S16 Planning Application for
Proposed Composite Redevelopment with Residential, Commercial and Trade Mart, Social Welfare Facilities and School uses and Minor Relaxation of Building Height Restriction at New Kowloon Inland Lot No. 6032, 1 Trademart Drive, Kowloon Bay, Kowloon

(S16 Planning Application No. A/K22/37)

Items	Comments	Responses
1	**Comments from Transport Department (Contact Person: Mr Vincent CHAN; Tel: 2399 2510)**	
	General Comments	
1.1	General No traffic queue originated from the carpark, loading/unloading area and/or pick-up/drop-off area extending onto Trademart Drive, Wang Chin Street and/or other public roads in vicinity should be allowed. The applicant should implement proper traffic management control measures within the Site to prevent such traffic queue.	Noted. To minimise the likelihood of vehicle tailback when entering the basement car park, the car park entry gates would also be positioned as far away as possible from the run-in / out. Detailed design of the internal transport layout including the internal pick-up/drop-off area will be submitted in the GBP stage.
1.2	General In view of strong public request, road safety perspective and to improve/enhance the pedestrian connectivity of the proposed redevelopment, the applicant should construct the pedestrian crossing at the Trademart Drive (Brown Area as stated in the lease) near to Lam Hing Street and Wang Chin Street. The location of the proposed pedestrian crossing could be referred to **Annex A**. Please confirm if the applicant would carry out the proposed pedestrian crossing and provide the progarmme about its implementation/construction. Please also provide the design of the proposed pedestrian crossing for our review. The proposed pedestrian crossing should form part of this s 16 planning application.	The Applicant is willing to implement the planned cautionary crossing, as per the design drawing from EKEO found in Appendix C of the revised TIA report, at Trademart Drive as part of the KITEC redevelopment project. However, it should be noted that the redevelopment project is subject to the approval of this s16 planning application and subsequently, the submission of design drawings for approval by relevant government departments. Details on the construction programme will be provided to the relevant government department including TD as part of the approval conditions attached to the planning permission.
1.3	General To advise the strengthening of public transport service is required, and the split for using **MTR** Kai Tak and/or Kowloon Bay stations.	With reference to Serial No. TLB168 of *“Examination of Estimates of Expenditure 2023 – 24”* for Legislative Council Finance Committee Meetings, the current patronages of MTR Kwun Tong Line and Tuen Ma Line are 34,500 and 34,200 pph respectively.

Items	Comments	Responses
		By adopting the patronage split for the Proposed Redevelopment, say, 50% of rail-based passengers will use MTR Kowloon Bay Station and the remaining 50% will use MTR Kai Tak Station. The proposed enhancement of feeder services connecting the Proposed Redevelopment and MTR stations is presented in Paragraphs 4.37 – 4.42 of the revised TIA report (**Annex 1** refers).
1.4	General To advise if the existing 120m layby at Trademart Drive will be maintained during and after the construction, and advise the proposed use for the layby after the commissioning of the redevelopment.	The existing 120m lay-by along Trademart Drive will be maintained during and after the completion of the Proposed Redevelopment. Subject to the provision of feeder services as identified in Paragraphs 4.37 – 4.42 of the revised TIA report, a section of this lay-by could be designated as bus stop/terminus (**Annex 1** refers). Similar to the existing condition, the remaining section of lay-by would be for pick-up/drop-off activities.
1.5	General Please mark the "Brown Area" on the layout plan to show its extent.	The extent of Brown Area is shown in Figure 3.1 of the revised TIA report (**Annex 1** refers).
	Comments on Appendix 2 - Traffic Impact Assessment Final Report	
1.6	Para 2.19 (Table 2.7) Table 2.7 regarding the frequency of bus services is not updated (e.g. 5M, 74B, 98D and etc.	The frequency of bus services is updated as shown in Table 2.7 of the revised TIA report (**Annex 1** refers).
1.7	Para 2.20 (Table 2.8) In view of the above change, the applicant to supplement if there are any updates on the projected carrying capacity and advise the calculation.	The existing occupancy of franchised bus and GMB services is estimated based on the actual service frequency obtained from the on-site survey. Hence, updating Table 2.8 of the TIA report is not required (**Annex 1** refers).
1.8	Para 3.1 & Table 3.1 Please state in the report whether the existing car parking spaces (763 numbers) are the ancillary car parking spaces used for office, eating place and shop and services, exhibition or convention hall, and place of entertainment. Please advise the amount of parking spaces for each type	The Applicant has confirmed that all the existing car parking spaces in KITEC (763 nos.) are ancillary to the uses provided, i.e. Office, *Eating Place and Shop and Services*, *Exhibition or Convention Hall* and *Place of Entertainment*.

Items	Comments	Responses
	of use (i.e. office, eating place and shop and services, exhibition or convention hall, and place of entertainment).	According to the Lease for KITEC, car parking spaces shall be provided *"at the rate of not less than one space for every 240 square metres or part thereof of gross floor area … subject to a maximum of 763 spaces"*. Based on the maximum provision, the Lease has no specific requirement on the actual car parking provision for each type of use in KITEC.
1.9	Para 3.5 & Table 3.3 As referring to Appendix B "Comment from SWD and extracts of operational requirements for social welfare facilities", **6** designated parking spaces for 6 private light buses (8m (L) x 3m (W) x 3.3m (H)) and **1** shared loading/unloading area for private light buses and ambulances. However, in Table 3.3, **3** private light bus parking spaces and **1** shared use loading/unloading bay are proposed. Please clarify the discrepancies among the private light bus parking spaces and advise the correct numbers of private light buses parking spaces. Please confirm the parking and loading/unloading requirements with SWD.	As per the operational requirements on a 120-place Day Care Centre for the Elderly (DE) with reference to other planning application, 6 private light bus (PrLB) parking spaces are required for 120 places. Based on the pro-rata basis, 1 PrLB parking space shall be provided for 20 places in DE. Hence, 2 PrLB parking spaces are required for the proposed 30-place DE. Together with one PrLB parking space for Residential Care Home for the Elderly (RCHE), a total of 3 PrLB parking spaces are provided for the social welfare facilities. Furthermore, 1 shared-use HGV loading / unloading bay is provided. Nevertheless, please be clarified that SWD has *"no objection in principle from service perspective for the applicant's proposed development of 60-place RCHE and 30-place DE on conditions that the RCHE and DE including the associated parking spaces and loading and unloading bay are running on privately-financing mode …"* on this planning application. Appendix B of the revised TIA report has been updated accordingly.
1.10	Para 3.16 Apart from the proposed Northern Footbridge Extension and Southern Footbridge, please advise if there would be any proposed footbridge connection to enhance the connectivity and accessibility between the proposed redevelopment and the Kowloon Bay area and also the MTR Kowloon Bay Station.	It is noted that under the Kowloon Bay Business Area Pedestrian Environment Improvement Feasibility Study, EKEO has introduced a series of short to long-term at-grade measures and a comprehensive pedestrian linkage network (i.e. Green Spine and Green Link) to enhance accessibility from MTR Kowloon Bay MTR Station to the Site via Kowloon Bay Business Area (KBBA). The Proposed Development will also further extend the Green Link and Green Spine network by proposing at grade open plaza in the development. It could further provide seamless connection

Items	Comments	Responses
		and extension of the network beyond KBBA. Please note that our development is not part of the KBBA.
1.11	Para. 3.19-3.20 Please advise the future management and maintenance responsibilities of the proposed Northern Footbridge Extension. Please confirm if the public can access the proposed Northern Footbridge Extension free of charge. Please seek comments and agreement from EMSD/ ArchSD regarding the connection of the proposed Northern Footbridge Extension with the existing KITEC-EMSD footbridge.	The Northern Footbridge Extension will be constructed by the Applicant. The members of the public could access the Proposed Northern Footbridge Extension free of charge with 24-hour access. The Applicant noted that EMSD has NO objection to the proposed Northern Footbridge Extension. With full support from the EMSD, the Proposed Northern Footbridge Extension **will form part of the S16 Planning Application**. The Applicant has been closely liaising with EMSD, EKEO, ArchSD and relevant government department(s) on the Proposed Northern Footbridge Extension.
1.12	Para. 3.21-3.23 Please advise the future management and maintenance responsibilities of the proposed Southern Footbridge. Please confirm if the public can access the proposed Southern Footbridge free-of-charge.	The proposed Southern Footbridge (also known as Southern Link Bridge) (**as part of the S16 Planning Application**) will be constructed, managed and maintained by the Applicant. The public can access the Proposed Southern Footbridge free-of-charge with 24 hours access.
1.13	Para 3.23 The proposed Northern Footbridge Extension and Southern Footbridge would form part of comprehensive elevated pedestrian network through the proposed redevelopment to enhance the connectivity and accessibility between the South Apron Area of KTD, MTR Kai Tak Station and the Kowloon Bay Business Area. Also, the proposed Southern Footbridge connection forms part of the overall redevelopment. The details of the proposed Northern Footbridge Extension and Southern Footbridge should form part of the s16 planning application. In view of the above, please explain why the Northern Footbridge Extension and Southern Footbridge do not form part of this s16 planning application.	Please note that the Northern Footbridge Extension and Southern Footbridge (or Southern Link Bridge) **will form part of this s16 planning application** with the full support from EMSD and TD.

Items	Comments	Responses
1.14	Para. 4.14 & Table 4.4 Please advise the completion year of the major planned development.	The completion year of the major planned development is included in Table 4.4 of the revised TIA report (**Annex 1** refers).
1.15	Para. 4.33 It is assumed in the TIA that all passengers will travel to the MTR station by interchanging with bus and minibus services. The applicant should identify any public services need, in particularly the feeder services connecting to/from the rail stations to be strengthened.	The proposed enhancement of feeder services connecting the Proposed Redevelopment and MTR stations is presented in Paragraphs 4.37 – 4.42 of the revised TIA report (**Annex 1** refers).
1.16	Para 5.5 It states that the proposed redevelopment traffic generation is 27% and 29% less compared to the approved redevelopment during the AM and PM peak hours respectively. However, as referring to Table 4.8, the proposed redevelopment traffic generation is 26% and 30% less compared to the approved redevelopment during the AM and PM peak hours respectively. Please clarify.	The typos in Paragraph 5.5 of the TIA report have been revised (**Annex 1** refers).
1.17	Figure 3.1 It is noted that the accesses of "ramp to 1 /F", "ramp to B 1 /F" and taxi layby are in close proximity. In view of level difference, the drivers leaving the "ramp to 1/F" may not have sufficient sightline to view the vehicles leaving the "ramp to B1/F". Please review and provide necessary traffic measures to improve the road safety at the concerned location. To improve the pedestrian connectivity of the existing bus stop at Kai Fuk Road and the proposed redevelopment, please advise if there would be a proposed pedestrian crossing at the markup location in **Annex B.**	As shown in Figure 3.1 of the revised TIA report, the up-ramp to 1/F has been shifted further from the run-in / out by around 8m. In addition, the fence wall in between the two adjoining driveways has been removed and the sightline of motorists leaving 1/F is improved. A standard cautionary crossing (i.e. with drop kerbs and tactile warning strips) at Trademart Drive outside the proposed run-in / out will be constructed by the Applicant as part of the Proposed Redevelopment.
1.18	Figure 3.2 and 3.3 Please refer to **Annex C** for the markup comments on the car park arrangement. Please confirm if the width of the driveway and aisle width of the parking spaces fulfil with the relevant BD' s requirements, such as BD's PNAP APP-111.	Please refer to the following amendments in response to the mark-up comments: • Traffic directions are indicated in Figures 3.2 and 3.3; • Additional swept path analysis drawings have been prepared; and

Items	Comments	Responses
		- The width of driveways and parking aisles has been indicated and the width satisfies the PNAP-APP-111 requirements. After the s16 planning application has been approved, the Applicant will carry out detailed design of the internal transport layout in accordance to PNAP APP-111.
1.19	Figure 3.4 Please advise if the loading/unloading bays would intrude into the EVA at the first floor. Please seek comments from FSD and BD if such arrangement fulfils the relevant buildings and frre safety ordinance requirements. Please use color or hatched marking to highlight the area of EVA. Also, please advise the purpose of cul-de-sac at southern side of the first floor, near to the ramp to G/F. Please provide the swept path analyses for demonstration its feasibility.	The loading / unloading bays and lay-bys on 1/F will not encroach into the EVA demarcated in red colour. Comments and agreement from relevant government departments will be sought during the detailed design stage. The turn-around area outside Tower 1 has been changed to be hammerhead and is suitable for a 12m fire appliance to conduct a 3-point turn.
1.20	Figure 3.5 Please advise if there is any direct connection between the proposed Southern Footbridge and the existing KITEC-EMSD footbridge (also the proposed Northern Footbridge Extension) within the proposed redevelopment, which is barrier-free, 24-hour access and free-of charge.	A 24-hour pedestrian circulation with barrier free within the proposed development between the northern footbridge (to the existing EMSD Headquarters) and the proposed southern link bridge towards Kai Fuk Road will be provided for a pedestrian seamless connection. Public can access the internal linkage free of charge.
1.21	Appendix A Please refer to **Annex D** for the markup comments on Junction calculation J2 (Kai Cheung Road/Wang Kwong Road) and J9 (Sheung Yee Road/Wang Chiu Road).	The clarification to comments on the junction capacity analysis for J2 and J9 is attached in Table 1 of this response-to-comment.
	Follow up questions	
1.22	As the Applicant has not revised the relevant parts in the report in supporting the captioned s.16 planning application, based on their R-to-C of the said pre-submission	Please refer to the responses in Items 1.23 and 1.24 of this RtoC.

Items	Comments	Responses
	Below please find the additional comments on the captioned s.16 planning application, further to the comments enclosed in our preceding email dated 13.6.2024:	
1.23	As referring to lease Clause (12)(g)(iii) Public Vehicle Park, "...the Purchaser may underlet the individual parking spaces provided within the Public Car Park for short term parking...". In view of this, please advise if the owner had underlet any parking spaces for short-term parking purpose? If yes, please provide the relevant record and the numbers of parking spaces Please confirm if all the car parking spaces in KITEC are the ancillary parking spaces used for office, eating place and shop and services, exhibition or convention hall, and place of entertainment.	The Applicant did not seek permission from Lands Department regarding Clause (12)(g)(iii) of the Lease, and did not underlet individual car parking spaces for short-term parking under this Clause. The Applicant confirms that all the existing car parking spaces in KITEC are ancillary to the uses provided, i.e. Office, *Eating Place and Shop and Services*, *Exhibition or Convention Hall* and *Place of Entertainment*.
1.24	Please confirm if the public could access between Kai Cheung Road footbridge and proposed Southern Footbridge and the street level through the proposed redevelopment free-of-charge, barrier free and 24-hour access.	Within the Proposed Redevelopment, barrier-free and 24-hour access will be provided connecting Kai Cheung Road footbridge and the proposed Southern Footbridge to the street level. Public can access these connections free of charge.
	Additional Responses to Item 10.26 of Further Information No.1 Part 1	
10.26	EMFAC-HK Input i. Para. 4.5.28 - In view of the exceedances of the results, please consider to use the daily profile of averaged temperature and relative humidity data in each hour for each month for long-term impact.	It is clarified that exceedance occurs at site boundary assessment points. Since there are no air sensitive uses within the area with exceedances, use of daily profile of averaged temperature and relative humidity data in each hour for each month for long-term impact would not be considered. With the assumptions of worst-case scenario adopted for most of the emission sources, the relevant AQO is well-met (~9μg/m^3 below the AQO criteria for annual average NO2 concentration at the first level of residential units and RCHE) for the area with air sensitive use even in case of any minor adjustment in assumptions and floor height necessary (e.g. for the floors in the retail block with GIC uses with a height equal or higher than 19.35mPD) in future.

Items	Comments	Responses
		If the TPB and relevant department consider it appropriate, the Applicant has no objection to the imposition of an approval condition to submit an updated AQIA, which will incorporate any minor adjustment in the assumption for the update of the AQIA, to the satisfaction of EPD or TPB.

Enclosure:

Annex 1: Revised Traffic Impact Assessment
Annex 2: Contour Results of the Air Quality Impact Assessment (Part of Environmental Assessment)
Annex 3: Replacement Pages of Supporting Planning Statement

Complied by: KTA Planning Limited
Date: 28 June 2024
File Ref: 20240528_S3022a_FI1_V01_Part2

TABLE 1 RESPONSE TO COMMENTS ON JUNCTION CAPACITY ANALYSIS

Ref.	Junction	Approach	Phase	Comments from Transport Department	Responses (see NOTE below)
J2	Kai Cheung Road / Wang Kwong Road	Kai Cheung Road WB	C2 and C3	There should be flared lanes	The flare lane C2 is around 80m long and its average vehicle queue length is only around 60m, i.e. can contain one full cycle capacity of traffic. Hence, Condition (i) of NOTE applies and normal saturation flow is applicable for C2.
			C4 and C5	There should be flared lanes	According to the planned improvement scheme, Kai Cheung Road westbound will be widened to 4 traffic lanes. Hence, C4 and C5 are not flare lanes.
			D3	There should be 1 more right turn flare lane.	The flare lane for right turning movement has been included in D3.
		Please consider flare lanes effect and review critical y & RC.			Based on the above responses for J2, the critical y-values and Reserve Capacity remain unchanged.
J9	Sheung Yee Road / Wang Chiu Road	Wang Chiu Road SB	C1	This should be treated as flare lane.	The flare lane C1 is around 55m long and its average vehicle queue length is only around 52m, i.e. can contain one full cycle capacity of traffic. Hence, Condition (i) of NOTE applies and normal saturation flow is applicable for C1.
		Please consider flare lanes effect and review critical y & RC.			Based on the above responses for J9, the critical y-values and Reserve Capacity remain unchanged.

NOTE: Extract from Volume 4 Chapter 2 Paragraph 2.4.2.1 of Transport Planning and Design Manual (TPDM)

The saturation flow per lane (S) expressed in terms of passenger car units per hour (pcu/h), with no turning traffic may be given by

S = 1940+100(W – 3.25) for nearside lane or single lane entries

S = 2080+100(W – 3.25) for non-nearside lanes

where W is the lane width at entry in metres.

Condition (i): When the additional lane at the stopline is available for a distance back from the stopline at least sufficient to contain one full cycle capacity of traffic, the above methods of estimation of saturation flow apply.

Condition (ii): If the signal approach is only widened very close to the stopline, then the above formulae may be a considerable overestimate capacity. A more realistic approach capacity should be deduced from entry lanes before widening plus an allowance for extra vehicles stored every cycle in the additional lane provided near the intersection. In these circumstances, on site estimation of saturation flow will be necessary.

ANNEX 1

Proposed Residential, Social Welfare Facilities and Permitted Commercial and Trade Mart Redevelopment with Minor Relaxation of Building Height Restriction, New Kowloon Inland Lot No. 6032, 1 Trademart Drive, Kowloon Bay

Traffic Impact Assessment

Final Report
June 2024

Prepared by: CKM Asia Limited

Prepared for: International Trademart Company Limited

Proposed Residential, Social Welfare Facilities and Permitted Commercial and Trade Mart Redevelopment with Minor Relaxation of Building Height Restriction, New Kowloon Inland Lot No. 6032, 1 Trademart Drive, Kowloon Bay

CONTENTS

CHAPTER		PAGE
1.	INTRODUCTION Background Scope of the TIA Contents of the Report	1
2.	THE EXISTING SITUATION Site and Road Network Traffic and Pedestrian Surveys Manual Classified Counts Existing Junction and Link Operational Performance Level-of-Service of Pedestrian Facilities Traffic Generation of KITEC Public Transport Services and Surveys Shuttle Bus Service	2
3.	THE PROPOSED REDEVELOPMENT Comparison of Development Parameters Internal Transport Facilities Parking Provision for "Exhibition or Convention Hall" Internal Transport Layout Improvement to Pedestrian Connectivity and Accessibility Planned Cautionary Crossing at Trademart Drive Discontinuation of Free Shuttle Bus Service Swept Path Analysis	9
4.	TRAFFIC IMPACT Design Year Traffic and Pedestrian Growth Traffic Forecast Comparison of Traffic Generation Planned Developments 2028 and 2031 Junction and Link Capacity Analysis Pedestrian Generation 2028 and 2031 Level-of-Service Assessment Modal Split of Transport Demand Impact to Public Transport Services Enhancement of Feeder Services to / from MTR Stations	18

Proposed Residential, Social Welfare Facilities and Permitted Commercial and Trade Mart Redevelopment with Minor Relaxation of Building Height Restriction, New Kowloon Inland Lot No. 6032, 1 Trademart Drive, Kowloon Bay

CONTENTS(CONT'D)

5. SUMMARY 30

FIGURES
APPENDIX A – JUNCTION CAPACITY ANALYSIS
APPENDIX B – COMMENT FROM SWD ON TPB NO. A/K22/37
APPENDIX C – PLANNED CAUTIONARY CROSSING AT TRADEMART DRIVE (EXTRACT OF EMAIL FROM EKEO)
APPENDIX D – SWEPT PATH ANALYSIS
APPENDIX E – EXTRACTS OF DR 439 AND BDTM STUDY FINAL REPORT
APPENDIX F – DEVELOPMENT PARAMETERS OF KTD (EXTRACT FROM TPB PAPER NO. 10236 & 10860 AND MPC PAPER NO. 9/21

Proposed Residential, Social Welfare Facilities and Permitted Commercial and Trade Mart Redevelopment with Minor Relaxation of Building Height Restriction, New Kowloon Inland Lot No. 6032, 1 Trademart Drive, Kowloon Bay

TABLES

NUMBER

2.1 Vehicle classifications of traffic surveys
2.2 Existing junction operational performance
2.3 Existing link capacity assessment
2.4 Description of pedestrian walkway LOS
2.5 Existing level-of-service assessment
2.6 Observed traffic generation of KITEC
2.7 Public transport services operating close to the subject site
2.8 Public transport occupancy survey results
3.1 Comparison of development parameters
3.2 Details of residential flats
3.3 Provision of internal transport facilities for the proposed redevelopment
3.4 Details of "exhibition or convention hall" events
3.5 Average occupancy of KITEC car park
4.1 TPEDM data for Kwun Tong
4.2 Trip generation rates
4.3 Comparison of traffic generation
4.4 Details of major planned developments
4.5 Design year junction operational performance
4.6 Design year link capacity assessment
4.7 Details of surveyed developments
4.8 Pedestrian generation rates
4.9 Comparison of pedestrian generation
4.10 Design year level-of-service assessment
4.11 Modal split of public transport demand for Kwun Tong
4.12 Public transport demand of the proposed redevelopment
4.13 Analysis for feeder service to / from MTR stations
4.14 Indicative enhancement proposal to existing bus services

FIGURES

NUMBER

1.1 Location of the subject site
2.1 Surveyed junctions
2.2 (J1) Junction of Kai Cheung Road / Trademart Drive
2.3 (J2) Junction of Kai Cheung Road / Wang Kwong Road
2.4 (J3) Junction of Wang Kwong Road / Lam Hing Street
2.5 (J4) Junction of Wang Kwong Road / Wang Chin Street

FIGURES (CONT'D)

NUMBER

2.6 (J5) Junction of Kai Cheung Road / Wang Chiu Road
2.7 (J6) Junction of Wang Chiu Road / Lam Hing Street
2.8 (J7) Junction of Wang Chiu Road / Sheung Yuet Road
2.9 (J8) Junction of Wang Chiu Road / Lam Fung Street
2.10 (J9) Junction of Sheung Yee Road / Wang Chiu Road
2.11 (J10) Junction of Shing Kai Road / Kai Shing Street / Muk On Street
2.12 (J11) Junction of Wang Chiu Road / Kai Lai Road / Kai Lok Street
2.13 (J12) Junction of Wang Kwong Road / Kai Wah Street
2.14 Existing peak hour traffic flows
2.15 Existing peak 15-minute pedestrian flows
2.16 Details of the public transport services in the vicinity of the subject site
3.1 Ground floor plan
3.2 Basement first floor plan
3.3 Basement second floor plan
3.4 First floor plan
3.5 General layout of the proposed northern and southern footbridges
4.1 2028 peak hour traffic flows with KITEC
4.2 2028 peak hour traffic flows with approved redevelopment
4.3 2028 peak hour traffic flows with proposed redevelopment
4.4 2031 peak hour traffic flows with KITEC
4.5 2031 peak hour traffic flows with approved redevelopment
4.6 2031 peak hour traffic flows with proposed redevelopment
4.7 (J2) Planned improvement for junction of Kai Cheung Road / Wang Kwong Road
4.8 (J3) Planned improvement for junction of Wang Kwong Road / Lam Hing Street
4.9 (J5) Planned improvement for junction of Kai Cheung Road / Wang Chiu Road
4.10 (J6) Planned improvement for junction of Wang Chiu Road / Lam Hing Street
4.11 (J7) Planned improvement for junction of Wang Chiu Road / Sheung Yuet Road
4.12 (J8) Planned improvement for junction of Wang Chiu Road / Lam Fung Street
4.13 (J9) Planned improvement for junction of Sheung Yee Road / Wang Chiu Road
4.14 2028 peak 15-minute pedestrian flows with KITEC
4.15 2028 peak 15-minute pedestrian flows with approved redevelopment
4.16 2028 peak 15-minute pedestrian flows with proposed redevelopment
4.17 2031 peak 15-minute pedestrian flows with KITEC
4.18 2031 peak 15-minute pedestrian flows with approved redevelopment
4.19 2031 peak 15-minute pedestrian flows with proposed redevelopment

1.0 INTRODUCTION

Background

1.1 The subject site is located at New Kowloon Inland Lot No. 6032 at 1 Trademart Drive in Kowloon Bay. The existing building at the subject site is known as the Kowloon bay International Trade & Exhibition Centre (KITEC). The location of the subject site is shown in Figure 1.1.

1.2 ***On 17th March 2023, the Town Planning Board (TPB) approved the s16 planning application (TPB No. A/K22/34) for redevelopment of KITEC with total commercial GFA of 164,872m^2 (the "Approved Redevelopment"), including 132,437m^2 for "Office", 21,150m^2 for "Eating Place" and "Shop and Services", and 11,285m^2 for "Exhibition or Convention Hall".***

1.3 The Owner of KITEC (the "Applicant") has the intention to modify the Approved Redevelopment into a residential cum commercial development with 1,881 flats, 27,130m^2 for *"Office"*, 8,845m^2 for *"Eating Place"* and *"Shop and Services"*, 11,285m^2 for *"Exhibition or Convention Hall"* with supporting *"Social Welfare Facility"* and *"School (Kindergarten)"* (the "Proposed Redevelopment").

1.4 For avoidance of doubt, the Proposed Redevelopment does not provide *"Place of Entertainment"*.

1.5 The subject site is zoned *"Other Specified Uses (OU)"* annotated *"Trade Mart and Commercial Development"* under the Approved Kai Tak Outline Zoning Plan (OZP) No. S/K22/8. *"Office"*, *"Eating Place"*, *"Shop and Services"*, *"Exhibition or Convention Hall"* and *"School"* are under *"Column 1" uses of the OZP*, while *"Flat"* and *"Social Welfare Facility (not elsewhere specified)"* are under *"Column 2" uses.*

1.6 CKM Asia Limited, a traffic and transportation planning consultancy firm, was commissioned to carry out a Traffic Impact Assessment (TIA) in support of the Proposed Redevelopment. This report describes the TIA undertaken.

Scope of the TIA

1.7 The main objectives of this TIA are as follows:

- To assess the existing traffic issues in the vicinity of the subject site;
- To provide adequate internal transport facilities for the Proposed Redevelopment;
- To quantify the amount of traffic generated by the Proposed Redevelopment; and
- To examine the traffic impact of the Proposed Redevelopment on the local road network.

Contents of the Report

1.8 After this introduction, the remaining chapters contain the following:

chapter two	–	describes the existing situation;
chapter three	–	presents the Proposed Redevelopment;
chapter four	–	describes the traffic and pedestrian impact analysis; and
chapter five	–	presents the overall conclusion.

2.0 THE EXISTING SITUATION

Site and Road Network

2.1 The subject site fronts onto Trademart Drive to the east, Kai Fuk Road to the west and Kai Cheung Road to the north. The run-in / out of KITEC is located at Trademart Drive near its southern end.

2.2 The section of Trademart Drive and Wang Chin Street fronting KITEC are local roads. Lay-bys, taxi stand and motorcycle parking spaces are provided along these roads.

2.3 Kai Cheung Road is a dual carriageway 3-lane District Distributor, which connects with Kwun Tong Road to the east and Kai Fuk Road to the west. This road serves the Kowloon Bay Business Area.

2.4 Kai Fuk Road is a dual carriageway 3-lane Urban Trunk Road connecting Kai Tak Tunnel to the west and Kwun Tong Road to the east. It connects the central Kowloon and Kwun Tong. The section of Kai Fuk Road fronting KITEC is at grade and slip roads are provided connecting to / from Kwun Tong Bypass.

Traffic and Pedestrian Surveys

2.5 Traffic and pedestrian counts were conducted from 0700 – 1100 hours and 1600 – 2000 hours on Friday 24th March 2023. On the survey days, there were **no** *"Exhibition or Convention Hall"* and *"Place of Entertainment"* events in KITEC.

Manual Classified Counts

2.6 Manual classified counts were conducted at junctions as shown in Figure 2.1 in order to establish the peak hour traffic flows. The surveyed junctions include the following:

J1 – Kai Cheung Road / Trademart Drive
J2 – Kai Cheung Road / Wang Kwong Road
J3 – Wang Kwong Road / Lam Hing Street
J4 – Wang Kwong Road / Wang Chin Street
J5 – Kai Cheung Road / Wang Chiu Road
J6 – Wang Chiu Road / Lam Hing Street
J7 – Wang Chiu Road / Sheung Yuet Road
J8 – Wang Chiu Road / Lam Fung Street
J9 – Sheung Yee Road / Wang Chiu Road
J10 – Shing Kai Road / Muk On Street / Kai Shing Street
J11 – Wang Chiu Road / Kai Lai Road / Kai Lok Street
J12 – Wang Kwong Road / Kai Wah Street

2.7 The traffic counts were classified by vehicle type to enable traffic flows in passenger car units (pcu) to be calculated. The vehicle classifications are presented in Table 2.1, and the layout of the surveyed junctions is shown in Figures 2.2 – 2.13.

TABLE 2.1 VEHICLE CLASSIFICATIONS OF TRAFFIC SURVEYS

Ref.	Vehicle Class	Abbreviation
1	Motorcycle	MC
2	Private Car	PC
3	Taxi	TAXI
4	Light Goods Vehicle	LGV
5	Medium Goods Vehicle	MGV
6	Heavy Goods Vehicle	HGV
7	Public Light Bus	PLB
8	Private Light Bus	PrLB
9	Non-franchised Bus	NFB
10	Single Deck Franchised Bus	FBSD
11	Double Deck Franchised Bus	FBDD

2.8 The AM and the PM peak hour traffic flows were found to occur at 0800 – 0900 and 1700 – 1800 hours respectively, and the peak hour traffic flows are illustrated in Figure 2.14.

Existing Junction and Link Operational Performance

2.9 The existing operational performance of the surveyed junctions was calculated based on the analysis method found in Volumes 2 and 4 of Transport Planning and Design Manual ("TPDM"). The analysis results are summarised in Table 2.2 and detailed calculations are found in Appendix A.

TABLE 2.2 EXISTING JUNCTION OPERATIONAL PERFORMANCE

Ref.	Junction	Type of Junction	Performance Indicator	AM Peak	PM Peak
J1	Kai Cheung Road / Trademart Drive	Priority	RFC	0.141	0.297
J2	Kai Cheung Road / Wang Kwong Road	Signal	RC	25%	44%
J3	Wang Kwong Road / Lam Hing Street	Signal	RC	81%	76%
J4	Wang Kwong Road / Wang Chin Street	Priority	RFC	0.204	0.199
J5	Kai Cheung Road / Wang Chiu Road	Signal	RC	48%	46%
J6	Wang Chiu Road / Lam Hing Street	Signal	RC	57%	93%
J7	Wang Chiu Road / Sheung Yuet Road	Signal	RC	35%	52%
J8	Wang Chiu Road / Lam Fung Street	Signal	RC	> 100%	> 100%
J9	Sheung Yee Road / Wang Chiu Road	Signal	RC	32%	39%
J10	Shing Kai Road / Muk On Street / Kai Shing Street	Signal	RC	58%	94%
J11	Wang Chiu Road / Kai Lai Road / Kai Lok Street	Signal	RC	54%	77%
J12	Wang Kwong Road / Kai Wah Street	Signal	RC	43%	59%

Note: RC – Reserve Capacity RFC – Ratio-of-Flow to Capacity

2.10 The above results indicate that the surveyed junctions currently operate with capacities during the AM and PM peak hours.

2.11 The existing link capacity for the local road network is assessed, and the link capacity analysis results are shown in Table 2.3.

TABLE 2.3 EXISTING LINK CAPACITY ASSESSMENT

Road Section (1)	Bound	Capacity (veh/hr)	Traffic Flows (veh/hr)		Volume to Capacity Ratio	
			AM Peak	PM Peak	AM Peak	PM Peak
Kai Cheung Road	Eastbound	3,348 (2)	1,322	1,331	0.39	0.40
	Westbound	3,600	2,147	1,997	0.60	0.55
Wang Kwong Road	2-way	1,600	857	749	0.54	0.47
Wang Chiu Road	2-way	4,000	1,638	1,288	0.41	0.32
Sheung Yee Road	Eastbound	2,400	1,261	1,180	0.53	0.49
	Westbound	3,600	208	231	0.06	0.06
Trademart Drive	Northbound	1,023 (2)	278	500	0.27	0.49
	Southbound	3,348 (2)	306	419	0.09	0.13
Lam Hing Street	2-way	800	584	548	0.73	0.69
Sheung Yuet Road	Eastbound	2,200	195	181	0.09	0.08
	Westbound	2,200	222	391	0.10	0.18

Note: (1) highest traffic flow along the surveyed road sections
(2) with reduction factor of 7% for heavy vehicle percentage between 15 – 20%

2.12 Table 2.3 shows that the analysed road links currently operate with capacities during the AM and PM peak hours.

Level-of-Service of Pedestrian Facilities

2.13 To quantify the existing pedestrian flows, pedestrian counts were conducted during the weekday AM and PM peak periods at footpaths which are located in the vicinity of the subject site, and these include the following:

F1 – Western footpath of Trademart Drive
F2 – Eastern footpath of Trademart Drive
F3 – Northern footpath of Lam Hing Street
F4 – Southern footpath of Lam Hing Street
F5 – Western footpath of Wang Chin Street
F6 – Eastern footpath of Wang Chin Street

2.14 The level-of-service (LOS) of a pedestrian walkway is dependent on its width and number of pedestrians using the facility. Description of the LOS is obtained from Volume 6 of the TPDM, and is presented in Table 2.4.

TABLE 2.4 DESCRIPTION OF PEDESTRIAN WALKWAY LOS

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.

TABLE 2.4 DESCRIPTION OF PEDESTRIAN WALKWAY LOS (CONT'D)

LOS	Flow Rate (ped/min/m)	Description
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: Volume 6 Chapter 10 of the TPDM

2.15 The peak 15-minute pedestrian flows are illustrated in Figure 2.15, and the corresponding LOS assessment is presented in Table 2.5.

TABLE 2.5 EXISTING LEVEL-OF-SERVICE ASSESSMENT

Ref.	Footpath	Total Width	Effective Width [(1)]	Peak Period	2-way Peak Pedestrian Flows [(2)]		LOS
					Flow (ped/ 15-min)	Rate (ped/ min/m) [(3)]	
F1	Western footpath of Trademart Drive	4.0	3.0	AM	62	1.4	A
				PM	103	2.3	A
F2	Eastern footpath of Trademart Drive	4.6	3.6	AM	33	0.6	A
				PM	18	0.3	A
F3	Northern footpath of Lam Hing Street	2.8	1.8	AM	18	0.7	A
				PM	37	1.4	A
F4	Southern footpath of Lam Hing Street	4.5	3.5	AM	54	1.0	A
				PM	41	0.8	A
F5	Western footpath of Wang Chin Street	3.0	2.0	AM	35	1.2	A
				PM	20	0.7	A
F6	Eastern footpath of Wang Chin Street	3.3	2.3	AM	39	1.1	A
				PM	31	0.9	A

Note:
(1) effective width = total width – (0.5m × 2)
(2) highest pedestrian flows along the whole section of footpath
(3) pedestrian flow rate = pedestrian flow ÷ 15 minutes ÷ effective width

2.16 The above results indicate that the surveyed footpaths currently operate with LOS A during the AM and PM peak hours. As stated in the TPDM, *"LOS C is desirable for most design at streets with dominant 'living' pedestrian activities"*. Hence, LOS A is considered as an acceptable level of service.

Traffic Generation of KITEC

2.17 For reference, the observed peak traffic generation of KITEC is presented in Table 2.6. In view that some offices and shops have been vacant since mid-2021, the survey records in 2018 are used and are presented in Table 2.6.

TABLE 2.6 OBSERVED TRAFFIC GENERATION OF KITEC

Item	Unit	AM Peak		PM Peak	
		IN	OUT	IN	OUT
Traffic Generation [(1)]	pcu/hour	351	240	385	327

Note: [(1)] survey period from 0700 – 1100 and 1600 – 2000 hours on Thursday 15th March 2018. No *"Exhibition or Convention Hall"* and *"Place of Entertainment"* events were held on this day.

Public Transport Services and Surveys

2.18 Access to road-based and rail-based public transport services from the subject site is convenient. Numerous franchised bus and green minibus routes operate along Kai Fuk Road, Kai Cheung Road, Wang Kwong Road and Wang Chiu Road, which are within 500m or about 8 – 10 minutes' walk away.

2.19 Details of the road-based public transport services operating close to the subject site are presented in Table 2.7 and Figure 2.16.

TABLE 2.7 PUBLIC TRANSPORT SERVICES OPERATING CLOSE TO THE SUBJECT SITE

Route No.	Routing	Frequency (min)
KMB 5D	Telford Gardens – Hung Hom (circular)	13 – 30
KMB 5M	MTR Kowloon Bay Station (circular) – Kai Tak (Tak Long Estate)	15 – 30
KMB 11X	On Tai (North) – MTR Hung Hom Station	9 – 25
KMB 13X	Po Tat – Tsim Sha Tsui East	10 – 25
KMB 14X	Tsim Sha Tsui (circular) – Yau Tong (Shung Tak Wai)	15 – 30
KMB 15A	Ping Tin – Tsz Wan Shan (North)	20 – 30
KMB 15X	Lam Tin (Kwong Tin Estate) – MTR Hung Hom Station	20
KMB 23M	Lok Wah – Shun Lee (circular)	15 – 25
KMB 24	Kai Yip – Mong Kok (circular)	20 – 30
KMB 28	Lok Wah – Star Ferry	10 – 25
KMB 28B	Choi Fook – Kai Tak (Kai Ching Estate)	15 – 25
KMB 33	MTR Tsuen Wan West Station – Yau Tong	15 – 30
KMB 38P	Kwai Shing (Central) – Ping Tin	AM & PM peak
KMB 74A	Tai Wo – Kai Yip	60
KMB 74B	Kowloon Bay – Tai Po Central	6 – 15
KMB 80A	Mei Lam – Kwun Tong Ferry	AM peak
KMB 93P	Po Lam – Mong Kok (Park Avenue)	AM & PM peak
KMB 98D	Tsim Sha Tsui East – Hang Hau (North) (Tseung Kwan O Hospital)	8 – 30
KMB 98P	Tsim Sha Tsui East – Hang Hau (North) (Tseung Kwan O Hospital)	AM & PM peak
KMB 108	Kai Yip – Braemar Hill	10 – 30
KMB 213X	On Tai (South) (Hang Tai House) – Tsim Sha Tsui (circular)	12 – 30

TABLE 2.7 PUBLIC TRANSPORT SERVICES OPERATING CLOSE TO THE SUBJECT SITE (CONT'D)

Route No.	**Routing**	**Frequency (min)**
KMB 215X	MTR Kowloon Station – Lam Tin (Kwong Tin Estate)	5 – 20
KMB 219X	Tsim Sha Tsui (circular) – Laguna City	15 – 40
KMB 224X	Kai Yip – Tsim Sha Tsui East (circular)	25 – 30
KMB 234D	Tsing Lung Tau – Kwun Tong (Tsui Ping North Estate)	AM & PM peak
KMB 258X	Tuen Mun (Po Tin Estate) – Kwun Tong Ferry	AM & PM peak
KMB 259S	Tuen Mun (Lung Mun Oasis) – Kwun Tong Ferry	AM peak
KMB / CTB 107	Kowloon Bay – Wah Kwai	5 – 20
KMB / CTB 606	Siu Sai Wan (Island Resort) – Choi Wan (Fung Shing Street)	20 – 25
KMB / CTB 606A	Shau Kei Wan (Yiu Tung Estate) – Choi Wan (Fung Shing Street)	AM peak
KMB / CTB 606X	Kowloon Bay – Siu Sai Wan (Island Resort)	AM & PM peak
CTB 20	Kai Tak (Muk On Street) – Cheung Sha Wan (Hoi Tat)	12 – 30
CTB 20A	High Speed Rail West Kowloon Station – Kai Tak Cruise Terminal	25 – 30
CTB 22	Kai Tak Cruise Terminal – Kowloon Tong (Festival Walk)	20 – 35
CTB 22D	Kai Tak Station – Kai Tak Runway Area	AM & PM peak
CTB 22M	Kai Tak Cruise Terminal – To Kwa Wan	20 – 30
CTB 55	Tuen Mun (Chung Tin and Wo Tin) – Kwun Tong Ferry Pier)	AM & PM peak
CTB 78X	Queen's Hill Fanling – Kai Tak	15 – 60
CTB 608	Kowloon City (Shing Tak Street) – Shau Kei Wan	10 – 30
CTB 608P	Siu Sai Wan (Island Resort) – Kowloon City (Shing Tak Street)	AM peak
CTB 790	Tsim Sha Tsui (Mody Road) – Oscar By The Sea	AM & PM peak
CTB 793	Tseung Kwan O Industrial Estate – So Uk	15 – 20
CTB 795X	So Uk – Oscar by The Sea	20 – 30
CTB 796P	Tsim Sha Tsui (East) – LOHAS Park	20 – 30
CTB 797	San Po Kong - LOHAS Park	20 – 30
CTB A25	Kai Tak – Airport	30 – 60
CTB E22S	Tung Chung (Mun Tung Estate) – Tseung Kwan O (Po Lam)	AM & PM peak
CTB N20	Island Habourview – Kai Tak (Muk On Street)	overnight
CTB N796	LOHAS Park – Mong Kok	overnight
GMB 46	Richland Gardens – Island Harbourview	3 – 15
GMB 48	Shun Lee Estate – Kowloon Bay (Enterprise Square)	4 – 8
GMB 56	Richland Gardens – Kwun Tong (Shung Yan Street)	10 – 20
GMB 62S	Lam Tin Estate – Tsim Sha Tsui (Haiphong Road)	overnight
GMB 68	Choi Wan Estate – Kowloon Bay (Enterprise Square)	8 – 12
GMB 69	Laguna City – Kowloon Bay (Lion Rock Road)	20 – 30
GMB 87	Lei Yue Mun Estate – Richland Gardens (circular)	15 – 20
GMB 89B	On Tai Estate – Kowloon Bay (MegaBox)	12 – 20
GMB 106	Tseung Kwan O (Po Lam) – Kowloon Bay (Enterprise Square)	7 – 25
GMB 110	Tiu Keng Leng Station – Kowloon City (circular)	15 – 30
GMB 110A	Tiu Keng Leng Station – Kowloon Bay	10 – 30
GMB 111	Tseung Kwan O (Po Lam) – San Po Kong (Hong Keung Street)	8 – 30

Note: KMB – Kowloon Motor Bus CTB – Citybus
GMB – Green Minibus

2.20 The occupancy of franchised bus and GMB services operating along Kai Fuk Road and Kai Cheung Road was surveyed, and the survey results are summarised in Table 2.8.

TABLE 2.8 PUBLIC TRANSPORT OCCUPANCY SURVEY RESULTS

Peak Hour	**Road**	**Bound**	**Name of Bus Stop**	**Level of Public Transport Services (Approx.) (persons/hr)**		
				Carrying Capacity [1] [a]	**No. of Passenger on board [b]**	**Surplus Capacity [a] – [b]**
AM	Kai Fuk Road	NB	KITEC	6,800	3,541	3,259
		SB	KITEC	3,616	1,515	2,101
	Kai Cheung Road	EB	Kai Shing Street	1,440	585	855
		WB	Wang Chin Street	3,528	1,397	2,131
	Total			**15,384**	**7,038**	**8,346**
PM	Kai Fuk Road	NB	KITEC	3,768	1,276	2,492
		SB	KITEC	3,872	1,782	2,090
	Kai Cheung Road	EB	Kai Shing Street	1,080	630	450
		WB	Wang Chin Street	1,715	439	1,276
	Total			**10,435**	**4,127**	**6,308**

Note: EB – eastbound WB – westbound
NB – northbound SB – southbound
[1] The assumed carrying capacity of a single-deck bus and double-deck bus is 60 and 120 passengers respectively. The capacity of GMB is identified from survey.

2.21 Table 2.8 shows that the existing franchised bus and GMB services have surplus capacity of over 8,000 and 6,000 passengers during the AM and PM peak hours respectively.

Shuttle Bus Service

2.22 At present, free shuttle bus service is provided between KITEC and Telford Plaza, near MTR Kowloon Bay Station. The existing shuttle bus pick-up / drop-off point is located at the northern end of lay-by at Trademart Drive outside KITEC. The operating hours are from 0645 – 2359 hours daily with headway of around 5 – 15 minutes.

3.0 THE PROPOSED REDEVELOPMENT

Comparison of Development Parameters

3.1 A comparison of development parameters for (i) Approved Redevelopment and (ii) Proposed Redevelopment is presented in Table 3.1.

TABLE 3.1 COMPARISON OF DEVELOPMENT PARAMETERS

Item		**Development Parameters**			
		KITEC (1)	**Approved Redevelopment [A] (2)**	**Proposed Redevelopment [B]**	**Difference between [A] and [B]**
Site Area		22,280m^2	22,280m^2	22,280m^2	No change
Plot Ratio		7.4	7.4	6.144 (3)	– 1.256 (– 17%)
Domestic GFA		0	0	85,867m^2	+ 85,867m^2
No. of Flat		0	0	1,881 (4)	+ 1,881 flats
Non-domestic GFA	**Office**	63,934m^2	132,437m^2	27,130m^2	– 105,307m^2 (– 80%)
	Eating Place and Shop and Services	80,268m^2	21,150m^2	8,845m^2	– 12,305m^2 (– 58%)
	Exhibition or Convention Hall	11,312m^2	11,285m^2	11,285m^2	No change
	Place of Entertainment	9,325m^2	0	0	No change
	Social Welfare Facility	0	0	around 2,090m^2 (5)	+ 2,090m^2
	School (Kindergarten)	0	0	557m^2 (6 classrooms)	+ 557m^2
	Total	164,839m^2	164,872m^2	49,907m^2 (6)	– 114,965m^2 (– 70%)
Transport Facilities	**Car Parking Space**	763 (7)	548 – 604	803	
	Motorcycle Parking Space	0	56 – 60	52	
	Loading / Unloading Bay	33	103 – 113	48	
	Taxi / Private Car Lay-by	9	7	4	
	Tour Bus Lay-by	0	0	2	
	Private Light Bus Parking Space	0	0	3	

Note:
(1) based on 2018 A&A works
(2) extract from TPB No. A/K22/34 approved on 17th March 2023
(3) include domestic plot ratio of 3.854 and non-domestic plot ratio of 2.29
(4) average flat size = around 50m^2
(5) include a Day Care Centre for the Elderly, a Residential Care Home for the Elderly and an Office Base of Social Work Service for Pre-primary Institutions (SWSPPI)
(6) exclude non-domestic GFA of 1,114m^2 for the Northern Footbridge Extension and Southern Footbridge, and GFA for the social welfare facilities to be exempted
(7) According to the existing Lease, the 763 car parking spaces in KITEC are ancillary and belong *"to the owners or occupiers of the building or buildings … and their bona fide guests, visitors or invitees …"*

3.2 Table 3.1 shows that compared with the Approved Redevelopment, there is an increase of 1,881 flats for the Proposed Redevelopment, but the **GFA for *"Office"* and *"Eating Place and Shop and Services"* is reduced by around 80% and 58% respectively**. There is no change to the GFA for *"Exhibition or Convention Hall"*.

3.3 It should be noted that *"Place of Entertainment"* will **not** be provided within the Proposed Redevelopment.

Internal Transport Facilities

3.4 The residential flats are grouped into unit size categories and details are found in Table 3.2.

TABLE 3.2 DETAILS OF RESIDENTIAL FLATS

Size of Residential Flat (GFA)	No. of Flat
≤ 40m^2	627
40 – 70m^2	1,254
Total No. of Flat	**1,881**

3.5 Subsequent to the approval of this s16 planning application, application will be made to modify the lease, and the internal transport facilities for the Proposed Redevelopment will be provided based on the recommendations of the Hong Kong Planning Standards and Guidelines (HKPSG). *"Eating Place"*, *"Shop and Services"* and *"Exhibition or Convention Hall"* are regarded as similar and are categorised as *"Retail"*. The calculation on the provision of internal transport facilities is found in Table 3.3.

TABLE 3.3 PROVISION OF INTERNAL TRANSPORT FACILITIES FOR THE PROPOSED REDEVELOPMENT

Type	Use	HKPSG Recommendations	Proposed Provision
Car Parking Space	**Flat (for Residents)**	Recommendation = GPS × R1 × R2 × R3 GPS = 1 car space per 4 – 7 flats R1 = 0.5 for flat size ≤ 40m^2 (723 flats) = 1.2 for flat size 40 – 70m^2 (1,131 flats) R2 = 1 for development outside 500m of rail station R3 = 1 for domestic plot ratio 2 – 5 Min = (627 × 0.5 + 1254 × 1.2) ÷ 7 × 1 × 1 = 260 nos. Max = (627 × 0.5 + 1254 × 1.2) ÷ 4 × 1 × 1 = 455 nos.	455 nos.
	Flat (for Visitor)	5 visitor car parking spaces for developments with more than 75 units per block Max = 5 × 6 = 30 nos.	30 nos.

TABLE 3.3 PROVISION OF INTERNAL TRANSPORT FACILITIES FOR THE PROPOSED REDEVELOPMENT (CONT'D)

Type	Use	HKPSG Recommendations	Proposed Provision
Car Parking Space	**Office**	1 space per 150 – 200m^2 GFA Min = 27130 ÷ 200 = 136 nos. Max = 27130 ÷ 150 = 181 nos.	181 nos.
	Eating Place and Shop and Services	1 space per 150 – 300m^2 GFA Min = 8845 ÷ 300 = 30 nos. Max = 8845 ÷ 150 = 59 nos.	59 nos.
	Exhibition or Convention Hall	1 space per 150 – 300m^2 GFA Min = 11285 ÷ 300 = 38 nos. Max = 11285 ÷ 150 = 76 nos.	76 nos.
	School (Kindergarten)	0 – 1 car parking space for every 4 – 6 classrooms Min = 6 ÷ 6 × 0 = 0 no. Max = 6 ÷ 4 × 1 = 2 nos.	2 nos.
	Total	**Min = 260 + 30 + 136 + 30 + 38 = 494 nos.** **Max = 455 + 30 + 181 + 59 + 76 + 2 = 803 nos.**	**803 nos.(1)**
Motorcycle Parking Space	**Flat**	1 space per 100 – 150 flats Min = 1881 ÷ 150 = 13 nos. Max = 1881 ÷ 100 = 19 nos.	19 nos.
	Office	5 – 10% of total provision of car parking space Min = 181 × 5% = 10 nos. Max = 181 × 10% = 19 nos.	19 nos.
	Eating Place and Shop and Services	5 – 10% of total provision of car parking space Min = 59 × 5% = 3 nos. Max = 59 × 10% = 6 nos.	6 nos.
	Exhibition or Convention Hall	5 – 10% of total provision of car parking space Min = 76 × 5% = 4 nos. Max = 76 × 10% = 8 nos.	8 nos.
	Total	**Min = 13 + 10 + 3 + 4 = 30 nos.** **Max = 19 + 19 + 6 + 8 = 52 nos.**	**52 nos.**
Goods Vehicle Loading / Unloading Bay	**Flat**	Minimum 1 bay for every 800 flats or part thereof, subject to minimum 1 bay for each housing block	6 nos. (6 HGV)
	Office	1 space per 2,000 – 3,000m^2 of GFA Min = 27130 ÷ 3000 = 10 nos. Max = 27130 ÷ 2000 = 14 nos.	14 nos. (3) (5 HGV + 9 LGV)
	Eating Place and Shop and Services	1 space per 800 – 1,200m^2 of GFA Min = 8845 ÷ 1200 = 8 nos. Max = 8845 ÷ 800 = 12 nos.	12 nos. (3) (5 HGV + 7 LGV)
	Exhibition or Convention Hall	1 space per 800 – 1,200m^2 of GFA Min = 11285 ÷ 1200 = 10 nos. Max = 11285 ÷ 800 = 15 nos.	15 nos. (3) (6 HGV + 9 LGV)
	Total	**Min = 6 + 10 + 8 + 10 = 34 nos.** **Max = 6 + 14 + 12 + 15 = 47 nos.**	**47 nos.** **(22 HGV + 25 LGV)**

TABLE 3.3 PROVISION OF INTERNAL TRANSPORT FACILITIES FOR THE PROPOSED REDEVELOPMENT (CONT'D)

Type	Use	HKPSG Recommendations	Proposed Provision
Taxi / Private Car Lay-by	**Office**	1 lay-by for every 20,000m^2 of GFA Max = 27130 ÷ 20000 = 2 nos.	2 nos.
	School (Kindergarten)	1 lay-by for every 5 – 8 classrooms Min = 6 ÷ 8 = 1 no. Max = 6 ÷ 5 = 2 nos.	2 nos.
	Total	**Min = 2 + 1 = 3 nos.** **Max = 2 + 2 = 4 nos.**	**4 nos.**
Others(2)	**School (Kindergarten)**	Minimum 2 lay-bys for school bus [Dimensions: 12m(L) × 3.5m(W) × 3.8m(H)]	**2 nos.**
	Social Welfare Facility	1 shared-use loading / unloading bay for ambulance / goods vehicle / private light bus [Dimensions: 11m(L) × 3.5m(W) × 4.7m(H)]	**1 HGV**
		3 private light bus parking spaces, including: • 2 spaces for Day Care Centre for the Elderly • 1 space for Residential Care Home for Elderly [Dimensions: 8m(L) × 3m(W) × 3.3m(H)]	**3 PrLB**

Note: (1) According to Chapter 8 of HKPSG, 6 car parking spaces for persons with disabilities shall be provided for number of car parking spaces over 450
(2) based on the operational requirements of Social Welfare Department (SWD)
(3) Goods vehicle provision is divided into 65% LGV and 35% HGV for *"Office"*, *"Eating Place and Shop and Services"* and *"Exhibition or Convention Hall"*

3.6 Table 3.3 shows that the internal transport facilities provided for the Proposed Redevelopment **comply with the maximum recommendations of the HKPSG**.

3.7 The internal transport facilities for social welfare facilities are provided to meet the operational requirements of SWD. As shown in Appendix B, SWD have *"no objection in principle from service perspective for the applicant's proposed development of 60-place RCHE and 30-place DE on conditions that the RCHE and DE including the associated parking spaces and loading and unloading bay are running on privately-financing mode …"*.

Parking Provision for *"Exhibition or Convention Hall"*

3.8 To understand the occupancy of the existing KITEC car park, occupancy data were obtained for large-scale events held in 2023 in KITEC for the uses categorised under *"Exhibition or Convention Hall"* but without events within the uses categorised under *"Place of Entertainment"*. Details of these events are presented in Table 3.4.

TABLE 3.4 DETAILS OF *"EXHIBITION OR CONVENTION HALL"* EVENTS

Date	**Large-scale Event**	**Time (hours)**	**Type of Event**	**No. of Participants (Approx.)**
Weekday				
19/09/2023 (Tuesday)	23rd SISTERS BeautyPro Trade Fair 第 23 屆姊妹專業美容展	1000 – 1759	Expo	5,000
20/09/2023 (Wednesday)	23rd SISTERS BeautyPro Trade Fair 第 23 屆姊妹專業美容展	1000 – 1759	Expo	5,000
21/09/2023 (Thursday)	23rd SISTERS BeautyPro Trade Fair 第 23 屆姊妹專業美容展	1000 – 1759	Expo	5,000
	Seminar	Day-time	Seminar	1,000
27/10/2023 (Friday)	HK Taiwan Higher Education Exhibition 2023 年香港臺灣高等教育展	1100 – 1859	Expo	2,000
	Meeting and Seminar	Day-time	Seminar	3,000
02/11/2023 (Thursday)	NotTooBig Mega Baby Expo NotTooBig 優質母嬰用品展	1200 – 1959	Expo	5,000
Weekend				
22/04/2023 (Saturday)	41st HK Wedding Showcase 2023 第 41 屆婚展會	1200 – 1959	Expo	20,000
23/04/2023 (Sunday)	41st HK Wedding Showcase 2023 第 41 屆婚展會	1200 – 1959	Expo	30,000
24/06/2023 (Saturday)	HK Illustration and Creative Show 5 香港插畫及文創展 5	1200 – 1959	Expo	5,000
23/09/2023 (Saturday)	42nd HK Wedding Showcase 2023 第 42 屆婚展會	1200 – 1959	Expo	20,000
24/09/2023 (Sunday)	42nd HK Wedding Showcase 2023 第 42 屆婚展會	1200 – 1959	Expo	20,000
25/11/2023 (Saturday)	HK Illustration and Creative Show 7 香港插畫及文創展 7	1200 – 1959	Expo	5,000

3.9 To ascertain the parking demand associated to the *"Exhibition or Convention Hall"* events, the average weekday and weekend car park occupancies for the event dates in Table 3.4 are compared to days without any event in KITEC. The comparison is found in Table 3.5.

TABLE 3.5 AVERAGE OCCUPANCY OF KITEC CAR PARK

Time Period (hours)	**Average KITEC Car Park Occupancy**				**Parking Demand Associated to *"Exhibition or Convention Hall"* [a] – [b]**
	On the day with *"Exhibition or Convention Hall"* Event (1)		**On the day without any Event (2)**		
	Vehicle [a]	**Percentage (3)**	**Vehicle [b]**	**Percentage (3)**	
Weekday					
0800 – 0900	208	27%	204	27%	4
0900 – 1000	312	41%	272	36%	40
1000 – 1100	359	47%	314	41%	45
1100 – 1200	394	52%	340	45%	54
1200 – 1300	401	53%	345	45%	56
1300 – 1400	416	55%	351	46%	65
1400 – 1500	423	55%	370	48%	53
1500 – 1600	416	55%	367	48%	49
1600 – 1700	409	54%	367	48%	42
1700 – 1800	352	46%	312	41%	40
1800 – 1900	271	36%	233	31%	38
1900 – 2000	229	30%	176	23%	53
2000 – 2100	203	27%	157	21%	46
2100 – 2200	164	21%	146	19%	18
Maximum					**65**
Weekend					
0800 – 0900	144	19%	135	18%	9
0900 – 1000	179	23%	174	23%	5
1000 – 1100	213	28%	210	28%	3
1100 – 1200	259	34%	247	32%	12
1200 – 1300	333	44%	314	41%	19
1300 – 1400	391	51%	368	48%	23
1400 – 1500	448	59%	382	50%	66
1500 – 1600	474	62%	406	53%	68
1600 – 1700	468	61%	402	53%	66
1700 – 1800	415	54%	363	48%	52
1800 – 1900	346	45%	317	42%	29
1900 – 2000	263	34%	240	31%	23
2000 – 2100	201	26%	193	25%	8
2100 – 2200	173	23%	165	22%	8
Maximum					**68**

Note: (1) refer to Table 3.4 for survey dates with *"Exhibition or Convention Hall"* event
(2) survey dates without any event as follows:
weekday – 19/06/2023 (Monday), 06/07/2023 (Thursday) and 24/10/2023 (Tuesday)
weekend – 15/04/2023 (Saturday), 18/06/2023 (Saturday) and 02/07/2023 (Sunday)
(3) capacity of KITEC car park = 763 car parking spaces

3.10 Table 3.5 shows the maximum weekday and weekend parking demand associated to the *"Exhibition or Convention Hall"* events is **65 and 68 car parking spaces** respectively.

3.11 The provision of 76 car parking spaces for *"Exhibition or Convention Hall"* in the Proposed Redevelopment is considered **adequate** due to the following reasons:

- The GFA of *"Exhibition or Convention Hall"* in the Proposed Redevelopment, i.e. 11,285m^2, is similar compared to that in the existing KITEC, i.e. 11,312m^2. Based on the car park occupancy study, the provision of 76 car parking spaces for *"Exhibition or Convention Hall"* is **sufficient to accommodate the maximum weekday and weekend parking demand** of 65 and 68 car parking spaces.

- According to the existing Lease, car parking space for *"Exhibition or Convention Hall"* shall be provided *"at the rate of one space for every 300 square metres or part thereof of gross floor area … for non-industrial purpose"*, and this rate was also adopted for the Approved Redevelopment. For the Proposed Redevelopment, 1 car parking space is provided per 150m^2 of *"Exhibition or Convention Hall"* GFA, which **double the provision compared with the existing Lease.**

- Similar to the existing KITEC which has mixed uses, some visitors attending the events are expected to also dine or shop within the Proposed Redevelopment. Hence, the ancillary car parking spaces for *"Eating Place and Shop and Services"* could serve those visitors.

Internal Transport Layout

3.12 The run-in / out of the Proposed Redevelopment is provided at Trademart Drive near the southern site boundary, and is **close to the existing run-in / out for KITEC**. The proposed run-in / out and layout plans with the internal transport facilities, i.e. ground, 1st, basement 1st and 2nd, are presented in Figures 3.1 – 3.4.

3.13 According to Volume 2 of TPDM, *"the width of run-ins should be kept to the minimum compatible with satisfactory operation of vehicles using the run-in. The minimum width should be such that a vehicle can enter the run in from the near side lane without encroachment onto an adjacent lane"*. As shown in Figures SP/GF/101 – 102, the 8m run-in / out is required so that the 11m HGV and 12m tour bus could enter / leave the Proposed Redevelopment **without encroaching into the road kerb / adjacent traffic lane.**

3.14 At present, KITEC has a basement goods vehicle loading / unloading area and a 4-storey basement car park. In view that internal pick-up / drop-off area is not available in the existing KITEC, the pick-up / drop-off activities, including car, taxi and coach / shuttle bus are conducted at Trademart Drive.

3.15 To minimise the pick-up / drop-off activities along Trademart Drive, internal pick-up / drop-off area is provided for the Proposed Redevelopment which is on G/F as shown in Figure 3.2.

3.16 To minimise the likelihood of vehicle tailback when entering the basement car park, the car park entry gates will be positioned as far away as possible from the run-in / out. Detailed design of internal transport layout including the internal pick-up / drop-off area will be submitted in the GBP stage.

Improvement to Pedestrian Connectivity and Accessibility

3.17 The Kai Tak OZP shows that the existing footbridge across Kai Fuk Road (the existing "Kai Fuk Road footbridge") will connect to the future commercial sites located at the South Apron Area and to the future waterfront promenade via an elevated walkway. To enhance the connectivity and accessibility between Kowloon Bay Business Area and the Kai Tak Development (KTD), the Owner of KITEC has proposed to construct two footbridges, namely the Northern Footbridge Extension and Southern Footbridge.

3.18 The Applicant will provide internal walkway(s) to link up the Northern Footbridge Extension (via the Kai Cheung Road footbridge) and the Southern Footbridge with the footpaths at Trademart Drive and / or Kai Cheung Road in accordance to the Lease. The provision of the Northern Footbridge Extension and Southern Footbridge, will form part of the comprehensive elevated pedestrian network for the purpose to enhance the connectivity and accessibility between South Apron Area of KTD, MTR Kai Tak Station and the Kowloon Bay Business Area. Public can access the Northern Footbridge Extension and Southern Footbridge free of charge.

3.19 The general layout of the Northern Footbridge Extension and Southern Footbridge is shown in Figure 3.5, and details are described below:

(I) Northern Footbridge Extension

3.20 The Proposed Northern Footbridge is an **extension of the existing Kai Cheung Road footbridge**, which currently link KITEC and Electrical and Mechanical Services Department (EMSD) Headquarters. From the Kai Cheung Road footbridge, the Northern Footbridge Extension runs along the western side of EMSD Headquarters, and across Shing Kai Road and terminates at the Kai Tak River Bank, some 500m from MTR Kai Tak Station.

3.21 Barrier-free facility will be provided at the Kai Tak River Bank end of the Proposed Northern Footbridge. Within the Proposed Redevelopment, barrier-free and 24-hour access will be provided connecting the Kai Cheung Road footbridge to the street level.

(II) Southern Footbridge

3.22 The eastern landing of Kai Fuk Road footbridge is located adjacent to KITEC, and the western landing will connect to the future commercial sites located at the South Apron Area and to the future waterfront promenade.

3.23 The Southern Footbridge will conveniently and directly connect the Proposed Redevelopment with the Kai Fuk Road footbridge. Within the Proposed Redevelopment, barrier-free and 24-hour access will be provided connecting the Proposed Southern Footbridge to the street level.

3.24 Detailed design of these two footbridges is on-going and will be dealt with under separate application procedures. After the s16 planning application has been approved, and during the detailed design stage, the design of the internal pedestrian routings between the footbridges and street level will be carried out.

Planned Cautionary Crossing at Trademart Drive

3.25 The Applicant is willing to implement the planned cautionary crossing, as per the design drawing from Energizing Kowloon East Office (EKEO) found in Appendix C, at Trademart Drive as part of the KITEC redevelopment project.

3.26 However, it should be noted that the redevelopment project is subject to the approval of this s16 planning application and subsequently, the submission of design drawings for approval by relevant government departments. Hence, at this stage, the Developer is unable to provide the construction programme for the planned cautionary crossing.

Discontinuation of Free Shuttle Bus Service

3.27 Upon redevelopment of KITEC, the free shuttle bus service will be discontinued.

Swept Path Analysis

3.28 The CAD-based swept path analysis programme, *Autodesk Vehicle Tracking*, was used to check the ease of manoeuvring of vehicles, and are found to have no problems. The swept path analysis drawings are found in the Appendix D.

4.0 TRAFFIC IMPACT

Design Year

4.1 The Proposed Redevelopment is expected to be completed in 2028, thus, the design years adopted for the capacity analysis are 2028 and 2031.

Traffic and Pedestrian Growth

4.2 In order to produce the traffic forecast for year 2031, reference is made to the population and employment data found in the latest *"Territorial Population and Employment Data Matrix"* ("TPEDM") published by Planning Department and is presented in Table 4.1.

TABLE 4.1 TPEDM DATA FOR KWUN TONG

Year	Population	Employment	Total
2019	693,900	395,350	**1,089,250**
2031	741,300	408,250	**1,149,550**
Annual Growth Rate			**0.45%**

4.3 Table 4.1 shows that the annual growth rate for population and employment is 0.45% from 2019 – 2031. To err on the high side, the traffic and pedestrian growth rate of 0.5% per annum is adopted to produce the traffic forecast for year 2031.

Traffic Forecast

4.4 The BDTM from *"Quotation No. TD 311/2019 – Base District Traffic Models for the Urban Area – 2020 Update"* (the *"BDTM Study"*) obtained from Transport Department (TD) was adopted to produce the traffic forecast. The Proposed Redevelopment is located within the K2 Base District Traffic Model (BDTM), and the BDTM traffic forecast for year 2031 is used.

4.5 To produce the traffic forecast for the design years, traffic flows are estimated with reference to the following:

i. 2031 peak hour traffic models from the BDTM;
ii. planned developments located in the vicinity; and
iii. traffic generation of the Proposed Redevelopment.

Comparison of Traffic Generation

4.6 To estimate traffic generation of KITEC, Approved Development and Proposed Redevelopment, trip generation rates found in Volume 1 of the TPDM are adopted. *"Eating Place"*, *"Shop and Services"*, *"Exhibition or Convention Hall"* and *"Place of Entertainment"* are regarded similar as *"Retail"*, hence, the trip generation rates for *"Retail"* are adopted for these uses. The TPDM has no trip generation rates for social welfare facilities and kindergarten, therefore, reference is made to *"Community Facilities"* and *"Kindergarten (Private)"* found in the Data Record (DR) No. 439, and the BDTM Study Final Report respectively, both which are published by TD. The extracts of DR 439 and the BDTM Study Final Report are attached in Appendix E.

4.7 As mentioned in Table 2.7 and Figure 2.16, the subject site is served by no less than five bus and minibus routes located within 500m walk away. Based on Volume 1 of TPDM, the subject site has Accessibility Level A.

4.8 The adopted trip generation rates are presented in Table 4.2, and the calculated traffic generation in Table 4.3.

TABLE 4.2 TRIP GENERATION RATES

Use	**Unit**	**Trip Generation Rates**			
		AM Peak		**PM Peak**	
		IN	**OUT**	**IN**	**OUT**
Residential (average flat size 60m^2) (1) (2)	pcu/hour/flat	0.0425	0.0718	0.0370	0.0286
Office (2)	pcu/hour/100m^2	0.2452	0.1703	0.1175	0.1573
Eating Place / Shop and Services / Exhibition or Convention Hall (2)	pcu/hour/100m^2	0.2434	0.2296	0.3563	0.3100
Social Welfare Facility (3)	pcu/hour/100m^2	0.2350	0.2350	0.1150	0.1150
School (Kindergarten) (4)	pcu/hour/class	6.9375	6.9375	5.4375	5.4375

Note: (1) Accessibility Level = A, i.e. well served by public transport systems with railway station / light rail transit station / bus terminus or with no less than five bus / mini-bus routes, within 500m of the development site
(2) extract from Volume 1 of TPDM
(3) extract from DR 439
(4) extract from Final Report of the BDTM Study

TABLE 4.3 COMPARISON OF TRAFFIC GENERATION

Use	**Quantity**	**Traffic Generation (pcu/hr)**					
		AM Peak			**PM Peak**		
		IN	**OUT**	**2-way**	**IN**	**OUT**	**2-way**
KITEC (1)							
Office	63,934m^2	157	109	266	76	101	177
Eating Place / Shop and Services	80,268m^2	196	185	381	286	249	535
Exhibition or Convention Hall	11,312m^2	28	26	54	41	36	77
Place of Entertainment	9,325m^2	23	22	45	34	29	63
Total [a]		**404**	**342**	**746**	**437**	**415**	**852**
Approved Redevelopment (2)							
Office	132,437m^2	325	226	551	156	209	365
Eating Place / Shop and Services	21,150m^2	52	49	101	76	66	142
Exhibition or Convention Hall	11,285m^2	28	26	54	41	35	76
Total [b]		**405**	**301**	**706**	**273**	**310**	**583**
Proposed Redevelopment							
Flat	1,881 flats	80	136	216	70	54	124
Office	27,130m^2	67	47	114	32	43	75
Eating Place / Shop and Services	8,846m^2	22	21	43	32	28	60
Exhibition or Convention Hall	11,285m^2	28	26	54	41	35	76
Social Welfare Facility	2,090m^2	5	5	10	3	3	6
School (Kindergarten)	6 classes	42	42	84	33	33	66
Total [c]		**244**	**277**	**521**	**211**	**196**	**407**
Difference [c] – [b]		**– 161** **(– 40%)**	**– 24** **(– 8%)**	**– 185** **(– 26%)**	**– 62** **(– 23%)**	**– 114** **(– 37%)**	**– 176** **(– 30%)**
Difference [c] – [a]		**– 160** **(– 40%)**	**– 65** **(– 19%)**	**– 225** **(– 30%)**	**– 226** **(– 52%)**	**– 219** **(– 53%)**	**– 445** **(– 52%)**

Note: (1) based on 2018 A&A works
(2) extract from TPB No. A/K22/34 approved on 17th March 2023

4.9 Table 4.3 shows that the Proposed Redevelopment is expected to generate **185 and 176 pcu (2-way) less than** the Approved Redevelopment during the AM and PM peak hours, or equivalent to **26% and 30% less traffic**.

4.10 Compared with the existing KITEC, the Proposed Redevelopment is expected to generate **less traffic**, i.e. 225 and 445 pcu/hour (2-way), or equivalent to reduction of **30% and 52% traffic** during the AM and PM peak hours.

4.11 From traffic engineering point of view, **the Proposed Redevelopment is a better-off scheme** compared to both the Approved Redevelopment and existing KITEC.

Planned Developments

4.12 According to the *"BDTM Study"*, KTD and the strategic road network, e.g. Central Kowloon Route and Trunk Road T2, have been included in the 2031 BDTM.

4.13 Reference is made to the Town Planning Board (TPB) Paper No. 10236 *"Further Consideration of Review Study of Kai Tak Development and Proposed Amendments to the Approved Kai Tak Outline Zoning Plan No. S/K22/4"* published in 2017, MPC Paper No. 9/21: *"Proposed Amendments to the Approved Kai Tak Outline Zoning Plan No. S/K22/6"* published in 2021 and TPB Paper No. 10860 *"... on Proposed Amendments to the Draft Kai Tak Outline Zoning Plan No. S/K22/7 ..."* published in 2022. It is noted that the development intensity in KTD has changed and details are found in Appendix F. To reflect the change in traffic generation, the BDTM is updated accordingly.

4.14 Apart from the KTD, the development parameters of other major planned developments found in the vicinity of the subject site are also summarised in Table 4.4.

TABLE 4.4 DETAILS OF MAJOR PLANNED DEVELOPMENTS

Ref.	**Location**	**Use**	**Development Parameters (Approx.)**	**Planned Completion Year**
A	Public Housing Development at Wang Chiu Road	Public Housing	around 4,070 flats and around 1,850m^2 GFA retail with community facilities	2025
B	20 Kai Cheung Road	Commercial	office GFA of around 131,421m^2 and retail GFA of around 5,840m^2	2025
C	NKIL 5890 at 13 Sheung Yuet Road	Office	office GFA of around 24,423m^2	2023 (1)
D	Development at Kowloon Bay Action Area	Commercial	total GFA of around 500,000m^2	from 2028
E	Public Housing Development at Yip On Factory Estate	Public Housing	around 2,200 flats with associated welfare facilities	2029/30
F	7 Wang Tai Road	Office	office GFA of around 38,500m^2	2026
G	New Acute Hospital at Kai Tak Development Area	Hospital	around 2,400 beds	2026

TABLE 4.4 DETAILS OF MAJOR PLANNED DEVELOPMENTS (CONT'D)

Ref.	**Location**	**Use**	**Development Parameters (Approx.)**	**Planned Completion Year**
H	1 – 5 Kai Hing Road	Residential	around 1,782 flats and retail GFA of around 600m^2	2025
I	7 Kai Hing Road	Office	office GFA of around 43,440m^2 and retail GFA of around 5,500m^2	2026
J	14 Wang Tai Road	Office	office GFA of around 20,334m^2	2024

Note: (1) redevelopment is yet to complete and construction works were not observed on-site. To err on the high side, traffic generation remains included in the traffic forecast.

4.15 The major planned developments listed in Table 4.4 have been included in the traffic forecast.

2028 and 2031 Junction and Link Capacity Analysis

4.16 The 2028 and 2031 junction capacity analyses are conducted for the following scenarios:

- with KITEC;
- with Approved Redevelopment; and
- with Proposed Redevelopment.

4.17 The 2028 and 2031 peak hour traffic flows for the 3 scenarios are shown in Figures 4.1 – 4.6 respectively.

4.18 The design year junction capacity analysis for the cases with the Approved Redevelopment and with the Proposed Redevelopment are summarised in Table 4.5, and detailed calculations are found in Appendix A.

TABLE 4.5 DESIGN YEAR JUNCTION OPERATIONAL PERFORMANCE

Ref.	**Signal Junction**	**Reserve Capacity / Ratio-of-Flow to Capacity (1)**					
		With KITEC		**With Approved Redevelopment**		**With Proposed Redevelopment**	
		AM Peak	**PM Peak**	**AM Peak**	**PM Peak**	**AM Peak**	**PM Peak**
Year 2028							
J1	Kai Cheung Road / Trademart Drive	0.345	0.506	0.325	0.446	0.316	0.385
J2	Kai Cheung Road / Wang Kwong Road (2)	17%	19%	17%	24%	20%	26%
J3	Wang Kwong Road / Lam Hing Street (2)	33%	24%	33%	24%	33%	24%
J4	Wang Kwong Road / Wang Chin Street	0.215	0.217	0.215	0.214	0.212	0.213
J5	Kai Cheung Road / Wang Chiu Road (2)	25%	23%	26%	24%	26%	26%

TABLE 4.5 DESIGN YEAR JUNCTION OPERATIONAL PERFORMANCE (CONT'D)

Ref.	**Signal Junction**	**Reserve Capacity / Ratio-of-Flow to Capacity (1)**					
		With KITEC		**With Approved Redevelopment**		**With Proposed Redevelopment**	
		AM Peak	**PM Peak**	**AM Peak**	**PM Peak**	**AM Peak**	**PM Peak**
Year 2028							
J6	Wang Chiu Road / Lam Hing Street (2)	17%	36%	17%	36%	17%	36%
J7	Wang Chiu Road / Sheung Yuet Road (2)	19%	26%	19%	28%	21%	28%
J8	Wang Chiu Road / Lam Fung Street (2)	52%	51%	52%	51%	53%	52%
J9	Sheung Yee Road / Wang Chiu Road (2)	17%	22%	17%	23%	18%	23%
J10	Shing Kai Road / Muk On Street / Kai Shing Street	34%	59%	34%	60%	35%	60%
J11	Wang Chiu Road / Kai Lai Road / Kai Lok Street	32%	45%	32%	45%	32%	45%
J12	Wang Kwong Road / Kai Wah Street	27%	35%	27%	39%	28%	41%
Year 2031							
J1	Kai Cheung Road / Trademart Drive	0.351	0.518	0.333	0.454	0.322	0.395
J2	Kai Cheung Road / Wang Kwong Road (2)	16%	17%	16%	22%	18%	24%
J3	Wang Kwong Road / Lam Hing Street (2)	31%	23%	31%	23%	31%	23%
J4	Wang Kwong Road / Wang Chin Street	0.219	0.221	0.219	0.218	0.215	0.217
J5	Kai Cheung Road / Wang Chiu Road (2)	24%	21%	24%	23%	25%	25%
J6	Wang Chiu Road / Lam Hing Street (2)	16%	35%	16%	35%	16%	35%
J7	Wang Chiu Road / Sheung Yuet Road (2)	18%	25%	18%	27%	19%	27%
J8	Wang Chiu Road / Lam Fung Street (2)	51%	49%	50%	50%	52%	50%
J9	Sheung Yee Road / Wang Chiu Road (2)	16%	21%	16%	22%	16%	22%
J10	Shing Kai Road / Muk On Street / Kai Shing Street	32%	57%	32%	58%	34%	58%
J11	Wang Chiu Road / Kai Lai Road / Kai Lok Street	31%	43%	31%	43%	31%	43%
J12	Wang Kwong Road / Kai Wah Street	25%	34%	25%	38%	26%	39%

Note: RC – Reserve Capacity RFC – Ratio-of-Flow to Capacity

(1) refer to Table 2.2 for the type of junction and performance indicator

[2] planned junction improvement by others is summarised below:

Ref.	Figure	Project Proponent	Improvement under Project	Planned Completion Year
J2	4.7	Housing Department	Public Housing Development at Yip On Factory Estate	2029/30
J3	4.8	Applicant of TPB No. A/K13/318	20 Kai Cheung Road	2025
J5	4.9	EKEO	Kowloon Bay Action Area	from 2028
J6	4.10	EKEO	Kowloon Bay Action Area	from 2028
J7	4.11	EKEO	Kowloon Bay Action Area	from 2028
J8	4.12	EKEO	Kowloon Bay Business Area Pedestrian Environment Improvement	see * below
J9	4.13	EKEO	Kowloon Bay Action Area	from 2028

* subject to final design of the proposed Elevated Walkway System in Kowloon Bay

4.19 Table 4.5 shows that in 2028 and 2031, the analysed junctions have higher reserve capacities for the case with the Proposed Redevelopment, compared to the case with the Approved Redevelopment and existing KITEC. This is due to the Proposed Redevelopment traffic generation being **27 – 29% less** compared to the Approved Redevelopment during the AM and PM peak hours respectively.

4.20 The 2028 and 2031 link capacity for the local road network is also assessed and the results are shown in Table 4.6.

TABLE 4.6 DESIGN YEAR LINK CAPACITY ASSESSMENT

Road Section[1]	Bound	With KITEC				With Approved Redevelopment				With Proposed Redevelopment			
		Traffic Flows (veh/hr)		V/C Ratio [2][3]		Traffic Flows (veh/hr)		V/C Ratio [2][3]		Traffic Flows (veh/hr)		V/C Ratio [2][3]	
		AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
Year 2028													
Kai Cheung Road	EB	1,726	1,835	0.52	0.55	1,717	1,795	0.51	0.54	1,710	1,752	0.51	0.52
	WB	2,902	2,806	0.81	0.78	2,902	2,744	0.81	0.76	2,839	2,723	0.79	0.76
Wang Kwong Road	2-way	972	834	0.61	0.52	972	834	0.61	0.52	972	834	0.61	0.52
Wang Chiu Road	2-way	2,236	1,927	0.56	0.48	2,236	1,927	0.56	0.48	2,236	1,927	0.56	0.48
Sheung Yee Road	EB	1,361	1,276	0.57	0.53	1,357	1,271	0.57	0.53	1,356	1,265	0.57	0.53
	WB	490	517	0.14	0.14	490	511	0.14	0.14	485	508	0.13	0.14
Trademart Drive	NB	515	743	0.50	0.73	483	651	0.47	0.64	468	557	0.46	0.54
	SB	449	582	0.13	0.17	449	480	0.13	0.14	372	446	0.11	0.13
Lam Hing Street	2-way	634	598	0.79	0.75	634	598	0.79	0.75	634	598	0.79	0.75
Sheung Yuet Road	EB	386	305	0.18	0.14	386	305	0.18	0.14	386	305	0.18	0.14
	WB	332	499	0.15	0.23	332	483	0.15	0.22	328	477	0.15	0.22

TABLE 4.6 DESIGN YEAR LINK CAPACITY ASSESSMENT (CONT'D)

Road Section(1)	**Bound**	**With KITEC**				**With Approved Redevelopment**				**With Proposed Redevelopment**			
		Traffic Flows (veh/hr)		**V/C Ratio (2)(3)**		**Traffic Flows (veh/hr)**		**V/C Ratio (2)(3)**		**Traffic Flows (veh/hr)**		**V/C Ratio (2)(3)**	
		AM Peak	**PM Peak**	**AM Peak**	**PM Peak**	**AM Peak**	**PM Peak**	**AM Peak**	**PM Peak**	**AM Peak**	**PM Peak**	**AM Peak**	**PM Peak**
Year 2031													
Kai Cheung Road	EB	1,745	1,854	0.52	0.55	1,733	1,816	0.52	0.54	1,728	1,771	0.52	0.53
	WB	2,933	2,832	0.81	0.79	2,931	2,773	0.81	0.77	2,870	2,750	0.80	0.76
Wang Kwong Road	2-way	984	844	0.62	0.53	984	844	0.62	0.53	984	844	0.62	0.53
Wang Chiu Road	2-way	2,260	1,944	0.57	0.49	2,260	1,944	0.57	0.49	2,260	1,944	0.57	0.49
Sheung Yee Road	EB	1,380	1,293	0.58	0.54	1,376	1,287	0.57	0.54	1,374	1,282	0.57	0.53
	WB	492	520	0.14	0.14	491	512	0.14	0.14	487	511	0.14	0.14
Trademart Drive	NB	518	748	0.51	0.73	487	657	0.48	0.64	472	562	0.46	0.55
	SB	452	587	0.14	0.18	451	487	0.13	0.15	375	451	0.11	0.13
Lam Hing Street	2-way	643	607	0.80	0.76	643	607	0.80	0.76	643	607	0.80	0.76
Sheung Yuet Road	EB	389	307	0.18	0.14	389	307	0.18	0.14	389	307	0.18	0.14
	WB	335	505	0.15	0.23	335	489	0.15	0.22	331	483	0.15	0.22

Note: EB – eastbound WB – westbound
NB – northbound SB – southbound
(1) highest traffic flow along the surveyed road sections
(2) V/C Ratio – Volume to Capacity Ratio
(3) refer to Table 2.4 for the capacity of each road

4.21 The above results indicate that the analysed junctions and road links are expected to operate with sufficient capacity during the peak hours in 2028 and 2031. The junctions analysed have sufficient capacity to accommodate the (i) expected traffic growth, and (ii) traffic generated by the Approved Redevelopment and the Proposed Redevelopment.

Pedestrian Generation

4.22 The pedestrian generation of the Proposed Redevelopment is estimated based on pedestrian generation surveys conducted at similar developments **located in Kowloon**. As mentioned in Paragraph 4.6, *"Eating Place"*, *"Shop and Services"*, *"Exhibition or Convention Hall"* and *"Place of Entertainment"* are regarded similar as *"Retail"*. Details of the surveyed developments are given in Table 4.7.

TABLE 4.7 DETAILS OF SURVEYED DEVELOPMENTS

Use	**Development**	**Location**	**Acc. Level [1]**	**Development Parameters (Approx.)**
Residential	Grand Waterfront	38 San Ma Tau Street, To Kwa Wan	A	1,782 flats (average flat size = 51m^2)
Office	Millennium City Phase II	376 – 378 Kwun Tong Road, Kwun Tong	A	office GFA of around 24,800m^2
Retail	The ONE	100 Nathan Road, Tsim Sha Tsui	A	retail GFA of around 37,500m^2
Social Welfare Facility	On Tai Estate Ancillary Facilities Block	23 On Sau Road, Kwun Tong	A	around 8,000m^2 welfare facilities for elderly and disabled persons
Kindergarten	Kowloon City Baptist Church Kindergarten	206 Argyle Street Kowloon City	A	6 classrooms

Note: [1] Accessibility (Acc.) Level = A, i.e. well served by public transport systems with railway station / light rail transit station / bus terminus or with no less than five bus / mini-bus routes, within 500m of the development site

4.23 Table 4.7 shows that the surveyed developments are comparable with the Proposed Redevelopment (including 1,881 flats, 27,130m^2 office, 20,131m^2 *"Eating Place / Shop and Services"* and *"Exhibition or Convention Hall"* with supporting social welfare facilities and kindergarten) in terms of location, use and accessibility to public transport services. The adopted pedestrian generation rates are presented in Table 4.8.

TABLE 4.8 PEDESTRIAN GENERATION RATES

Use	**Unit**	**Pedestrian Generation Rates**			
		AM Peak		**PM Peak**	
		IN	**OUT**	**IN**	**OUT**
Residential	ped/15-min/flat	0.0202	0.0875	0.0853	0.0348
Office	ped/15-min/100m^2	0.6250	0.1935	0.1613	0.3669
Eating Place / Shop and Services / Exhibition or Convention Hall	ped/15-min/100m^2	0.2347	0.1147	1.0348	0.8641
Social Welfare Facility	ped/15-min/100m^2	0.1111	0.0889	0.0222	0.3000
School (Kindergarten)	ped/15-min/class	6.6667	5.1667	1.3333	9.8333

4.24 The pedestrian generation rates presented in Table 4.8 are used to calculate the pedestrian generated by Proposed Redevelopment, and the calculated pedestrian generation is presented in Table 4.9.

TABLE 4.9 COMPARISON OF PEDESTRIAN GENERATION

Use	**Quantity**	**Pedestrian Generation (ped/15-min)**					
		AM Peak			**PM Peak**		
		IN	**OUT**	**2-way**	**IN**	**OUT**	**2-way**
KITEC (1)							
Office	63,934m^2	400	124	524	104	235	339
Eating Place / Shop and Services	80,268m^2	189	93	282	831	694	1,525
Exhibition or Convention Hall	11,312m^2	27	13	40	118	98	216
Place of Entertainment	9,325m^2	22	11	33	97	81	178
Total [a]		**638**	**241**	**879**	**1,150**	**1,108**	**2,258**
Approved Redevelopment (2)							
Office	132,437m^2	828	257	1,085	214	486	700
Eating Place / Shop and Services	21,150m^2	50	25	75	219	183	402
Exhibition or Convention Hall	11,285m^2	27	13	40	117	98	215
Total [b]		**905**	**295**	**1,200**	**550**	**767**	**1,317**
Proposed Redevelopment							
Flat	1,881 flats	38	165	203	161	66	227
Office	27,130m^2	170	53	223	44	100	144
Eating Place / Shop and Services	8,845m^2	21	11	32	92	77	169
Exhibition or Convention Hall	11,285m^2	27	13	40	117	98	215
Social Welfare Facility	2,090m^2	3	2	5	1	7	8
School (Kindergarten)	6 classes	41	32	73	8	59	67
Total [c]		**300**	**276**	**576**	**423**	**407**	**830**
Difference [c] – [b]		**–605** **(–67%)**	**–19** **(–6%)**	**–624** **(–52%)**	**–127** **(–23%)**	**–360** **(–47%)**	**–487** **(–37%)**
Difference [c] – [a]		**–338** **(–53%)**	**35** **(15%)**	**–303** **(–34%)**	**–727** **(–63%)**	**–701** **(–63%)**	**–1,428** **(–63%)**

Note: (1) based on 2018 A&A works
(2) extract from TPB No. A/K22/34 approved on 17th March 2023

4.25 Table 4.9 shows that the Proposed Redevelopment is expected to generate **624 and 487 ped/15-min (2-way) less than** the Approved Redevelopment during the AM and PM peak periods, or equivalent to **52% and 37% less pedestrians**.

4.26 Compared with the existing KITEC, the Proposed Redevelopment is expected to generate **less pedestrians**, i.e. 303 and 1,428 ped/15-min (2-way), or equivalent to reduction of **34% and 63% pedestrians** during the AM and PM peak hours.

2028 and 2031 Level-of-Service Assessment

4.27 The design year pedestrian flows are derived with reference to the following:

i. observed peak 15-minute pedestrian flows in year 2023;
ii. annual growth rate from 2023 to the design years, i.e. 0.5%; and
iii. pedestrian generation for 3 scenarios, i.e. with (i) KITEC; (ii) Approved Redevelopment; and (iii) Proposed Redevelopment.

4.28 The 2028 and 2031 peak 15-minute pedestrian flows for the 3 scenarios are shown in Figures 4.14 – 4.19 respectively, and the corresponding LOS assessment is presented in Table 4.10.

TABLE 4.10 DESIGN YEAR LEVEL-OF-SERVICE ASSESSMENT

Ref.	**Footpath**	**Peak Period**	**2-way Peak Pedestrian Flows** [1]								
			With KITEC			**With Approved Redevelopment**			**With Proposed Redevelopment**		
			Flow (ped/ 15-min)	**Rate (ped/ min/m)**	**LOS**	**Flow (ped/ 15-min)**	**Rate (ped/ min/m)**	**LOS**	**Flow (ped/ 15-min)**	**Rate (ped/ min/m)**	**LOS**
Year 2028											
F1	Western footpath of Trademart Drive	AM	484	10.8	A	660	14.7	A	318	7.1	A
		PM	1241	27.6	C	724	16.1	B	473	10.5	A
F2	Eastern footpath of Trademart Drive	AM	232	4.3	A	165	3.1	A	96	1.8	A
		PM	62	1.1	A	72	1.3	A	68	1.3	A
F3	Northern footpath of Lam Hing Street	AM	96	3.6	A	127	4.7	A	65	2.4	A
		PM	246	9.1	A	152	5.6	A	108	4.0	A
F4	Southern footpath of Lam Hing Street	AM	134	2.6	A	166	3.2	A	103	2.0	A
		PM	250	4.8	A	157	3.0	A	111	2.1	A
F5	Western footpath of Wang Chin Street	AM	159	5.3	A	203	6.8	A	142	4.7	A
		PM	255	8.5	A	143	4.8	A	97	3.2	A
F6	Eastern footpath of Wang Chin Street	AM	41	1.2	A	41	1.2	A	41	1.2	A
		PM	34	1.0	A	34	1.0	A	34	1.0	A
Year 2031											
F1	Western footpath of Trademart Drive	AM	484	10.8	A	660	14.7	A	318	7.1	A
		PM	1241	27.6	C	724	16.1	B	473	10.5	A
F2	Eastern footpath of Trademart Drive	AM	232	4.3	A	165	3.1	A	96	1.8	A
		PM	62	1.1	A	72	1.3	A	68	1.3	A
F3	Northern footpath of Lam Hing Street	AM	96	3.6	A	127	4.7	A	65	2.4	A
		PM	246	9.1	A	152	5.6	A	108	4.0	A
F4	Southern footpath of Lam Hing Street	AM	135	2.6	A	167	3.2	A	104	2.0	A
		PM	250	4.8	A	157	3.0	A	111	2.1	A
F5	Western footpath of Wang Chin Street	AM	159	5.3	A	203	6.8	A	142	4.7	A
		PM	255	8.5	A	143	4.8	A	97	3.2	A
F6	Eastern footpath of Wang Chin Street	AM	42	1.2	A	42	1.2	A	42	1.2	A
		PM	34	1.0	A	34	1.0	A	34	1.0	A

Note: [1] highest pedestrian flows along the whole section of walkway

4.29 The above results indicate that the analysed footpaths are expected to operate with LOS A to C during the peak hours in 2028 and 2031. The results show that the footpaths analysed has sufficient capacity to accommodate the (i) expected pedestrian growth; and (ii) change in pedestrian flows associated to the Proposed Redevelopment.

Modal Split of Transport Demand

4.30 The projected public transport demand of the Proposed Redevelopment by various transport modes is estimated with reference to the *"2021 Population Census"* published by Census and Statistics Department (C&SD). The estimated modal split is presented in Table 4.11.

TABLE 4.11 MODAL SPLIT OF PUBLIC TRANSPORT DEMAND FOR KWUN TONG

Public Transport Mode		**No. of Persons**			**Percentage**	
		Working Population	**Students**	**Total**		
Railway		99,580	31,832	**131,412**	**41%**	
Road-based Public Transport Service	Bus / Minibus	87,194	32,514	**119,708**	**37%**	**44%**
	Company Bus / School Bus / Shuttle Service	7,378	11,699	**19,077**	**6%**	
	Taxi	1,844	519	**2,363**	**1%**	
On foot only		24,659	23,665	**48,324**	**15%**	
Total		**220,655**	**100,229**	**320,884**	**100%**	

Source: 2021 Population Census

4.31 Table 4.11 shows that around 41% of daily travellers use railway and 44% use the road-based public transport service, e.g. franchised bus, minibus, taxi, etc. The remaining 15% of population travel to their work places / schools on foot only.

Impact to Public Transport Services

4.32 Based on the findings in Table 4.9, the maximum number of pedestrians generated by the Proposed Redevelopment is found to be 3,320 ped/hr (two-way) [Calculation: 830 × 4] during the PM peak hour. With the modal split estimated in Table 4.11, the public transport demand of the Proposed Redevelopment is projected in Table 4.12.

TABLE 4.12 PUBLIC TRANSPORT DEMAND OF THE PROPOSED REDEVELOPMENT

Public Transport Mode	**Percentage** (1)	**No. of 2-way Pedestrian Trips (ped/hr)**
Railway	41%	1,361
Road-based Public Transport Service	44%	1,461
On foot only	15%	498
Total	**100%**	**3,320**

Note: (1) from Table 4.11

4.33 To be conservative, it is assumed that all rail passengers will travel to the MTR Kowloon Bay or Kai Tak Stations by interchanging with bus / minibus services, taking into consideration their distances to the Proposed Redevelopment. Hence, the maximum road-based passenger demand is found to be 2,822 ped/hr [Calculation: 1361 + 1461].

4.34 As mentioned in Paragraph 2.22, the existing franchised bus and GMB services have surplus capacity of over 8,000 and 6,000 passengers during the AM and PM peak hours respectively. Hence, the surplus capacity would be **capable to absorb the additional road-based passenger demand** associated to the Proposed Redevelopment.

4.35 With reference to Serial No. TLB168 of *"Examination of Estimates of Expenditure 2023 – 24"* for Legislative Council Finance Committee Meetings, the maximum carrying capacities of MTR Kwun Tong Line and Tuen Ma Line per direction are 71,400 and 70,000 persons per hour (pph) respectively.

4.36 From the findings in Table 4.12, the maximum rail-based passenger demand is found to be 1,361 ped/hr. This is equivalent to only **0.48%** of the maximum carrying capacity of the MTR Kwun Tong Line and Tuen Ma Line [= 1361 ÷ (70,000 + 71400) ÷ 2], which is **insignificant**.

Enhancement of Feeder Services to / from MTR Stations

4.37 Serial No. TLB168 of *"Examination of Estimates of Expenditure 2023 – 24"* also advises that the current patronages of MTR Kwun Tong Line and Tuen Ma Line are 34,500 and 34,200 pph respectively. By adopting the patronage split for the Proposed Redevelopment, say, 50% of rail-based passengers will use MTR Kowloon Bay Station and the remaining 50% will use MTR Kai Tak Station.

4.38 Apart from the existing road-based public transport services, new franchised bus routes or re-routing of existing bus routes are proposed as feeder services to connect the Proposed Redevelopment and MTR Kowloon Bay or Kai Tak Stations. The analysis of proposed feeder services is presented in Table 4.13.

TABLE 4.13 ANALYSIS FOR FEEDER SERVICE TO / FROM MTR STATIONS

Item		Calculation	AM Peak		PM Peak	
			IN (1)	**OUT (2)**	**IN (1)**	**OUT (2)**
Pedestrian Generation	ped/15-min (3)	[a]	300	276	423	407
	ped/hr	[b] = [a] × 4	1,200	1,104	1,692	1,628
Total Rail-based Passenger Demand (pph)		[c] = [b] × 41% (4)	492	453	694	667
MTR Kowloon Bay Station	Passenger Demand (pph)	[d_1] = [c] × 50% (5)	246	227	347	334
	Carrying Capacity of Double-Deck Bus (per) (6)	[e_1]	102	102	102	102
	Number of Trips per hour	**[f_1]=[d_1] ÷ [e_1]**	**3**	**3**	**4**	**4**
	Headway (min)	**[g_1]=60 ÷ [f_1]**	**20**	**20**	**15**	**15**
MTR Kai Tak Station	Passenger Demand (pph)	[d_2] = [c] × 50% (5)	246	226	347	333
	Carrying Capacity of Double-Decked Bus (per) (6)	[e_2]	102	102	102	102
	Number of Trips per hour	**[f_2] = [d_2] ÷ [e_2]**	**3**	**3**	**4**	**4**
	Headway (min)	**[g_2] = 60 ÷ [f_2]**	**20**	**20**	**15**	**15**

Note: (1) from MTR stations to the Proposed Redevelopment
(2) from the Proposed Redevelopment to MTR stations
(3) from Table 4.9
(4) from Table 4.11
(5) from Paragraph 4.37
(6) The assumed carrying capacity of a double-deck bus is 120 passengers. To be conservative, a loading of 102 passengers per double-deck bus, i.e. 85% full, is adopted.

4.39 Table 4.13 shows that 3 and 4 bus trips (one-way) are required connecting the Proposed Redevelopment and MTR Kowloon Bay Station during the AM and PM peak hours respectively. Similarly, 3 and 4 trips (one-way) are required for MTR Kai Tak Station respectively.

4.40 Figure 3.1 shows that a 120m lay-by is currently provided at Trademart Drive fronting the Proposed Redevelopment. Hence, a section of this lay-by could be designated as bus stop / terminus for provision of feeder services.

4.41 Alternatively, some existing urban local bus routes operating close to KITEC may include a new enroute bus stop at Trademart Drive to strengthen the connection between the Proposed Redevelopment and MTR Kowloon Bay or Kai Tak Stations. The indicative enhancement proposal is presented in Table 4.14.

TABLE 4.14 INDICATIVE ENHANCEMENT PROPOSAL TO EXISTING BUS SERVICES

Route No.	**Routing**	**Frequency (min)**	**Possible Service Enhancement**
KMB 5D	Telford Gardens – Hung Hom (circular)	13 – 30	add enroute bus stop at Trademart Drive for journeys to Telford Gardens
KMB 5M	MTR Kowloon Bay Station (circular) – Kai Tak (Tak Long Estate)	15 – 30	add enroute bus stop at Trademart Drive for journeys from MTR Kowloon Bay Station to Kai Tak (Tak Long Estate)
CTB 22M	Kai Tak Cruise Terminal – To Kwa Wan	20 – 30	add enroute bus stop at Trademart Drive for both bounds

Note: KMB – Kowloon Motor Bus CTB – CityBus

4.42 It is noted that the public transport service network in Kowloon East, including the Kowloon Bay Business Area, is being strengthened progressively to cater for the rapid development and transformation. Hence, the provision of feeder services for the Proposed Redevelopment shall be further reviewed by Transport Department together with the regional public transport service network to suit the operational need in future.

5.0 SUMMARY

5.1 The subject site is located at New Kowloon Inland Lot No. 6032 at 1 Trademart Drive in Kowloon Bay. This s16 planning application is for the redevelopment of KITEC with 1,881 flats, 27,130m^2 *"Office"* GFA, 8,845m^2 *"Eating Place"* and *"Shop and Services"* GFA, 11,285m^2 *"Exhibition or Convention Hall"* GFA with supporting *"Social Welfare Facility"* and *"School (Kindergarten)"*.

5.2 The internal transport facilities provided for the Proposed Development comply with the **maximum recommendations of HKPSG** while the internal transport facilities for welfare facilities are provided to meet the operational requirements of the SWD.

5.3 Manual classified counts were conducted at key junctions, which are located in the vicinity in order to establish the existing traffic flows during the AM and PM peak hours. The 2028 and 2031 design traffic flows are derived with reference to the latest BDTM and have taken into account the planned developments in the vicinity of the subject site.

5.4 The 2028 and 2031 junction and link capacity analyses were undertaken for 3 scenarios with: (i) the existing KITEC; (ii) the Approved Redevelopment (i.e. TPB No. A/K22/34); and (iii) the Proposed Redevelopment. The junctions and road links analysed have sufficient capacity to accommodate the expected traffic volume in 2031 and traffic generated by the Proposed Redevelopment.

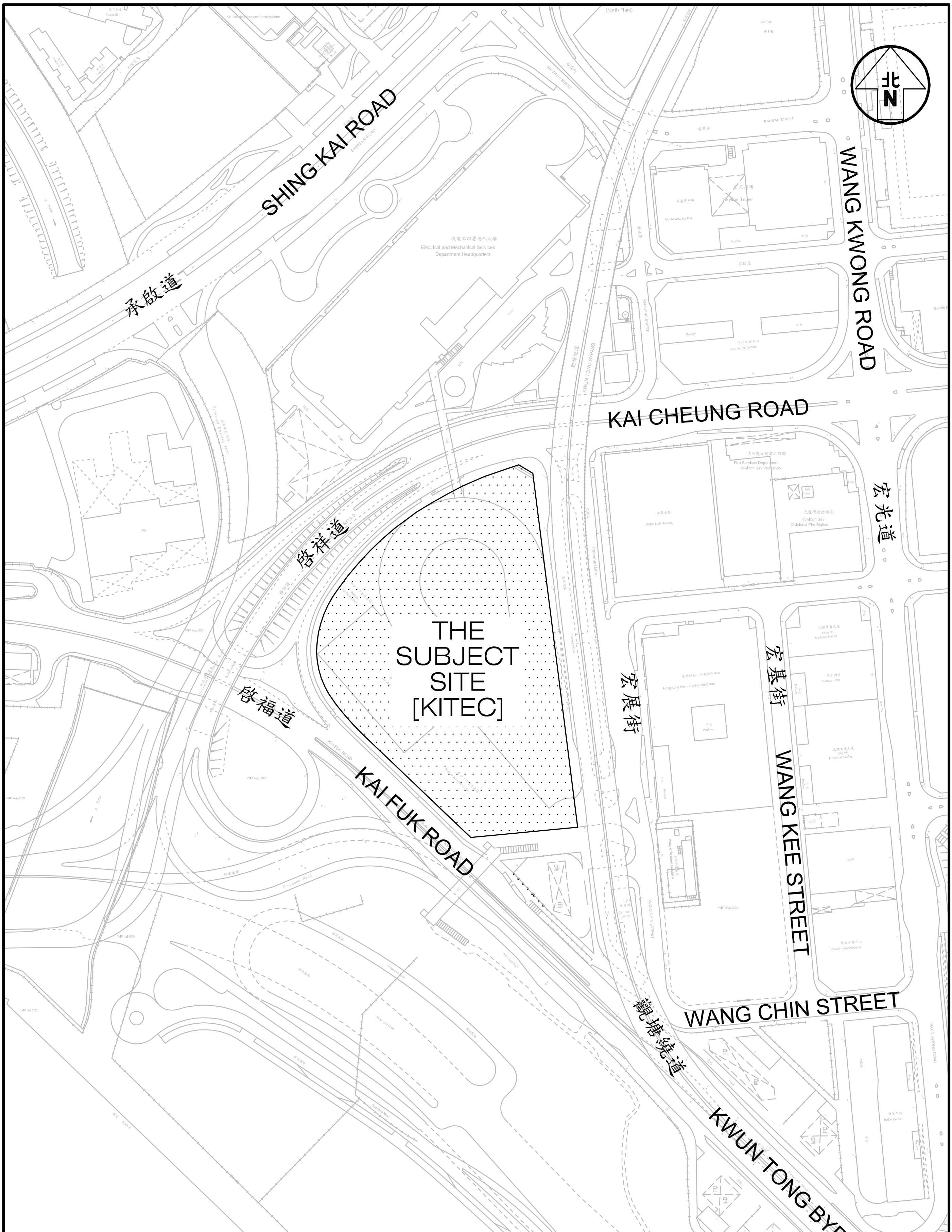
5.5 The analysed junctions have higher reserve capacities for the case with the Proposed Redevelopment, compared to the case with the Approved Redevelopment, because the Proposed Redevelopment traffic generation is 26% and 30% less compared to the Approved Redevelopment during the AM and PM peak hours respectively.

5.6 Pedestrian counts were conducted at the footpaths in the vicinity of the subject site in order to estimate the future pedestrian flows during the AM and PM peak periods. The LOS assessment demonstrates that the analysed footpaths have sufficient capacity to accommodate the estimated pedestrian flows in 2031.

5.7 The surplus capacity of the existing franchised bus and GMB services would be capable to absorb the additional road-based passenger demand from the Proposed Redevelopment, and the provision of feeder services shall be further reviewed by Transport Department together with the regional public transport service network to suit the operational need in future. In addition, the Proposed Redevelopment would generate insignificant rail-based passenger demand to the MTR Kwun Tong Line and Tuen Ma Line during the AM and PM peak hours.

5.8 The TIA concluded that the Proposed Redevelopment will result in **no** adverse traffic impact to the surrounding road network. From traffic engineering grounds, the Proposed Redevelopment is acceptable.

