

Appendix G
Traffic Impact Assessment

**Section 16 Planning Application for
Minor Relaxation of Plot Ratio, Building Height & Site
Coverage Restrictions for
Proposed Residential Development
at 44 Stanley Village Road, Hong Kong**

TIA Report

August 2024



CTA Consultants Limited

志達顧問有限公司

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1. INTRODUCTION

1.1 Background

1.1.1 CTA Consultants Limited was commissioned as the traffic consultant to prepare a Traffic Impact Assessment (TIA) study for Proposed Residential Development at 44 Stanley Village Road, Hong Kong (hereafter called “proposed development”). The proposed development is bounded by Stanley Knoll Block to the north, to the east and to the west, and Carmel Hill to the southeast as shown in **Figure 1.1**.

1.2 Study Objectives

1.2.1 The main objectives of this study are as follows:

- To assess the existing traffic conditions in the vicinity of the proposed development;
- To forecast traffic demands on the adjacent road network in the design year 2031;
- To estimate the likely traffic generated by the proposed development;
- To assess the impacts of traffic generated by the proposed development on the adjacent road network; and
- To recommend improvement measures, if necessary, to alleviate any traffic problems on the road network.



2. THE PROPOSED DEVELOPMENT

2.1 Site Location

2.1.1 The proposed development is located at Proposed Residential Development at 44 Stanley Village Road, Hong Kong which is bounded by Stanley Knoll Block to the north, to the east and to the west, and Carmel Hill to the southeast as shown in **Figure 1.1**.

2.2 Proposed Development

2.1.2 The development schedule for the proposed development is summarized in **Table 2.1**.

Table 2.1 Development Parameters of the Proposed Development

Site Location	44 Stanley Village Road, Hong Kong		
Proposed Use	Residential Development		
Site Area	~7,646m ²		
	Lower Deck	Upper Deck	Total
Total GFA	~2,668 m ²	~4,213 m ²	~6,881 m²
No. of Blocks	1	1	2
Number of Units	11	12	23
Average Flat Size	~237 m ²	~272 m ²	-

2.2.1 It is anticipated that the proposed development will be completed by 2028 tentatively. Therefore, design year 2031 (i.e. 3 years after the planned commencement year of the proposed development) is adopted for the Traffic Impact Assessment.



2.3 Vehicular Access

2.3.1 The existing vehicular access will be adopted for the proposed development. Location of the vehicular access is shown diagrammatically in **Figure 2.1**. Swept path analysis demonstrates it is feasible to maneuver LGV in/out the proposed vehicular access is shown in **Figure SP-01**.

2.4 Internal Transport Facilities Provision

2.4.1 According to the requirements as stipulated under the latest Hong Kong Planning Standards and Guidelines (HKPSG), the proposed development shall provide the following internal transport facilities as summarized in **Table 2.2**.

Table 2.2 Proposed Parking Provision

Development Parameters		Parking Requirement						Loading/Unloading Requirement		
Required										
Average Flat Size (m ²)	No. of Flats	Private Car Parking Space						L/UL for Goods Vehicles		
		Residents			Visitors					
		5m x 2.5m								
		GPS 1 car space per 4-7 flats	R1	R2	R3	GPS x R1 x R2 x R3 ⁽¹⁾				
Lower Deck: 11 nos. of units										
>160	11	4-7	7.0	1.0	1.3	15 to 25	-	1 per 800 flats or part thereof, subject to a minimum of 1 bay for each housing block	1	
		-	-	-	-	15 to 25				
		Motorcycle Parking Space								
		2.4m x 1m								
		1 per 100-150 flats			-					
Upper Deck: 12 nos. of units										
>160	12	4-7	7.0	1.0	1.3	16 to 28	-	1 per 800 flats or part thereof, subject to a minimum of 1	1	
		-	-	-	-	16 to 28				
		Motorcycle Parking Space								



Development Parameters		Parking Requirement		Loading/Unloading Requirement	
		2.4m x 1m		bay for each housing block	
	1 per 100-150 flats		-		
Total (Lower Deck + Upper Deck): 23 nos. of units					
Total Required	Private Car Parking Space			L/UL for Goods Vehicles	
	Residents	Visitors			
	5m x 2.5m			LGV: 7m x 3.5m	
	31 to 53	-			
	31 to 53				
	Motorcycle Parking Space			2	
	2.4m x 1m				
-					
Total Proposed	Private Car Parking Space			L/UL for Goods Vehicles	
	Residents	Visitors			
	5m x 2.5m			LGV: 7m x 3.5m	
	53	2			
	55				
	Motorcycle Parking Space			2	
	2.4m x 1m				
1					

Notes:

- (1) Including 1 accessible car parking space for 1-50 car parking spaces.
- (2) GPS = Global Parking Standard; R1 = Demand Adjustment Ratio; R2 = Accessibility Adjustment Ratio; R3 = Development Intensity Adjustment Ratio.

2.4.2 Carpark layout plan for Upper Deck G/F, Upper Deck LG/F and Lower Deck 3/F and Lower Deck LG/F of the proposed development are presented in **Figure 2.1** to **Figure 2.3** respectively.

2.5 Public Transport Services in the Vicinity

2.5.1 Numerous road-based public transport services are provided in vicinity of the proposed development. Details of the current services of franchised buses and GMB routes within 500 meters catchment area are listed in **Table 2.3**.

Table 2.3 Road-Based Public Transport Services in the Vicinity

Service	Route	Origin - Destination	Headway (mins)
Franchised Bus	6	Central (Exchange Square) - Stanley Village	12-20
	6A	Shau Kei Wan - Stanley Fort (Gate)	From Shau Kei Wan: 5 dep ⁽¹⁾
	6X	Central (Exchange Square) - Stanley Village	20-25
	14	Grand Promenade - Stanley Fort (Gate)	20
	63	North Point Ferry Pier - Stanley Market	30
	65	North Point Ferry Pier - Stanley Market	12-20 ⁽²⁾
	66	Central (Exchange Square) - Stanley Plaza	20-30 ⁽¹⁾
	73	Cyberport - Stanley Market	20
	260	Central (Exchange Square) - Stanley Plaza	15-20
	973	Tsim Sha Tsui - Stanley Market	30
GMB	16A	Chai Wan Station - Chung Hom Kok (Cheshire Home)	From Chai Wan Station: 5 dep From Chung Hom Kok (Cheshire Home): 6 dep
	16M	Chai Wan Station - Chung Hom Kok	15
	16X	Chai Wan Station - Stanley Beach Road	15
	40	Causeway Bay - Stanley Village	10-20
	40X	Causeway Bay - Stanley (Stanley Prison)	3-9
	52	Aberdeen (Shek Pai Wan) - Stanley Prison	5-12

Notes:

(1) Monday to Friday.

(2) Sunday and public holidays.

2.5.2 It is revealed that the proposed development is well-served by the comprehensive public transport services in the vicinity.



2.6 Public Guided Tour Arrangements

2.6.1 Guided tours may be provided during non-peak hours.

2.6.2 Visitors will only be allowed to join the public guided tour via booking. Visitors will not be allowed to join with their private vehicles, i.e. visitor parking is not allowed.

2.6.3 It is anticipated that visitors would arrive the site using public transport or 28-seater coach.



3. THE EXISTING TRAFFIC CONDITIONS

3.1 Critical Junctions

3.1.1 As shown in **Figure 3.1**, 6 junctions were identified to be critical for assessment of traffic impact due to the proposed development. They are listed in below **Table 3.1** and their existing junction layout arrangements are shown in **Figure 3.2** to **Figure 3.7** respectively.

Table 3.1 Identified Critical Junction

Ref.	Junction	Method of Control	Figure No.
A	Tai Tam Road / Stanley Gap Road / Stanley Village Road	Roundabout	3.2
B	Stanley Village Road / Stanley Beach Road	Priority	3.3
C	Stanley Village Road / Stanley Mound Road	Priority	3.4
D	Stanley Village Road / Access Road	Priority	3.5
E	Stanley Gap Road / Chung Hom Kok Road	Priority	3.6
F	Stanley Village Road / Stanley Beach Road / Stanley New Street	Priority	3.7

3.1.2 In order to establish the existing traffic condition in the above-mentioned critical junctions, traffic survey in the form of manual classified count was conducted during AM and PM peak periods during 7:00am to 9:00am and 5:00pm to 7:00pm on a typical weekday in 2024, and during AM and PM peak periods during 11am to 6pm on a typical Sunday in 2024.

3.1.3 Analysis of the observed traffic data indicates that the weekday AM and PM peak hour flows occurred from 7:15am to 8:15am and 5:30pm to 6:30pm respectively, and Sunday peak hour flows occurred from 4pm to 5pm. The existing traffic flows for weekday and Sunday are presented in **Figure 3.8** and **Figure 3.9** respectively.

3.1.4 Existing performance of the identified critical junction are assessed. The results are for weekday and Sunday are summarized in **Table 3.2** and **Table 3.3** respectively, and the junction calculation sheets are attached in **Appendix A**.



**Table 3.2 Operational Performance of Identified Critical Junctions in 2024 -
Weekday**

Ref.	Junction	Method of Control	Year 2024 DFC ⁽¹⁾	
			Weekday AM Peak	Weekday PM Peak
A	Tai Tam Road / Stanley Gap Road / Stanley Village Road	Roundabout	0.47	0.44
B	Stanley Village Road / Stanley Beach Road	Priority	0.27	0.25
C	Stanley Village Road / Stanley Mound Road	Priority	0.26	0.26
D	Stanley Village Road / Access Road	Priority	0.25	0.14
E	Stanley Gap Road / Chung Hom Kok Road	Priority	0.43	0.35
F	Stanley Village Road / Stanley Beach Road / Stanley New Street	Priority	0.32	0.32

Note: (1) DFC = Design Flow/Capacity ratio for Priority Junction

**Table 3.3 Operational Performance of Identified Critical Junctions in 2024 -
Sunday**

Ref.	Junction	Method of Control	Year 2024 DFC ⁽¹⁾
			Sunday Peak
A	Tai Tam Road / Stanley Gap Road / Stanley Village Road	Roundabout	0.30
B	Stanley Village Road / Stanley Beach Road	Priority	0.22
C	Stanley Village Road / Stanley Mound Road	Priority	0.24
D	Stanley Village Road / Access Road	Priority	0.14
E	Stanley Gap Road / Chung Hom Kok Road	Priority	0.41
F	Stanley Village Road / Stanley Beach Road / Stanley New Street	Priority	0.50

Note: (1) DFC = Design Flow/Capacity ratio for Priority Junction

3.1.5 The assessment results in **Table 3.2** and **Table 3.3** indicate that all critical junctions are at present operating within their capacities during peak hours for weekday and Sunday.



4. TRAFFIC IMPACT ASSESSMENT

4.1 Design Year

4.1.1 The proposed development is anticipated to be completed by year 2028 tentatively. Year 2031 (i.e. 3 years after completion) is therefore adopted as the design year for this TIA.

4.2 Traffic Forecast

4.2.1 The traffic growth can be estimated by applying growth factor, based on the following information sources:

- I. Historical traffic growth in Annual Traffic Census (ATC) published by the Transport Department (TD).
- II. Territorial planning assumptions prepared by the Planning Department.

Annual Traffic Census

4.2.2 Numerous of traffic count stations are located in the vicinity of the proposed development. The traffic counts reported in the Annual Traffic Census (ATC), which is published by Transport Department, over a period of six years, i.e. 2016 to 2021 are summarized in **Table 4.1**.



Table 4.1 Historical Traffic Data from Annual Traffic Census (ATC)

ATC Stn	Road Name	Annual Average Daily Traffic (AADT)						Avg. Annual Growth Rate
		2014	2015	2016	2017	2018	2022	
1103	Stanley Village Rd (From Tai Tam Rd to Stanely New St)	13,330	12,280	12,510	12,220	11,620	10,420	-3.03%
1255	Carmel Rd & Cape Rd (From Stanley Village Rd to Chung Hom Kok Rd)	8,060	8,220*	8,310*	8,240*	6,290	6,610*	-2.45%
2023	Tai Tam Rd (From Stanley Gap Rd to Red Hill Rd)	10,200*	9,990*	10,010*	11,770	8,050	9,100	-1.42%
Total		31,590	30,490	30,830	32,230	25,960	26,130	-2.34%

Notes:

- (1) * AADT estimated by Growth factor.
- (2) Traffic volumes for Year 2019 to Year 2021 may be suppressed by the special working arrangement implemented during the COVID-19 outbreak period and/or social event outbreak, therefore AADT from Year 2019 to Year 2021 are not adopted.

Planning Data

4.2.3 Reference has also been made to the latest 2019-based Territorial Population Employment Data Matrices (TPEDM) planning data published by the Planning Department for years 2019 and 2031 in the study district. The average annual growth rates in terms of population and employment from 2019 to 2031 are tabulated in **Table 4.2**.



Table 4.2 TPEDM Planning Data from 2019 to 2031

Zone	Population			Avg. Annual Growth Rate	Employment			Avg. Annual Growth Rate
	2019	2026	2031		2019	2026	2031	
Southern	273,150	268,700	282,400	0.28%	114,900	119,500	116,300	0.10%

4.2.4 It is indicated that the average annual growth rate of population in the study area from 2019 to 2031 under the 2019-based Territorial Planning Data is +0.28% per year while the growth rate of employment is +0.1% per year.

Adopted Growth Rate

4.2.5 A.A.D.T. of ATC indicates that the traffic flow of the local road network has an average annual growth rate of -2.34% from year 2014 to year 2022.

4.2.6 Whilst, the planning data indicates that the population and employment in the area are expected to develop with an average annual growth rate of +0.28% and +0.1% respectively from 2019 to 2031.

4.2.7 As a conservative approach, annual growth rate **+1%** p.a. is adopted.

4.3 Traffic Generations of Adjacent New Developments

4.3.1 To fully reflect the growth traffic, trip generation of the future vicinity developments have been taken into consideration. The major planned development is detailed in **Figure 4.1** and the estimated trip rate with reference to TPDM and trips of the adjacent planned developments are shown in **Table 4.3** and **Table 4.4** respectively.



Table 4.3 Estimated Trip Rates of Adjacent Developments

Approved Planning Application No.	Major Development	Proposed Use	Development Parameters	Unit	AM Peak Hour		PM Peak Hour	
					GEN	ATT	GEN	ATT
A/H19/69	86 & 88 Stanley Main Street, Stanley, Hong Kong (Stanley Inland Lot 10 & Stanley Lot 1130)	Hotel	13 hotel rooms	pcu/hr/ guest room	0.1329	0.1457	0.129	0.1546
A/H19/85	Rural Builind Lot No. 1033, 1 Stanley Link Road, Stanley, Hong Kong	Residential	3 flats (av. flat size: ~102m ²)	pcu/hr/ flat	0.1961	0.1116	0.0955	0.1321

Note:

(1) Trip rate as stipulated in TPDM Volume 1 Annex C Table 1.

Table 4.4 Estimated Trip Generations and Attractions of Adjacent Developments

Approved Planning Application No.	Major Development	Proposed Use	Development Parameters	Unit	AM Peak Hour		PM Peak Hour	
					GEN	ATT	GEN	ATT
A/H19/69	86 & 88 Stanley Main Street, Stanley, Hong Kong (Stanley Inland Lot 10 & Stanley Lot 1130)	Hotel	13 hotel rooms	pcu/hr	2	2	2	3
A/H19/85	Rural Builind Lot No. 1033, 1 Stanley Link Road, Stanley, Hong Kong	Residential	3 flats (av. flat size: ~102m ²)	pcu/hr	1	1	1	1

4.4 Reference Traffic Flows

4.4.1 The reference traffic flow is estimated by applying the adopted growth rate to the observed traffic flow in the current year, and the 2031 reference traffic flows can be computed with the following calculation:



$$\begin{matrix} \text{2031} \\ \text{Reference Traffic} \\ \text{Flows} \\ \text{(Without Proposed} \\ \text{Development)} \end{matrix} = \left(\begin{matrix} \text{2024} \\ \text{Observed} \\ \text{Traffic Flows} \end{matrix} \times \begin{matrix} \text{Adopted Growth} \\ \text{Factor} \\ \text{(i.e. +1\% p.a.} \\ \text{for 7 year)} \end{matrix} \right) + \begin{matrix} \text{Traffic Flows of} \\ \text{Planned} \\ \text{Adjacent} \\ \text{Development} \end{matrix}$$

4.4.2 The 2031 reference traffic flows for weekday and Sunday are shown in **Figure 4.2** and **Figure 4.3** respectively.

4.5 Traffic Generations and Attractions

4.5.1 In order to estimate the traffic generations and attractions of the proposed development, reference has been made to the trip generation rates as stipulated in Volume 1 Chapter 3 Appendix D Table 2 of the latest T.P.D.M which is extracted and summarized in **Table 4.4**.

Table 4.5 Adopted Trip Rates of Proposed Development

Use	Unit	AM Peak Hour		PM Peak Hour	
		GEN	ATT	GEN	ATT
Residential	pcu/hr/flat	0.3252	0.2609	0.2835	0.4074

4.5.2 Based on the adopted trip rates in **Table 4.4** and the proposed development parameters listed in **Table 2.1**, the estimated generation and attraction due to the proposed development are summarized in **Table 4.5**.

Table 4.6 Estimated Traffic Generation and Attraction of Proposed Development

Proposed Use	Development	AM Peak Hour		PM Peak Hour	
		GEN (pcu/hr)	ATT (pcu/hr)	GEN (pcu/hr)	ATT (pcu/hr)
Residential of 23 nos. of flats	pcu/hr	8	7	7	10



4.5.3 It is anticipated that the proposed development would generate and attract +8 pcu/hr and +7 pcu/hr respectively during AM peak hour, and generate and attract +7 pcu/hr and +10 pcu/hr respectively during PM peak hour.

4.6 Design Traffic Forecasts

4.6.1 The future traffic generations of the proposed development were then assigned onto the road network and superimposed onto the 2031 reference traffic flows (without proposed development) to derive the 2031 design traffic forecasts (with proposed development).

$$\begin{array}{l} \mathbf{2031\ Design} \\ \mathbf{Traffic\ Flows} \\ \mathbf{(with\ proposed} \\ \mathbf{development)} \end{array} = \begin{array}{l} \mathbf{2031\ Reference} \\ \mathbf{Traffic\ Flows} \\ \mathbf{(without\ proposed} \\ \mathbf{development)} \end{array} + \begin{array}{l} \mathbf{Proposed} \\ \mathbf{Development} \\ \mathbf{Traffic\ Flows} \end{array}$$

4.6.2 Year 2031 design traffic flows (with proposed development) weekday and Sunday are shown in **Figure 4.4** and **Figure 4.5** respectively.



5. TRAFFIC IMPACT ASSESSMENT

5.1 Operational Assessment

5.1.1 To assess the potential traffic impact due to the proposed development, capacity analysis of the identified critical junctions for both reference and design scenarios in year 2031 for weekday and Sunday were carried out. The results for weekday and Sunday are summarized in **Table 5.1** and **Table 5.2** respectively, and the junction calculation sheets are attached in **Appendix A**.

**Table 5.1 Junction Performance of Identified Critical Junction in Year 2031
(With and Without Proposed Development) - Weekday**

Ref.	Junction	Method of Control	Year 2031 DFC ⁽¹⁾			
			Reference Scenario (Without Proposed Development)		Design Scenario (With Proposed Development)	
			Weekday AM Peak	Weekday PM Peak	Weekday AM Peak	Weekday PM Peak
A	Tai Tam Road / Stanley Gap Road / Stanley Village Road	Roundabout	0.50	0.47	0.51	0.48
B	Stanley Village Road / Stanley Beach Road	Priority	0.29	0.27	0.29	0.28
C	Stanley Village Road / Stanley Mound Road	Priority	0.29	0.27	0.29	0.28
D	Stanley Village Road / Access Road	Priority	0.27	0.16	0.27	0.16
E	Stanley Gap Road / Chung Hom Kok Road	Priority	0.47	0.40	0.47	0.40
F	Stanley Village Road / Stanley Beach Road / Stanley New Street	Priority	0.37	0.37	0.37	0.37

Note: (1) DFC = Design Flow/Capacity ratio for Priority Junction



**Table 5.2 Junction Performance of Identified Critical Junction in Year 2031
(With and Without Proposed Development) - Sunday**

Ref.	Junction	Method of Control	Year 2031 DFC ⁽¹⁾	
			Reference Scenario (Without Proposed Development)	Design Scenario (With Proposed Development)
			Sunday Peak	
A	Tai Tam Road / Stanley Gap Road / Stanley Village Road	Roundabout	0.32	0.33
B	Stanley Village Road / Stanley Beach Road	Priority	0.24	0.24
C	Stanley Village Road / Stanley Mound Road	Priority	0.26	0.27
D	Stanley Village Road / Access Road	Priority	0.15	0.15
E	Stanley Gap Road / Chung Hom Kok Road	Priority	0.45	0.45
F	Stanley Village Road / Stanley Beach Road / Stanley New Street	Priority	0.55	0.55

Note: (1) DFC = Design Flow/Capacity ratio for Priority Junction

5.1.2 The assessment results in **Table 5.1** and **Table 5.2** revealed that all critical junctions would still operate within their capacities in both reference and design year 2031 during the peak hours for weekday and Sunday.



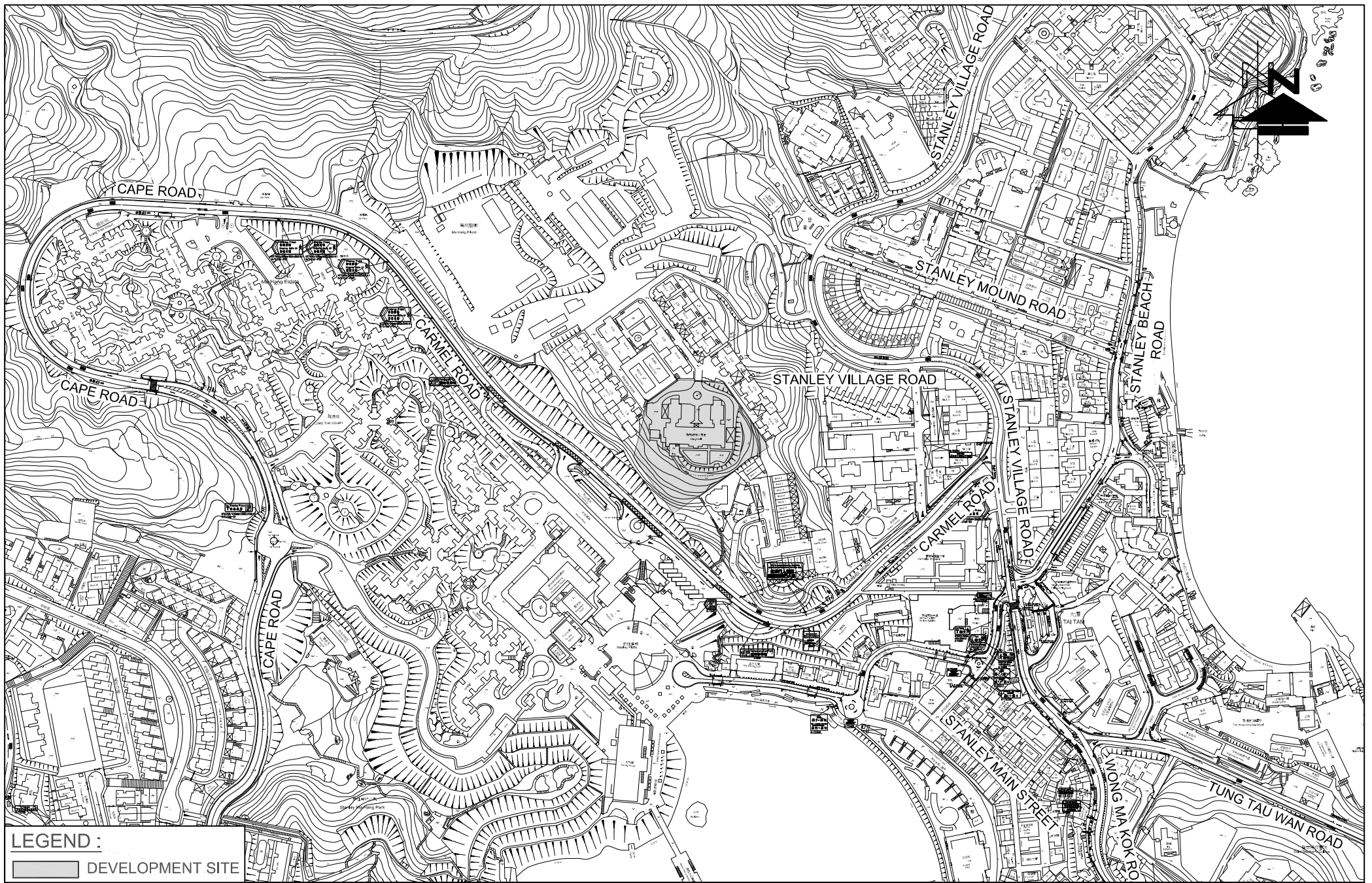
6. SUMMARY AND CONCLUSION

6.1 Summary

- 6.1.1 CTA Consultants Limited (CTA) is commissioned as the traffic consultant to prepare the Traffic Impact Assessment (TIA) and provide technical justifications in supporting the planning application from traffic engineering point of view.
- 6.1.2 To appraise the existing traffic condition, manual-classified counting surveys were conducted at critical junctions in 2024. Current operational performance of the critical junctions has been assessed. The results reveal that all critical junctions are at present operating within its capacities during the peak hours for weekday and Sunday.
- 6.1.3 Assessment of operational performance of the critical junctions revealed that all critical junctions would still operate within their capacities in both reference scenario (without proposed development) and design scenario (with proposed development) in 2031 during the peak hours for weekday and Sunday.

