wat	->	Mong Kok (Park Avenue)	08:00 (1 departure)
58X	Tuen Mun (Leung King Estate)	<->	Mong Kok East Station	5-25
59X	Tuen Mun Pier Head	<->	Mong Kok East Station	3-21
60X	Tuen Mun Central	<->	Jordan (West Kowloon Station)	6-21
63X	Hung Shui Kiu (Hung Fuk Estate)	<->	Jordan (West Kowloon Station)	12-30
66X	Tuen Mun (Tai Hing Estate)	<->	Olympic Station	10-30
67X	Tuen Mun (Siu Hong Court)	<->	Mong Kok East Station	7-25
68X	Hung Shui Kiu (Hung Fuk Estate)	<->	Mong Kok (Park Avenue)	9-25
69X	Tin Shui	<->	Jordan (West Kowloon Station)	12-30

ROUTE NO.	ROUTING			FREQUENCY (MINUTES)
79X	Cheung Sha Wan (Kom Tsun Street)	<->	Queen's Hill	20-45
81	Wo Che	<->	Jordan (West Kowloon Station)	11-30
87B	Sun Tin Wai	<->	Island Harbourview	15-30
87C	Kam Ying Court	<->	Hung Hom Station	12-20
87D	Kam Ying Court	<->	Hung Hom Station	6-25
87E(2)	Nai Chung	<->	Tsim Sha Tsui	07:40 (1 departure)
	Tsim Sha Tsui East (Mody Road)	->	Nai Chung	18:00 (1 departure)
93K	Po Lam	<->	Mong Kok East Station	17-30
95	Tsui Lam	<->	Kowloon Station	12-30
98C	Hang Hau (North)	<->	Mei Foo	10-30
98E(2)	Hang Hau (North)	<->	Mei Foo	20
98S(2)	Hang Hau (North)	<->	Mei Foo	20
102	Mei Foo	<->	Shau Kei Wan	5-20
102P(2)	Mei Foo	<->	Shau Kei Wan	13-15
102R(4)	Happy Valley Race Course	->	Mei Foo	-
104	Sham Shui Po (Pak Tin Estate)	<->	Kennedy Town	10-30
112	North Point (Pak Fuk Road)	<->	Cheung Sha Wan (So Uk Estate)	5-30
113	Choi Hung	<->	Kennedy Town (Belcher Bay)	15-30
117	Sham Shui Po (Yen Chow St)	<->	Happy Valley (Lower)	12-30
118	Siu Sai Wan (Island Resort)	<->	Cheung Sha Wan (Sham Mong Road)	4-17
118P(1)	Siu Sai Wan (Island Resort)	<->	Cheung Sha Wan (Sham Mong Road)	7-20
171	Lai Chi Kok	<->	South Horizons	12-30
171A(1)	Lei Tung Estate	->	Lai Chi Kok	15-30
171P(1)	South Horizons	->	Lai Chi Kok	25
203C	Tsim Sha Tsui East (Mody Road)	<->	Sham Shui Po (Tai Hang Tung)	20-30
203S(1)	Chak On Estate	->	Tsim Sha Tsui East (Mody Road)	07:45 (1 departure)
213D	Sau Mau Ping (Central)	<->	Mong Kok (Circular)	10-30
230X(1)	Tsuen Wan (Allway Gardens)	->	Whampoa Garden	15-30
234P(2)	Tsuen Wan (Bayview Garden)	->	Star Ferry	08:10 (1 departure)
234X	Tsim Sha Tsui East (Mody Road)	<->	Tsuen Wan (Bayview Garden)	15-25
238P(1)	Tsuen Wan (Riviera Gardens)	->	China Ferry Terminal	12-34
238X	Tsuen Wan (Riviera Gardens)	<->	China Ferry Terminal	12-25
242X(2)	Tsing Yi (Cheung Hang Estate)	<->	Tsim Sha Tsui	15-20
252B(1)	Handsome Court	->	Tsim Sha Tsui	15-20

ROUTE NO.	ROUTING			FREQUENCY (MINUTES)
259B(2)	Tuen Mun Pier Head	->	Tsim Sha Tsui	10-15
259C(2)	Sun Tuen Mun Centre	->	Tsim Sha Tsui	35
260B(2)	Tuen Mun Central	->	Tsim Sha Tsui	11-12
261B(1)	Tuen Mun (Sam Shing Estate)/ So Kwun Wat	->	Kowloon Station	15
265B	Tin Heng Estate	<->	Mong Kok (Park Avenue)	6-25
268X	Hung Shui Kiu (Hung Fuk Estate)	<->	Jordan (West Kowloon Station)	6-35
269X(2)	Tin Shui	<->	Jordan (West Kowloon Station)	15
270B	Sheung Shui	<->	Olympic Station	12-35
272E(2)	Tai Po (Tai Wo)	<->	Mong Kok (Park Avenue)	10-30
272X	Tai Po Central	<->	Mong Kok East Station	25-35
281A	Kwong Yuen	<->	Kowloon Station	10-30
293S(3)	Mei Foo	<->	Hang Hau (Ngan O Road)	20-40
296C	Sheung Tak	<->	Cheung Sha Wan (Hoi Ying Estate)	15-30
296P(2)	Sheung Tak	->	Lai Chi Kok Station	07:45 (1 departure)
	Lai Chi Kok Station	->	Sheung Tak	17:45 (1 departure)
298X(1)	Hang Hau (North)	<->	Mei Foo	20-30
793	Tseung Kwan O Industrial Estate	<->	So Uk	15-20
795(2)	Tseung Kwan O Industrial Estate	<->	Cheung Sha Wan (Hoi Tat)	15-20
795X	Oscar By The Sea	<->	So Uk	15-30
904	Kennedy Town (Belcher Bay)	<->	Lai Chi Kok	18-30
905	Exhibition Centre Station	<->	Lai Chi Kok	6-30
970	So Uk Estate	<->	Cyberport	5-20
970X	Aberdeen	<->	Cheung Sha Wan (Kom Tsun Street)	9-25
A20	Airport	<->	Hung Hom Station	60-120
A21	Airport	<->	Hung Hom Station	8-30
E21	SKYCITY Transport Terminal	<->	Island Harbourview	12-30
E21A	Ho Man Tin (Oi Man Estate)	<->	Tung Chung (Yat Tung Estate)	20-30
E21B	Ho Man Tin (Oi Man Estate)	<->	Tung Chung (Yat Tung Estate)	20-30
E21C(2)	Island Harbourview	->	Aircraft Maintenance Area	06:30 (1 departure)
	Aircraft Maintenance Area	->	Island Harbourview	18:05 (1 departure)
E21D	SKYCITY Transport Terminal	<->	Island Harbourview	15-30
N21(3)	Airport (Ground Transportation Centre)	<->	Tsim Sha Tsui (Star Ferry)	20-30
N21A(3)	Tsim Sha Tsui (Star Ferry)	->	Airport (Ground Transportation Centre)	60

ROUTE NO.	ROUTING			FREQUENCY (MINUTES)
	Airport (Ground Transportation Centre)	->	Tsim Sha Tsui (Star Ferry)	05:00 (1 departure)
N50(3)	Tuen Mun (Ching Tin Estate)	<->	Kowloon Station	30
N118(3)	Cheung Sha Wan (Sham Mong Road)	<->	Siu Sai Wan (Island Resort)	20-30
N122(3)	Mei Foo	<->	Shau Kei Wan	17-35
N171(3)	Lai Chi Kok	<->	Ap Lei Chau Estate	30
N216(3)	Yau Tong	<->	Hung Hom Station	25-30
N241(3)	Hung Hom Station	<->	Tsing Yi (Cheung Wang Estate)	25-30
N293(3)	Sheung Tak	<->	Mong Kok (Park Avenue)	25-30
NA20(3)	HZMB Hong Kong Port	->	Whampoa Garden	00:25 (1 departure)
	Whampoa Garden	->	HZMB Hong Kong Port	04:30 (1 departure)
X6C(2)	Mei Foo	<->	Hong Kong Children's Hospital	20-30
X970(2)	South Horizons	->	Cheung Sha Wan (Kom Tsun Street)	07:50 (1 departure)

Notes: (1) Service on Monday to Saturday Peak Hour only, except Public Holidays
(2) Service on Monday to Friday Peak Hour only, except Public Holidays
(3) Overnight service
(4) Happy Valley Race Day Service

Green Mini Bus

ROUTE NO.	ROUTING			FREQUENCY (MINUTES)
2	Whampoa Garden	<->	Festival Walk	10-25
2A	Whampoa Garden	<->	Festival Walk	10-25
12	Pak Tin Estate	<->	Mong Kok East Station	60
12A	Cosmopolitan Estate	<->	Mong Kok East Station	7-9
12B	Metro Harbour View	<->	Mong Kok East Station	6-8
12S	Tai Kok Tsui (Cherry Street)	<->	Mong Kok East Station	10-15
17M	Prince Edward Station	<->	Kowloon Hospital	7-15
27M	Lok Man Sun Chuen	<->	Mong Kok Station	7-15
27MS	Ho Man Tin Estate	<->	Mong Kok Station	15-35
30A	Chak On Estate	<->	Mong Kok Station	35-50
41M	Festival Walk	<->	Shek Kip Mei	8-10
46	Richland Gardens	<->	Island Harbourview	3-15
65S(1)	Sha Tin (Wong Nai Tau)	<->	Mong Kok (Bute Street)	20-25
69A	Laguna City	<->	Prince Edward Station	15-20
70	Diamond Hill Station	<->	Island Harbourview	4-15
70A	Diamond Hill Station	<->	Olympic Station	30-60

ROUTE NO.	ROUTING			FREQUENCY (MINUTES)
74	Kowloon Station	<->	Mong Kok (Pioneer Centre)	10-20
79K	Park Avenue	<->	Mong Kok East Station	5-10
606S(1)	Yuen Long (Fung Cheung Road)	<->	Tsim Sha Tsui East	6-13
616S(1)	Mong Kok (Sai Yeung Choi Street S)	<->	Lok Ma Chau Control Point	5-15

Note: (1) Overnight service

3.3 Traffic Survey

3.3.1 In order to investigate the traffic impact to the surrounding road network of the proposed developments, 8 key junctions near the development site are identified for traffic survey and assessment and as shown in **Table 3-2** and their locations are shown in **Drawing No. 3.2**. The existing junction layout of the surveyed junctions are shown in **Drawing Nos. 3.3** to **3.10**.

Table 3-2 Identified Key Junctions for Traffic Survey and Assessment

REFERENCE	JUNCTION	TYPE	DRAWING NO.
J1	Boundary Street / Nathan Road / Cheung Sha Wan Road	Signal	3.3
J2	Bute Street / Sai Yee Street	Signal	3.4
J3	Boundary Street / Tai Hang Tung Road	Signal	3.5
J4	Boundary Street / Embankment Road	Signal	3.6
J5	Nathan Road / Prince Edward Road West	Signal	3.7
J6	Prince Edward Road West / Sai Yee Street	Signal	3.8
J7	Prince Edward Road West / Embankment Road	Signal	3.9
J8	Lai Chi Kok Road / Nathan Road	Signal	3.10

3.3.2 The classified traffic survey had been conducted at 8 identified key junctions in a normal weekday and weekend in February 2026. According to Annual Traffic Census (ATC) 2024, the traffic flow in vicinity of the proposed development in Saturday is generally higher than Sunday. Therefore, the survey is carried out in one normal Saturday and identified as weekend peak. Weekday's AM, PM peak hour and weekend peak are identified from 07:45 to 08:45, 17:45 to 18:45 and 17:15 and 18:15 respectively. The existing traffic flows for weekday and weekend are shown in **Drawing No. 3.11**.

3.3.3 In order to investigate the traffic impact to the surrounding pedestrian network in the vicinity of the proposed developments, 19 sections of pedestrian walkways including footpaths and crossings surrounding the development sites are also identified for traffic survey in a normal weekday, Saturday and Sunday in March 2026 as shown in **Table 3-3** and their locations are shown in **Drawing No. 3.12**. Weekday's AM, PM peak 15-minutes period are identified from 07:50 to 08:05 and 18:00 to 18:15 respectively. Saturday and Sunday peak 15-minutes period are identified from 16:10 to 16:25 and 15:00 to 15:15 respectively.

Table 3-3 Identified Pedestrian Walkways for Traffic Survey and Assessment

SECTION	LOCATION	TYPE
P1	Boundary Street (between Sai Yee Street and Tai Hang Tung Road – near Sai Yee Street)	Footpath
P2	Across Boundary Street (near Tai Hang Tung Road)	Signalised Crossing
P3	Prince Edward Road West (between Fa Yuen Street and Sai Yee Street)	Footpath
P4	Across Prince Edward Road West (near Fa Yuen Street)	Signalised Crossing
P5	Across Flower Market Road (near Sai Yee Street)	Cautionary Crossing
P6	Flower Market Road (between Yuen Ngai Street and Yuen Po Street – near Yuen Po Street)	Footpath
P7	Fa Yuen Street (between Prince Edward Road West and Playing Field Road)	Footpath
P8	Across Fa Yuen Street (near Prince Edward Road West)	Signalised Crossing
P9	Sai Yee Street (between Playing Field Road and Boundary Street)	Footpath
P10	Sai Yee Street (near Playing Field Road)	Footpath
P11	Across Sai Yee Street (near Playing Field Road)	Cautionary Crossing
P12	Sai Yee Street (between Flower Market Road and Playing Field Road)	Footpath
P13	Across Sai Yee Street (near Flower Market Road)	Cautionary Crossing
P14	Sai Yee Street (between Prince Edward Road West and Flower Market Road)	Footpath
P15	Sai Yee Street (between Prince Edward Road West and Flower Market Road)	Footpath
P16	Across Sai Yee Street (near Prince Edward Road West)	Signalised Crossing
P17	Yuen Ngai Street (between Prince Edward Road West and Flower Market Road)	Footpath
P18	Yuen Ngai Street (between Prince Edward Road West and Flower Market Road)	Footpath
P19	Flower Market Path (near Flower Market Road)	Footpath

3.4 Existing Junction Capacity Assessment

3.4.1 **Table 3-4** and **Table 3-5** show the existing junction capacity assessment results of the identified key junctions during weekday and weekend. The junction calculations are attached in the **Appendix A1** and **A2** respectively.

Table 3-4 Junction Capacity Assessment – Weekday, Existing (2026)

JUNCTION	LOCATION	R.C. (1)	
		AM PEAK	PM PEAK
J1	Boundary Street / Nathan Road / Cheung Sha Wan Road	71%	46%
J2	Bute Street / Sai Yee Street	>100%	>100%
J3	Boundary Street / Tai Hang Tung Road	58%	47%
J4	Boundary Street / Embankment Road	>100%	>100%
J5	Nathan Road / Prince Edward Road West	39%	30%
J6	Prince Edward Road West / Sai Yee Street	>100%	44%
J7	Prince Edward Road West / Embankment Road	57%	49%
J8	Lai Chi Kok Road / Nathan Road	23%	55%

Note: (1) Reserve Capacity (R.C.) indicated in %, provides an indication of signal junction performance. R.C. <0% suggests that it is overloaded.

Table 3-5 Junction Capacity Assessment – Weekend, Existing (2026)

JUNCTION	LOCATION	R.C. (1)
		PM PEAK
J1	Boundary Street / Nathan Road / Cheung Sha Wan Road	67%
J2	Bute Street / Sai Yee Street	>100%
J3	Boundary Street / Tai Hang Tung Road	71%
J4	Boundary Street / Embankment Road	>100%
J5	Nathan Road / Prince Edward Road West	30%
J6	Prince Edward Road West / Sai Yee Street	56%
J7	Prince Edward Road West / Embankment Road	74%
J8	Lai Chi Kok Road / Nathan Road	42%

Note: (1) Reserve Capacity (R.C.) indicated in %, provides an indication of signal junction performance. R.C. <0% suggests that it is overloaded.

3.4.2 Results of the junction capacity assessment indicate that all assessed junctions are currently operating with adequate capacity during both weekday and weekend.

3.5 Existing Pedestrian Assessment

3.5.1 **Table 3-6** and **Table 3-7** present the existing Level-of-Service (LOS) and V/C ratio assessment results of the identified pedestrian walkways. Locations of surveyed pedestrian walkways are shown in **Drawing No. 3.12**.

Table 3-6 Pedestrian Walkway Assessment – Weekday (Existing)

SECTION	EFFECTIVE WIDTH (M)	TWO-WAY PEDESTRIAN FLOW (PED/15-MIN)		TWO-WAY PEDESTRIAN RATE (PED/M/MIN)		LOS (1)	
		AM PEAK	PM PEAK	AM PEAK	PM PEAK	AM PEAK	PM PEAK
P1	1.5	58	39	2.6	1.7	A	A
P3	2.0	237	538	7.9	17.9	A	B
P5	3.0	278	165	6.2	3.7	A	A
P6	1.4	22	97	1.0	4.6	A	A
P7	1.5	130	169	5.8	7.5	A	A
P9	1.5	58	39	2.6	1.7	A	A
P10	1.8	10	9	0.4	0.3	A	A
P11	3.0	53	82	1.2	1.8	A	A
P12	1.9	10	14	0.4	0.5	A	A
P13	3.0	60	96	1.3	2.1	A	A
P14	1.0	63	163	4.2	10.9	A	A
P15	2.0	178	200	5.9	6.7	A	A
P17	1.2	48	85	2.7	4.7	A	A
P18	1.0	30	66	2.0	4.4	A	A
P19	1.8	105	62	3.9	2.3	A	A

Note: (1) Level of Service ("LOS") is the assessment criteria for walkways and sidewalks according to Chapter 18 Pedestrian Exhibit 18-3 in Highway Capacity Manual 2000 published from Transportation Research Board of U.S. National Research Council. The LOS thresholds are summarized in Appendix B for reference.

CROSSING	LOCATION	CROSSING WIDTH (M)	PEAK	GREEN TIME PROPORTION	CAPACITY (PED/HR) (1)	2-WAY PED FLOW (PED/HR)	V/C RATIO
P2	Boundary Street	3.6	Weekday AM	0.57	3,900	832	0.21
			Weekday PM	0.52	3,550	392	0.11
P4	Prince Edward Road West	6.5	Weekday AM	0.22	2,700	700	0.26
			Weekday PM	0.22	2,700	2,300	0.85
P8	Fa Yuen Street	4.0	Weekday AM	0.82	6,250	836	0.13
			Weekday PM	0.82	6,250	1,724	0.28
P16	Sai Yee Street	6.0	Weekday AM	0.24	2,750	696	0.25
			Weekday PM	0.24	2,750	1,748	0.64

Note: (1) According to TPDM Vol. 4 Ch. 3 Clause 3.2.5.6, Pedestrian crossing capacity = K x Green time proportion x Pedestrian crossing width, where K = A constant equivalent to saturation flow for pedestrians may be taken as 1900 ped/metre/hours.

Table 3-7 Pedestrian Walkway Assessment – Saturday and Sunday (Existing)

SECTION	EFFECTIVE WIDTH (M)	TWO-WAY PEDESTRIAN FLOW (PED/15-MIN)		TWO-WAY PEDESTRIAN RATE (PED/M/MIN)		LOS (1)	
		Saturday Peak	Sunday Peak	Saturday Peak	Sunday Peak	Saturday Peak	Sunday Peak
P1	1.5	49	40	2.2	1.8	A	A
P3	2.0	1,033	827	34.4	27.6	D	C
P5	3.0	131	255	2.9	5.7	A	A
P6	1.4	322	261	15.3	12.4	A	A
P7	1.5	253	201	11.2	8.9	A	A
P9	1.5	44	22	2.0	1.0	A	A
P10	1.8	17	24	0.6	0.9	A	A
P11	3.0	75	89	1.7	2.0	A	A
P12	1.9	17	40	0.6	1.4	A	A
P13	3.0	203	234	4.5	5.2	A	A
P14	1.0	201	151	13.4	10.1	A	A
P15	2.0	424	438	14.1	14.6	A	A
P17	1.2	111	161	6.2	8.9	A	A
P18	1.0	86	55	5.7	3.7	A	A
P19	1.8	79	73	2.9	2.7	A	A

Note: (1) Level of Service ("LOS") is the assessment criteria for walkways and sidewalks according to Chapter 18 Pedestrian Exhibit 18-3 in Highway Capacity Manual 2000 published from Transportation Research Board of U.S. National Research Council. The LOS thresholds are summarized in Appendix B for reference.

CROSSING	LOCATION	CROSSING WIDTH (M)	PEAK	GREEN TIME PROPORTION	CAPACITY (PED/HR) (1)	2-WAY PED FLOW (PED/HR)	V/C RATIO
P2	Boundary Street	3.6	Saturday	0.52	3,550	544	0.15
			Sunday	0.52	3,550	348	0.10
P4	**Prince Edward Road West**	**6.5**	**Saturday**	**0.22**	**2,700**	**3,156**	**1.17**
			Sunday	**0.22**	**2,700**	**3,488**	**1.29**
P8	Fa Yuen Street	4.0	Saturday	0.82	6,250	2,292	0.37
			Sunday	0.82	6,250	2,140	0.34
P16	**Sai Yee Street**	**6.0**	**Saturday**	**0.24**	**2,750**	**3,328**	**1.21**
			Sunday	**0.24**	**2,750**	**3,304**	**1.20**

Note: (1) According to TPDM Vol. 4 Ch. 3 Clause 3.2.5.6, Pedestrian crossing capacity = K x Green time proportion x Pedestrian crossing width, where K = A constant equivalent to saturation flow for pedestrians may be taken as 1900 ped/metre/hours.

3.5.2 The results indicated that the existing operations of most pedestrian walkways (including footpaths and crossings) during weekday, Saturday and Sunday are adequate within capacity, except the signalised crossing at Prince Edward Road West (P4) and Sai Yee Street (P16) at Junction of Prince Edward Road West / Sai Yee Street / Fa Yuen Street is observed to be overloaded during Sunday PM peak and during Saturday PM peak.

4. TRAFFIC FORECAST

4.1 Methodology of Traffic Forecast

4.1.1 The Proposed Development is tentatively scheduled for completion by year 2036. According to the "Guidelines and Requirements of Traffic Impact Assessment (TIA) for Proposed Developments and Transport Facilities" from Transport Department in February 2011, the TIA for the planned developments in the vicinity on an area/district basis should take at least 3 years after the planned completion of the development. Thus, year 2039 will be adopted for traffic impact assessment.

4.1.2 The traffic forecast has been derived by taking into account of the following information:

i. Historical traffic growth in Annual Traffic Census published by Transport Department;
ii. 2021-Based Territorial Population and Employment Data Matrix (TPEDM) planning data published by Planning Department; and
iii. Projections of Population Distribution 2023-2031 published by Planning Department.

(i) Traffic growth trend from Annual Traffic Census

4.1.3 Transport Department has traffic count stations in the vicinity of the proposed development. The traffic count at the concerned stations over a period of 6 years between 2019 and 2024 are reported in the latest ATC published by Transport Department and are summarized in **Table 4-1**.

Table 4-1 Traffic Growth Rates between 2019 and 2024 from ATC

STATION NO.	LOCATION	ANNUAL AVERAGE DAILY TRAFFIC (VEH/DAY)						AVERAGE ANNUAL GROWTH RATE (%)
		2019	2020	2021	2022	2023	2024	2019-2024
3224	Cheung Sha Wan Road	31,500	29,560	29,980	28,400	30,650	32,740	0.78%
4025	Boundary Street	16,990	15,950	16,170	13,530	15,640	15,830	-1.40%
3424	Nathan Road	32,410	28,350	28,740	27,230	29,240	29,620	-1.78%
3232	Boundary Street	22,700	21,300	21,600	20,460	16,390	22,700	0.00%
4610	Fa Yuen Street	2,330	2,770	2,440	2,270	2,100	2,030	-2.72%
3844	Sai Yee Street	4,520	4,350	4,860	4,050	4,280	4,020	-2.32%
3435	Boundary Street	32,520	34,830	35,320	33,460	35,930	30,530	-1.25%
4048	Tai Hang Tung Road	24,100	22,550	23,510	22,090	19,970	19,350	-4.30%
4202	Boundary Street	42,030	46,880	46,860	43,310	47,260	44,450	1.13%
3637	Boundary Street	42,530	45,250	41,740	39,530	42,460	42,980	0.21%
4060	Embankment Road	11,800	11,370	11,690	10,970	11,440	10,740	-1.86%
3492	Knight Street	6,010	5,620	5,780	5,510	5,840	5,200	-2.85%
3828	Prince Edward Road Road W	53,880	50,570	53,820	45,670	49,060	49,650	-1.62%

STATION NO.	LOCATION	ANNUAL AVERAGE DAILY TRAFFIC (VEH/DAY)						AVERAGE ANNUAL GROWTH RATE (%)
		2019	2020	2021	2022	2023	2024	2019-2024
3286	Kadoorie Aveune	3,790	3,650	3,750	3,570	3,810	3,880	0.47%
3635	Prince Edward Road W	53,040	54,180	56,570	53,590	57,560	58,260	1.90%
4203	Prince Edward Road W	47,950	45,620	45,760	42,480	45,700	43,820	-1.79%
3640	Lai Chi Kok Road FO (K38)	17,870	15,480	18,680	17,690	19,000	19,240	1.49%
3634	Prince Edward Road W (GL)	29,960	25,830	24,420	23,130	24,850	25,150	-3.44%
3433	Prince Edward Road W (GL)	30,200	24,900	25,250	23,910	25,680	26,260	-2.76%
3230	Prince Edward Road W (GL)	26,980	25,320	25,680	24,320	25,240	27,290	0.23%
4023	Prince Edward Road W (GL)	19,970	18,740	19,000	20,550	20,560	20,810	0.83%
3222	Nathan Road	37,180	34,890	35,380	33,510	38,760	35,520	-0.91%
3821	Lai Chi Kok Road	16,920	15,880	16,940	17,310	18,590	18,820	2.15%
4015	Nathan Road	41,380	38,840	39,390	40,460	41,510	42,020	0.31%
3653	Sai Yee Street	17,970	16,230	17,320	16,500	17,460	16,390	-1.82%
3453	Sai Yee Street	28,190	22,170	22,780	21,700	22,960	25,100	-2.30%
3015	Shanghai Street	11,250	10,830	10,580	10,600	11,020	11,180	-0.12%
4019	Lai Chi Kok Road	18,810	17,650	17,900	18,780	18,960	19,190	0.40%
3426	Cheung Sha Wan Road	13,180	13,540	13,730	13,010	13,970	13,540	0.54%
3652	Mong Kok Road	28,950	24,430	28,410	27,060	28,630	26,870	-1.48%
3452	Mong Kok Road	17,750	17,320	17,800	16,950	17,940	18,270	0.58%
3253	Tai Hang Tung Road	11,170	10,450	10,900	10,380	9,670	9,580	-3.02%
3881	Tat Chee Avenue	12,450	11,650	13,180	11,680	12,320	11,940	-0.83%
Total:		**808,280**	**766,950**	**785,930**	**743,660**	**784450**	**782,970**	**-0.63%**

4.1.4 As shown in **Table 4-1**, it can be noted that over the past 6 years trend, the average annual daily traffic growth pattern in the vicinity of the Site from 2019 to 2024 has a decrease trend of -0.63% per annum.

(ii) Planning Data from 2021-Based TPEDM

4.1.5 Reference has also been made to the 2021-Based Territorial Population and Employment Data Matrix (TPEDM) planning data published by Planning Department for years 2021, 2026 and 2031 in the relevant Planning Data District (i.e. Yau Tsim Mong). The population and employment data in 2021, 2026 & 2031 are summarized in **Table 4-2** and the annual growth rate between 2021/2026 & 2026/2031 are summarized in **Table 4-3**.

Table 4-2 2021, 2026 & 2031 Population and Employment Growth in Yau Tsim Mong from TPDEM

PLANNING DATA DISTRICT	2021		2026		2031	
	Population	Employment	Population	Employment	Population	Employment
Yau Tsim Mong	310,650	413,950	291,700	439,300	267,100	428,850

Table 4-3 Population and Employment Growth Rate in Yau Tsim Mong from TPDEM

PLANNING DATA DISTRICT	ANNUAL GROWTH RATE (%)			
	Population 2021/ 2026	Employment 2021/ 2026	Population 2026/ 2031	Employment 2026/ 2031
Yau Tsim Mong	-1.25%	1.20%	-1.75%	-0.48%

4.1.6 As shown in **Table 4-3**, the population growth rate in Yau Tsim Mong has an decreasing trend of –1.25% per annum from 2021 to 2026, and -1.75% per annum from 2026 to 2031. The employment growth rate in Mong Kok also has an increasing trend of 1.20% per annum from 2021 to 2026, and a decreasing trend of -0.48% per annum from 2026 to 2031.

(iii) Projections of Population Distribution

4.1.7 For traffic forecast beyond 2026, reference has also been made to the "Projections of Population Distribution 2023-2031" published by Planning Department. The projected population in Yau Tsim Mong District from 2026 to 2031 are extracted and the average population growth rate from 2026 to 2031 are as shown in **Table 4-4**.

Table 4-4 Yau Tsim Mong District Projected Population from 2026 to 2029

YEAR	POPULATION
2026	291,700
2027	286,400
2028	281,700
2029	276,400
2030	272,500
2031	267,100
Average Population Growth Rate from 2026 to 2031 = -1.75% p.a.	

4.1.8 Taking into account the ATC, TPEDM planning data and the Projections of Population Distribution, considering the long-term traffic growth from 2026 onwards, there is a steady decreasing trend, therefore 0.20 % annual growth rate is proposed for the traffic growth forecast from 2026 to 2039 (i.e. Design Year) for conservative purpose to account for the minimal background traffic growth. The adopted growth rate would be able to ensure a reasonable estimation of future traffic.

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

4.1.10 The reference traffic flows in year 2039 are derived by applying the adopted growth factor to 2026 existing traffic flows. The 2039 reference traffic flows are shown in **Drawing No. 4.1**.

4.2 Proposed Development's Vehicular Traffic Generation

4.2.1 The volume of traffic that will be generated by the proposed developments (Residential, Retail and Office proportion) during AM and PM peak periods were estimated using the trip rates with reference to the "Traffic Generation and Attraction Rates" as stated in Annex D of Volume 1 – Chapter 3 in Transport Planning and Design Manual (TPDM) published by Transport Department, and the adopted trip rates and estimated traffic trips are shown in **Table 4-5** and **Table 4-8** respectively. For conservative purpose, the development traffic trips are provided with 5% increase in flexibility for these land uses for traffic assessment, the weekend trip generations will adopt the weekday PM peak generations and office trip generation is adopted to estimate the trip generation of the proposed hotel use in Site B.

Table 4-5 Adopted Traffic Trip Rates from TPDM

DEVELOPMENT	UNIT	AM PEAK		PM PEAK	
		GENERATION	ATTRACTION	GENERATION	ATTRACTION
Residential (1)	pcu/hr/flat	0.1021	0.0709	0.0415	0.0464
Retail (2)	pcu/hr/100 m^2 GFA	0.3307	0.3342	0.3839	0.4504
Office (2)	pcu/hr/100 m^2 GFA	0.2361	0.3257	0.1928	0.1510

Notes: (1) Private Housing: 60 sqm average flat size is adopted for Residential Development
(2) Mean values of the Traffic Trip Rates are adopted

4.2.2 Currently, there is no standard trip generation rate for Public Vehicle Park (PVP) and GIC (sports centre) is provided in "Traffic Generation and Attraction Rates" as stated in Annex D of Volume 1 – Chapter 3 in the TPDM published by Transport Department. Same methodology of deducing the trip generation rates in the TIA under the approved DSP is applied.

4.2.3 In order to estimate the vehicular trip generated by the proposed Public Vehicle Park (PVP) and sports centre, vehicular traffic trip generation and attraction surveys had been conducted in a public car park in Mong Kok and a sports ground with public car parking in Cheung Sha Wan on a normal weekday and weekend in October 2023 from 12:00 to 19:00 to identify the daily peak traffic generations. With the same considerations as discussed in paragraph 3.3.2, car park survey was carried out on one normal Saturday and identified as weekend peak. The results are summarized in **Table 4-6**.

Table 4-6 Observed Vehicular Trip Generation at Surveyed Public Car Parks

SURVEYED CAR PARK	WEEKDAY PEAK [18:00 – 19:00]		WEEKEND PEAK [15:45 – 16:45]	
	GENERATION [PCU/HR]	ATTRACTION [PCU/HR]	GENERATION [PCU/HR]	ATTRACTION [PCU/HR]
Pioneer Centre Public Car Park, Mong Kok (No. of Public Parking Spaces for Private Car = 113)	32	49	56	67
Sham Shui Po Sports Ground Public Car Park (No. of Public Parking Spaces for Private Car = 12)	9	6	10	8

4.2.4 The observed trip generation rates for the vehicular traffic will be derived based on the car parking space for each surveyed development. The observed trip generation rates are summarized in **Table 4-7**.

Table 4-7 Observed Trip Generation Rates at Surveyed Public Car Parks

SURVEYED CAR PARK	WEEKDAY PEAK		WEEKEND PEAK	
	GENERATION [PCU/HR/NO. OF SPACE]	ATTRACTION [PCU/HR/NO. OF SPACE]	GENERATION [PCU/HR/NO. OF SPACE]	ATTRACTION [PCU/HR/NO. OF SPACE]
Pioneer Centre Public Car Park, Mong Kok (No. of Public Parking Spaces for Private Car = 113)	0.283	0.434	0.496	0.593
Sham Shui Po Sports Ground Public Car Park (No. of Public Parking Spaces for Private Car = 12)	0.750	0.500	0.833	0.667

4.2.5 According to the adopted trip rates in **Table 4-5** and **Table 4-7**, the future vehicular traffic trip generation of the development are estimated and are summarized in **Table 4-8.**

Table 4-8 Estimated Traffic Trip Generations of Proposed Development (Site A1 and B)

SITE	USES	NO. OF FLATS / GFA (m²) / NO. OF PKG SPACES	WEEKDAY AM PEAK		WEEKDAY PM PEAK		WEEKEND PEAK	
			GEN. (PCU/HR)	ATT. (PCU/HR)	GEN. (PCU/HR)	ATT. (PCU/HR)	GEN. (PCU/HR)	ATT. (PCU/HR)
A1	Residential (1)	474	51	36	21	24	21	24
A1	Retail (1)	6,576	23	24	27	32	27	32
A1	**Sub-total**		**74**	**60**	**48**	**56**	**48**	**56**
B	Residential (1)	1,080	116	81	48	53	48	53
B	Retail (1)	14,710	52	52	60	70	60	70
B	Office (1)	5,000	13	18	11	8	11	8
B	Proposed PVP (2)	220	-	-	63	96	110	131
B	Proposed Sport Centre (2)	35	-	-	27	18	30	24
B	**Sub-total**		**181**	**151**	**209**	**245**	**259**	**286**

Notes: (1) The trips for residential, retail and office are provided with 5% increase in flexibility.
(2) AM Peak is unlikely for trips in GIC & PVP occasion. Therefore, trip rate for GIC & PVP does not take into account at AM Peak.

4.2.6 The proposed development traffic flows in **Table 4-8** are then superimposed onto the 2039 Reference Traffic Flows (without development) as shown in **Drawing No. 4.1** to derive the 2039 Design Traffic Flows (with development) as shown in **Drawing No. 4.2**.