Figures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KAI FUK ROAD
宏展街
宏基街
WANG KEE STREET
WANG CHIN STREET
觀塘繞道
KWUN TONG BYPASS

Project Title PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

Job No.	Figure No.			Scale in A4
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Figure Title

LOCATION OF THE SUBJECT SITE

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Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk

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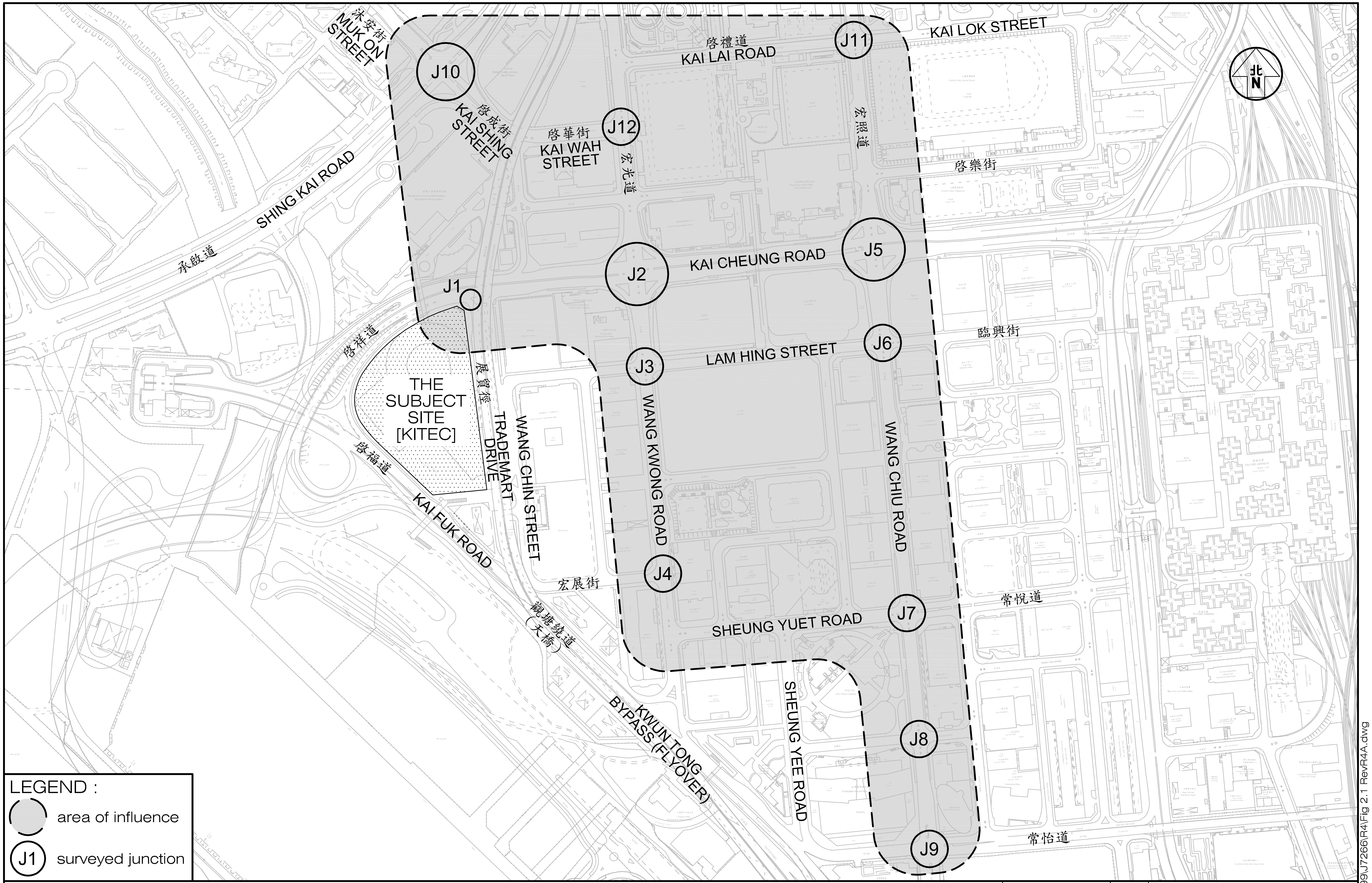
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臨興街
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LAM HING STREET
THE SUBJECT SITE [KITEC]
展貿徑
TRADEMART DRIVE
WANG CHIN STREET
WANG KWONG ROAD
WANG CHIU ROAD
啓福道
KAI FUK ROAD
J4
宏展街
觀塘繞道（天橋）
KWUN TONG BYPASS (FLYOVER)
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SHEUNG YUET ROAD
常悅道
SHEUNG YEE ROAD
J8
J9
常怡道
N
LEGEND :
area of influence
J1 surveyed junction

Project Title

PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7266

Figure Title

SURVEYED JUNCTIONS

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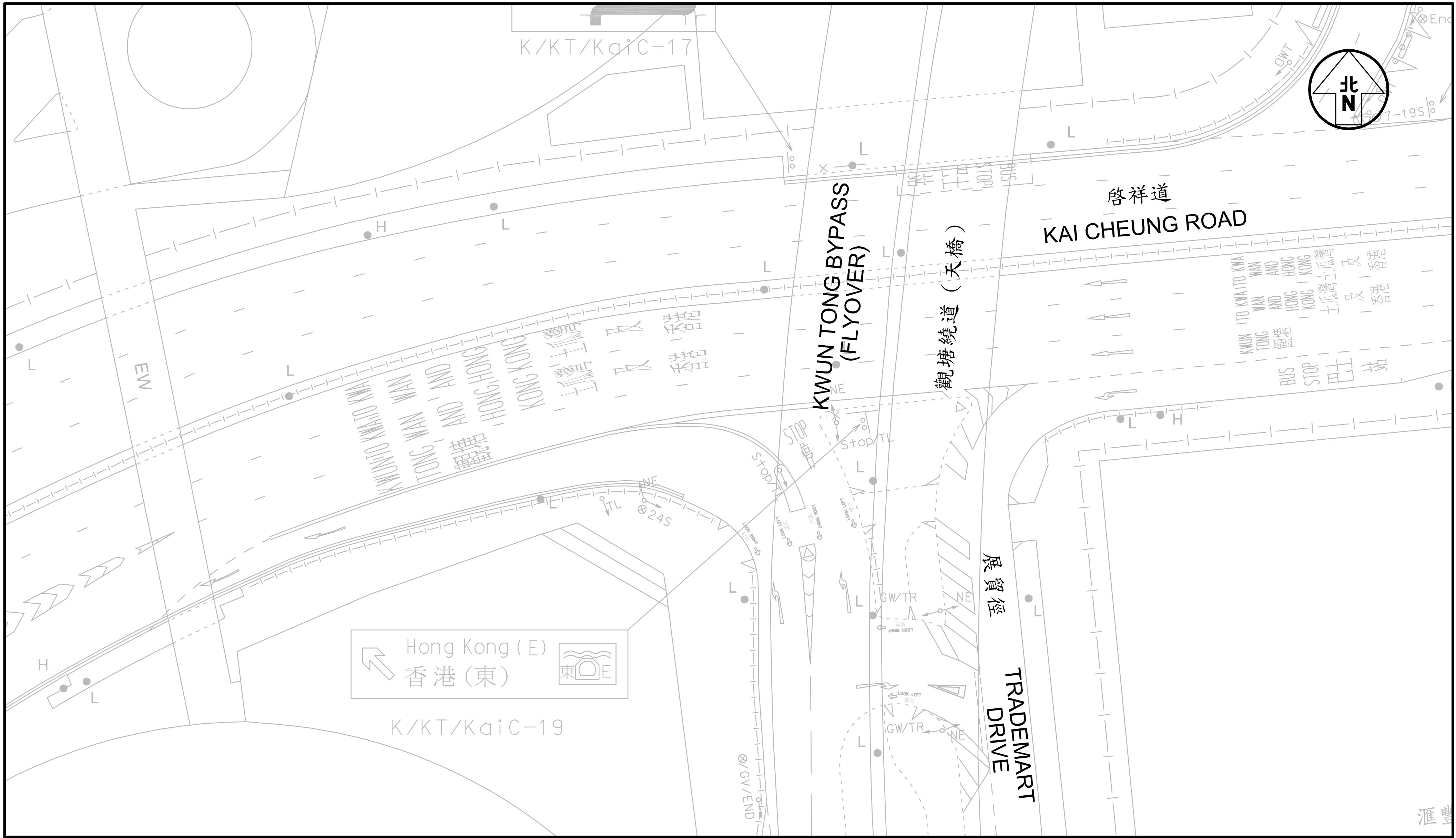
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TRADEMART
DRIVE
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K/KT/KaiC-19
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TO KWA WAN 土瓜灣
AND HONG KONG 及香港
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EW
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Project Title
PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7266

Figure Title

(J1) JUNCTION OF KAI CHEUNG ROAD / TRADEMART DRIVE

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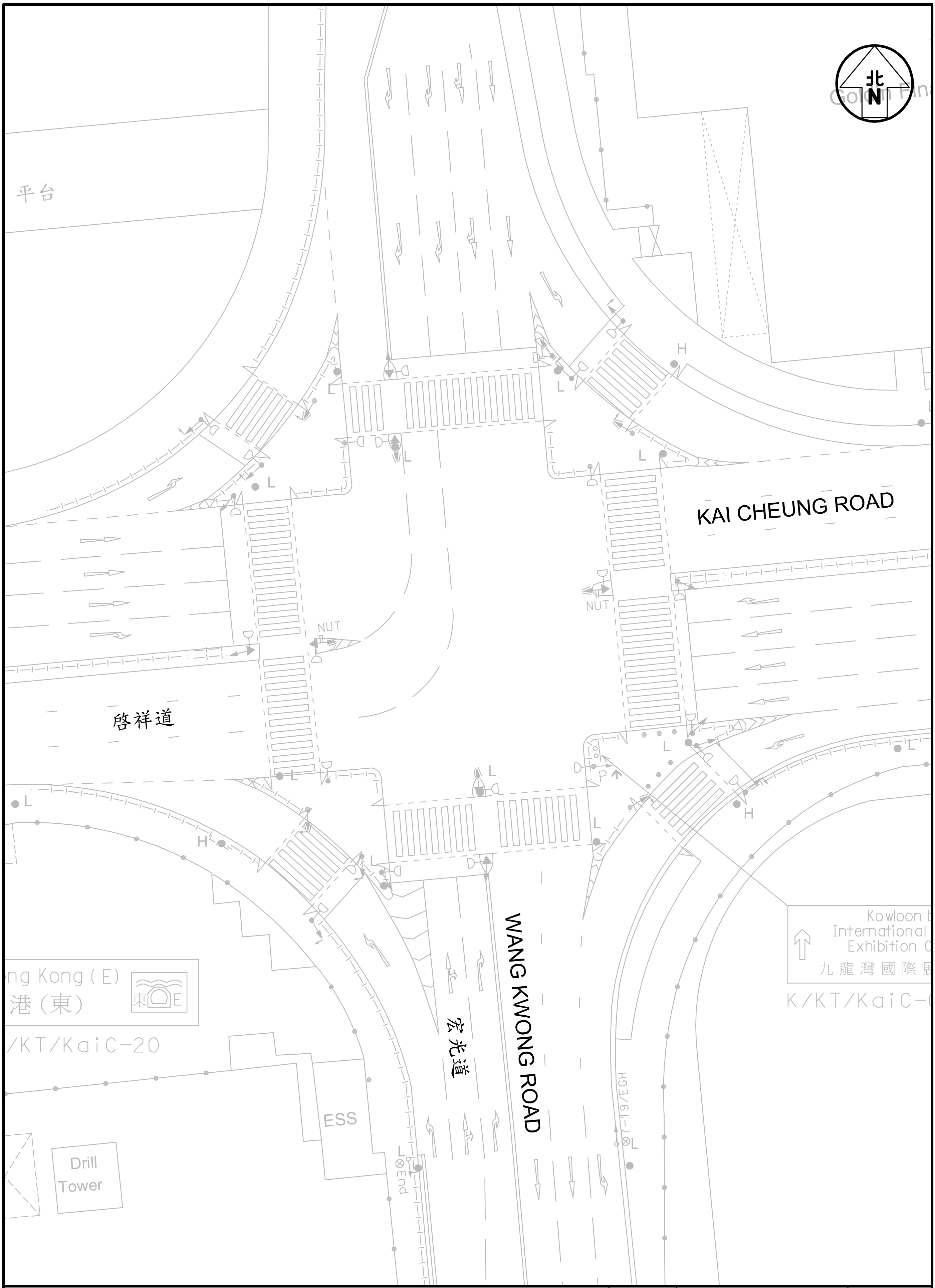
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ng Kong (E)
港(東)
東 E
/KT/KaiC-20
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Project Title PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

Figure Title

(J2) JUNCTION OF KAI CHEUNG ROAD / WANG KWONG ROAD

Job No.	Figure No.		Scale in A4
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Designed by	Drawn by	Checked by	Revision	Date
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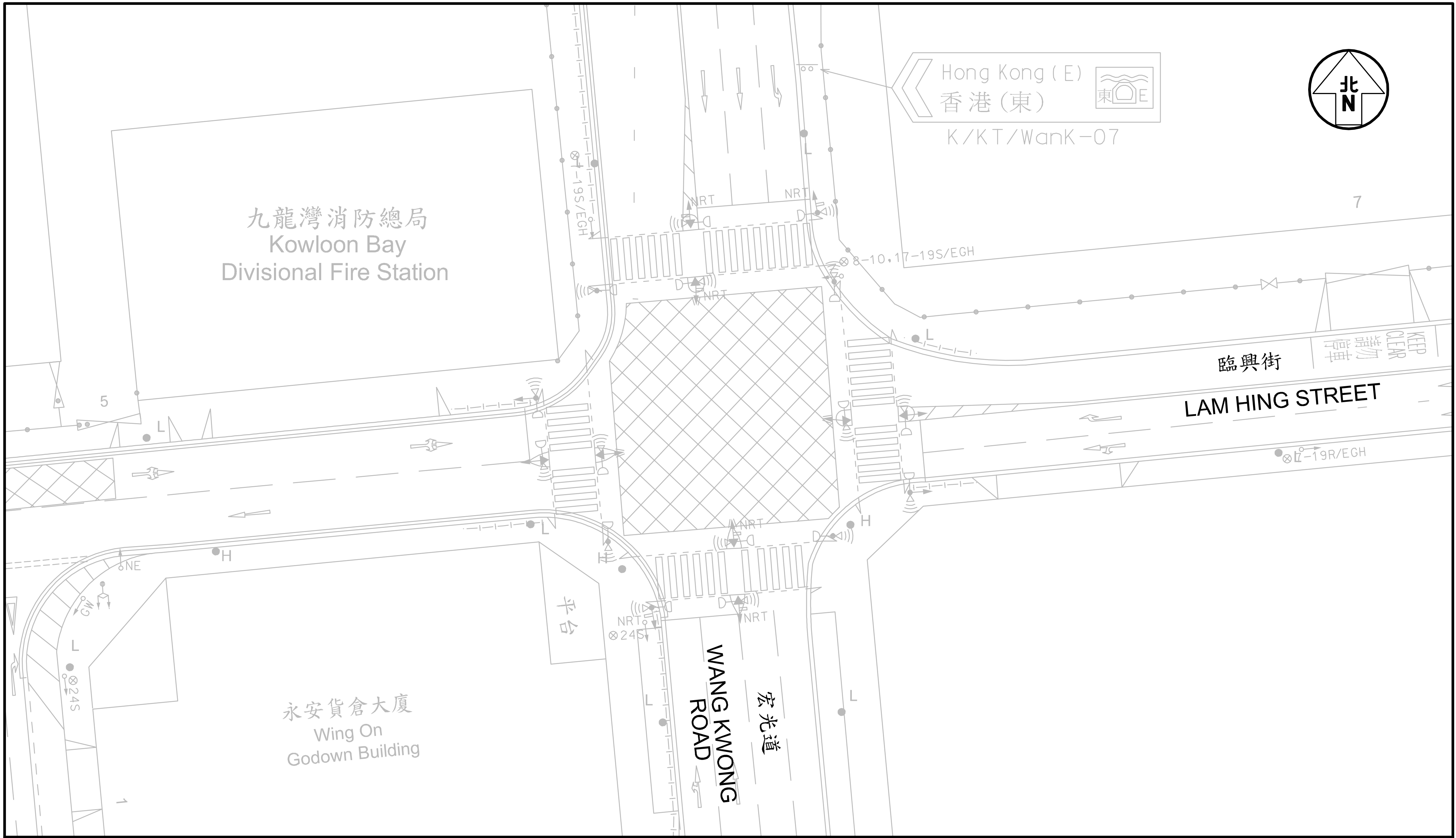
北 N
Hong Kong (E)
香港 (東)
東 E
K/KT/WanK-07
7
九龍灣消防總局
Kowloon Bay
Divisional Fire Station
⊗ 8-10.17-19S/EGH
⊗ 1-19S/EGH
⊗ 1-19R/EGH
NRT
KEEP CLEAR
請勿停車
臨興街
LAM HING STREET
5
L
H
NE
GW
⊗24S
平台
永安貨倉大廈
Wing On
Godown Building
WANG KWONG
ROAD
宏光道
1

Project Title	PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON	J7266
Figure Title	(J3) JUNCTION OF WANG KWONG ROAD / LAM HING STREET	

Figure No.	Revision	Designed by	Drawn by	Checked by	Scale in A4	Date
2.4	R4A	T H C	C C L	K C	1 : 500	21 JUN 2024

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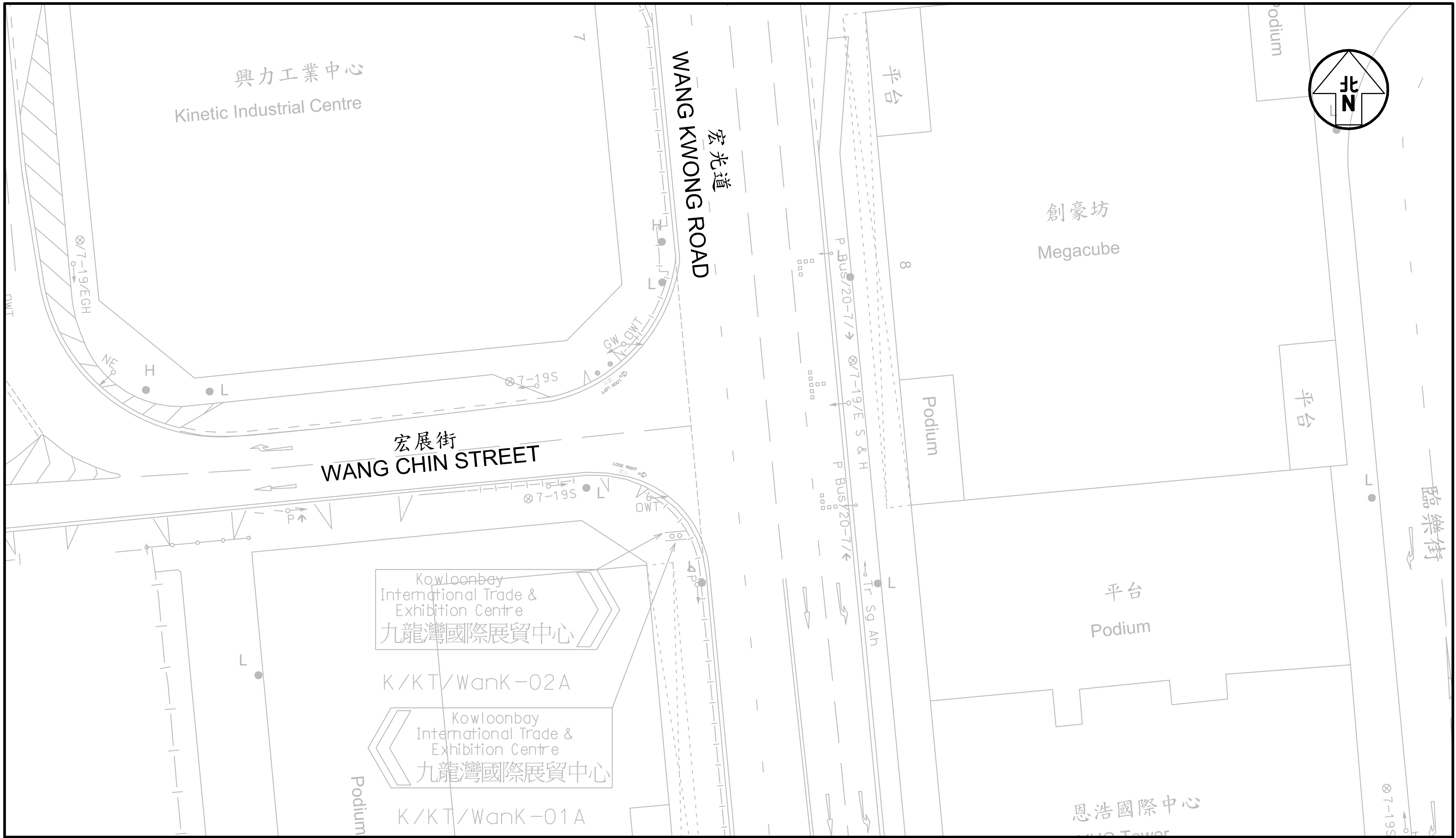
Email : mail@ckmasia.com.hk

T:\JOB\J7250-J7299\J7266\R4\Fig 2.2 - 2.13 RevR4A.dwg


興力工業中心
Kinetic Industrial Centre
宏光道
WANG KWONG ROAD
宏展街
WANG CHIN STREET
創豪坊
Megacube
平台
Podium
8
7
臨樂街
恩浩國際中心
Kowloonbay International Trade & Exhibition Centre
九龍灣國際展貿中心
K/KT/WanK-02A
K/KT/WanK-01A
P Bus/20-7/
⊗/7-19/E S & H
⊗/7-19/EGH
⊗7-19S
Tr Sg Ah
GW
OWT
NE
H
L
P
LOOK RIGHT
LOOK LEFT
北
N

Project Title	PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON	J7266
Figure Title	(J4) JUNCTION OF WANG KWONG ROAD / WANG CHIN STREET	

Figure No.		Revision
2.5		R4A
Designed by	Drawn by	Checked by
T H C	C C L	K C
Scale in A4	Date	
1 : 500	21 JUN 2024	

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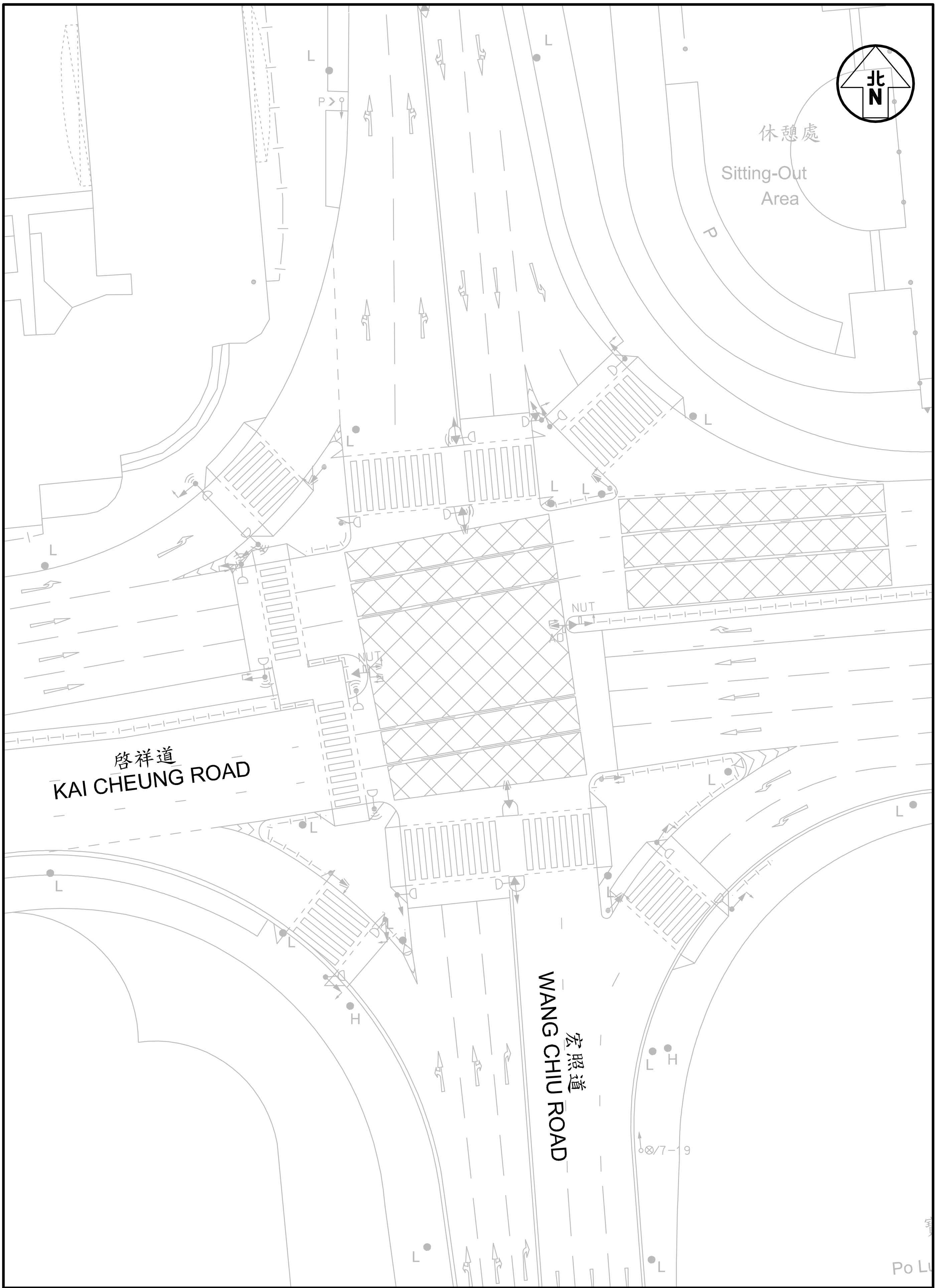
T:\JOB\J7250-J7299\J7266\R4\Fig 2.2 - 2.13 RevR4A.dwg


北 N
休憩處
Sitting-Out Area
P
L
H
NUT
AD
D
啓祥道
KAI CHEUNG ROAD
宏照道
WANG CHIU ROAD
⊗/7-19
Po Lu

Project Title PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON	Job No. J7266	Figure No. 2.6			Scale in A4 1 : 500
	Designed by T H C	Drawn by C C L	Checked by K C	Revision R4A	Date 21 JUN 2024

Figure Title

(J5) JUNCTION OF KAI CHEUNG ROAD / WANG CHIU ROAD

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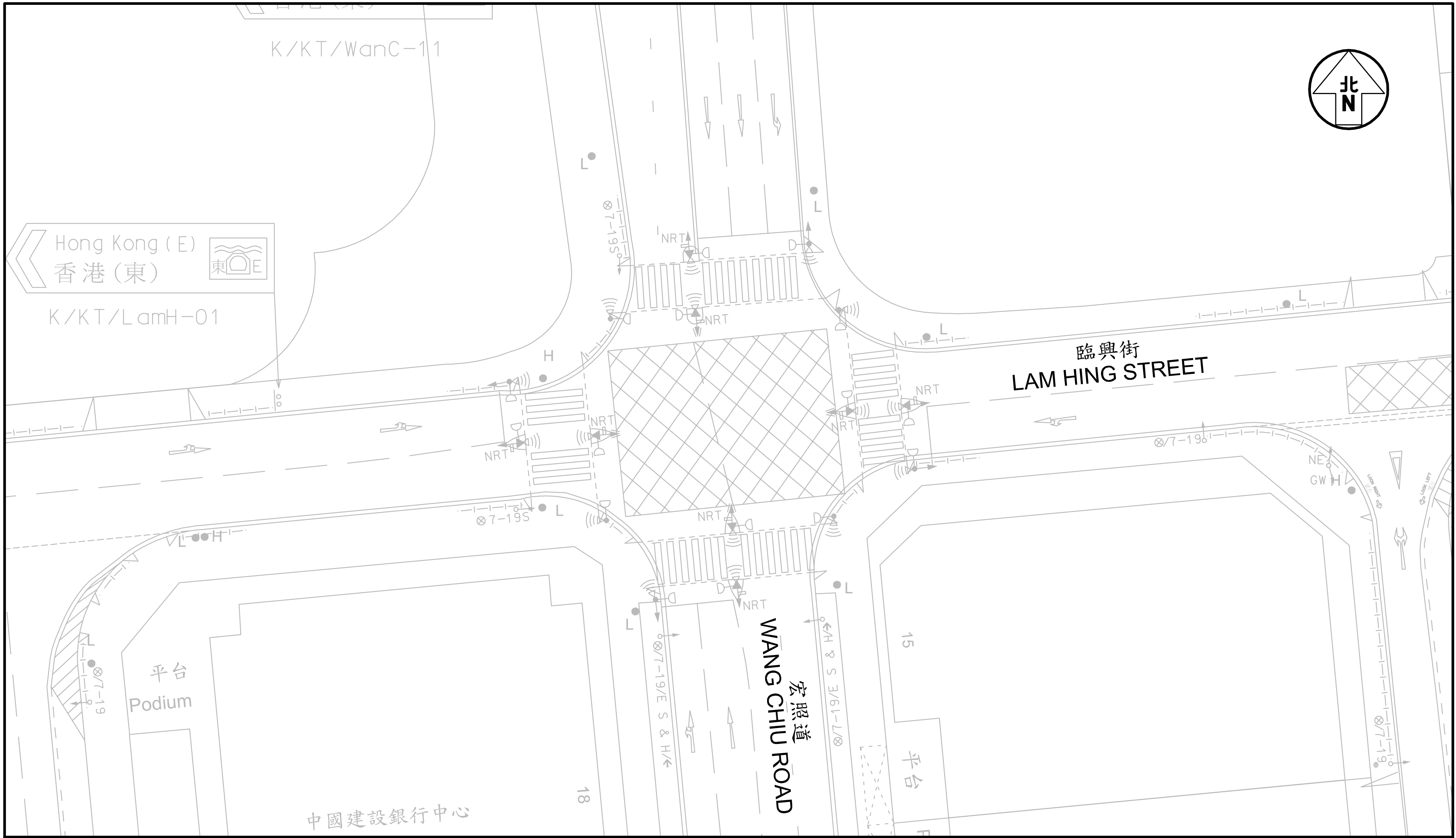
T:\JOB\J7250-J7299\J7266\R4\Fig 2.2 - 2.13 RevR4A.dwg


北
N
LAM HING STREET
臨興街
WANG CHIU ROAD
宏照道
Hong Kong (E)
香港 (東)
東 E
K/KT/WanC-11
K/KT/LamH-01
NRT
L
H
NE
GW
⊗7-19S
⊗/7-19
⊗/7-19/E S & H/
15
18
平台
Podium
中國建設銀行中心
LOOK RIGHT
LOOK LEFT

Project Title

PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7266

Figure Title

(J6) JUNCTION OF WANG CHIU ROAD / LAM HING STREET

Figure No.	Revision	Designed by	Drawn by	Checked by	Scale in A4	Date
2.7	R4A	T H C	C C L	K C	1 : 500	21 JUN 2024

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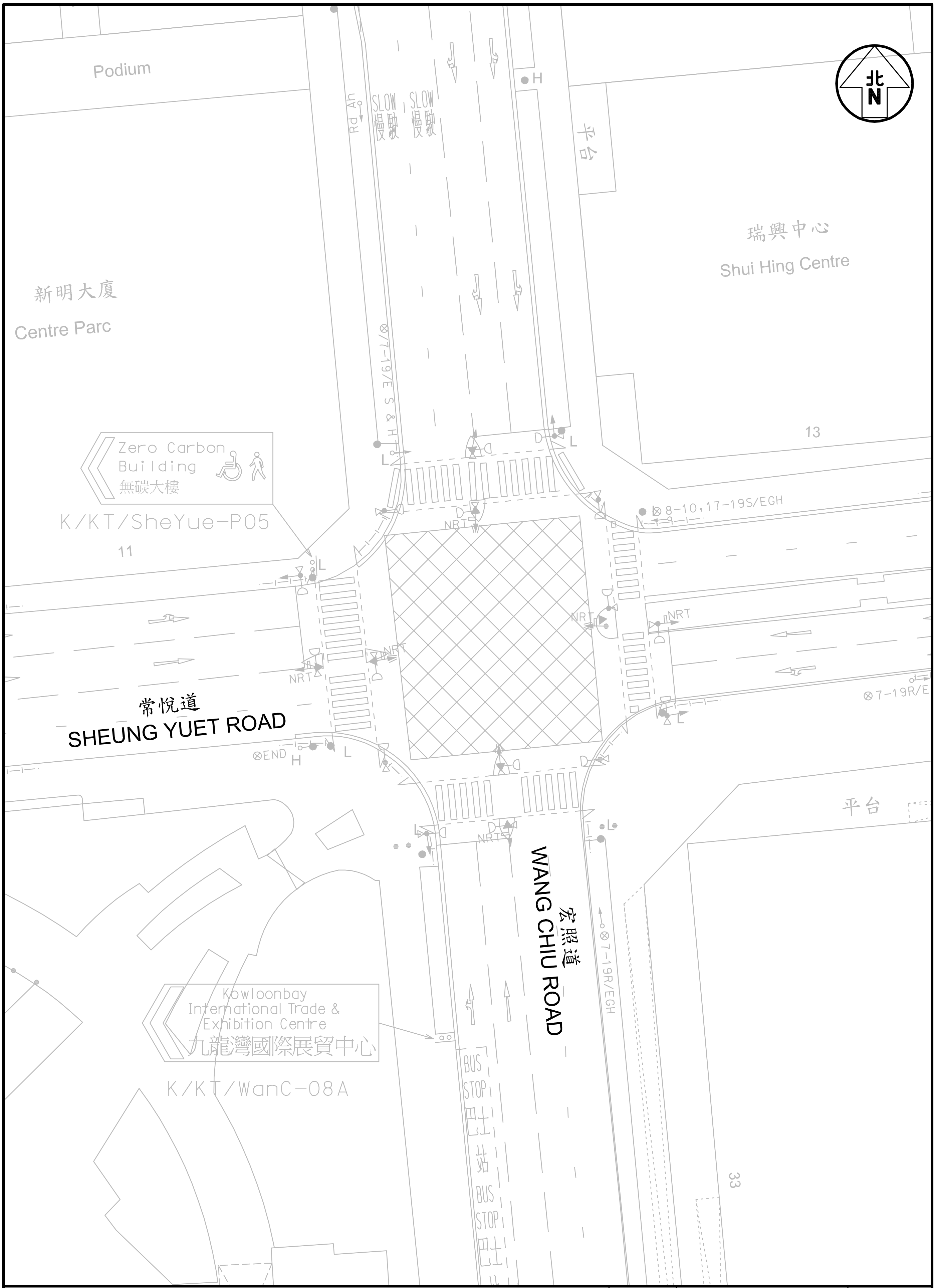
Email : mail@ckmasia.com.hk

T:\JOB\J7250-J7299\J7266\R4\Fig 2.2 - 2.13 RevR4A.dwg


Podium
新明大廈
Centre Parc
SLOW 慢駛
SLOW 慢駛
Rd Ah
北 N
平台
瑞興中心
Shui Hing Centre
13
⊗7-19/E S & H
Zero Carbon Building
無碳大樓
K/KT/SheYue-P05
11
⊗8-10,17-19S/EGH
NRT
L
H
常悅道
SHEUNG YUET ROAD
⊗END
⊗7-19R/E
平台
宏照道
WANG CHIU ROAD
⊗7-19R/EGH
Kowloonbay International Trade & Exhibition Centre
九龍灣國際展貿中心
K/KT/WanC-08A
BUS STOP 巴士站
BUS STOP 巴士
33

Project Title PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

Job No.	Figure No.			Scale in A4
J7266	2.8			1 : 500
Designed by	Drawn by	Checked by	Revision	Date
T H C	C C L	K C	R4A	21 JUN 2024

Figure Title

(J7) JUNCTION OF WANG CHIU ROAD / SHEUNG YUET ROAD

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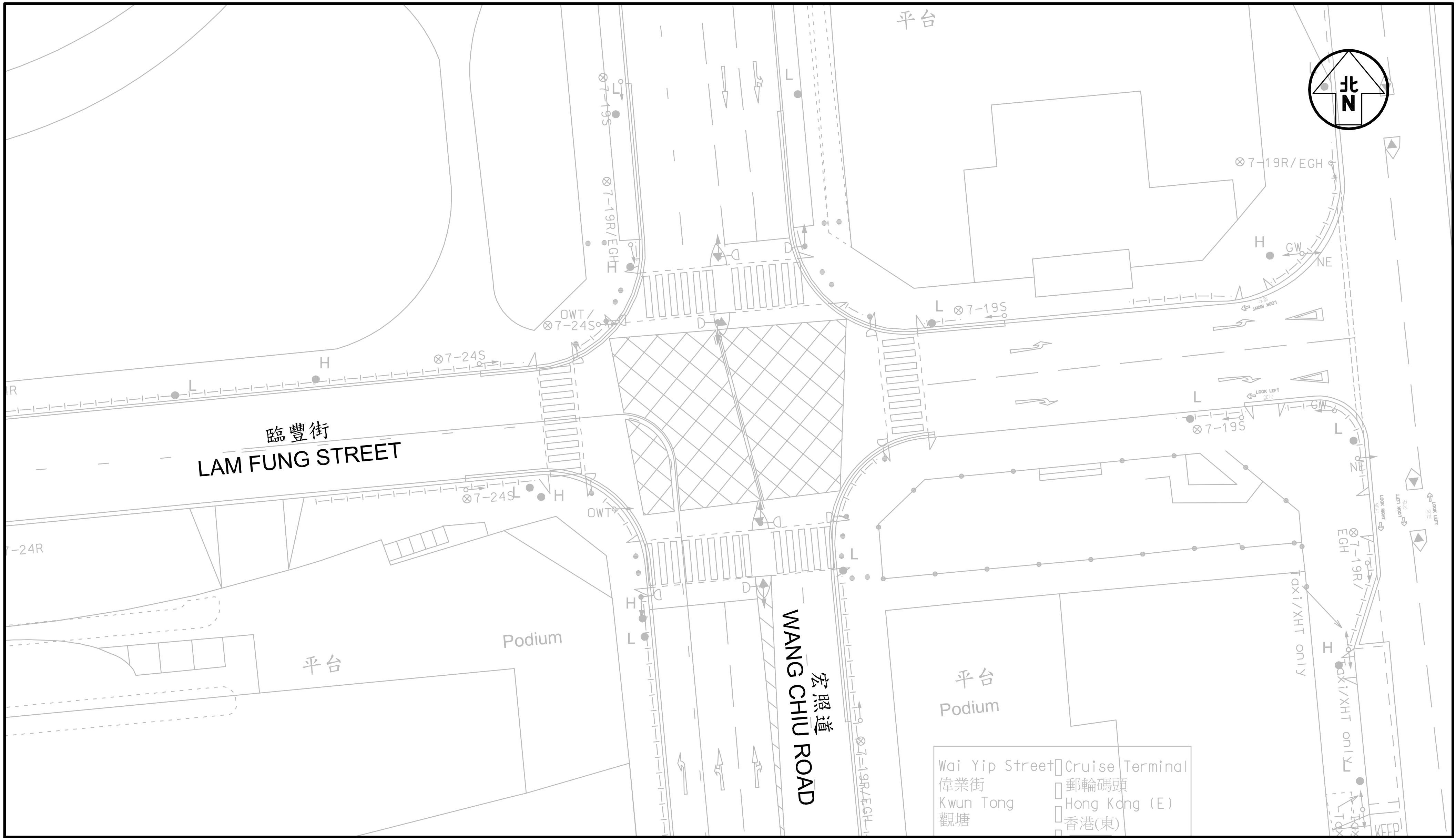
T:\JOB\J7250-J7299\J7266\R4\Fig 2.2 - 2.13 RevR4A.dwg


北 N
平台
Podium
平台
Podium
平台
臨豐街
LAM FUNG STREET
宏照道
WANG CHIU ROAD
⊗7-19S
⊗7-19R/EGH
OWT/⊗7-24S
⊗7-24S
OWT
⊗7-24R
⊗7-19R/EGH
⊗7-19S
GW
NE
H
L
LOOK LEFT
LOOK RIGHT
Taxi/XHT only
KEEP
Wai Yip Street
偉業街
Kwun Tong
觀塘
Cruise Terminal
郵輪碼頭
Hong Kong (E)
香港(東)

Project Title

PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7266

Figure Title

(J8) JUNCTION OF WANG CHIU ROAD / LAM FUNG STREET

Figure No.	Revision
2.9	R4A

Designed by	Drawn by	Checked by
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Scale in A4	Date
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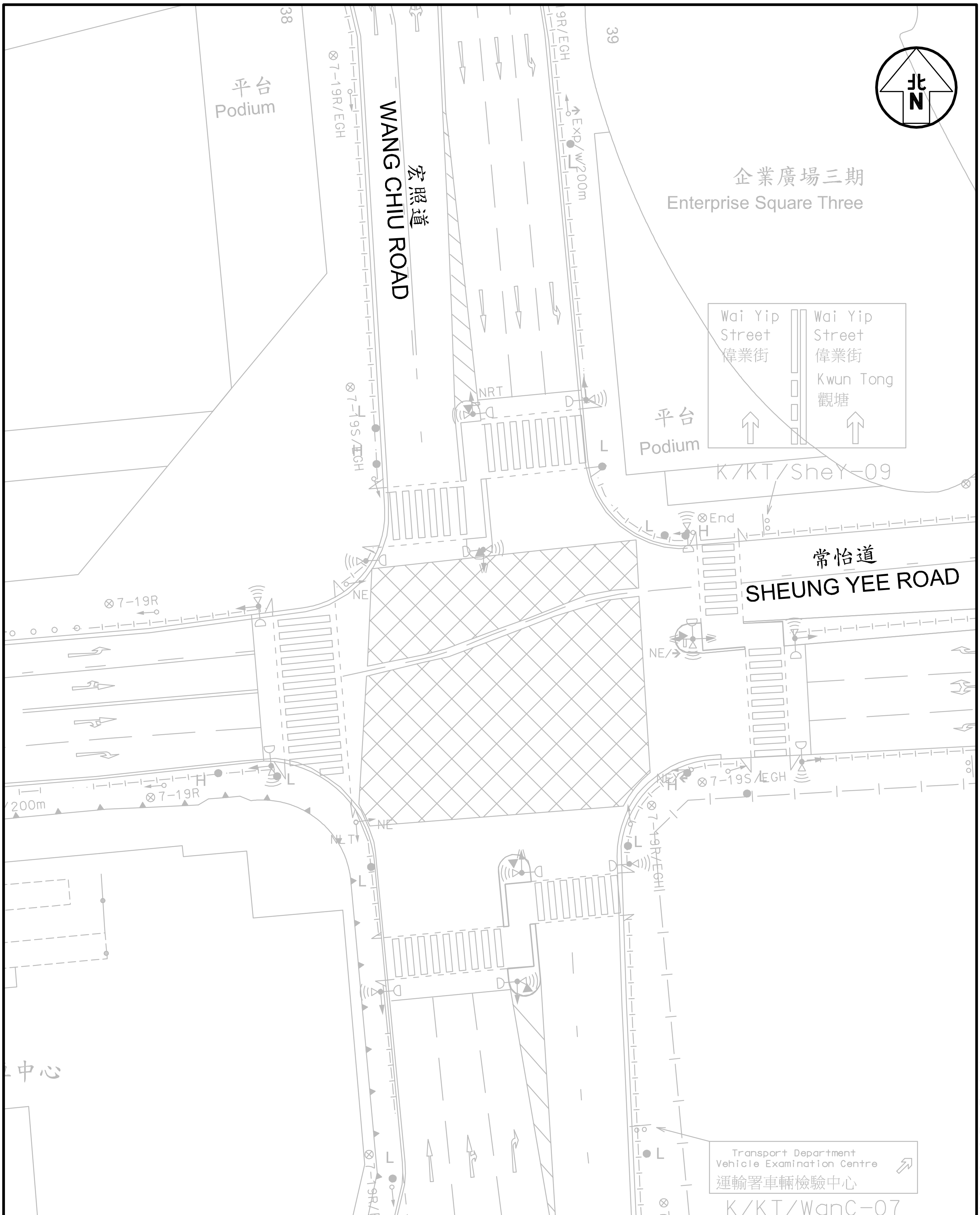
T:\JOB\J7250-J7299\J7266\R4\Fig 2.2 - 2.13 RevR4A.dwg


38
39
平台
Podium
WANG CHIU ROAD
宏照道
7-19R/EGH
Exp/W/200m
企業廣場三期
Enterprise Square Three
Wai Yip
Street
偉業街
Wai Yip
Street
偉業街
Kwun Tong
觀塘
平台
Podium
K/KT/SheY-09
NRT
L
7-19S/EGH
End
H
常怡道
SHEUNG YEE ROAD
7-19R
NE
NE
NE
NLT
NE
7-19S/EGH
/200m
7-19R
7-19R/EGH
中心
Transport Department
Vehicle Examination Centre
運輸署車輛檢驗中心
K/KT/WanC-07
7-19R/EGH
7-19R/EGH
Centre
北
N

Project Title PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART
REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW
KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

Figure Title
(J9) JUNCTION OF SHEUNG YEE ROAD / WANG CHIU ROAD

Job No.	Figure No.			Scale in A4
J7266	2.10			1 : 500
Designed by	Drawn by	Checked by	Revision	Date
T H C	C C L	K C	R4A	21 JUN 2024

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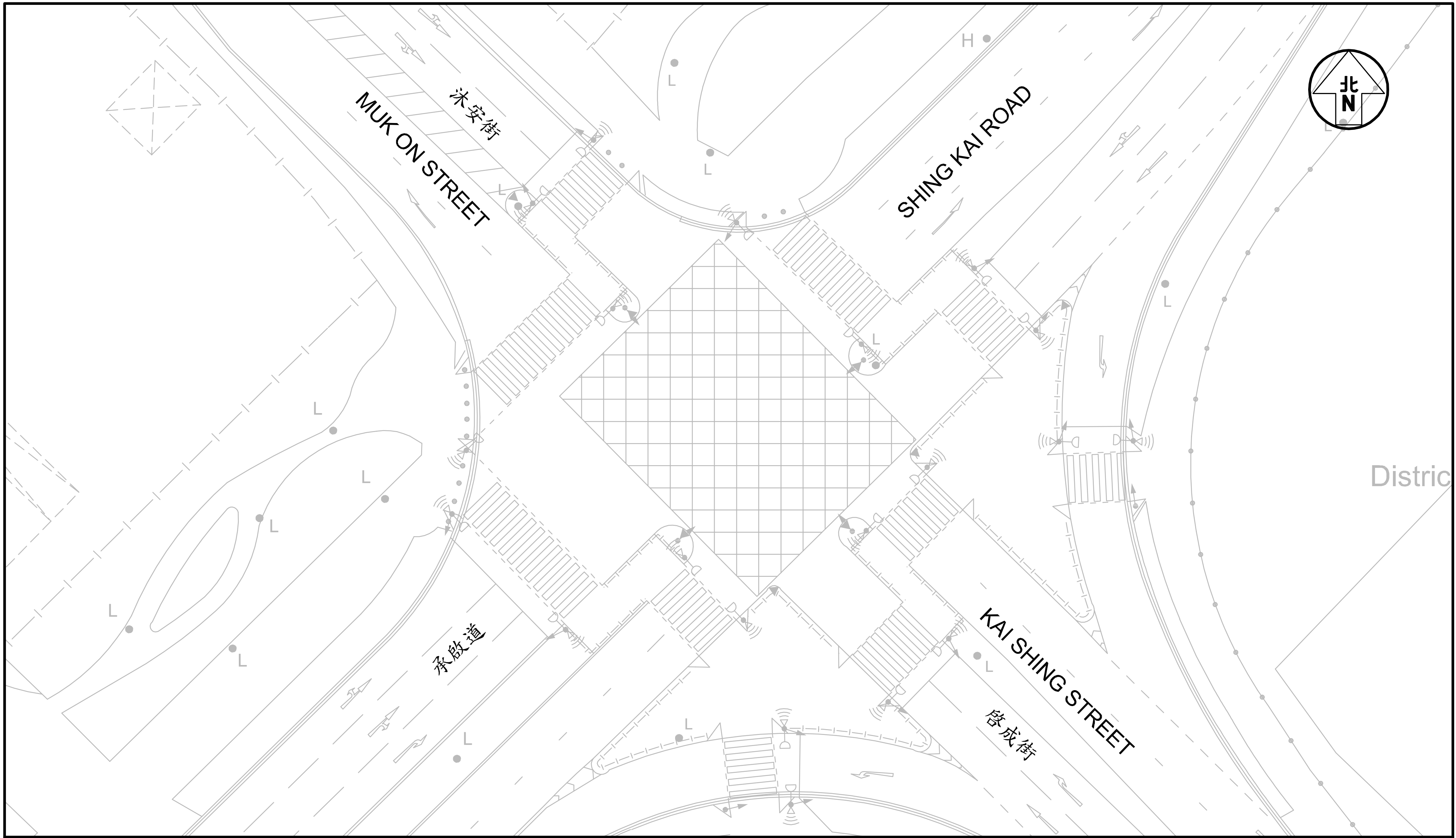
T:\JOB\J7250-J7299\J7266\R4\Fig 2.2 - 2.13 RevR4A.dwg



Project Title PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7266

Figure Title

(J10) JUNCTION OF SHING KAI ROAD / KAI SHING STREET / MUK ON STREET

Figure No.		Revision
2.11		R4A
Designed by	Drawn by	Checked by
T H C	C C L	K C
Scale in A4	Date	
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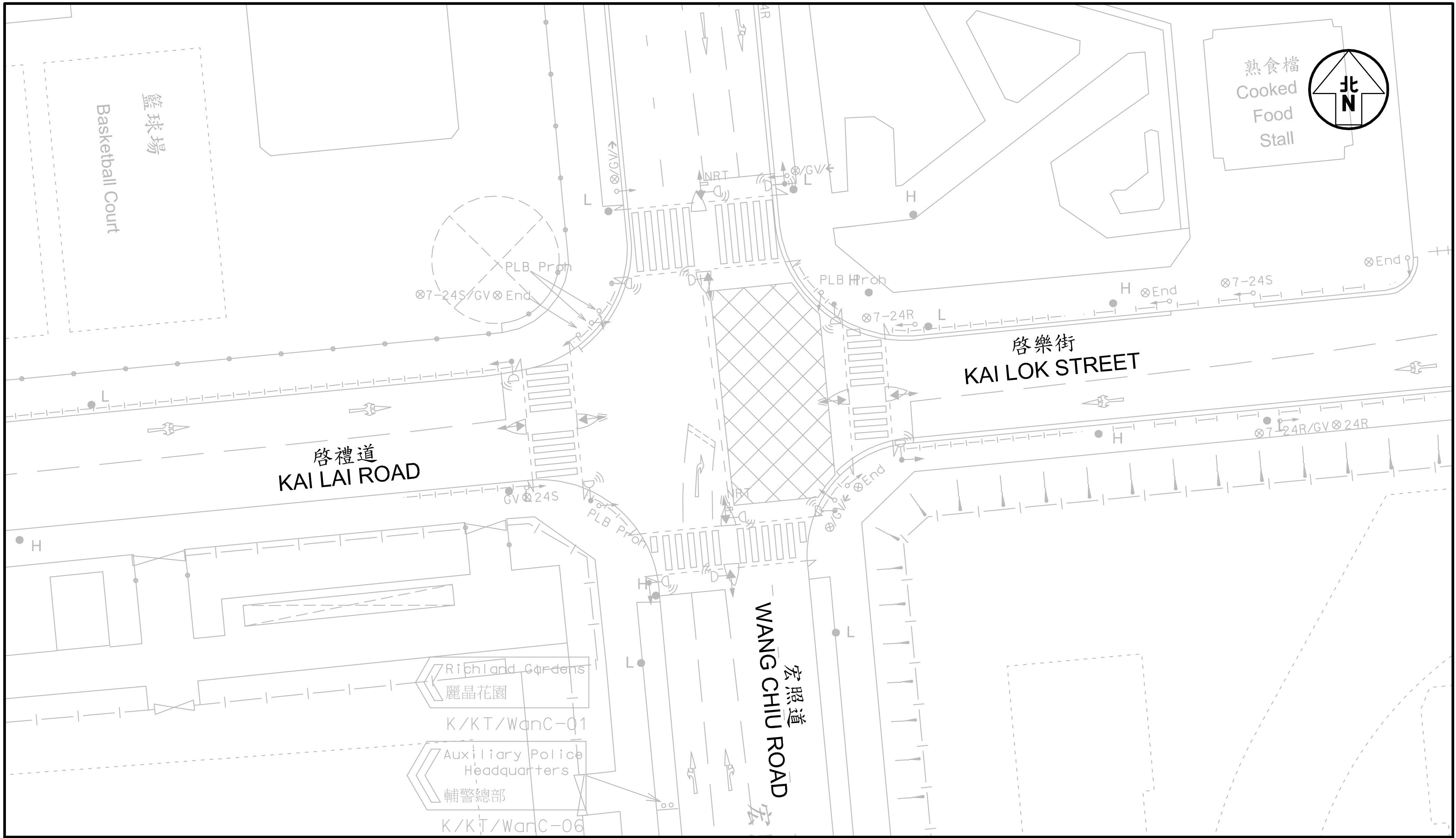
T:\JOB\J7250-J7299\J7266\R4\Fig 2.2 - 2.13 RevR4A.dwg


熱食檔
Cooked Food Stall
北
N
籃球場
Basketball Court
啓樂街
KAI LOK STREET
啓禮道
KAI LAI ROAD
宏照道
WANG CHIU ROAD
PLB Proh
⊗7-24S/GV⊗End
⊗7-24R
⊗7-24S
⊗End
⊗/GV
NRT
⊗7-24R/GV⊗24R
GV⊗24S
H
L
Richland Gardens
麗晶花園
K/KT/WanC-01
Auxiliary Police Headquarters
輔警總部
K/KT/WanC-06

Project Title	PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON	J7266	Figure No. 2.12		Revision R4A
Figure Title	(J11) JUNCTION OF WANG CHIU ROAD / KAI LAI ROAD / KAI LOK STREET		Designed by T H C	Drawn by C C L	Checked by K C
			Scale in A4 1 : 500	Date 21 JUN 2024	

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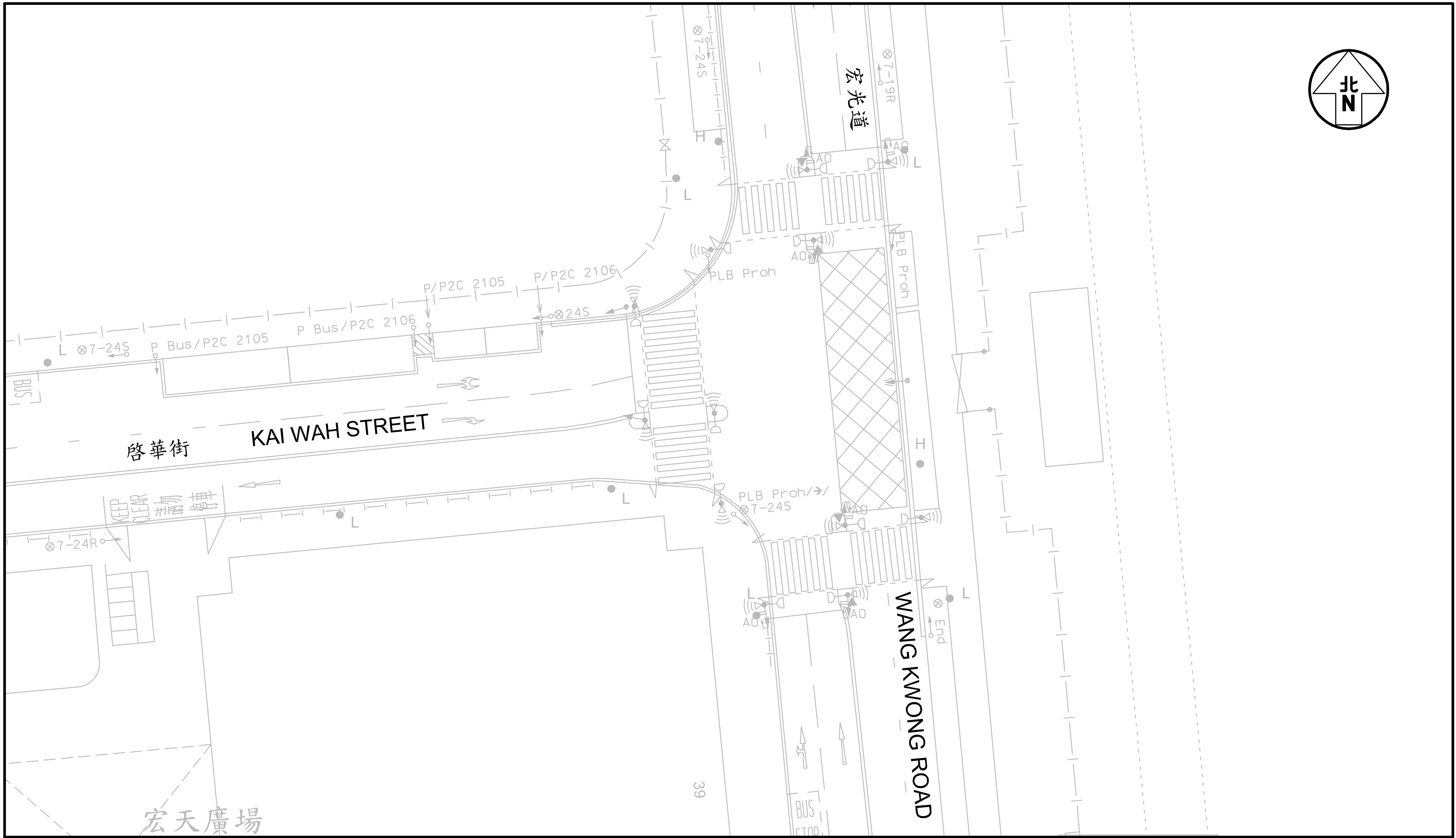
宏光道
⊗7-19R
⊗7-24S
H
L
AO
PLB Proh
P/P2C 2105
P/P2C 2106
P Bus/P2C 2106
P Bus/P2C 2105
⊗24S
L ⊗7-24S
BUS
KAI WAH STREET
啓華街
KEEP CLEAR
PLB Proh/→/
⊗7-24S
⊗7-24R
WANG KWONG ROAD
⊗ End
39
BUS STOP
宏天廣場
北
N

Project Title
PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7266

Figure Title
(J12) JUNCTION OF WANG KWONG ROAD / KAI WAH STREET

Figure No.		Revision
2.13		R4A
Designed by	Drawn by	Checked by
T H C	C C L	K C
Scale in A4	Date	
1 : 500	21 JUN 2024	

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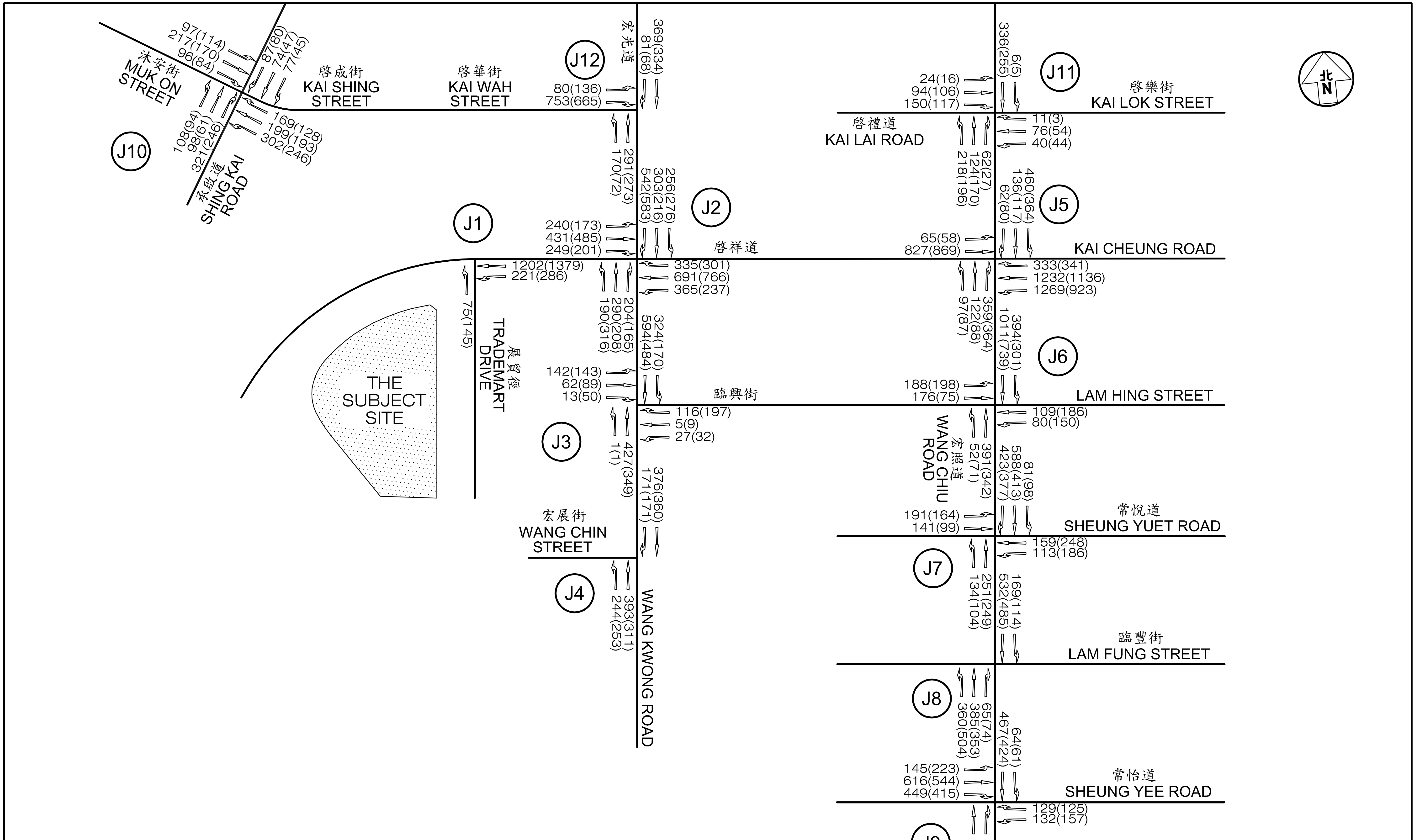
97(114)
217(170)
96(84)
87(80)
74(47)
77(45)
沐安街
MUK ON STREET
169(128)
199(193)
302(246)
108(94)
98(61)
321(246)
承啟道
SHING KAI ROAD
J10
啓成街
KAI SHING STREET
啓華街
KAI WAH STREET
J12
宏光道
369(334)
81(68)
80(136)
753(665)
291(273)
170(72)
J2
256(276)
303(216)
542(583)
240(173)
431(485)
249(201)
啓祥道
335(301)
691(766)
365(237)
204(165)
290(208)
190(316)
J1
1202(1379)
221(286)
75(145)
展貿徑
TRADEMART DRIVE
THE SUBJECT SITE
324(170)
594(484)
142(143)
62(89)
13(50)
臨興街
116(197)
5(9)
27(32)
J3
427(349)
1(1)
376(360)
171(171)
宏展街
WANG CHIN STREET
J4
393(311)
244(253)
WANG KWONG ROAD
336(255)
6(5)
J11
24(16)
94(106)
150(117)
啓樂街
KAI LOK STREET
11(3)
76(54)
40(44)
啓禮道
KAI LAI ROAD
62(27)
124(170)
218(196)
460(364)
136(117)
62(80)
J5
65(58)
827(869)
KAI CHEUNG ROAD
333(341)
1232(1136)
1269(923)
359(364)
122(88)
97(87)
394(301)
1011(739)
J6
188(198)
176(75)
LAM HING STREET
109(186)
80(150)
391(342)
52(71)
宏照道
WANG CHIU ROAD
81(98)
588(413)
423(377)
常悅道
SHEUNG YUET ROAD
191(164)
141(99)
159(248)
113(186)
J7
251(249)
134(104)
169(114)
532(485)
臨豐街
LAM FUNG STREET
J8
65(74)
385(353)
360(504)
64(61)
467(424)
常怡道
SHEUNG YEE ROAD
145(223)
616(544)
449(415)
129(125)
132(157)
J9
825(785)
535(582)
北
N

LEGEND :

123 - AM peak hour traffic flow, pcu / hr

(456) - PM peak hour traffic flow, pcu / hr

Project Title

PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7266

Figure Title

EXISTING PEAK HOUR TRAFFIC FLOWS

Figure No.		Revision
2.14		R4A
Designed by	Drawn by	Checked by
T H C	C C L	K C
Scale in A3	Date	
N.T.S.	21 JUN 2024	

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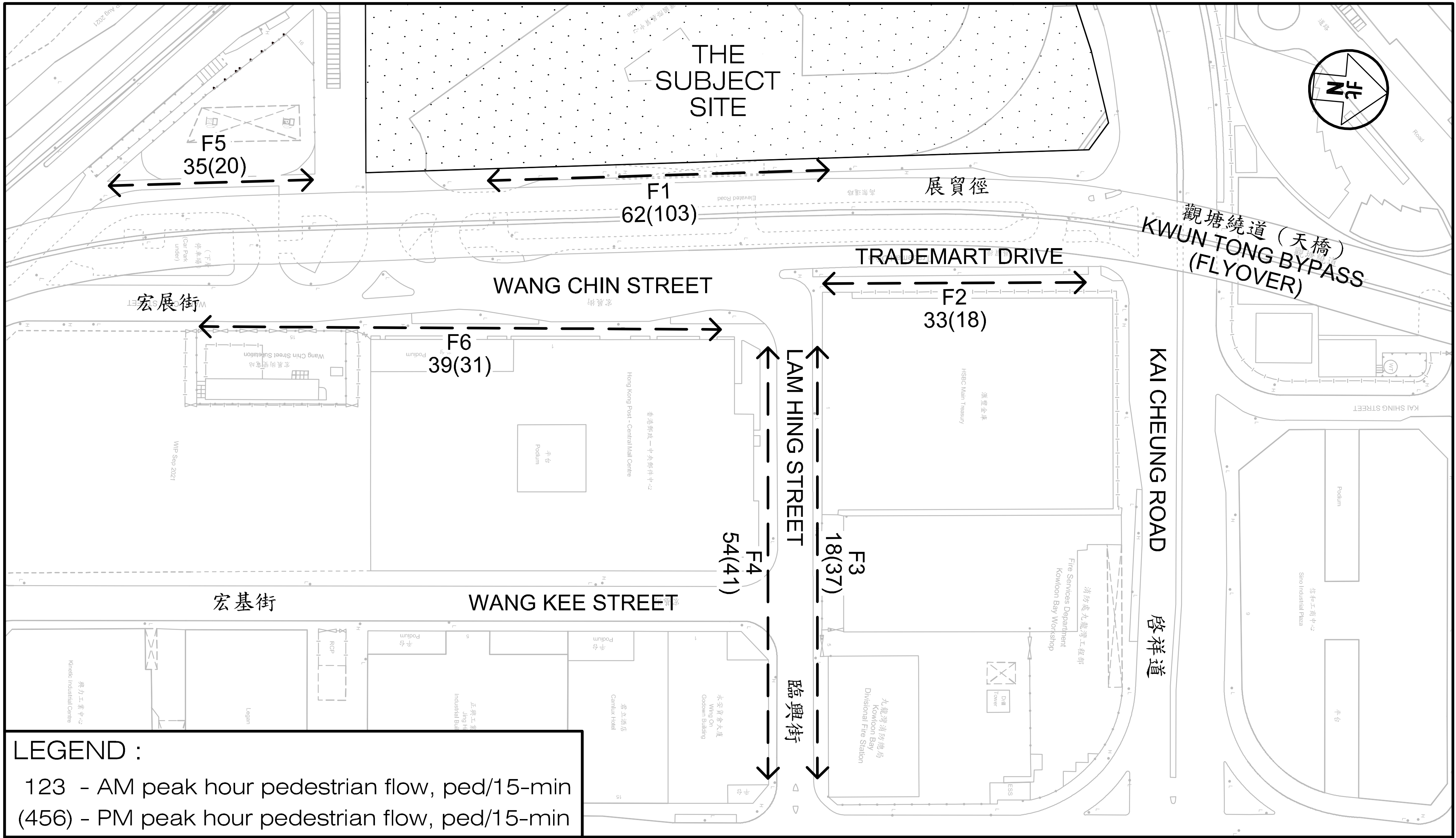

北 N
THE SUBJECT SITE
F1
62(103)
F2
33(18)
F3
18(37)
F4
54(41)
F5
35(20)
F6
39(31)
展貿徑
觀塘繞道（天橋）
KWUN TONG BYPASS (FLYOVER)
TRADEMART DRIVE
WANG CHIN STREET
宏展街
LAM HING STREET
臨興街
KAI CHEUNG ROAD
啓祥道
WANG KEE STREET
宏基街
HSBC Main Treasury
Hong Kong Post - Central Mail Centre
Podium
Fire Services Department Kowloon Bay Workshop
Kowloon Bay Divisional Fire Station
Sino Industrial Plaza
Wing On Godown Building
Camlux Hotel
Kinetic Industrial Centre
Wang Chin Street Substation
WIP Sep 2021
Elevated Road
KAI SHING STREET

LEGEND :

123 - AM peak hour pedestrian flow, ped/15-min

(456) - PM peak hour pedestrian flow, ped/15-min

Project Title	PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON J7266
Figure Title	EXISTING PEAK 15-MINUTE PEDESTRIAN FLOWS

Figure No.	Revision
2.15	R4A

Designed by	Drawn by	Checked by
T H C	C C L	K C

Scale in A4	Date
1 : 1,500	21 JUN 2024

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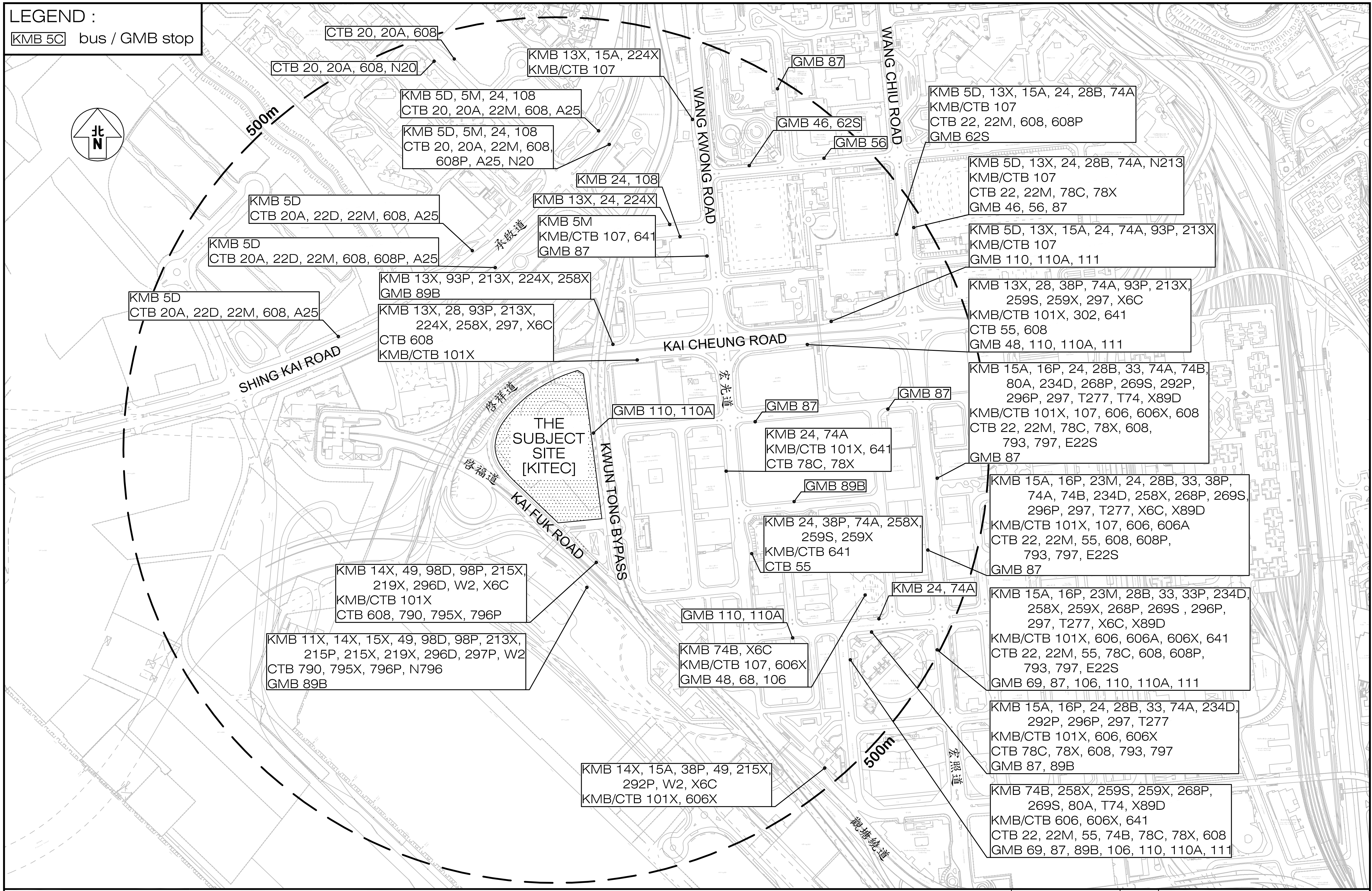
T:\JOB\J7250-J7299\J7266\R4\Fig 2.15 RevR4A.dwg


LEGEND :
KMB 5C bus / GMB stop
北 N
500m
500m
CTB 20, 20A, 608
CTB 20, 20A, 608, N20
KMB 13X, 15A, 224X
KMB/CTB 107
GMB 87
KMB 5D, 5M, 24, 108
CTB 20, 20A, 22M, 608, A25
KMB 5D, 5M, 24, 108
CTB 20, 20A, 22M, 608, 608P, A25, N20
GMB 46, 62S
GMB 56
KMB 5D, 13X, 15A, 24, 28B, 74A
KMB/CTB 107
CTB 22, 22M, 608, 608P
GMB 62S
KMB 24, 108
KMB 13X, 24, 224X
KMB 5D, 13X, 24, 28B, 74A, N213
KMB/CTB 107
CTB 22, 22M, 78C, 78X
GMB 46, 56, 87
KMB 5D
CTB 20A, 22D, 22M, 608, A25
KMB 5M
KMB/CTB 107, 641
GMB 87
KMB 5D, 13X, 15A, 24, 74A, 93P, 213X
KMB/CTB 107
GMB 110, 110A, 111
KMB 5D
CTB 20A, 22D, 22M, 608, 608P, A25
KMB 13X, 93P, 213X, 224X, 258X
GMB 89B
KMB 13X, 28, 38P, 74A, 93P, 213X, 259S, 259X, 297, X6C
KMB/CTB 101X, 302, 641
CTB 55, 608
GMB 48, 110, 110A, 111
KMB 5D
CTB 20A, 22D, 22M, 608, A25
KMB 13X, 28, 93P, 213X, 224X, 258X, 297, X6C
CTB 608
KMB/CTB 101X
KMB 15A, 16P, 24, 28B, 33, 74A, 74B, 80A, 234D, 268P, 269S, 292P, 296P, 297, T277, T74, X89D
KMB/CTB 101X, 107, 606, 606X, 608
CTB 22, 22M, 78C, 78X, 608, 793, 797, E22S
GMB 87
GMB 110, 110A
GMB 87
GMB 87
KMB 24, 74A
KMB/CTB 101X, 641
CTB 78C, 78X
GMB 89B
KMB 15A, 16P, 23M, 24, 28B, 33, 38P, 74A, 74B, 234D, 258X, 268P, 269S, 296P, 297, T277, X6C, X89D
KMB/CTB 101X, 107, 606, 606A
CTB 22, 22M, 55, 608, 608P, 793, 797, E22S
GMB 87
KMB 24, 38P, 74A, 258X, 259S, 259X
KMB/CTB 641
CTB 55
KMB 14X, 49, 98D, 98P, 215X, 219X, 296D, W2, X6C
KMB/CTB 101X
CTB 608, 790, 795X, 796P
KMB 24, 74A
GMB 110, 110A
KMB 15A, 16P, 23M, 28B, 33, 33P, 234D, 258X, 259X, 268P, 269S , 296P, 297, T277, X6C, X89D
KMB/CTB 101X, 606, 606A, 606X, 641
CTB 22, 22M, 55, 78C, 608, 608P, 793, 797, E22S
GMB 69, 87, 106, 110, 110A, 111
KMB 11X, 14X, 15X, 49, 98D, 98P, 213X, 215P, 215X, 219X, 296D, 297P, W2
CTB 790, 795X, 796P, N796
GMB 89B
KMB 74B, X6C
KMB/CTB 107, 606X
GMB 48, 68, 106
KMB 15A, 16P, 24, 28B, 33, 74A, 234D, 292P, 296P, 297, T277
KMB/CTB 101X, 606, 606X
CTB 78C, 78X, 608, 793, 797
GMB 87, 89B
KMB 14X, 15A, 38P, 49, 215X, 292P, W2, X6C
KMB/CTB 101X, 606X
KMB 74B, 258X, 259S, 259X, 268P, 269S, 80A, T74, X89D
KMB/CTB 606, 606X, 641
CTB 22, 22M, 55, 74B, 78C, 78X, 608
GMB 69, 87, 89B, 106, 110, 110A, 111
WANG KWONG ROAD
WANG CHIU ROAD
承啓道
KAI CHEUNG ROAD
宏光道
SHING KAI ROAD
啓祥道
THE SUBJECT SITE [KITEC]
KWUN TONG BYPASS
啓福道
KAI FUK ROAD
宏照道
觀塘繞道

T:\JOB\J7250-J7299\J7266\R4\Fig 2.16 RevR4A.dwg

Project Title

PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7266

Figure Title

DETAILS OF THE PUBLIC TRANSPORT SERVICES IN THE VICINITY OF THE SUBJECT SITE

Figure No.		Revision
2.16		R4A
Designed by	Drawn by	Checked by
T H C	C C L	K C
Scale in A3	Date	
N.T.S.	21 JUN 2024	

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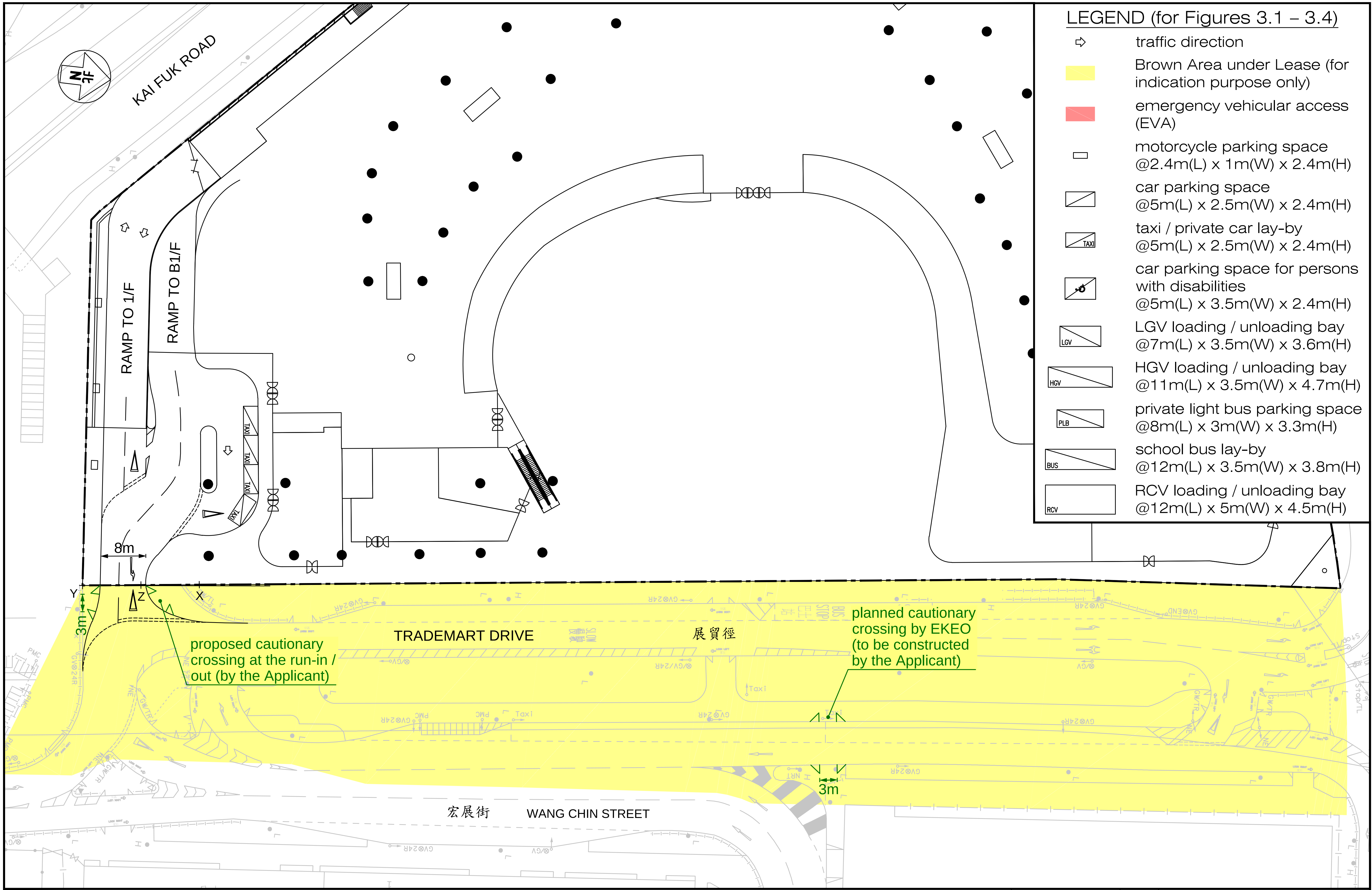
KAI FUK ROAD
N
RAMP TO 1/F
RAMP TO B1/F
TAXI
8m
3m
Y
Z
X
TRADEMART DRIVE
展貿徑
proposed cautionary crossing at the run-in / out (by the Applicant)
planned cautionary crossing by EKEO (to be constructed by the Applicant)
3m
宏展街
WANG CHIN STREET
LEGEND (for Figures 3.1 – 3.4)
⇨ traffic direction
Brown Area under Lease (for indication purpose only)
emergency vehicular access (EVA)
motorcycle parking space @2.4m(L) x 1m(W) x 2.4m(H)
car parking space @5m(L) x 2.5m(W) x 2.4m(H)
TAXI taxi / private car lay-by @5m(L) x 2.5m(W) x 2.4m(H)
car parking space for persons with disabilities @5m(L) x 3.5m(W) x 2.4m(H)
LGV LGV loading / unloading bay @7m(L) x 3.5m(W) x 3.6m(H)
HGV HGV loading / unloading bay @11m(L) x 3.5m(W) x 4.7m(H)
PLB private light bus parking space @8m(L) x 3m(W) x 3.3m(H)
BUS school bus lay-by @12m(L) x 3.5m(W) x 3.8m(H)
RCV RCV loading / unloading bay @12m(L) x 5m(W) x 4.5m(H)

Project Title

PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7266

Figure Title

GROUND FLOOR PLAN

Figure No. 3.1
Revision R4A
Designed by T H C
Drawn by C C L
Checked by K C
Scale in A3 1 : 600
Date 21 JUN 2024

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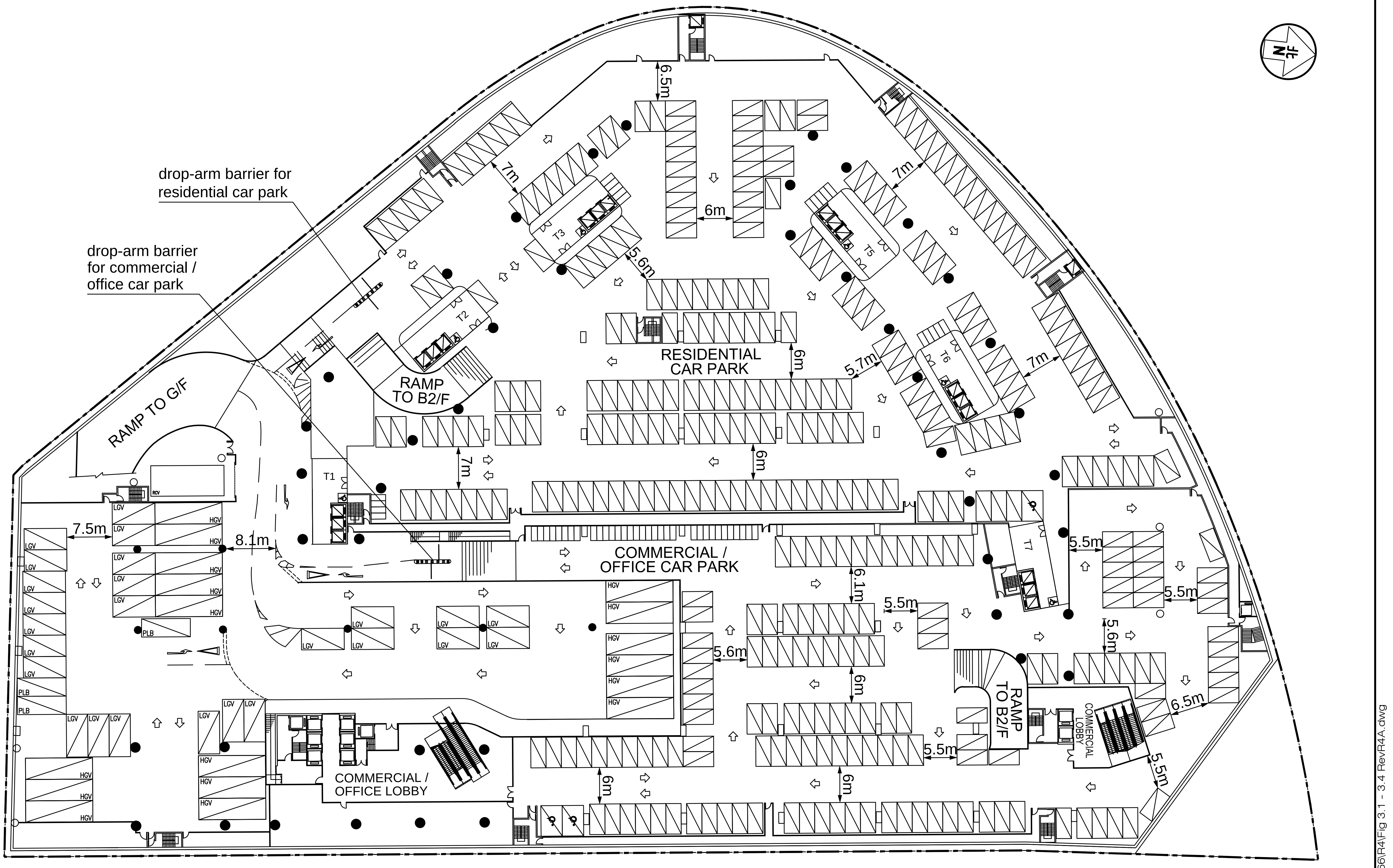
drop-arm barrier for residential car park
drop-arm barrier for commercial / office car park
RAMP TO G/F
RAMP TO B2/F
RESIDENTIAL CAR PARK
COMMERCIAL / OFFICE CAR PARK
COMMERCIAL / OFFICE LOBBY
COMMERCIAL LOBBY
RAMP TO B2/F
T1
T2
T3
T5
T6
T7
6.5m
7m
6m
5.6m
7m
6m
5.7m
7m
7m
6m
7.5m
8.1m
5.5m
5.5m
6.1m
5.5m
5.6m
5.6m
6m
6.5m
5.5m
5.5m
6m
6m
LGV
HGV
PLB
RCV

Project Title

PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7266

Figure Title

BASEMENT FIRST FLOOR PLAN

Figure No.		Revision
3.2		R4A
Designed by	Drawn by	Checked by
T H C	C C L	K C
Scale in A3	Date	
1 : 600	21 JUN 2024	

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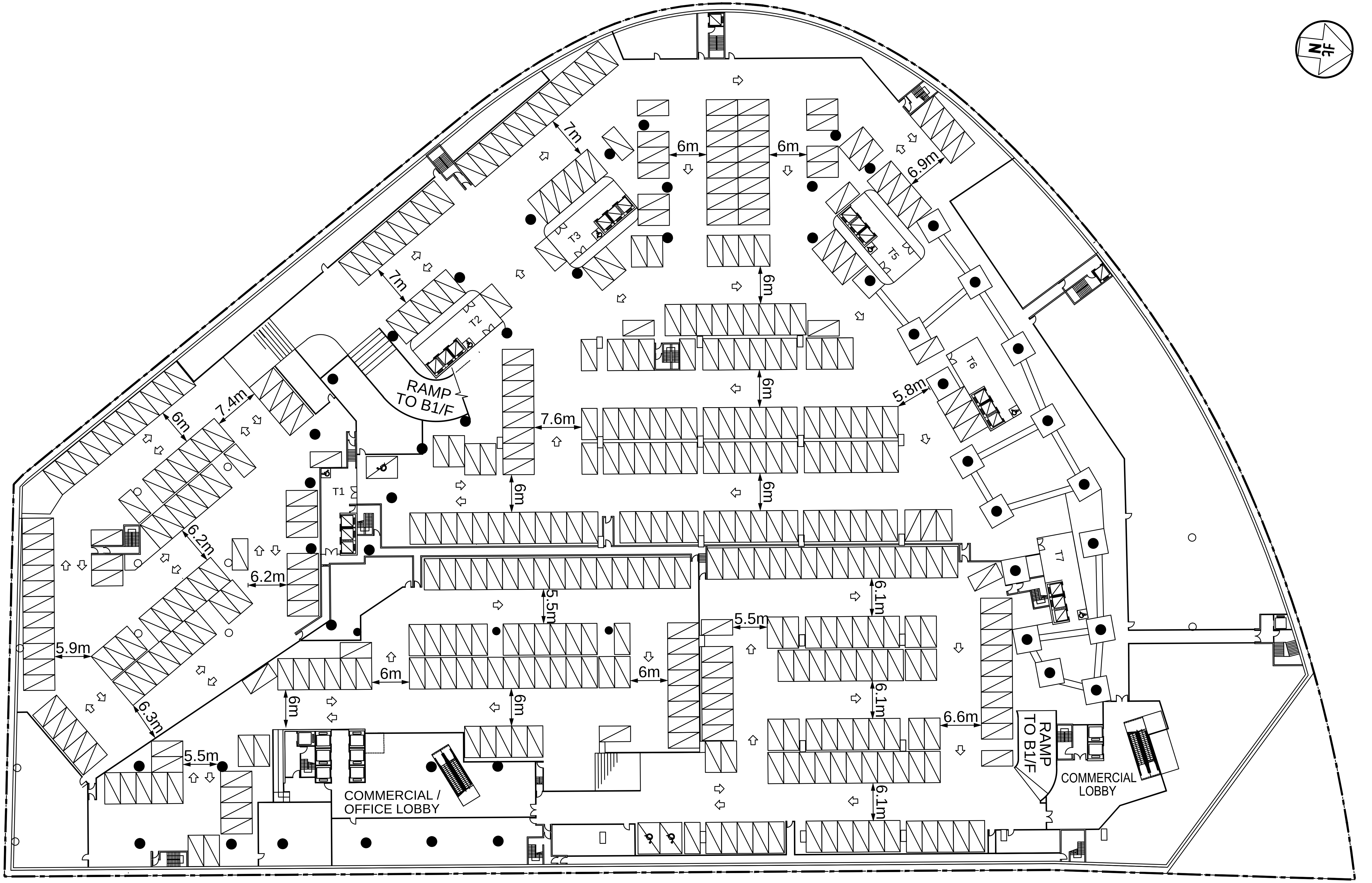

N
7m
6m
6m
6.9m
T3
T5
7m
T2
6m
RAMP TO B1/F
7.4m
6m
T1
6m
7.6m
6m
5.8m
T6
6.2m
6.2m
6m
5.5m
6.1m
5.5m
T7
5.9m
6m
6m
6.3m
6m
6m
6.1m
6.6m
RAMP TO B1/F
5.5m
COMMERCIAL / OFFICE LOBBY
COMMERCIAL LOBBY
6.1m

Project Title
PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7266

Figure Title

BASEMENT SECOND FLOOR PLAN

Figure No.		Revision
3.3		R4A
Designed by	Drawn by	Checked by
T H C	C C L	K C
Scale in A3	Date	
1 : 600	21 JUN 2024	

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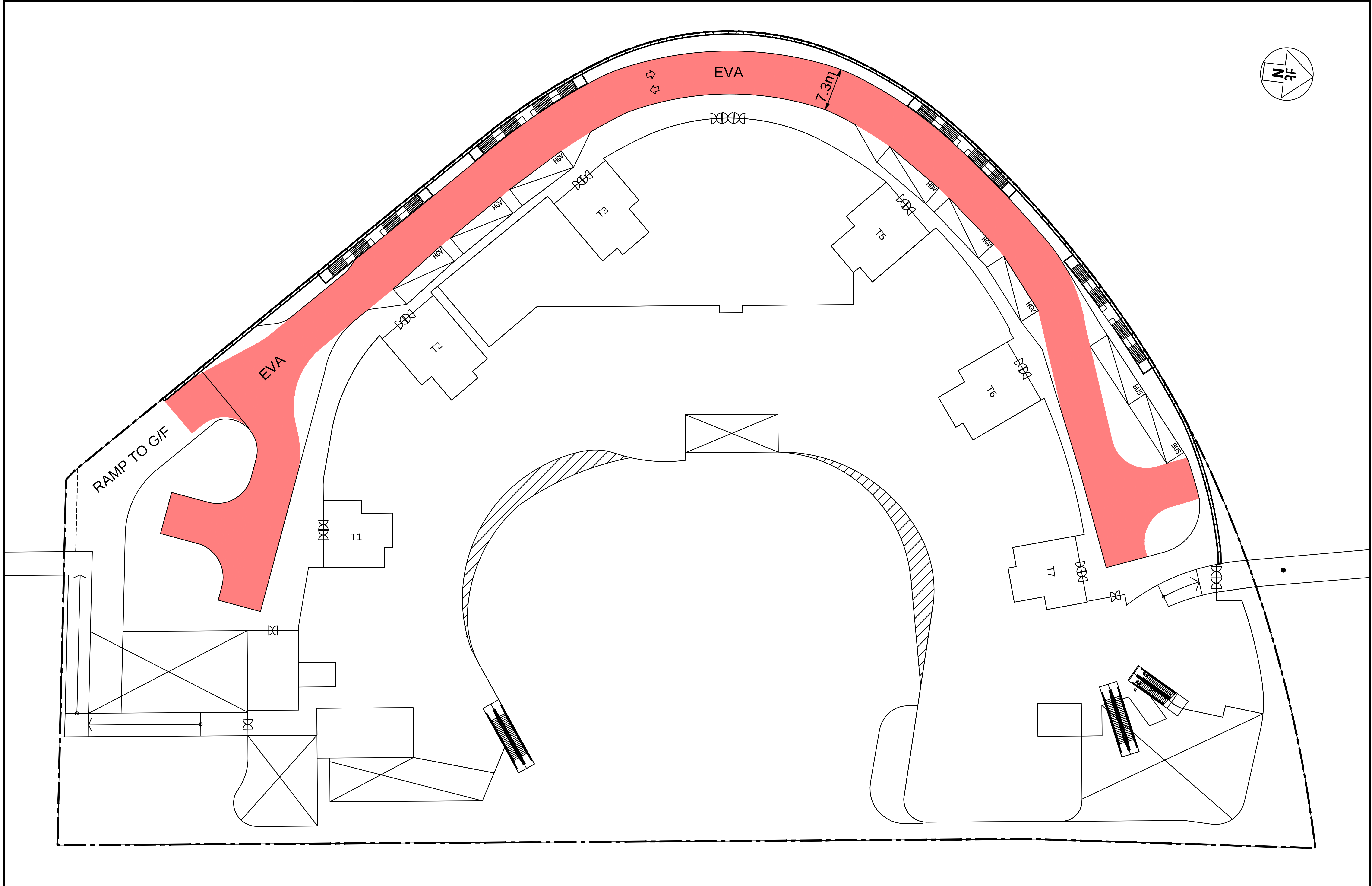
T:\JOB\J7250~J7299\J7266\R4\Fig 3.1 - 3.4 RevR4A.dwg


EVA
7.3m
EVA
RAMP TO G/F
HGV
HGV
HGV
HGV
HGV
HGV
BUS
BUS
T1
T2
T3
T5
T6
T7
N
北

Project Title

PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7266

Figure Title

FIRST FLOOR PLAN

Figure No.	Revision
3.4	R4A

Designed by	Drawn by	Checked by
T H C	C C L	K C

Scale in A3	Date
1 : 600	21 JUN 2024

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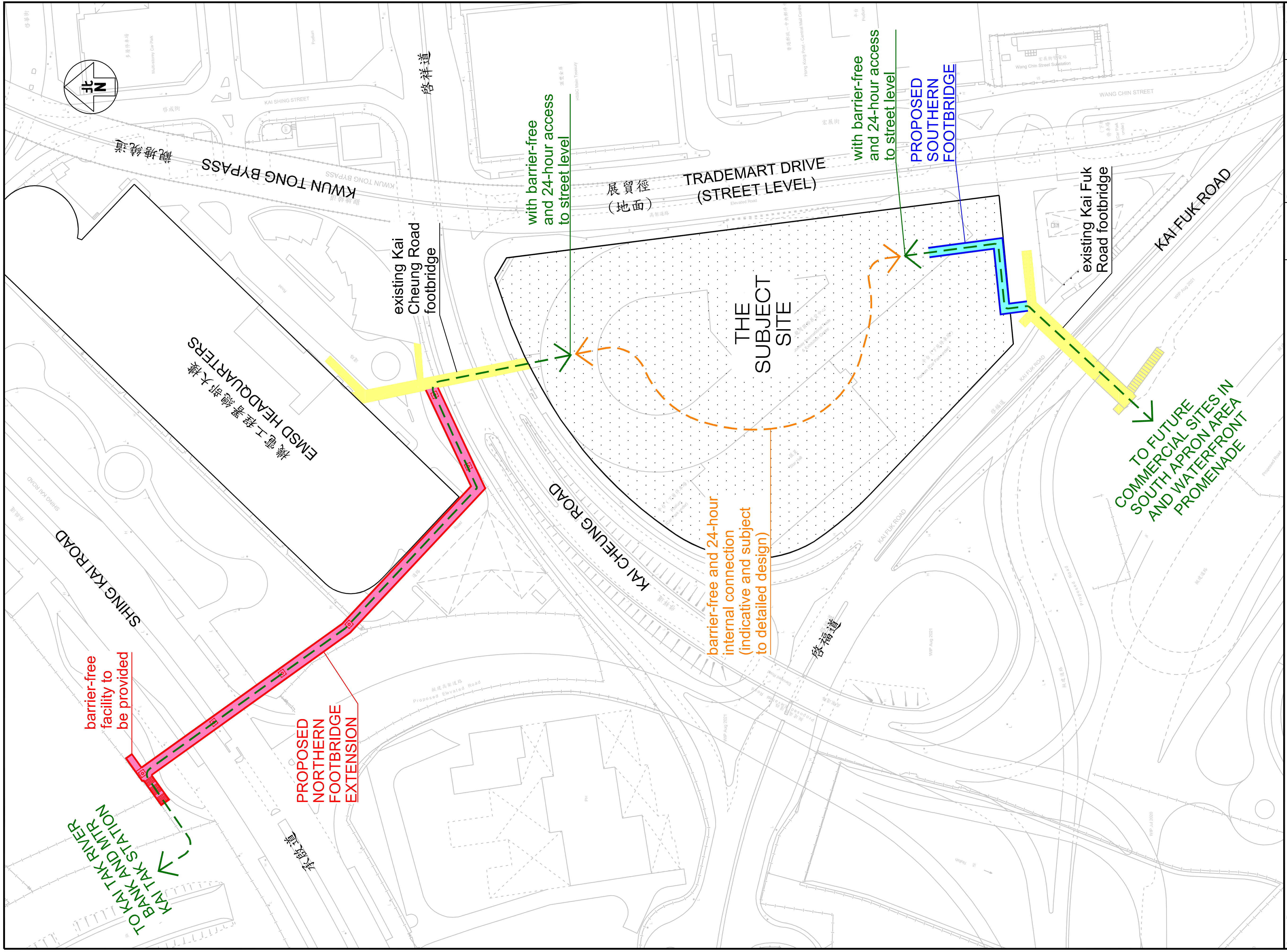
N
北
KWUN TONG BYPASS
觀塘繞道
TRADEMART DRIVE
(STREET LEVEL)
展貿徑
（地面）
啟祥道
EMSD HEADQUARTERS
機電工程署總部大樓
existing Kai Cheung Road footbridge
with barrier-free and 24-hour access to street level
with barrier-free and 24-hour access to street level
PROPOSED SOUTHERN FOOTBRIDGE
THE SUBJECT SITE
existing Kai Fuk Road footbridge
KAI FUK ROAD
TO FUTURE COMMERCIAL SITES IN SOUTH APRON AREA AND WATERFRONT PROMENADE
KAI CHEUNG ROAD
啟福道
barrier-free and 24-hour internal connection (indicative and subject to detailed design)
SHING KAI ROAD
PROPOSED NORTHERN FOOTBRIDGE EXTENSION
barrier-free facility to be provided
TO KAI TAK RIVER BANK AND MTR KAI TAK STATION
承啟道

Project Title

PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

Figure Title

GENERAL LAYOUT OF THE PROPOSED NORTHERN AND SOUTHERN FOOTBRIDGES

Job No.	Figure No.			Scale in A3
J7266	3.5			1 : 1,500
Designed by	Drawn by	Checked by	Revision	Date
T H C	C C L	K C	R4A	21 JUN 2024

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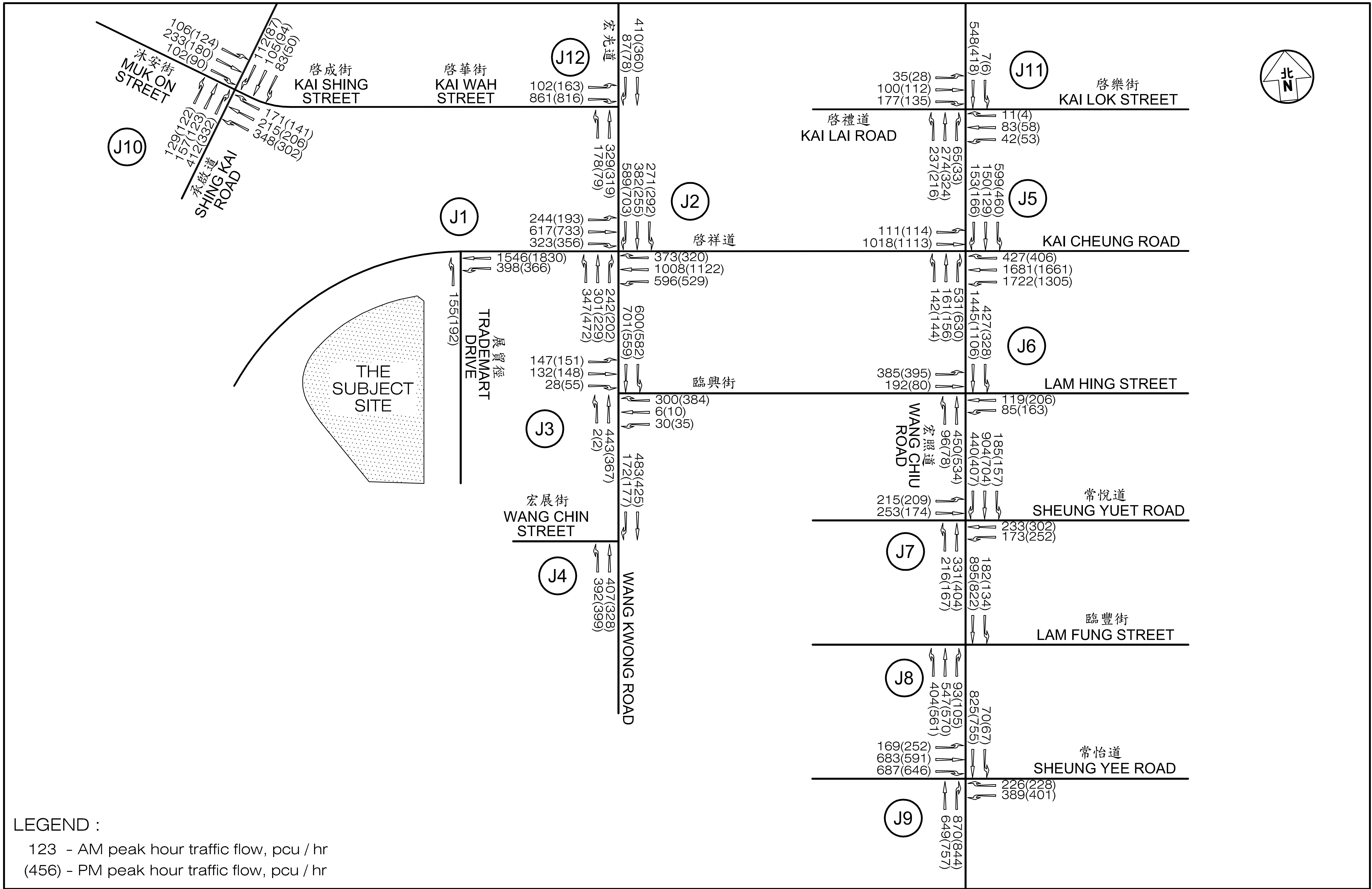
J10
106(124)
233(180)
102(90)
112(87)
105(94)
83(50)
171(141)
215(206)
348(302)
129(122)
157(123)
412(332)
沐安街
MUK ON STREET
承啟道
SHING KAI ROAD
啓成街
KAI SHING STREET
啓華街
KAI WAH STREET
J12
宏光道
410(360)
87(78)
102(163)
861(816)
329(319)
178(79)
J2
271(292)
382(255)
589(703)
244(193)
617(733)
323(356)
啓祥道
373(320)
1008(1122)
596(529)
242(202)
301(229)
347(472)
J1
1546(1830)
398(366)
155(192)
展貿徑
TRADEMART DRIVE
THE SUBJECT SITE
J3
600(582)
701(559)
147(151)
132(148)
28(55)
臨興街
300(384)
6(10)
30(35)
443(367)
2(2)
J4
483(425)
172(177)
宏展街
WANG CHIN STREET
407(328)
392(399)
WANG KWONG ROAD
J11
548(418)
7(6)
35(28)
100(112)
177(135)
啓樂街
KAI LOK STREET
啓禮道
KAI LAI ROAD
11(4)
83(58)
42(53)
65(33)
274(324)
237(216)
J5
599(460)
150(129)
153(166)
111(114)
1018(1113)
KAI CHEUNG ROAD
427(406)
1681(1661)
1722(1305)
531(630)
161(156)
142(144)
J6
427(328)
1445(1106)
385(395)
192(80)
LAM HING STREET
119(206)
85(163)
450(534)
96(78)
宏照道
WANG CHIU ROAD
J7
185(157)
904(704)
440(407)
215(209)
253(174)
常悅道
SHEUNG YUET ROAD
233(302)
173(252)
331(404)
216(167)
J8
182(134)
895(822)
臨豐街
LAM FUNG STREET
93(105)
547(570)
404(561)
J9
70(67)
825(755)
169(252)
683(591)
687(646)
常怡道
SHEUNG YEE ROAD
226(228)
389(401)
870(844)
649(757)
北
N

LEGEND :

123 - AM peak hour traffic flow, pcu / hr

(456) - PM peak hour traffic flow, pcu / hr

Project Title

PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION
OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7266

Figure Title

2028 PEAK HOUR TRAFFIC FLOWS WITH KITEC

Figure No.		Revision
4.1		R4A
Designed by	Drawn by	Checked by
T H C	C C L	K C
Scale in A3	Date	
N.T.S.	21 JUN 2024	

