

Appendix 4

Traffic Impact Assessment

**PROPOSED AMENDMENT TO THE NOTES OF THE
APPROVED QUARRY BAY OZP RELATING TO THE “OTHER
SPECIFIED USES” ZONE ANNOTATED “CULTURAL
AND/OR COMMERCIAL LEISURE AND TOURISM RELATED
USES”**

**INLAND LOTS 8590 RP (PART) AND 8723 RP (PART) AND
ADJOINING GOVERNMENT LAND AND A SHORT STRIP
OF GOVERNMENT LAND CONNECTING TO QUARRY BAY
PARK PHASE II, HOI YU STREET, QUARRY BAY**

TRAFFIC IMPACT ASSESSMENT REPORT



PROPOSED AMENDMENT TO THE NOTES OF THE APPROVED QUARRY BAY OZP RELATING TO THE “OTHER SPECIFIED USES” ZONE ANNOTATED “CULTURAL AND/OR COMMERCIAL LEISURE AND TOURISM RELATED USES” INLAND LOTS 8590 RP (PART) AND 8723 RP (PART) AND ADJOINING GOVERNMENT LAND AND A SHORT STRIP OF GOVERNMENT LAND CONNECTING TO QUARRY BAY PARK PHASE II, HOI YU STREET, QUARRY BAY

TRAFFIC IMPACT ASSESSMENT REPORT

IDENTIFICATION TABLE	
Client/Project owner	Marine Riches III
Project	Proposed Amendment to the Notes of the Approved Quarry Bay OZP relating to the “Other Specified Uses” zone annotated “Cultural and/or Commercial Leisure and Tourism Related Uses” Inland Lots 8590 RP (Part) and 8723 RP (Part) and Adjoining Government Land and a short strip of government land connecting to Quarry Bay Park Phase II, Hoi Yu Street, Quarry Bay
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 Inland Lots 8590 RP (Part) and 8723 RP (Part) and Adjoining Government Land, Hoi Yu Street, Quarry Bay

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1. INTRODUCTION

1.1 Background

- 1.1.1 The application site is situated at the land on north of Hoi Yu Street and the Island East Corridor (“IEC”) along the Quarry Bay Waterfront Promenade. It consists of the part of land lot IL8590 R.P. and IL 8723 R.P., and the adjoining government land (which currently used as a temporary open space car parking) and a short strip of government land connecting to Quarry Bay Park (“the Land” or “the Application Site”).
- 1.1.2 In 2001, General Building Plans (“GBPs”) were approved in compliance with the “Industrial” zone in effect at the time for an Industrial Building (“the approved industrial building”) for the lot IL8590 R.P. and IL8723 R.P.. Construction of the industrial building commenced with work on foundations in 2017 and were suspended when the Development Bureau approached to owner to see if they would consider a scheme which was more appropriate to the up-to-date planning intention and public aspirations for a more vibrant waterfront. The incomplete foundation works remain on the private lots are currently largely vacant.
- 1.1.3 Following the Hong Kong Island East Harbour-front Study (“HKIEHS”) commenced by the Planning Department, which aims to improve the connectivity and pedestrian accessibility of the harbour-front, it was proposed to construct an about 2km long pedestrian Boardwalk underneath the Island Eastern Corridor from Oil Street to Hoi Yu Street (“the Boardwalk”) to enhance the connectivity along the North Point promenade in 2012. An investigation study for the Boardwalk was then commenced in March 2015 by the Civil Engineering and Development Department (“CEDD”) to review the feasibility. Subsequently, the contract for design and construction of the Boardwalk was awarded in December 2021 and the works was planned to be completed in end 2025.
- 1.1.4 Under the latest Approved Quarry Bay Outline Zoning Plan (No. S/H21/28, September 2010), main portion of the Application site is currently zoned as “Other Specified Uses (“OU(1)”) annotated “Cultural and/ or Commercial, Leisure and Tourism Related Uses” with the uses of “Eating Place, Exhibition or Convention Hall, Place of Entertainment, Place of Recreation, Sports or Culture, Hotel, Office and Shop and Services” and etc. all under Column 2.
- 1.1.5 In order to provide a better waterfront to the public and to tally with the above-mentioned enhancement proposal/ the Boardwalk, the previous owner of the Land (“the previous owner”) was invited by the Government to revisit the land use of the approved industrial building.
- 1.1.6 The previous owner was willing to partly surrender the original site (i.e. the approved industrial building) in exchange for the land (including part IL 8590 R.P., part IL 8723 R.P. and adjoining Government land) zoned OU(1) to form a new site for a combined waterfront development comprising of 4 hotel blocks, an office building, some retails and food & beverage facilities, which would have a more compatible land use to the waterfront then the approved industrial building, and the adjoining area zoned as “Other Specified Uses (OU)” annotated “Elevated Walkway” (“the elevated walkway”).

Proposed Amendment to the Notes of the Approved Quarry Bay OZP relating to the “Other Specified Uses” zone annotated “Cultural and/or Commercial Leisure and Tourism Related Uses”

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- 1.1.7 Therefore, a section 16 planning application for the aforesaid waterfront development had been submitted to the Town Planning Board (TPB) for consideration in 2018 and it was approved with conditions in 2019. Hereafter refer to as the “previously approved scheme”.
- 1.1.8 However, with reference to the Planning Statement, the implementation of the Approved Scheme was not possible, nor was the sale of the Approved Scheme. A stalemate has therefore been reached with the Approved Scheme. As the economic outlook has significantly changed since the scheme was approved in 2019 and both office and hotels are facing a difficult time with oversupply in the areas, the new owner, Marine Riches III (“the Applicant”), would like to revisit the use of the Land.
- 1.1.9 With the use of “Flat” under Column 2 of the latest OZP, the applicant intends to provide a space for specific cultural and tourism features with residential units. A Section 12A planning application is therefore required to be submitted for TPB’s consideration.
- 1.1.10 MVA Hong Kong Limited (MVA) was commissioned as the Traffic Consultant to provide traffic engineering input and prepare a Traffic Impact Assessment (TIA) Study in support of the Section 12A planning application for the proposed development.

1.2 Objectives

1.2.1 The main objectives of this study are as follows:

- to review the existing traffic conditions in the vicinity of the application site;
- to review the traffic arrangement and internal transport facilities provision of the proposed development;
- to estimate the additional traffic generations and attractions due to the proposed development;
- to forecast the pedestrian and vehicular traffic demands on the adjacent road network in the design year 2033 (i.e. 3 years after completion, i.e. 2030 + 3 years);
- to assess the possible traffic impacts due to the proposed development on the adjacent road network; and
- to recommend any traffic improvement measures to mitigate the potential traffic problems on the road network, if required.

1.3 Structure of Report

1.3.1 Following this introductory chapter, there are **FIVE** further chapters:

- **Chapter 2 – PROPOSED DEVELOPMENT**, which presents the site location, development schedules, traffic arrangements and provisions of internal transport facilities for the proposed development;
- **Chapter 3 – EXISTING TRAFFIC CONDITION**, which describes the existing local road network in the vicinity of the proposed development; presents details of the traffic count survey and assess the existing traffic conditions;
- **Chapter 4 – FUTURE TRAFFIC CONDITION**, which assesses the annual growth rate to be adopted, estimates the potential traffic generations and attractions from the proposed development and future traffic flows on the surrounding road network;
- **Chapter 5 – TRAFFIC IMPACT ASSESSMENT**, which presents the findings of the traffic impact assessment for the reference and design scenarios, and recommends improvement measures, if necessary;
- **Chapter 6 – SUMMARY AND CONCLUSION**, which summarizes the findings of this study and presents the conclusions regarding the traffic issues associated with the proposed development.

2. PROPOSED DEVELOPMENT

2.1 Overview

- 2.1.1 The application site is situated at the land on north of Hoi Yu Street and the Island East Corridor ("IEC") along the Quarry Bay Waterfront Promenade. It consists of the part of land lot IL8590 R.P. and IL 8723, and the adjoining government land (which currently used as a temporary open space car parking) and a short strip of government land connecting to Quarry Bay Park. Location of the application site is shown in **Figure 2.1**.
- 2.1.2 The "OU(1)" portion of the site has a total area of about 8,532m². A combined waterfront development comprising of 3 domestic blocks with 189 - 225 residential units, 1 non-domestic block for cultural, leisure and entertainment uses, and some retails and Food & Beverage facilities will be provided. The development parameters of the previously approved scheme versus the current scheme are summarised in **Table 2.1** below.

Table 2.1 Key Development Parameters

	Previously Approved Scheme	Current Scheme
Site Area	About 8,532 m ²	About 8,532 m ²
Uses	Hotel & Office & Shop and Services, Eating Place, and Place of Recreation, Sport, or Culture	Cultural, Leisure and Entertainment uses, Eating Place, Shops and Services, and Flat
Plot Ratio (PR)	Approx. 4.4	Approx. 4.63
Building Height	About +34.0 mPD, +39.0 mPD and +41.0 mPD	About +26.3mPD, +40.7mPD and +44mPD
No. of Storeys	10 to 13 storeys including 1-storey of podium and 2 basement levels for car park	8, 13, 14 Including 1 storey of podium (i.e. eating place and shop and services at ground floor level) and 3 basement levels
Gross Floor Area (GFA)	Total – 37,155m² Incl. Retail – 11,537m ² Office – 8,070m ² Hotel – 17,548m ² (with 400 guest rooms)	Total – about 39,480m² Domestic – about 26,545m ² (189 - 225 units Unit size range in 45 to 105m ²) Non-domestic – about 12,935m ² (Including about 7,703m ² for cultural facilities & about 4,617m ² for retail/ F&B & about 615 m ² for covered public open space)

- 2.1.3 A new waterfront cultural venue for exhibitions or multi-function events will be provided. Although no specify events is planned for the time being, such events would be some cultural digital museum or art related exhibitions, etc. with target visitor trips of about 5,000 guests per day.

- 2.1.4 Besides, approximately over 30% area on the ground plane of the proposed development will be given over to the public with aim to provide a potential spaces and environments for leisure or opportunity to engage with some special events like concerts, performances, etc.
- 2.1.5 The proposed development is planned to be completed by Q4 Year 2029 tentatively.

2.2 Proposed Development Access and Internal Transport Facilities Provision

- 2.2.1 The existing vehicular access of the approved industrial building is located at the local street connects perpendicularly to Hoi Yu Street. A separated vehicular access is provided at Hoi Yu Street for the existing temporary parking area. With the proposed development, a combined vehicular access at Hoi Yu Street will be provided on the east side of the site for access to its basement car park.
- 2.2.2 The required car parking and servicing provisions as stipulated under the latest Hong Kong Planning Standards and Guidelines (HKPSG) and the proposed provision are summarised in **Table 2.2** below.

Table 2.2 Required and Proposed Internal Transport Facilities Provision under the Latest HKPSG Requirement

	Parameters	HKPSG Requirements	Required Provision (nos.)	Proposed Provision (nos.)
• <u>Residential</u>				
Car Parking	3 Blocks, 225 flats (size range of 45 – 105 sqm)	Global Parking Standard (GPS) x R1 x R2 x R3 ⁽¹⁾	99 to 173	173
Visitor parking		Additional 5 spaces per block	15	15
Motorcycle		1 space per 100-150 flats	2 to 3	3
Loading/ Unloading (L/UL)		Min 1 bay for every 800 flats or Min 1 bay for each block	Min. 3	3
• <u>Retail and F&B Facilities</u>				
Car Parking	GFA – about 4,617m ²	1 space per 150 - 300m ²	16 to 31	31
Motorcycle		5% to 10% of total car parking	1 to 4	4
Loading/ Unloading		1 bay per 800-1,200m ²	4 to 6	6
• <u>Cultural Facilities</u>				
Car Parking	GFA – about 7,703m ²	(No requirement)	N/A	50
Loading/ Unloading		(No requirement)	N/A	3
Coach Parking		No requirement)	N/A	5
• <u>Total</u>				
Car Parking		-	115 to 204	204
Car parking for cultural		-	-	50
Visitor parking		-	15	15
Total Car Parking		-	-	<u>269</u> ⁽²⁾
Motorcycle		-	3 to 7	<u>7</u>
L/UL		-	7 to 9	9 (6 in LGV, 3 in HGV)
L/UL for cultural		-	-	3 (in HGV)

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	Parameters	HKPSG Requirements	Required Provision (nos.)	Proposed Provision (nos.)
Total L/UL		-	-	12
Coach Parking		-	-	5

Remarks: (1) GPS = 1 space per 4-7 flats; Demand Adjustment Ratio (R1) = 4.1 (average flat size between 100m² and 130m²); Accessibility Adjustment Ratio (R2) = 0.75 (within 500m-radius of rail station); Development Intensity Adjustment Ratio (R3) = 1.0 (Domestic Plot Ratio between 2 and 5).
(2) Including 4 nos. accessible parking spaces.

- 2.2.3 A total of about 50m to 55m long laybys will be provided at ground floor on Hoi Yu Street. Car parking spaces and loading/ unloading bays will be provided at the basement levels. The traffic arrangement on G/F, B1, B2 and B3 under the Master Layout Plan (MLP) is shown in **Figure 2.2 to 2.5**.
- 2.2.4 The car parking and servicing provision for residential and retail (with F&B facilities) portions will be provided in accordance with the upper-end of the HKPSG requirement.
- 2.2.5 Owing that there is no specific requirement on transport facilities provision for “cultural” use under the latest HKPSG, additional 50 private car parking spaces and 5 bays for coaches will be provided for the cultural venue based on the estimated traffic trips by the cultural venue (with a design capacity of about 5,000 guests per day) and making reference to the “Public Transport Strategy Study, June 2017” as published by the Transport and Housing Bureau. Detail please refer to the later **Section 4.5**.
- 2.2.6 In addition, it is understood that the loading/ unloading demand for the cultural venue is generally low, hence 3 nos. loading/ unloading bays is expecting sufficient to cope with the operational needs of the cultural venue based on the past experiences of the potential operator (i.e. the digital museum). Besides, loading/ unloading activities for the cultural venue are usually carried out during the off-peak hours. The loading/ unloading bays could be share used with the residential and retail portions to increase the efficiency.
- 2.2.7 In summary, the car parking and servicing provision will be provided in accordance with the upper-end of the HKPSG requirement, even more for car parking, as listed in the following to provide a sustainable parking supply for the proposed development as well as its neighbourhood area.

Table 2.3 Summary Table of Proposed Internal Transport Provision

Internal Transport Provision	Dimension (L) x (W) x (H)	Residential	Retail and F&B Facilities	Cultural Facilities	Total
Car parking	5m x 2.5m x 2.4m	173	31	50	269
Visitor parking		15	-	-	
Motorcycle parking	2.4m x 1m x 2.4m	3	4		7
Loading/ LGV	7m x 3.5m x 3.6m	2	4	-	6
Unloading/ MGW/HGV	11m x 3.5m x 4.7m	1	2	3	6
Coach Parking	12m x 3.5m x 3.8m	-	-	5	5

Remarks: (1) Including 4 nos. accessible parking spaces in size of 5m x 3.5m x 2.4m.

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2.3 Future Pedestrian Connection

- 2.3.1 Since Hoi Yu Street is ended with a cul-de-sac at its east-end, pedestrians access the Application Site from the nearest MTR Station (i.e. Quarry Bay Exit C) or the nearby public transport services mainly via King's Road, Java Road and Hoi Yu Street at present. Besides, there is no crossing point or footpath provided on the southern part of Hoi Yu Street. Hence, all pedestrians accessing the area rely on the northern footpath of Hoi Yu Street, which the width is about 3.6m at the west-end (i.e. outside the North Point Police Station) but eventually reduced to about 1.6m near the Quarry Bay Salt Water Pumping Station and in front of the Application Site at present.
- 2.3.2 The pedestrian network in the area will undergo a major change with the Boardwalk project to be completed in end 2025. An integrated walkway system, accommodating a walkway and cycle track, running along the waterfront from the new reclamation area north (or Oil Street at the western end) to Hoi Yu Street at the eastern end will be constructed. The area adjacent to the Quarry Bay Salt Water Pumping Station will be reformed as open space and walkway to provide a continuous pedestrian connection along the waterfront promenade. In particular, the existing footpath near the Quarry Bay Salt Water Pumping Station and in front of the Application Site will be widen to minimum 3.5m by realigning the carriageway of Hoi Yu Street under the Boardwalk project.
- 2.3.3 On the other hand, the piece of land underneath the IEC and adjoining the North Point Offtake Station will be converted into some Boardwalk facilities such as management office, public toilet, bike racks, open space and etc.. A new pedestrian crossing will also be provided near the Quarry Bay Salt Water Pumping Station. It is anticipated that a new route will be created for pedestrian accessing Hoi Yu Street and the pedestrians no longer rely on the northern footpath of Hoi Yu Street only in the future.
- 2.3.4 Besides, the access road from Hoi Chak Street to the Food and Environmental Hygiene Department (FEHD) Quarry Bay Depot GLA-THK-1038 ("the FEHD Depot") runs parallel to the IEC could be retained as a pedestrian access for those pedestrians coming from the south direction or Quarry Bay MTR Exit A & B.
- 2.3.5 In view of the above-mentioned, it revealed that the pedestrian connectivity and accessibility in the area will be improved significantly in the future with the Boardwalk. The existing and future pedestrian routes to/ from the Application Site are showed in **Figure 2.6**.

2.4 The Planned Elevated Walkway

- 2.4.1 The elevated walkway across the IEC as has been planned as an indicative alignment under the latest Approved Quarry Bay Outline Zoning Plan (No. S/H21/28, September 2010), shown in **Figure 2.7**, and was agreed to be implemented under the S16 Approved Scheme by the previous owner at the time the aforesaid pedestrian improvement works was yet proposed by the Boardwalk project.

- 2.4.2 However, given the enhanced at-grade pedestrian facilities in the future, in particular the creation of new pedestrian routes by the Boardwalk and connections to Quarry Bay Park, a more direct and shorter pedestrian route will be provided which reduces the need for the elevated walkway from the application site to the hinterland. There is no justification for an elevated walkway above Quarry Bay Park to be implemented as part of this application.
- 2.4.3 A shorter footbridge over the IEC from the access road/ pedestrian entrance near the Quarry Bay Park Office, crossing Hoi Yu Street to the proposed development is therefore proposed and the proposed elevated walkway will be maintained and managed by the relevant Government department.
- 2.4.4 An opening will be reserved at the proposed development for future connection to the elevated walkway.

3. EXISTING TRAFFIC CONDITION

3.1 Existing Road Network

- 3.1.1 The proposed development is situated at the land on north of Hoi Yu Street and the Island East Corridor ("IEC") along the Quarry Bay Waterfront Promenade. It is mainly served by King's Road, Java Road, Hoi Chak Street and Hoi Yu Street.
- 3.1.2 King's Road is an east-west primary distributor connecting to Causeway Road to the west, and Shau Kei Wan Road to the east. It is the key distributor providing access for traffic between Quarry Bay and other area such as Causeway Bay, Chai Wan and the rest of Hong Kong Island and beyond.
- 3.1.3 Java Road is a one-way eastbound district distributor connecting Electric Road to the west and King's Road to the east. It is essentially parallel to King's Road. It connects with Hoi Yu Street adjacent to its junction with King's Road and provides the main ingress and egress traffic route to the proposed development.
- 3.1.4 Hoi Chak Street is currently one of the key local access routes serving the Quarry Bay area. It is a two-way single four-lane carriageway connecting Hoi Yu Street to the north and Hoi Tai Street to the south.
- 3.1.5 Hoi Yu Street is a single 2 lanes local distributor which operates in two-way direction and ended with a cul-de-sac at its east-end. It connects with Java Road to the West and ended at the temporary open space car park near the entrance of the Eastern Harbour Crossing to the East. It is the only vehicular access serving the Quarry Bay Waterfront area and the application site.

3.2 Existing Public Transport Services

- 3.2.1 The Quarry Bay MTR Station is located at the south-west of the proposed development with about 8 minutes walking journey from the Exit C and about 12 minutes walking journey from the Exit A/B. The alternative access from rail transport is from the Taikoo MTR Station which can be accessed from the Tai Koo Shing area via the existing footbridge network with about 20 minutes walking journey.
- 3.2.2 Currently, numerous road-based public transport services are operating within 500m catchment area of the proposed development. These include up to 54 routes for Franchised Buses, 5 routes for Green Mini-Buses (GMB) and numerous routes for Public Light Buses (PLB). Tram services are also provided on King's Road. **Figure 3.1** showed the existing public transport facilities in the vicinity of the proposed development.
- 3.2.3 The proposed development is considered well served by the comprehensive public transport services within its 500m catchment area.

3.3 Existing Vehicular Traffic Condition

- 3.3.1 The key vehicular ingress and egress routes to/ from the proposed development are shown in **Figure 3.2**.
- 3.3.2 Eleven nearby road junctions, as listed in **Table 3.1**, were identified to be critical in this traffic impact assessment. Locations of these critical junctions are also indicated in **Figure 3.2**, whilst their existing junction arrangements and Method of Control (MOC) are shown in **Figures 3.3** to **3.13** respectively.
- 3.3.3 Manual classified traffic count survey was carried out at the identified critical junctions during the morning peak (07:30 to 09:30), noon (12:00-14:00) peak and evening (17:00 to 19:00) peak hours on a typical weekday in June 2025 (i.e. 26 June 2025) to obtain the up-to-date vehicular traffic pattern in the vicinity of the proposed development. Based on the observed traffic flows, it revealed that the AM peak, Noon peak and PM peak hours occurred from 08:30AM to 09:30AM, 12:00PM to 13:00 PM and 17:30PM to 18:30PM respectively.
- 3.3.4 The 2025 observed peak hour traffic flows are presented in **Figure 3.14**. Detailed calculation of the assessed existing operational performance of the identified junctions are attached in **Appendix A** and the results are summarized in **Table 3.1** below.

Table 3.1 Identified Critical Junctions

Ref. No.	Fig No.	Junctions	Type of Junction	Year 2025 RC/ RFC ⁽¹⁾⁽²⁾		
				AM Peak	Noon Peak	PM Peak
J1	3.3	Hoi Yu Street/ Hoi Chak Street	Priority	0.026	0.035	0.026
J2	3.4	Java Road/ Hoi Yu Street	Signalised	23%	82%	88%
J3	3.5	King's Road/ Java Road	Signalised	>100%	>100%	>100%
J4	3.6	Hoi Tai Street/ Hoi Chak Street/ Finnie Street/ Hoi Kwong Street	Signalised	68%	>100%	82%
J5	3.7	King's Road/ Finnie Street	Signalised	>100%	>100%	93%
J6	3.8	King's Road/ Model Lane	Signalised	>100%	>100%	>100%
J7	3.9	Java Road/ Man Hong Street	Signalised	>100%	>100%	>100%
J8	3.10	King's Road/ Healthy Street West/ Man Hong Street	Signalised	>100%	>100%	>100%
J9	3.11	Tsat Tsz Mui Road/ Healthy Street West	Signalised	>100%	>100%	>100%
J10	3.12	Tsat Tsz Mui Road/ Tin Chiu West	Signalised	>100%	>100%	>100%
J11	3.13	King's Road/ Tin Chiu Street	Signalised	>100%	>100%	>100%

Notes: (1) Zero Reserve Capacity (RC) represents signalised junction operating at capacity. Positive RC represents signalised junction operating with spare capacity. Negative RC means signalised junction is overloaded.

(2) Ratio of Flow to Capacity (RFC) = 1.0 represents priority junction/roundabout operating at capacity. RFC < 1.0 represents priority junction/roundabout operating with spare capacity. RFC > 1.0 means priority junction/roundabout is overloaded.

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3.3.5 As indicated in above **Table 3.1**, all the identified critical junctions are currently operating within their capacities during the peak hours.

3.4 Existing Pedestrian Traffic Condition

3.4.1 Pedestrian count survey was also carried out at the identified critical footpaths/crossing along Hoi Yu Street, Java Road and Hoi Chak Street/ Finnie Street/ Hoi Tai Street (based on the pedestrian route to/from the proposed development as shown in **Figure 2.6**) to obtain the up-to-date pedestrian traffic pattern in the vicinity of the proposed development in June 2025 (i.e. 25 June 2025 and 28 Jun 2025) during the time periods below:

- During the morning peak (07:30AM to 09:30AM), noon peak (12:00-14:00) and evening peak (17:30PM to 19:30PM) periods on a typical weekday; and
- During the morning peak (07:30AM to 09:30AM), noon peak (12:00-14:00) and evening peak (17:30PM to 19:30PM) periods on a typical weekend.

3.4.2 It was observed that the AM, noon and PM peak 15-min pedestrian flows occurred from 08:45AM to 09:00AM, 12:25PM to 12:40PM and 18:00PM to 18:15PM respectively on weekday; and 09:00AM to 09:15AM, 12:40PM to 12:55PM and 17:05PM to 17:20PM respectively on weekend. The 2025 observed peak pedestrian flows are presented in **Figure 3.16**.

3.4.3 Currently, pedestrians accessing Quarry Bay waterfront promenade and the application site are mainly via Hoi Yu Street and some via Hoi Chak Street/ Finnie Street/ Hoi Tai Street. A Level-Of-Service (LOS) assessment was therefore carried out to access the existing performance of the identified critical sections of footpaths and crossings based on the observed peak 15-min pedestrian flows. Locations of these footpaths and crossing are shown in **Figure 3.15** and the summarised in **Table 3.2** and **Table 3.3** below:

Table 3.2 Existing Performances of Identified Critical Sections of Footpaths/Cautionary Crossing

Critical Footpath/ Cautionary Crossing ⁽¹⁾	Clear Width (m)	Eff. Width (m) ⁽²⁾	Period		2-way Pedestrian Peak Flow (ped/15-min) ⁽⁴⁾	Flow Rate (ped/min/m) ⁽⁴⁾	LOS ⁽⁵⁾
Location A Hoi Yu St.	1.05	0.8 ⁽³⁾	Weekday	AM Peak	30	2.5	A
				Noon Peak	25	2.1	A
				PM Peak	60	5.0	A
			Weekend	AM Peak	60	5.0	A
				Noon Peak	35	2.9	A
				PM Peak	70	5.8	A
Location B Hoi Yu St.	3.5	2.5	Weekday	AM Peak	30	0.8	A
				Noon Peak	25	0.7	A
				PM Peak	60	1.6	A
			Weekend	AM Peak	60	1.6	A
				Noon Peak	35	0.9	A
				PM Peak	70	1.9	A
Location C	2.8	1.8	Weekday	AM Peak	165	6.1	A

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Critical Footpath/ Cautionary Crossing ⁽¹⁾	Clear Width (m)	Eff. Width (m) ⁽²⁾	Period		2-way Pedestrian Peak Flow (ped/15-min) ⁽⁴⁾	Flow Rate (ped/min/m) ⁽⁴⁾	LOS ⁽⁵⁾
Java Road				Noon Peak	315	11.7	A
				PM Peak	125	4.6	A
			Weekend	AM Peak	95	3.5	A
				Noon Peak	45	1.7	A
				PM Peak	60	2.2	A
<u>Location D</u> Java Road	3	2	Weekday	AM Peak	55	1.8	A
				Noon Peak	35	1.2	A
				PM Peak	85	2.8	A
			Weekend	AM Peak	15	0.5	A
				Noon Peak	25	0.8	A
<u>Location E</u> Java Road	2.8	1.8	Weekday	AM Peak	30	1.1	A
				Noon Peak	85	3.1	A
				PM Peak	45	1.7	A
			Weekend	AM Peak	10	0.4	A
				Noon Peak	10	0.4	A
<u>Location F</u> Hoi Yu St.	2.8	1.8	Weekday	AM Peak	120	4.4	A
				Noon Peak	305	11.3	A
				PM Peak	115	4.3	A
			Weekend	AM Peak	15	0.6	A
				Noon Peak	20	0.7	A
<u>Location H</u> Hoi Chak St.	4	3	Weekday	AM Peak	10	0.2	A
				Noon Peak	20	0.4	A
				PM Peak	20	0.4	A
			Weekend	AM Peak	10	0.2	A
				Noon Peak	10	0.2	A
				PM Peak	15	0.3	A

Notes: (1) Refer to **Figure 3.15**.

(2) Effective width is clear width deducting the horizontal clearance, generally 0.5m (i.e. Dead Width) on each side.

(3) Min. 0.8m clear width shall be adopted according to HCM 2000.

(4) Observed 2-way Ped. Peak Flow rounded to the nearest 5; Flow Rate rounded to the nearest 0.1.

(5) According to the Highway Capacity Manual 2000 (HCM 2000), the criteria range from LOS "A" (best) to LOS "F" (worst). In general, LOS C is considered as an optimal level of service and is preferable for all new walkways.

3.4.4 The result in the above **Table 3.2** indicated that all the identified critical sections of footpaths/cautionary crossing are currently operating with a LOS level of "A".

Table 3.3 Existing Performances of Identified Critical Sections of Crossing

Critical Crossing ⁽¹⁾	Period		Eff. Crosswalk Width (m)	2-way Pedestrian Peak Flow (ped/15-min) ⁽²⁾	LOS of Cross walk ⁽³⁾	Area of Waiting Space (m)	LOS of Waiting Space ⁽³⁾
Location G Java Road	Weekday	AM Peak	4	25	A	North:18 South:16.8	A
		Noon Peak		30	A		A
		PM Peak		85	A		A
	Weekend	AM Peak		15	A		A
		Noon Peak		10	A		A
		PM Peak		15	A		A
Location K Hoi Tai Street	Weekday	AM Peak	3.1	20	A	North:11 South:15.6	A
		Noon Peak		70	A		B
		PM Peak		20	A		A
	Weekend	AM Peak		25	A		A
		Noon Peak		25	A		A
		PM Peak		10	A		A
Location L Hoi Kwong Street	Weekday	AM Peak	4.2	280	F	North:12.8 South:31.5	A
		Noon Peak		425	F		C
		PM Peak		280	E		A
	Weekend	AM Peak		45	A		A
		Noon Peak		150	D		A
		PM Peak		120	C		A
Location M Finnie Street	Weekday	AM Peak	2.5	80	C	North:14.3 South:16.2	A
		Noon Peak		525	F		C
		PM Peak		185	E		A
	Weekend	AM Peak		60	B		A
		Noon Peak		160	E		A
		PM Peak		135	D		A
Location N Finnie Street	Weekday	AM Peak	2.5	70	C	North:16.2 South:9.5	A
		Noon Peak		505	F		D
		PM Peak		180	E		A
	Weekend	AM Peak		30	A		A
		Noon Peak		100	D		A
		PM Peak		85	C		A
Location O Hoi Tai Street	Weekday	AM Peak	2	15	A	North:16.2 South:11.6	A
		Noon Peak		30	A		A
		PM Peak		25	A		A
	Weekend	AM Peak		55	C		A
		Noon Peak		85	D		A
		PM Peak		75	C		A

Notes: (1) Refer to **Figure 3.15**.

(2) Observed 2-way Ped. Peak Flow rounded to the nearest 5; Flow Rate rounded to the nearest 0.1.

(3) According to the Highway Capacity Manual 2000 (HCM 2000), the criteria range from LOS "A" (best) to LOS "F" (worst). In general, LOS C is considered as an optimal level of service and is preferable for all new walkways.

3.4.5 The result in the above **Table 3.3** indicated that the identified critical crossings at Java Road are currently operating with a LOS level of "B" or above. However, the identified critical crossings at Hoi Kwong Street, Finnie Street and Hoi Tai Street are currently operating at their capacities.

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4. FUTURE TRAFFIC CONDITION

4.1 Design Year

- 4.1.1 The proposed development is planned to be completed with full intended operation by Q4 Year 2029 tentatively. In order to assess the possible traffic impacts to the local road network due to the proposed development, Year 2033 (3 years after completion, i.e. 2030 + 3 years) was adopted as the design year for this study.

4.2 Future Local Road Network and Pedestrian Linkage

- 4.2.1 It is anticipated no major road works and infrastructure to be constructed within the study area. Hence, it is considered that the traffic pattern in the local area is expecting to be similar as existing. The existing junction layouts were therefore adopted for the traffic impact assessment in the reference and design scenarios.
- 4.2.2 According to the project webpage of “Boardwalk underneath Island Eastern Corridor”, the Boardwalk is targeted to be fully completed by end 2025. Hence, the future pedestrian connection with the Boardwalk and its associated pedestrian trips were considered in the traffic impact assessment.
- 4.2.3 Meanwhile, an elevated walkway connects between the waterfront area at Hoi Yu Street and Quarry Bay Park was planned to be constructed under the latest Approved Quarry Bay OZP as mentioned in **Section 2**. Subject to future agreement between the applicant and government as to cover the cost of the bridge, it is assumed that the elevated walkway will be in placed in the reference and design scenarios.

4.3 Adopted Traffic Growth

- 4.3.1 In order to conduct the traffic forecast of Year 2033, a traffic growth factor was determined for the study area based on the following approaches.

Historical Traffic Growth and Planning Data

- 4.3.2 There are Annual Traffic Census (ATC) traffic count stations available in the vicinity of the proposed development. The annual traffic counts at these stations over the period between Year 2018 to Year 2023 reported in the latest ATC report are summarized in the following **Table 4.1**.

Table 4.1 Annual Traffic Census (ATC) Traffic Counts Between Year 2018 to 2023

Road Name	Stn. No.	Annual Average Daily Traffic (AADT)						Average Annual Growth Rate
		2018	2019	2020	2021	2022	2023	
Man Hong Street (Java Road - King's Road)	1613	21,720	21,340	23,780	25,860	24,680	25,390	3.17%
Java Road (Island Eastern Corridor - King's Road)	1635	21,010	20,820	18,770	20,600	19,410	19,830	-1.15%
King's Road (Healthy St W - Java Road)	2020	19,840	19,500	18,600	19,440	19,120	18,640	-1.24%
Java Road (Tong Shui Road - Tin Chiu Street)	2040	16,970	16,830	16,000	16,320	15,920	15,520	-1.77%
Total		79,540	78,490	77,150	82,220	79,130	79,380	-0.25%

- 4.3.3 As indicated in **Table 4.1** above, the average annual traffic growth pattern in the vicinity of the proposed development is in a declining trend of -0.25% per annum over the past 6 years.

Traffic Growth Rate by Population Data

- 4.3.4 The 2019-based Territorial Population and Employment Data Matrix (TPEDM) planning data for the Eastern District published by the Planning Department has also been considered. The population and employment planning data in Year 2019, Year 2026 and Year 2031 in Eastern District is summarized in **Table 4.2**.

Table 4.2 2019-based Territorial Population and Employment Data Matrix

	Population	Employment	Total
• Eastern District			
Year 2019	568,150	331,300	899,450
Year 2026	533,100	324,900	858,000
Year 2031	506,050	317,250	823,300
Average Annual	-0.96%	+0.36%	-0.73%

Note: (1) Source from webpage of Planning Department
([https://www.pland.gov.hk/pland_en/info_serv/statistic/tpedm19/2019_based_Open_TPEDM_\(Data\).pdf](https://www.pland.gov.hk/pland_en/info_serv/statistic/tpedm19/2019_based_Open_TPEDM_(Data).pdf))

- 4.3.5 As indicated in the above **Table 4.2**, Eastern District has a negative average annual growth rate of -0.73% on the population and employment for the next few years.
- 4.3.6 As a conservative approach, a +0.50% annual growth rate is adopted to develop the 2033 reference traffic flows for the assessment. It is deemed sufficient to allow for any unexpected future growth as a result of some changes in land use or new developments in the study area.

4.4 Traffic Generations of Nearby Planned and Committed Developments

- 4.4.1 In addition to the annual traffic growth rate, the major planned and committed developments in the vicinity of the proposed redevelopment as listed in **Tables 4.3** below have also been considered in the reference traffic forecast. Locations of the aforesaid developments are shown in **Figure 4.1**.

Table 4.3 Major Planned and Committed Developments Nearby

Major Planned and Committed Development	Anticipated Completion Year
The Boardwalk underneath Island Eastern Corridor	End 2025
Proposed Redevelopment of AIA Tower at No. 734 King's Road	Uncertain
Proposed Residential Development at 16-94 Pan Hoi Street and 983-987A King's Road, Quarry Bay, Hong Kong [A/H21/151]	Uncertain
Proposed Residential Development at No. 10-12 & 14-16 Mount Parker Road [A/H21/157]	Uncertain
Proposed Residential Development at 56-76 Kai Yuen Street [A/H8/435]	Uncertain

- 4.4.2 It is noted that the existing AIA Tower at No. 734 King's Road is planned to be redeveloped as a comprehensive building with office and retails uses. Based on the information obtained from Bravo, i.e. the online building records by Buildings Department (BD), a General Building Plan (GBP) has been submitted to BD and approved in 2022. It is assumed that the proposed redevelopment will be in place in Year 2033 and its traffic generations were considered in the traffic impact assessment although the existing building is yet demolished today.
- 4.4.3 A rezoning planning application proposing a commercial development in the existing "Residential (Group A)" Zone and an area shown as "Road" at 16-94 Pan Hoi Street and 983-987A King's Road, Quarry Bay [A/H21/151A] was submitted to Town Planning Board (TPB) in 2020. Although the aforesaid application has been rejected by TPB, the site is always permitted to be redeveloped as residential use under the current OZP. Therefore, traffic generations for residential development have been adopted into the assessment as a conservative approach (i.e. traffic trips rate of office > traffic trips rate of residential).
- 4.4.4 Another planning application proposing a minor relaxation of building height from +120mPD to +139.75mPD for the proposed residential development at 992-998 King's Road and 2-16 Mount Parker Road, Quarry Bay was submitted to TPB and approved with conditions in December 2022. It is observed that construction works have been commenced on-site. Hence, the development is anticipated will be in place in Year 2033 and its traffic generations were considered in the assessment.

- 4.4.5 Also, a Section 16 application proposing a minor relaxation of Plot Ratio and Building Height Restrictions at Land falling within "Comprehensive Development Area (2)" zone and an area shown as 'Road' at Kai Yuen Street, North Point was submitted to TPB and approved with conditions in February 2023. It is observed that construction works have been commenced on-site. Hence, the development is anticipated will be in place in Year 2033 and its traffic generations were considered in the assessment also.
- 4.4.6 Traffic generations and attractions of the nearby planned/ committed developments are listed in **Table 4.4** to **Table 4.8** below.

Table 4.4 Adopted Traffic Trips of the Boardwalk underneath Island Eastern Corridor

	AM Peak		PM Peak	
	Generation	Attraction	Generation	Attraction
Expected Two-way Volumes at Hoi Yu Street	309		134	

Remarks: (1) Source from Agreement No. CE 41/2014(HY) Boardwalk underneath Island Eastern Corridor – Investigation Assessment on Pedestrian and Cyclist Demand for Proposed Boardwalk

Table 4.5 Adopted Traffic Trips of the Proposed Redevelopment of AIA Tower at No. 734 King's Road

	AM Peak		PM Peak	
	Generation	Attraction	Generation	Attraction
Land Use	Office with portion of retail			
Key Parameters	About 27,870m ²			
Office Trip Rates (pcu/hr/100m ² GFA, mean) ⁽¹⁾	0.1703	0.2452	0.1573	0.1175
Total Traffic Trips (pcu/hr)	48	69	44	33

Remarks: (1) Refer to TPDM Volume 1 Chapter 3 Appendix 1 Table 1.
(2) Source from Bravo – online building records.

Table 4.6 Adopted Traffic Trips of the Proposed Residential Development at 16-94 Pan Hoi Street and 983-987A King's Road, Quarry Bay

	AM Peak		PM Peak	
	Generation	Attraction	Generation	Attraction
Land Use	Residential			
Key Parameters	900 flats, average flat size about 60m ²			
Residential Trip Rates (pcu/hr/flat, Private Housing: High Density/R(A) & Avg. flat size 70m ² , mean) ⁽¹⁾	0.0718	0.0425	0.0286	0.037
Total Traffic Trips (pcu/hr)	65	39	26	34

Remarks: (1) Refer to TPDM Volume 1 Chapter 3 Appendix 1 Table 1.
(2) Source from Town Planning Board Statutory Planning Portal. Planning Application No. A/H21//157 refers.

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Table 4.7 Adopted Traffic Trips of the Proposed Residential Development at No. 10-12 & 14-16 Mount Parker Road

	AM Peak		PM Peak	
	Generation	Attraction	Generation	Attraction
Land Use	Residential			
Key Parameters	592 flats, average flat size about 67m ²			
Residential Trip Rates (pcu/hr/flat, Private Housing: High Density/R(A) & Avg. flat size 60m ² , mean) ⁽¹⁾	0.0888	0.0515	0.0356	0.048
Total Traffic Trips (pcu/hr)	53	31	22	29

Remarks: (1) Refer to TPDM Volume 1 Chapter 3 Appendix 1 Table 1.

(2) Source extracted from Monthly Digest, Building Department.

Table 4.8 Adopted Traffic Trips of the Proposed Residential Development at 56-76 Kai Yuen Street

	AM Peak		PM Peak	
	Generation	Attraction	Generation	Attraction
Land Use	Residential			
Key Parameters	1461 flats, average flat size about 85m ²			
Residential Trip Rates (pcu/hr/flat, Private Housing: High Density/R(A) & Avg. flat size 60m ² , mean) ⁽¹⁾	0.1887	0.0942	0.0862	0.1214
Total Traffic Trips (pcu/hr)	276	138	126	178

Remarks: (1) Refer to TPDM Volume 1 Chapter 3 Appendix 1 Table 1.

(2) Source from Town Planning Board Statutory Planning Portal. Planning Application No. A/H8/432 refers

- 4.4.7 The 2033 reference traffic flows were therefore developed based on the 2025 observed traffic flow with the aforesaid growth rate and traffic generations of the nearby planned and committed developments adopted as shown in **Figure 4.2**.

4.5 Traffic Generations of Proposed Development

- 4.5.1 As mentioned in **Section 1**, the lot IL8590 R.P. and IL8723 R.P. could either be developed as an industrial building or the previously approved scheme (i.e. hotel + office + retails) together with the government lot (which is currently used as a temporary open space car parking) and a short strip of government land connecting to Quarry Bay Park. The traffic trips by the temporary open space car parking were therefore deducted in the calculation of the traffic forecast.

- 4.5.2 The cultural venue/ digital museum is planned to have a servicing capacity of about 5,000 guests per day. Visitors would flow through the space with an expected stay of about 45-60 mins, subject to future operation, for each immersive experience (i.e. “show”). Hence, visitors would come and go constantly within the opening hours between 10:00AM to 19:00PM. Therefore, it was assumed that about 11.1% of the visitors would come during the PM peak hours (i.e. average of the 9 hours and nil during the AM peak as it is anticipated yet opened) and the estimated traffic generations by the cultural venue/ digital museum were superimposed onto the reference traffic flows to assess the potential traffic impact due to the proposed development.
- 4.5.3 The traffic trips to be generated by the cultural venue/ digital museum were estimated by making reference to the traffic modal split mentioned in Chapter 3 of the “Public Transport Strategy Study, June 2017” as published by Transport and Housing Bureau. The result is summarized in **Table 4.9** below.

Table 4.9 Anticipated Traffic Generation by the Cultural Venue/ Digital Museum

Transport Mode	Distribution ⁽¹⁾ (%)	No. of Guest (people)		Additional Vehicular Traffic Trips (pcu) ⁽⁴⁾
Rail	38.7%	0 (215)	0 (450)	-
Ferry	0.9%	0 (5)		-
Franchised Bus	27%	0(150)		-
PLB	13.5%	0 (75)		-
Tram	0.9%	0 (5)		-
Private Vehicle	10%	0 (56) ⁽²⁾		0 (28)
SPB	1.8%	0 (10) ⁽³⁾		0 (1)
Taxi	7.2%	0 (40) ⁽²⁾		0 (20)
Total	100%	0 (556)		0 (49)

Remarks: (1) According to Paragraph 3.12 in Chapter 3 of the “Public Transport Strategy Study, June 2017”;

(2) Assuming 2 passengers per private vehicle and 2 passengers per taxi;

(3) Assuming 24 passengers per SPB;

(4) Adopted pcu factor: 1 for private vehicle and 1.5 for SPB.

Vehicular Traffic

- 4.5.4 The estimated vehicular traffic trips to be generated by the proposed development during the peak hours are summarized in **Table 4.10** below.

Table 4.10 Anticipated Traffic Generation of the Proposed Development

Traffic Trips	AM Peak		Noon Peak		PM Peak	
	Gen.	Att.	Gen.	Att.	Gen.	Att.
Proposed Development (A)						
Residential Units & Size	Not more than 225 flats (size range of 45 – 105 sqm)					
Residential Trip Rates (pcu/hr/flat, Private Housing/ Medium-Density R(B), mean) ⁽¹⁾	0.1887	0.0942	0.0862	0.1214	0.0862	0.1214
Traffic Trips (pcu/hr)	43	22	20	28	20	28
Retail and F&B Facilities GFA (m ²)	4,617m ²					
Retail Trip Rates (pcu/hr/100m ² GFA, mean) ⁽¹⁾	0.2296	0.2434	0.3100	0.3563	0.3100	0.3563
Traffic Trips (pcu/hr)	11	12	15	17	15	17
Total Traffic Trips (pcu/hr)	54	34	35	45	35	45
Traffic Generation by the Cultural Venue/ Digital Museum (B)						
Traffic Trips (pcu/hr)	0	0	49	49	49	49
Existing temporary open space car park at the Adjoining Government Land (C)						
Observed Trips (pcu/hr)	20	0	0	15	0	15
Different in Traffic Trips (A + B – C)						
Net Traffic Trips (pcu/hr)	34	34	84	79	84	79
2-way Vehicular Trips (pcu/hr)	68		163		163	

Remarks: (1) Refer to TPDM Volume 1 Chapter 3 Appendix 1 Table 1.

(2) As no information is provide in TPDM for noon peak, trip rate of PM peak was therefore adopted for Noon peak as a conservative approach.