4.3 Proposed Development Pedestrian Generation

Domestic – Residential Development Trips

4.3.1 The estimated population from the proposed residential development is approximately 1,185 for Site A1 and 2,700 for Site B, based on 474 and 1,080 no. of flats with 2.5 people per household (According to Table D201b : Average Domestic Household Size by District Council District and Year, from "2021 Population Census" published by Census and Statistics Department).

4.3.2 With reference to "Table 110-06815 : Land-based non-institutional population by District Council district and economic activity status" from the Census and Statistics Department,

54.9% of the population are economically active and 14.6% of the population are full-time students in Yau Tsim Mong District.

4.3.3 It is assumed that workers and students' trips will be generated during AM peak and since after-school peak is out of normal PM peak, only the workers' trips are assumed to be generated during PM peak period.

4.3.4 For the proportion of the peak hour trips generation, the following assumptions had been made referring to "Travel Characteristics Survey 2022 Final Report" from Transport Department.

- 42% of trips from home to work were made in morning peak hour, which is applied to workers AM trip generation;
- 40% of work-to-home trips were made during evening peak hour, which is applied to workers PM trip attraction;
- 64% of the trips from home to school were made during morning peak hour, which is applied to student AM trip attraction.

4.3.5 The mode of transport in Yau Tsim Mong district from 2021 Population By-census could be broadly split into two group, namely to place of work and to place of study. The details are summarized and presented below in **Table 4-9**.

Table 4-9 Main Mode of Transport to Place of Work / Place of Study

TRIP NATURE	MASS TRANSIT RAIL (MTR)	MODES OTHER THAN MTR (1)
To place of work	64,501	43,025
	56%	37%
To place of study	12,702	20,887
	30%	49%

Note: (1) Include franchised bus, public light bus, company bus/van, residential coach service, excluding taxi, school bus and private car.

4.3.6 The pedestrian trips generation of residential development trips are summarized in **Table 4-10**.

Table 4-10 Residential Development Trip (Domestic)

PROPOSED RESIDENTIAL DEVELOPMENT	WEEKDAY AM PEAK		WEEKDAY PM PEAK	
	GENERATION [PED/15 MINS]	ATTRACTION [PED/15 MINS]	GENERATION [PED/15 MINS]	ATTRACTION [PED/15 MINS]
Site A1 – Workers	70	0	0	70
Site A1 – Students	30	0	0	0
Site B – Workers	165	0	0	155
Site B – Students	65	0	0	0

Non-domestic – Office Trips

4.3.7 For office in Site B, worker density of 5.20 workers/100m^2 for Grade A Office is assumed based on "Commercial and Industrial Floor Space Utilization Survey" from the Planning Department. Referring to Table 8 – Worker Density by Economic Activity and Planned Usage Type (workers per GFA (in 100 m^2), from "Travel Characteristics Survey 2022 Final Report" from Transport Department, 42% of trips from home to work were made in morning peak hour and 40% of work-to-home trips were made during evening peak hour. The pedestrian trips generations are summarized in **Table 4-11**.

Table 4-11 Office Pedestrian Trip (Non-domestic)

PROPOSED DEVELOPMENT	WEEKDAY AM PEAK		WEEKDAY PM PEAK	
	GENERATION [PED/15 MINS]	ATTRACTION [PED/15 MINS]	GENERATION [PED/15 MINS]	ATTRACTION [PED/15 MINS]
Office – Site B	0	30	30	0

Retail Development

4.3.8 In order to estimate the pedestrian trip generated by the proposed retail development, pedestrian trip generation and attraction survey had been conducted at a retail mall with similar distance away from the MTR station and bus stops in Mong Kok on a normal weekday and weekend in October 2023 from 12:00 to 19:00 to identify the daily peak pedestrian generations. The results are summarized in **Tables 4-12**.

Table 4-12 Observed Pedestrian Trip Generation at Surveyed Retail Mall

SURVEYED RETAIL MALL	WEEKDAY PEAK		WEEKEND PEAK	
	GENERATION [PED/15 MINS]	ATTRACTION [PED/15 MINS]	GENERATION [PED/15 MINS]	ATTRACTION [PED/15 MINS]
The Forest (Approximate GFA = 4,955 m^2)	192	242	416	402

4.3.9 The observed pedestrian trip generation rates for the pedestrian flow will be derived based on the GFA of the surveyed development. The observed pedestrian generation rates are summarized in **Tables 4-13**.

Table 4-13 Observed Pedestrian Generation Rates at Surveyed Retail Mall

SURVEYED RETAIL MALL	WEEKDAY PEAK		WEEKEND PEAK	
	GENERATION [PED/15 MINS/ M2 GFA]	ATTRACTION [PED/15 MINS/ M2 GFA]	GENERATION [PED/15 MINS/ M2 GFA]	ATTRACTION [PED/15 MINS/ M2 GFA]
The Forest (Approximate GFA = 4,955 m^2)	0.039	0.049	0.084	0.081

4.3.10 According to the observed pedestrian generation rates estimated in **Table 4-13**, the future pedestrian trip generation of the proposed retail mall at Site A1 and Site B during weekday and weekend peak hour are estimated and are summarized in **Tables 4-14**.

Table 4-14 Estimated Pedestrian Trip Generation of the Proposed Retail Mall at Site A1 and Site B

PROPOSED DEVELOPMENT	WEEKDAY PEAK		WEEKEND PEAK	
	GENERATION [PED/15 MINS]	ATTRACTION [PED/15 MINS]	GENERATION [PED/15 MINS]	ATTRACTION [PED/15 MINS]
Retail Mall – Site A1 (GFA = 6,576 m^2)	255	320	550	535
Retail Mall – Site B (GFA = 14,710 m^2)	570	720	1235	1195

4.3.11 In review of Site B which has provided PVP and parking spaces for retail development, it is assumed that some proportions of the pedestrian trips will be arrived by private car. Assumption has been made such that 70% of the estimated pedestrian trips will arrive by public transport or by walk. The estimated pedestrian trip generation of the proposed retail mall to the surrounding pedestrian footpaths are summarized in **Table 4-15**.

Table 4-15 Adopted Pedestrian Trip Generation of the Proposed Retail Mall at Site A1 and Site B

PROPOSED DEVELOPMENT	WEEKDAY PEAK		WEEKEND PEAK	
	GENERATION [PED/15 MINS]	ATTRACTION [PED/15 MINS]	GENERATION [PED/15 MINS]	ATTRACTION [PED/15 MINS]
Retail Mall – Site A1 (GFA = 6,576 m^2)	180	225	385	375
Retail Mall – Site B (GFA = 14,710 m^2)	400	505	865	835

4.3.12 The estimated flows from **Table 4-10**, **Table 4-11** and **Table 4-15** will then superimposed onto the 2039 weekend Reference Pedestrian Flows (without development) to derive the 2039 weekend Design Pedestrian Flows (with development). **Table 4-16** summarizes and shows the pedestrian trips generation for weekday and weekend scenario.

Table 4-16 Estimated Pedestrian Trip Generation of the Proposed Development Site A1 and Site B

PROPOSED DEVELOPMENT	TRIPS CATEGORY	WEEKDAY AM PEAK		WEEKDAY PM PEAK		SATURDAY / SUNDAY PM PEAK	
		GENERATION [PED/15MINS]	ATTRACTION [PED/15MINS]	GENERATION [PED/15MINS]	ATTRACTION [PED/15MINS]	GENERATION [PED/15MINS]	ATTRACTION [PED/15MINS]
Site A1	Domestic – Workers	70	0	0	70	0	0
	Domestic – Students	30	0	0	0	0	0
	Retail	0	0	180	225	385	375
	Total	**100**	**0**	**180**	**295**	**385**	**375**
Site A2 to A5 (1)	Open Space/ Retail	5 Each Site	5 Each Site	5 Each Site	5 Each Site	5 Each Site	5 Each Site
Site B	Domestic – Workers	165	0	0	155	0	0
	Domestic – Students	65	0	0	0	0	0
	Office	0	30	30	0	0	0
	Retail	0	0	400	505	865	835
	Total	**230**	**30**	**430**	**660**	**865**	**835**

Note: (1) As the GFA of Sites A2 to A5 are very minor (around 100 sqm), it is assumed that minimal pedestrian trips (5 ped/ 15 min) to be generated solely for Site A2 to A5.

5. TRAFFIC IMPACT ASSESSMENT

5.1 Junction Capacity Assessment

5.1.1 The traffic impact of the proposed developments on the surrounding road network and junctions have been assessed under the weekday AM and PM peak hour and weekend peak hour periods. Locations of assessed junctions are shown in **Drawing No. 3.2**.

5.1.2 The junction capacity analysis of the selected key junctions in the reference scenario (without development traffic) and design scenarios during weekday AM and PM peak hours in Year 2039 (with development traffic) are shown in **Table 5-1**. The junction calculations are attached in the **Appendix A1** for reference.

Table 5-1 Junction Capacity Analysis – 2039 Weekday Peak

JUNCTION	LOCATION	2039 REFERENCE (WITHOUT DEVELOPMENT)		2039 DESIGN (WITH DEVELOPMENT)	
		R.C. (1)		R.C. (1)	
		AM PEAK	PM PEAK	AM PEAK	PM PEAK
J1	Boundary Street / Nathan Road / Cheung Sha Wan Road	50%	27%	50%	27%
J2	Bute Street / Sai Yee Street	>100%	>100%	>100%	>100%
J3	Boundary Street / Tai Hang Tung Road	50%	40%	32%	21%
J4	Boundary Street / Embankment Road	>100%	>100%	93%	78%
J5	Nathan Road / Prince Edward Road West	34%	26%	34%	26%
J6	Prince Edward Road West / Sai Yee Street	70%	28%	65%	18%
J7	Prince Edward Road West / Embankment Road	46%	37%	41%	32%
J8	Lai Chi Kok Road / Nathan Road	20%	51%	20%	51%

Notes: (1) Reserve Capacity (R.C.) indicated in %, provides an indication of signal junction performance. R.C. <0% implies that it is overloaded.

5.1.3 As shown in **Table 5-1**, the results indicated all junctions would be operated within capacity in the design scenario with development traffic during weekday AM and PM peak hour, similar to the findings of the approved DSP.

5.1.4 The junction capacity analysis of the selected key junctions in the reference scenario (without development traffic) and design scenarios during weekend peak hour in Year 2039 (with development traffic) are shown in **Table 5-2**. The junction calculations are attached in the **Appendix A2** for reference.

Table 5-2 Junction Capacity Analysis – 2039 Weekend Peak

JUNCTION	LOCATION	2039 REFERENCE (WITHOUT DEVELOPMENT)	2039 DESIGN (WITH DEVELOPMENT)
		R.C. (1)	R.C. (1)
		WEEKEND PEAK	WEEKEND PEAK
J1	Boundary Street / Nathan Road / Cheung Sha Wan Road	43%	43%
J2	Bute Street / Sai Yee Street	>100%	>100%
J3	Boundary Street / Tai Hang Tung Road	62%	37%
J4	Boundary Street / Embankment Road	>100%	>100%
J5	Nathan Road / Prince Edward Road West	26%	26%
J6	Prince Edward Road West / Sai Yee Street	36%	27%
J7	Prince Edward Road West / Embankment Road	58%	52%
J8	Lai Chi Kok Road / Nathan Road	38%	38%

Notes: (1) Reserve Capacity (R.C.) indicated in %, provides an indication of signal junction performance. R.C. <0% implies that it is overloaded.

5.1.5 As shown in **Table 5-2**, the results **indicated all junctions would still be operated within capacity in the design scenario with development traffic during weekend peak hour.**

5.2 Pedestrian Walkway Assessment

5.2.1 The traffic impact of the proposed developments on the surrounding footpaths and pedestrian crossings have also been assessed during weekday AM, PM, Saturday and Sunday peak hour periods. Locations of assessed pedestrian walkways are shown in **Drawing No. 3.12**.

5.2.2 The reference pedestrian flows in year 2039 during both weekday and weekend are derived by applying the adopted growth factor in Chapter 4 to 2026 existing pedestrian flows. **Tables 5-3** and **5-4** present the assessment results of the identified walkways in 2039 (Reference case without proposed development).

Table 5-3 Pedestrian Walkway Assessment – 2039 Weekday (Reference Without Development)

SECTION	EFFECTIVE WIDTH (M)	TWO-WAY PEDESTRIAN FLOW (PED/15-MIN)		TWO-WAY PEDESTRIAN RATE (PED/M/MIN)		LOS (1)	
		AM PEAK	PM PEAK	AM PEAK	PM PEAK	AM PEAK	PM PEAK
P1	1.5	60	40	2.7	1.8	A	A
P3	2.0	245	550	8.2	18.3	A	B
P5	3.0	285	170	6.3	3.8	A	A
P6	1.4	25	100	1.2	4.8	A	A
P7	1.5	135	175	6.0	7.8	A	A
P9	1.5	60	40	2.7	1.8	A	A
P10	1.8	10	10	0.4	0.4	A	A
P11	3.0	55	85	1.2	1.9	A	A
P12	1.9	10	15	0.4	0.5	A	A
P13	3.0	60	100	1.3	2.2	A	A
P14	1.0	65	165	4.3	11.0	A	A
P15	2.0	185	205	6.2	6.8	A	A
P17	1.2	50	85	2.8	4.7	A	A
P18	1.0	30	70	2.0	4.7	A	A
P19	1.8	110	65	4.1	2.4	A	A

Note: (1) Level of Service ("LOS") is the assessment criteria for walkways and sidewalks according to Chapter 18 Pedestrian Exhibit 18-3 in Highway Capacity Manual 2000 published from Transportation Research Board of U.S. National Research Council. The LOS thresholds are summarized in Appendix B for reference.

CROSSING	LOCATION	CROSSING WIDTH (M)	PEAK	GREEN TIME PROPORTION	CAPACITY (PED/HR) (1)	2-WAY PED FLOW (PED/HR)	V/C RATIO
P2	Boundary Street	3.6	Weekday AM	0.57	3,900	855	0.22
			Weekday PM	0.52	3,550	400	0.11
P4	Prince Edward Road West	6.5	Weekday AM	0.22	2,700	720	0.27
			Weekday PM	0.22	2,700	2,360	0.87
P8	Fa Yuen Street	4.0	Weekday AM	0.82	6,250	860	0.14
			Weekday PM	0.82	6,250	1,770	0.28
P16	Sai Yee Street	6.0	Weekday AM	0.24	2,750	715	0.26
			Weekday PM	0.24	2,750	1,795	0.65

Note: (1) According to TPDM Vol. 4 Ch. 3 Clause 3.2.5.6, Pedestrian crossing capacity = K x Green time proportion x Pedestrian crossing width, where K = A constant equivalent to saturation flow for pedestrians may be taken as 1900 ped/metre/hours.

Table 5-4 Pedestrian Walkway Assessment – 2039 Weekend (Reference Without Development)

SECTION	EFFECTIVE WIDTH (M)	TWO-WAY PEDESTRIAN FLOW (PED/15-MIN)		TWO-WAY PEDESTRIAN RATE (PED/M/MIN)		LOS (1)	
		Saturday Peak	Sunday Peak	Saturday Peak	Sunday Peak	Saturday Peak	Sunday Peak
P1	1.5	50	40	2.2	1.8	A	A
P3	2.0	1,060	850	35.3	28.3	D	C
P5	3.0	135	260	3.0	5.8	A	A
P6	1.4	330	270	15.7	12.9	A	A
P7	1.5	260	205	11.6	9.1	A	A
P9	1.5	45	25	2.0	1.1	A	A
P10	1.8	15	25	0.6	0.9	A	A
P11	3.0	75	90	1.7	2.0	A	A
P12	1.9	15	40	0.5	1.4	A	A
P13	3.0	210	240	4.7	5.3	A	A
P14	1.0	205	155	13.7	10.3	A	A
P15	2.0	435	450	14.5	15.0	A	A
P17	1.2	115	165	6.4	9.2	A	A
P18	1.0	90	55	6.0	3.7	A	A
P19	1.8	80	75	3.0	2.8	A	A

Note: (1) Level of Service ("LOS") is the assessment criteria for walkways and sidewalks according to Chapter 18 Pedestrian Exhibit 18-3 in Highway Capacity Manual 2000 published from Transportation Research Board of U.S. National Research Council. The LOS thresholds are summarized in **Appendix B** for reference.

CROSSING	LOCATION	CROSSING WIDTH (M)	PEAK	GREEN TIME PROPORTION	CAPACITY (PED/HR) (1)	2-WAY PED FLOW (PED/HR)	V/C RATIO
P2	Boundary Street	3.6	Saturday	0.52	3,550	560	0.16
			Sunday	0.52	3,550	355	0.10
P4	**Prince Edward Road West**	**6.5**	**Saturday**	**0.22**	**2,700**	**3,240**	**1.20**
			Sunday	**0.22**	**2,700**	**3,580**	**1.33**
P8	Fa Yuen Street	4.0	Saturday	0.82	6,250	2,350	0.38
			Sunday	0.82	6,250	2,195	0.35
P16	**Sai Yee Street**	**6.0**	**Saturday**	**0.24**	**2,750**	**3,415**	**1.24**
			Sunday	**0.24**	**2,750**	**3,390**	**1.23**

Note: (1) According to TPDM Vol. 4 Ch. 3 Clause 3.2.5.6, Pedestrian crossing capacity = K x Green time proportion x Pedestrian crossing width, where K = A constant equivalent to saturation flow for pedestrians may be taken as 1900 ped/metre/hours.

5.2.3 The design pedestrian flows in year 2039 during both weekday and weekend are derived by adding the estimated pedestrian trips in **Table 4-16** to the reference pedestrian flows in 2039. **Table 5-5** and **Table 5-6** present the assessment results of the identified walkways in 2039 (Design case with proposed development).

Table 5-5 Pedestrian Walkway Assessment – 2039 Weekday (Design With Development)

SECTION	EFFECTIVE WIDTH (M)	TWO-WAY PEDESTRIAN FLOW (PED/15-MIN)		TWO-WAY PEDESTRIAN RATE (PED/M/MIN)		LOS (1)	
		AM PEAK	PM PEAK	AM PEAK	PM PEAK	AM PEAK	PM PEAK
P1	1.5	95	295	4.2	13.1	A	A
P3	5.0 (2)	350	1,485	4.7	19.8	A	B
P5	3.0	345	665	7.7	14.8	A	A
P6	1.4	25	110	1.2	5.2	A	A
P7	1.5	135	375	6.0	16.7	A	B
P9	1.5	90	265	4.0	11.8	A	A
P10	1.8	15	315	0.6	11.7	A	A
P11	3.0	145	770	3.2	17.1	A	B
P12	1.9	10	320	0.4	11.2	A	A
P13	3.0	95	385	2.1	8.6	A	A
P14	1.0	100	445	6.7	29.7	A	C
P15	2.0	245	700	8.2	23.3	A	C
P17	1.2	55	495	3.1	27.5	A	C
P18	1.0	35	110	2.3	7.3	A	A

Notes: (1) Level of Service ("LOS") is the assessment criteria for walkways and sidewalks according to Chapter 18 Pedestrian Exhibit 18-3 in Highway Capacity Manual 2000 published from Transportation Research Board of U.S. National Research Council. The LOS thresholds are summarized in **Appendix B** for reference.
(2) Under the notional design, section P3 will merge with the layout of Site A1 and a minimum footpath width of 5.0m will be provided, which is adopted for design scenario assessment.
(3) Section P19 will no longer exist in design scenario and will become part of the Waterway Park in the future development.

CROSSING	LOCATION	CROSSING WIDTH (M)	PEAK	GREEN TIME PROPORTION	CAPACITY (PED/HR) (1)	2-WAY PED FLOW (PED/HR)	V/C RATIO
P2	Boundary Street	3.6	Weekday AM	0.57	3,900	860	0.22
			Weekday PM	0.52	3,550	420	0.12
P4	Prince Edward Road West	6.5	Weekday AM	0.22	2,700	735	0.27
			Weekday PM	0.22	2,700	2,505	0.93
P8	Fa Yuen Street	4.0	Weekday AM	0.82	6,250	960	0.15
			Weekday PM	0.82	6,250	2,645	0.42
P16	Sai Yee Street	6.0	Weekday AM	0.24	2,750	760	0.28
			Weekday PM	0.24	2,750	2,380	0.87

Note: (1) According to TPDM Vol. 4 Ch. 3 Clause 3.2.5.6, Pedestrian crossing capacity = K x Green time proportion x Pedestrian crossing width, where K = A constant equivalent to saturation flow for pedestrians may be taken as 1900 ped/metre/hours.

5.2.4 The results from **Table 5-5** indicate that all assessed pedestrian walkways (including footpaths and crossings) are operating within capacity during weekday AM and PM peak. While P16 (the northern crossing at Sai Yee Street near Prince Edward Road West) will be reaching the capacity level.

Table 5-6 Pedestrian Walkway Assessment – 2039 Weekend (Design With Development)

SECTION	EFFECTIVE WIDTH (M)	TWO-WAY PEDESTRIAN FLOW (PED/15-MIN)		TWO-WAY PEDESTRIAN RATE (PED/M/MIN)		LOS (1)	
		Saturday Peak	Sunday Peak	Saturday Peak	Sunday Peak	Saturday Peak	Sunday Peak
P1	1.5	305	295	13.6	13.1	A	A
P3	5.0 (2)	1,995	1,785	26.6	23.8	C	C
P5	3.0	630	755	14.0	16.8	A	B
P6	1.4	340	280	16.2	13.3	B	A
P7	1.5	460	405	20.4	18.0	B	B
P9	1.5	270	250	12.0	11.1	A	A
P10	1.8	320	330	11.9	12.2	A	A
P11	3.0	760	775	16.9	17.2	B	B
P12	1.9	320	345	11.2	12.1	A	A
P13	3.0	495	525	11.0	11.7	A	A
P14	1.0	485	435	32.3	29.0	C	C
P15	2.0	930	945	31.0	31.5	C	C
P17	1.2	525	575	29.2	31.9	C	C
P18	1.0	130	95	8.7	6.3	A	A

Notes: (1) Level of Service ("LOS") is the assessment criteria for walkways and sidewalks according to Chapter 18 Pedestrian Exhibit 18-3 in Highway Capacity Manual 2000 published from Transportation Research Board of U.S. National Research Council. The LOS thresholds are summarized in **Appendix B** for reference.
(2) Under the notional design, section P3 will merge with the layout of Site A1 and a minimum footpath width of 5.0m will be provided, which is adopted for design scenario assessment.
(3) Section P19 will no longer exist in design scenario and will become part of the Waterway Park in the future development.

CROSSING	LOCATION	CROSSING WIDTH (M)	PEAK	GREEN TIME PROPORTION	CAPACITY (PED/HR) (1)	2-WAY PED FLOW (PED/HR)	V/C RATIO
P2	Boundary Street	3.6	Saturday	0.52	3,550	580	0.16
			Sunday	0.52	3,550	375	0.11
P4	**Prince Edward Road West**	**6.5**	**Saturday**	**0.22**	**2,700**	**3,385**	**1.25**
			Sunday	**0.22**	**2,700**	**3,725**	**1.38**
P8	Fa Yuen Street	4.0	Saturday	0.82	6,250	3,225	0.52
			Sunday	0.82	6,250	3,070	0.49
P16	**Sai Yee Street**	**6.0**	**Saturday**	**0.24**	**2,750**	**4,000**	**1.45**
			Sunday	**0.24**	**2,750**	**3,975**	**1.45**

Note: (1) According to TPDM Vol. 4 Ch. 3 Clause 3.2.5.6, Pedestrian crossing capacity = K x Green time proportion x Pedestrian crossing width, where K = A constant equivalent to saturation flow for pedestrians may be taken as 1900 ped/metre/hours.

5.2.5 Similar to the findings of the approved DSP, the results from **Table 5-6** indicate that most assessed pedestrian walkways (including footpaths and crossings) are operating within capacity during weekend peak with implementation of the subject S.16 Application. The podium setback at Site A1 provides extra width for P3 which slightly improves its capacity. For the signalised crossing at Prince Edward Road West near Fa Yuen Street (P4) and the northern signalised crossing at Sai Yee Street near Prince Edward Road West (P16), they will be more overloaded (V/C >1.0), compared with existing conditions and 2039 reference scenario which are already overloaded.

5.2.6 In order to enhance the capacity at the concerned signalised crossings (P4 and P16), possible improvement measures by widening at the crossings are proposed and shown in **Drawing No. 5.1.**

5.2.7 The results of pedestrian assessment at P4 and P16 with proposed widening schemes in 2039 design scenario are summarized in **Tables 5-7** and **Table 5-8**. The results indicate that the V/C ratio will be within capacity (< 1.0) under the proposed improvement schemes.

Table 5-7 Pedestrian Walkway Assessment – 2039 Weekday (Design With Development and Proposed Improvement)

CROSSING	LOCATION	CROSSING WIDTH (M)	PEAK	GREEN TIME PROPORTION	CAPACITY (PED/HR) (1)	2-WAY PED FLOW (PED/HR)	V/C RATIO
P4	Boundary Street	3.6	Weekday AM	0.22	4,600	735	0.16
			Weekday PM	0.22	4,600	2,505	0.54
P16	Prince Edward Road West	6.5	Weekday AM	0.24	4,350	760	0.17
			Weekday PM	0.24	4,350	2,380	0.55

Note: (1) According to TPDM Vol. 4 Ch. 3 Clause 3.2.5.6, Pedestrian crossing capacity = K x Green time proportion x Pedestrian crossing width, where K = A constant equivalent

Table 5-8 Pedestrian Walkway Assessment – 2039 Weekend (Design With Development and Proposed Improvement)

CROSSING	LOCATION	CROSSING WIDTH (M)	PEAK	GREEN TIME PROPORTION	CAPACITY (PED/HR) (1)	2-WAY PED FLOW (PED/HR)	V/C RATIO
P4	Boundary Street	3.6	Saturday	0.22	4,600	3,385	0.74
			Sunday	0.22	4,600	3,725	0.81
P16	Prince Edward Road West	6.5	Saturday	0.24	4,350	4,000	0.92
			Sunday	0.24	4,350	3,975	0.91

Note: (1) According to TPDM Vol. 4 Ch. 3 Clause 3.2.5.6, Pedestrian crossing capacity = K x Green time proportion x Pedestrian crossing width, where K = A constant equivalent

6. SUMMARY AND CONCLUSION

6.1 Summary

6.1.1 This Traffic Impact Assessment has been undertaken to assess the potential traffic impact of the proposed development and to serves as a supporting document for the S.16 Planning Application for minor relaxation of maximum domestic GFA of Site B with its notional proposal to the TPB for consideration.

6.1.2 The parking facilities provision of the Proposed Development are proposed as shown in **Table 6-1**. The internal parking provision is based on HKPSG and the levels of provision proposed in the TIA of the approved DSP, to which TD has no in-principle objection.

Table 6-1 Summary of Proposed Parking Facilities of the Proposed Development

FACILITY	SITE A1 (NOS.)	SITE B (NOS.)	SITES A2 – A5 (NOS.)(4)	Total
Residential Private Car Parking	65 (1)	219 (2)	-	284
Visitors' Private Car Parking	10 (1)	15 (1)	-	25
Non-domestic Private Car Parking – Retail	33 (1)	99 (2)	-	132
Non-domestic Private Car Parking – Office	-	34 (1)	-	34
Private Car Parking – GIC Uses (3)	-	35 (1)	-	35
Total Car Parking Spaces	**108**	**402**	**-**	**510**
Residential Motorcycle Parking	5	11	-	16
Non-domestic Motorcycle Parking - Retail	4	10	-	14
Non-domestic Motorcycle Parking - Office	-	4	-	4
Total Motorcycle Parking Spaces	**9**	**25**	**-**	**34**
Residential Loading and Unloading space	2	3	-	5
Non-domestic Loading and Unloading bay – Retail	6	19	-	25
Non-domestic Loading and Unloading bay – Office	-	3	-	3
Total Loading and Unloading Spaces	**8**	**25**	**-**	**33**
Public Vehicle Park (PVP)				
Private Car Parking	-	About 220	-	About 220
Loading / Unloading Bay	-	About 10	-	About 10

Notes: (1) Including 1 no. of accessible parking spaces for disabled person.
(2) Including 2 nos. of accessible parking spaces for disabled person.
(3) Since the use for the GIC in Site B are still not confirmed at this stage of the project and so it will assume 35 car parking spaces will be provided for conservative purpose.
(4) As the GFA of Sites A2 to A5 are very minor (around 100 sqm), and thus no car parking spaces will be provided for all Sites A2 to A5.

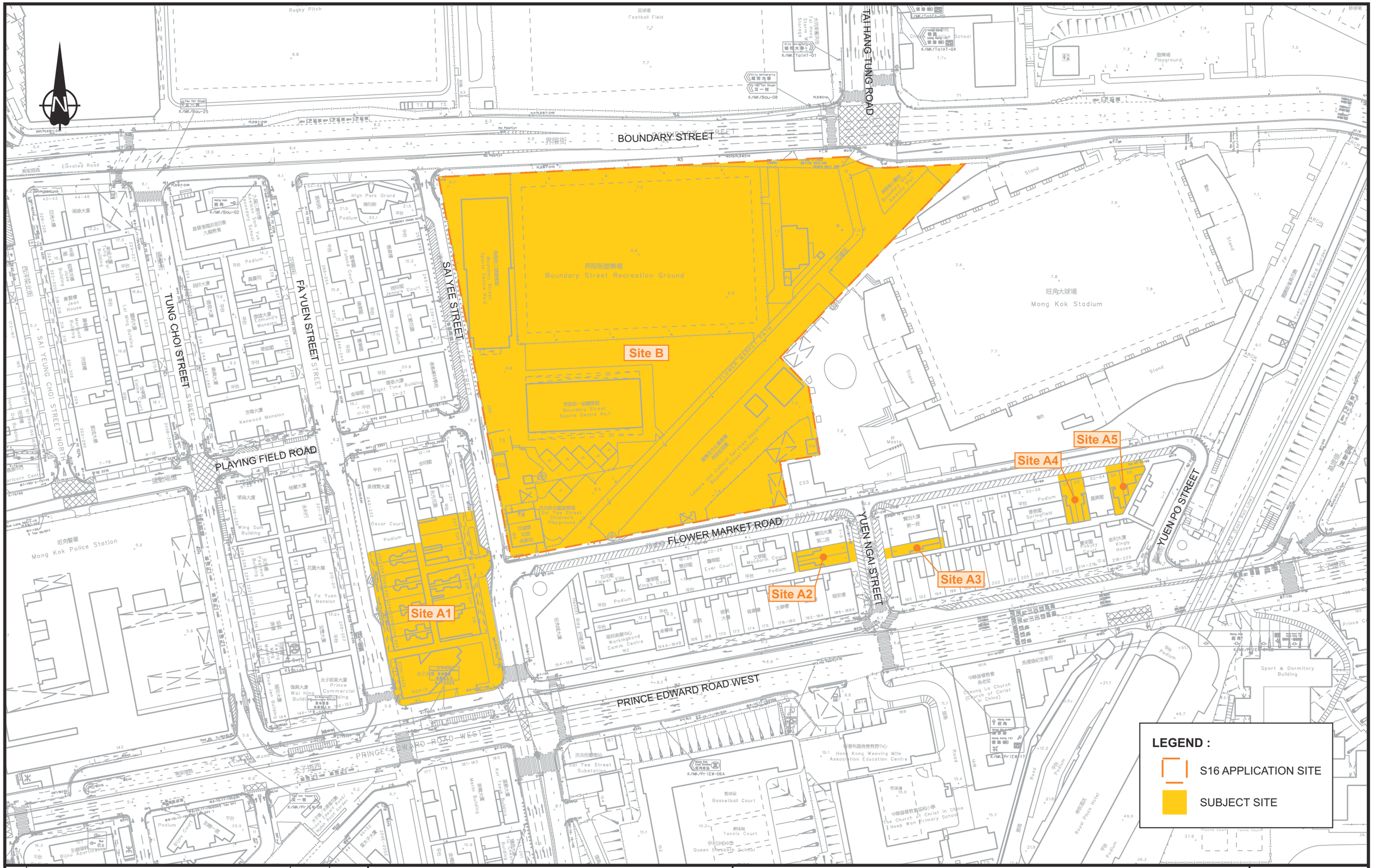
6.1.3 In order to investigate the traffic impact to the surrounding road and pedestrian network of the proposed developments, 8 key junctions and 19 sections of footpath adjacent to the development site are identified for traffic survey and assessment.

6.1.4 The junction capacity analysis of the selected key junctions in the reference and design scenarios during weekday and weekend peak hours in Year 2039 had been assessed as shown in Chapter 5. The results indicated all junctions would be operated within capacity in the design scenario with development traffic, same as the findings of the TIA in the approved DSP.

6.1.5 LOS and V/C ratio assessment at the identified pedestrian walkways in the reference and design scenarios during weekday and weekend peak hours in Year 2039 had been assessed as shown in Chapter 5. The results indicated that most assessed pedestrian walkways (including footpaths and crossings) during weekday, Saturday and Sunday are operating within capacity, except the signalised crossings at Prince Edward Road West (P4) and Sai Yee Street (P16) which are overloaded during weekend peak. Possible improvement scheme had been proposed to widen the crossing width to enhance the capacity issue at the concerned crossings.

6.2 Conclusion

6.2.1 Based on the above findings, it is concluded that the proposed development with the proposed increase in domestic GFA in Site B is feasible from a traffic perspective and will not lead to adverse traffic impact to the surrounding road and footpath network.