6.2 Conclusion

- 6.2.1 In conclusion, this TIA has demonstrated that the related traffic trips related to the proposed development can be absorbed by the nearby road network and no insurmountable traffic impact will be induced.
- 6.2.2 Therefore, the proposed development is considered feasible from traffic engineering point of view.



LEGEND :

DEVELOPMENT SITE

FIGURE NO.:	1.1
PROJECT NO.:	24048HK
SCALE:	DATE:
1 : 4100 @A4	11 JUL 2024

PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong

DRAWING TITLE:

SITE LOCATION PLAN



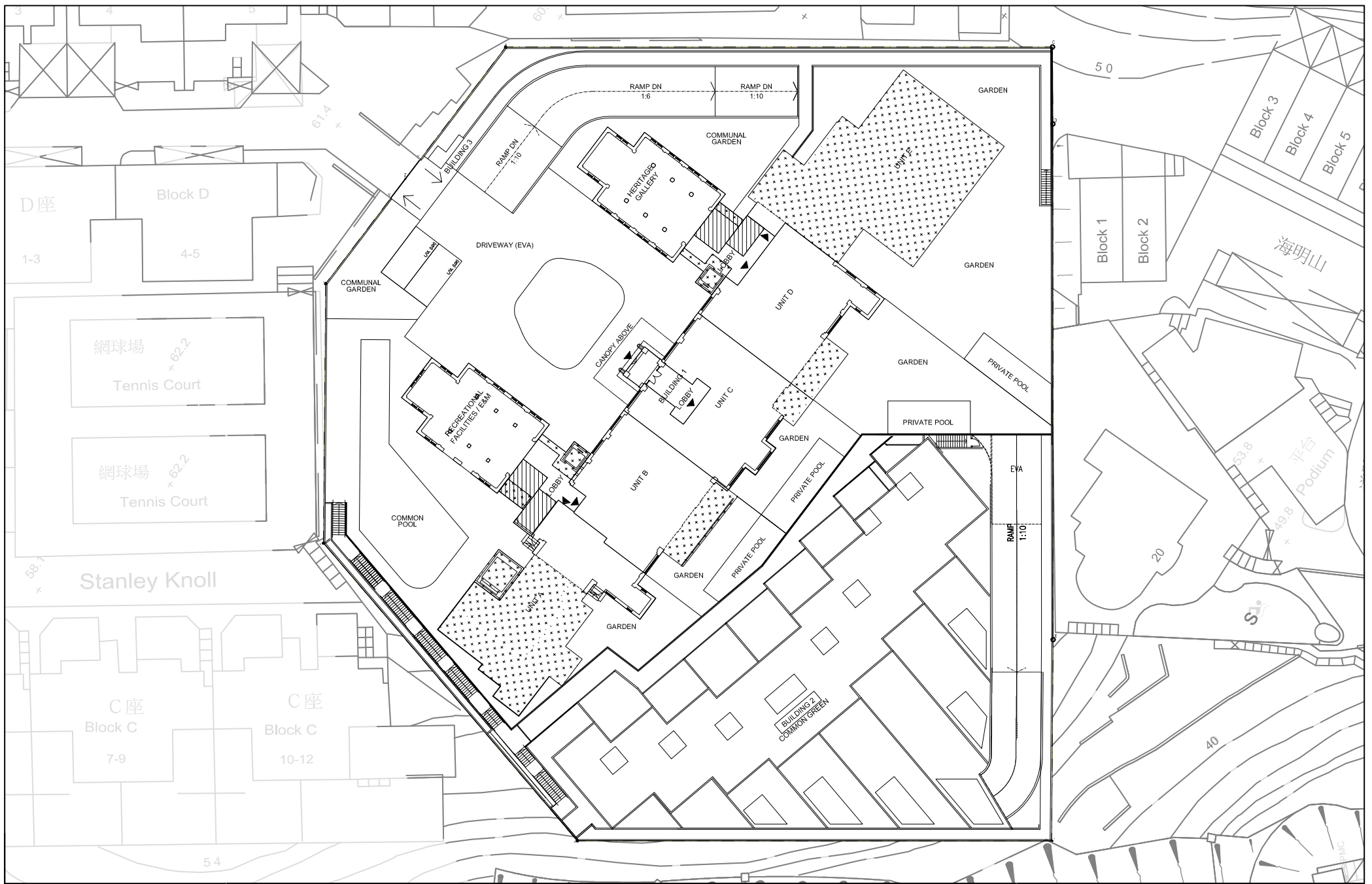


FIGURE NO.: 2.1		PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong
PROJECT NO.: 24048HK		DRAWING TITLE:
SCALE: 1 : 600 @A4	DATE: 12 AUG 2024	PROPOSED UPPER DECK G/F LAYOUT PLAN



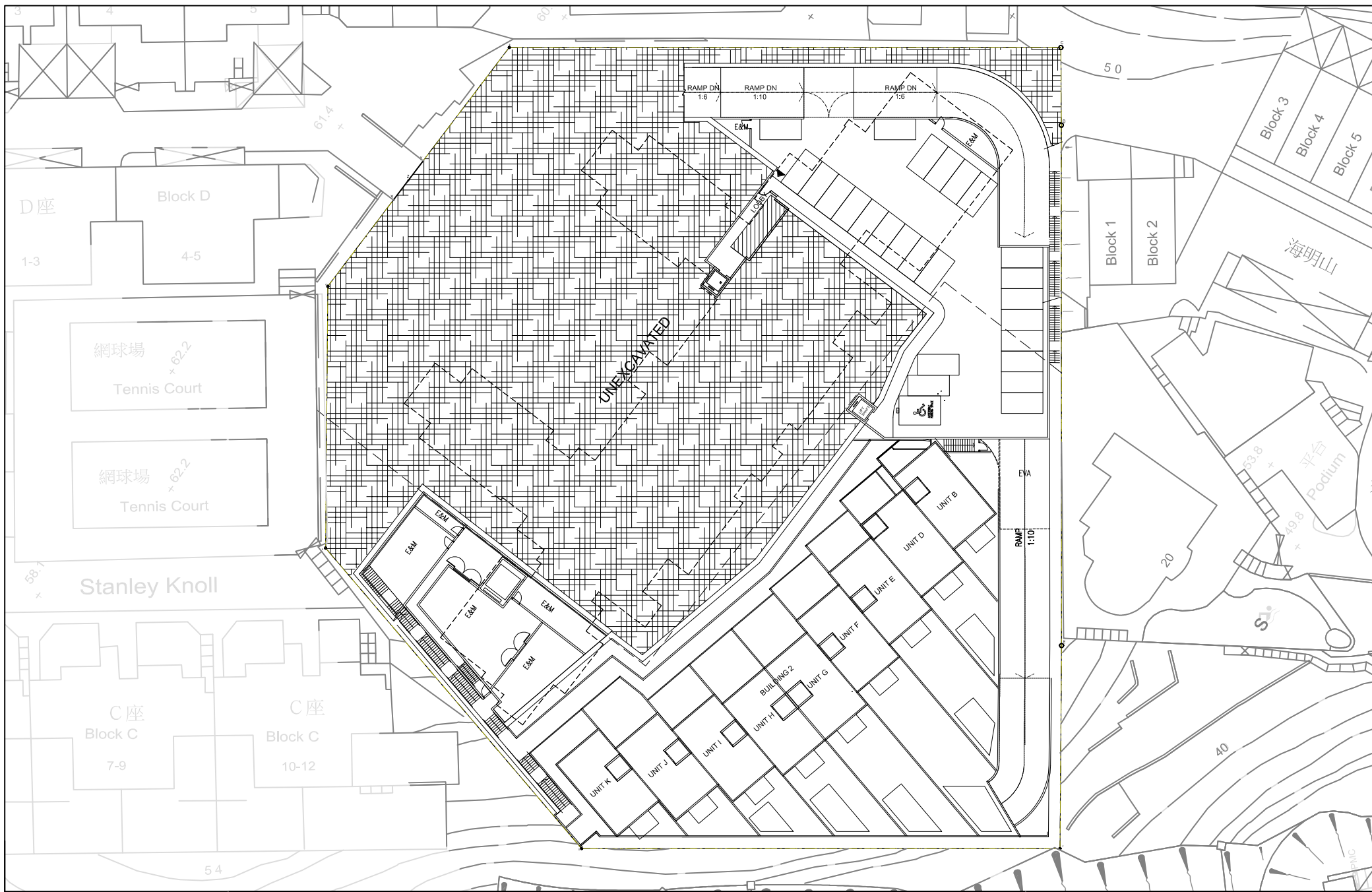


FIGURE NO.:	2.2
PROJECT NO.:	24048HK
SCALE:	DATE:
1 : 600 @A4	12 AUG 2024

PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong

DRAWING TITLE:
PROPOSED UPPER DECK LG/F & LOWER DECK 3/F LAYOUT PLAN



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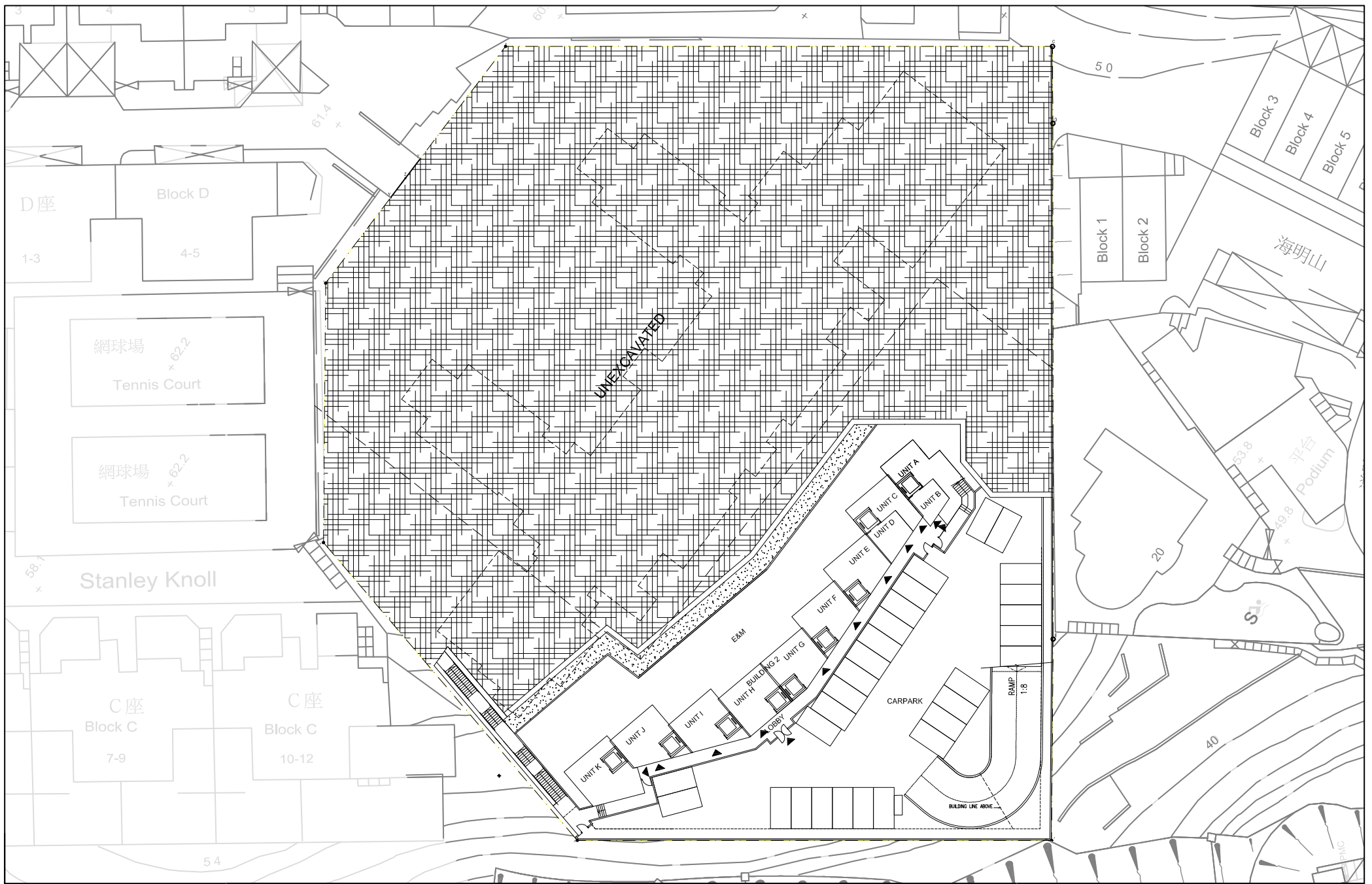


FIGURE NO.: **2.3**

PROJECT NO.: 24048HK

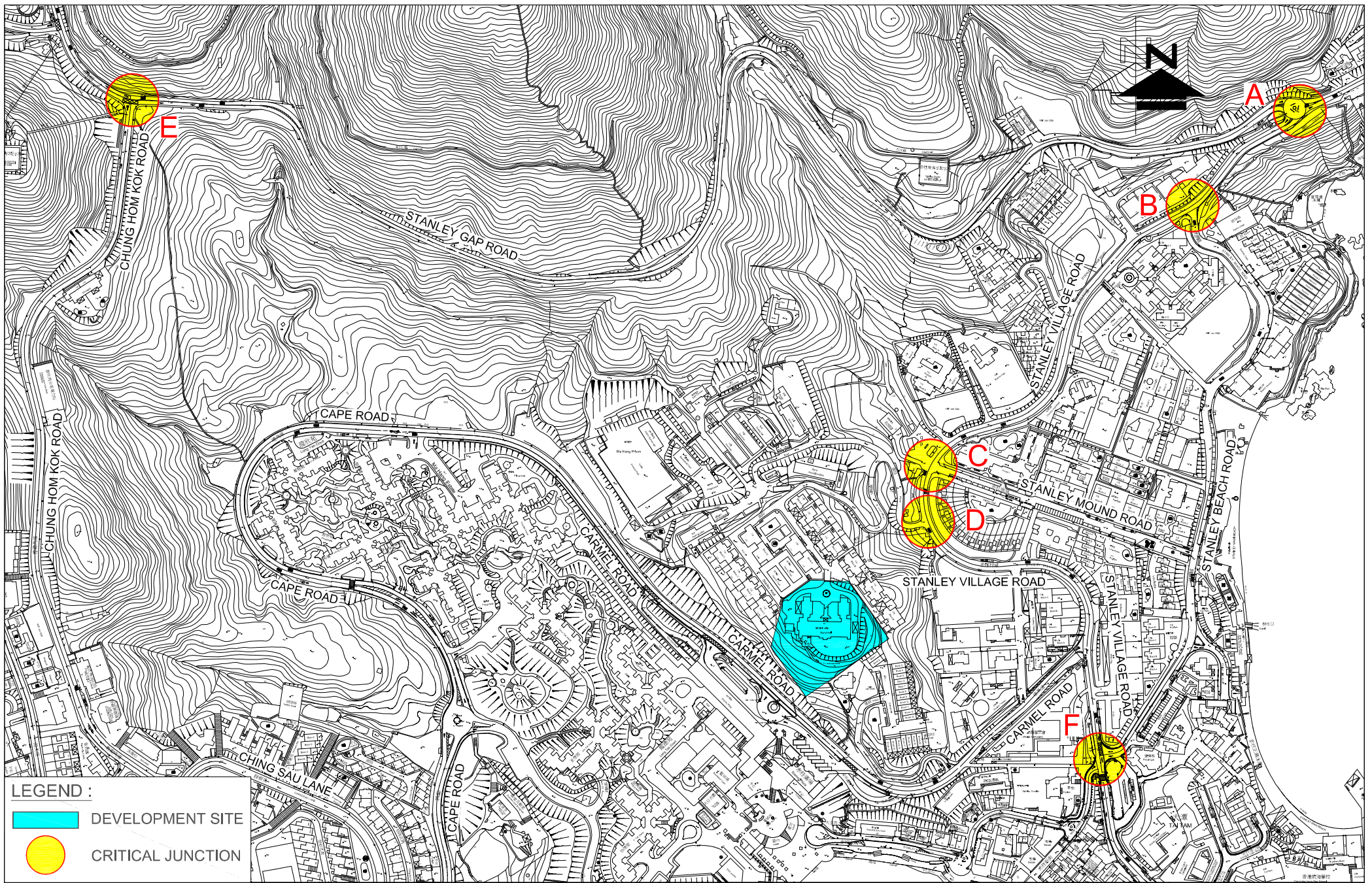
SCALE: 1 : 600 @A4

DATE: 12 AUG 2024

PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong

DRAWING TITLE: **PROPOSED LOWER DECK LG/F LAYOUT PLAN**





LEGEND :

- DEVELOPMENT SITE
- CRITICAL JUNCTION

FIGURE NO.:	3.1	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong
PROJECT NO.:	24048HK	DRAWING TITLE:
SCALE:	DATE:	IDENTIFIED KEY JUNCTIONS
1 : 4700 @A4	29 JUL 2024	

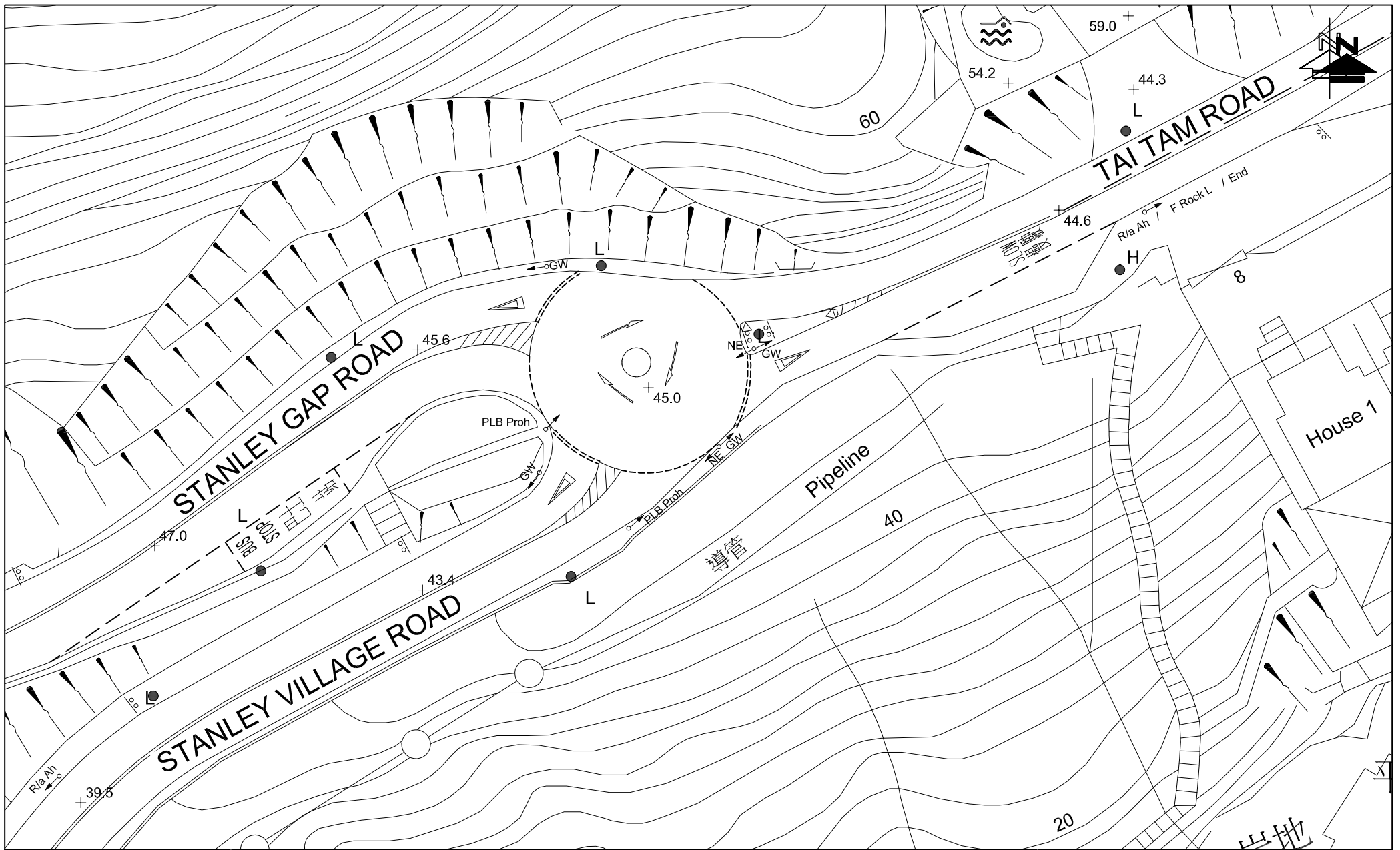


FIGURE NO.:		3.2		PROJECT TITLE:		Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong	
PROJECT NO.:		24048HK		DRAWING TITLE:		EXISTING JUNCTION LAYOUT OF TAI LAM ROAD / STANLEY GAP ROAD / STANLEY VILLAGE ROAD (A)	
SCALE:	DATE:						
1 : 500 @A4	17 JUL 2024						