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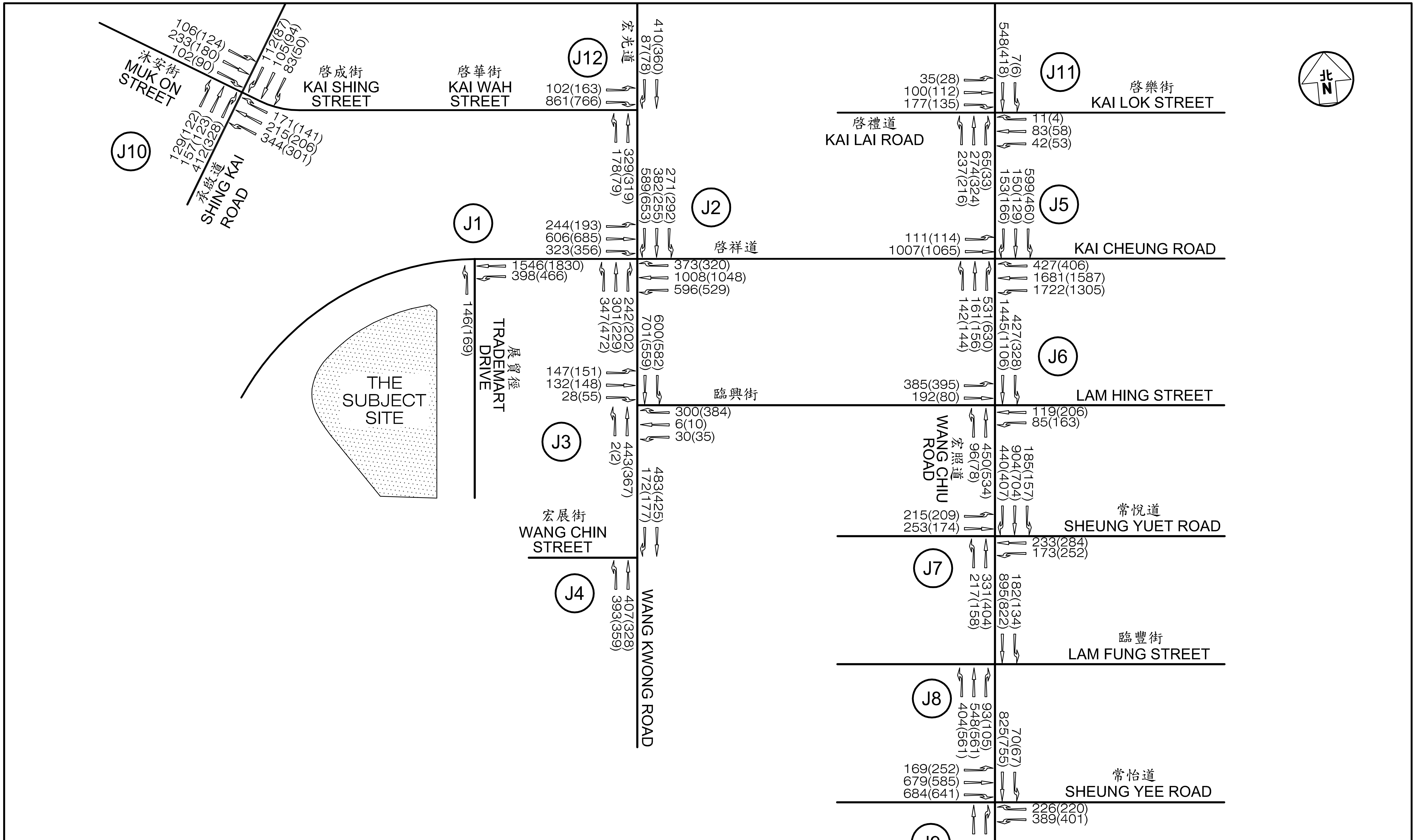
J1
J2
J3
J4
J5
J6
J7
J8
J9
J10
J11
J12
沐安街
MUK ON STREET
承啟道
SHING KAI ROAD
啓成街
KAI SHING STREET
啓華街
KAI WAH STREET
宏光道
啓樂街
KAI LOK STREET
啓禮道
KAI LAI ROAD
啓祥道
KAI CHEUNG ROAD
展貿徑
TRADEMART DRIVE
臨興街
LAM HING STREET
宏照道
WANG CHIU ROAD
常悅道
SHEUNG YUET ROAD
宏展街
WANG CHIN STREET
WANG KWONG ROAD
臨豐街
LAM FUNG STREET
常怡道
SHEUNG YEE ROAD
THE SUBJECT SITE
北
N
106(124)
233(180)
102(90)
112(87)
105(94)
83(50)
171(141)
215(206)
344(301)
129(122)
157(123)
412(328)
410(360)
87(78)
102(163)
861(766)
329(319)
178(79)
548(418)
7(6)
35(28)
100(112)
177(135)
11(4)
83(58)
42(53)
65(33)
274(324)
237(216)
271(292)
382(255)
589(653)
244(193)
606(685)
323(356)
599(460)
150(129)
153(166)
111(114)
1007(1065)
1546(1830)
398(466)
146(169)
373(320)
1008(1048)
596(529)
242(202)
301(229)
347(472)
427(406)
1681(1587)
1722(1305)
531(630)
161(156)
142(144)
427(328)
1445(1106)
600(582)
701(559)
147(151)
132(148)
28(55)
385(395)
192(80)
300(384)
6(10)
30(35)
443(367)
2(2)
119(206)
85(163)
450(534)
96(78)
185(157)
904(704)
440(407)
483(425)
172(177)
215(209)
253(174)
233(284)
173(252)
407(328)
393(359)
331(404)
217(158)
182(134)
895(822)
93(105)
548(561)
404(561)
70(67)
825(755)
169(252)
679(585)
684(641)
226(220)
389(401)
870(844)
650(756)

LEGEND :

123 - AM peak hour traffic flow, pcu / hr

(456) - PM peak hour traffic flow, pcu / hr

Project Title			
PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON	J7266	Figure No. 4.2	Revision R4A
Figure Title 2028 PEAK HOUR TRAFFIC FLOWS WITH APPROVED REDEVELOPMENT	Designed by T H C	Drawn by C C L	Checked by K C
	Scale in A3 N.T.S.	Date 21 JUN 2024	

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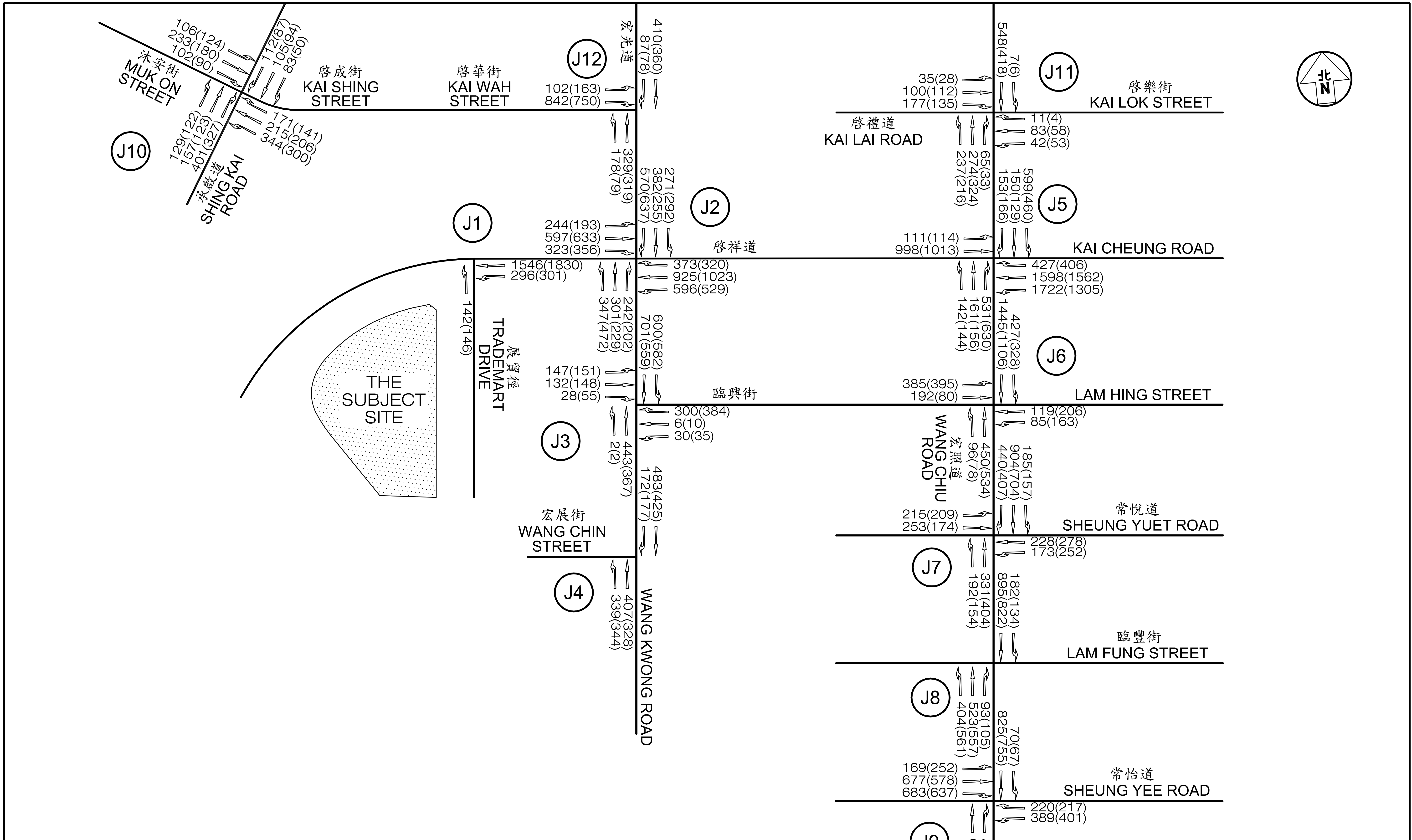
J1
J2
J3
J4
J5
J6
J7
J8
J9
J10
J11
J12
北 N
沐安街
MUK ON STREET
啓成街
KAI SHING STREET
啓華街
KAI WAH STREET
承啟道
SHING KAI ROAD
宏光道
啓禮道
KAI LAI ROAD
啓樂街
KAI LOK STREET
啓祥道
KAI CHEUNG ROAD
展貿徑
TRADEMART DRIVE
臨興街
LAM HING STREET
宏照道
WANG CHIU ROAD
宏展街
WANG CHIN STREET
WANG KWONG ROAD
常悅道
SHEUNG YUET ROAD
臨豐街
LAM FUNG STREET
常怡道
SHEUNG YEE ROAD
THE SUBJECT SITE
106(124)
233(180)
102(90)
112(87)
105(94)
83(50)
171(141)
215(206)
344(300)
129(122)
157(123)
401(327)
410(360)
87(78)
102(163)
842(750)
329(319)
178(79)
271(292)
382(255)
570(637)
244(193)
597(633)
323(356)
1546(1830)
296(301)
142(146)
373(320)
925(1023)
596(529)
242(202)
301(229)
347(472)
600(582)
701(559)
147(151)
132(148)
28(55)
300(384)
6(10)
30(35)
443(367)
2(2)
483(425)
172(177)
407(328)
339(344)
548(418)
7(6)
35(28)
100(112)
177(135)
11(4)
83(58)
42(53)
65(33)
274(324)
237(216)
599(460)
150(129)
153(166)
111(114)
998(1013)
427(406)
1598(1562)
1722(1305)
531(630)
161(156)
142(144)
427(328)
1445(1106)
385(395)
192(80)
119(206)
85(163)
450(534)
96(78)
185(157)
904(704)
440(407)
215(209)
253(174)
228(278)
173(252)
331(404)
192(154)
182(134)
895(822)
93(105)
523(557)
404(561)
70(67)
825(755)
169(252)
677(578)
683(637)
220(217)
389(401)
870(844)
631(755)

LEGEND :

123 - AM peak hour traffic flow, pcu / hr
(456) - PM peak hour traffic flow, pcu / hr

Project Title	PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON
	J7125
Figure Title	2028 PEAK HOUR TRAFFIC FLOWS WITH PROPOSED REDEVELOPMENT

Figure No.		Revision
4.3		R4A
Designed by	Drawn by	Checked by
T H C	C C L	K C
Scale in A3	Date	
N.T.S.	21 JUN 2024	

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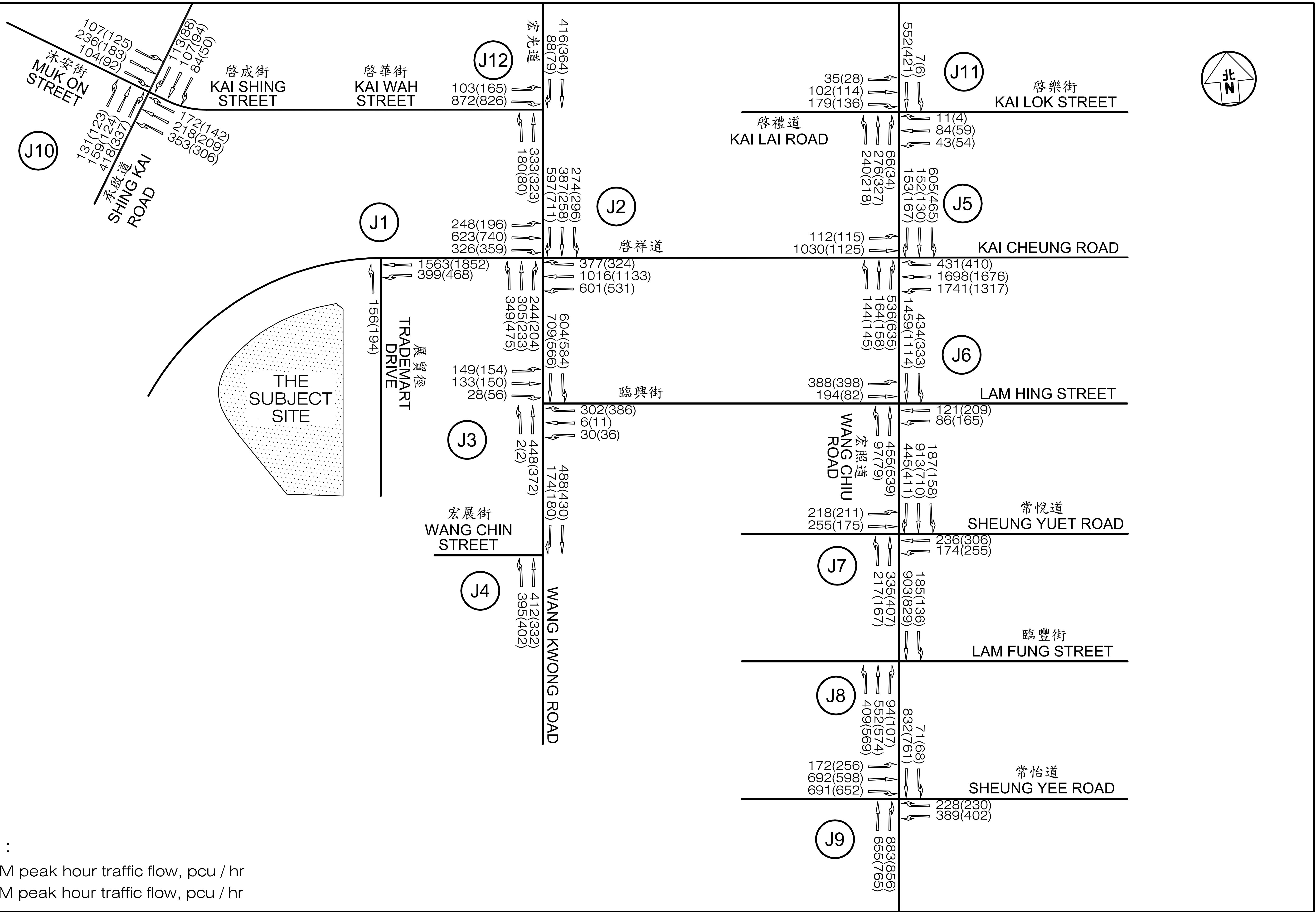
107(125)
236(183)
104(92)
113(88)
107(94)
84(50)
沐安街
MUK ON STREET
131(123)
159(124)
418(337)
172(142)
218(209)
353(306)
承啟道
SHING KAI ROAD
J10
啓成街
KAI SHING STREET
啓華街
KAI WAH STREET
J12
宏光道
416(364)
88(79)
103(165)
872(826)
333(323)
180(80)
J2
274(296)
387(258)
597(711)
248(196)
623(740)
326(359)
啓祥道
377(324)
1016(1133)
601(531)
244(204)
305(233)
349(475)
J1
1563(1852)
399(468)
156(194)
展貿徑
TRADEMART DRIVE
THE SUBJECT SITE
604(584)
709(566)
149(154)
133(150)
28(56)
臨興街
302(386)
6(11)
30(36)
J3
448(372)
2(2)
488(430)
174(180)
宏展街
WANG CHIN STREET
J4
412(332)
395(402)
WANG KWONG ROAD
552(421)
7(6)
J11
35(28)
102(114)
179(136)
啓樂街
KAI LOK STREET
啓禮道
KAI LAI ROAD
11(4)
84(59)
43(54)
66(34)
276(327)
240(218)
605(465)
152(130)
153(167)
J5
112(115)
1030(1125)
KAI CHEUNG ROAD
431(410)
1698(1676)
1741(1317)
536(635)
164(158)
144(145)
434(333)
1459(1114)
J6
388(398)
194(82)
LAM HING STREET
121(209)
86(165)
455(539)
97(79)
宏照道
WANG CHIU ROAD
187(158)
913(710)
445(411)
218(211)
255(175)
常悅道
SHEUNG YUET ROAD
236(306)
174(255)
J7
335(407)
217(167)
185(136)
903(829)
臨豐街
LAM FUNG STREET
J8
94(107)
552(574)
409(569)
71(68)
832(761)
172(256)
692(598)
691(652)
常怡道
SHEUNG YEE ROAD
228(230)
389(402)
J9
883(856)
655(765)
北
N

LEGEND :

123 - AM peak hour traffic flow, pcu / hr
(456) - PM peak hour traffic flow, pcu / hr

Project Title	PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON
	J7125
Figure Title	2031 PEAK HOUR TRAFFIC FLOWS WITH KITEC

Figure No.		Revision
4.4		R4A
Designed by	Drawn by	Checked by
T H C	C C L	K C
Scale in A3	Date	
N.T.S.	21 JUN 2024	

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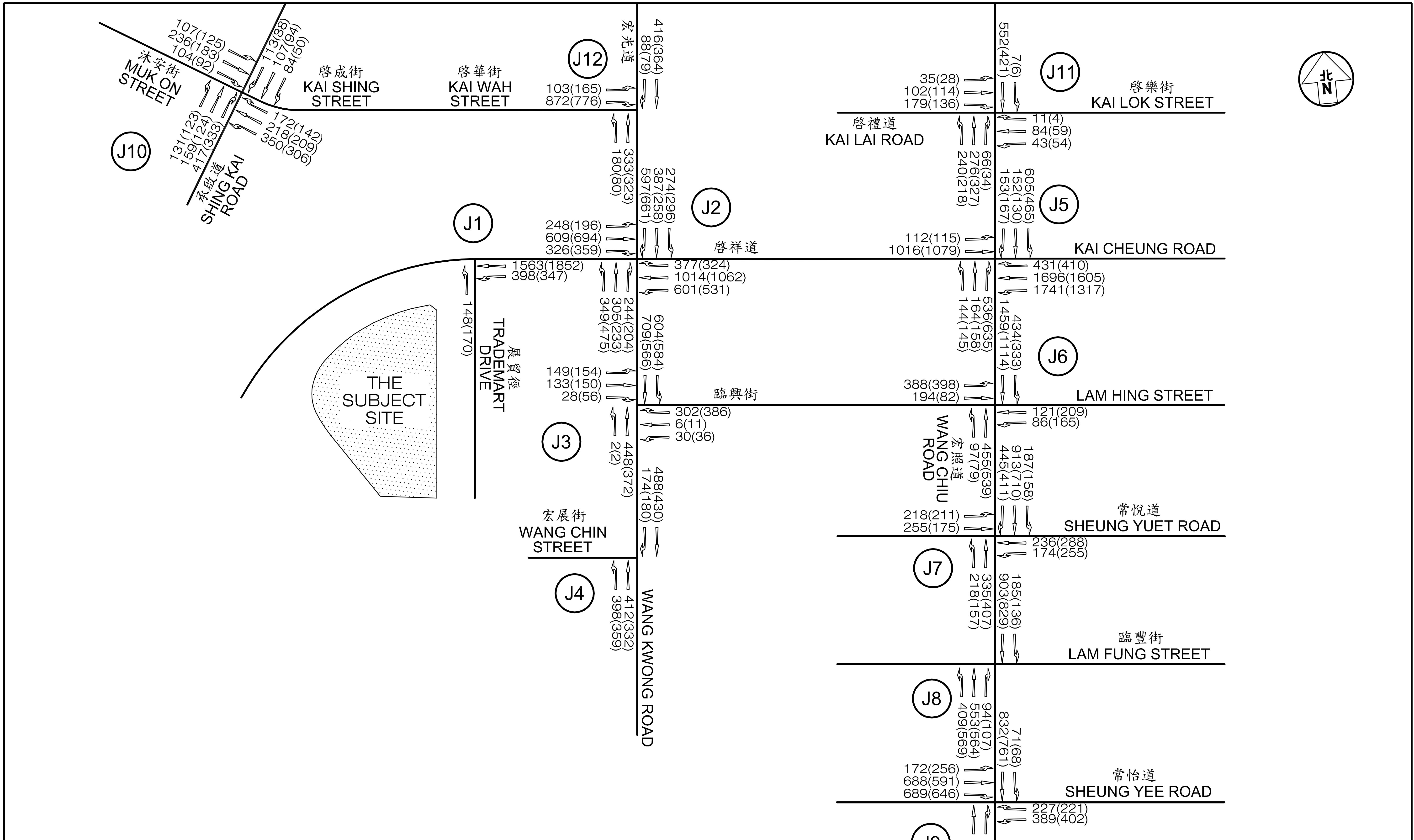
J1
J2
J3
J4
J5
J6
J7
J8
J9
J10
J11
J12
北 N
THE SUBJECT SITE
沐安街 MUK ON STREET
承啟道 SHING KAI ROAD
啓成街 KAI SHING STREET
啓華街 KAI WAH STREET
宏光道
展貿徑 TRADEMART DRIVE
啓祥道
臨興街
宏展街 WANG CHIN STREET
WANG KWONG ROAD
啓禮道 KAI LAI ROAD
啓樂街 KAI LOK STREET
KAI CHEUNG ROAD
LAM HING STREET
宏照道 WANG CHIU ROAD
常悅道 SHEUNG YUET ROAD
臨豐街 LAM FUNG STREET
常怡道 SHEUNG YEE ROAD
107(125)
236(183)
104(92)
113(88)
107(94)
84(50)
172(142)
218(209)
350(306)
131(123)
159(124)
417(333)
416(364)
88(79)
103(165)
872(776)
333(323)
180(80)
274(296)
387(258)
597(661)
248(196)
609(694)
326(359)
1563(1852)
398(347)
148(170)
377(324)
1014(1062)
601(531)
244(204)
305(233)
349(475)
604(584)
709(566)
149(154)
133(150)
28(56)
302(386)
6(11)
30(36)
448(372)
2(2)
488(430)
174(180)
412(332)
398(359)
552(421)
7(6)
35(28)
102(114)
179(136)
11(4)
84(59)
43(54)
66(34)
276(327)
240(218)
605(465)
152(130)
153(167)
112(115)
1016(1079)
431(410)
1696(1605)
1741(1317)
536(635)
164(158)
144(145)
434(333)
1459(1114)
388(398)
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86(165)
455(539)
97(79)
187(158)
913(710)
445(411)
218(211)
255(175)
236(288)
174(255)
335(407)
218(157)
185(136)
903(829)
94(107)
553(564)
409(569)
71(68)
832(761)
172(256)
688(591)
689(646)
227(221)
389(402)
883(856)
657(764)

LEGEND :

123 - AM peak hour traffic flow, pcu / hr

(456) - PM peak hour traffic flow, pcu / hr

Project Title	PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON	J7125	Figure No. 4.5	Revision R4A
Figure Title	2031 PEAK HOUR TRAFFIC FLOWS WITH APPROVED REDEVELOPMENT		Designed by THC Scale in A3 N.T.S.	Drawn by CCL	Checked by KC Date 21 JUN 2024

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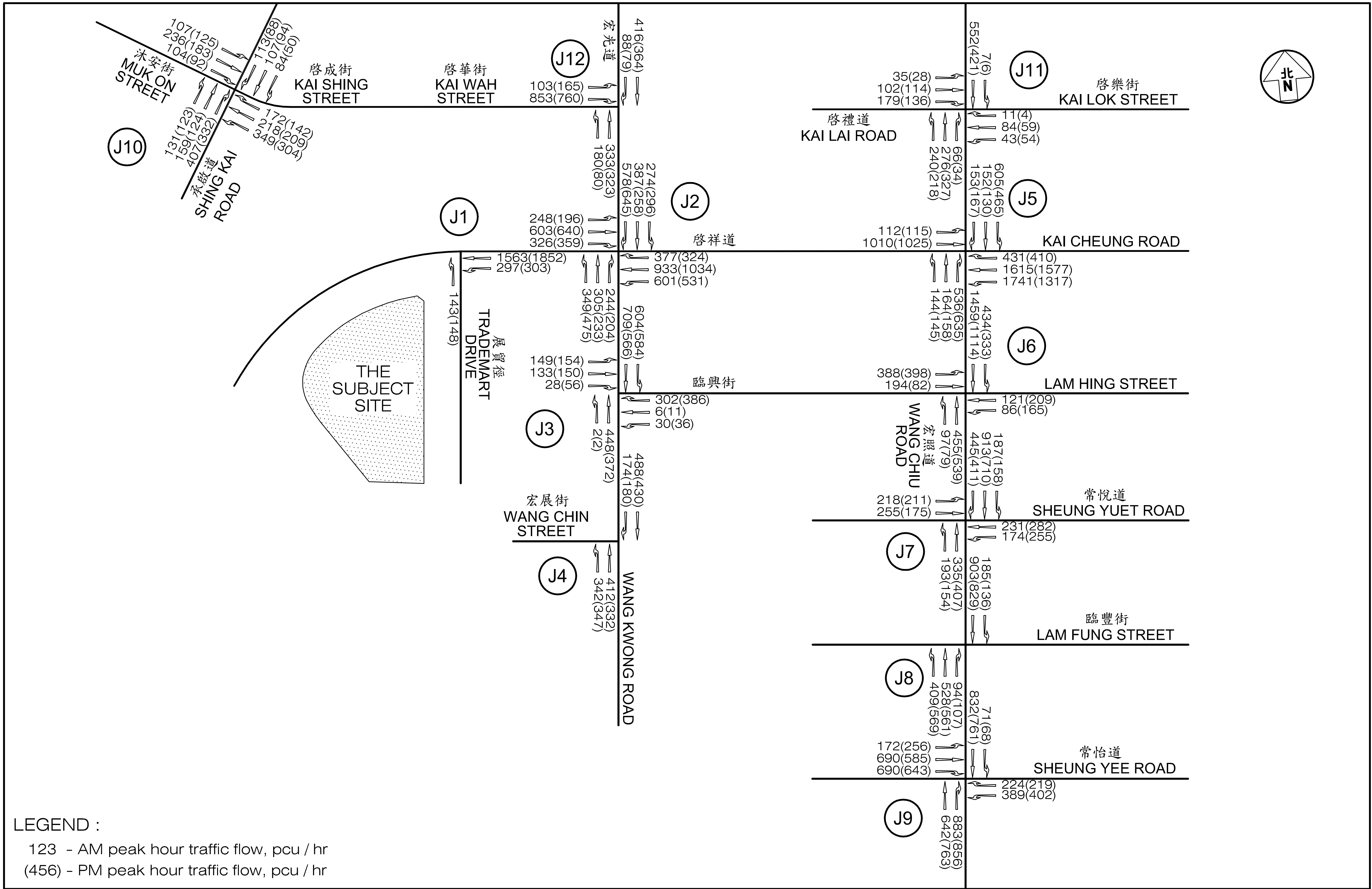
J10
107(125)
236(183)
104(92)
113(88)
107(94)
84(50)
沐安街
MUK ON STREET
131(123)
159(124)
407(332)
172(142)
218(209)
349(304)
承啟道
SHING KAI ROAD
啓成街
KAI SHING STREET
啓華街
KAI WAH STREET
J12
宏光道
416(364)
88(79)
103(165)
853(760)
333(323)
180(80)
J1
J2
248(196)
603(640)
326(359)
274(296)
387(258)
578(645)
啓祥道
1563(1852)
297(303)
143(148)
377(324)
933(1034)
601(531)
244(204)
305(233)
349(475)
展貿徑
TRADEMART DRIVE
THE SUBJECT SITE
604(584)
709(566)
149(154)
133(150)
28(56)
臨興街
302(386)
6(11)
30(36)
J3
448(372)
2(2)
488(430)
174(180)
宏展街
WANG CHIN STREET
J4
412(332)
342(347)
WANG KWONG ROAD
J11
552(421)
7(6)
35(28)
102(114)
179(136)
啓樂街
KAI LOK STREET
啓禮道
KAI LAI ROAD
11(4)
84(59)
43(54)
66(34)
276(327)
240(218)
605(465)
152(130)
153(167)
J5
112(115)
1010(1025)
KAI CHEUNG ROAD
431(410)
1615(1577)
1741(1317)
536(635)
164(158)
144(145)
434(333)
1459(1114)
J6
388(398)
194(82)
LAM HING STREET
121(209)
86(165)
宏照道
WANG CHIU ROAD
455(539)
97(79)
187(158)
913(710)
445(411)
218(211)
255(175)
常悅道
SHEUNG YUET ROAD
231(282)
174(255)
J7
335(407)
193(154)
185(136)
903(829)
臨豐街
LAM FUNG STREET
J8
94(107)
528(561)
409(569)
71(68)
832(761)
172(256)
690(585)
690(643)
常怡道
SHEUNG YEE ROAD
224(219)
389(402)
J9
883(856)
642(763)
北
N

LEGEND :

123 - AM peak hour traffic flow, pcu / hr

(456) - PM peak hour traffic flow, pcu / hr

Project Title	PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON	J7125	Figure No. 4.6	Revision R4A
Figure Title	2031 PEAK HOUR TRAFFIC FLOWS WITH PROPOSED REDEVELOPMENT		Designed by T H C Scale in A3 N.T.S.	Drawn by C C L	Checked by K C Date 21 JUN 2024

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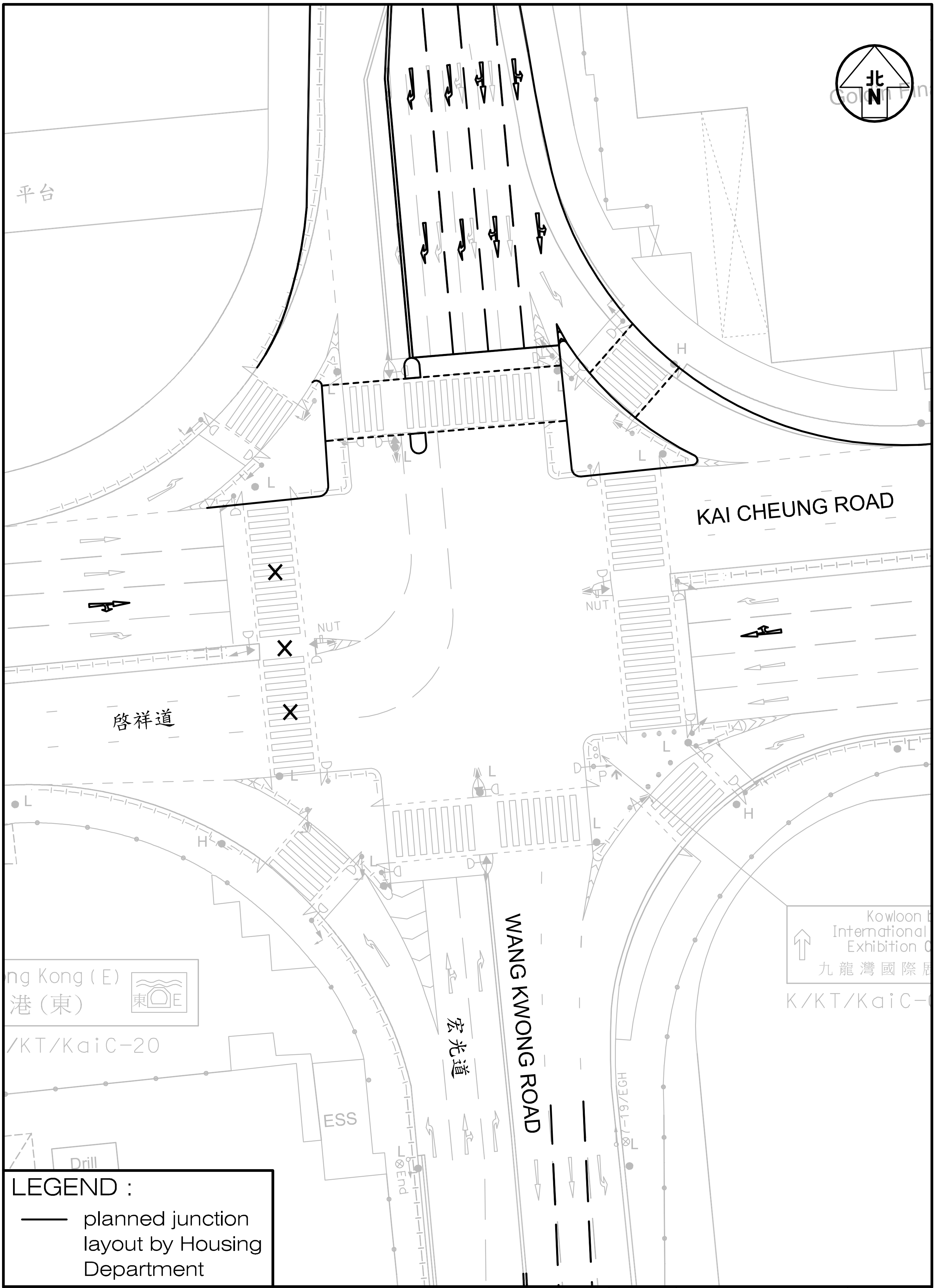
平台
KAI CHEUNG ROAD
啓祥道
NUT
NUT
L
H
P
WANG KWONG ROAD
宏光道
ng Kong (E)
港(東)
/KT/KaiC-20
ESS
Drill
End
Kowloon
International
Exhibition
九龍灣國際
K/KT/KaiC-
N
北

LEGEND :

planned junction layout by Housing Department

Project Title PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

Job No.	Figure No.	Scale in A4
J7266	4.7	1 : 500

Designed by	Drawn by	Checked by	Revision	Date
T H C	C C L	K C	R4A	21 JUN 2024

Figure Title

(J2) PLANNED IMPROVEMENT FOR JUNCTION OF KAI CHEUNG ROAD / WANG KWONG ROAD

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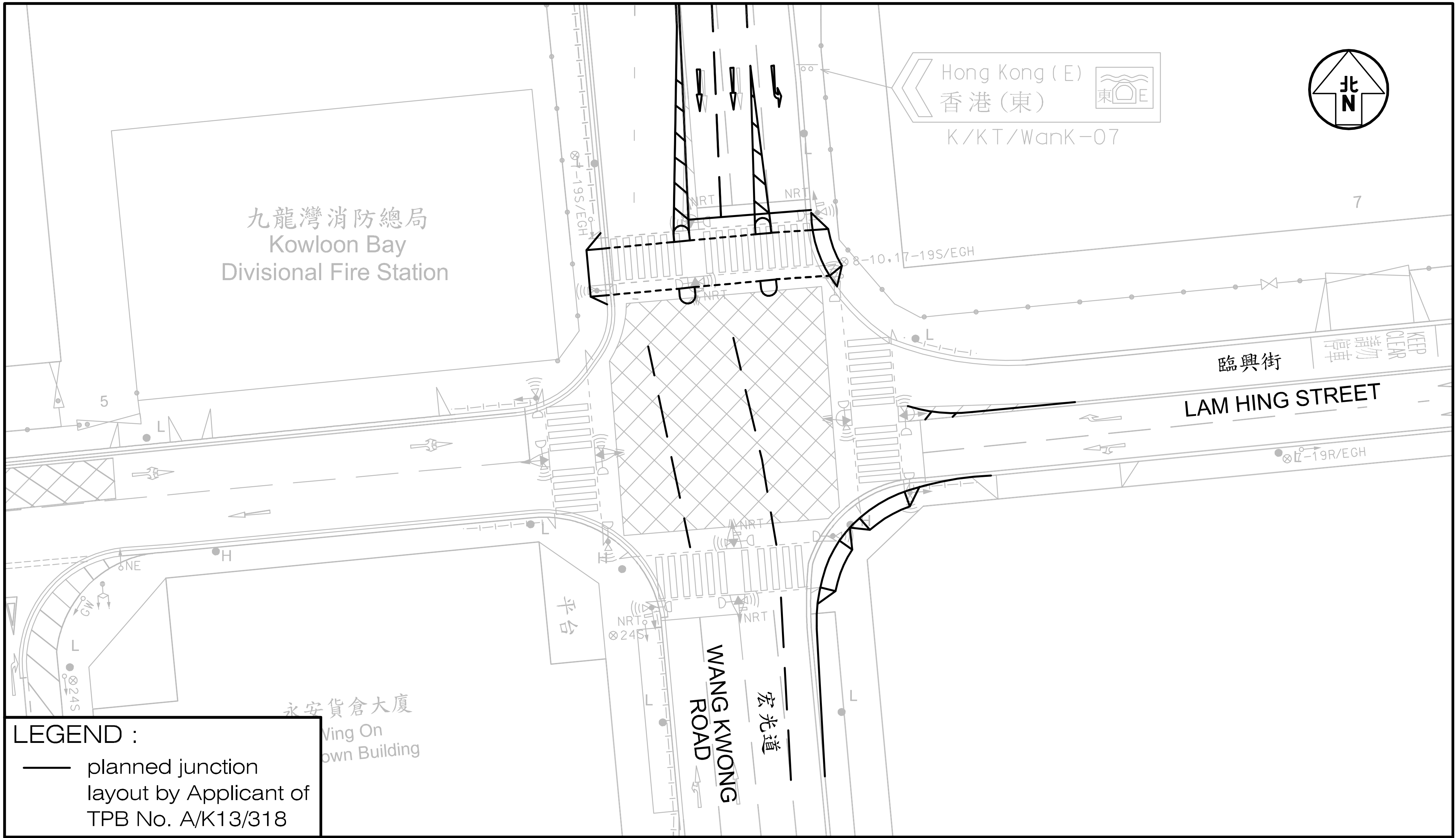
北
N
Hong Kong (E)
香港 (東)
東 E
K/KT/WanK-07
7
九龍灣消防總局
Kowloon Bay
Divisional Fire Station
5
NRT
8-10.17-19S/EGH
1-19S/EGH
臨興街
LAM HING STREET
KEEP CLEAR
請勿停車
17-19R/EGH
L
H
NE
GW
平台
24S
永安貨倉大廈
Wing On
own Building
WANG KWONG ROAD
宏光道

LEGEND :

—— planned junction layout by Applicant of TPB No. A/K13/318

Project Title	PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON	J7266	Figure No. 4.8	Revision R4A
Figure Title	(J3) PLANNED IMPROVEMENT FOR JUNCTION OF WANG KWONG ROAD / LAM HING STREET		Designed by T H C	Drawn by C C L
			Checked by K C	Scale in A4 1 : 500
			Date 21 JUN 2024	

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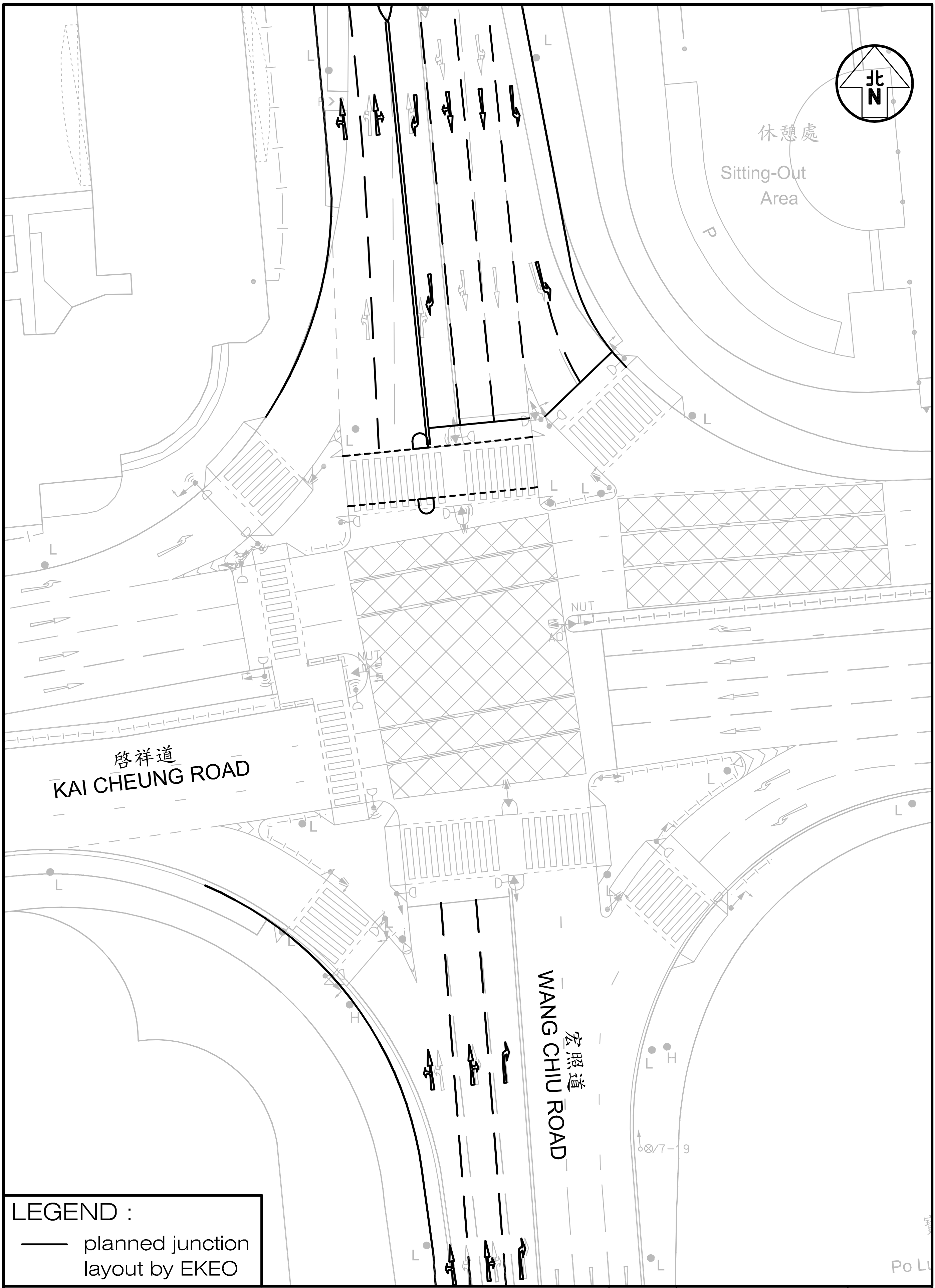
北
N
休憩處
Sitting-Out Area
P
L
NUT
AD
H
啓祥道
KAI CHEUNG ROAD
宏照道
WANG CHIU ROAD
⊗/7-19
Po Lu

LEGEND :

— planned junction layout by EKEO

Project Title	PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON	Job No. J7266	Figure No. 4.9	Scale in A4 1 : 500
		Designed by T H C	Drawn by C C L	Checked by K C
		Revision R4A	Date 21 JUN 2024	

Figure Title

(J5) PLANNED IMPROVEMENT FOR
JUNCTION OF KAI CHEUNG ROAD / WANG CHIU ROAD

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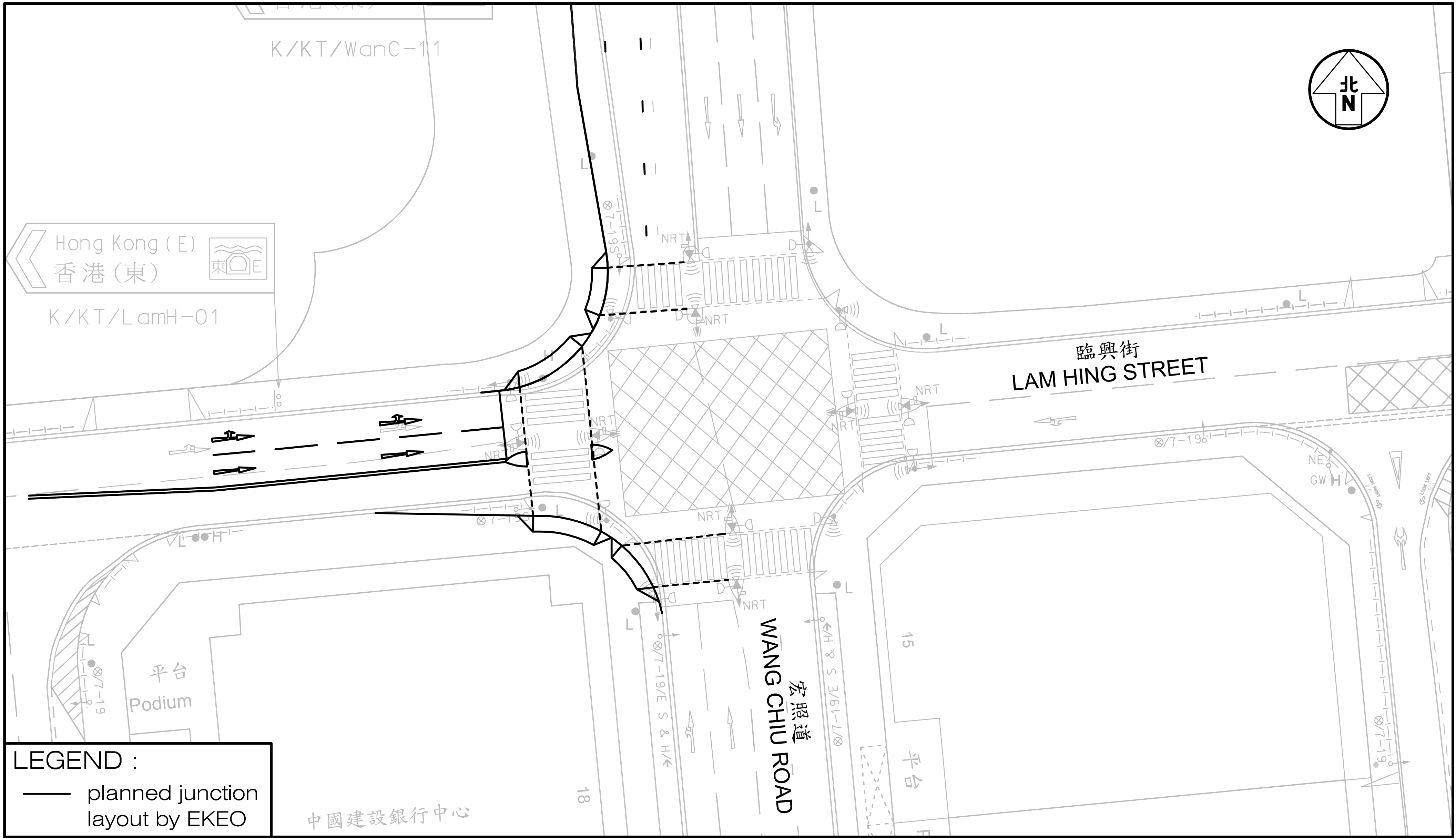
LEGEND :
planned junction layout by EKEO
LAM HING STREET
臨興街
WANG CHIU ROAD
宏照道
北
N
Hong Kong (E)
香港(東)
K/KT/WanC-11
K/KT/LamH-01
中國建設銀行中心
平台
Podium
15
18
NRT
⊗/7-19
⊗/7-19/E S & H/
L
H
NE
GW
LOOK RIGHT
LOOK LEFT

Project Title	PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON	J7266
Figure Title	(J6) PLANNED IMPROVEMENT FOR JUNCTION OF WANG CHIU ROAD / LAM HING STREET	

Figure No.		Revision
4.10		R4A
Designed by	Drawn by	Checked by
T H C	C C L	K C
Scale in A4	Date	
1 : 500	21 JUN 2024	

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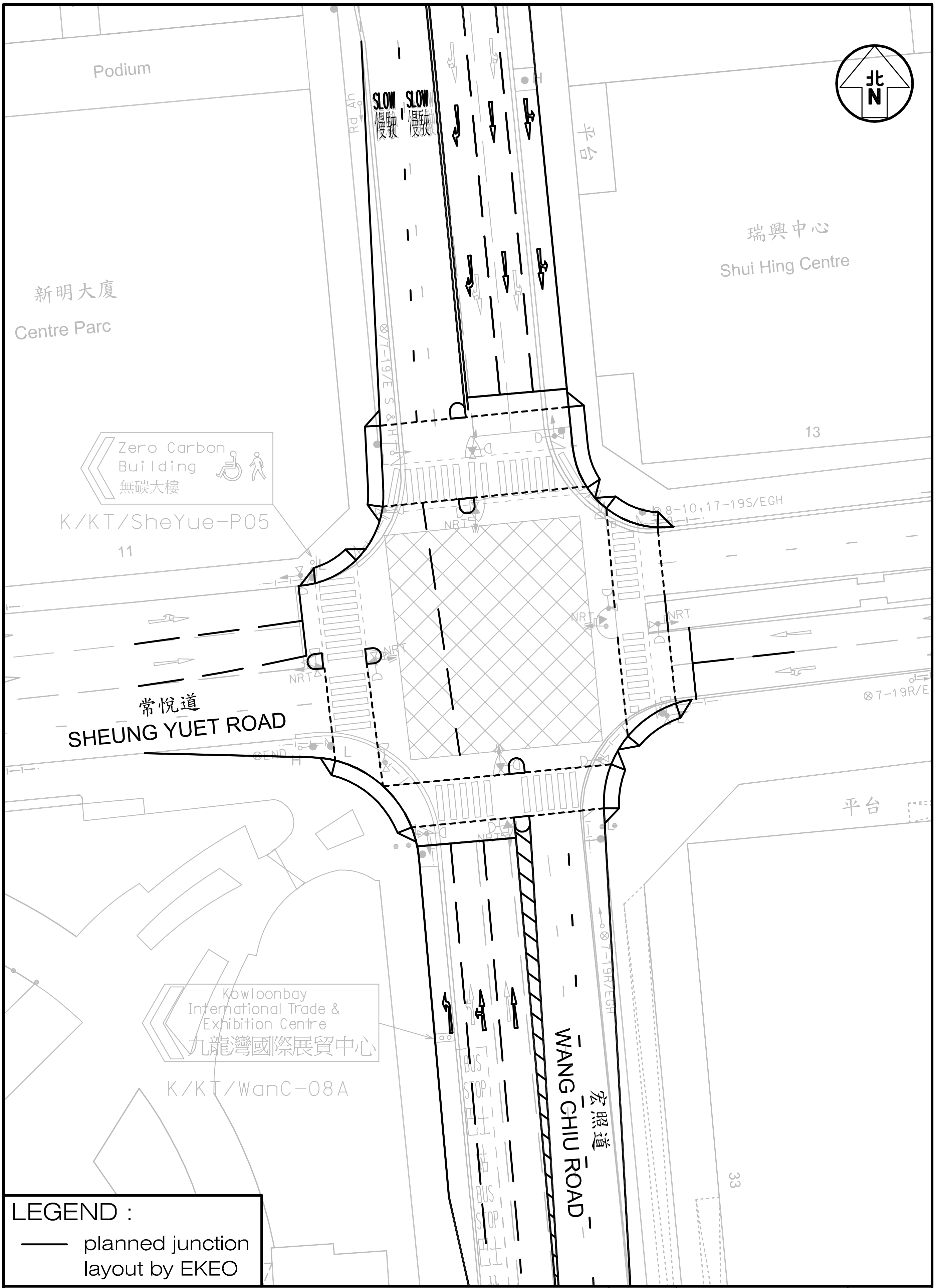
北
N
Podium
Rd Ah
SLOW 慢駛
SLOW 慢駛
平台
瑞興中心
Shui Hing Centre
新明大廈
Centre Parc
⊗7-19/E S&H
13
Zero Carbon Building
無碳大樓
K/KT/SheYue-P05
11
8-10,17-19S/EGH
NRT
⊗7-19R/E
常悅道
SHEUNG YUET ROAD
⊗END
平台
Kowloonbay International Trade & Exhibition Centre
九龍灣國際展貿中心
K/KT/WanC-08A
BUS STOP 巴士站
⊗7-19R/EGH
WANG CHIU ROAD
宏照道
33

LEGEND :

—— planned junction layout by EKEO

Project Title	PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON
Figure Title	(J7) PLANNED IMPROVEMENT FOR JUNCTION OF WANG CHIU ROAD / SHEUNG YUET ROAD

Job No.	Figure No.		Scale in A4
J7266	4.11		1 : 500

Designed by	Drawn by	Checked by	Revision	Date
T H C	C C L	K C	R4A	21 JUN 2024

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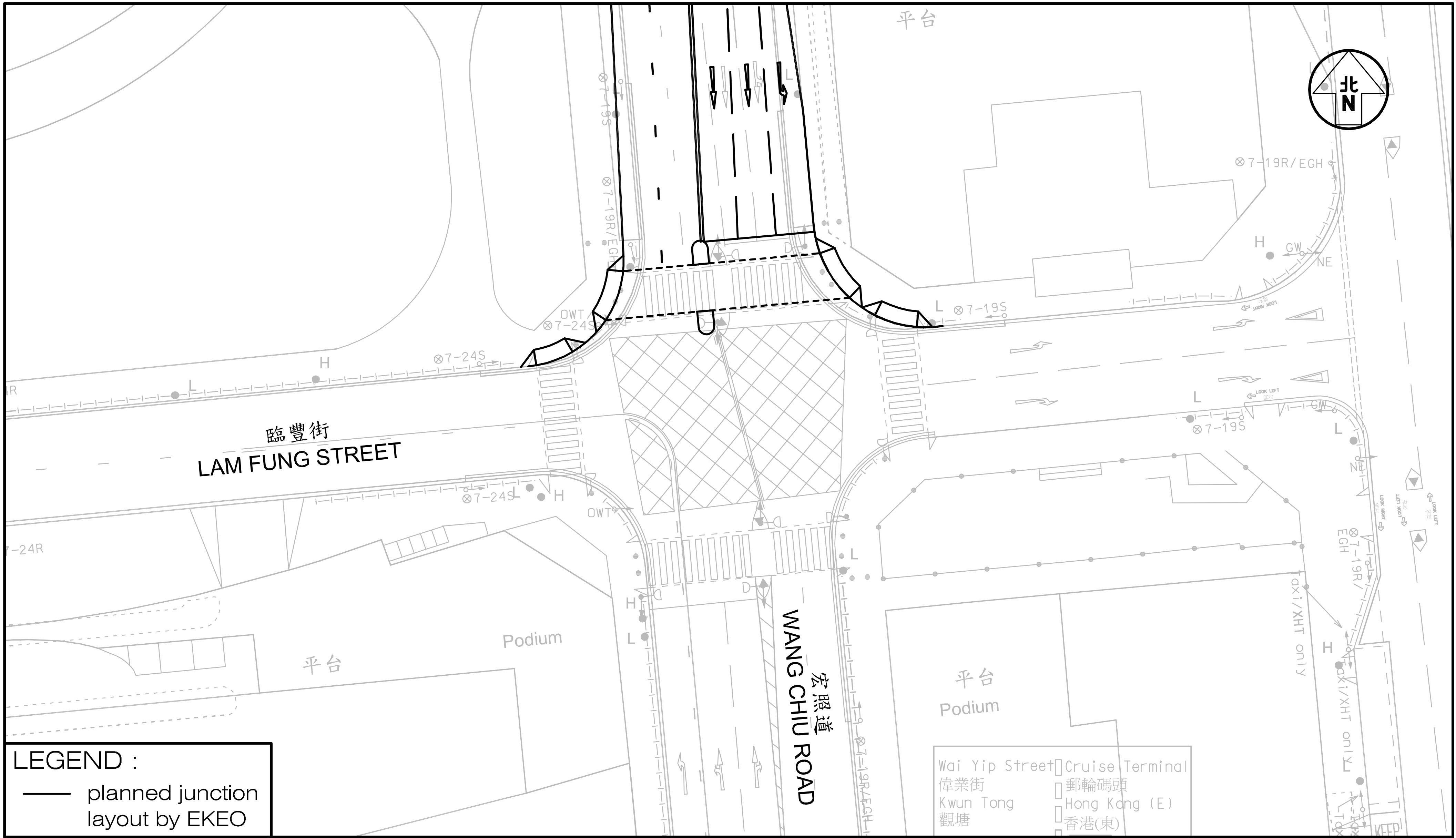
平台
臨豐街
LAM FUNG STREET
宏照道
WANG CHIU ROAD
Podium
平台
Podium
平台
Wai Yip Street
偉業街
Kwun Tong
觀塘
Cruise Terminal
郵輪碼頭
Hong Kong (E)
香港(東)
Taxi/XHT only
Taxi/XHT only
⊗7-19R/EGH
⊗7-19S
⊗7-24S
OWT
⊗7-24R
LEGEND :
planned junction layout by EKEO
北
N

Project Title

PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7266

Figure Title

(J8) PLANNED IMPROVEMENT FOR JUNCTION OF WANG CHIU ROAD / LAM FUNG STREET

Figure No.			Revision
4.12			R4A
Designed by	Drawn by	Checked by	
T H C	C C L	K C	
Scale in A4		Date	
1 : 500		21 JUN 2024	

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Email : mail@ckmasia.com.hk

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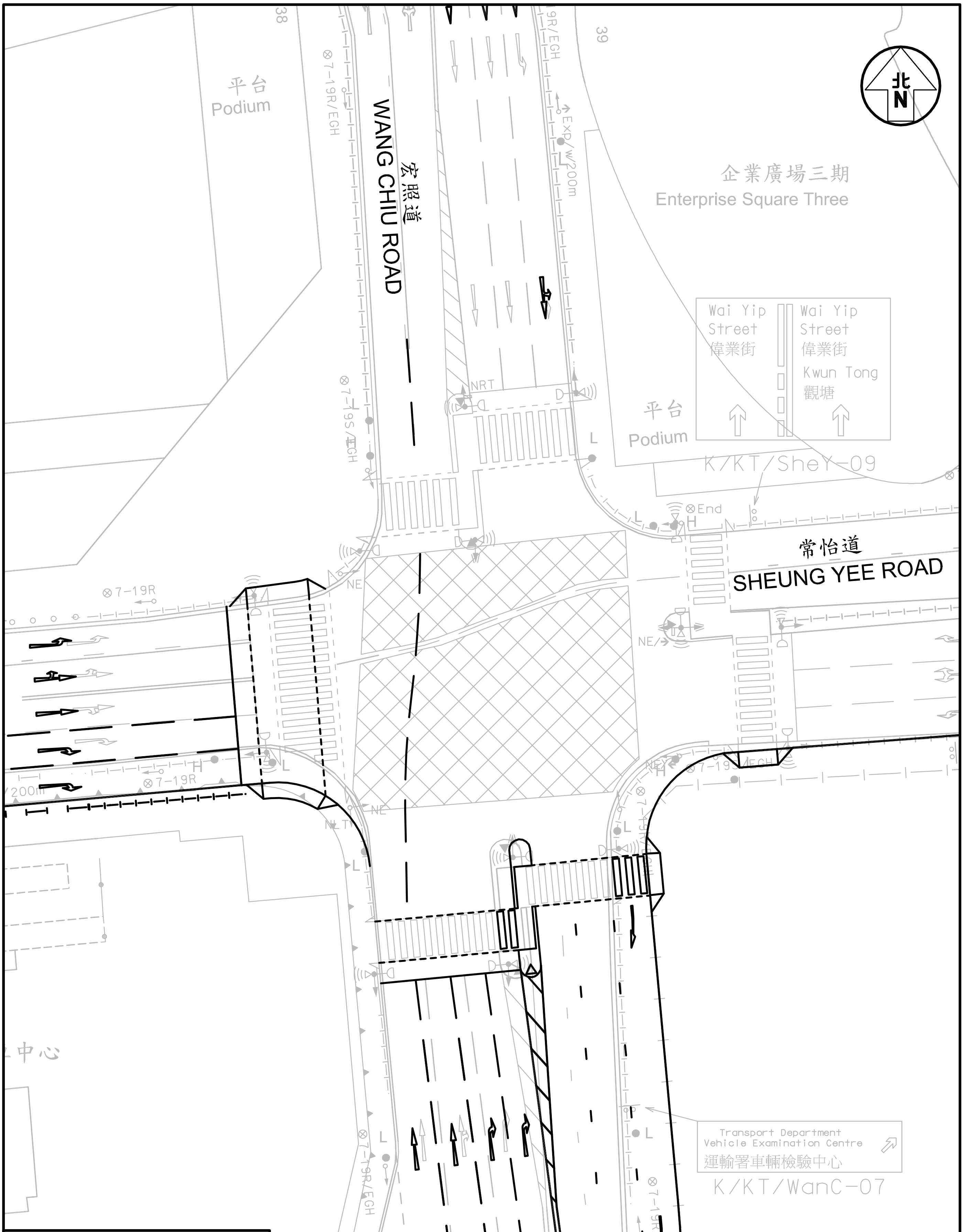
38
39
北
N
平台
Podium
WANG CHIU ROAD
宏照道
企業廣場三期
Enterprise Square Three
Wai Yip Street 偉業街
Wai Yip Street 偉業街
Kwun Tong 觀塘
平台
Podium
K/KT/SheY-09
End
常怡道
SHEUNG YEE ROAD
NRT
NE
NLT
7-19R
7-19R/EGH
7-19S/EGH
Exp/W200m
W200m
Transport Department
Vehicle Examination Centre
運輸署車輛檢驗中心
K/KT/WanC-07
中心

LEGEND :

— planned junction layout by EKEO

Project Title PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

Figure Title

(J9) PLANNED IMPROVEMENT FOR JUNCTION OF SHEUNG YEE ROAD / WANG CHIU ROAD

Job No.	Figure No.		Scale in A4
J7266	4.13		1 : 500

Designed by	Drawn by	Checked by	Revision	Date
T H C	C C L	K C	R4A	21 JUN 2024

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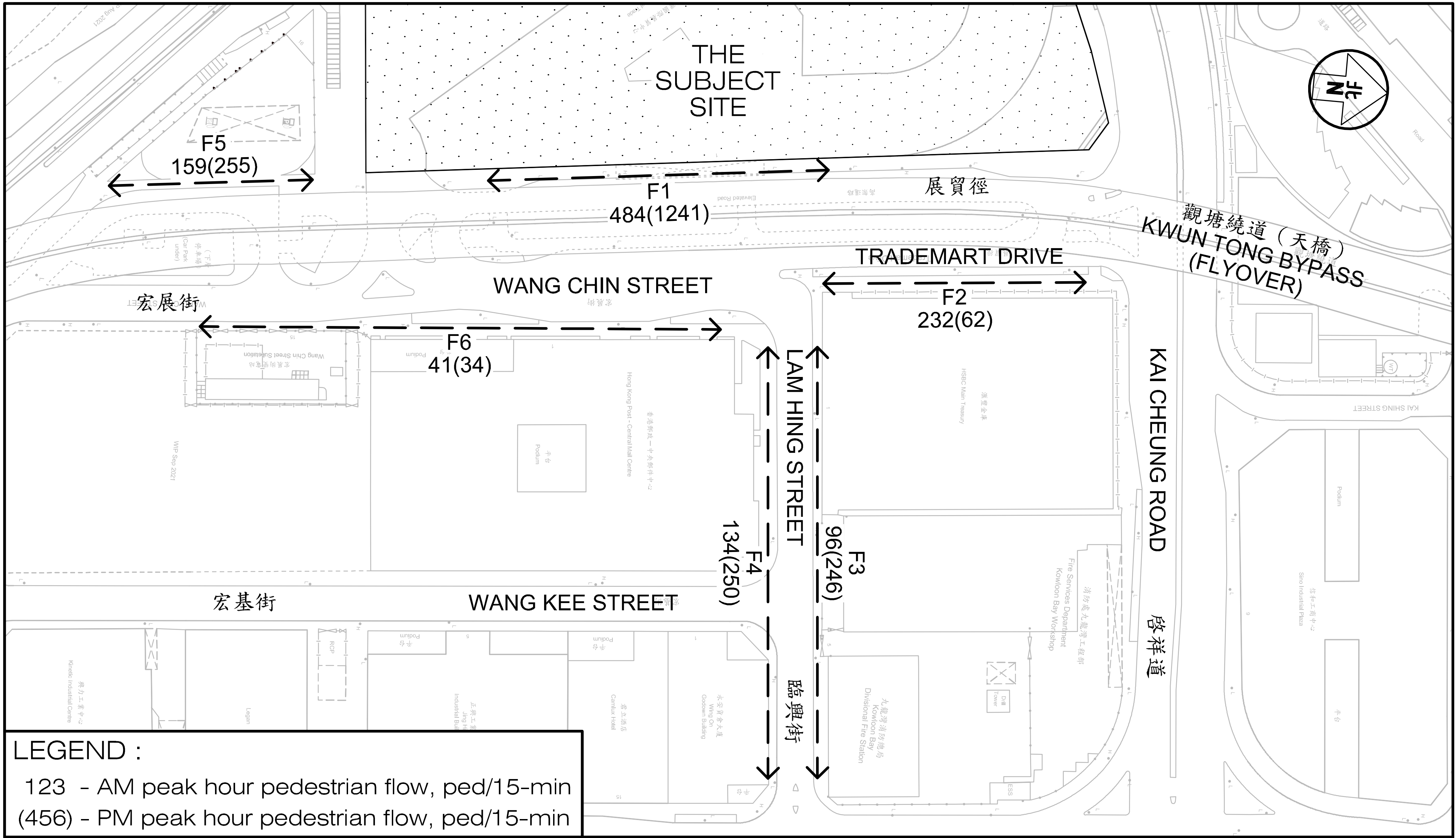

THE SUBJECT SITE
F1
484(1241)
F2
232(62)
F3
96(246)
F4
134(250)
F5
159(255)
F6
41(34)
展貿徑
觀塘繞道（天橋）
KWUN TONG BYPASS (FLYOVER)
TRADEMART DRIVE
WANG CHIN STREET
宏展街
LAM HING STREET
臨興街
KAI CHEUNG ROAD
啓祥道
WANG KEE STREET
宏基街
北 N
Elevated Road
HSBC Main Treasury
Hong Kong Post - Central Mail Centre
Wang Chin Street Substation
Fire Services Department Kowloon Bay Workshop
Kowloon Bay Divisional Fire Station
Sino Industrial Plaza
KAI SHING STREET
Wing On Godown Building
Camlux Hotel
Kinetic Industrial Centre
Podium
WIP Sep 2021

LEGEND :

123 - AM peak hour pedestrian flow, ped/15-min

(456) - PM peak hour pedestrian flow, ped/15-min

Project Title	PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON	J7266
Figure Title	2028 PEAK 15-MINUTE PEDESTRIAN FLOWS WITH KITEC	

Figure No.		Revision
4.14		R4A
Designed by	Drawn by	Checked by
T H C	C C L	K C
Scale in A4	Date	
1 : 1,500	21 JUN 2024	

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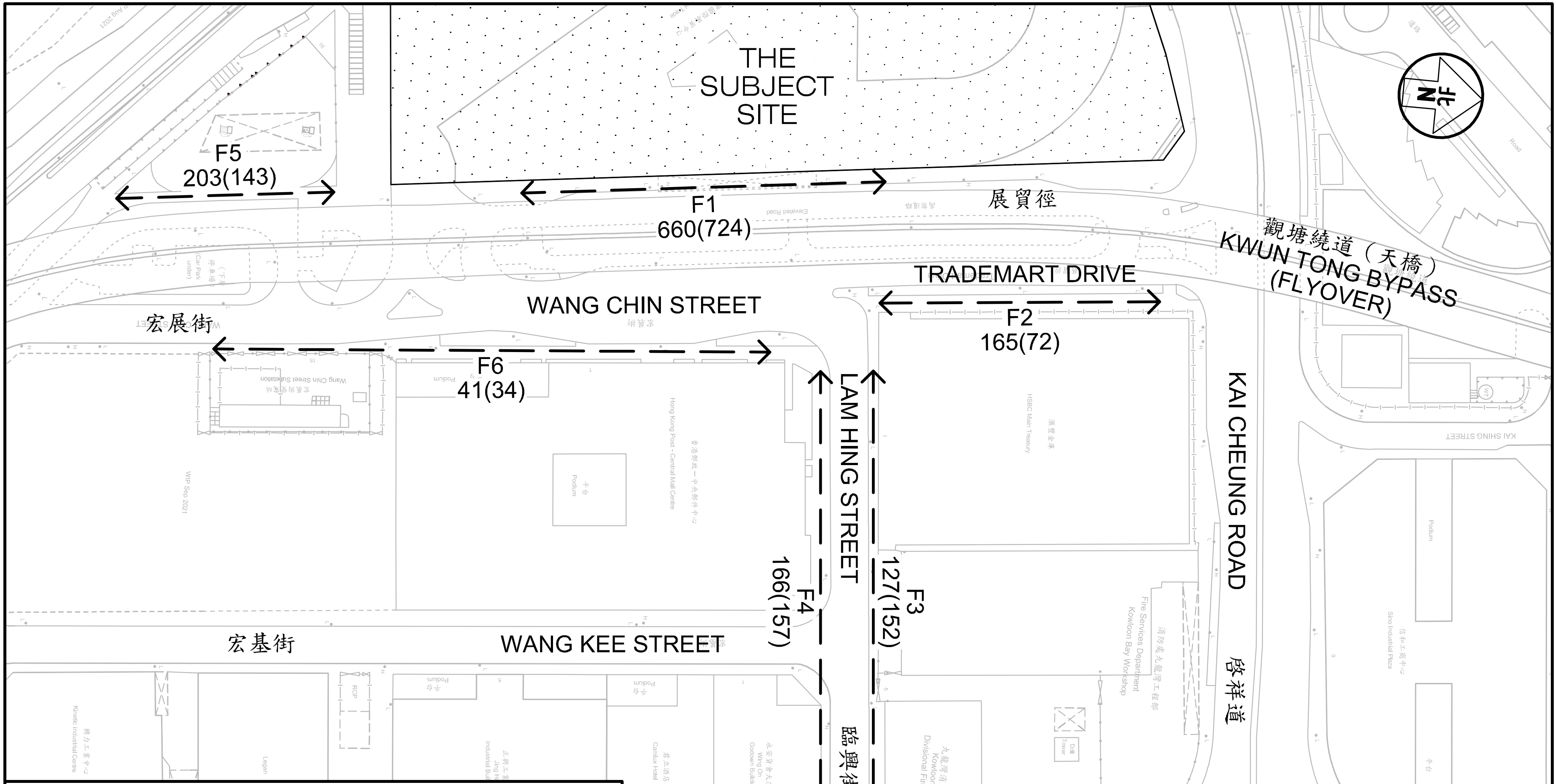
THE SUBJECT SITE
F5
203(143)
F1
660(724)
展貿徑
觀塘繞道（天橋）
KWUN TONG BYPASS
(FLYOVER)
TRADEMART DRIVE
F2
165(72)
WANG CHIN STREET
宏展街
F6
41(34)
LAM HING STREET
臨興街
F3
127(152)
F4
166(157)
KAI CHEUNG ROAD
啓祥道
WANG KEE STREET
宏基街
北 N

LEGEND :

123 - AM peak hour pedestrian flow, ped/15-min

(456) - PM peak hour pedestrian flow, ped/15-min

Project Title	PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON J7266	Figure No. 4.15		Revision R4A
Figure Title	2028 PEAK 15-MINUTE PEDESTRIAN FLOWS WITH APPROVED REDEVELOPMENT	Designed by T H C	Drawn by C C L	Checked by K C
		Scale in A4 1 : 1,500	Date 21 JUN 2024	

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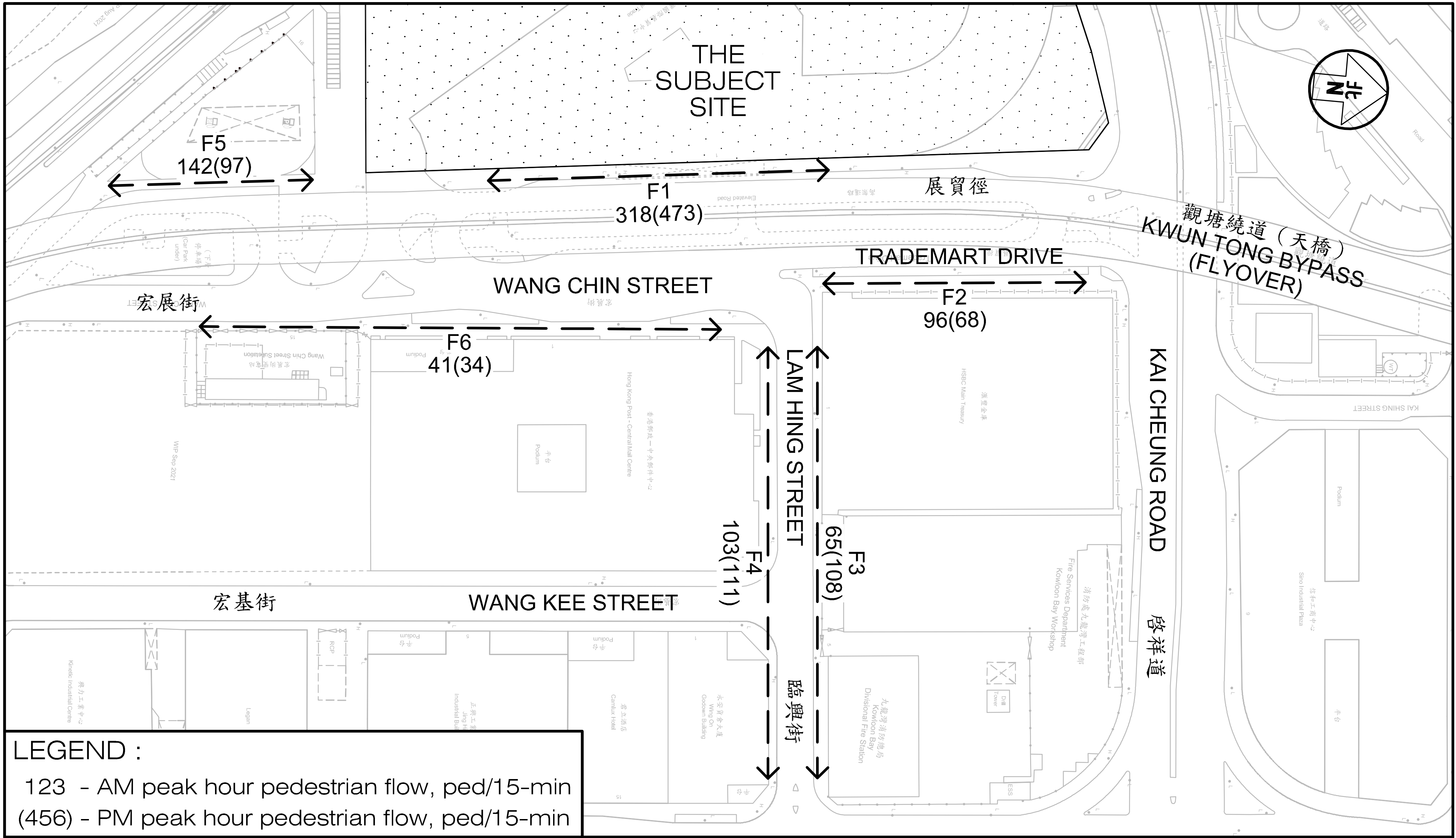
THE SUBJECT SITE
F1
318(473)
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96(68)
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65(108)
F4
103(111)
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142(97)
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41(34)
展貿徑
觀塘繞道（天橋）
KWUN TONG BYPASS
(FLYOVER)
TRADEMART DRIVE
WANG CHIN STREET
宏展街
LAM HING STREET
臨興街
KAI CHEUNG ROAD
啓祥道
WANG KEE STREET
宏基街
Elevated Road
HSBC Main Treasury
滙豐金庫
Hong Kong Post - Central Mail Centre
香港郵政一中央郵件中心
Podium
平台
Wang Chin Street Substation
WIP Sep 2021
Fire Services Department
Kowloon Bay Workshop
消防處九龍灣工程部
九龍灣消防總局
Kowloon Bay
Divisional Fire Station
Drill Tower
ESS
Sino Industrial Plaza
信和工商中心
KAI SHING STREET
Wing On Godown Building
永安貨倉大廈
Camlux Hotel
Legan
Kinetic Industrial Centre
RCP
(Car Park under)
N
北

LEGEND :

123 - AM peak hour pedestrian flow, ped/15-min

(456) - PM peak hour pedestrian flow, ped/15-min

Project Title

PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7125

Figure Title

2028 PEAK 15-MINUTE PEDESTRIAN FLOWS
WITH PROPOSED REDEVELOPMENT

Figure No.		Revision
4.16		R4A
Designed by	Drawn by	Checked by
T H C	C C L	K C
Scale in A4	Date	
1 : 1,500	21 JUN 2024	

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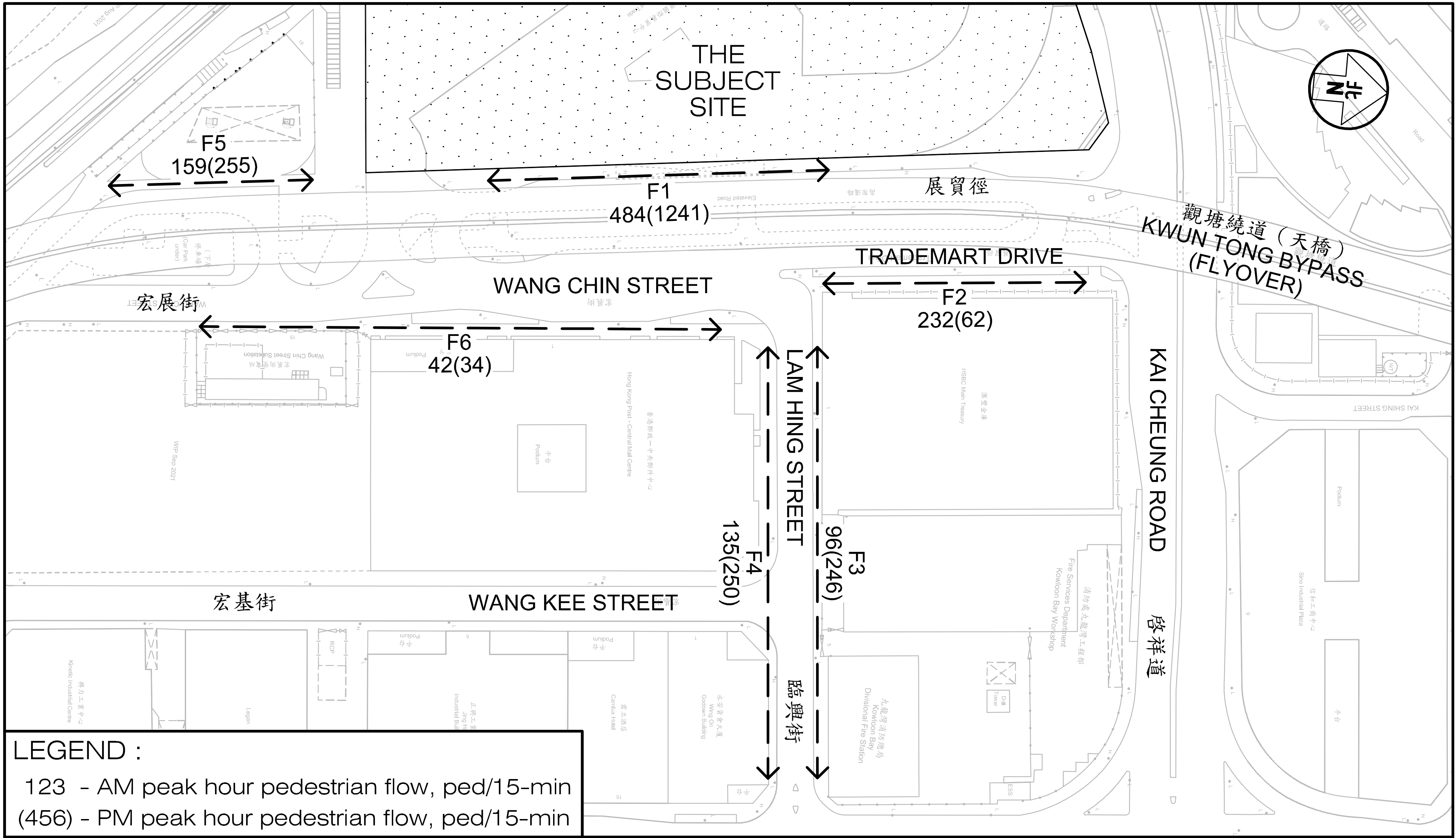
THE SUBJECT SITE
F1
484(1241)
F2
232(62)
F3
96(246)
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135(250)
F5
159(255)
F6
42(34)
展貿徑
觀塘繞道（天橋）
KWUN TONG BYPASS
(FLYOVER)
TRADEMART DRIVE
WANG CHIN STREET
宏展街
LAM HING STREET
臨興街
KAI CHEUNG ROAD
啓祥道
WANG KEE STREET
宏基街
KAI SHING STREET
HSBC Main Treasury
Fire Services Department Kowloon Bay Workshop
Kowloon Bay Divisional Fire Station
Hong Kong Post - Central Mail Centre
Sino Industrial Plaza
Wang Chin Street Substation
Camlux Hotel
Wing On Godown Building
Kinetic Industrial Centre
Podium
Elevated Road
WIP Sep 2021
北 N

LEGEND :

123 - AM peak hour pedestrian flow, ped/15-min

(456) - PM peak hour pedestrian flow, ped/15-min

Project Title PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7125

Figure Title

2031 PEAK 15-MINUTE PEDESTRIAN FLOWS WITH KITEC

Figure No.			Revision
4.17			R4A
Designed by	Drawn by	Checked by	
T H C	C C L	K C	
Scale in A4	Date		
1 : 1,500	21 JUN 2024		

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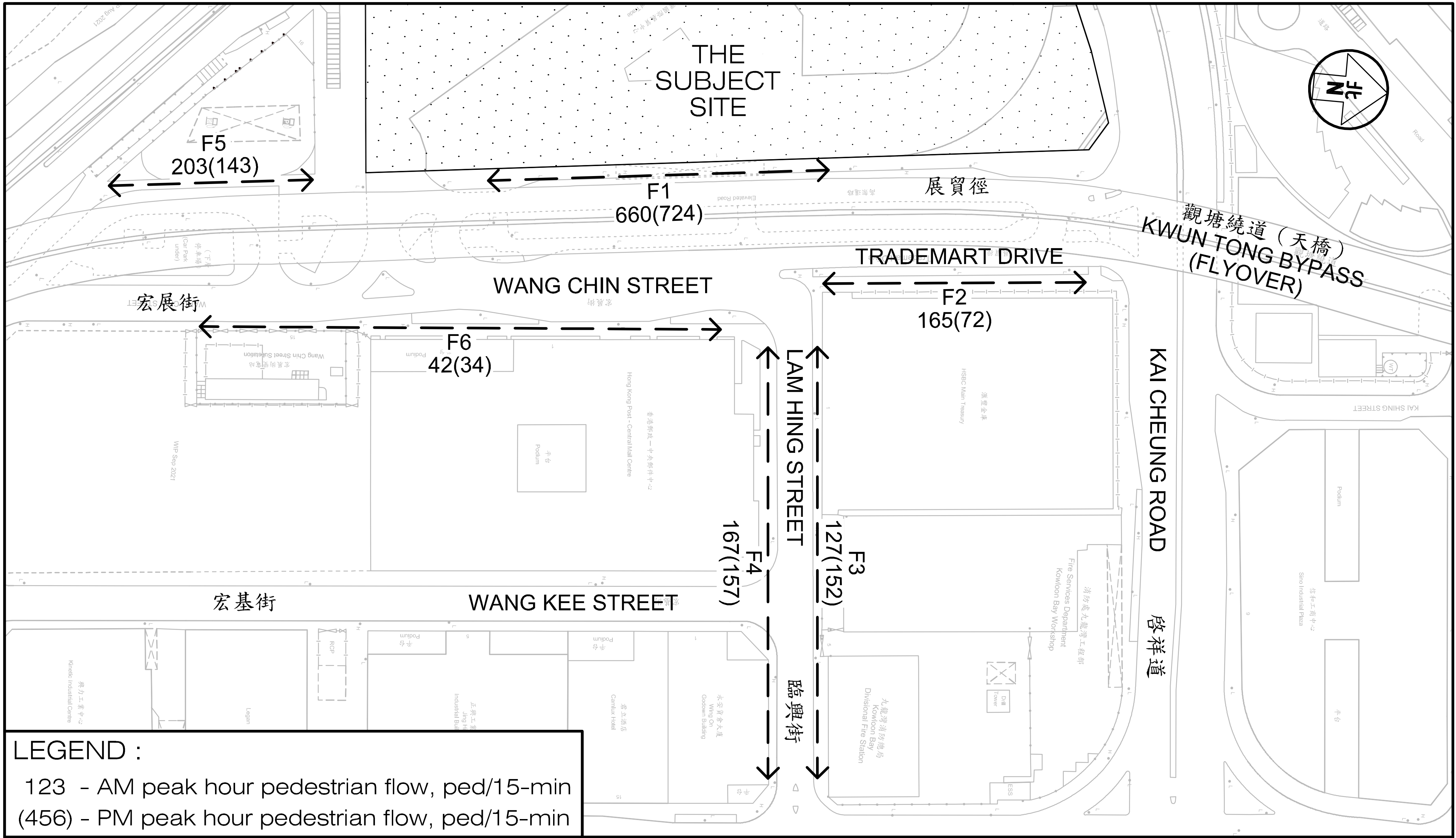
THE SUBJECT SITE
F1
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203(143)
F6
42(34)
展貿徑
觀塘繞道（天橋）
KWUN TONG BYPASS
(FLYOVER)
TRADEMART DRIVE
WANG CHIN STREET
宏展街
LAM HING STREET
臨興街
KAI CHEUNG ROAD
啓祥道
WANG KEE STREET
宏基街
KAI SHING STREET
HSBC Main Treasury
Hong Kong Post - Central Mail Centre
Wang Chin Street Substation
Fire Services Department Kowloon Bay Workshop
Kowloon Bay Divisional Fire Station
Sino Industrial Plaza
Wing On Godown Building
Camlux Hotel
Kinetic Industrial Centre
Podium
WIP Sep 2021
LEGEND :
123 - AM peak hour pedestrian flow, ped/15-min
(456) - PM peak hour pedestrian flow, ped/15-min

Project Title

PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7125

Figure Title

2031 PEAK 15-MINUTE PEDESTRIAN FLOWS WITH APPROVED REDEVELOPMENT

Figure No.	Revision
4.18	R4A

Designed by	Drawn by	Checked by
T H C	C C L	K C

Scale in A4	Date
1 : 1,500	21 JUN 2024

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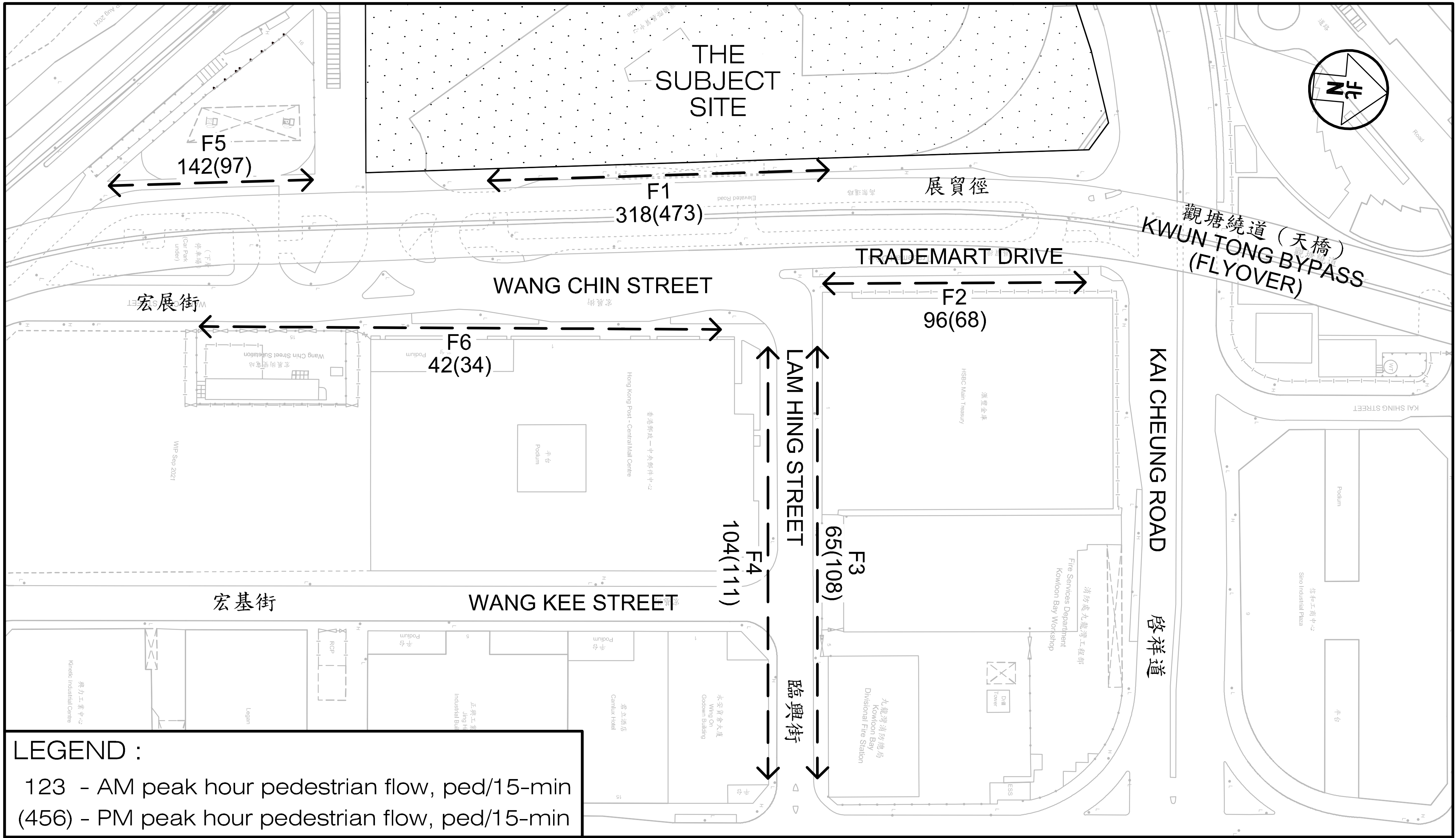
THE SUBJECT SITE
F1
318(473)
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65(108)
F4
104(111)
F5
142(97)
F6
42(34)
展貿徑
觀塘繞道（天橋）
KWUN TONG BYPASS (FLYOVER)
TRADEMART DRIVE
WANG CHIN STREET
宏展街
LAM HING STREET
臨興街
KAI CHEUNG ROAD
啟祥道
WANG KEE STREET
宏基街
KAI SHING STREET
Elevated Road
HSBC Main Treasury
消防處九龍灣工程部
Fire Services Department Kowloon Bay Workshop
九龍灣消防總局
Kowloon Bay Divisional Fire Station
信和工商中心
Sino Industrial Plaza
香港郵政－中央郵件中心
Hong Kong Post - Central Mail Centre
Wang Chin Street Substation
永安貨倉大廈
Wing On Godown Building
Camlux Hotel
Kinetic Industrial Centre
Legan
Podium
平台
WIP Sep 2021
(Car Park under)
RCP
ESS
Drill Tower
北 N

LEGEND :

123 - AM peak hour pedestrian flow, ped/15-min

(456) - PM peak hour pedestrian flow, ped/15-min

Project Title
PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7125

Figure Title

2031 PEAK 15-MINUTE PEDESTRIAN FLOWS WITH PROPOSED REDEVELOPMENT

Figure No.		Revision
4.19		R4A
Designed by	Drawn by	Checked by
T H C	C C L	K C
Scale in A4	Date	
1 : 1,500	21 JUN 2024	

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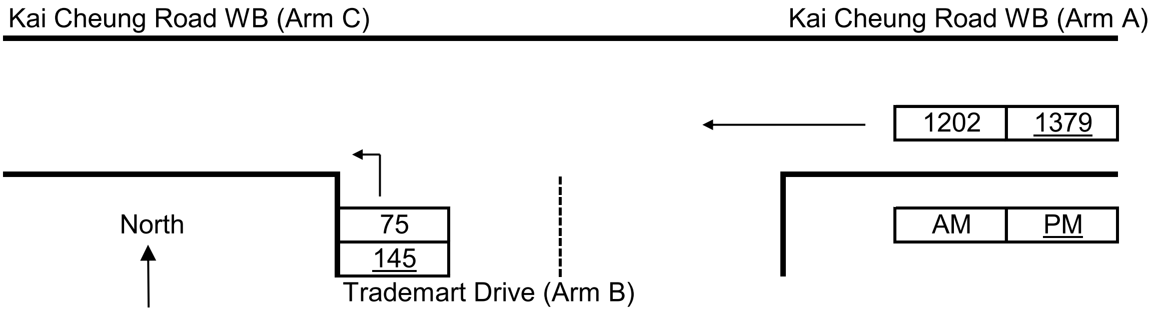
Appendix A –
Junction Capacity Analysis

Priority Junction Analysis

Junction:	J1 - Kai Cheung Road / Trademart Drive				
Design Year:	2023	Job Number:	J7266	Date:	18 January 2024
Scenario:	existing condition				R2 / P.1-1



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]

E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]

F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

Input		Input		Input		Calculated	
W	11.50	V-rBA	0	w-BA	0.00	D	0.5332
W-CR	0.00	V-lBA	0	w-BC	5.00	E	1.1066
		V-rBC	100	w-CB	0.00	F	0.5860
		V-rCB	0			Y	0.6033

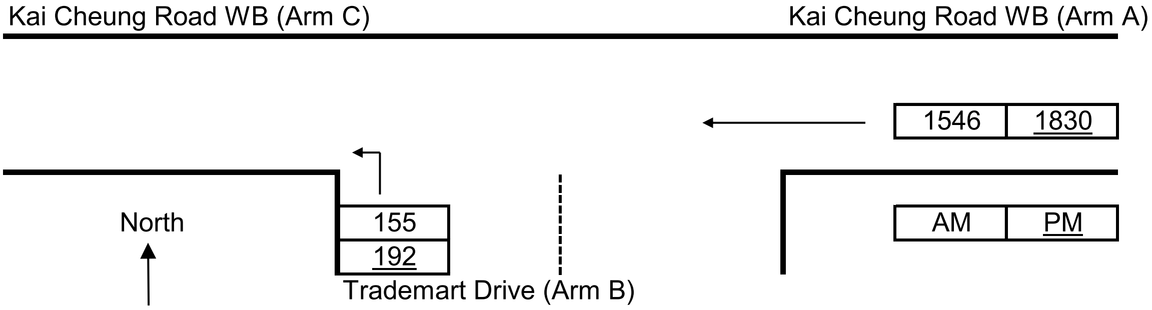
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	194	173
q-CB	0	0	Q-BC	532	489
q-AB	0	0	Q-CB	282	259
q-AC	1202	1379	Q-BAC	532	489
q-BA	0	0			
q-BC	75	145			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM	
B-A	0.000	0.000	
B-C	0.141	0.297	
C-B	0.000	0.000	
B-AC	0.141	0.297	(for shared lane CA, CB)

Priority Junction Analysis

Junction:	J1 - Kai Cheung Road / Trademart Drive				
Design Year:	2028	Job Number:	J7266	Date:	18 January 2024
Scenario:	with KITEC				R2 / P.1-2



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]
Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]
Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]
E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]
F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

Input		Input		Input		Calculated	
W	11.50	V-rBA	0	w-BA	0.00	D	0.5332
W-CR	0.00	V-lBA	0	w-BC	5.00	E	1.1066
		V-rBC	100	w-CB	0.00	F	0.5860
		V-rCB	0			Y	0.6033

Analysis :

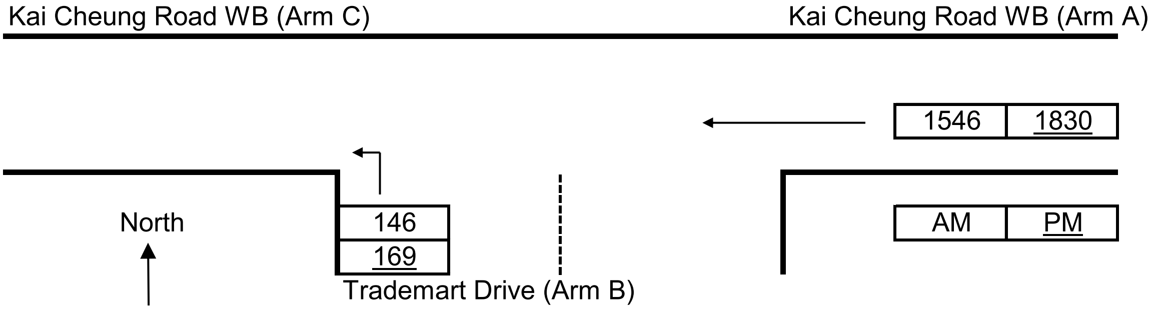
Traffic Flows, pcu/hr	AM	PM
q-CA	0	0
q-CB	0	0
q-AB	0	0
q-AC	1546	1830
q-BA	0	0
q-BC	155	192
f	1.000	1.000

Capacity, pcu/hr	AM	PM
Q-BA	153	120
Q-BC	449	380
Q-CB	238	201
Q-BAC	449	380

Ratio-of-flow to Capacity	AM	PM	
B-A	0.000	0.000	
B-C	0.345	0.506	
C-B	0.000	0.000	
B-AC	0.345	0.506	(for shared lane CA, CB)

Priority Junction Analysis

Junction:	J1 - Kai Cheung Road / Trademart Drive				
Design Year:	2028	Job Number:	J7266	Date:	18 January 2024
Scenario:	with Approved Redevelopment				R2 / P.1-3



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]

E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]

F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

Input		Input		Input		Calculated	
W	11.50	V-rBA	0	w-BA	0.00	D	0.5332
W-CR	0.00	V-lBA	0	w-BC	5.00	E	1.1066
		V-rBC	100	w-CB	0.00	F	0.5860
		V-rCB	0			Y	0.6033

Analysis :

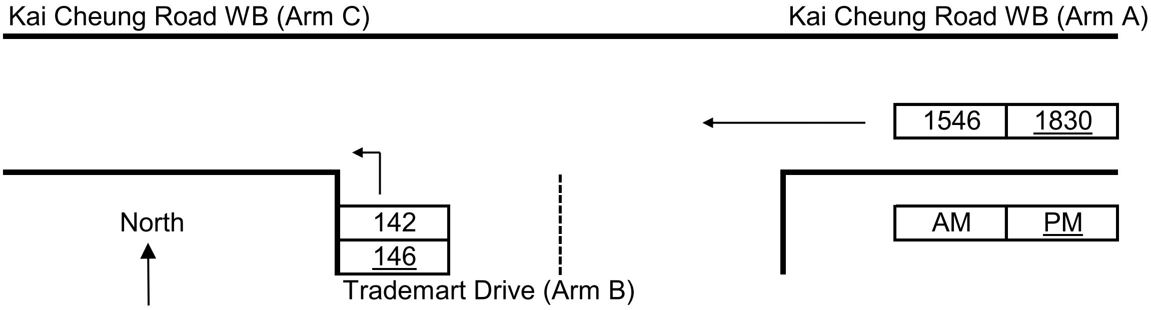
Traffic Flows, pcu/hr	AM	PM
q-CA	0	0
q-CB	0	0
q-AB	0	0
q-AC	1546	1830
q-BA	0	0
q-BC	146	169
f	1.000	1.000

Capacity, pcu/hr	AM	PM
Q-BA	153	120
Q-BC	449	380
Q-CB	238	201
Q-BAC	449	380

Ratio-of-flow to Capacity	AM	PM	
B-A	0.000	0.000	
B-C	0.325	0.446	
C-B	0.000	0.000	
B-AC	0.325	0.446	(for shared lane CA, CB)

Priority Junction Analysis

Junction:	J1 - Kai Cheung Road / Trademart Drive				
Design Year:	2028	Job Number:	J7266	Date:	18 January 2024
Scenario:	with Proposed Redevelopment				R2 / P.1-4



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]
Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]
Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]
E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]
F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	Input		Input		Input		Calculated	
	W	11.50	V-rBA	0	w-BA	0.00	D	0.5332
	W-CR	0.00	V-lBA	0	w-BC	5.00	E	1.1066
			V-rBC	100	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.6033

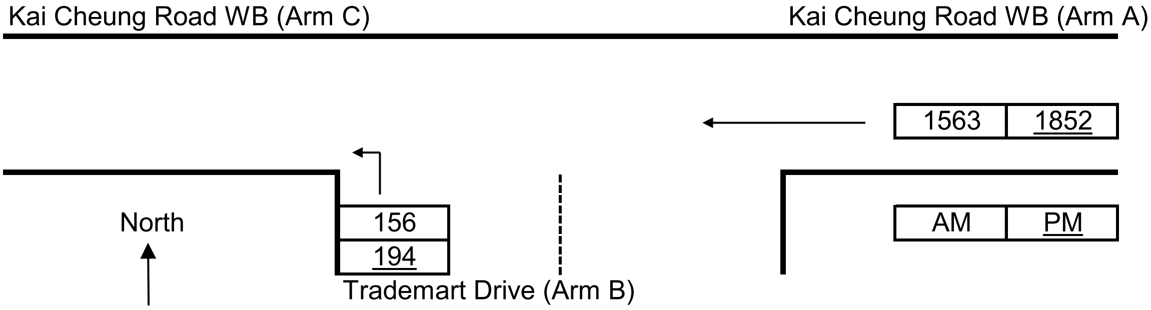
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	153	120
q-CB	0	0	Q-BC	449	380
q-AB	0	0	Q-CB	238	201
q-AC	1546	1830	Q-BAC	449	380
q-BA	0	0			
q-BC	142	146			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM	
B-A	0.000	0.000	
B-C	0.316	0.385	
C-B	0.000	0.000	
B-AC	0.316	0.385	(for shared lane CA, CB)

Priority Junction Analysis

Junction: J1 - Kai Cheung Road / Trademart Drive
Design Year: 2031 Job Number: J7266 Date: 18 January 2024
Scenario: with KITEC R2 / P.1-5



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]
Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]
Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]
E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]
F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

Input		Input		Input		Calculated	
W	11.50	V-rBA	0	w-BA	0.00	D	0.5332
W-CR	0.00	V-lBA	0	w-BC	5.00	E	1.1066
		V-rBC	100	w-CB	0.00	F	0.5860
		V-rCB	0			Y	0.6033

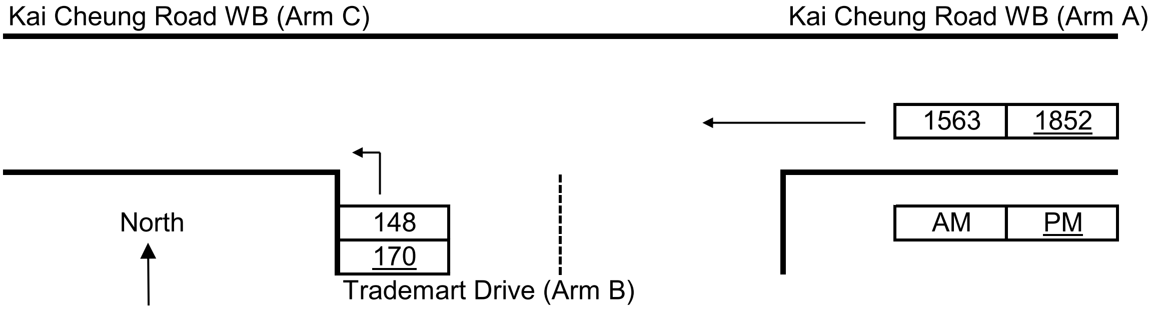
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	151	118
q-CB	0	0	Q-BC	445	374
q-AB	0	0	Q-CB	235	198
q-AC	1563	1852	Q-BAC	445	374
q-BA	0	0			
q-BC	156	194			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM	
B-A	0.000	0.000	
B-C	0.351	0.518	
C-B	0.000	0.000	
B-AC	0.351	0.518	(for shared lane CA, CB)

Priority Junction Analysis

Junction: J1 - Kai Cheung Road / Trademart Drive
Design Year: 2031 Job Number: J7266 Date: 18 January 2024
Scenario: with Approved Redevelopment R2 / P.1-6



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]
Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]
Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]
E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]
F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

Input		Input		Input		Calculated	
W	11.50	V-rBA	0	w-BA	0.00	D	0.5332
W-CR	0.00	V-lBA	0	w-BC	5.00	E	1.1066
		V-rBC	100	w-CB	0.00	F	0.5860
		V-rCB	0			Y	0.6033

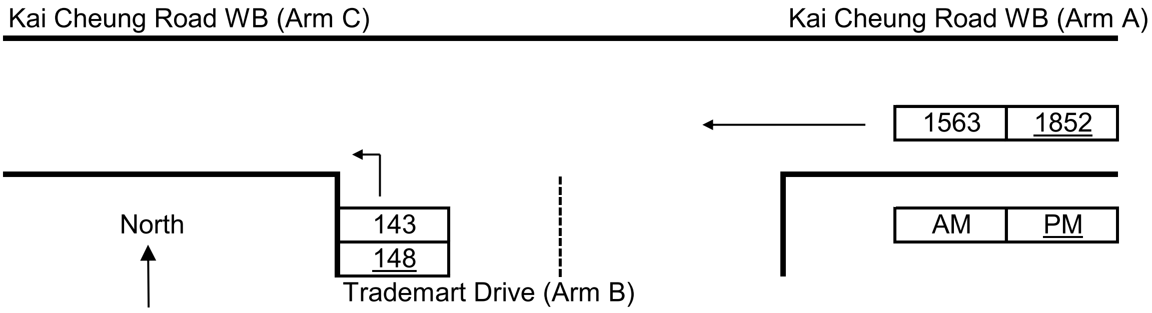
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	151	118
q-CB	0	0	Q-BC	445	374
q-AB	0	0	Q-CB	235	198
q-AC	1563	1852	Q-BAC	445	374
q-BA	0	0			
q-BC	148	170			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM	
B-A	0.000	0.000	
B-C	0.333	0.454	
C-B	0.000	0.000	
B-AC	0.333	0.454	(for shared lane CA, CB)

Priority Junction Analysis

Junction:	J1 - Kai Cheung Road / Trademart Drive				
Design Year:	2031	Job Number:	J7266	Date:	18 January 2024
Scenario:	with Proposed Redevelopment				R2 / P.1-7



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]
Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]
Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]
E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]
F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

Input		Input		Input		Calculated	
W	11.50	V-rBA	0	w-BA	0.00	D	0.5332
W-CR	0.00	V-lBA	0	w-BC	5.00	E	1.1066
		V-rBC	100	w-CB	0.00	F	0.5860
		V-rCB	0			Y	0.6033

Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	151	118
q-CB	0	0	Q-BC	445	374
q-AB	0	0	Q-CB	235	198
q-AC	1563	1852	Q-BAC	445	374
q-BA	0	0			
q-BC	143	148			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM	
B-A	0.000	0.000	
B-C	0.322	0.395	
C-B	0.000	0.000	
B-AC	0.322	0.395	(for shared lane CA, CB)

Signal Junction Analysis

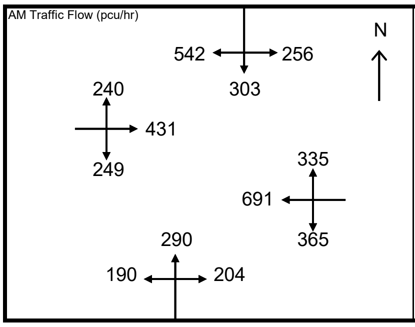
Junction: J2 - Kai Cheung Road / Wang Kwong Road — Job Number: J7266

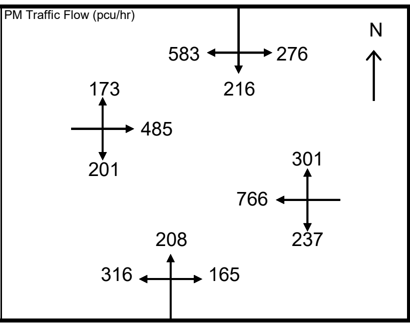
Scenario: existing condition — R2 / P.2-1

Design Year: 2023 — Designed By: ____________ — Checked By: ____________ — Date: 18 January 2024

