

Appendix A:

Traffic Impact Assessment (TIA)

**Traffic Impact Assessment for
Section 16 Planning Application
for Proposed Minor Relaxation of
Domestic Plot Ratio and Building
Height Restrictions for the
Permitted Residential
Development with Commercial /
Retail uses of the URA Ma Tau Wai
Road/ Lok Shan Road
Development Project (KC-020),
and Proposed Public Vehicle Park**

Urban Renewal Authority

Reference: 523348

Revision: 0

2026-05-14

aurecon

*Bringing ideas
to life*

Document control record

Document prepared by:

Aurecon Hong Kong Limited

Unit 1608, 16/F, Tower B,
Manulife Financial Centre,
223 – 231 Wai Yip Street,
Kwun Tong, Kowloon,
Hong Kong

T +852 3664 6888

F +852 3664 6999

E hongkong@aurecongroup.com

W aurecongroup.com

A person using Aurecon documents or data accepts the risk of:

- a) Using the documents or data in electronic form without requesting and checking them for accuracy against the original hard copy version.
- b) Using the documents or data for any purpose not agreed to in writing by Aurecon.

Document control			aurecon			
Report title	Road Development Project (KC-020), and Proposed Public Vehicle ParkTraffic Impact Assessment for Section 16 Planning Application for Proposed Minor Relaxation of Domestic Plot Ratio and Building Height Restrictions for the Permitted Residential Development with Commercial / Retail uses of the URA Ma Tau Wai Road/ Lok Shan					
Document code	SO018-03-OR001-00	Project number	523348			
File path						
Client	Urban Renewal Authority					
Client contact	Simone Tang	Client reference				
Rev	Date	Revision details/status	Author	Reviewer	Verifier (if required)	Approver
0	2026-05-14	Final Issue	DL	RP		RC
Current revision	0					

Approval			
Author signature		Approver signature	
Name	Raymond Pau	Name	Ray Chan
Title	Industry Director, Transportation & Infrastructure and Deputy Director of Ops	Title	Managing Director, Hong Kong & Macau

Contents

1	INTRODUCTION	2
1.1	Background	2
1.2	Structure of the Report	3
2	INDICATIVE DEVELOPMENT PROPOSAL	4
2.1	Indicative Development Proposal	4
2.2	Vehicular Access Arrangements	6
2.3	Car Parking and Internal Transport Provision	7
2.4	To Allow PVP in the Application Site	9
2.5	Pedestrian Network	10
2.6	Proposed Land Grant Arrangement	10
3	EXISTING TRANSPORT CONTEXT	11
3.1	Adjacent Road Network	11
3.2	Traffic Surveys	12
3.3	Existing Traffic Conditions	12
3.4	Existing Public Transport Services	15
4	TRAFFIC FORECAST	17
4.1	Design Year	17
4.2	Traffic Forecasting Approach	17
4.3	Annual Growth Factor	17
4.4	Planned and Committed Developments	19
4.5	Vehicular Traffic Generations	21
4.6	Pedestrian Traffic Generations	22
4.7	Previous Traffic Improvement Proposals	24
5	TRAFFIC IMPACT ASSESSMENT	25
5.1	Junction Capacity Analysis	25
5.2	Pedestrian Walkway Assessment	25
6	SUMMARY AND FINDINGS	28
6.1	Summary	28
6.2	Conclusion	29
	Figures	i
	Appendix A	ii
	Appendix B	iii
	Appendix C	iv
	Appendix D	v
	Appendix E	vii

Tables

Table 2.1	Comparison of Development Parameters of the OZP Compliant Proposal and Current S16 Planning Proposal	5
Table 2.2	Indicative Development Parameters under Notional Design ⁽¹⁾	6
Table 2.3	Proposed Provision of Internal Transport Facilities	8
Table 3.1	Identified Key Junctions	12
Table 3.2	Junction Operational Performance (Existing 2025)	13
Table 3.3	Pedestrian Walkways LOS (Existing 2025)	13
Table 3.4	Pedestrian Crossing V/C ratio (Existing 2025)	14
Table 3.5	Existing Road-based Public Transport Services	15
Table 4.1	AADT between 2019 and 2023 (from ATC)	18
Table 4.2	Hong Kong Population Projections in 2025 and 2036	18
Table 4.3	Vehicular Traffic Generation Rates	19
Table 4.4	Vehicular Traffic Generations of Planned/ Committed Developments	20
Table 4.5	Pedestrian Traffic Generation Rates	20
Table 4.6	Pedestrian Traffic Generations of Planned/ Committed Developments	21
Table 4.7	Vehicular Traffic Generations of the OZP Compliant Proposal	21
Table 4.8	Vehicular Traffic Generations of the Current S16 Planning Proposal	22
Table 4.9	Net Difference of Trip Generations between OZP Compliant Proposal and the Current S16 Planning Proposal	22
Table 4.10	Pedestrian Traffic Generations of the OZP Compliant Proposal	22
Table 4.11	Pedestrian Traffic Generations of the Current S16 Planning Proposal	23
Table 4.12	Net Difference of Pedestrian Trip Generations between the OZP Compliant Proposal and Current S16 Planning Proposal	23
Table 4.13	Pedestrian Trips by Transport Mode	23
Table 5.1	Junction Operational Performance (Year 2036)	25
Table 5.2	Pedestrian Walkways LOS (Year 2036)	26
Table 5.3	Pedestrian Crossing V/C ratio (Year 2036)	27

Figures

Figure 2.1	Site Location
Figure 2.2	Vehicular Access Location
Figure 3.1	Identified Key Junctions
Figure 3.2	2025 Observed Traffic Flow
Figure 3.3	Identified Pedestrian Walkways
Figure 3.4	2025 Observed Pedestrian Flow
Figure 4.1	Adjacent Planned / Committed Development
Figure 5.1	2036 Reference Traffic Flow
Figure 5.2	2036 Design Traffic Flow
Figure 5.3	2036 Reference Pedestrian Flow
Figure 5.4	2036 Design Pedestrian Flow

1 INTRODUCTION

1.1 Background

- 1.1.1 The Ma Tau Wai Road/ Lok Shan Road Development Project (KC-020) (the Project) was commenced by the Urban Renewal Authority (URA) on 9 August 2024 by way of a development project in accordance with Section 26 of the Urban Renewal Authority Ordinance (URAO). The Secretary for Development (SDEV) has authorised the URA to proceed with the Project without any amendment on 26 August 2025, the decision was subsequently gazetted on 5 September 2025.
- 1.1.2 Under the district-based planning approach, the Project was intended to be holistically planned and designed with the adjoining approved URA Kau Pui Lung Road / Chi Kiang Street Development Scheme (CBS-2:KC) to multiply the planning gains. The two projects may be submitted under the same land grant(s), with possibility of under different phases, for implementation.
- 1.1.3 To tally with the permissible domestic plot ratio (DPR) and building height restriction (BHR) of CBS:2-KC for holistic design and implementation, a Planning Application in accordance to Section 16 of the Town Planning Ordinance (S16 Planning Application) is required **to seek Town Planning Board (TPB)'s approval on minor relaxation of DPR restriction from 7.5 to 8.0 and BHR from 120mPD to 140 mPD** for the Application Site (i.e. the area zoned 'R(A)' on the OZP within the Project boundary). **It is also proposed to include public vehicle park (PVP)** to facilitate design flexibility for accommodating the PVP parking spaces required by CBS-2KC¹ in the future combined development, if necessary.
- 1.1.4 The proposed relaxation in the S16 Planning Application can facilitate a more flexible layout across the two sites (i.e. the Application Site and CBS-2:KC) which are under same permissible BHR and PR controls upon this S16 approval. Nevertheless, despite that a combined development will be proposed, the URA undertakes that the portion of the future combined development within the Application Site would not exceed maximum DPR of 8.0 and total PR of 9.0.
- 1.1.5 This S16 Planning Application is a non-scheme-based submission. The notional design and indicative development parameters provided in the application are solely for illustration purpose and for conducting necessary technical assessments. Except for any planning condition(s) to be imposed, the design of the future development will not be bounded by the notional design submitted in the S16 Planning Application.

- 1.1.6 Aurecon Hong Kong Limited was commissioned by URA to prepare the Traffic Impact Assessment (TIA) in support of the S16 Planning Application for the Project. The purpose of this TIA is to propose the potential internal traffic arrangements for and to access the potential traffic impact arise from the S16 Planning Application.
- 1.1.7 This TIA report has taken into account the two latest TIA reports for the Project dated January 2025 on the OZP compliant proposal authorised by SDEV in August 2025 (TIA for the OZP Compliant Proposal) and the TIA report for the combined development of CBS-2:KC and KC-020 dated July 2025 (TIA for the Combined Development), which the Transport Department (TD) had no in-principle objection on the assessments and the proposals provided in these two reports.

1.2 Structure of the Report

- 1.2.1 Following this introduction, the report is structured as below:
- Section 2 describes the indicative development proposal for the Project, including the access arrangements and internal transports provisions;
 - Section 3 overviews the existing traffic context in the vicinity of the Project;
 - Section 4 presents the traffic forecasting methodology and results;
 - Section 5 assess the potential traffic and transport impacts arise from the Project and provides mitigation measures, if necessary; and
 - Section 6 summarises the findings.

¹ The proposed PVP does not necessarily mean there must be certain amount of PVP provision in the Project, but to avoid further S16 planning permission to be sought in case some PVP spaces as required in CBS-2:KC might need to be provided within the Project area due to site constraints and/or integrated design consideration under the combined site development. In any case, the total number of PVP spaces required by Transport Department (TD) in CBS-2:KC would be provided within the combined site of the Project and CBS-2:KC.

2 INDICATIVE DEVELOPMENT PROPOSAL

2.1 Indicative Development Proposal

- 2.1.1 The Application Site is broadly bounded by Ma Tau Wai Road to the east, a back lane to the south, URA's Kau Pui Lung Road / Chi Kiang Street Development Scheme (CBS-2:KC) to the west and Lok Shan Road to the north (the Application Site). Please refer to **Figure 2.1** for the location of the Application Site.
- 2.1.2 Pursuing a district-based approach, the Application Site is intended for holistic planning and design to create synergies with the adjoining URA Kau Pui Lung Road / Chi Kiang Street Development Scheme (CBS-2:KC) to optimize planning gains. To facilitate design flexibility for a cohesive combined development, this S16 Planning Application seeks TPB permission on the following to align the development controls of the Application Site with those of CBS-2:KC:
- (i) minor relaxation of maximum permissible DPR from 7.5 to 8.0, with total permissible PR remains the same as 9.0;
 - (ii) minor relaxation of BHR from 120mPD to 140mPD; and
 - (iii) proposed PVP use.
- 2.1.3 Notwithstanding the intention for a combined development, the URA undertakes that the portion of the future combined development within the Application Site would not exceed maximum DPR of 8.0 and total PR of 9.0. To ensure adherence during the detailed design stage, the URA will conduct site sub-division study of the combined site and meticulously formulate the architectural layout, building blocks, and overall massing. Compliance with these prescribed limits will be clearly reflected in future GBP submissions.
- 2.1.4 A comparison between the OZP Compliant Proposal authorized by SDEV in August 2025 (OZP Compliant Proposal) and the Current Indicative Proposal of the S16 Planning Application (Current S16 Planning Proposal) is provided in **Table 2.1** below.

Table 2.1 Comparison of Development Parameters of the OZP Compliant Proposal and Current S16 Planning Proposal

	OZP Compliant Proposal ⁽¹⁾ [A]	Current S16 Planning Proposal [B]	Difference [B]-[A]
Zoning (Under Approved Ma Tau Kok Outline Zoning Plan No. S/K10/30)	R(A)	R(A)	N/A
Site Area (m²) Application Site Area (for PR Calculation)	About 1,578	About 1,566 ⁽²⁾	-12
Maximum Plot Ratio (PR)			
- Total PR	9.0	9.0	0
- Domestic PR	7.5	8.0	+0.5
GFA (m²)			
- Total GFA:	About 14,202	About 14,094 ⁽²⁾	-108
- Domestic GFA	About 11,835	About 12,528 ⁽²⁾⁽³⁾	+693
Max. Building Height (mPD)	120	140	+20

Note:

- (1) As per the notional design under the URA Ma Tau Wai Road/ Lok Shan Road Development Project (KC-020) authorized by SDEV in August 2025
- (2) According to the latest land boundary survey, the net site area is 1,566m² resulting to corresponding adjustment in total GFA, subject to agreement with LandsD in the land grant application stage.
- (3) The domestic and non-domestic PR/GFA are for illustrative purpose only. To allow flexibility and optimum use of development potential, development at the Application Site is subject to a maximum domestic PR and total PR. The actual domestic and non-domestic PRs and GFAs would be worked out at detailed design stage.

2.1.5 While the subject S16 Planning Application is a non-scheme-based submission, this TIA is prepared based on the Indicative Development Parameters provided in **Table 2.2** and the notional design of the Application Site provided in Appendix A (Notional Design) for the purpose of conducting technical assessments. The tentative completion year will be 2033 / 34.

Table 2.2 Indicative Development Parameters under Notional Design⁽¹⁾

Indicative Development Parameters	
Site Area (m²)	
- Application Site Area (for PR Calculation)	About 1,566
Plot Ratio (PR)	
- Total PR	9.0
- Domestic PR	8.0 ⁽²⁾
- Non-Domestic PR	1.0 ⁽²⁾
GFA (m²)	
- Total GFA:	About 14,094
- Domestic GFA	About 12,528 ⁽²⁾
- Non-Domestic GFA	About 1,566 ⁽²⁾
No. of Residential Towers	1
Average Flat Size(m²)	45
No. of Flats	279 ⁽³⁾
Tentative Completion Year	2033 / 34

Note:

(1) Notional Design subject to detailed design and changes.

(2) The domestic and non-domestic PR/GFA are for illustrative purpose only. To allow flexibility and optimum use of development potential, development at the Application Site is subject to a maximum domestic PR and total PR. The actual domestic and non-domestic PRs and GFAs would be worked out at detailed design stage.

(3) Estimated based on Notional Design with 9 nos. of domestic units per typical floor.

2.2 Vehicular Access Arrangements

2.2.1 The proposed vehicular access arrangement for the Application Site under the subject S16 Planning Application will adopt the same arrangement proposed under the TIA for the OZP Compliant Proposal, i.e. proposed to have shared-use of the vehicular run in/out(s) at Kau Pui Lung Road for both the application Site and CBS-2:KC (**Figure 2.2**).

2.2.2 As stated in the TIA for the OZP Compliant Proposal, the Application Site is fronting to a section of Ma Tau Wai Road, which is a primary distributor with busy vehicular traffic and is close to the Lok Shan Road junction; while the Lok Shan Road frontage is relatively short. As both road frontages are not desirable for vehicular access, there is no feasible location for an individual vehicular access for the Application Site. Given the CBS-2:KC and the Application Site will be developed as a combined site under same land grant, the basement car park of the Application Site is proposed to be connected with the basement car park of CBS-2:KC, and will share the same vehicular run in/out(s) at Kau Pui Lung Road.

- 2.2.3 Under the notional design, there will be two basement levels of car park located at B2 and B3 floors. All the vehicles will enter the Application Site via the vehicular run in/out(s) from the CBS-2:KC's vehicular run in/out proposed at the northern part on Kau Pui Lung Road as shown in **Figure 2.2**.
- 2.2.4 As a holistic design of the Application Site and CBS-2:KC, the proposed shared-use vehicular access arrangement in the connected basement car park can foster a more coordinated environment, enhancing planning and land use effectiveness between the Application Site and CBS-2:KC, leading to a cohesive traffic management strategy. Moreover, the reduced number of access points could result in a vibrant street frontage, improves pedestrian safety and reduces the overall construction and maintenance costs and times, contributing to more environmentally friendly outcomes.

2.3 Car Parking and Internal Transport Provision

- 2.3.1 The parking and internal transport provision for the Application Site under the subject S16 Planning Application are proposed in accordance with the requirements as stipulated in the Hong Kong Planning Standards and Guidelines (HKPSG), and presented in **Table 2.3** below.

Table 2.3 Proposed Provision of Internal Transport Facilities

Facilities	Parking Space Dimension	Parking Ratio from Guideline	Required Parking Provision	Proposed Parking Provision
Private Housing (with 279 flats)				
Private Car Parking	5m(L) x 2.5m(W) x 2.4m(H)	GPS = 1 space per 4 – 7 flats R1 = 1.2 for 40 < Flat Size ≤ 70 R2 = 0.75 for within 500m radius of rail station R3 = 0.9 for 5.00 < Plot Ratio ≤ 8.00 Total = GPS x G1 x G2 x G3	33– 57 (Include 1 - 2 Accessible Car Parking Space)	42 ⁽¹⁾ (Include 1 Accessible Car Parking Space)
Visitor Car Parking	5m(L) x 2.5m(W) x 2.4m(H)	5 spaces per blocks	5	5
Motorcycle Parking	2.4m(L) x 1m(W) x 2.4m(H)	1 motorcycle parking space per 100 – 150 flats	2 - 3	3 ⁽²⁾
Loading/unloading (L/UL) for Goods Vehicle	12m(L) x 3.5m(W) x 4.7m(H)	Minimum of 1 loading / unloading bay for goods vehicles within the site for every 800 flats or subject to a minimum of 1 bay for each housing block	1	1
Retail (with 1,566m² GFA)				
Private Car Parking	5m(L) x 2.5m(W) x 2.4m(H)	1 space per 150 – 300m ² GFA	6 - 11 (Include 1 Accessible Car Parking Space)	11 ⁽²⁾ (Include 2 Accessible Car Parking Space)
L/UL for Goods Vehicle	12m(L) x 3.5m(W) x 4.7m(H)	1 space per 800 – 1,200m ² GFA	2	2 ⁽²⁾
Motorcycle Parking	2.4m(L) x 1m(W) x 2.4m(H)	5 to 10% of the total provision for private cars	1 - 2	2 ⁽²⁾
Total Private Carparking			44 – 73 (include 2 – 3 Accessible Car Parking Space)	58 (Include 3 Accessible Car Parking Space)
Total Motor Parking			3 - 5	5
Total L/UL			2 - 3	3

Note:

(1) A GPS of 1 : 5.5 (mid-range) is adopted as per TIA for the Combined Development, which TD had no in-principle objection to the proposal.

(2) Benchmarking 2021 HKPSG high-end requirement

- 2.3.2 Subject to detailed design and technical feasibility, the required car parking spaces of the Application Site may be provided in its own basement and/or at CBS-2:KC, consistent with the TIA for the OZP Compliant Proposal. Similarly, the L/UL spaces for the Application Site may be provided in its own basement and/or at CBS-2:KC, subject to detailed design and technical feasibility.
- 2.3.3 Given the two basement car parks are connected and with the same vehicular run in/out(s), this arrangement is considered acceptable from a traffic engineering point of view and also beneficial in terms of construction cost and time, as well as environmental sustainability.

2.4 Proposed PVP use in the Application Site

- 2.4.1 Under the "R(A)" zoning of the Application Site, "PVP" is under Column 2 use requiring planning permission from TPB. Under the approved DSP of the CBS-2:KC, about 164 numbers of PVP parking spaces are required to be provided to meet local demand as well as to cater for the re-provision of the on-street parking spaces affected by CBS-2:KC. Despite that no PVP is required under the OZP Compliant Proposal of the Application Site, to allow design flexibility for the layout and disposition of PVP spaces in the future combined development, the subject S16 Planning Application also seeks planning permission to include not more than 80 numbers of PVP spaces for private cars at the Application Site, with actual location and number to be determined in detailed design stage.
- 2.4.2 The intention to seek planning permission for PVP use under the subject S16 Planning Application is to allow design flexibility and to avoid further S16 planning permission to be sought in case some PVP spaces as required in CBS-2:KC might need to be provided within the Application Site area due to site constraints and/or integrated design consideration under the combined site development. Hence, it does not necessarily mean that there must be certain amount of PVP provision in the Application Site (i.e. PVP provision at the Application Site could be zero or not more than 80 numbers of PVP spaces). In any case, a total number of about 164 numbers of PVP spaces would be provided within the combined site of the Application Site and CBS-2:KC as required by Transport Department (TD) in CBS-2KC.

2.5 Pedestrian Network

2.5.1 The proposed pedestrian network for the Application Site under the subject S16 Planning Application will adopt the same arrangement proposed under the TIA for the OZP Compliant Proposal:

- At the ground level, the Notional Design of the Application Site would capitalize the existing pedestrian-crossing facilities at Ma Tau Wai Road and the at-grade pedestrian linkage in CBS-2:KC, to enhance linkage between the east and west of Ma Tau Wai Road. At-grade pedestrian linkage will be designed to integrate with the adjoining at-grade pedestrian avenue/ event plaza in CBS-2:KC as appropriate, allowing future residents and the public to easily access across Kau Pui Lung Road and Ma Tau Wai Road. This would further enhance the pedestrian linkage towards the residential clusters such as Lok Man Sun Chuen to the west and the various GIC and recreation facilities across Ma Tau Wai Road to the east.
- At the basement level(s), the Notional Design of the Application Site will explore to further extend the proposed underground shopping street in CBS-2:KC to the Application Site and the potential connection to the nearby To Kwa Wan MTR station exit(s), to enhance the overall accessibility and connectivity of the area. Upon consultation with MTRC, no in-principle objection to the proposed underground connection has been obtained, subject to details in technical and financial implications.

2.6 Proposed Land Grant Arrangement

2.6.1 Subject to technical feasibility and agreement with Lands Department (LandsD), the Application Site and CBS-2:KC may combine for the preparation of land grant(s) and phased implementation. Detailed design will be carried out at subsequent land grant preparation and GBP submission stages.

3 EXISTING TRANSPORT CONTEXT

3.1 Adjacent Road Network

- 3.1.1 Ma Tau Wai Road is a north-south Primary Distributor within the urban road hierarchy. The section between Chi Kiang Street and Lok Shan Road, is a dual 3-lane carriageway, facilitating substantial vehicular capacity and serving as a key route in the district's transport network. The road is well integrated with public transport services, featuring MTR To Kwa Wan Station's exits and multiple bus/minibus stops on both sides of the carriageway.
- 3.1.2 Lok Shan Road functions as a Local Distributor. The western section, between Kau Pui Lung Road and Maidstone Road, is a single 2-lane carriageway of approximately 12.0m in width, operating one-way eastbound. Metered parkings are available on both sides serving the parking needs of the locality. The eastern section, between Maidstone Road and Ma Tau Wai Road, is a 6.1m wide single-lane road, serving as an egress route to Ma Tau Wai Road. To Kwa Wan MTR Station Exit B is located at Lok Shan Road.
- 3.1.3 Kau Pui Lung Road is a north-south Local Distributor. The section between Maidstone Lane and Chi Kiang Street features a 12.0m single 2-lane carriageway operating under two-way traffic flow. Metered parking spaces are provided along both sides of the road. Footpaths are typically belled out at junctions to offer additional waiting spaces for pedestrians. Lok Man Sun Chuen is situated along this stretch of the road.
- 3.1.4 Chi Kiang Street serves as a Local Distributor. The section between Kau Pui Lung Road and Ma Tau Wai Road consists of a 12.0m wide single carriageway with two traffic lanes, accommodating one-way westbound traffic. At its junction with Ma Tau Wai Road, the street is a single lane road. Metered parking is provided along the upstream side of the road. Lok Man Sun Chuen Lok Chee Lau is located adjacent to this section of Chi Kiang Street.

3.2 Traffic Surveys

3.2.1 Vehicular and pedestrian count surveys were conducted at the identified critical junctions and footpath sections in the close vicinity of the application Site on 07 May 2025, during 07:30-09:30 hours and 17:30-19:30 hours in order to capture the one-hour peak periods. The results of the survey have indicated that the morning and evening peak hours occurred during 07:30– 08:30 and 17:45 – 18:45 respectively.

3.3 Existing Traffic Conditions

Vehicular Traffic

3.3.1 A total of eight key local junctions within Kowloon City District have been identified for traffic survey and assessment in this TIA. These junctions are considered susceptible to potential traffic impacts arising from the notional design of the Application Site. Their locations are illustrated in **Figure 3.1** and listed in **Table 3.1**.

Table 3.1 Identified Key Junctions

Ref	Junction	Type of Control
J01	Sheung Shing Street / Tin Kwong Road	Signal controlled
J02	Tin Kwong Road / Kau Pui Lung Road / Hop Yat Road	Signal controlled
J03	Tin Kwong Road / Ma Tau Wai Road / Ma Hang Chung Road / Pak Tai Street	Signal controlled
J04	Kau Pui Lung Road / Lok Shan Road	Give-way controlled
J05	Ma Tau Wai Road / Lok Shan Road	Signal controlled
J06	Chi Kiang Street / Ko Shan Road	Give-way controlled
J07	Chi Kiang Street / Ma Tau Wai Road	Signal controlled
J08	Maidstone Road / Lok Shan Road	Give-way controlled

3.3.2 The observed vehicular traffic flows are presented in **Figure 3.2**. A junction capacity assessment for the identified critical junctions was conducted based on the observed traffic flows. The results are summarised in **Table 3.2**. The junction calculation sheets are attached in **Appendix B**. **Table 3.2** demonstrated that all identified junctions are currently operating with ample capacity during the normal weekday morning and evening peak hours.

Table 3.2 Junction Operational Performance (Existing 2025)

Ref ⁽¹⁾	Junction	RC / DFC ⁽²⁾	
		AM Peak	PM Peak
J01	Sheung Shing Street / Tin Kwong Road	100%	>100%
J02	Tin Kwong Road / Kau Pui Lung Road / Hop Yat Road	>100%	>100%
J03	Tin Kwong Road / Ma Tau Wai Road / Ma Hang Chung Road / Pak Tai Street	29%	33%
J04	Kau Pui Lung Road / Lok Shan Road	0.10	0.10
J05	Ma Tau Wai Road / Lok Shan Road	>100%	>100%
J06	Chi Kiang Street / Ko Shan Road	0.27	0.28
J07	Chi Kiang Street / Ma Tau Wai Road	>100%	>100%
J08	Maidstone Road / Lok Shan Road	0.16	0.18

Note:

(1) Refer to **Figure 3.1** for junction reference

(2) RC = reserved capacity, DFC = design flow/capacity ratio

Pedestrian Traffic

3.3.3 The identified critical pedestrian walkways are illustrated in **Figure 3.3**, and the surveyed hourly pedestrian demand are illustrated in **Figure 3.4**.

3.3.4 The Level of Service (LOS) assessment for the key pedestrian walkways and V/C ratio for the key pedestrian crossing, based on the most critical hourly flows in the year of 2025, is presented in **Table 3.3** and **Table 3.4**.

Table 3.3 Pedestrian Walkways LOS (Existing 2025)

Walkway	Walkway Width (m)	Effective Width (m)	Pedestrian Flow (ped/hr)		LOS ⁽¹⁾		
			AM Peak	PM Peak	AM Peak	PM Peak	
P1	Footpath at the northern side of Lok Shan Road adjacent to Maxim Mansion	3.7	2.7	1,150	575	A	A
P2	Footpath at the southern side of Lok Shan Road adjacent to 80 Maidstone Road	3.0	2.0	625	680	A	A
P3	Footpath at the eastern side of Kau Pui Lung Road adjacent to Morning Joy Building	4.6	3.6	935	800	A	A
P4	Footpath at the eastern side of Kau Pui Lung Road adjacent to Fu Yu Court	2.9	1.9	735	365	A	A
P5	Footpath at the eastern side of Kau Pui Lung Road adjacent to City 151	3.1	2.1	220	170	A	A
P6	Footpath at the eastern side of Kau Pui Lung Road adjacent to Popular Court	2.8	1.8	345	125	A	A
P7	Footpath at the northern side of Chi Kiang Street adjacent to Ming Fat Building	3.1	2.1	240	95	A	A
P8	Footpath at the western side of Ma Tau Wai Road adjacent to On Chun Mansion	3.6	2.6	800	820	A	A
P9	Footpath at the western side of Ma Tau Wai Road adjacent to Hau Hing Mansion	2.6	1.6	495	515	A	A

Walkway	Walkway Width (m)	Effective Width (m)	Pedestrian Flow (ped/hr)		LOS ⁽¹⁾		
			AM Peak	PM Peak	AM Peak	PM Peak	
P10	Footpath at the western side of Ma Tau Wai Road adjacent to Mai Lok Building	4.0	3.0	310	565	A	A
P11	Footpath at the southern side of Lok Shan Road adjacent to To Kwa Wan Station Exit B	2.5	1.5	420	465	A	A
P12	Footpath at the northern side of Lok Shan Road adjacent to 356 Ma Tau Wai Road	2.8	1.8	810	990	A	A
P13	Footpath at the western side of Ma Tau Wai Road adjacent to Lucky Mansion	4.2	3.2	940	1140	A	A
P14	Footpath at the eastern side of Ma Tau Wai Road adjacent to S.K.H. Good Shepherd Primary School	3.6	2.6	795	535	A	A
P15	Footpath at the eastern side of Ma Tau Wai Road adjacent to To Kwa Station Exit A	3.2	2.2	2325	1970	B	A

Note:

(1) Refer to **Appendix C** for interpretation of LOS

Table 3.4 Pedestrian Crossing V/C ratio (Existing 2025)

Crossing	Location	Capacity (ped/hr)		Pedestrian Flow (ped/hr)		V/C	
		AM	PM	AM	PM	AM	PM
C1	Lok Shan Road western crossing near Kau Pui Lung Road	1500 ⁽¹⁾	1500 ⁽¹⁾	380	285	0.25	0.19
C2	Lok Shan Road eastern crossing near Maidstone Road	1500 ⁽¹⁾	1500 ⁽¹⁾	170	140	0.11	0.09
C3	Pedestrian crossing across Lok Shan Road near Lucky Mansion	5593 ⁽²⁾	5845 ⁽²⁾	465	630	0.08	0.11
C4	Pedestrian crossing across Ma Tau Wai Road near Lucky Mansion	2017 ⁽²⁾	1666 ⁽²⁾	1535	1290	0.76	0.77

Note:

(1) With reference to the TPDM Vol 4 Chapter 3.2 Table 3.2.6.1

(2) With reference to the TPDM Vol 4 Chapter 3.2 Section 3.2.5.6

3.3.5 From **Table 3.3 – 3.4**, all the identified key pedestrian walkways and pedestrian crossing would operate satisfactorily with LOS of A/B and V/C less than 0.85 respectively.

