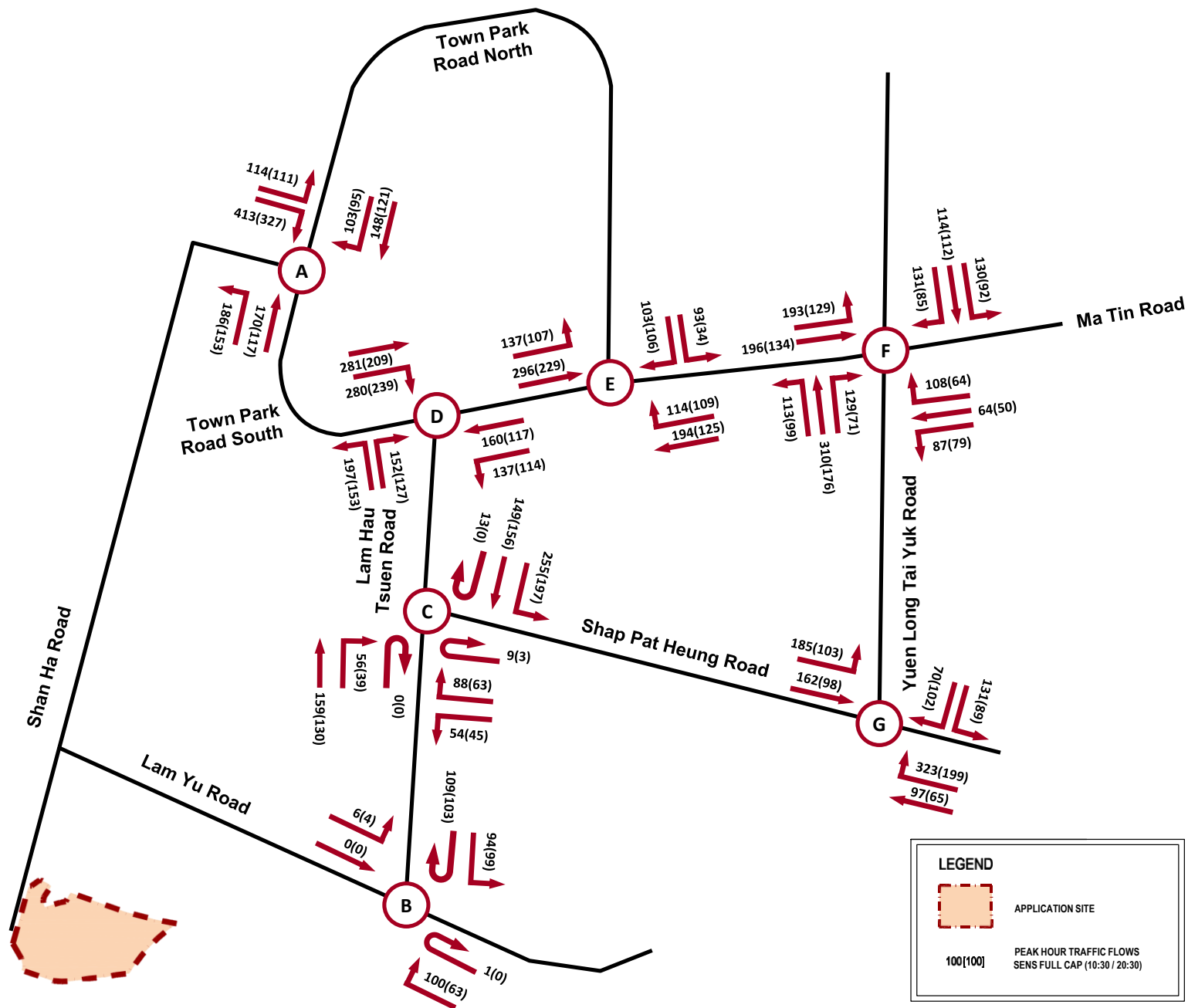




2029 DESIGN
SENSITIVITY
TRAFFIC FLOW
(WEEKDAY)
FULL CAP – 10:30-
11:30 / 20:30-21:30

FIGURE

Scale : N.T.S.

