Planning | Transportation | Land Development | Environmental

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Memorandum

To: Martha's Vineyard Commission
Box 1447 Old Stone Building
Oak Bluffs, MA 02557

Date: November 8, 2013

Project No.: 72451.00

From: Randall C. Hart
Director; Transportation Planning & Engineering, LD

Christine Keches, P.E.
Project Engineer

Re: Stop & Shop Expansion, Tisbury, MA
Response to HSH Peer Review Response #3
Traffic Impact and Access Study

This memorandum has been prepared to provide additional information and response to portions of the October 2, 2013 Howard/Stein-Hudson Associates, Inc. peer review letter prepared for the Martha's Vineyard Commission (MVC). The proposed project is currently being redesigned to respond to comments gathered during the October 3, 2013 public hearing. The overall feasibility of the project will not be known until the revised plans are finalized and discussed with the MVC and the Town of Tisbury. However, assuming that the project will move forward with the revised plans, we are providing this information with the attempt to conclude the discussion on the traffic numbers, intersection analyses, and project impacts at study area intersections. Assuming that we can conclude the process of review on this important part of the transportation review, a more focused discussion can commence regarding project access, circulation, parking management, and mitigation obligations at a later date in the process. For the purpose of this document, only the comments related to traffic impacts at study area intersections are addressed. Each comment is numbered to correspond with the numbering convention used by the peer consultant in their review memorandum. A copy of the peer letter is also provided in the Appendix of this document for informational purposes.

In response to the discussion at the October 3, 2013 public hearing the Proponent is currently finalizing substantial revisions to the proposed site plan and building configurations. Since the time of the original filing there have been numerous tweaks to the building with the latest adjustments being the most significant. As a result of the adjustments, VHB has reanalyzed study area intersections based on project traffic generation which incorporates the various building modifications that have occurred to date. The total building area for purposes of traffic generation projection has been reduced to approximately 24,800 sf as outlined below. A copy of the revised site plan depicting area included in the traffic projection is provided in the Appendix of this document.

Site Traffic Generation and Distribution

7. Comment: *VHB prepared a VISSIM model of the Five Corners intersection as recommended in an earlier peer review memo in order to more accurately model the impacts at that key location. In this model, VHB assumed that 100% of the traffic coming down State Road and heading to the Stop & Shop store, the ferry, and other destinations on Water Street would turn left onto Main Street and then right down Norton Lane. As requested in a previous HSH peer review memo, VHB also provided a sensitivity analysis showing a revised distribution in which 80% of the traffic coming from State Road was assigned through the Five Corners*

intersection and 20% was assigned to Main Street and Norton Lane. VHB continues to take the position that none of the traffic coming down State Road would use Five Corners, which results in significantly less impact on Five Corners. For example, the average weekday afternoon peak hour delay going down Beach Street towards Five Corners is 26 seconds assuming all State Road traffic uses Main and Norton Lane, but is 67 seconds if 80% of those trips go through Five Corners.

We respectfully disagree with the hypothesis that no traffic coming from State Road would use Five Corners. The origin-destination study carried out in August could shed light on this. However, in the absence of more information and to be conservative, for the summary analysis in section 9 below, we reviewed the potential impacts with 80% of the traffic traveling through Five Corners given in Table 2 of the September 24 VHB memo.

Response: For the purpose of continuing to provide a sensitivity analysis of varying distribution of traffic to Five Corners, VHB has analyzed the intersection with the distribution included in our original submission and that which has been suggested by the peer consultant. Both analyses are provided in the tables below.

Traffic Impact Analysis

9. Comment: *The Applicant and HSH held a working meeting on September 9, 2013, to go over the VISSIM modeling. We agreed on the calibration of the models, and VHB made those changes to all the models and re-ran them to get the results provided in their September 23, 2013 memo.*

The VISSIM model run summaries given in Table 1 and Table 2 show that the addition of approximately 175 new trips in the weekday evening and Saturday midday peak hours as a result of the construction of the new store would have a significant impact on the area and especially on Five Corners, the most critical location in the study area. These new trips will increase 1) Traffic Volumes, 2) Delay, and 3) Queue Lengths at Five Corners, as summarized respectively in each of the following tables.

Note that these summary tables are based on the data supplied by VHB with the following adjustments to better reflect the likely impacts:

- *The traffic volumes are compared to the actual volumes counted in July 2013, rather than the "existing" volumes as calculated by the VISSIM model, which differ slightly because of modeling parameters;*
- *The delay summary uses weighted averages rather than arithmetic averages, namely the delay multiplied by the number of vehicles subject to that delay; and*
- *As mentioned above, the figures assume that 80% of vehicles heading down from State Road to the uses along Water Street will go through Five Corners.*

The changes to average delay and queue lengths, especially for the most critical movements, are significant increases that would have an important impact on all the traffic in the area, including that of VTA buses and of vehicles leaving the ferry.

Table 1 shows the change in traffic volumes for critical movements entering Five Corners during the weekday evening and Saturday morning peak hours. They show that volumes will increase between about 12 – 21% on Water Street, and about 3 – 6% on other streets. However, because this intersection is already operating at or beyond capacity at certain times of day, the impacts on delay and queue length are much greater, as shown in Tables 2 and 3.

Table 2, below, looks at average delay. According to the VISSIM model output summary (Table 2 in the September 24, 2013 VHB memo), the average weekday afternoon peak hour delay for vehicles on Water Street turning left onto Beach Road would go from 31 seconds to 91 seconds, an increase of 194%. During the Saturday midday peak hour, the average delay for the same movement would go from 40 to 69 seconds, an increase of 73%. Other lane groups that are significantly impacted include the Beach Street eastbound lane.

The Applicant states that the delay on the Water Street movements would be less when a police officer is directing traffic at Five Corners, but conversely, this would mean increased delay on the other streets, since the officer would have them wait while clearing traffic on Water Street.

Table 3 looks at average queue length. Based on the revised analysis in the September 24 VHB memo, the average weekday afternoon peak hour queue length for the Water Street southbound left turn to Beach Road would go from 64 to 236 feet, an increase of 258%. During the Saturday midday peak, the average queue length for same movement would go from 111 to 233 feet, an increase of 110%. As noted above and suggested by VHB, these movements could be facilitated by the presence of a police officer, but to the detriment of traffic on the main thoroughfares of Beach Street and Beach Road. Note that the significant increase in queue length on Beach Street would indicate that the intersection of State Road and Main Street would likely be impacted much more often.

Response:

The peer reviewer has only compared the analysis of Five Corners to the Existing condition based on the distribution recommended for the sensitivity assessment, and not the distribution that we believe to be more realistic. We maintain that the majority of traffic originating from State Road will use Main Street, not Five Corners, to enter the Site as it is well known that the Five Corner intersection is a congested location, and the Norton Street cut-through is already used to gain access to SSA regularly. In addition, during the peak periods when traffic along the eastbound State Road approach to Five Corners results in vehicle queues that extend past Main Street, which is common, the incentive to utilize Main Street to Norton or Main Street to Union is substantial and therefore a likely path during peak traffic periods.

Additionally, as pointed out previously, the VISSIM model is not an ideal software to measure specific queue and delay increases associated with the proposed project at the complicated Five Corners intersection. This platform was previously used at the request of the peer consultant and for demonstration purposes and has proven to be difficult in accurately reflecting actual conditions in this area for a variety of reasons. Aside from the fact that Five Corners is a five legged intersection, this location as well as the SSA Driveway are controlled by Police Officer Control for periods (20-30 minute periods) of time when the SSA ferries arrive. The priority of the police control during these periods is to allow vehicles to exit the SSA facility and Water Street. The priority given to limited movements in this area results in substantial delays and queues to all other movements during the periods when this occurs. Simulating this condition and attempting to marry it to observations made by VHB and MVC staff has proven to be extremely challenging. This effort has highlighted the fact that the VISSIM model is extremely sensitive, and requires adjustments to input parameters to attempt to match field conditions when modeling this type of intersection (such as placing an approach under STOP control when it is a free movement in the field), not real world conditions. The police presence at Five Corners does help push vehicles through the network that would otherwise be contributing to queuing and delay throughout the network. This has not been recognized in the VISSIM models. In addition there have consistently been abnormalities in the results which are not consistent with the anticipated traffic volume increases over the course of an hour. An example is outlined below:

- The Beach Street eastbound approach experiences an average queue of 87-feet under the weekday evening Existing Conditions. Under the Build Condition, this approach's average queue drops to 67-feet. However, under the sensitivity analysis, which reflects an additional 23 vehicles on this approach, the average queue jumps up to 714-feet, an increase of 627-feet (or 25 additional vehicles).
  An addition of 23 vehicles to an approach over the course of an hour translates to an additional vehicle roughly every three minutes. An increase of queue of this magnitude is not realistic or logical for an increase in just 23 vehicles over an hour. Additionally, if the approach were to operate that poorly in the future, then vehicles will certainly find alternative routes, such as Main Street to Norton or Union Street.

As a result of our concerns regarding the usefulness of VISSIM in this particular application, the updated analyses included in this assessment has been limited to the traditional SYNCHRO platform. To better

approximate the future conditions that is expected with the project in place and with the proposed Police Officer control (unbiased control) of the intersection for the full peak traffic periods, the updated analysis for future conditions was assessed as signalized to simulate the effect of Police Officer control that will be present to maximize the efficiency intersection operations.

As the Stop & Shop architectural plans have evolved over time, there have been numerous tweaks to the building façade and internal building areas. To date, we have not incorporated any of the tweaks into the traffic generation numbers primarily because the adjustments have been minor. The current proposal, which incorporates previous tweaks to the building, includes a Stop & Shop with 24,800 square feet of area that would be related to traffic generation. Therefore, the trip generation has been recalculated to reflect the new smaller square footage. Table 1, below, demonstrates the existing trip generation currently experienced by the Site to be subtracted from the proposed.

Table 1
Existing Trip Generation

Time Period	Direction	Stop & Shop Existing Condition [a] (13,371 sf)	Chinese Restaurant [b] (2,364 sf)	Retail [c] (4,132sf)	Residential [d] (5 units)	Total Existing Trips (a+b+c+d)
Weekday Evening	Enter	94	12	1	2	109
Peak Hour	Exit	101	6	1	1	109
	Total	195	18	2	3	218
Saturday Midday	Enter	107	15	2	2	126
Peak Hour	Exit	102	10	2	1	115
	Total	209	25	4	3	241

a Trip Generation estimate based on Stop & Shop empirical data for 13,371 sf of space.
b Trip Generation estimate based on ITE LUC 931 (Quality Sit Down Restaurant) for 2,364 sf
c Trip Generation estimate based on ITE LUC 890 (Furniture Store) for 4,132 sf
d Trip Generation estimate based on ITE LUC 220 (Apartments) for 5 units

Table 2 provides a summary of the proposed project trip generation and the net total increase based the projected traffic credits associated with the existing uses.

Table 2
Proposed Project Trip Generation

Time Period	Direction	Existing Condition [a]	Stop & Shop Proposed Condition [b] (24,800 sf)	Net Total Trips [c]
Weekday Evening	Enter	109	174	65
Peak Hour	Exit	109	188	79
	Total	218	362	144
Saturday Midday	Enter	126	198	72
Peak Hour	Exit	115	190	75
	Total	241	388	147

a Trip Generation estimate based on Existing Conditions total from Table 1.
b Trip Generation estimate based on Stop & Shop empirical data for approximately 24,800 sf of supermarket space.
c Trip Generation, change between existing and proposed with credits for uses to be removed from the site.

As shown in Table 2, based on empirical data, the proposed project is expected to generate a net total of 144 trips (65 entering/79 exiting) during the weekday evening peak hour, and 147 trips (72 entering/75 exiting) during the Saturday midday peak hour.

It should also be noted that not all trips associated with the proposed project will represent "new" traffic added to the study area roadways. A portion of the vehicle trips generated will be drawn from the existing traffic passing the site in the form of pass-by traffic. ITE data suggests that up to 57 percent of the traffic generated by supermarkets could be pass-by traffic[1]. For this assessment, the 25% pass-by rate allowed within the state guidelines for retail traffic activity was applied. A summary of the trip generation breakdown is shown in Table 3.

Table 3 Proposed Project Trip Generation Breakdown

Time Period	Direction	Total Trips[a]	Pass-by Trips[b]	New Trips
Weekday Evening Peak Hour	Enter	65	18	47
	Exit	79	18	61
	Total	144	36	108
Saturday Midday Peak Hour	Enter	72	18	54
	Exit	75	18	57
	Total	147	36	111

a Values taken from Table 3

b Assumes a Pass-By Rate of 25 percent for the Stop & Shop Supermarket.

As shown in Table 3, the proposed project is expected to generate a total of 108 'new' vehicle trips (49 entering/59 exiting) during the weekday evening peak hour and 110 'new' vehicle trips (54 entering/56 exiting) during the Saturday midday peak hour. Based on the revised traffic generation, Tables 4 and 5 provide a summary of project traffic increase with the traffic distribution from the February TIAS and the traffic distribution associated with the sensitivity assessment recommended by the Peer Consultant. Both tables assume that Norton Lane remains open under the Future condition which was a recent directive from the Town of Tisbury.

As Tables 4 and 5 indicate, the project impacts to Five Corners are anticipated to be around a 5% increase in traffic volumes (overall). Even with sensitivity distribution and the majority of project generated trips traveling through the intersection, Five Corners will incur less than a 7% increase in volumes.

[1] ITE Trip Generation Handbook, 2012, Table 5.10

Table 4 Traffic Volume Increases – Original Distribution from February TIAS

	Weekday Evening Peak Hour			Saturday Midday Peak Hour		
Intersection	No-Build Volume (vph)	Future Volume (vph)	Volume Change (%)	No-Build Volume (vph)	Future Volume (vph)	Volume Change (%)
State Road at Water Street/ Lagoon Pond Road ("Five Corners")	1,767	1,855	5.0%	1,696	1,784	5.2%
Water Street at Norton Lane/ Steamship Entrance	730	837	14.7%	825	932	13.0%
Water Street at Municipal Lot Driveway/ Steamship Egress	535	571	6.7%	660	699	5.9%

Table 5 Traffic Volume Increases – 80% Main Street Sensitivity Distribution

	Weekday Evening Peak Hour			Saturday Midday Peak Hour		
Intersection	No-Build Volume (vph)	Future Volume (vph)	Volume Change (%)	No-Build Volume (vph)	Future Volume (vph)	Volume Change (%)
State Road at Water Street/ Lagoon Pond Road ("Five Corners")	1,767	1,881	6.5%	1,696	1,812	6.8%
Water Street at Norton Lane/ Steamship Entrance	730	863	18.2%	825	960	16.7%
Water Street at Municipal Lot Driveway/ Steamship Egress	535	597	11.6%	660	727	10.2%

As a result of the revised trip generation and Build volumes, revised SYNCHRO capacity analyses have been completed for the entire network. The results are shown in Table 6, on the next page.

As previously mentioned, Five Corners is currently controlled by a police officer for short periods during peak periods when the Steamship Authority ferries arrive and depart. The police officers are present to provide priority of movement from the SSA through the Five Corner intersection. Because the police presence is for short duration 20-30 minutes (not the full peak hour), and because the priority of their presence is to clear out the SSA traffic, and not optimize overall operations, results of the existing condition analyses should be considered carefully as actual conditions are very likely worse than presented in the analysis results for most movements that are not given priority by Police Control. In addition, the Proponent has already committed to providing funding for additional police offer control (supplemental to that already in place) to control movements at the municipal driveway along Water Street and at the Five Corner intersection for peak period. The police officer control at both locations will have a different focus from existing conditions in that they will be there for the full peak hour period and they will be instructed to optimize overall traffic flow, not just provide priority to certain movements. Because Police Officer control will be present for the full peak hours under the proposed condition, the potential operations of the intersections when police control will be present has been assessed. VHB modeled each location as a signalized intersection in SYNCHRO, which is a common practice when attempting to simulate optimized operations with Police Office control. Table 7 present analysis results for the No Build and Build conditions at Five Corners and the intersection of Water Street at the Steamship Authority Driveway/ Municipal Lot with Police Officer control during the full peak hour under Build conditions.