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak					PM Peak				
							Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y
Kai Cheung Road EB	LT+SA	A1	1	3.50	35.0		100	1936	240	0.124		82	1950	210	0.108	0.108
	SA	A2	1	3.30				2085	216	0.104			2085	224	0.107	
	SA	A3	1	3.30				2085	215	0.103			2085	224	0.107	
	RT	A4	1	3.30	20.0		100	1940	249	0.128	0.128	100	1940	201	0.104	
Wang Kwong Road NB	LT	B1	1, 2	4.00	35.0		100	1932	190	0.098		100	1932	316	0.164	
	SA+RT	B2	2	3.30	30.0		0	2085	290	0.139	0.139	0	2085	208	0.100	0.100
	RT	B3	2	3.30	25.0		100	1967	204	0.104		100	1967	165	0.084	
Kai Cheung Road WB	LT	C1	2, 3	3.50	35.0		100	1884	365	0.194		100	1884	237	0.126	
	SA	C2	3	3.30				2085	230	0.110			2085	255	0.122	
	SA	C3	3	3.30				2085	230	0.110			2085	255	0.122	
	SA	C4	3	3.30				2085	230	0.110			2085	256	0.123	
	RT	C5	3	3.30	20.0		100	1940	335	0.173	0.173	100	1940	301	0.155	0.155
Wang Kwong Road SB	LT+SA	D1	4	3.50	35.0		72	1958	356	0.182		80	1952	347	0.178	
	SA+RT	D2	4	3.50	25.0		46	2049	373	0.182		60	2032	361	0.178	0.178
	RT	D3	4	3.50	15.0		100	2042	372	0.182	0.182	100	2068	367	0.177	

pedestrian phase	7(p)	2, 3, 4		min crossing time =	5	sec GM +	5	sec FGM =	10	sec	
	8(p)	2		min crossing time =	13	sec GM +	12	sec FGM =	25	sec	
	9(p)	3, 4		min crossing time =	5	sec GM +	6	sec FGM =	11	sec	
	10(p)	3		min crossing time =	10	sec GM +	9	sec FGM =	19	sec	
	11(p)	1, 4		min crossing time =	5	sec GM +	5	sec FGM =	10	sec	
	12(p)	4		min crossing time =	14	sec GM +	12	sec FGM =	26	sec	
	13(p)	1, 2		min crossing time =	5	sec GM +	6	sec FGM =	11	sec	
	14(p)	1		min crossing time =	13	sec GM +	12	sec FGM =	25	sec	


AM Traffic Flow (pcu/hr)

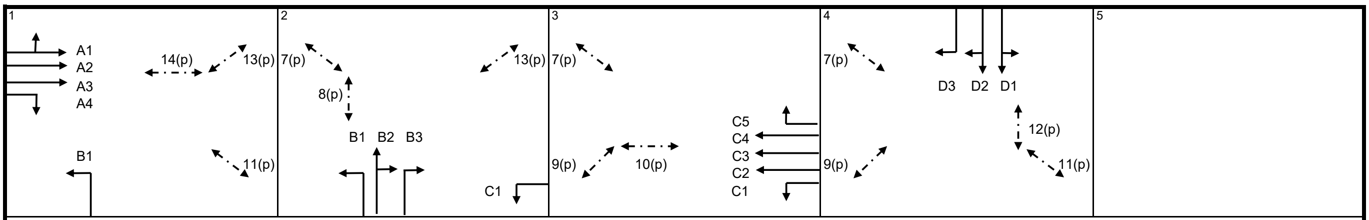

PM Traffic Flow (pcu/hr)

$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.622		0.540	
L (s)	19		19	
C (s)	140		140	
practical y	0.778		0.778	
R.C. (%)	25%		44%	

Note:



AM	G =	I/G = 5	G =	I/G = 6	G =	I/G = 6	G =	I/G = 6	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 5	G =	I/G = 6	G =	I/G = 6	G =	I/G = 6	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

Signal Junction Analysis

Junction: J2 - Kai Cheung Road / Wang Kwong Road Job Number: J7266

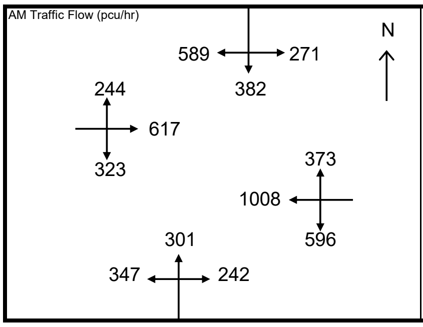
Scenario: with KITEC R2 / P.2-2

Design Year: 2028 Designed By: Checked By: Date: 18 January 2024

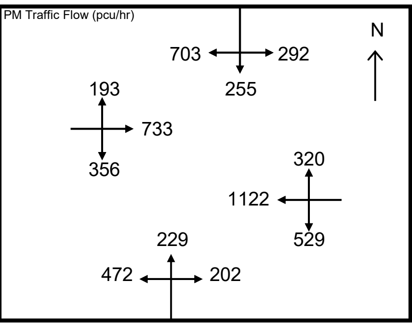
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Kai Cheung Road EB	LT+SA	A1	1	3.50	35.0		85	1947	287	0.147		62	1966	313	0.159	
	SA	A2	1	3.30				2085	307	0.147			2085	332	0.159	
	SA+RT	A3	1	3.30	25.0		12	2070	305	0.147		15	2067	329	0.159	0.159
	RT	A4	1	3.30	20.0		100	1940	285	0.147	0.147	100	1940	308	0.159	
Wang Kwong Road NB	LT	B1	1, 2	4.00	35.0		100	1932	347	0.180		100	1932	472	0.244	
	SA+RT	B2	2	3.30	30.0		0	2085	301	0.144	0.144	0	2085	229	0.110	0.110
	RT	B3	2	3.30	25.0		100	1967	242	0.123		100	1967	202	0.103	
Kai Cheung Road WB	LT	C1	2, 3	3.50	35.0		100	1884	596	0.316		100	1884	529	0.281	
	SA	C2	3	3.30				2085	352	0.169			2085	374	0.179	
	SA	C3	3	3.30				2085	352	0.169			2085	374	0.179	
	SA+RT	C4	3	3.30	25.0		13	2069	349	0.169		0	2085	374	0.179	0.179
	RT	C5	3	3.30	20.0		100	1940	328	0.169	0.169	100	1940	320	0.165	
Wang Kwong Road SB	LT+SA	D1	4	3.50	35.0		68	1961	398	0.203		72	1957	404	0.206	
	SA+RT	D2	4	3.50	25.0		39	2057	418	0.203		66	2025	418	0.206	
	RT	D3	4	3.50	15.0		100	2094	426	0.203	0.203	100	2068	428	0.207	0.207

pedestrian phase	7(p)	2, 3, 4		min crossing time =	5	sec GM +	5	sec FGM =	10	sec	
	9(p)	3, 4		min crossing time =	5	sec GM +	6	sec FGM =	11	sec	
	10(p)	3		min crossing time =	10	sec GM +	9	sec FGM =	19	sec	
	11(p)	1, 4		min crossing time =	5	sec GM +	5	sec FGM =	10	sec	
	12(p)	4		min crossing time =	14	sec GM +	12	sec FGM =	26	sec	
	13(p)	1, 2		min crossing time =	5	sec GM +	6	sec FGM =	11	sec	
	14(p)	1		min crossing time =	13	sec GM +	12	sec FGM =	25	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



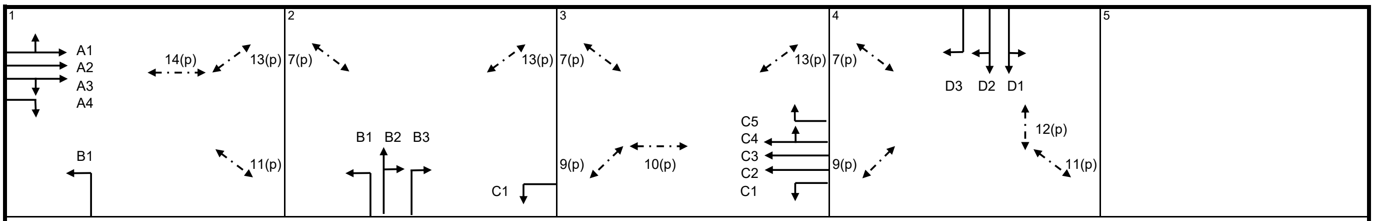
S=1940+100(W–3.25) S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.664		0.655	
L (s)	19		19	
C (s)	140		140	
practical y	0.778		0.778	
R.C. (%)	17%		19%	

Note:

with planned junction improvement as shown in Figure 4.7



AM	G =	I/G = 5	G =	I/G = 6	G =	I/G = 6	G =	I/G = 6	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 5	G =	I/G = 6	G =	I/G = 6	G =	I/G = 6	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

Signal Junction Analysis

Junction: J2 - Kai Cheung Road / Wang Kwong Road Job Number: J7266

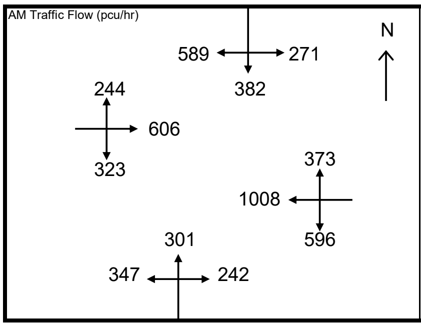
Scenario: with Approved Redevelopment R2 / P.2-3

Design Year: 2028 Designed By: ____________ Checked By: ____________ Date: 18 January 2024

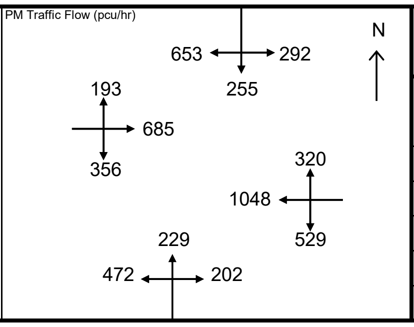
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Kai Cheung Road EB	LT+SA	A1	1	3.50	35.0		86	1947	284	0.146		64	1964	301	0.153	
	SA	A2	1	3.30				2085	304	0.146			2085	320	0.153	
	SA+RT	A3	1	3.30	25.0		13	2069	302	0.146		19	2062	316	0.153	
	RT	A4	1	3.30	20.0		100	1940	283	0.146	0.146	100	1940	297	0.153	0.153
Wang Kwong Road NB	LT	B1	1, 2	4.00	35.0		100	1932	347	0.180		100	1932	472	0.244	
	SA+RT	B2	2	3.30	30.0		0	2085	301	0.144	0.144	0	2085	229	0.110	0.110
	RT	B3	2	3.30	25.0		100	1967	242	0.123		100	1967	202	0.103	
Kai Cheung Road WB	LT	C1	2, 3	3.50	35.0		100	1884	596	0.316		100	1884	529	0.281	
	SA	C2	3	3.30				2085	352	0.169			2085	349	0.167	
	SA	C3	3	3.30				2085	352	0.169			2085	349	0.167	
	SA+RT	C4	3	3.30	25.0		13	2069	349	0.169		0	2085	350	0.168	0.168
	RT	C5	3	3.30	20.0		100	1940	328	0.169	0.169	100	1940	320	0.165	
Wang Kwong Road SB	LT+SA	D1	4	3.50	35.0		68	1961	398	0.203		75	1955	387	0.198	
	SA+RT	D2	4	3.50	25.0		39	2057	418	0.203		60	2032	403	0.198	
	RT	D3	4	3.50	15.0		100	2094	426	0.203	0.203	100	2068	410	0.198	0.198

	Phase	Stage								
pedestrian phase	7(p)	2, 3, 4	min crossing time =	5	sec GM +	5	sec FGM =	10	sec	
	9(p)	3, 4	min crossing time =	5	sec GM +	6	sec FGM =	11	sec	
	10(p)	3	min crossing time =	10	sec GM +	9	sec FGM =	19	sec	
	11(p)	1, 4	min crossing time =	5	sec GM +	5	sec FGM =	10	sec	
	12(p)	4	min crossing time =	14	sec GM +	12	sec FGM =	26	sec	
	13(p)	1, 2	min crossing time =	5	sec GM +	6	sec FGM =	11	sec	
	14(p)	1	min crossing time =	13	sec GM +	12	sec FGM =	25	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



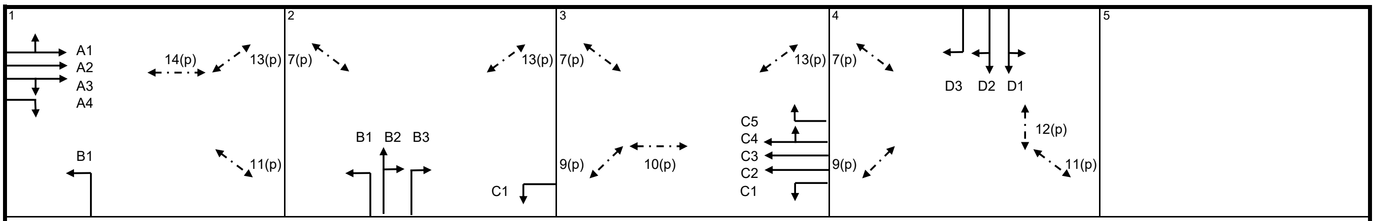
S=1940+100(W–3.25) S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.663		0.629	
L (s)	19		19	
C (s)	140		140	
practical y	0.778		0.778	
R.C. (%)	17%		24%	

Note:

with planned junction improvement as shown in Figure 4.7



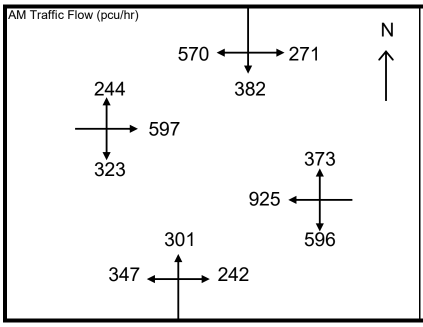
AM	G =	I/G = 5	G =	I/G = 6	G =	I/G = 6	G =	I/G = 6	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 5	G =	I/G = 6	G =	I/G = 6	G =	I/G = 6	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

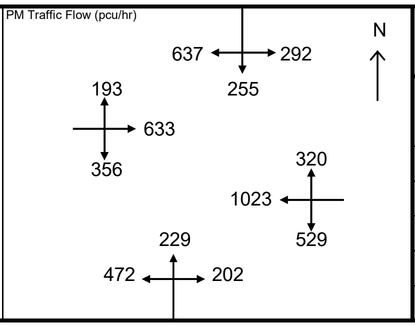
Signal Junction Analysis

Junction: J2 - Kai Cheung Road / Wang Kwong Road Job Number: J7266
Scenario: with Proposed Redevelopment R2 / P.2-4
Design Year: 2028 Designed By: Checked By: Date: 18 January 2024

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Kai Cheung Road EB	LT+SA	A1	1	3.50	35.0		87	1946	282	0.145		67	1962	288	0.147	
	SA	A2	1	3.30				2085	302	0.145			2085	306	0.147	
	SA+RT	A3	1	3.30	25.0		14	2068	299	0.145		23	2056	302	0.147	
	RT	A4	1	3.30	20.0		100	1940	281	0.145	0.145	100	1940	286	0.147	0.147
Wang Kwong Road NB	LT	B1	1, 2	4.00	35.0		100	1932	347	0.180		100	1932	472	0.244	
	SA+RT	B2	2	3.30	30.0		0	2085	301	0.144	0.144	0	2085	229	0.110	0.110
	RT	B3	2	3.30	25.0		100	1967	242	0.123		100	1967	202	0.103	
Kai Cheung Road WB	LT	C1	2, 3	3.50	35.0		100	1884	596	0.316		100	1884	529	0.281	
	SA	C2	3	3.30				2085	331	0.159			2085	341	0.164	
	SA	C3	3	3.30				2085	331	0.159			2085	341	0.164	
	SA+RT	C4	3	3.30	25.0		20	2061	327	0.159		0	2085	341	0.164	
	RT	C5	3	3.30	20.0		100	1940	309	0.159	0.159	100	1940	320	0.165	0.165
Wang Kwong Road SB	LT+SA	D1	4	3.50	35.0		69	1960	392	0.200		76	1954	382	0.195	
	SA+RT	D2	4	3.50	25.0		37	2060	412	0.200		59	2034	398	0.196	0.196
	RT	D3	4	3.50	15.0		100	2094	419	0.200	0.200	100	2068	404	0.195	

pedestrian phase	7(p)	2, 3, 4	min crossing time =	5	sec GM +	5	sec FGM =	10	sec
	9(p)	3, 4	min crossing time =	5	sec GM +	6	sec FGM =	11	sec
	10(p)	3	min crossing time =	10	sec GM +	9	sec FGM =	19	sec
	11(p)	1, 4	min crossing time =	5	sec GM +	5	sec FGM =	10	sec
	12(p)	4	min crossing time =	14	sec GM +	12	sec FGM =	26	sec
	13(p)	1, 2	min crossing time =	5	sec GM +	6	sec FGM =	11	sec
	14(p)	1	min crossing time =	13	sec GM +	12	sec FGM =	25	sec


AM Traffic Flow (pcu/hr)
N
570
271
244
382
597
323
373
925
596
301
347
242


PM Traffic Flow (pcu/hr)
N
637
292
193
255
633
356
320
1023
529
229
472
202

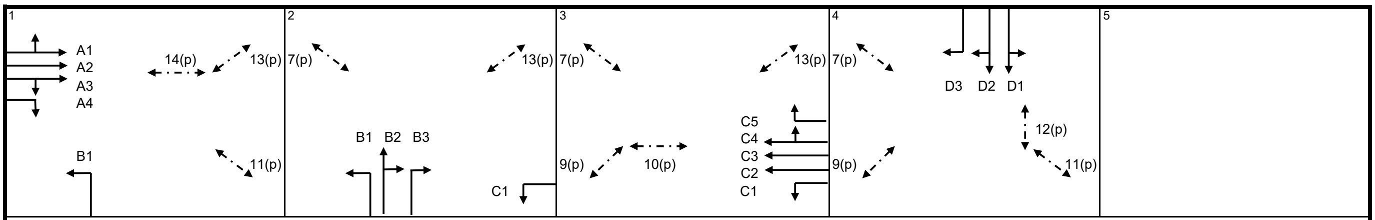
S=1940+100(W–3.25) S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.649		0.618	
L (s)	19		19	
C (s)	140		140	
practical y	0.778		0.778	
R.C. (%)	20%		26%	

Note:

with planned junction improvement as shown in Figure 4.7


1
A1
A2
A3
A4
14(p)
13(p)
11(p)
B1
2
7(p)
13(p)
B1 B2 B3
C1
3
7(p)
13(p)
9(p)
10(p)
C5
C4
C3
C2
C1
4
7(p)
D3 D2 D1
12(p)
9(p)
11(p)
5

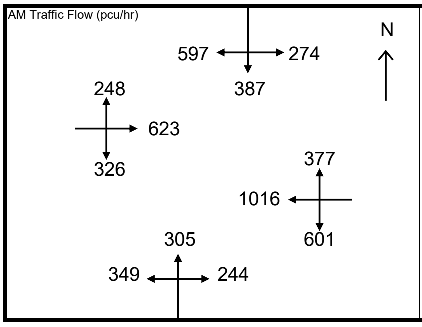
AM	G =	I/G = 5	G =	I/G = 6	G =	I/G = 6	G =	I/G = 6	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 5	G =	I/G = 6	G =	I/G = 6	G =	I/G = 6	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

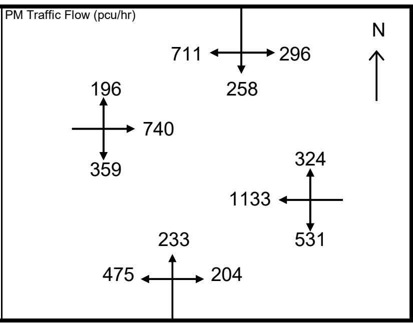
Signal Junction Analysis

Junction: J2 - Kai Cheung Road / Wang Kwong Road
Job Number: J7266
Scenario: with KITEC
R2 / P.2-5
Design Year: 2031
Designed By: ____________
Checked By: ____________
Date: 18 January 2024

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Kai Cheung Road EB	LT+SA	A1	1	3.50	35.0		86	1947	290	0.149		62	1966	316	0.161	
	SA	A2	1	3.30				2085	310	0.149			2085	335	0.161	
	SA+RT	A3	1	3.30	25.0		12	2070	308	0.149		14	2067	332	0.161	
	RT	A4	1	3.30	20.0		100	1940	289	0.149	0.149	100	1940	312	0.161	0.161
Wang Kwong Road NB	LT	B1	1, 2	4.00	35.0		100	1932	349	0.181		100	1932	475	0.246	
	SA+RT	B2	2	3.30	30.0		0	2085	305	0.146	0.146	0	2085	233	0.112	0.112
	RT	B3	2	3.30	25.0		100	1967	244	0.124		100	1967	204	0.104	
Kai Cheung Road WB	LT	C1	2, 3	3.50	35.0		100	1884	601	0.319		100	1884	531	0.282	
	SA	C2	3	3.30				2085	355	0.170			2085	378	0.181	
	SA	C3	3	3.30				2085	355	0.170			2085	378	0.181	
	SA+RT	C4	3	3.30	25.0		13	2069	352	0.170		0	2085	377	0.181	0.181
	RT	C5	3	3.30	20.0		100	1940	331	0.171	0.171	100	1940	324	0.167	
Wang Kwong Road SB	LT+SA	D1	4	3.50	35.0		68	1961	404	0.206		72	1957	409	0.209	
	SA+RT	D2	4	3.50	25.0		39	2057	423	0.206		66	2025	423	0.209	
	RT	D3	4	3.50	15.0		100	2094	431	0.206	0.206	100	2068	433	0.209	0.209

pedestrian phase	7(p)	2, 3, 4	min crossing time =	5	sec GM +	5	sec FGM =	10	sec
	9(p)	3, 4	min crossing time =	5	sec GM +	6	sec FGM =	11	sec
	10(p)	3	min crossing time =	10	sec GM +	9	sec FGM =	19	sec
	11(p)	1, 4	min crossing time =	5	sec GM +	5	sec FGM =	10	sec
	12(p)	4	min crossing time =	14	sec GM +	12	sec FGM =	26	sec
	13(p)	1, 2	min crossing time =	5	sec GM +	6	sec FGM =	11	sec
	14(p)	1	min crossing time =	13	sec GM +	12	sec FGM =	25	sec


AM Traffic Flow (pcu/hr)
N
597
274
248
387
623
326
377
1016
305
601
349
244


PM Traffic Flow (pcu/hr)
N
711
296
196
258
740
359
324
1133
233
531
475
204

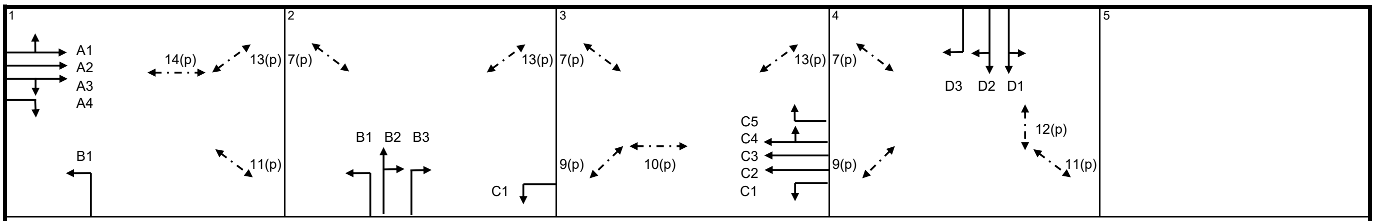
S=1940+100(W–3.25)   S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.672		0.663	
L (s)	19		19	
C (s)	140		140	
practical y	0.778		0.778	
R.C. (%)	16%		17%	

Note:

with planned junction improvement as shown in Figure 4.7


1
A1
A2
A3
A4
14(p)
13(p)
B1
11(p)
2
7(p)
13(p)
B1 B2 B3
C1
3
7(p)
13(p)
9(p)
10(p)
C5
C4
C3
C2
C1
4
7(p)
D3 D2 D1
12(p)
9(p)
11(p)
5

AM	G =	I/G = 5	G =	I/G = 6	G =	I/G = 6	G =	I/G = 6	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 5	G =	I/G = 6	G =	I/G = 6	G =	I/G = 6	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

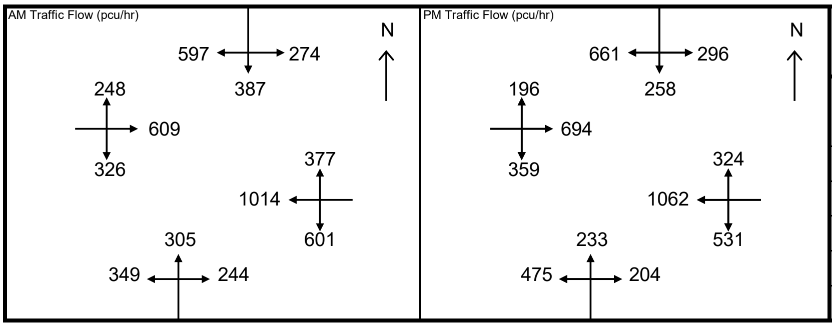
Signal Junction Analysis

Junction: J2 - Kai Cheung Road / Wang Kwong Road Job Number: J7266

Scenario: with Approved Redevelopment R2 / P.2-6

Design Year: 2031 Designed By: Checked By: Date: 18 January 2024

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak					PM Peak				
							Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y
Kai Cheung Road EB	LT+SA	A1	1	3.50	35.0		87	1946	286	0.147		64	1964	305	0.155	
	SA	A2	1	3.30				2085	307	0.147			2085	323	0.155	
	SA+RT	A3	1	3.30	25.0		13	2069	304	0.147		18	2063	320	0.155	
	RT	A4	1	3.30	20.0		100	1940	286	0.147	0.147	100	1940	301	0.155	0.155
Wang Kwong Road NB	LT	B1	1, 2	4.00	35.0		100	1932	349	0.181		100	1932	475	0.246	
	SA+RT	B2	2	3.30	30.0		0	2085	305	0.146	0.146	0	2085	233	0.112	0.112
	RT	B3	2	3.30	25.0		100	1967	244	0.124		100	1967	204	0.104	
Kai Cheung Road WB	LT	C1	2, 3	3.50	35.0		100	1884	601	0.319		100	1884	531	0.282	
	SA	C2	3	3.30				2085	355	0.170			2085	354	0.170	
	SA	C3	3	3.30				2085	355	0.170			2085	354	0.170	
	SA+RT	C4	3	3.30	25.0		14	2068	352	0.170		0	2085	354	0.170	0.170
	RT	C5	3	3.30	20.0		100	1940	329	0.170	0.170	100	1940	324	0.167	
Wang Kwong Road SB	LT+SA	D1	4	3.50	35.0		68	1961	404	0.206		76	1955	392	0.201	
	SA+RT	D2	4	3.50	25.0		39	2057	423	0.206		60	2032	408	0.201	
	RT	D3	4	3.50	15.0		100	2094	431	0.206	0.206	100	2068	415	0.201	0.201
pedestrian phase		7(p)	2, 3, 4		min crossing time =			5	sec GM +		5	sec FGM =		10	sec	
		9(p)	3, 4		min crossing time =			5	sec GM +		6	sec FGM =		11	sec	
		10(p)	3		min crossing time =			10	sec GM +		9	sec FGM =		19	sec	
		11(p)	1, 4		min crossing time =			5	sec GM +		5	sec FGM =		10	sec	
		12(p)	4		min crossing time =			14	sec GM +		12	sec FGM =		26	sec	
		13(p)	1, 2		min crossing time =			5	sec GM +		6	sec FGM =		11	sec	
		14(p)	1		min crossing time =			13	sec GM +		12	sec FGM =		25	sec	



AM Traffic Flow (pcu/hr)
597
274
387
N
248
609
326
377
1014
601
305
349
244
PM Traffic Flow (pcu/hr)
661
296
258
N
196
694
359
324
1062
531
233
475
204

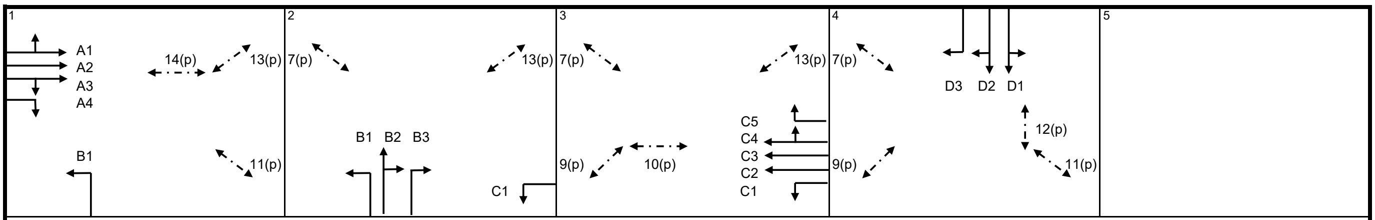
S=1940+100(W–3.25) S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.669		0.637	
L (s)	19		19	
C (s)	140		140	
practical y	0.778		0.778	
R.C. (%)	16%		22%	

Note:

with planned junction improvement as shown in Figure 4.7



1
A1
A2
A3
A4
14(p)
13(p)
B1
11(p)
2
7(p)
13(p)
B1
B2
B3
C1
3
7(p)
13(p)
9(p)
10(p)
C5
C4
C3
C2
C1
4
7(p)
D3
D2
D1
12(p)
9(p)
11(p)
5

AM	G =	I/G = 5	G =	I/G = 6	G =	I/G = 6	G =	I/G = 6	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 5	G =	I/G = 6	G =	I/G = 6	G =	I/G = 6	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

Signal Junction Analysis

Junction: J2 - Kai Cheung Road / Wang Kwong Road — Job Number: J7266

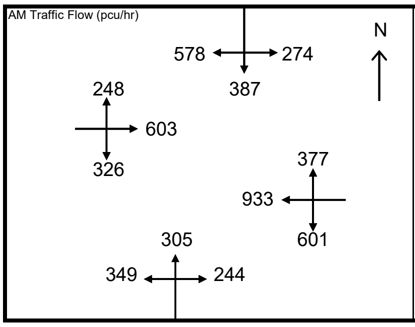
Scenario: with Proposed Redevelopment — R2 / P.2-7

Design Year: 2031 — Designed By: ____________ — Checked By: ____________ — Date: 18 January 2024

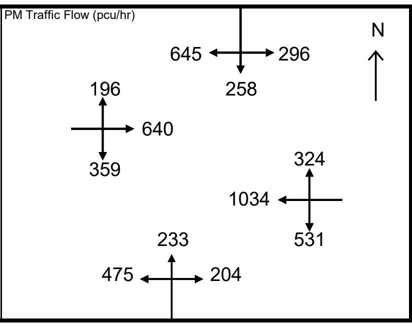
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Kai Cheung Road EB	LT+SA	A1	1	3.50	25.0		88	1918	282	0.147		68	1940	289	0.149	
	SA	A2	1	3.30				2085	306	0.147			2085	311	0.149	
	SA+RT	A3	1	3.30	25.0		13	2068	304	0.147		23	2057	306	0.149	
	RT	A4	1	3.30	20.0		100	1940	285	0.147	0.147	100	1940	289	0.149	0.149
Wang Kwong Road NB	LT	B1	1, 2	4.00	35.0		100	1932	349	0.181		100	1932	475	0.246	
	SA+RT	B2	2	3.30	30.0		0	2085	305	0.146	0.146	0	2085	233	0.112	0.112
	RT	B3	2	3.30	25.0		100	1967	244	0.124		100	1967	204	0.104	
Kai Cheung Road WB	LT	C1	2, 3	3.50	35.0		100	1884	601	0.319		100	1884	531	0.282	
	SA	C2	3	3.30				2085	334	0.160			2085	345	0.165	
	SA	C3	3	3.30				2085	334	0.160			2085	345	0.165	
	SA+RT	C4	3	3.30	25.0		20	2061	330	0.160		0	2085	344	0.165	
	RT	C5	3	3.30	20.0		100	1940	312	0.161	0.161	100	1940	324	0.167	0.167
Wang Kwong Road SB	LT+SA	D1	4	3.50	35.0		69	1960	397	0.203		76	1954	387	0.198	
	SA+RT	D2	4	3.50	25.0		37	2060	417	0.202		59	2034	403	0.198	
	RT	D3	4	3.50	15.0		100	2094	425	0.203	0.203	100	2068	409	0.198	0.198

	Phase	Stage							
pedestrian phase	7(p)	2, 3, 4	min crossing time =	5	sec GM +	5	sec FGM =	10	sec
	9(p)	3, 4	min crossing time =	5	sec GM +	6	sec FGM =	11	sec
	10(p)	3	min crossing time =	10	sec GM +	9	sec FGM =	19	sec
	11(p)	1, 4	min crossing time =	5	sec GM +	5	sec FGM =	10	sec
	12(p)	4	min crossing time =	14	sec GM +	12	sec FGM =	26	sec
	13(p)	1, 2	min crossing time =	5	sec GM +	6	sec FGM =	11	sec
	14(p)	1	min crossing time =	13	sec GM +	12	sec FGM =	25	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



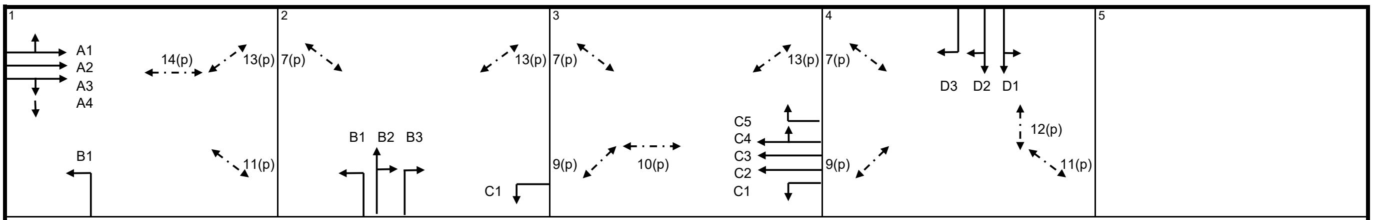
S=1940+100(W–3.25) S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.657		0.626	
L (s)	19		19	
C (s)	140		140	
practical y	0.778		0.778	
R.C. (%)	18%		24%	

Note:

with planned junction improvement as shown in Figure 4.7



	Stage 1 G =	I/G =	Stage 2 G =	I/G =	Stage 3 G =	I/G =	Stage 4 G =	I/G =	Stage 5 G =	I/G =
AM		5		6		6		6		
PM		5		6		6		6		

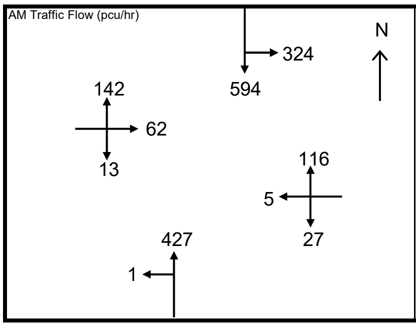
Signal Junction Analysis

Junction: J3 - Wang Kwong Road / Lam Hing Street
Job Number: J7266
Scenario: existing condition
R2 / P.3-1
Design Year: 2023
Designed By:
Checked By:
Date: 18 January 2024

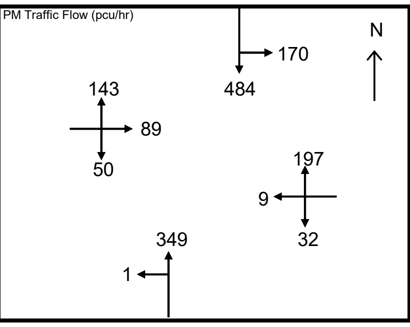
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Kwong Road NB	LT+SA	A1	1	3.70	15.0		0	1984	207	0.104		1	1984	169	0.085	
	SA	A2	1	3.70				2125	221	0.104			2125	181	0.085	
Wang Kwong Road SB	LT	B1	1	3.40	20.0		100	1819	324	0.178	0.178	100	1819	170	0.093	
	SA	B2	1	3.50				2105	297	0.141			2105	242	0.115	
	SA	B3	1	3.50				2105	297	0.141			2105	242	0.115	0.115
Lam Hing Street EB	LT+SA+RT	C1	3	5.10	15.0		71	1983	217	0.109	0.109	68	1989	282	0.142	0.142
Lam Hing Street WB	LT+SA	D1	4	3.10	10.0		84	1709	32	0.019		78	1723	41	0.024	
	RT	D2	4	3.20	20.0		100	1930	116	0.060	0.060	100	1930	197	0.102	0.102

pedestrian phase	5(p)	2		min crossing time =	11	sec GM +	10	sec FGM =	21	sec	
	6(p)	2		min crossing time =	7	sec GM +	6	sec FGM =	13	sec	
	7(p)	2		min crossing time =	9	sec GM +	8	sec FGM =	17	sec	
	8(p)	2		min crossing time =	10	sec GM +	9	sec FGM =	19	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

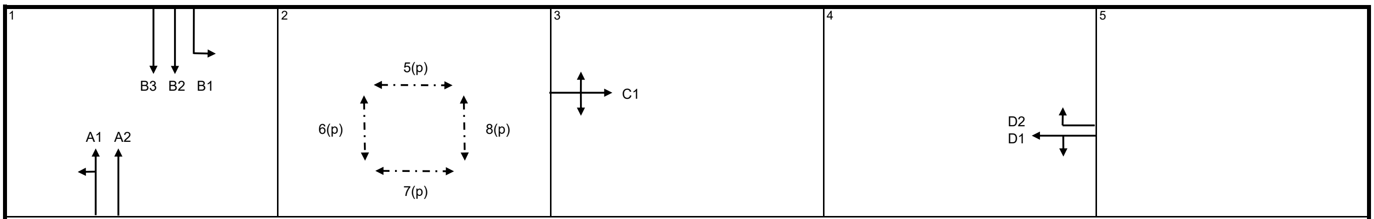


$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.348		0.359	
L (s)	42		42	
C (s)	140		140	
practical y	0.630		0.630	
R.C. (%)	81%		76%	

Note:



AM	G =	I/G = 9	G = 21	I/G = 2	G =	I/G = 7	G =	I/G = 6	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 9	G = 21	I/G = 2	G =	I/G = 7	G =	I/G = 6	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

Signal Junction Analysis

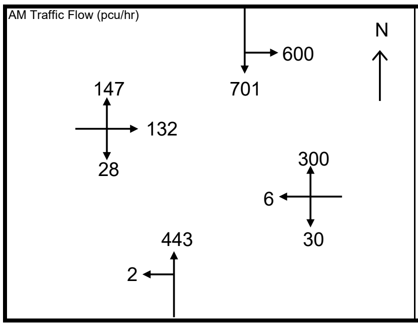
Junction: J3 - Wang Kwong Road / Lam Hing Street Job Number: J7266

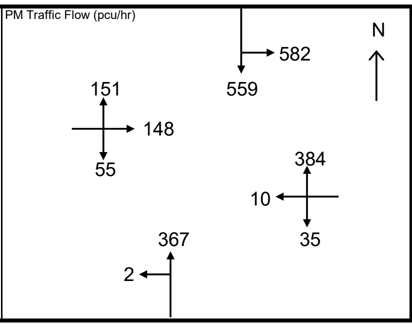
Scenario: with KITEC R2 / P.3-2

Design Year: 2028 Designed By: ____________ Checked By: ____________ Date: 18 January 2024

							AM Peak					PM Peak				
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y
Wang Kwong Road NB	LT+SA	A1	1	3.70	15.0		1	1983	215	0.108		1	1983	178	0.090	
	SA	A2	1	3.70				2125	230	0.108			2125	191	0.090	
Wang Kwong Road SB	LT	B1	1, 4	3.40	20.0		100	1819	600	0.330		100	1819	582	0.320	
	SA	B2	1	3.50				2105	351	0.167	0.167		2105	280	0.133	
	SA	B3	1	3.50				2105	350	0.166			2105	279	0.133	0.133
Lam Hing Street EB	LT+SA+RT	C1	3	5.10	15.0		57	2010	307	0.153	0.153	58	2008	354	0.176	0.176
Lam Hing Street WB	LT+SA	D1	4	3.10	10.0		83	1711	36	0.021		78	1724	45	0.026	
	RT	D2	4	3.20	20.0		100	1930	300	0.155	0.155	100	1930	384	0.199	0.199

pedestrian phase	5(p)	2		min crossing time =	14	sec GM +	6	sec FGM =	20	sec
	6(p)	2		min crossing time =	7	sec GM +	6	sec FGM =	13	sec
	7(p)	2		min crossing time =	9	sec GM +	8	sec FGM =	17	sec
	8(p)	2		min crossing time =	11	sec GM +	10	sec FGM =	21	sec





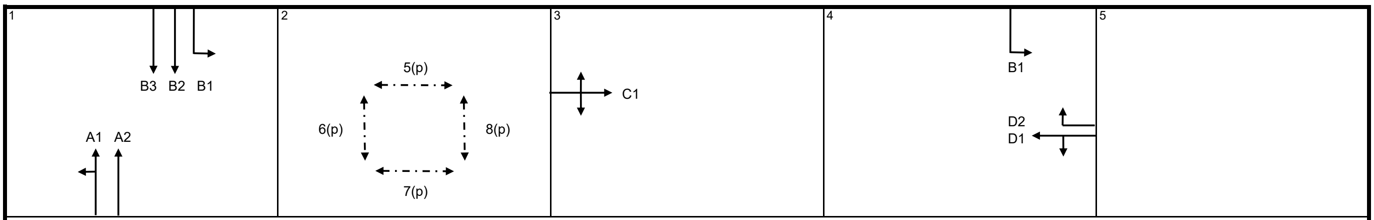
S=1940+100(W–3.25) S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.475		0.508	
L (s)	42		42	
C (s)	140		140	
practical y	0.630		0.630	
R.C. (%)	33%		24%	

Note:

with planned junction improvement as shown in Figure 4.8



AM	G =	I/G = 9	G = 21	I/G = 2	G =	I/G = 7	G =	I/G = 6	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 9	G = 21	I/G = 2	G =	I/G = 7	G =	I/G = 6	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

Signal Junction Analysis

Junction: J3 - Wang Kwong Road / Lam Hing Street — Job Number: J7266

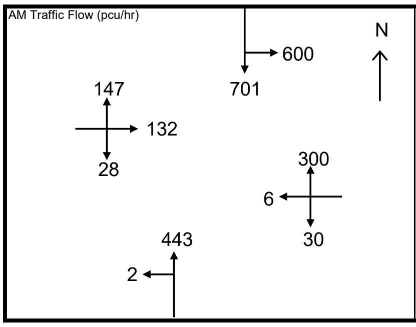
Scenario: with Approved Redevelopment — R2 / P.3-3

Design Year: 2028 — Designed By: ____________ — Checked By: ____________ — Date: 18 January 2024

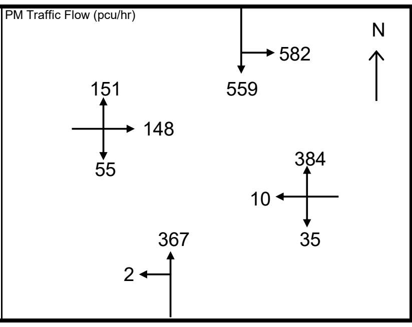
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Kwong Road NB	LT+SA	A1	1	3.70	15.0		1	1983	215	0.108		1	1983	178	0.090	
	SA	A2	1	3.70				2125	230	0.108			2125	191	0.090	
Wang Kwong Road SB	LT	B1	1, 4	3.40	20.0		100	1819	600	0.330		100	1819	582	0.320	
	SA	B2	1	3.50				2105	351	0.167	0.167		2105	280	0.133	
	SA	B3	1	3.50				2105	350	0.166			2105	279	0.133	0.133
Lam Hing Street EB	LT+SA+RT	C1	3	5.10	15.0		57	2010	307	0.153	0.153	58	2008	354	0.176	0.176
Lam Hing Street WB	LT+SA	D1	4	3.10	10.0		83	1711	36	0.021		78	1724	45	0.026	
	RT	D2	4	3.20	20.0		100	1930	300	0.155	0.155	100	1930	384	0.199	0.199

pedestrian phase	5(p)	2		min crossing time =	14	sec GM +	6	sec FGM =	20	sec
	6(p)	2		min crossing time =	7	sec GM +	6	sec FGM =	13	sec
	7(p)	2		min crossing time =	9	sec GM +	8	sec FGM =	17	sec
	8(p)	2		min crossing time =	11	sec GM +	10	sec FGM =	21	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



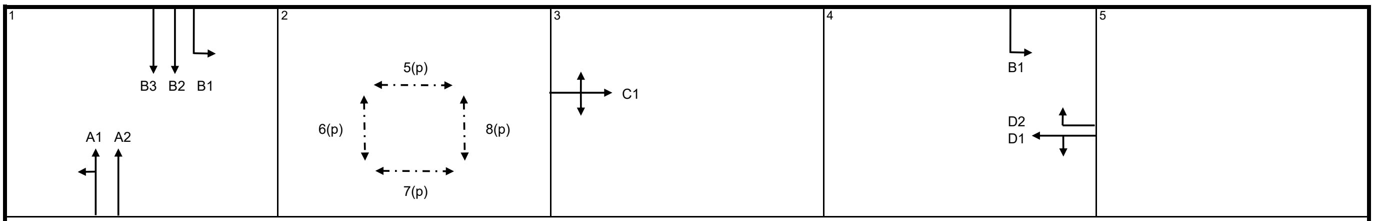
S=1940+100(W–3.25) — S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) — S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.475		0.508	
L (s)	42		42	
C (s)	140		140	
practical y	0.630		0.630	
R.C. (%)	33%		24%	

Note:

with planned junction improvement as shown in Figure 4.8



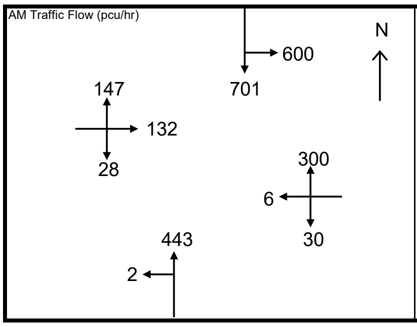
AM	G =		I/G =	9	G =	21	I/G =	2	G =		I/G =	7	G =		I/G =	6	G =		I/G =	
	G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =	
PM	G =		I/G =	9	G =	21	I/G =	2	G =		I/G =	7	G =		I/G =	6	G =		I/G =	
	G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =	

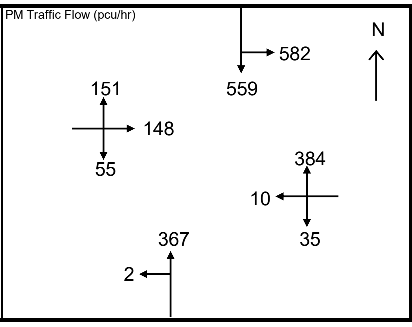
Signal Junction Analysis

Junction: J3 - Wang Kwong Road / Lam Hing Street
Job Number: J7266
Scenario: with Proposed Redevelopment
R2 / P.3-4
Design Year: 2028
Designed By: ____________________
Checked By: ____________________
Date: 18 January 2024

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak					PM Peak				
							Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y
Wang Kwong Road NB	LT+SA	A1	1	3.70	15.0		1	1983	215	0.108		1	1983	178	0.090	
	SA	A2	1	3.70				2125	230	0.108			2125	191	0.090	
Wang Kwong Road SB	LT	B1	1, 4	3.40	20.0		100	1819	600	0.330		100	1819	582	0.320	
	SA	B2	1	3.50				2105	351	0.167	0.167		2105	280	0.133	
	SA	B3	1	3.50				2105	350	0.166			2105	279	0.133	0.133
Lam Hing Street EB	LT+SA+RT	C1	3	5.10	15.0		57	2010	307	0.153	0.153	58	2008	354	0.176	0.176
Lam Hing Street WB	LT+SA	D1	4	3.10	10.0		83	1711	36	0.021		78	1724	45	0.026	
	RT	D2	4	3.20	20.0		100	1930	300	0.155	0.155	100	1930	384	0.199	0.199

pedestrian phase	5(p)	2		min crossing time =	14	sec GM +	6	sec FGM =	20	sec
	6(p)	2		min crossing time =	7	sec GM +	6	sec FGM =	13	sec
	7(p)	2		min crossing time =	9	sec GM +	8	sec FGM =	17	sec
	8(p)	2		min crossing time =	11	sec GM +	10	sec FGM =	21	sec


AM Traffic Flow (pcu/hr)


PM Traffic Flow (pcu/hr)

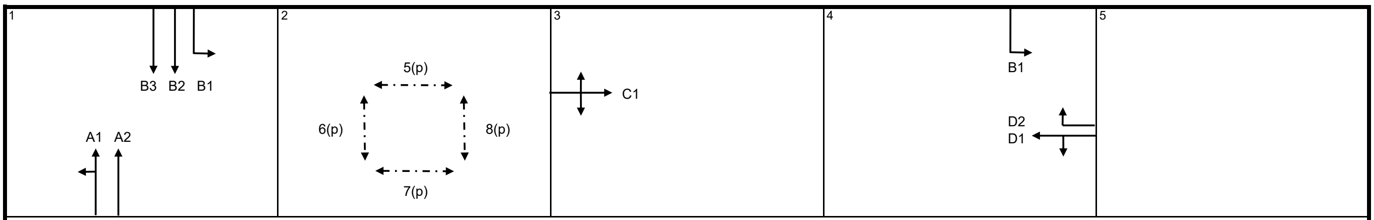
$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.475		0.508	
L (s)	42		42	
C (s)	140		140	
practical y	0.630		0.630	
R.C. (%)	33%		24%	

Note:

with planned junction improvement as shown in Figure 4.8



AM	G =		I/G =	9	G =	21	I/G =	2	G =		I/G =	7	G =		I/G =	6	G =		I/G =	
	G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =	
PM	G =		I/G =	9	G =	21	I/G =	2	G =		I/G =	7	G =		I/G =	6	G =		I/G =	
	G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =	

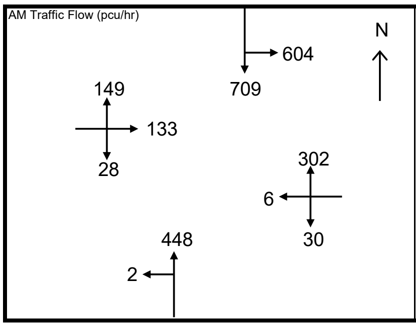
Signal Junction Analysis

Junction: J3 - Wang Kwong Road / Lam Hing Street
Job Number: J7266
Scenario: with KITEC
R2 / P.3-5
Design Year: 2031
Designed By:
Checked By:
Date: 18 January 2024

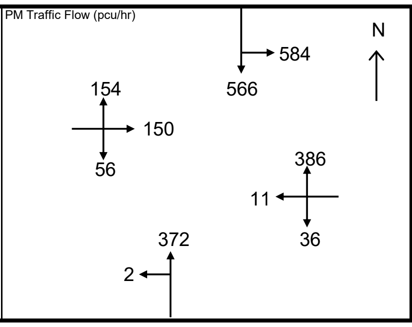
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Kwong Road NB	LT+SA	A1	1	3.70	15.0		1	1983	217	0.109		1	1983	181	0.091	
	SA	A2	1	3.70				2125	233	0.110			2125	193	0.091	
Wang Kwong Road SB	LT	B1	1, 4	3.40	20.0		100	1819	604	0.332		100	1819	584	0.321	
	SA	B2	1	3.50				2105	355	0.169	0.169		2105	283	0.134	
	SA	B3	1	3.50				2105	354	0.168			2105	283	0.134	0.134
Lam Hing Street EB	LT+SA+RT	C1	3	5.10	15.0		57	2010	310	0.154	0.154	58	2008	360	0.179	0.179
Lam Hing Street WB	LT+SA	D1	4	3.10	10.0		83	1711	36	0.021		77	1727	47	0.027	
	RT	D2	4	3.20	20.0		100	1930	302	0.156	0.156	100	1930	386	0.200	0.200

pedestrian phase	5(p)	2		min crossing time =	14	sec GM +	6	sec FGM =	20	sec
	6(p)	2		min crossing time =	7	sec GM +	6	sec FGM =	13	sec
	7(p)	2		min crossing time =	9	sec GM +	8	sec FGM =	17	sec
	8(p)	2		min crossing time =	11	sec GM +	10	sec FGM =	21	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



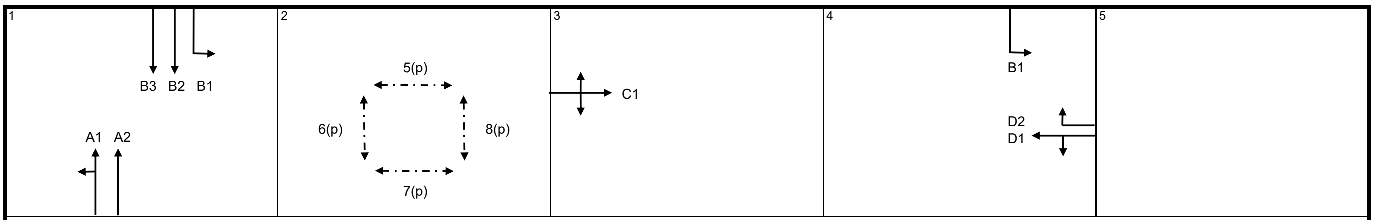
S=1940+100(W–3.25) S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.479		0.514	
L (s)	42		42	
C (s)	140		140	
practical y	0.630		0.630	
R.C. (%)	31%		23%	

Note:

with planned junction improvement as shown in Figure 4.8



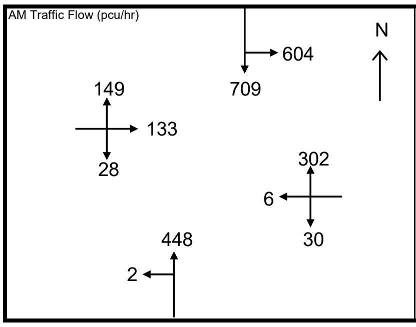
	Stage 1 G =	I/G =	Stage 2 G =	I/G =	Stage 3 G =	I/G =	Stage 4 G =	I/G =	Stage 5 G =	I/G =
AM		9	21	2		7		6		
PM		9	21	2		7		6		

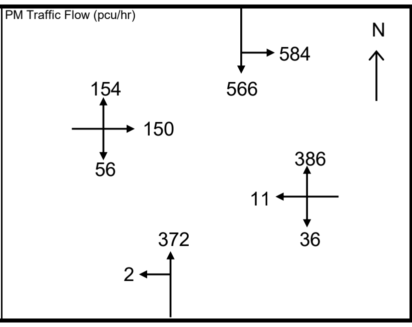
Signal Junction Analysis

Junction: J3 - Wang Kwong Road / Lam Hing Street
Job Number: J7266
Scenario: with Approved Redevelopment
R2 / P.3-6
Design Year: 2031
Designed By:
Checked By:
Date: 18 January 2024

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Kwong Road NB	LT+SA	A1	1	3.70	15.0		1	1983	217	0.109		1	1983	181	0.091	
	SA	A2	1	3.70				2125	233	0.110			2125	193	0.091	
Wang Kwong Road SB	LT	B1	1, 4	3.40	20.0		100	1819	604	0.332		100	1819	584	0.321	
	SA	B2	1	3.50				2105	355	0.169	0.169		2105	283	0.134	
	SA	B3	1	3.50				2105	354	0.168			2105	283	0.134	0.134
Lam Hing Street EB	LT+SA+RT	C1	3	5.10	15.0		57	2010	310	0.154	0.154	58	2008	360	0.179	0.179
Lam Hing Street WB	LT+SA	D1	4	3.10	10.0		83	1711	36	0.021		77	1727	47	0.027	
	RT	D2	4	3.20	20.0		100	1930	302	0.156	0.156	100	1930	386	0.200	0.200

pedestrian phase	5(p)	2	min crossing time =	14	sec GM +	6	sec FGM =	20	sec
	6(p)	2	min crossing time =	7	sec GM +	6	sec FGM =	13	sec
	7(p)	2	min crossing time =	9	sec GM +	8	sec FGM =	17	sec
	8(p)	2	min crossing time =	11	sec GM +	10	sec FGM =	21	sec





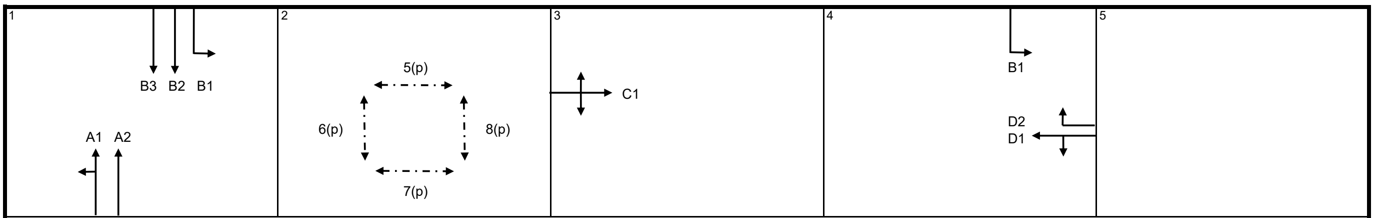
S=1940+100(W–3.25)   S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.479		0.514	
L (s)	42		42	
C (s)	140		140	
practical y	0.630		0.630	
R.C. (%)	31%		23%	

Note:

with planned junction improvement as shown in Figure 4.8



AM	G =	I/G = 9	G = 21	I/G = 2	G =	I/G = 7	G =	I/G = 6	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 9	G = 21	I/G = 2	G =	I/G = 7	G =	I/G = 6	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

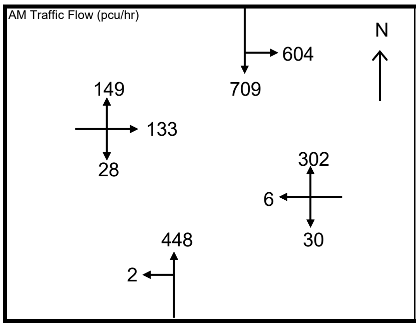
Signal Junction Analysis

Junction: J3 - Wang Kwong Road / Lam Hing Street
Job Number: J7266
Scenario: with Proposed Redevelopment
R2 / P.3-7
Design Year: 2031
Designed By:
Checked By:
Date: 18 January 2024

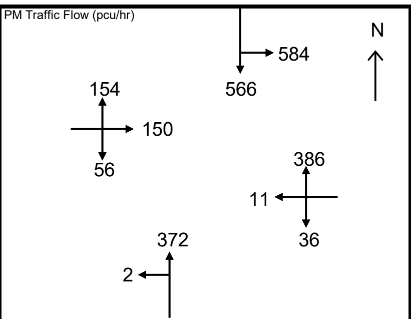
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Kwong Road NB	LT+SA	A1	1	3.70	15.0		1	1983	217	0.109		1	1983	181	0.091	
	SA	A2	1	3.70				2125	233	0.110			2125	193	0.091	
Wang Kwong Road SB	LT	B1	1, 4	3.40	20.0		100	1819	604	0.332		100	1819	584	0.321	
	SA	B2	1	3.50				2105	355	0.169	0.169		2105	283	0.134	
	SA	B3	1	3.50				2105	354	0.168			2105	283	0.134	0.134
Lam Hing Street EB	LT+SA+RT	C1	3	5.10	15.0		57	2010	310	0.154	0.154	58	2008	360	0.179	0.179
Lam Hing Street WB	LT+SA	D1	4	3.10	10.0		83	1711	36	0.021		77	1727	47	0.027	
	RT	D2	4	3.20	20.0		100	1930	302	0.156	0.156	100	1930	386	0.200	0.200

pedestrian phase	5(p)	2		min crossing time =	14	sec GM +	6	sec FGM =	20	sec
	6(p)	2		min crossing time =	7	sec GM +	6	sec FGM =	13	sec
	7(p)	2		min crossing time =	9	sec GM +	8	sec FGM =	17	sec
	8(p)	2		min crossing time =	11	sec GM +	10	sec FGM =	21	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



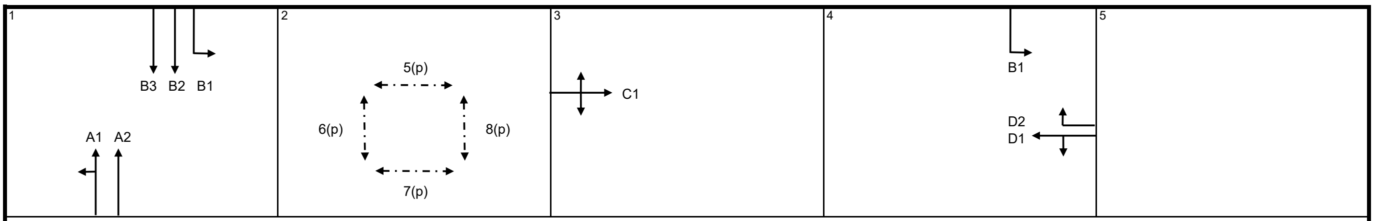
$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.479		0.514	
L (s)	42		42	
C (s)	140		140	
practical y	0.630		0.630	
R.C. (%)	31%		23%	

Note:

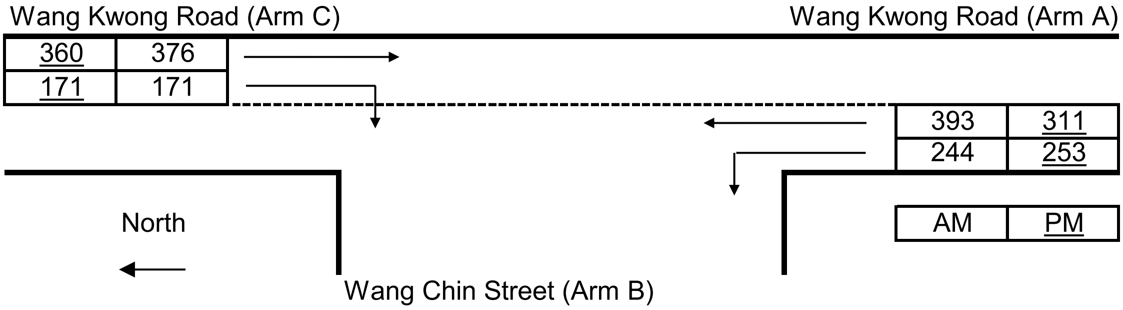
with planned junction improvement as shown in Figure 4.8



AM	G =	I/G = 9	G = 21	I/G = 2	G =	I/G = 7	G =	I/G = 6	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 9	G = 21	I/G = 2	G =	I/G = 7	G =	I/G = 6	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

Priority Junction Analysis

Junction: J4 - Wang Kwong Road / Wang Chin Street
Design Year: 2023 Job Number: J7266 Date: 18 January 2024
Scenario: existing condition R2 / P.4-1



The predictive equations of capacity of movement are:
Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]
Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]
Q-CB = F[745 - 0.364Y(q-AC + q-AB)]
The geometric parameters represented by D, E, F are:
D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]
E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]
F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]
where Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	Input		Input		Input		Calculated	
	W	14.25	V-rBA	0	w-BA	0.00	D	0.5332
	W-CR	0.00	V-lBA	0	w-BC	0.00	E	0.5860
			V-rBC	0	w-CB	7.50	F	1.3374
			V-rCB	100			Y	0.5084

Analysis :

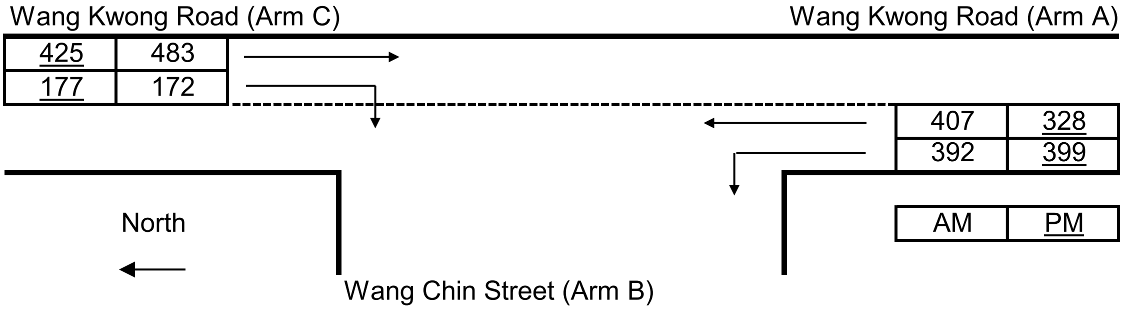
Traffic Flows, pcu/hr	AM	PM
q-CA	376	360
q-CB	171	171
q-AB	244	253
q-AC	393	311
q-BA	0	0
q-BC	0	0
f	0.000	0.000

Capacity, pcu/hr	AM	PM
Q-BA	239	247
Q-BC	383	392
Q-CB	839	857
Q-BAC	239	247

Ratio-of-flow to Capacity	AM	PM	
B-A	0.000	0.000	
B-C	0.000	0.000	
C-B	0.204	0.199	
B-AC	0.000	0.000	(for shared lane CA, CB)

Priority Junction Analysis

Junction:	J4 - Wang Kwong Road / Wang Chin Street				
Design Year:	2028	Job Number:	J7266	Date:	18 January 2024
Scenario:	with KITEC				R2 / P.4-2



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]

E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]

F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

Input		Input		Input		Calculated	
W	14.25	V-rBA	0	w-BA	0.00	D	0.5332
W-CR	0.00	V-lBA	0	w-BC	0.00	E	0.5860
		V-rBC	0	w-CB	7.50	F	1.3374
		V-rCB	100			Y	0.5084

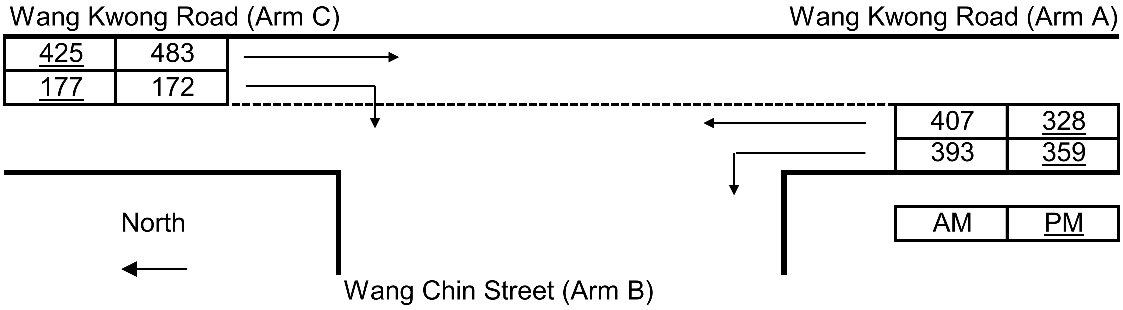
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	483	425	Q-BA	225	235
q-CB	172	177	Q-BC	376	384
q-AB	392	399	Q-CB	799	816
q-AC	407	328	Q-BAC	225	235
q-BA	0	0			
q-BC	0	0			
f	0.000	0.000			

Ratio-of-flow to Capacity	AM	PM	
B-A	0.000	0.000	
B-C	0.000	0.000	
C-B	0.215	0.217	
B-AC	0.000	0.000	(for shared lane CA, CB)

Priority Junction Analysis

Junction:	J4 - Wang Kwong Road / Wang Chin Street				
Design Year:	2028	Job Number:	J7266	Date:	18 January 2024
Scenario:	with Approved Redevelopment				R2 / P.4-3



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]

E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]

F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

Input		Input		Input		Calculated	
W	14.25	V-rBA	0	w-BA	0.00	D	0.5332
W-CR	0.00	V-lBA	0	w-BC	0.00	E	0.5860
		V-rBC	0	w-CB	7.50	F	1.3374
		V-rCB	100			Y	0.5084

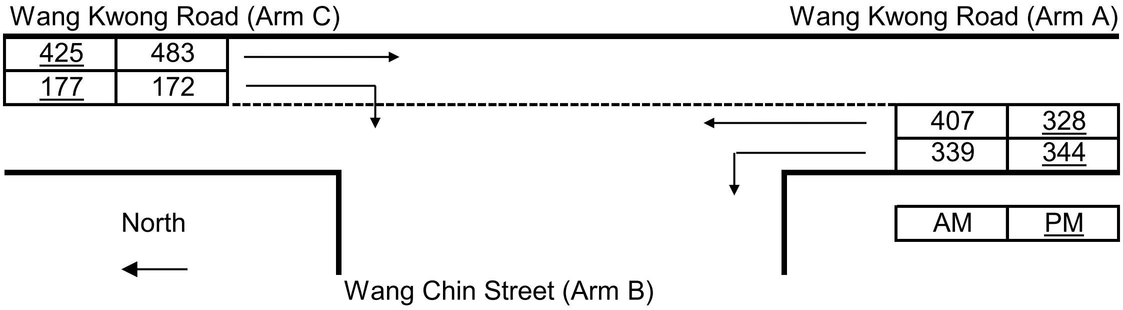
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	483	425	Q-BA	225	237
q-CB	172	177	Q-BC	376	386
q-AB	393	359	Q-CB	798	826
q-AC	407	328	Q-BAC	225	237
q-BA	0	0			
q-BC	0	0			
f	0.000	0.000			

Ratio-of-flow to Capacity	AM	PM	
B-A	0.000	0.000	
B-C	0.000	0.000	
C-B	0.215	0.214	
B-AC	0.000	0.000	(for shared lane CA, CB)

Priority Junction Analysis

Junction: J4 - Wang Kwong Road / Wang Chin Street
Design Year: 2028 Job Number: J7266 Date: 18 January 2024
Scenario: with Proposed Redevelopment R2 / P.4-4



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]
Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]
Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]
E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]
F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

Input		Input		Input		Calculated	
W	14.25	V-rBA	0	w-BA	0.00	D	0.5332
W-CR	0.00	V-lBA	0	w-BC	0.00	E	0.5860
		V-rBC	0	w-CB	7.50	F	1.3374
		V-rCB	100			Y	0.5084

Analysis :

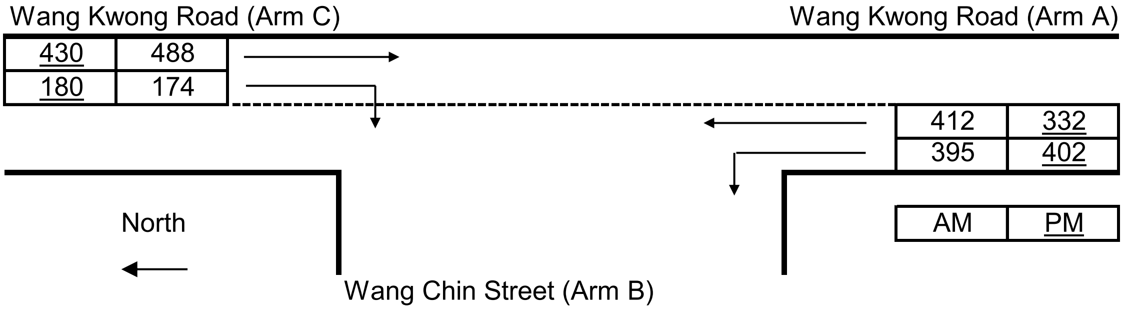
Traffic Flows, pcu/hr	AM	PM
q-CA	483	425
q-CB	172	177
q-AB	339	344
q-AC	407	328
q-BA	0	0
q-BC	0	0
f	0.000	0.000

Capacity, pcu/hr	AM	PM
Q-BA	227	237
Q-BC	378	386
Q-CB	812	830
Q-BAC	227	237

Ratio-of-flow to Capacity	AM	PM	
B-A	0.000	0.000	
B-C	0.000	0.000	
C-B	0.212	0.213	
B-AC	0.000	0.000	(for shared lane CA, CB)

Priority Junction Analysis

Junction: J4 - Wang Kwong Road / Wang Chin Street
Design Year: 2031 Job Number: J7266 Date: 18 January 2024
Scenario: with KITEC R2 / P.4-5



The predictive equations of capacity of movement are:
Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]
Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]
Q-CB = F[745 - 0.364Y(q-AC + q-AB)]
The geometric parameters represented by D, E, F are:
D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]
E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]
F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]
where Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

Input		Input		Input		Calculated	
W	14.25	V-rBA	0	w-BA	0.00	D	0.5332
W-CR	0.00	V-lBA	0	w-BC	0.00	E	0.5860
		V-rBC	0	w-CB	7.50	F	1.3374
		V-rCB	100			Y	0.5084

Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	488	430	Q-BA	223	234
q-CB	174	180	Q-BC	375	383
q-AB	395	402	Q-CB	797	814
q-AC	412	332	Q-BAC	223	234
q-BA	0	0			
q-BC	0	0			
f	0.000	0.000			

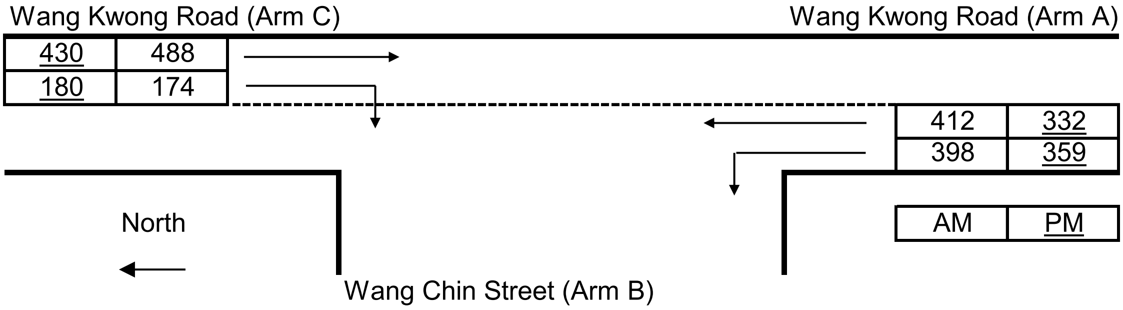
Ratio-of-flow to Capacity	AM	PM	
B-A	0.000	0.000	
B-C	0.000	0.000	
C-B	0.219	0.221	
B-AC	0.000	0.000	(for shared lane CA, CB)

Priority Junction Analysis

Junction: J4 - Wang Kwong Road / Wang Chin Street

Design Year: 2031 Job Number: J7266 Date: 18 January 2024

Scenario: with Approved Redevelopment R2 / P.4-6



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]

E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]

F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

Input		Input		Input		Calculated	
W	14.25	V-rBA	0	w-BA	0.00	D	0.5332
W-CR	0.00	V-lBA	0	w-BC	0.00	E	0.5860
		V-rBC	0	w-CB	7.50	F	1.3374
		V-rCB	100			Y	0.5084

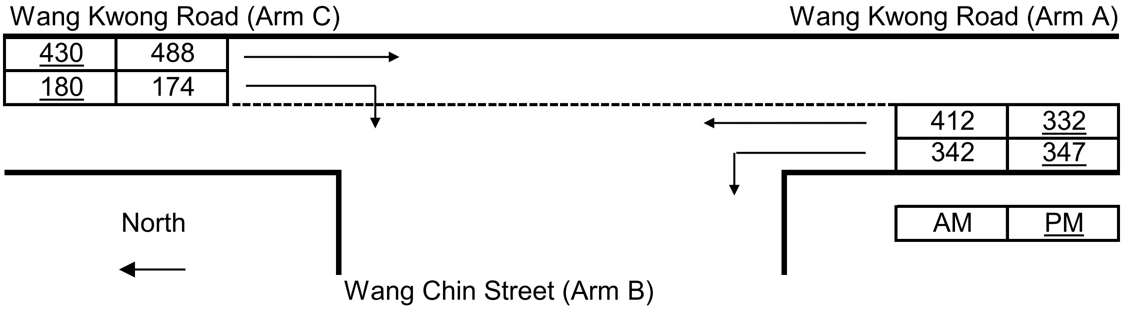
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	488	430	Q-BA	223	235
q-CB	174	180	Q-BC	375	385
q-AB	398	359	Q-CB	796	825
q-AC	412	332	Q-BAC	223	235
q-BA	0	0			
q-BC	0	0			
f	0.000	0.000			

Ratio-of-flow to Capacity	AM	PM	
B-A	0.000	0.000	
B-C	0.000	0.000	
C-B	0.219	0.218	
B-AC	0.000	0.000	(for shared lane CA, CB)

Priority Junction Analysis

Junction:	J4 - Wang Kwong Road / Wang Chin Street				
Design Year:	2031	Job Number:	J7266	Date:	18 January 2024
Scenario:	with Proposed Redevelopment				R2 / P.4-7



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]
Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]
Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]
E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]
F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

Input		Input		Input		Calculated	
W	14.25	V-rBA	0	w-BA	0.00	D	0.5332
W-CR	0.00	V-lBA	0	w-BC	0.00	E	0.5860
		V-rBC	0	w-CB	7.50	F	1.3374
		V-rCB	100			Y	0.5084

Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	488	430	Q-BA	225	236
q-CB	174	180	Q-BC	377	386
q-AB	342	347	Q-CB	810	828
q-AC	412	332	Q-BAC	225	236
q-BA	0	0			
q-BC	0	0			
f	0.000	0.000			

Ratio-of-flow to Capacity	AM	PM	
B-A	0.000	0.000	
B-C	0.000	0.000	
C-B	0.215	0.217	
B-AC	0.000	0.000	(for shared lane CA, CB)

Signal Junction Analysis

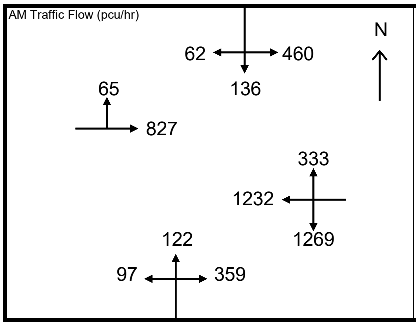
Junction: J5 - Kai Cheung Road / Wang Chiu Road — Job Number: J7266

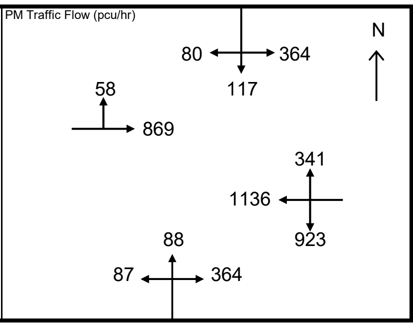
Scenario: existing condition — R2 / P.5-1

Design Year: 2023 — Designed By: ________ — Checked By: ________ — Date: 18 January 2024

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Kai Cheung Road EB	LT	A1	1	4.00	40.0		100	1942	65	0.033		100	1942	58	0.030	
	SA	A2	1	3.50				2105	278	0.132			2105	292	0.139	
	SA	A3	1	3.50				2105	278	0.132			2105	292	0.139	
	SA	A4	1	3.00				2055	271	0.132	0.132		2055	285	0.139	0.139
Kai Cheung Road WB	LT	B1	1, 2, 4	4.00	35.0		100	1932	619	0.320		100	1932	450	0.233	
	LT	B2	1, 2, 4	3.50	40.0		100	2029	650	0.320		100	2029	473	0.233	
	SA	B3	1, 2	4.00				2155	598	0.277			2155	551	0.256	
	SA	B4	1, 2	3.50				2285	634	0.277			2285	585	0.256	
	RT	B5	2	2.70	15.0		100	1841	333	0.181	0.181	100	1841	341	0.185	0.185
Wang Chiu Road SB	LT	C1	2, 3	3.50	40.0		100	1920	460	0.240		100	1920	364	0.190	
	SA+RT	C2	3	3.50	30.0		31	2182	198	0.091	0.091	41	2182	197	0.090	0.090
Wang Chiu Road NB	LT+SA	D1	4	3.50	40.0		50	1980	193	0.097		48	1981	180	0.091	
	SA+RT	D2	4	3.50	25.0		87	2001	195	0.097		100	1986	181	0.091	
	RT	D3	4	3.50	20.0		100	1958	190	0.097	0.097	100	1958	178	0.091	0.091

pedestrian phase	8(p)	1		min crossing time =	9	sec GM +	7	sec FGM =	16	sec
	9(p)	1		min crossing time =	5	sec GM +	8	sec FGM =	13	sec
	10(p)	1, 2		min crossing time =	10	sec GM +	9	sec FGM =	19	sec
	11(p)	1, 2, 3		min crossing time =	5	sec GM +	7	sec FGM =	12	sec
	12(p)	2, 3, 4		min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	13(p)	2, 3, 4		min crossing time =	5	sec GM +	6	sec FGM =	11	sec
	14(p)	3		min crossing time =	5	sec GM +	7	sec FGM =	12	sec
	15(p)	4		min crossing time =	5	sec GM +	9	sec FGM =	14	sec


AM Traffic Flow (pcu/hr)

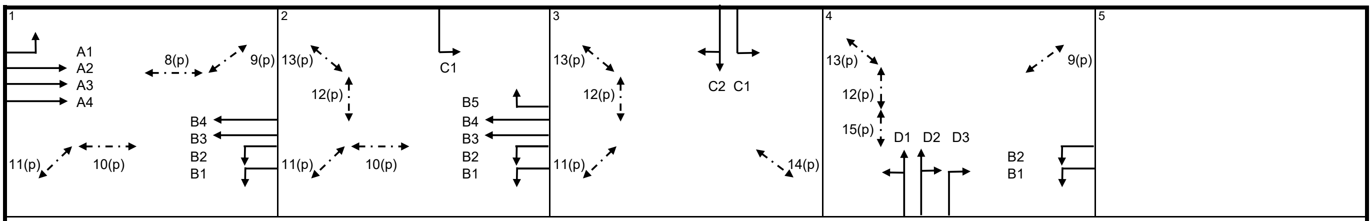

PM Traffic Flow (pcu/hr)

S=1940+100(W–3.25) S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.501		0.505	
L (s)	25		25	
C (s)	140		140	
practical y	0.739		0.739	
R.C. (%)	48%		46%	

Note:



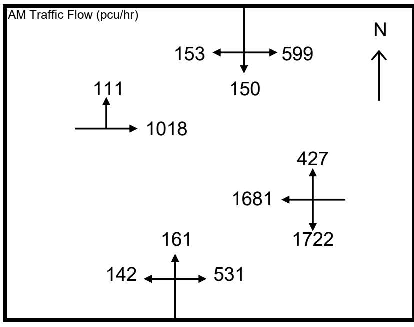
AM	G =	I/G = 5	G =	I/G = 5	G =	I/G = 11	G =	I/G = 8	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 5	G =	I/G = 5	G =	I/G = 11	G =	I/G = 8	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

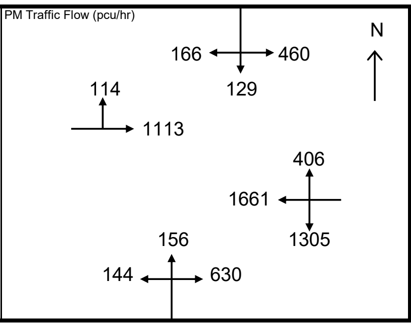
Signal Junction Analysis

Junction: J5 - Kai Cheung Road / Wang Chiu Road
Job Number: J7266
Scenario: with KITEC
R2 / P.5-2
Design Year: 2028
Designed By:
Checked By:
Date: 18 January 2024

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak					PM Peak				
							Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y
Kai Cheung Road EB	LT	A1	1	4.00	40.0		100	1942	111	0.057		100	1942	114	0.059	
	SA	A2	1	3.50				2105	342	0.162			2105	374	0.178	
	SA	A3	1	3.50				2105	342	0.162			2105	374	0.178	
	SA	A4	1	3.00				2055	334	0.163	0.163		2055	365	0.178	0.178
Kai Cheung Road WB	LT	B1	1, 2, 4	4.00	35.0		100	1932	840	0.435		100	1932	637	0.330	
	LT	B2	1, 2, 4	3.50	40.0		100	2029	882	0.435		100	2029	668	0.329	
	SA	B3	1, 2	4.00				2155	816	0.379			2155	806	0.374	
	SA	B4	1, 2	3.50				2285	865	0.379			2285	855	0.374	
	RT	B5	2	2.70	15.0		100	1841	427	0.232		100	1841	406	0.221	0.221
Wang Chiu Road SB	LT	C1	2, 3	3.50	40.0		100	1920	599	0.312	0.312	100	1920	460	0.240	
	SA	C2	3	3.50				2105	104	0.049			2105	101	0.048	
	SA+RT	C3	3	3.50	30.0		54	2049	101	0.049		71	2032	98	0.048	0.048
	RT	C4	3	3.50	25.0		100	1986	98	0.049		100	1986	96	0.048	
Wang Chiu Road NB	LT+SA	D1	4	3.50	40.0		51	1979	278	0.140		46	1983	311	0.157	
	SA+RT	D2	4	3.50	25.0		91	1996	281	0.141	0.141	100	1986	312	0.157	
	RT	D3	4	3.50	20.0		100	1958	275	0.140		100	1958	307	0.157	0.157

pedestrian phase	8(p)	1		min crossing time =	9	sec GM +	7	sec FGM =	16	sec
	9(p)	1		min crossing time =	5	sec GM +	8	sec FGM =	13	sec
	10(p)	1, 2		min crossing time =	10	sec GM +	9	sec FGM =	19	sec
	11(p)	1, 2, 3		min crossing time =	5	sec GM +	7	sec FGM =	12	sec
	12(p)	2, 3, 4		min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	13(p)	2, 3, 4		min crossing time =	5	sec GM +	6	sec FGM =	11	sec
	14(p)	3		min crossing time =	5	sec GM +	7	sec FGM =	12	sec
	15(p)	4		min crossing time =	5	sec GM +	9	sec FGM =	14	sec


AM Traffic Flow (pcu/hr)

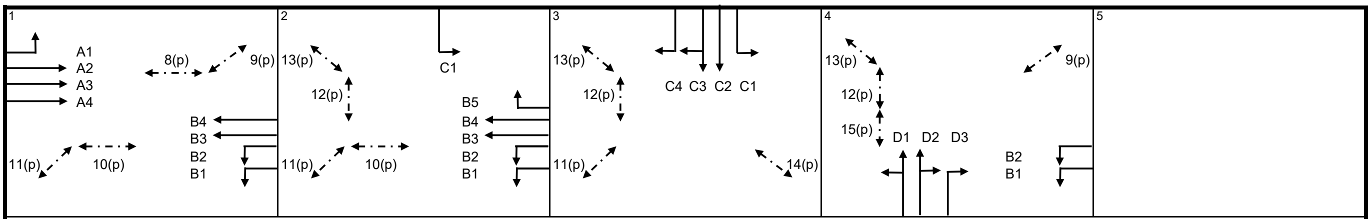

PM Traffic Flow (pcu/hr)

S=1940+100(W–3.25) S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.615		0.603	
L (s)	20		25	
C (s)	140		140	
practical y	0.771		0.739	
R.C. (%)	25%		23%	

Note:
with planned junction improvement as shown in Figure 4.9



AM	G =	I/G = 8	G =	I/G =	G =	I/G = 7	G =	I/G = 8	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 5	G =	I/G = 5	G =	I/G = 11	G =	I/G = 8	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

Signal Junction Analysis

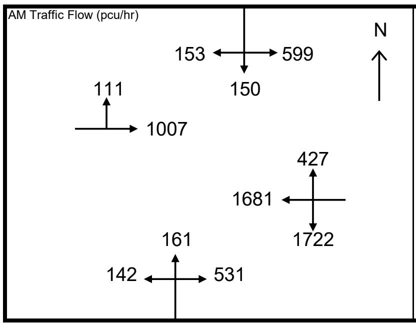
Junction: J5 - Kai Cheung Road / Wang Chiu Road Job Number: J7266

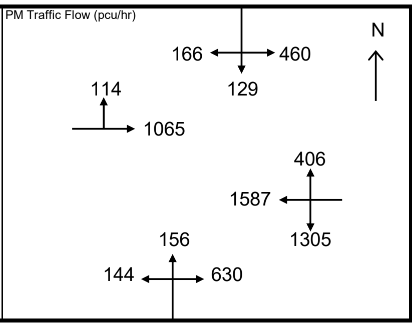
Scenario: with Approved Redevelopment R2 / P.5-3

Design Year: 2028 Designed By: ________ Checked By: ________ Date: 18 January 2024

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Kai Cheung Road EB	LT	A1	1	4.00	40.0		100	1942	111	0.057		100	1942	114	0.059	
	SA	A2	1	3.50				2105	338	0.161			2105	358	0.170	
	SA	A3	1	3.50				2105	338	0.161			2105	358	0.170	0.170
	SA	A4	1	3.00				2055	331	0.161	0.161		2055	349	0.170	
Kai Cheung Road WB	LT	B1	1, 2, 4	4.00	35.0		100	1932	840	0.435		100	1932	637	0.330	
	LT	B2	1, 2, 4	3.50	40.0		100	2029	882	0.435		100	2029	668	0.329	
	SA	B3	1, 2	4.00				2155	816	0.379			2155	770	0.357	
	SA	B4	1, 2	3.50				2285	865	0.379			2285	817	0.358	
	RT	B5	2	2.70	15.0		100	1841	427	0.232		100	1841	406	0.221	0.221
Wang Chiu Road SB	LT	C1	2, 3	3.50	40.0		100	1920	599	0.312	0.312	100	1920	460	0.240	
	SA	C2	3	3.50				2105	104	0.049			2105	101	0.048	
	SA+RT	C3	3	3.50	30.0		54	2049	101	0.049		71	2032	98	0.048	0.048
	RT	C4	3	3.50	25.0		100	1986	98	0.049		100	1986	96	0.048	
Wang Chiu Road NB	LT+SA	D1	4	3.50	40.0		51	1979	278	0.140		46	1983	311	0.157	
	SA+RT	D2	4	3.50	25.0		91	1996	281	0.141	0.141	100	1986	312	0.157	
	RT	D3	4	3.50	20.0		100	1958	275	0.140		100	1958	307	0.157	0.157

pedestrian phase	8(p)	1		min crossing time =	9	sec GM +	7	sec FGM =	16	sec
	9(p)	1		min crossing time =	5	sec GM +	8	sec FGM =	13	sec
	10(p)	1, 2		min crossing time =	10	sec GM +	9	sec FGM =	19	sec
	11(p)	1, 2, 3		min crossing time =	5	sec GM +	7	sec FGM =	12	sec
	12(p)	2, 3, 4		min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	13(p)	2, 3, 4		min crossing time =	5	sec GM +	6	sec FGM =	11	sec
	14(p)	3		min crossing time =	5	sec GM +	7	sec FGM =	12	sec
	15(p)	4		min crossing time =	5	sec GM +	9	sec FGM =	14	sec


AM Traffic Flow (pcu/hr)


PM Traffic Flow (pcu/hr)

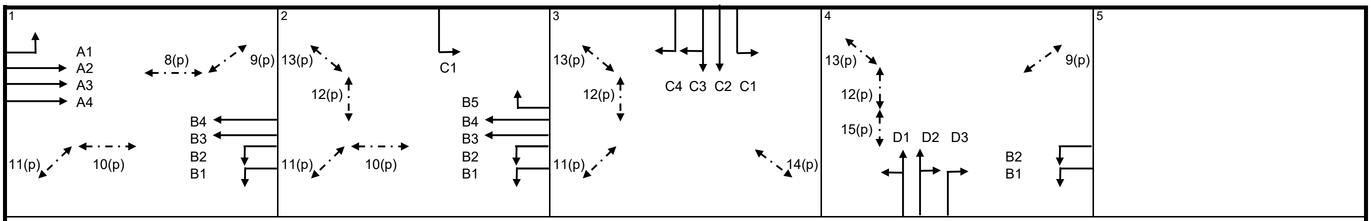
S=1940+100(W–3.25) S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.614		0.596	
L (s)	20		25	
C (s)	140		140	
practical y	0.771		0.739	
R.C. (%)	26%		24%	

Note:

with planned junction improvement as shown in Figure 4.9



AM	G =	I/G = 8	G =	I/G =	G =	I/G = 7	G =	I/G = 8	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 5	G =	I/G = 5	G =	I/G = 11	G =	I/G = 8	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

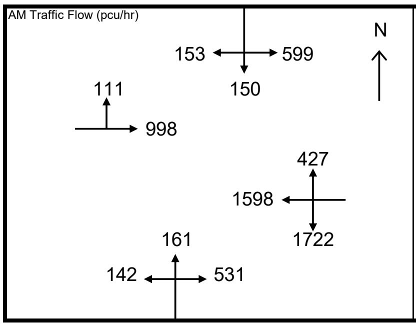
Signal Junction Analysis

Junction: J5 - Kai Cheung Road / Wang Chiu Road
Job Number: J7266
Scenario: with Proposed Redevelopment
R2 / P.5-4
Design Year: 2028
Designed By:
Checked By:
Date: 18 January 2024

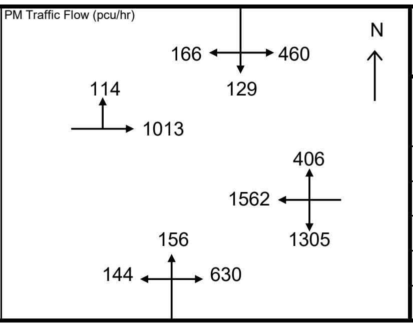
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak					PM Peak				
							Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y
Kai Cheung Road EB	LT	A1	1	4.00	40.0		100	1942	111	0.057		100	1942	114	0.059	
	SA	A2	1	3.50				2105	335	0.159			2105	340	0.162	
	SA	A3	1	3.50				2105	335	0.159			2105	340	0.162	
	SA	A4	1	3.00				2055	328	0.160	0.160		2055	333	0.162	0.162
Kai Cheung Road WB	LT	B1	1, 2, 4	4.00	35.0		100	1932	840	0.435		100	1932	637	0.330	
	LT	B2	1, 2, 4	3.50	40.0		100	2029	882	0.435		100	2029	668	0.329	
	SA	B3	1, 2	4.00				2155	776	0.360			2155	758	0.352	
	SA	B4	1, 2	3.50				2285	822	0.360			2285	804	0.352	
	RT	B5	2	2.70	15.0		100	1841	427	0.232		100	1841	406	0.221	0.221
Wang Chiu Road SB	LT	C1	2, 3	3.50	40.0		100	1920	599	0.312	0.312	100	1920	460	0.240	
	SA	C2	3	3.50				2105	104	0.049			2105	101	0.048	
	SA+RT	C3	3	3.50	30.0		54	2049	101	0.049		71	2032	98	0.048	0.048
	RT	C4	3	3.50	25.0		100	1986	98	0.049		100	1986	96	0.048	
Wang Chiu Road NB	LT+SA	D1	4	3.50	40.0		51	1979	278	0.140		46	1983	311	0.157	
	SA+RT	D2	4	3.50	25.0		91	1996	281	0.141	0.141	100	1986	312	0.157	
	RT	D3	4	3.50	20.0		100	1958	275	0.140		100	1958	307	0.157	0.157

pedestrian phase	8(p)	1		min crossing time =	9	sec GM +	7	sec FGM =	16	sec
	9(p)	1		min crossing time =	5	sec GM +	8	sec FGM =	13	sec
	10(p)	1, 2		min crossing time =	10	sec GM +	9	sec FGM =	19	sec
	11(p)	1, 2, 3		min crossing time =	5	sec GM +	7	sec FGM =	12	sec
	12(p)	2, 3, 4		min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	13(p)	2, 3, 4		min crossing time =	5	sec GM +	6	sec FGM =	11	sec
	14(p)	3		min crossing time =	5	sec GM +	7	sec FGM =	12	sec
	15(p)	4		min crossing time =	5	sec GM +	9	sec FGM =	14	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



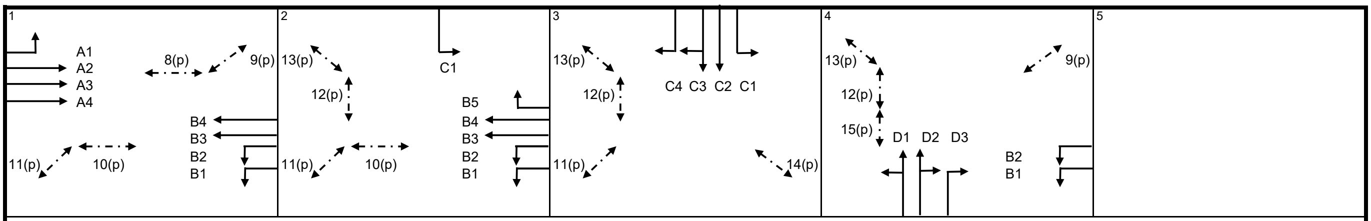
S=1940+100(W–3.25)   S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.612		0.588	
L (s)	20		25	
C (s)	140		140	
practical y	0.771		0.739	
R.C. (%)	26%		26%	

Note:

with planned junction improvement as shown in Figure 4.9



AM	G =	I/G = 8	G =	I/G =	G =	I/G = 7	G =	I/G = 8	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 5	G =	I/G = 5	G =	I/G = 11	G =	I/G = 8	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

Signal Junction Analysis

Junction: J5 - Kai Cheung Road / Wang Chiu Road Job Number: J7266

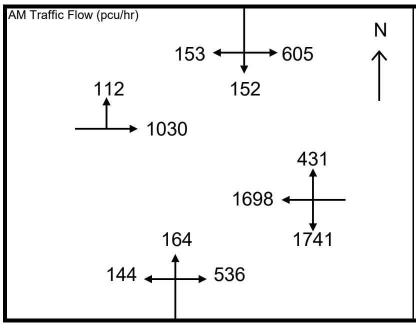
Scenario: with KITEC R2 / P.5-5

Design Year: 2031 Designed By: ____________ Checked By: ____________ Date: 18 January 2024

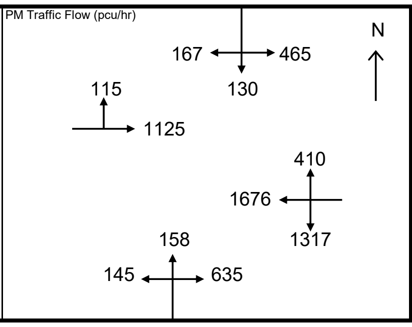
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Kai Cheung Road EB	LT	A1	1	4.00	40.0		100	1942	112	0.058		100	1942	115	0.059	
	SA	A2	1	3.50				2105	346	0.164			2105	378	0.180	
	SA	A3	1	3.50				2105	346	0.164			2105	378	0.180	
	SA	A4	1	3.00				2055	338	0.164	0.164		2055	369	0.180	0.180
Kai Cheung Road WB	LT	B1	1, 2, 4	4.00	35.0		100	1932	849	0.439		100	1932	642	0.332	
	LT	B2	1, 2, 4	3.50	40.0		100	2029	892	0.440		100	2029	675	0.333	
	SA	B3	1, 2	4.00				2155	824	0.382			2155	813	0.377	
	SA	B4	1, 2	3.50				2285	874	0.382			2285	863	0.378	
	RT	B5	2	2.70	15.0		100	1841	431	0.234		100	1841	410	0.223	0.223
Wang Chiu Road SB	LT	C1	2, 3	3.50	40.0		100	1920	605	0.315	0.315	100	1920	465	0.242	
	SA	C2	3	3.50				2105	105	0.050			2105	102	0.048	
	SA+RT	C3	3	3.50	30.0		54	2050	102	0.050		72	2032	99	0.049	0.049
	RT	C4	3	3.50	25.0		100	1986	98	0.049		100	1986	96	0.048	
Wang Chiu Road NB	LT+SA	D1	4	3.50	40.0		51	1980	282	0.142		46	1983	314	0.158	
	SA+RT	D2	4	3.50	25.0		91	1996	284	0.142		100	1986	314	0.158	
	RT	D3	4	3.50	20.0		100	1958	278	0.142	0.142	100	1958	310	0.158	0.158

pedestrian phase	8(p)	1	min crossing time =	9	sec GM +	7	sec FGM =	16	sec
	9(p)	1	min crossing time =	5	sec GM +	8	sec FGM =	13	sec
	10(p)	1, 2	min crossing time =	10	sec GM +	9	sec FGM =	19	sec
	11(p)	1, 2, 3	min crossing time =	5	sec GM +	7	sec FGM =	12	sec
	12(p)	2, 3, 4	min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	13(p)	2, 3, 4	min crossing time =	5	sec GM +	6	sec FGM =	11	sec
	14(p)	3	min crossing time =	5	sec GM +	7	sec FGM =	12	sec
	15(p)	4	min crossing time =	5	sec GM +	9	sec FGM =	14	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



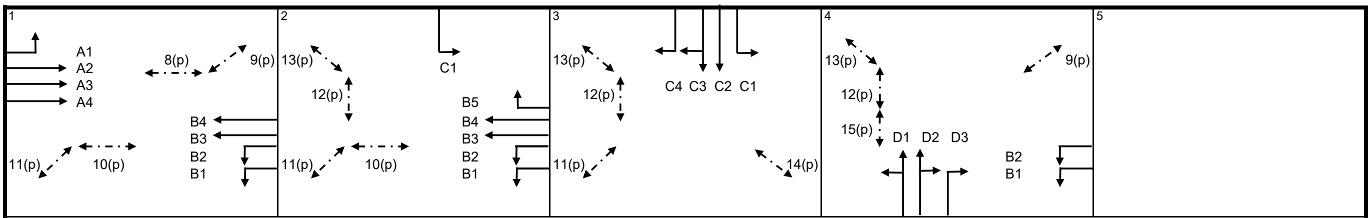
S=1940+100(W–3.25) S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.622		0.609	
L (s)	20		25	
C (s)	140		140	
practical y	0.771		0.739	
R.C. (%)	24%		21%	

Note:

with planned junction improvement as shown in Figure 4.9



AM	G =	I/G = 8	G =	I/G =	G =	I/G = 7	G =	I/G = 8	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 5	G =	I/G = 5	G =	I/G = 11	G =	I/G = 8	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

Signal Junction Analysis

Junction: J5 - Kai Cheung Road / Wang Chiu Road   Job Number: J7266

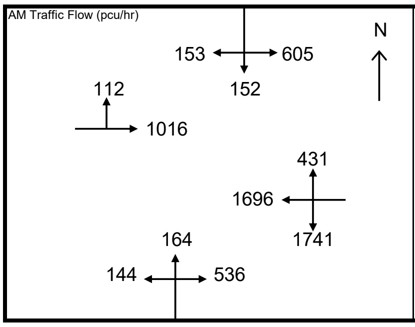
Scenario: with Approved Redevelopment   R1 / P.5-6

Design Year: 2031   Designed By: ____________   Checked By: ____________   Date: 18 January 2024

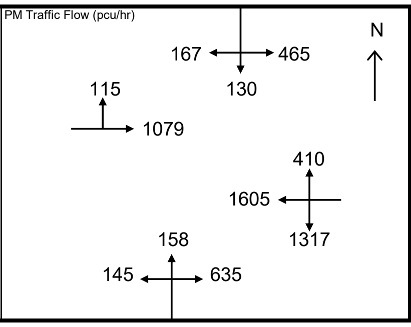
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Kai Cheung Road EB	LT	A1	1	4.00	40.0		100	1942	112	0.058		100	1942	115	0.059	
	SA	A2	1	3.50				2105	341	0.162			2105	363	0.172	
	SA	A3	1	3.50				2105	341	0.162			2105	363	0.172	
	SA	A4	1	3.00				2055	334	0.163	0.163		2055	353	0.172	0.172
Kai Cheung Road WB	LT	B1	1, 2, 4	4.00	35.0		100	1932	849	0.439		100	1932	642	0.332	
	LT	B2	1, 2, 4	3.50	40.0		100	2029	892	0.440		100	2029	675	0.333	
	SA	B3	1, 2	4.00				2155	823	0.382			2155	779	0.361	
	SA	B4	1, 2	3.50				2285	873	0.382			2285	826	0.361	
	RT	B5	2	2.70	15.0		100	1841	431	0.234		100	1841	410	0.223	0.223
Wang Chiu Road SB	LT	C1	2, 3	3.50	40.0		100	1920	605	0.315	0.315	100	1920	465	0.242	
	SA	C2	3	3.50				2105	105	0.050			2105	102	0.048	
	SA+RT	C3	3	3.50	30.0		54	2050	102	0.050		72	2032	99	0.049	0.049
	RT	C4	3	3.50	25.0		100	1986	98	0.049		100	1986	96	0.048	
Wang Chiu Road NB	LT+SA	D1	4	3.50	40.0		51	1980	282	0.142		46	1983	314	0.158	
	SA+RT	D2	4	3.50	25.0		91	1996	284	0.142		100	1986	314	0.158	
	RT	D3	4	3.50	20.0		100	1958	278	0.142	0.142	100	1958	310	0.158	0.158

pedestrian phase	8(p)	1	min crossing time =	9	sec GM +	7	sec FGM =	16	sec
	9(p)	1	min crossing time =	5	sec GM +	8	sec FGM =	13	sec
	10(p)	1, 2	min crossing time =	10	sec GM +	9	sec FGM =	19	sec
	11(p)	1, 2, 3	min crossing time =	5	sec GM +	7	sec FGM =	12	sec
	12(p)	2, 3, 4	min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	13(p)	2, 3, 4	min crossing time =	5	sec GM +	6	sec FGM =	11	sec
	14(p)	3	min crossing time =	5	sec GM +	7	sec FGM =	12	sec
	15(p)	4	min crossing time =	5	sec GM +	9	sec FGM =	14	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



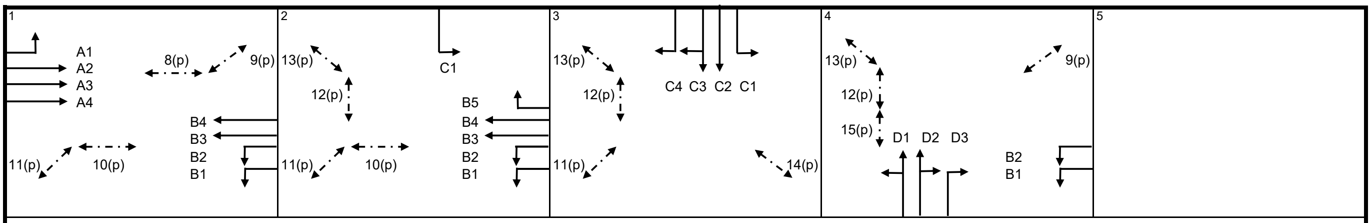
S=1940+100(W–3.25)   S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.620		0.602	
L (s)	20		25	
C (s)	140		140	
practical y	0.771		0.739	
R.C. (%)	24%		23%	

Note:

with planned junction improvement as shown in Figure 4.9



AM	G =	I/G = 8	G =	I/G =	G =	I/G = 7	G =	I/G = 8	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 5	G =	I/G = 5	G =	I/G = 11	G =	I/G = 8	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

Signal Junction Analysis

Junction: J5 - Kai Cheung Road / Wang Chiu Road Job Number: J7266

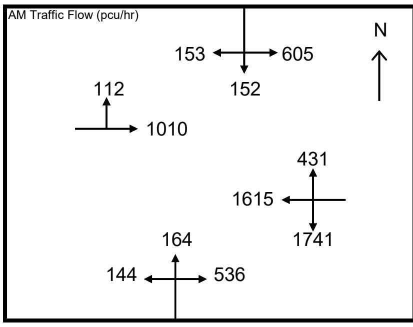
Scenario: with Proposed Redevelopment R1 / P.5-7

Design Year: 2031 Designed By: Checked By: Date: 18 January 2024

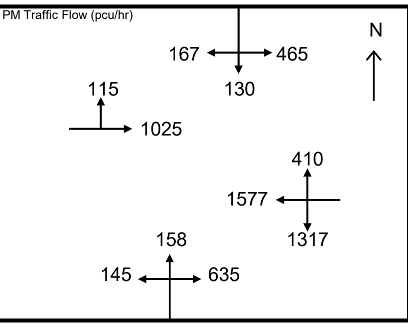
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Kai Cheung Road EB	LT	A1	1	4.00	40.0		100	1942	112	0.058		100	1942	115	0.059	
	SA	A2	1	3.50				2105	339	0.161			2105	344	0.163	
	SA	A3	1	3.50				2105	339	0.161			2105	344	0.163	
	SA	A4	1	3.00				2055	332	0.162	0.162		2055	337	0.164	0.164
Kai Cheung Road WB	LT	B1	1, 2, 4	4.00	35.0		100	1932	849	0.439		100	1932	642	0.332	
	LT	B2	1, 2, 4	3.50	40.0		100	2029	892	0.440		100	2029	675	0.333	
	SA	B3	1, 2	4.00				2155	784	0.364			2155	765	0.355	
	SA	B4	1, 2	3.50				2285	831	0.364			2285	812	0.355	
	RT	B5	2	2.70	15.0		100	1841	431	0.234		100	1841	410	0.223	0.223
Wang Chiu Road SB	LT	C1	2, 3	3.50	40.0		100	1920	605	0.315	0.315	100	1920	465	0.242	
	SA	C2	3	3.50				2105	105	0.050			2105	102	0.048	
	SA+RT	C3	3	3.50	30.0		54	2050	102	0.050		72	2032	99	0.049	0.049
	RT	C4	3	3.50	25.0		100	1986	98	0.049		100	1986	96	0.048	
Wang Chiu Road NB	LT+SA	D1	4	3.50	40.0		51	1980	282	0.142		46	1983	314	0.158	
	SA+RT	D2	4	3.50	25.0		91	1996	284	0.142		100	1986	314	0.158	
	RT	D3	4	3.50	20.0		100	1958	278	0.142	0.142	100	1958	310	0.158	0.158

pedestrian phase	8(p)	1		min crossing time =	9	sec GM +	7	sec FGM =	16	sec	
	9(p)	1		min crossing time =	5	sec GM +	8	sec FGM =	13	sec	
	10(p)	1, 2		min crossing time =	10	sec GM +	9	sec FGM =	19	sec	
	11(p)	1, 2, 3		min crossing time =	5	sec GM +	7	sec FGM =	12	sec	
	12(p)	2, 3, 4		min crossing time =	5	sec GM +	9	sec FGM =	14	sec	
	13(p)	2, 3, 4		min crossing time =	5	sec GM +	6	sec FGM =	11	sec	
	14(p)	3		min crossing time =	5	sec GM +	7	sec FGM =	12	sec	
	15(p)	4		min crossing time =	5	sec GM +	9	sec FGM =	14	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