Date : JUN 2026

Rev. :

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 12/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 12/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2029 SENS DES Weekday Full Cap AM 10:30-11:30 (flat 44 x2)		Reviewed By:	AW 12/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 114 (pcu/hr) q a-c = 413 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693	Q b-a = 435 (pcu/hr) Q b-c = 722 (pcu/hr) Q c-b = 538 (pcu/hr) Q b-ac = 568 (pcu/hr) Q c-a = 1231 (pcu/hr) TOTAL FLOW = 1134 (pcu/hr)	DFC b-a = 0.2368 DFC b-c = 0.2050 DFC c-b = 0.3160 DFC b-ac = 0.4418 (Share Lane) DFC c-a = 0.1511
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 186 (pcu/hr) q c-b = 170 (pcu/hr)	F for (Qb-ac) = 0.59		
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 103 (pcu/hr) q b-c = 148 (pcu/hr)			CRITICAL DFC = 0.44

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

12/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

12/8/2026

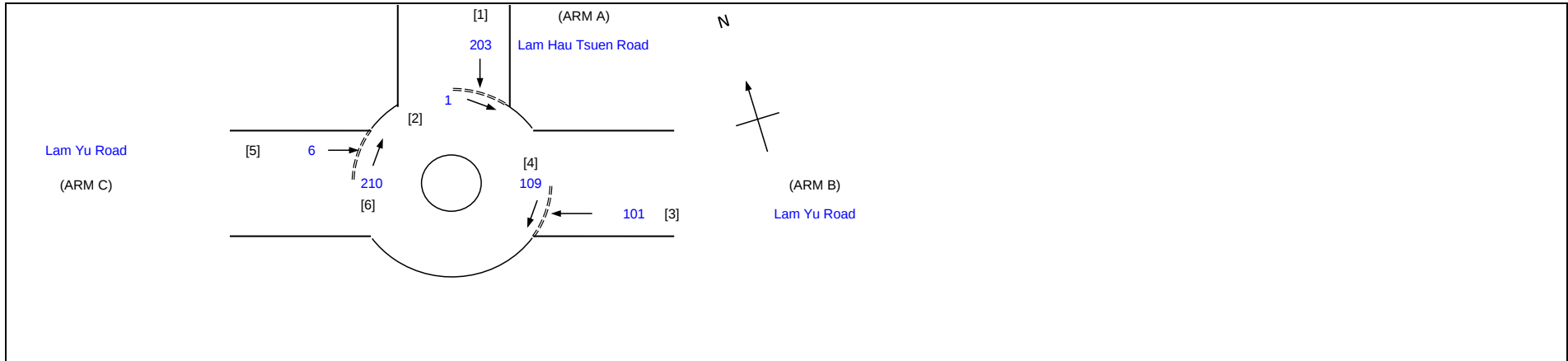
JnB - Lam Hau Tsuen Road / Lam Yu Road

2029 SENS DES Weekday Full Cap AM 10:30-11:30 (flat 44 x2)

Reviewed By:

AW

12/8/2026



GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	3.6	2.2	5.1
E	=	Entry width (m)	5.0	5.0	6.5
L	=	Effective length of flare (m)	5.3	14.8	14.3
R	=	Entry radius (m)	30.0	77.0	15.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	5.0	0.0	17.0
Q	=	Entry flow (pcu/h)	203	101	6
Qc	=	Circulating flow across entry (pcu/h)	1	109	210

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2	=	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1321	1195	1868
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe	=	$K(F-Fc \times Qc)$	1456	1294	1774
DFC	=	Design flow/Capacity = Q/Qe	0.14	0.08	0.00

TOTAL FLOW = 630 (pcu/hr)
CRITICAL DFC = 0.14

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

12/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

12/8/2026

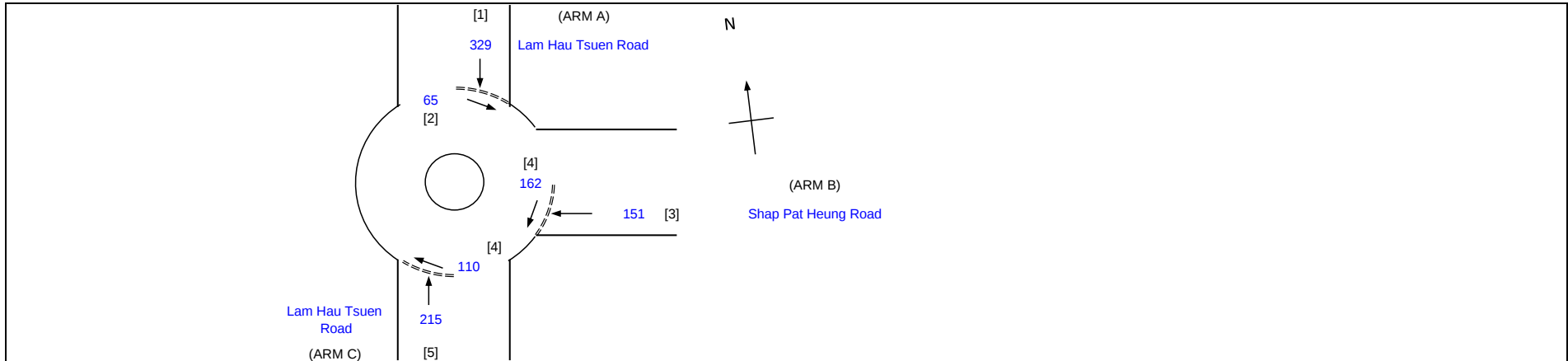
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2029 SENS DES Weekday Full Cap AM 10:30-11:30 (flat 44 x2)

