FINAL

TRAFFIC TECHNICAL MEMORANDUM

APPENDICES

SR 55 (US 19)

(Pinellas County Line To Hernando County Line)

PD&E STUDY

Pasco County, Florida

Prepared for:

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January 2007

APPENDICES

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Appendix A

Existing Intersection Signal Timing Information

WO#: **502** LAST UPDATE: 11/3/2004

LOCATIO **US19 & FLORA**

CONT: 2070 SER#: 416 TYPE: SIG REPAIR 3

MONITOR 1200 SER#: 3295 SOP: 7

POWER PE ACCT: 67324 79360

DETQUAN: 12 DETDELAY:

OTHER1:

OTHER2:

OPTICOM: YES

ENFORCEMENT NO

MASTARMS: YES

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1	SB LEFT	5	3	3.5	1	15				1			X				R
2	NB THRU	20	5	4.5	1	60		5		2	X			X	X		Y
3										3							
4	E&W THRU	8	4	4	1	25		7	40	4			X				R
5	NB LEFT	5	3	3.5	1	15				5			X				R
6	SB THRU	20	5	4.5	1	60		5		6	X			X	X		Y
7										7							
8										8							

OVERLAP A

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FLASH TIMES FROM:

TO:

SYSTEM SYS#

ID#:

JURIS:

VALUE:

FDOT 150,000

NOTE

L 13 (WBLT) 3 SEC. DELAY. L 14 (WB) 3 SEC. DELAY. L 19 (EBLT) 3 SEC. DELAY. L 20 (EB) 3 SEC. DELAY.

POLE DATA

CORNER1:

CORNER2:

CORNER3:

CORNER4:

WO#: **503** LAST UPDATE: 4/18/2004

LOCATIO **US19 & ALT 19**

CONT: 2070 SER#: 412 TYPE: SIG REPAIR 1

MONITOR 1200 SER#: 3259 SOP: 16

POWER PE ACCT: 75001 63063

DETQUAN: 13 DETDELAY: OPTICOM: YES

OTHER1: 2 CH DET ENFORCEMENT YES

OTHER2: MASTARMS: NO

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1	SB LEFT	**5**	**3**	**4.5**	**1**	**20**				**1**			**X**				**R**
2	NB THRU	**20**	**5**	**4.5**	**1**	**60**				**2**	**X**			**X**	**X**		**Y**
3	WB LT&THR	**8**	**4**	**4**	**1**	**25**				**3**			**X**				**R**
4	EB LT&THR	**8**	**4**	**4**	**1**	**40**				**4**			**X**				**R**
5	NB LEFT	**5**	**3**	**4.5**	**1**	**20**				**5**			**X**				**R**
6	SB THRU	**20**	**5**	**4.5**	**1**	**60**				**6**	**X**			**X**	**X**		**Y**
7										**7**						**CALLS 4**	
8										**8**						**CALLS 3**	

OVERLAP A FLASH TIMES SYSTEM JURIS: FDOT

B FROM: SYS# VALUE: 150,000

C TO: ID#:

C NOTE

D L 16 (WBLT) 3 SEC. DELAY. L 17 (WB) 3 SEC. DELAY.

POLE DATA

CORNER1:

CORNER2:

CORNER3:

CORNER4:

WO#: **504** LAST UPDATE: 4/18/2004

LOCATIO **US19 & MILESTRETCH (CR595)**

CONT:	2070	SER#:	406	TYPE:		SIG	REPAIR 1
MONITOR	1200	SER#:	3296	SOP:		10	
				POWER		PE	ACCT: 39218 24341

DETQUAN: 14 DETDELAY:

OTHER1:

OTHER2:

OPTICOM: YES

ENFORCEMENT NO

MASTARMS: NO

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1	SB LEFT	**5**	**3**	**3.5**	**1**	**25**				**1**			**X**				**R**
2	NB THRU	**20**	**5**	**4.5**	**1**	**60**		**5**		**2**	**X**			**X**			**Y**
3	WB LEFT	**5**	**3**	**3.5**	**1**	**45**				**3**			**X**				**R**
4	EB THRU	**8**	**4**	**4**	**1**	**20**		**5**	**25**	**4**			**X**				**R**
5	NB LEFT	**5**	**3**	**3.5**	**1**	**20**				**5**			**X**				**R**
6	SB THRU	**20**	**5**	**4.5**	**1**	**60**		**5**	**12**	**6**	**X**			**X**			**Y**
7	EB LEFT	**5**	**3**	**3.5**	**1**	**20**				**7**			**X**				**R**
8	WB THRU	**8**	**4**	**4**	**1**	**40**				**8**			**X**				**R**

OVERLAP A

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FLASH TIMES FROM: TO:

SYSTEM SYS# ID#:

JURIS: FDOT VALUE: 150,000

NOTE

NBLT LAG OPERATION L 11 (EBRT) 10 SEC. DELAY. L 18 (WB) 10 SEC. DELAY.

POLE DATA

CORNER1:

CORNER2:

CORNER3:

CORNER4:

WO#: **505** LAST UPDATE: 4/18/2004

LOCATIO **US19 & DARLINGTON**

CONT: 2070 SER#: 405 TYPE: SIG REPAIR 1

MONITOR 1200 SER#: 5608 SOP: 7

POWER PE ACCT: 63072 71296

DETQUAN: 8 DETDELAY:

OPTICOM: YES

OTHER1: ENFORCEMENT NO

OTHER2: MASTARMS: NO

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1	SB LEFT	**5**	**3**	**3.5**	**1**	**20**				**1**			**X**				**R**
2	NB THRU	**20**	**5**	**4.5**	**1**	**60**		**5**	**13**	**2**	**X**			**X**	**X**		**Y**
3										**3**						**CALLS 8**	
4	EB THRU	**8**	**4**	**4**	**1**	**35**		**5**	**32**	**4**			**X**				**R**
5	NB LEFT	**5**	**3**	**3.5**	**1**	**25**				**5**			**X**				**R**
6	SB THRU	**20**	**5**	**4.5**	**1**	**60**				**6**	**X**			**X**	**X**		**Y**
7	EB LEFT	**5**	**3**	**3.5**	**1**	**20**				**7**			**X**				**R**
8	WB THRU	**8**	**4**	**4**	**1**	**25**				**8**			**X**				**R**

OVERLAP A

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FLASH TIMES FROM: 0000 TO: 0530

SYSTEM SYS# ID#:

JURIS: VALUE: FDOT 150,000

NOTE

L 11 (WBLT) 3 SEC. DELAY. L 12 (WB) 3 SEC. DELAY. L 15 (EBLT) 3 SEC. DELAY. L 16 (EB) 3 SEC. DELAY.

POLE DATA

CORNER1:

CORNER2:

CORNER3:

CORNER4:

WO#: **678** LAST UPDATE: 4/17/2004

LOCATIO **US19 & SUNRAY (SOCIETY)**

CONT:	2070	SER#:	414	TYPE:	SIG	REPAIR	3
MONITOR	1200	SER#:	10770	SOP:	10		
				POWER		PE ACCT:	56111 94770

DETQUAN: 9 DETDELAY:
OTHER1:
OTHER2:

OPTICOM: YES
ENFORCEMENT NO
MASTARMS: NO

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1	N.B.L.T.	**5**	**3**	**3.5**	**1**	**15**				**1**			**X**				**R**
2	SB THRU	**20**	**3**	**4.5**	**1**	**63**		**5**	**19**	**2**	**X**			**X**	**X**		**Y**
3	E.B.L.T.	**5**	**3**	**3.5**	**1**	**7**				**3**				**X**		**X/8**	
4	WB THRU	**10**	**3**	**4**	**1**	**15**		**5**	**27**	**4**			**X**				**R**
5	S.B.L.T.	**5**	**3**	**3.5**	**1**	**15**				**5**			**X**				**R**
6	NB THRU	**20**	**3**	**4.5**	**1**	**63**		**5**		**6**	**X**			**X**	**X**		**Y**
7	W.B.L.T.	**5**	**3**	**3.5**	**1**	**7**				**7**				**X**		**X/4**	
8	EB THRU	**10**	**3**	**4**	**1**	**15**				**8**			**X**				**R**

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FLASH TIMES FROM:
TO:

SYSTEM SYS#
ID#:

JURIS: FDOT
VALUE: 150,000

NOTE

(PROTECTED LEFTS NB & SB) L 10 (EB) 8 SEC. DELAY. L 15 (WBLT) 8 SEC. DELAY.
L 17 (WBRT) 10 SEC. DELAY.

POLE DATA

CORNER1:
CORNER2:
CORNER3:
CORNER4:

WO#: **506** LAST UPDATE: 11/3/2005

LOCATIO **US19 & MOOG**

CONT: 2070 SER#: 410 TYPE: SIG REPAIR 1

MONITOR 12ELRA SER#: 3169910 SOP: 9

POWER PE ACCT: 51238 29724

DETQUAN: 12 DETDELAY: OPTICOM: YES

OTHER1: ENFORCEMENT NO

OTHER2: MASTARMS: NO

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1	NB LEFT	**5**	**2.5**	**3.5**	**1**	**20**				**1**			X				**R**
2	SB THRU	**20**	**5**	**4.5**	**1**	**60**				**2**	X			X	X		**Y**
3	EB LT&TH	**8**	**3**	**4**	**1**	**25**		**5**	**42**	**3**			X				**R**
4	WB LT&TH	**8**	**3**	**4**	**1**	**25**				**4**			X				**R**
5	SB LEFT	**5**	**2.5**	**3.5**	**1**	**20**				**5**			X				**R**
6	NB THRU	**20**	**5**	**4.5**	**1**	**60**				**6**	X			X	X		**Y**
7										**7**						**CALLS 4**	
8										**8**						**CALLS 3**	

OVERLAP A FLASH TIMES SYSTEM JURIS: FDOT

B FROM: SYS# VALUE: 150,000

C TO: ID#:

C NOTE

D ** SBLT LAG ** L 13 (WBLT) 3 SEC. DELAY. L 19 (EBLT) 3 SEC. DELAY.

POLE DATA

CORNER1:

CORNER2:

CORNER3:

CORNER4:

WO#: **507** LAST UPDATE: 5/28/2004

LOCATIO **US19 & SR54**

CONT: 2070 SER#: 404 TYPE: SIG REPAIR 1

MONITOR DOUBLE DIA. SER#: 221002 SOP: 9

POWER PE ACCT: 51156 21152

DETQUAN: 14 DETDELAY: OPTICOM: YES

OTHER1: RACK DET. ENFORCEMENT NO

OTHER2: MASTARMS: NO

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1	SB LEFT	**5**	**3**	**3.5**	**1**	**15**				**1**			**X**				**R**
2	NB THRU	**20**	**5**	**4.5**	**1**	**60**		**7**	**35**	**2**	**X**			**X**	**X**		**Y**
3	WB LT&TH	**16**	**4**	**4**	**1**	**20**		**5**	**69**	**3**			**X**				**R**
4	EB LT&TH	**8**	**4**	**4**	**1**	**15**				**4**			**X**				**R**
5	NB LEFT	**5**	**3**	**3.5**	**1**	**15**				**5**			**X**				**R**
6	SB THRU	**20**	**5**	**4.5**	**1**	**60**		**5**	**35**	**6**	**X**			**X**	**X**		**Y**
7										**7**						**ASSN 4**	
8										**8**						**ASSN 3**	

OVERLAP A FLASH TIMES SYSTEM JURIS: FDOT

B FROM: SYS# VALUE: 150,000

C TO: ID#:

C NOTE

D ** NBLT LAG OPERATION ** L 9 (EBLT) 3 SEC. DELAY. L 10 (EB) 3 SEC. DELAY.

POLE DATA

CORNER1:

CORNER2:

CORNER3:

CORNER4:

WO#: **508** LAST UPDATE: 5/13/2004

LOCATIO **US19 & TROUBLE CREEK (CR518)**

CONT: 2070 SER#: 413 TYPE: SIG REPAIR 1

MONITOR 1200 SER#: 3257 SOP: 9

POWER PE ACCT: 54409 04535

DETQUAN: 8 DETDELAY:

OTHER1:

OTHER2:

OPTICOM: YES

ENFORCEMENT NO

MASTARMS: NO

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1	SB LEFT	**5**	**2.5**	**3.5**	**1**	**25**				**1**			**X**				**R**
2	NB THRU	**20**	**5**	**4.5**	**1**	**60**		**7**	**13**	**2**	**X**			**X**	**X**		**Y**
3	WB LT&TH	**8**	**3**	**4**	**1**	**15**				**3**			**X**				**R**
4	EB LT&TH	**8**	**3**	**4**	**1**	**20**		**7**	**43**	**4**			**X**				**R**
5	NB LEFT	**5**	**2.5**	**3.5**	**1**	**15**				**5**			**X**				**R**
6	SB THRU	**20**	**5**	**4.5**	**1**	**60**		**7**	**19**	**6**	**X**			**X**	**X**		**Y**
7										**7**						**X/4**	
8										**8**						**X/3**	

OVERLAP A

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FLASH TIMES FROM:

TO:

SYSTEM SYS#

ID#:

JURIS: FDOT

VALUE: 150,000

NOTE

*** SBLT LAG *** L 9 (EBLT) 3 SEC. DELAY. L 10 (EB) 3 SEC. DELAY. L 15 (WBLT) 3 SEC. DELAY.

POLE DATA

CORNER1:

CORNER2:

CORNER3:

CORNER4:

WO#: **573** LAST UPDATE: 11/3/2005

LOCATIO **US19 & FLORAMAR**

CONT: 2070 SER#: 408 TYPE: SIG REPAIR 1

MONITOR 1200 SER#: 10392 SOP: 11

POWER PE ACCT: 58380 64926

DETQUAN: 7 DETDELAY:

OTHER1:

OTHER2:

OPTICOM: YES

ENFORCEMENT NO

MASTARMS: NO

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1	SB LEFT	**5**	**3**	**4.5**	**1**	**25**				**1**			**X**				**R**
2	NB THRU	**20**	**5**	**4.5**	**1**	**60**				**2**	**X**			**X**	**X**		**Y**
3										**3**							
4	E&W THRU	**8**	**4**	**4**	**1**	**25**		**5**	**42**	**4**			**X**				**R**
5	NB LEFT	**5**	**3**	**4.5**	**1**	**35**				**5**			**X**				**R**
6	SB THRU	**20**	**5**	**4.5**	**1**	**60**				**6**	**X**			**X**	**X**		**Y**
7										**7**							
8										**8**						**X/4**	

OVERLAP A

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FLASH TIMES

FROM: 0000

TO: 0530

SYSTEM

SYS#

ID#:

JURIS:

VALUE:

FDOT

150,000

NOTE

L 11 (WBLT) 3 SEC. DELAY. L 12 (WB) 5 SEC. DELAY.

POLE DATA

CORNER1:

CORNER2:

CORNER3:

CORNER4:

WO#: **510** LAST UPDATE: 4/16/2004

LOCATIO **US19 & MARINE PARKWAY**

CONT: 2070 SER#: 407 TYPE: SIG REPAIR 1

MONITOR 1200 SER#: 3284 SOP: 10

POWER PE ACCT: 58055 18660

DETQUAN: 16 DETDELAY:

OTHER1:

OTHER2:

OPTICOM: YES

ENFORCEMENT NO

MASTARMS: NO

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1	SB LEFT	**5**	**3**	**4.5**	**1**	**25**				**1**			**X**				**R**
2	NB THRU	**20**	**5**	**4.5**	**1**	**60**		**5**		**2**	**X**			**X**			**Y**
3	WB LEFT	**5**	**3**	**3.5**	**1**	**25**				**3**			**X**				**R**
4	EB THRU	**8**	**4**	**4**	**1**	**15**		**5**	**26**	**4**			**X**				**R**
5	NB LEFT	**5**	**3**	**4.5**	**1**	**35**				**5**			**X**				**R**
6	SB THRU	**20**	**5**	**4.5**	**1**	**60**		**5**	**23**	**6**	**X**			**X**			**Y**
7	EB LEFT	**5**	**3**	**3.5**	**1**	**15**				**7**			**X**				**R**
8	WB THRU	**8**	**4**	**4**	**1**	**15**				**8**			**X**				**R**

OVERLAP A

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FLASH TIMES FROM:

TO:

SYSTEM SYS# ID#:

JURIS: FDOT

VALUE: 150,000

NOTE

** NBLT LAG OPERATION ** L 14 (WBLT) 3 SEC. DELAY. L 24 (EBRT) 10 SEC. DELAY.

POLE DATA

CORNER1:

CORNER2:

CORNER3:

CORNER4:

WO#: **512** LAST UPDATE: 4/16/2004

LOCATIO **US19 & GULF**

CONT: 2070 SER#: 409 TYPE: SIG REPAIR 3

MONITOR 12ELRA SER#: 3169907 SOP: 7

POWER PE ACCT: 57047 11665

DETQUAN: 12 DETDELAY:

OTHER1: 2 CH.RACK DET.

OTHER2:

OPTICOM: YES

ENFORCEMENT NO

MASTARMS: NO

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1	SB LEFT	5	4	3.5	1	25				1			X				R
2	NB THRU	20	5	4.5	1	60		5	10	2	X			X			Y
3										3							
4	E&W THRU	8	5	4	1	30		5	31	4			X				R
5	NB LEFT	5	4	3.5	1	15				5			X				R
6	SB THRU	20	5	4.5	1	60		5	10	6	X			X			Y
7										7							
8										8						X/4	

OVERLAP A

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FLASH TIMES FROM: 0000 TO: 0530

SYSTEM SYS# ID#:

JURIS: FDOT VALUE: 150,000

NOTE

L 13 (WBLT) 3 SEC. DELAY. L 14 (WBTH/RT) 3 SEC. DELAY. L 19 (EBLT) 3 SEC. DELAY. L 20 (EBTH/RT) 3 SEC. DELAY.

POLE DATA

CORNER1:

CORNER2:

CORNER3:

CORNER4:

WO#: **580** LAST UPDATE: 4/16/2004

LOCATIO **US19 & CROSS BAYOU**

CONT: 2070 SER#: 411 TYPE: SIG REPAIR 3

MONITOR 12ELRA SER#: SOP: 12

POWER PE ACCT: 03068 71876

DETQUAN: 5 DETDELAY: OPTICOM: YES

OTHER1: 2 CH RACK MOUNT DET. ENFORCEMENT

OTHER2: MASTARMS: NO

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1										1							
2	NB THRU	20	5	4.5	1	60		7		2	X			X	X		Y
3										3							
4	EB THRU	8	4	4	1	25		7	30	4			X				R
5	NB LEFT	5	4	3.5	1	25				5			X				R
6	SB THRU	20	5	4.5	1	60		7	23	6	X			X	X		Y
7										7						X/4	
8										8							

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NOTE

L 13 (EBRT) 6 SEC. DELAY.

FLASH TIMES

FROM: 0000

TO: 0530

SYSTEM

SYS#

ID#:

JURIS:

VALUE:

FDOT

140,000

POLE DATA

CORNER1:

CORNER2:

CORNER3:

CORNER4:

WO#: **514** LAST UPDATE: 4/16/2004

LOCATIO **US19 & MAIN ST**

CONT: 2070 SER#: 418 TYPE: SIG REPAIR 1

MONITOR 1200 SER#: 11782 SOP: 9

POWER PE ACCT: 03330 81691

DETQUAN: 14 DETDELAY:

OTHER1: RACK DET.

OTHER2:

OPTICOM: YES

ENFORCEMENT YES

MASTARMS: YES

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1	SB LEFT	**5**	**3**	**3.5**	**1**	**20**				**1**			**X**				**R**
2	NB THRU	**20**	**5**	**4.5**	**1**	**60**		**5**	**19**	**2**	**X**			**X**			**Y**
3	WB LT&TH	**8**	**4**	**4**	**1**	**30**				**3**			**X**				**R**
4	EB LT&TH	**8**	**4**	**4**	**1**	**15**		**5**	**29**	**4**			**X**				**R**
5	NB LEFT	**5**	**3**	**3.5**	**1**	**15**				**5**			**X**				**R**
6	SB THRU	**20**	**5**	**4.5**	**1**	**60**		**5**	**19**	**6**	**X**			**X**			**Y**
7										**7**							
8										**8**							

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FLASH TIMES

FROM:

TO:

SYSTEM

SYS#

ID#:

JURIS: FDOT

VALUE: 175,000

NOTE

L9 (EBLT) 3 SEC. DELAY.

POLE DATA

CORNER1:

CORNER2:

CORNER3:

CORNER4:

Pasco County Traffic Operations Division

Public Works Utilities Building Room 124
7530 Little Road
New Port Richey, Fl. 34654
Phone: 727-847-8139 Fax: 727-815-7014
Emails ☐ rreck@pascocountyfl.net ☐ nruark@pascocountyfl.net ☐ _____@pascocountyfl.net

☑ FAX TRANSMISSION Total number of pages with cover 5

☐ LETTER/MEMO OF TRANSMITTAL TR____-____

TO: DERRICK A. LUE

Phone (____) - _____ - _____
FAX (813) - 282 - 2449

DATE: 1/18/06

Work Order #: _____

RE: US 19 FLORA TO MAIN
CYCLE LENGTH (SCATS)

We are sending you the following items:

☐ As Requested ☑ For Your Use ☐ For Your Review & Comment ☐ For Your Files ☐ For Your Action ☐ For Your Information

- ☐ Copy of letter _____
- ☐ Copy of memo _____
- ☐ Copy of P.O. Number _____
- ☐ Invoice for corrections as noted
- ☐ Invoice for payment, P.O. Number _____
- ☐ Packing Slip P.O. Number _____
- ☐ Inspection Report Signalization / Flasher / Lighting
- ☐ Inspection Report Signs and or Markings
- ☐ Inspection Report Maintenance of Traffic
- ☐ Other _____
- ☐ Account # _____

Drawings
- ☐ Shop Drawings ☐ Poles ☐ Foundations
- ☐ Signs & Markings ☐ MOT/Detour ☐ Signalization
- ☐ Other

Specifications
- ☐ Signs & Markings
- ☐ Signalization
- ☐ Other _____

Computer Files
- ☐ 3.5" disk
- ☐ CD
- ☐ Other _____

Comments:

By: _____

Cc:
- ☐ Project File ☐ With Attachments
- ☐ Intersection File ☐ With Attachments
- ☐ Commercial Site File ☐ With Attachments
- ☐ Subdivision File ☐ With Attachments
- ☐ Other _____

Received Time Jan 18 1:34PM

* * * Journal (Jan. 18. 2006 1:34PM) * * *

1) HDR ENGINEERING
2) HDR ENGINEERING

⟨ TX ⟩

Date	Time	Destination	Mode	TXtime	Page	Result	Pers. Name	File No.
Jan. 9.	3:08PM	Fax Server	G3TESM	0'32"	P. 3	OK		0726
	4:23PM	706 8964654	G3TSM	1'17"	P. 2	OK		0727
Jan. 10.	12:04PM	407 648 8584	G3TESM	0'17"	P. 2	OK		0730
Jan. 12.	11:01AM	7275728755	G3TESM	0'20"	P. 2	OK		0764
Jan. 16.	8:57AM	813 636 1090	G3TESM#	0'12"	P. 1	OK		0789
	8:57AM	813 636 1090	G3TESM#	0'05"	P. 1	OK		0790
	9:07AM	813 636 1090	G3TESM	0'12"	P. 1	OK		0791
	11:19AM	8138543121	G3TESM	0'41"	P. 1	OK		0792
Jan. 17.	8:11AM	813 636 1090	G3TESM	0'12"	P. 1	OK		0796
	10:55AM	7275728755	G3TESM	1'26"	P. 3	E		0799
	11:02AM	7275728755	G3TESM	0'24"	P. 4	OK		0799
	1:36PM	3600096913368051062	G3TESM	0'49"	P. 4	OK		0802
Jan. 18.	10:34AM	HDR	G3TESM	0'10"	P. 1	OK		0809

⟨ RX ⟩

Date	Time	Sender	Mode	RXtime	Page	Result	Pers. Name	File No.
Jan. 10.	9:46AM		G3RES	0'31"	P. 1	OK		0729
	1:09PM	Fax	G3RED	0'29"	P. 1	OK		0732
	3:27PM	6046374471	G3RS	2'12"	P. 1	OK		0734
	5:15PM	FAX	G3RED	0'57"	P. 1	OK		0736
	5:21PM	FAX	G3RED	0'55"	P. 1	OK		0738
Jan. 11.	7:51AM	FAX	G3RES	0'40"	P. 1	OK		0741
	11:51AM	8009794304	G3RES	0'35"	P. 1	OK		0743
	2:27PM		G3RES	0'27"	P. 2	OK		0745
	4:08PM	FAX	G3RED	1'25"	P. 1	OK		0747
	4:52PM	2724073	G3RES	0'16"	P. 1	OK		0749
	6:04PM	863 534 0055	G3RED	0'26"	P. 1	OK		0751
	6:09PM	Fax	G3RED	0'37"	P. 1	OK		0753
	6:23PM		G3RED	0'29"	P. 2	OK		0755
	9:36PM		G3RES	0'37"	P. 1	OK		0757
◀ Jan. 12.	4:34AM	8009794304	G3RS	0'47"	P. 1	OK		0759
	6:23AM	Via Fax	G3RES	0'51"	P. 1	OK		0761
	10:57AM	HILLS. CO PURCHASING	G3RD	0'48"	P. 1	OK		0763
	11:08AM	FAX	G3RED	0'34"	P. 1	OK		0766
	2:27PM	770 667-9020	G3RS	0'48"	P. 1	OK		0768
	4:40PM	352 671 8687	G3RED	0'43"	P. 1	OK		0770
Jan. 13.	9:07AM		G3RES	2'31"	P. 5	OK		0772
	9:51AM	CUMBEY & FAIR, INC	G3RES	0'16"	P. 1	OK		0774
	10:12AM	813 2725597	G3RES	3'50"	P. 9	OK		0776
	10:40AM		G3RES	0'21"	P. 1	OK		0778
	1:51PM		G3RES	0'47"	P. 2	OK		0780
	3:06PM	Fax	G3RED	0'35"	P. 1	OK		0782
	4:10PM	FAX	G3RED	1'12"	P. 1	OK		0784
	7:02PM	7274643595	G3RES	0'40"	P. 2	OK		0786
Jan. 14.	3:54PM		G3RED	17'21"	P. 10	OK		0788
Jan. 16.	10:55PM	Stocks Daily	G3RS	0'59"	P. 1	OK		0795
Jan. 17.	9:41AM	18137523102	G3RES	0'38"	P. 3	OK		0798
	12:21PM	813 989 1355	G3RES	1'42"	P. 5	OK		0801
	3:03PM	727 392 3966	G3RES	0'15"	P. 1	OK		0804
	4:01PM	9547774602	G3RES	0'33"	P. 2	OK		0806
Jan. 18.	9:09AM		G3RED	0'32"	P. 1	OK		0808
	12:14PM	305 944 3114	G3RES	0'27"	P. 3	OK		0811
	1:33PM	727 815 7014	G3RED	0'36"	P. 1	OK		0813

TX Count 004942

RX Count 012033

: Batch
M : Memory
S : Standard
) : Reduction

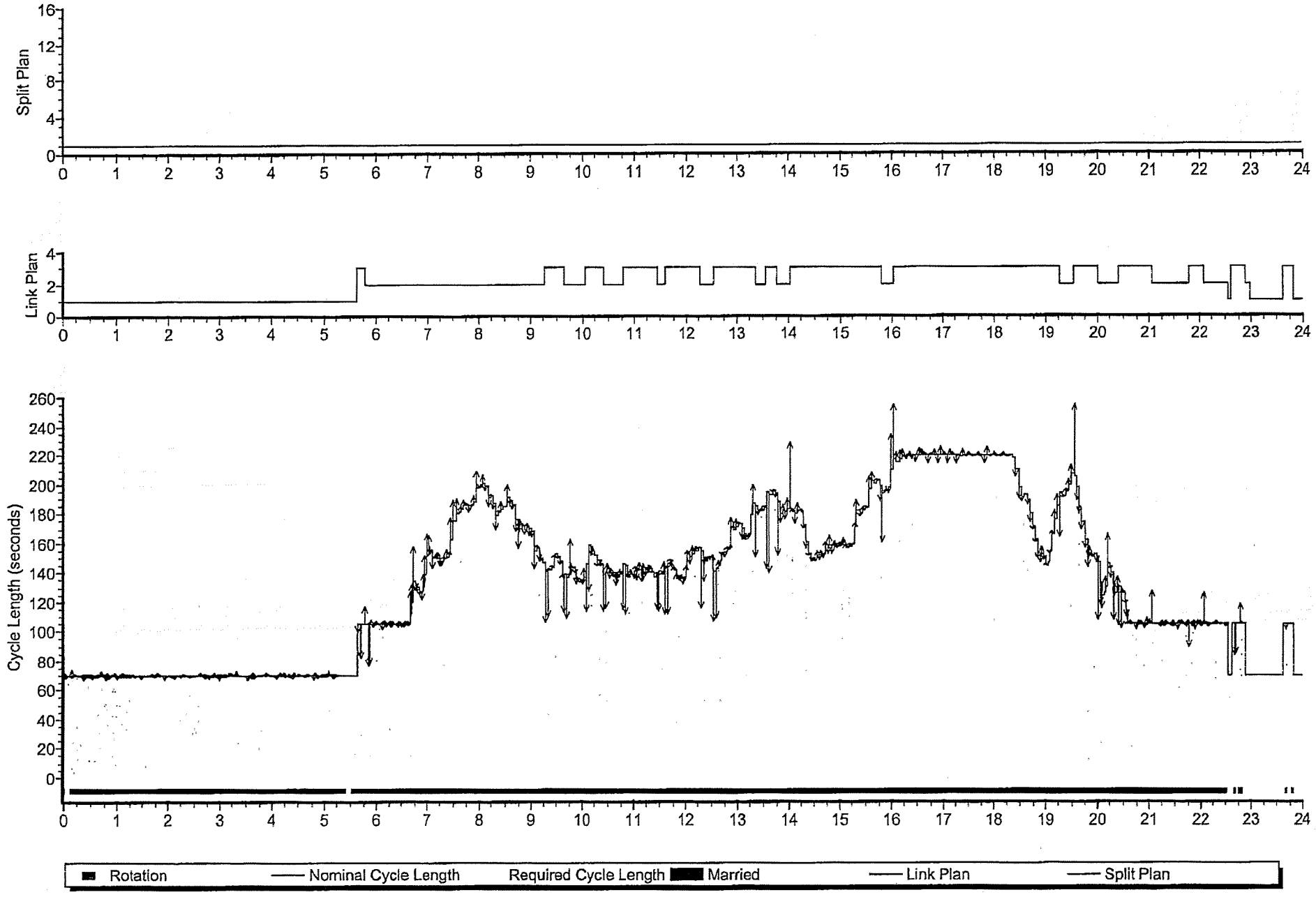
C : Confidential
L : Send later
D : Detail
H : Stored/D. Server

$: Transfer
@ : Forwarding
F : Fine
* : LAN-Fax

P : Polling
E : ECM
U : Super Fine

Jan 18 06 02:15p Pasco County Traffic (727) 815-7014 p.1

Subsystem 10

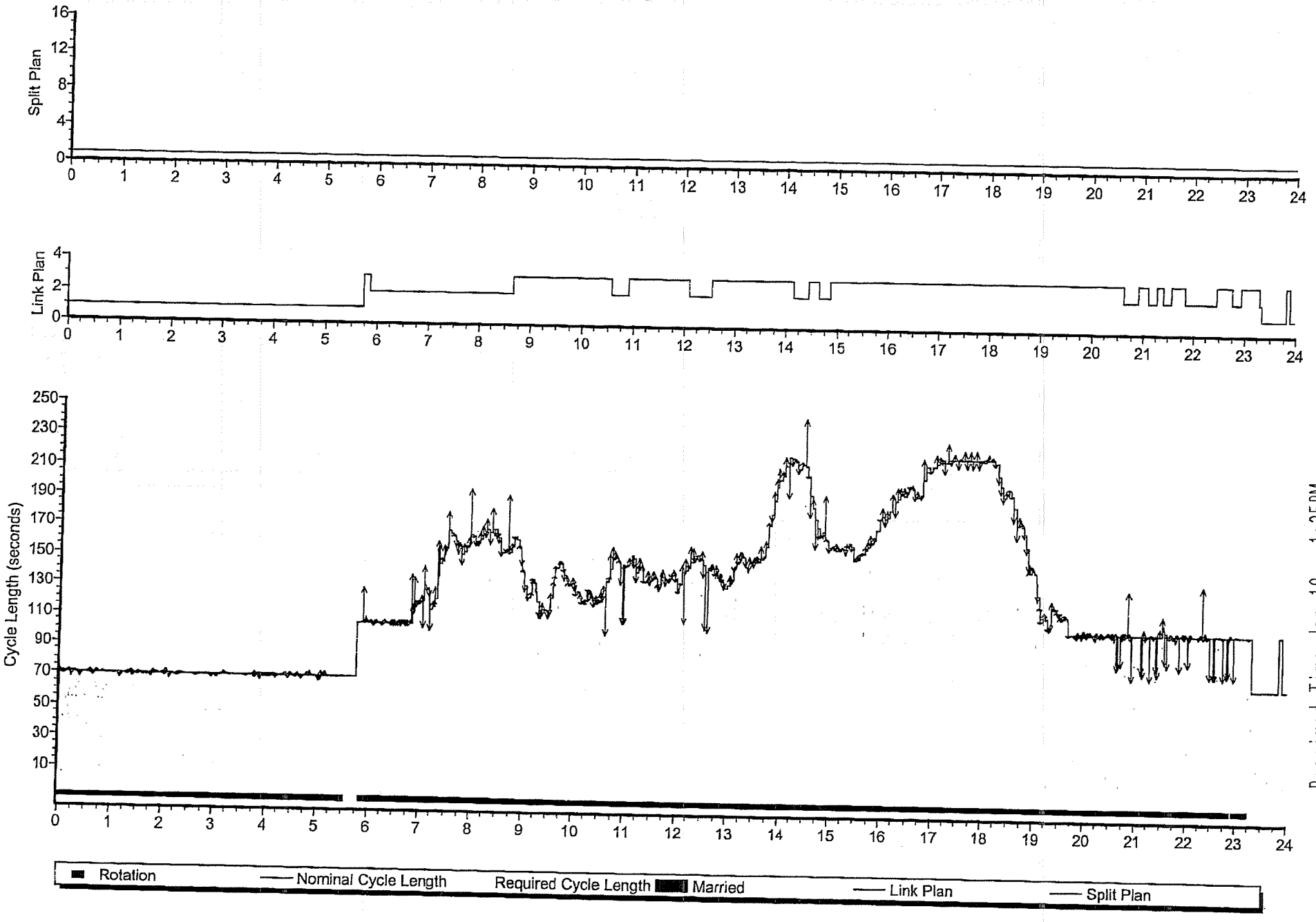


Received Time Jan. 18. 1:35PM

SCATS Traffic Reporter
Cycle Length On Thursday 08 December 2005 filename:PASCO1_20051208.sm

12/8/05

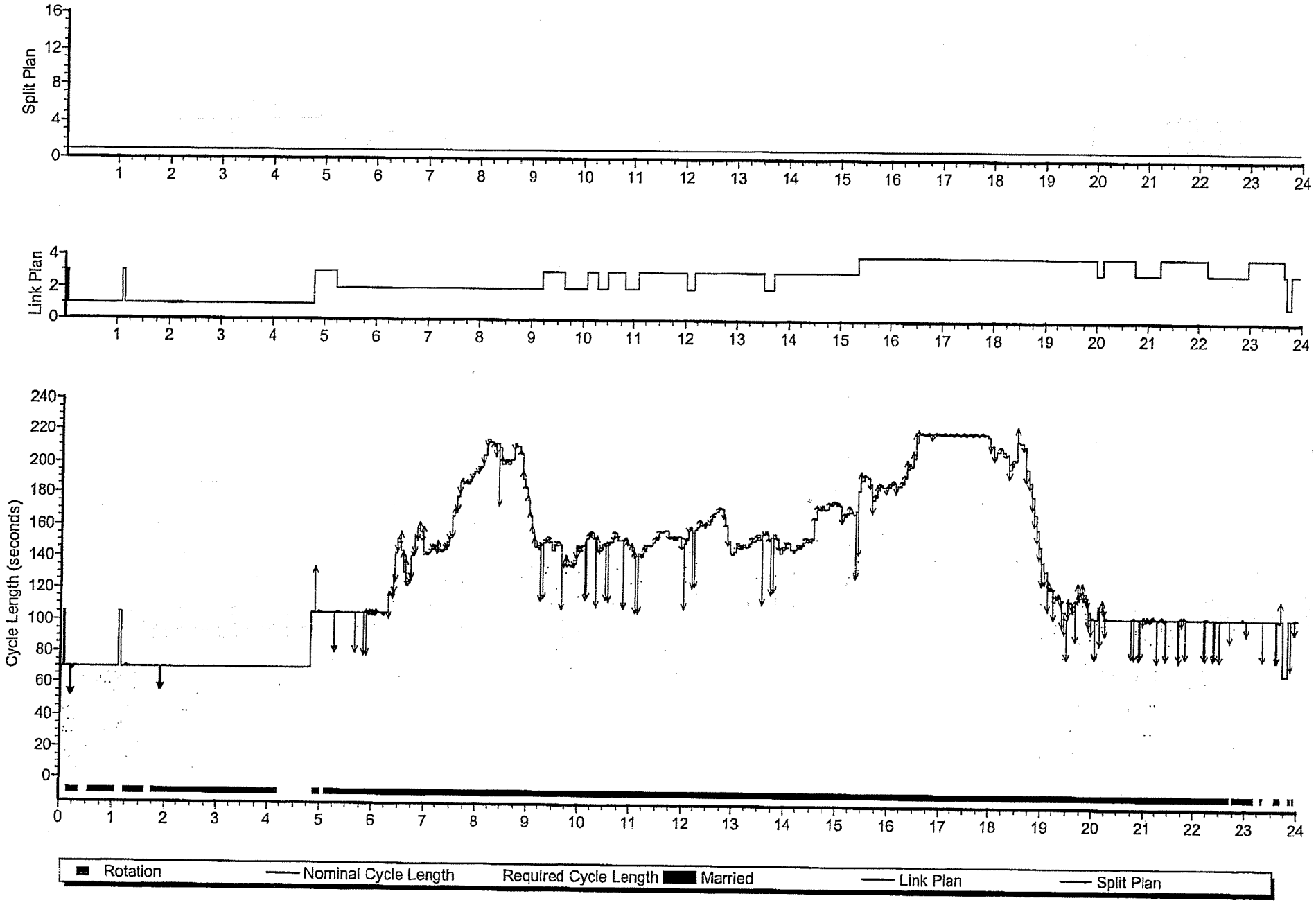
Subsystem 10



Received Time Jan. 18. 1:35PM

Jan 18 06 02:16p Pasco County Traffic (727) 815-7014 p.3

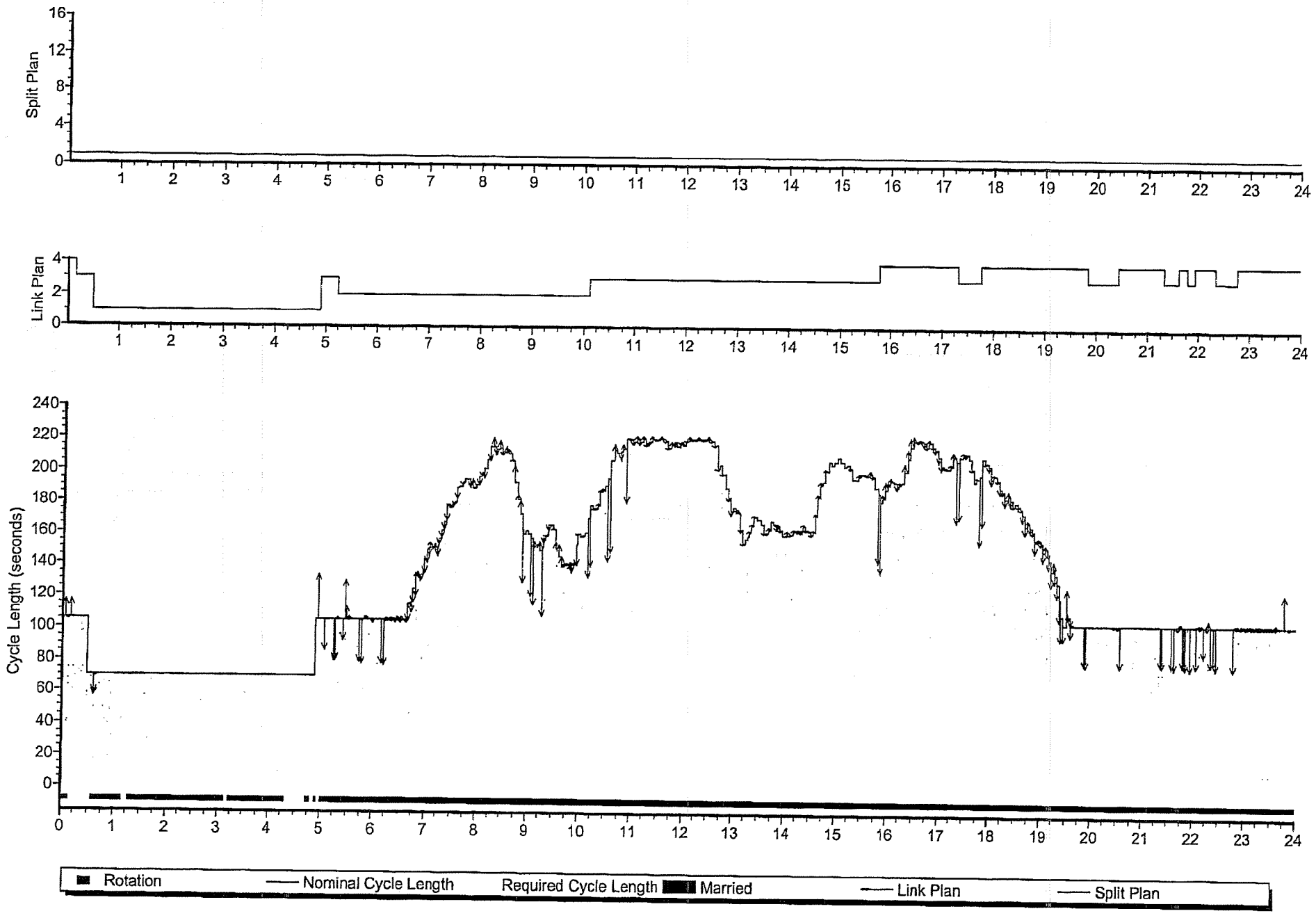
Subsystem 2



Received Time Jan. 18. 1:35PM

Jan 18 06 02:16p Pasco County Traffic (727) 815-7014 p.4

Subsystem 2



Received Time Jan. 18. 1:35PM

WO#: **595** LAST UPDATE: 10/9/2002

LOCATIO **US19 & GRAND BLVD (CR595)**

CONT: 3000 SER#: 137018 TYPE: SIG REPAIR 4

MONITOR 12ELRA SER#: SOP: 7

POWER PE ACCT: 57694 22349

DETQUAN: 4 DETDELAY:

OTHER1: 2 CH.RACK MOUNT DET.

OTHER2:

OPTICOM: YES

ENFORCEMENT NO

MASTARMS: YES

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1	SB LEFT	**5**	**3**	**4.3**		**23**				**1**			**X**				**R**
2	NB THRU	**20**	**5**	**4.3**	**0.9**	**90**		**7**	**11**	**2**	**X**			**X**			**Y**
3										**3**							
4	E&W THRU	**5**	**3**	**4**	**2**	**25**		**7**	**28**	**4**				**X**			**R**
5	NB LEFT	**5**	**3**	**4.3**		**13**				**5**			**X**				**R**
6	SB THRU	**20**	**5**	**4.3**	**0.9**	**90**		**7**	**11**	**6**	**X**			**X**			**Y**
7										**7**							
8										**8**						**X/4**	

OVERLAP A

B

C

C

D

NOTE

FLASH TIMES

FROM:

TO:

SYSTEM

SYS# 3

ID#: 1

JURIS: FDOT

VALUE: 150,000

POLE DATA

CORNER1:

CORNER2:

CORNER3:

CORNER4:

3000 Database Printout
Intersection: US19 & GRAND BLVD. (#01)
Filename: DATA\INT#0301.3K [DISK FILE] 01-18-2006 10:00:45

START - DATA\INT#0301.3K [DISK FILE]

PHASE ALLOCATIONS:

RANGE: 0-100 percent (%-secs programmed in Operating Modes)

RING	1	1	1	1	2	2	2	2	0	0	0	0	0	0	0	0
PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SPLIT 1 /	13	71	0	16	10	74	0	16	0	0	0	0	0	0	0	0
C1-S1	Totals		R1	100			R2	100			R3	0			R4	0
SPLIT 2 /	16	70	0	14	11	75	0	14	0	0	0	0	0	0	0	0
C1-S2				100				100				0				0
SPLIT 3 /	16	67	0	17	11	72	0	17	0	0	0	0	0	0	0	0
C1-S3				100				100				0				0
SPLIT 4 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C1-S4				0				0				0				0
SPLIT 5 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S1				0				0				0				0
SPLIT 6 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S2				0				0				0				0
SPLIT 7 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S3				0				0				0				0
SPLIT 8 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S4				0				0				0				0
SPLIT 9 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S1	Totals		R1	0			R2	0			R3	0			R4	0
SPLIT 10/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S2				0				0				0				0
SPLIT 11/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S3				0				0				0				0
SPLIT 12/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S4				0				0				0				0
SPLIT 13/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S1				0				0				0				0
SPLIT 14/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S2				0				0				0				0
SPLIT 15/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S3				0				0				0				0
SPLIT 16/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S4				0				0				0				0
SPLIT 17/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S1	Totals		R1	0			R2	0			R3	0			R4	0
SPLIT 18/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S2				0				0				0				0
SPLIT 19/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S3				0				0				0				0
SPLIT 20/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S4				0				0				0				0
SPLIT 21/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C6-S1				0				0				0				0
SPLIT 22/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C6-S2				0				0				0				0
SPLIT 23/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

```
 C6-S3                    0                 0                 0                 0
 SPLIT 24/   0   0   0    0   0   0   0     0   0   0   0     0   0   0   0     0
 C6-S4                    0                 0                 0                 0
ÍÍÍ
```

WO#: **521** LAST UPDATE: 12/30/2005

LOCATIO **US19 & RIDGE RD (CR524)**

CONT:	3000	SER#:	6837	TYPE:		SIG	REPAIR 1
MONITOR	12ELRA	SER#:	3099919	SOP:		10	
				POWER		PE	ACCT: 15559 89360

DETQUAN: 6 DETDELAY:

OTHER1:

OTHER2:

OPTICOM: YES

ENFORCEMENT NO

MASTARMS: YES

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1	SB LEFT	**5**	**3**	**4.3**		**20**				**1**			**X**				**R**
2	NB THRU	**20**	**5**	**4.3**	**1.8**	**66**		**7**	**27**	**2**	**X**			**X**			**Y**
3										**3**						**ASSN 8**	
4	EB	**5**	**3**	**4.4**	**2.5**	**20**				**4**			**X**				**R**
5	NB LEFT	**5**	**3**	**4.3**		**15**				**5**			**X**				**R**
6	SB THRU	**20**	**5**	**4.3**	**1.8**	**66**		**7**	**27**	**6**	**X**			**X**			**Y**
7										**7**						**ASSN 4**	
8	WB	**10**	**3**	**4.3**	**2.5**	**25**		**7**	**33**	**8**			**X**				**R**

OVERLAP A
B
C
C
D

FLASH TIMES
FROM:
TO:

SYSTEM
SYS# 3
ID#: 2

JURIS: FDOT
VALUE: 150,000

NOTE

PHASE 1 IS A LAGGING LEFT TURN. 8 SEC. DELAY ON EB/EBRT (L4). 3 SEC. DELAY ON EBLT (L7) AND EBLT/THRU (L7). PHASE 4 PUT ON MEMORY, CARS GOING OVER STOP BAR.

POLE DATA

CORNER1:
CORNER2:
CORNER3:
CORNER4:

3000 Database Printout
Intersection: US19 & RIDGE RD. (#02)
Filename: DATA\INT#0302.3K [DISK FILE] 01-18-2006 10:05:46

START - DATA\INT#0302.3K [DISK FILE]

PHASE ALLOCATIONS:

RANGE: 0-100 percent (%-secs programmed in Operating Modes)

RING	1	1	1	1	2	2	1	1	0	0	0	0	0	0	0	0
PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SPLIT 1 /	14	46	0	15	11	49	0	25	0	0	0	0	0	0	0	0
C1-S1	Totals		R1	100			R2	60			R3	0			R4	0
SPLIT 2 /	16	45	0	18	13	48	0	21	0	0	0	0	0	0	0	0
C1-S2				100				61				0				0
SPLIT 3 /	17	44	0	19	12	49	0	20	0	0	0	0	0	0	0	0
C1-S3				100				61				0				0
SPLIT 4 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C1-S4				0				0				0				0
SPLIT 5 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S1				0				0				0				0
SPLIT 6 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S2				0				0				0				0
SPLIT 7 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S3				0				0				0				0
SPLIT 8 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S4				0				0				0				0
SPLIT 9 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S1	Totals		R1	0			R2	0			R3	0			R4	0
SPLIT 10/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S2				0				0				0				0
SPLIT 11/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S3				0				0				0				0
SPLIT 12/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S4				0				0				0				0
SPLIT 13/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S1				0				0				0				0
SPLIT 14/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S2				0				0				0				0
SPLIT 15/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S3				0				0				0				0
SPLIT 16/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S4				0				0				0				0
SPLIT 17/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S1	Totals		R1	0			R2	0			R3	0			R4	0
SPLIT 18/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S2				0				0				0				0
SPLIT 19/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S3				0				0				0				0
SPLIT 20/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S4				0				0				0				0
SPLIT 21/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C6-S1				0				0				0				0
SPLIT 22/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C6-S2				0				0				0				0
SPLIT 23/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

```
 C6-S3                    0                   0                   0                   0
 SPLIT 24/   0   0   0    0   0   0   0    0   0   0   0    0   0   0   0    0
 C6-S4                    0                   0                   0                   0
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```

WO#: **522** LAST UPDATE: 10/8/2002

LOCATIO **US19 & HOLIDAY HILL**

CONT:	3000	SER#:	6905	TYPE:	SIG	REPAIR	3
MONITOR	12ELRA	SER#:	30999028	SOP:	7		
				POWER		PE ACCT:	49309 36159

DETQUAN: 4 DETDELAY: 2

OTHER1: RACK MOUNT DETECTORS

OTHER2:

OPTICOM: YES

ENFORCEMENT NO

MASTARMS: YES

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1	SB LEFT	5	3	4.3		14				1			X				R
2	NB THRU	20	5	4.3	1.8	80		7	41	2	X			X			Y
3										3						X/4	
4	E&W THRU	5	3	4	2.5	25		7	36	4			X				R
5	NB LEFT	5	3	4.3		32				5			X				R
6	SB THRU	20	5	4.3	1.8	80		7	41	6	X			X			Y
7										7						X/4	
8										8						X/4	

OVERLAP A
B
C
C
D

FLASH TIMES
FROM: 0000
TO: 0500

SYSTEM
SYS# 3
ID#: 3

JURIS: FDOT
VALUE: 150,000

NOTE

PROTECTED LEFT TURN. L6 (SB MIDDLE) LOOP BAD. 10 SEC DELAY ON DETECTOR L4 & L8.

POLE DATA

CORNER1:
CORNER2:
CORNER3:
CORNER4:

3000 Database Printout
Intersection: US19 & HOLIDAY BLVD. (#03)
Filename: DATA\INT#0303.3K [DISK FILE] 01-18-2006 10:06:40

START - DATA\INT#0303.3K [DISK FILE]

PHASE ALLOCATIONS:

RANGE: 0-100 percent (%-secs programmed in Operating Modes)

RING	1	1	1	1	2	2	2	2	0	0	0	0	0	0	0	0
PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SPLIT 1 /	10	74	0	16	11	73	0	16	0	0	0	0	0	0	0	0
C1-S1	Totals		R1	100			R2	100			R3	0			R4	0
SPLIT 2 /	10	74	0	16	11	73	0	16	0	0	0	0	0	0	0	0
C1-S2				100				100				0				0
SPLIT 3 /	10	72	0	18	18	64	0	18	0	0	0	0	0	0	0	0
C1-S3				100				100				0				0
SPLIT 4 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C1-S4				0				0				0				0
SPLIT 5 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S1				0				0				0				0
SPLIT 6 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S2				0				0				0				0
SPLIT 7 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S3				0				0				0				0
SPLIT 8 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S4				0				0				0				0
SPLIT 9 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S1	Totals		R1	0			R2	0			R3	0			R4	0
SPLIT 10/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S2				0				0				0				0
SPLIT 11/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S3				0				0				0				0
SPLIT 12/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S4				0				0				0				0
SPLIT 13/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S1				0				0				0				0
SPLIT 14/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S2				0				0				0				0
SPLIT 15/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S3				0				0				0				0
SPLIT 16/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S4				0				0				0				0
SPLIT 17/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S1	Totals		R1	0			R2	0			R3	0			R4	0
SPLIT 18/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S2				0				0				0				0
SPLIT 19/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S3				0				0				0				0
SPLIT 20/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S4				0				0				0				0
SPLIT 21/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C6-S1				0				0				0				0
SPLIT 22/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C6-S2				0				0				0				0
SPLIT 23/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

```
 C6-S3                    0                   0                   0                   0
 SPLIT 24/   0   0   0    0   0   0   0   0   0   0   0   0   0   0   0   0   0
 C6-S4                    0                   0                   0                   0
ÍÍÍ
```

WO#: **523** LAST UPDATE: 10/18/2002

LOCATIO **US19 & EMBASSY**

CONT: 3000 SER#: 6837 TYPE: SIG REPAIR 1

MONITOR 12ELRA SER#: 4159901 SOP: 10

POWER PE ACCT: 80641 33088

DETQUAN: 7 DETDELAY: 1 OPTICOM: YES

OTHER1: ENFORCEMENT NO

OTHER2: MASTARMS: YES

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1	SB LEFT	**5**	**3**	**4.3**		**20**				**1**			**X**				**R**
2	NB THRU	**20**	**5**	**4.3**	**1.6**	**62**		**7**	**28**	**2**	**X**			**X**			**Y**
3	WB LEFT	**5**	**3**	**4.9**		**30**				**3**			**X**				
4	EB THRU	**5**	**3**	**4.9**	**2**	**25**				**4**				**X**			**R**
5	NB LEFT	**5**	**3**	**4.3**		**20**				**5**			**X**				**R**
6	SB THRU	**20**	**5**	**4.3**	**1.6**	**62**		**5**		**6**	**X**			**X**			**Y**
7	EB LEFT	**5**	**3**	**4.9**		**30**				**7**			**X**				
8	WB THRU	**5**	**3**	**4.9**	**2**	**25**		**5**	**31**	**8**				**X**			**R**

OVERLAP A FLASH TIMES SYSTEM JURIS: FDOT

B FROM: SYS# 3 VALUE: 150,000

C TO: ID#: 4

C NOTE

D PROTECTED LEFT TURNS. 10 SEC DELAY ON PHASE 4 & 8 RIGHT TURN DETECTORS.

POLE DATA

CORNER1:

CORNER2:

CORNER3:

CORNER4:

3000 Database Printout
Intersection: US19 & EMBASSY BLVD. (#04)
Filename: DATA\INT#0304.3K [DISK FILE] 01-18-2006 10:07:21

START - DATA\INT#0304.3K [DISK FILE]

PHASE ALLOCATIONS:

RANGE: 0-100 percent (%-secs programmed in Operating Modes)

RING	1	1	1	1	2	2	2	2	0	0	0	0	0	0	0	0
PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SPLIT 1 /	13	59	18	10	10	62	13	15	0	0	0	0	0	0	0	0
C1-S1	Totals		R1	100			R2	100			R3	0			R4	0
SPLIT 2 /	13	57	19	11	14	56	12	18	0	0	0	0	0	0	0	0
C1-S2				100				100				0				0
SPLIT 3 /	16	50	16	18	15	51	15	19	0	0	0	0	0	0	0	0
C1-S3				100				100				0				0
SPLIT 4 /	15	53	14	18	15	53	14	18	0	0	0	0	0	0	0	0
C1-S4				100				100				0				0
SPLIT 5 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S1				0				0				0				0
SPLIT 6 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S2				0				0				0				0
SPLIT 7 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S3				0				0				0				0
SPLIT 8 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S4				0				0				0				0
SPLIT 9 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S1	Totals		R1	0			R2	0			R3	0			R4	0
SPLIT 10/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S2				0				0				0				0
SPLIT 11/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S3				0				0				0				0
SPLIT 12/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S4				0				0				0				0
SPLIT 13/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S1				0				0				0				0
SPLIT 14/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S2				0				0				0				0
SPLIT 15/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S3				0				0				0				0
SPLIT 16/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S4				0				0				0				0
SPLIT 17/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S1	Totals		R1	0			R2	0			R3	0			R4	0
SPLIT 18/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S2				0				0				0				0
SPLIT 19/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S3				0				0				0				0
SPLIT 20/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S4				0				0				0				0
SPLIT 21/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C6-S1				0				0				0				0
SPLIT 22/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C6-S2				0				0				0				0
SPLIT 23/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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 C6-S3                    0                   0                   0                   0
 SPLIT 24/   0   0   0    0   0   0   0   0   0   0   0   0   0   0   0   0   0
 C6-S4                    0                   0                   0                   0
ÍÍÍ
```

WO#: **625** LAST UPDATE: 11/4/2005

LOCATIO **US19 & SCENIC**

CONT: 3000 SER#: 6795 TYPE: SIG REPAIR 3

MONITOR 12ELRA SER#: 4209906 SOP: 10

POWER PE ACCT: 08859 90483

DETQUAN: 8 DETDELAY: OPTICOM: YES

OTHER1: ENFORCEMENT NO

OTHER2: MASTARMS: YES

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1	SB LEFT	**5**	**3**	**4**	**1.5**	**18**				**1**			**X**				**R**
2	NB THRU	**20**	**5**	**4.5**	**2**	**80**		**5**		**2**	**X**			**X**	**X**		**Y**
3	WB LEFT	**5**	**3**	**4**	**1.5**	**12**				**3**			**X**				**R**
4	EB THRU	**5**	**3**	**4**	**2.5**	**20**		**5**	**40**	**4**				**X**			**R**
5	NB LEFT	**5**	**3**	**4**	**1.5**	**18**				**5**			**X**				**R**
6	SB THRU	**20**	**5**	**4.5**	**2**	**80**				**6**	**X**			**X**	**X**		**Y**
7	EB LEFT	**5**	**3**	**4**	**1.5**	**12**				**7**			**X**				**R**
8	WB THRU	**5**	**3**	**4**	**2.5**	**20**				**8**				**X**			**R**

OVERLAP A

B

C

C

D

NOTE

FLASH TIMES

FROM: 0000

TO: 0500

SYSTEM

SYS# 3

ID#: 5

JURIS: FDOT

VALUE: 150,000

POLE DATA

CORNER1:

CORNER2:

CORNER3:

CORNER4:

3000 Database Printout
Intersection: US19 & SCENIC DR. (#05)
Filename: DATA\INT#0305.3K [DISK FILE] 01-18-2006 10:08:39

START - DATA\INT#0305.3K [DISK FILE]

PHASE ALLOCATIONS:

RANGE: 0-100 percent (%-secs programmed in Operating Modes)

RING	1	1	1	1	2	2	2	2	0	0	0	0	0	0	0	0
PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SPLIT 1 /	11	66	12	11	11	66	12	11	0	0	0	0	0	0	0	0
C1-S1	Totals		R1	100			R2	100			R3	0			R4	0
SPLIT 2 /	19	52	14	15	14	57	16	13	0	0	0	0	0	0	0	0
C1-S2				100				100				0				0
SPLIT 3 /	15	56	14	15	14	57	14	15	0	0	0	0	0	0	0	0
C1-S3				100				100				0				0
SPLIT 4 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C1-S4				0				0				0				0
SPLIT 5 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S1				0				0				0				0
SPLIT 6 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S2				0				0				0				0
SPLIT 7 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S3				0				0				0				0
SPLIT 8 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S4				0				0				0				0
SPLIT 9 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S1	Totals		R1	0			R2	0			R3	0			R4	0
SPLIT 10/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S2				0				0				0				0
SPLIT 11/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S3				0				0				0				0
SPLIT 12/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S4				0				0				0				0
SPLIT 13/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S1				0				0				0				0
SPLIT 14/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S2				0				0				0				0
SPLIT 15/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S3				0				0				0				0
SPLIT 16/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S4				0				0				0				0
SPLIT 17/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S1	Totals		R1	0			R2	0			R3	0			R4	0
SPLIT 18/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S2				0				0				0				0
SPLIT 19/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S3				0				0				0				0
SPLIT 20/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S4				0				0				0				0
SPLIT 21/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C6-S1				0				0				0				0
SPLIT 22/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C6-S2				0				0				0				0
SPLIT 23/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

```
 C6-S3                    0                   0                   0                   0
 SPLIT 24/   0   0   0    0   0   0   0   0   0   0   0   0   0   0   0   0   0
 C6-S4                    0                   0                   0                   0
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```

WO#: **624** LAST UPDATE: 7/7/2003

LOCATIO **US19 & FOX HOLLOW**

CONT:	3000	SER#:	5303	TYPE:	SIG	REPAIR	2
MONITOR	12ELRA	SER#:	4209907	SOP:	7		
				POWER	PE	ACCT:	08848 38402

DETQUAN: 4 DETDELAY: 2

OTHER1: RACK DET.

OTHER2:

OPTICOM: YES

ENFORCEMENT YES

MASTARMS: NO

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1	SB LEFT	**5**	**3**	**4.3**		**15**				**1**			**X**				**R**
2	NB THRU	**20**	**5**	**4.3**	**1**	**89**		**7**	**19**	**2**	**X**			**X**	**X**		**Y**
3										**3**							
4	E&W THRU	**5**	**3**	**4.9**	**2**	**35**		**7**	**32**	**4**			**X**				**R**
5	NB LEFT	**5**	**3**	**4.3**		**25**				**5**			**X**				**R**
6	SB THRU	**20**	**5**	**4.3**	**1**	**89**		**5**		**6**	**X**			**X**	**X**		**Y**
7										**7**							
8										**8**						**X/4**	

OVERLAP A
B
C
C
D

FLASH TIMES
FROM: 0000
TO: 0500

SYSTEM
SYS# 3
ID#: 6

JURIS: FDOT
VALUE: 150,000

NOTE

PROTECTED LEFT TURNS. 10 SEC DELAYS ON EB & WB PHASE 4 DETECTORS.

POLE DATA

CORNER1:
CORNER2:
CORNER3:
CORNER4:

3000 Database Printout
Intersection: US19 & FOX HOLLOW DR. (#06)
Filename: DATA\INT#0306.3K [DISK FILE] 01-18-2006 10:09:46

START - DATA\INT#0306.3K [DISK FILE]

PHASE ALLOCATIONS:

RANGE: 0-100 percent (%-secs programmed in Operating Modes)

RING	1	1	1	1	2	2	2	2	0	0	0	0	0	0	0	0
PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SPLIT 1 /	10	61	0	29	15	56	0	29	0	0	0	0	0	0	0	0
C1-S1	Totals		R1	100			R2	100			R3	0			R4	0
SPLIT 2 /	10	67	0	23	19	58	0	23	0	0	0	0	0	0	0	0
C1-S2				100				100				0				0
SPLIT 3 /	11	65	0	24	18	58	0	24	0	0	0	0	0	0	0	0
C1-S3				100				100				0				0
SPLIT 4 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C1-S4				0				0				0				0
SPLIT 5 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S1				0				0				0				0
SPLIT 6 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S2				0				0				0				0
SPLIT 7 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S3				0				0				0				0
SPLIT 8 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S4				0				0				0				0
SPLIT 9 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S1	Totals		R1	0			R2	0			R3	0			R4	0
SPLIT 10/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S2				0				0				0				0
SPLIT 11/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S3				0				0				0				0
SPLIT 12/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S4				0				0				0				0
SPLIT 13/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S1				0				0				0				0
SPLIT 14/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S2				0				0				0				0
SPLIT 15/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S3				0				0				0				0
SPLIT 16/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S4				0				0				0				0
SPLIT 17/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S1	Totals		R1	0			R2	0			R3	0			R4	0
SPLIT 18/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S2				0				0				0				0
SPLIT 19/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S3				0				0				0				0
SPLIT 20/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S4				0				0				0				0
SPLIT 21/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C6-S1				0				0				0				0
SPLIT 22/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C6-S2				0				0				0				0
SPLIT 23/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

```
 C6-S3                    0                   0                   0                   0
 SPLIT 24/   0   0   0    0   0   0   0   0   0   0   0   0   0   0   0   0   0
 C6-S4                    0                   0                   0                   0
```

CYCLE/DWELL-MIN CYCLE/OFFSETS:

Cycles for Out-Of-Step: 3

CYCLE	1	2	3	4	5	6
CYCLE LENGTH	140	120	0	0	0	0
MAX DWELL or MIN CYCLES	100	100	0	0	0	0
OFFSET 1	79	0	0	0	0	0
OFFSET 2	23	0	0	0	0	0
OFFSET 3	20	0	0	0	0	0
OFFSET 4	0	0	0	0	0	0
OFFSET 5	0	0	0	0	0	0

OFFSET RANGE: 0-100 percent
(%-secs programmed in Operating Modes)

SPLIT MATRIX:

		CYCLE					
		1	2	3	4	5	6
OFFSET	1	1	4	0	0	0	0
	2	2	0	0	0	0	0
	3	3	0	0	0	0	0
	4	0	0	0	0	0	0
	5	0	0	0	0	0	0

ENTER A SPLIT VALUE (0-24)
(4 Splits/Cycle="N" - Operating Modes)

TOD DAY PLAN EVENTS:

PLAN	HH:MM	CKT PLAN	C/O/S	CKT-ON/OFF	
1	00:00			RFL	ON
1	00:00	2			
1	05:00			RFL	OFF
1	06:00			WRM	ON
1	06:00		1/1/4		
1	06:00	1			
1	09:00		1/2/4		
1	12:00		1/3/4		
1	22:00			WRM	OFF
1	22:00	2			
2	00:00			RFL	ON
2	00:00	2			
2	05:00			RFL	OFF
2	06:00			WRM	ON
2	06:00		1/2/4		
2	06:00	1			
2	22:00			WRM	OFF
2	22:00	2			

END - DATA\INT#0306.3K [DISK FILE]

WO#: **621** LAST UPDATE: 10/9/2003

LOCATIO **US19 & REGENCY PARK (CR77)**

CONT: 3000 SER#: 9593 TYPE: SIG REPAIR 2

MONITOR 12ELRA SER#: 3099922 SOP: 9

POWER WREC ACCT: 6932 010 583

DETQUAN: 4 DETDELAY: 1 OPTICOM: YES

OTHER1: M3000 MASTER ,MODEM ENFORCEMENT NO

OTHER2: RACK MOUNT DET. MASTARMS: YES

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1	SB LEFT	**5**	**3**	**4.3**		**18**	**40**			**1**			**X**				**R**
2	NB THRU	**20**	**5**	**4.5**	**1.4**	**60**	**40**	**5**	**24**	**2**	**X**			**X**			**Y**
3										**3**						**X/8**	
4	EB	**5**	**3**	**4.4**	**2.4**	**25**	**40**	**5**	**34**	**4**				**X**			**R**
5	NB LEFT	**5**	**3**	**4.3**		**18**	**40**			**5**			**X**				**R**
6	SB THRU	**20**	**5**	**4.5**	**1.4**	**60**	**40**	**5**	**24**	**6**	**X**			**X**			**Y**
7										**7**						**X/4**	
8	WB	**10**	**3**	**4.4**	**2.4**	**25**	**40**			**8**				**X**			**R**

OVERLAP A

B

C

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D

FLASH TIMES FROM: 2400 TO: 0500

SYSTEM SYS# 3 ID#: 7

JURIS: FDOT VALUE: 150,000

NOTE

PHASE 8 DETECTOR IS WB RIGHT TURN WITH 10 SEC. DELAY.

POLE DATA

CORNER1:

CORNER2:

CORNER3:

CORNER4:

3000 Database Printout
Intersection: US19 & REGENCY PARK BLVD.(#07)
Filename: DATA\INT#0307.3K [DISK FILE] 01-18-2006 10:10:43

START - DATA\INT#0307.3K [DISK FILE]
ÍÍÍ

```
 C6-S3                    0                   0                   0                   0
 SPLIT 24/   0   0   0    0   0   0   0   0   0   0   0   0   0   0   0   0   0
 C6-S4                    0                   0                   0                   0
ÍÍÍ
```

WO#: **524** LAST UPDATE: 5/5/2004

LOCATIO **US19 & JASMINE**

CONT: 3000 SER#: 10503 TYPE: SIG REPAIR 1

MONITOR 12ELRA SER#: 1120022 SOP: 9

POWER PE ACCT: 08756 21766

DETQUAN: 5 DETDELAY: 1 OPTICOM: YES

OTHER1: RACK MOUNT DETECTORS ENFORCEMENT NO

OTHER2: MASTARMS: NO

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1	SBLT	**6**	**3**	**4.3**	**2**	**25**	**40**			**1**			**X**				**R**
2	NB THRU	**20**	**5**	**4.3**	**2**	**88**	**60**	**4**	**23**	**2**	**X**			**X**			**Y**
3	WB	**10**	**3**	**5**	**2**	**25**	**35**	**4**	**26**	**3**				**X**			**R**
4	EB	**10**	**3**	**5**	**2**	**25**	**35**	**4**	**31**	**4**				**X**			**R**
5	NBLT	**6**	**3**	**4.3**	**2**	**25**	**40**			**5**			**X**				**R**
6	SB THRU	**20**	**5**	**4.3**	**2**	**88**	**60**	**4**	**13**	**6**	**X**			**X**			**Y**
7										**7**						**ASSN 4**	
8										**8**						**ASSN 3**	

OVERLAP A

B

C

C

D

FLASH TIMES FROM: 0000 TO: 0500

SYSTEM SYS# 3 ID#: 8

JURIS: FDOT VALUE: 150,000

NOTE

WBRT - 10 SEC DELAY, EBLT - 3 SEC DELAY, (DELAYS DONE IN CONTROLLER) EBRT - 10 SEC. DELAY (DELAY DETECTOR).

POLE DATA

CORNER1:

CORNER2:

CORNER3:

CORNER4:

3000 Database Printout
Intersection: US19 & JASMINE BLVD. (#08)
Filename: DATA\INT#0308.3K [DISK FILE] 01-18-2006 10:11:32

START - DATA\INT#0308.3K [DISK FILE]

PHASE ALLOCATIONS:

RANGE: 0-100 percent (%-secs programmed in Operating Modes)

RING	1	1	1	1	2	2	2	2	0	0	0	0	0	0	0	0
PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SPLIT 1 /	12	58	16	14	10	60	16	14	0	0	0	0	0	0	0	0
C1-S1	Totals		R1	100			R2	100			R3	0			R4	0
SPLIT 2 /	14	46	21	19	10	50	21	19	0	0	0	0	0	0	0	0
C1-S2				100				100				0				0
SPLIT 3 /	13	52	15	20	10	55	15	20	0	0	0	0	0	0	0	0
C1-S3				100				100				0				0
SPLIT 4 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C1-S4				0				0				0				0
SPLIT 5 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S1				0				0				0				0
SPLIT 6 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S2				0				0				0				0
SPLIT 7 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S3				0				0				0				0
SPLIT 8 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S4				0				0				0				0
SPLIT 9 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S1	Totals		R1	0			R2	0			R3	0			R4	0
SPLIT 10/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S2				0				0				0				0
SPLIT 11/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S3				0				0				0				0
SPLIT 12/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S4				0				0				0				0
SPLIT 13/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S1				0				0				0				0
SPLIT 14/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S2				0				0				0				0
SPLIT 15/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S3				0				0				0				0
SPLIT 16/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S4				0				0				0				0
SPLIT 17/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S1	Totals		R1	0			R2	0			R3	0			R4	0
SPLIT 18/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S2				0				0				0				0
SPLIT 19/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S3				0				0				0				0
SPLIT 20/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S4				0				0				0				0
SPLIT 21/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C6-S1				0				0				0				0
SPLIT 22/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C6-S2				0				0				0				0
SPLIT 23/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

```
 C6-S3                    0                   0                   0                   0
 SPLIT 24/   0   0   0    0   0   0   0   0   0   0   0   0   0   0   0   0   0
 C6-S4                    0                   0                   0                   0
```

CYCLE/DWELL-MIN CYCLE/OFFSETS:

```
 # Cycles for Out-Of-Step:   3

 CYCLE            1    2    3    4    5    6
 CYCLE LENGTH   140   120    0    0    0    0
 MAX DWELL or   100   100    0    0    0    0
 MIN CYCLES
ÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄ
 OFFSET 1         80    0    0    0    0    0
 OFFSET 2         20    0    0    0    0    0
 OFFSET 3         20    0    0    0    0    0
 OFFSET 4          0    0    0    0    0    0
 OFFSET 5          0    0    0    0    0    0

 OFFSET RANGE: 0-100 percent
 (%-secs programmed in Operating Modes)
```

SPLIT MATRIX:

```
                    CYCLE
              1   2   3   4   5   6
         1    1   4   0   0   0   0
         2    2   0   0   0   0   0
 OFFSET  3    3   0   0   0   0   0
         4    0   0   0   0   0   0
         5    0   0   0   0   0   0

       ENTER A SPLIT VALUE (0-24)
 (4 Splits/Cycle="N" - Operating Modes)
```

TOD DAY PLAN EVENTS:

PLAN	HH:MM	CKT PLAN	C/O/S	CKT-ON/OFF
1	00:00			RFL ON
1	00:00	2		
1	05:00			RFL OFF
1	06:00			WRM ON
1	06:00		1/1/4	
1	06:00	1		
1	09:00		1/2/4	
1	12:00		1/3/4	
1	22:00			WRM OFF
1	22:00	2		
2	00:00			RFL ON
2	00:00	2		
2	05:00			RFL OFF
2	06:00			WRM ON
2	06:00		1/2/4	
2	06:00	1		
2	22:00			WRM OFF
2	22:00	2		

END - DATA\INT#0308.3K [DISK FILE]

WO#: **525** LAST UPDATE: 5/6/2004

LOCATIO **US19 & RANCH**

CONT: 3000 SER#: 10526 TYPE: SIG REPAIR 2

MONITOR 12ELRA SER#: 1120010 SOP: 7

POWER PE ACCT: 08691 41319

DETQUAN: 2 DETDELAY: 2 OPTICOM: YES

OTHER1: RACK MOUNT DETECTORS ENFORCEMENT NO

OTHER2: MASTARMS: NO

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1	SB LEFT	**6**	**3**	**3**	**3.2**	**25**	**40**			**1**			**X**				**R**
2	NB THRU	**20**	**5**	**5.1**	**1.4**	**90**	**60**	**7**	**24**	**2**	**X**			**X**	**X**		**Y**
3	WB LEFT	**5**	**3**	**3**	**2**	**15**	**20**			**3**				**X**		**X/8**	
4	EB THRU	**10**	**3**	**3**	**2.8**	**30**	**40**	**7**	**38**	**4**				**X**			**R**
5	NB LEFT	**6**	**3**	**3**	**3.2**	**13**	**40**			**5**			**X**				**R**
6	SB THRU	**20**	**5**	**5.1**	**1.4**	**90**	**60**	**7**	**24**	**6**	**X**			**X**	**X**		**Y**
7										**7**						**ASSN 4**	
8	WB THRU	**10**	**3**	**3**	**2.8**	**30**	**40**			**8**				**X**			**R**

OVERLAP A

B

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FLASH TIMES

FROM: 0000

TO: 0500

SYSTEM

SYS# 3

ID#: 9

JURIS: FDOT

VALUE: 150,000

NOTE

DUAL ENTRY ON PHASES 3,4,8.

POLE DATA

CORNER1:

CORNER2:

CORNER3:

CORNER4:

3000 Database Printout
Intersection: US19 & RANCH RD. (#09)
Filename: DATA\INT#0309.3K [DISK FILE] 01-18-2006 10:12:21

START - DATA\INT#0309.3K [DISK FILE]

PHASE ALLOCATIONS:

RANGE: 0-100 percent (%-secs programmed in Operating Modes)

RING	1	1	1	1	2	2	2	2	0	0	0	0	0	0	0	0
PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SPLIT 1 /	13	59	15	13	13	59	15	13	0	0	0	0	0	0	0	0
C1-S1	Totals		R1	100			R2	100			R3	0			R4	0
SPLIT 2 /	13	59	15	13	11	61	15	13	0	0	0	0	0	0	0	0
C1-S2				100				100				0				0
SPLIT 3 /	16	54	15	15	10	60	15	15	0	0	0	0	0	0	0	0
C1-S3				100				100				0				0
SPLIT 4 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C1-S4				0				0				0				0
SPLIT 5 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S1				0				0				0				0
SPLIT 6 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S2				0				0				0				0
SPLIT 7 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S3				0				0				0				0
SPLIT 8 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S4				0				0				0				0
SPLIT 9 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S1	Totals		R1	0			R2	0			R3	0			R4	0
SPLIT 10/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S2				0				0				0				0
SPLIT 11/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S3				0				0				0				0
SPLIT 12/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S4				0				0				0				0
SPLIT 13/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S1				0				0				0				0
SPLIT 14/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S2				0				0				0				0
SPLIT 15/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S3				0				0				0				0
SPLIT 16/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S4				0				0				0				0
SPLIT 17/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S1	Totals		R1	0			R2	0			R3	0			R4	0
SPLIT 18/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S2				0				0				0				0
SPLIT 19/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S3				0				0				0				0
SPLIT 20/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S4				0				0				0				0
SPLIT 21/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C6-S1				0				0				0				0
SPLIT 22/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C6-S2				0				0				0				0
SPLIT 23/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

```
 C6-S3                    0                   0                   0                   0
 SPLIT 24/   0   0   0    0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0
 C6-S4                    0                   0                   0                   0
ÍÍÍ
```

WO#: **526** LAST UPDATE: 10/31/2005

LOCATIO **US19 & SR52**

CONT: 3000 SER#: 11362 TYPE: SIG REPAIR 1

MONITOR 12ELRA SER#: SOP: 10

POWER WREC ACCT: 001

DETQUAN: 6 DETDELAY: 2 OPTICOM: YES

OTHER1: RACK DETECTORS ENFORCEMENT YES

OTHER2: MASTARMS: NO

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1	SB LEFT	**5**	**4**	**5**	**2**	**20**				**1**			**X**				**R**
2	NB THRU	**20**	**5**	**5**	**2**	**65**		**10**	**23**	**2**	**X**			**X**			**Y**
3										**3**						**ASSN/8**	
4	EB THRU/LT	**8**	**4**	**5**	**1.5**	**30**		**10**	**32**	**4**				**X**			**R**
5	NB LEFT	**5**	**4**	**5**	**2**	**20**				**5**			**X**				**R**
6	SB THRU	**20**	**5**	**5**	**2**	**65**		**10**	**23**	**6**	**X**			**X**			**Y**
7										**7**						**ASSN/4**	
8	WB THRU/LT	**8**	**4**	**5**	**1.5**	**30**		**10**	**32**	**8**				**X**			**R**

OVERLAP A

B

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C

D

FLASH TIMES FROM: TO:

SYSTEM SYS# 3 ID#: 10

JURIS: FDOT VALUE: 150,000

NOTE

10 SEC DELAY ON WBRT & EBRT.

POLE DATA

CORNER1:

CORNER2:

CORNER3:

CORNER4:

WO#: **615** LAST UPDATE: 8/20/2003

LOCATIO **US19 & BEACONWOODS**

CONT:	3000	SER#:	10527	TYPE:		SIG REPAIR	2
MONITOR	1200	SER#:	11894	SOP:	12		
				POWER		WREC ACCT:	6932 010 261

DETQUAN: 4 DETDELAY: 2 OPTICOM: YES

OTHER1: RACK DETECTORS ENFORCEMENT NO

OTHER2: MASTARMS: NO

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1	SB LEFT	**6**	**4**	**3**	**2.8**	**25**				**1**			**X**				**R**
2	NB THRU	**20**	**6**	**5.1**	**1.3**	**93**		**7**	**23**	**2**	**X**			**X**			**Y**
3										**3**						**ASSN 8**	
4	EB THRU	**10**	**5**	**3.8**	**2.3**	**25**				**4**			**X**				**R**
5										**5**						**ASSN 2**	
6	SB THRU	**20**	**6**	**5.1**	**1.3**	**93**				**6**	**X**			**X**			**Y**
7										**7**							
8	WB THRU	**10**	**5**	**3.8**	**2.3**	**25**		**7**	**34**	**8**			**X**				**R**

OVERLAP A

B

C

C

D

FLASH TIMES FROM: 2400 TO: 0500

SYSTEM SYS# 3 ID#: 11

JURIS: FDOT VALUE: 125,000

NOTE

PHASE 4 & 8 PROGRAMMED FOR DUAL ENTRY. WBLT - 3 SEC DELAY, WBRT - 6 SEC DELAY, EB - 6 SEC DELAY

POLE DATA

CORNER1:

CORNER2:

CORNER3:

CORNER4:

3000 Database Printout
Intersection: US19 & BEACON WOODS DR. (#11)
Filename: DATA\INT#0311.3K [DISK FILE] 01-18-2006 10:14:02

START - DATA\INT#0311.3K [DISK FILE]

PHASE ALLOCATIONS:

RANGE: 0-100 percent (%-secs programmed in Operating Modes)

RING	1	1	1	1	2	2	2	2	0	0	0	0	0	0	0	0
PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SPLIT 1 /	14	64	0	22	0	78	0	22	0	0	0	0	0	0	0	0
C1-S1	Totals		R1	100			R2	100			R3	0			R4	0
SPLIT 2 /	14	64	0	22	0	78	0	22	0	0	0	0	0	0	0	0
C1-S2				100				100				0				0
SPLIT 3 /	14	64	0	22	0	78	0	22	0	0	0	0	0	0	0	0
C1-S3				100				100				0				0
SPLIT 4 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C1-S4				0				0				0				0
SPLIT 5 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S1				0				0				0				0
SPLIT 6 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S2				0				0				0				0
SPLIT 7 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S3				0				0				0				0
SPLIT 8 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2-S4				0				0				0				0
SPLIT 9 /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S1	Totals		R1	0			R2	0			R3	0			R4	0
SPLIT 10/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S2				0				0				0				0
SPLIT 11/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S3				0				0				0				0
SPLIT 12/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3-S4				0				0				0				0
SPLIT 13/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S1				0				0				0				0
SPLIT 14/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S2				0				0				0				0
SPLIT 15/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S3				0				0				0				0
SPLIT 16/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4-S4				0				0				0				0
SPLIT 17/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S1	Totals		R1	0			R2	0			R3	0			R4	0
SPLIT 18/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S2				0				0				0				0
SPLIT 19/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S3				0				0				0				0
SPLIT 20/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C5-S4				0				0				0				0
SPLIT 21/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C6-S1				0				0				0				0
SPLIT 22/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C6-S2				0				0				0				0
SPLIT 23/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

```
 C6-S3                    0                 0                 0                 0
 SPLIT 24/   0   0   0    0   0   0   0     0   0   0   0     0   0   0   0     0
 C6-S4                    0                 0                 0                 0
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WO#: **527** LAST UPDATE: 11/7/2005

LOCATIO **US19 & HUDSON AV**

CONT: 1880EL SER#: 8039 TYPE: SIG REPAIR 1

MONITOR 12EL SER#: 4277 SOP: 9

POWER WREC ACCT: 106

DETQUAN: 6 DETDELAY: OPTICOM: YES

OTHER1: ENFORCEMENT NO

OTHER2: MASTARMS: NO

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1	SB LEFT	**5**	**3**	**4**	**1.5**	**35**	**30**			**1**			**X**				**R**
2	NB THRU	**20**	**4**	**5**	**2.5**	**50**	**60**			**2**	**X**			**X**			**Y**
3	WB TH/LT	**6**	**4**	**4.5**	**3**	**20**	**35**			**3**			**X**				**R**
4	EB TH/LT	**6**	**5**	**4.5**	**3**	**20**	**35**	**5**	**49**	**4**			**X**				**R**
5	NB LEFT	**5**	**3**	**4**	**1.5**	**15**	**15**			**5**			**X**				**R**
6	SB THRU	**20**	**4**	**5**	**2.5**	**50**	**60**			**6**	**X**			**X**			**Y**
7										**7**							
8										**8**							

OVERLAP A

B

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FLASH TIMES FROM: TO:

SYSTEM SYS# ID#:

JURIS: FDOT VALUE: 150,000

NOTE

CONTROLLER RUNS MAX 2 TIMES FROM 0700 TO 1830 EVERYDAY. PROGRAMMED CKT.6 (OFF.1) ON FROM 0830 TO 0900 & 1445 TO 1515 ON SCHOOL DAYS. (CKT.6 PUTS A CONSTANT CALL ON PHASE 4)

POLE DATA

CORNER1:

CORNER2:

CORNER3:

CORNER4:

WO#: **637** LAST UPDATE: 11/7/2005

LOCATIO **US19 & NEW YORK**

CONT:	3000	SER#:	6841	TYPE:		SIG	REPAIR 1
MONITOR	1200	SER#:	10530	SOP:		7	
				POWER		WREC	ACCT: 306

DETQUAN: 5 DETDELAY: 2

OTHER1:

OTHER2:

OPTICOM: YES

ENFORCEMENT NO

MASTARMS: NO

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1	SB LEFT	**10**	**3**	**4**	**1**	**24**				**1**			**X**				**R**
2	NB THRU	**20**	**5**	**5**	**2.5**	**60**				**2**	**X**			**X**			**Y**
3										**3**						**4**	
4	E&W THRU	**6**	**3**	**5**	**2.5**	**35**		**5**	**48**	**4**			**X**				**R**
5	NB LEFT	**10**	**3**	**4**	**1**	**24**				**5**			**X**				**R**
6	SB THRU	**20**	**5**	**5**	**2.5**	**60**				**6**	**X**			**X**			**Y**
7										**7**							
8										**8**						**4**	

OVERLAP A

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FLASH TIMES

FROM:

TO:

SYSTEM

SYS#

ID#:

JURIS: FDOT

VALUE: 150,000

NOTE

PROTECTED LEFT TURNS. E.B.R.T./THRU - 5 SEC. DELAY, W.B. - 4 SEC. DELAY.

POLE DATA

CORNER1:

CORNER2:

CORNER3:

CORNER4:

WO#: **634** LAST UPDATE: 11/7/2005

LOCATIO **US19 & DENTON AV.**

CONT:	1880EL	SER#:	14861	TYPE:		SIG	REPAIR 3
MONITOR	12ELRA	SER#:	1918	SOP:		11	
				POWER		WREC	ACCT: 543

DETQUAN: 5 DETDELAY: 2

OTHER1:

OTHER2:

OPTICOM: YES

ENFORCEMENT NO

MASTARMS: NO

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1										**1**						**CALLS 6**	
2	SB	**20**	**4**	**5**	**1.8**	**40**				**2**	**X**			**X**			**Y**
3										**3**							
4	EB & WB	**10**	**4**	**4.5**	**2**	**20**		**5**	**40**	**4**			**X**				**R**
5	SBLT	**7**	**3**	**4.5**	**1.7**	**15**				**5**				**X**		**CALLS 2&6**	
6	NB	**20**	**4**	**5**	**1.8**	**40**				**6**	**X**			**X**			**Y**
7										**7**							
8										**8**						**CALLS 4**	

OVERLAP A

B

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C

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FLASH TIMES

FROM:

TO:

SYSTEM

SYS#

ID#:

JURIS:

VALUE:

FDOT

150,000

NOTE

10 SEC DELAY ON WBRT. 2 SEC DELAY ON WBLT.

POLE DATA

CORNER1:

CORNER2:

CORNER3:

CORNER4:

WO#: **648** LAST UPDATE: 12/15/2004

LOCATIO **US19 & LITTLE (CR1)**

CONT: 3000 SER#: 6853 TYPE: SIG REPAIR 1

MONITOR 12ELRA SER#: 3169931 SOP: 9

POWER WREC ACCT: 593

DETQUAN: 8 DETDELAY: OPTICOM: YES

OTHER1: ENFORCEMENT NO

OTHER2: MASTARMS: NO

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1	SBLT	**7**	**3**	**4**	**4**	**16**				**1**			**X**				**R**
2	NB	**20**	**4**	**5**	**4**	**60**				**2**	**X**			**X**			**Y**
3	WB	**10**	**4**	**4.5**	**4**	**25**				**3**				**X**			**R**
4	EB	**10**	**4**	**3.5**	**4**	**20**		**7**	**38**	**4**				**X**			**R**
5	NBLT	**7**	**3**	**4**	**4**	**16**				**5**			**X**				**R**
6	SB	**20**	**4**	**5**	**4**	**60**				**6**	**X**			**X**			**Y**
7										**7**						**ASSN 4**	
8										**8**						**ASSN 3**	

OVERLAP A FLASH TIMES SYSTEM JURIS: FDOT

B FROM: SYS# VALUE: 150,000

C TO: ID#:

C NOTE

D

POLE DATA

CORNER1:

CORNER2:

CORNER3:

CORNER4:

WO#: **594** LAST UPDATE: 3/2/2004

LOCATIO **US19 & COUNTY LINE (CR578)**

CONT: 1880EL SER#: 12829 TYPE: SIG REPAIR 1

MONITOR 12ELRA SER#: 834 SOP: 9

POWER WREC ACCT: 1491 220 294 300

DETQUAN: 7 DETDELAY: 1 OPTICOM: NO

OTHER1: ENFORCEMENT NO

OTHER2: MASTARMS: NO

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1	N.B.L.T.	7	3	4	1	8	15			1			X				R
2	S.B.	20	4	5	2	40	60	7	25	2	X			X			Y
3										3							
4	WB THRU/LT	7	4	4	2.6	25	60	7	30	4			X				R
5	S.B.L.T.	7	3	4	1	15	25			5			X				R
6	N.B.	20	4	5	2	40	60	7	25	6	X			X			Y
7										7							
8	EB THRU/LT	7	4	4	2.6	11	11			8			X				R

OVERLAP A

B

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FLASH TIMES FROM: TO:

SYSTEM SYS# ID#:

JURIS: FDOT VALUE: 100,000

NOTE

**** DIPSWITCHES #2,5,8, ON A" MOD. ARE ON FOR SPEC. PHASE SEQUENCE. PROTECTED LEFT TURNS N.B. & S.B; 3 SEC DELAY ON PHASE 8 EBRT LOOP. CONTROLLER RUNS MAX 2 TIMES FROM 0630 TO 1800 EVERYDAY."

POLE DATA

CORNER1:

CORNER2:

CORNER3:

CORNER4:

Appendix B

Synchro Analysis for the Existing Year (2006) Conditions

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.90		1.00	0.91		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1694	1655		1694	1674		1752	5036	1568	1752	5036	1568
Flt Permitted	0.58	1.00		0.48	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1033	1655		855	1674		1752	5036	1568	1752	5036	1568
Volume (vph)	150	60	130	310	50	80	70	2270	70	20	3580	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	163	65	141	337	54	87	76	2467	76	22	3891	33
RTOR Reduction (vph)	0	39	0	0	30	0	0	0	29	0	0	13
Lane Group Flow (vph)	163	167	0	337	111	0	76	2467	47	22	3891	20
Turn Type	Perm			Perm			Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	55.0	55.0		55.0	55.0		6.5	116.3	116.3	3.7	113.5	113.5
Effective Green, g (s)	56.0	56.0		56.0	56.0		7.0	117.8	117.8	4.2	115.0	115.0
Actuated g/C Ratio	0.29	0.29		0.29	0.29		0.04	0.62	0.62	0.02	0.61	0.61
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	4.0	4.0		4.0	4.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	304	488		252	493		65	3122	972	39	3048	949
v/s Ratio Prot		0.10			0.07		c0.04	c0.49		0.01	c0.77	
v/s Ratio Perm	0.16			c0.39					0.03			0.01
v/c Ratio	0.54	0.34		1.34	0.22		1.17	0.79	0.05	0.56	1.28	0.02
Uniform Delay, d1	56.1	52.5		67.0	50.6		91.5	26.9	14.1	92.0	37.5	15.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.03	0.63	1.39
Incremental Delay, d2	2.3	0.6		176.2	0.3		164.6	2.1	0.1	1.7	124.7	0.0
Delay (s)	58.4	53.1		243.2	50.9		256.1	29.0	14.2	96.7	148.4	20.8
Level of Service	E	D		F	D		F	C	B	F	F	C
Approach Delay (s)		55.5			186.5			35.2			147.1	
Approach LOS		E			F			D			F	

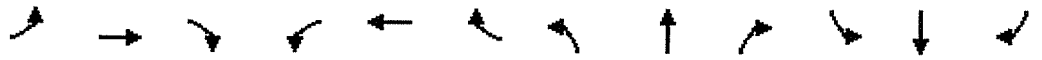
Intersection Summary			
HCM Average Control Delay	105.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.31		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	107.5%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	0.91		1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.99		1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.96		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3083	1596		1752	1753		1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	0.96		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3083	1596		1752	1753		1752	5036	1568	1752	5036	1568
Volume (vph)	1060	30	20	140	80	40	20	2640	20	10	3650	620
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1152	33	22	152	87	43	22	2870	22	11	3967	674
RTOR Reduction (vph)	0	1	0	0	9	0	0	0	4	0	0	0
Lane Group Flow (vph)	798	408	0	152	121	0	22	2870	18	11	3967	674
Turn Type	Split			Split			Prot		Perm	Prot		Free
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases									2			Free
Actuated Green, G (s)	37.0	37.0		12.0	12.0		3.0	118.0	118.0	2.0	117.0	190.0
Effective Green, g (s)	38.0	38.0		13.0	13.0		4.5	119.5	119.5	3.5	118.5	190.0
Actuated g/C Ratio	0.20	0.20		0.07	0.07		0.02	0.63	0.63	0.02	0.62	1.00
Clearance Time (s)	5.0	5.0		5.0	5.0		5.5	5.5	5.5	5.5	5.5	
Vehicle Extension (s)	4.0	4.0		4.0	4.0		3.0	5.0	5.0	3.0	5.0	
Lane Grp Cap (vph)	617	319		120	120		41	3167	986	32	3141	1568
v/s Ratio Prot	c0.26	0.26		c0.09	0.07		0.01	0.57		0.01	c0.79	
v/s Ratio Perm									0.01			c0.43
v/c Ratio	1.29	1.28		1.27	1.01		0.54	0.91	0.02	0.34	1.26	0.43
Uniform Delay, d1	76.0	76.0		88.5	88.5		91.7	30.4	13.2	92.1	35.7	0.0
Progression Factor	1.00	1.00		1.00	1.00		1.07	0.43	0.58	1.20	0.36	1.00
Incremental Delay, d2	143.8	147.8		170.2	83.7		9.2	3.6	0.0	0.6	118.6	0.1
Delay (s)	219.8	223.8		258.7	172.2		107.4	16.6	7.7	110.8	131.3	0.1
Level of Service	F	F		F	F		F	B	A	F	F	A
Approach Delay (s)		221.2			218.8			17.2			112.3	
Approach LOS		F			F			B			F	

Intersection Summary			
HCM Average Control Delay	99.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.23		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	104.4%	ICU Level of Service	G
Analysis Period (min)	15		

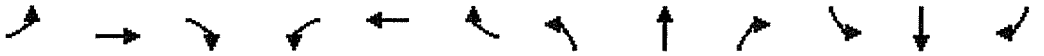
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	11	11	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	0.88		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1845	1568	3286	1576		1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1845	1568	3286	1576		1752	5036	1568	1752	5036	1568
Volume (vph)	100	100	130	560	50	170	190	2660	320	90	3770	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	109	141	609	54	185	207	2891	348	98	4098	33
RTOR Reduction (vph)	0	0	113	0	65	0	0	0	122	0	0	4
Lane Group Flow (vph)	109	109	28	609	174	0	207	2891	226	98	4098	29
Turn Type	Prot		Perm	Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)	12.3	9.0	9.0	26.5	23.2		17.5	121.9	121.9	13.1	117.5	117.5
Effective Green, g (s)	12.8	10.0	10.0	27.0	24.2		18.0	123.4	123.4	13.6	119.0	119.0
Actuated g/C Ratio	0.07	0.05	0.05	0.14	0.13		0.09	0.65	0.65	0.07	0.63	0.63
Clearance Time (s)	4.5	5.0	5.0	4.5	5.0		4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	118	97	83	467	201		166	3271	1018	125	3154	982
v/s Ratio Prot	0.06	c0.06		c0.19	0.11		c0.12	0.57		0.06	c0.81	
v/s Ratio Perm			0.02						0.14			0.02
v/c Ratio	0.92	1.12	0.34	1.30	0.87		1.25	0.88	0.22	0.78	1.30	0.03
Uniform Delay, d1	88.1	90.0	86.8	81.5	81.3		86.0	27.4	13.6	86.8	35.5	13.5
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.96	0.91	2.28	0.79	1.35	1.52
Incremental Delay, d2	59.2	128.6	3.3	151.7	31.1		122.4	0.9	0.1	3.0	134.9	0.0
Delay (s)	147.3	218.6	90.1	233.2	112.4		204.9	25.8	31.2	71.8	183.0	20.5
Level of Service	F	F	F	F	F		F	C	C	E	F	C
Approach Delay (s)		146.5			199.2			37.1			179.1	
Approach LOS		F			F			D			F	

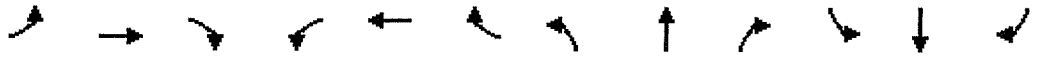
Intersection Summary			
HCM Average Control Delay	124.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.28		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	119.3%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.92		1.00	0.92		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1698		1752	1706		1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1698		1752	1706		1752	5036	1568	1752	5036	1568
Volume (vph)	220	80	90	120	60	60	90	2700	100	40	3830	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	239	87	98	130	65	65	98	2935	109	43	4163	54
RTOR Reduction (vph)	0	22	0	0	19	0	0	0	20	0	0	8
Lane Group Flow (vph)	239	163	0	130	111	0	98	2935	89	43	4163	47
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	21.5	17.0		13.0	9.0		8.5	132.6	132.6	7.4	131.5	131.5
Effective Green, g (s)	22.0	18.0		14.0	10.0		9.0	134.1	134.1	7.9	133.0	133.0
Actuated g/C Ratio	0.12	0.09		0.07	0.05		0.05	0.71	0.71	0.04	0.70	0.70
Clearance Time (s)	4.5	5.0		5.0	5.0		4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	203	161		129	90		83	3554	1107	73	3525	1098
v/s Ratio Prot	c0.14	c0.10		0.07	0.07		c0.06	0.58		0.02	c0.83	
v/s Ratio Perm									0.06			0.03
v/c Ratio	1.18	1.01		1.01	1.23		1.18	0.83	0.08	0.59	1.18	0.04
Uniform Delay, d1	84.0	86.0		88.0	90.0		90.5	19.7	8.7	89.5	28.5	8.8
Progression Factor	1.00	1.00		1.00	1.00		1.17	0.18	0.01	1.23	0.19	0.02
Incremental Delay, d2	119.2	74.7		81.3	170.4		122.5	1.0	0.1	1.1	81.7	0.0
Delay (s)	203.2	160.7		169.3	260.4		228.4	4.5	0.1	110.7	87.2	0.1
Level of Service	F	F		F	F		F	A	A	F	F	A
Approach Delay (s)		184.7			214.9			11.3			86.3	
Approach LOS		F			F			B			F	

Intersection Summary			
HCM Average Control Delay	66.5	HCM Level of Service	E
HCM Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	103.8%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.90		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1694	1612		1752	1845	1568	1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1694	1612		1752	1845	1568	1752	5036	1568	1752	5036	1568
Volume (vph)	190	40	70	110	60	210	50	2800	50	100	3830	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	207	43	76	120	65	228	54	3043	54	109	4163	54
RTOR Reduction (vph)	0	34	0	0	0	82	0	0	11	0	0	16
Lane Group Flow (vph)	207	85	0	120	65	146	54	3043	43	109	4163	38
Turn Type	Prot			Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	19.5	16.9		15.6	13.0	13.0	5.5	123.6	123.6	14.4	132.5	132.5
Effective Green, g (s)	20.0	17.9		16.1	14.0	14.0	6.0	125.1	125.1	14.9	134.0	134.0
Actuated g/C Ratio	0.11	0.09		0.08	0.07	0.07	0.03	0.66	0.66	0.08	0.71	0.71
Clearance Time (s)	4.5	5.0		4.5	5.0	5.0	4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	178	152		148	136	116	55	3316	1032	137	3552	1106
v/s Ratio Prot	c0.12	c0.05		0.07	0.04		0.03	0.60		c0.06	c0.83	
v/s Ratio Perm						c0.09			0.03			0.02
v/c Ratio	1.16	0.56		0.81	0.48	1.26	0.98	0.92	0.04	0.80	1.17	0.03
Uniform Delay, d1	85.0	82.3		85.5	84.5	88.0	91.9	28.0	11.4	86.1	28.0	8.5
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.93	0.56	0.84	1.21	0.30	0.03
Incremental Delay, d2	118.1	4.7		27.4	2.6	170.1	78.9	2.8	0.0	3.0	77.7	0.0
Delay (s)	203.1	87.0		112.9	87.1	258.1	164.9	18.5	9.6	106.8	86.2	0.3
Level of Service	F	F		F	F	F	F	B	A	F	F	A
Approach Delay (s)		160.7			189.0			20.9			85.6	
Approach LOS		F			F			C			F	

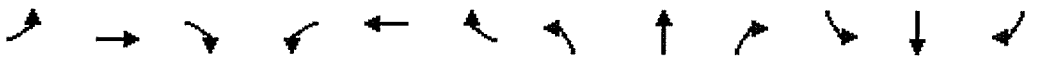
Intersection Summary			
HCM Average Control Delay	69.0	HCM Level of Service	E
HCM Volume to Capacity ratio	1.19		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	105.4%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	13	13	13	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.98	1.00	0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1720	1776	1620	1665	1692	1568	1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	0.98	1.00	0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1720	1776	1620	1665	1692	1568	1752	5036	1568	1752	5036	1568
Volume (vph)	200	90	100	230	40	110	70	2800	80	40	3630	130
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	217	98	109	250	43	120	76	3043	87	43	3946	141
RTOR Reduction (vph)	0	0	52	0	0	63	0	0	25	0	0	40
Lane Group Flow (vph)	154	161	57	143	150	57	76	3043	62	43	3946	101
Turn Type	Split		Perm	Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	14.0	14.0	14.0	14.0	14.0	14.0	7.5	134.2	134.2	7.8	134.5	134.5
Effective Green, g (s)	15.0	15.0	15.0	15.0	15.0	15.0	8.0	135.7	135.7	8.3	136.0	136.0
Actuated g/C Ratio	0.08	0.08	0.08	0.08	0.08	0.08	0.04	0.71	0.71	0.04	0.72	0.72
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	2.5	5.0	5.0	2.5	5.0	5.0
Lane Grp Cap (vph)	136	140	128	131	134	124	74	3597	1120	77	3605	1122
v/s Ratio Prot	0.09	c0.09		0.09	c0.09		c0.04	0.60		0.02	c0.78	
v/s Ratio Perm			0.04			0.04			0.04			0.06
v/c Ratio	1.13	1.15	0.45	1.09	1.12	0.46	1.03	0.85	0.06	0.56	1.09	0.09
Uniform Delay, d1	87.5	87.5	83.6	87.5	87.5	83.6	91.0	19.6	8.1	89.1	27.0	8.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.07	1.36	1.38	0.90	0.64	1.34
Incremental Delay, d2	117.1	122.0	2.5	105.3	113.4	2.7	67.1	0.9	0.0	0.6	43.1	0.0
Delay (s)	204.6	209.5	86.0	192.8	200.9	86.4	164.0	27.5	11.2	80.4	60.3	11.0
Level of Service	F	F	F	F	F	F	F	C	B	F	E	B
Approach Delay (s)		176.0			164.8			30.3			58.8	
Approach LOS		F			F			C			E	

Intersection Summary			
HCM Average Control Delay	59.0	HCM Level of Service	E
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	94.2%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95		0.91	0.91	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1665	1665		3189	1608	1568	1752	5036	1568	3400	5036	1568
Flt Permitted	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1665	1665		3189	1608	1568	1752	5036	1568	3400	5036	1568
Volume (vph)	120	80	40	670	30	280	30	2400	390	260	3270	40
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	87	43	728	33	304	33	2609	424	283	3554	43
RTOR Reduction (vph)	0	9	0	0	0	137	0	0	171	0	0	7
Lane Group Flow (vph)	130	121	0	499	262	167	33	2609	253	283	3554	36
Turn Type	Split			Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	13.0	13.0		27.0	27.0	27.0	4.0	111.8	111.8	18.2	126.0	126.0
Effective Green, g (s)	14.0	14.0		28.0	28.0	28.0	4.5	113.3	113.3	18.7	127.5	127.5
Actuated g/C Ratio	0.07	0.07		0.15	0.15	0.15	0.02	0.60	0.60	0.10	0.67	0.67
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	4.0	4.0		4.0	4.0	4.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	123	123		470	237	231	41	3003	935	335	3379	1052
v/s Ratio Prot	c0.08	0.07		0.16	c0.16		0.02	c0.52		0.08	c0.71	
v/s Ratio Perm						0.11			0.16			0.02
v/c Ratio	1.06	0.98		1.06	1.11	0.72	0.80	0.87	0.27	0.84	1.05	0.03
Uniform Delay, d1	88.0	87.9		81.0	81.0	77.3	92.3	32.1	18.5	84.2	31.3	10.5
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.77	0.34	0.21	1.16	0.40	0.20
Incremental Delay, d2	97.2	75.2		58.9	89.6	11.3	41.3	1.9	0.4	1.9	24.2	0.0
Delay (s)	185.2	163.1		139.9	170.6	88.6	112.2	12.7	4.1	99.6	36.8	2.1
Level of Service	F	F		F	F	F	F	B	A	F	D	A
Approach Delay (s)		174.2			132.8			12.6			41.0	
Approach LOS		F			F			B			D	

Intersection Summary			
HCM Average Control Delay	46.5	HCM Level of Service	D
HCM Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	96.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95		0.95	0.95	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.99		0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1665	1683		1665	1699	1568	1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	0.99		0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1665	1683		1665	1699	1568	1752	5036	1568	1752	5036	1568
Volume (vph)	110	60	20	380	90	230	60	2350	240	310	3250	100
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	120	65	22	413	98	250	65	2554	261	337	3533	109
RTOR Reduction (vph)	0	5	0	0	0	90	0	0	79	0	0	16
Lane Group Flow (vph)	100	102	0	249	262	160	65	2554	182	337	3533	93
Turn Type	Split			Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	10.0	10.0		26.0	26.0	26.0	6.8	98.8	98.8	35.2	127.2	127.2
Effective Green, g (s)	11.0	11.0		27.0	27.0	27.0	7.3	100.3	100.3	35.7	128.7	128.7
Actuated g/C Ratio	0.06	0.06		0.14	0.14	0.14	0.04	0.53	0.53	0.19	0.68	0.68
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	2.5	5.0	5.0	2.5	5.0	5.0
Lane Grp Cap (vph)	96	97		237	241	223	67	2658	828	329	3411	1062
v/s Ratio Prot	0.06	c0.06		0.15	c0.15		0.04	c0.51		0.19	c0.70	
v/s Ratio Perm						0.10			0.12			0.06
v/c Ratio	1.04	1.05		1.05	1.09	0.72	0.97	0.96	0.22	1.02	1.04	0.09
Uniform Delay, d1	89.5	89.5		81.5	81.5	77.9	91.2	43.0	23.9	77.1	30.7	10.5
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.90	1.18	1.58	0.77	0.42	0.64
Incremental Delay, d2	103.6	106.9		72.4	83.2	10.5	65.3	5.8	0.3	21.5	17.4	0.0
Delay (s)	193.1	196.4		153.9	164.7	88.3	147.1	56.6	38.1	80.7	30.1	6.8
Level of Service	F	F		F	F	F	F	E	D	F	C	A
Approach Delay (s)		194.8			136.1			57.0			33.8	
Approach LOS		F			F			E			C	

Intersection Summary			
HCM Average Control Delay	56.5	HCM Level of Service	E
HCM Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	96.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.91		1.00	0.91	1.00
Frt		1.00	0.85	1.00	0.92		1.00	1.00		1.00	1.00	0.85
Flt Protected		0.95	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1760	1568	1752	1706		1752	5033		1752	5036	1568
Flt Permitted		0.70	1.00	0.17	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1293	1568	305	1706		1752	5033		1752	5036	1568
Volume (vph)	290	10	260	20	20	20	80	2630	10	10	3650	90
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	315	11	283	22	22	22	87	2859	11	11	3967	98
RTOR Reduction (vph)	0	0	33	0	17	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	326	250	22	27	0	87	2870	0	11	3967	98
Turn Type	Perm		Perm	Perm			Prot			Prot		Free
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8								Free
Actuated Green, G (s)		40.0	40.0	40.0	40.0		7.5	132.0		2.0	126.5	190.0
Effective Green, g (s)		41.0	41.0	41.0	41.0		9.0	133.5		3.5	128.0	190.0
Actuated g/C Ratio		0.22	0.22	0.22	0.22		0.05	0.70		0.02	0.67	1.00
Clearance Time (s)		5.0	5.0	5.0	5.0		5.5	5.5		5.5	5.5	
Vehicle Extension (s)		4.0	4.0	4.0	4.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)		279	338	66	368		83	3536		32	3393	1568
v/s Ratio Prot					0.02		c0.05	0.57		0.01	c0.79	
v/s Ratio Perm		c0.25	0.16	0.07								0.06
v/c Ratio		1.17	0.74	0.33	0.07		1.05	0.81		0.34	1.17	0.06
Uniform Delay, d1		74.5	69.5	63.0	59.4		90.5	19.5		92.1	31.0	0.0
Progression Factor		1.00	1.00	1.00	1.00		1.11	0.17		1.07	0.54	1.00
Incremental Delay, d2		107.4	8.8	4.0	0.1		71.0	0.7		0.6	76.5	0.0
Delay (s)		181.9	78.3	67.0	59.5		171.5	4.0		99.4	93.3	0.0
Level of Service		F	E	E	E		F	A		F	F	A
Approach Delay (s)		133.7			62.0			8.9			91.0	
Approach LOS		F			E			A			F	

Intersection Summary			
HCM Average Control Delay	62.7	HCM Level of Service	E
HCM Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	103.3%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95		0.97	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	0.92		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1845	1568	1752	3226		3400	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	1845	1568	1752	3226		3400	5036	1568	1752	5036	1568
Volume (vph)	80	60	120	140	80	90	150	2510	120	90	3560	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	87	65	130	152	87	98	163	2728	130	98	3870	54
RTOR Reduction (vph)	0	0	60	0	90	0	0	0	21	0	0	14
Lane Group Flow (vph)	87	65	70	152	95	0	163	2728	109	98	3870	40
Turn Type	Prot		Perm	Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)	8.8	8.0	8.0	15.5	14.7		7.7	131.1	131.1	14.9	138.3	138.3
Effective Green, g (s)	9.3	9.0	9.0	16.0	15.7		9.2	132.6	132.6	16.4	139.8	139.8
Actuated g/C Ratio	0.05	0.05	0.05	0.08	0.08		0.05	0.70	0.70	0.09	0.74	0.74
Clearance Time (s)	4.5	5.0	5.0	4.5	5.0		5.5	5.5	5.5	5.5	5.5	5.5
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	166	87	74	148	267		165	3515	1094	151	3705	1154
v/s Ratio Prot	0.03	0.04		c0.09	0.03		c0.05	0.54		0.06	c0.77	
v/s Ratio Perm			c0.04						0.07			0.03
v/c Ratio	0.52	0.75	0.95	1.03	0.36		0.99	0.78	0.10	0.65	1.04	0.03
Uniform Delay, d1	88.2	89.4	90.3	87.0	82.4		90.3	18.9	9.3	84.0	25.1	6.8
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.74	0.28	0.08	1.05	0.67	1.62
Incremental Delay, d2	3.0	30.6	85.9	81.3	1.1		47.5	0.9	0.1	2.4	22.5	0.0
Delay (s)	91.2	120.0	176.2	168.3	83.5		114.0	6.3	0.8	90.5	39.4	11.0
Level of Service	F	F	F	F	F		F	A	A	F	D	B
Approach Delay (s)		137.0			121.7			11.8			40.2	
Approach LOS		F			F			B			D	

Intersection Summary			
HCM Average Control Delay	36.2	HCM Level of Service	D
HCM Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	99.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.95		1.00	0.87		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1751		1752	1611		1752	5036	1568	1752	5036	1568
Flt Permitted	0.40	1.00		0.65	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	731	1751		1203	1611		1752	5036	1568	1752	5036	1568
Volume (vph)	60	40	20	150	20	110	60	2550	130	140	3520	40
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	43	22	163	22	120	65	2772	141	152	3826	43
RTOR Reduction (vph)	0	10	0	0	103	0	0	0	17	0	0	5
Lane Group Flow (vph)	65	55	0	163	39	0	65	2772	124	152	3826	38
Turn Type	Perm			Perm			Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	24.0	24.0		24.0	24.0		7.2	128.9	128.9	22.1	143.8	143.8
Effective Green, g (s)	25.0	25.0		25.0	25.0		7.7	130.4	130.4	22.6	145.3	145.3
Actuated g/C Ratio	0.13	0.13		0.13	0.13		0.04	0.69	0.69	0.12	0.76	0.76
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	5.0	5.0		5.0	5.0		4.0	5.0	5.0	4.0	5.0	5.0
Lane Grp Cap (vph)	96	230		158	212		71	3456	1076	208	3851	1199
v/s Ratio Prot		0.03			0.02		c0.04	0.55		0.09	c0.76	
v/s Ratio Perm	0.09			c0.14					0.08			0.02
v/c Ratio	0.68	0.24		1.03	0.18		0.92	0.80	0.12	0.73	0.99	0.03
Uniform Delay, d1	78.7	74.0		82.5	73.4		90.8	20.8	10.1	80.8	21.9	5.4
Progression Factor	1.00	1.00		1.00	1.00		0.78	1.10	1.68	1.04	0.52	1.25
Incremental Delay, d2	22.0	1.1		80.2	0.9		60.3	1.4	0.1	7.2	9.1	0.0
Delay (s)	100.6	75.1		162.7	74.3		130.7	24.3	17.1	91.3	20.4	6.8
Level of Service	F	E		F	E		F	C	B	F	C	A
Approach Delay (s)		87.9			121.5			26.3			23.0	
Approach LOS		F			F			C			C	

Intersection Summary			
HCM Average Control Delay	29.5	HCM Level of Service	C
HCM Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	100.5%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	
Frt	1.00	0.85	1.00	1.00	1.00	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1752	1568	1752	5036	5028	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1752	1568	1752	5036	5028	
Volume (vph)	40	50	20	2720	3510	40
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	54	22	2957	3815	43
RTOR Reduction (vph)	0	36	0	0	1	0
Lane Group Flow (vph)	43	18	22	2957	3857	0
Turn Type		custom	Prot			
Protected Phases			5	2	6	
Permitted Phases	4	4				
Actuated Green, G (s)	8.0	8.0	3.3	171.5	163.7	
Effective Green, g (s)	9.0	9.0	3.8	173.0	165.2	
Actuated g/C Ratio	0.05	0.05	0.02	0.91	0.87	
Clearance Time (s)	5.0	5.0	4.5	5.5	5.5	
Vehicle Extension (s)	4.0	4.0	4.0	5.0	5.0	
Lane Grp Cap (vph)	83	74	35	4585	4372	
v/s Ratio Prot			0.01	c0.59	c0.77	
v/s Ratio Perm	c0.02	0.01				
v/c Ratio	0.52	0.24	0.63	0.64	0.88	
Uniform Delay, d1	88.4	87.2	92.4	1.8	7.0	
Progression Factor	1.00	1.00	1.07	0.16	0.44	
Incremental Delay, d2	7.1	2.3	21.7	0.4	0.3	
Delay (s)	95.5	89.5	120.8	0.7	3.3	
Level of Service	F	F	F	A	A	
Approach Delay (s)	92.1			1.6	3.3	
Approach LOS	F			A	A	