3.4 Existing Public Transport Services

- 3.4.1 The area surrounding the Application Site is well-served by public transport network and services comprising railway, franchised buses, green mini-buses and taxis. This multi-model connectivity facilitates seamless access to key destinations across the district and beyond.
- 3.4.2 Rail-based: The Application Site benefits from direct proximity to the To Kwa Wan MTR Station of Tuen Ma Line, with two nearby exits - Exit B located on Lok Shan Road and Exit C situated along Kiang Su Street. Upon consultation with MTRC, no in-principle objection has been obtained for the Application Site to connect with Exit B and for CBS-2:KC to connect with Exit C at basement level, subject to details in technical and financial implications, further enhancing overall connectivity of the area.
- 3.4.3 Road-based: Over 50 franchised bus routes and 10 minibus routes operating in close vicinity of the Application Site. These services provide extensive connectivity to other districts over the territory. The full list of available bus and minibus service routes is summarized in **Table 3.5**.

Table 3.5 Existing Road-based Public Transport Services

Route	Routing	Headway (mins)
GMB		
2	Whampoa Garden – Festival Walk	10-25
2A	Whampoa Garden – Festival Walk	10-25
8	Tsim Sha Tsui (Hankow Road) – Ho Man Tin Estate	4-10
8M	Ho Man Tin Station – Ho Man Tin Estate	8-15
13	Kowloon Tong (Broadcast Drive) – Hung Hom Ferry Pier	15-30
26	To Kwa Wan (Chi Kiang Street) – Kowloon Station	8-12
27M	Lok Man Sun Chuen – Mok Kok Station	7-15
28M	Wyler Gardens – Mong Kok Station	5-15
28MS ⁽¹⁾	Wyler Gardens – Ho Man Tin Station (Circular route)	45
105	Tseung Kwan O (Hong Sing Garden) – To Kwa Wan (Ko Shan Theatre)	5-20

Note:

(1) Morning/ evening peak service only

(2) Night service only

Route	Routing	Headway (mins)
Franchised Bus		
2E	Kowloon City Ferry Pier – Pak Tin Estate	20-25
3B	Tsz Wan Shan (Central) – Hung Hom (Hung Luen Road)	20-25
5	Fu Shan – Star Ferry Pier	10-25
5A	Kai Tak (Kai Ching Estate) – Star Ferry Pier	25-30
5C	Tsz Wan Shan (Central) – Star Ferry Pier	8-20
5D	Telford Gardens – Hung Hom	13-30
5P	Tsz Wan Shan (Central) – Star Ferry Pier	15
6C	Kowloon City Ferry Pier – Mei Foo	10-25
6F	Kowloon City Ferry – Lai Kok Estate	25-30
6X ⁽¹⁾	Mei Foo – Kowloon City Ferry Pier	30
11	Diamond Hill Station – Kowloon Station	15-30
11K	Chuk Yuen Estate – Hung Hom Station	20-35
11X	On Tai (North) – Hung Hom Station	9-25
12A	Whampoa Garden – Cheung Sha Wan (Hoi Tat Estate)	15-25
14	Lei Yue Mun Estate – China Ferry Pier Terminal	15-30
15	Ping Tin – Hung Hom (Hung Luen Road)	15-30
15X ⁽¹⁾	Lam Tin (Kwong Tin Estate) – Hung Hom Station	20
17	Kwun Tong (Yue Man Square) – Ho Man Tin (Oi Man Estate)	5-25
21	Choi Wan – Hung Hom Station	20-30
26	Shun Tin – Tsim Sha Tsui East	8-30
28	Lok Wah – Star Ferry Pier	10-25
45	Kowloon City Ferry Pier – Kwai Chung (Lai Yiu Estate)	25-40
75X	Tai Po (Fu Shin Estate) – Kowloon City Ferry Pier	11-25
85	Fo Tan (Chun Yeung Estate) – Kowloon City Ferry Pier	20-30
85B	Chun Shek – Kowloon City Ferry Pier	30
85S ⁽¹⁾	Yiu On – Hung Hom (Hung Luen Road)	15
85X	Man On Shan Town Centre – Hung Hom (Hung Luen Road)	9-30
93K	Po Lam – Mong Kok East Station	17-30
101	Kwun Tong (Yue Man Square) – Kennedy Town	4-25
106	Wong Tai Sin – Siu Sai Wan Island Resort	6-22
106A ⁽¹⁾	Wong Tai Sin – Tai Koo Kornhill Plaza	10
106P ⁽¹⁾	Wong Tai Sin – Siu Sai Wan Island Resort	20
107	Kowloon Bay – Wah Kwai	8-25
108	Kai Yip – Braemar Hill	15-30
111	Ping Shek – Macau Ferry Pier	4-30
111P ⁽¹⁾	Choi Fook – Macau Ferry Pier	10-23
115	Kowloon City Ferry Pier – Macau Ferry Pier	9-30
116	Tsz Wan Shan (Central) – Quarry Bay (Yau Man Street)	4-16
241X	Tsing Yi (Cheung Ching Estate) – Kowloon City Ferry Pier	20-35
297	Po Lam – Hung Hom (Hung Luen Road)	15-30
297P ⁽¹⁾	Hang Hau (North) – Hung Hom (Hung Luen Road)	15
608	Shau Kei Wan – Kowloon City (Shing Tak Street)	10-30
796X	Tseung Kwan O Industrial Estate – Tsim Sha Tsui (East)	12-30
A22	Airport – Lam Tin Station	15-60
E23	Airport – Tsz Wan Shan (South)	12-30
E23A	Airport – Tsz Wan Shan (South)	20-30
N23 ⁽²⁾	Tung Chung Station – Tsz Wan Shan (North)	30-60
N121 ⁽²⁾	Macau Ferry Pier – Ngau Tau Kok	20-25

(1) Morning/ evening peak service only

(2) Night service only

4 TRAFFIC FORECAST

4.1 Design Year

- 4.1.1 The Project is scheduled for completion by 2033, with the design year set as 2036, three years following completion.

4.2 Traffic Forecasting Approach

- 4.2.1 Based on the above, the year 2036 reference flow and year 2036 design flows are produced according to the following.

Year 2036 Reference Case = Observed Traffic Flows x Adopted Growth Factor (i.e. 1.0%)
+ OZP Compliant Proposal Trip Generation
+ Other Planned / Committed Development Trip Generation

Year 2036 Design Case = 2036 Reference Case + Difference in trip Generation due to changing of the development parameters

- 4.2.2 In addition, changes in traffic pattern resulting from the commissioning of the Central Kowloon Route (CKR) – scheduled for commissioning in 2025 – have been factored into the forecasts with reference to the 2019-based Base District Traffic Model (BDTM).

- 4.2.3 Vehicular and pedestrian traffic generations associated with the notional design of the Application Site have been estimated using appropriate traffic generation rates tailored to the Application Site's land use and scale. These estimated traffic volumes have then been distributed across the surrounding road and pedestrian networks based on (i) directional split patterns derived from the BDTM for vehicular movements and (ii) modal split statistics from the 2021 Population Census for pedestrian flows.

4.3 Annual Growth Factor

- 4.3.1 To establish a suitable traffic growth factor for forecasting purposes, reference will be made to the Annual Average Daily Traffic as well as the HK Population Projections from publicised sources.

4.3.2 **Annual Traffic Census (ATC):** Based on the ATC, traffic count stations located in the vicinity of the Application Site have been reviewed. The Annual Average Daily Traffic (AADT) have been extracted and the corresponding annual percentage change between year 2019 and 2023 has been established to determine the historical traffic growth trend and the results are summarized in **Table 4.1**. The historical traffic growth reveals a declining growth trend, with an average annual reduction of 2.16% in traffic volumes.

4.3.3 **Hong Kong Population Projections:** Population figures for the years 2025 and 2036 have been extracted from the Hong Kong Population Projections (2022-2046), published by Census and Statistics Department and are summarised in **Table 4.2**. Hong Kong's territorial population is projected to have a positive growth trend, with an average annual increase of approximately 0.54% between 2025 to 2036.

Table 4.1 AADT between 2019 and 2023 (from ATC)

Road	ATC Station No.	Annual Average Daily Traffic (AADT)					Average Annual Growth
		2019	2020	2021	2022	2023	
Ma Tau Wai Road & To Kwa Wan Road	3014	23,670	22,500	23,130	21,890	23,700	0.03%
Ma Tau Wai Road	3818	34,050	31,950	34,230	28,520	30,630	-2.61%
San Lau Street	4077	6,860	6,610	6,800	6,790	7,120	0.93%
Chatham Road North & Ma Tau Wai Road	4212	30,920	29,520	29,920	25,140	27,520	-2.87%
East Kowloon Corridor <Flyover>	4213	73,310	70,230	74,110	66,280	65,730	-2.69%
Total Average Annual Growth							-2.16%

Table 4.2 Hong Kong Population Projections in 2025 and 2036

Year	Resident Population (thousands)	Annual Growth Rate (p.a.) Between 2025 & 2036
2025	7,559.8	+0.54%
2036	8,022.4	

4.3.4 **Annual Growth Factor:** For a conservative assessment approach, a **+1.0%** annual growth rate has been adopted to generate background traffic flows. This rate has been applied to the observed traffic volumes obtained from the 2025 traffic surveys.

4.4 Planned and Committed Developments

- 4.4.1 A number of planned/ committed developments located in proximity to the Application Site have been identified and reviewed as summarised in **Appendix D** and illustrated in **Figure 4.1**. The same set of planned/ committed developments and development parameters have been adopted in the TIA for the OZP Compliant Proposal has been previously reviewed by the Planning Department (PlanD), who has no further comment on the list or the respective planning parameters adopted.
- 4.4.2 The vehicular traffic generations associated with the identified planned/ committed developments have been estimated using traffic rates sourced from the Transport Planning and Design Manual (TPDM). The adopted traffic rates used for the forecasting exercise are summarised in **Table 4.3**, while the resulting traffic generation estimates are detailed in **Table 4.4**.

Table 4.3 Vehicular Traffic Generation Rates

Development Type	Unit	Vehicular Traffic Generation Rates ⁽¹⁾			
		AM Peak		PM Peak	
		Generation	Attraction	Generation	Attraction
Private Housing (60m ²)	pcu/ hr/ flat	0.0718	0.0425	0.0286	0.0370
Retail	pcu/ hr/ 100m ² GFA	0.2296	0.2434	0.3100	0.3563

Note:

(1) Refer to Chapter 3, Volume 1, TPDM

Table 4.4 Vehicular Traffic Generations of Planned/ Committed Developments

Ref No.	Planned/ Committed Developments	Vehicular Traffic Generations (pcu/ hr)			
		AM Peak		PM Peak	
		Generation	Attraction	Generation	Attraction
1	URA Project KC-008 (A)	15	10	7	7
2	URA Project KC-009	64	39	25	30
3	URA Project KC-010	42	26	17	20
4	URA Project KC-011	22	14	9	11
5	URA Project KC-012 & KC-013	39	28	24	30
6	URA Project KC-014	49	34	29	36
7	URA Project KC-016	84	58	52	63
8	URA Project KC-018	84	120	88	72
9	URA Project KC-019	63	89	65	54
10	URA Project DL-8	9	7	5	6
11	URA Project CBS-1:KC	81	116	75	56
12	A/K9/274	88	60	53	65
13	A/K10/259	143	91	87	109
14	A/K10/265	18	12	10	12
15	A/K10/266	18	12	10	13
16	A/K10/267	10	7	6	7
17	A/K10/269	86	65	47	60
18	Ma Tau Wai Estate Re-development	36	22	14	17
19	A/K10/273	3	2	2	2
20	A/K10/275	29	19	12	12
21	CBS-2:KC	240	206	181	184
Total:		980	830	640	680

4.4.3 **Table 4.5** summarises the pedestrian traffic generation rates adopted for this TIA, which are sourced from the consultant's in-house database and supplemented by pedestrian traffic rate surveys conducted at comparable nearby developments. The resulting pedestrian traffic volumes generated by the adjacent planned/ committed developments are presented in **Table 4.6**.

Table 4.5 Pedestrian Traffic Generation Rates

Development Type	Unit	Pedestrian Traffic Generation Rates			
		AM Peak		PM Peak	
		Generation	Attraction	Generation	Attraction
Private Housing	ped/ hr/ flat	0.48	0.06	0.15	0.37
Retail	ped/ hr/ 100m ² GFA	0.4	0.5	5.5	6.6

Table 4.6 Pedestrian Traffic Generations of Planned/ Committed Developments

Ref No.	Planned/ Committed Developments	Pedestrian Traffic Generations (ped/ hr)			
		AM Peak		PM Peak	
		Generation	Attraction	Generation	Attraction
1	URA Project KC-008 (A)	159	31	181	277
2	URA Project KC-009	597	125	784	1159
3	URA Project KC-010	387	79	489	729
4	URA Project KC-011	207	42	261	390
5	URA Project KC-012 & KC-013	214	43	267	399
6	URA Project KC-014	281	54	318	486
7	URA Project KC-016	465	96	593	882
8	URA Project KC-018	654	129	769	1165
9	URA Project KC-019	487	96	572	867
10	URA Project DL-8	38	8	52	77
11	URA Project CBS-1:KC	333	71	451	662
12	A/K9/274	29	36	400	480
13	A/K10/259	433	96	633	916
14	A/K10/265	388	83	530	778
15	A/K10/266	104	17	85	141
16	A/K10/267	102	18	100	158
17	A/K10/269	56	11	61	94
18	Ma Tau Wai Estate Re-development	960	120	300	740
19	A/K10/273	39	7	44	67
20	A/K10/275	387	76	452	686
21	CBS-2:KC	1311	264	1242	1956
Total:		7,631	1,502	8,584	13,109

4.5 Vehicular Traffic Generations

4.5.1 The vehicular traffic generation and attraction under the OZP Compliant Proposal and the Current S16 Planning Proposal have been estimated based on the traffic rates in **Table 4.3**, and the results are summarized in **Table 4.7** and **Table 4.8**.

Table 4.7 Vehicular Traffic Generations of the OZP Compliant Proposal

Development Site and Land Use	Vehicular Traffic Generation (pcu/hr) ⁽²⁾			
	AM Peak		PM Peak	
	Generation	Attraction	Generation	Attraction
Domestic units (about 232 units) ⁽¹⁾	17	10	7	9
Retails (GFA approx. 2,367m ²) ⁽¹⁾	6	6	8	9
Total:	23	16	15	18

Note:

(1) The development parameters should be referred to previous TIA for the OZP Compliant Proposal

(2) 5% increment would be adopted in the technical assessment for design flexibility allowance

Table 4.8 Vehicular Traffic Generations of the Current S16 Planning Proposal

Development Site and Land Use	Vehicular Traffic Generation (pcu/hr) ⁽¹⁾			
	AM Peak		PM Peak	
	Generation	Attraction	Generation	Attraction
Domestic units (about 279 units)	21	12	8	11
Retails (GFA approx. 1,566m ²)	4	4	5	6
Total:	25	16	13	17

Note:

(1) 5% increment would be adopted in the technical assessment for design flexibility allowance

4.5.2 The net difference of the trip generation between the OZP Compliant Proposal and Current S16 Planning Proposal is summarised in **Table 4.9**. As shown in **Table 4.9**, the trip generation of the Current S16 Planning Proposal is would be larger in AM peak period and decrease in PM peak period, compared with the OZP Compliant Proposal.

Table 4.9 Net Difference of Trip Generations between OZP Compliant Proposal and the Current S16 Planning Proposal

Proposals	Vehicular Traffic Generation (pcu/hr)			
	AM Peak		PM Peak	
	Generation	Attraction	Generation	Attraction
OZP Compliant Proposal	23	16	15	18
Current S16 Planning Proposal	25	16	13	17
Total:	+2	0	-2	-1

4.6 Pedestrian Traffic Generations

4.6.1 Pedestrian trips generated from the OZP Compliant Proposal and the Current S16 Planning Proposal have been estimated with reference to the traffic rates outlined in **Table 4.5**. The resulting pedestrian traffic generations are summarised in **Table 4.10 and 4.11**.

Table 4.10 Pedestrian Traffic Generations of the OZP Compliant Proposal

Land Use	Pedestrian Traffic Generations (ped/ hr) ⁽²⁾			
	AM Peak		PM Peak	
	Generation	Attraction	Generation	Attraction
Private Housing (232 flats) ⁽¹⁾	117	15	37	90
Retail (2,367m ²) ⁽³⁾	10	12	137	164
Total:	127	27	174	254

Note:

(1) The development parameters should be referred to previous TIA for the OZP Compliant Proposal.

(2) 5% increment would be adopted in the technical assessment for design flexibility allowance

Table 4.11 Pedestrian Traffic Generations of the Current S16 Planning Proposal

Land Use	Pedestrian Traffic Generations (ped/ hr) ⁽¹⁾			
	AM Peak		PM Peak	
	Generation	Attraction	Generation	Attraction
Private Housing (279 flats)	141	18	44	108
Retail (1,566m ²) ⁽³⁾	7	8	90	109
Total:	148	26	134	217

Note:

(1) 5% increment would be adopted in the technical assessment for design flexibility allowance

4.6.2 The net difference of the pedestrian trip generation between the OZP Compliant Proposal and Current S16 Planning Proposal is summarised in **Table 4.12**. As shown in **Table 4.12**, the pedestrian trip generation of the Current S16 Planning Proposal would be larger in AM peak period and decrease in PM peak period, compared with the OZP Compliant Proposal.

Table 4.12 Net Difference of Pedestrian Trip Generations between the OZP Compliant Proposal and Current S16 Planning Proposal

Scheme	Pedestrian Traffic Generations (pcu/hr)			
	AM Peak		PM Peak	
	Generation	Attraction	Generation	Attraction
OZP Compliant Proposal	127	27	174	254
Current S16 Planning Proposal	148	26	134	217
Total:	21	-1	-40	-37

4.6.3 The pedestrian trips estimated in **Table 4.10 – Table 4.12** have been manually assigned to the surrounding pedestrian network/ transport facilities based on modal split data. This assignment takes reference from the Kowloon City District modal split statistics obtained from the 2021 Population Census, as presented in **Table 4.13**.

Table 4.13 Pedestrian Trips by Transport Mode

Main Transport Mode	Modal Split ⁽¹⁾
Rail	41%
Bus/ Public Light Bus	32%
Walk	14%
Others ⁽²⁾	13%

Note:

(1) Refer to 2021 Population Census Table C204 (Kowloon City District)

(2) Others include private vehicle, taxi, etc.

4.7 Previous Traffic Improvement Proposals

4.7.1 This TIA has taken into account the previous traffic improvement proposals for CBS-2:KC outline under the TIA for the OZP Compliant Proposal and TIA for the Combined Development, which TD had no in-principle objection on these two reports (**Appendix E** refers).

4.7.2 Same as the TIA for the OZP Compliant Proposal, this TIA will take into account the following relevant junction improvement measures proposed in the TIA dated March 2023 for CBS-2:KC DSP:

- i) Junction 02 (Tin Kwong Road / Kau Pui Lung Road / Hop Yat Road) – The mode of control (MOC) has been revised, and a double white line has been added along Tin Kwong Road to enhance safety by reinforcing the westbound split arrangement and separating the turning movements;
- ii) Junction 03 (Tin Kwong Road / Ma Tau Wai Road / Ma Hang Chung Road) – Road markings at Ma Hang Chung Road have been amended to improve overall junction performance; and
- iii) Junction 06 (Chi Kiang Street / Ko Shan Road) – Chi Kiang Street has been partially converted from westbound to eastbound between Ko Shan Road and Ma Tau Wai Road.

4.7.3 Meanwhile, with reference to the TIA for the Combined Development, the following traffic proposals have also been taken into account:

- i) The section of Maidstone Stone Road outside No. 80 will be converted into a two-way carriageway. To allow vehicular access to existing developments and to facilitate vehicle turning around, a hammerhead facility will be provided within CBS-2KC.
- ii) To improve accessibility in the area following the closure of Maidstone Road as well as Kiang Su Street and to mitigate the substantial detour affecting the public vehicle (i.e including Green Minibus (GMB)). The western section of Lok Shan Road (between Maidstone Road and Kau Pui Lung Road) was proposed to convert into two-way traffic operation.

5 TRAFFIC IMPACT ASSESSMENT

5.1 Junction Capacity Analysis

5.1.1 The results for junction capacity analysis for the 2036 Reference (i.e. the Scenario with OZP Compliant Proposal) and Design Forecasts for the Current S16 Planning Proposal (**Figures 5.1 and 5.2**, respectively) are summarised in **Table 5.1**. Junction improvement proposed under CBS-2:KC as mentioned in **Section 4.7** above has been incorporated in the junction capacity analysis in 2036 reference case. The junction calculation details are attached in **Appendix B**.

Table 5.1 Junction Operational Performance (Year 2036)

Ref (1)	Junction	RC/DFC (2)			
		2036 Reference		2036 Design	
		AM Peak	PM Peak	AM Peak	PM Peak
J01	Sheung Shing Street / Tin Kwong Road	34%	79%	34%	79%
J02	Tin Kwong Road / Kau Pui Lung Road / Hop Yat Road (3)	74%	57%	74%	58%
J03	Tin Kwong Rd/ Ma Tau Wai Rd/ Ma Hang Chung Rd/ Pak Tai St (3)	17%	40%	17%	40%
J04	Kau Pui Lung Road / Lok Shan Road (4)	0.47	0.39	0.47	0.39
J05	Ma Tau Wai Road / Lok Shan Road	87%	92%	87%	93%
J06	Chi Kiang Street / Ko Shan Road (3)	0.63	0.60	0.63	0.60
J07	Chi Kiang Street / Ma Tau Wai Road	41%	66%	41%	66%
J08	Maidstone Road / Lok Shan Road (4)	0.14	0.10	0.14	0.10

Note:

(1) Refer to **Figure 3.1**

(2) RC = reserved capacity, DFC = design flow/capacity ratio

(3) Junction improvements proposed in previous TIA for CBS-2:KC incorporated

(4) Road improvements proposed in previous TIA for combined site (i.e. CBS-2:KC and KC-020) incorporated

5.1.2 As shown in **Table 5.1**, the identified critical junctions are projected to operate satisfactorily during peak hours in design year 2036. No adverse vehicular traffic impact from the Current S16 Planning Proposal is anticipated on the surrounding road network.

5.2 Pedestrian Walkway Assessment

5.2.1 The LOS assessment for the 2036 Reference and Design scenarios (**Figures 5.3 and 5.4**, respectively) for the key pedestrian walkways and pedestrian crossing are summarised in **Table 5.2 and 5.3**.

Table 5.2 Pedestrian Walkways LOS (Year 2036)

Walkway	Walkway Width (m)	Effective Width (m)	Pedestrian Flow (ped/hr)		LOS ⁽¹⁾		
			AM Peak	PM Peak	AM Peak	PM Peak	
2036 Reference Scenario							
P1	Footpath at the northern side of Lok Shan Road adjacent to Maxim Mansion	3.7	2.7	1280	640	A	A
P2	Footpath at the southern side of Lok Shan Road adjacent to 80 Maidstone Road	3	2	760	880	A	A
P3	Footpath at the eastern side of Kau Pui Lung Road adjacent to Morning Joy Building	3.9	2.9	1040	890	A	A
P4	Footpath at the eastern side of Kau Pui Lung Road adjacent to Fu Yu Court	2.4	1.4	885	530	A	A
P5	Footpath at the eastern side of Kau Pui Lung Road adjacent to City 151	3.1	2.1	295	300	A	A
P6	Footpath at the eastern side of Kau Pui Lung Road adjacent to Popular Court	2.8	1.8	435	250	A	A
P7	Footpath at the northern side of Chi Kiang Street adjacent to Ming Fat Building	3.1	2.1	365	305	A	A
P8	Footpath at the western side of Ma Tau Wai Road adjacent to On Chun Mansion	3.6	2.6	960	1045	A	A
P9	Footpath at the western side of Ma Tau Wai Road adjacent to Hau Hing Mansion	2.6	1.6	735	950	A	A
P10	Footpath at the western side of Ma Tau Wai Road adjacent to Mai Lok Building	4	3	425	780	A	A
P11	Footpath at the southern side of Lok Shan Road adjacent to To Kwa Wan Station Exit B	2.5	1.5	540	670	A	A
P12	Footpath at the northern side of Lok Shan Road adjacent to 356 Ma Tau Wai Road	2.8	1.8	935	1175	A	A
P13	Footpath at the western side of Ma Tau Wai Road adjacent to Lucky Mansion	4.2	3.2	1125	1425	A	A
P14	Footpath at the eastern side of Ma Tau Wai Road adjacent to S.K.H. Good Shepherd Primary School	3.6	2.6	965	750	A	A
P15	Footpath at the eastern side of Ma Tau Wai Road adjacent to To Kwa Station Exit A	3.2	2.2	2680	2370	B	B
2036 Design Scenario							
P1	Footpath at the northern side of Lok Shan Road adjacent to Maxim Mansion	3.7	2.7	1280	640	A	A
P2	Footpath at the southern side of Lok Shan Road adjacent to 80 Maidstone Road	3	2	765	880	A	A
P3	Footpath at the eastern side of Kau Pui Lung Road adjacent to Morning Joy Building	3.9	2.9	1045	895	A	A
P4	Footpath at the eastern side of Kau Pui Lung Road adjacent to Fu Yu Court	2.4	1.4	885	525	A	A
P5	Footpath at the eastern side of Kau Pui Lung Road adjacent to City 151	3.1	2.1	295	300	A	A
P6	Footpath at the eastern side of Kau Pui Lung Road adjacent to Popular Court	2.8	1.8	440	250	A	A
P7	Footpath at the northern side of Chi Kiang Street adjacent to Ming Fat Building	3.1	2.1	365	305	A	A
P8	Footpath at the western side of Ma Tau Wai Road adjacent to On Chun Mansion	3.6	2.6	960	1045	A	A
P9	Footpath at the western side of Ma Tau Wai Road adjacent to Hau Hing Mansion	2.6	1.6	735	940	A	A

P10	Footpath at the western side of Ma Tau Wai Road adjacent to Mai Lok Building	4	3	425	775	A	A
P11	Footpath at the southern side of Lok Shan Road adjacent to To Kwa Wan Station Exit B	2.5	1.5	540	670	A	A
P12	Footpath at the northern side of Lok Shan Road adjacent to 356 Ma Tau Wai Road	2.8	1.8	935	1170	A	A
P13	Footpath at the western side of Ma Tau Wai Road adjacent to Lucky Mansion	4.2	3.2	1125	1420	A	A
P14	Footpath at the eastern side of Ma Tau Wai Road adjacent to S.K.H. Good Shepherd Primary School	3.6	2.6	965	745	A	A
P15	Footpath at the eastern side of Ma Tau Wai Road adjacent to To Kwa Station Exit A	3.2	2.2	2680	2370	B	B

Note:

(1) Refer to **Appendix C** for interpretation of LOS

Table 5.3 Pedestrian Crossing V/C ratio (Year 2036)

Crossing	Location	Capacity (ped/hr)		Pedestrian Flow (ped/hr)		V/C	
		AM	PM	AM	PM	AM	PM
2036 Reference Scenario							
C1	Lok Shan Road western crossing near Kau Pui Lung Road	1500 ⁽¹⁾	1500 ⁽¹⁾	455	380	0.30	0.25
C2	Lok Shan Road eastern crossing near Maidstone Road	1500 ⁽¹⁾	1500 ⁽¹⁾	240	250	0.16	0.17
C3	Pedestrian crossing across Lok Shan Road near Lucky Mansion	4022 ⁽²⁾	3079 ⁽²⁾	580	875	0.14	0.28
C4	Pedestrian crossing across Ma Tau Wai Road near Lucky Mansion	4209 ⁽²⁾	5525 ⁽²⁾	1790	1590	0.43	0.29
2036 Design Scenario							
C1	Lok Shan Road western crossing near Kau Pui Lung Road	1500 ⁽¹⁾	1500 ⁽¹⁾	455	375	0.30	0.25
C2	Lok Shan Road eastern crossing near Maidstone Road	1500 ⁽¹⁾	1500 ⁽¹⁾	240	250	0.16	0.17
C3	Pedestrian crossing across Lok Shan Road near Lucky Mansion	4022 ⁽²⁾	3079 ⁽²⁾	580	870	0.14	0.28
C4	Pedestrian crossing across Ma Tau Wai Road near Lucky Mansion	4209 ⁽²⁾	5525 ⁽²⁾	1790	1585	0.43	0.29

Note:

(1) With reference to the TPDM Vol 4 Chapter 3.2 Table 3.2.6.1

(2) With reference to the TPDM Vol 4 Chapter 3.2 Section 3.2.5.6

5.2.2 From **Table 5.2 – 5.3**, all the identified key pedestrian walkways and pedestrian crossing would operate satisfactorily with LOS of A/B and V/C less than 0.85 respectively. No adverse pedestrian traffic impact from the current S16 Planning Proposal is anticipated on the surrounding network.