Reviewed By:

AW

12/8/2026



GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	5.3	4.5	3.6
E	=	Entry width (m)	7.0	7.0	7.0
L	=	Effective length of flare (m)	14.2	15.0	14.0
R	=	Entry radius (m)	48.0	56.0	33.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	23.0	14.0	5.0
Q	=	Entry flow (pcu/h)	329	151	215
Qc	=	Circulating flow across entry (pcu/h)	65	162	110

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F-Fc \times Qc)$	2034	1899	1769
DFC	=	Design flow/Capacity = Q/Qe	0.16	0.08	0.12

TOTAL FLOW = 1032 (pcu/hr)
CRITICAL DFC = 0.16

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

12/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

12/8/2026

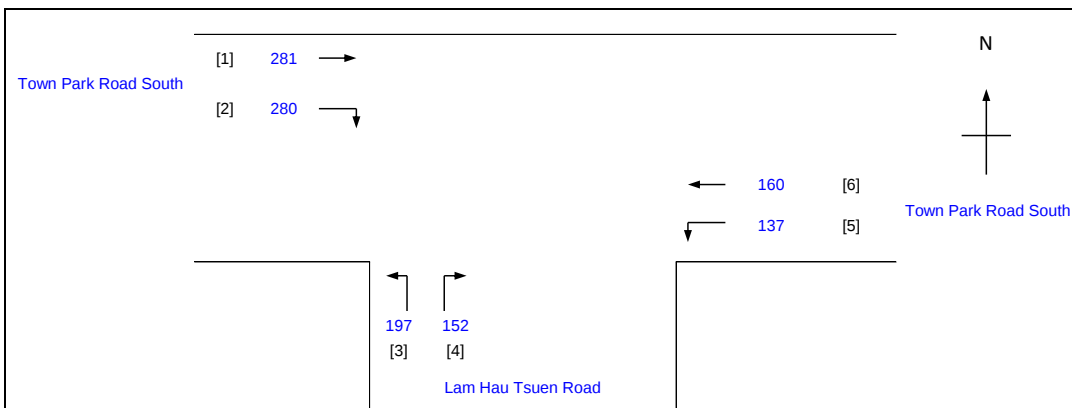
JnD - Town Park Road South / Lam Hau Tsuen Road

2029 SENS DES Weekday Full Cap AM 10:30-11:30 (flat 44 x2)

Reviewed By:

AW

12/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

I = 5 sec

Stage 1 - 2

I = 8 sec

Stage 2 - 3

I = 11 sec

Stage 3 - 4

I = 2 sec

Stage 4 - 1

C = 120 sec

Cycle time

Y = 0.599

Sum(y)

