Proposed Temporary Public Vehicle Park
(Excluding Container Vehicle) For a Period of 3 Years
Various Lots in DD 244, Ho Chung, Sai Kung
(Planning Application no. A/SK-HC/356)

Traffic Impact Assessment
Final Report
September 2024

Prepared by: CKM Asia Limited

Proposed Temporary Public Vehicle Park (Excluding Container Vehicle) For a Period of 3 Years Various Lots in DD 244, Ho Chung, Sai Kung (Planning Application no. A/SK-HC/356)

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1.0 INTRODUCTION

Background

1.1 The Application Site is located at various lots in D.D. 244 at Ho Chung, Sai Kung. The location of the site is shown in **Figure 1.1**.

1.2 CKM Asia Limited, a traffic and transportation planning consultancy firm, was commissioned by the Applicant to prepare a traffic assessment in connection with the S16 application for a temporary public vehicle park (excluding container vehicle) with 100 car parking spaces for a period of 3 years (the "Proposed Development"). Access to the Proposed Development is via its existing vehicular access which is provided at the service road of Hiram's Highway northbound.

1.3 This report describes the traffic assessment undertaken for the Proposed Development.

Structure of the Report

1.4 The report is structured as follows:

Chapter One	-	Gives the background of the project;
Chapter Two	-	Describes the existing situation;
Chapter Three	-	Presents the Proposed Development;
Chapter Four	-	Describes the traffic impact analysis; and
Chapter Five	-	Gives the overall conclusion.

2.0 THE EXISTING SITUATION

The Subject Site

2.1 The subject site is at present unoccupied, and it fronts onto Hiram's Highway to the east and Nam Pin Wai Road to be south.

The Road Network

2.2 Hiram's Highway is classified as a rural road, which is of dual carriageway 2-lane standard. It connects with Clear Water Bay Road at its southern end and Po Tung Road to the north.

2.3 Nam Pin Wai Road, Ho Chung Road and Luk Mei Tsuen Road are classified as feeder road. These are of single carriageway 2-lane standard, and they connect with Hiram's Highway.

Manual Classified Traffic Counts

2.4 To quantify the traffic flows in the vicinity of the subject site, manual classified counts were conducted on Thursday, 15th August 2024 during the AM and PM peak periods at the following junctions:

- J1: Hiram's Highway / New Hiram's Highway / Nam Pin Wai Road;
- J2: Hiram's Highway / Access Road to Haven of Hope Ho Chung Day Activity Centre cum Hostel;
- J3: Hiram's Highway / Ho Chung Road; and
- J4: Hiram's Highway / Luk Mei Tsuen Road.

2.5 The locations of these junctions are shown in **Figure 2.1** and the layouts are shown in **Figures 2.2 – 2.5** respectively.

2.6 From the traffic survey conducted, the AM and PM peak hours are found between 0815 – 0915 hours and 1700 – 1800 hours respectively.

Comparison of 2021 and 2024 Hiram's Highway Traffic Flows

2.7 Due to the impact of the COVID-19 pandemic, a review of the 2024 Hiram's Highway traffic flows is compared with survey of Hiram's Highway conducted on Wednesday, 15th September 2021, and the comparison is found in **Table 2.1**.

TABLE 2.1 COMPARISON OF 2021 AND 2024 TRAFFIC FLOWS AT HIRAM'S HIGHWAY

Hiram's Highway	2021 Traffic Flows (pcu / hour) [a]		2024 Traffic Flows (pcu / hour) [b]		Comparison [c] = ([b] – [a])/ [a]	
	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
Northbound	1,191	1,265	951	1,166	-20%	-8%
Southbound	1,254	1,209	1,221	1,044	-3%	-14%
Two-way	**2,445**	**2,474**	**2,172**	**2,210**	**-11%**	**-11%**

2.8 **Table 2.1** shows that the 2021 traffic flows are generally higher than those obtained in 2024.

2.9 To ascertain if the 2021 traffic flows are higher than the previous years, reference is made to the Annual Average Daily Traffic ("AADT") of the Hiram's Highway

core station no. 6055 which is found in the Annual Traffic Census ("ATC"), published by Transport Department, and is presented in **Table 2.2**.

TABLE 2.2 HISTORICAL AADT OF CORE STATION NO. 6055

Station	**6055**
Road	**Hiram's Highway**
From	Clear Water Bay Rd
To	Po Tung Road
2017	24,050
2018	24,450
2019	24,280
2020	23,360
2021	24,460
2022	23,480

2.10 As shown **Table 2.2**, the traffic flow in year 2021 at Hiram's Highway is higher than those from 2017 to 2020, and also higher than 2022. To be conservative, the traffic flows obtained from the survey in 2021 are adopted as the existing traffic flow and these are presented in **Figure 2.6.**

Existing Junction Performance

2.11 The existing operating performance of the surveyed junctions is calculated based on the existing traffic flows, and the analysis was undertaken using the method found in the Transport Planning and Design Manual ("TPDM"). The results are summarised in **Table 2.3**, and detailed calculations are presented in the **Appendix A**.

TABLE 2.3 EXISTING JUNCTION PERFORMANCE

Ref	**Junction**	**Type of Junction (Parameter)**	**AM Peak**	**PM Peak**
J1	Hiram's Highway / New Hiram's Highway / Nam Pin Wai Road	RA (DFC)	0.59	0.57
J2	Hiram's Highway / Access Road to Haven of Hope Ho Chung Day Activity Centre cum Hostel	Priority (DFC)	0.02	0.02
J3	Hiram's Highway / Ho Chung Road	Signal (RC)	108%	119%
J4	Hiram's Highway / Luk Mei Tsuen Road	Priority (DFC)	0.06	0.04

Note: RA – roundabout DFC - design flow/capacity ratio RC – reserve capacity

2.12 **Table 2.3** shows that the junctions operate with capacities.

Public Transport Services

2.13 At present, 5 franchised bus and 6 green minibus ("GMB") routes operate in the vicinity of the Proposed Development. Details of public transport services are presented in **Table 2.4**.

TABLE 2.4 EXISTING PUBLIC TRANSPORT SERVICES OPERATING IN THE VICINITY OF THE PROPOSED DEVELOPMENT

Route	Routing	Headway (minutes)
KMB 92	Sai Kung – Diamond Hill Station	15 – 30
KMB 92R[(1)]	Sai Kung – Star Ferry	30 - 60
KMB 96R[(1)]	Wong Shek Pier – Diamond Hill Station	20 – 35
KMB 292P[(2)]	Sai Kung → Kwun Tong	AM Peak
CTB 792M	Sai Kung – Tseung Kwan O Station	15 – 30
GMB 1	Sai Kung – Kowloon Bay	8 – 20
GMB 1A	Sai Kung – Choi Hung Road PTI	4 (AM Only)
	Sai Kung North PTI → Choi Hung Road PTI	
GMB 1S[(3)]	Sai Kung – Choi Hung Road PTI	10 – 15
GMB 2	Sai Kung – Ho Chung	15 – 30
	Sai Kung (Yi Chun Street) – Kai Ham	15 – 30
GMB 12	Sai Kung – Po Lam Station	10 – 15
GMB 101M	Sai Kung – Hang Hau Station	3 – 30

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

(1) Saturday, Sunday and Public Holiday only

(2) Monday to Friday (except Public Holiday)

(3) Overnight

3.0 THE PROPOSED DEVELOPMENT

The Proposed Development

3.1 The Proposed Development provides 100 car parking spaces, and the ground floor layout plan is shown in **Figure 3.1**.

Swept Path Analysis

3.2 The CAD-based swept path analysis programme, ***AUTODESK VEHICLE TRACKING***, was used to check the ease of manoeuvring of vehicles within the Proposed Development, and the swept path analysis drawings are found in **Appendix B**. Vehicles are found to have no manoeuvring problems.

4.0 TRAFFIC ANALYSIS

Design Year

4.1 The Proposed Development is scheduled to commence in 2024 and operate until 2027. Hence, the design year adopted for traffic analysis is 2027.

Traffic Forecasting

4.2 Year 2027 peak hour traffic flows for the junction capacity analysis is produced (i) with reference to existing traffic flows; (ii) estimated traffic growth rate from 2024 to 2027; (iii) expected traffic generation by the planned / committed developments in the vicinity; and (iv) expected traffic generation by the Proposed Development.

Estimated Traffic Growth Rate from 2024 to 2027

4.3 Reference is made to the (i) the AADT of core stations located in the vicinity, from the ATC, (ii) the population projection for 5 Tertiary Planning Units ("TPU"), i.e. 820, 823, 831, 824 & 829, which covers the broader near around the Proposed Development and are obtained from the "Projections of Population Distribution 2023 – 2031" produced by the Planning Department.

4.4 The above information is presented in **Tables 4.1 and 4.2** respectively.

TABLE 4.1 AADT OF THE CORE STATIONS LOCATED IN THE VICINITY OF THE SUBJECT SITE

Station	**6055**	**5017**	**5466**	**Overall**
Road	**Hiram's Highway**	**Clear Water Bay Rd**	**Clear Water Bay Rd**	**–**
From	Clear Water Bay Rd	On Sau Rd	Hang Hau Rd	–
To	Po Tung Road	Hiram's Highway	Hiram's Highway	–
2010	23,090*	28,530	17,640	69,260
2011	22,930*	29,880	17520*	70,330
2012	24,140	29,900	17,520*	71,560
2013	25,220	30,070	17,770*	73,060
2014	24,880*	30,520	17,750	73,150
2015	25,330*	30,140	18,560	74,030
2016	25,610*	29,370	18,770*	73,750
2017	24,050	26,910	18,650*	69,610
2018	24,450	28,450	18,950*	71,850
2019[#]	24,280*	28,980	20,240	73,500
2020[#]	23,360*	28,900	19,110	71,370
2021[#]	24,460*	29,100	20,020*	73,580
2022[#]	23,480	27,720	19,140*	70,340
Average Annual Growth (2010-2018)	**0.72%**	**-0.04%**	**0.90%**	**0.46%**

Note: * Estimated by Growth Factor
[#] Excluded due to the impact of the public events in 2019 and COVID-19 pandemic in 2020 – 2022.

TABLE 4.2 POPULATION PROJECTIONS OF THE 5 TPU

Year	TPU				Total
	820	824 & 829	831	823	
2024	7,100	3,700	25,100	4,100	40,000
2027	6,900	3,400	23,700	4,300	38,300
Average Annual Growth 2024 to 2027	**-0.9%**	**-2.8%**	**-1.9%**	**1.6%**	**-1.4%**

4.5 **Table 4.1** shows that the annual average traffic growth of 0.46%, between 2010 and 2018.

4.6 **Table 4.2** shows that the annual population growth between 2024 – 2027 is -1.4%. To be conservative, an annual average traffic growth of 1% is adopted for year 2024 – 2027.

Planned/ Committed Developments in the Vicinity

4.7 Planned/ committed developments found in the vicinity have been incorporated in the forecast. The planned / committed developments are listed in **Table 4.3** and the locations are presented in **Figure 4.1**.

TABLE 4.3 THE PLANNED / COMMITTED DEVELOPMENTS IN THE VICINITY OF THE PROPOSED DEVELOPMENT

Ref	Address	Use	GFA(m^2)
A	Various lot in D.D. 210, Ho Chung	Residential	2,422
B	Lot 1003 in D.D. 214, Ho Chung	Residential	5,344
C	Phase 1 of CDA, Ho Chung[(1)]	Residential	5,715
D	Lot 2189 in D.D. 244, Nam Pin Wai	Residential	8,320

(1) Approved Planning Application A/SK-HC/124-2

Traffic Generation of the Proposed Development

4.8 The TPDM has no trip rates for temporary car park. Hence, the traffic generation of the Proposed Development is calculated based on the trip rates derived from the traffic generation survey conducted at a temporary car park operated by Skye Parking at Ma Wo Road, Tai Po, on Wednesday, 19th June 2024. The survey results and the derived trip rate is presented in **Table 4.4**.

4.9 The derived trip rate is used to calculate the traffic generation of the Proposed Development, which is also presented in **Table 4.4**.

TABLE 4.4 DERIVED TRIP RATES AND TRAFFIC GENERATION FOR PROPOSED DEVELOPMENT

Items		AM Peak		PM Peak	
		Generation	Attraction	Generation	Attraction
Skye Parking, Ma Wo Road, Tai Po (246 spaces)	Traffic Generation (1)	16	15	10	30
	Derived Trip Rate (2)	0.0650	0.0610	0.0407	0.1220
Proposed Development (100 spaces)	Traffic Generation (1)	7	7	5	13
		14 (2-way)		**18 (2-way)**	

(1) traffic generation in pcu/hr, (2) trip rate in pcu/space/hr

4.10 **Table 4.4** shows that the Proposed Development is expected to generate 14 and 18 pcu (2-way) in AM and PM peak hours respectively.

Year 2027 Peak Hour Traffic Flows

4.11 Year 2027 peak hour traffic flows for the following cases are derived:

Year 2027 Without the Proposed Development [A] = *Existing Traffic Flow + estimated traffic growth between 2024 and 2027 + estimated traffic generation of the planned / committed developments*

Year 2027 With the Proposed Development [B] = *[A] + Traffic generated by the Proposed Development*

4.12 Year 2027 peak hour traffic flows for the above two cases are shown in **Figures 4.2 and 4.3** respectively.

2027 Junction Capacity Analysis

4.13 Year 2027 junction capacity analysis for the case without and with the Proposed Development are summarised in **Table 4.5** and detailed calculations are found in the **Appendix A**.