- 4.5.5 As indicated in **Table 4.10** above, it is anticipated that the proposed development would generate an additional two-way traffic trips of some 68 pcu/hr in the AM peak, some 163 pcu/hr in Noon peak, and some 163 pcu/hr during the PM peak.
- 4.5.6 Based on the anticipated traffic generations and key vehicular ingress and egress routes to/ from the proposed development as showed in **Figure 3.2**, the estimated traffic generations were then superimposed onto the year 2033 reference traffic flows to derive the year 2033 design traffic flows as shown in **Figure 4.3**. The distribution of development traffic trips is shown in **Figure 4.4**.

Pedestrian Traffic

- 4.5.7 Pedestrian traffic generations of the proposed development were also estimated. In-house data, as summarized in **Table 4.11**, was adopted to estimate the traffic trips by the residential and retail portions and the anticipated traffic generations by the cultural venue/ digital museum were also considered.

Table 4.11 Adopted Pedestrian Generation Rates

	AM Peak		Noon Peak		PM Peak	
	Generation	Attraction	Generation	Attraction	Generation	Attraction
Residential Trip Rates (Private Housing) (ped/hr/flat) ⁽¹⁾	0.7230	0.4400	0.3660	0.2640	0.3660	0.2640
Retail Trip Rates (ped/15 mins/100m ² GFA)	0.1005	0.1417	0.2936	0.273	0.2936	0.273

Remarks: (1) Based on in-house data.

(2) Trip rate of PM peak was adopted for Noon peak as a conservative approach.

- 4.5.8 The estimated pedestrian traffic trips to be generated by the proposed development during the peak hours are summarized in **Table 4.12** below.

Table 4.12 Anticipated Pedestrian Generation of Proposed Development

Traffic Trips	AM Peak		Noon Peak		PM Peak	
	Gen.	Att.	Gen.	Att.	Gen.	Att.
Proposed Development (A)						
Residential Units & Size	Not more than 225 flats (size range of 45 – 105 sqm)					
Residential Trip Rates (ped/15 mins/flat)	0.7230	0.4400	0.3660	0.2640	0.3660	0.2640
Pedestrian Peak Flows (ped/ 15 mins)	41	25	21	15	21	15
Retail and F&B Facilities GFA (m ²)	4,617m ²					
Retail Trip Rates (ped/15 mins/100m ² GFA)	0.1005	0.1417	0.2936	0.273	0.2936	0.273
Pedestrian Peak Flows (ped/ 15 mins)	1	2	4	3	4	3
Total Pedestrian Trips (ped/ 15 mins)	42	27	25	18	25	18
Total 2-way Pedestrian Trips (ped/15 mins)	69		43		43	
Traffic Generation by the Cultural Venue/ Digital Museum (B)						
Pedestrian Trips (ped/15 mins)	0		113		113	
Total Pedestrian Trips (A + B)						
Total 2-way Pedestrian Trips (ped/15 mins)	69		156		156	

Remarks: (1) Trip rate of PM peak was adopted for Noon peak as a conservative approach.

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- 4.5.9 It is anticipated that the proposed development would generate a 2-way pedestrian trips of 69 pedestrians per peak 15 minutes during the AM peak, 156 pedestrians per peak 15 minutes during the Noon peak, and 156 pedestrians per peak 15 minutes during the PM peak.
- 4.5.10 With the cultural venue/ digital museum, the proposed development is expecting to become one of the attractions of the Quarry Bay Waterfront Promenade. Although majority of the trips by the cultural venue/ digital museum are anticipated coming from/ travelling to the Boardwalk, it was assumed that half of the pedestrian trips would access from Hoi Yu Street/ Java Road and the other half would access via the elevated walkway as a conservative approach.
- 4.5.11 Similar to the vehicular traffic forecast, the estimated pedestrian traffic generations were then superimposed onto the year 2033 reference traffic flows to derive the year 2033 design traffic flows based on the anticipated pedestrian traffic generations as showed in **Figure 3.16**.

5. TRAFFIC IMPACT ASSESSMENT

5.1 Junction Performance Assessment

5.1.1 In order to investigate the potential traffic impacts to the local road network upon completion of the proposed development, operational performances assessment for the identified critical junctions were conducted, for both the reference and design scenarios in Year 2033. The assessment results are summarised in **Table 5.1** below.

Table 5.1 Junction Performance of Critical Junctions in Year 2033

Ref. No.	Junctions	Type of Junction	RC/ RFC ⁽¹⁾⁽²⁾					
			Reference Year 2033			Design Year 2033		
			AM Peak	Noon Peak	PM Peak	AM Peak	Noon Peak	PM Peak
J1	Hoi Yu Street/ Hoi Chak Street	Priority	0.052	0.059	0.039	0.175	0.303	0.275
J2	Java Road/ Hoi Yu Street	Signalised	18%	74%	80%	14%	57%	72%
J3	King's Road/ Java Road	Signalised	>100%	>100%	>100%	>100%	>100%	>100%
J4	Hoi Tai Street/ Hoi Chak Street/ Finnie Street/ Hoi Kwong Street	Signalised	61%	>100%	72%	60%	>100%	72%
J5	King's Road/ Finnie Street	Signalised	92%	96%	40%	92%	96%	40%
J6	King's Road/ Model Lane	Signalised	>100%	>100%	93%	>100%	>100%	84%
J7	Java Road/ Man Hong Street	Signalised	76%	85%	82%	74%	81%	77%
J8	King's Road/ Healthy Street West/ Man Hong Street	Signalised	95%	87%	97%	93%	84%	93%
J9	Tsat Tsz Mui Road/ Healthy Street West	Signalised	>100%	>100%	>100%	>100%	>100%	>100%
J10	Tsat Tsz Mui Road/ Tin Chiu West	Signalised	58%	75%	83%	57%	73%	81%
J11	King's Road/ Tin Chiu Street	Signalised	>100%	>100%	>100%	>100%	>100%	>100%

Notes: (1) Zero Reserve Capacity (RC) represents signalised junction operating at capacity. Positive RC represents signalised junction operating with spare capacity. Negative RC means signalised junction is overloaded.

(2) Ratio of Flow to Capacity (RFC) = 1.0 represents priority junction/roundabout operating at capacity. RFC < 1.0 represents priority junction/roundabout operating with spare capacity. RFC > 1.0 means priority junction/roundabout is overloaded.

- 5.1.2 As indicated in **Table 5.1** above, all the identified critical junctions would still be operating within their capacities in both the reference and design scenarios in Year 2033. However, the junction performance of J2 would drop from 18% to 14% (i.e. less than 15% which is the preferable benchmark). In addition to the traffic flows to be generated by the new developments in Taikoo Place area (the newly opened Taikoo Place 2 building which is expected not yet fully occupied and the potential Pan Hoi Street redevelopment), it is anticipated that the left turn traffic of Java Road (eastbound) at the junction of Java Road/ Hoi Yu Street would become busier. In this regard, junction improvement to the Java Road/ Hoi Yu Street, in particular the left turn movement, is suggested. Details of the proposed junction improvement works are shown in **Figure 5.1**.

5.2 Proposed Junction Improvement Measure

- 5.2.1 Under the proposed junction improvement scheme, additional traffic lane (i.e. two lanes in total) would be provided for the left turn traffic of Java Road (eastbound). Alignment of the existing kerbline outside the police station is proposed to be modified slightly to provide more manoeuvring space for the traffic turning to Hoi Yu Street. With due consideration the site constraint of the existing high mast lighting at J2, it is proposed to convert the section of Hoi Yu Street (westbound) from existing 2-lane to a 1-lane carriageway. Hence the disturbance and nuisance during the construction could also be minimised.
- 5.2.2 Besides, the footpath at Hoi Yu Street outside the police station and the existing cautionary pedestrian crossing at Hoi Chak Street would also be widened under the proposed junction improvement scheme.
- 5.2.3 On the other hand, improvement to the junction of Hoi Tai Street/ Hoi Chak Street/ Finnie Street/ Hoi Kwong Street, i.e. J4, is also proposed to cope with the pedestrian walking environment. Details please refer to **Section 5.4**.
- 5.2.4 Operational performances of J1 (i.e. Junction Hoi Yu Street/ Hoi Chak Street), J2 (i.e. Java Road/ Hoi Yu Street) and J4 (i.e. Hoi Tai Street/ Hoi Chak Street/ Finnie Street/ Hoi Kwong Street) under the proposed improvement scheme were assessed and the result is summarized in **Table 5.2** below.

Table 5.2 Junction Performance of J1, J2 and J4 Under Proposed Improvement Schemes

Ref. No.	Junctions	Type of Junction	Year 2033 RC/ RFC ⁽¹⁾⁽²⁾					
			Existing Layout			With Improvement		
			AM Peak	Noon Peak	PM Peak	AM Peak	Noon Peak	PM Peak
J1	Hoi Yu Street/ Hoi Chak Street	Priority	0.175	0.303	0.275	0.175	0.303	0.275
J2	Java Road/ Hoi Yu Street	Signalised	14%	57%	72%	25%	42%	41%
J4 ⁽³⁾	Hoi Tai Street/ Hoi Chak Street/ Finnie Street/ Hoi Kwong Street	Signalised	60%	>100%	72%	39%	>100%	>100%

Notes: (1) Zero Reserve Capacity (RC) represents signalised junction operating at capacity. Positive RC represents signalised junction operating with spare capacity. Negative RC means signalised junction is overloaded.

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(2) Ratio of Flow to Capacity (RFC) = 1.0 represents priority junction/roundabout operating at capacity. RFC < 1.0 represents priority junction/roundabout operating with spare capacity. RFC > 1.0 means priority junction/roundabout is overloaded.

(3) The junction of J4 will be modified to improve the pedestrian situation as shown in **Figure 5.2**.

5.2.5 Swept path analysis of long vehicles accessing the junctions under the proposed arrangement have also been conducted and the drawings are attached in **Appendix B** for reference.

5.3 Pedestrian Assessment

5.3.1 Based on the estimated pedestrian generations by the proposed development as summarised in **Table 4.3** and the key pedestrian routes accessing the proposed development as showed in **Figure 2.6**., performance of the identified critical sections of footpath in Year 2033 were assessed and the result is shown in **Figure 3.16** summarized in **Table 5.3** below.

Table 5.3 Year 2033 Performances of Identified Critical Sections of Footpaths/Cautionary Crossing

Critical Footpath/ Cautionary Crossing ⁽¹⁾	Clear Width (m)	Eff. Width (m) ⁽²⁾	Period		2-way Pedestrian Peak Flow (ped/15-min) ⁽⁴⁾	Flow Rate (ped/min/m) ⁽⁴⁾	LOS ⁽⁵⁾
Location A Hoi Yu St.	3.5	2.5	Weekday	AM Peak	105	2.8	A
				Noon Peak	145	3.9	A
				PM Peak	180	4.8	A
			Weekend	AM Peak	130	3.5	A
				Noon Peak	150	4.0	A
				PM Peak	185	4.9	A
Location B Hoi Yu St.	3.5	2.5	Weekday	AM Peak	100	2.7	A
				Noon Peak	130	3.5	A
				PM Peak	170	4.5	A
			Weekend	AM Peak	125	3.3	A
				Noon Peak	135	3.6	A
				PM Peak	170	4.5	A
Location C Java Road	2.8	1.8	Weekday	AM Peak	230	8.5	A
				Noon Peak	410	15.2	A
				PM Peak	205	7.6	A
			Weekend	AM Peak	155	5.7	A
				Noon Peak	125	4.6	A
				PM Peak	135	5.0	A
Location D Java Road	3	2	Weekday	AM Peak	70	2.3	A
				Noon Peak	70	2.3	A
				PM Peak	120	4.0	A
			Weekend	AM Peak	25	0.8	A
				Noon Peak	55	1.8	A
				PM Peak	65	2.2	A
Location E Java Road	2.8	1.8	Weekday	AM Peak	35	1.3	A
				Noon Peak	95	3.5	A
				PM Peak	55	2.0	A
			Weekend	AM Peak	15	0.6	A
				Noon Peak	20	0.7	A
				PM Peak	25	0.9	A
	2.8	1.8	Weekday	AM Peak	125	4.6	A

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Location F Hoi Yu St.			Weekend	Noon Peak	320	11.9	A
				PM Peak	120	4.4	A
				AM Peak	20	0.7	A
				Noon Peak	25	0.9	A
				PM Peak	30	1.1	A
Location H Hoi Chak St.	4	3	Weekday	AM Peak	20	0.4	A
				Noon Peak	35	0.8	A
				PM Peak	35	0.8	A
			Weekend	AM Peak	20	0.4	A
				Noon Peak	25	0.6	A
				PM Peak	30	0.7	A

- Notes: (1) Refer to **Figure 3.15**.
(2) Effective width is clear width deducting the horizontal clearance, generally 0.5m (i.e. Dead Width) on each side.
(3) Min. 0.8m clear width shall be adopted according to HCM 2000.
(4) Observed 2-way Ped. Peak Flow rounded to the nearest 5; Flow Rate rounded to the nearest 0.1.
(5) According to the Highway Capacity Manual 2000 (HCM 2000), the criteria range from LOS "A" (best) to LOS "F" (worst). In general, LOS C is considered as an optimal level of service and is preferable for all new walkways.

5.3.2 The result in the above **Table 5.3** indicated that all the identified critical sections of footpaths/cautionary crossing would be operating with a LOS level of "A".

Table 5.4 Year 2033 Performances of Identified Critical Sections of Crossing

Critical Crossing ⁽¹⁾	Period		Eff. Crosswalk Width (m)	2-way Pedestrian Peak Flow (ped/15-min) ⁽²⁾	LOS of Cross walk ⁽³⁾	Area of Waiting Space (m)	LOS of Waiting Space ⁽³⁾
Location G Java Road	Weekday	AM Peak	4	40	A	North:18 South:16.8	A
		Noon Peak		65	A		A
		PM Peak		120	B		A
	Weekend	AM Peak		30	A		A
		Noon Peak		40	A		A
		PM Peak		45	A		A
Location K Hoi Tai Street	Weekday	AM Peak	3.1	25	A	North:11 South:15.6	A
		Noon Peak		75	B		B
		PM Peak		25	A		A
	Weekend	AM Peak		30	A		A
		Noon Peak		30	A		A
		PM Peak		15	A		A
Location L Hoi Kwong Street	Weekday	AM Peak	4.2	295	F	North:12.8 South:31.5	A
		Noon Peak		445	F		C
		PM Peak		295	E		A
	Weekend	AM Peak		50	A		A
		Noon Peak		160	D		A
		PM Peak		130	C		A
Location M Finnie Street	Weekday	AM Peak	2.5	85	C	North:14.3 South:16.2	A
		Noon Peak		550	F		C
		PM Peak		195	E		A
	Weekend	AM Peak		65	C		A
		Noon Peak		170	E		A
		PM Peak		145	D		A
Location N Finnie Street	Weekday	AM Peak	2.5	150	E	North:16.2 South:9.5	A
		Noon Peak		645	F		E
		PM Peak		305	F		B
	Weekend	AM Peak		100	D		A
		Noon Peak		215	E		A
		PM Peak		200	E		A
Location O Hoi Tai Street	Weekday	AM Peak	2	90	C	North:16.2 South:11.6	A
		Noon Peak		150	D		B
		PM Peak		145	D		A
	Weekend	AM Peak		125	D		A
		Noon Peak		200	E		A
		PM Peak		190	E		A

Notes: (1) Refer to **Figure 3.15**.

(2) Observed 2-way Ped. Peak Flow rounded to the nearest 5; Flow Rate rounded to the nearest 0.1.

(3) According to the Highway Capacity Manual 2000 (HCM 2000), the criteria range from LOS "A" (best) to LOS "F" (worst). In general, LOS C is considered as an optimal level of service and is preferable for all new walkways.

5.3.3 The result in the above **Table 5.4** indicated that the identified critical crossings at Java Road would be operating with a LOS level of "B" or above. However, the identified critical crossings at Hoi Kwong Street, Finnie Street and Hoi Tai Street would be operating at their capacities.

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5.4 Proposed Pedestrian Improvement Measure

- 5.4.1 Owing to the constraints of limited space at the well-developed urban area, it is proposed to realign and re-arrange the pedestrian crossings at the junction of Hoi Tai Street/ Hoi Chak Street/ Finnie Street/ Hoi Kwong Street as shown in **Figure 5.2** to improve the pedestrian walking environment.
- 5.4.2 Operational performances of the crossings at the junction of Hoi Tai Street/ Hoi Chak Street/ Finnie Street/ Hoi Kwong Street under the proposed improvement scheme were assessed and the result is summarized in **Table.5** below.

Table 5.5 Performances of Crossing Locations M, N & O Under Proposed Improvement Scheme

Critical Crossing (1)	Period		Year 2033					
			Existing Layout			With Improvement		
			Eff. Crosswalk Width (m)	LOS of Crosswalk (2)	LOS of Waiting Space(2)	Eff. Crosswalk Width (m)	LOS of Crosswalk (2)	LOS of Waiting Space(2)
Location N' Hoi Tai Street	Weekday	AM Peak	2.5	E	A	3.5	C	A
		Noon Peak		F	E		F	D
		PM Peak		F	B		E	A
	Weekend	AM Peak		D	A		B	A
		Noon Peak		E	A		D	A
		PM Peak		E	A		C	A
		PM Peak		E	A		C	A
Location O' Hoi Tai Street	Weekday	AM Peak	2	C	A	3.5	A	A
		Noon Peak		D	B		C	A
		PM Peak		D	A		B	A
	Weekend	AM Peak		D	A		B	A
		Noon Peak		E	A		C	A
		PM Peak		E	A		C	A
		PM Peak		E	A		C	A

Notes: (1) Refer to **Figure 5.2**.

(2) According to the Highway Capacity Manual 2000 (HCM 2000), the criteria range from LOS "A" (best) to LOS "F" (worst). In general, LOS C is considered as an optimal level of service and is preferable for all new walkways.

- 5.4.3 As shown in Table 5.5 above, the performance of the critical crossing at Hoi Tai Street (Location N and O) could be improved but still could not reach a level of C or above under the proposed improvement scheme.

6. SUMMARY AND CONCLUSION

6.1 Summary

- 6.1.1 The application site is situated at the land on north of Hoi Yu Street and the Island East Corridor (“IEC”) along the Quarry Bay Waterfront Promenade. It consists of the part of land lot IL8590 R.P. and IL 8723 R.P., and the adjoining government land (which currently used as a temporary open space car parking) and a short strip of government land connecting to Quarry Bay Park (“the Land” or “the Application Site”). Location of the application site is shown in **Figure 2.1**.
- 6.1.2 In 2001, General Building Plans (“GBPs”) were approved in compliance with the “Industrial” zone in effect at the time for an Industrial Building (“the approved industrial building”) for the lot IL8590 R.P. and IL8723 R.P.. However, construction works of the approved industrial building was not commenced for a decade year. In order to provide a better waterfront to the public and to tally with the harbourfront enhancement proposal/ the Boardwalk by the Development Bureau and relevant parties, the previous owner of the Land (“the previous owner”) thus willing to partly surrender the Original Site in exchange for the government land zoned OU(1) to form a new Site with an area of 8,532m² for a proposed waterfront development comprising of 4 hotel blocks, an office building, and some retail and Food & Beverage facilities and OU for elevated walkway. A section 16 planning application for the aforesaid waterfront development had been submitted to the Town Planning Board (TPB) for consideration in 2018 and it was approved with conditions in 2019 (“the S16 Approved Scheme”).
- 6.1.3 However, with reference to the Planning Statement, the implementation of the Approved Scheme was not possible, nor was the sale of the Approved Scheme. A stalemate has therefore been reached with the Approved Scheme. As the economic outlook has significantly changed since the scheme was approved in 2019 and both office and hotels are facing a difficult time with oversupply in the areas, the new owner, Marine Riches III (“the Applicant”), would like to revisit the use of the Land.
- 6.1.4 With the use of “Flat” under Column 2 of the latest OZP, the applicant intends to provide a space for specific cultural and tourism features with residential units. A Section 12A planning application is therefore required to be submitted for TPB’s consideration.
- 6.1.5 It is proposed to provide a combined waterfront development comprising of 3 domestic blocks with 189 - 225 residential units, 1 non-domestic block for cultural, leisure and entertainment uses, and some retails and Food & Beverage facilities. A new waterfront cultural venue for exhibitions or multi-function events will be provided. Although no specify events is planned for the time being, such events would be some cultural digital museum or art related exhibitions, etc. with target visitor trips of about 5,000 guests per day.
- 6.1.6 The proposed development is planned to be completed by Q4 Year 2029 tentatively.

Development Access and Internal Transport Facilities Provision

- 6.1.7 The existing vehicular access of the approved industrial building is located at the local street connects perpendicularly to Hoi Yu Street. A separated vehicular access is provided at Hoi Yu Street for the existing temporary parking area. With the proposed development, a combined vehicular access at Hoi Yu Street will be provided on the east side of the site for access to its basement car park.
- 6.1.8 All the car parking and servicing provision will be provided in accordance with the upper-end of the HKPSG requirement in order to provide more parking supply to the neighbourhood area. Additional 50 private car parking spaces, 2 bays for coaches and 3 nos. loading/ unloading bays will be provided for the cultural venue based on the estimated traffic trips by the cultural venue.
- 6.1.9 In summary, the proposed car parking and servicing provision are summarised below:

Internal Transport Provision		Dimension (L) x (W) x (H)	Residential	Retail and F&B Facilities	Cultural Facilities	Total
Car parking		5m x 2.5m x 2.4m	173	31	50	269
Visitor parking			15	-	-	
Motorcycle parking		2.4m x 1m x 2.4m	3	4		7
Loading/	LGV	7m x 3.5m x 3.6m	2	4	-	6
Unloading	MGV/HGV	11m x 3.5m x 4.7m	1	2	3	6
Coach Parking		12m x 3.5m x 3.8m	-	-	5	5

Remarks: (1) Including 4 nos. accessible parking spaces in size of 5m x 3.5m x 2.4m.

Future Pedestrian Connection & The Planned Elevated Walkway

- 6.1.10 Hoi Yu Street is ended with a cul-de-sac at its east-end. At present, pedestrians accessing the Application Site from the nearest MTR Station (i.e. Quarry Bay Exit C) or the nearby public transport services mainly travel from King's Road, Java Road to Hoi Yu Street. There is no crossing point or footpath provided on the southern part of Hoi Yu Street. Hence, all pedestrians accessing the area rely on the northern footpath of Hoi Yu Street, which the width is about 3.6m at the west-end (i.e. outside the North Point Police Station) but eventually reduced to about 1.6m near the Quarry Bay Salt Water Pumping Station and in front of the Application Site.
- 6.1.11 The pedestrian network in the area will undergo a major change with the Boardwalk project to be completed in end 2025. The existing footpath near the Quarry Bay Salt Water Pumping Station and in front of the Application Site will be widen to minimum 3.5m. A new pedestrian crossing will also be provided. As such, a new route is expected to be created for pedestrian accessing Hoi Yu Street. There is also an alternative pedestrian access for pedestrians coming from the south direction or Quarry Bay MTR Exit A & B via the access road from Hoi Chak Street to the FEHD Depot which runs parallel to the IEC.
- 6.1.12 Given the enhanced at-grade pedestrian facilities in the future, in particular the creation of new pedestrian routes by the Boardwalk, there is no justification for an elevated walkway above Quarry Bay Park to be implemented as part of this application. Instead, a short elevated

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footbridge walkway over IEC is proposed subject to future agreement between the Applicant and the Government on covering the cost of the bridge. The proposed elevated walkway will be maintained and managed by the relevant Government department.

Vehicular Traffic Impact Assessment

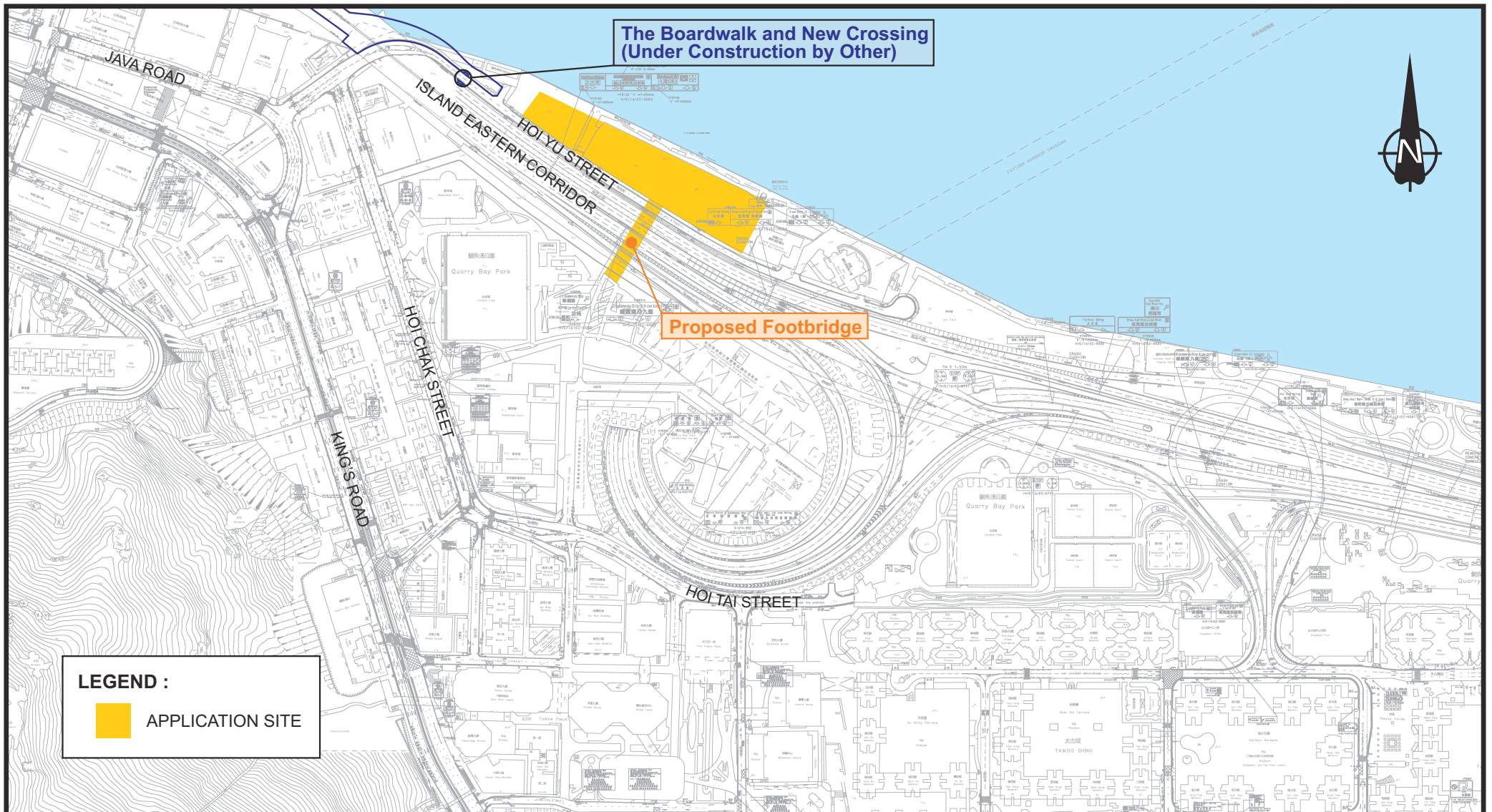
- 6.1.13 To appraise the existing traffic conditions in the study area, classified traffic counting surveys were conducted to cover the surrounding road network affected by the proposed development. The operational performances of the identified critical junctions were assessed with the observed traffic flows collected in 2025. The result of the assessment indicated that all critical junctions identified in the study are operating within their capacities.
- 6.1.14 The year 2033 reference traffic flows were derived from the observed 2025 traffic flows adopting a conservative growth rate +0.5% per annum. The reference traffic forecast has also taken into account the major planned and committed developments in the vicinity of the proposed development.
- 6.1.15 The traffic generations and attractions of the proposed development were estimated according to the trip generation rates given from the latest TPDM. Also, the traffic trips to be generated by the cultural venue/ digital museum were estimated by making reference to the traffic modal split mentioned in Chapter 3 of the “Public Transport Strategy Study, June 2017” as published by Transport and Housing Bureau. It is anticipated that the proposed development would generate an additional two-way traffic trips of some 68 pcu/hr in the AM peak, some 163 pcu/hr in Noon peak, and some 163 pcu/hr during the PM peak.
- 6.1.16 With the proposed development, the estimated traffic flows in design year 2033 were estimated by superimposing the traffic generations from the proposed development over the year 2033 reference traffic flows on the road network covered within the study area.
- 6.1.17 The performance of those critical junctions identified in the study area would all be operating within their capacities in both the reference and design scenarios in year 2033. It revealed that the proposed development would not induce significant traffic impacts on the adjacent road network.
- 6.1.18 Hoi Yu Street is the only carriageway connects to the application site. Together with the traffic flows to be generated by the new developments in Taikoo Place area (the newly opened Taikoo Place 2 building which is expected yet fully occupied and the potential Pan Hoi Street redevelopment), it is anticipated that the left turn traffic of Java Road (eastbound) at the junction of Java Road/ Hoi Yu Street would become busier. Junction improvement measure to the Java Road/ Hoi Yu Street, in particular the left turn movement, is suggested.
- 6.1.19 Under the proposed junction improvement scheme, additional traffic lane (i.e. two lanes in total) would be provided for the left turn traffic of Java Road (eastbound). Alignment of the existing kerbline outside the police station would be modified slightly to provide more manoeuvring space for the traffic turning to Hoi Yu Street. Section of Hoi Yu Street (westbound) would also be converted from existing 2-lane to a 1-lane carriageway to maximize the overall junction capacity.

Pedestrian Traffic Impact Assessment

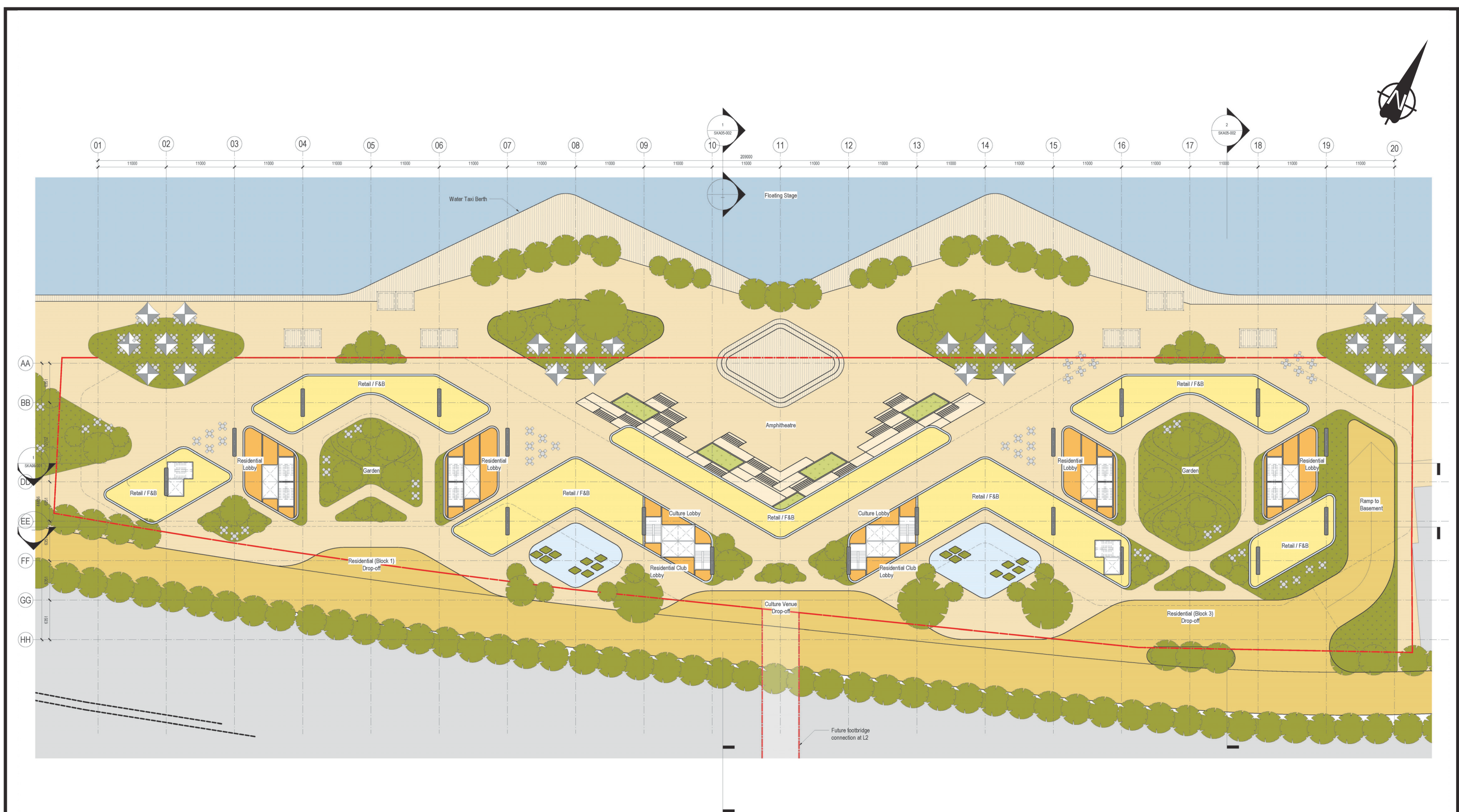
- 6.1.20 Capacities of the identified critical sections of footpaths and crossing at Hoi Yu Street, Java Road and Hoi Chak Street/ Finnie Street/ Hoi Tai Street were assessed. The performance assessment indicated that all the identified critical sections of footpaths/cautionary crossing and the identified critical crossings at Java Road would be operating with a LOS of not less than C during peak hours with the proposed development. However, the identified critical crossings at Hoi Kwong Street, Finnie Street and Hoi Tai Street would be operating at their capacities.
- 6.1.21 Improvement measure to the crossings at Hoi Chak Street/ Finnie Street/ Hoi Tai Street was therefore proposed. By converting the staggered crossings to straight crossing at the junction of Hoi Tai Street/ Hoi Chak Street/ Finnie Street/ Hoi Kwong Street, the performance of the crossings at Hoi Tai Street could be improved but still could not reach a level of C or above.

6.2 Conclusion

- 6.2.1 Based on the above-mentioned, it is concluded that the proposed development would not induce significant traffic impacts on the adjacent road network and is therefore supported from traffic engineering point of view.



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Rev.	Description	Checked	Date	Rev.	Description	Checked	Date	Rev.	Description	
Project Title				Drawing Title						
PROPOSED AMENDMENT TO THE NOTES OF THE APPROVED QUARRY BAY OZP RELATING TO THE "OTHER SPECIFIED USES" ZONE ANNOTATED "CULTURAL AND / OR COMMERCIAL LEISURE AND TOURISM RELATED USES" INLAND LOTS 8590 RP (PART) AND 8723 RP (PART) AND ADJOINING GOVERNMENT LAND, HOI YU STREET, QUARRY BAY				SITE LOCATION						
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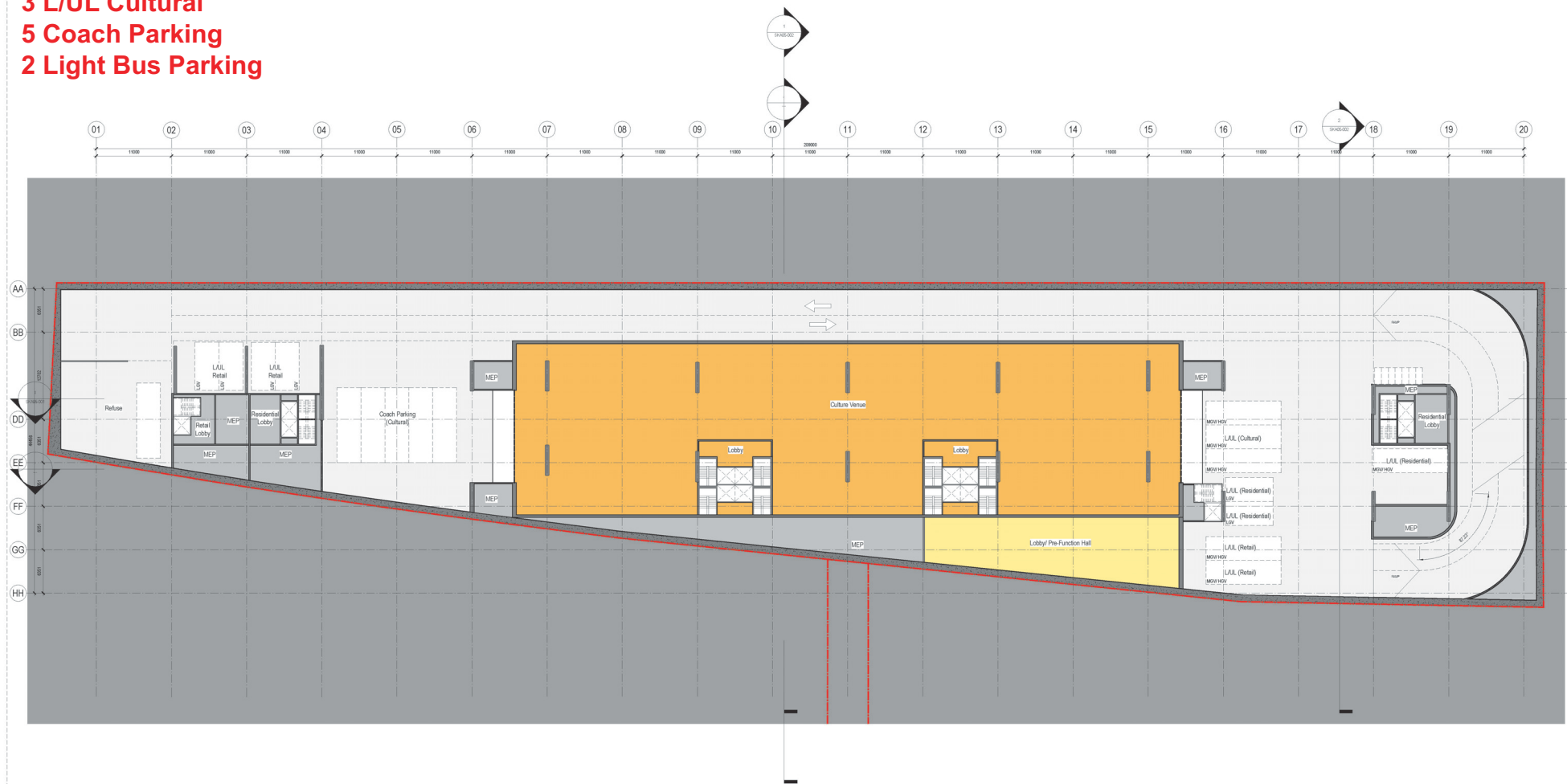


Note:- Please refer to landscape architect drawings for all landscape design and details

- Retail
- Cultural/ Leisure
- Residential
- Residential Clubhouse
- Green Deck
- Carpark

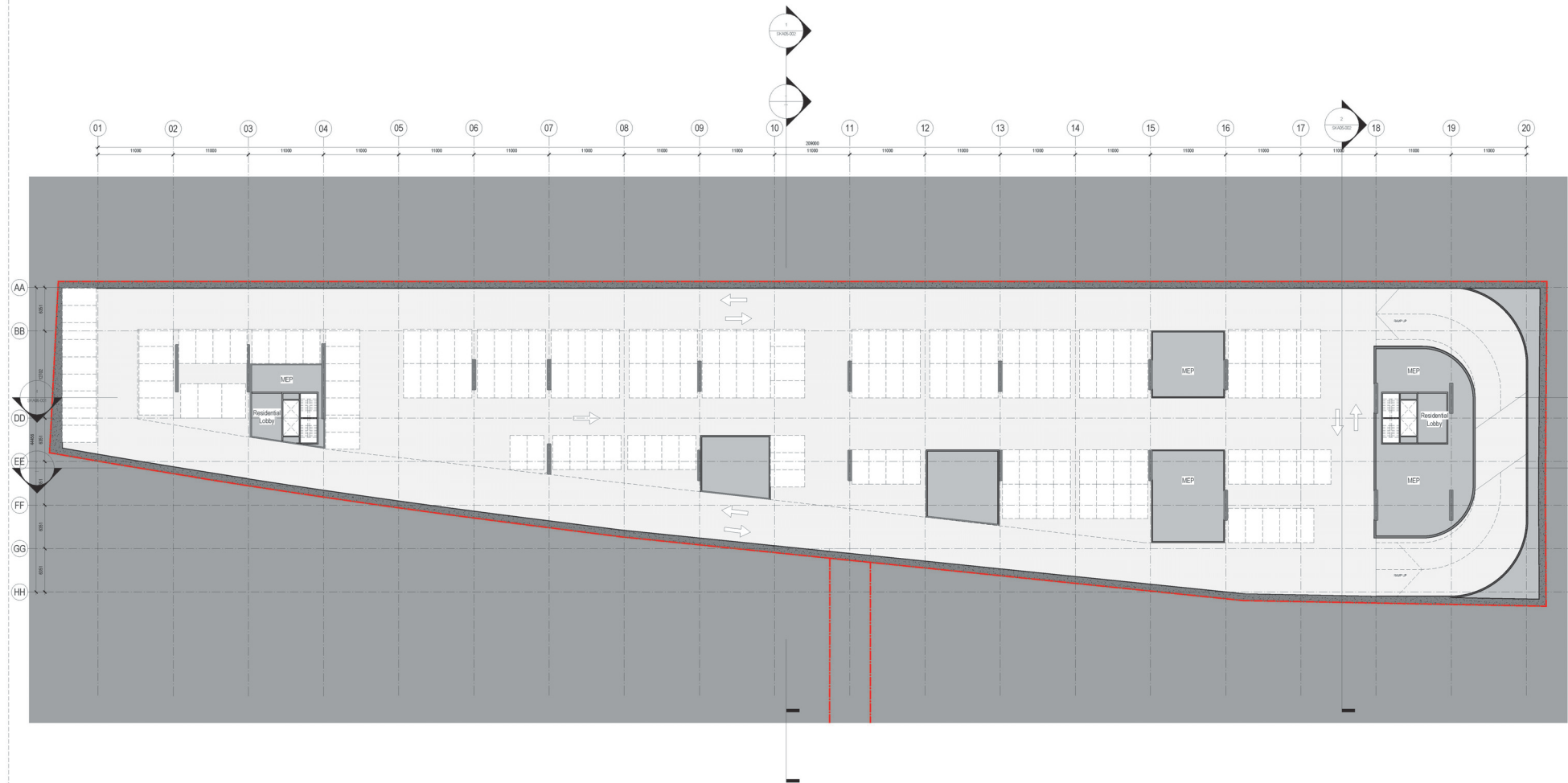
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B1 :-
9 L/UL
3 L/UL Cultural
5 Coach Parking
2 Light Bus Parking



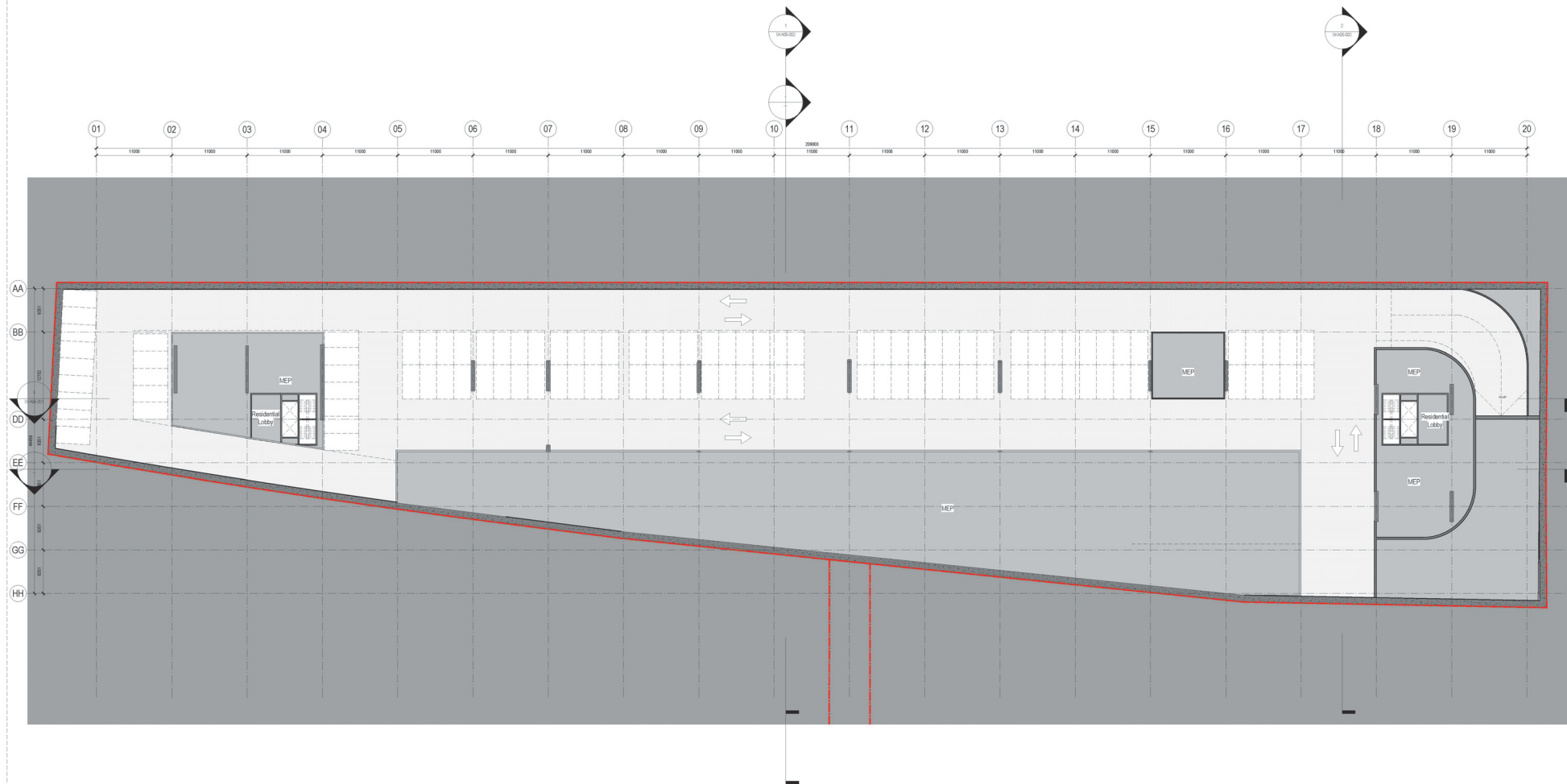
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PROPOSED AMENDMENT TO THE NOTES OF THE APPROVED QUARRY BAY OZP RELATING TO THE "OTHER SPECIFIED USES" ZONE ANNOTATED "CULTURAL AND / OR COMMERCIAL LEISURE AND TOURISM RELATED USES" INLAND LOTS 8590 RP (PART) AND 8723 RP (PART) AND ADJOINING GOVERNMENT LAND, HOI YU STREET, QUARRY BAY				LAYOUT OF BASEMENT LEVEL 1													
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B2 :-
162 Car parking spaces