6 SUMMARY AND FINDINGS

6.1 Summary

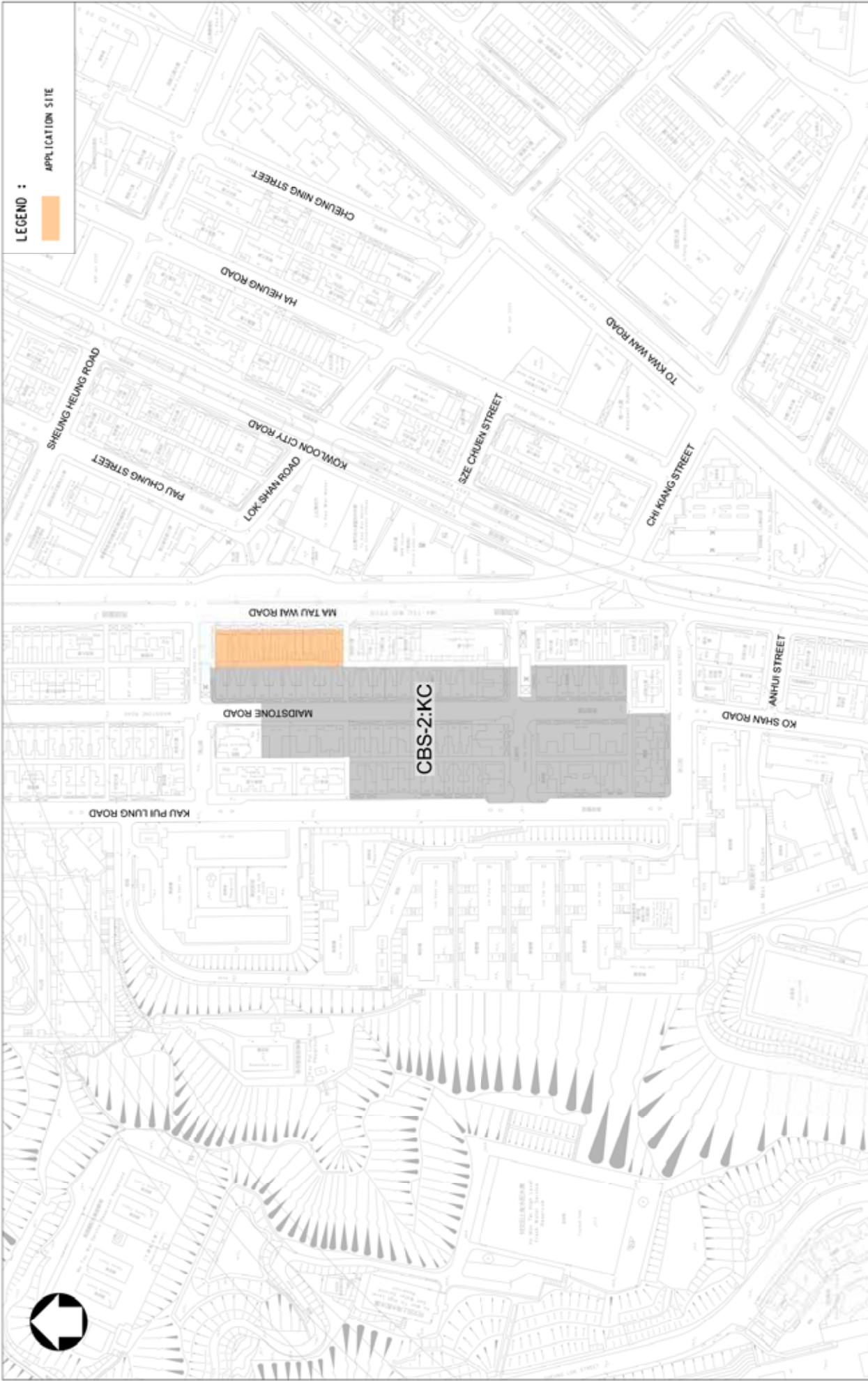
- 6.1.1 The Project (KC-020) was commenced by the URA on 9 August 2024 by way of a development project in accordance with Section 26 of the URAO. SDEV has authorised the URA to proceed with the Project without any amendment on 26 August 2025, the decision was subsequently gazetted on 5 September 2025.
- 6.1.2 This TIA is to support for a S16 Planning Application to seek Town Planning Board (TPB) approval for a minor relaxation of the DPR from 7.5 to 8.0 and the BHR from 120 mPD to 140 mPD for the Application Site in order to align with the permissible development parameter of CBS:2-KC for holistic design and implementation of the two projects. It is also proposed to include PVP use to facilitate design flexibility for accommodating the PVP parking spaces required by CBS-2KC² in the future combined development, if necessary.
- 6.1.3 This S16 planning application is a non-scheme-based submission. The notional design and indicative development parameters provided in the application are solely for illustration purpose and for conducting necessary technical assessments. Except for any planning condition(s) to be imposed, the design of the future development will not be bounded by the notional design submitted in the S16 Planning Application.
- 6.1.4 Adopting the vehicular arrangements proposed for the OZP Compliant Proposal, it is proposed to shared-use of a vehicular run in/out with CBS-2:KC at Kau Pui Lung Road to maintain street vibrancy along Ma Tau Wai Road, while the basement car parks for both projects will be connected and may be shared-use.
- 6.1.5 Traffic surveys have been conducted to establish the current traffic conditions in the vicinity of the Application Site. The junction capacity assessments revealed that all identified local junctions are currently operating with ample capacity.
- 6.1.6 The operational performance of the identified local junctions has been assessed based on the design year 2036 traffic flows. The anticipated trip generation of the Current S16 Planning Proposal is expected to be higher during the AM peak period and slightly lower during the PM peak period, compared with the OZP Compliant Proposal. The impact of the development on traffic and pedestrian flow is expected to be insignificant, with no adverse effects anticipated.

6.2 Conclusion

- 6.2.1 The traffic impact assessment results indicate that the additional traffic arrived by the Current S16 Planning Proposal can be adequately absorbed by the existing surrounding road network without causing significant congestion or delay. Therefore, from a traffic engineering perspective, the subject S16 Planning Application is acceptable and will not generate significant negative traffic impacts in the vicinity.

² The proposed PVP does not necessarily mean there must be certain amount of PVP provision in the Project, but to avoid further S16 planning permission to be sought in case some PVP spaces as required in CBS-2:KC might need to be provided within the Project area due to site constraints and/or integrated design consideration under the combined site development. In any case, the total number of PVP spaces required by Transport Department (TD) in CBS-2:KC would be provided within the combined site of the Project and CBS-2:KC.

Figures



LEGEND :
 APPLICATION SITE

Drawing Title

Project Title

Consultant

Client

PROPOSED MINOR RELAXATION OF DOMESTIC PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR THE PERMITTED RESIDENTIAL DEVELOPMENT WITH COMMERCIAL USE AT THE URA MA TAU WAI ROAD / LOK SHAN ROAD DEVELOPMENT PROJECT (KC-020), AND PROPOSED PUBLIC VEHICLE PARK

aurecon
 www.aurecongroup.com



SITE LOCATION

Designed	HL	Checked	JY	Scale	1:2000(A3)	Date	MAY 2026	Figure No.	2.1	Rev.	-
----------	----	---------	----	-------	------------	------	----------	------------	-----	------	---

VEHICULAR ACCESS LOCATION

Drawing Title

Project Title

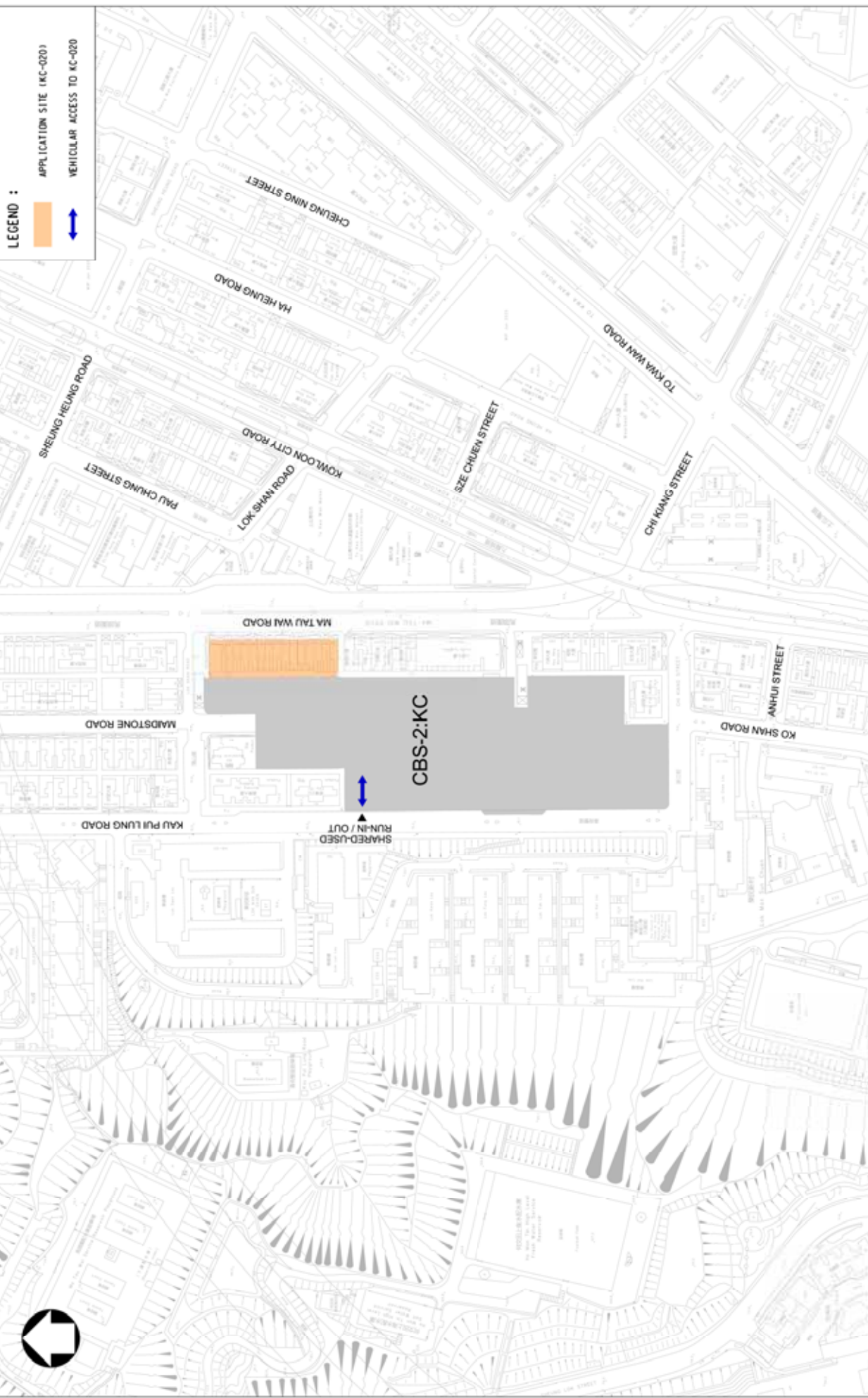
Consultant

Client

PROPOSED MINOR RELAXATION OF DOMESTIC PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR THE PERMITTED RESIDENTIAL DEVELOPMENT WITH COMMERCIAL USE AT THE URA MA TAU WAI ROAD / LOK SHAN ROAD DEVELOPMENT PROJECT (KC-Q02), AND PROPOSED PUBLIC VEHICLE PARK

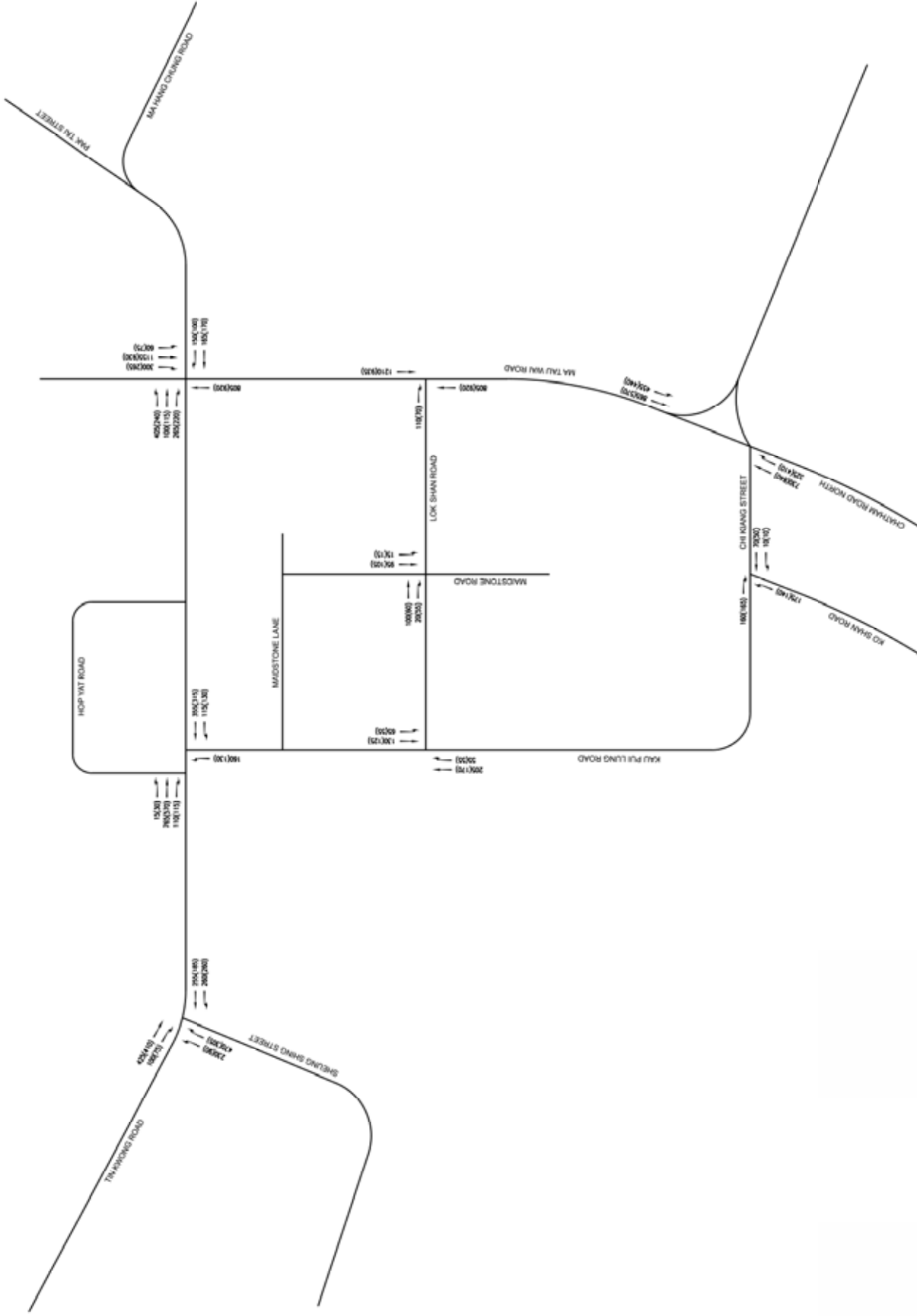


Designed	HL	Checked	JY	Scale	1:2000(A3)	Date	MAY 2026	Figure No.	2.2	Rev.	-
----------	----	---------	----	-------	------------	------	----------	------------	------------	------	---



LEGEND :

- APPLICATION SITE (KC-Q02)
- VEHICULAR ACCESS TO KC-Q02



Client:  URBAN RENEWAL AUTHORITY

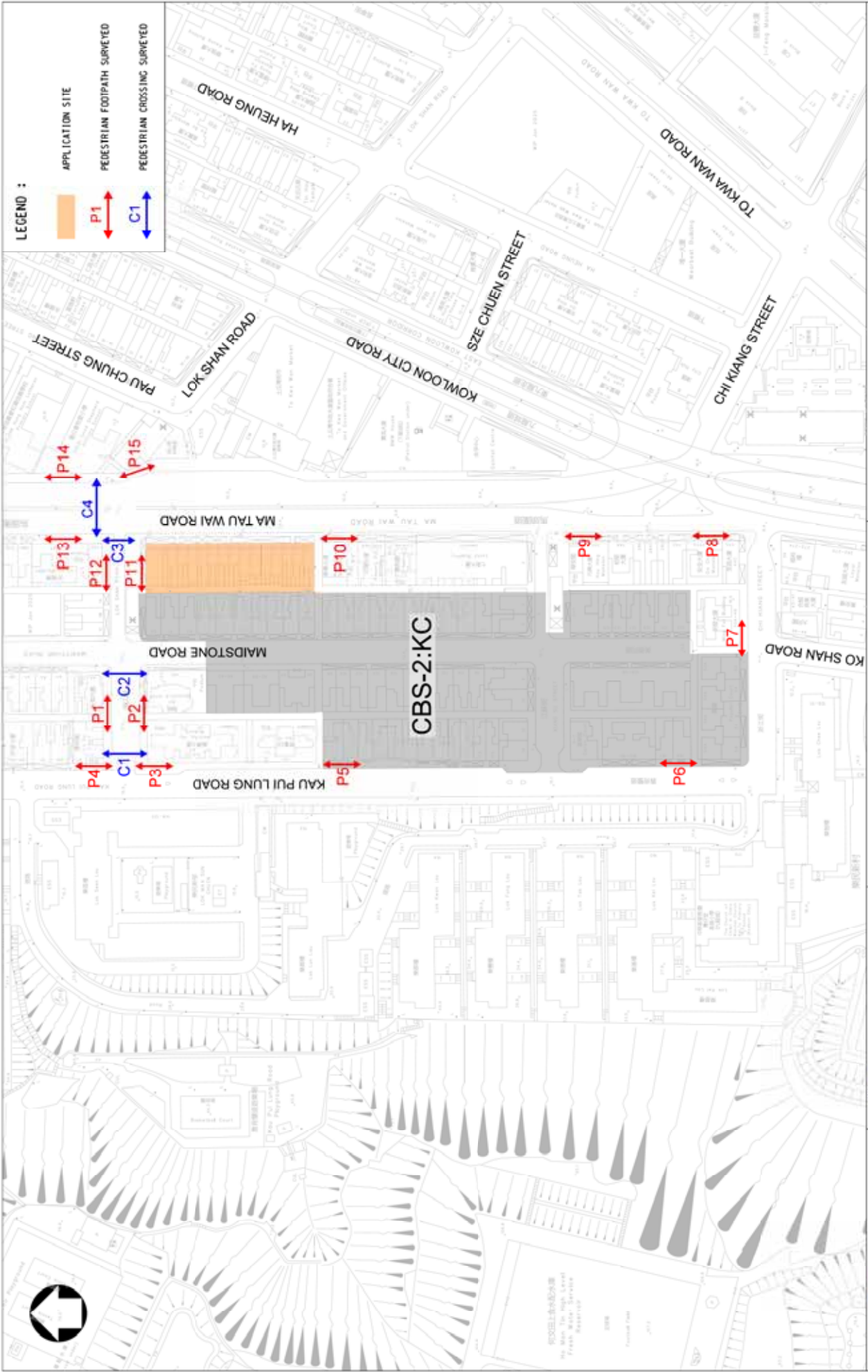
Consultant:  aurecon
www.aurecongroup.com

Project Title: PROPOSED MINOR RELAXATION OF DOMESTIC PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR THE PROPOSED RESIDENTIAL DEVELOPMENT AT THE INTERSECTION OF MA TAU WAI ROAD, LOK SHAN ROAD, DEVELOPMENT PROJECT (KC-02), AND PROPOSED PUBLIC VEHICLE PARK

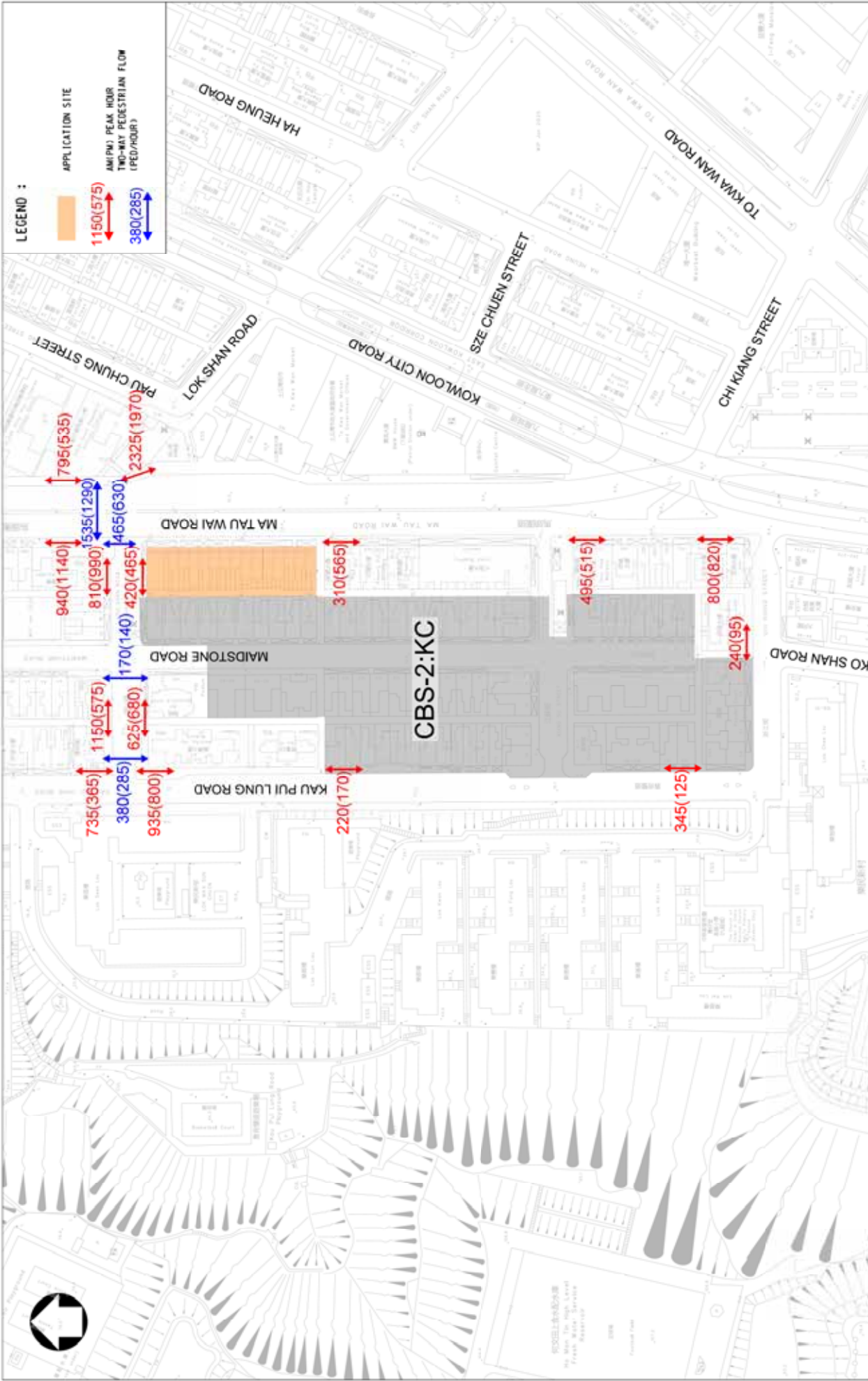
Drawing Title: 2025 OBSERVED TRAFFIC FLOW

Designed: HL Checked: JY Scale: NTS Date: SEP 2025 Figure No: 3.2 Rev: .

Original Size: A3



 城市規劃委員會 URBAN PLANNING AUTHORITY	 www.aurecongroup.com	Project Title PROPOSED MINOR RELAXATION OF DOMESTIC PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR THE PROPOSED RESIDENTIAL DEVELOPMENT AT MAIDSTONE ROAD, MA TAU WAI ROAD, LOK SHAN ROAD DEVELOPMENT PROJECT (KC-020), AND PROPOSED PUBLIC VEHICLE PARK	Drawing Title IDENTIFIED PEDESTRIAN WALKWAYS
		Checked JY Designed HL Date MAY 2026 Scale 1:1500(A3) Figure No. 3.3	Rev.