TABLE 4.5 2027 JUNCTION PERFORMANCE

Ref	Junction	Type of Junction (Parameter)	Without Proposed Development		With Proposed Development	
			AM Peak	PM Peak	AM Peak	PM Peak
J1	Hiram's Highway / New Hiram's Highway / Nam Pin Wai Road	RA (DFC)	0.62	0.59	0.63	0.60
J2	Hiram's Highway / Access Road to Haven of Hope Ho Chung Day Activity Centre cum Hostel	Priority (DFC)	0.02	0.02	0.02	0.02
J3	Hiram's Highway / Ho Chung Road	Signal (RC)	98%	109%	96%	107%
J4	Hiram's Highway / Luk Mei Tsuen Road	Priority (DFC)	0.06	0.05	0.06	0.05

Note: RA – roundabout DFC - design flow/capacity ratio RC – reserve capacity

4.14 The results in **Table 4.5** indicate that the junctions analysed will operate with sufficient capacities in 2027, and the Proposed Development has no adverse traffic impact.

5.0 SUMMARY

5.1 The Subject Site is located at various lots in D.D. 244 at Ho Chung, Sai Kung. Access to the Proposed Development is provided via its existing access, which is from the service road of Hiram's Highway.

5.2 The Proposed Development provides 100 car parking spaces for a period of 3 years.

5.3 Year 2027 peak hour traffic flows produced for the traffic analysis are derived based on (i) existing traffic flows; (ii) adopted traffic growth; (iii) traffic generated by other developments in the vicinity; and (iv) expected traffic generation by the Proposed Development.

5.4 A comparison is made of the performance of the junctions assessed for the cases without and with the Proposed Development. The traffic analysis concluded that the junctions analysed will operate with sufficient capacities in 2027, and the Proposed Development has no adverse traffic impact.

Figures

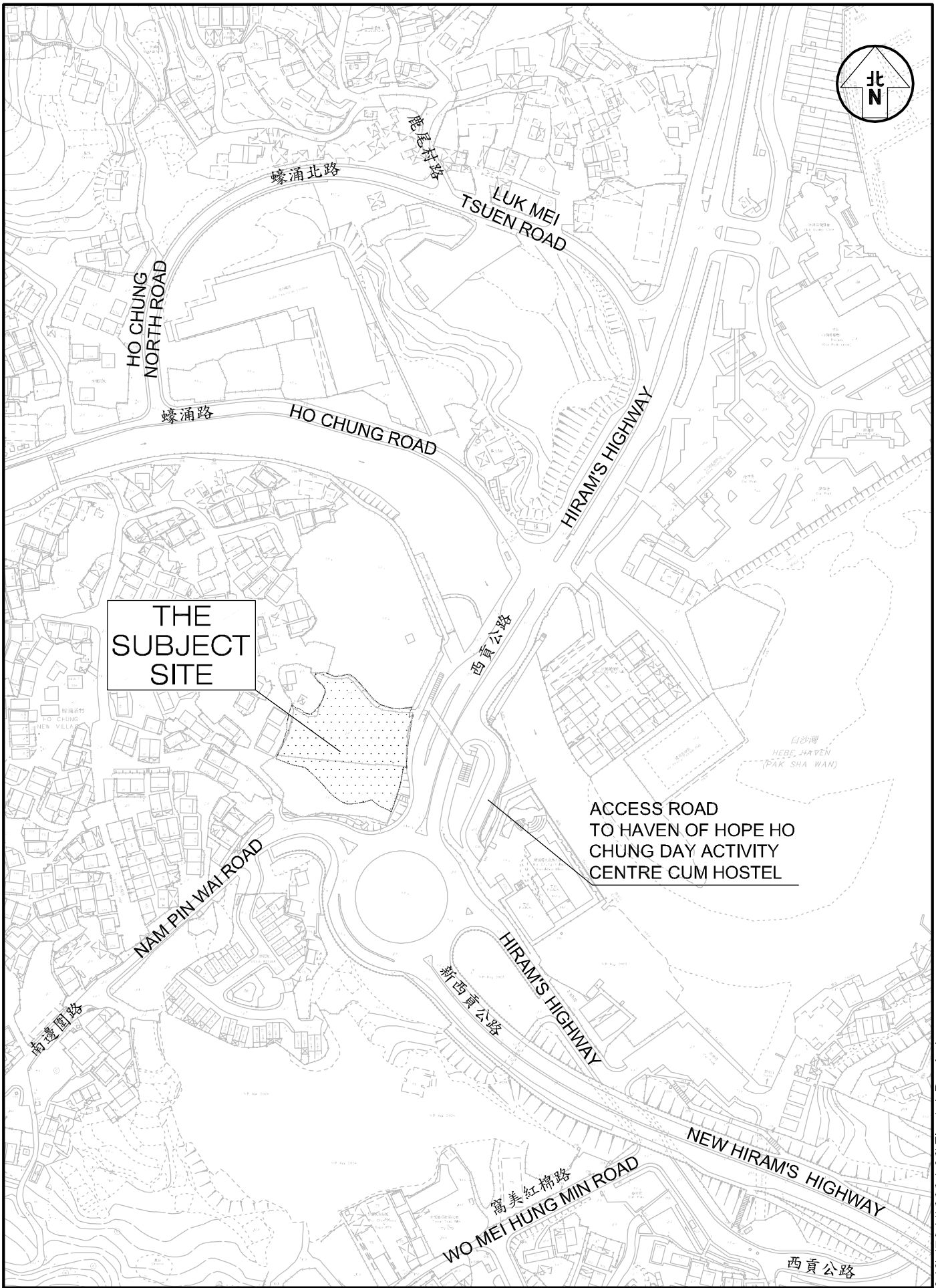

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Figure Title: LOCATION OF THE SITE

Job No.	Figure No.			Scale in A4
J7341	1.1			1 : 3,000
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L K W	S C Y	K C	A	04 SEP 2024

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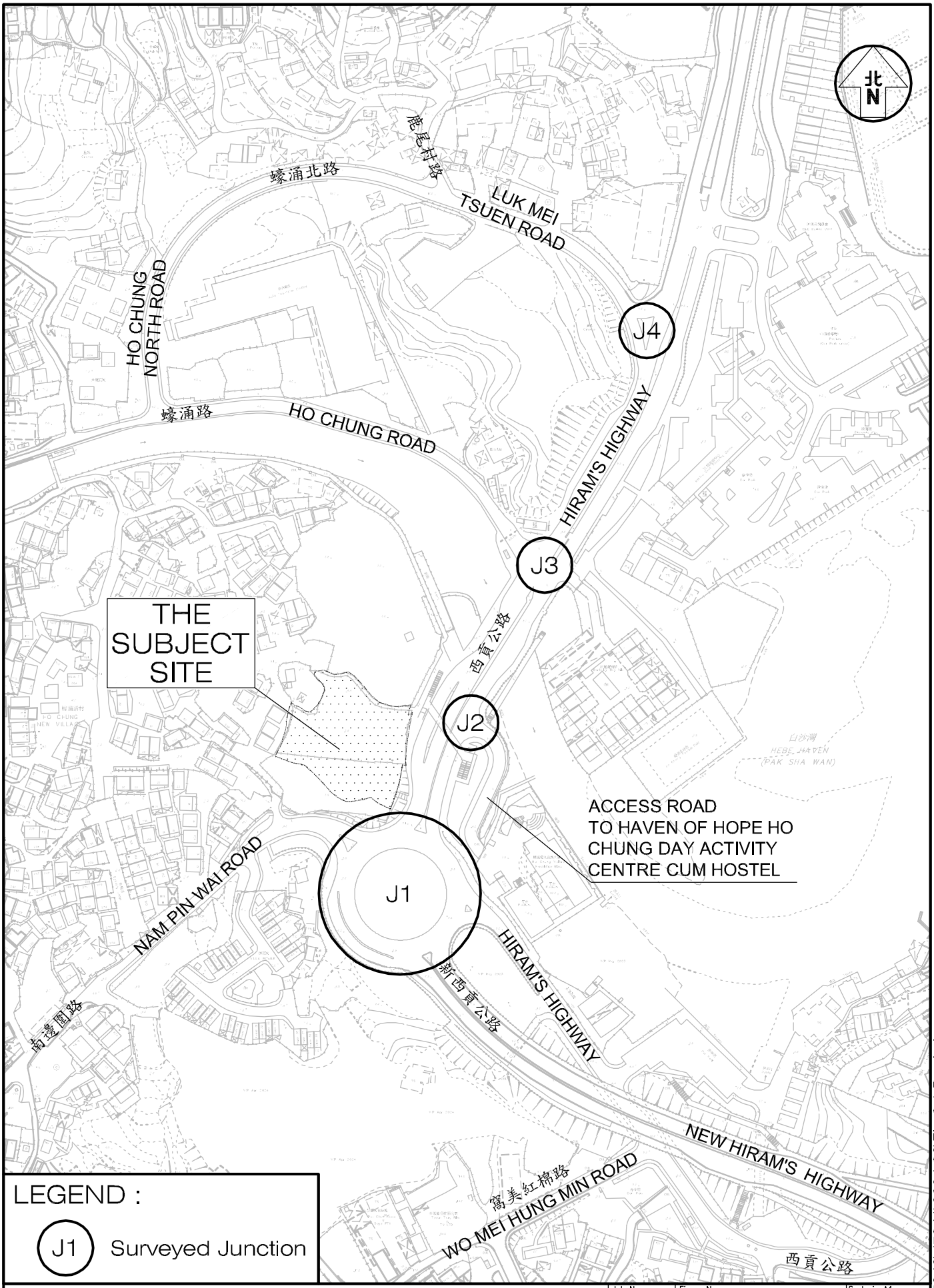

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Figure Title: LOCATIONS OF SURVEYED JUNCTIONS

Job No.	Figure No.			Scale in A4
J7341	2.1			1 : 3,000
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L K W	S C Y	K C	A	04 SEP 2024

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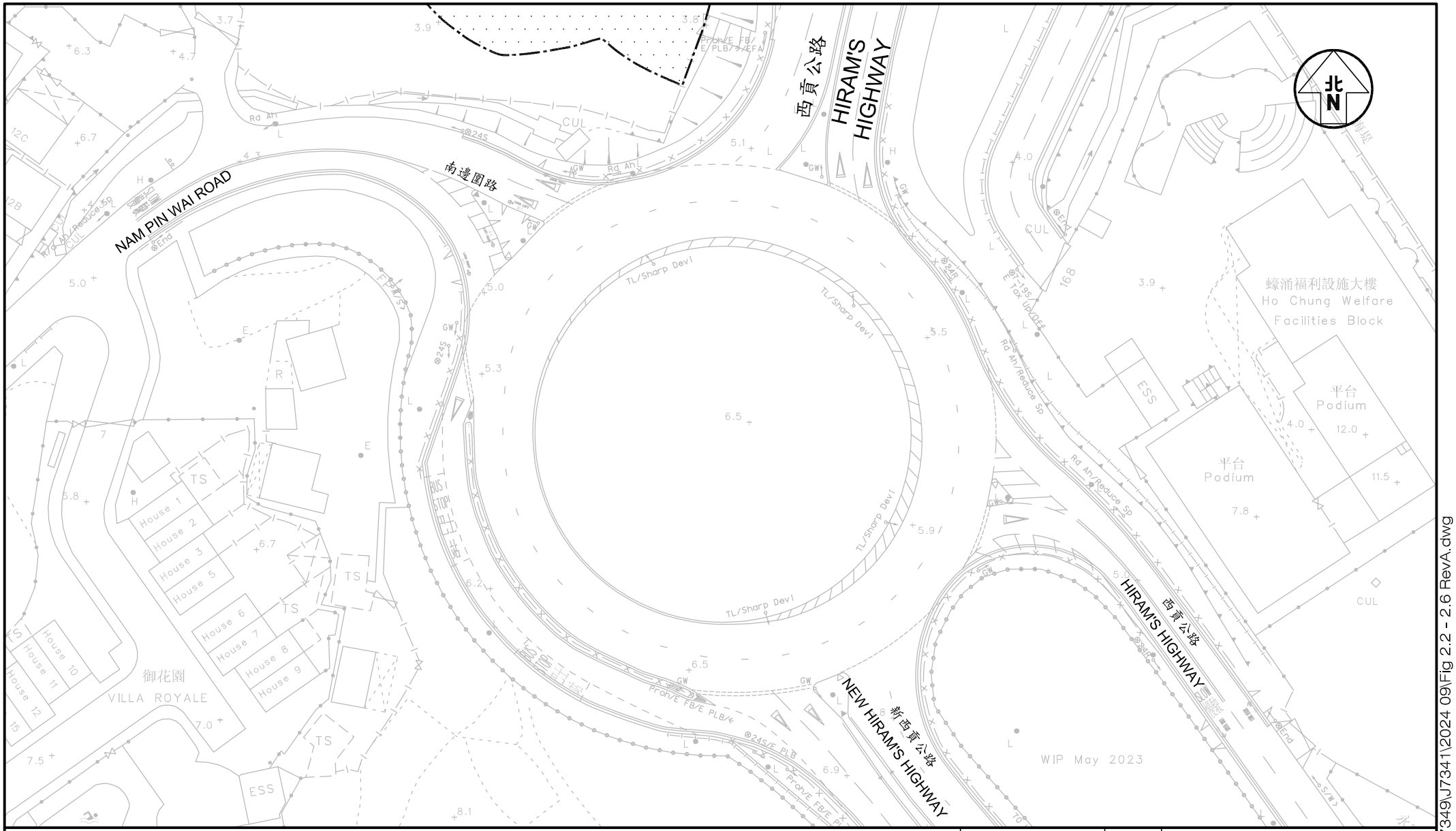