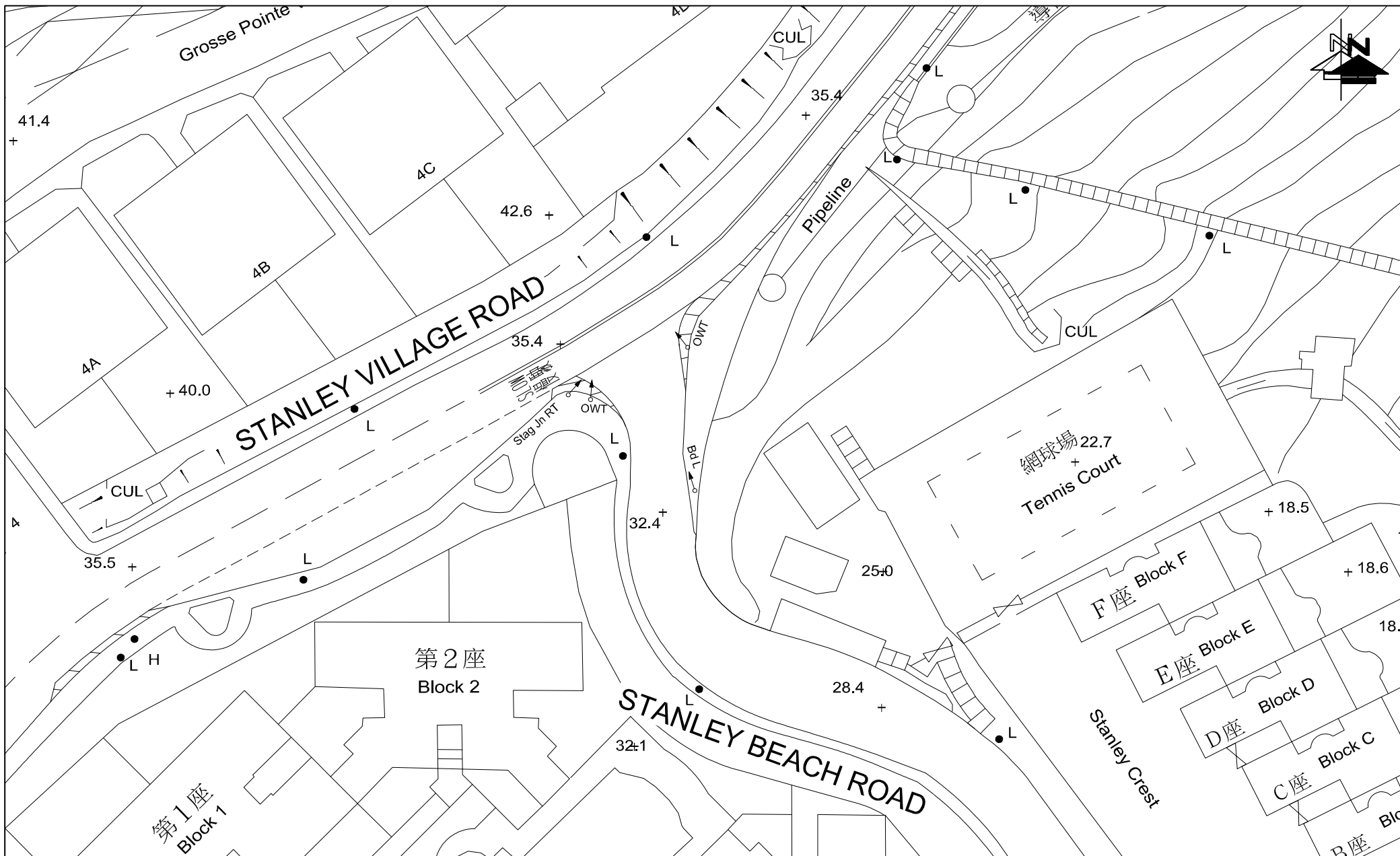



FIGURE NO.: 3.3		PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong	 CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 24048HK		DRAWING TITLE: EXISTING JUNCTION LAYOUT OF STANLEY VILLAGE ROAD / STANLEY BEACH ROAD (B)	
SCALE: 1 : 500 @A4	DATE: 17 JUL 2024		

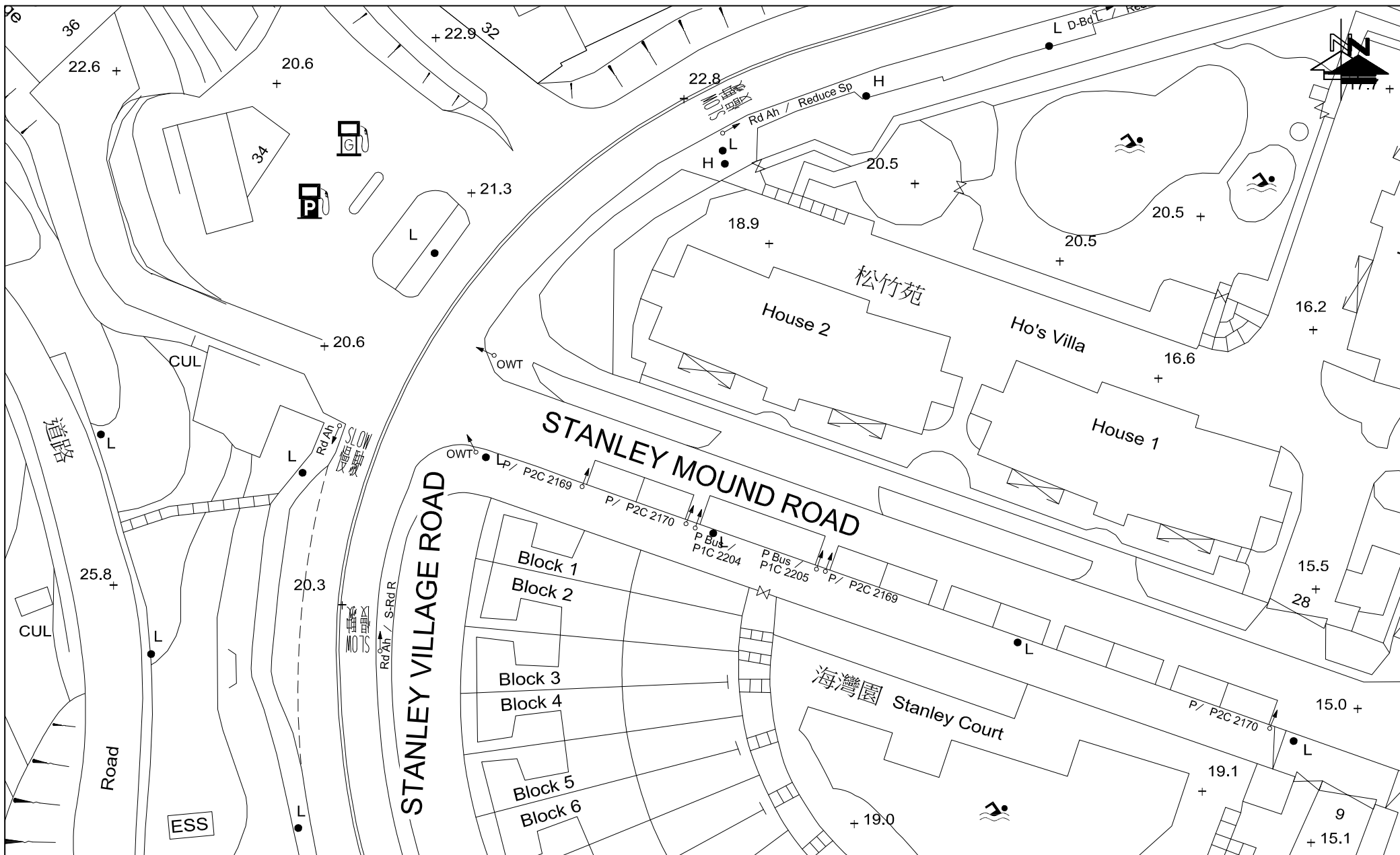



FIGURE NO.: 3.4		PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong	 CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 24048HK		DRAWING TITLE: EXISTING JUNCTION LAYOUT OF STANLEY VILLAGE ROAD / STANLEY MOUND ROAD (C)	
SCALE: 1 : 500 @A4	DATE: 17 JUL 2024		

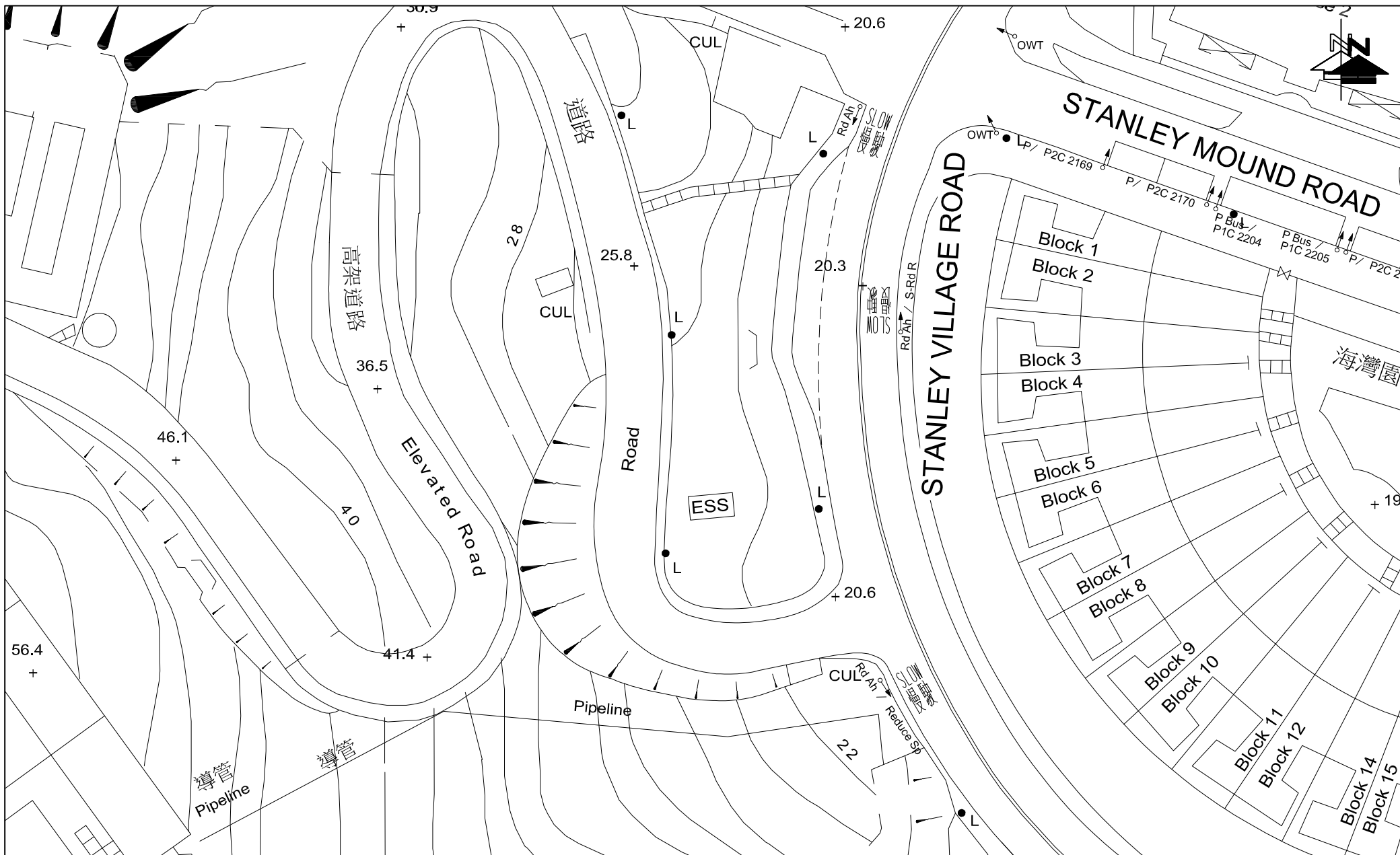



FIGURE NO.: 3.5		PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong	 CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 24048HK		DRAWING TITLE: EXISTING JUNCTION LAYOUT OF STANLEY VILLAGE ROAD / ACCESS ROAD (D)	
SCALE: 1 : 500 @A4	DATE: 17 JUL 2024		

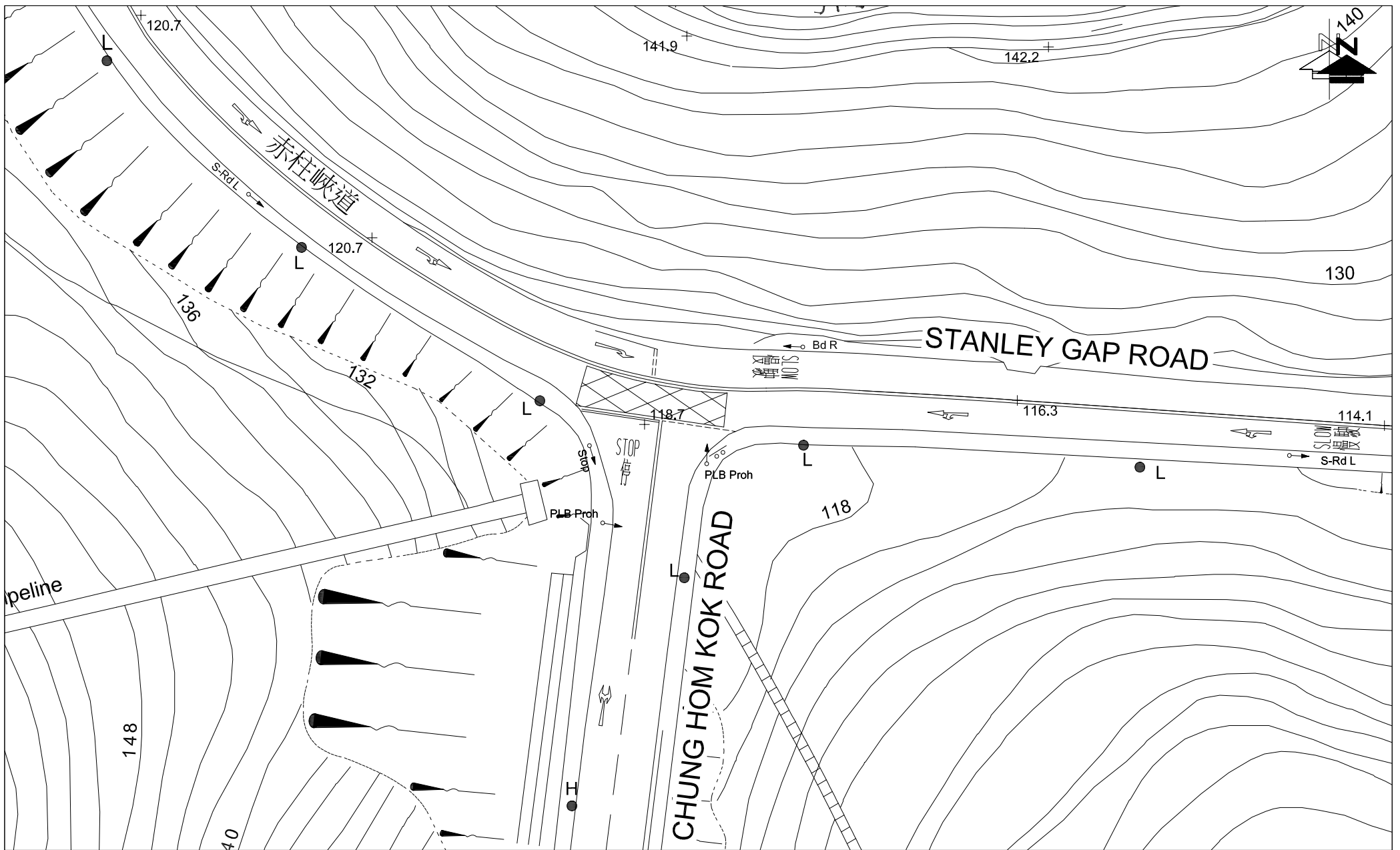



FIGURE NO.:		3.6		PROJECT TITLE:		Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong	
PROJECT NO.:		24048HK		DRAWING TITLE:		EXISTING JUNCTION LAYOUT OF STANLEY GAP ROAD / CHUNG HOM KOK ROAD (E)	
SCALE:	DATE:						
1 : 500 @A4	29 JUL 2024					 CTA Consultants Limited 志達顧問有限公司	

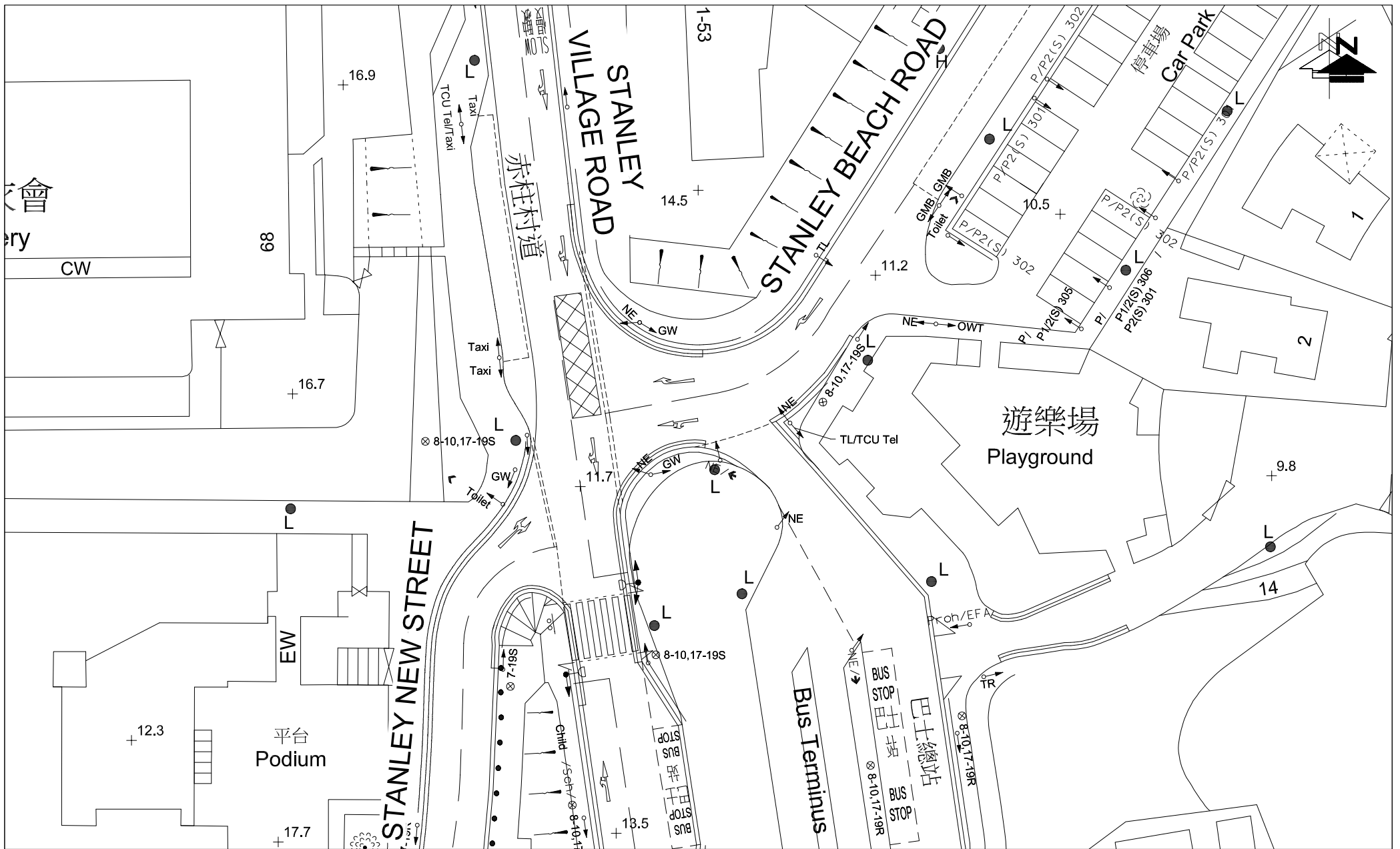
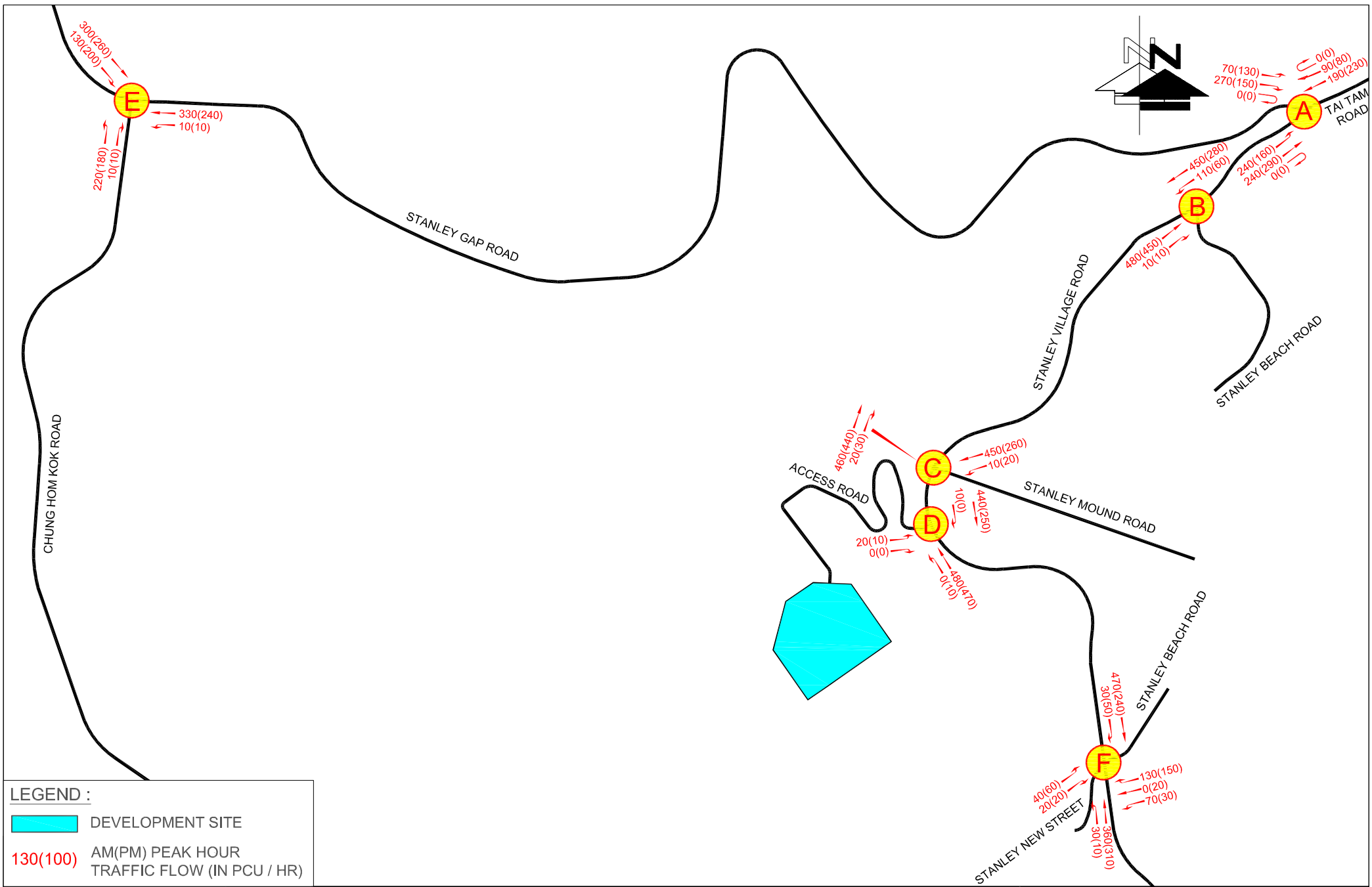


FIGURE NO.:		3.7		PROJECT TITLE:		Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong	
PROJECT NO.:		24048HK		DRAWING TITLE:		EXISTING JUNCTION LAYOUT OF STANLEY VILLAGE ROAD / STANLEY BEACH ROAD / STANLEY NEW STREET (F)	
SCALE:	DATE:						
1 : 500 @A4	29 JUL 2024						