Intersection Summary			
HCM Average Control Delay	3.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	82.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1734		1665	1698	1568	1752	5036	1568	3400	5036	1568
Flt Permitted	0.95	1.00		0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1734		1665	1698	1568	1752	5036	1568	3400	5036	1568
Volume (vph)	80	60	40	310	70	210	70	2330	230	120	3300	60
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	87	65	43	337	76	228	76	2533	250	130	3587	65
RTOR Reduction (vph)	0	12	0	0	0	67	0	0	70	0	0	7
Lane Group Flow (vph)	87	96	0	202	211	161	76	2533	180	130	3587	58
Turn Type	Split			Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	9.0	9.0		22.0	22.0	22.0	8.3	127.7	127.7	11.3	130.7	130.7
Effective Green, g (s)	10.0	10.0		23.0	23.0	23.0	8.8	129.2	129.2	11.8	132.2	132.2
Actuated g/C Ratio	0.05	0.05		0.12	0.12	0.12	0.05	0.68	0.68	0.06	0.70	0.70
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	4.0	4.0		4.0	4.0	4.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	92	91		202	206	190	81	3424	1066	211	3504	1091
v/s Ratio Prot	0.05	c0.06		0.12	c0.12		c0.04	0.50		0.04	c0.71	
v/s Ratio Perm						0.10			0.11			0.04
v/c Ratio	0.95	1.05		1.00	1.02	0.85	0.94	0.74	0.17	0.62	1.02	0.05
Uniform Delay, d1	89.7	90.0		83.5	83.5	81.8	90.3	19.6	11.0	86.9	28.9	9.1
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.95	1.45	2.70	1.00	1.00	1.00
Incremental Delay, d2	76.0	109.0		63.3	69.2	28.9	67.0	1.1	0.3	5.3	21.6	0.1
Delay (s)	165.7	199.0		146.8	152.7	110.7	152.9	29.5	30.0	92.2	50.5	9.2
Level of Service	F	F		F	F	F	F	C	C	F	D	A
Approach Delay (s)		184.1			135.9			32.8			51.2	
Approach LOS		F			F			C			D	

Intersection Summary			
HCM Average Control Delay	54.9	HCM Level of Service	D
HCM Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	87.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.91	1.00	1.00	0.91	
Frt		0.98			1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.98			0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1777			1776	1568	1752	5036	1568	1752	5025	
Flt Permitted		0.68			0.64	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1241			1174	1568	1752	5036	1568	1752	5025	
Volume (vph)	40	40	10	70	20	80	30	2430	30	50	3270	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	43	11	76	22	87	33	2641	33	54	3554	54
RTOR Reduction (vph)	0	4	0	0	0	0	0	0	5	0	1	0
Lane Group Flow (vph)	0	93	0	0	98	87	33	2641	28	54	3607	0
Turn Type	custom			custom		Free	Prot		Perm	Prot		
Protected Phases							5	2		1		
Permitted Phases	4	4		8	8	Free			2		6	
Actuated Green, G (s)		14.5			14.5	140.0	5.4	101.7	101.7	8.3	104.6	
Effective Green, g (s)		16.5			16.5	140.0	5.7	102.9	102.9	8.6	105.8	
Actuated g/C Ratio		0.12			0.12	1.00	0.04	0.74	0.74	0.06	0.76	
Clearance Time (s)		6.0			6.0		4.3	5.2	5.2	4.3	5.2	
Vehicle Extension (s)		3.0			3.0		3.0	5.0	5.0	3.0	5.0	
Lane Grp Cap (vph)		146			138	1568	71	3701	1152	108	3797	
v/s Ratio Prot							0.02	0.52		c0.03		
v/s Ratio Perm		0.08			c0.08	0.06			0.02		c0.72	
v/c Ratio		0.64			0.71	0.06	0.46	0.71	0.02	0.50	0.95	
Uniform Delay, d1		58.9			59.4	0.0	65.7	10.3	5.0	63.6	14.8	
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	0.94	2.49	
Incremental Delay, d2		9.2			15.8	0.1	4.7	1.2	0.0	0.3	0.8	
Delay (s)		68.1			75.2	0.1	70.4	11.5	5.0	60.1	37.7	
Level of Service		E			E	A	E	B	A	E	D	
Approach Delay (s)		68.1			39.9			12.2			38.0	
Approach LOS		E			D			B			D	

Intersection Summary			
HCM Average Control Delay	28.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	82.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	0.91		0.91	0.91	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1595	3222		3189	1644	1568	1752	5036	1568	3400	5036	1568
Flt Permitted	0.95	1.00		0.95	0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1595	3222		3189	1644	1568	1752	5036	1568	3400	5036	1568
Volume (vph)	150	220	80	650	160	330	120	1910	470	550	2940	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	163	239	87	707	174	359	130	2076	511	598	3196	33
RTOR Reduction (vph)	0	24	0	0	0	168	0	0	275	0	0	9
Lane Group Flow (vph)	156	309	0	577	304	191	130	2076	236	598	3196	24
Turn Type	Split			Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	14.1	14.1		27.6	27.6	27.6	11.1	58.9	58.9	15.3	63.1	63.1
Effective Green, g (s)	17.0	17.0		30.4	30.4	30.4	11.4	61.0	61.0	15.6	65.2	65.2
Actuated g/C Ratio	0.12	0.12		0.22	0.22	0.22	0.08	0.44	0.44	0.11	0.47	0.47
Clearance Time (s)	6.9	6.9		6.8	6.8	6.8	4.3	6.1	6.1	4.3	6.1	6.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	194	391		692	357	340	143	2194	683	379	2345	730
v/s Ratio Prot	c0.10	0.10		0.18	c0.18		0.07	c0.41		0.18	c0.63	
v/s Ratio Perm						0.12			0.15			0.02
v/c Ratio	0.80	0.79		0.83	0.85	0.56	0.91	0.95	0.35	1.58	1.36	0.03
Uniform Delay, d1	59.9	59.8		52.4	52.6	48.9	63.8	37.9	26.2	62.2	37.4	20.3
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.31	0.77	0.76	0.81	0.68	0.50
Incremental Delay, d2	20.9	10.4		8.5	17.4	2.1	38.9	7.8	1.0	266.7	164.8	0.0
Delay (s)	80.8	70.2		60.9	70.1	51.0	122.7	37.2	21.0	317.0	190.3	10.2
Level of Service	F	E		E	E	D	F	D	C	F	F	B
Approach Delay (s)		73.6			60.3			38.2			208.6	
Approach LOS		E			E			D			F	

Intersection Summary			
HCM Average Control Delay	122.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	100.3%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	0.92		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1845	1568	1752	1706		1752	5036	1568	1752	5036	1568
Flt Permitted	0.73	1.00	1.00	0.74	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1344	1845	1568	1371	1706		1752	5036	1568	1752	5036	1568
Volume (vph)	30	20	80	30	20	20	70	2510	30	20	3190	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	22	87	33	22	22	76	2728	33	22	3467	11
RTOR Reduction (vph)	0	0	80	0	20	0	0	0	7	0	0	2
Lane Group Flow (vph)	33	22	7	33	24	0	76	2728	26	22	3467	9
Turn Type	Perm		Perm	Perm			Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	8.8	8.8	8.8	8.8	8.8		10.0	109.4	109.4	4.9	104.3	104.3
Effective Green, g (s)	11.3	11.3	11.3	11.3	11.3		10.3	111.5	111.5	5.2	106.4	106.4
Actuated g/C Ratio	0.08	0.08	0.08	0.08	0.08		0.07	0.80	0.80	0.04	0.76	0.76
Clearance Time (s)	6.5	6.5	6.5	6.5	6.5		4.3	6.1	6.1	4.3	6.1	6.1
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	108	149	127	111	138		129	4011	1249	65	3827	1192
v/s Ratio Prot		0.01			0.01		c0.04	0.54		0.01	c0.69	
v/s Ratio Perm	c0.02		0.00	0.02					0.02			0.01
v/c Ratio	0.31	0.15	0.06	0.30	0.17		0.59	0.68	0.02	0.34	0.91	0.01
Uniform Delay, d1	60.7	59.9	59.4	60.6	60.0		62.8	6.3	3.0	65.7	12.9	4.1
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.38	1.15	0.09	0.80	0.72	0.95
Incremental Delay, d2	1.6	0.5	0.2	1.5	0.6		3.6	0.5	0.0	0.3	0.4	0.0
Delay (s)	62.3	60.3	59.6	62.1	60.6		90.1	7.8	0.3	53.1	9.7	3.9
Level of Service	E	E	E	E	E		F	A	A	D	A	A
Approach Delay (s)		60.3			61.2			9.9			9.9	
Approach LOS		E			E			A			A	

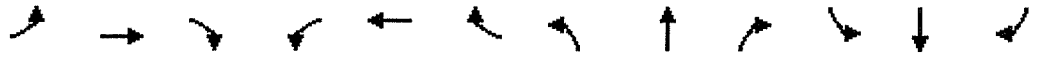
Intersection Summary			
HCM Average Control Delay	11.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	80.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	0.97	1.00	1.00	0.97	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1845	1568	3400	1845	1568	3400	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	1845	1568	3400	1845	1568	3400	5036	1568	1752	5036	1568
Volume (vph)	130	110	50	280	170	120	190	2000	200	110	3120	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	141	120	54	304	185	130	207	2174	217	120	3391	11
RTOR Reduction (vph)	0	0	50	0	0	114	0	0	73	0	0	4
Lane Group Flow (vph)	141	120	4	304	185	16	207	2174	144	120	3391	7
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	10.9	7.8	7.8	17.2	14.1	14.1	9.7	80.1	80.1	12.9	83.3	83.3
Effective Green, g (s)	11.8	10.7	10.7	18.1	17.0	17.0	10.0	82.0	82.0	13.2	85.2	85.2
Actuated g/C Ratio	0.08	0.08	0.08	0.13	0.12	0.12	0.07	0.59	0.59	0.09	0.61	0.61
Clearance Time (s)	4.9	6.9	6.9	4.9	6.9	6.9	4.3	5.9	5.9	4.3	5.9	5.9
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	287	141	120	440	224	190	243	2950	918	165	3065	954
v/s Ratio Prot	0.04	0.07		c0.09	c0.10		c0.06	0.43		0.07	c0.67	
v/s Ratio Perm			0.00			0.01			0.09			0.00
v/c Ratio	0.49	0.85	0.03	0.69	0.83	0.08	0.85	0.74	0.16	0.73	1.11	0.01
Uniform Delay, d1	61.2	63.9	59.9	58.3	60.1	54.6	64.3	21.1	13.2	61.6	27.4	10.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.24	0.32	0.14	0.96	0.72	1.44
Incremental Delay, d2	1.3	36.0	0.1	4.6	21.3	0.2	18.7	1.3	0.3	1.5	48.4	0.0
Delay (s)	62.6	99.9	60.0	62.9	81.4	54.8	98.3	7.9	2.1	60.9	68.0	15.5
Level of Service	E	F	E	E	F	D	F	A	A	E	E	B
Approach Delay (s)		76.3			66.7			14.6			67.6	
Approach LOS		E			E			B			E	

Intersection Summary			
HCM Average Control Delay	48.4	HCM Level of Service	D
HCM Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	92.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

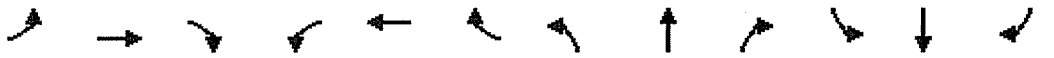
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00		0.97	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	0.90		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1845	1568	1752	1654		3400	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	1845	1568	1752	1654		3400	5036	1568	1752	5036	1568
Volume (vph)	30	60	150	90	50	110	110	2230	60	10	3230	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	65	163	98	54	120	120	2424	65	11	3511	11
RTOR Reduction (vph)	0	0	118	0	53	0	0	0	18	0	0	3
Lane Group Flow (vph)	33	65	45	98	121	0	120	2424	47	11	3511	8
Turn Type	Prot		Perm	Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)	4.5	10.6	10.6	10.6	16.7		9.3	93.2	93.2	1.6	85.5	85.5
Effective Green, g (s)	6.0	13.1	13.1	12.1	19.2		10.8	95.7	95.7	3.1	88.0	88.0
Actuated g/C Ratio	0.04	0.09	0.09	0.09	0.14		0.08	0.68	0.68	0.02	0.63	0.63
Clearance Time (s)	5.5	6.5	6.5	5.5	6.5		5.5	6.5	6.5	5.5	6.5	6.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	146	173	147	151	227		262	3442	1072	39	3165	986
v/s Ratio Prot	0.01	0.04		c0.06	c0.07		c0.04	c0.48		0.01	c0.70	
v/s Ratio Perm			0.03						0.03			0.01
v/c Ratio	0.23	0.38	0.31	0.65	0.53		0.46	0.70	0.04	0.28	1.11	0.01
Uniform Delay, d1	64.8	59.6	59.2	61.9	56.2		61.8	13.5	7.2	67.4	26.0	9.7
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.02	0.56	1.08	0.83	1.95	2.22
Incremental Delay, d2	0.8	1.4	1.2	9.2	2.4		0.9	0.9	0.1	0.4	49.7	0.0
Delay (s)	65.5	61.0	60.4	71.1	58.6		63.9	8.5	7.9	56.4	100.4	21.5
Level of Service	E	E	E	E	E		E	A	A	E	F	C
Approach Delay (s)		61.2			63.1			11.0			100.0	
Approach LOS		E			E			B			F	

Intersection Summary			
HCM Average Control Delay	62.2	HCM Level of Service	E
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	86.7%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt		1.00	0.85		0.96		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97	1.00		0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1783	1568		1738		1752	5036	1568	1752	5036	1568
Flt Permitted		0.54	1.00		0.77		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		997	1568		1353		1752	5036	1568	1752	5036	1568
Volume (vph)	70	30	90	90	90	80	170	2150	80	60	3250	20
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	33	98	98	98	87	185	2337	87	65	3533	22
RTOR Reduction (vph)	0	0	75	0	12	0	0	0	16	0	0	10
Lane Group Flow (vph)	0	109	23	0	271	0	185	2337	71	65	3533	12
Turn Type	Perm		Perm	Perm			Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)		29.5	29.5		29.5		16.3	86.4	86.4	7.6	77.7	77.7
Effective Green, g (s)		32.4	32.4		32.4		16.6	87.7	87.7	7.9	79.0	79.0
Actuated g/C Ratio		0.23	0.23		0.23		0.12	0.63	0.63	0.06	0.56	0.56
Clearance Time (s)		6.9	6.9		6.9		4.3	5.3	5.3	4.3	5.3	5.3
Vehicle Extension (s)		3.0	3.0		3.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)		231	363		313		208	3155	982	99	2842	885
v/s Ratio Prot							c0.11	0.46		0.04	c0.70	
v/s Ratio Perm		0.11	0.01		c0.20				0.05			0.01
v/c Ratio		0.47	0.06		0.87		0.89	0.74	0.07	0.66	1.24	0.01
Uniform Delay, d1		46.4	42.0		51.7		60.8	18.2	10.2	64.7	30.5	13.4
Progression Factor		1.00	1.00		1.00		1.25	0.52	0.42	0.76	1.01	2.10
Incremental Delay, d2		1.5	0.1		21.5		27.6	1.2	0.1	1.4	109.7	0.0
Delay (s)		47.9	42.0		73.2		103.8	10.8	4.4	50.3	140.5	28.2
Level of Service		D	D		E		F	B	A	D	F	C
Approach Delay (s)		45.1			73.2			17.2			138.2	
Approach LOS		D			E			B			F	

Intersection Summary			
HCM Average Control Delay	85.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	103.5%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

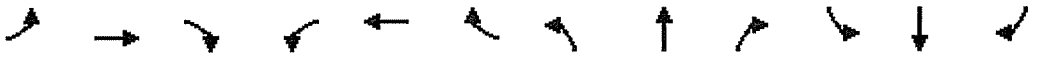


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.94			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00			0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1734			1786	1568	1752	5036	1568	3400	5036	1568
Flt Permitted	0.95	1.00			0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1734			1786	1568	1752	5036	1568	3400	5036	1568
Volume (vph)	20	30	20	40	20	250	40	2390	40	180	3320	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	33	22	43	22	272	43	2598	43	196	3609	11
RTOR Reduction (vph)	0	18	0	0	0	235	0	0	17	0	0	1
Lane Group Flow (vph)	22	37	0	0	65	37	43	2598	26	196	3609	10
Turn Type	Split			Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	7.0	7.0			11.9	11.9	7.5	83.9	83.9	13.4	89.8	89.8
Effective Green, g (s)	9.8	9.8			14.7	14.7	7.8	85.8	85.8	13.7	91.7	91.7
Actuated g/C Ratio	0.07	0.07			0.10	0.10	0.06	0.61	0.61	0.10	0.66	0.66
Clearance Time (s)	6.8	6.8			6.8	6.8	4.3	5.9	5.9	4.3	5.9	5.9
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	123	121			188	165	98	3086	961	333	3299	1027
v/s Ratio Prot	0.01	c0.02			c0.04		0.02	0.52		c0.06	c0.72	
v/s Ratio Perm						0.02			0.02			0.01
v/c Ratio	0.18	0.31			0.35	0.22	0.44	0.84	0.03	0.59	1.09	0.01
Uniform Delay, d1	61.3	61.9			58.2	57.4	64.0	21.7	10.7	60.5	24.2	8.4
Progression Factor	1.00	1.00			1.00	1.00	1.23	0.20	0.00	1.19	0.37	0.40
Incremental Delay, d2	0.7	1.5			1.1	0.7	2.3	2.2	0.0	0.2	42.8	0.0
Delay (s)	62.0	63.3			59.3	58.1	80.9	6.5	0.0	72.0	51.9	3.4
Level of Service	E	E			E	E	F	A	A	E	D	A
Approach Delay (s)		63.0			58.3			7.6			52.8	
Approach LOS		E			E			A			D	

Intersection Summary			
HCM Average Control Delay	35.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	88.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

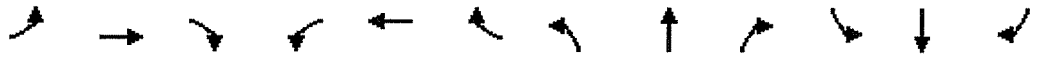
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.97	1.00	0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1665	1697	1568	1665	1705	1568	1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	0.97	1.00	0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1665	1697	1568	1665	1705	1568	1752	5036	1568	1752	5036	1568
Volume (vph)	230	50	30	240	70	60	80	2350	160	20	3320	90
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	250	54	33	261	76	65	87	2554	174	22	3609	98
RTOR Reduction (vph)	0	0	29	0	0	57	0	0	47	0	0	23
Lane Group Flow (vph)	148	156	4	164	173	8	87	2554	127	22	3609	75
Turn Type	Split		Perm	Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	12.6	12.6	12.6	14.9	14.9	14.9	7.7	80.9	80.9	5.0	78.2	78.2
Effective Green, g (s)	15.6	15.6	15.6	17.9	17.9	17.9	10.0	83.2	83.2	7.3	80.5	80.5
Actuated g/C Ratio	0.11	0.11	0.11	0.13	0.13	0.13	0.07	0.59	0.59	0.05	0.57	0.57
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	6.3	6.3	6.3	6.3	6.3	6.3
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	186	189	175	213	218	200	125	2993	932	91	2896	902
v/s Ratio Prot	0.09	c0.09		0.10	c0.10		c0.05	c0.51		0.01	c0.72	
v/s Ratio Perm			0.00			0.01			0.08			0.05
v/c Ratio	0.80	0.83	0.02	0.77	0.79	0.04	0.70	0.85	0.14	0.24	1.25	0.08
Uniform Delay, d1	60.6	60.9	55.4	59.1	59.3	53.5	63.5	23.4	12.5	63.7	29.8	13.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.86	1.80	1.11	0.62	0.69
Incremental Delay, d2	20.5	24.4	0.0	15.4	17.7	0.1	9.1	1.9	0.2	0.1	111.1	0.0
Delay (s)	81.2	85.3	55.4	74.4	77.0	53.6	67.6	22.1	22.7	71.1	129.5	9.2
Level of Service	F	F	E	E	E	D	E	C	C	E	F	A
Approach Delay (s)		80.6			72.2			23.6			126.0	
Approach LOS		F			E			C			F	

Intersection Summary			
HCM Average Control Delay	81.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	91.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.89		1.00	0.87		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1648		1752	1608		1752	5036	1568	1752	5036	1568
Flt Permitted	0.71	1.00		0.42	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1305	1648		779	1608		1752	5036	1568	1752	5036	1568
Volume (vph)	60	20	50	290	10	60	50	2360	130	100	3280	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	22	54	315	11	65	54	2565	141	109	3565	54
RTOR Reduction (vph)	0	50	0	0	57	0	0	0	36	0	0	8
Lane Group Flow (vph)	65	26	0	315	19	0	54	2565	105	109	3565	46
Turn Type	pm+pt			pm+pt			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	16.8	8.4		29.4	16.0		8.1	80.8	80.8	11.3	84.0	84.0
Effective Green, g (s)	19.6	10.2		31.2	17.8		10.3	83.3	83.3	13.5	86.5	86.5
Actuated g/C Ratio	0.14	0.07		0.22	0.13		0.07	0.60	0.60	0.10	0.62	0.62
Clearance Time (s)	5.0	5.8		5.0	5.8		6.2	6.5	6.5	6.2	6.5	6.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	213	120		292	204		129	2996	933	169	3112	969
v/s Ratio Prot	0.02	0.02		c0.13	0.01		0.03	0.51		c0.06	c0.71	
v/s Ratio Perm	0.02			c0.11					0.07			0.03
v/c Ratio	0.31	0.22		1.08	0.09		0.42	0.86	0.11	0.64	1.15	0.05
Uniform Delay, d1	53.8	61.1		52.3	54.0		62.0	23.4	12.3	60.9	26.8	10.5
Progression Factor	1.00	1.00		1.00	1.00		0.75	1.55	2.36	1.00	1.00	1.00
Incremental Delay, d2	0.8	0.9		75.2	0.2		1.2	1.9	0.1	8.2	69.8	0.1
Delay (s)	54.6	62.0		127.5	54.2		47.7	38.1	29.2	69.1	96.5	10.6
Level of Service	D	E		F	D		D	D	C	E	F	B
Approach Delay (s)		58.6			113.3			37.9			94.5	
Approach LOS		E			F			D			F	

Intersection Summary			
HCM Average Control Delay	72.5	HCM Level of Service	E
HCM Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	101.1%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	1.00	0.97	0.91	1.00	0.97	0.91	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1752	1845	1568	3189	1636	1568	3400	5036	1568	3400	5021	
Flt Permitted	0.95	1.00	1.00	0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1752	1845	1568	3189	1636	1568	3400	5036	1568	3400	5021	
Volume (vph)	140	150	120	920	180	320	100	1850	590	590	2420	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	152	163	130	1000	196	348	109	2011	641	641	2630	54
RTOR Reduction (vph)	0	0	111	0	0	196	0	0	0	0	1	0
Lane Group Flow (vph)	152	163	19	784	412	152	109	2011	641	641	2683	0
Turn Type	Split		Perm	Split		Perm	Prot		Free	Prot		
Protected Phases	3	3		4	4		5	2		1	6	
Permitted Phases			3			4			Free			
Actuated Green, G (s)	18.3	18.3	18.3	23.5	23.5	23.5	10.6	58.1	139.9	13.0	60.5	
Effective Green, g (s)	20.8	20.8	20.8	26.0	26.0	26.0	13.6	61.1	139.9	16.0	63.5	
Actuated g/C Ratio	0.15	0.15	0.15	0.19	0.19	0.19	0.10	0.44	1.00	0.11	0.45	
Clearance Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	7.0	7.0		7.0	7.0	
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.0		4.0	5.0	
Lane Grp Cap (vph)	260	274	233	593	304	291	331	2199	1568	389	2279	
v/s Ratio Prot	0.09	c0.09		0.25	c0.25		0.03	0.40		c0.19	c0.53	
v/s Ratio Perm			0.01			0.10			c0.41			
v/c Ratio	0.58	0.59	0.08	1.32	1.36	0.52	0.33	0.91	0.41	1.65	1.18	
Uniform Delay, d1	55.5	55.6	51.3	57.0	57.0	51.3	58.9	37.0	0.0	62.0	38.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	3.9	4.0	0.2	156.5	179.9	2.2	0.8	6.8	0.8	302.8	84.7	
Delay (s)	59.5	59.6	51.5	213.4	236.9	53.5	59.7	43.7	0.8	364.8	122.9	
Level of Service	E	E	D	F	F	D	E	D	A	F	F	
Approach Delay (s)		57.2			183.7			34.4			169.5	
Approach LOS		E			F			C			F	

Intersection Summary			
HCM Average Control Delay	119.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	139.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	93.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.91	1.00	1.00	0.91	
Frt		0.96			1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.98			0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1733			1762	1568	1752	5036	1568	1752	5033	
Flt Permitted		0.89			0.76	1.00	0.04	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1568			1400	1568	83	5036	1568	1752	5033	
Volume (vph)	10	10	10	150	10	110	10	1970	90	100	2630	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	11	163	11	120	11	2141	98	109	2859	11
RTOR Reduction (vph)	0	5	0	0	0	99	0	0	35	0	0	0
Lane Group Flow (vph)	0	28	0	0	174	21	11	2141	63	109	2870	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Prot		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2		2			
Actuated Green, G (s)		22.0			22.0	22.0	87.0	87.0	87.0	12.7	105.5	
Effective Green, g (s)		24.1			24.1	24.1	89.4	89.4	89.4	14.5	107.9	
Actuated g/C Ratio		0.17			0.17	0.17	0.64	0.64	0.64	0.10	0.77	
Clearance Time (s)		6.1			6.1	6.1	6.4	6.4	6.4	5.8	6.4	
Vehicle Extension (s)		5.0			5.0	5.0	6.0	6.0	6.0	4.0	6.0	
Lane Grp Cap (vph)		270			241	270	53	3216	1001	181	3879	
v/s Ratio Prot								0.43		0.06	c0.57	
v/s Ratio Perm		0.02			c0.12	0.01	0.13		0.04			
v/c Ratio		0.10			0.72	0.08	0.21	0.67	0.06	0.60	0.74	
Uniform Delay, d1		48.8			54.8	48.6	10.5	15.9	9.5	60.0	8.6	
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.4			12.4	0.3	8.7	1.1	0.1	6.4	1.3	
Delay (s)		49.2			67.1	48.9	19.2	17.0	9.6	66.4	9.9	
Level of Service		D			E	D	B	B	A	E	A	
Approach Delay (s)		49.2			59.7			16.7			11.9	
Approach LOS		D			E			B			B	

Intersection Summary			
HCM Average Control Delay	16.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	93.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00	1.00	0.95	0.95		1.00	0.91	1.00	1.00	0.91	1.00
Frt		1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99	1.00	0.95	0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1817	1568	1665	1696		1752	5036	1568	1752	5036	1568
Flt Permitted		0.99	1.00	0.95	0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1817	1568	1665	1696		1752	5036	1568	1752	5036	1568
Volume (vph)	60	140	50	320	120	20	90	1280	320	270	1860	70
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	152	54	348	130	22	98	1391	348	293	2022	76
RTOR Reduction (vph)	0	0	19	0	2	0	0	0	181	0	0	27
Lane Group Flow (vph)	0	217	35	246	252	0	98	1391	167	293	2022	49
Turn Type	Split		Perm	Split			Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)		22.3	22.3	23.9	23.9		9.2	42.4	42.4	19.6	52.8	52.8
Effective Green, g (s)		25.8	25.8	27.4	27.4		10.7	45.9	45.9	21.1	56.3	56.3
Actuated g/C Ratio		0.19	0.19	0.20	0.20		0.08	0.34	0.34	0.15	0.41	0.41
Clearance Time (s)		7.5	7.5	7.5	7.5		5.5	7.5	7.5	5.5	7.5	7.5
Vehicle Extension (s)		5.0	5.0	4.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)		344	297	335	341		138	1697	528	271	2082	648
v/s Ratio Prot		c0.12		0.15	c0.15		0.06	0.28		c0.17	c0.40	
v/s Ratio Perm			0.02						0.11			0.03
v/c Ratio		0.63	0.12	0.73	0.74		0.71	0.82	0.32	1.08	0.97	0.08
Uniform Delay, d1		50.8	45.8	51.0	51.0		61.2	41.4	33.5	57.6	39.2	24.2
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		5.2	0.4	8.6	8.6		15.8	3.4	0.5	78.0	13.6	0.1
Delay (s)		56.0	46.1	59.6	59.6		77.0	44.8	34.0	135.5	52.8	24.3
Level of Service		E	D	E	E		E	D	C	F	D	C
Approach Delay (s)		54.0			59.6			44.4			62.0	
Approach LOS		D			E			D			E	

Intersection Summary			
HCM Average Control Delay	54.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	136.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	77.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.92			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00			0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1691			1773	1568	1752	5036	1568	1752	5036	1568
Flt Permitted	0.52	1.00			0.69	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	952	1691			1265	1568	1752	5036	1568	1752	5036	1568
Volume (vph)	40	40	50	130	30	50	60	1390	130	70	2020	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	43	54	141	33	54	65	1511	141	76	2196	33
RTOR Reduction (vph)	0	40	0	0	0	30	0	0	61	0	0	14
Lane Group Flow (vph)	43	57	0	0	174	24	65	1511	80	76	2196	19
Turn Type	Perm			Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8			2			6
Actuated Green, G (s)	18.3	18.3			18.3	18.3	8.3	53.6	53.6	8.6	53.9	53.9
Effective Green, g (s)	21.8	21.8			21.8	21.8	9.3	57.1	57.1	9.6	57.4	57.4
Actuated g/C Ratio	0.22	0.22			0.22	0.22	0.09	0.57	0.57	0.10	0.57	0.57
Clearance Time (s)	7.5	7.5			7.5	7.5	5.0	7.5	7.5	5.0	7.5	7.5
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	207	367			274	340	162	2861	891	167	2876	896
v/s Ratio Prot		0.03					0.04	0.30		c0.04	c0.44	
v/s Ratio Perm	0.05				c0.14	0.02			0.05			0.01
v/c Ratio	0.21	0.16			0.64	0.07	0.40	0.53	0.09	0.46	0.76	0.02
Uniform Delay, d1	32.3	31.9			35.7	31.3	43.0	13.4	9.9	43.0	16.4	9.4
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	0.2			4.8	0.1	1.6	0.3	0.1	2.0	1.5	0.0
Delay (s)	32.8	32.1			40.5	31.4	44.6	13.7	10.0	44.9	17.9	9.4
Level of Service	C	C			D	C	D	B	A	D	B	A
Approach Delay (s)		32.3			38.3			14.6			18.6	
Approach LOS		C			D			B			B	

Intersection Summary			
HCM Average Control Delay	18.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	100.5	Sum of lost time (s)	8.0
Intersection Capacity Utilization	72.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt		0.96			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.98			0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1733			1762	1568	1752	5036	1568	1752	5036	1568
Flt Permitted		0.88			0.71	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1546			1318	1568	1752	5036	1568	1752	5036	1568
Volume (vph)	10	10	10	160	10	30	20	1350	100	40	1840	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	11	174	11	33	22	1467	109	43	2000	11
RTOR Reduction (vph)	0	9	0	0	0	26	0	0	50	0	0	5
Lane Group Flow (vph)	0	24	0	0	185	7	22	1467	59	43	2000	6
Turn Type	Perm			Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8			2			6
Actuated Green, G (s)		12.6			12.6	12.6	2.8	37.2	37.2	4.5	38.3	38.3
Effective Green, g (s)		15.1			15.1	15.1	5.6	40.0	40.0	6.7	41.1	41.1
Actuated g/C Ratio		0.20			0.20	0.20	0.08	0.54	0.54	0.09	0.56	0.56
Clearance Time (s)		6.5			6.5	6.5	6.8	6.8	6.8	6.2	6.8	6.8
Vehicle Extension (s)		4.0			4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)		316			270	321	133	2730	850	159	2805	873
v/s Ratio Prot							0.01	0.29		c0.02	c0.40	
v/s Ratio Perm		0.02			c0.14	0.00			0.04			0.00
v/c Ratio		0.08			0.69	0.02	0.17	0.54	0.07	0.27	0.71	0.01
Uniform Delay, d1		23.7			27.2	23.4	31.9	10.9	8.0	31.3	12.0	7.3
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.1			7.6	0.0	0.6	0.3	0.0	0.9	0.9	0.0
Delay (s)		23.9			34.8	23.5	32.5	11.2	8.1	32.2	13.0	7.3
Level of Service		C			C	C	C	B	A	C	B	A
Approach Delay (s)		23.9			33.0			11.3			13.3	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM Average Control Delay	13.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	73.8	Sum of lost time (s)	8.0
Intersection Capacity Utilization	58.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	0.88	1.00	0.91		0.97	0.91	1.00
Frt	1.00	0.92			1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.98	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1752	1706			1814	2760	1752	5030		3400	5036	1568
Flt Permitted	0.95	1.00			0.98	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1752	1706			1814	2760	1752	5030		3400	5036	1568
Volume (vph)	20	20	20	10	20	490	20	1320	10	650	1700	20
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	22	22	11	22	533	22	1435	11	707	1848	22
RTOR Reduction (vph)	0	20	0	0	0	0	0	1	0	0	0	11
Lane Group Flow (vph)	22	24	0	0	33	533	22	1445	0	707	1848	11
Turn Type	Split			Split		pt+ov	Prot			Prot		Perm
Protected Phases	4	4		8	8	8 1	5	2		1	6	
Permitted Phases												6
Actuated Green, G (s)	7.6	7.6			15.6	32.4	2.8	46.0		8.3	51.5	51.5
Effective Green, g (s)	11.1	11.1			20.1	36.4	6.8	51.0		12.3	56.5	56.5
Actuated g/C Ratio	0.10	0.10			0.18	0.33	0.06	0.46		0.11	0.51	0.51
Clearance Time (s)	7.5	7.5			8.5		8.0	9.0		8.0	9.0	9.0
Vehicle Extension (s)	4.0	4.0			4.0		3.0	4.0		3.0	4.0	4.0
Lane Grp Cap (vph)	176	171			330	909	108	2322		378	2575	802
v/s Ratio Prot	0.01	c0.01			0.02	c0.19	0.01	0.29		c0.21	c0.37	
v/s Ratio Perm												0.01
v/c Ratio	0.12	0.14			0.10	0.59	0.20	0.62		1.87	0.72	0.01
Uniform Delay, d1	45.3	45.4			37.7	30.8	49.3	22.5		49.1	20.8	13.3
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.4	0.5			0.2	1.1	0.9	0.6		401.6	1.0	0.0
Delay (s)	45.7	45.9			37.8	31.9	50.2	23.1		450.7	21.9	13.3
Level of Service	D	D			D	C	D	C		F	C	B
Approach Delay (s)		45.8			32.3			23.5			139.5	
Approach LOS		D			C			C			F	

Intersection Summary			
HCM Average Control Delay	88.8	HCM Level of Service	F
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	110.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	62.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

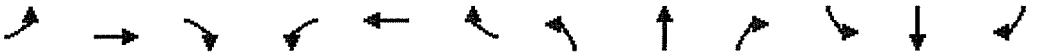
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00	1.00	0.95	0.95		1.00	0.91	1.00	1.00	0.91	1.00
Frt		1.00	0.85	1.00	0.93		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97	1.00	0.95	0.97		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1785	1568	1665	1594		1752	5036	1568	1752	5036	1568
Flt Permitted		0.97	1.00	0.95	0.97		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1785	1568	1665	1594		1752	5036	1568	1752	5036	1568
Volume (vph)	20	10	20	970	10	260	10	1220	490	240	1740	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	11	22	1054	11	283	11	1326	533	261	1891	11
RTOR Reduction (vph)	0	0	21	0	19	0	0	0	318	0	0	4
Lane Group Flow (vph)	0	33	1	699	630	0	11	1326	215	261	1891	7
Turn Type	Split		Perm	Split			Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)		3.5	3.5	53.5	53.5		2.9	45.5	45.5	20.0	62.6	62.6
Effective Green, g (s)		6.1	6.1	56.1	56.1		3.9	48.5	48.5	21.0	65.6	65.6
Actuated g/C Ratio		0.04	0.04	0.38	0.38		0.03	0.33	0.33	0.14	0.44	0.44
Clearance Time (s)		6.6	6.6	6.6	6.6		5.0	7.0	7.0	5.0	7.0	7.0
Vehicle Extension (s)		4.0	4.0	4.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)		74	65	632	605		46	1654	515	249	2237	696
v/s Ratio Prot		c0.02		c0.42	0.40		0.01	0.26		c0.15	c0.38	
v/s Ratio Perm			0.00						0.14			0.00
v/c Ratio		0.45	0.01	1.11	1.04		0.24	0.80	0.42	1.05	0.85	0.01
Uniform Delay, d1		69.1	67.9	45.8	45.8		70.4	45.2	38.6	63.4	36.5	22.9
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		5.7	0.1	68.4	47.7		2.7	3.1	0.7	70.2	3.3	0.0
Delay (s)		74.9	68.0	114.2	93.5		73.1	48.3	39.3	133.6	39.8	22.9
Level of Service		E	E	F	F		E	D	D	F	D	C
Approach Delay (s)		72.1			104.2			45.9			51.0	
Approach LOS		E			F			D			D	

Intersection Summary			
HCM Average Control Delay	62.7	HCM Level of Service	E
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	147.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	91.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.95		1.00	0.91		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1694	1752		1694	1674		1752	5036	1568	1752	5036	1568
Flt Permitted	0.56	1.00		0.36	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1002	1752		645	1674		1752	5036	1568	1752	5036	1568
Volume (vph)	230	160	80	190	50	80	80	2950	220	120	2530	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	250	174	87	207	54	87	87	3207	239	130	2750	33
RTOR Reduction (vph)	0	10	0	0	30	0	0	0	96	0	0	13
Lane Group Flow (vph)	250	251	0	207	111	0	87	3207	143	130	2750	20
Turn Type	Perm			Perm			Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	49.0	49.0		49.0	49.0		12.0	112.5	112.5	13.5	114.0	114.0
Effective Green, g (s)	50.0	50.0		50.0	50.0		12.5	114.0	114.0	14.0	115.5	115.5
Actuated g/C Ratio	0.26	0.26		0.26	0.26		0.07	0.60	0.60	0.07	0.61	0.61
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	4.0	4.0		4.0	4.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	264	461		170	441		115	3022	941	129	3061	953
v/s Ratio Prot		0.14			0.07		0.05	c0.64		c0.07	0.55	
v/s Ratio Perm	0.25			c0.32					0.09			0.01
v/c Ratio	0.95	0.55		1.22	0.25		0.76	1.06	0.15	1.01	0.90	0.02
Uniform Delay, d1	68.7	60.2		70.0	55.2		87.3	38.0	16.7	88.0	32.2	14.8
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.18	0.41	0.80
Incremental Delay, d2	41.0	1.7		139.5	0.4		24.3	35.5	0.3	47.1	1.6	0.0
Delay (s)	109.7	61.9		209.5	55.6		111.5	73.5	17.1	150.8	14.7	11.9
Level of Service	F	E		F	E		F	E	B	F	B	B
Approach Delay (s)		85.3			147.2			70.7			20.8	
Approach LOS		F			F			E			C	

Intersection Summary			
HCM Average Control Delay	55.4	HCM Level of Service	E
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	100.8%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	0.91		1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.99		1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.96		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3083	1595		1752	1743		1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	0.96		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3083	1595		1752	1743		1752	5036	1568	1752	5036	1568
Volume (vph)	1450	20	20	170	120	70	10	3530	80	20	2500	650
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1576	22	22	185	130	76	11	3837	87	22	2717	707
RTOR Reduction (vph)	0	1	0	0	11	0	0	0	13	0	0	0
Lane Group Flow (vph)	1077	542	0	185	195	0	11	3837	74	22	2717	707
Turn Type	Split			Split			Prot		Perm	Prot		Free
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases									2			Free
Actuated Green, G (s)	46.0	46.0		15.0	15.0		2.0	105.0	105.0	3.0	106.0	190.0
Effective Green, g (s)	47.0	47.0		16.0	16.0		3.5	106.5	106.5	4.5	107.5	190.0
Actuated g/C Ratio	0.25	0.25		0.08	0.08		0.02	0.56	0.56	0.02	0.57	1.00
Clearance Time (s)	5.0	5.0		5.0	5.0		5.5	5.5	5.5	5.5	5.5	
Vehicle Extension (s)	4.0	4.0		4.0	4.0		3.0	5.0	5.0	3.0	5.0	
Lane Grp Cap (vph)	763	395		148	147		32	2823	879	41	2849	1568
v/s Ratio Prot	c0.35	0.34		0.11	c0.11		0.01	c0.76		0.01	0.54	
v/s Ratio Perm									0.05			c0.45
v/c Ratio	1.41	1.37		1.25	1.33		0.34	1.36	0.08	0.54	0.95	0.45
Uniform Delay, d1	71.5	71.5		87.0	87.0		92.1	41.8	19.3	91.7	38.9	0.0
Progression Factor	1.00	1.00		1.00	1.00		1.01	0.79	1.17	1.20	0.47	1.00
Incremental Delay, d2	193.0	183.1		156.3	186.2		2.3	162.5	0.1	6.2	4.9	0.4
Delay (s)	264.5	254.6		243.3	273.2		95.3	195.3	22.6	116.0	23.3	0.4
Level of Service	F	F		F	F		F	F	C	F	C	A
Approach Delay (s)		261.2			259.1			191.2			19.2	
Approach LOS		F			F			F			B	

Intersection Summary			
HCM Average Control Delay	143.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.33		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	116.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	11	11	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1845	1568	3286	1582		1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1845	1568	3286	1582		1752	5036	1568	1752	5036	1568
Volume (vph)	100	70	80	340	60	180	140	3770	360	170	2640	70
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	76	87	370	65	196	152	4098	391	185	2870	76
RTOR Reduction (vph)	0	0	82	0	57	0	0	0	118	0	0	15
Lane Group Flow (vph)	109	76	5	370	204	0	152	4098	273	185	2870	61
Turn Type	Prot		Perm	Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)	9.5	10.0	10.0	17.5	18.0		20.5	126.5	126.5	16.5	122.5	122.5
Effective Green, g (s)	10.0	11.0	11.0	18.0	19.0		21.0	128.0	128.0	17.0	124.0	124.0
Actuated g/C Ratio	0.05	0.06	0.06	0.09	0.10		0.11	0.67	0.67	0.09	0.65	0.65
Clearance Time (s)	4.5	5.0	5.0	4.5	5.0		4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	92	107	91	311	158		194	3393	1056	157	3287	1023
v/s Ratio Prot	0.06	0.04		c0.11	c0.13		0.09	c0.81		c0.11	0.57	
v/s Ratio Perm			0.00						0.17			0.04
v/c Ratio	1.18	0.71	0.06	1.19	1.29		0.78	1.21	0.26	1.18	0.87	0.06
Uniform Delay, d1	90.0	87.9	84.6	86.0	85.5		82.3	31.0	12.2	86.5	26.6	11.9
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.96	0.90	1.97	1.35	0.15	0.02
Incremental Delay, d2	151.8	21.1	0.3	112.8	170.7		1.9	93.8	0.1	99.3	1.1	0.0
Delay (s)	241.8	109.0	84.9	198.8	256.2		81.0	121.7	24.1	215.8	5.3	0.3
Level of Service	F	F	F	F	F		F	F	C	F	A	A
Approach Delay (s)		154.5			222.6			112.2			17.6	
Approach LOS		F			F			F			B	

Intersection Summary			
HCM Average Control Delay	87.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.20		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	115.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.92		1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1706		1752	1734		1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1706		1752	1734		1752	5036	1568	1752	5036	1568
Volume (vph)	270	130	130	120	120	80	130	3580	190	80	2650	170
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	293	141	141	130	130	87	141	3891	207	87	2880	185
RTOR Reduction (vph)	0	19	0	0	13	0	0	0	30	0	0	36
Lane Group Flow (vph)	293	263	0	130	204	0	141	3891	177	87	2880	149
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	25.5	29.0		13.0	17.0		15.5	120.5	120.5	7.5	112.5	112.5
Effective Green, g (s)	26.0	30.0		14.0	18.0		16.0	122.0	122.0	8.0	114.0	114.0
Actuated g/C Ratio	0.14	0.16		0.07	0.09		0.08	0.64	0.64	0.04	0.60	0.60
Clearance Time (s)	4.5	5.0		5.0	5.0		4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	240	269		129	164		148	3234	1007	74	3022	941
v/s Ratio Prot	c0.17	0.15		0.07	c0.12		0.08	c0.77		c0.05	0.57	
v/s Ratio Perm									0.11			0.09
v/c Ratio	1.22	0.98		1.01	1.25		0.95	1.20	0.18	1.18	0.95	0.16
Uniform Delay, d1	82.0	79.7		88.0	86.0		86.6	34.0	13.7	91.0	35.5	16.8
Progression Factor	1.00	1.00		1.00	1.00		0.86	1.49	1.79	1.09	0.32	0.28
Incremental Delay, d2	130.9	48.6		81.3	151.3		12.7	91.7	0.0	131.6	5.2	0.2
Delay (s)	212.9	128.3		169.3	237.3		87.4	142.2	24.5	230.9	16.6	4.9
Level of Service	F	F		F	F		F	F	C	F	B	A
Approach Delay (s)		171.4			211.8			134.7			21.9	
Approach LOS		F			F			F			C	

Intersection Summary			
HCM Average Control Delay	97.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.21		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	113.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.92		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1694	1640		1752	1845	1568	1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1694	1640		1752	1845	1568	1752	5036	1568	1752	5036	1568
Volume (vph)	260	70	80	140	110	250	50	3720	160	190	2600	170
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	283	76	87	152	120	272	54	4043	174	207	2826	185
RTOR Reduction (vph)	0	21	0	0	0	95	0	0	27	0	0	62
Lane Group Flow (vph)	283	142	0	152	120	177	54	4043	147	207	2826	123
Turn Type	Prot			Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	23.5	20.5		17.0	14.0	14.0	8.2	115.5	115.5	17.5	124.8	124.8
Effective Green, g (s)	24.0	21.5		17.5	15.0	15.0	8.7	117.0	117.0	18.0	126.3	126.3
Actuated g/C Ratio	0.13	0.11		0.09	0.08	0.08	0.05	0.62	0.62	0.09	0.66	0.66
Clearance Time (s)	4.5	5.0		4.5	5.0	5.0	4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	214	186		161	146	124	80	3101	966	166	3348	1042
v/s Ratio Prot	c0.17	0.09		0.09	0.07		0.03	c0.80		c0.12	0.56	
v/s Ratio Perm						c0.11			0.09			0.08
v/c Ratio	1.32	0.76		0.94	0.82	1.43	0.68	1.30	0.15	1.25	0.84	0.12
Uniform Delay, d1	83.0	81.8		85.8	86.2	87.5	89.3	36.5	15.5	86.0	24.3	11.6
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.14	0.39	0.19	1.06	1.03	1.37
Incremental Delay, d2	173.9	16.7		54.1	29.6	232.9	2.0	136.9	0.0	131.6	1.3	0.1
Delay (s)	256.9	98.5		139.9	115.8	320.4	104.2	151.2	3.0	222.9	26.4	16.0
Level of Service	F	F		F	F	F	F	F	A	F	C	B
Approach Delay (s)		199.0			224.8			144.6			38.5	
Approach LOS		F			F			F			D	

Intersection Summary			
HCM Average Control Delay	112.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.31		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	118.5%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	13	13	13	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.99	1.00	0.95	0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1720	1790	1620	1665	1724	1568	1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	0.99	1.00	0.95	0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1720	1790	1620	1665	1724	1568	1752	5036	1568	1752	5036	1568
Volume (vph)	230	150	150	250	130	120	120	3630	240	150	2540	120
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	250	163	163	272	141	130	130	3946	261	163	2761	130
RTOR Reduction (vph)	0	0	125	0	0	95	0	0	96	0	0	49
Lane Group Flow (vph)	201	212	38	201	212	35	130	3946	165	163	2761	81
Turn Type	Split		Perm	Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	18.0	18.0	18.0	19.0	19.0	19.0	16.5	118.5	118.5	14.5	116.5	116.5
Effective Green, g (s)	19.0	19.0	19.0	20.0	20.0	20.0	17.0	120.0	120.0	15.0	118.0	118.0
Actuated g/C Ratio	0.10	0.10	0.10	0.11	0.11	0.11	0.09	0.63	0.63	0.08	0.62	0.62
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	2.5	5.0	5.0	2.5	5.0	5.0
Lane Grp Cap (vph)	172	179	162	175	181	165	157	3181	990	138	3128	974
v/s Ratio Prot	0.12	c0.12		0.12	c0.12		0.07	c0.78		c0.09	0.55	
v/s Ratio Perm			0.02			0.02			0.11			0.05
v/c Ratio	1.17	1.18	0.23	1.15	1.17	0.21	0.83	1.24	0.17	1.18	0.88	0.08
Uniform Delay, d1	85.5	85.5	78.8	85.0	85.0	77.8	85.1	35.0	14.4	87.5	30.2	14.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.25	0.29	0.00	0.82	0.57	0.97
Incremental Delay, d2	121.3	125.6	0.7	113.6	120.6	0.6	3.3	108.5	0.0	110.1	1.9	0.1
Delay (s)	206.8	211.1	79.5	198.6	205.6	78.4	109.2	118.5	0.0	181.7	19.1	14.0
Level of Service	F	F	E	F	F	E	F	F	A	F	B	B
Approach Delay (s)		172.4			172.6			111.1			27.6	
Approach LOS		F			F			F			C	

Intersection Summary			
HCM Average Control Delay	89.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.22		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	112.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95		0.91	0.91	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.99		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1665	1635		3189	1619	1568	1752	5036	1568	3400	5036	1568
Flt Permitted	0.95	0.99		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1665	1635		3189	1619	1568	1752	5036	1568	3400	5036	1568
Volume (vph)	180	80	70	800	80	430	20	3350	420	300	2330	20
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	196	87	76	870	87	467	22	3641	457	326	2533	22
RTOR Reduction (vph)	0	13	0	0	0	103	0	0	195	0	0	5
Lane Group Flow (vph)	173	173	0	627	330	364	22	3641	262	326	2533	17
Turn Type	Split			Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	15.0	15.0		33.0	33.0	33.0	3.7	107.5	107.5	14.5	118.3	118.3
Effective Green, g (s)	16.0	16.0		34.0	34.0	34.0	4.2	109.0	109.0	15.0	119.8	119.8
Actuated g/C Ratio	0.08	0.08		0.18	0.18	0.18	0.02	0.57	0.57	0.08	0.63	0.63
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	4.0	4.0		4.0	4.0	4.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	140	138		571	290	281	39	2889	900	268	3175	989
v/s Ratio Prot	0.10	c0.11		0.20	0.20		0.01	c0.72		c0.10	0.50	
v/s Ratio Perm						c0.23			0.17			0.01
v/c Ratio	1.24	1.25		1.10	1.14	1.29	0.56	1.26	0.29	1.22	0.80	0.02
Uniform Delay, d1	87.0	87.0		78.0	78.0	78.0	92.0	40.5	20.7	87.5	26.1	13.1
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.69	0.32	0.12	1.02	0.95	0.77
Incremental Delay, d2	152.8	160.6		67.3	95.4	156.1	1.7	117.4	0.1	116.3	1.3	0.0
Delay (s)	239.8	247.6		145.3	173.4	234.1	65.5	130.2	2.7	205.3	26.1	10.1
Level of Service	F	F		F	F	F	E	F	A	F	C	B
Approach Delay (s)		243.9			180.9			115.7			46.3	
Approach LOS		F			F			F			D	

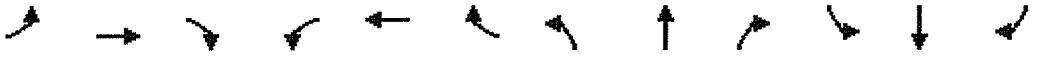
Intersection Summary			
HCM Average Control Delay	108.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.26		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	112.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95		0.95	0.95	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.99		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1665	1683		1665	1686	1568	1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	0.99		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1665	1683		1665	1686	1568	1752	5036	1568	1752	5036	1568
Volume (vph)	160	90	30	320	40	160	50	3190	320	310	2330	70
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	174	98	33	348	43	174	54	3467	348	337	2533	76
RTOR Reduction (vph)	0	5	0	0	0	83	0	0	79	0	0	15
Lane Group Flow (vph)	148	152	0	191	200	91	54	3467	269	337	2533	61
Turn Type	Split			Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	14.0	14.0		18.0	18.0	18.0	8.7	107.6	107.6	30.4	129.3	129.3
Effective Green, g (s)	15.0	15.0		19.0	19.0	19.0	9.2	109.1	109.1	30.9	130.8	130.8
Actuated g/C Ratio	0.08	0.08		0.10	0.10	0.10	0.05	0.57	0.57	0.16	0.69	0.69
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	2.5	5.0	5.0	2.5	5.0	5.0
Lane Grp Cap (vph)	131	133		167	169	157	85	2892	900	285	3467	1079
v/s Ratio Prot	0.09	c0.09		0.11	c0.12		0.03	c0.69		c0.19	0.50	
v/s Ratio Perm						0.06			0.17			0.04
v/c Ratio	1.13	1.15		1.14	1.18	0.58	0.64	1.20	0.30	1.18	0.73	0.06
Uniform Delay, d1	87.5	87.5		85.5	85.5	81.7	88.8	40.5	20.8	79.6	18.6	9.6
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.19	0.53	0.07	0.71	0.49	0.78
Incremental Delay, d2	117.7	122.6		113.5	127.2	5.4	1.2	89.8	0.1	97.9	0.6	0.0
Delay (s)	205.2	210.1		199.0	212.7	87.1	106.9	111.1	1.5	154.8	9.7	7.6
Level of Service	F	F		F	F	F	F	F	A	F	A	A
Approach Delay (s)		207.7			169.4			101.1			26.2	
Approach LOS		F			F			F			C	

Intersection Summary			
HCM Average Control Delay	81.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.19		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	105.4%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

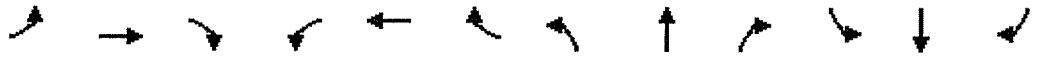
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.91		1.00	0.91	1.00
Frt		1.00	0.85	1.00	0.94		1.00	1.00		1.00	1.00	0.85
Flt Protected		0.95	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1760	1568	1752	1734		1752	5032		1752	5036	1568
Flt Permitted		0.68	1.00	0.22	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1255	1568	411	1734		1752	5032		1752	5036	1568
Volume (vph)	250	10	150	20	30	20	130	3510	20	20	2650	110
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	272	11	163	22	33	22	141	3815	22	22	2880	120
RTOR Reduction (vph)	0	0	84	0	13	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	283	79	22	42	0	141	3837	0	22	2880	120
Turn Type	Perm		Perm	Perm			Prot			Prot		Free
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8								Free
Actuated Green, G (s)		38.0	38.0	38.0	38.0		17.3	133.0		3.0	118.7	190.0
Effective Green, g (s)		39.0	39.0	39.0	39.0		18.8	134.5		4.5	120.2	190.0
Actuated g/C Ratio		0.21	0.21	0.21	0.21		0.10	0.71		0.02	0.63	1.00
Clearance Time (s)		5.0	5.0	5.0	5.0		5.5	5.5		5.5	5.5	
Vehicle Extension (s)		4.0	4.0	4.0	4.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)		258	322	84	356		173	3562		41	3186	1568
v/s Ratio Prot					0.02		c0.08	c0.76		0.01	0.57	
v/s Ratio Perm		c0.23	0.05	0.05								0.08
v/c Ratio		1.10	0.24	0.26	0.12		0.82	1.08		0.54	0.90	0.08
Uniform Delay, d1		75.5	63.2	63.4	61.5		83.9	27.8		91.7	29.9	0.0
Progression Factor		1.00	1.00	1.00	1.00		1.19	0.55		1.08	0.36	1.00
Incremental Delay, d2		84.4	0.5	2.3	0.2		2.8	35.3		6.1	2.3	0.0
Delay (s)		159.9	63.7	65.7	61.7		102.5	50.5		105.2	13.1	0.0
Level of Service		F	E	E	E		F	D		F	B	A
Approach Delay (s)		124.8			62.8			52.4			13.3	
Approach LOS		F			E			D			B	

Intersection Summary			
HCM Average Control Delay	41.1	HCM Level of Service	D
HCM Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	103.5%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95		0.97	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1845	1568	1752	3307		3400	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	1845	1568	1752	3307		3400	5036	1568	1752	5036	1568
Volume (vph)	100	70	180	180	150	90	180	3440	120	70	2640	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	76	196	196	163	98	196	3739	130	76	2870	33
RTOR Reduction (vph)	0	0	122	0	48	0	0	0	16	0	0	11
Lane Group Flow (vph)	109	76	74	196	213	0	196	3739	114	76	2870	22
Turn Type	Prot		Perm	Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)	8.1	8.0	8.0	20.7	20.6		15.9	133.5	133.5	7.3	124.9	124.9
Effective Green, g (s)	8.6	9.0	9.0	21.2	21.6		17.4	135.0	135.0	8.8	126.4	126.4
Actuated g/C Ratio	0.05	0.05	0.05	0.11	0.11		0.09	0.71	0.71	0.05	0.67	0.67
Clearance Time (s)	4.5	5.0	5.0	4.5	5.0		5.5	5.5	5.5	5.5	5.5	5.5
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	154	87	74	195	376		311	3578	1114	81	3350	1043
v/s Ratio Prot	0.03	0.04		c0.11	0.06		0.06	c0.74		0.04	c0.57	
v/s Ratio Perm			c0.05						0.07			0.01
v/c Ratio	0.71	0.87	1.00	1.01	0.57		0.63	1.04	0.10	0.94	0.86	0.02
Uniform Delay, d1	89.5	89.9	90.5	84.4	79.8		83.2	27.5	8.6	90.3	24.8	10.8
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.75	0.25	0.03	1.08	0.43	0.70
Incremental Delay, d2	13.8	57.9	104.9	65.8	2.4		0.4	21.3	0.0	57.9	1.9	0.0
Delay (s)	103.3	147.9	195.4	150.2	82.1		62.9	28.1	0.3	155.2	12.5	7.6
Level of Service	F	F	F	F	F		E	C	A	F	B	A
Approach Delay (s)		159.5			111.3			28.9			16.1	
Approach LOS		F			F			C			B	

Intersection Summary			
HCM Average Control Delay	35.1	HCM Level of Service	D
HCM Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	100.6%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

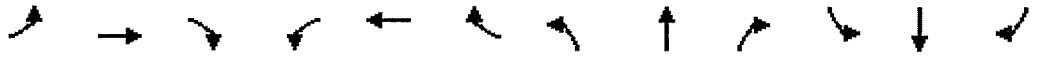


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.95		1.00	0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1751		1752	1645		1752	5036	1568	1752	5036	1568
Flt Permitted	0.32	1.00		0.67	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	593	1751		1235	1645		1752	5036	1568	1752	5036	1568
Volume (vph)	100	40	20	200	50	130	40	3540	120	90	2610	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	43	22	217	54	141	43	3848	130	98	2837	54
RTOR Reduction (vph)	0	10	0	0	49	0	0	0	12	0	0	9
Lane Group Flow (vph)	109	55	0	217	146	0	43	3848	118	98	2837	45
Turn Type	Perm			Perm			Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	30.0	30.0		30.0	30.0		7.7	134.9	134.9	10.1	137.3	137.3
Effective Green, g (s)	31.0	31.0		31.0	31.0		8.2	136.4	136.4	10.6	138.8	138.8
Actuated g/C Ratio	0.16	0.16		0.16	0.16		0.04	0.72	0.72	0.06	0.73	0.73
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	5.0	5.0		5.0	5.0		4.0	5.0	5.0	4.0	5.0	5.0
Lane Grp Cap (vph)	97	286		202	268		76	3615	1126	98	3679	1145
v/s Ratio Prot		0.03			0.09		0.02	c0.76		c0.06	0.56	
v/s Ratio Perm	c0.18			0.18					0.08			0.03
v/c Ratio	1.12	0.19		1.07	0.54		0.57	1.06	0.10	1.00	0.77	0.04
Uniform Delay, d1	79.5	68.7		79.5	73.0		89.2	26.8	8.2	89.7	15.8	7.1
Progression Factor	1.00	1.00		1.00	1.00		0.76	0.83	1.52	1.04	0.58	0.78
Incremental Delay, d2	128.6	0.7		84.4	3.9		1.1	29.7	0.0	79.1	1.2	0.0
Delay (s)	208.1	69.4		163.9	76.9		69.0	51.9	12.4	172.6	10.4	5.6
Level of Service	F	E		F	E		E	D	B	F	B	A
Approach Delay (s)		156.3			122.8			50.8			15.6	
Approach LOS		F			F			D			B	

Intersection Summary			
HCM Average Control Delay	43.3	HCM Level of Service	D
HCM Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	102.5%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

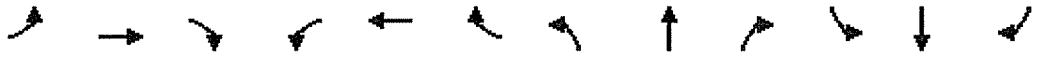
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	
Frt	1.00	0.85	1.00	1.00	1.00	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1752	1568	1752	5036	5025	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1752	1568	1752	5036	5025	
Volume (vph)	50	70	30	3670	2590	40
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	76	33	3989	2815	43
RTOR Reduction (vph)	0	63	0	0	1	0
Lane Group Flow (vph)	54	13	33	3989	2857	0
Turn Type		custom	Prot			
Protected Phases			5	2	6	
Permitted Phases	4	4				
Actuated Green, G (s)	10.3	10.3	6.9	169.2	157.8	
Effective Green, g (s)	11.3	11.3	7.4	170.7	159.3	
Actuated g/C Ratio	0.06	0.06	0.04	0.90	0.84	
Clearance Time (s)	5.0	5.0	4.5	5.5	5.5	
Vehicle Extension (s)	4.0	4.0	4.0	5.0	5.0	
Lane Grp Cap (vph)	104	93	68	4524	4213	
v/s Ratio Prot			0.02	c0.79	0.57	
v/s Ratio Perm	c0.03	0.01				
v/c Ratio	0.52	0.14	0.49	0.88	0.68	
Uniform Delay, d1	86.7	84.7	89.4	4.7	5.7	
Progression Factor	1.00	1.00	1.08	0.89	2.56	
Incremental Delay, d2	5.7	0.9	0.7	0.3	0.4	
Delay (s)	92.4	85.7	96.8	4.5	15.1	
Level of Service	F	F	F	A	B	
Approach Delay (s)	88.5			5.2	15.1	
Approach LOS	F			A	B	

Intersection Summary			
HCM Average Control Delay	10.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	84.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1746		1665	1688	1568	1752	5036	1568	3400	5036	1568
Flt Permitted	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1746		1665	1688	1568	1752	5036	1568	3400	5036	1568
Volume (vph)	100	90	50	440	60	290	70	3230	250	170	2350	60
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	98	54	478	65	315	76	3511	272	185	2554	65
RTOR Reduction (vph)	0	10	0	0	0	79	0	0	56	0	0	9
Lane Group Flow (vph)	109	142	0	265	278	236	76	3511	216	185	2554	56
Turn Type	Split			Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	13.0	13.0		28.0	28.0	28.0	12.7	119.2	119.2	9.8	116.3	116.3
Effective Green, g (s)	14.0	14.0		29.0	29.0	29.0	13.2	120.7	120.7	10.3	117.8	117.8
Actuated g/C Ratio	0.07	0.07		0.15	0.15	0.15	0.07	0.64	0.64	0.05	0.62	0.62
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	4.0	4.0		4.0	4.0	4.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	129	129		254	258	239	122	3199	996	184	3122	972
v/s Ratio Prot	0.06	c0.08		0.16	c0.16		0.04	c0.70		c0.05	0.51	
v/s Ratio Perm						0.15			0.14			0.04
v/c Ratio	0.84	1.10		1.04	1.08	0.99	0.62	1.10	0.22	1.01	0.82	0.06
Uniform Delay, d1	86.9	88.0		80.5	80.5	80.3	86.0	34.6	14.7	89.8	27.8	14.2
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.12	0.58	0.34	1.00	1.00	1.00
Incremental Delay, d2	38.2	108.4		68.2	78.2	54.5	4.4	46.6	0.2	67.8	2.5	0.1
Delay (s)	125.1	196.4		148.7	158.7	134.8	100.3	66.8	5.2	157.6	30.4	14.3
Level of Service	F	F		F	F	F	F	E	A	F	C	B
Approach Delay (s)		166.6			146.8			63.1			38.4	
Approach LOS		F			F			E			D	

Intersection Summary			
HCM Average Control Delay	66.9	HCM Level of Service	E
HCM Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	102.1%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.91	1.00	1.00	0.91	
Frt		0.99			1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.97			0.97	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1758			1789	1568	1752	5036	1568	1752	5026	
Flt Permitted		0.37			0.77	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		683			1426	1568	1752	5036	1568	1752	5026	
Volume (vph)	80	20	10	100	60	70	10	3310	40	110	2370	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	87	22	11	109	65	76	11	3598	43	120	2576	33
RTOR Reduction (vph)	0	3	0	0	0	0	0	0	5	0	1	0
Lane Group Flow (vph)	0	117	0	0	174	76	11	3598	38	120	2608	0
Turn Type	custom			custom		Free	Prot		Perm	Prot		
Protected Phases							5	2		1		
Permitted Phases	4	4		8	8	Free			2		6	
Actuated Green, G (s)		17.8			17.8	140.0	3.0	92.8	92.8	13.9	103.7	
Effective Green, g (s)		19.8			19.8	140.0	3.3	94.0	94.0	14.2	104.9	
Actuated g/C Ratio		0.14			0.14	1.00	0.02	0.67	0.67	0.10	0.75	
Clearance Time (s)		6.0			6.0		4.3	5.2	5.2	4.3	5.2	
Vehicle Extension (s)		3.0			3.0		3.0	5.0	5.0	3.0	5.0	
Lane Grp Cap (vph)		97			202	1568	41	3381	1053	178	3766	
v/s Ratio Prot							0.01	c0.71		c0.07		
v/s Ratio Perm		c0.17			0.12	0.05			0.02		0.52	
v/c Ratio		1.21			0.86	0.05	0.27	1.06	0.04	0.67	0.69	
Uniform Delay, d1		60.1			58.8	0.0	67.2	23.0	7.7	60.7	9.1	
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	0.91	1.99	
Incremental Delay, d2		158.5			29.3	0.1	3.5	36.0	0.1	2.6	0.3	
Delay (s)		218.6			88.0	0.1	70.7	59.0	7.8	58.1	18.5	
Level of Service		F			F	A	E	E	A	E	B	
Approach Delay (s)		218.6			61.3			58.4			20.2	
Approach LOS		F			E			E			C	

Intersection Summary			
HCM Average Control Delay	45.9	HCM Level of Service	D
HCM Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	92.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	0.91		0.91	0.91	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.99		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1595	3251		3189	1679	1568	1752	5036	1568	3400	5036	1568
Flt Permitted	0.95	0.99		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1595	3251		3189	1679	1568	1752	5036	1568	3400	5036	1568
Volume (vph)	250	290	70	620	370	560	150	2780	450	610	1950	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	272	315	76	674	402	609	163	3022	489	663	2120	54
RTOR Reduction (vph)	0	12	0	0	0	202	0	0	181	0	0	23
Lane Group Flow (vph)	214	437	0	674	402	407	163	3022	308	663	2120	31
Turn Type	Split			Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	19.4	19.4		21.2	21.2	21.2	12.5	55.8	55.8	19.5	62.8	62.8
Effective Green, g (s)	22.3	22.3		24.0	24.0	24.0	12.8	57.9	57.9	19.8	64.9	64.9
Actuated g/C Ratio	0.16	0.16		0.17	0.17	0.17	0.09	0.41	0.41	0.14	0.46	0.46
Clearance Time (s)	6.9	6.9		6.8	6.8	6.8	4.3	6.1	6.1	4.3	6.1	6.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	254	518		547	288	269	160	2083	648	481	2335	727
v/s Ratio Prot	0.13	c0.13		0.21	0.24		0.09	c0.60		c0.20	0.42	
v/s Ratio Perm						c0.26			0.20			0.02
v/c Ratio	0.84	0.84		1.23	1.40	1.51	1.02	1.45	0.47	1.38	0.91	0.04
Uniform Delay, d1	57.1	57.2		58.0	58.0	58.0	63.6	41.1	30.0	60.1	34.8	20.5
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.31	0.94	1.16	1.10	1.15	1.13
Incremental Delay, d2	21.6	12.0		119.7	198.0	248.9	26.2	203.1	0.2	179.8	5.0	0.1
Delay (s)	78.8	69.1		177.7	256.0	306.9	109.3	241.5	34.9	245.6	44.9	23.4
Level of Service	E	E		F	F	F	F	F	C	F	D	C
Approach Delay (s)		72.2			243.1			208.1			91.4	
Approach LOS		E			F			F			F	

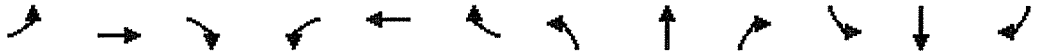
Intersection Summary			
HCM Average Control Delay	167.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.34		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	115.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1845	1568	1752	1637		1752	5036	1568	1752	5036	1568
Flt Permitted	0.73	1.00	1.00	0.74	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1344	1845	1568	1371	1637		1752	5036	1568	1752	5036	1568
Volume (vph)	60	20	100	40	10	30	160	3340	20	30	2310	40
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	22	109	43	11	33	174	3630	22	33	2511	43
RTOR Reduction (vph)	0	0	98	0	30	0	0	0	5	0	0	11
Lane Group Flow (vph)	65	22	11	43	14	0	174	3630	17	33	2511	32
Turn Type	Perm		Perm	Perm			Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	12.0	12.0	12.0	12.0	12.0		17.9	105.7	105.7	5.4	93.2	93.2
Effective Green, g (s)	14.5	14.5	14.5	14.5	14.5		18.2	107.8	107.8	5.7	95.3	95.3
Actuated g/C Ratio	0.10	0.10	0.10	0.10	0.10		0.13	0.77	0.77	0.04	0.68	0.68
Clearance Time (s)	6.5	6.5	6.5	6.5	6.5		4.3	6.1	6.1	4.3	6.1	6.1
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	139	191	162	142	170		228	3878	1207	71	3428	1067
v/s Ratio Prot		0.01			0.01		c0.10	c0.72		0.02	0.50	
v/s Ratio Perm	c0.05		0.01	0.03					0.01			0.02
v/c Ratio	0.47	0.12	0.07	0.30	0.08		0.76	0.94	0.01	0.46	0.73	0.03
Uniform Delay, d1	59.1	56.9	56.7	58.1	56.7		58.8	13.3	3.7	65.7	14.2	7.3
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.14	1.19	0.04	0.71	0.79	1.27
Incremental Delay, d2	2.5	0.3	0.2	1.2	0.2		1.4	0.6	0.0	2.3	0.7	0.0
Delay (s)	61.6	57.2	56.8	59.3	57.0		68.7	16.4	0.1	48.7	11.9	9.3
Level of Service	E	E	E	E	E		E	B	A	D	B	A
Approach Delay (s)		58.5			58.1			18.7			12.3	
Approach LOS		E			E			B			B	

Intersection Summary			
HCM Average Control Delay	17.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	88.7%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	0.97	1.00	1.00	0.97	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1845	1568	3400	1845	1568	3400	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	1845	1568	3400	1845	1568	3400	5036	1568	1752	5036	1568
Volume (vph)	180	140	60	350	230	190	190	2610	420	160	2150	100
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	196	152	65	380	250	207	207	2837	457	174	2337	109
RTOR Reduction (vph)	0	0	56	0	0	173	0	0	117	0	0	52
Lane Group Flow (vph)	196	152	9	380	250	34	207	2837	340	174	2337	57
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	13.1	15.7	15.7	17.2	19.8	19.8	13.5	68.2	68.2	16.9	71.6	71.6
Effective Green, g (s)	14.0	18.6	18.6	18.1	22.7	22.7	13.8	70.1	70.1	17.2	73.5	73.5
Actuated g/C Ratio	0.10	0.13	0.13	0.13	0.16	0.16	0.10	0.50	0.50	0.12	0.52	0.52
Clearance Time (s)	4.9	6.9	6.9	4.9	6.9	6.9	4.3	5.9	5.9	4.3	5.9	5.9
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	340	245	208	440	299	254	335	2522	785	215	2644	823
v/s Ratio Prot	0.06	0.08		c0.11	c0.14		0.06	c0.56		c0.10	c0.46	
v/s Ratio Perm			0.01			0.02			0.22			0.04
v/c Ratio	0.58	0.62	0.04	0.86	0.84	0.13	0.62	1.12	0.43	0.81	0.88	0.07
Uniform Delay, d1	60.2	57.4	52.9	59.7	56.8	50.2	60.6	35.0	22.3	59.8	29.5	16.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.17	0.88	0.87	1.03	0.82	2.32
Incremental Delay, d2	2.4	4.8	0.1	16.0	18.0	0.2	1.4	58.7	0.7	12.1	2.8	0.1
Delay (s)	62.5	62.2	53.0	75.7	74.8	50.5	72.5	89.6	20.1	73.7	27.0	38.1
Level of Service	E	E	D	E	E	D	E	F	C	E	C	D
Approach Delay (s)		60.9			69.2			79.5			30.6	
Approach LOS		E			E			E			C	

Intersection Summary			
HCM Average Control Delay	59.9	HCM Level of Service	E
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	90.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

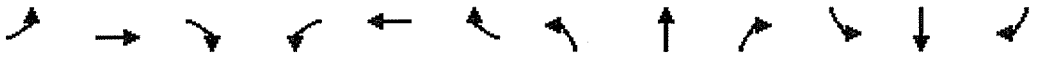


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00		0.97	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1845	1568	1752	1647		3400	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	1845	1568	1752	1647		3400	5036	1568	1752	5036	1568
Volume (vph)	150	70	110	130	60	150	190	2990	60	140	2170	100
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	163	76	120	141	65	163	207	3250	65	152	2359	109
RTOR Reduction (vph)	0	0	107	0	64	0	0	0	15	0	0	34
Lane Group Flow (vph)	163	76	13	141	164	0	207	3250	50	152	2359	75
Turn Type	Prot		Perm	Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)	11.7	12.4	12.4	13.4	14.1		12.9	75.8	75.8	14.4	77.3	77.3
Effective Green, g (s)	13.2	14.9	14.9	14.9	16.6		14.4	78.3	78.3	15.9	79.8	79.8
Actuated g/C Ratio	0.09	0.11	0.11	0.11	0.12		0.10	0.56	0.56	0.11	0.57	0.57
Clearance Time (s)	5.5	6.5	6.5	5.5	6.5		5.5	6.5	6.5	5.5	6.5	6.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	321	196	167	186	195		350	2817	877	199	2871	894
v/s Ratio Prot	0.05	0.04		c0.08	c0.10		0.06	c0.65		c0.09	0.47	
v/s Ratio Perm			0.01						0.03			0.05
v/c Ratio	0.51	0.39	0.08	0.76	0.84		0.59	1.15	0.06	0.76	0.82	0.08
Uniform Delay, d1	60.3	58.3	56.4	60.8	60.4		60.0	30.8	14.0	60.2	24.3	13.6
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.10	0.48	0.74	1.07	0.96	0.87
Incremental Delay, d2	1.3	1.3	0.2	16.1	25.8		0.8	70.5	0.0	6.7	1.1	0.1
Delay (s)	61.6	59.6	56.5	76.9	86.2		67.1	85.4	10.4	71.4	24.4	11.9
Level of Service	E	E	E	E	F		E	F	B	E	C	B
Approach Delay (s)		59.5			82.7			82.9			26.6	
Approach LOS		E			F			F			C	

Intersection Summary			
HCM Average Control Delay	60.2	HCM Level of Service	E
HCM Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	95.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

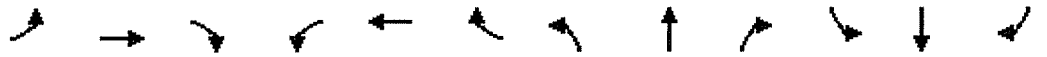
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt		1.00	0.85		0.96		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97	1.00		0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1786	1568		1743		1752	5036	1568	1752	5036	1568
Flt Permitted		0.61	1.00		0.33		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1125	1568		587		1752	5036	1568	1752	5036	1568
Volume (vph)	170	90	10	80	60	50	170	2940	130	90	2370	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	185	98	11	87	65	54	185	3196	141	98	2576	11
RTOR Reduction (vph)	0	0	7	0	9	0	0	0	21	0	0	5
Lane Group Flow (vph)	0	283	4	0	197	0	185	3196	120	98	2576	6
Turn Type	Perm		Perm	Perm			Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)		26.7	26.7		26.7		18.1	86.2	86.2	10.6	78.7	78.7
Effective Green, g (s)		29.6	29.6		29.6		18.4	87.5	87.5	10.9	80.0	80.0
Actuated g/C Ratio		0.21	0.21		0.21		0.13	0.62	0.62	0.08	0.57	0.57
Clearance Time (s)		6.9	6.9		6.9		4.3	5.3	5.3	4.3	5.3	5.3
Vehicle Extension (s)		3.0	3.0		3.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)		238	332		124		230	3148	980	136	2878	896
v/s Ratio Prot							c0.11	c0.63		0.06	0.51	
v/s Ratio Perm		0.25	0.00		c0.33				0.08			0.00
v/c Ratio		1.19	0.01		1.58		0.80	1.02	0.12	0.72	0.90	0.01
Uniform Delay, d1		55.2	43.6		55.2		59.1	26.2	10.7	63.1	26.3	12.9
Progression Factor		1.00	1.00		1.00		0.92	1.69	1.45	0.69	1.13	2.05
Incremental Delay, d2		119.1	0.0		298.0		1.9	9.4	0.0	12.3	3.5	0.0
Delay (s)		174.3	43.7		353.2		56.3	53.8	15.5	56.1	33.2	26.5
Level of Service		F	D		F		E	D	B	E	C	C
Approach Delay (s)		169.4			353.2			52.4			34.0	
Approach LOS		F			F			D			C	

Intersection Summary			
HCM Average Control Delay	59.4	HCM Level of Service	E
HCM Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	92.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



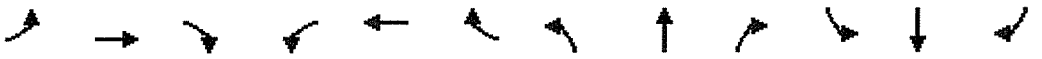
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.92			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00			0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1706			1800	1568	1752	5036	1568	3400	5036	1568
Flt Permitted	0.95	1.00			0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1706			1800	1568	1752	5036	1568	3400	5036	1568
Volume (vph)	30	30	30	30	30	350	30	3260	40	260	2330	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	33	33	33	33	380	33	3543	43	283	2533	11
RTOR Reduction (vph)	0	28	0	0	0	313	0	0	18	0	0	1
Lane Group Flow (vph)	33	38	0	0	66	67	33	3543	25	283	2533	10
Turn Type	Split			Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	7.6	7.6			12.1	12.1	5.7	79.7	79.7	16.8	90.8	90.8
Effective Green, g (s)	10.4	10.4			14.9	14.9	6.0	81.6	81.6	17.1	92.7	92.7
Actuated g/C Ratio	0.07	0.07			0.11	0.11	0.04	0.58	0.58	0.12	0.66	0.66
Clearance Time (s)	6.8	6.8			6.8	6.8	4.3	5.9	5.9	4.3	5.9	5.9
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	130	127			192	167	75	2935	914	415	3335	1038
v/s Ratio Prot	0.02	c0.02			0.04		0.02	c0.70		c0.08	0.50	
v/s Ratio Perm						c0.04			0.02			0.01
v/c Ratio	0.25	0.30			0.34	0.40	0.44	1.21	0.03	0.68	0.76	0.01
Uniform Delay, d1	61.1	61.4			58.0	58.4	65.4	29.2	12.4	58.8	16.1	8.0
Progression Factor	1.00	1.00			1.00	1.00	1.17	0.44	0.22	1.24	0.25	0.40
Incremental Delay, d2	1.0	1.3			1.1	1.6	1.1	94.2	0.0	2.0	0.7	0.0
Delay (s)	62.2	62.7			59.1	60.0	77.4	107.1	2.7	75.0	4.8	3.2
Level of Service	E	E			E	E	E	F	A	E	A	A
Approach Delay (s)		62.5			59.9			105.6			11.8	
Approach LOS		E			E			F			B	

Intersection Summary			
HCM Average Control Delay	64.2	HCM Level of Service	E
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	98.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.97	1.00	0.95	0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1665	1693	1568	1665	1714	1568	1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	0.97	1.00	0.95	0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1665	1693	1568	1665	1714	1568	1752	5036	1568	1752	5036	1568
Volume (vph)	330	60	20	150	60	70	80	3210	210	50	2350	140
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	359	65	22	163	65	76	87	3489	228	54	2554	152
RTOR Reduction (vph)	0	0	18	0	0	67	0	0	46	0	0	49
Lane Group Flow (vph)	207	217	4	111	117	9	87	3489	182	54	2554	103
Turn Type	Split		Perm	Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	19.8	19.8	19.8	12.9	12.9	12.9	7.7	72.6	72.6	8.1	73.0	73.0
Effective Green, g (s)	22.8	22.8	22.8	15.9	15.9	15.9	10.0	74.9	74.9	10.4	75.3	75.3
Actuated g/C Ratio	0.16	0.16	0.16	0.11	0.11	0.11	0.07	0.54	0.54	0.07	0.54	0.54
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	6.3	6.3	6.3	6.3	6.3	6.3
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	271	276	255	189	195	178	125	2694	839	130	2709	843
v/s Ratio Prot	0.12	c0.13		0.07	c0.07		c0.05	c0.69		0.03	0.51	
v/s Ratio Perm			0.00			0.01			0.12			0.07
v/c Ratio	0.76	0.79	0.01	0.59	0.60	0.05	0.70	1.30	0.22	0.42	0.94	0.12
Uniform Delay, d1	56.0	56.3	49.2	58.9	59.0	55.3	63.5	32.6	17.1	61.9	30.3	16.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.97	1.55	1.06	0.95	0.69
Incremental Delay, d2	12.0	13.7	0.0	4.6	5.1	0.1	1.5	133.1	0.1	1.1	4.7	0.2
Delay (s)	68.1	70.0	49.2	63.5	64.1	55.4	59.9	164.6	26.5	66.8	33.7	11.2
Level of Service	E	E	D	E	E	E	E	F	C	E	C	B
Approach Delay (s)		68.1			61.7			154.0			33.1	
Approach LOS		E			E			F			C	

Intersection Summary			
HCM Average Control Delay	99.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	91.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

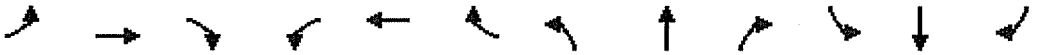


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.88		1.00	0.86		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1624		1752	1591		1752	5036	1568	1752	5036	1568
Flt Permitted	0.67	1.00		0.51	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1242	1624		946	1591		1752	5036	1568	1752	5036	1568
Volume (vph)	60	10	40	360	10	110	50	3070	310	70	2410	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	11	43	391	11	120	54	3337	337	76	2620	54
RTOR Reduction (vph)	0	40	0	0	105	0	0	0	57	0	0	11
Lane Group Flow (vph)	65	14	0	391	26	0	54	3337	280	76	2620	43
Turn Type	pm+pt			pm+pt			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	16.5	8.1		29.1	15.7		6.2	82.5	82.5	9.9	86.2	86.2
Effective Green, g (s)	19.3	9.9		30.9	17.5		8.4	85.0	85.0	12.1	88.7	88.7
Actuated g/C Ratio	0.14	0.07		0.22	0.12		0.06	0.61	0.61	0.09	0.63	0.63
Clearance Time (s)	5.0	5.8		5.0	5.8		6.2	6.5	6.5	6.2	6.5	6.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	205	115		307	199		105	3058	952	151	3191	993
v/s Ratio Prot	0.02	0.01		c0.15	0.02		0.03	c0.66		c0.04	c0.52	
v/s Ratio Perm	0.02			c0.13					0.18			0.03
v/c Ratio	0.32	0.12		1.27	0.13		0.51	1.09	0.29	0.50	0.82	0.04
Uniform Delay, d1	54.0	61.0		53.0	54.5		63.8	27.5	13.2	61.1	19.6	9.7
Progression Factor	1.00	1.00		1.00	1.00		1.20	1.06	0.82	1.00	1.00	1.00
Incremental Delay, d2	0.9	0.5		146.1	0.3		0.4	41.7	0.1	2.6	2.5	0.1
Delay (s)	54.9	61.5		199.1	54.8		77.1	70.9	10.8	63.7	22.1	9.7
Level of Service	D	E		F	D		E	E	B	E	C	A
Approach Delay (s)		57.9			162.9			65.5			23.0	
Approach LOS		E			F			E			C	

Intersection Summary			
HCM Average Control Delay	56.1	HCM Level of Service	E
HCM Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	92.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	1.00	0.97	0.91	1.00	0.97	0.91	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	0.98	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1752	1845	1568	3189	1648	1568	3400	5036	1568	3400	5027	
Flt Permitted	0.95	1.00	1.00	0.95	0.98	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1752	1845	1568	3189	1648	1568	3400	5036	1568	3400	5027	
Volume (vph)	240	240	70	1110	310	490	220	2530	670	620	1630	20
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	261	261	76	1207	337	533	239	2750	728	674	1772	22
RTOR Reduction (vph)	0	0	63	0	0	156	0	0	0	0	1	0
Lane Group Flow (vph)	261	261	13	1012	532	377	239	2750	728	674	1793	0
Turn Type	Split		Perm	Split		Perm	Prot		Free	Prot		
Protected Phases	3	3		4	4		5	2		1	6	
Permitted Phases			3			4			Free			
Actuated Green, G (s)	22.7	22.7	22.7	23.5	23.5	23.5	12.8	58.0	144.2	13.0	58.2	
Effective Green, g (s)	25.2	25.2	25.2	26.0	26.0	26.0	15.8	61.0	144.2	16.0	61.2	
Actuated g/C Ratio	0.17	0.17	0.17	0.18	0.18	0.18	0.11	0.42	1.00	0.11	0.42	
Clearance Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	7.0	7.0		7.0	7.0	
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.0		4.0	5.0	
Lane Grp Cap (vph)	306	322	274	575	297	283	373	2130	1568	377	2134	
v/s Ratio Prot	c0.15	0.14		0.32	c0.32		0.07	c0.55		c0.20	0.36	
v/s Ratio Perm			0.01			0.24			c0.46			
v/c Ratio	0.85	0.81	0.05	1.76	1.79	1.33	0.64	1.29	0.46	1.79	0.84	
Uniform Delay, d1	57.7	57.2	49.5	59.1	59.1	59.1	61.5	41.6	0.0	64.1	37.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	20.6	14.9	0.1	349.1	369.3	172.1	4.2	134.6	1.0	365.0	3.5	
Delay (s)	78.3	72.1	49.6	408.2	428.4	231.2	65.6	176.2	1.0	429.1	40.6	
Level of Service	E	E	D	F	F	F	E	F	A	F	D	
Approach Delay (s)		72.0			367.9			134.8			146.7	
Approach LOS		E			F			F			F	

Intersection Summary			
HCM Average Control Delay	188.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.37		
Actuated Cycle Length (s)	144.2	Sum of lost time (s)	16.0
Intersection Capacity Utilization	119.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.91	1.00	1.00	0.91	
Frt		0.96			1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.98			0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1733			1762	1568	1752	5036	1568	1752	5032	
Flt Permitted		0.88			0.76	1.00	0.09	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1553			1396	1568	159	5036	1568	1752	5032	
Volume (vph)	10	10	10	170	10	190	20	2620	160	120	1900	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	11	185	11	207	22	2848	174	130	2065	11
RTOR Reduction (vph)	0	9	0	0	0	129	0	0	65	0	0	0
Lane Group Flow (vph)	0	24	0	0	196	78	22	2848	109	130	2076	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Prot		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2		2			
Actuated Green, G (s)		23.0			23.0	23.0	85.5	85.5	85.5	13.2	104.5	
Effective Green, g (s)		25.1			25.1	25.1	87.9	87.9	87.9	15.0	106.9	
Actuated g/C Ratio		0.18			0.18	0.18	0.63	0.63	0.63	0.11	0.76	
Clearance Time (s)		6.1			6.1	6.1	6.4	6.4	6.4	5.8	6.4	
Vehicle Extension (s)		5.0			5.0	5.0	6.0	6.0	6.0	4.0	6.0	
Lane Grp Cap (vph)		278			250	281	100	3162	984	188	3842	
v/s Ratio Prot								c0.57		c0.07	0.41	
v/s Ratio Perm		0.02			c0.14	0.05	0.14		0.07			
v/c Ratio		0.09			0.78	0.28	0.22	0.90	0.11	0.69	0.54	
Uniform Delay, d1		47.9			54.9	49.6	11.2	22.3	10.4	60.3	6.7	
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.3			16.9	1.1	5.0	4.7	0.2	11.2	0.5	
Delay (s)		48.2			71.8	50.8	16.3	27.0	10.6	71.5	7.2	
Level of Service		D			E	D	B	C	B	E	A	
Approach Delay (s)		48.2			61.0			26.0			11.0	
Approach LOS		D			E			C			B	

Intersection Summary			
HCM Average Control Delay	22.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	83.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00	1.00	0.95	0.95		1.00	0.91	1.00	1.00	0.91	1.00
Frt		1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.98	1.00	0.95	0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1811	1568	1665	1669		1752	5036	1568	1752	5036	1568
Flt Permitted		0.98	1.00	0.95	0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1811	1568	1665	1669		1752	5036	1568	1752	5036	1568
Volume (vph)	100	170	60	430	130	60	40	1920	310	150	1450	40
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	185	65	467	141	65	43	2087	337	163	1576	43
RTOR Reduction (vph)	0	0	17	0	5	0	0	0	117	0	0	20
Lane Group Flow (vph)	0	294	48	333	335	0	43	2087	220	163	1576	23
Turn Type	Split		Perm	Split			Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)		25.7	25.7	27.3	27.3		6.9	44.2	44.2	16.7	54.0	54.0
Effective Green, g (s)		29.2	29.2	30.8	30.8		8.4	47.7	47.7	18.2	57.5	57.5
Actuated g/C Ratio		0.21	0.21	0.22	0.22		0.06	0.34	0.34	0.13	0.41	0.41
Clearance Time (s)		7.5	7.5	7.5	7.5		5.5	7.5	7.5	5.5	7.5	7.5
Vehicle Extension (s)		5.0	5.0	4.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)		373	323	361	362		104	1693	527	225	2041	635
v/s Ratio Prot		c0.16		0.20	c0.20		0.02	c0.41		c0.09	0.31	
v/s Ratio Perm			0.03						0.14			0.01
v/c Ratio		0.79	0.15	0.92	0.92		0.41	1.23	0.42	0.72	0.77	0.04
Uniform Delay, d1		53.4	46.2	54.4	54.4		64.4	47.1	36.4	59.4	36.5	25.5
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		12.1	0.5	28.8	29.0		2.7	110.1	0.7	11.0	2.0	0.0
Delay (s)		65.5	46.6	83.2	83.5		67.0	157.2	37.1	70.4	38.5	25.5
Level of Service		E	D	F	F		E	F	D	E	D	C
Approach Delay (s)		62.1			83.3			139.2			41.1	
Approach LOS		E			F			F			D	

Intersection Summary			
HCM Average Control Delay	93.7	HCM Level of Service	F
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	141.9	Sum of lost time (s)	16.0
Intersection Capacity Utilization	90.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.94			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00			0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1730			1782	1568	1752	5036	1568	1752	5036	1568
Flt Permitted	0.46	1.00			0.65	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	847	1730			1208	1568	1752	5036	1568	1752	5036	1568
Volume (vph)	50	70	50	140	60	80	70	1940	120	80	1450	40
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	76	54	152	65	87	76	2109	130	87	1576	43
RTOR Reduction (vph)	0	22	0	0	0	37	0	0	49	0	0	20
Lane Group Flow (vph)	54	108	0	0	217	50	76	2109	81	87	1576	23
Turn Type	Perm			Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8			2			6
Actuated Green, G (s)	21.4	21.4			21.4	21.4	8.5	51.5	51.5	8.9	51.9	51.9
Effective Green, g (s)	24.9	24.9			24.9	24.9	9.5	55.0	55.0	9.9	55.4	55.4
Actuated g/C Ratio	0.24	0.24			0.24	0.24	0.09	0.54	0.54	0.10	0.54	0.54
Clearance Time (s)	7.5	7.5			7.5	7.5	5.0	7.5	7.5	5.0	7.5	7.5
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	207	423			295	384	163	2721	847	170	2741	853
v/s Ratio Prot		0.06					0.04	c0.42		c0.05	0.31	
v/s Ratio Perm	0.06				c0.18	0.03			0.05			0.01
v/c Ratio	0.26	0.26			0.74	0.13	0.47	0.78	0.10	0.51	0.57	0.03
Uniform Delay, d1	31.0	31.0			35.4	30.0	43.7	18.5	11.3	43.7	15.4	10.7
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7	0.3			9.2	0.2	2.1	1.7	0.1	2.6	0.5	0.0
Delay (s)	31.7	31.3			44.6	30.2	45.9	20.2	11.4	46.2	15.9	10.8
Level of Service	C	C			D	C	D	C	B	D	B	B
Approach Delay (s)		31.4			40.5			20.5			17.3	
Approach LOS		C			D			C			B	

Intersection Summary			
HCM Average Control Delay	21.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	101.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt		0.96			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.98			0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1733			1763	1568	1752	5036	1568	1752	5036	1568
Flt Permitted		0.88			0.72	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1546			1326	1568	1752	5036	1568	1752	5036	1568
Volume (vph)	10	10	10	120	10	30	10	1810	160	50	1340	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	11	130	11	33	11	1967	174	54	1457	11
RTOR Reduction (vph)	0	9	0	0	0	28	0	0	70	0	0	4
Lane Group Flow (vph)	0	24	0	0	141	5	11	1967	104	54	1457	7
Turn Type	Perm			Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8			2			6
Actuated Green, G (s)		10.6			10.6	10.6	1.4	44.8	44.8	5.0	47.8	47.8
Effective Green, g (s)		13.1			13.1	13.1	4.2	47.6	47.6	7.2	50.6	50.6
Actuated g/C Ratio		0.16			0.16	0.16	0.05	0.60	0.60	0.09	0.63	0.63
Clearance Time (s)		6.5			6.5	6.5	6.8	6.8	6.8	6.2	6.8	6.8
Vehicle Extension (s)		4.0			4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)		253			217	257	92	3000	934	158	3189	993
v/s Ratio Prot							0.01	c0.39		c0.03	c0.29	
v/s Ratio Perm		0.02			c0.11	0.00			0.07			0.00
v/c Ratio		0.09			0.65	0.02	0.12	0.66	0.11	0.34	0.46	0.01
Uniform Delay, d1		28.4			31.3	28.0	36.1	10.7	7.0	34.1	7.6	5.4
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.2			7.3	0.0	0.6	0.6	0.1	1.3	0.1	0.0
Delay (s)		28.6			38.5	28.1	36.7	11.3	7.1	35.4	7.7	5.4
Level of Service		C			D	C	D	B	A	D	A	A
Approach Delay (s)		28.6			36.6			11.1			8.7	
Approach LOS		C			D			B			A	

Intersection Summary			
HCM Average Control Delay	11.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	79.9	Sum of lost time (s)	16.0
Intersection Capacity Utilization	62.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	0.88	1.00	0.91		0.97	0.91	1.00
Frt	1.00	0.95			1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.98	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1752	1752			1814	2760	1752	5027		3400	5036	1568
Flt Permitted	0.95	1.00			0.98	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1752	1752			1814	2760	1752	5027		3400	5036	1568
Volume (vph)	40	20	10	10	20	660	30	1780	20	400	1340	20
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	22	11	11	22	717	33	1935	22	435	1457	22
RTOR Reduction (vph)	0	10	0	0	0	0	0	1	0	0	0	11
Lane Group Flow (vph)	43	23	0	0	33	717	33	1956	0	435	1457	11
Turn Type	Split			Split		pt+ov	Prot			Prot		Perm
Protected Phases	4	4		8	8	8 1	5	2		1	6	
Permitted Phases												6
Actuated Green, G (s)	8.2	8.2			16.7	33.3	4.5	52.6		8.1	56.2	56.2
Effective Green, g (s)	11.7	11.7			21.2	37.3	8.5	57.6		12.1	61.2	61.2
Actuated g/C Ratio	0.10	0.10			0.18	0.31	0.07	0.49		0.10	0.52	0.52
Clearance Time (s)	7.5	7.5			8.5		8.0	9.0		8.0	9.0	9.0
Vehicle Extension (s)	4.0	4.0			4.0		3.0	4.0		3.0	4.0	4.0
Lane Grp Cap (vph)	173	173			324	868	126	2441		347	2599	809
v/s Ratio Prot	c0.02	0.01			0.02	c0.26	0.02	c0.39		c0.13	c0.29	
v/s Ratio Perm												0.01
v/c Ratio	0.25	0.13			0.10	0.83	0.26	0.80		1.25	0.56	0.01
Uniform Delay, d1	49.4	48.8			40.7	37.6	52.1	25.7		53.2	19.5	14.0
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.0	0.5			0.2	6.8	1.1	2.1		135.7	0.3	0.0
Delay (s)	50.4	49.3			40.9	44.4	53.2	27.8		188.9	19.9	14.0
Level of Service	D	D			D	D	D	C		F	B	B
Approach Delay (s)		49.9			44.3			28.2			58.2	
Approach LOS		D			D			C			E	

Intersection Summary			
HCM Average Control Delay	43.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	118.6	Sum of lost time (s)	20.0
Intersection Capacity Utilization	76.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00	1.00	0.95	0.95		1.00	0.91	1.00	1.00	0.91	1.00
Frt		1.00	0.85	1.00	0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97	1.00	0.95	0.99		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1785	1568	1665	1540		1752	5036	1568	1752	5036	1568
Flt Permitted		0.97	1.00	0.95	0.99		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1785	1568	1665	1540		1752	5036	1568	1752	5036	1568
Volume (vph)	20	10	10	570	10	340	10	1530	790	340	1110	20
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	11	11	620	11	370	11	1663	859	370	1207	22
RTOR Reduction (vph)	0	0	11	0	74	0	0	0	394	0	0	12
Lane Group Flow (vph)	0	33	0	499	428	0	11	1663	465	370	1207	10
Turn Type	Split		Perm	Split			Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)		3.4	3.4	45.5	45.5		2.8	46.7	46.7	20.2	64.1	64.1
Effective Green, g (s)		6.0	6.0	48.1	48.1		3.8	49.7	49.7	21.2	67.1	67.1
Actuated g/C Ratio		0.04	0.04	0.34	0.34		0.03	0.35	0.35	0.15	0.48	0.48
Clearance Time (s)		6.6	6.6	6.6	6.6		5.0	7.0	7.0	5.0	7.0	7.0
Vehicle Extension (s)		4.0	4.0	4.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)		76	67	568	525		47	1775	553	263	2397	746
v/s Ratio Prot		c0.02		c0.30	0.28		0.01	c0.33		c0.21	0.24	
v/s Ratio Perm			0.00						0.30			0.01
v/c Ratio		0.43	0.01	0.88	0.82		0.23	0.94	0.84	1.41	0.50	0.01
Uniform Delay, d1		65.8	64.6	43.7	42.4		67.2	44.1	42.0	59.9	25.5	19.5
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		5.3	0.1	14.8	9.9		2.6	10.0	11.5	204.3	0.2	0.0
Delay (s)		71.2	64.7	58.5	52.3		69.7	54.2	53.5	264.2	25.7	19.5
Level of Service		E	E	E	D		E	D	D	F	C	B
Approach Delay (s)		69.6			55.4			54.0			80.8	
Approach LOS		E			E			D			F	

Intersection Summary			
HCM Average Control Delay	62.7	HCM Level of Service	E
HCM Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	141.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	91.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Appendix C

Synchro Analysis for the Design Year (2030) No-Build Conditions

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.90		1.00	0.91		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1694	1656		1694	1678		1752	5036	1568	1752	5036	1568
Flt Permitted	0.55	1.00		0.45	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	985	1656		800	1678		1752	5036	1568	1752	5036	1568
Volume (vph)	180	70	150	360	60	90	80	2590	80	20	3830	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	196	76	163	391	65	98	87	2815	87	22	4163	33
RTOR Reduction (vph)	0	26	0	0	22	0	0	0	34	0	0	10
Lane Group Flow (vph)	196	213	0	391	141	0	87	2815	53	22	4163	23
Turn Type	Perm			Perm			Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	81.0	81.0		81.0	81.0		9.5	149.7	149.7	4.3	144.5	144.5
Effective Green, g (s)	82.0	82.0		82.0	82.0		10.0	151.2	151.2	4.8	146.0	146.0
Actuated g/C Ratio	0.33	0.33		0.33	0.33		0.04	0.60	0.60	0.02	0.58	0.58
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	4.0	4.0		4.0	4.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	323	543		262	550		70	3046	948	34	2941	916
v/s Ratio Prot		0.13			0.08		c0.05	0.56		0.01	c0.83	
v/s Ratio Perm	0.20			c0.49					0.03			0.01
v/c Ratio	0.61	0.39		1.49	0.26		1.24	0.92	0.06	0.65	1.42	0.02
Uniform Delay, d1	70.5	64.8		84.0	61.7		120.0	44.3	20.2	121.8	52.0	21.9
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.08	0.62	1.04
Incremental Delay, d2	3.7	0.6		240.7	0.3		186.4	6.1	0.1	3.8	187.2	0.0
Delay (s)	74.2	65.4		324.7	62.0		306.4	50.4	20.3	135.5	219.4	22.8
Level of Service	E	E		F	E		F	D	C	F	F	C
Approach Delay (s)		69.4			247.4			56.9			217.4	
Approach LOS		E			F			E			F	

Intersection Summary			
HCM Average Control Delay	153.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.43		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	116.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	196	239	391	163	87	2815	87	22	4163	33
v/c Ratio	0.61	0.42	1.49	0.28	1.24	0.92	0.09	0.54	1.42	0.04
Control Delay	79.9	56.7	291.7	51.0	270.0	49.9	3.2	133.1	215.7	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.9	56.7	291.7	51.0	270.0	49.9	3.2	133.1	215.7	8.7
Queue Length 50th (ft)	275	261	~888	162	~178	1525	0	38	~3361	7
Queue Length 95th (ft)	387	360	#1134	241	#328	1545	30	m29	m#2071	m4
Internal Link Dist (ft)		1402		1426		1282			1911	
Turn Bay Length (ft)	150		200		250		1000	250		800
Base Capacity (vph)	323	570	262	572	70	3064	988	41	2941	926
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.42	1.49	0.28	1.24	0.92	0.09	0.54	1.42	0.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	0.91		1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.99		1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.96		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3083	1596		1752	1746		1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	0.96		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3083	1596		1752	1746		1752	5036	1568	1752	5036	1568
Volume (vph)	1190	30	20	150	90	50	30	2830	30	10	3880	660
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1293	33	22	163	98	54	33	3076	33	11	4217	717
RTOR Reduction (vph)	0	1	0	0	8	0	0	0	4	0	0	0
Lane Group Flow (vph)	891	456	0	163	144	0	33	3076	29	11	4217	717
Turn Type	Split			Split			Prot		Perm	Prot		Free
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases									2			Free
Actuated Green, G (s)	53.0	53.0		17.0	17.0		4.0	156.0	156.0	3.0	155.0	250.0
Effective Green, g (s)	54.0	54.0		18.0	18.0		5.5	157.5	157.5	4.5	156.5	250.0
Actuated g/C Ratio	0.22	0.22		0.07	0.07		0.02	0.63	0.63	0.02	0.63	1.00
Clearance Time (s)	5.0	5.0		5.0	5.0		5.5	5.5	5.5	5.5	5.5	
Vehicle Extension (s)	4.0	4.0		4.0	4.0		3.0	5.0	5.0	3.0	5.0	
Lane Grp Cap (vph)	666	345		126	126		39	3173	988	32	3153	1568
v/s Ratio Prot	c0.29	0.29		c0.09	0.08		c0.02	0.61		0.01	c0.84	
v/s Ratio Perm									0.02			c0.46
v/c Ratio	1.34	1.32		1.29	1.14		0.85	0.97	0.03	0.34	1.34	0.46
Uniform Delay, d1	98.0	98.0		116.0	116.0		121.8	44.0	17.4	121.3	46.8	0.0
Progression Factor	1.00	1.00		1.00	1.00		1.14	0.33	0.50	1.18	0.41	1.00
Incremental Delay, d2	162.1	164.0		178.7	122.7		50.7	5.9	0.0	0.6	152.1	0.1
Delay (s)	260.1	262.0		294.7	238.7		189.1	20.4	8.8	143.7	171.1	0.1
Level of Service	F	F		F	F		F	C	A	F	F	A
Approach Delay (s)		260.7			267.7			22.0			146.3	
Approach LOS		F			F			C			F	

Intersection Summary			
HCM Average Control Delay	126.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.32		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	116.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	891	457	163	152	33	3076	33	11	4217	717
v/c Ratio	1.34	1.32	1.29	1.13	0.72	0.96	0.03	0.24	1.33	0.46
Control Delay	228.1	230.4	257.0	205.2	166.6	19.1	6.2	142.6	169.8	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0
Total Delay	228.1	230.4	257.0	205.2	166.6	19.6	6.2	142.6	169.8	0.1
Queue Length 50th (ft)	~1047	~1069	~342	~276	56	313	2	18	~3313	0
Queue Length 95th (ft)	#1194	#1349	#533	#462	m65	668	m5	m14	m1412	m0
Internal Link Dist (ft)		271		1474		1911			1889	
Turn Bay Length (ft)			150		250		250	350		1000
Base Capacity (vph)	666	346	126	134	46	3217	1006	46	3174	1568
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	23	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.34	1.32	1.29	1.13	0.72	0.96	0.03	0.24	1.33	0.46

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	11	11	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	0.88		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1845	1568	3286	1577		1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1845	1568	3286	1577		1752	5036	1568	1752	5036	1568
Volume (vph)	120	120	160	670	60	200	200	2830	340	100	4080	40
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	130	174	728	65	217	217	3076	370	109	4435	43
RTOR Reduction (vph)	0	0	96	0	48	0	0	0	113	0	0	4
Lane Group Flow (vph)	130	130	78	728	234	0	217	3076	257	109	4435	39
Turn Type	Prot		Perm	Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)	17.2	13.0	13.0	38.5	34.3		22.5	162.9	162.9	16.1	156.5	156.5
Effective Green, g (s)	17.7	14.0	14.0	39.0	35.3		23.0	164.4	164.4	16.6	158.0	158.0
Actuated g/C Ratio	0.07	0.06	0.06	0.16	0.14		0.09	0.66	0.66	0.07	0.63	0.63
Clearance Time (s)	4.5	5.0	5.0	4.5	5.0		4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	124	103	88	513	223		161	3312	1031	116	3183	991
v/s Ratio Prot	0.07	c0.07		c0.22	0.15		c0.12	0.61		0.06	c0.88	
v/s Ratio Perm			0.05						0.16			0.02
v/c Ratio	1.05	1.26	0.88	1.42	1.05		1.35	0.93	0.25	0.94	1.39	0.04
Uniform Delay, d1	116.2	118.0	117.2	105.5	107.4		113.5	37.6	17.5	116.2	46.0	17.4
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.97	0.93	1.97	0.75	1.20	1.48
Incremental Delay, d2	94.4	174.8	60.0	199.8	73.7		160.3	0.6	0.1	13.0	177.2	0.0
Delay (s)	210.5	292.8	177.2	305.3	181.1		270.8	35.6	34.5	100.3	232.5	25.7
Level of Service	F	F	F	F	F		F	D	C	F	F	C
Approach Delay (s)		221.8			270.6			49.4			227.4	
Approach LOS		F			F			D			F	

Intersection Summary			
HCM Average Control Delay	164.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.39		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	129.0%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

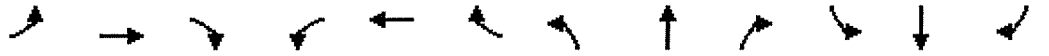
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	130	130	174	728	282	217	3076	370	109	4435	43
v/c Ratio	1.05	1.26	0.95	1.42	1.04	1.35	0.93	0.32	0.94	1.39	0.04
Control Delay	196.6	256.5	97.3	264.7	142.8	232.0	36.0	4.3	98.3	217.8	19.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
Total Delay	196.6	256.5	97.3	264.7	142.8	232.0	36.2	4.3	98.3	217.8	19.2
Queue Length 50th (ft)	~232	~268	125	~830	~418	~466	1445	61	181	~3556	29
Queue Length 95th (ft)	#407	#442	#306	#968	#645	m#436	m1173	m55	m140	m#2398	m21
Internal Link Dist (ft)		1464			1497		1889			2565	
Turn Bay Length (ft)	100		100	150		400		575	300		250
Base Capacity (vph)	124	103	184	513	271	161	3312	1144	116	3183	995
Starvation Cap Reductn	0	0	0	0	0	0	23	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.05	1.26	0.95	1.42	1.04	1.35	0.94	0.32	0.94	1.39	0.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.92		1.00	0.92		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1700		1752	1706		1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1700		1752	1706		1752	5036	1568	1752	5036	1568
Volume (vph)	260	100	110	140	70	70	90	2920	110	40	4130	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	283	109	120	152	76	76	98	3174	120	43	4489	54
RTOR Reduction (vph)	0	16	0	0	14	0	0	0	16	0	0	5
Lane Group Flow (vph)	283	213	0	152	138	0	98	3174	104	43	4489	49
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	31.5	27.0		19.0	15.0		10.5	175.7	175.7	8.3	173.5	173.5
Effective Green, g (s)	32.0	28.0		20.0	16.0		11.0	177.2	177.2	8.8	175.0	175.0
Actuated g/C Ratio	0.13	0.11		0.08	0.06		0.04	0.71	0.71	0.04	0.70	0.70
Clearance Time (s)	4.5	5.0		5.0	5.0		4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	224	190		140	109		77	3570	1111	62	3525	1098
v/s Ratio Prot	c0.16	c0.13		0.09	0.08		c0.06	0.63		0.02	c0.89	
v/s Ratio Perm									0.07			0.03
v/c Ratio	1.26	1.12		1.09	1.27		1.27	0.89	0.09	0.69	1.27	0.04
Uniform Delay, d1	109.0	111.0		115.0	117.0		119.5	28.7	11.4	119.3	37.5	11.6
Progression Factor	1.00	1.00		1.00	1.00		1.23	0.24	0.05	1.21	0.17	0.02
Incremental Delay, d2	149.2	101.6		100.9	173.7		152.7	1.3	0.1	3.0	123.3	0.0
Delay (s)	258.2	212.6		215.9	290.7		299.1	8.1	0.6	147.6	129.5	0.3
Level of Service	F	F		F	F		F	A	A	F	F	A
Approach Delay (s)		237.8			253.3			16.2			128.1	
Approach LOS		F			F			B			F	

Intersection Summary			
HCM Average Control Delay	95.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.25		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	112.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

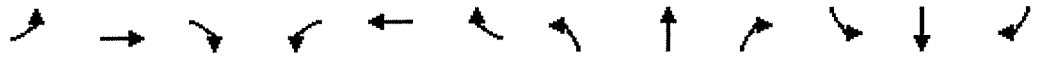
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	283	229	152	152	98	3174	120	43	4489	54
v/c Ratio	1.26	1.11	1.09	1.24	1.27	0.89	0.11	0.70	1.27	0.05
Control Delay	226.5	180.4	198.2	232.1	249.1	8.2	0.4	146.1	137.2	0.2
Queue Delay	0.0	0.0	0.0	4.2	0.0	2.6	0.0	0.0	13.4	0.0
Total Delay	226.5	180.4	198.2	236.4	249.1	10.8	0.4	146.1	150.7	0.2
Queue Length 50th (ft)	~584	~403	~280	~285	~205	309	1	75	~3406	0
Queue Length 95th (ft)	#809	#617	#465	#471	m#231	m231	m1	m61	m#1303	m0
Internal Link Dist (ft)		1508		1584		2565			960	
Turn Bay Length (ft)	175		150		850		250	375		
Base Capacity (vph)	224	206	140	123	77	3570	1127	63	3525	1103
Starvation Cap Reductn	0	0	0	0	0	0	0	0	81	0
Spillback Cap Reductn	0	0	0	1	0	285	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.26	1.11	1.09	1.25	1.27	0.97	0.11	0.68	1.30	0.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.91		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1694	1618		1752	1845	1568	1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1694	1618		1752	1845	1568	1752	5036	1568	1752	5036	1568
Volume (vph)	230	50	80	130	60	250	50	3020	60	110	4120	60
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	250	54	87	141	65	272	54	3283	65	120	4478	65
RTOR Reduction (vph)	0	23	0	0	0	69	0	0	9	0	0	19
Lane Group Flow (vph)	250	118	0	141	65	203	54	3283	56	120	4478	46
Turn Type	Prot			Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	28.5	28.7		22.8	23.0	23.0	6.5	162.2	162.2	16.8	172.5	172.5
Effective Green, g (s)	29.0	29.7		23.3	24.0	24.0	7.0	163.7	163.7	17.3	174.0	174.0
Actuated g/C Ratio	0.12	0.12		0.09	0.10	0.10	0.03	0.65	0.65	0.07	0.70	0.70
Clearance Time (s)	4.5	5.0		4.5	5.0	5.0	4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	197	192		163	177	151	49	3298	1027	121	3505	1091
v/s Ratio Prot	c0.15	0.07		0.08	0.04		0.03	0.65		c0.07	c0.89	
v/s Ratio Perm						c0.13			0.04			0.03
v/c Ratio	1.27	0.62		0.87	0.37	1.35	1.10	1.00	0.05	0.99	1.28	0.04
Uniform Delay, d1	110.5	104.7		111.8	105.9	113.0	121.5	42.8	15.4	116.3	38.0	11.9
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.03	0.50	0.60	1.07	0.54	0.69
Incremental Delay, d2	154.8	5.7		34.9	1.3	193.2	107.9	8.5	0.0	22.5	125.1	0.0
Delay (s)	265.3	110.5		146.7	107.2	306.2	233.3	29.8	9.2	147.2	145.8	8.2
Level of Service	F	F		F	F	F	F	C	A	F	F	A
Approach Delay (s)		209.4			232.1			32.6			143.9	
Approach LOS		F			F			C			F	

Intersection Summary			
HCM Average Control Delay	109.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.28		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	118.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	250	141	141	65	272	54	3283	65	120	4478	65
v/c Ratio	1.27	0.66	0.86	0.37	1.24	1.10	1.00	0.06	0.99	1.28	0.06
Control Delay	232.5	101.4	151.0	112.3	197.6	206.9	29.9	5.4	138.8	148.0	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	10.9	0.0	0.0	0.0	0.0
Total Delay	232.5	101.4	151.0	112.3	197.6	206.9	40.9	5.4	138.8	148.0	1.4
Queue Length 50th (ft)	~519	188	233	103	~437	~102	1825	6	204	~3407	3
Queue Length 95th (ft)	#737	285	#362	168	#664	m#118	m1356	m11	m178	m#2572	m1
Internal Link Dist (ft)		1383		1613			960			1165	
Turn Bay Length (ft)	300		350			300		275	600		825
Base Capacity (vph)	197	215	176	177	219	49	3298	1036	121	3505	1111
Starvation Cap Reductn	0	0	0	0	0	0	116	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.27	0.66	0.80	0.37	1.24	1.10	1.03	0.06	0.99	1.28	0.06

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

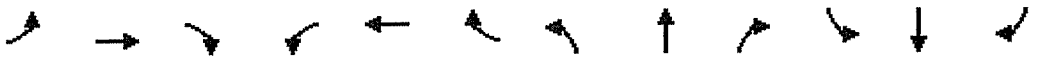
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	13	13	13	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.98	1.00	0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1720	1776	1620	1665	1689	1568	1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	0.98	1.00	0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1720	1776	1620	1665	1689	1568	1752	5036	1568	1752	5036	1568
Volume (vph)	240	110	120	270	40	130	80	3010	90	50	3910	140
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	261	120	130	293	43	141	87	3272	98	54	4250	152
RTOR Reduction (vph)	0	0	53	0	0	50	0	0	28	0	0	43
Lane Group Flow (vph)	185	196	77	164	172	91	87	3272	70	54	4250	109
Turn Type	Split		Perm	Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	22.0	22.0	22.0	20.0	20.0	20.0	10.5	177.4	177.4	10.6	177.5	177.5
Effective Green, g (s)	23.0	23.0	23.0	21.0	21.0	21.0	11.0	178.9	178.9	11.1	179.0	179.0
Actuated g/C Ratio	0.09	0.09	0.09	0.08	0.08	0.08	0.04	0.72	0.72	0.04	0.72	0.72
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	2.5	5.0	5.0	2.5	5.0	5.0
Lane Grp Cap (vph)	158	163	149	140	142	132	77	3604	1122	78	3606	1123
v/s Ratio Prot	0.11	c0.11		0.10	c0.10		c0.05	0.65		0.03	c0.84	
v/s Ratio Perm			0.05			0.06			0.04			0.07
v/c Ratio	1.17	1.20	0.52	1.17	1.21	0.69	1.13	0.91	0.06	0.69	1.18	0.10
Uniform Delay, d1	113.5	113.5	108.2	114.5	114.5	111.3	119.5	28.9	10.6	117.8	35.5	10.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.85	1.50	3.05	0.83	0.42	0.29
Incremental Delay, d2	124.9	135.3	3.0	129.5	143.3	13.8	73.1	0.4	0.0	2.2	80.7	0.0
Delay (s)	238.4	248.8	111.3	244.0	257.8	125.1	175.2	43.6	32.3	99.4	95.6	3.1
Level of Service	F	F	F	F	F	F	F	D	C	F	F	A
Approach Delay (s)		210.1			213.8			46.6			92.5	
Approach LOS		F			F			D			F	