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

Project Title

SECTION 16 PLANNING APPLICATION FOR PROPOSED MINOR RELAXATION OF THE MAXIMUM DOMESTIC GFA OF SITE B FOR THE URBAN RENEWAL AUTHORITY SAI YEE STREET / FLOWER MARKET ROAD DEVELOPMENT SCHEME ("YTM-013"), MONG KOK, KOWLOON

Drawing Title

LOCATION PLAN

Designed	Checked	Scale	Date	Drawing No.	Rev.
HMC	CYH	NTS	MAY 2026	2.1	-

SYSTRA MVA

CHK50908510/TIA/F21.CDR/LLH/13MAY26

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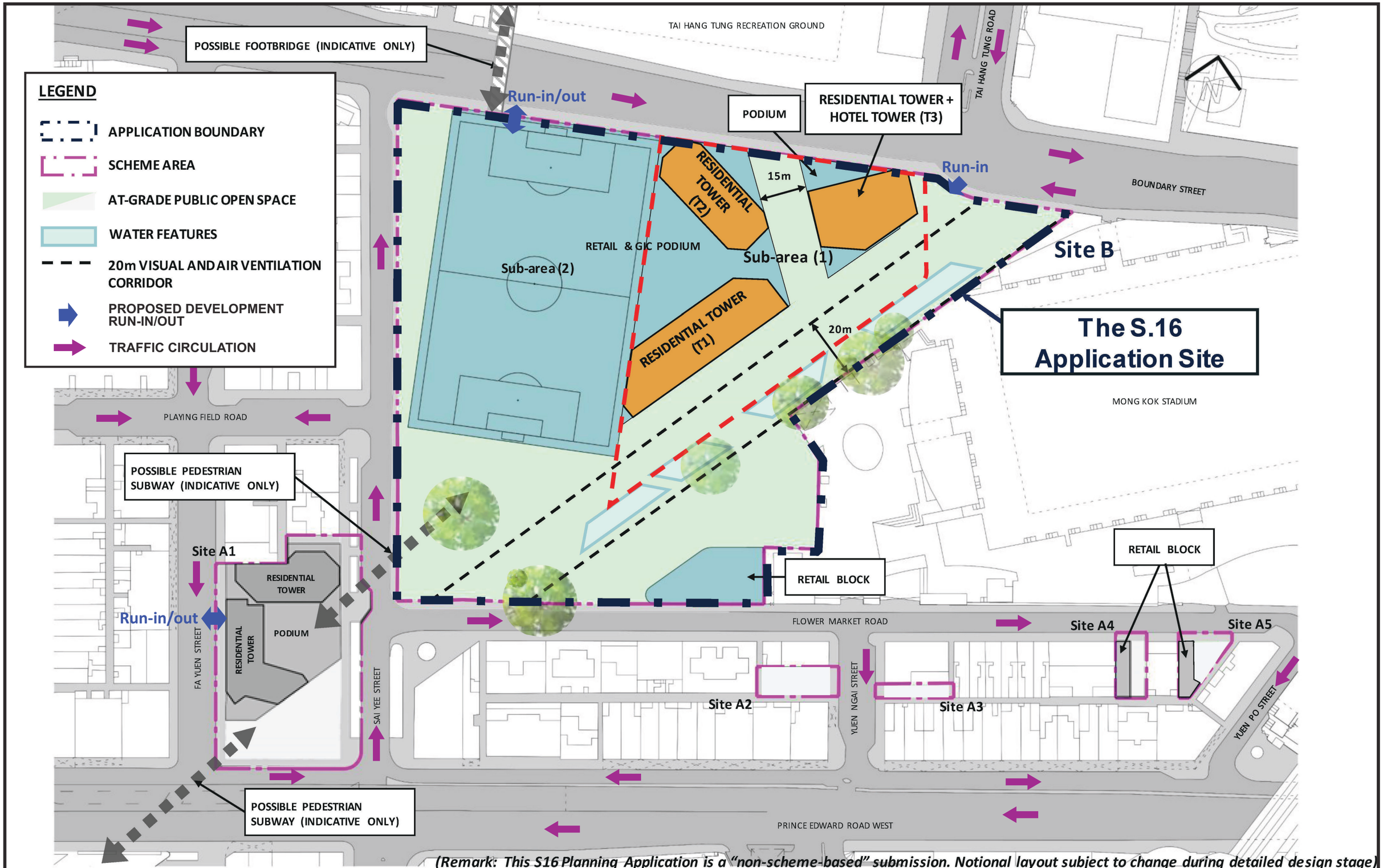

(Remark: This S16 Planning Application is a "non-scheme-based" submission. Notional layout subject to change during detailed design stage)

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

Project Title

SECTION 16 PLANNING APPLICATION FOR PROPOSED MINOR RELAXATION OF THE MAXIMUM DOMESTIC GFA OF SITE B FOR THE URBAN RENEWAL AUTHORITY SAI YEE STREET / FLOWER MARKET ROAD DEVELOPMENT SCHEME ("YTM-013"), MONG KOK, KOWLOON

Drawing Title

NOTIONAL DESIGN

Designed	Checked	Scale	Date	Drawing No.	Rev.
HMC	CYH	NTS	JUN 2026	2.2	-

SYSTRA MVA

CHK50908510/TIA/F22.CDR/LLH/1JUN26

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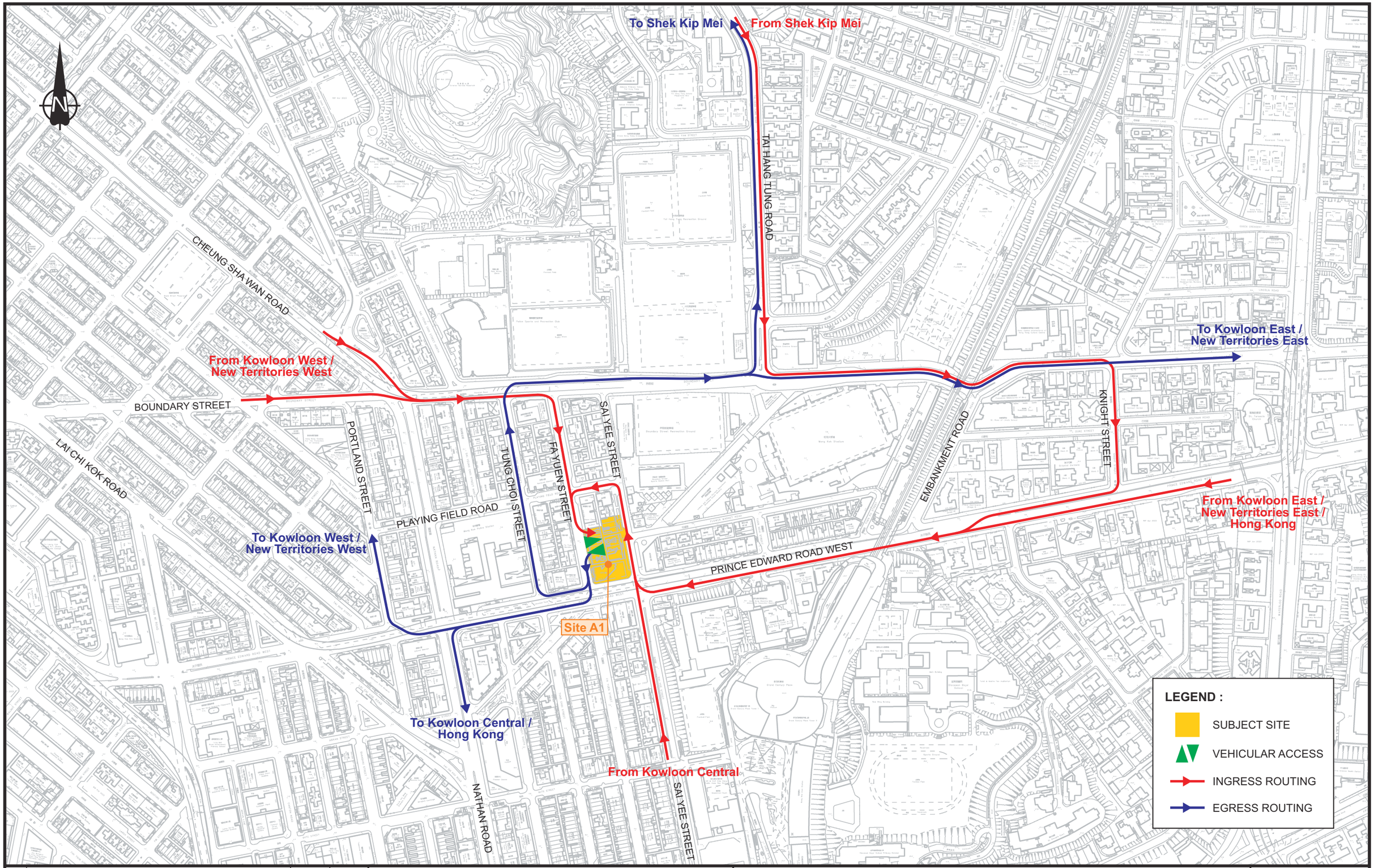

Rev.	Description	Checked	Date
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Project Title

SECTION 16 PLANNING APPLICATION FOR PROPOSED MINOR RELAXATION OF THE MAXIMUM DOMESTIC GFA OF SITE B FOR THE URBAN RENEWAL AUTHORITY SAI YEE STREET / FLOWER MARKET ROAD DEVELOPMENT SCHEME ("YTM-013"), MONG KOK, KOWLOON

Drawing Title

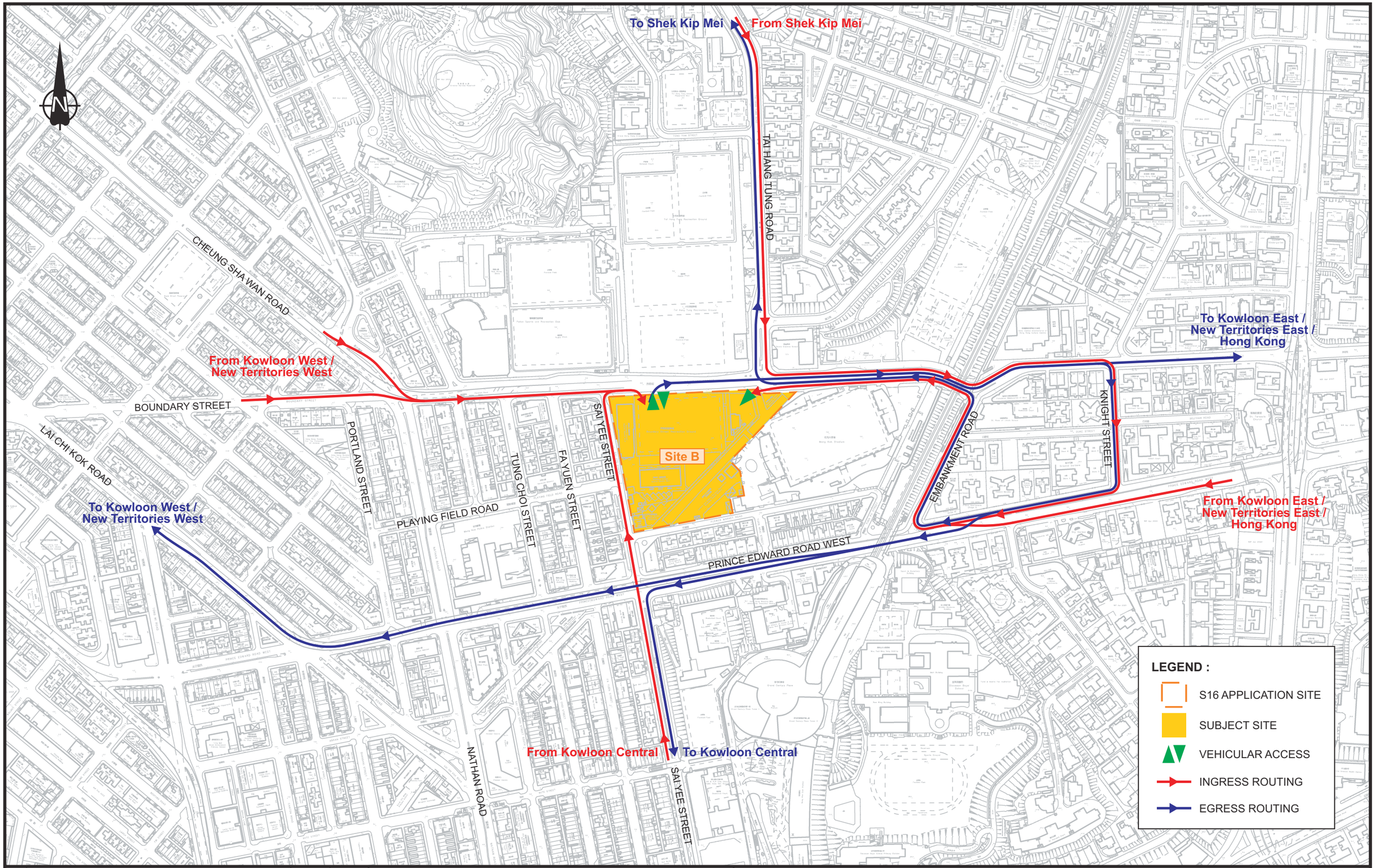
VEHICULAR ACCESS ROUTINGS TO / FROM SUBJECT SITE A1

Designed	Checked	Scale	Date	Drawing No.	Rev.
HMC	CYH	NTS	MAY 2026	2.3	-

SYSTRA MVA

CHK50908510/TIA/F23.CDR/LLH/13MAY26

Original Size : A3



Rev.	Description	Checked	Date
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Project Title

SECTION 16 PLANNING APPLICATION FOR PROPOSED MINOR RELAXATION OF THE MAXIMUM DOMESTIC GFA OF SITE B FOR THE URBAN RENEWAL AUTHORITY SAI YEE STREET / FLOWER MARKET ROAD DEVELOPMENT SCHEME ("YTM-013"), MONG KOK, KOWLOON

Drawing Title

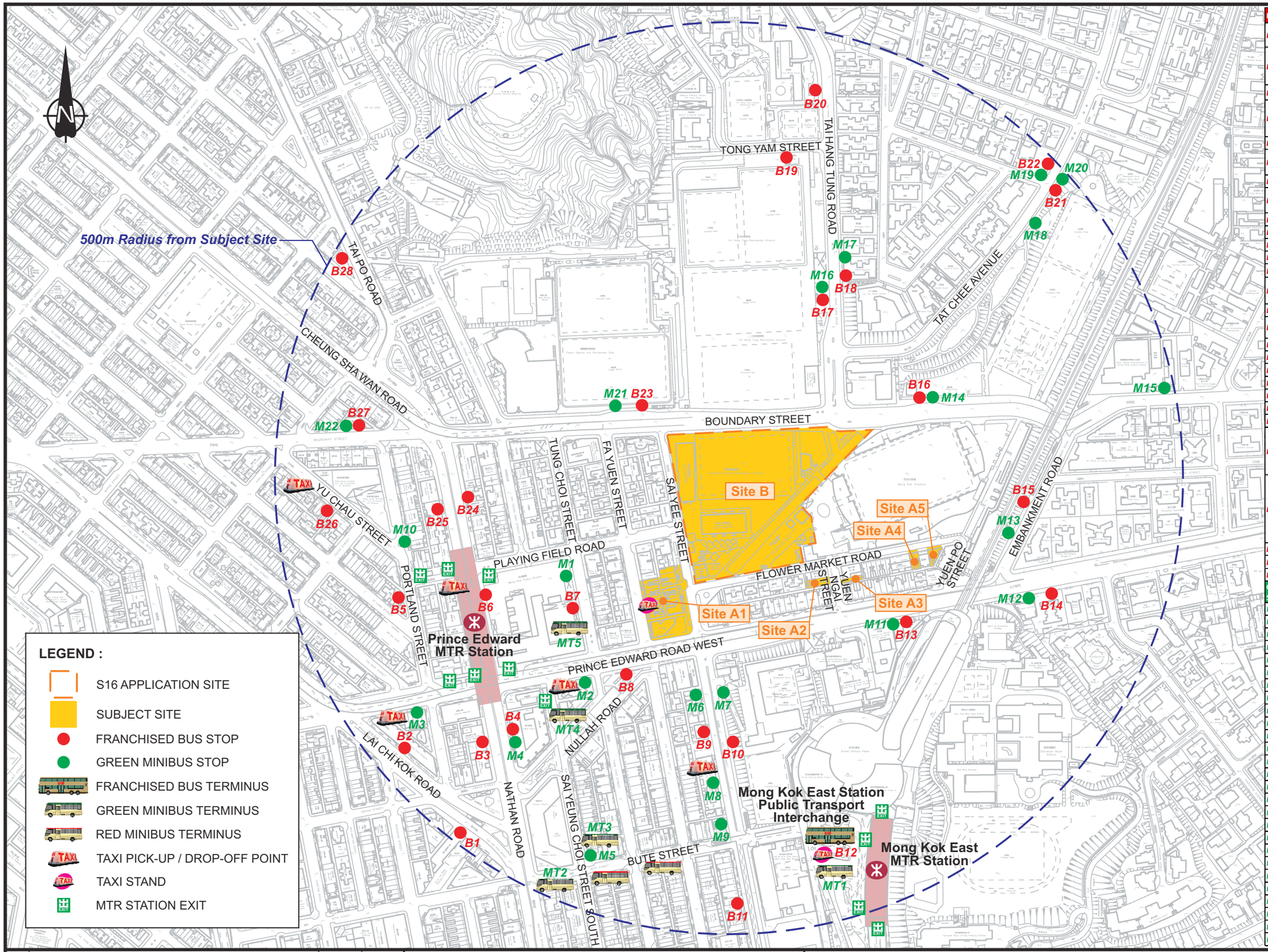
VEHICULAR ACCESS ROUTINGS TO / FROM SUBJECT SITE B

Designed	Checked	Scale	Date	Drawing No.	Rev.
HMC	CYH	NTS	MAY 2026	2.4	-

SYSTRA MVA

CHK50908510/TIA/F24.CDR/LLH/13MAY26

Original Size : A3



Bus Stop No.	Stopping Routes
B1	20A, 32, 33A, 36B, 37, 44, 87B, 87C, 87D, 87E, 117, 118, 118P, 281A, N118
B2	2, 2A, 2X, 6F, 36X, 41A, 44, 50, 63X, 117, 230X, 234P, 238P, 242X, 252B, 259B, 259C, 260B, 261B, 268X, 269X, 296C, 795, 795X, A21, N50
B3	102, 102P, 102R, 171, 171A, 171P, 904, 905
B4	79X, 98C, 98S, 102, 102P, 104, 112, 118, 118P, 171, 293S, 296P, 298X, 793, 904, 905, 970, 970X, N118, N122, N171, N216, N241
B5	2X, 42, 98E, 296P
B6	6, 37, 33A, 52P, 58X, 59X, 66X, 67X, 68X, A20, E21, E21A, E21B, E21C, E21D, N21, N21A, NA20
B7	1, 1A, 104, 203C
B8	1, 1A, 2X, 3C, 3X, 20A, 24, 27, 42, 87C, 87D, 87E, 93K, 95, 98E, 203S, 213D, 272X, 281A, 296P, N216
B9	1, 1A, 93K, 104, 203C
B10	203C, 293S, N293
B11	1, 1A, 104
B12	44, 58X, 59X, 67X, 93K, 272X
B13	1, 1A, 3C, 20A, 42, 95, 104, 203C, 203S, N216
B14	1, 1A, 2X, 3C, 12A, 20A, 24, 27, 42, 87C, 87D, 87E, 95, 98E, 213D, 281A, 296P
B15	2D, 6D, 6E, 6P, 113
B16	1, 1A, 2D, 6D, 6E, 6P, 12A, 20A, 42, 87C, 87D, 87E, 98E, 281A
B17	2D, 6D, 6E, 6P, 104
B18	2D, 6D, 6E, 6P, 104
B19	6E, 203C
B20	2D, 6D, 6P, 104
B21	203C, 203S
B22	203C
B23	12A, 20A, 42, 87C, 87D, 87E, 203C, 281A
B24	6C, 30X, 35A, 35X, 42A, 45, 60X, 69X, 79X, 81, 98C, 98S, 102, 102P, 112, 118, 118P, 171, 234X, 238X, 293S, 296P, 298X, 793, 904, 905, 970, 970X, N118, N122, N171, N241, X6C
B25	6, 6C, 6F, 13P, 30X, 35A, 35X, 42A, 43C, 45, 52X, 58X, 59X, 60X, 67X, 69X, 79X, 81, 98C, 98S, 112, 234X, 238X, 265B, 270B, 272E, 293S, 296C, 298X, 793, 970, 970X, A20, E21, E21A, E21B, E21C, E21D, N21, N21A, N122, N171, N241, NA20, X6C, X970
B26	33A
B27	12A, 20A, 42, 87C, 87D, 87E, 281A
B28	6, 6C, 81, N241, X6C
Green Minibus Stop No.	**Stopping Routes**
M1	12
M2	12S, 46, 70, 70A, 74
M3	46, 70, 70A
M4	606S
M5	74
M6	12S, 74
M7	12
M8	12, 30A
M9	27M, 27MS, 74
M10	70, 70A
M11	12, 46, 69A, 70, 70A
M12	17M
M13	2, 2A
M14	2, 2A, 69A, 70, 70A
M15	70, 70A
M16	2, 2A, 12, 41M
M17	2, 12, 41M
M18	2A
M19	41M
M20	41M
M21	69A, 70, 70A
M22	70, 70A
MT1	12, 12A, 12B, 12S, 79K
MT2	65S
MT3	616S
MT4	17M
MT5	69A

Rev.	Description	Checked	Date
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Project Title

SECTION 16 PLANNING APPLICATION FOR PROPOSED MINOR RELAXATION OF THE MAXIMUM DOMESTIC GFA OF SITE B FOR THE URBAN RENEWAL AUTHORITY SAI YEE STREET / FLOWER MARKET ROAD DEVELOPMENT SCHEME ("YTM-013"), MONG KOK, KOWLOON

Drawing Title

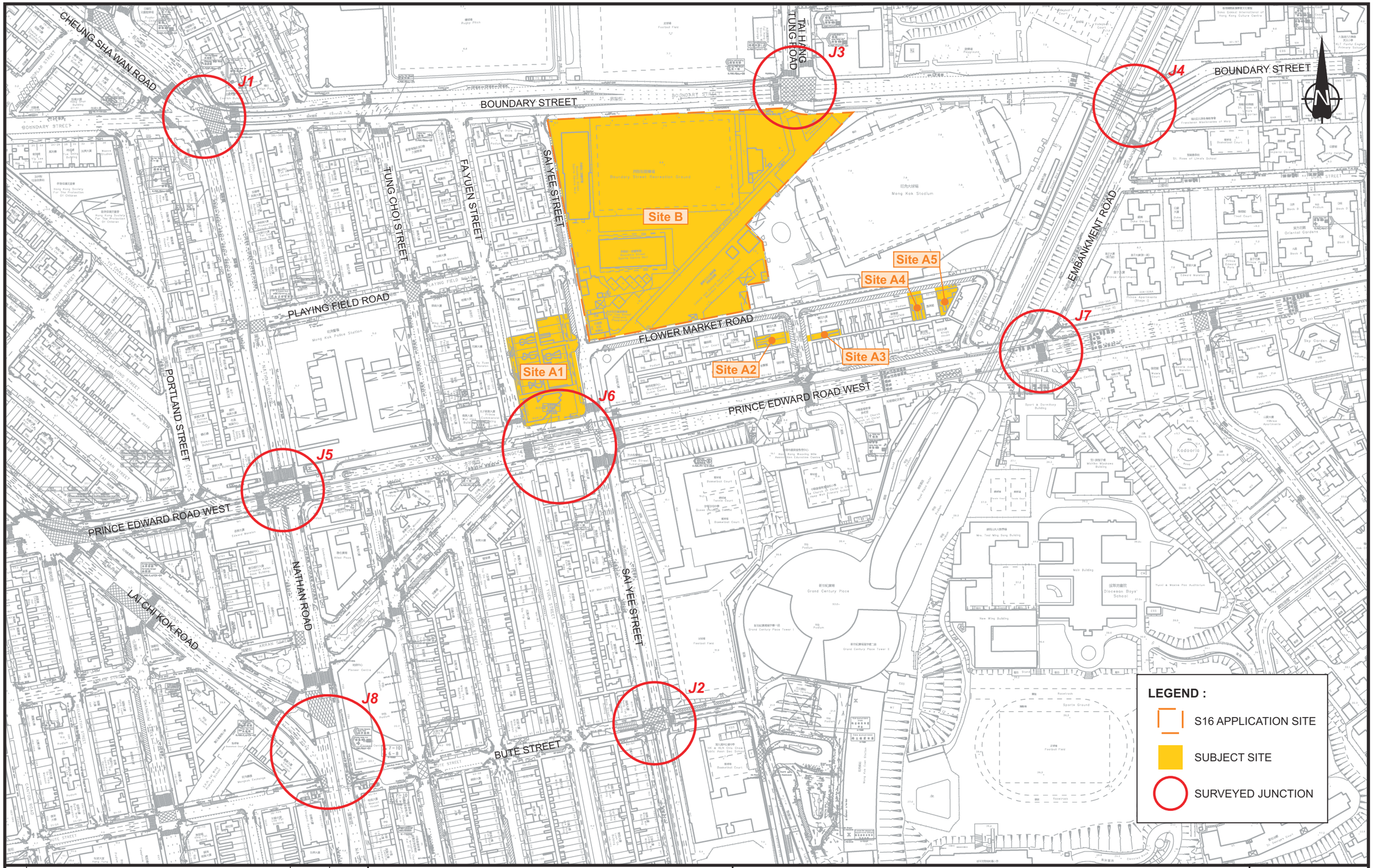
EXISTING PUBLIC TRANSPORT FACILITIES

Designed	Checked	Scale	Date	Drawing No.	Rev.
HMC	CYH	NTS	MAY 2026	3.1	-

SYSTRA MVA

CHK50908510/TIA/F31.CDR/LLH/13MAY26

Original Size : A3



Rev.	Description	Checked	Date
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Project Title

SECTION 16 PLANNING APPLICATION FOR PROPOSED MINOR RELAXATION OF THE MAXIMUM DOMESTIC GFA OF SITE B FOR THE URBAN RENEWAL AUTHORITY SAI YEE STREET / FLOWER MARKET ROAD DEVELOPMENT SCHEME ("YTM-013"), MONG KOK, KOWLOON

Drawing Title

SURVEY JUNCTION FOR TRAFFIC ASSESSMENT

Designed	Checked	Scale	Date	Drawing No.	Rev.
HMC	CYH	NTS	MAY 2026	3.2	-

SYSTRA MVA

CHK50908510/TIA/F32.CDR/LLH/13MAY26

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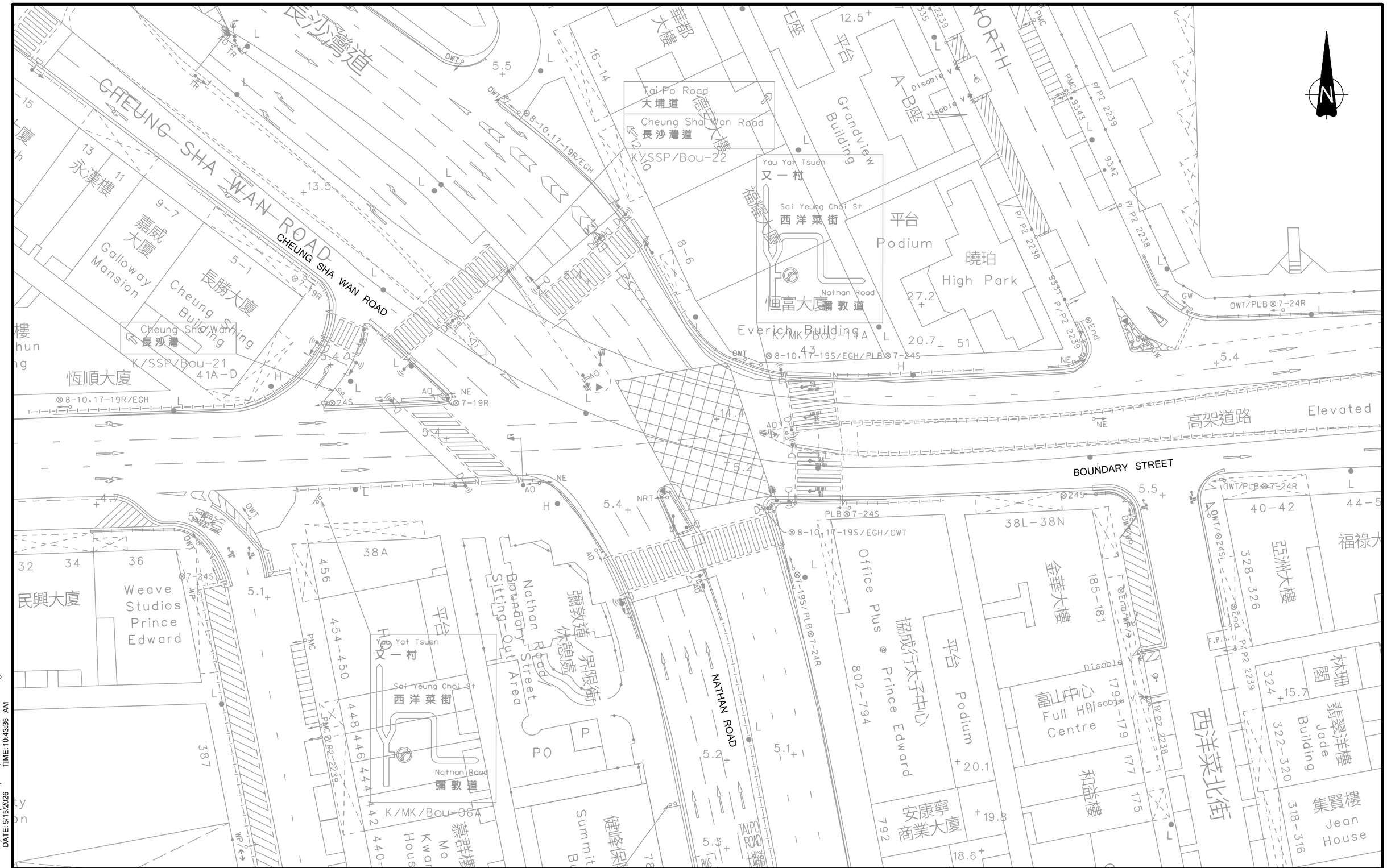

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Project Title

SECTION 16 PLANNING APPLICATION FOR PROPOSED MINOR RELAXATION OF THE MAXIMUM DOMESTIC GFA OF SITE B FOR THE URBAN RENEWAL AUTHORITY SAI YEE STREET / FLOWER MARKET ROAD DEVELOPMENT SCHEME ("YTM-013"), MONG KOK, KOWLOON

Drawing Title

EXISTING JUNCTION LAYOUT OF BOUNDARY STREET/ NATHAN ROAD/ CHEUNG SHA WAN ROAD (J1)

Designed	Checked	Scale	Date	Drawing No.	Rev.
HMC	CYH	1:500(A3)	MAY 2026	3.3	-

SYSTRA MVA

Original Size : A3

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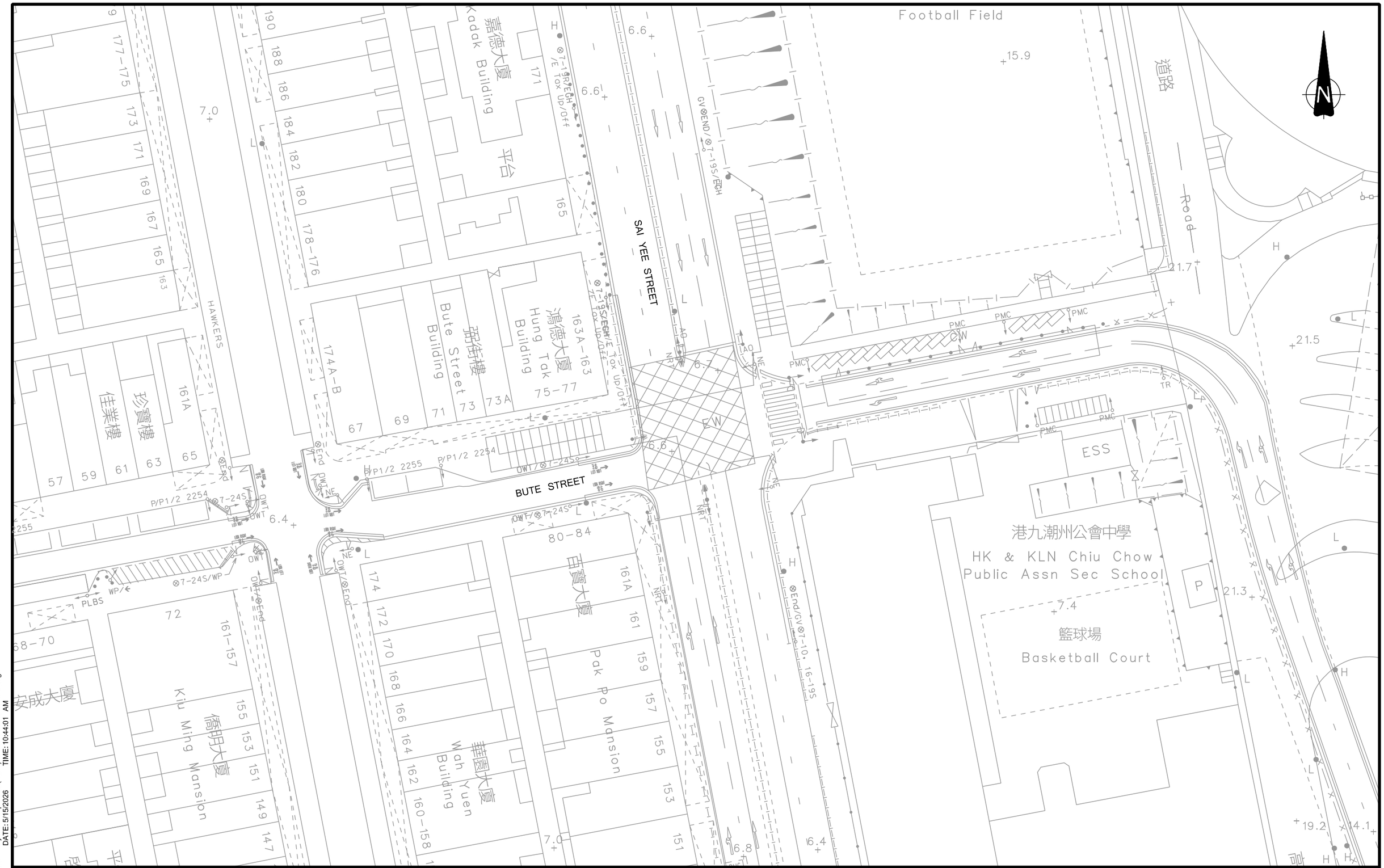

Rev.	Description	Checked	Date
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Project Title

SECTION 16 PLANNING APPLICATION FOR PROPOSED MINOR RELAXATION OF THE MAXIMUM DOMESTIC GFA OF SITE B FOR THE URBAN RENEWAL AUTHORITY SAI YEE STREET / FLOWER MARKET ROAD DEVELOPMENT SCHEME ("YTM-013"), MONG KOK, KOWLOON

Drawing Title

EXISTING JUNCTION LAYOUT OF BUTE STREET/ SAI YEE STREET (J2)

Designed	Checked	Scale	Date	Drawing No.	Rev.
HMC	CYH	1:500(A3)	MAY 2026	3.4	-

SYSTRA MVA

Original Size : A3

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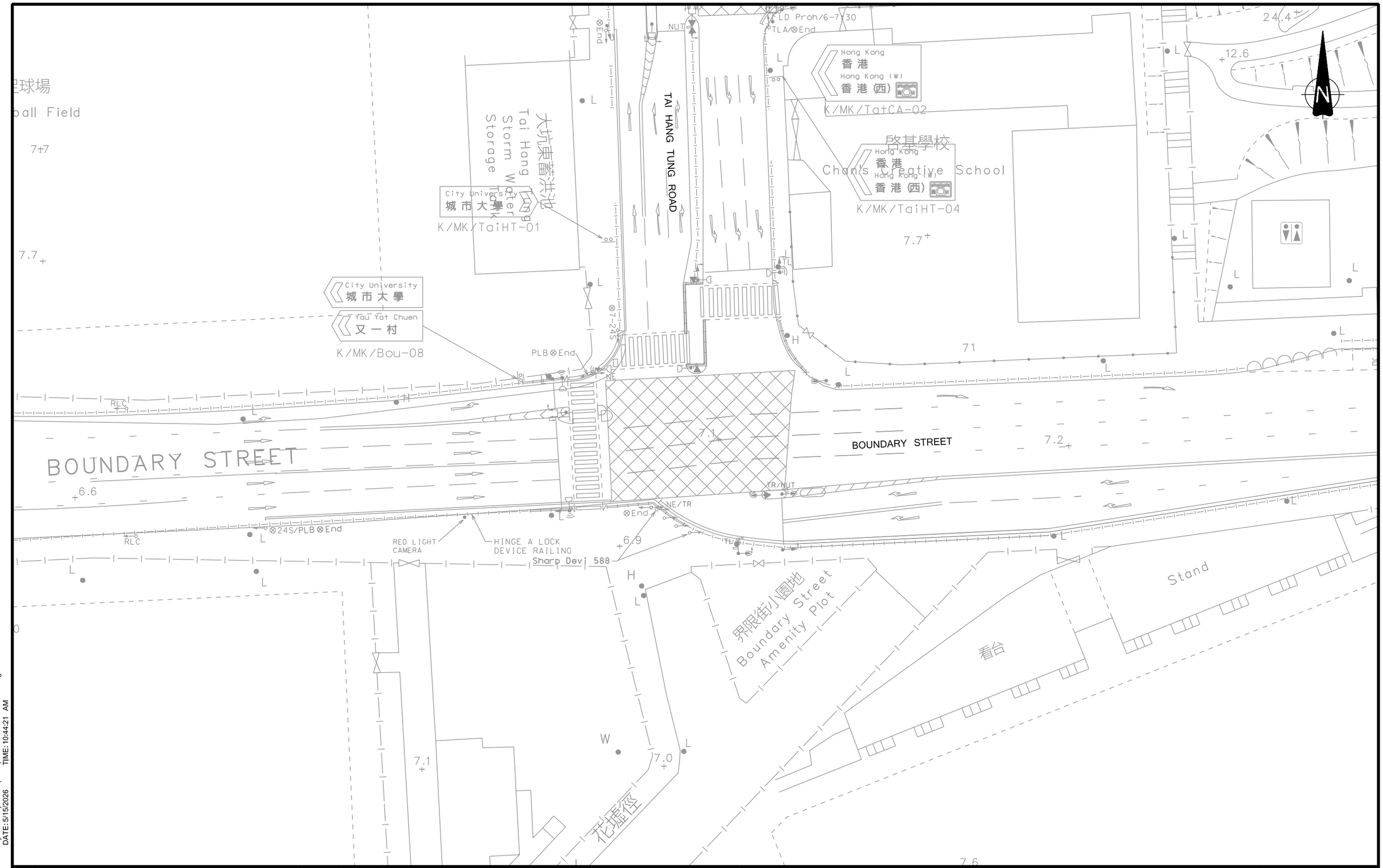