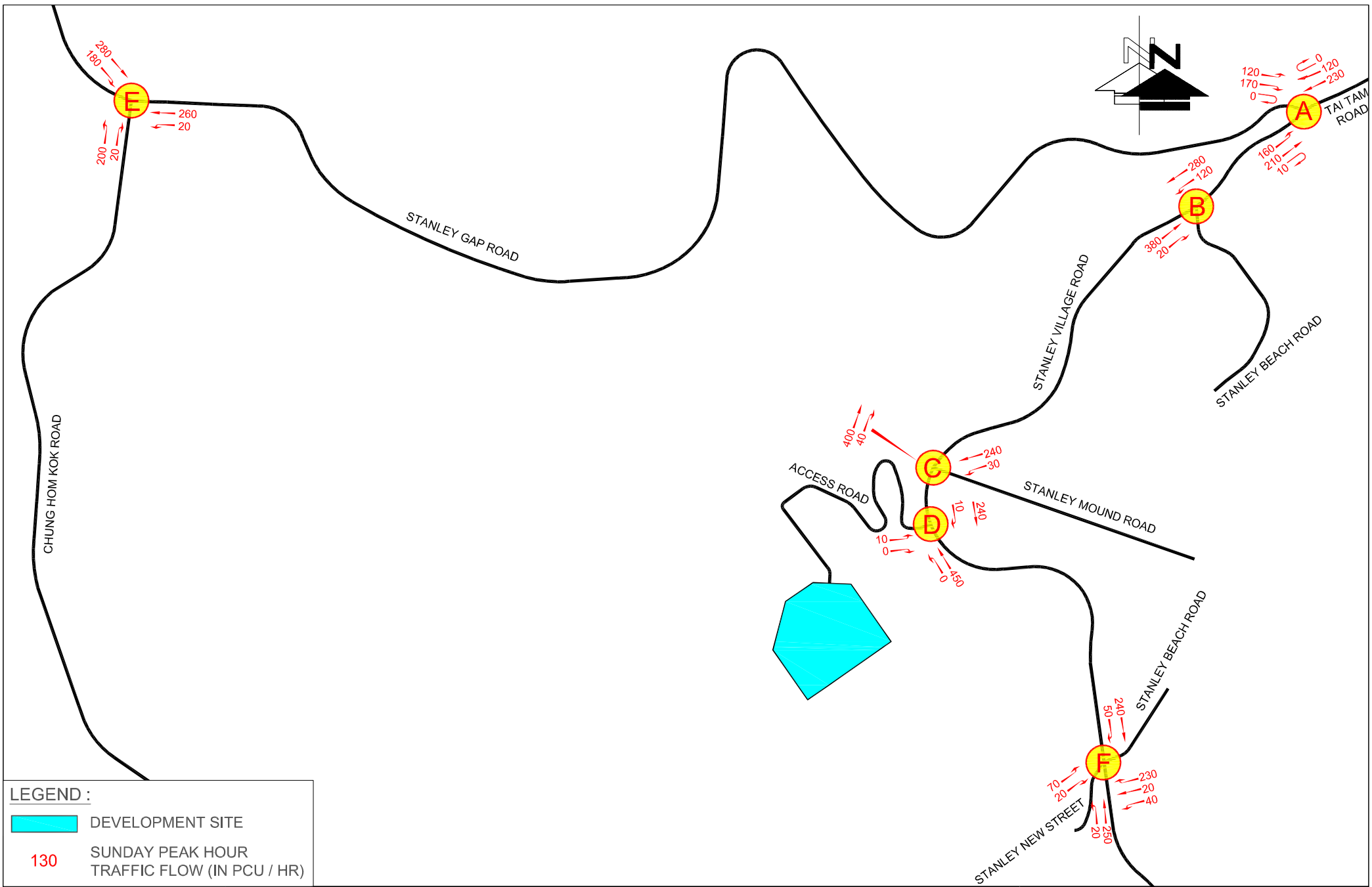
LEGEND :
 DEVELOPMENT SITE
130(100) AM(PM) PEAK HOUR TRAFFIC FLOW (IN PCU / HR)

FIGURE NO.:	3.8	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong
PROJECT NO.:	24048HK	DRAWING TITLE:
SCALE: N.T.S. @A4	DATE: 30 JUL 2024	2024 OBSERVED TRAFFIC FLOWS - WEEKDAY






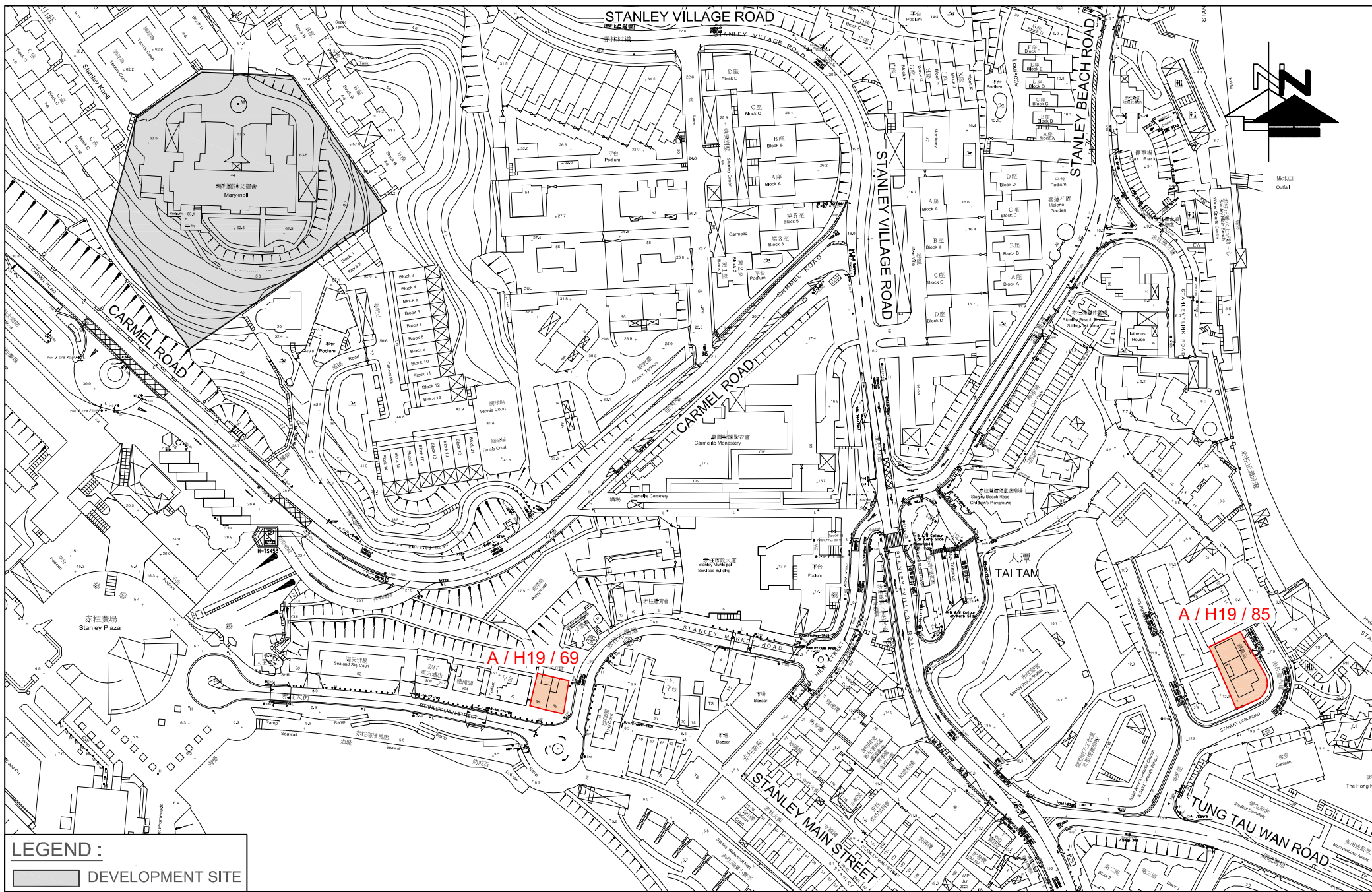
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	DEVELOPMENT SITE
130	SUNDAY PEAK HOUR TRAFFIC FLOW (IN PCU / HR)

FIGURE NO.:	3.9	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong
PROJECT NO.:	24048HK	DRAWING TITLE:
SCALE: N.T.S. @A4	DATE: 12 AUG 2024	2024 OBSERVED TRAFFIC FLOWS - SUNDAY



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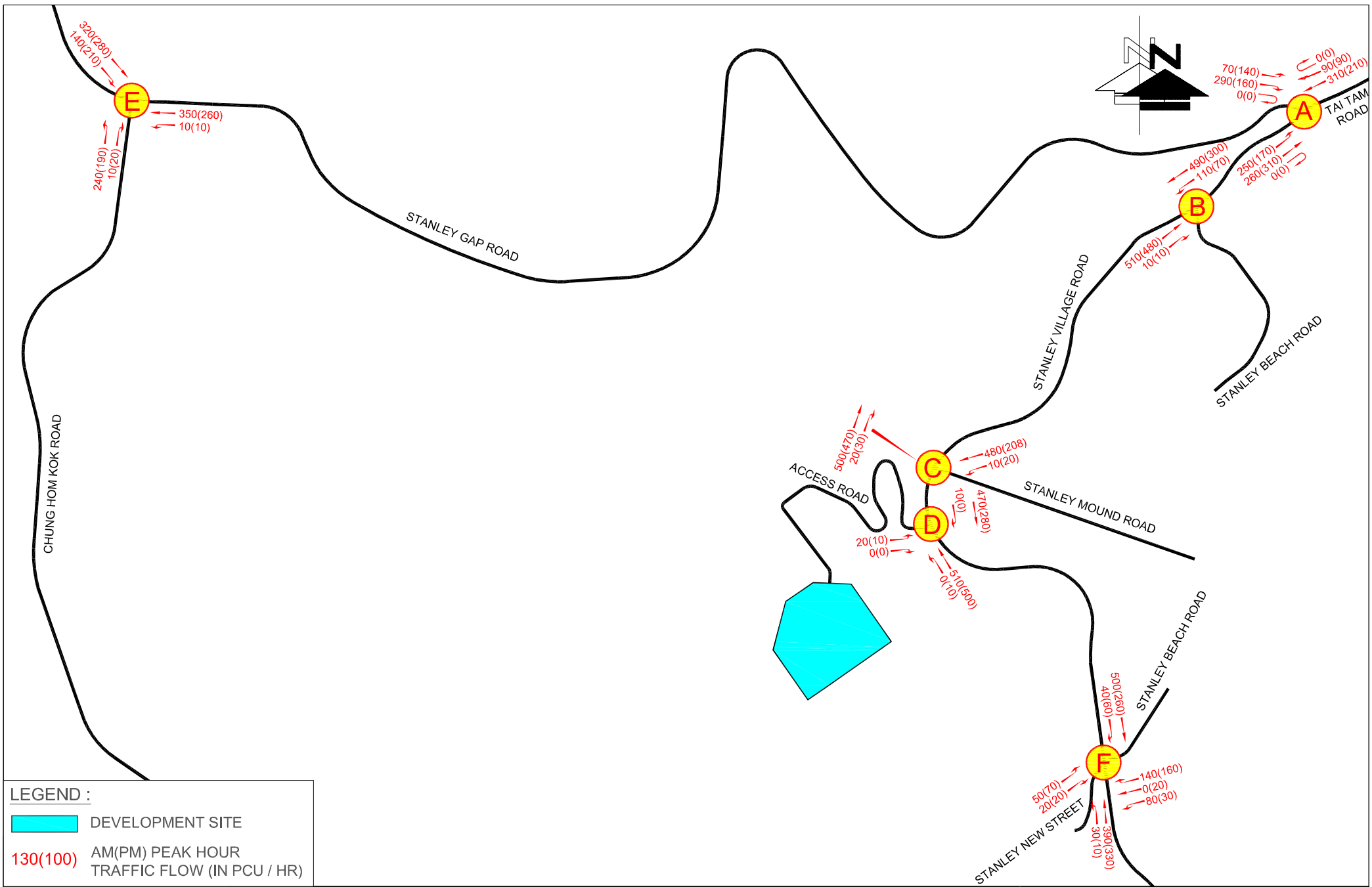
LEGEND :
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FIGURE NO.:		4.1
PROJECT NO.:		24048HK
SCALE:	DATE:	
1 : 2000 @A4	16 JUL 2024	

PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong

DRAWING TITLE: **PLANNED MAJOR DEVELOPMENTS IN THE VICINITY**






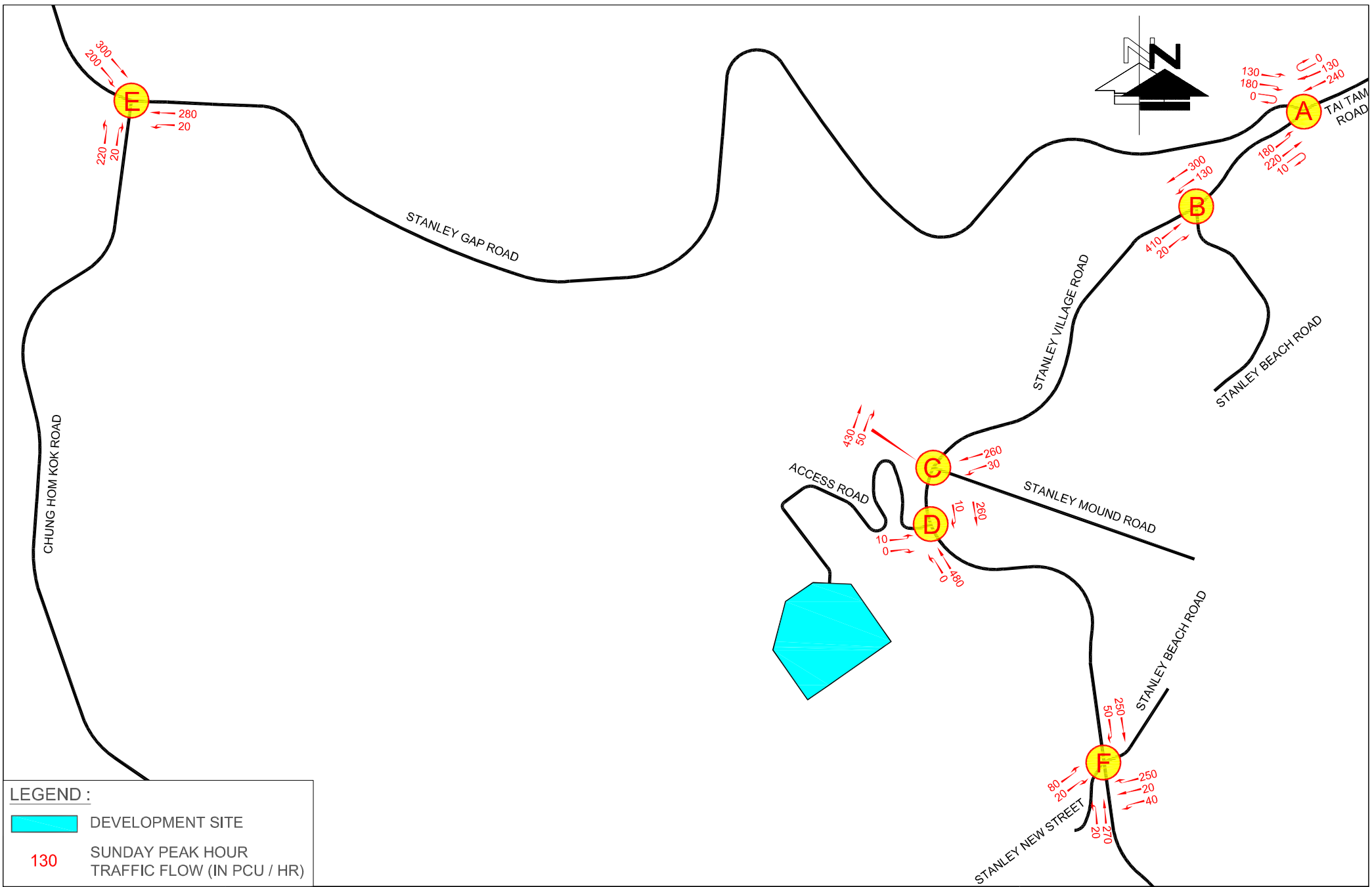
LEGEND :
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130(100) AM(PM) PEAK HOUR TRAFFIC FLOW (IN PCU / HR)

FIGURE NO.:	4.2	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong
PROJECT NO.:	24048HK	DRAWING TITLE:
SCALE: N.T.S. @A4	DATE: 30 JUL 2024	2031 REFERENCE TRAFFIC FLOWS - WEEKDAY



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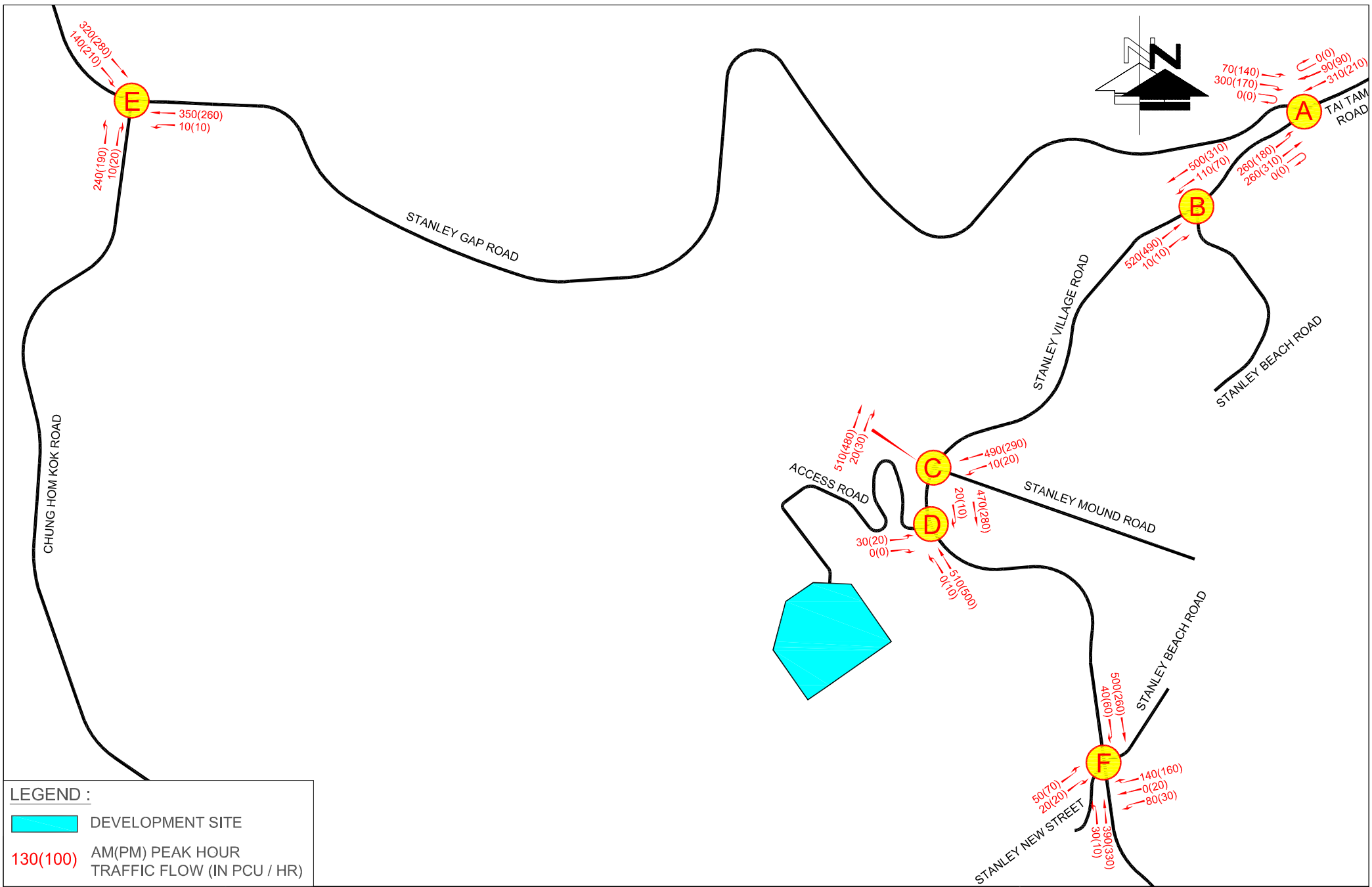


LEGEND :	
	DEVELOPMENT SITE
130	SUNDAY PEAK HOUR TRAFFIC FLOW (IN PCU / HR)

FIGURE NO.:	4.3	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong
PROJECT NO.:	24048HK	DRAWING TITLE:
SCALE: N.T.S. @A4	DATE: 12 AUG 2024	2031 REFERENCE TRAFFIC FLOWS - SUNDAY



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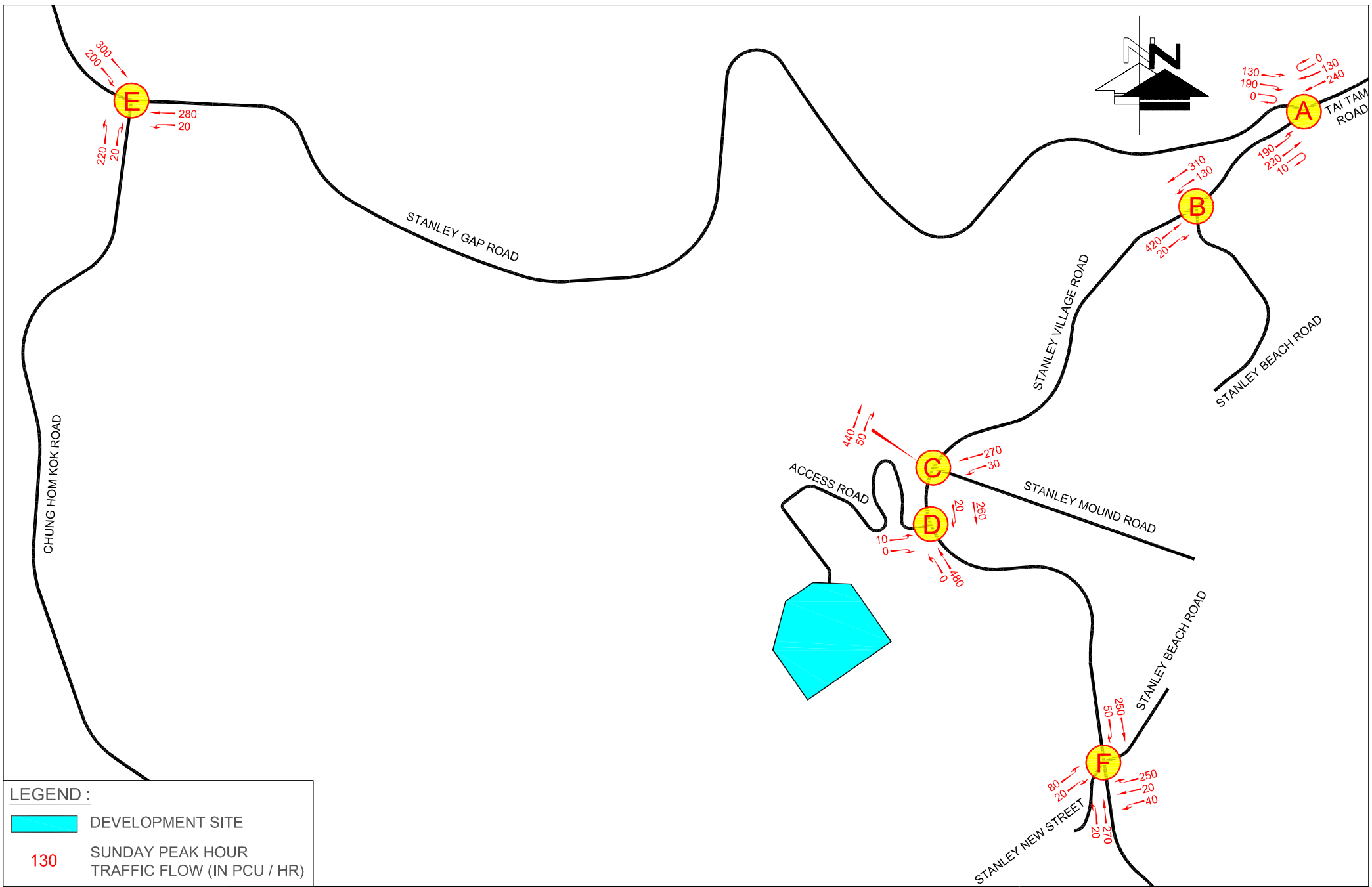
LEGEND :
 DEVELOPMENT SITE
130(100) AM(PM) PEAK HOUR TRAFFIC FLOW (IN PCU / HR)