L = 32 sec

Loss time

= 1207 pcu

Total Flow

= 132.2 sec

 $Co = (1.5 \cdot L + 5) / (1 - Y)$

= 79.8 sec

 $Cm = L / (1 - Y)$

= 0.660

 $Yult = 0.9 - 0.0075L$

= 10.1 %

 $R.C.ult = (Yult - Y) / Y \cdot 100\%$

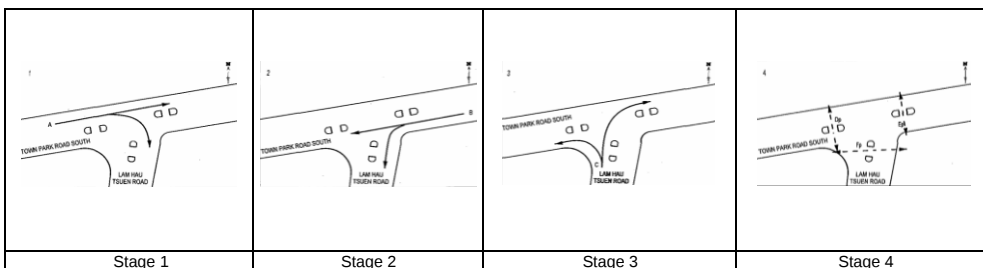
= 95.7 sec

 $Cp = 0.9 \cdot L / (0.9 - Y)$

= 0.733

 $Ymax = 1 - L / C$

= 10.1 %

 $R.C.(C) = (0.9 \cdot Ymax - Y) / Y \cdot 100\%$


Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s) SG	Green Time Required (s) FG	Green Time Provided (s) SG	Green Time Provided (s) FG	Check
Dp	10.5	4	5	4	9	4	OK
Ep	10.5	4	5	4	5	4	OK
Fp	19.3	4	5	8	8	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		281	280	561	0.50	2039			2039	0.275	0.275		40	40	0.826	67	44
5,6	2	4.80	B	1	15		N	2095	137	160		297	0.46	2003			2003	0.148	0.148		22	22	0.809	45	59
5,6	2	5.20	C	1	20		N	2135	197		152	349	1.00	1986			1986	0.176	0.176		26	26	0.811	50	55

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NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 12/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 12/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2029 SENS DES Weekday Full Cap AM 10:30-11:30 (flat 44 x2)		Reviewed By:	AW 12/8/2026

(ARM B)
Town Park Road North

(ARM A)
Town Park Road South

(ARM C)
Ma Tin Road

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 137 (pcu/hr) q a-c = 296 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 194 (pcu/hr) q c-b = 114 (pcu/hr) MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 103 (pcu/hr) q b-c = 93 (pcu/hr)	GEOMETRIC FACTORS : D = 0.944 E = 1.017 F = 0.813 Y = 0.662 F for (Qb-ac) = 0.474	THE CAPACITY OF MOVEMENT : Q b-a = 447 (pcu/hr) Q b-c = 672 (pcu/hr) Q c-b = 521 (pcu/hr) Q b-ac = 531 (pcu/hr) Q c-a = 1406 (pcu/hr) TOTAL FLOW = 937 (pcu/hr)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.2304 DFC b-c = 0.1384 DFC c-b = 0.2188 DFC b-ac = 0.3688 (Share Lane) DFC c-a = 0.1380 CRITICAL DFC = 0.37
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AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

12/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

12/8/2026

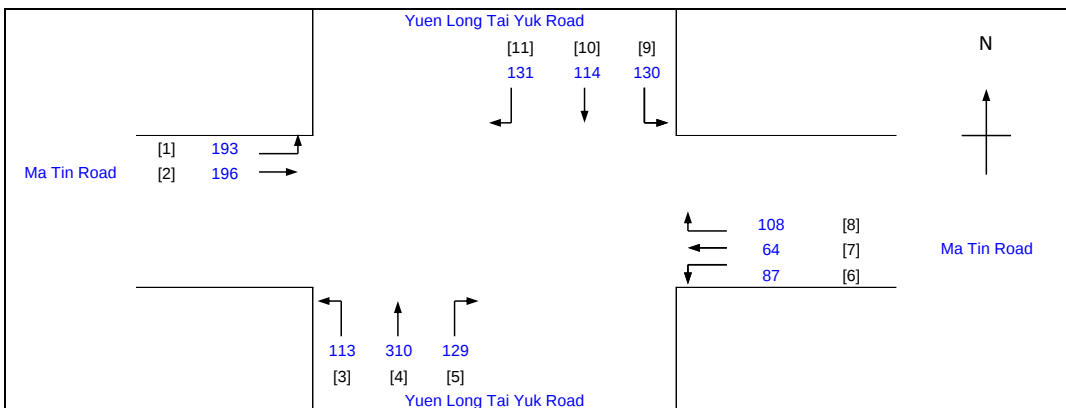
JnF - Ma Tin Road / Yuen Long Tai Yuk Road

2029 SENS DES Weekday Full Cap AM 10:30-11:30 (flat 44 x2)

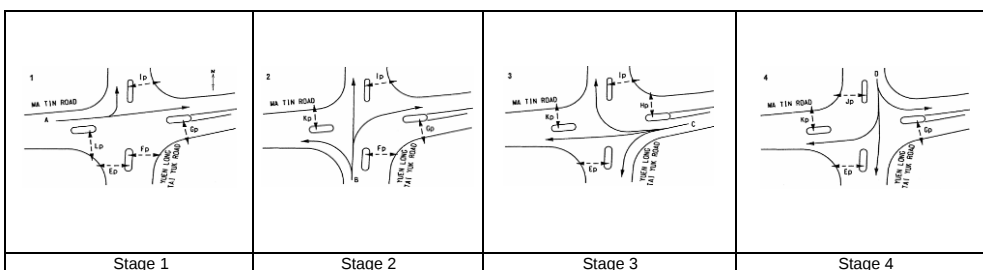
Reviewed By:

AW

12/8/2026



No. of critical vehicular phase per cycle:	N =	4
Intergreen Period	Stage 1 - 2	I = 5 sec
	Stage 2 - 3	I = 10 sec
	Stage 3 - 4	I = 11 sec
	Stage 4 - 1	I = 10 sec
Cycle time	C =	120 sec
Sum(y)	Y =	0.420
Loss time	L =	32 sec
Total Flow		= 1575 pcu
Co	= (1.5*L+5)/(1-Y)	= 91.4 sec
Cm	= L/(1-Y)	= 55.2 sec
Yult	= 0.9-0.0075L	= 0.660
R.C.ult	= (Yult-Y)/Y*100%	= 57.1 %
Cp	= 0.9*L/(0.9-Y)	= 60.0 sec
Ymax	= 1-L/C	= 0.733
R.C.(C)	= (0.9*Ymax-Y)/Y*100%	= 57.1 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)	Green Time Provided (s)	Check
Ep	7.9	3,4,1	5	8	OK
Fp	7.6	1,2	5	7	OK
Gp	7.3	4,1,2	5	7	OK
Hp	8.3	3	5	8	OK
Ip	7.6	1,2,3	5	8	OK
Jp	7.4	4	5	7	OK
Kp	7.3	2,3,4	5	7	OK
Lp	9.7	1	5	11	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1	1	3.60	A	1	15		N	1975	193			193	1.00	1795			1795	0.107	0.107		23	23	0.561	26	47
2	1	3.60	A	1				2115		196		196	0.00	2115			2115	0.093			19	23	0.484	26	45
3,4	2	3.60	B	1	15		N	1975	113	152		265	0.43	1894			1894	0.140	0.140		29	29	0.580	34	42
4,5	2	3.60	B	1	20			2115		158	129	287	0.45	2046			2046	0.140			29	29	0.580	36	42
3,4	2	3.50	C	1	15		N	1965			108	108	1.00	1786			1786	0.060			13	16	0.453	16	50
4,5	2	3.50	C	1	20			2105	87	64		151	0.58	2018			2018	0.075	0.075		16	16	0.561	22	52
10,11	2	3.50	D	1	20			2105		65	131	196	0.67	2004			2004	0.098	0.098		20	20	0.586	27	49
9,10	2	3.50	D	1	15		N	1965	130	49		179	0.73	1832			1832	0.098			20	20	0.586	25	49

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NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE	
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	12/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	12/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2029 SENS DES Weekday Full Cap AM 10:30-11:30 (flat 44 x2)		Reviewed By:	AW	12/8/2026

Diagram showing the junction layout. Shap Pat Heung Road (ARM A) has two lanes with flows 185 [1] and 162 [2]. Yuen Long Tai Yuk Road (ARM B) has two lanes with flows 70 [6] and 131 [5]. Shap Pat Heung Road (ARM C) has two lanes with flows 323 [4] and 97 [3]. A north arrow points towards the top right.

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:		GEOMETRIC FACTORS :		THE CAPACITY OF MOVEMENT :		COMPARISON OF DESIGN FLOW TO CAPACITY:	
MAJOR ROAD (ARM A)							
W	= 8.6 (metres)	D	= 1.025	Q b-a	= 504 (pcu/hr)	DFC b-a	= 0.1389
W cr	= 4.2 (metres)	E	= 1.091	Q b-c	= 747 (pcu/hr)	DFC b-c	= 0.1754
q a-b	= 185 (pcu/hr)	F	= 1.019	Q c-b	= 668 (pcu/hr)	DFC c-b	= 0.4835
q a-c	= 162 (pcu/hr)	Y	= 0.703	Q b-ac	= 640 (pcu/hr)	DFC b-ac	= 0.3143
MAJOR ROAD (ARM C)		F for (Qb-ac) = 0.652		TOTAL FLOW = 968 (pcu/hr)		(Share Lane)	
W c-b	= 4.2 (metres)						
Vr c-b	= 85 (metres)						
q c-a	= 97 (pcu/hr)						
q c-b	= 323 (pcu/hr)						
MINOR ROAD (ARM B)						CRITICAL DFC = 0.48	
W b-a	= 5.0 (metres)						
W b-c	= 5.0 (metres)						
VI b-a	= 70 (metres)						
Vr b-a	= 70 (metres)						
Vr b-c	= 85 (metres)						
q b-a	= 70 (pcu/hr)						
q b-c	= 131 (pcu/hr)						

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE	
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	12/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	12/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2029 SENS DES Weekday Full Cap PM 20:30-21:30 (flat 44 x2)		Reviewed By:	AW	12/8/2026

(ARM A)
Town Park Road South

[2] 327 [1] 111

Town Park Road South

[3] 153 [4] 117

(ARM C)