Rev.	Description	Checked	Date
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Project Title

SECTION 16 PLANNING APPLICATION FOR PROPOSED MINOR RELAXATION OF THE MAXIMUM DOMESTIC GFA OF SITE B FOR THE URBAN RENEWAL AUTHORITY SAI YEE STREET / FLOWER MARKET ROAD DEVELOPMENT SCHEME ("YTM-013"), MONG KOK, KOWLOON

Drawing Title

EXISTING JUNCTION LAYOUT OF BOUNDARY STREET/ TAI HANG TUNG ROAD (J3)

Designed	Checked	Scale	Date	Drawing No.	Rev.
HMC	CYH	1:500(A3)	MAY 2026	3.5	-

SYSTRA MVA

Original Size : A3

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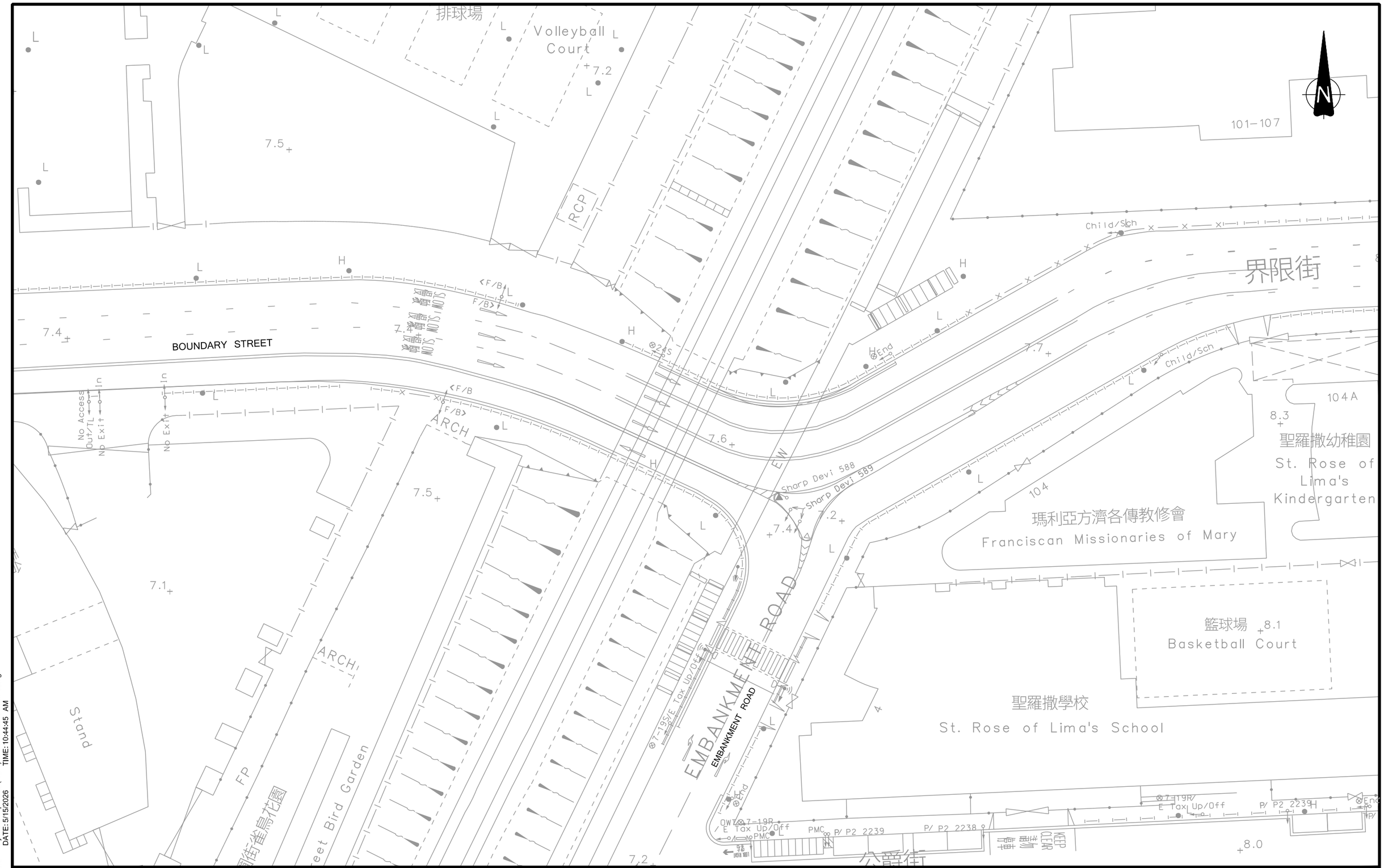

Rev.	Description	Checked	Date
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Project Title

SECTION 16 PLANNING APPLICATION FOR PROPOSED MINOR RELAXATION OF THE MAXIMUM DOMESTIC GFA OF SITE B FOR THE URBAN RENEWAL AUTHORITY SAI YEE STREET / FLOWER MARKET ROAD DEVELOPMENT SCHEME ("YTM-013"), MONG KOK, KOWLOON

Drawing Title

EXISTING JUNCTION LAYOUT OF BOUNDARY STREET/ EMBANKMENT ROAD

Designed	Checked	Scale	Date	Drawing No.	Rev.
HMC	CYH	1:500(A3)	MAY 2026	3.6	-

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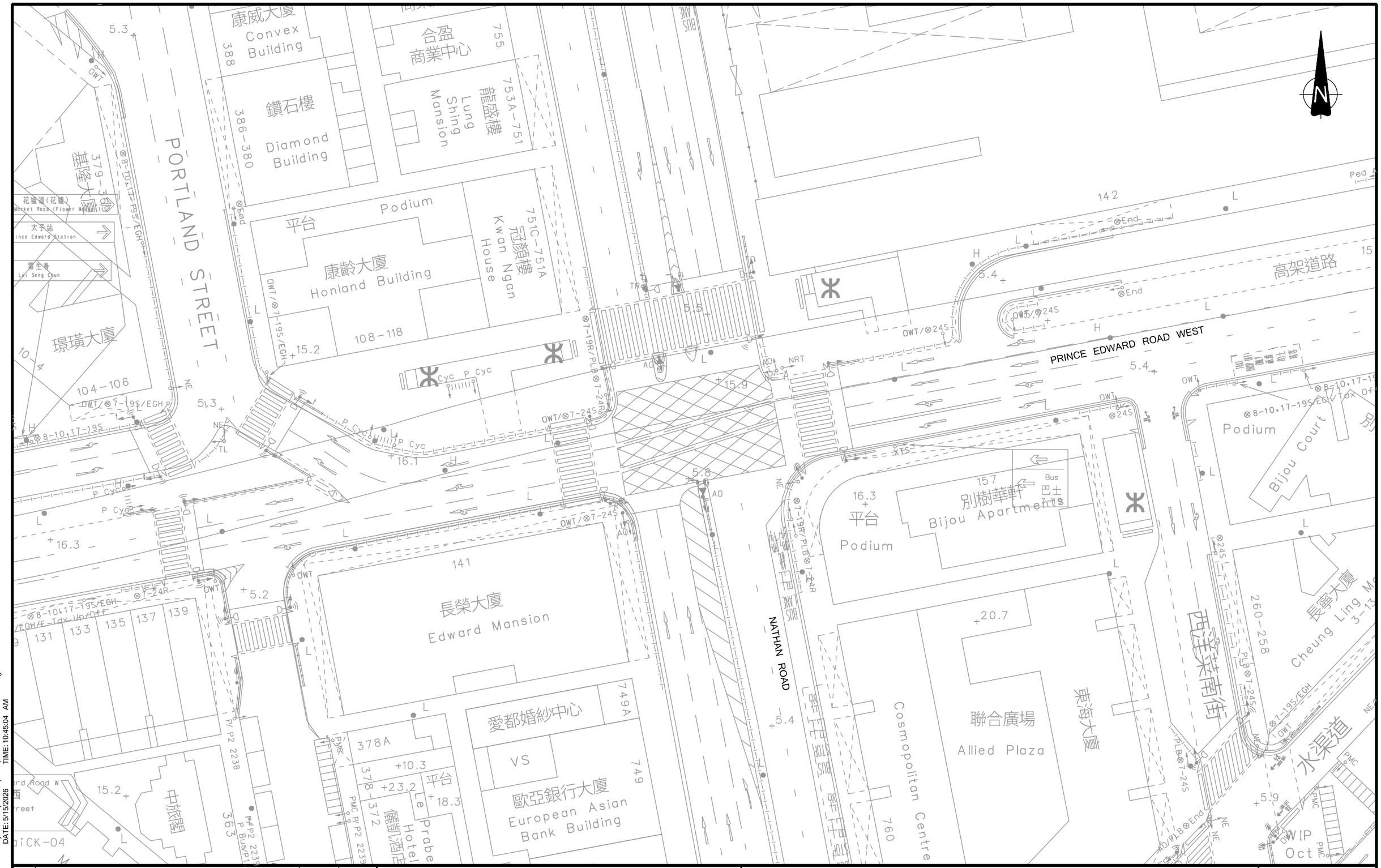

Rev.	Description	Checked	Date
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Project Title

SECTION 16 PLANNING APPLICATION FOR PROPOSED MINOR RELAXATION OF THE MAXIMUM DOMESTIC GFA OF SITE B FOR THE URBAN RENEWAL AUTHORITY SAI YEE STREET / FLOWER MARKET ROAD DEVELOPMENT SCHEME ("YTM-013"), MONG KOK, KOWLOON

Drawing Title

EXISTING JUNCTION LAYOUT OF PRINCE EDWARD ROAD WEST/ NATHAN ROAD (J5)

Designed	Checked	Scale	Date	Drawing No.	Rev.
HMC	CYH	1:500(A3)	MAY 2026	3.7	-

SYSTRA MVA

Original Size : A3

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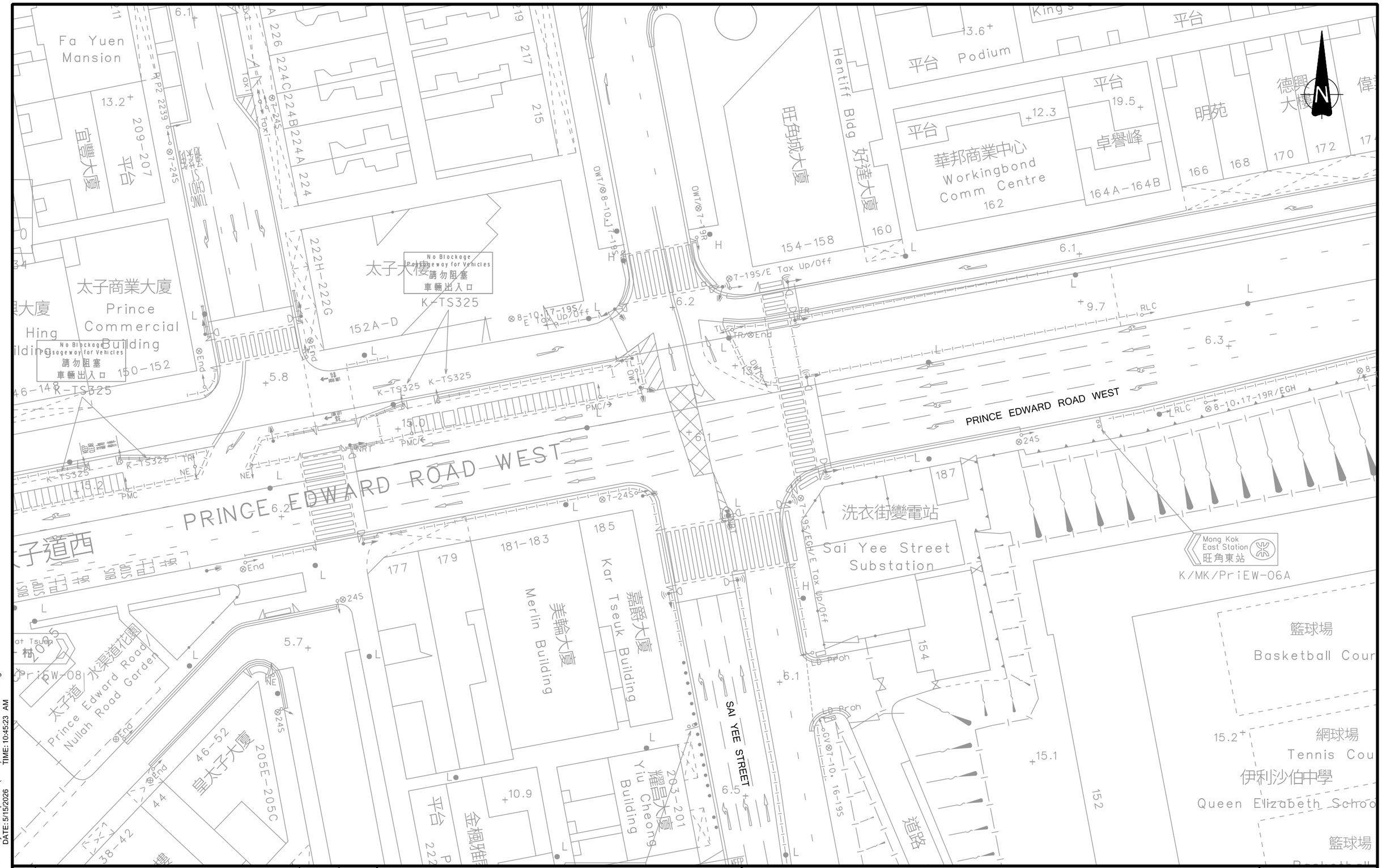

Rev.	Description	Checked	Date
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Project Title

SECTION 16 PLANNING APPLICATION FOR PROPOSED MINOR RELAXATION OF THE MAXIMUM DOMESTIC GFA OF SITE B FOR THE URBAN RENEWAL AUTHORITY SAI YEE STREET / FLOWER MARKET ROAD DEVELOPMENT SCHEME ("YTM-013"), MONG KOK, KOWLOON

Drawing Title

EXISTING JUNCTION LAYOUT OF PRINCE EDWARD ROAD WEST/ SAI YEE STREET (J6)

Designed	Checked	Scale	Date	Drawing No.	Rev.
HMC	CYH	1:500(A3)	MAY 2026	3.8	-

SYSTRA MVA

Original Size : A3

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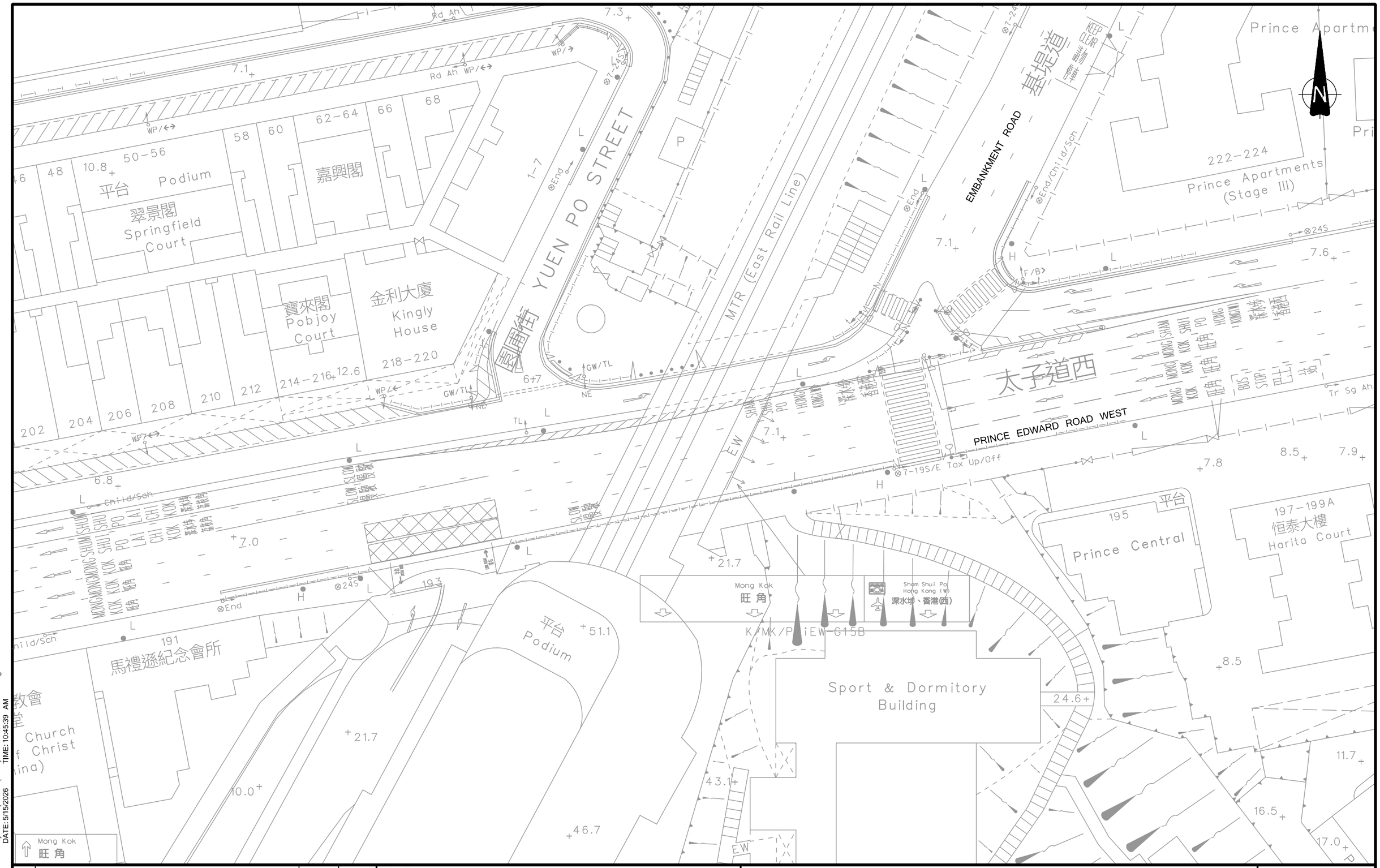

Rev.	Description	Checked	Date
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Project Title

SECTION 16 PLANNING APPLICATION FOR PROPOSED MINOR RELAXATION OF THE MAXIMUM DOMESTIC GFA OF SITE B FOR THE URBAN RENEWAL AUTHORITY SAI YEE STREET / FLOWER MARKET ROAD DEVELOPMENT SCHEME ("YTM-013"), MONG KOK, KOWLOON

Drawing Title

EXISTING JUNCTION LAYOUT OF PRINCE EDWARD ROAD WEST/ EMBANKMENT ROAD (J7)

Designed	Checked	Scale	Date	Drawing No.	Rev.
HMC	CYH	1:500(A3)	APR 2026	3.9	-

SYSTRA MVA

Original Size : A3

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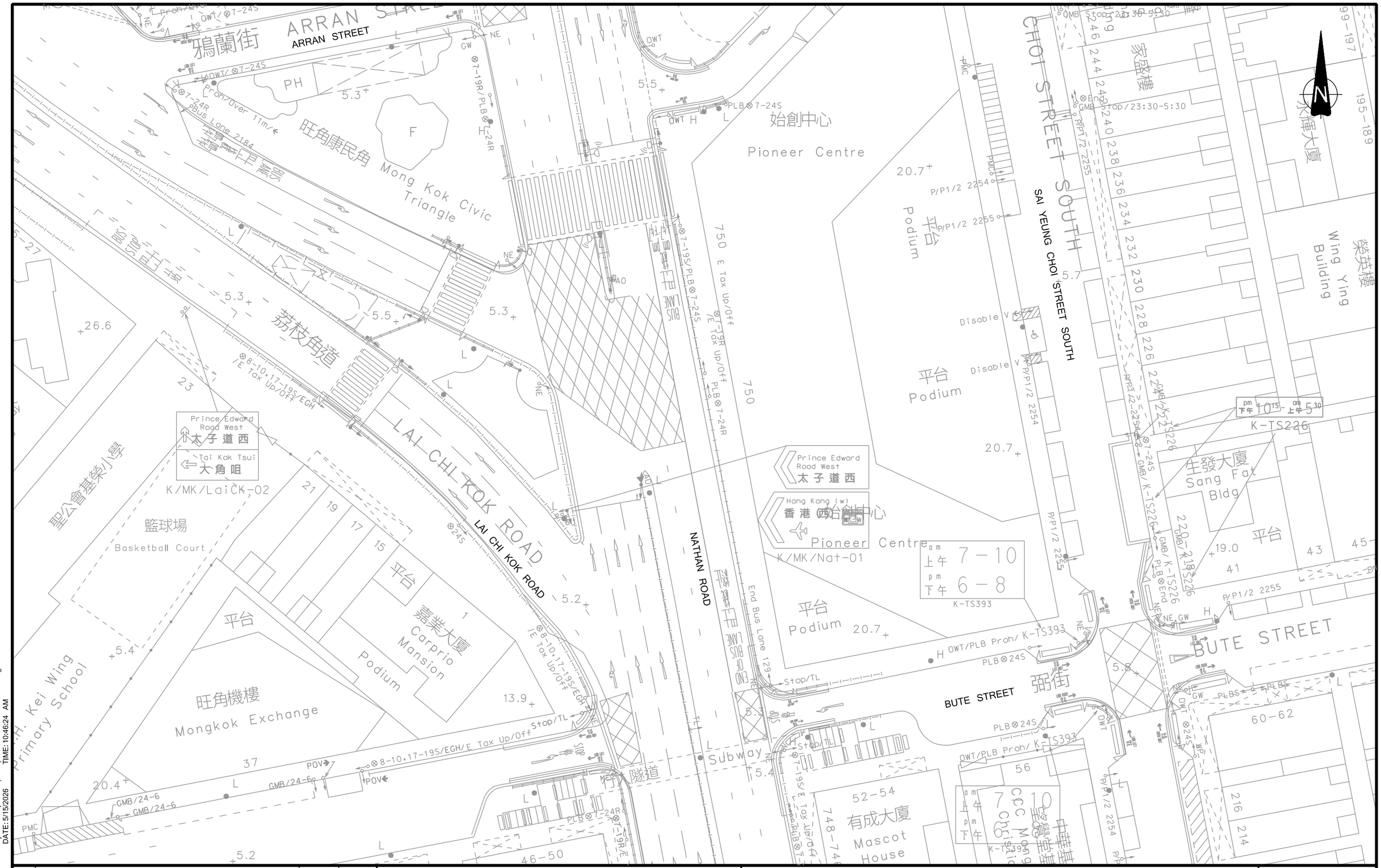

Rev.	Description	Checked	Date
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Project Title

SECTION 16 PLANNING APPLICATION FOR PROPOSED MINOR RELAXATION OF THE MAXIMUM DOMESTIC GFA OF SITE B FOR THE URBAN RENEWAL AUTHORITY SAI YEE STREET / FLOWER MARKET ROAD DEVELOPMENT SCHEME ("YTM-013"), MONG KOK, KOWLOON

Drawing Title

EXISTING JUNCTION LAYOUT OF LAI CHI KOK ROAD/ NATHAN ROAD (J8)

Designed	Checked	Scale	Date	Drawing No.	Rev.
HMC	CYH	1:500(A3)	MAY 2026	3.10	-

SYSTRA MVA

Original Size : A3

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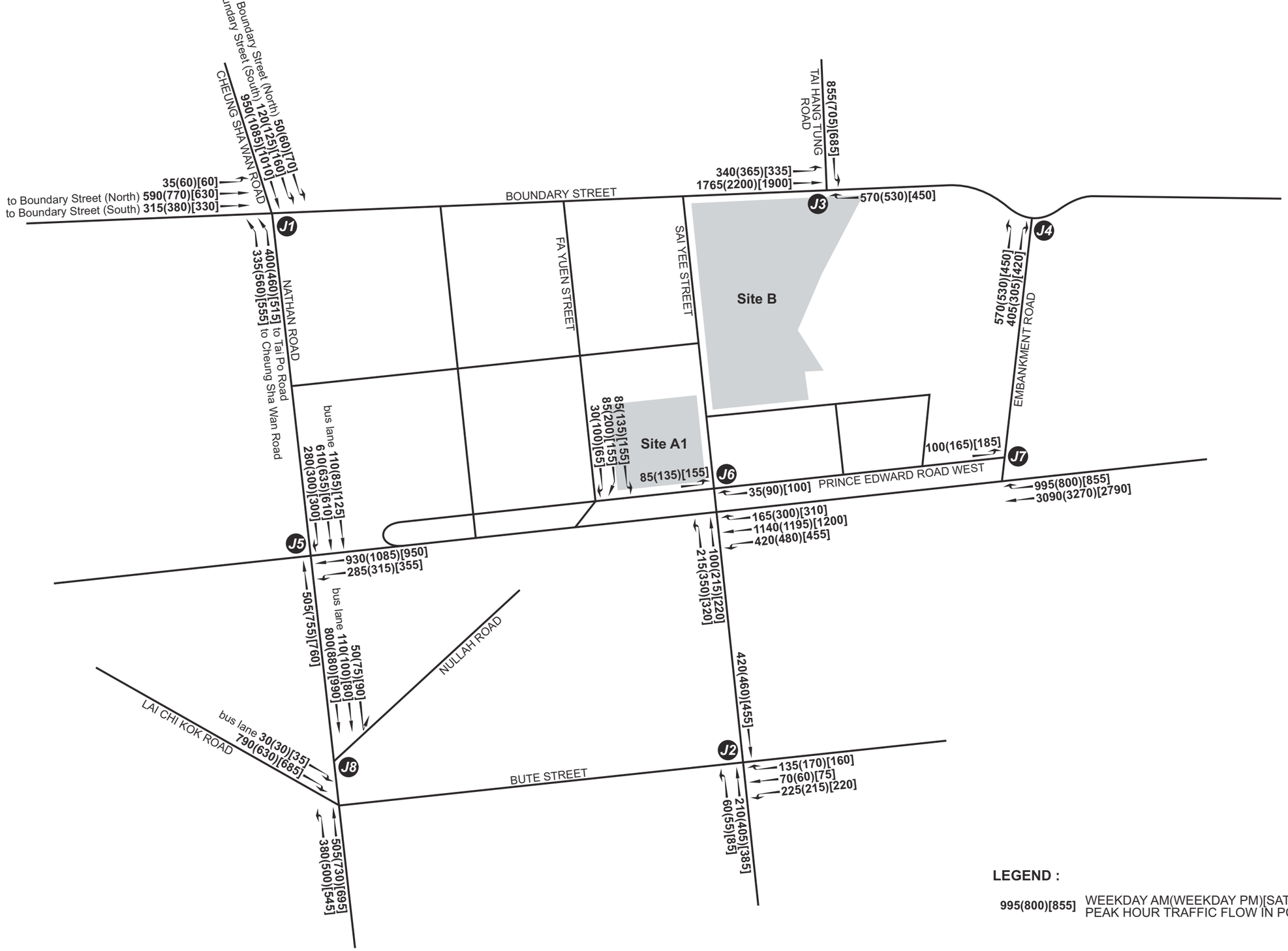

LEGEND :

995(800)[855] WEEKDAY AM(WEEKDAY PM)[SATURDAY] PEAK HOUR TRAFFIC FLOW IN PCU/HR

Rev.	Description	Checked	Date
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Project Title

SECTION 16 PLANNING APPLICATION FOR PROPOSED MINOR RELAXATION OF THE MAXIMUM DOMESTIC GFA OF SITE B FOR THE URBAN RENEWAL AUTHORITY SAI YEE STREET / FLOWER MARKET ROAD DEVELOPMENT SCHEME ("YTM-013"), MONG KOK, KOWLOON

Drawing Title

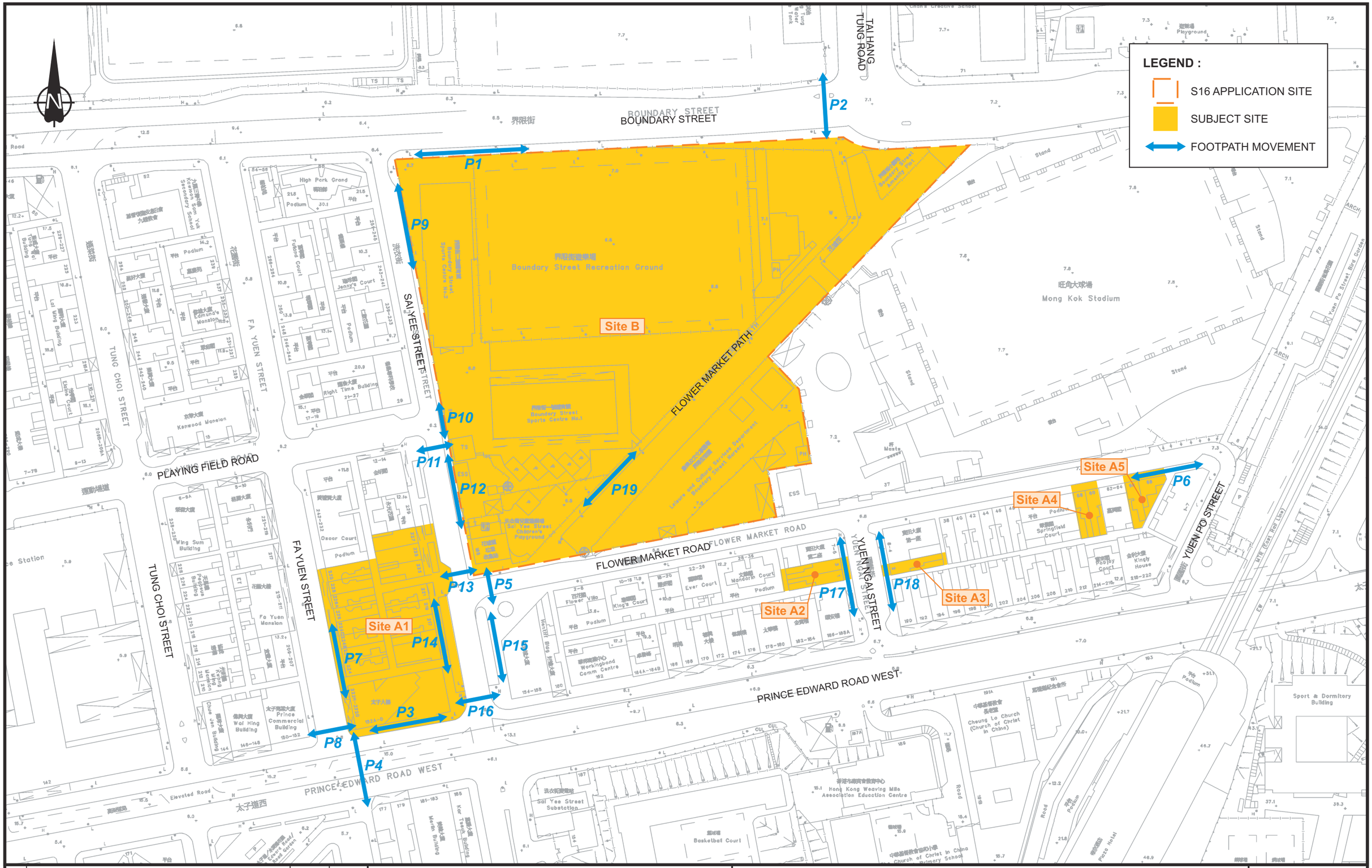
2026 OBSERVED TRAFFIC FLOW

Designed	Checked	Scale	Date	Drawing No.	Rev.
HMC	CYH	NTS	MAY 2026	3.11	-

SYSTRA MVA

CHK50908510/TIA/F311.CDR/LLH/13MAY26

Original Size : A3



Rev.	Description	Checked	Date
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Project Title

SECTION 16 PLANNING APPLICATION FOR PROPOSED MINOR RELAXATION OF THE MAXIMUM DOMESTIC GFA OF SITE B FOR THE URBAN RENEWAL AUTHORITY SAI YEE STREET / FLOWER MARKET ROAD DEVELOPMENT SCHEME ("YTM-013"), MONG KOK, KOWLOON