Intersection Summary			
HCM Average Control Delay	87.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.18		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	101.5%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	185	196	130	164	172	141	87	3272	98	54	4250	152
v/c Ratio	1.17	1.20	0.64	1.17	1.21	0.77	1.13	0.91	0.09	0.69	1.18	0.13
Control Delay	212.9	220.3	75.4	217.8	227.9	94.0	155.0	44.4	4.4	100.4	99.1	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	212.9	220.3	75.4	217.8	227.9	94.0	155.0	44.4	4.4	100.4	99.1	0.4
Queue Length 50th (ft)	~381	~411	118	~337	~363	144	~164	1534	16	89	~3059	2
Queue Length 95th (ft)	#589	#623	210	#540	#568	#265	m#158	m1490	m14	m78	m#2387	m0
Internal Link Dist (ft)		1440			1426			2920			2650	
Turn Bay Length (ft)	225		225	175		200	350		1000	500		825
Base Capacity (vph)	158	163	202	140	142	182	77	3604	1150	78	3606	1166
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.17	1.20	0.64	1.17	1.21	0.77	1.13	0.91	0.09	0.69	1.18	0.13

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95		0.91	0.91	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1665	1659		3189	1609	1568	1752	5036	1568	3400	5036	1568
Flt Permitted	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1665	1659		3189	1609	1568	1752	5036	1568	3400	5036	1568
Volume (vph)	140	90	50	800	40	340	30	2590	420	280	3540	40
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	152	98	54	870	43	370	33	2815	457	304	3848	43
RTOR Reduction (vph)	0	8	0	0	0	122	0	0	187	0	0	5
Lane Group Flow (vph)	152	144	0	598	315	248	33	2815	270	304	3848	38
Turn Type	Split			Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	19.0	19.0		42.0	42.0	42.0	5.0	146.1	146.1	22.9	164.0	164.0
Effective Green, g (s)	20.0	20.0		43.0	43.0	43.0	5.5	147.6	147.6	23.4	165.5	165.5
Actuated g/C Ratio	0.08	0.08		0.17	0.17	0.17	0.02	0.59	0.59	0.09	0.66	0.66
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	4.0	4.0		4.0	4.0	4.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	133	133		549	277	270	39	2973	926	318	3334	1038
v/s Ratio Prot	c0.09	0.09		0.19	c0.20		0.02	c0.56		0.09	c0.76	
v/s Ratio Perm						0.16			0.17			0.02
v/c Ratio	1.14	1.08		1.09	1.14	0.92	0.85	0.95	0.29	0.96	1.15	0.04
Uniform Delay, d1	115.0	115.0		103.5	103.5	101.8	121.8	47.6	25.3	112.8	42.2	14.6
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.90	0.72	1.33	0.80	1.30	1.47
Incremental Delay, d2	121.5	101.3		64.9	96.3	34.2	43.5	3.5	0.3	7.4	69.7	0.0
Delay (s)	236.5	216.3		168.4	199.8	136.0	152.6	37.7	33.9	97.4	124.5	21.5
Level of Service	F	F		F	F	F	F	D	C	F	F	C
Approach Delay (s)		226.4			166.8			38.3			121.4	
Approach LOS		F			F			D			F	

Intersection Summary			
HCM Average Control Delay	101.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	109.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	152	152	598	315	370	33	2815	457	304	3848	43
v/c Ratio	1.14	1.08	1.09	1.14	0.95	0.85	0.95	0.41	0.96	1.15	0.04
Control Delay	212.8	190.1	155.3	181.1	92.7	154.6	37.8	2.4	95.7	117.8	14.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	212.8	190.1	155.3	181.1	92.7	154.6	37.8	2.4	95.7	117.8	14.9
Queue Length 50th (ft)	~307	~277	~607	~662	400	55	1273	31	260	~2721	24
Queue Length 95th (ft)	#501	#473	#754	#918	#628	m60	m1320	m56	m225	m#2130	m20
Internal Link Dist (ft)		1452		1418			2650			2872	
Turn Bay Length (ft)	150				200	425		750	400		250
Base Capacity (vph)	133	141	549	277	391	39	2973	1113	318	3334	1043
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.14	1.08	1.09	1.14	0.95	0.85	0.95	0.41	0.96	1.15	0.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95		0.95	0.95	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.99		0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1665	1679		1665	1700	1568	1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	0.99		0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1665	1679		1665	1700	1568	1752	5036	1568	1752	5036	1568
Volume (vph)	140	80	30	450	110	270	70	2540	250	330	3510	100
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	152	87	33	489	120	293	76	2761	272	359	3815	109
RTOR Reduction (vph)	0	5	0	0	0	67	0	0	58	0	0	11
Lane Group Flow (vph)	133	134	0	297	312	226	76	2761	214	359	3815	98
Turn Type	Split			Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	17.0	17.0		39.0	39.0	39.0	9.5	127.4	127.4	46.6	164.5	164.5
Effective Green, g (s)	18.0	18.0		40.0	40.0	40.0	10.0	128.9	128.9	47.1	166.0	166.0
Actuated g/C Ratio	0.07	0.07		0.16	0.16	0.16	0.04	0.52	0.52	0.19	0.66	0.66
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	2.5	5.0	5.0	2.5	5.0	5.0
Lane Grp Cap (vph)	120	121		266	272	251	70	2597	808	330	3344	1041
v/s Ratio Prot	0.08	c0.08		0.18	c0.18		0.04	c0.55		0.20	c0.76	
v/s Ratio Perm						0.14			0.14			0.06
v/c Ratio	1.11	1.11		1.12	1.15	0.90	1.09	1.06	0.26	1.09	1.14	0.09
Uniform Delay, d1	116.0	116.0		105.0	105.0	103.0	120.0	60.5	34.0	101.4	42.0	15.1
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.34	0.56	0.50	0.73	0.36	0.39
Incremental Delay, d2	114.2	114.6		90.2	100.3	31.3	84.8	31.7	0.3	44.9	63.8	0.0
Delay (s)	230.2	230.6		195.2	205.3	134.3	245.0	65.5	17.3	119.1	78.7	5.9
Level of Service	F	F		F	F	F	F	E	B	F	E	A
Approach Delay (s)		230.4			178.9			65.7			80.2	
Approach LOS		F			F			E			F	

Intersection Summary			
HCM Average Control Delay	90.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	104.0%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

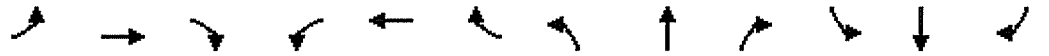
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	133	139	297	312	293	76	2761	272	359	3815	109
v/c Ratio	1.11	1.11	1.12	1.15	0.92	1.09	1.06	0.31	1.09	1.14	0.10
Control Delay	209.5	205.0	177.9	185.2	106.5	213.2	64.9	9.7	111.0	81.7	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0
Total Delay	209.5	205.0	177.9	185.2	106.5	213.2	64.9	9.7	111.0	83.2	4.1
Queue Length 50th (ft)	~263	~266	~589	~632	367	~141	~1817	37	~658	~2671	11
Queue Length 95th (ft)	#449	#458	#833	#877	#571	m#154	m#1820	m62	m470	m564	m4
Internal Link Dist (ft)		1490		1548			2872			1921	
Turn Bay Length (ft)	200		300		100	500		350	475		225
Base Capacity (vph)	120	125	266	272	318	70	2597	867	330	3344	1052
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	10	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.11	1.11	1.12	1.15	0.92	1.09	1.06	0.31	1.09	1.14	0.10

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.91		1.00	0.91	1.00
Frt		1.00	0.85	1.00	0.92		1.00	1.00		1.00	1.00	0.85
Flt Protected		0.95	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1759	1568	1752	1706		1752	5033		1752	5036	1568
Flt Permitted		0.69	1.00	0.10	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1274	1568	184	1706		1752	5033		1752	5036	1568
Volume (vph)	350	10	300	20	20	20	80	2840	10	10	3920	100
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	380	11	326	22	22	22	87	3087	11	11	4261	109
RTOR Reduction (vph)	0	0	24	0	14	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	391	302	22	30	0	87	3098	0	11	4261	109
Turn Type	Perm		Perm	Perm			Prot			Prot		Free
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8								Free
Actuated Green, G (s)		59.0	59.0	59.0	59.0		9.5	172.0		3.0	165.5	250.0
Effective Green, g (s)		60.0	60.0	60.0	60.0		11.0	173.5		4.5	167.0	250.0
Actuated g/C Ratio		0.24	0.24	0.24	0.24		0.04	0.69		0.02	0.67	1.00
Clearance Time (s)		5.0	5.0	5.0	5.0		5.5	5.5		5.5	5.5	
Vehicle Extension (s)		4.0	4.0	4.0	4.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)		306	376	44	409		77	3493		32	3364	1568
v/s Ratio Prot					0.02		c0.05	0.62		0.01	c0.85	
v/s Ratio Perm		c0.31	0.19	0.12								0.07
v/c Ratio		1.28	0.80	0.50	0.07		1.13	0.89		0.34	1.27	0.07
Uniform Delay, d1		95.0	89.4	82.0	73.5		119.5	30.4		121.3	41.5	0.0
Progression Factor		1.00	1.00	1.00	1.00		1.15	0.26		1.14	0.54	1.00
Incremental Delay, d2		147.9	12.3	11.7	0.1		73.1	0.4		0.6	120.2	0.0
Delay (s)		242.9	101.7	93.7	73.6		210.9	8.1		138.5	142.8	0.0
Level of Service		F	F	F	E		F	A		F	F	A
Approach Delay (s)		178.7			80.3			13.7			139.2	
Approach LOS		F			F			B			F	

Intersection Summary			
HCM Average Control Delay	94.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.26		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	111.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	391	326	22	44	87	3098	11	4261	109
v/c Ratio	1.28	0.81	0.59	0.12	1.13	0.88	0.24	1.27	0.07
Control Delay	216.0	97.3	144.2	45.1	179.8	7.9	137.4	144.2	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.2	0.0	11.2	0.0
Total Delay	216.0	97.3	144.2	45.1	179.8	8.1	137.4	155.4	0.0
Queue Length 50th (ft)	~813	472	32	32	~166	198	19	~3226	0
Queue Length 95th (ft)	#1059	618	#82	77	m#150	m127	m15	m#2716	m0
Internal Link Dist (ft)	1454			1472		1921		1002	
Turn Bay Length (ft)			50		300		125		325
Base Capacity (vph)	306	401	44	424	77	3536	46	3364	1568
Starvation Cap Reductn	0	0	0	0	0	55	0	65	0
Spillback Cap Reductn	0	0	0	0	0	5	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.28	0.81	0.50	0.10	1.13	0.89	0.24	1.29	0.07

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95		0.97	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	0.92		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1845	1568	1752	3229		3400	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	1845	1568	1752	3229		3400	5036	1568	1752	5036	1568
Volume (vph)	100	70	140	170	100	110	160	2700	130	90	3820	60
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	76	152	185	109	120	174	2935	141	98	4152	65
RTOR Reduction (vph)	0	0	60	0	82	0	0	0	16	0	0	16
Lane Group Flow (vph)	109	76	92	185	147	0	174	2935	125	98	4152	49
Turn Type	Prot		Perm	Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)	12.3	10.0	10.0	23.5	21.2		10.5	177.8	177.8	18.2	185.5	185.5
Effective Green, g (s)	12.8	11.0	11.0	24.0	22.2		12.0	179.3	179.3	19.7	187.0	187.0
Actuated g/C Ratio	0.05	0.04	0.04	0.10	0.09		0.05	0.72	0.72	0.08	0.75	0.75
Clearance Time (s)	4.5	5.0	5.0	4.5	5.0		5.5	5.5	5.5	5.5	5.5	5.5
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	174	81	69	168	287		163	3612	1125	138	3767	1173
v/s Ratio Prot	0.03	0.04		c0.11	0.05		c0.05	0.58		0.06	c0.82	
v/s Ratio Perm			c0.06						0.08			0.03
v/c Ratio	0.63	0.94	1.33	1.10	0.51		1.07	0.81	0.11	0.71	1.10	0.04
Uniform Delay, d1	116.3	119.2	119.5	113.0	108.7		119.0	24.0	10.9	112.4	31.5	8.2
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.79	0.31	0.15	0.79	0.94	2.10
Incremental Delay, d2	6.9	79.1	219.6	99.1	2.0		63.0	0.8	0.1	1.6	46.5	0.0
Delay (s)	123.1	198.3	339.1	212.1	110.8		157.0	8.2	1.7	90.8	76.0	17.2
Level of Service	F	F	F	F	F		F	A	A	F	E	B
Approach Delay (s)		237.5			156.1			15.9			75.5	
Approach LOS		F			F			B			E	

Intersection Summary			
HCM Average Control Delay	62.8	HCM Level of Service	E
HCM Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	101.9%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	109	76	152	185	229	174	2935	141	98	4152	65
v/c Ratio	0.63	0.94	1.18	1.10	0.62	1.07	0.81	0.12	0.71	1.10	0.05
Control Delay	132.2	195.2	184.1	193.7	74.2	146.3	8.5	1.1	91.6	75.9	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0
Total Delay	132.2	195.2	184.1	193.7	74.2	146.3	9.3	1.1	91.6	75.9	3.2
Queue Length 50th (ft)	92	128	~195	~345	120	~164	424	4	159	~2831	8
Queue Length 95th (ft)	135	#261	#381	#543	177	m#196	m554	m6	m145	m#2436	m6
Internal Link Dist (ft)		1544			1553		1002			2491	
Turn Bay Length (ft)	275			200		475		200	300		625
Base Capacity (vph)	188	81	129	168	369	163	3611	1141	165	3767	1189
Starvation Cap Reductn	0	0	0	0	0	0	359	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.94	1.18	1.10	0.62	1.07	0.90	0.12	0.59	1.10	0.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.96		1.00	0.88		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1765		1752	1620		1752	5036	1568	1752	5036	1568
Flt Permitted	0.34	1.00		0.61	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	625	1765		1128	1620		1752	5036	1568	1752	5036	1568
Volume (vph)	70	50	20	180	30	130	70	2740	140	150	3770	40
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	54	22	196	33	141	76	2978	152	163	4098	43
RTOR Reduction (vph)	0	6	0	0	62	0	0	0	14	0	0	4
Lane Group Flow (vph)	76	70	0	196	112	0	76	2978	138	163	4098	39
Turn Type	Perm			Perm			Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	38.0	38.0		38.0	38.0		10.3	170.5	170.5	26.5	186.7	186.7
Effective Green, g (s)	39.0	39.0		39.0	39.0		10.8	172.0	172.0	27.0	188.2	188.2
Actuated g/C Ratio	0.16	0.16		0.16	0.16		0.04	0.69	0.69	0.11	0.75	0.75
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	5.0	5.0		5.0	5.0		4.0	5.0	5.0	4.0	5.0	5.0
Lane Grp Cap (vph)	98	275		176	253		76	3465	1079	189	3791	1180
v/s Ratio Prot		0.04			0.07		c0.04	0.59		0.09	c0.81	
v/s Ratio Perm	0.12			c0.17					0.09			0.03
v/c Ratio	0.78	0.25		1.11	0.44		1.00	0.86	0.13	0.86	1.08	0.03
Uniform Delay, d1	101.3	92.7		105.5	95.7		119.6	29.8	13.3	109.7	30.9	7.8
Progression Factor	1.00	1.00		1.00	1.00		1.08	0.29	0.20	0.95	0.74	1.21
Incremental Delay, d2	35.3	1.0		101.6	2.6		79.2	1.8	0.1	13.6	38.5	0.0
Delay (s)	136.6	93.8		207.1	98.3		208.5	10.4	2.8	118.0	61.5	9.5
Level of Service	F	F		F	F		F	B	A	F	E	A
Approach Delay (s)		115.2			155.9			14.7			63.1	
Approach LOS		F			F			B			E	

Intersection Summary			
HCM Average Control Delay	49.0	HCM Level of Service	D
HCM Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	107.0%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	76	76	196	174	76	2978	152	163	4098	43
v/c Ratio	0.78	0.27	1.11	0.55	1.00	0.86	0.14	0.86	1.08	0.04
Control Delay	144.1	87.1	189.1	62.9	197.4	10.5	2.1	119.1	62.3	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.5	0.0
Total Delay	144.1	87.1	189.1	62.9	197.4	10.5	2.1	119.1	75.8	6.4
Queue Length 50th (ft)	123	102	~369	158	~132	604	5	281	~2752	13
Queue Length 95th (ft)	#233	167	#571	257	m#200	519	m10	m296	#2690	m14
Internal Link Dist (ft)		1509		1512		2491			939	
Turn Bay Length (ft)	150		150		300		150	325		200
Base Capacity (vph)	98	281	176	314	76	3465	1093	199	3791	1184
Starvation Cap Reductn	0	0	0	0	0	0	0	0	105	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.27	1.11	0.55	1.00	0.86	0.14	0.82	1.11	0.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	
Frt	1.00	0.85	1.00	1.00	1.00	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1752	1568	1752	5036	5026	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1752	1568	1752	5036	5026	
Volume (vph)	50	80	30	2910	3840	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	87	33	3163	4174	54
RTOR Reduction (vph)	0	31	0	0	0	0
Lane Group Flow (vph)	54	56	33	3163	4228	0
Turn Type		custom	Prot			
Protected Phases			5	2	6	
Permitted Phases	4	4				
Actuated Green, G (s)	10.6	10.6	5.2	228.9	219.2	
Effective Green, g (s)	11.6	11.6	5.7	230.4	220.7	
Actuated g/C Ratio	0.05	0.05	0.02	0.92	0.88	
Clearance Time (s)	5.0	5.0	4.5	5.5	5.5	
Vehicle Extension (s)	4.0	4.0	4.0	5.0	5.0	
Lane Grp Cap (vph)	81	73	40	4641	4437	
v/s Ratio Prot			0.02	c0.63	c0.84	
v/s Ratio Perm	0.03	c0.04				
v/c Ratio	0.67	0.76	0.82	0.68	0.95	
Uniform Delay, d1	117.3	117.8	121.7	2.1	10.8	
Progression Factor	1.00	1.00	1.19	0.03	0.64	
Incremental Delay, d2	20.5	38.4	49.5	0.4	0.7	
Delay (s)	137.8	156.2	194.3	0.5	7.6	
Level of Service	F	F	F	A	A	
Approach Delay (s)	149.1			2.5	7.6	
Approach LOS	F			A	A	

Intersection Summary			
HCM Average Control Delay	8.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	88.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	54	87	33	3163	4228
v/c Ratio	0.67	0.83	0.67	0.68	0.95
Control Delay	151.7	120.5	169.3	0.5	8.2
Queue Delay	0.0	2.7	0.0	0.2	31.8
Total Delay	151.7	123.1	169.3	0.7	40.0
Queue Length 50th (ft)	90	91	57	4	0
Queue Length 95th (ft)	#164	#212	m70	9	m0
Internal Link Dist (ft)	1504			939	3004
Turn Bay Length (ft)			450		
Base Capacity (vph)	84	107	49	4640	4454
Starvation Cap Reductn	0	0	0	521	0
Spillback Cap Reductn	0	3	0	0	506
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.64	0.84	0.67	0.77	1.07

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1730		1665	1698	1568	1752	5036	1568	3400	5036	1568
Flt Permitted	0.95	1.00		0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1730		1665	1698	1568	1752	5036	1568	3400	5036	1568
Volume (vph)	100	70	50	360	80	250	70	2560	250	130	3600	60
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	76	54	391	87	272	76	2783	272	141	3913	65
RTOR Reduction (vph)	0	10	0	0	0	66	0	0	53	0	0	5
Lane Group Flow (vph)	109	120	0	233	245	206	76	2783	219	141	3913	60
Turn Type	Split			Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	14.0	14.0		31.0	31.0	31.0	9.5	170.3	170.3	14.7	175.5	175.5
Effective Green, g (s)	15.0	15.0		32.0	32.0	32.0	10.0	171.8	171.8	15.2	177.0	177.0
Actuated g/C Ratio	0.06	0.06		0.13	0.13	0.13	0.04	0.69	0.69	0.06	0.71	0.71
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	4.0	4.0		4.0	4.0	4.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	105	104		213	217	201	70	3461	1078	207	3565	1110
v/s Ratio Prot	0.06	c0.07		0.14	c0.14		c0.04	0.55		0.04	c0.78	
v/s Ratio Perm						0.13			0.14			0.04
v/c Ratio	1.04	1.15		1.09	1.13	1.02	1.09	0.80	0.20	0.68	1.10	0.05
Uniform Delay, d1	117.5	117.5		109.0	109.0	109.0	120.0	27.3	14.2	115.0	36.5	11.1
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.81	0.92	1.66	1.00	1.00	1.00
Incremental Delay, d2	98.5	134.4		89.0	100.1	69.7	116.5	1.5	0.3	8.9	49.0	0.1
Delay (s)	216.0	251.9		198.0	209.1	178.7	213.4	26.6	24.0	123.9	85.5	11.2
Level of Service	F	F		F	F	F	F	C	C	F	F	B
Approach Delay (s)		235.5			194.7			30.9			85.7	
Approach LOS		F			F			C			F	

Intersection Summary			
HCM Average Control Delay	79.1	HCM Level of Service	E
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	95.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	109	130	233	245	272	76	2783	272	141	3913	65
v/c Ratio	1.04	1.14	1.09	1.13	1.02	1.09	0.80	0.24	0.68	1.10	0.06
Control Delay	202.6	211.2	181.7	189.4	131.8	198.6	27.0	9.1	131.6	84.2	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	202.6	211.2	181.7	189.4	131.8	198.6	27.0	9.1	131.6	84.2	8.5
Queue Length 50th (ft)	~193	~232	~454	~490	~358	~140	737	74	120	~2666	24
Queue Length 95th (ft)	#357	#407	#677	#721	#586	m#264	832	143	167	#2616	43
Internal Link Dist (ft)		1451		1491			3004			4886	
Turn Bay Length (ft)	150		250			275		325	425		150
Base Capacity (vph)	105	114	213	217	267	70	3461	1130	228	3565	1115
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.04	1.14	1.09	1.13	1.02	1.09	0.80	0.24	0.62	1.10	0.06

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.91	1.00	1.00	0.91	
Frt		0.99			1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.98			0.97	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1781			1780	1568	1752	5036	1568	1752	5026	
Flt Permitted		0.58			0.63	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1063			1157	1568	1752	5036	1568	1752	5026	
Volume (vph)	50	50	10	80	30	100	40	2740	40	60	3640	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	54	11	87	33	109	43	2978	43	65	3957	54
RTOR Reduction (vph)	0	3	0	0	0	0	0	0	6	0	1	0
Lane Group Flow (vph)	0	116	0	0	120	109	43	2978	37	65	4010	0
Turn Type	custom			custom		Free	Prot		Perm	Prot		
Protected Phases							5	2		1		
Permitted Phases	4	4		8	8	Free			2		6	
Actuated Green, G (s)		15.7			15.7	140.0	7.1	99.9	99.9	8.9	101.7	
Effective Green, g (s)		17.7			17.7	140.0	7.4	101.1	101.1	9.2	102.9	
Actuated g/C Ratio		0.13			0.13	1.00	0.05	0.72	0.72	0.07	0.74	
Clearance Time (s)		6.0			6.0		4.3	5.2	5.2	4.3	5.2	
Vehicle Extension (s)		3.0			3.0		3.0	5.0	5.0	3.0	5.0	
Lane Grp Cap (vph)		134			146	1568	93	3637	1132	115	3694	
v/s Ratio Prot							0.02	0.59		c0.04		
v/s Ratio Perm		c0.11			0.10	c0.07			0.02		c0.80	
v/c Ratio		0.87			0.82	0.07	0.46	0.82	0.03	0.57	1.09	
Uniform Delay, d1		60.0			59.6	0.0	64.4	13.2	5.5	63.5	18.6	
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	0.93	2.37	
Incremental Delay, d2		40.8			29.6	0.1	3.6	2.2	0.1	0.6	39.1	
Delay (s)		100.8			89.2	0.1	68.0	15.4	5.6	59.3	83.0	
Level of Service		F			F	A	E	B	A	E	F	
Approach Delay (s)		100.8			46.8			16.0			82.6	
Approach LOS		F			D			B			F	

Intersection Summary			
HCM Average Control Delay	54.6	HCM Level of Service	D
HCM Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	90.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	119	120	109	43	2978	43	65	4011
v/c Ratio	0.84	0.82	0.07	0.40	0.81	0.04	0.50	1.08
Control Delay	100.6	97.0	0.1	73.9	16.3	4.1	58.2	74.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	100.6	97.0	0.1	73.9	16.3	4.1	58.2	74.7
Queue Length 50th (ft)	104	107	0	38	647	5	54	~1560
Queue Length 95th (ft)	#217	#215	0	80	785	18	m37	m973
Internal Link Dist (ft)	1478	1518			3962			2924
Turn Bay Length (ft)			750	250		150	250	
Base Capacity (vph)	147	153	1568	125	3668	1148	178	3725
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.78	0.07	0.34	0.81	0.04	0.37	1.08

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	0.91		0.91	0.91	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1595	3220		3189	1643	1568	1752	5036	1568	3400	5036	1568
Flt Permitted	0.95	1.00		0.95	0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1595	3220		3189	1643	1568	1752	5036	1568	3400	5036	1568
Volume (vph)	160	240	90	710	170	360	130	2120	530	610	3270	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	174	261	98	772	185	391	141	2304	576	663	3554	33
RTOR Reduction (vph)	0	25	0	0	0	164	0	0	281	0	0	9
Lane Group Flow (vph)	174	334	0	627	330	228	141	2304	295	663	3554	24
Turn Type	Split			Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	14.1	14.1		28.2	28.2	28.2	11.1	58.3	58.3	15.3	62.5	62.5
Effective Green, g (s)	17.0	17.0		31.0	31.0	31.0	11.4	60.4	60.4	15.6	64.6	64.6
Actuated g/C Ratio	0.12	0.12		0.22	0.22	0.22	0.08	0.43	0.43	0.11	0.46	0.46
Clearance Time (s)	6.9	6.9		6.8	6.8	6.8	4.3	6.1	6.1	4.3	6.1	6.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	194	391		706	364	347	143	2173	676	379	2324	724
v/s Ratio Prot	c0.11	0.10		0.20	c0.20		0.08	c0.46		0.20	c0.71	
v/s Ratio Perm						0.15			0.19			0.02
v/c Ratio	0.90	0.85		0.89	0.91	0.66	0.99	1.06	0.44	1.75	1.53	0.03
Uniform Delay, d1	60.6	60.3		52.8	53.1	49.6	64.2	39.8	27.9	62.2	37.7	20.6
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.30	0.84	1.14	0.81	0.68	0.47
Incremental Delay, d2	37.0	16.3		13.0	25.2	4.4	53.5	34.0	1.2	338.2	238.4	0.0
Delay (s)	97.6	76.6		65.8	78.3	54.1	137.3	67.5	33.0	388.4	264.1	9.6
Level of Service	F	E		E	E	D	F	E	C	F	F	A
Approach Delay (s)		83.4			65.5			64.2			281.5	
Approach LOS		F			E			E			F	

Intersection Summary			
HCM Average Control Delay	166.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.26		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	109.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	174	359	627	330	391	141	2304	576	663	3554	33
v/c Ratio	0.90	0.86	0.89	0.91	0.77	0.99	1.06	0.60	1.75	1.53	0.05
Control Delay	102.6	75.9	68.5	81.9	34.0	134.1	67.0	6.9	369.3	262.8	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	102.6	75.9	68.5	81.9	34.0	134.1	67.0	6.9	369.3	262.8	6.0
Queue Length 50th (ft)	174	164	306	324	161	131	~829	39	~462	~1656	4
Queue Length 95th (ft)	#330	#253	#414	#523	292	m#202	#923	m156	m#430	m#1510	m3
Internal Link Dist (ft)		1442		322			2924			3147	
Turn Bay Length (ft)	325		200			300		375	550		300
Base Capacity (vph)	194	416	706	364	511	143	2174	957	379	2325	732
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.90	0.86	0.89	0.91	0.77	0.99	1.06	0.60	1.75	1.53	0.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	0.91		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1845	1568	1752	1679		1752	5036	1568	1752	5036	1568
Flt Permitted	0.72	1.00	1.00	0.74	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1330	1845	1568	1357	1679		1752	5036	1568	1752	5036	1568
Volume (vph)	40	30	100	50	20	30	80	2790	30	20	3680	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	33	109	54	22	33	87	3033	33	22	4000	11
RTOR Reduction (vph)	0	0	91	0	30	0	0	0	7	0	0	2
Lane Group Flow (vph)	43	33	18	54	25	0	87	3033	26	22	4000	9
Turn Type	Perm		Perm	Perm			Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	10.7	10.7	10.7	10.7	10.7		10.3	107.5	107.5	4.9	102.1	102.1
Effective Green, g (s)	13.2	13.2	13.2	13.2	13.2		10.6	109.6	109.6	5.2	104.2	104.2
Actuated g/C Ratio	0.09	0.09	0.09	0.09	0.09		0.08	0.78	0.78	0.04	0.74	0.74
Clearance Time (s)	6.5	6.5	6.5	6.5	6.5		4.3	6.1	6.1	4.3	6.1	6.1
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	125	174	148	128	158		133	3942	1228	65	3748	1167
v/s Ratio Prot		0.02			0.01		c0.05	0.60		0.01	c0.79	
v/s Ratio Perm	0.03		0.01	c0.04					0.02			0.01
v/c Ratio	0.34	0.19	0.12	0.42	0.16		0.65	0.77	0.02	0.34	1.07	0.01
Uniform Delay, d1	59.3	58.5	58.1	59.8	58.3		62.9	8.3	3.4	65.7	17.9	4.6
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.34	1.29	0.14	0.83	0.81	0.88
Incremental Delay, d2	1.7	0.5	0.4	2.2	0.5		4.4	0.6	0.0	0.3	30.9	0.0
Delay (s)	61.0	59.0	58.5	62.0	58.8		88.6	11.3	0.5	55.0	45.5	4.0
Level of Service	E	E	E	E	E		F	B	A	E	D	A
Approach Delay (s)		59.2			60.4			13.3			45.4	
Approach LOS		E			E			B			D	

Intersection Summary			
HCM Average Control Delay	32.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	91.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	43	33	109	54	55	87	3033	33	22	4000	11
v/c Ratio	0.34	0.19	0.46	0.42	0.29	0.65	0.76	0.03	0.23	1.07	0.01
Control Delay	65.4	59.2	18.9	68.4	31.7	93.5	12.6	0.3	53.0	47.4	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.4	59.2	18.9	68.4	31.7	93.5	12.6	0.3	53.0	47.4	3.3
Queue Length 50th (ft)	37	28	8	47	19	81	958	0	20	~578	1
Queue Length 95th (ft)	76	61	64	91	61	m81	m942	m1	m17	m226	m0
Internal Link Dist (ft)		1412			1351		418			1335	
Turn Bay Length (ft)	100		100	300		400		850	525		
Base Capacity (vph)	175	242	293	178	249	143	4003	1253	125	3749	1169
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.14	0.37	0.30	0.22	0.61	0.76	0.03	0.18	1.07	0.01

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	0.97	1.00	1.00	0.97	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1845	1568	3400	1845	1568	3400	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	1845	1568	3400	1845	1568	3400	5036	1568	1752	5036	1568
Volume (vph)	150	130	50	300	190	130	220	2310	230	130	3570	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	163	141	54	326	207	141	239	2511	250	141	3880	11
RTOR Reduction (vph)	0	0	50	0	0	110	0	0	74	0	0	4
Lane Group Flow (vph)	163	141	4	326	207	31	239	2511	176	141	3880	7
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	11.5	7.8	7.8	17.8	14.1	14.1	9.7	79.0	79.0	13.4	82.7	82.7
Effective Green, g (s)	12.4	10.7	10.7	18.7	17.0	17.0	10.0	80.9	80.9	13.7	84.6	84.6
Actuated g/C Ratio	0.09	0.08	0.08	0.13	0.12	0.12	0.07	0.58	0.58	0.10	0.60	0.60
Clearance Time (s)	4.9	6.9	6.9	4.9	6.9	6.9	4.3	5.9	5.9	4.3	5.9	5.9
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	301	141	120	454	224	190	243	2910	906	171	3043	948
v/s Ratio Prot	0.05	0.08		c0.10	c0.11		c0.07	0.50		0.08	c0.77	
v/s Ratio Perm			0.00			0.02			0.11			0.00
v/c Ratio	0.54	1.00	0.03	0.72	0.92	0.16	0.98	0.86	0.19	0.82	1.28	0.01
Uniform Delay, d1	61.1	64.6	59.9	58.1	60.9	55.1	64.9	24.9	14.1	62.0	27.7	11.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.17	0.45	0.53	0.97	0.77	1.40
Incremental Delay, d2	2.0	75.8	0.1	5.4	39.5	0.4	41.7	2.4	0.3	3.1	124.0	0.0
Delay (s)	63.1	140.4	60.0	63.5	100.4	55.5	117.8	13.6	7.8	63.3	145.3	15.4
Level of Service	E	F	E	E	F	E	F	B	A	E	F	B
Approach Delay (s)		93.1			73.2			21.5			142.1	
Approach LOS		F			E			C			F	

Intersection Summary			
HCM Average Control Delay	89.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	104.0%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	163	141	54	326	207	141	239	2511	250	141	3880	11
v/c Ratio	0.54	0.99	0.32	0.72	0.92	0.47	0.98	0.86	0.26	0.82	1.28	0.01
Control Delay	67.6	137.4	20.4	67.3	103.6	17.9	116.4	14.1	2.9	64.2	147.5	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.6	137.4	20.4	67.3	103.6	17.9	116.4	14.1	2.9	64.2	147.5	9.2
Queue Length 50th (ft)	74	~132	0	147	190	13	119	117	0	136	~1627	1
Queue Length 95th (ft)	111	#284	45	198	#344	80	m#195	481	m50	m114	m#1155	m1
Internal Link Dist (ft)		1350			1247			1335			1509	
Turn Bay Length (ft)	175		175	275		275	375			400		425
Base Capacity (vph)	345	142	170	515	224	300	243	2908	979	178	3042	951
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.99	0.32	0.63	0.92	0.47	0.98	0.86	0.26	0.79	1.28	0.01

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00		0.97	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1845	1568	1752	1649		3400	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	1845	1568	1752	1649		3400	5036	1568	1752	5036	1568
Volume (vph)	30	70	160	100	50	120	120	2560	70	10	3690	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	76	174	109	54	130	130	2783	76	11	4011	11
RTOR Reduction (vph)	0	0	113	0	58	0	0	0	18	0	0	2
Lane Group Flow (vph)	33	76	61	109	126	0	130	2783	58	11	4011	9
Turn Type	Prot		Perm	Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)	4.5	10.7	10.7	10.8	17.0		9.4	92.9	92.9	1.6	85.1	85.1
Effective Green, g (s)	6.0	13.2	13.2	12.3	19.5		10.9	95.4	95.4	3.1	87.6	87.6
Actuated g/C Ratio	0.04	0.09	0.09	0.09	0.14		0.08	0.68	0.68	0.02	0.63	0.63
Clearance Time (s)	5.5	6.5	6.5	5.5	6.5		5.5	6.5	6.5	5.5	6.5	6.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	146	174	148	154	230		265	3432	1068	39	3151	981
v/s Ratio Prot	0.01	0.04		c0.06	c0.08		c0.04	c0.55		0.01	c0.80	
v/s Ratio Perm			0.04						0.04			0.01
v/c Ratio	0.23	0.44	0.41	0.71	0.55		0.49	0.81	0.05	0.28	1.27	0.01
Uniform Delay, d1	64.8	59.9	59.7	62.1	56.2		61.9	15.9	7.4	67.4	26.2	9.9
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.98	0.60	1.28	0.84	2.03	2.16
Incremental Delay, d2	0.8	1.8	1.9	13.8	2.7		0.9	1.3	0.1	0.4	123.1	0.0
Delay (s)	65.5	61.6	61.6	75.9	58.8		61.3	10.8	9.5	57.1	176.3	21.3
Level of Service	E	E	E	E	E		E	B	A	E	F	C
Approach Delay (s)		62.1			65.2			13.0			175.5	
Approach LOS		E			E			B			F	

Intersection Summary			
HCM Average Control Delay	103.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	96.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

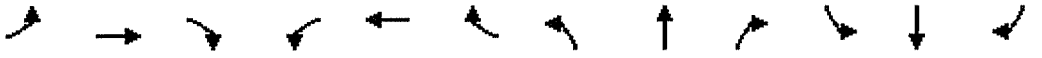
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	33	76	174	109	184	130	2783	76	11	4011	11
v/c Ratio	0.16	0.52	0.73	0.71	0.64	0.49	0.76	0.07	0.11	1.24	0.01
Control Delay	64.0	75.4	38.1	86.2	47.7	64.4	8.5	3.4	52.7	151.4	14.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.0	75.4	38.1	86.2	47.7	64.4	8.5	3.4	52.7	151.4	14.5
Queue Length 50th (ft)	14	68	43	98	105	64	264	5	9	~1652	5
Queue Length 95th (ft)	32	123	#143	#181	#229	m77	313	m8	m6	m950	m3
Internal Link Dist (ft)		1564			1414		1509			1779	
Turn Bay Length (ft)	100		100	200		425			250		250
Base Capacity (vph)	311	150	243	160	288	277	3669	1158	143	3230	1008
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.51	0.72	0.68	0.64	0.47	0.76	0.07	0.08	1.24	0.01

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt		1.00	0.85		0.96		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97	1.00		0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1785	1568		1734		1752	5036	1568	1752	5036	1568
Flt Permitted		0.55	1.00		0.73		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1011	1568		1289		1752	5036	1568	1752	5036	1568
Volume (vph)	80	40	100	100	90	90	190	2470	90	70	3600	20
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	87	43	109	109	98	98	207	2685	98	76	3913	22
RTOR Reduction (vph)	0	0	82	0	12	0	0	0	17	0	0	10
Lane Group Flow (vph)	0	130	27	0	293	0	207	2685	81	76	3913	12
Turn Type	Perm		Perm	Perm			Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)		32.2	32.2		32.2		16.7	82.1	82.1	9.2	74.6	74.6
Effective Green, g (s)		35.1	35.1		35.1		17.0	83.4	83.4	9.5	75.9	75.9
Actuated g/C Ratio		0.25	0.25		0.25		0.12	0.60	0.60	0.07	0.54	0.54
Clearance Time (s)		6.9	6.9		6.9		4.3	5.3	5.3	4.3	5.3	5.3
Vehicle Extension (s)		3.0	3.0		3.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)		253	393		323		213	3000	934	119	2730	850
v/s Ratio Prot							c0.12	0.53		0.04	c0.78	
v/s Ratio Perm		0.13	0.02		c0.23				0.05			0.01
v/c Ratio		0.51	0.07		0.91		0.97	0.90	0.09	0.64	1.43	0.01
Uniform Delay, d1		45.1	40.0		50.9		61.3	24.5	12.1	63.6	32.0	14.8
Progression Factor		1.00	1.00		1.00		1.23	0.60	0.43	0.71	1.10	2.60
Incremental Delay, d2		1.8	0.1		27.6		42.2	3.2	0.1	1.0	195.2	0.0
Delay (s)		46.9	40.1		78.4		117.8	17.9	5.4	46.3	230.3	38.5
Level of Service		D	D		E		F	B	A	D	F	D
Approach Delay (s)		43.8			78.4			24.4			225.8	
Approach LOS		D			E			C			F	

Intersection Summary			
HCM Average Control Delay	134.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.23		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	112.5%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	130	109	305	207	2685	98	76	3913	22
v/c Ratio	0.51	0.23	0.90	0.97	0.89	0.10	0.64	1.43	0.03
Control Delay	52.3	8.1	77.6	116.5	18.5	3.4	48.1	224.6	14.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.3	8.1	77.6	116.5	18.5	3.4	48.1	224.6	14.4
Queue Length 50th (ft)	101	0	255	200	898	14	73	~1762	5
Queue Length 95th (ft)	171	47	#425	m#314	985	m19	m57	m#1117	m3
Internal Link Dist (ft)	1343		1462		1779			1604	
Turn Bay Length (ft)		150		200		150	250		850
Base Capacity (vph)	268	490	352	213	3002	952	125	2731	861
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.22	0.87	0.97	0.89	0.10	0.61	1.43	0.03

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.95			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00			0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1751			1778	1568	1752	5036	1568	3400	5036	1568
Flt Permitted	0.95	1.00			0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1751			1778	1568	1752	5036	1568	3400	5036	1568
Volume (vph)	30	40	20	60	20	390	40	2650	40	200	3710	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	43	22	65	22	424	43	2880	43	217	4033	11
RTOR Reduction (vph)	0	13	0	0	0	209	0	0	20	0	0	1
Lane Group Flow (vph)	33	52	0	0	87	215	43	2880	23	217	4033	10
Turn Type	Split			Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	7.5	7.5			20.4	20.4	7.5	74.0	74.0	14.3	80.8	80.8
Effective Green, g (s)	10.3	10.3			23.2	23.2	7.8	75.9	75.9	14.6	82.7	82.7
Actuated g/C Ratio	0.07	0.07			0.17	0.17	0.06	0.54	0.54	0.10	0.59	0.59
Clearance Time (s)	6.8	6.8			6.8	6.8	4.3	5.9	5.9	4.3	5.9	5.9
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	129	129			295	260	98	2730	850	355	2975	926
v/s Ratio Prot	0.02	c0.03			0.05		0.02	0.57		c0.06	c0.80	
v/s Ratio Perm						c0.14			0.01			0.01
v/c Ratio	0.26	0.40			0.29	0.83	0.44	1.05	0.03	0.61	1.36	0.01
Uniform Delay, d1	61.2	61.9			51.2	56.5	64.0	32.0	14.9	60.0	28.6	11.8
Progression Factor	1.00	1.00			1.00	1.00	1.32	0.35	0.15	1.33	0.42	0.38
Incremental Delay, d2	1.1	2.1			0.6	19.1	1.5	29.9	0.0	0.3	160.2	0.0
Delay (s)	62.3	64.0			51.8	75.6	86.2	40.9	2.2	80.2	172.4	4.5
Level of Service	E	E			D	E	F	D	A	F	F	A
Approach Delay (s)		63.4			71.5			41.0			167.3	
Approach LOS		E			E			D			F	

Intersection Summary			
HCM Average Control Delay	112.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	96.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	33	65	87	424	43	2880	43	217	4033	11
v/c Ratio	0.23	0.42	0.30	0.91	0.38	1.04	0.05	0.61	1.32	0.01
Control Delay	63.6	56.0	52.5	46.5	87.3	38.3	0.8	80.0	162.5	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.6	56.0	52.5	46.5	87.3	38.3	0.8	80.0	162.5	5.3
Queue Length 50th (ft)	28	44	68	163	41	~1101	0	108	~1835	1
Queue Length 95th (ft)	64	94	121	#343	m49	#1239	m1	m78	m#1123	m1
Internal Link Dist (ft)		1324	1349			1604			1346	
Turn Bay Length (ft)	150				325		1000	375		125
Base Capacity (vph)	160	173	340	502	143	2781	885	447	3055	952
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.38	0.26	0.84	0.30	1.04	0.05	0.49	1.32	0.01

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.97	1.00	0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1665	1696	1568	1665	1707	1568	1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	0.97	1.00	0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1665	1696	1568	1665	1707	1568	1752	5036	1568	1752	5036	1568
Volume (vph)	240	50	30	250	80	70	90	2630	180	20	3730	100
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	261	54	33	272	87	76	98	2859	196	22	4054	109
RTOR Reduction (vph)	0	0	29	0	0	66	0	0	48	0	0	23
Lane Group Flow (vph)	154	161	4	175	184	10	98	2859	148	22	4054	86
Turn Type	Split		Perm	Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	12.6	12.6	12.6	15.2	15.2	15.2	7.7	80.6	80.6	5.0	77.9	77.9
Effective Green, g (s)	15.6	15.6	15.6	18.2	18.2	18.2	10.0	82.9	82.9	7.3	80.2	80.2
Actuated g/C Ratio	0.11	0.11	0.11	0.13	0.13	0.13	0.07	0.59	0.59	0.05	0.57	0.57
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	6.3	6.3	6.3	6.3	6.3	6.3
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	186	189	175	216	222	204	125	2982	928	91	2885	898
v/s Ratio Prot	0.09	c0.09		0.11	c0.11		c0.06	c0.57		0.01	c0.81	
v/s Ratio Perm			0.00			0.01			0.09			0.06
v/c Ratio	0.83	0.85	0.02	0.81	0.83	0.05	0.78	0.96	0.16	0.24	1.41	0.10
Uniform Delay, d1	60.9	61.1	55.4	59.2	59.4	53.3	63.9	26.9	12.9	63.7	29.9	13.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.85	1.12	2.15	1.11	0.56	0.70
Incremental Delay, d2	25.1	29.0	0.0	20.0	21.8	0.1	3.0	1.2	0.0	0.1	182.5	0.0
Delay (s)	85.9	90.1	55.4	79.3	81.2	53.4	57.3	31.3	27.7	70.7	199.2	9.4
Level of Service	F	F	E	E	F	D	E	C	C	E	F	A
Approach Delay (s)		85.0			75.6			31.9			193.5	
Approach LOS		F			E			C			F	

Intersection Summary			
HCM Average Control Delay	119.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.23		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	99.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	154	161	33	175	184	76	98	2859	196	22	4054	109
v/c Ratio	0.83	0.85	0.16	0.81	0.83	0.28	0.78	0.93	0.20	0.18	1.40	0.12
Control Delay	93.7	96.7	19.0	86.2	88.4	14.1	59.4	29.3	12.3	67.8	203.1	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	93.7	96.7	19.0	86.2	88.4	14.1	59.4	29.3	12.3	67.8	203.1	5.1
Queue Length 50th (ft)	147	153	0	165	174	0	95	578	58	21	~1798	7
Queue Length 95th (ft)	#276	#289	34	#293	#308	48	m95	m608	m62	m17	m#1198	m6
Internal Link Dist (ft)		1325			1326			1346			2512	
Turn Bay Length (ft)	150		150	350			475			400		275
Base Capacity (vph)	186	189	204	219	224	272	125	3074	1003	160	2886	921
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.85	0.16	0.80	0.82	0.28	0.78	0.93	0.20	0.14	1.40	0.12

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.89		1.00	0.87		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1638		1752	1608		1752	5036	1568	1752	5036	1568
Flt Permitted	0.71	1.00		0.44	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1305	1638		812	1608		1752	5036	1568	1752	5036	1568
Volume (vph)	70	20	60	310	10	60	60	2650	150	110	3670	60
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	22	65	337	11	65	65	2880	163	120	3989	65
RTOR Reduction (vph)	0	59	0	0	56	0	0	0	39	0	0	9
Lane Group Flow (vph)	76	28	0	337	20	0	65	2880	124	120	3989	56
Turn Type	pm+pt			pm+pt			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	20.5	11.5		32.5	18.5		8.6	77.5	77.5	11.5	80.4	80.4
Effective Green, g (s)	23.3	13.3		34.3	20.3		10.8	80.0	80.0	13.7	82.9	82.9
Actuated g/C Ratio	0.17	0.10		0.24	0.15		0.08	0.57	0.57	0.10	0.59	0.59
Clearance Time (s)	5.0	5.8		5.0	5.8		6.2	6.5	6.5	6.2	6.5	6.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	249	156		313	233		135	2878	896	171	2982	928
v/s Ratio Prot	0.02	0.02		c0.13	0.01		0.04	0.57		c0.07	c0.79	
v/s Ratio Perm	0.03			c0.13					0.08			0.04
v/c Ratio	0.31	0.18		1.08	0.09		0.48	1.00	0.14	0.70	1.34	0.06
Uniform Delay, d1	50.8	58.3		50.7	51.8		61.9	30.0	14.0	61.2	28.5	12.1
Progression Factor	1.00	1.00		1.00	1.00		0.74	1.37	2.21	1.00	1.00	1.00
Incremental Delay, d2	0.7	0.6		72.8	0.2		1.1	10.8	0.1	12.3	154.3	0.1
Delay (s)	51.5	58.9		123.5	52.0		47.1	52.0	31.0	73.4	182.9	12.2
Level of Service	D	E		F	D		D	D	C	E	F	B
Approach Delay (s)		55.5			110.3			50.8			177.1	
Approach LOS		E			F			D			F	

Intersection Summary			
HCM Average Control Delay	121.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.22		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	109.8%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

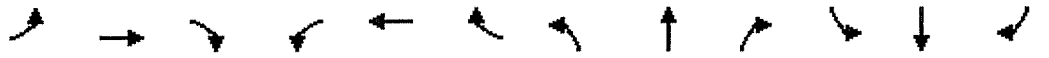
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	76	87	337	76	65	2880	163	120	3989	65
v/c Ratio	0.31	0.43	1.01	0.26	0.43	0.99	0.17	0.70	1.30	0.07
Control Delay	46.3	27.4	102.0	19.1	48.4	47.3	14.2	82.5	165.3	9.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.3	27.4	102.0	19.1	48.4	47.3	14.2	82.5	165.3	9.1
Queue Length 50th (ft)	56	19	~297	9	53	832	68	107	~1732	15
Queue Length 95th (ft)	100	74	#397	59	m58	#1077	m88	#191	#1834	39
Internal Link Dist (ft)		1379		1347		2512			3539	
Turn Bay Length (ft)	150		275		275		225	475		200
Base Capacity (vph)	315	225	334	289	178	2915	946	178	3062	963
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.39	1.01	0.26	0.37	0.99	0.17	0.67	1.30	0.07

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	1.00	0.97	0.91	1.00	0.97	0.91	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1752	1845	1568	3189	1636	1568	3400	5036	1568	3400	5022	
Flt Permitted	0.95	1.00	1.00	0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1752	1845	1568	3189	1636	1568	3400	5036	1568	3400	5022	
Volume (vph)	150	170	140	1020	200	360	110	2080	660	650	2680	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	163	185	152	1109	217	391	120	2261	717	707	2913	54
RTOR Reduction (vph)	0	0	127	0	0	191	0	0	0	0	1	0
Lane Group Flow (vph)	163	185	25	869	457	200	120	2261	717	707	2966	0
Turn Type	Split		Perm	Split		Perm	Prot		Free	Prot		
Protected Phases	3	3		4	4		5	2		1	6	
Permitted Phases			3			4			Free			
Actuated Green, G (s)	19.5	19.5	19.5	23.5	23.5	23.5	11.0	58.0	141.0	13.0	60.0	
Effective Green, g (s)	22.0	22.0	22.0	26.0	26.0	26.0	14.0	61.0	141.0	16.0	63.0	
Actuated g/C Ratio	0.16	0.16	0.16	0.18	0.18	0.18	0.10	0.43	1.00	0.11	0.45	
Clearance Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	7.0	7.0		7.0	7.0	
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.0		4.0	5.0	
Lane Grp Cap (vph)	273	288	245	588	302	289	338	2179	1568	386	2244	
v/s Ratio Prot	0.09	c0.10		0.27	c0.28		0.04	0.45		c0.21	c0.59	
v/s Ratio Perm			0.02			0.13			c0.46			
v/c Ratio	0.60	0.64	0.10	1.48	1.51	0.69	0.36	1.04	0.46	1.83	1.32	
Uniform Delay, d1	55.4	55.8	51.0	57.5	57.5	53.8	59.3	40.0	0.0	62.5	39.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	4.1	5.4	0.3	224.1	247.4	7.5	0.9	29.9	1.0	384.2	148.0	
Delay (s)	59.4	61.2	51.3	281.6	304.9	61.3	60.2	69.9	1.0	446.7	187.0	
Level of Service	E	E	D	F	F	E	E	E	A	F	F	
Approach Delay (s)		57.6			237.6			53.5			237.0	
Approach LOS		E			F			D			F	

Intersection Summary			
HCM Average Control Delay	163.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.29		
Actuated Cycle Length (s)	141.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	103.3%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	163	185	152	869	457	391	120	2261	717	707	2967
v/c Ratio	0.60	0.64	0.41	1.48	1.51	0.81	0.36	1.04	0.46	1.83	1.32
Control Delay	64.8	66.6	11.3	263.2	286.7	36.5	62.7	68.9	1.0	417.7	181.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.8	66.6	11.3	263.2	286.7	36.5	62.7	68.9	1.0	417.7	181.3
Queue Length 50th (ft)	141	161	2	~606	~646	147	54	~826	0	~508	~1309
Queue Length 95th (ft)	219	244	64	#768	#909	#319	88	#952	0	#651	#1455
Internal Link Dist (ft)		1418			1555			1340			2491
Turn Bay Length (ft)	300		300	350			300			475	
Base Capacity (vph)	314	331	404	588	302	480	380	2180	1568	386	2245
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.56	0.38	1.48	1.51	0.81	0.32	1.04	0.46	1.83	1.32

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.91	1.00	1.00	0.91	
Frt		0.96			1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.98			0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1733			1760	1568	1752	5036	1568	1752	5033	
Flt Permitted		0.69			0.75	1.00	0.05	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1214			1389	1568	85	5036	1568	1752	5033	
Volume (vph)	10	10	10	250	10	190	20	2380	110	100	2830	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	11	272	11	207	22	2587	120	109	3076	11
RTOR Reduction (vph)	0	3	0	0	0	128	0	0	46	0	0	0
Lane Group Flow (vph)	0	30	0	0	283	79	22	2587	74	109	3087	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Prot		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2		2			
Actuated Green, G (s)		24.7			24.7	24.7	84.3	84.3	84.3	12.7	102.8	
Effective Green, g (s)		26.8			26.8	26.8	86.7	86.7	86.7	14.5	105.2	
Actuated g/C Ratio		0.19			0.19	0.19	0.62	0.62	0.62	0.10	0.75	
Clearance Time (s)		6.1			6.1	6.1	6.4	6.4	6.4	5.8	6.4	
Vehicle Extension (s)		5.0			5.0	5.0	6.0	6.0	6.0	4.0	6.0	
Lane Grp Cap (vph)		232			266	300	53	3119	971	181	3782	
v/s Ratio Prot								0.51		0.06	c0.61	
v/s Ratio Perm		0.02			c0.20	0.05	0.26		0.05			
v/c Ratio		0.13			1.06	0.26	0.42	0.83	0.08	0.60	0.82	
Uniform Delay, d1		46.9			56.6	48.2	13.7	20.9	10.7	60.0	11.2	
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.5			73.1	1.0	22.2	2.7	0.2	6.4	2.1	
Delay (s)		47.4			129.7	49.2	35.9	23.6	10.8	66.4	13.2	
Level of Service		D			F	D	D	C	B	E	B	
Approach Delay (s)		47.4			95.7			23.1			15.1	
Approach LOS		D			F			C			B	

Intersection Summary			
HCM Average Control Delay	24.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	102.6%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	33	283	207	22	2587	120	109	3087
v/c Ratio	0.14	1.06	0.48	0.41	0.83	0.12	0.60	0.82
Control Delay	44.4	126.0	17.7	41.6	24.2	2.1	73.9	13.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.4	126.0	17.7	41.6	24.2	2.1	73.9	13.5
Queue Length 50th (ft)	22	~284	38	10	654	0	96	586
Queue Length 95th (ft)	54	#469	116	#54	722	25	161	642
Internal Link Dist (ft)	1464	1406			2491			9831
Turn Bay Length (ft)				200		750	400	
Base Capacity (vph)	236	266	428	54	3117	1016	195	3781
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	1.06	0.48	0.41	0.83	0.12	0.56	0.82

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00	1.00	0.95	0.95		1.00	0.91	1.00	1.00	0.91	1.00
Frt		1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99	1.00	0.95	0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1817	1568	1665	1698		1752	5036	1568	1752	5036	1568
Flt Permitted		0.99	1.00	0.95	0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1817	1568	1665	1698		1752	5036	1568	1752	5036	1568
Volume (vph)	70	160	60	380	140	20	110	1650	410	330	2250	90
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	174	65	413	152	22	120	1793	446	359	2446	98
RTOR Reduction (vph)	0	0	20	0	2	0	0	0	183	0	0	29
Lane Group Flow (vph)	0	250	45	288	297	0	120	1793	263	359	2446	69
Turn Type	Split		Perm	Split			Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)		24.2	24.2	26.0	26.0		9.5	42.6	42.6	19.5	52.6	52.6
Effective Green, g (s)		27.7	27.7	29.5	29.5		11.0	46.1	46.1	21.0	56.1	56.1
Actuated g/C Ratio		0.20	0.20	0.21	0.21		0.08	0.33	0.33	0.15	0.40	0.40
Clearance Time (s)		7.5	7.5	7.5	7.5		5.5	7.5	7.5	5.5	7.5	7.5
Vehicle Extension (s)		5.0	5.0	4.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)		359	310	350	357		137	1655	515	262	2014	627
v/s Ratio Prot		c0.14		0.17	c0.17		0.07	0.36		c0.20	c0.49	
v/s Ratio Perm			0.03						0.17			0.04
v/c Ratio		0.70	0.14	0.82	0.83		0.88	1.08	0.51	1.37	1.21	0.11
Uniform Delay, d1		52.4	46.5	52.9	53.0		64.0	47.1	38.0	59.6	42.1	26.4
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		7.3	0.5	15.0	15.7		41.9	48.5	1.1	189.0	101.3	0.1
Delay (s)		59.7	47.0	67.9	68.7		105.9	95.6	39.2	248.7	143.4	26.5
Level of Service		E	D	E	E		F	F	D	F	F	C
Approach Delay (s)		57.1			68.3			85.4			152.5	
Approach LOS		E			E			F			F	

Intersection Summary			
HCM Average Control Delay	113.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	140.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	90.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NEL	NET	NER	SWL	SWT	SWR
Lane Group Flow (vph)	250	65	288	299	120	1793	446	359	2446	98
v/c Ratio	0.70	0.20	0.82	0.83	0.87	1.08	0.64	1.37	1.22	0.15
Control Delay	63.7	32.3	73.1	73.0	112.8	93.1	20.1	230.9	138.7	15.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.7	32.3	73.1	73.0	112.8	93.1	20.1	230.9	138.7	15.7
Queue Length 50th (ft)	217	31	272	281	114	~705	140	~450	~1046	29
Queue Length 95th (ft)	316	74	#425	#440	#240	#808	268	#659	#1143	70
Internal Link Dist (ft)	1258			1388		9831			5036	
Turn Bay Length (ft)		50	300		200		250	350		250
Base Capacity (vph)	392	358	364	374	138	1654	698	263	2013	656
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.18	0.79	0.80	0.87	1.08	0.64	1.37	1.22	0.15

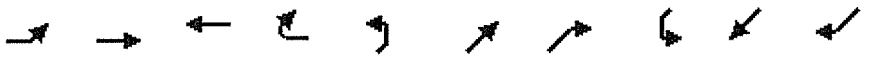
Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.91			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00			0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1683			1774	1568	1752	5036	1568	1752	5036	1568
Flt Permitted	0.39	1.00			0.63	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	719	1683			1167	1568	1752	5036	1568	1752	5036	1568
Volume (vph)	60	50	70	200	50	70	70	1750	170	90	2510	40
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	54	76	217	54	76	76	1902	185	98	2728	43
RTOR Reduction (vph)	0	42	0	0	0	25	0	0	80	0	0	20
Lane Group Flow (vph)	65	88	0	0	271	51	76	1902	105	98	2728	23
Turn Type	Perm			Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8			2			6
Actuated Green, G (s)	25.9	25.9			25.9	25.9	8.9	53.1	53.1	9.8	54.0	54.0
Effective Green, g (s)	29.4	29.4			29.4	29.4	9.9	56.6	56.6	10.8	57.5	57.5
Actuated g/C Ratio	0.27	0.27			0.27	0.27	0.09	0.52	0.52	0.10	0.53	0.53
Clearance Time (s)	7.5	7.5			7.5	7.5	5.0	7.5	7.5	5.0	7.5	7.5
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	194	455			315	424	159	2620	816	174	2661	829
v/s Ratio Prot		0.05					0.04	0.38		c0.06	c0.54	
v/s Ratio Perm	0.09				c0.23	0.03			0.07			0.01
v/c Ratio	0.34	0.19			0.86	0.12	0.48	0.73	0.13	0.56	1.03	0.03
Uniform Delay, d1	31.9	30.6			37.7	29.9	47.0	20.1	13.4	46.7	25.6	12.3
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.0	0.2			20.6	0.1	2.3	1.3	0.1	4.1	24.2	0.0
Delay (s)	32.9	30.8			58.3	30.1	49.3	21.4	13.6	50.9	49.9	12.3
Level of Service	C	C			E	C	D	C	B	D	D	B
Approach Delay (s)		31.5			52.1			21.7			49.3	
Approach LOS		C			D			C			D	

Intersection Summary			
HCM Average Control Delay	38.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	108.8	Sum of lost time (s)	8.0
Intersection Capacity Utilization	87.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Group Flow (vph)	65	130	271	76	76	1902	185	98	2728	43
v/c Ratio	0.40	0.29	0.87	0.17	0.39	0.72	0.20	0.47	1.01	0.05
Control Delay	42.0	20.2	65.9	20.6	52.9	23.1	3.9	53.6	48.0	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.0	20.2	65.9	20.6	52.9	23.1	3.9	53.6	48.0	4.6
Queue Length 50th (ft)	37	39	184	22	52	384	6	67	~784	0
Queue Length 95th (ft)	84	94	#356	63	100	486	45	122	#932	19
Internal Link Dist (ft)		1356	1472			5036			6884	
Turn Bay Length (ft)				50	375		250	375		1000
Base Capacity (vph)	185	498	326	471	296	2646	903	298	2689	857
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.26	0.83	0.16	0.26	0.72	0.20	0.33	1.01	0.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt		0.96			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.98			0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1733			1760	1568	1752	5036	1568	1752	5036	1568
Flt Permitted		0.75			0.71	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1313			1308	1568	1752	5036	1568	1752	5036	1568
Volume (vph)	10	10	10	280	10	50	30	1800	130	50	2380	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	11	304	11	54	33	1957	141	54	2587	11
RTOR Reduction (vph)	0	9	0	0	0	42	0	0	68	0	0	5
Lane Group Flow (vph)	0	24	0	0	315	12	33	1957	73	54	2587	6
Turn Type	Perm			Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8			2			6
Actuated Green, G (s)		13.7			13.7	13.7	2.9	35.1	35.1	4.6	36.2	36.2
Effective Green, g (s)		16.2			16.2	16.2	5.7	37.9	37.9	6.8	39.0	39.0
Actuated g/C Ratio		0.22			0.22	0.22	0.08	0.52	0.52	0.09	0.53	0.53
Clearance Time (s)		6.5			6.5	6.5	6.8	6.8	6.8	6.2	6.8	6.8
Vehicle Extension (s)		4.0			4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)		292			291	348	137	2618	815	163	2694	839
v/s Ratio Prot							0.02	0.39		c0.03	c0.51	
v/s Ratio Perm		0.02			c0.24	0.01			0.05			0.00
v/c Ratio		0.08			1.08	0.03	0.24	0.75	0.09	0.33	0.96	0.01
Uniform Delay, d1		22.5			28.4	22.2	31.6	13.7	8.8	30.9	16.2	7.9
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.2			76.5	0.1	0.9	1.3	0.1	1.2	9.8	0.0
Delay (s)		22.6			104.8	22.3	32.5	15.0	8.9	32.1	26.0	7.9
Level of Service		C			F	C	C	B	A	C	C	A
Approach Delay (s)		22.6			92.8			14.9			26.1	
Approach LOS		C			F			B			C	

Intersection Summary			
HCM Average Control Delay	26.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	72.9	Sum of lost time (s)	8.0
Intersection Capacity Utilization	75.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Group Flow (vph)	33	315	54	33	1957	141	54	2587	11
v/c Ratio	0.14	1.02	0.13	0.14	0.73	0.16	0.23	0.90	0.01
Control Delay	21.0	89.7	8.6	31.0	15.9	2.7	31.1	21.6	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.0	89.7	8.6	31.0	15.9	2.7	31.1	21.6	6.0
Queue Length 50th (ft)	9	~168	0	14	258	0	22	243	0
Queue Length 95th (ft)	30	#321	27	37	332	26	54	#593	8
Internal Link Dist (ft)	1413	1496			6884			4514	
Turn Bay Length (ft)			150	225		250	200		200
Base Capacity (vph)	258	308	410	249	2667	897	257	2862	895
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	1.02	0.13	0.13	0.73	0.16	0.21	0.90	0.01

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	0.88	1.00	0.91		0.97	0.91	1.00
Frt	1.00	0.92			1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.98	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1752	1691			1814	2760	1752	5032		3400	5036	1568
Flt Permitted	0.95	1.00			0.98	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1752	1691			1814	2760	1752	5032		3400	5036	1568
Volume (vph)	50	40	50	20	40	1270	30	1760	10	1060	2770	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	43	54	22	43	1380	33	1913	11	1152	3011	33
RTOR Reduction (vph)	0	38	0	0	0	0	0	1	0	0	0	13
Lane Group Flow (vph)	54	59	0	0	65	1380	33	1923	0	1152	3011	20
Turn Type	Split			Split		pt+ov	Prot			Prot		Perm
Protected Phases	4	4		8	8	8 1	5	2		1	6	
Permitted Phases												6
Actuated Green, G (s)	11.0	11.0			16.5	33.0	4.7	53.9		8.0	57.2	57.2
Effective Green, g (s)	14.5	14.5			21.0	37.0	8.7	58.9		12.0	62.2	62.2
Actuated g/C Ratio	0.12	0.12			0.17	0.30	0.07	0.48		0.10	0.51	0.51
Clearance Time (s)	7.5	7.5			8.5		8.0	9.0		8.0	9.0	9.0
Vehicle Extension (s)	4.0	4.0			4.0		3.0	4.0		3.0	4.0	4.0
Lane Grp Cap (vph)	208	200			311	834	125	2421		333	2559	797
v/s Ratio Prot	0.03	c0.03			0.04	c0.50	0.02	0.38		c0.34	c0.60	
v/s Ratio Perm												0.01
v/c Ratio	0.26	0.30			0.21	1.65	0.26	0.79		3.46	1.18	0.02
Uniform Delay, d1	49.1	49.3			43.6	42.7	53.8	26.7		55.2	30.1	15.0
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.9	1.1			0.5	300.0	1.1	2.0		1114.3	83.9	0.0
Delay (s)	50.0	50.4			44.0	342.7	55.0	28.7		1169.5	114.0	15.0
Level of Service	D	D			D	F	D	C		F	F	B
Approach Delay (s)		50.3			329.2			29.1			403.0	
Approach LOS		D			F			C			F	

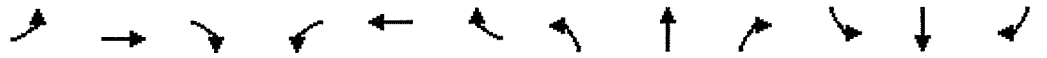
Intersection Summary			
HCM Average Control Delay	288.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.41		
Actuated Cycle Length (s)	122.4	Sum of lost time (s)	16.0
Intersection Capacity Utilization	97.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	WBR	NEL	NET	SWL	SWT	SWR
Lane Group Flow (vph)	54	97	65	1380	33	1924	1152	3011	33
v/c Ratio	0.25	0.40	0.20	1.61	0.20	0.82	3.37	1.14	0.04
Control Delay	50.8	33.4	44.4	310.0	54.0	31.1	1088.7	98.4	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.8	33.4	44.4	310.0	54.0	31.1	1088.7	98.4	7.8
Queue Length 50th (ft)	38	38	43	~860	24	449	~805	~1059	2
Queue Length 95th (ft)	79	93	86	#1034	58	534	#957	#1183	21
Internal Link Dist (ft)		1320	1449			4514		3170	
Turn Bay Length (ft)	100				200		400		375
Base Capacity (vph)	233	262	320	857	168	2358	342	2630	832
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.37	0.20	1.61	0.20	0.82	3.37	1.14	0.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00	1.00	0.95	0.95		1.00	0.91	1.00	1.00	0.91	1.00
Frt		1.00	0.85	1.00	0.93		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.96	1.00	0.95	0.97		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1778	1568	1665	1592		1752	5036	1568	1752	5036	1568
Flt Permitted		0.96	1.00	0.95	0.97		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1778	1568	1665	1592		1752	5036	1568	1752	5036	1568
Volume (vph)	30	10	30	1350	10	370	20	2030	810	440	3250	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	11	33	1467	11	402	22	2207	880	478	3533	11
RTOR Reduction (vph)	0	0	32	0	20	0	0	0	317	0	0	2
Lane Group Flow (vph)	0	44	1	974	886	0	22	2207	563	478	3533	9
Turn Type	Split		Perm	Split			Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)		3.5	3.5	53.5	53.5		4.9	45.1	45.1	20.0	60.2	60.2
Effective Green, g (s)		6.1	6.1	56.1	56.1		5.9	48.1	48.1	21.0	63.2	63.2
Actuated g/C Ratio		0.04	0.04	0.38	0.38		0.04	0.33	0.33	0.14	0.43	0.43
Clearance Time (s)		6.6	6.6	6.6	6.6		5.0	7.0	7.0	5.0	7.0	7.0
Vehicle Extension (s)		4.0	4.0	4.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)		74	65	634	606		70	1644	512	250	2161	673
v/s Ratio Prot		c0.02		c0.59	0.56		0.01	0.44		c0.27	c0.70	
v/s Ratio Perm			0.00						0.36			0.01
v/c Ratio		0.59	0.02	1.54	1.46		0.31	1.34	1.10	1.91	1.63	0.01
Uniform Delay, d1		69.4	67.7	45.6	45.6		68.7	49.6	49.6	63.2	42.1	24.1
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		14.1	0.2	249.2	217.1		2.6	158.3	70.1	425.0	287.8	0.0
Delay (s)		83.5	67.9	294.8	262.7		71.3	207.9	119.7	488.1	329.9	24.2
Level of Service		F	E	F	F		E	F	F	F	F	C
Approach Delay (s)		76.8			279.3			182.0			347.9	
Approach LOS		E			F			F			F	

Intersection Summary			
HCM Average Control Delay	274.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.57		
Actuated Cycle Length (s)	147.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	134.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	44	33	974	906	22	2207	880	478	3533	11
v/c Ratio	0.52	0.31	1.50	1.41	0.21	1.37	1.07	1.87	1.60	0.02
Control Delay	89.2	28.1	265.8	228.6	70.2	207.7	74.2	436.7	300.4	21.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.2	28.1	265.8	228.6	70.2	207.7	74.2	436.7	300.4	21.6
Queue Length 50th (ft)	42	0	~1360	~1213	20	~1021	~607	~694	~1820	4
Queue Length 95th (ft)	#90	37	#1633	#1489	50	#1112	#867	#917	#1912	18
Internal Link Dist (ft)	1565			1533		9567			2116	
Turn Bay Length (ft)		100	425		350		275	275		250
Base Capacity (vph)	85	107	649	641	128	1613	822	256	2212	691
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.31	1.50	1.41	0.17	1.37	1.07	1.87	1.60	0.02

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.95		1.00	0.91		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1694	1752		1694	1678		1752	5036	1568	1752	5036	1568
Flt Permitted	0.52	1.00		0.31	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	925	1752		555	1678		1752	5036	1568	1752	5036	1568
Volume (vph)	260	180	90	220	60	90	90	3370	250	130	2710	40
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	283	196	98	239	65	98	98	3663	272	141	2946	43
RTOR Reduction (vph)	0	7	0	0	23	0	0	0	107	0	0	16
Lane Group Flow (vph)	283	287	0	239	140	0	98	3663	165	141	2946	27
Turn Type	Perm			Perm			Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	64.0	64.0		64.0	64.0		13.9	144.5	144.5	16.5	147.1	147.1
Effective Green, g (s)	65.0	65.0		65.0	65.0		14.4	146.0	146.0	17.0	148.6	148.6
Actuated g/C Ratio	0.27	0.27		0.27	0.27		0.06	0.61	0.61	0.07	0.62	0.62
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	4.0	4.0		4.0	4.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	251	475		150	454		105	3064	954	124	3118	971
v/s Ratio Prot		0.16			0.08		0.06	c0.73		c0.08	c0.58	
v/s Ratio Perm	0.31			c0.43					0.11			0.02
v/c Ratio	1.13	0.60		1.59	0.31		0.93	1.20	0.17	1.14	0.94	0.03
Uniform Delay, d1	87.5	76.3		87.5	69.6		112.3	47.0	20.6	111.5	41.9	17.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.28	0.09	0.01
Incremental Delay, d2	95.5	2.5		296.1	0.5		66.4	91.4	0.4	71.1	0.9	0.0
Delay (s)	183.0	78.8		383.6	70.2		178.7	138.4	21.0	213.7	4.5	0.2
Level of Service	F	E		F	E		F	F	C	F	A	A
Approach Delay (s)		129.9			256.5			131.5			13.9	
Approach LOS		F			F			F			B	

Intersection Summary			
HCM Average Control Delay	92.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.32		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	112.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

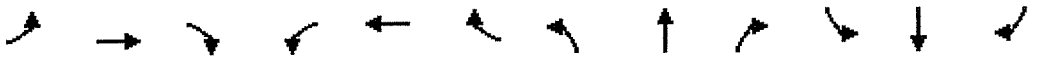
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	283	294	239	163	98	3663	272	141	2946	43
v/c Ratio	1.13	0.61	1.59	0.34	0.93	1.20	0.26	1.14	0.94	0.04
Control Delay	168.6	80.0	344.5	58.7	177.3	132.5	2.2	182.3	4.9	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	168.6	80.0	344.5	58.7	177.3	132.5	2.2	182.3	4.9	0.0
Queue Length 50th (ft)	~517	400	~537	170	158	~2559	0	~259	134	0
Queue Length 95th (ft)	#740	522	#747	254	#303	#2536	43	m#256	m132	m0
Internal Link Dist (ft)		1402		1426		1282			1911	
Turn Bay Length (ft)	150		200		250		1000	250		800
Base Capacity (vph)	251	482	150	477	105	3064	1060	124	3118	987
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.13	0.61	1.59	0.34	0.93	1.20	0.26	1.14	0.94	0.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

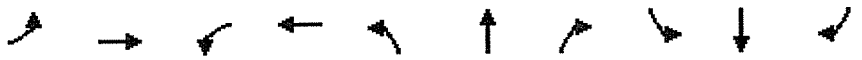
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	0.91		1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.99		1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.96		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3083	1597		1752	1748		1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	0.96		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3083	1597		1752	1748		1752	5036	1568	1752	5036	1568
Volume (vph)	1630	30	20	180	130	70	10	3790	80	30	2650	690
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1772	33	22	196	141	76	11	4120	87	33	2880	750
RTOR Reduction (vph)	0	1	0	0	8	0	0	0	9	0	0	0
Lane Group Flow (vph)	1208	618	0	196	209	0	11	4120	78	33	2880	750
Turn Type	Split			Split			Prot		Perm	Prot		Free
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases									2			Free
Actuated Green, G (s)	62.0	62.0		20.0	20.0		3.0	133.0	133.0	4.0	134.0	240.0
Effective Green, g (s)	63.0	63.0		21.0	21.0		4.5	134.5	134.5	5.5	135.5	240.0
Actuated g/C Ratio	0.26	0.26		0.09	0.09		0.02	0.56	0.56	0.02	0.56	1.00
Clearance Time (s)	5.0	5.0		5.0	5.0		5.5	5.5	5.5	5.5	5.5	
Vehicle Extension (s)	4.0	4.0		4.0	4.0		3.0	5.0	5.0	3.0	5.0	
Lane Grp Cap (vph)	809	419		153	153		33	2822	879	40	2843	1568
v/s Ratio Prot	c0.39	0.39		0.11	c0.12		0.01	c0.82		c0.02	0.57	
v/s Ratio Perm									0.05			c0.48
v/c Ratio	1.49	1.48		1.28	1.36		0.33	1.46	0.09	0.82	1.01	0.48
Uniform Delay, d1	88.5	88.5		109.5	109.5		116.3	52.8	24.4	116.8	52.2	0.0
Progression Factor	1.00	1.00		1.00	1.00		0.94	0.91	1.33	1.13	0.65	1.00
Incremental Delay, d2	228.5	226.6		167.1	200.2		0.5	207.2	0.0	36.0	13.4	0.4
Delay (s)	317.0	315.1		276.6	309.7		110.4	255.1	32.5	167.5	47.3	0.4
Level of Service	F	F		F	F		F	F	C	F	D	A
Approach Delay (s)		316.3			294.0			250.1			38.8	
Approach LOS		F			F			F			D	

Intersection Summary			
HCM Average Control Delay	187.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.45		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	125.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	1208	619	196	217	11	4120	87	33	2880	750
v/c Ratio	1.49	1.47	1.28	1.35	0.23	1.45	0.10	0.70	1.00	0.48
Control Delay	281.4	279.5	242.8	259.6	109.6	237.2	25.0	151.0	41.9	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	281.4	279.5	242.8	259.6	109.6	237.2	25.0	151.0	41.9	0.4
Queue Length 50th (ft)	~1447	~1478	~391	~435	18	~3257	48	54	~1768	0
Queue Length 95th (ft)	#1587	#1772	#591	#644	m18	m#2512	m40	m58	m#1782	m0
Internal Link Dist (ft)		271		1474		1911			1889	
Turn Bay Length (ft)			150		250		250	350		1000
Base Capacity (vph)	809	420	153	161	47	2845	895	47	2889	1568
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.49	1.47	1.28	1.35	0.23	1.45	0.10	0.70	1.00	0.48

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	11	11	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1845	1568	3286	1580		1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1845	1568	3286	1580		1752	5036	1568	1752	5036	1568
Volume (vph)	120	80	90	410	70	220	150	4010	380	190	2850	80
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	87	98	446	76	239	163	4359	413	207	3098	87
RTOR Reduction (vph)	0	0	85	0	47	0	0	0	93	0	0	12
Lane Group Flow (vph)	130	87	13	446	268	0	163	4359	320	207	3098	75
Turn Type	Prot		Perm	Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)	13.5	11.1	11.1	31.4	29.0		22.8	156.5	156.5	21.5	155.2	155.2
Effective Green, g (s)	14.0	12.1	12.1	31.9	30.0		23.3	158.0	158.0	22.0	156.7	156.7
Actuated g/C Ratio	0.06	0.05	0.05	0.13	0.12		0.10	0.66	0.66	0.09	0.65	0.65
Clearance Time (s)	4.5	5.0	5.0	4.5	5.0		4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	102	93	79	437	198		170	3315	1032	161	3288	1024
v/s Ratio Prot	c0.07	0.05		0.14	c0.17		0.09	c0.87		c0.12	0.62	
v/s Ratio Perm			0.01						0.20			0.05
v/c Ratio	1.27	0.94	0.17	1.02	1.35		0.96	1.31	0.31	1.29	0.94	0.07
Uniform Delay, d1	113.0	113.6	109.1	104.0	105.0		107.9	41.0	17.6	109.0	37.6	15.2
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.90	0.76	1.02	1.32	0.15	0.06
Incremental Delay, d2	179.8	72.4	1.4	48.4	188.0		12.3	141.9	0.1	133.0	0.8	0.0
Delay (s)	292.8	186.0	110.5	152.4	293.0		109.8	173.0	18.1	276.8	6.4	0.9
Level of Service	F	F	F	F	F		F	F	B	F	A	A
Approach Delay (s)		206.6			210.6			157.9			22.7	
Approach LOS		F			F			F			C	

Intersection Summary			
HCM Average Control Delay	115.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.32		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	125.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	130	87	98	446	315	163	4359	413	207	3098	87
v/c Ratio	1.27	0.94	0.60	1.02	1.29	0.96	1.31	0.37	1.29	0.94	0.08
Control Delay	257.5	183.6	36.9	146.2	215.2	106.6	170.8	5.7	228.5	6.7	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	257.5	183.6	36.9	146.2	215.2	106.6	170.8	5.7	228.5	6.7	0.5
Queue Length 50th (ft)	~259	141	14	~384	~555	260	~3243	85	~415	171	1
Queue Length 95th (ft)	#432	#277	91	#514	#786	m172	m1052	m20	m#392	m166	m1
Internal Link Dist (ft)		1464			1497		1889			2565	
Turn Bay Length (ft)	100		100	150		400		575	300		250
Base Capacity (vph)	102	93	164	437	245	170	3315	1125	161	3288	1036
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.27	0.94	0.60	1.02	1.29	0.96	1.31	0.37	1.29	0.94	0.08

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.92		1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1706		1752	1729		1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1706		1752	1729		1752	5036	1568	1752	5036	1568
Volume (vph)	320	150	150	140	140	100	140	3870	210	90	2860	180
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	348	163	163	152	152	109	152	4207	228	98	3109	196
RTOR Reduction (vph)	0	15	0	0	11	0	0	0	25	0	0	28
Lane Group Flow (vph)	348	311	0	152	250	0	152	4207	203	98	3109	168
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	34.5	41.0		18.0	25.0		18.5	150.5	150.5	10.5	142.5	142.5
Effective Green, g (s)	35.0	42.0		19.0	26.0		19.0	152.0	152.0	11.0	144.0	144.0
Actuated g/C Ratio	0.15	0.18		0.08	0.11		0.08	0.63	0.63	0.05	0.60	0.60
Clearance Time (s)	4.5	5.0		5.0	5.0		4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	256	299		139	187		139	3189	993	80	3022	941
v/s Ratio Prot	c0.20	0.18		0.09	c0.14		c0.09	c0.84		0.06	0.62	
v/s Ratio Perm									0.13			0.11
v/c Ratio	1.36	1.04		1.09	1.34		1.09	1.32	0.20	1.23	1.03	0.18
Uniform Delay, d1	102.5	99.0		110.5	107.0		110.5	44.0	18.5	114.5	48.0	21.5
Progression Factor	1.00	1.00		1.00	1.00		0.77	1.29	1.71	1.14	0.45	0.39
Incremental Delay, d2	185.0	63.0		103.6	183.9		52.9	143.9	0.0	139.4	19.1	0.2
Delay (s)	287.5	162.0		214.1	290.9		138.2	200.6	31.8	269.9	40.5	8.5
Level of Service	F	F		F	F		F	F	C	F	D	A
Approach Delay (s)		226.8			262.6			190.1			45.3	
Approach LOS		F			F			F			D	

Intersection Summary			
HCM Average Control Delay	141.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.32		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	124.3%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	348	326	152	261	152	4207	228	98	3109	196
v/c Ratio	1.36	1.04	1.09	1.32	1.09	1.32	0.22	1.23	1.03	0.20
Control Delay	252.1	147.1	196.6	242.4	126.8	187.4	22.2	231.3	41.1	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.4	0.0
Total Delay	252.1	147.1	196.6	242.4	126.8	187.4	22.2	231.3	53.5	5.4
Queue Length 50th (ft)	~722	~531	~271	~515	~271	~3129	179	~193	~1908	12
Queue Length 95th (ft)	#958	#765	#455	#737	m181	m#1475	m118	m#228	#1920	m38
Internal Link Dist (ft)		1508		1584		2565			960	
Turn Bay Length (ft)	175		150		850		250	375		
Base Capacity (vph)	256	313	139	198	139	3189	1018	80	3022	969
Starvation Cap Reductn	0	0	0	0	0	0	0	0	90	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.36	1.04	1.09	1.32	1.09	1.32	0.22	1.23	1.06	0.20

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.92		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1694	1649		1752	1845	1568	1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1694	1649		1752	1845	1568	1752	5036	1568	1752	5036	1568
Volume (vph)	300	90	90	170	130	300	50	4000	170	210	2790	180
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	326	98	98	185	141	326	54	4348	185	228	3033	196
RTOR Reduction (vph)	0	15	0	0	0	100	0	0	21	0	0	67
Lane Group Flow (vph)	326	181	0	185	141	226	54	4348	164	228	3033	129
Turn Type	Prot			Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	32.5	27.7		25.8	21.0	21.0	10.0	144.5	144.5	22.5	157.0	157.0
Effective Green, g (s)	33.0	28.7		26.3	22.0	22.0	10.5	146.0	146.0	23.0	158.5	158.5
Actuated g/C Ratio	0.14	0.12		0.11	0.09	0.09	0.04	0.61	0.61	0.10	0.66	0.66
Clearance Time (s)	4.5	5.0		4.5	5.0	5.0	4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	233	197		192	169	144	77	3064	954	168	3326	1036
v/s Ratio Prot	c0.19	0.11		0.11	0.08		0.03	c0.86		c0.13	0.60	
v/s Ratio Perm						c0.14			0.10			0.08
v/c Ratio	1.40	0.92		0.96	0.83	1.57	0.70	1.42	0.17	1.36	0.91	0.12
Uniform Delay, d1	103.5	104.5		106.4	107.2	109.0	113.2	47.0	20.6	108.5	34.8	15.1
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.14	0.41	0.31	1.01	1.22	2.40
Incremental Delay, d2	203.5	41.5		54.0	28.3	287.3	2.6	188.8	0.0	172.3	1.6	0.1
Delay (s)	307.0	146.0		160.4	135.5	396.3	131.6	208.1	6.3	282.1	44.0	36.2
Level of Service	F	F		F	F	F	F	F	A	F	D	D
Approach Delay (s)		246.6			272.9			199.1			59.2	
Approach LOS		F			F			F			E	

Intersection Summary			
HCM Average Control Delay	154.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.43		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	127.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	326	196	185	141	326	54	4348	185	228	3033	196
v/c Ratio	1.40	0.92	0.96	0.83	1.34	0.70	1.42	0.19	1.36	0.91	0.18
Control Delay	268.6	136.9	157.7	141.4	221.0	131.5	210.9	4.5	242.9	44.7	3.6
Queue Delay	0.0	0.7	0.0	0.0	0.0	0.0	19.3	0.0	0.0	3.3	0.0
Total Delay	268.6	137.5	157.7	141.4	221.0	131.5	230.2	4.5	242.9	48.0	3.6
Queue Length 50th (ft)	~687	289	298	225	~505	89	~3375	17	~472	1670	35
Queue Length 95th (ft)	#920	#471	#489	#362	#740	m67	m#2098	m9	m#505	m1645	m33
Internal Link Dist (ft)		1383		1613			960			1165	
Turn Bay Length (ft)	300		350			300		275	600		825
Base Capacity (vph)	233	212	192	169	244	80	3064	975	168	3326	1102
Starvation Cap Reductn	0	0	0	0	0	0	90	0	0	0	0
Spillback Cap Reductn	0	1	0	0	0	0	0	0	0	220	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.40	0.93	0.96	0.83	1.34	0.68	1.46	0.19	1.36	0.98	0.18

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

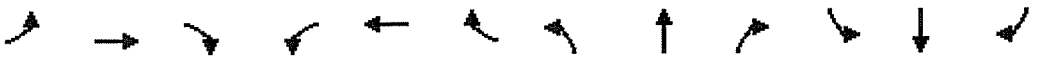
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	13	13	13	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.99	1.00	0.95	0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1720	1791	1620	1665	1722	1568	1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	0.99	1.00	0.95	0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1720	1791	1620	1665	1722	1568	1752	5036	1568	1752	5036	1568
Volume (vph)	270	180	180	300	150	140	130	3900	260	160	2740	130
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	293	196	196	326	163	152	141	4239	283	174	2978	141
RTOR Reduction (vph)	0	0	105	0	0	82	0	0	104	0	0	52
Lane Group Flow (vph)	238	251	91	238	251	70	141	4239	179	174	2978	89
Turn Type	Split		Perm	Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	25.0	25.0	25.0	26.0	26.0	26.0	19.8	150.5	150.5	18.5	149.2	149.2
Effective Green, g (s)	26.0	26.0	26.0	27.0	27.0	27.0	20.3	152.0	152.0	19.0	150.7	150.7
Actuated g/C Ratio	0.11	0.11	0.11	0.11	0.11	0.11	0.08	0.63	0.63	0.08	0.63	0.63
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	2.5	5.0	5.0	2.5	5.0	5.0
Lane Grp Cap (vph)	186	194	176	187	194	176	148	3189	993	139	3162	985
v/s Ratio Prot	0.14	c0.14		0.14	c0.15		0.08	c0.84		c0.10	0.59	
v/s Ratio Perm			0.06			0.04			0.11			0.06
v/c Ratio	1.28	1.29	0.52	1.27	1.29	0.40	0.95	1.33	0.18	1.25	0.94	0.09
Uniform Delay, d1	107.0	107.0	101.1	106.5	106.5	99.0	109.4	44.0	18.2	110.5	40.7	17.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.16	0.58	0.24	0.85	0.61	0.67
Incremental Delay, d2	160.5	165.0	2.5	157.7	165.0	1.5	12.7	148.4	0.0	129.3	2.4	0.1
Delay (s)	267.5	272.0	103.6	264.2	271.5	100.5	140.1	174.0	4.5	222.8	27.2	11.9
Level of Service	F	F	F	F	F	F	F	F	A	F	C	B
Approach Delay (s)		222.2			228.2			162.7			36.9	
Approach LOS		F			F			F			D	

Intersection Summary			
HCM Average Control Delay	127.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.31		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	122.0%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



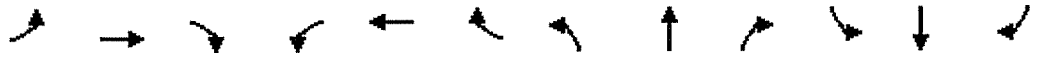
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	238	251	196	238	251	152	141	4239	283	174	2978	141
v/c Ratio	1.28	1.29	0.70	1.27	1.29	0.59	0.95	1.33	0.26	1.25	0.94	0.14
Control Delay	235.1	238.6	54.4	232.5	238.3	49.4	133.6	174.1	0.4	197.5	27.5	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	235.1	238.6	54.4	232.5	238.3	49.4	133.6	174.1	0.4	197.5	27.5	1.4
Queue Length 50th (ft)	~500	~531	123	~497	~531	91	224	~3207	11	~342	1190	4
Queue Length 95th (ft)	#721	#758	233	#718	#760	188	m153	m1756	m1	m#371	m1191	m6
Internal Link Dist (ft)		1440			1426			2920			2650	
Turn Bay Length (ft)	225		225	175		200	350		1000	500		825
Base Capacity (vph)	186	194	281	187	194	258	148	3189	1097	139	3162	1037
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.28	1.29	0.70	1.27	1.29	0.59	0.95	1.33	0.26	1.25	0.94	0.14

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95		0.91	0.91	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.99		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1665	1635		3189	1620	1568	1752	5036	1568	3400	5036	1568
Flt Permitted	0.95	0.99		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1665	1635		3189	1620	1568	1752	5036	1568	3400	5036	1568
Volume (vph)	220	90	80	970	100	520	20	3620	460	320	2520	20
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	239	98	87	1054	109	565	22	3935	500	348	2739	22
RTOR Reduction (vph)	0	10	0	0	0	96	0	0	161	0	0	3
Lane Group Flow (vph)	208	206	0	762	401	470	22	3935	339	348	2739	19
Turn Type	Split			Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	22.0	22.0		48.0	48.0	48.0	4.0	132.5	132.5	17.5	146.0	146.0
Effective Green, g (s)	23.0	23.0		49.0	49.0	49.0	4.5	134.0	134.0	18.0	147.5	147.5
Actuated g/C Ratio	0.10	0.10		0.20	0.20	0.20	0.02	0.56	0.56	0.08	0.61	0.61
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	4.0	4.0		4.0	4.0	4.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	160	157		651	331	320	33	2812	875	255	3095	964
v/s Ratio Prot	0.12	c0.13		0.24	0.25		0.01	c0.78		c0.10	0.54	
v/s Ratio Perm						c0.30			0.22			0.01
v/c Ratio	1.30	1.31		1.17	1.21	1.47	0.67	1.40	0.39	1.36	0.88	0.02
Uniform Delay, d1	108.5	108.5		95.5	95.5	95.5	117.0	53.0	29.9	111.0	39.1	18.0
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.71	0.36	0.10	0.86	1.40	1.29
Incremental Delay, d2	173.0	178.5		92.5	119.9	226.6	4.5	179.9	0.1	176.1	2.1	0.0
Delay (s)	281.5	287.0		188.0	215.4	322.1	87.4	198.9	3.1	271.6	56.8	23.3
Level of Service	F	F		F	F	F	F	F	A	F	E	C
Approach Delay (s)		284.3			238.2			176.4			80.6	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM Average Control Delay	161.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.40		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	123.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	208	216	762	401	565	22	3935	500	348	2739	22
v/c Ratio	1.30	1.29	1.17	1.21	1.36	0.55	1.40	0.48	1.36	0.88	0.02
Control Delay	246.9	239.2	169.3	192.9	224.7	86.4	201.8	0.9	239.1	56.8	16.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	246.9	239.2	169.3	192.9	224.7	86.4	201.8	0.9	239.1	56.8	16.2
Queue Length 50th (ft)	~442	~442	~786	~848	~1016	34	~3032	39	~372	1472	11
Queue Length 95th (ft)	#656	#661	#934	#1118	#1277	m26	m#1902	m18	m#460	m1453	m14
Internal Link Dist (ft)		1452		1418			2650			2872	
Turn Bay Length (ft)	150				200	425		750	400		250
Base Capacity (vph)	160	167	651	331	416	40	2812	1037	255	3114	973
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.30	1.29	1.17	1.21	1.36	0.55	1.40	0.48	1.36	0.88	0.02

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95		0.95	0.95	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.99		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1665	1687		1665	1687	1568	1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	0.99		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1665	1687		1665	1687	1568	1752	5036	1568	1752	5036	1568
Volume (vph)	190	100	30	380	50	190	60	3460	350	340	2510	70
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	207	109	33	413	54	207	65	3761	380	370	2728	76
RTOR Reduction (vph)	0	4	0	0	0	65	0	0	62	0	0	11
Lane Group Flow (vph)	171	174	0	227	240	142	65	3761	318	370	2728	65
Turn Type	Split			Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	19.0	19.0		26.0	26.0	26.0	13.0	136.5	136.5	38.5	162.0	162.0
Effective Green, g (s)	20.0	20.0		27.0	27.0	27.0	13.5	138.0	138.0	39.0	163.5	163.5
Actuated g/C Ratio	0.08	0.08		0.11	0.11	0.11	0.06	0.57	0.57	0.16	0.68	0.68
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	2.5	5.0	5.0	2.5	5.0	5.0
Lane Grp Cap (vph)	139	141		187	190	176	99	2896	902	285	3431	1068
v/s Ratio Prot	0.10	c0.10		0.14	c0.14		0.04	c0.75		c0.21	0.54	
v/s Ratio Perm						0.09			0.20			0.04
v/c Ratio	1.23	1.24		1.21	1.26	0.81	0.66	1.30	0.35	1.30	0.80	0.06
Uniform Delay, d1	110.0	110.0		106.5	106.5	104.0	111.0	51.0	27.2	100.5	26.6	12.7
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.28	0.35	0.09	0.68	0.33	0.51
Incremental Delay, d2	151.1	152.9		135.2	153.5	23.1	1.3	134.7	0.1	142.9	0.7	0.0
Delay (s)	261.1	262.9		241.7	260.0	127.1	143.6	152.4	2.7	211.2	9.6	6.6
Level of Service	F	F		F	F	F	F	F	A	F	A	A
Approach Delay (s)		262.0			213.0			138.7			33.0	
Approach LOS		F			F			F			C	

Intersection Summary			
HCM Average Control Delay	109.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.29		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	119.7%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	171	178	227	240	207	65	3761	380	370	2728	76
v/c Ratio	1.23	1.24	1.21	1.26	0.86	0.66	1.30	0.39	1.30	0.80	0.07
Control Delay	231.1	229.6	214.7	229.1	96.5	144.9	155.8	1.6	193.9	9.8	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	231.1	229.6	214.7	229.1	96.5	144.9	155.8	1.6	193.9	9.8	3.8
Queue Length 50th (ft)	~350	~360	~460	~501	218	101	~2765	14	~745	231	5
Queue Length 95th (ft)	#550	#565	#681	#725	#379	m73	m786	m1	m#783	270	m7
Internal Link Dist (ft)		1490		1548			2872			1921	
Turn Bay Length (ft)	200		300		100	500		350	475		225
Base Capacity (vph)	139	144	187	190	241	120	2896	964	285	3431	1079
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.23	1.24	1.21	1.26	0.86	0.54	1.30	0.39	1.30	0.80	0.07

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.91		1.00	0.91	1.00
Frt		1.00	0.85	1.00	0.93		1.00	1.00		1.00	1.00	0.85
Flt Protected		0.95	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1760	1568	1752	1725		1752	5032		1752	5036	1568
Flt Permitted		0.63	1.00	0.18	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1161	1568	340	1725		1752	5032		1752	5036	1568
Volume (vph)	300	10	180	20	40	30	140	3790	20	20	2840	120
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	326	11	196	22	43	33	152	4120	22	22	3087	130
RTOR Reduction (vph)	0	0	72	0	11	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	337	124	22	65	0	152	4142	0	22	3087	130
Turn Type	Perm		Perm	Perm			Prot			Prot		Free
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8								Free
Actuated Green, G (s)		56.0	56.0	56.0	56.0		19.3	164.0		4.0	148.7	240.0
Effective Green, g (s)		57.0	57.0	57.0	57.0		20.8	165.5		5.5	150.2	240.0
Actuated g/C Ratio		0.24	0.24	0.24	0.24		0.09	0.69		0.02	0.63	1.00
Clearance Time (s)		5.0	5.0	5.0	5.0		5.5	5.5		5.5	5.5	
Vehicle Extension (s)		4.0	4.0	4.0	4.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)		276	372	81	410		152	3470		40	3152	1568
v/s Ratio Prot					0.04		c0.09	c0.82		0.01	0.61	
v/s Ratio Perm		c0.29	0.08	0.06								0.08
v/c Ratio		1.22	0.33	0.27	0.16		1.00	1.19		0.55	0.98	0.08
Uniform Delay, d1		91.5	75.8	74.6	72.5		109.6	37.2		116.0	43.4	0.0
Progression Factor		1.00	1.00	1.00	1.00		1.23	0.39		1.15	0.44	1.00
Incremental Delay, d2		127.6	0.7	2.5	0.2		21.9	87.4		5.5	5.8	0.0
Delay (s)		219.1	76.5	77.0	72.7		156.4	101.8		138.5	24.7	0.0
Level of Service		F	E	E	E		F	F		F	C	A
Approach Delay (s)		166.6			73.7			103.7			24.5	
Approach LOS		F			E			F			C	

Intersection Summary			
HCM Average Control Delay	76.1	HCM Level of Service	E
HCM Volume to Capacity ratio	1.20		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	111.7%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	337	196	22	76	152	4142	22	3087	130
v/c Ratio	1.22	0.44	0.27	0.18	1.00	1.19	0.47	0.98	0.08
Control Delay	197.0	42.8	85.5	59.5	146.9	101.9	143.8	25.1	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.3	0.0
Total Delay	197.0	42.8	85.5	59.5	146.9	101.9	143.8	37.4	0.0
Queue Length 50th (ft)	~653	139	29	78	~252	~2884	36	1429	0
Queue Length 95th (ft)	#889	235	67	137	m203	m190	m38	m1300	m0
Internal Link Dist (ft)	1454			1472		1921		1002	
Turn Bay Length (ft)			50		300		125		325
Base Capacity (vph)	276	444	81	421	152	3493	47	3152	1568
Starvation Cap Reductn	0	0	0	0	0	0	0	150	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.22	0.44	0.27	0.18	1.00	1.19	0.47	1.03	0.08

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95		0.97	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1845	1568	1752	3305		3400	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	1845	1568	1752	3305		3400	5036	1568	1752	5036	1568
Volume (vph)	120	80	210	220	180	110	200	3700	130	80	2830	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	87	228	239	196	120	217	4022	141	87	3076	33
RTOR Reduction (vph)	0	0	99	0	39	0	0	0	13	0	0	11
Lane Group Flow (vph)	130	87	129	239	277	0	217	4022	128	87	3076	22
Turn Type	Prot		Perm	Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)	11.4	14.0	14.0	28.5	31.1		17.1	167.5	167.5	9.5	159.9	159.9
Effective Green, g (s)	11.9	15.0	15.0	29.0	32.1		18.6	169.0	169.0	11.0	161.4	161.4
Actuated g/C Ratio	0.05	0.06	0.06	0.12	0.13		0.08	0.70	0.70	0.05	0.67	0.67
Clearance Time (s)	4.5	5.0	5.0	4.5	5.0		5.5	5.5	5.5	5.5	5.5	5.5
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	169	115	98	212	442		264	3546	1104	80	3387	1054
v/s Ratio Prot	0.04	0.05		c0.14	0.08		0.06	c0.80		c0.05	0.61	
v/s Ratio Perm			c0.08						0.08			0.01
v/c Ratio	0.77	0.76	1.31	1.13	0.63		0.82	1.13	0.12	1.09	0.91	0.02
Uniform Delay, d1	112.7	110.7	112.5	105.5	98.3		109.1	35.5	11.4	114.5	33.1	13.1
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.75	0.25	0.07	1.05	0.53	1.03
Incremental Delay, d2	18.8	25.6	196.0	100.3	3.1		2.0	60.8	0.0	95.5	2.4	0.0
Delay (s)	131.5	136.3	308.5	205.8	101.4		84.2	69.8	0.8	216.1	19.8	13.5
Level of Service	F	F	F	F	F		F	E	A	F	B	B
Approach Delay (s)		223.1			146.4			68.3			25.1	
Approach LOS		F			F			E			C	

Intersection Summary			
HCM Average Control Delay	65.3	HCM Level of Service	E
HCM Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	108.1%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	130	87	228	239	316	217	4022	141	87	3076	33
v/c Ratio	0.77	0.76	1.16	1.13	0.66	0.82	1.13	0.13	1.09	0.91	0.03
Control Delay	139.6	145.4	156.9	187.0	91.6	84.5	74.0	0.5	195.0	20.1	3.4
Queue Delay	0.0	0.0	14.9	0.0	0.0	0.0	28.1	0.0	0.0	6.2	0.0
Total Delay	139.6	145.4	171.8	187.0	91.6	84.5	102.1	0.5	195.0	26.3	3.4
Queue Length 50th (ft)	107	139	~259	~437	220	175	~2690	1	~155	530	1
Queue Length 95th (ft)	#164	#241	#471	#646	284	m145	m456	m1	m#208	m608	m3
Internal Link Dist (ft)		1544			1553		1002			2491	
Turn Bay Length (ft)	275			200		475		200	300		625
Base Capacity (vph)	171	115	197	212	480	264	3546	1117	80	3387	1065
Starvation Cap Reductn	0	0	0	0	0	0	187	0	0	0	0
Spillback Cap Reductn	0	0	6	0	0	0	0	0	0	295	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.76	1.19	1.13	0.66	0.82	1.20	0.13	1.09	0.99	0.03

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.96		1.00	0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1765		1752	1647		1752	5036	1568	1752	5036	1568
Flt Permitted	0.28	1.00		0.64	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	523	1765		1172	1647		1752	5036	1568	1752	5036	1568
Volume (vph)	120	50	20	240	60	150	40	3790	130	90	2800	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	54	22	261	65	163	43	4120	141	98	3043	54
RTOR Reduction (vph)	0	7	0	0	37	0	0	0	10	0	0	6
Lane Group Flow (vph)	130	70	0	261	191	0	43	4120	131	98	3043	48
Turn Type	Perm			Perm			Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	44.0	44.0		44.0	44.0		9.3	169.5	169.5	11.5	171.7	171.7
Effective Green, g (s)	45.0	45.0		45.0	45.0		9.8	171.0	171.0	12.0	173.2	173.2
Actuated g/C Ratio	0.19	0.19		0.19	0.19		0.04	0.71	0.71	0.05	0.72	0.72
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	5.0	5.0		5.0	5.0		4.0	5.0	5.0	4.0	5.0	5.0
Lane Grp Cap (vph)	98	331		220	309		72	3588	1117	88	3634	1132
v/s Ratio Prot		0.04			0.12		0.02	c0.82		c0.06	0.60	
v/s Ratio Perm	c0.25			0.22					0.08			0.03
v/c Ratio	1.33	0.21		1.19	0.62		0.60	1.15	0.12	1.11	0.84	0.04
Uniform Delay, d1	97.5	82.5		97.5	89.6		113.2	34.5	10.8	114.0	23.5	9.6
Progression Factor	1.00	1.00		1.00	1.00		0.85	0.66	1.29	1.26	0.20	0.01
Incremental Delay, d2	201.4	0.7		120.2	5.2		1.4	67.1	0.0	111.8	1.7	0.0
Delay (s)	298.9	83.1		217.7	94.8		97.8	89.7	14.0	256.0	6.2	0.2
Level of Service	F	F		F	F		F	F	B	F	A	A
Approach Delay (s)		219.3			160.4			87.3			13.8	
Approach LOS		F			F			F			B	

Intersection Summary			
HCM Average Control Delay	66.3	HCM Level of Service	E
HCM Volume to Capacity ratio	1.18		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	104.8%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	130	76	261	228	43	4120	141	98	3043	54
v/c Ratio	1.33	0.23	1.19	0.66	0.52	1.15	0.13	1.11	0.83	0.05
Control Delay	266.3	75.8	196.1	81.6	97.3	91.0	10.6	225.6	6.3	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
Total Delay	266.3	75.8	196.1	81.6	97.3	91.0	10.6	225.6	6.5	0.1
Queue Length 50th (ft)	~265	93	~496	275	69	~2783	49	~181	409	0
Queue Length 95th (ft)	#439	156	#715	390	m64	m#2230	m42	m#301	272	m1
Internal Link Dist (ft)		1509		1512		2491			939	
Turn Bay Length (ft)	150		150		300		150	325		200
Base Capacity (vph)	98	337	220	346	91	3588	1127	88	3653	1144
Starvation Cap Reductn	0	0	0	0	0	0	0	0	115	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.33	0.23	1.19	0.66	0.47	1.15	0.13	1.11	0.86	0.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	
Frt	1.00	0.85	1.00	1.00	1.00	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1752	1568	1752	5036	5023	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1752	1568	1752	5036	5023	
Volume (vph)	70	110	30	3940	2840	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	120	33	4283	3087	54
RTOR Reduction (vph)	0	53	0	0	1	0
Lane Group Flow (vph)	76	67	33	4283	3140	0
Turn Type		custom	Prot			
Protected Phases			5	2	6	
Permitted Phases	4	4				
Actuated Green, G (s)	14.6	14.6	7.7	214.9	202.7	
Effective Green, g (s)	15.6	15.6	8.2	216.4	204.2	
Actuated g/C Ratio	0.06	0.06	0.03	0.90	0.85	
Clearance Time (s)	5.0	5.0	4.5	5.5	5.5	
Vehicle Extension (s)	4.0	4.0	4.0	5.0	5.0	
Lane Grp Cap (vph)	114	102	60	4541	4274	
v/s Ratio Prot			0.02	c0.85	0.63	
v/s Ratio Perm	c0.04	0.04				
v/c Ratio	0.67	0.65	0.55	0.94	0.73	
Uniform Delay, d1	109.7	109.6	114.1	7.8	7.1	
Progression Factor	1.00	1.00	0.96	1.60	0.67	
Incremental Delay, d2	15.0	15.5	1.2	0.6	0.4	
Delay (s)	124.7	125.0	110.8	13.0	5.2	
Level of Service	F	F	F	B	A	
Approach Delay (s)	124.9			13.7	5.2	
Approach LOS	F			B	A	

Intersection Summary			
HCM Average Control Delay	13.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	89.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	76	120	33	4283	3141
v/c Ratio	0.67	0.77	0.47	0.94	0.73
Control Delay	136.7	87.3	110.7	14.4	5.5
Queue Delay	0.0	0.2	0.0	0.6	0.0
Total Delay	136.7	87.5	110.7	15.0	5.5
Queue Length 50th (ft)	120	100	54	427	298
Queue Length 95th (ft)	192	#204	m49	m75	m290
Internal Link Dist (ft)	1504			939	3004
Turn Bay Length (ft)			450		
Base Capacity (vph)	124	164	74	4541	4292
Starvation Cap Reductn	0	0	0	67	0
Spillback Cap Reductn	0	1	0	0	59
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.61	0.74	0.45	0.96	0.74

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1747		1665	1688	1568	1752	5036	1568	3400	5036	1568
Flt Permitted	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1747		1665	1688	1568	1752	5036	1568	3400	5036	1568
Volume (vph)	120	110	60	520	70	340	70	3540	280	190	2560	60
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	120	65	565	76	370	76	3848	304	207	2783	65
RTOR Reduction (vph)	0	8	0	0	0	75	0	0	45	0	0	7
Lane Group Flow (vph)	130	177	0	312	329	295	76	3848	259	207	2783	58
Turn Type	Split			Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	19.0	19.0		38.0	38.0	38.0	13.0	150.5	150.5	12.5	150.0	150.0
Effective Green, g (s)	20.0	20.0		39.0	39.0	39.0	13.5	152.0	152.0	13.0	151.5	151.5
Actuated g/C Ratio	0.08	0.08		0.16	0.16	0.16	0.06	0.63	0.63	0.05	0.63	0.63
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	4.0	4.0		4.0	4.0	4.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	146	146		271	274	255	99	3189	993	184	3179	990
v/s Ratio Prot	0.07	c0.10		0.19	c0.19		0.04	c0.76		c0.06	0.55	
v/s Ratio Perm						0.19			0.17			0.04
v/c Ratio	0.89	1.21		1.15	1.20	1.16	0.77	1.21	0.26	1.12	0.88	0.06
Uniform Delay, d1	108.9	110.0		100.5	100.5	100.5	111.7	44.0	19.3	113.5	36.5	16.9
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.93	1.13	1.30	1.00	1.00	1.00
Incremental Delay, d2	44.5	142.1		101.9	119.9	104.9	11.6	94.1	0.2	103.9	3.7	0.1
Delay (s)	153.4	252.1		202.4	220.4	205.4	115.4	143.8	25.3	217.4	40.2	17.1
Level of Service	F	F		F	F	F	F	F	C	F	D	B
Approach Delay (s)		211.4			209.4			134.7			51.7	
Approach LOS		F			F			F			D	

Intersection Summary			
HCM Average Control Delay	116.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.18		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	112.8%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	130	185	312	329	370	76	3848	304	207	2783	65
v/c Ratio	0.89	1.20	1.15	1.20	1.12	0.77	1.21	0.29	1.12	0.88	0.07
Control Delay	154.9	215.0	183.1	196.9	148.8	119.8	136.7	14.7	196.8	40.8	12.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	154.9	215.0	183.1	196.9	148.8	119.8	136.7	14.7	196.8	40.8	12.6
Queue Length 50th (ft)	209	~341	~609	~662	~547	121	~2706	161	~194	1317	28
Queue Length 95th (ft)	#361	#540	#854	#910	#792	m129	#2673	m165	#298	1342	53
Internal Link Dist (ft)		1451		1491			3004			4886	
Turn Bay Length (ft)	150		250			275		325	425		150
Base Capacity (vph)	146	154	271	274	330	104	3189	1038	184	3178	996
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	1.20	1.15	1.20	1.12	0.73	1.21	0.29	1.13	0.88	0.07

Intersection Summary

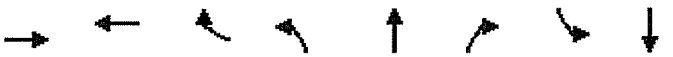
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.91	1.00	1.00	0.91	
Frt		0.99			1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.96			0.97	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1763			1787	1568	1752	5036	1568	1752	5027	
Flt Permitted		0.24			0.77	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		441			1429	1568	1752	5036	1568	1752	5027	
Volume (vph)	110	30	10	130	70	90	10	3740	50	120	2630	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	120	33	11	141	76	98	11	4065	54	130	2859	33
RTOR Reduction (vph)	0	2	0	0	0	0	0	0	6	0	1	0
Lane Group Flow (vph)	0	162	0	0	217	98	11	4065	48	130	2891	0
Turn Type	custom			custom		Free	Prot		Perm	Prot		
Protected Phases							5	2		1		
Permitted Phases	4	4		8	8	Free			2		6	
Actuated Green, G (s)		17.8			17.8	140.0	3.0	92.1	92.1	14.6	103.7	
Effective Green, g (s)		19.8			19.8	140.0	3.3	93.3	93.3	14.9	104.9	
Actuated g/C Ratio		0.14			0.14	1.00	0.02	0.67	0.67	0.11	0.75	
Clearance Time (s)		6.0			6.0		4.3	5.2	5.2	4.3	5.2	
Vehicle Extension (s)		3.0			3.0		3.0	5.0	5.0	3.0	5.0	
Lane Grp Cap (vph)		62			202	1568	41	3356	1045	186	3767	
v/s Ratio Prot							0.01	c0.81		c0.07		
v/s Ratio Perm		c0.37			0.15	0.06			0.03		0.58	
v/c Ratio		2.62			1.07	0.06	0.27	1.21	0.05	0.70	0.77	
Uniform Delay, d1		60.1			60.1	0.0	67.2	23.4	8.0	60.4	10.4	
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	0.94	1.86	
Incremental Delay, d2		772.1			84.4	0.1	3.5	98.1	0.1	1.1	0.1	
Delay (s)		832.2			144.5	0.1	70.7	121.4	8.1	58.0	19.4	
Level of Service		F			F	A	E	F	A	E	B	
Approach Delay (s)		832.2			99.6			119.8			21.0	
Approach LOS		F			F			F			C	

Intersection Summary			
HCM Average Control Delay	95.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.37		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	103.9%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	164	217	98	11	4065	54	130	2892
v/c Ratio	2.56	1.07	0.06	0.13	1.21	0.05	0.70	0.75
Control Delay	769.7	139.8	0.1	66.7	122.3	6.5	58.5	18.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	769.7	139.8	0.1	66.7	122.3	6.5	58.5	18.6
Queue Length 50th (ft)	~250	~219	0	10	~1658	11	108	773
Queue Length 95th (ft)	#404	#387	0	31	#1745	28	m95	m731
Internal Link Dist (ft)	1478	1518			3962			2924
Turn Bay Length (ft)			750	250		150	250	
Base Capacity (vph)	64	202	1568	143	3357	1051	230	3859
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	2.56	1.07	0.06	0.08	1.21	0.05	0.57	0.75

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	0.91		0.91	0.91	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.99		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1595	3249		3189	1679	1568	1752	5036	1568	3400	5036	1568
Flt Permitted	0.95	0.99		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1595	3249		3189	1679	1568	1752	5036	1568	3400	5036	1568
Volume (vph)	270	320	80	670	400	610	170	3090	500	680	2170	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	293	348	87	728	435	663	185	3359	543	739	2359	54
RTOR Reduction (vph)	0	12	0	0	0	199	0	0	182	0	0	21
Lane Group Flow (vph)	235	481	0	728	435	464	185	3359	361	739	2359	33
Turn Type	Split			Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	19.7	19.7		21.2	21.2	21.2	12.5	55.5	55.5	19.5	62.5	62.5
Effective Green, g (s)	22.6	22.6		24.0	24.0	24.0	12.8	57.6	57.6	19.8	64.6	64.6
Actuated g/C Ratio	0.16	0.16		0.17	0.17	0.17	0.09	0.41	0.41	0.14	0.46	0.46
Clearance Time (s)	6.9	6.9		6.8	6.8	6.8	4.3	6.1	6.1	4.3	6.1	6.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	257	524		547	288	269	160	2072	645	481	2324	724
v/s Ratio Prot	0.15	c0.15		0.23	0.26		0.11	c0.67		c0.22	0.47	
v/s Ratio Perm						c0.30			0.23			0.02
v/c Ratio	0.91	0.92		1.33	1.51	1.73	1.16	1.62	0.56	1.54	1.02	0.05
Uniform Delay, d1	57.7	57.8		58.0	58.0	58.0	63.6	41.2	31.5	60.1	37.7	20.7
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.30	0.96	1.11	1.07	1.11	1.08
Incremental Delay, d2	34.0	21.0		161.1	246.9	341.7	77.1	279.7	0.3	246.9	17.4	0.1
Delay (s)	91.8	78.8		219.1	304.9	399.7	160.0	319.4	35.2	311.4	59.4	22.4
Level of Service	F	E		F	F	F	F	F	D	F	E	C
Approach Delay (s)		83.0			305.1			274.4			117.9	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM Average Control Delay	215.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.50		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	126.3%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

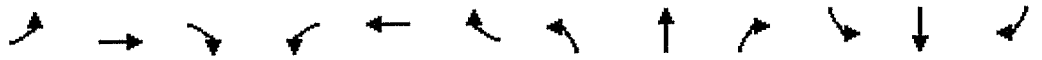
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	235	493	728	435	663	185	3359	543	739	2359	54
v/c Ratio	0.91	0.92	1.33	1.51	1.42	1.16	1.62	0.66	1.54	1.02	0.07
Control Delay	95.4	79.4	205.1	285.7	226.3	144.2	309.0	15.3	287.8	58.7	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	95.4	79.4	205.1	285.7	226.3	144.2	309.0	15.3	287.8	58.7	9.6
Queue Length 50th (ft)	234	239	~471	~604	~623	~196	~1605	145	~498	~850	11
Queue Length 95th (ft)	#412	#350	#607	#839	#866	m145	m#1178	m108	m#607	#942	m21
Internal Link Dist (ft)		1442		318			2924			3147	
Turn Bay Length (ft)	325		200			300		375	550		300
Base Capacity (vph)	257	536	547	288	468	160	2072	827	481	2324	745
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.92	1.33	1.51	1.42	1.16	1.62	0.66	1.54	1.02	0.07