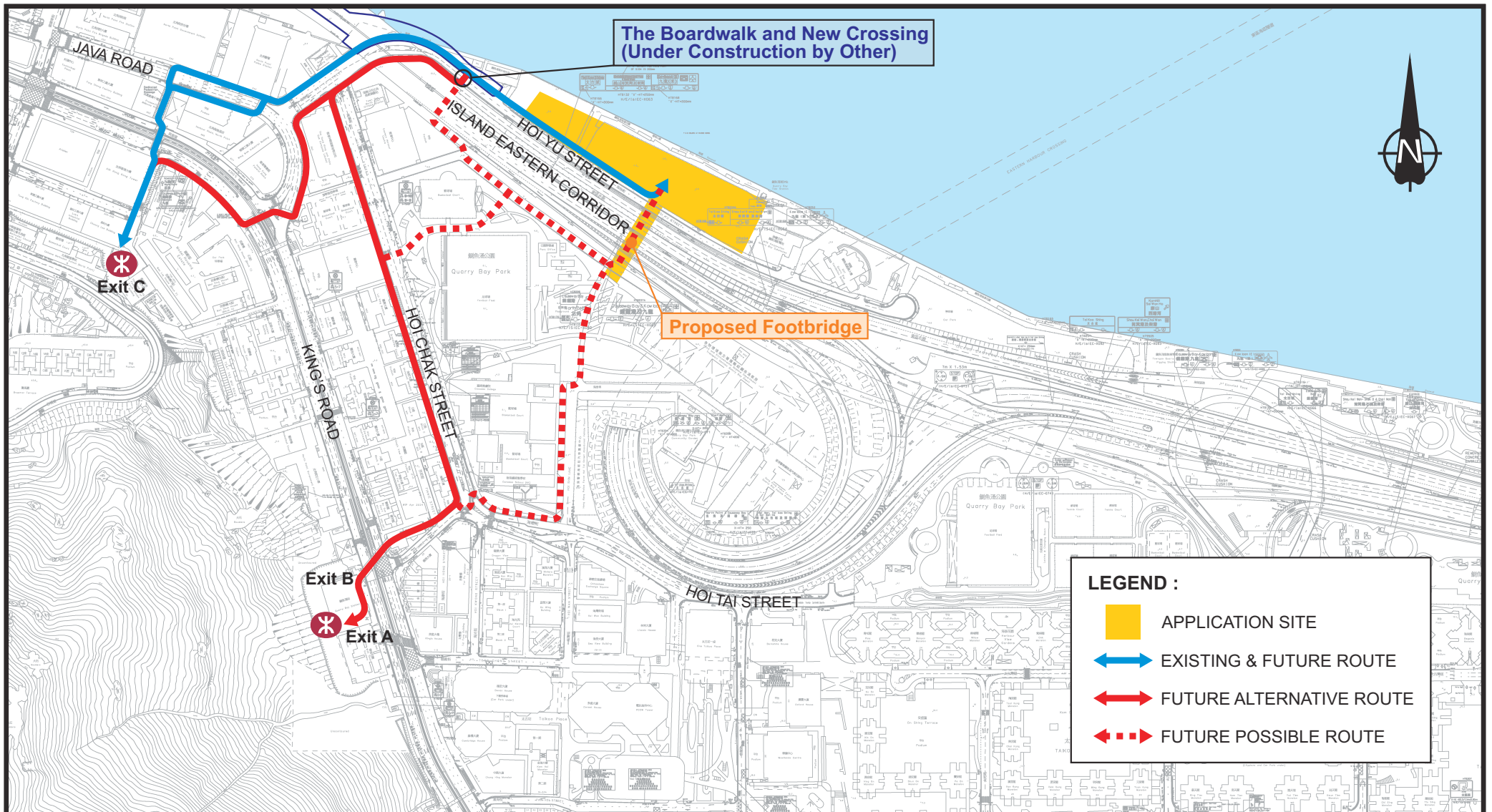


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Designed		NLY		Checked		WCY		Scale		NTS		Date		SEP 2025		Drawing No.		2.4		Rev.		-	

B3 :-
107 Car parking spaces



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Project Title				Drawing Title									
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NLY		WCY		NTS		MAR 2025		2.5		-			



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Project Title				Drawing Title EXISTING AND FUTURE PEDESTRIAN ROUTE							SYSTRA MVA
PROPOSED AMENDMENT TO THE NOTES OF THE APPROVED QUARRY BAY OZP RELATING TO THE "OTHER SPECIFIED USES" ZONE ANNOTATED "CULTURAL AND / OR COMMERCIAL LEISURE AND TOURISM RELATED USES" INLAND LOTS 8590 RP (PART) AND 8723 RP (PART) AND ADJOINING GOVERNMENT LAND, HOI YU STREET, QUARRY BAY											
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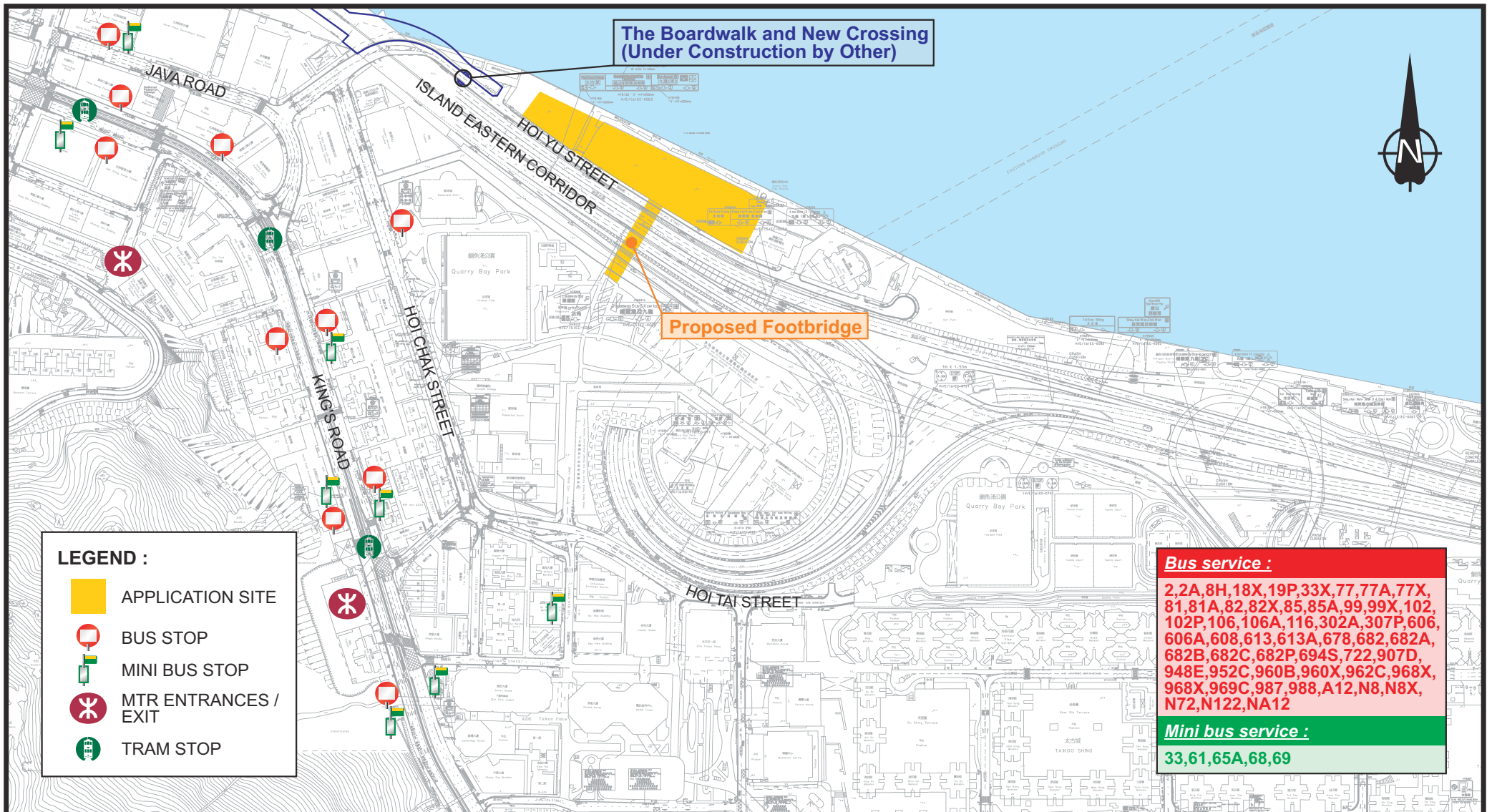


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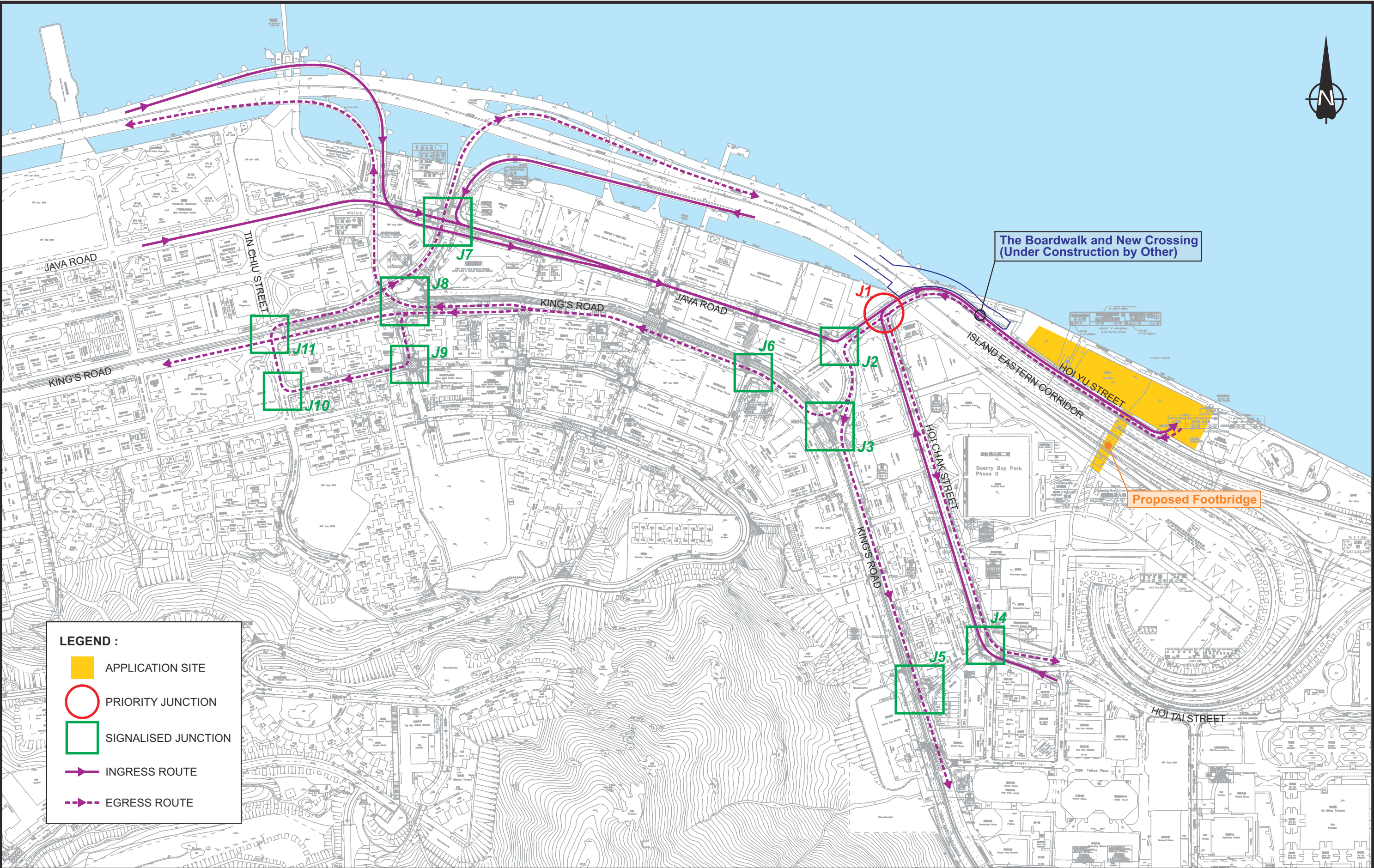
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Drawing Title											
PLANNED ELEVATED WALKWAY UNDER OZP											
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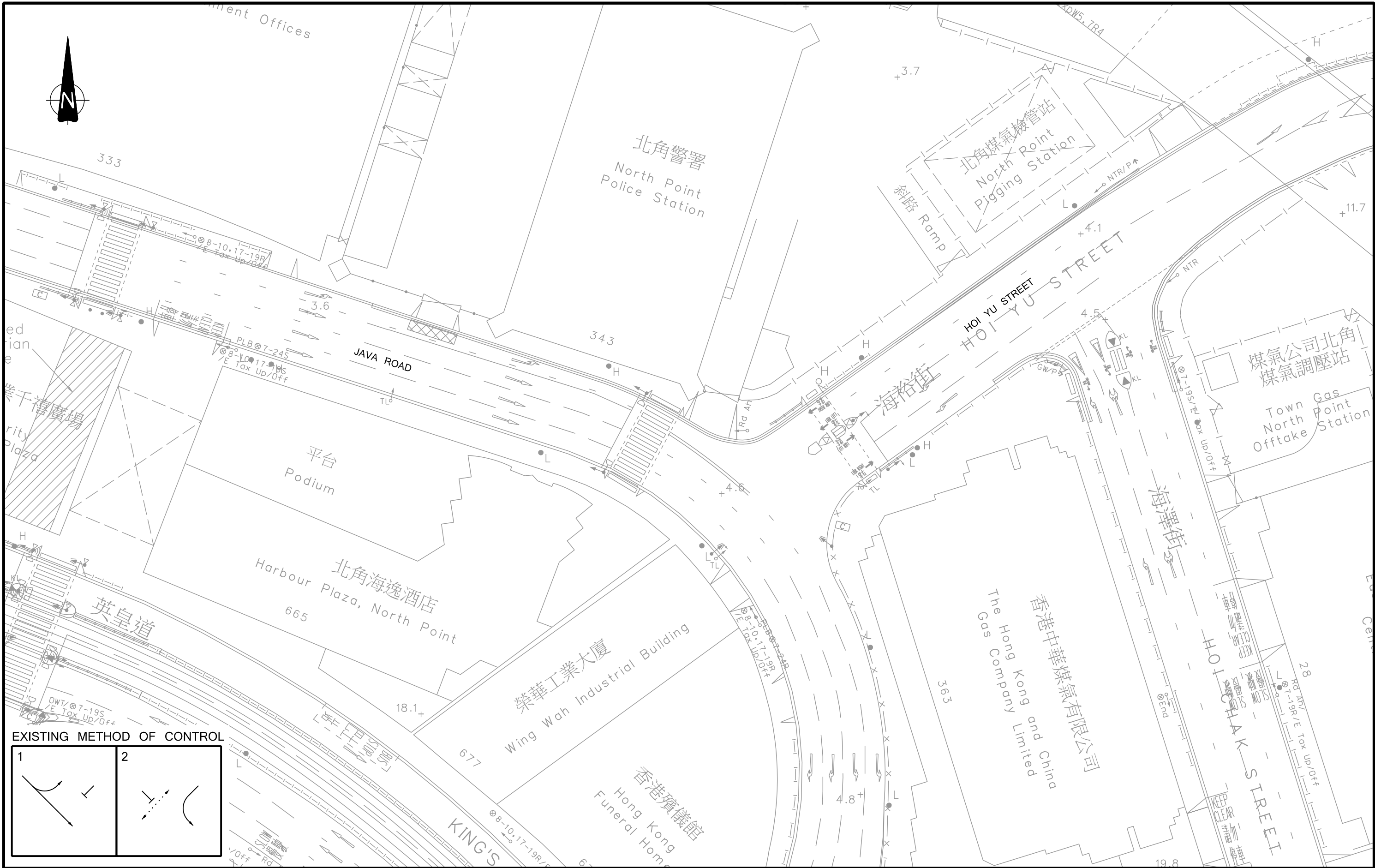


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Rev.	Description	Checked	Date

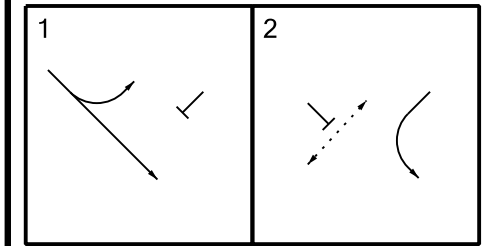
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Drawing Title											
IDENTIFIED CRITICAL JUNCTIONS AND KEY VEHICULAR TRAFFIC ROUTES											
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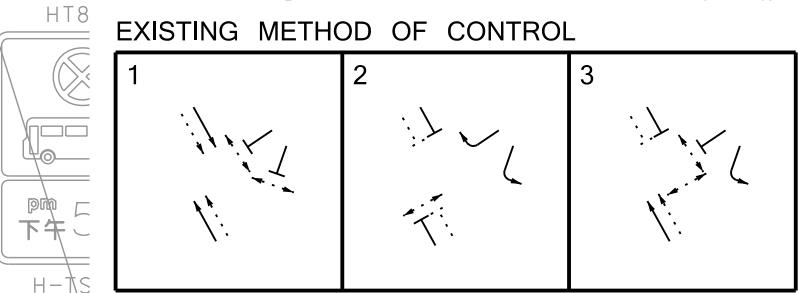
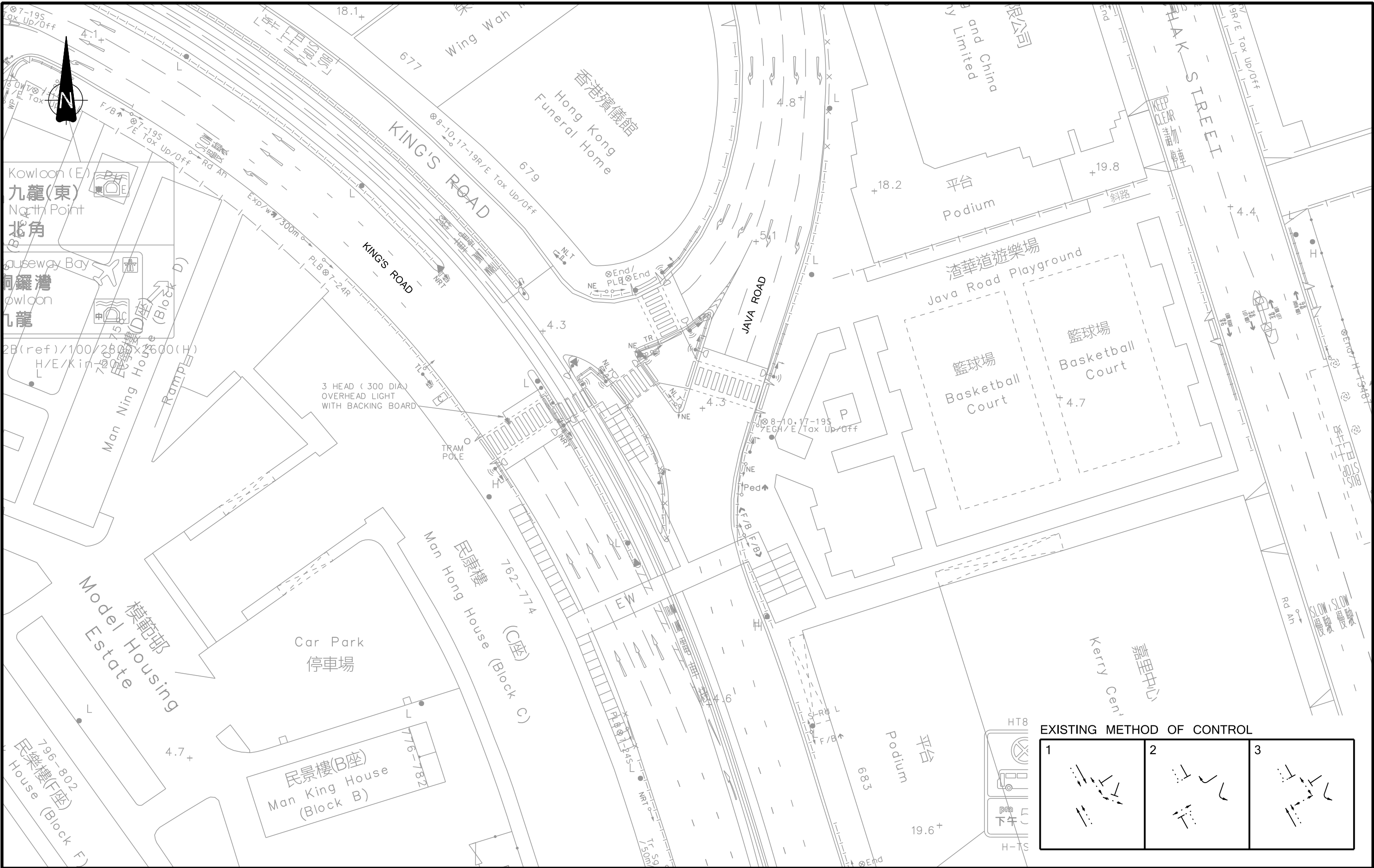
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Project Title
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INLAND LOTS 8590 RP (PART) AND 8723 RP (PART) AND ADJOINING GOVERNMENT LAND, HOI YU STREET, QUARRY BAY

Drawing Title											
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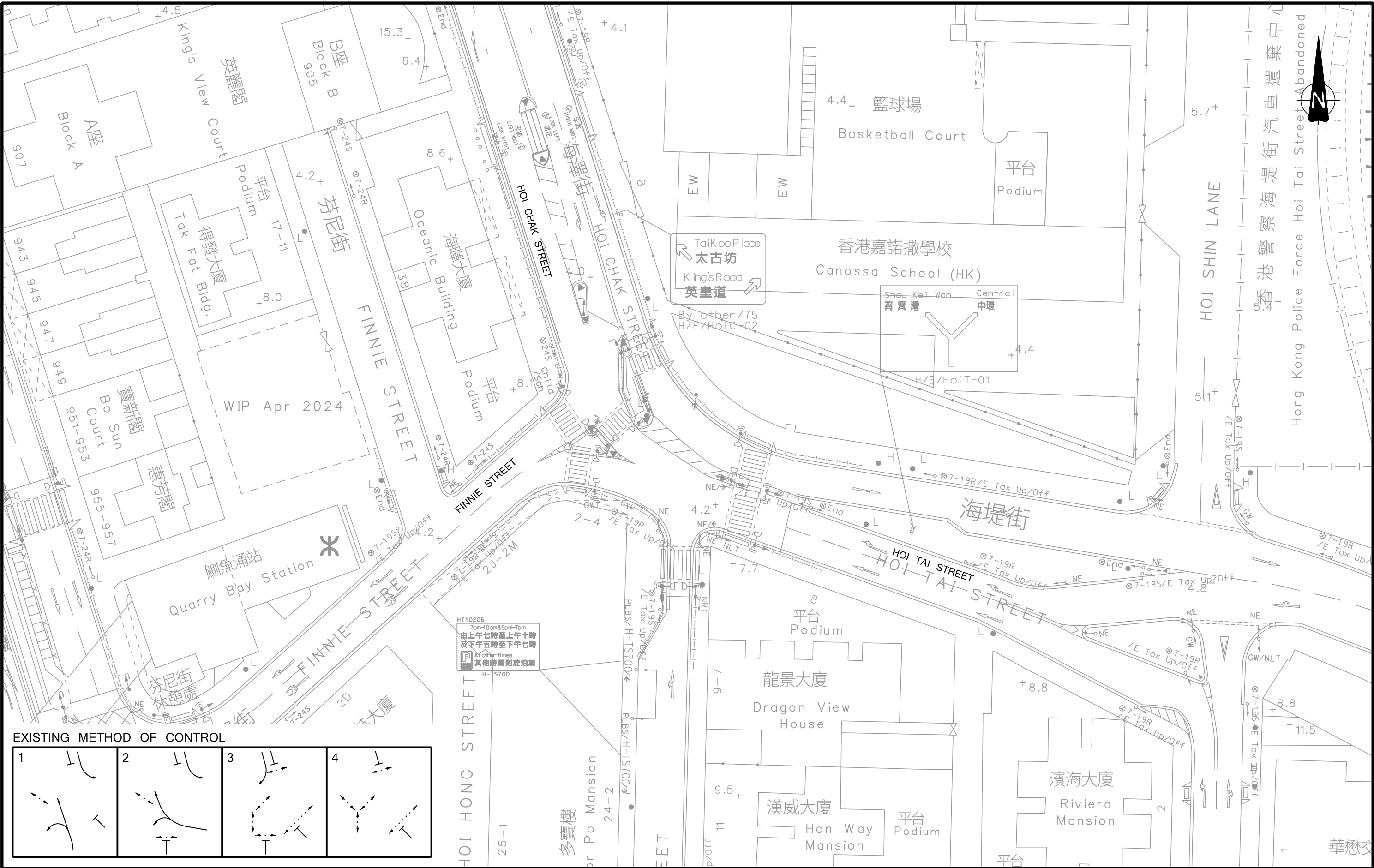
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INLAND LOTS 8590 RP (PART) AND 8723 RP (PART) AND ADJOINING GOVERNMENT LAND, HOI YU STREET, QUARRY BAY

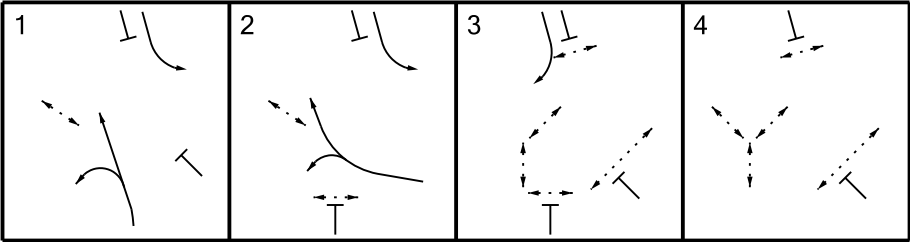
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Drawing No.		3.5	Rev.
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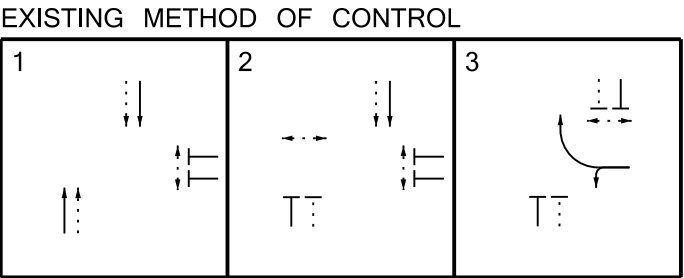
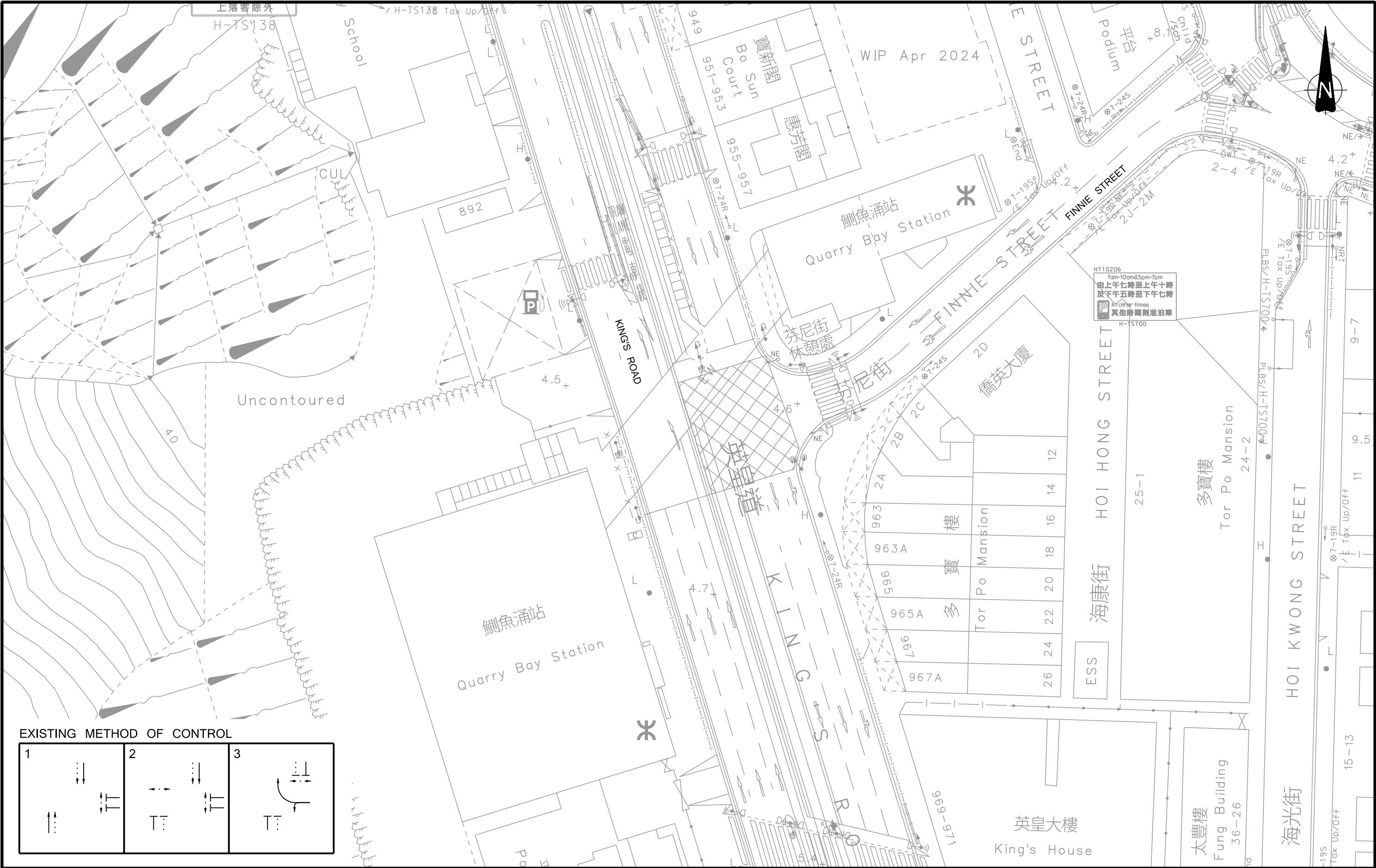


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Rev.	Description	Checked	Date

Project Title
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INLAND LOTS 8590 RP (PART) AND 8723 RP (PART) AND ADJOINING GOVERNMENT LAND, HOI YU STREET, QUARRY BAY

Drawing Title EXISTING JUNCTION LAYOUT OF HOI TAI STREET / HOI CHAK STREET / FINNIE STREET / HOI KWONG STREET (J4)			
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Drawing No. 3.6		Rev. -	



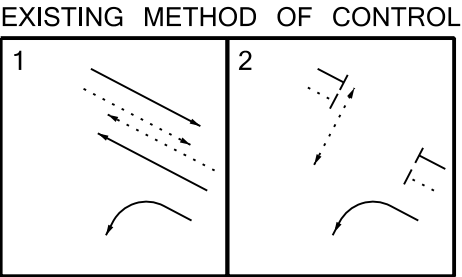
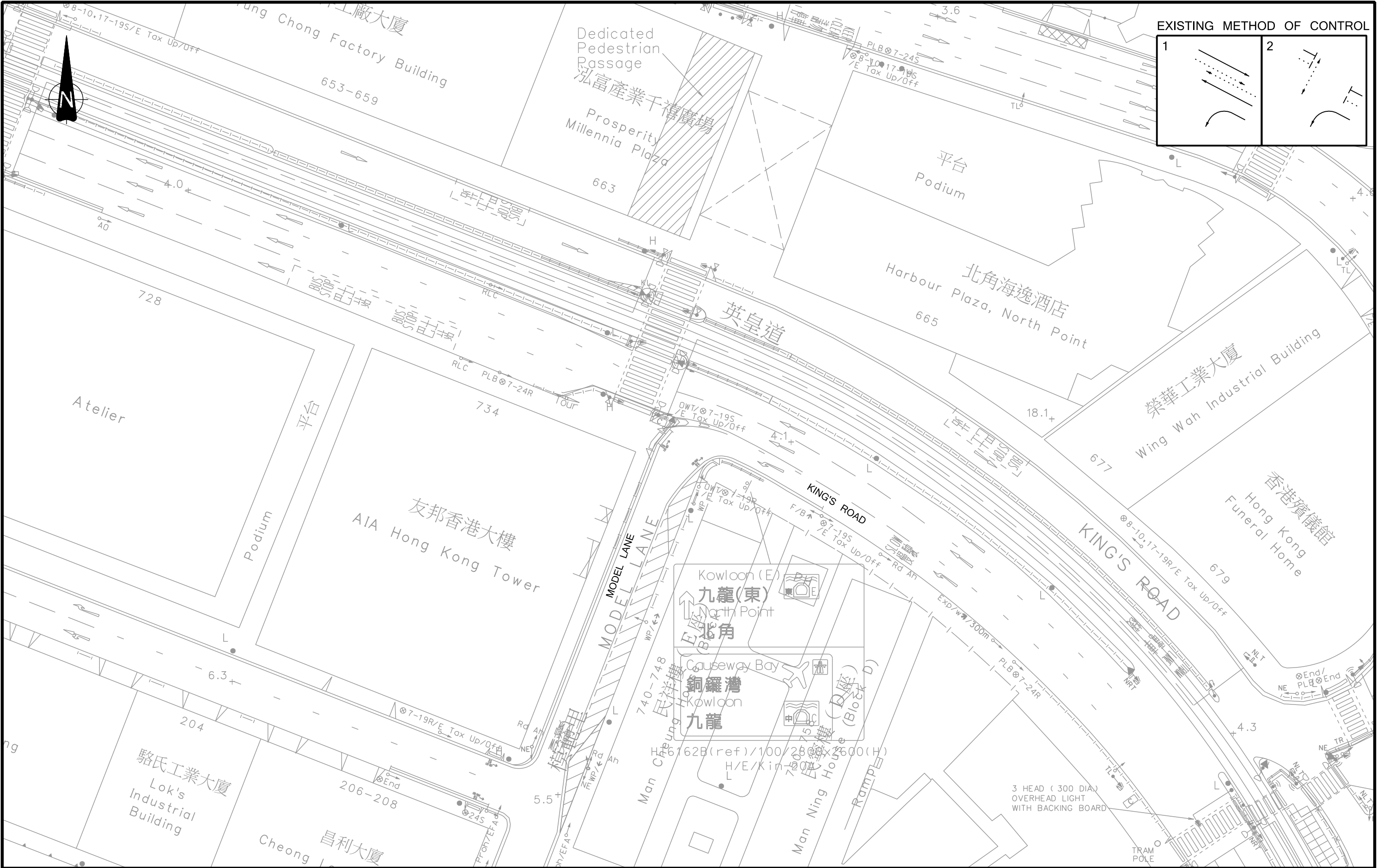


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Project Title
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INLAND LOTS 8590 RP (PART) AND 8723 RP (PART) AND ADJOINING GOVERNMENT LAND, HOI YU STREET, QUARRY BAY

Drawing Title			
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Rev.	Description	Checked	Date

Project Title

PROPOSED AMENDMENT TO THE NOTES OF THE APPROVED QUARRY BAY OZP RELATING TO THE "OTHER SPECIFIED USES" ZONE ANNOTATED "CULTURAL AND/OR COMMERCIAL LEISURE AND TOURISM RELATED USES"

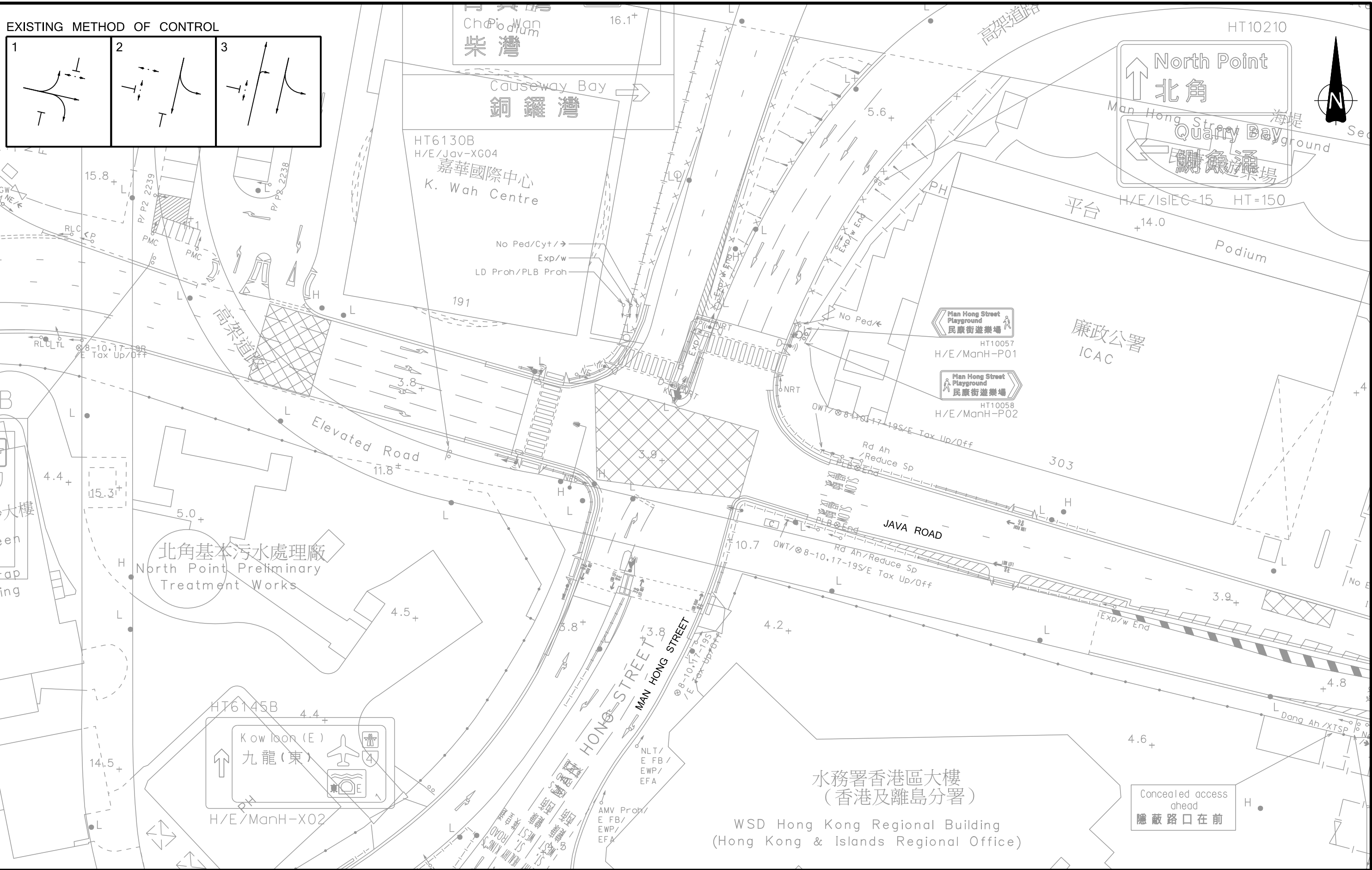
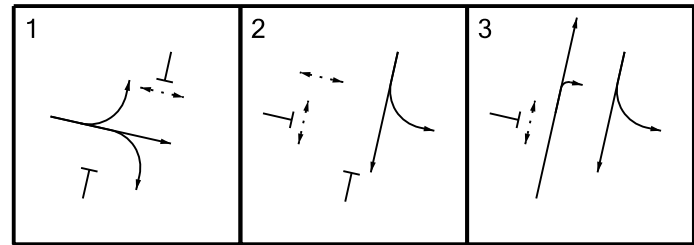
INLAND LOTS 8590 RP (PART) AND 8723 RP (PART) AND ADJOINING GOVERNMENT LAND, HOI YU STREET, QUARRY BAY

Drawing Title			
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Drawing No.			Rev.
3.8			-



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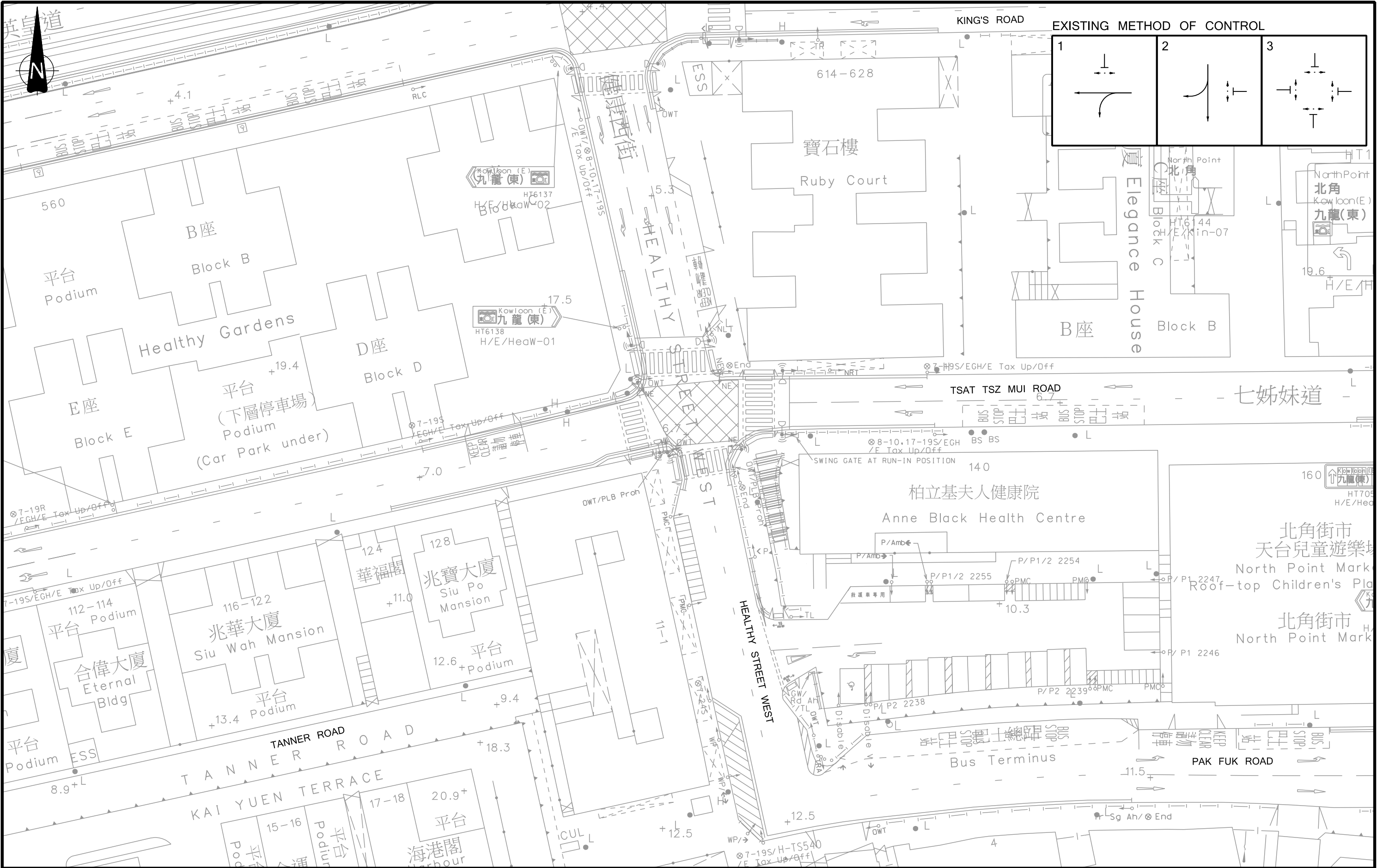
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INLAND LOTS 8590 RP (PART) AND 8723 RP (PART) AND ADJOINING GOVERNMENT LAND, HOI YU STREET, QUARRY BAY