FIGURE NO.:	4.4	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong
PROJECT NO.:	24048HK	DRAWING TITLE:
SCALE:	DATE:	2031 DESIGN TRAFFIC FLOWS - WEEKDAY
N.T.S. @A4	30 JUL 2024	





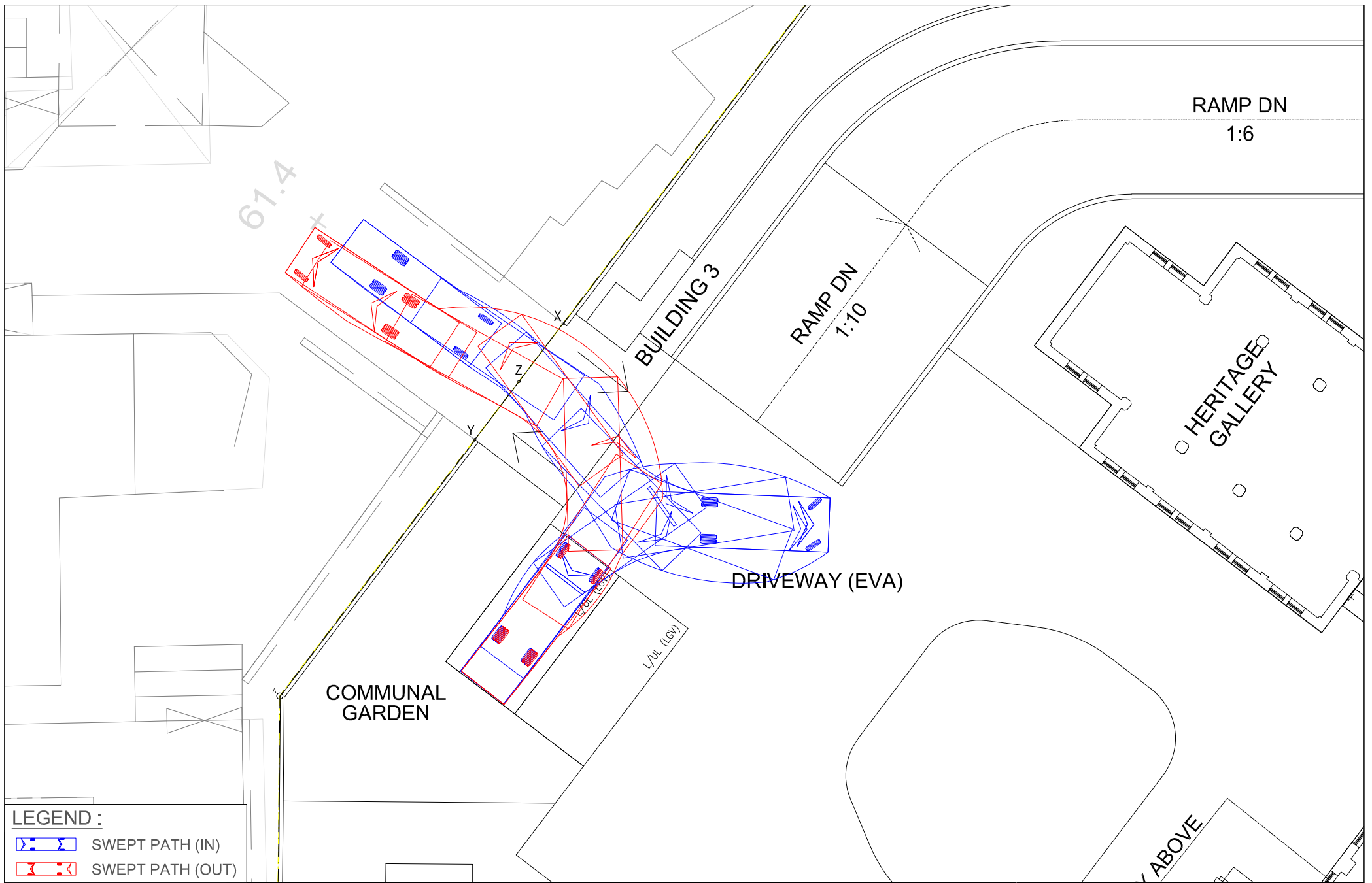
LEGEND :

■ DEVELOPMENT SITE

130 SUNDAY PEAK HOUR TRAFFIC FLOW (IN PCU / HR)

FIGURE NO.:	4.5	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong
PROJECT NO.:	24048HK	DRAWING TITLE:
SCALE:	N.T.S. @A4	2031 DESIGN TRAFFIC FLOWS - SUNDAY
DATE:	12 AUG 2024	





LEGEND :

- ▭ SWEPT PATH (IN)
- ▭ SWEPT PATH (OUT)

FIGURE NO.: <div style="font-size: 1.2em; font-weight: bold; text-align: center;">SP-01</div>	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong	 CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 24048HK	DRAWING TITLE: <div style="font-size: 1.1em; font-weight: bold;">SWEPT PATH ANALYSIS OF LGV AT PROPOSED VEHICULAR ACCESS</div>	
SCALE: 1 : 200 @A4	DATE: 12 AUG 2024	



APPENDIX A

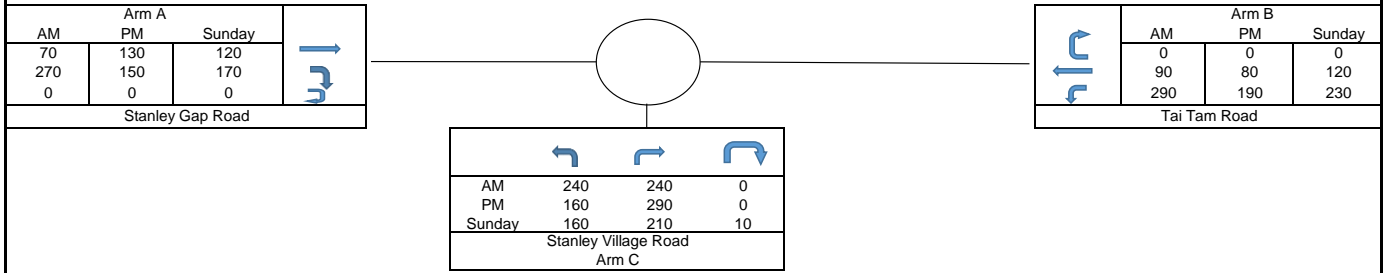
JUNCTION CALCULATION SHEETS

Roundabout Junction Calculation

Roundabout Junction : **Tai Tam Road / Stanley Gap Road / Stanley Village Road (A)**

Project No. 24048HK

Design Year : **2024 Observed Traffic Flows**



Input Parameters	Arm A - Stanley Gap Road			Arm B - Tai Tam Road			Arm C - Stanley Village Road		
	AM	PM	Sunday	AM	PM	Sunday	AM	PM	Sunday
V = Approach half width (m)	2.5	2.5	2.5	3.5	3.5	3.5	3.6	3.6	3.6
E = Entry width (m)	4.6	4.6	4.6	4.6	4.6	4.6	4.8	4.8	4.8
L = Effective length of flare (m)	12	12	12	1	1	1	2.5	2.5	2.5
R = Entry radius	320	320	320	100	100	100	6	6	6
D = Inscribed circle diameter (m)	22	22	22	22	22	22	22	22	22
A = Entry angle (degree)	10	10	10	10	10	10	38	38	38
Q = Entry flow (pcu/hr)	340	280	290	380	270	350	480	450	290
Qc = Circulating flow across entry (pcu/hr)	240	240	220	270	150	180	90	80	120
Output Parameters	AM	PM	Sunday	AM	PM	Sunday	AM	PM	Sunday
S = Sharepness of flare = $1.6*(E-V)/L$	0.28	0.28	0.28	1.76	1.76	1.76	0.77	0.77	0.77
K = $1-0.00347*(A-30)-0.978*(1/R-0.05)$	1.12	1.12	1.12	1.11	1.11	1.11	0.86	0.86	0.86
X2 = $V+((E-V)/(1+2*S))$	3.85	3.85	3.85	3.74	3.74	3.74	4.07	4.07	4.07
M = $Exp((D-60)/10)$	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
F = $303*X2$	1165	1165	1165	1134	1134	1134	1234	1234	1234
Td = $1+(0.5/(1+M))$	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49
Fc = $0.21*Td*(1+0.2*X2)$	0.55	0.55	0.55	0.55	0.55	0.55	0.57	0.57	0.57
Qe = Capacity = $K*(F-Fc*Qc)$	1152	1152	1164	1094	1166	1148	1015	1020	1001
DFC = Entry Flow/Capacity = Q/Qe	0.30	0.24	0.25	0.35	0.23	0.30	0.47	0.44	0.29
DFC of Critical Approach	AM	PM	Sunday						
	0.47	0.44	0.30						

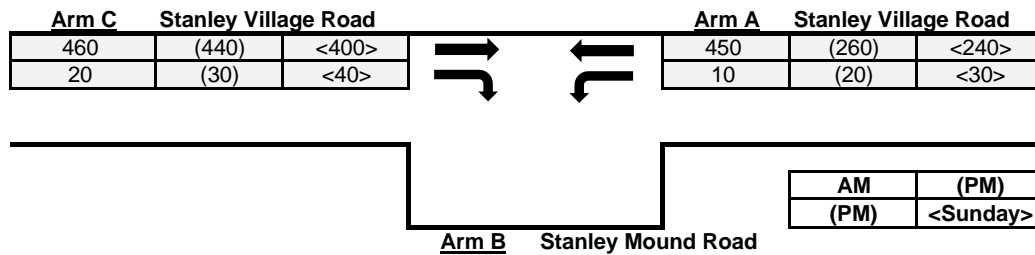
CTA

Priority Junction Calculation

Junction :	Stanley Village Road / Stanley Beach Road (B)	Job No.:	24048HK																											
Scenario :	2024 Observed Traffic Flows																													
<table style="margin: auto; border-collapse: collapse;"> <tr> <td style="text-align: center;">Arm C</td> <td colspan="3" style="text-align: center;">Stanley Village Road</td> <td style="text-align: center;"> </td> <td style="text-align: center;">Arm A</td> <td colspan="3" style="text-align: center;">Stanley Village Road</td> </tr> <tr> <td style="text-align: center;">480</td> <td style="text-align: center;">(450)</td> <td style="text-align: center;"><380></td> <td style="text-align: center;">10</td> <td style="text-align: center;">(10)</td> <td style="text-align: center;"><20></td> <td style="text-align: center;">450</td> <td style="text-align: center;">(280)</td> <td style="text-align: center;"><280></td> <td style="text-align: center;">110</td> <td style="text-align: center;">(60)</td> <td style="text-align: center;"><120></td> </tr> </table> <table style="margin: auto; border-collapse: collapse;"> <tr> <td style="text-align: center;">AM</td> <td style="text-align: center;">(PM)</td> <td style="text-align: center;"><Sunday></td> </tr> <tr> <td style="text-align: center;">(PM)</td> <td style="text-align: center;"><Sunday></td> <td></td> </tr> </table> <p style="text-align: center;">Arm B Stanley Beach Road</p>				Arm C	Stanley Village Road				Arm A	Stanley Village Road			480	(450)	<380>	10	(10)	<20>	450	(280)	<280>	110	(60)	<120>	AM	(PM)	<Sunday>	(PM)	<Sunday>	
Arm C	Stanley Village Road				Arm A	Stanley Village Road																								
480	(450)	<380>	10	(10)	<20>	450	(280)	<280>	110	(60)	<120>																			
AM	(PM)	<Sunday>																												
(PM)	<Sunday>																													
<p>The predictive equations of capacity of movement are:</p> $Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))$ $Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))$ $Q-CB = F(745 - 0.364Y(q-AC + q-AB))$ <p>The geometric parameters represented by D, E, F are:</p> $D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))$ $E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))$ $F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))$ <p>where</p> <p>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-IBA = visibility to the left for waiting vehicles in stream BA, etc</p>																														
Geometry :																														
	Input		Calculated																											
W	7.75	V-rBA	0	w-BA	0	D	0.533																							
W-CR	0	V-IBA	0	w-BC	0	E	0.586																							
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	1	V-rBC	0	w-CB	3.5	F	0.924																							
Minor Road Share LT&RT? (Yes: 1, No: 0)	1	V-rCB	50			Y	0.733																							
Analysis :																														
Traffic Flow	AM	PM	Sunday	Capacity	AM	PM	Sunday																							
pcu/hr				pcu/hr																										
q-CA	480	450	380	Q-BA	219	249	250																							
q-CB	10	10	20	Q-BC	359	389	385																							
q-AB	110	60	120	Q-CB	550	604	590																							
q-AC	450	280	280	Q-CA	1767	1770	1739	(If C-B blocked C-A)																						
q-BA	0	0	0	Q-BAC	219	249	250	(If Minor Road Share LT&RT)																						
q-BC	0	0	0																											
f	0.000	0.000	0.000																											
Results :																														
Ratio of Flow-to-Capacity		AM	PM	Sunday																										
	B-A	N/A	N/A	N/A																										
	B-C	N/A	N/A	N/A																										
	C-B	0.02	0.02	0.03																										
	C-A	0.27	0.25	0.22																										
	B-AC	0.00	0.00	0.00																										
Critical DFC					0.27	0.25	0.22																							
CTA Consultants Ltd.																														

Priority Junction Calculation

Junction : Stanley Village Road / Stanley Mound Road (C) Job No.: 24048HK
 Scenario : 2024 Observed Traffic Flows



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:

$$D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))$$

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

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

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

Geometry :	Input	Calculated
	W <u>7.75</u>	D <u>0.533</u>
	W-CR <u>0</u>	E <u>0.586</u>
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	<u>1</u>	F <u>0.911</u>
Minor Road Share LT&RT? (Yes: 1, No: 0)	<u>0</u>	Y <u>0.733</u>
	V-rBA <u>0</u>	
	V-IBA <u>0</u>	
	V-rBC <u>0</u>	
	V-rCB <u>55</u>	
	w-BA <u>0</u>	
	w-BC <u>0</u>	
	w-CB <u>3.3</u>	

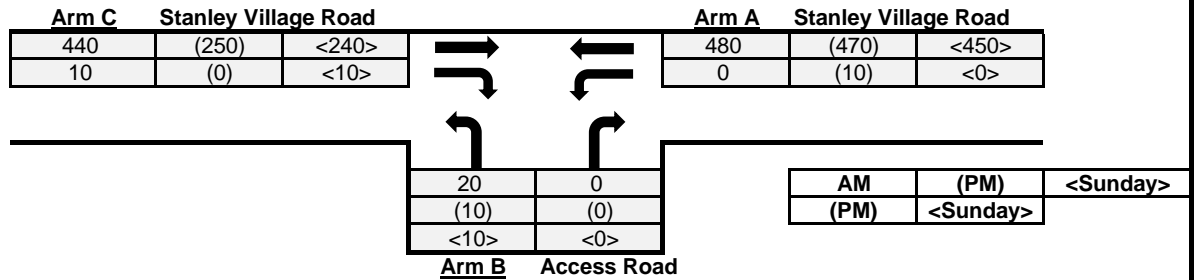
Analysis :	Traffic Flow	AM	PM	Sunday	Capacity	AM	PM	Sunday	
	pcu/hr				pcu/hr				
	q-CA	460	440	400	Q-BA	225	251	255	
	q-CB	20	30	40	Q-BC	366	395	397	
	q-AB	10	20	30	Q-CB	567	610	613	
	q-AC	450	260	240	Q-CA	1736	1712	1683	(If C-B blocked C-A)
	q-BA	0	0	0	Q-BAC	N/A	N/A	N/A	(If Minor Road Share LT&RT)
	q-BC	0	0	0					
	f	0.000	0.000	0.000					

Results :	Ratio of Flow-to-Capacity	AM	PM	Sunday
	B-A	0.00	0.00	0.00
	B-C	0.00	0.00	0.00
	C-B	0.04	0.05	0.07
	C-A	0.26	0.26	0.24
	B-AC	N/A	N/A	N/A
	Critical DFC	0.26	0.26	0.24

Priority Junction Calculation

Junction : Stanley Village Road / Access Road (D) Job No.: 24048HK

Scenario : 2024 Observed Traffic Flows



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:

$$D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))$$

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

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

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

Geometry :	Input	Calculated
	W <u>7.75</u>	D <u>0.712</u>
	W-CR <u>0</u>	E <u>0.771</u>
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	<u>1</u>	F <u>0.968</u>
Minor Road Share LT&RT? (Yes: 1, No: 0)	<u>1</u>	Y <u>0.733</u>
	V-rBA <u>17</u>	
	V-IBA <u>22</u>	
	V-rBC <u>17</u>	
	V-rCB <u>50</u>	
	w-BA <u>2.05</u>	
	w-BC <u>2.05</u>	
	w-CB <u>4</u>	

Analysis :	Traffic Flow	AM	PM	Sunday	Capacity	AM	PM	Sunday
	pcu/hr				pcu/hr			
	q-CA	440	250	240	Q-BA	300	326	329
	q-CB	10	0	10	Q-BC	476	477	482
	q-AB	0	10	0	Q-CB	597	597	605
	q-AC	480	470	450	Q-CA	1770	1800	1770
	q-BA	0	0	0	Q-BAC	476	477	482
	q-BC	20	10	10				
	f	1.000	1.000	1.000				

(If C-B blocked C-A)
(If Minor Road Share LT&RT)

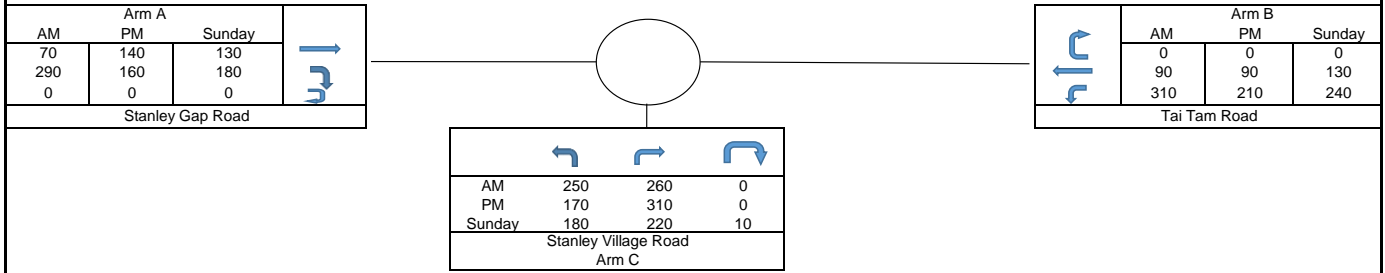
Results :	Ratio of Flow-to-Capacity	AM	PM	Sunday
	B-A	N/A	N/A	N/A
	B-C	N/A	N/A	N/A
	C-B	0.02	0.00	0.02
	C-A	0.25	0.14	0.14
	B-AC	0.04	0.02	0.02
	Critical DFC	0.25	0.14	0.14

Roundabout Junction Calculation

Roundabout Junction : **Tai Tam Road / Stanley Gap Road / Stanley Village Road (A)**

Project No. 24048HK

Design Year : **2031 Reference Traffic Flows**



Input Parameters	Arm A - Stanley Gap Road			Arm B - Tai Tam Road			Arm C - Stanley Village Road		
	AM	PM	Sunday	AM	PM	Sunday	AM	PM	Sunday
V = Approach half width (m)	2.5	2.5	2.5	3.5	3.5	3.5	3.6	3.6	3.6
E = Entry width (m)	4.6	4.6	4.6	4.6	4.6	4.6	4.8	4.8	4.8
L = Effective length of flare (m)	12	12	12	1	1	1	2.5	2.5	2.5
R = Entry radius	320	320	320	100	100	100	6	6	6
D = Inscribed circle diameter (m)	22	22	22	22	22	22	22	22	22
A = Entry angle (degree)	10	10	10	10	10	10	38	38	38
Q = Entry flow (pcu/hr)	360	300	310	400	300	370	510	480	310
Qc = Circulating flow across entry (pcu/hr)	260	260	230	290	160	190	90	90	130

Output Parameters	Arm A			Arm B			Arm C		
	AM	PM	Sunday	AM	PM	Sunday	AM	PM	Sunday
S = Sharepness of flare = 1.6*(E-V)/L	0.28	0.28	0.28	1.76	1.76	1.76	0.77	0.77	0.77
K = 1-0.00347*(A-30)-0.978*(1/R-0.05)	1.12	1.12	1.12	1.11	1.11	1.11	0.86	0.86	0.86
X2 = V+((E-V)/(1+2*S))	3.85	3.85	3.85	3.74	3.74	3.74	4.07	4.07	4.07
M = Exp((D-60)/10)	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
F = 303*X2	1165	1165	1165	1134	1134	1134	1234	1234	1234
Td = 1+(0.5/(1+M))	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49
Fc = 0.21*Td*(1+0.2*X2)	0.55	0.55	0.55	0.55	0.55	0.55	0.57	0.57	0.57
Qe = Capacity = K*(F-Fc*Qc)	1139	1139	1158	1082	1160	1142	1015	1015	996
DFC = Entry Flow/Capacity = Q/Qe	0.32	0.26	0.27	0.37	0.26	0.32	0.50	0.47	0.31

DFC of Critical Approach = **AM 0.50 PM 0.47 Sunday 0.32**

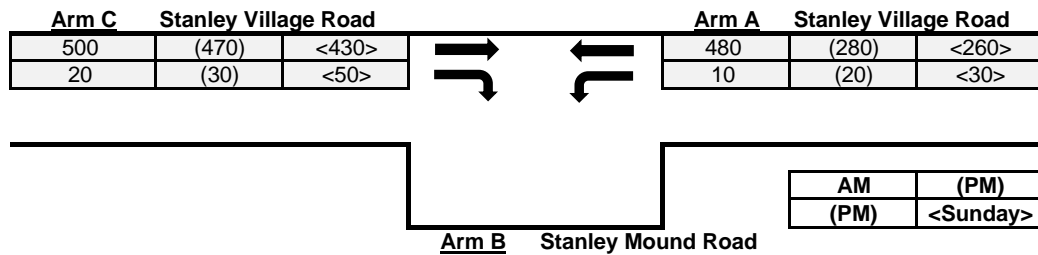
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Priority Junction Calculation

Junction :	Stanley Village Road / Stanley Beach Road (B)	Job No.:	24048HK																								
Scenario :	2031 Reference Traffic Flows																										
<table border="1" style="margin: auto;"> <tr> <th colspan="3">Arm C Stanley Village Road</th> <th colspan="3">Arm A Stanley Village Road</th> </tr> <tr> <td>510</td><td>(480)</td><td><410></td> <td>490</td><td>(300)</td><td><300></td> </tr> <tr> <td>10</td><td>(10)</td><td><20></td> <td>110</td><td>(70)</td><td><130></td> </tr> </table> <table border="1" style="margin: auto;"> <tr> <th>AM</th><th>(PM)</th><th><Sunday></th> </tr> <tr> <td>(PM)</td><td><Sunday></td><td></td> </tr> </table> <p style="text-align: center;">Arm B Stanley Beach Road</p>				Arm C Stanley Village Road			Arm A Stanley Village Road			510	(480)	<410>	490	(300)	<300>	10	(10)	<20>	110	(70)	<130>	AM	(PM)	<Sunday>	(PM)	<Sunday>	
Arm C Stanley Village Road			Arm A Stanley Village Road																								
510	(480)	<410>	490	(300)	<300>																						
10	(10)	<20>	110	(70)	<130>																						
AM	(PM)	<Sunday>																									
(PM)	<Sunday>																										
<p>The predictive equations of capacity of movement are:</p> $Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))$ $Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))$ $Q-CB = F(745 - 0.364Y(q-AC + q-AB))$ <p>The geometric parameters represented by D, E, F are:</p> $D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))$ $E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))$ $F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))$ <p>where</p> <p>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-IBA = visibility to the left for waiting vehicles in stream BA, etc</p>																											
Geometry :	Input			Calculated																							
	W	7.75	V-rBA	0	w-BA	0	D	0.533																			
	W-CR	0	V-IBA	0	w-BC	0	E	0.586																			
	C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	1	V-rBC	0	w-CB	3.5	F	0.924																			
	Minor Road Share LT&RT? (Yes: 1, No: 0)	1	V-rCB	50			Y	0.733																			
Analysis :	Traffic Flow	AM	PM	Sunday	Capacity	AM	PM	Sunday																			
	pcu/hr				pcu/hr																						
	q-CA	510	480	410	Q-BA	211	243	244																			
	q-CB	10	10	20	Q-BC	353	385	382																			
	q-AB	110	70	130	Q-CB	540	597	582																			
	q-AC	490	300	300	Q-CA	1767	1770	1738	(If C-B blocked C-A)																		
	q-BA	0	0	0	Q-BAC	211	243	244	(If Minor Road Share LT&RT)																		
	q-BC	0	0	0																							
	f	0.000	0.000	0.000																							
Results :	Ratio of Flow-to-Capacity	AM	PM	Sunday																							
	B-A	N/A	N/A	N/A																							
	B-C	N/A	N/A	N/A																							
	C-B	0.02	0.02	0.03																							
	C-A	0.29	0.27	0.24																							
	B-AC	0.00	0.00	0.00																							
	Critical DFC	0.29	0.27	0.24																							
CTA Consultants Ltd.																											