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



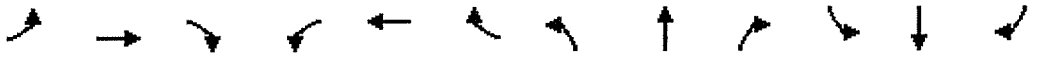
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1845	1568	1752	1648		1752	5036	1568	1752	5036	1568
Flt Permitted	0.65	1.00	1.00	0.74	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1195	1845	1568	1357	1648		1752	5036	1568	1752	5036	1568
Volume (vph)	80	30	130	60	20	50	170	3710	30	30	2670	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	87	33	141	65	22	54	185	4033	33	33	2902	54
RTOR Reduction (vph)	0	0	124	0	47	0	0	0	8	0	0	13
Lane Group Flow (vph)	87	33	17	65	29	0	185	4033	25	33	2902	41
Turn Type	Perm		Perm	Perm			Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	14.4	14.4	14.4	14.4	14.4		18.6	103.3	103.3	5.4	90.1	90.1
Effective Green, g (s)	16.9	16.9	16.9	16.9	16.9		18.9	105.4	105.4	5.7	92.2	92.2
Actuated g/C Ratio	0.12	0.12	0.12	0.12	0.12		0.13	0.75	0.75	0.04	0.66	0.66
Clearance Time (s)	6.5	6.5	6.5	6.5	6.5		4.3	6.1	6.1	4.3	6.1	6.1
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	144	223	189	164	199		237	3791	1180	71	3317	1033
v/s Ratio Prot		0.02			0.02		c0.11	c0.80		0.02	0.58	
v/s Ratio Perm	c0.07		0.01	0.05					0.02			0.03
v/c Ratio	0.60	0.15	0.09	0.40	0.14		0.78	1.06	0.02	0.46	0.87	0.04
Uniform Delay, d1	58.4	55.1	54.7	56.8	55.1		58.5	17.3	4.3	65.7	19.3	8.4
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.18	1.23	0.02	0.73	0.76	1.17
Incremental Delay, d2	7.0	0.3	0.2	1.6	0.3		1.6	29.4	0.0	0.4	0.3	0.0
Delay (s)	65.4	55.4	54.9	58.4	55.4		70.7	50.8	0.1	48.6	14.9	9.8
Level of Service	E	E	D	E	E		E	D	A	D	B	A
Approach Delay (s)		58.5			56.8			51.3			15.2	
Approach LOS		E			E			D			B	

Intersection Summary			
HCM Average Control Delay	37.5	HCM Level of Service	D
HCM Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	96.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	87	33	141	65	76	185	4033	33	33	2902	54
v/c Ratio	0.59	0.15	0.45	0.40	0.31	0.78	1.05	0.03	0.32	0.87	0.05
Control Delay	73.5	54.7	12.8	62.8	23.6	71.3	42.9	0.0	46.9	16.2	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.5	54.7	12.8	62.8	23.6	71.3	42.9	0.0	46.9	16.2	5.5
Queue Length 50th (ft)	76	27	0	55	18	175	~701	0	30	305	4
Queue Length 95th (ft)	133	60	62	102	66	m114	m87	m0	m31	m300	m4
Internal Link Dist (ft)		1412			1351		418			1335	
Turn Bay Length (ft)	100		100	300		400		850	525		
Base Capacity (vph)	186	279	357	206	295	265	3855	1208	125	3319	1046
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.12	0.39	0.32	0.26	0.70	1.05	0.03	0.26	0.87	0.05

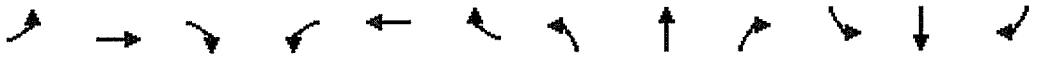
Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	0.97	1.00	1.00	0.97	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1845	1568	3400	1845	1568	3400	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	1845	1568	3400	1845	1568	3400	5036	1568	1752	5036	1568
Volume (vph)	220	170	70	380	250	210	220	3010	480	180	2460	110
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	239	185	76	413	272	228	239	3272	522	196	2674	120
RTOR Reduction (vph)	0	0	65	0	0	168	0	0	120	0	0	54
Lane Group Flow (vph)	239	185	11	413	272	60	239	3272	402	196	2674	66
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	14.3	16.9	16.9	17.5	20.1	20.1	14.5	66.0	66.0	17.6	69.1	69.1
Effective Green, g (s)	15.2	19.8	19.8	18.4	23.0	23.0	14.8	67.9	67.9	17.9	71.0	71.0
Actuated g/C Ratio	0.11	0.14	0.14	0.13	0.16	0.16	0.11	0.49	0.49	0.13	0.51	0.51
Clearance Time (s)	4.9	6.9	6.9	4.9	6.9	6.9	4.3	5.9	5.9	4.3	5.9	5.9
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	369	261	222	447	303	258	359	2442	760	224	2554	795
v/s Ratio Prot	0.07	0.10		c0.12	c0.15		0.07	c0.65		c0.11	c0.53	
v/s Ratio Perm			0.01			0.04			0.26			0.04
v/c Ratio	0.65	0.71	0.05	0.92	0.90	0.23	0.67	1.34	0.53	0.88	1.05	0.08
Uniform Delay, d1	59.8	57.3	52.0	60.1	57.3	50.8	60.2	36.0	25.0	60.0	34.5	17.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.20	0.87	0.80	1.00	0.92	2.28
Incremental Delay, d2	3.9	8.5	0.1	24.8	27.1	0.5	0.4	153.2	0.2	13.5	26.0	0.1
Delay (s)	63.7	65.9	52.0	84.9	84.4	51.3	72.7	184.6	20.2	73.3	57.8	40.6
Level of Service	E	E	D	F	F	D	E	F	C	E	E	D
Approach Delay (s)		62.7			76.3			156.7			58.1	
Approach LOS		E			E			F			E	

Intersection Summary			
HCM Average Control Delay	107.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.18		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	101.3%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



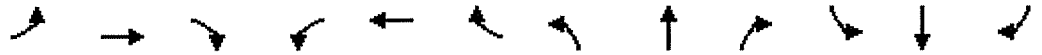
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	239	185	76	413	272	228	239	3272	522	196	2674	120
v/c Ratio	0.65	0.71	0.26	0.92	0.90	0.54	0.67	1.34	0.59	0.88	1.05	0.14
Control Delay	68.2	72.7	13.2	87.1	88.3	14.9	72.8	181.4	11.5	76.4	57.5	10.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.2	72.7	13.2	87.1	88.3	14.9	72.8	181.4	11.5	76.4	57.5	10.1
Queue Length 50th (ft)	108	161	0	194	245	21	119	~1441	99	190	~976	21
Queue Length 95th (ft)	153	246	47	#293	#416	104	m115	m#1343	m101	m202	#1079	m26
Internal Link Dist (ft)		1350			1247			1335			1509	
Turn Bay Length (ft)	175		175	275		275	375			400		425
Base Capacity (vph)	413	279	302	447	303	426	413	2444	881	230	2555	849
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.66	0.25	0.92	0.90	0.54	0.58	1.34	0.59	0.85	1.05	0.14

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00		0.97	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1845	1568	1752	1643		3400	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	1845	1568	1752	1643		3400	5036	1568	1752	5036	1568
Volume (vph)	170	70	120	140	60	160	220	3430	70	160	2480	110
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	185	76	130	152	65	174	239	3728	76	174	2696	120
RTOR Reduction (vph)	0	0	116	0	69	0	0	0	15	0	0	33
Lane Group Flow (vph)	185	76	14	152	170	0	239	3728	61	174	2696	87
Turn Type	Prot		Perm	Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)	12.3	12.9	12.9	13.6	14.2		13.4	74.5	74.5	15.0	76.1	76.1
Effective Green, g (s)	13.8	15.4	15.4	15.1	16.7		14.9	77.0	77.0	16.5	78.6	78.6
Actuated g/C Ratio	0.10	0.11	0.11	0.11	0.12		0.11	0.55	0.55	0.12	0.56	0.56
Clearance Time (s)	5.5	6.5	6.5	5.5	6.5		5.5	6.5	6.5	5.5	6.5	6.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	335	203	172	189	196		362	2770	862	206	2827	880
v/s Ratio Prot	0.05	0.04		c0.09	c0.10		0.07	c0.74		c0.10	0.54	
v/s Ratio Perm			0.01						0.04			0.06
v/c Ratio	0.55	0.37	0.08	0.80	0.87		0.66	1.35	0.07	0.84	0.95	0.10
Uniform Delay, d1	60.2	57.8	56.0	61.0	60.6		60.1	31.5	14.7	60.5	29.0	14.3
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.10	0.49	0.75	1.11	0.96	0.74
Incremental Delay, d2	2.0	1.2	0.2	21.4	31.0		0.4	155.9	0.0	3.0	1.1	0.0
Delay (s)	62.1	59.0	56.2	82.4	91.5		66.4	171.3	11.1	70.1	29.0	10.6
Level of Service	E	E	E	F	F		E	F	B	E	C	B
Approach Delay (s)		59.5			88.0			162.1			30.7	
Approach LOS		E			F			F			C	

Intersection Summary			
HCM Average Control Delay	103.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	106.3%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	185	76	130	152	239	239	3728	76	174	2696	120
v/c Ratio	0.55	0.37	0.45	0.80	0.90	0.66	1.35	0.09	0.84	0.95	0.13
Control Delay	66.3	62.9	14.0	90.3	75.4	67.0	176.7	7.1	70.5	29.7	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.3	62.9	14.0	90.3	75.4	67.0	176.7	7.1	70.5	29.7	4.8
Queue Length 50th (ft)	84	65	0	137	149	118	~1616	4	146	950	26
Queue Length 95th (ft)	123	117	62	#250	#307	m102	m#1114	m5	m143	m928	m26
Internal Link Dist (ft)		1564			1414		1509			1779	
Turn Bay Length (ft)	100		100	200		425			250		250
Base Capacity (vph)	379	224	305	195	268	379	2766	876	213	2825	912
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.34	0.43	0.78	0.89	0.63	1.35	0.09	0.82	0.95	0.13

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt		1.00	0.85		0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97	1.00		0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1787	1568		1748		1752	5036	1568	1752	5036	1568
Flt Permitted		0.60	1.00		0.27		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1113	1568		483		1752	5036	1568	1752	5036	1568
Volume (vph)	180	100	10	90	70	50	190	3370	150	100	2630	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	196	109	11	98	76	54	207	3663	163	109	2859	11
RTOR Reduction (vph)	0	0	6	0	8	0	0	0	22	0	0	5
Lane Group Flow (vph)	0	305	5	0	220	0	207	3663	141	109	2859	6
Turn Type	Perm		Perm	Perm			Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)		26.7	26.7		26.7		19.2	86.0	86.0	10.8	77.6	77.6
Effective Green, g (s)		29.6	29.6		29.6		19.5	87.3	87.3	11.1	78.9	78.9
Actuated g/C Ratio		0.21	0.21		0.21		0.14	0.62	0.62	0.08	0.56	0.56
Clearance Time (s)		6.9	6.9		6.9		4.3	5.3	5.3	4.3	5.3	5.3
Vehicle Extension (s)		3.0	3.0		3.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)		235	332		102		244	3140	978	139	2838	884
v/s Ratio Prot							c0.12	c0.73		0.06	0.57	
v/s Ratio Perm		0.27	0.00		c0.46				0.09			0.00
v/c Ratio		1.30	0.01		2.16		0.85	1.17	0.14	0.78	1.01	0.01
Uniform Delay, d1		55.2	43.7		55.2		58.8	26.4	10.9	63.3	30.6	13.4
Progression Factor		1.00	1.00		1.00		0.92	1.64	1.39	0.69	1.08	2.08
Incremental Delay, d2		161.7	0.0		552.1		2.7	75.3	0.0	13.2	13.6	0.0
Delay (s)		216.9	43.7		607.3		56.9	118.5	15.1	57.0	46.7	27.9
Level of Service		F	D		F		E	F	B	E	D	C
Approach Delay (s)		210.9			607.3			111.2			47.0	
Approach LOS		F			F			F			D	

Intersection Summary			
HCM Average Control Delay	105.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.38		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	102.5%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	305	11	228	207	3663	163	109	2859	11
v/c Ratio	1.30	0.03	2.07	0.85	1.17	0.16	0.78	1.01	0.01
Control Delay	204.9	26.9	539.2	57.7	114.2	9.8	64.1	46.3	13.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	204.9	26.9	539.2	57.7	114.2	9.8	64.1	46.3	13.9
Queue Length 50th (ft)	~354	2	~322	169	~1494	62	104	~997	2
Queue Length 95th (ft)	#545	20	#497	m126	m993	m44	m121	#1077	m3
Internal Link Dist (ft)	1343		1462		1779			1604	
Turn Bay Length (ft)		150		200		150	250		850
Base Capacity (vph)	235	338	110	265	3141	1000	143	2839	889
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.30	0.03	2.07	0.78	1.17	0.16	0.76	1.01	0.01

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.92			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00			0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1706			1800	1568	1752	5036	1568	3400	5036	1568
Flt Permitted	0.95	1.00			0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1706			1800	1568	1752	5036	1568	3400	5036	1568
Volume (vph)	30	40	40	50	50	530	30	3610	40	290	2600	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	43	43	54	54	576	33	3924	43	315	2826	11
RTOR Reduction (vph)	0	27	0	0	0	304	0	0	20	0	0	1
Lane Group Flow (vph)	33	59	0	0	108	272	33	3924	23	315	2826	10
Turn Type	Split			Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	10.0	10.0			15.6	15.6	5.6	72.7	72.7	17.9	85.0	85.0
Effective Green, g (s)	12.8	12.8			18.4	18.4	5.9	74.6	74.6	18.2	86.9	86.9
Actuated g/C Ratio	0.09	0.09			0.13	0.13	0.04	0.53	0.53	0.13	0.62	0.62
Clearance Time (s)	6.8	6.8			6.8	6.8	4.3	5.9	5.9	4.3	5.9	5.9
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	160	156			237	206	74	2683	836	442	3126	973
v/s Ratio Prot	0.02	c0.03			0.06		0.02	c0.78		c0.09	c0.56	
v/s Ratio Perm						c0.17			0.01			0.01
v/c Ratio	0.21	0.38			0.46	1.32	0.45	1.46	0.03	0.71	0.90	0.01
Uniform Delay, d1	58.9	59.8			56.2	60.8	65.5	32.7	15.5	58.4	22.9	10.1
Progression Factor	1.00	1.00			1.00	1.00	1.23	0.50	0.21	1.32	0.29	0.40
Incremental Delay, d2	0.6	1.5			1.4	174.0	0.4	208.3	0.0	0.5	0.5	0.0
Delay (s)	59.5	61.4			57.6	234.8	80.9	224.8	3.3	77.7	7.1	4.0
Level of Service	E	E			E	F	F	F	A	E	A	A
Approach Delay (s)		60.9			206.8			221.2			14.1	
Approach LOS		E			F			F			B	

Intersection Summary			
HCM Average Control Delay	135.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.27		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	117.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	33	86	108	576	33	3924	43	315	2826	11
v/c Ratio	0.20	0.47	0.46	1.13	0.31	1.46	0.05	0.71	0.89	0.01
Control Delay	60.2	47.1	63.1	101.4	77.4	229.4	1.2	77.7	8.5	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.2	47.1	63.1	101.4	77.4	229.4	1.2	77.7	8.5	4.4
Queue Length 50th (ft)	28	49	92	~313	32	~1786	1	157	158	1
Queue Length 95th (ft)	62	102	157	#547	m29	m#1475	m1	m153	m154	m1
Internal Link Dist (ft)		1324	1349			1604			1346	
Turn Bay Length (ft)	150				325		1000	375		125
Base Capacity (vph)	230	250	237	510	265	2681	855	515	3186	993
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.34	0.46	1.13	0.12	1.46	0.05	0.61	0.89	0.01

Intersection Summary

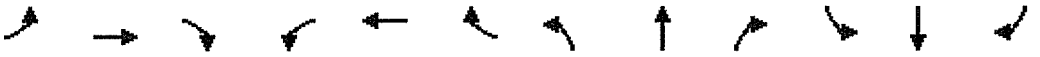
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.97	1.00	0.95	0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1665	1692	1568	1665	1712	1568	1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	0.97	1.00	0.95	0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1665	1692	1568	1665	1712	1568	1752	5036	1568	1752	5036	1568
Volume (vph)	340	60	20	160	60	70	90	3590	230	60	2640	160
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	370	65	22	174	65	76	98	3902	250	65	2870	174
RTOR Reduction (vph)	0	0	18	0	0	67	0	0	46	0	0	50
Lane Group Flow (vph)	212	223	4	116	123	9	98	3902	204	65	2870	124
Turn Type	Split		Perm	Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	20.0	20.0	20.0	13.0	13.0	13.0	7.7	71.8	71.8	8.6	72.7	72.7
Effective Green, g (s)	23.0	23.0	23.0	16.0	16.0	16.0	10.0	74.1	74.1	10.9	75.0	75.0
Actuated g/C Ratio	0.16	0.16	0.16	0.11	0.11	0.11	0.07	0.53	0.53	0.08	0.54	0.54
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	6.3	6.3	6.3	6.3	6.3	6.3
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	274	278	258	190	196	179	125	2665	830	136	2698	840
v/s Ratio Prot	0.13	c0.13		0.07	c0.07		c0.06	c0.77		0.04	0.57	
v/s Ratio Perm			0.00			0.01			0.13			0.08
v/c Ratio	0.77	0.80	0.02	0.61	0.63	0.05	0.78	1.46	0.25	0.48	1.06	0.15
Uniform Delay, d1	56.0	56.3	49.0	59.0	59.2	55.2	63.9	33.0	17.8	61.8	32.5	16.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.03	1.57	1.08	0.90	0.58
Incremental Delay, d2	12.7	15.2	0.0	5.7	6.1	0.1	3.0	209.1	0.1	0.9	32.2	0.1
Delay (s)	68.7	71.6	49.1	64.7	65.3	55.3	61.1	243.0	28.0	67.6	61.6	9.6
Level of Service	E	E	D	E	E	E	E	F	C	E	E	A
Approach Delay (s)		69.2			62.7			226.1			58.8	
Approach LOS		E			E			F			E	

Intersection Summary			
HCM Average Control Delay	147.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.17		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	99.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



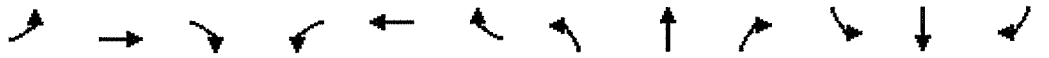
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	212	223	22	116	123	76	98	3902	250	65	2870	174
v/c Ratio	0.78	0.80	0.08	0.61	0.63	0.31	0.78	1.44	0.28	0.42	1.06	0.20
Control Delay	75.4	77.6	19.2	73.1	73.9	15.0	62.9	226.0	18.8	68.0	61.4	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.4	77.6	19.2	73.1	73.9	15.0	62.9	226.0	18.8	68.0	61.4	4.3
Queue Length 50th (ft)	195	206	1	106	113	0	94	~1812	84	54	~1092	33
Queue Length 95th (ft)	#312	#333	27	177	187	49	m67	m#1043	m61	m56	m#1116	m34
Internal Link Dist (ft)		1325			1326			1346			2512	
Turn Bay Length (ft)	150		150	350			475			400		275
Base Capacity (vph)	285	290	286	202	208	257	125	2712	889	178	2699	890
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.77	0.08	0.57	0.59	0.30	0.78	1.44	0.28	0.37	1.06	0.20

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.88		1.00	0.86		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1624		1752	1591		1752	5036	1568	1752	5036	1568
Flt Permitted	0.67	1.00		0.52	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1242	1624		952	1591		1752	5036	1568	1752	5036	1568
Volume (vph)	70	10	40	380	10	110	60	3450	340	80	2710	60
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	11	43	413	11	120	65	3750	370	87	2946	65
RTOR Reduction (vph)	0	40	0	0	105	0	0	0	58	0	0	12
Lane Group Flow (vph)	76	14	0	413	26	0	65	3750	312	87	2946	53
Turn Type	pm+pt			pm+pt			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	17.3	8.3		29.3	15.3		6.2	80.2	80.2	12.0	86.0	86.0
Effective Green, g (s)	20.1	10.1		31.1	17.1		8.4	82.7	82.7	14.2	88.5	88.5
Actuated g/C Ratio	0.14	0.07		0.22	0.12		0.06	0.59	0.59	0.10	0.63	0.63
Clearance Time (s)	5.0	5.8		5.0	5.8		6.2	6.5	6.5	6.2	6.5	6.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	215	117		309	194		105	2975	926	178	3183	991
v/s Ratio Prot	0.03	0.01		c0.16	0.02		c0.04	c0.74		0.05	c0.58	
v/s Ratio Perm	0.03			c0.13					0.20			0.03
v/c Ratio	0.35	0.12		1.34	0.13		0.62	1.26	0.34	0.49	0.93	0.05
Uniform Delay, d1	53.7	60.8		52.9	54.8		64.2	28.6	14.6	59.5	22.8	9.8
Progression Factor	1.00	1.00		1.00	1.00		1.20	1.12	0.86	1.00	1.00	1.00
Incremental Delay, d2	1.0	0.5		171.8	0.3		1.0	117.5	0.1	2.1	6.0	0.1
Delay (s)	54.7	61.3		224.7	55.1		78.0	149.6	12.8	61.6	28.8	9.9
Level of Service	D	E		F	E		E	F	B	E	C	A
Approach Delay (s)		57.4			183.9			136.4			29.3	
Approach LOS		E			F			F			C	

Intersection Summary			
HCM Average Control Delay	96.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.24		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	101.0%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

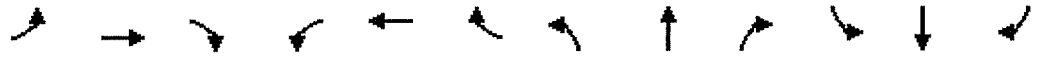
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	76	54	413	131	65	3750	370	87	2946	65
v/c Ratio	0.38	0.30	1.24	0.44	0.53	1.24	0.37	0.49	0.90	0.06
Control Delay	49.8	26.6	177.2	16.8	77.6	139.2	8.5	68.1	27.9	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.8	26.6	177.2	16.8	77.6	139.2	8.5	68.1	27.9	6.5
Queue Length 50th (ft)	56	9	~437	9	54	~1635	138	76	882	11
Queue Length 95th (ft)	100	53	#517	73	m41	m#980	m96	131	#1075	32
Internal Link Dist (ft)		1379		1347		2512			3539	
Turn Bay Length (ft)	150		275		275		225	475		200
Base Capacity (vph)	271	235	332	304	125	3016	996	230	3269	1029
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.23	1.24	0.43	0.52	1.24	0.37	0.38	0.90	0.06

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	1.00	0.97	0.91	1.00	0.97	0.91	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	0.98	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1752	1845	1568	3189	1648	1568	3400	5036	1568	3400	5023	
Flt Permitted	0.95	1.00	1.00	0.95	0.98	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1752	1845	1568	3189	1648	1568	3400	5036	1568	3400	5023	
Volume (vph)	260	270	80	1240	340	550	250	2840	760	680	1790	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	283	293	87	1348	370	598	272	3087	826	739	1946	33
RTOR Reduction (vph)	0	0	71	0	0	151	0	0	0	0	1	0
Lane Group Flow (vph)	283	293	16	1126	592	447	272	3087	826	739	1978	0
Turn Type	Split		Perm	Split		Perm	Prot		Free	Prot		
Protected Phases	3	3		4	4		5	2		1	6	
Permitted Phases			3			4			Free			
Actuated Green, G (s)	23.4	23.4	23.4	23.5	23.5	23.5	13.0	58.0	144.9	13.0	58.0	
Effective Green, g (s)	25.9	25.9	25.9	26.0	26.0	26.0	16.0	61.0	144.9	16.0	61.0	
Actuated g/C Ratio	0.18	0.18	0.18	0.18	0.18	0.18	0.11	0.42	1.00	0.11	0.42	
Clearance Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	7.0	7.0		7.0	7.0	
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.0		4.0	5.0	
Lane Grp Cap (vph)	313	330	280	572	296	281	375	2120	1568	375	2115	
v/s Ratio Prot	c0.16	0.16		0.35	c0.36		0.08	c0.61		c0.22	0.39	
v/s Ratio Perm			0.01			0.29			0.53			
v/c Ratio	0.90	0.89	0.06	1.97	2.00	1.59	0.73	1.46	0.53	1.97	0.94	
Uniform Delay, d1	58.3	58.1	49.4	59.4	59.4	59.4	62.3	42.0	0.0	64.4	40.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	28.2	24.3	0.1	442.1	461.9	282.1	7.3	207.9	1.3	446.3	8.8	
Delay (s)	86.5	82.3	49.5	501.6	521.3	341.6	69.6	249.9	1.3	510.8	48.8	
Level of Service	F	F	D	F	F	F	E	F	A	F	D	
Approach Delay (s)		79.8			465.3			189.1			174.4	
Approach LOS		E			F			F			F	

Intersection Summary			
HCM Average Control Delay	242.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.52		
Actuated Cycle Length (s)	144.9	Sum of lost time (s)	16.0
Intersection Capacity Utilization	130.9%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	283	293	87	1126	592	598	272	3087	826	739	1979
v/c Ratio	0.90	0.89	0.25	1.97	2.00	1.38	0.73	1.46	0.53	1.97	0.94
Control Delay	89.5	85.9	11.4	471.9	491.1	216.4	74.3	240.5	1.3	477.5	49.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.5	85.9	11.4	471.9	491.1	216.4	74.3	240.5	1.3	477.5	49.6
Queue Length 50th (ft)	265	273	0	~904	~956	~601	130	~1454	0	~556	647
Queue Length 95th (ft)	#435	#440	49	#1049	#1214	#839	180	#1527	0	#685	721
Internal Link Dist (ft)		1418			1555			1340			2491
Turn Bay Length (ft)	300		300	350			300			475	
Base Capacity (vph)	314	331	353	572	296	432	375	2120	1568	375	2115
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.90	0.89	0.25	1.97	2.00	1.38	0.73	1.46	0.53	1.97	0.94

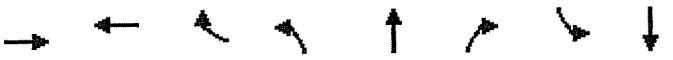
Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.91	1.00	1.00	0.91	
Frt		0.96			1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.98			0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1733			1760	1568	1752	5036	1568	1752	5032	
Flt Permitted		0.60			0.75	1.00	0.07	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1060			1388	1568	125	5036	1568	1752	5032	
Volume (vph)	10	10	10	280	10	320	20	3160	190	130	2050	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	11	304	11	348	22	3435	207	141	2228	11
RTOR Reduction (vph)	0	9	0	0	0	126	0	0	80	0	0	0
Lane Group Flow (vph)	0	24	0	0	315	222	22	3435	127	141	2239	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Prot		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2		2			
Actuated Green, G (s)		24.7			24.7	24.7	83.6	83.6	83.6	13.4	102.8	
Effective Green, g (s)		26.8			26.8	26.8	86.0	86.0	86.0	15.2	105.2	
Actuated g/C Ratio		0.19			0.19	0.19	0.61	0.61	0.61	0.11	0.75	
Clearance Time (s)		6.1			6.1	6.1	6.4	6.4	6.4	5.8	6.4	
Vehicle Extension (s)		5.0			5.0	5.0	6.0	6.0	6.0	4.0	6.0	
Lane Grp Cap (vph)		203			266	300	77	3094	963	190	3781	
v/s Ratio Prot								c0.68		c0.08	0.44	
v/s Ratio Perm		0.02			c0.23	0.14	0.18		0.08			
v/c Ratio		0.12			1.18	0.74	0.29	1.11	0.13	0.74	0.59	
Uniform Delay, d1		46.8			56.6	53.3	12.6	27.0	11.3	60.5	7.8	
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.5			114.4	11.1	9.1	54.9	0.3	15.3	0.7	
Delay (s)		47.4			171.0	64.4	21.7	81.9	11.6	75.8	8.5	
Level of Service		D			F	E	C	F	B	E	A	
Approach Delay (s)		47.4			115.0			77.6			12.5	
Approach LOS		D			F			E			B	

Intersection Summary			
HCM Average Control Delay	58.1	HCM Level of Service	E
HCM Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	101.0%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	33	315	348	22	3435	207	141	2239
v/c Ratio	0.16	1.18	0.82	0.29	1.11	0.20	0.74	0.59
Control Delay	36.9	162.5	45.7	24.8	82.2	1.9	83.5	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.9	162.5	45.7	24.8	82.2	1.9	83.5	8.6
Queue Length 50th (ft)	17	~344	175	9	~1312	0	126	295
Queue Length 95th (ft)	49	#537	#333	33	#1379	31	#224	328
Internal Link Dist (ft)	1464	1406			2491			9831
Turn Bay Length (ft)				200		750	400	
Base Capacity (vph)	212	266	426	76	3093	1043	195	3781
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	1.18	0.82	0.29	1.11	0.20	0.72	0.59

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00	1.00	0.95	0.95		1.00	0.91	1.00	1.00	0.91	1.00
Frt		1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.98	1.00	0.95	0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1811	1568	1665	1664		1752	5036	1568	1752	5036	1568
Flt Permitted		0.98	1.00	0.95	0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1811	1568	1665	1664		1752	5036	1568	1752	5036	1568
Volume (vph)	120	200	80	510	150	80	60	2480	400	180	1750	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	217	87	554	163	87	65	2696	435	196	1902	54
RTOR Reduction (vph)	0	0	19	0	7	0	0	0	119	0	0	20
Lane Group Flow (vph)	0	347	68	399	398	0	65	2696	316	196	1902	34
Turn Type	Split		Perm	Split			Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)		27.3	27.3	27.5	27.5		7.4	43.6	43.6	18.3	54.5	54.5
Effective Green, g (s)		30.8	30.8	31.0	31.0		8.9	47.1	47.1	19.8	58.0	58.0
Actuated g/C Ratio		0.21	0.21	0.21	0.21		0.06	0.33	0.33	0.14	0.40	0.40
Clearance Time (s)		7.5	7.5	7.5	7.5		5.5	7.5	7.5	5.5	7.5	7.5
Vehicle Extension (s)		5.0	5.0	4.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)		385	334	357	356		108	1639	510	240	2019	629
v/s Ratio Prot		c0.19		c0.24	0.24		0.04	c0.54		c0.11	c0.38	
v/s Ratio Perm			0.04						0.20			0.02
v/c Ratio		0.90	0.20	1.12	1.12		0.60	1.64	0.62	0.82	0.94	0.05
Uniform Delay, d1		55.5	46.9	56.8	56.8		66.2	48.8	41.2	60.7	41.7	26.5
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		24.7	0.6	83.4	83.5		9.1	293.0	2.7	18.9	9.7	0.0
Delay (s)		80.2	47.5	140.2	140.3		75.3	341.8	43.9	79.6	51.4	26.6
Level of Service		F	D	F	F		E	F	D	E	D	C
Approach Delay (s)		73.6			140.3			295.8			53.4	
Approach LOS		E			F			F			D	

Intersection Summary			
HCM Average Control Delay	183.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.25		
Actuated Cycle Length (s)	144.7	Sum of lost time (s)	20.0
Intersection Capacity Utilization	108.9%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NEL	NET	NER	SWL	SWT	SWR
Lane Group Flow (vph)	347	87	399	405	65	2696	435	196	1902	54
v/c Ratio	0.89	0.25	1.11	1.11	0.52	1.67	0.70	0.81	0.93	0.08
Control Delay	80.6	36.0	131.4	128.4	80.4	336.1	31.8	85.2	51.2	13.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	80.6	36.0	131.4	128.4	80.4	336.1	31.8	85.2	51.2	13.6
Queue Length 50th (ft)	322	49	~455	~454	60	~1361	221	181	645	12
Queue Length 95th (ft)	#502	101	#678	#681	113	#1443	354	#300	#761	42
Internal Link Dist (ft)	1258			1388		9831			5036	
Turn Bay Length (ft)		50	300		200		250	350		250
Base Capacity (vph)	390	357	359	366	131	1614	622	254	2035	653
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.24	1.11	1.11	0.50	1.67	0.70	0.77	0.93	0.08

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.94			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00			0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1731			1781	1568	1752	5036	1568	1752	5036	1568
Flt Permitted	0.29	1.00			0.56	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	536	1731			1033	1568	1752	5036	1568	1752	5036	1568
Volume (vph)	80	100	70	220	90	120	90	2440	150	100	1800	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	87	109	76	239	98	130	98	2652	163	109	1957	54
RTOR Reduction (vph)	0	21	0	0	0	34	0	0	53	0	0	27
Lane Group Flow (vph)	87	164	0	0	337	96	98	2652	110	109	1957	27
Turn Type	Perm			Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8			2			6
Actuated Green, G (s)	27.5	27.5			27.5	27.5	12.2	52.5	52.5	12.8	53.1	53.1
Effective Green, g (s)	31.0	31.0			31.0	31.0	13.2	56.0	56.0	13.8	56.6	56.6
Actuated g/C Ratio	0.27	0.27			0.27	0.27	0.12	0.50	0.50	0.12	0.50	0.50
Clearance Time (s)	7.5	7.5			7.5	7.5	5.0	7.5	7.5	5.0	7.5	7.5
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	147	476			284	431	205	2500	778	214	2527	787
v/s Ratio Prot		0.09					0.06	c0.53		c0.06	0.39	
v/s Ratio Perm	0.16				c0.33	0.06			0.07			0.02
v/c Ratio	0.59	0.34			1.19	0.22	0.48	1.06	0.14	0.51	0.77	0.03
Uniform Delay, d1	35.4	32.8			40.9	31.6	46.6	28.4	15.4	46.3	22.9	14.2
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.3	0.4			113.7	0.3	1.8	36.7	0.2	1.9	1.8	0.0
Delay (s)	41.7	33.2			154.6	31.9	48.3	65.1	15.6	48.2	24.7	14.3
Level of Service	D	C			F	C	D	E	B	D	C	B
Approach Delay (s)		35.9			120.5			61.8			25.6	
Approach LOS		D			F			E			C	

Intersection Summary			
HCM Average Control Delay	52.0	HCM Level of Service	D
HCM Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	112.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	95.3%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Group Flow (vph)	87	185	337	130	98	2652	163	109	1957	54
v/c Ratio	0.64	0.37	1.22	0.28	0.48	1.06	0.20	0.51	0.78	0.07
Control Delay	61.1	30.8	164.6	22.7	54.5	65.4	7.0	54.9	25.9	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.1	30.8	164.6	22.7	54.5	65.4	7.0	54.9	25.9	4.5
Queue Length 50th (ft)	55	90	~299	46	68	~769	21	75	404	0
Queue Length 95th (ft)	#143	164	#507	104	122	#928	61	133	508	22
Internal Link Dist (ft)		1356	1472			5036			6884	
Turn Bay Length (ft)				50	375		250	375		1000
Base Capacity (vph)	135	497	276	465	293	2500	832	294	2525	813
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.37	1.22	0.28	0.33	1.06	0.20	0.37	0.78	0.07

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt		0.96			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.98			0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1733			1761	1568	1752	5036	1568	1752	5036	1568
Flt Permitted		0.87			0.71	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1531			1314	1568	1752	5036	1568	1752	5036	1568
Volume (vph)	10	10	10	200	10	50	20	2410	210	60	1730	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	11	217	11	54	22	2620	228	65	1880	11
RTOR Reduction (vph)	0	9	0	0	0	43	0	0	107	0	0	5
Lane Group Flow (vph)	0	24	0	0	228	11	22	2620	121	65	1880	6
Turn Type	Perm			Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8			2			6
Actuated Green, G (s)		13.1			13.1	13.1	2.8	36.0	36.0	4.8	37.4	37.4
Effective Green, g (s)		15.6			15.6	15.6	5.6	38.8	38.8	7.0	40.2	40.2
Actuated g/C Ratio		0.21			0.21	0.21	0.08	0.53	0.53	0.10	0.55	0.55
Clearance Time (s)		6.5			6.5	6.5	6.8	6.8	6.8	6.2	6.8	6.8
Vehicle Extension (s)		4.0			4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)		325			279	333	134	2662	829	167	2758	859
v/s Ratio Prot							0.01	c0.52		c0.04	0.37	
v/s Ratio Perm		0.02			c0.17	0.01			0.08			0.00
v/c Ratio		0.07			0.82	0.03	0.16	0.98	0.15	0.39	0.68	0.01
Uniform Delay, d1		23.1			27.5	22.9	31.7	17.0	8.8	31.2	12.0	7.5
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.1			17.5	0.1	0.6	13.9	0.1	1.5	0.8	0.0
Delay (s)		23.3			45.0	23.0	32.3	30.9	8.9	32.7	12.7	7.5
Level of Service		C			D	C	C	C	A	C	B	A
Approach Delay (s)		23.3			40.8			29.1			13.4	
Approach LOS		C			D			C			B	

Intersection Summary			
HCM Average Control Delay	23.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	73.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	74.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Group Flow (vph)	33	228	54	22	2620	228	65	1880	11
v/c Ratio	0.12	0.77	0.14	0.10	0.97	0.24	0.27	0.64	0.01
Control Delay	20.4	46.1	8.7	30.6	30.2	2.5	31.9	12.4	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.4	46.1	8.7	30.6	30.2	2.5	31.9	12.4	5.6
Queue Length 50th (ft)	9	100	0	9	~501	0	27	137	0
Queue Length 95th (ft)	30	#217	27	29	#605	33	62	310	8
Internal Link Dist (ft)	1413	1496			6884			4514	
Turn Bay Length (ft)			150	225		250	200		200
Base Capacity (vph)	313	304	405	247	2712	950	256	2924	915
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.75	0.13	0.09	0.97	0.24	0.25	0.64	0.01

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	0.88	1.00	0.91		0.97	0.91	1.00
Frt	1.00	0.96			1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1752	1775			1829	2760	1752	5029		3400	5036	1568
Flt Permitted	0.95	1.00			0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1752	1775			1829	2760	1752	5029		3400	5036	1568
Volume (vph)	110	60	20	10	50	1730	40	2360	20	650	2180	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	120	65	22	11	54	1880	43	2565	22	707	2370	33
RTOR Reduction (vph)	0	10	0	0	0	0	0	1	0	0	0	17
Lane Group Flow (vph)	120	77	0	0	65	1880	43	2586	0	707	2370	16
Turn Type	Split			Split		pt+ov	Prot			Prot		Perm
Protected Phases	4	4		8	8	8 1	5	2		1	6	
Permitted Phases												6
Actuated Green, G (s)	12.0	12.0			16.5	33.0	6.2	52.6		8.0	54.4	54.4
Effective Green, g (s)	15.5	15.5			21.0	37.0	10.2	57.6		12.0	59.4	59.4
Actuated g/C Ratio	0.13	0.13			0.17	0.30	0.08	0.47		0.10	0.49	0.49
Clearance Time (s)	7.5	7.5			8.5		8.0	9.0		8.0	9.0	9.0
Vehicle Extension (s)	4.0	4.0			4.0		3.0	4.0		3.0	4.0	4.0
Lane Grp Cap (vph)	222	225			315	836	146	2372		334	2450	763
v/s Ratio Prot	c0.07	0.04			0.04	c0.68	0.02	c0.51		0.21	0.47	
v/s Ratio Perm												0.01
v/c Ratio	0.54	0.34			0.21	2.25	0.29	1.09		2.12	0.97	0.02
Uniform Delay, d1	50.0	48.6			43.4	42.6	52.6	32.2		55.0	30.4	16.3
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	3.3	1.2			0.4	565.8	1.1	48.4		512.6	11.5	0.0
Delay (s)	53.3	49.9			43.8	608.4	53.7	80.6		567.6	41.9	16.3
Level of Service	D	D			D	F	D	F		F	D	B
Approach Delay (s)		51.9			589.5			80.2			161.2	
Approach LOS		D			F			F			F	

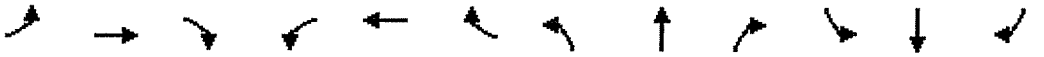
Intersection Summary			
HCM Average Control Delay	236.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.40		
Actuated Cycle Length (s)	122.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	124.9%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	WBR	NEL	NET	SWL	SWT	SWR
Lane Group Flow (vph)	120	87	65	1880	43	2587	707	2370	33
v/c Ratio	0.53	0.37	0.20	2.22	0.26	1.11	2.09	0.95	0.04
Control Delay	58.5	46.0	44.8	575.1	54.8	86.2	527.5	40.6	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.5	46.0	44.8	575.1	54.8	86.2	527.5	40.6	5.9
Queue Length 50th (ft)	89	54	44	~1346	32	~849	~451	~694	0
Queue Length 95th (ft)	152	106	86	#1496	70	#941	#571	#810	19
Internal Link Dist (ft)		1320	1449			4514		3170	
Turn Bay Length (ft)	100				200		400		375
Base Capacity (vph)	232	245	319	848	170	2339	338	2485	790
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.36	0.20	2.22	0.25	1.11	2.09	0.95	0.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00	1.00	0.95	0.95		1.00	0.91	1.00	1.00	0.91	1.00
Frt		1.00	0.85	1.00	0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97	1.00	0.95	0.99		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1785	1568	1665	1539		1752	5036	1568	1752	5036	1568
Flt Permitted		0.97	1.00	0.95	0.99		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1785	1568	1665	1539		1752	5036	1568	1752	5036	1568
Volume (vph)	20	10	20	800	10	480	20	2530	1310	640	2060	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	11	22	870	11	522	22	2750	1424	696	2239	33
RTOR Reduction (vph)	0	0	21	0	71	0	0	0	411	0	0	10
Lane Group Flow (vph)	0	33	1	699	633	0	22	2750	1013	696	2239	23
Turn Type	Split		Perm	Split			Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)		3.5	3.5	53.5	53.5		4.9	45.1	45.1	20.0	60.2	60.2
Effective Green, g (s)		6.1	6.1	56.1	56.1		5.9	48.1	48.1	21.0	63.2	63.2
Actuated g/C Ratio		0.04	0.04	0.38	0.38		0.04	0.33	0.33	0.14	0.43	0.43
Clearance Time (s)		6.6	6.6	6.6	6.6		5.0	7.0	7.0	5.0	7.0	7.0
Vehicle Extension (s)		4.0	4.0	4.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)		74	65	634	586		70	1644	512	250	2161	673
v/s Ratio Prot		c0.02		c0.42	0.41		0.01	0.55		c0.40	0.44	
v/s Ratio Perm			0.00						c0.65			0.01
v/c Ratio		0.45	0.01	1.10	1.08		0.31	1.67	1.98	2.78	1.04	0.03
Uniform Delay, d1		68.9	67.7	45.6	45.6		68.7	49.6	49.6	63.2	42.1	24.4
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		5.7	0.1	67.1	60.6		2.6	305.4	446.9	813.9	29.4	0.0
Delay (s)		74.7	67.8	112.7	106.2		71.3	355.0	496.5	877.0	71.5	24.4
Level of Service		E	E	F	F		E	F	F	F	E	C
Approach Delay (s)		71.9			109.4			401.6			259.9	
Approach LOS		E			F			F			F	

Intersection Summary			
HCM Average Control Delay	303.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.66		
Actuated Cycle Length (s)	147.3	Sum of lost time (s)	16.0
Intersection Capacity Utilization	138.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	33	22	699	704	22	2750	1424	696	2239	33
v/c Ratio	0.38	0.23	1.08	1.05	0.21	1.70	1.55	2.72	1.01	0.05
Control Delay	80.6	29.4	99.5	84.6	70.2	351.3	274.1	805.7	62.0	16.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	80.6	29.4	99.5	84.6	70.2	351.3	274.1	805.7	62.0	16.1
Queue Length 50th (ft)	31	0	~788	~701	20	~1413	~1499	~1125	~885	9
Queue Length 95th (ft)	69	30	#1048	#964	50	#1493	#1769	#1369	#1005	33
Internal Link Dist (ft)	1565			1533		9567			2116	
Turn Bay Length (ft)		100	425		350		275	275		250
Base Capacity (vph)	86	96	649	670	128	1613	918	256	2212	699
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.23	1.08	1.05	0.17	1.70	1.55	2.72	1.01	0.05

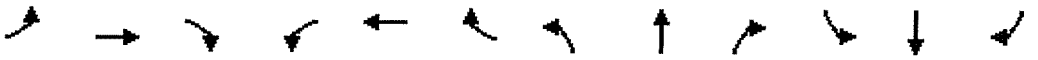
Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Appendix D

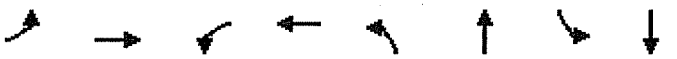
Synchro Analysis for the Design Year (2030) Build CRTL Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.86		1.00	0.86	
Frt	1.00	0.90		1.00	0.91		1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1694	1656		1694	1678		1752	6317		1752	6338	
Flt Permitted	0.55	1.00		0.45	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	985	1656		800	1678		1752	6317		1752	6338	
Volume (vph)	180	70	150	360	60	90	80	2590	80	20	3830	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	196	76	163	391	65	98	87	2815	87	22	4163	33
RTOR Reduction (vph)	0	26	0	0	22	0	0	2	0	0	0	0
Lane Group Flow (vph)	196	213	0	391	141	0	87	2900	0	22	4196	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	81.0	81.0		81.0	81.0		9.5	149.7		4.3	144.5	
Effective Green, g (s)	82.0	82.0		82.0	82.0		10.0	151.2		4.8	146.0	
Actuated g/C Ratio	0.33	0.33		0.33	0.33		0.04	0.60		0.02	0.58	
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	5.5		4.5	5.5	
Vehicle Extension (s)	4.0	4.0		4.0	4.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	323	543		262	550		70	3821		34	3701	
v/s Ratio Prot		0.13			0.08		c0.05	0.46		0.01	c0.66	
v/s Ratio Perm	0.20			c0.49								
v/c Ratio	0.61	0.39		1.49	0.26		1.24	0.76		0.65	1.13	
Uniform Delay, d1	70.5	64.8		84.0	61.7		120.0	36.1		121.8	52.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.08	0.62	
Incremental Delay, d2	3.7	0.6		240.7	0.3		186.4	1.5		3.8	60.5	
Delay (s)	74.2	65.4		324.7	62.0		306.4	37.6		135.5	92.7	
Level of Service	E	E		F	E		F	D		F	F	
Approach Delay (s)		69.4			247.4			45.4			92.9	
Approach LOS		E			F			D			F	

Intersection Summary			
HCM Average Control Delay	84.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.26		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	106.6%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



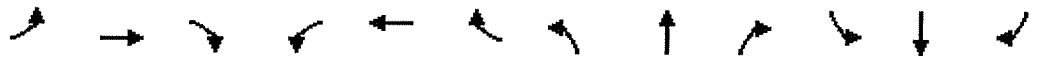
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	196	239	391	163	87	2902	22	4196
v/c Ratio	0.61	0.42	1.49	0.28	1.24	0.75	0.54	1.13
Control Delay	79.9	56.7	291.7	51.0	270.0	37.3	133.1	91.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.9	56.7	291.7	51.0	270.0	37.3	133.1	91.7
Queue Length 50th (ft)	275	261	~888	162	~178	1016	38	~810
Queue Length 95th (ft)	387	360	#1134	241	#328	1023	m29	m481
Internal Link Dist (ft)		1402		1426		1282		1911
Turn Bay Length (ft)	150		200		250		250	
Base Capacity (vph)	323	570	262	572	70	3846	41	3702
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.42	1.49	0.28	1.24	0.75	0.54	1.13

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	0.91		1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.99		1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.96		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3083	1596		1752	1746		1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	0.96		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3083	1596		1752	1746		1752	5036	1568	1752	5036	1568
Volume (vph)	1190	30	20	150	90	50	30	2830	30	10	3880	660
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1293	33	22	163	98	54	33	3076	33	11	4217	717
RTOR Reduction (vph)	0	1	0	0	8	0	0	0	4	0	0	0
Lane Group Flow (vph)	891	456	0	163	144	0	33	3076	29	11	4217	717
Turn Type	Split			Split			Prot		Perm	Prot		Free
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases									2			Free
Actuated Green, G (s)	53.0	53.0		17.0	17.0		4.0	156.0	156.0	3.0	155.0	250.0
Effective Green, g (s)	54.0	54.0		18.0	18.0		5.5	157.5	157.5	4.5	156.5	250.0
Actuated g/C Ratio	0.22	0.22		0.07	0.07		0.02	0.63	0.63	0.02	0.63	1.00
Clearance Time (s)	5.0	5.0		5.0	5.0		5.5	5.5	5.5	5.5	5.5	
Vehicle Extension (s)	4.0	4.0		4.0	4.0		3.0	5.0	5.0	3.0	5.0	
Lane Grp Cap (vph)	666	345		126	126		39	3173	988	32	3153	1568
v/s Ratio Prot	c0.29	0.29		c0.09	0.08		c0.02	0.61		0.01	c0.84	
v/s Ratio Perm									0.02			c0.46
v/c Ratio	1.34	1.32		1.29	1.14		0.85	0.97	0.03	0.34	1.34	0.46
Uniform Delay, d1	98.0	98.0		116.0	116.0		121.8	44.0	17.4	121.3	46.8	0.0
Progression Factor	1.00	1.00		1.00	1.00		1.21	0.43	0.36	1.18	0.41	1.00
Incremental Delay, d2	162.1	164.0		178.7	122.7		65.5	7.8	0.0	0.6	152.1	0.1
Delay (s)	260.1	262.0		294.7	238.7		212.9	26.6	6.3	143.7	171.1	0.1
Level of Service	F	F		F	F		F	C	A	F	F	A
Approach Delay (s)		260.7			267.7			28.4			146.3	
Approach LOS		F			F			C			F	

Intersection Summary			
HCM Average Control Delay	128.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.32		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	116.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	891	457	163	152	33	3076	33	11	4217	717
v/c Ratio	1.34	1.32	1.29	1.13	0.72	0.96	0.03	0.24	1.33	0.46
Control Delay	228.1	230.4	257.0	205.2	187.2	24.8	4.4	142.6	169.8	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	228.1	230.4	257.0	205.2	187.2	24.8	4.4	142.6	169.8	0.1
Queue Length 50th (ft)	~1047	~1069	~342	~276	56	1814	2	18	~3314	0
Queue Length 95th (ft)	#1194	#1349	#533	#462	m77	1818	m3	m15	m#2634	m0
Internal Link Dist (ft)		271		1474		1911			1889	
Turn Bay Length (ft)			150		250			350		
Base Capacity (vph)	666	346	126	134	46	3217	1006	46	3174	1568
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.34	1.32	1.29	1.13	0.72	0.96	0.03	0.24	1.33	0.46

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	11	11	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00		1.00	0.86		1.00	0.86	
Frt	1.00	1.00	0.85	1.00	0.88		1.00	0.98		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1845	1568	3286	1577		1752	6243		1752	6336	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1752	1845	1568	3286	1577		1752	6243		1752	6336	
Volume (vph)	120	120	160	670	60	200	200	2830	340	100	4080	40
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	130	174	728	65	217	217	3076	370	109	4435	43
RTOR Reduction (vph)	0	0	96	0	48	0	0	9	0	0	0	0
Lane Group Flow (vph)	130	130	78	728	234	0	217	3437	0	109	4478	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)	17.2	13.0	13.0	38.5	34.3		22.5	162.9		16.1	156.5	
Effective Green, g (s)	17.7	14.0	14.0	39.0	35.3		23.0	164.4		16.6	158.0	
Actuated g/C Ratio	0.07	0.06	0.06	0.16	0.14		0.09	0.66		0.07	0.63	
Clearance Time (s)	4.5	5.0	5.0	4.5	5.0		4.5	5.5		4.5	5.5	
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	124	103	88	513	223		161	4105		116	4004	
v/s Ratio Prot	0.07	c0.07		c0.22	0.15		c0.12	0.55		0.06	c0.71	
v/s Ratio Perm			0.05									
v/c Ratio	1.05	1.26	0.88	1.42	1.05		1.35	0.84		0.94	1.12	
Uniform Delay, d1	116.2	118.0	117.2	105.5	107.4		113.5	32.6		116.2	46.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.97	0.93		0.75	1.20	
Incremental Delay, d2	94.4	174.8	60.0	199.8	73.7		160.3	0.2		13.0	53.6	
Delay (s)	210.5	292.8	177.2	305.3	181.1		270.6	30.7		100.6	108.7	
Level of Service	F	F	F	F	F		F	C		F	F	
Approach Delay (s)		221.8			270.6			44.9			108.5	
Approach LOS		F			F			D			F	

Intersection Summary			
HCM Average Control Delay	106.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.20		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	110.0%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

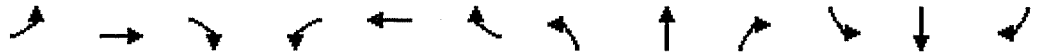
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	130	130	174	728	282	217	3446	109	4478
v/c Ratio	1.05	1.26	0.95	1.42	1.04	1.35	0.84	0.94	1.12
Control Delay	196.6	256.5	97.3	264.7	142.8	231.9	30.7	98.5	103.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	196.6	256.5	97.3	264.7	142.8	231.9	30.7	98.5	103.0
Queue Length 50th (ft)	~232	~268	125	~830	~418	~466	531	181	~2448
Queue Length 95th (ft)	#407	#442	#306	#968	#645	m#436	m875	m173	m#2325
Internal Link Dist (ft)		1464			1497		1889		2565
Turn Bay Length (ft)	100		100	150		400		300	
Base Capacity (vph)	124	103	184	513	271	161	4115	116	4007
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.05	1.26	0.95	1.42	1.04	1.35	0.84	0.94	1.12

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

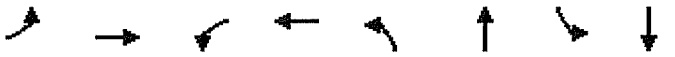
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.86		1.00	0.86	
Frt	1.00	0.92		1.00	0.92		1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1700		1752	1706		1752	6311		1752	6334	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1752	1700		1752	1706		1752	6311		1752	6334	
Volume (vph)	260	100	110	140	70	70	90	2920	110	40	4130	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	283	109	120	152	76	76	98	3174	120	43	4489	54
RTOR Reduction (vph)	0	16	0	0	14	0	0	2	0	0	1	0
Lane Group Flow (vph)	283	213	0	152	138	0	98	3292	0	43	4542	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	31.5	27.0		19.0	15.0		10.5	175.7		8.3	173.5	
Effective Green, g (s)	32.0	28.0		20.0	16.0		11.0	177.2		8.8	175.0	
Actuated g/C Ratio	0.13	0.11		0.08	0.06		0.04	0.71		0.04	0.70	
Clearance Time (s)	4.5	5.0		5.0	5.0		4.5	5.5		4.5	5.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	224	190		140	109		77	4473		62	4434	
v/s Ratio Prot	c0.16	c0.13		0.09	0.08		c0.06	0.52		0.02	c0.72	
v/s Ratio Perm												
v/c Ratio	1.26	1.12		1.09	1.27		1.27	0.74		0.69	1.02	
Uniform Delay, d1	109.0	111.0		115.0	117.0		119.5	22.2		119.3	37.5	
Progression Factor	1.00	1.00		1.00	1.00		1.26	0.23		1.22	0.16	
Incremental Delay, d2	149.2	101.6		100.9	173.7		162.6	0.5		3.0	12.4	
Delay (s)	258.2	212.6		215.9	290.7		312.8	5.7		147.9	18.5	
Level of Service	F	F		F	F		F	A		F	B	
Approach Delay (s)		237.8			253.3			14.6			19.7	
Approach LOS		F			F			B			B	

Intersection Summary			
HCM Average Control Delay	38.5	HCM Level of Service	D
HCM Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	101.4%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	283	229	152	152	98	3294	43	4543
v/c Ratio	1.26	1.11	1.09	1.24	1.27	0.74	0.69	1.02
Control Delay	226.5	180.4	198.2	232.1	261.2	5.8	146.3	20.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.6
Total Delay	226.5	180.4	198.2	232.1	261.2	5.8	146.3	29.7
Queue Length 50th (ft)	~584	~403	~280	~285	~206	152	75	~2298
Queue Length 95th (ft)	#809	#617	#465	#471	m#267	m151	m75	m434
Internal Link Dist (ft)		1508		1584		2565		960
Turn Bay Length (ft)	175		150		850		375	
Base Capacity (vph)	224	206	140	123	77	4477	63	4434
Starvation Cap Reductn	0	0	0	0	0	0	0	103
Spillback Cap Reductn	0	0	0	0	0	17	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.26	1.11	1.09	1.24	1.27	0.74	0.68	1.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.86		1.00	0.86	
Frt	1.00	0.91		1.00	1.00	0.85	1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1694	1618		1752	1845	1568	1752	6327		1752	6332	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1694	1618		1752	1845	1568	1752	6327		1752	6332	
Volume (vph)	230	50	80	130	60	250	50	3020	60	110	4120	60
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	250	54	87	141	65	272	54	3283	65	120	4478	65
RTOR Reduction (vph)	0	23	0	0	0	69	0	1	0	0	1	0
Lane Group Flow (vph)	250	118	0	141	65	203	54	3347	0	120	4542	0
Turn Type	Prot			Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)	28.5	28.7		22.8	23.0	23.0	6.5	162.2		16.8	172.5	
Effective Green, g (s)	29.0	29.7		23.3	24.0	24.0	7.0	163.7		17.3	174.0	
Actuated g/C Ratio	0.12	0.12		0.09	0.10	0.10	0.03	0.65		0.07	0.70	
Clearance Time (s)	4.5	5.0		4.5	5.0	5.0	4.5	5.5		4.5	5.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	197	192		163	177	151	49	4143		121	4407	
v/s Ratio Prot	c0.15	0.07		0.08	0.04		0.03	0.53		c0.07	c0.72	
v/s Ratio Perm						c0.13						
v/c Ratio	1.27	0.62		0.87	0.37	1.35	1.10	0.81		0.99	1.03	
Uniform Delay, d1	110.5	104.7		111.8	105.9	113.0	121.5	31.6		116.3	38.0	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.08	0.46		1.08	0.52	
Incremental Delay, d2	154.8	5.7		34.9	1.3	193.2	129.0	1.1		40.1	16.9	
Delay (s)	265.3	110.5		146.7	107.2	306.2	260.3	15.6		166.2	36.5	
Level of Service	F	F		F	F	F	F	B		F	D	
Approach Delay (s)		209.4			232.1			19.5			39.8	
Approach LOS		F			F			B			D	

Intersection Summary			
HCM Average Control Delay	49.8	HCM Level of Service	D
HCM Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	99.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

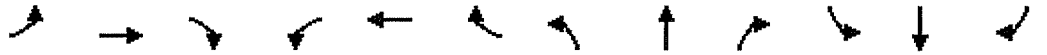
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	250	141	141	65	272	54	3348	120	4543
v/c Ratio	1.27	0.66	0.86	0.37	1.24	1.10	0.81	0.99	1.03
Control Delay	232.5	101.4	151.0	112.3	197.6	232.1	15.7	157.8	37.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	9.6
Total Delay	232.5	101.4	151.0	112.3	197.6	232.1	15.9	157.8	46.6
Queue Length 50th (ft)	~519	188	233	103	~437	~102	717	205	~2318
Queue Length 95th (ft)	#737	285	#362	168	#664	m#157	m444	m#217	m#1776
Internal Link Dist (ft)		1383		1613			960		1165
Turn Bay Length (ft)	300		350			300		600	
Base Capacity (vph)	197	215	176	177	219	49	4144	121	4408
Starvation Cap Reductn	0	0	0	0	0	0	172	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	99
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.27	0.66	0.80	0.37	1.24	1.10	0.84	0.99	1.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

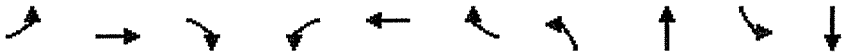
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	13	13	13	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.86		1.00	0.86	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00		1.00	0.99	
Flt Protected	0.95	0.98	1.00	0.95	0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1720	1776	1620	1665	1689	1568	1752	6318		1752	6313	
Flt Permitted	0.95	0.98	1.00	0.95	0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1720	1776	1620	1665	1689	1568	1752	6318		1752	6313	
Volume (vph)	240	110	120	270	40	130	80	3010	90	50	3910	140
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	261	120	130	293	43	141	87	3272	98	54	4250	152
RTOR Reduction (vph)	0	0	53	0	0	50	0	2	0	0	2	0
Lane Group Flow (vph)	185	196	77	164	172	91	87	3368	0	54	4400	0
Turn Type	Split		Perm	Split		Perm	Prot			Prot		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)	22.0	22.0	22.0	20.0	20.0	20.0	10.5	177.4		10.6	177.5	
Effective Green, g (s)	23.0	23.0	23.0	21.0	21.0	21.0	11.0	178.9		11.1	179.0	
Actuated g/C Ratio	0.09	0.09	0.09	0.08	0.08	0.08	0.04	0.72		0.04	0.72	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	4.5	5.5		4.5	5.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	2.5	5.0		2.5	5.0	
Lane Grp Cap (vph)	158	163	149	140	142	132	77	4521		78	4520	
v/s Ratio Prot	0.11	c0.11		0.10	c0.10		c0.05	0.53		0.03	c0.70	
v/s Ratio Perm			0.05			0.06						
v/c Ratio	1.17	1.20	0.52	1.17	1.21	0.69	1.13	0.75		0.69	0.97	
Uniform Delay, d1	113.5	113.5	108.2	114.5	114.5	111.3	119.5	21.7		117.8	33.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.82	1.56		0.83	0.39	
Incremental Delay, d2	124.9	135.3	3.0	129.5	143.3	13.8	109.2	0.5		2.2	1.2	
Delay (s)	238.4	248.8	111.3	244.0	257.8	125.1	206.7	34.3		99.4	14.1	
Level of Service	F	F	F	F	F	F	F	C		F	B	
Approach Delay (s)		210.1			213.8			38.7			15.2	
Approach LOS		F			F			D			B	

Intersection Summary				
HCM Average Control Delay	46.1	HCM Level of Service	D	
HCM Volume to Capacity ratio	1.02			
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	16.0	
Intersection Capacity Utilization	89.4%	ICU Level of Service	E	
Analysis Period (min)	15			

c Critical Lane Group



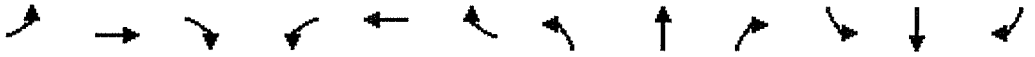
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	185	196	130	164	172	141	87	3370	54	4402
v/c Ratio	1.17	1.20	0.64	1.17	1.21	0.77	1.13	0.74	0.69	0.97
Control Delay	212.9	220.3	75.4	217.8	227.9	94.0	188.1	34.5	100.4	14.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	212.9	220.3	75.4	217.8	227.9	94.0	188.1	34.5	100.4	14.4
Queue Length 50th (ft)	~381	~411	118	~337	~363	144	~166	1067	89	1446
Queue Length 95th (ft)	#589	#623	210	#540	#568	#265	m#222	m1074	m78	m737
Internal Link Dist (ft)		1440			1426			2920		2650
Turn Bay Length (ft)	225		225	175		200	350		500	
Base Capacity (vph)	158	163	202	140	142	182	77	4524	78	4523
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.17	1.20	0.64	1.17	1.21	0.77	1.13	0.74	0.69	0.97

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95		0.91	0.91	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1665	1659		3189	1609	1568	1752	5036	1568	3400	5036	1568
Flt Permitted	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1665	1659		3189	1609	1568	1752	5036	1568	3400	5036	1568
Volume (vph)	140	90	50	800	40	340	30	2590	420	280	3540	40
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	152	98	54	870	43	370	33	2815	457	304	3848	43
RTOR Reduction (vph)	0	8	0	0	0	122	0	0	70	0	0	5
Lane Group Flow (vph)	152	144	0	598	315	248	33	2815	387	304	3848	38
Turn Type	Split			Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	19.0	19.0		42.0	42.0	42.0	5.0	146.1	146.1	22.9	164.0	164.0
Effective Green, g (s)	20.0	20.0		43.0	43.0	43.0	5.5	147.6	147.6	23.4	165.5	165.5
Actuated g/C Ratio	0.08	0.08		0.17	0.17	0.17	0.02	0.59	0.59	0.09	0.66	0.66
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	4.0	4.0		4.0	4.0	4.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	133	133		549	277	270	39	2973	926	318	3334	1038
v/s Ratio Prot	c0.09	0.09		0.19	c0.20		0.02	c0.56		0.09	c0.76	
v/s Ratio Perm						0.16			0.25			0.02
v/c Ratio	1.14	1.08		1.09	1.14	0.92	0.85	0.95	0.42	0.96	1.15	0.04
Uniform Delay, d1	115.0	115.0		103.5	103.5	101.8	121.8	47.6	27.8	112.8	42.2	14.6
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.98	0.98	0.99	0.81	1.25	1.50
Incremental Delay, d2	121.5	101.3		64.9	96.3	34.2	60.8	5.3	0.8	18.2	70.6	0.0
Delay (s)	236.5	216.3		168.4	199.8	136.0	180.7	52.2	28.3	109.3	123.5	22.0
Level of Service	F	F		F	F	F	F	D	C	F	F	C
Approach Delay (s)		226.4			166.8			50.1			121.5	
Approach LOS		F			F			D			F	

Intersection Summary			
HCM Average Control Delay	105.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	109.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

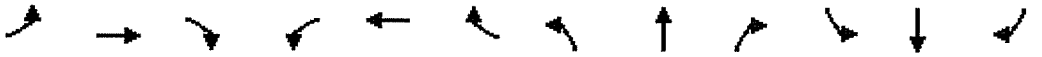
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	152	152	598	315	370	33	2815	457	304	3848	43
v/c Ratio	1.14	1.08	1.09	1.14	0.95	0.85	0.95	0.46	0.96	1.15	0.04
Control Delay	212.8	190.1	155.3	181.1	92.7	184.3	52.2	17.5	108.0	117.3	15.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	212.8	190.1	155.3	181.1	92.7	184.3	52.2	17.5	108.0	117.3	15.2
Queue Length 50th (ft)	~307	~277	~607	~662	400	56	1785	190	261	~2718	24
Queue Length 95th (ft)	#501	#473	#754	#918	#628	m#81	m1775	m210	m#275	m#2616	m26
Internal Link Dist (ft)		1452		1418			2650			2872	
Turn Bay Length (ft)	150				200	425			400		
Base Capacity (vph)	133	141	549	277	391	39	2973	996	318	3334	1043
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.14	1.08	1.09	1.14	0.95	0.85	0.95	0.46	0.96	1.15	0.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	0.95	0.95		0.95	0.95	1.00	1.00	0.86		1.00	0.86	
Frt	1.00	0.96		1.00	1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected	0.95	0.99		0.95	0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1665	1679		1665	1700	1568	1752	6260		1752	6319	
Flt Permitted	0.95	0.99		0.95	0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1665	1679		1665	1700	1568	1752	6260		1752	6319	
Volume (vph)	140	80	30	450	110	270	70	2540	250	330	3510	100
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	152	87	33	489	120	293	76	2761	272	359	3815	109
RTOR Reduction (vph)	0	5	0	0	0	67	0	6	0	0	2	0
Lane Group Flow (vph)	133	134	0	297	312	226	76	3027	0	359	3922	0
Turn Type	Split			Split		Perm	Prot			Prot		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)	17.0	17.0		39.0	39.0	39.0	9.5	127.4		46.6	164.5	
Effective Green, g (s)	18.0	18.0		40.0	40.0	40.0	10.0	128.9		47.1	166.0	
Actuated g/C Ratio	0.07	0.07		0.16	0.16	0.16	0.04	0.52		0.19	0.66	
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	4.5	5.5		4.5	5.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	2.5	5.0		2.5	5.0	
Lane Grp Cap (vph)	120	121		266	272	251	70	3228		330	4196	
v/s Ratio Prot	0.08	c0.08		0.18	c0.18		c0.04	c0.48		c0.20	0.62	
v/s Ratio Perm						0.14						
v/c Ratio	1.11	1.11		1.12	1.15	0.90	1.09	0.94		1.09	0.93	
Uniform Delay, d1	116.0	116.0		105.0	105.0	103.0	120.0	56.8		101.4	37.2	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.34	0.54		0.73	0.33	
Incremental Delay, d2	114.2	114.6		90.2	100.3	31.3	84.8	2.4		44.9	0.5	
Delay (s)	230.2	230.6		195.2	205.3	134.3	245.2	33.1		119.3	12.9	
Level of Service	F	F		F	F	F	F	C		F	B	
Approach Delay (s)		230.4			178.9			38.3			21.8	
Approach LOS		F			F			D			C	

Intersection Summary			
HCM Average Control Delay	51.0	HCM Level of Service	D
HCM Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	91.3%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

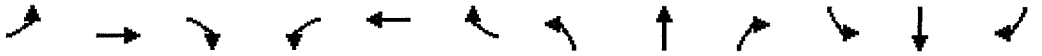
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	133	139	297	312	293	76	3033	359	3924
v/c Ratio	1.11	1.11	1.12	1.15	0.92	1.09	0.94	1.09	0.93
Control Delay	209.5	205.0	177.9	185.2	106.5	213.4	33.1	111.1	13.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	209.5	205.0	177.9	185.2	106.5	213.4	33.1	111.1	13.0
Queue Length 50th (ft)	~263	~266	~589	~632	367	~141	987	~659	626
Queue Length 95th (ft)	#449	#458	#833	#877	#571	m#154	m1073	m#638	m513
Internal Link Dist (ft)		1490		1548			2872		1921
Turn Bay Length (ft)	200		300		100	500		475	
Base Capacity (vph)	120	125	266	272	318	70	3236	330	4198
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.11	1.11	1.12	1.15	0.92	1.09	0.94	1.09	0.93

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

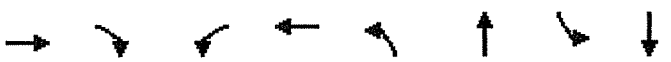
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.86		1.00	0.86	
Frt		1.00	0.85	1.00	0.92		1.00	1.00		1.00	1.00	
Flt Protected		0.95	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1759	1568	1752	1706		1752	6342		1752	6322	
Flt Permitted		0.69	1.00	0.10	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1274	1568	184	1706		1752	6342		1752	6322	
Volume (vph)	350	10	300	20	20	20	80	2840	10	10	3920	100
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	380	11	326	22	22	22	87	3087	11	11	4261	109
RTOR Reduction (vph)	0	0	24	0	14	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	391	302	22	30	0	87	3098	0	11	4369	0
Turn Type	Perm		Perm	Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		59.0	59.0	59.0	59.0		9.5	172.0		3.0	165.5	
Effective Green, g (s)		60.0	60.0	60.0	60.0		11.0	173.5		4.5	167.0	
Actuated g/C Ratio		0.24	0.24	0.24	0.24		0.04	0.69		0.02	0.67	
Clearance Time (s)		5.0	5.0	5.0	5.0		5.5	5.5		5.5	5.5	
Vehicle Extension (s)		4.0	4.0	4.0	4.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)		306	376	44	409		77	4401		32	4223	
v/s Ratio Prot					0.02		c0.05	0.49		0.01	c0.69	
v/s Ratio Perm		c0.31	0.19	0.12								
v/c Ratio		1.28	0.80	0.50	0.07		1.13	0.70		0.34	1.03	
Uniform Delay, d1		95.0	89.4	82.0	73.5		119.5	22.9		121.3	41.5	
Progression Factor		1.00	1.00	1.00	1.00		1.17	0.06		1.14	0.56	
Incremental Delay, d2		147.9	12.3	11.7	0.1		98.7	0.3		2.6	19.6	
Delay (s)		242.9	101.7	93.7	73.6		238.8	1.6		141.0	42.7	
Level of Service		F	F	F	E		F	A		F	D	
Approach Delay (s)		178.7			80.3			8.1			43.0	
Approach LOS		F			F			A			D	

Intersection Summary			
HCM Average Control Delay	41.6	HCM Level of Service	D
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	99.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



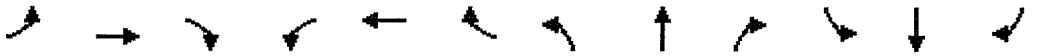
Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	391	326	22	44	87	3098	11	4370
v/c Ratio	1.28	0.81	0.59	0.12	1.13	0.70	0.24	1.03
Control Delay	216.0	97.3	144.2	45.1	207.1	1.6	141.7	43.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9
Total Delay	216.0	97.3	144.2	45.1	207.1	1.6	141.7	49.1
Queue Length 50th (ft)	~813	472	32	32	~166	106	19	~2238
Queue Length 95th (ft)	#1059	618	#82	77	m#182	m103	m19	m#2136
Internal Link Dist (ft)	1454			1472		1921		1002
Turn Bay Length (ft)			50		300		125	
Base Capacity (vph)	306	401	44	424	77	4455	46	4223
Starvation Cap Reductn	0	0	0	0	0	0	0	59
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.28	0.81	0.50	0.10	1.13	0.70	0.24	1.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95		0.97	0.86		1.00	0.86	
Frt	1.00	1.00	0.85	1.00	0.92		1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3400	1845	1568	1752	3229		3400	6302		1752	6331	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	3400	1845	1568	1752	3229		3400	6302		1752	6331	
Volume (vph)	100	70	140	170	100	110	160	2700	130	90	3820	60
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	76	152	185	109	120	174	2935	141	98	4152	65
RTOR Reduction (vph)	0	0	60	0	82	0	0	3	0	0	1	0
Lane Group Flow (vph)	109	76	92	185	147	0	174	3073	0	98	4216	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)	12.3	10.0	10.0	23.5	21.2		10.5	177.7		18.3	185.5	
Effective Green, g (s)	12.8	11.0	11.0	24.0	22.2		12.0	179.2		19.8	187.0	
Actuated g/C Ratio	0.05	0.04	0.04	0.10	0.09		0.05	0.72		0.08	0.75	
Clearance Time (s)	4.5	5.0	5.0	4.5	5.0		5.5	5.5		5.5	5.5	
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	174	81	69	168	287		163	4517		139	4736	
v/s Ratio Prot	0.03	0.04		c0.11	0.05		c0.05	0.49		0.06	c0.67	
v/s Ratio Perm			c0.06									
v/c Ratio	0.63	0.94	1.33	1.10	0.51		1.07	0.68		0.71	0.89	
Uniform Delay, d1	116.3	119.2	119.5	113.0	108.7		119.0	19.6		112.3	23.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.79	0.32		0.82	0.97	
Incremental Delay, d2	6.9	79.1	219.6	99.1	2.0		75.1	0.5		7.2	1.4	
Delay (s)	123.1	198.3	339.1	212.1	110.8		169.6	6.9		99.7	24.3	
Level of Service	F	F	F	F	F		F	A		F	C	
Approach Delay (s)		237.5			156.1			15.6			26.1	
Approach LOS		F			F			B			C	

Intersection Summary			
HCM Average Control Delay	37.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	90.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	109	76	152	185	229	174	3076	98	4217
v/c Ratio	0.63	0.94	1.18	1.10	0.62	1.07	0.68	0.71	0.89
Control Delay	132.2	195.2	184.1	193.7	74.2	158.8	7.0	105.1	24.7
Queue Delay	0.0	0.0	23.6	0.0	0.0	0.0	0.1	0.0	15.3
Total Delay	132.2	195.2	207.6	193.7	74.2	158.8	7.1	105.1	39.9
Queue Length 50th (ft)	92	128	~195	~345	120	~164	300	158	965
Queue Length 95th (ft)	135	#261	#381	#543	177	m#246	m172	m183	m947
Internal Link Dist (ft)		1544			1553		1002		2491
Turn Bay Length (ft)	275			200		475		300	
Base Capacity (vph)	188	81	129	168	369	163	4519	165	4738
Starvation Cap Reductn	0	0	0	0	0	0	331	0	0
Spillback Cap Reductn	0	0	6	0	0	0	0	0	634
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.94	1.24	1.10	0.62	1.07	0.73	0.59	1.03

Intersection Summary

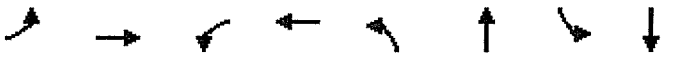
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.86		1.00	0.86	
Frt	1.00	0.96		1.00	0.88		1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1765		1752	1620		1752	6299		1752	6336	
Flt Permitted	0.34	1.00		0.61	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	625	1765		1128	1620		1752	6299		1752	6336	
Volume (vph)	70	50	20	180	30	130	70	2740	140	150	3770	40
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	54	22	196	33	141	76	2978	152	163	4098	43
RTOR Reduction (vph)	0	6	0	0	62	0	0	3	0	0	0	0
Lane Group Flow (vph)	76	70	0	196	112	0	76	3127	0	163	4141	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	38.0	38.0		38.0	38.0		10.3	170.5		26.5	186.7	
Effective Green, g (s)	39.0	39.0		39.0	39.0		10.8	172.0		27.0	188.2	
Actuated g/C Ratio	0.16	0.16		0.16	0.16		0.04	0.69		0.11	0.75	
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	5.5		4.5	5.5	
Vehicle Extension (s)	5.0	5.0		5.0	5.0		4.0	5.0		4.0	5.0	
Lane Grp Cap (vph)	98	275		176	253		76	4334		189	4770	
v/s Ratio Prot		0.04			0.07		c0.04	0.50		c0.09	c0.65	
v/s Ratio Perm	0.12			c0.17								
v/c Ratio	0.78	0.25		1.11	0.44		1.00	0.72		0.86	0.87	
Uniform Delay, d1	101.3	92.7		105.5	95.7		119.6	24.2		109.7	22.0	
Progression Factor	1.00	1.00		1.00	1.00		1.09	0.25		1.01	0.66	
Incremental Delay, d2	35.3	1.0		101.6	2.6		88.6	0.8		22.6	1.6	
Delay (s)	136.6	93.8		207.1	98.3		219.1	6.8		133.0	16.1	
Level of Service	F	F		F	F		F	A		F	B	
Approach Delay (s)		115.2			155.9			11.8			20.6	
Approach LOS		F			F			B			C	

Intersection Summary			
HCM Average Control Delay	25.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	89.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	76	76	196	174	76	3130	163	4141
v/c Ratio	0.78	0.27	1.11	0.55	1.00	0.72	0.86	0.87
Control Delay	144.1	87.1	189.1	62.9	207.8	6.8	135.2	16.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Total Delay	144.1	87.1	189.1	62.9	207.8	6.8	135.2	16.5
Queue Length 50th (ft)	123	102	~369	158	~132	429	282	537
Queue Length 95th (ft)	#233	167	#571	257	m#255	157	m#401	533
Internal Link Dist (ft)		1509		1512		2491		939
Turn Bay Length (ft)	150		150		300		325	
Base Capacity (vph)	98	281	176	314	76	4338	199	4768
Starvation Cap Reductn	0	0	0	0	0	0	0	102
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.27	1.11	0.55	1.00	0.72	0.82	0.89

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.86	0.86	
Frt	1.00	0.85	1.00	1.00	1.00	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1752	1568	1752	6346	6333	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1752	1568	1752	6346	6333	
Volume (vph)	50	80	30	2910	3840	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	87	33	3163	4174	54
RTOR Reduction (vph)	0	31	0	0	1	0
Lane Group Flow (vph)	54	56	33	3163	4227	0
Turn Type		custom	Prot			
Protected Phases			5	2	6	
Permitted Phases	4	4				
Actuated Green, G (s)	10.6	10.6	5.2	228.9	219.2	
Effective Green, g (s)	11.6	11.6	5.7	230.4	220.7	
Actuated g/C Ratio	0.05	0.05	0.02	0.92	0.88	
Clearance Time (s)	5.0	5.0	4.5	5.5	5.5	
Vehicle Extension (s)	4.0	4.0	4.0	5.0	5.0	
Lane Grp Cap (vph)	81	73	40	5848	5591	
v/s Ratio Prot			c0.02	0.50	c0.67	
v/s Ratio Perm	0.03	c0.04				
v/c Ratio	0.67	0.76	0.82	0.54	0.76	
Uniform Delay, d1	117.3	117.8	121.7	1.5	5.2	
Progression Factor	1.00	1.00	1.20	0.03	0.35	
Incremental Delay, d2	20.5	38.4	61.1	0.2	0.1	
Delay (s)	137.8	156.2	206.6	0.3	1.9	
Level of Service	F	F	F	A	A	
Approach Delay (s)	149.1			2.4	1.9	
Approach LOS	F			A	A	

Intersection Summary			
HCM Average Control Delay	4.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	69.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	54	87	33	3163	4228
v/c Ratio	0.67	0.83	0.67	0.54	0.75
Control Delay	151.7	120.5	178.8	0.3	1.9
Queue Delay	0.0	0.0	0.0	0.1	0.0
Total Delay	151.7	120.5	178.8	0.4	1.9
Queue Length 50th (ft)	90	91	58	3	191
Queue Length 95th (ft)	#164	#212	m82	7	m173
Internal Link Dist (ft)	1504			939	3004
Turn Bay Length (ft)			450		
Base Capacity (vph)	84	107	49	5847	5613
Starvation Cap Reductn	0	0	0	869	0
Spillback Cap Reductn	0	0	0	0	3
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.64	0.81	0.67	0.64	0.75

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1730		1665	1698	1568	1752	5036	1568	3400	5036	1568
Flt Permitted	0.95	1.00		0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1730		1665	1698	1568	1752	5036	1568	3400	5036	1568
Volume (vph)	100	70	50	360	80	250	70	2560	250	130	3600	60
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	76	54	391	87	272	76	2783	272	141	3913	65
RTOR Reduction (vph)	0	10	0	0	0	66	0	0	41	0	0	7
Lane Group Flow (vph)	109	120	0	233	245	206	76	2783	231	141	3913	58
Turn Type	Split			Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	14.0	14.0		31.0	31.0	31.0	9.5	170.3	170.3	14.7	175.5	175.5
Effective Green, g (s)	15.0	15.0		32.0	32.0	32.0	10.0	171.8	171.8	15.2	177.0	177.0
Actuated g/C Ratio	0.06	0.06		0.13	0.13	0.13	0.04	0.69	0.69	0.06	0.71	0.71
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	4.0	4.0		4.0	4.0	4.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	105	104		213	217	201	70	3461	1078	207	3565	1110
v/s Ratio Prot	0.06	c0.07		0.14	c0.14		c0.04	0.55		0.04	c0.78	
v/s Ratio Perm						0.13			0.15			0.04
v/c Ratio	1.04	1.15		1.09	1.13	1.02	1.09	0.80	0.21	0.68	1.10	0.05
Uniform Delay, d1	117.5	117.5		109.0	109.0	109.0	120.0	27.3	14.3	115.0	36.5	11.1
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.87	0.68	0.74	1.00	1.00	1.00
Incremental Delay, d2	98.5	134.4		89.0	100.1	69.7	124.3	1.8	0.4	8.9	49.0	0.1
Delay (s)	216.0	251.9		198.0	209.1	178.7	228.4	20.5	11.0	123.9	85.5	11.2
Level of Service	F	F		F	F	F	F	C	B	F	F	B
Approach Delay (s)		235.5			194.7			24.7			85.7	
Approach LOS		F			F			C			F	

Intersection Summary			
HCM Average Control Delay	76.8	HCM Level of Service	E
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	95.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	109	130	233	245	272	76	2783	272	141	3913	65
v/c Ratio	1.04	1.14	1.09	1.13	1.02	1.09	0.80	0.24	0.68	1.10	0.06
Control Delay	202.6	211.2	181.7	189.4	131.8	211.7	20.8	5.8	131.6	84.2	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	202.6	211.2	181.7	189.4	131.8	211.7	20.8	5.8	131.6	84.2	6.9
Queue Length 50th (ft)	~193	~232	~454	~490	~358	~141	547	44	120	~2666	19
Queue Length 95th (ft)	#357	#407	#677	#721	#586	m#282	618	100	167	#2616	39
Internal Link Dist (ft)		1451		1491			3004			4886	
Turn Bay Length (ft)	150		250			275			425		
Base Capacity (vph)	105	114	213	217	267	70	3461	1119	228	3565	1117
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.04	1.14	1.09	1.13	1.02	1.09	0.80	0.24	0.62	1.10	0.06

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

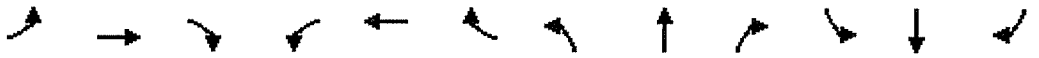
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.86		1.00	0.86	
Frt		0.99			1.00	0.85	1.00	1.00		1.00	1.00	
Flt Protected		0.98			0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1781			1780	1568	1752	6332		1752	6333	
Flt Permitted		0.58			0.63	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1063			1157	1568	1752	6332		1752	6333	
Volume (vph)	50	50	10	80	30	100	40	2740	40	60	3640	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	54	11	87	33	109	43	2978	43	65	3957	54
RTOR Reduction (vph)	0	3	0	0	0	0	0	1	0	0	1	0
Lane Group Flow (vph)	0	116	0	0	120	109	43	3020	0	65	4010	0
Turn Type	custom			custom		Free	Prot			Prot		
Protected Phases							5	2		1		
Permitted Phases	4	4		8	8	Free					6	
Actuated Green, G (s)		15.7			15.7	140.0	7.1	99.9		8.9	101.7	
Effective Green, g (s)		17.7			17.7	140.0	7.4	101.1		9.2	102.9	
Actuated g/C Ratio		0.13			0.13	1.00	0.05	0.72		0.07	0.74	
Clearance Time (s)		6.0			6.0		4.3	5.2		4.3	5.2	
Vehicle Extension (s)		3.0			3.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)		134			146	1568	93	4573		115	4655	
v/s Ratio Prot							0.02	0.48		c0.04		
v/s Ratio Perm		c0.11			0.10	c0.07					c0.63	
v/c Ratio		0.87			0.82	0.07	0.46	0.66		0.57	0.86	
Uniform Delay, d1		60.0			59.6	0.0	64.4	10.3		63.5	13.4	
Progression Factor		1.00			1.00	1.00	1.00	1.00		0.93	2.50	
Incremental Delay, d2		40.8			29.6	0.1	3.6	0.8		0.6	0.2	
Delay (s)		100.8			89.2	0.1	68.0	11.1		59.3	33.8	
Level of Service		F			F	A	E	B		E	C	
Approach Delay (s)		100.8			46.8			11.9			34.2	
Approach LOS		F			D			B			C	

Intersection Summary			
HCM Average Control Delay	26.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	72.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	119	120	109	43	3021	65	4011
v/c Ratio	0.84	0.82	0.07	0.40	0.65	0.50	0.85
Control Delay	100.6	97.0	0.1	73.9	11.6	58.2	35.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	100.6	97.0	0.1	73.9	11.6	58.2	35.6
Queue Length 50th (ft)	104	107	0	38	406	54	1125
Queue Length 95th (ft)	#217	#215	0	80	482	m37	m672
Internal Link Dist (ft)	1478	1518			3962		2924
Turn Bay Length (ft)			750	250		250	
Base Capacity (vph)	147	153	1568	125	4613	178	4694
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.78	0.07	0.34	0.65	0.37	0.85

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	0.91		0.91	0.91	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1595	3220		3189	1643	1568	1752	5036	1568	3400	5036	1568
Flt Permitted	0.95	1.00		0.95	0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1595	3220		3189	1643	1568	1752	5036	1568	3400	5036	1568
Volume (vph)	160	240	90	710	170	360	130	2120	530	610	3270	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	174	261	98	772	185	391	141	2304	576	663	3554	33
RTOR Reduction (vph)	0	25	0	0	0	164	0	0	193	0	0	7
Lane Group Flow (vph)	174	334	0	627	330	228	141	2304	383	663	3554	26
Turn Type	Split			Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	14.1	14.1		28.2	28.2	28.2	11.1	58.3	58.3	15.3	62.5	62.5
Effective Green, g (s)	17.0	17.0		31.0	31.0	31.0	11.4	60.4	60.4	15.6	64.6	64.6
Actuated g/C Ratio	0.12	0.12		0.22	0.22	0.22	0.08	0.43	0.43	0.11	0.46	0.46
Clearance Time (s)	6.9	6.9		6.8	6.8	6.8	4.3	6.1	6.1	4.3	6.1	6.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	194	391		706	364	347	143	2173	676	379	2324	724
v/s Ratio Prot	c0.11	0.10		0.20	c0.20		0.08	c0.46		0.20	c0.71	
v/s Ratio Perm						0.15			0.24			0.02
v/c Ratio	0.90	0.85		0.89	0.91	0.66	0.99	1.06	0.57	1.75	1.53	0.04
Uniform Delay, d1	60.6	60.3		52.8	53.1	49.6	64.2	39.8	29.9	62.2	37.7	20.6
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.34	0.76	0.51	0.79	0.66	0.54
Incremental Delay, d2	37.0	16.3		13.0	25.2	4.4	61.3	35.6	2.6	343.2	239.4	0.1
Delay (s)	97.6	76.6		65.8	78.3	54.1	147.3	65.8	18.0	392.6	264.3	11.1
Level of Service	F	E		E	E	D	F	E	B	F	F	B
Approach Delay (s)		83.4			65.5			60.5			282.3	
Approach LOS		F			E			E			F	

Intersection Summary			
HCM Average Control Delay	165.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.26		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	109.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

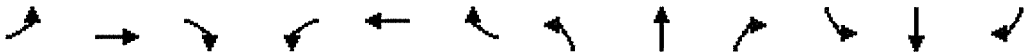
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	174	359	627	330	391	141	2304	576	663	3554	33
v/c Ratio	0.90	0.86	0.89	0.91	0.77	0.99	1.06	0.66	1.75	1.53	0.05
Control Delay	102.6	75.9	68.5	81.9	34.0	143.9	65.7	9.3	374.0	263.4	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	102.6	75.9	68.5	81.9	34.0	143.9	65.7	9.3	374.0	263.4	7.8
Queue Length 50th (ft)	174	164	306	324	161	130	~844	73	~461	~1650	4
Queue Length 95th (ft)	#330	#253	#414	#523	292	m#276	#915	m122	m#576	#1717	m6
Internal Link Dist (ft)		1442		322			2924			3147	
Turn Bay Length (ft)	325		200			300			550		
Base Capacity (vph)	194	416	706	364	511	143	2174	870	379	2325	731
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.90	0.86	0.89	0.91	0.77	0.99	1.06	0.66	1.75	1.53	0.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.86		1.00	0.86	
Frt	1.00	1.00	0.85	1.00	0.91		1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1845	1568	1752	1679		1752	6335		1752	6343	
Flt Permitted	0.72	1.00	1.00	0.74	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1330	1845	1568	1357	1679		1752	6335		1752	6343	
Volume (vph)	40	30	100	50	20	30	80	2790	30	20	3680	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	33	109	54	22	33	87	3033	33	22	4000	11
RTOR Reduction (vph)	0	0	91	0	30	0	0	1	0	0	0	0
Lane Group Flow (vph)	43	33	18	54	25	0	87	3065	0	22	4011	0
Turn Type	Perm		Perm	Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8								
Actuated Green, G (s)	10.7	10.7	10.7	10.7	10.7		10.3	107.5		4.9	102.1	
Effective Green, g (s)	13.2	13.2	13.2	13.2	13.2		10.6	109.6		5.2	104.2	
Actuated g/C Ratio	0.09	0.09	0.09	0.09	0.09		0.08	0.78		0.04	0.74	
Clearance Time (s)	6.5	6.5	6.5	6.5	6.5		4.3	6.1		4.3	6.1	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	125	174	148	128	158		133	4959		65	4721	
v/s Ratio Prot		0.02			0.01		c0.05	0.48		0.01	c0.63	
v/s Ratio Perm	0.03		0.01	c0.04								
v/c Ratio	0.34	0.19	0.12	0.42	0.16		0.65	0.62		0.34	0.85	
Uniform Delay, d1	59.3	58.5	58.1	59.8	58.3		62.9	6.4		65.7	12.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.34	0.99		0.83	0.58	
Incremental Delay, d2	1.7	0.5	0.4	2.2	0.5		4.4	0.2		0.3	0.2	
Delay (s)	61.0	59.0	58.5	62.0	58.8		88.6	6.5		55.0	7.4	
Level of Service	E	E	E	E	E		F	A		E	A	
Approach Delay (s)		59.2			60.4			8.8			7.7	
Approach LOS		E			E			A			A	

Intersection Summary			
HCM Average Control Delay	10.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	77.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

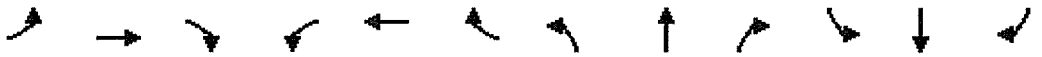
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	43	33	109	54	55	87	3066	22	4011
v/c Ratio	0.34	0.19	0.46	0.42	0.29	0.65	0.61	0.23	0.85
Control Delay	65.4	59.2	18.9	68.4	31.7	93.5	7.1	53.0	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.4	59.2	18.9	68.4	31.7	93.5	7.1	53.0	8.0
Queue Length 50th (ft)	37	28	8	47	19	81	250	20	216
Queue Length 95th (ft)	76	61	64	91	61	m81	m742	m17	m179
Internal Link Dist (ft)		1412			1351		418		1335
Turn Bay Length (ft)	100		100	300		400		525	
Base Capacity (vph)	175	242	293	178	249	143	5034	125	4725
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.14	0.37	0.30	0.22	0.61	0.61	0.18	0.85

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	0.97	1.00	1.00	0.97	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1845	1568	3400	1845	1568	3400	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	1845	1568	3400	1845	1568	3400	5036	1568	1752	5036	1568
Volume (vph)	150	130	50	300	190	130	220	2310	230	130	3570	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	163	141	54	326	207	141	239	2511	250	141	3880	11
RTOR Reduction (vph)	0	0	50	0	0	110	0	0	74	0	0	2
Lane Group Flow (vph)	163	141	4	326	207	31	239	2511	176	141	3880	9
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	11.5	7.8	7.8	17.8	14.1	14.1	9.7	79.0	79.0	13.4	82.7	82.7
Effective Green, g (s)	12.4	10.7	10.7	18.7	17.0	17.0	10.0	80.9	80.9	13.7	84.6	84.6
Actuated g/C Ratio	0.09	0.08	0.08	0.13	0.12	0.12	0.07	0.58	0.58	0.10	0.60	0.60
Clearance Time (s)	4.9	6.9	6.9	4.9	6.9	6.9	4.3	5.9	5.9	4.3	5.9	5.9
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	301	141	120	454	224	190	243	2910	906	171	3043	948
v/s Ratio Prot	0.05	0.08		c0.10	c0.11		c0.07	0.50		0.08	c0.77	
v/s Ratio Perm			0.00			0.02			0.11			0.01
v/c Ratio	0.54	1.00	0.03	0.72	0.92	0.16	0.98	0.86	0.19	0.82	1.28	0.01
Uniform Delay, d1	61.1	64.6	59.9	58.1	60.9	55.1	64.9	24.9	14.1	62.0	27.7	11.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.25	0.31	0.01	0.98	0.70	1.30
Incremental Delay, d2	2.0	75.8	0.1	5.4	39.5	0.4	46.8	3.0	0.4	9.0	124.5	0.0
Delay (s)	63.1	140.4	60.0	63.5	100.4	55.5	128.3	10.6	0.6	69.8	143.9	14.4
Level of Service	E	F	E	E	F	E	F	B	A	E	F	B
Approach Delay (s)		93.1			73.2			19.2			141.0	
Approach LOS		F			E			B			F	

Intersection Summary			
HCM Average Control Delay	87.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	104.0%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	163	141	54	326	207	141	239	2511	250	141	3880	11
v/c Ratio	0.54	0.99	0.32	0.72	0.92	0.47	0.98	0.86	0.26	0.82	1.28	0.01
Control Delay	67.6	137.4	20.4	67.3	103.6	17.9	126.3	10.9	0.6	72.5	146.9	11.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.6	137.4	20.4	67.3	103.6	17.9	126.3	10.9	0.6	72.5	146.9	11.4
Queue Length 50th (ft)	74	~132	0	147	190	13	120	111	0	136	~1627	2
Queue Length 95th (ft)	111	#284	45	198	#344	80	#210	121	2	m140	m#1678	m2
Internal Link Dist (ft)		1350			1247			1335			1509	
Turn Bay Length (ft)	175		175	275		275	375			400		
Base Capacity (vph)	345	142	170	515	224	300	243	2908	979	178	3042	949
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.99	0.32	0.63	0.92	0.47	0.98	0.86	0.26	0.79	1.28	0.01

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00		0.97	0.86		1.00	0.86	
Frt	1.00	1.00	0.85	1.00	0.89		1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3400	1845	1568	1752	1649		3400	6320		1752	6343	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	3400	1845	1568	1752	1649		3400	6320		1752	6343	
Volume (vph)	30	70	160	100	50	120	120	2560	70	10	3690	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	76	174	109	54	130	130	2783	76	11	4011	11
RTOR Reduction (vph)	0	0	113	0	58	0	0	2	0	0	0	0
Lane Group Flow (vph)	33	76	61	109	126	0	130	2857	0	11	4022	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)	4.5	10.7	10.7	10.8	17.0		9.4	92.9		1.6	85.1	
Effective Green, g (s)	6.0	13.2	13.2	12.3	19.5		10.9	95.4		3.1	87.6	
Actuated g/C Ratio	0.04	0.09	0.09	0.09	0.14		0.08	0.68		0.02	0.63	
Clearance Time (s)	5.5	6.5	6.5	5.5	6.5		5.5	6.5		5.5	6.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	146	174	148	154	230		265	4307		39	3969	
v/s Ratio Prot	0.01	0.04		c0.06	c0.08		c0.04	c0.45		0.01	c0.63	
v/s Ratio Perm			0.04									
v/c Ratio	0.23	0.44	0.41	0.71	0.55		0.49	0.66		0.28	1.01	
Uniform Delay, d1	64.8	59.9	59.7	62.1	56.2		61.9	13.0		67.4	26.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.99	0.60		0.84	2.08	
Incremental Delay, d2	0.8	1.8	1.9	13.8	2.7		0.9	0.5		0.4	8.2	
Delay (s)	65.5	61.6	61.6	75.9	58.8		62.1	8.3		57.1	62.8	
Level of Service	E	E	E	E	E		E	A		E	E	
Approach Delay (s)		62.1			65.2			10.6			62.7	
Approach LOS		E			E			B			E	

Intersection Summary			
HCM Average Control Delay	42.3	HCM Level of Service	D
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	79.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	33	76	174	109	184	130	2859	11	4022
v/c Ratio	0.16	0.52	0.73	0.71	0.64	0.49	0.62	0.11	0.99
Control Delay	64.0	75.4	38.1	86.2	47.7	65.2	6.5	52.7	52.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.0	75.4	38.1	86.2	47.7	65.2	6.5	52.7	52.0
Queue Length 50th (ft)	14	68	43	98	105	64	142	9	~1070
Queue Length 95th (ft)	32	123	#143	#181	#229	m77	251	m8	m930
Internal Link Dist (ft)		1564			1414		1509		1779
Turn Bay Length (ft)	100		100	200		425		250	
Base Capacity (vph)	311	150	243	160	288	277	4607	143	4071
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.51	0.72	0.68	0.64	0.47	0.62	0.08	0.99

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.86		1.00	0.86	
Frt		1.00	0.85		0.96		1.00	0.99		1.00	1.00	
Flt Protected		0.97	1.00		0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1785	1568		1734		1752	6312		1752	6340	
Flt Permitted		0.55	1.00		0.73		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1011	1568		1289		1752	6312		1752	6340	
Volume (vph)	80	40	100	100	90	90	190	2470	90	70	3600	20
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	87	43	109	109	98	98	207	2685	98	76	3913	22
RTOR Reduction (vph)	0	0	82	0	12	0	0	3	0	0	0	0
Lane Group Flow (vph)	0	130	27	0	293	0	207	2780	0	76	3935	0
Turn Type	Perm		Perm	Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		32.2	32.2		32.2		16.7	82.1		9.2	74.6	
Effective Green, g (s)		35.1	35.1		35.1		17.0	83.4		9.5	75.9	
Actuated g/C Ratio		0.25	0.25		0.25		0.12	0.60		0.07	0.54	
Clearance Time (s)		6.9	6.9		6.9		4.3	5.3		4.3	5.3	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)		253	393		323		213	3760		119	3437	
v/s Ratio Prot							c0.12	0.44		0.04	c0.62	
v/s Ratio Perm		0.13	0.02		c0.23							
v/c Ratio		0.51	0.07		0.91		0.97	0.74		0.64	1.14	
Uniform Delay, d1		45.1	40.0		50.9		61.3	20.4		63.6	32.0	
Progression Factor		1.00	1.00		1.00		1.26	0.45		0.71	1.12	
Incremental Delay, d2		1.8	0.1		27.6		47.0	1.1		1.0	65.5	
Delay (s)		46.9	40.1		78.4		124.2	10.2		45.9	101.3	
Level of Service		D	D		E		F	B		D	F	
Approach Delay (s)		43.8			78.4			18.1			100.2	
Approach LOS		D			E			B			F	

Intersection Summary			
HCM Average Control Delay	65.0	HCM Level of Service	E
HCM Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	95.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

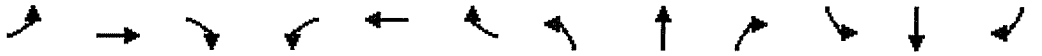
Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	130	109	305	207	2783	76	3935
v/c Ratio	0.51	0.23	0.90	0.97	0.74	0.64	1.14
Control Delay	52.3	8.1	77.6	122.9	10.4	47.8	99.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.3	8.1	77.6	122.9	10.4	47.8	99.0
Queue Length 50th (ft)	101	0	255	200	249	73	~1215
Queue Length 95th (ft)	171	47	#425	#360	487	m72	m#1111
Internal Link Dist (ft)	1343		1462		1779		1604
Turn Bay Length (ft)		150		200		250	
Base Capacity (vph)	268	490	352	213	3767	125	3439
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.22	0.87	0.97	0.74	0.61	1.14

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.86		0.97	0.86	
Frt	1.00	0.95			1.00	0.85	1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00			0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1751			1778	1568	1752	6332		3400	6343	
Flt Permitted	0.95	1.00			0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1752	1751			1778	1568	1752	6332		3400	6343	
Volume (vph)	30	40	20	60	20	390	40	2650	40	200	3710	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	43	22	65	22	424	43	2880	43	217	4033	11
RTOR Reduction (vph)	0	13	0	0	0	209	0	1	0	0	0	0
Lane Group Flow (vph)	33	52	0	0	87	215	43	2922	0	217	4044	0
Turn Type	Split			Split		Perm	Prot			Prot		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)	7.5	7.5			20.4	20.4	7.5	74.0		14.3	80.8	
Effective Green, g (s)	10.3	10.3			23.2	23.2	7.8	75.9		14.6	82.7	
Actuated g/C Ratio	0.07	0.07			0.17	0.17	0.06	0.54		0.10	0.59	
Clearance Time (s)	6.8	6.8			6.8	6.8	4.3	5.9		4.3	5.9	
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	129	129			295	260	98	3433		355	3747	
v/s Ratio Prot	0.02	c0.03			0.05		0.02	0.46		c0.06	c0.64	
v/s Ratio Perm						c0.14						
v/c Ratio	0.26	0.40			0.29	0.83	0.44	0.85		0.61	1.08	
Uniform Delay, d1	61.2	61.9			51.2	56.5	64.0	27.2		60.0	28.6	
Progression Factor	1.00	1.00			1.00	1.00	1.40	0.30		1.33	0.34	
Incremental Delay, d2	1.1	2.1			0.6	19.1	2.1	2.0		0.3	36.2	
Delay (s)	62.3	64.0			51.8	75.6	91.7	10.1		80.2	46.0	
Level of Service	E	E			D	E	F	B		F	D	
Approach Delay (s)		63.4			71.5			11.3			47.7	
Approach LOS		E			E			B			D	

Intersection Summary			
HCM Average Control Delay	35.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	79.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	33	65	87	424	43	2923	217	4044
v/c Ratio	0.23	0.42	0.30	0.91	0.38	0.84	0.61	1.05
Control Delay	63.6	56.0	52.5	46.5	94.0	11.1	80.2	38.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.6	56.0	52.5	46.5	94.0	11.1	80.2	38.4
Queue Length 50th (ft)	28	44	68	163	41	594	108	~1261
Queue Length 95th (ft)	64	94	121	#343	m58	#868	m94	m#1031
Internal Link Dist (ft)		1324	1349			1604		1346
Turn Bay Length (ft)	150				325		375	
Base Capacity (vph)	160	173	340	502	143	3500	447	3850
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.38	0.26	0.84	0.30	0.84	0.49	1.05

Intersection Summary

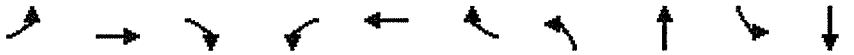
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.86		1.00	0.86	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected	0.95	0.97	1.00	0.95	0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1665	1696	1568	1665	1707	1568	1752	6285		1752	6321	
Flt Permitted	0.95	0.97	1.00	0.95	0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1665	1696	1568	1665	1707	1568	1752	6285		1752	6321	
Volume (vph)	240	50	30	250	80	70	90	2630	180	20	3730	100
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	261	54	33	272	87	76	98	2859	196	22	4054	109
RTOR Reduction (vph)	0	0	29	0	0	66	0	7	0	0	3	0
Lane Group Flow (vph)	154	161	4	175	184	10	98	3048	0	22	4160	0
Turn Type	Split		Perm	Split		Perm	Prot			Prot		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)	12.6	12.6	12.6	15.2	15.2	15.2	7.7	80.6		5.0	77.9	
Effective Green, g (s)	15.6	15.6	15.6	18.2	18.2	18.2	10.0	82.9		7.3	80.2	
Actuated g/C Ratio	0.11	0.11	0.11	0.13	0.13	0.13	0.07	0.59		0.05	0.57	
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	6.3	6.3		6.3	6.3	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	186	189	175	216	222	204	125	3722		91	3621	
v/s Ratio Prot	0.09	c0.09		0.11	c0.11		c0.06	c0.49		0.01	c0.66	
v/s Ratio Perm			0.00			0.01						
v/c Ratio	0.83	0.85	0.02	0.81	0.83	0.05	0.78	0.82		0.24	1.15	
Uniform Delay, d1	60.9	61.1	55.4	59.2	59.4	53.3	63.9	22.6		63.7	29.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.87	1.10		1.12	0.56	
Incremental Delay, d2	25.1	29.0	0.0	20.0	21.8	0.1	15.2	1.1		0.1	67.4	
Delay (s)	85.9	90.1	55.4	79.3	81.2	53.4	70.9	26.0		71.3	84.1	
Level of Service	F	F	E	E	F	D	E	C		E	F	
Approach Delay (s)		85.0			75.6			27.4			84.0	
Approach LOS		F			E			C			F	

Intersection Summary			
HCM Average Control Delay	61.6	HCM Level of Service	E
HCM Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	86.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	154	161	33	175	184	76	98	3055	22	4163
v/c Ratio	0.83	0.85	0.16	0.81	0.83	0.28	0.78	0.80	0.18	1.15
Control Delay	93.7	96.7	19.0	86.2	88.4	14.1	78.2	25.1	68.4	86.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	93.7	96.7	19.0	86.2	88.4	14.1	78.2	25.1	68.4	86.7
Queue Length 50th (ft)	147	153	0	165	174	0	94	445	21	~1278
Queue Length 95th (ft)	#276	#289	34	#293	#308	48	m113	526	m21	m#1171
Internal Link Dist (ft)		1325			1326			1346		2512
Turn Bay Length (ft)	150		150	350			475		400	
Base Capacity (vph)	186	189	204	219	224	272	125	3841	160	3624
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.85	0.16	0.80	0.82	0.28	0.78	0.80	0.14	1.15

Intersection Summary

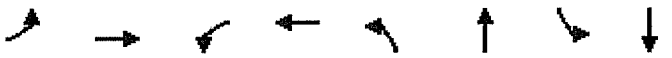
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.86		1.00	0.86	
Frt	1.00	0.89		1.00	0.87		1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1638		1752	1608		1752	6295		1752	6330	
Flt Permitted	0.71	1.00		0.44	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1305	1638		812	1608		1752	6295		1752	6330	
Volume (vph)	70	20	60	310	10	60	60	2650	150	110	3670	60
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	22	65	337	11	65	65	2880	163	120	3989	65
RTOR Reduction (vph)	0	59	0	0	56	0	0	6	0	0	1	0
Lane Group Flow (vph)	76	28	0	337	20	0	65	3037	0	120	4053	0
Turn Type	pm+pt			pm+pt			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	20.5	11.5		32.5	18.5		8.6	77.5		11.5	80.4	
Effective Green, g (s)	23.3	13.3		34.3	20.3		10.8	80.0		13.7	82.9	
Actuated g/C Ratio	0.17	0.10		0.24	0.15		0.08	0.57		0.10	0.59	
Clearance Time (s)	5.0	5.8		5.0	5.8		6.2	6.5		6.2	6.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	249	156		313	233		135	3597		171	3748	
v/s Ratio Prot	0.02	0.02		c0.13	0.01		0.04	0.48		c0.07	c0.64	
v/s Ratio Perm	0.03			c0.13								
v/c Ratio	0.31	0.18		1.08	0.09		0.48	0.84		0.70	1.08	
Uniform Delay, d1	50.8	58.3		50.7	51.8		61.9	24.8		61.2	28.5	
Progression Factor	1.00	1.00		1.00	1.00		0.76	1.43		1.00	1.00	
Incremental Delay, d2	0.7	0.6		72.8	0.2		1.6	1.6		12.3	42.1	
Delay (s)	51.5	58.9		123.5	52.0		48.7	37.0		73.4	70.7	
Level of Service	D	E		F	D		D	D		E	E	
Approach Delay (s)		55.5			110.3			37.3			70.8	
Approach LOS		E			F			D			E	

Intersection Summary			
HCM Average Control Delay	59.3	HCM Level of Service	E
HCM Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	93.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



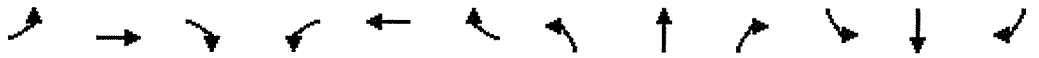
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	76	87	337	76	65	3043	120	4054
v/c Ratio	0.31	0.43	1.01	0.26	0.43	0.83	0.70	1.05
Control Delay	46.3	27.4	102.0	19.1	51.1	36.2	82.5	58.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.3	27.4	102.0	19.1	51.1	36.2	82.5	58.5
Queue Length 50th (ft)	56	19	~297	9	52	667	107	~1202
Queue Length 95th (ft)	100	74	#397	59	m67	740	#191	#1294
Internal Link Dist (ft)		1379		1347		2512		3539
Turn Bay Length (ft)	150		275		275		475	
Base Capacity (vph)	315	225	334	289	178	3649	178	3853
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.39	1.01	0.26	0.37	0.83	0.67	1.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

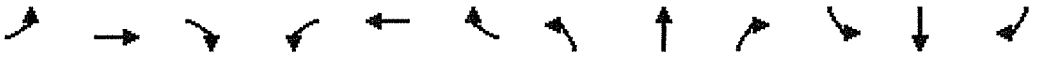
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1845	1568	3189	1636	1568	3400	5036	1568	3400	5036	1568
Flt Permitted	0.95	1.00	1.00	0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1845	1568	3189	1636	1568	3400	5036	1568	3400	5036	1568
Volume (vph)	150	170	140	1020	200	360	110	2080	660	650	2680	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	163	185	152	1109	217	391	120	2261	717	707	2913	54
RTOR Reduction (vph)	0	0	127	0	0	191	0	0	0	0	0	13
Lane Group Flow (vph)	163	185	25	869	457	200	120	2261	717	707	2913	41
Turn Type	Split		Perm	Split		Perm	Prot		Free	Prot		Perm
Protected Phases	3	3		4	4		5	2		1	6	
Permitted Phases			3			4			Free			6
Actuated Green, G (s)	19.5	19.5	19.5	23.5	23.5	23.5	11.0	58.0	141.0	13.0	60.0	60.0
Effective Green, g (s)	22.0	22.0	22.0	26.0	26.0	26.0	14.0	61.0	141.0	16.0	63.0	63.0
Actuated g/C Ratio	0.16	0.16	0.16	0.18	0.18	0.18	0.10	0.43	1.00	0.11	0.45	0.45
Clearance Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	7.0	7.0		7.0	7.0	7.0
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.0		4.0	5.0	5.0
Lane Grp Cap (vph)	273	288	245	588	302	289	338	2179	1568	386	2250	701
v/s Ratio Prot	0.09	c0.10		0.27	c0.28		0.04	0.45		c0.21	c0.58	
v/s Ratio Perm			0.02			0.13			c0.46			0.03
v/c Ratio	0.60	0.64	0.10	1.48	1.51	0.69	0.36	1.04	0.46	1.83	1.29	0.06
Uniform Delay, d1	55.4	55.8	51.0	57.5	57.5	53.8	59.3	40.0	0.0	62.5	39.0	22.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.1	5.4	0.3	224.1	247.4	7.5	0.9	29.9	1.0	384.2	136.0	0.1
Delay (s)	59.4	61.2	51.3	281.6	304.9	61.3	60.2	69.9	1.0	446.7	175.0	22.2
Level of Service	E	E	D	F	F	E	E	E	A	F	F	C
Approach Delay (s)		57.6			237.6			53.5			225.1	
Approach LOS		E			F			D			F	

Intersection Summary			
HCM Average Control Delay	159.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.27		
Actuated Cycle Length (s)	141.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	103.3%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	163	185	152	869	457	391	120	2261	717	707	2913	54
v/c Ratio	0.60	0.64	0.41	1.48	1.51	0.81	0.36	1.04	0.46	1.83	1.29	0.08
Control Delay	64.8	66.6	11.3	263.2	286.7	36.5	62.7	68.9	1.0	417.7	169.7	15.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.8	66.6	11.3	263.2	286.7	36.5	62.7	68.9	1.0	417.7	169.7	15.4
Queue Length 50th (ft)	141	161	2	~606	~646	147	54	~826	0	~508	~1262	16
Queue Length 95th (ft)	219	244	64	#768	#909	#319	88	#952	0	#651	#1406	45
Internal Link Dist (ft)		1418			1555			1340			2491	
Turn Bay Length (ft)	300		300	350			300			475		
Base Capacity (vph)	314	331	404	588	302	480	380	2180	1568	386	2250	714
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.56	0.38	1.48	1.51	0.81	0.32	1.04	0.46	1.83	1.29	0.08

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.86		1.00	0.86	
Frt		0.96			1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected		0.98			0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1733			1760	1568	1752	6303		1752	6342	
Flt Permitted		0.69			0.75	1.00	0.05	1.00		0.95	1.00	
Satd. Flow (perm)		1214			1389	1568	85	6303		1752	6342	
Volume (vph)	10	10	10	250	10	190	20	2380	110	100	2830	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	11	272	11	207	22	2587	120	109	3076	11
RTOR Reduction (vph)	0	3	0	0	0	128	0	5	0	0	0	0
Lane Group Flow (vph)	0	30	0	0	283	79	22	2702	0	109	3087	0
Turn Type	Perm			Perm		Perm	Perm			Prot		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2					
Actuated Green, G (s)		24.7			24.7	24.7	84.3	84.3		12.7	102.8	
Effective Green, g (s)		26.8			26.8	26.8	86.7	86.7		14.5	105.2	
Actuated g/C Ratio		0.19			0.19	0.19	0.62	0.62		0.10	0.75	
Clearance Time (s)		6.1			6.1	6.1	6.4	6.4		5.8	6.4	
Vehicle Extension (s)		5.0			5.0	5.0	6.0	6.0		4.0	6.0	
Lane Grp Cap (vph)		232			266	300	53	3903		181	4766	
v/s Ratio Prot								c0.43		0.06	c0.49	
v/s Ratio Perm		0.02			c0.20	0.05	0.26					
v/c Ratio		0.13			1.06	0.26	0.42	0.69		0.60	0.65	
Uniform Delay, d1		46.9			56.6	48.2	13.7	17.8		60.0	8.4	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.5			73.1	1.0	22.2	1.0		6.4	0.7	
Delay (s)		47.4			129.7	49.2	35.9	18.8		66.4	9.1	
Level of Service		D			F	D	D	B		E	A	
Approach Delay (s)		47.4			95.7			18.9			11.1	
Approach LOS		D			F			B			B	

Intersection Summary			
HCM Average Control Delay	21.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	88.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	33	283	207	22	2707	109	3087
v/c Ratio	0.14	1.06	0.48	0.41	0.69	0.60	0.65
Control Delay	44.4	126.0	17.7	41.6	19.0	73.9	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.4	126.0	17.7	41.6	19.0	73.9	9.2
Queue Length 50th (ft)	22	~284	38	10	461	96	350
Queue Length 95th (ft)	54	#469	116	#54	498	161	375
Internal Link Dist (ft)	1464	1406			2491		9831
Turn Bay Length (ft)				200		400	
Base Capacity (vph)	236	266	428	54	3905	195	4764
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	1.06	0.48	0.41	0.69	0.56	0.65