Drawing Title				
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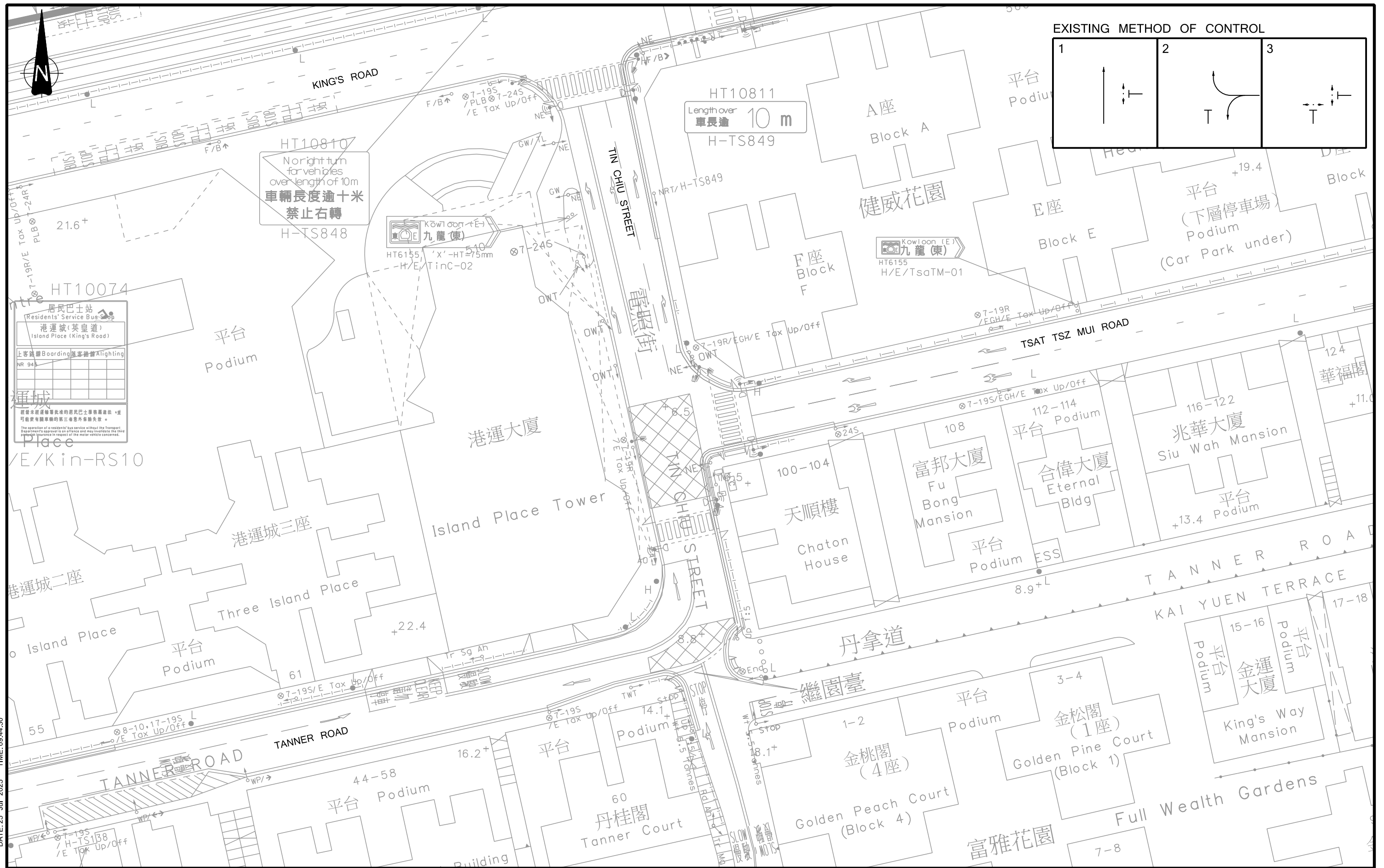
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PROPOSED AMENDMENT TO THE NOTES OF THE APPROVED QUARRY BAY OZP RELATING TO THE "OTHER SPECIFIED USES" ZONE ANNOTATED "CULTURAL AND/OR COMMERCIAL LEISURE AND TOURISM RELATED USES"

INLAND LOTS 8590 RP (PART) AND 8723 RP (PART) AND ADJOINING GOVERNMENT LAND, HOI YU STREET, QUARRY BAY

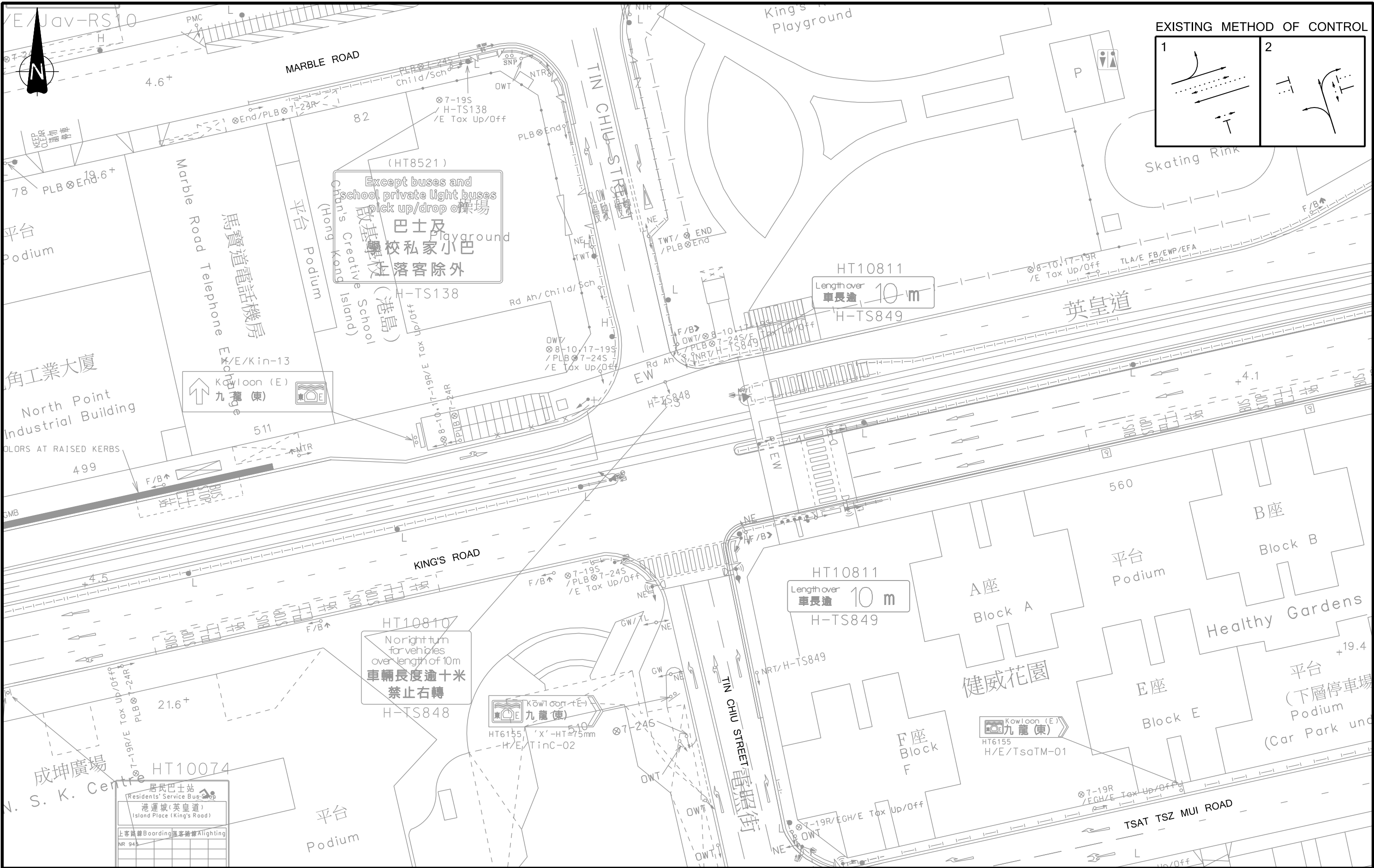
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Drawing No.		3.11	Rev.
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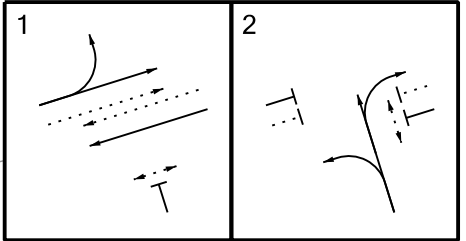


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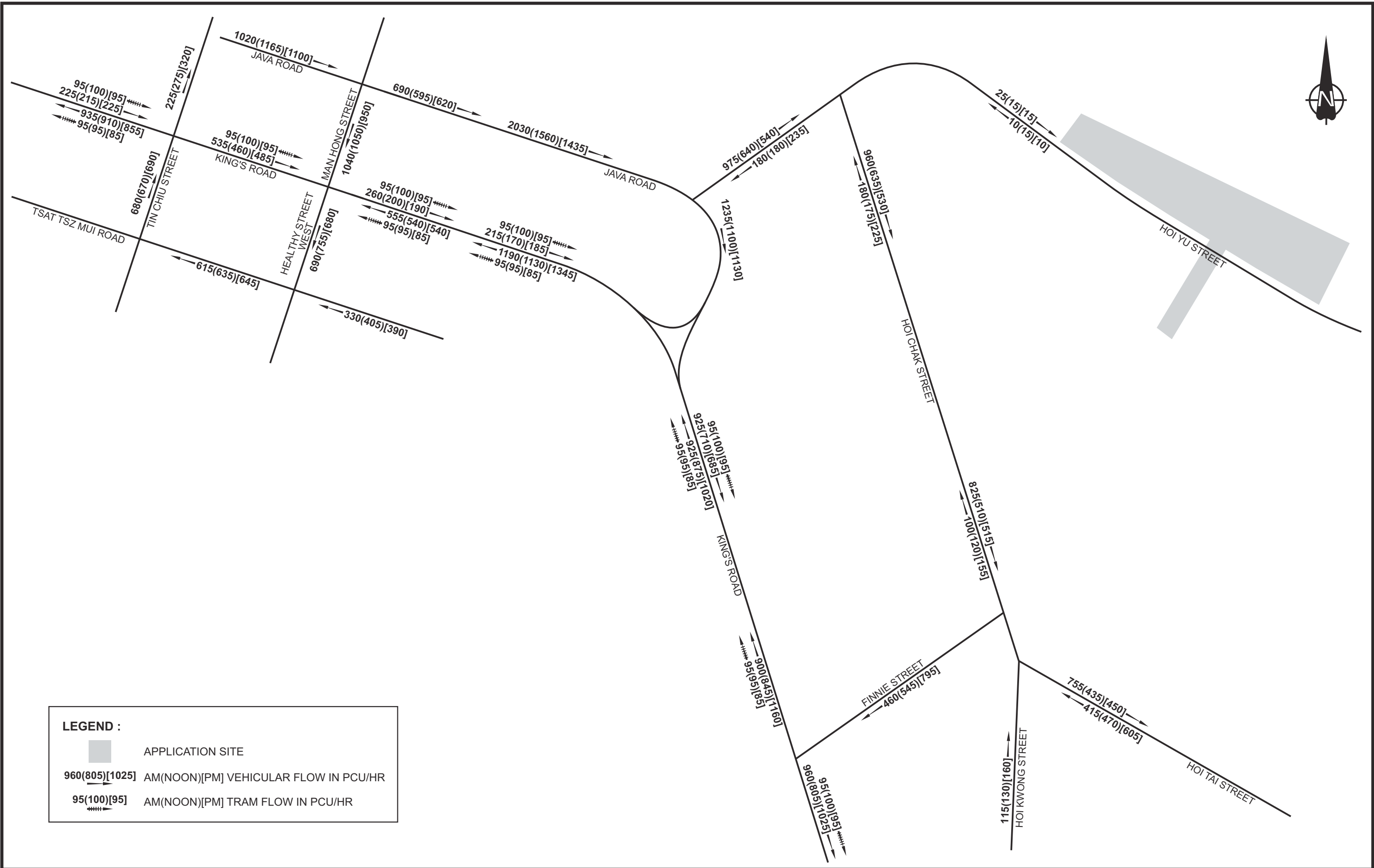


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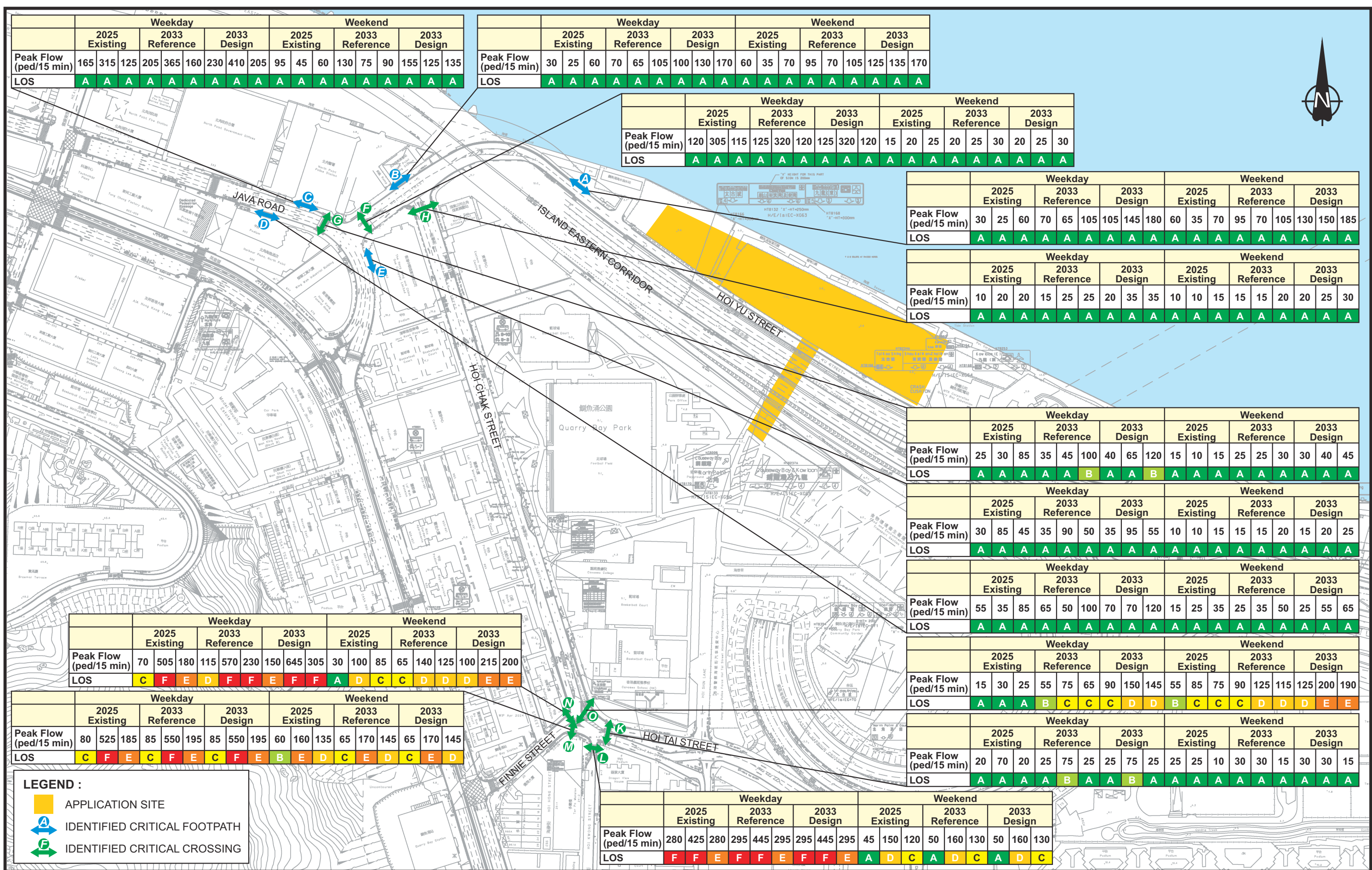
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INLAND LOTS 8590 RP (PART) AND 8723 RP (PART) AND ADJOINING GOVERNMENT LAND, HOI YU STREET, QUARRY BAY

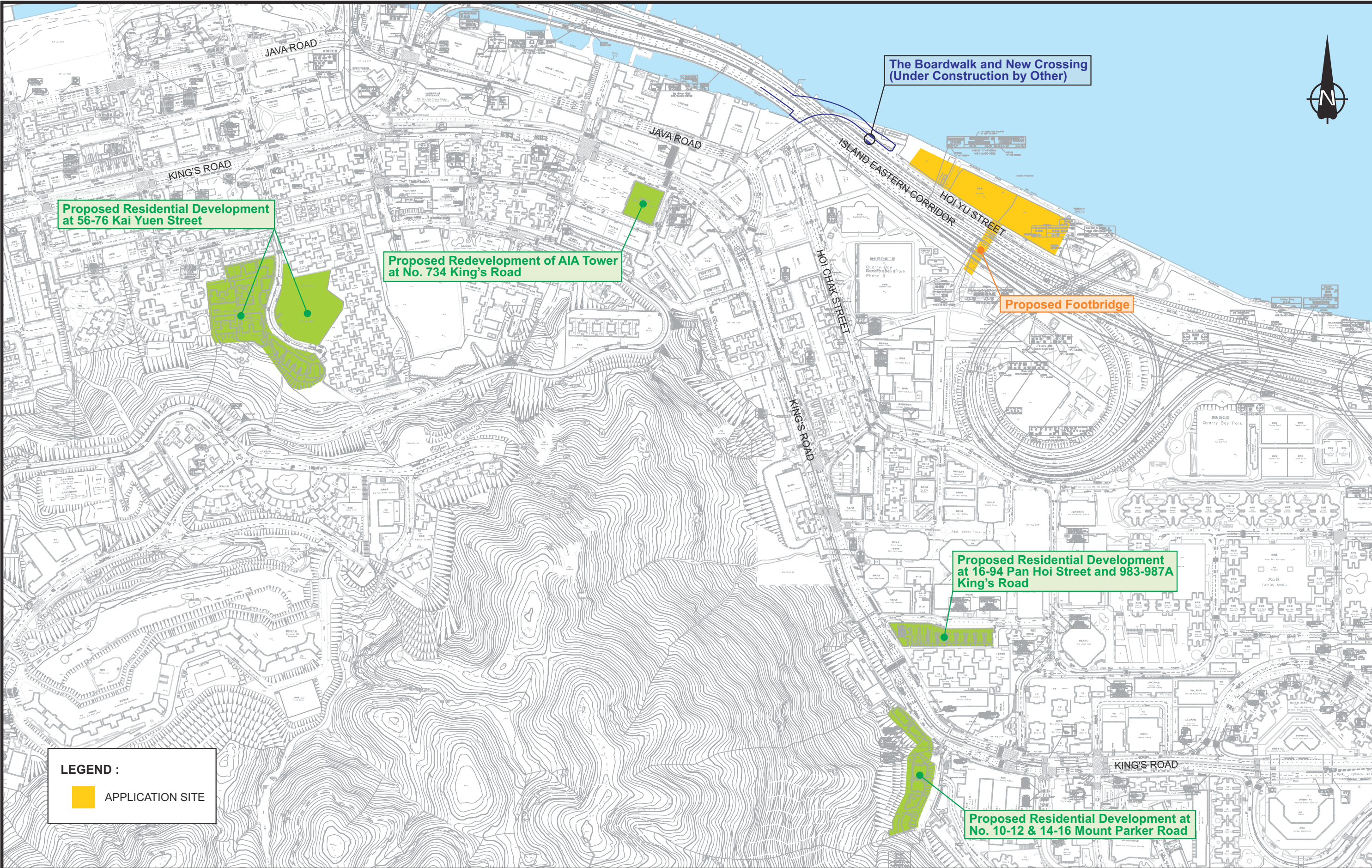
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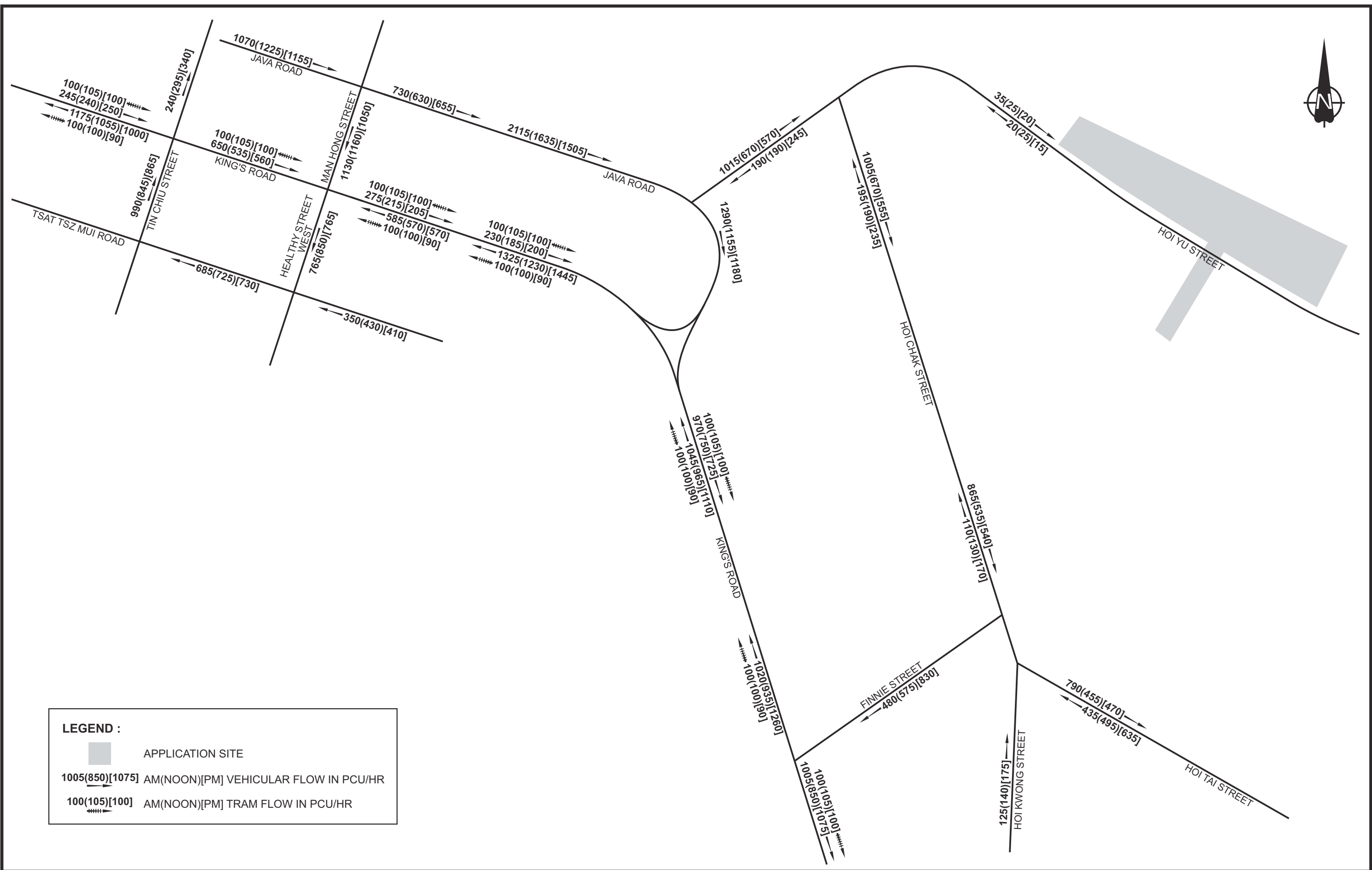
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Project Title

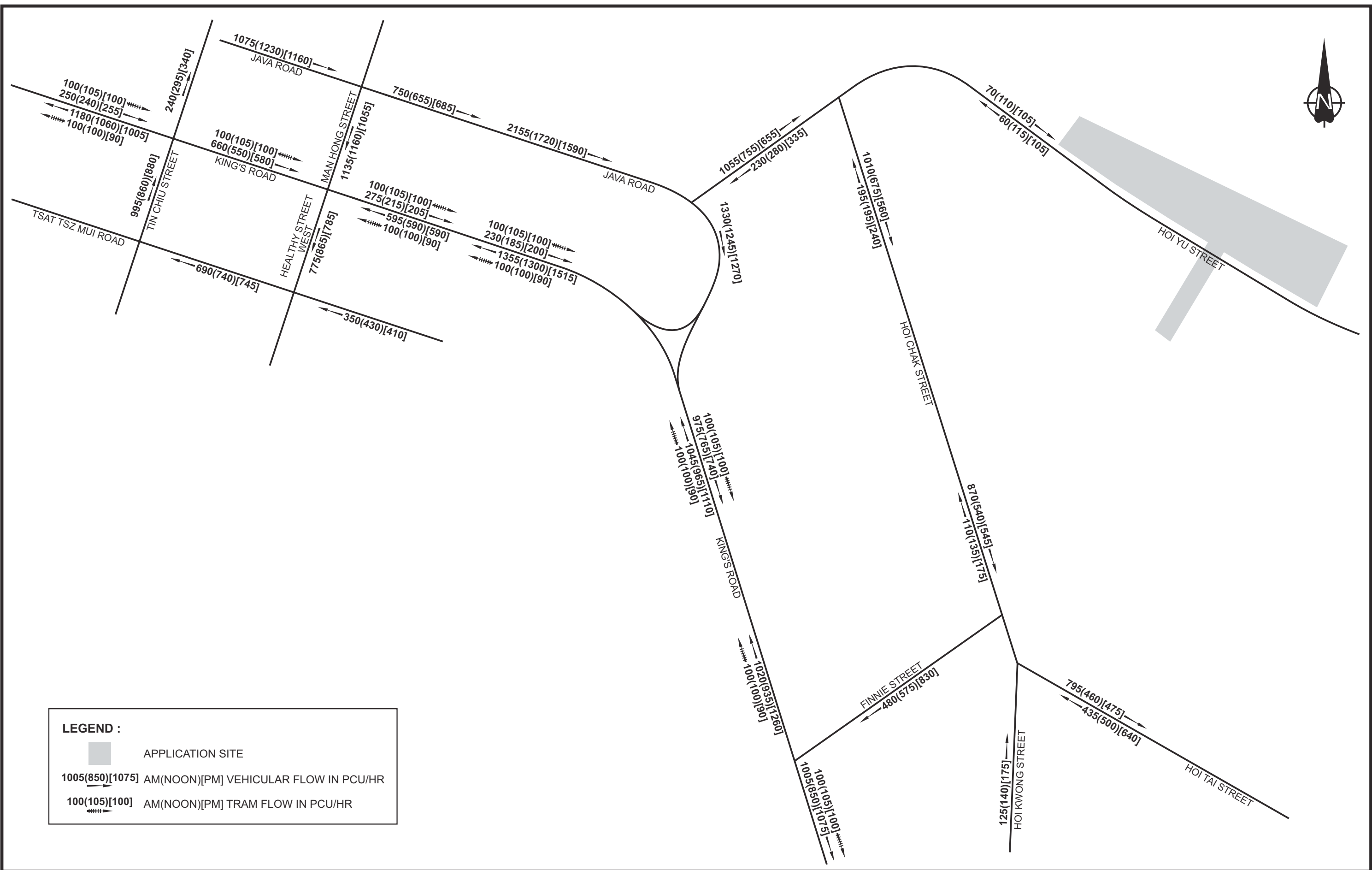
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Drawing Title							
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Designed	CHE	Checked	NLY	Scale	NTS	Date	OCT 2024
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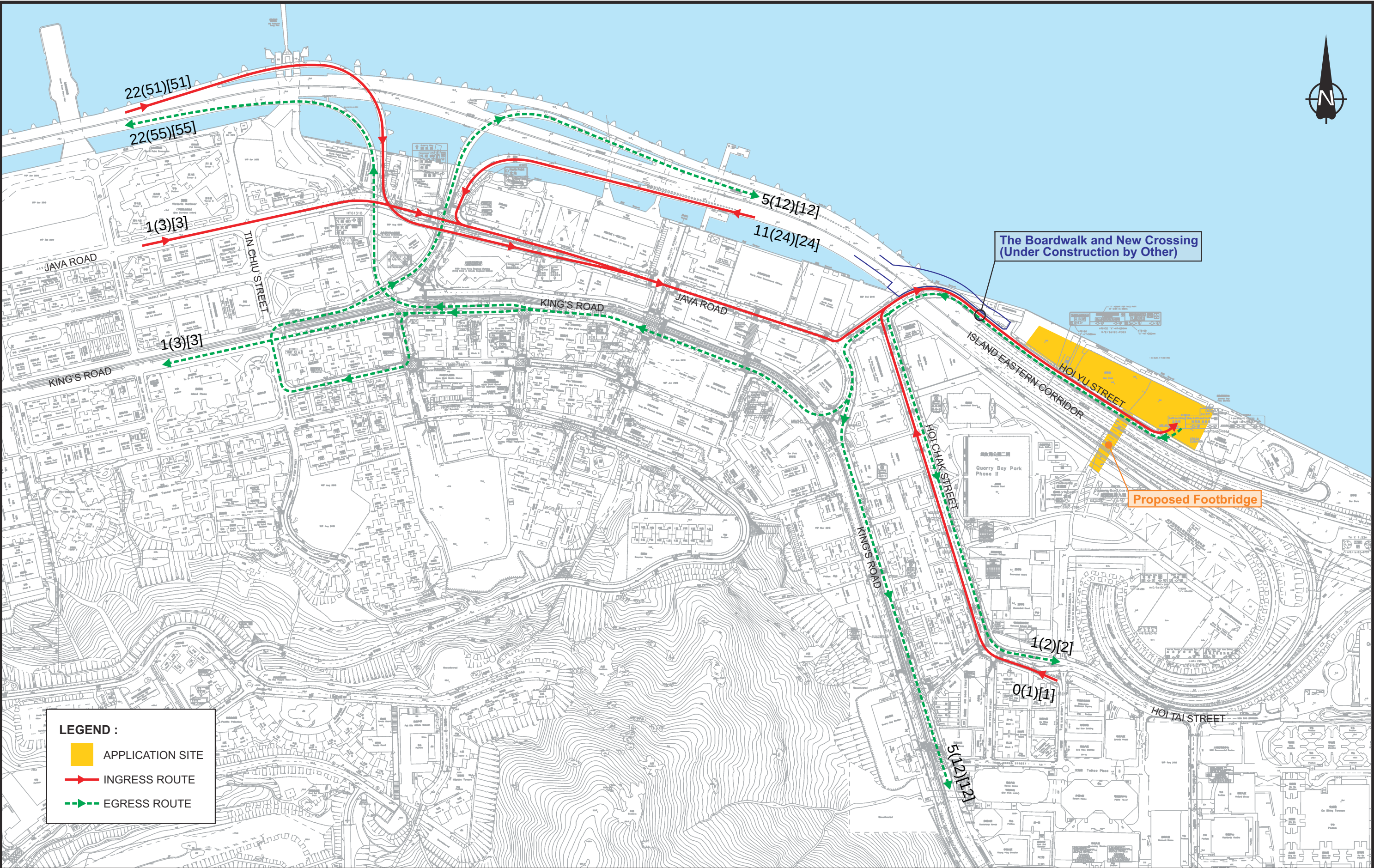




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Rev.	Description	Checked	Date	Designed	CHE	Checked	NLY	Scale	NTS		Date	NOV 2024	Drawing No.	4.3	Rev.



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-  EGRESS ROUTE

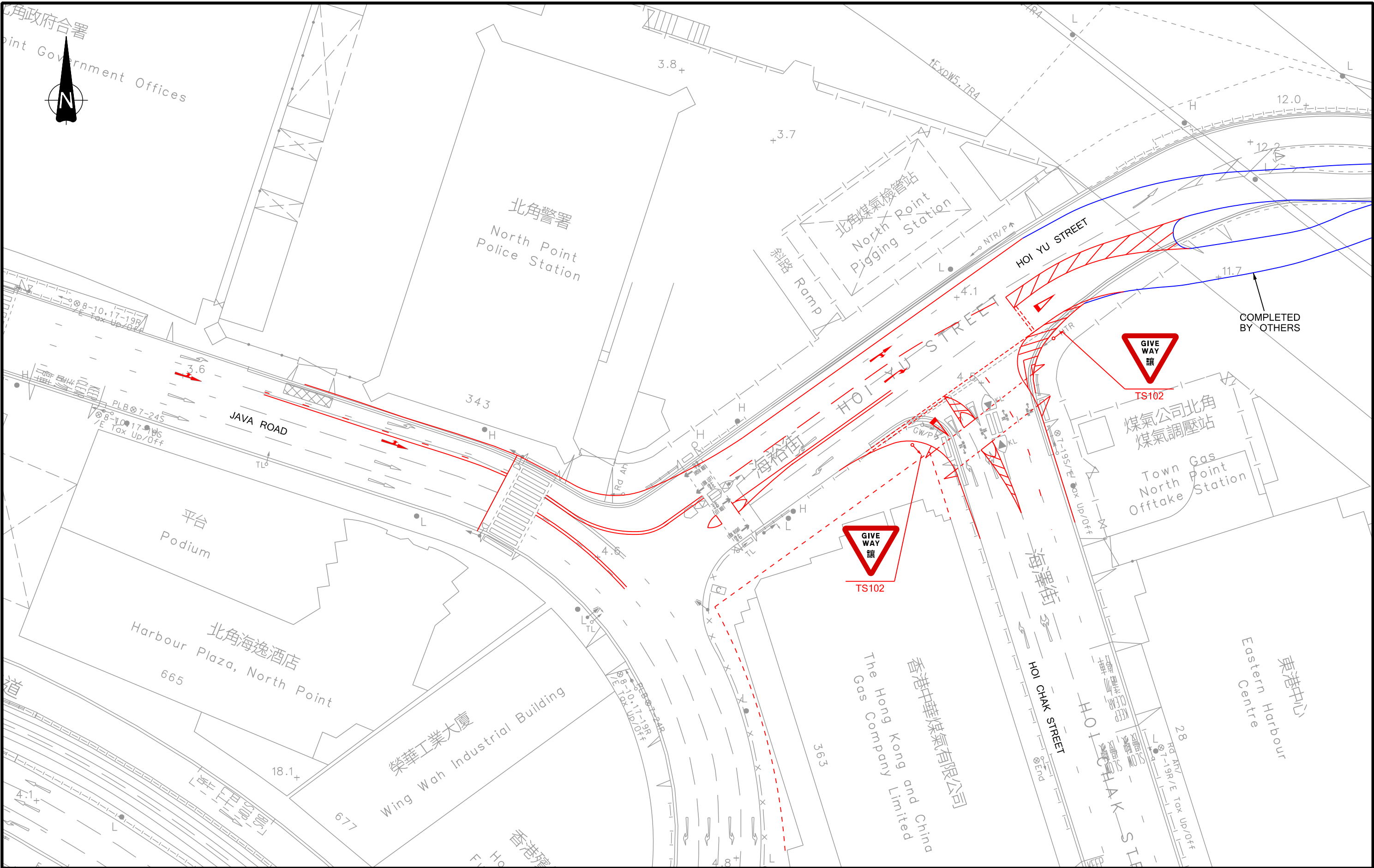
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Drawing Title											
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Rev.	Description	Checked	Date

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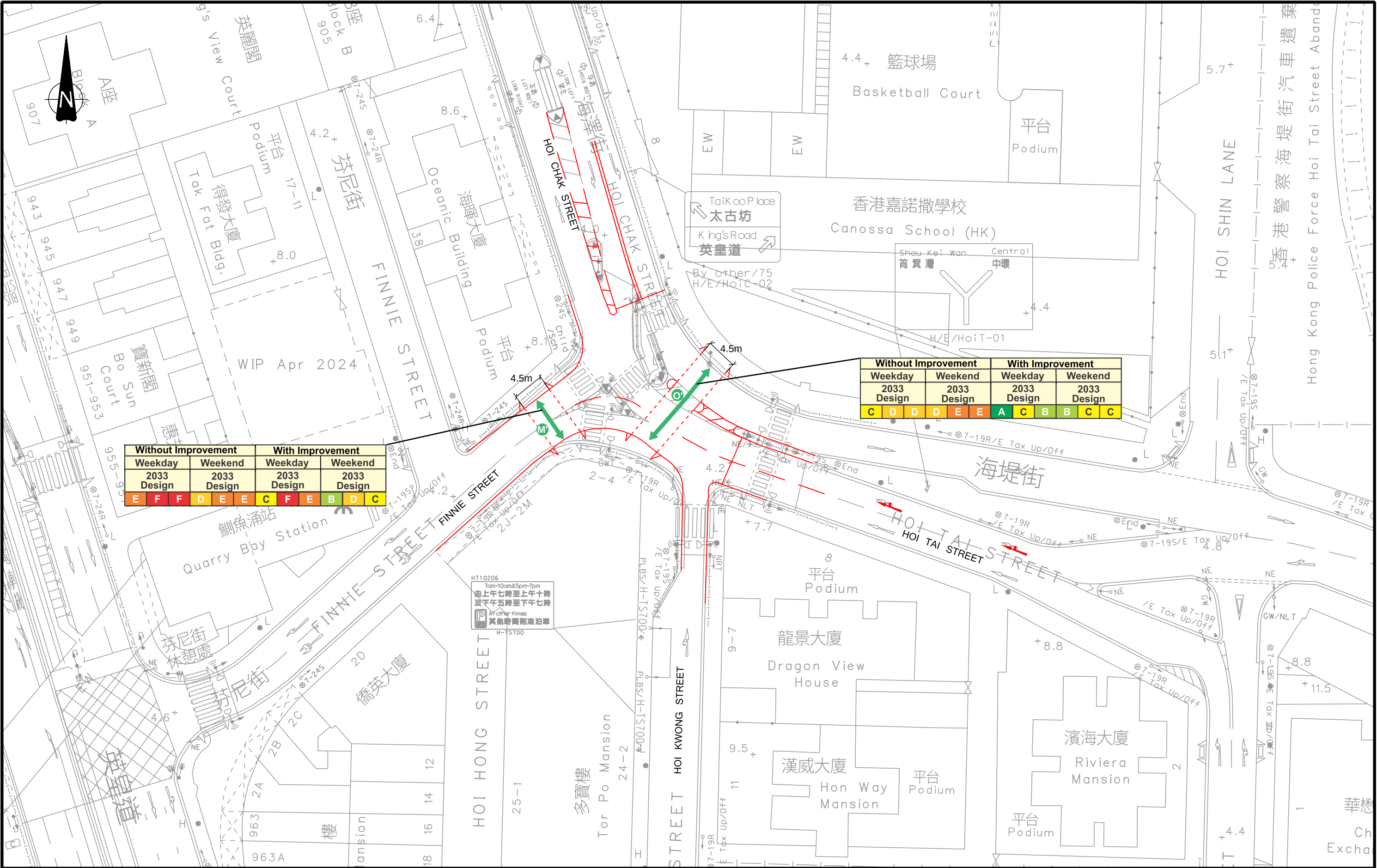
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INLAND LOTS 8590 RP (PART) AND 8723 RP (PART) AND ADJOINING GOVERNMENT LAND, HOI YU STREET, QUARRY BAY

Drawing Title			
PLANNED JUNCTION IMPROVEMENT SCHEME OF JAVA ROAD / HOI YU STREET / HOI CHAK STREET			
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Without Improvement		With Improvement	
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E	E	E	E
C	F	E	B
D	E	B	D
C		C	C

Without Improvement		With Improvement	
Weekday	Weekend	Weekday	Weekend
2033 Design	2033 Design	2033 Design	2033 Design
C	D	D	E
D	E	E	E
A	C	B	B
C		C	C

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

Project Title

PROPOSED AMENDMENT TO THE APPROVED QUARRY BAY OZP RELATING TO THE "OTHER SPECIFIED USES" ZONE ANNOTATED "CULTURAL AND/OR COMMERCIAL LEISURE AND TOURISM RELATED USES"

INLAND LOTS 8590 RP (PART) AND 8723 RP (PART) AND ADJOINING GOVERNMENT LAND, HOI YU STREET, QUARRY BAY

Drawing Title			
PROPOSED JUNCTION IMPROVEMENT SCHEME OF HOI TAI STREET / HOI CHAK STREET / FINNIE STREET / HOI KWONG STREET			
Designed	NLY	Checked	WCY
Scale	1:500(A3)	Date	SEP 2025
Drawing No.	5.2	Rev.	-



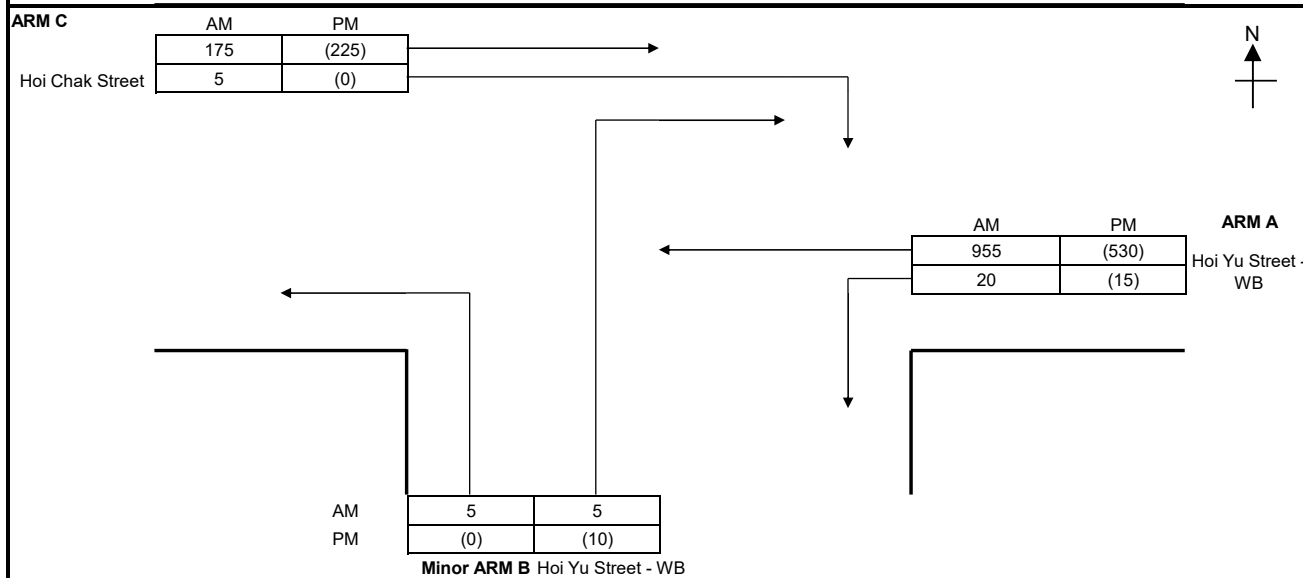
Appendix A - Junction Performance calculation

Calculation Sheets - 2025 Existing

Simplified picority Junction Capacity Calculation



Job Title:	Hoi Yu Street TIA	Ref. No.:	J1_pic
Junction:	Hoi Yu Street/Hoi Chak Street	Designed by:	NLY
Description:	2025 Observed	Checked by:	WCY
Design Year:	2025	Job No.:	CHK50793710
		Date:	九月 2025
ARM A:	Hoi Yu Street - EB		
ARM B:	Hoi Yu Street - WB		
ARM C:	Hoi Chak Street		



GEOMETRY			
Major road width	W	13.50	Lane widths
Central Reserve width	Wcr	0.00	w(b-a)
2 Lane Minor Arm (Y/N)		N	w(b-c)
			w(c-b)

PARAMETER			
Visibilities	Vr(b-a)	50	Calculated
	VI(b-a)	50	D
	Vr(b-c)	50	E
	Vr(c-b)	50	F
			Y

ANALYSIS		AM Peak	PM Peak
TRAFFIC FLOWS	q(c-a)	175	225
	q(c-b)	5	0
	q(a-b)	20	15
	q(a-c)	955	530
	q(b-a)	5	10
	q(b-c)	5	0
	f	0.50	0.00
CAPACITIES	Q(b-a)	323	388
	Q(b-c)	499	577
	Q(c-b)	501	581
	Q(b-ac)	392	388
RFC's	b-a	0.015	0.026
	b-c	0.010	0.000
	c-b	0.010	0.000
	b-ac	0.026	0.026
RFC		0.026	0.026

Where VI and Vr are visibility distances to the left or right of the respective streams

$$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$$

$$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$$

$$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$$

$$Y = 1-0.0345W$$

f = proportion of minor traffic turning left

$$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$$

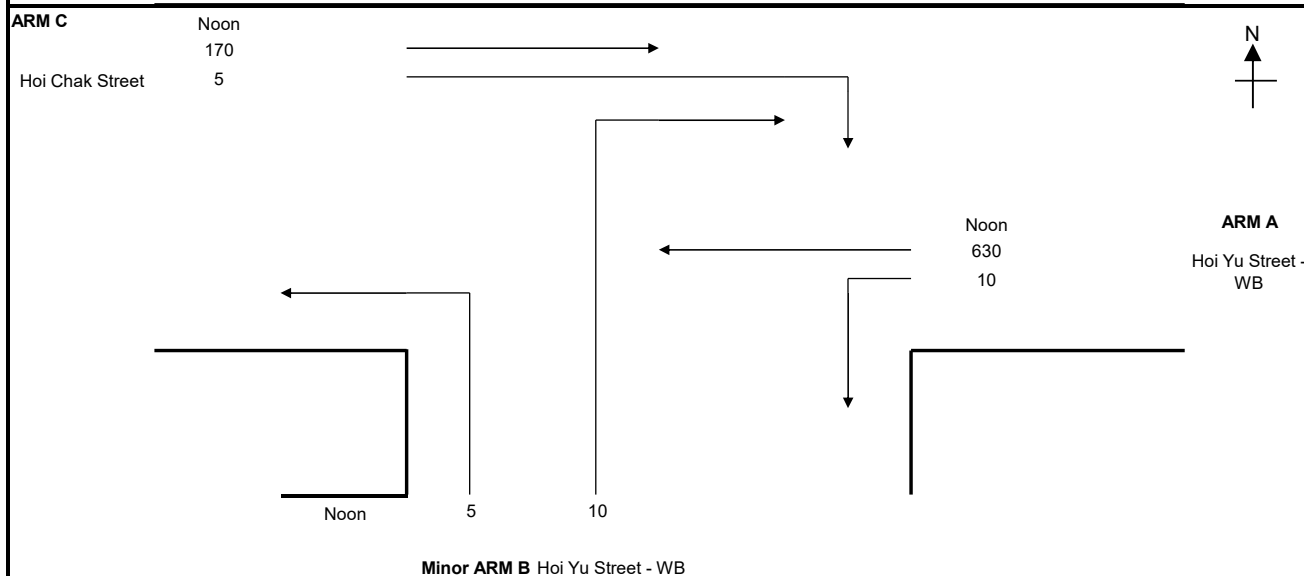
Capacity of combined streams

All the above formulas are in accordance to T.P.D.M. Vol.2 Chapter 4 Appendix 1

Simplified picority Junction Capacity Calculation



Job Title:	Hoi Yu Street TIA	Ref. No.:	J1_pic
Junction:	Hoi Yu Street/Hoi Chak Street	Designed by:	NLY
Description:	2025 Observed	Checked by:	WCY
Design Year:	2025	Job No.:	CHK50793710
		Date:	九月 2025
ARM A:	Hoi Yu Street - EB		
ARM B:	Hoi Yu Street - WB		
ARM C:	Hoi Chak Street		

**GEOMETRY**

Major road width	W	13.50	Lane widths	w(b-a)	3.25
Central Reserve width	Wcr	0.00		w(b-c)	3.25
2 Lane Minor Arm (Y/N)		N		w(c-b)	2.60

PARAMETER

Visibilities	Vr(b-a)	50	Calculated	D	0.79
	VI(b-a)	50		E	0.91
	Vr(b-c)	50		F	0.91
	Vr(c-b)	50		Y	0.56

ANALYSIS

			Noon Peak
TRAFFIC FLOWS	q(c-a)		170
	q(c-b)		5
	q(a-b)		10
	q(a-c)		630
	q(b-a)		10
	q(b-c)		5
	f		0.33
CAPACITIES	Q(b-a)	Factor 1	377
	Q(b-c)	1	560
	Q(c-b)	1	563
	Q(b-ac)	1	423
RFC's	b-a		0.027
	b-c		0.009
	c-b		0.009
	b-ac		0.035
RFC			0.035

Where VI and Vr are visibility distances to the left or right of the respective streams

$$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$$

$$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$$

$$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$$

$$Y = 1-0.0345W$$

f = proportion of minor traffic turning left

$$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$$

Capacity of combined streams

All the above formulas are in accordance to T.P.D.M. Vol.2 Chapter 4 Appendix 1

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50793710

MVA HONG KONG LIMITED

Junction: Java Road/ Hoi Yu Street

Design Year: 2025

Description: 2025 Observed

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Java Road	↖	A	1	2.4	20					1725	1725	975	0.565	0.565	545	0.316	
	→	A	1	3.2						1040	1040	449	0.432		381	0.366	0.366
	→	A	1	3.1						825	825	356	0.432		302	0.366	
	→	A	1	3.1						580	580	250	0.431		212	0.366	
Hoi Yu Street	↙	B	2	3.4	15					1905	1905	94	0.049		123	0.065	
	↘	B	2	3.4	12.5					1745	1745	86	0.049		112	0.064	
Pedestrian Crossing		Cp	2	MIN GREEN + FLASH =		8	+	10	=	18				*			*

Notes:

1. Site factor 0.5, 0.4 and 0.3 are adopted for Java Road's second, third and fourth lane respectively due to downstream blocking and illegal parking along kerbside observed.