Table 6 Unsignalized Intersection Capacity Analyses – Peak Season

	Critical	Peak	Original Analysis – 80% Trips via Main St								Sensitivity Analysis – 80% Trips via 5 Corners							
			2015 No-Build Conditions				2015 Build Conditions				2015 No-Build Conditions				2015 Build Conditions			
Location	**Movement**	**Period**	**Dem**	**v/c**	**Dem**	**v/c**	**Dem**	**v/c**	**Dem**	**v/c**	**Dem**	**v/c**	**Del**	**LOS**	**Dem**	**v/c**	**Del**	**LOS**
State Road at Water Street/ Lagoon Pond Road ("Five Corners")	NB LTR	Weekday Evening	219	>1.20	Err	F	224	>1.20	Err	F	219	>1.20	Err	F	224	>1.20	Err	F
	NB LTR	Saturday Midday	220	>1.20	Err	F	226	>1.20	Err	F	220	>1.20	Err	F	226	>1.20	Err	F
Water Street at Norton Lane/ Steamship Entrance	EB L	Weekday Evening	7	0.03	18	C	7	0.03	19	C	7	0.03	18	C	7	0.03	20	C
	EB L	Saturday Midday	20	0.12	26	D	20	0.14	28	D	20	0.12	26	D	20	0.15	30	D
Water Street at Municipal Lot Driveway/Steamship Egress	WB LTR	Weekday Evening	130	0.70	30	D	130	0.83	46	E	130	0.70	30	D	130	0.94	>50	F
	WB LTR	Saturday Midday	162	0.66	28	D	162	0.78	42	E	162	0.66	28	D	162	0.90	>50	F
Water Street at Union Street/ Parking Loop	EB LR	Weekday Evening	99	0.14	9	A	99	0.14	9	A	99	0.14	9	A	99	0.14	9	A
	EB LR	Saturday Midday	131	0.19	10	A	131	0.19	10	A	131	0.19	10	A	131	0.19	10	A
Norton Lane at Cromwell Lane	SB LT	Weekday Evening	1	0.01	10	B	1	0.01	10	B	1	0.01	10	B	1	0.01	10	B
	SB LT	Saturday Midday	5	0.01	10	A	5	0.01	10	B	5	0.01	10	A	5	0.01	10	B
Main Street at Norton Lane	NB TR	Weekday Evening	666	0.42	0	A	712	0.45	0	A	666	0.42	0	A	686	0.43	0	A
	NB TR	Saturday Midday	587	0.37	0	A	636	0.40	0	A	587	0.37	0	A	608	0.38	0	A
Main Street at Union Street	NB TR	Weekday Evening	406	0.26	0	A	409	0.26	0	A	406	0.26	0	A	409	0.26	0	A
	NB TR	Saturday Midday	383	0.24	0	A	390	0.24	0	A	383	0.24	0	A	390	0.24	0	A
Main Street at Spring Street	EB L	Weekday Evening	206	0.48	18	C	212	0.53	20	C	206	0.48	18	C	212	0.51	19	C
	EB L	Saturday Midday	207	0.44	16	C	214	0.48	18	C	207	0.44	16	C	214	0.46	17	C
Main Street at State Road/ Hotel Lot	SEB LTR	Weekday Evening	10	0.04	15	B	10	0.04	15	C	10	0.04	15	B	10	0.04	15	C
	EB L		193	0.28	11	B	225	0.33	12	B	193	0.28	11	B	199	0.29	12	B
	SEB LTR	Saturday Midday	12	0.04	13	B	12	0.04	14	B	12	0.04	13	B	12	0.04	14	B
	EB L		161	0.22	10	B	196	0.28	11	B	161	0.22	10	B	168	0.24	11	B

a demand in vehicles per hour for unsignalized intersections; the demand applies to only the most critical street approach or lane group
b volume-to-capacity ratio for the critical movement
c delay of critical approach only, rounded to the nearest whole second
d level of service of the critical movement
NA Driveway does not exist under this scenario
LTR shared left, through, right
LT shared left, through
LR shared left, right
TR shared through, right
L left
R right

Table 7 Signalized Intersection Capacity Analyses – Peak Season

Location	Peak Period	Movement	Original Analysis – 80% Trips via Main St										Sensitivity Analysis – 80% Trips via 5 Corners									
			2015 No-Build Conditions					2015 Build Conditions					2015 No-Build Conditions					2015 Build Conditions				
			v/c[a]	Del[b]	LOS[c]	50th	95th	v/c[a]	Del[b]	LOS[c]	50th	95th	v/c[a]	Del[b]	LOS[c]	50th	95th	v/c[a]	Del[b]	LOS[c]	50th	95th
State Road at Water Street/ Lagoon Pond Road ("Five Corners")	Weekday Evening	EB LTR	0.70	13	B	134	209	0.75	19	B	132	213	0.70	13	B	134	209	0.89	30	C	154	#300
		WB LTR	0.84	18	B	190	269	0.91	29	C	196	#337	0.84	18	B	190	269	0.91	30	C	196	#337
		NB LTR	0.59	17	B	48	105	0.55	19	B	40	94	0.59	17	B	48	105	0.55	19	B	40	94
		SB L	0.70	21	C	76	106	0.73	26	C	79	110	0.70	21	C	76	106	0.73	26	C	79	110
		SB TR	0.41	14	B	29	47	0.52	16	B	47	66	0.41	14	B	29	47	0.52	16	B	47	66
		Overall	**0.78**	**16**	**B**			**0.83**	**23**	**C**			**0.78**	**16**	**B**			**0.83**	**25**	**C**		
	Saturday Midday	EB LTR	0.82	19	B	115	#243	0.80	23	C	124	#256	0.82	19	B	115	#243	0.95	41	D	150	#306
		WB LTR	0.81	17	B	138	195	0.80	21	C	159	217	0.81	17	B	138	195	0.80	21	C	160	218
		NB LTR	0.64	16	B	35	77	0.86	44	D	56	#141	0.64	16	B	35	77	0.86	44	D	55	#141
		SB L	0.74	19	B	71	84	0.87	38	D	100	110	0.74	19	B	71	84	0.87	38	D	100	110
		SB TR	0.53	12	B	41	42	0.63	19	B	61	55	0.53	12	B	41	42	0.62	19	B	61	55
		Overall	**0.78**	**17**	**B**			**0.83**	**26**	**C**			**0.78**	**17**	**B**			**0.91**	**30**	**C**		
Municipal Parking Lot/ Water Street	Weekday Evening	EB LR	0.04	7	A	0	0	0.04	8	A	0	0	0.04	7	A	0	0	0.04	8	A	0	0
		WB LTR	0.63	16	B	53	38	0.64	16	B	53	38	0.63	16	B	53	38	0.64	16	B	53	38
		NB LT	0.32	10	A	27	51	0.41	11	B	33	62	0.32	10	A	27	51	0.51	13	B	40	74
		SB TR	0.21	8	A	17	28	0.21	8	A	17	28	0.21	8	A	17	28	0.21	8	A	17	28
		Overall	**0.48**	**11**	**B**			**0.52**	**12**	**B**			**0.48**	**11**	**B**			**0.57**	**12**	**B**		
	Saturday Midday	EB L	0.04	8	A	1	12	0.06	17	B	2	21	0.04	8	A	1	12	0.06	17	B	2	21
		WB LTR	0.51	13	B	41	45	0.79	37	D	92	89	0.51	13	B	41	45	0.79	37	D	92	89
		NB LT	0.42	11	B	38	61	0.82	40	D	99	#156	0.42	11	B	38	61	1.03	82	F	~126	#200
		SB TR	0.22	8	A	18	32	0.33	19	B	42	63	0.22	8	A	18	32	0.33	19	B	42	63
		Overall	**0.46**	**10**	**B**			**0.56**	**30**	**C**			**0.46**	**10**	**B**			**0.63**	**44**	**D**		

a demand in vehicles per hour for unsignalized intersections; the demand applies to only the most critical street approach or lane group
b volume-to-capacity ratio for the critical movement
c delay of critical approach only, rounded to the nearest whole second
d level of service of the critical movement
NA Driveway does not exist under this scenario
LTR shared left, through, right
LT shared left, through
LR shared left, right
TR shared through, right
L left
R right

As outlined in Table 7, Police Officer control of both the Five Corners and Municipal Parking Lot (Water Street) intersections will help to maintain operations at these two key locations during peak traffic conditions. The overall level of operation would be expected to be similar to no build conditions with only minor changes within the acceptable range LOS B to C at Five Corners, and LOS B to C/D during the Saturday midday at the Municipal Lot assuming the original distribution/sensitivity distribution. Vehicle queues are generally similar to the no build condition as well with a few exceptions which include the following:

Five Corner Intersections:

- Beach Road WTR which would increase from 269 feet to 337 feet, or 3 vehicles (pm peak hour).
- State Road EB LTR which would increase from 209 feet to 300 feet, or 4 vehicles (pm peak hour). This assumes the sensitivity distribution.
- State Road EB LTR which would increase from 243 feet to 306 feet, or 2 vehicles (Saturday midday peak hour). This assumes the sensitivity distribution.
- Beach Street NB LTR which would increase from 77 feet to 141 feet, or 3 vehicles (Saturday midday peak hour).

As outlined above, minor impacts are expected by the addition of project traffic assuming that police officer control is implemented. In addition, as mentioned previously, the no build condition analysis results are likely worse than presented for many movements including the two movements that are outlined above for Five Corners, the Beach Road WB TR and the State Road EB LTR as under no build condition limited police control at this location is short term (20-30 minutes), and the priority of is to get SSA traffic out of the Water Street corridor. During this condition, operations and subsequent queues on all other approaches will be impacted negatively beyond that demonstrated in the analysis. As a result, the actual impacts of the project, assuming police control for optimization of all movements, as proposed by the proponent during peak hour conditions, will likely be substantially less than that represented in Table 7 above.

Appendix

- Received Comment Letter
  - *Review of Traffic Peer Review Response #3*, Howard/Stein-Hudson, Oct 2, 2013
- Revised SYNCHRO Intersection Capacity Analysis
  - 2015 No-Build Conditions
  - 2015 Build Conditions with Norton Lane
- Revised Site Plan

Received Comment Letters

- *Review of Traffic Peer Review Response #3,* **Howard/Stein-Hudson, Oct 2, 2013**

Howard/Stein-Hudson Associates, Inc.
CREATIVE SOLUTIONS • EFFECTIVE PARTNERING ®

MEMORANDUM

To:	Mark London Executive Director Martha's Vineyard Commission	Date:	October 2, 2013
From:	Keri Pyke, P.E., PTOE	HSH Project No.:	2013062.00
Subject:	Stop & Shop Expansion, Tisbury, MA Review of Traffic Peer Review Response #3		

The memorandum below provides detailed comments and recommendations regarding the proposed Stop & Shop expansion in Tisbury, Massachusetts. Howard/Stein-Hudson Associates (HSH) submitted two previous peer review memoranda on the Traffic Impact and Access Study prepared for Stop & Shop by Vanasse Hangen Brustlin, Inc. (VHB). The following areas, numbered to correspond to our original peer review dated May 3, 2013, provide additional comments regarding additional information and analysis that the Applicant provided in VHB's latest response memo dated September 24, 2013:

4. Safety Information,
7. Site Traffic Generation and Distribution,
8. Parking Demand,
9. Traffic Impact Analysis, and
10. Mitigation Measures.

In addition, the Conclusions and Recommendations regarding these items as well as all outstanding items from previous memos are summarized on page 5 of this memorandum.

Note that the following areas have been reviewed to our satisfaction, and no further action is required:

1. Study Area Boundaries
2. Traffic Data Collection
3. Selection of Peak Hour
5. Background Traffic Growth
6. Planned Transportation Improvements
7. Site Trip Generation
11. Construction Period Traffic
12. Site Access
13. Loading

Safety Information

4. We recommend that the Martha's Vineyard Commission (MVC) and Town of Tisbury initiate the preparation of a Road Safety Audit (RSA) of the Five Corners intersection and Water Street and that the Applicant commit to using part of the mitigation funds discussed in section 10 to design and construct the recommendations that come out of the RSA, provided that those recommendations are acceptable to both the Town and the Commission.

Site Traffic Generation and Distribution

7. VHB prepared a VISSIM model of the Five Corners intersection as recommended in an earlier peer review memo in order to more accurately model the impacts at that key location. In this model, VHB assumed that 100% of the traffic coming down State Road and heading to the Stop & Shop store, the ferry, and other destinations on Water Street would turn left onto Main Street and then right down Norton Lane. As requested in a previous HSH peer review memo, VHB also provided a sensitivity analysis showing a revised distribution

in which 80% of the traffic coming from State Road was assigned through the Five Corners intersection and 20% was assigned to Main Street and Norton Lane. VHB continues to take the position that none of the traffic coming down State Road would use Five Corners, which results in significantly less impact on Five Corners. For example, the average weekday afternoon peak hour delay going down Beach Street towards Five Corners is 26 seconds assuming all State Road traffic uses Main and Norton Lane, but is 67 seconds if 80% of those trips go through Five Corners.

We respectfully disagree with the hypothesis that no traffic coming from State Road would use Five Corners. The origin-destination study carried out in August could shed light on this. However, in the absence of more information and to be conservative, for the summary analysis in section 9 below, we reviewed the potential impacts with 80% of the traffic traveling through Five Corners given in Table 2 of the September 24 VHB memo.

Parking Demand

8. The Applicant has stated that they will work with the Town to implement a parking strategy that works to take advantage of shared parking. We recommend that the Applicant provide a written parking management plan that includes at least the following:
    - a clarification of how many parking spaces would be available to customers and the general public, and not reserved for employees or other purposes, and
    - a commitment to share their parking spaces for use by patrons of downtown Vineyard Haven subject to posted hours.

Traffic Impact Analysis

9. The Applicant and HSH held a working meeting on September 9, 2013, to go over the VISSIM modeling. We agreed on the calibration of the models, and VHB made those changes to all the models and re-ran them to get the results provided in their September 23, 2013 memo.

    The VISSIM model run summaries given in Table 1 and Table 2 show that the addition of approximately 175 new trips in the weekday evening and Saturday midday peak hours as a result of the construction of the new store would have a significant impact on the area and especially on Five Corners, the most critical location in the study area. These new trips will increase 1) Traffic Volumes, 2) Delay, and 3) Queue Lengths at Five Corners, as summarized respectively in each of the following tables.

    Note that these summary tables are based on the data supplied by VHB with the following adjustments to better reflect the likely impacts:
    - The traffic volumes are compared to the actual volumes counted in July 2013, rather than the "existing" volumes as calculated by the VISSIM model, which differ slightly because of modeling parameters;
    - The delay summary uses weighted averages rather than arithmetic averages, namely the delay multiplied by the number of vehicles subject to that delay; and
    - As mentioned above, the figures assume that 80% of vehicles heading down from State Road to the uses along Water Street will go through Five Corners.

    <u>The changes to average delay and queue lengths, especially for the most critical movements, are significant increases that would have an important impact on all the traffic in the area, including that of VTA buses and of vehicles leaving the ferry.</u>

    Table 1 shows the change in traffic volumes for critical movements entering Five Corners during the weekday evening and Saturday morning peak hours. They show that volumes will increase between about 12 – 21% on Water Street, and about 3 – 6% on other streets. However, because this intersection is already operating

at or beyond capacity at certain times of day, the impacts on delay and queue length are much greater, as shown in Tables 2 and 3.