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Figure Title	LAYOUT OF HIRAM'S HIGHWAY / NEW HIRAM'S HIGHWAY / NAM PIN WAI ROAD	Designed by L K W / Drawn by S C Y / Checked by K C	
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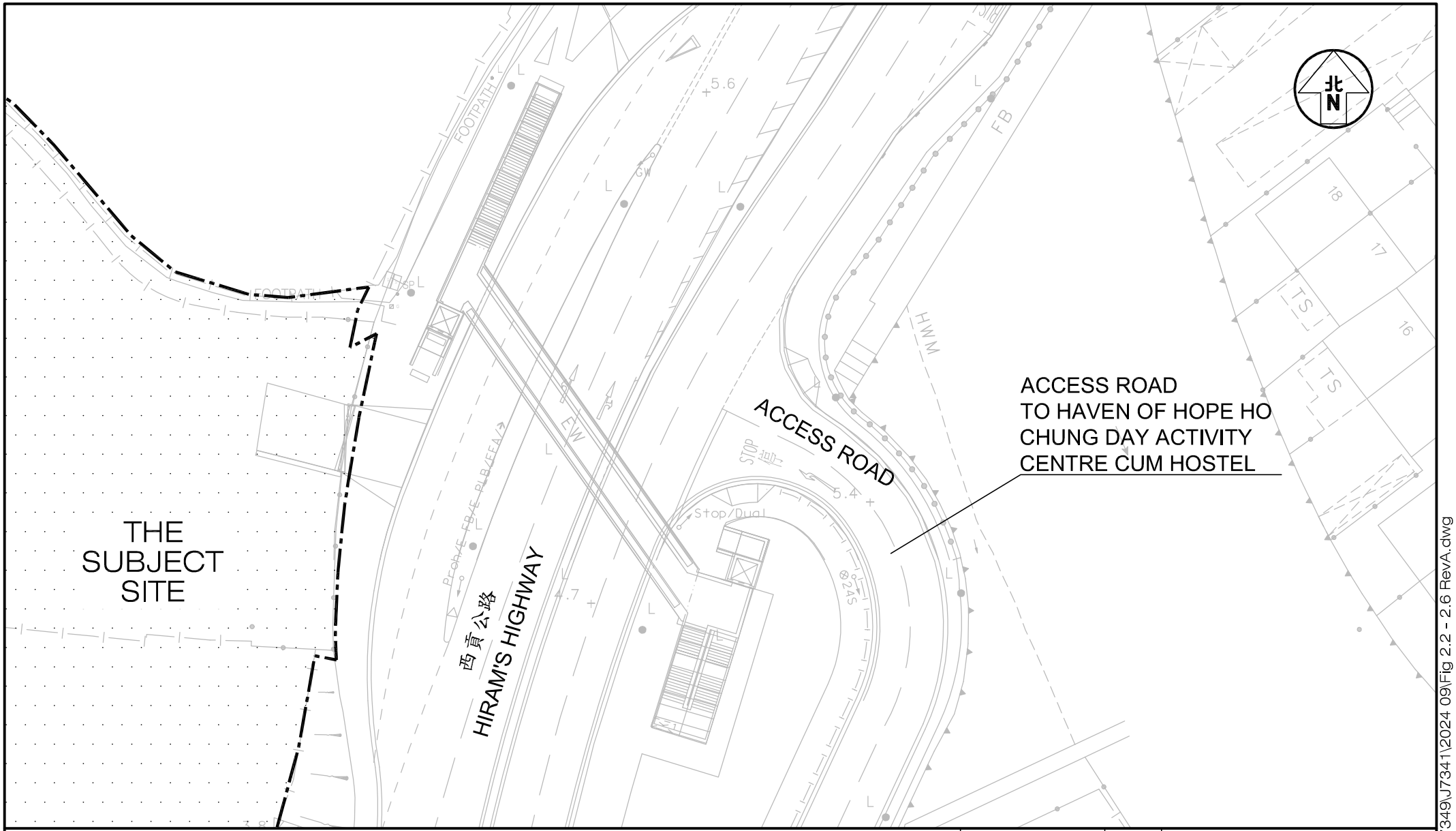

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Figure Title	LAYOUT OF HIRAM'S HIGHWAY / ACCESS ROAD TO HAVEN OF HOPE HO CHUNG DAY ACTIVITY CENTRE CUM HOSTEL		Designed by L K W / Drawn by S C Y / Checked by K C; Scale in A4 1 : 500 / Date 04 SEP 2024

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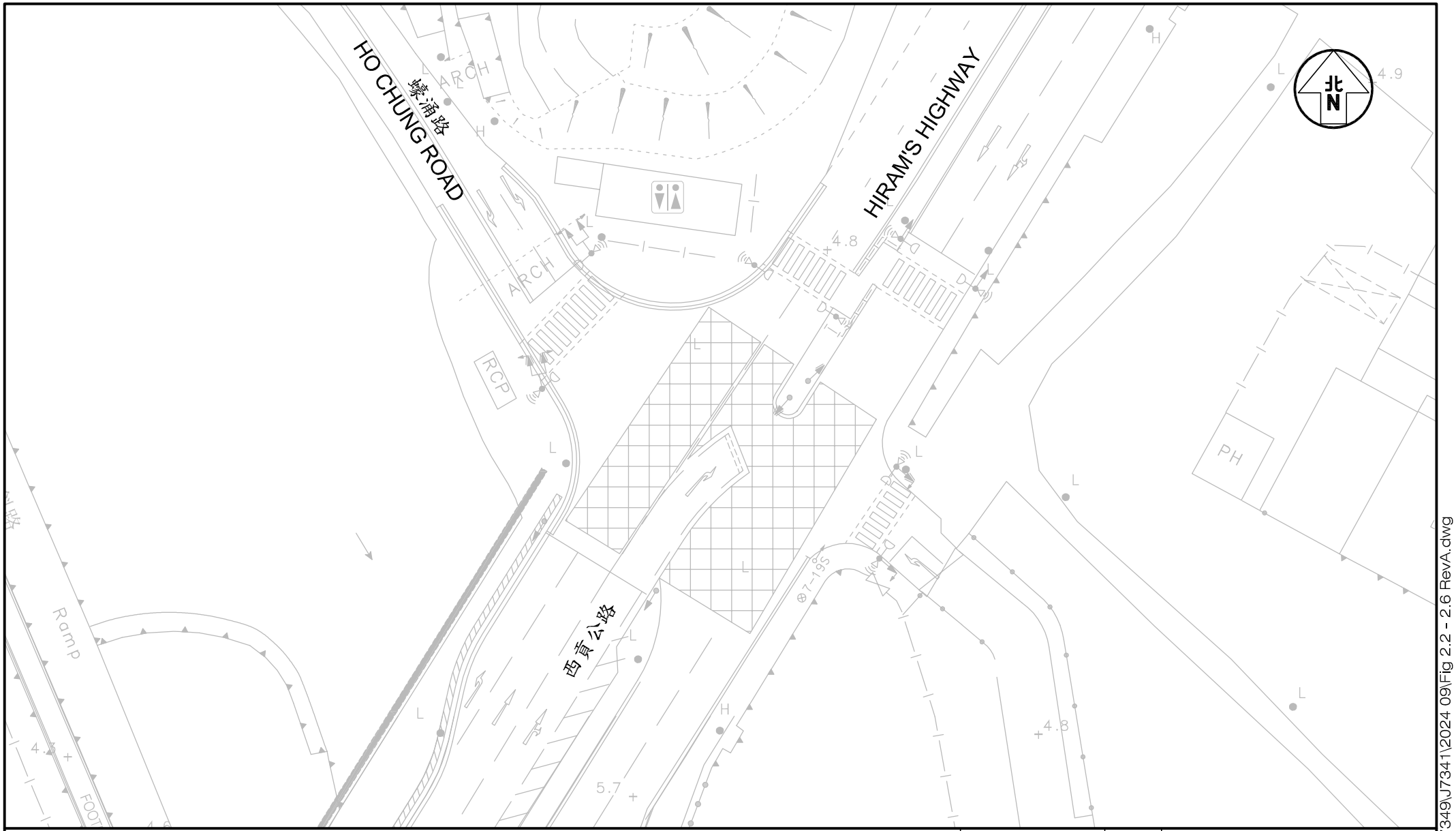

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Figure Title: LAYOUT OF HIRAM'S HIGHWAY / HO CHUNG ROAD	Designed by L K W / Drawn by S C Y / Checked by K C		
	Scale in A4 1 : 500	Date 04 SEP 2024	

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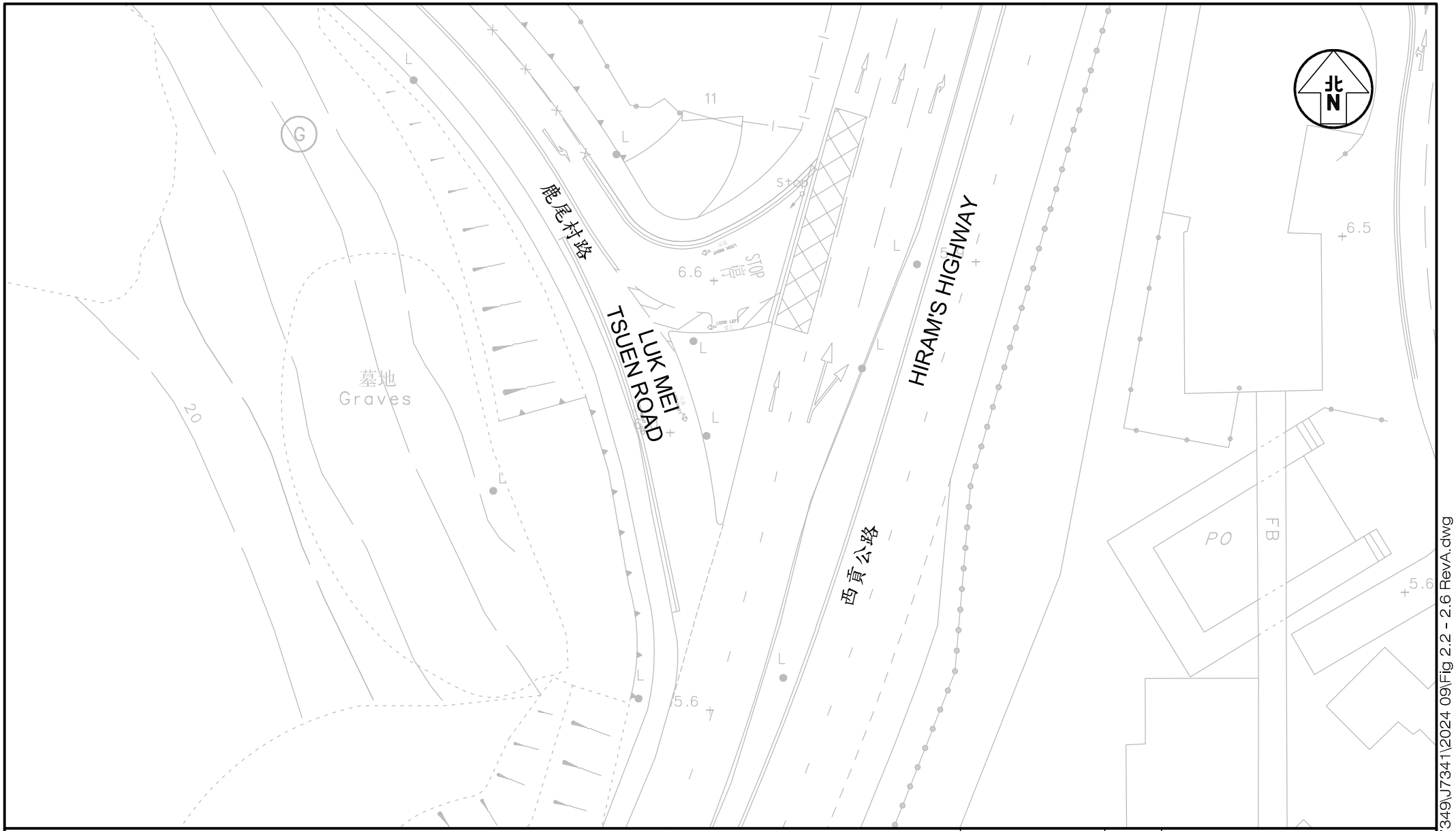