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00	1.00	0.95	0.95		1.00	0.91	1.00	1.00	0.91	1.00
Frt		1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99	1.00	0.95	0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1817	1568	1665	1698		1752	5036	1568	1752	5036	1568
Flt Permitted		0.99	1.00	0.95	0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1817	1568	1665	1698		1752	5036	1568	1752	5036	1568
Volume (vph)	70	160	60	380	140	20	110	1650	410	330	2250	90
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	174	65	413	152	22	120	1793	446	359	2446	98
RTOR Reduction (vph)	0	0	20	0	2	0	0	0	183	0	0	29
Lane Group Flow (vph)	0	250	45	288	297	0	120	1793	263	359	2446	69
Turn Type	Split		Perm	Split			Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)		24.2	24.2	26.0	26.0		9.5	42.6	42.6	19.5	52.6	52.6
Effective Green, g (s)		27.7	27.7	29.5	29.5		11.0	46.1	46.1	21.0	56.1	56.1
Actuated g/C Ratio		0.20	0.20	0.21	0.21		0.08	0.33	0.33	0.15	0.40	0.40
Clearance Time (s)		7.5	7.5	7.5	7.5		5.5	7.5	7.5	5.5	7.5	7.5
Vehicle Extension (s)		5.0	5.0	4.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)		359	310	350	357		137	1655	515	262	2014	627
v/s Ratio Prot		c0.14		0.17	c0.17		0.07	0.36		c0.20	c0.49	
v/s Ratio Perm			0.03						0.17			0.04
v/c Ratio		0.70	0.14	0.82	0.83		0.88	1.08	0.51	1.37	1.21	0.11
Uniform Delay, d1		52.4	46.5	52.9	53.0		64.0	47.1	38.0	59.6	42.1	26.4
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		7.3	0.5	15.0	15.7		41.9	48.5	1.1	189.0	101.3	0.1
Delay (s)		59.7	47.0	67.9	68.7		105.9	95.6	39.2	248.7	143.4	26.5
Level of Service		E	D	E	E		F	F	D	F	F	C
Approach Delay (s)		57.1			68.3			85.4			152.5	
Approach LOS		E			E			F			F	

Intersection Summary			
HCM Average Control Delay	113.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	140.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	90.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NEL	NET	NER	SWL	SWT	SWR
Lane Group Flow (vph)	250	65	288	299	120	1793	446	359	2446	98
v/c Ratio	0.70	0.20	0.82	0.83	0.87	1.08	0.64	1.37	1.22	0.15
Control Delay	63.7	32.3	73.1	73.0	112.8	93.1	20.1	230.9	138.7	15.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.7	32.3	73.1	73.0	112.8	93.1	20.1	230.9	138.7	15.7
Queue Length 50th (ft)	217	31	272	281	114	~705	140	~450	~1046	29
Queue Length 95th (ft)	316	74	#425	#440	#240	#808	268	#659	#1143	70
Internal Link Dist (ft)	1258			1388		9831			5036	
Turn Bay Length (ft)		50	300		200			350		
Base Capacity (vph)	392	358	364	374	138	1654	698	263	2013	656
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.18	0.79	0.80	0.87	1.08	0.64	1.37	1.22	0.15

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.86		1.00	0.86	
Frt	1.00	0.91			1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00			0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1683			1774	1568	1752	6261		1752	6331	
Flt Permitted	0.39	1.00			0.63	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	719	1683			1167	1568	1752	6261		1752	6331	
Volume (vph)	60	50	70	200	50	70	70	1750	170	90	2510	40
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	54	76	217	54	76	76	1902	185	98	2728	43
RTOR Reduction (vph)	0	42	0	0	0	25	0	12	0	0	1	0
Lane Group Flow (vph)	65	88	0	0	271	51	76	2075	0	98	2770	0
Turn Type	Perm			Perm		Perm	Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8						
Actuated Green, G (s)	25.9	25.9			25.9	25.9	8.9	53.1		9.8	54.0	
Effective Green, g (s)	29.4	29.4			29.4	29.4	9.9	56.6		10.8	57.5	
Actuated g/C Ratio	0.27	0.27			0.27	0.27	0.09	0.52		0.10	0.53	
Clearance Time (s)	7.5	7.5			7.5	7.5	5.0	7.5		5.0	7.5	
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	194	455			315	424	159	3257		174	3346	
v/s Ratio Prot		0.05					0.04	0.33		c0.06	c0.44	
v/s Ratio Perm	0.09				c0.23	0.03						
v/c Ratio	0.34	0.19			0.86	0.12	0.48	0.64		0.56	0.83	
Uniform Delay, d1	31.9	30.6			37.7	29.9	47.0	18.7		46.7	21.5	
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.0	0.2			20.6	0.1	2.3	0.6		4.1	2.0	
Delay (s)	32.9	30.8			58.3	30.1	49.3	19.3		50.9	23.5	
Level of Service	C	C			E	C	D	B		D	C	
Approach Delay (s)		31.5			52.1			20.4			24.5	
Approach LOS		C			D			C			C	

Intersection Summary			
HCM Average Control Delay	24.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	108.8	Sum of lost time (s)	8.0
Intersection Capacity Utilization	75.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	WBR	NEL	NET	SWL	SWT
Lane Group Flow (vph)	65	130	271	76	76	2087	98	2771
v/c Ratio	0.40	0.29	0.87	0.17	0.39	0.63	0.47	0.82
Control Delay	42.0	20.2	65.9	20.6	52.9	20.4	53.6	24.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.0	20.2	65.9	20.6	52.9	20.4	53.6	24.8
Queue Length 50th (ft)	37	39	184	22	52	308	67	479
Queue Length 95th (ft)	84	94	#356	63	100	382	122	575
Internal Link Dist (ft)		1356	1472			5036		6884
Turn Bay Length (ft)				50	375		375	
Base Capacity (vph)	185	498	326	471	296	3303	298	3383
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.26	0.83	0.16	0.26	0.63	0.33	0.82

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt		0.96			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.98			0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1733			1760	1568	1752	5036	1568	1752	5036	1568
Flt Permitted		0.75			0.71	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1313			1308	1568	1752	5036	1568	1752	5036	1568
Volume (vph)	10	10	10	280	10	50	30	1800	130	50	2380	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	11	304	11	54	33	1957	141	54	2587	11
RTOR Reduction (vph)	0	9	0	0	0	42	0	0	68	0	0	5
Lane Group Flow (vph)	0	24	0	0	315	12	33	1957	73	54	2587	6
Turn Type	Perm			Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8			2			6
Actuated Green, G (s)		13.7			13.7	13.7	2.9	35.1	35.1	4.6	36.2	36.2
Effective Green, g (s)		16.2			16.2	16.2	5.7	37.9	37.9	6.8	39.0	39.0
Actuated g/C Ratio		0.22			0.22	0.22	0.08	0.52	0.52	0.09	0.53	0.53
Clearance Time (s)		6.5			6.5	6.5	6.8	6.8	6.8	6.2	6.8	6.8
Vehicle Extension (s)		4.0			4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)		292			291	348	137	2618	815	163	2694	839
v/s Ratio Prot							0.02	0.39		c0.03	c0.51	
v/s Ratio Perm		0.02			c0.24	0.01			0.05			0.00
v/c Ratio		0.08			1.08	0.03	0.24	0.75	0.09	0.33	0.96	0.01
Uniform Delay, d1		22.5			28.4	22.2	31.6	13.7	8.8	30.9	16.2	7.9
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.2			76.5	0.1	0.9	1.3	0.1	1.2	9.8	0.0
Delay (s)		22.6			104.8	22.3	32.5	15.0	8.9	32.1	26.0	7.9
Level of Service		C			F	C	C	B	A	C	C	A
Approach Delay (s)		22.6			92.8			14.9			26.1	
Approach LOS		C			F			B			C	

Intersection Summary			
HCM Average Control Delay	26.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	72.9	Sum of lost time (s)	8.0
Intersection Capacity Utilization	75.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Group Flow (vph)	33	315	54	33	1957	141	54	2587	11
v/c Ratio	0.14	1.02	0.13	0.14	0.73	0.16	0.23	0.90	0.01
Control Delay	21.0	89.7	8.6	31.0	15.9	2.7	31.1	21.6	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.0	89.7	8.6	31.0	15.9	2.7	31.1	21.6	5.7
Queue Length 50th (ft)	9	~168	0	14	258	0	22	243	0
Queue Length 95th (ft)	30	#321	27	37	332	26	54	#593	8
Internal Link Dist (ft)	1413	1496			6884			4514	
Turn Bay Length (ft)			150	225			200		
Base Capacity (vph)	258	308	410	249	2667	897	257	2862	896
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	1.02	0.13	0.13	0.73	0.16	0.21	0.90	0.01

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			1.00	0.88	1.00	0.86		0.97	0.86	
Frt	1.00	0.92			1.00	0.85	1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00			0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1691			1814	2760	1752	6340		3400	6335	
Flt Permitted	0.95	1.00			0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1752	1691			1814	2760	1752	6340		3400	6335	
Volume (vph)	50	40	50	20	40	1270	30	1760	10	1060	2770	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	43	54	22	43	1380	33	1913	11	1152	3011	33
RTOR Reduction (vph)	0	39	0	0	0	0	0	1	0	0	1	0
Lane Group Flow (vph)	54	58	0	0	65	1380	33	1923	0	1152	3043	0
Turn Type	Split			Split		pt+ov	Prot			Prot		
Protected Phases	4	4		8	8	8 1	5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	8.5	8.5			16.8	33.4	4.4	50.7		8.1	54.4	
Effective Green, g (s)	12.0	12.0			21.3	37.4	8.4	55.7		12.1	59.4	
Actuated g/C Ratio	0.10	0.10			0.18	0.32	0.07	0.48		0.10	0.51	
Clearance Time (s)	7.5	7.5			8.5		8.0	9.0		8.0	9.0	
Vehicle Extension (s)	4.0	4.0			4.0		3.0	4.0		3.0	4.0	
Lane Grp Cap (vph)	180	173			330	882	126	3016		351	3213	
v/s Ratio Prot	0.03	c0.03			0.04	c0.50	0.02	0.30		c0.34	c0.48	
v/s Ratio Perm												
v/c Ratio	0.30	0.34			0.20	1.56	0.26	0.64		3.28	0.95	
Uniform Delay, d1	48.7	48.9			40.6	39.8	51.4	23.1		52.5	27.4	
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.3	1.6			0.4	259.6	1.1	0.5		1034.2	7.1	
Delay (s)	49.9	50.4			41.0	299.5	52.5	23.6		1086.7	34.4	
Level of Service	D	D			D	F	D	C		F	C	
Approach Delay (s)		50.3			287.8			24.1			323.3	
Approach LOS		D			F			C			F	

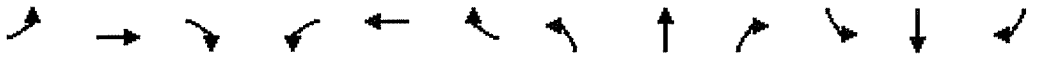
Intersection Summary			
HCM Average Control Delay	235.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.27		
Actuated Cycle Length (s)	117.1	Sum of lost time (s)	16.0
Intersection Capacity Utilization	88.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	WBR	NEL	NET	SWL	SWT
Lane Group Flow (vph)	54	97	65	1380	33	1924	1152	3044
v/c Ratio	0.25	0.39	0.19	1.49	0.19	0.65	3.11	0.91
Control Delay	50.4	33.2	44.0	254.7	53.4	24.7	972.6	31.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.4	33.2	44.0	254.7	53.4	24.7	972.6	31.2
Queue Length 50th (ft)	38	38	43	~860	24	316	~805	~681
Queue Length 95th (ft)	79	93	86	#1034	58	370	#957	#814
Internal Link Dist (ft)		1320	1449			4514		3170
Turn Bay Length (ft)	100				200		400	
Base Capacity (vph)	240	269	346	928	179	3075	371	3363
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.36	0.19	1.49	0.18	0.63	3.11	0.91

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00	1.00	0.95	0.95		1.00	0.91	1.00	1.00	0.91	1.00
Frt		1.00	0.85	1.00	0.93		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.96	1.00	0.95	0.97		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1778	1568	1665	1592		1752	5036	1568	1752	5036	1568
Flt Permitted		0.96	1.00	0.95	0.97		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1778	1568	1665	1592		1752	5036	1568	1752	5036	1568
Volume (vph)	30	10	30	1350	10	370	20	2030	810	440	3250	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	11	33	1467	11	402	22	2207	880	478	3533	11
RTOR Reduction (vph)	0	0	32	0	20	0	0	0	290	0	0	2
Lane Group Flow (vph)	0	44	1	974	886	0	22	2207	590	478	3533	9
Turn Type	Split		Perm	Split			Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)		3.5	3.5	53.5	53.5		4.9	45.1	45.1	20.0	60.2	60.2
Effective Green, g (s)		6.1	6.1	56.1	56.1		5.9	48.1	48.1	21.0	63.2	63.2
Actuated g/C Ratio		0.04	0.04	0.38	0.38		0.04	0.33	0.33	0.14	0.43	0.43
Clearance Time (s)		6.6	6.6	6.6	6.6		5.0	7.0	7.0	5.0	7.0	7.0
Vehicle Extension (s)		4.0	4.0	4.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)		74	65	634	606		70	1644	512	250	2161	673
v/s Ratio Prot		c0.02		c0.59	0.56		0.01	0.44		c0.27	c0.70	
v/s Ratio Perm			0.00						0.38			0.01
v/c Ratio		0.59	0.02	1.54	1.46		0.31	1.34	1.15	1.91	1.63	0.01
Uniform Delay, d1		69.4	67.7	45.6	45.6		68.7	49.6	49.6	63.2	42.1	24.1
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		14.1	0.2	249.2	217.1		2.6	158.3	88.8	425.0	287.8	0.0
Delay (s)		83.5	67.9	294.8	262.7		71.3	207.9	138.4	488.1	329.9	24.2
Level of Service		F	E	F	F		E	F	F	F	F	C
Approach Delay (s)		76.8			279.3			187.3			347.9	
Approach LOS		E			F			F			F	

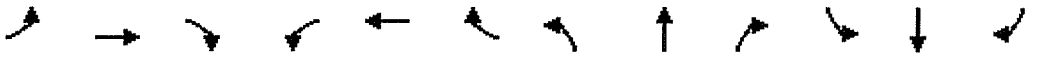
Intersection Summary			
HCM Average Control Delay	276.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.57		
Actuated Cycle Length (s)	147.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	134.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	44	33	974	906	22	2207	880	478	3533	11
v/c Ratio	0.52	0.31	1.50	1.41	0.21	1.37	1.11	1.87	1.60	0.02
Control Delay	89.2	28.1	265.8	228.6	70.2	207.7	89.0	436.7	300.4	21.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.2	28.1	265.8	228.6	70.2	207.7	89.0	436.7	300.4	21.6
Queue Length 50th (ft)	42	0	~1360	~1213	20	~1021	~661	~694	~1820	4
Queue Length 95th (ft)	#90	37	#1633	#1489	50	#1112	#921	#917	#1912	18
Internal Link Dist (ft)	1565			1533		9567			2116	
Turn Bay Length (ft)		100	425		350			275		250
Base Capacity (vph)	85	107	649	641	128	1613	795	256	2212	691
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.31	1.50	1.41	0.17	1.37	1.11	1.87	1.60	0.02

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

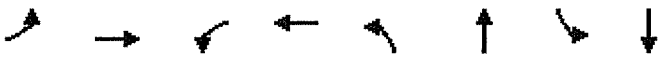
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.86		1.00	0.86	
Frt	1.00	0.95		1.00	0.91		1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1694	1752		1694	1678		1752	6280		1752	6332	
Flt Permitted	0.52	1.00		0.31	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	925	1752		555	1678		1752	6280		1752	6332	
Volume (vph)	260	180	90	220	60	90	90	3370	250	130	2710	40
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	283	196	98	239	65	98	98	3663	272	141	2946	43
RTOR Reduction (vph)	0	7	0	0	23	0	0	5	0	0	1	0
Lane Group Flow (vph)	283	287	0	239	140	0	98	3930	0	141	2988	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	64.0	64.0		64.0	64.0		13.9	144.5		16.5	147.1	
Effective Green, g (s)	65.0	65.0		65.0	65.0		14.4	146.0		17.0	148.6	
Actuated g/C Ratio	0.27	0.27		0.27	0.27		0.06	0.61		0.07	0.62	
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	5.5		4.5	5.5	
Vehicle Extension (s)	4.0	4.0		4.0	4.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	251	475		150	454		105	3820		124	3921	
v/s Ratio Prot		0.16			0.08		0.06	c0.63		c0.08	c0.47	
v/s Ratio Perm	0.31			c0.43								
v/c Ratio	1.13	0.60		1.59	0.31		0.93	1.03		1.14	0.76	
Uniform Delay, d1	87.5	76.3		87.5	69.6		112.3	47.0		111.5	33.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.28	0.05	
Incremental Delay, d2	95.5	2.5		296.1	0.5		66.4	22.6		71.1	0.1	
Delay (s)	183.0	78.8		383.6	70.2		178.7	69.6		214.1	1.8	
Level of Service	F	E		F	E		F	E		F	A	
Approach Delay (s)		129.9			256.5			72.3			11.3	
Approach LOS		F			F			E			B	

Intersection Summary			
HCM Average Control Delay	62.0	HCM Level of Service	E
HCM Volume to Capacity ratio	1.21		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	100.7%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	283	294	239	163	98	3935	141	2989
v/c Ratio	1.13	0.61	1.59	0.34	0.93	1.03	1.14	0.76
Control Delay	168.6	80.0	344.5	58.7	177.3	67.8	182.6	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	168.6	80.0	344.5	58.7	177.3	67.8	182.6	1.8
Queue Length 50th (ft)	~517	400	~537	170	158	~1925	~259	107
Queue Length 95th (ft)	#740	522	#747	254	#303	#1893	m#256	m106
Internal Link Dist (ft)		1402		1426		1282		1911
Turn Bay Length (ft)	150		200		250		250	
Base Capacity (vph)	251	482	150	477	105	3826	124	3922
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.13	0.61	1.59	0.34	0.93	1.03	1.14	0.76

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	0.91		1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.99		1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.96		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3083	1597		1752	1748		1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	0.96		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3083	1597		1752	1748		1752	5036	1568	1752	5036	1568
Volume (vph)	1630	30	20	180	130	70	10	3790	80	30	2650	690
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1772	33	22	196	141	76	11	4120	87	33	2880	750
RTOR Reduction (vph)	0	1	0	0	8	0	0	0	9	0	0	0
Lane Group Flow (vph)	1208	618	0	196	209	0	11	4120	78	33	2880	750
Turn Type	Split			Split			Prot		Perm	Prot		Free
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases									2			Free
Actuated Green, G (s)	62.0	62.0		20.0	20.0		3.0	133.0	133.0	4.0	134.0	240.0
Effective Green, g (s)	63.0	63.0		21.0	21.0		4.5	134.5	134.5	5.5	135.5	240.0
Actuated g/C Ratio	0.26	0.26		0.09	0.09		0.02	0.56	0.56	0.02	0.56	1.00
Clearance Time (s)	5.0	5.0		5.0	5.0		5.5	5.5	5.5	5.5	5.5	
Vehicle Extension (s)	4.0	4.0		4.0	4.0		3.0	5.0	5.0	3.0	5.0	
Lane Grp Cap (vph)	809	419		153	153		33	2822	879	40	2843	1568
v/s Ratio Prot	c0.39	0.39		0.11	c0.12		0.01	c0.82		c0.02	0.57	
v/s Ratio Perm									0.05			c0.48
v/c Ratio	1.49	1.48		1.28	1.36		0.33	1.46	0.09	0.82	1.01	0.48
Uniform Delay, d1	88.5	88.5		109.5	109.5		116.3	52.8	24.4	116.8	52.2	0.0
Progression Factor	1.00	1.00		1.00	1.00		0.94	0.89	1.32	1.17	0.41	1.00
Incremental Delay, d2	228.5	226.6		167.1	200.2		1.6	207.5	0.1	52.7	16.2	0.6
Delay (s)	317.0	315.1		276.6	309.7		111.4	254.6	32.4	189.5	37.8	0.6
Level of Service	F	F		F	F		F	F	C	F	D	A
Approach Delay (s)		316.3			294.0			249.7			31.5	
Approach LOS		F			F			F			C	

Intersection Summary			
HCM Average Control Delay	184.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.45		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	125.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

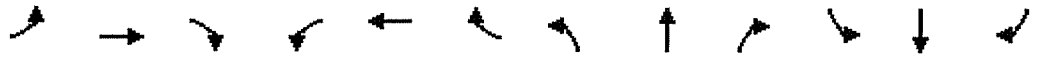
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	1208	619	196	217	11	4120	87	33	2880	750
v/c Ratio	1.49	1.47	1.28	1.35	0.23	1.45	0.10	0.70	1.00	0.48
Control Delay	281.4	279.5	242.8	259.6	111.6	237.2	24.8	169.5	33.8	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	281.4	279.5	242.8	259.6	111.6	237.2	24.8	169.5	33.8	0.6
Queue Length 50th (ft)	~1447	~1478	~391	~435	18	~3258	48	54	~1763	0
Queue Length 95th (ft)	#1587	#1772	#591	#644	m19	m#3099	m48	m68	m#1780	m0
Internal Link Dist (ft)		271		1474		1911			1889	
Turn Bay Length (ft)			150		250			350		
Base Capacity (vph)	809	420	153	161	47	2845	895	47	2889	1568
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.49	1.47	1.28	1.35	0.23	1.45	0.10	0.70	1.00	0.48

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	11	11	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00		1.00	0.86		1.00	0.86	
Frt	1.00	1.00	0.85	1.00	0.89		1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1845	1568	3286	1580		1752	6263		1752	6320	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1752	1845	1568	3286	1580		1752	6263		1752	6320	
Volume (vph)	120	80	90	410	70	220	150	4010	380	190	2850	80
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	87	98	446	76	239	163	4359	413	207	3098	87
RTOR Reduction (vph)	0	0	85	0	47	0	0	6	0	0	1	0
Lane Group Flow (vph)	130	87	13	446	268	0	163	4766	0	207	3184	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)	13.5	11.1	11.1	31.4	29.0		22.8	156.5		21.5	155.2	
Effective Green, g (s)	14.0	12.1	12.1	31.9	30.0		23.3	158.0		22.0	156.7	
Actuated g/C Ratio	0.06	0.05	0.05	0.13	0.12		0.10	0.66		0.09	0.65	
Clearance Time (s)	4.5	5.0	5.0	4.5	5.0		4.5	5.5		4.5	5.5	
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	102	93	79	437	198		170	4123		161	4126	
v/s Ratio Prot	c0.07	0.05		0.14	c0.17		0.09	c0.76		c0.12	0.50	
v/s Ratio Perm			0.01									
v/c Ratio	1.27	0.94	0.17	1.02	1.35		0.96	1.16		1.29	0.77	
Uniform Delay, d1	113.0	113.6	109.1	104.0	105.0		107.9	41.0		109.0	29.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.90	0.76		1.36	0.18	
Incremental Delay, d2	179.8	72.4	1.4	48.4	188.0		12.3	70.4		147.3	0.6	
Delay (s)	292.8	186.0	110.5	152.4	293.0		109.8	101.4		296.1	5.9	
Level of Service	F	F	F	F	F		F	F		F	A	
Approach Delay (s)		206.6			210.6			101.7			23.6	
Approach LOS		F			F			F			C	

Intersection Summary			
HCM Average Control Delay	85.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.20		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	112.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	130	87	98	446	315	163	4772	207	3185
v/c Ratio	1.27	0.94	0.60	1.02	1.29	0.96	1.16	1.29	0.77
Control Delay	257.5	183.6	36.9	146.2	215.2	106.6	100.4	245.7	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	257.5	183.6	36.9	146.2	215.2	106.6	100.4	245.7	6.0
Queue Length 50th (ft)	~259	141	14	~384	~555	260	~1034	~415	140
Queue Length 95th (ft)	#432	#277	91	#514	#786	m172	m507	m#497	m139
Internal Link Dist (ft)		1464			1497		1889		2565
Turn Bay Length (ft)	100		100	150		400		300	
Base Capacity (vph)	102	93	164	437	245	170	4130	161	4128
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.27	0.94	0.60	1.02	1.29	0.96	1.16	1.29	0.77

Intersection Summary

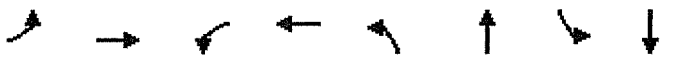
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.86		1.00	0.86	
Frt	1.00	0.92		1.00	0.94		1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1706		1752	1729		1752	6297		1752	6289	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1752	1706		1752	1729		1752	6297		1752	6289	
Volume (vph)	320	150	150	140	140	100	140	3870	210	90	2860	180
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	348	163	163	152	152	109	152	4207	228	98	3109	196
RTOR Reduction (vph)	0	15	0	0	11	0	0	3	0	0	4	0
Lane Group Flow (vph)	348	311	0	152	250	0	152	4432	0	98	3301	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	34.5	41.0		18.0	25.0		18.5	150.5		10.5	142.5	
Effective Green, g (s)	35.0	42.0		19.0	26.0		19.0	152.0		11.0	144.0	
Actuated g/C Ratio	0.15	0.18		0.08	0.11		0.08	0.63		0.05	0.60	
Clearance Time (s)	4.5	5.0		5.0	5.0		4.5	5.5		4.5	5.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	256	299		139	187		139	3988		80	3773	
v/s Ratio Prot	c0.20	0.18		0.09	c0.14		c0.09	c0.70		0.06	0.52	
v/s Ratio Perm												
v/c Ratio	1.36	1.04		1.09	1.34		1.09	1.11		1.23	0.87	
Uniform Delay, d1	102.5	99.0		110.5	107.0		110.5	44.0		114.5	40.4	
Progression Factor	1.00	1.00		1.00	1.00		0.77	1.29		1.21	0.41	
Incremental Delay, d2	185.0	63.0		103.6	183.9		52.9	50.5		151.5	2.0	
Delay (s)	287.5	162.0		214.1	290.9		138.1	107.2		289.9	18.7	
Level of Service	F	F		F	F		F	F		F	B	
Approach Delay (s)		226.8			262.6			108.2			26.5	
Approach LOS		F			F			F			C	

Intersection Summary			
HCM Average Control Delay	93.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.17		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	109.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



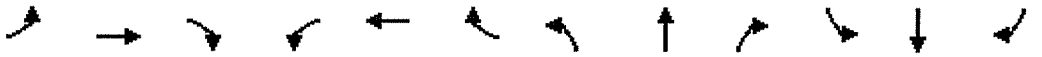
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	348	326	152	261	152	4435	98	3305
v/c Ratio	1.36	1.04	1.09	1.32	1.09	1.11	1.23	0.88
Control Delay	252.1	147.1	196.6	242.4	126.7	101.8	248.1	18.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Total Delay	252.1	147.1	196.6	242.4	126.7	101.8	248.1	19.1
Queue Length 50th (ft)	~722	~531	~271	~515	~272	~2311	~192	954
Queue Length 95th (ft)	#958	#765	#455	#737	m206	m1294	m#279	563
Internal Link Dist (ft)		1508		1584		2565		960
Turn Bay Length (ft)	175		150		850		375	
Base Capacity (vph)	256	313	139	198	139	3990	80	3777
Starvation Cap Reductn	0	0	0	0	0	0	0	109
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.36	1.04	1.09	1.32	1.09	1.11	1.23	0.90

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.86		1.00	0.86	
Frt	1.00	0.92		1.00	1.00	0.85	1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1694	1649		1752	1845	1568	1752	6307		1752	6288	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1694	1649		1752	1845	1568	1752	6307		1752	6288	
Volume (vph)	300	90	90	170	130	300	50	4000	170	210	2790	180
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	326	98	98	185	141	326	54	4348	185	228	3033	196
RTOR Reduction (vph)	0	15	0	0	0	100	0	2	0	0	4	0
Lane Group Flow (vph)	326	181	0	185	141	226	54	4531	0	228	3225	0
Turn Type	Prot			Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)	32.5	27.7		25.8	21.0	21.0	10.0	144.5		22.5	157.0	
Effective Green, g (s)	33.0	28.7		26.3	22.0	22.0	10.5	146.0		23.0	158.5	
Actuated g/C Ratio	0.14	0.12		0.11	0.09	0.09	0.04	0.61		0.10	0.66	
Clearance Time (s)	4.5	5.0		4.5	5.0	5.0	4.5	5.5		4.5	5.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	233	197		192	169	144	77	3837		168	4153	
v/s Ratio Prot	c0.19	0.11		0.11	0.08		0.03	c0.72		c0.13	0.51	
v/s Ratio Perm						c0.14						
v/c Ratio	1.40	0.92		0.96	0.83	1.57	0.70	1.18		1.36	0.78	
Uniform Delay, d1	103.5	104.5		106.4	107.2	109.0	113.2	47.0		108.5	28.4	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.14	0.41		0.94	1.33	
Incremental Delay, d2	203.5	41.5		54.0	28.3	287.3	2.6	81.6		180.0	0.8	
Delay (s)	307.0	146.0		160.4	135.5	396.3	131.6	101.0		282.4	38.6	
Level of Service	F	F		F	F	F	F	F		F	D	
Approach Delay (s)		246.6			272.9			101.4			54.7	
Approach LOS		F			F			F			D	

Intersection Summary			
HCM Average Control Delay	104.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.27		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	110.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

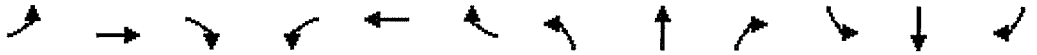
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	326	196	185	141	326	54	4533	228	3229
v/c Ratio	1.40	0.92	0.96	0.83	1.34	0.70	1.18	1.36	0.78
Control Delay	268.6	136.9	157.7	141.4	221.0	131.5	103.2	246.7	38.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	17.5	0.0	0.1
Total Delay	268.6	136.9	157.7	141.4	221.0	131.5	120.6	246.7	38.9
Queue Length 50th (ft)	~687	289	298	225	~505	89	~2478	~474	1384
Queue Length 95th (ft)	#920	#471	#489	#362	#740	m79	m#1977	m#634	m1335
Internal Link Dist (ft)		1383		1613			960		1165
Turn Bay Length (ft)	300		350			300		600	
Base Capacity (vph)	233	212	192	169	244	80	3840	168	4158
Starvation Cap Reductn	0	0	0	0	0	0	123	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	146
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.40	0.92	0.96	0.83	1.34	0.68	1.22	1.36	0.80

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	13	13	13	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.86		1.00	0.86	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	0.99	
Flt Protected	0.95	0.99	1.00	0.95	0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1720	1791	1620	1665	1722	1568	1752	6286		1752	6303	
Flt Permitted	0.95	0.99	1.00	0.95	0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1720	1791	1620	1665	1722	1568	1752	6286		1752	6303	
Volume (vph)	270	180	180	300	150	140	130	3900	260	160	2740	130
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	293	196	196	326	163	152	141	4239	283	174	2978	141
RTOR Reduction (vph)	0	0	105	0	0	82	0	4	0	0	3	0
Lane Group Flow (vph)	238	251	91	238	251	70	141	4518	0	174	3116	0
Turn Type	Split		Perm	Split		Perm	Prot			Prot		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)	25.0	25.0	25.0	26.0	26.0	26.0	19.8	150.5		18.5	149.2	
Effective Green, g (s)	26.0	26.0	26.0	27.0	27.0	27.0	20.3	152.0		19.0	150.7	
Actuated g/C Ratio	0.11	0.11	0.11	0.11	0.11	0.11	0.08	0.63		0.08	0.63	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	4.5	5.5		4.5	5.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	2.5	5.0		2.5	5.0	
Lane Grp Cap (vph)	186	194	176	187	194	176	148	3981		139	3958	
v/s Ratio Prot	0.14	c0.14		0.14	c0.15		0.08	c0.72		c0.10	0.49	
v/s Ratio Perm			0.06			0.04						
v/c Ratio	1.28	1.29	0.52	1.27	1.29	0.40	0.95	1.13		1.25	0.79	
Uniform Delay, d1	107.0	107.0	101.1	106.5	106.5	99.0	109.4	44.0		110.5	32.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.16	0.58		0.85	0.61	
Incremental Delay, d2	160.5	165.0	2.5	157.7	165.0	1.5	12.7	61.0		129.3	0.5	
Delay (s)	267.5	272.0	103.6	264.2	271.5	100.5	139.9	86.7		222.9	20.5	
Level of Service	F	F	F	F	F	F	F	F		F	C	
Approach Delay (s)		222.2			228.2			88.3			31.2	
Approach LOS		F			F			F			C	

Intersection Summary			
HCM Average Control Delay	87.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.18		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	107.5%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

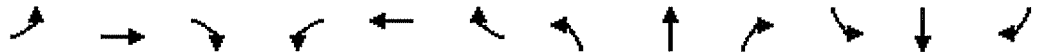
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	238	251	196	238	251	152	141	4522	174	3119
v/c Ratio	1.28	1.29	0.70	1.27	1.29	0.59	0.95	1.13	1.25	0.79
Control Delay	235.1	238.6	54.4	232.5	238.3	49.4	133.5	86.8	197.6	20.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	235.1	238.6	54.4	232.5	238.3	49.4	133.5	86.8	197.6	20.6
Queue Length 50th (ft)	~500	~531	123	~497	~531	91	223	~2429	~342	671
Queue Length 95th (ft)	#721	#758	233	#718	#760	188	m183	m1745	m#371	m755
Internal Link Dist (ft)		1440			1426			2920		2650
Turn Bay Length (ft)	225		225	175		200	350		500	
Base Capacity (vph)	186	194	281	187	194	258	148	3987	139	3959
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.28	1.29	0.70	1.27	1.29	0.59	0.95	1.13	1.25	0.79

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95		0.91	0.91	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.99		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1665	1635		3189	1620	1568	1752	5036	1568	3400	5036	1568
Flt Permitted	0.95	0.99		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1665	1635		3189	1620	1568	1752	5036	1568	3400	5036	1568
Volume (vph)	220	90	80	970	100	520	20	3620	460	320	2520	20
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	239	98	87	1054	109	565	22	3935	500	348	2739	22
RTOR Reduction (vph)	0	10	0	0	0	96	0	0	57	0	0	3
Lane Group Flow (vph)	208	206	0	762	401	470	22	3935	443	348	2739	19
Turn Type	Split			Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	22.0	22.0		48.0	48.0	48.0	4.0	132.5	132.5	17.5	146.0	146.0
Effective Green, g (s)	23.0	23.0		49.0	49.0	49.0	4.5	134.0	134.0	18.0	147.5	147.5
Actuated g/C Ratio	0.10	0.10		0.20	0.20	0.20	0.02	0.56	0.56	0.08	0.61	0.61
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	4.0	4.0		4.0	4.0	4.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	160	157		651	331	320	33	2812	875	255	3095	964
v/s Ratio Prot	0.12	c0.13		0.24	0.25		0.01	c0.78		c0.10	0.54	
v/s Ratio Perm						c0.30			0.28			0.01
v/c Ratio	1.30	1.31		1.17	1.21	1.47	0.67	1.40	0.51	1.36	0.88	0.02
Uniform Delay, d1	108.5	108.5		95.5	95.5	95.5	117.0	53.0	32.6	111.0	39.1	18.0
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.71	0.36	0.15	0.77	1.58	1.48
Incremental Delay, d2	173.0	178.5		92.5	119.9	226.6	4.5	179.9	0.2	180.1	2.8	0.0
Delay (s)	281.5	287.0		188.0	215.4	322.1	87.4	199.0	5.0	266.0	64.4	26.7
Level of Service	F	F		F	F	F	F	F	A	F	E	C
Approach Delay (s)		284.3			238.2			176.7			86.7	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM Average Control Delay	163.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.40		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	123.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	208	216	762	401	565	22	3935	500	348	2739	22
v/c Ratio	1.30	1.29	1.17	1.21	1.36	0.55	1.40	0.54	1.36	0.88	0.02
Control Delay	246.9	239.2	169.3	192.9	224.7	86.4	201.9	3.7	237.9	64.3	18.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	246.9	239.2	169.3	192.9	224.7	86.4	201.9	3.7	237.9	64.3	18.6
Queue Length 50th (ft)	~442	~442	~786	~848	~1016	34	~3031	106	~372	1521	14
Queue Length 95th (ft)	#656	#661	#934	#1118	#1277	m32	m#2459	m76	m#460	m1486	m20
Internal Link Dist (ft)		1452		1418			2650			2872	
Turn Bay Length (ft)	150				200	425			400		
Base Capacity (vph)	160	167	651	331	416	40	2812	933	255	3114	973
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.30	1.29	1.17	1.21	1.36	0.55	1.40	0.54	1.36	0.88	0.02

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	0.95	0.95		0.95	0.95	1.00	1.00	0.86		1.00	0.86	
Frt	1.00	0.97		1.00	1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected	0.95	0.99		0.95	0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1665	1687		1665	1687	1568	1752	6258		1752	6320	
Flt Permitted	0.95	0.99		0.95	0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1665	1687		1665	1687	1568	1752	6258		1752	6320	
Volume (vph)	190	100	30	380	50	190	60	3460	350	340	2510	70
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	207	109	33	413	54	207	65	3761	380	370	2728	76
RTOR Reduction (vph)	0	4	0	0	0	65	0	7	0	0	2	0
Lane Group Flow (vph)	171	174	0	227	240	142	65	4134	0	370	2802	0
Turn Type	Split			Split		Perm	Prot			Prot		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)	19.0	19.0		26.0	26.0	26.0	13.0	136.5		38.5	162.0	
Effective Green, g (s)	20.0	20.0		27.0	27.0	27.0	13.5	138.0		39.0	163.5	
Actuated g/C Ratio	0.08	0.08		0.11	0.11	0.11	0.06	0.57		0.16	0.68	
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	4.5	5.5		4.5	5.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	2.5	5.0		2.5	5.0	
Lane Grp Cap (vph)	139	141		187	190	176	99	3598		285	4306	
v/s Ratio Prot	0.10	c0.10		0.14	c0.14		0.04	c0.66		c0.21	0.44	
v/s Ratio Perm						0.09						
v/c Ratio	1.23	1.24		1.21	1.26	0.81	0.66	1.15		1.30	0.65	
Uniform Delay, d1	110.0	110.0		106.5	106.5	104.0	111.0	51.0		100.5	21.9	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.28	0.34		0.69	0.28	
Incremental Delay, d2	151.1	152.9		135.2	153.5	23.1	1.3	67.4		148.8	0.5	
Delay (s)	261.1	262.9		241.7	260.0	127.1	143.9	85.0		217.9	6.5	
Level of Service	F	F		F	F	F	F	F		F	A	
Approach Delay (s)		262.0			213.0			85.9			31.2	
Approach LOS		F			F			F			C	

Intersection Summary			
HCM Average Control Delay	82.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.20		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	108.8%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	171	178	227	240	207	65	4141	370	2804
v/c Ratio	1.23	1.24	1.21	1.26	0.86	0.66	1.15	1.30	0.65
Control Delay	231.1	229.6	214.7	229.1	96.5	145.2	87.3	200.3	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	231.1	229.6	214.7	229.1	96.5	145.2	87.3	200.3	6.6
Queue Length 50th (ft)	~350	~360	~460	~501	218	101	~2211	~753	138
Queue Length 95th (ft)	#550	#565	#681	#725	#379	m73	m444	#995	146
Internal Link Dist (ft)		1490		1548			2872		1921
Turn Bay Length (ft)	200		300		100	500		475	
Base Capacity (vph)	139	144	187	190	241	120	3605	285	4307
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.23	1.24	1.21	1.26	0.86	0.54	1.15	1.30	0.65

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

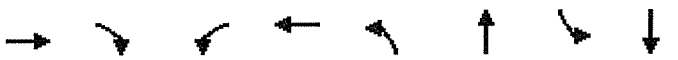
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.86		1.00	0.86	
Frt		1.00	0.85	1.00	0.93		1.00	1.00		1.00	0.99	
Flt Protected		0.95	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1760	1568	1752	1725		1752	6341		1752	6307	
Flt Permitted		0.63	1.00	0.18	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1161	1568	340	1725		1752	6341		1752	6307	
Volume (vph)	300	10	180	20	40	30	140	3790	20	20	2840	120
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	326	11	196	22	43	33	152	4120	22	22	3087	130
RTOR Reduction (vph)	0	0	72	0	11	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	337	124	22	65	0	152	4142	0	22	3215	0
Turn Type	Perm		Perm	Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		56.0	56.0	56.0	56.0		19.3	164.0		4.0	148.7	
Effective Green, g (s)		57.0	57.0	57.0	57.0		20.8	165.5		5.5	150.2	
Actuated g/C Ratio		0.24	0.24	0.24	0.24		0.09	0.69		0.02	0.63	
Clearance Time (s)		5.0	5.0	5.0	5.0		5.5	5.5		5.5	5.5	
Vehicle Extension (s)		4.0	4.0	4.0	4.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)		276	372	81	410		152	4373		40	3947	
v/s Ratio Prot					0.04		c0.09	c0.65		0.01	0.51	
v/s Ratio Perm		c0.29	0.08	0.06								
v/c Ratio		1.22	0.33	0.27	0.16		1.00	0.95		0.55	0.81	
Uniform Delay, d1		91.5	75.8	74.6	72.5		109.6	33.3		116.0	34.3	
Progression Factor		1.00	1.00	1.00	1.00		1.23	0.19		1.19	0.44	
Incremental Delay, d2		127.6	0.7	2.5	0.2		21.9	0.6		9.4	1.2	
Delay (s)		219.1	76.5	77.0	72.7		156.3	7.0		147.5	16.2	
Level of Service		F	E	E	E		F	A		F	B	
Approach Delay (s)		166.6			73.7			12.3			17.1	
Approach LOS		F			E			B			B	

Intersection Summary			
HCM Average Control Delay	25.0	HCM Level of Service	C
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	93.2%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



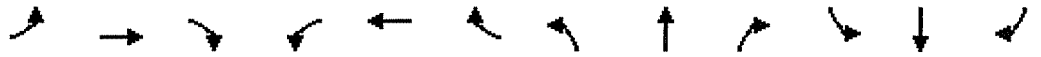
Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	337	196	22	76	152	4142	22	3217
v/c Ratio	1.22	0.44	0.27	0.18	1.00	0.94	0.47	0.81
Control Delay	197.0	42.8	85.5	59.5	146.9	7.2	156.4	16.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Total Delay	197.0	42.8	85.5	59.5	146.9	7.2	156.4	16.4
Queue Length 50th (ft)	~653	139	29	78	~251	220	36	678
Queue Length 95th (ft)	#889	235	67	137	m226	m133	m46	m843
Internal Link Dist (ft)	1454			1472		1921		1002
Turn Bay Length (ft)			50		300		125	
Base Capacity (vph)	276	444	81	421	152	4400	47	3950
Starvation Cap Reductn	0	0	0	0	0	0	0	130
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.22	0.44	0.27	0.18	1.00	0.94	0.47	0.84

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95		0.97	0.86		1.00	0.86	
Frt	1.00	1.00	0.85	1.00	0.94		1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3400	1845	1568	1752	3305		3400	6313		1752	6336	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	3400	1845	1568	1752	3305		3400	6313		1752	6336	
Volume (vph)	120	80	210	220	180	110	200	3700	130	80	2830	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	87	228	239	196	120	217	4022	141	87	3076	33
RTOR Reduction (vph)	0	0	99	0	39	0	0	2	0	0	1	0
Lane Group Flow (vph)	130	87	129	239	277	0	217	4161	0	87	3108	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)	11.4	14.0	14.0	28.5	31.1		17.1	167.5		9.5	159.9	
Effective Green, g (s)	11.9	15.0	15.0	29.0	32.1		18.6	169.0		11.0	161.4	
Actuated g/C Ratio	0.05	0.06	0.06	0.12	0.13		0.08	0.70		0.05	0.67	
Clearance Time (s)	4.5	5.0	5.0	4.5	5.0		5.5	5.5		5.5	5.5	
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	169	115	98	212	442		264	4445		80	4261	
v/s Ratio Prot	0.04	0.05		c0.14	0.08		0.06	c0.66		c0.05	0.49	
v/s Ratio Perm			c0.08									
v/c Ratio	0.77	0.76	1.31	1.13	0.63		0.82	0.94		1.09	0.73	
Uniform Delay, d1	112.7	110.7	112.5	105.5	98.3		109.1	30.8		114.5	25.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.73	0.18		1.07	0.62	
Incremental Delay, d2	18.8	25.6	196.0	100.3	3.1		6.5	1.7		108.9	0.8	
Delay (s)	131.5	136.3	308.5	205.8	101.4		86.0	7.4		231.7	16.5	
Level of Service	F	F	F	F	F		F	A		F	B	
Approach Delay (s)		223.1			146.4			11.3			22.4	
Approach LOS		F			F			B			C	

Intersection Summary			
HCM Average Control Delay	35.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	92.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

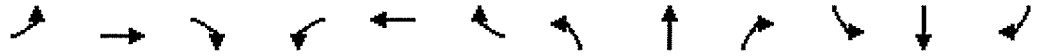
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	130	87	228	239	316	217	4163	87	3109
v/c Ratio	0.77	0.76	1.16	1.13	0.66	0.82	0.94	1.09	0.73
Control Delay	139.6	145.4	156.9	187.0	91.6	88.0	7.5	210.0	16.6
Queue Delay	0.0	0.0	2.4	0.0	0.0	0.0	1.4	0.0	0.0
Total Delay	139.6	145.4	159.3	187.0	91.6	88.0	9.0	210.0	16.7
Queue Length 50th (ft)	107	139	~259	~437	220	175	389	~155	425
Queue Length 95th (ft)	#164	#241	#471	#646	284	m184	m164	m#281	m487
Internal Link Dist (ft)		1544			1553		1002		2491
Turn Bay Length (ft)	275			200		475		300	
Base Capacity (vph)	171	115	197	212	480	264	4448	80	4260
Starvation Cap Reductn	0	0	0	0	0	0	147	0	0
Spillback Cap Reductn	0	0	1	0	0	0	0	0	84
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.76	1.16	1.13	0.66	0.82	0.97	1.09	0.74

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

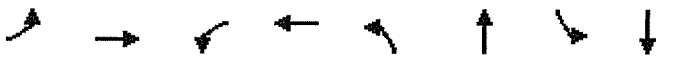
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.86		1.00	0.86	
Frt	1.00	0.96		1.00	0.89		1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1765		1752	1647		1752	6314		1752	6329	
Flt Permitted	0.28	1.00		0.64	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	523	1765		1172	1647		1752	6314		1752	6329	
Volume (vph)	120	50	20	240	60	150	40	3790	130	90	2800	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	54	22	261	65	163	43	4120	141	98	3043	54
RTOR Reduction (vph)	0	7	0	0	37	0	0	2	0	0	1	0
Lane Group Flow (vph)	130	70	0	261	191	0	43	4259	0	98	3096	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	44.0	44.0		44.0	44.0		9.3	169.5		11.5	171.7	
Effective Green, g (s)	45.0	45.0		45.0	45.0		9.8	171.0		12.0	173.2	
Actuated g/C Ratio	0.19	0.19		0.19	0.19		0.04	0.71		0.05	0.72	
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	5.5		4.5	5.5	
Vehicle Extension (s)	5.0	5.0		5.0	5.0		4.0	5.0		4.0	5.0	
Lane Grp Cap (vph)	98	331		220	309		72	4499		88	4567	
v/s Ratio Prot		0.04			0.12		0.02	c0.67		c0.06	0.49	
v/s Ratio Perm	c0.25			0.22								
v/c Ratio	1.33	0.21		1.19	0.62		0.60	0.95		1.11	0.68	
Uniform Delay, d1	97.5	82.5		97.5	89.6		113.2	30.5		114.0	18.2	
Progression Factor	1.00	1.00		1.00	1.00		0.85	0.68		1.26	0.18	
Incremental Delay, d2	201.4	0.7		120.2	5.2		5.9	2.5		120.4	0.7	
Delay (s)	298.9	83.1		217.7	94.8		102.2	23.2		264.6	3.9	
Level of Service	F	F		F	F		F	C		F	A	
Approach Delay (s)		219.3			160.4			24.0			11.9	
Approach LOS		F			F			C			B	

Intersection Summary			
HCM Average Control Delay	32.3	HCM Level of Service	C
HCM Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	95.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	130	76	261	228	43	4261	98	3097
v/c Ratio	1.33	0.23	1.19	0.66	0.52	0.95	1.11	0.67
Control Delay	266.3	75.8	196.1	81.6	103.7	23.4	234.2	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	266.3	75.8	196.1	81.6	103.7	23.4	234.2	3.9
Queue Length 50th (ft)	~265	93	~496	275	70	651	~181	99
Queue Length 95th (ft)	#439	156	#715	390	m78	647	m#336	129
Internal Link Dist (ft)		1509		1512		2491		939
Turn Bay Length (ft)	150		150		300		325	
Base Capacity (vph)	98	337	220	346	91	4501	88	4591
Starvation Cap Reductn	0	0	0	0	0	0	0	97
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.33	0.23	1.19	0.66	0.47	0.95	1.11	0.69

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

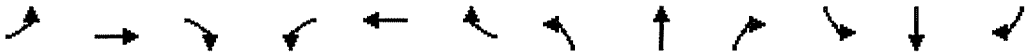
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.86	0.86	
Frt	1.00	0.85	1.00	1.00	1.00	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1752	1568	1752	6346	6329	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1752	1568	1752	6346	6329	
Volume (vph)	70	110	30	3940	2840	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	120	33	4283	3087	54
RTOR Reduction (vph)	0	53	0	0	1	0
Lane Group Flow (vph)	76	67	33	4283	3140	0
Turn Type		custom	Prot			
Protected Phases			5	2	6	
Permitted Phases	4	4				
Actuated Green, G (s)	14.6	14.6	7.7	214.9	202.7	
Effective Green, g (s)	15.6	15.6	8.2	216.4	204.2	
Actuated g/C Ratio	0.06	0.06	0.03	0.90	0.85	
Clearance Time (s)	5.0	5.0	4.5	5.5	5.5	
Vehicle Extension (s)	4.0	4.0	4.0	5.0	5.0	
Lane Grp Cap (vph)	114	102	60	5722	5385	
v/s Ratio Prot			0.02	c0.67	0.50	
v/s Ratio Perm	c0.04	0.04				
v/c Ratio	0.67	0.65	0.55	0.75	0.58	
Uniform Delay, d1	109.7	109.6	114.1	3.6	5.3	
Progression Factor	1.00	1.00	0.97	0.14	0.76	
Incremental Delay, d2	15.0	15.5	4.4	0.3	0.2	
Delay (s)	124.7	125.0	115.1	0.8	4.2	
Level of Service	F	F	F	A	A	
Approach Delay (s)	124.9			1.7	4.2	
Approach LOS	F			A	A	

Intersection Summary			
HCM Average Control Delay	5.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	70.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	76	120	33	4283	3141
v/c Ratio	0.67	0.77	0.47	0.75	0.58
Control Delay	136.7	87.3	117.1	0.8	4.3
Queue Delay	0.0	0.0	0.0	0.1	0.0
Total Delay	136.7	87.3	117.1	0.9	4.3
Queue Length 50th (ft)	120	100	54	82	236
Queue Length 95th (ft)	192	#204	m59	m64	m230
Internal Link Dist (ft)	1504			939	3004
Turn Bay Length (ft)			450		
Base Capacity (vph)	124	164	74	5722	5409
Starvation Cap Reductn	0	0	0	213	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.61	0.73	0.45	0.78	0.58

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1747		1665	1688	1568	1752	5036	1568	3400	5036	1568
Flt Permitted	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1747		1665	1688	1568	1752	5036	1568	3400	5036	1568
Volume (vph)	120	110	60	520	70	340	70	3540	280	190	2560	60
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	120	65	565	76	370	76	3848	304	207	2783	65
RTOR Reduction (vph)	0	8	0	0	0	75	0	0	36	0	0	10
Lane Group Flow (vph)	130	177	0	312	329	295	76	3848	268	207	2783	55
Turn Type	Split			Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	19.0	19.0		38.0	38.0	38.0	13.0	150.5	150.5	12.5	150.0	150.0
Effective Green, g (s)	20.0	20.0		39.0	39.0	39.0	13.5	152.0	152.0	13.0	151.5	151.5
Actuated g/C Ratio	0.08	0.08		0.16	0.16	0.16	0.06	0.63	0.63	0.05	0.63	0.63
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	4.0	4.0		4.0	4.0	4.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	146	146		271	274	255	99	3189	993	184	3179	990
v/s Ratio Prot	0.07	c0.10		0.19	c0.19		0.04	c0.76		c0.06	0.55	
v/s Ratio Perm						0.19			0.17			0.03
v/c Ratio	0.89	1.21		1.15	1.20	1.16	0.77	1.21	0.27	1.12	0.88	0.06
Uniform Delay, d1	108.9	110.0		100.5	100.5	100.5	111.7	44.0	19.5	113.5	36.5	16.9
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.88	1.32	1.58	1.00	1.00	1.00
Incremental Delay, d2	44.5	142.1		101.9	119.9	104.9	20.2	95.1	0.4	103.9	3.7	0.1
Delay (s)	153.4	252.1		202.4	220.4	205.4	119.0	153.4	31.2	217.4	40.2	17.0
Level of Service	F	F		F	F	F	F	F	C	F	D	B
Approach Delay (s)		211.4			209.4			144.0			51.7	
Approach LOS		F			F			F			D	

Intersection Summary			
HCM Average Control Delay	121.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.18		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	112.8%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	130	185	312	329	370	76	3848	304	207	2783	65
v/c Ratio	0.89	1.20	1.15	1.20	1.12	0.77	1.21	0.30	1.12	0.88	0.06
Control Delay	154.9	215.0	183.1	196.9	148.8	127.1	143.6	21.0	196.8	40.8	10.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	154.9	215.0	183.1	196.9	148.8	127.1	143.6	21.0	196.8	40.8	10.1
Queue Length 50th (ft)	209	~341	~609	~662	~547	119	~2731	222	~194	1317	22
Queue Length 95th (ft)	#361	#540	#854	#910	#792	m164	#2665	312	#298	1342	46
Internal Link Dist (ft)		1451		1491			3004			4886	
Turn Bay Length (ft)	150		250			275			425		
Base Capacity (vph)	146	154	271	274	330	104	3189	1029	184	3178	1000
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	1.20	1.15	1.20	1.12	0.73	1.21	0.30	1.13	0.88	0.07

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.86		1.00	0.86	
Frt		0.99			1.00	0.85	1.00	1.00		1.00	1.00	
Flt Protected		0.96			0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1763			1787	1568	1752	6333		1752	6335	
Flt Permitted		0.24			0.77	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		441			1429	1568	1752	6333		1752	6335	
Volume (vph)	110	30	10	130	70	90	10	3740	50	120	2630	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	120	33	11	141	76	98	11	4065	54	130	2859	33
RTOR Reduction (vph)	0	2	0	0	0	0	0	1	0	0	1	0
Lane Group Flow (vph)	0	162	0	0	217	98	11	4118	0	130	2891	0
Turn Type	custom			custom		Free	Prot			Prot		
Protected Phases							5	2		1		
Permitted Phases	4	4		8	8	Free					6	
Actuated Green, G (s)		17.8			17.8	140.0	3.0	92.2		14.5	103.7	
Effective Green, g (s)		19.8			19.8	140.0	3.3	93.4		14.8	104.9	
Actuated g/C Ratio		0.14			0.14	1.00	0.02	0.67		0.11	0.75	
Clearance Time (s)		6.0			6.0		4.3	5.2		4.3	5.2	
Vehicle Extension (s)		3.0			3.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)		62			202	1568	41	4225		185	4747	
v/s Ratio Prot							0.01	c0.65		c0.07		
v/s Ratio Perm		c0.37			0.15	0.06					0.46	
v/c Ratio		2.62			1.07	0.06	0.27	0.97		0.70	0.61	
Uniform Delay, d1		60.1			60.1	0.0	67.2	22.2		60.5	8.1	
Progression Factor		1.00			1.00	1.00	1.00	1.00		0.94	1.76	
Incremental Delay, d2		772.1			84.4	0.1	3.5	9.1		1.1	0.1	
Delay (s)		832.2			144.5	0.1	70.7	31.3		58.1	14.3	
Level of Service		F			F	A	E	C		E	B	
Approach Delay (s)		832.2			99.6			31.4			16.2	
Approach LOS		F			F			C			B	

Intersection Summary			
HCM Average Control Delay	45.4	HCM Level of Service	D
HCM Volume to Capacity ratio	1.19		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	86.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	164	217	98	11	4119	130	2892
v/c Ratio	2.56	1.07	0.06	0.13	0.98	0.70	0.59
Control Delay	769.7	139.8	0.1	66.7	31.8	58.5	13.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	769.7	139.8	0.1	66.7	31.8	58.5	13.4
Queue Length 50th (ft)	~250	~219	0	10	979	108	506
Queue Length 95th (ft)	#404	#387	0	31	#1185	m95	m568
Internal Link Dist (ft)	1478	1518			3962		2924
Turn Bay Length (ft)			750	250		250	
Base Capacity (vph)	64	202	1568	143	4224	230	4863
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	2.56	1.07	0.06	0.08	0.98	0.57	0.59

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	0.91		0.91	0.91	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.99		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1595	3249		3189	1679	1568	1752	5036	1568	3400	5036	1568
Flt Permitted	0.95	0.99		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1595	3249		3189	1679	1568	1752	5036	1568	3400	5036	1568
Volume (vph)	270	320	80	670	400	610	170	3090	500	680	2170	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	293	348	87	728	435	663	185	3359	543	739	2359	54
RTOR Reduction (vph)	0	12	0	0	0	199	0	0	125	0	0	18
Lane Group Flow (vph)	235	481	0	728	435	464	185	3359	418	739	2359	36
Turn Type	Split			Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	19.7	19.7		21.2	21.2	21.2	12.5	55.5	55.5	19.5	62.5	62.5
Effective Green, g (s)	22.6	22.6		24.0	24.0	24.0	12.8	57.6	57.6	19.8	64.6	64.6
Actuated g/C Ratio	0.16	0.16		0.17	0.17	0.17	0.09	0.41	0.41	0.14	0.46	0.46
Clearance Time (s)	6.9	6.9		6.8	6.8	6.8	4.3	6.1	6.1	4.3	6.1	6.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	257	524		547	288	269	160	2072	645	481	2324	724
v/s Ratio Prot	0.15	c0.15		0.23	0.26		0.11	c0.67		c0.22	0.47	
v/s Ratio Perm						c0.30			0.27			0.02
v/c Ratio	0.91	0.92		1.33	1.51	1.73	1.16	1.62	0.65	1.54	1.02	0.05
Uniform Delay, d1	57.7	57.8		58.0	58.0	58.0	63.6	41.2	33.1	60.1	37.7	20.8
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.32	0.89	0.94	1.07	1.11	1.01
Incremental Delay, d2	34.0	21.0		161.1	246.9	341.7	85.7	280.0	1.2	248.9	19.7	0.1
Delay (s)	91.8	78.8		219.1	304.9	399.7	169.6	316.9	32.3	313.2	61.6	21.1
Level of Service	F	E		F	F	F	F	F	C	F	E	C
Approach Delay (s)		83.0			305.1			272.4			119.9	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM Average Control Delay	215.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.50		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	126.3%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	235	493	728	435	663	185	3359	543	739	2359	54
v/c Ratio	0.91	0.92	1.33	1.51	1.42	1.16	1.62	0.71	1.54	1.02	0.07
Control Delay	95.4	79.4	205.1	285.7	226.3	153.4	308.2	20.4	289.8	60.8	10.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	95.4	79.4	205.1	285.7	226.3	153.4	308.2	20.4	289.8	60.8	10.5
Queue Length 50th (ft)	234	239	~471	~604	~623	~196	~1604	171	~498	~850	13
Queue Length 95th (ft)	#412	#350	#607	#839	#866	m#204	m#1622	m188	#628	#942	m24
Internal Link Dist (ft)		1442		318			2924			3147	
Turn Bay Length (ft)	325		200			300			550		
Base Capacity (vph)	257	536	547	288	468	160	2072	770	481	2324	741
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.92	1.33	1.51	1.42	1.16	1.62	0.71	1.54	1.02	0.07

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

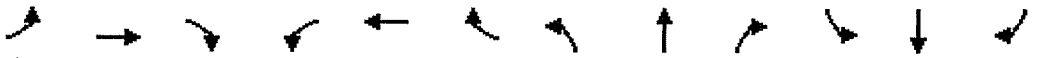
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.86		1.00	0.86	
Frt	1.00	1.00	0.85	1.00	0.89		1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1845	1568	1752	1648		1752	6338		1752	6328	
Flt Permitted	0.65	1.00	1.00	0.74	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1195	1845	1568	1357	1648		1752	6338		1752	6328	
Volume (vph)	80	30	130	60	20	50	170	3710	30	30	2670	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	87	33	141	65	22	54	185	4033	33	33	2902	54
RTOR Reduction (vph)	0	0	124	0	47	0	0	0	0	0	1	0
Lane Group Flow (vph)	87	33	17	65	29	0	185	4066	0	33	2955	0
Turn Type	Perm		Perm	Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8								
Actuated Green, G (s)	14.4	14.4	14.4	14.4	14.4		18.6	103.3		5.4	90.1	
Effective Green, g (s)	16.9	16.9	16.9	16.9	16.9		18.9	105.4		5.7	92.2	
Actuated g/C Ratio	0.12	0.12	0.12	0.12	0.12		0.13	0.75		0.04	0.66	
Clearance Time (s)	6.5	6.5	6.5	6.5	6.5		4.3	6.1		4.3	6.1	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	144	223	189	164	199		237	4772		71	4167	
v/s Ratio Prot		0.02			0.02		c0.11	c0.64		0.02	0.47	
v/s Ratio Perm	c0.07		0.01	0.05								
v/c Ratio	0.60	0.15	0.09	0.40	0.14		0.78	0.85		0.46	0.71	
Uniform Delay, d1	58.4	55.1	54.7	56.8	55.1		58.5	11.9		65.7	15.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.18	0.86		0.74	0.77	
Incremental Delay, d2	7.0	0.3	0.2	1.6	0.3		1.6	0.2		0.4	0.1	
Delay (s)	65.4	55.4	54.9	58.4	55.4		70.7	10.4		48.8	11.9	
Level of Service	E	E	D	E	E		E	B		D	B	
Approach Delay (s)		58.5			56.8			13.0			12.3	
Approach LOS		E			E			B			B	

Intersection Summary			
HCM Average Control Delay	15.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	79.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	87	33	141	65	76	185	4066	33	2956
v/c Ratio	0.59	0.15	0.45	0.40	0.31	0.78	0.84	0.32	0.71
Control Delay	73.5	54.7	12.8	62.8	23.6	71.3	11.5	47.1	12.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.5	54.7	12.8	62.8	23.6	71.3	11.5	47.1	12.7
Queue Length 50th (ft)	76	27	0	55	18	175	201	30	243
Queue Length 95th (ft)	133	60	62	102	66	m114	m69	m31	m242
Internal Link Dist (ft)		1412			1351		418		1335
Turn Bay Length (ft)	100		100	300		400		525	
Base Capacity (vph)	186	279	357	206	295	265	4853	125	4171
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.12	0.39	0.32	0.26	0.70	0.84	0.26	0.71

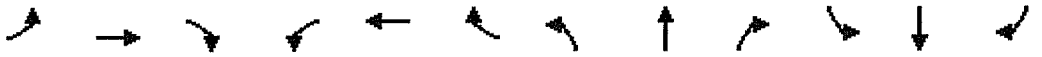
Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	0.97	1.00	1.00	0.97	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1845	1568	3400	1845	1568	3400	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	1845	1568	3400	1845	1568	3400	5036	1568	1752	5036	1568
Volume (vph)	220	170	70	380	250	210	220	3010	480	180	2460	110
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	239	185	76	413	272	228	239	3272	522	196	2674	120
RTOR Reduction (vph)	0	0	65	0	0	168	0	0	120	0	0	33
Lane Group Flow (vph)	239	185	11	413	272	60	239	3272	402	196	2674	87
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	14.3	16.9	16.9	17.5	20.1	20.1	14.6	66.0	66.0	17.6	69.0	69.0
Effective Green, g (s)	15.2	19.8	19.8	18.4	23.0	23.0	14.9	67.9	67.9	17.9	70.9	70.9
Actuated g/C Ratio	0.11	0.14	0.14	0.13	0.16	0.16	0.11	0.49	0.49	0.13	0.51	0.51
Clearance Time (s)	4.9	6.9	6.9	4.9	6.9	6.9	4.3	5.9	5.9	4.3	5.9	5.9
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	369	261	222	447	303	258	362	2442	760	224	2550	794
v/s Ratio Prot	0.07	0.10		c0.12	c0.15		0.07	c0.65		c0.11	c0.53	
v/s Ratio Perm			0.01			0.04			0.26			0.06
v/c Ratio	0.65	0.71	0.05	0.92	0.90	0.23	0.66	1.34	0.53	0.88	1.05	0.11
Uniform Delay, d1	59.8	57.3	52.0	60.1	57.3	50.8	60.1	36.0	25.0	60.0	34.6	18.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.14	0.88	0.94	1.07	0.81	1.38
Incremental Delay, d2	3.9	8.5	0.1	24.8	27.1	0.5	2.4	154.5	1.4	19.9	28.9	0.2
Delay (s)	63.7	65.9	52.0	84.9	84.4	51.3	70.9	186.3	24.8	84.1	57.0	25.1
Level of Service	E	E	D	F	F	D	E	F	C	F	E	C
Approach Delay (s)		62.7			76.3			158.6			57.5	
Approach LOS		E			E			F			E	

Intersection Summary			
HCM Average Control Delay	108.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.18		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	101.3%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



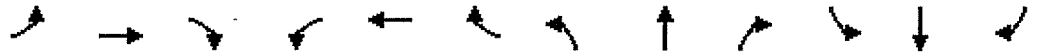
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	239	185	76	413	272	228	239	3272	522	196	2674	120
v/c Ratio	0.65	0.71	0.26	0.92	0.90	0.54	0.66	1.34	0.59	0.88	1.05	0.14
Control Delay	68.2	72.7	13.2	87.1	88.3	14.9	73.4	182.9	14.8	88.1	57.1	13.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.2	72.7	13.2	87.1	88.3	14.9	73.4	182.9	14.8	88.1	57.1	13.0
Queue Length 50th (ft)	108	161	0	194	245	21	119	~1434	123	191	~967	21
Queue Length 95th (ft)	153	246	47	#293	#416	104	m143	#1510	m140	m#256	#1076	m42
Internal Link Dist (ft)		1350			1247			1335			1509	
Turn Bay Length (ft)	175		175	275		275	375			400		
Base Capacity (vph)	413	279	302	447	303	426	413	2444	881	230	2552	828
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.66	0.25	0.92	0.90	0.54	0.58	1.34	0.59	0.85	1.05	0.14

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00		0.97	0.86		1.00	0.86	
Frt	1.00	1.00	0.85	1.00	0.89		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3400	1845	1568	1752	1643		3400	6327		1752	6305	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	3400	1845	1568	1752	1643		3400	6327		1752	6305	
Volume (vph)	170	70	120	140	60	160	220	3430	70	160	2480	110
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	185	76	130	152	65	174	239	3728	76	174	2696	120
RTOR Reduction (vph)	0	0	116	0	69	0	0	2	0	0	4	0
Lane Group Flow (vph)	185	76	14	152	170	0	239	3802	0	174	2812	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)	12.3	12.9	12.9	13.6	14.2		13.4	74.4		15.1	76.1	
Effective Green, g (s)	13.8	15.4	15.4	15.1	16.7		14.9	76.9		16.6	78.6	
Actuated g/C Ratio	0.10	0.11	0.11	0.11	0.12		0.11	0.55		0.12	0.56	
Clearance Time (s)	5.5	6.5	6.5	5.5	6.5		5.5	6.5		5.5	6.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	335	203	172	189	196		362	3475		208	3540	
v/s Ratio Prot	0.05	0.04		c0.09	c0.10		0.07	c0.60		c0.10	0.45	
v/s Ratio Perm			0.01									
v/c Ratio	0.55	0.37	0.08	0.80	0.87		0.66	1.09		0.84	0.79	
Uniform Delay, d1	60.2	57.8	56.0	61.0	60.6		60.1	31.5		60.4	24.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.10	0.50		1.00	0.97	
Incremental Delay, d2	2.0	1.2	0.2	21.4	31.0		0.4	42.9		14.1	1.0	
Delay (s)	62.1	59.0	56.2	82.4	91.5		66.4	58.6		74.2	24.7	
Level of Service	E	E	E	F	F		E	E		E	C	
Approach Delay (s)		59.5			88.0			59.0			27.6	
Approach LOS		E			F			E			C	

Intersection Summary			
HCM Average Control Delay	48.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	90.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	185	76	130	152	239	239	3804	174	2816
v/c Ratio	0.55	0.37	0.45	0.80	0.90	0.66	1.09	0.84	0.79
Control Delay	66.3	62.9	14.0	90.3	75.4	67.0	61.2	78.8	25.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.3	62.9	14.0	90.3	75.4	67.0	61.2	78.8	25.3
Queue Length 50th (ft)	84	65	0	137	149	118	~1126	139	775
Queue Length 95th (ft)	123	117	62	#250	#307	m102	m243	m#188	m795
Internal Link Dist (ft)		1564			1414		1509		1779
Turn Bay Length (ft)	100		100	200		425		250	
Base Capacity (vph)	379	224	305	195	268	379	3476	213	3543
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.34	0.43	0.78	0.89	0.63	1.09	0.82	0.79

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.86		1.00	0.86	
Frt		1.00	0.85		0.97		1.00	0.99		1.00	1.00	
Flt Protected		0.97	1.00		0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1787	1568		1748		1752	6305		1752	6342	
Flt Permitted		0.60	1.00		0.27		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1113	1568		483		1752	6305		1752	6342	
Volume (vph)	180	100	10	90	70	50	190	3370	150	100	2630	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	196	109	11	98	76	54	207	3663	163	109	2859	11
RTOR Reduction (vph)	0	0	6	0	8	0	0	5	0	0	0	0
Lane Group Flow (vph)	0	305	5	0	220	0	207	3821	0	109	2870	0
Turn Type	Perm		Perm	Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		26.7	26.7		26.7		19.2	86.0		10.8	77.6	
Effective Green, g (s)		29.6	29.6		29.6		19.5	87.3		11.1	78.9	
Actuated g/C Ratio		0.21	0.21		0.21		0.14	0.62		0.08	0.56	
Clearance Time (s)		6.9	6.9		6.9		4.3	5.3		4.3	5.3	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)		235	332		102		244	3932		139	3574	
v/s Ratio Prot							c0.12	c0.61		0.06	0.45	
v/s Ratio Perm		0.27	0.00		c0.46							
v/c Ratio		1.30	0.01		2.16		0.85	0.97		0.78	0.80	
Uniform Delay, d1		55.2	43.7		55.2		58.8	25.2		63.3	24.4	
Progression Factor		1.00	1.00		1.00		0.92	1.67		0.68	1.19	
Incremental Delay, d2		161.7	0.0		552.1		2.7	1.3		18.5	1.4	
Delay (s)		216.9	43.7		607.3		56.8	43.4		61.8	30.3	
Level of Service		F	D		F		E	D		E	C	
Approach Delay (s)		210.9			607.3			44.0			31.5	
Approach LOS		F			F			D			C	

Intersection Summary			
HCM Average Control Delay	63.1	HCM Level of Service	E
HCM Volume to Capacity ratio	1.21		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	88.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	305	11	228	207	3826	109	2870
v/c Ratio	1.30	0.03	2.07	0.85	0.97	0.78	0.80
Control Delay	204.9	26.9	539.2	57.6	42.8	70.9	31.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	204.9	26.9	539.2	57.6	42.8	70.9	31.0
Queue Length 50th (ft)	~354	2	~322	169	1079	104	464
Queue Length 95th (ft)	#545	20	#497	m156	m990	m#161	454
Internal Link Dist (ft)	1343		1462		1779		1604
Turn Bay Length (ft)		150		200		250	
Base Capacity (vph)	235	338	110	265	3939	143	3574
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.30	0.03	2.07	0.78	0.97	0.76	0.80

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.86		0.97	0.86	
Frt	1.00	0.92			1.00	0.85	1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00			0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1706			1800	1568	1752	6335		3400	6342	
Flt Permitted	0.95	1.00			0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1752	1706			1800	1568	1752	6335		3400	6342	
Volume (vph)	30	40	40	50	50	530	30	3610	40	290	2600	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	43	43	54	54	576	33	3924	43	315	2826	11
RTOR Reduction (vph)	0	27	0	0	0	304	0	1	0	0	0	0
Lane Group Flow (vph)	33	59	0	0	108	272	33	3966	0	315	2837	0
Turn Type	Split			Split		Perm	Prot			Prot		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)	10.0	10.0			15.6	15.6	5.6	72.7		17.9	85.0	
Effective Green, g (s)	12.8	12.8			18.4	18.4	5.9	74.6		18.2	86.9	
Actuated g/C Ratio	0.09	0.09			0.13	0.13	0.04	0.53		0.13	0.62	
Clearance Time (s)	6.8	6.8			6.8	6.8	4.3	5.9		4.3	5.9	
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	160	156			237	206	74	3376		442	3937	
v/s Ratio Prot	0.02	c0.03			0.06		0.02	c0.63		c0.09	0.45	
v/s Ratio Perm						c0.17						
v/c Ratio	0.21	0.38			0.46	1.32	0.45	1.17		0.71	0.72	
Uniform Delay, d1	58.9	59.8			56.2	60.8	65.5	32.7		58.4	18.2	
Progression Factor	1.00	1.00			1.00	1.00	1.25	0.40		1.35	0.22	
Incremental Delay, d2	0.6	1.5			1.4	174.0	1.1	79.6		2.7	0.6	
Delay (s)	59.5	61.4			57.6	234.8	82.7	92.6		81.6	4.5	
Level of Service	E	E			E	F	F	F		F	A	
Approach Delay (s)		60.9			206.8			92.5			12.2	
Approach LOS		E			F			F			B	

Intersection Summary			
HCM Average Control Delay	70.0	HCM Level of Service	E
HCM Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	100.3%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	33	86	108	576	33	3967	315	2837
v/c Ratio	0.20	0.47	0.46	1.13	0.31	1.18	0.71	0.71
Control Delay	60.2	47.1	63.1	101.4	79.9	97.5	83.3	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.2	47.1	63.1	101.4	79.9	97.5	83.3	4.6
Queue Length 50th (ft)	28	49	92	~313	32	~1244	157	77
Queue Length 95th (ft)	62	102	157	#547	m33	m#1341	m177	134
Internal Link Dist (ft)		1324	1349			1604		1346
Turn Bay Length (ft)	150				325		375	
Base Capacity (vph)	230	250	237	510	265	3373	515	4010
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.34	0.46	1.13	0.12	1.18	0.61	0.71

Intersection Summary

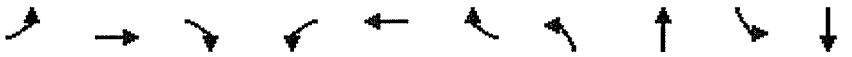
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.86		1.00	0.86	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	0.99	
Flt Protected	0.95	0.97	1.00	0.95	0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1665	1692	1568	1665	1712	1568	1752	6288		1752	6291	
Flt Permitted	0.95	0.97	1.00	0.95	0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1665	1692	1568	1665	1712	1568	1752	6288		1752	6291	
Volume (vph)	340	60	20	160	60	70	90	3590	230	60	2640	160
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	370	65	22	174	65	76	98	3902	250	65	2870	174
RTOR Reduction (vph)	0	0	18	0	0	67	0	6	0	0	6	0
Lane Group Flow (vph)	212	223	4	116	123	9	98	4146	0	65	3038	0
Turn Type	Split		Perm	Split		Perm	Prot			Prot		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)	20.0	20.0	20.0	13.0	13.0	13.0	7.7	71.8		8.6	72.7	
Effective Green, g (s)	23.0	23.0	23.0	16.0	16.0	16.0	10.0	74.1		10.9	75.0	
Actuated g/C Ratio	0.16	0.16	0.16	0.11	0.11	0.11	0.07	0.53		0.08	0.54	
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	6.3	6.3		6.3	6.3	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	274	278	258	190	196	179	125	3328		136	3370	
v/s Ratio Prot	0.13	c0.13		0.07	c0.07		c0.06	c0.66		0.04	0.48	
v/s Ratio Perm			0.00			0.01						
v/c Ratio	0.77	0.80	0.02	0.61	0.63	0.05	0.78	1.25		0.48	0.90	
Uniform Delay, d1	56.0	56.3	49.0	59.0	59.2	55.2	63.9	33.0		61.8	29.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.02		1.01	1.01	
Incremental Delay, d2	12.7	15.2	0.0	5.7	6.1	0.1	3.0	110.8		1.6	2.7	
Delay (s)	68.7	71.6	49.1	64.7	65.3	55.3	61.2	144.4		63.9	32.1	
Level of Service	E	E	D	E	E	E	E	F		E	C	
Approach Delay (s)		69.2			62.7			142.4			32.8	
Approach LOS		E			E			F			C	

Intersection Summary			
HCM Average Control Delay	93.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	88.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



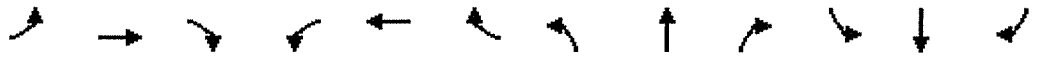
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	212	223	22	116	123	76	98	4152	65	3044
v/c Ratio	0.78	0.80	0.08	0.61	0.63	0.31	0.78	1.22	0.43	0.90
Control Delay	75.4	77.6	19.2	73.1	73.9	15.0	63.0	131.1	65.8	32.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.4	77.6	19.2	73.1	73.9	15.0	63.0	131.1	65.8	32.6
Queue Length 50th (ft)	195	206	1	106	113	0	94	~1393	51	800
Queue Length 95th (ft)	#312	#333	27	177	187	49	m81	m#1078	m67	m810
Internal Link Dist (ft)		1325			1326			1346		2512
Turn Bay Length (ft)	150		150	350			475		400	
Base Capacity (vph)	285	290	286	202	208	257	125	3395	178	3377
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.77	0.08	0.57	0.59	0.30	0.78	1.22	0.37	0.90

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.86		1.00	0.86	
Frt	1.00	0.88		1.00	0.86		1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1624		1752	1591		1752	6260		1752	6325	
Flt Permitted	0.67	1.00		0.52	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1242	1624		952	1591		1752	6260		1752	6325	
Volume (vph)	70	10	40	380	10	110	60	3450	340	80	2710	60
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	11	43	413	11	120	65	3750	370	87	2946	65
RTOR Reduction (vph)	0	40	0	0	105	0	0	10	0	0	2	0
Lane Group Flow (vph)	76	14	0	413	26	0	65	4110	0	87	3009	0
Turn Type	pm+pt			pm+pt			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	17.3	8.3		29.3	15.3		6.2	80.2		12.0	86.0	
Effective Green, g (s)	20.1	10.1		31.1	17.1		8.4	82.7		14.2	88.5	
Actuated g/C Ratio	0.14	0.07		0.22	0.12		0.06	0.59		0.10	0.63	
Clearance Time (s)	5.0	5.8		5.0	5.8		6.2	6.5		6.2	6.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	215	117		309	194		105	3698		178	3998	
v/s Ratio Prot	0.03	0.01		c0.16	0.02		c0.04	c0.66		0.05	c0.48	
v/s Ratio Perm	0.03			c0.13								
v/c Ratio	0.35	0.12		1.34	0.13		0.62	1.11		0.49	0.75	
Uniform Delay, d1	53.7	60.8		52.9	54.8		64.2	28.6		59.5	18.1	
Progression Factor	1.00	1.00		1.00	1.00		1.20	1.09		1.00	1.00	
Incremental Delay, d2	1.0	0.5		171.8	0.3		1.0	50.6		2.1	1.4	
Delay (s)	54.7	61.3		224.7	55.1		78.0	81.9		61.6	19.4	
Level of Service	D	E		F	E		E	F		E	B	
Approach Delay (s)		57.4			183.9			81.8			20.6	
Approach LOS		E			F			F			C	

Intersection Summary			
HCM Average Control Delay	64.6	HCM Level of Service	E
HCM Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	98.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	76	54	413	131	65	4120	87	3011
v/c Ratio	0.38	0.30	1.24	0.44	0.53	1.10	0.49	0.73
Control Delay	49.8	26.6	177.2	16.8	77.6	73.6	68.1	19.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.8	26.6	177.2	16.8	77.6	73.6	68.1	19.5
Queue Length 50th (ft)	56	9	~437	9	54	~1300	76	565
Queue Length 95th (ft)	100	53	#517	73	m47	m#991	131	625
Internal Link Dist (ft)		1379		1347		2512		3539
Turn Bay Length (ft)	150		275		275		475	
Base Capacity (vph)	271	235	332	304	125	3760	230	4108
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.23	1.24	0.43	0.52	1.10	0.38	0.73

Intersection Summary

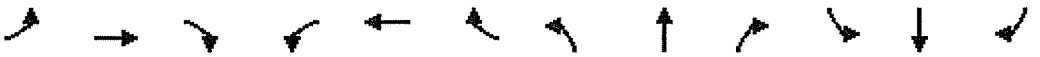
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1845	1568	3189	1648	1568	3400	5036	1568	3400	5036	1568
Flt Permitted	0.95	1.00	1.00	0.95	0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1845	1568	3189	1648	1568	3400	5036	1568	3400	5036	1568
Volume (vph)	260	270	80	1240	340	550	250	2840	760	680	1790	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	283	293	87	1348	370	598	272	3087	826	739	1946	33
RTOR Reduction (vph)	0	0	71	0	0	151	0	0	0	0	0	13
Lane Group Flow (vph)	283	293	16	1126	592	447	272	3087	826	739	1946	20
Turn Type	Split		Perm	Split		Perm	Prot		Free	Prot		Perm
Protected Phases	3	3		4	4		5	2		1	6	
Permitted Phases			3			4			Free			6
Actuated Green, G (s)	23.4	23.4	23.4	23.5	23.5	23.5	13.0	58.0	144.9	13.0	58.0	58.0
Effective Green, g (s)	25.9	25.9	25.9	26.0	26.0	26.0	16.0	61.0	144.9	16.0	61.0	61.0
Actuated g/C Ratio	0.18	0.18	0.18	0.18	0.18	0.18	0.11	0.42	1.00	0.11	0.42	0.42
Clearance Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	7.0	7.0		7.0	7.0	7.0
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.0		4.0	5.0	5.0
Lane Grp Cap (vph)	313	330	280	572	296	281	375	2120	1568	375	2120	660
v/s Ratio Prot	c0.16	0.16		0.35	c0.36		0.08	c0.61		c0.22	0.39	
v/s Ratio Perm			0.01			0.29			0.53			0.01
v/c Ratio	0.90	0.89	0.06	1.97	2.00	1.59	0.73	1.46	0.53	1.97	0.92	0.03
Uniform Delay, d1	58.3	58.1	49.4	59.4	59.4	59.4	62.3	42.0	0.0	64.4	39.6	24.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	28.2	24.3	0.1	442.1	461.9	282.1	7.3	207.9	1.3	446.3	7.2	0.0
Delay (s)	86.5	82.3	49.5	501.6	521.3	341.6	69.6	249.9	1.3	510.8	46.8	24.6
Level of Service	F	F	D	F	F	F	E	F	A	F	D	C
Approach Delay (s)		79.8			465.3			189.1			172.7	
Approach LOS		E			F			F			F	

Intersection Summary			
HCM Average Control Delay	242.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.52		
Actuated Cycle Length (s)	144.9	Sum of lost time (s)	16.0
Intersection Capacity Utilization	130.9%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	283	293	87	1126	592	598	272	3087	826	739	1946	33
v/c Ratio	0.90	0.89	0.25	1.97	2.00	1.38	0.73	1.46	0.53	1.97	0.92	0.05
Control Delay	89.5	85.9	11.4	471.9	491.1	216.4	74.3	240.5	1.3	477.5	47.6	12.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.5	85.9	11.4	471.9	491.1	216.4	74.3	240.5	1.3	477.5	47.6	12.7
Queue Length 50th (ft)	265	273	0	~904	~956	~601	130	~1454	0	~556	630	6
Queue Length 95th (ft)	#435	#440	49	#1049	#1214	#839	180	#1527	0	#685	701	28
Internal Link Dist (ft)		1418			1555			1340			2491	
Turn Bay Length (ft)	300		300	350			300			475		
Base Capacity (vph)	314	331	353	572	296	432	375	2120	1568	375	2120	673
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.90	0.89	0.25	1.97	2.00	1.38	0.73	1.46	0.53	1.97	0.92	0.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.86		1.00	0.86	
Frt		0.96			1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected		0.98			0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1733			1760	1568	1752	6292		1752	6341	
Flt Permitted		0.60			0.75	1.00	0.06	1.00		0.95	1.00	
Satd. Flow (perm)		1060			1388	1568	117	6292		1752	6341	
Volume (vph)	10	10	10	280	10	320	20	3160	190	130	2050	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	11	304	11	348	22	3435	207	141	2228	11
RTOR Reduction (vph)	0	9	0	0	0	126	0	6	0	0	0	0
Lane Group Flow (vph)	0	24	0	0	315	222	22	3636	0	141	2239	0
Turn Type	Perm			Perm		Perm	Perm			Prot		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2					
Actuated Green, G (s)		24.7			24.7	24.7	83.6	83.6		13.4	102.8	
Effective Green, g (s)		26.8			26.8	26.8	86.0	86.0		15.2	105.2	
Actuated g/C Ratio		0.19			0.19	0.19	0.61	0.61		0.11	0.75	
Clearance Time (s)		6.1			6.1	6.1	6.4	6.4		5.8	6.4	
Vehicle Extension (s)		5.0			5.0	5.0	6.0	6.0		4.0	6.0	
Lane Grp Cap (vph)		203			266	300	72	3865		190	4765	
v/s Ratio Prot								c0.58		c0.08	0.35	
v/s Ratio Perm		0.02			c0.23	0.14	0.19					
v/c Ratio		0.12			1.18	0.74	0.31	0.94		0.74	0.47	
Uniform Delay, d1		46.8			56.6	53.3	12.8	24.7		60.5	6.7	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.5			114.4	11.1	10.6	6.0		15.3	0.3	
Delay (s)		47.4			171.0	64.4	23.5	30.7		75.8	7.0	
Level of Service		D			F	E	C	C		E	A	
Approach Delay (s)		47.4			115.0			30.7			11.1	
Approach LOS		D			F			C			B	

Intersection Summary			
HCM Average Control Delay	32.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	88.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	33	315	348	22	3642	141	2239
v/c Ratio	0.16	1.18	0.82	0.31	0.94	0.74	0.47
Control Delay	36.9	162.5	45.7	27.0	31.0	83.5	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.9	162.5	45.7	27.0	31.0	83.5	7.1
Queue Length 50th (ft)	17	~344	175	9	842	126	201
Queue Length 95th (ft)	49	#537	#333	35	893	#224	219
Internal Link Dist (ft)	1464	1406			2491		9831
Turn Bay Length (ft)				200		400	
Base Capacity (vph)	212	266	426	71	3869	195	4764
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	1.18	0.82	0.31	0.94	0.72	0.47

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00	1.00	0.95	0.95		1.00	0.91	1.00	1.00	0.91	1.00
Frt		1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.98	1.00	0.95	0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1811	1568	1665	1664		1752	5036	1568	1752	5036	1568
Flt Permitted		0.98	1.00	0.95	0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1811	1568	1665	1664		1752	5036	1568	1752	5036	1568
Volume (vph)	120	200	80	510	150	80	60	2480	400	180	1750	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	217	87	554	163	87	65	2696	435	196	1902	54
RTOR Reduction (vph)	0	0	19	0	7	0	0	0	119	0	0	20
Lane Group Flow (vph)	0	347	68	399	398	0	65	2696	316	196	1902	34
Turn Type	Split		Perm	Split			Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)		27.3	27.3	27.5	27.5		7.4	43.6	43.6	18.3	54.5	54.5
Effective Green, g (s)		30.8	30.8	31.0	31.0		8.9	47.1	47.1	19.8	58.0	58.0
Actuated g/C Ratio		0.21	0.21	0.21	0.21		0.06	0.33	0.33	0.14	0.40	0.40
Clearance Time (s)		7.5	7.5	7.5	7.5		5.5	7.5	7.5	5.5	7.5	7.5
Vehicle Extension (s)		5.0	5.0	4.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)		385	334	357	356		108	1639	510	240	2019	629
v/s Ratio Prot		c0.19		c0.24	0.24		0.04	c0.54		c0.11	c0.38	
v/s Ratio Perm			0.04						0.20			0.02
v/c Ratio		0.90	0.20	1.12	1.12		0.60	1.64	0.62	0.82	0.94	0.05
Uniform Delay, d1		55.5	46.9	56.8	56.8		66.2	48.8	41.2	60.7	41.7	26.5
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		24.7	0.6	83.4	83.5		9.1	293.0	2.7	18.9	9.7	0.0
Delay (s)		80.2	47.5	140.2	140.3		75.3	341.8	43.9	79.6	51.4	26.6
Level of Service		F	D	F	F		E	F	D	E	D	C
Approach Delay (s)		73.6			140.3			295.8			53.4	
Approach LOS		E			F			F			D	

Intersection Summary			
HCM Average Control Delay	183.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.25		
Actuated Cycle Length (s)	144.7	Sum of lost time (s)	20.0
Intersection Capacity Utilization	108.9%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	EBR	WBL	WBT	NEL	NET	NER	SWL	SWT	SWR
Lane Group Flow (vph)	347	87	399	405	65	2696	435	196	1902	54
v/c Ratio	0.89	0.25	1.11	1.11	0.52	1.67	0.70	0.81	0.93	0.08
Control Delay	80.6	36.0	131.4	128.4	80.4	336.1	31.8	85.2	51.2	13.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	80.6	36.0	131.4	128.4	80.4	336.1	31.8	85.2	51.2	13.6
Queue Length 50th (ft)	322	49	~455	~454	60	~1361	221	181	645	12
Queue Length 95th (ft)	#502	101	#678	#681	113	#1443	354	#300	#761	42
Internal Link Dist (ft)	1258			1388		9831			5036	
Turn Bay Length (ft)		50	300		200			350		
Base Capacity (vph)	390	357	359	366	131	1614	622	254	2035	653
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.24	1.11	1.11	0.50	1.67	0.70	0.77	0.93	0.08

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.86		1.00	0.86	
Frt	1.00	0.94			1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00			0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1731			1781	1568	1752	6291		1752	6320	
Flt Permitted	0.29	1.00			0.56	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	536	1731			1033	1568	1752	6291		1752	6320	
Volume (vph)	80	100	70	220	90	120	90	2440	150	100	1800	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	87	109	76	239	98	130	98	2652	163	109	1957	54
RTOR Reduction (vph)	0	21	0	0	0	34	0	7	0	0	3	0
Lane Group Flow (vph)	87	164	0	0	337	96	98	2808	0	109	2008	0
Turn Type	Perm			Perm		Perm	Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8						
Actuated Green, G (s)	27.5	27.5			27.5	27.5	12.2	52.5		12.8	53.1	
Effective Green, g (s)	31.0	31.0			31.0	31.0	13.2	56.0		13.8	56.6	
Actuated g/C Ratio	0.27	0.27			0.27	0.27	0.12	0.50		0.12	0.50	
Clearance Time (s)	7.5	7.5			7.5	7.5	5.0	7.5		5.0	7.5	
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	147	476			284	431	205	3123		214	3171	
v/s Ratio Prot		0.09					0.06	c0.45		c0.06	0.32	
v/s Ratio Perm	0.16				c0.33	0.06						
v/c Ratio	0.59	0.34			1.19	0.22	0.48	0.90		0.51	0.63	
Uniform Delay, d1	35.4	32.8			40.9	31.6	46.6	25.8		46.3	20.5	
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	6.3	0.4			113.7	0.3	1.8	4.2		1.9	0.6	
Delay (s)	41.7	33.2			154.6	31.9	48.3	30.0		48.2	21.1	
Level of Service	D	C			F	C	D	C		D	C	
Approach Delay (s)		35.9			120.5			30.6			22.5	
Approach LOS		D			F			C			C	

Intersection Summary			
HCM Average Control Delay	35.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	112.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	86.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	WBR	NEL	NET	SWL	SWT
Lane Group Flow (vph)	87	185	337	130	98	2815	109	2011
v/c Ratio	0.64	0.37	1.22	0.28	0.48	0.90	0.51	0.63
Control Delay	61.1	30.8	164.6	22.7	54.5	31.0	54.9	21.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.1	30.8	164.6	22.7	54.5	31.0	54.9	21.8
Queue Length 50th (ft)	55	90	~299	46	68	514	75	294
Queue Length 95th (ft)	#143	164	#507	104	122	625	133	363
Internal Link Dist (ft)		1356	1472			5036		6884
Turn Bay Length (ft)				50	375		375	
Base Capacity (vph)	135	497	276	465	293	3130	294	3172
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.37	1.22	0.28	0.33	0.90	0.37	0.63

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt		0.96			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.98			0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1733			1761	1568	1752	5036	1568	1752	5036	1568
Flt Permitted		0.87			0.71	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1531			1314	1568	1752	5036	1568	1752	5036	1568
Volume (vph)	10	10	10	200	10	50	20	2410	210	60	1730	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	11	217	11	54	22	2620	228	65	1880	11
RTOR Reduction (vph)	0	9	0	0	0	43	0	0	107	0	0	5
Lane Group Flow (vph)	0	24	0	0	228	11	22	2620	121	65	1880	6
Turn Type	Perm			Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8			2			6
Actuated Green, G (s)		13.1			13.1	13.1	2.8	36.0	36.0	4.8	37.4	37.4
Effective Green, g (s)		15.6			15.6	15.6	5.6	38.8	38.8	7.0	40.2	40.2
Actuated g/C Ratio		0.21			0.21	0.21	0.08	0.53	0.53	0.10	0.55	0.55
Clearance Time (s)		6.5			6.5	6.5	6.8	6.8	6.8	6.2	6.8	6.8
Vehicle Extension (s)		4.0			4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)		325			279	333	134	2662	829	167	2758	859
v/s Ratio Prot							0.01	c0.52		c0.04	0.37	
v/s Ratio Perm		0.02			c0.17	0.01			0.08			0.00
v/c Ratio		0.07			0.82	0.03	0.16	0.98	0.15	0.39	0.68	0.01
Uniform Delay, d1		23.1			27.5	22.9	31.7	17.0	8.8	31.2	12.0	7.5
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.1			17.5	0.1	0.6	13.9	0.1	1.5	0.8	0.0
Delay (s)		23.3			45.0	23.0	32.3	30.9	8.9	32.7	12.7	7.5
Level of Service		C			D	C	C	C	A	C	B	A
Approach Delay (s)		23.3			40.8			29.1			13.4	
Approach LOS		C			D			C			B	

Intersection Summary			
HCM Average Control Delay	23.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	73.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	74.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Group Flow (vph)	33	228	54	22	2620	228	65	1880	11
v/c Ratio	0.12	0.77	0.14	0.10	0.97	0.24	0.27	0.64	0.01
Control Delay	20.4	46.1	8.7	30.6	30.2	2.5	31.9	12.4	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.4	46.1	8.7	30.6	30.2	2.5	31.9	12.4	5.6
Queue Length 50th (ft)	9	100	0	9	~501	0	27	137	0
Queue Length 95th (ft)	30	#217	27	29	#605	33	62	310	8
Internal Link Dist (ft)	1413	1496			6884			4514	
Turn Bay Length (ft)			150	225			200		
Base Capacity (vph)	313	304	405	247	2712	950	256	2924	915
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.75	0.13	0.09	0.97	0.24	0.25	0.64	0.01

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			1.00	0.88	1.00	0.86		0.97	0.86	
Frt	1.00	0.96			1.00	0.85	1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00			0.99	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1775			1829	2760	1752	6338		3400	6333	
Flt Permitted	0.95	1.00			0.99	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1752	1775			1829	2760	1752	6338		3400	6333	
Volume (vph)	110	60	20	10	50	1730	40	2360	20	650	2180	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	120	65	22	11	54	1880	43	2565	22	707	2370	33
RTOR Reduction (vph)	0	10	0	0	0	0	0	1	0	0	2	0
Lane Group Flow (vph)	120	77	0	0	65	1880	43	2586	0	707	2401	0
Turn Type	Split			Split		pt+ov	Prot			Prot		
Protected Phases	4	4		8	8	8 1	5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	12.0	12.0			16.5	33.0	6.2	52.6		8.0	54.4	
Effective Green, g (s)	15.5	15.5			21.0	37.0	10.2	57.6		12.0	59.4	
Actuated g/C Ratio	0.13	0.13			0.17	0.30	0.08	0.47		0.10	0.49	
Clearance Time (s)	7.5	7.5			8.5		8.0	9.0		8.0	9.0	
Vehicle Extension (s)	4.0	4.0			4.0		3.0	4.0		3.0	4.0	
Lane Grp Cap (vph)	222	225			315	836	146	2990		334	3081	
v/s Ratio Prot	c0.07	0.04			0.04	c0.68	0.02	c0.41		0.21	0.38	
v/s Ratio Perm												
v/c Ratio	0.54	0.34			0.21	2.25	0.29	0.86		2.12	0.78	
Uniform Delay, d1	50.0	48.6			43.4	42.6	52.6	28.8		55.0	25.9	
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.3	1.2			0.4	565.8	1.1	3.0		512.6	1.4	
Delay (s)	53.3	49.9			43.8	608.4	53.7	31.7		567.6	27.3	
Level of Service	D	D			D	F	D	C		F	C	
Approach Delay (s)		51.9			589.5			32.1			150.1	
Approach LOS		D			F			C			F	

Intersection Summary			
HCM Average Control Delay	216.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.28		
Actuated Cycle Length (s)	122.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	113.4%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	WBR	NEL	NET	SWL	SWT
Lane Group Flow (vph)	120	87	65	1880	43	2587	707	2403
v/c Ratio	0.53	0.37	0.20	2.22	0.26	0.88	2.09	0.77
Control Delay	58.5	46.0	44.8	575.1	54.8	33.6	527.5	28.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.5	46.0	44.8	575.1	54.8	33.6	527.5	28.0
Queue Length 50th (ft)	89	54	44	~1346	32	520	~451	460
Queue Length 95th (ft)	152	106	86	#1496	70	574	#571	511
Internal Link Dist (ft)		1320	1449			4514		3170
Turn Bay Length (ft)	100				200		400	
Base Capacity (vph)	232	245	319	848	170	2948	338	3126
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.36	0.20	2.22	0.25	0.88	2.09	0.77

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00	1.00	0.95	0.95		1.00	0.91	1.00	1.00	0.91	1.00
Frt		1.00	0.85	1.00	0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97	1.00	0.95	0.99		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1785	1568	1665	1539		1752	5036	1568	1752	5036	1568
Flt Permitted		0.97	1.00	0.95	0.99		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1785	1568	1665	1539		1752	5036	1568	1752	5036	1568
Volume (vph)	20	10	20	800	10	480	20	2530	1310	640	2060	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	11	22	870	11	522	22	2750	1424	696	2239	33
RTOR Reduction (vph)	0	0	21	0	71	0	0	0	377	0	0	10
Lane Group Flow (vph)	0	33	1	699	633	0	22	2750	1047	696	2239	23
Turn Type	Split		Perm	Split			Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)		3.5	3.5	53.5	53.5		4.9	45.1	45.1	20.0	60.2	60.2
Effective Green, g (s)		6.1	6.1	56.1	56.1		5.9	48.1	48.1	21.0	63.2	63.2
Actuated g/C Ratio		0.04	0.04	0.38	0.38		0.04	0.33	0.33	0.14	0.43	0.43
Clearance Time (s)		6.6	6.6	6.6	6.6		5.0	7.0	7.0	5.0	7.0	7.0
Vehicle Extension (s)		4.0	4.0	4.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)		74	65	634	586		70	1644	512	250	2161	673
v/s Ratio Prot		c0.02		c0.42	0.41		0.01	0.55		c0.40	0.44	
v/s Ratio Perm			0.00						c0.67			0.01
v/c Ratio		0.45	0.01	1.10	1.08		0.31	1.67	2.04	2.78	1.04	0.03
Uniform Delay, d1		68.9	67.7	45.6	45.6		68.7	49.6	49.6	63.2	42.1	24.4
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		5.7	0.1	67.1	60.6		2.6	305.4	476.9	813.9	29.4	0.0
Delay (s)		74.7	67.8	112.7	106.2		71.3	355.0	526.5	877.0	71.5	24.4
Level of Service		E	E	F	F		E	F	F	F	E	C
Approach Delay (s)		71.9			109.4			411.7			259.9	
Approach LOS		E			F			F			F	

Intersection Summary			
HCM Average Control Delay	308.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.69		
Actuated Cycle Length (s)	147.3	Sum of lost time (s)	16.0
Intersection Capacity Utilization	138.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Queues
89: County Line Rd & US 19

7/26/2006

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	33	22	699	704	22	2750	1424	696	2239	33
v/c Ratio	0.38	0.23	1.08	1.05	0.21	1.70	1.61	2.72	1.01	0.05
Control Delay	80.6	29.4	99.5	84.6	70.2	351.3	302.0	805.7	62.0	16.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	80.6	29.4	99.5	84.6	70.2	351.3	302.0	805.7	62.0	16.1
Queue Length 50th (ft)	31	0	~788	~701	20	~1413	~1570	~1125	~885	9
Queue Length 95th (ft)	69	30	#1048	#964	50	#1493	#1840	#1369	#1005	33
Internal Link Dist (ft)	1565			1533		9567			2116	
Turn Bay Length (ft)		100	425		350			275		250
Base Capacity (vph)	86	96	649	670	128	1613	883	256	2212	699
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.23	1.08	1.05	0.17	1.70	1.61	2.72	1.01	0.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

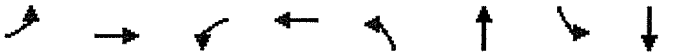
Appendix E

Synchro Analysis for the Design Year (2030) Build TSM Conditions

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.86		1.00	0.86	
Frt	1.00	0.90		1.00	0.91		1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1694	1656		1694	1678		1752	6317		1752	6338	
Flt Permitted	0.55	1.00		0.45	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	985	1656		800	1678		1752	6317		1752	6338	
Volume (vph)	180	70	150	360	60	90	80	2590	80	20	3830	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	196	76	163	391	65	98	87	2815	87	22	4163	33
RTOR Reduction (vph)	0	26	0	0	22	0	0	2	0	0	0	0
Lane Group Flow (vph)	196	213	0	391	141	0	87	2900	0	22	4196	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	81.0	81.0		81.0	81.0		9.5	149.7		4.3	144.5	
Effective Green, g (s)	82.0	82.0		82.0	82.0		10.0	151.2		4.8	146.0	
Actuated g/C Ratio	0.33	0.33		0.33	0.33		0.04	0.60		0.02	0.58	
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	5.5		4.5	5.5	
Vehicle Extension (s)	4.0	4.0		4.0	4.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	323	543		262	550		70	3821		34	3701	
v/s Ratio Prot		0.13			0.08		c0.05	0.46		0.01	c0.66	
v/s Ratio Perm	0.20			c0.49								
v/c Ratio	0.61	0.39		1.49	0.26		1.24	0.76		0.65	1.13	
Uniform Delay, d1	70.5	64.8		84.0	61.7		120.0	36.1		121.8	52.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.08	0.62	
Incremental Delay, d2	3.7	0.6		240.7	0.3		186.4	1.5		3.8	60.5	
Delay (s)	74.2	65.4		324.7	62.0		306.4	37.6		135.5	92.7	
Level of Service	E	E		F	E		F	D		F	F	
Approach Delay (s)		69.4			247.4			45.4			92.9	
Approach LOS		E			F			D			F	

Intersection Summary			
HCM Average Control Delay	84.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.26		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	106.6%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	196	239	391	163	87	2902	22	4196
v/c Ratio	0.61	0.42	1.49	0.28	1.24	0.75	0.54	1.13
Control Delay	79.9	56.7	291.7	51.0	270.0	37.3	133.1	91.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.9	56.7	291.7	51.0	270.0	37.3	133.1	91.7
Queue Length 50th (ft)	275	261	~888	162	~178	1016	38	~809
Queue Length 95th (ft)	387	360	#1134	241	#328	1023	m29	m481
Internal Link Dist (ft)		1402		1426		1282		1911
Turn Bay Length (ft)	150		200		250		250	
Base Capacity (vph)	323	570	262	572	70	3846	41	3702
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.42	1.49	0.28	1.24	0.75	0.54	1.13

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	0.91		1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.99		1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.96		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3083	1596		1752	1746		1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	0.96		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3083	1596		1752	1746		1752	5036	1568	1752	5036	1568
Volume (vph)	1190	30	20	150	90	50	30	2830	30	10	3880	660
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1293	33	22	163	98	54	33	3076	33	11	4217	717
RTOR Reduction (vph)	0	1	0	0	8	0	0	0	4	0	0	0
Lane Group Flow (vph)	891	456	0	163	144	0	33	3076	29	11	4217	717
Turn Type	Split			Split			Prot		Perm	Prot		Free
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases									2			Free
Actuated Green, G (s)	53.0	53.0		17.0	17.0		4.0	156.0	156.0	3.0	155.0	250.0
Effective Green, g (s)	54.0	54.0		18.0	18.0		5.5	157.5	157.5	4.5	156.5	250.0
Actuated g/C Ratio	0.22	0.22		0.07	0.07		0.02	0.63	0.63	0.02	0.63	1.00
Clearance Time (s)	5.0	5.0		5.0	5.0		5.5	5.5	5.5	5.5	5.5	
Vehicle Extension (s)	4.0	4.0		4.0	4.0		3.0	5.0	5.0	3.0	5.0	
Lane Grp Cap (vph)	666	345		126	126		39	3173	988	32	3153	1568
v/s Ratio Prot	c0.29	0.29		c0.09	0.08		c0.02	0.61		0.01	c0.84	
v/s Ratio Perm									0.02			c0.46
v/c Ratio	1.34	1.32		1.29	1.14		0.85	0.97	0.03	0.34	1.34	0.46
Uniform Delay, d1	98.0	98.0		116.0	116.0		121.8	44.0	17.4	121.3	46.8	0.0
Progression Factor	1.00	1.00		1.00	1.00		1.21	0.43	0.36	1.18	0.41	1.00
Incremental Delay, d2	162.1	164.0		178.7	122.7		65.5	7.8	0.0	0.6	152.1	0.1
Delay (s)	260.1	262.0		294.7	238.7		212.9	26.6	6.3	143.1	171.3	0.1
Level of Service	F	F		F	F		F	C	A	F	F	A
Approach Delay (s)		260.7			267.7			28.4			146.4	
Approach LOS		F			F			C			F	

Intersection Summary			
HCM Average Control Delay	128.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.32		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	116.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	891	457	163	152	33	3076	33	11	4217	717
v/c Ratio	1.34	1.32	1.29	1.13	0.72	0.96	0.03	0.24	1.33	0.46
Control Delay	228.1	230.4	257.0	205.2	187.2	24.8	4.4	142.0	169.9	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	228.1	230.4	257.0	205.2	187.2	24.8	4.4	142.0	169.9	0.1
Queue Length 50th (ft)	~1047	~1069	~342	~276	56	1814	2	18	~3315	0
Queue Length 95th (ft)	#1194	#1349	#533	#462	m77	1818	m3	m17	m#2838	m0
Internal Link Dist (ft)		271		1474		1911			1889	
Turn Bay Length (ft)			150		250			350		
Base Capacity (vph)	666	346	126	134	46	3217	1006	46	3174	1568
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.34	1.32	1.29	1.13	0.72	0.96	0.03	0.24	1.33	0.46

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	11	11	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.94	1.00		0.97	0.86		0.97	0.86	
Frt	1.00	1.00	0.85	1.00	0.88		1.00	0.98		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1845	1568	4777	1577		3400	6243		3400	6336	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1752	1845	1568	4777	1577		3400	6243		3400	6336	
Volume (vph)	120	120	160	670	60	200	200	2830	340	100	4080	40
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	130	174	728	65	217	217	3076	370	109	4435	43
RTOR Reduction (vph)	0	0	96	0	48	0	0	8	0	0	0	0
Lane Group Flow (vph)	130	130	78	728	234	0	217	3438	0	109	4478	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)	17.2	13.0	13.0	38.5	34.3		22.5	166.0		13.0	156.5	
Effective Green, g (s)	17.7	14.0	14.0	39.0	35.3		23.0	167.5		13.5	158.0	
Actuated g/C Ratio	0.07	0.06	0.06	0.16	0.14		0.09	0.67		0.05	0.63	
Clearance Time (s)	4.5	5.0	5.0	4.5	5.0		4.5	5.5		4.5	5.5	
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	124	103	88	745	223		313	4183		184	4004	
v/s Ratio Prot	0.07	c0.07		c0.15	c0.15		0.06	c0.55		0.03	c0.71	
v/s Ratio Perm			0.05									
v/c Ratio	1.05	1.26	0.88	0.98	1.05		0.69	0.82		0.59	1.12	
Uniform Delay, d1	116.2	118.0	117.2	105.1	107.4		110.1	30.3		115.6	46.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.97	0.94		0.77	1.17	
Incremental Delay, d2	94.4	174.8	60.0	27.1	73.7		0.6	0.2		1.2	54.2	
Delay (s)	210.5	292.8	177.2	132.1	181.1		107.9	28.7		90.1	107.9	
Level of Service	F	F	F	F	F		F	C		F	F	
Approach Delay (s)		221.8			145.8			33.4			107.5	
Approach LOS		F			F			C			F	

Intersection Summary			
HCM Average Control Delay	88.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	100.9%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	130	130	174	728	282	217	3446	109	4478
v/c Ratio	1.05	1.26	0.95	0.98	1.04	0.69	0.82	0.59	1.12
Control Delay	196.6	256.5	97.3	130.4	142.8	108.8	28.9	91.8	102.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	196.6	256.5	97.3	130.4	142.8	108.8	28.9	91.8	102.5
Queue Length 50th (ft)	~232	~268	125	433	~418	181	531	91	~2449
Queue Length 95th (ft)	#407	#442	#306	#525	#645	m173	m875	m89	m#2368
Internal Link Dist (ft)		1464			1497		1889		2565
Turn Bay Length (ft)	100		100	150		400		300	
Base Capacity (vph)	124	103	184	745	271	313	4191	226	4007
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.05	1.26	0.95	0.98	1.04	0.69	0.82	0.48	1.12

Intersection Summary

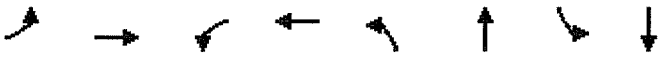
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	0.97	1.00		0.97	1.00		1.00	0.86		1.00	0.86	
Frt	1.00	0.92		1.00	0.92		1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3400	1700		3400	1706		1752	6311		1752	6334	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	3400	1700		3400	1706		1752	6311		1752	6334	
Volume (vph)	260	100	110	140	70	70	90	2920	110	40	4130	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	283	109	120	152	76	76	98	3174	120	43	4489	54
RTOR Reduction (vph)	0	16	0	0	14	0	0	2	0	0	1	0
Lane Group Flow (vph)	283	213	0	152	138	0	98	3292	0	43	4542	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	25.7	27.0		16.1	17.9		10.5	178.6		8.3	176.4	
Effective Green, g (s)	26.2	28.0		17.1	18.9		11.0	180.1		8.8	177.9	
Actuated g/C Ratio	0.10	0.11		0.07	0.08		0.04	0.72		0.04	0.71	
Clearance Time (s)	4.5	5.0		5.0	5.0		4.5	5.5		4.5	5.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	356	190		233	129		77	4546		62	4507	
v/s Ratio Prot	c0.08	c0.13		0.04	0.08		c0.06	0.52		0.02	c0.72	
v/s Ratio Perm												
v/c Ratio	0.79	1.12		0.65	1.07		1.27	0.72		0.69	1.01	
Uniform Delay, d1	109.3	111.0		113.6	115.6		119.5	20.4		119.3	36.0	
Progression Factor	1.00	1.00		1.00	1.00		1.25	0.24		1.22	0.19	
Incremental Delay, d2	11.6	101.6		6.4	99.5		164.0	0.5		7.5	8.5	
Delay (s)	120.9	212.6		120.0	215.0		313.1	5.5		152.5	15.3	
Level of Service	F	F		F	F		F	A		F	B	
Approach Delay (s)		161.9			167.5			14.4			16.5	
Approach LOS		F			F			B			B	

Intersection Summary			
HCM Average Control Delay	29.4	HCM Level of Service	C
HCM Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	97.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	283	229	152	152	98	3294	43	4543
v/c Ratio	0.79	1.11	0.66	1.06	1.27	0.72	0.70	1.01
Control Delay	125.4	180.4	126.8	182.0	262.0	5.5	154.8	16.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3
Total Delay	125.4	180.4	126.8	182.0	262.0	5.5	154.8	24.8
Queue Length 50th (ft)	240	~403	128	~249	~206	152	74	~1543
Queue Length 95th (ft)	295	#617	175	#471	m#274	m151	m76	#1146
Internal Link Dist (ft)		1508		1584		2565		960
Turn Bay Length (ft)	175		150		850		375	
Base Capacity (vph)	435	206	272	143	77	4552	63	4508
Starvation Cap Reductn	0	0	0	0	0	0	0	106
Spillback Cap Reductn	0	0	0	0	0	17	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	1.11	0.56	1.06	1.27	0.73	0.68	1.03

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	0.97	1.00		1.00	1.00	1.00	1.00	0.86		1.00	0.86	
Frt	1.00	0.91		1.00	1.00	0.85	1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3286	1618		1752	1845	1568	1752	6327		1752	6332	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	3286	1618		1752	1845	1568	1752	6327		1752	6332	
Volume (vph)	230	50	80	130	60	250	50	3020	60	110	4120	60
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	250	54	87	141	65	272	54	3283	65	120	4478	65
RTOR Reduction (vph)	0	23	0	0	0	69	0	1	0	0	1	0
Lane Group Flow (vph)	250	118	0	141	65	203	54	3347	0	120	4542	0
Turn Type	Prot			Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)	23.8	24.5		22.8	23.5	23.5	6.5	166.4		16.8	176.7	
Effective Green, g (s)	24.3	25.5		23.3	24.5	24.5	7.0	167.9		17.3	178.2	
Actuated g/C Ratio	0.10	0.10		0.09	0.10	0.10	0.03	0.67		0.07	0.71	
Clearance Time (s)	4.5	5.0		4.5	5.0	5.0	4.5	5.5		4.5	5.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	319	165		163	181	154	49	4249		121	4513	
v/s Ratio Prot	0.08	0.07		c0.08	0.04		0.03	0.53		c0.07	c0.72	
v/s Ratio Perm						c0.13						
v/c Ratio	0.78	0.71		0.87	0.36	1.32	1.10	0.79		0.99	1.01	
Uniform Delay, d1	110.3	108.7		111.8	105.4	112.8	121.5	28.6		116.3	35.9	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.07	0.48		1.07	0.48	
Incremental Delay, d2	11.9	13.6		34.9	1.2	182.6	134.8	1.0		40.1	8.6	
Delay (s)	122.2	122.3		146.7	106.6	295.3	264.2	14.9		164.2	25.8	
Level of Service	F	F		F	F	F	F	B		F	C	
Approach Delay (s)		122.2			225.8			18.8			29.4	
Approach LOS		F			F			B			C	

Intersection Summary			
HCM Average Control Delay	39.9	HCM Level of Service	D
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	93.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

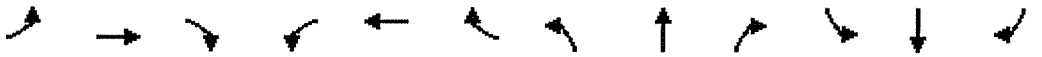
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	250	141	141	65	272	54	3348	120	4543
v/c Ratio	0.78	0.75	0.86	0.36	1.23	1.10	0.79	0.99	1.01
Control Delay	127.2	112.7	151.0	111.4	191.6	236.6	15.1	156.0	26.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	6.9
Total Delay	127.2	112.7	151.0	111.4	191.6	236.6	15.3	156.0	33.1
Queue Length 50th (ft)	212	191	233	103	~432	~101	546	204	~1735
Queue Length 95th (ft)	267	285	#362	168	#664	m#167	m499	m#217	m#1776
Internal Link Dist (ft)		1383		1613			960		1165
Turn Bay Length (ft)	300		350			300		600	
Base Capacity (vph)	381	204	176	181	222	49	4250	121	4515
Starvation Cap Reductn	0	0	0	0	0	0	177	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	92
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.69	0.80	0.36	1.23	1.10	0.82	0.99	1.03