Table 1. Comparison of Critical Lane Group Volumes Entering Five Corners

Lane Group	p.m. Peak Hour No-Build Volume (vph)	p.m. Peak Hour New Trips (vph)	p.m. Peak Hour, Change (%)	Saturday Midday No-Build volume (vph)	Saturday Midday Peak Hour New Trips (vph)	Saturday Midday Peak Hour Change (%)
Water Street onto Beach Street Extension and Beach Road (southbound left/bear left)	121	25	20.7%	197	23	11.7%
Water Street onto Lagoon Pond Road and Beach Road (southbound thru/right)	295	55	18.6%	313	52	16.6%
Lagoon Pond Road (northbound left/thru/ right/hard right)	219	7	3.2%	220	8	3.6%
Beach Road (hard left/ left/right/hard right)	583	20	3.4%	503	23	4.6%
Beach Street left/thru/ bear right/right	467	23	4.9%	431	26	6.0%

Source: Figures 3, 4, 8, and 9; Appendices of VHB Memo, July 31, 2013. Note: The calculations above are based on the actual volumes counted in July 2013, as opposed to the model output volumes shown in Tables 1 and 2 of the September 24, 2013 VHB memo.

Table 2, below, looks at average delay. According to the VISSIM model output summary (Table 2 in the September 24, 2013 VHB memo), the average weekday afternoon peak hour delay for vehicles on Water Street turning left onto Beach Road would go from 31 seconds to 91 seconds, an increase of 194%. During the Saturday midday peak hour, the average delay for the same movement would go from 40 to 69 seconds, an increase of 73%. Other lane groups that are significantly impacted include the Beach Street eastbound lane. The Applicant states that the delay on the Water Street movements would be less when a police officer is directing traffic at Five Corners, but conversely, this would mean increased delay on the other streets, since the officer would have them wait while clearing traffic on Water Street.

Table 2. Comparison of Delays Entering Five Corners

Lane Group	Existing p.m. Peak Hour Weighted Average Delay/LOS by Lane Group (sec)	Build p.m. Peak Hour Weighted Average Delay/LOS by Lane Group (sec)	p.m. Peak Hour, Change in Weighted Average Delay (%)	Existing Saturday Midday Peak Hour Weighted Average Delay/LOS by Lane Group (sec)	Build Saturday Midday Peak Hour Weighted Average Delay/LOS by Lane Group (sec)	Saturday Midday Peak Hour Change in Weighted Average Delay (%)
Water Street onto Beach Street Extension and Beach Road (southbound left/bear left)	31/D	91/F	194%	40/E	69/F	73%
Water Street onto Lagoon Pond Road and Beach Street (southbound thru/right)	29/D	69/F	138%	41/E	65/F	59%
Lagoon Pond Road (northbound left/thru/ right/hard right)	50/E	107/F	114%	40/E	58/F	45%
Beach Road (hard left/ left/right/hard right)	65/F	59/F	-9%	64/F	69/F	8%
Beach Street (left/thru/ bear right/right)	27/D	66/F	144%	39/E	63/F	62%
Overall Intersection	42/E	72/F	20.8%	52.0	65.0	25%

Source: Table 2; VHB Memo, September 24, 2013. Weighted average of delays by lane group calculated by HSH.

Table 3 looks at average queue length. Based on the revised analysis in the September 24 VHB memo, the average weekday afternoon peak hour queue length for the Water Street southbound left turn to Beach Road would go from 64 to 236 feet, an increase of 258%. During the Saturday midday peak, the average queue length for same movement would go from 111 to 233 feet, an increase of 110%. As noted above and suggested by VHB, these movements could be facilitated by the presence of a police officer, but to the detriment of traffic on the main thoroughfares of Beach Street and Beach Road. Note that the significant increase in queue length on Beach Street would indicate that the intersection of State Road and Main Street would likely be impacted much more often.

Table 3. Comparison of Queue Lengths Entering Five Corners

Lane Group	Existing p.m. Peak Hour Average Queue Length (feet)	Build p.m. Peak Hour Average Queue Length (feet)	p.m. Peak Hour, Change in Average Queue Length (%)	Existing Saturday Midday Peak Hour Average Queue Length (feet)	Build Saturday Midday Peak Hour Average Queue Length (feet)	Saturday Midday Peak Hour, Change in Average Queue Length (%)
Water Street onto Beach Street Extension and Beach Road (southbound left/bear left)	64	236	258%	111	233	110%
Water Street onto Lagoon Pond Road and Beach Street (southbound thru/right)	64	236	258%	111	233	110%
Lagoon Pond Road (northbound left/thru/ right/hard right)	55	196	256%	42	77	83%
Beach Road (hard left/left/right/hard right)	2,422	2,213	-9%	990	1,671	69%
Beach Street (left/thru/ bear right/right)	87	714	721%	155	483	212%

Source: Table 2; VHB Memo, September 23, 2013.

Mitigation Measures

10. The project will have a significant impact on Water Street and Five Corners, as outlined in Section 9 of this memo, and it is not clear whether or not it is feasible to mitigate these impacts to avoid having serious negative implications on regional resources such as access to the ferry, operation of Five Corners, one of the critical intersections on the Island, and operation of the Beach Road/State Road corridor, one of the main thoroughfares of the Island. The Commission could place the burden on the Applicant to explore all efforts to mitigate these impacts and to demonstrate that the mitigation measures will effectively render the impacts acceptable.

    Our September 4, 2013 memo outlined mitigation measures that might be able to remove trips from Five Corners, and the possibility of changing the direction of streets has been raised as a possible measure. Other measures that might provide a benefit to the community to offset the traffic impacts could include improving to bicycle and pedestrian facilities and amenities, such as improving bicycle access from the ferry to the Shared Use Path Network in Veteran's Park.

The MVC and VHB have been collecting various data that could help the Applicant, the Town, and the MVC, evaluate these and other mitigation measures. Those data are still being compiled and analyzed.

It is typical for a project of this magnitude and impacts that the Applicant fund substantial mitigation, which could be used for a variety of mitigation measures including the safety improvements mentioned in section 4 and improvements to public transit.

Conclusions and Recommendations

The following is summary of all the outstanding conclusions and recommendations (numbering follows original numbering, and therefore is not sequential). Items 4, 7, 8, 9, and 10 are based on the discussion above. The other conclusions and recommendations are carried forward and were discussed in more detail in HSH's previous reviews.

4. We recommend that the Martha's Vineyard Commission (MVC) and Town of Tisbury initiate the preparation of a Road Safety Audit (RSA) of the Five Corners intersection and Water Street and that the Applicant commit to using part of the mitigation funds discussed in section 10 to design and construct the recommendations that come out of the RSA, provided that those recommendations are acceptable to both the Town and the Commission.
8. The Applicant has stated that they will work with the Town to implement a parking strategy that works to take advantage of shared parking. We recommend that the Applicant provide a written parking management plan that includes at least the following:
    - a clarification of how many parking spaces would be available to customers and the general public, and not reserved for employees or other purposes, and
    - a commitment to share their parking spaces for use by patrons of downtown Vineyard Haven subject to posted hours.
9. The current VISSIM model shows that increases to traffic volumes, average delays, and average queue lengths are significant and would have an important impact on all the traffic in the area, including that of VTA buses and of vehicles leaving the ferry.
10. The project will have a significant impact on Water Street and Five Corners, as outlined in Section 9 of this memo, and it is not clear whether or not it is feasible to mitigate these impacts to avoid having serious negative implications on regional resources such as access to the ferry, operation of Five Corners, one of the critical intersections on the Island, and operation of the Beach Road/State Road corridor, one of the main thoroughfares of the Island. The Commission could place the burden on the Applicant to explore all efforts to mitigate these impacts and to demonstrate that the mitigation measures will effectively render the impacts acceptable.
10. We recommend that the MVC require that the Applicant provide a formal submission of a Construction Management Plan, including to-scale drawings that show the limits of work, lay-down areas, etc., to ensure that there is minimal impact on the adjacent Town parking lot. The plan should include such items as maintaining traffic on Norton Lane, the number of public parking spaces that would be out of service during each phase, and the hours during which construction would take place.
11. We do not believe the MVC should support the earlier proposal for the reconfiguration of the Town parking lot and closure of Norton Lane at Water Street. Such a circulation change adds a level of complexity that would be informed by the performance of a larger study to understand the implications to downtown Vineyard Haven as a whole. Any redesign of the parking lot and Norton Lane should provide improved pedestrian and bicycle accommodation. As we understand it, the Applicant is proposing to move forward with a site plan that does not close Norton Lane. The Town of Tisbury has convened a committee to review circulation and parking in Downtown Vineyard Haven. Decisions regarding future circulation changes will be handled through the Town committee.
12. The figures provided indicate that a tractor-trailer can at least theoretically access the loading docks without any changes to the existing parking configuration in the Town parking lot. However, a large vehicle, whether tractor-trailer or box truck, would need to back up over a sidewalk to complete its maneuver. Also, the use of

a number of spaces in the Town lot would need to be restricted so that a heavy vehicle can maneuver for part of the day. We believe that both conditions are very problematic, bordering on the unacceptable and should only be considered if there is no viable alternative and if very strict conditions are imposed that are aimed at minimizing risk to public safety and reducing other impacts. We recommend that the Commission include conditions regarding loading activities on-site, should they be inclined to grant approval. These could include conditions on the time of day when backing up to enter the truck dock is permitted (e.g. before 8 a.m.), when exiting from the truck dock is permitted (e.g. before 11 a.m.), and what safety measures would be employed to minimize safety impacts. Safety measures could include ensuring that there is a safe alternate pedestrian route from Main Street to the ferry (e.g. along the west and north sides of the parking lot) and providing temporary signs and personnel to temporarily close off pedestrian access when truck maneuvering is taking place.

This concludes our review of the additional information provided by the proposed Stop & Shop redevelopment team. If you have any questions or comments, please contact me at (617) 348-3301.

Revised SYNCHRO Intersection Capacity Analysis

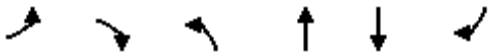
- **2015 No-Build Conditions**
- **2015 Build Conditions with Norton Lane**

Intersection has too many legs for HCM analysis.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	73	372	14	51	413	114	77	33	109	178	39	259
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.81	0.81	0.81	0.83	0.83	0.83	0.71	0.71	0.71
Hourly flow rate (vph)	87	443	17	63	510	141	93	40	131	251	55	365
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	651			460			1723	1402	451	1482	1340	580
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	651			460			1723	1402	451	1482	1340	580
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	91			94			0	67	78	0	57	28
cM capacity (veh/h)	931			1096			12	120	610	53	129	508

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	546	714	264	251	420
Volume Left	87	63	93	251	0
Volume Right	17	141	131	0	365
cSH	931	1096	32	53	367
Volume to Capacity	0.09	0.06	8.35	4.72	1.14
Queue Length 95th (ft)	8	5	Err	Err	407
Control Delay (s)	2.5	1.5	Err	Err	125.5
Lane LOS	A	A	F	F	F
Approach Delay (s)	2.5	1.5	Err	3817.7	
Approach LOS			F	F	

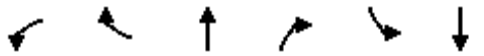
Intersection Summary				
Average Delay	2369.9			
Intersection Capacity Utilization	80.3%	ICU Level of Service	D	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	206	0	0	460	0	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.89	0.89	0.92	0.92
Hourly flow rate (vph)	251	0	0	517	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	517	0	0			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	517	0	0			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	52	100	100			
cM capacity (veh/h)	520	1088	1630			

Direction, Lane #	EB 1	NB 1
Volume Total	251	517
Volume Left	251	0
Volume Right	0	0
cSH	520	1700
Volume to Capacity	0.48	0.30
Queue Length 95th (ft)	65	0
Control Delay (s)	18.2	0.0
Lane LOS	C	
Approach Delay (s)	18.2	0.0
Approach LOS	C	

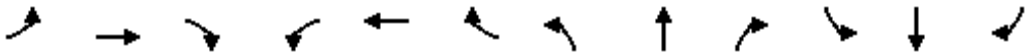
Intersection Summary			
Average Delay	6.0		
Intersection Capacity Utilization	42.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	0	510	156	0	0
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.93	0.93	0.92	0.92
Hourly flow rate (vph)	0	0	548	168	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	632	632			716	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	632	632			716	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	444	480			885	

Direction, Lane #	NB 1
Volume Total	716
Volume Left	0
Volume Right	168
cSH	1700
Volume to Capacity	0.42
Queue Length 95th (ft)	0
Control Delay (s)	0.0
Lane LOS	
Approach Delay (s)	0.0
Approach LOS	

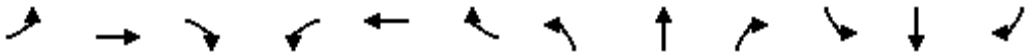
Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	39.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	145	11	0	0	0	0	0	3	0	1	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.92	0.92	0.92	0.38	0.38	0.38	0.25	0.25	0.25
Hourly flow rate (vph)	0	173	13	0	0	0	0	0	8	0	4	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	0			186			181	179	179	187	186	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			186			181	179	179	187	186	0
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	99	100	99	100
cM capacity (veh/h)	1630			1389			781	718	869	771	712	1091

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	186	8	4
Volume Left	0	0	0
Volume Right	13	8	0
cSH	1630	869	712
Volume to Capacity	0.00	0.01	0.01
Queue Length 95th (ft)	0	1	0
Control Delay (s)	0.0	9.2	10.1
Lane LOS		A	B
Approach Delay (s)	0.0	9.2	10.1
Approach LOS		A	B

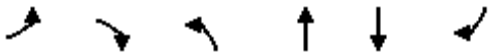
Intersection Summary				
Average Delay	0.6			
Intersection Capacity Utilization	18.3%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	7	17	122	0	0	0	0	142	78	11	354	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.92	0.92	0.92	0.88	0.88	0.88	0.64	0.64	0.64
Hourly flow rate (vph)	8	20	145	0	0	0	0	161	89	17	553	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	793	838	277	672	793	206	553			250		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	793	838	277	672	793	206	553			250		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.3			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.3			2.3		
p0 queue free %	97	93	80	100	100	100	100			99		
cM capacity (veh/h)	280	301	727	257	315	801	966			1284		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1	SB 2
Volume Total	8	165	0	250	202	369
Volume Left	8	0	0	0	17	0
Volume Right	0	145	0	89	0	0
cSH	280	620	1700	1700	1284	1700
Volume to Capacity	0.03	0.27	0.00	0.15	0.01	0.22
Queue Length 95th (ft)	2	27	0	0	1	0
Control Delay (s)	18.3	12.9	0.0	0.0	0.8	0.0
Lane LOS	C	B	A		A	
Approach Delay (s)	13.2		0.0	0.0	0.3	
Approach LOS	B		A			

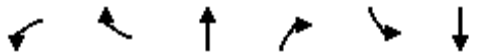
Intersection Summary				
Average Delay	2.5			
Intersection Capacity Utilization	32.8%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	1	98	0	100	108	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.76	0.76	0.56	0.56	0.64	0.64
Hourly flow rate (vph)	1	129	0	179	169	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	347	84	169			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	347	84	169			
tC, single (s)	6.8	6.9	4.4			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.4			
p0 queue free %	100	87	100			
cM capacity (veh/h)	623	958	1310			

Direction, Lane #	EB 1	NB 1	SB 1	SB 2
Volume Total	130	179	84	84
Volume Left	1	0	0	0
Volume Right	129	0	0	0
cSH	953	1700	1700	1700
Volume to Capacity	0.14	0.11	0.05	0.05
Queue Length 95th (ft)	12	0	0	0
Control Delay (s)	9.4	0.0	0.0	0.0
Lane LOS	A			
Approach Delay (s)	9.4	0.0	0.0	
Approach LOS	A			