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Figure Title	LAYOUT OF HIRAM'S HIGHWAY / LUK MEI TSUEN ROAD	Designed by L K W / Drawn by S C Y / Checked by K C	
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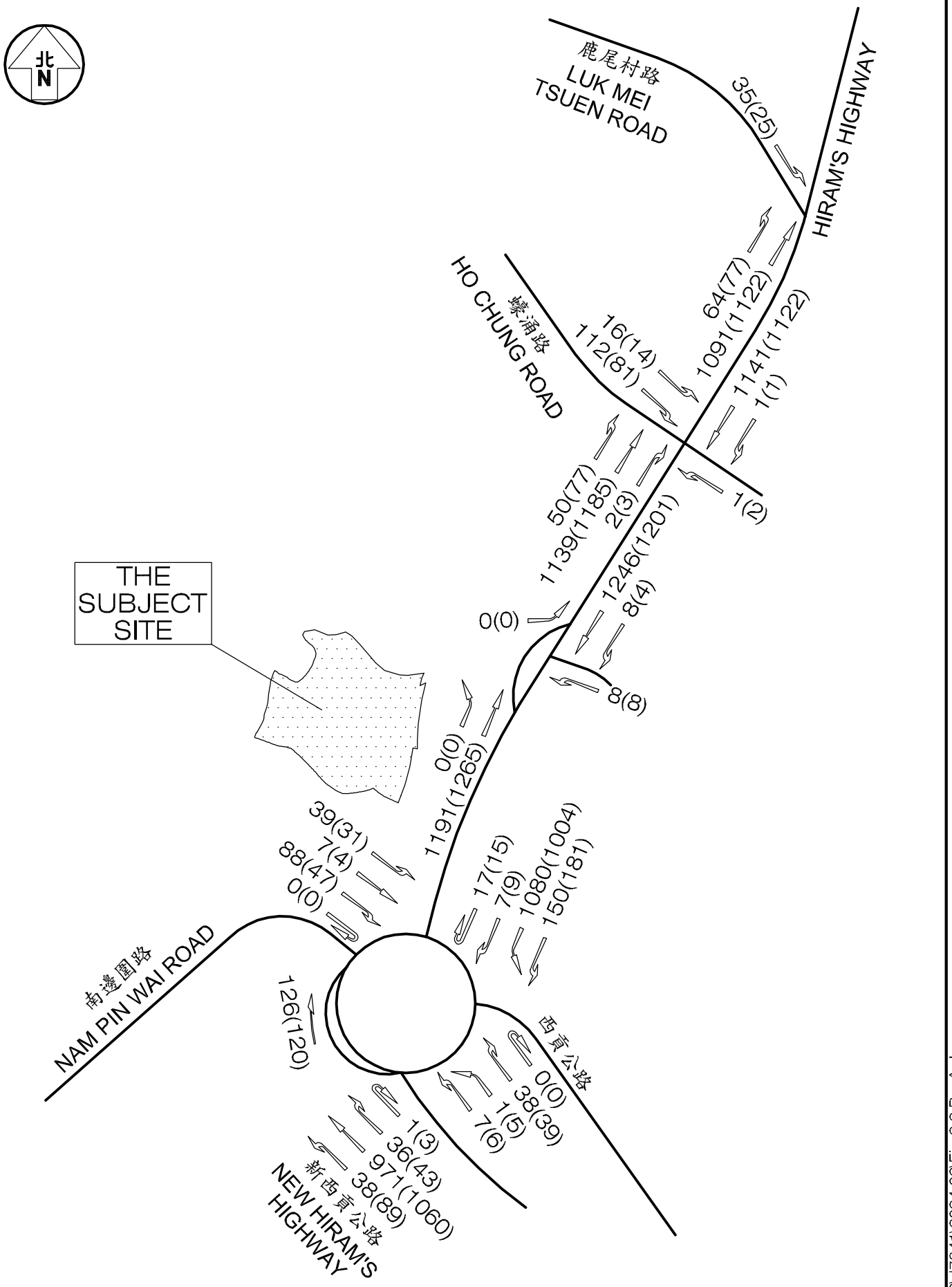

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Figure Title: EXISTING PEAK HOUR FLOWS	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk				

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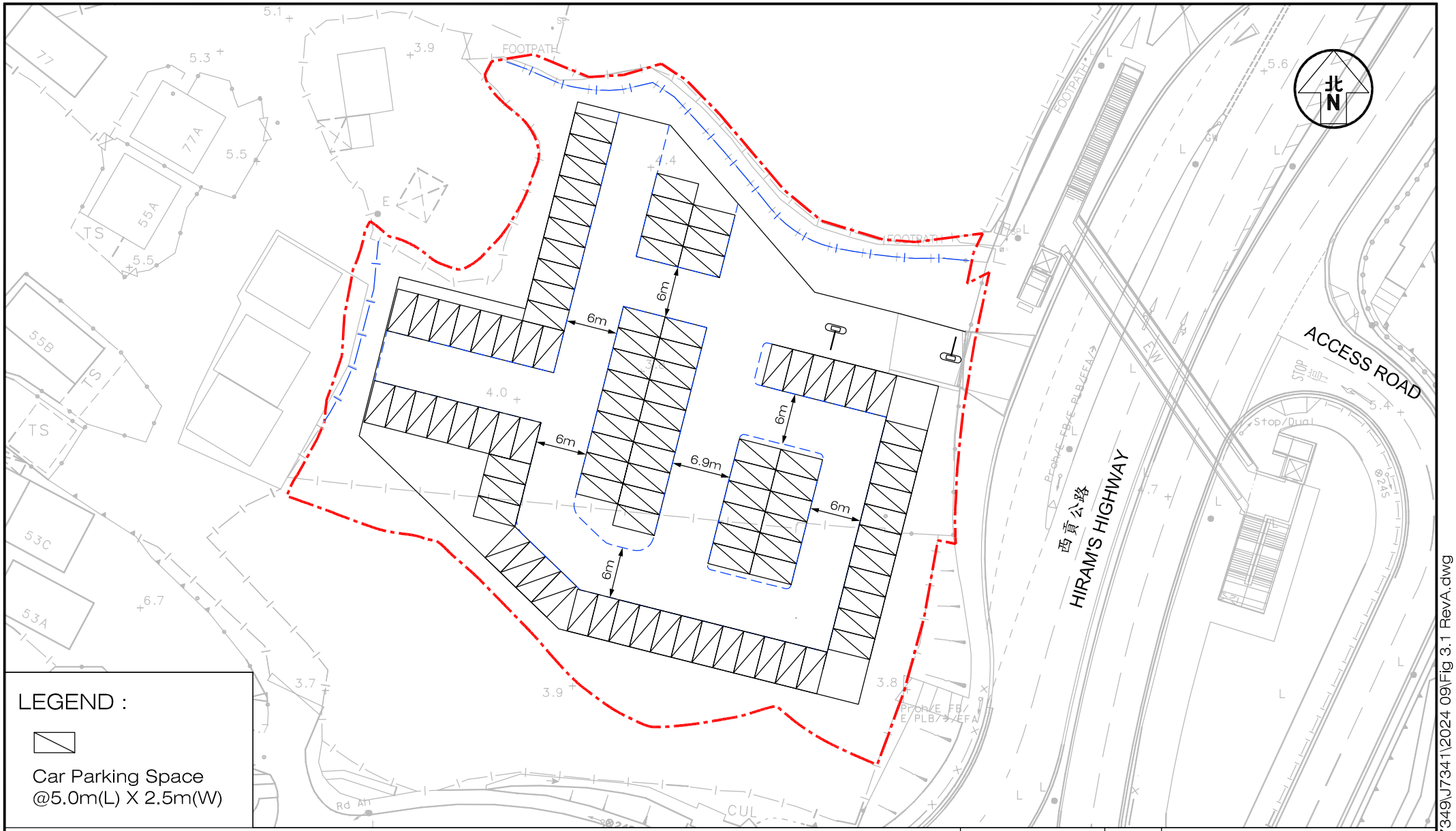

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Figure Title	LAYOUT PLAN OF PROPOSED DEVELOPMENT	Designed by K K Y / Drawn by S C Y / Checked by K C	
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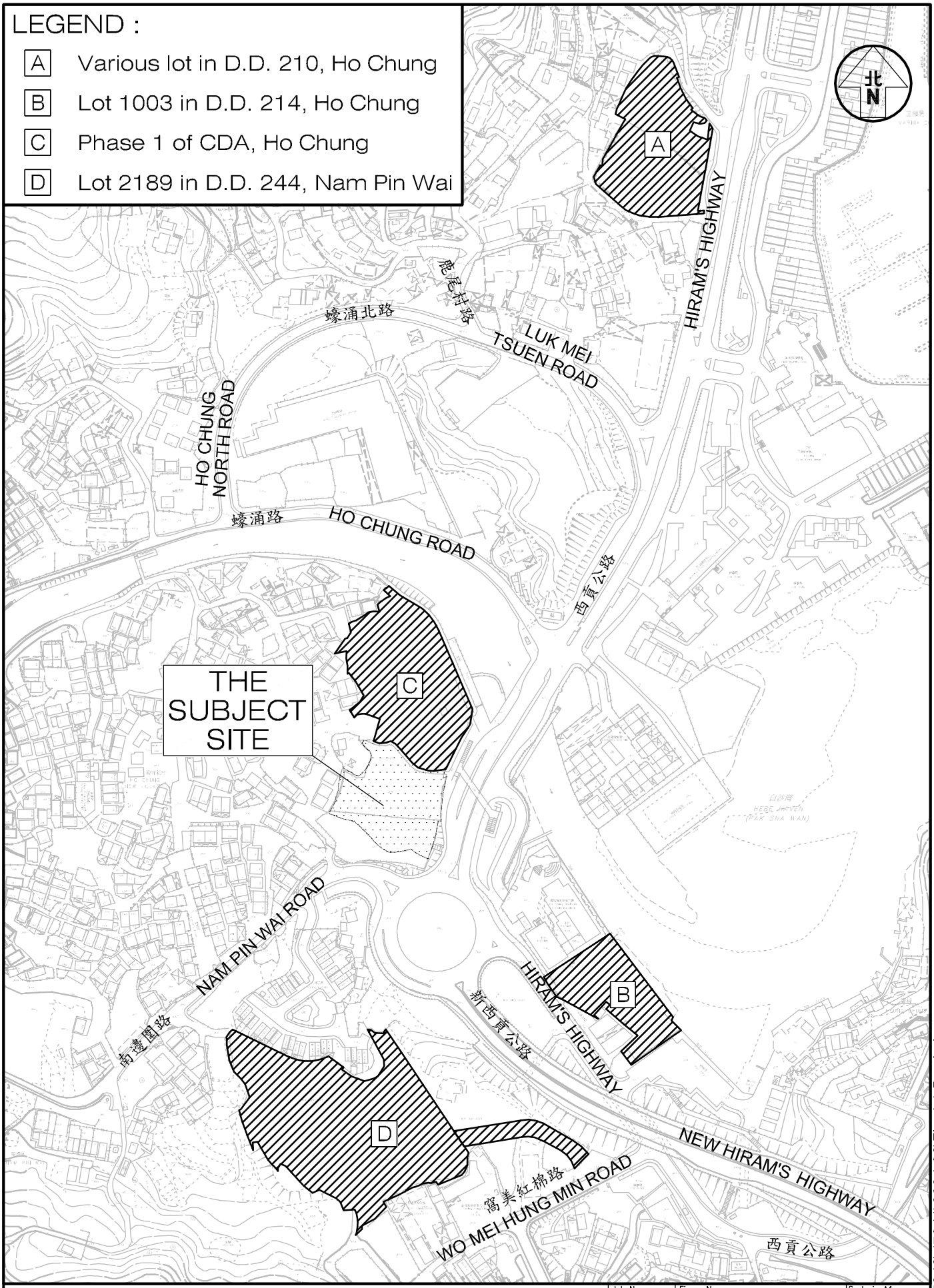

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Figure Title: LOCATIONS OF MAJOR PLANNED DEVELOPMENTS	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk				

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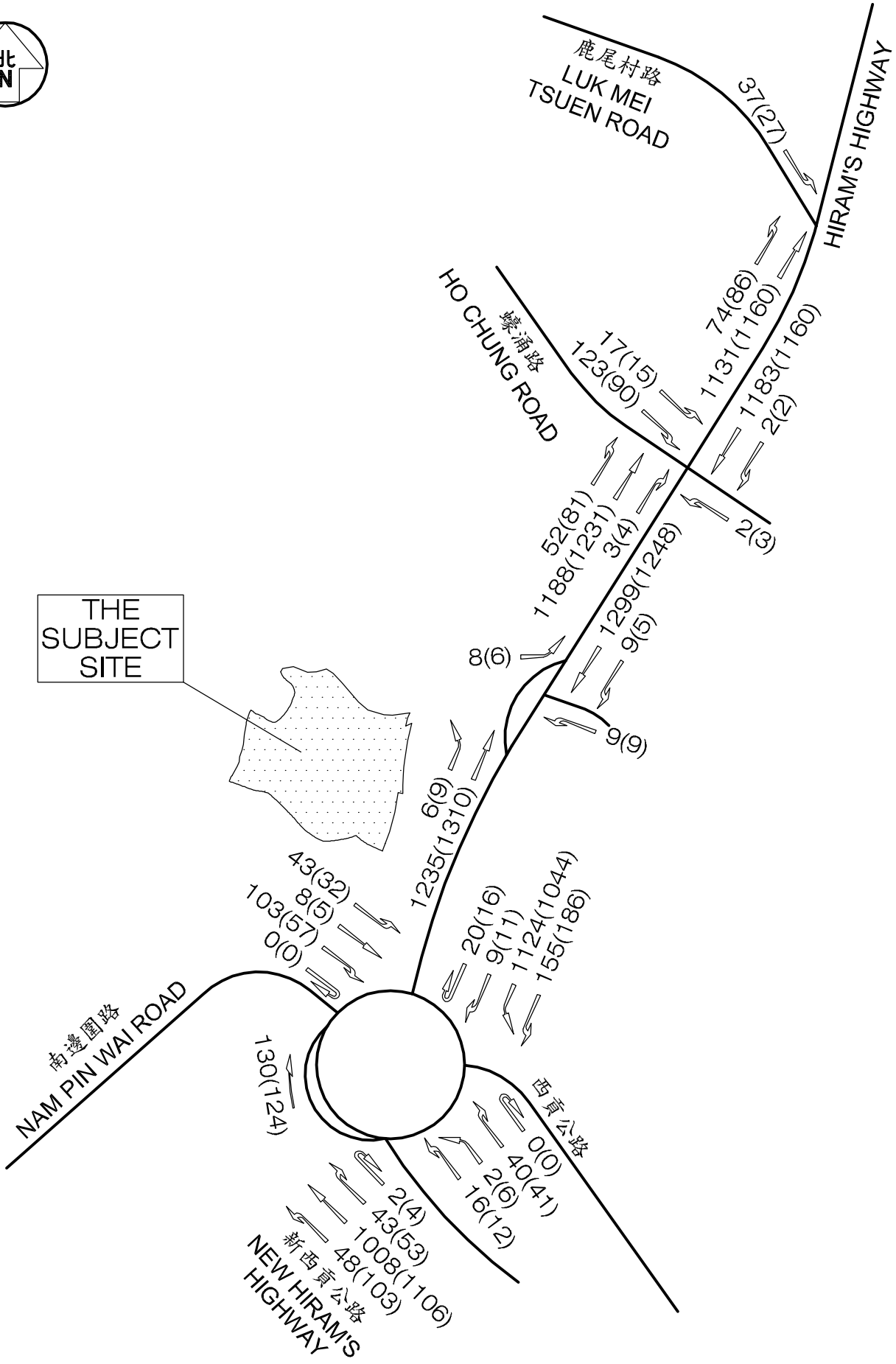