Drawing Title

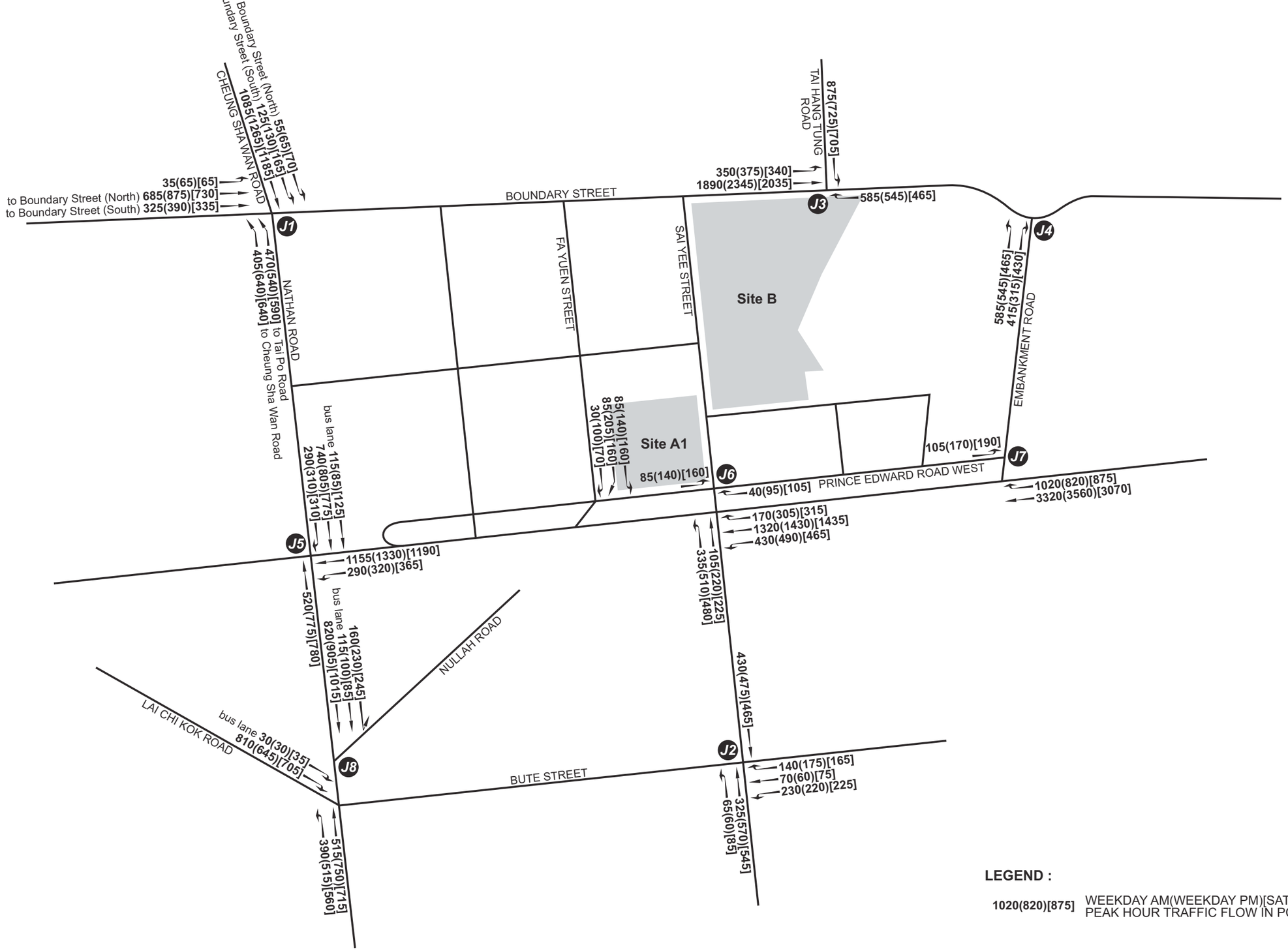
SURVEYED PEDESTRIAN WALKWAY FOR ASSESSMENT

Designed	Checked	Scale	Date	Drawing No.	Rev.
HMC	CYH	NTS	MAY 2026	3.12	-

SYSTRA MVA

CHK50908510/TIA/F312.CDR/LLH/13MAY26

Original Size : A3



LEGEND :

1020(820)[875] WEEKDAY AM(WEEKDAY PM)[SATURDAY] PEAK HOUR TRAFFIC FLOW IN PCU/HR

Rev.	Description	Checked	Date
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Project Title

SECTION 16 PLANNING APPLICATION FOR PROPOSED MINOR RELAXATION OF THE MAXIMUM DOMESTIC GFA OF SITE B FOR THE URBAN RENEWAL AUTHORITY SAI YEE STREET / FLOWER MARKET ROAD DEVELOPMENT SCHEME ("YTM-013"), MONG KOK, KOWLOON

Drawing Title

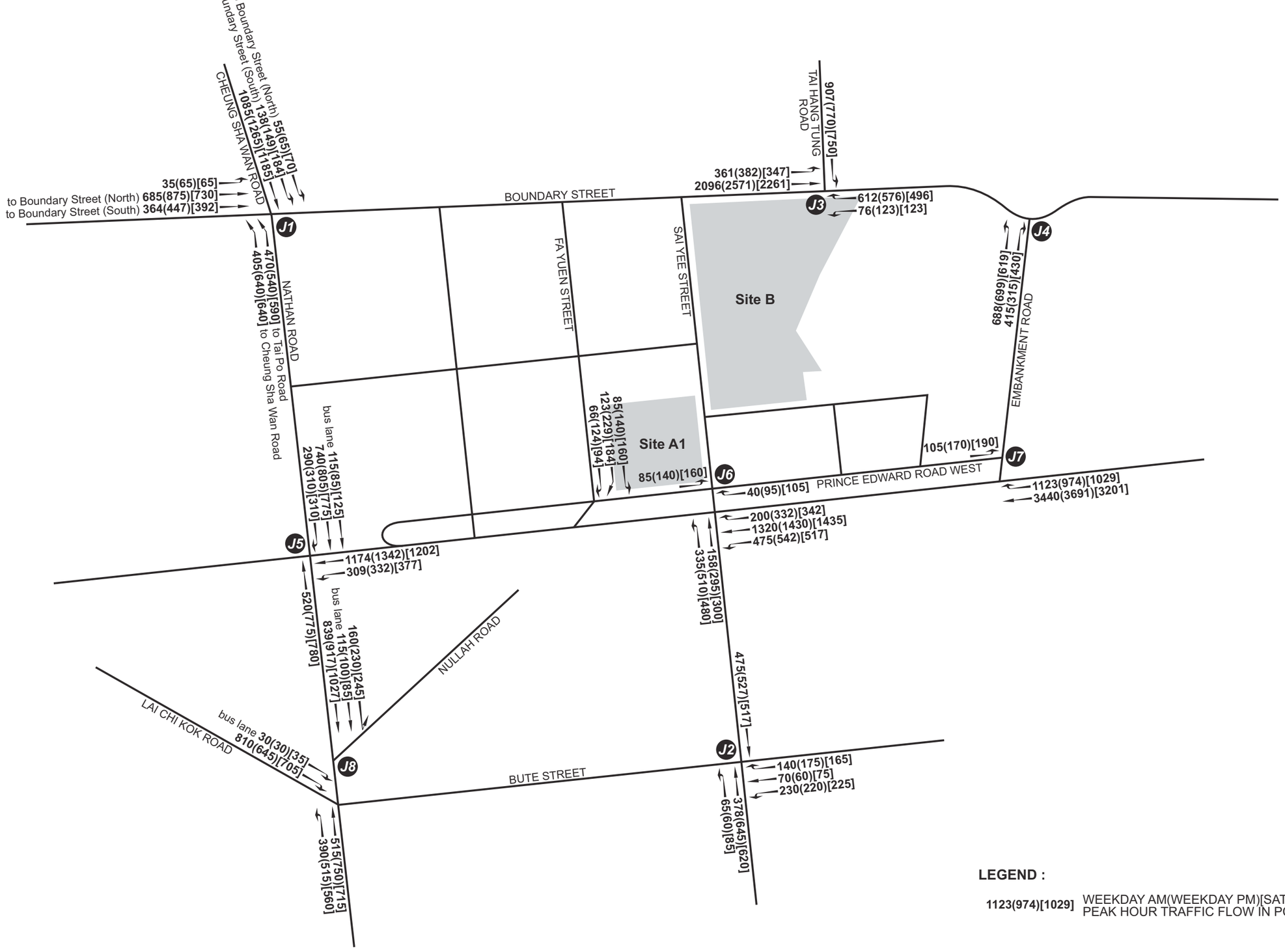
2039 REFERENCE TRAFFIC FLOW

Designed	Checked	Scale	Date	Drawing No.	Rev.
HMC	CYH	NTS	MAY 2026	4.1	-

SYSTRA MVA

CHK50908510/TIA/F41.CDR/LLH/13MAY26

Original Size : A3



LEGEND :

1123(974)[1029] WEEKDAY AM(WEEKDAY PM)[SATURDAY] PEAK HOUR TRAFFIC FLOW IN PCU/HR

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

Project Title

SECTION 16 PLANNING APPLICATION FOR PROPOSED MINOR RELAXATION OF THE MAXIMUM DOMESTIC GFA OF SITE B FOR THE URBAN RENEWAL AUTHORITY SAI YEE STREET / FLOWER MARKET ROAD DEVELOPMENT SCHEME ("YTM-013"), MONG KOK, KOWLOON

Drawing Title

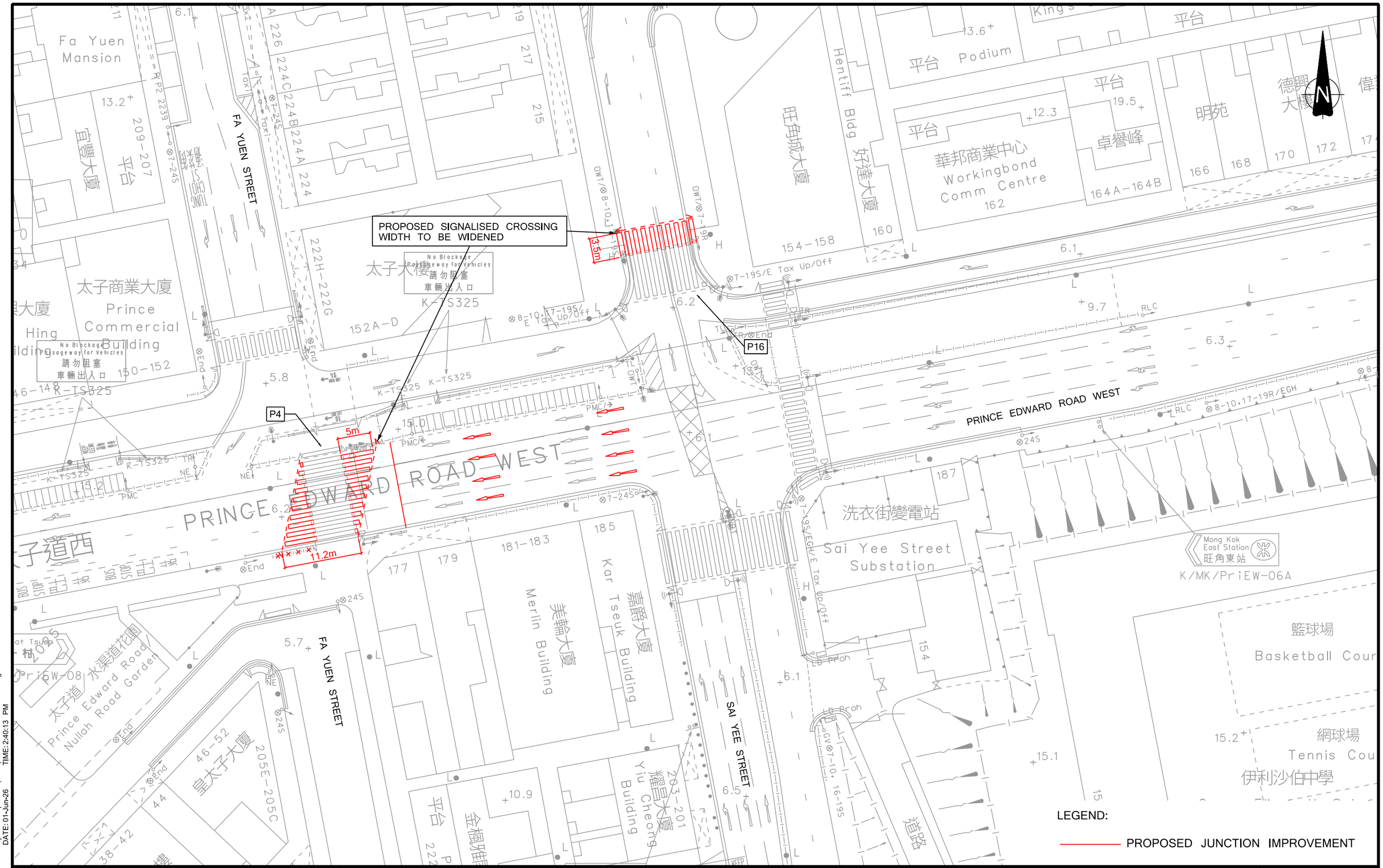
2039 DESIGN TRAFFIC FLOW

Designed	Checked	Scale	Date	Drawing No.	Rev.
HMC	CYH	NTS	MAY 2026	4.2	-

SYSTRA MVA

CHK50908510/TIA/F42.CDR/LLH/13MAY26

Original Size : A3



Rev.	Description	Checked	Date
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Project Title

SECTION 16 PLANNING APPLICATION FOR PROPOSED MINOR RELAXATION OF THE MAXIMUM DOMESTIC GFA OF SITE B FOR THE URBAN RENEWAL AUTHORITY SAI YEE STREET / FLOWER MARKET ROAD DEVELOPMENT SCHEME ("YTM-013"), MONG KOK, KOWLOON

Drawing Title

PROPOSED WIDENING OF SIGNALISED CROSSINGS

Designed	Checked	Scale	Date	Drawing No.	Rev.
HMC	CYH	1:500(A3)	JUN 2026	5.1	-

SYSTRA MVA

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PRINTED BY: cchan
DATE: 01-Jun-26 TIME: 2:40:13 PM

Original Size : A3

Appendix A1

JUNCTION CALCULATIONS (WEEKDAY)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

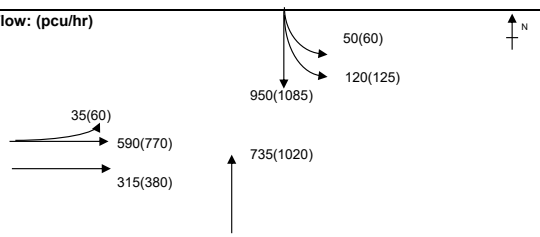
Junction: J1 - Boundary Street / Nathan Road / Cheung Sha Wan Road — Design Year: 2026

Description: 2026 Observed Flow — Designed By: HMC — Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Cheung Sha Wan Road - SB	↳	B	1	3.500	15					1785	1785	170	0.095		185	0.104	
	↓	B	1	3.300						2085	2085	317	0.152	0.152	362	0.174	0.174
	↓	B	1	3.300						2085	2085	316	0.152		361	0.173	
	↓	B	1	3.300						2085	2085	317	0.152		362	0.174	
Nathan Road - NB	↑	A	1,3	3.500						1965	1965	234	0.119		325	0.165	
	↑	A	1,3	3.500						2105	2105	250	0.119		347	0.165	
	↑	A	1,3	3.500						2105	2105	251	0.119		348	0.165	
Boundary Street - EB	↑→	C	2	3.500	15			12%	15%	1940	1935	299	0.154		397	0.205	0.205
	→	C	2	3.600						2115	2115	326	0.154	0.154	433	0.205	
	→	C	2	3.600						2115	2115	315	0.149		380	0.180	
Pedestrian Crossing		Ep	3	MIN GREEN + FLASH =	19		+	13		=	32			*			*
		Fp	1,3	MIN GREEN + FLASH =	13		+	13		=	26						
		Gp	2,3	MIN GREEN + FLASH =	14		+	13		=	27						
		Hp	2	MIN GREEN + FLASH =	31		+	10		=	41						

Notes:

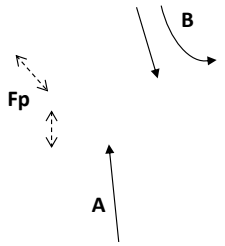
Flow: (pcu/hr)



Group	A,C	B,C,Ep	Group	A,C	B,C,Ep
y	0.273	0.306	y	0.371	0.379
L (sec)	10	50	L (sec)	10	50
C (sec)	120	120	C (sec)	130	130
y pract.	0.825	0.525	y pract.	0.831	0.554
R.C. (%)	202%	71%	R.C. (%)	124%	46%

Stage / Phase Diagrams

1.



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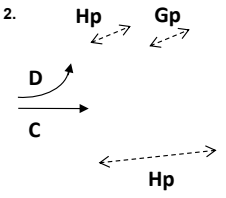

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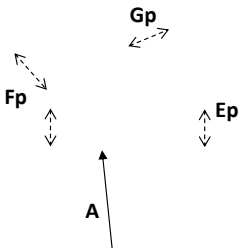


4.

5.

I/G= 3	I/G=		I/G= 11		
I/G= 3	I/G=		I/G= 11		

Date: APR, 2026 — **Junction:** J1 - Boundary Street / Nathan Road / Cheung Sha Wan Road

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

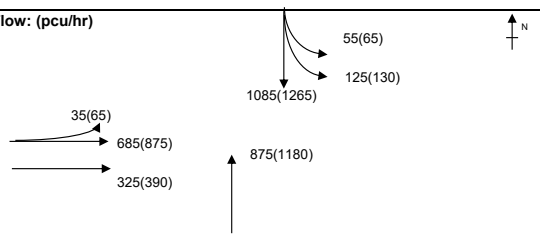
Junction: J1 - Boundary Street / Nathan Road / Cheung Sha Wan Road — Design Year: 2039

Description: 2039 Reference Flow — Designed By: HMC — Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Cheung Sha Wan Road - SB	↳	B	1	3.500	15					1785	1785	180	0.101		195	0.109	
	↓	B	1	3.300						2085	2085	362	0.174	0.174	422	0.202	0.202
	↓	B	1	3.300						2085	2085	361	0.173		421	0.202	
	↓	B	1	3.300						2085	2085	362	0.174		422	0.202	
Nathan Road - NB	↑	A	1,3	3.500						1965	1965	278	0.141		375	0.191	
	↑	A	1,3	3.500						2105	2105	299	0.142		403	0.191	
	↑	A	1,3	3.500						2105	2105	298	0.142		402	0.191	
Boundary Street - EB	↑→	C	2	3.500	15			10%	14%	1945	1935	345	0.177	0.177	449	0.232	
	→	C	2	3.600						2115	2115	375	0.177		491	0.232	0.232
	→	C	2	3.600						2115	2115	325	0.154		390	0.184	
Pedestrian Crossing		Ep	3	MIN GREEN + FLASH =	19		+	13		=	32			*			*
		Fp	1,3	MIN GREEN + FLASH =	13		+	13		=	26						
		Gp	2,3	MIN GREEN + FLASH =	14		+	13		=	27						
		Hp	2	MIN GREEN + FLASH =	31		+	10		=	41						

Notes:

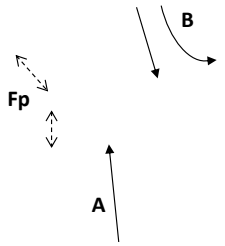
Flow: (pcu/hr)



Group	A,C	B,C,Ep	Group	A,C	B,C,Ep
y	0.319	0.351	y	0.424	0.435
L (sec)	10	50	L (sec)	10	50
C (sec)	120	120	C (sec)	130	130
y pract.	0.825	0.525	y pract.	0.831	0.554
R.C. (%)	158%	50%	R.C. (%)	96%	27%

Stage / Phase Diagrams

1.



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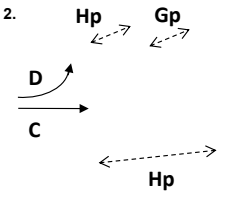

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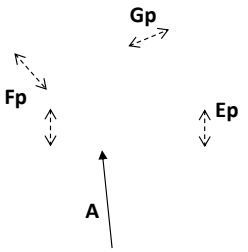


4.

5.

I/G= 3	I/G=		I/G= 11		
I/G= 3	I/G=		I/G= 11		

Date: APR, 2026 **Junction:** J1 - Boundary Street / Nathan Road / Cheung Sha Wan Road

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

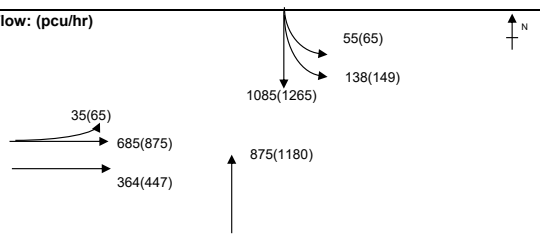
Junction: J1 -Boundary Street / Nathan Road / Cheung Sha Wan Road — Design Year: 2039

Description: 2039 Design Flow — Designed By: HMC — Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Cheung Sha Wan Road - SB	↳	B	1	3.500	15					1785	1785	193	0.108		214	0.120	
	↓	B	1	3.300						2085	2085	362	0.174	0.174	422	0.202	0.202
	↓	B	1	3.300						2085	2085	361	0.173		421	0.202	
	↓	B	1	3.300						2085	2085	362	0.174		422	0.202	
Nathan Road - NB	↑	A	1,3	3.500						1965	1965	278	0.141		375	0.191	
	↑	A	1,3	3.500						2105	2105	299	0.142		403	0.191	
	↑	A	1,3	3.500						2105	2105	298	0.142		402	0.191	
Boundary Street - EB	↑→	C	2	3.500	15			10%	14%	1945	1935	345	0.177	0.177	449	0.232	
	→	C	2	3.600						2115	2115	375	0.177		491	0.232	0.232
	→	C	2	3.600						2115	2115	364	0.172		447	0.211	
Pedestrian Crossing		Ep	3	MIN GREEN + FLASH =	19		+	13		=	32			*			*
		Fp	1,3	MIN GREEN + FLASH =	13		+	13		=	26						
		Gp	2,3	MIN GREEN + FLASH =	14		+	13		=	27						
		Hp	2	MIN GREEN + FLASH =	31		+	10		=	41						

Notes:

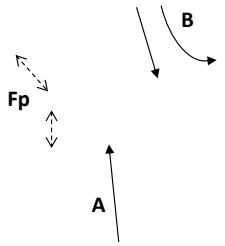
Flow: (pcu/hr)



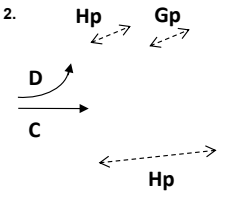
Group	A,C	B,C,Ep	Group	A,C	B,C,Ep
y	0.319	0.351	y	0.424	0.435
L (sec)	10	50	L (sec)	10	50
C (sec)	120	120	C (sec)	130	130
y pract.	0.825	0.525	y pract.	0.831	0.554
R.C. (%)	158%	50%	R.C. (%)	96%	27%

Stage / Phase Diagrams

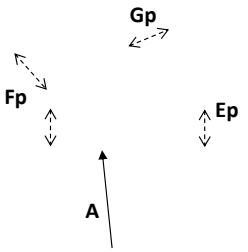
1.



2.



3.



4.

5.

I/G= 3	I/G=		I/G= 11		
I/G= 3	I/G=		I/G= 11		

Date: APR, 2026 **Junction:** J1 -Boundary Street / Nathan Road / Cheung Sha Wan Road

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

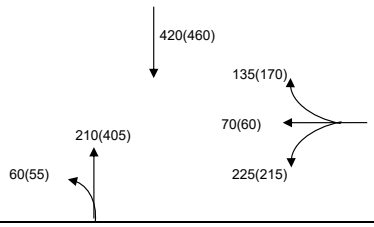
Junction: J2 - Bute Street / Sai Yee Street Design Year: 2026

Description: 2026 Observed Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Bute Street (EB)	↑←	B	2	3.200		13		73%	80%	1785	1770	205	0.115		230	0.130	0.130
	↓	B	2	3.200	10					1685	1685	225	0.134	0.134	215	0.128	
Sai Yee Street (SB)	↓	A	1	3.500						1965	1965	203	0.103	0.103	222	0.113	
	↓	A	1	3.500						2105	2105	217	0.103		238	0.113	
Sai Yee Street (NB)	* ↑	A	1	3.500	10			53%	46%	910	920	80	0.088		141	0.153	0.153
	↑	A	1	3.500						2105	2105	190	0.090		319	0.152	
Pedestrian Crossing		Cp	1	MIN GREEN + FLASH =			5	+	8	=	13						

Notes:

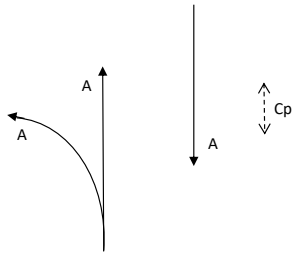
* Site Factor = 0.5 (Kerbside Activities)



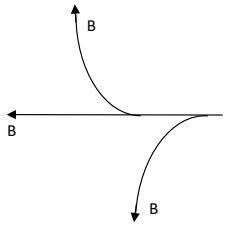
Group	Cp,B	A,B	Group	Cp,B	A,B
y	0.134	0.237	y	0.130	0.283
L (sec)	19	9	L (sec)	19	9
C (sec)	130	130	C (sec)	130	130
y pract.	0.768	0.838	y pract.	0.768	0.838
R.C. (%)	475%	254%	R.C. (%)	491%	196%

Stage / Phase Diagrams

1.



2.



3.

4.

5.

I/G= 6	I/G=		I/G=		
I/G= 6	I/G=		I/G=		

Date: APR, 2026 **Junction:** J2 - Bute Street / Sai Yee Street (J2)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

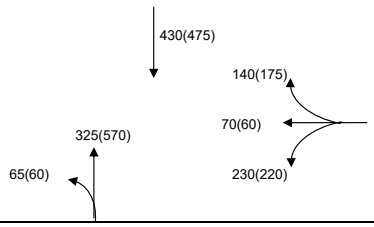
Junction: J2 - Bute Street / Sai Yee Street Design Year: 2039

Description: 2039 Reference Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Bute Street (EB)	↑←	B	2	3.200		13		67%	74%	1795	1780	210	0.117		235	0.132	0.132
	↓	B	2	3.200	10					1685	1685	230	0.136	0.136	220	0.131	
Sai Yee Street (SB)	↓	A	1	3.500						1965	1965	208	0.106		229	0.117	
	↓	A	1	3.500						2105	2105	222	0.105		246	0.117	
Sai Yee Street (NB)	* ↑←	A	1	3.500	10			56%	31%	905	940	117	0.129		194	0.206	
	↑	A	1	3.500						2105	2105	273	0.130	0.130	436	0.207	0.207
Pedestrian Crossing		Cp	1	MIN GREEN + FLASH =			5	+	8	=	13						

Notes:

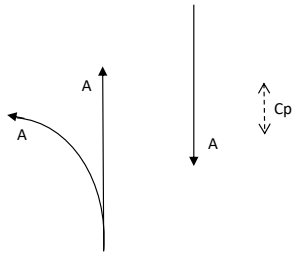
* Site Factor = 0.5 (Kerbside Activities)



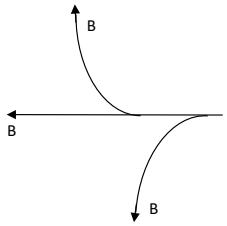
Group	Cp,B	A,B	Group	Cp,B	A,B
y	0.136	0.266	y	0.132	0.339
L (sec)	19	9	L (sec)	19	9
C (sec)	130	130	C (sec)	130	130
y pract.	0.768	0.838	y pract.	0.768	0.838
R.C. (%)	463%	215%	R.C. (%)	482%	147%

Stage / Phase Diagrams

1.



2.



3.

4.

5.

I/G= 6	I/G=		I/G=		
I/G= 6	I/G=		I/G=		

Date:	Junction:
APR, 2026	J2 - Bute Street / Sai Yee Street (J2)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

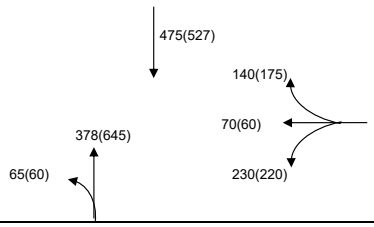
Junction: J2 - Bute Street / Sai Yee Street Design Year: 2039

Description: 2039 Design Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Bute Street (EB)	↑←	B	2	3.200		13		67%	74%	1795	1780	210	0.117		235	0.132	0.132
	↓	B	2	3.200	10					1685	1685	230	0.136	0.136	220	0.131	
Sai Yee Street (SB)	↓	A	1	3.500						1965	1965	229	0.117		254	0.129	
	↓	A	1	3.500						2105	2105	246	0.117		273	0.130	
Sai Yee Street (NB)	* ↓↑	A	1	3.500	10			49%	28%	915	945	134	0.146		218	0.231	
	↑	A	1	3.500						2105	2105	309	0.147	0.147	487	0.231	0.231
Pedestrian Crossing		Cp	1	MIN GREEN + FLASH =			5	+	8	=	13						

Notes:

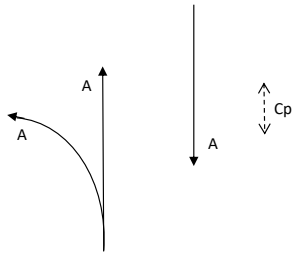
* Site Factor = 0.5 (Kerbside Activities)



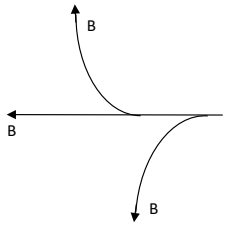
Group	Cp,B	A,B	Group	Cp,B	A,B
y	0.136	0.283	y	0.132	0.363
L (sec)	19	9	L (sec)	19	9
C (sec)	130	130	C (sec)	130	130
y pract.	0.768	0.838	y pract.	0.768	0.838
R.C. (%)	463%	196%	R.C. (%)	482%	131%

Stage / Phase Diagrams

1.



2.



3.

4.

5.

I/G= 6	I/G=		I/G=		
I/G= 6	I/G=		I/G=		

Date:	Junction:
APR, 2026	J2 - Bute Street / Sai Yee Street (J2)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

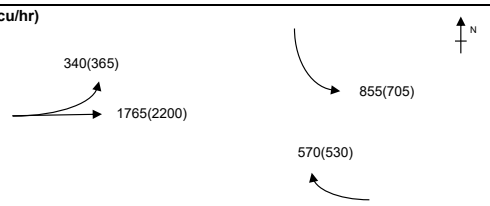
Junction: J3 - Boundary Street / Tai Hang Tung Road Design Year: 2026

Description: 2026 Observed Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Boundary Street - WB	↑←	A	1	3.300		20				1810	1810	274	0.151		255	0.141	0.141
	↑←	A	1	3.300		23				1955	1955	296	0.151	0.151	275	0.141	
Tai Hang Tung Road - SB	↳	B	1,2	3.300	15					1770	1770	269	0.152		221	0.125	
	↳	B	1,2	3.300	18					1925	1925	292	0.152		241	0.125	
	↳	B	1,2	3.300	20					1940	1940	294	0.152		243	0.125	
Boundary Street - EB	↗	D	3	3.800	10					1735	1735	340	0.196		365	0.210	
Boundary Street - EB	→	C	3	3.300						2085	2085	449	0.215	0.215	559	0.268	0.268
	→	C	3	3.300						2085	2085	449	0.215		559	0.268	
	→	C	3	3.300						2085	2085	449	0.215		559	0.268	
	→	C	3	3.300						1945	1945	419	0.215		522	0.268	
Pedestrian Crossing		Ep	2	MIN GREEN + FLASH =			17	+	10	=	27			*			*
		Fp	3	MIN GREEN + FLASH =			33	+	8	=	41						
		Gp	1,2	MIN GREEN + FLASH =			5	+	12	=	17						

Notes:

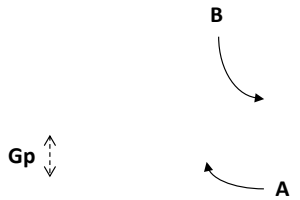
Flow: (pcu/hr)



Group	B,C	A,Ep,C	Group	B,C	A,Ep,C
y	0.367	0.367	y	0.394	0.409
L (sec)	9	43	L (sec)	9	43
C (sec)	120	120	C (sec)	130	130
y pract.	0.833	0.578	y pract.	0.838	0.602
R.C. (%)	127%	58%	R.C. (%)	113%	47%

Stage / Phase Diagrams

1.



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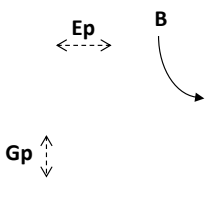

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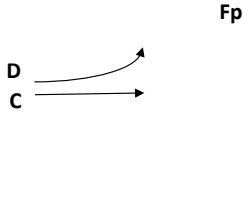


4.

5.

I/G= 5	I/G=		I/G= 2		
I/G= 5	I/G= 27	27	I/G= 2		

Date: APR, 2026 **Junction:** J3 - Boundary Street / Tai Hang Tung Road (J3)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

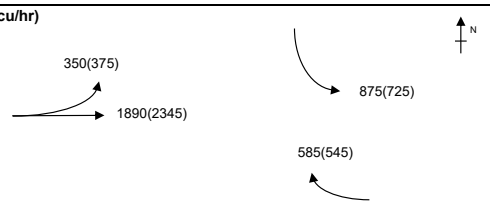
Junction: J3 - Boundary Street / Tai Hang Tung Road Design Year: 2039

Description: 2039 Reference Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Boundary Street - WB	↑←	A	1	3.300		20				1810	1810	281	0.155		262	0.145	
	↑←	A	1	3.300		23				1955	1955	304	0.155	0.155	283	0.145	0.145
Tai Hang Tung Road - SB	↳	B	1,2	3.300	15					1770	1770	275	0.155		228	0.129	
	↳	B	1,2	3.300	18					1925	1925	299	0.155		247	0.128	
	↳	B	1,2	3.300	20					1940	1940	301	0.155		250	0.129	
Boundary Street - EB	→↑	D	3	3.800	10					1735	1735	350	0.202		375	0.216	
Boundary Street - EB	→	C	3	3.300						2085	2085	481	0.230	0.230	596	0.286	0.286
	→	C	3	3.300						2085	2085	481	0.230		596	0.286	
	→	C	3	3.300						2085	2085	481	0.230		596	0.286	
	→	C	3	3.300						1945	1945	448	0.230		556	0.286	
Pedestrian Crossing		Ep	2	MIN GREEN + FLASH =			17	+	10	=	27			*			*
		Fp	3	MIN GREEN + FLASH =			33	+	8	=	41						
		Gp	1,2	MIN GREEN + FLASH =			5	+	12	=	17						

Notes:

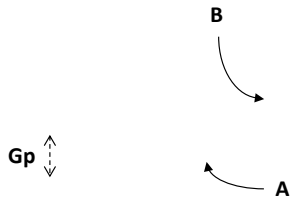
Flow: (pcu/hr)



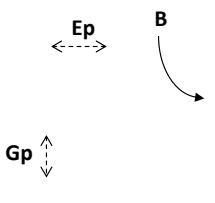
Group	B,C	A,Ep,C	Group	B,C	A,Ep,C
y	0.386	0.386	y	0.415	0.431
L (sec)	9	43	L (sec)	9	43
C (sec)	120	120	C (sec)	130	130
y pract.	0.833	0.578	y pract.	0.838	0.602
R.C. (%)	116%	50%	R.C. (%)	102%	40%

Stage / Phase Diagrams

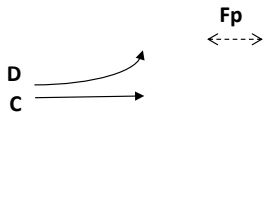
1.



2.



3.



4.

5.