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

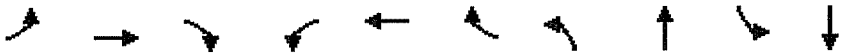
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	13	13	13	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.86		1.00	0.86	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00		1.00	0.99	
Flt Protected	0.95	0.98	1.00	0.95	0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1720	1776	1620	1665	1689	1568	1752	6318		1752	6313	
Flt Permitted	0.95	0.98	1.00	0.95	0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1720	1776	1620	1665	1689	1568	1752	6318		1752	6313	
Volume (vph)	240	110	120	270	40	130	80	3010	90	50	3910	140
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	261	120	130	293	43	141	87	3272	98	54	4250	152
RTOR Reduction (vph)	0	0	53	0	0	50	0	2	0	0	2	0
Lane Group Flow (vph)	185	196	77	164	172	91	87	3368	0	54	4400	0
Turn Type	Split		Perm	Split		Perm	Prot			Prot		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)	22.0	22.0	22.0	20.0	20.0	20.0	10.5	177.4		10.6	177.5	
Effective Green, g (s)	23.0	23.0	23.0	21.0	21.0	21.0	11.0	178.9		11.1	179.0	
Actuated g/C Ratio	0.09	0.09	0.09	0.08	0.08	0.08	0.04	0.72		0.04	0.72	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	4.5	5.5		4.5	5.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	2.5	5.0		2.5	5.0	
Lane Grp Cap (vph)	158	163	149	140	142	132	77	4521		78	4520	
v/s Ratio Prot	0.11	c0.11		0.10	c0.10		c0.05	0.53		0.03	c0.70	
v/s Ratio Perm			0.05			0.06						
v/c Ratio	1.17	1.20	0.52	1.17	1.21	0.69	1.13	0.75		0.69	0.97	
Uniform Delay, d1	113.5	113.5	108.2	114.5	114.5	111.3	119.5	21.7		117.8	33.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.84	1.48		0.82	0.39	
Incremental Delay, d2	124.9	135.3	3.0	129.5	143.3	13.8	114.9	0.6		2.2	1.2	
Delay (s)	238.4	248.8	111.3	244.0	257.8	125.1	214.8	32.6		99.4	14.1	
Level of Service	F	F	F	F	F	F	F	C		F	B	
Approach Delay (s)		210.1			213.8			37.2			15.2	
Approach LOS		F			F			D			B	

Intersection Summary				
HCM Average Control Delay	45.6	HCM Level of Service	D	
HCM Volume to Capacity ratio	1.02			
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	16.0	
Intersection Capacity Utilization	89.4%	ICU Level of Service	E	
Analysis Period (min)	15			

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	185	196	130	164	172	141	87	3370	54	4402
v/c Ratio	1.17	1.20	0.64	1.17	1.21	0.77	1.13	0.74	0.69	0.97
Control Delay	212.9	220.3	75.4	217.8	227.9	94.0	195.4	32.8	100.4	14.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	212.9	220.3	75.4	217.8	227.9	94.0	195.4	32.8	100.4	14.4
Queue Length 50th (ft)	~381	~411	118	~337	~363	144	~166	1022	89	1446
Queue Length 95th (ft)	#589	#623	210	#540	#568	#265	m#235	m1091	m78	m740
Internal Link Dist (ft)		1440			1426			2920		2650
Turn Bay Length (ft)	225		225	175		200	350		500	
Base Capacity (vph)	158	163	202	140	142	182	77	4524	78	4523
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.17	1.20	0.64	1.17	1.21	0.77	1.13	0.74	0.69	0.97

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00		0.91	0.91	0.88	1.00	0.91	1.00	0.94	0.91	1.00
Frt	1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1746		3189	1609	2760	1752	5036	1568	4942	5036	1568
Flt Permitted	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	1746		3189	1609	2760	1752	5036	1568	4942	5036	1568
Volume (vph)	140	90	50	800	40	340	30	2590	420	280	3540	40
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	152	98	54	870	43	370	33	2815	457	304	3848	43
RTOR Reduction (vph)	0	8	0	0	0	15	0	0	68	0	0	5
Lane Group Flow (vph)	152	144	0	598	315	355	33	2815	389	304	3848	38
Turn Type	Split			Split		pt+ov	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8	8 1	5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	19.0	19.0		42.0	42.0	67.6	5.0	148.4	148.4	20.6	164.0	164.0
Effective Green, g (s)	20.0	20.0		43.0	43.0	68.1	5.5	149.9	149.9	21.1	165.5	165.5
Actuated g/C Ratio	0.08	0.08		0.17	0.17	0.27	0.02	0.60	0.60	0.08	0.66	0.66
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	4.0	4.0		4.0	4.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	272	140		549	277	752	39	3020	940	417	3334	1038
v/s Ratio Prot	0.04	c0.08		0.19	c0.20	0.13	0.02	c0.56		0.06	c0.76	
v/s Ratio Perm									0.25			0.02
v/c Ratio	0.56	1.03		1.09	1.14	0.47	0.85	0.93	0.41	0.73	1.15	0.04
Uniform Delay, d1	110.8	115.0		103.5	103.5	76.0	121.8	45.4	26.6	111.7	42.2	14.6
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.01	1.06	1.08	0.81	1.25	1.50
Incremental Delay, d2	3.1	83.3		64.9	96.3	0.6	60.8	4.3	0.8	2.0	70.6	0.0
Delay (s)	113.8	198.3		168.4	199.8	76.6	183.5	52.7	29.6	92.4	123.5	22.0
Level of Service	F	F		F	F	E	F	D	C	F	F	C
Approach Delay (s)		156.0			149.6			50.8			120.2	
Approach LOS		F			F			D			F	

Intersection Summary			
HCM Average Control Delay	100.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	109.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	152	152	598	315	370	33	2815	457	304	3848	43
v/c Ratio	0.56	1.03	1.09	1.14	0.48	0.85	0.93	0.45	0.73	1.15	0.04
Control Delay	119.2	179.1	155.3	181.1	74.0	186.6	53.0	18.5	93.8	117.3	15.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	119.2	179.1	155.3	181.1	74.0	186.6	53.0	18.5	93.8	117.3	15.2
Queue Length 50th (ft)	127	~252	~607	~662	278	56	1785	206	174	~2718	24
Queue Length 95th (ft)	175	#438	#754	#918	342	m#81	m1775	m210	m180	m#2616	m26
Internal Link Dist (ft)		1452		1418			2650			2872	
Turn Bay Length (ft)	150				200	425			400		
Base Capacity (vph)	272	148	549	277	792	39	3020	1009	463	3334	1043
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.56	1.03	1.09	1.14	0.47	0.85	0.93	0.45	0.66	1.15	0.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	0.95	0.95		0.95	0.95	1.00	1.00	0.86		0.97	0.86	
Frt	1.00	0.96		1.00	1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected	0.95	0.99		0.95	0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1665	1679		1665	1700	1568	1752	6260		3400	6319	
Flt Permitted	0.95	0.99		0.95	0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1665	1679		1665	1700	1568	1752	6260		3400	6319	
Volume (vph)	140	80	30	450	110	270	70	2540	250	330	3510	100
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	152	87	33	489	120	293	76	2761	272	359	3815	109
RTOR Reduction (vph)	0	5	0	0	0	67	0	6	0	0	2	0
Lane Group Flow (vph)	133	134	0	297	312	226	76	3027	0	359	3922	0
Turn Type	Split			Split		Perm	Prot			Prot		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)	17.0	17.0		39.0	39.0	39.0	9.5	127.4		46.6	164.5	
Effective Green, g (s)	18.0	18.0		40.0	40.0	40.0	10.0	128.9		47.1	166.0	
Actuated g/C Ratio	0.07	0.07		0.16	0.16	0.16	0.04	0.52		0.19	0.66	
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	4.5	5.5		4.5	5.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	2.5	5.0		2.5	5.0	
Lane Grp Cap (vph)	120	121		266	272	251	70	3228		641	4196	
v/s Ratio Prot	0.08	c0.08		0.18	c0.18		c0.04	c0.48		0.11	c0.62	
v/s Ratio Perm						0.14						
v/c Ratio	1.11	1.11		1.12	1.15	0.90	1.09	0.94		0.56	0.93	
Uniform Delay, d1	116.0	116.0		105.0	105.0	103.0	120.0	56.8		92.0	37.2	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.30	0.55		0.71	0.33	
Incremental Delay, d2	114.2	114.6		90.2	100.3	31.3	98.7	3.5		0.1	0.5	
Delay (s)	230.2	230.6		195.2	205.3	134.3	254.5	34.9		65.7	12.9	
Level of Service	F	F		F	F	F	F	C		E	B	
Approach Delay (s)		230.4			178.9			40.2			17.3	
Approach LOS		F			F			D			B	

Intersection Summary			
HCM Average Control Delay	49.4	HCM Level of Service	D
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	88.7%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	133	139	297	312	293	76	3033	359	3924
v/c Ratio	1.11	1.11	1.12	1.15	0.92	1.09	0.94	0.56	0.93
Control Delay	209.5	205.0	177.9	185.2	106.5	223.7	34.8	66.2	13.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	209.5	205.0	177.9	185.2	106.5	223.7	34.8	66.2	13.0
Queue Length 50th (ft)	~263	~266	~589	~632	367	~140	1037	264	626
Queue Length 95th (ft)	#449	#458	#833	#877	#571	m#178	1132	m259	m513
Internal Link Dist (ft)		1490		1548			2872		1921
Turn Bay Length (ft)	200		300		100	500		475	
Base Capacity (vph)	120	125	266	272	318	70	3236	641	4198
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.11	1.11	1.12	1.15	0.92	1.09	0.94	0.56	0.93

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.86		1.00	0.86	
Frt		1.00	0.85	1.00	0.92		1.00	1.00		1.00	1.00	
Flt Protected		0.95	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1759	1568	1752	1706		1752	6342		1752	6322	
Flt Permitted		0.69	1.00	0.10	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1274	1568	184	1706		1752	6342		1752	6322	
Volume (vph)	350	10	300	20	20	20	80	2840	10	10	3920	100
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	380	11	326	22	22	22	87	3087	11	11	4261	109
RTOR Reduction (vph)	0	0	24	0	14	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	391	302	22	30	0	87	3098	0	11	4369	0
Turn Type	Perm		Perm	Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		59.0	59.0	59.0	59.0		9.5	172.0		3.0	165.5	
Effective Green, g (s)		60.0	60.0	60.0	60.0		11.0	173.5		4.5	167.0	
Actuated g/C Ratio		0.24	0.24	0.24	0.24		0.04	0.69		0.02	0.67	
Clearance Time (s)		5.0	5.0	5.0	5.0		5.5	5.5		5.5	5.5	
Vehicle Extension (s)		4.0	4.0	4.0	4.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)		306	376	44	409		77	4401		32	4223	
v/s Ratio Prot					0.02		c0.05	0.49		0.01	c0.69	
v/s Ratio Perm		c0.31	0.19	0.12								
v/c Ratio		1.28	0.80	0.50	0.07		1.13	0.70		0.34	1.03	
Uniform Delay, d1		95.0	89.4	82.0	73.5		119.5	22.9		121.3	41.5	
Progression Factor		1.00	1.00	1.00	1.00		1.18	0.06		1.14	0.56	
Incremental Delay, d2		147.9	12.3	11.7	0.1		98.7	0.3		2.6	19.6	
Delay (s)		242.9	101.7	93.7	73.6		239.2	1.6		141.0	42.7	
Level of Service		F	F	F	E		F	A		F	D	
Approach Delay (s)		178.7			80.3			8.1			43.0	
Approach LOS		F			F			A			D	

Intersection Summary			
HCM Average Control Delay	41.6	HCM Level of Service	D
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	99.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	391	326	22	44	87	3098	11	4370
v/c Ratio	1.28	0.81	0.59	0.12	1.13	0.70	0.24	1.03
Control Delay	216.0	97.3	144.2	45.1	207.4	1.6	141.7	43.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9
Total Delay	216.0	97.3	144.2	45.1	207.4	1.6	141.7	49.1
Queue Length 50th (ft)	~813	472	32	32	~167	106	19	~2238
Queue Length 95th (ft)	#1059	618	#82	77	m#182	m103	m19	m#2136
Internal Link Dist (ft)	1454			1472		1921		1002
Turn Bay Length (ft)			50		300		125	
Base Capacity (vph)	306	401	44	424	77	4455	46	4223
Starvation Cap Reductn	0	0	0	0	0	0	0	59
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.28	0.81	0.50	0.10	1.13	0.70	0.24	1.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95		0.97	0.86		1.00	0.86	
Frt	1.00	1.00	0.85	1.00	0.92		1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3400	1845	1568	1752	3229		3400	6302		1752	6331	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	3400	1845	1568	1752	3229		3400	6302		1752	6331	
Volume (vph)	100	70	140	170	100	110	160	2700	130	90	3820	60
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	76	152	185	109	120	174	2935	141	98	4152	65
RTOR Reduction (vph)	0	0	60	0	82	0	0	3	0	0	1	0
Lane Group Flow (vph)	109	76	92	185	147	0	174	3073	0	98	4216	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)	12.3	10.0	10.0	23.5	21.2		10.5	177.7		18.3	185.5	
Effective Green, g (s)	12.8	11.0	11.0	24.0	22.2		12.0	179.2		19.8	187.0	
Actuated g/C Ratio	0.05	0.04	0.04	0.10	0.09		0.05	0.72		0.08	0.75	
Clearance Time (s)	4.5	5.0	5.0	4.5	5.0		5.5	5.5		5.5	5.5	
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	174	81	69	168	287		163	4517		139	4736	
v/s Ratio Prot	0.03	0.04		c0.11	0.05		c0.05	0.49		0.06	c0.67	
v/s Ratio Perm			c0.06									
v/c Ratio	0.63	0.94	1.33	1.10	0.51		1.07	0.68		0.71	0.89	
Uniform Delay, d1	116.3	119.2	119.5	113.0	108.7		119.0	19.6		112.3	23.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.80	0.32		0.82	0.97	
Incremental Delay, d2	6.9	79.1	219.6	99.1	2.0		75.1	0.5		7.2	1.4	
Delay (s)	123.1	198.3	339.1	212.1	110.8		169.8	6.9		99.7	24.3	
Level of Service	F	F	F	F	F		F	A		F	C	
Approach Delay (s)		237.5			156.1			15.6			26.1	
Approach LOS		F			F			B			C	

Intersection Summary			
HCM Average Control Delay	37.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	90.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

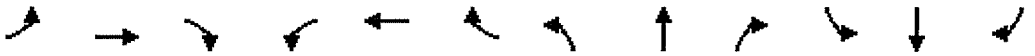
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	109	76	152	185	229	174	3076	98	4217
v/c Ratio	0.63	0.94	1.18	1.10	0.62	1.07	0.68	0.71	0.89
Control Delay	132.2	195.2	184.1	193.7	74.2	159.0	7.0	105.1	24.7
Queue Delay	0.0	0.0	23.6	0.0	0.0	0.0	0.1	0.0	15.3
Total Delay	132.2	195.2	207.6	193.7	74.2	159.0	7.1	105.1	39.9
Queue Length 50th (ft)	92	128	~195	~345	120	~164	300	158	965
Queue Length 95th (ft)	135	#261	#381	#543	177	m#246	m172	m183	m947
Internal Link Dist (ft)		1544			1553		1002		2491
Turn Bay Length (ft)	275			200		475		300	
Base Capacity (vph)	188	81	129	168	369	163	4519	165	4738
Starvation Cap Reductn	0	0	0	0	0	0	331	0	0
Spillback Cap Reductn	0	0	6	0	0	0	0	0	634
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.94	1.24	1.10	0.62	1.07	0.73	0.59	1.03

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

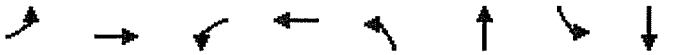
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.86		1.00	0.86	
Frt	1.00	0.96		1.00	0.88		1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1765		1752	1620		1752	6299		1752	6336	
Flt Permitted	0.34	1.00		0.61	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	625	1765		1128	1620		1752	6299		1752	6336	
Volume (vph)	70	50	20	180	30	130	70	2740	140	150	3770	40
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	54	22	196	33	141	76	2978	152	163	4098	43
RTOR Reduction (vph)	0	6	0	0	62	0	0	3	0	0	0	0
Lane Group Flow (vph)	76	70	0	196	112	0	76	3127	0	163	4141	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	38.0	38.0		38.0	38.0		10.3	170.5		26.5	186.7	
Effective Green, g (s)	39.0	39.0		39.0	39.0		10.8	172.0		27.0	188.2	
Actuated g/C Ratio	0.16	0.16		0.16	0.16		0.04	0.69		0.11	0.75	
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	5.5		4.5	5.5	
Vehicle Extension (s)	5.0	5.0		5.0	5.0		4.0	5.0		4.0	5.0	
Lane Grp Cap (vph)	98	275		176	253		76	4334		189	4770	
v/s Ratio Prot		0.04			0.07		c0.04	0.50		c0.09	c0.65	
v/s Ratio Perm	0.12			c0.17								
v/c Ratio	0.78	0.25		1.11	0.44		1.00	0.72		0.86	0.87	
Uniform Delay, d1	101.3	92.7		105.5	95.7		119.6	24.2		109.7	22.0	
Progression Factor	1.00	1.00		1.00	1.00		1.09	0.24		1.01	0.66	
Incremental Delay, d2	35.3	1.0		101.6	2.6		88.6	0.8		22.6	1.6	
Delay (s)	136.6	93.8		207.1	98.3		219.4	6.6		133.0	16.1	
Level of Service	F	F		F	F		F	A		F	B	
Approach Delay (s)		115.2			155.9			11.7			20.6	
Approach LOS		F			F			B			C	

Intersection Summary			
HCM Average Control Delay	25.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	89.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	76	76	196	174	76	3130	163	4141
v/c Ratio	0.78	0.27	1.11	0.55	1.00	0.72	0.86	0.87
Control Delay	144.1	87.1	189.1	62.9	208.1	6.7	135.2	16.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Total Delay	144.1	87.1	189.1	62.9	208.1	6.7	135.2	16.5
Queue Length 50th (ft)	123	102	~369	158	~132	429	282	537
Queue Length 95th (ft)	#233	167	#571	257	m#255	156	m#401	533
Internal Link Dist (ft)		1509		1512		2491		939
Turn Bay Length (ft)	150		150		300		325	
Base Capacity (vph)	98	281	176	314	76	4338	199	4768
Starvation Cap Reductn	0	0	0	0	0	0	0	102
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.27	1.11	0.55	1.00	0.72	0.82	0.89

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

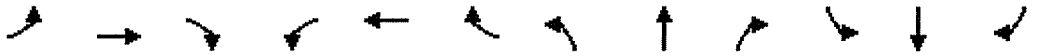
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.86	0.86	
Frt	1.00	0.85	1.00	1.00	1.00	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1752	1568	1752	6346	6333	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1752	1568	1752	6346	6333	
Volume (vph)	50	80	30	2910	3840	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	87	33	3163	4174	54
RTOR Reduction (vph)	0	31	0	0	1	0
Lane Group Flow (vph)	54	56	33	3163	4227	0
Turn Type		custom	Prot			
Protected Phases			5	2	6	
Permitted Phases	4	4				
Actuated Green, G (s)	10.6	10.6	5.2	228.9	219.2	
Effective Green, g (s)	11.6	11.6	5.7	230.4	220.7	
Actuated g/C Ratio	0.05	0.05	0.02	0.92	0.88	
Clearance Time (s)	5.0	5.0	4.5	5.5	5.5	
Vehicle Extension (s)	4.0	4.0	4.0	5.0	5.0	
Lane Grp Cap (vph)	81	73	40	5848	5591	
v/s Ratio Prot			c0.02	0.50	c0.67	
v/s Ratio Perm	0.03	c0.04				
v/c Ratio	0.67	0.76	0.82	0.54	0.76	
Uniform Delay, d1	117.3	117.8	121.7	1.5	5.2	
Progression Factor	1.00	1.00	1.20	0.03	0.35	
Incremental Delay, d2	20.5	38.4	61.1	0.2	0.1	
Delay (s)	137.8	156.2	206.6	0.3	1.9	
Level of Service	F	F	F	A	A	
Approach Delay (s)	149.1			2.4	1.9	
Approach LOS	F			A	A	

Intersection Summary			
HCM Average Control Delay	4.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	69.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	54	87	33	3163	4228
v/c Ratio	0.67	0.83	0.67	0.54	0.75
Control Delay	151.7	120.5	178.8	0.3	1.9
Queue Delay	0.0	0.0	0.0	0.1	0.0
Total Delay	151.7	120.5	178.8	0.4	1.9
Queue Length 50th (ft)	90	91	58	3	191
Queue Length 95th (ft)	#164	#212	m82	7	m173
Internal Link Dist (ft)	1504			939	3004
Turn Bay Length (ft)			450		
Base Capacity (vph)	84	107	49	5847	5613
Starvation Cap Reductn	0	0	0	869	0
Spillback Cap Reductn	0	0	0	0	3
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.64	0.81	0.67	0.64	0.75

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1730		1665	1698	1568	1752	5036	1568	3400	5036	1568
Flt Permitted	0.95	1.00		0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1730		1665	1698	1568	1752	5036	1568	3400	5036	1568
Volume (vph)	100	70	50	360	80	250	70	2560	250	130	3600	60
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	76	54	391	87	272	76	2783	272	141	3913	65
RTOR Reduction (vph)	0	10	0	0	0	66	0	0	41	0	0	7
Lane Group Flow (vph)	109	120	0	233	245	206	76	2783	231	141	3913	58
Turn Type	Split			Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	14.0	14.0		31.0	31.0	31.0	9.5	170.3	170.3	14.7	175.5	175.5
Effective Green, g (s)	15.0	15.0		32.0	32.0	32.0	10.0	171.8	171.8	15.2	177.0	177.0
Actuated g/C Ratio	0.06	0.06		0.13	0.13	0.13	0.04	0.69	0.69	0.06	0.71	0.71
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	4.0	4.0		4.0	4.0	4.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	105	104		213	217	201	70	3461	1078	207	3565	1110
v/s Ratio Prot	0.06	c0.07		0.14	c0.14		c0.04	0.55		0.04	c0.78	
v/s Ratio Perm						0.13			0.15			0.04
v/c Ratio	1.04	1.15		1.09	1.13	1.02	1.09	0.80	0.21	0.68	1.10	0.05
Uniform Delay, d1	117.5	117.5		109.0	109.0	109.0	120.0	27.3	14.3	115.0	36.5	11.1
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.87	0.68	0.74	1.00	1.00	1.00
Incremental Delay, d2	98.5	134.4		89.0	100.1	69.7	124.3	1.8	0.4	8.9	49.0	0.1
Delay (s)	216.0	251.9		198.0	209.1	178.7	228.4	20.5	11.0	123.9	85.5	11.2
Level of Service	F	F		F	F	F	F	C	B	F	F	B
Approach Delay (s)		235.5			194.7			24.7			85.7	
Approach LOS		F			F			C			F	

Intersection Summary			
HCM Average Control Delay	76.8	HCM Level of Service	E
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	250.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	95.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	109	130	233	245	272	76	2783	272	141	3913	65
v/c Ratio	1.04	1.14	1.09	1.13	1.02	1.09	0.80	0.24	0.68	1.10	0.06
Control Delay	202.6	211.2	181.7	189.4	131.8	211.7	20.8	5.8	131.6	84.2	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	202.6	211.2	181.7	189.4	131.8	211.7	20.8	5.8	131.6	84.2	6.9
Queue Length 50th (ft)	~193	~232	~454	~490	~358	~141	547	44	120	~2666	19
Queue Length 95th (ft)	#357	#407	#677	#721	#586	m#282	618	100	167	#2616	39
Internal Link Dist (ft)		1451		1491			3004			4886	
Turn Bay Length (ft)	150		250			275			425		
Base Capacity (vph)	105	114	213	217	267	70	3461	1119	228	3565	1117
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.04	1.14	1.09	1.13	1.02	1.09	0.80	0.24	0.62	1.10	0.06

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.86		1.00	0.86	
Frt		0.99			1.00	0.85	1.00	1.00		1.00	1.00	
Flt Protected		0.98			0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1781			1780	1568	1752	6332		1752	6333	
Flt Permitted		0.58			0.63	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1063			1157	1568	1752	6332		1752	6333	
Volume (vph)	50	50	10	80	30	100	40	2740	40	60	3640	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	54	11	87	33	109	43	2978	43	65	3957	54
RTOR Reduction (vph)	0	3	0	0	0	0	0	1	0	0	1	0
Lane Group Flow (vph)	0	116	0	0	120	109	43	3020	0	65	4010	0
Turn Type	custom			custom		Free	Prot			Prot		
Protected Phases							5	2		1		
Permitted Phases	4	4		8	8	Free					6	
Actuated Green, G (s)		15.7			15.7	140.0	7.1	99.9		8.9	101.7	
Effective Green, g (s)		17.7			17.7	140.0	7.4	101.1		9.2	102.9	
Actuated g/C Ratio		0.13			0.13	1.00	0.05	0.72		0.07	0.74	
Clearance Time (s)		6.0			6.0		4.3	5.2		4.3	5.2	
Vehicle Extension (s)		3.0			3.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)		134			146	1568	93	4573		115	4655	
v/s Ratio Prot							0.02	0.48		c0.04		
v/s Ratio Perm		c0.11			0.10	c0.07					c0.63	
v/c Ratio		0.87			0.82	0.07	0.46	0.66		0.57	0.86	
Uniform Delay, d1		60.0			59.6	0.0	64.4	10.3		63.5	13.4	
Progression Factor		1.00			1.00	1.00	1.00	1.00		0.93	2.50	
Incremental Delay, d2		40.8			29.6	0.1	3.6	0.8		0.6	0.2	
Delay (s)		100.8			89.2	0.1	68.0	11.1		59.3	33.8	
Level of Service		F			F	A	E	B		E	C	
Approach Delay (s)		100.8			46.8			11.9			34.2	
Approach LOS		F			D			B			C	

Intersection Summary			
HCM Average Control Delay	26.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	72.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	119	120	109	43	3021	65	4011
v/c Ratio	0.84	0.82	0.07	0.40	0.65	0.50	0.85
Control Delay	100.6	97.0	0.1	73.9	11.6	58.2	35.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	100.6	97.0	0.1	73.9	11.6	58.2	35.6
Queue Length 50th (ft)	104	107	0	38	406	54	1125
Queue Length 95th (ft)	#217	#215	0	80	482	m37	m672
Internal Link Dist (ft)	1478	1518			3962		2924
Turn Bay Length (ft)			750	250		250	
Base Capacity (vph)	147	153	1568	125	4613	178	4694
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.78	0.07	0.34	0.65	0.37	0.85

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	0.91		0.91	0.91	0.88	1.00	0.91	1.00	0.94	0.91	1.00
Frt	1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1595	3220		3189	1643	2760	1752	5036	1568	4942	5036	1568
Flt Permitted	0.95	1.00		0.95	0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1595	3220		3189	1643	2760	1752	5036	1568	4942	5036	1568
Volume (vph)	160	240	90	710	170	360	130	2120	530	610	3270	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	174	261	98	772	185	391	141	2304	576	663	3554	33
RTOR Reduction (vph)	0	25	0	0	0	41	0	0	193	0	0	7
Lane Group Flow (vph)	174	334	0	627	330	350	141	2304	383	663	3554	26
Turn Type	Split			Split		pt+ov	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8	8 1	5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	14.1	14.1		28.2	28.2	43.5	11.1	58.3	58.3	15.3	62.5	62.5
Effective Green, g (s)	17.0	17.0		31.0	31.0	46.6	11.4	60.4	60.4	15.6	64.6	64.6
Actuated g/C Ratio	0.12	0.12		0.22	0.22	0.33	0.08	0.43	0.43	0.11	0.46	0.46
Clearance Time (s)	6.9	6.9		6.8	6.8		4.3	6.1	6.1	4.3	6.1	6.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	194	391		706	364	919	143	2173	676	551	2324	724
v/s Ratio Prot	c0.11	0.10		0.20	c0.20	0.13	0.08	c0.46		0.13	c0.71	
v/s Ratio Perm									0.24			0.02
v/c Ratio	0.90	0.85		0.89	0.91	0.38	0.99	1.06	0.57	1.20	1.53	0.04
Uniform Delay, d1	60.6	60.3		52.8	53.1	35.7	64.2	39.8	29.9	62.2	37.7	20.6
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.34	0.76	0.51	0.79	0.66	0.54
Incremental Delay, d2	37.0	16.3		13.0	25.2	0.3	61.3	35.6	2.6	101.1	239.4	0.1
Delay (s)	97.6	76.6		65.8	78.3	35.9	147.3	65.8	18.0	150.4	264.3	11.1
Level of Service	F	E		E	E	D	F	E	B	F	F	B
Approach Delay (s)		83.4			60.2			60.5			244.5	
Approach LOS		F			E			E			F	

Intersection Summary			
HCM Average Control Delay	147.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.26		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	109.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

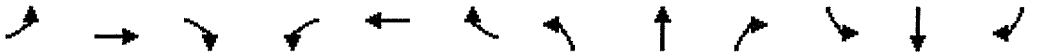
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	174	359	627	330	391	141	2304	576	663	3554	33
v/c Ratio	0.90	0.86	0.89	0.91	0.41	0.99	1.06	0.66	1.20	1.53	0.05
Control Delay	102.6	75.9	68.5	81.9	19.7	143.9	65.7	9.3	143.6	263.4	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	102.6	75.9	68.5	81.9	19.7	143.9	65.7	9.3	143.6	263.4	7.8
Queue Length 50th (ft)	174	164	306	324	93	130	~844	73	~258	~1650	4
Queue Length 95th (ft)	#330	#253	#414	#523	130	m#276	#915	m122	m#337	#1717	m6
Internal Link Dist (ft)		1442		322			2924			3147	
Turn Bay Length (ft)	325		200			300			550		
Base Capacity (vph)	194	416	706	364	959	143	2174	870	551	2325	731
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.90	0.86	0.89	0.91	0.41	0.99	1.06	0.66	1.20	1.53	0.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



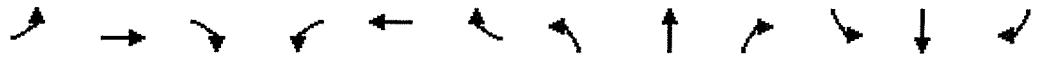
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.86		1.00	0.86	
Frt	1.00	1.00	0.85	1.00	0.91		1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1845	1568	1752	1679		1752	6335		1752	6343	
Flt Permitted	0.72	1.00	1.00	0.74	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1330	1845	1568	1357	1679		1752	6335		1752	6343	
Volume (vph)	40	30	100	50	20	30	80	2790	30	20	3680	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	33	109	54	22	33	87	3033	33	22	4000	11
RTOR Reduction (vph)	0	0	91	0	30	0	0	1	0	0	0	0
Lane Group Flow (vph)	43	33	18	54	25	0	87	3065	0	22	4011	0
Turn Type	Perm		Perm	Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8								
Actuated Green, G (s)	10.7	10.7	10.7	10.7	10.7		10.3	107.5		4.9	102.1	
Effective Green, g (s)	13.2	13.2	13.2	13.2	13.2		10.6	109.6		5.2	104.2	
Actuated g/C Ratio	0.09	0.09	0.09	0.09	0.09		0.08	0.78		0.04	0.74	
Clearance Time (s)	6.5	6.5	6.5	6.5	6.5		4.3	6.1		4.3	6.1	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	125	174	148	128	158		133	4959		65	4721	
v/s Ratio Prot		0.02			0.01		c0.05	0.48		0.01	c0.63	
v/s Ratio Perm	0.03		0.01	c0.04								
v/c Ratio	0.34	0.19	0.12	0.42	0.16		0.65	0.62		0.34	0.85	
Uniform Delay, d1	59.3	58.5	58.1	59.8	58.3		62.9	6.4		65.7	12.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.36	0.60		0.83	0.58	
Incremental Delay, d2	1.7	0.5	0.4	2.2	0.5		5.2	0.3		0.3	0.2	
Delay (s)	61.0	59.0	58.5	62.0	58.8		90.5	4.1		55.0	7.4	
Level of Service	E	E	E	E	E		F	A		E	A	
Approach Delay (s)		59.2			60.4			6.5			7.7	
Approach LOS		E			E			A			A	

Intersection Summary			
HCM Average Control Delay	9.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	77.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	43	33	109	54	55	87	3066	22	4011
v/c Ratio	0.34	0.19	0.46	0.42	0.29	0.65	0.61	0.23	0.85
Control Delay	65.4	59.2	18.9	68.4	31.7	96.4	4.4	53.0	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.4	59.2	18.9	68.4	31.7	96.4	4.4	53.0	8.0
Queue Length 50th (ft)	37	28	8	47	19	81	36	20	216
Queue Length 95th (ft)	76	61	64	91	61	m85	m498	m17	m179
Internal Link Dist (ft)		1412			1351		418		1335
Turn Bay Length (ft)	100		100	300		400		525	
Base Capacity (vph)	175	242	293	178	249	143	5034	125	4725
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.14	0.37	0.30	0.22	0.61	0.61	0.18	0.85

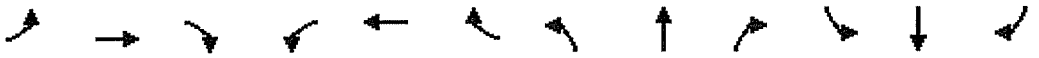
Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	0.97	1.00	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1845	1568	3400	1845	1568	3400	5036	1568	3400	5036	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	1845	1568	3400	1845	1568	3400	5036	1568	3400	5036	1568
Volume (vph)	150	130	50	300	190	130	220	2310	230	130	3570	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	163	141	54	326	207	141	239	2511	250	141	3880	11
RTOR Reduction (vph)	0	0	50	0	0	110	0	0	71	0	0	2
Lane Group Flow (vph)	163	141	4	326	207	31	239	2511	179	141	3880	9
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	11.5	7.8	7.8	17.8	14.1	14.1	9.7	81.3	81.3	11.1	82.7	82.7
Effective Green, g (s)	12.4	10.7	10.7	18.7	17.0	17.0	10.0	83.2	83.2	11.4	84.6	84.6
Actuated g/C Ratio	0.09	0.08	0.08	0.13	0.12	0.12	0.07	0.59	0.59	0.08	0.60	0.60
Clearance Time (s)	4.9	6.9	6.9	4.9	6.9	6.9	4.3	5.9	5.9	4.3	5.9	5.9
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	301	141	120	454	224	190	243	2993	932	277	3043	948
v/s Ratio Prot	0.05	0.08		c0.10	c0.11		c0.07	0.50		0.04	c0.77	
v/s Ratio Perm			0.00			0.02			0.11			0.01
v/c Ratio	0.54	1.00	0.03	0.72	0.92	0.16	0.98	0.84	0.19	0.51	1.28	0.01
Uniform Delay, d1	61.1	64.6	59.9	58.1	60.9	55.1	64.9	23.0	13.0	61.6	27.7	11.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.24	0.24	0.01	0.96	0.70	1.30
Incremental Delay, d2	2.0	75.8	0.1	5.4	39.5	0.4	46.8	2.4	0.4	0.4	124.5	0.0
Delay (s)	63.1	140.4	60.0	63.5	100.4	55.5	127.4	8.0	0.5	59.5	143.9	14.4
Level of Service	E	F	E	E	F	E	F	A	A	E	F	B
Approach Delay (s)		93.1			73.2			16.9			140.6	
Approach LOS		F			E			B			F	

Intersection Summary			
HCM Average Control Delay	86.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	104.0%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	163	141	54	326	207	141	239	2511	250	141	3880	11
v/c Ratio	0.54	0.99	0.32	0.72	0.92	0.47	0.98	0.84	0.25	0.51	1.28	0.01
Control Delay	67.6	137.4	20.4	67.3	103.6	17.9	125.5	8.3	0.5	60.6	146.9	11.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.6	137.4	20.4	67.3	103.6	17.9	125.5	8.3	0.5	60.6	146.9	11.4
Queue Length 50th (ft)	74	~132	0	147	190	13	120	110	0	70	~1627	2
Queue Length 95th (ft)	111	#284	45	198	#344	80	#210	121	1	m71	m#1678	m2
Internal Link Dist (ft)		1350			1247			1335			1509	
Turn Bay Length (ft)	175		175	275		275	375			400		
Base Capacity (vph)	345	142	170	515	224	300	243	2991	1002	345	3042	949
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.99	0.32	0.63	0.92	0.47	0.98	0.84	0.25	0.41	1.28	0.01

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00		0.97	0.86		1.00	0.86	
Frt	1.00	1.00	0.85	1.00	0.89		1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3400	1845	1568	1752	1649		3400	6320		1752	6343	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	3400	1845	1568	1752	1649		3400	6320		1752	6343	
Volume (vph)	30	70	160	100	50	120	120	2560	70	10	3690	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	76	174	109	54	130	130	2783	76	11	4011	11
RTOR Reduction (vph)	0	0	113	0	58	0	0	2	0	0	0	0
Lane Group Flow (vph)	33	76	61	109	126	0	130	2857	0	11	4022	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)	4.5	10.7	10.7	10.8	17.0		9.4	92.9		1.6	85.1	
Effective Green, g (s)	6.0	13.2	13.2	12.3	19.5		10.9	95.4		3.1	87.6	
Actuated g/C Ratio	0.04	0.09	0.09	0.09	0.14		0.08	0.68		0.02	0.63	
Clearance Time (s)	5.5	6.5	6.5	5.5	6.5		5.5	6.5		5.5	6.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	146	174	148	154	230		265	4307		39	3969	
v/s Ratio Prot	0.01	0.04		c0.06	c0.08		c0.04	c0.45		0.01	c0.63	
v/s Ratio Perm			0.04									
v/c Ratio	0.23	0.44	0.41	0.71	0.55		0.49	0.66		0.28	1.01	
Uniform Delay, d1	64.8	59.9	59.7	62.1	56.2		61.9	13.0		67.4	26.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.61		0.84	2.08	
Incremental Delay, d2	0.8	1.8	1.9	13.8	2.7		0.9	0.5		0.4	8.2	
Delay (s)	65.5	61.6	61.6	75.9	58.8		62.9	8.4		57.1	62.8	
Level of Service	E	E	E	E	E		E	A		E	E	
Approach Delay (s)		62.1			65.2			10.8			62.7	
Approach LOS		E			E			B			E	

Intersection Summary			
HCM Average Control Delay	42.4	HCM Level of Service	D
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	79.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

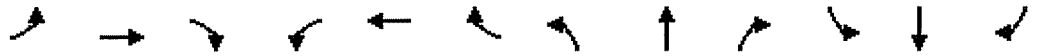
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	33	76	174	109	184	130	2859	11	4022
v/c Ratio	0.16	0.52	0.73	0.71	0.64	0.49	0.62	0.11	0.99
Control Delay	64.0	75.4	38.1	86.2	47.7	66.2	6.6	52.7	52.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.0	75.4	38.1	86.2	47.7	66.2	6.6	52.7	52.0
Queue Length 50th (ft)	14	68	43	98	105	64	126	9	~1070
Queue Length 95th (ft)	32	123	#143	#181	#229	m79	251	m8	m930
Internal Link Dist (ft)		1564			1414		1509		1779
Turn Bay Length (ft)	100		100	200		425		250	
Base Capacity (vph)	311	150	243	160	288	277	4607	143	4071
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.51	0.72	0.68	0.64	0.47	0.62	0.08	0.99

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.86		1.00	0.86	
Frt		1.00	0.85		0.96		1.00	0.99		1.00	1.00	
Flt Protected		0.97	1.00		0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1785	1568		1734		1752	6312		1752	6340	
Flt Permitted		0.55	1.00		0.73		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1011	1568		1289		1752	6312		1752	6340	
Volume (vph)	80	40	100	100	90	90	190	2470	90	70	3600	20
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	87	43	109	109	98	98	207	2685	98	76	3913	22
RTOR Reduction (vph)	0	0	82	0	12	0	0	3	0	0	0	0
Lane Group Flow (vph)	0	130	27	0	293	0	207	2780	0	76	3935	0
Turn Type	Perm		Perm	Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		32.2	32.2		32.2		16.7	82.1		9.2	74.6	
Effective Green, g (s)		35.1	35.1		35.1		17.0	83.4		9.5	75.9	
Actuated g/C Ratio		0.25	0.25		0.25		0.12	0.60		0.07	0.54	
Clearance Time (s)		6.9	6.9		6.9		4.3	5.3		4.3	5.3	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)		253	393		323		213	3760		119	3437	
v/s Ratio Prot							c0.12	0.44		0.04	c0.62	
v/s Ratio Perm		0.13	0.02		c0.23							
v/c Ratio		0.51	0.07		0.91		0.97	0.74		0.64	1.14	
Uniform Delay, d1		45.1	40.0		50.9		61.3	20.4		63.6	32.0	
Progression Factor		1.00	1.00		1.00		1.26	0.48		0.71	1.12	
Incremental Delay, d2		1.8	0.1		27.6		47.0	1.1		1.0	65.5	
Delay (s)		46.9	40.1		78.4		124.3	11.0		45.9	101.3	
Level of Service		D	D		E		F	B		D	F	
Approach Delay (s)		43.8			78.4			18.8			100.2	
Approach LOS		D			E			B			F	

Intersection Summary			
HCM Average Control Delay	65.3	HCM Level of Service	E
HCM Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	95.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	130	109	305	207	2783	76	3935
v/c Ratio	0.51	0.23	0.90	0.97	0.74	0.64	1.14
Control Delay	52.3	8.1	77.6	122.9	11.2	47.8	99.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.3	8.1	77.6	122.9	11.2	47.8	99.0
Queue Length 50th (ft)	101	0	255	199	289	73	~1215
Queue Length 95th (ft)	171	47	#425	#360	487	m72	m#1111
Internal Link Dist (ft)	1343		1462		1779		1604
Turn Bay Length (ft)		150		200		250	
Base Capacity (vph)	268	490	352	213	3767	125	3439
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.22	0.87	0.97	0.74	0.61	1.14

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.86		0.97	0.86	
Frt	1.00	0.95			1.00	0.85	1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00			0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1751			1778	1568	1752	6332		3400	6343	
Flt Permitted	0.95	1.00			0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1752	1751			1778	1568	1752	6332		3400	6343	
Volume (vph)	30	40	20	60	20	390	40	2650	40	200	3710	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	43	22	65	22	424	43	2880	43	217	4033	11
RTOR Reduction (vph)	0	13	0	0	0	209	0	1	0	0	0	0
Lane Group Flow (vph)	33	52	0	0	87	215	43	2922	0	217	4044	0
Turn Type	Split			Split		Perm	Prot			Prot		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)	7.5	7.5			20.4	20.4	7.5	74.0		14.3	80.8	
Effective Green, g (s)	10.3	10.3			23.2	23.2	7.8	75.9		14.6	82.7	
Actuated g/C Ratio	0.07	0.07			0.17	0.17	0.06	0.54		0.10	0.59	
Clearance Time (s)	6.8	6.8			6.8	6.8	4.3	5.9		4.3	5.9	
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	129	129			295	260	98	3433		355	3747	
v/s Ratio Prot	0.02	c0.03			0.05		0.02	0.46		c0.06	c0.64	
v/s Ratio Perm						c0.14						
v/c Ratio	0.26	0.40			0.29	0.83	0.44	0.85		0.61	1.08	
Uniform Delay, d1	61.2	61.9			51.2	56.5	64.0	27.2		60.0	28.6	
Progression Factor	1.00	1.00			1.00	1.00	1.40	0.30		1.33	0.34	
Incremental Delay, d2	1.1	2.1			0.6	19.1	2.1	2.0		0.3	36.2	
Delay (s)	62.3	64.0			51.8	75.6	91.8	10.2		80.2	46.0	
Level of Service	E	E			D	E	F	B		F	D	
Approach Delay (s)		63.4			71.5			11.4			47.7	
Approach LOS		E			E			B			D	

Intersection Summary			
HCM Average Control Delay	35.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	79.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

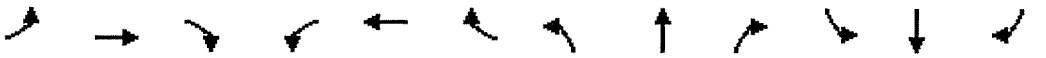
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	33	65	87	424	43	2923	217	4044
v/c Ratio	0.23	0.42	0.30	0.91	0.38	0.84	0.61	1.05
Control Delay	63.6	56.0	52.5	46.5	94.1	11.2	80.2	38.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.6	56.0	52.5	46.5	94.1	11.2	80.2	38.4
Queue Length 50th (ft)	28	44	68	163	41	680	108	~1261
Queue Length 95th (ft)	64	94	121	#343	m58	#868	m94	m#1031
Internal Link Dist (ft)		1324	1349			1604		1346
Turn Bay Length (ft)	150				325		375	
Base Capacity (vph)	160	173	340	502	143	3500	447	3850
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.38	0.26	0.84	0.30	0.84	0.49	1.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

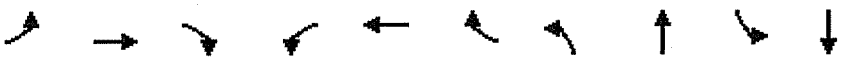
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.86		1.00	0.86	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected	0.95	0.97	1.00	0.95	0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1665	1696	1568	1665	1707	1568	1752	6285		1752	6321	
Flt Permitted	0.95	0.97	1.00	0.95	0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1665	1696	1568	1665	1707	1568	1752	6285		1752	6321	
Volume (vph)	240	50	30	250	80	70	90	2630	180	20	3730	100
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	261	54	33	272	87	76	98	2859	196	22	4054	109
RTOR Reduction (vph)	0	0	29	0	0	66	0	7	0	0	3	0
Lane Group Flow (vph)	154	161	4	175	184	10	98	3048	0	22	4160	0
Turn Type	Split		Perm	Split		Perm	Prot			Prot		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)	12.6	12.6	12.6	15.2	15.2	15.2	7.7	80.6		5.0	77.9	
Effective Green, g (s)	15.6	15.6	15.6	18.2	18.2	18.2	10.0	82.9		7.3	80.2	
Actuated g/C Ratio	0.11	0.11	0.11	0.13	0.13	0.13	0.07	0.59		0.05	0.57	
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	6.3	6.3		6.3	6.3	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	186	189	175	216	222	204	125	3722		91	3621	
v/s Ratio Prot	0.09	c0.09		0.11	c0.11		c0.06	c0.49		0.01	c0.66	
v/s Ratio Perm			0.00			0.01						
v/c Ratio	0.83	0.85	0.02	0.81	0.83	0.05	0.78	0.82		0.24	1.15	
Uniform Delay, d1	60.9	61.1	55.4	59.2	59.4	53.3	63.9	22.6		63.7	29.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.88	1.09		1.12	0.56	
Incremental Delay, d2	25.1	29.0	0.0	20.0	21.8	0.1	15.2	1.1		0.1	67.4	
Delay (s)	85.9	90.1	55.4	79.3	81.2	53.4	71.2	25.8		71.3	84.1	
Level of Service	F	F	E	E	F	D	E	C		E	F	
Approach Delay (s)		85.0			75.6			27.2			84.0	
Approach LOS		F			E			C			F	

Intersection Summary			
HCM Average Control Delay	61.5	HCM Level of Service	E
HCM Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	86.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



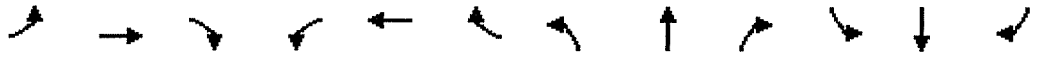
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	154	161	33	175	184	76	98	3055	22	4163
v/c Ratio	0.83	0.85	0.16	0.81	0.83	0.28	0.78	0.80	0.18	1.15
Control Delay	93.7	96.7	19.0	86.2	88.4	14.1	78.4	24.8	68.4	86.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	93.7	96.7	19.0	86.2	88.4	14.1	78.4	24.8	68.4	86.7
Queue Length 50th (ft)	147	153	0	165	174	0	94	445	21	~1278
Queue Length 95th (ft)	#276	#289	34	#293	#308	48	m113	526	m21	m#1171
Internal Link Dist (ft)		1325			1326			1346		2512
Turn Bay Length (ft)	150		150	350			475		400	
Base Capacity (vph)	186	189	204	219	224	272	125	3841	160	3624
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.85	0.16	0.80	0.82	0.28	0.78	0.80	0.14	1.15

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.86		1.00	0.86	
Frt	1.00	0.89		1.00	0.87		1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1638		1752	1608		1752	6295		1752	6330	
Flt Permitted	0.71	1.00		0.44	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1305	1638		812	1608		1752	6295		1752	6330	
Volume (vph)	70	20	60	310	10	60	60	2650	150	110	3670	60
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	22	65	337	11	65	65	2880	163	120	3989	65
RTOR Reduction (vph)	0	59	0	0	56	0	0	6	0	0	1	0
Lane Group Flow (vph)	76	28	0	337	20	0	65	3037	0	120	4053	0
Turn Type	pm+pt			pm+pt			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	20.5	11.5		32.5	18.5		8.6	77.5		11.5	80.4	
Effective Green, g (s)	23.3	13.3		34.3	20.3		10.8	80.0		13.7	82.9	
Actuated g/C Ratio	0.17	0.10		0.24	0.15		0.08	0.57		0.10	0.59	
Clearance Time (s)	5.0	5.8		5.0	5.8		6.2	6.5		6.2	6.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	249	156		313	233		135	3597		171	3748	
v/s Ratio Prot	0.02	0.02		c0.13	0.01		0.04	0.48		c0.07	c0.64	
v/s Ratio Perm	0.03			c0.13								
v/c Ratio	0.31	0.18		1.08	0.09		0.48	0.84		0.70	1.08	
Uniform Delay, d1	50.8	58.3		50.7	51.8		61.9	24.8		61.2	28.5	
Progression Factor	1.00	1.00		1.00	1.00		0.76	1.43		1.00	1.00	
Incremental Delay, d2	0.7	0.6		72.8	0.2		1.6	1.6		12.3	42.1	
Delay (s)	51.5	58.9		123.5	52.0		48.7	37.0		73.4	70.7	
Level of Service	D	E		F	D		D	D		E	E	
Approach Delay (s)		55.5			110.3			37.3			70.8	
Approach LOS		E			F			D			E	

Intersection Summary			
HCM Average Control Delay	59.3	HCM Level of Service	E
HCM Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	93.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

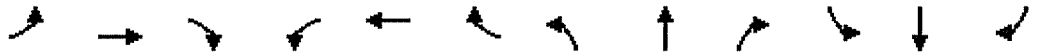
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	76	87	337	76	65	3043	120	4054
v/c Ratio	0.31	0.43	1.01	0.26	0.43	0.83	0.70	1.05
Control Delay	46.3	27.4	102.0	19.1	51.1	36.2	82.5	58.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.3	27.4	102.0	19.1	51.1	36.2	82.5	58.5
Queue Length 50th (ft)	56	19	~297	9	52	667	107	~1202
Queue Length 95th (ft)	100	74	#397	59	m67	740	#191	#1294
Internal Link Dist (ft)		1379		1347		2512		3539
Turn Bay Length (ft)	150		275		275		475	
Base Capacity (vph)	315	225	334	289	178	3649	178	3853
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.39	1.01	0.26	0.37	0.83	0.67	1.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

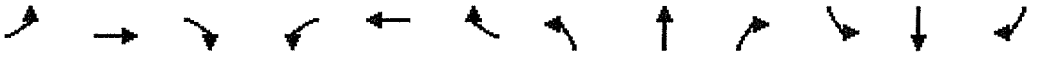
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	0.94	1.00	1.00	0.97	0.91	1.00	0.94	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1845	1568	4942	1845	1568	3400	5036	1568	4942	5036	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1845	1568	4942	1845	1568	3400	5036	1568	4942	5036	1568
Volume (vph)	150	170	140	1020	200	360	110	2080	660	650	2680	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	163	185	152	1109	217	391	120	2261	717	707	2913	54
RTOR Reduction (vph)	0	0	127	0	0	191	0	0	0	0	0	13
Lane Group Flow (vph)	163	185	25	1109	217	200	120	2261	717	707	2913	41
Turn Type	Split		Perm	Split		Perm	Prot		Free	Prot		Perm
Protected Phases	3	3		4	4		5	2		1	6	
Permitted Phases			3			4			Free			6
Actuated Green, G (s)	19.5	19.5	19.5	23.5	23.5	23.5	11.0	58.0	141.0	13.0	60.0	60.0
Effective Green, g (s)	22.0	22.0	22.0	26.0	26.0	26.0	14.0	61.0	141.0	16.0	63.0	63.0
Actuated g/C Ratio	0.16	0.16	0.16	0.18	0.18	0.18	0.10	0.43	1.00	0.11	0.45	0.45
Clearance Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	7.0	7.0		7.0	7.0	7.0
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.0		4.0	5.0	5.0
Lane Grp Cap (vph)	273	288	245	911	340	289	338	2179	1568	561	2250	701
v/s Ratio Prot	0.09	c0.10		c0.22	0.12		0.04	0.45		c0.14	c0.58	
v/s Ratio Perm			0.02			0.13			c0.46			0.03
v/c Ratio	0.60	0.64	0.10	1.22	0.64	0.69	0.36	1.04	0.46	1.26	1.29	0.06
Uniform Delay, d1	55.4	55.8	51.0	57.5	53.2	53.8	59.3	40.0	0.0	62.5	39.0	22.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.1	5.4	0.3	107.8	4.4	7.5	0.9	29.9	1.0	131.0	136.0	0.1
Delay (s)	59.4	61.2	51.3	165.3	57.5	61.3	60.2	69.9	1.0	193.5	175.0	22.2
Level of Service	E	E	D	F	E	E	E	E	A	F	F	C
Approach Delay (s)		57.6			128.0			53.5			176.3	
Approach LOS		E			F			D			F	

Intersection Summary			
HCM Average Control Delay	118.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.15		
Actuated Cycle Length (s)	141.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	97.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

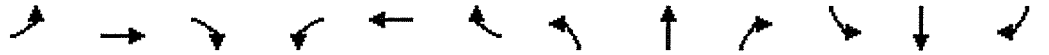


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	163	185	152	1109	217	391	120	2261	717	707	2913	54
v/c Ratio	0.60	0.64	0.41	1.22	0.64	0.81	0.36	1.04	0.46	1.26	1.29	0.08
Control Delay	64.8	66.6	11.3	155.0	63.4	36.5	62.7	68.9	1.0	180.1	169.7	15.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.8	66.6	11.3	155.0	63.4	36.5	62.7	68.9	1.0	180.1	169.7	15.4
Queue Length 50th (ft)	141	161	2	~445	188	147	54	~826	0	~290	~1262	16
Queue Length 95th (ft)	219	244	64	#556	286	#319	88	#952	0	#389	#1406	45
Internal Link Dist (ft)		1418			1555			1340			2491	
Turn Bay Length (ft)	300		300	350			300			475		
Base Capacity (vph)	314	331	404	912	340	480	380	2180	1568	561	2250	714
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.56	0.38	1.22	0.64	0.81	0.32	1.04	0.46	1.26	1.29	0.08

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.86		1.00	0.86	
Frt		0.96			1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected		0.98			0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1733			1760	1568	1752	6303		1752	6342	
Flt Permitted		0.69			0.75	1.00	0.05	1.00		0.95	1.00	
Satd. Flow (perm)		1214			1389	1568	85	6303		1752	6342	
Volume (vph)	10	10	10	250	10	190	20	2380	110	100	2830	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	11	272	11	207	22	2587	120	109	3076	11
RTOR Reduction (vph)	0	3	0	0	0	128	0	5	0	0	0	0
Lane Group Flow (vph)	0	30	0	0	283	79	22	2702	0	109	3087	0
Turn Type	Perm			Perm		Perm	Perm			Prot		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2					
Actuated Green, G (s)		24.7			24.7	24.7	84.3	84.3		12.7	102.8	
Effective Green, g (s)		26.8			26.8	26.8	86.7	86.7		14.5	105.2	
Actuated g/C Ratio		0.19			0.19	0.19	0.62	0.62		0.10	0.75	
Clearance Time (s)		6.1			6.1	6.1	6.4	6.4		5.8	6.4	
Vehicle Extension (s)		5.0			5.0	5.0	6.0	6.0		4.0	6.0	
Lane Grp Cap (vph)		232			266	300	53	3903		181	4766	
v/s Ratio Prot								c0.43		0.06	c0.49	
v/s Ratio Perm		0.02			c0.20	0.05	0.26					
v/c Ratio		0.13			1.06	0.26	0.42	0.69		0.60	0.65	
Uniform Delay, d1		46.9			56.6	48.2	13.7	17.8		60.0	8.4	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.5			73.1	1.0	22.2	1.0		6.4	0.7	
Delay (s)		47.4			129.7	49.2	35.9	18.8		66.4	9.1	
Level of Service		D			F	D	D	B		E	A	
Approach Delay (s)		47.4			95.7			18.9			11.1	
Approach LOS		D			F			B			B	

Intersection Summary			
HCM Average Control Delay	21.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	88.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	33	283	207	22	2707	109	3087
v/c Ratio	0.14	1.06	0.48	0.41	0.69	0.60	0.65
Control Delay	44.4	126.0	17.7	41.6	19.0	73.9	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.4	126.0	17.7	41.6	19.0	73.9	9.2
Queue Length 50th (ft)	22	~284	38	10	461	96	350
Queue Length 95th (ft)	54	#469	116	#54	498	161	375
Internal Link Dist (ft)	1464	1406			2491		9831
Turn Bay Length (ft)				200		400	
Base Capacity (vph)	236	266	428	54	3905	195	4764
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	1.06	0.48	0.41	0.69	0.56	0.65

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00	1.00	0.97	1.00		1.00	0.91	1.00	0.97	0.91	1.00
Frt		1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1817	1568	3400	1810		1752	5036	1568	3400	5036	1568
Flt Permitted		0.99	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1817	1568	3400	1810		1752	5036	1568	3400	5036	1568
Volume (vph)	70	160	60	380	140	20	110	1650	410	330	2250	90
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	174	65	413	152	22	120	1793	446	359	2446	98
RTOR Reduction (vph)	0	0	20	0	4	0	0	0	177	0	0	29
Lane Group Flow (vph)	0	250	45	413	170	0	120	1793	269	359	2446	69
Turn Type	Split		Perm	Split			Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)		23.7	23.7	22.9	22.9		9.5	44.5	44.5	17.7	52.7	52.7
Effective Green, g (s)		27.2	27.2	26.4	26.4		11.0	48.0	48.0	19.2	56.2	56.2
Actuated g/C Ratio		0.20	0.20	0.19	0.19		0.08	0.35	0.35	0.14	0.41	0.41
Clearance Time (s)		7.5	7.5	7.5	7.5		5.5	7.5	7.5	5.5	7.5	7.5
Vehicle Extension (s)		5.0	5.0	4.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)		361	312	656	349		141	1767	550	477	2069	644
v/s Ratio Prot		c0.14		c0.12	0.09		0.07	0.36		c0.11	c0.49	
v/s Ratio Perm			0.03						0.17			0.04
v/c Ratio		0.69	0.14	0.63	0.49		0.85	1.01	0.49	0.75	1.18	0.11
Uniform Delay, d1		50.9	45.2	50.7	49.2		62.1	44.4	34.8	56.5	40.3	24.8
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		7.1	0.4	2.2	1.5		36.0	25.1	0.9	6.6	87.3	0.1
Delay (s)		58.0	45.6	52.9	50.6		98.1	69.5	35.7	63.1	127.6	24.9
Level of Service		E	D	D	D		F	E	D	E	F	C
Approach Delay (s)		55.5			52.2			64.6			116.2	
Approach LOS		E			D			E			F	

Intersection Summary			
HCM Average Control Delay	87.2	HCM Level of Service	F
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	136.8	Sum of lost time (s)	16.0
Intersection Capacity Utilization	86.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NEL	NET	NER	SWL	SWT	SWR
Lane Group Flow (vph)	250	65	413	174	120	1793	446	359	2446	98
v/c Ratio	0.69	0.20	0.63	0.49	0.85	1.02	0.61	0.75	1.18	0.15
Control Delay	62.3	32.0	55.7	53.3	106.9	69.6	18.9	68.0	124.5	15.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.3	32.0	55.7	53.3	106.9	69.6	18.9	68.0	124.5	15.4
Queue Length 50th (ft)	210	30	179	138	110	~667	133	162	~994	27
Queue Length 95th (ft)	316	74	238	217	#240	#808	268	226	#1143	70
Internal Link Dist (ft)	1258			1388		9831			5036	
Turn Bay Length (ft)		50	300		200			350		
Base Capacity (vph)	401	366	746	401	141	1765	726	516	2066	672
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.18	0.55	0.43	0.85	1.02	0.61	0.70	1.18	0.15

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.86		1.00	0.86	
Frt	1.00	0.91			1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00			0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1683			1774	1568	1752	6261		1752	6331	
Flt Permitted	0.39	1.00			0.63	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	719	1683			1167	1568	1752	6261		1752	6331	
Volume (vph)	60	50	70	200	50	70	70	1750	170	90	2510	40
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	54	76	217	54	76	76	1902	185	98	2728	43
RTOR Reduction (vph)	0	42	0	0	0	25	0	12	0	0	1	0
Lane Group Flow (vph)	65	88	0	0	271	51	76	2075	0	98	2770	0
Turn Type	Perm			Perm		Perm	Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8						
Actuated Green, G (s)	25.9	25.9			25.9	25.9	8.9	53.1		9.8	54.0	
Effective Green, g (s)	29.4	29.4			29.4	29.4	9.9	56.6		10.8	57.5	
Actuated g/C Ratio	0.27	0.27			0.27	0.27	0.09	0.52		0.10	0.53	
Clearance Time (s)	7.5	7.5			7.5	7.5	5.0	7.5		5.0	7.5	
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	194	455			315	424	159	3257		174	3346	
v/s Ratio Prot		0.05					0.04	0.33		c0.06	c0.44	
v/s Ratio Perm	0.09				c0.23	0.03						
v/c Ratio	0.34	0.19			0.86	0.12	0.48	0.64		0.56	0.83	
Uniform Delay, d1	31.9	30.6			37.7	29.9	47.0	18.7		46.7	21.5	
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.0	0.2			20.6	0.1	2.3	0.6		4.1	2.0	
Delay (s)	32.9	30.8			58.3	30.1	49.3	19.3		50.9	23.5	
Level of Service	C	C			E	C	D	B		D	C	
Approach Delay (s)		31.5			52.1			20.4			24.5	
Approach LOS		C			D			C			C	

Intersection Summary			
HCM Average Control Delay	24.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	108.8	Sum of lost time (s)	8.0
Intersection Capacity Utilization	75.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	WBR	NEL	NET	SWL	SWT
Lane Group Flow (vph)	65	130	271	76	76	2087	98	2771
v/c Ratio	0.40	0.29	0.87	0.17	0.39	0.63	0.47	0.82
Control Delay	42.0	20.2	65.9	20.6	52.9	20.4	53.6	24.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.0	20.2	65.9	20.6	52.9	20.4	53.6	24.8
Queue Length 50th (ft)	37	39	184	22	52	308	67	479
Queue Length 95th (ft)	84	94	#356	63	100	382	122	575
Internal Link Dist (ft)		1356	1472			5036		6884
Turn Bay Length (ft)				50	375		375	
Base Capacity (vph)	185	498	326	471	296	3303	298	3383
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.26	0.83	0.16	0.26	0.63	0.33	0.82

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt		0.96			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.98			0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1733			1760	1568	1752	5036	1568	1752	5036	1568
Flt Permitted		0.75			0.71	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1313			1308	1568	1752	5036	1568	1752	5036	1568
Volume (vph)	10	10	10	280	10	50	30	1800	130	50	2380	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	11	304	11	54	33	1957	141	54	2587	11
RTOR Reduction (vph)	0	9	0	0	0	42	0	0	68	0	0	5
Lane Group Flow (vph)	0	24	0	0	315	12	33	1957	73	54	2587	6
Turn Type	Perm			Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8			2			6
Actuated Green, G (s)		13.7			13.7	13.7	2.9	35.1	35.1	4.6	36.2	36.2
Effective Green, g (s)		16.2			16.2	16.2	5.7	37.9	37.9	6.8	39.0	39.0
Actuated g/C Ratio		0.22			0.22	0.22	0.08	0.52	0.52	0.09	0.53	0.53
Clearance Time (s)		6.5			6.5	6.5	6.8	6.8	6.8	6.2	6.8	6.8
Vehicle Extension (s)		4.0			4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)		292			291	348	137	2618	815	163	2694	839
v/s Ratio Prot							0.02	0.39		c0.03	c0.51	
v/s Ratio Perm		0.02			c0.24	0.01			0.05			0.00
v/c Ratio		0.08			1.08	0.03	0.24	0.75	0.09	0.33	0.96	0.01
Uniform Delay, d1		22.5			28.4	22.2	31.6	13.7	8.8	30.9	16.2	7.9
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.2			76.5	0.1	0.9	1.3	0.1	1.2	9.8	0.0
Delay (s)		22.6			104.8	22.3	32.5	15.0	8.9	32.1	26.0	7.9
Level of Service		C			F	C	C	B	A	C	C	A
Approach Delay (s)		22.6			92.8			14.9			26.1	
Approach LOS		C			F			B			C	

Intersection Summary			
HCM Average Control Delay	26.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	72.9	Sum of lost time (s)	8.0
Intersection Capacity Utilization	75.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Group Flow (vph)	33	315	54	33	1957	141	54	2587	11
v/c Ratio	0.14	1.02	0.13	0.14	0.73	0.16	0.23	0.90	0.01
Control Delay	21.0	89.7	8.6	31.0	15.9	2.7	31.1	21.6	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.0	89.7	8.6	31.0	15.9	2.7	31.1	21.6	5.7
Queue Length 50th (ft)	9	~168	0	14	258	0	22	243	0
Queue Length 95th (ft)	30	#321	27	37	332	26	54	#593	8
Internal Link Dist (ft)	1413	1496			6884			4514	
Turn Bay Length (ft)			150	225			200		
Base Capacity (vph)	258	308	410	249	2667	897	257	2862	896
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	1.02	0.13	0.13	0.73	0.16	0.21	0.90	0.01

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			0.91	0.91	1.00	0.86		0.94	0.86	
Frt	1.00	0.92			0.88	0.85	1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1691			1468	2854	1752	6340		4942	6335	
Flt Permitted	0.95	1.00			1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1752	1691			1468	2854	1752	6340		4942	6335	
Volume (vph)	50	40	50	20	40	1270	30	1760	10	1060	2770	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	43	54	22	43	1380	33	1913	11	1152	3011	33
RTOR Reduction (vph)	0	39	0	0	0	0	0	1	0	0	1	0
Lane Group Flow (vph)	54	58	0	0	357	1088	33	1923	0	1152	3043	0
Turn Type	Split			Split		pt+ov	Prot			Prot		
Protected Phases	4	4		8	8	8 1	5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	8.5	8.5			16.8	33.4	4.4	50.7		8.1	54.4	
Effective Green, g (s)	12.0	12.0			21.3	37.4	8.4	55.7		12.1	59.4	
Actuated g/C Ratio	0.10	0.10			0.18	0.32	0.07	0.48		0.10	0.51	
Clearance Time (s)	7.5	7.5			8.5		8.0	9.0		8.0	9.0	
Vehicle Extension (s)	4.0	4.0			4.0		3.0	4.0		3.0	4.0	
Lane Grp Cap (vph)	180	173			267	912	126	3016		511	3213	
v/s Ratio Prot	0.03	c0.03			c0.24	0.38	0.02	0.30		c0.23	c0.48	
v/s Ratio Perm												
v/c Ratio	0.30	0.34			1.34	1.19	0.26	0.64		2.25	0.95	
Uniform Delay, d1	48.7	48.9			47.9	39.8	51.4	23.1		52.5	27.4	
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.3	1.6			174.9	97.7	1.1	0.5		570.7	7.1	
Delay (s)	49.9	50.4			222.8	137.5	52.5	23.6		623.2	34.4	
Level of Service	D	D			F	F	D	C		F	C	
Approach Delay (s)		50.3			158.6			24.1			196.1	
Approach LOS		D			F			C			F	

Intersection Summary			
HCM Average Control Delay	142.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	117.1	Sum of lost time (s)	16.0
Intersection Capacity Utilization	87.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	WBR	NEL	NET	SWL	SWT
Lane Group Flow (vph)	54	97	357	1088	33	1924	1152	3044
v/c Ratio	0.25	0.39	1.27	1.13	0.19	0.65	2.14	0.91
Control Delay	50.4	33.2	186.9	109.4	53.4	24.7	543.3	31.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.4	33.2	186.9	109.4	53.4	24.7	543.3	31.2
Queue Length 50th (ft)	38	38	~397	~563	24	316	~509	~681
Queue Length 95th (ft)	79	93	#619	#723	58	370	#614	#814
Internal Link Dist (ft)		1320	1449			4514		3170
Turn Bay Length (ft)	100				200		400	
Base Capacity (vph)	240	269	280	960	179	3075	539	3363
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.36	1.27	1.13	0.18	0.63	2.14	0.91

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00	1.00	0.91	0.91	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.96	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1778	1568	3189	1600	1568	1752	5036	1568	3400	5036	1568
Flt Permitted		0.96	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1778	1568	3189	1600	1568	1752	5036	1568	3400	5036	1568
Volume (vph)	30	10	30	1350	10	370	20	2030	810	440	3250	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	11	33	1467	11	402	22	2207	880	478	3533	11
RTOR Reduction (vph)	0	0	32	0	0	186	0	0	0	0	0	2
Lane Group Flow (vph)	0	44	1	978	500	216	22	2207	880	478	3533	9
Turn Type	Split		Perm	Split		Perm	Prot		Free	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8			Free			6
Actuated Green, G (s)		3.4	3.4	50.5	50.5	50.5	4.9	45.4	144.6	20.1	60.6	60.6
Effective Green, g (s)		6.0	6.0	53.1	53.1	53.1	5.9	48.4	144.6	21.1	63.6	63.6
Actuated g/C Ratio		0.04	0.04	0.37	0.37	0.37	0.04	0.33	1.00	0.15	0.44	0.44
Clearance Time (s)		6.6	6.6	6.6	6.6	6.6	5.0	7.0		5.0	7.0	7.0
Vehicle Extension (s)		4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	4.0
Lane Grp Cap (vph)		74	65	1171	588	576	71	1686	1568	496	2215	690
v/s Ratio Prot		0.02		0.31	c0.31		0.01	0.44		c0.14	c0.70	
v/s Ratio Perm			0.00			0.14			c0.56			0.01
v/c Ratio		0.59	0.02	0.84	0.85	0.37	0.31	1.31	0.56	0.96	1.60	0.01
Uniform Delay, d1		68.1	66.5	41.8	42.1	33.6	67.4	48.1	0.0	61.4	40.5	22.8
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		14.1	0.2	5.5	11.7	0.6	2.5	143.4	1.5	31.1	269.9	0.0
Delay (s)		82.2	66.7	47.3	53.8	34.1	69.9	191.5	1.5	92.4	310.4	22.8
Level of Service		F	E	D	D	C	E	F	A	F	F	C
Approach Delay (s)		75.5			46.2			136.9			283.7	
Approach LOS		E			D			F			F	

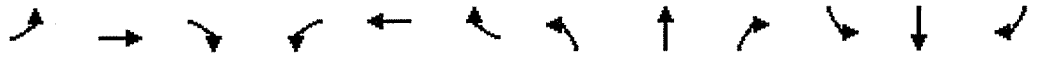
Intersection Summary			
HCM Average Control Delay	182.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.20		
Actuated Cycle Length (s)	144.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	111.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	44	33	978	500	402	22	2207	880	478	3533	11
v/c Ratio	0.51	0.31	0.81	0.83	0.52	0.21	1.34	0.56	0.94	1.56	0.02
Control Delay	88.1	27.9	46.2	53.3	11.5	70.0	193.4	1.5	87.1	281.5	21.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	88.1	27.9	46.2	53.3	11.5	70.0	193.4	1.5	87.1	281.5	21.6
Queue Length 50th (ft)	42	0	452	467	69	20	~1021	0	237	~1820	4
Queue Length 95th (ft)	#90	37	546	#642	167	50	#1112	0	#352	#1912	18
Internal Link Dist (ft)	1565			1533			9567			2116	
Turn Bay Length (ft)		100	425			350			275		250
Base Capacity (vph)	87	108	1243	624	791	131	1651	1568	509	2272	710
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.31	0.79	0.80	0.51	0.17	1.34	0.56	0.94	1.56	0.02

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.86		1.00	0.86	
Frt	1.00	0.95		1.00	0.91		1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1694	1752		1694	1678		1752	6280		1752	6332	
Flt Permitted	0.52	1.00		0.31	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	925	1752		555	1678		1752	6280		1752	6332	
Volume (vph)	260	180	90	220	60	90	90	3370	250	130	2710	40
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	283	196	98	239	65	98	98	3663	272	141	2946	43
RTOR Reduction (vph)	0	7	0	0	23	0	0	5	0	0	1	0
Lane Group Flow (vph)	283	287	0	239	140	0	98	3930	0	141	2988	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	64.0	64.0		64.0	64.0		13.9	144.5		16.5	147.1	
Effective Green, g (s)	65.0	65.0		65.0	65.0		14.4	146.0		17.0	148.6	
Actuated g/C Ratio	0.27	0.27		0.27	0.27		0.06	0.61		0.07	0.62	
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	5.5		4.5	5.5	
Vehicle Extension (s)	4.0	4.0		4.0	4.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	251	475		150	454		105	3820		124	3921	
v/s Ratio Prot		0.16			0.08		0.06	c0.63		c0.08	c0.47	
v/s Ratio Perm	0.31			c0.43								
v/c Ratio	1.13	0.60		1.59	0.31		0.93	1.03		1.14	0.76	
Uniform Delay, d1	87.5	76.3		87.5	69.6		112.3	47.0		111.5	33.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.28	0.05	
Incremental Delay, d2	95.5	2.5		296.1	0.5		66.4	22.6		71.1	0.1	
Delay (s)	183.0	78.8		383.6	70.2		178.7	69.6		214.2	1.8	
Level of Service	F	E		F	E		F	E		F	A	
Approach Delay (s)		129.9			256.5			72.3			11.3	
Approach LOS		F			F			E			B	

Intersection Summary			
HCM Average Control Delay	62.0	HCM Level of Service	E
HCM Volume to Capacity ratio	1.21		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	100.7%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	283	294	239	163	98	3935	141	2989
v/c Ratio	1.13	0.61	1.59	0.34	0.93	1.03	1.14	0.76
Control Delay	168.6	80.0	344.5	58.7	177.3	67.8	182.7	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	168.6	80.0	344.5	58.7	177.3	67.8	182.7	1.8
Queue Length 50th (ft)	~517	400	~537	170	158	~1925	~258	107
Queue Length 95th (ft)	#740	522	#747	254	#303	#1893	m#256	m106
Internal Link Dist (ft)		1402		1426		1282		1911
Turn Bay Length (ft)	150		200		250		250	
Base Capacity (vph)	251	482	150	477	105	3826	124	3922
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.13	0.61	1.59	0.34	0.93	1.03	1.14	0.76

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	0.91		1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.99		1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.96		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3083	1597		1752	1748		1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	0.96		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3083	1597		1752	1748		1752	5036	1568	1752	5036	1568
Volume (vph)	1630	30	20	180	130	70	10	3790	80	30	2650	690
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1772	33	22	196	141	76	11	4120	87	33	2880	750
RTOR Reduction (vph)	0	1	0	0	8	0	0	0	9	0	0	0
Lane Group Flow (vph)	1208	618	0	196	209	0	11	4120	78	33	2880	750
Turn Type	Split			Split			Prot		Perm	Prot		Free
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases									2			Free
Actuated Green, G (s)	62.0	62.0		20.0	20.0		3.0	133.0	133.0	4.0	134.0	240.0
Effective Green, g (s)	63.0	63.0		21.0	21.0		4.5	134.5	134.5	5.5	135.5	240.0
Actuated g/C Ratio	0.26	0.26		0.09	0.09		0.02	0.56	0.56	0.02	0.56	1.00
Clearance Time (s)	5.0	5.0		5.0	5.0		5.5	5.5	5.5	5.5	5.5	
Vehicle Extension (s)	4.0	4.0		4.0	4.0		3.0	5.0	5.0	3.0	5.0	
Lane Grp Cap (vph)	809	419		153	153		33	2822	879	40	2843	1568
v/s Ratio Prot	c0.39	0.39		0.11	c0.12		0.01	c0.82		c0.02	0.57	
v/s Ratio Perm									0.05			c0.48
v/c Ratio	1.49	1.48		1.28	1.36		0.33	1.46	0.09	0.82	1.01	0.48
Uniform Delay, d1	88.5	88.5		109.5	109.5		116.3	52.8	24.4	116.8	52.2	0.0
Progression Factor	1.00	1.00		1.00	1.00		0.94	0.89	1.32	1.18	0.41	1.00
Incremental Delay, d2	228.5	226.6		167.1	200.2		1.6	207.5	0.1	55.2	16.6	0.7
Delay (s)	317.0	315.1		276.6	309.7		111.4	254.6	32.4	193.4	38.2	0.7
Level of Service	F	F		F	F		F	F	C	F	D	A
Approach Delay (s)		316.3			294.0			249.7			31.9	
Approach LOS		F			F			F			C	

Intersection Summary			
HCM Average Control Delay	184.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.45		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	125.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

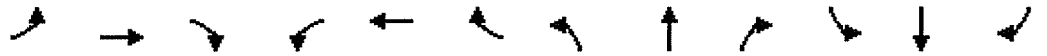
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	1208	619	196	217	11	4120	87	33	2880	750
v/c Ratio	1.49	1.47	1.28	1.35	0.23	1.45	0.10	0.70	1.00	0.48
Control Delay	281.4	279.5	242.8	259.6	111.6	237.2	24.8	172.9	34.2	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	281.4	279.5	242.8	259.6	111.6	237.2	24.8	172.9	34.2	0.7
Queue Length 50th (ft)	~1447	~1478	~391	~435	18	~3258	48	55	~1762	0
Queue Length 95th (ft)	#1587	#1772	#591	#644	m19	m#3099	m48	m71	#1793	0
Internal Link Dist (ft)		271		1474		1911			1889	
Turn Bay Length (ft)			150		250			350		
Base Capacity (vph)	809	420	153	161	47	2845	895	47	2889	1568
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.49	1.47	1.28	1.35	0.23	1.45	0.10	0.70	1.00	0.48

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	11	11	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.94	1.00		0.97	0.86		0.97	0.86	
Frt	1.00	1.00	0.85	1.00	0.89		1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1845	1568	4777	1580		3400	6263		3400	6320	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1752	1845	1568	4777	1580		3400	6263		3400	6320	
Volume (vph)	120	80	90	410	70	220	150	4010	380	190	2850	80
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	87	98	446	76	239	163	4359	413	207	3098	87
RTOR Reduction (vph)	0	0	83	0	47	0	0	6	0	0	1	0
Lane Group Flow (vph)	130	87	15	446	268	0	163	4766	0	207	3184	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)	13.5	15.4	15.4	27.1	29.0		22.8	159.2		18.8	155.2	
Effective Green, g (s)	14.0	16.4	16.4	27.6	30.0		23.3	160.7		19.3	156.7	
Actuated g/C Ratio	0.06	0.07	0.07	0.12	0.12		0.10	0.67		0.08	0.65	
Clearance Time (s)	4.5	5.0	5.0	4.5	5.0		4.5	5.5		4.5	5.5	
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	102	126	107	549	198		330	4194		273	4126	
v/s Ratio Prot	c0.07	0.05		0.09	c0.17		0.05	c0.76		0.06	c0.50	
v/s Ratio Perm			0.01									
v/c Ratio	1.27	0.69	0.14	0.81	1.35		0.49	1.14		0.76	0.77	
Uniform Delay, d1	113.0	109.3	105.2	103.7	105.0		102.8	39.7		108.1	29.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.90	0.75		1.36	0.19	
Incremental Delay, d2	179.8	16.2	0.8	8.9	188.0		0.1	61.7		5.8	0.7	
Delay (s)	292.8	125.5	106.0	112.6	293.0		92.7	91.4		153.2	6.4	
Level of Service	F	F	F	F	F		F	F		F	A	
Approach Delay (s)		188.5			187.3			91.4			15.3	
Approach LOS		F			F			F			B	

Intersection Summary			
HCM Average Control Delay	75.0	HCM Level of Service	E
HCM Volume to Capacity ratio	1.15		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	107.1%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

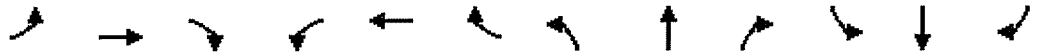
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	130	87	98	446	315	163	4772	207	3185
v/c Ratio	1.27	0.69	0.52	0.81	1.29	0.49	1.14	0.76	0.77
Control Delay	257.5	132.1	31.3	115.7	215.2	93.4	90.9	156.0	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	257.5	132.1	31.3	115.7	215.2	93.4	90.9	156.0	6.4
Queue Length 50th (ft)	~259	138	14	249	~555	126	~1007	166	140
Queue Length 95th (ft)	#432	#277	91	292	#786	m85	m507	m192	m140
Internal Link Dist (ft)		1464			1497		1889		2565
Turn Bay Length (ft)	100		100	150		400		300	
Base Capacity (vph)	102	126	190	635	245	330	4199	312	4128
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.27	0.69	0.52	0.70	1.29	0.49	1.14	0.66	0.77

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

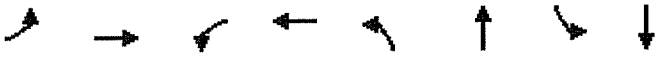
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	0.97	1.00		0.97	1.00		1.00	0.86		1.00	0.86	
Frt	1.00	0.92		1.00	0.94		1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3400	1706		3400	1729		1752	6297		1752	6289	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	3400	1706		3400	1729		1752	6297		1752	6289	
Volume (vph)	320	150	150	140	140	100	140	3870	210	90	2860	180
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	348	163	163	152	152	109	152	4207	228	98	3109	196
RTOR Reduction (vph)	0	15	0	0	11	0	0	3	0	0	4	0
Lane Group Flow (vph)	348	311	0	152	250	0	152	4432	0	98	3301	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	29.1	41.0		15.5	27.9		18.5	153.0		10.5	145.0	
Effective Green, g (s)	29.6	42.0		16.5	28.9		19.0	154.5		11.0	146.5	
Actuated g/C Ratio	0.12	0.18		0.07	0.12		0.08	0.64		0.05	0.61	
Clearance Time (s)	4.5	5.0		5.0	5.0		4.5	5.5		4.5	5.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	419	299		234	208		139	4054		80	3839	
v/s Ratio Prot	c0.10	c0.18		0.04	c0.14		c0.09	c0.70		0.06	0.52	
v/s Ratio Perm												
v/c Ratio	0.83	1.04		0.65	1.20		1.09	1.09		1.23	0.86	
Uniform Delay, d1	102.8	99.0		108.9	105.6		110.5	42.7		114.5	38.3	
Progression Factor	1.00	1.00		1.00	1.00		0.79	1.27		1.20	0.39	
Incremental Delay, d2	13.1	63.0		6.1	128.4		52.9	42.4		151.6	1.7	
Delay (s)	115.8	162.0		115.0	233.9		139.8	96.7		288.4	16.5	
Level of Service	F	F		F	F		F	F		F	B	
Approach Delay (s)		138.2			190.2			98.1			24.4	
Approach LOS		F			F			F			C	

Intersection Summary			
HCM Average Control Delay	77.6	HCM Level of Service	E
HCM Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	101.6%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



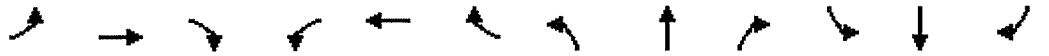
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	348	326	152	261	152	4435	98	3305
v/c Ratio	0.83	1.04	0.65	1.19	1.09	1.09	1.23	0.86
Control Delay	119.4	147.1	121.8	198.6	128.0	92.4	247.3	16.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	60.1	0.0	0.2
Total Delay	119.4	147.1	121.8	198.6	128.0	152.6	247.3	17.0
Queue Length 50th (ft)	282	~531	123	~480	~271	~2286	~192	625
Queue Length 95th (ft)	341	#765	170	#737	m210	m1314	m#283	564
Internal Link Dist (ft)		1508		1584		2565		960
Turn Bay Length (ft)	175		150		850		375	
Base Capacity (vph)	496	313	269	219	139	4055	80	3842
Starvation Cap Reductn	0	0	0	0	0	0	0	111
Spillback Cap Reductn	0	0	0	0	0	446	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	1.04	0.57	1.19	1.09	1.23	1.23	0.89

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	0.97	1.00		1.00	1.00	1.00	1.00	0.86		1.00	0.86	
Frt	1.00	0.92		1.00	1.00	0.85	1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3286	1649		1752	1845	1568	1752	6307		1752	6288	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	3286	1649		1752	1845	1568	1752	6307		1752	6288	
Volume (vph)	300	90	90	170	130	300	50	4000	170	210	2790	180
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	326	98	98	185	141	326	54	4348	185	228	3033	196
RTOR Reduction (vph)	0	15	0	0	0	5	0	2	0	0	4	0
Lane Group Flow (vph)	326	181	0	185	141	321	54	4531	0	228	3225	0
Turn Type	Prot			Prot		pt+ov	Prot			Prot		
Protected Phases	7	4		3	8	8 1	5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	28.1	27.1		25.8	24.8	52.3	10.0	145.1		22.5	157.6	
Effective Green, g (s)	28.6	28.1		26.3	25.8	52.8	10.5	146.6		23.0	159.1	
Actuated g/C Ratio	0.12	0.12		0.11	0.11	0.22	0.04	0.61		0.10	0.66	
Clearance Time (s)	4.5	5.0		4.5	5.0		4.5	5.5		4.5	5.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	392	193		192	198	345	77	3853		168	4168	
v/s Ratio Prot	0.10	c0.11		c0.11	0.08	0.20	0.03	c0.72		c0.13	0.51	
v/s Ratio Perm												
v/c Ratio	0.83	0.94		0.96	0.71	0.93	0.70	1.18		1.36	0.77	
Uniform Delay, d1	103.3	105.1		106.4	103.5	91.8	113.2	46.7		108.5	28.0	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.14	0.44		0.94	1.33	
Incremental Delay, d2	13.9	46.8		54.0	11.4	30.5	2.6	79.4		180.0	0.8	
Delay (s)	117.3	151.8		160.4	115.0	122.3	132.2	99.9		282.5	38.0	
Level of Service	F	F		F	F	F	F	F		F	D	
Approach Delay (s)		130.3			131.5			100.3			54.2	
Approach LOS		F			F			F			D	

Intersection Summary			
HCM Average Control Delay	86.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	105.4%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

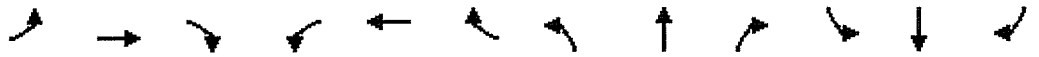
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	326	196	185	141	326	54	4533	228	3229
v/c Ratio	0.83	0.94	0.96	0.71	0.93	0.70	1.18	1.36	0.77
Control Delay	121.3	141.3	157.7	121.9	119.9	132.1	101.8	246.8	38.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	17.3	0.0	0.1
Total Delay	121.3	141.3	157.7	121.9	119.9	132.1	119.2	246.8	38.4
Queue Length 50th (ft)	265	289	298	221	506	90	~2480	~474	1384
Queue Length 95th (ft)	324	#471	#489	#362	#760	m85	m#2123	m#634	m1335
Internal Link Dist (ft)		1383		1613			960		1165
Turn Bay Length (ft)	300		350			300		600	
Base Capacity (vph)	452	212	192	198	350	80	3855	168	4173
Starvation Cap Reductn	0	0	0	0	0	0	123	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	111
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.92	0.96	0.71	0.93	0.68	1.21	1.36	0.79

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	13	13	13	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.86		1.00	0.86	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	0.99	
Flt Protected	0.95	0.99	1.00	0.95	0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1720	1791	1620	1665	1722	1568	1752	6286		1752	6303	
Flt Permitted	0.95	0.99	1.00	0.95	0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1720	1791	1620	1665	1722	1568	1752	6286		1752	6303	
Volume (vph)	270	180	180	300	150	140	130	3900	260	160	2740	130
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	293	196	196	326	163	152	141	4239	283	174	2978	141
RTOR Reduction (vph)	0	0	105	0	0	82	0	4	0	0	3	0
Lane Group Flow (vph)	238	251	91	238	251	70	141	4518	0	174	3116	0
Turn Type	Split		Perm	Split		Perm	Prot			Prot		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)	25.0	25.0	25.0	26.0	26.0	26.0	19.8	150.5		18.5	149.2	
Effective Green, g (s)	26.0	26.0	26.0	27.0	27.0	27.0	20.3	152.0		19.0	150.7	
Actuated g/C Ratio	0.11	0.11	0.11	0.11	0.11	0.11	0.08	0.63		0.08	0.63	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	4.5	5.5		4.5	5.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	2.5	5.0		2.5	5.0	
Lane Grp Cap (vph)	186	194	176	187	194	176	148	3981		139	3958	
v/s Ratio Prot	0.14	c0.14		0.14	c0.15		0.08	c0.72		c0.10	0.49	
v/s Ratio Perm			0.06			0.04						
v/c Ratio	1.28	1.29	0.52	1.27	1.29	0.40	0.95	1.13		1.25	0.79	
Uniform Delay, d1	107.0	107.0	101.1	106.5	106.5	99.0	109.4	44.0		110.5	32.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.15	0.56		0.85	0.61	
Incremental Delay, d2	160.5	165.0	2.5	157.7	165.0	1.5	12.7	61.0		129.8	0.5	
Delay (s)	267.5	272.0	103.6	264.2	271.5	100.5	138.3	85.7		223.6	20.6	
Level of Service	F	F	F	F	F	F	F	F		F	C	
Approach Delay (s)		222.2			228.2			87.3			31.3	
Approach LOS		F			F			F			C	

Intersection Summary			
HCM Average Control Delay	87.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.18		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	107.5%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

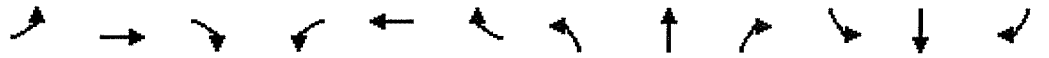
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	238	251	196	238	251	152	141	4522	174	3119
v/c Ratio	1.28	1.29	0.70	1.27	1.29	0.59	0.95	1.13	1.25	0.79
Control Delay	235.1	238.6	54.4	232.5	238.3	49.4	132.0	86.1	198.2	20.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	235.1	238.6	54.4	232.5	238.3	49.4	132.0	86.1	198.2	20.7
Queue Length 50th (ft)	~500	~531	123	~497	~531	91	223	~2423	~342	671
Queue Length 95th (ft)	#721	#758	233	#718	#760	188	m195	m490	m#375	m758
Internal Link Dist (ft)		1440			1426			2920		2650
Turn Bay Length (ft)	225		225	175		200	350		500	
Base Capacity (vph)	186	194	281	187	194	258	148	3987	139	3959
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.28	1.29	0.70	1.27	1.29	0.59	0.95	1.13	1.25	0.79

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00		0.91	0.91	0.88	1.00	0.91	1.00	0.94	0.91	1.00
Frt	1.00	0.93		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1715		3189	1620	2760	1752	5036	1568	4942	5036	1568
Flt Permitted	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	1715		3189	1620	2760	1752	5036	1568	4942	5036	1568
Volume (vph)	220	90	80	970	100	520	20	3620	460	320	2520	20
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	239	98	87	1054	109	565	22	3935	500	348	2739	22
RTOR Reduction (vph)	0	14	0	0	0	7	0	0	57	0	0	3
Lane Group Flow (vph)	239	171	0	762	401	558	22	3935	443	348	2739	19
Turn Type	Split			Split		pt+ov	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8	8 1	5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	22.0	22.0		48.0	48.0	70.5	4.0	132.5	132.5	17.5	146.0	146.0
Effective Green, g (s)	23.0	23.0		49.0	49.0	71.0	4.5	134.0	134.0	18.0	147.5	147.5
Actuated g/C Ratio	0.10	0.10		0.20	0.20	0.30	0.02	0.56	0.56	0.08	0.61	0.61
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	4.0	4.0		4.0	4.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	326	164		651	331	817	33	2812	875	371	3095	964
v/s Ratio Prot	0.07	c0.10		0.24	c0.25	0.20	0.01	c0.78		0.07	c0.54	
v/s Ratio Perm									0.28			0.01
v/c Ratio	0.73	1.05		1.17	1.21	0.68	0.67	1.40	0.51	0.94	0.88	0.02
Uniform Delay, d1	105.5	108.5		95.5	95.5	74.6	117.0	53.0	32.6	110.4	39.1	18.0
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.71	0.36	0.15	0.77	1.58	1.48
Incremental Delay, d2	8.8	82.8		92.5	119.9	2.6	4.5	179.9	0.2	23.4	2.8	0.0
Delay (s)	114.3	191.3		188.0	215.4	77.1	87.4	199.0	5.0	108.9	64.4	26.7
Level of Service	F	F		F	F	E	F	F	A	F	E	C
Approach Delay (s)		147.9			158.1			176.7			69.2	
Approach LOS		F			F			F			E	

Intersection Summary			
HCM Average Control Delay	137.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.29		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	118.7%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

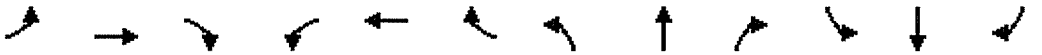
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	239	185	762	401	565	22	3935	500	348	2739	22
v/c Ratio	0.73	1.04	1.17	1.21	0.69	0.55	1.40	0.54	0.94	0.88	0.02
Control Delay	119.5	167.6	169.3	192.9	78.3	86.4	201.9	3.7	109.5	64.3	18.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	119.5	167.6	169.3	192.9	78.3	86.4	201.9	3.7	109.5	64.3	18.6
Queue Length 50th (ft)	194	~293	~786	~848	448	34	~3032	106	196	1521	14
Queue Length 95th (ft)	251	#491	#934	#1118	531	m32	m#2459	m76	m#248	m1486	m20
Internal Link Dist (ft)		1452		1418			2650			2872	
Turn Bay Length (ft)	150				200	425			400		
Base Capacity (vph)	326	178	651	331	824	40	2812	933	371	3114	973
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	1.04	1.17	1.21	0.69	0.55	1.40	0.54	0.94	0.88	0.02

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	0.95	0.95		0.95	0.95	1.00	1.00	0.86		0.97	0.86	
Frt	1.00	0.97		1.00	1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected	0.95	0.99		0.95	0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1665	1687		1665	1687	1568	1752	6258		3400	6320	
Flt Permitted	0.95	0.99		0.95	0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1665	1687		1665	1687	1568	1752	6258		3400	6320	
Volume (vph)	190	100	30	380	50	190	60	3460	350	340	2510	70
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	207	109	33	413	54	207	65	3761	380	370	2728	76
RTOR Reduction (vph)	0	4	0	0	0	65	0	7	0	0	2	0
Lane Group Flow (vph)	171	174	0	227	240	142	65	4134	0	370	2802	0
Turn Type	Split			Split		Perm	Prot			Prot		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)	19.0	19.0		26.0	26.0	26.0	13.0	136.5		38.5	162.0	
Effective Green, g (s)	20.0	20.0		27.0	27.0	27.0	13.5	138.0		39.0	163.5	
Actuated g/C Ratio	0.08	0.08		0.11	0.11	0.11	0.06	0.57		0.16	0.68	
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	4.5	5.5		4.5	5.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	2.5	5.0		2.5	5.0	
Lane Grp Cap (vph)	139	141		187	190	176	99	3598		553	4306	
v/s Ratio Prot	0.10	c0.10		0.14	c0.14		0.04	c0.66		0.11	c0.44	
v/s Ratio Perm						0.09						
v/c Ratio	1.23	1.24		1.21	1.26	0.81	0.66	1.15		0.67	0.65	
Uniform Delay, d1	110.0	110.0		106.5	106.5	104.0	111.0	51.0		94.4	21.9	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.26	0.39		0.67	0.28	
Incremental Delay, d2	151.1	152.9		135.2	153.5	23.1	1.3	67.4		1.6	0.5	
Delay (s)	261.1	262.9		241.7	260.0	127.1	141.2	87.2		64.5	6.5	
Level of Service	F	F		F	F	F	F	F		E	A	
Approach Delay (s)		262.0			213.0			88.0			13.3	
Approach LOS		F			F			F			B	

Intersection Summary			
HCM Average Control Delay	77.0	HCM Level of Service	E
HCM Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	99.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	171	178	227	240	207	65	4141	370	2804
v/c Ratio	1.23	1.24	1.21	1.26	0.86	0.66	1.15	0.67	0.65
Control Delay	231.1	229.6	214.7	229.1	96.5	142.5	88.9	66.9	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	231.1	229.6	214.7	229.1	96.5	142.5	88.9	66.9	6.6
Queue Length 50th (ft)	~350	~360	~460	~501	218	102	~2213	296	138
Queue Length 95th (ft)	#550	#565	#681	#725	#379	m83	m640	353	146
Internal Link Dist (ft)		1490		1548			2872		1921
Turn Bay Length (ft)	200		300		100	500		475	
Base Capacity (vph)	139	144	187	190	241	120	3605	553	4307
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.23	1.24	1.21	1.26	0.86	0.54	1.15	0.67	0.65

Intersection Summary

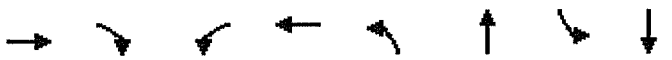
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.86		1.00	0.86	
Frt		1.00	0.85	1.00	0.93		1.00	1.00		1.00	0.99	
Flt Protected		0.95	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1760	1568	1752	1725		1752	6341		1752	6307	
Flt Permitted		0.63	1.00	0.18	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1161	1568	340	1725		1752	6341		1752	6307	
Volume (vph)	300	10	180	20	40	30	140	3790	20	20	2840	120
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	326	11	196	22	43	33	152	4120	22	22	3087	130
RTOR Reduction (vph)	0	0	72	0	11	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	337	124	22	65	0	152	4142	0	22	3215	0
Turn Type	Perm		Perm	Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		56.0	56.0	56.0	56.0		19.3	164.0		4.0	148.7	
Effective Green, g (s)		57.0	57.0	57.0	57.0		20.8	165.5		5.5	150.2	
Actuated g/C Ratio		0.24	0.24	0.24	0.24		0.09	0.69		0.02	0.63	
Clearance Time (s)		5.0	5.0	5.0	5.0		5.5	5.5		5.5	5.5	
Vehicle Extension (s)		4.0	4.0	4.0	4.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)		276	372	81	410		152	4373		40	3947	
v/s Ratio Prot					0.04		c0.09	c0.65		0.01	0.51	
v/s Ratio Perm		c0.29	0.08	0.06								
v/c Ratio		1.22	0.33	0.27	0.16		1.00	0.95		0.55	0.81	
Uniform Delay, d1		91.5	75.8	74.6	72.5		109.6	33.3		116.0	34.3	
Progression Factor		1.00	1.00	1.00	1.00		1.23	0.19		1.19	0.44	
Incremental Delay, d2		127.6	0.7	2.5	0.2		21.9	0.6		9.4	1.2	
Delay (s)		219.1	76.5	77.0	72.7		156.3	7.0		147.5	16.2	
Level of Service		F	E	E	E		F	A		F	B	
Approach Delay (s)		166.6			73.7			12.3			17.1	
Approach LOS		F			E			B			B	

Intersection Summary			
HCM Average Control Delay	25.0	HCM Level of Service	C
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	93.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



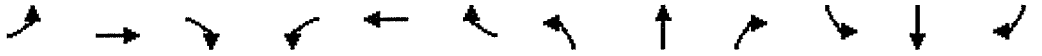
Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	337	196	22	76	152	4142	22	3217
v/c Ratio	1.22	0.44	0.27	0.18	1.00	0.94	0.47	0.81
Control Delay	197.0	42.8	85.5	59.5	146.9	7.2	156.4	16.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Total Delay	197.0	42.8	85.5	59.5	146.9	7.2	156.4	16.4
Queue Length 50th (ft)	~653	139	29	78	~252	220	36	678
Queue Length 95th (ft)	#889	235	67	137	m226	m133	m46	m843
Internal Link Dist (ft)	1454			1472		1921		1002
Turn Bay Length (ft)			50		300		125	
Base Capacity (vph)	276	444	81	421	152	4400	47	3950
Starvation Cap Reductn	0	0	0	0	0	0	0	130
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.22	0.44	0.27	0.18	1.00	0.94	0.47	0.84

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95		0.97	0.86		1.00	0.86	
Frt	1.00	1.00	0.85	1.00	0.94		1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3400	1845	1568	1752	3305		3400	6313		1752	6336	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	3400	1845	1568	1752	3305		3400	6313		1752	6336	
Volume (vph)	120	80	210	220	180	110	200	3700	130	80	2830	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	87	228	239	196	120	217	4022	141	87	3076	33
RTOR Reduction (vph)	0	0	99	0	39	0	0	2	0	0	1	0
Lane Group Flow (vph)	130	87	129	239	277	0	217	4161	0	87	3108	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)	11.4	14.0	14.0	28.5	31.1		17.1	167.5		9.5	159.9	
Effective Green, g (s)	11.9	15.0	15.0	29.0	32.1		18.6	169.0		11.0	161.4	
Actuated g/C Ratio	0.05	0.06	0.06	0.12	0.13		0.08	0.70		0.05	0.67	
Clearance Time (s)	4.5	5.0	5.0	4.5	5.0		5.5	5.5		5.5	5.5	
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	169	115	98	212	442		264	4445		80	4261	
v/s Ratio Prot	0.04	0.05		c0.14	0.08		0.06	c0.66		c0.05	0.49	
v/s Ratio Perm			c0.08									
v/c Ratio	0.77	0.76	1.31	1.13	0.63		0.82	0.94		1.09	0.73	
Uniform Delay, d1	112.7	110.7	112.5	105.5	98.3		109.1	30.8		114.5	25.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.73	0.18		1.07	0.62	
Incremental Delay, d2	18.8	25.6	196.0	100.3	3.1		6.5	1.7		108.9	0.8	
Delay (s)	131.5	136.3	308.5	205.8	101.4		86.0	7.4		231.7	16.5	
Level of Service	F	F	F	F	F		F	A		F	B	
Approach Delay (s)		223.1			146.4			11.3			22.4	
Approach LOS		F			F			B			C	

Intersection Summary			
HCM Average Control Delay	35.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	92.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

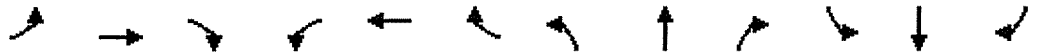
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	130	87	228	239	316	217	4163	87	3109
v/c Ratio	0.77	0.76	1.16	1.13	0.66	0.82	0.94	1.09	0.73
Control Delay	139.6	145.4	156.9	187.0	91.6	88.0	7.5	210.0	16.6
Queue Delay	0.0	0.0	2.4	0.0	0.0	0.0	1.4	0.0	0.0
Total Delay	139.6	145.4	159.3	187.0	91.6	88.0	9.0	210.0	16.7
Queue Length 50th (ft)	107	139	~259	~437	220	175	389	~155	425
Queue Length 95th (ft)	#164	#241	#471	#646	284	m184	m164	m#281	m487
Internal Link Dist (ft)		1544			1553		1002		2491
Turn Bay Length (ft)	275			200		475		300	
Base Capacity (vph)	171	115	197	212	480	264	4448	80	4260
Starvation Cap Reductn	0	0	0	0	0	0	147	0	0
Spillback Cap Reductn	0	0	1	0	0	0	0	0	84
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.76	1.16	1.13	0.66	0.82	0.97	1.09	0.74

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

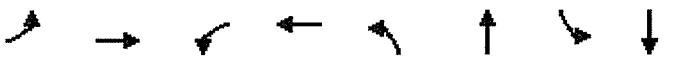
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.86		1.00	0.86	
Frt	1.00	0.96		1.00	0.89		1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1765		1752	1647		1752	6314		1752	6329	
Flt Permitted	0.28	1.00		0.64	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	523	1765		1172	1647		1752	6314		1752	6329	
Volume (vph)	120	50	20	240	60	150	40	3790	130	90	2800	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	54	22	261	65	163	43	4120	141	98	3043	54
RTOR Reduction (vph)	0	7	0	0	37	0	0	2	0	0	1	0
Lane Group Flow (vph)	130	70	0	261	191	0	43	4259	0	98	3096	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	44.0	44.0		44.0	44.0		9.3	169.5		11.5	171.7	
Effective Green, g (s)	45.0	45.0		45.0	45.0		9.8	171.0		12.0	173.2	
Actuated g/C Ratio	0.19	0.19		0.19	0.19		0.04	0.71		0.05	0.72	
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	5.5		4.5	5.5	
Vehicle Extension (s)	5.0	5.0		5.0	5.0		4.0	5.0		4.0	5.0	
Lane Grp Cap (vph)	98	331		220	309		72	4499		88	4567	
v/s Ratio Prot		0.04			0.12		0.02	c0.67		c0.06	0.49	
v/s Ratio Perm	c0.25			0.22								
v/c Ratio	1.33	0.21		1.19	0.62		0.60	0.95		1.11	0.68	
Uniform Delay, d1	97.5	82.5		97.5	89.6		113.2	30.5		114.0	18.2	
Progression Factor	1.00	1.00		1.00	1.00		0.85	0.68		1.26	0.18	
Incremental Delay, d2	201.4	0.7		120.2	5.2		5.9	2.5		120.4	0.7	
Delay (s)	298.9	83.1		217.7	94.8		102.2	23.2		264.6	3.9	
Level of Service	F	F		F	F		F	C		F	A	
Approach Delay (s)		219.3			160.4			24.0			11.9	
Approach LOS		F			F			C			B	

Intersection Summary			
HCM Average Control Delay	32.3	HCM Level of Service	C
HCM Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	95.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	130	76	261	228	43	4261	98	3097
v/c Ratio	1.33	0.23	1.19	0.66	0.52	0.95	1.11	0.67
Control Delay	266.3	75.8	196.1	81.6	103.8	23.4	234.2	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	266.3	75.8	196.1	81.6	103.8	23.4	234.2	3.9
Queue Length 50th (ft)	~265	93	~496	275	70	651	~181	99
Queue Length 95th (ft)	#439	156	#715	390	m78	647	m#336	129
Internal Link Dist (ft)		1509		1512		2491		939
Turn Bay Length (ft)	150		150		300		325	
Base Capacity (vph)	98	337	220	346	91	4501	88	4591
Starvation Cap Reductn	0	0	0	0	0	0	0	97
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.33	0.23	1.19	0.66	0.47	0.95	1.11	0.69

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.86	0.86	
Frt	1.00	0.85	1.00	1.00	1.00	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1752	1568	1752	6346	6329	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1752	1568	1752	6346	6329	
Volume (vph)	70	110	30	3940	2840	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	120	33	4283	3087	54
RTOR Reduction (vph)	0	53	0	0	1	0
Lane Group Flow (vph)	76	67	33	4283	3140	0
Turn Type		custom	Prot			
Protected Phases			5	2	6	
Permitted Phases	4	4				
Actuated Green, G (s)	14.6	14.6	7.7	214.9	202.7	
Effective Green, g (s)	15.6	15.6	8.2	216.4	204.2	
Actuated g/C Ratio	0.06	0.06	0.03	0.90	0.85	
Clearance Time (s)	5.0	5.0	4.5	5.5	5.5	
Vehicle Extension (s)	4.0	4.0	4.0	5.0	5.0	
Lane Grp Cap (vph)	114	102	60	5722	5385	
v/s Ratio Prot			0.02	c0.67	0.50	
v/s Ratio Perm	c0.04	0.04				
v/c Ratio	0.67	0.65	0.55	0.75	0.58	
Uniform Delay, d1	109.7	109.6	114.1	3.6	5.3	
Progression Factor	1.00	1.00	0.97	0.14	0.76	
Incremental Delay, d2	15.0	15.5	4.4	0.3	0.2	
Delay (s)	124.7	125.0	115.1	0.8	4.2	
Level of Service	F	F	F	A	A	
Approach Delay (s)	124.9			1.7	4.2	
Approach LOS	F			A	A	

Intersection Summary			
HCM Average Control Delay	5.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	70.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	76	120	33	4283	3141
v/c Ratio	0.67	0.77	0.47	0.75	0.58
Control Delay	136.7	87.3	117.1	0.8	4.3
Queue Delay	0.0	0.0	0.0	0.1	0.0
Total Delay	136.7	87.3	117.1	0.9	4.3
Queue Length 50th (ft)	120	100	54	82	236
Queue Length 95th (ft)	192	#204	m59	m64	m230
Internal Link Dist (ft)	1504			939	3004
Turn Bay Length (ft)			450		
Base Capacity (vph)	124	164	74	5722	5409
Starvation Cap Reductn	0	0	0	213	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.61	0.73	0.45	0.78	0.58

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1747		1665	1688	1568	1752	5036	1568	3400	5036	1568
Flt Permitted	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1747		1665	1688	1568	1752	5036	1568	3400	5036	1568
Volume (vph)	120	110	60	520	70	340	70	3540	280	190	2560	60
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	120	65	565	76	370	76	3848	304	207	2783	65
RTOR Reduction (vph)	0	8	0	0	0	75	0	0	36	0	0	10
Lane Group Flow (vph)	130	177	0	312	329	295	76	3848	268	207	2783	55
Turn Type	Split			Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	19.0	19.0		38.0	38.0	38.0	13.0	150.5	150.5	12.5	150.0	150.0
Effective Green, g (s)	20.0	20.0		39.0	39.0	39.0	13.5	152.0	152.0	13.0	151.5	151.5
Actuated g/C Ratio	0.08	0.08		0.16	0.16	0.16	0.06	0.63	0.63	0.05	0.63	0.63
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	4.0	4.0		4.0	4.0	4.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	146	146		271	274	255	99	3189	993	184	3179	990
v/s Ratio Prot	0.07	c0.10		0.19	c0.19		0.04	c0.76		c0.06	0.55	
v/s Ratio Perm						0.19			0.17			0.03
v/c Ratio	0.89	1.21		1.15	1.20	1.16	0.77	1.21	0.27	1.12	0.88	0.06
Uniform Delay, d1	108.9	110.0		100.5	100.5	100.5	111.7	44.0	19.5	113.5	36.5	16.9
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.88	1.32	1.58	1.00	1.00	1.00
Incremental Delay, d2	44.5	142.1		101.9	119.9	104.9	20.2	95.1	0.4	103.9	3.7	0.1
Delay (s)	153.4	252.1		202.4	220.4	205.4	119.0	153.4	31.2	217.4	40.2	17.0
Level of Service	F	F		F	F	F	F	F	C	F	D	B
Approach Delay (s)		211.4			209.4			144.0			51.7	
Approach LOS		F			F			F			D	

Intersection Summary			
HCM Average Control Delay	121.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.18		
Actuated Cycle Length (s)	240.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	112.8%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	130	185	312	329	370	76	3848	304	207	2783	65
v/c Ratio	0.89	1.20	1.15	1.20	1.12	0.77	1.21	0.30	1.12	0.88	0.06
Control Delay	154.9	215.0	183.1	196.9	148.8	127.1	143.6	21.0	196.8	40.8	10.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	154.9	215.0	183.1	196.9	148.8	127.1	143.6	21.0	196.8	40.8	10.1
Queue Length 50th (ft)	209	~341	~609	~662	~547	119	~2731	222	~194	1317	22
Queue Length 95th (ft)	#361	#540	#854	#910	#792	m164	#2665	312	#298	1342	46
Internal Link Dist (ft)		1451		1491			3004			4886	
Turn Bay Length (ft)	150		250			275			425		
Base Capacity (vph)	146	154	271	274	330	104	3189	1029	184	3178	1000
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	1.20	1.15	1.20	1.12	0.73	1.21	0.30	1.13	0.88	0.07

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.86		1.00	0.86	
Frt		0.99			1.00	0.85	1.00	1.00		1.00	1.00	
Flt Protected		0.96			0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1763			1787	1568	1752	6333		1752	6335	
Flt Permitted		0.24			0.77	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		441			1429	1568	1752	6333		1752	6335	
Volume (vph)	110	30	10	130	70	90	10	3740	50	120	2630	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	120	33	11	141	76	98	11	4065	54	130	2859	33
RTOR Reduction (vph)	0	2	0	0	0	0	0	1	0	0	1	0
Lane Group Flow (vph)	0	162	0	0	217	98	11	4118	0	130	2891	0
Turn Type	custom			custom		Free	Prot			Prot		
Protected Phases							5	2		1		
Permitted Phases	4	4		8	8	Free					6	
Actuated Green, G (s)		17.8			17.8	140.0	3.0	92.2		14.5	103.7	
Effective Green, g (s)		19.8			19.8	140.0	3.3	93.4		14.8	104.9	
Actuated g/C Ratio		0.14			0.14	1.00	0.02	0.67		0.11	0.75	
Clearance Time (s)		6.0			6.0		4.3	5.2		4.3	5.2	
Vehicle Extension (s)		3.0			3.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)		62			202	1568	41	4225		185	4747	
v/s Ratio Prot							0.01	c0.65		c0.07		
v/s Ratio Perm		c0.37			0.15	0.06					0.46	
v/c Ratio		2.62			1.07	0.06	0.27	0.97		0.70	0.61	
Uniform Delay, d1		60.1			60.1	0.0	67.2	22.2		60.5	8.1	
Progression Factor		1.00			1.00	1.00	1.00	1.00		0.94	1.76	
Incremental Delay, d2		772.1			84.4	0.1	3.5	9.1		1.1	0.1	
Delay (s)		832.2			144.5	0.1	70.7	31.3		58.1	14.3	
Level of Service		F			F	A	E	C		E	B	
Approach Delay (s)		832.2			99.6			31.4			16.2	
Approach LOS		F			F			C			B	

Intersection Summary			
HCM Average Control Delay	45.4	HCM Level of Service	D
HCM Volume to Capacity ratio	1.19		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	86.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	164	217	98	11	4119	130	2892
v/c Ratio	2.56	1.07	0.06	0.13	0.98	0.70	0.59
Control Delay	769.7	139.8	0.1	66.7	31.8	58.5	13.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	769.7	139.8	0.1	66.7	31.8	58.5	13.4
Queue Length 50th (ft)	~250	~219	0	10	979	108	506
Queue Length 95th (ft)	#404	#387	0	31	#1185	m95	m568
Internal Link Dist (ft)	1478	1518			3962		2924
Turn Bay Length (ft)			750	250		250	
Base Capacity (vph)	64	202	1568	143	4224	230	4863
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	2.56	1.07	0.06	0.08	0.98	0.57	0.59

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	0.91		0.91	0.91	0.88	1.00	0.91	1.00	0.94	0.91	1.00
Frt	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.99		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1595	3249		3189	1679	2760	1752	5036	1568	4942	5036	1568
Flt Permitted	0.95	0.99		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1595	3249		3189	1679	2760	1752	5036	1568	4942	5036	1568
Volume (vph)	270	320	80	670	400	610	170	3090	500	680	2170	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	293	348	87	728	435	663	185	3359	543	739	2359	54
RTOR Reduction (vph)	0	12	0	0	0	33	0	0	125	0	0	18
Lane Group Flow (vph)	235	481	0	728	435	630	185	3359	418	739	2359	36
Turn Type	Split			Split		pt+ov	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8	8 1	5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	19.7	19.7		21.2	21.2	40.7	12.5	55.5	55.5	19.5	62.5	62.5
Effective Green, g (s)	22.6	22.6		24.0	24.0	43.8	12.8	57.6	57.6	19.8	64.6	64.6
Actuated g/C Ratio	0.16	0.16		0.17	0.17	0.31	0.09	0.41	0.41	0.14	0.46	0.46
Clearance Time (s)	6.9	6.9		6.8	6.8		4.3	6.1	6.1	4.3	6.1	6.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	257	524		547	288	863	160	2072	645	699	2324	724
v/s Ratio Prot	0.15	c0.15		0.23	c0.26	0.23	0.11	c0.67		0.15	c0.47	
v/s Ratio Perm									0.27			0.02
v/c Ratio	0.91	0.92		1.33	1.51	0.73	1.16	1.62	0.65	1.06	1.02	0.05
Uniform Delay, d1	57.7	57.8		58.0	58.0	42.8	63.6	41.2	33.1	60.1	37.7	20.8
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.32	0.89	0.94	1.07	1.11	1.01
Incremental Delay, d2	34.0	21.0		161.1	246.9	3.2	85.7	280.0	1.2	45.3	19.7	0.1
Delay (s)	91.8	78.8		219.1	304.9	46.0	169.6	316.9	32.3	109.5	61.6	21.1
Level of Service	F	E		F	F	D	F	F	C	F	E	C
Approach Delay (s)		83.0			176.7			272.4			72.1	
Approach LOS		F			F			F			E	

Intersection Summary			
HCM Average Control Delay	176.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.35		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	119.9%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	235	493	728	435	663	185	3359	543	739	2359	54
v/c Ratio	0.91	0.92	1.33	1.51	0.74	1.16	1.62	0.71	1.06	1.02	0.07
Control Delay	95.4	79.4	205.1	285.7	29.8	153.4	308.2	20.4	105.2	60.9	10.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	95.4	79.4	205.1	285.7	29.8	153.4	308.2	20.4	105.2	60.9	10.5
Queue Length 50th (ft)	234	239	~471	~604	188	~196	~1604	171	~267	~850	13
Queue Length 95th (ft)	#412	#350	#607	#839	243	m#204	m#1622	m188	#357	#942	m24
Internal Link Dist (ft)		1442		318			2924			3147	
Turn Bay Length (ft)	325		200			300			550		
Base Capacity (vph)	257	536	547	288	896	160	2072	770	699	2324	741
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.92	1.33	1.51	0.74	1.16	1.62	0.71	1.06	1.02	0.07