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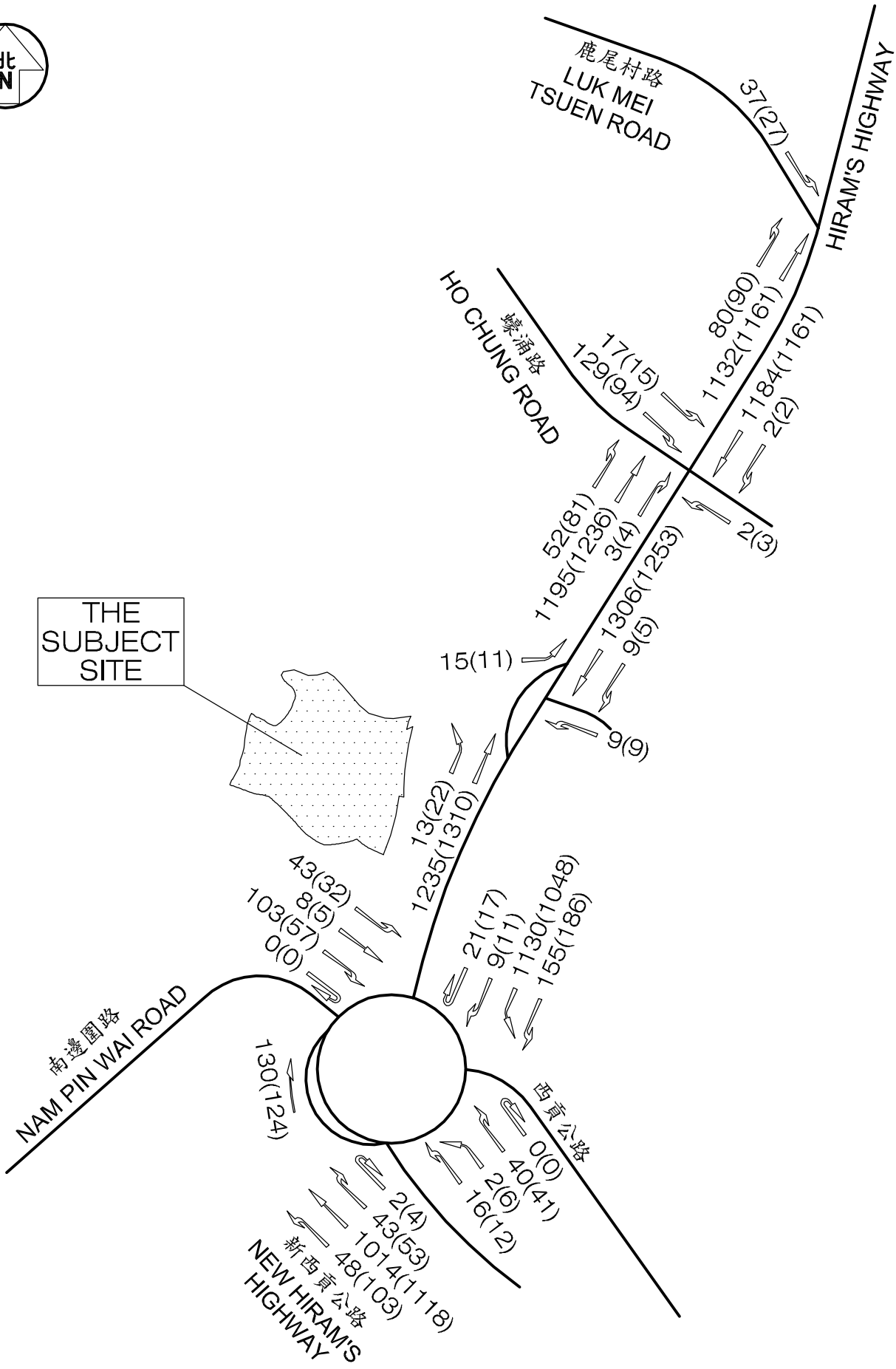
	Designed by K K Y	Drawn by S C Y	Checked by K C	Revision A	Date 04 SEP 2024
Figure Title: 2027 TRAFFIC FLOWS WITHOUT PROPOSED DEVELOPMENT	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk				

T:\JOB\J7300-J7349\J7341\2024 09\Fig 4.2 RevA.dwg



Project Title: PLANNING PERMISSION FOR PROPOSED 3-YEAR TEMPORARY PUBLIC VEHICLE PARK AT VARIOUS LOTS AND ADJOINING GOVERNMENT LAND IN DD 244, HO CHUNG, SAI KUNG (A/SK-HC/340)	Job No. J7341	Figure No. 4.3			Scale in A4 N.T.S.
	Designed by K K Y	Drawn by S C Y	Checked by K C	Revision A	Date 04 SEP 2024
Figure Title: 2027 TRAFFIC FLOWS WITH PROPOSED DEVELOPMENT	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk				

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Appendix A – Junction Capacity Analysis

Roundabout Analysis

Junction: Hiram's Highway / New Hiram's Highway / Nam Pin Wai Road — Job Number: J7341
Scenario: Existing Condition — P. 1
Design Year: 2024 — Designed By: — Checked By: — Date: 9 Sep 2024

AM Peak

Arm	To A	To B	To C	To D	Total	q_c
From A	17	150	1080	7	1254	132
From B	38	0	7	1	46	1193
From C	971	36	1	38	1046	63
From D	39	7	88	0	134	1189
Total	1065	193	1176	46	2480	

PM Peak

Arm	To A	To B	To C	To D	Total	q_c
From A	15	181	1004	9	1209	97
From B	39	0	6	5	50	1078
From C	1060	43	3	89	1195	68
From D	31	4	47	0	82	1280
Total	1145	228	1060	103	2536	

Legend

Arm	Road (in clockwise order)
A	Hiram's Highway SB
B	Hiram's Highway NB
C	New Hiram's Highway NB
D	Nam Pin Wai Road EB
E	
F	
G	
H	

Geometric Parameters

Arm	e (m)	v (m)	r (m)	L (m)	D (m)	∅ (°)	S
From A	7.5	7.5	18.8	1.0	80	41	0.0
From B	5.5	3.5	15.0	20.0	80	47	0.2
From C	9.0	7.0	18.8	10.0	80	48	0.3
From D	7.5	4.5	21.3	28.5	80	46	0.2
From E							
From F							
From G							
From H							

Predictive Equation $Q_E = K(F - f_c q_c)$

Q_E	Entry Capacity
q_c	Circulating Flow across the Entry
K	= 1-0.00347(∅-30)-0.978[(1/r)-0.05]
F	= $303x_2$
f_c	= $0.210t_D(1+0.2x_2)$
t_D	= 1+0.5/(1+M)
M	= exp[(D-60)/10]
x_2	= v+(e-v)/(1+2S)
S	= 1.6(e-v)/L

Limitation

e	Entry Width	4.0 - 15.0 m
v	Approach Half Width	2.0 - 7.3 m
r	Entry Radius	6.0 - 100.0 m
L	Effective Length of Flare	1.0 - 100.0 m
D	Inscribed Circle Diameter	15 - 100 m
∅	Entry Angle	10° - 60°
S	Sharpness of Flare	0.0 - 3.0

Ratio-of-Flow to Capacity (RFC)

							Q_E		Entry Flow		RFC	
Arm	x_2	M	t_D	K	F	f_c	AM	PM	AM	PM	AM	PM
From A	7.50	7.39	1.06	0.96	2272.50	0.56	2108.27	2127	1254	1209	0.59	0.57
From B	5.02	7.39	1.06	0.92	1519.59	0.45	913.49	961	46	50	0.05	0.05
From C	8.22	7.39	1.06	0.93	2490.51	0.59	2292.55	2290	1046	1195	0.46	0.52
From D	6.74	7.39	1.06	0.95	2043.46	0.52	1347.32	1302	134	82	0.10	0.06
From E												
From F												
From G												
From H												

Roundabout Analysis

Junction: Hiram's Highway / New Hiram's Highway / Nam Pin Wai Road — Job Number: J7341
Scenario: Future Condition (Without Proposed Development) — P. 2
Design Year: 2027 — Designed By: — Checked By: — Date: 9 Sep 2024

AM Peak

Arm	To A	To B	To C	To D	Total	q_c
From A	20	155	1124	9	1308	156
From B	40	0	16	2	58	1258
From C	1008	43	2	48	1101	71
From D	43	8	103	0	154	1243
Total	1111	206	1245	59	2621	

PM Peak

Arm	To A	To B	To C	To D	Total	q_c
From A	16	186	1044	11	1257	119
From B	41	0	12	6	59	1132
From C	1106	53	4	103	1266	74
From D	32	5	57	0	94	1344
Total	1195	244	1117	120	2676	

Legend

Arm	Road (in clockwise order)
A	Hiram's Highway SB
B	Hiram's Highway NB
C	New Hiram's Highway NB
D	Nam Pin Wai Road EB
E	
F	
G	
H	

Geometric Parameters

Arm	e (m)	v (m)	r (m)	L (m)	D (m)	∅ (°)	S
From A	7.5	7.5	18.8	1.0	80	41	0.0
From B	5.5	3.5	15.0	20.0	80	47	0.2
From C	9.0	7.0	18.8	10.0	80	48	0.3
From D	7.5	4.5	21.3	28.5	80	46	0.2
From E							
From F							
From G							
From H							

Predictive Equation $Q_E = K(F - f_c q_c)$

Q_E	Entry Capacity
q_c	Circulating Flow across the Entry
K	$= 1\text{-}0.00347(\varnothing\text{-}30)\text{-}0.978[(1/r)\text{-}0.05]$
F	$= 303x_2$
f_c	$= 0.210t_D(1+0.2x_2)$
t_D	$= 1+0.5/(1+M)$
M	$= \exp[(D-60)/10]$
x_2	$= v+(e-v)/(1+2S)$
S	$= 1.6(e-v)/L$

Limitation

e	Entry Width	4.0 - 15.0 m
v	Approach Half Width	2.0 - 7.3 m
r	Entry Radius	6.0 - 100.0 m
L	Effective Length of Flare	1.0 - 100.0 m
D	Inscribed Circle Diameter	15 - 100 m
∅	Entry Angle	10° - 60°
S	Sharpness of Flare	0.0 - 3.0

Ratio-of-Flow to Capacity (RFC)

							Q_E		Entry Flow		RFC	
Arm	x_2	M	t_D	K	F	f_c	AM	PM	AM	PM	AM	PM
From A	7.50	7.39	1.06	0.96	2272.50	0.56	2095	2115	1308	1257	0.62	0.59
From B	5.02	7.39	1.06	0.92	1519.59	0.45	887	939	58	59	0.07	0.06
From C	8.22	7.39	1.06	0.93	2490.51	0.59	2288	2287	1101	1266	0.48	0.55
From D	6.74	7.39	1.06	0.95	2043.46	0.52	1321	1271	154	94	0.12	0.07
From E												
From F												
From G												
From H												

Roundabout Analysis

Junction: Hiram's Highway / New Hiram's Highway / Nam Pin Wai Road — Job Number: J7341
Scenario: Future Condition (With Proposed Development) — P. 3
Design Year: 2027 — Designed By: — Checked By: — Date: 9 Sep 2024

AM Peak

Arm	To A	To B	To C	To D	Total	q_c
From A	21	155	1130	9	1315	156
From B	40	0	16	2	58	1265
From C	1014	43	2	48	1107	72
From D	43	8	103	0	154	1250
Total	1118	206	1251	59	2634	

PM Peak

Arm	To A	To B	To C	To D	Total	q_c
From A	17	186	1048	11	1262	119
From B	41	0	12	6	59	1137
From C	1118	53	4	103	1278	75
From D	32	5	57	0	94	1357
Total	1208	244	1121	120	2693	

Legend

Arm	Road (in clockwise order)
A	Hiram's Highway SB
B	Hiram's Highway NB
C	New Hiram's Highway NB
D	Nam Pin Wai Road EB
E	
F	
G	
H	

Geometric Parameters

Arm	e (m)	v (m)	r (m)	L (m)	D (m)	∅ (°)	S
From A	7.5	7.5	18.8	1.0	80	41	0.0
From B	5.5	3.5	15.0	20.0	80	47	0.2
From C	9.0	7.0	18.8	10.0	80	48	0.3
From D	7.5	4.5	21.3	28.5	80	46	0.2
From E							
From F							
From G							
From H							

Predictive Equation $Q_E = K(F - f_c q_c)$

Q_E	Entry Capacity
q_c	Circulating Flow across the Entry
K	= 1-0.00347(∅-30)-0.978[(1/r)-0.05]
F	= $303x_2$
f_c	= $0.210t_D(1+0.2x_2)$
t_D	= 1+0.5/(1+M)
M	= exp[(D-60)/10]
x_2	= v+(e-v)/(1+2S)
S	= 1.6(e-v)/L