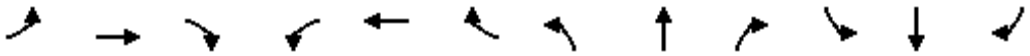
Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	18.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	0	328	78	0	0
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.91	0.91	0.92	0.92
Hourly flow rate (vph)	0	0	360	86	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	403	403			446	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	403	403			446	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	603	647			1114	

Direction, Lane #	NB 1
Volume Total	446
Volume Left	0
Volume Right	86
cSH	1700
Volume to Capacity	0.26
Queue Length 95th (ft)	0
Control Delay (s)	0.0
Lane LOS	
Approach Delay (s)	0.0
Approach LOS	

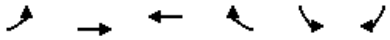
Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	25.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	50	126	4	0	49	100	0	0	189	17
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.41	0.41	0.41	0.80	0.80	0.80	0.75	0.75	0.75
Hourly flow rate (vph)	0	0	58	307	10	0	61	125	0	0	252	23
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	516	511	137	432	522	125	275			125		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	516	511	137	432	522	125	275			125		
tC, single (s)	7.5	6.5	6.9	7.6	6.6	7.0	4.3			4.4		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.3			2.3		
p0 queue free %	100	100	93	32	98	100	95			100		
cM capacity (veh/h)	418	441	886	452	431	896	1229			1382		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	58	317	186	168	107
Volume Left	0	307	61	0	0
Volume Right	58	0	0	0	23
cSH	886	451	1229	1700	1700
Volume to Capacity	0.07	0.70	0.05	0.10	0.06
Queue Length 95th (ft)	5	134	4	0	0
Control Delay (s)	9.3	29.7	2.9	0.0	0.0
Lane LOS	A	D	A		
Approach Delay (s)	9.3	29.7	2.9	0.0	
Approach LOS	A	D			

Intersection Summary				
Average Delay	12.6			
Intersection Capacity Utilization	Err%	ICU Level of Service		H
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Volume (veh/h)	2	526	475	0	3	7
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.89	0.89	0.87	0.87	0.69	0.69
Hourly flow rate (vph)	2	591	546	0	4	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	546				1141	546
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	546				1141	546
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				98	98
cM capacity (veh/h)	1023				223	541

Direction, Lane #	EB 1	WB 1	WB 2	SE 1
Volume Total	593	546	0	14
Volume Left	2	0	0	4
Volume Right	0	0	0	10
cSH	1023	1700	1700	379
Volume to Capacity	0.00	0.32	0.00	0.04
Queue Length 95th (ft)	0	0	0	3
Control Delay (s)	0.1	0.0	0.0	14.9
Lane LOS	A			B
Approach Delay (s)	0.1	0.0		14.9
Approach LOS				B

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	39.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	110	302	12	38	357	99	81	24	115	184	40	273
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.78	0.78	0.78	0.76	0.76	0.76	0.62	0.62	0.62
Hourly flow rate (vph)	129	355	14	49	458	127	107	32	151	297	65	440
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	585			369			1712	1303	362	1407	1247	521
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	585			369			1712	1303	362	1407	1247	521
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	87			96			0	77	78	0	55	20
cM capacity (veh/h)	985			1184			8	135	687	65	144	553

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	499	633	289	297	505
Volume Left	129	49	107	297	0
Volume Right	14	127	151	0	440
cSH	985	1184	22	65	406
Volume to Capacity	0.13	0.04	13.10	4.57	1.24
Queue Length 95th (ft)	11	3	Err	Err	532
Control Delay (s)	3.5	1.1	Err	Err	158.2
Lane LOS	A	A	F	F	F
Approach Delay (s)	3.5	1.1	Err	3801.5	
Approach LOS			F	F	

Intersection Summary					
Average Delay	2673.7				
Intersection Capacity Utilization	92.6%	ICU Level of Service	F		
Analysis Period (min)	15				

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	207	0	0	380	0	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.81	0.81	0.92	0.92
Hourly flow rate (vph)	241	0	0	469	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	469	0	0			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	469	0	0			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	56	100	100			
cM capacity (veh/h)	553	1085	1630			

Direction, Lane #	EB 1	NB 1
Volume Total	241	469
Volume Left	241	0
Volume Right	0	0
cSH	553	1700
Volume to Capacity	0.44	0.28
Queue Length 95th (ft)	55	0
Control Delay (s)	16.4	0.0
Lane LOS	C	
Approach Delay (s)	16.4	0.0
Approach LOS	C	

Intersection Summary			
Average Delay	5.6		
Intersection Capacity Utilization	38.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	0	439	148	0	0
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.93	0.93	0.92	0.92
Hourly flow rate (vph)	0	0	472	159	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	552	552			631	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	552	552			631	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	495	534			951	

Direction, Lane #	NB 1
Volume Total	631
Volume Left	0
Volume Right	159
cSH	1700
Volume to Capacity	0.37
Queue Length 95th (ft)	0
Control Delay (s)	0.0
Lane LOS	
Approach Delay (s)	0.0
Approach LOS	

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	35.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	138	10	0	0	0	0	0	2	2	3	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.82	0.82	0.82	0.92	0.92	0.92	0.50	0.50	0.50	0.63	0.63	0.63
Hourly flow rate (vph)	0	168	12	0	0	0	0	0	4	3	5	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	0			180			177	174	174	178	180	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			180			177	174	174	178	180	0
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	100	99	100
cM capacity (veh/h)	1630			1395			786	723	874	784	717	1091

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	180	4	8
Volume Left	0	0	3
Volume Right	12	4	0
cSH	1630	874	743
Volume to Capacity	0.00	0.00	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	9.1	9.9
Lane LOS		A	A
Approach Delay (s)	0.0	9.1	9.9
Approach LOS		A	A

Intersection Summary					
Average Delay			0.6		
Intersection Capacity Utilization			17.9%	ICU Level of Service	A
Analysis Period (min)			15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	40	137	5	2	0	0	164	72	16	369	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.82	0.82	0.82	0.44	0.44	0.44	0.70	0.70	0.70	0.58	0.58	0.58
Hourly flow rate (vph)	24	49	167	11	5	0	0	234	103	28	636	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	979	1029	318	850	977	286	636			337		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	979	1029	318	850	977	286	636			337		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.2			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	88	79	75	93	98	100	100			98		
cM capacity (veh/h)	199	229	681	159	247	717	923			1204		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1	SB 2
Volume Total	24	216	11	337	240	424
Volume Left	24	0	11	0	28	0
Volume Right	0	167	0	103	0	0
cSH	199	471	159	1700	1204	1700
Volume to Capacity	0.12	0.46	0.07	0.20	0.02	0.25
Queue Length 95th (ft)	10	59	6	0	2	0
Control Delay (s)	25.6	19.0	29.3	0.0	1.1	0.0
Lane LOS	D	C	D		A	
Approach Delay (s)	19.6		Err	0.0	0.4	
Approach LOS	C		F			

Intersection Summary					
Average Delay		Err			
Intersection Capacity Utilization		Err%	ICU Level of Service		H
Analysis Period (min)		15			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	9	122	0	170	142	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.74	0.74	0.71	0.71	0.76	0.76
Hourly flow rate (vph)	12	165	0	239	187	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	426	93	187			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	426	93	187			
tC, single (s)	6.8	6.9	4.3			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.3			
p0 queue free %	98	83	100			
cM capacity (veh/h)	562	952	1342			

Direction, Lane #	EB 1	NB 1	SB 1	SB 2
Volume Total	177	239	93	93
Volume Left	12	0	0	0
Volume Right	165	0	0	0
cSH	908	1700	1700	1700
Volume to Capacity	0.19	0.14	0.05	0.05
Queue Length 95th (ft)	18	0	0	0
Control Delay (s)	9.9	0.0	0.0	0.0
Lane LOS	A			
Approach Delay (s)	9.9	0.0	0.0	
Approach LOS	A			

Intersection Summary			
Average Delay	2.9		
Intersection Capacity Utilization	23.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	0	290	93	0	0
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.95	0.95	0.92	0.92
Hourly flow rate (vph)	0	0	305	98	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	354	354			403	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	354	354			403	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	644	690			1156	

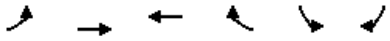
Direction, Lane #	NB 1
Volume Total	403
Volume Left	0
Volume Right	98
cSH	1700
Volume to Capacity	0.24
Queue Length 95th (ft)	0
Control Delay (s)	0.0
Lane LOS	
Approach Delay (s)	0.0
Approach LOS	

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	24.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	0	41	130	6	26	49	138	0	0	213	51
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.77	0.77	0.77	0.56	0.56	0.56	0.74	0.74	0.74	0.80	0.80	0.80
Hourly flow rate (vph)	8	0	53	232	11	46	66	186	0	0	266	64
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	669	617	165	505	649	186	330			186		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	669	617	165	505	649	186	330			186		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.2			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.3			2.2		
p0 queue free %	97	100	94	43	97	94	94			100		
cM capacity (veh/h)	307	386	857	406	368	827	1198			1364		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	61	289	253	178	152
Volume Left	8	232	66	0	0
Volume Right	53	46	0	0	64
cSH	697	440	1198	1700	1700
Volume to Capacity	0.09	0.66	0.06	0.10	0.09
Queue Length 95th (ft)	7	115	4	0	0
Control Delay (s)	10.7	27.5	2.5	0.0	0.0
Lane LOS	B	D	A		
Approach Delay (s)	10.7	27.5	2.5	0.0	
Approach LOS	B	D			

Intersection Summary				
Average Delay	9.9			
Intersection Capacity Utilization	Err%	ICU Level of Service	H	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	161	523	485	216	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.83	0.83	0.95	0.95	0.92	0.92
Hourly flow rate (vph)	194	630	511	227	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	738				1642	624
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	738				1642	624
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	78				100	100
cM capacity (veh/h)	868				85	485

Direction, Lane #	EB 1	EB 2	WB 1
Volume Total	194	630	738
Volume Left	194	0	0
Volume Right	0	0	227
cSH	868	1700	1700
Volume to Capacity	0.22	0.37	0.43
Queue Length 95th (ft)	21	0	0
Control Delay (s)	10.3	0.0	0.0
Lane LOS	B		
Approach Delay (s)	2.4		0.0
Approach LOS			

Intersection Summary			
Average Delay		1.3	
Intersection Capacity Utilization		54.3%	ICU Level of Service
Analysis Period (min)		15	

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Volume (veh/h)	10	523	485	6	2	10
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.83	0.83	0.95	0.95	0.70	0.70
Hourly flow rate (vph)	12	630	511	6	3	14
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	517				1165	511
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	517				1165	511
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				99	97
cM capacity (veh/h)	1049				214	567

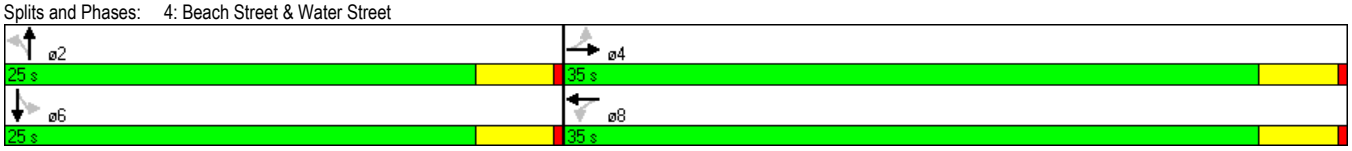
Direction, Lane #	EB 1	WB 1	WB 2	SE 1
Volume Total	642	511	6	17
Volume Left	12	0	0	3
Volume Right	0	0	6	14
cSH	1049	1700	1700	445
Volume to Capacity	0.01	0.30	0.00	0.04
Queue Length 95th (ft)	1	0	0	3
Control Delay (s)	0.3	0.0	0.0	13.4
Lane LOS	A			B
Approach Delay (s)	0.3	0.0		13.4
Approach LOS				B

Intersection Summary				
Average Delay	0.4			
Intersection Capacity Utilization	45.5%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	73	372	14	51	413	114	77	33	109	178	39	259
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		613			265			247			241	
Travel Time (s)		13.9			6.0			5.6			5.5	
Peak Hour Factor	0.84	0.84	0.84	0.81	0.81	0.81	0.83	0.83	0.83	0.71	0.71	0.71
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	1%	1%	1%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	547	0	0	714	0	0	264	0	251	420	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	25.0	25.0	0.0	25.0	25.0	0.0
Total Split (%)	58.3%	58.3%	0.0%	58.3%	58.3%	0.0%	41.7%	41.7%	0.0%	41.7%	41.7%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)	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 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
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Min	Min		Min	Min	
v/c Ratio		0.71			0.85			0.66		0.71	0.58	
Control Delay		16.5			23.2			19.7		29.7	8.4	
Queue Delay		0.0			0.0			0.0		0.0	0.0	
Total Delay		16.5			23.2			19.7		29.7	8.4	
Queue Length 50th (ft)		134			190			48		76	29	
Queue Length 95th (ft)		209			269			105		106	47	
Internal Link Dist (ft)		533			185			167			161	
Turn Bay Length (ft)												
Base Capacity (vph)		994			1077			497		461	858	
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		0.55			0.66			0.53		0.54	0.49	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 51.4	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	

Splits and Phases: 4: Beach Street & Water Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	73	372	14	51	413	114	77	33	109	178	39	259
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			1.00			1.00		1.00	1.00	
Frt		1.00			0.97			0.93		1.00	0.87	
Flt Protected		0.99			1.00			0.98		0.95	1.00	
Satd. Flow (prot)		1822			1788			1725		1719	1574	
Flt Permitted		0.84			0.92			0.58		0.58	1.00	
Satd. Flow (perm)		1541			1655			1024		1056	1574	
Peak-hour factor, PHF	0.84	0.84	0.84	0.81	0.81	0.81	0.83	0.83	0.83	0.71	0.71	0.71
Adj. Flow (vph)	87	443	17	63	510	141	93	40	131	251	55	365
RTOR Reduction (vph)	0	2	0	0	15	0	0	60	0	0	201	0
Lane Group Flow (vph)	0	545	0	0	699	0	0	204	0	251	219	0
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	1%	1%	1%	5%	5%	5%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		25.7			25.7			17.2		17.2	17.2	
Effective Green, g (s)		25.7			25.7			17.2		17.2	17.2	
Actuated g/C Ratio		0.50			0.50			0.34		0.34	0.34	
Clearance Time (s)		4.0			4.0			4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		778			836			346		357	532	
v/s Ratio Prot											0.14	
v/s Ratio Perm		0.35			c0.42			0.20		c0.24		
v/c Ratio		0.70			0.84			0.59		0.70	0.41	
Uniform Delay, d1		9.7			10.8			13.9		14.6	13.0	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		2.9			7.3			2.6		6.2	0.5	
Delay (s)		12.5			18.1			16.5		20.8	13.5	
Level of Service		B			B			B		C	B	
Approach Delay (s)		12.5			18.1			16.5			16.2	
Approach LOS		B			B			B			B	

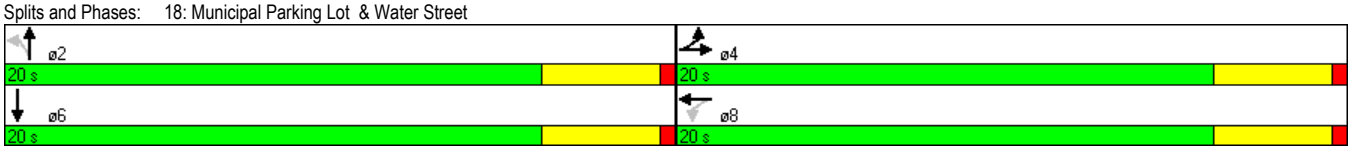
Intersection Summary			
HCM Average Control Delay	15.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	50.9	Sum of lost time (s)	8.0
Intersection Capacity Utilization	80.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	50	126	4	0	49	100	0	0	189	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		120			125			102			221	
Travel Time (s)		2.7			2.8			2.3			5.0	
Peak Hour Factor	0.86	0.86	0.86	0.41	0.41	0.41	0.80	0.80	0.80	0.75	0.75	0.75
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	10%	10%	10%	13%	13%	13%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	58	0	0	317	0	0	186	0	0	275	0
Turn Type	Split			Perm			Perm					
Protected Phases	4!	4			8!			2			6	
Permitted Phases				8			2					
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0			20.0	
Total Split (s)	20.0	20.0	0.0	20.0	20.0	0.0	20.0	20.0	0.0	0.0	20.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	0.0%	50.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5			0.5	
Lost Time Adjust (s)	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 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
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.06			0.63			0.32			0.22	
Control Delay		0.1			17.2			10.3			7.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		0.1			17.2			10.3			7.8	
Queue Length 50th (ft)		0			53			27			17	
Queue Length 95th (ft)		0			38			51			28	
Internal Link Dist (ft)		40			45			22			141	
Turn Bay Length (ft)												
Base Capacity (vph)		935			504			578			1275	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.06			0.63			0.32			0.22	

Intersection Summary	
Area Type:	Other
Cycle Length: 40	
Actuated Cycle Length: 40	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Natural Cycle: 40	
Control Type: Pretimed	
! Phase conflict between lane groups.	