Priority Junction Calculation

Junction : Stanley Village Road / Stanley Mound Road (C) Job No.: 24048HK
 Scenario : 2031 Reference Traffic Flows



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:

$$D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))$$

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

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

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

Geometry :	Input	Calculated
	W <u>7.75</u>	D <u>0.533</u>
	W-CR <u>0</u>	E <u>0.586</u>
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	<u>1</u>	F <u>0.911</u>
Minor Road Share LT&RT? (Yes: 1, No: 0)	<u>0</u>	Y <u>0.733</u>
	V-rBA <u>0</u>	
	V-IBA <u>0</u>	
	V-rBC <u>0</u>	
	V-rCB <u>55</u>	
	w-BA <u>0</u>	
	w-BC <u>0</u>	
	w-CB <u>3.3</u>	

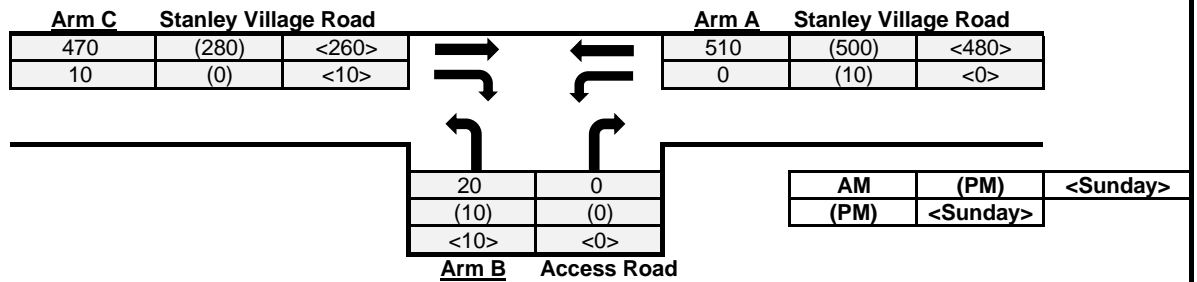
Analysis :	Traffic Flow	AM	PM	Sunday	Capacity	AM	PM	Sunday	
	pcu/hr				pcu/hr				
	q-CA	500	470	430	Q-BA	217	245	247	
	q-CB	20	30	50	Q-BC	361	392	394	
	q-AB	10	20	30	Q-CB	559	605	608	
	q-AC	480	280	260	Q-CA	1736	1711	1652	(If C-B blocked C-A)
	q-BA	0	0	0	Q-BAC	N/A	N/A	N/A	(If Minor Road Share LT&RT)
	q-BC	0	0	0					
	f	0.000	0.000	0.000					

Results :	Ratio of Flow-to-Capacity	AM	PM	Sunday
	B-A	0.00	0.00	0.00
	B-C	0.00	0.00	0.00
	C-B	0.04	0.05	0.08
	C-A	0.29	0.27	0.26
	B-AC	N/A	N/A	N/A
	Critical DFC	0.29	0.27	0.26

Priority Junction Calculation

Junction : Stanley Village Road / Access Road (D) Job No.: 24048HK

Scenario : 2031 Reference Traffic Flows



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:

$$D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))$$

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

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

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

Geometry :	Input	Calculated
	W <u>7.75</u>	D <u>0.712</u>
	W-CR <u>0</u>	E <u>0.771</u>
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	<u>1</u>	F <u>0.968</u>
Minor Road Share LT&RT? (Yes: 1, No: 0)	<u>1</u>	Y <u>0.733</u>
	V-rBA <u>17</u>	
	V-IBA <u>22</u>	
	V-rBC <u>17</u>	
	V-rCB <u>50</u>	
	w-BA <u>2.05</u>	
	w-BC <u>2.05</u>	
	w-CB <u>4</u>	

Analysis :	Traffic Flow	AM	PM	Sunday	Capacity	AM	PM	Sunday
	pcu/hr				pcu/hr			
	q-CA	470	280	260	Q-BA	291	317	321
	q-CB	10	0	10	Q-BC	469	471	476
	q-AB	0	10	0	Q-CB	589	589	597
	q-AC	510	500	480	Q-CA	1769	1800	1770
	q-BA	0	0	0	Q-BAC	469	471	476
	q-BC	20	10	10				
	f	1.000	1.000	1.000				

(If C-B blocked C-A)
(If Minor Road Share LT&RT)

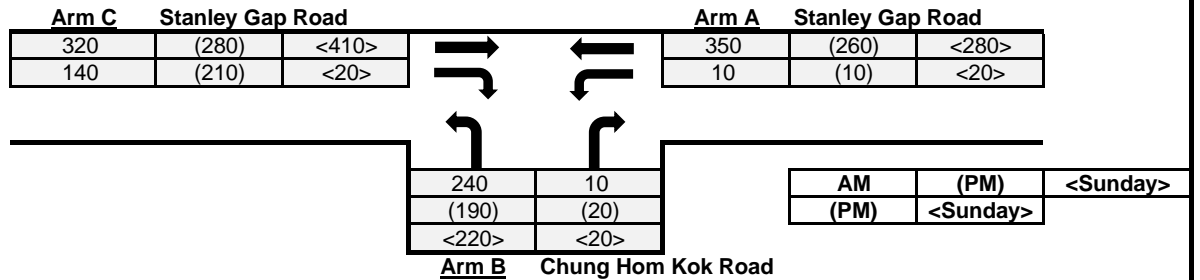
Results :	Ratio of Flow-to-Capacity	AM	PM	Sunday
	B-A	N/A	N/A	N/A
	B-C	N/A	N/A	N/A
	C-B	0.02	0.00	0.02
	C-A	0.27	0.16	0.15
	B-AC	0.04	0.02	0.02

Critical DFC **0.27** **0.16** **0.15**

Priority Junction Calculation

Junction : Stanley Gap Road / Chung Hom Kok Road (E) Job No.: 24048HK

Scenario : 2031 Reference Traffic Flows



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:

$$D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))$$

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

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

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

Geometry :	Input				Calculated			
	W	7	V-rBA	34	w-BA	2.35	D	0.750
	W-CR	0	V-IBA	27	w-BC	2.35	E	0.837
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	1	V-rBC	68	w-CB	2.1	F	0.854	
Minor Road Share LT&RT? (Yes: 1, No: 0)	1	V-rCB	120			Y	0.759	

Analysis :	Traffic Flow	AM	PM	Sunday	Capacity	AM	PM	Sunday	
	pcu/hr				pcu/hr				
	q-CA	320	280	410	Q-BA	314	317	356	
	q-CB	140	210	20	Q-BC	542	562	562	
	q-AB	10	10	10	Q-CB	552	573	573	
	q-AC	350	260	260	Q-CA	1343	1140	1737	(If C-B blocked C-A)
	q-BA	10	20	20	Q-BAC	526	524	537	(If Minor Road Share LT&RT)
	q-BC	240	190	220					
	f	0.960	0.905	0.917					

Results :	Ratio of Flow-to-Capacity	AM	PM	Sunday
	B-A	N/A	N/A	N/A
	B-C	N/A	N/A	N/A
	C-B	0.25	0.37	0.03
	C-A	0.24	0.25	0.24
	B-AC	0.47	0.40	0.45

Critical DFC **0.47** **0.40** **0.45**

Roundabout Junction Calculation

Roundabout Junction : **Tai Tam Road / Stanley Gap Road / Stanley Village Road (A)**

Project No. 24048HK

Design Year : **2031 Design Traffic Flows**

Arm A Stanley Gap Road				Arm B Tai Tam Road				Arm C Stanley Village Road			
AM	PM	Sunday		AM	PM	Sunday		AM	PM	Sunday	
70	140	130	→	0	0	0	←	260	260	0	↻
300	170	190	↻	90	90	130	↻	180	310	0	
0	0	0	↻	310	210	240	↻	190	220	10	

Input Parameters	Arm A - Stanley Gap Road			Arm B - Tai Tam Road			Arm C - Stanley Village Road		
	AM	PM	Sunday	AM	PM	Sunday	AM	PM	Sunday
V = Approach half width (m)	2.5	2.5	2.5	3.5	3.5	3.5	3.6	3.6	3.6
E = Entry width (m)	4.6	4.6	4.6	4.6	4.6	4.6	4.8	4.8	4.8
L = Effective length of flare (m)	12	12	12	1	1	1	2.5	2.5	2.5
R = Entry radius	320	320	320	100	100	100	6	6	6
D = Inscribed circle diameter (m)	22	22	22	22	22	22	22	22	22
A = Entry angle (degree)	10	10	10	10	10	10	38	38	38
Q = Entry flow (pcu/hr)	370	310	320	400	300	370	520	490	310
Qc = Circulating flow across entry (pcu/hr)	260	260	230	300	170	200	90	90	130

Output Parameters	Arm A			Arm B			Arm C		
	AM	PM	Sunday	AM	PM	Sunday	AM	PM	Sunday
S = Sharepness of flare = $1.6*(E-V)/L$	0.28	0.28	0.28	1.76	1.76	1.76	0.77	0.77	0.77
K = $1-0.00347*(A-30)-0.978*(1/R-0.05)$	1.12	1.12	1.12	1.11	1.11	1.11	0.86	0.86	0.86
X2 = $V+((E-V)/(1+2*S))$	3.85	3.85	3.85	3.74	3.74	3.74	4.07	4.07	4.07
M = $Exp((D-60)/10)$	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
F = $303*X2$	1165	1165	1165	1134	1134	1134	1234	1234	1234
Td = $1+(0.5/(1+M))$	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49
Fc = $0.21*Td*(1+0.2*X2)$	0.55	0.55	0.55	0.55	0.55	0.55	0.57	0.57	0.57
Qe = Capacity = $K*(F-Fc*Qc)$	1139	1139	1158	1075	1154	1136	1015	1015	996
DFC = Entry Flow/Capacity = Q/Qe	0.32	0.27	0.28	0.37	0.26	0.33	0.51	0.48	0.31

DFC of Critical Approach	=	AM	PM	Sunday
		0.51	0.48	0.33

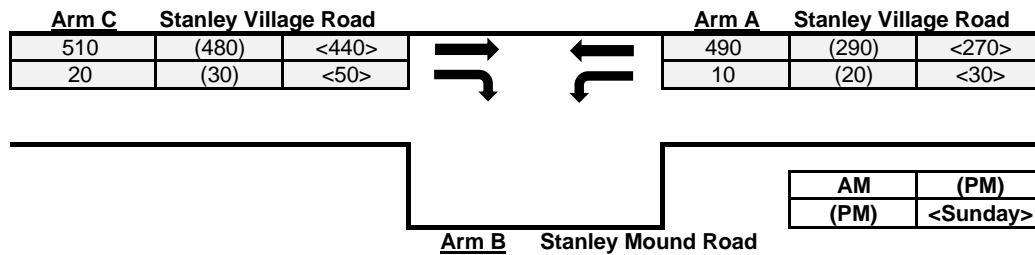
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Priority Junction Calculation

Junction :	Stanley Village Road / Stanley Beach Road (B)	Job No.:	24048HK						
Scenario :	2031 Design Traffic Flows								
<p>The predictive equations of capacity of movement are:</p> $Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))$ $Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))$ $Q-CB = F(745 - 0.364Y(q-AC + q-AB))$									
<p>The geometric parameters represented by D, E, F are:</p> $D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))$ $E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))$ $F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))$									
<p>where</p> <p>Y = 1 - 0.0345W</p> <p>q-AB, etc = the design flow of movement AB, etc</p> <p>W = major road width</p> <p>W-CR = central reserve width</p> <p>w-BA, etc = lane width to vehicle</p> <p>v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc</p> <p>v-IBA = visibility to the left for waiting vehicles in stream BA, etc</p>									
Geometry :	Input		Calculated						
	W 7.75	V-rBA 0	w-BA 0	D 0.533					
	W-CR 0	V-IBA 0	w-BC 0	E 0.586					
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	1	V-rBC 0	w-CB 3.5	F 0.924					
Minor Road Share LT&RT? (Yes: 1, No: 0)	1	V-rCB 50		Y 0.733					
Analysis :	Traffic Flow	AM	PM	Sunday	Capacity	AM	PM	Sunday	
	pcu/hr				pcu/hr				
	q-CA	520	490	420	Q-BA	208	240	241	
	q-CB	10	10	20	Q-BC	352	384	380	
	q-AB	110	70	130	Q-CB	538	595	580	
	q-AC	500	310	310	Q-CA	1767	1770	1738	(If C-B blocked C-A)
	q-BA	0	0	0	Q-BAC	208	240	241	(If Minor Road Share LT&RT)
	q-BC	0	0	0					
	f	0.000	0.000	0.000					
Results :	Ratio of Flow-to-Capacity	AM	PM	Sunday					
	B-A	N/A	N/A	N/A					
	B-C	N/A	N/A	N/A					
	C-B	0.02	0.02	0.03					
	C-A	0.29	0.28	0.24					
	B-AC	0.00	0.00	0.00					
	Critical DFC	0.29	0.28	0.24					
CTA Consultants Ltd.									

Priority Junction Calculation

Junction : Stanley Village Road / Stanley Mound Road (C) Job No.: 24048HK
 Scenario : 2031 Design Traffic Flows



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:

$$D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))$$

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

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

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

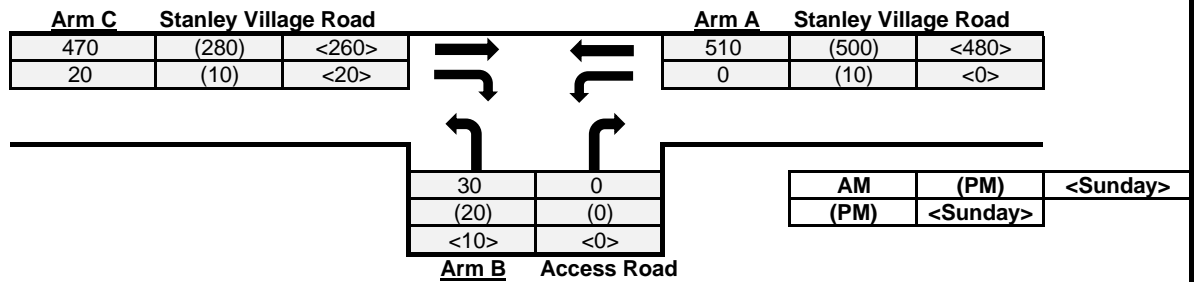
Geometry :	Input	Calculated
W	7.75	D 0.533
W-CR	0	E 0.586
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	1	F 0.911
Minor Road Share LT&RT? (Yes: 1, No: 0)	0	Y 0.733
V-rBA	0	
V-IBA	0	
V-rBC	0	
V-rCB	55	
w-BA	0	
w-BC	0	
w-CB	3.3	

Analysis :	Traffic Flow	AM	PM	Sunday	Capacity	AM	PM	Sunday	
	pcu/hr				pcu/hr				
	q-CA	510	480	440	Q-BA	214	243	245	
	q-CB	20	30	50	Q-BC	359	390	392	
	q-AB	10	20	30	Q-CB	557	603	605	
	q-AC	490	290	270	Q-CA	1735	1710	1651	(If C-B blocked C-A)
	q-BA	0	0	0	Q-BAC	N/A	N/A	N/A	(If Minor Road Share LT&RT)
	q-BC	0	0	0					
	f	0.000	0.000	0.000					

Results :	Ratio of Flow-to-Capacity	AM	PM	Sunday
	B-A	0.00	0.00	0.00
	B-C	0.00	0.00	0.00
	C-B	0.04	0.05	0.08
	C-A	0.29	0.28	0.27
	B-AC	N/A	N/A	N/A
	Critical DFC	0.29	0.28	0.27

Priority Junction Calculation

Junction : Stanley Village Road / Access Road (D) Job No.: 24048HK
 Scenario : 2031 Design Traffic Flows



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:

$$D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))$$

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

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

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

Geometry :	Input			Calculated				
	W	7.75	V-rBA	17	w-BA	2.05	D	0.712
	W-CR	0	V-IBA	22	w-BC	2.05	E	0.771
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	1	V-rBC	17	w-CB	4	F	0.968	
Minor Road Share LT&RT? (Yes: 1, No: 0)	1	V-rCB	50			Y	0.733	

Analysis :	Traffic Flow	AM	PM	Sunday	Capacity	AM	PM	Sunday
	pcu/hr				pcu/hr			
	q-CA	470	280	260	Q-BA	288	314	319
	q-CB	20	10	20	Q-BC	469	471	476
	q-AB	0	10	0	Q-CB	589	589	597
	q-AC	510	500	480	Q-CA	1739	1769	1740
	q-BA	0	0	0	Q-BAC	469	471	476
	q-BC	30	20	10				
	f	1.000	1.000	1.000				

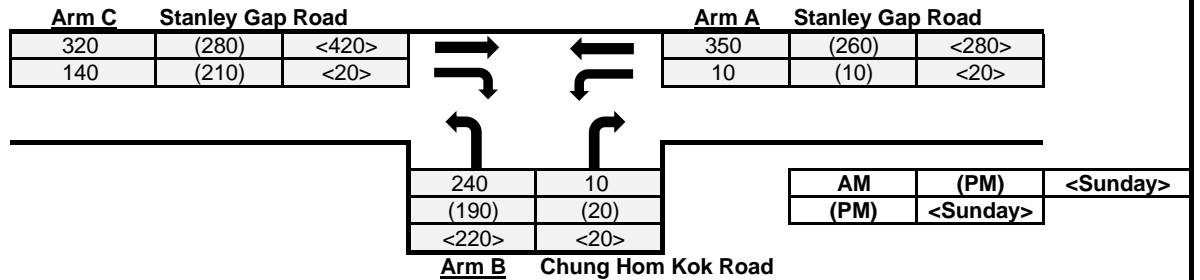
(If C-B blocked C-A)
(If Minor Road Share LT&RT)

Results :	Ratio of Flow-to-Capacity	AM	PM	Sunday
	B-A	N/A	N/A	N/A
	B-C	N/A	N/A	N/A
	C-B	0.03	0.02	0.03
	C-A	0.27	0.16	0.15
	B-AC	0.06	0.04	0.02
	Critical DFC	0.27	0.16	0.15

Priority Junction Calculation

Junction : Stanley Gap Road / Chung Hom Kok Road (E) Job No.: 24048HK

Scenario : 2031 Design Traffic Flows



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:

$$D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))$$

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

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

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

Geometry :	Input				Calculated			
	W	7	V-rBA	34	w-BA	2.35	D	0.750
	W-CR	0	V-IBA	27	w-BC	2.35	E	0.837
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)		1	V-rBC	68	w-CB	2.1	F	0.854
Minor Road Share LT&RT? (Yes: 1, No: 0)		1	V-rCB	120			Y	0.759

Analysis :	Traffic Flow	AM	PM	Sunday	Capacity	AM	PM	Sunday	
	pcu/hr				pcu/hr				
	q-CA	320	280	420	Q-BA	314	317	355	
	q-CB	140	210	20	Q-BC	542	562	562	
	q-AB	10	10	10	Q-CB	552	573	573	
	q-AC	350	260	260	Q-CA	1343	1140	1737	(If C-B blocked C-A)
	q-BA	10	20	20	Q-BAC	526	524	536	(If Minor Road Share LT&RT)
	q-BC	240	190	220					
	f	0.960	0.905	0.917					

Results :	Ratio of Flow-to-Capacity	AM	PM	Sunday
	B-A	N/A	N/A	N/A
	B-C	N/A	N/A	N/A
	C-B	0.25	0.37	0.03
	C-A	0.24	0.25	0.24
	B-AC	0.47	0.40	0.45

Critical DFC **0.47 0.40 0.45**

Junctions 8

PICADY 8 - Priority Intersection Module

Version: 8.0.5.523 [19102,19/06/2015]
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Filename: JnF.arc8

Path: \\CTA_NAS01\Project\CTA Consultants Limited\CTA - Project\24048HK (knc) - TIA & TF for S16 Application of Prop Dev at Maryknoll, Stanley\Calculation\2024-07-29

Report generation date: 30/7/2024 14:51:08

-
- » 24048HK - 2024 Observed, Weekday AM
 - » 24048HK - 2024 Observed, Weekday PM
 - » 24048HK - 2024 Observed, Weekend
 - » 24048HK - 2031 Reference, Weekday AM
 - » 24048HK - 2031 Reference, Weekday PM
 - » 24048HK - 2031 Reference, Weekend
 - » 24048HK - 2031 Design, Weekday AM
 - » 24048HK - 2031 Design, Weekday PM
 - » 24048HK - 2031 Design, Weekend

Summary of junction performance

	Weekday AM				Weekday PM				Weekend			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
24048HK - 2024 Observed												
Stream B-ACD	0.15	8.98	0.13	A	0.18	8.27	0.16	A	0.20	8.15	0.17	A
Stream A-B	-	-	-	-	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-	-	-	-	-
Stream A-D	0.00	0.00	0.00	A	0.00	0.00	0.00	A	0.00	0.00	0.00	A
Stream D-AB	0.14	6.99	0.12	A	0.08	6.94	0.08	A	0.11	7.31	0.10	A
Stream D-BC	0.48	13.31	0.32	B	0.51	11.82	0.34	B	1.00	15.41	0.50	C
Stream C-ABD	0.14	4.62	0.08	A	0.19	5.78	0.11	A	0.19	5.68	0.11	A
Stream C-D	-	-	-	-	-	-	-	-	-	-	-	-
Stream C-A	-	-	-	-	-	-	-	-	-	-	-	-
24048HK - 2031 Design												
Stream B-ACD	0.18	9.24	0.15	A	0.21	8.49	0.18	A	0.23	8.35	0.19	A
Stream A-B	-	-	-	-	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-	-	-	-	-
Stream A-D	0.00	0.00	0.00	A	0.00	0.00	0.00	A	0.00	0.00	0.00	A
Stream D-AB	0.16	7.34	0.14	A	0.09	7.15	0.08	A	0.12	7.53	0.10	A
Stream D-BC	0.58	14.90	0.37	B	0.59	12.83	0.37	B	1.23	17.54	0.55	C
Stream C-ABD	0.24	4.69	0.11	A	0.24	5.86	0.13	A	0.19	5.67	0.11	A
Stream C-D	-	-	-	-	-	-	-	-	-	-	-	-
Stream C-A	-	-	-	-	-	-	-	-	-	-	-	-
24048HK - 2031 Reference												
Stream B-ACD	0.18	9.24	0.15	A	0.21	8.49	0.18	A	0.23	8.35	0.19	A
Stream A-B	-	-	-	-	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-	-	-	-	-
Stream A-D	0.00	0.00	0.00	A	0.00	0.00	0.00	A	0.00	0.00	0.00	A
Stream D-AB	0.16	7.34	0.14	A	0.09	7.15	0.08	A	0.12	7.53	0.10	A
Stream D-BC	0.58	14.90	0.37	B	0.59	12.83	0.37	B	1.23	17.54	0.55	C
Stream C-ABD	0.24	4.69	0.11	A	0.24	5.86	0.13	A	0.19	5.67	0.11	A
Stream C-D	-	-	-	-	-	-	-	-	-	-	-	-
Stream C-A	-	-	-	-	-	-	-	-	-	-	-	-

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle.