Client: 市區重建局 URBAN REGENERATION AUTHORITY

Consultant: aurecon
www.aurecongroup.com

Project Title: PROPOSED MINOR RELAXATION OF DOMESTIC PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR THE PERMITTED RESIDENTIAL DEVELOPMENT OF THE MA TAU WAI ROAD DEVELOPMENT URBA PROJECT (KC-020), AND PROPOSED PUBLIC VEHICLE PARK

Project No.: 3-4

Scale: 1:1500(A3)

Date: MAY 2026

Checked: JY

Designed: HL

Original Size: A3

ADJACENT PLANNED / COMMITTED DEVELOPMENTS

Drawing Title

Project Title

Consultant

Client

PROPOSED MINOR RELAXATION OF DOMESTIC PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR THE PERMITTED RESIDENTIAL DEVELOPMENT AT THE MA TAU WAI ROAD DEVELOPMENT URBA MA TAU WAI ROAD (L1, L2, SHAN ROAD DEVELOPMENT PROJECT (KC-020), AND PROPOSED PUBLIC VEHICLE PARK



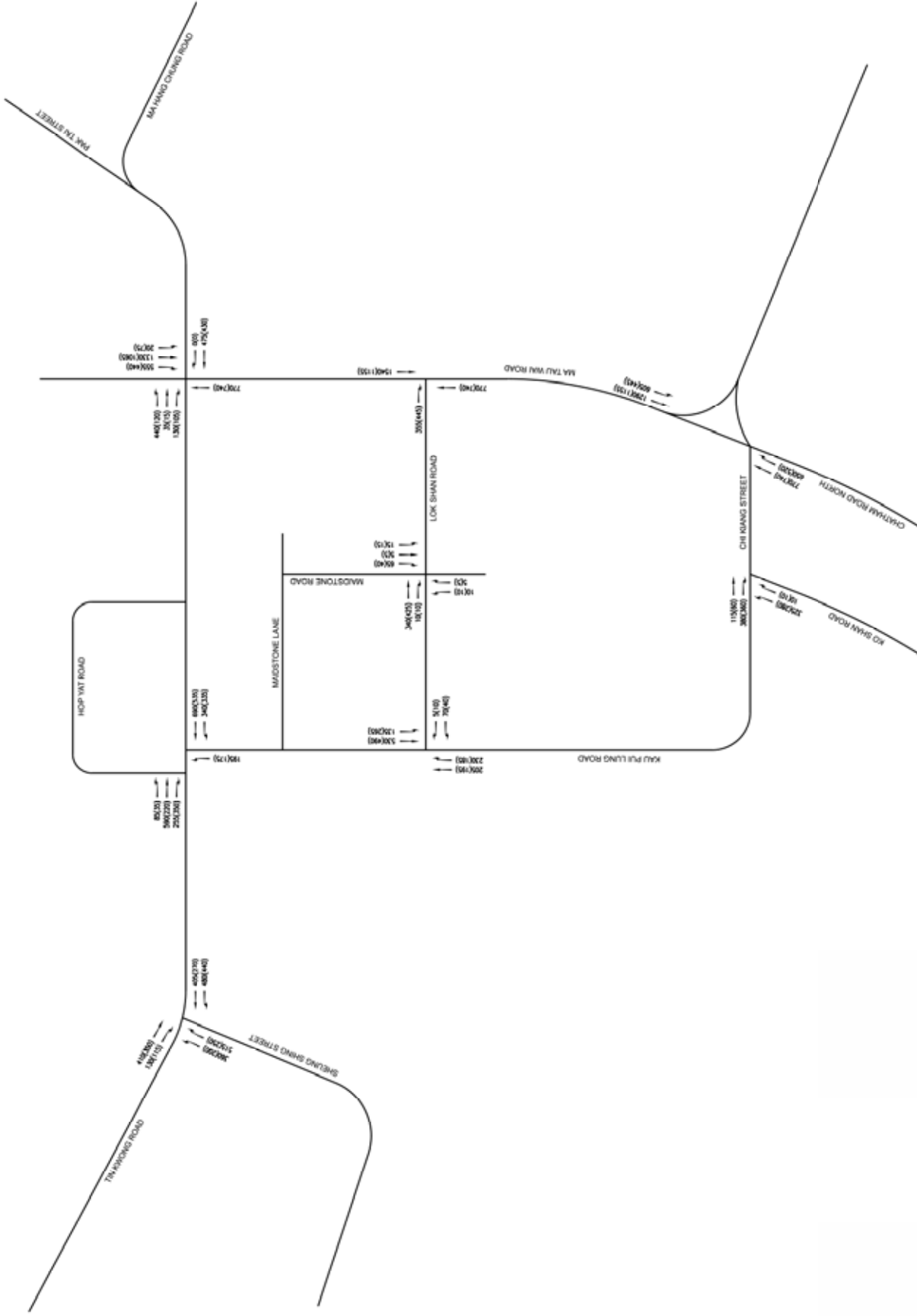
Designed	HL	Checked	JY	Scale	1:7000(A3)	Date	MAY 2026	Figure No.	4.1	Rev.	-
----------	----	---------	----	-------	------------	------	----------	------------	-----	------	---



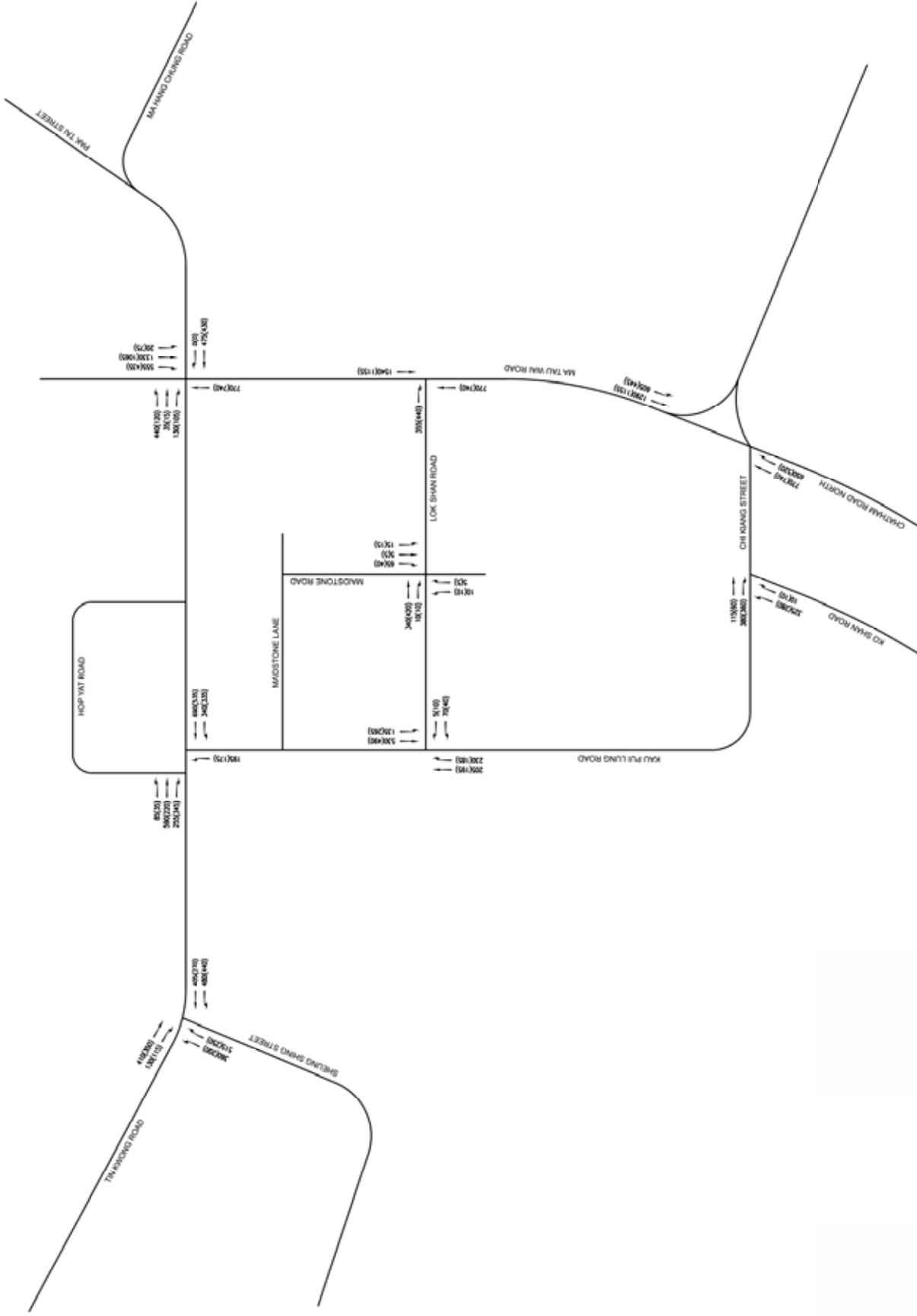
LEGEND :

- APPLICATION SITE
- PLANNED / COMMITTED DEVELOPMENT





Client	Urban Renewal Authority
Consultant	aurecon www.aurecongroup.com
Project Title	PROPOSED MINOR RELAXATION OF DOMESTIC PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR THE PROPOSED RESIDENTIAL DEVELOPMENT AT THE INTERSECTION OF MA TAU WAN ROAD, LOK SHAN ROAD, DEVELOPMENT PROJECT (KC-020), AND PROPOSED PUBLIC VEHICLE PARK
Drawing Title	2036 REFERENCE TRAFFIC FLOW
Designed	HL
Checked	JY
Scale	NTS
Date	SEP 2025
Figure No.	5.1
Rev.	-



Drawing Title

Project Title

Consultant

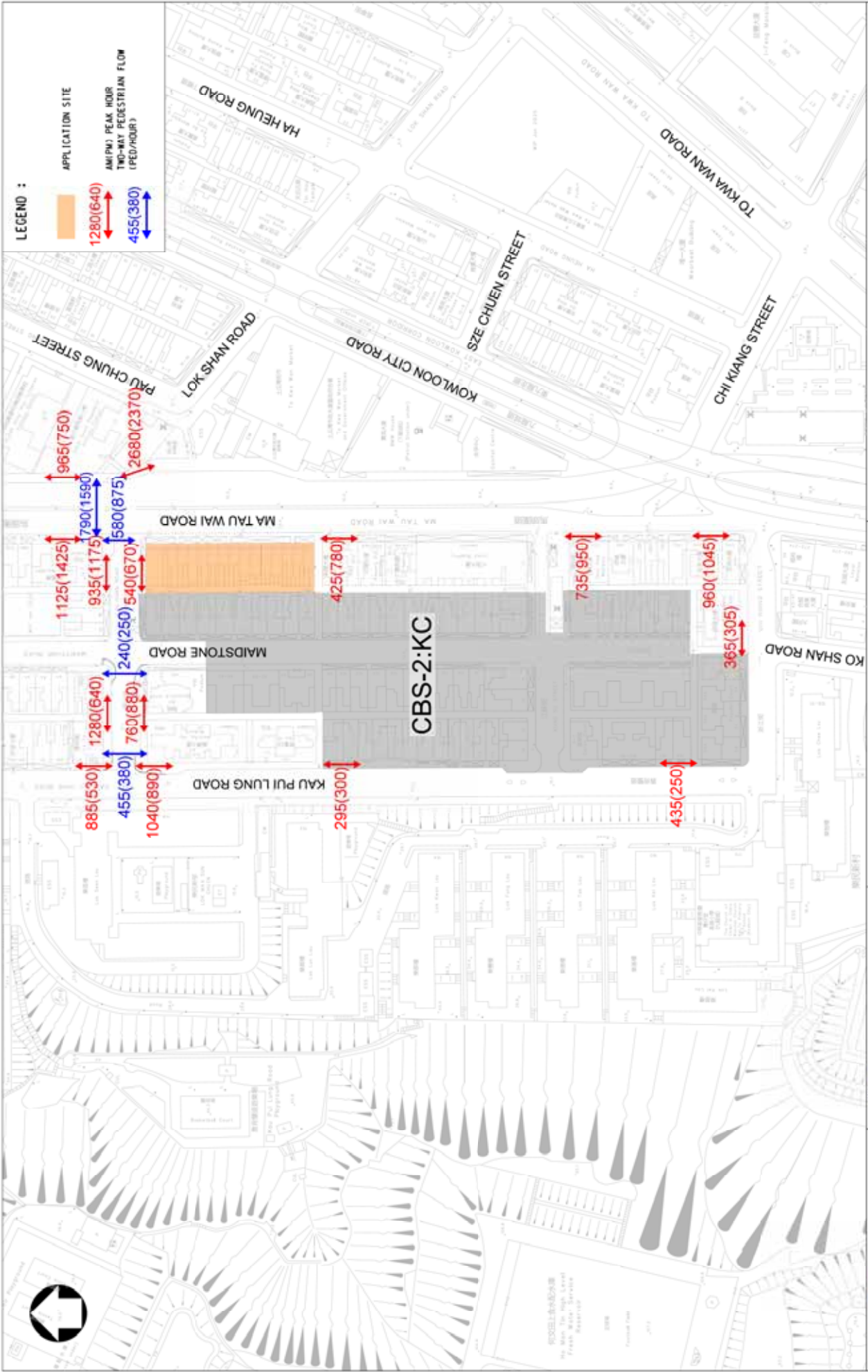
Client

PROPOSED MINOR RELAXATION OF DOMESTIC PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR THE PROPOSED RESIDENTIAL DEVELOPMENT IN THE URBAN DEVELOPMENT ZONE OF THE URA MA TAU WAI ROAD / LOK SHAN ROAD DEVELOPMENT PROJECT (KC-020), AND PROPOSED PUBLIC VEHICLE PARK



2036 DESIGN TRAFFIC FLOW

Designed	HL	Checked	JY	Scale	NTS	Date	SEP 2025	Figure No.	5.2	Rev.	.
----------	----	---------	----	-------	-----	------	----------	------------	-----	------	---



Client: 香港房屋委員會
HONG KONG HOUSING AUTHORITY

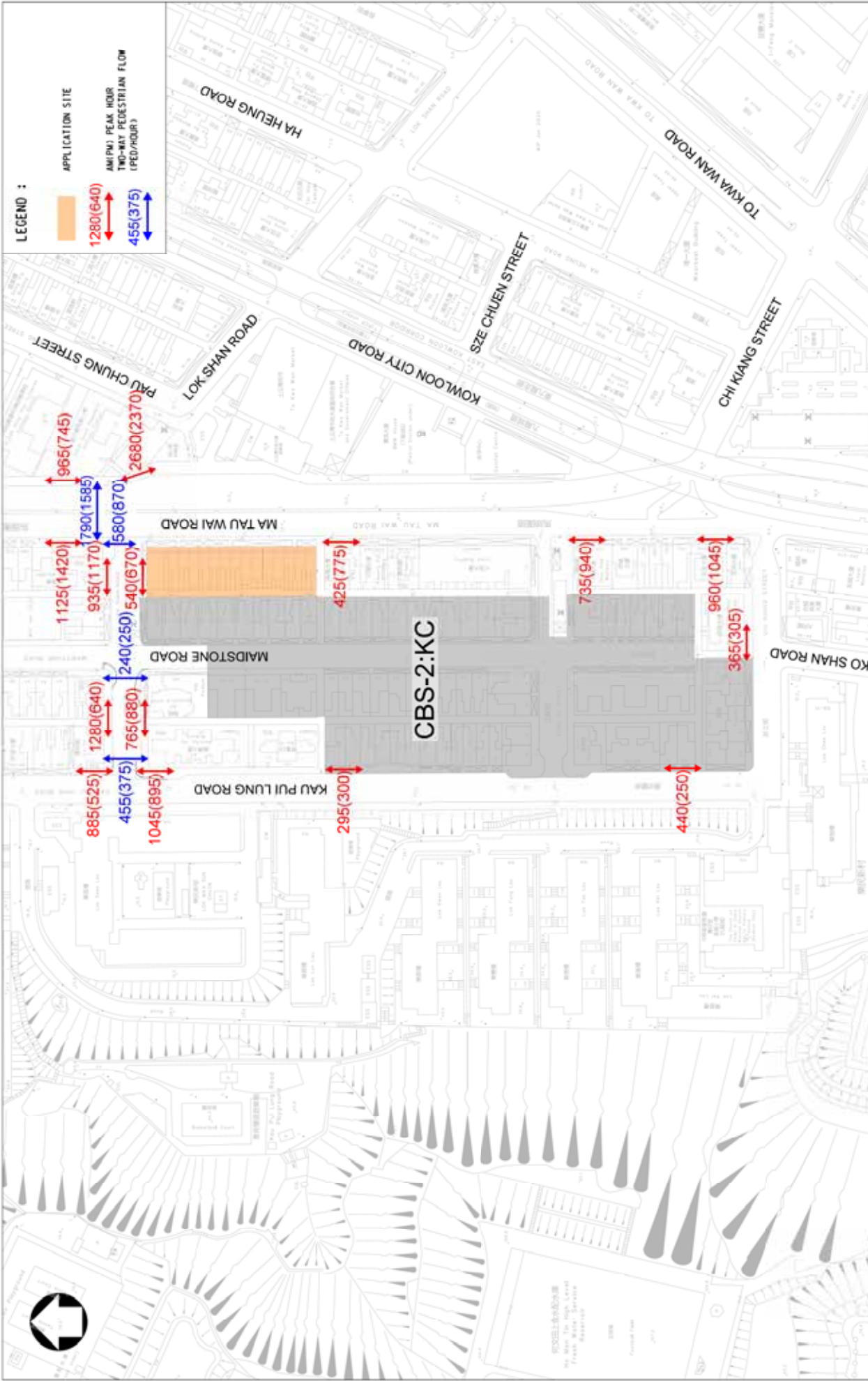
Consultant: aurecon
www.aurecongroup.com

Project Title: PROPOSED MINOR RELAXATION OF DOMESTIC PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR THE PROPOSED RESIDENTIAL DEVELOPMENT AT THE INTERSECTION OF MA TAU WAI ROAD, MAIDSTONE ROAD, LOK SHAN ROAD, AND PROPOSED PUBLIC VEHICLE PARK PROJECT (KC-020), AND PROPOSED PUBLIC VEHICLE PARK

Drawing Title: 2036 REFERENCE PEDESTRIAN FLOW

Designated: HL
Checked: JY
Scale: 1:1500(A3)
Date: MAY 2026
Figure No.: 5.3
Rev.:

Original Size : A3



Client:  城市規劃局
URBAN PLANNING AUTHORITY

Consultant:  aurecon
www.aurecongroup.com

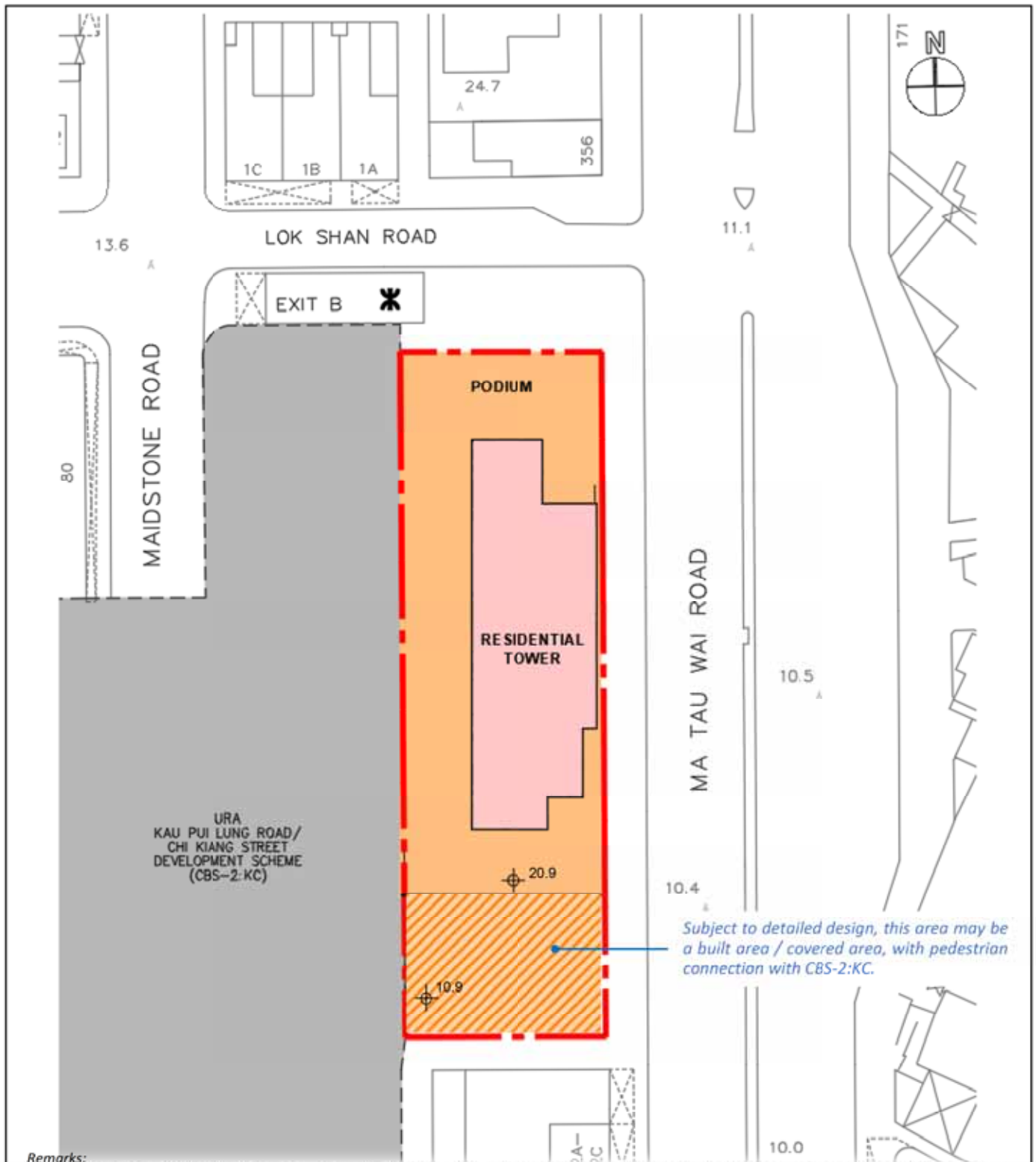
Project Title: PROPOSED MINOR RELAXATION OF DOMESTIC PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR THE PERMITTED RESIDENTIAL DEVELOPMENT OF THE MA TAU WAI ROAD DEVELOPMENT PROJECT (KC-020), AND PROPOSED PUBLIC VEHICLE PARK

Drawing Title: 2036 DESIGN PEDESTRIAN FLOW

Designed: HL
Checked: JY
Scale: 1:1500(A3)
Date: MAY 2026
Figure No: 5.4
Rev.:

Appendix A



Notional Design



Remarks:

This S16 Planning Application is a "non-scheme-based" submission. This notional design layout is solely for illustration purpose and for conducting necessary technical assessments. Except for any planning condition(s) to be imposed, the design of the future development will not be bounded by the notional design submitted in the S16 Planning Application.

URA undertakes that the portion of the future combined development within the Application Site would not exceed maximum DPR of 8.0 and total PR of 9.0.

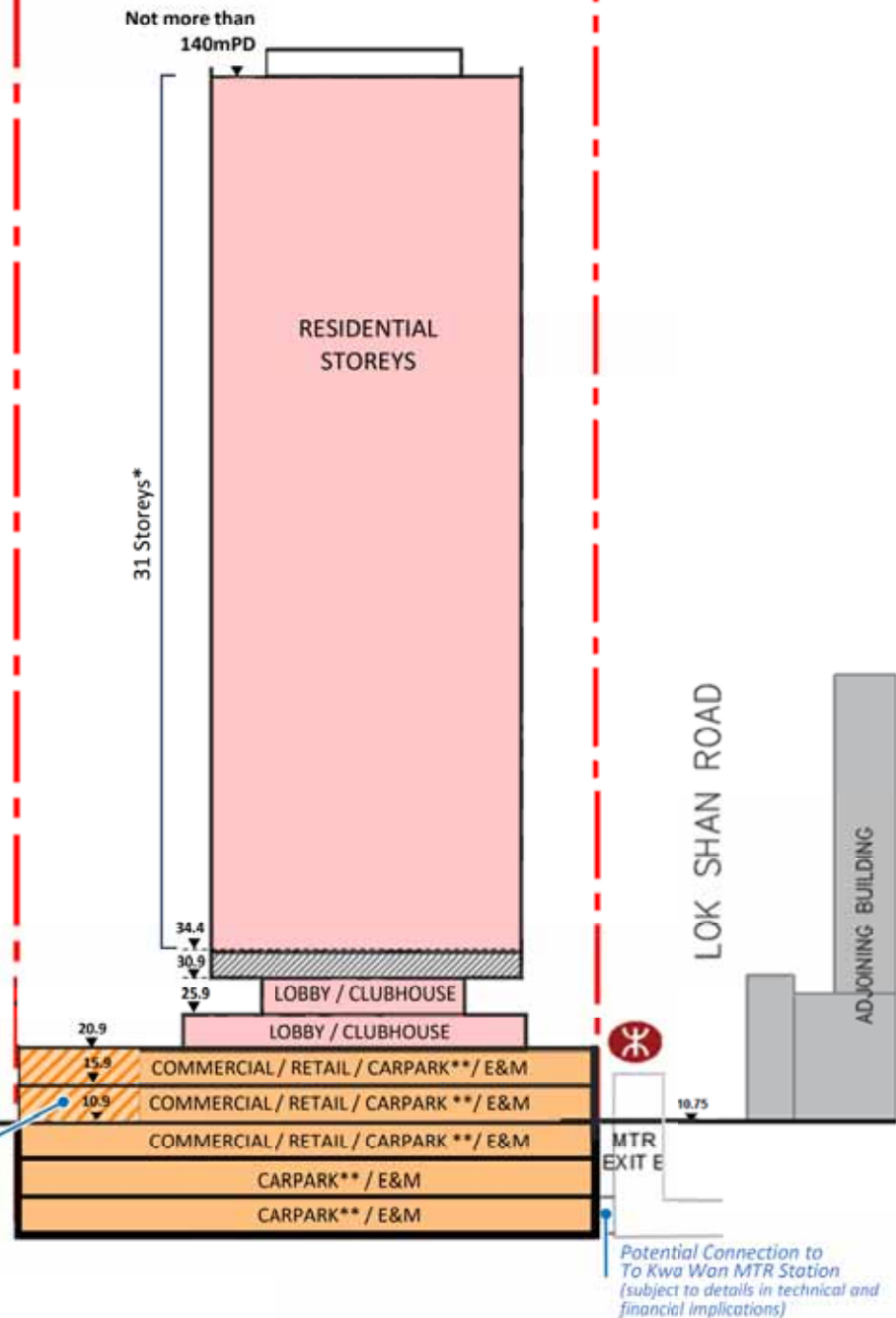
 Application Site Boundary	<h2>NOTIONAL BLOCK PLAN</h2> <p>MA TAU WAI ROAD / LOK SHAN ROAD DEVELOPMENT PROJECT (KC-020)</p>	 <p>Figure 3.1</p>
---	--	---

Key Plan



APPLICATION SITE BOUNDARY

APPLICATION SITE BOUNDARY



Subject to detailed design, this area may be a built area / covered area, with pedestrian connection with CBS-2:KC.



Remarks:

This S16 Planning Application is a "non-scheme-based" submission. This notional design layout is solely for illustration purpose and for conducting necessary technical assessments. Except for any planning condition(s) to be imposed, the design of the future development will not be bounded by the notional design submitted in the S16 Planning Application.

URA undertakes that the portion of the future combined development within the Application Site would not exceed maximum DPR of 8.0 and total PR of 9.0.

* Reference to typical floor-to-floor height of 3.3m to 3.5m adopted in Hong Kong's private residential development.

** The proposed location of the carpark may reference to the latest PNAP APP-2, which permits full GFA exemption for up to two levels of above-ground carparks. Details will be worked out at detailed design stage.

 Application Site Boundary	<h2>NOTIONAL SECTION PLAN</h2> <p>MA TAU WAI ROAD / LOK SHAN ROAD DEVELOPMENT PROJECT (KC-020)</p>	 <p>Figure 3.2</p>
---	--	---

Appendix B

Junction Calculation Sheets

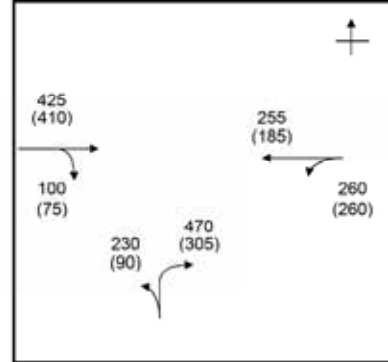
TRAFFIC SIGNAL CALCULATION SHEET

Job Title : URA CS-2023003 Term Traffic Consultancy Job No. : 523348
 Junction : Tin Kwong Road / Sheung Shing Road Junction Index : J1
 Description : Observed Design Year : 2025

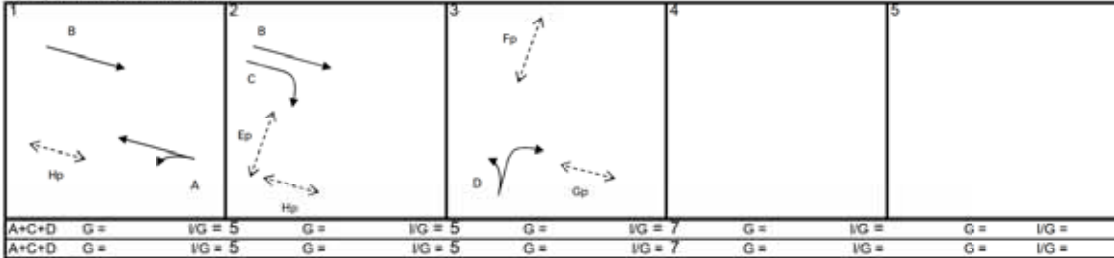
JUNCTION LAYOUT



AM (PM) Peak Hour Traffic Flows



STAGE / PHASE DIAGRAM



CAPACITY CALCULATION

Phase	Stage	Lane Width w (m)	Nearside Lane? (Y/N)	Turning Radius r (m)	Opposed Turn? (Y/N)	Uphill Gradient g (%)	AM Peak				PM Peak					
							Design Flow q (pcu/hr)	Turning Proportion f	Saturation Flow S (pcu/hr)	Flow Factor y	Design Flow q (pcu/hr)	Turning Proportion f	Saturation Flow S (pcu/hr)	Flow Factor y		
Tin Kwong Road EB																
B	1,2	3,700	Y	10	N		425		1985	0.214	410		1985	0.207		
C	2	3,500	N				100		1830	0.055	75		1830	0.041		
Sheung Shing Road NB																
D	3	3,200	Y	10 / 18	N		333	69% / 31%	1715	0.194	189	48% / 52%	1735	0.109		
D	3	3,200	N	15	N		367		1885	0.195	206		1885	0.109		
Tin Kwong Road WB																
A	1	3,400	Y	10			260		1700	0.153	260		1700	0.153		
A	1	3,400	N				255		2095	0.122	185		2095	0.088		
Pedestrian Crossing																
Ep	2		5GM+	5FG=	10	sec										
Fp	3		5GM+	6FG=	11	sec										
Gp	3		5GM+	5FG=	10	sec										
Hp	1,2		6GM+	6FG=	12	sec										
Notes :							AM Peak		A+C+D		PM Peak		A+C+D			
							Sum of Critical y		Y		0.402		Sum of Critical y		Y	
							Lost Time L (sec)				14		Lost Time L (sec)		14	
							Cycle Time c (sec)				130		Cycle Time c (sec)		130	
							Practical Y Ypr				0.803		Practical Y Ypr		0.803	
							Reserve Capacity RC				100%		Reserve Capacity RC		>100%	

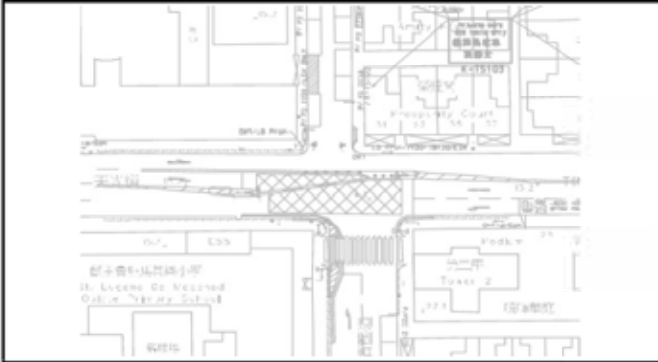
Designed by : HL Date : Sep-25
 Checked by : JY Date : Sep-25