Splits and Phases: 18: Municipal Parking Lot & Water Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	50	126	4	0	49	100	0	0	189	17
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	
Lane Util. Factor		1.00			1.00			1.00			0.95	
Frt		0.86			1.00			1.00			0.99	
Flt Protected		1.00			0.95			0.98			1.00	
Satd. Flow (prot)		1611			1743			1699			3155	
Flt Permitted		1.00			0.69			0.84			1.00	
Satd. Flow (perm)		1611			1261			1446			3155	
Peak-hour factor, PHF	0.86	0.86	0.86	0.41	0.41	0.41	0.80	0.80	0.80	0.75	0.75	0.75
Adj. Flow (vph)	0	0	58	307	10	0	61	125	0	0	252	23
RTOR Reduction (vph)	0	35	0	0	0	0	0	0	0	0	14	0
Lane Group Flow (vph)	0	23	0	0	317	0	0	186	0	0	261	0
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	10%	10%	10%	13%	13%	13%
Turn Type	Split			Perm			Perm					
Protected Phases	4!	4			8!			2			6	
Permitted Phases				8			2					
Actuated Green, G (s)		16.0			16.0			16.0			16.0	
Effective Green, g (s)		16.0			16.0			16.0			16.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		644			504			578			1262	
v/s Ratio Prot		0.01									0.08	
v/s Ratio Perm					c0.25			c0.13				
v/c Ratio		0.04			0.63			0.32			0.21	
Uniform Delay, d1		7.3			9.6			8.3			7.8	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.1			5.8			1.5			0.4	
Delay (s)		7.4			15.5			9.7			8.2	
Level of Service		A			B			A			A	
Approach Delay (s)		7.4			15.5			9.7			8.2	
Approach LOS		A			B			A			A	

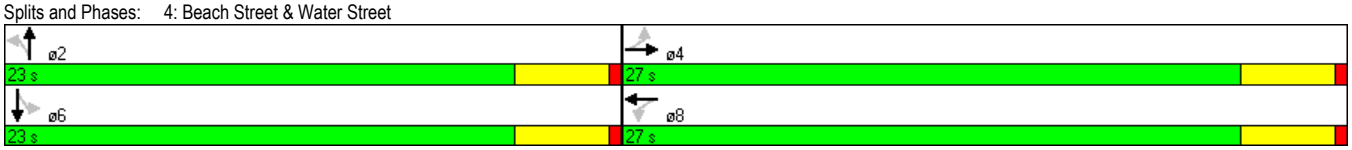
Intersection Summary			
HCM Average Control Delay	11.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	37.6%	ICU Level of Service	A
Analysis Period (min)	15		

! Phase conflict between lane groups.
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	110	302	12	38	357	99	81	24	115	184	40	273
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		613			265			247			241	
Travel Time (s)		13.9			6.0			5.6			5.5	
Peak Hour Factor	0.85	0.85	0.85	0.78	0.78	0.78	0.76	0.76	0.76	0.62	0.62	0.62
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	0%	0%	0%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	498	0	0	634	0	0	290	0	297	505	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	
Total Split (s)	27.0	27.0	0.0	27.0	27.0	0.0	23.0	23.0	0.0	23.0	23.0	0.0
Total Split (%)	54.0%	54.0%	0.0%	54.0%	54.0%	0.0%	46.0%	46.0%	0.0%	46.0%	46.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)	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 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
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Min	Min		Min	Min	
v/c Ratio		0.83			0.82			0.72		0.75	0.65	
Control Delay		26.2			22.2			20.3		27.8	9.7	
Queue Delay		0.0			0.0			0.0		0.0	0.0	
Total Delay		26.2			22.2			20.3		27.8	9.7	
Queue Length 50th (ft)		115			138			35		71	41	
Queue Length 95th (ft)		#243			195			77		84	42	
Internal Link Dist (ft)		533			185			167			161	
Turn Bay Length (ft)												
Base Capacity (vph)		727			926			468		487	882	
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		0.69			0.68			0.62		0.61	0.57	

Intersection Summary	
Area Type:	Other
Cycle Length: 50	
Actuated Cycle Length: 44.4	
Natural Cycle: 45	
Control Type: Actuated-Uncoordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 4: Beach Street & Water Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	110	302	12	38	357	99	81	24	115	184	40	273
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			1.00			1.00		1.00	1.00	
Frt		1.00			0.97			0.93		1.00	0.87	
Flt Protected		0.99			1.00			0.98		0.95	1.00	
Satd. Flow (prot)		1814			1788			1734		1752	1604	
Flt Permitted		0.73			0.94			0.50		0.59	1.00	
Satd. Flow (perm)		1341			1686			890		1090	1604	
Peak-hour factor, PHF	0.85	0.85	0.85	0.78	0.78	0.78	0.76	0.76	0.76	0.62	0.62	0.62
Adj. Flow (vph)	129	355	14	49	458	127	107	32	151	297	65	440
RTOR Reduction (vph)	0	2	0	0	18	0	0	80	0	0	189	0
Lane Group Flow (vph)	0	496	0	0	616	0	0	210	0	297	316	0
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	0%	0%	0%	3%	3%	3%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		19.8			19.8			16.2		16.2	16.2	
Effective Green, g (s)		19.8			19.8			16.2		16.2	16.2	
Actuated g/C Ratio		0.45			0.45			0.37		0.37	0.37	
Clearance Time (s)		4.0			4.0			4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		603			759			328		401	591	
v/s Ratio Prot											0.20	
v/s Ratio Perm		c0.37			0.37			0.24		c0.27		
v/c Ratio		0.82			0.81			0.64		0.74	0.53	
Uniform Delay, d1		10.6			10.5			11.5		12.1	10.9	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		8.9			6.6			4.2		7.2	0.9	
Delay (s)		19.4			17.1			15.7		19.3	11.9	
Level of Service		B			B			B		B	B	
Approach Delay (s)		19.4			17.1			15.7			14.6	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	16.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	44.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	92.6%	ICU Level of Service	F
Analysis Period (min)	15		

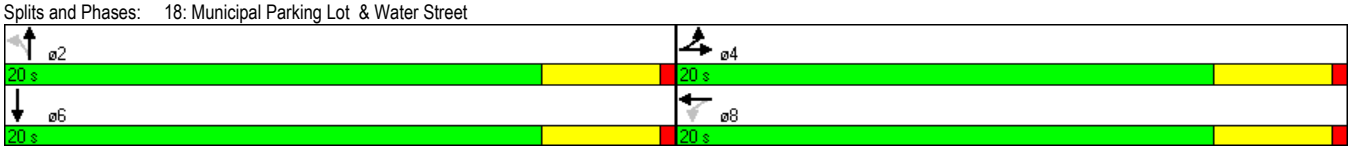
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	0	41	130	6	26	49	138	0	0	213	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		120			125			102			221	
Travel Time (s)		2.7			2.8			2.3			5.0	
Peak Hour Factor	0.77	0.77	0.77	0.56	0.56	0.56	0.74	0.74	0.74	0.80	0.80	0.80
Heavy Vehicles (%)	0%	0%	0%	1%	1%	1%	6%	6%	6%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	61	0	0	289	0	0	252	0	0	330	0
Turn Type	Split			Perm			Perm					
Protected Phases	4!	4			8!			2			6	
Permitted Phases				8			2					
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0			20.0	
Total Split (s)	20.0	20.0	0.0	20.0	20.0	0.0	20.0	20.0	0.0	0.0	20.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	0.0%	50.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5			0.5	
Lost Time Adjust (s)	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 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
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.09			0.52			0.42			0.24	
Control Delay		3.8			12.4			11.3			6.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		3.8			12.4			11.3			6.9	
Queue Length 50th (ft)		1			41			38			18	
Queue Length 95th (ft)		12			45			61			32	
Internal Link Dist (ft)		40			45			22			141	
Turn Bay Length (ft)												
Base Capacity (vph)		698			552			606			1374	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.09			0.52			0.42			0.24	

Intersection Summary

Area Type: Other
Cycle Length: 40
Actuated Cycle Length: 40
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 40
Control Type: Pretimed
! Phase conflict between lane groups.

Splits and Phases: 18: Municipal Parking Lot & Water Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	0	41	130	6	26	49	138	0	0	213	51
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	
Lane Util. Factor		1.00			1.00			1.00			0.95	
Frt		0.88			0.98			1.00			0.97	
Flt Protected		0.99			0.96			0.99			1.00	
Satd. Flow (prot)		1666			1770			1769			3338	
Flt Permitted		0.99			0.73			0.85			1.00	
Satd. Flow (perm)		1666			1338			1517			3338	
Peak-hour factor, PHF	0.77	0.77	0.77	0.56	0.56	0.56	0.74	0.74	0.74	0.80	0.80	0.80
Adj. Flow (vph)	8	0	53	232	11	46	66	186	0	0	266	64
RTOR Reduction (vph)	0	32	0	0	17	0	0	0	0	0	38	0
Lane Group Flow (vph)	0	29	0	0	272	0	0	252	0	0	292	0
Heavy Vehicles (%)	0%	0%	0%	1%	1%	1%	6%	6%	6%	5%	5%	5%
Turn Type	Split			Perm			Perm					
Protected Phases	4!	4			8!			2			6	
Permitted Phases				8			2					
Actuated Green, G (s)		16.0			16.0			16.0			16.0	
Effective Green, g (s)		16.0			16.0			16.0			16.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		666			535			607			1335	
v/s Ratio Prot		0.02									0.09	
v/s Ratio Perm					c0.20			c0.17				
v/c Ratio		0.04			0.51			0.42			0.22	
Uniform Delay, d1		7.3			9.0			8.6			7.9	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.1			3.4			2.1			0.4	
Delay (s)		7.5			12.5			10.7			8.3	
Level of Service		A			B			B			A	
Approach Delay (s)		7.5			12.5			10.7			8.3	
Approach LOS		A			B			B			A	

Intersection Summary			
HCM Average Control Delay	10.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	43.3%	ICU Level of Service	A
Analysis Period (min)	15		

! Phase conflict between lane groups.
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	73	361	14	51	406	136	77	38	109	207	45	299
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.81	0.81	0.81	0.83	0.83	0.83	0.71	0.71	0.71
Hourly flow rate (vph)	87	430	17	63	501	168	93	46	131	292	63	421
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	669			446			1776	1407	438	1477	1331	585
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	669			446			1776	1407	438	1477	1331	585
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	91			94			0	62	79	0	51	17
cM capacity (veh/h)	916			1109			6	119	621	51	130	505

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	533	732	270	292	485
Volume Left	87	63	93	292	0
Volume Right	17	168	131	0	421
cSH	916	1109	17	51	367
Volume to Capacity	0.09	0.06	16.16	5.75	1.32
Queue Length 95th (ft)	8	5	Err	Err	568
Control Delay (s)	2.5	1.4	Err	Err	192.3
Lane LOS	A	A	F	F	F
Approach Delay (s)	2.5	1.4	Err	3876.5	
Approach LOS			F	F	

Intersection Summary					
Average Delay			2470.1		
Intersection Capacity Utilization			83.2%	ICU Level of Service	E
Analysis Period (min)			15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	212	0	0	500	0	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.89	0.89	0.92	0.92
Hourly flow rate (vph)	259	0	0	562	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	562	0	0			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	562	0	0			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	47	100	100			
cM capacity (veh/h)	490	1088	1630			

Direction, Lane #	EB 1	NB 1
Volume Total	259	562
Volume Left	259	0
Volume Right	0	0
cSH	490	1700
Volume to Capacity	0.53	0.33
Queue Length 95th (ft)	76	0
Control Delay (s)	20.3	0.0
Lane LOS	C	
Approach Delay (s)	20.3	0.0
Approach LOS	C	

Intersection Summary			
Average Delay	6.4		
Intersection Capacity Utilization	44.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	0	518	194	0	0
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.93	0.93	0.92	0.92
Hourly flow rate (vph)	0	0	557	209	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	661	661			766	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	661	661			766	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	427	462			848	

Direction, Lane #	NB 1
Volume Total	766
Volume Left	0
Volume Right	209
cSH	1700
Volume to Capacity	0.45
Queue Length 95th (ft)	0
Control Delay (s)	0.0
Lane LOS	
Approach Delay (s)	0.0
Approach LOS	

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	42.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	183	11	0	0	0	0	0	3	0	1	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.92	0.92	0.92	0.38	0.38	0.38	0.25	0.25	0.25
Hourly flow rate (vph)	0	218	13	0	0	0	0	0	8	0	4	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	0			231			226	224	224	232	231	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			231			226	224	224	232	231	0
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	99	100	99	100
cM capacity (veh/h)	1630			1337			730	678	820	720	672	1091

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	231	8	4
Volume Left	0	0	0
Volume Right	13	8	0
cSH	1630	820	672
Volume to Capacity	0.00	0.01	0.01
Queue Length 95th (ft)	0	1	0
Control Delay (s)	0.0	9.4	10.4
Lane LOS		A	B
Approach Delay (s)	0.0	9.4	10.4
Approach LOS		A	B

Intersection Summary					
Average Delay	0.5				
Intersection Capacity Utilization	20.3%	ICU Level of Service		A	
Analysis Period (min)	15				

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	7	17	192	0	0	0	0	169	78	11	363	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.92	0.92	0.92	0.88	0.88	0.88	0.64	0.64	0.64
Hourly flow rate (vph)	8	20	229	0	0	0	0	192	89	17	567	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	838	882	284	793	838	236	567			281		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	838	882	284	793	838	236	567			281		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.3			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.3			2.3		
p0 queue free %	97	93	68	100	100	100	100			99		
cM capacity (veh/h)	260	283	719	178	297	765	954			1250		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1	SB 2
Volume Total	8	249	0	281	206	378
Volume Left	8	0	0	0	17	0
Volume Right	0	229	0	89	0	0
cSH	260	639	1700	1700	1250	1700
Volume to Capacity	0.03	0.39	0.00	0.17	0.01	0.22
Queue Length 95th (ft)	2	46	0	0	1	0
Control Delay (s)	19.3	14.2	0.0	0.0	0.8	0.0
Lane LOS	C	B	A		A	
Approach Delay (s)	14.3		0.0	0.0	0.3	
Approach LOS	B		A			

Intersection Summary					
Average Delay	3.4				
Intersection Capacity Utilization	37.4%	ICU Level of Service		A	
Analysis Period (min)	15				