- "D1 - 2024 Observed, Weekday AM " model duration: 8:15 - 9:45
- "D2 - 2024 Observed, Weekday PM" model duration: 16:30 - 18:00
- "D3 - 2024 Observed, Weekend" model duration: 8:15 - 9:45
- "D7 - 2031 Reference, Weekday AM" model duration: 8:15 - 9:45
- "D8 - 2031 Reference, Weekday PM" model duration: 16:30 - 18:00
- "D9 - 2031 Reference, Weekend" model duration: 8:15 - 9:45
- "D13 - 2031 Design, Weekday AM" model duration: 8:15 - 9:45
- "D14 - 2031 Design, Weekday PM" model duration: 16:30 - 18:00
- "D15 - 2031 Design, Weekend" model duration: 8:15 - 9:45

Run using Junctions 8.0.5.523 at 30/7/2024 14:51:00

File summary

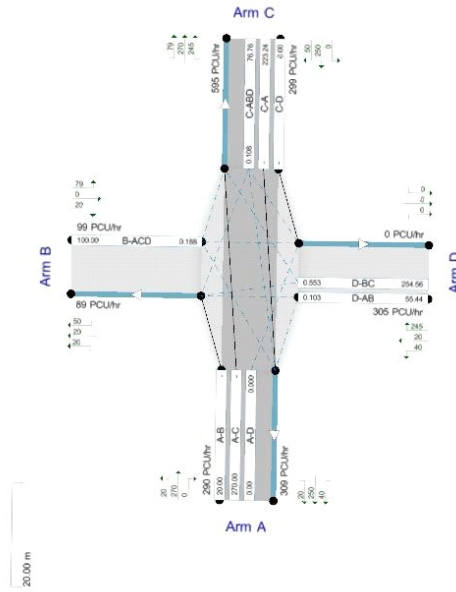
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Date	3/9/2019
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Client	
Jobnumber	
Enumerator	user
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin



Showing modelled flow through junction (PCU/hr).
 Streams (upstreams) show Total Demand (PCU/hr); Streams (downstreams) show RFC ()
 Time Segment: (08:15-08:30)
 Showing Analysis Set "A1 - 24048HK"; Demand Set "D1 - 2024 Observed, Weekday AM"

The junction diagram reflects the last run of ARCADY.

24048HK - 2024 Observed, Weekday AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
24048HK	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2024 Observed, Weekday AM	2024 Observed	Weekday AM		FLAT	08:15	09:45	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
F	Stanley Village Road / Stanley New Road / Stanley Beach Road	Crossroads	Two-way	A,B,C,D	9.40	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Stanley Village Road (S)		Major
B	B	Stanley New Road		Minor
C	C	Stanley Village Road (N)		Major
D	D	Stanley Beach Road		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	6.80		0.00		2.20	50.00		
C	6.80		0.00		2.20	50.00	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.20										50	50
D	Two lanes		4.80	4.80								50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
F	A-D	602.919	-	-	-	-	-	-	0.225	0.322	0.225	-	-	-
F	B-A	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	-	0.235	0.235	0.118
F	B-C	668.537	0.099	0.250	-	-	-	-	-	-	-	-	-	-
F	B-D, nearside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	B-D, offside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	C-B	602.919	0.225	0.225	0.322	-	-	-	-	-	-	-	-	-
F	D-A	773.526	-	-	-	-	-	-	0.289	-	0.114	-	-	-
F	D-B, nearside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-B, offside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-C	611.947	-	0.171	0.388	0.136	0.272	0.272	0.272	0.272	0.108	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	390.00	100.000
B	FLAT	✓	60.00	100.000
C	FLAT	✓	500.00	100.000
D	FLAT	✓	200.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.000	30.000	360.000	0.000
	B	20.000	0.000	40.000	0.000
	C	470.000	30.000	0.000	0.000
	D	70.000	0.000	130.000	0.000

Turning Proportions (PCU) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.08	0.92	0.00
	B	0.33	0.00	0.67	0.00
	C	0.94	0.06	0.00	0.00
	D	0.35	0.00	0.65	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction F (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.13	8.98	0.15	A
A-B	-	-	-	-
A-C	-	-	-	-
A-D	0.00	0.00	0.00	A
D-AB	0.12	6.99	0.14	A
D-BC	0.32	13.31	0.48	B
C-ABD	0.08	4.62	0.14	A
C-D	-	-	-	-
C-A	-	-	-	-

Main Results for each time segment

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	60.00	59.41	0.00	461.31	0.130	0.15	8.945	A
A-B	30.00	30.00	0.00	-	-	-	-	-
A-C	360.00	360.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	487.28	0.000	0.00	0.000	A
D-AB	70.00	69.46	0.00	585.87	0.119	0.13	6.964	A
D-BC	130.00	128.12	0.00	400.81	0.324	0.47	13.116	B
C-ABD	65.52	64.96	0.00	846.08	0.077	0.14	4.608	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	434.48	434.48	0.00	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	60.00	60.00	0.00	461.00	0.130	0.15	8.977	A
A-B	30.00	30.00	0.00	-	-	-	-	-
A-C	360.00	360.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	487.13	0.000	0.00	0.000	A
D-AB	70.00	70.00	0.00	585.00	0.120	0.14	6.989	A
D-BC	130.00	129.98	0.00	400.52	0.325	0.48	13.304	B
C-ABD	65.83	65.82	0.00	846.29	0.078	0.14	4.614	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	434.17	434.17	0.00	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	60.00	60.00	0.00	460.99	0.130	0.15	8.977	A
A-B	30.00	30.00	0.00	-	-	-	-	-
A-C	360.00	360.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	487.13	0.000	0.00	0.000	A
D-AB	70.00	70.00	0.00	584.99	0.120	0.14	6.989	A
D-BC	130.00	129.99	0.00	400.52	0.325	0.48	13.306	B
C-ABD	65.83	65.83	0.00	846.29	0.078	0.14	4.616	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	434.17	434.17	0.00	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	60.00	60.00	0.00	460.99	0.130	0.15	8.977	A
A-B	30.00	30.00	0.00	-	-	-	-	-
A-C	360.00	360.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	487.13	0.000	0.00	0.000	A
D-AB	70.00	70.00	0.00	584.99	0.120	0.14	6.989	A
D-BC	130.00	130.00	0.00	400.52	0.325	0.48	13.307	B
C-ABD	65.83	65.83	0.00	846.29	0.078	0.14	4.616	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	434.17	434.17	0.00	-	-	-	-	-

Main results: (09:15-09:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	60.00	60.00	0.00	460.99	0.130	0.15	8.977	A
A-B	30.00	30.00	0.00	-	-	-	-	-
A-C	360.00	360.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	487.13	0.000	0.00	0.000	A
D-AB	70.00	70.00	0.00	584.99	0.120	0.14	6.989	A
D-BC	130.00	130.00	0.00	400.52	0.325	0.48	13.307	B
C-ABD	65.83	65.83	0.00	846.29	0.078	0.14	4.616	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	434.17	434.17	0.00	-	-	-	-	-

Main results: (09:30-09:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	60.00	60.00	0.00	460.99	0.130	0.15	8.977	A
A-B	30.00	30.00	0.00	-	-	-	-	-
A-C	360.00	360.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	487.13	0.000	0.00	0.000	A
D-AB	70.00	70.00	0.00	584.99	0.120	0.14	6.989	A
D-BC	130.00	130.00	0.00	400.52	0.325	0.48	13.307	B
C-ABD	65.83	65.83	0.00	846.29	0.078	0.14	4.616	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	434.17	434.17	0.00	-	-	-	-	-

24048HK - 2024 Observed, Weekday PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
24048HK	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2024 Observed, Weekday PM	2024 Observed	Weekday PM		FLAT	16:30	18:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
F	Stanley Village Road / Stanley New Road / Stanley Beach Road	Crossroads	Two-way	A,B,C,D	9.14	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Stanley Village Road (S)		Major
B	B	Stanley New Road		Minor
C	C	Stanley Village Road (N)		Major
D	D	Stanley Beach Road		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	6.80		0.00		2.20	50.00		
C	6.80		0.00		2.20	50.00	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.20										50	50
D	Two lanes		4.80	4.80								50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
F	A-D	602.919	-	-	-	-	-	-	0.225	0.322	0.225	-	-	-
F	B-A	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	-	0.235	0.235	0.118
F	B-C	668.537	0.099	0.250	-	-	-	-	-	-	-	-	-	-
F	B-D, nearside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	B-D, offside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	C-B	602.919	0.225	0.225	0.322	-	-	-	-	-	-	-	-	-
F	D-A	773.526	-	-	-	-	-	-	0.289	-	0.114	-	-	-
F	D-B, nearside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-B, offside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-C	611.947	-	0.171	0.388	0.136	0.272	0.272	0.272	0.272	0.108	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	320.00	100.000
B	FLAT	✓	80.00	100.000
C	FLAT	✓	290.00	100.000
D	FLAT	✓	200.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.000	10.000	310.000	0.000
	B	20.000	0.000	60.000	0.000
	C	240.000	50.000	0.000	0.000
	D	30.000	20.000	150.000	0.000

Turning Proportions (PCU) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.03	0.97	0.00
	B	0.25	0.00	0.75	0.00
	C	0.83	0.17	0.00	0.00
	D	0.15	0.10	0.75	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction F (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction F (for whole period)

		To			
From		A	B	C	D
	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.16	8.27	0.18	A
A-B	-	-	-	-
A-C	-	-	-	-
A-D	0.00	0.00	0.00	A
D-AB	0.08	6.94	0.08	A
D-BC	0.34	11.82	0.51	B
C-ABD	0.11	5.78	0.19	A
C-D	-	-	-	-
C-A	-	-	-	-

Main Results for each time segment

Main results: (16:30-16:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	80.00	79.27	0.00	515.33	0.155	0.18	8.243	A
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	310.00	310.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	532.70	0.000	0.00	0.000	A
D-AB	43.25	42.92	0.00	562.94	0.077	0.08	6.918	A
D-BC	156.75	154.73	0.00	461.75	0.339	0.50	11.652	B
C-ABD	75.87	75.12	0.00	699.65	0.108	0.19	5.763	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	214.13	214.13	0.00	-	-	-	-	-

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	80.00	80.00	0.00	515.08	0.155	0.18	8.274	A
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	310.00	310.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	532.48	0.000	0.00	0.000	A
D-AB	43.30	43.30	0.00	561.94	0.077	0.08	6.940	A
D-BC	156.70	156.68	0.00	461.37	0.340	0.51	11.813	B
C-ABD	76.13	76.12	0.00	699.83	0.109	0.19	5.776	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	213.87	213.87	0.00	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	80.00	80.00	0.00	515.07	0.155	0.18	8.274	A
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	310.00	310.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	532.48	0.000	0.00	0.000	A
D-AB	43.30	43.30	0.00	561.93	0.077	0.08	6.940	A
D-BC	156.70	156.69	0.00	461.37	0.340	0.51	11.815	B
C-ABD	76.13	76.13	0.00	699.83	0.109	0.19	5.778	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	213.87	213.87	0.00	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	80.00	80.00	0.00	515.07	0.155	0.18	8.274	A
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	310.00	310.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	532.48	0.000	0.00	0.000	A
D-AB	43.30	43.30	0.00	561.93	0.077	0.08	6.940	A
D-BC	156.70	156.70	0.00	461.37	0.340	0.51	11.815	B
C-ABD	76.13	76.13	0.00	699.83	0.109	0.19	5.778	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	213.87	213.87	0.00	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	80.00	80.00	0.00	515.07	0.155	0.18	8.274	A
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	310.00	310.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	532.48	0.000	0.00	0.000	A
D-AB	43.30	43.30	0.00	561.93	0.077	0.08	6.940	A
D-BC	156.70	156.70	0.00	461.37	0.340	0.51	11.815	B
C-ABD	76.13	76.13	0.00	699.83	0.109	0.19	5.776	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	213.87	213.87	0.00	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	80.00	80.00	0.00	515.07	0.155	0.18	8.274	A
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	310.00	310.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	532.48	0.000	0.00	0.000	A
D-AB	43.30	43.30	0.00	561.93	0.077	0.08	6.940	A
D-BC	156.70	156.70	0.00	461.37	0.340	0.51	11.815	B
C-ABD	76.13	76.13	0.00	699.83	0.109	0.19	5.776	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	213.87	213.87	0.00	-	-	-	-	-

24048HK - 2024 Observed, Weekend

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
24048HK	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2024 Observed, Weekend	2024 Observed	Weekend		FLAT	08:15	09:45	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
F	Stanley Village Road / Stanley New Road / Stanley Beach Road	Crossroads	Two-way	A,B,C,D	11.39	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Stanley Village Road (S)		Major
B	B	Stanley New Road		Minor
C	C	Stanley Village Road (N)		Major
D	D	Stanley Beach Road		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	6.80		0.00		2.20	50.00		
C	6.80		0.00		2.20	50.00	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.20										50	50
D	Two lanes		4.80	4.80								50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
F	A-D	602.919	-	-	-	-	-	-	0.225	0.322	0.225	-	-	-
F	B-A	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	-	0.235	0.235	0.118
F	B-C	668.537	0.099	0.250	-	-	-	-	-	-	-	-	-	-
F	B-D, nearside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	B-D, offside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	C-B	602.919	0.225	0.225	0.322	-	-	-	-	-	-	-	-	-
F	D-A	773.526	-	-	-	-	-	-	0.289	-	0.114	-	-	-
F	D-B, nearside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-B, offside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-C	611.947	-	0.171	0.388	0.136	0.272	0.272	0.272	0.272	0.108	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	270.00	100.000
B	FLAT	✓	90.00	100.000
C	FLAT	✓	290.00	100.000
D	FLAT	✓	290.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.000	20.000	250.000	0.000
	B	20.000	0.000	70.000	0.000
	C	240.000	50.000	0.000	0.000
	D	40.000	20.000	230.000	0.000

Turning Proportions (PCU) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.07	0.93	0.00
	B	0.22	0.00	0.78	0.00
	C	0.83	0.17	0.00	0.00
	D	0.14	0.07	0.79	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction F (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.17	8.15	0.20	A
A-B	-	-	-	-
A-C	-	-	-	-
A-D	0.00	0.00	0.00	A
D-AB	0.10	7.31	0.11	A
D-BC	0.50	15.41	1.00	C
C-ABD	0.11	5.68	0.19	A
C-D	-	-	-	-
C-A	-	-	-	-

Main Results for each time segment

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.00	89.19	0.00	531.81	0.169	0.20	8.119	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	250.00	250.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	532.70	0.000	0.00	0.000	A
D-AB	54.91	54.47	0.00	549.32	0.100	0.11	7.269	A
D-BC	235.09	231.20	0.00	468.95	0.501	0.97	14.913	B
C-ABD	75.33	74.60	0.00	709.42	0.106	0.18	5.670	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	214.67	214.67	0.00	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.00	90.00	0.00	531.46	0.169	0.20	8.154	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	250.00	250.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	532.49	0.000	0.00	0.000	A
D-AB	54.99	54.99	0.00	547.62	0.100	0.11	7.306	A
D-BC	235.01	234.94	0.00	468.56	0.502	0.99	15.397	C
C-ABD	75.58	75.57	0.00	709.60	0.107	0.18	5.681	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	214.42	214.42	0.00	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.00	90.00	0.00	531.46	0.169	0.20	8.154	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	250.00	250.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	532.49	0.000	0.00	0.000	A
D-AB	55.00	54.99	0.00	547.59	0.100	0.11	7.307	A
D-BC	235.00	234.98	0.00	468.55	0.502	0.99	15.406	C
C-ABD	75.58	75.58	0.00	709.60	0.107	0.18	5.684	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	214.42	214.42	0.00	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.00	90.00	0.00	531.46	0.169	0.20	8.154	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	250.00	250.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	532.49	0.000	0.00	0.000	A
D-AB	55.00	55.00	0.00	547.58	0.100	0.11	7.307	A
D-BC	235.00	234.99	0.00	468.55	0.502	1.00	15.409	C
C-ABD	75.58	75.58	0.00	709.60	0.107	0.19	5.682	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	214.42	214.42	0.00	-	-	-	-	-

Main results: (09:15-09:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.00	90.00	0.00	531.46	0.169	0.20	8.154	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	250.00	250.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	532.49	0.000	0.00	0.000	A
D-AB	55.00	55.00	0.00	547.58	0.100	0.11	7.307	A
D-BC	235.00	235.00	0.00	468.55	0.502	1.00	15.411	C
C-ABD	75.58	75.58	0.00	709.60	0.107	0.19	5.684	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	214.42	214.42	0.00	-	-	-	-	-

Main results: (09:30-09:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.00	90.00	0.00	531.46	0.169	0.20	8.154	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	250.00	250.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	532.49	0.000	0.00	0.000	A
D-AB	55.00	55.00	0.00	547.58	0.100	0.11	7.307	A
D-BC	235.00	235.00	0.00	468.55	0.502	1.00	15.411	C
C-ABD	75.58	75.58	0.00	709.60	0.107	0.19	5.682	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	214.42	214.42	0.00	-	-	-	-	-

24048HK - 2031 Reference, Weekday AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
24048HK	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2031 Reference, Weekday AM	2031 Reference	Weekday AM		FLAT	08:15	09:45	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
F	Stanley Village Road / Stanley New Road / Stanley Beach Road	Crossroads	Two-way	A,B,C,D	9.81	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Stanley Village Road (S)		Major
B	B	Stanley New Road		Minor
C	C	Stanley Village Road (N)		Major
D	D	Stanley Beach Road		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	6.80		0.00		2.20	50.00		
C	6.80		0.00		2.20	50.00	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.20										50	50
D	Two lanes		4.80	4.80								50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
F	A-D	602.919	-	-	-	-	-	-	0.225	0.322	0.225	-	-	-
F	B-A	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	-	0.235	0.235	0.118
F	B-C	668.537	0.099	0.250	-	-	-	-	-	-	-	-	-	-
F	B-D, nearside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	B-D, offside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	C-B	602.919	0.225	0.225	0.322	-	-	-	-	-	-	-	-	-
F	D-A	773.526	-	-	-	-	-	-	0.289	-	0.114	-	-	-
F	D-B, nearside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-B, offside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-C	611.947	-	0.171	0.388	0.136	0.272	0.272	0.272	0.272	0.108	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	420.00	100.000
B	FLAT	✓	70.00	100.000
C	FLAT	✓	540.00	100.000
D	FLAT	✓	220.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.000	30.000	390.000	0.000
	B	20.000	0.000	50.000	0.000
	C	500.000	40.000	0.000	0.000
	D	80.000	0.000	140.000	0.000

Turning Proportions (PCU) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.07	0.93	0.00
	B	0.29	0.00	0.71	0.00
	C	0.93	0.07	0.00	0.00
	D	0.36	0.00	0.64	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction F (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.15	9.24	0.18	A
A-B	-	-	-	-
A-C	-	-	-	-
A-D	0.00	0.00	0.00	A
D-AB	0.14	7.34	0.16	A
D-BC	0.37	14.90	0.58	B
C-ABD	0.11	4.69	0.24	A
C-D	-	-	-	-
C-A	-	-	-	-

Main Results for each time segment

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	70.00	69.29	0.00	460.06	0.152	0.18	9.196	A
A-B	30.00	30.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	477.30	0.000	0.00	0.000	A
D-AB	80.00	79.35	0.00	571.28	0.140	0.16	7.309	A
D-BC	140.00	137.74	0.00	382.08	0.366	0.56	14.605	B
C-ABD	91.87	90.95	0.00	861.46	0.107	0.23	4.671	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	448.13	448.13	0.00	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	70.00	70.00	0.00	459.67	0.152	0.18	9.238	A
A-B	30.00	30.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	477.05	0.000	0.00	0.000	A
D-AB	80.00	80.00	0.00	570.15	0.140	0.16	7.343	A
D-BC	140.00	139.97	0.00	381.66	0.367	0.57	14.889	B
C-ABD	92.40	92.39	0.00	861.81	0.107	0.23	4.683	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	447.60	447.60	0.00	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	70.00	70.00	0.00	459.67	0.152	0.18	9.238	A
A-B	30.00	30.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	477.05	0.000	0.00	0.000	A
D-AB	80.00	80.00	0.00	570.14	0.140	0.16	7.343	A
D-BC	140.00	139.99	0.00	381.66	0.367	0.57	14.893	B
C-ABD	92.41	92.40	0.00	861.82	0.107	0.23	4.683	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	447.59	447.59	0.00	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	70.00	70.00	0.00	459.66	0.152	0.18	9.238	A
A-B	30.00	30.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	477.05	0.000	0.00	0.000	A
D-AB	80.00	80.00	0.00	570.13	0.140	0.16	7.344	A
D-BC	140.00	139.99	0.00	381.66	0.367	0.58	14.896	B
C-ABD	92.41	92.41	0.00	861.82	0.107	0.23	4.683	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	447.59	447.59	0.00	-	-	-	-	-

Main results: (09:15-09:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	70.00	70.00	0.00	459.66	0.152	0.18	9.238	A
A-B	30.00	30.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	477.05	0.000	0.00	0.000	A
D-AB	80.00	80.00	0.00	570.13	0.140	0.16	7.344	A
D-BC	140.00	140.00	0.00	381.66	0.367	0.58	14.896	B
C-ABD	92.41	92.41	0.00	861.82	0.107	0.24	4.685	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	447.59	447.59	0.00	-	-	-	-	-

Main results: (09:30-09:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	70.00	70.00	0.00	459.66	0.152	0.18	9.238	A
A-B	30.00	30.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	477.05	0.000	0.00	0.000	A
D-AB	80.00	80.00	0.00	570.13	0.140	0.16	7.344	A
D-BC	140.00	140.00	0.00	381.66	0.367	0.58	14.896	B
C-ABD	92.41	92.41	0.00	861.82	0.107	0.24	4.684	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	447.59	447.59	0.00	-	-	-	-	-