Junction Index : J1
 Sheet No. : 1

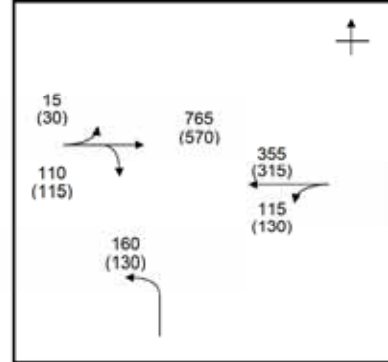
TRAFFIC SIGNAL CALCULATION SHEET

Job Title : URA CS-2023003 Term Traffic Consultancy Job No. : 523348
 Junction : Tin Kwong Road / Kau Pui Lung Road / Hop Yat Road Junction Index : J2
 Description : Observed Design Year : 2025

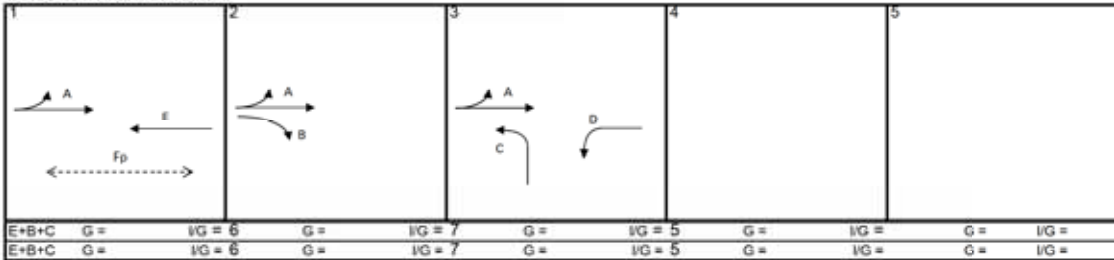
JUNCTION LAYOUT



AM (PM) Peak Hour Traffic Flows



STAGE / PHASE DIAGRAM



CAPACITY CALCULATION

Phase	Stage	Lane Width w (m)	Nearside Lane? (Y/N)	Turning Radius r (m)	Opposed Turn? (Y/N)	Uphill Gradient g (%)	AM Peak				PM Peak			
							Design Flow q (pcu/hr)	Turning Proportion f	Saturation Flow S (pcu/hr)	Flow Factor y	Design Flow q (pcu/hr)	Turning Proportion f	Saturation Flow S (pcu/hr)	Flow Factor y
Tin Kwong Road EB														
A	1,2,3	2.800	Y	8			780	2%	1510	0.517	600	5%	1500	0.400
B	2	2.800	N	12.5	N		110		1815	0.061	115		1815	0.063
Kau Pui Lung Road NB														
C	3	4.600	Y	25			160		1370	0.117	130		1370	0.095
Tin Kwong Road WB														
D	3	3.000	Y	5			115		1475	0.078	130		1475	0.088
E	1	3.000	N				355		2055	0.173	315		2055	0.153
Pedestrian Crossing														
Fp	1		7GM+	11FG=	18	sec								
Notes :							AM Peak		E+B+C		PM Peak		E+B+C	
							Sum of Critical y Y		0.350		Sum of Critical y Y		0.312	
							Lost Time L (sec)		15		Lost Time L (sec)		15	
							Cycle Time c (sec)		130		Cycle Time c (sec)		130	
							Practical Y Ypr		0.796		Practical Y Ypr		0.796	
							Reserve Capacity RC		>100%		Reserve Capacity RC		>100%	

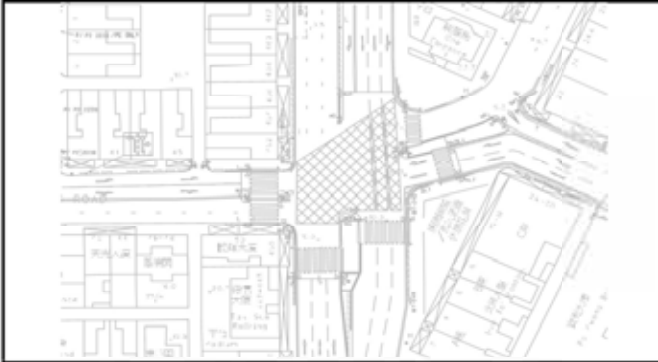
Designed by : HL Date : Sep-25
 Checked by : JY Date : Sep-25

Junction Index : J2
 Sheet No. : 1

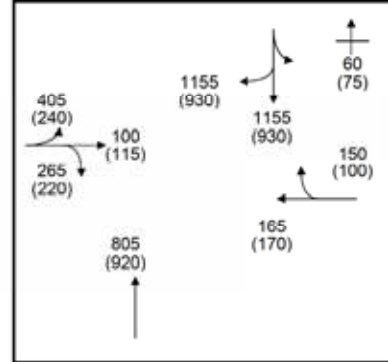
TRAFFIC SIGNAL CALCULATION SHEET

Job Title : URA CS-2023003 Term Traffic Consultancy Job No. : 523348
 Junction : Tin Kwong Road / Ma Tau Wai Road / Ma Hang Chung Road / Pak Tai Street Junction Index : J3
 Description : Observed Design Year : 2025

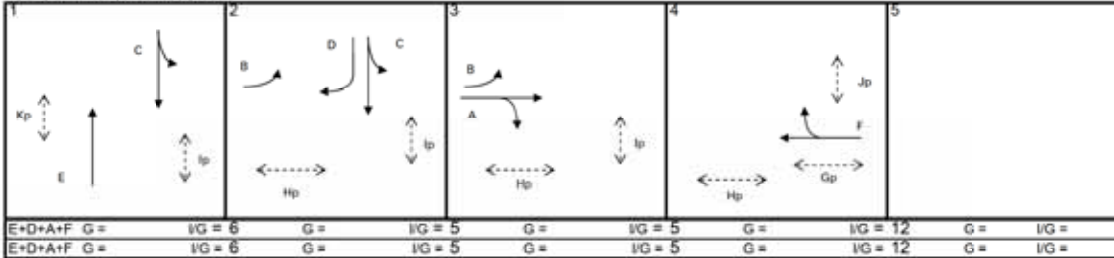
JUNCTION LAYOUT



AM (PM) Peak Hour Traffic Flows



STAGE / PHASE DIAGRAM



CAPACITY CALCULATION

Phase	Stage	Lane Width w (m)	Nearside Lane? (Y/N)	Turning Radius r (m)	Opposed Turn? (Y/N)	Uphill Gradient g (%)	AM Peak				PM Peak				
							Design Flow q (pcu/hr)	Turning Proportion f	Saturation Flow S (pcu/hr)	Flow Factor y	Design Flow q (pcu/hr)	Turning Proportion f	Saturation Flow S (pcu/hr)	Flow Factor y	
Tin Kwong Road EB															
B	2,3	2,900	Y	10			405		1655	0.245	240		1655	0.145	
A	3	2,900	N	15	N		365	73%	1905	0.192	335	66%	1920	0.174	
Ma Tau Wai Road NB															
E	1	3,400	Y				250		1955	0.132	295		1955	0.151	
E	1	3,400	N				276		2095	0.132	315		2095	0.150	
E	1	3,000	N				271		2055	0.132	310		2055	0.151	
Ma Hang Chung Road WB															
F	4	3,700	Y				165		1985	0.083	170		1985	0.086	
F	4	3,700	N	15	N		150		1930	0.078	100		1930	0.052	
Ma Tau Wai Road SB															
C	1,2	3,000	Y	8			379	16%	1860	0.204	310	24%	1830	0.169	
C	1,2	3,000					418		2055	0.203	348		2055	0.169	
C	1,2	3,000	N				418		2055	0.203	347		2055	0.169	
D	2	3,000	N	15	N		300		1870	0.160	265		1870	0.142	
Pedestrian Crossing															
Gp	4		6GM+	13FG=	19	sec									
Hp	2,3,4		5GM+	10FG=	15	sec									
Ip	1,2,3		5GM+	8FG=	13	sec									
Jp	4		5GM+	10FG=	15	sec									
Kp	1		10GM+	7FG=	25	sec									
Notes :															
							AM Peak		E+D+A+F		PM Peak		E+D+A+F		
							Sum of Critical y Y		0.567		Sum of Critical y Y		0.553		
							Lost Time L (sec)		24		Lost Time L (sec)		24		
							Cycle Time c (sec)		130		Cycle Time c (sec)		130		
							Practical Y Ypr		0.734		Practical Y Ypr		0.734		
							Reserve Capacity RC		29%		Reserve Capacity RC		33%		

Designed by : HL Date : Sep-25
 Checked by : JY Date : Sep-25

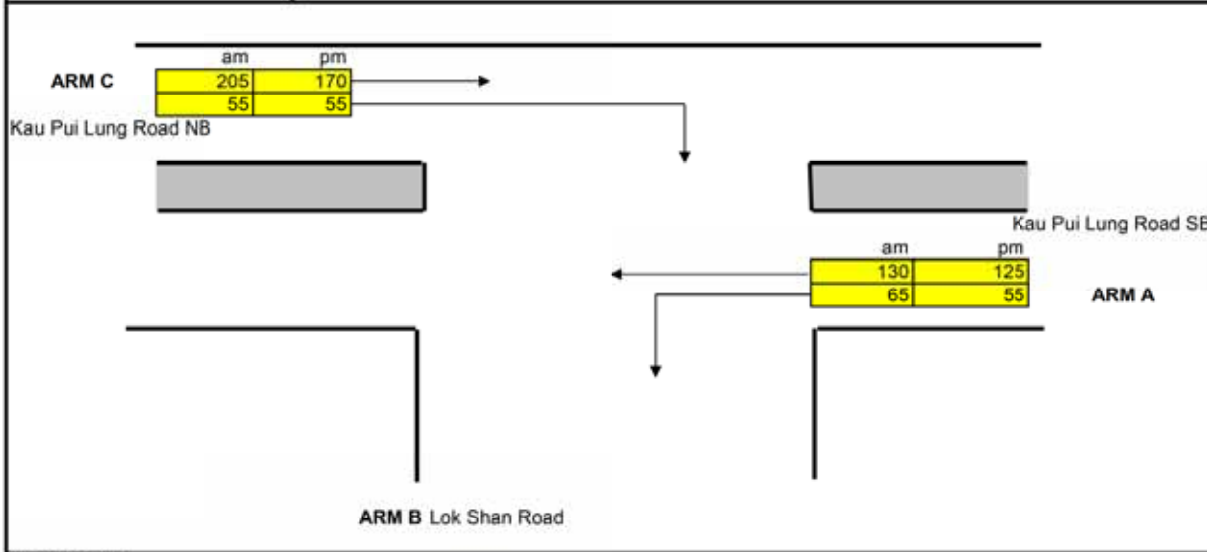
Junction Index : J3
 Sheet No. : 1

Simplified Priority Junction Capacity and Queue Length Calculation



(Single Lane Minor Arm B)

Job Title: URA CS-2023003 Term Traffic Consultancy		Designed by: HL	
Junction: Kau Pui Lung Road / Lok Shan Road (J4)		Checked by: JY	
Scheme: Observed		Date: 17/9/2025	
Design Year: 2025	Job No.: 523348		
ARM A: Kau Pui Lung Road SB			
ARM B: Lok Shan Road			
ARM C: Kau Pui Lung Road NB			



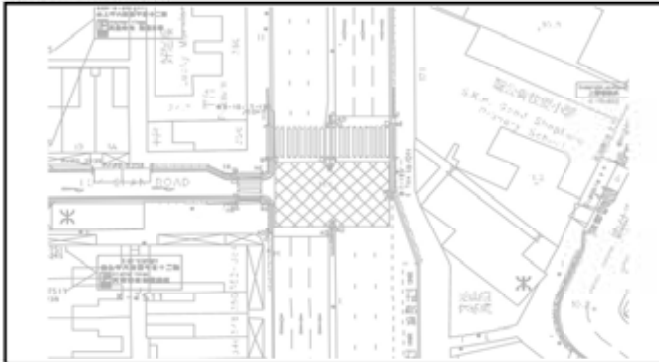
GEOMETRY			
Major road width (m)	W	12.00	Lane widths (m)
Central Reserve width (m)	Wcr	0.00	w(b-a)
Analysis Time Period (h)	T	1.00	w(b-c)
Visibilities (m)	Vr(b-a)	0	w(c-b)
	Vi(b-a)	0	Calculated
	Vr(b-c)	0	D
	Vr(c-b)	50	E
			F
			Y

DFC CALCULATIONS		AM PEAK	PM PEAK
TRAFFIC FLOWS (pcu/hr)	q(c-a)	205	170
	q(c-b)	55	55
	q(a-b)	65	55
	q(a-c)	130	125
	q(b-a)	0	0
	q(b-c)	0	0
	f	0.00	0.00
CAPACITIES (pcu/hr)	Q(b-a)	326	329
	Q(b-c)	417	418
	Q(c-b)	569	572
	Q(b-ac)	326	329
DFC's	c-b	0.097	0.096
	b-ac	0.000	0.000
- DFC In accordance with TPDM V2.4		0.10	0.10

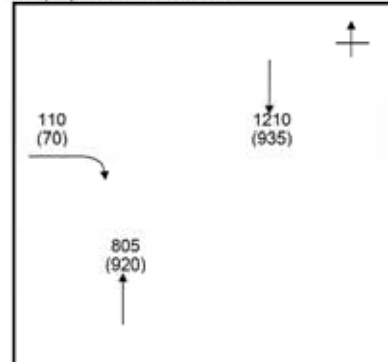
TRAFFIC SIGNAL CALCULATION SHEET

Job Title : URA CS-2023003 Term Traffic Consultancy Job No. : 523348
 Junction : Ma Tau Wai Road / Lok Shan Road Junction Index : J5
 Description : Observed Design Year : 2025

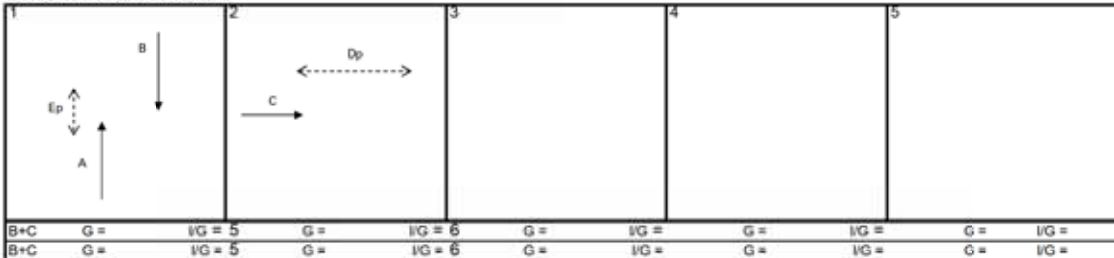
JUNCTION LAYOUT



AM (PM) Peak Hour Traffic Flows



STAGE / PHASE DIAGRAM



CAPACITY CALCULATION

Phase	Stage	Lane Width w (m)	Nearside Lane? (Y/N)	Turning Radius r (m)	Opposed Turn? (Y/N)	Uphill Gradient g (%)	AM Peak				PM Peak					
							Design Flow q (pcu/hr)	Turning Proportion f	Saturation Flow S (pcu/hr)	Flow Factor y	Design Flow q (pcu/hr)	Turning Proportion f	Saturation Flow S (pcu/hr)	Flow Factor y		
Lok Shan Road EB																
C	2	3.500	Y	15	N		110		1785	0.062	70		1785	0.039		
Ma Tau Wai Road NB																
A	1	3.500	Y				256		1965	0.130	293		1965	0.149		
A	1	3.500	N				275		2105	0.131	313		2105	0.149		
A	1	3.500	N				274		2105	0.130	314		2105	0.149		
Ma Tau Wai Road SB																
B	1	3.500	Y				385		1965	0.196	296		1965	0.152		
B	1	3.500	N				413		2105	0.196	318		2105	0.151		
B	1	3.500	N				412		2105	0.196	319		2105	0.152		
Pedestrian Crossing																
Dp	2		5GM+	11FG=	16	sec										
Ep	1		5GM+	5FG=	10	sec										
Notes :																
							AM Peak		B+C		PM Peak		B+C			
							Sum of Critical y	Y	0.258		Sum of Critical y	Y	0.191			
							Lost Time L (sec)		9		Lost Time L (sec)		9			
							Cycle Time c (sec)		130		Cycle Time c (sec)		130			
							Practical Y Ypr		0.838		Practical Y Ypr		0.838			
							Reserve Capacity RC		>100%		Reserve Capacity RC		>100%			

Designed by : HL Date : Sep-25
 Checked by : JY Date : Sep-25

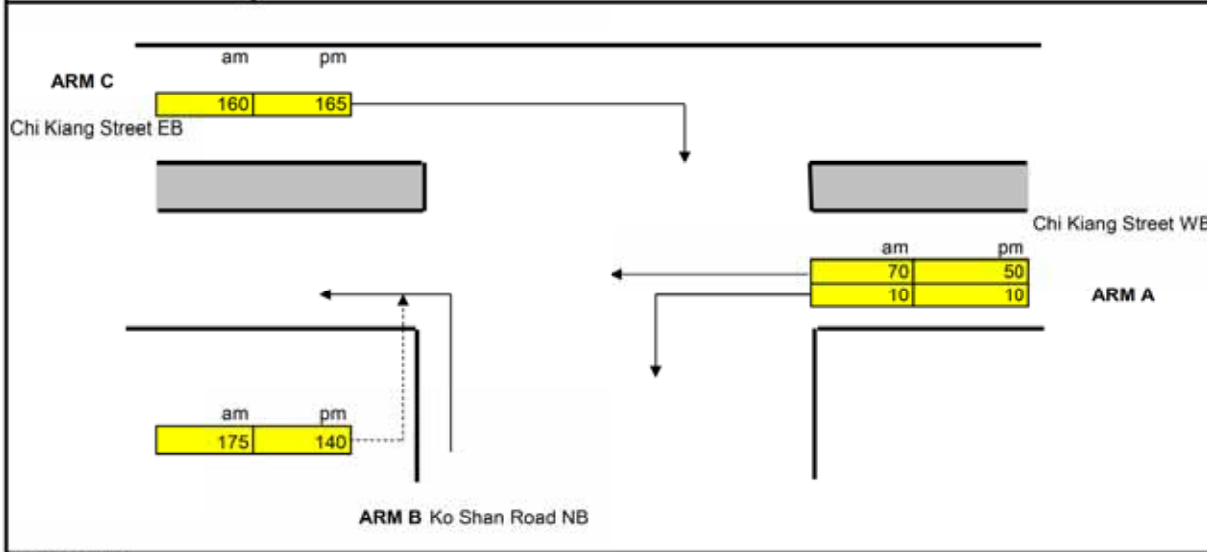
Junction Index : J5
 Sheet No. : 1

Simplified Priority Junction Capacity and Queue Length Calculation



(Single Lane Minor Arm B)

Job Title: URA CS-2023003 Term Traffic Consultancy		Designed by: HL	
Junction: Chi Kiang Steet / Ko Shan Road (J6)		Checked by: JY	
Scheme: Observed		Date: 17/9/2025	
Design Year: 2025	Job No.: 523348		
ARM A: Chi Kiang Street WB			
ARM B: Ko Shan Road NB			
ARM C: Chi Kiang Street EB			



GEOMETRY					
Major road width (m)	W	12.00	Lane widths (m)	w(b-a)	3.90
Central Reserve width (m)	Wcr	0.00		w(b-c)	3.90
Analysis Time Period (h)	T	1.00		w(c-b)	2.20
Visibilities (m)	Vr(b-a)	50	Calculated	D	0.96
	Vl(b-a)	50		E	0.96
	Vr(b-c)	50		F	0.81
	Vr(c-b)	50		Y	0.59

DFC CALCULATIONS		AM PEAK	PM PEAK
TRAFFIC FLOWS (pcu/hr)	q(c-a)	0	0
	q(c-b)	160	165
	q(a-b)	10	10
	q(a-c)	70	50
	q(b-a)	0	0
	q(b-c)	175	140
	f	1.00	1.00
CAPACITIES (pcu/hr)	Q(b-a)	542	544
	Q(b-c)	699	703
	Q(c-b)	589	593
	Q(b-ac)	699	703
DFC's	c-b	0.272	0.278
	b-ac	0.250	0.199
- DFC In accordance with TPDM V2.4		0.27	0.28

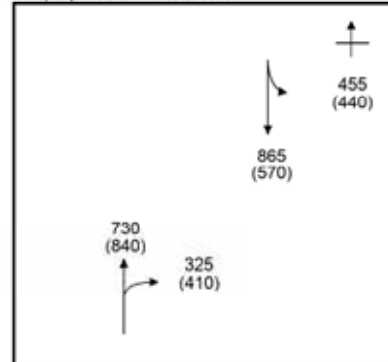
TRAFFIC SIGNAL CALCULATION SHEET

Job Title : URA CS-2023003 Term Traffic Consultancy Job No. : 523348
 Junction : Ma Tau Wai Road / Chi Kiang Street Junction Index : J7
 Description : Observed Design Year : 2025

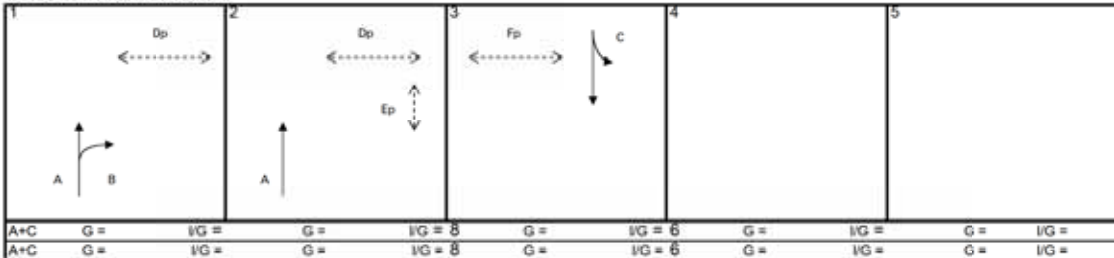
JUNCTION LAYOUT



AM (PM) Peak Hour Traffic Flows



STAGE / PHASE DIAGRAM



CAPACITY CALCULATION

Phase	Stage	Lane Width w (m)	Nearside Lane? (Y/N)	Turning Radius r (m)	Opposed Turn? (Y/N)	Uphill Gradient g (%)	AM Peak				PM Peak			
							Design Flow q (pcu/hr)	Turning Proportion f	Saturation Flow S (pcu/hr)	Flow Factor y	Design Flow q (pcu/hr)	Turning Proportion f	Saturation Flow S (pcu/hr)	Flow Factor y
Ma Tau Wai Road NB														
A	1,2	3,500	Y				352		1965	0.179	406		1965	0.207
A	1,2	3,500	N				378		2105	0.180	434		2105	0.206
B	1	5,400	N	20	N		164		2135	0.077	207		2135	0.097
B	1	5,400	N	15	N		161		2085	0.077	203		2085	0.097
Ma Tau Wai Road SB														
C	3	3,300	Y	18			398		1795	0.222	307		1795	0.171
C	3	3,300		20			459	12%	2065	0.222	346	38%	2025	0.171
C	3	3,300	N				463		2085	0.222	357		2085	0.171
Pedestrian Crossing														
Dp	1,2		5GM+	11FG=	16	sec								
Ep	2		5GM+	13FG=	18	sec								
Fp	3		5GM+	8FG=	13	sec								
Notes :							AM Peak		A+C		PM Peak		A+C	
							Sum of Critical y	Y	0.402		Sum of Critical y	Y	0.378	
							Lost Time L (sec)		12		Lost Time L (sec)		12	
							Cycle Time c (sec)		130		Cycle Time c (sec)		130	
							Practical Y Ypr		0.817		Practical Y Ypr		0.817	
							Reserve Capacity RC		>100%		Reserve Capacity RC		>100%	

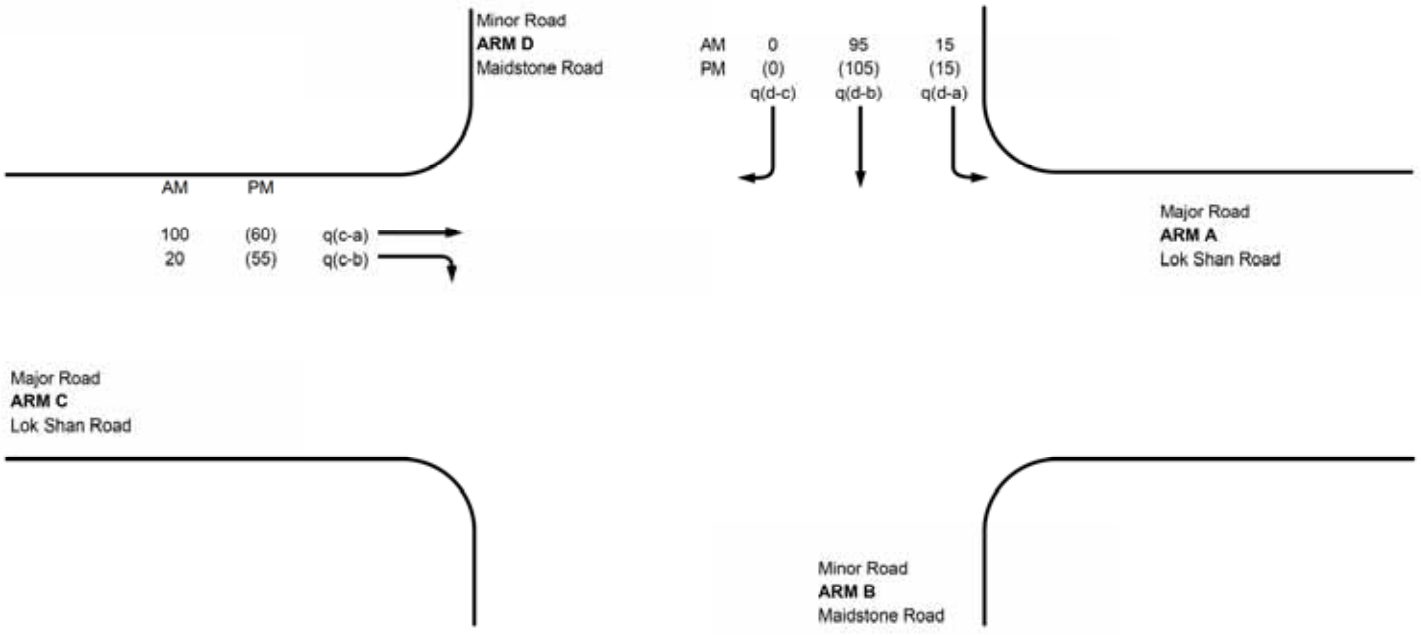
Designed by : HL Date : Sep-25
 Checked by : JY Date : Sep-25

Junction Index : J7
 Sheet No. : 1

Priority Junction Capacity Calculation

Junction : Lok Shan Road / Maidstone Road Junction No. : J08
 Scenario : Observed Design Year : 2025

ARM A	Lok Shan Road
ARM B	Maidstone Road
ARM C	Lok Shan Road
ARM D	Maidstone Road



GEOMETRY		Arm B		Arm D	
Major road width	W = 9.1 m	Lane widths	W _{B-A} = 2.5 m	Lane widths	W _{D-A} = 5.1 m
Central Reserve width	W _{cr} = 0 m		W _{B-C} = 2.5 m		W _{D-C} = 5.1 m
			W _{C-B} = 3.1 m		W _{A-D} = 2.2 m
Visibilities	V _{A-D} = 0 m V _{C-B} = 30 m	Visibilities	V _{right B} = 22 m V _{left B} = 30 m		V _{right D} = 100 m V _{left D} = 120 m
General Terms		X _A = 0.770	Y = 0.686	X _A = 0.871	Y = 0.686
		X _B = 0.755	Z _B = 0.813	X _B = 1.096	Z _B = 1.116
		X _C = 0.871	Z _D = 1.116	X _C = 0.770	Z _D = 0.813
		X _D = 1.096		X _D = 0.755	

ANALYSIS											
Arm A			Arm C			Arm D					
	AM	PM		AM	PM		AM	PM			
Traffic	q _{A-B} = 0	0	Traffic	q _{C-A} = 100	60	Traffic	q _{D-A} = 15	15			
Flows	q _{A-C} = 0	0	Flows	q _{C-B} = 20	55	Flows	q _{D-B} = 95	105			
(pcu/hr)	q _{A-D} = 0	0	(pcu/hr)	q _{C-D} = 0	0	(pcu/hr)	q _{D-C} = 0	0			
				M = 1.096							
Capacities	μ _{A-D} = 549	547		μ _{C-B} = 649	649		μ _{D-A} = 803	815			
							μ _{D-B} = 654	656			
							μ _{D-C} = 654	656			
							μ _{D-AC} = 803	815			
DFC	A-D	0.00	0.00	C-B	0.03	0.08	D-A	0.02	0.02		
							D-B	0.15	0.16		
							D-C	0	0		
							D-AC	0.02	0.02		
							D-ABC	0.16	0.18		
DFC		0	0	DFC		0.03	0.08	DFC		0.16	0.18
							Critical DFC	AM	PM		
								0.16	0.18		