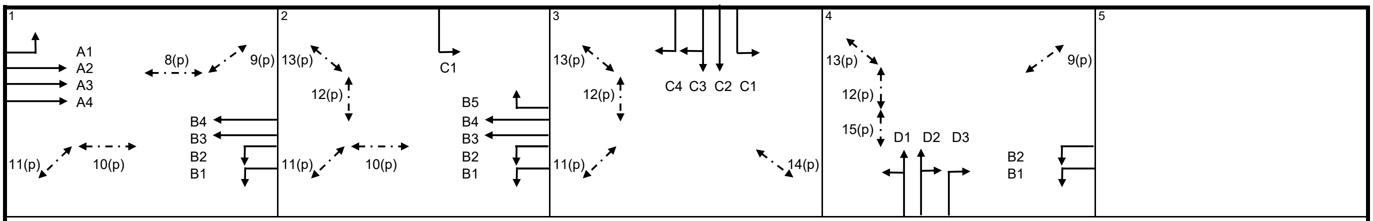
$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.619		0.594	
L (s)	20		25	
C (s)	140		140	
practical y	0.771		0.739	
R.C. (%)	25%		25%	

Note:

with planned junction improvement as shown in Figure 4.9



AM	G =	I/G = 8	G =	I/G =	G =	I/G = 7	G =	I/G = 8	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 5	G =	I/G = 5	G =	I/G = 11	G =	I/G = 8	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

Signal Junction Analysis

Junction: J6 - Wang Chiu Road / Lam Hing Street

Job Number: J7266

Scenario: existing condition

R2 / P.6-1

Design Year: 2023

Designed By:

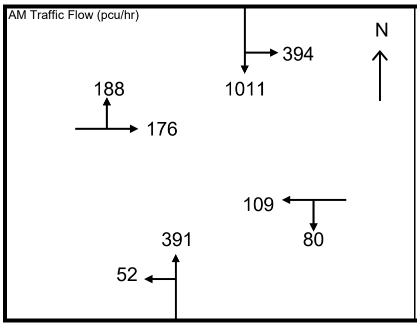
Checked By:

Date: 18 January 2024

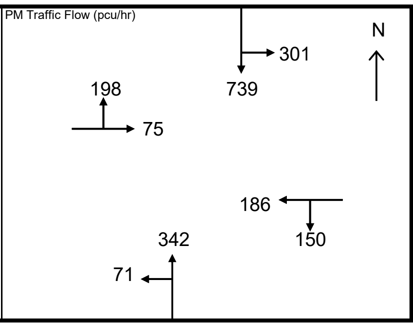
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Chiu Road SB	LT	A1	1	3.50	15.0		100	1786	394	0.221		100	1786	301	0.168	
	SA	A2	1	3.50				2105	506	0.240			2105	370	0.176	0.176
	SA	A3	1	3.50				2105	505	0.240	0.240		2105	369	0.175	
Wang Chiu Road NB	LT+SA	B1	1	3.50	15.0		25	1918	211	0.110		36	1896	196	0.103	
	SA	B2	1	3.50				2105	232	0.110			2105	217	0.103	
Lam Hing Street EB	LT+SA	C1	3	5.00	20.0		52	2036	364	0.179	0.179	73	2006	273	0.136	
Lam Hing Street WB	LT+SA	D1	3	5.00	20.0		42	2050	189	0.092		45	2046	336	0.164	0.164

pedestrian phase	3(p)	2		min crossing time =	9	sec GM +	7	sec FGM =	16	sec
	4(p)	2		min crossing time =	9	sec GM +	8	sec FGM =	17	sec
	5(p)	2		min crossing time =	12	sec GM +	11	sec FGM =	23	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

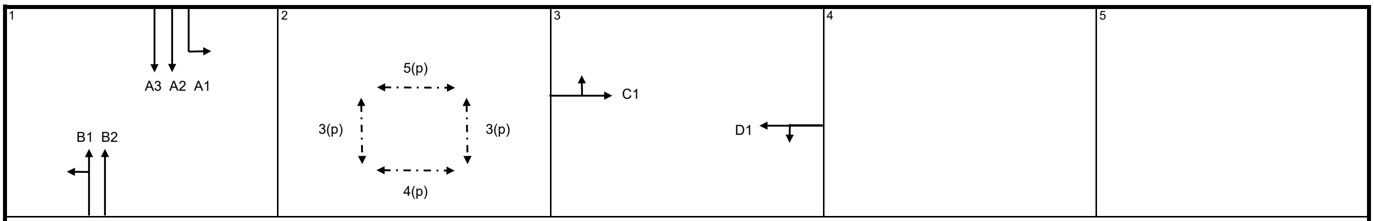


$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.419		0.340	
L (s)	38		38	
C (s)	140		140	
practical y	0.656		0.656	
R.C. (%)	57%		93%	

Note:



	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
AM		9	23	2		6				
PM		9	23	2		6				

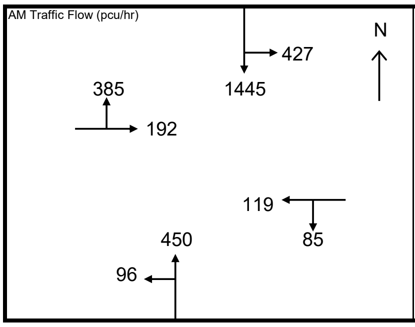
Signal Junction Analysis

Junction: J6 - Wang Chiu Road / Lam Hing Street
Job Number: J7266
Scenario: with KITEC
R2 / P.6-2
Design Year: 2028
Designed By:
Checked By:
Date: 18 January 2024

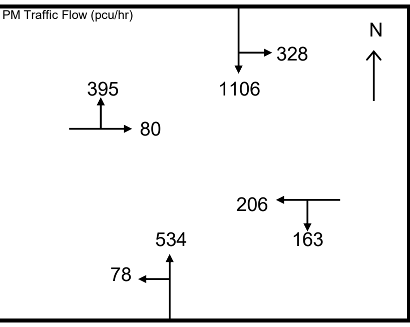
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Chiu Road SB	LT	A1	1	3.50	15.0		100	1786	427	0.239		100	1786	328	0.184	
	SA	A2	1	3.50				2105	723	0.343	0.343		2105	553	0.263	
	SA	A3	1	3.50				2105	722	0.343			2105	553	0.263	0.263
Wang Chiu Road NB	LT+SA	B1	1	3.50	15.0		37	1895	259	0.137		27	1914	291	0.152	
	SA	B2	1	3.50				2105	287	0.136			2105	321	0.152	
Lam Hing Street EB	LT+SA	C1	2	4.00	15.0		100	1832	385	0.210	0.210	100	1832	395	0.216	0.216
	SA	C2	2	4.00				2155	192	0.089			2155	80	0.037	
Lam Hing Street WB	LT+SA	D1	2	5.00	15.0		42	2030	204	0.100		44	2026	369	0.182	

pedestrian phase	3(p)	3		min crossing time =	10	sec GM +	8	sec FGM =	18	sec
	4(p)	3		min crossing time =	9	sec GM +	8	sec FGM =	17	sec
	5(p)	3		min crossing time =	12	sec GM +	11	sec FGM =	23	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



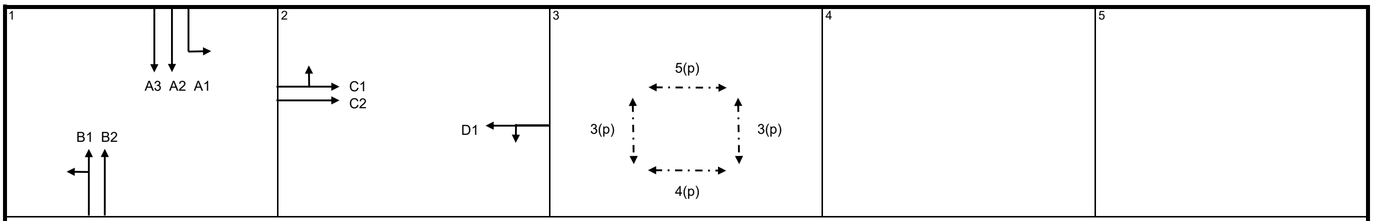
S=1940+100(W–3.25)   S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.554		0.478	
L (s)	39		39	
C (s)	140		140	
practical y	0.649		0.649	
R.C. (%)	17%		36%	

Note:

with planned junction improvement as shown in Figure 4.10



AM	G =	I/G = 6	G =	I/G = 10	G = 23	I/G = 2	G =	I/G =	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 6	G =	I/G = 10	G = 23	I/G = 2	G =	I/G =	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

Signal Junction Analysis

Junction: J6 - Wang Chiu Road / Lam Hing Street — Job Number: J7266

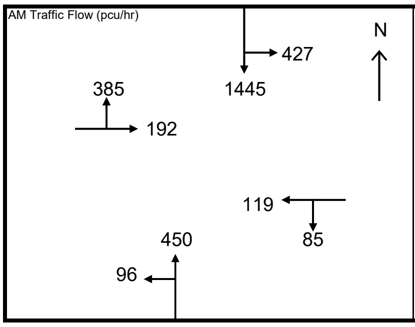
Scenario: with Approved Redevelopment — R2 / P.6-3

Design Year: 2028 — Designed By: ____________ — Checked By: ____________ — Date: 18 January 2024

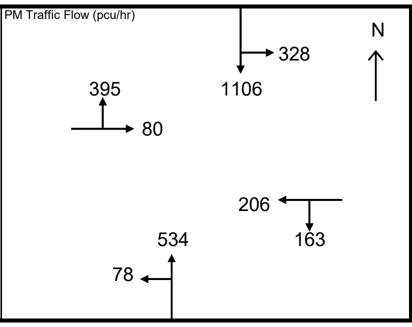
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Chiu Road SB	LT	A1	1	3.50	15.0		100	1786	427	0.239		100	1786	328	0.184	
	SA	A2	1	3.50				2105	723	0.343	0.343		2105	553	0.263	
	SA	A3	1	3.50				2105	722	0.343			2105	553	0.263	0.263
Wang Chiu Road NB	LT+SA	B1	1	3.50	15.0		37	1895	259	0.137		27	1914	291	0.152	
	SA	B2	1	3.50				2105	287	0.136			2105	321	0.152	
Lam Hing Street EB	LT+SA	C1	2	4.00	15.0		100	1832	385	0.210	0.210	100	1832	395	0.216	0.216
	SA	C2	2	4.00				2155	192	0.089			2155	80	0.037	
Lam Hing Street WB	LT+SA	D1	2	5.00	15.0		42	2030	204	0.100		44	2026	369	0.182	

pedestrian phase	3(p)	3		min crossing time =	10	sec GM +	8	sec FGM =	18	sec
	4(p)	3		min crossing time =	9	sec GM +	8	sec FGM =	17	sec
	5(p)	3		min crossing time =	12	sec GM +	11	sec FGM =	23	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



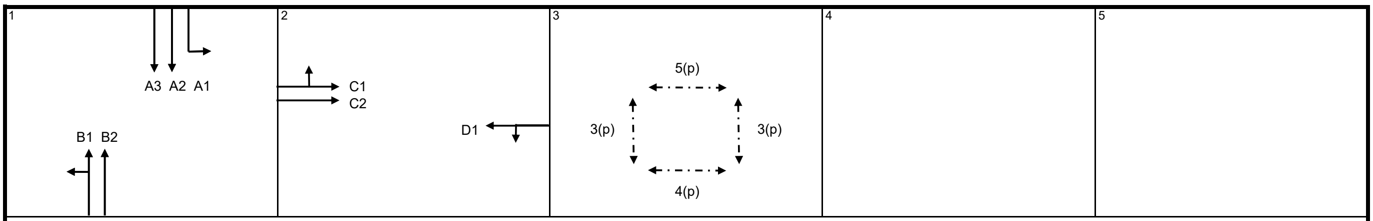
S=1940+100(W–3.25) — S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) — S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.554		0.478	
L (s)	39		39	
C (s)	140		140	
practical y	0.649		0.649	
R.C. (%)	17%		36%	

Note:

with planned junction improvement as shown in Figure 4.10



	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
AM		6		10	23	2				
PM		6		10	23	2				

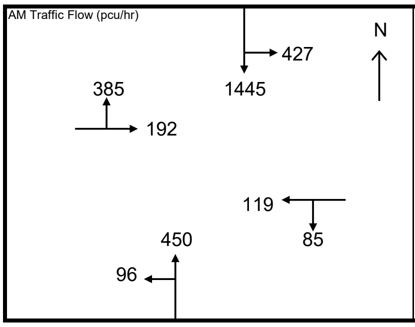
Signal Junction Analysis

Junction: J6 - Wang Chiu Road / Lam Hing Street
Job Number: J7266
Scenario: with Proposed Redevelopment
R2 / P.6-4
Design Year: 2028
Designed By:
Checked By:
Date: 18 January 2024

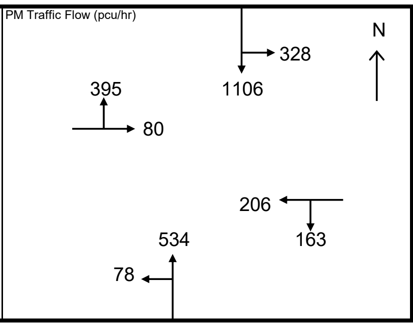
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak					PM Peak				
							Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y
Wang Chiu Road SB	LT	A1	1	3.50	15.0		100	1786	427	0.239		100	1786	328	0.184	
	SA	A2	1	3.50				2105	723	0.343	0.343		2105	553	0.263	
	SA	A3	1	3.50				2105	722	0.343			2105	553	0.263	0.263
Wang Chiu Road NB	LT+SA	B1	1	3.50	15.0		37	1895	259	0.137		27	1914	291	0.152	
	SA	B2	1	3.50				2105	287	0.136			2105	321	0.152	
Lam Hing Street EB	LT+SA	C1	2	4.00	15.0		100	1832	385	0.210	0.210	100	1832	395	0.216	0.216
	SA	C2	2	4.00				2155	192	0.089			2155	80	0.037	
Lam Hing Street WB	LT+SA	D1	2	5.00	15.0		42	2030	204	0.100		44	2026	369	0.182	

pedestrian phase	3(p)	3		min crossing time =	10	sec GM +	8	sec FGM =	18	sec
	4(p)	3		min crossing time =	9	sec GM +	8	sec FGM =	17	sec
	5(p)	3		min crossing time =	12	sec GM +	11	sec FGM =	23	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



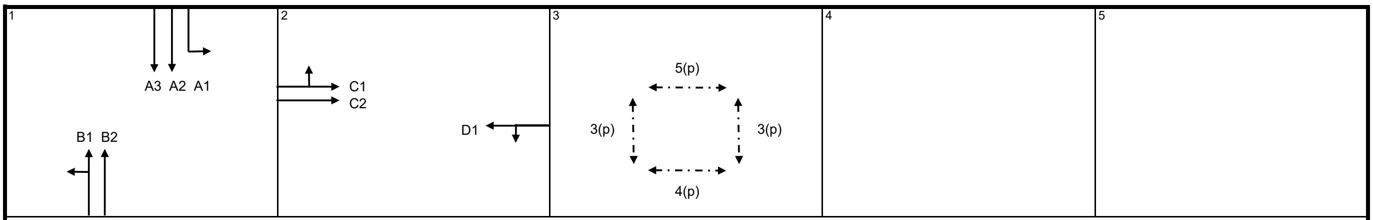
$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.554		0.478	
L (s)	39		39	
C (s)	140		140	
practical y	0.649		0.649	
R.C. (%)	17%		36%	

Note:

with planned junction improvement as shown in Figure 4.10



AM	G =	I/G = 6	G =	I/G = 10	G = 23	I/G = 2	G =	I/G =	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 6	G =	I/G = 10	G = 23	I/G = 2	G =	I/G =	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

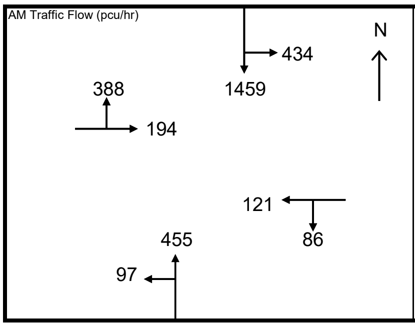
Signal Junction Analysis

Junction: J6 - Wang Chiu Road / Lam Hing Street
Job Number: J7266
Scenario: with KITEC
R2 / P.6-5
Design Year: 2031
Designed By:
Checked By:
Date: 18 January 2024

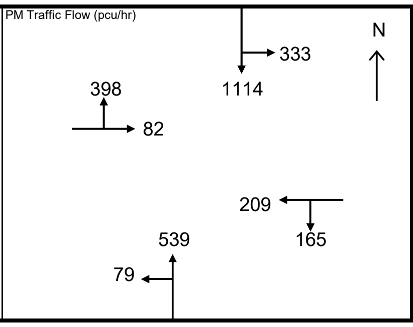
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Chiu Road SB	LT	A1	1	3.50	15.0		100	1786	434	0.243		100	1786	333	0.186	
	SA	A2	1	3.50				2105	730	0.347	0.347		2105	557	0.265	
	SA	A3	1	3.50				2105	729	0.346			2105	557	0.265	0.265
Wang Chiu Road NB	LT+SA	B1	1	3.50	15.0		37	1895	261	0.138		27	1914	294	0.154	
	SA	B2	1	3.50				2105	291	0.138			2105	324	0.154	
Lam Hing Street EB	LT+SA	C1	2	4.00	15.0		100	1832	388	0.212	0.212	100	1832	398	0.217	0.217
	SA	C2	2	4.00				2155	194	0.090			2155	82	0.038	
Lam Hing Street WB	LT+SA	D1	2	5.00	15.0		42	2031	207	0.102		44	2026	374	0.185	

pedestrian phase	3(p)	3		min crossing time =	10	sec GM +	8	sec FGM =	18	sec
	4(p)	3		min crossing time =	9	sec GM +	8	sec FGM =	17	sec
	5(p)	3		min crossing time =	12	sec GM +	11	sec FGM =	23	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

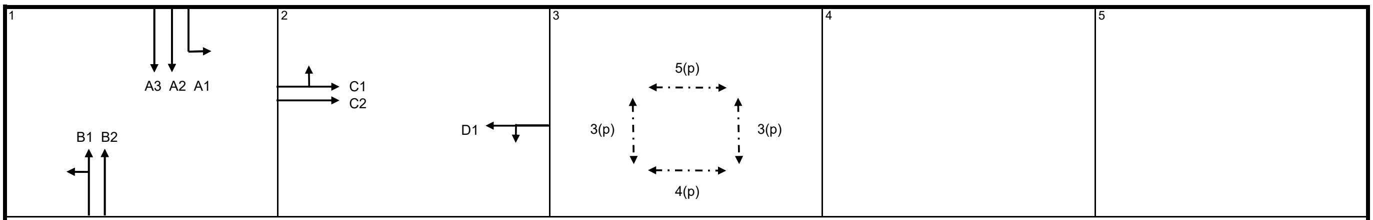


S=1940+100(W–3.25)
S=2080+100(W–3.25)
S_M=S÷(1+1.5f/r)
S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.559		0.482	
L (s)	39		39	
C (s)	140		140	
practical y	0.649		0.649	
R.C. (%)	16%		35%	

Note:

with planned junction improvement as shown in Figure 4.10



AM	G =		I/G =	6	G =		I/G =	10	G =	23	I/G =	2	G =		I/G =		G =		I/G =	
	G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =	
PM	G =		I/G =	6	G =		I/G =	10	G =	23	I/G =	2	G =		I/G =		G =		I/G =	
	G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =	

Signal Junction Analysis

Junction: J6 - Wang Chiu Road / Lam Hing Street　　Job Number: J7266

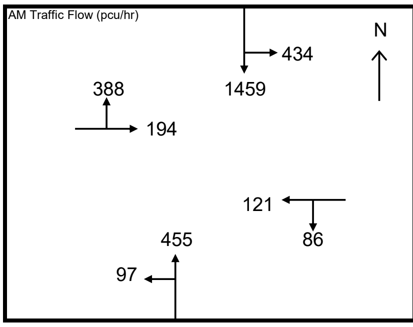
Scenario: with Approved Redevelopment　　R2 / P.6-6

Design Year: 2031　　Designed By: ____________　　Checked By: ____________　　Date: 18 January 2024

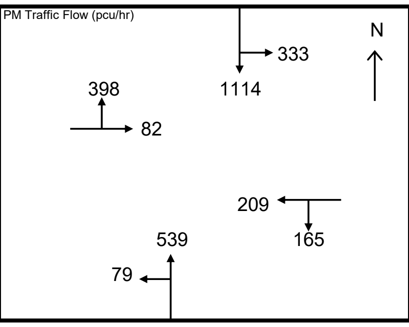
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Chiu Road SB	LT	A1	1	3.50	15.0		100	1786	434	0.243		100	1786	333	0.186	
	SA	A2	1	3.50				2105	730	0.347	0.347		2105	557	0.265	
	SA	A3	1	3.50				2105	729	0.346			2105	557	0.265	0.265
Wang Chiu Road NB	LT+SA	B1	1	3.50	15.0		37	1895	261	0.138		27	1914	294	0.154	
	SA	B2	1	3.50				2105	291	0.138			2105	324	0.154	
Lam Hing Street EB	LT+SA	C1	2	4.00	15.0		100	1832	388	0.212	0.212	100	1832	398	0.217	0.217
	SA	C2	2	4.00				2155	194	0.090			2155	82	0.038	
Lam Hing Street WB	LT+SA	D1	2	5.00	15.0		42	2031	207	0.102		44	2026	374	0.185	

pedestrian phase	3(p)	3		min crossing time =	10	sec GM +	8	sec FGM =	18	sec
	4(p)	3		min crossing time =	9	sec GM +	8	sec FGM =	17	sec
	5(p)	3		min crossing time =	12	sec GM +	11	sec FGM =	23	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



S=1940+100(W–3.25)　　S=2080+100(W–3.25)

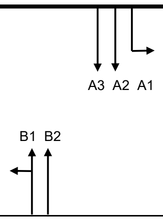
S_M=S÷(1+1.5f/r)　　S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.559		0.482	
L (s)	39		39	
C (s)	140		140	
practical y	0.649		0.649	
R.C. (%)	16%		35%	

Note:

with planned junction improvement as shown in Figure 4.10

1



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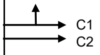
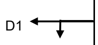
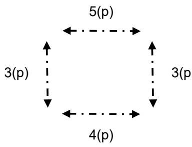




3



4

5

	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
AM		6		10	23	2				
PM		6		10	23	2				

Signal Junction Analysis

Junction: J6 - Wang Chiu Road / Lam Hing Street — Job Number: J7266

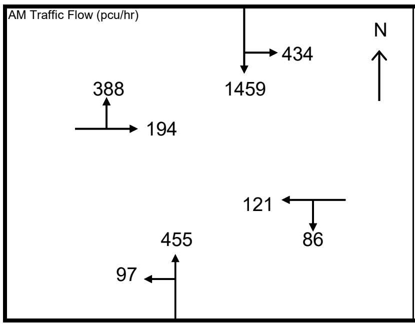
Scenario: with Proposed Redevelopment — R2 / P.6-7

Design Year: 2031 — Designed By: ____ — Checked By: ____ — Date: 18 January 2024

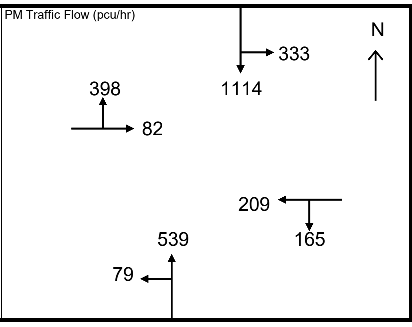
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Chiu Road SB	LT	A1	1	3.50	15.0		100	1786	434	0.243		100	1786	333	0.186	
	SA	A2	1	3.50				2105	730	0.347	0.347		2105	557	0.265	
	SA	A3	1	3.50				2105	729	0.346			2105	557	0.265	0.265
Wang Chiu Road NB	LT+SA	B1	1	3.50	15.0		37	1895	261	0.138		27	1914	294	0.154	
	SA	B2	1	3.50				2105	291	0.138			2105	324	0.154	
Lam Hing Street EB	LT+SA	C1	2	4.00	15.0		100	1832	388	0.212	0.212	100	1832	398	0.217	0.217
	SA	C2	2	4.00				2155	194	0.090			2155	82	0.038	
Lam Hing Street WB	LT+SA	D1	2	5.00	15.0		42	2031	207	0.102		44	2026	374	0.185	

pedestrian phase	3(p)	3		min crossing time =	10	sec GM +	8	sec FGM =	18	sec
	4(p)	3		min crossing time =	9	sec GM +	8	sec FGM =	17	sec
	5(p)	3		min crossing time =	12	sec GM +	11	sec FGM =	23	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



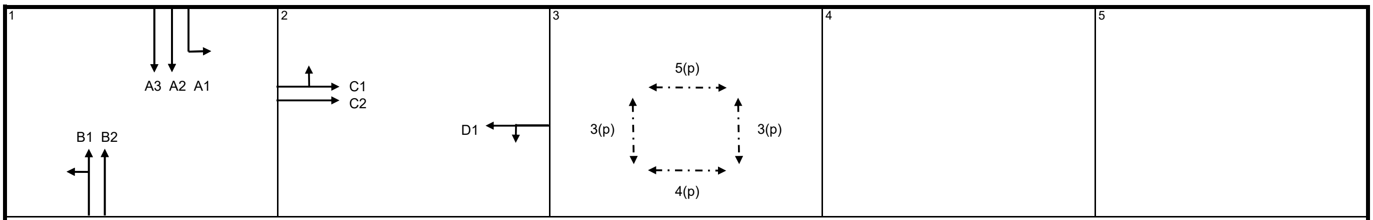
S=1940+100(W–3.25)   S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.559		0.482	
L (s)	39		39	
C (s)	140		140	
practical y	0.649		0.649	
R.C. (%)	16%		35%	

Note:

with planned junction improvement as shown in Figure 4.10



AM	G =	I/G = 6	G =	I/G = 10	G = 23	I/G = 2	G =	I/G =	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 6	G =	I/G = 10	G = 23	I/G = 2	G =	I/G =	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

Signal Junction Analysis

Junction: J7 - Wang Chiu Road / Sheung Yuet Road

Job Number: J7266

Scenario: existing condition

R2 / P.7-1

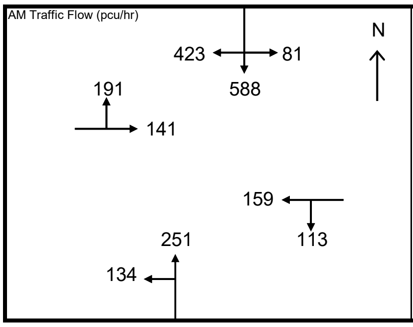
Design Year: 2023

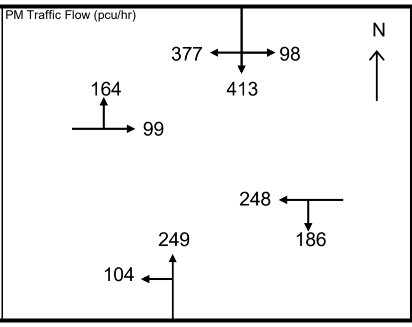
Designed By: ____________

Checked By: ____________

Date: 18 January 2024

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Chiu Road NB	LT+SA	A1	1	3.50	15.0		75	1828	179	0.098		63	1848	165	0.089	
	SA	A2	1	3.50				2105	206	0.098	0.098		2105	188	0.089	0.089
Wang Chiu Road SB	LT+SA	B1	2	3.50	15.0		15	1936	538	0.278		22	1922	437	0.227	
	SA+RT	B2	2	3.50	20.0		76	1991	554	0.278	0.278	84	1981	451	0.228	0.228
Sheung Yuet Road EB	LT+SA	C1	3	4.00	15.0		100	1832	191	0.104	0.104	100	1832	164	0.090	
	SA	C2	3	4.00				2155	141	0.065			2155	99	0.046	
Sheung Yuet Road WB	LT+SA	D1	3	3.50	15.0		90	1803	126	0.070		93	1798	200	0.111	
	SA	D2	3	3.50				2105	146	0.069			2105	234	0.111	0.111
pedestrian phase		5(p)	4		min crossing time =			9	sec GM +		9	sec FGM =		18	sec	


AM Traffic Flow (pcu/hr)

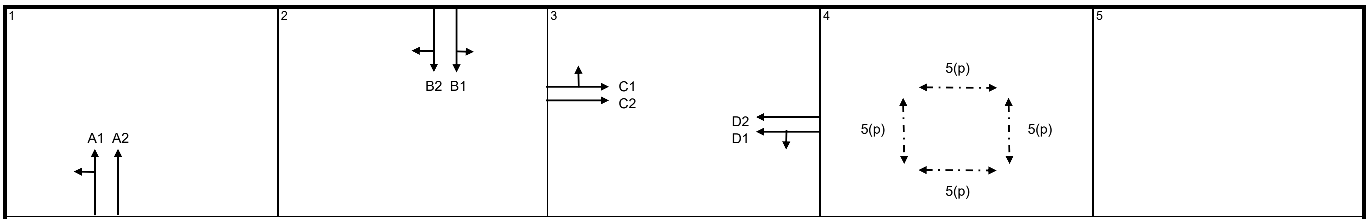

PM Traffic Flow (pcu/hr)

S=1940+100(W–3.25) S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.480		0.428	
L (s)	39		39	
C (s)	140		140	
practical y	0.649		0.649	
R.C. (%)	35%		52%	

Note:



AM	G =	I/G = 6	G =	I/G = 7	G =	I/G = 8	G = 18	I/G = 3	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 6	G =	I/G = 7	G =	I/G = 8	G = 18	I/G = 3	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

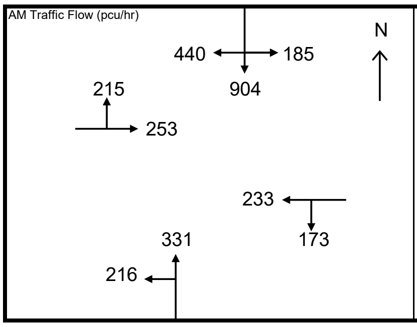
Signal Junction Analysis

Junction: J7 - Wang Chiu Road / Sheung Yuet Road　Job Number: J7266
Scenario: with KITEC　R2 / P.7-2
Design Year: 2028　Designed By: ______　Checked By: ______　Date: 18 January 2024

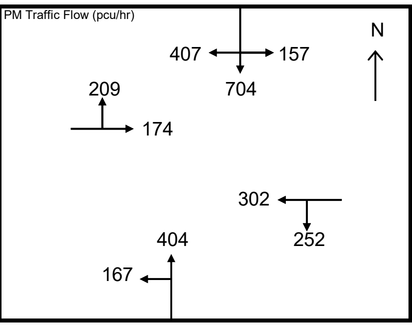
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Chiu Road NB	LT+SA	A1	1	3.30	15.0		81	1979	267	0.135		59	2016	281	0.139	
	SA	A2	1	3.20				2075	280	0.135	0.135		2075	290	0.140	0.140
Wang Chiu Road SB	LT+SA	B1	2	3.50	15.0		36	1897	516	0.272		38	1892	408	0.216	0.216
	SA	B2	2	3.50				2105	573	0.272	0.272		2105	453	0.215	
	RT	B3	2	3.50	20.0		100	1958	440	0.225		100	1958	407	0.208	
Sheung Yuet Road EB	LT+SA	C1	3	3.50	15.0		100	1786	215	0.120	0.120	100	1786	209	0.117	
	SA	C2	3	3.50				2105	253	0.120			2105	174	0.083	
Sheung Yuet Road WB	LT+SA	D1	3	3.50	15.0		93	1799	187	0.104		100	1786	252	0.141	
	SA	D2	3	3.50				2105	219	0.104			2105	302	0.143	0.143

pedestrian phase　5(p)　4　min crossing time = 11 sec GM + 10 sec FGM = 21 sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

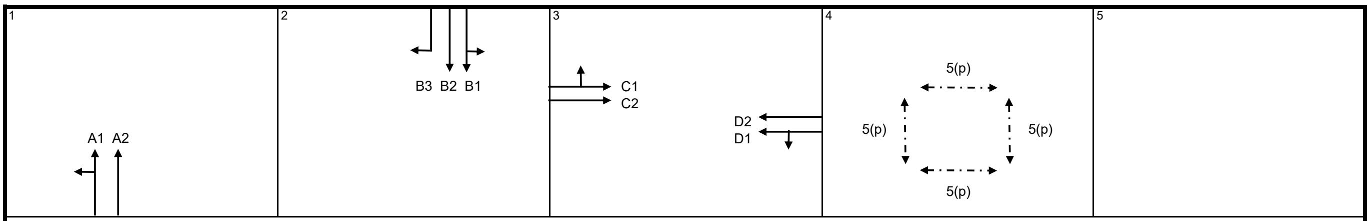


S=1940+100(W−3.25)　S=2080+100(W−3.25)

S_M=S÷(1+1.5f/r)　S_M=(S−230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.528		0.499	
L (s)	42		42	
C (s)	140		140	
practical y	0.630		0.630	
R.C. (%)	19%		26%	

Note:
with planned junction improvement as shown in Figure 4.11



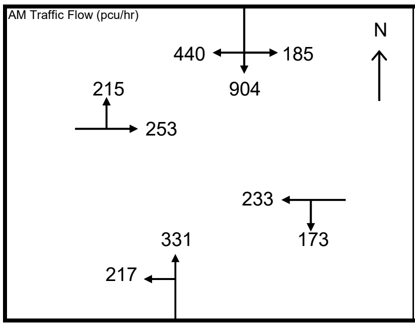
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
AM		6		7		8	21	3		
PM		6		7		8	21	3		

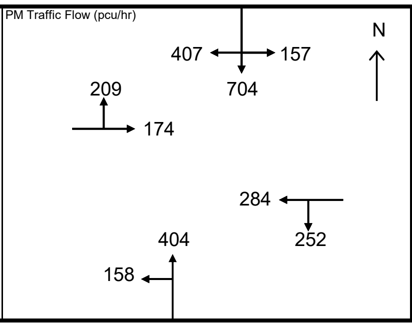
Signal Junction Analysis

Junction: J7 - Wang Chiu Road / Sheung Yuet Road
Job Number: J7266
Scenario: with Approved Redevelopment
R2 / P.7-3
Design Year: 2028
Designed By:
Checked By:
Date: 18 January 2024

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Chiu Road NB	LT+SA	A1	1	3.30	15.0		81	1979	268	0.135		57	2020	277	0.137	
	SA	A2	1	3.20				2075	280	0.135	0.135		2075	285	0.137	0.137
Wang Chiu Road SB	LT+SA	B1	2	3.50	15.0		36	1897	516	0.272		38	1892	408	0.216	0.216
	SA	B2	2	3.50				2105	573	0.272	0.272		2105	453	0.215	
	RT	B3	2	3.50	20.0		100	1958	440	0.225		100	1958	407	0.208	
Sheung Yuet Road EB	LT+SA	C1	3	3.50	15.0		100	1786	215	0.120	0.120	100	1786	209	0.117	
	SA	C2	3	3.50				2105	253	0.120			2105	174	0.083	
Sheung Yuet Road WB	LT+SA	D1	3	3.50	15.0		93	1799	187	0.104		100	1786	252	0.141	0.141
	SA	D2	3	3.50				2105	219	0.104			2105	284	0.135	

pedestrian phase 5(p) 4 min crossing time = 11 sec GM + 10 sec FGM = 21 sec


AM Traffic Flow (pcu/hr)

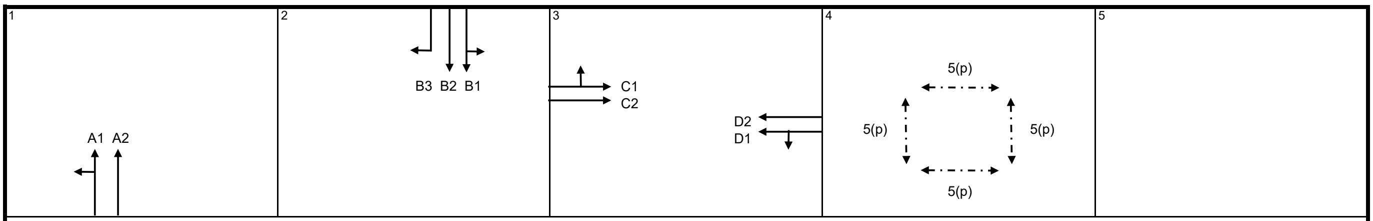

PM Traffic Flow (pcu/hr)

$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.528		0.494	
L (s)	42		42	
C (s)	140		140	
practical y	0.630		0.630	
R.C. (%)	19%		28%	

Note:
with planned junction improvement as shown in Figure 4.11



	Stage 1 G =	I/G =	Stage 2 G =	I/G =	Stage 3 G =	I/G =	Stage 4 G =	I/G =	Stage 5 G =	I/G =
AM		6		7		8	21	3		
PM		6		7		8	21	3		

Signal Junction Analysis

Junction: J7 - Wang Chiu Road / Sheung Yuet Road

Job Number: J7266

Scenario: with Proposed Redevelopment

R2 / P.7-4

Design Year: 2028

Designed By:

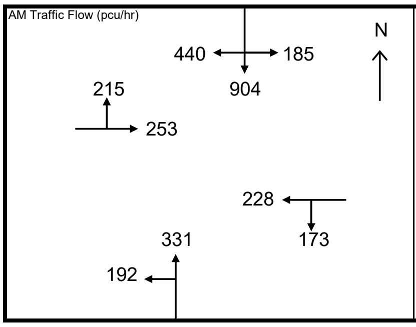
Checked By:

Date: 18 January 2024

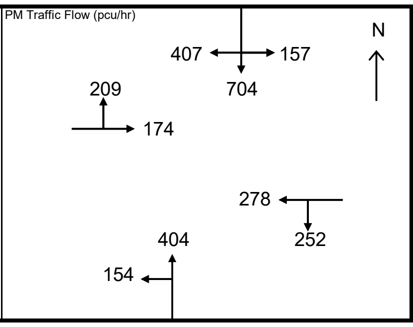
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Chiu Road NB	LT+SA	A1	1	3.30	15.0		75	1989	256	0.129		56	2022	275	0.136	
	SA	A2	1	3.20				2075	267	0.129	0.129		2075	283	0.136	0.136
Wang Chiu Road SB	LT+SA	B1	2	3.50	15.0		36	1897	516	0.272		38	1892	408	0.216	0.216
	SA	B2	2	3.50				2105	573	0.272	0.272		2105	453	0.215	
	RT	B3	2	3.50	20.0		100	1958	440	0.225		100	1958	407	0.208	
Sheung Yuet Road EB	LT+SA	C1	3	3.50	15.0		100	1786	215	0.120	0.120	100	1786	209	0.117	
	SA	C2	3	3.50				2105	253	0.120			2105	174	0.083	
Sheung Yuet Road WB	LT+SA	D1	3	3.50	15.0		94	1797	185	0.103		100	1786	252	0.141	0.141
	SA	D2	3	3.50				2105	216	0.103			2105	278	0.132	

pedestrian phase	5(p)	4		min crossing time =	11	sec GM +	10	sec FGM =	21	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



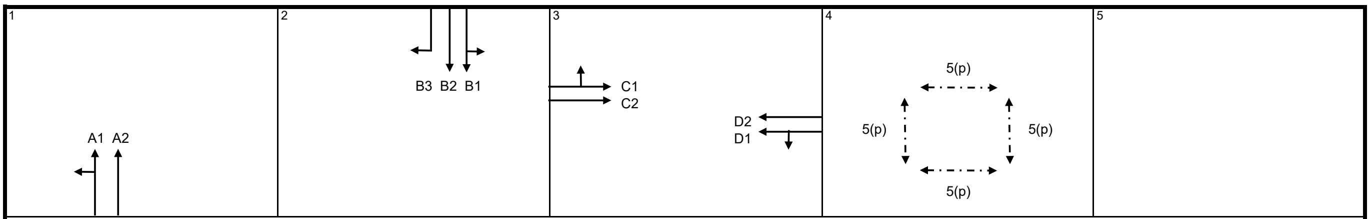
$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.521		0.493	
L (s)	42		42	
C (s)	140		140	
practical y	0.630		0.630	
R.C. (%)	21%		28%	

Note:

with planned junction improvement as shown in Figure 4.11



AM	G =		I/G =	6	G =		I/G =	7	G =		I/G =	8	G =	21	I/G =	3	G =		I/G =	
	G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =	
PM	G =		I/G =	6	G =		I/G =	7	G =		I/G =	8	G =	21	I/G =	3	G =		I/G =	
	G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =	

Signal Junction Analysis

Junction: J7 - Wang Chiu Road / Sheung Yuet Road Job Number: J7266

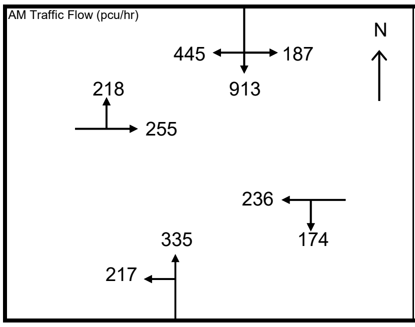
Scenario: with KITEC R2 / P.7-5

Design Year: 2031 Designed By: ____________ Checked By: ____________ Date: 18 January 2024

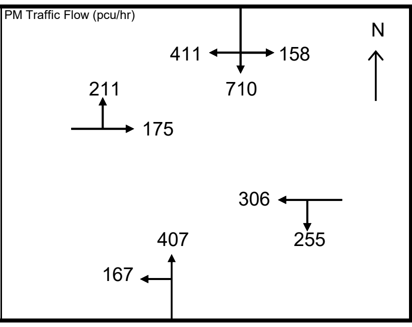
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Chiu Road NB	LT+SA	A1	1	3.30	15.0		80	1980	270	0.136		59	2017	283	0.140	
	SA	A2	1	3.20				2075	282	0.136	0.136		2075	291	0.140	0.140
Wang Chiu Road SB	LT+SA	B1	2	3.50	15.0		36	1897	521	0.275		38	1892	411	0.217	
	SA	B2	2	3.50				2105	579	0.275	0.275		2105	457	0.217	0.217
	RT	B3	2	3.50	20.0		100	1958	445	0.227		100	1958	411	0.210	
Sheung Yuet Road EB	LT+SA	C1	3	3.50	15.0		100	1786	218	0.122	0.122	100	1786	211	0.118	
	SA	C2	3	3.50				2105	255	0.121			2105	175	0.083	
Sheung Yuet Road WB	LT+SA	D1	3	3.50	15.0		92	1799	189	0.105		100	1786	255	0.143	
	SA	D2	3	3.50				2105	221	0.105			2105	306	0.145	0.145

pedestrian phase	5(p)	4		min crossing time =	11	sec GM +	10	sec FGM =	21	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

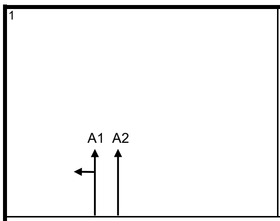
$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.533		0.503	
L (s)	42		42	
C (s)	140		140	
practical y	0.630		0.630	
R.C. (%)	18%		25%	

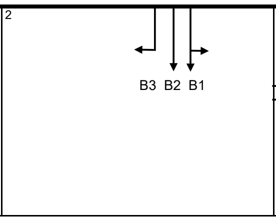
Note:

with planned junction improvement as shown in Figure 4.11

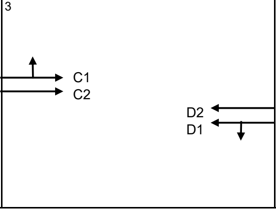
1



2



3



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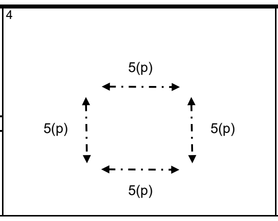


5

	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
AM		6		7		8	21	3		
PM		6		7		8	21	3		

Signal Junction Analysis

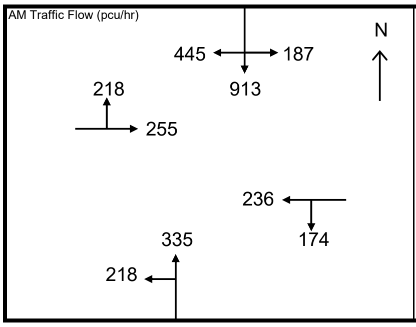
Junction: J7 - Wang Chiu Road / Sheung Yuet Road　　Job Number: J7266

Scenario: with Approved Redevelopment　　R2 / P.7-6

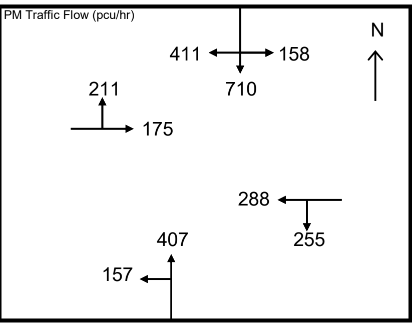
Design Year: 2031　　Designed By: ____________　　Checked By: ____________　　Date: 18 January 2024

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Chiu Road NB	LT+SA	A1	1	3.30	15.0		81	1980	270	0.136		56	2021	278	0.138	
	SA	A2	1	3.20				2075	283	0.136	0.136		2075	286	0.138	0.138
Wang Chiu Road SB	LT+SA	B1	2	3.50	15.0		36	1897	521	0.275		38	1892	411	0.217	
	SA	B2	2	3.50				2105	579	0.275	0.275		2105	457	0.217	0.217
	RT	B3	2	3.50	20.0		100	1958	445	0.227		100	1958	411	0.210	
Sheung Yuet Road EB	LT+SA	C1	3	3.50	15.0		100	1786	218	0.122	0.122	100	1786	211	0.118	
	SA	C2	3	3.50				2105	255	0.121			2105	175	0.083	
Sheung Yuet Road WB	LT+SA	D1	3	3.50	15.0		92	1799	189	0.105		100	1786	255	0.143	0.143
	SA	D2	3	3.50				2105	221	0.105			2105	288	0.137	
pedestrian phase		5(p)	4		min crossing time =			11	sec GM +		10	sec FGM =		21	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



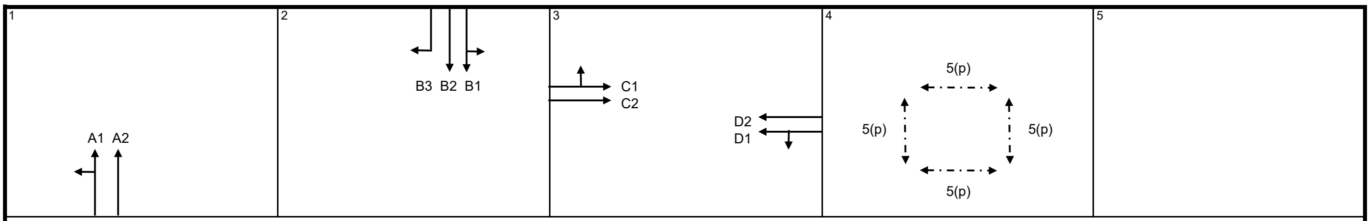
S=1940+100(W–3.25)　　S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r)　　S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.533		0.498	
L (s)	42		42	
C (s)	140		140	
practical y	0.630		0.630	
R.C. (%)	18%		27%	

Note:

with planned junction improvement as shown in Figure 4.11



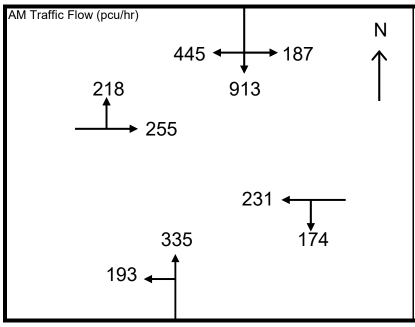
	1 G =	1 I/G =	2 G =	2 I/G =	3 G =	3 I/G =	4 G =	4 I/G =	5 G =	5 I/G =
AM		6		7		8	21	3		
PM		6		7		8	21	3		

Signal Junction Analysis

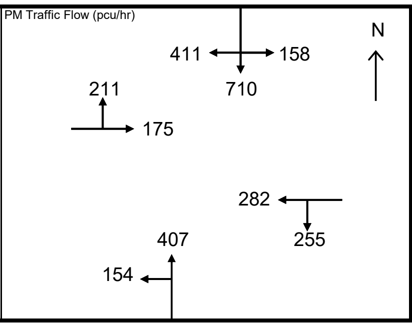
Junction: J7 - Wang Chiu Road / Sheung Yuet Road
Job Number: J7266
Scenario: with Proposed Redevelopment
R2 / P.7-7
Design Year: 2031
Designed By:
Checked By:
Date: 18 January 2024

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Chiu Road NB	LT+SA	A1	1	3.30	15.0		75	1990	258	0.130		56	2023	277	0.137	
	SA	A2	1	3.20				2075	270	0.130	0.130		2075	284	0.137	0.137
Wang Chiu Road SB	LT+SA	B1	2	3.50	15.0		36	1897	521	0.275		38	1892	411	0.217	
	SA	B2	2	3.50				2105	579	0.275	0.275		2105	457	0.217	0.217
	RT	B3	2	3.50	20.0		100	1958	445	0.227		100	1958	411	0.210	
Sheung Yuet Road EB	LT+SA	C1	3	3.50	15.0		100	1786	218	0.122	0.122	100	1786	211	0.118	
	SA	C2	3	3.50				2105	255	0.121			2105	175	0.083	
Sheung Yuet Road WB	LT+SA	D1	3	3.50	15.0		93	1798	187	0.104		100	1786	255	0.143	0.143
	SA	D2	3	3.50				2105	218	0.104			2105	282	0.134	
pedestrian phase		5(p)	4		min crossing time =		11		sec GM +		10	sec FGM =		21	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



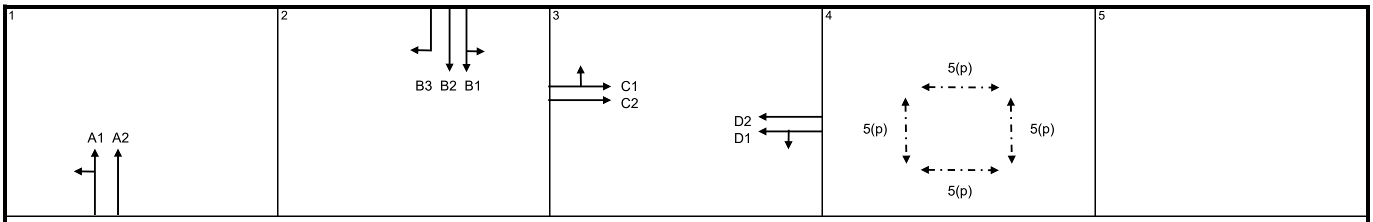
S=1940+100(W–3.25) S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.527		0.497	
L (s)	42		42	
C (s)	140		140	
practical y	0.630		0.630	
R.C. (%)	19%		27%	

Note:

with planned junction improvement as shown in Figure 4.11



AM	G =	I/G = 6	G =	I/G = 7	G =	I/G = 8	G = 21	I/G = 3	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 6	G =	I/G = 7	G =	I/G = 8	G = 21	I/G = 3	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

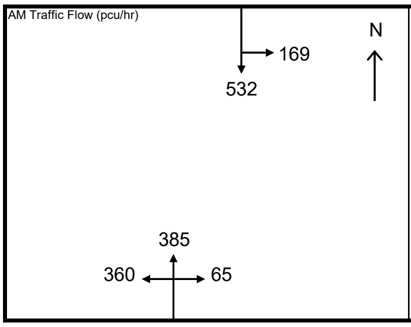
Signal Junction Analysis

Junction: J8 - Wang Chiu Road / Lam Fung Street
Job Number: J7266
Scenario: existing condition
R2 / P.8-1
Design Year: 2023
Designed By:
Checked By:
Date: 18 January 2024

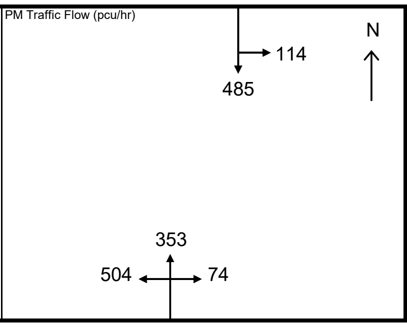
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak					PM Peak				
							Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y
Wang Chiu Road NB	LT	A1	1	3.50	20.0		100	1828	249	0.136		100	1828	287	0.157	
	LT+SA	A2	1	3.50	25.0		40	2056	280	0.136		68	2022	318	0.157	
	SA+RT	A3	1	3.50	20.0		23	2069	281	0.136	0.136	23	2070	326	0.158	0.158
Wang Chiu Road SB	LT+SA	B1	2	3.50	15.0		51	1869	330	0.177	0.177	40	1889	283	0.150	
	SA	B2	2	3.50				2105	371	0.176			2105	316	0.150	0.150

	Phase	Stage							
pedestrian phase	3(p)	3	min crossing time =	11	sec GM +	10	sec FGM =	21	sec
	4(p)	3	min crossing time =	10	sec GM +	9	sec FGM =	19	sec
	5(p)	2, 3	min crossing time =	5	sec GM +	14	sec FGM =	19	sec
	6(p)	3	min crossing time =	5	sec GM +	11	sec FGM =	16	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

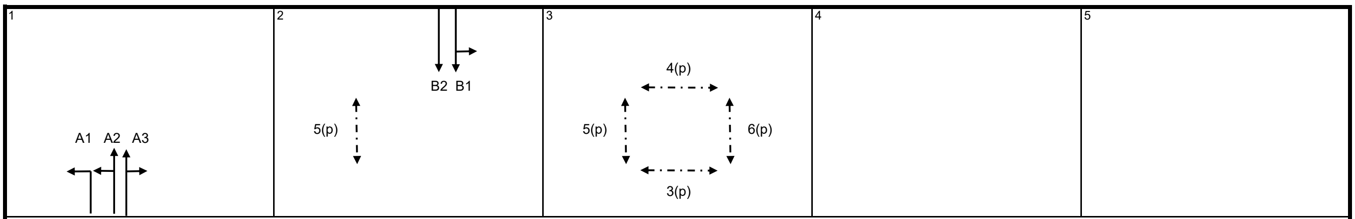


S=1940+100(W–3.25)   S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.312		0.308	
L (s)	37		37	
C (s)	140		140	
practical y	0.662		0.662	
R.C. (%)	112%		115%	

Note:



AM	G =	I/G = 7	G =	I/G = 8	G = 21	I/G = 3	G =	I/G =	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 7	G =	I/G = 8	G = 21	I/G = 3	G =	I/G =	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

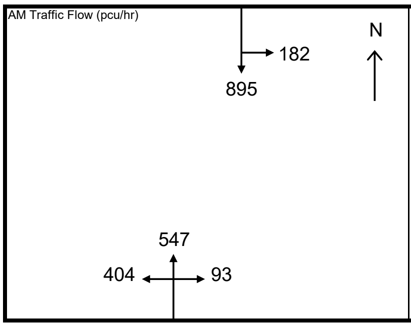
Signal Junction Analysis

Junction: J8 - Wang Chiu Road / Lam Fung Street
Job Number: J7266
Scenario: with KITEC
R2 / P.8-2
Design Year: 2028
Designed By:
Checked By:
Date: 18 January 2024

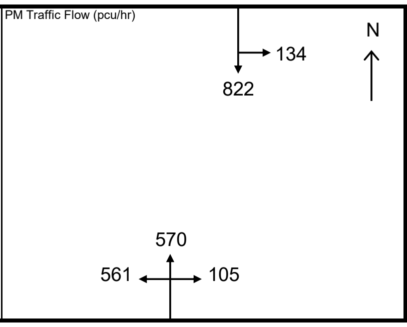
Approach	Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Chiu Road NB LT	A1	1	3.50	20.0		100	1828	320	0.175		100	1828	380	0.208	
LT+SA	A2	1	3.50	25.0		23	2076	363	0.175		42	2053	427	0.208	
SA+RT	A3	1	3.50	20.0		26	2065	361	0.175	0.175	24	2067	429	0.208	0.208
Wang Chiu Road SB LT+SA	B1	2	3.50	15.0		34	2028	528	0.260		29	2039	470	0.230	
SA	B2	2	3.50				2105	549	0.261	0.261		2105	486	0.231	0.231

pedestrian phase	3(p)	3	min crossing time =	11	sec GM +	10	sec FGM =	21	sec	
	4(p)	3	min crossing time =	10	sec GM +	9	sec FGM =	19	sec	
	5(p)	2, 3	min crossing time =	5	sec GM +	14	sec FGM =	19	sec	
	6(p)	3	min crossing time =	5	sec GM +	11	sec FGM =	16	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



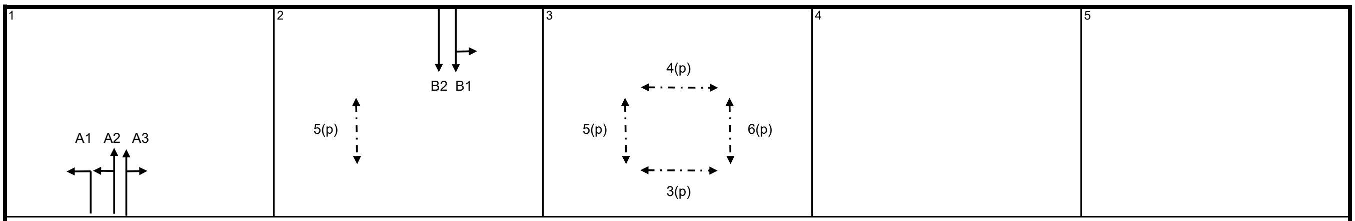
S=1940+100(W–3.25) S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.436		0.438	
L (s)	37		37	
C (s)	140		140	
practical y	0.662		0.662	
R.C. (%)	52%		51%	

Note:

with planned junction improvement as shown in Figure 4.12



AM	G =	I/G = 7	G =	I/G = 8	G = 21	I/G = 3	G =	I/G =	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 7	G =	I/G = 8	G = 21	I/G = 3	G =	I/G =	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

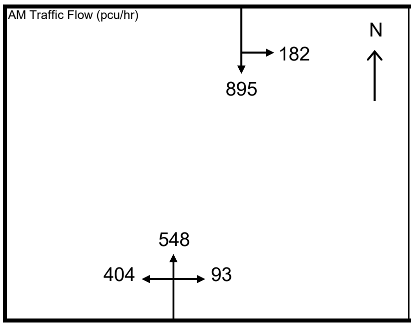
Signal Junction Analysis

Junction: J8 - Wang Chiu Road / Lam Fung Street
Job Number: J7266
Scenario: with Approved Redevelopment
R2 / P.8-3
Design Year: 2028
Designed By:
Checked By:
Date: 18 January 2024

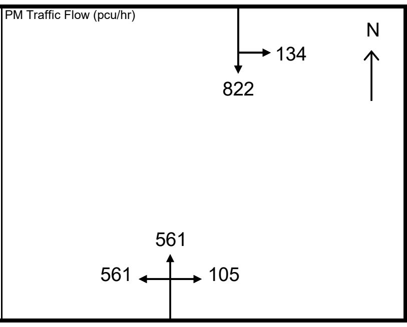
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Chiu Road NB	LT	A1	1	3.50	20.0		100	1828	320	0.175		100	1828	377	0.206	
	LT+SA	A2	1	3.50	25.0		23	2076	363	0.175		43	2051	423	0.206	
	SA+RT	A3	1	3.50	20.0		26	2065	362	0.175	0.175	25	2067	427	0.207	0.207
Wang Chiu Road SB	LT+SA	B1	2	3.50	15.0		34	2028	528	0.260		29	2039	470	0.230	
	SA	B2	2	3.50				2105	549	0.261	0.261		2105	486	0.231	0.231

pedestrian phase	3(p)	3	min crossing time =	11	sec GM +	10	sec FGM =	21	sec	
	4(p)	3	min crossing time =	10	sec GM +	9	sec FGM =	19	sec	
	5(p)	2, 3	min crossing time =	5	sec GM +	14	sec FGM =	19	sec	
	6(p)	3	min crossing time =	5	sec GM +	11	sec FGM =	16	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



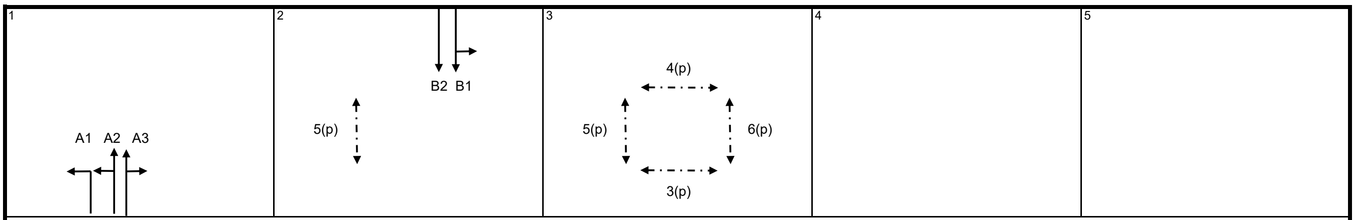
S=1940+100(W–3.25) S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.436		0.437	
L (s)	37		37	
C (s)	140		140	
practical y	0.662		0.662	
R.C. (%)	52%		51%	

Note:

with planned junction improvement as shown in Figure 4.12



	Stage 1 G =	I/G =	Stage 2 G =	I/G =	Stage 3 G =	I/G =	Stage 4 G =	I/G =	Stage 5 G =	I/G =
AM		7		8	21	3				
PM		7		8	21	3				

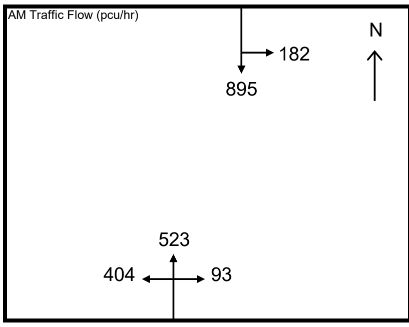
Signal Junction Analysis

Junction: J8 - Wang Chiu Road / Lam Fung Street
Job Number: J7266
Scenario: with Proposed Redevelopment
R2 / P.8-4
Design Year: 2028
Designed By:
Checked By:
Date: 18 January 2024

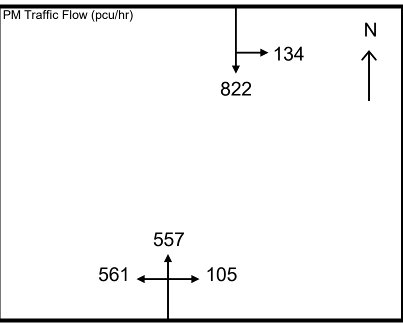
Approach	Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak					PM Peak				
						Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y
Wang Chiu Road NB LT	A1	1	3.50	20.0		100	1828	313	0.171		100	1828	376	0.206	
LT+SA	A2	1	3.50	25.0		26	2073	354	0.171		44	2051	422	0.206	
SA+RT	A3	1	3.50	20.0		26	2064	353	0.171	0.171	25	2067	425	0.206	0.206
Wang Chiu Road SB LT+SA	B1	2	3.50	15.0		34	2028	528	0.260		29	2039	470	0.230	
SA	B2	2	3.50				2105	549	0.261	0.261		2105	486	0.231	0.231

pedestrian phase	3(p)	3		min crossing time =	11	sec GM +	10	sec FGM =	21	sec	
	4(p)	3		min crossing time =	10	sec GM +	9	sec FGM =	19	sec	
	5(p)	2, 3		min crossing time =	5	sec GM +	14	sec FGM =	19	sec	
	6(p)	3		min crossing time =	5	sec GM +	11	sec FGM =	16	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



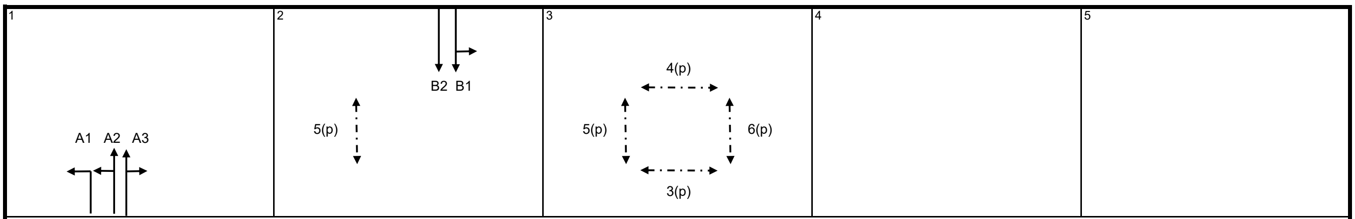
S=1940+100(W−3.25) S=2080+100(W−3.25)

S_M=S÷(1+1.5f/r) S_M=(S−230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.432		0.437	
L (s)	37		37	
C (s)	140		140	
practical y	0.662		0.662	
R.C. (%)	53%		52%	

Note:

with planned junction improvement as shown in Figure 4.12



AM	G =	I/G = 7	G =	I/G = 8	G = 21	I/G = 3	G =	I/G =	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 7	G =	I/G = 8	G = 21	I/G = 3	G =	I/G =	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

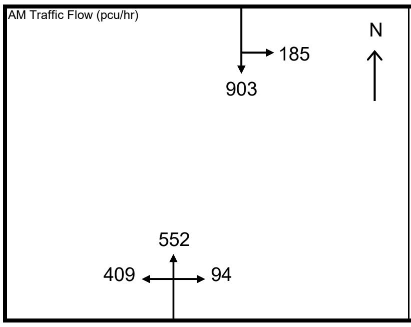
Signal Junction Analysis

Junction: J8 - Wang Chiu Road / Lam Fung Street
Job Number: J7266
Scenario: with KITEC
R2 / P.8-5
Design Year: 2031
Designed By:
Checked By:
Date: 18 January 2024

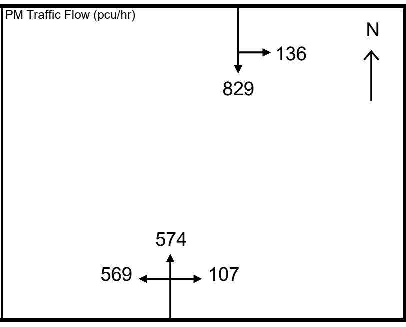
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Chiu Road NB	LT	A1	1	3.50	20.0		100	1828	323	0.177		100	1828	384	0.210	
	LT+SA	A2	1	3.50	25.0		23	2076	367	0.177		43	2052	431	0.210	
	SA+RT	A3	1	3.50	20.0		26	2065	365	0.177	0.177	25	2067	435	0.210	0.210
Wang Chiu Road SB	LT+SA	B1	2	3.50	15.0		35	2028	534	0.263		29	2039	475	0.233	
	SA	B2	2	3.50				2105	554	0.263	0.263		2105	490	0.233	0.233

pedestrian phase	3(p)	3		min crossing time =	11	sec GM +	10	sec FGM =	21	sec
	4(p)	3		min crossing time =	10	sec GM +	9	sec FGM =	19	sec
	5(p)	2, 3		min crossing time =	5	sec GM +	14	sec FGM =	19	sec
	6(p)	3		min crossing time =	5	sec GM +	11	sec FGM =	16	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



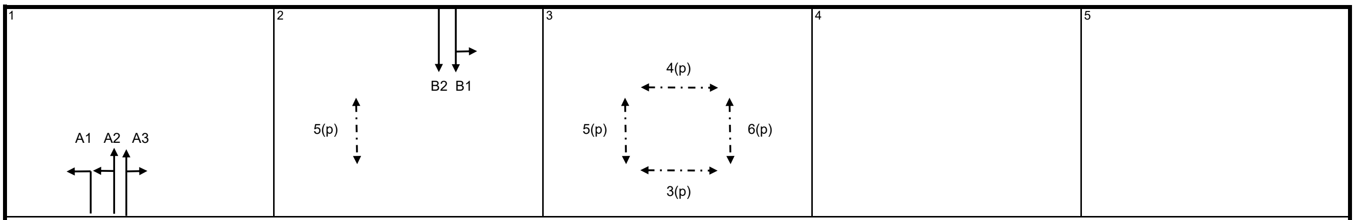
S=1940+100(W–3.25) S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.440		0.443	
L (s)	37		37	
C (s)	140		140	
practical y	0.662		0.662	
R.C. (%)	51%		49%	

Note:

with planned junction improvement as shown in Figure 4.12



AM	G =	I/G = 7	G =	I/G = 8	G = 21	I/G = 3	G =	I/G =	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 7	G =	I/G = 8	G = 21	I/G = 3	G =	I/G =	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

Signal Junction Analysis

Junction: J8 - Wang Chiu Road / Lam Fung Street Job Number: J7266

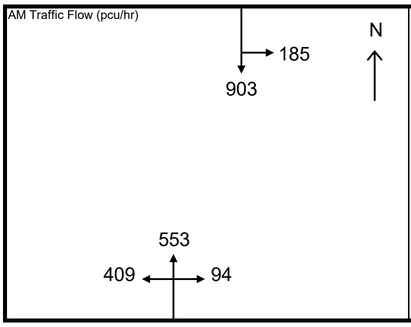
Scenario: with Approved Redevelopment R2 / P.8-6

Design Year: 2031 Designed By: ________ Checked By: ________ Date: 18 January 2024

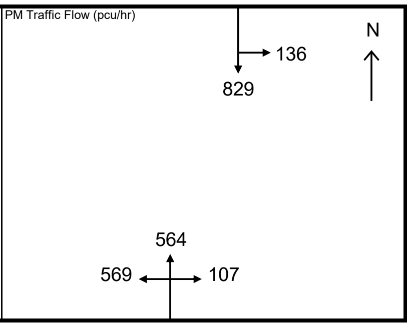
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Chiu Road NB	LT	A1	1	3.50	20.0		100	1828	323	0.177		100	1828	381	0.208	
	LT+SA	A2	1	3.50	25.0		23	2076	367	0.177		44	2051	428	0.209	
	SA+RT	A3	1	3.50	20.0		26	2065	366	0.177	0.177	25	2067	431	0.209	0.209
Wang Chiu Road SB	LT+SA	B1	2	3.50	15.0		35	2028	534	0.263		29	2039	475	0.233	
	SA	B2	2	3.50				2105	554	0.263	0.263		2105	490	0.233	0.233

pedestrian phase	3(p)	3	min crossing time =	11	sec GM +	10	sec FGM =	21	sec	
	4(p)	3	min crossing time =	10	sec GM +	9	sec FGM =	19	sec	
	5(p)	2, 3	min crossing time =	5	sec GM +	14	sec FGM =	19	sec	
	6(p)	3	min crossing time =	5	sec GM +	11	sec FGM =	16	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



S=1940+100(W–3.25) S=2080+100(W–3.25)

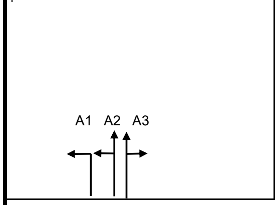
S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.440		0.441	
L (s)	37		37	
C (s)	140		140	
practical y	0.662		0.662	
R.C. (%)	50%		50%	

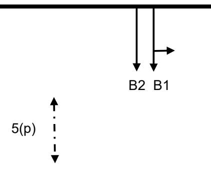
Note:

with planned junction improvement as shown in Figure 4.12

1



2



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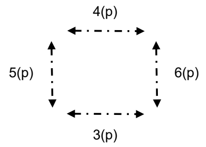


4

5

AM	G =	I/G = 7	G =	I/G = 8	G = 21	I/G = 3	G =	I/G =	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 7	G =	I/G = 8	G = 21	I/G = 3	G =	I/G =	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

Signal Junction Analysis

Junction: J8 - Wang Chiu Road / Lam Fung Street Job Number: J7266

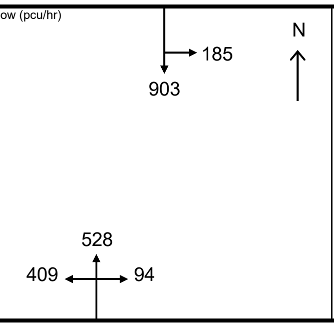
Scenario: with Proposed Redevelopment R2 / P.8-7

Design Year: 2031 Designed By: Checked By: Date: 18 January 2024

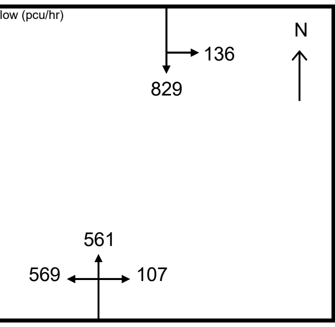
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Chiu Road NB	LT	A1	1	3.50	20.0		100	1828	316	0.173		100	1828	380	0.208	
	LT+SA	A2	1	3.50	25.0		26	2073	358	0.173		44	2051	427	0.208	
	SA+RT	A3	1	3.50	20.0		26	2064	357	0.173	0.173	25	2066	430	0.208	0.208
Wang Chiu Road SB	LT+SA	B1	2	3.50	15.0		35	2028	534	0.263		29	2039	475	0.233	
	SA	B2	2	3.50				2105	554	0.263	0.263		2105	490	0.233	0.233

pedestrian phase	3(p)	3	min crossing time =	11	sec GM +	10	sec FGM =	21	sec
	4(p)	3	min crossing time =	10	sec GM +	9	sec FGM =	19	sec
	5(p)	2, 3	min crossing time =	5	sec GM +	14	sec FGM =	19	sec
	6(p)	3	min crossing time =	5	sec GM +	11	sec FGM =	16	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



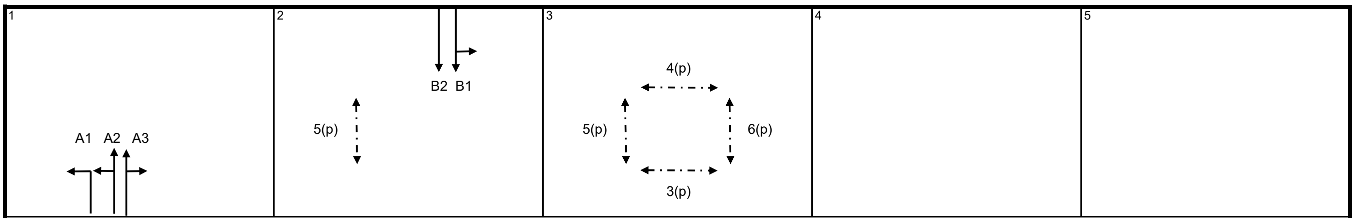
S=1940+100(W–3.25) S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.436		0.441	
L (s)	37		37	
C (s)	140		140	
practical y	0.662		0.662	
R.C. (%)	52%		50%	

Note:

with planned junction improvement as shown in Figure 4.12



AM	G =		I/G =	7	G =		I/G =	8	G =	21	I/G =	3	G =		I/G =		G =		I/G =	
	G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =	
PM	G =		I/G =	7	G =		I/G =	8	G =	21	I/G =	3	G =		I/G =		G =		I/G =	
	G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =	

Signal Junction Analysis

Junction: J9 - Sheung Yee Road / Wang Chiu Road Job Number: J7266

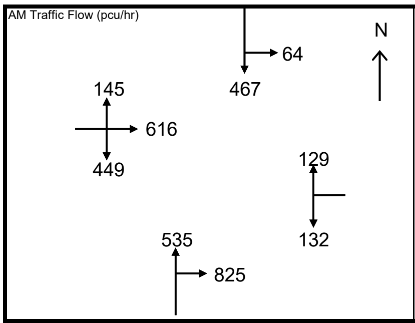
Scenario: existing condition R2 / P.9-1

Design Year: 2023 Designed By: ________ Checked By: ________ Date: 18 January 2024

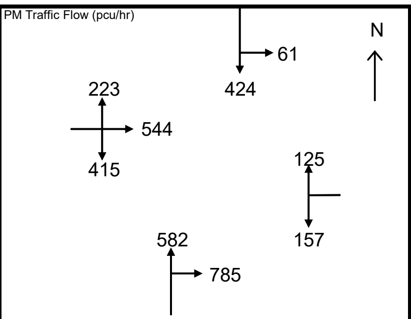
Approach	Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Chiu Road NB SA	A1	1	4.00				2015	448	0.222			2015	449	0.223	
SA+RT	A2	1	4.00	30.0		81	2071	460	0.222		71	2081	464	0.223	
RT	A3	1	4.00	25.0		100	2033	452	0.222	0.222	100	2033	454	0.223	0.223
Sheung Yee Road EB LT	B1	2	3.50	10.0		100	1709	145	0.085		100	1709	223	0.131	
LT+SA	B2	2	3.50	15.0		0	2105	366	0.174		0	2105	330	0.157	
SA+RT	B3	2	3.50	25.0		30	2067	359	0.174		34	2063	323	0.157	0.157
RT	B4	2	3.50	20.0		100	1958	340	0.174	0.174	100	1958	306	0.156	
Wang Chiu Road SB LT	C1	3	3.50	15.0		100	1786	64	0.036		100	1786	61	0.034	
SA	C2	3	3.50				2105	234	0.111			2105	212	0.101	
SA	C3	3	3.50				2105	233	0.111	0.111		2105	212	0.101	0.101
Sheung Yee Road WB LT	D1	4	3.50	20.0		100	1828	83	0.045		100	1828	89	0.049	
LT+RT	D2	4	3.50	25.0		100	1986	90	0.045		100	1986	97	0.049	
RT	D3	4	3.50	20.0		100	1958	88	0.045	0.045	100	1958	96	0.049	0.049

pedestrian phase	5(p)	1, 3, 4		min crossing time =	9	sec GM +	22	sec FGM =	31	sec	
	6(p)	3		min crossing time =	5	sec GM +	10	sec FGM =	15	sec	
	7(p)	1, 2, 4		min crossing time =	5	sec GM +	11	sec FGM =	16	sec	
	8(p)	1, 2, 3		min crossing time =	5	sec GM +	12	sec FGM =	17	sec	
	9(p)	1		min crossing time =	5	sec GM +	10	sec FGM =	15	sec	
	10(p)	2, 3, 4		min crossing time =	5	sec GM +	13	sec FGM =	18	sec	
	11(p)	4		min crossing time =	5	sec GM +	9	sec FGM =	14	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

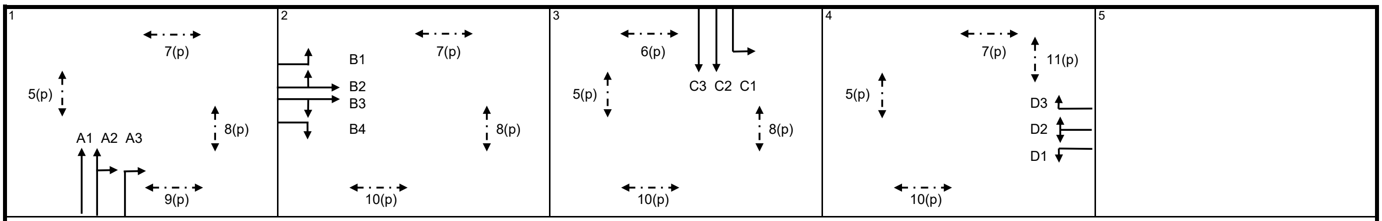


S=1940+100(W−3.25) S=2080+100(W−3.25)

S_M=S÷(1+1.5f/r) S_M=(S−230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.552	0.507	0.530	0.481
L (s)	21	36	21	36
C (s)	140	140	140	140
practical y	0.765	0.669	0.765	0.669
R.C. (%)	39%	32%	44%	39%

Note:



AM	G =		I/G =	7	G =		I/G =	7	G =		I/G =	6	G =		I/G =	5	G =		I/G =	
	G =		I/G =	7	G =		I/G =	7	G =		I/G =	9	G =	14	I/G =	2	G =		I/G =	
PM	G =		I/G =	7	G =		I/G =	7	G =		I/G =	6	G =		I/G =	5	G =		I/G =	
	G =		I/G =	7	G =		I/G =	7	G =		I/G =	9	G =	14	I/G =	2	G =		I/G =	

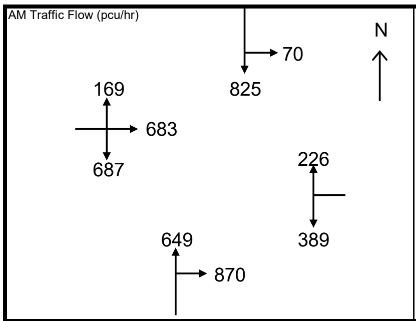
Signal Junction Analysis

Junction: J9 - Sheung Yee Road / Wang Chiu Road
Job Number: J7266
Scenario: with KITEC
R2 / P.9-2
Design Year: 2028
Designed By:
Checked By:
Date: 18 January 2024

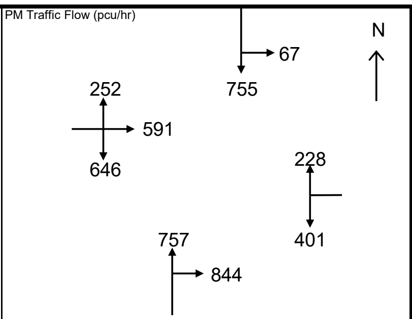
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Chiu Road NB	SA	A1	1	3.50				1965	313	0.159			1965	365	0.186	
	SA	A2	1	3.50				2105	336	0.160			2105	392	0.186	
	RT	A3	1	3.50	30.0		100	2005	437	0.218		100	2005	424	0.211	
	RT	A4	1	3.50	25.0		100	1986	433	0.218	0.218	100	1986	420	0.211	0.211
Sheung Yee Road EB	LT	B1	2	3.50	10.0		100	1709	169	0.099		100	1709	244	0.143	
	LT+SA	B2	2	3.50	15.0		0	2105	342	0.162		3	2099	299	0.142	
	SA	B3	2	3.50				2105	341	0.162			2105	300	0.143	
	RT	B4	2	3.50	20.0		100	1958	356	0.182		100	1958	335	0.171	
	RT	B5	2	3.40	10.0		100	1822	331	0.182	0.182	100	1822	311	0.171	0.171
Wang Chiu Road SB	LT+SA	C1	3	3.50	15.0		25	1917	280	0.146	0.146	26	1915	257	0.134	
	SA	C2	3	3.50				2105	307	0.146			2105	282	0.134	
	SA	C3	3	3.50				2105	308	0.146			2105	283	0.134	0.134
Sheung Yee Road WB	LT	D1	4	3.50	20.0		100	1828	195	0.107		100	1828	199	0.109	
	LT+RT	D2	4	3.50	25.0		100	1986	212	0.107	0.107	100	1986	216	0.109	
	RT	D3	4	3.50	20.0		100	1958	208	0.106		100	1958	214	0.109	0.109

pedestrian phase	5(p)	1, 3, 4	min crossing time =	10	sec GM +	22	sec FGM =	32	sec
	6(p)	3	min crossing time =	5	sec GM +	10	sec FGM =	15	sec
	7(p)	1, 2, 4	min crossing time =	5	sec GM +	11	sec FGM =	16	sec
	8(p)	1, 2, 3	min crossing time =	5	sec GM +	12	sec FGM =	17	sec
	9(p)	1	min crossing time =	5	sec GM +	10	sec FGM =	15	sec
	10(p)	2, 3, 4	min crossing time =	6	sec GM +	13	sec FGM =	19	sec
	11(p)	4	min crossing time =	5	sec GM +	9	sec FGM =	14	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



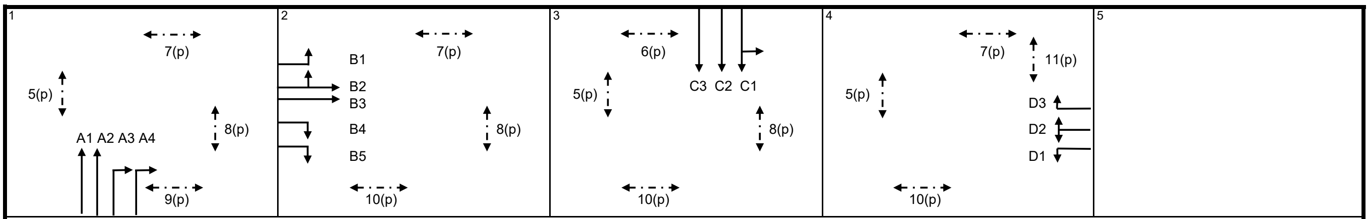
$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.653	0.546	0.626	0.517
L (s)	21	36	21	36
C (s)	140	140	140	140
practical y	0.765	0.669	0.765	0.669
R.C. (%)	17%	22%	22%	29%

Note:

with planned junction improvement as shown in Figure 4.13



AM	G =		I/G =	7	G =		I/G =	7	G =		I/G =	6	G =		I/G =	5	G =		I/G =	
	G =		I/G =	7	G =		I/G =	7	G =		I/G =	9	G =	14	I/G =	2	G =		I/G =	
PM	G =		I/G =	7	G =		I/G =	7	G =		I/G =	6	G =		I/G =	5	G =		I/G =	
	G =		I/G =	7	G =		I/G =	7	G =		I/G =	9	G =	14	I/G =	2	G =		I/G =	

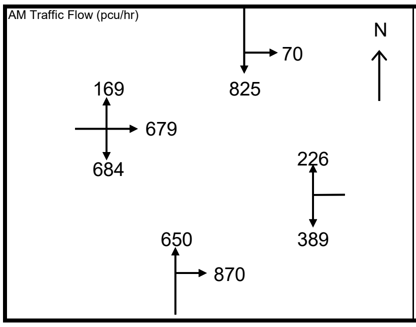
Signal Junction Analysis

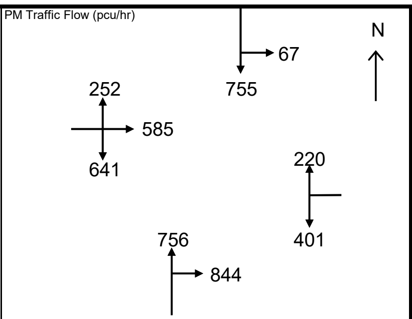
Junction: J9 - Sheung Yee Road / Wang Chiu Road Job Number: J7266

Scenario: with Approved Redevelopment R2 / P.9-3

Design Year: 2028 Designed By: Checked By: Date: 18 January 2024

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak					PM Peak				
							Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y
Wang Chiu Road NB	SA	A1	1	3.50				1965	314	0.160			1965	365	0.186	
	SA	A2	1	3.50				2105	336	0.160			2105	391	0.186	
	RT	A3	1	3.50	30.0		100	2005	437	0.218		100	2005	424	0.211	
	RT	A4	1	3.50	25.0		100	1986	433	0.218	0.218	100	1986	420	0.211	0.211
Sheung Yee Road EB	LT	B1	2	3.50	10.0		100	1709	169	0.099		100	1709	242	0.142	
	LT+SA	B2	2	3.50	15.0		0	2105	340	0.162		3	2098	297	0.142	
	SA	B3	2	3.50				2105	339	0.161			2105	298	0.142	
	RT	B4	2	3.50	20.0		100	1958	354	0.181		100	1958	332	0.170	
	RT	B5	2	3.40	10.0		100	1822	330	0.181	0.181	100	1822	309	0.170	0.170
Wang Chiu Road SB	LT+SA	C1	3	3.50	15.0		25	1917	280	0.146	0.146	26	1915	257	0.134	
	SA	C2	3	3.50				2105	307	0.146			2105	282	0.134	
	SA	C3	3	3.50				2105	308	0.146			2105	283	0.134	0.134
Sheung Yee Road WB	LT	D1	4	3.50	20.0		100	1828	195	0.107		100	1828	197	0.108	
	LT+RT	D2	4	3.50	25.0		100	1986	212	0.107	0.107	100	1986	214	0.108	0.108
	RT	D3	4	3.50	20.0		100	1958	208	0.106		100	1958	210	0.107	
pedestrian phase		5(p)	1, 3, 4		min crossing time =			10	sec GM +		22	sec FGM =		32	sec	
		6(p)	3		min crossing time =			5	sec GM +		10	sec FGM =		15	sec	
		7(p)	1, 2, 4		min crossing time =			5	sec GM +		11	sec FGM =		16	sec	
		8(p)	1, 2, 3		min crossing time =			5	sec GM +		12	sec FGM =		17	sec	
		9(p)	1		min crossing time =			5	sec GM +		10	sec FGM =		15	sec	
		10(p)	2, 3, 4		min crossing time =			6	sec GM +		13	sec FGM =		19	sec	
		11(p)	4		min crossing time =			5	sec GM +		9	sec FGM =		14	sec	





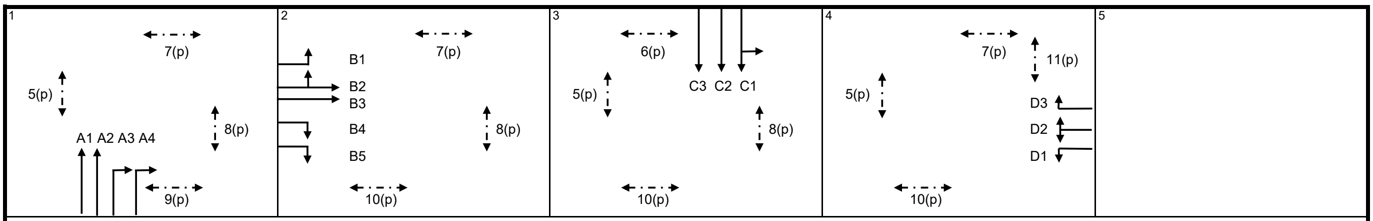
$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.652	0.545	0.623	0.516
L (s)	21	36	21	36
C (s)	140	140	140	140
practical y	0.765	0.669	0.765	0.669
R.C. (%)	17%	23%	23%	30%

Note:

with planned junction improvement as shown in Figure 4.13



AM	G =		I/G =	7	G =		I/G =	7	G =		I/G =	6	G =		I/G =	5	G =		I/G =	
	G =		I/G =	7	G =		I/G =	7	G =		I/G =	9	G =	14	I/G =	2	G =		I/G =	
PM	G =		I/G =	7	G =		I/G =	7	G =		I/G =	6	G =		I/G =	5	G =		I/G =	
	G =		I/G =	7	G =		I/G =	7	G =		I/G =	9	G =	14	I/G =	2	G =		I/G =	

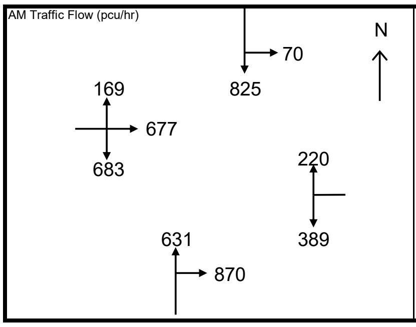
Signal Junction Analysis

Junction: J9 - Sheung Yee Road / Wang Chiu Road
Job Number: J7266
Scenario: with Proposed Redevelopment
R2 / P.9-4
Design Year: 2028
Designed By:
Checked By:
Date: 18 January 2024

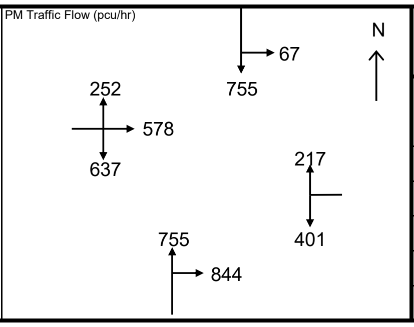
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Chiu Road NB	SA	A1	1	3.50				1965	305	0.155			1965	365	0.186	
	SA	A2	1	3.50				2105	326	0.155			2105	390	0.185	
	RT	A3	1	3.50	30.0		100	2005	437	0.218		100	2005	424	0.211	
	RT	A4	1	3.50	25.0		100	1986	433	0.218	0.218	100	1986	420	0.211	0.211
Sheung Yee Road EB	LT	B1	2	3.50	10.0		100	1709	169	0.099		100	1709	240	0.140	
	LT+SA	B2	2	3.50	15.0		0	2105	339	0.161		4	2096	294	0.140	
	SA	B3	2	3.50				2105	338	0.161			2105	296	0.141	
	RT	B4	2	3.50	20.0		100	1958	354	0.181		100	1958	330	0.169	
	RT	B5	2	3.40	10.0		100	1822	329	0.181	0.181	100	1822	307	0.169	0.169
Wang Chiu Road SB	LT+SA	C1	3	3.50	15.0		25	1917	280	0.146	0.146	26	1915	257	0.134	
	SA	C2	3	3.50				2105	307	0.146			2105	282	0.134	
	SA	C3	3	3.50				2105	308	0.146			2105	283	0.134	0.134
Sheung Yee Road WB	LT	D1	4	3.50	20.0		100	1828	193	0.106		100	1828	196	0.107	
	LT+RT	D2	4	3.50	25.0		100	1986	210	0.106	0.106	100	1986	213	0.107	
	RT	D3	4	3.50	20.0		100	1958	206	0.105		100	1958	209	0.107	0.107

pedestrian phase	5(p)	1, 3, 4	min crossing time =	10	sec GM +	22	sec FGM =	32	sec
	6(p)	3	min crossing time =	5	sec GM +	10	sec FGM =	15	sec
	7(p)	1, 2, 4	min crossing time =	5	sec GM +	11	sec FGM =	16	sec
	8(p)	1, 2, 3	min crossing time =	5	sec GM +	12	sec FGM =	17	sec
	9(p)	1	min crossing time =	5	sec GM +	10	sec FGM =	15	sec
	10(p)	2, 3, 4	min crossing time =	6	sec GM +	13	sec FGM =	19	sec
	11(p)	4	min crossing time =	5	sec GM +	9	sec FGM =	14	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



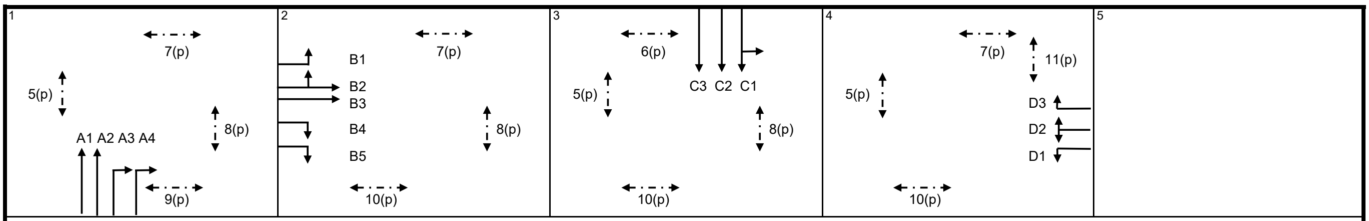
$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.651	0.545	0.621	0.514
L (s)	21	36	21	36
C (s)	140	140	140	140
practical y	0.765	0.669	0.765	0.669
R.C. (%)	18%	23%	23%	30%

Note:

with planned junction improvement as shown in Figure 4.13



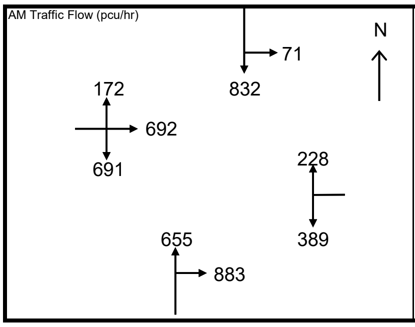
AM	G =	I/G = 7	G =	I/G = 7	G =	I/G = 6	G =	I/G = 5	G =	I/G =
	G =	I/G = 7	G =	I/G = 7	G =	I/G = 9	G = 14	I/G = 2	G =	I/G =
PM	G =	I/G = 7	G =	I/G = 7	G =	I/G = 6	G =	I/G = 5	G =	I/G =
	G =	I/G = 7	G =	I/G = 7	G =	I/G = 9	G = 14	I/G = 2	G =	I/G =

Signal Junction Analysis

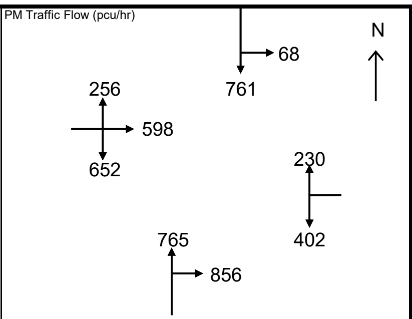
Junction: J9 - Sheung Yee Road / Wang Chiu Road
Job Number: J7266
Scenario: with KITEC
R2 / P.9-5
Design Year: 2031
Designed By:
Checked By:
Date: 18 January 2024

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Chiu Road NB	SA	A1	1	3.50				1965	316	0.161			1965	369	0.188	
	SA	A2	1	3.50				2105	339	0.161			2105	396	0.188	
	RT	A3	1	3.50	30.0		100	2005	444	0.221	0.221	100	2005	430	0.214	
	RT	A4	1	3.50	25.0		100	1986	439	0.221		100	1986	426	0.215	0.215
Sheung Yee Road EB	LT	B1	2	3.50	10.0		100	1709	172	0.101		100	1709	247	0.145	
	LT+SA	B2	2	3.50	15.0		0	2105	346	0.164		3	2099	303	0.144	
	SA	B3	2	3.50				2105	346	0.164			2105	304	0.144	
	RT	B4	2	3.50	20.0		100	1958	358	0.183		100	1958	338	0.173	0.173
	RT	B5	2	3.40	10.0		100	1822	333	0.183	0.183	100	1822	314	0.172	
Wang Chiu Road SB	LT+SA	C1	3	3.50	15.0		25	1917	283	0.148	0.148	26	1915	259	0.135	
	SA	C2	3	3.50				2105	310	0.147			2105	285	0.135	
	SA	C3	3	3.50				2105	310	0.147			2105	285	0.135	0.135
Sheung Yee Road WB	LT	D1	4	3.50	20.0		100	1828	195	0.107		100	1828	200	0.109	
	LT+RT	D2	4	3.50	25.0		100	1986	212	0.107	0.107	100	1986	217	0.109	
	RT	D3	4	3.50	20.0		100	1958	210	0.107		100	1958	215	0.110	0.110
pedestrian phase		5(p)	1, 3, 4		min crossing time =			10	sec GM +		22	sec FGM =		32	sec	
		6(p)	3		min crossing time =			5	sec GM +		10	sec FGM =		15	sec	
		7(p)	1, 2, 4		min crossing time =			5	sec GM +		11	sec FGM =		16	sec	
		8(p)	1, 2, 3		min crossing time =			5	sec GM +		12	sec FGM =		17	sec	
		9(p)	1		min crossing time =			5	sec GM +		10	sec FGM =		15	sec	
		10(p)	2, 3, 4		min crossing time =			6	sec GM +		13	sec FGM =		19	sec	
		11(p)	4		min crossing time =			5	sec GM +		9	sec FGM =		14	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



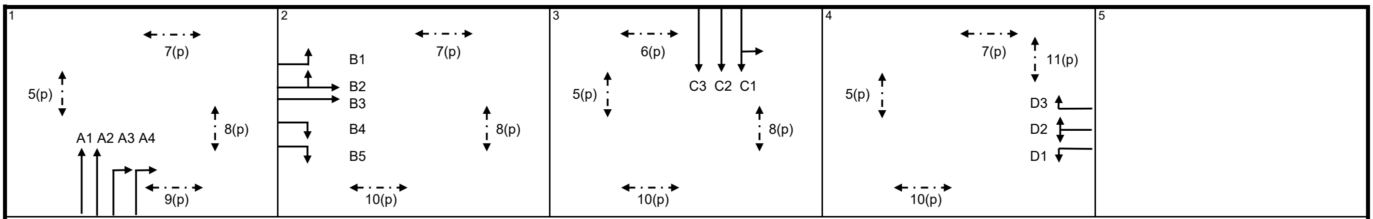
$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.659	0.330	0.632	0.350
L (s)	21	36	21	36
C (s)	140	140	140	140
practical y	0.765	0.669	0.765	0.669
R.C. (%)	16%	102%	21%	91%

Note:

with planned junction improvement as shown in Figure 4.13



AM	G =		I/G =	7	G =		I/G =	7	G =		I/G =	6	G =		I/G =	5	G =		I/G =	
	G =		I/G =	7	G =		I/G =	7	G =		I/G =	9	G =	14	I/G =	2	G =		I/G =	
PM	G =		I/G =	7	G =		I/G =	7	G =		I/G =	6	G =		I/G =	5	G =		I/G =	
	G =		I/G =	7	G =		I/G =	7	G =		I/G =	9	G =	14	I/G =	2	G =		I/G =	

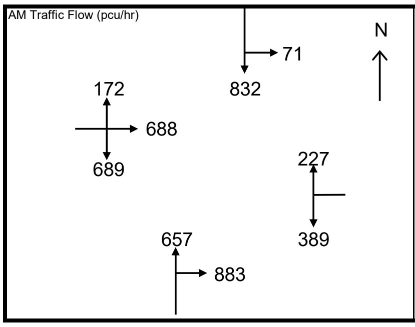
Signal Junction Analysis

Junction: J9 - Sheung Yee Road / Wang Chiu Road
Job Number: J7266
Scenario: with Approved Redevelopment
R2 / P.9-6
Design Year: 2031
Designed By: ____________
Checked By: ____________
Date: 18 January 2024

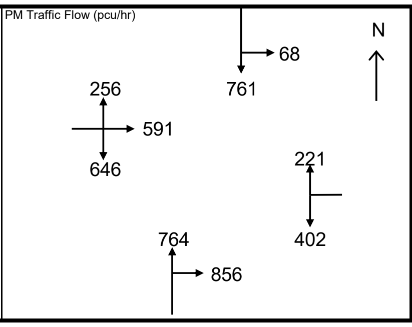
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Chiu Road NB	SA	A1	1	3.50				1965	317	0.161			1965	369	0.188	
	SA	A2	1	3.50				2105	340	0.162			2105	395	0.188	
	RT	A3	1	3.50	30.0		100	2005	444	0.221		100	2005	430	0.214	
	RT	A4	1	3.50	25.0		100	1986	439	0.221	0.221	100	1986	426	0.215	0.215
Sheung Yee Road EB	LT	B1	2	3.50	10.0		100	1709	172	0.101		100	1709	245	0.143	
	LT+SA	B2	2	3.50	15.0		0	2105	344	0.163		4	2097	301	0.144	
	SA	B3	2	3.50				2105	344	0.163			2105	301	0.143	
	RT	B4	2	3.50	20.0		100	1958	357	0.182		100	1958	335	0.171	
	RT	B5	2	3.40	10.0		100	1822	332	0.182	0.182	100	1822	311	0.171	0.171
Wang Chiu Road SB	LT+SA	C1	3	3.50	15.0		25	1917	283	0.148	0.148	26	1915	259	0.135	
	SA	C2	3	3.50				2105	310	0.147			2105	285	0.135	
	SA	C3	3	3.50				2105	310	0.147			2105	285	0.135	0.135
Sheung Yee Road WB	LT	D1	4	3.50	20.0		100	1828	195	0.107		100	1828	197	0.108	
	LT+RT	D2	4	3.50	25.0		100	1986	212	0.107		100	1986	214	0.108	
	RT	D3	4	3.50	20.0		100	1958	209	0.107	0.107	100	1958	212	0.108	0.108

pedestrian phase	5(p)	1, 3, 4		min crossing time =	10	sec GM +	22	sec FGM =	32	sec
	6(p)	3		min crossing time =	5	sec GM +	10	sec FGM =	15	sec
	7(p)	1, 2, 4		min crossing time =	5	sec GM +	11	sec FGM =	16	sec
	8(p)	1, 2, 3		min crossing time =	5	sec GM +	12	sec FGM =	17	sec
	9(p)	1		min crossing time =	5	sec GM +	10	sec FGM =	15	sec
	10(p)	2, 3, 4		min crossing time =	6	sec GM +	13	sec FGM =	19	sec
	11(p)	4		min crossing time =	5	sec GM +	9	sec FGM =	14	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

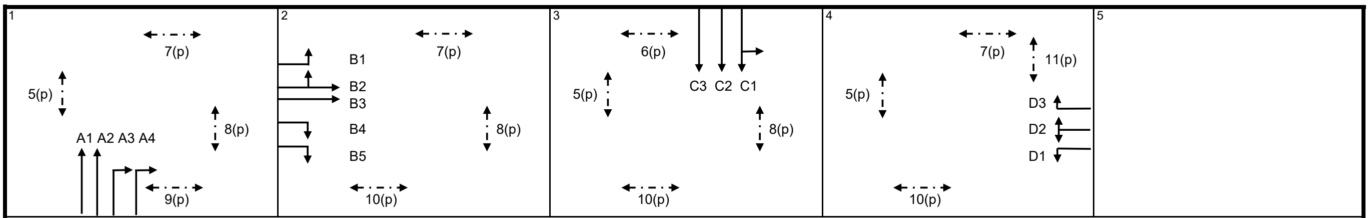


$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.658	0.551	0.629	0.521
L (s)	21	36	21	36
C (s)	140	140	140	140
practical y	0.765	0.669	0.765	0.669
R.C. (%)	16%	21%	22%	28%

Note:
with planned junction improvement as shown in Figure 4.13



AM	G =	I/G = 7	G =	I/G = 7	G =	I/G = 6	G =	I/G = 5	G =	I/G =
	G =	I/G = 7	G =	I/G = 7	G =	I/G = 9	G = 14	I/G = 2	G =	I/G =
PM	G =	I/G = 7	G =	I/G = 7	G =	I/G = 6	G =	I/G = 5	G =	I/G =
	G =	I/G = 7	G =	I/G = 7	G =	I/G = 9	G = 14	I/G = 2	G =	I/G =

Signal Junction Analysis

Junction: J9 - Sheung Yee Road / Wang Chiu Road

Job Number: J7266

Scenario: with Proposed Redevelopment

R2 / P.9-7

Design Year: 2031

Designed By:

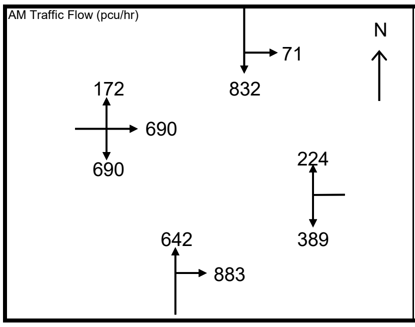
Checked By:

Date: 18 January 2024

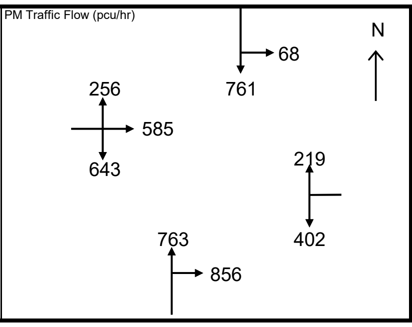
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Chiu Road NB	SA	A1	1	3.50				1965	310	0.158			1965	368	0.187	
	SA	A2	1	3.50				2105	332	0.158			2105	395	0.188	
	RT	A3	1	3.50	30.0		100	2005	444	0.221		100	2005	430	0.214	
	RT	A4	1	3.50	25.0		100	1986	439	0.221	0.221	100	1986	426	0.215	0.215
Sheung Yee Road EB	LT	B1	2	3.50	10.0		100	1709	172	0.101		100	1709	243	0.142	
	LT+SA	B2	2	3.50	15.0		0	2105	345	0.164		4	2096	298	0.142	
	SA	B3	2	3.50				2105	345	0.164			2105	300	0.143	
	RT	B4	2	3.50	20.0		100	1958	357	0.183		100	1958	333	0.170	
	RT	B5	2	3.40	10.0		100	1822	333	0.183	0.183	100	1822	310	0.170	0.170
Wang Chiu Road SB	LT+SA	C1	3	3.50	15.0		25	1917	283	0.148	0.148	26	1915	259	0.135	
	SA	C2	3	3.50				2105	310	0.147			2105	285	0.135	
	SA	C3	3	3.50				2105	310	0.147			2105	285	0.135	0.135
Sheung Yee Road WB	LT	D1	4	3.50	20.0		100	1828	194	0.106		100	1828	197	0.108	
	LT+RT	D2	4	3.50	25.0		100	1986	211	0.106	0.106	100	1986	214	0.108	0.108
	RT	D3	4	3.50	20.0		100	1958	208	0.106		100	1958	210	0.107	

pedestrian phase	5(p)	1, 3, 4		min crossing time =	10	sec GM +	22	sec FGM =	32	sec
	6(p)	3		min crossing time =	5	sec GM +	10	sec FGM =	15	sec
	7(p)	1, 2, 4		min crossing time =	5	sec GM +	11	sec FGM =	16	sec
	8(p)	1, 2, 3		min crossing time =	5	sec GM +	12	sec FGM =	17	sec
	9(p)	1		min crossing time =	5	sec GM +	10	sec FGM =	15	sec
	10(p)	2, 3, 4		min crossing time =	6	sec GM +	13	sec FGM =	19	sec
	11(p)	4		min crossing time =	5	sec GM +	9	sec FGM =	14	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



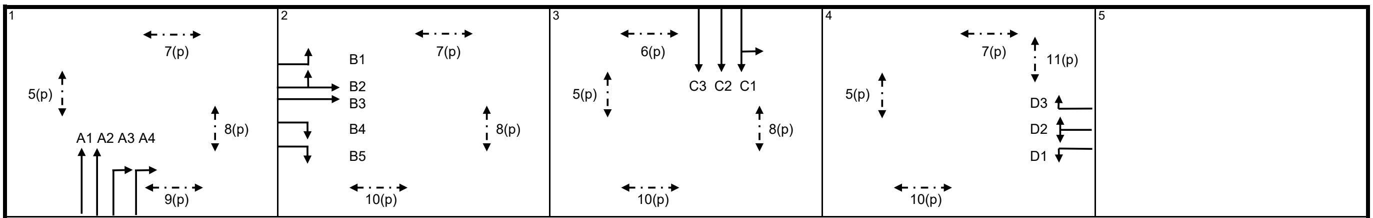
$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.657	0.551	0.628	0.520
L (s)	21	36	21	36
C (s)	140	140	140	140
practical y	0.765	0.669	0.765	0.669
R.C. (%)	16%	21%	22%	29%

Note:

with planned junction improvement as shown in Figure 4.13



AM	G =	I/G = 7	G =	I/G = 7	G =	I/G = 6	G =	I/G = 5	G =	I/G =
	G =	I/G = 7	G =	I/G = 7	G =	I/G = 9	G = 14	I/G = 2	G =	I/G =
PM	G =	I/G = 7	G =	I/G = 7	G =	I/G = 6	G =	I/G = 5	G =	I/G =
	G =	I/G = 7	G =	I/G = 7	G =	I/G = 9	G = 14	I/G = 2	G =	I/G =

Signal Junction Analysis

Junction: J10 - Shing Kai Road / Kai Shing Street / Muk On Street Job Number: J7266

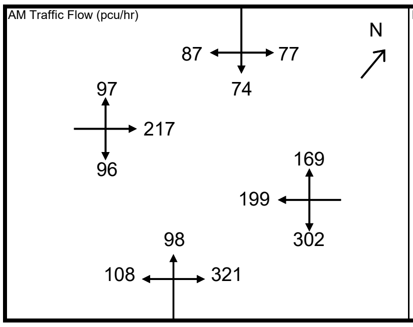
Scenario: existing condition R2 / P.10-1

Design Year: 2023 Designed By: ____________ Checked By: ____________ Date: 18 January 2024

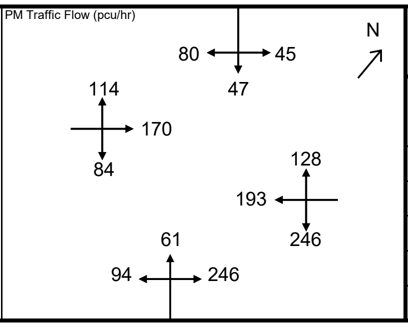
Approach	Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Muk On Street SB LT+SA	A1	1	3.60	15.0		68	1850	114	0.062		54	1875	84	0.045	0.045
SA+RT	A2	1	3.60	20.0		70	2009	124	0.062	0.062	91	1980	88	0.044	
Shing Kai Road EB LT+SA	B1	2	3.70	30.0		65	1922	149	0.078		85	1904	134	0.070	
SA+RT	B2	2	3.70	20.0		0	2125	165	0.078	0.078	0	2125	150	0.071	0.071
RT	B3	2	3.70	15.0		100	1932	96	0.050		100	1932	84	0.043	
Shing Kai Road WB LT+SA	C1	3	3.70	40.0		89	2081	338	0.162		86	2083	285	0.137	
SA+RT	C3	3	3.70	20.0		51	2047	332	0.162	0.162	45	2055	282	0.137	0.137
Kai Shing Street NB LT+SA	D1	4	3.70	40.0		52	2461	206	0.084		61	2455	155	0.063	
RT	D2	4	3.70	20.0		100	2125	321	0.151	0.151	100	2125	246	0.116	0.116

pedestrian phase	6(p)	2, 3, 4	min crossing time =	5	sec GM +	9	sec FGM =	14	sec	
	7(p)	1	min crossing time =	8	sec GM +	20	sec FGM =	28	sec	
	8(p)	1, 3, 4	min crossing time =	8	sec GM +	21	sec FGM =	29	sec	
	9(p)	4	min crossing time =	5	sec GM +	9	sec FGM =	14	sec	
	10(p)	3	min crossing time =	7	sec GM +	17	sec FGM =	24	sec	
	11(p)	3, 4	min crossing time =	5	sec GM +	9	sec FGM =	14	sec	
	12(p)	1, 2	min crossing time =	5	sec GM +	9	sec FGM =	14	sec	
	13(p)	1, 2, 3	min crossing time =	5	sec GM +	9	sec FGM =	14	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

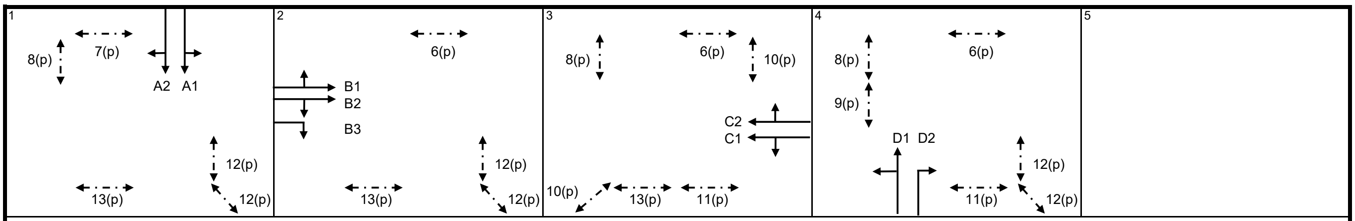


S=1940+100(W–3.25) S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.453	0.313	0.368	0.253
L (s)	28	27	28	27
C (s)	135	135	135	135
practical y	0.713	0.720	0.713	0.720
R.C. (%)	58%	130%	94%	185%

Note:



AM	G =		I/G =	6	G =		I/G =	12	G =		I/G =	6	G =		I/G =	8	G =		I/G =	
	G =	14	I/G =		G =		I/G =	3	G =		I/G =	6	G =		I/G =	6	G =		I/G =	
PM	G =		I/G =	6	G =		I/G =	12	G =		I/G =	6	G =		I/G =	8	G =		I/G =	
	G =	14	I/G =		G =		I/G =	3	G =		I/G =	6	G =		I/G =	6	G =		I/G =	

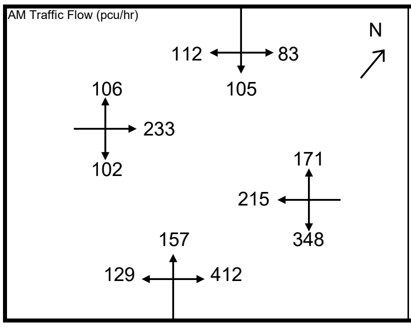
Signal Junction Analysis

Junction: J10 - Shing Kai Road / Kai Shing Street / Muk On Street
Job Number: J7266
Scenario: with KITEC
R2 / P.10-2
Design Year: 2028
Designed By:
Checked By:
Date: 18 January 2024

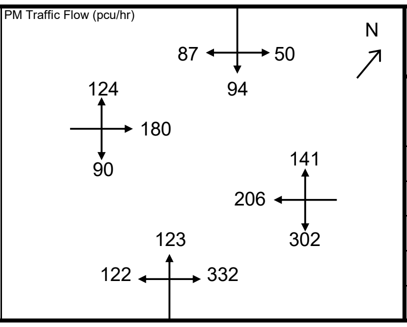
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Muk On Street SB	LT+SA	A1	1	3.60	15.0		57	1868	145	0.078	0.078	45	1891	112	0.059	0.059
	SA+RT	A2	1	3.60	20.0		72	2006	155	0.077		73	2005	119	0.059	
Shing Kai Road EB	LT+SA	B1	2	3.70	30.0		66	1922	161	0.084		86	1903	144	0.076	0.076
	SA+RT	B2	2	3.70	20.0		0	2125	178	0.084	0.084	0	2125	160	0.075	
	RT	B3	2	3.70	15.0		100	1932	102	0.053		100	1932	90	0.047	
Shing Kai Road WB	LT+SA	C1	3	3.70	40.0		94	2077	369	0.178		93	2078	326	0.157	
	SA+RT	C3	3	3.70	20.0		47	2053	365	0.178	0.178	44	2058	323	0.157	0.157
Kai Shing Street NB	LT+SA	D1	4	3.70	40.0		45	2466	286	0.116		50	2463	245	0.099	
	RT	D2	4	3.70	20.0		100	2125	412	0.194	0.194	100	2125	332	0.156	0.156

pedestrian phase	6(p)	2, 3, 4	min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	7(p)	1	min crossing time =	8	sec GM +	20	sec FGM =	28	sec
	8(p)	1, 3, 4	min crossing time =	8	sec GM +	21	sec FGM =	29	sec
	9(p)	4	min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	10(p)	3	min crossing time =	7	sec GM +	17	sec FGM =	24	sec
	11(p)	3, 4	min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	12(p)	1, 2	min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	13(p)	1, 2, 3	min crossing time =	5	sec GM +	9	sec FGM =	14	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

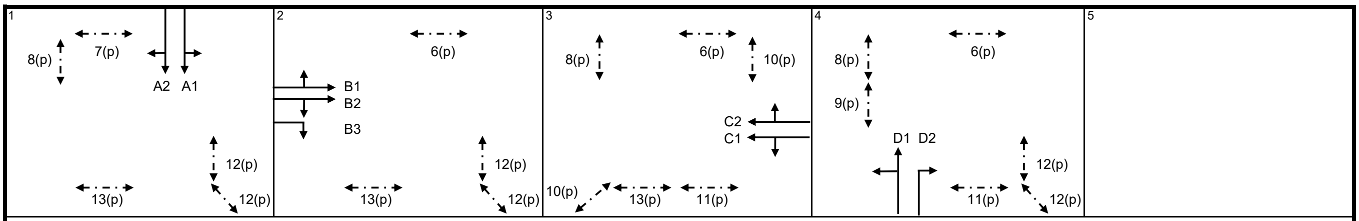


$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.533	0.372	0.448	0.313
L (s)	28	27	28	27
C (s)	135	135	135	135
practical y	0.713	0.720	0.713	0.720
R.C. (%)	34%	94%	59%	130%

Note:



AM	G =	I/G = 6	G =	I/G = 12	G =	I/G = 6	G =	I/G = 8	G =	I/G =
	G = 14	I/G =	G =	I/G = 3	G =	I/G = 6	G =	I/G = 6	G =	I/G =
PM	G =	I/G = 6	G =	I/G = 12	G =	I/G = 6	G =	I/G = 8	G =	I/G =
	G = 14	I/G =	G =	I/G = 3	G =	I/G = 6	G =	I/G = 6	G =	I/G =

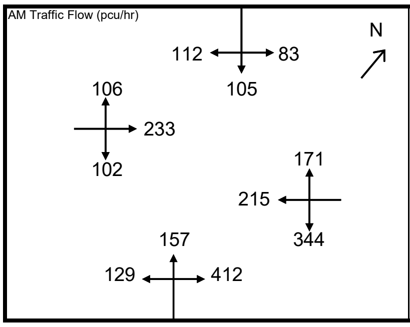
Signal Junction Analysis

Junction: J10 - Shing Kai Road / Kai Shing Street / Muk On Street   Job Number: J7266
Scenario: with Approved Redevelopment   R2 / P.10-3
Design Year: 2028   Designed By: ____________   Checked By: ____________   Date: 18 January 2024

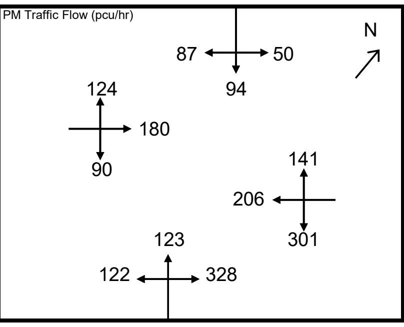
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Muk On Street SB	LT+SA	A1	1	3.60	15.0		57	1868	145	0.078	0.078	45	1891	112	0.059	0.059
	SA+RT	A2	1	3.60	20.0		72	2006	155	0.077		73	2005	119	0.059	
Shing Kai Road EB	LT+SA	B1	2	3.70	30.0		66	1922	161	0.084		86	1903	144	0.076	0.076
	SA+RT	B2	2	3.70	20.0		0	2125	178	0.084	0.084	0	2125	160	0.075	
	RT	B3	2	3.70	15.0		100	1932	102	0.053		100	1932	90	0.047	
Shing Kai Road WB	LT+SA	C1	3	3.70	40.0		94	2078	367	0.177		92	2079	326	0.157	0.157
	SA+RT	C3	3	3.70	20.0		47	2052	363	0.177	0.177	44	2057	322	0.157	
Kai Shing Street NB	LT+SA	D1	4	3.70	40.0		45	2466	286	0.116		50	2463	245	0.099	
	RT	D2	4	3.70	20.0		100	2125	412	0.194	0.194	100	2125	328	0.154	0.154

pedestrian phase	6(p)	2, 3, 4	min crossing time =	5	sec GM +	9	sec FGM =	14 sec
	7(p)	1	min crossing time =	8	sec GM +	20	sec FGM =	28 sec
	8(p)	1, 3, 4	min crossing time =	8	sec GM +	21	sec FGM =	29 sec
	9(p)	4	min crossing time =	5	sec GM +	9	sec FGM =	14 sec
	10(p)	3	min crossing time =	7	sec GM +	17	sec FGM =	24 sec
	11(p)	3, 4	min crossing time =	5	sec GM +	9	sec FGM =	14 sec
	12(p)	1, 2	min crossing time =	5	sec GM +	9	sec FGM =	14 sec
	13(p)	1, 2, 3	min crossing time =	5	sec GM +	9	sec FGM =	14 sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

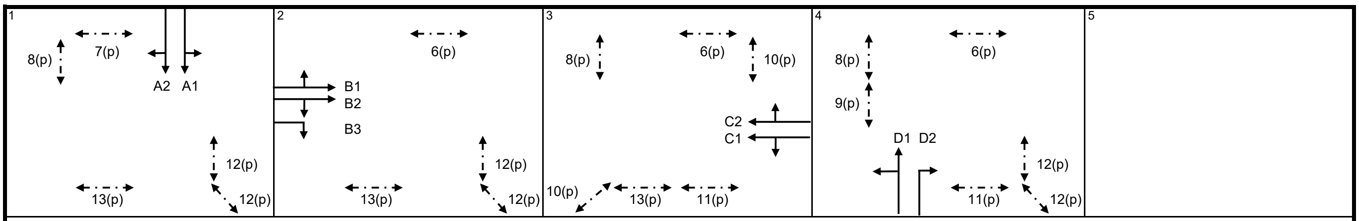


S=1940+100(W−3.25)   S=2080+100(W−3.25)

S_M=S÷(1+1.5f/r) S_M=(S−230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.532	0.371	0.446	0.311
L (s)	28	27	28	27
C (s)	135	135	135	135
practical y	0.713	0.720	0.713	0.720
R.C. (%)	34%	94%	60%	131%

Note:



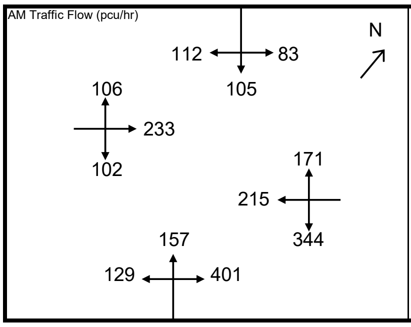
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
AM		6		12		6		8		
	14			3		6		6		
PM		6		12		6		8		
	14			3		6		6		

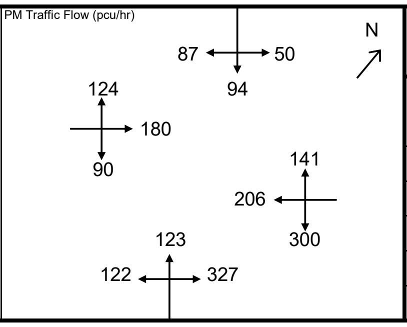
Signal Junction Analysis

Junction: J10 - Shing Kai Road / Kai Shing Street / Muk On Street
Job Number: J7266
Scenario: with Proposed Redevelopment
R2 / P.10-4
Design Year: 2028
Designed By:
Checked By:
Date: 18 January 2024

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Muk On Street SB	LT+SA	A1	1	3.60	15.0		57	1868	145	0.078	0.078	45	1891	112	0.059	0.059
	SA+RT	A2	1	3.60	20.0		72	2006	155	0.077		73	2005	119	0.059	
Shing Kai Road EB	LT+SA	B1	2	3.70	30.0		66	1922	161	0.084		86	1903	144	0.076	0.076
	SA+RT	B2	2	3.70	20.0		0	2125	178	0.084	0.084	0	2125	160	0.075	
	RT	B3	2	3.70	15.0		100	1932	102	0.053		100	1932	90	0.047	
Shing Kai Road WB	LT+SA	C1	3	3.70	40.0		94	2078	367	0.177		92	2079	325	0.156	
	SA+RT	C3	3	3.70	20.0		47	2052	363	0.177	0.177	44	2057	322	0.157	0.157
Kai Shing Street NB	LT+SA	D1	4	3.70	40.0		45	2466	286	0.116		50	2463	245	0.099	
	RT	D2	4	3.70	20.0		100	2125	401	0.189	0.189	100	2125	327	0.154	0.154

pedestrian phase	6(p)	2, 3, 4		min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	7(p)	1		min crossing time =	8	sec GM +	20	sec FGM =	28	sec
	8(p)	1, 3, 4		min crossing time =	8	sec GM +	21	sec FGM =	29	sec
	9(p)	4		min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	10(p)	3		min crossing time =	7	sec GM +	17	sec FGM =	24	sec
	11(p)	3, 4		min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	12(p)	1, 2		min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	13(p)	1, 2, 3		min crossing time =	5	sec GM +	9	sec FGM =	14	sec


AM Traffic Flow (pcu/hr)
N
112
83
105
106
233
102
171
215
344
157
129
401

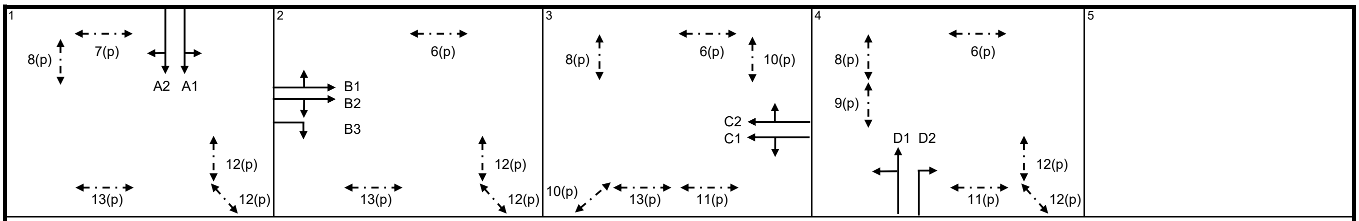

PM Traffic Flow (pcu/hr)
N
87
50
94
124
180
90
141
206
300
123
122
327

S=1940+100(W–3.25)　S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r)　S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.527	0.366	0.445	0.310
L (s)	28	27	28	27
C (s)	135	135	135	135
practical y	0.713	0.720	0.713	0.720
R.C. (%)	35%	97%	60%	132%

Note:


1
8(p)
7(p)
A2
A1
12(p)
13(p)
12(p)
2
6(p)
B1
B2
B3
12(p)
13(p)
12(p)
3
8(p)
6(p)
10(p)
C2
C1
10(p)
13(p)
11(p)
4
8(p)
6(p)
9(p)
D1
D2
12(p)
11(p)
12(p)
5

AM	G =		I/G =	6	G =		I/G =	12	G =		I/G =	6	G =		I/G =	8	G =		I/G =	
	G =	14	I/G =		G =		I/G =	3	G =		I/G =	6	G =		I/G =	6	G =		I/G =	
PM	G =		I/G =	6	G =		I/G =	12	G =		I/G =	6	G =		I/G =	8	G =		I/G =	
	G =	14	I/G =		G =		I/G =	3	G =		I/G =	6	G =		I/G =	6	G =		I/G =	

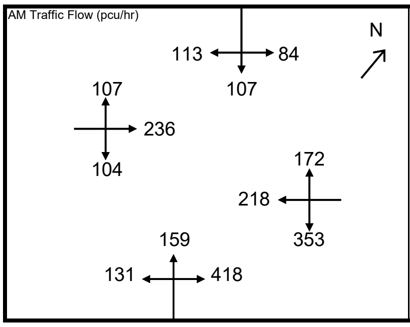
Signal Junction Analysis

Junction: J10 - Shing Kai Road / Kai Shing Street / Muk On Street
Job Number: J7266
Scenario: with KITEC
R2 / P.10-5
Design Year: 2031
Designed By:
Checked By:
Date: 18 January 2024

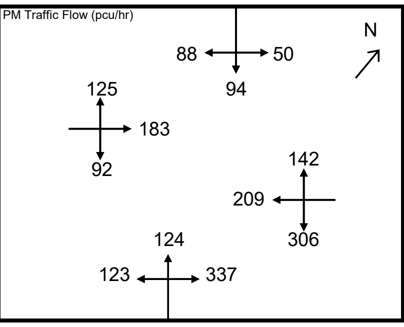
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Muk On Street SB	LT+SA	A1	1	3.60	15.0		57	1868	147	0.079	0.079	44	1891	113	0.060	0.060
	SA+RT	A2	1	3.60	20.0		72	2007	157	0.078		74	2004	119	0.059	
Shing Kai Road EB	LT+SA	B1	2	3.70	30.0		66	1922	163	0.085		86	1904	146	0.077	0.077
	SA+RT	B2	2	3.70	20.0		0	2125	180	0.085	0.085	0	2125	162	0.076	
	RT	B3	2	3.70	15.0		100	1932	104	0.054		100	1932	92	0.048	
Shing Kai Road WB	LT+SA	C1	3	3.70	40.0		94	2077	374	0.180		93	2078	330	0.159	0.159
	SA+RT	C3	3	3.70	20.0		47	2053	369	0.180	0.180	43	2058	327	0.159	
Kai Shing Street NB	LT+SA	D1	4	3.70	40.0		45	2466	290	0.118		50	2463	247	0.100	
	RT	D2	4	3.70	20.0		100	2125	418	0.197	0.197	100	2125	337	0.159	0.159

pedestrian phase	6(p)	2, 3, 4	min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	7(p)	1	min crossing time =	8	sec GM +	20	sec FGM =	28	sec
	8(p)	1, 3, 4	min crossing time =	8	sec GM +	21	sec FGM =	29	sec
	9(p)	4	min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	10(p)	3	min crossing time =	7	sec GM +	17	sec FGM =	24	sec
	11(p)	3, 4	min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	12(p)	1, 2	min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	13(p)	1, 2, 3	min crossing time =	5	sec GM +	9	sec FGM =	14	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

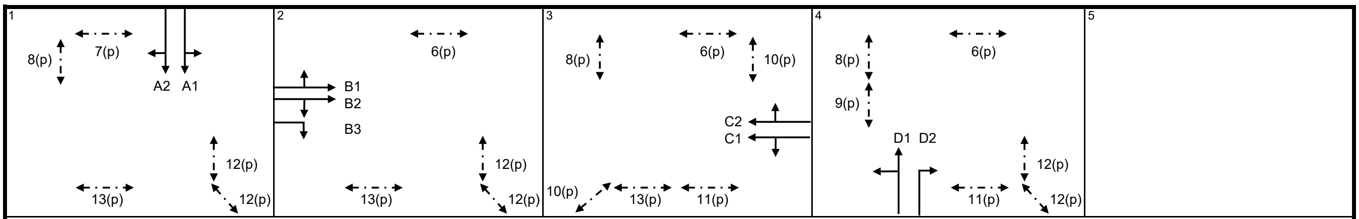


$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.540	0.376	0.454	0.317
L (s)	28	27	28	27
C (s)	135	135	135	135
practical y	0.713	0.720	0.713	0.720
R.C. (%)	32%	91%	57%	127%

Note:



AM	G =	I/G = 6	G =	I/G = 12	G =	I/G = 6	G =	I/G = 8	G =	I/G =
	G = 14	I/G =	G =	I/G = 3	G =	I/G = 6	G =	I/G = 6	G =	I/G =
PM	G =	I/G = 6	G =	I/G = 12	G =	I/G = 6	G =	I/G = 8	G =	I/G =
	G = 14	I/G =	G =	I/G = 3	G =	I/G = 6	G =	I/G = 6	G =	I/G =

Signal Junction Analysis

Junction: J10 - Shing Kai Road / Kai Shing Street / Muk On Street Job Number: J7266

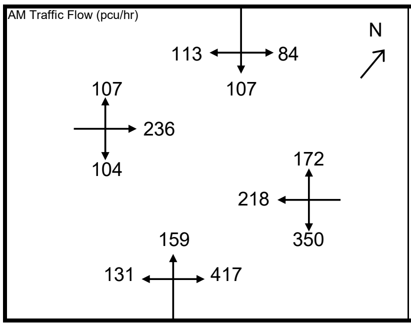
Scenario: with Approved Redevelopment R2 / P.10-6

Design Year: 2031 Designed By: ____________ Checked By: ____________ Date: 18 January 2024

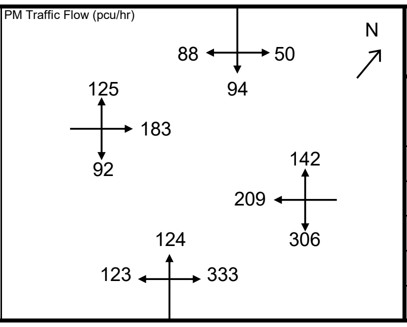
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Muk On Street SB	LT+SA	A1	1	3.60	15.0		57	1868	147	0.079	0.079	44	1891	113	0.060	0.060
	SA+RT	A2	1	3.60	20.0		72	2007	157	0.078		74	2004	119	0.059	
Shing Kai Road EB	LT+SA	B1	2	3.70	30.0		66	1922	163	0.085		86	1904	146	0.077	0.077
	SA+RT	B2	2	3.70	20.0		0	2125	180	0.085	0.085	0	2125	162	0.076	
	RT	B3	2	3.70	15.0		100	1932	104	0.054		100	1932	92	0.048	
Shing Kai Road WB	LT+SA	C1	3	3.70	40.0		94	2077	372	0.179		93	2078	330	0.159	
	SA+RT	C3	3	3.70	20.0		47	2053	368	0.179	0.179	43	2058	327	0.159	0.159
Kai Shing Street NB	LT+SA	D1	4	3.70	40.0		45	2466	290	0.118		50	2463	247	0.100	
	RT	D2	4	3.70	20.0		100	2125	417	0.196	0.196	100	2125	333	0.157	0.157

pedestrian phase	6(p)	2, 3, 4		min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	7(p)	1		min crossing time =	8	sec GM +	20	sec FGM =	28	sec
	8(p)	1, 3, 4		min crossing time =	8	sec GM +	21	sec FGM =	29	sec
	9(p)	4		min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	10(p)	3		min crossing time =	7	sec GM +	17	sec FGM =	24	sec
	11(p)	3, 4		min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	12(p)	1, 2		min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	13(p)	1, 2, 3		min crossing time =	5	sec GM +	9	sec FGM =	14	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

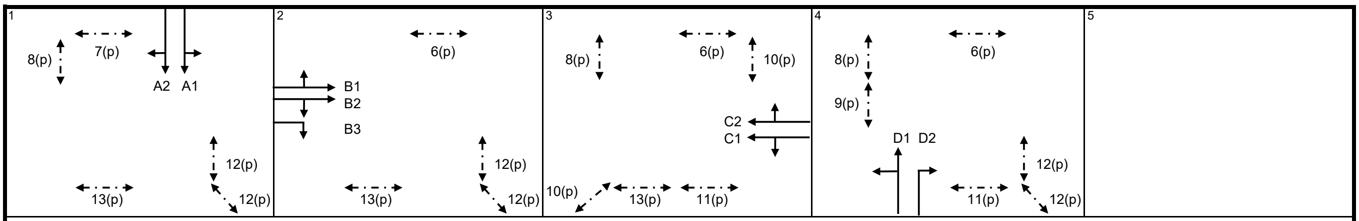


$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.539	0.375	0.452	0.316
L (s)	28	27	28	27
C (s)	135	135	135	135
practical y	0.713	0.720	0.713	0.720
R.C. (%)	32%	92%	58%	128%

Note:



AM	G =	I/G = 6	G =	I/G = 12	G =	I/G = 6	G =	I/G = 8	G =	I/G =
	G = 14	I/G =	G =	I/G = 3	G =	I/G = 6	G =	I/G = 6	G =	I/G =
PM	G =	I/G = 6	G =	I/G = 12	G =	I/G = 6	G =	I/G = 8	G =	I/G =
	G = 14	I/G =	G =	I/G = 3	G =	I/G = 6	G =	I/G = 6	G =	I/G =

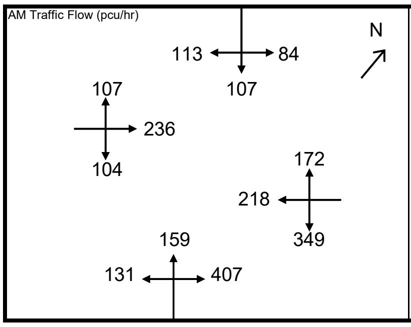
Signal Junction Analysis

Junction: J10 - Shing Kai Road / Kai Shing Street / Muk On Street
Job Number: J7266
Scenario: with Proposed Redevelopment
R2 / P.10-7
Design Year: 2031
Designed By:
Checked By:
Date: 18 January 2024

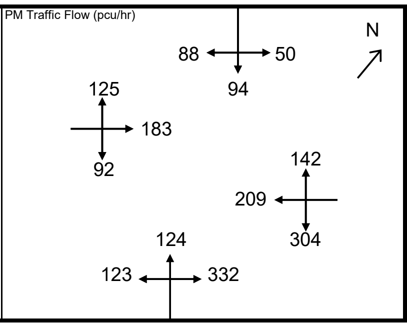
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Muk On Street SB	LT+SA	A1	1	3.60	15.0		57	1868	147	0.079	0.079	44	1891	113	0.060	0.060
	SA+RT	A2	1	3.60	20.0		72	2007	157	0.078		74	2004	119	0.059	
Shing Kai Road EB	LT+SA	B1	2	3.70	30.0		66	1922	163	0.085		86	1904	146	0.077	0.077
	SA+RT	B2	2	3.70	20.0		0	2125	180	0.085	0.085	0	2125	162	0.076	
	RT	B3	2	3.70	15.0		100	1932	104	0.054		100	1932	92	0.048	
Shing Kai Road WB	LT+SA	C1	3	3.70	40.0		94	2078	372	0.179		92	2079	329	0.158	0.158
	SA+RT	C3	3	3.70	20.0		47	2053	367	0.179	0.179	44	2058	326	0.158	
Kai Shing Street NB	LT+SA	D1	4	3.70	40.0		45	2466	290	0.118		50	2463	247	0.100	
	RT	D2	4	3.70	20.0		100	2125	407	0.192	0.192	100	2125	332	0.156	0.156

	Phase	Stage								
pedestrian phase	6(p)	2, 3, 4	min crossing time =	5	sec GM +	9	sec FGM =	14	sec	
	7(p)	1	min crossing time =	8	sec GM +	20	sec FGM =	28	sec	
	8(p)	1, 3, 4	min crossing time =	8	sec GM +	21	sec FGM =	29	sec	
	9(p)	4	min crossing time =	5	sec GM +	9	sec FGM =	14	sec	
	10(p)	3	min crossing time =	7	sec GM +	17	sec FGM =	24	sec	
	11(p)	3, 4	min crossing time =	5	sec GM +	9	sec FGM =	14	sec	
	12(p)	1, 2	min crossing time =	5	sec GM +	9	sec FGM =	14	sec	
	13(p)	1, 2, 3	min crossing time =	5	sec GM +	9	sec FGM =	14	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

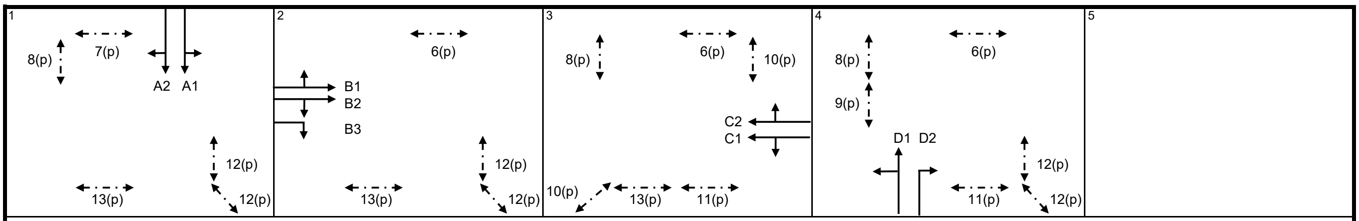


$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.534	0.370	0.451	0.315
L (s)	28	27	28	27
C (s)	135	135	135	135
practical y	0.713	0.720	0.713	0.720
R.C. (%)	34%	94%	58%	129%

Note:



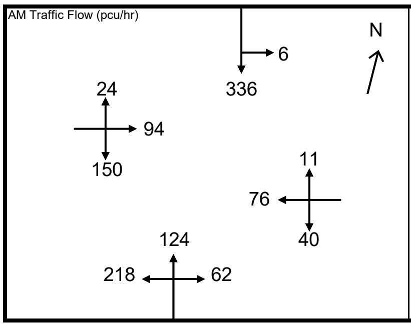
AM	G =	I/G = 6	G =	I/G = 12	G =	I/G = 6	G =	I/G = 8	G =	I/G =
	G = 14	I/G =	G =	I/G = 3	G =	I/G = 6	G =	I/G = 6	G =	I/G =
PM	G =	I/G = 6	G =	I/G = 12	G =	I/G = 6	G =	I/G = 8	G =	I/G =
	G = 14	I/G =	G =	I/G = 3	G =	I/G = 6	G =	I/G = 6	G =	I/G =

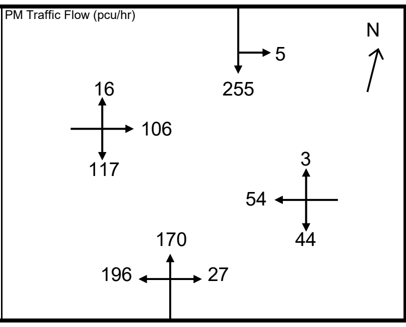
Signal Junction Analysis

Junction: J11 - Wang Chiu Road / Kai Lai Road / Kai Lok Street Job Number: J7266
Scenario: existing condition R2 / P.11-1
Design Year: 2023 Designed By: Checked By: Date: 18 January 2024

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Chiu Road NB	LT+SA	A1	1	3.10	15.0		100	1750	218	0.125	0.125	100	1750	196	0.112	0.112
	SA+RT	A2	1	3.20	15.0		33	2008	186	0.093		14	2047	197	0.096	
Wang Chiu Road SB	LT+SA	B1	1	3.40	15.0		4	1948	165	0.085		4	1947	125	0.064	
	SA	B2	1	3.40				2095	177	0.084			2095	135	0.064	
Kai Lai Road EB	LT+SA+RT	C1	2	4.40	10.0		65	1873	268	0.143	0.143	56	1897	239	0.126	0.126
Kai Lok Road WB	LT+SA+RT	D1	3	4.00	10.0		40	1901	127	0.067	0.067	47	1884	101	0.054	0.054

pedestrian phase	5(p)	4		min crossing time =	16	sec GM +	8	sec FGM =	24	sec


AM Traffic Flow (pcu/hr)
6
N
24
336
94
150
11
76
124
40
218
62

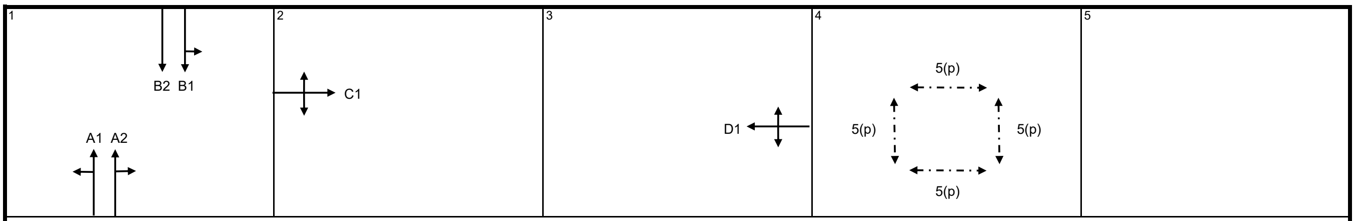

PM Traffic Flow (pcu/hr)
5
N
16
255
106
117
3
54
170
44
196
27

$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.335		0.292	
L (s)	47		47	
C (s)	110		110	
practical y	0.515		0.515	
R.C. (%)	54%		77%	

Note:


1
B2 B1
A1 A2
2
C1
3
D1
4
5(p)
5(p)
5(p)
5(p)
5

AM	G =	I/G = 6	G =	I/G = 7	G =	I/G = 10	G = 24	I/G = 3	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 6	G =	I/G = 7	G =	I/G = 10	G = 24	I/G = 3	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

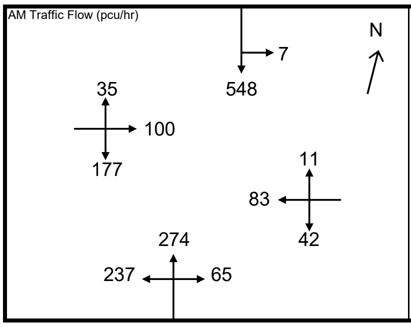
Signal Junction Analysis

Junction: J11 - Wang Chiu Road / Kai Lai Road / Kai Lok Street Job Number: J7266
Scenario: with KITEC R2 / P.11-2
Design Year: 2028 Designed By: ____________ Checked By: ____________ Date: 18 January 2024

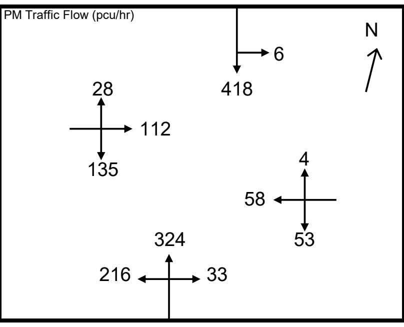
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Chiu Road NB	LT+SA	A1	1	3.10	15.0		88	1769	268	0.152		81	1780	266	0.149	
	SA+RT	A2	1	3.20	15.0		21	2032	308	0.152	0.152	11	2053	307	0.150	0.150
Wang Chiu Road SB	LT+SA	B1	1	3.40	15.0		3	1950	268	0.137		3	1949	204	0.105	
	SA	B2	1	3.40				2095	287	0.137			2095	220	0.105	
Kai Lai Road EB	LT+SA+RT	C1	2	4.40	10.0		68	1865	312	0.167	0.167	59	1887	275	0.146	0.146
Kai Lok Road WB	LT+SA+RT	D1	3	4.00	10.0		39	1904	136	0.071	0.071	50	1876	115	0.061	0.061

pedestrian phase	5(p)	4		min crossing time =	16	sec GM +	8	sec FGM =	24	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

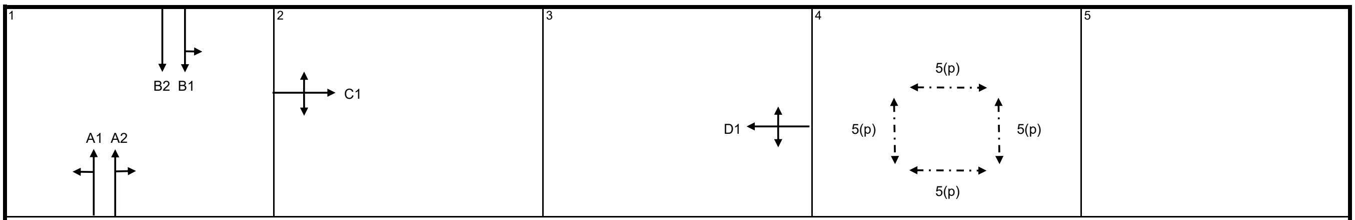


S=1940+100(W−3.25) S=2080+100(W−3.25)

S_M=S÷(1+1.5f/r) S_M=(S−230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.390		0.357	
L (s)	47		47	
C (s)	110		110	
practical y	0.515		0.515	
R.C. (%)	32%		45%	

Note:



AM	G =	I/G = 6	G =	I/G = 7	G =	I/G = 10	G = 24	I/G = 3	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 6	G =	I/G = 7	G =	I/G = 10	G = 24	I/G = 3	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

Signal Junction Analysis

Junction: J11 - Wang Chiu Road / Kai Lai Road / Kai Lok Street   Job Number: J7266

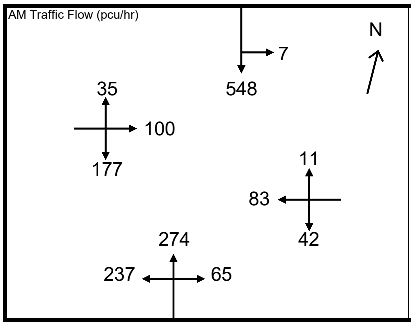
Scenario: with Approved Redevelopment   R2 / P.11-3

Design Year: 2028   Designed By: ____________   Checked By: ____________   Date: 18 January 2024

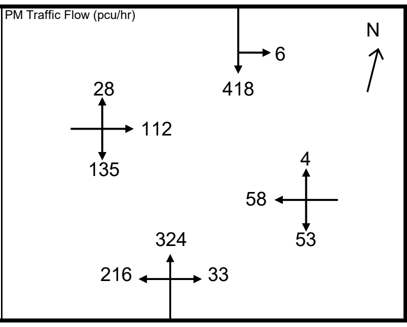
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Chiu Road NB	LT+SA	A1	1	3.10	15.0		88	1769	268	0.152		81	1780	266	0.149	
	SA+RT	A2	1	3.20	15.0		21	2032	308	0.152	0.152	11	2053	307	0.150	0.150
Wang Chiu Road SB	LT+SA	B1	1	3.40	15.0		3	1950	268	0.137		3	1949	204	0.105	
	SA	B2	1	3.40				2095	287	0.137			2095	220	0.105	
Kai Lai Road EB	LT+SA+RT	C1	2	4.40	10.0		68	1865	312	0.167	0.167	59	1887	275	0.146	0.146
Kai Lok Road WB	LT+SA+RT	D1	3	4.00	10.0		39	1904	136	0.071	0.071	50	1876	115	0.061	0.061

pedestrian phase   5(p)   4   min crossing time = 16 sec GM + 8 sec FGM = 24 sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

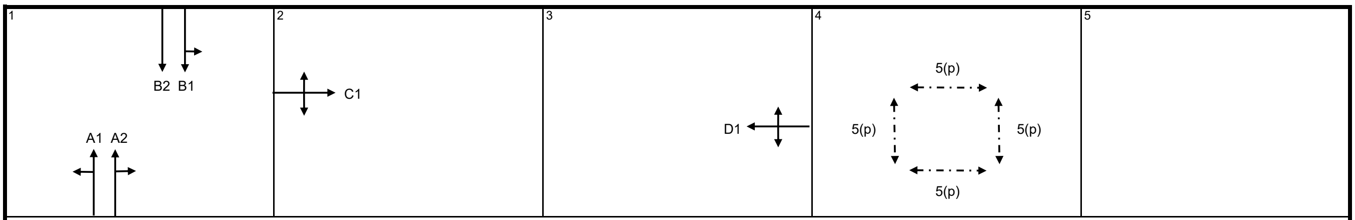


S=1940+100(W–3.25)   S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.390		0.357	
L (s)	47		47	
C (s)	110		110	
practical y	0.515		0.515	
R.C. (%)	32%		45%	

Note:



AM	G =	I/G = 6	G =	I/G = 7	G =	I/G = 10	G = 24	I/G = 3	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 6	G =	I/G = 7	G =	I/G = 10	G = 24	I/G = 3	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

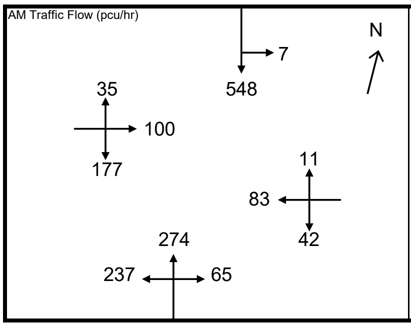
Signal Junction Analysis

Junction: J11 - Wang Chiu Road / Kai Lai Road / Kai Lok Street
Job Number: J7266
Scenario: with Proposed Redevelopment
R2 / P.11-4
Design Year: 2028
Designed By:
Checked By:
Date: 18 January 2024

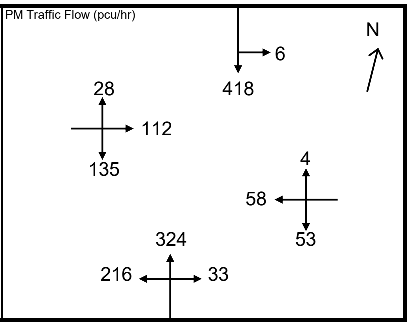
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Chiu Road NB	LT+SA	A1	1	3.10	15.0		88	1769	268	0.152		81	1780	266	0.149	
	SA+RT	A2	1	3.20	15.0		21	2032	308	0.152	0.152	11	2053	307	0.150	0.150
Wang Chiu Road SB	LT+SA	B1	1	3.40	15.0		3	1950	268	0.137		3	1949	204	0.105	
	SA	B2	1	3.40				2095	287	0.137			2095	220	0.105	
Kai Lai Road EB	LT+SA+RT	C1	2	4.40	10.0		68	1865	312	0.167	0.167	59	1887	275	0.146	0.146
Kai Lok Road WB	LT+SA+RT	D1	3	4.00	10.0		39	1904	136	0.071	0.071	50	1876	115	0.061	0.061

	Phase	Stage								
pedestrian phase	5(p)	4		min crossing time =	16	sec GM +	8	sec FGM =	24	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

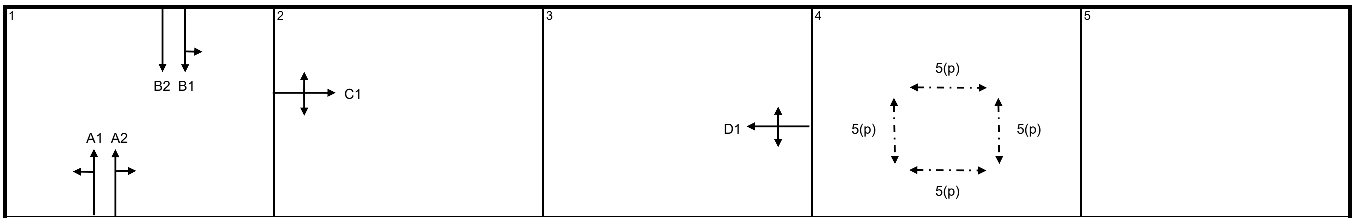


S=1940+100(W−3.25) S=2080+100(W−3.25)

S_M=S÷(1+1.5f/r) S_M=(S−230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.390		0.357	
L (s)	47		47	
C (s)	110		110	
practical y	0.515		0.515	
R.C. (%)	32%		45%	

Note:



AM	G =	I/G = 6	G =	I/G = 7	G =	I/G = 10	G = 24	I/G = 3	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 6	G =	I/G = 7	G =	I/G = 10	G = 24	I/G = 3	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

Signal Junction Analysis

Junction: J11 - Wang Chiu Road / Kai Lai Road / Kai Lok Street

Job Number: J7266

Scenario: with KITEC

R2 / P.11-5

Design Year: 2031

Designed By:

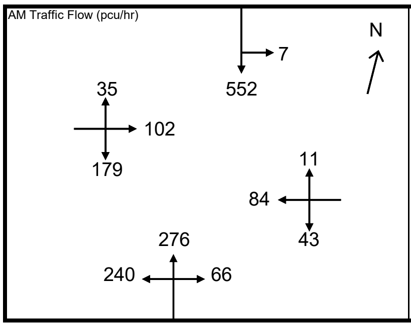
Checked By:

Date: 18 January 2024

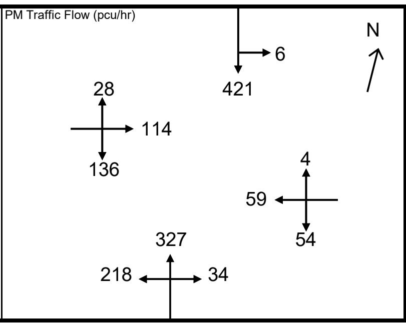
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Chiu Road NB	LT+SA	A1	1	3.10	15.0		89	1768	271	0.153		81	1781	269	0.151	
	SA+RT	A2	1	3.20	15.0		21	2032	311	0.153	0.153	11	2052	310	0.151	0.151
Wang Chiu Road SB	LT+SA	B1	1	3.40	15.0		3	1950	269	0.138		3	1949	206	0.106	
	SA	B2	1	3.40				2095	290	0.138			2095	221	0.105	
Kai Lai Road EB	LT+SA+RT	C1	2	4.40	10.0		68	1865	316	0.169	0.169	59	1888	278	0.147	0.147
Kai Lok Road WB	LT+SA+RT	D1	3	4.00	10.0		39	1903	138	0.073	0.073	50	1876	117	0.062	0.062

pedestrian phase | 5(p) | 4 | min crossing time = 16 sec GM + 8 sec FGM = 24 sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

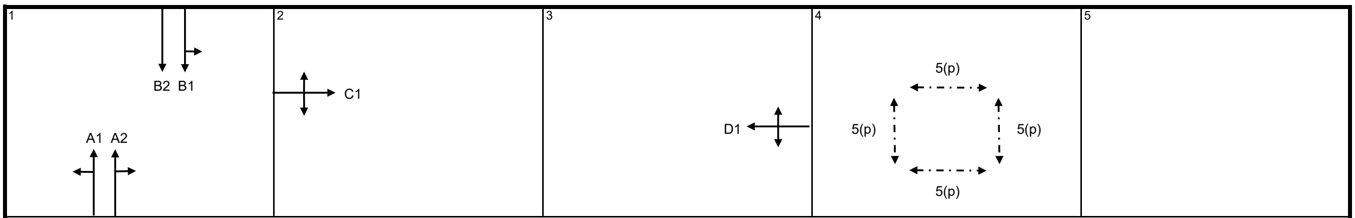


S=1940+100(W−3.25) S=2080+100(W−3.25)

S_M=S÷(1+1.5f/r) S_M=(S−230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.395		0.361	
L (s)	47		47	
C (s)	110		110	
practical y	0.515		0.515	
R.C. (%)	31%		43%	

Note:



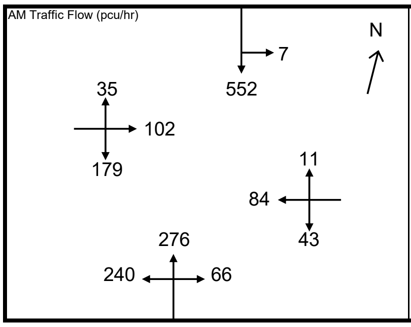
AM	G =	I/G = 6	G =	I/G = 7	G =	I/G = 10	G = 24	I/G = 3	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 6	G =	I/G = 7	G =	I/G = 10	G = 24	I/G = 3	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

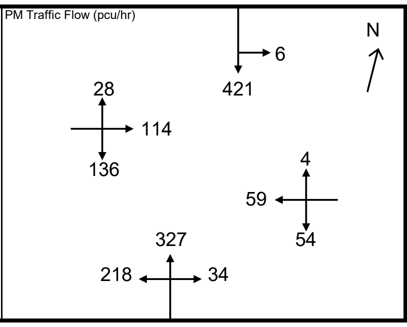
Signal Junction Analysis

Junction: J11 - Wang Chiu Road / Kai Lai Road / Kai Lok Street
Job Number: J7266
Scenario: with Approved Redevelopment
R2 / P.11-6
Design Year: 2031
Designed By:
Checked By:
Date: 18 January 2024

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Chiu Road NB	LT+SA	A1	1	3.10	15.0		89	1768	271	0.153		81	1781	269	0.151	
	SA+RT	A2	1	3.20	15.0		21	2032	311	0.153	0.153	11	2052	310	0.151	0.151
Wang Chiu Road SB	LT+SA	B1	1	3.40	15.0		3	1950	269	0.138		3	1949	206	0.106	
	SA	B2	1	3.40				2095	290	0.138			2095	221	0.105	
Kai Lai Road EB	LT+SA+RT	C1	2	4.40	10.0		68	1865	316	0.169	0.169	59	1888	278	0.147	0.147
Kai Lok Road WB	LT+SA+RT	D1	3	4.00	10.0		39	1903	138	0.073	0.073	50	1876	117	0.062	0.062

pedestrian phase	5(p)	4	min crossing time =	16	sec GM +	8	sec FGM =	24	sec


AM Traffic Flow (pcu/hr)
N
7
552
35
102
179
11
84
43
276
240
66

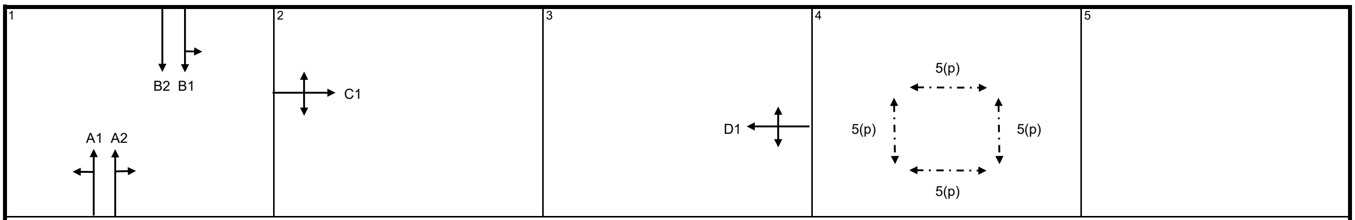

PM Traffic Flow (pcu/hr)
N
6
421
28
114
136
4
59
54
327
218
34

S=1940+100(W–3.25)   S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.395		0.361	
L (s)	47		47	
C (s)	110		110	
practical y	0.515		0.515	
R.C. (%)	31%		43%	

Note:


1
B2 B1
A1 A2
2
C1
3
D1
4
5(p)
5(p)
5(p)
5(p)
5

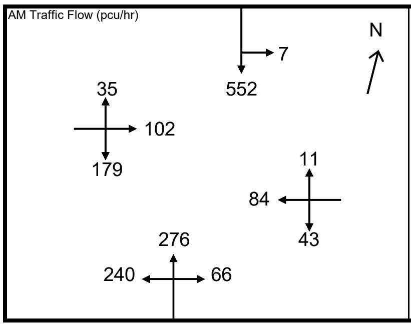
AM	G =	I/G = 6	G =	I/G = 7	G =	I/G = 10	G = 24	I/G = 3	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 6	G =	I/G = 7	G =	I/G = 10	G = 24	I/G = 3	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

Signal Junction Analysis

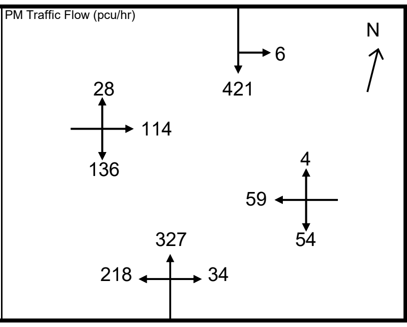
Junction: J11 - Wang Chiu Road / Kai Lai Road / Kai Lok Street
Job Number: J7266
Scenario: with Proposed Redevelopment
R2 / P.11-7
Design Year: 2031
Designed By:
Checked By:
Date: 18 January 2024

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak					PM Peak				
							Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y
Wang Chiu Road NB	LT+SA	A1	1	3.10	15.0		89	1768	271	0.153		81	1781	269	0.151	
	SA+RT	A2	1	3.20	15.0		21	2032	311	0.153	0.153	11	2052	310	0.151	0.151
Wang Chiu Road SB	LT+SA	B1	1	3.40	15.0		3	1950	269	0.138		3	1949	206	0.106	
	SA	B2	1	3.40				2095	290	0.138			2095	221	0.105	
Kai Lai Road EB	LT+SA+RT	C1	2	4.40	10.0		68	1865	316	0.169	0.169	59	1888	278	0.147	0.147
Kai Lok Road WB	LT+SA+RT	D1	3	4.00	10.0		39	1903	138	0.073	0.073	50	1876	117	0.062	0.062
pedestrian phase		5(p)	4		min crossing time =			16	sec GM +		8	sec FGM =		24	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

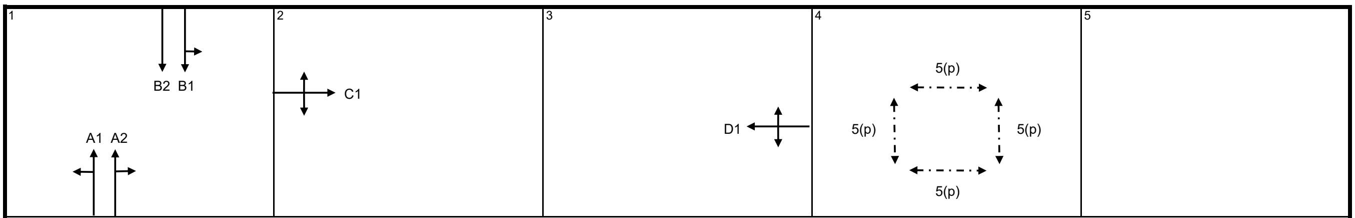


S=1940+100(W−3.25)　S=2080+100(W−3.25)

S_M=S÷(1+1.5f/r)　S_M=(S−230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.395		0.361	
L (s)	47		47	
C (s)	110		110	
practical y	0.515		0.515	
R.C. (%)	31%		43%	

Note:



AM	G =		I/G =	6	G =		I/G =	7	G =		I/G =	10	G =	24	I/G =	3	G =		I/G =	
	G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =	
PM	G =		I/G =	6	G =		I/G =	7	G =		I/G =	10	G =	24	I/G =	3	G =		I/G =	
	G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =	

Signal Junction Analysis

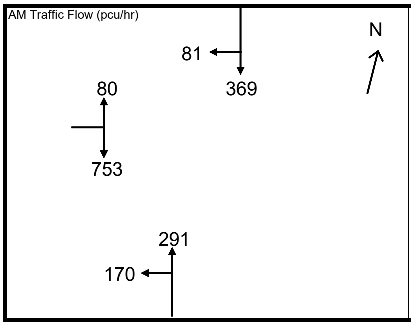
Junction: J12 - Wang Kwong Road / Kai Wah Street Job Number: J7266

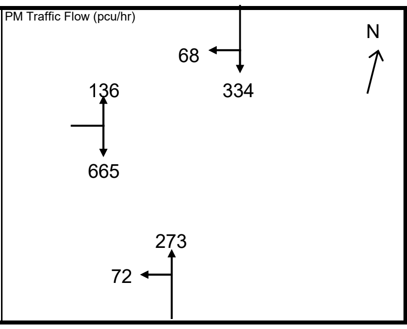
Scenario: existing condition R2 / P.12-1

Design Year: 2023 Designed By: Checked By: Date: 18 January 2024

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Kwong Road SB	SA	A1	1	3.40				1955	222	0.114	0.114		1955	198	0.101	
	SA+RT	A2	1	3.30	15.0		36	2013	228	0.113		33	2018	204	0.101	0.101
Wang Kwong Road NB	LT+SA	B1	2	3.50	10.0		82	1750	208	0.119		45	1841	160	0.087	
	SA	B2	2	3.80				2135	253	0.119	0.119		2135	185	0.087	0.087
Kai Wah Street EB	LT+RT	C1	3	3.10	15.0		100	1877	409	0.218		100	1750	379	0.217	
	RT	C2	3	3.40	20.0		100	1949	424	0.218	0.218	100	1949	422	0.217	0.217

pedestrian phase	4(p)	4		min crossing time =	8	sec GM +	7	sec FGM =	15	sec
	5(p)	4		min crossing time =	12	sec GM +	10	sec FGM =	22	sec
	6(p)	4		min crossing time =	8	sec GM +	6	sec FGM =	14	sec


AM Traffic Flow (pcu/hr)

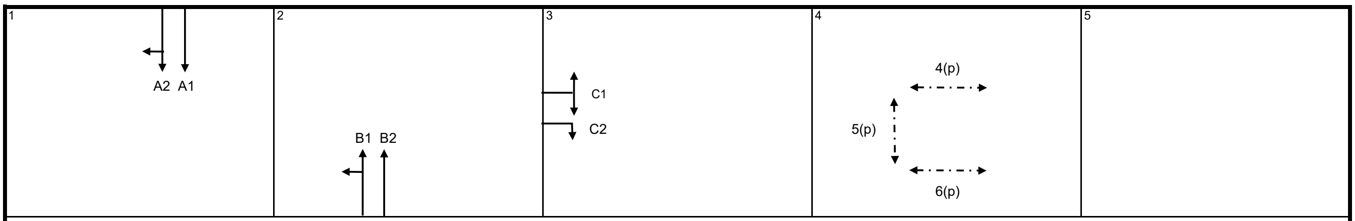

PM Traffic Flow (pcu/hr)

$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.450		0.404	
L (s)	40		40	
C (s)	140		140	
practical y	0.643		0.643	
R.C. (%)	43%		59%	

Note:



AM	G =		I/G =	7	G =		I/G =	7	G =		I/G =	5	G =	22	I/G =	2	G =		I/G =	
	G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =	
PM	G =		I/G =	7	G =		I/G =	7	G =		I/G =	5	G =	22	I/G =	2	G =		I/G =	
	G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =	

Signal Junction Analysis

Junction: J12 - Wang Kwong Road / Kai Wah Street   Job Number: J7266

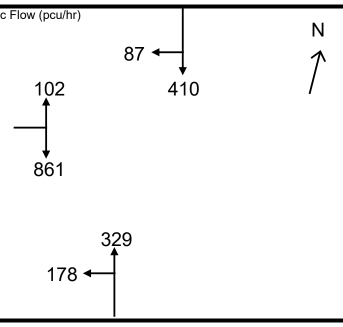
Scenario: with KITEC   R2 / P.12-2

Design Year: 2028   Designed By: ____   Checked By: ____   Date: 18 January 2024

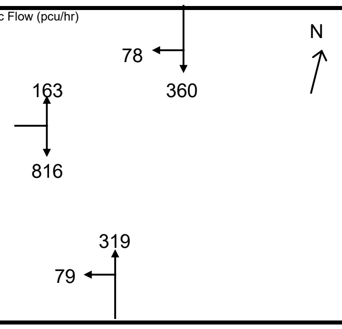
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Kwong Road SB	SA	A1	1	3.40				1955	245	0.125			1955	216	0.110	
	SA+RT	A2	1	3.30	15.0		35	2015	252	0.125	0.125	35	2014	222	0.110	0.110
Wang Kwong Road NB	LT+SA	B1	2	3.50	10.0		78	1760	229	0.130		43	1847	185	0.100	
	SA	B2	2	3.80				2135	278	0.130	0.130		2135	213	0.100	0.100
Kai Wah Street EB	LT+RT	C1	3	3.10	15.0		100	1877	472	0.251		100	1750	463	0.265	
	RT	C2	3	3.40	20.0		100	1949	491	0.252	0.252	100	1949	516	0.265	0.265

pedestrian phase	4(p)	4	min crossing time =	8	sec GM +	7	sec FGM =	15	sec
	5(p)	4	min crossing time =	12	sec GM +	10	sec FGM =	22	sec
	6(p)	4	min crossing time =	8	sec GM +	6	sec FGM =	14	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

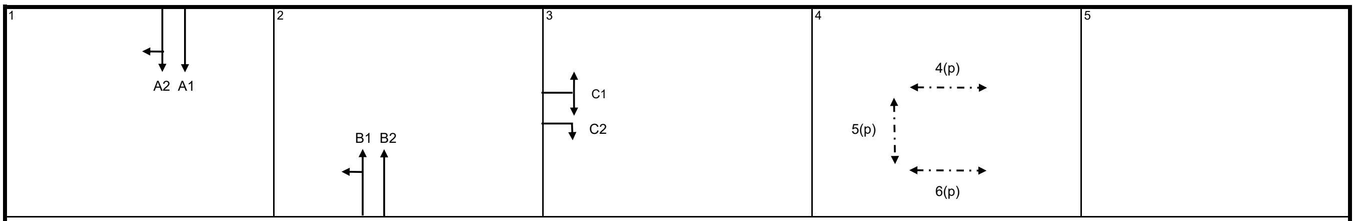


S=1940+100(W–3.25)   S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.507		0.475	
L (s)	40		40	
C (s)	140		140	
practical y	0.643		0.643	
R.C. (%)	27%		35%	

Note:



AM	G =	I/G = 7	G =	I/G = 7	G =	I/G = 5	G = 22	I/G = 2	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 7	G =	I/G = 7	G =	I/G = 5	G = 22	I/G = 2	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

Signal Junction Analysis

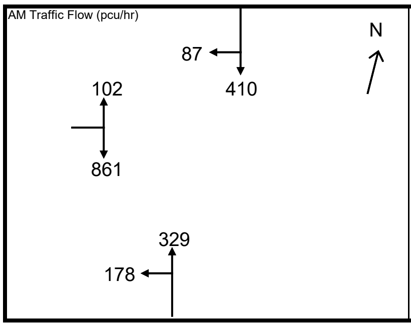
Junction: J12 - Wang Kwong Road / Kai Wah Street Job Number: J7266

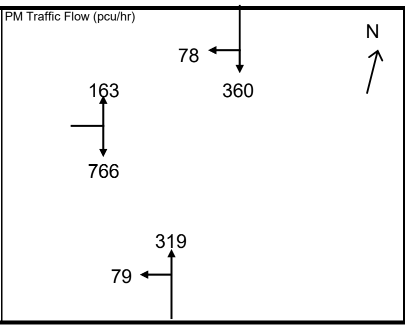
Scenario: with Approved Redevelopment R2 / P.12-3

Design Year: 2028 Designed By: Checked By: Date: 18 January 2024

Approach	Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Kwong Road SB SA	A1	1	3.40				1955	245	0.125			1955	216	0.110	
SA+RT	A2	1	3.30	15.0		35	2015	252	0.125	0.125	35	2014	222	0.110	0.110
Wang Kwong Road NB LT+SA	B1	2	3.50	10.0		78	1760	229	0.130		43	1847	185	0.100	
SA	B2	2	3.80				2135	278	0.130	0.130		2135	213	0.100	0.100
Kai Wah Street EB LT+RT	C1	3	3.10	15.0		100	1877	472	0.251		100	1750	440	0.251	
RT	C2	3	3.40	20.0		100	1949	491	0.252	0.252	100	1949	489	0.251	0.251

pedestrian phase	4(p)	4		min crossing time =	8	sec GM +	7	sec FGM =	15	sec
	5(p)	4		min crossing time =	12	sec GM +	10	sec FGM =	22	sec
	6(p)	4		min crossing time =	8	sec GM +	6	sec FGM =	14	sec



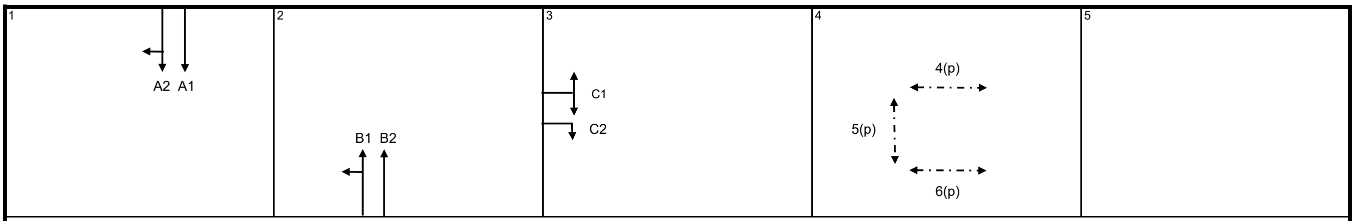


$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.507		0.461	
L (s)	40		40	
C (s)	140		140	
practical y	0.643		0.643	
R.C. (%)	27%		39%	

Note:



AM	G =	I/G = 7	G =	I/G = 7	G =	I/G = 5	G = 22	I/G = 2	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 7	G =	I/G = 7	G =	I/G = 5	G = 22	I/G = 2	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

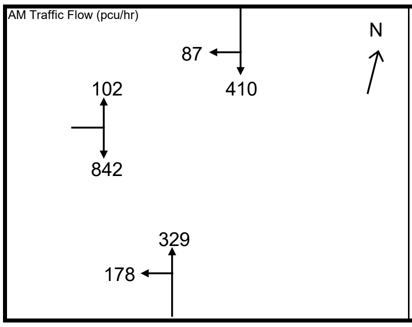
Signal Junction Analysis

Junction: J12 - Wang Kwong Road / Kai Wah Street
Job Number: J7266
Scenario: with Proposed Redevelopment
R2 / P.12-4
Design Year: 2028
Designed By:
Checked By:
Date: 18 January 2024

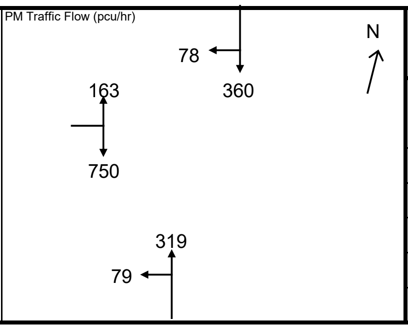
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Kwong Road SB	SA	A1	1	3.40				1955	245	0.125			1955	216	0.110	
	SA+RT	A2	1	3.30	15.0		35	2015	252	0.125	0.125	35	2014	222	0.110	0.110
Wang Kwong Road NB	LT+SA	B1	2	3.50	10.0		78	1760	229	0.130		43	1847	185	0.100	
	SA	B2	2	3.80				2135	278	0.130	0.130		2135	213	0.100	0.100
Kai Wah Street EB	LT+RT	C1	3	3.10	15.0		100	1877	463	0.247	0.247	100	1750	432	0.247	
	RT	C2	3	3.40	20.0		100	1949	481	0.247		100	1949	481	0.247	0.247

pedestrian phase	4(p)	4	min crossing time =	8	sec GM +	7	sec FGM =	15	sec
	5(p)	4	min crossing time =	12	sec GM +	10	sec FGM =	22	sec
	6(p)	4	min crossing time =	8	sec GM +	6	sec FGM =	14	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

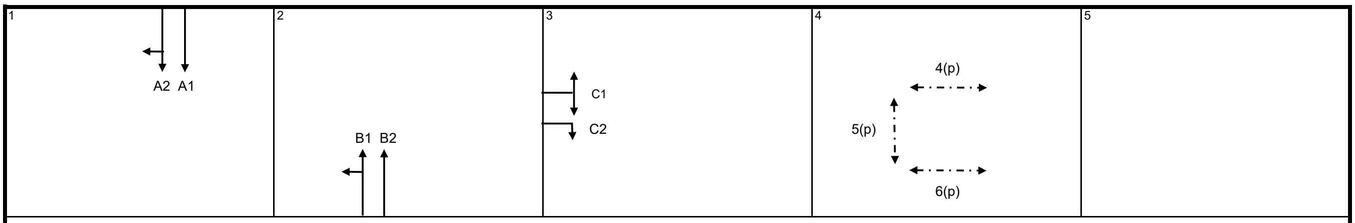


$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.502		0.457	
L (s)	40		40	
C (s)	140		140	
practical y	0.643		0.643	
R.C. (%)	28%		41%	

Note:



AM	G =	I/G = 7	G =	I/G = 7	G =	I/G = 5	G = 22	I/G = 2	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 7	G =	I/G = 7	G =	I/G = 5	G = 22	I/G = 2	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

Signal Junction Analysis

Junction: J12 - Wang Kwong Road / Kai Wah Street Job Number: J7266

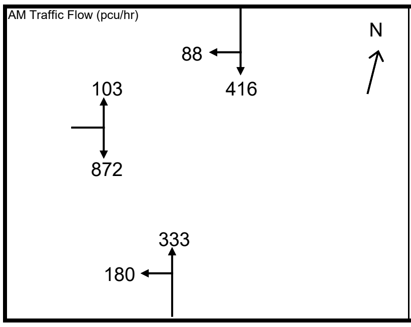
Scenario: with KITEC R2 / P.12-5

Design Year: 2031 Designed By: Checked By: Date: 18 January 2024

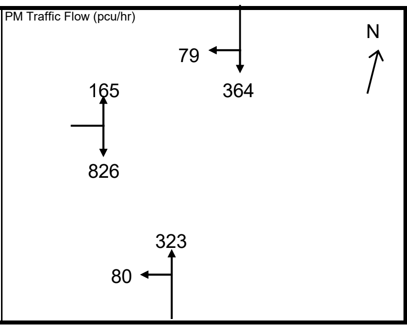
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Kwong Road SB	SA	A1	1	3.40				1955	248	0.127			1955	218	0.112	
	SA+RT	A2	1	3.30	15.0		34	2016	256	0.127	0.127	35	2014	225	0.112	0.112
Wang Kwong Road NB	LT+SA	B1	2	3.50	10.0		78	1760	232	0.132		43	1847	187	0.101	
	SA	B2	2	3.80				2135	281	0.132	0.132		2135	216	0.101	0.101
Kai Wah Street EB	LT+RT	C1	3	3.10	15.0		100	1877	478	0.255	0.255	100	1750	469	0.268	
	RT	C2	3	3.40	20.0		100	1949	497	0.255		100	1949	522	0.268	0.268

pedestrian phase	4(p)	4	min crossing time =	8	sec GM +	7	sec FGM =	15	sec	
	5(p)	4	min crossing time =	12	sec GM +	10	sec FGM =	22	sec	
	6(p)	4	min crossing time =	8	sec GM +	6	sec FGM =	14	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

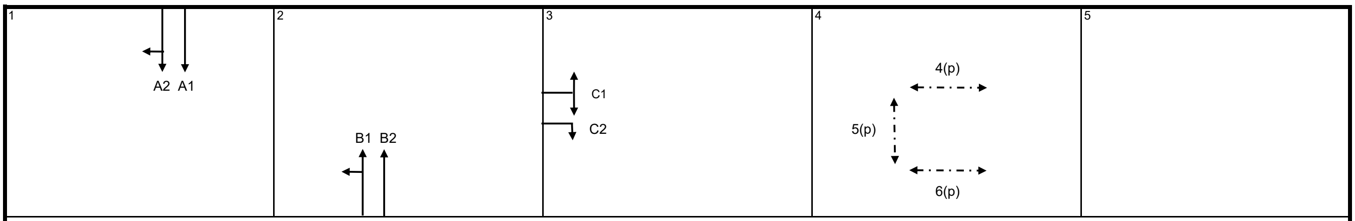


S=1940+100(W−3.25) S=2080+100(W−3.25)

S_M=S÷(1+1.5f/r) S_M=(S−230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.513		0.481	
L (s)	40		40	
C (s)	140		140	
practical y	0.643		0.643	
R.C. (%)	25%		34%	

Note:



AM	G =	I/G = 7	G =	I/G = 7	G =	I/G = 5	G = 22	I/G = 2	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 7	G =	I/G = 7	G =	I/G = 5	G = 22	I/G = 2	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

Signal Junction Analysis

Junction: J12 - Wang Kwong Road / Kai Wah Street — Job Number: J7266

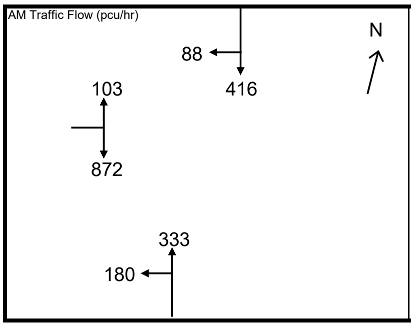
Scenario: with Approved Redevelopment — R2 / P.12-6

Design Year: 2031 — Designed By: ______ — Checked By: ______ — Date: 18 January 2024

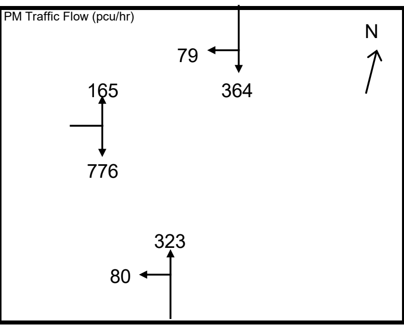
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Kwong Road SB	SA	A1	1	3.40				1955	248	0.127			1955	218	0.112	
	SA+RT	A2	1	3.30	15.0		34	2016	256	0.127	0.127	35	2014	225	0.112	0.112
Wang Kwong Road NB	LT+SA	B1	2	3.50	10.0		78	1760	232	0.132		43	1847	187	0.101	
	SA	B2	2	3.80				2135	281	0.132	0.132		2135	216	0.101	0.101
Kai Wah Street EB	LT+RT	C1	3	3.10	15.0		100	1877	478	0.255		100	1750	445	0.254	
	RT	C2	3	3.40	20.0		100	1949	497	0.255	0.255	100	1949	496	0.255	0.255

pedestrian phase	4(p)	4		min crossing time =	8	sec GM +	7	sec FGM =	15	sec
	5(p)	4		min crossing time =	12	sec GM +	10	sec FGM =	22	sec
	6(p)	4		min crossing time =	8	sec GM +	6	sec FGM =	14	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

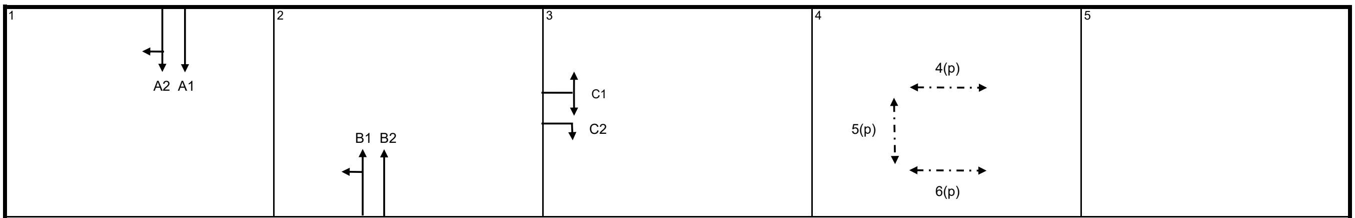


S=1940+100(W–3.25) S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.514		0.467	
L (s)	40		40	
C (s)	140		140	
practical y	0.643		0.643	
R.C. (%)	25%		38%	

Note:



AM	G =	I/G = 7	G =	I/G = 7	G =	I/G = 5	G = 22	I/G = 2	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 7	G =	I/G = 7	G =	I/G = 5	G = 22	I/G = 2	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

Signal Junction Analysis

Junction: J12 - Wang Kwong Road / Kai Wah Street — Job Number: J7266

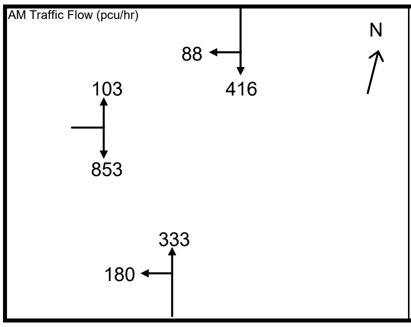
Scenario: with Proposed Redevelopment — R2 / P.12-7

Design Year: 2031 — Designed By: ____________ — Checked By: ____________ — Date: 18 January 2024

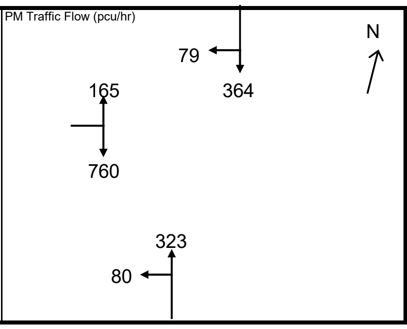
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wang Kwong Road SB	SA	A1	1	3.40				1955	248	0.127			1955	218	0.112	
	SA+RT	A2	1	3.30	15.0		34	2016	256	0.127	0.127	35	2014	225	0.112	0.112
Wang Kwong Road NB	LT+SA	B1	2	3.50	10.0		78	1760	232	0.132		43	1847	187	0.101	
	SA	B2	2	3.80				2135	281	0.132	0.132		2135	216	0.101	0.101
Kai Wah Street EB	LT+RT	C1	3	3.10	15.0		100	1877	469	0.250	0.250	100	1750	438	0.250	
	RT	C2	3	3.40	20.0		100	1949	487	0.250		100	1949	487	0.250	0.250

pedestrian phase	4(p)	4	min crossing time =	8	sec GM +	7	sec FGM =	15	sec
	5(p)	4	min crossing time =	12	sec GM +	10	sec FGM =	22	sec
	6(p)	4	min crossing time =	8	sec GM +	6	sec FGM =	14	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



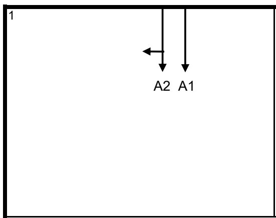
$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.508		0.463	
L (s)	40		40	
C (s)	140		140	
practical y	0.643		0.643	
R.C. (%)	26%		39%	

Note:

1



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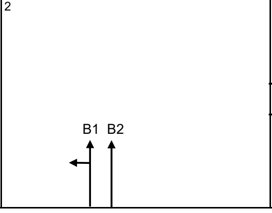

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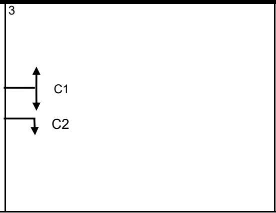

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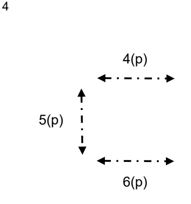


5

AM	G =	I/G = 7	G =	I/G = 7	G =	I/G = 5	G = 22	I/G = 2	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G = 7	G =	I/G = 7	G =	I/G = 5	G = 22	I/G = 2	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

Appendix B – Comment from SWD on TPB No. A/K22/37

Comment from SWD
on TPB No. A/K22/37

Comments from Social Welfare Department
(Contact: Mr. Michael PANG, Tel.: 2116 5939)

I refer to your preceding email and memo seeking our comments on the proposed social welfare facilities involved in the captioned planning application for the redevelopment of Kowloon Bay International Trade and Exhibition Centre at 1 Trademart Drive, Kowloon Bay. Comments from the Social Welfare Department (SWD) are appended in the ensuing paragraphs.

Our comments on the applicant's pre-submission were given to the applicant vide email of 27.2.2024. That is, SWD does not support the applicant's proposal of providing 30-place Residential Care Home for the Elderly (RCHE) and 20-place Day Care Centre for the Elderly (DE) which were proposed to be handed over to the Government as Government Accommodation upon completion of construction. The applicant has subsequently provided response-to-comment (R-to-C) in April 2024 advising that the capacity of the RCHE and DE, which would be privately operated by the applicant, would be expanded to 60 places and 30 places respectively. The applicant has also confirmed in the R-to-C that Office Base of Social Work Service for Pre-primary Institutions (SWSPPI) would be incorporated into the development for handing over to SWD, but 30-place Supported Hostel for Mentally Handicapped Persons would not be considered.

We note that the aforesaid R-to-C has been reflected in the applicant's formal submission of the captioned planning application. Our comments on the applicant's pre-submission are also valid for the formal submission. If the applicant proposes to hand over the 60-place RCHE and 30-place DE to SWD upon completion of construction, the proposal is not agreeable from service point of view. Nevertheless, to enable market diversity in the provision of residential / day care services for addressing the demand for quality service, we have no objection in principle from service perspective for the applicant's proposed development of 60-place RCHE and 30-place DE on conditions that -

(i) the RCHE and DE including the associated parking spaces and loading and unloading bay are running on privately-financing mode with no financial implication, both capital and recurrent, on the Government; and
(ii) the design and construction of the RCHE and DE shall comply with the height restriction, all relevant ordinances, regulations, licensing and statutory requirements. Specifically, the RCHE shall comply with the (i) Residential Care Homes (Elderly Persons) Ordinance (Cap. 459) and its subsidiary legislation; and (ii) the latest version of the Code of Practice for Residential Care Homes (Elderly Persons), etc. No part of an RCHE shall be situated at a height more than 24m above the ground floor, measuring vertically from the ground of the building to the floor of the premises at which the RCHE is to be situated.

As regards the provision of bare-shell premises for the SWSPPI which will be designed and constructed by the applicant and handed over to the Government upon completion, the applicant should confirm that -

(i) the proposed GFA of 165 square metres is able to meet the design and construction of SWSPPI in accordance with the approved Schedule of Accommodation and other requirements as requested by SWD. According to the approved Schedule of Accommodation, the net operational floor area of SWSPPI is 95 square metres while the internal floor area is about 124 square metres;
(ii) the SWSPPI does not have any parking space and loading and unloading bay; and
(iii) no part of the welfare premises of SWSPPI is situated at a height more than 24 metres above the ground level, measuring vertically from the ground of the building to the highest floor level of the premises at which the welfare premises is to be situated.

Appendix C –
Planned Cautionary Crossing at Trademart Drive
(Extract of Email from EKEO)

From: chriswong@devb.gov.hk
Sent: Wednesday, 13 April, 2022 17:47
To: CKM Asia
Cc: Ada KY YAU; whcheng@devb.gov.hk; kelvinchan@devb.gov.hk
Subject: Re: Fw: TMD1: Redevelopment of KITEC at 1 Trademart Drive, Kowloon Bay - s16 planning application (TPB No. S/K22/34)

Dear Mr. TANG,

I refer to your email on 13 April 2022.

Regarding the proposed cautionary crossing at Wang Chin Street, please refer to Item 8 (page 10 of the pdf file) at the following link:
https://www.districtcouncils.gov.hk/kt/doc/2020_2023/tc/committee_meetings_doc/TDTC/21292/TDTC_12_2021_R.pdf

We understand that TD has requested the applicant to supplement with a TIA report. Please liaise with TD in this regard.

Regards,
Chris WONG
Works Consolidation Manager (1)
T: 3422 3529
F: 3904 1161
www.ekeo.gov.hk

Zero 意外
ACCIDENT
地盤零意外 關懷建未來
Zero Accident, we Build, we Care

----- Forwarded by EKEO Enquiry/DEVB/HKSARG on 13/04/2022 15:15 -----

From: "CKM Asia" <mail@ckmasia.com.hk>
To: <ekeo@devb.gov.hk>
Date: 13/04/2022 15:09
Subject: TMD1: Redevelopment of KITEC at 1 Trademart Drive, Kowloon Bay - s16 planning application (TPB No. S/K22/34)

Attn: DevB (EKEO) – Mr Kelvin Chan [Place Making Mgr (Planning) 1]

Dear Mr Chan,

We refer to the s16 planning application (TPB No. S/K22/34) for the captioned site.

According to the attached comment from Transport Department (TD), *"(5) It is noted that EKEO has proposed to add a cautionary crossing at Trademart Drive. Please ask the applicant to seek EKEO's views and consider their request"*.

As discussed yesterday, we would appreciate if you could provide more technical details (such as location, dimensions, etc) of the proposed cautionary crossing for information and to facilitate our response to TD comment.

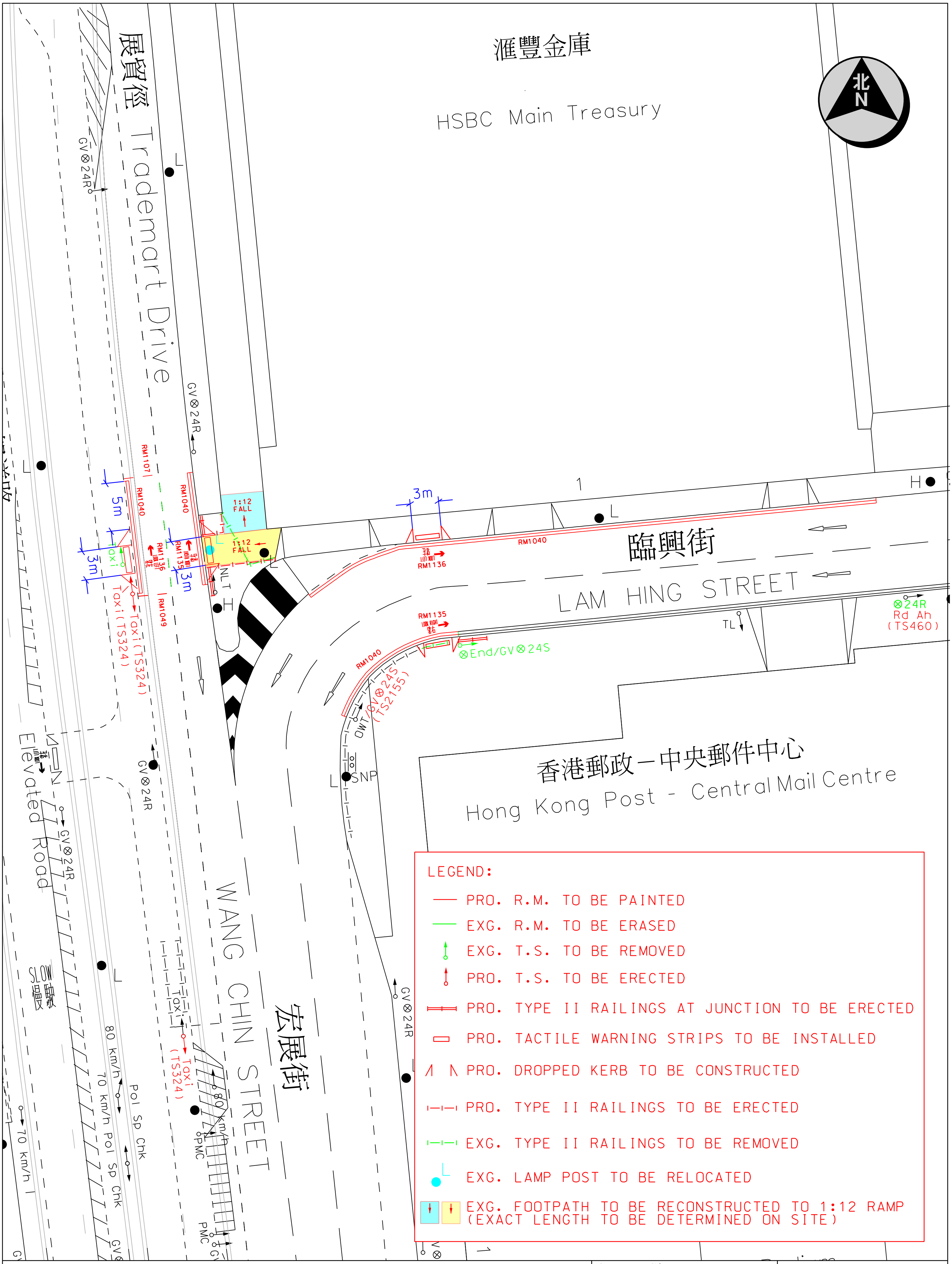
Thank you for your attention.

Regards,

H.C. Tang

CKM Asia Limited
Traffic and Transportation Planning Consultants
Phone: (852) 2520 5990
Fax: (852) 2528 6343
Email: mail@ckmasia.com.hk
Website: www.ckmasia.com.hk
Address: 21/F, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong

[attachment "TD comment.pdf" deleted by Matthew MT YUI/DEVB/HKSARG]


滙豐金庫
HSBC Main Treasury
北 N
展貿徑 Trademart Drive
臨興街 LAM HING STREET
宏展街 WANG CHIN STREET
香港郵政－中央郵件中心
Hong Kong Post - Central Mail Centre
Elevated Road
SLOW 慢駛
1:12 FALL
1:12 FALL
5m
3m
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RM1040
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⊗End/GV⊗24S
OWT/GV⊗24S (TS2155)
⊗24R Rd Ah (TS460)
L
H
NLT
TL
SNP
PMC
80 km/h
70 km/h
70 km/h Pol Sp Chk
Pol Sp Chk
80 km/h

LEGEND:

- PRO. R.M. TO BE PAINTED
- EXG. R.M. TO BE ERASED
- EXG. T.S. TO BE REMOVED
- PRO. T.S. TO BE ERECTED
- PRO. TYPE II RAILINGS AT JUNCTION TO BE ERECTED
- PRO. TACTILE WARNING STRIPS TO BE INSTALLED
- PRO. DROPPED KERB TO BE CONSTRUCTED
- PRO. TYPE II RAILINGS TO BE ERECTED
- EXG. TYPE II RAILINGS TO BE REMOVED
- EXG. LAMP POST TO BE RELOCATED
- EXG. FOOTPATH TO BE RECONSTRUCTED TO 1:12 RAMP (EXACT LENGTH TO BE DETERMINED ON SITE)

Location : LAM HING STREET NEAR WANG CHIN STREET

Survey Sheet No. K11Q12C

Scale: 1 : 500 (A4)

運輸署
Transport Department

TRAFFIC ENGINEERING
(KLN.) DIV.

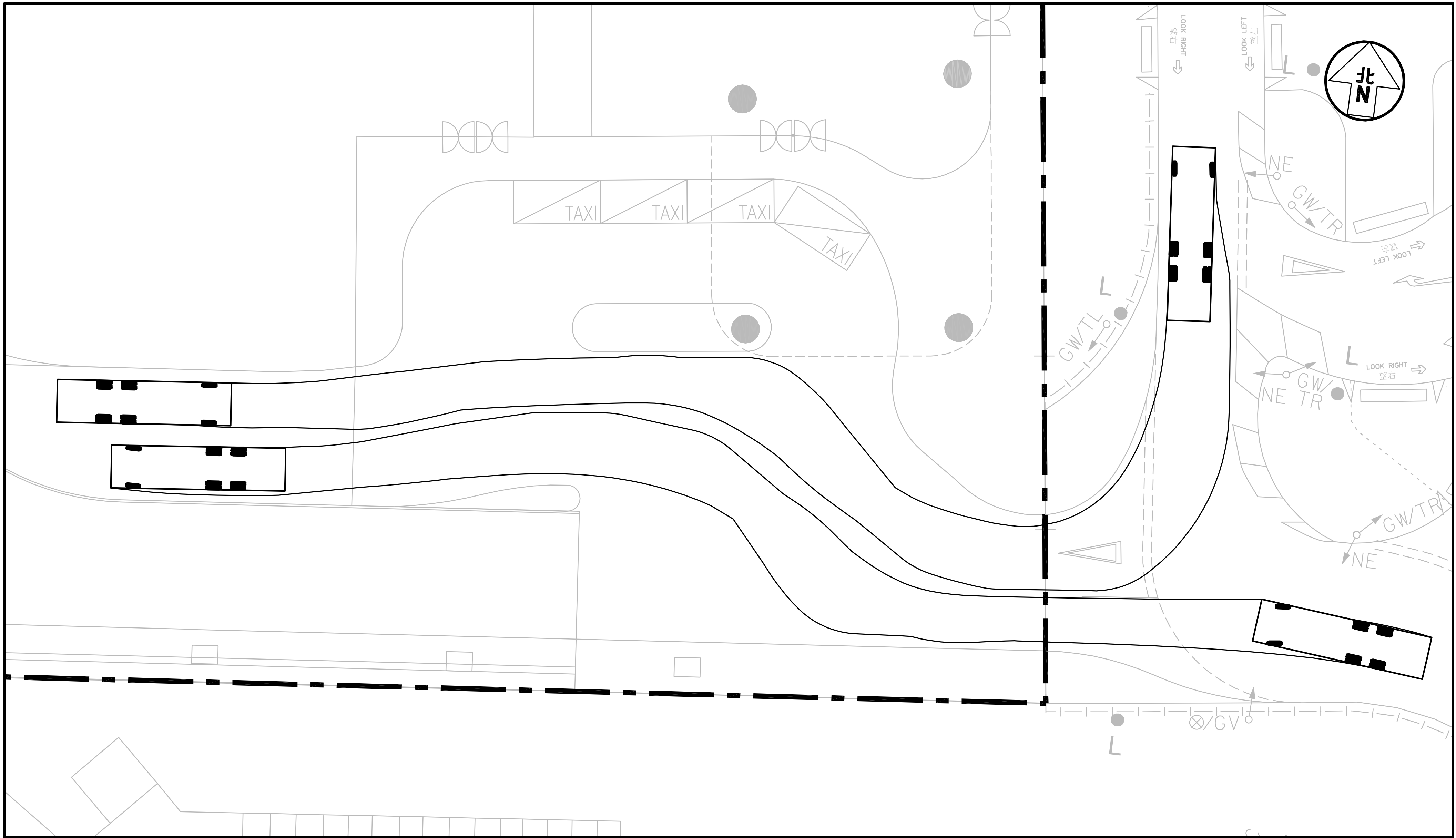
WRF NO.
WR/HY/TE/KL/21/01131

Drawing No.
K160620.01B

Date
22-06-2021

The drawing shows the approximate locations of traffic aids for indication purpose only. The information shown on this drawing should be interpreted by professional engineers. Reproduction by permission only.