24048HK - 2031 Reference, Weekday PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
24048HK	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2031 Reference, Weekday PM	2031 Reference	Weekday PM		FLAT	16:30	18:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
F	Stanley Village Road / Stanley New Road / Stanley Beach Road	Crossroads	Two-way	A,B,C,D	9.54	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Stanley Village Road (S)		Major
B	B	Stanley New Road		Minor
C	C	Stanley Village Road (N)		Major
D	D	Stanley Beach Road		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	6.80		0.00		2.20	50.00		
C	6.80		0.00		2.20	50.00	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.20										50	50
D	Two lanes		4.80	4.80								50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
F	A-D	602.919	-	-	-	-	-	-	0.225	0.322	0.225	-	-	-
F	B-A	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	-	0.235	0.235	0.118
F	B-C	668.537	0.099	0.250	-	-	-	-	-	-	-	-	-	-
F	B-D, nearside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	B-D, offside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	C-B	602.919	0.225	0.225	0.322	-	-	-	-	-	-	-	-	-
F	D-A	773.526	-	-	-	-	-	-	0.289	-	0.114	-	-	-
F	D-B, nearside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-B, offside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-C	611.947	-	0.171	0.388	0.136	0.272	0.272	0.272	0.272	0.108	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	340.00	100.000
B	FLAT	✓	90.00	100.000
C	FLAT	✓	320.00	100.000
D	FLAT	✓	210.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.000	10.000	330.000	0.000
	B	20.000	0.000	70.000	0.000
	C	260.000	60.000	0.000	0.000
	D	30.000	20.000	160.000	0.000

Turning Proportions (PCU) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.03	0.97	0.00
	B	0.22	0.00	0.78	0.00
	C	0.81	0.19	0.00	0.00
	D	0.14	0.10	0.76	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction F (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.18	8.49	0.21	A
A-B	-	-	-	-
A-C	-	-	-	-
A-D	0.00	0.00	0.00	A
D-AB	0.08	7.15	0.09	A
D-BC	0.37	12.83	0.59	B
C-ABD	0.13	5.86	0.24	A
C-D	-	-	-	-
C-A	-	-	-	-

Main Results for each time segment

Main results: (16:30-16:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.00	89.16	0.00	514.26	0.175	0.21	8.456	A
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	330.00	330.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	524.97	0.000	0.00	0.000	A
D-AB	43.58	43.24	0.00	548.58	0.079	0.09	7.119	A
D-BC	166.42	164.10	0.00	447.47	0.372	0.58	12.605	B
C-ABD	94.30	93.35	0.00	709.77	0.133	0.24	5.837	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	225.70	225.70	0.00	-	-	-	-	-

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.00	89.99	0.00	513.98	0.175	0.21	8.490	A
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	330.00	330.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	524.70	0.000	0.00	0.000	A
D-AB	43.64	43.63	0.00	547.39	0.080	0.09	7.145	A
D-BC	166.36	166.34	0.00	447.01	0.372	0.59	12.824	B
C-ABD	94.65	94.65	0.00	710.01	0.133	0.24	5.855	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	225.35	225.35	0.00	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.00	90.00	0.00	513.98	0.175	0.21	8.490	A
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	330.00	330.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	524.69	0.000	0.00	0.000	A
D-AB	43.64	43.64	0.00	547.38	0.080	0.09	7.145	A
D-BC	166.36	166.36	0.00	447.00	0.372	0.59	12.827	B
C-ABD	94.65	94.65	0.00	710.02	0.133	0.24	5.856	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	225.35	225.35	0.00	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.00	90.00	0.00	513.98	0.175	0.21	8.490	A
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	330.00	330.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	524.69	0.000	0.00	0.000	A
D-AB	43.64	43.64	0.00	547.37	0.080	0.09	7.145	A
D-BC	166.36	166.36	0.00	447.00	0.372	0.59	12.827	B
C-ABD	94.66	94.65	0.00	710.02	0.133	0.24	5.858	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	225.34	225.34	0.00	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.00	90.00	0.00	513.98	0.175	0.21	8.490	A
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	330.00	330.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	524.69	0.000	0.00	0.000	A
D-AB	43.64	43.64	0.00	547.37	0.080	0.09	7.145	A
D-BC	166.36	166.36	0.00	447.00	0.372	0.59	12.827	B
C-ABD	94.66	94.66	0.00	710.02	0.133	0.24	5.858	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	225.34	225.34	0.00	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.00	90.00	0.00	513.98	0.175	0.21	8.490	A
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	330.00	330.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	524.69	0.000	0.00	0.000	A
D-AB	43.64	43.64	0.00	547.37	0.080	0.09	7.145	A
D-BC	166.36	166.36	0.00	447.00	0.372	0.59	12.827	B
C-ABD	94.66	94.66	0.00	710.02	0.133	0.24	5.858	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	225.34	225.34	0.00	-	-	-	-	-

24048HK - 2031 Reference, Weekend

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
24048HK	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2031 Reference, Weekend	2031 Reference	Weekend		FLAT	08:15	09:45	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
F	Stanley Village Road / Stanley New Road / Stanley Beach Road	Crossroads	Two-way	A,B,C,D	12.64	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Stanley Village Road (S)		Major
B	B	Stanley New Road		Minor
C	C	Stanley Village Road (N)		Major
D	D	Stanley Beach Road		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	6.80		0.00		2.20	50.00		
C	6.80		0.00		2.20	50.00	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.20										50	50
D	Two lanes		4.80	4.80								50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
F	A-D	602.919	-	-	-	-	-	-	0.225	0.322	0.225	-	-	-
F	B-A	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	-	0.235	0.235	0.118
F	B-C	668.537	0.099	0.250	-	-	-	-	-	-	-	-	-	-
F	B-D, nearside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	B-D, offside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	C-B	602.919	0.225	0.225	0.322	-	-	-	-	-	-	-	-	-
F	D-A	773.526	-	-	-	-	-	-	0.289	-	0.114	-	-	-
F	D-B, nearside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-B, offside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-C	611.947	-	0.171	0.388	0.136	0.272	0.272	0.272	0.272	0.108	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	290.00	100.000
B	FLAT	✓	100.00	100.000
C	FLAT	✓	300.00	100.000
D	FLAT	✓	310.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.000	20.000	270.000	0.000
	B	20.000	0.000	80.000	0.000
	C	250.000	50.000	0.000	0.000
	D	40.000	20.000	250.000	0.000

Turning Proportions (PCU) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.07	0.93	0.00
	B	0.20	0.00	0.80	0.00
	C	0.83	0.17	0.00	0.00
	D	0.13	0.06	0.81	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction F (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.19	8.35	0.23	A
A-B	-	-	-	-
A-C	-	-	-	-
A-D	0.00	0.00	0.00	A
D-AB	0.10	7.53	0.12	A
D-BC	0.55	17.54	1.23	C
C-ABD	0.11	5.67	0.19	A
C-D	-	-	-	-
C-A	-	-	-	-

Main Results for each time segment

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	100.00	99.08	0.00	531.53	0.188	0.23	8.307	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	270.00	270.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	530.45	0.000	0.00	0.000	A
D-AB	55.44	54.98	0.00	535.80	0.103	0.11	7.481	A
D-BC	254.56	249.81	0.00	460.07	0.553	1.19	16.771	C
C-ABD	76.76	76.00	0.00	712.47	0.108	0.19	5.655	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	223.24	223.24	0.00	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	100.00	99.99	0.00	531.16	0.188	0.23	8.349	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	270.00	270.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	530.23	0.000	0.00	0.000	A
D-AB	55.54	55.54	0.00	533.72	0.104	0.12	7.527	A
D-BC	254.46	254.35	0.00	459.64	0.554	1.21	17.512	C
C-ABD	77.02	77.02	0.00	712.65	0.108	0.19	5.670	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	222.98	222.98	0.00	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	100.00	100.00	0.00	531.15	0.188	0.23	8.349	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	270.00	270.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	530.23	0.000	0.00	0.000	A
D-AB	55.55	55.55	0.00	533.68	0.104	0.12	7.528	A
D-BC	254.45	254.42	0.00	459.63	0.554	1.22	17.529	C
C-ABD	77.02	77.02	0.00	712.66	0.108	0.19	5.670	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	222.98	222.98	0.00	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	100.00	100.00	0.00	531.15	0.188	0.23	8.349	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	270.00	270.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	530.23	0.000	0.00	0.000	A
D-AB	55.55	55.55	0.00	533.67	0.104	0.12	7.528	A
D-BC	254.45	254.43	0.00	459.63	0.554	1.23	17.534	C
C-ABD	77.02	77.02	0.00	712.66	0.108	0.19	5.667	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	222.98	222.98	0.00	-	-	-	-	-

Main results: (09:15-09:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	100.00	100.00	0.00	531.15	0.188	0.23	8.349	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	270.00	270.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	530.23	0.000	0.00	0.000	A
D-AB	55.55	55.55	0.00	533.66	0.104	0.12	7.528	A
D-BC	254.45	254.44	0.00	459.63	0.554	1.23	17.538	C
C-ABD	77.03	77.02	0.00	712.66	0.108	0.19	5.667	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	222.97	222.97	0.00	-	-	-	-	-

Main results: (09:30-09:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	100.00	100.00	0.00	531.15	0.188	0.23	8.349	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	270.00	270.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	530.22	0.000	0.00	0.000	A
D-AB	55.55	55.55	0.00	533.65	0.104	0.12	7.528	A
D-BC	254.45	254.44	0.00	459.63	0.554	1.23	17.542	C
C-ABD	77.03	77.02	0.00	712.66	0.108	0.19	5.670	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	222.97	222.97	0.00	-	-	-	-	-

24048HK - 2031 Design, Weekday AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
24048HK	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2031 Design, Weekday AM	2031 Design	Weekday AM		FLAT	08:15	09:45	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
F	Stanley Village Road / Stanley New Road / Stanley Beach Road	Crossroads	Two-way	A,B,C,D	9.81	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Stanley Village Road (S)		Major
B	B	Stanley New Road		Minor
C	C	Stanley Village Road (N)		Major
D	D	Stanley Beach Road		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	6.80		0.00		2.20	50.00		
C	6.80		0.00		2.20	50.00	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.20										50	50
D	Two lanes		4.80	4.80								50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
F	A-D	602.919	-	-	-	-	-	-	0.225	0.322	0.225	-	-	-
F	B-A	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	-	0.235	0.235	0.118
F	B-C	668.537	0.099	0.250	-	-	-	-	-	-	-	-	-	-
F	B-D, nearside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	B-D, offside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	C-B	602.919	0.225	0.225	0.322	-	-	-	-	-	-	-	-	-
F	D-A	773.526	-	-	-	-	-	-	0.289	-	0.114	-	-	-
F	D-B, nearside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-B, offside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-C	611.947	-	0.171	0.388	0.136	0.272	0.272	0.272	0.272	0.108	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	420.00	100.000
B	FLAT	✓	70.00	100.000
C	FLAT	✓	540.00	100.000
D	FLAT	✓	220.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.000	30.000	390.000	0.000
	B	20.000	0.000	50.000	0.000
	C	500.000	40.000	0.000	0.000
	D	80.000	0.000	140.000	0.000

Turning Proportions (PCU) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.07	0.93	0.00
	B	0.29	0.00	0.71	0.00
	C	0.93	0.07	0.00	0.00
	D	0.36	0.00	0.64	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction F (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.15	9.24	0.18	A
A-B	-	-	-	-
A-C	-	-	-	-
A-D	0.00	0.00	0.00	A
D-AB	0.14	7.34	0.16	A
D-BC	0.37	14.90	0.58	B
C-ABD	0.11	4.69	0.24	A
C-D	-	-	-	-
C-A	-	-	-	-

Main Results for each time segment

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	70.00	69.29	0.00	460.06	0.152	0.18	9.196	A
A-B	30.00	30.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	477.30	0.000	0.00	0.000	A
D-AB	80.00	79.35	0.00	571.28	0.140	0.16	7.309	A
D-BC	140.00	137.74	0.00	382.08	0.366	0.56	14.605	B
C-ABD	91.87	90.95	0.00	861.46	0.107	0.23	4.671	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	448.13	448.13	0.00	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	70.00	70.00	0.00	459.67	0.152	0.18	9.238	A
A-B	30.00	30.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	477.05	0.000	0.00	0.000	A
D-AB	80.00	80.00	0.00	570.15	0.140	0.16	7.343	A
D-BC	140.00	139.97	0.00	381.66	0.367	0.57	14.889	B
C-ABD	92.40	92.39	0.00	861.81	0.107	0.23	4.683	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	447.60	447.60	0.00	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	70.00	70.00	0.00	459.67	0.152	0.18	9.238	A
A-B	30.00	30.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	477.05	0.000	0.00	0.000	A
D-AB	80.00	80.00	0.00	570.14	0.140	0.16	7.343	A
D-BC	140.00	139.99	0.00	381.66	0.367	0.57	14.893	B
C-ABD	92.41	92.40	0.00	861.82	0.107	0.23	4.683	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	447.59	447.59	0.00	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	70.00	70.00	0.00	459.66	0.152	0.18	9.238	A
A-B	30.00	30.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	477.05	0.000	0.00	0.000	A
D-AB	80.00	80.00	0.00	570.13	0.140	0.16	7.344	A
D-BC	140.00	139.99	0.00	381.66	0.367	0.58	14.896	B
C-ABD	92.41	92.41	0.00	861.82	0.107	0.23	4.683	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	447.59	447.59	0.00	-	-	-	-	-

Main results: (09:15-09:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	70.00	70.00	0.00	459.66	0.152	0.18	9.238	A
A-B	30.00	30.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	477.05	0.000	0.00	0.000	A
D-AB	80.00	80.00	0.00	570.13	0.140	0.16	7.344	A
D-BC	140.00	140.00	0.00	381.66	0.367	0.58	14.896	B
C-ABD	92.41	92.41	0.00	861.82	0.107	0.24	4.685	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	447.59	447.59	0.00	-	-	-	-	-

Main results: (09:30-09:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	70.00	70.00	0.00	459.66	0.152	0.18	9.238	A
A-B	30.00	30.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	477.05	0.000	0.00	0.000	A
D-AB	80.00	80.00	0.00	570.13	0.140	0.16	7.344	A
D-BC	140.00	140.00	0.00	381.66	0.367	0.58	14.896	B
C-ABD	92.41	92.41	0.00	861.82	0.107	0.24	4.684	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	447.59	447.59	0.00	-	-	-	-	-

24048HK - 2031 Design, Weekday PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
24048HK	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2031 Design, Weekday PM	2031 Design	Weekday PM		FLAT	16:30	18:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
F	Stanley Village Road / Stanley New Road / Stanley Beach Road	Crossroads	Two-way	A,B,C,D	9.54	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Stanley Village Road (S)		Major
B	B	Stanley New Road		Minor
C	C	Stanley Village Road (N)		Major
D	D	Stanley Beach Road		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	6.80		0.00		2.20	50.00		
C	6.80		0.00		2.20	50.00	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.20										50	50
D	Two lanes		4.80	4.80								50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
F	A-D	602.919	-	-	-	-	-	-	0.225	0.322	0.225	-	-	-
F	B-A	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	-	0.235	0.235	0.118
F	B-C	668.537	0.099	0.250	-	-	-	-	-	-	-	-	-	-
F	B-D, nearside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	B-D, offside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	C-B	602.919	0.225	0.225	0.322	-	-	-	-	-	-	-	-	-
F	D-A	773.526	-	-	-	-	-	-	0.289	-	0.114	-	-	-
F	D-B, nearside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-B, offside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-C	611.947	-	0.171	0.388	0.136	0.272	0.272	0.272	0.272	0.108	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	340.00	100.000
B	FLAT	✓	90.00	100.000
C	FLAT	✓	320.00	100.000
D	FLAT	✓	210.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.000	10.000	330.000	0.000
	B	20.000	0.000	70.000	0.000
	C	260.000	60.000	0.000	0.000
	D	30.000	20.000	160.000	0.000

Turning Proportions (PCU) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.03	0.97	0.00
	B	0.22	0.00	0.78	0.00
	C	0.81	0.19	0.00	0.00
	D	0.14	0.10	0.76	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction F (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.18	8.49	0.21	A
A-B	-	-	-	-
A-C	-	-	-	-
A-D	0.00	0.00	0.00	A
D-AB	0.08	7.15	0.09	A
D-BC	0.37	12.83	0.59	B
C-ABD	0.13	5.86	0.24	A
C-D	-	-	-	-
C-A	-	-	-	-

Main Results for each time segment

Main results: (16:30-16:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.00	89.16	0.00	514.26	0.175	0.21	8.456	A
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	330.00	330.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	524.97	0.000	0.00	0.000	A
D-AB	43.58	43.24	0.00	548.58	0.079	0.09	7.119	A
D-BC	166.42	164.10	0.00	447.47	0.372	0.58	12.605	B
C-ABD	94.30	93.35	0.00	709.77	0.133	0.24	5.837	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	225.70	225.70	0.00	-	-	-	-	-

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.00	89.99	0.00	513.98	0.175	0.21	8.490	A
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	330.00	330.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	524.70	0.000	0.00	0.000	A
D-AB	43.64	43.63	0.00	547.39	0.080	0.09	7.145	A
D-BC	166.36	166.34	0.00	447.01	0.372	0.59	12.824	B
C-ABD	94.65	94.65	0.00	710.01	0.133	0.24	5.855	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	225.35	225.35	0.00	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.00	90.00	0.00	513.98	0.175	0.21	8.490	A
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	330.00	330.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	524.69	0.000	0.00	0.000	A
D-AB	43.64	43.64	0.00	547.38	0.080	0.09	7.145	A
D-BC	166.36	166.36	0.00	447.00	0.372	0.59	12.827	B
C-ABD	94.65	94.65	0.00	710.02	0.133	0.24	5.856	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	225.35	225.35	0.00	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.00	90.00	0.00	513.98	0.175	0.21	8.490	A
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	330.00	330.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	524.69	0.000	0.00	0.000	A
D-AB	43.64	43.64	0.00	547.37	0.080	0.09	7.145	A
D-BC	166.36	166.36	0.00	447.00	0.372	0.59	12.827	B
C-ABD	94.66	94.65	0.00	710.02	0.133	0.24	5.858	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	225.34	225.34	0.00	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.00	90.00	0.00	513.98	0.175	0.21	8.490	A
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	330.00	330.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	524.69	0.000	0.00	0.000	A
D-AB	43.64	43.64	0.00	547.37	0.080	0.09	7.145	A
D-BC	166.36	166.36	0.00	447.00	0.372	0.59	12.827	B
C-ABD	94.66	94.66	0.00	710.02	0.133	0.24	5.858	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	225.34	225.34	0.00	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.00	90.00	0.00	513.98	0.175	0.21	8.490	A
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	330.00	330.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	524.69	0.000	0.00	0.000	A
D-AB	43.64	43.64	0.00	547.37	0.080	0.09	7.145	A
D-BC	166.36	166.36	0.00	447.00	0.372	0.59	12.827	B
C-ABD	94.66	94.66	0.00	710.02	0.133	0.24	5.858	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	225.34	225.34	0.00	-	-	-	-	-

24048HK - 2031 Design, Weekend

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
24048HK	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2031 Design, Weekend	2031 Design	Weekend		FLAT	08:15	09:45	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
F	Stanley Village Road / Stanley New Road / Stanley Beach Road	Crossroads	Two-way	A,B,C,D	12.64	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Stanley Village Road (S)		Major
B	B	Stanley New Road		Minor
C	C	Stanley Village Road (N)		Major
D	D	Stanley Beach Road		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	6.80		0.00		2.20	50.00		
C	6.80		0.00		2.20	50.00	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.20										50	50
D	Two lanes		4.80	4.80								50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
F	A-D	602.919	-	-	-	-	-	-	0.225	0.322	0.225	-	-	-
F	B-A	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	-	0.235	0.235	0.118
F	B-C	668.537	0.099	0.250	-	-	-	-	-	-	-	-	-	-
F	B-D, nearside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	B-D, offside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	C-B	602.919	0.225	0.225	0.322	-	-	-	-	-	-	-	-	-
F	D-A	773.526	-	-	-	-	-	-	0.289	-	0.114	-	-	-
F	D-B, nearside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-B, offside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-C	611.947	-	0.171	0.388	0.136	0.272	0.272	0.272	0.272	0.108	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	290.00	100.000
B	FLAT	✓	100.00	100.000
C	FLAT	✓	300.00	100.000
D	FLAT	✓	310.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.000	20.000	270.000	0.000
	B	20.000	0.000	80.000	0.000
	C	250.000	50.000	0.000	0.000
	D	40.000	20.000	250.000	0.000

Turning Proportions (PCU) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.07	0.93	0.00
	B	0.20	0.00	0.80	0.00
	C	0.83	0.17	0.00	0.00
	D	0.13	0.06	0.81	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction F (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.19	8.35	0.23	A
A-B	-	-	-	-
A-C	-	-	-	-
A-D	0.00	0.00	0.00	A
D-AB	0.10	7.53	0.12	A
D-BC	0.55	17.54	1.23	C
C-ABD	0.11	5.67	0.19	A
C-D	-	-	-	-
C-A	-	-	-	-

Main Results for each time segment

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	100.00	99.08	0.00	531.53	0.188	0.23	8.307	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	270.00	270.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	530.45	0.000	0.00	0.000	A
D-AB	55.44	54.98	0.00	535.80	0.103	0.11	7.481	A
D-BC	254.56	249.81	0.00	460.07	0.553	1.19	16.771	C
C-ABD	76.76	76.00	0.00	712.47	0.108	0.19	5.655	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	223.24	223.24	0.00	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	100.00	99.99	0.00	531.16	0.188	0.23	8.349	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	270.00	270.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	530.23	0.000	0.00	0.000	A
D-AB	55.54	55.54	0.00	533.72	0.104	0.12	7.527	A
D-BC	254.46	254.35	0.00	459.64	0.554	1.21	17.512	C
C-ABD	77.02	77.02	0.00	712.65	0.108	0.19	5.670	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	222.98	222.98	0.00	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	100.00	100.00	0.00	531.15	0.188	0.23	8.349	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	270.00	270.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	530.23	0.000	0.00	0.000	A
D-AB	55.55	55.55	0.00	533.68	0.104	0.12	7.528	A
D-BC	254.45	254.42	0.00	459.63	0.554	1.22	17.529	C
C-ABD	77.02	77.02	0.00	712.66	0.108	0.19	5.670	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	222.98	222.98	0.00	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	100.00	100.00	0.00	531.15	0.188	0.23	8.349	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	270.00	270.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	530.23	0.000	0.00	0.000	A
D-AB	55.55	55.55	0.00	533.67	0.104	0.12	7.528	A
D-BC	254.45	254.43	0.00	459.63	0.554	1.23	17.534	C
C-ABD	77.02	77.02	0.00	712.66	0.108	0.19	5.667	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	222.98	222.98	0.00	-	-	-	-	-

Main results: (09:15-09:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	100.00	100.00	0.00	531.15	0.188	0.23	8.349	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	270.00	270.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	530.23	0.000	0.00	0.000	A
D-AB	55.55	55.55	0.00	533.66	0.104	0.12	7.528	A
D-BC	254.45	254.44	0.00	459.63	0.554	1.23	17.538	C
C-ABD	77.03	77.02	0.00	712.66	0.108	0.19	5.667	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	222.97	222.97	0.00	-	-	-	-	-

Main results: (09:30-09:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	100.00	100.00	0.00	531.15	0.188	0.23	8.349	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	270.00	270.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	530.22	0.000	0.00	0.000	A
D-AB	55.55	55.55	0.00	533.65	0.104	0.12	7.528	A
D-BC	254.45	254.44	0.00	459.63	0.554	1.23	17.542	C
C-ABD	77.03	77.02	0.00	712.66	0.108	0.19	5.670	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	222.97	222.97	0.00	-	-	-	-	-