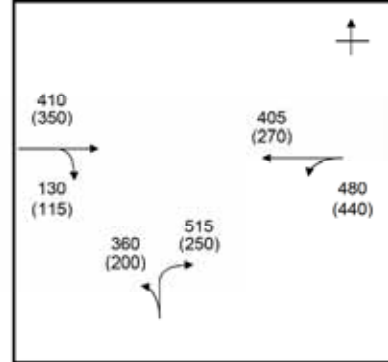
TRAFFIC SIGNAL CALCULATION SHEET

Job Title : URA CS-2023003 Term Traffic Consultancy Job No. : 523348
 Junction : Tin Kwong Road / Sheung Shing Road Junction Index : J1
 Description : Reference Design Year : 2036

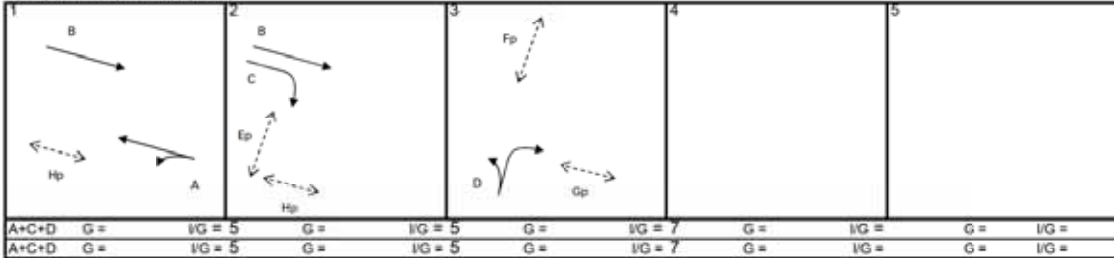
JUNCTION LAYOUT



AM (PM) Peak Hour Traffic Flows



STAGE / PHASE DIAGRAM



CAPACITY CALCULATION

Phase	Stage	Lane Width w (m)	Nearside Lane? (Y/N)	Turning Radius r (m)	Opposed Turn? (Y/N)	Uphill Gradient g (%)	AM Peak				PM Peak					
							Design Flow q (pcu/hr)	Turning Proportion f	Saturation Flow S (pcu/hr)	Flow Factor y	Design Flow q (pcu/hr)	Turning Proportion f	Saturation Flow S (pcu/hr)	Flow Factor y		
Tin Kwong Road EB																
B	1,2	3,700	Y	10	N		410		1985	0.207	350		1985	0.176		
C	2	3,500	N				130		1830	0.071	115		1830	0.063		
Sheung Shing Road NB																
D	3	3,200	Y	10 / 18	N		414	87% / 13%	1695	0.244	213	94% / 6%	1690	0.126		
D	3	3,200	N	15	N		461		1885	0.245	237		1885	0.126		
Tin Kwong Road WB																
A	1	3,400	Y	10			480		1700	0.282	440		1700	0.259		
A	1	3,400	N				405		2095	0.193	270		2095	0.129		
Pedestrian Crossing																
Ep	2		5GM+	5FG=	10	sec										
Fp	3		5GM+	6FG=	11	sec										
Gp	3		5GM+	5FG=	10	sec										
Hp	1,2		6GM+	6FG=	12	sec										
Notes :							AM Peak		A+C+D		PM Peak		A+C+D			
Sum of Critical y							Y		0.598		Sum of Critical y		Y		0.448	
Lost Time L (sec)							14		14		Lost Time L (sec)		14		14	
Cycle Time c (sec)							130		130		Cycle Time c (sec)		130		130	
Practical Y Ypr							0.803		0.803		Practical Y Ypr		0.803		0.803	
Reserve Capacity RC							34%		34%		Reserve Capacity RC		79%		79%	

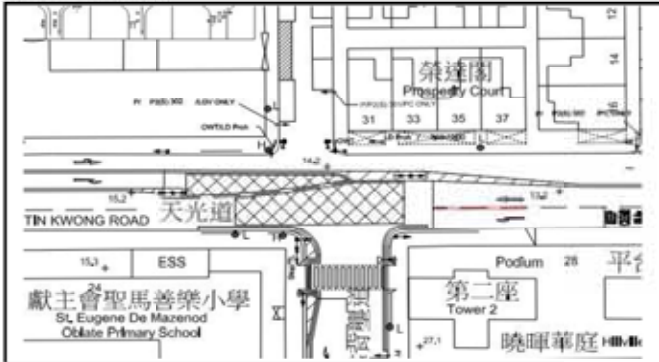
Designed by : HL Date : Sep-25
 Checked by : JY Date : Sep-25

Junction Index : J1
 Sheet No. : 1

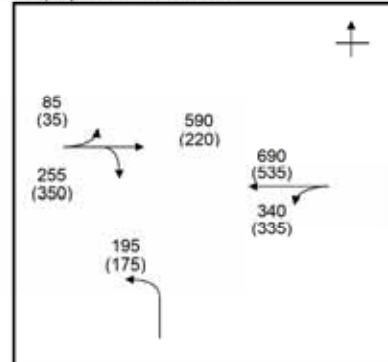
TRAFFIC SIGNAL CALCULATION SHEET

Job Title : URA CS-2023003 Term Traffic Consultancy Job No. : 523348
 Junction : Tin Kwong Road / Kau Pui Lung Road / Hop Yat Road Junction Index : J2
 Description : Reference Design Year : 2036

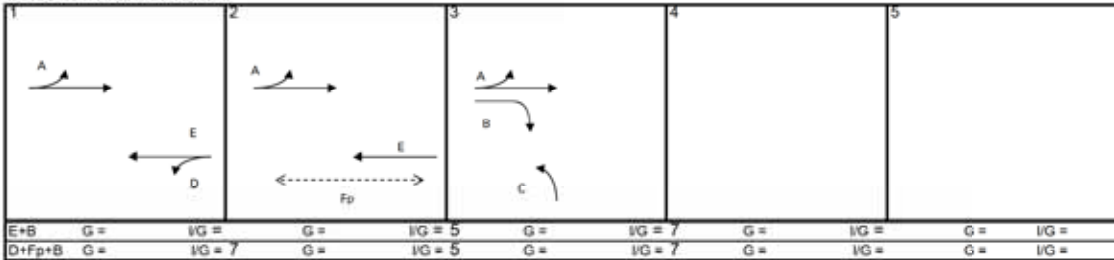
JUNCTION LAYOUT



AM (PM) Peak Hour Traffic Flows



STAGE / PHASE DIAGRAM



CAPACITY CALCULATION

Phase	Stage	Lane Width w (m)	Nearside Lane? (Y/N)	Turning Radius r (m)	Opposed Turn? (Y/N)	Uphill Gradient g (%)	AM Peak				PM Peak						
							Design Flow q (pcu/hr)	Turning Proportion f	Saturation Flow S (pcu/hr)	Flow Factor y	Design Flow q (pcu/hr)	Turning Proportion f	Saturation Flow S (pcu/hr)	Flow Factor y			
Tin Kwong Road EB																	
A	1,2,3	2.800	Y	8			675	13%	1480	0.456	255	14%	1480	0.172			
B	3	2.800	N	12.5	N		255		1815	0.140	350		1815	0.193			
Kau Pui Lung Road NB																	
C	3	4.600	Y	25			195		1370	0.142	175		1370	0.128			
Tin Kwong Road WB																	
D	1	3.000	Y	5			340		1475	0.231	335		1475	0.227			
E	1,2	3.000	N				690		2055	0.336	535		2055	0.260			
Pedestrian Crossing																	
Fp	2			7GM+	11FG=	18 sec											
Notes :																	
							AM Peak		PM Peak			D+Fp+B					
							Sum of Critical y	Y	0.476		Sum of Critical y	Y	0.420				
							Lost Time L (sec)		10		Lost Time L (sec)		35				
							Cycle Time c (sec)		130		Cycle Time c (sec)		130				
							Practical Y Ypr		0.831		Practical Y Ypr		0.658				
							Reserve Capacity RC		74%		Reserve Capacity RC		57%				

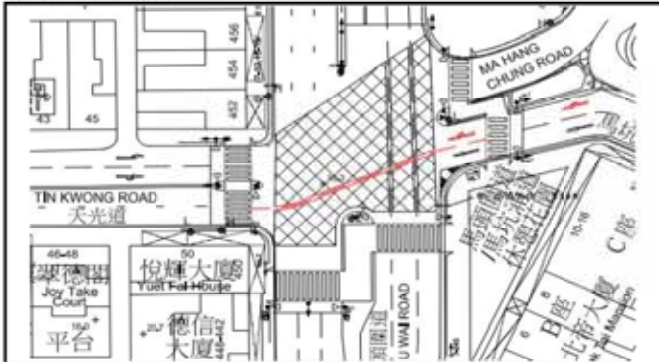
Designed by : HL Date : Sep-25
 Checked by : JY Date : Sep-25

Junction Index : J2
 Sheet No. : 1

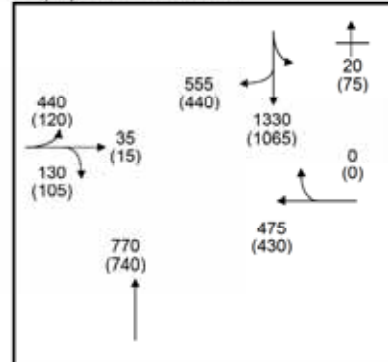
TRAFFIC SIGNAL CALCULATION SHEET

Job Title : URA CS-2023003 Term Traffic Consultancy Job No. : 523348
 Junction : Tin Kwong Road / Ma Tau Wai Road / Ma Hang Chung Road / Pak Tai Street Junction Index : J3
 Description : Reference Design Year : 2036

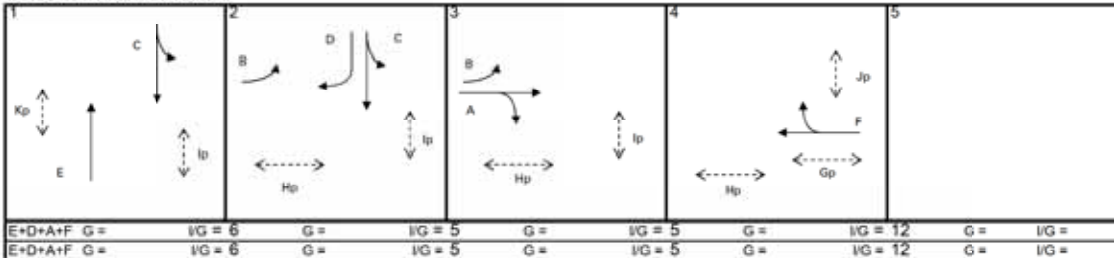
JUNCTION LAYOUT



AM (PM) Peak Hour Traffic Flows



STAGE / PHASE DIAGRAM



CAPACITY CALCULATION

Phase	Stage	Lane Width w (m)	Nearside Lane? (Y/N)	Turning Radius r (m)	Opposed Turn? (Y/N)	Uphill Gradient g (%)	AM Peak				PM Peak			
							Design Flow q (pcu/hr)	Turning Proportion f	Saturation Flow S (pcu/hr)	Flow Factor y	Design Flow q (pcu/hr)	Turning Proportion f	Saturation Flow S (pcu/hr)	Flow Factor y
Tin Kwong Road EB														
B	1,2	2,900	Y	10			440		1655	0.266	120		1655	0.073
A	1	2,900	N	15	N		165	79%	1895	0.087	120	88%	1880	0.064
Ma Tau Wai Road NB														
E	3	3,400	Y				247		1955	0.126	237		1955	0.121
E	3	3,400	N				264		2095	0.126	254		2095	0.121
E	3	3,000	N				259		2055	0.126	249		2055	0.121
Ma Hang Chung Road WB														
F	4	3,700	Y				229		1985	0.115	208		1985	0.105
F	4	3,700	N	15	N		246	0%	2125	0.116	222	0%	2125	0.104
Ma Tau Wai Road SB														
C	2,3	3,000	Y	8			427	5%	1900	0.225	353	21%	1840	0.192
C	2,3	3,000					462		2055	0.225	394		2055	0.192
C	2,3	3,000	N				461		2055	0.224	393		2055	0.191
D	2	3,000	N	15	N		555		1870	0.297	440		1870	0.235
Pedestrian Crossing														
Gp	4			6GM+	11FG=	17	sec							
Hp	1,2,4			5GM+	8FG=	13	sec							
Ip	1,2,3			5GM+	7FG=	12	sec							
Jp	4			5GM+	8FG=	13	sec							
Kp	3			7GM+	11FG=	18	sec							
Notes :							AM Peak		E+D+A+F	PM Peak		E+D+A+F		
Sum of Critical y							Y	0.626		Sum of Critical y	Y	0.525		
Lost Time L (sec)								24		Lost Time L (sec)		24		
Cycle Time c (sec)								130		Cycle Time c (sec)		130		
Practical Y Ypr								0.734		Practical Y Ypr		0.734		
Reserve Capacity RC								17%		Reserve Capacity RC		40%		

Designed by : HL Date : Sep-25
 Checked by : JY Date : Sep-25

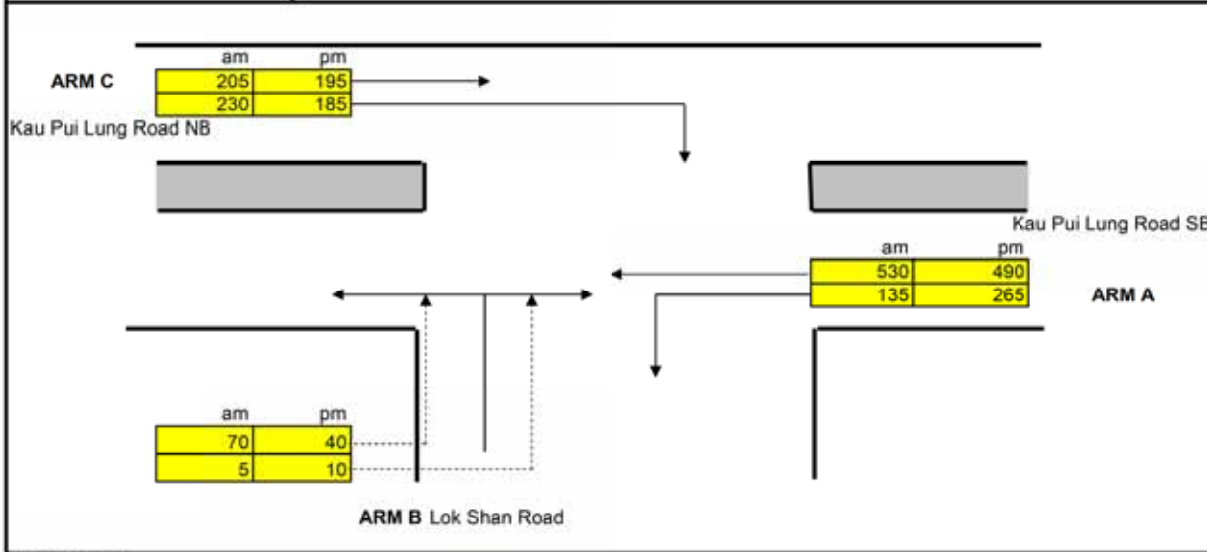
Junction Index : J3
 Sheet No. : 1

Simplified Priority Junction Capacity and Queue Length Calculation



(Single Lane Minor Arm B)

Job Title: URA CS-2023003 Term Traffic Consultancy		Designed by: HL	
Junction: Kau Pui Lung Road / Lok Shan Road (J4)		Checked by: JY	
Scheme: Reference		Date: 17/9/2025	
Design Year: 2036	Job No.: 523348		
ARM A: Kau Pui Lung Road SB			
ARM B: Lok Shan Road			
ARM C: Kau Pui Lung Road NB			



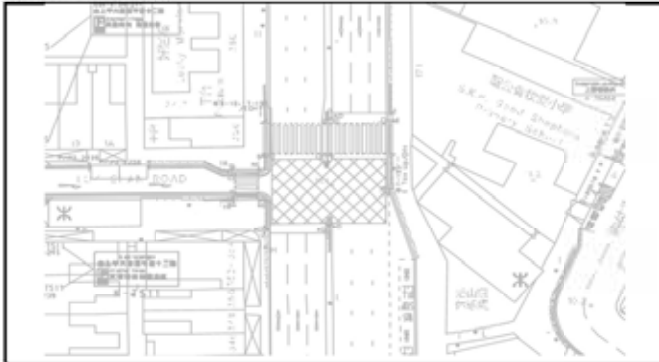
GEOMETRY					
Major road width (m)	W	12.00	Lane widths (m)	w(b-a)	3.10
Central Reserve width (m)	Wcr	0.00		w(b-c)	3.10
Analysis Time Period (h)	T	1.00		w(c-b)	2.20
Visibilities (m)	Vr(b-a)	40	Calculated	D	0.88
	Vl(b-a)	60		E	0.91
	Vr(b-c)	80		F	0.81
	Vr(c-b)	50		Y	0.59

DFC CALCULATIONS		AM PEAK	PM PEAK
TRAFFIC FLOWS (pcu/hr)	q(c-a)	205	195
	q(c-b)	230	185
	q(a-b)	135	265
	q(a-c)	530	490
	q(b-a)	5	10
	q(b-c)	70	40
	f	0.93	0.80
CAPACITIES (pcu/hr)	Q(b-a)	358	369
	Q(b-c)	567	565
	Q(c-b)	488	473
	Q(b-ac)	546	511
DFC's	c-b	0.471	0.391
	b-ac	0.137	0.098
- DFC In accordance with TPDM V2.4		0.47	0.39

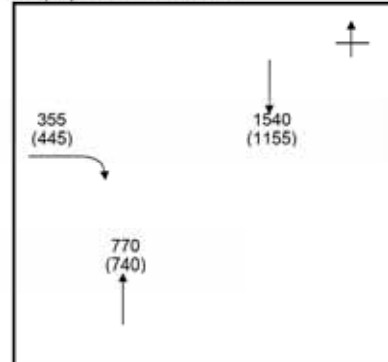
TRAFFIC SIGNAL CALCULATION SHEET

Job Title : URA CS-2023003 Term Traffic Consultancy Job No. : 523348
 Junction : Ma Tau Wai Road / Lok Shan Road Junction Index : J5
 Description : Reference Design Year : 2036

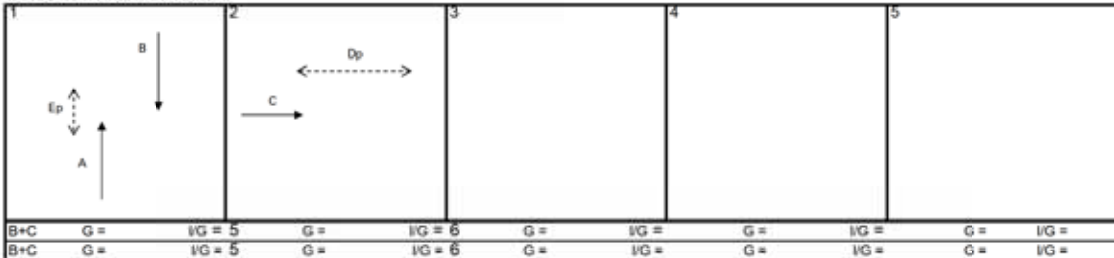
JUNCTION LAYOUT



AM (PM) Peak Hour Traffic Flows



STAGE / PHASE DIAGRAM



CAPACITY CALCULATION

Phase	Stage	Lane Width w (m)	Nearside Lane? (Y/N)	Turning Radius r (m)	Opposed Turn? (Y/N)	Uphill Gradient g (%)	AM Peak				PM Peak						
							Design Flow q (pcu/hr)	Turning Proportion f	Saturation Flow S (pcu/hr)	Flow Factor y	Design Flow q (pcu/hr)	Turning Proportion f	Saturation Flow S (pcu/hr)	Flow Factor y			
Lok Shan Road EB																	
C	2	3.500	Y	15	N		355		1785	0.199	445		1785	0.249			
Ma Tau Wai Road NB																	
A	1	3.500	Y				245		1965	0.125	235		1965	0.120			
A	1	3.500	N				263		2105	0.125	253		2105	0.120			
A	1	3.500	N				262		2105	0.124	252		2105	0.120			
Ma Tau Wai Road SB																	
B	1	3.500	Y				490		1965	0.249	368		1965	0.187			
B	1	3.500	N				525		2105	0.249	393		2105	0.187			
B	1	3.500	N				525		2105	0.249	394		2105	0.187			
Pedestrian Crossing																	
Dp	2		5GM+	11FG=	16	sec											
Ep	1		5GM+	5FG=	10	sec											
Notes :																	
							AM Peak		B+C		PM Peak		B+C				
							Sum of Critical y	Y	0.448	Sum of Critical y	Y	0.437	Sum of Critical y	Y	0.437		
							Lost Time L (sec)	9	Lost Time L (sec)	9	Lost Time L (sec)	9	Lost Time L (sec)	9			
							Cycle Time c (sec)	130	Cycle Time c (sec)	130	Cycle Time c (sec)	130	Cycle Time c (sec)	130			
							Practical Y Ypr	0.838	Practical Y Ypr	0.838	Practical Y Ypr	0.838	Practical Y Ypr	0.838			
							Reserve Capacity RC	87%	Reserve Capacity RC	87%	Reserve Capacity RC	92%	Reserve Capacity RC	92%			

Designed by : HL Date : Sep-25
 Checked by : JY Date : Sep-25

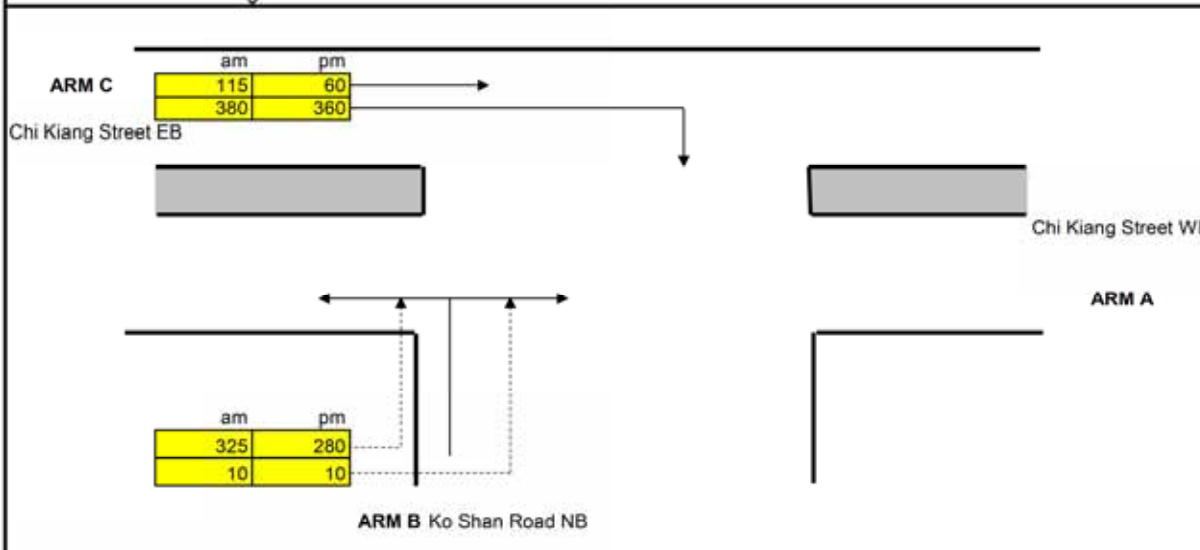
Junction Index : J5
 Sheet No. : 1

Simplified Priority Junction Capacity and Queue Length Calculation



(Single Lane Minor Arm B)

Job Title: URA CS-2023003 Term Traffic Consultancy		Designed by: HL	
Junction: Chi Kiang Steet / Ko Shan Road (J6)		Checked by: JY	
Scheme: Reference		Date : 17/9/2025	
Design Year: 2036	Job No.: 523348		
ARM A: Chi Kiang Street WB			
ARM B: Ko Shan Road NB			
ARM C: Chi Kiang Street EB			



GEOMETRY					
Major road width (m)	W	12.00	Lane widths (m)	w(b-a)	3.90
Central Reserve width (m)	Wcr	0.00		w(b-c)	3.90
Analysis Time Period (h)	T	1.00		w(c-b)	2.20
Visibilities (m)	Vr(b-a)	50	Calculated	D	0.96
	Vl(b-a)	50		E	0.96
	Vr(b-c)	50		F	0.81
	Vl(c-b)	50		Y	0.59

DFC CALCULATIONS		AM PEAK	PM PEAK
TRAFFIC FLOWS (pcu/hr)	q(c-a)	115	60
	q(c-b)	380	360
	q(a-b)	0	0
	q(a-c)	0	0
	q(b-a)	10	10
	q(b-c)	325	280
	f	0.97	0.97
CAPACITIES (pcu/hr)	Q(b-a)	477	490
	Q(b-c)	714	714
	Q(c-b)	603	603
	Q(b-ac)	704	703
DFC's	c-b	0.630	0.597
	b-ac	0.476	0.412
- DFC In accordance with TPDM V2.4		0.63	0.60

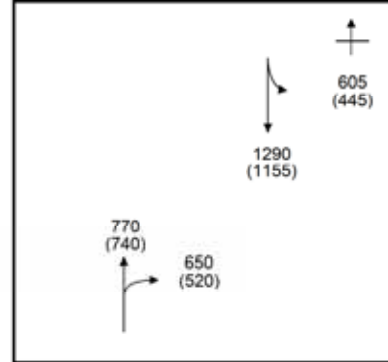
TRAFFIC SIGNAL CALCULATION SHEET

Job Title : URA CS-2023003 Term Traffic Consultancy Job No. : 523348
 Junction : Ma Tau Wai Road / Chi Kiang Street Junction Index : J7
 Description : Reference Design Year : 2036

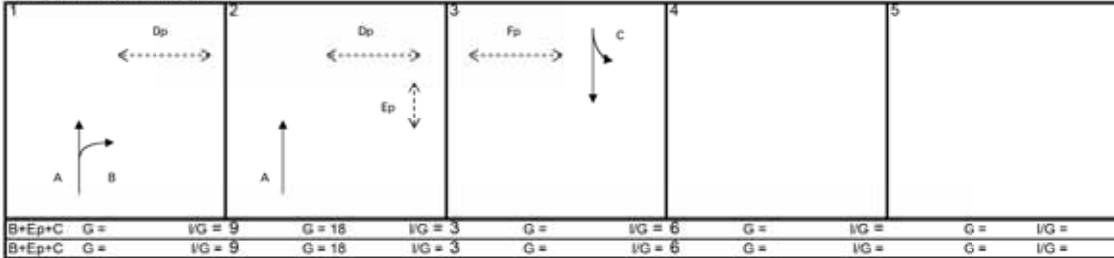
JUNCTION LAYOUT



AM (PM) Peak Hour Traffic Flows



STAGE / PHASE DIAGRAM



CAPACITY CALCULATION

Phase	Stage	Lane Width w (m)	Nearside Lane? (Y/N)	Turning Radius r (m)	Opposed Turn? (Y/N)	Uphill Gradient g (%)	AM Peak				PM Peak			
							Design Flow q (pcu/hr)	Turning Proportion f	Saturation Flow S (pcu/hr)	Flow Factor y	Design Flow q (pcu/hr)	Turning Proportion f	Saturation Flow S (pcu/hr)	Flow Factor y
Ma Tau Wai Road NB														
A	1,2	3,500	Y				372		1965	0.189	357		1965	0.182
A	1,2	3,500	N				398		2105	0.189	383		2105	0.182
B	1	5,400	N	20	N		329		2135	0.154	263		2135	0.123
B	1	5,400	N	15	N		321		2085	0.154	257		2085	0.123
Ma Tau Wai Road SB														
C	3	3,300	Y	18			571		1795	0.318	445		1795	0.248
C	3	3,300	N	20			661	5%	2075	0.319	577	0%	2085	0.277
C	3	3,300	N				663		2085	0.318	578		2085	0.277
Pedestrian Crossing														
Dp	1,2		5GM+	11FG=	16	sec								
Ep	2		5GM+	13FG=	18	sec								
Fp	3		5GM+	8FG=	13	sec								
Notes :							AM Peak		B+Ep+C		PM Peak		B+Ep+C	
							Sum of Critical y	Y	0.473		Sum of Critical y	Y	0.400	
							Lost Time L (sec)		34		Lost Time L (sec)		34	
							Cycle Time c (sec)		130		Cycle Time c (sec)		130	
							Practical Y Ypr		0.665		Practical Y Ypr		0.665	
							Reserve Capacity RC		41%		Reserve Capacity RC		66%	