(ARM B)
Town Park Road North

95 [6]
121 [5]

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:		GEOMETRIC FACTORS :		THE CAPACITY OF MOVEMENT :		COMPARISON OF DESIGN FLOW TO CAPACITY:	
MAJOR ROAD (ARM A)							
W	= 8.9 (metres)	D	= 0.985	Q b-a	= 481 (pcu/hr)	DFC b-a	= 0.1975
W cr	= 1.5 (metres)	E	= 1.147	Q b-c	= 747 (pcu/hr)	DFC b-c	= 0.1620
q a-b	= 111 (pcu/hr)	F	= 0.879	Q c-b	= 558 (pcu/hr)	DFC c-b	= 0.2097
q a-c	= 327 (pcu/hr)	Y	= 0.693	Q b-ac	= 601 (pcu/hr)	DFC b-ac	= 0.3595
MAJOR ROAD (ARM C)		F for (Qb-ac) = 0.56		Q c-a	= 1423 (pcu/hr)	(Share Lane)	
W c-b	= 2.2 (metres)			TOTAL FLOW =	924 (pcu/hr)	DFC c-a	= 0.1076
Vr c-b	= 140 (metres)					CRITICAL DFC = 0.36	
q c-a	= 153 (pcu/hr)						
q c-b	= 117 (pcu/hr)						
MINOR ROAD (ARM B)							
W b-a	= 5.0 (metres)						
W b-c	= 5.0 (metres)						
VI b-a	= 45 (metres)						
Vr b-a	= 45 (metres)						
Vr b-c	= 140 (metres)						
q b-a	= 95 (pcu/hr)						
q b-c	= 121 (pcu/hr)						

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

12/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

12/8/2026

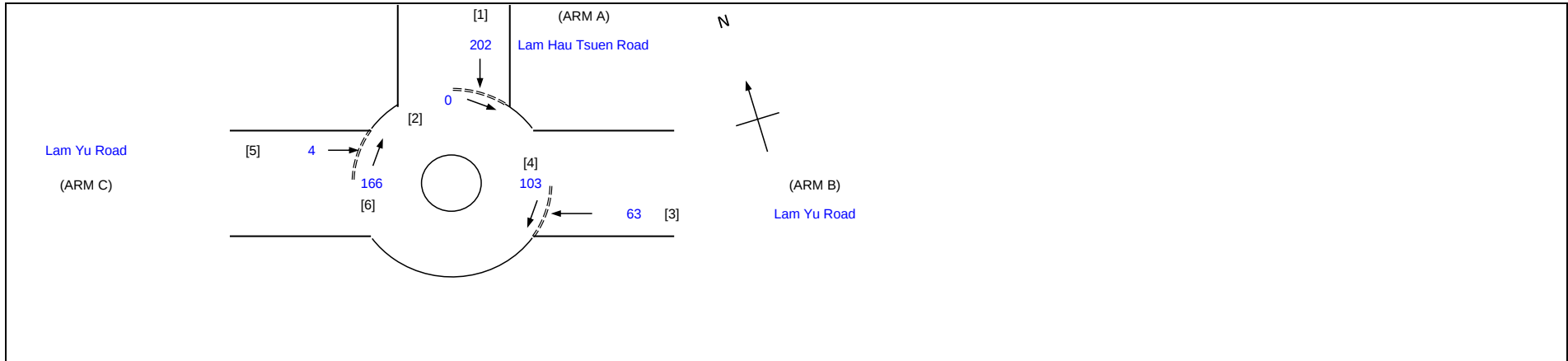
JnB - Lam Hau Tsuen Road / Lam Yu Road

2029 SENS DES Weekday Full Cap PM 20:30-21:30 (flat 44 x2)

Reviewed By:

AW

12/8/2026



GEOMETRIC DETAILS:

ARM

A

B

C

V	=	Approach half width (m)	3.6	2.2	5.1
E	=	Entry width (m)	5.0	5.0	6.5
L	=	Effective length of flare (m)	5.3	14.8	14.3
R	=	Entry radius (m)	30.0	77.0	15.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	5.0	0.0	17.0
Q	=	Entry flow (pcu/h)	202	63	4
Qc	=	Circulating flow across entry (pcu/h)	0	103	166

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2	=	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1321	1195	1868
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe	=	$K(F-Fc \times Qc)$	1457	1298	1805
DFC	=	Design flow/Capacity = Q/Qe	0.14	0.05	0.00