Limitation

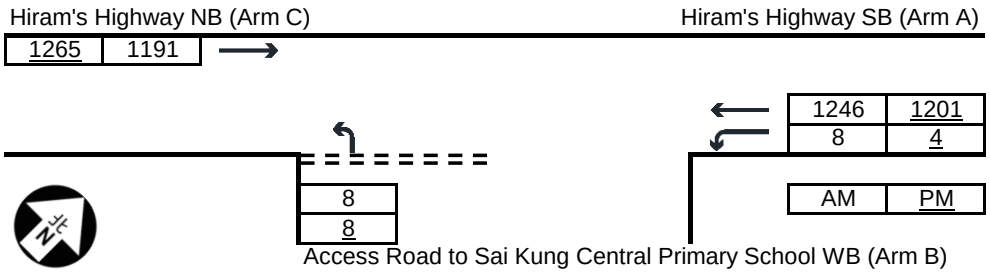
e	Entry Width	4.0 - 15.0 m
v	Approach Half Width	2.0 - 7.3 m
r	Entry Radius	6.0 - 100.0 m
L	Effective Length of Flare	1.0 - 100.0 m
D	Inscribed Circle Diameter	15 - 100 m
∅	Entry Angle	10° - 60°
S	Sharpness of Flare	0.0 - 3.0

Ratio-of-Flow to Capacity (RFC)

							Q_E		Entry Flow		RFC	
Arm	x_2	M	t_D	K	F	f_c	AM	PM	AM	PM	AM	PM
From A	7.50	7.39	1.06	0.96	2272.50	0.56	2095	2115	1315	1262	0.63	0.60
From B	5.02	7.39	1.06	0.92	1519.59	0.45	884	937	58	59	0.07	0.06
From C	8.22	7.39	1.06	0.93	2490.51	0.59	2288	2286	1107	1278	0.48	0.56
From D	6.74	7.39	1.06	0.95	2043.46	0.52	1317	1264	154	94	0.12	0.07
From E												
From F												
From G												
From H												

Priority Junction Analysis

Junction:	Hiram's Highway / Access Road to Haven of Hope Ho Chung Day Activity Centre cum Hostel				
Design Year:	2024	Job Number:	J7341	Date:	9 Sep 2024
Scenario:	Existing Condition				Page 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	16.00	V-rBA	0	w-BA	0.00	D	0.5332
	W-CR	1.50	V-lBA	0	w-BC	4.20	E	0.9712
			V-rBC	35	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.4480

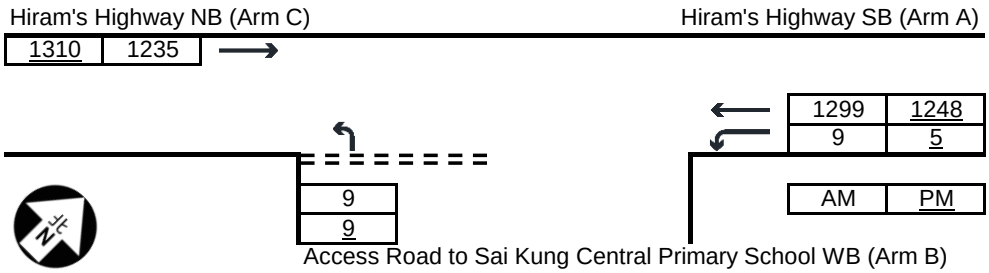
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	1191	1265	Q-BA	172	172
q-CB	0	0	Q-BC	526	533
q-AB	8	4	Q-CB	317	321
q-AC	1246	1201	Q-BAC	526	533
q-BA	0	0			
q-BC	8	8			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.015	0.015
C-B	0.000	0.000
B-AC	0.015	0.015

Priority Junction Analysis

Junction:	Hiram's Highway / Access Road to Haven of Hope Ho Chung Day Activity Centre cum Hostel				
Design Year:	2027	Job Number:	J7341	Date:	9 Sep 2024
Scenario:	Future Condition (Without Proposed Development)			Page	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	16.00	V-rBA	0	w-BA	0.00	D	0.5332
	W-CR	1.50	V-lBA	0	w-BC	4.20	E	0.9712
			V-rBC	35	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.4480

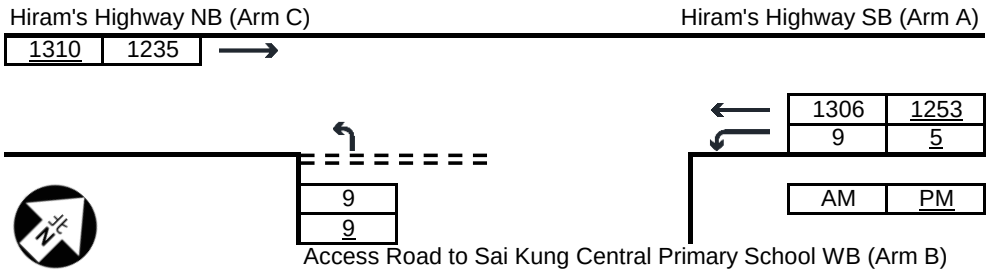
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	1235	1310	Q-BA	165	165
q-CB	0	0	Q-BC	517	526
q-AB	9	5	Q-CB	312	317
q-AC	1299	1248	Q-BAC	517	526
q-BA	0	0			
q-BC	9	9			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.017	0.017
C-B	0.000	0.000
B-AC	0.017	0.017

Priority Junction Analysis

Junction:	Hiram's Highway / Access Road to Haven of Hope Ho Chung Day Activity Centre cum Hostel				
Design Year:	2027	Job Number:	J7341	Date:	9 Sep 2024
Scenario:	Future Condition (With Proposed Development)			Page	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	16.00	V-rBA	0	w-BA	0.00	D	0.5332
	W-CR	1.50	V-lBA	0	w-BC	4.20	E	0.9712
			V-rBC	35	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.4480

Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	1235	1310	Q-BA	164	165
q-CB	0	0	Q-BC	516	525
q-AB	9	5	Q-CB	311	316
q-AC	1306	1253	Q-BAC	516	525
q-BA	0	0			
q-BC	9	9			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.017	0.017
C-B	0.000	0.000
B-AC	0.017	0.017

Signal Junction Analysis

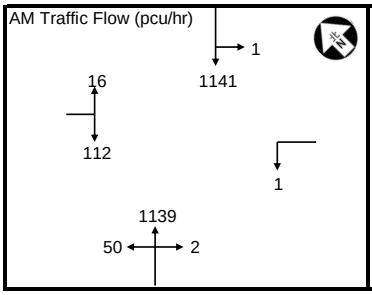
Junction: Hiram's Highway / Ho Chung Road Job Number: J7341

Scenario: Existing Condition P. 7

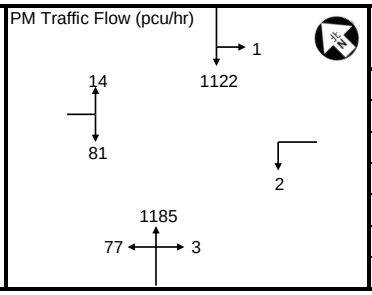
Design Year: 2024 Designed By: Checked By: Date: 9 Sep 2024

Approach	Nearside	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
Hiram's Highway SB	LT+SA	A1	1	4.00	10.0		1	2012	551	0.274	0.274	1	2012	542	0.269	
	SA	A2	1	4.00				2155	591	0.274			2155	581	0.270	0.270
Ho Chung Road EB	LT	B1	2	3.00	14.0		100	1730	16	0.009		100	1730	14	0.008	
	RT	B2	2	3.00	17.0		100	1888	112	0.059	0.059	100	1888	81	0.043	0.043
Hiram's Highway NB	LT	C1	1	3.50	10.0		100	1830	50	0.027		100	1830	77	0.042	
	SA	C2	1	3.50				2105	571	0.271			2105	594	0.282	
	SA+RT	C3	1	3.50	17.5		1	2103	570	0.271		1	2103	594	0.282	
Access Road to	LT	D1	3	4.50	10.0		100	1796	1	0.001	0.001	100	1796	2	0.001	0.001
Berkeley Bay Villa WB																
pedestrian phase		P1	3		min crossing time =		5	sec GM +		7	sec FGM =		12	sec		
		P2	2, 3		min crossing time =		5	sec GM +		7	sec FGM =		12	sec		
		P3	2		min crossing time =		5	sec GM +		7	sec FGM =		12	sec		
		P4	3		min crossing time =		5	sec GM +		10	sec FGM =		15	sec		

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

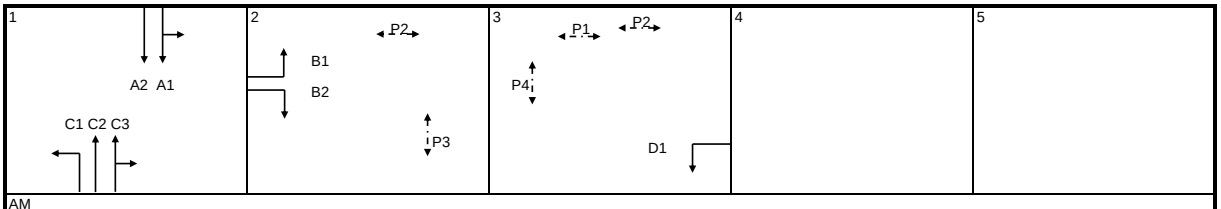


$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

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

Note:

	AM Peak		PM Peak	
Group	1+2+3		1+2+3	
Sum y	0.334		0.314	
L (s)	31		31	
C (s)	135		130	
practical y	0.693		0.685	
R.C. (%)	108%		119%	



AM	G =	I/G =	10	G =	I/G =	7	G =	11	I/G =	5	G =	I/G =		G =	I/G =
	G =	I/G =	5	G =	I/G =	7	G =	11	I/G =	5	G =	I/G =		G =	I/G =
PM	G =	I/G =	10	G =	I/G =	7	G =	11	I/G =	5	G =	I/G =		G =	I/G =
	G =	I/G =	5	G =	I/G =	7	G =	11	I/G =	5	G =	I/G =		G =	I/G =

Signal Junction Analysis

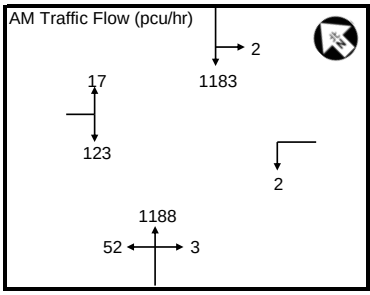
Junction: Hiram's Highway / Ho Chung Road Job Number: J7341

Scenario: Future Condition (Without Proposed Development) P. 8

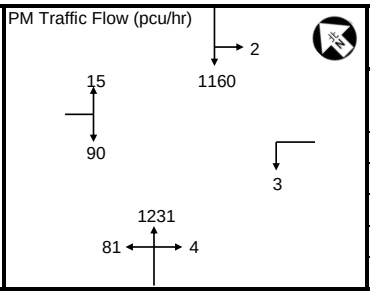
Design Year: 2027 Designed By: Checked By: Date: 9 Sep 2024

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
Hiram's Highway SB LT+SA	A1	1	4.00	10.0		1	2012	572	0.284	0.284	1	2012	561	0.279	0.279
SA	A2	1	4.00				2155	613	0.284			2155	601	0.279	
Ho Chung Road EB LT	B1	2	3.00	14.0		100	1730	17	0.010		100	1730	15	0.009	
RT	B2	2	3.00	17.0		100	1888	123	0.065	0.065	100	1888	90	0.048	0.048
Hiram's Highway NB LT	C1	1	3.50	10.0		100	1830	52	0.028		100	1830	81	0.044	
SA	C2	1	3.50				2105	596	0.283			2105	618	0.294	
SA+RT	C3	1	3.50	17.5		1	2103	595	0.283		1	2103	617	0.293	
Access Road to LT	D1	3	4.50	10.0		100	1796	2	0.001	0.001	100	1796	3	0.002	0.002
Berkeley Bay Villa WB															
pedestrian phase	P1	3		min crossing time =		5	sec GM +	7	sec FGM =		12	sec			
	P2	2, 3		min crossing time =		5	sec GM +	7	sec FGM =		12	sec			
	P3	2		min crossing time =		5	sec GM +	7	sec FGM =		12	sec			
	P4	3		min crossing time =		5	sec GM +	10	sec FGM =		15	sec			

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

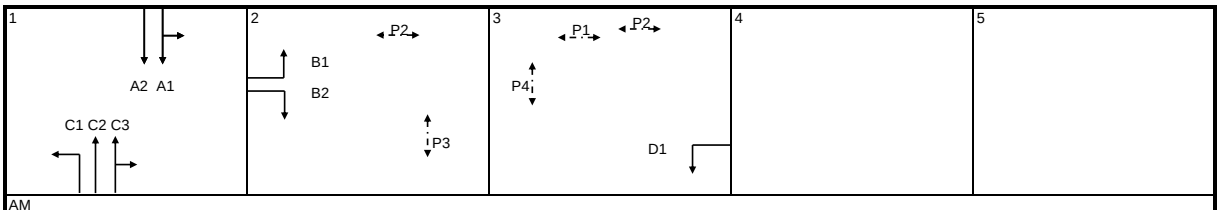


$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

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

Note:

	AM Peak 1+2+3		PM Peak 1+2+3	
Sum y	0.351		0.328	
L (s)	31		31	
C (s)	135		130	
practical y	0.693		0.685	
R.C. (%)	98%		109%	