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

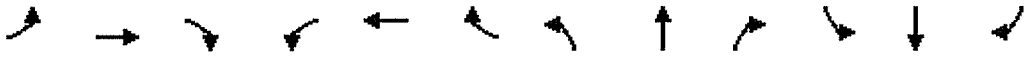
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.86		1.00	0.86	
Frt	1.00	1.00	0.85	1.00	0.89		1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1845	1568	1752	1648		1752	6338		1752	6328	
Flt Permitted	0.65	1.00	1.00	0.74	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1195	1845	1568	1357	1648		1752	6338		1752	6328	
Volume (vph)	80	30	130	60	20	50	170	3710	30	30	2670	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	87	33	141	65	22	54	185	4033	33	33	2902	54
RTOR Reduction (vph)	0	0	124	0	47	0	0	0	0	0	1	0
Lane Group Flow (vph)	87	33	17	65	29	0	185	4066	0	33	2955	0
Turn Type	Perm		Perm	Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8								
Actuated Green, G (s)	14.4	14.4	14.4	14.4	14.4		18.5	103.3		5.4	90.2	
Effective Green, g (s)	16.9	16.9	16.9	16.9	16.9		18.8	105.4		5.7	92.3	
Actuated g/C Ratio	0.12	0.12	0.12	0.12	0.12		0.13	0.75		0.04	0.66	
Clearance Time (s)	6.5	6.5	6.5	6.5	6.5		4.3	6.1		4.3	6.1	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	144	223	189	164	199		235	4772		71	4172	
v/s Ratio Prot		0.02			0.02		c0.11	c0.64		0.02	0.47	
v/s Ratio Perm	c0.07		0.01	0.05								
v/c Ratio	0.60	0.15	0.09	0.40	0.14		0.79	0.85		0.46	0.71	
Uniform Delay, d1	58.4	55.1	54.7	56.8	55.1		58.7	11.9		65.7	15.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.12	0.89		0.74	0.77	
Incremental Delay, d2	7.0	0.3	0.2	1.6	0.3		1.6	0.2		0.4	0.1	
Delay (s)	65.4	55.4	54.9	58.4	55.4		67.6	10.8		48.8	11.9	
Level of Service	E	E	D	E	E		E	B		D	B	
Approach Delay (s)		58.5			56.8			13.2			12.3	
Approach LOS		E			E			B			B	

Intersection Summary			
HCM Average Control Delay	15.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	79.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	87	33	141	65	76	185	4066	33	2956
v/c Ratio	0.59	0.15	0.45	0.40	0.31	0.79	0.84	0.32	0.71
Control Delay	73.5	54.7	12.8	62.8	23.6	68.1	11.9	47.1	12.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.5	54.7	12.8	62.8	23.6	68.1	11.9	47.1	12.7
Queue Length 50th (ft)	76	27	0	55	18	176	265	30	243
Queue Length 95th (ft)	133	60	62	102	66	m131	m99	m31	m242
Internal Link Dist (ft)		1412			1351		418		1335
Turn Bay Length (ft)	100		100	300		400		525	
Base Capacity (vph)	186	279	357	206	295	265	4853	125	4173
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.12	0.39	0.32	0.26	0.70	0.84	0.26	0.71

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	0.97	1.00	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1845	1568	3400	1845	1568	3400	5036	1568	3400	5036	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	1845	1568	3400	1845	1568	3400	5036	1568	3400	5036	1568
Volume (vph)	220	170	70	380	250	210	220	3010	480	180	2460	110
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	239	185	76	413	272	228	239	3272	522	196	2674	120
RTOR Reduction (vph)	0	0	65	0	0	168	0	0	113	0	0	33
Lane Group Flow (vph)	239	185	11	413	272	60	239	3272	409	196	2674	87
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	14.3	16.9	16.9	17.5	20.1	20.1	14.5	70.1	70.1	13.5	69.1	69.1
Effective Green, g (s)	15.2	19.8	19.8	18.4	23.0	23.0	14.8	72.0	72.0	13.8	71.0	71.0
Actuated g/C Ratio	0.11	0.14	0.14	0.13	0.16	0.16	0.11	0.51	0.51	0.10	0.51	0.51
Clearance Time (s)	4.9	6.9	6.9	4.9	6.9	6.9	4.3	5.9	5.9	4.3	5.9	5.9
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	369	261	222	447	303	258	359	2590	806	335	2554	795
v/s Ratio Prot	0.07	0.10		c0.12	c0.15		c0.07	c0.65		0.06	0.53	
v/s Ratio Perm			0.01			0.04			0.26			0.06
v/c Ratio	0.65	0.71	0.05	0.92	0.90	0.23	0.67	1.26	0.51	0.59	1.05	0.11
Uniform Delay, d1	59.8	57.3	52.0	60.1	57.3	50.8	60.2	34.0	22.3	60.4	34.5	18.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.13	0.89	0.97	1.01	0.81	1.38
Incremental Delay, d2	3.9	8.5	0.1	24.8	27.1	0.5	2.5	120.3	1.2	1.6	28.3	0.2
Delay (s)	63.7	65.9	52.0	84.9	84.4	51.3	70.8	150.7	22.8	62.5	56.3	25.0
Level of Service	E	E	D	F	F	D	E	F	C	E	E	C
Approach Delay (s)		62.7			76.3			129.4			55.5	
Approach LOS		E			E			F			E	

Intersection Summary			
HCM Average Control Delay	93.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	96.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

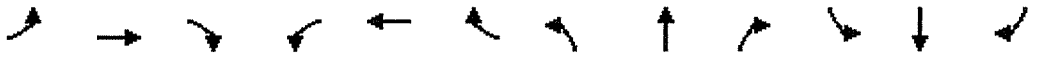
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	239	185	76	413	272	228	239	3272	522	196	2674	120
v/c Ratio	0.65	0.71	0.26	0.92	0.90	0.54	0.67	1.26	0.57	0.59	1.05	0.14
Control Delay	68.2	72.7	13.2	87.1	88.3	14.9	73.2	148.8	13.8	65.0	56.6	13.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.2	72.7	13.2	87.1	88.3	14.9	73.2	148.8	13.8	65.0	56.6	13.0
Queue Length 50th (ft)	108	161	0	194	245	21	119	~1375	121	97	~967	21
Queue Length 95th (ft)	153	246	47	#293	#416	104	m143	#1498	m140	m121	#1076	m42
Internal Link Dist (ft)		1350			1247			1335			1509	
Turn Bay Length (ft)	175		175	275		275	375			400		
Base Capacity (vph)	413	279	302	447	303	426	413	2591	920	447	2555	829
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.66	0.25	0.92	0.90	0.54	0.58	1.26	0.57	0.44	1.05	0.14

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00		0.97	0.86		1.00	0.86	
Frt	1.00	1.00	0.85	1.00	0.89		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3400	1845	1568	1752	1643		3400	6327		1752	6305	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	3400	1845	1568	1752	1643		3400	6327		1752	6305	
Volume (vph)	170	70	120	140	60	160	220	3430	70	160	2480	110
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	185	76	130	152	65	174	239	3728	76	174	2696	120
RTOR Reduction (vph)	0	0	116	0	69	0	0	2	0	0	4	0
Lane Group Flow (vph)	185	76	14	152	170	0	239	3802	0	174	2812	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)	12.3	12.9	12.9	13.6	14.2		13.4	74.4		15.1	76.1	
Effective Green, g (s)	13.8	15.4	15.4	15.1	16.7		14.9	76.9		16.6	78.6	
Actuated g/C Ratio	0.10	0.11	0.11	0.11	0.12		0.11	0.55		0.12	0.56	
Clearance Time (s)	5.5	6.5	6.5	5.5	6.5		5.5	6.5		5.5	6.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	335	203	172	189	196		362	3475		208	3540	
v/s Ratio Prot	0.05	0.04		c0.09	c0.10		0.07	c0.60		c0.10	0.45	
v/s Ratio Perm			0.01									
v/c Ratio	0.55	0.37	0.08	0.80	0.87		0.66	1.09		0.84	0.79	
Uniform Delay, d1	60.2	57.8	56.0	61.0	60.6		60.1	31.5		60.4	24.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.12	0.51		1.00	0.97	
Incremental Delay, d2	2.0	1.2	0.2	21.4	31.0		0.4	42.9		14.1	1.0	
Delay (s)	62.1	59.0	56.2	82.4	91.5		67.8	58.9		74.2	24.7	
Level of Service	E	E	E	F	F		E	E		E	C	
Approach Delay (s)		59.5			88.0			59.4			27.6	
Approach LOS		E			F			E			C	

Intersection Summary			
HCM Average Control Delay	48.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	90.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

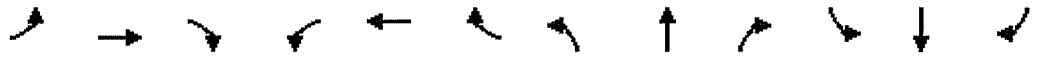
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	185	76	130	152	239	239	3804	174	2816
v/c Ratio	0.55	0.37	0.45	0.80	0.90	0.66	1.09	0.84	0.79
Control Delay	66.3	62.9	14.0	90.3	75.4	68.4	61.5	78.8	25.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.3	62.9	14.0	90.3	75.4	68.4	61.5	78.8	25.3
Queue Length 50th (ft)	84	65	0	137	149	118	~1129	139	775
Queue Length 95th (ft)	123	117	62	#250	#307	m107	m252	m#188	m795
Internal Link Dist (ft)		1564			1414		1509		1779
Turn Bay Length (ft)	100		100	200		425		250	
Base Capacity (vph)	379	224	305	195	268	379	3476	213	3543
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.34	0.43	0.78	0.89	0.63	1.09	0.82	0.79

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.86		1.00	0.86	
Frt		1.00	0.85		0.97		1.00	0.99		1.00	1.00	
Flt Protected		0.97	1.00		0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1787	1568		1748		1752	6305		1752	6342	
Flt Permitted		0.60	1.00		0.27		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1113	1568		483		1752	6305		1752	6342	
Volume (vph)	180	100	10	90	70	50	190	3370	150	100	2630	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	196	109	11	98	76	54	207	3663	163	109	2859	11
RTOR Reduction (vph)	0	0	6	0	8	0	0	5	0	0	0	0
Lane Group Flow (vph)	0	305	5	0	220	0	207	3821	0	109	2870	0
Turn Type	Perm		Perm	Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		26.7	26.7		26.7		19.2	86.0		10.8	77.6	
Effective Green, g (s)		29.6	29.6		29.6		19.5	87.3		11.1	78.9	
Actuated g/C Ratio		0.21	0.21		0.21		0.14	0.62		0.08	0.56	
Clearance Time (s)		6.9	6.9		6.9		4.3	5.3		4.3	5.3	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)		235	332		102		244	3932		139	3574	
v/s Ratio Prot							c0.12	c0.61		0.06	0.45	
v/s Ratio Perm		0.27	0.00		c0.46							
v/c Ratio		1.30	0.01		2.16		0.85	0.97		0.78	0.80	
Uniform Delay, d1		55.2	43.7		55.2		58.8	25.2		63.3	24.4	
Progression Factor		1.00	1.00		1.00		0.91	1.68		0.68	1.19	
Incremental Delay, d2		161.7	0.0		552.1		2.7	1.3		18.5	1.4	
Delay (s)		216.9	43.7		607.3		56.5	43.6		61.8	30.3	
Level of Service		F	D		F		E	D		E	C	
Approach Delay (s)		210.9			607.3			44.2			31.5	
Approach LOS		F			F			D			C	

Intersection Summary			
HCM Average Control Delay	63.2	HCM Level of Service	E
HCM Volume to Capacity ratio	1.21		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	88.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

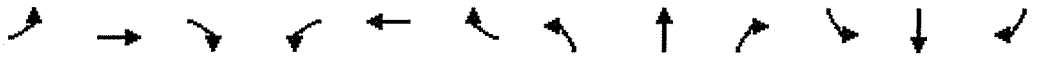
Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	305	11	228	207	3826	109	2870
v/c Ratio	1.30	0.03	2.07	0.85	0.97	0.78	0.80
Control Delay	204.9	26.9	539.2	57.3	43.0	70.9	31.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	204.9	26.9	539.2	57.3	43.0	70.9	31.0
Queue Length 50th (ft)	~354	2	~322	169	1079	104	464
Queue Length 95th (ft)	#545	20	#497	m156	m990	m#161	454
Internal Link Dist (ft)	1343		1462		1779		1604
Turn Bay Length (ft)		150		200		250	
Base Capacity (vph)	235	338	110	265	3939	143	3574
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.30	0.03	2.07	0.78	0.97	0.76	0.80

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

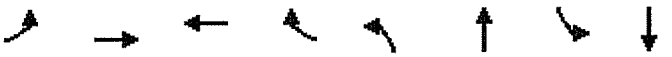
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.86		0.97	0.86	
Frt	1.00	0.92			1.00	0.85	1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00			0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1706			1800	1568	1752	6335		3400	6342	
Flt Permitted	0.95	1.00			0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1752	1706			1800	1568	1752	6335		3400	6342	
Volume (vph)	30	40	40	50	50	530	30	3610	40	290	2600	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	43	43	54	54	576	33	3924	43	315	2826	11
RTOR Reduction (vph)	0	27	0	0	0	304	0	1	0	0	0	0
Lane Group Flow (vph)	33	59	0	0	108	272	33	3966	0	315	2837	0
Turn Type	Split			Split		Perm	Prot			Prot		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)	10.0	10.0			15.6	15.6	5.6	72.7		17.9	85.0	
Effective Green, g (s)	12.8	12.8			18.4	18.4	5.9	74.6		18.2	86.9	
Actuated g/C Ratio	0.09	0.09			0.13	0.13	0.04	0.53		0.13	0.62	
Clearance Time (s)	6.8	6.8			6.8	6.8	4.3	5.9		4.3	5.9	
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	160	156			237	206	74	3376		442	3937	
v/s Ratio Prot	0.02	c0.03			0.06		0.02	c0.63		c0.09	0.45	
v/s Ratio Perm						c0.17						
v/c Ratio	0.21	0.38			0.46	1.32	0.45	1.17		0.71	0.72	
Uniform Delay, d1	58.9	59.8			56.2	60.8	65.5	32.7		58.4	18.2	
Progression Factor	1.00	1.00			1.00	1.00	1.25	0.40		1.35	0.22	
Incremental Delay, d2	0.6	1.5			1.4	174.0	1.1	79.6		2.7	0.6	
Delay (s)	59.5	61.4			57.6	234.8	82.7	92.6		81.6	4.5	
Level of Service	E	E			E	F	F	F		F	A	
Approach Delay (s)		60.9			206.8			92.5			12.2	
Approach LOS		E			F			F			B	

Intersection Summary			
HCM Average Control Delay	70.0	HCM Level of Service	E
HCM Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	100.3%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	33	86	108	576	33	3967	315	2837
v/c Ratio	0.20	0.47	0.46	1.13	0.31	1.18	0.71	0.71
Control Delay	60.2	47.1	63.1	101.4	79.9	97.5	83.3	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.2	47.1	63.1	101.4	79.9	97.5	83.3	4.6
Queue Length 50th (ft)	28	49	92	~313	32	~1244	157	77
Queue Length 95th (ft)	62	102	157	#547	m33	m#1341	m177	134
Internal Link Dist (ft)		1324	1349			1604		1346
Turn Bay Length (ft)	150				325		375	
Base Capacity (vph)	230	250	237	510	265	3373	515	4010
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.34	0.46	1.13	0.12	1.18	0.61	0.71

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.86		1.00	0.86	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	0.99	
Flt Protected	0.95	0.97	1.00	0.95	0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1665	1692	1568	1665	1712	1568	1752	6288		1752	6291	
Flt Permitted	0.95	0.97	1.00	0.95	0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1665	1692	1568	1665	1712	1568	1752	6288		1752	6291	
Volume (vph)	340	60	20	160	60	70	90	3590	230	60	2640	160
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	370	65	22	174	65	76	98	3902	250	65	2870	174
RTOR Reduction (vph)	0	0	18	0	0	67	0	6	0	0	6	0
Lane Group Flow (vph)	212	223	4	116	123	9	98	4146	0	65	3038	0
Turn Type	Split		Perm	Split		Perm	Prot			Prot		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)	20.0	20.0	20.0	13.0	13.0	13.0	7.7	71.8		8.6	72.7	
Effective Green, g (s)	23.0	23.0	23.0	16.0	16.0	16.0	10.0	74.1		10.9	75.0	
Actuated g/C Ratio	0.16	0.16	0.16	0.11	0.11	0.11	0.07	0.53		0.08	0.54	
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	6.3	6.3		6.3	6.3	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	274	278	258	190	196	179	125	3328		136	3370	
v/s Ratio Prot	0.13	c0.13		0.07	c0.07		c0.06	c0.66		0.04	0.48	
v/s Ratio Perm			0.00			0.01						
v/c Ratio	0.77	0.80	0.02	0.61	0.63	0.05	0.78	1.25		0.48	0.90	
Uniform Delay, d1	56.0	56.3	49.0	59.0	59.2	55.2	63.9	33.0		61.8	29.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.02		1.01	1.01	
Incremental Delay, d2	12.7	15.2	0.0	5.7	6.1	0.1	3.0	110.8		1.6	2.7	
Delay (s)	68.7	71.6	49.1	64.7	65.3	55.3	61.2	144.4		63.9	32.1	
Level of Service	E	E	D	E	E	E	E	F		E	C	
Approach Delay (s)		69.2			62.7			142.4			32.8	
Approach LOS		E			E			F			C	

Intersection Summary			
HCM Average Control Delay	93.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	88.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	212	223	22	116	123	76	98	4152	65	3044
v/c Ratio	0.78	0.80	0.08	0.61	0.63	0.31	0.78	1.22	0.43	0.90
Control Delay	75.4	77.6	19.2	73.1	73.9	15.0	63.0	131.1	65.8	32.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.4	77.6	19.2	73.1	73.9	15.0	63.0	131.1	65.8	32.6
Queue Length 50th (ft)	195	206	1	106	113	0	94	~1393	51	800
Queue Length 95th (ft)	#312	#333	27	177	187	49	m81	m#1078	m67	m810
Internal Link Dist (ft)		1325			1326			1346		2512
Turn Bay Length (ft)	150		150	350			475		400	
Base Capacity (vph)	285	290	286	202	208	257	125	3395	178	3377
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.77	0.08	0.57	0.59	0.30	0.78	1.22	0.37	0.90

Intersection Summary

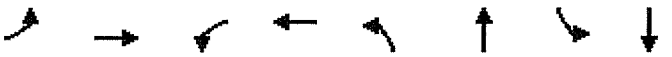
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.86		1.00	0.86	
Frt	1.00	0.88		1.00	0.86		1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1624		1752	1591		1752	6260		1752	6325	
Flt Permitted	0.67	1.00		0.52	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1242	1624		952	1591		1752	6260		1752	6325	
Volume (vph)	70	10	40	380	10	110	60	3450	340	80	2710	60
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	11	43	413	11	120	65	3750	370	87	2946	65
RTOR Reduction (vph)	0	40	0	0	105	0	0	10	0	0	2	0
Lane Group Flow (vph)	76	14	0	413	26	0	65	4110	0	87	3009	0
Turn Type	pm+pt			pm+pt			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	17.3	8.3		29.3	15.3		6.2	80.2		12.0	86.0	
Effective Green, g (s)	20.1	10.1		31.1	17.1		8.4	82.7		14.2	88.5	
Actuated g/C Ratio	0.14	0.07		0.22	0.12		0.06	0.59		0.10	0.63	
Clearance Time (s)	5.0	5.8		5.0	5.8		6.2	6.5		6.2	6.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	215	117		309	194		105	3698		178	3998	
v/s Ratio Prot	0.03	0.01		c0.16	0.02		c0.04	c0.66		0.05	c0.48	
v/s Ratio Perm	0.03			c0.13								
v/c Ratio	0.35	0.12		1.34	0.13		0.62	1.11		0.49	0.75	
Uniform Delay, d1	53.7	60.8		52.9	54.8		64.2	28.6		59.5	18.1	
Progression Factor	1.00	1.00		1.00	1.00		1.20	1.09		1.00	1.00	
Incremental Delay, d2	1.0	0.5		171.8	0.3		1.0	50.6		2.1	1.4	
Delay (s)	54.7	61.3		224.7	55.1		78.0	81.9		61.6	19.4	
Level of Service	D	E		F	E		E	F		E	B	
Approach Delay (s)		57.4			183.9			81.8			20.6	
Approach LOS		E			F			F			C	

Intersection Summary			
HCM Average Control Delay	64.6	HCM Level of Service	E
HCM Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	98.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



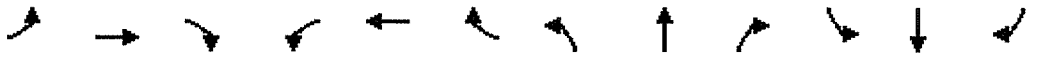
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	76	54	413	131	65	4120	87	3011
v/c Ratio	0.38	0.30	1.24	0.44	0.53	1.10	0.49	0.73
Control Delay	49.8	26.6	177.2	16.8	77.6	73.6	68.1	19.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.8	26.6	177.2	16.8	77.6	73.6	68.1	19.5
Queue Length 50th (ft)	56	9	~437	9	54	~1300	76	565
Queue Length 95th (ft)	100	53	#517	73	m47	m#991	131	625
Internal Link Dist (ft)		1379		1347		2512		3539
Turn Bay Length (ft)	150		275		275		475	
Base Capacity (vph)	271	235	332	304	125	3760	230	4108
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.23	1.24	0.43	0.52	1.10	0.38	0.73

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

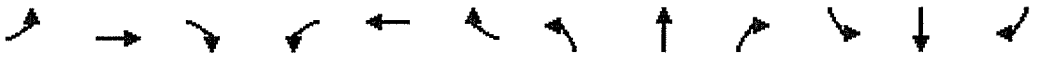
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	0.94	1.00	1.00	0.97	0.91	1.00	0.94	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1845	1568	4942	1845	1568	3400	5036	1568	4942	5036	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1845	1568	4942	1845	1568	3400	5036	1568	4942	5036	1568
Volume (vph)	260	270	80	1240	340	550	250	2840	760	680	1790	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	283	293	87	1348	370	598	272	3087	826	739	1946	33
RTOR Reduction (vph)	0	0	71	0	0	151	0	0	0	0	0	13
Lane Group Flow (vph)	283	293	16	1348	370	447	272	3087	826	739	1946	20
Turn Type	Split		Perm	Split		Perm	Prot		Free	Prot		Perm
Protected Phases	3	3		4	4		5	2		1	6	
Permitted Phases			3			4			Free			6
Actuated Green, G (s)	23.4	23.4	23.4	23.5	23.5	23.5	13.0	58.0	144.9	13.0	58.0	58.0
Effective Green, g (s)	25.9	25.9	25.9	26.0	26.0	26.0	16.0	61.0	144.9	16.0	61.0	61.0
Actuated g/C Ratio	0.18	0.18	0.18	0.18	0.18	0.18	0.11	0.42	1.00	0.11	0.42	0.42
Clearance Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	7.0	7.0		7.0	7.0	7.0
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.0		4.0	5.0	5.0
Lane Grp Cap (vph)	313	330	280	887	331	281	375	2120	1568	546	2120	660
v/s Ratio Prot	c0.16	0.16		0.27	0.20		0.08	c0.61		c0.15	0.39	
v/s Ratio Perm			0.01			c0.29			0.53			0.01
v/c Ratio	0.90	0.89	0.06	1.52	1.12	1.59	0.73	1.46	0.53	1.35	0.92	0.03
Uniform Delay, d1	58.3	58.1	49.4	59.4	59.4	59.4	62.3	42.0	0.0	64.4	39.6	24.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	28.2	24.3	0.1	239.7	85.1	282.1	7.3	207.9	1.3	170.8	7.2	0.0
Delay (s)	86.5	82.3	49.5	299.1	144.6	341.6	69.6	249.9	1.3	235.3	46.8	24.6
Level of Service	F	F	D	F	F	F	E	F	A	F	D	C
Approach Delay (s)		79.8			285.4			189.1			97.8	
Approach LOS		E			F			F			F	

Intersection Summary			
HCM Average Control Delay	179.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.36		
Actuated Cycle Length (s)	144.9	Sum of lost time (s)	16.0
Intersection Capacity Utilization	118.9%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

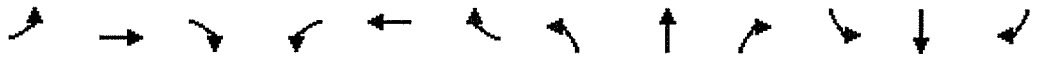


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	283	293	87	1348	370	598	272	3087	826	739	1946	33
v/c Ratio	0.90	0.89	0.25	1.52	1.12	1.38	0.73	1.46	0.53	1.36	0.92	0.05
Control Delay	89.5	85.9	11.4	279.2	137.8	216.4	74.3	240.5	1.3	218.2	47.6	12.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.5	85.9	11.4	279.2	137.8	216.4	74.3	240.5	1.3	218.2	47.6	12.7
Queue Length 50th (ft)	265	273	0	~628	~401	~601	130	~1454	0	~324	630	6
Queue Length 95th (ft)	#435	#440	49	#723	#607	#839	180	#1527	0	#412	701	28
Internal Link Dist (ft)		1418			1555			1340			2491	
Turn Bay Length (ft)	300		300	350			300			475		
Base Capacity (vph)	314	331	353	887	331	432	375	2120	1568	545	2120	673
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.90	0.89	0.25	1.52	1.12	1.38	0.73	1.46	0.53	1.36	0.92	0.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.86		1.00	0.86	
Frt		0.96			1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected		0.98			0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1733			1760	1568	1752	6292		1752	6341	
Flt Permitted		0.60			0.75	1.00	0.06	1.00		0.95	1.00	
Satd. Flow (perm)		1060			1388	1568	117	6292		1752	6341	
Volume (vph)	10	10	10	280	10	320	20	3160	190	130	2050	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	11	304	11	348	22	3435	207	141	2228	11
RTOR Reduction (vph)	0	9	0	0	0	126	0	6	0	0	0	0
Lane Group Flow (vph)	0	24	0	0	315	222	22	3636	0	141	2239	0
Turn Type	Perm			Perm		Perm	Perm			Prot		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2					
Actuated Green, G (s)		24.7			24.7	24.7	83.6	83.6		13.4	102.8	
Effective Green, g (s)		26.8			26.8	26.8	86.0	86.0		15.2	105.2	
Actuated g/C Ratio		0.19			0.19	0.19	0.61	0.61		0.11	0.75	
Clearance Time (s)		6.1			6.1	6.1	6.4	6.4		5.8	6.4	
Vehicle Extension (s)		5.0			5.0	5.0	6.0	6.0		4.0	6.0	
Lane Grp Cap (vph)		203			266	300	72	3865		190	4765	
v/s Ratio Prot								c0.58		c0.08	0.35	
v/s Ratio Perm		0.02			c0.23	0.14	0.19					
v/c Ratio		0.12			1.18	0.74	0.31	0.94		0.74	0.47	
Uniform Delay, d1		46.8			56.6	53.3	12.8	24.7		60.5	6.7	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.5			114.4	11.1	10.6	6.0		15.3	0.3	
Delay (s)		47.4			171.0	64.4	23.5	30.7		75.8	7.0	
Level of Service		D			F	E	C	C		E	A	
Approach Delay (s)		47.4			115.0			30.7			11.1	
Approach LOS		D			F			C			B	

Intersection Summary			
HCM Average Control Delay	32.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	88.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	33	315	348	22	3642	141	2239
v/c Ratio	0.16	1.18	0.82	0.31	0.94	0.74	0.47
Control Delay	36.9	162.5	45.7	27.0	31.0	83.5	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.9	162.5	45.7	27.0	31.0	83.5	7.1
Queue Length 50th (ft)	17	~344	175	9	842	126	201
Queue Length 95th (ft)	49	#537	#333	35	893	#224	219
Internal Link Dist (ft)	1464	1406			2491		9831
Turn Bay Length (ft)				200		400	
Base Capacity (vph)	212	266	426	71	3869	195	4764
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	1.18	0.82	0.31	0.94	0.72	0.47

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00	1.00	0.97	1.00		1.00	0.91	1.00	0.97	0.91	1.00
Frt		1.00	0.85	1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.98	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1811	1568	3400	1748		1752	5036	1568	3400	5036	1568
Flt Permitted		0.98	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1811	1568	3400	1748		1752	5036	1568	3400	5036	1568
Volume (vph)	120	200	80	510	150	80	60	2480	400	180	1750	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	217	87	554	163	87	65	2696	435	196	1902	54
RTOR Reduction (vph)	0	0	19	0	13	0	0	0	112	0	0	20
Lane Group Flow (vph)	0	347	68	554	237	0	65	2696	323	196	1902	34
Turn Type	Split		Perm	Split			Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)		26.9	26.9	26.2	26.2		7.3	47.8	47.8	13.2	53.7	53.7
Effective Green, g (s)		30.4	30.4	29.7	29.7		8.8	51.3	51.3	14.7	57.2	57.2
Actuated g/C Ratio		0.21	0.21	0.21	0.21		0.06	0.36	0.36	0.10	0.40	0.40
Clearance Time (s)		7.5	7.5	7.5	7.5		5.5	7.5	7.5	5.5	7.5	7.5
Vehicle Extension (s)		5.0	5.0	4.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)		387	335	711	365		108	1818	566	352	2027	631
v/s Ratio Prot		c0.19		c0.16	0.14		0.04	c0.54		c0.06	c0.38	
v/s Ratio Perm			0.04						0.21			0.02
v/c Ratio		0.90	0.20	0.78	0.65		0.60	1.48	0.57	0.56	0.94	0.05
Uniform Delay, d1		54.3	45.9	53.1	51.4		64.9	45.4	36.5	60.6	40.8	25.9
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		23.7	0.6	5.7	4.4		9.1	220.3	1.6	1.9	9.2	0.0
Delay (s)		78.0	46.5	58.8	55.8		74.1	265.7	38.1	62.5	49.9	26.0
Level of Service		E	D	E	E		E	F	D	E	D	C
Approach Delay (s)		71.7			57.9			230.8			50.5	
Approach LOS		E			E			F			D	

Intersection Summary			
HCM Average Control Delay	140.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	142.1	Sum of lost time (s)	20.0
Intersection Capacity Utilization	98.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NEL	NET	NER	SWL	SWT	SWR
Lane Group Flow (vph)	347	87	554	250	65	2696	435	196	1902	54
v/c Ratio	0.89	0.24	0.77	0.65	0.52	1.51	0.65	0.55	0.93	0.08
Control Delay	79.0	36.0	61.1	56.9	79.8	263.7	27.7	66.6	50.1	13.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.0	36.0	61.1	56.9	79.8	263.7	27.7	66.6	50.1	13.7
Queue Length 50th (ft)	322	49	255	203	60	~1284	206	92	645	12
Queue Length 95th (ft)	#502	101	323	302	113	#1414	345	131	#761	42
Internal Link Dist (ft)	1258			1388		9831			5036	
Turn Bay Length (ft)		50	300		200			350		
Base Capacity (vph)	397	363	742	395	134	1791	671	486	2045	656
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.24	0.75	0.63	0.49	1.51	0.65	0.40	0.93	0.08

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.86		1.00	0.86	
Frt	1.00	0.94			1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00			0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1731			1781	1568	1752	6291		1752	6320	
Flt Permitted	0.29	1.00			0.56	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	536	1731			1033	1568	1752	6291		1752	6320	
Volume (vph)	80	100	70	220	90	120	90	2440	150	100	1800	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	87	109	76	239	98	130	98	2652	163	109	1957	54
RTOR Reduction (vph)	0	21	0	0	0	34	0	7	0	0	3	0
Lane Group Flow (vph)	87	164	0	0	337	96	98	2808	0	109	2008	0
Turn Type	Perm			Perm		Perm	Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8						
Actuated Green, G (s)	27.5	27.5			27.5	27.5	12.2	52.5		12.8	53.1	
Effective Green, g (s)	31.0	31.0			31.0	31.0	13.2	56.0		13.8	56.6	
Actuated g/C Ratio	0.27	0.27			0.27	0.27	0.12	0.50		0.12	0.50	
Clearance Time (s)	7.5	7.5			7.5	7.5	5.0	7.5		5.0	7.5	
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	147	476			284	431	205	3123		214	3171	
v/s Ratio Prot		0.09					0.06	c0.45		c0.06	0.32	
v/s Ratio Perm	0.16				c0.33	0.06						
v/c Ratio	0.59	0.34			1.19	0.22	0.48	0.90		0.51	0.63	
Uniform Delay, d1	35.4	32.8			40.9	31.6	46.6	25.8		46.3	20.5	
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	6.3	0.4			113.7	0.3	1.8	4.2		1.9	0.6	
Delay (s)	41.7	33.2			154.6	31.9	48.3	30.0		48.2	21.1	
Level of Service	D	C			F	C	D	C		D	C	
Approach Delay (s)		35.9			120.5			30.6			22.5	
Approach LOS		D			F			C			C	

Intersection Summary			
HCM Average Control Delay	35.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	112.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	86.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	WBR	NEL	NET	SWL	SWT
Lane Group Flow (vph)	87	185	337	130	98	2815	109	2011
v/c Ratio	0.64	0.37	1.22	0.28	0.48	0.90	0.51	0.63
Control Delay	61.1	30.8	164.6	22.7	54.5	31.0	54.9	21.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.1	30.8	164.6	22.7	54.5	31.0	54.9	21.8
Queue Length 50th (ft)	55	90	~299	46	68	514	75	294
Queue Length 95th (ft)	#143	164	#507	104	122	625	133	363
Internal Link Dist (ft)		1356	1472			5036		6884
Turn Bay Length (ft)				50	375		375	
Base Capacity (vph)	135	497	276	465	293	3130	294	3172
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.37	1.22	0.28	0.33	0.90	0.37	0.63

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt		0.96			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.98			0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1733			1761	1568	1752	5036	1568	1752	5036	1568
Flt Permitted		0.87			0.71	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1531			1314	1568	1752	5036	1568	1752	5036	1568
Volume (vph)	10	10	10	200	10	50	20	2410	210	60	1730	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	11	217	11	54	22	2620	228	65	1880	11
RTOR Reduction (vph)	0	9	0	0	0	43	0	0	107	0	0	5
Lane Group Flow (vph)	0	24	0	0	228	11	22	2620	121	65	1880	6
Turn Type	Perm			Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8			2			6
Actuated Green, G (s)		13.1			13.1	13.1	2.8	36.0	36.0	4.8	37.4	37.4
Effective Green, g (s)		15.6			15.6	15.6	5.6	38.8	38.8	7.0	40.2	40.2
Actuated g/C Ratio		0.21			0.21	0.21	0.08	0.53	0.53	0.10	0.55	0.55
Clearance Time (s)		6.5			6.5	6.5	6.8	6.8	6.8	6.2	6.8	6.8
Vehicle Extension (s)		4.0			4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)		325			279	333	134	2662	829	167	2758	859
v/s Ratio Prot							0.01	c0.52		c0.04	0.37	
v/s Ratio Perm		0.02			c0.17	0.01			0.08			0.00
v/c Ratio		0.07			0.82	0.03	0.16	0.98	0.15	0.39	0.68	0.01
Uniform Delay, d1		23.1			27.5	22.9	31.7	17.0	8.8	31.2	12.0	7.5
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.1			17.5	0.1	0.6	13.9	0.1	1.5	0.8	0.0
Delay (s)		23.3			45.0	23.0	32.3	30.9	8.9	32.7	12.7	7.5
Level of Service		C			D	C	C	C	A	C	B	A
Approach Delay (s)		23.3			40.8			29.1			13.4	
Approach LOS		C			D			C			B	

Intersection Summary			
HCM Average Control Delay	23.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	73.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	74.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Group Flow (vph)	33	228	54	22	2620	228	65	1880	11
v/c Ratio	0.12	0.77	0.14	0.10	0.97	0.24	0.27	0.64	0.01
Control Delay	20.4	46.1	8.7	30.6	30.2	2.5	31.9	12.4	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.4	46.1	8.7	30.6	30.2	2.5	31.9	12.4	5.6
Queue Length 50th (ft)	9	100	0	9	~501	0	27	137	0
Queue Length 95th (ft)	30	#217	27	29	#605	33	62	310	8
Internal Link Dist (ft)	1413	1496			6884			4514	
Turn Bay Length (ft)			150	225			200		
Base Capacity (vph)	313	304	405	247	2712	950	256	2924	915
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.75	0.13	0.09	0.97	0.24	0.25	0.64	0.01

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			0.91	0.91	1.00	0.86		0.94	0.86	
Frt	1.00	0.96			0.87	0.85	1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1775			1459	2854	1752	6338		4942	6333	
Flt Permitted	0.95	1.00			1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1752	1775			1459	2854	1752	6338		4942	6333	
Volume (vph)	110	60	20	10	50	1730	40	2360	20	650	2180	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	120	65	22	11	54	1880	43	2565	22	707	2370	33
RTOR Reduction (vph)	0	10	0	0	0	0	0	1	0	0	2	0
Lane Group Flow (vph)	120	77	0	0	484	1461	43	2586	0	707	2401	0
Turn Type	Split			Split		pt+ov	Prot			Prot		
Protected Phases	4	4		8	8	8 1	5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	12.0	12.0			16.5	33.0	6.2	52.6		8.0	54.4	
Effective Green, g (s)	15.5	15.5			21.0	37.0	10.2	57.6		12.0	59.4	
Actuated g/C Ratio	0.13	0.13			0.17	0.30	0.08	0.47		0.10	0.49	
Clearance Time (s)	7.5	7.5			8.5		8.0	9.0		8.0	9.0	
Vehicle Extension (s)	4.0	4.0			4.0		3.0	4.0		3.0	4.0	
Lane Grp Cap (vph)	222	225			251	865	146	2990		486	3081	
v/s Ratio Prot	c0.07	0.04			c0.33	c0.51	0.02	c0.41		0.14	0.38	
v/s Ratio Perm												
v/c Ratio	0.54	0.34			1.93	1.69	0.29	0.86		1.45	0.78	
Uniform Delay, d1	50.0	48.6			50.6	42.6	52.6	28.8		55.0	25.9	
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.3	1.2			432.1	315.1	1.1	3.0		215.9	1.4	
Delay (s)	53.3	49.9			482.7	357.6	53.7	31.7		270.9	27.3	
Level of Service	D	D			F	F	D	C		F	C	
Approach Delay (s)		51.9			388.7			32.1			82.7	
Approach LOS		D			F			C			F	

Intersection Summary			
HCM Average Control Delay	140.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	122.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	101.3%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	WBR	NEL	NET	SWL	SWT
Lane Group Flow (vph)	120	87	484	1461	43	2587	707	2403
v/c Ratio	0.53	0.37	1.91	1.67	0.26	0.88	1.44	0.77
Control Delay	58.5	46.0	449.9	334.5	54.8	33.6	246.7	28.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.5	46.0	449.9	334.5	54.8	33.6	246.7	28.0
Queue Length 50th (ft)	89	54	~638	~915	32	520	~266	460
Queue Length 95th (ft)	152	106	#869	#1060	70	574	#349	511
Internal Link Dist (ft)		1320	1449			4514		3170
Turn Bay Length (ft)	100				200		400	
Base Capacity (vph)	232	245	254	877	170	2948	492	3126
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.36	1.91	1.67	0.25	0.88	1.44	0.77

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00	1.00	0.91	0.91	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1785	1568	3189	1601	1568	1752	5036	1568	3400	5036	1568
Flt Permitted		0.97	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1785	1568	3189	1601	1568	1752	5036	1568	3400	5036	1568
Volume (vph)	20	10	20	800	10	480	20	2530	1310	640	2060	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	11	22	870	11	522	22	2750	1424	696	2239	33
RTOR Reduction (vph)	0	0	21	0	0	215	0	0	0	0	0	9
Lane Group Flow (vph)	0	33	1	580	301	307	22	2750	1424	696	2239	24
Turn Type	Split		Perm	Split		Perm	Prot		Free	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8			Free			6
Actuated Green, G (s)		3.4	3.4	36.3	36.3	36.3	4.6	45.9	131.1	20.3	61.6	61.6
Effective Green, g (s)		6.0	6.0	38.9	38.9	38.9	5.6	48.9	131.1	21.3	64.6	64.6
Actuated g/C Ratio		0.05	0.05	0.30	0.30	0.30	0.04	0.37	1.00	0.16	0.49	0.49
Clearance Time (s)		6.6	6.6	6.6	6.6	6.6	5.0	7.0		5.0	7.0	7.0
Vehicle Extension (s)		4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	4.0
Lane Grp Cap (vph)		82	72	946	475	465	75	1878	1568	552	2482	773
v/s Ratio Prot		0.02		0.18	0.19		0.01	c0.55		c0.20	0.44	
v/s Ratio Perm			0.00			0.20			c0.91			0.02
v/c Ratio		0.40	0.01	0.61	0.63	0.66	0.29	1.46	0.91	1.26	0.90	0.03
Uniform Delay, d1		60.8	59.7	39.6	39.9	40.3	60.8	41.1	0.0	54.9	30.4	17.1
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		4.4	0.1	1.4	3.1	3.9	2.2	211.9	9.3	131.5	5.1	0.0
Delay (s)		65.2	59.8	41.0	43.0	44.2	63.0	253.0	9.3	186.4	35.5	17.1
Level of Service		E	E	D	D	D	E	F	A	F	D	B
Approach Delay (s)		63.0			42.6			169.3			70.7	
Approach LOS		E			D			F			E	

Intersection Summary			
HCM Average Control Delay	114.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.19		
Actuated Cycle Length (s)	131.1	Sum of lost time (s)	8.0
Intersection Capacity Utilization	99.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	33	22	580	301	522	22	2750	1424	696	2239	33
v/c Ratio	0.34	0.21	0.60	0.62	0.76	0.19	1.49	0.91	1.23	0.88	0.04
Control Delay	73.0	28.3	39.8	43.3	23.1	65.2	255.6	10.1	160.8	36.2	14.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.0	28.3	39.8	43.3	23.1	65.2	255.6	10.1	160.8	36.2	14.8
Queue Length 50th (ft)	27	0	227	237	171	18	~1179	0	~375	657	7
Queue Length 95th (ft)	69	30	286	340	306	50	#1493	0	#585	#1005	33
Internal Link Dist (ft)	1565			1533			9567			2116	
Turn Bay Length (ft)		100	425			350			275		250
Base Capacity (vph)	97	106	1243	624	797	144	1843	1568	568	2552	803
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.21	0.47	0.48	0.65	0.15	1.49	0.91	1.23	0.88	0.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Appendix F

Synchro Analysis for the Opening Year (2010) Conditions

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.90		1.00	0.91		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1694	1653		1694	1674		1752	5036	1568	1752	5036	1568
Flt Permitted	0.58	1.00		0.47	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1037	1653		846	1674		1752	5036	1568	1752	5036	1568
Volume (vph)	155	60	135	320	50	80	70	2325	70	20	3620	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	168	65	147	348	54	87	76	2527	76	22	3935	33
RTOR Reduction (vph)	0	39	0	0	31	0	0	0	29	0	0	13
Lane Group Flow (vph)	168	173	0	348	110	0	76	2527	47	22	3935	20
Turn Type	Perm			Perm			Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	56.0	56.0		56.0	56.0		6.5	115.3	115.3	3.7	112.5	112.5
Effective Green, g (s)	57.0	57.0		57.0	57.0		7.0	116.8	116.8	4.2	114.0	114.0
Actuated g/C Ratio	0.30	0.30		0.30	0.30		0.04	0.61	0.61	0.02	0.60	0.60
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	4.0	4.0		4.0	4.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	311	496		254	502		65	3096	964	39	3022	941
v/s Ratio Prot		0.10			0.07		c0.04	c0.50		0.01	c0.78	
v/s Ratio Perm	0.16			c0.41					0.03			0.01
v/c Ratio	0.54	0.35		1.37	0.22		1.17	0.82	0.05	0.56	1.30	0.02
Uniform Delay, d1	55.6	52.0		66.5	49.8		91.5	28.3	14.5	92.0	38.0	15.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	0.96	0.75	1.83
Incremental Delay, d2	2.4	0.6		189.6	0.3		164.6	2.5	0.1	1.7	136.2	0.0
Delay (s)	57.9	52.6		256.1	50.1		256.1	30.8	14.6	89.5	164.5	28.1
Level of Service	E	D		F	D		F	C	B	F	F	C
Approach Delay (s)		54.9			196.7			36.7			163.0	
Approach LOS		D			F			D			F	

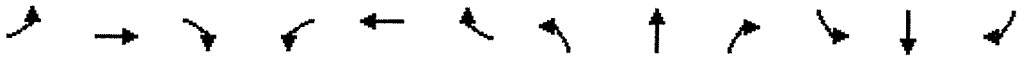
Intersection Summary			
HCM Average Control Delay	114.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.34		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	109.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	0.91		1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.99		1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.96		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3083	1596		1752	1753		1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	0.96		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3083	1596		1752	1753		1752	5036	1568	1752	5036	1568
Volume (vph)	1080	30	20	140	80	40	20	2670	20	10	3690	630
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1174	33	22	152	87	43	22	2902	22	11	4011	685
RTOR Reduction (vph)	0	1	0	0	9	0	0	0	4	0	0	0
Lane Group Flow (vph)	813	415	0	152	121	0	22	2902	18	11	4011	685
Turn Type	Split			Split			Prot		Perm	Prot		Free
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases									2			Free
Actuated Green, G (s)	37.0	37.0		12.0	12.0		3.0	118.0	118.0	2.0	117.0	190.0
Effective Green, g (s)	38.0	38.0		13.0	13.0		4.5	119.5	119.5	3.5	118.5	190.0
Actuated g/C Ratio	0.20	0.20		0.07	0.07		0.02	0.63	0.63	0.02	0.62	1.00
Clearance Time (s)	5.0	5.0		5.0	5.0		5.5	5.5	5.5	5.5	5.5	
Vehicle Extension (s)	4.0	4.0		4.0	4.0		3.0	5.0	5.0	3.0	5.0	
Lane Grp Cap (vph)	617	319		120	120		41	3167	986	32	3141	1568
v/s Ratio Prot	c0.26	0.26		c0.09	0.07		0.01	0.58		0.01	c0.80	
v/s Ratio Perm									0.01			c0.44
v/c Ratio	1.32	1.30		1.27	1.01		0.54	0.92	0.02	0.34	1.28	0.44
Uniform Delay, d1	76.0	76.0		88.5	88.5		91.7	30.9	13.2	92.1	35.8	0.0
Progression Factor	1.00	1.00		1.00	1.00		1.14	0.37	0.45	1.17	0.25	1.00
Incremental Delay, d2	154.2	156.8		170.2	83.7		8.7	3.8	0.0	0.6	124.9	0.1
Delay (s)	230.2	232.8		258.7	172.2		113.5	15.2	6.0	108.4	133.9	0.1
Level of Service	F	F		F	F		F	B	A	F	F	A
Approach Delay (s)		231.1			218.8			15.8			114.4	
Approach LOS		F			F			B			F	

Intersection Summary			
HCM Average Control Delay	101.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.25		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	105.5%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	11	11	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00		1.00	0.91	1.00	1.00	0.86	
Frt	1.00	1.00	0.85	1.00	0.88		1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1752	1845	1568	3286	1575		1752	5036	1568	1752	6338	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1752	1845	1568	3286	1575		1752	5036	1568	1752	6338	
Volume (vph)	105	105	135	580	50	175	190	2690	325	90	3820	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	114	114	147	630	54	190	207	2924	353	98	4152	33
RTOR Reduction (vph)	0	0	122	0	66	0	0	0	129	0	0	0
Lane Group Flow (vph)	114	114	25	630	178	0	207	2924	224	98	4185	0
Turn Type	Prot		Perm	Prot			Prot		Perm	Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			
Actuated Green, G (s)	12.9	9.0	9.0	31.5	27.6		19.5	118.9	118.9	11.1	110.5	
Effective Green, g (s)	13.4	10.0	10.0	32.0	28.6		20.0	120.4	120.4	11.6	112.0	
Actuated g/C Ratio	0.07	0.05	0.05	0.17	0.15		0.11	0.63	0.63	0.06	0.59	
Clearance Time (s)	4.5	5.0	5.0	4.5	5.0		4.5	5.5	5.5	4.5	5.5	
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0		3.0	5.0	5.0	3.0	5.0	
Lane Grp Cap (vph)	124	97	83	553	237		184	3191	994	107	3736	
v/s Ratio Prot	0.07	c0.06		c0.19	0.11		c0.12	0.58		0.06	c0.66	
v/s Ratio Perm			0.02						0.14			
v/c Ratio	0.92	1.18	0.30	1.14	0.75		1.12	0.92	0.23	0.92	1.12	
Uniform Delay, d1	87.8	90.0	86.6	79.0	77.3		85.0	30.4	14.9	88.7	39.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.96	0.90	2.32	1.21	0.34	
Incremental Delay, d2	55.8	146.1	2.7	82.8	13.0		63.3	0.5	0.0	10.9	54.4	
Delay (s)	143.6	236.1	89.4	161.8	90.3		145.0	27.8	34.6	118.4	67.9	
Level of Service	F	F	F	F	F		F	C	C	F	E	
Approach Delay (s)		150.4			141.8			35.4			69.0	
Approach LOS		F			F			D			E	

Intersection Summary			
HCM Average Control Delay	66.5	HCM Level of Service	E
HCM Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	102.9%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.86		1.00	0.86	
Frt	1.00	0.92		1.00	0.93		1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1699		1752	1706		1752	6312		1752	6334	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1752	1699		1752	1706		1752	6312		1752	6334	
Volume (vph)	225	85	95	125	60	60	90	2735	100	40	3880	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	245	92	103	136	65	65	98	2973	109	43	4217	54
RTOR Reduction (vph)	0	21	0	0	19	0	0	3	0	0	1	0
Lane Group Flow (vph)	245	174	0	136	111	0	98	3079	0	43	4270	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	25.5	22.0		14.0	11.0		10.5	126.6		7.4	123.5	
Effective Green, g (s)	26.0	23.0		15.0	12.0		11.0	128.1		7.9	125.0	
Actuated g/C Ratio	0.14	0.12		0.08	0.06		0.06	0.67		0.04	0.66	
Clearance Time (s)	4.5	5.0		5.0	5.0		4.5	5.5		4.5	5.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	240	206		138	108		101	4256		73	4167	
v/s Ratio Prot	c0.14	0.10		0.08	c0.07		c0.06	c0.49		0.02	c0.67	
v/s Ratio Perm												
v/c Ratio	1.02	0.84		0.99	1.03		0.97	0.72		0.59	1.02	
Uniform Delay, d1	82.0	81.7		87.4	89.0		89.3	19.7		89.5	32.5	
Progression Factor	1.00	1.00		1.00	1.00		0.85	1.97		1.24	0.24	
Incremental Delay, d2	63.6	25.8		71.6	95.0		48.0	0.4		3.3	14.8	
Delay (s)	145.6	107.5		159.0	184.0		123.8	39.2		114.0	22.6	
Level of Service	F	F		F	F		F	D		F	C	
Approach Delay (s)		128.7			171.2			41.8			23.5	
Approach LOS		F			F			D			C	

Intersection Summary			
HCM Average Control Delay	41.0	HCM Level of Service	D
HCM Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	94.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.86		1.00	0.86	
Frt	1.00	0.90		1.00	1.00	0.85	1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1694	1612		1752	1845	1568	1752	6329		1752	6334	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1694	1612		1752	1845	1568	1752	6329		1752	6334	
Volume (vph)	195	40	70	115	60	215	50	2840	50	100	3880	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	212	43	76	125	65	234	54	3087	54	109	4217	54
RTOR Reduction (vph)	0	33	0	0	0	121	0	1	0	0	1	0
Lane Group Flow (vph)	212	86	0	125	65	113	54	3140	0	109	4270	0
Turn Type	Prot			Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)	23.5	20.3		16.2	13.0	13.0	6.1	117.8		16.2	127.9	
Effective Green, g (s)	24.0	21.3		16.7	14.0	14.0	6.6	119.3		16.7	129.4	
Actuated g/C Ratio	0.13	0.11		0.09	0.07	0.07	0.03	0.63		0.09	0.68	
Clearance Time (s)	4.5	5.0		4.5	5.0	5.0	4.5	5.5		4.5	5.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	214	181		154	136	116	61	3974		154	4314	
v/s Ratio Prot	c0.13	0.05		0.07	0.04		c0.03	0.50		0.06	c0.67	
v/s Ratio Perm						c0.07						
v/c Ratio	0.99	0.48		0.81	0.48	0.97	0.89	0.79		0.71	0.99	
Uniform Delay, d1	82.9	79.1		85.1	84.5	87.8	91.3	26.1		84.3	29.7	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.04	0.56		1.26	0.26	
Incremental Delay, d2	58.7	2.0		26.7	2.6	74.1	56.6	1.1		4.8	5.8	
Delay (s)	141.6	81.1		111.8	87.1	161.9	151.8	15.8		111.3	13.5	
Level of Service	F	F		F	F	F	F	B		F	B	
Approach Delay (s)		119.8			135.7			18.0			15.9	
Approach LOS		F			F			B			B	

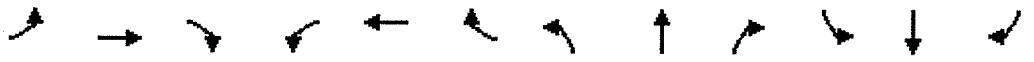
Intersection Summary			
HCM Average Control Delay	27.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	88.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	13	13	13	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.86		1.00	0.86	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00		1.00	0.99	
Flt Protected	0.95	0.98	1.00	0.95	0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1720	1777	1620	1665	1692	1568	1752	6319		1752	6313	
Flt Permitted	0.95	0.98	1.00	0.95	0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1720	1777	1620	1665	1692	1568	1752	6319		1752	6313	
Volume (vph)	205	95	105	235	40	115	70	2835	80	40	3675	130
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	223	103	114	255	43	125	76	3082	87	43	3995	141
RTOR Reduction (vph)	0	0	62	0	0	64	0	2	0	0	3	0
Lane Group Flow (vph)	159	167	52	145	153	61	76	3167	0	43	4133	0
Turn Type	Split		Perm	Split		Perm	Prot			Prot		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)	17.0	17.0	17.0	17.0	17.0	17.0	8.7	128.2		7.8	127.3	
Effective Green, g (s)	18.0	18.0	18.0	18.0	18.0	18.0	9.2	129.7		8.3	128.8	
Actuated g/C Ratio	0.09	0.09	0.09	0.09	0.09	0.09	0.05	0.68		0.04	0.68	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	4.5	5.5		4.5	5.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	2.5	5.0		2.5	5.0	
Lane Grp Cap (vph)	163	168	153	158	160	149	85	4314		77	4280	
v/s Ratio Prot	0.09	c0.09		0.09	c0.09		c0.04	0.50		0.02	c0.65	
v/s Ratio Perm			0.03			0.04						
v/c Ratio	0.98	0.99	0.34	0.92	0.96	0.41	0.89	0.73		0.56	0.97	
Uniform Delay, d1	85.8	85.9	80.5	85.3	85.6	81.0	89.9	19.2		89.1	28.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.56		0.79	0.36	
Incremental Delay, d2	62.6	67.3	1.3	47.6	57.6	1.8	42.7	0.6		2.7	3.7	
Delay (s)	148.4	153.3	81.8	132.9	143.2	82.8	133.6	30.6		73.2	14.1	
Level of Service	F	F	F	F	F	F	F	C		E	B	
Approach Delay (s)		133.0			121.8			33.1			14.7	
Approach LOS		F			F			C			B	

Intersection Summary			
HCM Average Control Delay	33.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	79.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	0.95	0.95		0.91	0.91	1.00	1.00	0.91	1.00	0.97	0.86	
Frt	1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1665	1666		3189	1608	1568	1752	5036	1568	3400	6334	
Flt Permitted	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1665	1666		3189	1608	1568	1752	5036	1568	3400	6334	
Volume (vph)	125	80	40	690	30	290	30	2430	395	265	3315	40
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	136	87	43	750	33	315	33	2641	429	288	3603	43
RTOR Reduction (vph)	0	9	0	0	0	135	0	0	92	0	1	0
Lane Group Flow (vph)	129	128	0	513	270	180	33	2641	337	288	3645	0
Turn Type	Split			Split		Perm	Prot		Perm	Prot		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			
Actuated Green, G (s)	15.9	15.9		33.0	33.0	33.0	4.0	103.7	103.7	17.4	117.1	
Effective Green, g (s)	16.9	16.9		34.0	34.0	34.0	4.5	105.2	105.2	17.9	118.6	
Actuated g/C Ratio	0.09	0.09		0.18	0.18	0.18	0.02	0.55	0.55	0.09	0.62	
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	4.5	5.5	5.5	4.5	5.5	
Vehicle Extension (s)	4.0	4.0		4.0	4.0	4.0	3.0	5.0	5.0	3.0	5.0	
Lane Grp Cap (vph)	148	148		571	288	281	41	2788	868	320	3954	
v/s Ratio Prot	c0.08	0.08		0.16	c0.17		0.02	c0.52		0.08	c0.58	
v/s Ratio Perm						0.12			0.21			
v/c Ratio	0.87	0.86		0.90	0.94	0.64	0.80	0.95	0.39	0.90	0.92	
Uniform Delay, d1	85.5	85.4		76.3	77.0	72.4	92.3	39.8	24.1	85.2	31.6	
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.69	0.30	0.17	1.18	0.40	
Incremental Delay, d2	39.9	38.3		17.2	36.7	5.5	50.9	6.0	0.9	12.2	1.9	
Delay (s)	125.4	123.7		93.5	113.6	77.9	114.7	17.8	5.0	112.7	14.5	
Level of Service	F	F		F	F	E	F	B	A	F	B	
Approach Delay (s)		124.5			93.9			17.1			21.7	
Approach LOS		F			F			B			C	

Intersection Summary			
HCM Average Control Delay	32.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	84.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	0.95	0.95		0.95	0.95	1.00	1.00	0.86		1.00	0.86	
Frt	1.00	0.97		1.00	1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected	0.95	0.99		0.95	0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1665	1686		1665	1700	1568	1752	6258		1752	6318	
Flt Permitted	0.95	0.99		0.95	0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1665	1686		1665	1700	1568	1752	6258		1752	6318	
Volume (vph)	115	65	20	390	95	235	60	2380	240	315	3295	100
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	125	71	22	424	103	255	65	2587	261	342	3582	109
RTOR Reduction (vph)	0	5	0	0	0	90	0	9	0	0	2	0
Lane Group Flow (vph)	106	107	0	257	270	165	65	2839	0	342	3689	0
Turn Type	Split			Split		Perm	Prot			Prot		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)	12.0	12.0		30.7	30.7	30.7	9.2	88.8		38.5	118.1	
Effective Green, g (s)	13.0	13.0		31.7	31.7	31.7	9.7	90.3		39.0	119.6	
Actuated g/C Ratio	0.07	0.07		0.17	0.17	0.17	0.05	0.48		0.21	0.63	
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	4.5	5.5		4.5	5.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	2.5	5.0		2.5	5.0	
Lane Grp Cap (vph)	114	115		278	284	262	89	2974		360	3977	
v/s Ratio Prot	0.06	c0.06		0.15	c0.16		0.04	c0.45		0.20	c0.58	
v/s Ratio Perm						0.11						
v/c Ratio	0.93	0.93		0.92	0.95	0.63	0.73	0.95		0.95	0.93	
Uniform Delay, d1	88.0	88.1		78.0	78.4	73.7	88.9	47.9		74.5	31.3	
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.89	0.96		0.74	0.44	
Incremental Delay, d2	61.7	62.9		34.4	40.1	4.7	10.2	3.9		6.1	0.5	
Delay (s)	149.8	150.9		112.3	118.4	78.4	89.0	50.0		61.4	14.2	
Level of Service	F	F		F	F	E	F	D		E	B	
Approach Delay (s)		150.4			103.4			50.8			18.2	
Approach LOS		F			F			D			B	

Intersection Summary			
HCM Average Control Delay	42.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	85.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.86		1.00	0.91	1.00
Frt		1.00	0.85	1.00	0.93		1.00	1.00		1.00	1.00	0.85
Flt Protected		0.95	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1760	1568	1752	1706		1752	6342		1752	5036	1568
Flt Permitted		0.70	1.00	0.15	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1293	1568	268	1706		1752	6342		1752	5036	1568
Volume (vph)	300	10	265	20	20	20	80	2665	10	10	3695	90
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	326	11	288	22	22	22	87	2897	11	11	4016	98
RTOR Reduction (vph)	0	0	33	0	17	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	337	255	22	27	0	87	2908	0	11	4016	98
Turn Type	Perm		Perm	Perm			Prot			Prot		Free
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8								Free
Actuated Green, G (s)		40.0	40.0	40.0	40.0		7.5	132.0		2.0	126.5	190.0
Effective Green, g (s)		41.0	41.0	41.0	41.0		9.0	133.5		3.5	128.0	190.0
Actuated g/C Ratio		0.22	0.22	0.22	0.22		0.05	0.70		0.02	0.67	1.00
Clearance Time (s)		5.0	5.0	5.0	5.0		5.5	5.5		5.5	5.5	
Vehicle Extension (s)		4.0	4.0	4.0	4.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)		279	338	58	368		83	4456		32	3393	1568
v/s Ratio Prot					0.02		c0.05	0.46		0.01	c0.80	
v/s Ratio Perm		c0.26	0.16	0.08								0.06
v/c Ratio		1.21	0.75	0.38	0.07		1.05	0.65		0.34	1.18	0.06
Uniform Delay, d1		74.5	69.8	63.6	59.4		90.5	15.5		92.1	31.0	0.0
Progression Factor		1.00	1.00	1.00	1.00		1.09	0.12		1.00	0.63	1.00
Incremental Delay, d2		122.2	9.8	5.6	0.1		73.3	0.3		0.6	82.9	0.0
Delay (s)		196.7	79.6	69.2	59.5		171.6	2.1		93.2	102.4	0.0
Level of Service		F	E	E	E		F	A		F	F	A
Approach Delay (s)		142.7			62.7			7.0			99.9	
Approach LOS		F			E			A			F	

Intersection Summary			
HCM Average Control Delay	67.4	HCM Level of Service	E
HCM Volume to Capacity ratio	1.18		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	104.5%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95		0.97	0.86		1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	0.92		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3400	1845	1568	1752	3227		3400	6303		1752	5036	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3400	1845	1568	1752	3227		3400	6303		1752	5036	1568
Volume (vph)	85	60	125	145	85	95	150	2540	120	90	3600	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	92	65	136	158	92	103	163	2761	130	98	3913	54
RTOR Reduction (vph)	0	0	60	0	94	0	0	3	0	0	0	14
Lane Group Flow (vph)	92	65	76	158	101	0	163	2888	0	98	3913	40
Turn Type	Prot		Perm	Prot			Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									6
Actuated Green, G (s)	9.0	8.0	8.0	15.9	14.9		7.7	130.9		14.7	137.9	137.9
Effective Green, g (s)	9.5	9.0	9.0	16.4	15.9		9.2	132.4		16.2	139.4	139.4
Actuated g/C Ratio	0.05	0.05	0.05	0.09	0.08		0.05	0.70		0.09	0.73	0.73
Clearance Time (s)	4.5	5.0	5.0	4.5	5.0		5.5	5.5		5.5	5.5	5.5
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0		3.0	5.0		3.0	5.0	5.0
Lane Grp Cap (vph)	170	87	74	151	270		165	4392		149	3695	1150
v/s Ratio Prot	0.03	0.04		c0.09	0.03		c0.05	0.46		0.06	c0.78	
v/s Ratio Perm			c0.05									0.03
v/c Ratio	0.54	0.75	1.03	1.05	0.37		0.99	0.66		0.66	1.06	0.03
Uniform Delay, d1	88.1	89.4	90.5	86.8	82.3		90.3	16.1		84.2	25.3	6.9
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.75	0.34		0.83	1.06	1.98
Incremental Delay, d2	3.5	30.6	112.2	86.1	1.2		55.1	0.6		1.0	27.3	0.0
Delay (s)	91.6	120.0	202.7	172.9	83.5		123.2	6.0		70.5	54.2	13.7
Level of Service	F	F	F	F	F		F	A		E	D	B
Approach Delay (s)		149.5			123.5			12.2			54.0	
Approach LOS		F			F			B			D	

Intersection Summary			
HCM Average Control Delay	44.3	HCM Level of Service	D
HCM Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	99.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.95		1.00	0.87		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1751		1752	1609		1752	5036	1568	1752	5036	1568
Flt Permitted	0.39	1.00		0.66	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	726	1751		1210	1609		1752	5036	1568	1752	5036	1568
Volume (vph)	60	40	20	155	20	115	60	2580	130	140	3560	40
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	43	22	168	22	125	65	2804	141	152	3870	43
RTOR Reduction (vph)	0	9	0	0	108	0	0	0	27	0	0	5
Lane Group Flow (vph)	65	56	0	168	39	0	65	2804	114	152	3870	38
Turn Type	Perm			Perm			Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	25.0	25.0		25.0	25.0		7.2	128.5	128.5	21.5	142.8	142.8
Effective Green, g (s)	26.0	26.0		26.0	26.0		7.7	130.0	130.0	22.0	144.3	144.3
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.04	0.68	0.68	0.12	0.76	0.76
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	5.0	5.0		5.0	5.0		4.0	5.0	5.0	4.0	5.0	5.0
Lane Grp Cap (vph)	99	240		166	220		71	3446	1073	203	3825	1191
v/s Ratio Prot		0.03			0.02		c0.04	0.56		0.09	c0.77	
v/s Ratio Perm	0.09			c0.14					0.07			0.02
v/c Ratio	0.66	0.23		1.01	0.18		0.92	0.81	0.11	0.75	1.01	0.03
Uniform Delay, d1	77.8	73.1		82.0	72.5		90.8	21.4	10.2	81.3	22.8	5.6
Progression Factor	1.00	1.00		1.00	1.00		1.00	0.18	0.03	0.82	0.97	1.37
Incremental Delay, d2	19.2	1.0		73.0	0.8		66.8	1.7	0.2	7.7	13.2	0.0
Delay (s)	96.9	74.1		155.0	73.4		157.5	5.5	0.4	74.6	35.5	7.7
Level of Service	F	E		F	E		F	A	A	E	D	A
Approach Delay (s)		85.5			116.9			8.6			36.6	
Approach LOS		F			F			A			D	

Intersection Summary			
HCM Average Control Delay	29.6	HCM Level of Service	C
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	101.5%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	
Frt	1.00	0.85	1.00	1.00	1.00	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1752	1568	1752	5036	5028	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1752	1568	1752	5036	5028	
Volume (vph)	40	55	20	2750	3565	40
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	60	22	2989	3875	43
RTOR Reduction (vph)	0	36	0	0	1	0
Lane Group Flow (vph)	43	24	22	2989	3917	0
Turn Type		custom	Prot			
Protected Phases			5	2	6	
Permitted Phases	4	4				
Actuated Green, G (s)	8.8	8.8	3.3	170.7	162.9	
Effective Green, g (s)	9.8	9.8	3.8	172.2	164.4	
Actuated g/C Ratio	0.05	0.05	0.02	0.91	0.87	
Clearance Time (s)	5.0	5.0	4.5	5.5	5.5	
Vehicle Extension (s)	4.0	4.0	4.0	5.0	5.0	
Lane Grp Cap (vph)	90	81	35	4564	4351	
v/s Ratio Prot			0.01	c0.59	c0.78	
v/s Ratio Perm	c0.02	0.02				
v/c Ratio	0.48	0.30	0.63	0.65	0.90	
Uniform Delay, d1	87.6	86.8	92.4	2.1	7.8	
Progression Factor	1.00	1.00	1.28	0.11	0.41	
Incremental Delay, d2	5.4	2.8	21.2	0.4	0.3	
Delay (s)	93.0	89.6	139.9	0.7	3.5	
Level of Service	F	F	F	A	A	
Approach Delay (s)	91.0			1.7	3.5	
Approach LOS	F			A	A	

Intersection Summary			
HCM Average Control Delay	4.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	83.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1734		1665	1697	1568	1752	5036	1568	3400	5036	1568
Flt Permitted	0.95	1.00		0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1734		1665	1697	1568	1752	5036	1568	3400	5036	1568
Volume (vph)	85	60	40	320	70	215	70	2370	235	120	3350	60
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	92	65	43	348	76	234	76	2576	255	130	3641	65
RTOR Reduction (vph)	0	12	0	0	0	63	0	0	71	0	0	6
Lane Group Flow (vph)	92	96	0	207	217	171	76	2576	184	130	3641	59
Turn Type	Split			Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	9.0	9.0		22.0	22.0	22.0	7.9	127.7	127.7	11.3	131.1	131.1
Effective Green, g (s)	10.0	10.0		23.0	23.0	23.0	8.4	129.2	129.2	11.8	132.6	132.6
Actuated g/C Ratio	0.05	0.05		0.12	0.12	0.12	0.04	0.68	0.68	0.06	0.70	0.70
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	4.0	4.0		4.0	4.0	4.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	92	91		202	205	190	77	3424	1066	211	3515	1094
v/s Ratio Prot	0.05	c0.06		0.12	c0.13		c0.04	0.51		0.04	c0.72	
v/s Ratio Perm						0.11			0.12			0.04
v/c Ratio	1.00	1.05		1.02	1.06	0.90	0.99	0.75	0.17	0.62	1.04	0.05
Uniform Delay, d1	90.0	90.0		83.5	83.5	82.3	90.7	19.9	11.0	86.9	28.7	9.0
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.78	0.94	2.56	1.00	1.00	1.00
Incremental Delay, d2	93.8	109.0		69.9	79.2	38.5	84.1	1.2	0.3	5.3	25.5	0.1
Delay (s)	183.8	199.0		153.4	162.7	120.8	155.0	20.0	28.4	92.2	54.2	9.1
Level of Service	F	F		F	F	F	F	B	C	F	D	A
Approach Delay (s)		192.0			144.9			24.2			54.7	
Approach LOS		F			F			C			D	

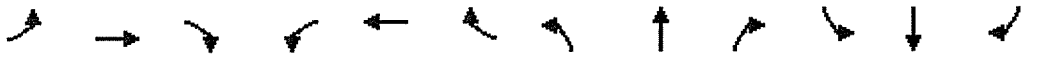
Intersection Summary			
HCM Average Control Delay	54.5	HCM Level of Service	D
HCM Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	88.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.91	1.00	1.00	0.91	
Frt		0.98			1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.98			0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1777			1776	1568	1752	5036	1568	1752	5025	
Flt Permitted		0.68			0.64	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1241			1174	1568	1752	5036	1568	1752	5025	
Volume (vph)	40	40	10	70	20	85	30	2480	30	50	3330	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	43	11	76	22	92	33	2696	33	54	3620	54
RTOR Reduction (vph)	0	4	0	0	0	0	0	0	5	0	1	0
Lane Group Flow (vph)	0	93	0	0	98	92	33	2696	28	54	3673	0
Turn Type	custom			custom		Free	Prot		Perm	Prot		
Protected Phases							5	2		1		
Permitted Phases	4	4		8	8	Free			2		6	
Actuated Green, G (s)		14.5			14.5	140.0	5.4	101.7	101.7	8.3	104.6	
Effective Green, g (s)		16.5			16.5	140.0	5.7	102.9	102.9	8.6	105.8	
Actuated g/C Ratio		0.12			0.12	1.00	0.04	0.74	0.74	0.06	0.76	
Clearance Time (s)		6.0			6.0		4.3	5.2	5.2	4.3	5.2	
Vehicle Extension (s)		3.0			3.0		3.0	5.0	5.0	3.0	5.0	
Lane Grp Cap (vph)		146			138	1568	71	3701	1152	108	3797	
v/s Ratio Prot							0.02	0.54		c0.03		
v/s Ratio Perm		0.08			c0.08	0.06			0.02		c0.73	
v/c Ratio		0.64			0.71	0.06	0.46	0.73	0.02	0.50	0.97	
Uniform Delay, d1		58.9			59.4	0.0	65.7	10.6	5.0	63.6	15.5	
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	0.94	2.50	
Incremental Delay, d2		9.2			15.8	0.1	4.7	1.3	0.0	0.3	1.2	
Delay (s)		68.1			75.2	0.1	70.4	11.9	5.0	59.9	40.0	
Level of Service		E			E	A	E	B	A	E	D	
Approach Delay (s)		68.1			38.8			12.5			40.3	
Approach LOS		E			D			B			D	

Intersection Summary			
HCM Average Control Delay	29.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	83.7%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	0.91		0.91	0.91	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1595	3225		3189	1643	1568	1752	5036	1568	3400	5036	1568
Flt Permitted	0.95	1.00		0.95	0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1595	3225		3189	1643	1568	1752	5036	1568	3400	5036	1568
Volume (vph)	150	225	80	660	160	335	120	1945	480	560	2995	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	163	245	87	717	174	364	130	2114	522	609	3255	33
RTOR Reduction (vph)	0	24	0	0	0	167	0	0	276	0	0	9
Lane Group Flow (vph)	163	308	0	584	307	197	130	2114	246	609	3255	24
Turn Type	Split			Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	14.1	14.1		27.7	27.7	27.7	11.1	58.8	58.8	15.3	63.0	63.0
Effective Green, g (s)	17.0	17.0		30.5	30.5	30.5	11.4	60.9	60.9	15.6	65.1	65.1
Actuated g/C Ratio	0.12	0.12		0.22	0.22	0.22	0.08	0.43	0.43	0.11	0.46	0.46
Clearance Time (s)	6.9	6.9		6.8	6.8	6.8	4.3	6.1	6.1	4.3	6.1	6.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	194	392		695	358	342	143	2191	682	379	2342	729
v/s Ratio Prot	c0.10	0.10		0.18	c0.19		0.07	c0.42		0.18	c0.65	
v/s Ratio Perm						0.13			0.16			0.02
v/c Ratio	0.84	0.79		0.84	0.86	0.57	0.91	0.96	0.36	1.61	1.39	0.03
Uniform Delay, d1	60.2	59.7		52.4	52.7	49.0	63.8	38.5	26.5	62.2	37.5	20.3
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.31	0.79	0.83	0.81	0.68	0.49
Incremental Delay, d2	26.5	10.0		9.0	18.0	2.3	38.4	9.8	1.0	278.9	176.7	0.0
Delay (s)	86.7	69.7		61.4	70.6	51.3	121.9	40.0	23.0	329.1	202.1	10.1
Level of Service	F	E		E	E	D	F	D	C	F	F	B
Approach Delay (s)		75.3			60.7			40.7			220.3	
Approach LOS		E			E			D			F	

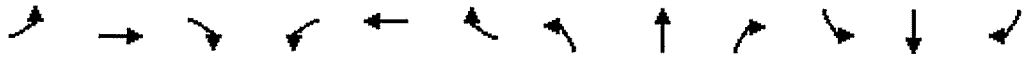
Intersection Summary			
HCM Average Control Delay	128.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	101.6%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	0.93		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1845	1568	1752	1706		1752	5036	1568	1752	5036	1568
Flt Permitted	0.73	1.00	1.00	0.74	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1344	1845	1568	1371	1706		1752	5036	1568	1752	5036	1568
Volume (vph)	30	20	85	35	20	20	70	2555	30	20	3270	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	22	92	38	22	22	76	2777	33	22	3554	11
RTOR Reduction (vph)	0	0	84	0	20	0	0	0	7	0	0	2
Lane Group Flow (vph)	33	22	8	38	24	0	76	2777	26	22	3554	9
Turn Type	Perm		Perm	Perm			Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	9.2	9.2	9.2	9.2	9.2		10.0	109.0	109.0	4.9	103.9	103.9
Effective Green, g (s)	11.7	11.7	11.7	11.7	11.7		10.3	111.1	111.1	5.2	106.0	106.0
Actuated g/C Ratio	0.08	0.08	0.08	0.08	0.08		0.07	0.79	0.79	0.04	0.76	0.76
Clearance Time (s)	6.5	6.5	6.5	6.5	6.5		4.3	6.1	6.1	4.3	6.1	6.1
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	112	154	131	115	143		129	3996	1244	65	3813	1187
v/s Ratio Prot		0.01			0.01		c0.04	0.55		0.01	c0.71	
v/s Ratio Perm	0.02		0.00	c0.03					0.02			0.01
v/c Ratio	0.29	0.14	0.06	0.33	0.17		0.59	0.69	0.02	0.34	0.93	0.01
Uniform Delay, d1	60.3	59.5	59.1	60.5	59.6		62.8	6.7	3.0	65.7	14.0	4.2
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.37	1.19	0.09	0.81	0.74	0.92
Incremental Delay, d2	1.5	0.4	0.2	1.7	0.6		3.5	0.5	0.0	0.3	0.6	0.0
Delay (s)	61.7	59.9	59.3	62.1	60.2		89.8	8.4	0.3	53.5	10.9	3.8
Level of Service	E	E	E	E	E		F	A	A	D	B	A
Approach Delay (s)		59.9			61.1			10.5			11.1	
Approach LOS		E			E			B			B	

Intersection Summary			
HCM Average Control Delay	12.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	82.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	0.97	1.00	1.00	0.97	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1845	1568	3400	1845	1568	3400	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	1845	1568	3400	1845	1568	3400	5036	1568	1752	5036	1568
Volume (vph)	135	115	50	285	175	120	195	2050	205	115	3195	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	147	125	54	310	190	130	212	2228	223	125	3473	11
RTOR Reduction (vph)	0	0	50	0	0	114	0	0	73	0	0	4
Lane Group Flow (vph)	147	125	4	310	190	16	212	2228	150	125	3473	7
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	11.1	7.8	7.8	17.4	14.1	14.1	9.7	79.8	79.8	13.0	83.1	83.1
Effective Green, g (s)	12.0	10.7	10.7	18.3	17.0	17.0	10.0	81.7	81.7	13.3	85.0	85.0
Actuated g/C Ratio	0.09	0.08	0.08	0.13	0.12	0.12	0.07	0.58	0.58	0.10	0.61	0.61
Clearance Time (s)	4.9	6.9	6.9	4.9	6.9	6.9	4.3	5.9	5.9	4.3	5.9	5.9
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	291	141	120	444	224	190	243	2939	915	166	3058	952
v/s Ratio Prot	0.04	0.07		c0.09	c0.10		c0.06	0.44		0.07	c0.69	
v/s Ratio Perm			0.00			0.01			0.10			0.00
v/c Ratio	0.51	0.89	0.03	0.70	0.85	0.08	0.87	0.76	0.16	0.75	1.14	0.01
Uniform Delay, d1	61.2	64.0	59.9	58.2	60.2	54.6	64.4	21.8	13.4	61.7	27.5	10.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.23	0.33	0.21	0.97	0.73	1.44
Incremental Delay, d2	1.4	43.5	0.1	4.7	24.6	0.2	21.3	1.4	0.3	1.8	61.5	0.0
Delay (s)	62.5	107.6	60.0	63.0	84.8	54.8	100.3	8.5	3.1	61.5	81.5	15.7
Level of Service	E	F	E	E	F	D	F	A	A	E	F	B
Approach Delay (s)		79.4			67.9			15.4			80.6	
Approach LOS		E			E			B			F	

Intersection Summary			
HCM Average Control Delay	55.4	HCM Level of Service	E
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	94.8%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00		0.97	0.86		1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	0.90		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3400	1845	1568	1752	1654		3400	6321		1752	5036	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3400	1845	1568	1752	1654		3400	6321		1752	5036	1568
Volume (vph)	30	60	150	90	50	110	110	2285	60	10	3310	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	65	163	98	54	120	120	2484	65	11	3598	11
RTOR Reduction (vph)	0	0	118	0	53	0	0	2	0	0	0	2
Lane Group Flow (vph)	33	65	45	98	121	0	120	2547	0	11	3598	9
Turn Type	Prot		Perm	Prot			Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									6
Actuated Green, G (s)	4.5	10.6	10.6	10.6	16.7		9.3	93.2		1.6	85.5	85.5
Effective Green, g (s)	6.0	13.1	13.1	12.1	19.2		10.8	95.7		3.1	88.0	88.0
Actuated g/C Ratio	0.04	0.09	0.09	0.09	0.14		0.08	0.68		0.02	0.63	0.63
Clearance Time (s)	5.5	6.5	6.5	5.5	6.5		5.5	6.5		5.5	6.5	6.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	5.0		3.0	5.0	5.0
Lane Grp Cap (vph)	146	173	147	151	227		262	4321		39	3165	986
v/s Ratio Prot	0.01	0.04		c0.06	c0.07		c0.04	c0.40		0.01	c0.71	
v/s Ratio Perm			0.03									0.01
v/c Ratio	0.23	0.38	0.31	0.65	0.53		0.46	0.59		0.28	1.14	0.01
Uniform Delay, d1	64.8	59.6	59.2	61.9	56.2		61.8	11.7		67.4	26.0	9.7
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.01	0.65		0.83	1.95	2.14
Incremental Delay, d2	0.8	1.4	1.2	9.2	2.4		0.9	0.4		0.4	62.0	0.0
Delay (s)	65.5	61.0	60.4	71.1	58.6		63.1	8.0		56.4	112.7	20.8
Level of Service	E	E	E	E	E		E	A		E	F	C
Approach Delay (s)		61.2			63.1			10.5			112.2	
Approach LOS		E			E			B			F	

Intersection Summary			
HCM Average Control Delay	68.5	HCM Level of Service	E
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	88.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00		1.00	0.86		1.00	0.91	1.00
Frt		1.00	0.85		0.96		1.00	0.99		1.00	1.00	0.85
Flt Protected		0.97	1.00		0.98		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1783	1568		1738		1752	6312		1752	5036	1568
Flt Permitted		0.54	1.00		0.77		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		997	1568		1353		1752	6312		1752	5036	1568
Volume (vph)	70	30	90	90	90	80	175	2205	80	60	3310	20
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	33	98	98	98	87	190	2397	87	65	3598	22
RTOR Reduction (vph)	0	0	75	0	12	0	0	3	0	0	0	10
Lane Group Flow (vph)	0	109	23	0	271	0	190	2481	0	65	3598	12
Turn Type	Perm		Perm	Perm			Prot			Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8								6
Actuated Green, G (s)		29.5	29.5		29.5		16.5	86.4		7.6	77.5	77.5
Effective Green, g (s)		32.4	32.4		32.4		16.8	87.7		7.9	78.8	78.8
Actuated g/C Ratio		0.23	0.23		0.23		0.12	0.63		0.06	0.56	0.56
Clearance Time (s)		6.9	6.9		6.9		4.3	5.3		4.3	5.3	5.3
Vehicle Extension (s)		3.0	3.0		3.0		3.0	5.0		3.0	5.0	5.0
Lane Grp Cap (vph)		231	363		313		210	3954		99	2835	883
v/s Ratio Prot							c0.11	0.39		0.04	c0.71	
v/s Ratio Perm		0.11	0.01		c0.20							0.01
v/c Ratio		0.47	0.06		0.87		0.90	0.63		0.66	1.27	0.01
Uniform Delay, d1		46.4	42.0		51.7		60.8	16.1		64.7	30.6	13.5
Progression Factor		1.00	1.00		1.00		1.25	0.49		0.74	1.02	2.19
Incremental Delay, d2		1.5	0.1		21.5		32.9	0.6		1.4	121.4	0.0
Delay (s)		47.9	42.0		73.2		108.6	8.6		49.5	152.6	29.5
Level of Service		D	D		E		F	A		D	F	C
Approach Delay (s)		45.1			73.2			15.7			150.1	
Approach LOS		D			E			B			F	

Intersection Summary			
HCM Average Control Delay	91.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	104.9%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.86		0.97	0.91	1.00
Frt	1.00	0.94			1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.97	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1752	1734			1783	1568	1752	6330		3400	5036	1568
Flt Permitted	0.95	1.00			0.97	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1752	1734			1783	1568	1752	6330		3400	5036	1568
Volume (vph)	20	30	20	45	20	275	40	2435	40	185	3385	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	33	22	49	22	299	43	2647	43	201	3679	11
RTOR Reduction (vph)	0	18	0	0	0	233	0	1	0	0	0	1
Lane Group Flow (vph)	22	37	0	0	71	66	43	2689	0	201	3679	10
Turn Type	Split			Split		Perm	Prot			Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8						6
Actuated Green, G (s)	7.0	7.0			13.0	13.0	7.5	82.5		13.7	88.7	88.7
Effective Green, g (s)	9.8	9.8			15.8	15.8	7.8	84.4		14.0	90.6	90.6
Actuated g/C Ratio	0.07	0.07			0.11	0.11	0.06	0.60		0.10	0.65	0.65
Clearance Time (s)	6.8	6.8			6.8	6.8	4.3	5.9		4.3	5.9	5.9
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	5.0		3.0	5.0	5.0
Lane Grp Cap (vph)	123	121			201	177	98	3816		340	3259	1015
v/s Ratio Prot	0.01	c0.02			0.04		0.02	0.42		c0.06	c0.73	
v/s Ratio Perm						c0.04						0.01
v/c Ratio	0.18	0.31			0.35	0.37	0.44	0.70		0.59	1.13	0.01
Uniform Delay, d1	61.3	61.9			57.4	57.5	64.0	19.2		60.3	24.7	8.8
Progression Factor	1.00	1.00			1.00	1.00	1.32	0.26		1.22	0.40	0.39
Incremental Delay, d2	0.7	1.5			1.1	1.3	2.6	0.9		0.3	58.4	0.0
Delay (s)	62.0	63.3			58.5	58.8	86.7	5.8		73.6	68.2	3.4
Level of Service	E	E			E	E	F	A		E	E	A
Approach Delay (s)		63.0			58.7			7.1			68.3	
Approach LOS		E			E			A			E	

Intersection Summary			
HCM Average Control Delay	44.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	89.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.86		1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	0.97	1.00	0.95	0.97	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1665	1697	1568	1665	1705	1568	1752	6284		1752	5036	1568
Flt Permitted	0.95	0.97	1.00	0.95	0.97	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1665	1697	1568	1665	1705	1568	1752	6284		1752	5036	1568
Volume (vph)	230	50	30	240	70	60	80	2395	165	20	3390	90
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	250	54	33	261	76	65	87	2603	179	22	3685	98
RTOR Reduction (vph)	0	0	29	0	0	57	0	6	0	0	0	22
Lane Group Flow (vph)	148	156	4	164	173	8	87	2776	0	22	3685	76
Turn Type	Split		Perm	Split		Perm	Prot			Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8						6
Actuated Green, G (s)	12.6	12.6	12.6	14.9	14.9	14.9	7.7	80.9		5.0	78.2	78.2
Effective Green, g (s)	15.6	15.6	15.6	17.9	17.9	17.9	10.0	83.2		7.3	80.5	80.5
Actuated g/C Ratio	0.11	0.11	0.11	0.13	0.13	0.13	0.07	0.59		0.05	0.58	0.58
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	6.3	6.3		6.3	6.3	6.3
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0		3.0	5.0	5.0
Lane Grp Cap (vph)	186	189	175	213	218	200	125	3734		91	2896	902
v/s Ratio Prot	0.09	c0.09		0.10	c0.10		c0.05	c0.44		0.01	c0.73	
v/s Ratio Perm			0.00			0.01						0.05
v/c Ratio	0.80	0.83	0.02	0.77	0.79	0.04	0.70	0.74		0.24	1.27	0.08
Uniform Delay, d1	60.6	60.9	55.4	59.1	59.3	53.5	63.5	20.6		63.7	29.8	13.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.87		1.12	0.62	0.70
Incremental Delay, d2	20.5	24.4	0.0	15.4	17.7	0.1	11.3	1.0		0.1	122.9	0.0
Delay (s)	81.2	85.3	55.4	74.4	77.0	53.6	71.4	19.0		71.1	141.2	9.3
Level of Service	F	F	E	E	E	D	E	B		E	F	A
Approach Delay (s)		80.6			72.2			20.6			137.4	
Approach LOS		F			E			C			F	

Intersection Summary			
HCM Average Control Delay	86.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	92.3%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.86		1.00	0.91	1.00
Frt	1.00	0.89		1.00	0.87		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1752	1648		1752	1608		1752	6295		1752	5036	1568
Flt Permitted	0.71	1.00		0.42	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1305	1648		779	1608		1752	6295		1752	5036	1568
Volume (vph)	60	20	50	295	10	60	50	2410	135	100	3345	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	22	54	321	11	65	54	2620	147	109	3636	54
RTOR Reduction (vph)	0	50	0	0	57	0	0	5	0	0	0	8
Lane Group Flow (vph)	65	26	0	321	19	0	54	2762	0	109	3636	46
Turn Type	pm+pt			pm+pt			Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8								6
Actuated Green, G (s)	16.8	8.4		29.4	16.0		8.1	80.8		11.3	84.0	84.0
Effective Green, g (s)	19.6	10.2		31.2	17.8		10.3	83.3		13.5	86.5	86.5
Actuated g/C Ratio	0.14	0.07		0.22	0.13		0.07	0.59		0.10	0.62	0.62
Clearance Time (s)	5.0	5.8		5.0	5.8		6.2	6.5		6.2	6.5	6.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	5.0		3.0	5.0	5.0
Lane Grp Cap (vph)	213	120		292	204		129	3746		169	3112	969
v/s Ratio Prot	0.02	0.02		c0.13	0.01		0.03	0.44		c0.06	c0.72	
v/s Ratio Perm	0.02			c0.11								0.03
v/c Ratio	0.31	0.22		1.10	0.09		0.42	0.74		0.64	1.17	0.05
Uniform Delay, d1	53.8	61.1		52.3	54.0		62.0	20.5		60.9	26.8	10.5
Progression Factor	1.00	1.00		1.00	1.00		0.75	1.53		1.00	1.00	1.00
Incremental Delay, d2	0.8	0.9		81.9	0.2		1.5	0.9		8.2	79.6	0.1
Delay (s)	54.6	62.0		134.2	54.2		48.2	32.2		69.1	106.3	10.6
Level of Service	D	E		F	D		D	C		E	F	B
Approach Delay (s)		58.6			118.9			32.5			103.9	
Approach LOS		E			F			C			F	

Intersection Summary			
HCM Average Control Delay	75.7	HCM Level of Service	E
HCM Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	102.6%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	1.00	0.97	0.91	1.00	0.97	0.91	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1752	1845	1568	3189	1636	1568	3400	5036	1568	3400	5021	
Flt Permitted	0.95	1.00	1.00	0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1752	1845	1568	3189	1636	1568	3400	5036	1568	3400	5021	
Volume (vph)	140	155	125	935	185	330	100	1890	600	600	2465	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	152	168	136	1016	201	359	109	2054	652	652	2679	54
RTOR Reduction (vph)	0	0	116	0	0	196	0	0	0	0	1	0
Lane Group Flow (vph)	152	168	20	797	420	163	109	2054	652	652	2732	0
Turn Type	Split		Perm	Split		Perm	Prot		Free	Prot		
Protected Phases	3	3		4	4		5	2		1	6	
Permitted Phases			3			4			Free			
Actuated Green, G (s)	18.6	18.6	18.6	23.5	23.5	23.5	10.7	58.1	140.2	13.0	60.4	
Effective Green, g (s)	21.1	21.1	21.1	26.0	26.0	26.0	13.7	61.1	140.2	16.0	63.4	
Actuated g/C Ratio	0.15	0.15	0.15	0.19	0.19	0.19	0.10	0.44	1.00	0.11	0.45	
Clearance Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	7.0	7.0		7.0	7.0	
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.0		4.0	5.0	
Lane Grp Cap (vph)	264	278	236	591	303	291	332	2195	1568	388	2271	
v/s Ratio Prot	0.09	c0.09		0.25	c0.26		0.03	0.41		c0.19	c0.54	
v/s Ratio Perm			0.01			0.10			c0.42			
v/c Ratio	0.58	0.60	0.09	1.35	1.39	0.56	0.33	0.94	0.42	1.68	1.20	
Uniform Delay, d1	55.4	55.6	51.3	57.1	57.1	51.9	59.0	37.7	0.0	62.1	38.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	3.6	4.2	0.2	167.9	193.0	2.9	0.8	8.6	0.8	317.2	95.8	
Delay (s)	59.0	59.9	51.5	225.0	250.1	54.8	59.8	46.2	0.8	379.3	134.2	
Level of Service	E	E	D	F	F	D	E	D	A	F	F	
Approach Delay (s)		57.1			192.9			36.2			181.4	
Approach LOS		E			F			D			F	

Intersection Summary			
HCM Average Control Delay	127.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.18		
Actuated Cycle Length (s)	140.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	95.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.91	1.00	1.00	0.91	
Frt		0.95			1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.98			0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1733			1762	1568	1752	5036	1568	1752	5033	
Flt Permitted		0.89			0.76	1.00	0.05	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1563			1397	1568	83	5036	1568	1752	5033	
Volume (vph)	10	10	10	165	10	125	10	2040	95	100	2665	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	11	179	11	136	11	2217	103	109	2897	11
RTOR Reduction (vph)	0	4	0	0	0	112	0	0	38	0	0	0
Lane Group Flow (vph)	0	29	0	0	190	24	11	2217	65	109	2908	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Prot		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2		2			
Actuated Green, G (s)		22.7			22.7	22.7	86.3	86.3	86.3	12.7	104.8	
Effective Green, g (s)		24.8			24.8	24.8	88.7	88.7	88.7	14.5	107.2	
Actuated g/C Ratio		0.18			0.18	0.18	0.63	0.63	0.63	0.10	0.77	
Clearance Time (s)		6.1			6.1	6.1	6.4	6.4	6.4	5.8	6.4	
Vehicle Extension (s)		5.0			5.0	5.0	6.0	6.0	6.0	4.0	6.0	
Lane Grp Cap (vph)		277			247	278	53	3191	993	181	3854	
v/s Ratio Prot								0.44		0.06	c0.58	
v/s Ratio Perm		0.02			c0.14	0.02	0.13		0.04			
v/c Ratio		0.10			0.77	0.09	0.21	0.69	0.07	0.60	0.75	
Uniform Delay, d1		48.3			54.9	48.1	10.8	16.8	9.8	60.0	9.1	
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.3			15.6	0.3	8.7	1.3	0.1	6.4	1.4	
Delay (s)		48.6			70.5	48.4	19.5	18.1	9.9	66.4	10.5	
Level of Service		D			E	D	B	B	A	E	B	
Approach Delay (s)		48.6			61.3			17.7			12.5	
Approach LOS		D			E			B			B	

Intersection Summary			
HCM Average Control Delay	17.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	94.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00	1.00	0.95	0.95		1.00	0.91	1.00	1.00	0.91	1.00
Frt		1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99	1.00	0.95	0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1818	1568	1665	1697		1752	5036	1568	1752	5036	1568
Flt Permitted		0.99	1.00	0.95	0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1818	1568	1665	1697		1752	5036	1568	1752	5036	1568
Volume (vph)	60	145	50	330	125	20	95	1340	335	280	1925	75
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	158	54	359	136	22	103	1457	364	304	2092	82
RTOR Reduction (vph)	0	0	19	0	2	0	0	0	181	0	0	28
Lane Group Flow (vph)	0	223	35	254	261	0	103	1457	183	304	2092	54
Turn Type	Split		Perm	Split			Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)		22.7	22.7	24.3	24.3		9.3	42.5	42.5	19.6	52.8	52.8
Effective Green, g (s)		26.2	26.2	27.8	27.8		10.8	46.0	46.0	21.1	56.3	56.3
Actuated g/C Ratio		0.19	0.19	0.20	0.20		0.08	0.34	0.34	0.15	0.41	0.41
Clearance Time (s)		7.5	7.5	7.5	7.5		5.5	7.5	7.5	5.5	7.5	7.5
Vehicle Extension (s)		5.0	5.0	4.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)		347	300	338	344		138	1690	526	270	2068	644
v/s Ratio Prot		c0.12		0.15	c0.15		0.06	0.29		c0.17	c0.42	
v/s Ratio Perm			0.02						0.12			0.03
v/c Ratio		0.64	0.12	0.75	0.76		0.75	0.86	0.35	1.13	1.01	0.08
Uniform Delay, d1		51.1	45.9	51.4	51.5		61.8	42.6	34.3	58.0	40.4	24.7
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		5.5	0.4	9.6	9.8		19.5	5.0	0.5	93.0	22.7	0.1
Delay (s)		56.6	46.3	61.0	61.2		81.3	47.5	34.8	151.0	63.1	24.7
Level of Service		E	D	E	E		F	D	C	F	E	C
Approach Delay (s)		54.6			61.1			46.9			72.6	
Approach LOS		D			E			D			E	

Intersection Summary			
HCM Average Control Delay	61.0	HCM Level of Service	E
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	137.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	79.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.91			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00			0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1683			1774	1568	1752	5036	1568	1752	5036	1568
Flt Permitted	0.49	1.00			0.68	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	905	1683			1248	1568	1752	5036	1568	1752	5036	1568
Volume (vph)	45	40	55	140	35	55	60	1450	135	75	2100	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	49	43	60	152	38	60	65	1576	147	82	2283	33
RTOR Reduction (vph)	0	44	0	0	0	30	0	0	65	0	0	14
Lane Group Flow (vph)	49	59	0	0	190	30	65	1576	82	82	2283	19
Turn Type	Perm			Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8			2			6
Actuated Green, G (s)	19.5	19.5			19.5	19.5	8.3	53.6	53.6	8.8	54.1	54.1
Effective Green, g (s)	23.0	23.0			23.0	23.0	9.3	57.1	57.1	9.8	57.6	57.6
Actuated g/C Ratio	0.23	0.23			0.23	0.23	0.09	0.56	0.56	0.10	0.57	0.57
Clearance Time (s)	7.5	7.5			7.5	7.5	5.0	7.5	7.5	5.0	7.5	7.5
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	204	380			282	354	160	2822	879	168	2847	886
v/s Ratio Prot		0.03					0.04	0.31		c0.05	c0.45	
v/s Ratio Perm	0.05				c0.15	0.02			0.05			0.01
v/c Ratio	0.24	0.15			0.67	0.08	0.41	0.56	0.09	0.49	0.80	0.02
Uniform Delay, d1	32.3	31.7			36.0	31.1	43.7	14.3	10.4	43.7	17.6	9.7
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	0.2			6.2	0.1	1.7	0.4	0.1	2.2	2.0	0.0
Delay (s)	32.9	31.8			42.2	31.2	45.4	14.7	10.5	45.9	19.6	9.8
Level of Service	C	C			D	C	D	B	B	D	B	A
Approach Delay (s)		32.2			39.6			15.5			20.3	
Approach LOS		C			D			B			C	

Intersection Summary			
HCM Average Control Delay	19.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	101.9	Sum of lost time (s)	8.0
Intersection Capacity Utilization	75.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt		0.95			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.98			0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1733			1761	1568	1752	5036	1568	1752	5036	1568
Flt Permitted		0.87			0.71	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1538			1316	1568	1752	5036	1568	1752	5036	1568
Volume (vph)	10	10	10	180	10	35	20	1425	105	40	1930	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	11	196	11	38	22	1549	114	43	2098	11
RTOR Reduction (vph)	0	9	0	0	0	30	0	0	53	0	0	5
Lane Group Flow (vph)	0	24	0	0	207	8	22	1549	61	43	2098	6
Turn Type	Perm			Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8			2			6
Actuated Green, G (s)		12.9			12.9	12.9	2.8	36.9	36.9	4.5	38.0	38.0
Effective Green, g (s)		15.4			15.4	15.4	5.6	39.7	39.7	6.7	40.8	40.8
Actuated g/C Ratio		0.21			0.21	0.21	0.08	0.54	0.54	0.09	0.55	0.55
Clearance Time (s)		6.5			6.5	6.5	6.8	6.8	6.8	6.2	6.8	6.8
Vehicle Extension (s)		4.0			4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)		321			275	327	133	2709	843	159	2784	867
v/s Ratio Prot							0.01	0.31		c0.02	c0.42	
v/s Ratio Perm		0.02			c0.16	0.01			0.04			0.00
v/c Ratio		0.08			0.75	0.02	0.17	0.57	0.07	0.27	0.75	0.01
Uniform Delay, d1		23.5			27.4	23.2	31.9	11.4	8.2	31.3	12.6	7.4
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.1			11.7	0.0	0.6	0.4	0.1	0.9	1.3	0.0
Delay (s)		23.6			39.1	23.3	32.5	11.7	8.2	32.2	13.9	7.4
Level of Service		C			D	C	C	B	A	C	B	A
Approach Delay (s)		23.6			36.7			11.8			14.2	
Approach LOS		C			D			B			B	

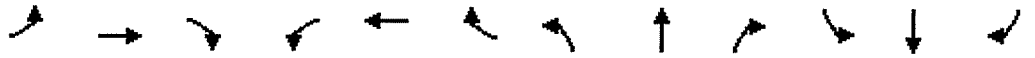
Intersection Summary			
HCM Average Control Delay	14.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	73.8	Sum of lost time (s)	8.0
Intersection Capacity Utilization	61.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	0.88	1.00	0.91		0.97	0.91	1.00
Frt	1.00	0.93			1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1752	1706			1818	2760	1752	5030		3400	5036	1568
Flt Permitted	0.95	1.00			0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1752	1706			1818	2760	1752	5030		3400	5036	1568
Volume (vph)	25	25	25	10	25	620	20	1395	10	720	1880	20
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	27	27	27	11	27	674	22	1516	11	783	2043	22
RTOR Reduction (vph)	0	24	0	0	0	0	0	1	0	0	0	11
Lane Group Flow (vph)	27	30	0	0	38	674	22	1526	0	783	2043	11
Turn Type	Split			Split		pt+ov	Prot			Prot		Perm
Protected Phases	4	4		8	8	8 1	5	2		1	6	
Permitted Phases												6
Actuated Green, G (s)	7.8	7.8			16.4	33.2	2.8	48.4		8.3	53.9	53.9
Effective Green, g (s)	11.3	11.3			20.9	37.2	6.8	53.4		12.3	58.9	58.9
Actuated g/C Ratio	0.10	0.10			0.18	0.33	0.06	0.47		0.11	0.52	0.52
Clearance Time (s)	7.5	7.5			8.5		8.0	9.0		8.0	9.0	9.0
Vehicle Extension (s)	4.0	4.0			4.0		3.0	4.0		3.0	4.0	4.0
Lane Grp Cap (vph)	174	169			334	901	105	2358		367	2604	811
v/s Ratio Prot	0.02	c0.02			0.02	c0.24	0.01	0.30		c0.23	c0.41	
v/s Ratio Perm												0.01
v/c Ratio	0.16	0.18			0.11	0.75	0.21	0.65		2.13	0.78	0.01
Uniform Delay, d1	46.9	47.0			38.8	34.2	51.0	23.1		50.8	22.3	13.4
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.6	0.7			0.2	3.7	1.0	0.7		519.2	1.7	0.0
Delay (s)	47.5	47.7			39.0	37.8	52.0	23.8		570.0	24.1	13.4
Level of Service	D	D			D	D	D	C		F	C	B
Approach Delay (s)		47.6			37.9			24.2			174.1	
Approach LOS		D			D			C			F	

Intersection Summary			
HCM Average Control Delay	108.7	HCM Level of Service	F
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	113.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	67.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00	1.00	0.95	0.95		1.00	0.91	1.00	1.00	0.91	1.00
Frt		1.00	0.85	1.00	0.93		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97	1.00	0.95	0.97		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1785	1568	1665	1594		1752	5036	1568	1752	5036	1568
Flt Permitted		0.97	1.00	0.95	0.97		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1785	1568	1665	1594		1752	5036	1568	1752	5036	1568
Volume (vph)	20	10	20	1035	10	280	10	1355	545	275	1990	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	11	22	1125	11	304	11	1473	592	299	2163	11
RTOR Reduction (vph)	0	0	21	0	19	0	0	0	317	0	0	3
Lane Group Flow (vph)	0	33	1	746	675	0	11	1473	275	299	2163	8
Turn Type	Split		Perm	Split			Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)		3.5	3.5	53.5	53.5		3.0	46.1	46.1	20.0	63.1	63.1
Effective Green, g (s)		6.1	6.1	56.1	56.1		4.0	49.1	49.1	21.0	66.1	66.1
Actuated g/C Ratio		0.04	0.04	0.38	0.38		0.03	0.33	0.33	0.14	0.45	0.45
Clearance Time (s)		6.6	6.6	6.6	6.6		5.0	7.0	7.0	5.0	7.0	7.0
Vehicle Extension (s)		4.0	4.0	4.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)		73	64	630	603		47	1667	519	248	2245	699
v/s Ratio Prot		c0.02		c0.45	0.42		0.01	0.29		c0.17	c0.43	
v/s Ratio Perm			0.00						0.18			0.00
v/c Ratio		0.45	0.01	1.18	1.12		0.23	0.88	0.53	1.21	0.96	0.01
Uniform Delay, d1		69.5	68.2	46.1	46.1		70.6	46.9	40.2	63.7	39.9	22.9
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		6.0	0.1	98.3	73.9		2.6	6.1	1.3	124.2	11.7	0.0
Delay (s)		75.4	68.3	144.4	120.0		73.2	53.0	41.5	187.9	51.6	22.9
Level of Service		E	E	F	F		E	D	D	F	D	C
Approach Delay (s)		72.6			132.6			49.8			68.0	
Approach LOS		E			F			D			E	

Intersection Summary			
HCM Average Control Delay	77.2	HCM Level of Service	E
HCM Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	148.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	98.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.95		1.00	0.91		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1694	1754		1694	1674		1752	5036	1568	1752	5036	1568
Flt Permitted	0.56	1.00		0.36	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1007	1754		643	1674		1752	5036	1568	1752	5036	1568
Volume (vph)	235	165	80	195	50	80	80	3020	225	120	2560	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	255	179	87	212	54	87	87	3283	245	130	2783	33
RTOR Reduction (vph)	0	10	0	0	31	0	0	0	99	0	0	13
Lane Group Flow (vph)	255	256	0	212	110	0	87	3283	146	130	2783	20
Turn Type	Perm			Perm			Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	50.0	50.0		50.0	50.0		12.0	111.8	111.8	13.2	113.0	113.0
Effective Green, g (s)	51.0	51.0		51.0	51.0		12.5	113.3	113.3	13.7	114.5	114.5
Actuated g/C Ratio	0.27	0.27		0.27	0.27		0.07	0.60	0.60	0.07	0.60	0.60
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	4.0	4.0		4.0	4.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	270	471		173	449		115	3003	935	126	3035	945
v/s Ratio Prot		0.15			0.07		0.05	c0.65		c0.07	0.55	
v/s Ratio Perm	0.25			c0.33					0.09			0.01
v/c Ratio	0.94	0.54		1.23	0.25		0.76	1.09	0.16	1.03	0.92	0.02
Uniform Delay, d1	68.1	59.5		69.5	54.4		87.3	38.4	17.1	88.2	33.5	15.2
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.29	0.07	0.02
Incremental Delay, d2	40.0	1.6		141.9	0.4		24.3	48.1	0.4	52.9	1.9	0.0
Delay (s)	108.1	61.2		211.4	54.8		111.5	86.4	17.4	166.4	4.3	0.3
Level of Service	F	E		F	D		F	F	B	F	A	A
Approach Delay (s)		84.1			148.8			82.4			11.4	
Approach LOS		F			F			F			B	

Intersection Summary			
HCM Average Control Delay	57.5	HCM Level of Service	E
HCM Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	102.7%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	0.91		1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.99		1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.96		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3083	1595		1752	1743		1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	0.96		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3083	1595		1752	1743		1752	5036	1568	1752	5036	1568
Volume (vph)	1480	20	20	170	120	70	10	3575	80	20	2525	655
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1609	22	22	185	130	76	11	3886	87	22	2745	712
RTOR Reduction (vph)	0	1	0	0	11	0	0	0	12	0	0	0
Lane Group Flow (vph)	1099	553	0	185	195	0	11	3886	75	22	2745	712
Turn Type	Split			Split			Prot		Perm	Prot		Free
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases									2			Free
Actuated Green, G (s)	46.0	46.0		15.0	15.0		2.0	105.0	105.0	3.0	106.0	190.0
Effective Green, g (s)	47.0	47.0		16.0	16.0		3.5	106.5	106.5	4.5	107.5	190.0
Actuated g/C Ratio	0.25	0.25		0.08	0.08		0.02	0.56	0.56	0.02	0.57	1.00
Clearance Time (s)	5.0	5.0		5.0	5.0		5.5	5.5	5.5	5.5	5.5	
Vehicle Extension (s)	4.0	4.0		4.0	4.0		3.0	5.0	5.0	3.0	5.0	
Lane Grp Cap (vph)	763	395		148	147		32	2823	879	41	2849	1568
v/s Ratio Prot	c0.36	0.35		0.11	c0.11		0.01	c0.77		0.01	0.55	
v/s Ratio Perm									0.05			c0.45
v/c Ratio	1.44	1.40		1.25	1.33		0.34	1.38	0.08	0.54	0.96	0.45
Uniform Delay, d1	71.5	71.5		87.0	87.0		92.1	41.8	19.3	91.7	39.4	0.0
Progression Factor	1.00	1.00		1.00	1.00		0.84	1.07	1.56	1.21	0.16	1.00
Incremental Delay, d2	205.6	195.0		156.3	186.2		1.9	170.1	0.1	8.1	7.2	0.6
Delay (s)	277.1	266.5		243.3	273.2		79.5	214.7	30.1	119.0	13.6	0.6
Level of Service	F	F		F	F		E	F	C	F	B	A
Approach Delay (s)		273.6			259.1			210.3			11.6	
Approach LOS		F			F			F			B	

Intersection Summary			
HCM Average Control Delay	150.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.35		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	117.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	11	11	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00		1.00	0.91	1.00	1.00	0.86	
Frt	1.00	1.00	0.85	1.00	0.89		1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1752	1845	1568	3286	1581		1752	5036	1568	1752	6321	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1752	1845	1568	3286	1581		1752	5036	1568	1752	6321	
Volume (vph)	105	70	80	350	60	185	140	3810	365	175	2675	70
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	114	76	87	380	65	201	152	4141	397	190	2908	76
RTOR Reduction (vph)	0	0	83	0	58	0	0	0	119	0	2	0
Lane Group Flow (vph)	114	76	4	380	208	0	152	4141	278	190	2982	0
Turn Type	Prot		Perm	Prot			Prot		Perm	Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			
Actuated Green, G (s)	10.5	8.1	8.1	21.4	19.0		26.2	124.5	124.5	16.5	114.8	
Effective Green, g (s)	11.0	9.1	9.1	21.9	20.0		26.7	126.0	126.0	17.0	116.3	
Actuated g/C Ratio	0.06	0.05	0.05	0.12	0.11		0.14	0.66	0.66	0.09	0.61	
Clearance Time (s)	4.5	5.0	5.0	4.5	5.0		4.5	5.5	5.5	4.5	5.5	
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0		3.0	5.0	5.0	3.0	5.0	
Lane Grp Cap (vph)	101	88	75	379	166		246	3340	1040	157	3869	
v/s Ratio Prot	0.07	0.04		c0.12	c0.13		0.09	c0.82		c0.11	0.47	
v/s Ratio Perm			0.00						0.18			
v/c Ratio	1.13	0.86	0.06	1.00	1.25		0.62	1.24	0.27	1.21	0.77	
Uniform Delay, d1	89.5	89.8	86.3	84.0	85.0		76.8	32.0	13.1	86.5	27.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.90	0.78	1.32	0.76	1.78	
Incremental Delay, d2	128.4	54.9	0.4	46.9	153.3		0.4	108.2	0.1	117.7	0.7	
Delay (s)	217.9	144.8	86.8	130.9	238.3		69.8	133.0	17.4	183.2	48.9	
Level of Service	F	F	F	F	F		E	F	B	F	D	
Approach Delay (s)		156.7			175.1			121.2			56.9	
Approach LOS		F			F			F			E	

Intersection Summary			
HCM Average Control Delay	103.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.23		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	117.0%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.86		1.00	0.86	
Frt	1.00	0.93		1.00	0.94		1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1706		1752	1733		1752	6297		1752	6289	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1752	1706		1752	1733		1752	6297		1752	6289	
Volume (vph)	280	135	135	125	125	85	130	3630	195	80	2685	170
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	304	147	147	136	136	92	141	3946	212	87	2918	185
RTOR Reduction (vph)	0	19	0	0	12	0	0	4	0	0	5	0
Lane Group Flow (vph)	304	275	0	136	216	0	141	4154	0	87	3098	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	28.5	34.0		14.0	20.0		17.6	114.5		7.5	104.4	
Effective Green, g (s)	29.0	35.0		15.0	21.0		18.1	116.0		8.0	105.9	
Actuated g/C Ratio	0.15	0.18		0.08	0.11		0.10	0.61		0.04	0.56	
Clearance Time (s)	4.5	5.0		5.0	5.0		4.5	5.5		4.5	5.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	267	314		138	192		167	3844		74	3505	
v/s Ratio Prot	c0.17	0.16		0.08	c0.12		0.08	c0.66		c0.05	0.49	
v/s Ratio Perm												
v/c Ratio	1.14	0.88		0.99	1.12		0.84	1.08		1.18	0.88	
Uniform Delay, d1	80.5	75.4		87.4	84.5		84.6	37.0		91.0	36.7	
Progression Factor	1.00	1.00		1.00	1.00		1.19	0.49		1.16	0.26	
Incremental Delay, d2	97.7	22.8		71.6	101.7		3.7	36.9		138.3	2.4	
Delay (s)	178.2	98.2		159.0	186.2		104.1	55.1		243.6	11.8	
Level of Service	F	F		F	F		F	E		F	B	
Approach Delay (s)		138.9			176.1			56.7			18.1	
Approach LOS		F			F			E			B	

Intersection Summary			
HCM Average Control Delay	53.1	HCM Level of Service	D
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	100.9%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.86		1.00	0.86	
Frt	1.00	0.92		1.00	1.00	0.85	1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1694	1645		1752	1845	1568	1752	6307		1752	6288	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1694	1645		1752	1845	1568	1752	6307		1752	6288	
Volume (vph)	265	75	80	145	115	260	50	3760	160	195	2630	170
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	288	82	87	158	125	283	54	4087	174	212	2859	185
RTOR Reduction (vph)	0	20	0	0	0	114	0	3	0	0	5	0
Lane Group Flow (vph)	288	149	0	158	125	169	54	4258	0	212	3039	0
Turn Type	Prot			Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)	27.5	22.8		19.7	15.0	15.0	10.3	108.5		19.5	117.7	
Effective Green, g (s)	28.0	23.8		20.2	16.0	16.0	10.8	110.0		20.0	119.2	
Actuated g/C Ratio	0.15	0.13		0.11	0.08	0.08	0.06	0.58		0.11	0.63	
Clearance Time (s)	4.5	5.0		4.5	5.0	5.0	4.5	5.5		4.5	5.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	250	206		186	155	132	100	3651		184	3945	
v/s Ratio Prot	c0.17	0.09		0.09	0.07		0.03	c0.68		c0.12	0.48	
v/s Ratio Perm						c0.11						
v/c Ratio	1.15	0.72		0.85	0.81	1.28	0.54	1.17		1.15	0.77	
Uniform Delay, d1	81.0	79.9		83.4	85.5	87.0	87.2	40.0		85.0	25.5	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.19	0.39		1.06	0.99	
Incremental Delay, d2	104.2	11.8		28.6	25.5	173.1	0.5	75.1		98.8	0.9	
Delay (s)	185.2	91.7		112.0	110.9	260.1	104.1	90.9		189.0	26.1	
Level of Service	F	F		F	F	F	F	F		F	C	
Approach Delay (s)		150.6			185.8			91.0			36.7	
Approach LOS		F			F			F			D	

Intersection Summary			
HCM Average Control Delay	79.9	HCM Level of Service	E
HCM Volume to Capacity ratio	1.17		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	104.3%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	13	13	13	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.86		1.00	0.86	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	0.99	
Flt Protected	0.95	0.99	1.00	0.95	0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1720	1791	1620	1665	1724	1568	1752	6286		1752	6303	
Flt Permitted	0.95	0.99	1.00	0.95	0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1720	1791	1620	1665	1724	1568	1752	6286		1752	6303	
Volume (vph)	235	155	155	260	135	125	120	3675	245	150	2575	120
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	255	168	168	283	147	136	130	3995	266	163	2799	130
RTOR Reduction (vph)	0	0	147	0	0	102	0	5	0	0	3	0
Lane Group Flow (vph)	206	217	21	209	221	34	130	4256	0	163	2926	0
Turn Type	Split		Perm	Split		Perm	Prot			Prot		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)	19.0	19.0	19.0	20.0	20.0	20.0	17.9	115.5		15.5	113.1	
Effective Green, g (s)	20.0	20.0	20.0	21.0	21.0	21.0	18.4	117.0		16.0	114.6	
Actuated g/C Ratio	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.62		0.08	0.60	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	4.5	5.5		4.5	5.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	2.5	5.0		2.5	5.0	
Lane Grp Cap (vph)	181	189	171	184	191	173	170	3871		148	3802	
v/s Ratio Prot	0.12	c0.12		0.13	c0.13		0.07	c0.68		c0.09	0.46	
v/s Ratio Perm			0.01			0.02						
v/c Ratio	1.14	1.15	0.12	1.14	1.16	0.19	0.76	1.10		1.10	0.77	
Uniform Delay, d1	85.0	85.0	77.1	84.5	84.5	76.8	83.7	36.5		87.0	27.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.30	0.21		0.68	0.30	
Incremental Delay, d2	108.9	111.0	0.3	107.6	113.8	0.6	1.8	45.2		86.9	0.9	
Delay (s)	193.9	196.0	77.4	192.1	198.3	77.4	110.4	53.0		146.1	9.2	
Level of Service	F	F	E	F	F	E	F	D		F	A	
Approach Delay (s)		161.6			167.0			54.7			16.4	
Approach LOS		F			F			D			B	