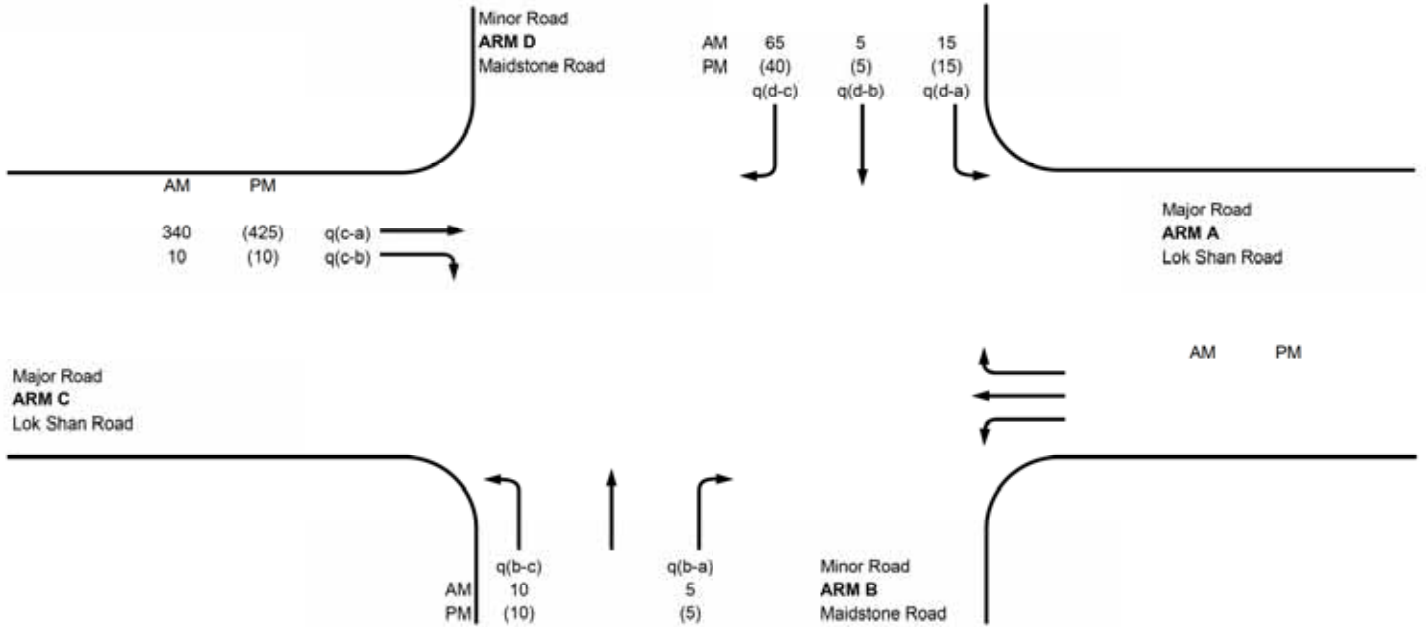
Designed by : HL Date : Sep-25
 Checked by : JY Date : Sep-25

Junction Index : J7
 Sheet No. : 1

Priority Junction Capacity Calculation

Junction : Lok Shan Road / Maidstone Road Junction No. : J08
 Scenario : Reference Design Year : 2036

ARM A	Lok Shan Road
ARM B	Maidstone Road
ARM C	Lok Shan Road
ARM D	Maidstone Road



GEOMETRY		Arm B		Arm D	
Major road width	W = 9.1 m	Lane widths	W _{B-A} = 2.5 m	Lane widths	W _{D-A} = 5.1 m
Central Reserve width	W _{cr} = 0 m		W _{B-C} = 2.5 m		W _{D-C} = 5.1 m
			W _{C-B} = 3.1 m		W _{A-D} = 2.2 m
Visibilities	V _{A-D} = 0 m	Visibilities	V _{right B} = 22 m		V _{right D} = 100 m
	V _{C-B} = 30 m		V _{left B} = 30 m		V _{left D} = 120 m
General Terms		X _A = 0.770	Y = 0.686	X _A = 0.871	Y = 0.686
		X _B = 0.755	Z _B = 0.813	X _B = 1.096	Z _B = 1.116
		X _C = 0.871	Z _D = 1.116	X _C = 0.770	Z _D = 0.813
		X _D = 1.096		X _D = 0.755	

ANALYSIS									
Arm A		Arm B		Arm C		Arm D			
	AM	PM	AM	PM	AM	PM	AM	PM	
Traffic	q _{A-B} = 0	0	q _{B-A} = 5	5	q _{C-A} = 340	425	q _{D-A} = 15	15	
Flows	q _{A-C} = 0	0	q _{B-C} = 10	10	q _{C-B} = 10	10	q _{D-B} = 5	5	
(pcu/hr)	q _{A-D} = 0	0	q _{B-D} = 0	0	q _{C-D} = 0	0	q _{D-C} = 65	40	
			M = 0.755				M = 1.096		
Capacities	μ _{A-D} = 506	489	μ _{B-A} = 420	413	μ _{C-B} = 649	649	μ _{D-A} = 737	713	
			μ _{B-C} = 606	606			μ _{D-B} = 591	565	
			μ _{B-D} = 430	420			μ _{D-C} = 588	568	
			μ _{B-AC} = 528	524			μ _{D-AC} = 611	601	
DFC	A-D 0.00	0.00	B-A 0.01	0.01	C-B 0.02	0.02	D-A 0.02	0.02	
			B-C 0.02	0.02			D-B 0.01	0.01	
			B-D 0.00	0.00			D-C 0.11	0.07	
			B-AC 0.03	0.03			D-AC 0.13	0.09	
			B-ACD 0.03	0.03			D-ABC 0.14	0.1	
DFC	0	0	DFC 0.03	0.03	DFC 0.02	0.02	DFC 0.14	0.1	
aurecon							Critical DFC	AM	PM
								0.14	0.10

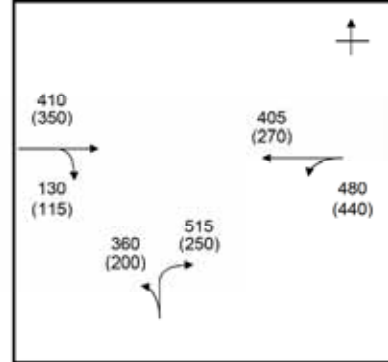
TRAFFIC SIGNAL CALCULATION SHEET

Job Title : URA CS-2023003 Term Traffic Consultancy Job No. : 523348
 Junction : Tin Kwong Road / Sheung Shing Road Junction Index : J1
 Description : Design Design Year : 2036

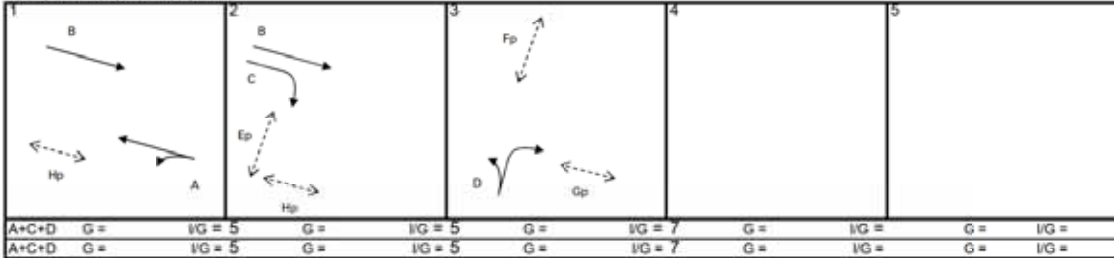
JUNCTION LAYOUT



AM (PM) Peak Hour Traffic Flows



STAGE / PHASE DIAGRAM



CAPACITY CALCULATION

Phase	Stage	Lane Width w (m)	Nearside Lane? (Y/N)	Turning Radius r (m)	Opposed Turn? (Y/N)	Uphill Gradient g (%)	AM Peak				PM Peak					
							Design Flow q (pcu/hr)	Turning Proportion f	Saturation Flow S (pcu/hr)	Flow Factor y	Design Flow q (pcu/hr)	Turning Proportion f	Saturation Flow S (pcu/hr)	Flow Factor y		
Tin Kwong Road EB																
B	1,2	3,700	Y	10	N		410		1985	0.207	350		1985	0.176		
C	2	3,500	N				130		1830	0.071	115		1830	0.063		
Sheung Shing Road NB																
D	3	3,200	Y	10 / 18	N		414	87% / 13%	1695	0.244	213	94% / 6%	1690	0.126		
D	3	3,200	N	15	N		461		1885	0.245	237		1885	0.126		
Tin Kwong Road WB																
A	1	3,400	Y	10			480		1700	0.282	440		1700	0.259		
A	1	3,400	N				405		2095	0.193	270		2095	0.129		
Pedestrian Crossing																
E _p	2		5GM+	5FG=	10	sec										
F _p	3		5GM+	6FG=	11	sec										
G _p	3		5GM+	5FG=	10	sec										
H _p	1,2		6GM+	6FG=	12	sec										
Notes :							AM Peak		A+C+D		PM Peak		A+C+D			
Sum of Critical y							Y		0.598		Sum of Critical y		Y		0.448	
Lost Time L (sec)							14		14		Lost Time L (sec)		14		14	
Cycle Time c (sec)							130		130		Cycle Time c (sec)		130		130	
Practical Y Y _{pr}							0.803		0.803		Practical Y Y _{pr}		0.803		0.803	
Reserve Capacity RC							34%		34%		Reserve Capacity RC		79%		79%	

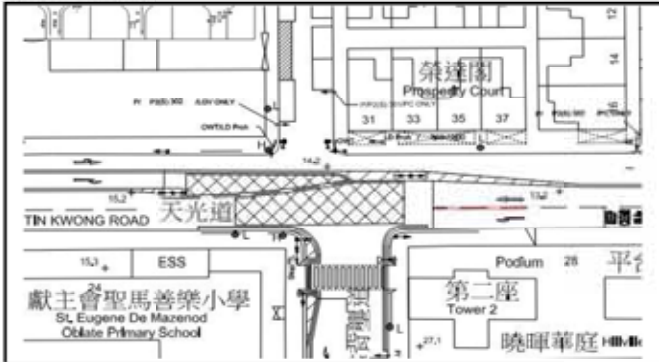
Designed by : HL Date : Sep-25
 Checked by : JY Date : Sep-25

Junction Index : J1
 Sheet No. : 1

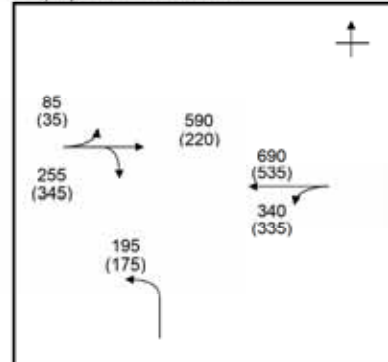
TRAFFIC SIGNAL CALCULATION SHEET

Job Title : URA CS-2023003 Term Traffic Consultancy Job No. : 523348
 Junction : Tin Kwong Road / Kau Pui Lung Road / Hop Yat Road Junction Index : J2
 Description : Design Design Year : 2036

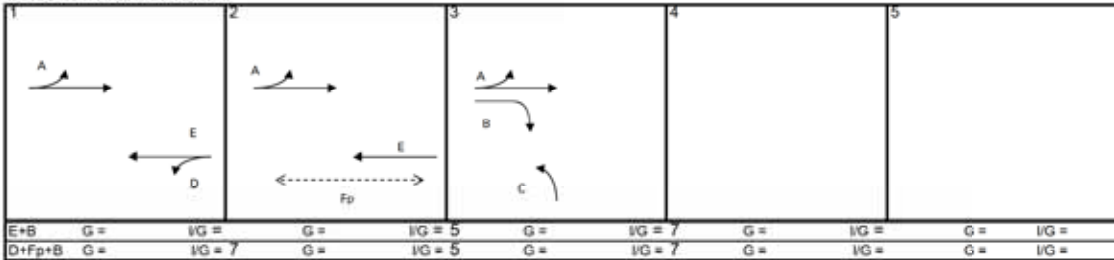
JUNCTION LAYOUT



AM (PM) Peak Hour Traffic Flows



STAGE / PHASE DIAGRAM



CAPACITY CALCULATION

Phase	Stage	Lane Width w (m)	Nearside Lane? (Y/N)	Turning Radius r (m)	Opposed Turn? (Y/N)	Uphill Gradient g (%)	AM Peak				PM Peak						
							Design Flow q (pcu/hr)	Turning Proportion f	Saturation Flow S (pcu/hr)	Flow Factor y	Design Flow q (pcu/hr)	Turning Proportion f	Saturation Flow S (pcu/hr)	Flow Factor y			
Tin Kwong Road EB																	
A	1,2,3	2.800	Y	8			675	13%	1480	0.456	255	14%	1480	0.172			
B	3	2.800	N	12.5	N		255		1815	0.140	345		1815	0.190			
Kau Pui Lung Road NB																	
C	3	4.600	Y	25			195		1370	0.142	175		1370	0.128			
Tin Kwong Road WB																	
D	1	3.000	Y	5			340		1475	0.231	335		1475	0.227			
E	1,2	3.000	N				690		2055	0.336	535		2055	0.260			
Pedestrian Crossing																	
Fp	2			7GM+	11FG=	18 sec											
Notes :																	
							AM Peak		PM Peak		D+Fp+B						
							Sum of Critical y	Y	0.476	Sum of Critical y	Y	0.417	D+Fp+B	Y	0.417		
							Lost Time L (sec)	L	10	Lost Time L (sec)	L	35		L	130		
							Cycle Time c (sec)	c	130	Cycle Time c (sec)	c	130		c	130		
							Practical Y	Ypr	0.831	Practical Y	Ypr	0.658		Ypr	0.658		
							Reserve Capacity	RC	74%	Reserve Capacity	RC	58%		RC	58%		

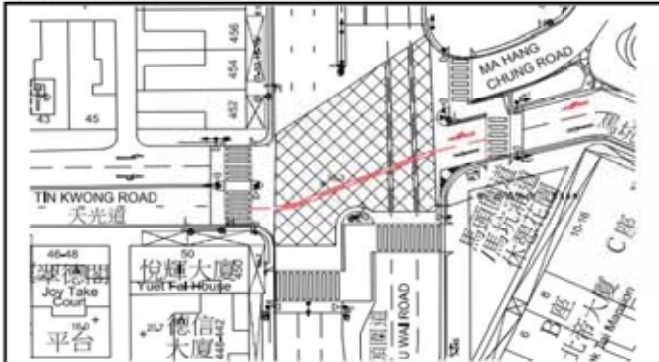
Designed by : HL Date : Sep-25
 Checked by : JY Date : Sep-25

Junction Index : J2
 Sheet No. : 1

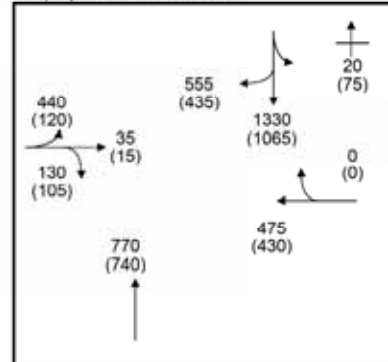
TRAFFIC SIGNAL CALCULATION SHEET

Job Title : URA CS-2023003 Term Traffic Consultancy Job No. : 523348
 Junction : Tin Kwong Road / Ma Tau Wai Road / Ma Hang Chung Road / Pak Tai Street Junction Index : J3
 Description : Design Design Year : 2036

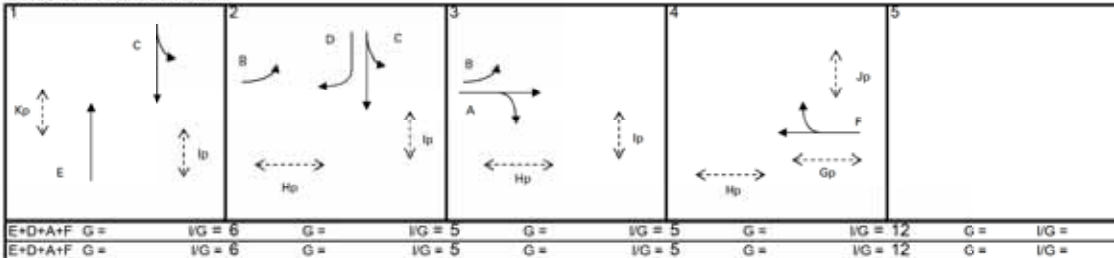
JUNCTION LAYOUT



AM (PM) Peak Hour Traffic Flows



STAGE / PHASE DIAGRAM



CAPACITY CALCULATION

Phase	Stage	Lane Width w (m)	Nearside Lane? (Y/N)	Turning Radius r (m)	Opposed Turn? (Y/N)	Uphill Gradient g (%)	AM Peak				PM Peak			
							Design Flow q (pcu/hr)	Turning Proportion f	Saturation Flow S (pcu/hr)	Flow Factor y	Design Flow q (pcu/hr)	Turning Proportion f	Saturation Flow S (pcu/hr)	Flow Factor y
Tin Kwong Road EB														
B	1,2	2,900	Y	10			440		1655	0.266	120		1655	0.073
A	1	2,900	N	15	N		165	79%	1895	0.087	120	88%	1880	0.064
Ma Tau Wai Road NB														
E	3	3,400	Y				247		1955	0.126	237		1955	0.121
E	3	3,400	N				264		2095	0.126	254		2095	0.121
E	3	3,000	N				259		2055	0.126	249		2055	0.121
Ma Hang Chung Road WB														
F	4	3,700	Y				229		1985	0.115	208		1985	0.105
F	4	3,700	N	15	N		246	0%	2125	0.116	222	0%	2125	0.104
Ma Tau Wai Road SB														
C	2,3	3,000	Y	8			427	5%	1900	0.225	353	21%	1840	0.192
C	2,3	3,000					462		2055	0.225	394		2055	0.192
C	2,3	3,000	N				461		2055	0.224	393		2055	0.191
D	2	3,000	N	15	N		555		1870	0.297	435		1870	0.233
Pedestrian Crossing														
Gp	4			6GM+	11FG=	17	sec							
Hp	1,2,4			5GM+	8FG=	13	sec							
Ip	1,2,3			5GM+	7FG=	12	sec							
Jp	4			5GM+	8FG=	13	sec							
Kp	3			7GM+	11FG=	18	sec							
Notes :							AM Peak		E+D+A+F	PM Peak		E+D+A+F		
							Sum of Critical y Y		0.626	Sum of Critical y Y		0.522		
							Lost Time L (sec)		24	Lost Time L (sec)		24		
							Cycle Time c (sec)		130	Cycle Time c (sec)		130		
							Practical Y Ypr		0.734	Practical Y Ypr		0.734		
							Reserve Capacity RC		17%	Reserve Capacity RC		40%		

Designed by : HL Date : Sep-25
 Checked by : JY Date : Sep-25

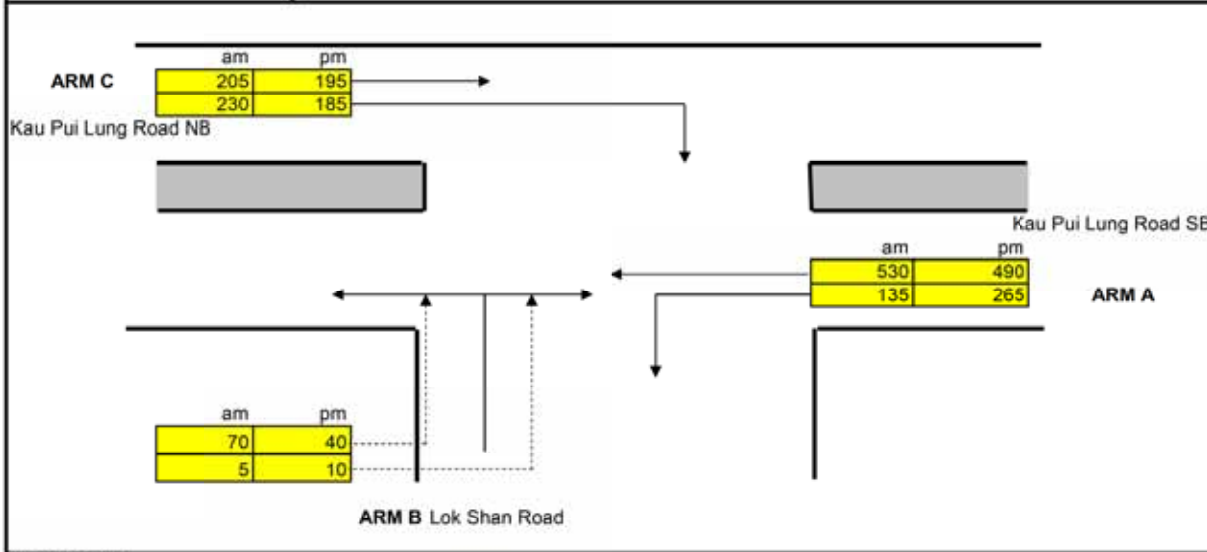
Junction Index : J3
 Sheet No. : 1

Simplified Priority Junction Capacity and Queue Length Calculation



(Single Lane Minor Arm B)

Job Title: URA CS-2023003 Term Traffic Consultancy		Designed by: HL	
Junction: Kau Pui Lung Road / Lok Shan Road (J4)		Checked by: JY	
Scheme: Design		Date: 17/9/2025	
Design Year: 2036	Job No.: 523348		
ARM A: Kau Pui Lung Road SB			
ARM B: Lok Shan Road			
ARM C: Kau Pui Lung Road NB			



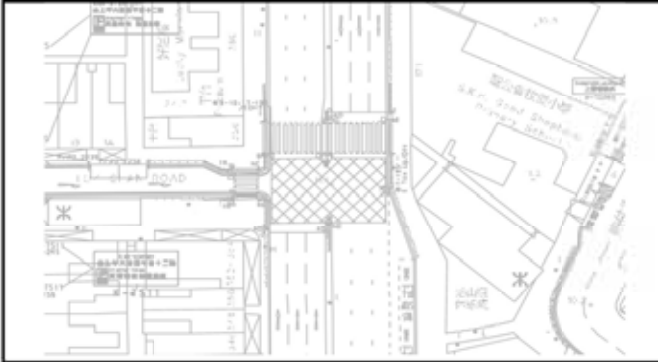
GEOMETRY					
Major road width (m)	W	12.00	Lane widths (m)	w(b-a)	3.10
Central Reserve width (m)	Wcr	0.00		w(b-c)	3.10
Analysis Time Period (h)	T	1.00		w(c-b)	2.20
Visibilities (m)	Vr(b-a)	40	Calculated	D	0.88
	Vl(b-a)	60		E	0.91
	Vr(b-c)	80		F	0.81
	Vr(c-b)	50		Y	0.59

DFC CALCULATIONS		AM PEAK	PM PEAK
TRAFFIC FLOWS (pcu/hr)	q(c-a)	205	195
	q(c-b)	230	185
	q(a-b)	135	265
	q(a-c)	530	490
	q(b-a)	5	10
	q(b-c)	70	40
	f	0.93	0.80
CAPACITIES (pcu/hr)	Q(b-a)	358	369
	Q(b-c)	567	565
	Q(c-b)	488	473
	Q(b-ac)	546	511
DFC's	c-b	0.471	0.391
	b-ac	0.137	0.098
- DFC In accordance with TPDM V2.4		0.47	0.39

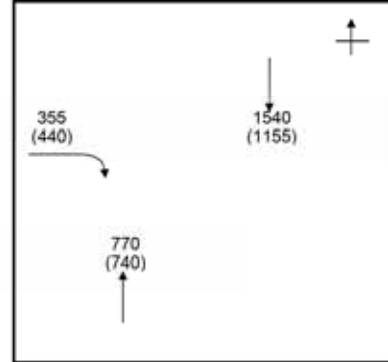
TRAFFIC SIGNAL CALCULATION SHEET

Job Title : URA CS-2023003 Term Traffic Consultancy Job No. : 523348
 Junction : Ma Tau Wai Road / Lok Shan Road Junction Index : J5
 Description : Design Design Year : 2036

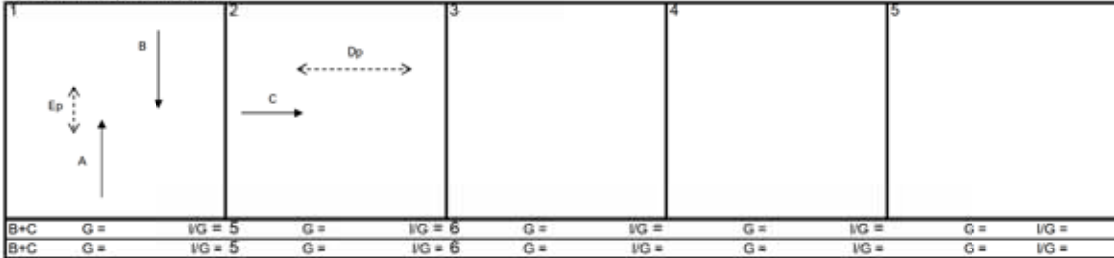
JUNCTION LAYOUT



AM (PM) Peak Hour Traffic Flows



STAGE / PHASE DIAGRAM



CAPACITY CALCULATION

Phase	Stage	Lane Width w (m)	Nearside Lane? (Y/N)	Turning Radius r (m)	Opposed Turn? (Y/N)	Uphill Gradient g (%)	AM Peak				PM Peak				
							Design Flow q (pcu/hr)	Turning Proportion f	Saturation Flow S (pcu/hr)	Flow Factor y	Design Flow q (pcu/hr)	Turning Proportion f	Saturation Flow S (pcu/hr)	Flow Factor y	
Lok Shan Road EB															
C	2	3.500	Y	15	N		355		1785	0.199	440		1785	0.246	
Ma Tau Wai Road NB															
A	1	3.500	Y				245		1965	0.125	235		1965	0.120	
A	1	3.500	N				263		2105	0.125	253		2105	0.120	
A	1	3.500	N				262		2105	0.124	252		2105	0.120	
Ma Tau Wai Road SB															
B	1	3.500	Y				490		1965	0.249	368		1965	0.187	
B	1	3.500	N				525		2105	0.249	393		2105	0.187	
B	1	3.500	N				525		2105	0.249	394		2105	0.187	
Pedestrian Crossing															
Dp	2		5GM+	11FG=	16	sec									
Ep	1		5GM+	5FG=	10	sec									
Notes :															
							AM Peak		B+C		PM Peak		B+C		
							Sum of Critical y	Y	0.448		Sum of Critical y	Y	0.434		
							Lost Time L (sec)	L	9		Lost Time L (sec)	L	9		
							Cycle Time c (sec)	c	130		Cycle Time c (sec)	c	130		
							Practical Y Ypr	Ypr	0.838		Practical Y Ypr	Ypr	0.838		
							Reserve Capacity RC	RC	87%		Reserve Capacity RC	RC	93%		

Designed by : HL Date : Sep-25
 Checked by : JY Date : Sep-25

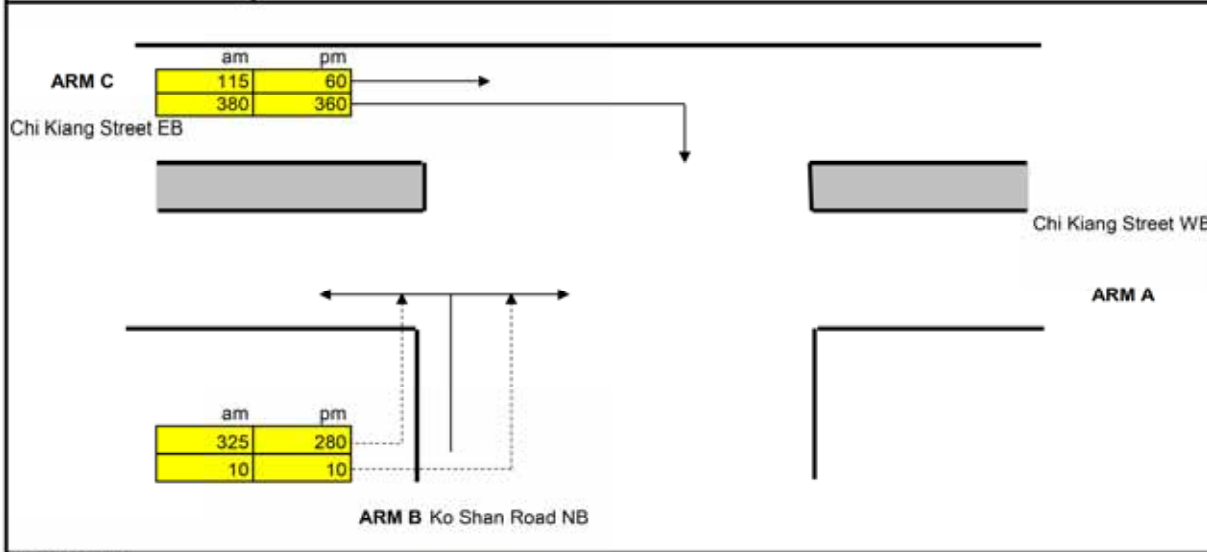
Junction Index : J5
 Sheet No. : 1

Simplified Priority Junction Capacity and Queue Length Calculation



(Single Lane Minor Arm B)