AM															
G =	I/G =	10	G =	I/G =	7	G =	11	I/G =	5	G =	I/G =		G =	I/G =	
G =	I/G =	5	G =	I/G =	7	G =	11	I/G =	5	G =	I/G =		G =	I/G =	
PM															
G =	I/G =	10	G =	I/G =	7	G =	11	I/G =	5	G =	I/G =		G =	I/G =	
G =	I/G =	5	G =	I/G =	7	G =	11	I/G =	5	G =	I/G =		G =	I/G =	

Signal Junction Analysis

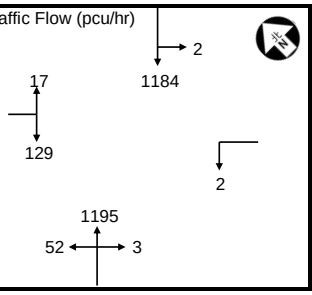
Junction: Hiram's Highway / Ho Chung Road Job Number: J7341

Scenario: Future Condition (With Proposed Development) P. 9

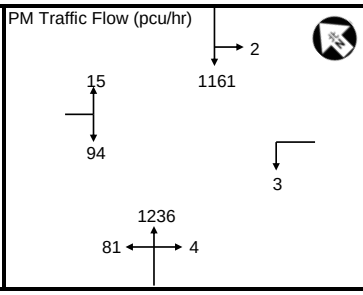
Design Year: 2027 Designed By: Checked By: Date: 9 Sep 2024

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
Hiram's Highway SB	LT+SA	A1	1	4.00	10.0		1	2012	573	0.285	0.285	1	2012	562	0.279	0.279
	SA	A2	1	4.00				2155	613	0.284			2155	601	0.279	
Ho Chung Road EB	LT	B1	2	3.00	14.0		100	1730	17	0.010		100	1730	15	0.009	
	RT	B2	2	3.00	17.0		100	1888	129	0.068	0.068	100	1888	94	0.050	0.050
Hiram's Highway NB	LT	C1	1	3.50	10.0		100	1830	52	0.028		100	1830	81	0.044	
	SA	C2	1	3.50				2105	599	0.285			2105	620	0.295	
	SA+RT	C3	1	3.50	17.5		1	2103	599	0.285		1	2103	620	0.295	
Access Road to	LT	D1	3	4.50	10.0		100	1796	2	0.001	0.001	100	1796	3	0.002	0.002
Berkeley Bay Villa WB																
pedestrian phase		P1	3		min crossing time =		5	sec GM +	7	sec FGM =		12	sec			
		P2	2, 3		min crossing time =		5	sec GM +	7	sec FGM =		12	sec			
		P3	2		min crossing time =		5	sec GM +	7	sec FGM =		12	sec			
		P4	3		min crossing time =		5	sec GM +	10	sec FGM =		15	sec			

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

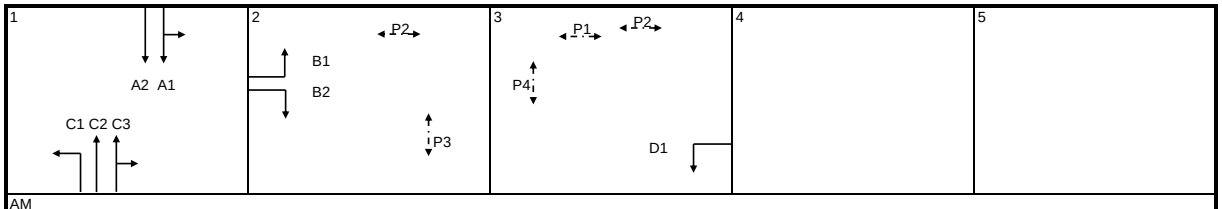


$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

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

Note:

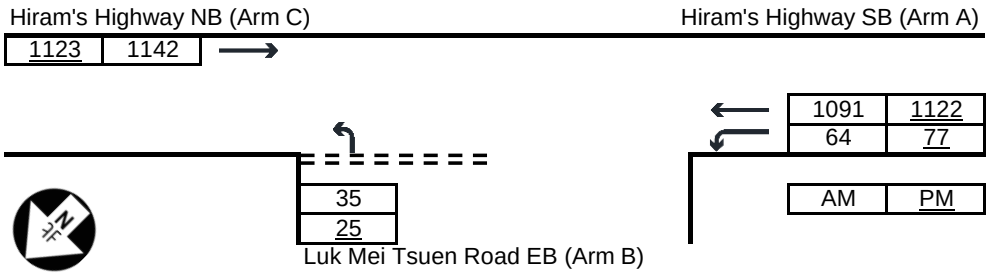
	AM Peak 1+2+3		PM Peak 1+2+3	
Sum y	0.354		0.331	
L (s)	31		31	
C (s)	135		130	
practical y	0.693		0.685	
R.C. (%)	96%		107%	



AM																
	G =	I/G =	10	G =	I/G =	7	G =	11	I/G =	5	G =	I/G =		G =	I/G =	
	G =	I/G =	5	G =	I/G =	7	G =	11	I/G =	5	G =	I/G =		G =	I/G =	
PM																
	G =	I/G =	10	G =	I/G =	7	G =	11	I/G =	5	G =	I/G =		G =	I/G =	
	G =	I/G =	5	G =	I/G =	7	G =	11	I/G =	5	G =	I/G =		G =	I/G =	

Priority Junction Analysis

Junction:	Hiram's Highway / Luk Mei Tsuen Road				
Design Year:	2024	Job Number:	J7341	Date:	9 Sep 2024
Scenario:	Existing Condition				Page 10



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	18.00	V-rBA	0	w-BA	0.00	D	0.5332
	W-CR	2.50	V-lBA	0	w-BC	4.50	E	1.0216
			V-rBC	60	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.3790

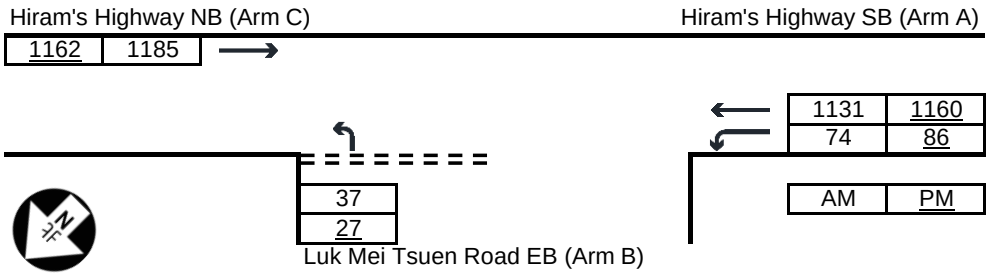
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	1142	1123	Q-BA	218	216
q-CB	0	0	Q-BC	604	599
q-AB	64	77	Q-CB	343	340
q-AC	1091	1122	Q-BAC	604	599
q-BA	0	0			
q-BC	35	25			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.058	0.042
C-B	0.000	0.000
B-AC	0.058	0.042

Priority Junction Analysis

Junction:	Hiram's Highway / Luk Mei Tsuen Road				
Design Year:	2027	Job Number:	J7341	Date:	9 Sep 2024
Scenario:	Future Condition (Without Proposed Development)			Page	11



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	18.00	V-rBA	0	w-BA	0.00	D	0.5332
	W-CR	2.50	V-lBA	0	w-BC	4.50	E	1.0216
			V-rBC	60	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.3790

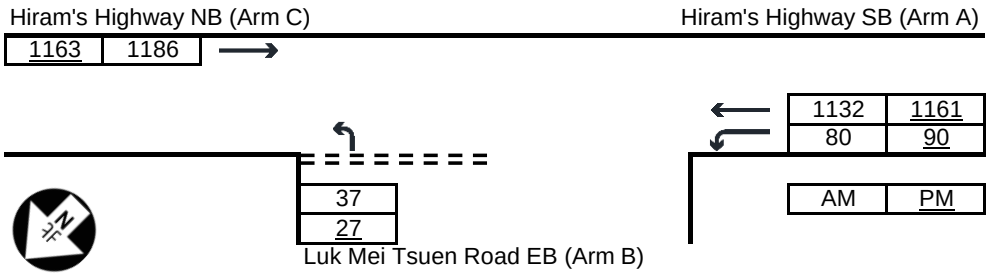
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	1185	1162	Q-BA	213	211
q-CB	0	0	Q-BC	598	593
q-AB	74	86	Q-CB	339	336
q-AC	1131	1160	Q-BAC	598	593
q-BA	0	0			
q-BC	37	27			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.062	0.046
C-B	0.000	0.000
B-AC	0.062	0.046

Priority Junction Analysis

Junction:	Hiram's Highway / Luk Mei Tsuen Road				
Design Year:	2027	Job Number:	J7341	Date:	9 Sep 2024
Scenario:	Future Condition (With Proposed Development)			Page	12



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

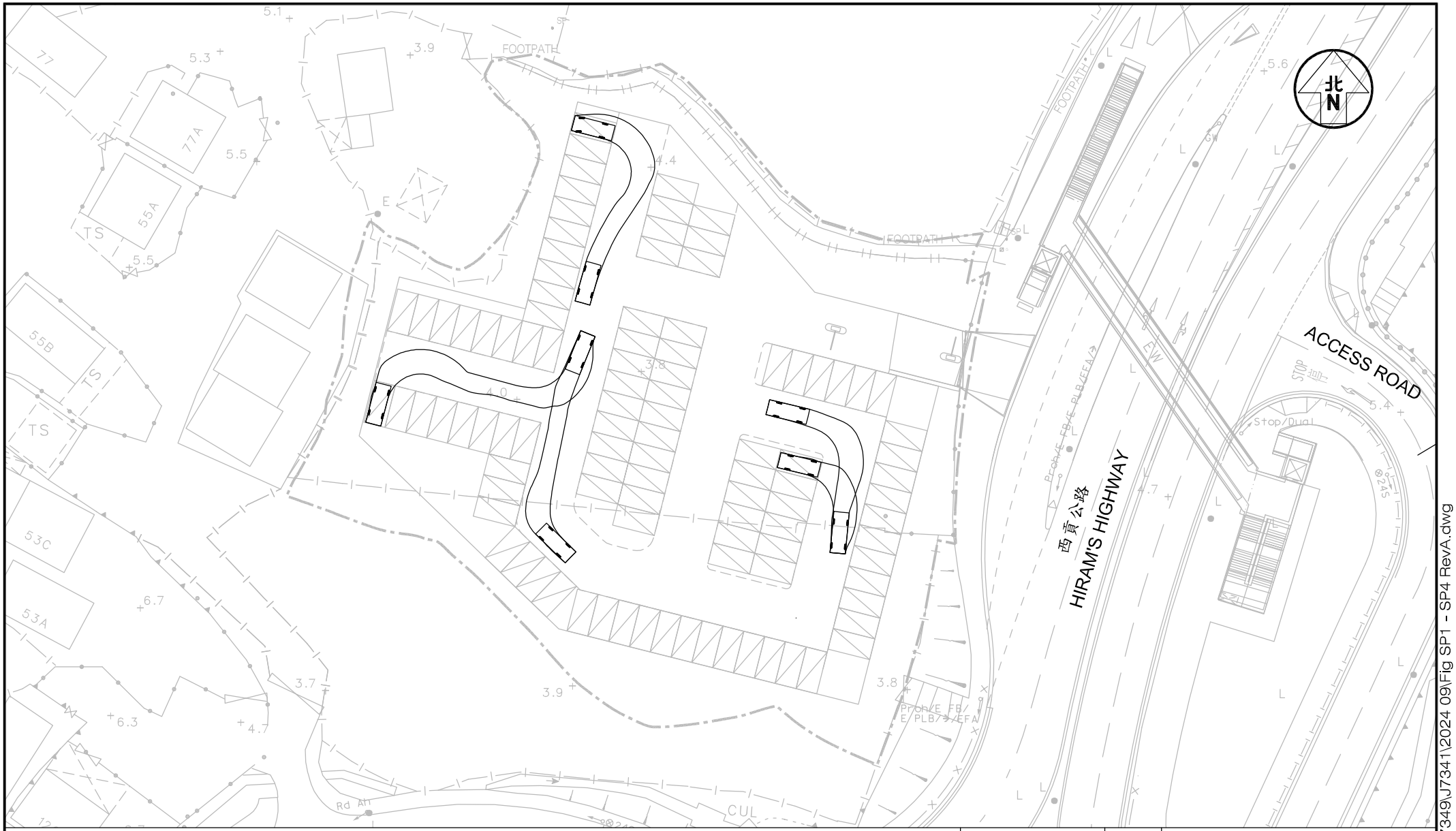
Geometry :	Input		Input		Input		Calculated	
	W	18.00	V-rBA	0	w-BA	0.00	D	0.5332
	W-CR	2.50	V-lBA	0	w-BC	4.50	E	1.0216
			V-rBC	60	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.3790

Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	1186	1163	Q-BA	213	211
q-CB	0	0	Q-BC	597	592
q-AB	80	90	Q-CB	339	335
q-AC	1132	1161	Q-BAC	597	592
q-BA	0	0			
q-BC	37	27			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.062	0.046
C-B	0.000	0.000
B-AC	0.062	0.046

Appendix B –
Swept Path Analysis



Project Title	PLANNING PERMISSION FOR PROPOSED 3-YEAR TEMPORARY PUBLIC VEHICLE PARK AT VARIOUS LOTS AND ADJOINING GOVERNMENT LAND IN DD 244, HO CHUNG, SAI KUNG (A/SK-HC/340)	J7341	Figure No. SP1 / Revision A
Figure Title	SWEPT PATH OF PRIVATE CAR ENTERING THE PROPOSED TEMPORARY CAR PARK		Designed by K K Y / Drawn by S C Y / Checked by K C
			Scale in A4 1 : 600 / Date 09 SEP 2024