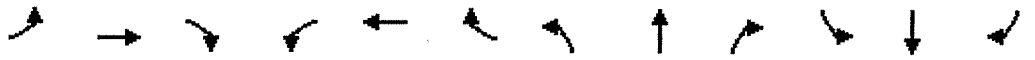
Intersection Summary			
HCM Average Control Delay	55.7	HCM Level of Service	E
HCM Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	100.3%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	0.95	0.95		0.91	0.91	1.00	1.00	0.91	1.00	0.97	0.86	
Frt	1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.99		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1665	1635		3189	1619	1568	1752	5036	1568	3400	6338	
Flt Permitted	0.95	0.99		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1665	1635		3189	1619	1568	1752	5036	1568	3400	6338	
Volume (vph)	185	80	70	830	85	445	20	3395	425	305	2360	20
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	201	87	76	902	92	484	22	3690	462	332	2565	22
RTOR Reduction (vph)	0	13	0	0	0	104	0	0	71	0	0	0
Lane Group Flow (vph)	176	175	0	652	342	380	22	3690	391	332	2587	0
Turn Type	Split			Split		Perm	Prot		Perm	Prot		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			
Actuated Green, G (s)	16.0	16.0		33.0	33.0	33.0	3.7	106.5	106.5	14.5	117.3	
Effective Green, g (s)	17.0	17.0		34.0	34.0	34.0	4.2	108.0	108.0	15.0	118.8	
Actuated g/C Ratio	0.09	0.09		0.18	0.18	0.18	0.02	0.57	0.57	0.08	0.63	
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	4.5	5.5	5.5	4.5	5.5	
Vehicle Extension (s)	4.0	4.0		4.0	4.0	4.0	3.0	5.0	5.0	3.0	5.0	
Lane Grp Cap (vph)	149	146		571	290	281	39	2863	891	268	3963	
v/s Ratio Prot	0.11	c0.11		0.20	0.21		0.01	c0.73		c0.10	0.41	
v/s Ratio Perm						c0.24			0.25			
v/c Ratio	1.18	1.20		1.14	1.18	1.35	0.56	1.29	0.44	1.24	0.65	
Uniform Delay, d1	86.5	86.5		78.0	78.0	78.0	92.0	41.0	23.6	87.5	22.5	
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.70	0.32	0.06	0.99	1.13	
Incremental Delay, d2	130.7	138.3		83.3	110.5	179.8	1.7	130.2	0.1	128.6	0.6	
Delay (s)	217.2	224.8		161.3	188.5	257.8	66.0	143.3	1.5	215.4	26.0	
Level of Service	F	F		F	F	F	E	F	A	F	C	
Approach Delay (s)		221.1			199.2			127.2			47.6	
Approach LOS		F			F			F			D	

Intersection Summary			
HCM Average Control Delay	116.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.29		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	113.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



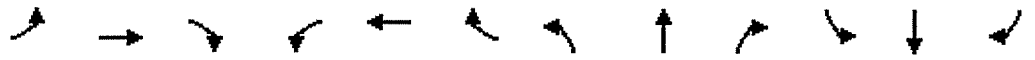
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	0.95	0.95		0.95	0.95	1.00	1.00	0.86		1.00	0.86	
Frt	1.00	0.97		1.00	1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected	0.95	0.99		0.95	0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1665	1683		1665	1686	1568	1752	6259		1752	6318	
Flt Permitted	0.95	0.99		0.95	0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1665	1683		1665	1686	1568	1752	6259		1752	6318	
Volume (vph)	165	90	30	330	40	165	50	3235	325	315	2360	70
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	179	98	33	359	43	179	54	3516	353	342	2565	76
RTOR Reduction (vph)	0	5	0	0	0	82	0	9	0	0	2	0
Lane Group Flow (vph)	151	154	0	196	206	97	54	3860	0	342	2639	0
Turn Type	Split			Split		Perm	Prot			Prot		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)	14.0	14.0		19.0	19.0	19.0	8.7	103.6		33.4	128.3	
Effective Green, g (s)	15.0	15.0		20.0	20.0	20.0	9.2	105.1		33.9	129.8	
Actuated g/C Ratio	0.08	0.08		0.11	0.11	0.11	0.05	0.55		0.18	0.68	
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	4.5	5.5		4.5	5.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	2.5	5.0		2.5	5.0	
Lane Grp Cap (vph)	131	133		175	177	165	85	3462		313	4316	
v/s Ratio Prot	0.09	c0.09		0.12	c0.12		0.03	c0.62		c0.20	0.42	
v/s Ratio Perm						0.06						
v/c Ratio	1.15	1.16		1.12	1.16	0.59	0.64	1.11		1.09	0.61	
Uniform Delay, d1	87.5	87.5		85.0	85.0	81.1	88.8	42.5		78.0	16.4	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.26	0.36		0.72	0.67	
Incremental Delay, d2	125.5	127.7		103.9	118.6	5.2	1.2	52.2		59.7	0.2	
Delay (s)	213.0	215.2		188.9	203.6	86.3	112.7	67.5		115.8	11.3	
Level of Service	F	F		F	F	F	F	E		F	B	
Approach Delay (s)		214.1			162.5			68.1			23.3	
Approach LOS		F			F			E			C	

Intersection Summary			
HCM Average Control Delay	63.8	HCM Level of Service	E
HCM Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	96.6%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.86		1.00	0.91	1.00
Frt		1.00	0.85	1.00	0.94		1.00	1.00		1.00	1.00	0.85
Flt Protected		0.95	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1760	1568	1752	1734		1752	6340		1752	5036	1568
Flt Permitted		0.69	1.00	0.28	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1265	1568	509	1734		1752	6340		1752	5036	1568
Volume (vph)	260	10	155	20	30	20	130	3555	20	20	2680	110
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	283	11	168	22	33	22	141	3864	22	22	2913	120
RTOR Reduction (vph)	0	0	68	0	13	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	294	100	22	42	0	141	3886	0	22	2913	120
Turn Type	Perm		Perm	Perm			Prot			Prot		Free
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8								Free
Actuated Green, G (s)		45.0	45.0	45.0	45.0		15.5	126.0		3.0	113.5	190.0
Effective Green, g (s)		46.0	46.0	46.0	46.0		17.0	127.5		4.5	115.0	190.0
Actuated g/C Ratio		0.24	0.24	0.24	0.24		0.09	0.67		0.02	0.61	1.00
Clearance Time (s)		5.0	5.0	5.0	5.0		5.5	5.5		5.5	5.5	
Vehicle Extension (s)		4.0	4.0	4.0	4.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)		306	380	123	420		157	4254		41	3048	1568
v/s Ratio Prot					0.02		c0.08	0.61		0.01	c0.58	
v/s Ratio Perm		c0.23	0.06	0.04								0.08
v/c Ratio		0.96	0.26	0.18	0.10		0.90	0.91		0.54	0.96	0.08
Uniform Delay, d1		71.1	58.3	57.0	55.9		85.6	26.6		91.7	35.1	0.0
Progression Factor		1.00	1.00	1.00	1.00		1.26	0.14		1.12	0.48	1.00
Incremental Delay, d2		41.0	0.5	1.0	0.1		6.6	0.4		5.9	4.6	0.0
Delay (s)		112.1	58.8	58.0	56.1		114.1	4.1		109.1	21.6	0.0
Level of Service		F	E	E	E		F	A		F	C	A
Approach Delay (s)		92.7			56.6			7.9			21.4	
Approach LOS		F			E			A			C	

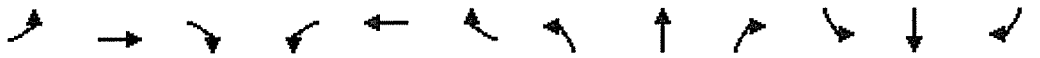
Intersection Summary			
HCM Average Control Delay	19.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	90.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95		0.97	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1845	1568	1752	3305		3400	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	1845	1568	1752	3305		3400	5036	1568	1752	5036	1568
Volume (vph)	105	70	185	185	155	95	185	3485	120	70	2670	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	114	76	201	201	168	103	201	3788	130	76	2902	33
RTOR Reduction (vph)	0	0	101	0	49	0	0	0	20	0	0	11
Lane Group Flow (vph)	114	76	100	201	222	0	201	3788	110	76	2902	22
Turn Type	Prot		Perm	Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)	10.4	10.0	10.0	20.5	20.1		12.9	132.1	132.1	6.9	126.1	126.1
Effective Green, g (s)	10.9	11.0	11.0	21.0	21.1		14.4	133.6	133.6	8.4	127.6	127.6
Actuated g/C Ratio	0.06	0.06	0.06	0.11	0.11		0.08	0.70	0.70	0.04	0.67	0.67
Clearance Time (s)	4.5	5.0	5.0	4.5	5.0		5.5	5.5	5.5	5.5	5.5	5.5
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	195	107	91	194	367		258	3541	1103	77	3382	1053
v/s Ratio Prot	0.03	0.04		c0.11	0.07		0.06	c0.75		0.04	c0.58	
v/s Ratio Perm			c0.06						0.07			0.01
v/c Ratio	0.58	0.71	1.10	1.04	0.61		0.78	1.07	0.10	0.99	0.86	0.02
Uniform Delay, d1	87.3	87.9	89.5	84.5	80.5		86.2	28.2	9.0	90.7	24.2	10.4
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.69	0.25	0.00	1.04	0.49	1.04
Incremental Delay, d2	4.4	21.1	124.3	74.4	3.2		6.2	34.4	0.1	73.5	1.8	0.0
Delay (s)	91.8	109.0	213.8	158.9	83.7		65.8	41.4	0.1	167.9	13.8	10.9
Level of Service	F	F	F	F	F		E	D	A	F	B	B
Approach Delay (s)		157.9			115.7			41.3			17.6	
Approach LOS		F			F			D			B	

Intersection Summary			
HCM Average Control Delay	42.5	HCM Level of Service	D
HCM Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	101.8%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



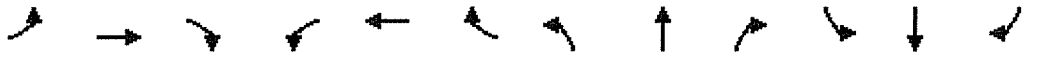
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.95		1.00	0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1751		1752	1642		1752	5036	1568	1752	5036	1568
Flt Permitted	0.31	1.00		0.67	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	564	1751		1235	1642		1752	5036	1568	1752	5036	1568
Volume (vph)	105	40	20	205	50	135	40	3580	120	90	2640	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	114	43	22	223	54	147	43	3891	130	98	2870	54
RTOR Reduction (vph)	0	10	0	0	52	0	0	0	19	0	0	8
Lane Group Flow (vph)	114	55	0	223	149	0	43	3891	111	98	2870	46
Turn Type	Perm			Perm			Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	30.0	30.0		30.0	30.0		7.7	134.9	134.9	10.1	137.3	137.3
Effective Green, g (s)	31.0	31.0		31.0	31.0		8.2	136.4	136.4	10.6	138.8	138.8
Actuated g/C Ratio	0.16	0.16		0.16	0.16		0.04	0.72	0.72	0.06	0.73	0.73
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	5.0	5.0		5.0	5.0		4.0	5.0	5.0	4.0	5.0	5.0
Lane Grp Cap (vph)	92	286		202	268		76	3615	1126	98	3679	1145
v/s Ratio Prot		0.03			0.09		0.02	c0.77		c0.06	0.57	
v/s Ratio Perm	c0.20			0.18					0.07			0.03
v/c Ratio	1.24	0.19		1.10	0.56		0.57	1.08	0.10	1.00	0.78	0.04
Uniform Delay, d1	79.5	68.7		79.5	73.2		89.2	26.8	8.1	89.7	16.0	7.1
Progression Factor	1.00	1.00		1.00	1.00		0.79	0.76	1.67	1.03	0.51	0.72
Incremental Delay, d2	171.3	0.7		93.9	4.2		1.1	35.0	0.0	78.3	1.3	0.0
Delay (s)	250.8	69.4		173.4	77.4		71.2	55.3	13.6	170.7	9.4	5.2
Level of Service	F	E		F	E		E	E	B	F	A	A
Approach Delay (s)		184.9			127.9			54.1			14.6	
Approach LOS		F			F			D			B	

Intersection Summary			
HCM Average Control Delay	45.7	HCM Level of Service	D
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	102.8%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	
Frt	1.00	0.85	1.00	1.00	1.00	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1752	1568	1752	5036	5025	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1752	1568	1752	5036	5025	
Volume (vph)	55	75	30	3715	2630	40
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	60	82	33	4038	2859	43
RTOR Reduction (vph)	0	62	0	0	1	0
Lane Group Flow (vph)	60	20	33	4038	2901	0
Turn Type		custom	Prot			
Protected Phases			5	2	6	
Permitted Phases	4	4				
Actuated Green, G (s)	10.4	10.4	6.9	169.1	157.7	
Effective Green, g (s)	11.4	11.4	7.4	170.6	159.2	
Actuated g/C Ratio	0.06	0.06	0.04	0.90	0.84	
Clearance Time (s)	5.0	5.0	4.5	5.5	5.5	
Vehicle Extension (s)	4.0	4.0	4.0	5.0	5.0	
Lane Grp Cap (vph)	105	94	68	4522	4210	
v/s Ratio Prot			0.02	c0.80	0.58	
v/s Ratio Perm	c0.03	0.01				
v/c Ratio	0.57	0.21	0.49	0.89	0.69	
Uniform Delay, d1	86.9	85.0	89.4	5.0	5.9	
Progression Factor	1.00	1.00	1.09	0.95	2.52	
Incremental Delay, d2	8.7	1.5	0.7	0.3	0.4	
Delay (s)	95.6	86.6	97.9	5.1	15.3	
Level of Service	F	F	F	A	B	
Approach Delay (s)	90.4			5.8	15.3	
Approach LOS	F			A	B	

Intersection Summary			
HCM Average Control Delay	11.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	85.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1749		1665	1687	1568	1752	5036	1568	3400	5036	1568
Flt Permitted	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1749		1665	1687	1568	1752	5036	1568	3400	5036	1568
Volume (vph)	105	95	50	455	60	300	70	3280	255	175	2385	60
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	114	103	54	495	65	326	76	3565	277	190	2592	65
RTOR Reduction (vph)	0	10	0	0	0	75	0	0	56	0	0	9
Lane Group Flow (vph)	114	147	0	273	287	251	76	3565	221	190	2592	56
Turn Type	Split			Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	13.0	13.0		28.0	28.0	28.0	12.7	119.5	119.5	9.5	116.3	116.3
Effective Green, g (s)	14.0	14.0		29.0	29.0	29.0	13.2	121.0	121.0	10.0	117.8	117.8
Actuated g/C Ratio	0.07	0.07		0.15	0.15	0.15	0.07	0.64	0.64	0.05	0.62	0.62
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)	4.0	4.0		4.0	4.0	4.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	129	129		254	257	239	122	3207	999	179	3122	972
v/s Ratio Prot	0.07	c0.08		0.16	c0.17		0.04	c0.71		c0.06	0.51	
v/s Ratio Perm						0.16			0.14			0.04
v/c Ratio	0.88	1.14		1.07	1.12	1.05	0.62	1.11	0.22	1.06	0.83	0.06
Uniform Delay, d1	87.2	88.0		80.5	80.5	80.5	86.0	34.5	14.6	90.0	28.3	14.2
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.10	0.60	0.37	1.00	1.00	1.00
Incremental Delay, d2	46.6	121.1		77.7	91.1	71.5	4.3	52.6	0.2	84.5	2.7	0.1
Delay (s)	133.8	209.1		158.2	171.6	152.0	99.2	73.2	5.6	174.5	31.0	14.3
Level of Service	F	F		F	F	F	F	E	A	F	C	B
Approach Delay (s)		177.5			160.3			68.9			40.2	
Approach LOS		F			F			E			D	

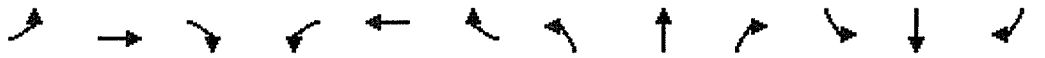
Intersection Summary			
HCM Average Control Delay	72.5	HCM Level of Service	E
HCM Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	103.9%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.91	1.00	1.00	0.91	
Frt		0.99			1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.96			0.97	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1758			1788	1568	1752	5036	1568	1752	5027	
Flt Permitted		0.36			0.77	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		652			1429	1568	1752	5036	1568	1752	5027	
Volume (vph)	85	20	10	105	60	75	10	3380	40	110	2415	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	92	22	11	114	65	82	11	3674	43	120	2625	33
RTOR Reduction (vph)	0	3	0	0	0	0	0	0	5	0	1	0
Lane Group Flow (vph)	0	122	0	0	179	82	11	3674	38	120	2657	0
Turn Type	custom			custom		Free	Prot		Perm	Prot		
Protected Phases							5	2		1		
Permitted Phases	4	4		8	8	Free			2		6	
Actuated Green, G (s)		17.8			17.8	140.0	3.0	92.8	92.8	13.9	103.7	
Effective Green, g (s)		19.8			19.8	140.0	3.3	94.0	94.0	14.2	104.9	
Actuated g/C Ratio		0.14			0.14	1.00	0.02	0.67	0.67	0.10	0.75	
Clearance Time (s)		6.0			6.0		4.3	5.2	5.2	4.3	5.2	
Vehicle Extension (s)		3.0			3.0		3.0	5.0	5.0	3.0	5.0	
Lane Grp Cap (vph)		92			202	1568	41	3381	1053	178	3767	
v/s Ratio Prot							0.01	c0.73		c0.07		
v/s Ratio Perm		c0.19			0.13	0.05			0.02		0.53	
v/c Ratio		1.33			0.89	0.05	0.27	1.09	0.04	0.67	0.71	
Uniform Delay, d1		60.1			59.0	0.0	67.2	23.0	7.7	60.7	9.3	
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	0.92	1.95	
Incremental Delay, d2		205.8			33.8	0.1	3.5	44.8	0.1	0.9	0.1	
Delay (s)		265.9			92.8	0.1	70.7	67.8	7.8	56.9	18.3	
Level of Service		F			F	A	E	E	A	E	B	
Approach Delay (s)		265.9			63.6			67.1			20.0	
Approach LOS		F			E			E			C	

Intersection Summary			
HCM Average Control Delay	51.6	HCM Level of Service	D
HCM Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	94.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	0.91		0.91	0.91	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.99		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1595	3252		3189	1679	1568	1752	5036	1568	3400	5036	1568
Flt Permitted	0.95	0.99		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1595	3252		3189	1679	1568	1752	5036	1568	3400	5036	1568
Volume (vph)	255	295	70	630	375	570	155	2830	460	620	1985	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	277	321	76	685	408	620	168	3076	500	674	2158	54
RTOR Reduction (vph)	0	11	0	0	0	201	0	0	182	0	0	23
Lane Group Flow (vph)	218	445	0	685	408	419	168	3076	318	674	2158	31
Turn Type	Split			Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	19.5	19.5		21.2	21.2	21.2	12.5	55.7	55.7	19.5	62.7	62.7
Effective Green, g (s)	22.4	22.4		24.0	24.0	24.0	12.8	57.8	57.8	19.8	64.8	64.8
Actuated g/C Ratio	0.16	0.16		0.17	0.17	0.17	0.09	0.41	0.41	0.14	0.46	0.46
Clearance Time (s)	6.9	6.9		6.8	6.8	6.8	4.3	6.1	6.1	4.3	6.1	6.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	255	520		547	288	269	160	2079	647	481	2331	726
v/s Ratio Prot	0.14	c0.14		0.21	0.24		0.10	c0.61		c0.20	0.43	
v/s Ratio Perm						c0.27			0.20			0.02
v/c Ratio	0.85	0.86		1.25	1.42	1.56	1.05	1.48	0.49	1.40	0.93	0.04
Uniform Delay, d1	57.2	57.2		58.0	58.0	58.0	63.6	41.1	30.3	60.1	35.3	20.6
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.30	0.94	1.15	1.09	1.14	1.11
Incremental Delay, d2	23.3	13.0		128.0	206.8	267.9	35.8	216.0	0.2	189.3	5.8	0.1
Delay (s)	80.5	70.2		186.0	264.8	325.9	118.7	254.8	34.9	254.8	45.9	23.0
Level of Service	F	E		F	F	F	F	F	C	F	D	C
Approach Delay (s)		73.6			255.4			219.3			94.3	
Approach LOS		E			F			F			F	

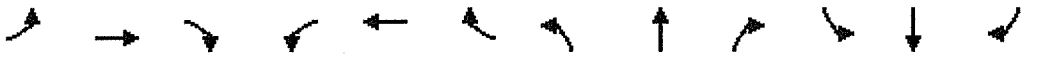
Intersection Summary			
HCM Average Control Delay	175.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.37		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	117.3%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	0.88		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1845	1568	1752	1630		1752	5036	1568	1752	5036	1568
Flt Permitted	0.73	1.00	1.00	0.74	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1337	1845	1568	1371	1630		1752	5036	1568	1752	5036	1568
Volume (vph)	65	20	105	45	10	35	160	3400	20	30	2370	40
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	71	22	114	49	11	38	174	3696	22	33	2576	43
RTOR Reduction (vph)	0	0	102	0	34	0	0	0	5	0	0	11
Lane Group Flow (vph)	71	22	12	49	15	0	174	3696	17	33	2576	32
Turn Type	Perm		Perm	Perm			Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	12.6	12.6	12.6	12.6	12.6		17.9	105.1	105.1	5.4	92.6	92.6
Effective Green, g (s)	15.1	15.1	15.1	15.1	15.1		18.2	107.2	107.2	5.7	94.7	94.7
Actuated g/C Ratio	0.11	0.11	0.11	0.11	0.11		0.13	0.77	0.77	0.04	0.68	0.68
Clearance Time (s)	6.5	6.5	6.5	6.5	6.5		4.3	6.1	6.1	4.3	6.1	6.1
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	144	199	169	148	176		228	3856	1201	71	3406	1061
v/s Ratio Prot		0.01			0.01		c0.10	c0.73		0.02	0.51	
v/s Ratio Perm	c0.05		0.01	0.04					0.01			0.02
v/c Ratio	0.49	0.11	0.07	0.33	0.09		0.76	0.96	0.01	0.46	0.76	0.03
Uniform Delay, d1	58.8	56.4	56.2	57.8	56.2		58.8	14.4	3.9	65.7	15.0	7.5
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.15	1.19	0.04	0.72	0.77	1.24
Incremental Delay, d2	2.6	0.2	0.2	1.3	0.2		1.4	0.9	0.0	2.1	0.7	0.0
Delay (s)	61.5	56.6	56.3	59.1	56.4		69.2	18.1	0.1	49.1	12.2	9.3
Level of Service	E	E	E	E	E		E	B	A	D	B	A
Approach Delay (s)		58.1			57.8			20.3			12.6	
Approach LOS		E			E			C			B	

Intersection Summary			
HCM Average Control Delay	19.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	90.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	0.97	1.00	1.00	0.97	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1845	1568	3400	1845	1568	3400	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	1845	1568	3400	1845	1568	3400	5036	1568	1752	5036	1568
Volume (vph)	185	145	60	355	235	195	195	2675	430	165	2200	100
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	201	158	65	386	255	212	212	2908	467	179	2391	109
RTOR Reduction (vph)	0	0	56	0	0	174	0	0	118	0	0	52
Lane Group Flow (vph)	201	158	9	386	255	38	212	2908	349	179	2391	57
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	13.2	15.9	15.9	17.3	20.0	20.0	13.7	67.7	67.7	17.1	71.1	71.1
Effective Green, g (s)	14.1	18.8	18.8	18.2	22.9	22.9	14.0	69.6	69.6	17.4	73.0	73.0
Actuated g/C Ratio	0.10	0.13	0.13	0.13	0.16	0.16	0.10	0.50	0.50	0.12	0.52	0.52
Clearance Time (s)	4.9	6.9	6.9	4.9	6.9	6.9	4.3	5.9	5.9	4.3	5.9	5.9
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	342	248	211	442	302	256	340	2504	780	218	2626	818
v/s Ratio Prot	0.06	0.09		c0.11	c0.14		0.06	c0.58		c0.10	c0.47	
v/s Ratio Perm			0.01			0.02			0.22			0.04
v/c Ratio	0.59	0.64	0.04	0.87	0.84	0.15	0.62	1.16	0.45	0.82	0.91	0.07
Uniform Delay, d1	60.2	57.4	52.8	59.8	56.8	50.2	60.5	35.2	22.8	59.8	30.5	16.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.18	0.88	0.85	1.02	0.84	2.40
Incremental Delay, d2	2.6	5.3	0.1	17.1	18.9	0.3	1.3	74.4	0.7	12.7	3.5	0.1
Delay (s)	62.7	62.7	52.8	76.9	75.8	50.5	72.6	105.4	20.1	73.9	29.2	40.1
Level of Service	E	E	D	E	E	D	E	F	C	E	C	D
Approach Delay (s)		61.2			70.0			92.4			32.7	
Approach LOS		E			E			F			C	

Intersection Summary			
HCM Average Control Delay	66.9	HCM Level of Service	E
HCM Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	91.9%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00		0.97	0.86		1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	0.89		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3400	1845	1568	1752	1647		3400	6327		1752	5036	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3400	1845	1568	1752	1647		3400	6327		1752	5036	1568
Volume (vph)	155	70	110	130	60	150	195	3065	60	145	2220	100
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	168	76	120	141	65	163	212	3332	65	158	2413	109
RTOR Reduction (vph)	0	0	107	0	64	0	0	2	0	0	0	33
Lane Group Flow (vph)	168	76	13	141	164	0	212	3395	0	158	2413	76
Turn Type	Prot		Perm	Prot			Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									6
Actuated Green, G (s)	11.9	12.6	12.6	13.4	14.1		13.0	75.3		14.7	77.0	77.0
Effective Green, g (s)	13.4	15.1	15.1	14.9	16.6		14.5	77.8		16.2	79.5	79.5
Actuated g/C Ratio	0.10	0.11	0.11	0.11	0.12		0.10	0.56		0.12	0.57	0.57
Clearance Time (s)	5.5	6.5	6.5	5.5	6.5		5.5	6.5		5.5	6.5	6.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	5.0		3.0	5.0	5.0
Lane Grp Cap (vph)	325	199	169	186	195		352	3516		203	2860	890
v/s Ratio Prot	0.05	0.04		c0.08	c0.10		0.06	c0.54		c0.09	0.48	
v/s Ratio Perm			0.01									0.05
v/c Ratio	0.52	0.38	0.08	0.76	0.84		0.60	0.97		0.78	0.84	0.09
Uniform Delay, d1	60.2	58.1	56.2	60.8	60.4		60.0	29.8		60.2	25.1	13.7
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.10	0.50		1.08	0.96	0.83
Incremental Delay, d2	1.4	1.2	0.2	16.1	25.8		0.7	2.8		6.7	1.2	0.1
Delay (s)	61.6	59.3	56.4	76.9	86.2		66.8	17.6		71.8	25.2	11.5
Level of Service	E	E	E	E	F		E	B		E	C	B
Approach Delay (s)		59.4			82.7			20.5			27.4	
Approach LOS		E			F			C			C	

Intersection Summary			
HCM Average Control Delay	28.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	83.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00		1.00	0.86		1.00	0.91	1.00
Frt		1.00	0.85		0.96		1.00	0.99		1.00	1.00	0.85
Flt Protected		0.97	1.00		0.98		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1786	1568		1743		1752	6305		1752	5036	1568
Flt Permitted		0.61	1.00		0.33		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1125	1568		587		1752	6305		1752	5036	1568
Volume (vph)	170	90	10	80	60	50	175	3010	135	90	2415	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	185	98	11	87	65	54	190	3272	147	98	2625	11
RTOR Reduction (vph)	0	0	7	0	9	0	0	5	0	0	0	5
Lane Group Flow (vph)	0	283	4	0	197	0	190	3415	0	98	2625	6
Turn Type	Perm		Perm	Perm			Prot			Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8								6
Actuated Green, G (s)		26.7	26.7		26.7		18.4	86.2		10.6	78.4	78.4
Effective Green, g (s)		29.6	29.6		29.6		18.7	87.5		10.9	79.7	79.7
Actuated g/C Ratio		0.21	0.21		0.21		0.13	0.62		0.08	0.57	0.57
Clearance Time (s)		6.9	6.9		6.9		4.3	5.3		4.3	5.3	5.3
Vehicle Extension (s)		3.0	3.0		3.0		3.0	5.0		3.0	5.0	5.0
Lane Grp Cap (vph)		238	332		124		234	3941		136	2867	893
v/s Ratio Prot							c0.11	0.54		0.06	c0.52	
v/s Ratio Perm		0.25	0.00		c0.33							0.00
v/c Ratio		1.19	0.01		1.58		0.81	0.87		0.72	0.92	0.01
Uniform Delay, d1		55.2	43.6		55.2		58.9	21.5		63.1	27.1	13.0
Progression Factor		1.00	1.00		1.00		0.92	1.75		0.69	1.12	2.05
Incremental Delay, d2		119.1	0.0		298.0		7.3	1.0		11.9	4.1	0.0
Delay (s)		174.3	43.7		353.2		61.6	38.5		55.6	34.5	26.8
Level of Service		F	D		F		E	D		E	C	C
Approach Delay (s)		169.4			353.2			39.7			35.2	
Approach LOS		F			F			D			D	

Intersection Summary			
HCM Average Control Delay	52.9	HCM Level of Service	D
HCM Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	87.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.86		0.97	0.91	1.00
Frt	1.00	0.93			1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.98	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1752	1706			1800	1568	1752	6334		3400	5036	1568
Flt Permitted	0.95	1.00			0.98	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1752	1706			1800	1568	1752	6334		3400	5036	1568
Volume (vph)	30	30	30	35	35	380	30	3320	40	265	2375	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	33	33	38	38	413	33	3609	43	288	2582	11
RTOR Reduction (vph)	0	28	0	0	0	311	0	1	0	0	0	1
Lane Group Flow (vph)	33	38	0	0	76	102	33	3651	0	288	2582	10
Turn Type	Split			Split		Perm	Prot			Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases						8						6
Actuated Green, G (s)	7.6	7.6			12.9	12.9	5.6	78.7		17.0	90.1	90.1
Effective Green, g (s)	10.4	10.4			15.7	15.7	5.9	80.6		17.3	92.0	92.0
Actuated g/C Ratio	0.07	0.07			0.11	0.11	0.04	0.58		0.12	0.66	0.66
Clearance Time (s)	6.8	6.8			6.8	6.8	4.3	5.9		4.3	5.9	5.9
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	5.0		3.0	5.0	5.0
Lane Grp Cap (vph)	130	127			202	176	74	3647		420	3309	1030
v/s Ratio Prot	0.02	c0.02			0.04		0.02	c0.58		c0.08	c0.51	
v/s Ratio Perm						c0.07						0.01
v/c Ratio	0.25	0.30			0.38	0.58	0.45	1.00		0.69	0.78	0.01
Uniform Delay, d1	61.1	61.4			57.6	59.0	65.5	29.7		58.7	16.9	8.3
Progression Factor	1.00	1.00			1.00	1.00	1.23	0.28		1.25	0.25	0.41
Incremental Delay, d2	1.0	1.3			1.2	4.8	2.1	10.8		1.9	0.8	0.0
Delay (s)	62.2	62.7			58.8	63.8	82.7	19.0		75.5	5.1	3.4
Level of Service	E	E			E	E	F	B		E	A	A
Approach Delay (s)		62.5			63.1			19.6			12.1	
Approach LOS		E			E			B			B	

Intersection Summary			
HCM Average Control Delay	20.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	86.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.86		1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	0.97	1.00	0.95	0.98	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1665	1693	1568	1665	1714	1568	1752	6287		1752	5036	1568
Flt Permitted	0.95	0.97	1.00	0.95	0.98	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1665	1693	1568	1665	1714	1568	1752	6287		1752	5036	1568
Volume (vph)	330	60	20	150	60	70	80	3275	215	50	2400	145
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	359	65	22	163	65	76	87	3560	234	54	2609	158
RTOR Reduction (vph)	0	0	18	0	0	67	0	7	0	0	0	49
Lane Group Flow (vph)	207	217	4	111	117	9	87	3787	0	54	2609	109
Turn Type	Split		Perm	Split		Perm	Prot			Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8						6
Actuated Green, G (s)	19.8	19.8	19.8	12.9	12.9	12.9	7.7	72.6		8.1	73.0	73.0
Effective Green, g (s)	22.8	22.8	22.8	15.9	15.9	15.9	10.0	74.9		10.4	75.3	75.3
Actuated g/C Ratio	0.16	0.16	0.16	0.11	0.11	0.11	0.07	0.54		0.07	0.54	0.54
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	6.3	6.3		6.3	6.3	6.3
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0		3.0	5.0	5.0
Lane Grp Cap (vph)	271	276	255	189	195	178	125	3364		130	2709	843
v/s Ratio Prot	0.12	c0.13		0.07	c0.07		c0.05	c0.60		0.03	0.52	
v/s Ratio Perm			0.00			0.01						0.07
v/c Ratio	0.76	0.79	0.01	0.59	0.60	0.05	0.70	1.13		0.42	0.96	0.13
Uniform Delay, d1	56.0	56.3	49.2	58.9	59.0	55.3	63.5	32.5		61.9	31.0	16.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.96		1.06	0.95	0.66
Incremental Delay, d2	12.0	13.7	0.0	4.6	4.9	0.1	4.9	58.0		1.0	6.1	0.2
Delay (s)	68.1	70.0	49.2	63.5	63.9	55.4	63.6	89.3		66.9	35.5	10.8
Level of Service	E	E	D	E	E	E	E	F		E	D	B
Approach Delay (s)		68.1			61.7			88.7			34.7	
Approach LOS		E			E			F			C	

Intersection Summary			
HCM Average Control Delay	65.9	HCM Level of Service	E
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	83.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

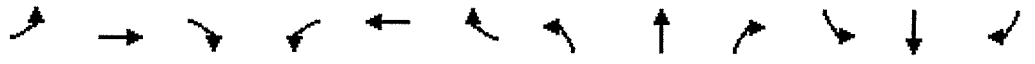
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.86		1.00	0.91	1.00
Frt	1.00	0.88		1.00	0.86		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1752	1624		1752	1591		1752	6259		1752	5036	1568
Flt Permitted	0.67	1.00		0.51	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1242	1624		946	1591		1752	6259		1752	5036	1568
Volume (vph)	60	10	40	365	10	110	50	3135	315	70	2460	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	11	43	397	11	120	54	3408	342	76	2674	54
RTOR Reduction (vph)	0	40	0	0	105	0	0	9	0	0	0	11
Lane Group Flow (vph)	65	14	0	397	26	0	54	3741	0	76	2674	43
Turn Type	pm+pt			pm+pt			Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8								6
Actuated Green, G (s)	16.5	8.1		29.1	15.7		6.2	82.5		9.9	86.2	86.2
Effective Green, g (s)	19.3	9.9		30.9	17.5		8.4	85.0		12.1	88.7	88.7
Actuated g/C Ratio	0.14	0.07		0.22	0.12		0.06	0.61		0.09	0.63	0.63
Clearance Time (s)	5.0	5.8		5.0	5.8		6.2	6.5		6.2	6.5	6.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	5.0		3.0	5.0	5.0
Lane Grp Cap (vph)	205	115		307	199		105	3800		151	3191	993
v/s Ratio Prot	0.02	0.01		c0.16	0.02		0.03	c0.60		c0.04	c0.53	
v/s Ratio Perm	0.02			c0.13								0.03
v/c Ratio	0.32	0.12		1.29	0.13		0.51	0.98		0.50	0.84	0.04
Uniform Delay, d1	54.0	61.0		53.0	54.5		63.8	26.9		61.1	20.0	9.7
Progression Factor	1.00	1.00		1.00	1.00		1.20	1.04		1.00	1.00	1.00
Incremental Delay, d2	0.9	0.5		154.1	0.3		0.4	2.1		2.6	2.8	0.1
Delay (s)	54.9	61.5		207.0	54.8		77.0	30.1		63.7	22.8	9.7
Level of Service	D	E		F	D		E	C		E	C	A
Approach Delay (s)		57.9			169.3			30.8			23.7	
Approach LOS		E			F			C			C	

Intersection Summary			
HCM Average Control Delay	38.6	HCM Level of Service	D
HCM Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	91.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	1.00	0.97	0.91	1.00	0.97	0.91	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	0.98	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1752	1845	1568	3189	1648	1568	3400	5036	1568	3400	5027	
Flt Permitted	0.95	1.00	1.00	0.95	0.98	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1752	1845	1568	3189	1648	1568	3400	5036	1568	3400	5027	
Volume (vph)	245	245	70	1130	315	500	225	2580	685	630	1655	20
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	266	266	76	1228	342	543	245	2804	745	685	1799	22
RTOR Reduction (vph)	0	0	63	0	0	155	0	0	0	0	1	0
Lane Group Flow (vph)	266	266	13	1029	541	388	245	2804	745	685	1820	0
Turn Type	Split		Perm	Split		Perm	Prot		Free	Prot		
Protected Phases	3	3		4	4		5	2		1	6	
Permitted Phases			3			4			Free			
Actuated Green, G (s)	22.9	22.9	22.9	23.5	23.5	23.5	12.9	58.0	144.4	13.0	58.1	
Effective Green, g (s)	25.4	25.4	25.4	26.0	26.0	26.0	15.9	61.0	144.4	16.0	61.1	
Actuated g/C Ratio	0.18	0.18	0.18	0.18	0.18	0.18	0.11	0.42	1.00	0.11	0.42	
Clearance Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	7.0	7.0		7.0	7.0	
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.0		4.0	5.0	
Lane Grp Cap (vph)	308	325	276	574	297	282	374	2127	1568	377	2127	
v/s Ratio Prot	c0.15	0.14		0.32	c0.33		0.07	c0.56		c0.20	0.36	
v/s Ratio Perm			0.01			0.25			c0.48			
v/c Ratio	0.86	0.82	0.05	1.79	1.82	1.38	0.66	1.32	0.48	1.82	0.86	
Uniform Delay, d1	57.8	57.3	49.5	59.2	59.2	59.2	61.6	41.7	0.0	64.2	37.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	21.9	15.4	0.1	363.7	382.7	190.0	4.5	146.7	1.0	378.0	4.0	
Delay (s)	79.7	72.7	49.6	422.9	441.9	249.2	66.1	188.4	1.0	442.2	41.6	
Level of Service	E	E	D	F	F	F	E	F	A	F	D	
Approach Delay (s)		72.9			383.1			143.7			151.1	
Approach LOS		E			F			F			F	

Intersection Summary			
HCM Average Control Delay	197.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.39		
Actuated Cycle Length (s)	144.4	Sum of lost time (s)	16.0
Intersection Capacity Utilization	121.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.91	1.00	1.00	0.91	
Frt		0.95			1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.98			0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1733			1761	1568	1752	5036	1568	1752	5032	
Flt Permitted		0.84			0.76	1.00	0.08	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1481			1393	1568	152	5036	1568	1752	5032	
Volume (vph)	10	10	10	190	10	210	20	2710	165	120	1925	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	11	207	11	228	22	2946	179	130	2092	11
RTOR Reduction (vph)	0	9	0	0	0	127	0	0	68	0	0	0
Lane Group Flow (vph)	0	24	0	0	218	101	22	2946	111	130	2103	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Prot		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2		2			
Actuated Green, G (s)		23.8			23.8	23.8	84.7	84.7	84.7	13.2	103.7	
Effective Green, g (s)		25.9			25.9	25.9	87.1	87.1	87.1	15.0	106.1	
Actuated g/C Ratio		0.18			0.18	0.18	0.62	0.62	0.62	0.11	0.76	
Clearance Time (s)		6.1			6.1	6.1	6.4	6.4	6.4	5.8	6.4	
Vehicle Extension (s)		5.0			5.0	5.0	6.0	6.0	6.0	4.0	6.0	
Lane Grp Cap (vph)		274			258	290	95	3133	976	188	3814	
v/s Ratio Prot								c0.58		c0.07	0.42	
v/s Ratio Perm		0.02			c0.16	0.06	0.14		0.07			
v/c Ratio		0.09			0.84	0.35	0.23	0.94	0.11	0.69	0.55	
Uniform Delay, d1		47.3			55.1	49.7	11.7	24.1	10.8	60.3	7.0	
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.3			23.5	1.5	5.6	7.1	0.2	11.2	0.6	
Delay (s)		47.6			78.7	51.2	17.3	31.2	11.0	71.5	7.6	
Level of Service		D			E	D	B	C	B	E	A	
Approach Delay (s)		47.6			64.6			30.0			11.3	
Approach LOS		D			E			C			B	

Intersection Summary			
HCM Average Control Delay	25.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	86.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00	1.00	0.95	0.95		1.00	0.91	1.00	1.00	0.91	1.00
Frt		1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.98	1.00	0.95	0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1811	1568	1665	1668		1752	5036	1568	1752	5036	1568
Flt Permitted		0.98	1.00	0.95	0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1811	1568	1665	1668		1752	5036	1568	1752	5036	1568
Volume (vph)	105	175	65	445	135	65	45	2015	325	155	1500	40
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	114	190	71	484	147	71	49	2190	353	168	1630	43
RTOR Reduction (vph)	0	0	17	0	6	0	0	0	117	0	0	19
Lane Group Flow (vph)	0	304	54	348	348	0	49	2190	236	168	1630	24
Turn Type	Split		Perm	Split			Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)		26.1	26.1	27.5	27.5		7.1	44.2	44.2	17.0	54.1	54.1
Effective Green, g (s)		29.6	29.6	31.0	31.0		8.6	47.7	47.7	18.5	57.6	57.6
Actuated g/C Ratio		0.21	0.21	0.22	0.22		0.06	0.33	0.33	0.13	0.40	0.40
Clearance Time (s)		7.5	7.5	7.5	7.5		5.5	7.5	7.5	5.5	7.5	7.5
Vehicle Extension (s)		5.0	5.0	4.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)		375	325	361	362		106	1682	524	227	2031	632
v/s Ratio Prot		c0.17		c0.21	0.21		0.03	c0.43		c0.10	0.32	
v/s Ratio Perm			0.03						0.15			0.02
v/c Ratio		0.81	0.16	0.96	0.96		0.46	1.30	0.45	0.74	0.80	0.04
Uniform Delay, d1		53.9	46.5	55.3	55.3		64.9	47.6	37.3	59.8	37.6	25.8
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		14.0	0.5	37.8	37.0		3.2	140.4	0.8	12.2	2.5	0.0
Delay (s)		67.9	47.0	93.2	92.3		68.0	187.9	38.1	72.0	40.1	25.8
Level of Service		E	D	F	F		E	F	D	E	D	C
Approach Delay (s)		63.9			92.7			165.3			42.7	
Approach LOS		E			F			F			D	

Intersection Summary			
HCM Average Control Delay	108.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	142.8	Sum of lost time (s)	16.0
Intersection Capacity Utilization	93.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	0.94			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00			0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1728			1782	1568	1752	5036	1568	1752	5036	1568
Flt Permitted	0.43	1.00			0.63	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	790	1728			1165	1568	1752	5036	1568	1752	5036	1568
Volume (vph)	55	75	55	155	65	85	75	2025	125	85	1510	40
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	60	82	60	168	71	92	82	2201	136	92	1641	43
RTOR Reduction (vph)	0	22	0	0	0	35	0	0	49	0	0	20
Lane Group Flow (vph)	60	120	0	0	239	57	82	2201	87	92	1641	23
Turn Type	Perm			Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8			2			6
Actuated Green, G (s)	23.8	23.8			23.8	23.8	9.0	53.4	53.4	9.4	53.8	53.8
Effective Green, g (s)	27.3	27.3			27.3	27.3	10.0	56.9	56.9	10.4	57.3	57.3
Actuated g/C Ratio	0.26	0.26			0.26	0.26	0.09	0.53	0.53	0.10	0.54	0.54
Clearance Time (s)	7.5	7.5			7.5	7.5	5.0	7.5	7.5	5.0	7.5	7.5
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
Lane Grp Cap (vph)	202	443			298	402	164	2688	837	171	2707	843
v/s Ratio Prot		0.07					0.05	c0.44		c0.05	0.33	
v/s Ratio Perm	0.08				c0.21	0.04			0.06			0.01
v/c Ratio	0.30	0.27			0.80	0.14	0.50	0.82	0.10	0.54	0.61	0.03
Uniform Delay, d1	31.9	31.7			37.1	30.6	45.9	20.6	12.3	45.8	16.9	11.6
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.8	0.3			14.3	0.2	2.4	2.3	0.1	3.2	0.6	0.0
Delay (s)	32.8	32.0			51.5	30.8	48.3	22.9	12.4	49.0	17.5	11.6
Level of Service	C	C			D	C	D	C	B	D	B	B
Approach Delay (s)		32.2			45.7			23.2			19.0	
Approach LOS		C			D			C			B	

Intersection Summary			
HCM Average Control Delay	23.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	106.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	80.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt		0.95			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.98			0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1733			1763	1568	1752	5036	1568	1752	5036	1568
Flt Permitted		0.88			0.72	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1554			1322	1568	1752	5036	1568	1752	5036	1568
Volume (vph)	10	10	10	135	10	35	10	1910	170	50	1405	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	11	147	11	38	11	2076	185	54	1527	11
RTOR Reduction (vph)	0	9	0	0	0	31	0	0	81	0	0	4
Lane Group Flow (vph)	0	24	0	0	158	7	11	2076	104	54	1527	7
Turn Type	Perm			Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8			2			6
Actuated Green, G (s)		12.4			12.4	12.4	1.4	41.3	41.3	4.9	44.2	44.2
Effective Green, g (s)		14.9			14.9	14.9	4.2	44.1	44.1	7.1	47.0	47.0
Actuated g/C Ratio		0.19			0.19	0.19	0.05	0.56	0.56	0.09	0.60	0.60
Clearance Time (s)		6.5			6.5	6.5	6.8	6.8	6.8	6.2	6.8	6.8
Vehicle Extension (s)		4.0			4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)		296			252	299	94	2844	885	159	3031	944
v/s Ratio Prot							0.01	c0.41		c0.03	c0.30	
v/s Ratio Perm		0.02			c0.12	0.00			0.07			0.00
v/c Ratio		0.08			0.63	0.02	0.12	0.73	0.12	0.34	0.50	0.01
Uniform Delay, d1		26.0			29.0	25.7	35.2	12.6	7.9	33.3	8.9	6.2
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.2			5.4	0.0	0.6	1.0	0.1	1.3	0.2	0.0
Delay (s)		26.1			34.5	25.7	35.7	13.6	8.0	34.6	9.1	6.2
Level of Service		C			C	C	D	B	A	C	A	A
Approach Delay (s)		26.1			32.8			13.3			9.9	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM Average Control Delay	13.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	78.1	Sum of lost time (s)	16.0
Intersection Capacity Utilization	63.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	0.88	1.00	0.91		0.97	0.91	1.00
Frt	1.00	0.96			1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1752	1765			1818	2760	1752	5028		3400	5036	1568
Flt Permitted	0.95	1.00			0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1752	1765			1818	2760	1752	5028		3400	5036	1568
Volume (vph)	50	25	10	10	25	840	30	1875	20	440	1480	20
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	27	11	11	27	913	33	2038	22	478	1609	22
RTOR Reduction (vph)	0	10	0	0	0	0	0	1	0	0	0	11
Lane Group Flow (vph)	54	28	0	0	38	913	33	2059	0	478	1609	11
Turn Type	Split			Split		pt+ov	Prot			Prot		Perm
Protected Phases	4	4		8	8	8 1	5	2		1	6	
Permitted Phases												6
Actuated Green, G (s)	8.4	8.4			16.6	33.2	4.5	53.8		8.1	57.4	57.4
Effective Green, g (s)	11.9	11.9			21.1	37.2	8.5	58.8		12.1	62.4	62.4
Actuated g/C Ratio	0.10	0.10			0.18	0.31	0.07	0.49		0.10	0.52	0.52
Clearance Time (s)	7.5	7.5			8.5		8.0	9.0		8.0	9.0	9.0
Vehicle Extension (s)	4.0	4.0			4.0		3.0	4.0		3.0	4.0	4.0
Lane Grp Cap (vph)	174	175			320	856	124	2466		343	2621	816
v/s Ratio Prot	c0.03	0.02			0.02	c0.33	0.02	c0.41		c0.14	c0.32	
v/s Ratio Perm												0.01
v/c Ratio	0.31	0.16			0.12	1.07	0.27	0.83		1.39	0.61	0.01
Uniform Delay, d1	50.2	49.4			41.6	41.4	52.7	26.4		53.9	20.3	13.9
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.4	0.6			0.2	50.1	1.2	2.7		194.1	0.5	0.0
Delay (s)	51.6	50.0			41.8	91.5	53.9	29.1		248.0	20.8	13.9
Level of Service	D	D			D	F	D	C		F	C	B
Approach Delay (s)		50.9			89.5			29.5			72.2	
Approach LOS		D			F			C			E	

Intersection Summary			
HCM Average Control Delay	57.9	HCM Level of Service	E
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	119.9	Sum of lost time (s)	20.0
Intersection Capacity Utilization	84.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00	1.00	0.95	0.95		1.00	0.91	1.00	1.00	0.91	1.00
Frt		1.00	0.85	1.00	0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97	1.00	0.95	0.99		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1785	1568	1665	1540		1752	5036	1568	1752	5036	1568
Flt Permitted		0.97	1.00	0.95	0.99		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1785	1568	1665	1540		1752	5036	1568	1752	5036	1568
Volume (vph)	20	10	10	610	10	365	10	1695	875	390	1270	20
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	11	11	663	11	397	11	1842	951	424	1380	22
RTOR Reduction (vph)	0	0	11	0	73	0	0	0	399	0	0	10
Lane Group Flow (vph)	0	33	0	533	465	0	11	1842	552	424	1380	12
Turn Type	Split		Perm	Split			Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)		3.4	3.4	48.1	48.1		2.9	46.5	46.5	20.2	63.8	63.8
Effective Green, g (s)		6.0	6.0	50.7	50.7		3.9	49.5	49.5	21.2	66.8	66.8
Actuated g/C Ratio		0.04	0.04	0.35	0.35		0.03	0.35	0.35	0.15	0.47	0.47
Clearance Time (s)		6.6	6.6	6.6	6.6		5.0	7.0	7.0	5.0	7.0	7.0
Vehicle Extension (s)		4.0	4.0	4.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)		75	66	589	544		48	1738	541	259	2346	730
v/s Ratio Prot		c0.02		c0.32	0.30		0.01	c0.37		c0.24	0.27	
v/s Ratio Perm			0.00						0.35			0.01
v/c Ratio		0.44	0.01	0.90	0.85		0.23	1.06	1.02	1.64	0.59	0.02
Uniform Delay, d1		67.1	65.8	44.1	42.9		68.3	47.0	47.0	61.1	28.2	20.6
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		5.5	0.1	17.7	12.8		2.4	39.4	44.0	303.5	0.5	0.0
Delay (s)		72.6	65.9	61.8	55.8		70.7	86.4	91.0	364.6	28.6	20.6
Level of Service		E	E	E	E		E	F	F	F	C	C
Approach Delay (s)		70.9			58.8			87.9			106.6	
Approach LOS		E			E			F			F	

Intersection Summary			
HCM Average Control Delay	88.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	143.4	Sum of lost time (s)	16.0
Intersection Capacity Utilization	99.3%	ICU Level of Service	F
Analysis Period (min)	15		

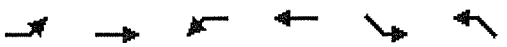
c Critical Lane Group

Appendix G

Synchro Analysis for the Design Year (2030) Build Interchange Alternatives

Movement	EBL	EBT	WBL	WBT	SEL	NWL
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	6.0	8.0	6.0	8.0	8.0
Lane Util. Factor	1.00	1.00	0.97	1.00	0.97	1.00
Frt	1.00	1.00	1.00	1.00	1.00	1.00
Flt Protected	0.95	1.00	0.95	1.00	0.95	0.95
Satd. Flow (prot)	1770	1863	3433	1863	3433	1770
Flt Permitted	0.95	1.00	0.95	1.00	0.95	0.95
Satd. Flow (perm)	1770	1863	3433	1863	3433	1770
Volume (vph)	140	90	800	40	280	30
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	156	100	889	44	311	33
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	156	100	889	44	311	33
Turn Type	Prot		Prot		Prot	Prot
Protected Phases	5	2	1	6	4	8
Permitted Phases						
Actuated Green, G (s)	22.5	8.8	20.8	7.1	11.0	11.0
Effective Green, g (s)	22.5	10.8	20.8	9.1	10.5	10.5
Actuated g/C Ratio	0.35	0.17	0.32	0.14	0.16	0.16
Clearance Time (s)	8.0	8.0	8.0	8.0	7.5	7.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	621	314	1114	264	562	290
v/s Ratio Prot	0.09	c0.05	c0.26	0.02	c0.09	0.02
v/s Ratio Perm						
v/c Ratio	0.25	0.32	0.80	0.17	0.55	0.11
Uniform Delay, d1	14.8	23.4	19.7	24.2	24.6	22.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	0.6	4.1	0.3	1.2	0.2
Delay (s)	15.0	24.0	23.8	24.5	25.8	23.0
Level of Service	B	C	C	C	C	C
Approach Delay (s)		18.5		23.8		
Approach LOS		B		C		

Intersection Summary			
HCM Average Control Delay	23.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	64.1	Sum of lost time (s)	22.0
Intersection Capacity Utilization	46.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	WBL	WBT	SEL	NWL
Lane Group Flow (vph)	156	100	889	44	311	33
v/c Ratio	0.25	0.32	0.80	0.17	0.56	0.11
Control Delay	17.0	27.6	27.8	27.8	29.5	24.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.0	27.6	27.8	27.8	29.5	24.9
Queue Length 50th (ft)	42	36	160	16	59	11
Queue Length 95th (ft)	93	79	#295	45	101	34
Internal Link Dist (ft)		95		95		
Turn Bay Length (ft)	150					
Base Capacity (vph)	623	491	1158	567	828	427
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.20	0.77	0.08	0.38	0.08

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

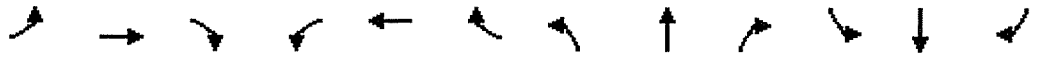
Movement	EBL	EBT	WBL	WBT	SEL	NWL
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	6.0	8.0	6.0	8.0	8.0
Lane Util. Factor	1.00	1.00	0.97	1.00	0.97	1.00
Frt	1.00	1.00	1.00	1.00	1.00	1.00
Flt Protected	0.95	1.00	0.95	1.00	0.95	0.95
Satd. Flow (prot)	1770	1863	3433	1863	3433	1770
Flt Permitted	0.95	1.00	0.95	1.00	0.95	0.95
Satd. Flow (perm)	1770	1863	3433	1863	3433	1770
Volume (vph)	220	90	970	100	320	20
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	244	100	1078	111	356	22
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	244	100	1078	111	356	22
Turn Type	Prot		Prot		Prot	Prot
Protected Phases	5	2	1	6	4	8
Permitted Phases						
Actuated Green, G (s)	21.8	8.9	22.1	9.2	12.0	12.0
Effective Green, g (s)	21.8	10.9	22.1	11.2	11.5	11.5
Actuated g/C Ratio	0.33	0.16	0.33	0.17	0.17	0.17
Clearance Time (s)	8.0	8.0	8.0	8.0	7.5	7.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	580	305	1141	314	594	306
v/s Ratio Prot	c0.14	0.05	c0.31	0.06	c0.10	0.01
v/s Ratio Perm						
v/c Ratio	0.42	0.33	0.94	0.35	0.60	0.07
Uniform Delay, d1	17.4	24.6	21.6	24.4	25.4	23.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	0.6	15.2	0.7	1.6	0.1
Delay (s)	17.9	25.2	36.8	25.1	27.0	23.1
Level of Service	B	C	D	C	C	C
Approach Delay (s)		20.0		35.7		
Approach LOS		C		D		

Intersection Summary			
HCM Average Control Delay	31.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	66.5	Sum of lost time (s)	16.0
Intersection Capacity Utilization	51.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	SEL	NWL
Lane Group Flow (vph)	244	100	1078	111	356	22
v/c Ratio	0.42	0.33	0.95	0.35	0.60	0.07
Control Delay	21.8	28.4	41.3	28.4	30.2	24.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.8	28.4	41.3	28.4	30.2	24.0
Queue Length 50th (ft)	76	36	216	40	69	8
Queue Length 95th (ft)	159	81	#406	87	114	26
Internal Link Dist (ft)		95		95		
Turn Bay Length (ft)	150					
Base Capacity (vph)	579	475	1140	531	812	418
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.21	0.95	0.21	0.44	0.05

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0					4.0		4.0
Lane Util. Factor		1.00		0.97	1.00					0.97		1.00
Frpb, ped/bikes		0.99		1.00	1.00					1.00		0.93
Flpb, ped/bikes		1.00		1.00	1.00					1.00		1.00
Frt		0.98		1.00	1.00					1.00		0.85
Flt Protected		1.00		0.95	1.00					0.95		1.00
Satd. Flow (prot)		1804		3433	1863					3433		1469
Flt Permitted		1.00		0.95	1.00					0.95		1.00
Satd. Flow (perm)		1804		3433	1863					3433		1469
Volume (vph)	0	230	50	800	70	0	0	0	0	280	0	40
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	250	54	870	76	0	0	0	0	304	0	43
RTOR Reduction (vph)	0	9	0	0	0	0	0	0	0	0	0	32
Lane Group Flow (vph)	0	295	0	870	76	0	0	0	0	304	0	11
Confl. Peds. (#/hr)			20									20
Turn Type				Prot						custom		custom
Protected Phases		2		1	2 1							
Permitted Phases										4 12		4 12
Actuated Green, G (s)		20.4		29.0	54.4					21.1		21.1
Effective Green, g (s)		21.4		30.0	55.4					21.6		21.6
Actuated g/C Ratio		0.25		0.35	0.65					0.25		0.25
Clearance Time (s)		5.0		5.0								
Vehicle Extension (s)		4.7		4.7								
Lane Grp Cap (vph)		454		1212	1214					872		373
v/s Ratio Prot		c0.16		c0.25	0.04							
v/s Ratio Perm										c0.09		0.01
v/c Ratio		0.65		0.72	0.06					0.35		0.03
Uniform Delay, d1		28.4		23.8	5.4					25.9		23.8
Progression Factor		1.00		0.32	0.08					1.00		1.00
Incremental Delay, d2		7.0		2.1	0.0					0.2		0.0
Delay (s)		35.5		9.7	0.5					26.2		23.9
Level of Service		D		A	A					C		C
Approach Delay (s)		35.5			9.0			0.0			25.9	
Approach LOS		D			A			A			C	

Intersection Summary			
HCM Average Control Delay	17.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	56.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	304	870	76	304	43
v/c Ratio	0.58	0.79	0.06	0.35	0.11
Control Delay	32.9	13.3	0.5	27.1	8.6
Queue Delay	0.0	0.6	0.0	0.0	0.0
Total Delay	32.9	13.8	0.5	27.1	8.6
Queue Length 50th (ft)	143	197	0	67	0
Queue Length 95th (ft)	#273	319	m0	102	24
Internal Link Dist (ft)	341		269		
Turn Bay Length (ft)					150
Base Capacity (vph)	521	1313	1203	839	392
Starvation Cap Reductn	0	152	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.58	0.75	0.06	0.36	0.11

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0		4.0			
Lane Util. Factor	1.00	0.95			0.91	1.00	1.00		1.00			
Frpb, ped/bikes	1.00	1.00			1.00	0.93	1.00		0.98			
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	1770	3539			5085	1469	1770		1555			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	1770	3539			5085	1469	1770		1555			
Volume (vph)	140	370	0	0	840	340	30	0	420	0	0	0
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	152	402	0	0	913	370	33	0	457	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	118	0	0	0	0	0	0
Lane Group Flow (vph)	152	402	0	0	913	252	33	0	457	0	0	0
Confl. Peds. (#/hr)						20			20			
Turn Type	Prot					Perm	custom		Free			
Protected Phases	5	5 6			6							
Permitted Phases						6	8 16		Free			
Actuated Green, G (s)	26.2	59.4			28.2	28.2	16.1		85.0			
Effective Green, g (s)	27.2	60.4			29.2	29.2	16.6		85.0			
Actuated g/C Ratio	0.32	0.71			0.34	0.34	0.20		1.00			
Clearance Time (s)	5.0				5.0	5.0						
Vehicle Extension (s)	4.7				4.7	4.7						
Lane Grp Cap (vph)	566	2515			1747	505	346		1555			
v/s Ratio Prot	0.09	0.11			c0.18							
v/s Ratio Perm						0.17	0.02		c0.29			
v/c Ratio	0.27	0.16			0.52	0.50	0.10		0.29			
Uniform Delay, d1	21.5	4.0			22.3	22.1	28.0		0.0			
Progression Factor	0.18	0.17			1.00	1.00	1.00		1.00			
Incremental Delay, d2	0.4	0.1			0.5	1.5	0.1		0.5			
Delay (s)	4.2	0.7			22.8	23.6	28.2		0.5			
Level of Service	A	A			C	C	C		A			
Approach Delay (s)		1.7			23.0			2.3			0.0	
Approach LOS		A			C			A			A	

Intersection Summary			
HCM Average Control Delay	13.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	56.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	152	402	913	370	33	457
v/c Ratio	0.27	0.16	0.52	0.59	0.08	0.29
Control Delay	4.7	0.9	25.2	18.3	23.5	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.7	0.9	25.3	18.3	23.5	0.5
Queue Length 50th (ft)	4	0	107	58	13	0
Queue Length 95th (ft)	5	0	217	#239	34	0
Internal Link Dist (ft)		269	440			
Turn Bay Length (ft)	150			50	150	
Base Capacity (vph)	656	2480	1745	622	508	1555
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	58	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.16	0.54	0.59	0.06	0.29

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0					4.0		4.0
Lane Util. Factor		1.00		0.97	1.00					0.97		1.00
Frpb, ped/bikes		0.99		1.00	1.00					1.00		0.92
Flpb, ped/bikes		1.00		1.00	1.00					1.00		1.00
Frt		0.97		1.00	1.00					1.00		0.85
Flt Protected		1.00		0.95	1.00					0.95		1.00
Satd. Flow (prot)		1792		3433	1863					3433		1450
Flt Permitted		1.00		0.95	1.00					0.95		1.00
Satd. Flow (perm)		1792		3433	1863					3433		1450
Volume (vph)	0	310	80	970	120	0	0	0	0	320	0	20
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	337	87	1054	130	0	0	0	0	348	0	22
RTOR Reduction (vph)	0	8	0	0	0	0	0	0	0	0	0	19
Lane Group Flow (vph)	0	416	0	1054	130	0	0	0	0	348	0	3
Confl. Peds. (#/hr)			20									20
Turn Type				Prot						custom		custom
Protected Phases		2		1	2 1							
Permitted Phases										4 12		4 12
Actuated Green, G (s)		31.3		39.8	71.1					14.9		14.9
Effective Green, g (s)		32.3		40.8	73.1					15.9		15.9
Actuated g/C Ratio		0.31		0.39	0.70					0.15		0.15
Clearance Time (s)		5.0		5.0								
Vehicle Extension (s)		4.7		4.7								
Lane Grp Cap (vph)		551		1334	1297					520		220
v/s Ratio Prot		c0.23		c0.31	0.07							
v/s Ratio Perm										c0.10		0.00
v/c Ratio		0.75		0.79	0.10					0.67		0.02
Uniform Delay, d1		32.8		28.3	5.2					42.1		37.9
Progression Factor		1.00		0.22	0.21					1.00		1.00
Incremental Delay, d2		9.3		2.8	0.1					3.3		0.0
Delay (s)		42.0		9.1	1.1					45.3		37.9
Level of Service		D		A	A					D		D
Approach Delay (s)		42.0			8.2			0.0			44.9	
Approach LOS		D			A			A			D	

Intersection Summary			
HCM Average Control Delay	22.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	105.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	68.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	424	1054	130	348	22
v/c Ratio	0.70	0.85	0.10	0.67	0.09
Control Delay	39.5	12.3	0.8	39.9	8.2
Queue Delay	0.0	0.6	0.0	0.0	0.0
Total Delay	39.5	13.0	0.8	39.9	8.2
Queue Length 50th (ft)	253	307	5	87	0
Queue Length 95th (ft)	#477	458	m1	128	13
Internal Link Dist (ft)	341		269		
Turn Bay Length (ft)					150
Base Capacity (vph)	606	1488	1429	609	276
Starvation Cap Reductn	0	157	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.70	0.79	0.09	0.57	0.08

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0		4.0			
Lane Util. Factor	1.00	0.95			0.91	1.00	1.00		1.00			
Frpb, ped/bikes	1.00	1.00			1.00	0.92	1.00		0.98			
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	1770	3539			5085	1450	1770		1555			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	1770	3539			5085	1450	1770		1555			
Volume (vph)	220	410	0	0	1070	520	20	0	460	0	0	0
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	239	446	0	0	1163	565	22	0	500	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	125	0	0	0	0	0	0
Lane Group Flow (vph)	239	446	0	0	1163	440	22	0	500	0	0	0
Confl. Peds. (#/hr)						20			20			
Turn Type	Prot					Perm	custom		Free			
Protected Phases	5	5 6			6							
Permitted Phases						6	8 16		Free			
Actuated Green, G (s)	37.5	78.6			36.1	36.1	16.9		105.0			
Effective Green, g (s)	38.5	79.6			37.1	37.1	17.4		105.0			
Actuated g/C Ratio	0.37	0.76			0.35	0.35	0.17		1.00			
Clearance Time (s)	5.0				5.0	5.0						
Vehicle Extension (s)	4.7				4.7	4.7						
Lane Grp Cap (vph)	649	2683			1797	512	293		1555			
v/s Ratio Prot	c0.14	0.13			0.23							
v/s Ratio Perm						c0.30	0.01		c0.32			
v/c Ratio	0.37	0.17			0.65	0.86	0.08		0.32			
Uniform Delay, d1	24.3	3.5			28.5	31.5	37.0		0.0			
Progression Factor	0.34	1.02			1.00	1.00	1.00		1.00			
Incremental Delay, d2	0.5	0.0			1.0	14.4	0.1		0.5			
Delay (s)	8.8	3.6			29.5	45.9	37.1		0.5			
Level of Service	A	A			C	D	D		A			
Approach Delay (s)		5.4			34.9			2.1			0.0	
Approach LOS		A			C			A			A	

Intersection Summary			
HCM Average Control Delay	22.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	105.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	68.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	239	446	1163	565	22	500
v/c Ratio	0.37	0.17	0.65	0.89	0.06	0.32
Control Delay	9.7	4.2	31.2	39.2	32.8	0.5
Queue Delay	0.5	0.0	0.4	0.0	0.0	0.0
Total Delay	10.2	4.2	31.6	39.2	32.8	0.5
Queue Length 50th (ft)	15	0	196	204	12	0
Queue Length 95th (ft)	m53	0	315	#512	33	0
Internal Link Dist (ft)		269	440			
Turn Bay Length (ft)	150			50	150	
Base Capacity (vph)	649	2681	1795	638	384	1555
Starvation Cap Reductn	148	0	0	0	0	0
Spillback Cap Reductn	0	0	217	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.17	0.74	0.89	0.06	0.32

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	WBL	WBT	SEL	NWL
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	6.0	8.0	6.0	8.0	8.0
Lane Util. Factor	1.00	0.95	0.97	1.00	0.97	1.00
Frt	1.00	1.00	1.00	1.00	1.00	1.00
Flt Protected	0.95	1.00	0.95	1.00	0.95	0.95
Satd. Flow (prot)	1770	3539	3433	1863	3433	1770
Flt Permitted	0.95	1.00	0.95	1.00	0.95	0.95
Satd. Flow (perm)	1770	3539	3433	1863	3433	1770
Volume (vph)	160	240	710	170	610	130
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	178	267	789	189	678	144
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	178	267	789	189	678	144
Turn Type	Prot		Prot		Prot	Prot
Protected Phases	5	2	1	6	4	8
Permitted Phases						
Actuated Green, G (s)	11.6	10.6	18.9	17.9	16.9	16.9
Effective Green, g (s)	12.0	13.0	19.2	20.2	16.4	16.4
Actuated g/C Ratio	0.17	0.18	0.27	0.29	0.23	0.23
Clearance Time (s)	8.4	8.4	8.3	8.3	7.5	7.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	301	652	934	533	797	411
v/s Ratio Prot	c0.10	0.08	c0.23	0.10	c0.20	0.08
v/s Ratio Perm						
v/c Ratio	0.59	0.41	0.84	0.35	0.85	0.35
Uniform Delay, d1	27.0	25.4	24.3	20.0	25.9	22.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.1	0.4	7.1	0.4	8.7	0.5
Delay (s)	30.1	25.8	31.4	20.4	34.6	23.2
Level of Service	C	C	C	C	C	C
Approach Delay (s)		27.6		29.3		
Approach LOS		C		C		

Intersection Summary			
HCM Average Control Delay	30.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	70.6	Sum of lost time (s)	16.0
Intersection Capacity Utilization	59.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	SEL	NWL
Lane Group Flow (vph)	178	267	789	189	678	144
v/c Ratio	0.59	0.41	0.84	0.36	0.85	0.35
Control Delay	35.9	27.8	35.1	23.3	38.7	26.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.9	27.8	35.1	23.3	38.7	26.4
Queue Length 50th (ft)	73	55	169	67	148	54
Queue Length 95th (ft)	135	89	#276	125	#250	107
Internal Link Dist (ft)		95		95		
Turn Bay Length (ft)						
Base Capacity (vph)	361	945	962	634	820	423
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.28	0.82	0.30	0.83	0.34

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

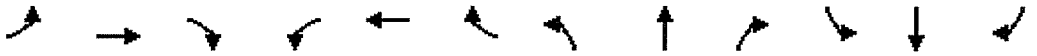
Movement	EBL	EBT	WBL	WBT	SEL	NWL
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	6.0	8.0	6.0	8.0	8.0
Lane Util. Factor	1.00	0.95	0.97	1.00	0.97	1.00
Frt	1.00	1.00	1.00	1.00	1.00	1.00
Flt Protected	0.95	1.00	0.95	1.00	0.95	0.95
Satd. Flow (prot)	1770	3539	3433	1863	3433	1770
Flt Permitted	0.95	1.00	0.95	1.00	0.95	0.95
Satd. Flow (perm)	1770	3539	3433	1863	3433	1770
Volume (vph)	270	320	670	400	680	170
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	300	356	744	444	756	189
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	300	356	744	444	756	189
Turn Type	Prot		Prot		Prot	Prot
Protected Phases	5	2	1	6	4	8
Permitted Phases						
Actuated Green, G (s)	14.4	12.7	22.0	20.3	19.1	19.1
Effective Green, g (s)	14.8	15.1	22.3	22.6	18.6	18.6
Actuated g/C Ratio	0.19	0.19	0.29	0.29	0.24	0.24
Clearance Time (s)	8.4	8.4	8.3	8.3	7.5	7.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	336	685	981	540	819	422
v/s Ratio Prot	c0.17	0.10	0.22	c0.24	c0.22	0.11
v/s Ratio Perm						
v/c Ratio	0.89	0.52	0.76	0.82	0.92	0.45
Uniform Delay, d1	30.8	28.2	25.4	25.8	29.0	25.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	24.4	0.7	3.4	9.8	15.8	0.8
Delay (s)	55.2	28.9	28.8	35.6	44.8	26.1
Level of Service	E	C	C	D	D	C
Approach Delay (s)		40.9		31.3		
Approach LOS		D		C		

Intersection Summary			
HCM Average Control Delay	36.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	78.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	68.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	SEL	NWL
Lane Group Flow (vph)	300	356	744	444	756	189
v/c Ratio	0.89	0.52	0.76	0.82	0.93	0.45
Control Delay	62.3	31.1	32.4	40.4	48.8	29.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.3	31.1	32.4	40.4	48.8	29.9
Queue Length 50th (ft)	148	85	170	202	190	81
Queue Length 95th (ft)	#292	119	#278	#348	#296	142
Internal Link Dist (ft)		95		95		
Turn Bay Length (ft)						
Base Capacity (vph)	340	855	982	564	832	429
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.42	0.76	0.79	0.91	0.44

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0					4.0		4.0
Lane Util. Factor		0.91		0.97	1.00					0.97		1.00
Frpb, ped/bikes		0.99		1.00	1.00					1.00		0.92
Flpb, ped/bikes		1.00		1.00	1.00					1.00		1.00
Frt		0.97		1.00	1.00					1.00		0.85
Flt Protected		1.00		0.95	1.00					0.95		1.00
Satd. Flow (prot)		4904		3433	1863					3433		1464
Flt Permitted		1.00		0.95	1.00					0.95		1.00
Satd. Flow (perm)		4904		3433	1863					3433		1464
Volume (vph)	0	400	90	710	300	0	0	0	0	610	0	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	435	98	772	326	0	0	0	0	663	0	33
RTOR Reduction (vph)	0	38	0	0	0	0	0	0	0	0	0	24
Lane Group Flow (vph)	0	495	0	772	326	0	0	0	0	663	0	9
Confl. Peds. (#/hr)			20									20
Turn Type				Prot						custom		custom
Protected Phases		2		1	2 1							
Permitted Phases										4 12		4 12
Actuated Green, G (s)		22.1		26.5	55.4					22.4		22.4
Effective Green, g (s)		25.0		29.3	58.3					23.7		23.7
Actuated g/C Ratio		0.28		0.33	0.65					0.26		0.26
Clearance Time (s)		6.9		6.8								
Vehicle Extension (s)		4.7		4.7								
Lane Grp Cap (vph)		1362		1118	1207					904		386
v/s Ratio Prot		c0.10		c0.22	0.18							
v/s Ratio Perm										c0.19		0.01
v/c Ratio		0.36		0.69	0.27					0.73		0.02
Uniform Delay, d1		26.1		26.4	6.8					30.3		24.6
Progression Factor		1.00		0.14	0.66					1.00		1.00
Incremental Delay, d2		0.8		1.2	0.2					3.1		0.0
Delay (s)		26.9		4.8	4.7					33.4		24.6
Level of Service		C		A	A					C		C
Approach Delay (s)		26.9			4.8			0.0			33.0	
Approach LOS		C			A			A			C	

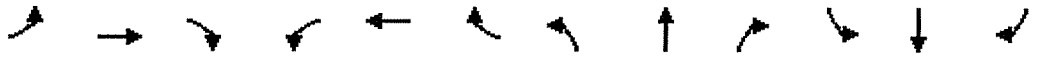
Intersection Summary			
HCM Average Control Delay	18.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	66.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	533	772	326	663	33
v/c Ratio	0.38	0.69	0.27	0.74	0.08
Control Delay	25.3	5.5	5.0	36.1	9.7
Queue Delay	0.0	1.1	2.9	0.2	0.0
Total Delay	25.3	6.6	7.9	36.3	9.7
Queue Length 50th (ft)	76	7	38	177	0
Queue Length 95th (ft)	121	m7	m41	239	22
Internal Link Dist (ft)	341		269		
Turn Bay Length (ft)					150
Base Capacity (vph)	1406	1335	1184	873	397
Starvation Cap Reductn	0	315	735	0	0
Spillback Cap Reductn	2	0	0	18	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.38	0.76	0.73	0.78	0.08

Intersection Summary

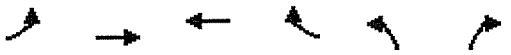
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0		4.0			
Lane Util. Factor	1.00	0.95			0.91	1.00	1.00		1.00			
Frpb, ped/bikes	1.00	1.00			1.00	0.92	1.00		0.98			
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	1770	3539			5085	1464	1770		1555			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	1770	3539			5085	1464	1770		1555			
Volume (vph)	160	850	0	0	880	360	130	0	530	0	0	0
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	174	924	0	0	957	391	141	0	576	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	304	0	0	0	0	0	0
Lane Group Flow (vph)	174	924	0	0	957	87	141	0	576	0	0	0
Confl. Peds. (#/hr)						20			20			
Turn Type	Prot					Perm	custom		Free			
Protected Phases	5	5 6			6							
Permitted Phases						6	8 16		Free			
Actuated Green, G (s)	17.6	34.9			17.3	17.3	30.8		90.0			
Effective Green, g (s)	20.5	40.6			20.1	20.1	33.4		90.0			
Actuated g/C Ratio	0.23	0.45			0.22	0.22	0.37		1.00			
Clearance Time (s)	6.9				6.8	6.8						
Vehicle Extension (s)	4.7				4.7	4.7						
Lane Grp Cap (vph)	403	1596			1136	327	657		1555			
v/s Ratio Prot	0.10	c0.26			c0.19							
v/s Ratio Perm						0.06	0.08		c0.37			
v/c Ratio	0.43	0.58			0.84	0.27	0.21		0.37			
Uniform Delay, d1	29.8	18.4			33.4	28.9	19.3		0.0			
Progression Factor	0.41	1.26			1.00	1.00	1.00		1.00			
Incremental Delay, d2	1.3	0.6			6.3	0.8	0.2		0.7			
Delay (s)	13.4	23.8			39.8	29.7	19.5		0.7			
Level of Service	B	C			D	C	B		A			
Approach Delay (s)		22.1			36.9			4.4			0.0	
Approach LOS		C			D			A			A	

Intersection Summary			
HCM Average Control Delay	24.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	66.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	174	924	957	391	141	576
v/c Ratio	0.43	0.58	0.84	0.62	0.21	0.37
Control Delay	15.6	13.7	41.7	8.1	10.5	0.7
Queue Delay	0.0	0.1	0.9	0.0	0.0	0.0
Total Delay	15.6	13.8	42.6	8.1	10.5	0.7
Queue Length 50th (ft)	25	222	191	0	29	0
Queue Length 95th (ft)	m38	267	#248	77	42	0
Internal Link Dist (ft)		269	440			
Turn Bay Length (ft)					150	
Base Capacity (vph)	403	1594	1135	630	771	1555
Starvation Cap Reductn	0	66	0	0	0	0
Spillback Cap Reductn	0	0	46	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.60	0.88	0.62	0.18	0.37

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0					4.0		4.0
Lane Util. Factor		0.91		0.97	1.00					0.97		1.00
Frpb, ped/bikes		0.99		1.00	1.00					1.00		0.92
Flpb, ped/bikes		1.00		1.00	1.00					1.00		1.00
Frt		0.98		1.00	1.00					1.00		0.85
Flt Protected		1.00		0.95	1.00					0.95		1.00
Satd. Flow (prot)		4967		3433	1863					3433		1464
Flt Permitted		1.00		0.95	1.00					0.95		1.00
Satd. Flow (perm)		4967		3433	1863					3433		1464
Volume (vph)	0	590	80	670	570	0	0	0	0	680	0	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	641	87	728	620	0	0	0	0	739	0	54
RTOR Reduction (vph)	0	19	0	0	0	0	0	0	0	0	0	40
Lane Group Flow (vph)	0	709	0	728	620	0	0	0	0	739	0	14
Confl. Peds. (#/hr)			20									20
Turn Type				Prot						custom		custom
Protected Phases		2		1	2 1							
Permitted Phases										4 12		4 12
Actuated Green, G (s)		18.7		30.0	55.5					22.3		22.3
Effective Green, g (s)		21.6		32.8	58.4					23.6		23.6
Actuated g/C Ratio		0.24		0.36	0.65					0.26		0.26
Clearance Time (s)		6.9		6.8								
Vehicle Extension (s)		4.7		4.7								
Lane Grp Cap (vph)		1192		1251	1209					900		384
v/s Ratio Prot		c0.14		c0.21	0.33							
v/s Ratio Perm										c0.22		0.01
v/c Ratio		0.59		0.58	0.51					0.82		0.04
Uniform Delay, d1		30.3		23.1	8.3					31.2		24.7
Progression Factor		1.00		0.08	0.96					1.00		1.00
Incremental Delay, d2		2.2		0.1	0.3					6.1		0.0
Delay (s)		32.5		1.9	8.3					37.3		24.8
Level of Service		C		A	A					D		C
Approach Delay (s)		32.5			4.9			0.0			36.4	
Approach LOS		C			A			A			D	

Intersection Summary			
HCM Average Control Delay	20.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	86.4%	ICU Level of Service	E
Analysis Period (min)	15		

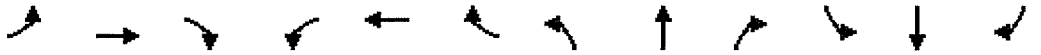
c Critical Lane Group

Lane Group	EBT	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	728	728	620	739	54
v/c Ratio	0.60	0.58	0.51	0.82	0.13
Control Delay	32.4	2.0	9.1	40.2	8.3
Queue Delay	0.0	4.3	49.2	0.5	0.0
Total Delay	32.4	6.3	58.3	40.7	8.3
Queue Length 50th (ft)	135	4	337	203	0
Queue Length 95th (ft)	177	m4	m354	#279	28
Internal Link Dist (ft)	341		269		
Turn Bay Length (ft)					150
Base Capacity (vph)	1212	1335	1200	900	424
Starvation Cap Reductn	0	516	631	0	0
Spillback Cap Reductn	1	0	0	22	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.60	0.89	1.09	0.84	0.13

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

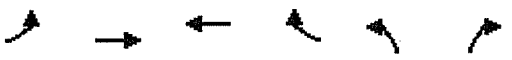
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0		4.0			
Lane Util. Factor	1.00	0.95			0.91	1.00	1.00		1.00			
Frpb, ped/bikes	1.00	1.00			1.00	0.92	1.00		0.98			
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	1770	3539			5085	1464	1770		1555			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	1770	3539			5085	1464	1770		1555			
Volume (vph)	270	1000	0	0	1070	610	170	0	500	0	0	0
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	293	1087	0	0	1163	663	185	0	543	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	516	0	0	0	0	0	0
Lane Group Flow (vph)	293	1087	0	0	1163	147	185	0	543	0	0	0
Confl. Peds. (#/hr)						20			20			
Turn Type	Prot					Perm	custom		Free			
Protected Phases	5	5 6			6							
Permitted Phases						6	8 16		Free			
Actuated Green, G (s)	20.1	37.3			17.2	17.2	28.4		90.0			
Effective Green, g (s)	23.0	43.0			20.0	20.0	31.0		90.0			
Actuated g/C Ratio	0.26	0.48			0.22	0.22	0.34		1.00			
Clearance Time (s)	6.9				6.8	6.8						
Vehicle Extension (s)	4.7				4.7	4.7						
Lane Grp Cap (vph)	452	1691			1130	325	610		1555			
v/s Ratio Prot	c0.17	0.31			c0.23							
v/s Ratio Perm						0.10	0.10		c0.35			
v/c Ratio	0.65	0.64			1.03	0.45	0.30		0.35			
Uniform Delay, d1	29.9	17.7			35.0	30.3	21.6		0.0			
Progression Factor	0.26	1.23			1.00	1.00	1.00		1.00			
Incremental Delay, d2	3.2	0.7			34.5	1.9	0.3		0.6			
Delay (s)	10.9	22.4			69.5	32.1	21.9		0.6			
Level of Service	B	C			E	C	C		A			
Approach Delay (s)		20.0			55.9			6.0			0.0	
Approach LOS		B			E			A			A	

Intersection Summary			
HCM Average Control Delay	34.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	86.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	293	1087	1163	663	185	543
v/c Ratio	0.65	0.64	1.03	0.79	0.30	0.35
Control Delay	13.4	12.4	70.1	10.6	12.5	0.6
Queue Delay	0.0	0.1	59.3	0.0	0.0	0.0
Total Delay	13.4	12.5	129.4	10.6	12.5	0.6
Queue Length 50th (ft)	21	236	~261	0	38	0
Queue Length 95th (ft)	m28	280	#350	118	64	0
Internal Link Dist (ft)		269	440			
Turn Bay Length (ft)					150	
Base Capacity (vph)	478	1742	1130	841	654	1555
Starvation Cap Reductn	0	44	0	0	0	0
Spillback Cap Reductn	0	0	140	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.64	1.17	0.79	0.28	0.35

Intersection Summary

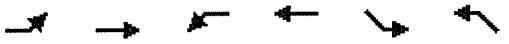
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	WBL	WBT	SEL	NWL
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	6.0	8.0	6.0	8.0	8.0
Lane Util. Factor	1.00	0.95	0.97	1.00	0.97	1.00
Frt	1.00	1.00	1.00	1.00	1.00	1.00
Flt Protected	0.95	1.00	0.95	1.00	0.95	0.95
Satd. Flow (prot)	1770	3539	3433	1863	3433	1770
Flt Permitted	0.95	1.00	0.95	1.00	0.95	0.95
Satd. Flow (perm)	1770	3539	3433	1863	3433	1770
Volume (vph)	150	170	1020	200	650	110
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	167	189	1133	222	722	122
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	167	189	1133	222	722	122
Turn Type	Prot		Prot		Prot	Prot
Protected Phases	5	2	1	6	4	8
Permitted Phases						
Actuated Green, G (s)	12.3	9.7	29.0	26.4	19.5	19.5
Effective Green, g (s)	13.3	12.7	30.0	29.4	19.0	19.0
Actuated g/C Ratio	0.16	0.15	0.36	0.35	0.23	0.23
Clearance Time (s)	9.0	9.0	9.0	9.0	7.5	7.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	281	537	1230	654	779	402
v/s Ratio Prot	0.09	0.05	c0.33	c0.12	c0.21	0.07
v/s Ratio Perm						
v/c Ratio	0.59	0.35	0.92	0.34	0.93	0.30
Uniform Delay, d1	32.7	31.8	25.7	20.0	31.7	26.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.4	0.4	11.3	0.3	16.9	0.4
Delay (s)	36.0	32.2	37.0	20.3	48.5	27.3
Level of Service	D	C	D	C	D	C
Approach Delay (s)		34.0		34.3		
Approach LOS		C		C		

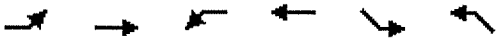
Intersection Summary			
HCM Average Control Delay	37.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	83.7	Sum of lost time (s)	16.0
Intersection Capacity Utilization	67.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	WBL	WBT	SEL	NWL
Lane Group Flow (vph)	167	189	1133	222	722	122
v/c Ratio	0.59	0.35	0.92	0.34	0.93	0.30
Control Delay	41.6	33.6	39.8	22.5	52.1	29.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.6	33.6	39.8	22.5	52.1	29.9
Queue Length 50th (ft)	82	47	289	86	192	54
Queue Length 95th (ft)	145	78	#441	149	#313	105
Internal Link Dist (ft)		95		95		
Turn Bay Length (ft)						
Base Capacity (vph)	328	747	1230	704	779	401
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.25	0.92	0.32	0.93	0.30

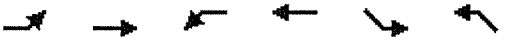
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	WBL	WBT	SEL	NWL
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	6.0	8.0	6.0	8.0	8.0
Lane Util. Factor	1.00	0.95	0.97	1.00	0.97	1.00
Frt	1.00	1.00	1.00	1.00	1.00	1.00
Flt Protected	0.95	1.00	0.95	1.00	0.95	0.95
Satd. Flow (prot)	1770	3539	3433	1863	3433	1770
Flt Permitted	0.95	1.00	0.95	1.00	0.95	0.95
Satd. Flow (perm)	1770	3539	3433	1863	3433	1770
Volume (vph)	260	270	1240	340	680	250
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	289	300	1378	378	756	278
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	289	300	1378	378	756	278
Turn Type	Prot		Prot		Prot	Prot
Protected Phases	5	2	1	6	4	8
Permitted Phases						
Actuated Green, G (s)	21.8	14.0	43.0	35.2	24.5	24.5
Effective Green, g (s)	22.8	17.0	44.0	38.2	24.0	24.0
Actuated g/C Ratio	0.21	0.16	0.41	0.36	0.22	0.22
Clearance Time (s)	9.0	9.0	9.0	9.0	7.5	7.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	377	562	1412	665	770	397
v/s Ratio Prot	0.16	0.08	c0.40	c0.20	c0.22	0.16
v/s Ratio Perm						
v/c Ratio	0.77	0.53	0.98	0.57	0.98	0.70
Uniform Delay, d1	39.6	41.4	31.0	27.8	41.3	38.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	9.0	1.0	18.3	1.1	27.8	5.5
Delay (s)	48.6	42.3	49.3	28.9	69.1	43.7
Level of Service	D	D	D	C	E	D
Approach Delay (s)		45.4		44.9		
Approach LOS		D		D		

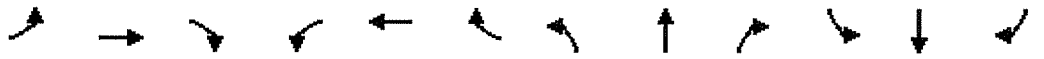
Intersection Summary			
HCM Average Control Delay	50.3	HCM Level of Service	D
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	107.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	78.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	WBL	WBT	SEL	NWL
Lane Group Flow (vph)	289	300	1378	378	756	278
v/c Ratio	0.77	0.53	0.98	0.57	0.98	0.70
Control Delay	53.3	45.0	50.7	32.9	70.5	49.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.3	45.0	50.7	32.9	70.5	49.3
Queue Length 50th (ft)	186	100	472	210	268	177
Queue Length 95th (ft)	276	145	#658	327	#409	#285
Internal Link Dist (ft)		95		95		
Turn Bay Length (ft)						
Base Capacity (vph)	442	643	1412	666	770	397
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.47	0.98	0.57	0.98	0.70

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0					4.0		4.0
Lane Util. Factor		0.91		0.97	1.00					0.97		1.00
Frpb, ped/bikes		0.99		1.00	1.00					1.00		0.92
Flpb, ped/bikes		1.00		1.00	1.00					1.00		1.00
Frt		0.95		1.00	1.00					1.00		0.85
Flt Protected		1.00		0.95	1.00					0.95		1.00
Satd. Flow (prot)		4784		3433	1863					3433		1460
Flt Permitted		1.00		0.95	1.00					0.95		1.00
Satd. Flow (perm)		4784		3433	1863					3433		1460
Volume (vph)	0	320	140	1020	310	0	0	0	0	650	0	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	348	152	1109	337	0	0	0	0	707	0	54
RTOR Reduction (vph)	0	83	0	0	0	0	0	0	0	0	0	40
Lane Group Flow (vph)	0	417	0	1109	337	0	0	0	0	707	0	14
Confl. Peds. (#/hr)			20									20
Turn Type				Prot						custom		custom
Protected Phases		2		1	2 1							
Permitted Phases										4 12		4 12
Actuated Green, G (s)		17.0		37.0	60.5					22.5		22.5
Effective Green, g (s)		19.5		39.5	63.0					24.0		24.0
Actuated g/C Ratio		0.21		0.42	0.66					0.25		0.25
Clearance Time (s)		6.5		6.5								
Vehicle Extension (s)		4.7		4.7								
Lane Grp Cap (vph)		982		1427	1235					867		369
v/s Ratio Prot		c0.09		c0.32	c0.18							
v/s Ratio Perm										c0.21		0.01
v/c Ratio		0.42		0.78	0.27					0.82		0.04
Uniform Delay, d1		32.9		24.0	6.6					33.4		26.8
Progression Factor		1.00		0.57	0.01					1.00		1.00
Incremental Delay, d2		1.3		1.9	0.2					6.0		0.0
Delay (s)		34.2		15.5	0.2					39.4		26.8
Level of Service		C		B	A					D		C
Approach Delay (s)		34.2			12.0			0.0			38.5	
Approach LOS		C			B			A			D	

Intersection Summary			
HCM Average Control Delay	23.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	66.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	500	1109	337	707	54
v/c Ratio	0.47	0.78	0.27	0.82	0.13
Control Delay	27.6	16.5	0.4	42.3	9.2
Queue Delay	0.0	0.0	0.6	0.0	0.0
Total Delay	27.6	16.5	1.1	42.3	9.2
Queue Length 50th (ft)	76	51	0	207	0
Queue Length 95th (ft)	110	173	m0	#279	29
Internal Link Dist (ft)	341		269		
Turn Bay Length (ft)					150
Base Capacity (vph)	1065	1427	1235	867	408
Starvation Cap Reductn	0	0	552	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.47	0.78	0.49	0.82	0.13

Intersection Summary

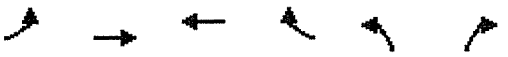
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0		4.0			
Lane Util. Factor	1.00	0.95			0.91	1.00	1.00		1.00			
Frpb, ped/bikes	1.00	1.00			1.00	0.92	1.00		0.98			
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	1770	3539			5085	1460	1770		1555			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	1770	3539			5085	1460	1770		1555			
Volume (vph)	150	820	0	0	1220	360	110	0	660	0	0	0
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	163	891	0	0	1326	391	120	0	717	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	263	0	0	0	0	0	0
Lane Group Flow (vph)	163	891	0	0	1326	128	120	0	717	0	0	0
Confl. Peds. (#/hr)						20			20			
Turn Type	Prot					Perm	custom		Free			
Protected Phases	5	5 6			6							
Permitted Phases						6	8 16		Free			
Actuated Green, G (s)	32.0	60.6			28.6	28.6	10.4		95.0			
Effective Green, g (s)	34.5	65.6			31.1	31.1	13.4		95.0			
Actuated g/C Ratio	0.36	0.69			0.33	0.33	0.14		1.00			
Clearance Time (s)	6.5				6.5	6.5						
Vehicle Extension (s)	4.7				4.7	4.7						
Lane Grp Cap (vph)	643	2444			1665	478	250		1555			
v/s Ratio Prot	0.09	0.25			c0.26							
v/s Ratio Perm						0.09	0.07		c0.46			
v/c Ratio	0.25	0.36			0.80	0.27	0.48		0.46			
Uniform Delay, d1	21.2	6.1			29.1	23.6	37.6		0.0			
Progression Factor	0.36	1.61			1.00	1.00	1.00		1.00			
Incremental Delay, d2	0.3	0.1			3.1	0.6	1.5		1.0			
Delay (s)	8.0	9.9			32.2	24.1	39.0		1.0			
Level of Service	A	A			C	C	D		A			
Approach Delay (s)		9.6			30.3			6.4			0.0	
Approach LOS		A			C			A			A	

Intersection Summary			
HCM Average Control Delay	18.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	66.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

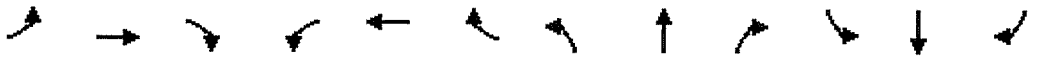


Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	163	891	1326	391	120	717
v/c Ratio	0.25	0.36	0.80	0.53	0.48	0.46
Control Delay	8.6	6.0	34.2	5.7	29.9	1.0
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay	8.6	6.1	34.2	5.7	29.9	1.0
Queue Length 50th (ft)	17	92	262	0	37	0
Queue Length 95th (ft)	m24	144	#371	70	83	0
Internal Link Dist (ft)		269	440			
Turn Bay Length (ft)					150	
Base Capacity (vph)	643	2443	1664	741	373	1555
Starvation Cap Reductn	0	458	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.45	0.80	0.53	0.32	0.46

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0					4.0		4.0
Lane Util. Factor		0.91		0.97	1.00					0.97		1.00
Frpb, ped/bikes		0.99		1.00	1.00					1.00		0.92
Flpb, ped/bikes		1.00		1.00	1.00					1.00		1.00
Frt		0.98		1.00	1.00					1.00		0.85
Flt Protected		1.00		0.95	1.00					0.95		1.00
Satd. Flow (prot)		4952		3433	1863					3433		1450
Flt Permitted		1.00		0.95	1.00					0.95		1.00
Satd. Flow (perm)		4952		3433	1863					3433		1450
Volume (vph)	0	530	80	1240	590	0	0	0	0	680	0	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	576	87	1348	641	0	0	0	0	739	0	33
RTOR Reduction (vph)	0	19	0	0	0	0	0	0	0	0	0	21
Lane Group Flow (vph)	0	644	0	1348	641	0	0	0	0	739	0	12
Confl. Peds. (#/hr)			20									20
Turn Type				Prot						custom		custom
Protected Phases		2		1	2 1							
Permitted Phases										4 12		4 12
Actuated Green, G (s)		17.5		46.5	70.5					22.5		22.5
Effective Green, g (s)		20.0		49.0	73.0					24.0		24.0
Actuated g/C Ratio		0.19		0.47	0.70					0.23		0.23
Clearance Time (s)		6.5		6.5								
Vehicle Extension (s)		4.7		4.7								
Lane Grp Cap (vph)		943		1602	1295					785		331
v/s Ratio Prot		c0.13		c0.39	c0.34							
v/s Ratio Perm										c0.22		0.01
v/c Ratio		0.68		0.84	0.49					0.94		0.04
Uniform Delay, d1		39.5		24.6	7.4					39.8		31.5
Progression Factor		1.00		0.72	0.01					1.00		1.00
Incremental Delay, d2		4.0		0.4	0.2					19.2		0.0
Delay (s)		43.5		18.2	0.3					59.1		31.6
Level of Service		D		B	A					E		C
Approach Delay (s)		43.5			12.4			0.0			57.9	
Approach LOS		D			B			A			E	

Intersection Summary			
HCM Average Control Delay	28.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	105.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	81.6%	ICU Level of Service	D
Analysis Period (min)	15		

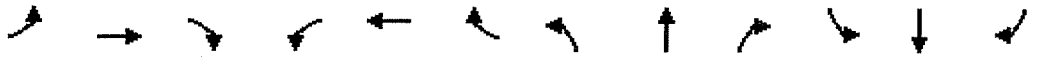
c Critical Lane Group

Lane Group	EBT	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	663	1348	641	739	33
v/c Ratio	0.69	0.84	0.49	0.94	0.09
Control Delay	42.4	18.7	0.5	61.2	15.0
Queue Delay	0.1	0.0	2.1	0.0	0.0
Total Delay	42.5	18.7	2.6	61.2	15.0
Queue Length 50th (ft)	147	144	0	253	3
Queue Length 95th (ft)	191	m135	m0	#368	28
Internal Link Dist (ft)	341		269		
Turn Bay Length (ft)					150
Base Capacity (vph)	962	1602	1295	785	352
Starvation Cap Reductn	0	0	487	0	0
Spillback Cap Reductn	23	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.71	0.84	0.79	0.94	0.09

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0		4.0			
Lane Util. Factor	1.00	0.95			0.91	1.00	1.00		1.00			
Frpb, ped/bikes	1.00	1.00			1.00	0.92	1.00		0.98			
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	1770	3539			5085	1450	1770		1555			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	1770	3539			5085	1450	1770		1555			
Volume (vph)	260	950	0	0	1580	360	250	0	760	0	0	0
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	283	1033	0	0	1717	391	272	0	826	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	232	0	0	0	0	0	0
Lane Group Flow (vph)	283	1033	0	0	1717	159	272	0	826	0	0	0
Confl. Peds. (#/hr)						20			20			
Turn Type	Prot					Perm	custom		Free			
Protected Phases	5	5 6			6							
Permitted Phases						6	8 16		Free			
Actuated Green, G (s)	32.0	64.4			32.4	32.4	16.6		105.0			
Effective Green, g (s)	34.5	69.4			34.9	34.9	19.6		105.0			
Actuated g/C Ratio	0.33	0.66			0.33	0.33	0.19		1.00			
Clearance Time (s)	6.5				6.5	6.5						
Vehicle Extension (s)	4.7				4.7	4.7						
Lane Grp Cap (vph)	582	2339			1690	482	330		1555			
v/s Ratio Prot	0.16	0.29			c0.34							
v/s Ratio Perm						0.11	c0.15		c0.53			
v/c Ratio	0.49	0.44			1.02	0.33	0.82		0.53			
Uniform Delay, d1	28.2	8.5			35.0	26.3	41.0		0.0			
Progression Factor	0.23	1.55			1.00	1.00	1.00		1.00			
Incremental Delay, d2	0.8	0.1			26.0	0.8	15.3		1.3			
Delay (s)	7.4	13.3			61.0	27.0	56.3		1.3			
Level of Service	A	B			E	C	E		A			
Approach Delay (s)		12.1			54.7			14.9			0.0	
Approach LOS		B			D			B			A	

Intersection Summary			
HCM Average Control Delay	32.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	105.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	81.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

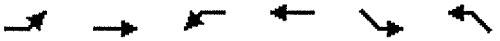
Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	283	1033	1717	391	272	826
v/c Ratio	0.49	0.44	1.02	0.55	0.82	0.53
Control Delay	8.7	8.1	61.5	7.9	53.9	1.3
Queue Delay	4.4	0.2	0.0	0.0	0.0	0.0
Total Delay	13.0	8.4	61.5	7.9	53.9	1.3
Queue Length 50th (ft)	13	126	~459	21	131	0
Queue Length 95th (ft)	m18	m147	#555	102	#259	0
Internal Link Dist (ft)		269	440			
Turn Bay Length (ft)					150	
Base Capacity (vph)	582	2339	1690	713	346	1555
Starvation Cap Reductn	222	558	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.58	1.02	0.55	0.79	0.53

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	WBL	WBT	SEL	NWL
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	6.0	8.0	6.0	8.0	8.0
Lane Util. Factor	1.00	1.00	0.97	1.00	0.97	1.00
Frt	1.00	1.00	1.00	1.00	1.00	1.00
Flt Protected	0.95	1.00	0.95	1.00	0.95	0.95
Satd. Flow (prot)	1770	1863	3433	1863	3433	1770
Flt Permitted	0.95	1.00	0.95	1.00	0.95	0.95
Satd. Flow (perm)	1770	1863	3433	1863	3433	1770
Volume (vph)	30	10	1350	10	440	20
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	33	11	1500	11	489	22
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	33	11	1500	11	489	22
Turn Type	Split		Split		Prot	Prot
Protected Phases	2	2	1	1	4	8
Permitted Phases						
Actuated Green, G (s)	7.2	7.2	42.0	42.0	16.4	16.4
Effective Green, g (s)	7.2	9.2	42.0	44.0	15.9	15.9
Actuated g/C Ratio	0.08	0.10	0.47	0.49	0.18	0.18
Clearance Time (s)	8.0	8.0	8.0	8.0	7.5	7.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	143	192	1618	920	613	316
v/s Ratio Prot	c0.02	0.01	c0.44	0.01	c0.14	0.01
v/s Ratio Perm						
v/c Ratio	0.23	0.06	0.93	0.01	0.80	0.07
Uniform Delay, d1	38.4	36.0	22.1	11.5	35.1	30.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.8	0.1	9.6	0.0	7.2	0.1
Delay (s)	39.2	36.2	31.7	11.5	42.2	30.5
Level of Service	D	D	C	B	D	C
Approach Delay (s)		38.4		31.5		
Approach LOS		D		C		

Intersection Summary			
HCM Average Control Delay	34.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	89.1	Sum of lost time (s)	24.0
Intersection Capacity Utilization	66.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Queues

1: County Line Rd. & US 19 Ramps

11/30/2006

Lane Group	EBL	EBT	WBL	WBT	SEL	NWL
Lane Group Flow (vph)	33	11	1500	11	489	22
v/c Ratio	0.23	0.06	0.93	0.01	0.80	0.07
Control Delay	42.7	36.9	34.1	12.6	46.3	31.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.7	36.9	34.1	12.6	46.3	31.5
Queue Length 50th (ft)	18	6	402	3	137	10
Queue Length 95th (ft)	47	22	#587	12	#201	32
Internal Link Dist (ft)		95		95		
Turn Bay Length (ft)	100					
Base Capacity (vph)	304	358	1619	921	647	334
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.03	0.93	0.01	0.76	0.07

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	WBL	WBT	SEL	NWL
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	6.0	8.0	6.0	8.0	8.0
Lane Util. Factor	1.00	1.00	0.97	1.00	0.97	1.00
Frt	1.00	1.00	1.00	1.00	1.00	1.00
Flt Protected	0.95	1.00	0.95	1.00	0.95	0.95
Satd. Flow (prot)	1770	1863	3433	1863	3433	1770
Flt Permitted	0.95	1.00	0.95	1.00	0.95	0.95
Satd. Flow (perm)	1770	1863	3433	1863	3433	1770
Volume (vph)	20	10	800	10	640	20
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	22	11	889	11	711	22
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	22	11	889	11	711	22
Turn Type	Split		Split		Prot	Prot
Protected Phases	2	2	1	1	4	8
Permitted Phases						
Actuated Green, G (s)	6.4	6.4	21.0	21.0	17.5	17.5
Effective Green, g (s)	6.4	8.4	21.0	23.0	17.0	17.0
Actuated g/C Ratio	0.09	0.12	0.31	0.34	0.25	0.25
Clearance Time (s)	8.0	8.0	8.0	8.0	7.5	7.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	166	229	1054	626	853	440
v/s Ratio Prot	c0.01	0.01	c0.26	0.01	c0.21	0.01
v/s Ratio Perm						
v/c Ratio	0.13	0.05	0.84	0.02	0.83	0.05
Uniform Delay, d1	28.5	26.5	22.2	15.2	24.4	19.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.1	6.3	0.0	7.0	0.0
Delay (s)	28.8	26.6	28.4	15.2	31.4	19.6
Level of Service	C	C	C	B	C	B
Approach Delay (s)		28.1		28.3		
Approach LOS		C		C		

Intersection Summary			
HCM Average Control Delay	29.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	68.4	Sum of lost time (s)	24.0
Intersection Capacity Utilization	56.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Queues

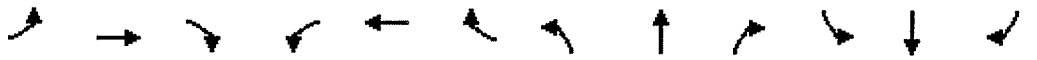
1: County Line Rd. & US 19 Ramps

11/30/2006

Lane Group	EBL	EBT	WBL	WBT	SEL	NWL
Lane Group Flow (vph)	22	11	889	11	711	22
v/c Ratio	0.13	0.05	0.84	0.02	0.83	0.05
Control Delay	30.1	26.8	31.7	15.8	35.2	20.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.1	26.8	31.7	15.8	35.2	20.5
Queue Length 50th (ft)	9	4	177	3	145	7
Queue Length 95th (ft)	28	17	#284	13	#238	23
Internal Link Dist (ft)		95		95		
Turn Bay Length (ft)	100					
Base Capacity (vph)	398	466	1053	626	853	440
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.02	0.84	0.02	0.83	0.05

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0					4.0		4.0
Lane Util. Factor		1.00		0.97	1.00					0.97		1.00
Frpb, ped/bikes		0.98		1.00	1.00					1.00		0.93
Flpb, ped/bikes		1.00		1.00	1.00					1.00		1.00
Frt		0.94		1.00	1.00					1.00		0.85
Flt Protected		1.00		0.95	1.00					0.95		1.00
Satd. Flow (prot)		1721		3433	1863					3433		1469
Flt Permitted		1.00		0.95	1.00					0.95		1.00
Satd. Flow (perm)		1721		3433	1863					3433		1469
Volume (vph)	0	40	30	1350	30	0	0	0	0	440	0	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	43	33	1467	33	0	0	0	0	478	0	11
RTOR Reduction (vph)	0	30	0	0	0	0	0	0	0	0	0	9
Lane Group Flow (vph)	0	46	0	1467	33	0	0	0	0	478	0	2
Confl. Peds. (#/hr)			20									20
Turn Type				Split						custom		custom
Protected Phases		2		1	1							
Permitted Phases										4 12		4 12
Actuated Green, G (s)		5.0		40.0	40.0					15.8		15.8
Effective Green, g (s)		7.6		42.6	42.6					18.8		18.8
Actuated g/C Ratio		0.09		0.50	0.50					0.22		0.22
Clearance Time (s)		6.6		6.6	6.6							
Vehicle Extension (s)		4.7		4.7	4.7							
Lane Grp Cap (vph)		154		1721	934					759		325
v/s Ratio Prot		c0.03		c0.43	0.02							
v/s Ratio Perm										c0.14		0.00
v/c Ratio		0.30		0.85	0.04					0.63		0.01
Uniform Delay, d1		36.2		18.5	10.8					30.0		25.8
Progression Factor		1.00		0.61	0.25					1.00		1.00
Incremental Delay, d2		2.0		4.0	0.0					1.6		0.0
Delay (s)		38.2		15.2	2.7					31.6		25.8
Level of Service		D		B	A					C		C
Approach Delay (s)		38.2			14.9			0.0			31.5	
Approach LOS		D			B			A			C	

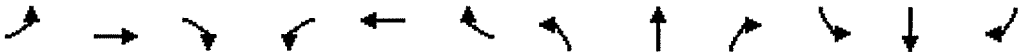
Intersection Summary			
HCM Average Control Delay	19.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	57.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	76	1467	33	478	11
v/c Ratio	0.36	0.87	0.04	0.57	0.03
Control Delay	27.0	18.8	3.2	23.1	8.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	27.0	18.8	3.2	23.1	8.3
Queue Length 50th (ft)	21	327	1	82	0
Queue Length 95th (ft)	61	#211	m3	137	9
Internal Link Dist (ft)	341		269		
Turn Bay Length (ft)					150
Base Capacity (vph)	455	1678	910	902	391
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.17	0.87	0.04	0.53	0.03

Intersection Summary

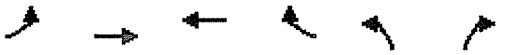
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0		4.0			
Lane Util. Factor	1.00	0.95			0.91	1.00	1.00		1.00			
Frpb, ped/bikes	1.00	1.00			1.00	0.93	1.00		0.98			
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	1770	3539			5085	1469	1770		1555			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	1770	3539			5085	1469	1770		1555			
Volume (vph)	30	450	0	0	1350	370	20	0	810	0	0	0
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	489	0	0	1467	402	22	0	880	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	207	0	0	0	0	0	0
Lane Group Flow (vph)	33	489	0	0	1467	195	22	0	880	0	0	0
Confl. Peds. (#/hr)						20			20			
Turn Type	Prot					Perm	custom		Free			
Protected Phases	5	5 6			6							
Permitted Phases						6	8 16		Free			
Actuated Green, G (s)	18.3	56.9			38.6	38.6	3.9		85.0			
Effective Green, g (s)	20.9	62.1			41.2	41.2	6.9		85.0			
Actuated g/C Ratio	0.25	0.73			0.48	0.48	0.08		1.00			
Clearance Time (s)	6.6				6.6	6.6						
Vehicle Extension (s)	4.7				4.7	4.7						
Lane Grp Cap (vph)	435	2586			2465	712	144		1555			
v/s Ratio Prot	0.02	0.14			0.29							
v/s Ratio Perm						0.13	0.01		c0.57			
v/c Ratio	0.08	0.19			0.60	0.27	0.15		0.57			
Uniform Delay, d1	24.6	3.6			15.9	13.0	36.3		0.0			
Progression Factor	0.42	0.90			1.00	1.00	1.00		1.00			
Incremental Delay, d2	0.1	0.1			0.5	0.4	0.5		1.5			
Delay (s)	10.5	3.3			16.4	13.4	36.8		1.5			
Level of Service	B	A			B	B	D		A			
Approach Delay (s)		3.7			15.8			2.4			0.0	
Approach LOS		A			B			A			A	

Intersection Summary			
HCM Average Control Delay	10.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	57.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	33	489	1467	402	22	880
v/c Ratio	0.08	0.18	0.56	0.42	0.10	0.57
Control Delay	9.8	1.7	16.7	3.6	17.6	1.5
Queue Delay	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay	9.8	1.7	16.8	3.6	17.6	1.5
Queue Length 50th (ft)	5	0	154	0	6	0
Queue Length 95th (ft)	m7	30	305	56	17	0
Internal Link Dist (ft)		269	440			
Turn Bay Length (ft)	150				150	
Base Capacity (vph)	765	2940	2616	946	455	1555
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	265	0	47	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.17	0.62	0.42	0.05	0.57

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0					4.0		4.0
Lane Util. Factor		1.00		0.97	1.00					0.97		1.00
Frpb, ped/bikes		0.98		1.00	1.00					1.00		0.93
Flpb, ped/bikes		1.00		1.00	1.00					1.00		1.00
Frt		0.95		1.00	1.00					1.00		0.85
Flt Protected		1.00		0.95	1.00					0.95		1.00
Satd. Flow (prot)		1735		3433	1863					3433		1480
Flt Permitted		1.00		0.95	1.00					0.95		1.00
Satd. Flow (perm)		1735		3433	1863					3433		1480
Volume (vph)	0	30	20	800	30	0	0	0	0	640	0	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	33	22	870	33	0	0	0	0	696	0	33
RTOR Reduction (vph)	0	20	0	0	0	0	0	0	0	0	0	22
Lane Group Flow (vph)	0	35	0	870	33	0	0	0	0	696	0	11
Confl. Peds. (#/hr)			20									20
Turn Type				Split						custom		custom
Protected Phases		2		1	1							
Permitted Phases										4 12		4 12
Actuated Green, G (s)		3.2		27.2	27.2					19.3		19.3
Effective Green, g (s)		5.8		29.8	29.8					22.3		22.3
Actuated g/C Ratio		0.08		0.40	0.40					0.30		0.30
Clearance Time (s)		6.6		6.6	6.6							
Vehicle Extension (s)		4.7		4.7	4.7							
Lane Grp Cap (vph)		136		1384	751					1036		447
v/s Ratio Prot		c0.02		c0.25	0.02							
v/s Ratio Perm										c0.20		0.01
v/c Ratio		0.26		0.63	0.04					0.67		0.02
Uniform Delay, d1		32.0		17.6	13.4					22.6		18.1
Progression Factor		1.00		0.38	0.39					1.00		1.00
Incremental Delay, d2		1.9		1.1	0.0					1.7		0.0
Delay (s)		33.9		7.8	5.3					24.3		18.2
Level of Service		C		A	A					C		B
Approach Delay (s)		33.9			7.7			0.0			24.0	
Approach LOS		C			A			A			C	

Intersection Summary			
HCM Average Control Delay	15.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	73.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	68.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Queues

1: County Line Road & SB Ramp

11/30/2006

Lane Group	EBT	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	55	870	33	696	33
v/c Ratio	0.24	0.66	0.05	0.55	0.06
Control Delay	25.3	9.3	5.9	19.5	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	25.3	9.3	5.9	19.5	5.5
Queue Length 50th (ft)	14	168	2	109	0
Queue Length 95th (ft)	50	73	m7	198	14
Internal Link Dist (ft)	341		269		
Turn Bay Length (ft)					150
Base Capacity (vph)	575	1897	1030	1254	554
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.10	0.46	0.03	0.56	0.06

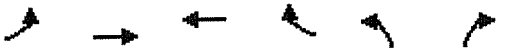
Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0		4.0			
Lane Util. Factor	1.00	0.95			0.91	1.00	1.00		1.00			
Frpb, ped/bikes	1.00	1.00			1.00	0.93	1.00		0.98			
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	1770	3539			5085	1480	1770		1555			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	1770	3539			5085	1480	1770		1555			
Volume (vph)	20	650	0	0	810	480	20	0	1310	0	0	0
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	707	0	0	880	522	22	0	1424	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	319	0	0	0	0	0	0
Lane Group Flow (vph)	22	707	0	0	880	203	22	0	1424	0	0	0
Confl. Peds. (#/hr)						20			20			
Turn Type	Prot					Perm	custom		Free			
Protected Phases	5	5 6			6							
Permitted Phases						6	8 16		Free			
Actuated Green, G (s)	19.3	45.5			26.2	26.2	4.2		73.9			
Effective Green, g (s)	21.9	50.7			28.8	28.8	7.2		73.9			
Actuated g/C Ratio	0.30	0.69			0.39	0.39	0.10		1.00			
Clearance Time (s)	6.6				6.6	6.6						
Vehicle Extension (s)	4.7				4.7	4.7						
Lane Grp Cap (vph)	525	2428			1982	577	172		1555			
v/s Ratio Prot	0.01	0.20			0.17							
v/s Ratio Perm						0.14	0.01		c0.92			
v/c Ratio	0.04	0.29			0.44	0.35	0.13		0.92			
Uniform Delay, d1	18.5	4.6			16.6	16.0	30.5		0.0			
Progression Factor	0.34	0.83			1.00	1.00	1.00		1.00			
Incremental Delay, d2	0.1	0.1			0.3	0.7	0.3		10.0			
Delay (s)	6.4	3.9			16.9	16.7	30.8		10.0			
Level of Service	A	A			B	B	C		A			
Approach Delay (s)		3.9			16.8			10.3			0.0	
Approach LOS		A			B			B			A	

Intersection Summary			
HCM Average Control Delay	11.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	73.9	Sum of lost time (s)	0.0
Intersection Capacity Utilization	68.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	22	707	880	522	22	1424
v/c Ratio	0.05	0.27	0.40	0.57	0.07	0.92
Control Delay	6.8	2.1	16.5	4.8	16.1	11.5
Queue Delay	0.0	0.3	0.0	0.0	0.0	0.0
Total Delay	6.8	2.4	16.5	4.8	16.1	11.5
Queue Length 50th (ft)	3	0	91	0	4	0
Queue Length 95th (ft)	m4	30	173	69	15	#102
Internal Link Dist (ft)		269	440			
Turn Bay Length (ft)	150				150	
Base Capacity (vph)	1062	2887	2173	923	587	1555
Starvation Cap Reductn	0	1475	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.50	0.40	0.57	0.04	0.92

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.