Job Title: URA CS-2023003 Term Traffic Consultancy		Designed by: HL	
Junction: Chi Kiang Steet / Ko Shan Road (J6)		Checked by: JY	
Scheme: Design		Date : 17/9/2025	
Design Year: 2036	Job No.: 523348		
ARM A: Chi Kiang Street WB			
ARM B: Ko Shan Road NB			
ARM C: Chi Kiang Street EB			



GEOMETRY					
Major road width (m)	W	12.00	Lane widths (m)	w(b-a)	3.90
Central Reserve width (m)	Wcr	0.00		w(b-c)	3.90
Analysis Time Period (h)	T	1.00		w(c-b)	2.20
Visibilities (m)	Vr(b-a)	50	Calculated	D	0.96
	Vi(b-a)	50		E	0.96
	Vr(b-c)	50		F	0.81
	Vr(c-b)	50		Y	0.59

DFC CALCULATIONS		AM PEAK	PM PEAK
TRAFFIC FLOWS (pcu/hr)	q(c-a)	115	60
	q(c-b)	380	360
	q(a-b)	0	0
	q(a-c)	0	0
	q(b-a)	10	10
	q(b-c)	325	280
	f	0.97	0.97
CAPACITIES (pcu/hr)	Q(b-a)	477	490
	Q(b-c)	714	714
	Q(c-b)	603	603
	Q(b-ac)	704	703
DFC's	c-b	0.630	0.597
	b-ac	0.476	0.412
- DFC In accordance with TPDM V2.4		0.63	0.60

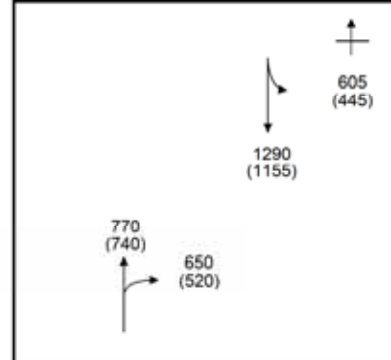
TRAFFIC SIGNAL CALCULATION SHEET

Job Title : URA CS-2023003 Term Traffic Consultancy Job No. : 523348
 Junction : Ma Tau Wai Road / Chi Kiang Street Junction Index : J7
 Description : Design Design Year : 2036

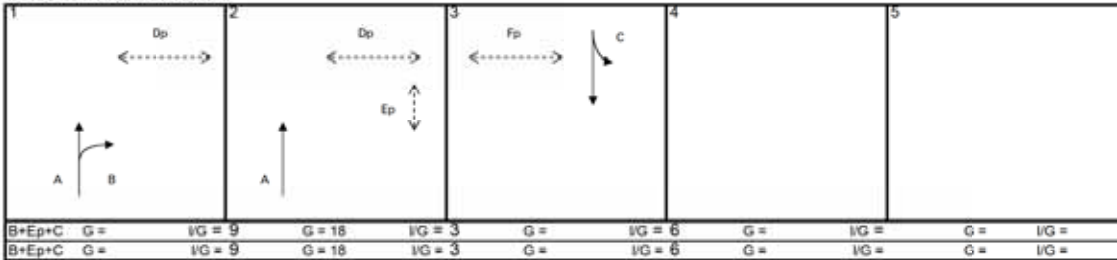
JUNCTION LAYOUT



AM (PM) Peak Hour Traffic Flows



STAGE / PHASE DIAGRAM



CAPACITY CALCULATION

Phase	Stage	Lane Width w (m)	Nearside Lane? (Y/N)	Turning Radius r (m)	Opposed Turn? (Y/N)	Uphill Gradient g (%)	AM Peak				PM Peak			
							Design Flow q (pcu/hr)	Turning Proportion f	Saturation Flow S (pcu/hr)	Flow Factor y	Design Flow q (pcu/hr)	Turning Proportion f	Saturation Flow S (pcu/hr)	Flow Factor y
Ma Tau Wai Road NB														
A	1,2	3,500	Y				372		1965	0.189	357		1965	0.182
A	1,2	3,500	N				398		2105	0.189	383		2105	0.182
B	1	5,400	N	20	N		329		2135	0.154	263		2135	0.123
B	1	5,400	N	15	N		321		2085	0.154	257		2085	0.123
Ma Tau Wai Road SB														
C	3	3,300	Y	18			571		1795	0.318	445		1795	0.248
C	3	3,300	N	20			661	5%	2075	0.319	577	0%	2085	0.277
C	3	3,300	N				663		2085	0.318	578		2085	0.277
Pedestrian Crossing														
Dp	1,2			5GM+	11FG=	16								
Ep	2			5GM+	13FG=	18								
Fp	3			5GM+	8FG=	13								
Notes :							AM Peak		B+Ep+C		PM Peak		B+Ep+C	
							Sum of Critical y	Y	0.473		Sum of Critical y	Y	0.400	
							Lost Time L (sec)		34		Lost Time L (sec)		34	
							Cycle Time c (sec)		130		Cycle Time c (sec)		130	
							Practical Y Ypr		0.665		Practical Y Ypr		0.665	
							Reserve Capacity RC		41%		Reserve Capacity RC		66%	

Designed by : HL Date : Sep-25
 Checked by : JY Date : Sep-25

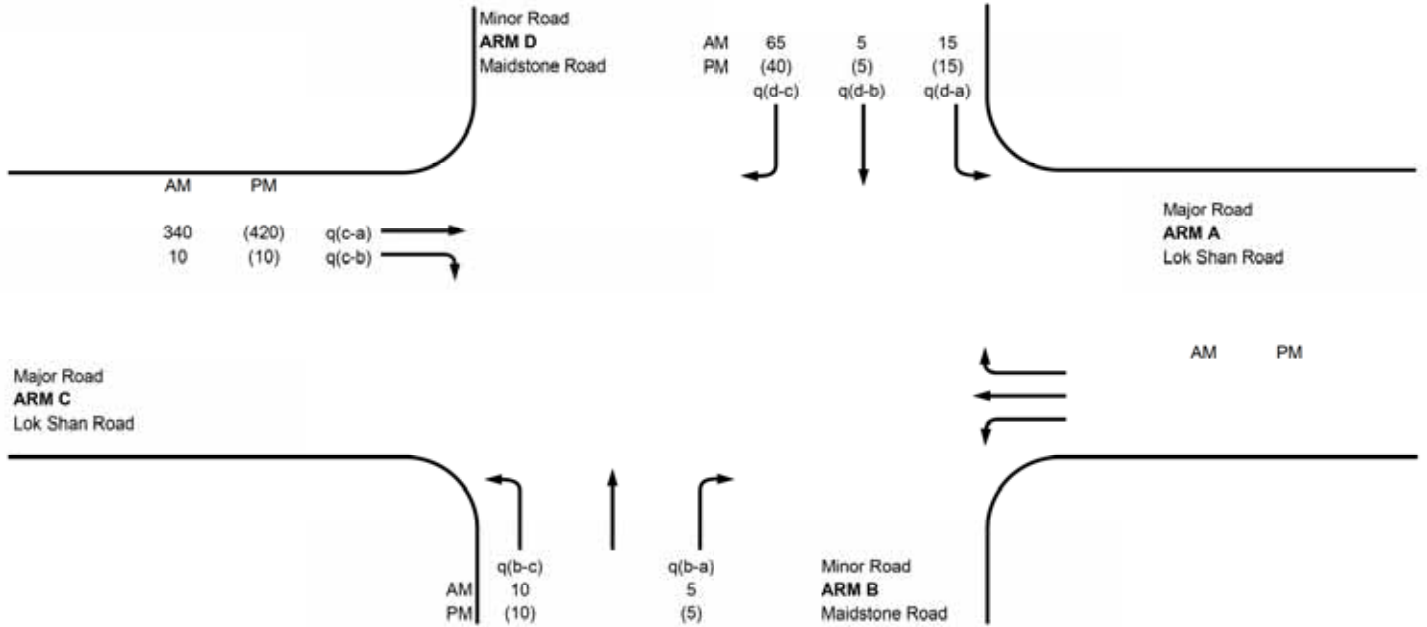
Junction Index : J7
 Sheet No. : 1

Priority Junction Capacity Calculation

Junction : Lok Shan Road / Maidstone Road Junction No. : J08

Scenario : Design Design Year : 2036

ARM A	Lok Shan Road
ARM B	Maidstone Road
ARM C	Lok Shan Road
ARM D	Maidstone Road



GEOMETRY		Arm B		Arm D	
Major road width	W = 9.1 m	Lane widths	W _{B-A} = 2.5 m	Lane widths	W _{D-A} = 5.1 m
Central Reserve width	W _{cr} = 0 m		W _{B-C} = 2.5 m		W _{D-C} = 5.1 m
			W _{C-B} = 3.1 m		W _{A-D} = 2.2 m
Visibilities	V _{A-D} = 0 m	Visibilities	V _{right B} = 22 m		V _{right D} = 100 m
	V _{C-B} = 30 m		V _{left B} = 30 m		V _{left D} = 120 m
General Terms		X _A = 0.770	Y = 0.686	X _A = 0.871	Y = 0.686
		X _B = 0.755	Z _B = 0.813	X _B = 1.096	Z _B = 1.116
		X _C = 0.871	Z _D = 1.116	X _C = 0.770	Z _D = 0.813
		X _D = 1.096		X _D = 0.755	

ANALYSIS									
Arm A		Arm B		Arm C		Arm D			
	AM	PM	AM	PM	AM	PM	AM	PM	
Traffic	q _{A-B} = 0	0	q _{B-A} = 5	5	q _{C-A} = 340	420	q _{D-A} = 15	15	
Flows	q _{A-C} = 0	0	q _{B-C} = 10	10	q _{C-B} = 10	10	q _{D-B} = 5	5	
(pcu/hr)	q _{A-D} = 0	0	q _{B-D} = 0	0	q _{C-D} = 0	0	q _{D-C} = 65	40	
			M = 0.755				M = 1.096		
Capacities	μ _{A-D} = 506	490	μ _{B-A} = 420	413	μ _{C-B} = 649	649	μ _{D-A} = 737	714	
			μ _{B-C} = 606	606			μ _{D-B} = 591	566	
			μ _{B-D} = 430	421			μ _{D-C} = 588	569	
			μ _{B-AC} = 528	524			μ _{D-AC} = 611	602	
DFC	A-D 0.00	0.00	B-A 0.01	0.01	C-B 0.02	0.02	D-A 0.02	0.02	
			B-C 0.02	0.02			D-B 0.01	0.01	
			B-D 0.00	0.00			D-C 0.11	0.07	
			B-AC 0.03	0.03			D-AC 0.13	0.09	
			B-ACD 0.03	0.03			D-ABC 0.14	0.1	
DFC	0	0	DFC 0.03	0.03	DFC 0.02	0.02	DFC 0.14	0.1	
aurecon							Critical DFC	AM	PM
								0.14	0.10

Appendix C

Level of Services

Description of Level-of-Service Definition (HCM 2000)

LOS	Flow Rate (ped/min/m)	Description
A	≤ 16	Pedestrians basically move in desired paths without altering their movements in response to other pedestrians. Walking speeds are freely selected, and conflicts between pedestrians are unlikely.
B	16 - 23	Sufficient space is provided for pedestrians to freely select their walking speeds, to bypass other pedestrians and to avoid crossing conflicts with others. At this level, pedestrians begin to be aware of other pedestrians and to respond to their presence in the selection of walking paths.
C	23 – 33	Sufficient space is available to select normal walking speeds and to bypass other pedestrians primarily in unidirectional stream. Where reverse direction or crossing movement exist, minor conflicts will occur, and speed and volume will be somewhat lower.
D	33 – 49	Freedom to select individual walking speeds and bypass other pedestrians is restricted. Where crossing or reverse-flow movements exist, the probability of conflicts is high and its avoidance requires changes of speeds and position. The LOS provides reasonable fluid flow; however considerable friction and interactions between pedestrians are likely to occur.
E	49 – 75	Virtually, all pedestrians would have their normal walking speeds restricted. At the lower range of this LOS, forward movement is possible only by shuffling. Space is insufficient to pass over slower pedestrians. Cross- and reverse-movement are possible only with extreme difficulties. Design volumes approach the limit of walking capacity with resulting stoppages and interruptions to flow.
F	> 75	Walking speeds are severely restricted. Forward progress is made only by shuffling. There are frequent and unavoidable conflicts with other pedestrians. Cross- and reverse-movements are virtually impossible. Flow is sporadic and unstable. Space is more characteristics of queued pedestrians than of moving pedestrian streams.

Source:

- (i) HCM 2000
- (ii) Para. 10.5.2.2, Chapter 10, Volume 6, TPDM

Appendix D

Planned/ Committed Developments

Planned / Committed Developments

Ref No.	Planned/ Committed Developments ⁽¹⁾	Proposed Uses ⁽¹⁾	Parameters ⁽¹⁾
1	URA Project KC-008 (A)	Residential & Commercial	No. of Flats = 217 (<40 m ²) ; 93 (40 m ² < Flat Size ≤ 70m ²) Commercial GFA = 2,454 m ²
2	URA Project KC-009	Residential & Commercial	No. of Flats = 1,152 Average Flat Size = 48 m ² Commercial GFA = 11,105 m ²
3	URA Project KC-010	Residential & Commercial	No. of Flats = 750 Average Flat Size = 46 m ² Commercial GFA = 6,843 m ²
4	URA Project KC-011	Residential & Commercial	No. of Flats = 400 Average Flat Size = 46 m ² Commercial GFA = 3,660 m ²
5	URA Project KC-012 & KC-013	Residential & Commercial	No. of Flats = 414 Average Flat Size = 45 m ² Commercial GFA = 3,721 m ²
6	URA Project KC-014	Residential & Commercial	No. of Flats = 550 Average Flat Size = 39 m ² Commercial GFA = 4,286 m ²
7	URA Project KC-016	Residential & Commercial	No. of Flats = 900 Average Flat Size = 46 m ² Commercial GFA = 8,322 m ²
8	URA Project KC-018	Residential & Commercial	No. of Flats = 1,276 Average Flat Size = 54 m ² Commercial GFA = 10,496 m ²
9	URA Project KC-019	Residential & Commercial	No. of Flats = 950 Average Flat Size = 54 m ² Commercial GFA = 7,816 m ²
10	URA Project DL-8	Residential & Commercial	No. of Flats = 72 Average Flat Size = 53 m ² Commercial GFA = 758 m ²
11	URA Project CBS-1:KC	Residential & Commercial	No. of Flats = 640 Average Flat Size = 50 m ² Commercial GFA = 6,449 m ²
12	A/K9/274	Office & Retail	Office GFA = 47,007 m ² Retail GFA = 270 m ²
13	A/K10/259	Residential & Commercial	No. of Flats = 48 (Portion 1) + 777 (Portion 2) Average Flat Size = 274 m ² (Portion 1), 64 m ² (Portion 2) Commercial GFA = 3,150 m ² (Portion 1), 6,111 m ² (Portion 2)
14	A/K10/265	Residential & Commercial	No. of Flats = 746 Average Flat Size = 84 m ² Commercial GFA = 7,599 m ²
15	A/K10/266	Residential & Commercial	No. of Flats = 208 Average Flat Size = 37 m ² Commercial GFA = 971 m ²

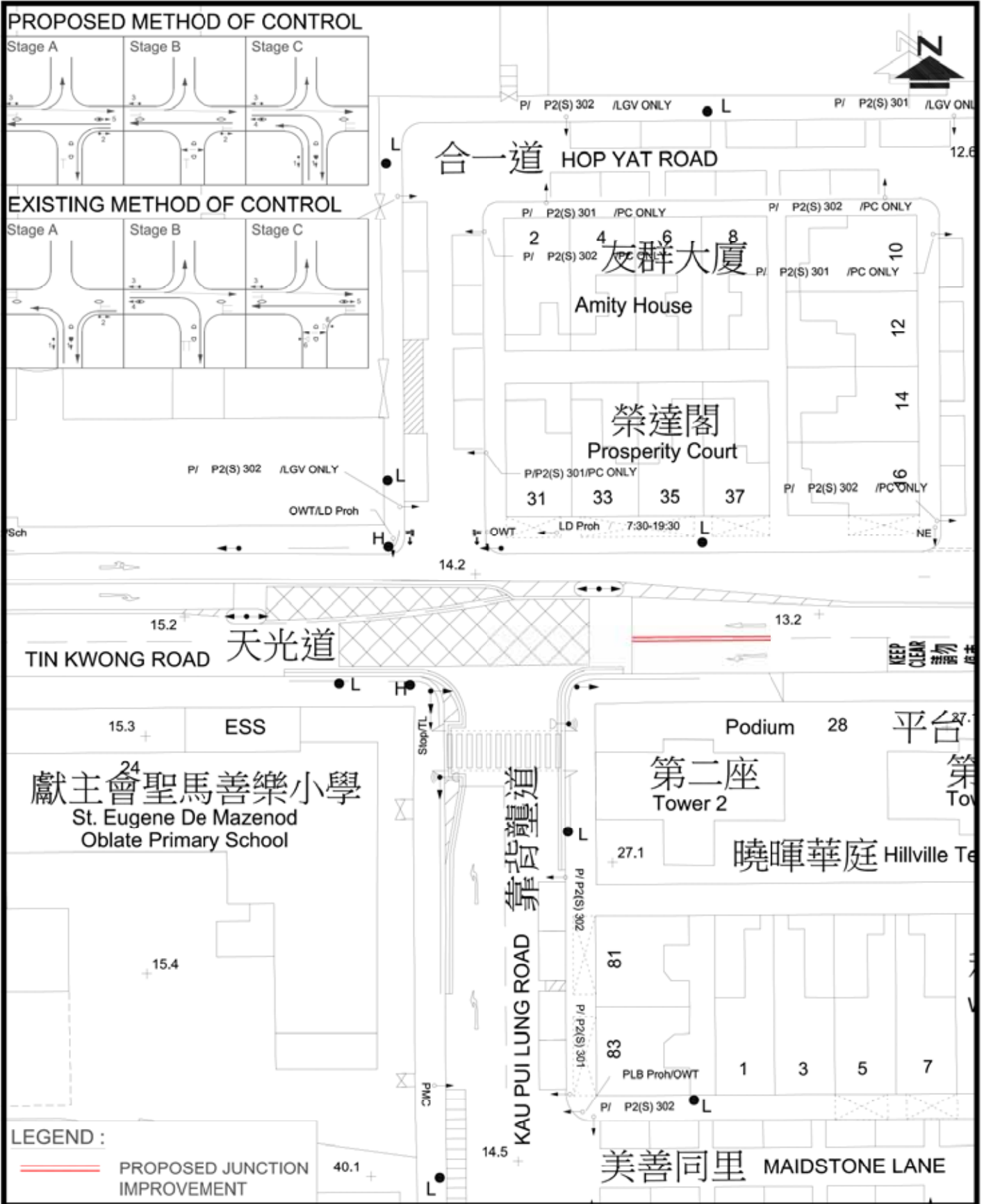
Ref No.	Planned/ Committed Developments ⁽¹⁾	Proposed Uses ⁽¹⁾	Parameters ⁽¹⁾
16	A/K10/267	Residential & Commercial	No. of Flats = 201 Average Flat Size = 32 m ² Commercial GFA = 1,268 m ²
17	A/K10/269	Residential & Commercial	No. of Flats = 110 Average Flat Size = 37 m ² Commercial GFA = 809 m ²
18	Ma Tau Wai Estate Re-development	Public Housing	No. of Flats = About 4,000 Flats (About net Increase 2,000 Flats)
19	A/K10/273	Residential & Commercial	No. of Flats = 76 Average Flat Size = 39 m ² Commercial GFA = 585 m ²
20	A/K10/275	Residential & Commercial	No. of Flats = 756 Average Flat Size = 41 m ² Commercial GFA = 6,150 m ²
21	CBS-2:KC	Residential, Commercial & GIC	No. of Flats = About 2550 Average Flat Size = About 48 m ² Commercial GFA = About 15350 m ² GIC GFA = About 3600 m ²

Note:

- (1) The same set of planned/ committed developments and development parameters have been adopted in the TIA for the OZP Compliant Proposal has been previously reviewed by the Planning Department (PlanD), who has no further comment on the list or the respective planning parameters adopted.

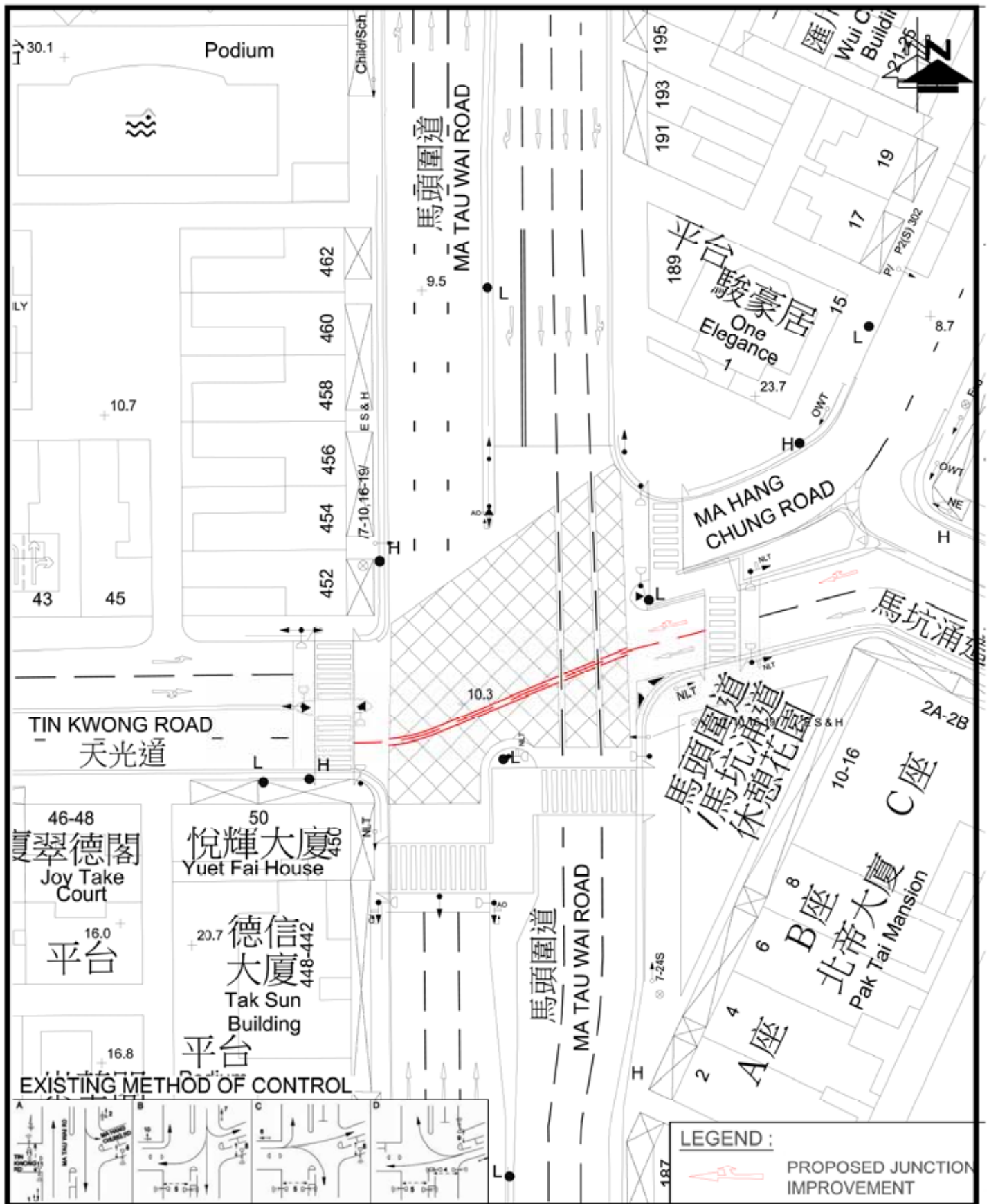
Appendix E

Previous Traffic Improvement Proposals



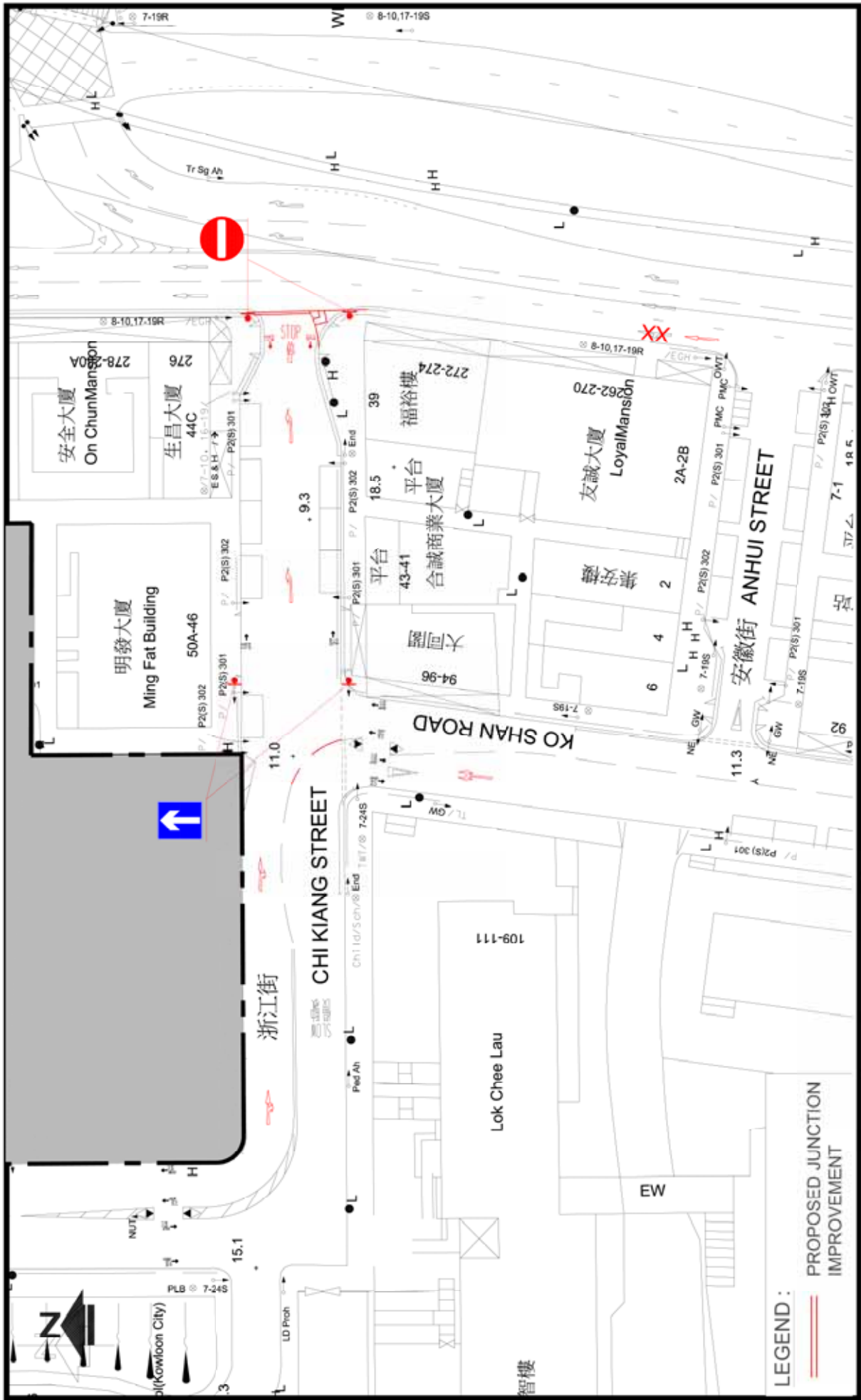
Proposed Improvement Layout of Junction J2 (Tin Kwong Road / Kau Pui Lung Road / Hop Yat Road)

Reference to the TIA for the OZP Compliant Proposal dated January 2025



Proposed Improvement Layout of Junction J3 (Tin Kwong Road / Ma Tau Wai Road / Ma Han Chung Road)

Reference to the TIA for the OZP Compliant Proposal dated January 2025



Proposed Improvement Layout of Junction J6 (Chi Kiang Street / Ko Shan Road)
 Reference to the TIA for the OZP Compliant Proposal dated January 2025

Document prepared by

Aurecon Hong Kong Limited

Unit 1608, 16/F, Tower B,
Manulife Financial Centre,
223 – 231 Wai Yip Street,
Kwun Tong, Kowloon,
Hong Kong

T +852 3664 6888

F +852 3664 6999

E hongkong@aurecongroup.com

W aurecongroup.com

aurecon

*Bringing ideas
to life*

Aurecon offices are located in:

Angola, Australia, Botswana, China,
Ghana, Hong Kong, Indonesia, Kenya,
Lesotho, Macau, Mozambique,
Namibia, New Zealand, Nigeria,
Philippines, Qatar, Singapore, South Africa,
Swaziland, Tanzania, Thailand, Uganda,
United Arab Emirates, Vietnam.