Flow: (pcu/hr)

Group	A,B	A,Cp	Group	A,B	A,Cp
y	0.615	0.565	y	0.431	0.366
L (sec)	10	26	L (sec)	10	26
C (sec)	115	115	C (sec)	110	110
y pract.	0.822	0.697	y pract.	0.818	0.687
R.C. (%)	34%	23%	R.C. (%)	90%	88%

Stage / Phase Diagrams

1.

2.

3.

4.

5.

I/G= 4

I/G= 5

18

I/G=

I/G=

I/G=

I/G=

I/G= 4

I/G= 5

18

I/G=

I/G=

I/G=

I/G=

Date: 九月, 2025

Junction: Java Road/ Hoi Yu Street

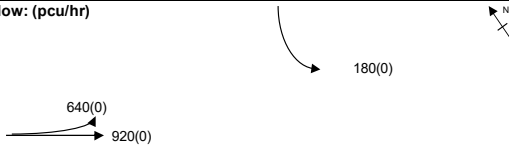
J2

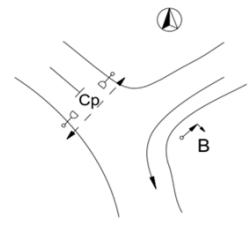
TRAFFIC SIGNALS CALCULATION

Job No.: CHK50793710 MVA HONG KONG LIMITED

Junction: Java Road/ Hoi Yu Street Design Year: 2025
Description: 2025 Observed Designed By: NLY Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		Noon Peak			N/A		
					Left	Right		Noon		Noon		Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Java Road	↖	A	1	2.4	20					1725		640	0.371	0.377			*
	→	A	1	3.2						1040		391	0.376				
	→	A	1	3.1						825		311	0.377				
	→	A	1	3.1						580		218	0.376				
Hoi Yu Street	↙	B	2	3.4	15					1905		94	0.049				*
	↙	B	2	3.4	12.5					1745		86	0.049				
Pedestrian Crossing																	
		Cp	2	MIN GREEN + FLASH =			8	+	10	=	18			*			

Notes: 1. Site factor 0.5, 0.4 and 0.3 are adopted for Java Road's second, third and fourth lane respectively due to downstream blocking and illegal parking along kerbside observed.	Flow: (pcu/hr) 		Group	A,B	A,Cp	Group		
			y	0.426	0.377	y		
			L (sec)	10	26	L (sec)		
			C (sec)	110	110	C (sec)		
			y pract.	0.818	0.687	y pract.		
			R.C. (%)	92%	82%	R.C. (%)		

Stage / Phase Diagrams				
1. 	2. 	3.	4.	5.

I/G= 4		I/G= 5	18	I/G=		I/G=		I/G=	
I/G= #N/A	#N/A	I/G= #N/A	#N/A	I/G=		I/G=		I/G=	
Date: 九月, 2025					Junction: Java Road/ Hoi Yu Street				

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50793710 MVA HONG KONG LIMITED

Junction: King's Road/ Java Road Design Year: 2025
Description: 2025 Observed Designed By: NLY Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
King's Road EB	→	A	1	5.3						2145	2145	215	0.100	0.100	185	0.086	
King's Road EB (Tram)	→	A	1	2.7						2025	2025	95	0.047		95	0.047	
Java Road	↖	C	2	3.5		30				1870	1870	242	0.129		285	0.152	0.152
	↗	C	2	4.1		32.5				2070	2070	268	0.129		315	0.152	
	↘	D	2,3	3.3	52.5					2025	2025	367	0.181		259	0.128	
	↙	D	2,3	3.3	50					1890	1890	343	0.181	0.181	241	0.128	
King's Road WB	↑	B	1,3	3.2						1935	1935	300	0.155		330	0.171	
	↑	B	1,3	3.2						2075	2075	321	0.155		355	0.171	0.171
	↑	B	1,3	3.5						1965	1965	304	0.155		335	0.170	
King's Road WB (Tram)	↑	B	1,3	2.3						1845	1845	95	0.051		85	0.046	
Pedestrian Crossing																	
		Ep	1,3	MIN GREEN + FLASH =		5	+	7	=	12							
		Fp	1	MIN GREEN + FLASH =		5	+	9	=	14							
		Gp	2,3	MIN GREEN + FLASH =		5	+	5	=	10							
		Hp	2	MIN GREEN + FLASH =		5	+	13	=	18							

Notes:	Flow: (pcu/hr)		Group	B,C	A,D	Group	A,D	B,C
			y	0.285	0.282	y	0.214	0.323
			L (sec)	10	12	L (sec)	12	10
			C (sec)	115	115	C (sec)	110	110
			y pract.	0.822	0.806	y pract.	0.802	0.818
			R.C. (%)	189%	186%	R.C. (%)	274%	153%

Stage / Phase Diagrams									
1. 	2. 	3. 	4.	5.					
I/G= 5	I/G= 9	I/G=	I/G=	I/G=					
I/G=	I/G= 5	I/G= 7	I/G=	I/G=					

Date: 九月, 2025 Junction: King's Road/ Java Road J3

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50793710

MVA HONG KONG LIMITED

Junction: King's Road/ Java Road

Design Year: 2025

Description: 2025 Observed

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		Noon Peak			N/A		
					Left	Right		Noon		Noon		Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
King's Road EB	→	A	1	5.3						2145		170	0.079				*
King's Road EB (Tram)	→	A	1	2.7						2025		100	0.049				
Java Road	↖	C	2	3.5		30				1870		249	0.133	0.133			*
	↗	C	2	4.1		32.5				2070		276	0.133				
	↘	D	2,3	3.3	52.5					2025		279	0.138				
	↙	D	2,3	3.3	50					1890		261	0.138				
King's Road WB	↑	B	1,3	3.2						1935		283	0.146	0.147			
	↑	B	1,3	3.2						2075		304	0.147				
	↑	B	1,3	3.5						1965		288	0.147				
King's Road WB (Tram)	↑	B	1,3	2.3						1845		95	0.051				
Pedestrian Crossing																	
		Ep	1,3	MIN GREEN + FLASH =			5	+	7	=	12						
		Fp	1	MIN GREEN + FLASH =			5	+	9	=	14						
		Gp	2,3	MIN GREEN + FLASH =			5	+	5	=	10						
		Hp	2	MIN GREEN + FLASH =			5	+	13	=	18						

Notes:	Flow: (pcu/hr)			Group	A,D	B,C	Group		
				y	0.217	0.280	y		
				L (sec)	12	10	L (sec)		
				C (sec)	110	110	C (sec)		
				y pract.	0.802	0.818	y pract.		
				R.C. (%)	269%	192%	R.C. (%)		

Stage / Phase Diagrams				
1.	2.	3.	4.	5.

I/G=	I/G= 5	I/G= 7	I/G=	I/G=
I/G= #N/A	I/G= #N/A	I/G= #N/A	I/G=	I/G=

Date: 九月, 2025	Junction: King's Road/ Java Road	J3
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TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: Hoi Tai Street/ Hoi Kwong Street/ Finnie Street/ Hoi Chak Street

Design Year: 2025

Description: 2025 Observed

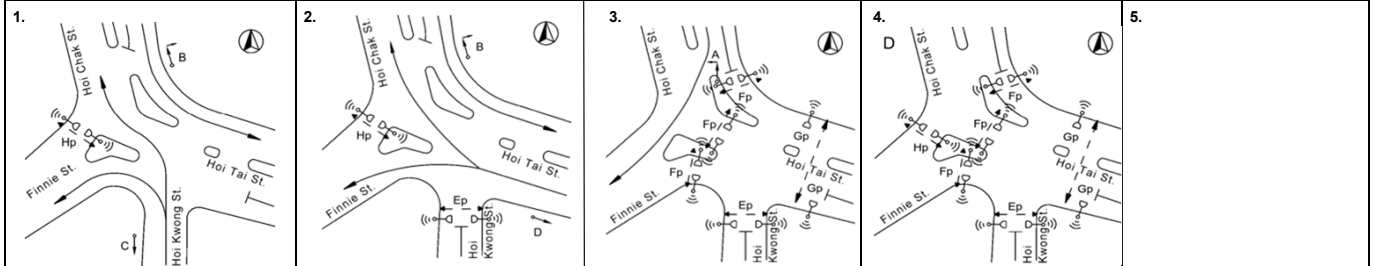
Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Hoi Tai Street	↗	D	2	3.5		40				2030	2030	80	0.039		140	0.069	
	↘	D	2	3.6	20					1835	1835	335	0.183		465	0.253	0.253
Hoi Kwong Street	↖	C	1	3.6	15			83%	91%	1825	1810	115	0.063		160	0.088	0.088
Hoi Chak Street	↗	B	1,2	3.1	35					1845	1845	755	0.409	0.409	450	0.244	
	↘	A	3	3.5		30				2005	2005	70	0.035		65	0.032	
Pedestrian Crossing Ep 2,3,4 MIN GREEN + FLASH = 8 + 5 = 13 Fp 3,4 MIN GREEN + FLASH = 9 + 7 = 16 Gp 3,4 MIN GREEN + FLASH = 8 + 10 = 18 Hp 1,2,4 MIN GREEN + FLASH = 5 + 7 = 12																	

Notes:	Flow: (pcu/hr)		Group	B,Fp	B,Gp	Group	C,D,Fp	C,D,Gp
			y	0.409	0.409	y	0.342	0.342
			L (sec)	26	27	L (sec)	33	34
			C (sec)	115	115	C (sec)	110	110
			y pract.	0.697	0.689	y pract.	0.630	0.622
			R.C. (%)	70%	68%	R.C. (%)	84%	82%

Stage / Phase Diagrams



I/G= 2		I/G=		I/G= 8	18	I/G=		I/G=	
I/G= 2		I/G= 6		I/G= 10	18	I/G=		I/G=	

Date: 九月, 2025 Junction: Hoi Tai Street/ Hoi Kwong Street/ Finnie J4

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: Hoi Tai Street/ Hoi Kwong Street/ Finnie Street/ Hoi Chak Street

Design Year: 2025

Description: 2025 Observed

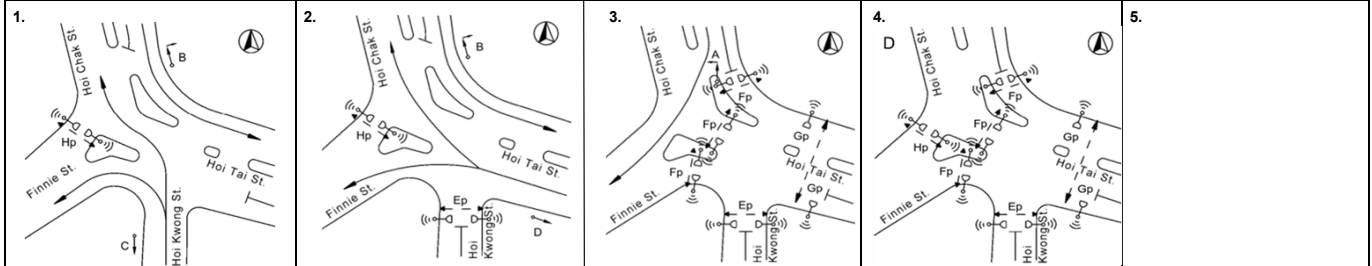
Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		Noon Peak			N/A		
					Left	Right		Noon		Noon		Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Hoi Tai Street	↑	D	2	3.5		40				2030		90	0.044				
	↓	D	2	3.6	20					1835		380	0.207	0.207			
Hoi Kwong Street	↖	C	1	3.6	15			77%		1835		130	0.071	0.071			
Hoi Chak Street	↗	B	1,2	3.1	35					1845		435	0.236				*
	↘	A	3	3.5		30				2005		75	0.037				
Pedestrian Crossing																	
		Ep	2,3,4	MIN GREEN + FLASH =			8	+	5	=	13						
		Fp	3,4	MIN GREEN + FLASH =			9	+	7	=	16						*
		Gp	3,4	MIN GREEN + FLASH =			8	+	10	=	18			*			
		Hp	1,2,4	MIN GREEN + FLASH =			5	+	7	=	12						

Notes:	Flow: (pcu/hr)		Group	C,D,Fp	C,D,Gp	Group		
			y	0.278	0.278	y		
			L (sec)	33	34	L (sec)		
			C (sec)	110	110	C (sec)		
			y pract.	0.630	0.622	y pract.		
			R.C. (%)	127%	124%	R.C. (%)		

Stage / Phase Diagrams



I/G= 2	I/G= 6	I/G= 10	18	I/G=	I/G=
I/G= #N/A	I/G= #N/A	I/G= #N/A	#N/A	I/G= #N/A	I/G= #N/A

Date: 九月, 2025 Junction: Hoi Tai Street/ Hoi Kwong Street/ Finnie Street **J4**

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: King's Road/ Finnie Street

Design Year: 2025

Description: 2025 Observed

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
King's Road NB (with Tram)	↑	C	1	3.0						1915	1915	204	0.107		202	0.105	
	↑	C	1	3.3						2085	2085	222	0.106		221	0.106	
	↑	C	1	3.5						2105	2105	224	0.106		222	0.105	
Finnie Street	↑	D	3	3.5	10	20		51% / 49%	50% / 50%	1765	1765	225	0.127		389	0.220	
	↑	D	3	3.5		22.5				1840	1840	235	0.128	0.128	406	0.221	0.221
King's Road SB	↓	A	1,2	3.7						1985	1985	412	0.208		405	0.204	0.204
	↓	A	1,2	3.3						2085	2085	433	0.208	0.208	425	0.204	
King's Road SB (Tram)	↓	A	1,2	2.6						2015	2015	95	0.047		85	0.042	
Pedestrian Crossing Ep 1,2 MIN GREEN + FLASH = 5 + 7 = 12 Fp 3 MIN GREEN + FLASH = 5 + 6 = 11 Gp 2 MIN GREEN + FLASH = 5 + 6 = 11																	

Notes:	Flow: (pcu/hr) 555(560) 845(830) 95(85) 95(85) Tram Tram 345(600) 115(195) N	Group	C,Gp,D	A,D	Group	C,Gp,D	A,D
		y	0.234	0.335	y	0.327	0.425
		L (sec)	27	10	L (sec)	27	10
		C (sec)	115	115	C (sec)	110	110
		y pract.	0.689	0.822	y pract.	0.679	0.818
		R.C. (%)	194%	145%	R.C. (%)	108%	93%

Stage / Phase Diagrams					
1.	2.	3.	4.	5.	
I/G= 7	I/G=	I/G= 5	I/G=	I/G=	I/G=
I/G= 7	I/G=	I/G= 5	I/G=	I/G=	I/G=

Date: 九月, 2025 Junction: King's Road/ Finnie Street J5

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: King's Road/ Finnie Street

Design Year: 2025

Description: 2025 Observed

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		Noon Peak			N/A		
					Left	Right		Noon		Noon		Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
King's Road NB (with Tram)	↑	C	1	3.0						1915		169	0.088				
	↑	C	1	3.3						2085		185	0.089				
	↑	C	1	3.5						2105		186	0.088				
Finnie Street	↑	D	3	3.5	10	20		54% / 46%		1760		267	0.152	0.152			*
	↑	D	3	3.5		22.5				1840		278	0.151				
King's Road SB	↓	A	1,2	3.7						1985		322	0.162	0.162			*
	↓	A	1,2	3.3						2085		338	0.162				
King's Road SB (Tram)	↓	A	1,2	2.6						2015		95	0.047				
Pedestrian Crossing Ep 1,2 MIN GREEN + FLASH = 5 + 7 = 12 Fp 3 MIN GREEN + FLASH = 5 + 6 = 11 Gp 2 MIN GREEN + FLASH = 5 + 6 = 11																	

Notes:	Flow: (pcu/hr)		Group	C,Gp,D	A,D	Group		
			y	0.240	0.314	y		
			L (sec)	27	10	L (sec)		
			C (sec)	110	110	C (sec)		
			y pract.	0.679	0.818	y pract.		
			R.C. (%)	183%	161%	R.C. (%)		

Stage / Phase Diagrams				
1.	2.	3.	4.	5.

I/G= 7	I/G=	I/G= 5	I/G=	I/G=
I/G= #N/A	I/G= #N/A	I/G= #N/A	I/G=	I/G=
Date: 九月, 2025		Junction: King's Road/ Finnie Street		

J5

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50793710 MVA HONG KONG LIMITED

Junction: King's Road/ Model Lane Design Year: 2025
Description: 2025 Observed Designed By: NLY Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
King's Road EB	→	A	1	5.500						2165	2165	215	0.099		185	0.085	
King's Road EB(Tram)	→	A	1	2.200						1975	1975	95	0.048		95	0.048	
King's Road WB	←	A	1	3.200						2075	2075	594	0.286	0.286	671	0.323	0.323
free flow	↙	A	1	3.300						2085	2085	596	0.286		674	0.323	
	↘			3.300	8					1640	1640	245	0.149		275	0.168	
King's Road WB(Tram)	←	A	1	3.200						2075	2075	95	0.046		85	0.041	
Pedestrian Crossing Bp 2 MIN GREEN + FLASH = 13 + 7 = 20 *																	

Notes:	Flow: (pcu/hr)		Group		A,Bp	Group		A,Bp
			y		0.286	y		0.323
			L (sec)		28	L (sec)		28
			C (sec)		115	C (sec)		110
			y pract.		0.681	y pract.		0.671
			R.C. (%)		138%	R.C. (%)		107%

Stage / Phase Diagrams								
1.	2.	3.	4.	5.				
I/G= 4	I/G= 5	20	I/G=		I/G=		I/G=	
I/G= 4	I/G= 5	20	I/G=		I/G=		I/G=	

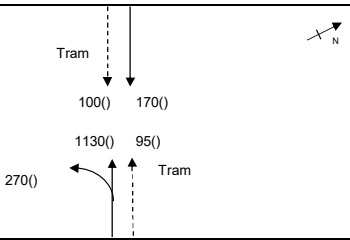
Date: 九月, 2025 Junction: King's Road/ Model Lane J6

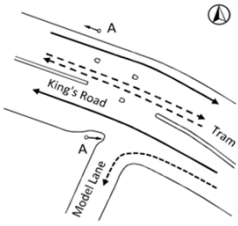
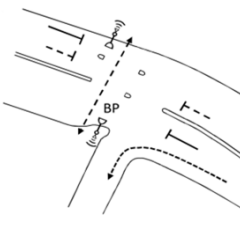
TRAFFIC SIGNALS CALCULATION

Job No.: CHK50793710 MVA HONG KONG LIMITED

Junction: King's Road/ Model Lane Design Year: 2025
Description: 2025 Observed Designed By: NLY Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		Noon Peak			N/A		
					Left	Right		Noon		Noon		Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
King's Road EB	→	A	1	5.500						2165		170	0.079				*
King's Road EB(Tram)	→	A	1	2.200						1975		100	0.051				
King's Road WB	←	A	1	3.200						2075		564	0.272	0.272			
free flow	↙	A	1	3.300						2085		566	0.271				
	↘			3.300	8					1640		270	0.165				
King's Road WB(Tram)	←	A	1	3.200						2075		95	0.046				
Pedestrian Crossing Bp 2 MIN GREEN + FLASH = 13 + 7 = 20 *																	

Notes:	Flow: (pcu/hr) 	Group		A,Bp	Group		
		y		0.272	y		
		L (sec)		28	L (sec)		
		C (sec)		110	C (sec)		
		y pract.		0.671	y pract.		
		R.C. (%)		147%	R.C. (%)		

Stage / Phase Diagrams							
1. 	2. 	3.	4.	5.			
I/G= 4	I/G= 5	I/G=	I/G=	I/G=			
I/G= #N/A	I/G= #N/A	I/G=	I/G=	I/G=			

Date: 九月, 2025 Junction: King's Road/ Model Lane J6

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: Java Road/ Man Hong Street

Design Year: 2025

Description: 2025 Observed

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Java Road EB	→	A	1	3.000	12					1700	1700	231	0.136	0.136	257	0.151	0.151
	↘	A	1	3.000	15			100%	95%	1870	1875	254	0.136		271	0.144	
	→	A	1	3.000		18		3%	4%	2050	2045	278	0.136		295	0.144	
	↙	A	1	3.000		17				1890	1890	257	0.136		277	0.146	
Man Hong Street SB	↓	B	2,3	3.200						2075	2075	386	0.186		328	0.158	
	↓	B	2,3	3.400						2095	2095	389	0.186		332	0.158	
	↘	B	2,3	3.800	12					1775	1775	390	0.220		300	0.169	
Man Hong Street NB	↗	C	3	6.300		10		8%	7%	2105	2110	390	0.185	0.185	360	0.171	0.171
Pedestrian Crossing		Dp	2,3	MIN GREEN + FLASH =		5	+	12	=	17							
		Ep	1	MIN GREEN + FLASH =		6	+	10	=	16							
		Fp	2	MIN GREEN + FLASH =		5	+	8	=	13				*			*

Notes: Opposing factor of 0.5 has been adopted on Man Hong Street NB due to the presence of opposite movement on right turn	Flow: (pcu/hr) 		Group	A,B	A,Fp,C	Group	A,B	A,Fp,C
			y	0.356	0.321	y	0.320	0.322
			L (sec)	16	30	L (sec)	16	30
			C (sec)	115	115	C (sec)	110	110
			y pract.	0.775	0.665	y pract.	0.769	0.655
			R.C. (%)	118%	107%	R.C. (%)	140%	103%

Stage / Phase Diagrams								
1. 	2. 	3. 	4. 	5. 				
I/G= 7	I/G= 8	13	I/G= 4		I/G=		I/G=	
I/G= 7	I/G= 8	13	I/G= 4		I/G=		I/G=	

Date: 九月, 2025 Junction: Java Road/ Man Hong Street

J7

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: Java Road/ Man Hong Street

Design Year: 2025

Description: 2025 Observed

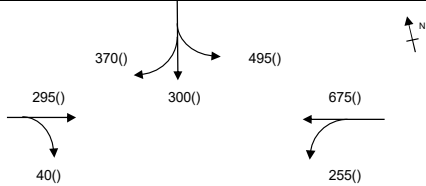
Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		Noon Peak			N/A		
					Left	Right		Noon		Noon		Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Java Road EB	→	A	1	3.000	12					1700		264	0.155				*
	↘	A	1	3.000	15			78%		1905		296	0.155	0.155			
	→	A	1	3.000		18		25%		2015		312	0.155				
	↙	A	1	3.000		17				1890		293	0.155				
Man Hong Street SB	↓	B	2,3	3.200						2075		336	0.162				*
	↓	B	2,3	3.400						2095		339	0.162				
	↙	B	2,3	3.800	12					1775		255	0.144				
Man Hong Street NB	↑	C	3	6.300		10		12%		2095		335	0.160	0.160			
Pedestrian Crossing	Dp	2,3		MIN GREEN + FLASH =	5			+	12	=	17						
	Ep	1		MIN GREEN + FLASH =	6			+	10	=	16						
	Fp	2		MIN GREEN + FLASH =	5			+	8	=	13			*			

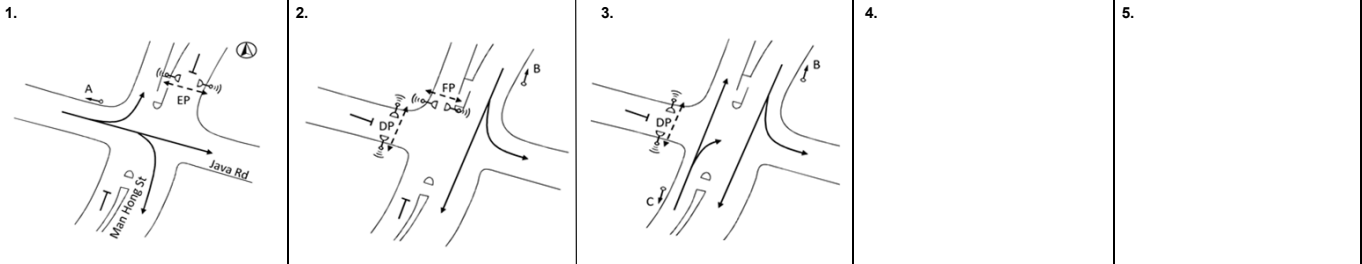
Notes:
Opposing factor of 0.5 has been adopted on Man Hong Street NB due to the presence of opposite movement on right turn

Flow: (pcu/hr)



Group	A,B	A,Fp,C	Group		
y	0.317	0.315	y		
L (sec)	16	30	L (sec)		
C (sec)	110	110	C (sec)		
y pract.	0.769	0.655	y pract.		
R.C. (%)	143%	108%	R.C. (%)		

Stage / Phase Diagrams



I/G= 7	I/G= 8	13	I/G= 4	I/G=	I/G=
I/G= #N/A	I/G= #N/A	I/G= #N/A	I/G= #N/A	I/G= #N/A	I/G= #N/A

Date: 九月, 2025 Junction: Java Road/ Man Hong Street

J7

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: King's Road/ Healthy Street West/ Man Hong Street

Design Year: 2025

Description: 2025 Observed

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
King's Road EB	→	A	1,2	3.300						1945	1945	70	0.036		60	0.031	
King's Road EB(Tram)	→	A	1,2	3.500						2105	2105	75	0.036		65	0.031	
King's Road WB	←	B	1	3.400	8			80%	72%	2005	2005	95	0.047		95	0.047	
King's Road WB(Tram)	←	B	1	3.400						1710	1730	249	0.146		244	0.141	
Man Hong Street SB	↓	At	1,2	2.700						2095	2095	306	0.146	0.146	296	0.141	0.141
Man Hong Street SB	↓	D	4	3.300						2025	2025	95	0.047		85	0.042	
Man Hong Street SB	↓	D	4	3.500		40		40%	28%	1945	1945	298	0.153		285	0.147	
Man Hong Street SB	↓	D	4	3.500		35				2075	2085	318	0.153	0.153	304	0.146	
Man Hong Street SB	↓	D	4	3.500						2020	2020	309	0.153		296	0.147	0.147
Pedestrian Crossing	Ep	3,4	MIN GREEN + FLASH =	7	+	6	=	13									
Pedestrian Crossing	Fp	2,3	MIN GREEN + FLASH =	5	+	10	=	15						*			*
Pedestrian Crossing	Gp	2,3,4	MIN GREEN + FLASH =	5	+	6	=	11									
Pedestrian Crossing	Hp	1,2,3	MIN GREEN + FLASH =	5	+	9	=	14									

Notes:	Flow: (pcu/hr)	Group	Hp,D	B,Fp,D	Group	Hp,D	B,Fp,D
		y	0.153	0.299	y	0.147	0.288
		L (sec)	24	35	L (sec)	24	35
		C (sec)	115	115	C (sec)	110	110
		y pract.	0.712	0.626	y pract.	0.704	0.614
		R.C. (%)	365%	109%	R.C. (%)	380%	113%

Stage / Phase Diagrams							
1.	2.	3.	4.	5.			
I/G= 11	I/G= 9	15	I/G=	I/G= 2	I/G=	I/G=	
I/G= 11	I/G= 9	15	I/G=	I/G= 2	I/G=	I/G=	

Date: 九月, 2025 Junction: King's Road/ Healthy Street West/ Man Hong Street J8

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: King's Road/ Healthy Street West/ Man Hong Street

Design Year: 2025

Description: 2025 Observed

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		Noon Peak			N/A		
					Left	Right		Noon		Noon		Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
King's Road EB	→	A	1,2	3.300						1945		60	0.031				*
King's Road EB(Tram)	→	A	1,2	3.500						2105		65	0.031				
King's Road WB	←	B	1	3.400	8			74%		1725		244	0.141	0.141			
King's Road WB(Tram)	←	B	1	3.400						2095		296	0.141				
Man Hong Street SB	↓	At	1,2	2.700						2025		95	0.047				
Man Hong Street SB	↓	D	4	3.300						1945		313	0.161				
Man Hong Street SB	↓	D	4	3.500		40		22%		2090		337	0.161	0.161			
Man Hong Street SB	↓	D	4	3.500		35				2020		325	0.161				
Pedestrian Crossing																	
Ep		3,4	MIN GREEN + FLASH =		7	+	6	=	13								*
Fp		2,3	MIN GREEN + FLASH =		5	+	10	=	15								
Gp		2,3,4	MIN GREEN + FLASH =		5	+	6	=	11								
Hp		1,2,3	MIN GREEN + FLASH =		5	+	9	=	14								

Notes:	Flow: (pcu/hr)					Group	Hp,D	B,Fp,D	Group		
						y	0.161	0.303	y		
						L (sec)	24	35	L (sec)		
						C (sec)	110	110	C (sec)		
						y pract.	0.704	0.614	y pract.		
						R.C. (%)	336%	103%	R.C. (%)		

Stage / Phase Diagrams									
1.	2.	3.	4.	5.					
I/G= 11	I/G= 9	I/G=	I/G= 2	I/G=					
I/G= #N/A	I/G= #N/A	I/G= #N/A	I/G= #N/A	I/G= #N/A					

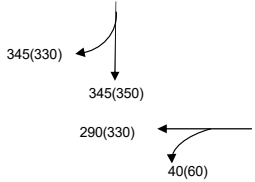
Date: 九月, 2025 Junction: King's Road/ Healthy Street West/ Man Hong Street J8

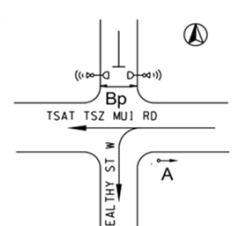
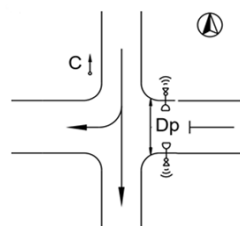
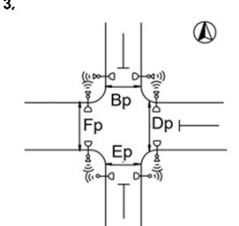
TRAFFIC SIGNALS CALCULATION

Job No.: CHK50793710 MVA HONG KONG LIMITED

Junction: Tsat Tsz Mui Road/ Healthy Street West Design Year: 2025
Description: 2025 Observed Designed By: NLY Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Tsat Tsz Mui Road WB		A	1	3.800	10			26%	33%	1920	1900	156	0.081		184	0.097	0.097
		A	1	3.800						2135	2135	174	0.081	0.081	206	0.096	
Healthy Street West SB		C	2	2.500						1865	1865	227	0.122		223	0.120	
		C	2	3.300		13		51%	46%	1970	1980	239	0.121		237	0.120	0.120
		C	2	3.600		10				1840	1840	224	0.122	0.122	220	0.120	
Pedestrian Crossing	Bp	1,3	MIN GREEN + FLASH =		5		+	9	=	14							
	Dp	2,3	MIN GREEN + FLASH =		5		+	8	=	13							
	Ep	3	MIN GREEN + FLASH =		5		+	9	=	14				*			*
	Fp	3	MIN GREEN + FLASH =		5		+	8	=	13							

Notes:	Flow: (pcu/hr) 	Group	A,C,Fp	A,C,Ep	Group	A,C,Fp	A,C,Ep
		y	0.203	0.203	y	0.217	0.217
		L (sec)	28	29	L (sec)	28	29
		C (sec)	115	115	C (sec)	110	110
		y pract.	0.681	0.673	y pract.	0.671	0.663
		R.C. (%)	235%	231%	R.C. (%)	210%	206%

Stage / Phase Diagrams							
1. 	2. 	3. 	4.	5.			
I/G= 4	I/G= 6	I/G= 7	14	I/G=	I/G=	I/G=	
I/G= 4	I/G= 6	I/G= 7	14	I/G=	I/G=	I/G=	

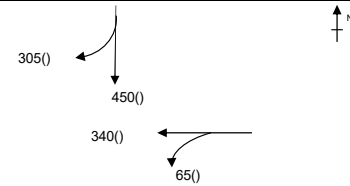
Date: 九月, 2025 Junction: Tsat Tsz Mui Road/ Healthy Street West J9

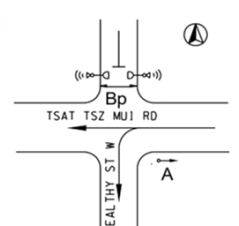
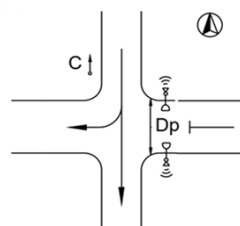
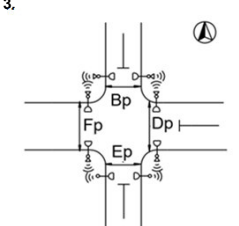
TRAFFIC SIGNALS CALCULATION

Job No.: CHK50793710 MVA HONG KONG LIMITED

Junction: Tsat Tsz Mui Road/ Healthy Street West Design Year: 2025
Description: 2025 Observed Designed By: NLY Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		Noon Peak			N/A		
					Left	Right		Noon		Noon		Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Tsat Tsz Mui Road WB	↔	A	1	3.800	10			34%		1900		191	0.101	0.101			*
	←	A	1	3.800						2135		214	0.100				
Healthy Street West SB	↓	C	2	2.500				24%		1865		246	0.132	0.132			*
	↘	C	2	3.300		13				2030		267	0.132				
	↙	C	2	3.600		10				1840		242	0.132				
Pedestrian Crossing		Bp	1,3	MIN GREEN + FLASH =		5	+	9	=	14					*		*
		Dp	2,3	MIN GREEN + FLASH =		5	+	8	=	13							
		Ep	3	MIN GREEN + FLASH =		5	+	9	=	14							
		Fp	3	MIN GREEN + FLASH =		5	+	8	=	13							

Notes:	Flow: (pcu/hr) 		Group	A,C,Fp	A,C,Ep	Group		
			y	0.232	0.232	y		
			L (sec)	28	29	L (sec)		
			C (sec)	110	110	C (sec)		
			y pract.	0.671	0.663	y pract.		
			R.C. (%)	189%	185%	R.C. (%)		

Stage / Phase Diagrams				
1. 	2. 	3. 	4.	5.

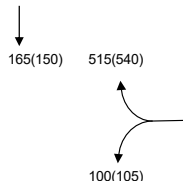
I/G= 4	I/G= 6	I/G= 7	14	I/G=	I/G=
I/G= #N/A	I/G= #N/A	I/G= #N/A	#N/A	I/G=	I/G=
				Date: 九月, 2025	Junction: Tsat Tsz Mui Road/ Healthy Street West J9

TRAFFIC SIGNALS CALCULATION

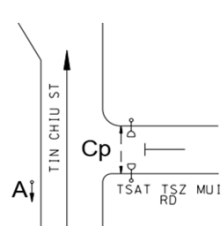
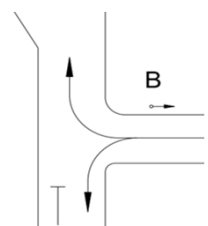
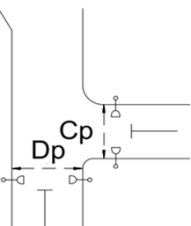
Job No.: CHK50793710 MVA HONG KONG LIMITED

Junction: Tsat Tsz Mui Road/ Tin Chiu Street Design Year: 2025
Description: 2025 Observed Designed By: NLY Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Tin Chiu Street NB	↓	A	1	3.900						2005	2005	165	0.082	0.082	150	0.075	0.075
Tsat Tsz Mui Road WB	↖ ↗	B B	2 2	4.100 4.100	6	13		34% / 66%	34% / 66%	1745	1745	291 324	0.167 0.167		305 340	0.175 0.175	
Pedestrian Crossing																	
		Cp	1,3	MIN GREEN + FLASH =		10	+	9	=	19							
		Dp	3	MIN GREEN + FLASH =		7	+	9	=	16				*			*

Notes:	Flow: (pcu/hr)		Group	Cp,B	A,B,Dp	Group	Cp,B	A,B,Dp
			y	0.167	0.249	y	0.175	0.250
			L (sec)	27	32	L (sec)	27	32
			C (sec)	115	115	C (sec)	110	110
			y pract.	0.689	0.650	y pract.	0.679	0.638
			R.C. (%)	312%	161%	R.C. (%)	287%	155%
								

Stage / Phase Diagrams

1. 	2. 	3. 	4.	5.
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I/G= 4	I/G= 6	I/G= 8	16	I/G=	I/G=
I/G= 4	I/G= 6	I/G= 8	16	I/G=	I/G=

Date: 九月, 2025 Junction: Tsat Tsz Mui Road/ Tin Chiu Street J10

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50793710 MVA HONG KONG LIMITED

Junction: Tsat Tsz Mui Road/ Tin Chiu West Design Year: 2025
Description: 2025 Observed Designed By: NLY Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		Noon Peak			N/A		
					Left	Right		Noon		Noon		Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Tin Chiu Street NB	↓	A	1	3.900						2005		180	0.090	0.090			*
Tsat Tsz Mui Road WB	↖ ↗	B B	2 2	4.100 4.100	6	13		49% / 51%		1715 1940		298 337	0.174 0.174	0.174			*
Pedestrian Crossing		Cp Dp	1,3 3	MIN GREEN + FLASH = MIN GREEN + FLASH =	10 7			+ +	9 9	= =	19 16			*			*

Notes:	Flow: (pcu/hr) 	Group	Cp,B	A,B,Dp	Group		
		y	0.174	0.264	y		
		L (sec)	27	32	L (sec)		
		C (sec)	110	110	C (sec)		
		y pract.	0.679	0.638	y pract.		
		R.C. (%)	291%	142%	R.C. (%)		

Stage / Phase Diagrams							
1. 	2. 	3. 	4.	5.			
I/G= 4	I/G= 6	I/G= 8	16	I/G=	I/G=	I/G=	
I/G= #N/A	I/G= #N/A	I/G= #N/A	#N/A	I/G=	I/G=	I/G=	

Date: 九月, 2025 Junction: Tsat Tsz Mui Road/ Tin Chiu West J110

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: King's Road/ Tin Chiu Street

Design Year: 2025

Description: 2025 Observed

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
King's Road EB	→	A	1	3.200	12			13%	11%	1905	1910	225	0.118		225	0.118	
King's Road EB(Tram)	→	A	1	2.700						2025	2025	95	0.047		95	0.047	
King's Road WB	←	B	1	3.300						1945	1945	250	0.129	0.129	235	0.121	
	←	B	1	3.500						2105	2105	270	0.128		255	0.121	0.121
	←	B	1	3.500						2105	2105	270	0.128		255	0.121	
King's Road WB(Tram)	←	Dt	1	2.400						1995	1995	95	0.048		85	0.043	
Tin Chiu Street NB	↑	C	2	3.300	12					1730	1730	145	0.084		110	0.064	
	↑	C	2	3.500	12			57%	51%	1965	1980	195	0.099		295	0.149	
	↑	C	2	3.500		12				1870	1870	340	0.182	0.182	285	0.152	0.152
Pedestrian Crossing		Ep	1	MIN GREEN + FLASH =		6	+	12	=	18							
		Fp	2	MIN GREEN + FLASH =		5	+	9	=	14							

Notes:	Flow: (pcu/hr)	Group	A,C	B,C	Group	A,C	B,C
		y			y		
			0.300	0.310		0.270	0.274
		L (sec)	10	11	L (sec)	10	11
		C (sec)	115	115	C (sec)	110	110
		y pract.	0.822	0.814	y pract.	0.818	0.810
		R.C. (%)	174%	162%	R.C. (%)	203%	196%

Stage / Phase Diagrams							
1.	2.	3.	4.	5.			
I/G= 6	I/G= 7	I/G=	I/G=	I/G=	I/G=	I/G=	I/G=
I/G= 6	I/G= 7	I/G=	I/G=	I/G=	I/G=	I/G=	I/G=

Date: 九月, 2025 Junction: King's Road/ Tin Chiu Street J11

Junction: <u>King's Road/ Tin Chiu Street</u>	Design Year: <u>2025</u>
Description: <u>2025 Observed</u>	Designed By: <u>NLY</u> Checked By: <u>WCY</u>

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		Noon Peak			N/A		
					Left	Right		Noon		Noon		Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
King's Road EB		A	1	3.200	12			12%		1905		215	0.113				*
King's Road EB(Tram)		A	1	2.700						2025		100	0.049				
King's Road WB		B	1	3.300						1945		240	0.123				
		B	1	3.500						2105		260	0.124	0.124			
		B	1	3.500						2105		260	0.124				
King's Road WB(Tram)		Dt	1	2.400						1995		95	0.048				
Tin Chiu Street NB		C	2	3.300	12					1730		150	0.087				*
		C	2	3.500	12			63%		1950		250	0.128				
		C	2	3.500		12				1870		270	0.144	0.144			
Pedestrian Crossing		Ep	1	MIN GREEN + FLASH =			6	+	12	=	18						
		Fp	2	MIN GREEN + FLASH =			5	+	9	=	14						

Notes:	Flow: (pcu/hr)	Group	A,C	B,C	Group		
		y	0.257	0.268	y		
		L (sec)	10	11	L (sec)		
		C (sec)	110	110	C (sec)		
		y pract.	0.818	0.810	y pract.		
		R.C. (%)	218%	202%	R.C. (%)		