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	1	98	0	100	108	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.76	0.76	0.56	0.56	0.64	0.64
Hourly flow rate (vph)	1	129	0	179	169	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	347	84	169			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	347	84	169			
tC, single (s)	6.8	6.9	4.4			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.4			
p0 queue free %	100	87	100			
cM capacity (veh/h)	623	958	1310			

Direction, Lane #	EB 1	NB 1	SB 1	SB 2
Volume Total	130	179	84	84
Volume Left	1	0	0	0
Volume Right	129	0	0	0
cSH	953	1700	1700	1700
Volume to Capacity	0.14	0.11	0.05	0.05
Queue Length 95th (ft)	12	0	0	0
Control Delay (s)	9.4	0.0	0.0	0.0
Lane LOS	A			
Approach Delay (s)	9.4	0.0	0.0	
Approach LOS	A			

Intersection Summary				
Average Delay	2.6			
Intersection Capacity Utilization	18.1%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	0	331	78	0	0
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.91	0.91	0.92	0.92
Hourly flow rate (vph)	0	0	364	86	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	407	407			449	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	407	407			449	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	601	644			1111	

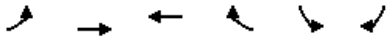
Direction, Lane #	NB 1
Volume Total	449
Volume Left	0
Volume Right	86
cSH	1700
Volume to Capacity	0.26
Queue Length 95th (ft)	0
Control Delay (s)	0.0
Lane LOS	
Approach Delay (s)	0.0
Approach LOS	

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	25.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	59	126	4	0	76	100	0	0	189	17
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.41	0.41	0.41	0.80	0.80	0.80	0.75	0.75	0.75
Hourly flow rate (vph)	0	0	69	307	10	0	95	125	0	0	252	23
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	583	578	137	510	590	125	275			125		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	583	578	137	510	590	125	275			125		
tC, single (s)	7.5	6.5	6.9	7.6	6.6	7.0	4.3			4.4		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.3			2.3		
p0 queue free %	100	100	92	20	97	100	92			100		
cM capacity (veh/h)	365	392	886	384	383	896	1229			1382		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	69	317	220	168	107
Volume Left	0	307	95	0	0
Volume Right	69	0	0	0	23
cSH	886	384	1229	1700	1700
Volume to Capacity	0.08	0.83	0.08	0.10	0.06
Queue Length 95th (ft)	6	188	6	0	0
Control Delay (s)	9.4	46.1	3.9	0.0	0.0
Lane LOS	A	E	A		
Approach Delay (s)	9.4	46.1	3.9	0.0	
Approach LOS	A	E			

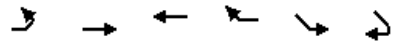
Intersection Summary				
Average Delay	18.3			
Intersection Capacity Utilization	Err%	ICU Level of Service	H	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	225	515	502	274	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.89	0.89	0.87	0.87	0.92	0.92
Hourly flow rate (vph)	253	579	577	315	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	892				1819	734
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	892				1819	734
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	67				100	100
cM capacity (veh/h)	760				57	420

Direction, Lane #	EB 1	EB 2	WB 1
Volume Total	253	579	892
Volume Left	253	0	0
Volume Right	0	0	315
cSH	760	1700	1700
Volume to Capacity	0.33	0.34	0.52
Queue Length 95th (ft)	37	0	0
Control Delay (s)	12.1	0.0	0.0
Lane LOS	B		
Approach Delay (s)	3.7		0.0
Approach LOS			

Intersection Summary			
Average Delay		1.8	
Intersection Capacity Utilization		62.3%	ICU Level of Service B
Analysis Period (min)		15	



Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Volume (veh/h)	2	515	502	0	3	7
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.89	0.89	0.87	0.87	0.69	0.69
Hourly flow rate (vph)	2	579	577	0	4	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	577				1160	577
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	577				1160	577
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				98	98
cM capacity (veh/h)	996				218	520

Direction, Lane #	EB 1	WB 1	WB 2	SE 1
Volume Total	581	577	0	14
Volume Left	2	0	0	4
Volume Right	0	0	0	10
cSH	996	1700	1700	367
Volume to Capacity	0.00	0.34	0.00	0.04
Queue Length 95th (ft)	0	0	0	3
Control Delay (s)	0.1	0.0	0.0	15.2
Lane LOS	A			C
Approach Delay (s)	0.1	0.0		15.2
Approach LOS				C

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	38.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	111	291	12	38	350	124	81	30	115	213	46	314
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.78	0.78	0.78	0.76	0.76	0.76	0.62	0.62	0.62
Hourly flow rate (vph)	131	342	14	49	449	159	107	39	151	344	74	506
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	608			356			1780	1316	349	1407	1243	528
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	608			356			1780	1316	349	1407	1243	528
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	86			96			0	70	78	0	48	8
cM capacity (veh/h)	966			1197			3	132	698	61	144	548

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	487	656	297	344	581
Volume Left	131	49	107	344	0
Volume Right	14	159	151	0	506
cSH	966	1197	7	61	403
Volume to Capacity	0.14	0.04	41.82	5.62	1.44
Queue Length 95th (ft)	12	3	Err	Err	738
Control Delay (s)	3.7	1.1	Err	Err	237.4
Lane LOS	A	A	F	F	F
Approach Delay (s)	3.7	1.1	Err	3866.0	
Approach LOS			F	F	

Intersection Summary				
Average Delay	2769.0			
Intersection Capacity Utilization	96.5%	ICU Level of Service	F	
Analysis Period (min)	15			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	214	0	0	422	0	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.81	0.81	0.92	0.92
Hourly flow rate (vph)	249	0	0	521	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	521	0	0			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	521	0	0			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	52	100	100			
cM capacity (veh/h)	516	1085	1630			

Direction, Lane #	EB 1	NB 1
Volume Total	249	521
Volume Left	249	0
Volume Right	0	0
cSH	516	1700
Volume to Capacity	0.48	0.31
Queue Length 95th (ft)	65	0
Control Delay (s)	18.3	0.0
Lane LOS	C	
Approach Delay (s)	18.3	0.0
Approach LOS	C	

Intersection Summary			
Average Delay	5.9		
Intersection Capacity Utilization	40.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	0	446	190	0	0
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.93	0.93	0.92	0.92
Hourly flow rate (vph)	0	0	480	204	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	582	582			684	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	582	582			684	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	475	513			909	

Direction, Lane #	NB 1
Volume Total	684
Volume Left	0
Volume Right	204
cSH	1700
Volume to Capacity	0.40
Queue Length 95th (ft)	0
Control Delay (s)	0.0
Lane LOS	
Approach Delay (s)	0.0
Approach LOS	

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	38.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	180	10	0	0	0	0	0	2	2	3	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.82	0.82	0.82	0.92	0.92	0.92	0.50	0.50	0.50	0.63	0.63	0.63
Hourly flow rate (vph)	0	220	12	0	0	0	0	0	4	3	5	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	0			232			228	226	226	230	232	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			232			228	226	226	230	232	0
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	100	99	100
cM capacity (veh/h)	1630			1336			728	677	819	726	672	1091

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	232	4	8
Volume Left	0	0	3
Volume Right	12	4	0
cSH	1630	819	693
Volume to Capacity	0.00	0.00	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	9.4	10.3
Lane LOS		A	B
Approach Delay (s)	0.0	9.4	10.3
Approach LOS		A	B

Intersection Summary					
Average Delay	0.5				
Intersection Capacity Utilization	20.1%	ICU Level of Service		A	
Analysis Period (min)	15				

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	40	203	5	2	0	0	197	72	16	377	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.82	0.82	0.82	0.44	0.44	0.44	0.70	0.70	0.70	0.58	0.58	0.58
Hourly flow rate (vph)	24	49	248	11	5	0	0	281	103	28	650	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1040	1089	325	985	1038	333	650			384		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1040	1089	325	985	1038	333	650			384		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.2			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	86	77	63	89	98	100	100			98		
cM capacity (veh/h)	180	210	674	105	227	669	912			1157		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1	SB 2
Volume Total	24	296	11	384	244	433
Volume Left	24	0	11	0	28	0
Volume Right	0	248	0	103	0	0
cSH	180	494	105	1700	1157	1700
Volume to Capacity	0.14	0.60	0.11	0.23	0.02	0.25
Queue Length 95th (ft)	12	97	9	0	2	0
Control Delay (s)	28.2	22.6	43.5	0.0	1.1	0.0
Lane LOS	D	C	E		A	
Approach Delay (s)	23.0		Err	0.0	0.4	
Approach LOS	C		F			

Intersection Summary				
Average Delay	Err			
Intersection Capacity Utilization	Err%	ICU Level of Service	H	
Analysis Period (min)	15			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	9	122	0	170	142	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.74	0.74	0.71	0.71	0.76	0.76
Hourly flow rate (vph)	12	165	0	239	187	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	426	93	187			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	426	93	187			
tC, single (s)	6.8	6.9	4.3			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.3			
p0 queue free %	98	83	100			
cM capacity (veh/h)	562	952	1342			

Direction, Lane #	EB 1	NB 1	SB 1	SB 2
Volume Total	177	239	93	93
Volume Left	12	0	0	0
Volume Right	165	0	0	0
cSH	908	1700	1700	1700
Volume to Capacity	0.19	0.14	0.05	0.05
Queue Length 95th (ft)	18	0	0	0
Control Delay (s)	9.9	0.0	0.0	0.0
Lane LOS	A			
Approach Delay (s)	9.9	0.0	0.0	
Approach LOS	A			

Intersection Summary			
Average Delay	2.9		
Intersection Capacity Utilization	23.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	0	297	93	0	0
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.95	0.95	0.92	0.92
Hourly flow rate (vph)	0	0	313	98	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	362	362			411	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	362	362			411	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	637	683			1148	

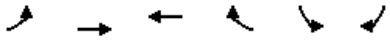
Direction, Lane #	NB 1
Volume Total	411
Volume Left	0
Volume Right	98
cSH	1700
Volume to Capacity	0.24
Queue Length 95th (ft)	0
Control Delay (s)	0.0
Lane LOS	
Approach Delay (s)	0.0
Approach LOS	

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	24.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	0	50	130	6	26	79	138	0	0	213	51
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.77	0.77	0.77	0.56	0.56	0.56	0.74	0.74	0.74	0.80	0.80	0.80
Hourly flow rate (vph)	8	0	65	232	11	46	107	186	0	0	266	64
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	750	698	165	598	730	186	330			186		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	750	698	165	598	730	186	330			186		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.2			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.3			2.2		
p0 queue free %	97	100	92	31	97	94	91			100		
cM capacity (veh/h)	260	334	857	334	318	827	1198			1364		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	73	289	293	178	152
Volume Left	8	232	107	0	0
Volume Right	65	46	0	0	64
cSH	688	369	1198	1700	1700
Volume to Capacity	0.11	0.78	0.09	0.10	0.09
Queue Length 95th (ft)	9	164	7	0	0
Control Delay (s)	10.9	42.4	3.5	0.0	0.0
Lane LOS	B	E	A		
Approach Delay (s)	10.9	42.4	3.5	0.0	
Approach LOS	B	E			

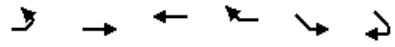
Intersection Summary				
Average Delay	14.3			
Intersection Capacity Utilization	Err%	ICU Level of Service	H	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	196	512	511	224	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.83	0.83	0.95	0.95	0.92	0.92
Hourly flow rate (vph)	236	617	538	236	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	774				1745	656
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	774				1745	656
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	72				100	100
cM capacity (veh/h)	842				68	466

Direction, Lane #	EB 1	EB 2	WB 1
Volume Total	236	617	774
Volume Left	236	0	0
Volume Right	0	0	236
cSH	842	1700	1700
Volume to Capacity	0.28	0.36	0.46
Queue Length 95th (ft)	29	0	0
Control Delay (s)	10.9	0.0	0.0
Lane LOS	B		
Approach Delay (s)	3.0		0.0
Approach LOS			

Intersection Summary			
Average Delay		1.6	
Intersection Capacity Utilization		58.1%	ICU Level of Service B
Analysis Period (min)		15	



Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Volume (veh/h)	10	512	511	6	2	10
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.83	0.83	0.95	0.95	0.70	0.70
Hourly flow rate (vph)	12	617	538	6	3	14
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	544				1179	538
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	544				1179	538
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				99	97
cM capacity (veh/h)	1025				210	547

Direction, Lane #	EB 1	WB 1	WB 2	SE 1
Volume Total	629	538	6	17
Volume Left	12	0	0	3
Volume Right	0	0	6	14
cSH	1025	1700	1700	432
Volume to Capacity	0.01	0.32	0.00	0.04
Queue Length 95th (ft)	1	0	0	3
Control Delay (s)	0.3	0.0	0.0	13.7
Lane LOS	A			B
Approach Delay (s)	0.3	0.0		13.7
Approach LOS				B

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	45.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	99	361	14	51	406	136	77	38	109	207	45	299
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.81	0.81	0.81	0.83	0.83	0.83	0.71	0.71	0.71
Hourly flow rate (vph)	118	430	17	63	501	168	93	46	131	292	63	421
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	669			446			1838	1469	438	1539	1393	585
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	669			446			1838	1469	438	1539	1393	585
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	87			94			0	57	79	0	45	17
cM capacity (veh/h)	916			1109			5	105	621	42	115	505

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	564	732	270	292	485
Volume Left	118	63	93	292	0
Volume Right	17	168	131	0	421
cSH	916	1109	14	42	350
Volume to Capacity	0.13	0.06	19.95	6.91	1.39
Queue Length 95th (ft)	11	5	Err	Err	608
Control Delay (s)	3.3	1.4	Err	Err	220.3
Lane LOS	A	A	F	F	F
Approach Delay (s)	3.3	1.4	Err	3894.0	
Approach LOS			F	F	

Intersection Summary				
Average Delay	2443.5			
Intersection Capacity Utilization	91.2%	ICU Level of Service	F	
Analysis Period (min)	15			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	212	0	0	474	0	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.89	0.89	0.92	0.92
Hourly flow rate (vph)	259	0	0	533	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	533	0	0			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	533	0	0			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	49	100	100			
cM capacity (veh/h)	509	1088	1630			

Direction, Lane #	EB 1	NB 1
Volume Total	259	533
Volume Left	259	0
Volume Right	0	0
cSH	509	1700
Volume to Capacity	0.51	0.31
Queue Length 95th (ft)	71	0
Control Delay (s)	19.1	0.0
Lane LOS	C	
Approach Delay (s)	19.1	0.0
Approach LOS	C	

Intersection Summary			
Average Delay	6.2		
Intersection Capacity Utilization	43.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	0	518	168	0	0
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.93	0.93	0.92	0.92
Hourly flow rate (vph)	0	0	557	181	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	647	647			738	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	647	647			738	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	435	471			868	

Direction, Lane #	NB 1
Volume Total	738
Volume Left	0
Volume Right	181
cSH	1700
Volume to Capacity	0.43
Queue Length 95th (ft)	0
Control Delay (s)	0.0
Lane LOS	
Approach Delay (s)	0.0
Approach LOS	

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	40.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	157	11	0	0	0	0	0	3	0	1	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.92	0.92	0.92	0.38	0.38	0.38	0.25	0.25	0.25
Hourly flow rate (vph)	0	187	13	0	0	0	0	0	8	0	4	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	0			200			195	193	193	201	200	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			200			195	193	193	201	200	0
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	99	100	99	100
cM capacity (veh/h)	1630			1372			765	705	853	754	699	1091

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	200	8	4
Volume Left	0	0	0
Volume Right	13	8	0
cSH	1630	853	699
Volume to Capacity	0.00	0.01	0.01
Queue Length 95th (ft)	0	1	0
Control Delay (s)	0.0	9.3	10.2
Lane LOS		A	B
Approach Delay (s)	0.0	9.3	10.2
Approach LOS		A	B