Appendix D –
Swept Path Analysis



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TAXI
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LOOK RIGHT 望右
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GW/TR
GW/TR
GW/TR
NE
NE
NE
L
L
L
L
⊗/GV

Project Title
PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON
J7266

Figure Title

SWEPT PATHS OF 11m HEAVY GOODS VEHICLE ENTERING AND LEAVING THE SUBJECT SITE

Figure No.		Revision
SP/GF/101		R4A
Designed by	Drawn by	Checked by
T H C	C C L	K C
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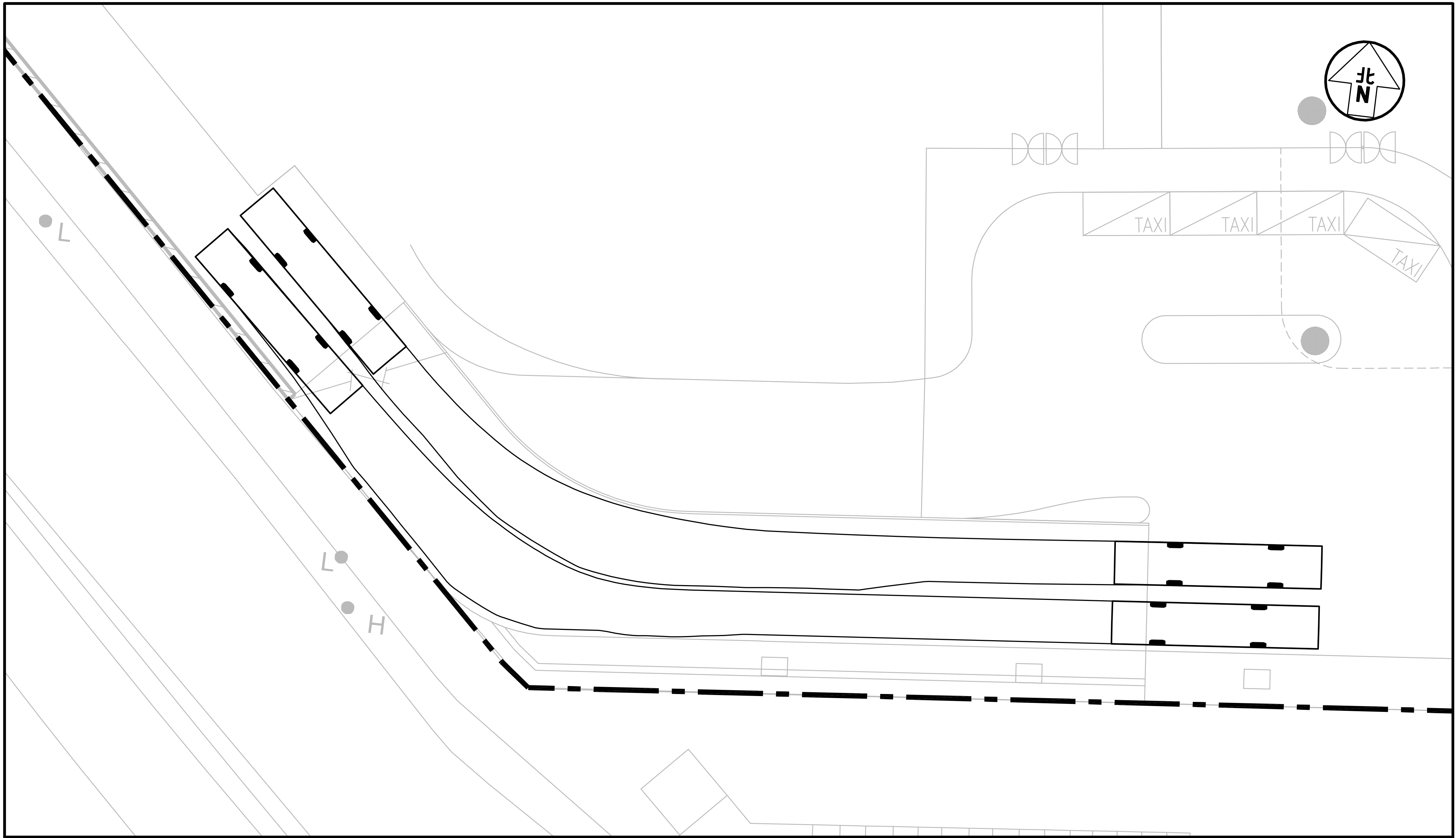

Project Title

PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

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Figure Title

SWEPT PATHS OF 12m COACH ENTERING AND LEAVING G/F

Figure No.			Revision
SP/GF/102			R4A
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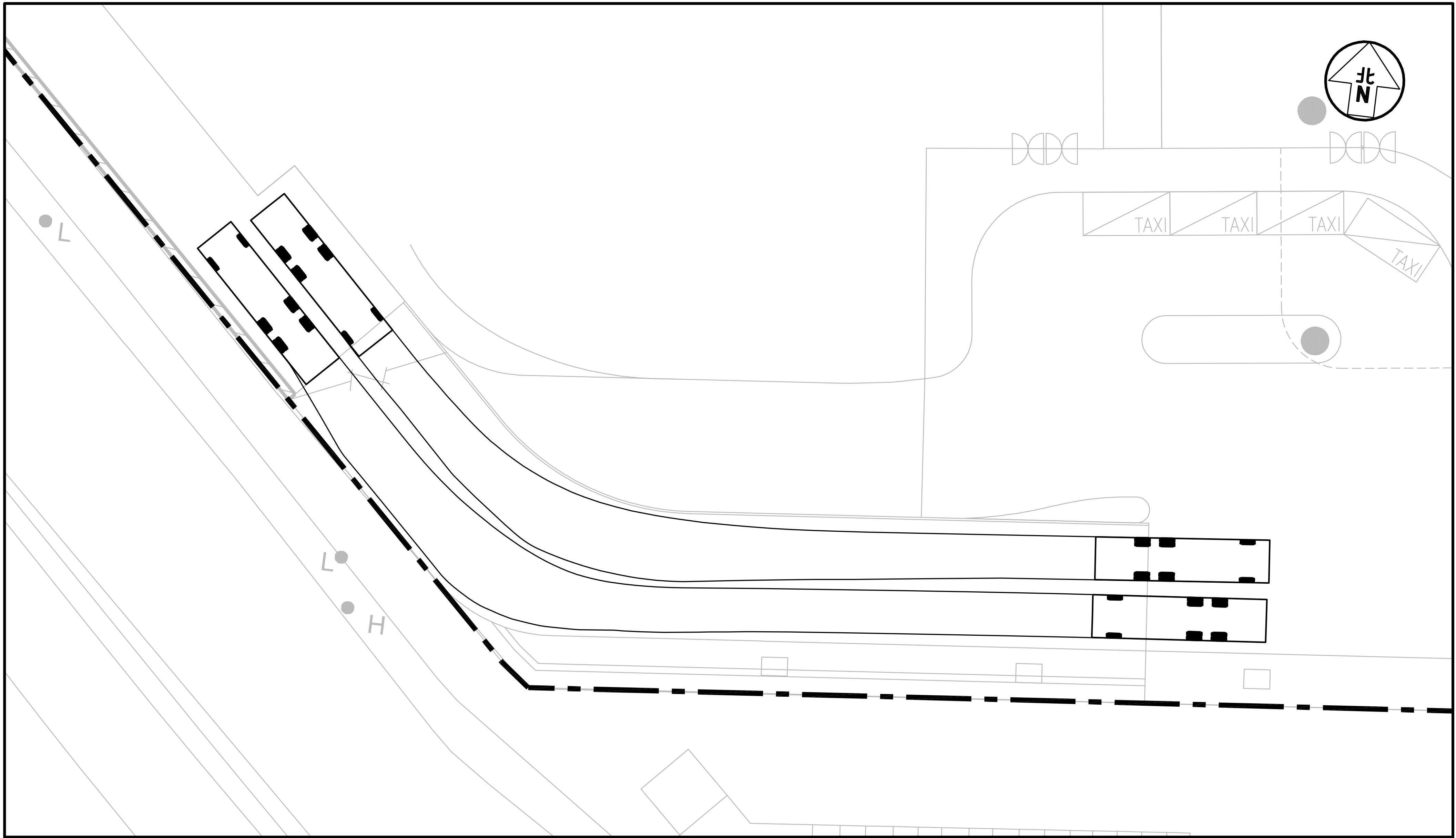

Project Title

PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7266

Figure Title

SWEPT PATHS OF 11m HEAVY GOODS VEHICLE ENTERING AND LEAVING G/F

Figure No.	Revision
SP/GF/103	R4A

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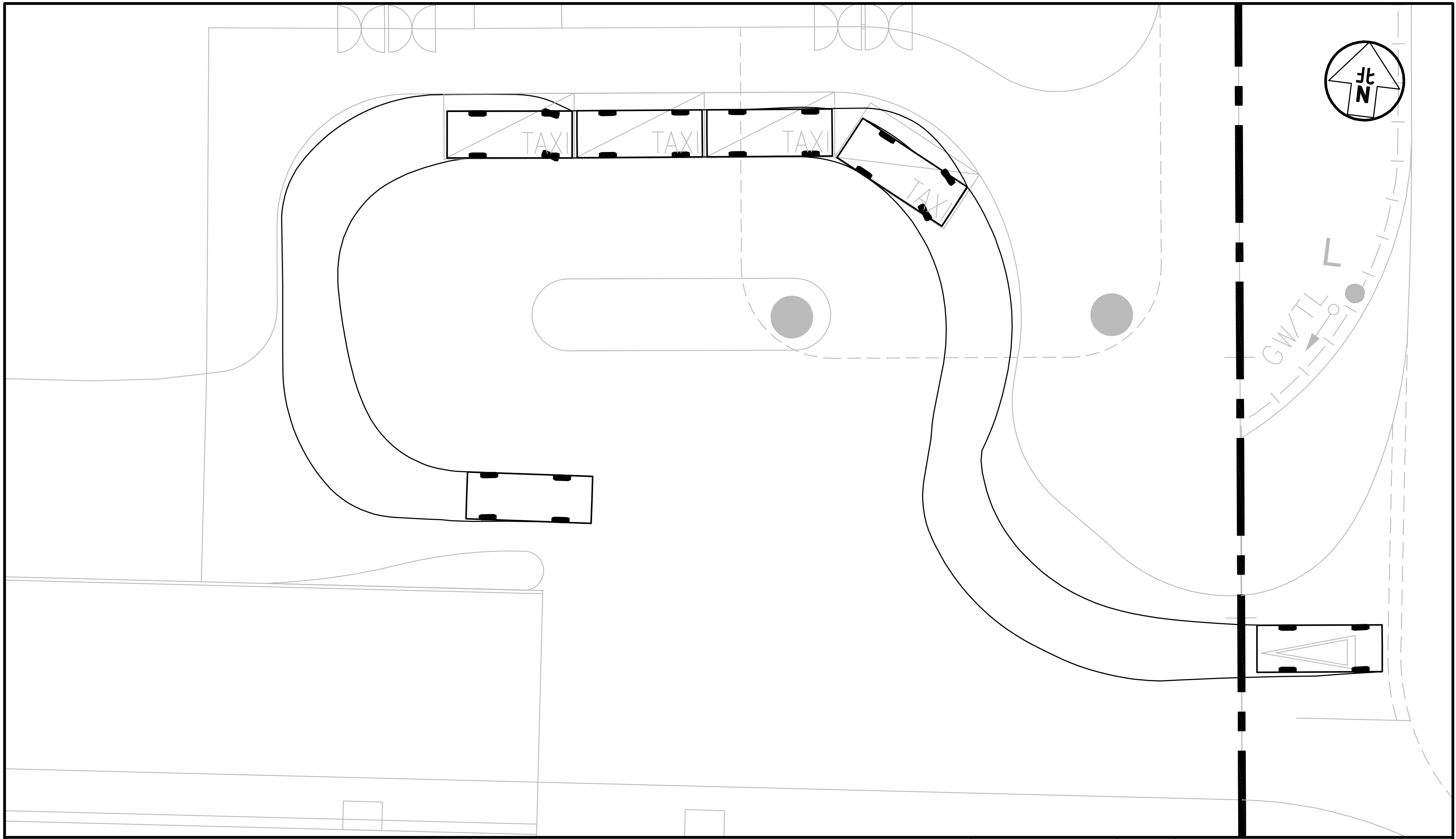

Project Title
PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7266

Figure Title

SWEPT PATHS OF 5m TAXI / PRIVATE CAR ENTERING AND LEAVING THE TAXI / PRIVATE CAR LAY-BY

Figure No.	Revision
SP/GF/104	R4A

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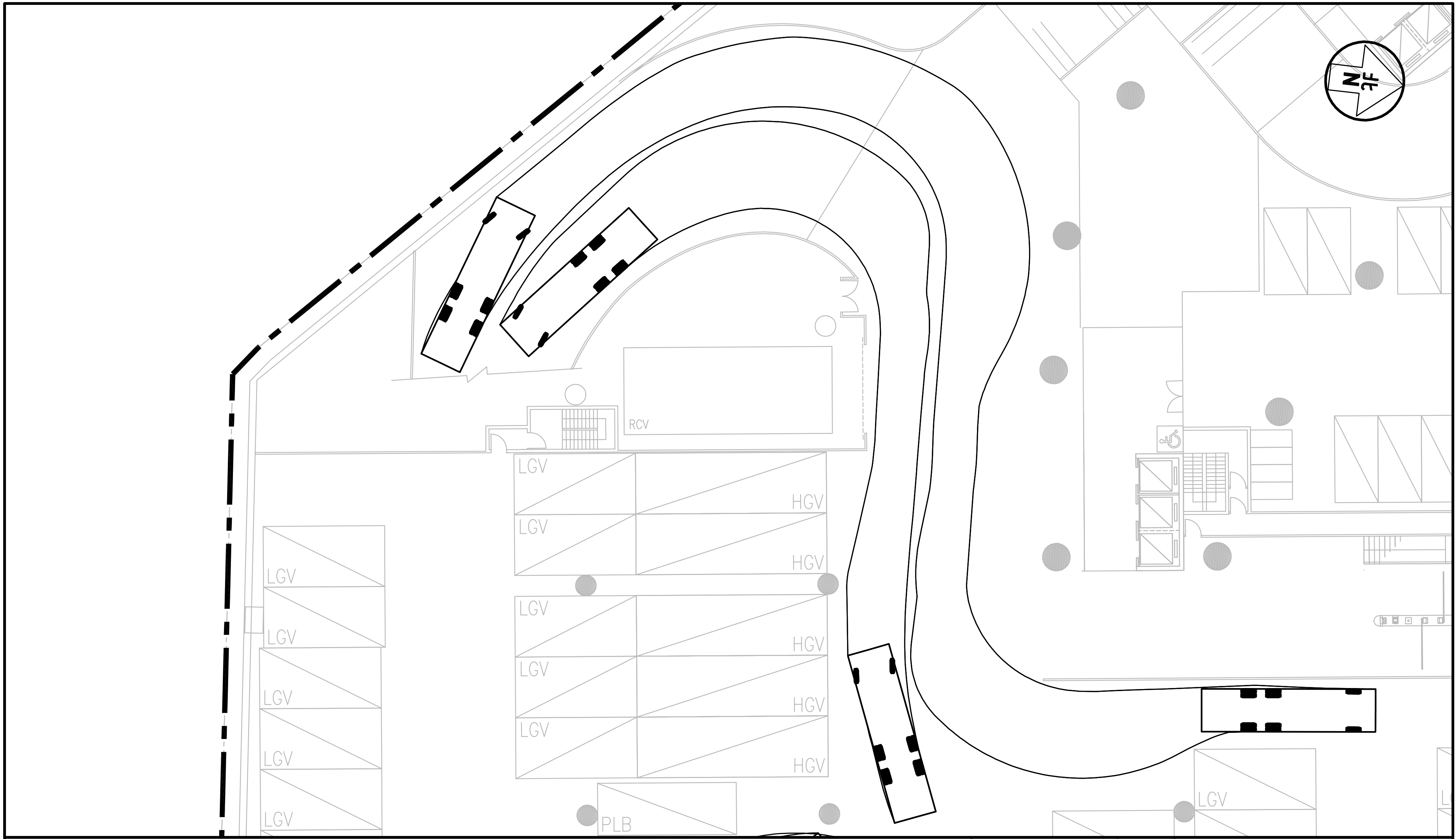

Project Title
PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7266

Figure Title

SWEPT PATH OF 11m HEAVY GOODS VEHICLE ENTERING AND LEAVING B1/F

Figure No.	Revision
SP/B1/101	R4A

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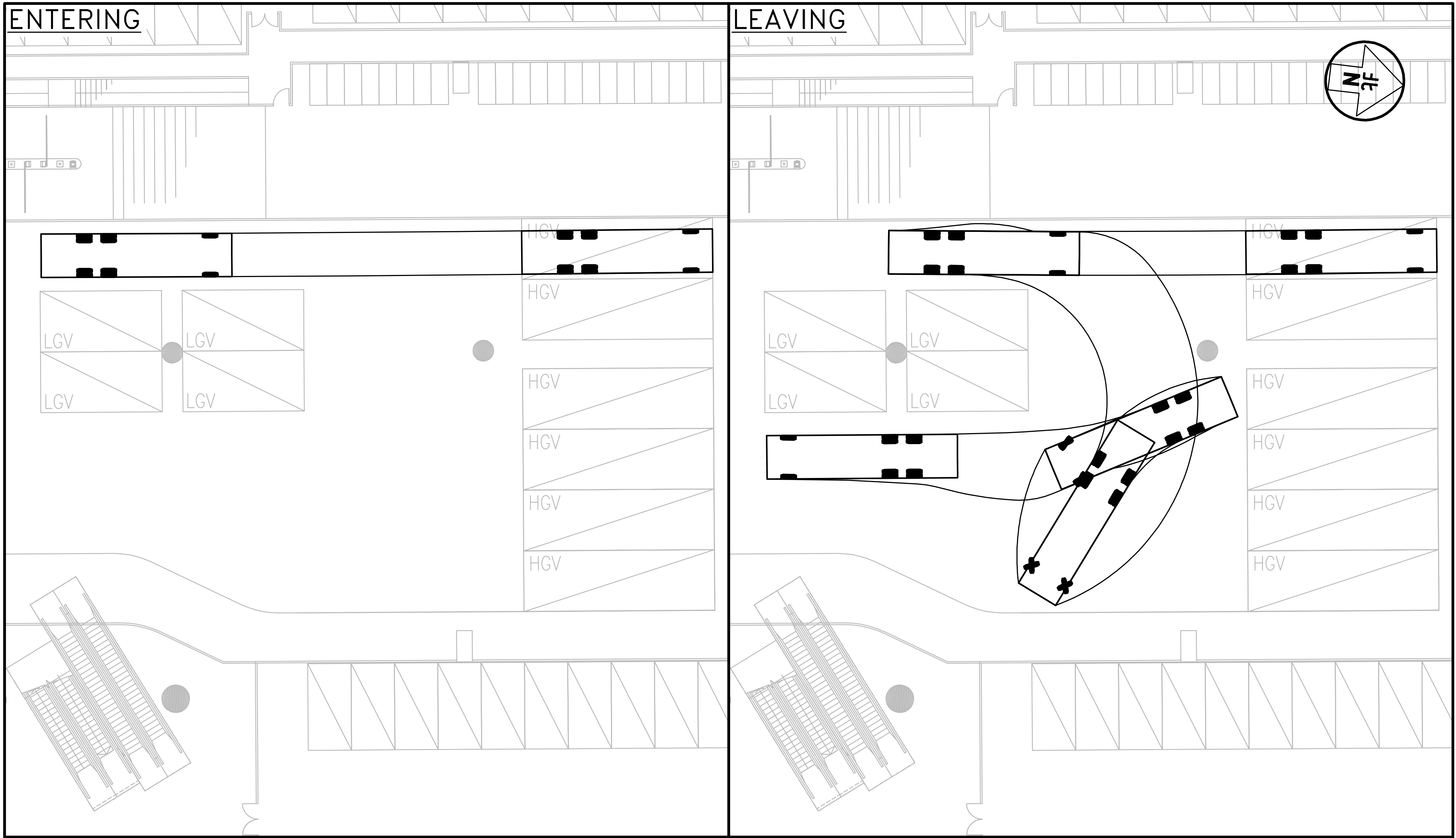

Project Title
PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7266

Figure Title

SWEPT PATH OF 11m HEAVY GOODS VEHICLE ENTERING AND LEAVING THE HGV LOADING / UNLOADING BAY

Figure No.		Revision
SP/B1/102		R4A
Designed by	Drawn by	Checked by
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Scale in A4	Date	
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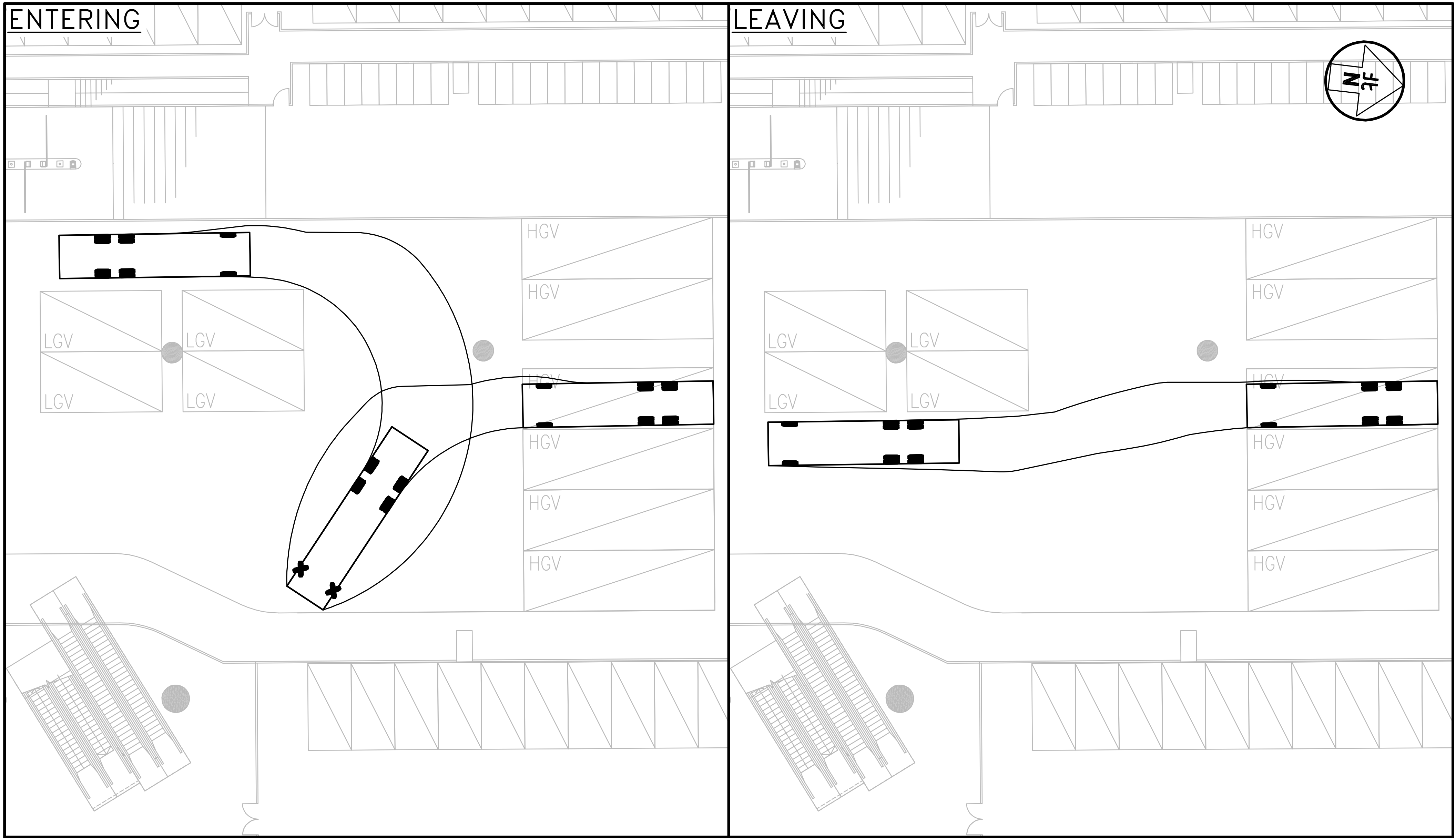

Project Title
PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7266

Figure Title

SWEPT PATH OF 11m HEAVY GOODS VEHICLE ENTERING AND LEAVING THE HGV LOADING / UNLOADING BAY

Figure No.	Revision	Designed by	Drawn by	Checked by	Scale in A4	Date
SP/B1/103	R4A	T H C	C C L	K C	1 : 400	21 JUN 2024

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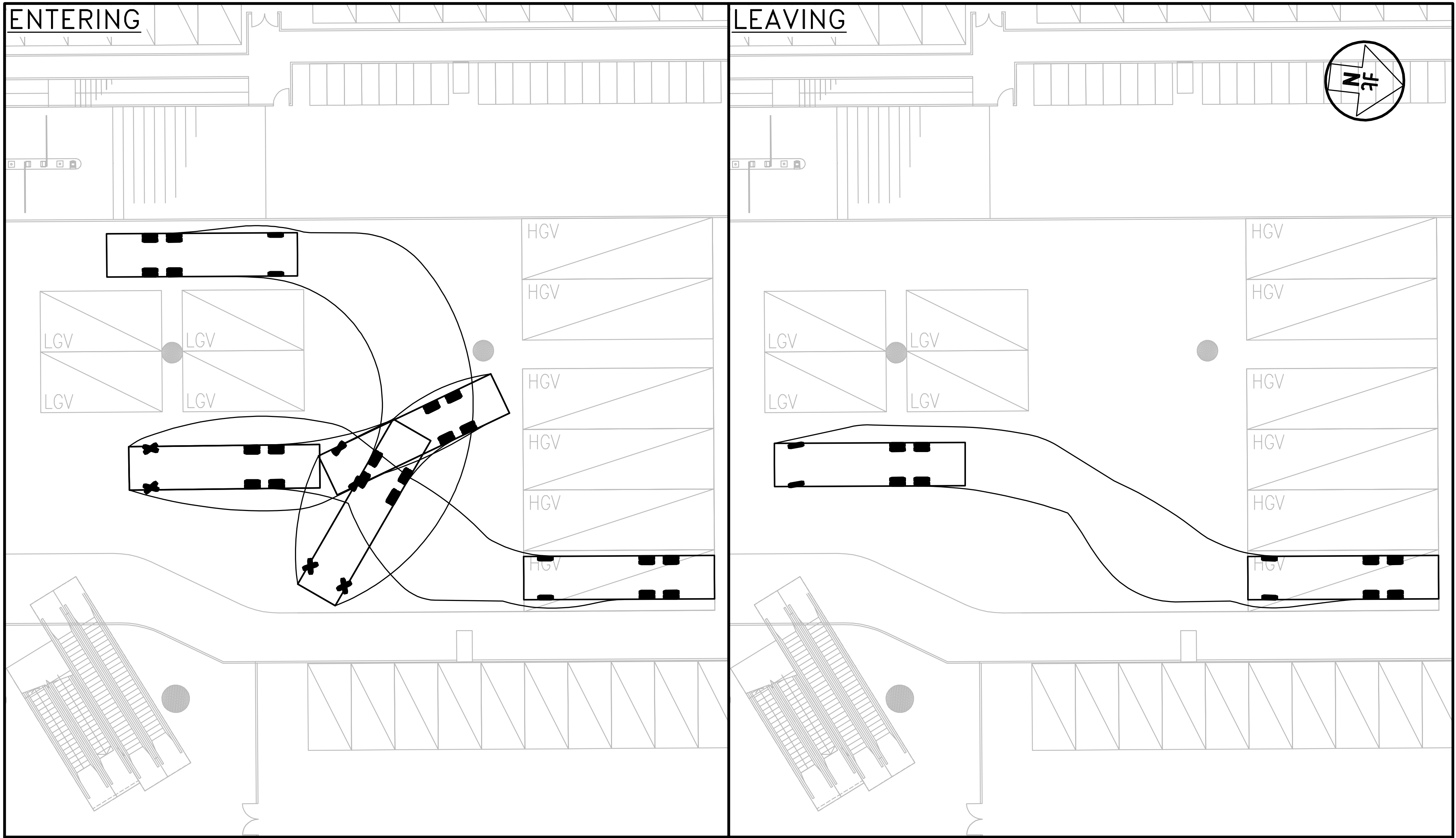

Project Title

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J7266

Figure Title

SWEPT PATH OF 11m HEAVY GOODS VEHICLE ENTERING AND LEAVING THE HGV LOADING / UNLOADING BAY

Figure No.	Revision
SP/B1/104	R4A

Designed by	Drawn by	Checked by
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Scale in A4	Date
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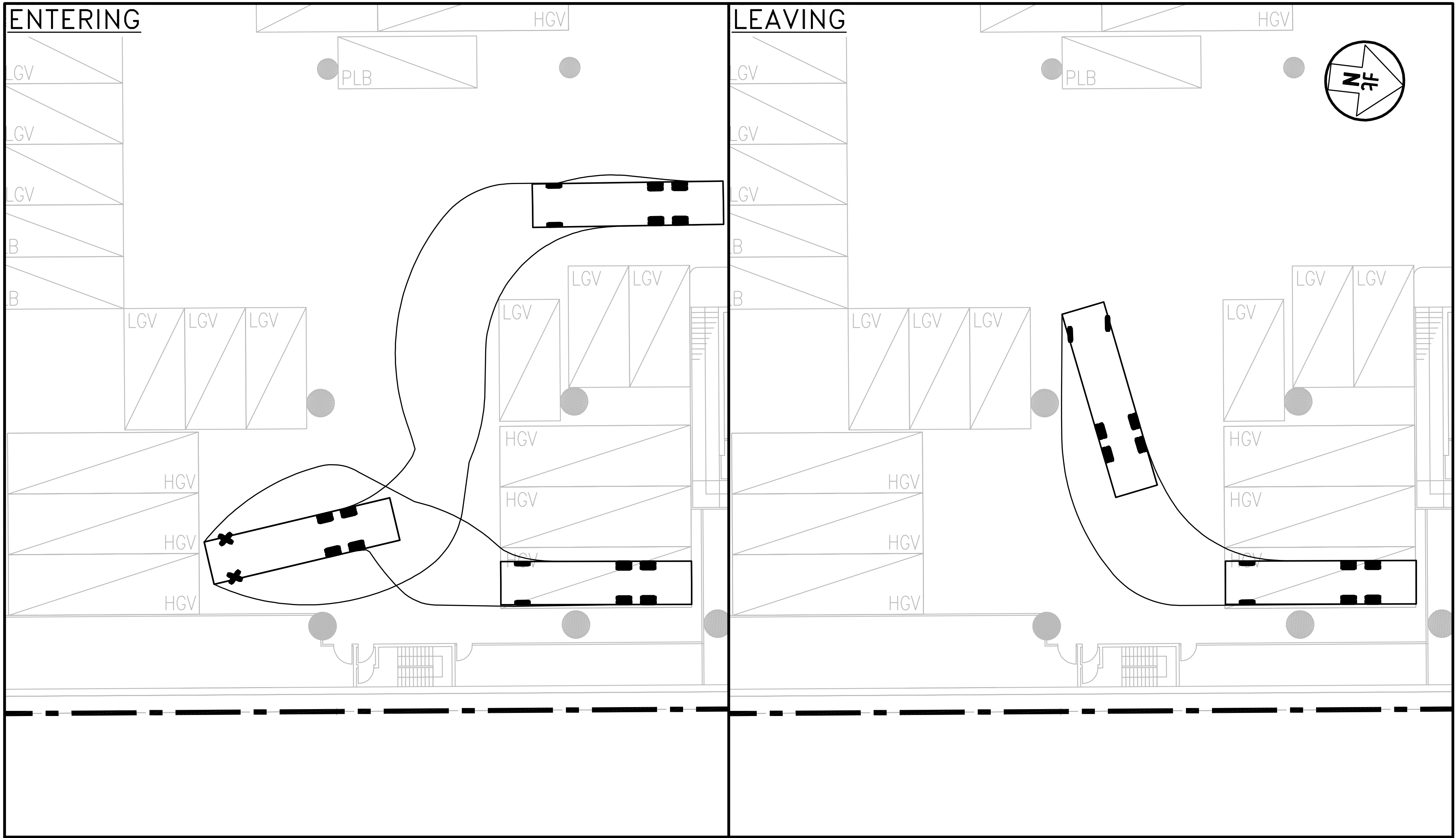

Project Title

PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION
OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7266

Figure Title

SWEPT PATH OF 11m HEAVY GOODS VEHICLE ENTERING
AND LEAVING THE HGV LOADING / UNLOADING BAY

Figure No.			Revision
SP/B1/105			R4A
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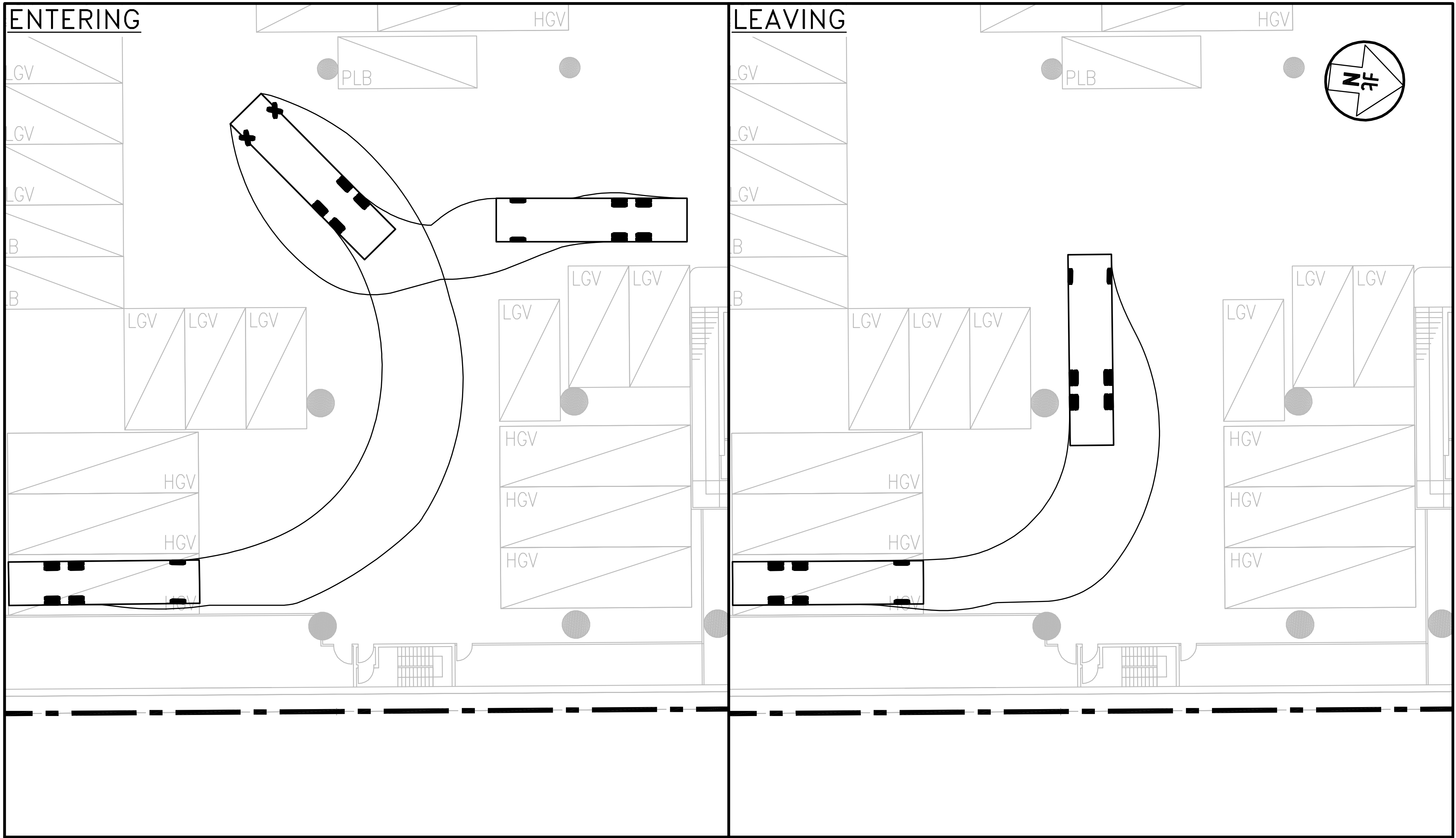
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J7266

Figure Title

SWEPT PATH OF 11m HEAVY GOODS VEHICLE ENTERING AND LEAVING THE HGV LOADING / UNLOADING BAY

Figure No.	Revision
SP/B1/106	R4A

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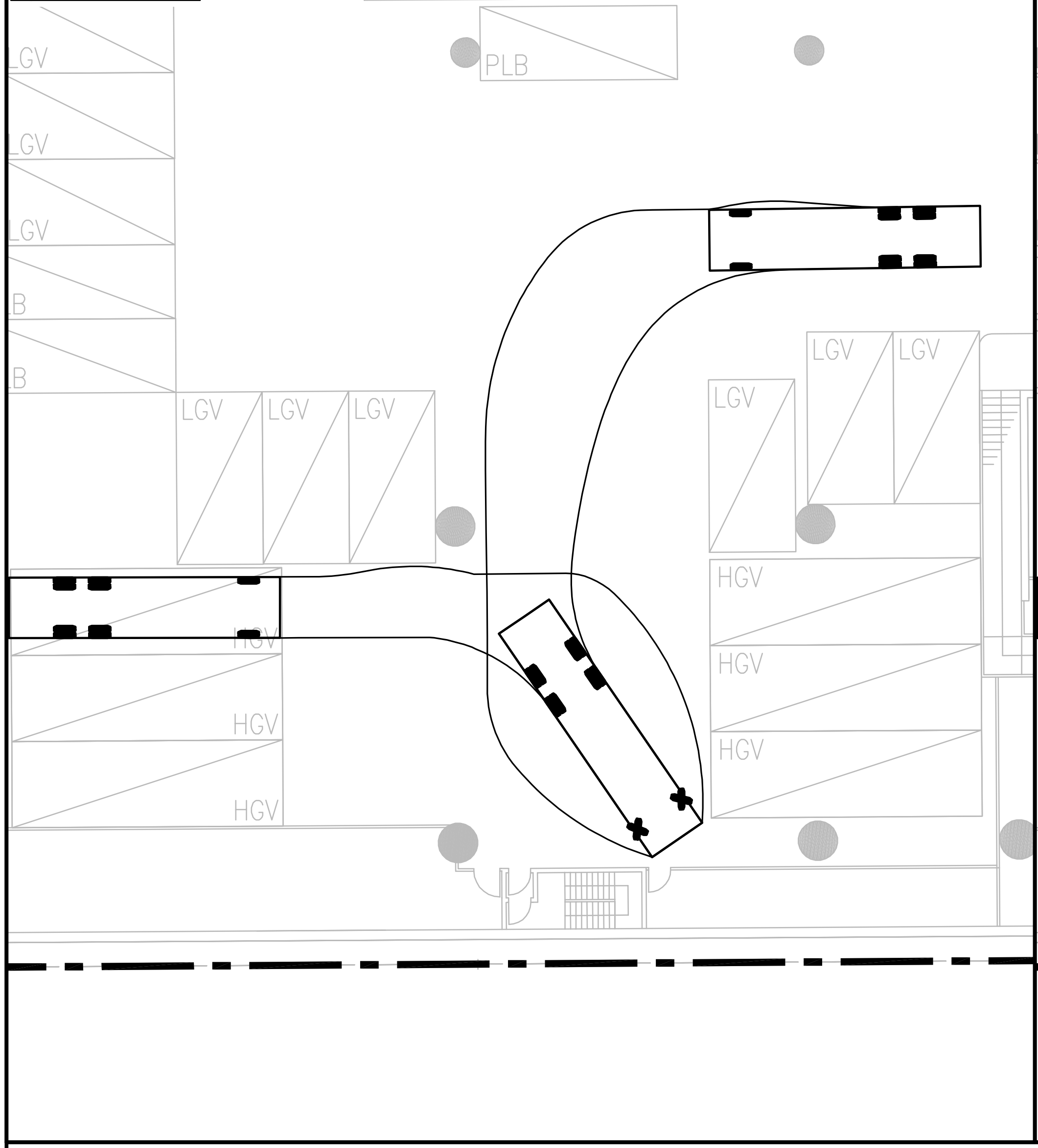
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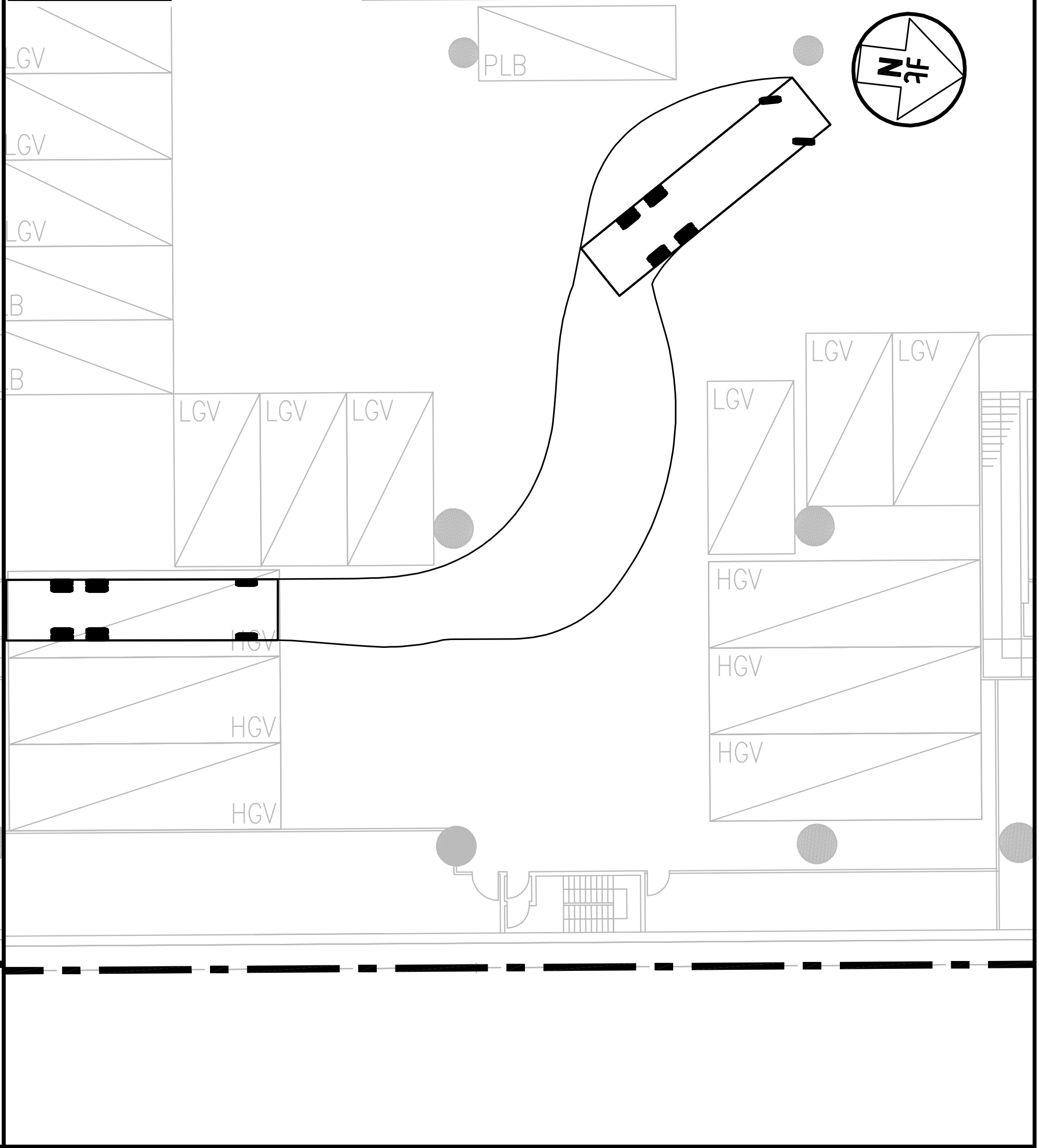
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Project Title

PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7266

Figure Title

SWEPT PATH OF 11m HEAVY GOODS VEHICLE ENTERING
AND LEAVING THE HGV LOADING / UNLOADING BAY

Figure No.	Revision
SP/B1/107	R4A

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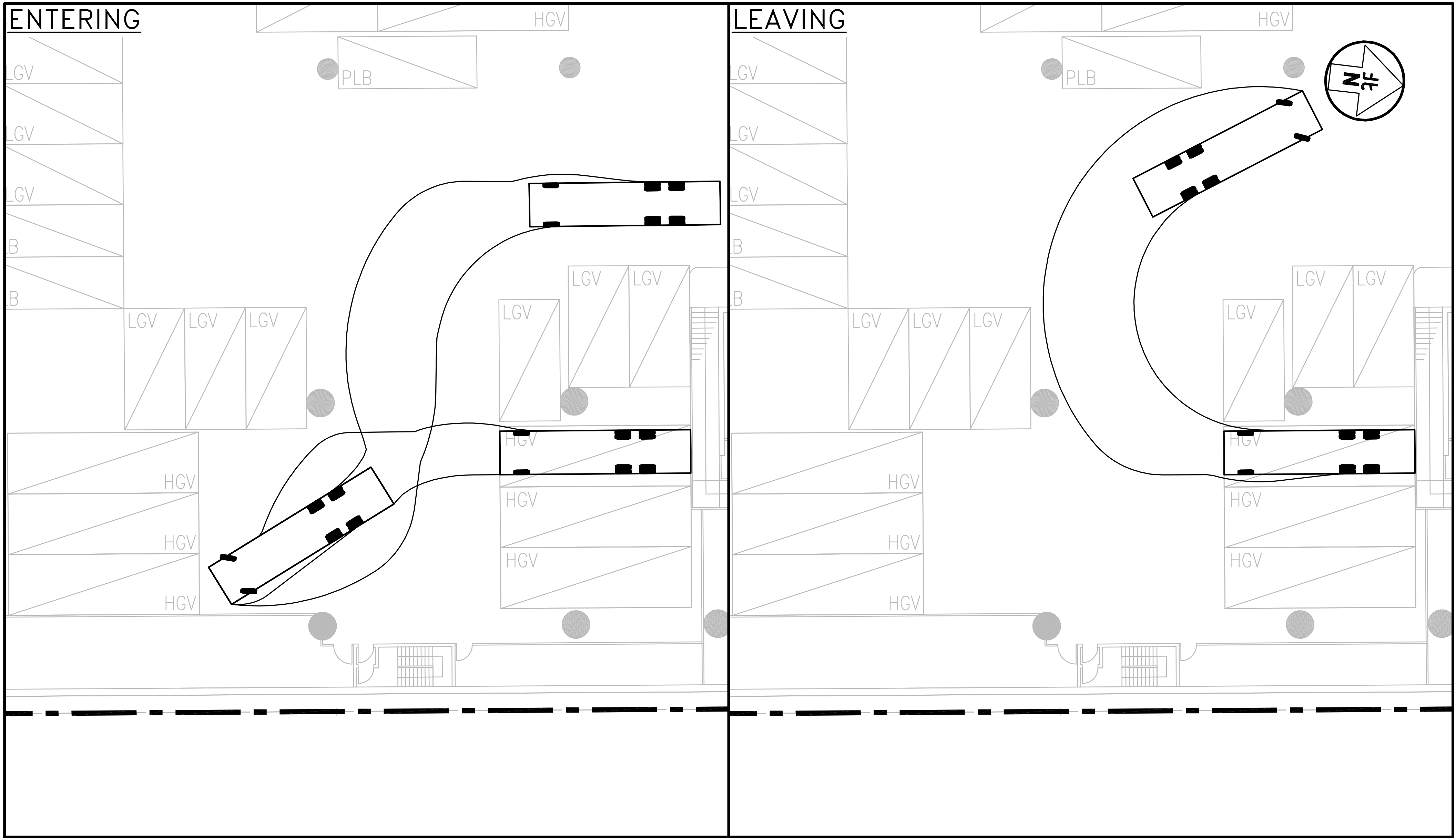

Project Title

PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7266

Figure Title

SWEPT PATH OF 11m HEAVY GOODS VEHICLE ENTERING AND LEAVING THE HGV LOADING / UNLOADING BAY

Figure No.	Revision
SP/B1/108	R4A

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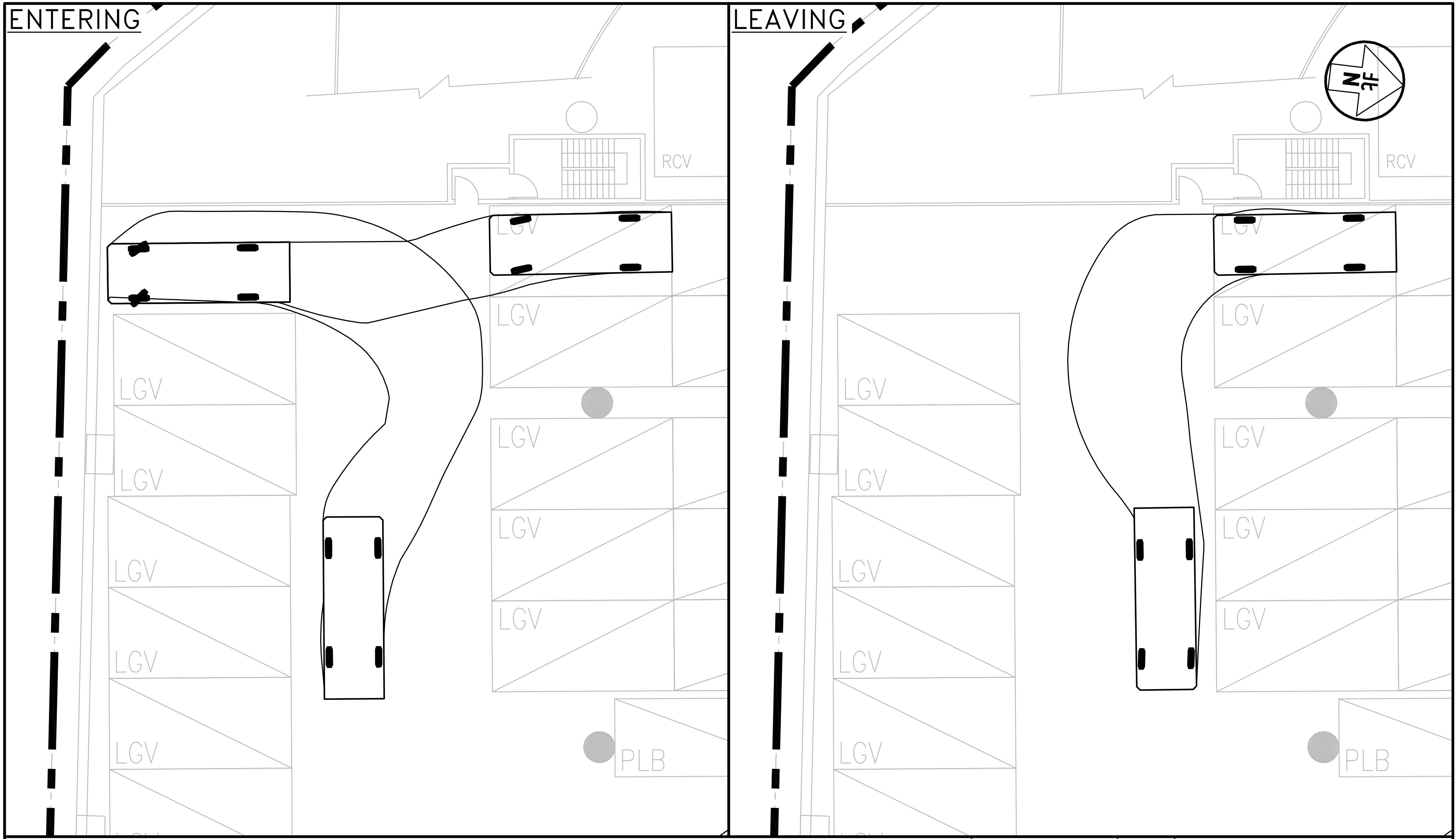

Project Title
PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7266

Figure Title

SWEPT PATH OF 7m LIGHT GOODS VEHICLE ENTERING AND LEAVING THE LGV LOADING / UNLOADING BAY

Figure No.	Revision
SP/B1/109	R4A

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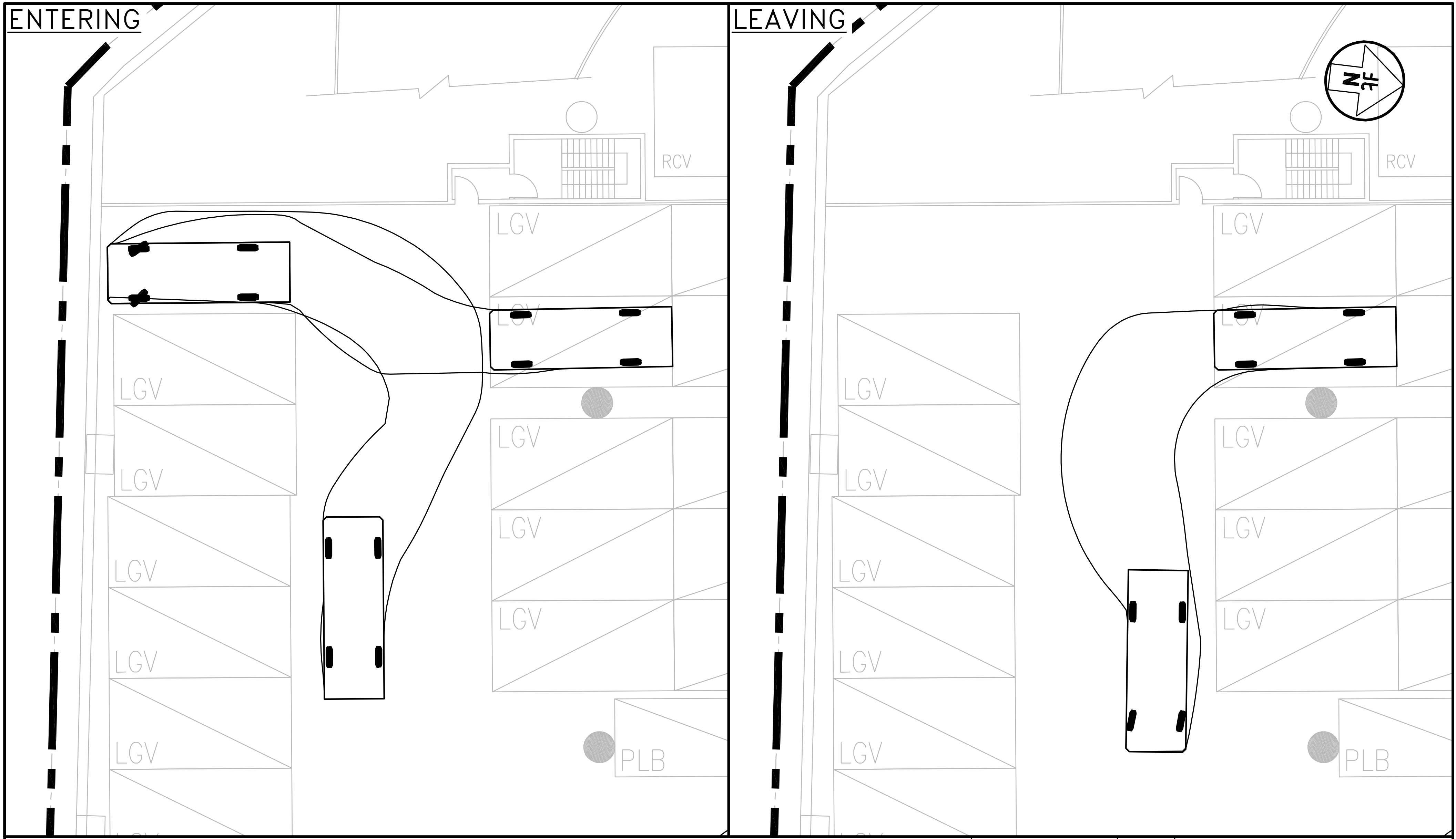

Project Title

PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7266

Figure Title

SWEPT PATH OF 7m LIGHT GOODS VEHICLE ENTERING AND LEAVING THE LGV LOADING / UNLOADING BAY

Figure No.			Revision
SP/B1/110			R4A
Designed by	Drawn by		Checked by
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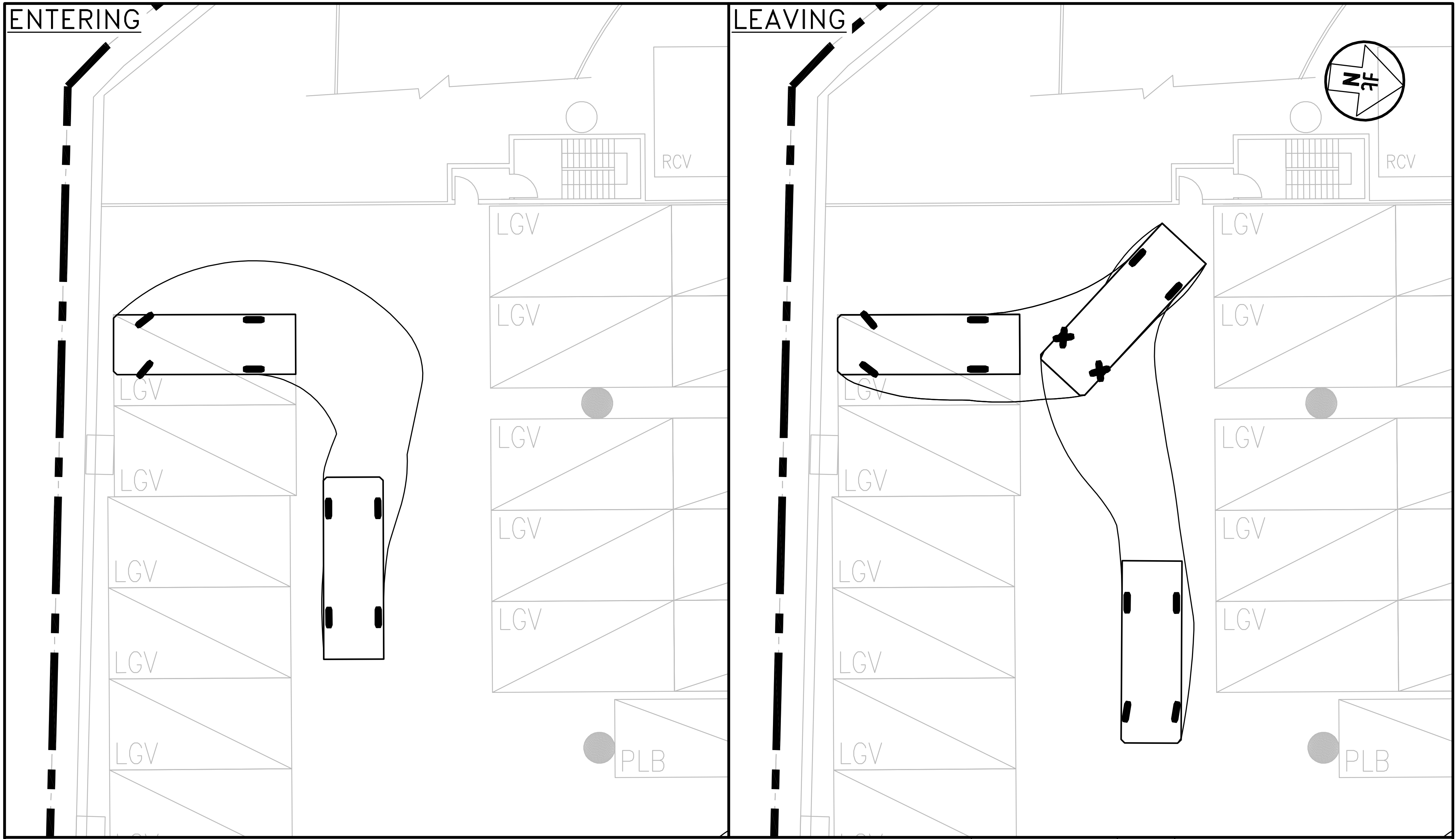

Project Title

PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7266

Figure Title

SWEPT PATH OF 7m LIGHT GOODS VEHICLE ENTERING AND LEAVING THE LGV LOADING / UNLOADING BAY

Figure No.	Revision
SP/B1/111	R4A

Designed by	Drawn by	Checked by
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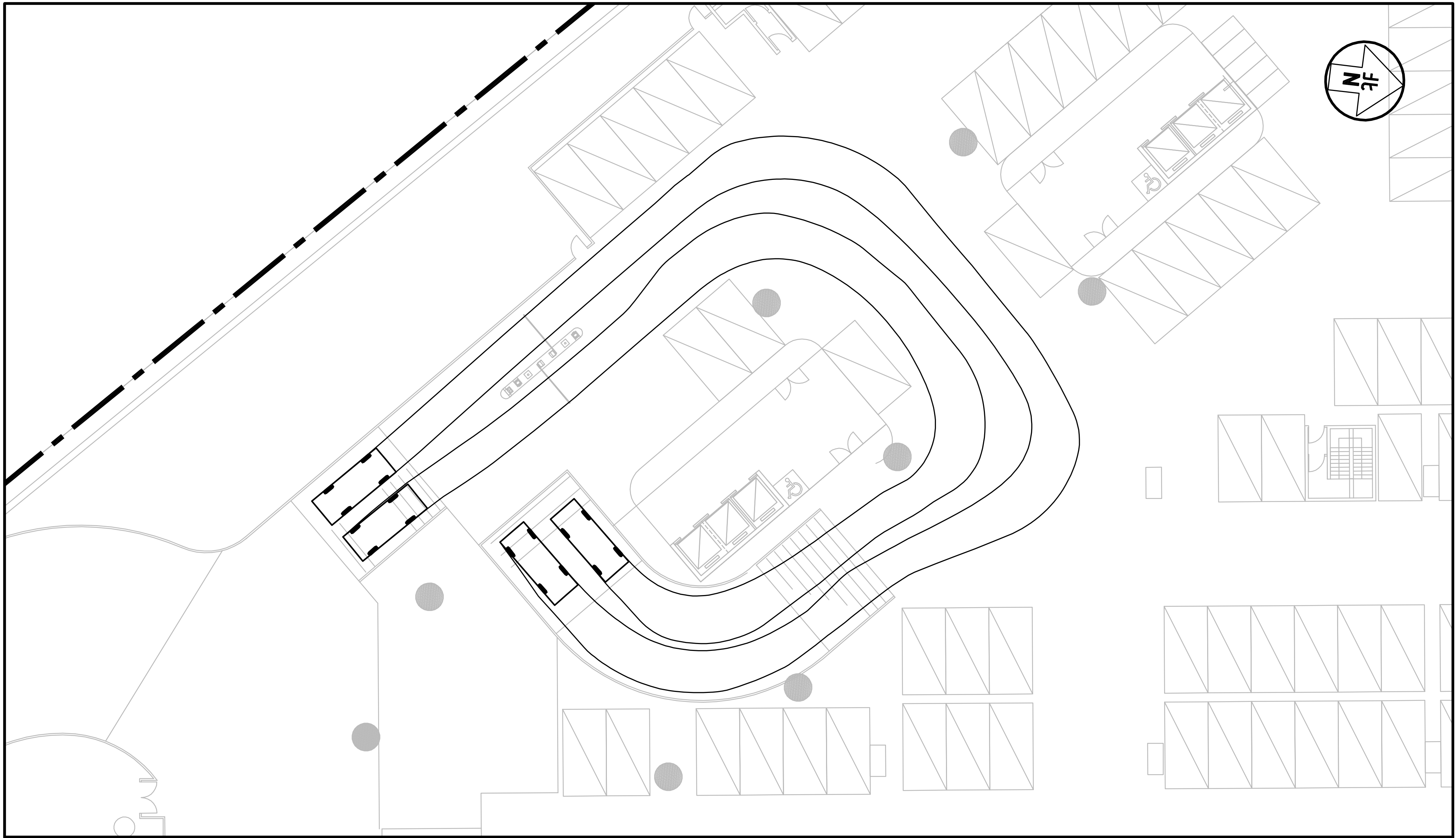

Project Title				
PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON	J7266	Figure No. SP/B1/112		Revision R4A
Figure Title		**Designed by**	**Drawn by**	**Checked by**
SWEPT PATH OF 5m PRIVATE CAR ENTERING AND LEAVING B1/F		T H C	C C L	K C
		Scale in A4	**Date**	
		1 : 300	21 JUN 2024	

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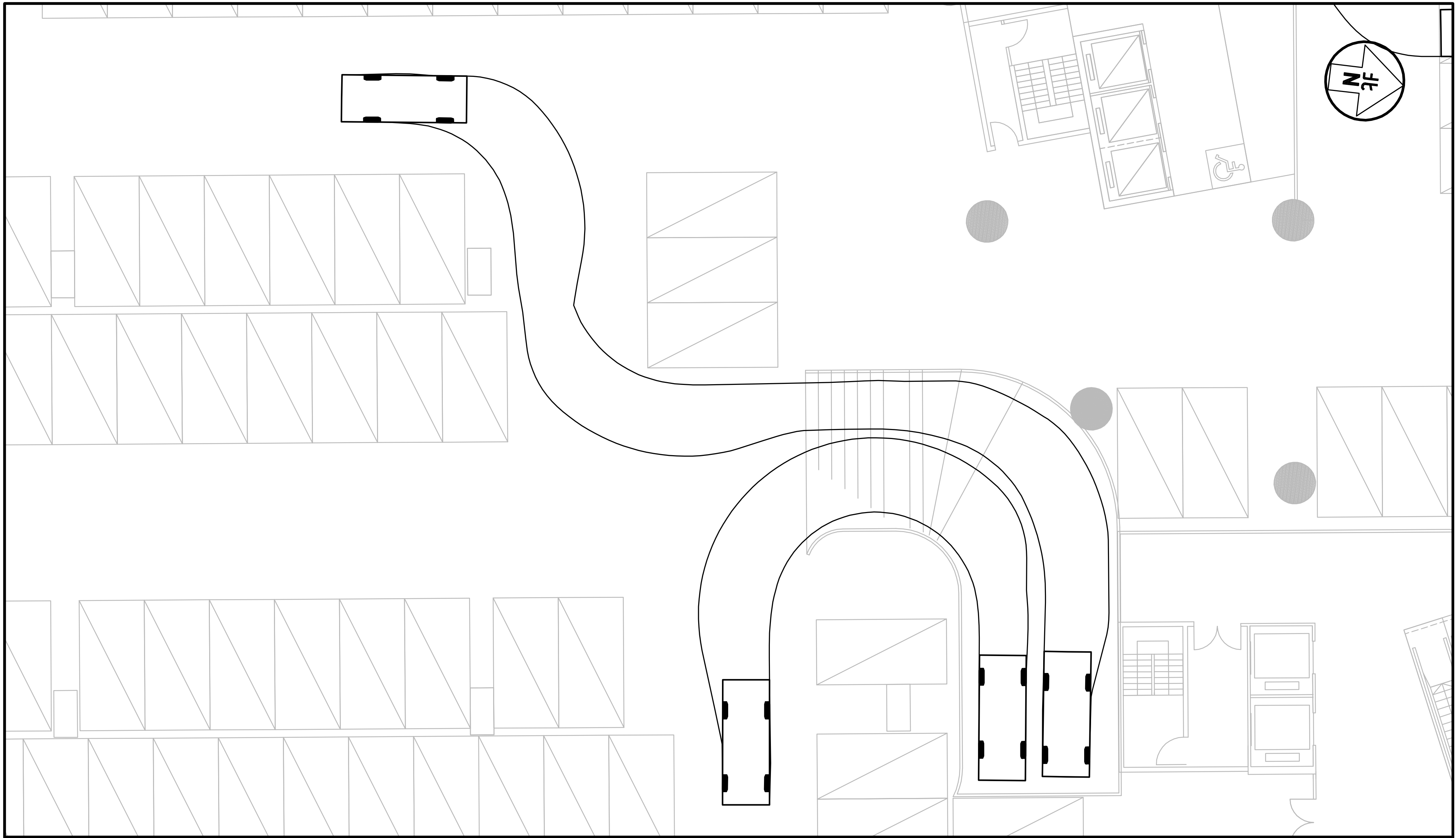

Project Title

PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7266

Figure Title

SWEPT PATH OF 5m PRIVATE CAR ENTERING AND LEAVING B1/F

Figure No.		Revision
SP/B1/113		R4A
Designed by	Drawn by	Checked by
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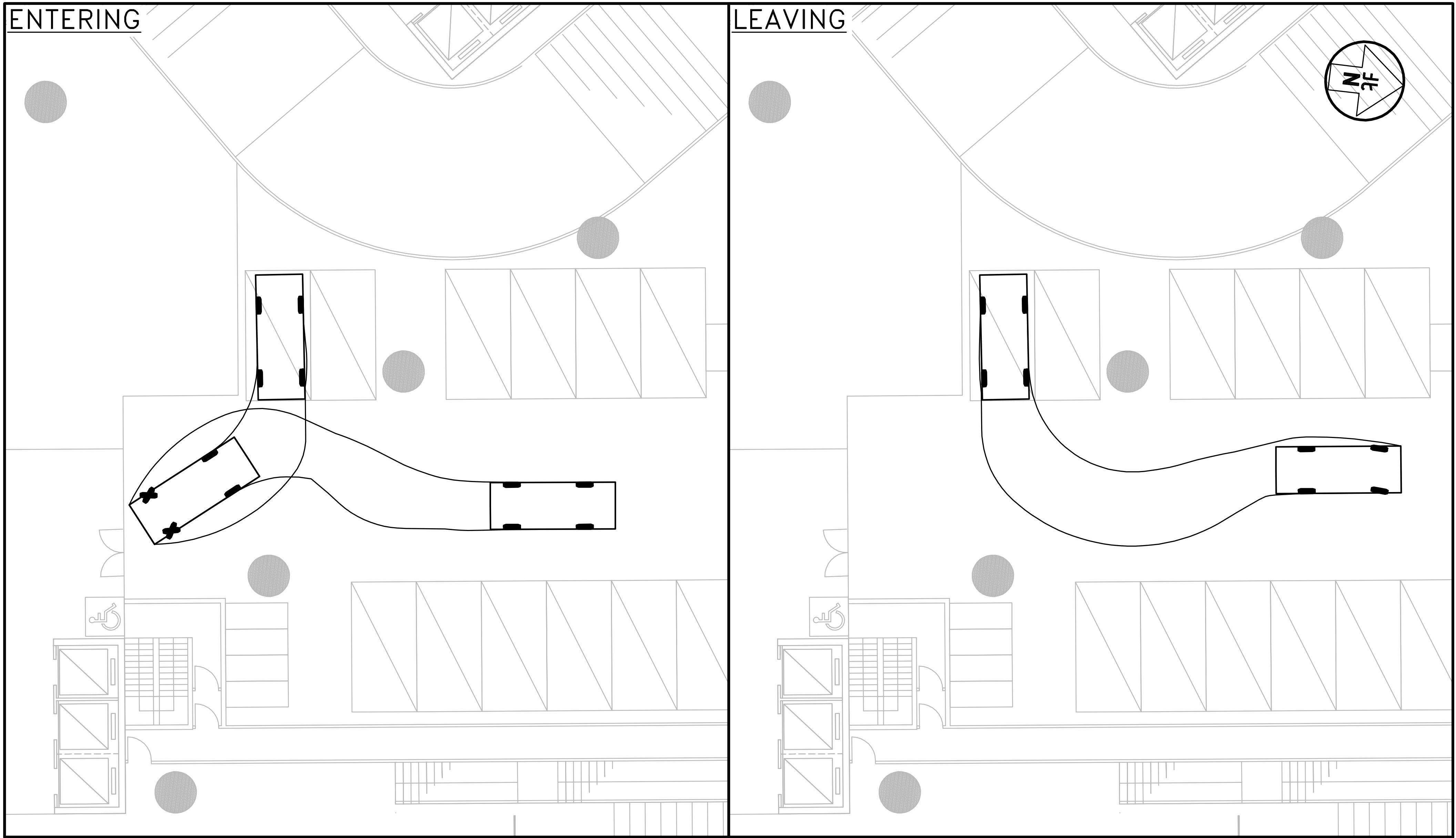

Project Title PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7266

Figure Title

SWEPT PATH OF 5m PRIVATE CAR ENTERING AND LEAVING THE CAR PARKING SPACE

Figure No.		Revision
SP/B1/114		R4A
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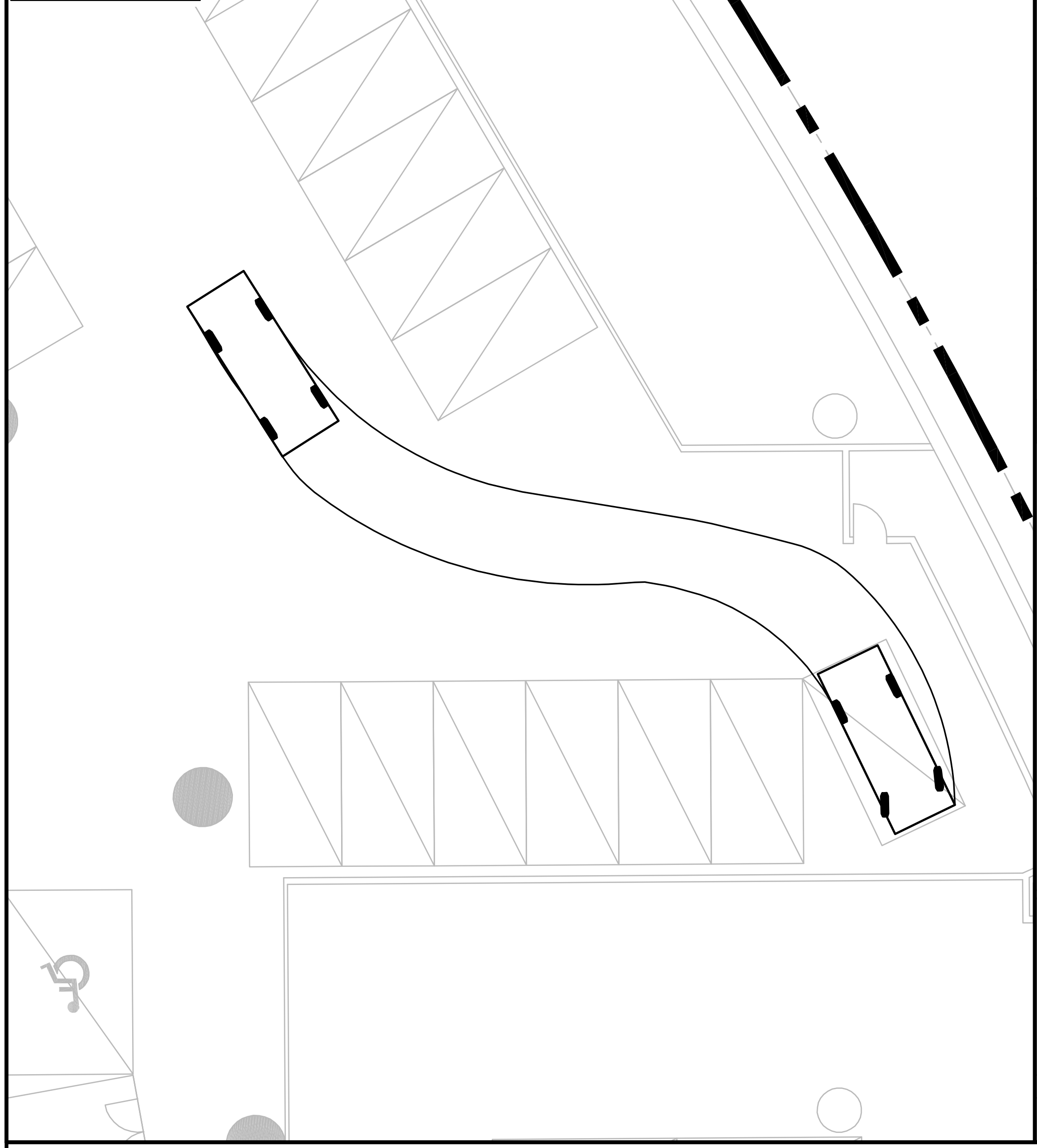

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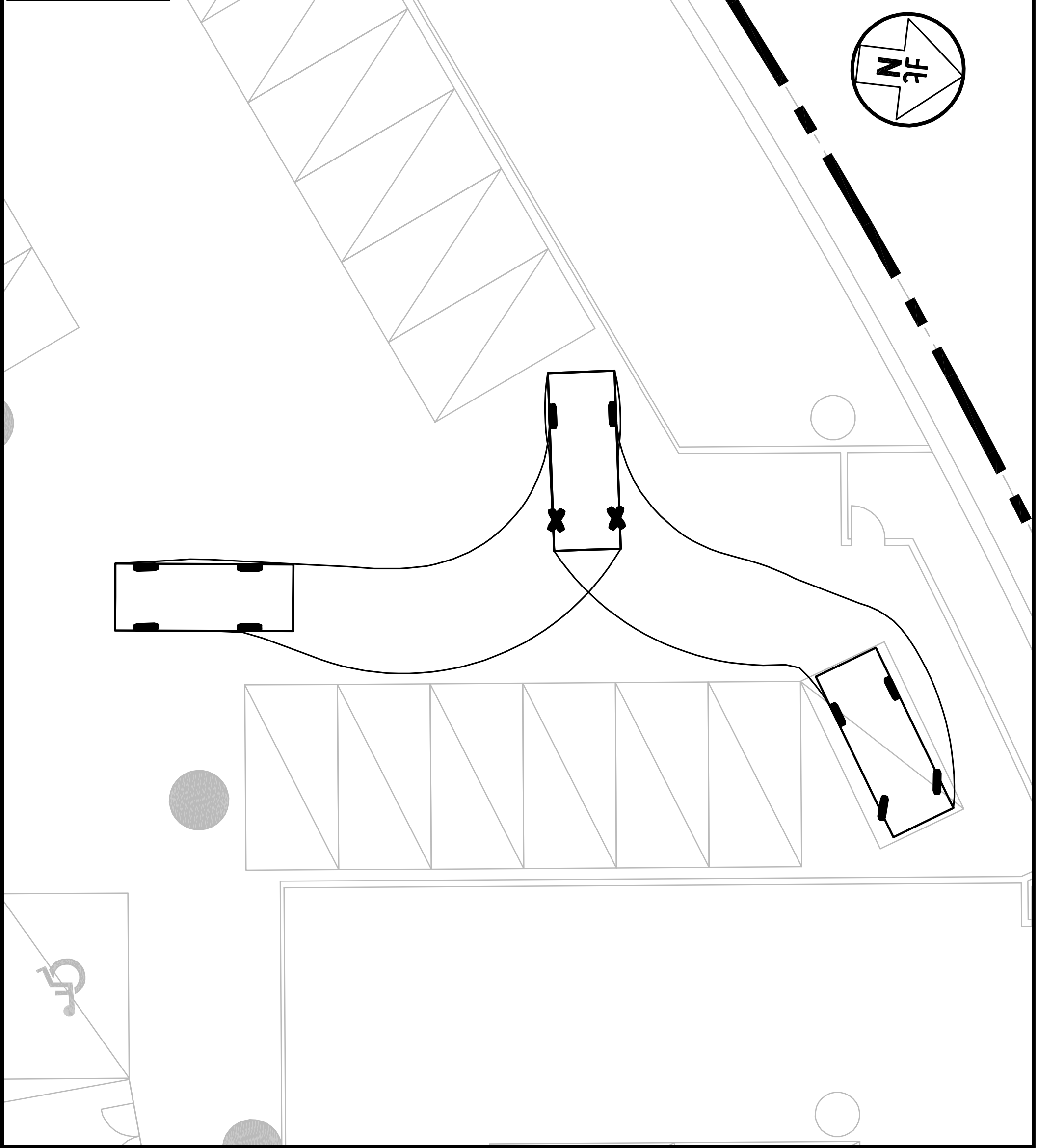

Project Title

PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7266

Figure Title

SWEPT PATH OF 5m PRIVATE CAR ENTERING AND LEAVING THE CAR PARKING SPACE

Figure No.	Revision
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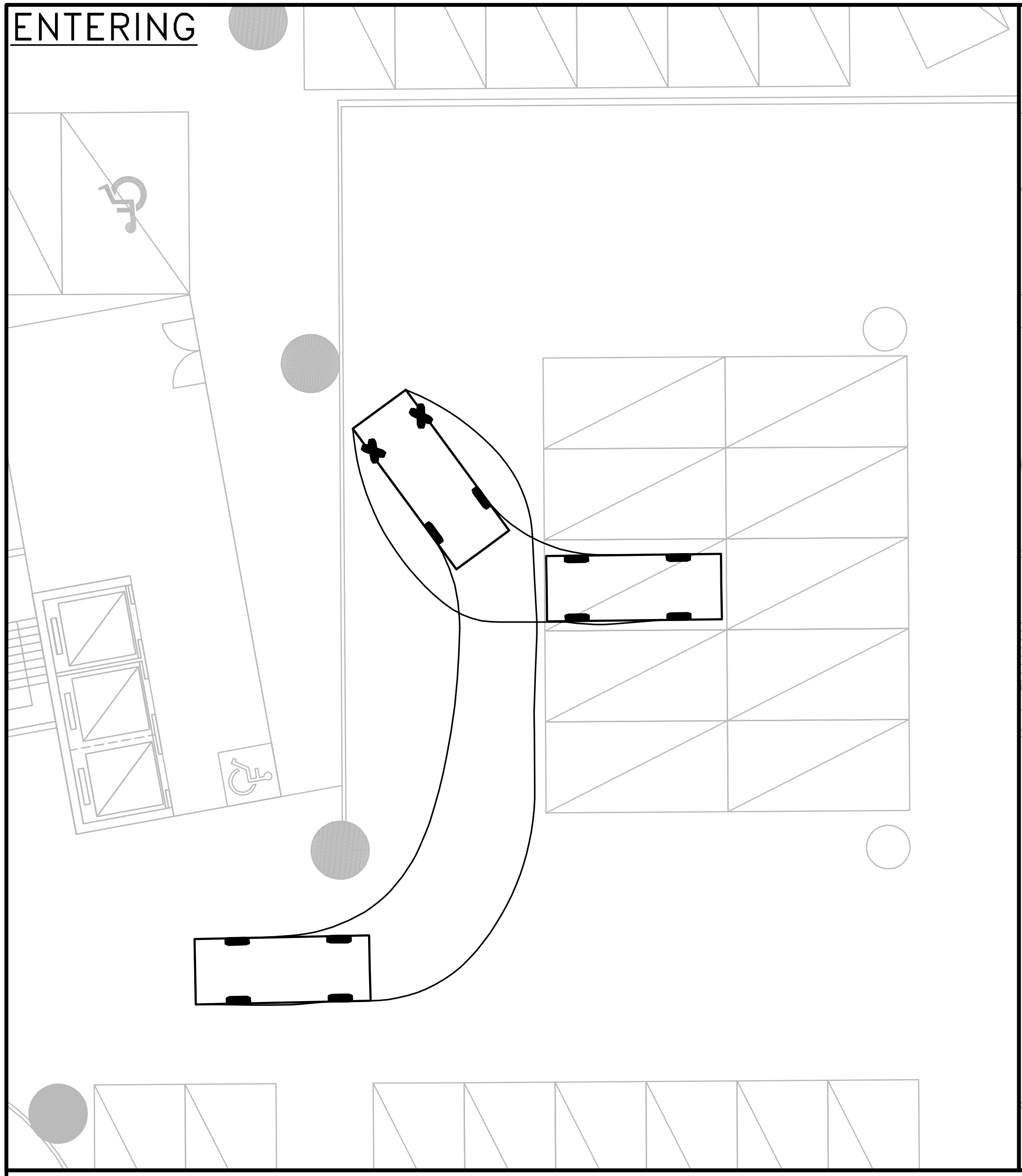

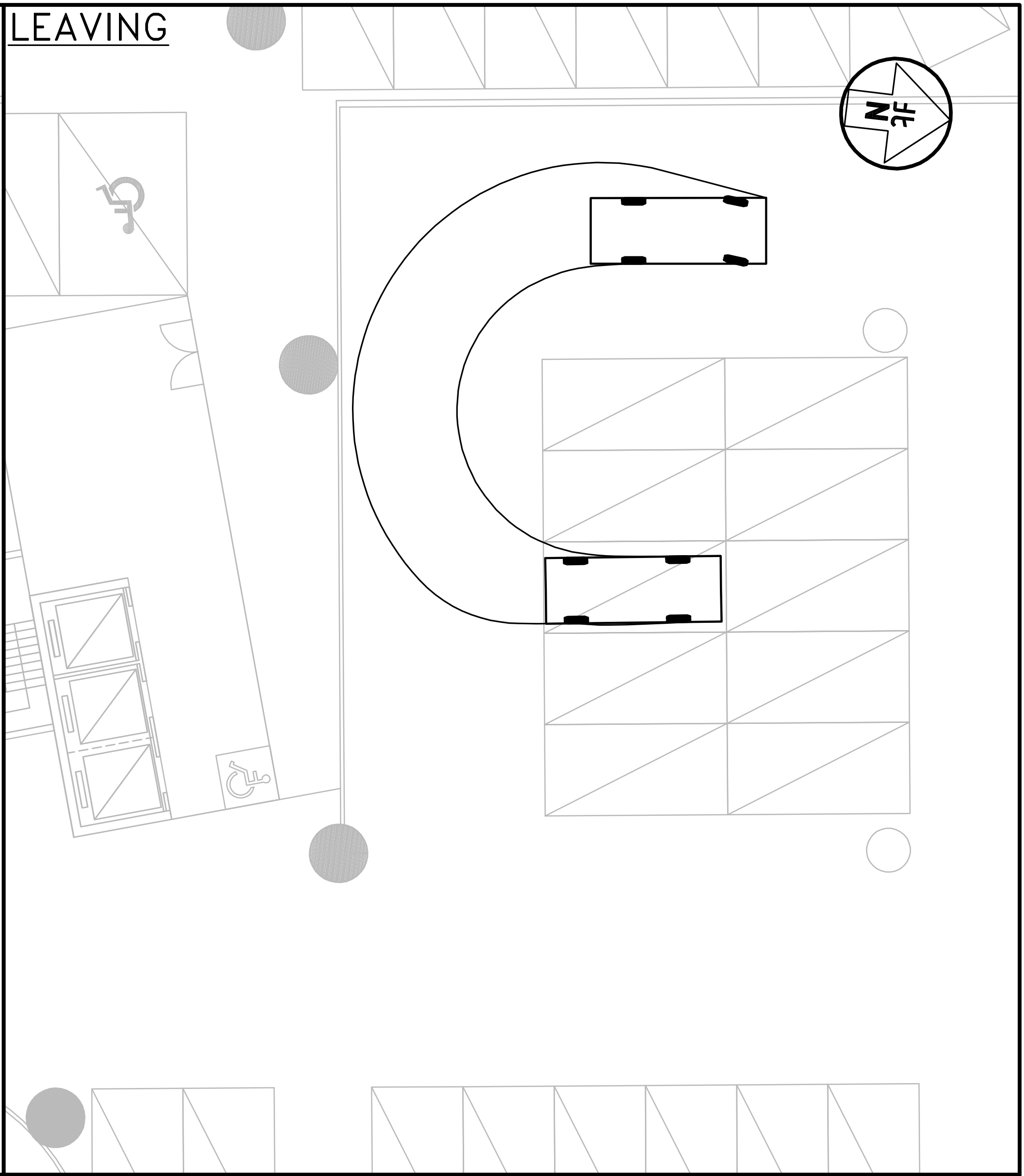

Project Title

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J7266

Figure Title

SWEPT PATH OF 5m PRIVATE CAR ENTERING AND LEAVING THE CAR PARKING SPACE

Figure No.	Revision
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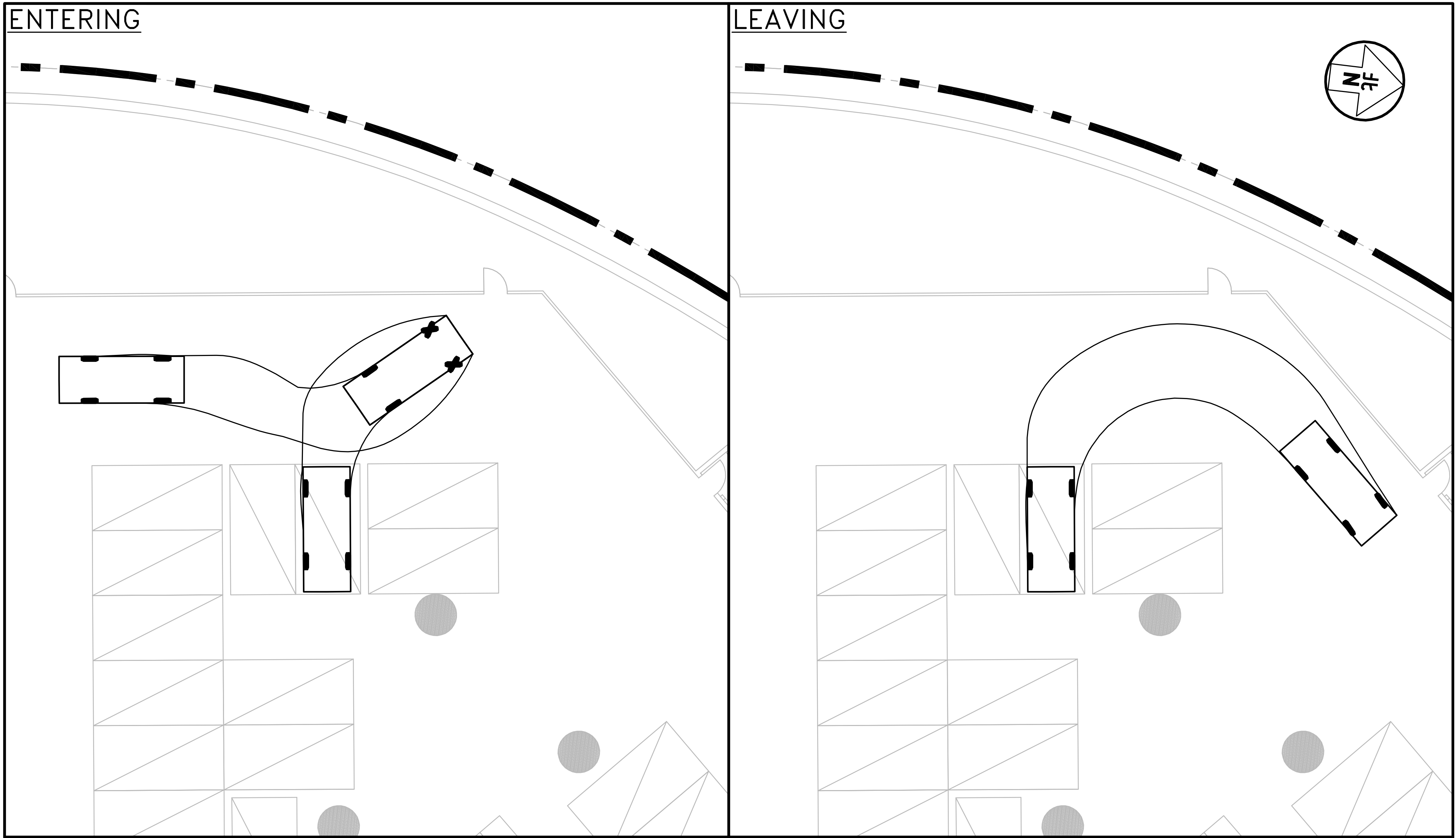

Project Title

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J7266

Figure Title

SWEPT PATH OF 5m PRIVATE CAR ENTERING AND LEAVING THE CAR PARKING SPACE

Figure No.			Revision
SP/B1/117			R4A
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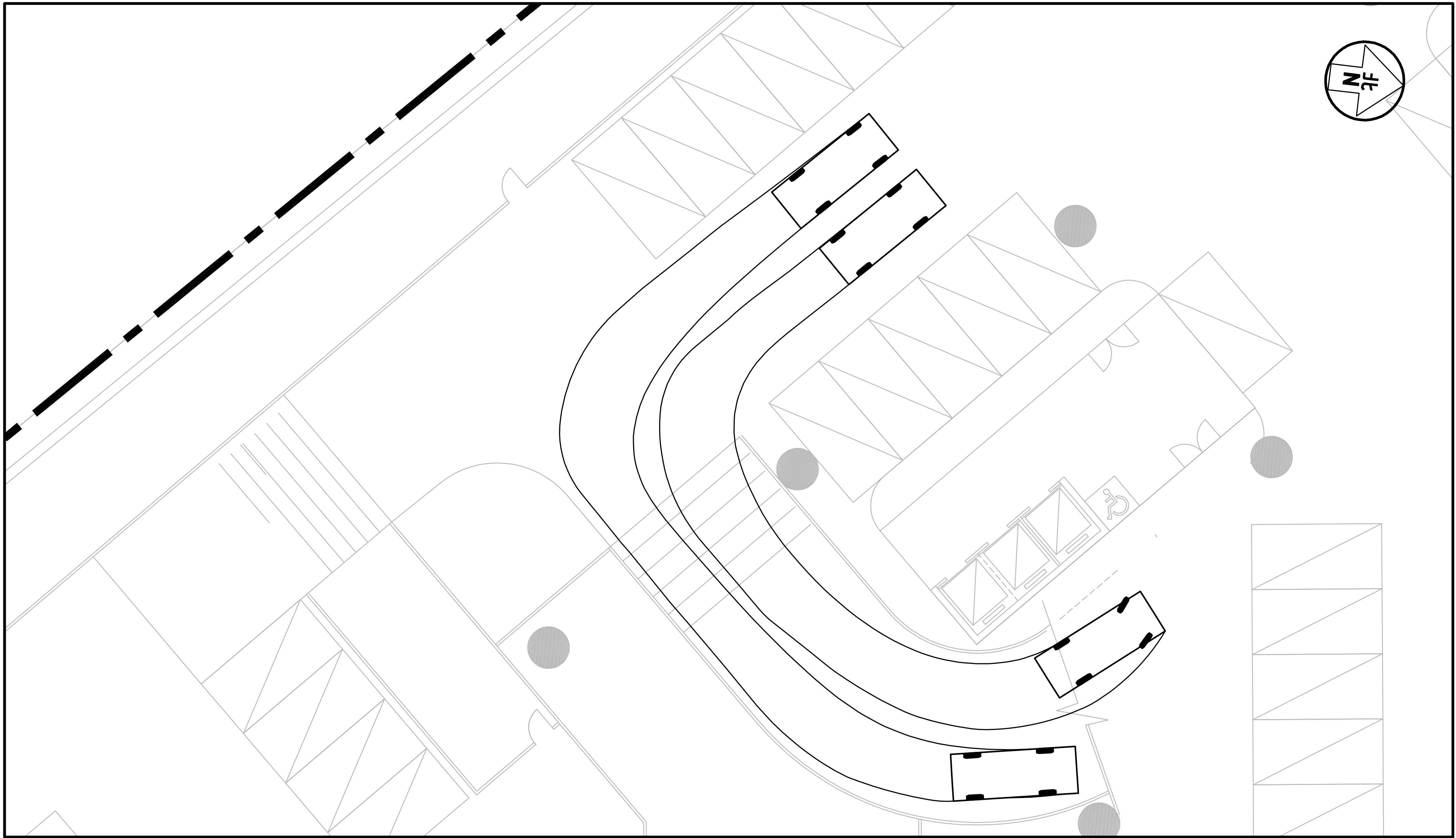

Project Title

PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7266

Figure Title

SWEPT PATHS OF 5m PRIVATE CAR ENTERING AND LEAVING B2/F

Figure No.	Revision
SP/B2/101	R4A

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Scale in A4	Date
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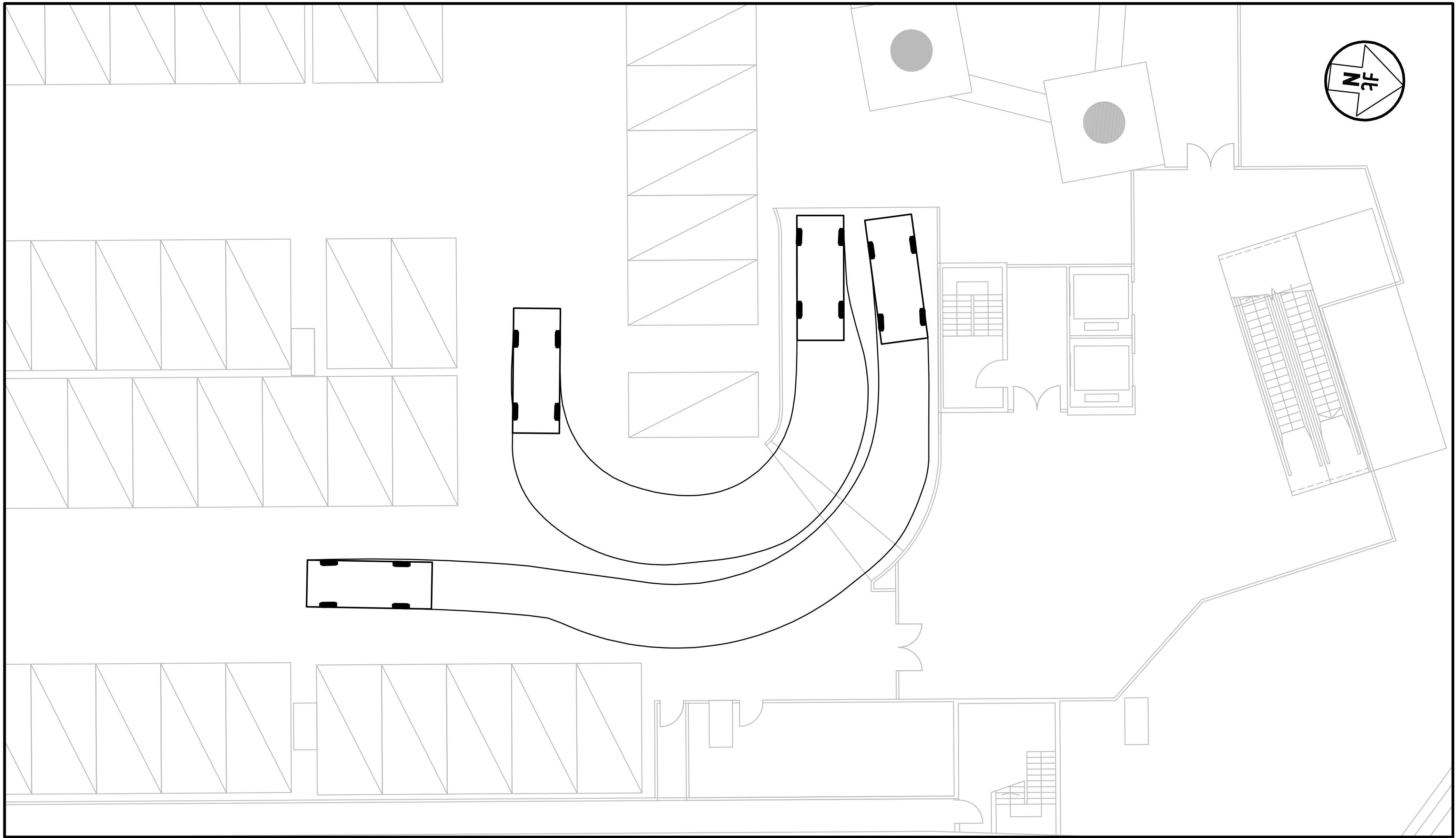

Project Title	PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON	J7266	Figure No. SP/B2/102	Revision R4A
Figure Title	SWEPT PATHS OF 5m PRIVATE CAR ENTERING AND LEAVING B2/F		Designed by T H C Drawn by C C L Checked by K C	Scale in A4 1 : 200 Date 21 JUN 2024

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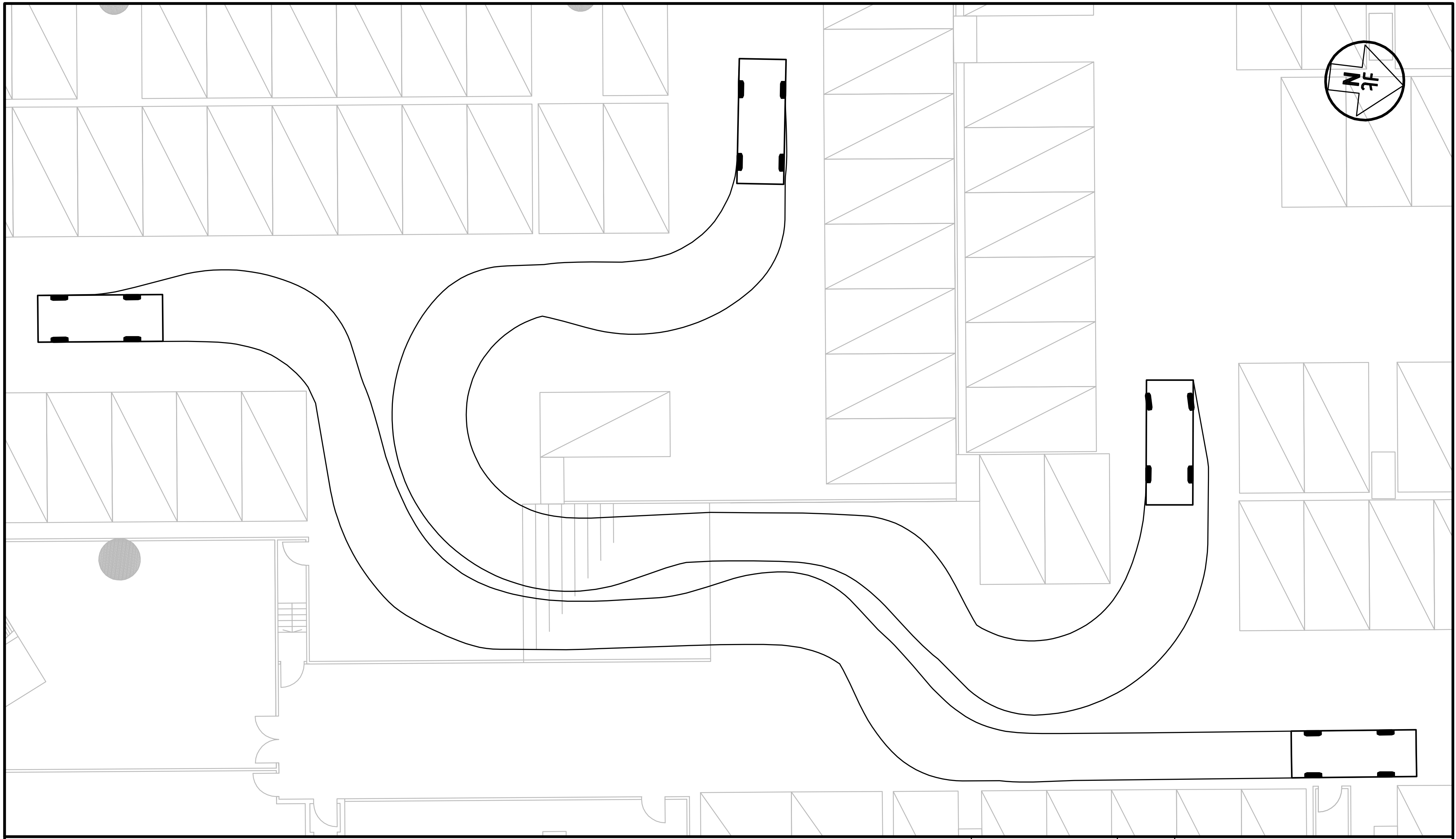

Project Title

PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7266

Figure Title

SWEPT PATHS OF 5m PRIVATE CAR TRAVELLING ON B2/F

Figure No.		Revision
SP/B2/103		R4A
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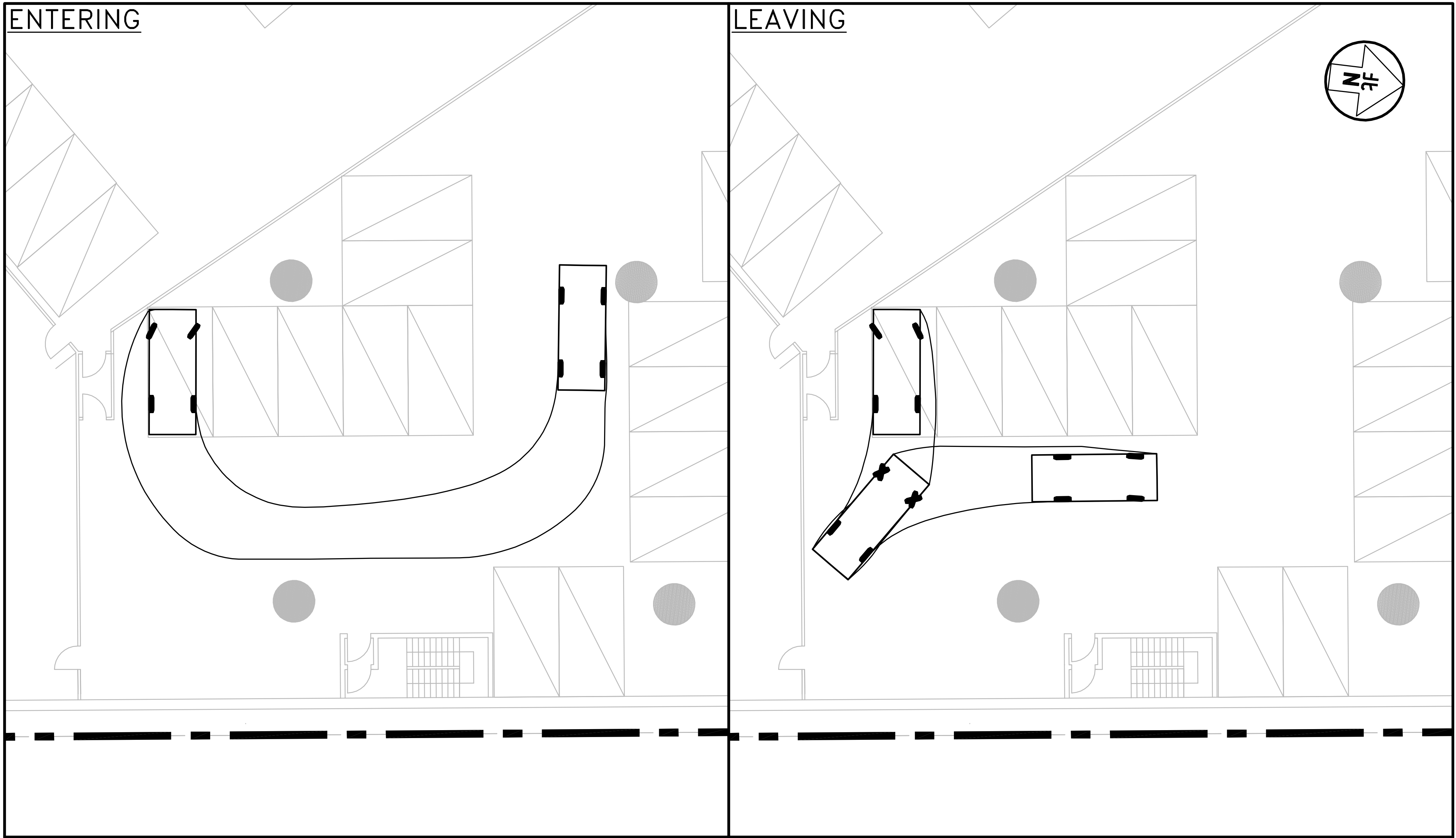

Project Title

PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7266

Figure Title

SWEPT PATH OF 5m PRIVATE CAR ENTERING AND LEAVING THE CAR PARKING SPACE

Figure No.	Revision
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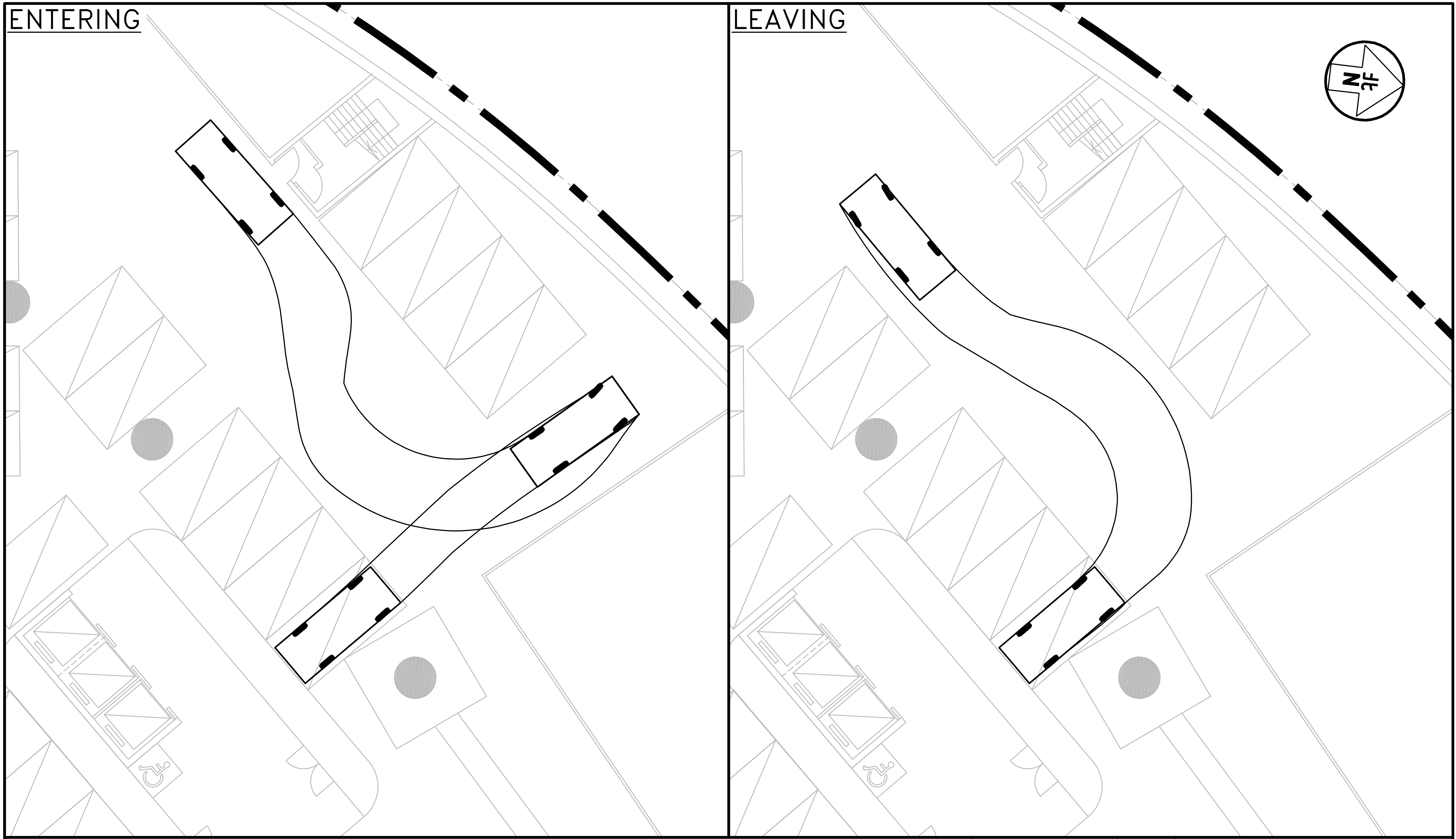

Project Title

PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION
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J7266

Figure Title

SWEPT PATH OF 5m PRIVATE CAR ENTERING
AND LEAVING THE CAR PARKING SPACE

Figure No.		Revision
SP/B2/105		R4A
Designed by	Drawn by	Checked by
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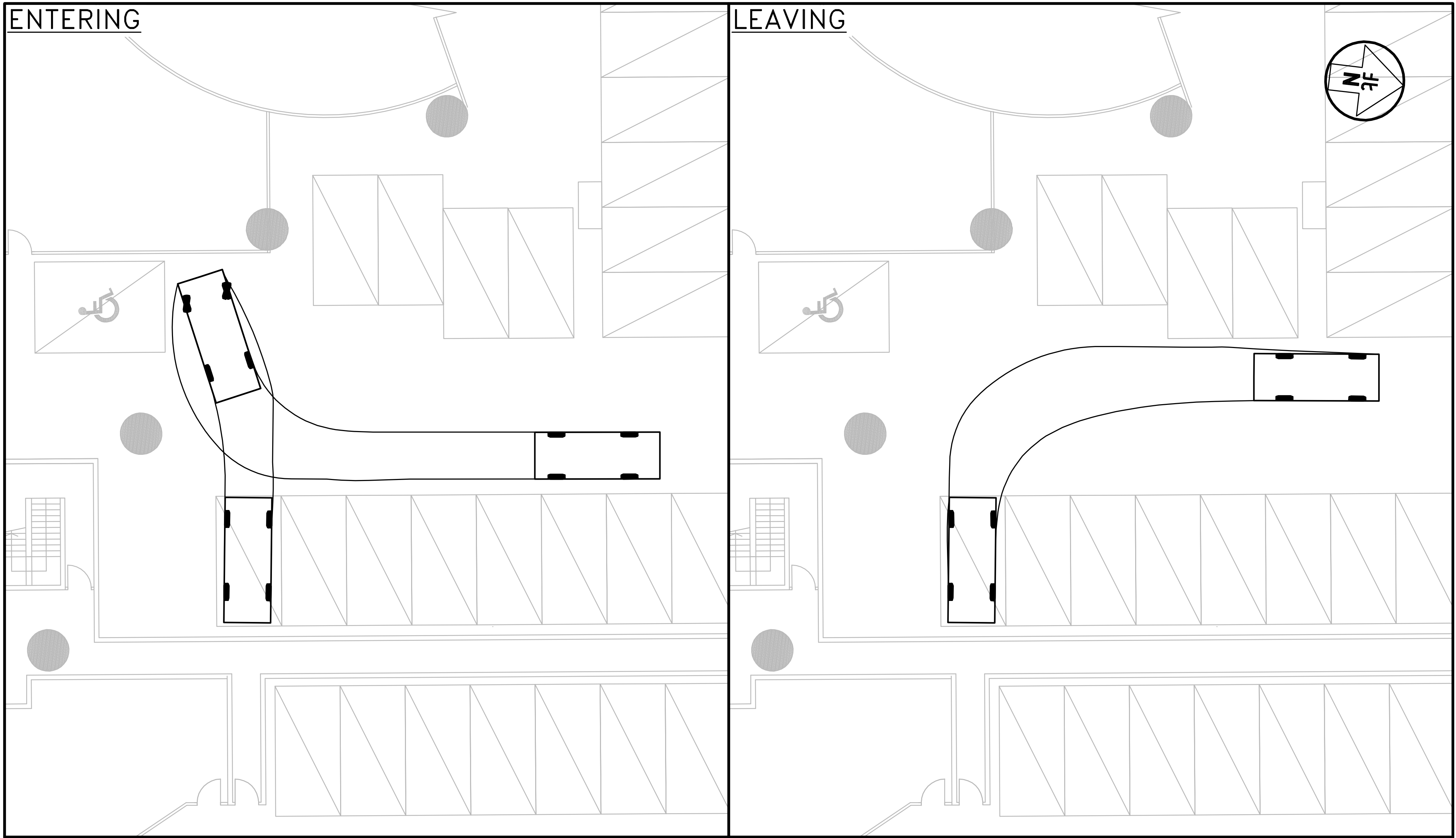

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PROPOSED RESIDENTIAL (FLAT) AND PERMITTED COMMERCIAL AND TRADE MART REDEVELOPMENT WITH MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION, NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY, KOWLOON

J7266

Figure Title

SWEPT PATH OF 5m PRIVATE CAR ENTERING AND LEAVING THE CAR PARKING SPACE

Figure No.	Revision
SP/B2/106	R4A

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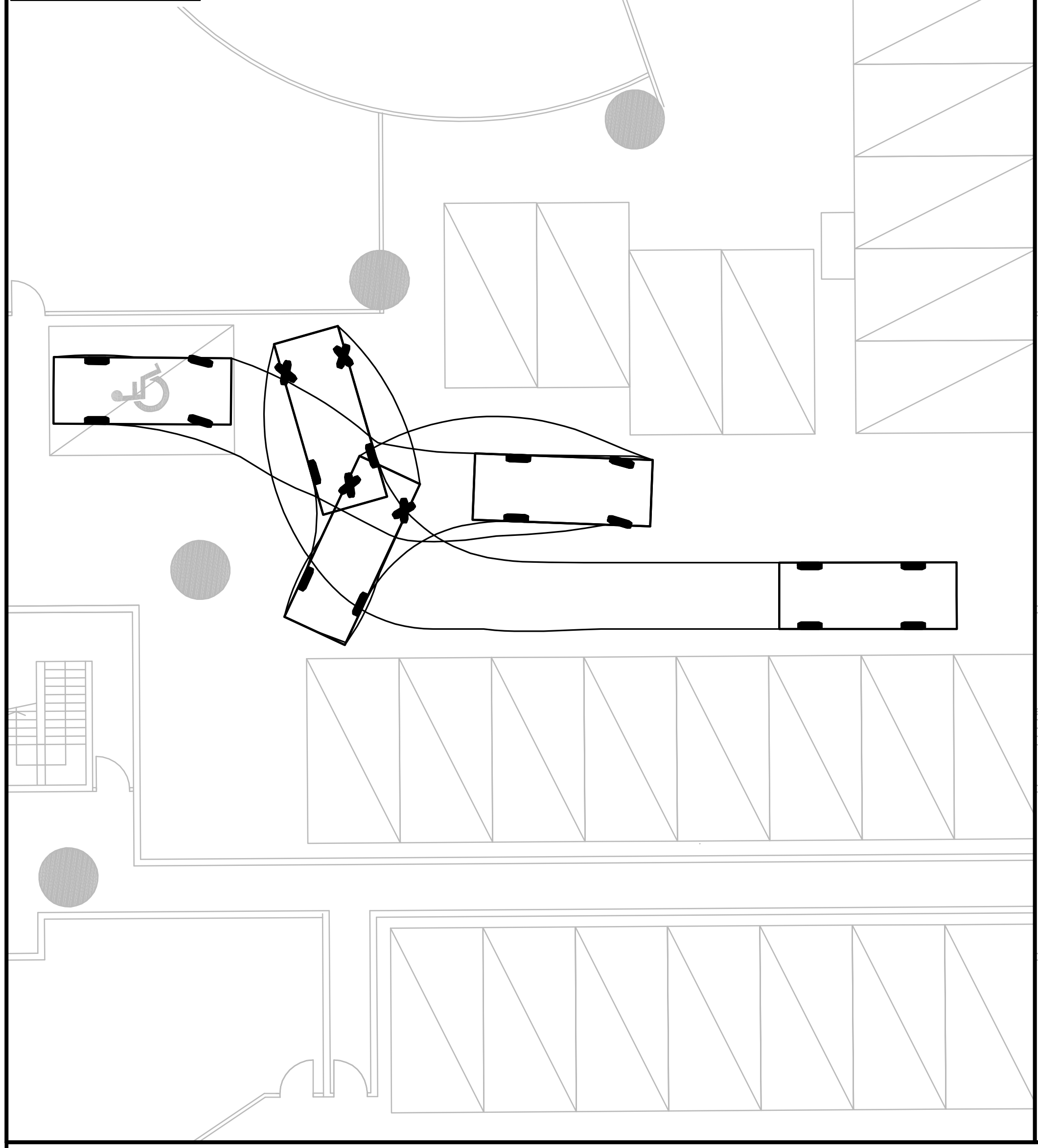