CKM Asia Limited
Traffic and Transportation Planning Consultants
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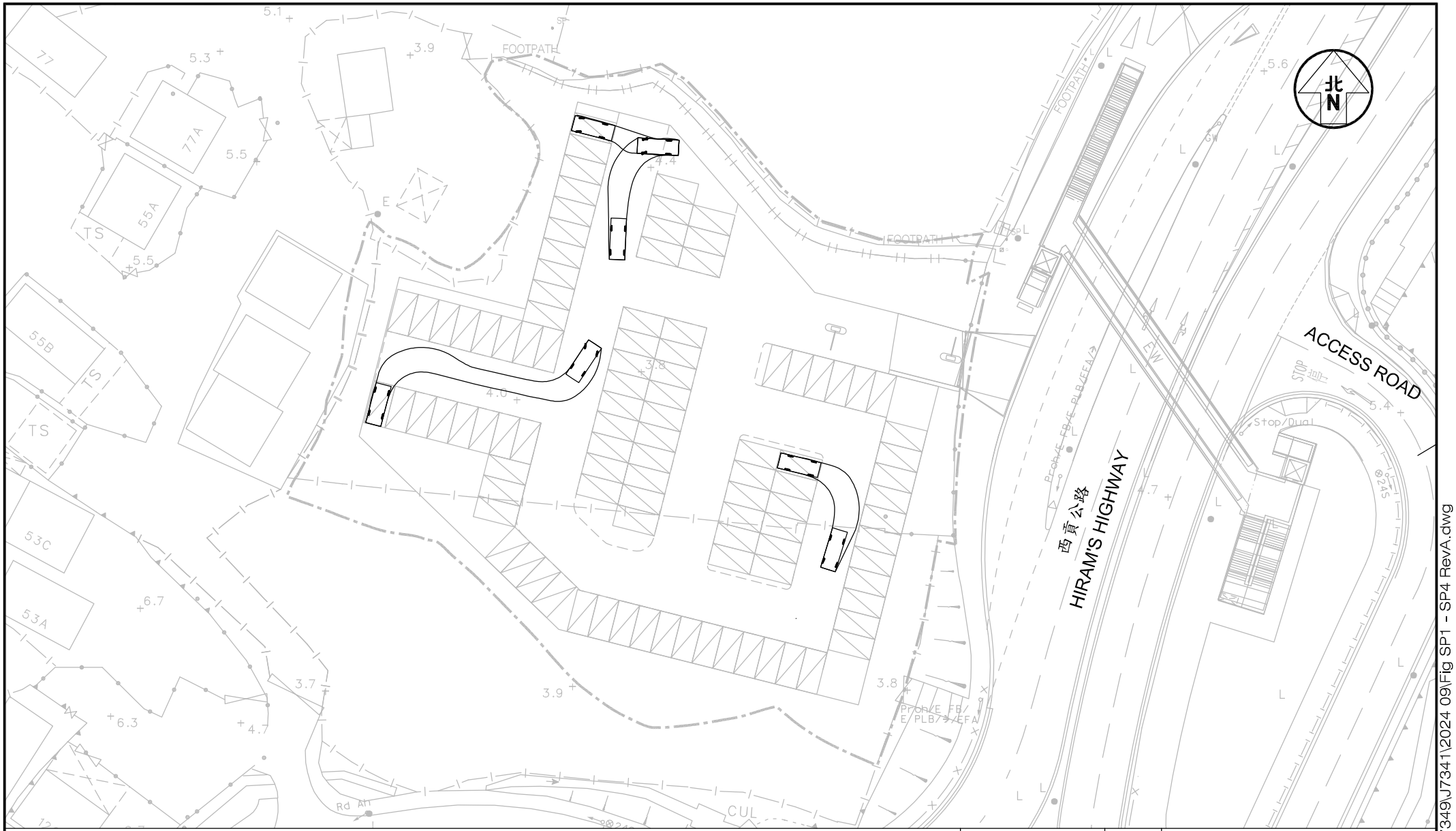

Project Title	PLANNING PERMISSION FOR PROPOSED 3-YEAR TEMPORARY PUBLIC VEHICLE PARK AT VARIOUS LOTS AND ADJOINING GOVERNMENT LAND IN DD 244, HO CHUNG, SAI KUNG (A/SK-HC/340) J7341	Figure No. SP2	Revision A
Figure Title	SWEPT PATH OF PRIVATE CAR LEAVING THE PROPOSED TEMPORARY CAR PARK	Designed by K K Y / Drawn by S C Y / Checked by K C	
		Scale in A4 1 : 600 / Date 09 SEP 2024	

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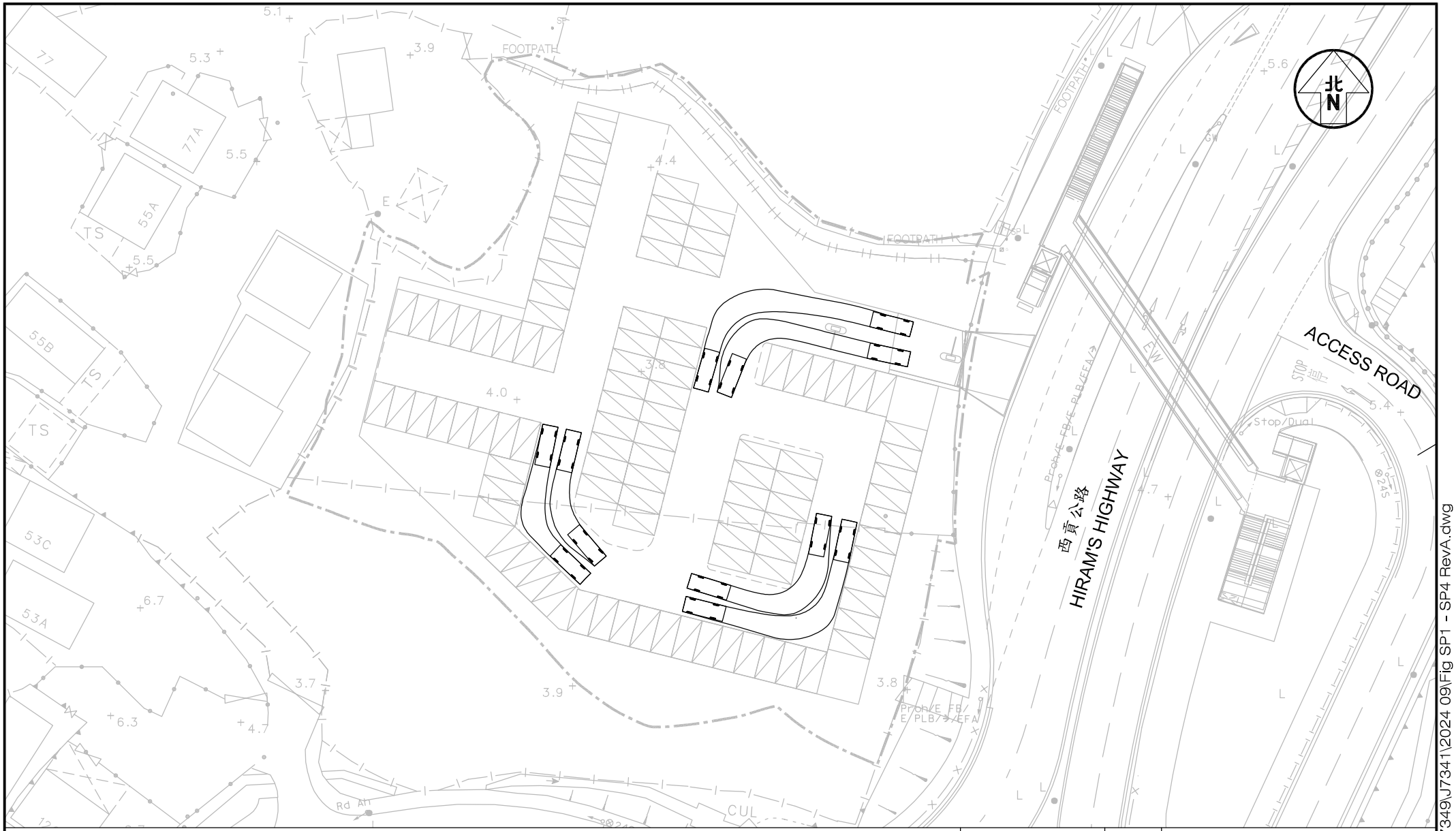
T:\JOB\J7300-J7349\J7341\2024 09\Fig SP1 - SP4 RevA.dwg



Project Title	PLANNING PERMISSION FOR PROPOSED 3-YEAR TEMPORARY PUBLIC VEHICLE PARK AT VARIOUS LOTS AND ADJOINING GOVERNMENT LAND IN DD 244, HO CHUNG, SAI KUNG (A/SK-HC/340) J7341	Figure No. SP3	Revision A
Figure Title	SWEPT PATH OF PRIVATE CAR IN 2 WAYS AT THE PROPOSED TEMPORARY CAR PARK	Designed by K K Y / Drawn by S C Y / Checked by K C	
		Scale in A4 1 : 600 / Date 09 SEP 2024	

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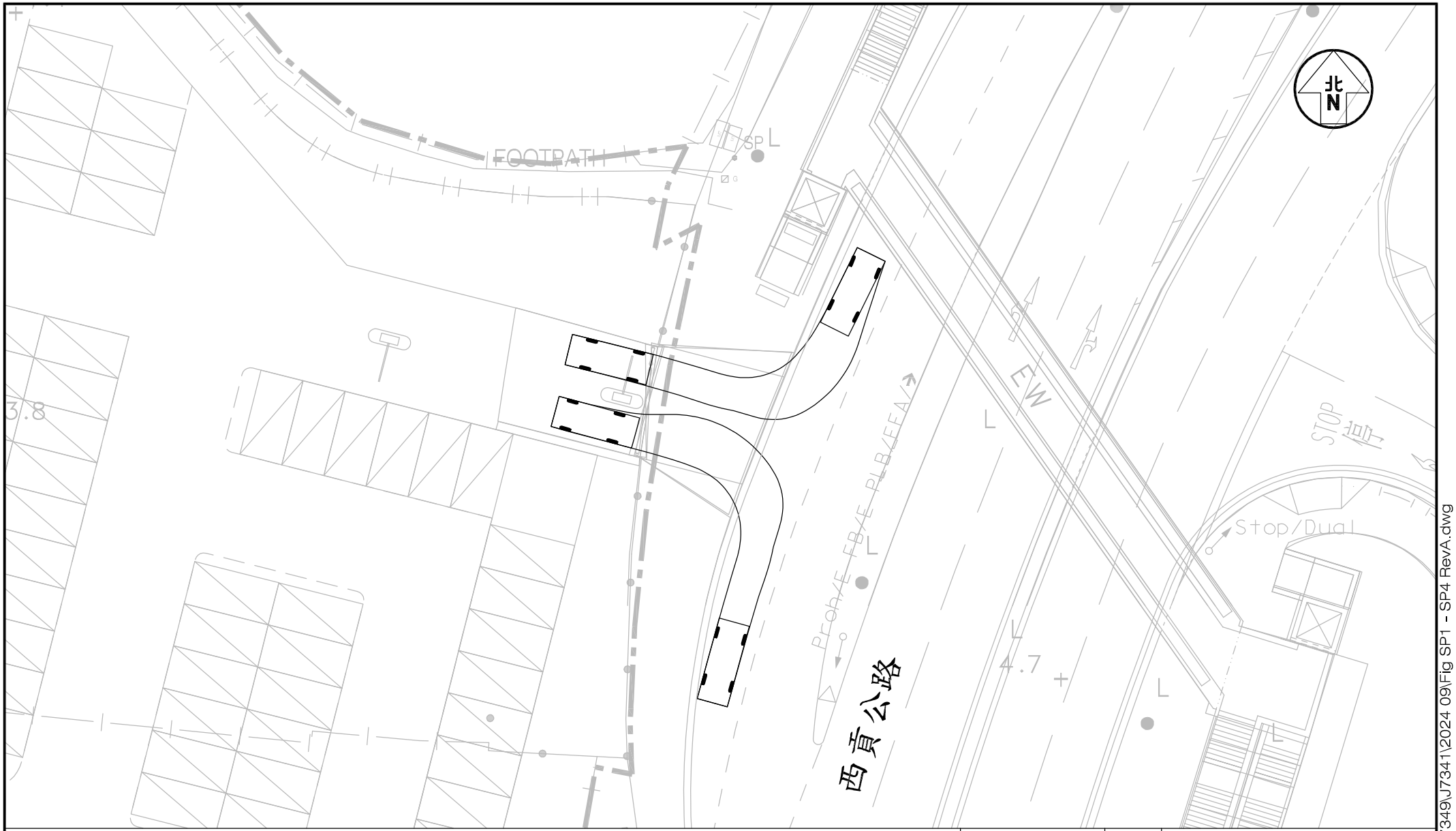

Project Title	PLANNING PERMISSION FOR PROPOSED 3-YEAR TEMPORARY PUBLIC VEHICLE PARK AT VARIOUS LOTS AND ADJOINING GOVERNMENT LAND IN DD 244, HO CHUNG, SAI KUNG (A/SK-HC/340) J7341	Figure No. SP4	Revision A
Figure Title	SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING THE TEMPORARY CAR PARK AT THE VEHICULAR ACCESS	Designed by K K Y / Drawn by S C Y / Checked by K C Scale in A4 1 : 250 / Date 09 SEP 2024	

CKM Asia Limited
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