Intersection Summary					
Average Delay	0.5				
Intersection Capacity Utilization	18.9%	ICU Level of Service		A	
Analysis Period (min)	15				

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	7	17	192	0	0	0	0	195	78	11	363	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.92	0.92	0.92	0.88	0.88	0.88	0.64	0.64	0.64
Hourly flow rate (vph)	8	20	229	0	0	0	0	222	89	17	567	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	867	912	284	823	867	266	567			310		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	867	912	284	823	867	266	567			310		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.3			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.3			2.3		
p0 queue free %	97	93	68	100	100	100	100			99		
cM capacity (veh/h)	247	272	719	169	285	732	954			1219		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1	SB 2
Volume Total	8	249	0	310	206	378
Volume Left	8	0	0	0	17	0
Volume Right	0	229	0	89	0	0
cSH	247	635	1700	1700	1219	1700
Volume to Capacity	0.03	0.39	0.00	0.18	0.01	0.22
Queue Length 95th (ft)	3	47	0	0	1	0
Control Delay (s)	20.1	14.3	0.0	0.0	0.8	0.0
Lane LOS	C	B	A		A	
Approach Delay (s)	14.5		0.0	0.0	0.3	
Approach LOS	B		A			

Intersection Summary					
Average Delay	3.4				
Intersection Capacity Utilization	37.4%	ICU Level of Service		A	
Analysis Period (min)	15				

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	1	98	0	100	108	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.76	0.76	0.56	0.56	0.64	0.64
Hourly flow rate (vph)	1	129	0	179	169	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	347	84	169			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	347	84	169			
tC, single (s)	6.8	6.9	4.4			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.4			
p0 queue free %	100	87	100			
cM capacity (veh/h)	623	958	1310			

Direction, Lane #	EB 1	NB 1	SB 1	SB 2
Volume Total	130	179	84	84
Volume Left	1	0	0	0
Volume Right	129	0	0	0
cSH	953	1700	1700	1700
Volume to Capacity	0.14	0.11	0.05	0.05
Queue Length 95th (ft)	12	0	0	0
Control Delay (s)	9.4	0.0	0.0	0.0
Lane LOS	A			
Approach Delay (s)	9.4	0.0	0.0	
Approach LOS	A			

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	18.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	0	331	78	0	0
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.91	0.91	0.92	0.92
Hourly flow rate (vph)	0	0	364	86	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	407	407			449	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	407	407			449	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	601	644			1111	

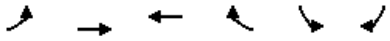
Direction, Lane #	NB 1
Volume Total	449
Volume Left	0
Volume Right	86
cSH	1700
Volume to Capacity	0.26
Queue Length 95th (ft)	0
Control Delay (s)	0.0
Lane LOS	
Approach Delay (s)	0.0
Approach LOS	

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	25.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	59	126	4	0	102	100	0	0	189	17
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.41	0.41	0.41	0.80	0.80	0.80	0.75	0.75	0.75
Hourly flow rate (vph)	0	0	69	307	10	0	128	125	0	0	252	23
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	648	643	137	575	655	125	275			125		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	648	643	137	575	655	125	275			125		
tC, single (s)	7.5	6.5	6.9	7.6	6.6	7.0	4.3			4.4		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.3			2.3		
p0 queue free %	100	100	92	9	97	100	90			100		
cM capacity (veh/h)	320	350	886	337	341	896	1229			1382		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	69	317	252	168	107
Volume Left	0	307	128	0	0
Volume Right	69	0	0	0	23
cSH	886	337	1229	1700	1700
Volume to Capacity	0.08	0.94	0.10	0.10	0.06
Queue Length 95th (ft)	6	243	9	0	0
Control Delay (s)	9.4	70.7	4.6	0.0	0.0
Lane LOS	A	F	A		
Approach Delay (s)	9.4	70.7	4.6	0.0	
Approach LOS	A	F			

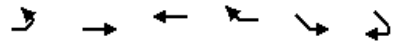
Intersection Summary				
Average Delay	26.6			
Intersection Capacity Utilization	Err%	ICU Level of Service	H	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	199	541	502	274	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.89	0.89	0.87	0.87	0.92	0.92
Hourly flow rate (vph)	224	608	577	315	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	892				1790	734
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	892				1790	734
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	71				100	100
cM capacity (veh/h)	760				63	420

Direction, Lane #	EB 1	EB 2	WB 1
Volume Total	224	608	892
Volume Left	224	0	0
Volume Right	0	0	315
cSH	760	1700	1700
Volume to Capacity	0.29	0.36	0.52
Queue Length 95th (ft)	31	0	0
Control Delay (s)	11.7	0.0	0.0
Lane LOS	B		
Approach Delay (s)	3.1		0.0
Approach LOS			

Intersection Summary			
Average Delay		1.5	
Intersection Capacity Utilization		60.8%	ICU Level of Service
Analysis Period (min)		15	



Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Volume (veh/h)	2	541	502	0	3	7
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.89	0.89	0.87	0.87	0.69	0.69
Hourly flow rate (vph)	2	608	577	0	4	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	577				1189	577
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	577				1189	577
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				98	98
cM capacity (veh/h)	996				209	520

Direction, Lane #	EB 1	WB 1	WB 2	SE 1
Volume Total	610	577	0	14
Volume Left	2	0	0	4
Volume Right	0	0	0	10
cSH	996	1700	1700	360
Volume to Capacity	0.00	0.34	0.00	0.04
Queue Length 95th (ft)	0	0	0	3
Control Delay (s)	0.1	0.0	0.0	15.4
Lane LOS	A			C
Approach Delay (s)	0.1	0.0		15.4
Approach LOS				C

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	40.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	139	291	12	38	350	124	81	30	115	213	46	313
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.78	0.78	0.78	0.76	0.76	0.76	0.62	0.62	0.62
Hourly flow rate (vph)	164	342	14	49	449	159	107	39	151	344	74	505
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	608			356			1844	1382	349	1473	1309	528
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	608			356			1844	1382	349	1473	1309	528
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	83			96			0	66	78	0	41	8
cM capacity (veh/h)	966			1197			2	116	698	51	126	548

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	520	656	297	344	579
Volume Left	164	49	107	344	0
Volume Right	14	159	151	0	505
cSH	966	1197	6	51	384
Volume to Capacity	0.17	0.04	50.93	6.71	1.51
Queue Length 95th (ft)	15	3	Err	Err	783
Control Delay (s)	4.4	1.1	Err	Err	268.3
Lane LOS	A	A	F	F	F
Approach Delay (s)	4.4	1.1	Err	3891.8	
Approach LOS			F	F	

Intersection Summary					
Average Delay	2740.3				
Intersection Capacity Utilization	100.0%	ICU Level of Service		F	
Analysis Period (min)	15				

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	214	0	0	394	0	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.81	0.81	0.92	0.92
Hourly flow rate (vph)	249	0	0	486	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	486	0	0			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	486	0	0			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	54	100	100			
cM capacity (veh/h)	540	1085	1630			

Direction, Lane #	EB 1	NB 1
Volume Total	249	486
Volume Left	249	0
Volume Right	0	0
cSH	540	1700
Volume to Capacity	0.46	0.29
Queue Length 95th (ft)	60	0
Control Delay (s)	17.2	0.0
Lane LOS	C	
Approach Delay (s)	17.2	0.0
Approach LOS	C	

Intersection Summary			
Average Delay	5.8		
Intersection Capacity Utilization	39.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	0	446	162	0	0
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.93	0.93	0.92	0.92
Hourly flow rate (vph)	0	0	480	174	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	567	567			654	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	567	567			654	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	485	523			933	

Direction, Lane #	NB 1
Volume Total	654
Volume Left	0
Volume Right	174
cSH	1700
Volume to Capacity	0.38
Queue Length 95th (ft)	0
Control Delay (s)	0.0
Lane LOS	
Approach Delay (s)	0.0
Approach LOS	

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	36.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	152	10	0	0	0	0	0	2	2	3	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.82	0.82	0.82	0.92	0.92	0.92	0.50	0.50	0.50	0.63	0.63	0.63
Hourly flow rate (vph)	0	185	12	0	0	0	0	0	4	3	5	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	0			198			194	191	191	195	198	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			198			194	191	191	195	198	0
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	100	99	100
cM capacity (veh/h)	1630			1375			766	707	855	765	702	1091

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	198	4	8
Volume Left	0	0	3
Volume Right	12	4	0
cSH	1630	855	726
Volume to Capacity	0.00	0.00	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	9.2	10.0
Lane LOS		A	B
Approach Delay (s)	0.0	9.2	10.0
Approach LOS		A	B

Intersection Summary					
Average Delay	0.6				
Intersection Capacity Utilization	18.6%	ICU Level of Service		A	
Analysis Period (min)	15				

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	40	203	5	2	0	0	225	72	16	377	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.82	0.82	0.82	0.44	0.44	0.44	0.70	0.70	0.70	0.58	0.58	0.58
Hourly flow rate (vph)	24	49	248	11	5	0	0	321	103	28	650	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1080	1129	325	1025	1078	373	650			424		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1080	1129	325	1025	1078	373	650			424		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.2			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	85	75	63	88	98	100	100			98		
cM capacity (veh/h)	168	199	674	97	215	630	912			1117		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1	SB 2
Volume Total	24	296	11	424	244	433
Volume Left	24	0	11	0	28	0
Volume Right	0	248	0	103	0	0
cSH	168	484	97	1700	1117	1700
Volume to Capacity	0.15	0.61	0.12	0.25	0.02	0.25
Queue Length 95th (ft)	12	101	10	0	2	0
Control Delay (s)	30.1	23.5	47.1	0.0	1.1	0.0
Lane LOS	D	C	E		A	
Approach Delay (s)	24.0		Err	0.0	0.4	
Approach LOS	C		F			

Intersection Summary					
Average Delay	Err				
Intersection Capacity Utilization	Err%	ICU Level of Service		H	
Analysis Period (min)	15				

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	9	122	0	170	142	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.74	0.74	0.71	0.71	0.76	0.76
Hourly flow rate (vph)	12	165	0	239	187	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	426	93	187			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	426	93	187			
tC, single (s)	6.8	6.9	4.3			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.3			
p0 queue free %	98	83	100			
cM capacity (veh/h)	562	952	1342			

Direction, Lane #	EB 1	NB 1	SB 1	SB 2
Volume Total	177	239	93	93
Volume Left	12	0	0	0
Volume Right	165	0	0	0
cSH	908	1700	1700	1700
Volume to Capacity	0.19	0.14	0.05	0.05
Queue Length 95th (ft)	18	0	0	0
Control Delay (s)	9.9	0.0	0.0	0.0
Lane LOS	A			
Approach Delay (s)	9.9	0.0	0.0	
Approach LOS	A			

Intersection Summary				
Average Delay		2.9		
Intersection Capacity Utilization		23.7%	ICU Level of Service	A
Analysis Period (min)		15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	0	297	93	0	0
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.95	0.95	0.92	0.92
Hourly flow rate (vph)	0	0	313	98	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	362	362			411	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	362	362			411	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	637	683			1148	

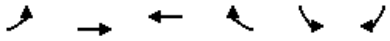
Direction, Lane #	NB 1
Volume Total	411
Volume Left	0
Volume Right	98
cSH	1700
Volume to Capacity	0.24
Queue Length 95th (ft)	0
Control Delay (s)	0.0
Lane LOS	
Approach Delay (s)	0.0
Approach LOS	

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	24.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	0	50	130	6	26	107	138	0	0	213	51
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.77	0.77	0.77	0.56	0.56	0.56	0.74	0.74	0.74	0.80	0.80	0.80
Hourly flow rate (vph)	8	0	65	232	11	46	145	186	0	0	266	64
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	826	774	165	674	806	186	330			186		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	826	774	165	674	806	186	330			186		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.2			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.3			2.2		
p0 queue free %	97	100	92	19	96	94	88			100		
cM capacity (veh/h)	223	292	857	287	278	827	1198			1364		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	73	289	331	178	152
Volume Left	8	232	145	0	0
Volume Right	65	46	0	0	64
cSH	657	320	1198	1700	1700
Volume to Capacity	0.11	0.90	0.12	0.10	0.09
Queue Length 95th (ft)	9	216	10	0	0
Control Delay (s)	11.2	65.4	4.3	0.0	0.0
Lane LOS	B	F	A		
Approach Delay (s)	11.2	65.4	4.3	0.0	
Approach LOS	B	F			

Intersection Summary				
Average Delay	20.7			
Intersection Capacity Utilization	Err%	ICU Level of Service	H	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	168	540	511	224	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.83	0.83	0.95	0.95	0.92	0.92
Hourly flow rate (vph)	202	651	538	236	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	774				1711	656
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	774				1711	656
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	76				100	100
cM capacity (veh/h)	842				76	466

Direction, Lane #	EB 1	EB 2	WB 1
Volume Total	202	651	774
Volume Left	202	0	0
Volume Right	0	0	236
cSH	842	1700	1700
Volume to Capacity	0.24	0.38	0.46
Queue Length 95th (ft)	23	0	0
Control Delay (s)	10.6	0.0	0.0
Lane LOS	B		
Approach Delay (s)	2.5		0.0
Approach LOS			

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	56.5%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Volume (veh/h)	10	540	511	6	2	10
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.83	0.83	0.95	0.95	0.70	0.70
Hourly flow rate (vph)	12	651	538	6	3	14
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	544				1213	538
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	544				1213	538
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				99	97
cM capacity (veh/h)	1025				200	547

Direction, Lane #	EB 1	WB 1	WB 2	SE 1
Volume Total	663	538	6	17
Volume Left	12	0	0	3
Volume Right	0	0	6	14
cSH	1025	1700	1700	425
Volume to Capacity	0.01	0.32	0.00	0.04
Queue Length 95th (ft)	1	0	0	3
Control Delay (s)	0.3	0.0	0.0	13.8
Lane LOS	A			B
Approach Delay (s)	0.3	0.0		13.8
Approach LOS				B

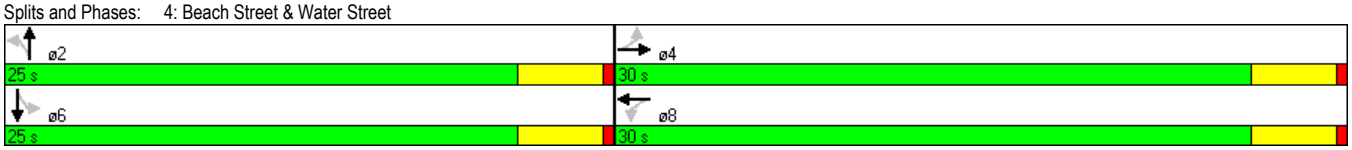
Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	46.4%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	73	361	14	51	406	136	77	38	109	207	45	299
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		613			265			247			241	
Travel Time (s)		13.9			6.0			5.6			5.5	
Peak Hour Factor	0.84	0.84	0.84	0.81	0.81	0.81	0.83	0.83	0.83	0.71	0.71	0.71
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	1%	1%	1%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	534	0	0	732	0	0	270	0	292	484	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	25.0	25.0	0.0	25.0	25.0	0.0
Total Split (%)	54.5%	54.5%	0.0%	54.5%	54.5%	0.0%	45.5%	45.5%	0.0%	45.5%	45.5%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)	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 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
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.76			0.91			0.61		0.73	0.63	
Control Delay		20.9			31.8			15.5		28.2	10.0	
Queue Delay		0.0			0.0			0.0		0.0	0.0	
Total Delay		20.9			31.8			15.5		28.2	10.0	
Queue Length 50th (ft)		132			196			40		79	47	
Queue Length 95th (ft)		213			#337			94		110	66	
Internal Link Dist (ft)		533			185			167			161	
Turn Bay Length (ft)												
Base Capacity (vph)		707			805			442		402	771	
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		0.76			0.91			0.61		0.73	0.63	