I/G= 5	I/G=		I/G= 2		
I/G= 5	I/G= 27	27	I/G= 2		

Date: APR, 2026 **Junction:** J3 - Boundary Street / Tai Hang Tung Road (J3)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

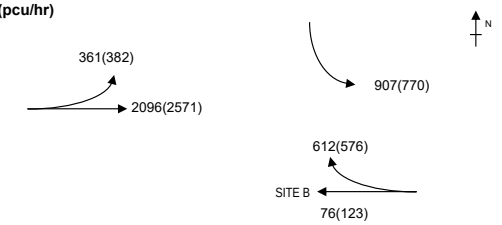
Junction: J3 - Boundary Street / Tai Hang Tung Road Design Year: 2039

Description: 2039 Design Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Boundary Street - WB		A	1	3.300	15	23		77%	64%	1850	1865	336	0.182	0.182	343	0.184	0.184
		A	1	3.300		20				1940	1940	352	0.181		356	0.184	
Tai Hang Tung Road - SB		B	1,2	3.300	15					1770	1770	285	0.161		242	0.137	
		B	1,2	3.300	18					1925	1925	310	0.161		263	0.137	
		B	1,2	3.300	20					1940	1940	312	0.161		265	0.137	
Boundary Street - EB		D	3	3.800	10					1735	1735	361	0.208		382	0.220	
Boundary Street - EB		C	3	3.300						2085	2085	533	0.256	0.256	654	0.314	0.314
		C	3	3.300						2085	2085	533	0.256		654	0.314	
		C	3	3.300						2085	2085	533	0.256		654	0.314	
		C	3	3.300						1945	1945	497	0.256		610	0.314	
Pedestrian Crossing		Ep	2	MIN GREEN + FLASH =	17	+	10	=	27					*			*
		Fp	3	MIN GREEN + FLASH =	33	+	8	=	41								
		Gp	1,2	MIN GREEN + FLASH =	5	+	12	=	17								
		Hp	2,3	MIN GREEN + FLASH =	5	+	5	=	10								

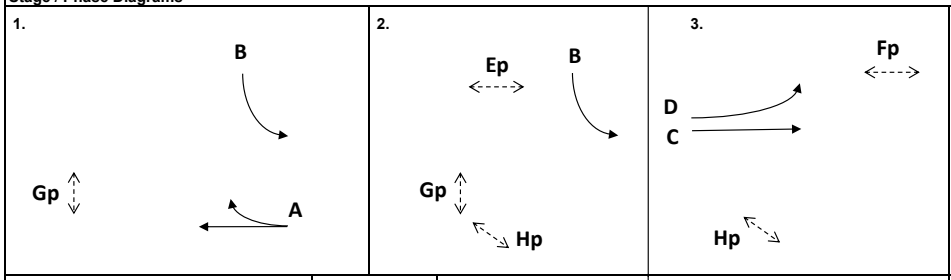
Notes:

Flow: (pcu/hr)



Group	B,C	A,Ep,C	Group	B,C	A,Ep,C
y	0.417	0.437	y	0.450	0.497
L (sec)	9	43	L (sec)	9	43
C (sec)	120	120	C (sec)	130	130
y pract.	0.833	0.578	y pract.	0.838	0.602
R.C. (%)	100%	32%	R.C. (%)	86%	21%

Stage / Phase Diagrams



I/G= 5	I/G=		I/G= 2
I/G= 5	I/G= 27		I/G= 2

Date: MAY, 2026 **Junction:** J3 - Boundary Street / Tai Hang Tung Road (J3)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

Junction: J4 - Boundary Street / Embankment Road Design Year: 2026

Description: 2026 Observed Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Embankment Road - NB	↰	A	1	5.500	15					1970	1970	570	0.289	0.289	530	0.269	0.269
	↱	A	1	4.500		25				1950	1950	405	0.208		305	0.156	
Pedestrian Crossing		Bp	2	MIN GREEN + FLASH =			10	+	10	=	20			*			*

Notes:

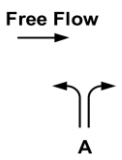
Flow: (pcu/hr)

570(530) ← ↑ → 405(305)

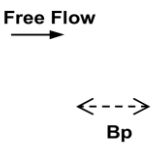
Group		A,Bp	Group		A,Bp
y		0.289	y		0.269
L (sec)		27	L (sec)		27
C (sec)		108	C (sec)		90
y pract.		0.675	y pract.		0.630
R.C. (%)		133%	R.C. (%)		134%

Stage / Phase Diagrams

1.



2.



3.

4.

5.

I/G= 3	#N/A		I/G=		
I/G= 3	I/G= 20		I/G=		

Date: APR, 2026 **Junction:** J4 - Boundary Street / Embankment Road (J4)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

Junction: J4 - Boundary Street / Embankment Road Design Year: 2039

Description: 2039 Reference Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Embankment Road - NB	↰	A	1	5.500	15					1970	1970	585	0.297	0.297	545	0.277	0.277
	↱	A	1	4.500		25				1950	1950	415	0.213		315	0.162	
Pedestrian Crossing		Bp	2	MIN GREEN + FLASH =			10	+	10	=	20			*			*

Notes:

Flow: (pcu/hr)

585(545) ← ↑ → 415(315)

Group		A,Bp	Group		A,Bp
y		0.297	y		0.277
L (sec)		27	L (sec)		27
C (sec)		108	C (sec)		90
y pract.		0.675	y pract.		0.630
R.C. (%)		127%	R.C. (%)		128%

Stage / Phase Diagrams

1.

Free Flow →

↰ ↱

A

2.

Free Flow →

<- - - ->

Bp

3.

4.

5.

I/G= 3	#N/A		I/G=		
I/G= 3	I/G= 20		I/G=		

Date: APR, 2026 **Junction:** J4 - Boundary Street / Embankment Road (J4)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

Junction: J4 - Boundary Street / Embankment Road Design Year: 2039

Description: 2039 Design Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Embankment Road - NB	↰	A	1	5.500	15					1970	1970	688	0.349	0.349	699	0.355	0.355
	↱	A	1	4.500		25				1950	1950	415	0.213		315	0.162	
Pedestrian Crossing		Bp	2	MIN GREEN + FLASH =			10	+	10	=	20			*			*

Notes:

Flow: (pcu/hr)

688(699) ↰ ↱ 415(315)

Group		A,Bp	Group		A,Bp
y		0.349	y		0.355
L (sec)		27	L (sec)		27
C (sec)		108	C (sec)		90
y pract.		0.675	y pract.		0.630
R.C. (%)		93%	R.C. (%)		78%

Stage / Phase Diagrams

1.	2.	3.	4.	5.
Free Flow → A	Free Flow → Bp			
I/G= 3	#N/A	I/G=		
I/G= 3	I/G= 20	I/G=		

Date:	Junction:
APR, 2026	J4 - Boundary Street / Embankment Road (J4)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

Junction: J5 - Nathan Road / Prince Edward Road West Design Year: 2026

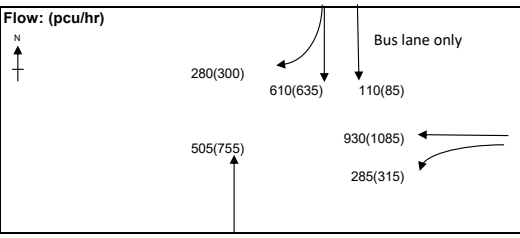
Description: 2026 Observed Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Nathan Road - SB (Bus only lane)	↓	A	1,2	3.200						1935	1935	110	0.057		85	0.044	
	↓	A	1,2	3.200						2075	2075	305	0.147		318	0.153	
Nathan Road - SB	↓	A	1,2	3.200						2075	2075	305	0.147		317	0.153	
	↳	B	1	3.100		15				1875	1875	280	0.149	0.149	300	0.160	0.160
Nathan Road - NB	↑	C	2	3.500						1965	1965	244	0.124		365	0.186	
	↑	C	2	3.500						2105	2105	261	0.124		390	0.185	
	* ↰	D	3	3.500	10					855	855	150	0.175		172	0.201	
Prince Edward Road West - WB	↰↓	D	3	3.000	15			39%	36%	1980	1985	346	0.175		400	0.202	
	←	D	3	3.000						2055	2055	359	0.175		414	0.201	
	←	D	3	3.000						2055	2055	360	0.175		414	0.201	
Pedestrian Crossing		Ep	1,2	MIN GREEN + FLASH =	13	+	14	=	27								
		Fp	3	MIN GREEN + FLASH =	42	+	13	=	55					*			*
		Gp	2	MIN GREEN + FLASH =	17	+	10	=	27					*			*

Notes:

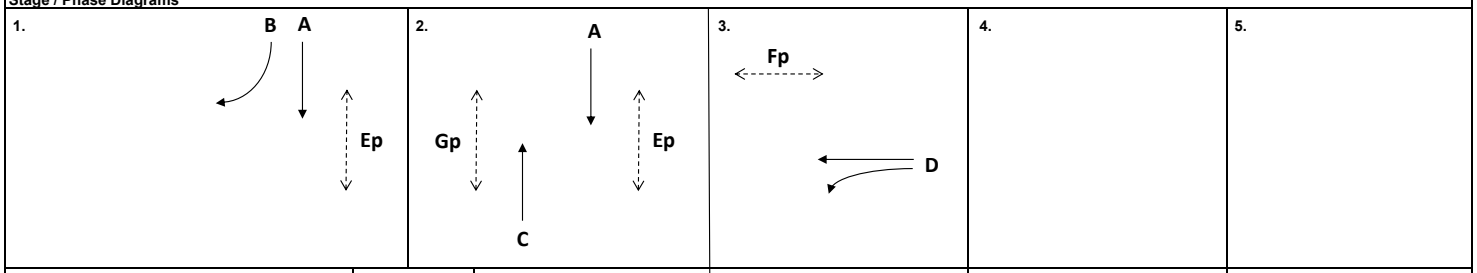
* Site Factor = 0.5 (Taxi Drop-off and Minibus Stop)

Flow: (pcu/hr)



Group	B,C,D	B,Gp,Fp	Group	B,C,D	B,Gp,Fp
y	0.449	0.149	y	0.547	0.160
L (sec)	21	100	L (sec)	21	100
C (sec)	130	130	C (sec)	130	130
y pract.	0.755	0.208	y pract.	0.755	0.208
R.C. (%)	68%	39%	R.C. (%)	38%	30%

Stage / Phase Diagrams



I/G= 5	I/G=		I/G= 3
I/G= 5	I/G= 27		I/G= 3

Date: APR, 2026 **Junction:** J5 - Nathan Road / Prince Edward Road West (J5)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

Junction: J5 - Nathan Road / Prince Edward Road West Design Year: 2039

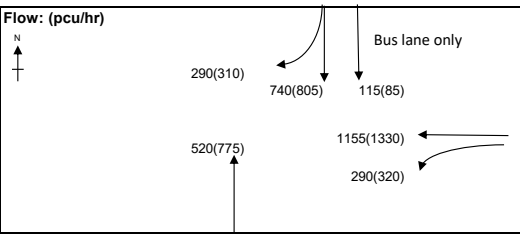
Description: 2039 Reference Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Nathan Road - SB (Bus only lane)	↓	A	1,2	3.200						1935	1935	115	0.059		85	0.044	
	↓	A	1,2	3.200						2075	2075	370	0.178		403	0.194	
Nathan Road - SB	↓	A	1,2	3.200						2075	2075	370	0.178		402	0.194	
	↳	B	1	3.100		15				1875	1875	290	0.155	0.155	310	0.165	0.165
Nathan Road - NB	↑	C	2	3.500						1965	1965	251	0.128		374	0.190	
	↑	C	2	3.500						2105	2105	269	0.128		401	0.190	
	* ↰	D	3	3.500	10					855	855	177	0.207		202	0.236	
Prince Edward Road West - WB	↰↓	D	3	3.000	15			27%	25%	2000	2005	415	0.208		475	0.237	
	←	D	3	3.000						2055	2055	427	0.208		487	0.237	
	←	D	3	3.000						2055	2055	426	0.207		486	0.236	
Pedestrian Crossing		Ep	1,2	MIN GREEN + FLASH =	13	+	14	=	27								
		Fp	3	MIN GREEN + FLASH =	42	+	13	=	55					*			*
		Gp	2	MIN GREEN + FLASH =	17	+	10	=	27					*			*

Notes:

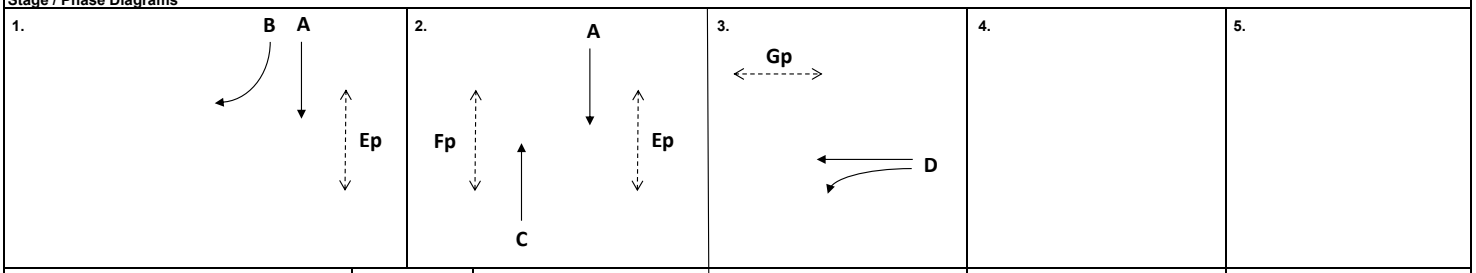
* Site Factor = 0.5 (Taxi Drop-off and Minibus Stop)

Flow: (pcu/hr)



Group	B,C,D	B,Gp,Fp	Group	B,C,D	B,Gp,Fp
y	0.490	0.155	y	0.593	0.165
L (sec)	21	100	L (sec)	21	100
C (sec)	130	130	C (sec)	130	130
y pract.	0.755	0.208	y pract.	0.755	0.208
R.C. (%)	54%	34%	R.C. (%)	27%	26%

Stage / Phase Diagrams



I/G= 5	I/G=		I/G= 3
I/G= 5	I/G= 27		I/G= 3

Date: APR, 2026 **Junction:** J5 - Nathan Road / Prince Edward Road West (J5)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

Junction: J5 - Nathan Road / Prince Edward Road West Design Year: 2039

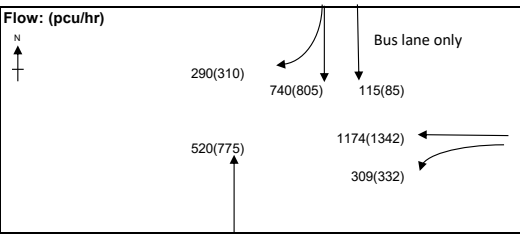
Description: 2039 Design Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Nathan Road - SB (Bus only lane)	↓	A	1,2	3.200						1935	1935	115	0.059		85	0.044	
	↓	A	1,2	3.200						2075	2075	370	0.178		403	0.194	
Nathan Road - SB	↓	A	1,2	3.200						2075	2075	370	0.178		402	0.194	
	↳	B	1	3.100		15				1875	1875	290	0.155	0.155	310	0.165	0.165
Nathan Road - NB	↑	C	2	3.500						1965	1965	251	0.128		374	0.190	
	↑	C	2	3.500						2105	2105	269	0.128		401	0.190	
	* ↰	D	3	3.500	10					855	855	182	0.213		205	0.240	
Prince Edward Road West - WB	↰↓	D	3	3.000	15			30%	26%	1995	2000	425	0.213		481	0.241	
	←	D	3	3.000						2055	2055	438	0.213		494	0.240	
	←	D	3	3.000						2055	2055	438	0.213		494	0.240	
Pedestrian Crossing		Ep	1,2	MIN GREEN + FLASH =	13	+	14	=	27								
		Fp	3	MIN GREEN + FLASH =	42	+	13	=	55					*			*
		Gp	2	MIN GREEN + FLASH =	17	+	10	=	27					*			*

Notes:

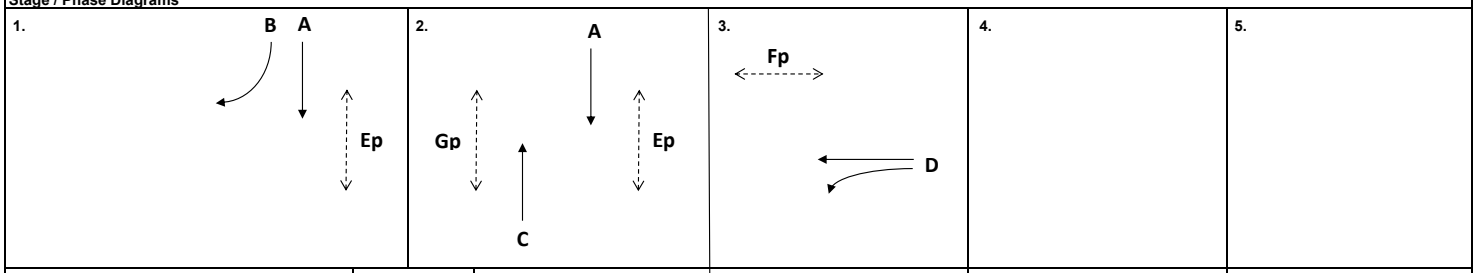
* Site Factor = 0.5 (Taxi Drop-off and Minibus Stop)

Flow: (pcu/hr)



Group	B,C,D	B,Gp,Fp	Group	B,C,D	B,Gp,Fp
y	0.496	0.155	y	0.596	0.165
L (sec)	21	100	L (sec)	21	100
C (sec)	130	130	C (sec)	130	130
y pract.	0.755	0.208	y pract.	0.755	0.208
R.C. (%)	52%	34%	R.C. (%)	27%	26%

Stage / Phase Diagrams



I/G= 5	I/G=		I/G= 3
I/G= 5	I/G= 27		I/G= 3

Date: APR, 2026 **Junction:** J5 - Nathan Road / Prince Edward Road West (J5)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

Junction: J6 - Prince Edward Road West / Sai Yee Street Design Year: 2026

Description: 2026 Observed Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Prince Edward Road West - EB	↱	A	1	5.500	10					1885	1885	85	0.045		135	0.072	
	↓	A	1	4.000	10					1750	1750	383	0.219		442	0.253	
Prince Edward Road West - WB	↰↓	A	1	3.300	15			8%	7%	2070	2070	453	0.219		524	0.253	0.253
	←	A	1	3.300						2085	2085	457	0.219		527	0.253	
	↰↑	A	1	3.300		10		38%	62%	1970	1905	432	0.219	0.219	482	0.253	
	* ←	B	1,2	3.500						1955	1955	430	0.220		490	0.251	
Prince Edward Road West - WB	←	B	1,2	3.500						2105	2105	462	0.219		527	0.250	
	←	B	1,2	3.500						2105	2105	463	0.220		528	0.251	
	↰	C	2	3.300	10					1690	1690	102	0.060		166	0.098	
Sai Yee Street - NB	↰	C	2	3.300	13					1870	1870	113	0.060	0.060	184	0.098	
	* ↑	C	2	3.300						1875	1875	100	0.053		215	0.115	0.115
Prince Edward Road West - WB	↰	C	2	3.300		10				1690	1690	35	0.021		90	0.053	
	↲	D	3	3.500		10				1710	1710	110	0.064		295	0.173	0.173
Fa Yuen Street - SB	** ↲	D	3	3.500		15				1915	1915	5	0.003		5	0.003	
	↳	D	3	3.500	10					1710	1710	85	0.050		135	0.079	

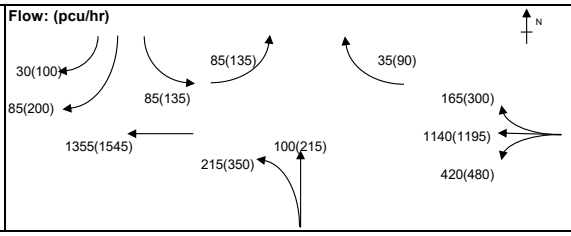
Pedestrian Crossing								
Ep	1,2	MIN GREEN + FLASH =	9	+	11	=	20	
Fp	3	MIN GREEN + FLASH =	24	+	11	=	35	*
Gp	2,3	MIN GREEN + FLASH =	5	+	13	=	18	
Hp	3	MIN GREEN + FLASH =	18	+	11	=	29	
Ip	1,3	MIN GREEN + FLASH =	6	+	9	=	15	

Notes:

* Site Factor = 0.9 (Kerbside activities reduces lane capacity

** Allowable traffic flow to be reduced due to observed illegal parking at Fa Yuen Street right lane

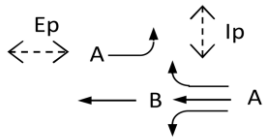
Flow: (pcu/hr)



Group	A,C,Hp	A,C,Fp	Group	A,C,Fp	A,C,D
y	0.280	0.280	y	0.368	0.540
L (sec)	44	47	L (sec)	47	18
C (sec)	130	130	C (sec)	130	130
y pract.	0.595	0.575	y pract.	0.575	0.775
R.C. (%)	113%	105%	R.C. (%)	56%	44%

Stage / Phase Diagrams

1.



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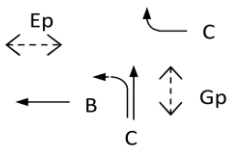
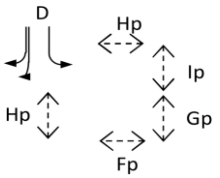


3.



4.

5.

I/G= 2	I/G=		I/G= 6		
I/G= 5	I/G=		I/G= 10		

Date: APR, 2026 **Junction:** J6 - Prince Edward Road West / Sai Yee Street (J6)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

Junction: J6 - Prince Edward Road West / Sai Yee Street Design Year: 2039

Description: 2039 Reference Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Prince Edward Road West - EB		A	1	5.500	10					1885	1885	85	0.045		140	0.074	
		A	1	4.000	10					1750	1750	425	0.243		490	0.280	
Prince Edward Road West - WB		A	1	3.300	15			1%	0%	2085	2085	507	0.243	0.243	594	0.285	0.285
		A	1	3.300						2085	2085	507	0.243		593	0.284	
		A	1	3.300		10		35%	56%	1980	1925	481	0.243		548	0.285	
	*	B	1,2	3.500						1955	1955	525	0.269		615	0.315	
Prince Edward Road West - WB		B	1,2	3.500						2105	2105	565	0.268		663	0.315	
		B	1,2	3.500						2105	2105	565	0.268		662	0.314	
		C	2	3.300	10					1690	1690	159	0.094		242	0.143	
Sai Yee Street - NB		C	2	3.300	13					1870	1870	176	0.094	0.094	268	0.143	0.143
	*	C	2	3.300						1875	1875	105	0.056		220	0.117	
Prince Edward Road West - WB		C	2	3.300		10				1690	1690	40	0.024		95	0.056	
		D	3	3.500		10				1710	1710	110	0.064		300	0.175	0.175
Fa Yuen Street - SB	**	D	3	3.500		15				1915	1915	5	0.003		5	0.003	
		D	3	3.500	10					1710	1710	85	0.050		140	0.082	

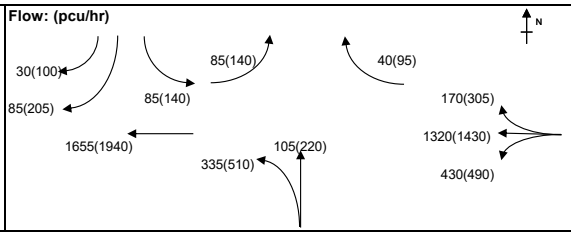
Pedestrian Crossing								
Ep	1,2	MIN GREEN + FLASH =	9	+	11	=	20	
Fp	3	MIN GREEN + FLASH =	24	+	11	=	35	*
Gp	2,3	MIN GREEN + FLASH =	5	+	13	=	18	
Hp	3	MIN GREEN + FLASH =	18	+	11	=	29	
Ip	1,3	MIN GREEN + FLASH =	6	+	9	=	15	

Notes:

* Site Factor = 0.9 (Kerbside activities reduces lane capacity

** Allowable traffic flow to be reduced due to observed illegal parking at Fa Yuen Street right lane

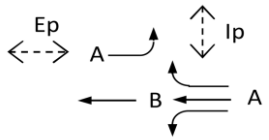
Flow: (pcu/hr)



Group	A,C,Hp	A,C,Fp	Group	A,C,Fp	A,C,D
y	0.337	0.337	y	0.428	0.604
L (sec)	44	47	L (sec)	47	18
C (sec)	130	130	C (sec)	130	130
y pract.	0.595	0.575	y pract.	0.575	0.775
R.C. (%)	77%	70%	R.C. (%)	34%	28%

Stage / Phase Diagrams

1.



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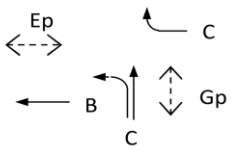
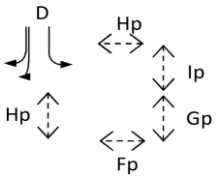


3.



4.

5.

I/G= 2	I/G=		I/G= 6		
I/G= 5	I/G=		I/G= 10		

Date: APR, 2026 **Junction:** J6 - Prince Edward Road West / Sai Yee Street (J6)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

Junction: J6 - Prince Edward Road West / Sai Yee Street Design Year: 2039

Description: 2039 Design Flow Designed By: HMC Checked By: CYH

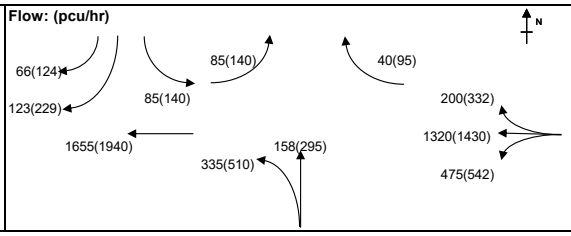
Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Prince Edward Road West - EB		A	1	5.500	10					1885	1885	85	0.045		140	0.074	
		A	1	4.000	10					1750	1750	443	0.253		515	0.294	
Prince Edward Road West - WB		A	1	3.300	15			6%	4%	2070	2075	525	0.254		611	0.294	
		A	1	3.300						2085	2085	529	0.254	0.254	614	0.294	
		A	1	3.300		10		40%	59%	1965	1915	498	0.253		564	0.295	0.295
	*	B	1,2	3.500						1955	1955	525	0.269		615	0.315	
Prince Edward Road West - WB		B	1,2	3.500						2105	2105	565	0.268		663	0.315	
		B	1,2	3.500						2105	2105	565	0.268		662	0.314	
		C	2	3.300	10					1690	1690	159	0.094		242	0.143	
Sai Yee Street - NB		C	2	3.300	13					1870	1870	176	0.094	0.094	268	0.143	
	*	C	2	3.300						1875	1875	158	0.084		295	0.157	0.157
Prince Edward Road West - WB		C	2	3.300		10				1690	1690	40	0.024		95	0.056	
		D	3	3.500		10				1710	1710	184	0.108		348	0.204	0.204
Fa Yuen Street - SB	**	D	3	3.500		15				1915	1915	5	0.003		5	0.003	
		D	3	3.500	10					1710	1710	85	0.050		140	0.082	
Pedestrian Crossing		Ep	1,2	MIN GREEN + FLASH =			9	+	11	=	20						
		Fp	3	MIN GREEN + FLASH =			24	+	11	=	35			*			
		Gp	2,3	MIN GREEN + FLASH =			5	+	13	=	18						
		Hp	3	MIN GREEN + FLASH =			18	+	11	=	29						
		Ip	1,3	MIN GREEN + FLASH =			6	+	9	=	15						

Notes:

* Site Factor = 0.9 (Kerbside activities reduces lane capacity

** Allowable traffic flow to be reduced due to observed illegal parking at Fa Yuen Street right lane

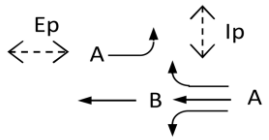
Flow: (pcu/hr)



Group	A,C,D	A,C,Fp	Group	A,C,Fp	A,C,D
y	0.455	0.348	y	0.452	0.655
L (sec)	18	47	L (sec)	47	18
C (sec)	130	130	C (sec)	130	130
y pract.	0.775	0.575	y pract.	0.575	0.775
R.C. (%)	70%	65%	R.C. (%)	27%	18%

Stage / Phase Diagrams

1.



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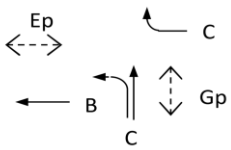
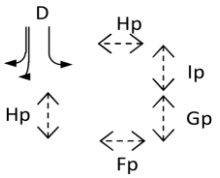


3.



4.

5.

I/G= 2	I/G=		I/G= 6		
I/G= 5	I/G=		I/G= 10		

Date: APR, 2026 **Junction:** J6 - Prince Edward Road West / Sai Yee Street (J6)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

Junction: J7 - Prince Edward Road West / Embankment Road Design Year: 2026

Description: 2026 Observed Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Prince Edward Road West - WB	↰	A	1	3.300		15				1770	1770	477	0.269		383	0.216	
	↰	A	1	3.300		18				1925	1925	518	0.269		417	0.217	
	* ←	B	1,2	4.000						1610	1610	616	0.383		652	0.405	0.405
	←	B	1,2	4.000						2155	2155	825	0.383	0.383	873	0.405	
	←	B	1,2	4.000						2155	2155	825	0.383		873	0.405	
	←	B	1,2	4.000						2155	2155	825	0.383		873	0.405	
Prince Edward Road West - EB	↱	C	2,3	4.500	15					1875	1875	100	0.053		165	0.088	
Pedestrian Crossing		Dp	1	MIN GREEN + FLASH =			73	+	6	=	79						
		Ep	2,3	MIN GREEN + FLASH =			5	+	9	=	14						
		Fp	3	MIN GREEN + FLASH =			21	+	14	=	35			*			*

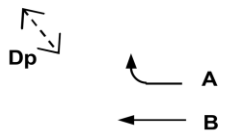
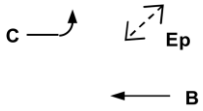
Notes:

* Site Factor = 0.8 (Bus Stop and Shop Ingress)

Flow: (pcu/hr)

Group	A,C	B,Fp	Group	A,C	B,Fp
y	0.323	0.383	y	0.305	0.405
L (sec)	9	43	L (sec)	9	43
C (sec)	130	130	C (sec)	130	130
y pract.	0.838	0.602	y pract.	0.838	0.602
R.C. (%)	159%	57%	R.C. (%)	175%	49%

Stage / Phase Diagrams

1.	2.	3.	4.	5.
				
I/G= 4	I/G=	I/G= 5		
I/G= 4	I/G=	I/G= 5		

Date:	Junction:
APR, 2026	J7 - Prince Edward Road West / Embankment Road (J7)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

Junction: J7 - Prince Edward Road West / Embankment Road Design Year: 2039

Description: 2039 Reference Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Prince Edward Road West - WB	↰	A	1	3.300		15				1770	1770	489	0.276		393	0.222	
	↰	A	1	3.300		18				1925	1925	531	0.276		427	0.222	
	* ←	B	1,2	4.000						1610	1610	662	0.411	0.411	710	0.441	0.441
	←	B	1,2	4.000						2155	2155	886	0.411		950	0.441	
	←	B	1,2	4.000						2155	2155	886	0.411		950	0.441	
	←	B	1,2	4.000						2155	2155	886	0.411		950	0.441	
Prince Edward Road West - EB	↱	C	2,3	4.500	15					1875	1875	105	0.056		170	0.091	
Pedestrian Crossing		Dp	1	MIN GREEN + FLASH =			73	+	6	=	79						
		Ep	2,3	MIN GREEN + FLASH =			5	+	9	=	14						
		Fp	3	MIN GREEN + FLASH =			21	+	14	=	35			*			*

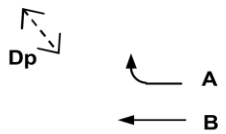
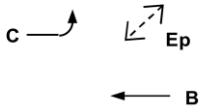
Notes:

* Site Factor = 0.8 (Bus Stop and Shop Ingress)

Flow: (pcu/hr)

Group	A,C	B,Fp	Group	A,C	B,Fp
y	0.332	0.411	y	0.313	0.441
L (sec)	9	43	L (sec)	9	43
C (sec)	130	130	C (sec)	130	130
y pract.	0.838	0.602	y pract.	0.838	0.602
R.C. (%)	152%	46%	R.C. (%)	168%	37%

Stage / Phase Diagrams

1.	2.	3.	4.	5.
				
I/G= 4	I/G=	I/G= 5		
I/G= 4	I/G=	I/G= 5		

Date:	Junction:
APR, 2026	J7 - Prince Edward Road West / Embankment Road (J7)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

Junction: J7 - Prince Edward Road West / Embankment Road Design Year: 2039

Description: 2039 Design Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Prince Edward Road West - WB	↑←	A	1	3.300		15				1770	1770	538	0.304		467	0.264	
	↑←	A	1	3.300		18				1925	1925	585	0.304		507	0.263	
	* ←	B	1,2	4.000						1610	1610	686	0.426	0.426	736	0.457	0.457
	←	B	1,2	4.000						2155	2155	918	0.426		985	0.457	
	←	B	1,2	4.000						2155	2155	918	0.426		985	0.457	
	←	B	1,2	4.000						2155	2155	918	0.426		985	0.457	
Prince Edward Road West - EB	↱	C	2,3	4.500	15					1875	1875	105	0.056		170	0.091	
Pedestrian Crossing		Dp	1	MIN GREEN + FLASH =			73	+	6	=	79						
		Ep	2,3	MIN GREEN + FLASH =			5	+	9	=	14						
		Fp	3	MIN GREEN + FLASH =			21	+	14	=	35			*			*

Notes:

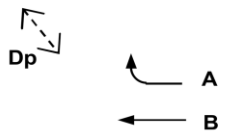
* Site Factor = 0.8 (Bus Stop and Shop Ingress)

Flow: (pcu/hr)

Group	A,C	B,Fp	Group	A,C	B,Fp
y	0.360	0.426	y	0.355	0.457
L (sec)	9	43	L (sec)	9	43
C (sec)	130	130	C (sec)	130	130
y pract.	0.838	0.602	y pract.	0.838	0.602
R.C. (%)	133%	41%	R.C. (%)	136%	32%

Stage / Phase Diagrams

1.



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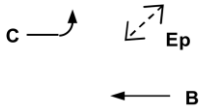


3.

4.

5.

I/G= 4	I/G=		I/G= 5		
I/G= 4	I/G=		I/G= 5		

Date: APR, 2026 **Junction:** J7 - Prince Edward Road West / Embankment Road (J7)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

Junction: J8 - Lai Chi Kok Road / Nathan Road Design Year: 2026

Description: 2026 Observed Flow Designed By: HMC Checked By: CYH

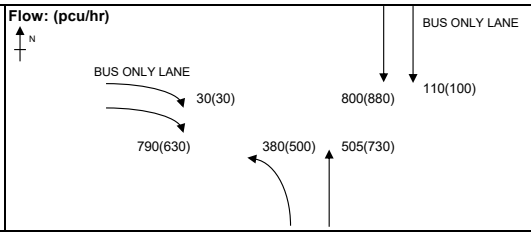
Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Nathan Road - SB (Bus only lane)	↓	A	1	3.300						1945	1945	110	0.057		100	0.051	
Nathan Road - SB	↓	A	1	3.300						2085	2085	400	0.192		440	0.211	
	↓	A	1	3.300						2085	2085	400	0.192		440	0.211	
Nathan Road - NB	* ↑	B	2	3.500						1570	1570	121	0.077		159	0.101	
	* ↑	B	2	3.500						1685	1685	129	0.077		170	0.101	
	* ↑	B	2	3.500						1685	1685	130	0.077		171	0.101	
	** ↑	A	1	3.400						195	195	22	0.113		32	0.164	
	↑	A	1	3.400						2095	2095	242	0.116		349	0.167	
	↑	A	1	3.400						2095	2095	241	0.115		349	0.167	
Lai Chi Kok Road - EB (Bus only lane)	***	B	2	3.300		25				1470	1470	30	0.020		30	0.020	
Lai Chi Kok Road - EB	***	B	2	3.300		20				1550	1550	400	0.258	0.258	319	0.206	0.206
	***	B	2	3.300		15				1515	1515	390	0.257		311	0.205	
Pedestrian Crossing		Cp	1	MIN GREEN + FLASH =			65	+	10	=	75			*			*
		Dp	2	MIN GREEN + FLASH =			47	+	10	=	57						

Notes:

* Site Factor = 0.8 (Observed kerbside activities ahead of junction)
** Site Factor = 0.1 (Flare lane)

*** Site Factor = 0.8 (Observed queue back from junction ahead)

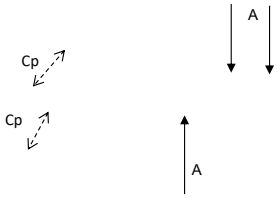
Flow: (pcu/hr)



Group	A,B	Cp,B	Group	A,B	Cp,B
y	0.450	0.258	y	0.417	0.206
L (sec)	20	84	L (sec)	20	84
C (sec)	130	130	C (sec)	130	130
y pract.	0.762	0.318	y pract.	0.762	0.318
R.C. (%)	69%	23%	R.C. (%)	83%	55%

Stage / Phase Diagrams

1.