1.	2.	3.
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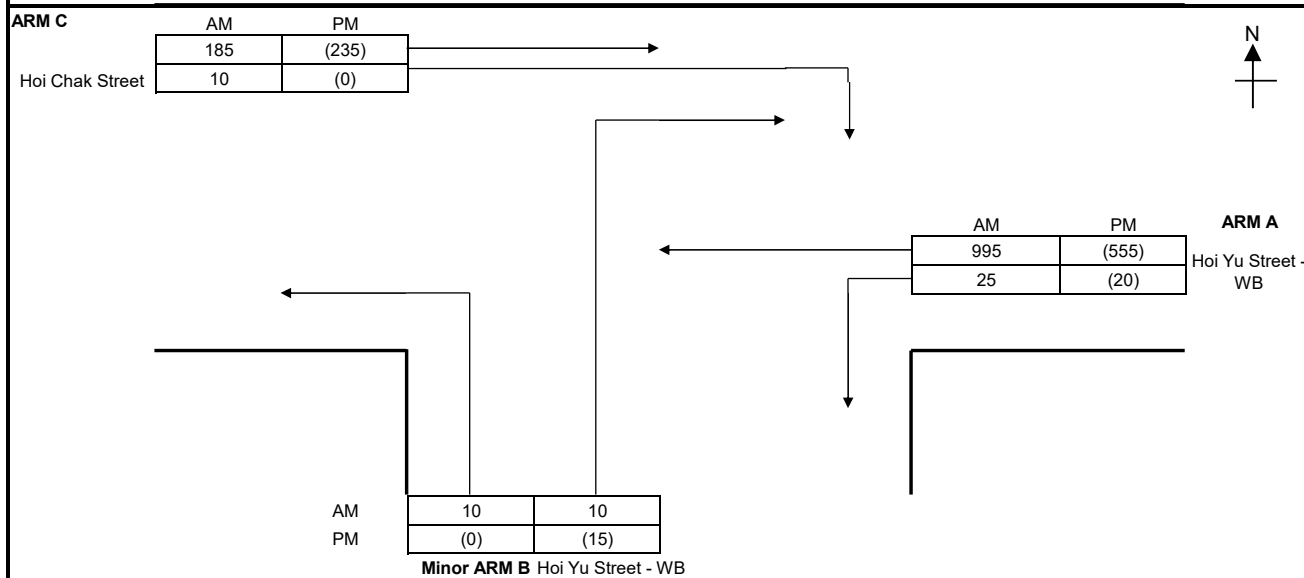
I/G= 6		I/G= 7		I/G=		I/G=		I/G=	
I/G= #N/A	#N/A	I/G= #N/A	#N/A	I/G=		I/G=		I/G=	
						Date: 九月, 2025		Junction: King's Road/ Tin Chiu Street	

Calculation Sheets - 2033 Reference Year

Simplified picority Junction Capacity Calculation



Job Title:	Hoi Yu Street TIA	Ref. No.:	J1_pic
Junction:	Hoi Yu Street/Hoi Chak Street	Designed by:	NLY
Description:	2033 Reference	Checked by:	WCY
Design Year:	2025	Job No.:	CHK50793710
		Date:	九月 2025
ARM A:	Hoi Yu Street - EB		
ARM B:	Hoi Yu Street - WB		
ARM C:	Hoi Chak Street		

**GEOMETRY**

Major road width	W	13.50	Lane widths	w(b-a)	3.25
Central Reserve width	Wcr	0.00		w(b-c)	3.25
2 Lane Minor Arm (Y/N)		N		w(c-b)	2.60

PARAMETER

Visibilities	Vr(b-a)	50	Calculated	D	0.79
	VI(b-a)	50		E	0.91
	Vr(b-c)	50		F	0.91
	Vr(c-b)	50		Y	0.56

ANALYSIS

			AM Peak	PM Peak
TRAFFIC FLOWS	q(c-a)		185	235
	q(c-b)		10	0
	q(a-b)		25	20
	q(a-c)		995	555
	q(b-a)		10	15
	q(b-c)		10	0
	f		0.50	0.00
CAPACITIES	Q(b-a)	Factor 1	315	382
	Q(b-c)	1	492	573
	Q(c-b)	1	493	575
	Q(b-ac)	1	384	382
RFC's	b-a		0.032	0.039
	b-c		0.020	0.000
	c-b		0.020	0.000
	b-ac		0.052	0.039
RFC			0.052	0.039

Where VI and Vr are visibility distances to the left or right of the respective streams

$$D = (1 + 0.094(w(b-a) - 3.65))(1 + 0.0009(Vr(b-a) - 120))(1 + 0.0006(VI(b-a) - 150))$$

$$E = (1 + 0.094(w(b-c) - 3.65))(1 + 0.0009(Vr(b-c) - 120))$$

$$F = (1 + 0.094(w(c-b) - 3.65))(1 + 0.0009(Vr(c-b) - 120))$$

$$Y = 1 - 0.0345W$$

f = proportion of minor traffic turning left

$$Q(b-ac) = Q(b-c) * Q(b-a) / ((1-f) * Q(b-c) + f * Q(b-a))$$

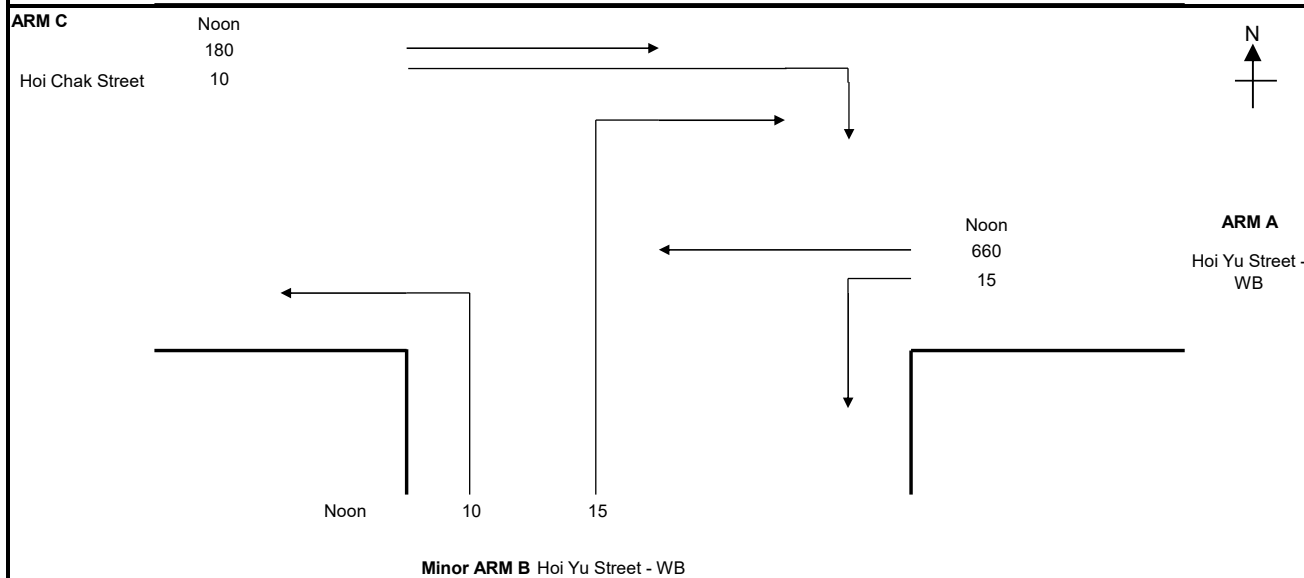
Capacity of combined streams

All the above formulas are in accordance to T.P.D.M. Vol.2 Chapter 4 Appendix 1

Simplified picority Junction Capacity Calculation



Job Title:	Hoi Yu Street TIA	Ref. No.:	J1_pic
Junction:	Hoi Yu Street/Hoi Chak Street	Designed by:	NLY
Description:	2033 Reference	Checked by:	WCY
Design Year:	2025	Job No.:	CHK50793710
		Date:	九月 2025
ARM A:	Hoi Yu Street - EB		
ARM B:	Hoi Yu Street - WB		
ARM C:	Hoi Chak Street		



GEOMETRY

Major road width	W	13.50	Lane widths	w(b-a)	3.25
Central Reserve width	Wcr	0.00		w(b-c)	3.25
2 Lane Minor Arm (Y/N)		N		w(c-b)	2.60

PARNoonETER

Visibilities	Vr(b-a)	50	Calculated	D	0.79
	VI(b-a)	50		E	0.91
	Vr(b-c)	50		F	0.91
	Vr(c-b)	50		Y	0.56

ANALYSIS

			Noon Peak
TRAFFIC FLOWS	q(c-a)		180
	q(c-b)		10
	q(a-b)		15
	q(a-c)		660
	q(b-a)		15
	q(b-c)		10
	f		0.40
CAPACITIES	Q(b-a)	Factor 1	369
	Q(b-c)	1	554
	Q(c-b)	1	557
	Q(b-ac)	1	426
RFC's	b-a		0.041
	b-c		0.018
	c-b		0.018
	b-ac		0.059
RFC			0.059

Where VI and Vr are visibility distances to the left or right of the respective streNoons

$$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$$

$$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$$

$$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$$

$$Y = 1-0.0345W$$

f = proportion of minor traffic turning left

$$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$$

Capacity of combined streNoons

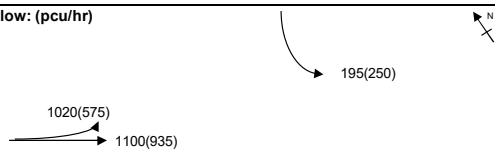
All the above formulas are in accordance to T.P.D.M. Vol.2 Chapter 4 Appendix 1

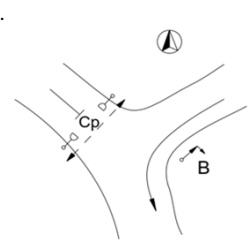
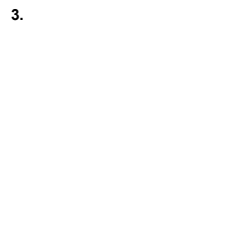
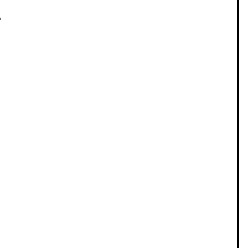
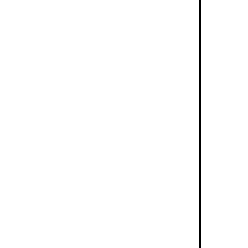
TRAFFIC SIGNALS CALCULATION

Job No.: CHK50793710 MVA HONG KONG LIMITED

Junction: Java Road/ Hoi Yu Street (Existing) Design Year: 2025
Description: 2033 Reference Designed By: NLY Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Java Road	↖	A	1	2.4	20					1725	1725	1020	0.591	0.591	575	0.333	
	→	A	1	3.2						1040	1040	468	0.450		398	0.383	
	→	A	1	3.1						825	825	371	0.450		315	0.382	
	→	A	1	3.1						580	580	261	0.450		222	0.383	0.383
Hoi Yu Street	↙	B	2	3.4	15					1905	1905	102	0.054		130	0.068	
	↘	B	2	3.4	12.5					1745	1745	93	0.053		120	0.069	
Pedestrian Crossing		Cp	2	MIN GREEN + FLASH =		8	+	10	=	18				*			*

Notes: 1. Site factor 0.5, 0.4 and 0.3 are adopted for Java Road's second, third and fourth lane respectively due to downstream blocking and illegal parking along kerbside observed.	Flow: (pcu/hr) 		Group	A,B	A,Cp	Group	A,B	A,Cp
			y	0.645	0.591	y	0.452	0.383
			L (sec)	10	26	L (sec)	10	26
			C (sec)	115	115	C (sec)	110	110
			y pract.	0.822	0.697	y pract.	0.818	0.687
			R.C. (%)	27%	18%	R.C. (%)	81%	80%

Stage / Phase Diagrams								
1. 			2. 			3. 		
4. 			5. 					
I/G= 4		I/G= 5	18	I/G=		I/G=		I/G=
I/G= 4		I/G= 5	18	I/G=		I/G=		I/G=

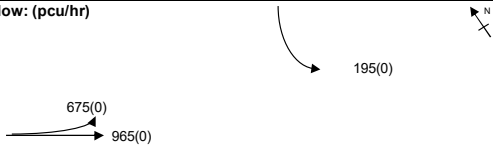
Date: 九月, 2025 Junction: Java Road/ Hoi Yu Street (Existing) J2

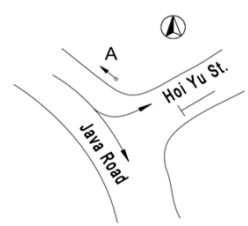
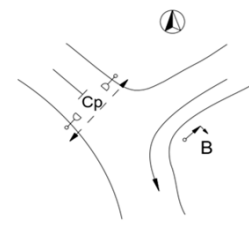
TRAFFIC SIGNALS CALCULATION

Job No.: CHK50793710 MVA HONG KONG LIMITED

Junction: Java Road/ Hoi Yu Street (Existing) Design Year: 2025
Description: 2033 Reference Designed By: NLY Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		Noon Peak			N/A		
					Left	Right		Noon		Noon		Flow (pcu/hr)	y Value	Critical y			
Java Road	↖	A	1	2.4	20					1725		675	0.391	0.395			*
	→	A	1	3.2				1040		410	0.394						
	→	A	1	3.1				825		326	0.395						
	→	A	1	3.1				580		229	0.395						
Hoi Yu Street	↙	B	2	3.4	15					1905		102	0.054				*
	↙	B	2	3.4	12.5					1745		93	0.053				
Pedestrian Crossing																	
		Cp	2	MIN GREEN + FLASH =			8	+	10	=	18			*			

Notes: 1. Site factor 0.5, 0.4 and 0.3 are adopted for Java Road's second, third and fourth lane respectively due to downstream blocking and illegal parking along kerbside observed.	Flow: (pcu/hr) 		Group	A,B	A,Cp	Group		
			y	0.449	0.395	y		
			L (sec)	10	26	L (sec)		
			C (sec)	110	110	C (sec)		
			y pract.	0.818	0.687	y pract.		
			R.C. (%)	82%	74%	R.C. (%)		

Stage / Phase Diagrams									
1. 		2. 		3.		4.		5.	
I/G= 4		I/G= 5	18	I/G=		I/G=		I/G=	
I/G= #N/A	#N/A	I/G= #N/A	#N/A	I/G=		I/G=		I/G=	

Date: 九月, 2025 Junction: Java Road/ Hoi Yu Street (Existing) J2

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: King's Road/ Java Road

Design Year: 2025

Description: 2033 Reference

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
King's Road EB	→	A	1	5.3						2145	2145	230	0.107		200	0.093	
King's Road EB (Tram)	→	A	1	2.7						2025	2025	100	0.049		100	0.049	
Java Road	↖	C	2	3.5		30				1870	1870	254	0.136	0.136	297	0.159	0.159
	↗	C	2	4.1		32.5				2070	2070	281	0.136		328	0.158	
	↙	D	2,3	3.3	52.5					2025	2025	383	0.189		272	0.134	
	↘	D	2,3	3.3	50					1890	1890	357	0.189		253	0.134	
King's Road WB	↑	B	1,3	3.2						1935	1935	338	0.175		359	0.186	
	↑	B	1,3	3.2						2075	2075	363	0.175		386	0.186	0.186
	↑	B	1,3	3.5						1965	1965	344	0.175	0.175	365	0.186	
King's Road WB (Tram)	↑	B	1,3	2.3						1845	1845	100	0.054		90	0.049	
Pedestrian Crossing																	
		Ep	1,3	MIN GREEN + FLASH =		5	+	7	=	12							
		Fp	1	MIN GREEN + FLASH =		5	+	9	=	14							
		Gp	2,3	MIN GREEN + FLASH =		5	+	5	=	10							
		Hp	2	MIN GREEN + FLASH =		5	+	13	=	18							

Notes:	Flow: (pcu/hr)	Group	A,D	B,C	Group	A,D	B,C
		y	0.296	0.311	y	0.228	0.345
		L (sec)	12	10	L (sec)	12	10
		C (sec)	115	115	C (sec)	110	110
		y pract.	0.806	0.822	y pract.	0.802	0.818
		R.C. (%)	172%	164%	R.C. (%)	252%	137%

Stage / Phase Diagrams							
1.	2.	3.	4.	5.			
I/G=	I/G= 5	I/G= 7	I/G=	I/G=			
I/G=	I/G= 5	I/G= 7	I/G=	I/G=			

Date: 九月, 2025 Junction: King's Road/ Java Road J3

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: King's Road/ Java Road

Design Year: 2025

Description: 2033 Reference

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		Noon Peak			N/A		
					Left	Right		Noon		Noon		Flow (pcu/hr)	y Value	Critical y			
King's Road EB	→	A	1	5.3						2145		185	0.086				*
King's Road EB (Tram)	→	A	1	2.7						2025		105	0.052				
Java Road	↖	C	2	3.5		30				1870		261	0.140				
	↗	C	2	4.1		32.5				2070		289	0.140	0.140			
	↘	D	2,3	3.3	52.5					2025		292	0.144				*
	↙	D	2,3	3.3	50					1890		273	0.144				
King's Road WB	↑	B	1,3	3.2						1935		313	0.162	0.162			
	↑	B	1,3	3.2						2075		335	0.161				
	↑	B	1,3	3.5						1965		317	0.161				
King's Road WB (Tram)	↑	B	1,3	2.3						1845		100	0.054				
Pedestrian Crossing																	
		Ep	1,3	MIN GREEN + FLASH =			5	+	7	=	12						
		Fp	1	MIN GREEN + FLASH =			5	+	9	=	14						
		Gp	2,3	MIN GREEN + FLASH =			5	+	5	=	10						
		Hp	2	MIN GREEN + FLASH =			5	+	13	=	18						

Notes:	Flow: (pcu/hr)		Group	A,D	B,C	Group		
			y	0.231	0.301	y		
			L (sec)	12	10	L (sec)		
			C (sec)	110	110	C (sec)		
			y pract.	0.802	0.818	y pract.		
			R.C. (%)	248%	171%	R.C. (%)		

Stage / Phase Diagrams				
1.	2.	3.	4.	5.

I/G=	I/G= 5	I/G= 7	I/G=	I/G=
I/G= #N/A	I/G= #N/A	I/G= #N/A	I/G=	I/G=

Date: 九月, 2025	Junction: King's Road/ Java Road	J3
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TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: Hoi Tai Street/ Hoi Kwong Street/ Finnie Street/ Hoi Chak Street

Design Year: 2025

Description: 2033 Reference

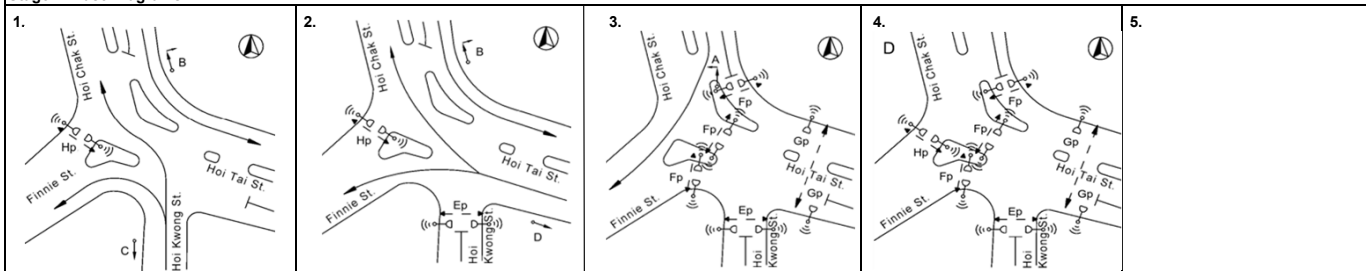
Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Hoi Tai Street	↗	D	2	3.5		40				2030	2030	85	0.042		150	0.074	
	↘	D	2	3.6	20					1835	1835	350	0.191		485	0.264	0.264
Hoi Kwong Street	↖	C	1	3.6	15			80%	89%	1830	1815	125	0.068		175	0.096	0.096
Hoi Chak Street	↗	B	1,2	3.1	35					1845	1845	790	0.428	0.428	470	0.255	
	↘	A	3	3.5		30				2005	2005	75	0.037		70	0.035	
Pedestrian Crossing Ep 2,3,4 MIN GREEN + FLASH = 8 + 5 = 13 Fp 3,4 MIN GREEN + FLASH = 9 + 7 = 16 Gp 3,4 MIN GREEN + FLASH = 8 + 10 = 18 Hp 1,2,4 MIN GREEN + FLASH = 5 + 7 = 12																	

Notes:	Flow: (pcu/hr)	Group	B,Fp	B,Gp	Group	C,D,Fp	C,D,Gp
		y	0.428	0.428	y	0.361	0.361
		L (sec)	26	27	L (sec)	33	34
		C (sec)	115	115	C (sec)	110	110
		y pract.	0.697	0.689	y pract.	0.630	0.622
		R.C. (%)	63%	61%	R.C. (%)	75%	72%

Stage / Phase Diagrams



I/G= 2		I/G=		I/G= 8	18	I/G=		I/G=	
I/G= 2		I/G= 6		I/G= 10	18	I/G=		I/G=	

Date: 九月, 2025 Junction: Hoi Tai Street/ Hoi Kwong Street/ Finnie J4

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: Hoi Tai Street/ Hoi Kwong Street/ Finnie Street/ Hoi Chak Street

Design Year: 2025

Description: 2033 Reference

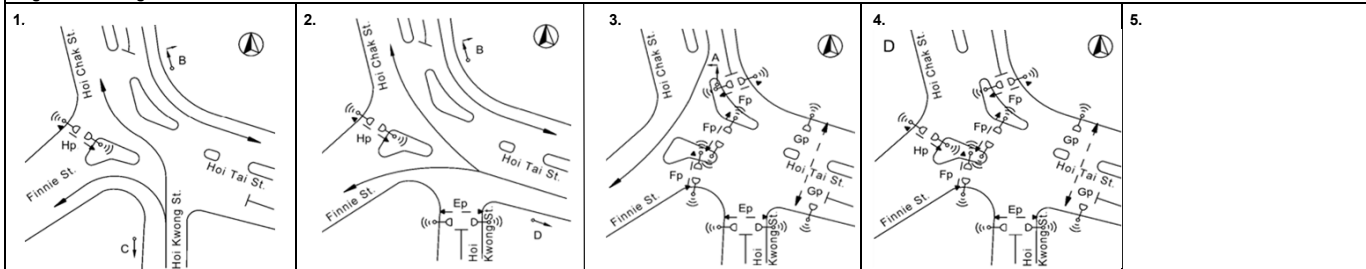
Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		Noon Peak			N/A		
					Left	Right		Noon		Noon		Flow (pcu/hr)	y Value	Critical y			
Hoi Tai Street	↗ ↘	D D	2 2	3.5 3.6		40				2030 1835		95 400	0.047 0.218	0.218			
Hoi Kwong Street	↖	C	1	3.6	15			75%		1835		140	0.076	0.076			
Hoi Chak Street	↘ ↗	B A	1,2 3	3.1 3.5	35	30				1845 2005		455 80	0.247 0.040				*
Pedestrian Crossing																	
	Ep	2,3,4	MIN GREEN + FLASH =		8	+	5	=	13								*
	Fp	3,4	MIN GREEN + FLASH =		9	+	7	=	16								
	Gp	3,4	MIN GREEN + FLASH =		8	+	10	=	18					*			
	Hp	1,2,4	MIN GREEN + FLASH =		5	+	7	=	12								

Notes:	Flow: (pcu/hr)	Group	C.D.Fp	C.D.Gp	Group		
		y	0.294	0.294	y		
		L (sec)	33	34	L (sec)		
		C (sec)	110	110	C (sec)		
		y pract.	0.630	0.622	y pract.		
		R.C. (%)	114%	111%	R.C. (%)		

Stage / Phase Diagrams



I/G= 2	I/G= 6	I/G= 10	18	I/G=	I/G=
I/G= #N/A	I/G= #N/A	I/G= #N/A	#N/A	I/G= #N/A	I/G= #N/A

Date: 九月, 2025 Junction: Hoi Tai Street/ Hoi Kwong Street/ Finnie Street J4

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: King's Road/ Finnie Street

Design Year: 2025

Description: 2033 Reference

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
King's Road NB (with Tram)	↑	C	1	3.0						1915	1915	238	0.124		231	0.121	
	↑	C	1	3.3						2085	2085	260	0.125		251	0.120	0.120
	↑	C	1	3.5						2105	2105	262	0.124		253	0.120	
Finnie Street	↑	D	3	3.5	10	20		100% / 0%	100% / 0%	1710	1710	360	0.211	0.211	625	0.365	0.365
	↑	D	3	3.5		22.5				1840	1840	120	0.065		205	0.111	
King's Road SB	↓	A	1,2	3.7						1985	1985	432	0.218	0.218	424	0.214	
	↓	A	1,2	3.3						2085	2085	453	0.217		446	0.214	
King's Road SB (Tram)	↓	A	1,2	2.6						1875	1875	100	0.053		100	0.053	
Pedestrian Crossing																	
		Ep	1,2	MIN GREEN + FLASH =			5	+	7	=	12						
		Fp	3	MIN GREEN + FLASH =			5	+	6	=	11						
		Gp	2	MIN GREEN + FLASH =			5	+	6	=	11						*

Notes:	Flow: (pcu/hr)	Group	C, Gp, D	A, D	Group	A, D	C, Gp, D
		y	0.335	0.428	y	0.579	0.486
		L (sec)	27	10	L (sec)	10	27
		C (sec)	115	115	C (sec)	110	110
		y pract.	0.689	0.822	y pract.	0.818	0.679
		R.C. (%)	105%	92%	R.C. (%)	41%	40%

Stage / Phase Diagrams							
1.	2.	3.	4.	5.			
I/G= 7	I/G=	I/G= 5	I/G=	I/G=	I/G=	I/G=	
I/G= 7	I/G= 9	11	I/G= 2				

Date: 九月, 2025 Junction: King's Road/ Finnie Street J5

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: King's Road/ Finnie Street

Design Year: 2025

Description: 2033 Reference

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		Noon Peak			N/A		
					Left	Right		Noon		Noon		Flow (pcu/hr)	y Value	Critical y			
King's Road NB (with Tram)	↑	C	1	3.0						1915		194	0.101				
	↑	C	1	3.3						2085		212	0.102	0.102			
	↑	C	1	3.5						2105		214	0.102				
Finnie Street	↑	D	3	3.5	10	20				1710		420	0.246	0.246			*
	↑	D	3	3.5		22.5		100% / 0%		1840		155	0.084				
King's Road SB	↓	A	1,2	3.7						1985		339	0.171				*
	↓	A	1,2	3.3						2085		356	0.171				
King's Road SB (Tram)	↓	A	1,2	2.6						1875		105	0.056				
Pedestrian Crossing																	
		Ep	1,2	MIN GREEN + FLASH =			5	+	7	=	12						
		Fp	3	MIN GREEN + FLASH =			5	+	6	=	11						
		Gp	2	MIN GREEN + FLASH =			5	+	6	=	11			*			

Notes:	Flow: (pcu/hr)	Group	A,D	C,Gp,D	Group		
		y	0.416	0.347	y		
		L (sec)	10	27	L (sec)		
		C (sec)	110	110	C (sec)		
		y pract.	0.818	0.679	y pract.		
		R.C. (%)	96%	96%	R.C. (%)		

Stage / Phase Diagrams							
1.	2.	3.	4.	5.			
I/G= 7	I/G= 9	I/G= 2	I/G=	I/G=			
I/G= #N/A	I/G= #N/A	I/G= #N/A	I/G=	I/G=			

Date: 九月, 2025 Junction: King's Road/ Finnie Street J5

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: King's Road/ Model Lane

Design Year: 2025

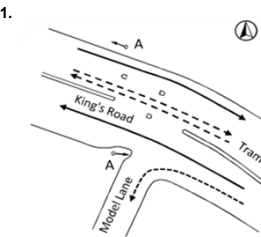
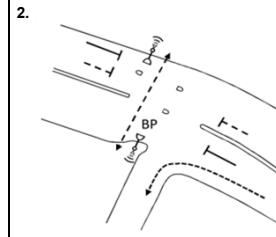
Description: 2033 Reference

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
King's Road EB	→	A	1	5.500						2165	2165	230	0.106		200	0.092	
King's Road EB(Tram)	→	A	1	2.200						1975	1975	100	0.051		100	0.051	
King's Road WB	←	A	1	3.200						2075	2075	661	0.319	0.319	721	0.347	0.347
free flow	↘	A	1	3.300						2085	2085	664	0.318		724	0.347	
	↘			3.300	8					1640	1640	255	0.155		290	0.177	
King's Road WB(Tram)	←	A	1	3.200						2075	2075	100	0.048		90	0.043	
Pedestrian Crossing Bp 2 MIN GREEN + FLASH = 13 + 7 = 20 *																	

Notes:	Flow: (pcu/hr)	Group	y	L (sec)	C (sec)	y pract.	R.C. (%)	A,Bp	Group	y	L (sec)	C (sec)	y pract.	R.C. (%)	A,Bp
								0.319							0.347
				28	115	0.681	114%				28	110	0.671	93%	

Stage / Phase Diagrams																			
1. 				2. 				3.				4.				5.			
I/G= 4				I/G= 5				I/G=				I/G=				I/G=			
I/G= 4				I/G= 5				I/G=				I/G=				I/G=			

Date: 九月, 2025 Junction: King's Road/ Model Lane J6

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50793710

MVA HONG KONG LIMITED

Junction: King's Road/ Model Lane

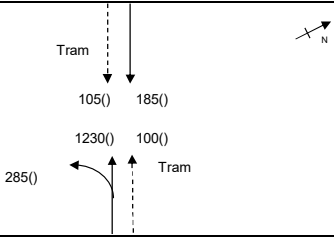
Design Year: 2025

Description: 2033 Reference

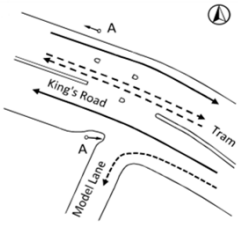
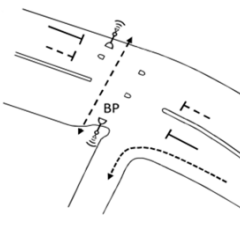
Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		Noon Peak			N/A		
					Left	Right		Noon		Noon		Flow (pcu/hr)	y Value	Critical y			
King's Road EB	→	A	1	5.500						2165		185	0.085				*
King's Road EB(Tram)	→	A	1	2.200						1975		105	0.053				
King's Road WB	←	A	1	3.200						2075		614	0.296	0.296			
free flow	↙	A	1	3.300						2085		616	0.295				
	↘			3.300	8					1640		285	0.174				
King's Road WB(Tram)	←	A	1	3.200						2075		100	0.048				
Pedestrian Crossing Bp 2 MIN GREEN + FLASH = 13 + 7 = 20 * *																	

Notes:	Flow: (pcu/hr) 	Group		A,Bp	Group		
		y		0.296	y		
		L (sec)		28	L (sec)		
		C (sec)		110	C (sec)		
		y pract.		0.671	y pract.		
		R.C. (%)		127%	R.C. (%)		

Stage / Phase Diagrams

1. 	2. 	3.	4.	5.
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I/G= 4		I/G= 5	20	I/G=		I/G=		I/G=	
I/G= #N/A	#N/A	I/G= #N/A	#N/A	I/G=		I/G=		I/G=	

Date: <u>九月, 2025</u>	Junction: <u>King's Road/ Model Lane</u>	J6
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TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: Java Road/ Man Hong Street

Design Year: 2025

Description: 2033 Reference

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Java Road EB	→	A	1	3.000	12					1700	1700	242	0.142		270	0.159	0.159
	↘	A	1	3.000	15			99%	95%	1870	1875	267	0.143	0.143	284	0.152	
	→	A	1	3.000		18		4%	5%	2050	2045	292	0.142		310	0.152	
	↘	A	1	3.000		17				1890	1890	269	0.142		291	0.154	
Man Hong Street SB	↓	B	2,3	3.200						2075	2075	423	0.204		371	0.179	
	↓	B	2,3	3.400						2095	2095	427	0.204		374	0.179	
	↘	B	2,3	3.800	12					1775	1775	410	0.231		315	0.177	
Man Hong Street NB	↗	C	3	6.300		10		7%	7%	2110	2110	495	0.235	0.235	425	0.201	0.201
Pedestrian Crossing		Dp	2,3	MIN GREEN + FLASH =		5	+	12	=	17							
		Ep	1	MIN GREEN + FLASH =		6	+	10	=	16							
		Fp	2	MIN GREEN + FLASH =		5	+	8	=	13				*			*

Notes: Opposing factor of 0.5 has been adopted on Man Hong Street NB due to the presence of opposite movement on right turn	Flow: (pcu/hr) 			Group	A,B	A,Fp,C	Group	A,B	A,Fp,C
				y	0.374	0.377	y	0.338	0.360
				L (sec)	16	30	L (sec)	16	30
				C (sec)	115	115	C (sec)	110	110
				y pract.	0.775	0.665	y pract.	0.769	0.655
				R.C. (%)	107%	76%	R.C. (%)	128%	82%

Stage / Phase Diagrams									
1.		2.		3.		4.		5.	
I/G= 7	I/G= 8	13	I/G= 4		I/G=		I/G=		
I/G= 7	I/G= 8	13	I/G= 4		I/G=		I/G=		

Date: 九月, 2025 Junction: Java Road/ Man Hong Street J7

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50793710

MVA HONG KONG LIMITED

Junction: Java Road/ Man Hong Street

Design Year: 2025

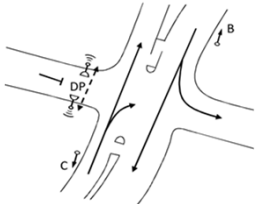
Description: 2033 Reference

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		Noon Peak			N/A		
					Left	Right		Noon		Noon		Flow (pcu/hr)	y Value	Critical y			
Java Road EB	→	A	1	3.000	12					1700		277	0.163				*
	→	A	1	3.000	15			78%		1905		311	0.163	0.163			
	→	A	1	3.000		18		25%		2015		328	0.163				
	↘	A	1	3.000		17				1890		308	0.163				
Man Hong Street SB	↓	B	2,3	3.200						2075		381	0.184				*
	↓	B	2,3	3.400						2095		384	0.183				
	↘	B	2,3	3.800	12					1775		270	0.152				
Man Hong Street NB	↗	C	3	6.300		10		11%		2095		400	0.191	0.191			
Pedestrian Crossing	Dp	2,3		MIN GREEN + FLASH =	5			+	12	=	17						
	Ep	1		MIN GREEN + FLASH =	6			+	10	=	16						
	Fp	2		MIN GREEN + FLASH =	5			+	8	=	13			*			

Notes: Opposing factor of 0.5 has been adopted on Man Hong Street NB due to the presence of opposite movement on right turn	Flow: (pcu/hr) 		Group	A,B	A,Fp,C	Group		
			y	0.347	0.354	y		
			L (sec)	16	30	L (sec)		
			C (sec)	110	110	C (sec)		
			y pract.	0.769	0.655	y pract.		
			R.C. (%)	122%	85%	R.C. (%)		

Stage / Phase Diagrams									
1. 		2. 		3. 		4.		5.	
I/G= 7	I/G= 8	13	I/G= 4	I/G=	I/G=	I/G=	I/G=		
I/G= #N/A	I/G= #N/A	#N/A	I/G= #N/A	#N/A	I/G=	I/G=	I/G=		

Date: 九月, 2025 Junction: Java Road/ Man Hong Street J7

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50793710

MVA HONG KONG LIMITED

Junction: King's Road/ Healthy Street West/ Man Hong StreetDesign Year: 2025Description: 2033 ReferenceDesigned By: NLYChecked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
King's Road EB	→	A	1,2	3.300						1945	1945	74	0.038		65	0.033	
King's Road EB(Tram)	→	A	1,2	3.500						2105	2105	81	0.038		70	0.033	
King's Road WB	←	B	1	3.400	8			80%	72%	2005	2005	100	0.050		100	0.050	
King's Road WB(Tram)	←	B	1	3.400						1710	1730	263	0.154	0.154	258	0.149	0.149
Man Hong Street SB	↓	At	1,2	2.700						2095	2095	322	0.154		312	0.149	
Man Hong Street SB	↓	D	4	3.300						2025	2025	100	0.049		90	0.044	
Man Hong Street SB	↓	D	4	3.500		40		34%	22%	2025	2025	325	0.167		315	0.162	0.162
Man Hong Street SB	↓	D	4	3.500		35				2080	2090	347	0.167		338	0.162	
Man Hong Street SB	↓	D	4	3.500						2020	2020	338	0.167	0.167	327	0.162	
Pedestrian Crossing	Ep	3,4	MIN GREEN + FLASH =	7	+	6	=	13									
Pedestrian Crossing	Fp	2,3	MIN GREEN + FLASH =	5	+	10	=	15						*			*
Pedestrian Crossing	Gp	2,3,4	MIN GREEN + FLASH =	5	+	6	=	11									
Pedestrian Crossing	Hp	1,2,3	MIN GREEN + FLASH =	5	+	9	=	14									

Notes:	Flow: (pcu/hr)	Group	Hp.D	B.Fp.D	Group	Hp.D	B.Fp.D
		y	0.167	0.321	y	0.162	0.311
		L (sec)	24	35	L (sec)	24	35
		C (sec)	115	115	C (sec)	110	110
		y pract.	0.712	0.626	y pract.	0.704	0.614
		R.C. (%)	326%	95%	R.C. (%)	334%	97%

Stage / Phase Diagrams

1.	2.	3.	4.	5.
I/G= 11	I/G= 9	I/G= 15	I/G=	I/G= 2
I/G= 11	I/G= 9	I/G= 15	I/G=	I/G= 2

Date: 九月, 2025Junction: King's Road/ Healthy Street West/ Man

J8

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: King's Road/ Healthy Street West/ Man Hong Street

Design Year: 2025

Description: 2033 Reference

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		Noon Peak			N/A		
					Left	Right		Noon		Noon		Flow (pcu/hr)	y Value	Critical y			
King's Road EB	→	A	1,2	3.300						1945		65	0.033				*
King's Road EB(Tram)	→	A	1,2	3.500						2105		70	0.033				
King's Road WB	←	B	1	2.500						2005		105	0.052				
King's Road WB	←	B	1	3.500	8			74%		1725		257	0.149				
King's Road WB(Tram)	←	B	1	3.400						2095		313	0.149	0.149			
King's Road WB(Tram)	←	At	1,2	2.700						2025		100	0.049				
Man Hong Street SB	↓	D	4	3.300						1945		347	0.178				
Man Hong Street SB	↓	D	4	3.500		40		16%		2090		373	0.178	0.178			
Man Hong Street SB	↓	D	4	3.500		35				2020		360	0.178				
Pedestrian Crossing		Ep	3,4	MIN GREEN + FLASH =			7	+	6	=	13						*
		Fp	2,3	MIN GREEN + FLASH =			5	+	10	=	15						
		Gp	2,3,4	MIN GREEN + FLASH =			5	+	6	=	11						
		Hp	1,2,3	MIN GREEN + FLASH =			5	+	9	=	14						

Notes:	Flow: (pcu/hr)	Group	Hp,D	B,Fp,D	Group		
		y	0.178	0.328	y		
		L (sec)	24	35	L (sec)		
		C (sec)	110	110	C (sec)		
		y pract.	0.704	0.614	y pract.		
		R.C. (%)	294%	87%	R.C. (%)		

Stage / Phase Diagrams							
1.	2.	3.	4.	5.			
I/G= 11	I/G= 9	I/G=	I/G= 2	I/G=			
I/G= #N/A	I/G= #N/A	I/G= #N/A	I/G= #N/A	I/G=			

Date: 九月, 2025 Junction: King's Road/ Healthy Street West/ Man Hong Street J8

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: Tsat Tsz Mui Road/ Healthy Street West

Design Year: 2025

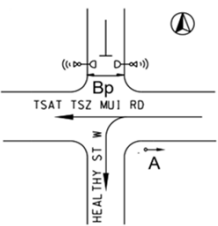
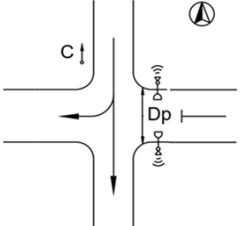
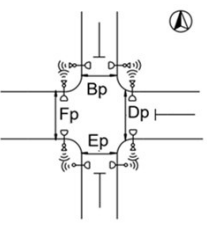
Description: 2033 Reference

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Tsat Tsz Mui Road WB	↔	A	1	3.800	10			27%	34%	1915	1900	166	0.087	0.087	193	0.102	
	←	A	1	3.800						2135	2135	184	0.086		217	0.102	0.102
Healthy Street West SB	↓	C	2	2.500						1865	1865	252	0.135		252	0.135	
	↘	C	2	3.300		13		59%	57%	1950	1955	264	0.135	0.135	264	0.135	
	↙	C	2	3.600		10				1840	1840	249	0.135		249	0.135	0.135
Pedestrian Crossing		Bp	1,3	MIN GREEN + FLASH =		5	+	9	=	14							
		Dp	2,3	MIN GREEN + FLASH =		5	+	8	=	13							
		Ep	3	MIN GREEN + FLASH =		5	+	9	=	14				*			*
		Fp	3	MIN GREEN + FLASH =		5	+	8	=	13							

Notes:	Flow: (pcu/hr)		Group	A,C,Fp	A,C,Ep	Group	A,C,Fp	A,C,Ep
			y	0.222	0.222	y	0.237	0.237
			L (sec)	28	29	L (sec)	28	29
			C (sec)	115	115	C (sec)	110	110
			y pract.	0.681	0.673	y pract.	0.671	0.663
			R.C. (%)	207%	203%	R.C. (%)	183%	180%

Stage / Phase Diagrams								
1. 	2. 	3. 	4. 	5. 				
I/G= 4	I/G= 6	I/G= 7	14	I/G=	I/G=	I/G=	I/G=	I/G=
I/G= 4	I/G= 6	I/G= 7	14	I/G=	I/G=	I/G=	I/G=	I/G=

Date: 九月, 2025 Junction: Tsat Tsz Mui Road/ Healthy Street West J9

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: Tsat Tsz Mui Road/ Healthy Street West

Design Year: 2025

Description: 2033 Reference

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		Noon Peak			N/A		
					Left	Right		Noon		Noon		Flow (pcu/hr)	y Value	Critical y			
Tsat Tsz Mui Road WB	↖	A	1	3.800	10			35%		1895		202	0.107				*
	←	A	1	3.800						2135		228	0.107	0.107			
Healthy Street West SB	↓	C	2	2.500						1865		278	0.149	0.149			*
	↘	C	2	3.300		13		34%		2005		298	0.149				
	↙	C	2	3.600		10				1840		274	0.149				
Pedestrian Crossing		Bp	1,3	MIN GREEN + FLASH =		5	+	9	=	14							
		Dp	2,3	MIN GREEN + FLASH =		5	+	8	=	13							
		Ep	3	MIN GREEN + FLASH =		5	+	9	=	14				*			*
		Fp	3	MIN GREEN + FLASH =		5	+	8	=	13							

Notes:	Flow: (pcu/hr)		Group	A,C,Fp	A,C,Ep	Group		
			y	0.256	0.256	y		
			L (sec)	28	29	L (sec)		
			C (sec)	110	110	C (sec)		
			y pract.	0.671	0.663	y pract.		
			R.C. (%)	162%	159%	R.C. (%)		

Stage / Phase Diagrams				
1.	2.	3.	4.	5.

I/G= 4	I/G= 6	I/G= 7	14	I/G=	I/G=
I/G= #N/A	I/G= #N/A	I/G= #N/A	#N/A	I/G=	I/G=

Date: 九月, 2025	Junction: Tsat Tsz Mui Road/ Healthy Street West
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J9

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: Tsat Tsz Mui Road/ Tin Chiu West

Design Year: 2025

Description: 2033 Reference

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Tin Chiu Street NB	↓	A	1	3.900						2005	2005	450	0.224	0.224	300	0.150	0.150
Tsat Tsz Mui Road WB	↖ ↗	B B	2 2	4.100 4.100	6	13		45% / 55%	48% / 52%	1720	1715	322 363	0.187 0.187	0.187	343 387	0.200 0.199	0.200
Pedestrian Crossing		Cp Dp	1,3 3	MIN GREEN + FLASH = MIN GREEN + FLASH =	10 7			+ +	9 9	= =	19 16			*			*

Notes:	Flow: (pcu/hr) 450(300) 540(565) 145(165)	N	Group	Cp,B	A,B,Dp	Group	Cp,B	A,B,Dp
			y	0.187	0.412	y	0.200	0.350
			L (sec)	27	32	L (sec)	27	32
			C (sec)	115	115	C (sec)	110	110
			y pract.	0.689	0.650	y pract.	0.679	0.638
			R.C. (%)	268%	58%	R.C. (%)	240%	83%

Stage / Phase Diagrams							
1.	2.	3.	4.	5.			
I/G= 4	I/G= 6	I/G= 8	I/G= 16	I/G=	I/G=	I/G=	I/G=
I/G= 4	I/G= 6	I/G= 8	I/G= 16	I/G=	I/G=	I/G=	I/G=

Date: 九月, 2025 Junction: Tsat Tsz Mui Road/ Tin Chiu West J10

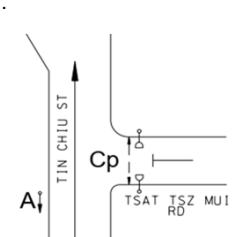
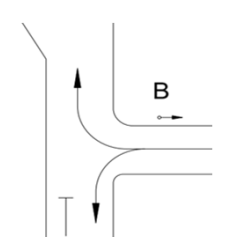
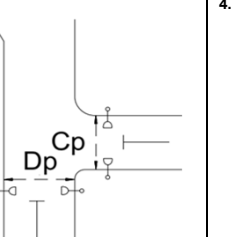
TRAFFIC SIGNALS CALCULATION

Job No.: CHK50793710 MVA HONG KONG LIMITED

Junction: Tsat Tsz Mui Road/ Tin Chiu West Design Year: 2025
Description: 2033 Reference Designed By: NLY Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		Noon Peak			N/A		
					Left	Right		Noon		Noon		Flow (pcu/hr)	y Value	Critical y			
Tin Chiu Street NB	↓	A	1	3.900						2005		330	0.165	0.165			*
Tsat Tsz Mui Road WB	↑	B	2	4.100	6	13		62% / 38%		1690		337	0.199				*
	←	B	2	4.100		13				1940		388	0.200	0.200			
Pedestrian Crossing		Cp	1,3	MIN GREEN + FLASH =		10	+	9	=	19							*
		Dp	3	MIN GREEN + FLASH =		7	+	9	=	16				*			

Notes:	Flow: (pcu/hr)	Group	Cp,B	A,B,Dp	Group		
		y	0.200	0.365	y		
		L (sec)	27	32	L (sec)		
		C (sec)	110	110	C (sec)		
		y pract.	0.679	0.638	y pract.		
		R.C. (%)	240%	75%	R.C. (%)		

Stage / Phase Diagrams				
1. 	2. 	3. 	4.	5.