TOTAL FLOW = 538 (pcu/hr)
CRITICAL DFC = 0.14

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

12/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

12/8/2026

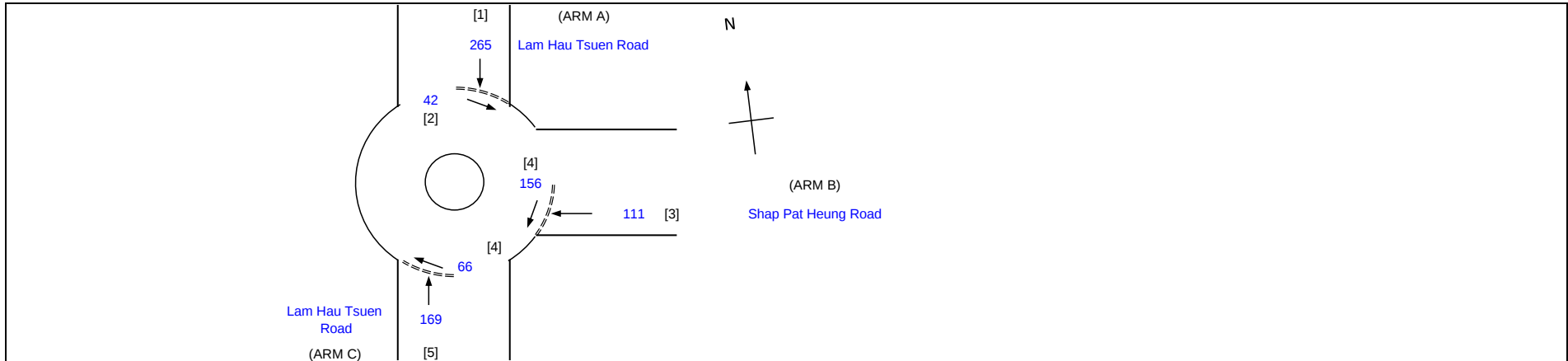
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2029 SENS DES Weekday Full Cap PM 20:30-21:30 (flat 44 x2)

Reviewed By:

AW

12/8/2026



GEOMETRIC DETAILS:

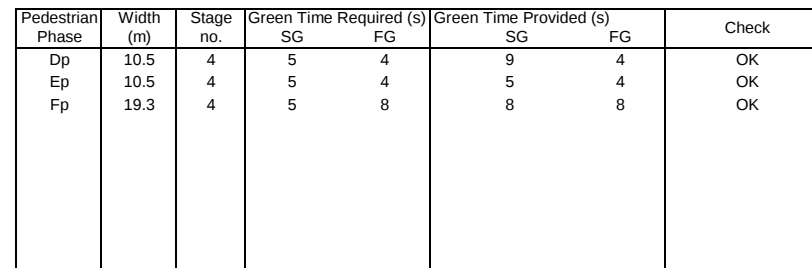
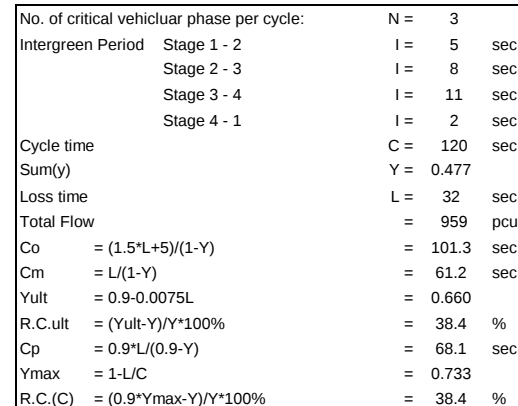
ARM A B C

V	=	Approach half width (m)	5.3	4.5	3.6
E	=	Entry width (m)	7.0	7.0	7.0
L	=	Effective length of flare (m)	14.2	15.0	14.0
R	=	Entry radius (m)	48.0	56.0	33.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	23.0	14.0	5.0
Q	=	Entry flow (pcu/h)	265	111	169
Qc	=	Circulating flow across entry (pcu/h)	42	156	66

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F-Fc \times Qc)$	2052	1903	1800
DFC	=	Design flow/Capacity = Q/Qe	0.13	0.06	0.09

TOTAL FLOW = 809 (pcu/hr)
CRITICAL DFC = 0.13



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$$\text{QUEUING LENGTH} = \text{AVERAGE QUEUE} * 6\text{m}$$

AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

12/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

12/8/2026

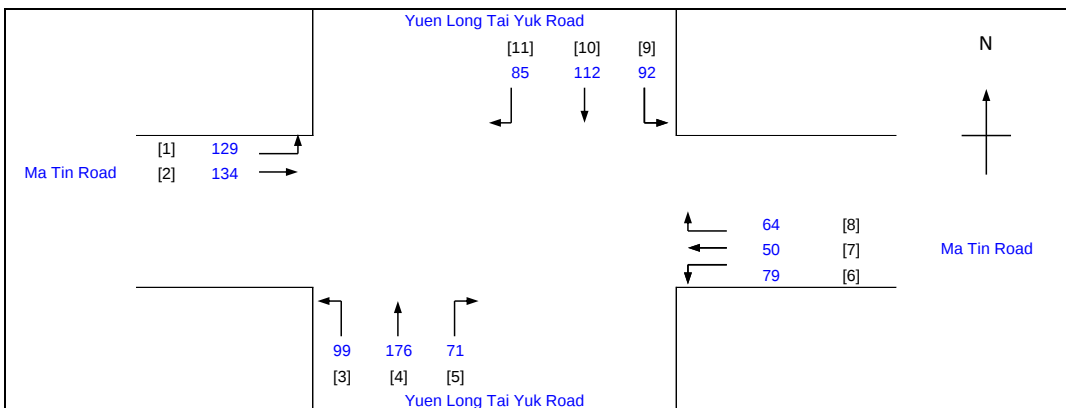
JnF - Ma Tin Road / Yuen Long Tai Yuk Road

2029 SENS DES Weekday Full Cap PM 20:30-21:30 (flat 44 x2)

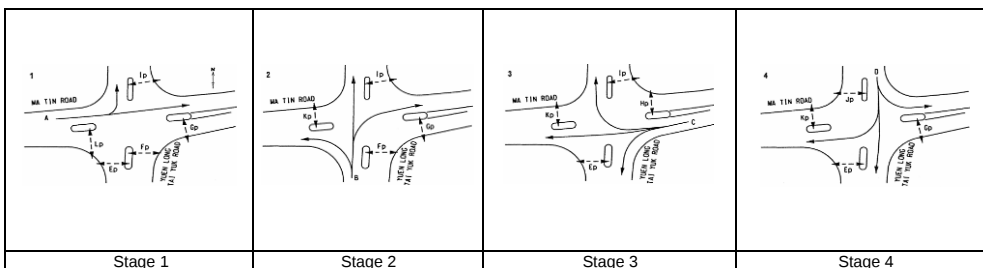
Reviewed By:

AW

12/8/2026



No. of critical vehicular phase per cycle:		N =	4
Intergreen Period	Stage 1 - 2	I =	5 sec
	Stage 2 - 3	I =	10 sec
	Stage 3 - 4	I =	11 sec
	Stage 4 - 1	I =	10 sec
Cycle time		C =	120 sec
Sum(y)		Y =	0.299
Loss time		L =	32 sec
Total Flow		=	1091 pcu
Co	= (1.5*L+5)/(1-Y)	=	75.6 sec
Cm	= L/(1-Y)	=	45.7 sec
Yult	= 0.9-0.0075L	=	0.660
R.C.ult	= (Yult-Y)/Y*100%	=	120.7 %
Cp	= 0.9*L/(0.9-Y)	=	47.9 sec
Ymax	= 1-L/C	=	0.733
R.C.(C)	= (0.9*Ymax-Y)/Y*100%	=	120.7 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)	Green Time Provided (s)	Check
Ep	7.9	3,4,1	5	8	OK
Fp	7.6	1,2	5	7	OK
Gp	7.3	4,1,2	5	7	OK
Hp	8.3	3	5	8	OK
Ip	7.6	1,2,3	5	8	OK
Jp	7.4	4	5	7	OK
Kp	7.3	2,3,4	5	7	OK
Lp	9.7	1	5	11	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1	1	3.60	A	1	15		N	1975	129			129	1.00	1795			1795	0.072	0.072		21	21	0.411	18	46
2	1	3.60	A	1				2115		134		134	0.00	2115			2115	0.063			19	21	0.362	18	45
3,4	2	3.60	B	1	15		N	1975	99	66		165	0.60	1863			1863	0.088	0.088		26	26	0.408	21	42
4,5	2	3.60	B	1	20			2115		110	71	181	0.39	2055			2055	0.088			26	26	0.408	24	42
3,4	2	3.50	C	1	15		N	1965			64	64	1.00	1786			1786	0.036			11	19	0.226	9	45
4,5	2	3.50	C	1	20			2105	79	50		129	0.61	2013			2013	0.064	0.064		19	19	0.405	18	47
10,11	2	3.50	D	1	20			2105		66	85	151	0.56	2020			2020	0.075	0.075		22	22	0.408	21	45
9,10	2	3.50	D	1	15		N	1965	92	46		138	0.67	1842			1842	0.075			22	22	0.408	19	45

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NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