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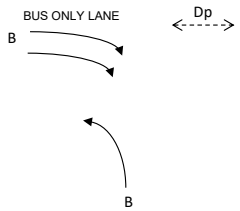


3.

4.

5.

I/G= 6	I/G=		I/G=		
I/G= 6	I/G=		I/G=		

Date: APR, 2026 **Junction:** J8 - Lai Chi Kok Road / Nathan Road (J8)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

Junction: J8 - Lai Chi Kok Road / Nathan Road Design Year: 2039

Description: 2039 Reference Flow Designed By: HMC Checked By: CYH

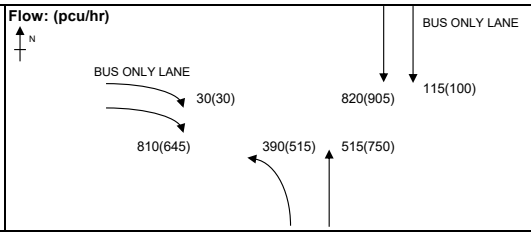
Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Nathan Road - SB (Bus only lane)	↓	A	1	3.300						1945	1945	115	0.059		100	0.051	
Nathan Road - SB	↓	A	1	3.300						2085	2085	410	0.197		453	0.217	
	↓	A	1	3.300						2085	2085	410	0.197		452	0.217	
Nathan Road - NB	* ↑	B	2	3.500						1570	1570	124	0.079		164	0.104	
	* ↑	B	2	3.500						1685	1685	133	0.079		175	0.104	
	* ↑	B	2	3.500						1685	1685	133	0.079		176	0.104	
	** ↑	A	1	3.400						195	195	23	0.118		33	0.169	
	↑	A	1	3.400						2095	2095	246	0.117		359	0.171	
	↑	A	1	3.400						2095	2095	246	0.117		358	0.171	
Lai Chi Kok Road - EB (Bus only lane)	*** ↳	B	2	3.300		25				1470	1470	30	0.020		30	0.020	
Lai Chi Kok Road - EB	*** ↳	B	2	3.300		20				1550	1550	410	0.265	0.265	326	0.210	
	*** ↳	B	2	3.300		15				1515	1515	400	0.264		319	0.211	0.211
Pedestrian Crossing		Cp	1	MIN GREEN + FLASH =			65	+	10	=	75			*			*
		Dp	2	MIN GREEN + FLASH =			47	+	10	=	57						

Notes:

* Site Factor = 0.8 (Observed kerbside activities ahead of junction)
** Site Factor = 0.1 (Flare lane)

*** Site Factor = 0.8 (Observed queue back from junction ahead)

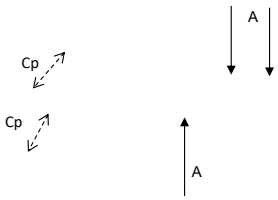
Flow: (pcu/hr)



Group	A,B	Cp,B	Group	A,B	Cp,B
y	0.461	0.265	y	0.428	0.211
L (sec)	20	84	L (sec)	20	84
C (sec)	130	130	C (sec)	130	130
y pract.	0.762	0.318	y pract.	0.762	0.318
R.C. (%)	65%	20%	R.C. (%)	78%	51%

Stage / Phase Diagrams

1.



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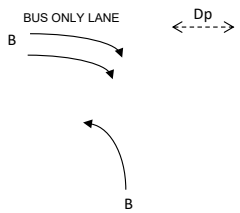


3.

4.

5.

I/G= 6	I/G=		I/G=		
I/G= 6	I/G=		I/G=		

Date: APR, 2026 **Junction:** J8 - Lai Chi Kok Road / Nathan Road (J8)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

Junction: J8 - Lai Chi Kok Road / Nathan Road Design Year: 2039

Description: 2039 Design Flow Designed By: HMC Checked By: CYH

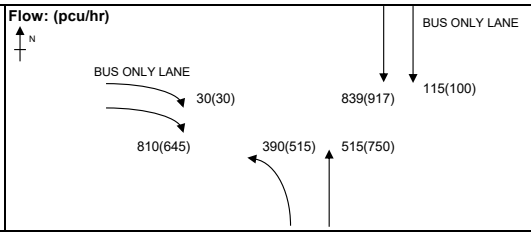
Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Nathan Road - SB (Bus only lane)	↓	A	1	3.300						1945	1945	115	0.059		100	0.051	
Nathan Road - SB	↓	A	1	3.300						2085	2085	420	0.201		459	0.220	
	↓	A	1	3.300						2085	2085	419	0.201		458	0.220	
Nathan Road - NB	* ↑	B	2	3.500						1570	1570	124	0.079		164	0.104	
	* ↑	B	2	3.500						1685	1685	133	0.079		175	0.104	
	* ↑	B	2	3.500						1685	1685	133	0.079		176	0.104	
	** ↑	A	1	3.400						195	195	23	0.118		33	0.169	
	↑	A	1	3.400						2095	2095	246	0.117		359	0.171	
	↑	A	1	3.400						2095	2095	246	0.117		358	0.171	
Lai Chi Kok Road - EB (Bus only lane)	***↳	B	2	3.300		25				1470	1470	30	0.020		30	0.020	
Lai Chi Kok Road - EB	***↳	B	2	3.300		20				1550	1550	410	0.265	0.265	326	0.210	
	***↳	B	2	3.300		15				1515	1515	400	0.264		319	0.211	0.211
Pedestrian Crossing		Cp	1	MIN GREEN + FLASH =			65	+	10	=	75			*			*
		Dp	2	MIN GREEN + FLASH =			47	+	10	=	57						

Notes:

* Site Factor = 0.8 (Observed kerbside activities ahead of junction)
** Site Factor = 0.1 (Flare lane)

*** Site Factor = 0.8 (Observed queue back from junction ahead)

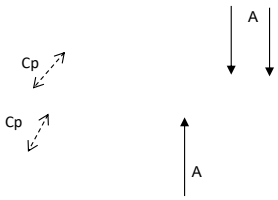
Flow: (pcu/hr)



Group	A,B	Cp,B	Group	A,B	Cp,B
y	0.466	0.265	y	0.431	0.211
L (sec)	20	84	L (sec)	20	84
C (sec)	130	130	C (sec)	130	130
y pract.	0.762	0.318	y pract.	0.762	0.318
R.C. (%)	63%	20%	R.C. (%)	77%	51%

Stage / Phase Diagrams

1.



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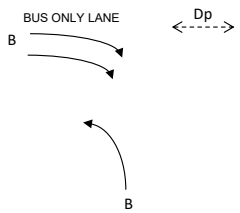


3.

4.

5.

I/G= 6	I/G=		I/G=
I/G= 6	I/G=		I/G=

Date: APR, 2026 **Junction:** J8 - Lai Chi Kok Road / Nathan Road (J8)

Appendix A2

JUNCTION CALCULATIONS (WEEKEND)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

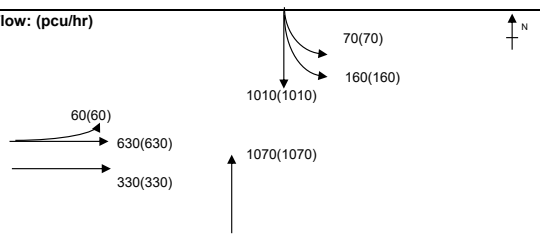
Junction: J1 - Boundary Street / Nathan Road / Cheung Sha Wan Road — Design Year: 2026

Description: 2026 Observed Flow — Designed By: HMC — Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%)	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) PM	Flow (pcu/hr)	y Value	Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Cheung Sha Wan Road - SB	↳	B	1	3.500	15						1785				230	0.129	
	↓	B	1	3.300							2085				337	0.162	0.162
	↓	B	1	3.300							2085				336	0.161	
	↓	B	1	3.300							2085				337	0.162	
Nathan Road - NB	↑	A	1,3	3.500							1965				340	0.173	
	↑	A	1,3	3.500							2105				365	0.173	
	↑	A	1,3	3.500							2105				365	0.173	
Boundary Street - EB	↑→	C	2	3.500	15				18%		1930				329	0.170	
	→	C	2	3.600							2115				361	0.171	0.171
	→	C	2	3.600							2115				330	0.156	
Pedestrian Crossing		Ep	3	MIN GREEN + FLASH =	19	+	13	=	32								*
		Fp	1,3	MIN GREEN + FLASH =	13	+	13	=	26								
		Gp	2,3	MIN GREEN + FLASH =	14	+	13	=	27								
		Hp	2	MIN GREEN + FLASH =	31	+	10	=	41								

Notes:

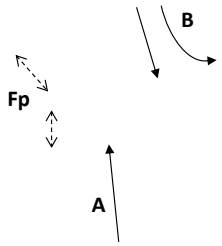
Flow: (pcu/hr)



Group	A,C	B,C,Ep
y	0.344	0.332
L (sec)	10	50
C (sec)	130	130
y pract.	0.831	0.554
R.C. (%)	141%	67%

Stage / Phase Diagrams

1.



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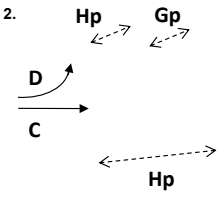

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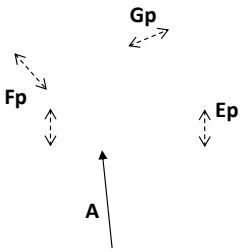


4.

5.

I/G= 3	I/G=	I/G= 11	
I/G= 3	I/G=	I/G= 11	

Date: APR, 2026 **Junction:** J1 - Boundary Street / Nathan Road / Cheung Sha Wan Road

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

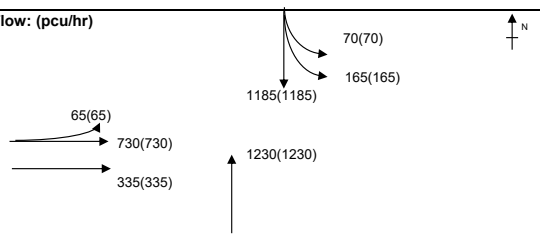
Junction: J1 - Boundary Street / Nathan Road / Cheung Sha Wan Road — Design Year: 2039

Description: 2039 Reference Flow — Designed By: HMC — Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%)	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) PM	Flow (pcu/hr)	y Value	Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Cheung Sha Wan Road - SB	↳	B	1	3.500	15						1785				235	0.132	
	↓	B	1	3.300							2085				395	0.189	0.189
	↓	B	1	3.300							2085				395	0.189	
	↓	B	1	3.300							2085				395	0.189	
Nathan Road - NB	↑	A	1,3	3.500							1965				391	0.199	
	↑	A	1,3	3.500							2105				420	0.200	
	↑	A	1,3	3.500							2105				419	0.199	
Boundary Street - EB	↑→	C	2	3.500	15				17%		1930				380	0.197	0.197
	→	C	2	3.600							2115				415	0.196	
	→	C	2	3.600							2115				335	0.158	
Pedestrian Crossing		Ep	3	MIN GREEN + FLASH =	19	+	13	=	32								*
		Fp	1,3	MIN GREEN + FLASH =	13	+	13	=	26								
		Gp	2,3	MIN GREEN + FLASH =	14	+	13	=	27								
		Hp	2	MIN GREEN + FLASH =	31	+	10	=	41								

Notes:

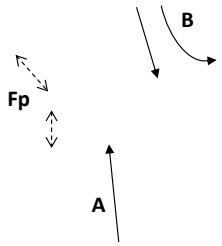
Flow: (pcu/hr)



Group	A,C	B,C,Ep
y	0.396	0.386
L (sec)	10	50
C (sec)	130	130
y pract.	0.831	0.554
R.C. (%)	110%	43%

Stage / Phase Diagrams

1.



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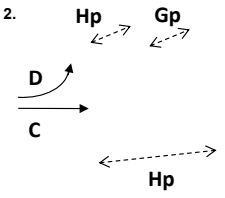

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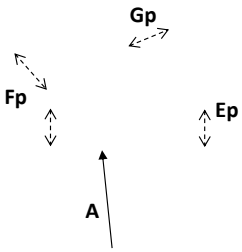


4.

5.

I/G= 3	I/G=		I/G= 11		
I/G= 3	I/G=		I/G= 11		

Date: APR, 2026 **Junction:** J1 - Boundary Street / Nathan Road / Cheung Sha Wan Road

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

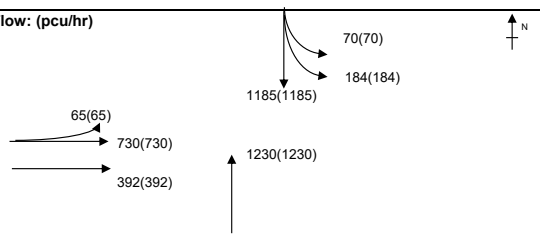
Junction: J1 -Boundary Street / Nathan Road / Cheung Sha Wan Road — Design Year: 2039

Description: 2039 Design Flow — Designed By: HMC — Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%)	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) PM	Flow (pcu/hr)	y Value	Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Cheung Sha Wan Road - SB	↳	B	1	3.500	15						1785				254	0.142	
	↓	B	1	3.300							2085				395	0.189	0.189
	↓	B	1	3.300							2085				395	0.189	
	↓	B	1	3.300							2085				395	0.189	
Nathan Road - NB	↑	A	1,3	3.500							1965				391	0.199	
	↑	A	1,3	3.500							2105				420	0.200	
	↑	A	1,3	3.500							2105				419	0.199	
Boundary Street - EB	↑→	C	2	3.500	15				17%		1930				380	0.197	0.197
	→	C	2	3.600							2115				415	0.196	
	→	C	2	3.600							2115				392	0.185	
Pedestrian Crossing		Ep	3	MIN GREEN + FLASH =	19	+	13	=	32								*
		Fp	1,3	MIN GREEN + FLASH =	13	+	13	=	26								
		Gp	2,3	MIN GREEN + FLASH =	14	+	13	=	27								
		Hp	2	MIN GREEN + FLASH =	31	+	10	=	41								

Notes:

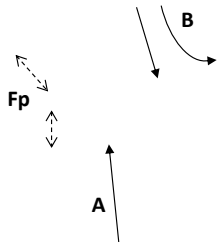
Flow: (pcu/hr)



Group	A,C	B,C,Ep
y	0.396	0.386
L (sec)	10	50
C (sec)	130	130
y pract.	0.831	0.554
R.C. (%)	110%	43%

Stage / Phase Diagrams

1.



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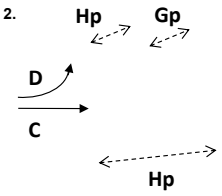

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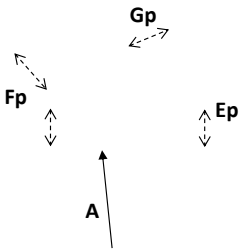


4.

5.

I/G= 3	I/G=	I/G= 11	
I/G= 3	I/G=	I/G= 11	

Date: APR, 2026 **Junction:** J1 J1 -Boundary Street / Nathan Road / Cheung Sha Wan Road

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

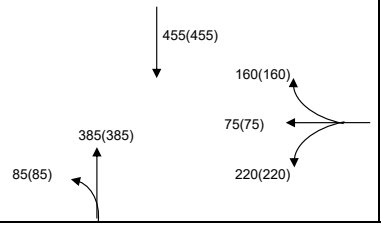
Junction: J2 - Bute Street / Sai Yee Street Design Year: 2026

Description: 2026 Observed Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%)	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) PM	Flow (pcu/hr)	y Value	Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Bute Street (EB)	↰↑	B	2	3.200		13			80%		1770				235	0.133	0.133
	↰	B	2	3.200	10						1685				220	0.131	
Sai Yee Street (SB)	↓	A	1	3.500							1965				220	0.112	
	↓	A	1	3.500							2105				235	0.112	
Sai Yee Street (NB)	* ↰↑	A	1	3.500	10				46%		920				141	0.153	
	↑	A	1	3.500							2105				329	0.156	0.156
Pedestrian Crossing		Cp	1	MIN GREEN + FLASH =			5	+	8	=	13						

Notes:

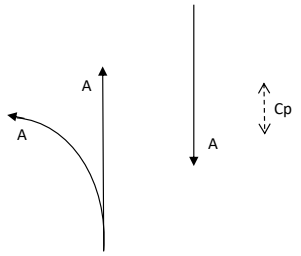
* Site Factor = 0.5 (Kerbside Activities)



Group	Cp,B	A,B
y	0.133	0.289
L (sec)	19	9
C (sec)	130	130
y pract.	0.768	0.838
R.C. (%)	479%	190%

Stage / Phase Diagrams

1.



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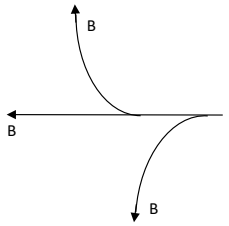


3.

4.

5.

I/G= 6	I/G=		I/G=		
I/G= 6	I/G=		I/G=		

Date:	Junction:
APR, 2026	J2 - Bute Street / Sai Yee Street (J2)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

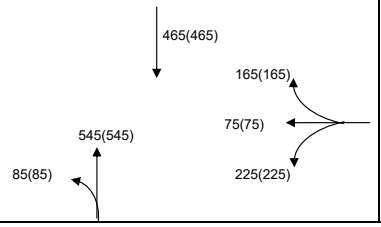
Junction: J2 - Bute Street / Sai Yee Street Design Year: 2039

Description: 2039 Reference Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%)	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) PM	Flow (pcu/hr)	y Value	Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Bute Street (EB)	↰↑	B	2	3.200		13			69%		1795				240	0.134	0.134
	↱	B	2	3.200	10						1685				225	0.134	
Sai Yee Street (SB)	↓	A	1	3.500							1965				225	0.115	
	↓	A	1	3.500							2105				240	0.114	
Sai Yee Street (NB)	* ↰↑	A	1	3.500	10				44%		920				192	0.209	0.209
	↑	A	1	3.500							2105				438	0.208	
Pedestrian Crossing		Cp	1	MIN GREEN + FLASH =			5	+	8	=	13						

Notes:

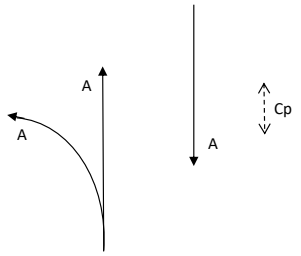
* Site Factor = 0.5 (Kerbside Activities)



Group	Cp,B	A,B
y	0.134	0.342
L (sec)	19	9
C (sec)	130	130
y pract.	0.768	0.838
R.C. (%)	475%	145%

Stage / Phase Diagrams

1.



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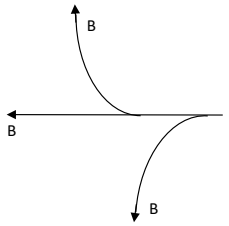


3.

4.

5.

I/G= 6	I/G=		I/G=		
I/G= 6	I/G=		I/G=		

Date: APR, 2026 **Junction:** J2 - Bute Street / Sai Yee Street (J2)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

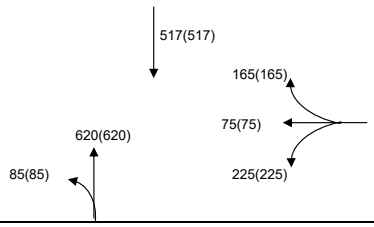
Junction: J2 - Bute Street / Sai Yee Street Design Year: 2039

Description: 2039 Design Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%)	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) PM	Flow (pcu/hr)	y Value	Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Bute Street (EB)	↑←	B	2	3.200		13			69%		1795				240	0.134	0.134
	↓	B	2	3.200	10						1685				225	0.134	
Sai Yee Street (SB)	↓	A	1	3.500							1965				250	0.127	
	↓	A	1	3.500							2105				267	0.127	
Sai Yee Street (NB)	* ↓↑	A	1	3.500	10				39%		930				216	0.232	
	↑	A	1	3.500							2105				489	0.232	0.232
Pedestrian Crossing		Cp	1	MIN GREEN + FLASH =			5	+	8	=	13						

Notes:

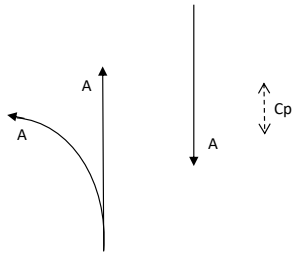
* Site Factor = 0.5 (Kerbside Activities)



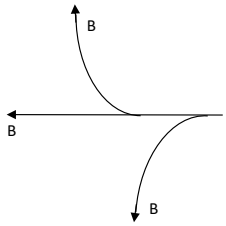
Group	Cp,B	A,B
y	0.134	0.366
L (sec)	19	9
C (sec)	130	130
y pract.	0.768	0.838
R.C. (%)	475%	129%

Stage / Phase Diagrams

1.



2.



3.

4.

5.

I/G= 6	I/G=		I/G=		
I/G= 6	I/G=		I/G=		

Date: APR, 2026 **Junction:** J2 - Bute Street / Sai Yee Street (J2)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

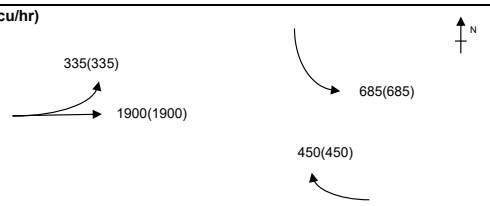
Junction: J3 - Boundary Street / Tai Hang Tung Road Design Year: 2026

Description: 2026 Observed Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%)	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) PM	Flow (pcu/hr)	y Value	Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Boundary Street - WB	↑←	A	1	3.300		20					1810				216	0.119	
	↑←	A	1	3.300		23					1955				234	0.120	0.120
Tai Hang Tung Road - SB	↳	B	1,2	3.300	15						1770				215	0.121	
	↳	B	1,2	3.300	18						1925				234	0.122	
	↳	B	1,2	3.300	20						1940				236	0.122	
Boundary Street - EB	→↑	D	3	3.800	10						1735				335	0.193	
Boundary Street - EB	→	C	3	3.300							2085				483	0.232	0.232
	→	C	3	3.300							2085				483	0.232	
	→	C	3	3.300							2085				483	0.232	
	→	C	3	3.300						1945	1945				451	0.232	
Pedestrian Crossing		Ep	2	MIN GREEN + FLASH =	17	+	10	=	27								*
		Fp	3	MIN GREEN + FLASH =	33	+	8	=	41								
		Gp	1,2	MIN GREEN + FLASH =	5	+	10	=	17								

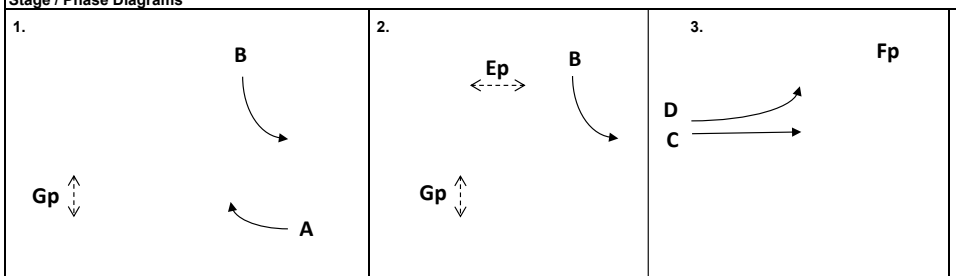
Notes:

Flow: (pcu/hr)



Group	B,C	A,Ep,C
y	0.353	0.351
L (sec)	9	43
C (sec)	130	130
y pract.	0.838	0.602
R.C. (%)	137%	71%

Stage / Phase Diagrams



I/G= 5	I/G=		I/G= 2		
I/G= 5	I/G= 27	27	I/G= 2		

Date: APR, 2026 **Junction:** J3 - Boundary Street / Tai Hang Tung Road (J3)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

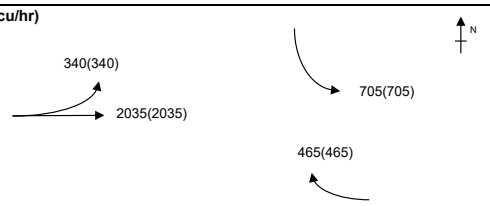
Junction: J3 - Boundary Street / Tai Hang Tung Road Design Year: 2039

Description: 2039 Reference Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%)	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) PM	Flow (pcu/hr)	y Value	Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Boundary Street - WB	↑←	A	1	3.300		20					1810				224	0.124	0.124
	↑←	A	1	3.300		23					1955				241	0.123	
Tai Hang Tung Road - SB	↳	B	1,2	3.300	15						1770				221	0.125	
	↳	B	1,2	3.300	18						1925				241	0.125	
	↳	B	1,2	3.300	20						1940				243	0.125	
Boundary Street - EB	↗	D	3	3.800	10						1735				340	0.196	
Boundary Street - EB	→	C	3	3.300							2085				517	0.248	
	→	C	3	3.300							2085				517	0.248	
	→	C	3	3.300							2085				517	0.248	
	→	C	3	3.300						1945	1945				483	0.248	0.248
Pedestrian Crossing		Ep	2	MIN GREEN + FLASH =			17	+	10	=	27						*
		Fp	3	MIN GREEN + FLASH =			33	+	8	=	41						
		Gp	1,2	MIN GREEN + FLASH =			5	+	12	=	17						

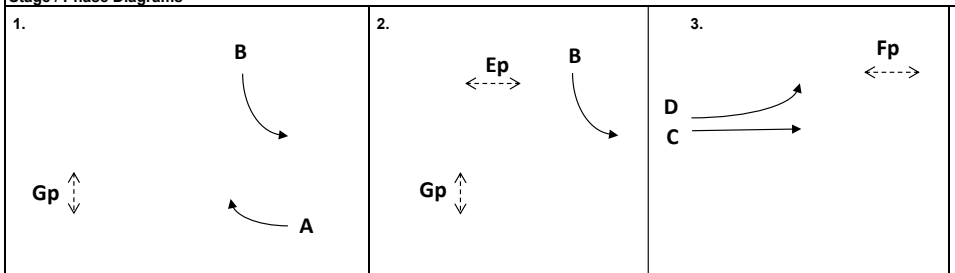
Notes:

Flow: (pcu/hr)



Group	B,C	A,Ep,C
y	0.373	0.372
L (sec)	9	43
C (sec)	130	130
y pract.	0.838	0.602
R.C. (%)	124%	62%

Stage / Phase Diagrams



I/G= 5	I/G=		I/G= 2
I/G= 5	I/G= 27	27	I/G= 2

Date: APR, 2026 **Junction:** J3 - Boundary Street / Tai Hang Tung Road (J3)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

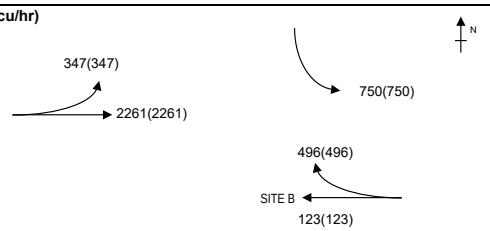
Junction: J3 - Boundary Street / Tai Hang Tung Road Design Year: 2039

Description: 2039 Design Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%)	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) PM	Flow (pcu/hr)	y Value	Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Boundary Street - WB	↑←	A	1	3.300	15	23			60%		1870				304	0.163	0.163
	↑	A	1	3.300		20					1940				315	0.162	
Tai Hang Tung Road - SB	↳	B	1,2	3.300	15						1770				236	0.133	
	↳	B	1,2	3.300	18						1925				256	0.133	
	↳	B	1,2	3.300	20						1940				258	0.133	
Boundary Street - EB	↗	D	3	3.800	10						1735				347	0.200	
Boundary Street - EB	→	C	3	3.300							2085				575	0.276	0.276
	→	C	3	3.300							2085				575	0.276	
	→	C	3	3.300							2085				575	0.276	
	→	C	3	3.300						1945	1945				536	0.276	
Pedestrian Crossing		Ep	2	MIN GREEN + FLASH =	17	+	10	=	27								*
		Fp	3	MIN GREEN + FLASH =	33	+	8	=	41								
		Gp	1,2	MIN GREEN + FLASH =	5	+	12	=	17								
		Hp	2,3	MIN GREEN + FLASH =	5	+	5	=	10								

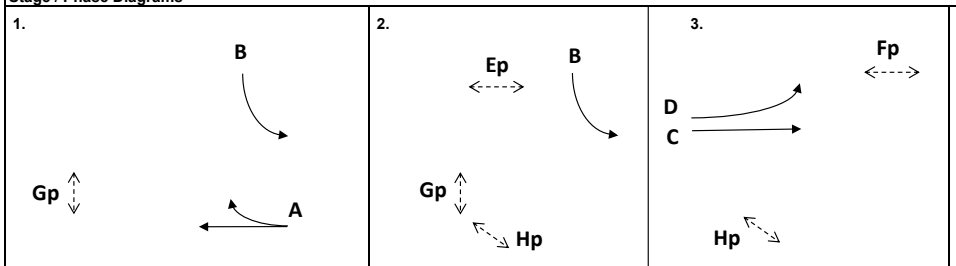
Notes:

Flow: (pcu/hr)



Group	B,C	A,Ep,C
y	0.409	0.438
L (sec)	9	43
C (sec)	130	130
y pract.	0.838	0.602
R.C. (%)	105%	37%

Stage / Phase Diagrams



I/G= 5	I/G=		I/G= 2
I/G= 5	I/G= 27		I/G= 2

Date: MAY, 2026 **Junction:** J3 - Boundary Street / Tai Hang Tung Road (J3)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

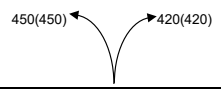
Junction: J4 - Boundary Street / Embankment Road Design Year: 2026

Description: 2026 Observed Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%)	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) PM	Flow (pcu/hr)	y Value	Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Embankment Road - NB	↰	A	1	5.500	15						1970				450	0.228	0.228
	↱	A	1	4.500		25					1950				420	0.215	
Pedestrian Crossing		Bp	2	MIN GREEN + FLASH =			10	+	10	=	20						*

Notes:

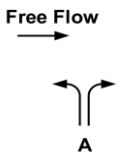
Flow: (pcu/hr)



Group		A,Bp
y		0.228
L (sec)		27
C (sec)		90
y pract.		0.630
R.C. (%)		176%

Stage / Phase Diagrams

1.



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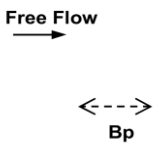


3.

4.

5.

I/G= 3	#N/A		I/G=		
I/G= 3	I/G= 20		I/G=		

Date:	Junction:
APR, 2026	J4 - Boundary Street / Embankment Road

J4

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

Junction: J4 - Boundary Street / Embankment Road

Design Year: 2039

Description: 2039 Reference Flow

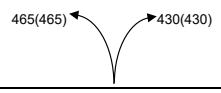
Designed By: HMC

Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%)	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) PM				PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Embankment Road - NB	↰	A	1	5.500	15						1970				465	0.236	0.236
	↱	A	1	4.500		25					1950				430	0.221	
Pedestrian Crossing		Bp	2	MIN GREEN + FLASH =			10	+	10	=	20						*

Notes:

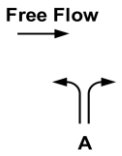
Flow: (pcu/hr)



Group		A,Bp
y		0.236
L (sec)		27
C (sec)		90
y pract.		0.630
R.C. (%)		167%

Stage / Phase Diagrams

1.



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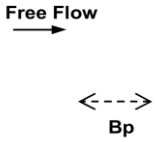


3.

4.

5.

I/G= 3	#N/A		I/G=		
I/G= 3	I/G= 20		I/G=		

Date: APR, 2026

Junction: J4 - Boundary Street / Embankment Road

J4

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

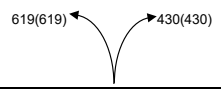
Junction: J4 - Boundary Street / Embankment Road Design Year: 2039

Description: 2039 Design Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%)	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) PM	Flow (pcu/hr)	y Value	Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Embankment Road - NB	↰	A	1	5.500	15						1970				619	0.314	0.314
	↱	A	1	4.500		25					1950				430	0.221	
Pedestrian Crossing		Bp	2	MIN GREEN + FLASH =			10	+	10	=	20						*

Notes:

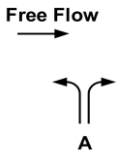
Flow: (pcu/hr)



Group		A,Bp
y		0.314
L (sec)		27
C (sec)		90
y pract.		0.630
R.C. (%)		101%

Stage / Phase Diagrams

1.



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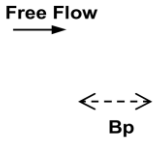


3.

4.

5.