I/G= 4	I/G= 6	I/G= 8	16	I/G=	I/G=
I/G= #N/A	I/G= #N/A	I/G= #N/A	I/G= #N/A	I/G=	I/G=

Date: 九月, 2025 Junction: Tsat Tsz Mui Road/ Tin Chiu West J10

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: King's Road/ Tin Chiu Street

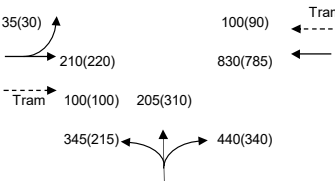
Design Year: 2025

Description: 2033 Reference

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
King's Road EB	→	A	1	3.200	12			14%	12%	1900	1905	245	0.129		250	0.131	0.131
King's Road EB(Tram)	→	A	1	2.700						2025	2025	100	0.049		100	0.049	
King's Road WB	←	B	1	3.300						1945	1945	262	0.135		248	0.128	
	←	B	1	3.500						2105	2105	284	0.135	0.135	269	0.128	
	←	B	1	3.500						2105	2105	284	0.135		268	0.127	
King's Road WB(Tram)	←	Dt	1	2.400						1995	1995	100	0.050		90	0.045	
Tin Chiu Street NB	↑	C	2	3.300	12					1730	1730	345	0.199		215	0.124	
	↑	C	2	3.500	12			37%	48%	2010	1985	205	0.102		310	0.156	
	↑	C	2	3.500		12				1870	1870	440	0.235	0.235	340	0.182	0.182
Pedestrian Crossing		Ep	1	MIN GREEN + FLASH =		6	+	12	=	18							
		Fp	2	MIN GREEN + FLASH =		5	+	9	=	14							

Notes:	Flow: (pcu/hr) 	Group	A,C	B,C	Group	B,C	A,C
		y	0.364	0.370	y	0.310	0.313
		L (sec)	10	11	L (sec)	11	10
		C (sec)	115	115	C (sec)	110	110
		y pract.	0.822	0.814	y pract.	0.810	0.818
		R.C. (%)	126%	120%	R.C. (%)	162%	161%

Stage / Phase Diagrams									
1. 									

Date: 九月, 2025 Junction: King's Road/ Tin Chiu Street J11

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: King's Road/ Tin Chiu Street

Design Year: 2025

Description: 2033 Reference

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		Noon Peak			N/A		
					Left	Right		Noon		Noon		Flow (pcu/hr)	y Value	Critical y			
King's Road EB	→	A	1	3.200	12			13%		1905		240	0.126				*
King's Road EB(Tram)	→	A	1	2.700						2025		105	0.052				
King's Road WB	←	B	1	3.300						1945		253	0.130				
	←	B	1	3.500						2105		273	0.130				
	←	B	1	3.500						2105		274	0.130	0.130			
King's Road WB(Tram)	←	Dt	1	2.400						1995		100	0.050				
Tin Chiu Street NB	↑	C	2	3.300	12					1730		255	0.147				*
	↑	C	2	3.500	12			51%		1980		265	0.134				
	↑	C	2	3.500		12				1870		325	0.174	0.174			
Pedestrian Crossing		Ep	1	MIN GREEN + FLASH =		6	+	12	=	18							
		Fp	2	MIN GREEN + FLASH =		5	+	9	=	14							

Notes:	Flow: (pcu/hr)	Group	A,C	B,C	Group		
		y	0.300	0.304	y		
		L (sec)	10	11	L (sec)		
		C (sec)	110	110	C (sec)		
		y pract.	0.818	0.810	y pract.		
		R.C. (%)	173%	166%	R.C. (%)		

Stage / Phase Diagrams							
1.	2.	3.	4.	5.			
I/G= 6	I/G= 7	I/G=	I/G=	I/G=			
I/G= #N/A	I/G= #N/A	I/G=	I/G=	I/G=			

Date: 九月, 2025 Junction: King's Road/ Tin Chiu Street J11

Calculation Sheets - 2033 Design Year

Simplified picority Junction Capacity Calculation

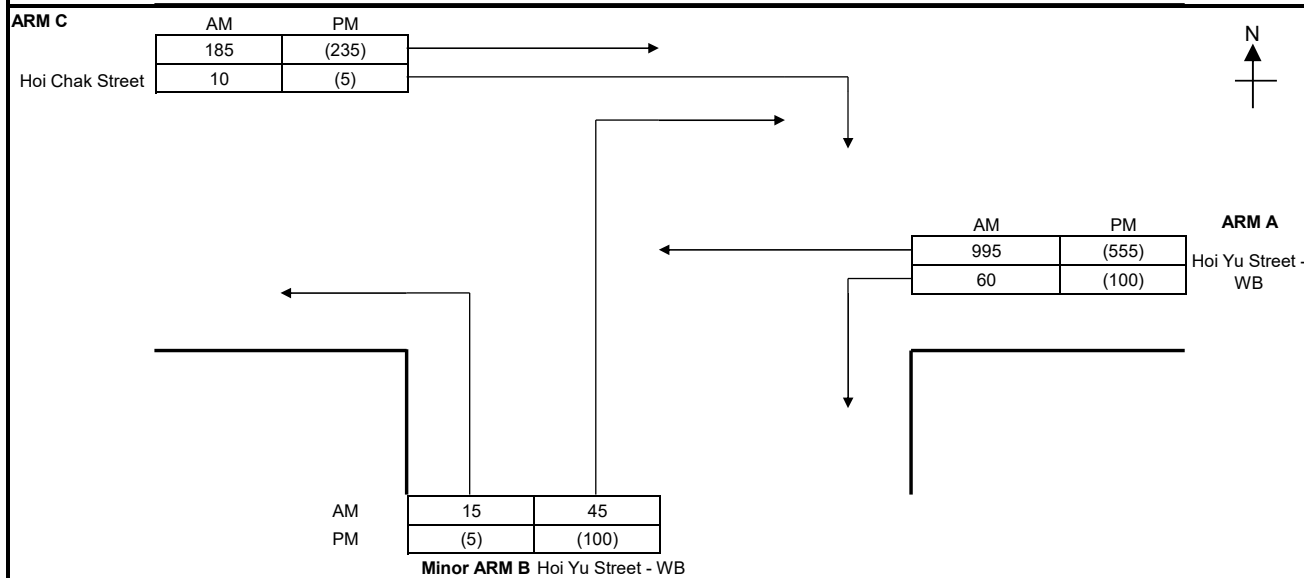


Job Title:	Hoi Yu Street TIA	Ref. No.:	J1_pic
Junction:	Hoi Yu Street/Hoi Chak Street	Designed by:	NLY
Description:	2033 Design	Checked by:	WCY
Design Year:	2025	Job No.:	CHK50793710
		Date:	九月 2025

ARM A: Hoi Yu Street - EB

ARM B: Hoi Yu Street - WB

ARM C: Hoi Chak Street



GEOMETRY

Major road width	W	13.50	Lane widths	w(b-a)	3.25
Central Reserve width	Wcr	0.00		w(b-c)	3.25
2 Lane Minor Arm (Y/N)		N		w(c-b)	2.60

PARAMETER

Visibilities	Vr(b-a)	50	Calculated	D	0.79
	VI(b-a)	50		E	0.91
	Vr(b-c)	50		F	0.91
	Vr(c-b)	50		Y	0.56

ANALYSIS

			AM Peak	PM Peak
TRAFFIC FLOWS	q(c-a)		185	235
	q(c-b)		10	5
	q(a-b)		60	100
	q(a-c)		995	555
	q(b-a)		45	100
	q(b-c)		15	5
	f		0.25	0.05
CAPACITIES	Q(b-a)	Factor 1	312	376
	Q(b-c)	1	489	567
	Q(c-b)	1	487	561
	Q(b-ac)	1	343	382
RFC's	b-a		0.144	0.266
	b-c		0.031	0.009
	c-b		0.021	0.009
	b-ac		0.175	0.275
RFC			0.175	0.275

Where VI and Vr are visibility distances to the left or right of the respective streams

$$D = (1 + 0.094(w(b-a) - 3.65))(1 + 0.0009(Vr(b-a) - 120))(1 + 0.0006(VI(b-a) - 150))$$

$$E = (1 + 0.094(w(b-c) - 3.65))(1 + 0.0009(Vr(b-c) - 120))$$

$$F = (1 + 0.094(w(c-b) - 3.65))(1 + 0.0009(Vr(c-b) - 120))$$

$$Y = 1 - 0.0345W$$

f = proportion of minor traffic turning left

$$Q(b-ac) = Q(b-c) * Q(b-a) / ((1-f) * Q(b-c) + f * Q(b-a))$$

Capacity of combined streams

All the above formulas are in accordance to T.P.D.M. Vol.2 Chapter 4 Appendix 1

Simplified picority Junction Capacity Calculation



Job Title:	Hoi Yu Street TIA		Ref. No.:	J1_pic	
Junction:	Hoi Yu Street/Hoi Chak Street		Designed by:	NLV	
Description:	2033 Design		Checked by:	WCY	
Design Year:	2025	Job No.:	CHK50793710		Date:
九月 2025					
ARM A:	Hoi Yu Street - EB				
ARM B:	Hoi Yu Street - WB				
ARM C:	Hoi Chak Street				
ARM C Noon 180 Hoi Chak Street 15 Noon 15 100 Minor ARM B Hoi Yu Street - WB					
GEOMETRY					
Major road width	W	13.50	Lane widths	w(b-a)	3.25
Central Reserve width	Wcr	0.00		w(b-c)	3.25
2 Lane Minor Arm (Y/N)		N		w(c-b)	2.60
PARAMETER					
Visibilities	Vr(b-a)	50	Calculated	D	0.79
	VI(b-a)	50		E	0.91
	Vr(b-c)	50		F	0.91
	Vr(c-b)	50		Y	0.56
ANALYSIS					
TRAFFIC FLOWS			Noon Peak		
	q(c-a)			180	
	q(c-b)			15	
	q(a-b)			95	
	q(a-c)			660	
	q(b-a)			100	
	q(b-c)			15	
	f			0.13	
CAPACITIES					
	Q(b-a)	Factor		363	
	Q(b-c)	1		548	
	Q(c-b)	1		542	
	Q(b-ac)	1		380	
RFC's					
	b-a			0.275	
	b-c			0.027	
	c-b			0.028	
	b-ac			0.303	
RFC			0.303		
Where VI and Vr are visibility distances to the left or right of the respective streams $D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$ $E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$ $F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$ $Y = 1-0.0345W$ f = proportion of minor traffic turning left $Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$ Capacity of combined streams All the above formulas are in accordance to T.P.D.M. Vol.2 Chapter 4 Appendix 1					

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50793710

MVA HONG KONG LIMITED

Junction: Java Road/ Hoi Yu Street

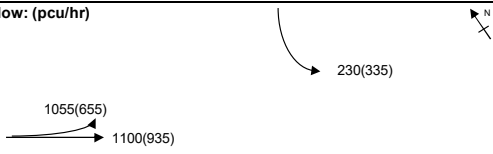
Design Year: 2025

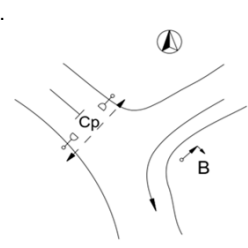
Description: 2033 Design

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Java Road	↖	A	1	2.4	20					1725	1725	1055	0.612	0.612	655	0.380	
	→	A	1	3.2						1040	1040	468	0.450		398	0.383	
	→	A	1	3.1						825	825	371	0.450		315	0.382	
	→	A	1	3.1						580	580	261	0.450		222	0.383	0.383
Hoi Yu Street	↙	B	2	3.4	15					1905	1905	120	0.063		175	0.092	0.092
	↘	B	2	3.4	12.5					1745	1745	110	0.063		160	0.092	
Pedestrian Crossing		Cp	2	MIN GREEN + FLASH =		8	+	10	=	18	*						

Notes: 1. Site factor 0.5, 0.4 and 0.3 are adopted for Java Road's second, third and fourth lane respectively due to downstream blocking and illegal parking along kerbside observed.	Flow: (pcu/hr) 		Group	A,B	A,Cp	Group	A,Cp	A,B
			y	0.675	0.612	y	0.383	0.475
			L (sec)	10	26	L (sec)	26	10
			C (sec)	115	115	C (sec)	110	110
			y pract.	0.822	0.697	y pract.	0.687	0.818
			R.C. (%)	22%	14%	R.C. (%)	80%	72%

Stage / Phase Diagrams				
1. 	2. 	3.	4.	5.
I/G= 4	I/G= 5	18	I/G=	I/G=
I/G= 5	I/G= 7		I/G=	I/G=

Date: 九月, 2025	Junction: Java Road/ Hoi Yu Street	
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Junction: Java Road/ Hoi Yu Street

Design Year: 2025

Description: 2033 Design

Designed By: NLY

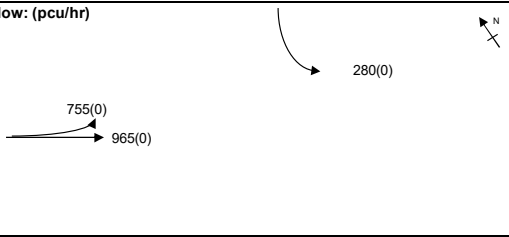
Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		Noon Peak			N/A		
					Left	Right		Noon		Noon		Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Java Road	↖	A	1	2.4	20					1725		755	0.438	0.438			*
	→	A	1	3.2						1040		410	0.394				
	→	A	1	3.1						825		326	0.395				
	→	A	1	3.1						580		229	0.395				
Hoi Yu Street	↙	B	2	3.4	15					1905		146	0.077				*
	↘	B	2	3.4	12.5					1745		134	0.077				
Pedestrian Crossing		Cp	2	MIN GREEN + FLASH =		8	+	10	=	18				*			

Notes:

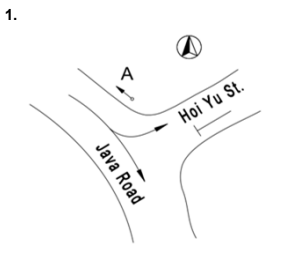
1. Site factor 0.5, 0.4 and 0.3 are adopted for Java Road's second, third and fourth lane respectively due to downstream blocking and illegal parking along kerbside observed.

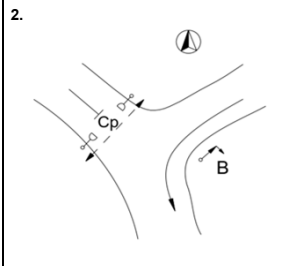
Flow: (pcu/hr)



Group	A,B	A,Cp	Group		
y	0.514	0.438	y		
L (sec)	10	26	L (sec)		
C (sec)	110	110	C (sec)		
y pract.	0.818	0.687	y pract.		
R.C. (%)	59%	57%	R.C. (%)		

Stage / Phase Diagrams

1.

2.

3.

4.

5.

I/G= 4		I/G= 5	18	I/G=		I/G=		I/G=	
I/G= #N/A	#N/A	I/G= #N/A	#N/A	I/G=		I/G=		I/G=	

Date: 九月, 2025

Junction: Java Road/ Hoi Yu Street

J2

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: King's Road/ Java Road

Design Year: 2025

Description: 2033 Design

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
King's Road EB	→	A	1	5.3						2145	2145	230	0.107		200	0.093	
King's Road EB (Tram)	→	A	1	2.7						2025	2025	100	0.049		100	0.049	
Java Road	↖	C	2	3.5		30				1870	1870	268	0.143	0.143	330	0.176	0.176
	↗	C	2	4.1		32.5				2070	2070	297	0.143		365	0.176	
	↙	D	2,3	3.3	52.5					2025	2025	385	0.190		279	0.138	
	↘	D	2,3	3.3	50					1890	1890	360	0.190		261	0.138	
King's Road WB	↑	B	1,3	3.2						1935	1935	338	0.175	0.175	359	0.186	0.186
	↑	B	1,3	3.2						2075	2075	363	0.175		386	0.186	
	↑	B	1,3	3.5						1965	1965	344	0.175		365	0.186	
King's Road WB (Tram)	↑	B	1,3	2.3						1845	1845	100	0.054		90	0.049	
Pedestrian Crossing																	
		Ep	1,3	MIN GREEN + FLASH =		5	+	7	=	12							
		Fp	1	MIN GREEN + FLASH =		5	+	9	=	14							
		Gp	2,3	MIN GREEN + FLASH =		5	+	5	=	10							
		Hp	2	MIN GREEN + FLASH =		5	+	13	=	18							

Notes:	Flow: (pcu/hr)	Group	A,D	B,C	Group	A,D	B,C
		y			y		
	230(200)	L (sec)	12	10	L (sec)	12	10
	1045(1110)	C (sec)	115	115	C (sec)	110	110
		y pract.	0.806	0.822	y pract.	0.802	0.818
		R.C. (%)	171%	158%	R.C. (%)	247%	126%

Stage / Phase Diagrams							
1.	2.	3.	4.	5.			
I/G=	I/G= 5	I/G= 7	I/G=	I/G=	I/G=	I/G=	I/G=
I/G=	I/G= 5	I/G= 7	I/G=	I/G=	I/G=	I/G=	I/G=

Date: 九月, 2025 Junction: King's Road/ Java Road J3

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50793710

MVA HONG KONG LIMITED

Junction: King's Road/ Java RoadDesign Year: 2025Description: 2033 DesignDesigned By: NLYChecked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		Noon Peak			N/A		
					Left	Right		Noon		Noon		Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
King's Road EB	→	A	1	5.3						2145		185	0.086				*
King's Road EB (Tram)	→	A	1	2.7						2025		105	0.052				
Java Road	↖	C	2	3.5		30				1870		294	0.157	0.157			*
	↗	C	2	4.1		32.5				2070		326	0.157				
	↘	D	2,3	3.3	52.5					2025		300	0.148				
	↙	D	2,3	3.3	50					1890		280	0.148				
King's Road WB	↑	B	1,3	3.2						1935		313	0.162	0.162			
	↑	B	1,3	3.2						2075		335	0.161				
	↑	B	1,3	3.5						1965		317	0.161				
King's Road WB (Tram)	↑	B	1,3	2.3						1845		100	0.054				
Pedestrian Crossing																	
		Ep	1,3	MIN GREEN + FLASH =			5	+	7	=	12						
		Fp	1	MIN GREEN + FLASH =			5	+	9	=	14						
		Gp	2,3	MIN GREEN + FLASH =			5	+	5	=	10						
		Hp	2	MIN GREEN + FLASH =			5	+	13	=	18						

Notes:	Flow: (pcu/hr)		Group	A,D	B,C	Group		
			y	0.234	0.319	y		
			L (sec)	12	10	L (sec)		
			C (sec)	110	110	C (sec)		
			y pract.	0.802	0.818	y pract.		
			R.C. (%)	242%	156%	R.C. (%)		

Stage / Phase Diagrams

1.	2.	3.	4.	5.
----	----	----	----	----

I/G=	I/G= 5	I/G= 7	I/G=	I/G=
I/G= #N/A	I/G= #N/A	I/G= #N/A	I/G=	I/G=

Date:

九月, 2025

Junction:

King's Road/ Java Road

J3

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: Hoi Tai Street/ Hoi Kwong Street/ Finnie Street/ Hoi Chak Street

Design Year: 2025

Description: 2033 Design

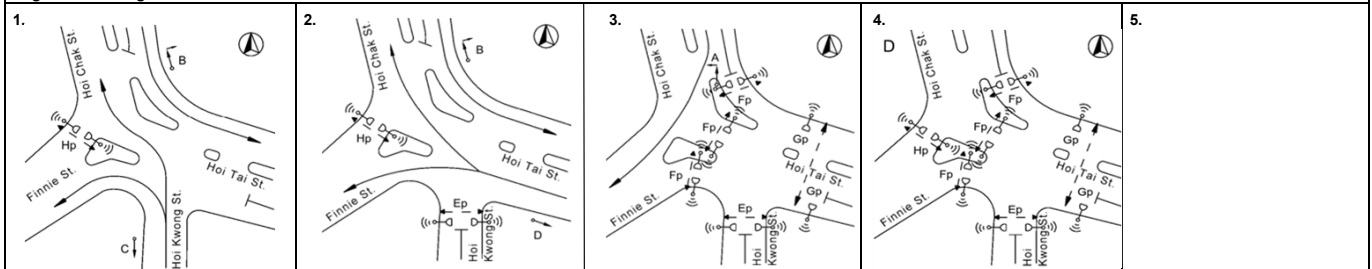
Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Hoi Tai Street	↗	D	2	3.5		40				2030	2030	85	0.042		155	0.076	
	↘	D	2	3.6	20					1835	1835	350	0.191		485	0.264	0.264
Hoi Kwong Street	↖	C	1	3.6	15			80%	89%	1830	1815	125	0.068		175	0.096	0.096
Hoi Chak Street	↗	B	1,2	3.1	35					1845	1845	795	0.431	0.431	475	0.257	
	↘	A	3	3.5		30				2005	2005	75	0.037		70	0.035	
Pedestrian Crossing Ep 2,3,4 MIN GREEN + FLASH = 8 + 5 = 13 Fp 3,4 MIN GREEN + FLASH = 9 + 7 = 16 Gp 3,4 MIN GREEN + FLASH = 8 + 10 = 18 Hp 1,2,4 MIN GREEN + FLASH = 5 + 7 = 12																	

Notes:	Flow: (pcu/hr)	Group	B.Fp	B.Gp	Group	C.D.Fp	C.D.Gp
		y	0.431	0.431	y	0.361	0.361
		L (sec)	26	27	L (sec)	33	34
		C (sec)	115	115	C (sec)	110	110
		y pract.	0.697	0.689	y pract.	0.630	0.622
		R.C. (%)	62%	60%	R.C. (%)	75%	72%

Stage / Phase Diagrams



I/G= 2	I/G=	I/G= 8	18	I/G=	I/G=
I/G= 2	I/G= 6	I/G= 10	18	I/G=	I/G=

Date: 九月, 2025 Junction: Hoi Tai Street/ Hoi Kwong Street/ Finnie J4

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: Hoi Tai Street/ Hoi Kwong Street/ Finnie Street/ Hoi Chak Street

Design Year: 2025

Description: 2033 Design

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		Noon Peak			N/A		
					Left	Right		Noon		Noon		Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Hoi Tai Street	↗ ↘	D D	2 2	3.5 3.6		40				2030 1835		100 400	0.049 0.218	0.218			
Hoi Kwong Street	↖	C	1	3.6	15			75%		1835		140	0.076	0.076			
Hoi Chak Street	↗ ↘	B A	1,2 3	3.1 3.5	35	30				1845 2005		460 80	0.249 0.040				*
Pedestrian Crossing																	
	Ep	2,3,4		MIN GREEN + FLASH =			8	+	5	=	13						
	Fp	3,4		MIN GREEN + FLASH =			9	+	7	=	16						*
	Gp	3,4		MIN GREEN + FLASH =			8	+	10	=	18			*			
	Hp	1,2,4		MIN GREEN + FLASH =			5	+	7	=	12						

Notes:	Flow: (pcu/hr)			Group	C,D,Fp	C,D,Gp	Group		
				y	0.294	0.294	y		
				L (sec)	33	34	L (sec)		
				C (sec)	110	110	C (sec)		
				y pract.	0.630	0.622	y pract.		
				R.C. (%)	114%	111%	R.C. (%)		

Stage / Phase Diagrams									
1.	2.	3.	4.	5.					
I/G= 2	I/G= 6	I/G= 10	I/G=	I/G=					
I/G= #N/A	I/G= #N/A	I/G= #N/A	I/G= #N/A	I/G= #N/A					

Date: 九月, 2025 Junction: Hoi Tai Street/ Hoi Kwong Street/ Finnie J4

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: King's Road/ Finnie Street

Design Year: 2025

Description: 2033 Design

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
King's Road NB (with Tram)	↑	C	1	3.0						1915	1915	238	0.124		231	0.121	0.121
	↑	C	1	3.3						2085	2085	260	0.125		251	0.120	
	↑	C	1	3.5						2105	2105	262	0.124		253	0.120	
Finnie Street	↑	D	3	3.5	10	20		100% / 0%	100% / 0%	1710	1710	360	0.211	0.211	625	0.365	0.365
	↑	D	3	3.5		22.5				1840	1840	120	0.065		205	0.111	
King's Road SB	↓	A	1,2	3.7						1985	1985	432	0.218	0.218	424	0.214	
	↓	A	1,2	3.3						2085	2085	453	0.217		446	0.214	
King's Road SB (Tram)	↓	A	1,2	2.6						1875	1875	100	0.053		100	0.053	
Pedestrian Crossing																	
		Ep	1,2	MIN GREEN + FLASH =			5	+	7	=	12						
		Fp	3	MIN GREEN + FLASH =			5	+	6	=	11						
		Gp	2	MIN GREEN + FLASH =			5	+	6	=	11						*

Notes:	Flow: (pcu/hr)	Group	C.Gp.D	A.D	Group	A.D	C.Gp.D
		y	0.335	0.428	y	0.579	0.486
		L (sec)	27	10	L (sec)	10	27
		C (sec)	115	115	C (sec)	110	110
		y pract.	0.689	0.822	y pract.	0.818	0.679
		R.C. (%)	105%	92%	R.C. (%)	41%	40%

Stage / Phase Diagrams							
1.	2.	3.	4.	5.			
I/G= 7	I/G=	I/G= 5	I/G=	I/G=	I/G=	I/G=	I/G=
I/G= 7	I/G= 9	I/G= 2					

Date: 九月, 2025 Junction: King's Road/ Finnie Street J5

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: King's Road/ Finnie Street

Design Year: 2025

Description: 2033 Design

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		Noon Peak			N/A		
					Left	Right		Noon		Noon		Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
King's Road NB (with Tram)	↑	C	1	3.0						1915		194	0.101				
	↑	C	1	3.3						2085		212	0.102	0.102			
	↑	C	1	3.5						2105		214	0.102				
Finnie Street	↑	D	3	3.5	10	20				1710		420	0.246	0.246			*
	↑	D	3	3.5		22.5		100% / 0%		1840		155	0.084				
King's Road SB	↓	A	1,2	3.7						1985		339	0.171				*
	↓	A	1,2	3.3						2085		356	0.171				
King's Road SB (Tram)	↓	A	1,2	2.6						1875		105	0.056				
Pedestrian Crossing																	
		Ep	1,2	MIN GREEN + FLASH =			5	+	7	=	12						
		Fp	3	MIN GREEN + FLASH =			5	+	6	=	11						
		Gp	2	MIN GREEN + FLASH =			5	+	6	=	11			*			

Notes:	Flow: (pcu/hr)		Group	A,D	C,Gp,D	Group		
			y	0.416	0.347	y		
			L (sec)	10	27	L (sec)		
			C (sec)	110	110	C (sec)		
			y pract.	0.818	0.679	y pract.		
			R.C. (%)	96%	96%	R.C. (%)		

Stage / Phase Diagrams								
1.	2.	3.	4.	5.				
I/G= 7	I/G= 9	I/G= 11	I/G= 2	I/G=	I/G=	I/G=	I/G=	I/G=
I/G= #N/A	I/G= #N/A	I/G= #N/A	I/G= #N/A	I/G= #N/A	I/G= #N/A	I/G= #N/A	I/G= #N/A	I/G= #N/A

Date: 九月, 2025 Junction: King's Road/ Finnie Street J5

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: King's Road/ Model Lane

Design Year: 2025

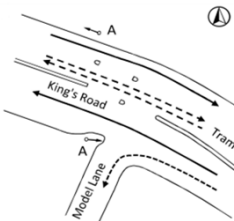
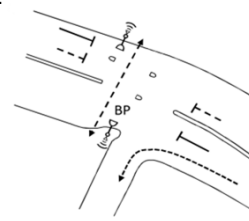
Description: 2033 Design

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
King's Road EB	→	A	1	5.500						2165	2165	230	0.106		200	0.092	
King's Road EB(Tram)	→	A	1	2.200						1975	1975	100	0.051		100	0.051	
King's Road WB	←	A	1	3.200				2075	2075	2075	2075	676	0.326	0.326	756	0.364	
free flow	↙	A	1	3.300				2085	2085	2085	2085	679	0.326		759	0.364	0.364
	↘			3.300	8			1640	1640	1640	1640	255	0.155		290	0.177	
King's Road WB(Tram)	←	A	1	3.200				2075	2075	2075	2075	100	0.048		90	0.043	
Pedestrian Crossing Bp 2 MIN GREEN + FLASH = 13 + 7 = 20 *																	

Notes:	Flow: (pcu/hr)	Group	y	L (sec)	C (sec)	y pract.	R.C. (%)	A,Bp	Group	y	L (sec)	C (sec)	y pract.	R.C. (%)	A,Bp

Stage / Phase Diagrams																			
1. 				2. 				3.				4.				5.			
I/G= 4				I/G= 5		20		I/G=				I/G=				I/G=			
I/G= 4				I/G= 5		20		I/G=				I/G=				I/G=			

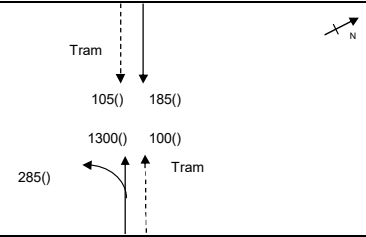
Date: 九月, 2025 Junction: King's Road/ Model Lane J6

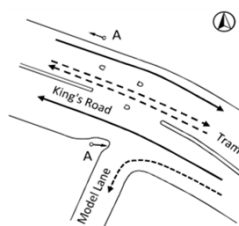
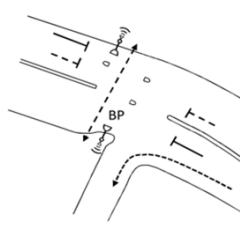
TRAFFIC SIGNALS CALCULATION

Job No.: CHK50793710 MVA HONG KONG LIMITED

Junction: King's Road/ Model Lane Design Year: 2025
Description: 2033 Design Designed By: NLY Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		Noon Peak			N/A		
					Left	Right		Noon		Noon		Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
King's Road EB	→	A	1	5.500						2165		185	0.085				*
King's Road EB(Tram)	→	A	1	2.200						1975		105	0.053				
King's Road WB	←	A	1	3.200						2075		648	0.312	0.312			
free flow	←	A	1	3.300						2085		652	0.313				
	↙			3.300	8					1640		285	0.174				
King's Road WB(Tram)	←	A	1	3.200						2075		100	0.048				
Pedestrian Crossing Bp 2 MIN GREEN + FLASH = 13 + 7 = 20 *																	

Notes:	Flow: (pcu/hr)		Group		A,Bp	Group		
			y		0.312	y		
			L (sec)		28	L (sec)		
			C (sec)		110	C (sec)		
			y pract.		0.671	y pract.		
			R.C. (%)		115%	R.C. (%)		

Stage / Phase Diagrams								
1. 	2. 	3.	4.	5.				
I/G= 4	I/G= 5	I/G=	I/G=	I/G=	I/G=	I/G=	I/G=	I/G=
I/G= #N/A	I/G= #N/A	I/G=	I/G=	I/G=	I/G=	I/G=	I/G=	I/G=

Date: 九月, 2025 Junction: King's Road/ Model Lane J6

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: Java Road/ Man Hong Street

Design Year: 2025

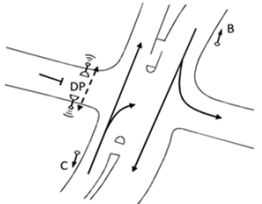
Description: 2033 Design

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Java Road EB	→	A	1	3.000	12					1700	1700	243	0.143		270	0.159	0.159
	↘	A	1	3.000	15			98%	94%	1870	1880	268	0.143	0.143	286	0.152	
	→	A	1	3.000		18		5%	6%	2045	2045	293	0.143		312	0.153	
	↘	A	1	3.000		17				1890	1890	271	0.143		292	0.154	
Man Hong Street SB	↓	B	2,3	3.200						2075	2075	423	0.204		371	0.179	
	↓	B	2,3	3.400						2095	2095	427	0.204		374	0.179	
	↘	B	2,3	3.800	12					1775	1775	425	0.239		340	0.192	
Man Hong Street NB	↗	C	3	6.300		10		8%	8%	2105	2105	505	0.240	0.240	445	0.211	0.211
Pedestrian Crossing		Dp	2,3	MIN GREEN + FLASH =		5	+	12	=	17							
		Ep	1	MIN GREEN + FLASH =		6	+	10	=	16							
		Fp	2	MIN GREEN + FLASH =		5	+	8	=	13				*			*

Notes: Opposing factor of 0.5 has been adopted on Man Hong Street NB due to the presence of opposite movement on right turn	Flow: (pcu/hr) 		Group	A,B	A,Fp,C	Group	A,B	A,Fp,C
			y	0.383	0.383	y	0.350	0.370
			L (sec)	16	30	L (sec)	16	30
			C (sec)	115	115	C (sec)	110	110
			y pract.	0.775	0.665	y pract.	0.769	0.655
			R.C. (%)	102%	74%	R.C. (%)	120%	77%

Stage / Phase Diagrams									
1.		2.		3.		4.		5.	
									
I/G= 7		I/G= 8	13	I/G= 4		I/G=		I/G=	
I/G= 7		I/G= 8	13	I/G= 4		I/G=		I/G=	

Date: 九月, 2025 Junction: Java Road/ Man Hong Street J7

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50793710

MVA HONG KONG LIMITED

Junction: Java Road/ Man Hong Street

Design Year: 2025

Description: 2033 Design

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		Noon Peak			N/A		
					Left	Right		Noon		Noon		Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Java Road EB	→	A	1	3.000	12					1700		278	0.164				*
	↘	A	1	3.000	15			77%		1910		312	0.164				
	→	A	1	3.000		18		26%		2010		329	0.164	0.164			
	↙	A	1	3.000		17				1890		310	0.164				
Man Hong Street SB	↓	B	2,3	3.200						2075		381	0.184				*
	↓	B	2,3	3.400						2095		384	0.183				
	↙	B	2,3	3.800	12					1775		295	0.166				
Man Hong Street NB	↗	C	3	6.300		10		11%		2095		415	0.198	0.198			
Pedestrian Crossing																	
				Dp	2,3	MIN GREEN + FLASH =		5	+	12	=	17					
				Ep	1	MIN GREEN + FLASH =		6	+	10	=	16					
				Fp	2	MIN GREEN + FLASH =		5	+	8	=	13					

Notes: Opposing factor of 0.5 has been adopted on Man Hong Street NB due to the presence of opposite movement on right turn	Flow: (pcu/hr) 		Group	A,B	A,Fp,C	Group		
			y	0.348	0.362	y		
			L (sec)	16	30	L (sec)		
			C (sec)	110	110	C (sec)		
			y pract.	0.769	0.655	y pract.		
			R.C. (%)	121%	81%	R.C. (%)		

Stage / Phase Diagrams								
1. 			2. 			3. 		
4.			5.					
I/G= 7		I/G= 8	13	I/G= 4		I/G=		I/G=
I/G= #N/A	#N/A	I/G= #N/A	#N/A	I/G= #N/A	#N/A	I/G=		I/G=

Date: 九月, 2025 Junction: Java Road/ Man Hong Street J7

Junction: King's Road/ Healthy Street West/ Man Hong Street Design Year: 2025
 Description: 2033 Design Designed By: NLY Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
King's Road EB	→	A	1,2	3.300						1945	1945	74	0.038		65	0.033	
King's Road EB(Tram)	→	A	1,2	3.500						2105	2105	81	0.038		70	0.033	
King's Road WB	→	A	1,2	2.500						2005	2005	100	0.050		100	0.050	
King's Road WB	↔	B	1	3.500	8			81%	75%	1705	1720	267	0.157	0.157	266	0.155	
King's Road WB	←	B	1	3.400						2095	2095	328	0.157		324	0.155	0.155
King's Road WB(Tram)	←	At	1,2	2.700						2025	2025	100	0.049		90	0.044	
Man Hong Street SB	↓	D	4	3.300						1945	1945	327	0.168	0.168	316	0.162	
	↔	D	4	3.500		40		33%	21%	2080	2090	349	0.168		340	0.163	
	↔	D	4	3.500		35				2020	2020	339	0.168		329	0.163	0.163
Pedestrian Crossing		Ep	3,4	MIN GREEN + FLASH =			7	+	6	=	13						
		Fp	2,3	MIN GREEN + FLASH =			5	+	10	=	15			*			*
		Gp	2,3,4	MIN GREEN + FLASH =			5	+	6	=	11						
		Hp	1,2,3	MIN GREEN + FLASH =			5	+	9	=	14						

Notes:	Flow: (pcu/hr) Tram 455(400) 560(585) Tram 100(100) 100(90) 155(135) 380(390) 215(200)	Group	Hp,D	B,Fp,D	Group	Hp,D	B,Fp,D
		y	0.168	0.325	y	0.163	0.318
		L (sec)	24	35	L (sec)	24	35
		C (sec)	115	115	C (sec)	110	110
		y pract.	0.712	0.626	y pract.	0.704	0.614
		R.C. (%)	324%	93%	R.C. (%)	332%	93%

I/G= 11	I/G= 9	15	I/G=	I/G= 2	I/G=
I/G= 11	I/G= 9	15	I/G=	I/G= 2	I/G=

Date: 九月, 2025	Junction: King's Road/ Healthy Street West/ Man	
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TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: King's Road/ Healthy Street West/ Man Hong Street

Design Year: 2025

Description: 2033 Design

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		Noon Peak			N/A		
					Left	Right		Noon		Noon		Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
King's Road EB	→	A	1,2	3.300						1945		65	0.033				*
King's Road EB(Tram)	→	A	1,2	2.500						2105		70	0.033				
King's Road WB	←	B	1	3.500	8			77%		1715		266	0.155	0.155			
King's Road WB(Tram)	←	B	1	3.400						2095		324	0.155				
Man Hong Street SB	↓	At	1,2	2.700						2025		100	0.049				
	↓	D	4	3.300						1945		347	0.178				
	↓	D	4	3.500		40		16%		2090		373	0.178	0.178			
	↓	D	4	3.500		35				2020		360	0.178				
Pedestrian Crossing																	
	Ep	3,4		MIN GREEN + FLASH =	7	+	6	=	13								*
	Fp	2,3		MIN GREEN + FLASH =	5	+	10	=	15								
	Gp	2,3,4		MIN GREEN + FLASH =	5	+	6	=	11								
	Hp	1,2,3		MIN GREEN + FLASH =	5	+	9	=	14								

Notes:	Flow: (pcu/hr)	Group	Hp,D	B,Fp,D	Group		
		y	0.178	0.334	y		
		L (sec)	24	35	L (sec)		
		C (sec)	110	110	C (sec)		
		y pract.	0.704	0.614	y pract.		
		R.C. (%)	294%	84%	R.C. (%)		

Stage / Phase Diagrams							
1.	2.	3.	4.	5.			
I/G= 11	I/G= 9	I/G=	I/G= 2	I/G=			
I/G= #N/A	I/G= #N/A	I/G= #N/A	I/G= #N/A	I/G=			

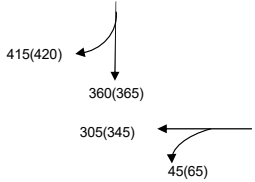
Date: 九月, 2025 Junction: King's Road/ Healthy Street West/ Man Hong Street J8

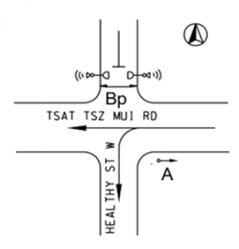
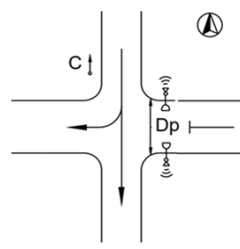
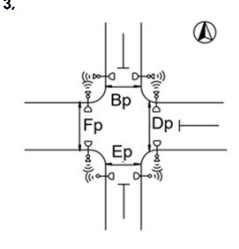
TRAFFIC SIGNALS CALCULATION

Job No.: CHK50793710 MVA HONG KONG LIMITED

Junction: Tsat Tsz Mui Road/ Healthy Street West Design Year: 2025
Description: 2033 Design Designed By: NLY Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Tsat Tsz Mui Road WB		A	1	3.800	10			27%	34%	1915	1900	166	0.087	0.087	193	0.102	
		A	1	3.800						2135	2135	184	0.086		217	0.102	0.102
Healthy Street West SB		C	2	2.500						1865	1865	256	0.137	0.137	259	0.139	
		C	2	3.300		13		61%	61%	1950	1950	267	0.137		271	0.139	0.139
		C	2	3.600		10				1840	1840	252	0.137		255	0.139	
Pedestrian Crossing	Bp	1,3	MIN GREEN + FLASH =		5	+	9	=	14								
	Dp	2,3	MIN GREEN + FLASH =		5	+	8	=	13								
	Ep	3	MIN GREEN + FLASH =		5	+	9	=	14								
	Fp	3	MIN GREEN + FLASH =		5	+	8	=	13								

Notes:	Flow: (pcu/hr) 	Group	A,C,Fp	A,C,Ep	Group	A,C,Fp	A,C,Ep
		y	0.224	0.224	y	0.241	0.241
		L (sec)	28	29	L (sec)	28	29
		C (sec)	115	115	C (sec)	110	110
		y pract.	0.681	0.673	y pract.	0.671	0.663
		R.C. (%)	204%	201%	R.C. (%)	179%	175%

Stage / Phase Diagrams							
1. 	2. 	3. 	4.	5.			
I/G= 4	I/G= 6	I/G= 7	14	I/G=			
I/G= 4	I/G= 6	I/G= 7	14	I/G=			

Date: 九月, 2025 Junction: Tsat Tsz Mui Road/ Healthy Street West J9

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50793710

MVA HONG KONG LIMITED

Junction: Tsat Tsz Mui Road/ Healthy Street West

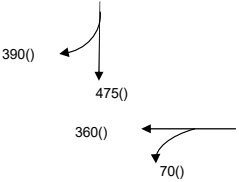
Design Year: 2025

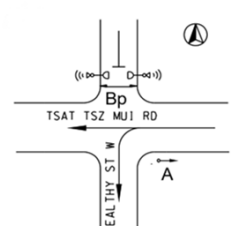
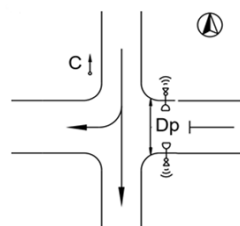
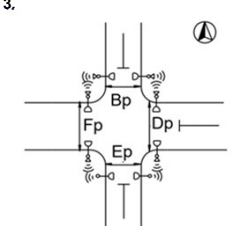
Description: 2033 Design

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		Noon Peak			N/A		
					Left	Right		Noon		Noon		Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Tsat Tsz Mui Road WB		A	1	3.800	10			35%		1895		202	0.107				*
		A	1	3.800						2135		228	0.107	0.107			
Healthy Street West SB		C	2	2.500						1865		283	0.152	0.152			*
		C	2	3.300		13		37%		2000		303	0.152				
		C	2	3.600		10				1840		279	0.152				
Pedestrian Crossing		Bp	1,3	MIN GREEN + FLASH =		5	+	9	=	14							
		Dp	2,3	MIN GREEN + FLASH =		5	+	8	=	13							
		Ep	3	MIN GREEN + FLASH =		5	+	9	=	14				*			*
		Fp	3	MIN GREEN + FLASH =		5	+	8	=	13							

Notes:	Flow: (pcu/hr) 	Group	A,C,Fp	A,C,Ep	Group		
		y	0.259	0.259	y		
		L (sec)	28	29	L (sec)		
		C (sec)	110	110	C (sec)		
		y pract.	0.671	0.663	y pract.		
		R.C. (%)	160%	156%	R.C. (%)		

Stage / Phase Diagrams				
1. 	2. 	3. 	4.	5.