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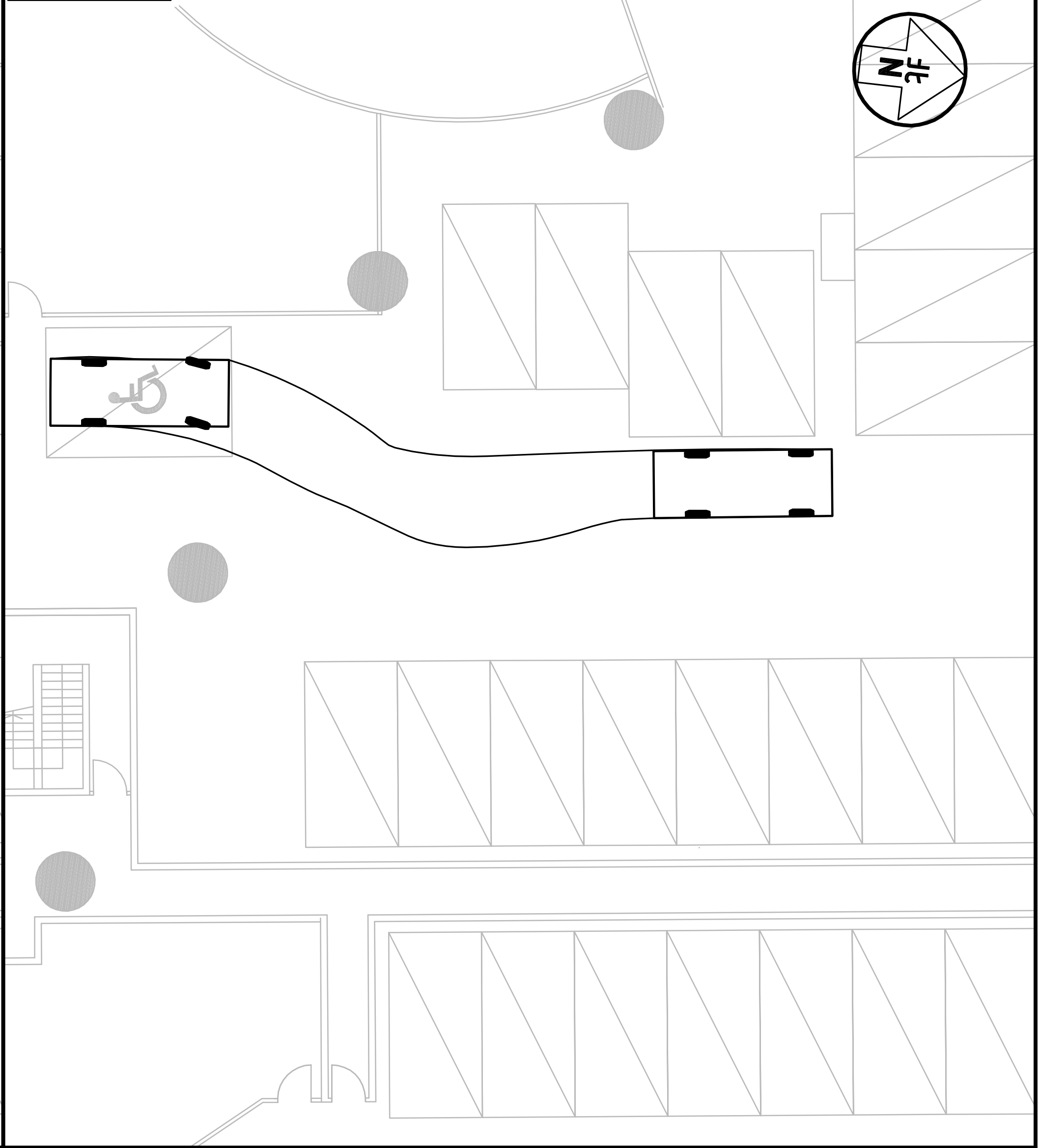

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J7266

Figure Title

SWEPT PATH OF 5m PRIVATE CAR ENTERING AND LEAVING THE CAR PARKING SPACE

Figure No.			Revision
SP/B2/107			R4A
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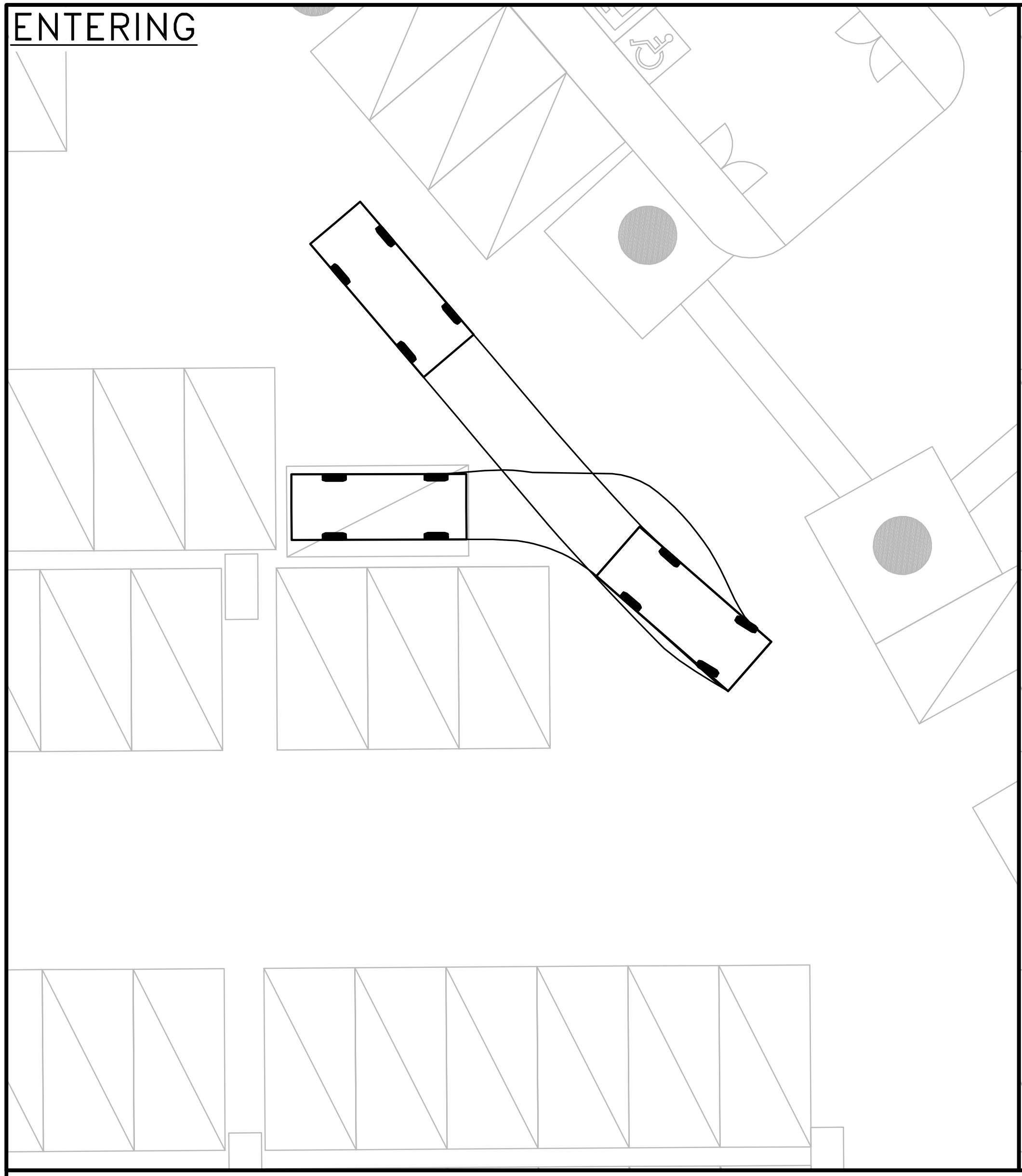

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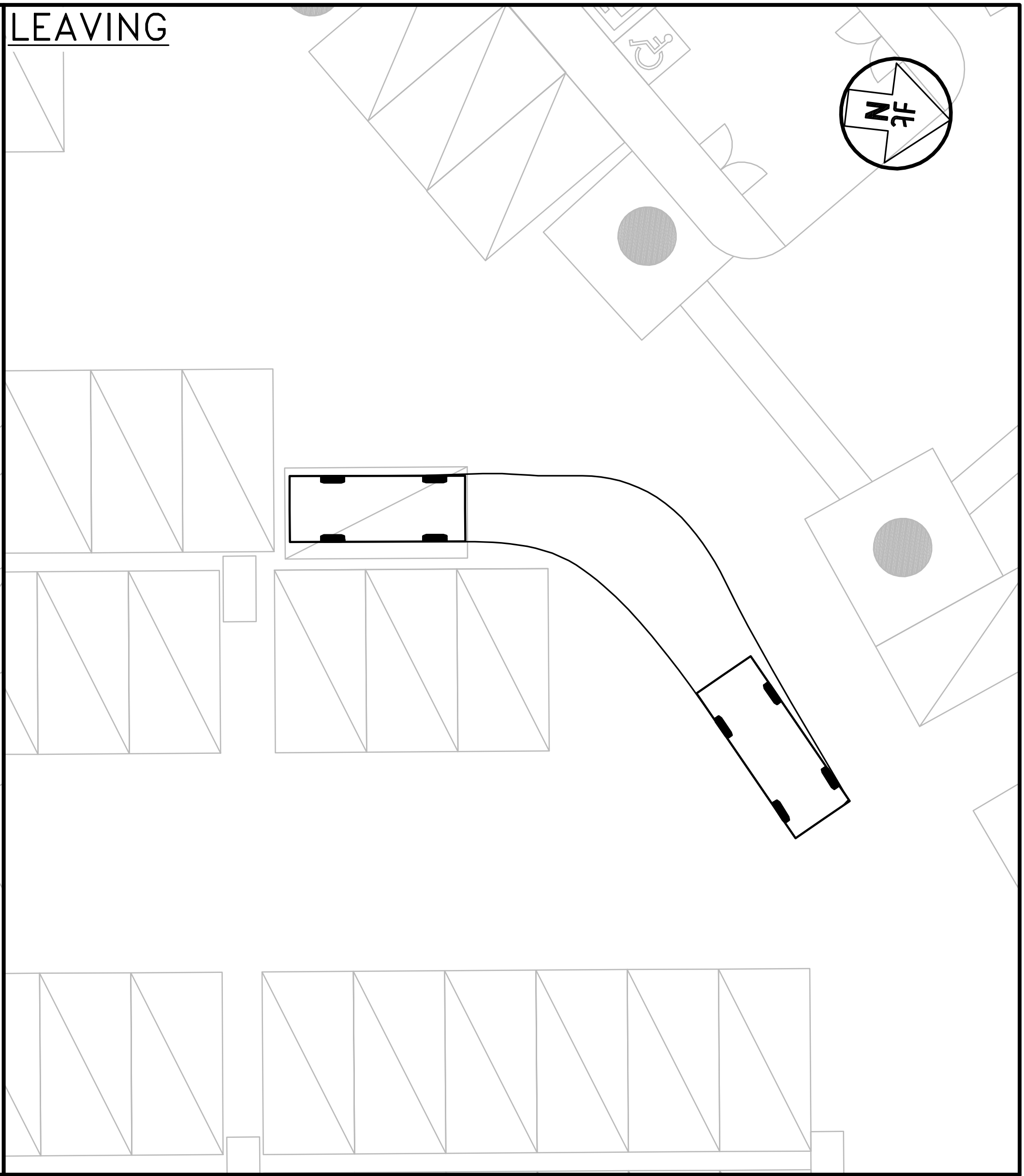

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Figure Title

SWEPT PATH OF 5m PRIVATE CAR ENTERING AND LEAVING THE CAR PARKING SPACE

Figure No.	Revision
SP/B2/108	R4A

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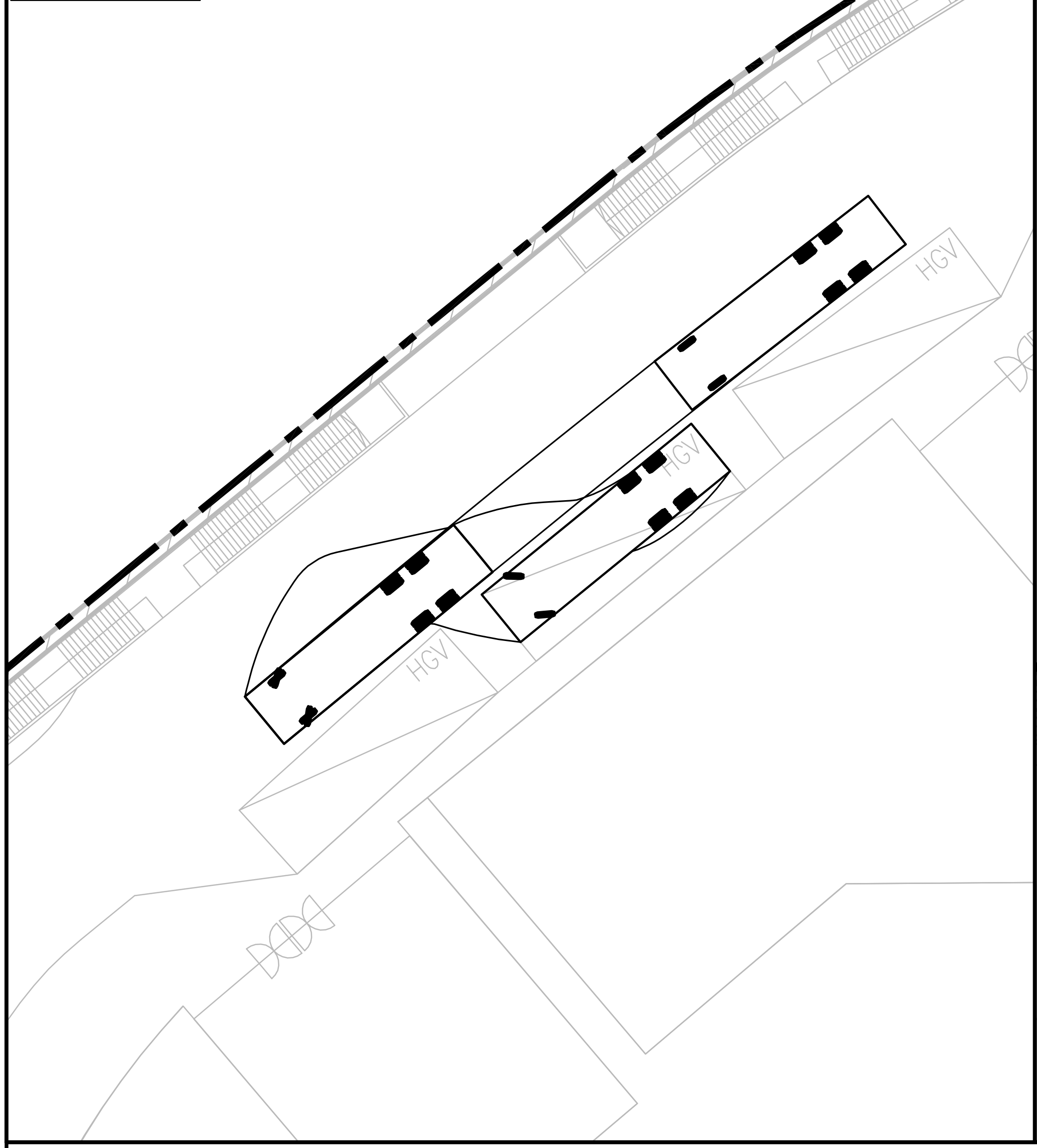

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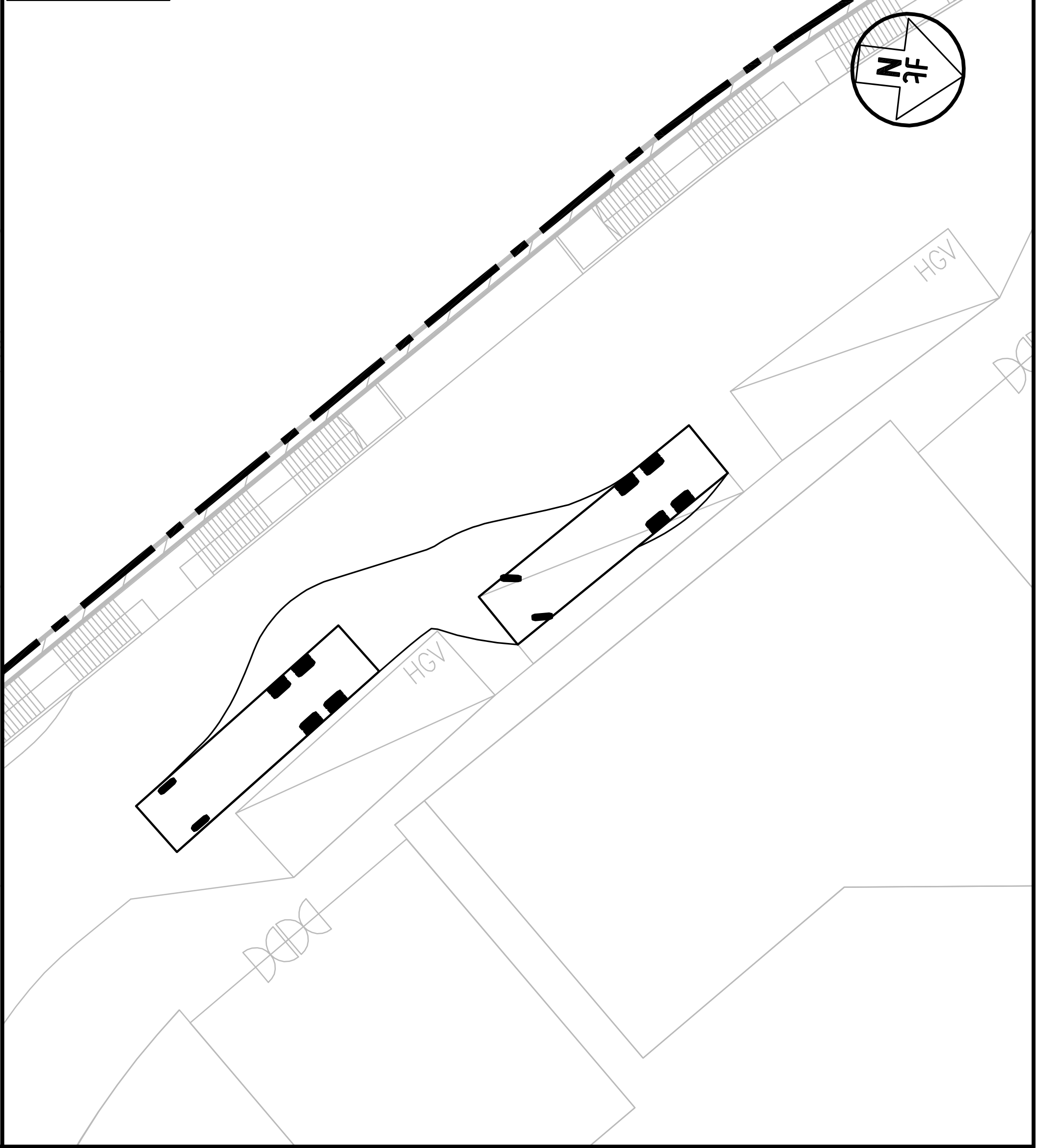

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J7266

Figure Title
SWEPT PATH OF 11m HEAVY GOODS VEHICLE ENTERING
AND LEAVING THE HGV LOADING / UNLOADING BAY

Figure No.		Revision
SP/1F/101		R4A
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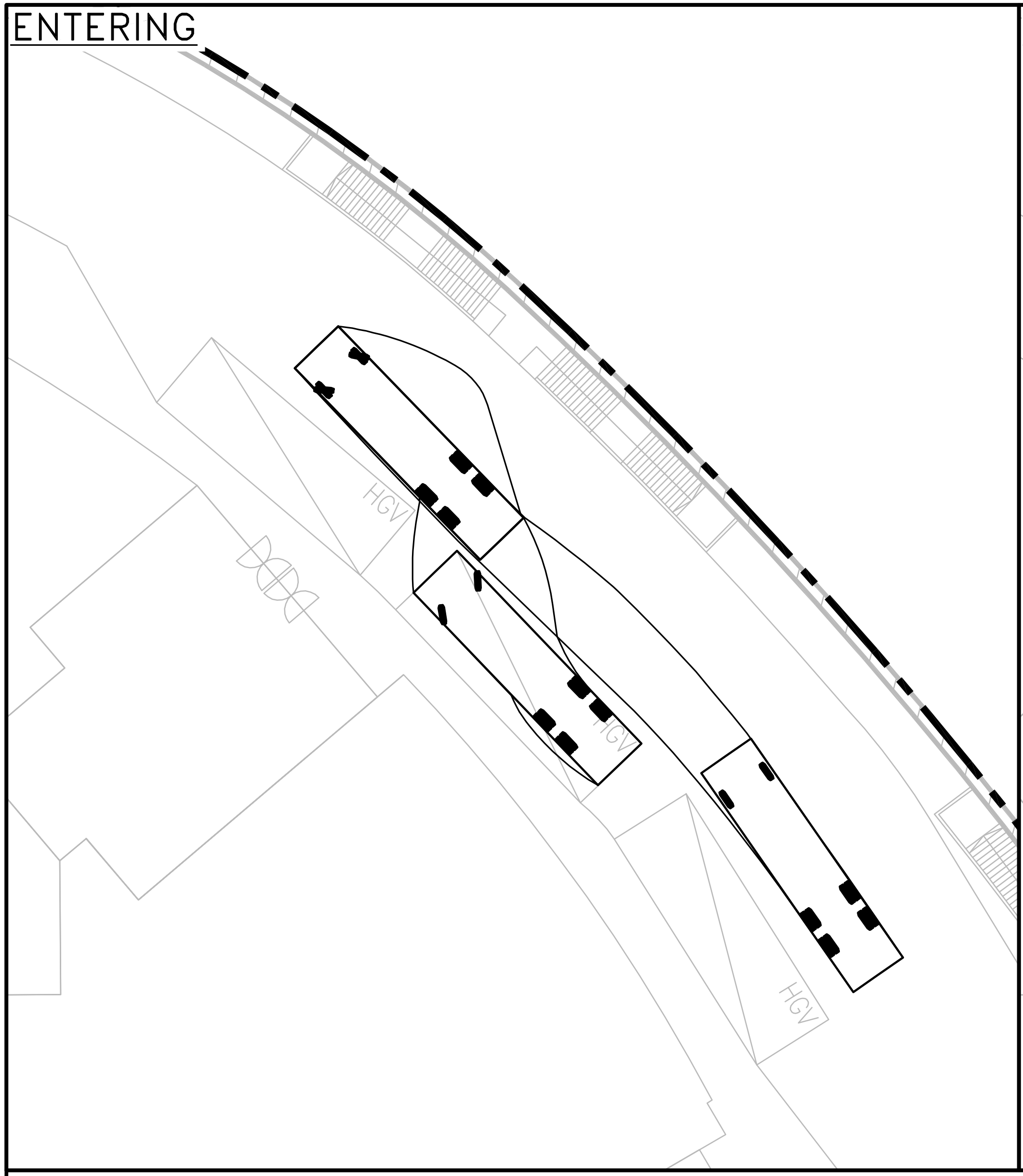
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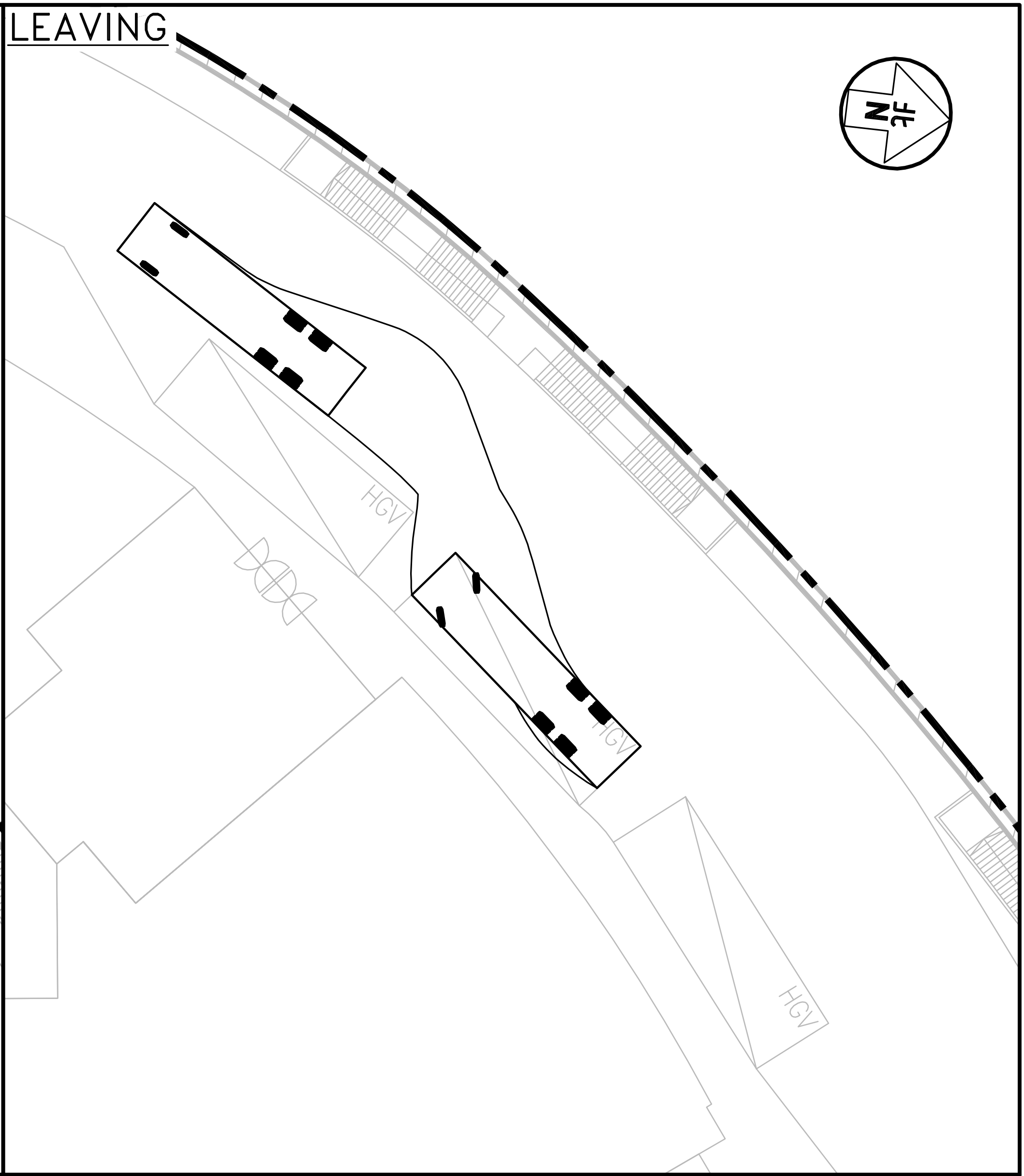
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Project Title
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J7266

Figure Title

SWEPT PATH OF 11m HEAVY GOODS VEHICLE ENTERING AND LEAVING THE HGV LOADING / UNLOADING BAY

Figure No.			Revision
SP/1F/102			R4A
Designed by	Drawn by	Checked by	
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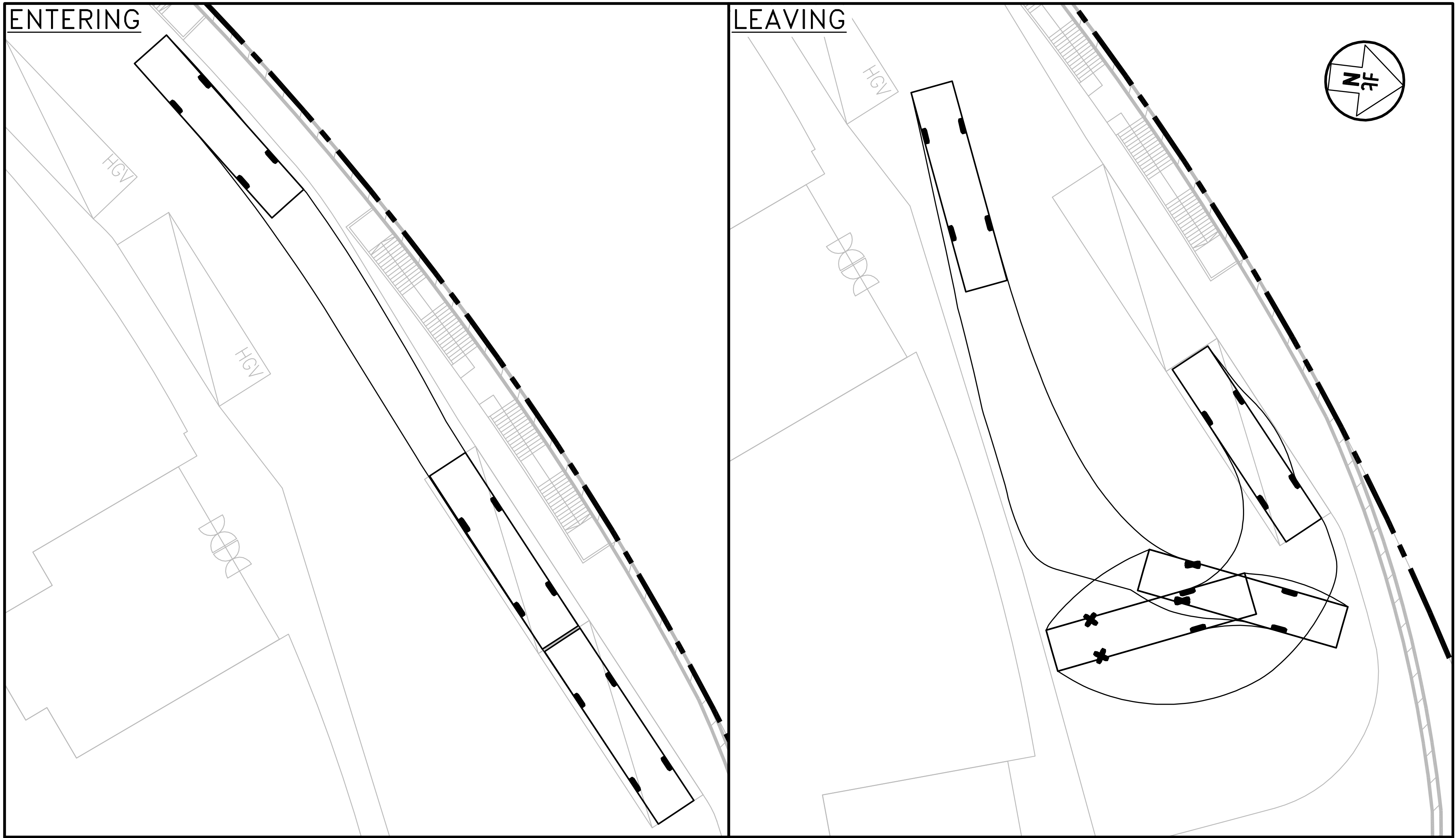

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J7266

Figure Title

SWEPT PATHS OF 12m COACH ENTERING AND LEAVING THE SCHOOL BUS LAY-BY

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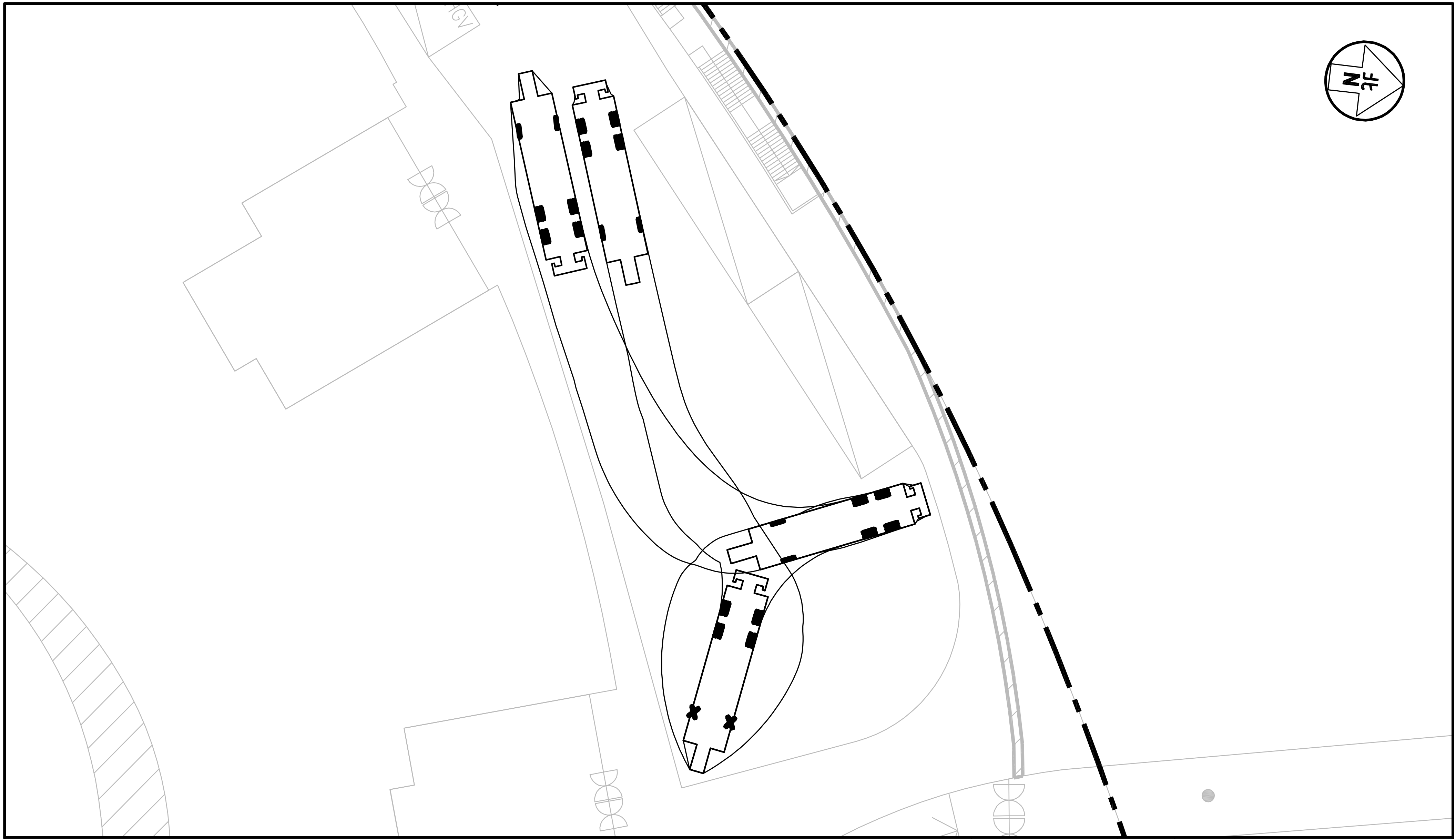

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J7266

Figure Title

SWEPT PATH OF 12m FIRE APPLIANCE TURNING AROUND AT THE EVA

Figure No.	Revision
SP/1F/104	R4A

Designed by	Drawn by	Checked by
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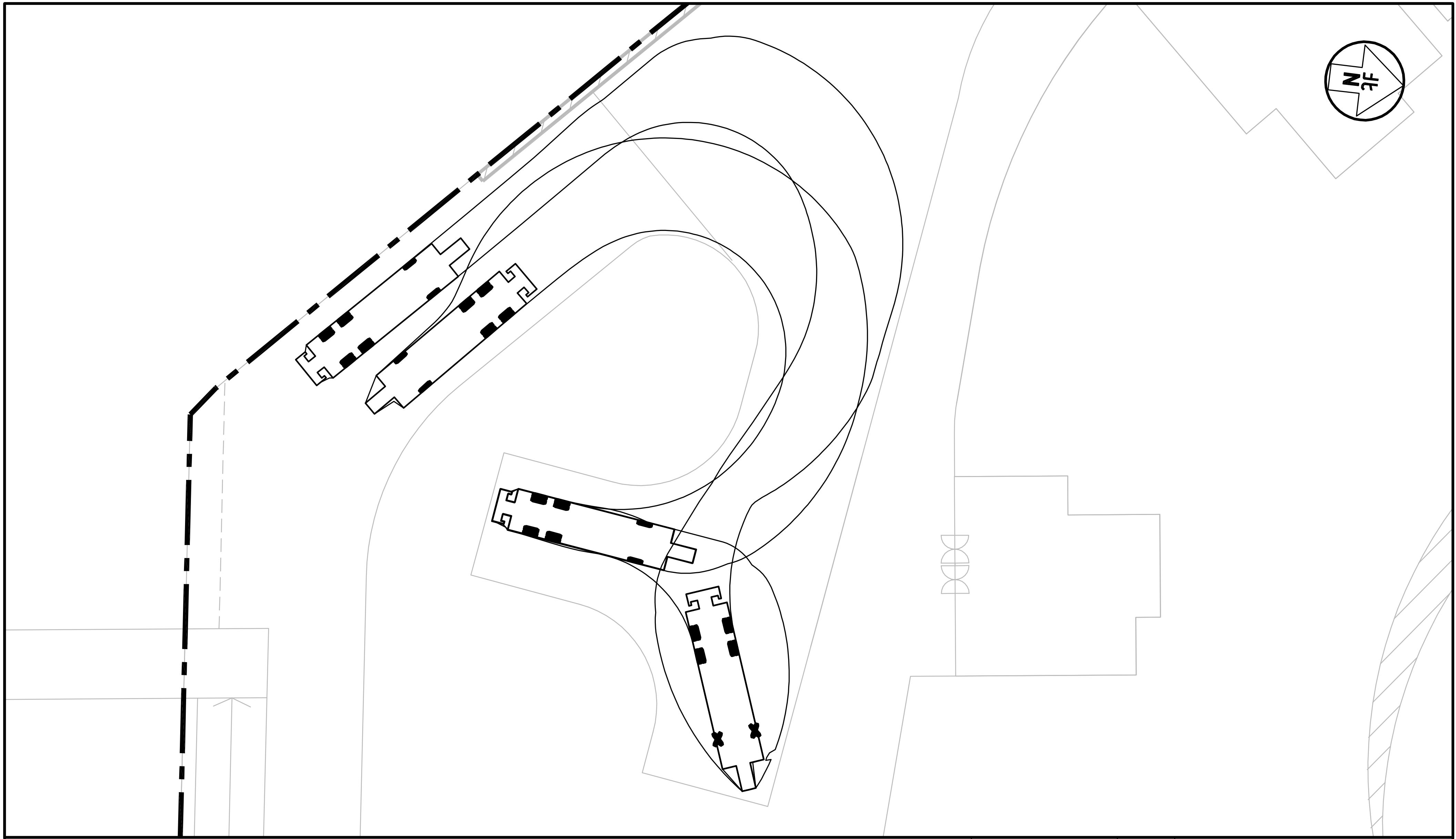

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Figure Title

SWEPT PATH OF 12m FIRE APPLIANCE TURNING AROUND AT THE EVA

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Appendix E –
Extracts of DR 439 and BDTM Study Final Report

Table 1 Summary of Trip Rates used by Government/Consultants in studies between 1990 and 1995
(continued)

Serviced Apartment (pcu/hr/unit)	0.2000	0.2200	0.2200	0.2300	WKR	95
Education Primary Sch (pcu/30 class room sch)	7	30	1	1	MOS	95
Education Secondary Sch (pcu/30 class room sch)	7	24	1	1	MOS	95
Community Facilities (pcu/hr/100sq.mGFA)	0.2350 0.0300	0.2350 0.0070	0.1150 0.0410	0.1150 0.0510	QRC MOS	95 95

APPENDIX A CR - Central Reclamtion Phase III - LTIA (1995 by AH)
B CSW - Cheung Sha Wan Shipyard Redevelopment (1994 by DEL)
C CWE - Choi Wan Estate TINAS (1994 by MVA)
D FT - Residential Development at Fu Tei, Tuen Mun (1994 by WSA)
E HMT - Homantin Comprehensive Development TI & EAS (1994 by MVA)
F HWE - Hing Wah Estate Redevelopment (1993 by WSA)
G KTS - King Tung Street Task Force Site TIA (1995 by OVA)
H LTE - Lam Tin Estate Development (1992 by WSA)
I MOS - Ma On Shan Potential Development TIA (1995 by MVA)
J MS - Study of Military Sites in the NT for RD (1995 by Urbis)
K PS - Ping Shan Development - Stage II TIS (1994 by MVA)
L QRC - Queen's Road Central/Garden Road Redevelopment (1995 by MVA)
M SLD - Siu Lam Development TIS (1993 by MVA)
N SYE - Shek Yam Estate Redevelopment TI & EAS (1994 by WSA)
P UCS - Un Chau Street Redevelopment TEIS (1994 by MVA)
Q WKR - West Kowloon Reclamation CTAR & EIA (1995 by Acer)
R WTS - Upper Wong Tai Sin Estate Redevelopment (1994 by WSA)

Extract of BDTM Study Final Report

Appendix Q Proposed Trip Rates

Use	Unit	Average Flat Size	AM Peak		PM Peak		
			Generation	Attraction	Generation	Attraction	Source
Residential Development							
Public Rental Housing	pcu/hr/flat	30	0.0242	0.0226	0.0177	0.0201	TPDM
		40	0.0432	0.0326	0.0237	0.0301	
HOS/PSPS		50	0.0622	0.0426	0.0297	0.0401	
High-Density / R(A)		60	0.0718	0.0425	0.0286	0.0370	
		70	0.0888	0.0515	0.0356	0.0480	
		80	0.1058	0.0605	0.0426	0.0590	
Medium-Density / R(B)		100	0.1887	0.0942	0.0862	0.1214	
		120	0.2246	0.1157	0.1068	0.1468	
		140	0.2604	0.1372	0.1275	0.1722	
Medium-Density / R(B)		100	0.1961	0.1116	0.0955	0.1321	
		120	0.2325	0.1461	0.1340	0.1662	
		140	0.2689	0.1805	0.1725	0.2004	
Low-Density / R(C)		180	0.2772	0.1769	0.1635	0.2394	
		240	0.3012	0.2189	0.2235	0.3234	
		300	0.3252	0.2609	0.2835	0.4074	
School							
Kindergarten	pcu/hr/class operating		2.3056	2.3056	0.0286	0.0286	TGS
Primary School			0.5000	0.4667	0.6000	0.5000	
Secondary School			0.6364	0.8788	0.2727	0.0909	
Training Centre & Tutorial School			1.1754	2.5789	3.0370	3.5185	
University	pcu/hr/staff		0.0191	0.0280	0.0559	0.0356	
Kindergarten (Private)	pcu/hr/class operating		6.9375	6.9375	5.4375	5.4375	In-house *
Primary School (Private)			9.7600	9.7600	5.8273	5.8273	
Secondary School (Private)			7.7667	8.7667	3.9667	3.8000	
Non-Residential Developments							
Industrial	pcu/hr/100 sqm GFA		0.0926	0.1386	0.1350	0.1049	TPDM
Office			0.1703	0.2452	0.1573	0.1175	
Retail / Shopping Complex (Office + Retail)			0.2296	0.2434	0.3100	0.3563	
Hospital	pcu/hr/bed		0.1849	0.2737	0.2591	0.2048	TGS
Hotel	pcu/hr/guest room		0.1329	0.1457	0.1290	0.1546	TPDM

Source:
TPDM - Transport Planning and Design Manual Volume 1 Chapter 3 Annex D
TGS - TD 05/2006 Traffic Generation Survey 2006
In-house - Trip Generation of Island School, Yew Chung International Primary School and Hong Kong (Ascot) Preschool are adopted.

Appendix F –
Development Parameters of KTD
(Extract from TPB Paper No. 10236 & 10860 and MPC Paper No. 9/21)

Attachment XI of
TPB Paper No. 10236

Comparisons of Development Parameters for Sites under Review Study and Final Refined Scheme

Sites	**Zoning**			**Maximum PR**				**BHR (mPD)**			
	OZP	Proposed Under Review Study	Final Refined Scheme for Area 4	OZP	Approved s.16	Proposed Under Review Study	Final Refined Scheme for Area 4	OZP	Approved s.16	Proposed Under Review Study	Final Refined Scheme for Area 4
2A1	CDA		-	5	-	6.5	-	80	-	100	-
2A2	CDA		-	4.5	-	6.5	-	70	-	90	-
2A3	C		-	4.5	-	6.5	-	70	-	90	-
2A4	C		-	4.5	-	6.5	-	60	-	80	-
2A5	C	2A5(A): G/IC	-	4.5	-	-	-	60	-	45	-
		2A5(B): C	-			6.5	-			80	-
2A6	C	2A10: C	-	4.5	-	6.5	-	60	-	80	-
2A7	G/IC		-	-			-	30			-
2B1	CDA		-	5	-	6.5 + 0.3*	-	110	-	135	-
2B2	R		-	5	-	6.5 + 0.1*	-	100	-	125	-
2B3	R		-	5	-	6.5 + 0.1*	-	85	-	115	-
2B4	R		-	5	-	6.5 + 0.1*	-	85	-	115	-
2B5	R		-	5	-	6.5 + 0.1*	-	85	-	100	-
2B6	R		-	5	-	6.5 + 0.1*	-	85	-	100	-
3A6	G/IC	C	-	-	-	8	-	45	-	100	-
3B1			-	-	-	5.8	-	45	-	80	-
3B2			-	-	-	5.8	-	45	-	80	-
3B3			-	-	-	5.8	-	45	-	80	-
3B4			-	-	-	5.8	-	45	-	80	-
3E1	C	R	-	9.5	-	4.5	-	100	-	100	-
3E2	OU/O		-	-	-		-	15	-	80	-
4A1	R			3	3.4	6.5	6.1	65/80	80	90	110
4B1	R			3	3.8	6.5	7	55	65	75	120
4B2	R			3	4.4	6.5	6.1	55	75	85	110
4B3	R			3	3.9	6.5	5.5	65	75	80	95
4B4	R			3	3.7	6.5	5.5	55	65	75	95
4B5	R	C		3	-	6.3	6.5	45	-	65	108
4A2	C	R		4	5	6.5 + 0.15*	5.9 + 0.2*	45	55	80	110
4C1	C	R		4	5	6.5 + 0.15*	6.8 + 0.2*	45	55	75	120
4C2	C	R		4	5.9	6.5 + 0.15*	5.9 + 0.2*	55	65	75	110
4C3	C	C	R	4	5	5	5.3 + 0.2*	45	55	55	95
4C4	C			4	5	5	7.5	45	55	55	95
4C5	C			4	-	4	6	45	-	45	95
4E1	O	R		-	-	6.5	5.3 + 0.2*	-	-	80	95
4E2	O	R		-	-	6.5 + 0.15*	5.3 + 0.2*	-	-	80	95

*non-domestic PR for proposed residential sites

Bundle	**Site**	**Site Area**[b]	**Current**				**Proposed**				
			Zoning	**Max. PR**	**Max. SC**	**Max. BH**	**Zoning**	**Max. Dom. PR**[c]	**Max. Non-dom. PR**[c]	**Max. SC**	**Max. BH**
1	**2A2**	6,270m^2	“CDA(4)” [commercial]	6.6	65%	90mPD	“CDA(4)” [residential]	6.5[d]	1.0[d]	65%	125mPD[e]
	2A3	5,968m^2	“C(3)”	6.5	65%	90mPD	“R(A)6”	6.5	1.0	65%	125mPD
2	**2A4**[a]	6,555m^2	“C(3)”	6.5	65%	80mPD	“R(A)5”	6.5	1.5	65%	125mPD
	2A5(B)[a]	3,374m^2	“C(3)”	6.5	65%	80mPD					115mPD
	2A10[a]	6,100m^2	“C(3)”	6.5	65%	80mPD					100mPD

Notes:

[a] Sites 2A4, 2A5(B) and 2A10 to be under the same “R(A)5” zoning are proposed to be indicated as a linked single site on the OZP for the purpose of determination of the maximum PR. Individual sites should each be subject to the proposed maximum SC of 65%.

[b] Site areas are subject to detailed survey.

[c] Floor spaces for (i) railway facilities in the “R(A)5” zone (which is to cater for the existing railway facilities in Site 2A10); and (ii) government, institutional or community (GIC) facilities in the “CDA(4)”, “R(A)5” and “R(A)6” zones, as required by the Government, are proposed to be disregarded from PR calculation.

[d] A maximum PR of 7.5 is proposed to be stipulated in the Notes of the OZP for the “CDA(4)” zone. The recommended maximum domestic PR of 6.5 and maximum non-domestic PR of 1.0 are to be stipulated under planning brief and land sale conditions.

[e] The retail belt area of the “CDA(4)” zone abutting the LTSBPC (**Plan 9a**) is subject to a maximum BH of 2 storeys in accordance with the Notes of the OZP.

4.3 The proposed increase in the maximum BHs for the five individual sites from 80 to 90mPD to 100 to 125mPD is for ensuring that the residential use at the sites, which is subject to a lower permissible SC under the Building (Planning) Regulations than non-domestic use, could achieve the proposed maximum domestic PR of 6.5. Such an increase in BHs is still in keeping with the general stepped BH profile of the locality which is descending progressively from the northeast to the southwest[8] (**Plan 9a**), and is in line with the broad urban design framework of KTD on creating a dynamic skyline.

4.4 To accord with the policy initiative of providing more welfare facilities in private development sites, a certain amount of gross floor area (GFA) (equivalent to not less than 5% of the proposed domestic GFA of the site in general) for provision of government/social welfare facilities mainly based on the wish-list of the Social Welfare Department (SWD) has been incorporated in the notional schemes of the reviewed sites and assumed to be disregarded from PR/GFA calculation for testing in the Review Study, such that the maximum permissible PR for the sites would not be compromised. For the two bundled sites, upon consulting SWD, the following welfare facilities have been reserved at the sites for addressing the needs of the local and the community on the services:

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[8] The highest BH of 135mPD in the locality of Area 2 relates to the proposed public housing development at Site 2B1, with the BHs of the adjacent residential sites descending progressively from the northeast to the southwest to the levels of 125mPD, 115mPD and 100mPD.

"R(B)7" with maximum PRs of 5.5/6.1/7.0, and have all been sold for private residential developments. To the south and further southeast of the three reviewed sites are the existing Kai Tak Cruise Terminal (KTCT) and a site zoned "OU" annotated "Tourism Related Uses to include Commercial, Hotel and Entertainment" ("OU(TRU)") intended for the development of the proposed Tourism Node (TN). While Sites 4B5 and 4C4 are currently vacant, Site 4C5 is occupied as a temporary depot for franchised buses.

Rezoning Proposals

4.8 The Review Study recommended the three reviewed sites to be rezoned from commercial to residential use subject to maximum domestic PRs of 5.7/6.6/7.0 (average domestic PR of 6.5), maximum non-domestic PRs of 0.3/0.5, maximum SC of 40% and maximum BH of 95/108mPD (same as now) for production of about 3,000 private housing units. Similar to the two bundled sites at the former north apron area, GFAs for GIC/social welfare facilities (equivalent to not less than 5% of the proposed domestic GFA of the site in general) have also been reserved at these sites and are proposed to be disregarded from PR calculation. Site 4B5 is proposed to be rezoned from "C(4)" to "R(B)8" (**Item F** on **Plan 6**), Site 4C4 from "C(7)" to "R(B)9" (**Item G** on **Plan 6**) and Site 4C5 from "C(5)" to "R(B)10" (**Item H** on **Plan 6**). The proposed zonings and development restrictions for the sites are summarised as follows:

Site	**Site Area**[a]	**Current**				**Proposed**			
		Zoning	**Max. PR**	**Max. SC**	**Max. BH**	**Zoning**	**Max. PR**[b]	**Max. SC**	**Max. BH**
4B5	13,953m^2	"C(4)"	6.5	80%	108mPD	"R(B)8"	7.5[c]	40%	108mPD
4C4	10,692m^2	"C(7)"	7.5	80%	95mPD	"R(B)9"	6.9[d]	40%	95mPD
4C5	9,480m^2	"C(5)"	6.0	80%	95mPD	"R(B)10"	5.7[e]	40%	95mPD

Notes:

[a] Site areas are subject to detailed survey.

[b] Floor spaces for GIC facilities in the "R(B)8", "R(B)9" and "R(B)10" zones, as required by the Government, are proposed to be disregarded from PR calculation.

[c] The proposed maximum PR of 7.5 comprises a maximum domestic PR of 7.0 and a maximum non-domestic PR of 0.5 which are to be stipulated under land sale conditions.

[d] The proposed maximum PR of 6.9 comprises a maximum domestic PR of 6.6 and a maximum non-domestic PR of 0.3 which are to be stipulated under land sale conditions.

[e] The proposed maximum PR of 5.7 is for residential use only.

4.9 To maintain the feature of an undulating and varied BH profile in the former runway area, with the tallest band of developments in the middle portion and BHs of the developments stepping down on the two sides towards the Metro Park and the runway tip (**Plan 12d**), the BHs of Sites 4B5, 4C4 and 4C5 are proposed to remain unchanged. In proportion to the BH and in consideration of specific site constraints (including the proximity of Site 4C5 to KTCT), the PRs for the three sites have been carefully designed[10] to achieve an average maximum domestic PR of 6.5.

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[10] Site 4C5 is proposed with a smaller maximum domestic PR of 5.7 as half of its south-western site boundary is abutting the existing structure of KTCT and its site configuration is relatively elongated. Site 4B5, which has a more regular site configuration and is subject to a higher maximum BH among the three reviewed sites, is proposed with a larger maximum domestic PR of 7.0.

SCHEDULE OF PROPOSED AMENDMENTS TO
THE DRAFT KAI TAK OUTLINE ZONING PLAN NO. S/K22/7
MADE BY THE TOWN PLANNING BOARD
UNDER THE TOWN PLANNING ORDINANCE (Chapter 131)

I. Amendments to Matters shown on the Plan

Item A – Rezoning of a site on the south-western side of Shing Fung Road and the north-western side of Shing King Street from “Residential (Group B)9” (“R(B)9”) to “Commercial (7)” (“C(7)”).

Item B – Rezoning of a site on the south-western side of Shing Fung Road and the south-eastern side of Shing King Street from “R(B)10” to “C(5)”.

II. Amendments to the Notes of the Plan

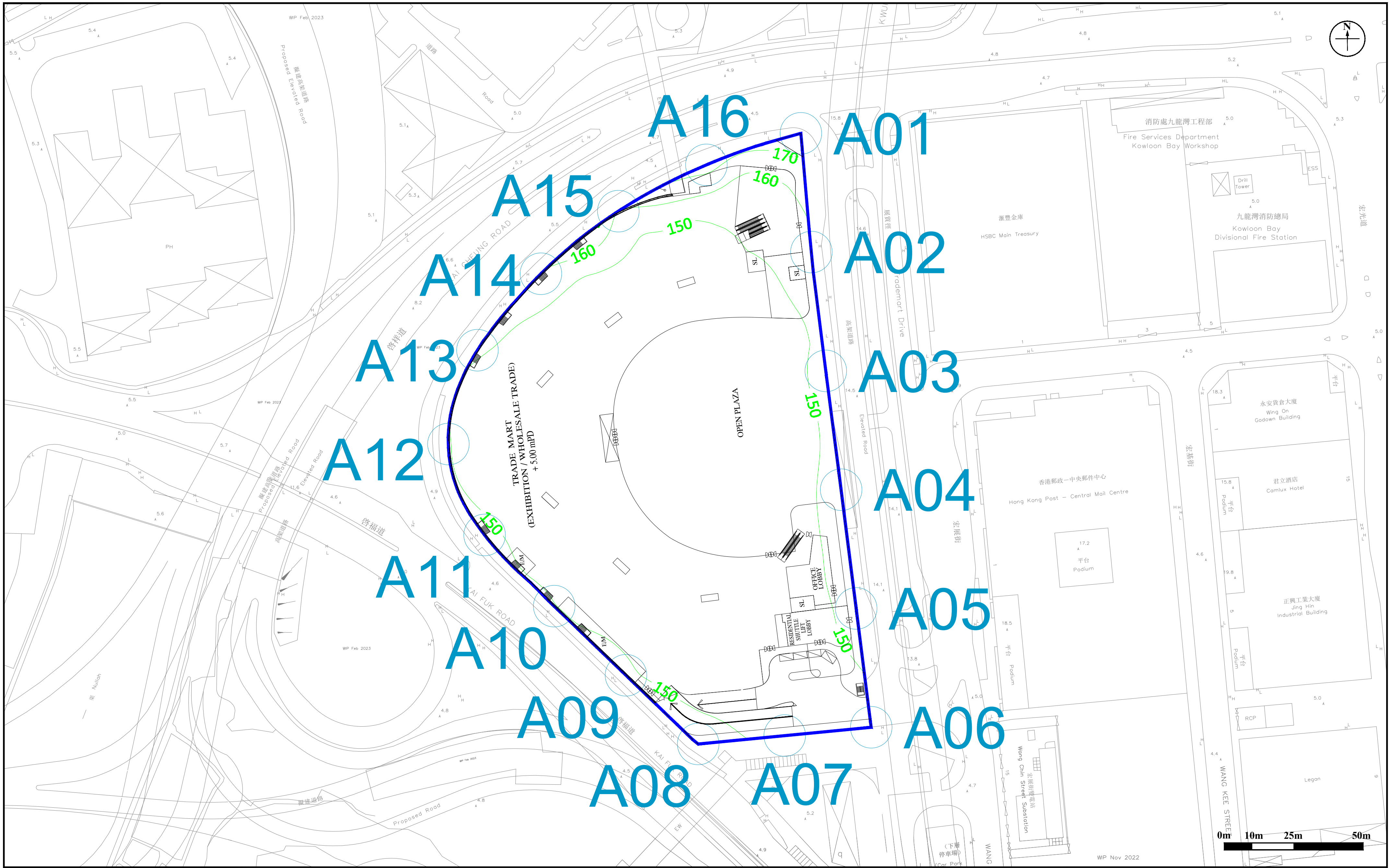
(a) Revision to the Remarks for the “C” zone to incorporate development restrictions for the “C(5)” and “C(7)” sub-areas.

(b) Revisions to the Schedule of Uses and the Remarks for the “R(B)” zone to delete all the provisions related to the “R(B)9” and “R(B)10’ sub-areas.

Town Planning Board

8 July 2022

ANNEX 2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TRADE MART
(EXHIBITION / WHOLESALE TRADE)
+ 5.00 mPD
OPEN PLAZA
OFFICE LOBBY
RESIDENTIAL LIFT LOBBY
SL
E/M
N
消防處九龍灣工程部
Fire Services Department Kowloon Bay Workshop
九龍灣消防總局
Kowloon Bay Divisional Fire Station
滙豐金庫
HSBC Main Treasury
香港郵政－中央郵件中心
Hong Kong Post – Central Mail Centre
永安貨倉大廈
Wing On Godown Building
君立酒店
Camlux Hotel
正興工業大廈
Jing Hin Industrial Building
Wang Chin Street Substation
Trademart Drive
KAI CHEUNG ROAD
KAI FUK ROAD
WANG KEE STREET
Proposed Elevated Road
Proposed Road
WIP Feb 2023
WIP Nov 2022
0m
10m
25m
50m

Appendix: 4.14a

Title: Contour Map of the 19th Highest Hourly Average Concentration of NO_2 in µgm^{-3}
(Assessment Level: 1.5m Above Ground) (AQO standard: 200µgm^{-3})

Project: Proposed Residential (Flat) and Permitted Commercial and Trade Mart Redevelopment with Minor Relaxation of Building Height Restriction, New Kowloon Inland Lot No. 6032, 1 Trademart Drive, Kowloon Bay, Kowloon

Drawn by: SC
Checked by: CC
Rev.: 1.3
Date: Jun 2024

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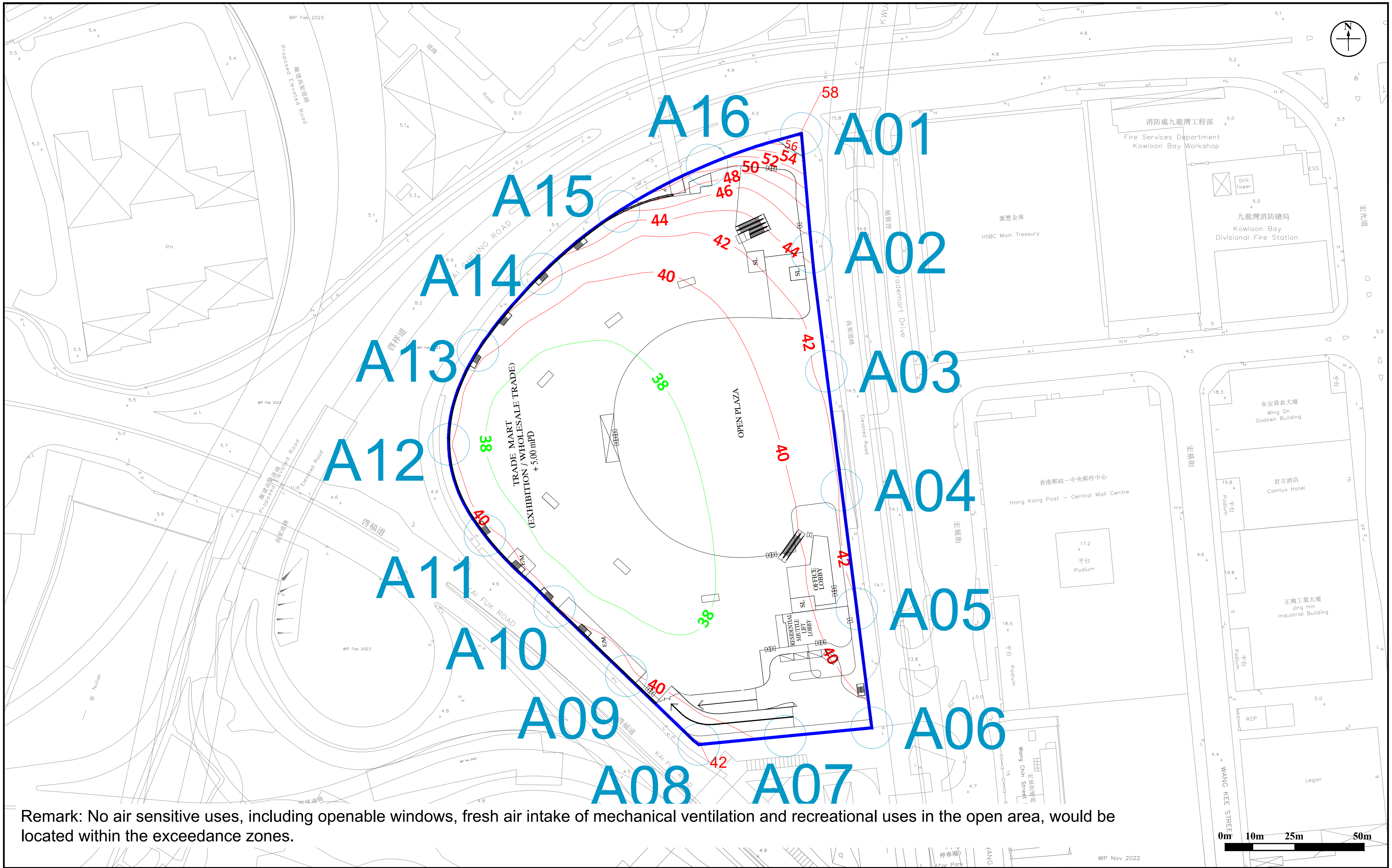
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OPEN PLAZA
TRADE MART
(EXHIBITION / WHOLESALE TRADE)
+ 5.00 mPD
OFFICE LOBBY
RESIDENTIAL LOBBY
LIFT
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E/M
KAI FUK ROAD
啓福道
SHEUNG YUET ROAD
WANG KEE STREET
Trademart Drive
Proposed Elevated Road
消防處九龍灣工程部
Fire Services Department Kowloon Bay Workshop
九龍灣消防總局
Kowloon Bay Divisional Fire Station
滙豐金庫
HSBC Main Treasury
香港郵政－中央郵件中心
Hong Kong Post – Central Mail Centre
永安貨倉大廈
Wing On Godown Building
君立酒店
Camlux Hotel
正興工業大廈
Jing Hin Industrial Building
Wong Chin Street
Podium
Legon
0m
10m
25m
50m
N

Remark: No air sensitive uses, including openable windows, fresh air intake of mechanical ventilation and recreational uses in the open area, would be located within the exceedance zones.

Appendix: 4.14b

Title: Contour Map of Annual Average Concentration of NO_2 in μgm^{-3}
(Assessment Level: 1.5m Above Ground) (AQO standard: $40\mu gm^{-3}$)

Project: Proposed Residential (Flat) and Permitted Commercial and Trade Mart Redevelopment with Minor Relaxation of Building Height Restriction, New Kowloon Inland Lot No. 6032, 1 Trademart Drive, Kowloon Bay, Kowloon

Drawn by: SC
Checked by: CC
Rev.: 1.3
Date: Jun 2024

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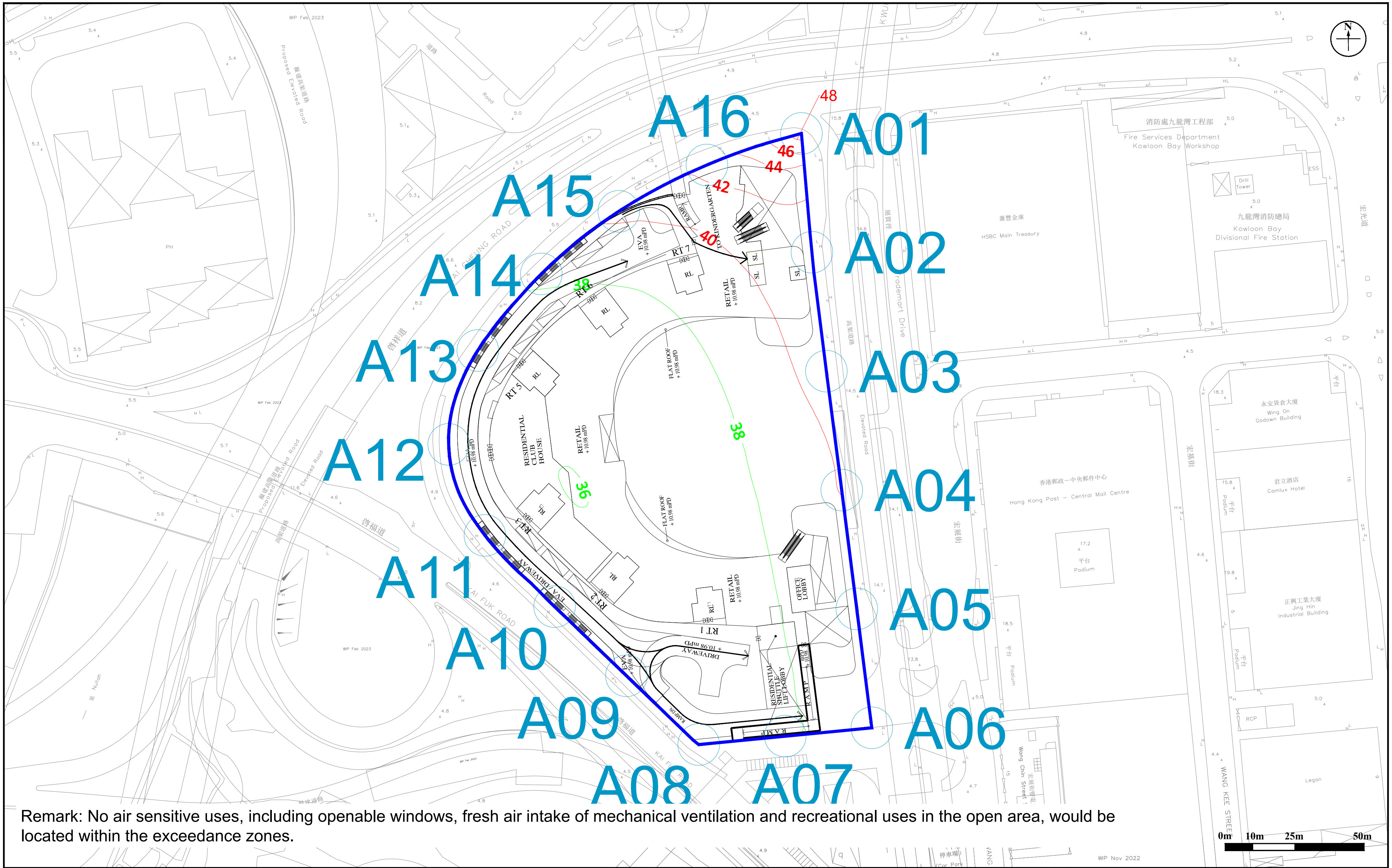
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KINDERGARTEN
RESIDENTIAL CLUB HOUSE
RETAIL
OFFICE LOBBY
RESIDENTIAL SHUTTLE LIFT LOBBY
DRIVEWAY
EVA / DRIVEWAY
RAMP
FLAT ROOF
RT 1
RT 2
RT 3
RT 5
RT 6
RT 7
Fire Services Department Kowloon Bay Workshop
消防處九龍灣工程部
Kowloon Bay Divisional Fire Station
九龍灣消防總局
HSBC Main Treasury
滙豐金庫
Hong Kong Post – Central Mail Centre
香港郵政－中央郵件中心
Wing On Godown Building
永安貨倉大廈
Camlux Hotel
君立酒店
Jing Hin Industrial Building
正興工業大廈
Trademart Drive
KAI CHEUNG ROAD
KAI FUK ROAD
WANG KEE STREET
Wang Chiu Street
Proposed Elevated Road
0m
10m
25m
50m

Remark: No air sensitive uses, including openable windows, fresh air intake of mechanical ventilation and recreational uses in the open area, would be located within the exceedance zones.

RAMBOLL

Appendix:	4.14c
Title:	Contour Map of Annual Average Concentration of NO_2 in µgm^{-3} (Assessment Level: 5.98m Above Ground) (AQO standard: 40µgm^{-3})
Project:	Proposed Residential (Flat) and Permitted Commercial and Trade Mart Redevelopment with Minor Relaxation of Building Height Restriction, New Kowloon Inland Lot No. 6032, 1 Trademart Drive, Kowloon Bay, Kowloon

Drawn by:	SC
Checked by:	CC
Rev.:	1.3
Date:	Jun 2024

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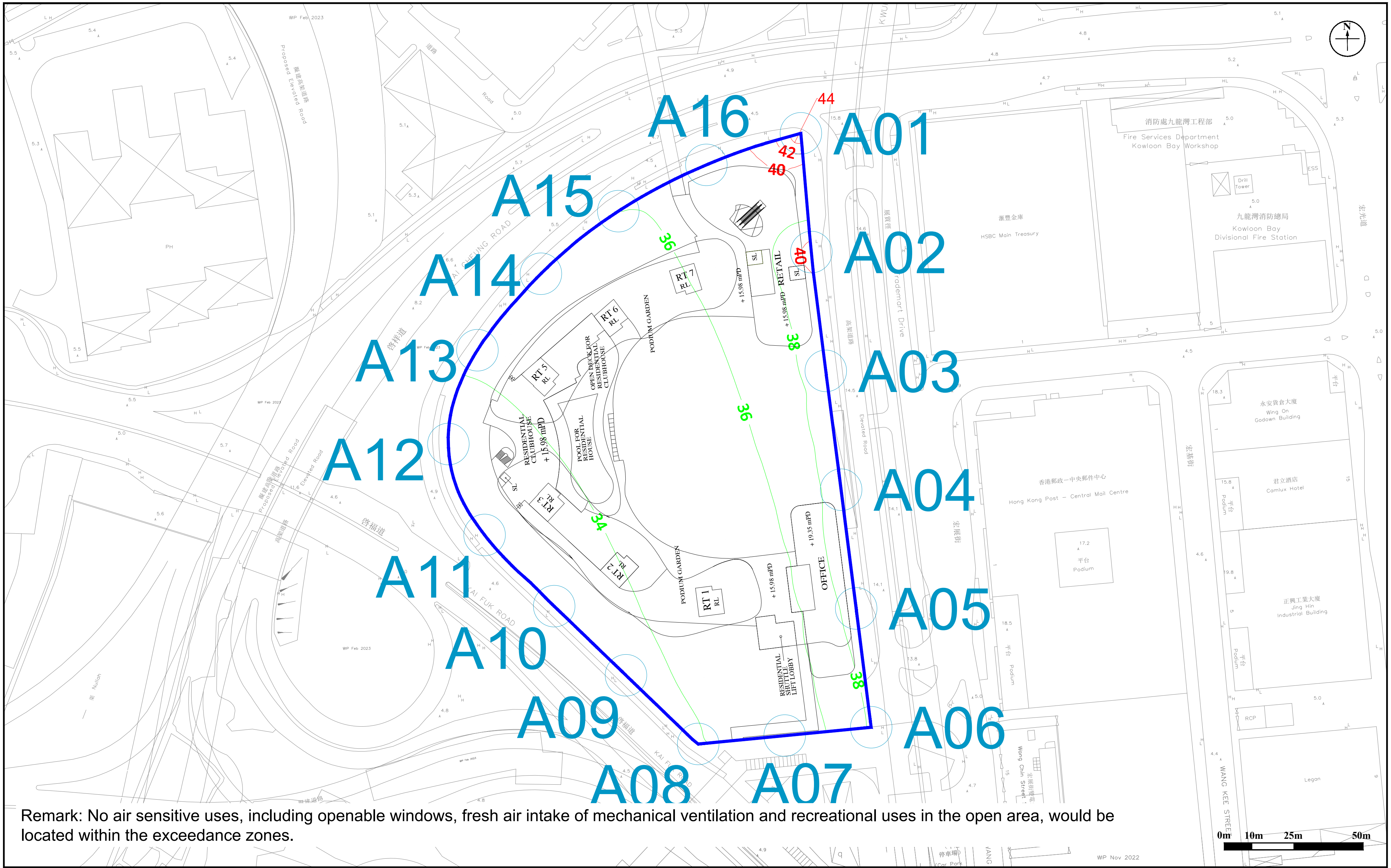
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RETAIL
OFFICE
PODIUM GARDEN
PODIUM GARDEN
RESIDENTIAL CLUBHOUSE
POOL FOR RESIDENTIAL HOUSE
OPEN DECK FOR RESIDENTIAL CLUBHOUSE
RESIDENTIAL SHUTTLE LIFT LOBBY
RT 1
RT 2
RT 3
RT 5
RT 6
RT 7
+ 15.98 mPD
+ 19.35 mPD
Trademart Drive
KAI FUK ROAD
KAI CHEUNG ROAD
Fire Services Department Kowloon Bay Workshop
Kowloon Bay Divisional Fire Station
HSBC Main Treasury
Hong Kong Post – Central Mail Centre
Wing On Godown Building
Camlux Hotel
Jing Hin Industrial Building
WANG KEE STREET
Wang Chin Street
0m
10m
25m
50m

Remark: No air sensitive uses, including openable windows, fresh air intake of mechanical ventilation and recreational uses in the open area, would be located within the exceedance zones.

Appendix: 4.14d

Title: Contour Map of Annual Average Concentration of NO_2 in μgm^{-3} (Assessment Level: 10.98m Above Ground) (AQO standard: $40\mu gm^{-3}$)

Project: Proposed Residential (Flat) and Permitted Commercial and Trade Mart Redevelopment with Minor Relaxation of Building Height Restriction, New Kowloon Inland Lot No. 6032, 1 Trademart Drive, Kowloon Bay, Kowloon

RAMBOLL

Drawn by: SC
Checked by: CC
Rev.: 1.3
Date: Jun 2024

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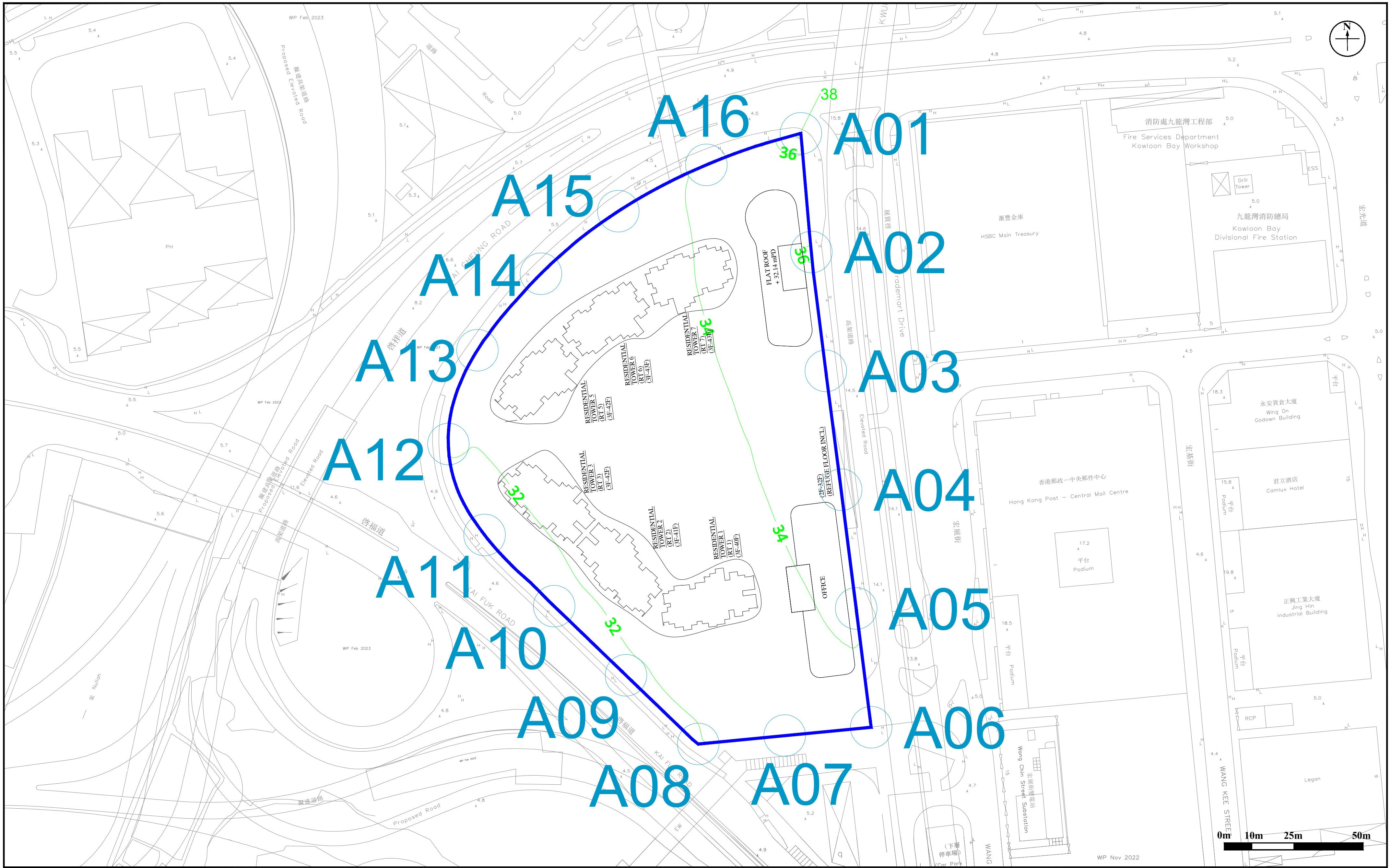
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FLAT ROOF + 32.14 mPD
RESIDENTIAL TOWER 7 (RT 7) (3F-43F)
RESIDENTIAL TOWER 6 (RT 6) (3F-43F)
RESIDENTIAL TOWER 5 (RT 5) (3F-42F)
RESIDENTIAL TOWER 3 (RT 3) (3F-42F)
RESIDENTIAL TOWER 2 (RT 2) (3F-41F)
RESIDENTIAL TOWER 1 (RT 1) (3F-40F)
(2F-32F) (REFUGE FLOOR INCL)
OFFICE
消防處九龍灣工程部
Fire Services Department Kowloon Bay Workshop
Drill Tower
九龍灣消防總局
Kowloon Bay Divisional Fire Station
滙豐金庫
HSBC Main Treasury
Trademart Drive
Elevated Road
永安貨倉大廈
Wing On Godown Building
香港郵政－中央郵件中心
Hong Kong Post – Central Mail Centre
君立酒店
Camlux Hotel
正興工業大廈
Jing Hin Industrial Building
平台 Podium
Legon
RCP
宏照道 Wang Chiu Road
Wang Chin Street Substation
WANG KEE STREET
KAI CHEUNG ROAD
KAI FUK ROAD
啓祥道
啓福道
Proposed Elevated Road
Proposed Road
PH
WIP Feb 2023
WIP Nov 2022
0m
10m
25m
50m
N

Appendix: 4.14e

Title: Contour Map of Annual Average Concentration of NO_2 in μgm^{-3}
(Assessment Level: 14.35m Above Ground) (AQO standard: 40μgm^{-3})

Project: Proposed Residential (Flat) and Permitted Commercial and Trade Mart Redevelopment with Minor Relaxation of Building Height Restriction, New Kowloon Inland Lot No. 6032, 1 Trademart Drive, Kowloon Bay, Kowloon

RAMBOLL

Drawn by: SC
Checked by: CC
Rev.: 1.3
Date: Jun 2024

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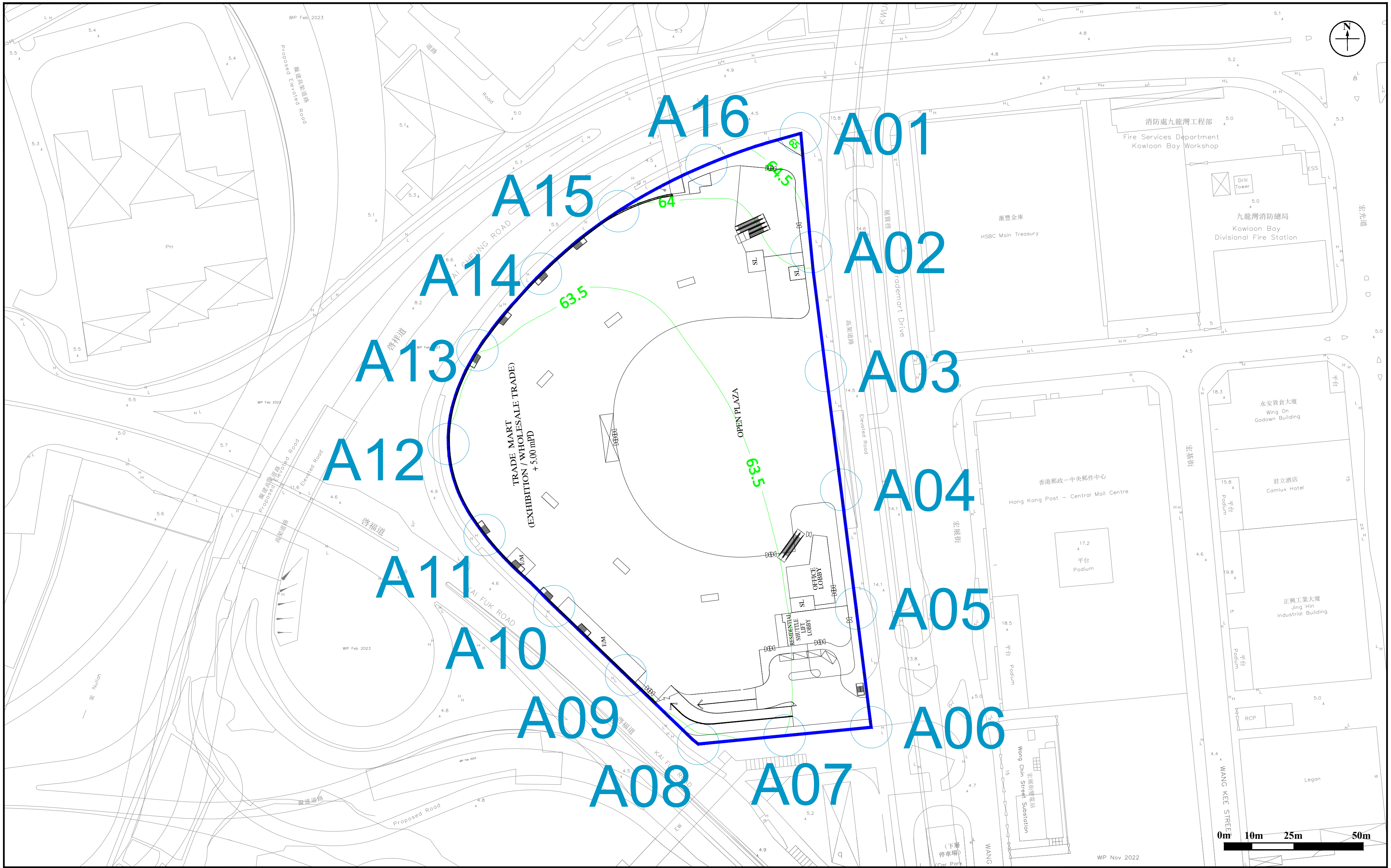
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TRADE MART
(EXHIBITION / WHOLESALE TRADE)
+ 5.00 mPD
OPEN PLAZA
OFFICE LOBBY
KAI CHEUNG ROAD
KAI FUK ROAD
Trademart Drive
消防處九龍灣工程部
Fire Services Department Kowloon Bay Workshop
九龍灣消防總局
Kowloon Bay Divisional Fire Station
滙豐金庫
HSBC Main Treasury
香港郵政－中央郵件中心
Hong Kong Post – Central Mail Centre
永安貨倉大廈
Wing On Godown Building
君立酒店
Camlux Hotel
正興工業大廈
Jing Hin Industrial Building
WANG KEE STREET
Wang Chin Street Substation
Proposed Elevated Road
Proposed Road
N
0m
10m
25m
50m

Appendix: 4.14f

Title: Contour Map of the 10th Highest Daily Average Concentration of RSP in µgm^{-3}
(Assessment Level: 1.5m Above Ground) (AQO standard: 100µgm^{-3})

Project: Proposed Residential (Flat) and Permitted Commercial and Trade Mart Redevelopment with Minor Relaxation of Building Height Restriction, New Kowloon Inland Lot No. 6032, 1 Trademart Drive, Kowloon Bay, Kowloon

RAMBOLL

Drawn by:	SC
Checked by:	CC
Rev.:	1.3
Date:	Jun 2024

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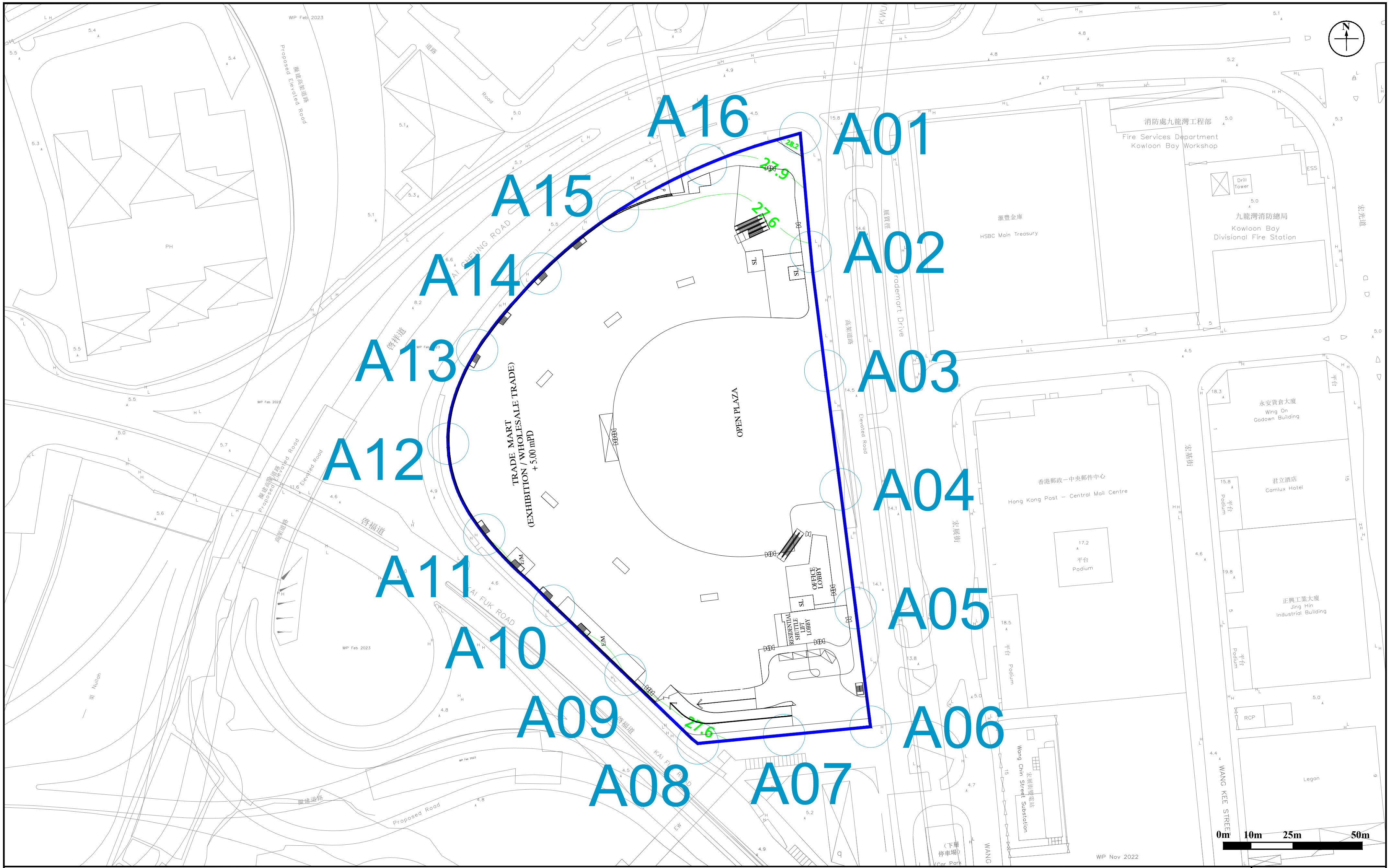
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TRADE MART
(EXHIBITION / WHOLESALE TRADE)
+ 5.00 mPD
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KAI FUK ROAD
KAI CHEUNG ROAD
Proposed Elevated Road
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Fire Services Department Kowloon Bay Workshop
九龍灣消防總局
Kowloon Bay Divisional Fire Station
滙豐金庫
HSBC Main Treasury
香港郵政－中央郵件中心
Hong Kong Post – Central Mail Centre
永安貨倉大廈
Wing On Godown Building
君立酒店
Camlux Hotel
正興工業大廈
Jing Hin Industrial Building
Wang Chin Street Substation
WANG KEE STREET
Legan
0m
10m
25m
50m
WIP Nov 2022
WIP Feb 2023

Appendix: 4.14g

Title: Contour Map of the Annual Average Concentration of RSP in µgm^{-3}
(Assessment Level: 1.5m Above Ground) (AQO standard: 50µgm^{-3})

Project: Proposed Residential (Flat) and Permitted Commercial and Trade Mart Redevelopment with Minor Relaxation of Building Height Restriction, New Kowloon Inland Lot No. 6032, 1 Trademart Drive, Kowloon Bay, Kowloon

RAMBOLL

Drawn by: SC
Checked by: CC
Rev.: 1.3
Date: Jun 2024

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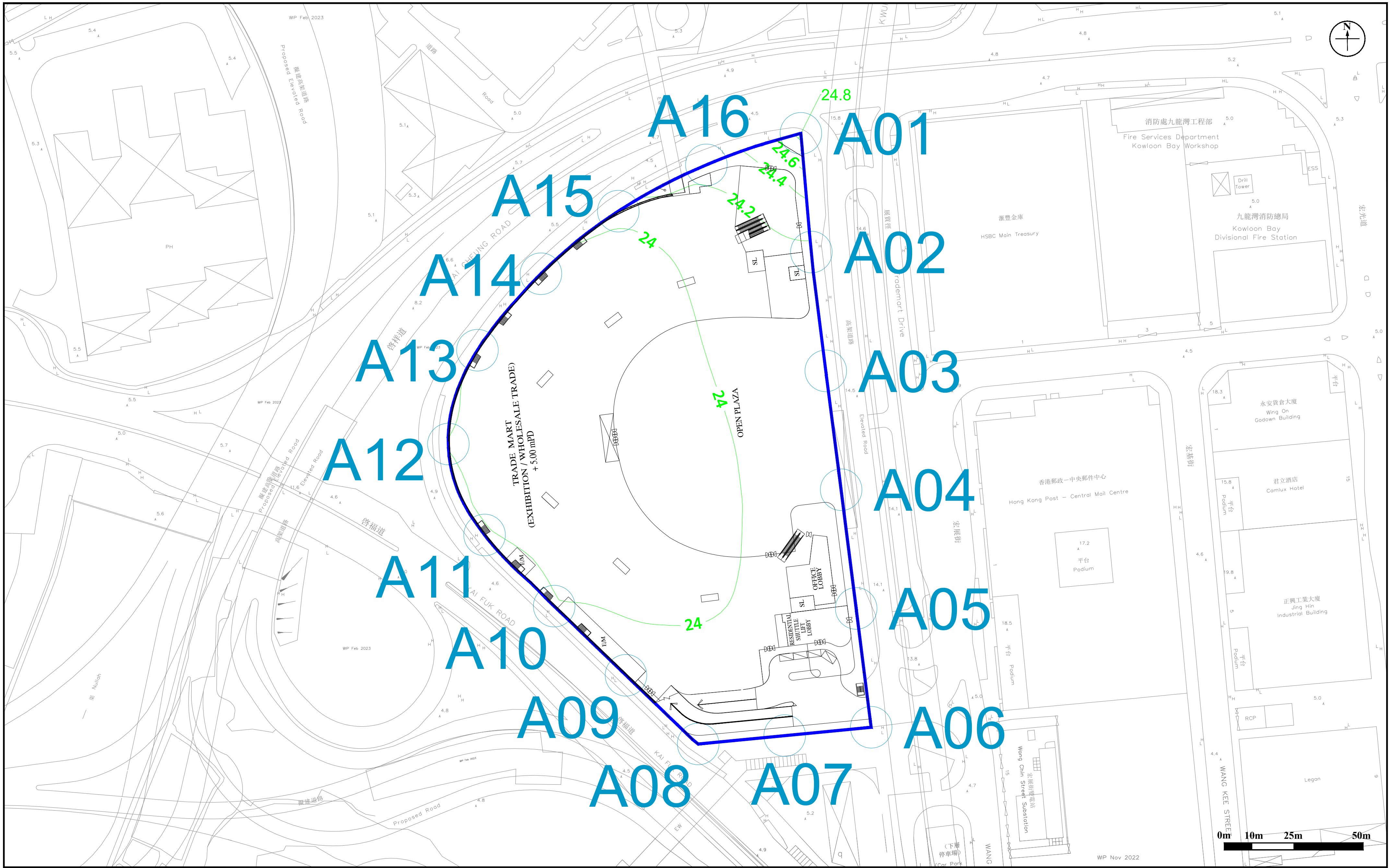
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24
TRADE MART
(EXHIBITION / WHOLESALE TRADE)
+ 5.00 mPD
OPEN PLAZA
OFFICE LOBBY
Trademart Drive
KAI CHEUNG ROAD
KAI FUK ROAD
Fire Services Department Kowloon Bay Workshop
Kowloon Bay Divisional Fire Station
HSBC Main Treasury
Hong Kong Post – Central Mail Centre
Wing On Godown Building
Camlux Hotel
Jing Hin Industrial Building
Wong Chin Street Substation
WANG KEE STREET
Proposed Elevated Road
0m
10m
25m
50m

Appendix: 4.14h

Title: Contour Map of the 36th Highest Daily Average Concentration of FSP in µgm^{-3}
(Assessment Level: 1.5m Above Ground) (AQO standard: 50µgm^{-3})

Project: Proposed Residential (Flat) and Permitted Commercial and Trade Mart Redevelopment with Minor Relaxation of Building Height Restriction, New Kowloon Inland Lot No. 6032, 1 Trademart Drive, Kowloon Bay, Kowloon

Drawn by: SC
Checked by: CC
Rev.: 1.3
Date: Jun 2024

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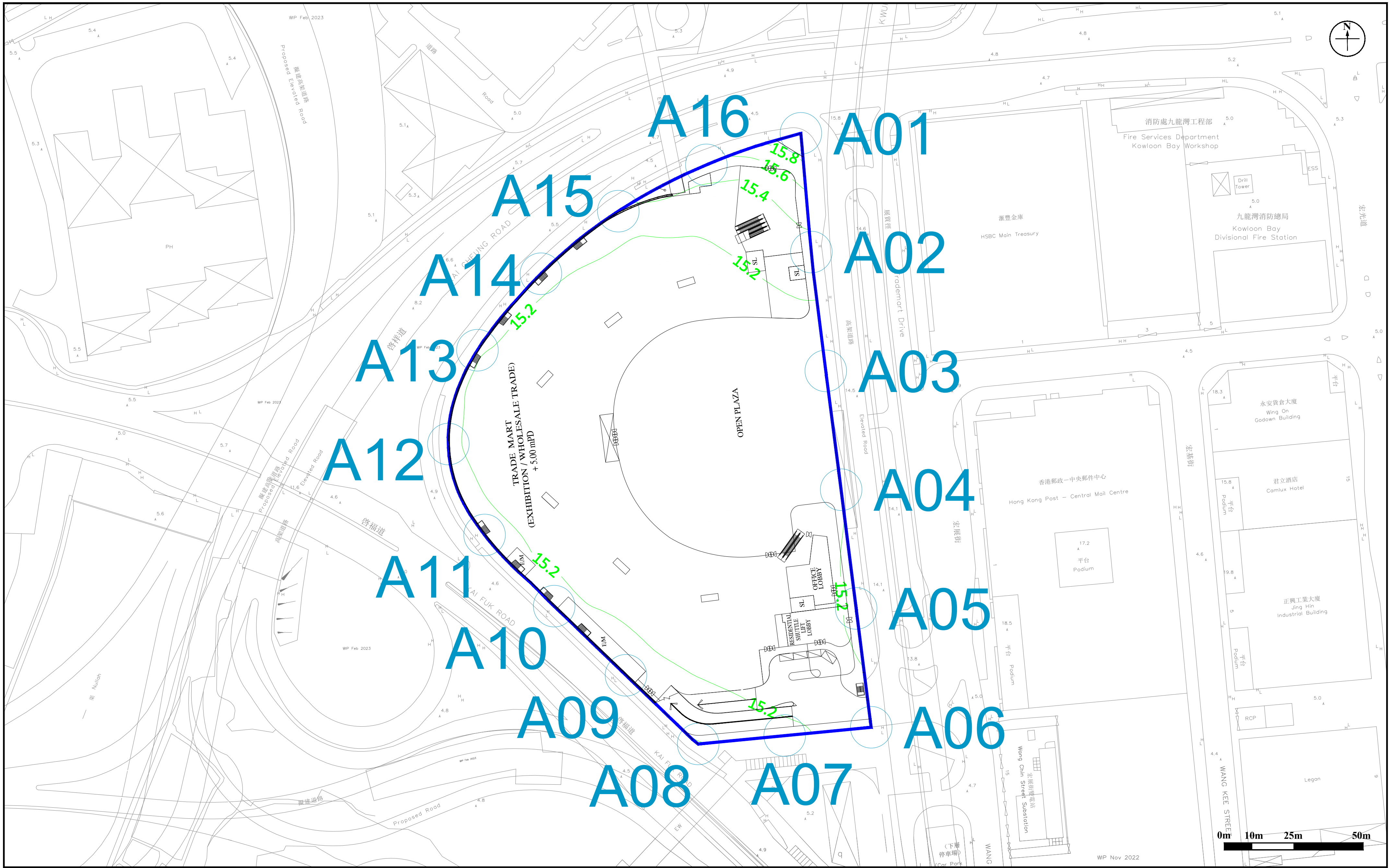
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15.2
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15.2
OPEN PLAZA
TRADE MART
(EXHIBITION / WHOLESALE TRADE)
+ 5.00 mPD
OFFICE LOBBY
RESIDENTIAL LOBBY
SHUTTLE LIFT LOBBY
E/M
E/M
消防處九龍灣工程部
Fire Services Department Kowloon Bay Workshop
九龍灣消防總局
Kowloon Bay Divisional Fire Station
滙豐金庫
HSBC Main Treasury
香港郵政－中央郵件中心
Hong Kong Post – Central Mail Centre
永安貨倉大廈
Wing On Godown Building
君立酒店
Camlux Hotel
正興工業大廈
Jing Hin Industrial Building
Wong Chin Street Substation
Trademart Drive
KAI FUK ROAD
KAI CHEUNG ROAD
WANG KEE STREET
Proposed Elevated Road
Proposed Road
WIP Feb 2023
WIP Nov 2022
N
0m
10m
25m
50m

Appendix: 4.14i

Title: Contour Map of the Annual Average Concentration of FSP in μgm^{-3}
(Assessment Level: 1.5m Above Ground) (AQO standard: 25μgm^{-3})

Project: Proposed Residential (Flat) and Permitted Commercial and Trade Mart Redevelopment with Minor Relaxation of Building Height Restriction, New Kowloon Inland Lot No. 6032, 1 Trademart Drive, Kowloon Bay, Kowloon

RAMBOLL

Drawn by:	SC
Checked by:	CC
Rev.:	1.3
Date:	Jun 2024

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ANNEX 3

Apron Corner of KTDA planned for commercial development; and to the southeast is the Kowloon Bay Action Area (KBAA), which is also intended for commercial developments.

No.	Name of the Development	Building Height (mPD)
A	Billion Centre	140
B	YHC Tower	140
C	Enterprise Square II	133
D	Megabox	170
E	Enterprise Square III	164
F	Manhattan Place	173
G	Capital Tower	120
H	One Kowloon	161
I	Exchange Tower	126
J	FTLife Tower	120
K	Kingston International Centre	120
L	CCB Centre	134
M	Goldin Financial Global Centre	140

2.2.3 The KTDA comprises six key areas including the Kai Tak City Centre (*where there is a cluster of private and public housing developments, as well as "Government, Institution and Community" facilities*), Kai Tak Sports Park, Metro Park, Runway Precinct (mainly planned for residential developments), Tourism and Leisure Hub (with a cruise terminal and associated tourism facilities) and the South Apron Corner (for commercial developments). The newly constructed mid-high-rise residential developments in Kai Tak City Centre include the following:

No.	Name of the Development	Building Height (mPD)
1	The Henley	130
2	K Summit	130
3	Upper Riverbank	130
4	Monaco One	120
5	Vibe Centro	120
6	K City	120
7	Victoria Skye	120
8	One Kai Tak	110
9	Tak Long Estate	120

2.2.4 In the local context, the Site is located in a well-established mixed-use neighborhood with commercial and industrial developments, Government, Institution or Community ("G/IC") facilities as shown in **Figure 2.6**.

- To the immediate east is the G/IC facilities (i.e. Central Mail Centre, HSBC Main Treasury Buidling) to the immediate east;

4 THE COMPREHENSIVE REDEVELOPMENT PROPOSAL

4.1 The Comprehensive Redevelopment Proposal

4.1.1 The proposed development comprises six 33-36 storeys residential towers, one 4-storey mixed block (comprising Retails, DCCE, RCHE and Office Base of Social Work Service for Pre-primary institutions) and one 27-storey office tower (including refuge floor) atop a 2-storey podium mainly for retail/commercial and trade mart uses. The building height (BH) for the proposed residential scheme has adopted a stepped BH profile generally descending from 140mPD (hinterland) to 129.88mPD (towards Kai Tak Waterfront), while, the proposed office tower and mixed block with BH of 137mPD and 33mPD, respectively are proposed along the eastern side of the Site facing Trademart Drive. All carparking spaces/ loading and unloading bays and part of the E&M facilities will be provided at the two levels of basement.

4.1.2 Based on a proposed PR of about 6.144 (including PR of about 0.05 for footbridge)/ Gross Floor Area of about 136,888m^2 (including 1,114m^2 for the footbridge connection with the existing northern and southern government footbridge), the proposed development will yield a total number of 1,881 residential units with an average flat size of 45.6m^2 and about 47,260m^2 GFA spaces for office and commercial/ retail (including trade mart uses). Not less than 11,285m^2, in accordance with the lease and zoning requirements in respect of the Site, will be dedicated for trade mart uses to allow for the display, exhibition of, and wholesale trade in manufactured goods or services.

4.1.3 To cater for the future demand arising from the anticipated population of the development (i.e. 5,079 population), the proposed development will provide local services / daily necessities which shall include shops, restaurants, clinic, a 6-classroom kindergarten, supermarket within the shopping arcade. Besides, a 30 places of Day Care Centre for the Elderly, 60 places of Residential Care Home for the Elderly and Office Base of Social Work Services for Pre-primary Institutions (SWSPPI) will also be provided within the development. The Applicant will design and construct the bare-shell premises for the SWSPPI according to the specifications of the Social Welfare Department (SWD). It will be handed over to SWD for the selection of an appropriate service operator to run and manage the aforementioned facility.

4.1.4 The Schematic Architectural Drawings for the proposed development are presented in **Appendix 1** of the Supporting Planning Statement. The key development parameters and proposed floor uses of the proposed development are provided in **Tables 4.1** and **4.2,** respectively.

Table 4.1: Key Development Parameters

Overall Development			
Total Site Area	22,280 m^2 (approx.)		
	Domestic	Non-domestic	Total
Maximum Plot Ratio	3.854	2.29*	6.144
GFA (approx.)	85,867m^2	51,021m^{2*}	136,888m^2
No. of Blocks	8 blocks (6 Residential Towers + 1 Office Tower + 1 Mixed Block)		
No. of Residential Units	1,881		
Design Population (Based on 2.7)	5,079		
Average Flat Size	45.6m^2		
Building Height (No. of Storey/mPD)			
Domestic	- T1-T7: Not more than 36 storeys* (excluding 1 level of podium garden, 2 levels of commercial podium and 2 basement levels) / Not more than 140 mPD		
Non-Domestic			
a) Commercial Podium	- 2 storeys/ Not more than 16mPD		
b) Mixed Block	- 4 storeys (excluding 2 levels of commercial podium and 2 basement levels)/ Not more than 33mPD		
c) Office Tower	- 27 storeys*# (excluding 2 levels of commercial podium and 2 basement levels) / Not more than 137 mPD		
Site Coverage - Podium (Below 15m) - Tower (Above 15m)	- Not more than 65% (Footbridge not included) - Not more than 44% Domestic: 28% Non-Domestic: 16%		
Private Open Space	Not less than 5,100m^2		

* Transfer Plate is not included
# Refuge Floor is included

*including GFA of
1) Office: 27,130m^2;
2) Trade mart: 11,285m^2,
3) Shop and Service and Eating Place: 8,845m^2
4) Kindergarten: 557m^2
5) The proposed link bridge connection to the existing southern footbridge and openings to the existing northern footbridge: 1,114m^2
6) Proposed Social Welfare Facilities (1,560m^2 for RCHE, 365m^2 for DE and 165m^2 for Office Base of Social Work Service for Pre-primary institutions): 2,090m^2