I/G= 3	#N/A		I/G=		
I/G= 3	I/G= 20		I/G=		

Date:	Junction:
APR, 2026	J4 - Boundary Street / Embankment Road

J4

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

Junction: J5 - Nathan Road / Prince Edward Road West Design Year: 2026

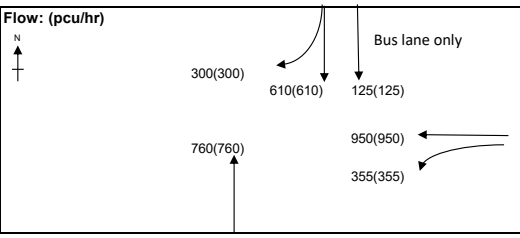
Description: 2026 Observed Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%)	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) PM	Flow (pcu/hr)	y Value	Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Nathan Road - SB (Bus only lane)	↓	A	1,2	3.200							1935				125	0.065	
	↓	A	1,2	3.200							2075				305	0.147	
Nathan Road - SB	↓	A	1,2	3.200							2075				305	0.147	
	↳	B	1	3.100		15					1875				300	0.160	0.160
Nathan Road - NB	↑	C	2	3.500							1965				367	0.187	
	↑	C	2	3.500							2105				393	0.187	
Prince Edward Road West - WB	* ↰	D	3	3.500	10						855				161	0.188	
	↰↓	D	3	3.000	15				53%		1950				368	0.189	
	←	D	3	3.000							2055				388	0.189	
	←	D	3	3.000							2055				388	0.189	
Pedestrian Crossing		Ep	1,2	MIN GREEN + FLASH =			13	+	14	=	27						
		Fp	3	MIN GREEN + FLASH =			42	+	13	=	55						*
		Gp	2	MIN GREEN + FLASH =			17	+	10	=	27						*

Notes:

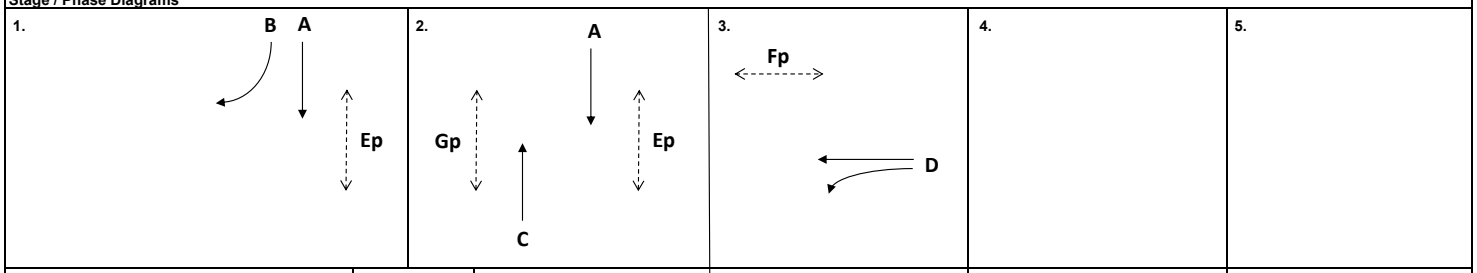
* Site Factor = 0.5 (Taxi Drop-off and Minibus Stop)

Flow: (pcu/hr)



Group	B,C,D	B,Gp,Fp
y	0.536	0.160
L (sec)	21	100
C (sec)	130	130
y pract.	0.755	0.208
R.C. (%)	41%	30%

Stage / Phase Diagrams



I/G= 5	I/G=		I/G= 3		
I/G= 5	I/G= 27		I/G= 3		

Date: APR, 2026 **Junction:** J5 - Nathan Road / Prince Edward Road West (J5)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

Junction: J5 - Nathan Road / Prince Edward Road West Design Year: 2039

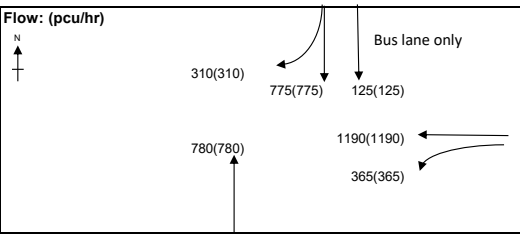
Description: 2039 Reference Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%)	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) PM	Flow (pcu/hr)	y Value	Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Nathan Road - SB (Bus only lane)	↓	A	1,2	3.200							1935				125	0.065	
	↓	A	1,2	3.200							2075				388	0.187	
Nathan Road - SB	↓	A	1,2	3.200							2075				387	0.187	
	↳	B	1	3.100		15					1875				310	0.165	0.165
Nathan Road - NB	↑	C	2	3.500							1965				377	0.192	
	↑	C	2	3.500							2105				403	0.191	
	* ↰	D	3	3.500	10						855				192	0.225	
Prince Edward Road West - WB	↰↓	D	3	3.000	15				39%		1980				443	0.224	
	←	D	3	3.000							2055				460	0.224	
	←	D	3	3.000							2055				460	0.224	
Pedestrian Crossing		Ep	1,2	MIN GREEN + FLASH =			13	+	14	=	27						
		Fp	3	MIN GREEN + FLASH =			42	+	13	=	55						*
		Gp	2	MIN GREEN + FLASH =			17	+	10	=	27						*

Notes:

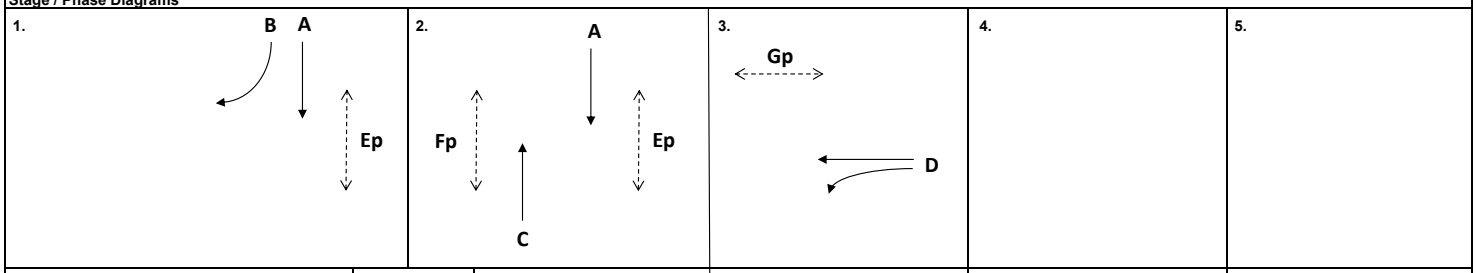
* Site Factor = 0.5 (Taxi Drop-off and Minibus Stop)

Flow: (pcu/hr)



Group	B,C,D	B,Gp,Fp
y	0.582	0.165
L (sec)	21	100
C (sec)	130	130
y pract.	0.755	0.208
R.C. (%)	30%	26%

Stage / Phase Diagrams



I/G= 5	I/G=		I/G= 3		
I/G= 5	I/G= 27		I/G= 3		

Date: APR, 2026 **Junction:** J5 - Nathan Road / Prince Edward Road West (J5)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

Junction: J5 - Nathan Road / Prince Edward Road West Design Year: 2039

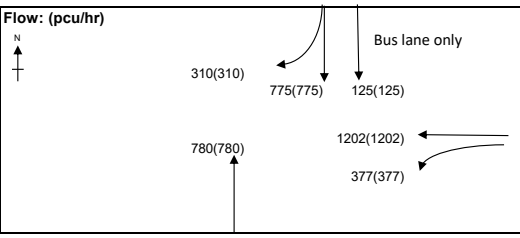
Description: 2039 Design Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%)	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) PM	Flow (pcu/hr)	y Value	Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Nathan Road - SB (Bus only lane)	↓	A	1,2	3.200							1935				125	0.065	
	↓	A	1,2	3.200							2075				388	0.187	
Nathan Road - SB	↓	A	1,2	3.200							2075				387	0.187	
	↳	B	1	3.100		15					1875				310	0.165	0.165
Nathan Road - NB	↑	C	2	3.500							1965				377	0.192	
	↑	C	2	3.500							2105				403	0.191	
Prince Edward Road West - WB	* ↰	D	3	3.500	10						855				195	0.228	
	↰↓	D	3	3.000	15				41%		1975				449	0.227	
	←	D	3	3.000							2055				467	0.227	
	←	D	3	3.000							2055				468	0.228	
Pedestrian Crossing		Ep	1,2	MIN GREEN + FLASH =			13	+	14	=	27						
		Fp	3	MIN GREEN + FLASH =			42	+	13	=	55						*
		Gp	2	MIN GREEN + FLASH =			17	+	10	=	27						*

Notes:

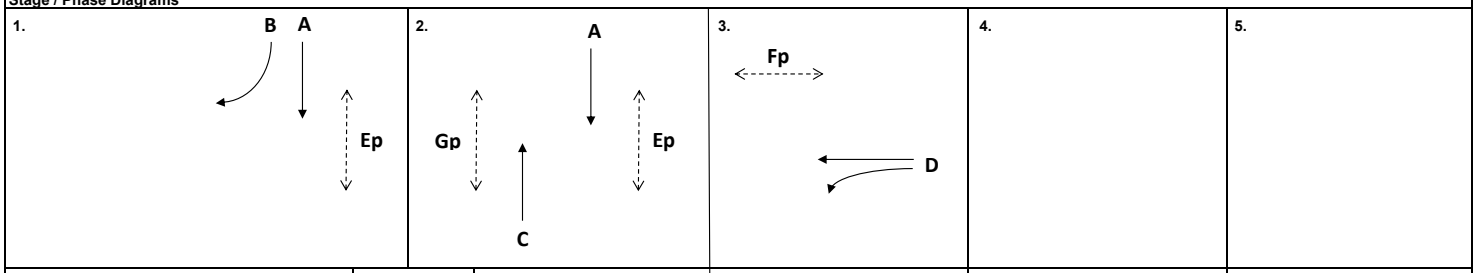
* Site Factor = 0.5 (Taxi Drop-off and Minibus Stop)

Flow: (pcu/hr)



Group	B,C,D	B,Gp,Fp
y	0.585	0.165
L (sec)	21	100
C (sec)	130	130
y pract.	0.755	0.208
R.C. (%)	29%	26%

Stage / Phase Diagrams



I/G= 5	I/G=		I/G= 3		
I/G= 5	I/G= 27		I/G= 3		

Date: APR, 2026 **Junction:** J5 - Nathan Road / Prince Edward Road West (J5)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

Junction: J6 - Prince Edward Road West / Sai Yee Street Design Year: 2026

Description: 2026 Observed Flow Designed By: HMC Checked By: CYH

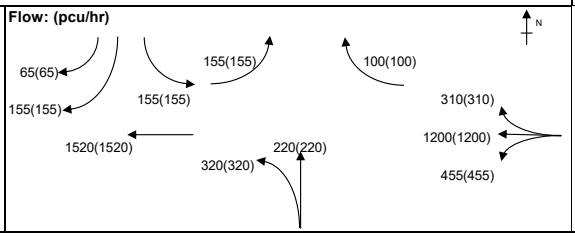
Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%)	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) PM				PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Prince Edward Road West - EB		A	1	5.500	10						1885				155	0.082	
		A	1	4.000	10						1750				440	0.251	
Prince Edward Road West - WB		A	1	3.300	15				3%		2080				523	0.251	
		A	1	3.300							2085				524	0.251	
		A	1	3.300		10			65%		1900				478	0.252	0.252
	*	B	1,2	3.500							1955				482	0.247	
Prince Edward Road West - WB		B	1,2	3.500							2105				519	0.247	
		B	1,2	3.500							2105				519	0.247	
		C	2	3.300	10						1690				152	0.090	
Sai Yee Street - NB		C	2	3.300	13						1870				168	0.090	
	*	C	2	3.300							1875				220	0.117	0.117
Prince Edward Road West - WB		C	2	3.300		10					1690				100	0.059	
		D	3	3.500		10					1710				215	0.126	
Fa Yuen Street - SB	**	D	3	3.500		15					1915				5	0.003	
		D	3	3.500	10						1710				155	0.091	
Pedestrian Crossing		Ep	1,2	MIN GREEN + FLASH =			9	+	11	=	20						
		Fp	3	MIN GREEN + FLASH =			24	+	11	=	35						*
		Gp	2,3	MIN GREEN + FLASH =			5	+	13	=	18						
		Hp	3	MIN GREEN + FLASH =			18	+	11	=	29						
		Ip	1,3	MIN GREEN + FLASH =			6	+	9	=	15						

Notes:

* Site Factor = 0.9 (Kerbside activities reduces lane capacity

** Allowable traffic flow to be reduced due to observed illegal parking at Fa Yuen Street right lane

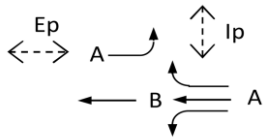
Flow: (pcu/hr)



Group	A,C,D	A,C,Fp
y	0.495	0.369
L (sec)	18	47
C (sec)	130	130
y pract.	0.775	0.575
R.C. (%)	57%	56%

Stage / Phase Diagrams

1.



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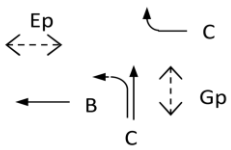

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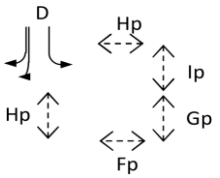


4.

5.

I/G= 2	I/G=		I/G= 6		
I/G= 2	I/G=		I/G= 6		

Date: APR, 2026 **Junction:** J6 - Prince Edward Road West / Sai Yee Street (J6)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

Junction: J6 - Prince Edward Road West / Sai Yee Street Design Year: 2039

Description: 2039 Reference Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%)	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) PM				PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Prince Edward Road West - EB		A	1	5.500	10						1885				160	0.085	
		A	1	4.000	10						1750				465	0.266	
Prince Edward Road West - WB		A	1	3.300	15				0%		2085				599	0.287	
		A	1	3.300							2085				599	0.287	
		A	1	3.300		10			57%		1920				552	0.288	0.288
	*	B	1,2	3.500							1955				607	0.310	
Prince Edward Road West - WB		B	1,2	3.500							2105				654	0.311	
		B	1,2	3.500							2105				654	0.311	
		C	2	3.300	10						1690				228	0.135	0.135
Sai Yee Street - NB		C	2	3.300	13						1870				252	0.135	
	*	C	2	3.300							1875				225	0.120	
Prince Edward Road West - WB		C	2	3.300		10					1690				105	0.062	
		D	3	3.500		10					1710				225	0.132	
Fa Yuen Street - SB	**	D	3	3.500		15					1915				5	0.003	
		D	3	3.500	10						1710				160	0.094	

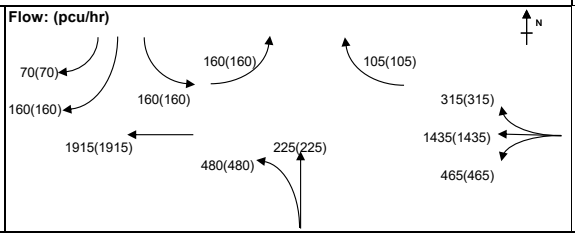
Pedestrian Crossing									
	Ep	1,2	MIN GREEN + FLASH =	9	+	11	=	20	
	Fp	3	MIN GREEN + FLASH =	24	+	11	=	35	*
	Gp	2,3	MIN GREEN + FLASH =	5	+	13	=	18	
	Hp	3	MIN GREEN + FLASH =	18	+	11	=	29	
	Ip	1,3	MIN GREEN + FLASH =	6	+	9	=	15	

Notes:

* Site Factor = 0.9 (Kerbside activities reduces lane capacity

** Allowable traffic flow to be reduced due to observed illegal parking at Fa Yuen Street right lane

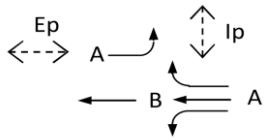
Flow: (pcu/hr)



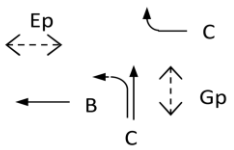
Group	A,C,D	A,C,Fp
y	0.554	0.422
L (sec)	18	47
C (sec)	130	130
y pract.	0.775	0.575
R.C. (%)	40%	36%

Stage / Phase Diagrams

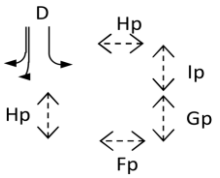
1.



2.



3.



4.

5.

I/G= 2	I/G=		I/G= 6		
I/G= 2	I/G=		I/G= 6		

Date: APR, 2026 **Junction:** J6 - Prince Edward Road West / Sai Yee Street (J6)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

Junction: J6 - Prince Edward Road West / Sai Yee Street Design Year: 2039

Description: 2039 Design Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%)	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) PM				PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Prince Edward Road West - EB		A	1	5.500	10						1885				160	0.085	
		A	1	4.000	10						1750				513	0.293	
Prince Edward Road West - WB		A	1	3.300	15				1%		2085				610	0.293	
		A	1	3.300							2085				611	0.293	
		A	1	3.300		10			61%		1910				560	0.293	0.293
	*	B	1,2	3.500							1955				607	0.310	
Prince Edward Road West - WB		B	1,2	3.500							2105				654	0.311	
		B	1,2	3.500							2105				654	0.311	
		C	2	3.300	10						1690				228	0.135	
Sai Yee Street - NB		C	2	3.300	13						1870				252	0.135	
	*	C	2	3.300							1875				300	0.160	0.160
Prince Edward Road West - WB		C	2	3.300		10					1690				105	0.062	
		D	3	3.500		10					1710				273	0.160	0.160
Fa Yuen Street - SB	**	D	3	3.500		15					1915				5	0.003	
		D	3	3.500	10						1710				160	0.094	

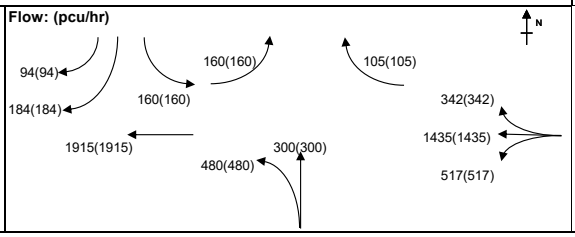
Pedestrian Crossing	Ep	1,2	MIN GREEN + FLASH =	9	+	11	=	20
	Fp	3	MIN GREEN + FLASH =	24	+	11	=	35
	Gp	2,3	MIN GREEN + FLASH =	5	+	13	=	18
	Hp	3	MIN GREEN + FLASH =	18	+	11	=	29
	Ip	1,3	MIN GREEN + FLASH =	6	+	9	=	15

Notes:

* Site Factor = 0.9 (Kerbside activities reduces lane capacity

** Allowable traffic flow to be reduced due to observed illegal parking at Fa Yuen Street right lane

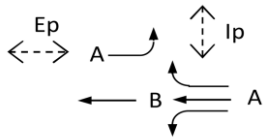
Flow: (pcu/hr)



Group	A,C,Fp	A,C,D
y	0.453	0.613
L (sec)	47	18
C (sec)	130	130
y pract.	0.575	0.775
R.C. (%)	27%	27%

Stage / Phase Diagrams

1.



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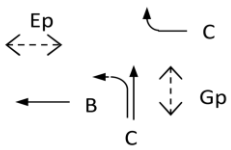

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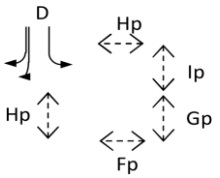


4.

5.

I/G= 5	I/G=		I/G= 10		
I/G= 5	I/G=		I/G= 10		

Date: APR, 2026 **Junction:** J6 - Prince Edward Road West / Sai Yee Street (J6)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

Junction: J7 - Prince Edward Road West / Embankment Road Design Year: 2026

Description: 2026 Observed Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%)	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) PM				PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Prince Edward Road West - WB	↖←	A	1	3.300		15					1770				410	0.232	
	↖←	A	1	3.300		18					1925				445	0.231	
	* ←	B	1,2	4.000							1610				556	0.346	0.346
	←	B	1,2	4.000							2155				745	0.346	
	←	B	1,2	4.000							2155				745	0.346	
	←	B	1,2	4.000							2155				745	0.346	
Prince Edward Road West - EB	↗	C	2,3	4.500	15						1875				185	0.099	
Pedestrian Crossing		Dp	1	MIN GREEN + FLASH =			73	+	6	=	79						
		Ep	2,3	MIN GREEN + FLASH =			5	+	9	=	14						
		Fp	3	MIN GREEN + FLASH =			21	+	14	=	35						*

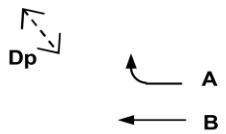
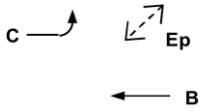
Notes:

* Site Factor = 0.8 (Bus Stop and Shop Ingress)

Flow: (pcu/hr)

Group	A,C	B,Fp
y	0.330	0.346
L (sec)	9	43
C (sec)	130	130
y pract.	0.838	0.602
R.C. (%)	154%	74%

Stage / Phase Diagrams

1.	2.	3.	4.	5.
				
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I/G= 4	I/G=	I/G= 5		

Date:	Junction:
APR, 2026	J7 - Prince Edward Road West / Embankment Road (J7)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

Junction: J7 - Prince Edward Road West / Embankment Road Design Year: 2039

Description: 2039 Reference Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%)	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) PM	Flow (pcu/hr)	y Value	Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Prince Edward Road West - WB	↰	A	1	3.300		15					1770				419	0.237	
	↰	A	1	3.300		18					1925				456	0.237	
	* ←	B	1,2	4.000							1610				612	0.380	0.380
	←	B	1,2	4.000							2155				819	0.380	
	←	B	1,2	4.000							2155				819	0.380	
	←	B	1,2	4.000							2155				819	0.380	
Prince Edward Road West - EB	↱	C	2,3	4.500	15						1875				190	0.101	
Pedestrian Crossing		Dp	1	MIN GREEN + FLASH =			73	+	6	=	79						
		Ep	2,3	MIN GREEN + FLASH =			5	+	9	=	14						
		Fp	3	MIN GREEN + FLASH =			21	+	14	=	35						*

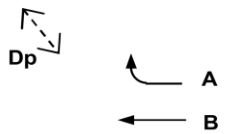
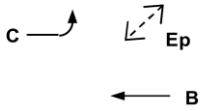
Notes:

* Site Factor = 0.8 (Bus Stop and Shop Ingress)

Flow: (pcu/hr)

Group	A,C	B,Fp
y	0.338	0.380
L (sec)	9	43
C (sec)	130	130
y pract.	0.838	0.602
R.C. (%)	148%	58%

Stage / Phase Diagrams

1.	2.	3.	4.	5.
				
I/G= 4	I/G=	I/G= 5		
I/G= 4	I/G=	I/G= 5		

Date:	Junction:
APR, 2026	J7 - Prince Edward Road West / Embankment Road (J7)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

Junction: J7 - Prince Edward Road West / Embankment Road Design Year: 2039

Description: 2039 Design Flow Designed By: HMC Checked By: CYH

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%)	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) PM	Flow (pcu/hr)	y Value	Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Prince Edward Road West - WB	↑←	A	1	3.300		15					1770				493	0.279	
	↑←	A	1	3.300		18					1925				536	0.278	
	* ←	B	1,2	4.000							1610				638	0.396	0.396
	←	B	1,2	4.000							2155				854	0.396	
	←	B	1,2	4.000							2155				854	0.396	
	←	B	1,2	4.000							2155				854	0.396	
Prince Edward Road West - EB	→↑	C	2,3	4.500	15						1875				190	0.101	
Pedestrian Crossing		Dp	1	MIN GREEN + FLASH =			73	+	6	=	79						
		Ep	2,3	MIN GREEN + FLASH =			5	+	9	=	14						
		Fp	3	MIN GREEN + FLASH =			21	+	14	=	35						*

Notes:

* Site Factor = 0.8 (Bus Stop and Shop Ingress)

Flow: (pcu/hr)

Group	A,C	B,Fp
y	0.380	0.396
L (sec)	9	43
C (sec)	130	130
y pract.	0.838	0.602
R.C. (%)	121%	52%

Stage / Phase Diagrams

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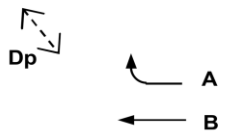
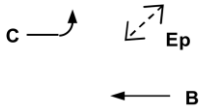
				
I/G= 4	I/G=	I/G= 5		
I/G= 4	I/G=	I/G= 5		

Date:	Junction:
APR, 2026	J7 - Prince Edward Road West / Embankment Road

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

Junction: J8 - Lai Chi Kok Road / Nathan Road — Design Year: 2026

Description: 2026 Observed Flow — Designed By: HMC — Checked By: CYH

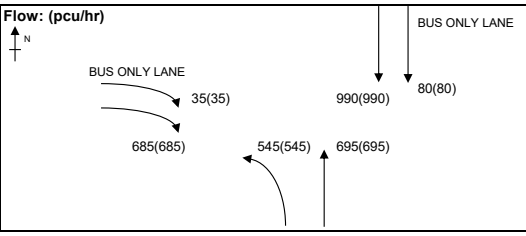
Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%)	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) PM	Flow (pcu/hr)	y Value	Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Nathan Road - SB (Bus only lane)	↓	A	1	3.300							1945				80	0.041	
Nathan Road - SB	↓	A	1	3.300							2085				495	0.237	
	↓	A	1	3.300							2085				495	0.237	
Nathan Road - NB	* ↑	B	2	3.500							1570				173	0.110	
	* ↑	B	2	3.500							1685				186	0.110	
	* ↑	B	2	3.500							1685				186	0.110	
	** ↑	A	1	3.400							195				31	0.159	
	↑	A	1	3.400							2095				332	0.158	
	↑	A	1	3.400							2095				332	0.158	
Lai Chi Kok Road - EB (Bus only lane)	***	B	2	3.300		25					1470				35	0.024	
Lai Chi Kok Road - EB	***	B	2	3.300		20					1550				346	0.223	
	***	B	2	3.300		15					1515				339	0.224	0.224
Pedestrian Crossing		Cp	1	MIN GREEN + FLASH =			65	+	10	=	75						*
		Dp	2	MIN GREEN + FLASH =			47	+	10	=	57						

Notes:

* Site Factor = 0.8 (Observed kerbside activities ahead of junction)
** Site Factor = 0.1 (Flare lane)

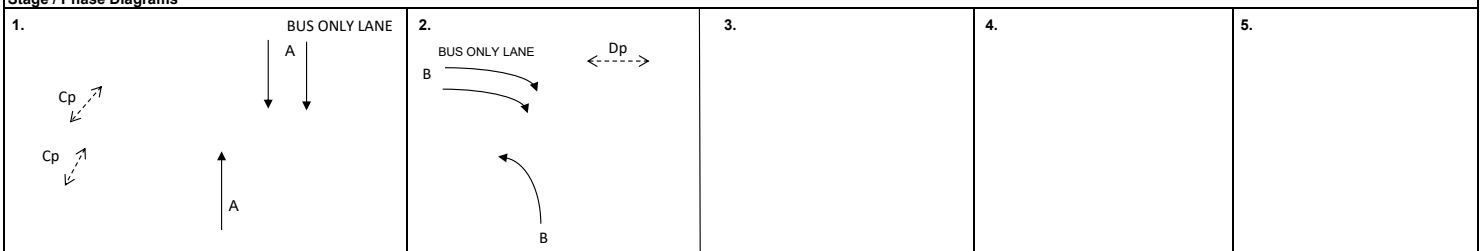
*** Site Factor = 0.8 (Observed queue back from junction ahead)

Flow: (pcu/hr)



Group	A,B	Cp,B
y	0.461	0.224
L (sec)	20	84
C (sec)	130	130
y pract.	0.762	0.318
R.C. (%)	65%	42%

Stage / Phase Diagrams



I/G= 6	I/G=		I/G=
I/G= 6	I/G=		I/G=

Date: APR, 2026 **Junction:** J8 - Lai Chi Kok Road / Nathan Road (J8)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

Junction: J8 - Lai Chi Kok Road / Nathan Road Design Year: 2039

Description: 2039 Reference Flow Designed By: HMC Checked By: CYH

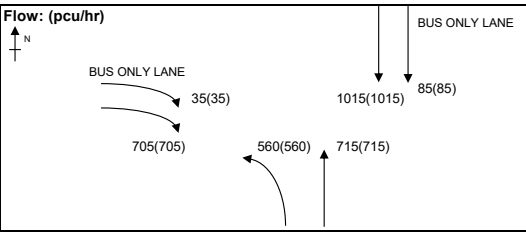
Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%)	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) PM	Flow (pcu/hr)	y Value	Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Nathan Road - SB (Bus only lane)	↓	A	1	3.300							1945				85	0.044	
Nathan Road - SB	↓	A	1	3.300							2085				508	0.244	
	↓	A	1	3.300							2085				507	0.243	
Nathan Road - NB	* ↑	B	2	3.500							1570				178	0.113	
	* ↑	B	2	3.500							1685				191	0.113	
	* ↑	B	2	3.500							1685				191	0.113	
	** ↑	A	1	3.400							195				32	0.164	
	↑	A	1	3.400							2095				341	0.163	
	↑	A	1	3.400							2095				342	0.163	
Lai Chi Kok Road - EB (Bus only lane)	***	B	2	3.300		25					1470				35	0.024	
Lai Chi Kok Road - EB	***	B	2	3.300		20					1550				357	0.230	0.230
	***	B	2	3.300		15					1515				348	0.230	
Pedestrian Crossing		Cp	1	MIN GREEN + FLASH =			65	+	10	=	75						*
		Dp	2	MIN GREEN + FLASH =			47	+	10	=	57						

Notes:

* Site Factor = 0.8 (Observed kerbside activities ahead of junction)
** Site Factor = 0.1 (Flare lane)

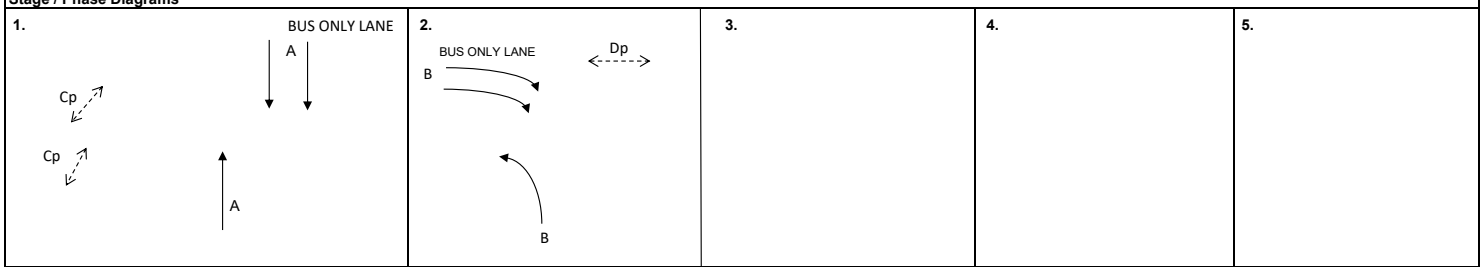
*** Site Factor = 0.8 (Observed queue back from junction ahead)

Flow: (pcu/hr)



Group	A,B	Cp,B
y	0.474	0.230
L (sec)	20	84
C (sec)	130	130
y pract.	0.762	0.318
R.C. (%)	61%	38%

Stage / Phase Diagrams



I/G= 6	I/G=		I/G=
I/G= 6	I/G=		I/G=

Date: APR. 2026 **Junction:** J8 - Lai Chi Kok Road / Nathan Road (J8)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50908510 **MVA HONG KONG LIMITED**

Junction: J8 - Lai Chi Kok Road / Nathan Road Design Year: 2039

Description: 2039 Design Flow Designed By: HMC Checked By: CYH

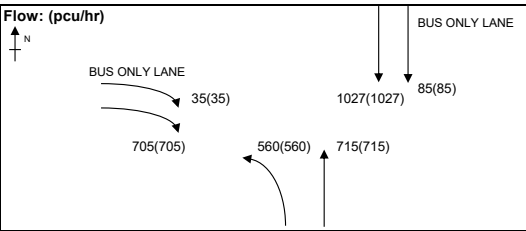
Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%)	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) PM	Flow (pcu/hr)	y Value	Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Nathan Road - SB (Bus only lane)	↓	A	1	3.300							1945				85	0.044	
Nathan Road - SB	↓	A	1	3.300							2085				514	0.247	
	↓	A	1	3.300							2085				513	0.246	
Nathan Road - NB	* ↑	B	2	3.500							1570				178	0.113	
	* ↑	B	2	3.500							1685				191	0.113	
	* ↑	B	2	3.500							1685				191	0.113	
	** ↑	A	1	3.400							195				32	0.164	
	↑	A	1	3.400							2095				341	0.163	
	↑	A	1	3.400							2095				342	0.163	
Lai Chi Kok Road - EB (Bus only lane)	***	B	2	3.300		25					1470				35	0.024	
Lai Chi Kok Road - EB	***	B	2	3.300		20					1550				357	0.230	0.230
	***	B	2	3.300		15					1515				348	0.230	
Pedestrian Crossing		Cp	1	MIN GREEN + FLASH =			65	+	10	=	75						*
		Dp	2	MIN GREEN + FLASH =			47	+	10	=	57						

Notes:

* Site Factor = 0.8 (Observed kerbside activities ahead of junction)
** Site Factor = 0.1 (Flare lane)

*** Site Factor = 0.8 (Observed queue back from junction ahead)

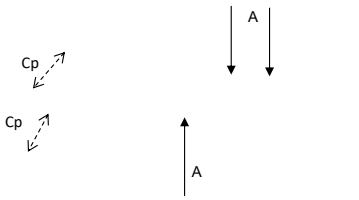
Flow: (pcu/hr)



Group	A,B	Cp,B
y	0.477	0.230
L (sec)	20	84
C (sec)	130	130
y pract.	0.762	0.318
R.C. (%)	60%	38%

Stage / Phase Diagrams

1.



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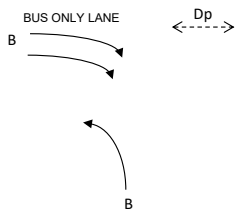


3.

4.

5.

I/G= 6	I/G=		I/G=		
I/G= 6	I/G=		I/G=		

Date: APR, 2026 **Junction:** J8 - Lai Chi Kok Road / Nathan Road (J8)

Appendix B

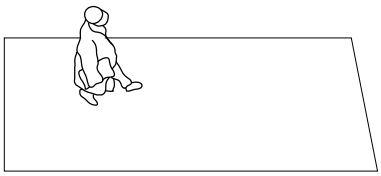
DEFINITION OF LEVEL-OF SERVICE (LOS) IN PEDESTRIAN WALKWAY SYSTEMS

EXHIBIT 11-8. PEDESTRIAN WALKWAY LOS

LOS A

Pedestrian Space > 5.6 m^2/p *Flow Rate* ≤ 16 p/min/m

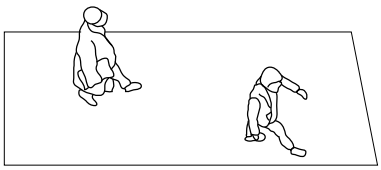
At a walkway LOS A, pedestrians move in desired paths without altering their movements in response to other pedestrians. Walking speeds are freely selected, and conflicts between pedestrians are unlikely.



LOS B

Pedestrian Space > 3.7–5.6 m^2/p *Flow Rate* > 16–23 p/min/m

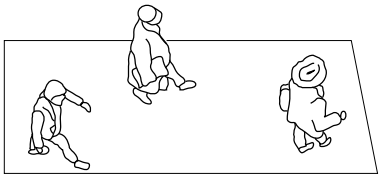
At LOS B, there is sufficient area for pedestrians to select walking speeds freely, to bypass other pedestrians, and to avoid crossing conflicts. At this level, pedestrians begin to be aware of other pedestrians, and to respond to their presence when selecting a walking path.



LOS C

Pedestrian Space > 2.2–3.7 m^2/p *Flow Rate* > 23–33 p/min/m

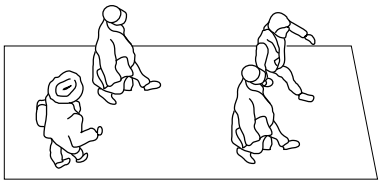
At LOS C, space is sufficient for normal walking speeds, and for bypassing other pedestrians in primarily unidirectional streams. Reverse-direction or crossing movements can cause minor conflicts, and speeds and flow rate are somewhat lower.



LOS D

Pedestrian Space > 1.4–2.2 m^2/p *Flow Rate* > 33–49 p/min/m

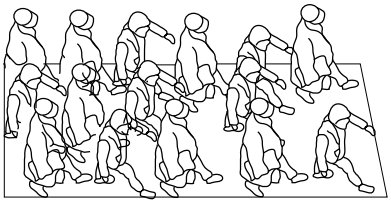
At LOS D, freedom to select individual walking speed and to bypass other pedestrians is restricted. Crossing or reverse-flow movements face a high probability of conflict, requiring frequent changes in speed and position. The LOS provides reasonably fluid flow, but friction and interaction between pedestrians is likely.



LOS E

Pedestrian Space > 0.75–1.4 m^2/p *Flow Rate* > 49–75 p/min/m

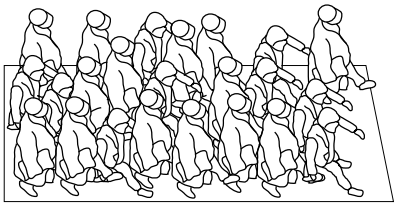
At LOS E, virtually all pedestrians restrict their normal walking speed, frequently adjusting their gait. At the lower range, forward movement is possible only by shuffling. Space is not sufficient for passing slower pedestrians. Cross- or reverse-flow movements are possible only with extreme difficulties. Design volumes approach the limit of walkway capacity, with stoppages and interruptions to flow.



LOS F

Pedestrian Space ≤ 0.75 m^2/p *Flow Rate* varies p/min/m

At LOS F, all walking speeds are severely restricted, and forward progress is made only by shuffling. There is frequent, unavoidable contact with other pedestrians. Cross- and reverse-flow movements are virtually impossible. Flow is sporadic and unstable. Space is more characteristic of queued pedestrians than of moving pedestrian streams.



Source: Adapted from Fruin (2).