I/G= 4	I/G= 6	I/G= 7	14	I/G=	I/G=	I/G=
I/G= #N/A	I/G= #N/A	I/G= #N/A	#N/A			

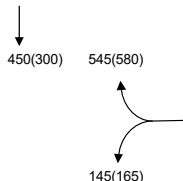
Date: 九月, 2025	Junction: Tsat Tsz Mui Road/ Healthy Street West	J9
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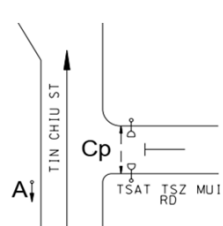
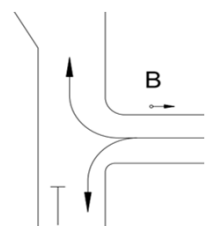
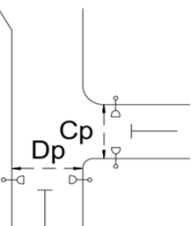
TRAFFIC SIGNALS CALCULATION

Job No.: CHK50793710 MVA HONG KONG LIMITED

Junction: Tsat Tsz Mui Road/ Tin Chiu West Design Year: 2025
Description: 2033 Design Designed By: NLY Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Tin Chiu Street NB	↓	A	1	3.900						2005	2005	450	0.224	0.224	300	0.150	0.150
Tsat Tsz Mui Road WB	↖ ↗	B B	2 2	4.100 4.100	6	13		45% / 55%	47% / 53%	1725	1720	325 365	0.188 0.188	0.188	350 395	0.203 0.204	0.204
Pedestrian Crossing																	
		Cp	1,3	MIN GREEN + FLASH =		10	+	9	=	19							
		Dp	3	MIN GREEN + FLASH =		7	+	9	=	16				*			*

Notes:	Flow: (pcu/hr)		Group	Cp,B	A,B,Dp	Group	Cp,B	A,B,Dp
			y	0.188	0.413	y	0.204	0.353
			L (sec)	27	32	L (sec)	27	32
			C (sec)	115	115	C (sec)	110	110
			y pract.	0.689	0.650	y pract.	0.679	0.638
			R.C. (%)	266%	57%	R.C. (%)	234%	81%
								

Stage / Phase Diagrams				
1. 	2. 	3. 	4.	5.
I/G= 4	I/G= 6	I/G= 8	I/G=	I/G=
I/G= 4	I/G= 6	I/G= 8	I/G=	I/G=

Date: 九月, 2025 Junction: Tsat Tsz Mui Road/ Tin Chiu West J10

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50793710 MVA HONG KONG LIMITED

Junction: Tsat Tsz Mui Road/ Tin Chiu West Design Year: 2025
Description: 2033 Design Designed By: NLY Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		Noon Peak			N/A		
					Left	Right		Noon		Noon		Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Tin Chiu Street NB	↓	A	1	3.900						2005		330	0.165	0.165			*
Tsat Tsz Mui Road WB	↖ ↗	B B	2 2	4.100 4.100	6	13		61% / 39%		1690 1940		345 395	0.204 0.204	0.204			*
Pedestrian Crossing																	
		Cp	1,3	MIN GREEN + FLASH =		10	+	9	=	19							
		Dp	3	MIN GREEN + FLASH =		7	+	9	=	16				*			*

Notes:	Flow: (pcu/hr) 	Group	Cp,B	A,B,Dp	Group		
		y	0.204	0.369	y		
		L (sec)	27	32	L (sec)		
		C (sec)	110	110	C (sec)		
		y pract.	0.679	0.638	y pract.		
		R.C. (%)	233%	73%	R.C. (%)		

Stage / Phase Diagrams							
1. 	2. 	3. 	4.	5.			
I/G= 4 I/G= #N/A	I/G= 6 I/G= #N/A	I/G= 8 I/G= #N/A	I/G= 16 I/G= #N/A	I/G=	I/G=	I/G=	I/G=

Date: 九月, 2025 Junction: Tsat Tsz Mui Road/ Tin Chiu West J10

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: King's Road/ Tin Chiu Street

Design Year: 2025

Description: 2033 Design

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
King's Road EB	→	A	1	3.200	12			14%	12%	1900	1905	250	0.132		255	0.134	
King's Road EB(Tram)	→	A	1	2.700						2025	2025	100	0.049		100	0.049	
King's Road WB	←	B	1	3.300						1945	1945	264	0.136		250	0.129	0.129
	←	B	1	3.500						2105	2105	285	0.135		270	0.128	
	←	B	1	3.500						2105	2105	286	0.136	0.136	270	0.128	
King's Road WB(Tram)	←	Dt	1	2.400						1995	1995	100	0.050		90	0.045	
Tin Chiu Street NB	↑	C	2	3.300	12					1730	1730	345	0.199		215	0.124	
	↑	C	2	3.500	12			37%	47%	2010	1990	205	0.102		310	0.156	
	↑	C	2	3.500		12				1870	1870	445	0.238	0.238	355	0.190	0.190
Pedestrian Crossing		Ep	1	MIN GREEN + FLASH =		6	+	12	=	18							
		Fp	2	MIN GREEN + FLASH =		5	+	9	=	14							

Notes:	Flow: (pcu/hr)	Group	A,C	B,C	Group	B,C	A,C
		y	0.370	0.374	y	0.318	0.324
		L (sec)	10	11	L (sec)	11	10
		C (sec)	115	115	C (sec)	110	110
		y pract.	0.822	0.814	y pract.	0.810	0.818
		R.C. (%)	122%	118%	R.C. (%)	154%	153%

Stage / Phase Diagrams							
1.	2.	3.	4.	5.			
I/G= 6	I/G= 7	I/G=	I/G=	I/G=	I/G=	I/G=	I/G=
I/G= 7	I/G= 5	I/G=	I/G=	I/G=	I/G=	I/G=	I/G=

Date: 九月, 2025 Junction: King's Road/ Tin Chiu Street J11

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: King's Road/ Tin Chiu Street

Design Year: 2025

Description: 2033 Design

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		Noon Peak			N/A		
					Left	Right		Noon		Noon		Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
King's Road EB	→	A	1	3.200	12			13%		1905		240	0.126				*
King's Road EB(Tram)	→	A	1	2.700						2025		105	0.052				
King's Road WB	←	B	1	3.300						1945		254	0.131				
	←	B	1	3.500						2105		276	0.131	0.131			
	←	B	1	3.500						2105		275	0.131				
King's Road WB(Tram)	←	Dt	1	2.400						1995		100	0.050				
Tin Chiu Street NB	↑	C	2	3.300	12					1730		255	0.147				*
	↑	C	2	3.500	12			51%		1980		265	0.134				
	↑	C	2	3.500		12				1870		340	0.182	0.182			
Pedestrian Crossing		Ep	1	MIN GREEN + FLASH =		6	+	12	=	18							
		Fp	2	MIN GREEN + FLASH =		5	+	9	=	14							

Notes:	Flow: (pcu/hr)	Group	A,C	B,C	Group		
		y	0.308	0.313	y		
		L (sec)	10	11	L (sec)		
		C (sec)	110	110	C (sec)		
		y pract.	0.818	0.810	y pract.		
		R.C. (%)	166%	159%	R.C. (%)		

Stage / Phase Diagrams							
1.	2.	3.	4.	5.			
I/G= 6	I/G= 7	I/G=	I/G=	I/G=			
I/G= #N/A	I/G= #N/A	I/G=	I/G=	I/G=			

Date: 九月, 2025 Junction: King's Road/ Tin Chiu Street J11

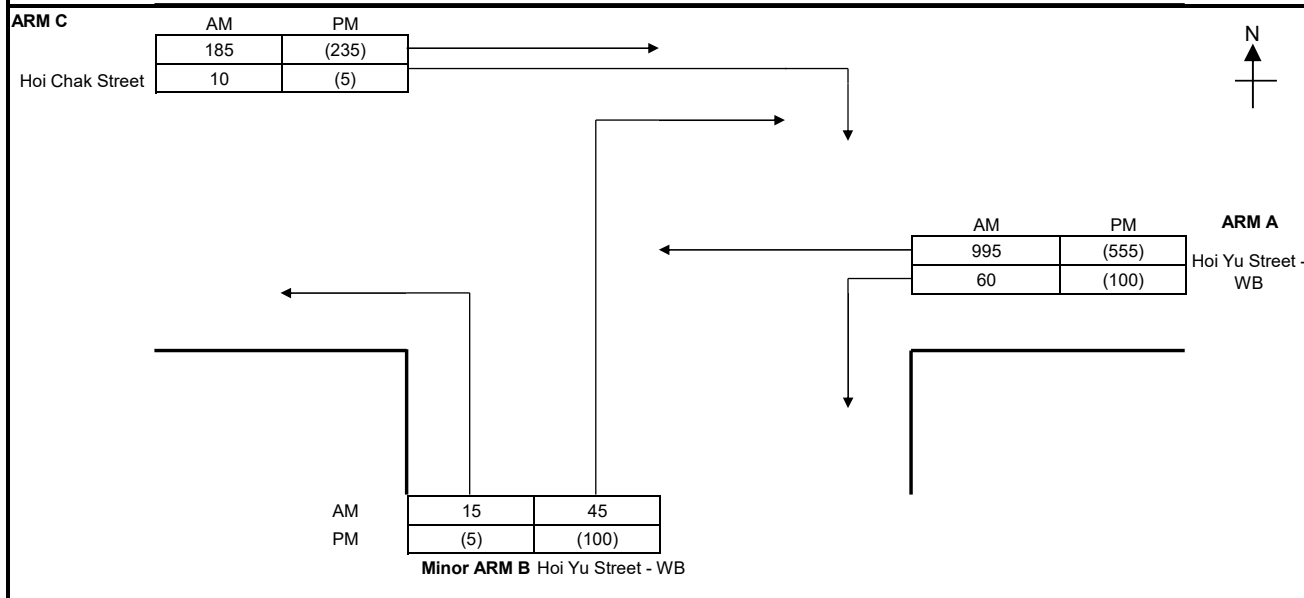
Calculation Sheets - 2033 Design Year (Junction Improvement)

Simplified picority Junction Capacity Calculation



Job Title:	Hoi Yu Street TIA	Ref. No.:	J1_pic-imp
Junction:	Hoi Yu Street/Hoi Chak Street	Designed by:	NLY
Description:	2033 Design	Checked by:	WCY
Design Year:	2025	Job No.:	CHK50793710
		Date:	九月 2025

ARM A:	Hoi Yu Street - EB
ARM B:	Hoi Yu Street - WB
ARM C:	Hoi Chak Street



GEOMETRY			
Major road width	W	10.81	Lane widths
Central Reserve width	Wcr	0.00	w(b-a)
2 Lane Minor Arm (Y/N)		N	w(b-c)
			w(c-b)

PARAMETER			
Visibilities	Vr(b-a)	50	Calculated
	VI(b-a)	50	D
	Vr(b-c)	50	E
	Vr(c-b)	50	F
			Y

ANALYSIS		AM Peak	PM Peak
TRAFFIC FLOWS	q(c-a)	185	235
	q(c-b)	10	5
	q(a-b)	60	100
	q(a-c)	995	555
	q(b-a)	45	100
	q(b-c)	15	5
	f	0.25	0.05
CAPACITIES	Q(b-a)	312	376
	Q(b-c)	489	567
	Q(c-b)	487	561
	Q(b-ac)	343	382
RFC's	b-a	0.144	0.266
	b-c	0.031	0.009
	c-b	0.021	0.009
	b-ac	0.175	0.275
RFC		0.175	0.275

Where VI and Vr are visibility distances to the left or right of the respective streams

$$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$$

$$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$$

$$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$$

$$Y = 1-0.0345W$$

f = proportion of minor traffic turning left

$$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$$

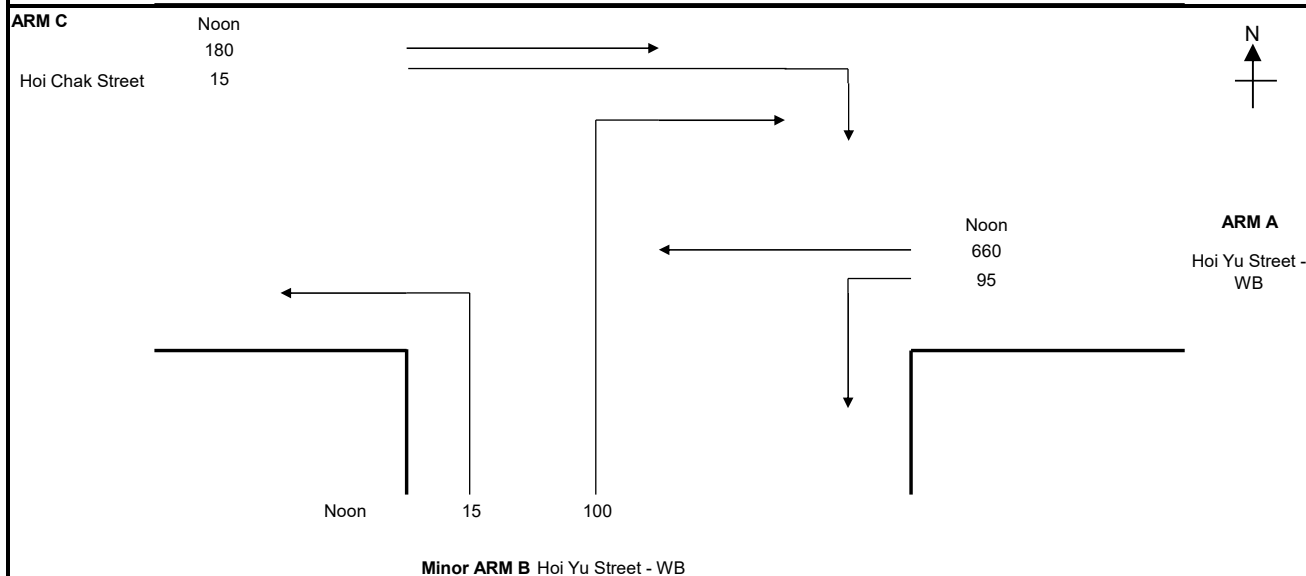
Capacity of combined streams

All the above formulas are in accordance to T.P.D.M. Vol.2 Chapter 4 Appendix 1

Simplified picority Junction Capacity Calculation



Job Title:	Hoi Yu Street TIA	Ref. No.:	J1_pic-imp
Junction:	Hoi Yu Street/Hoi Chak Street	Designed by:	NLY
Description:	2033 Design (With Junction Improvement)	Checked by:	WCY
Design Year:	2025	Job No.:	CHK50793710
		Date:	九月 2025
ARM A:	Hoi Yu Street - EB		
ARM B:	Hoi Yu Street - WB		
ARM C:	Hoi Chak Street		



GEOMETRY

Major road width	W	10.81	Lane widths	w(b-a)	3.77
Central Reserve width	Wcr	0.00		w(b-c)	3.77
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.40

PARAMETER

Visibilities	Vr(b-a)	50	Calculated	D	0.79
	VI(b-a)	50		E	0.91
	Vr(b-c)	50		F	0.91
	Vr(c-b)	50		Y	0.56

ANALYSIS

		Noon Peak	
TRAFFIC FLOWS	q(c-a)		180
	q(c-b)		15
	q(a-b)		95
	q(a-c)		660
	q(b-a)		100
	q(b-c)		15
	f		0.13
CAPACITIES	Q(b-a)	Factor	363
	Q(b-c)	1	548
	Q(c-b)	1	542
	Q(b-ac)	1	380
RFC's	b-a		0.275
	b-c		0.027
	c-b		0.028
	b-ac		0.303
RFC			0.303

Where VI and Vr are visibility distances to the left or right of the respective streams

$$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$$

$$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$$

$$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$$

$$Y = 1-0.0345W$$

f = proportion of minor traffic turning left

$$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$$

Capacity of combined streams

All the above formulas are in accordance to T.P.D.M. Vol.2 Chapter 4 Appendix 1

Junction: Java Road/ Hoi Yu Street

Design Year: 2025

Description: 2033 Design (With Junction Improvement)

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Java Road	↵	A	1	3.00	15.0					1740	1740	906	0.521	0.521	655	0.376	
	↱	A	1	2.80	20.0			29%	0%	995	1020	518	0.521		393	0.385	
	→	A	1	3.10						825	825	429	0.520		319	0.387	0.387
	→	A	1	3.10						580	580	302	0.521		223	0.384	
Hoi Yu Street	↵	B	2	3.600	10					1715	1715	230	0.134	0.134	335	0.195	0.195
Pedestrian Crossing																	
		Cp	2	MIN GREEN + FLASH =		10	+	10	=	20							

Notes:

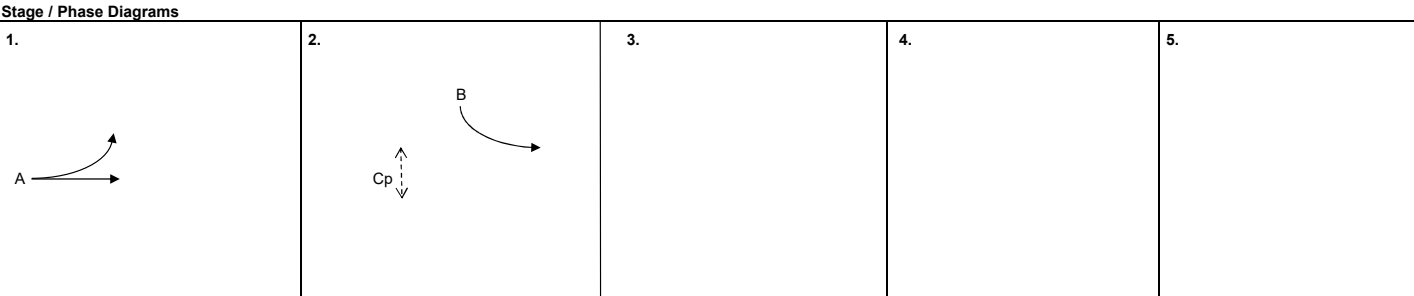
1. Site factor 0.4 and 0.3 are adopted for Java Road's third and fourth lane respectively due to downstream blocking and illegal parking along kerbside observed.

2. Site factor 1.0 is adopted for Java Road second lane due to proposed road widening at Hoi Yu Street.

Flow: (pcu/hr)

1055(655)
1100(935)
230(335)

Group	A,Cp	A,B	Group	A,Cp	A,B
y	0.521	0.655	y	0.387	0.582
L (sec)	28	10	L (sec)	28	10
C (sec)	115	115	C (sec)	110	110
y pract.	0.681	0.822	y pract.	0.671	0.818
R.C. (%)	31%	25%	R.C. (%)	74%	41%



Junction: Java Road/ Hoi Yu Street

Design Year: 2025

Description: 2033 Design (With Junction Improvement)

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		Noon Peak			N/A		
					Left	Right		Noon		Noon		Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Java Road	↖	A	1	3.00	15.0					1740	1740	720	0.414				*
	↗	A	1	2.80	20.0			8%		1010	1020	418	0.414				
	→	A	1	3.10						825	825	342	0.415	0.415			
	→	A	1	3.10						580	580	240	0.414				
Hoi Yu Street	↙	B	2	3.600	10					1715	1715	280	0.163	0.163			*
Pedestrian Crossing																	
		Cp	2	MIN GREEN + FLASH =		10	+	10	=	20							

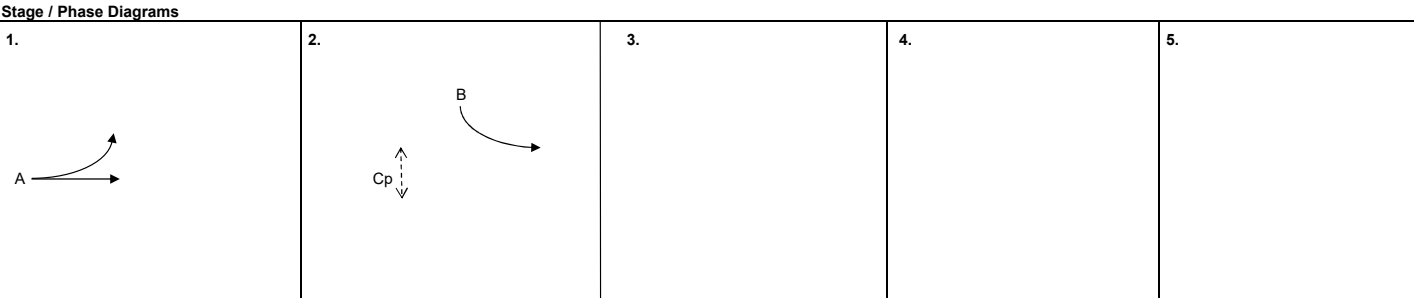
Notes:

1. Site factor 0.4 and 0.3 are adopted for Java Road's third and fourth lane respectively due to downstream blocking and illegal parking along kerbside observed.

2. Site factor 1.0 is adopted for Java Road second lane due to proposed road widening at Hoi Yu Street.

Flow: (pcu/hr)

Group	A,Cp	A,B	Group		
y	0.415	0.578	y		
L (sec)	28	10	L (sec)		
C (sec)	110	110	C (sec)		
y pract.	0.671	0.818	y pract.		
R.C. (%)	62%	42%	R.C. (%)		



TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50793710**

MVA HONG KONG LIMITED

Junction: Hoi Tai Street/ Hoi Kwong Street/ Finnie Street/ Hoi Chak Street

Design Year: 2025

Description: 2033 Design (With Junction Improvement)

Designed By: NLY

Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Hoi Tai Street	←	D	2	3.500	20					1830	1830	207	0.113		305	0.167	
	→	D	2	3.600	25	40		63% / 37%	54% / 46%	2010	2015	228	0.113		335	0.166	
Hoi Kwong Street	↖	C	1	3.6	15			80%	89%	1830	1815	125	0.068		175	0.096	
Hoi Chak Street	↗	B	1,2	3.1	35					1845	1845	795	0.431	0.431	475	0.257	0.257
	↘	A	3	3.5		30				2005	2005	75	0.037	0.037	70	0.035	0.035
Pedestrian Crossing																	
	Ep	2,3,4	MIN GREEN + FLASH =		8		+	10	=	18							
	Fp	4	MIN GREEN + FLASH =		8		+	10	=	18				*			*
	Gp	4	MIN GREEN + FLASH =		8		+	10	=	18							
	Hp	4	MIN GREEN + FLASH =		8		+	10	=	18							

Notes:	Flow: (pcu/hr) 	Group	B.A,Hp	B.A,Fp	Group	B.A,Hp	B.A,Fp
		y	0.468	0.468	y	0.292	0.292
		L (sec)	31	32	L (sec)	31	32
		C (sec)	115	115	C (sec)	110	110
		y pract.	0.657	0.650	y pract.	0.646	0.638
		R.C. (%)	40%	39%	R.C. (%)	121%	118%

Stage / Phase Diagrams								
1.	2.	3.	4.	5.				
I/G= 4	I/G=	I/G= 6	I/G= 6	I/G= 6	I/G= 6	18	I/G=	
I/G= 4	I/G=	I/G= 6	I/G= 6	I/G= 6	I/G= 6	18	I/G=	

Date: 九月, 2025 Junction: Hoi Tai Street/ Hoi Kwong Street/ Finnie Street

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50793710 MVA HONG KONG LIMITED

Junction: Hoi Tai Street/ Hoi Kwong Street/ Finnie Street/ Hoi Chak Street Design Year: 2025
Description: 2033 Design (With Junction Improvement) Designed By: NLY Checked By: WCY

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		Noon Peak					
					Left	Right		Noon		Noon		Flow (pcu/hr)	y Value	Critical y			
Hoi Tai Street	← ↑ →	D D	2 2	3.500 3.600	20 25	40		62% / 38%		1830 2010		238 262	0.130 0.130				
Hoi Kwong Street	←	C	1	3.6	15			75%		1835		140	0.076				
Hoi Chak Street	→ ←	B A	1,2 3	3.1 3.5	35	30				1845 2005		460 80	0.249 0.040	0.249 0.040			*
Pedestrian Crossing																	
	Ep	2,3,4		MIN GREEN + FLASH =			8	+	10	=	18						
	Fp	4		MIN GREEN + FLASH =			8	+	10	=	18			*			
	Gp	4		MIN GREEN + FLASH =			8	+	10	=	18						
	Hp	4		MIN GREEN + FLASH =			8	+	10	=	18						*

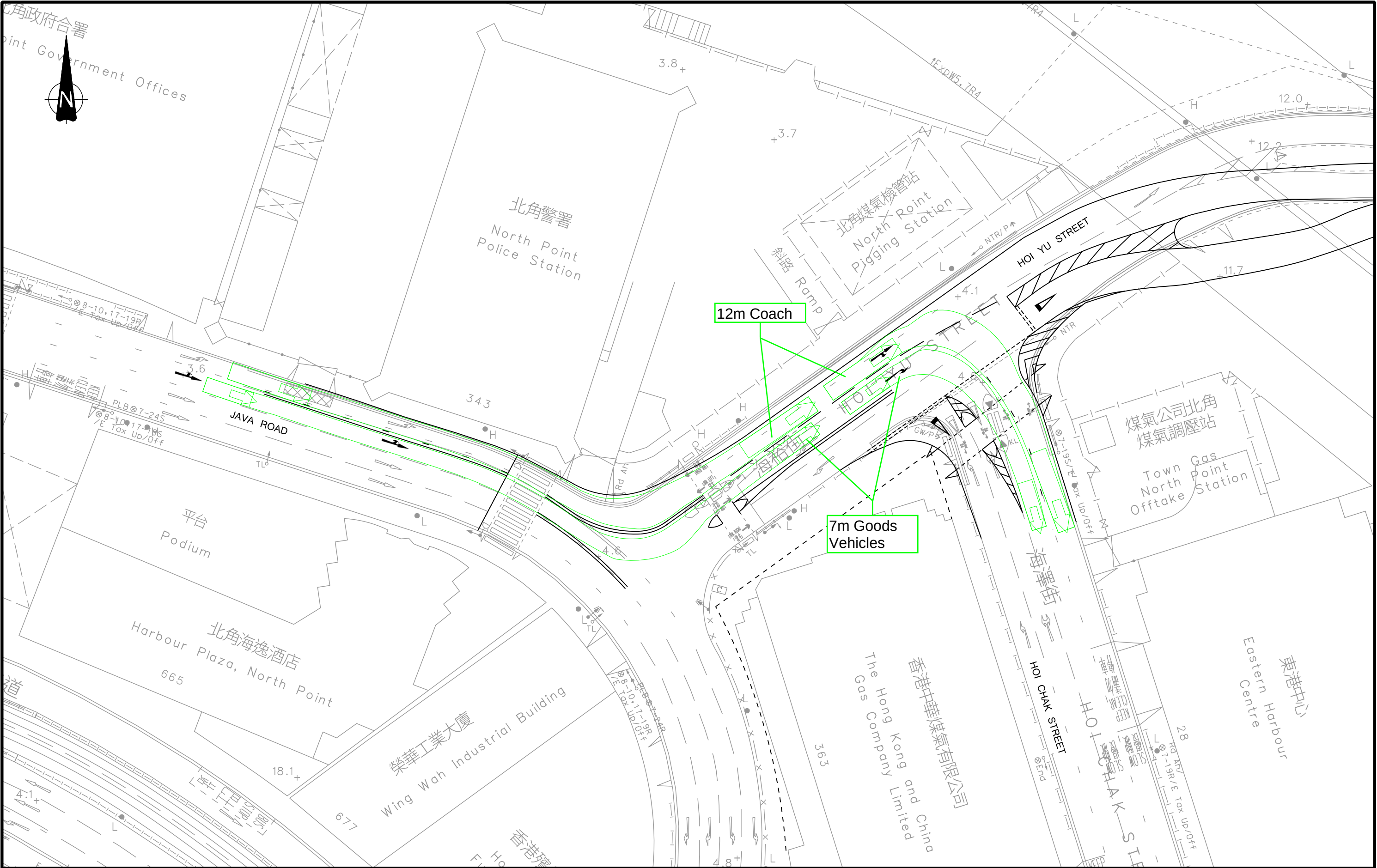
Notes:	Flow: (pcu/hr) 		Group	B,A,Hp	B,A,Fp	Group		
			y	0.289	0.289	y		
			L (sec)	31	32	L (sec)		
			C (sec)	110	110	C (sec)		
			y pract.	0.646	0.638	y pract.		
			R.C. (%)	123%	121%	R.C. (%)		

Stage / Phase Diagrams																	
1.			2.			3.			4.			5.					
I/G= 4			I/G=			I/G= 6			I/G= 6	18		I/G=					
I/G= #N/A	#N/A		I/G= #N/A	#N/A		I/G= #N/A	#N/A		I/G= #N/A	#N/A		I/G=					

Date: 九月, 2025 Junction: Hoi Tai Street/ Hoi Kwong Street/ Finnie J4 imp

Appendix B - Swept Path Analysis

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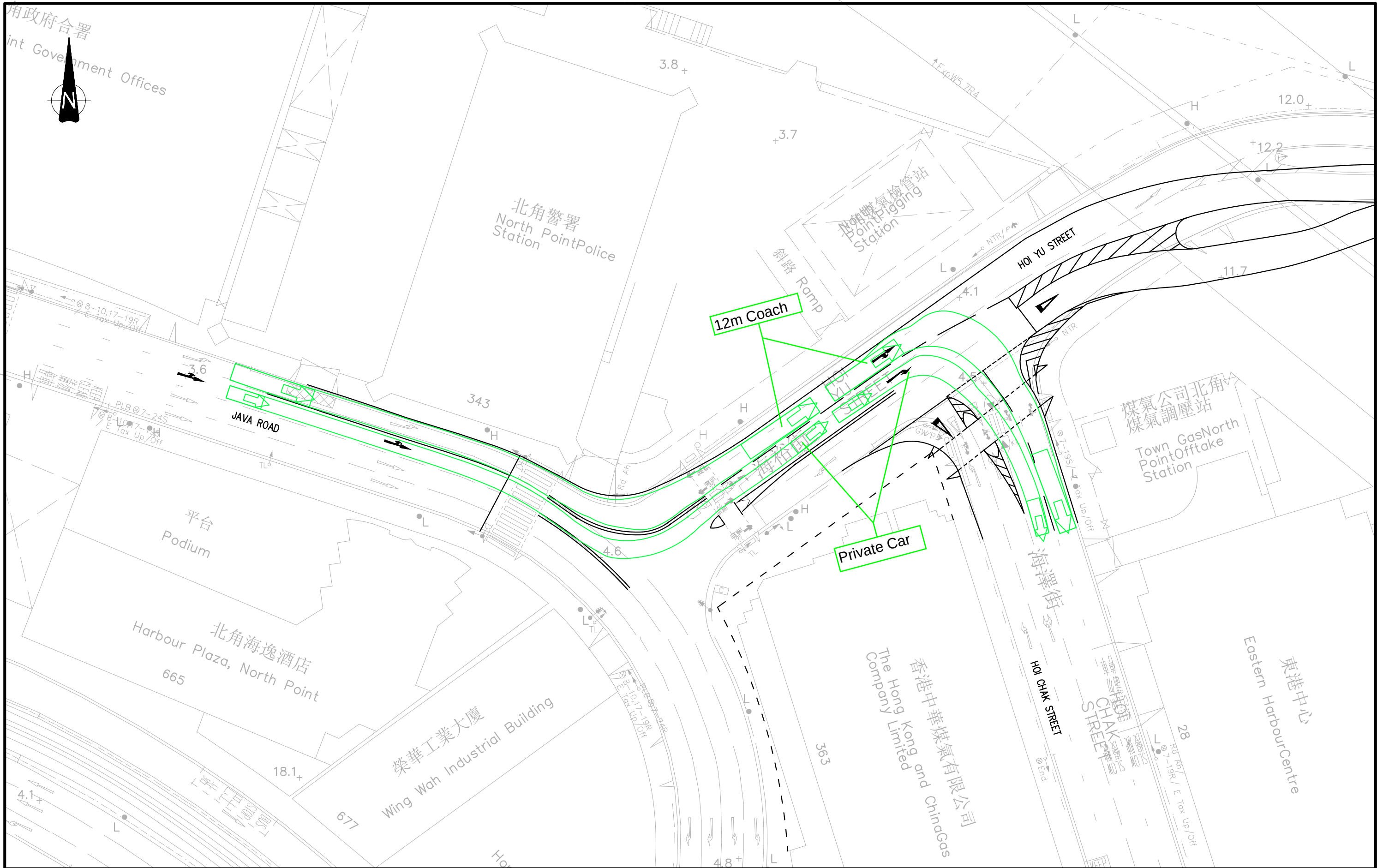


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Rev.	Description	Checked	Date

Project Title
PROPOSED AMENDMENT TO THE NOTES OF THE APPROVED QUARRY BAY OZP RELATING TO THE "OTHER SPECIFIED USES" ZONE ANNOTATED "CULTURAL AND/OR COMMERCIAL LEISURE AND TOURISM RELATED USES"
INLAND LOTS 8590 RP (PART) AND 8723 RP (PART) AND ADJOINING GOVERNMENT LAND, HOI YU STREET, QUARRY BAY

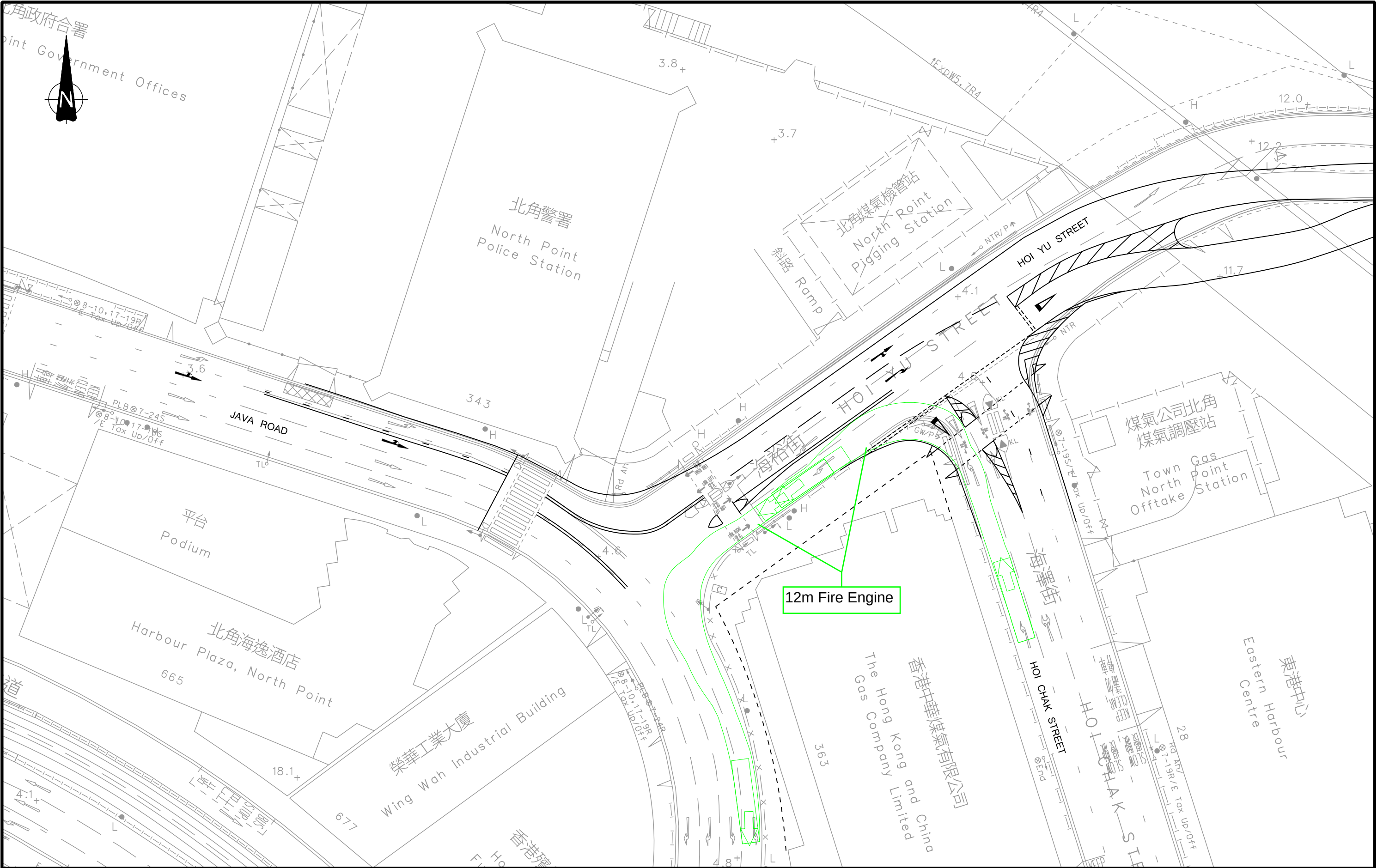
Drawing Title											
SWEPT PATH ANALYSIS OF PLANNED JUNCTION IMPROVEMENT SCHEME OF JAVA ROAD / HOI YU STREET / HOI CHAK STREET (1)											
Designed	NLY	Checked	WCY	Scale	1:500(A3)	Date	MAR 2025	Drawing No.	AP1	Rev.	A





-	-	-	-	Project Title PROPOSED AMENDMENT TO THE NOTES OF THE APPROVED QUARRY BAY OZP RELATING TO THE OTHER SPECIFIED USES? ZONE ANNOTATED CULTURAL AND/OR COMMERCIAL LEISURE AND TOURISM RELATED USES? INLAND LOTS 8590 RP (PART) AND 8723 RP (PART) AND ADJOINING GOVERNMENT LAND, HOI YU STREET, QUARRY BAY	Drawing Title SWEPT PATH ANALYSIS OF PLANNED JUNCTION IMPROVEMENT SCHEME OF JAVA ROAD / HOI YU STREET / HOI CHAK STREET (1)						
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Rev.	Description	Checked	Date								
					Designed NLY	Checked WCY	Scale 1: 500(A3)	Date MAR 2025	Drawing No. AP1A	Rev. -	

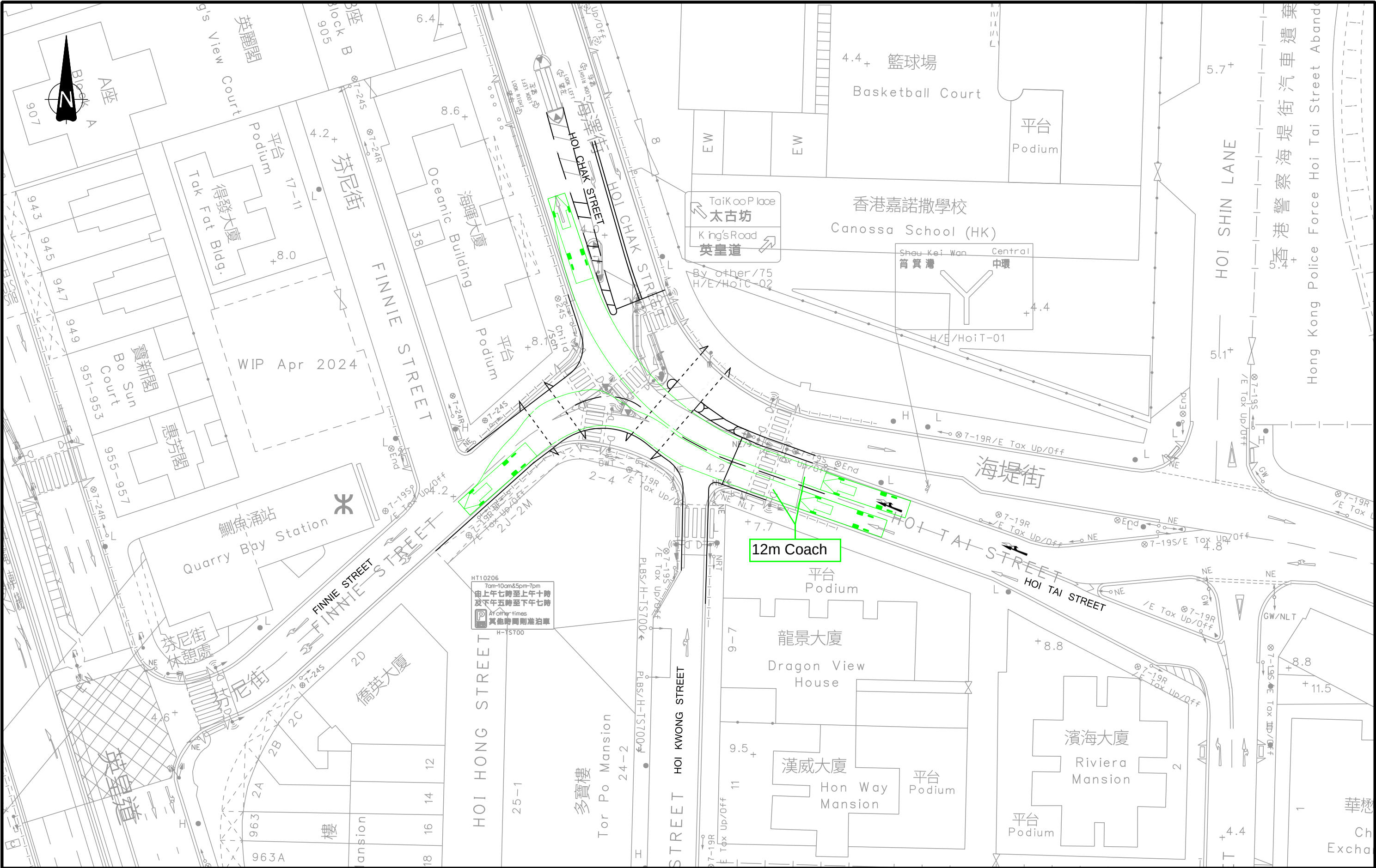
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Rev.	Description	Checked	Date

Project Title
PROPOSED AMENDMENT TO THE NOTES OF THE APPROVED QUARRY BAY OZP RELATING TO THE "OTHER SPECIFIED USES" ZONE ANNOTATED "CULTURAL AND/OR COMMERCIAL LEISURE AND TOURISM RELATED USES"
INLAND LOTS 8590 RP (PART) AND 8723 RP (PART) AND ADJOINING GOVERNMENT LAND, HOI YU STREET, QUARRY BAY

Drawing Title											
SWEPT PATH ANALYSIS OF PLANNED JUNCTION IMPROVEMENT SCHEME OF JAVA ROAD / HOI YU STREET / HOI CHAK STREET (2)											
Designed	NLY	Checked	WCY	Scale	1:500(A3)	Date	MAR 2025	Drawing No.	AP2	Rev.	A



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Rev.	Description	Checked	Date

Project Title

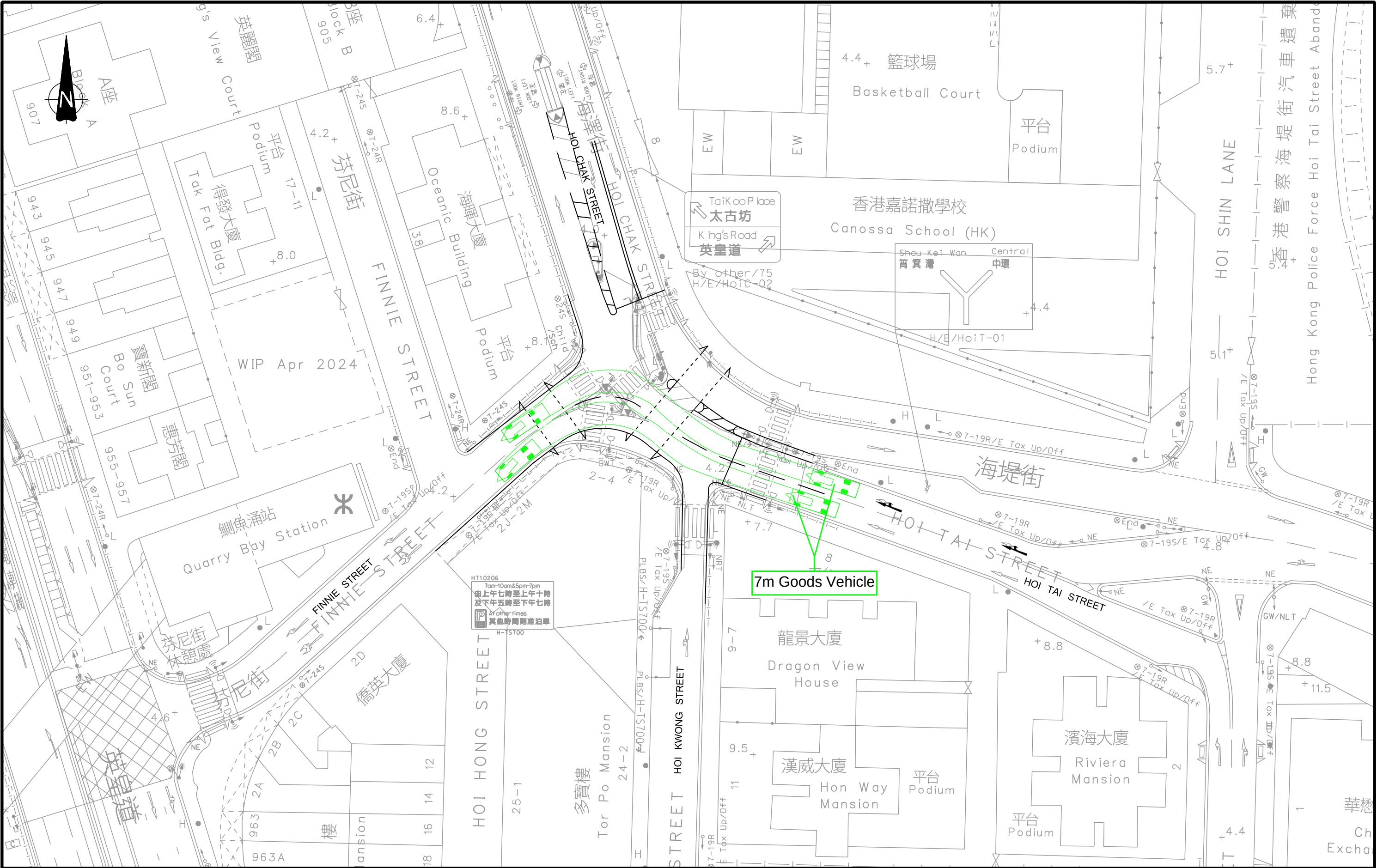
PROPOSED AMENDMENT TO THE NOTES OF THE APPROVED QUARRY BAY OZP RELATING TO THE "OTHER SPECIFIED USES" ZONE ANNOTATED "CULTURAL AND/OR COMMERCIAL LEISURE AND TOURISM RELATED USES"

INLAND LOTS 8590 RP (PART) AND 8723 RP (PART) AND ADJOINING GOVERNMENT LAND, HOI YU STREET, QUARRY BAY

Drawing Title			
SWEPT PATH ANALYSIS OF PLANNED JUNCTION IMPROVEMENT SCHEME OF HOI TAI STREET / HOI CHAK STREET / FINNIE STREET / HOI KWONG STREET (1)			
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Rev.	Description	Checked	Date

Project Title

PROPOSED AMENDMENT TO THE NOTES OF THE APPROVED QUARRY BAY OZP RELATING TO THE "OTHER SPECIFIED USES" ZONE ANNOTATED "CULTURAL AND/OR COMMERCIAL LEISURE AND TOURISM RELATED USES"

INLAND LOTS 8590 RP (PART) AND 8723 RP (PART) AND ADJOINING GOVERNMENT LAND, HOI YU STREET, QUARRY BAY

Drawing Title			
SWEPT PATH ANALYSIS OF PLANNED JUNCTION IMPROVEMENT SCHEME OF HOI TAI STREET / HOI CHAK STREET / FINNIE STREET / HOI KWONG STREET (2)			
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Drawing No.	AP5	Rev.	-