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 55
Control Type: Pretimed
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Beach Street & Water Street



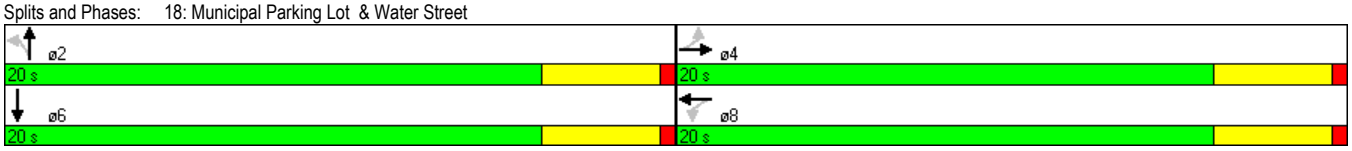
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	73	361	14	51	406	136	77	38	109	207	45	299
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frt		1.00			0.97			0.93		1.00	0.87	
Flt Protected		0.99			1.00			0.98		0.95	1.00	
Satd. Flow (prot)		1822			1780			1728		1719	1573	
Flt Permitted		0.81			0.93			0.57		0.58	1.00	
Satd. Flow (perm)		1491			1662			995		1054	1573	
Peak-hour factor, PHF	0.84	0.84	0.84	0.81	0.81	0.81	0.83	0.83	0.83	0.71	0.71	0.71
Adj. Flow (vph)	87	430	17	63	501	168	93	46	131	292	63	421
RTOR Reduction (vph)	0	2	0	0	20	0	0	62	0	0	170	0
Lane Group Flow (vph)	0	532	0	0	712	0	0	208	0	292	314	0
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	1%	1%	1%	5%	5%	5%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		26.0			26.0			21.0		21.0	21.0	
Effective Green, g (s)		26.0			26.0			21.0		21.0	21.0	
Actuated g/C Ratio		0.47			0.47			0.38		0.38	0.38	
Clearance Time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Grp Cap (vph)		705			786			380		402	601	
v/s Ratio Prot											0.20	
v/s Ratio Perm		0.36			c0.43			0.21		c0.28		
v/c Ratio		0.75			0.91			0.55		0.73	0.52	
Uniform Delay, d1		11.9			13.4			13.3		14.5	13.1	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		7.4			16.1			5.6		10.9	3.2	
Delay (s)		19.2			29.4			18.9		25.5	16.4	
Level of Service		B			C			B		C	B	
Approach Delay (s)		19.2			29.4			18.9			19.8	
Approach LOS		B			C			B			B	

Intersection Summary				
HCM Average Control Delay	22.6	HCM Level of Service	C	
HCM Volume to Capacity ratio	0.83			
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	8.0	
Intersection Capacity Utilization	83.2%	ICU Level of Service	E	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	59	126	4	0	76	100	0	0	189	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		120			125			102			221	
Travel Time (s)		2.7			2.8			2.3			5.0	
Peak Hour Factor	0.86	0.86	0.86	0.41	0.41	0.41	0.80	0.80	0.80	0.75	0.75	0.75
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	10%	10%	10%	13%	13%	13%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	69	0	0	317	0	0	220	0	0	275	0
Turn Type	Perm			Perm			Perm					
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2					
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0			20.0	
Total Split (s)	20.0	20.0	0.0	20.0	20.0	0.0	20.0	20.0	0.0	0.0	20.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	0.0%	50.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5			0.5	
Lost Time Adjust (s)	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 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
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.07			0.64			0.41			0.22	
Control Delay		0.2			17.6			11.6			7.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		0.2			17.6			11.6			7.8	
Queue Length 50th (ft)		0			53			33			17	
Queue Length 95th (ft)		0			38			62			28	
Internal Link Dist (ft)		40			45			22			141	
Turn Bay Length (ft)												
Base Capacity (vph)		935			498			533			1275	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.07			0.64			0.41			0.22	

Intersection Summary	
Area Type:	Other
Cycle Length: 40	
Actuated Cycle Length: 40	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Natural Cycle: 40	
Control Type: Pretimed	

Splits and Phases: 18: Municipal Parking Lot & Water Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	59	126	4	0	76	100	0	0	189	17
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	
Lane Util. Factor		1.00			1.00			1.00			0.95	
Frt		0.86			1.00			1.00			0.99	
Flt Protected		1.00			0.95			0.98			1.00	
Satd. Flow (prot)		1611			1743			1691			3155	
Flt Permitted		1.00			0.68			0.77			1.00	
Satd. Flow (perm)		1611			1247			1334			3155	
Peak-hour factor, PHF	0.86	0.86	0.86	0.41	0.41	0.41	0.80	0.80	0.80	0.75	0.75	0.75
Adj. Flow (vph)	0	0	69	307	10	0	95	125	0	0	252	23
RTOR Reduction (vph)	0	41	0	0	0	0	0	0	0	0	14	0
Lane Group Flow (vph)	0	28	0	0	317	0	0	220	0	0	261	0
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	10%	10%	10%	13%	13%	13%
Turn Type	Perm			Perm			Perm					
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2					
Actuated Green, G (s)		16.0			16.0			16.0			16.0	
Effective Green, g (s)		16.0			16.0			16.0			16.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		644			499			534			1262	
v/s Ratio Prot		0.02									0.08	
v/s Ratio Perm					c0.25			c0.16				
v/c Ratio		0.04			0.64			0.41			0.21	
Uniform Delay, d1		7.3			9.7			8.6			7.8	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.1			6.1			2.3			0.4	
Delay (s)		7.5			15.7			11.0			8.2	
Level of Service		A			B			B			A	
Approach Delay (s)		7.5			15.7			11.0			8.2	
Approach LOS		A			B			B			A	

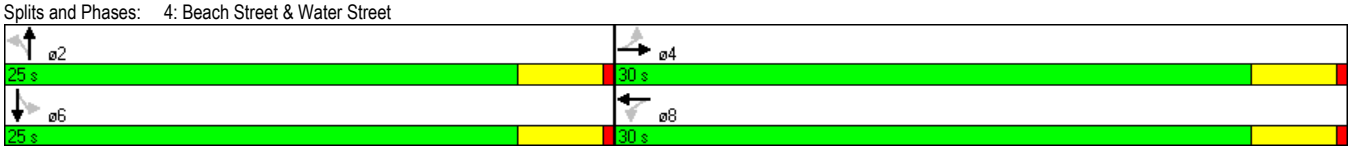
Intersection Summary			
HCM Average Control Delay	11.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	39.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	111	291	12	38	350	124	81	30	115	213	46	314
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		613			265			247			241	
Travel Time (s)		13.9			6.0			5.6			5.5	
Peak Hour Factor	0.85	0.85	0.85	0.78	0.78	0.78	0.76	0.76	0.76	0.62	0.62	0.62
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	0%	0%	0%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	487	0	0	657	0	0	297	0	344	580	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	25.0	25.0	0.0	25.0	25.0	0.0
Total Split (%)	54.5%	54.5%	0.0%	54.5%	54.5%	0.0%	45.5%	45.5%	0.0%	45.5%	45.5%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)	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 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
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.80			0.81			0.89		0.87	0.72	
Control Delay		25.4			21.8			43.6		42.0	12.5	
Queue Delay		0.0			0.0			0.0		0.0	0.0	
Total Delay		25.4			21.8			43.6		42.0	12.5	
Queue Length 50th (ft)		124			159			56		100	61	
Queue Length 95th (ft)		#256			217			#141		110	55	
Internal Link Dist (ft)		533			185			167			161	
Turn Bay Length (ft)												
Base Capacity (vph)		608			815			333		396	809	
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		0.80			0.81			0.89		0.87	0.72	

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 45
Control Type: Pretimed
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Beach Street & Water Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	111	291	12	38	350	124	81	30	115	213	46	314
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			1.00			1.00		1.00	1.00	
Frt		1.00			0.97			0.93		1.00	0.87	
Flt Protected		0.99			1.00			0.98		0.95	1.00	
Satd. Flow (prot)		1813			1778			1738		1752	1603	
Flt Permitted		0.70			0.94			0.39		0.56	1.00	
Satd. Flow (perm)		1282			1682			696		1037	1603	
Peak-hour factor, PHF	0.85	0.85	0.85	0.78	0.78	0.78	0.76	0.76	0.76	0.62	0.62	0.62
Adj. Flow (vph)	131	342	14	49	449	159	107	39	151	344	74	506
RTOR Reduction (vph)	0	2	0	0	21	0	0	68	0	0	197	0
Lane Group Flow (vph)	0	485	0	0	636	0	0	229	0	344	383	0
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	0%	0%	0%	3%	3%	3%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		26.0			26.0			21.0		21.0	21.0	
Effective Green, g (s)		26.0			26.0			21.0		21.0	21.0	
Actuated g/C Ratio		0.47			0.47			0.38		0.38	0.38	
Clearance Time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Grp Cap (vph)		606			795			266		396	612	
v/s Ratio Prot											0.24	
v/s Ratio Perm		c0.38			0.38			0.33		c0.33		
v/c Ratio		0.80			0.80			0.86		0.87	0.63	
Uniform Delay, d1		12.3			12.3			15.7		15.7	13.8	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		10.6			8.3			28.7		21.9	4.8	
Delay (s)		22.9			20.6			44.4		37.7	18.6	
Level of Service		C			C			D		D	B	
Approach Delay (s)		22.9			20.6			44.4			25.7	
Approach LOS		C			C			D			C	

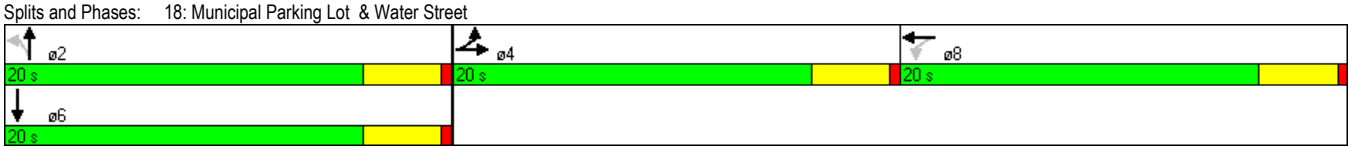
Intersection Summary			
HCM Average Control Delay	26.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	96.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	0	50	130	6	26	79	138	0	0	213	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		120			125			102			221	
Travel Time (s)		2.7			2.8			2.3			5.0	
Peak Hour Factor	0.77	0.77	0.77	0.56	0.56	0.56	0.74	0.74	0.74	0.80	0.80	0.80
Heavy Vehicles (%)	0%	0%	0%	1%	1%	1%	6%	6%	6%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	73	0	0	289	0	0	293	0	0	330	0
Turn Type	Split			Perm			Perm					
Protected Phases	4	4			8			2			6	
Permitted Phases				8			2					
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0			20.0	
Total Split (s)	20.0	20.0	0.0	20.0	20.0	0.0	20.0	20.0	0.0	0.0	20.0	0.0
Total Split (%)	33.3%	33.3%	0.0%	33.3%	33.3%	0.0%	33.3%	33.3%	0.0%	0.0%	33.3%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5			0.5	
Lost Time Adjust (s)	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 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
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.15			0.79			0.82			0.36	
Control Delay		7.1			38.5			42.6			16.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		7.1			38.5			42.6			16.4	
Queue Length 50th (ft)		2			92			99			42	
Queue Length 95th (ft)		21			89			#156			63	
Internal Link Dist (ft)		40			45			22			141	
Turn Bay Length (ft)												
Base Capacity (vph)		491			364			357			925	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.15			0.79			0.82			0.36	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Pretimed
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 18: Municipal Parking Lot & Water Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	0	50	130	6	26	79	138	0	0	213	51
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	
Lane Util. Factor		1.00			1.00			1.00			0.95	
Frt		0.88			0.98			1.00			0.97	
Flt Protected		0.99			0.96			0.98			1.00	
Satd. Flow (prot)		1662			1770			1760			3338	
Flt Permitted		0.99			0.72			0.75			1.00	
Satd. Flow (perm)		1662			1324			1336			3338	
Peak-hour factor, PHF	0.77	0.77	0.77	0.56	0.56	0.56	0.74	0.74	0.74	0.80	0.80	0.80
Adj. Flow (vph)	8	0	65	232	11	46	107	186	0	0	266	64
RTOR Reduction (vph)	0	48	0	0	11	0	0	0	0	0	35	0
Lane Group Flow (vph)	0	25	0	0	278	0	0	293	0	0	295	0
Heavy Vehicles (%)	0%	0%	0%	1%	1%	1%	6%	6%	6%	5%	5%	5%
Turn Type	Split			Perm			Perm					
Protected Phases	4	4			8			2			6	
Permitted Phases				8			2					
Actuated Green, G (s)		16.0			16.0			16.0			16.0	
Effective Green, g (s)		16.0			16.0			16.0			16.0	
Actuated g/C Ratio		0.27			0.27			0.27			0.27	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		443			353			356			890	
v/s Ratio Prot		c0.02									0.09	
v/s Ratio Perm					c0.21			c0.22				
v/c Ratio		0.06			0.79			0.82			0.33	
Uniform Delay, d1		16.4			20.4			20.7			17.7	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.2			16.2			19.0			1.0	
Delay (s)		16.6			36.6			39.7			18.7	
Level of Service		B			D			D			B	
Approach Delay (s)		16.6			36.6			39.7			18.7	
Approach LOS		B			D			D			B	

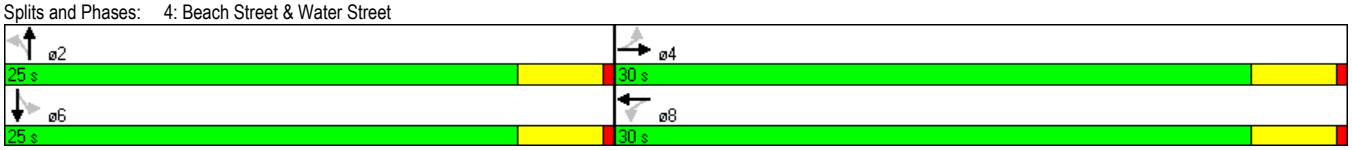
Intersection Summary				
HCM Average Control Delay	30.0	HCM Level of Service	C	
HCM Volume to Capacity ratio	0.56			
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	12.0	
Intersection Capacity Utilization	44.9%	ICU Level of Service	A	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	99	361	14	51	406	136	77	38	109	207	45	299
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		613			265			247			241	
Travel Time (s)		13.9			6.0			5.6			5.5	
Peak Hour Factor	0.84	0.84	0.84	0.81	0.81	0.81	0.83	0.83	0.83	0.71	0.71	0.71
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	1%	1%	1%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	565	0	0	732	0	0	270	0	292	484	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	25.0	25.0	0.0	25.0	25.0	0.0
Total Split (%)	54.5%	54.5%	0.0%	54.5%	54.5%	0.0%	45.5%	45.5%	0.0%	45.5%	45.5%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)	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 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
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.88			0.91			0.61		0.73	0.63	
Control Delay		32.7			32.0			15.5		28.2	10.0	
Queue Delay		0.0			0.0			0.0		0.0	0.0	
Total Delay		32.7			32.0			15.5		28.2	10.0	
Queue Length 50th (ft)		154			196			40		79	47	
Queue Length 95th (ft)		#300			#337			94		110	66	
Internal Link Dist (ft)		533			185			167			161	
Turn Bay Length (ft)												
Base Capacity (vph)		639			804			442		402	771	
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		0.88			0.91			0.61		0.73	0.63	

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 55
Control Type: Pretimed
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Beach Street & Water Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	99	361	14	51	406	136	77	38	109	207	45	299
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			1.00			1.00		1.00	1.00	
Frt		1.00			0.97			0.93		1.00	0.87	
Flt Protected		0.99			1.00			0.98		0.95	1.00	
Satd. Flow (prot)		1818			1780			1728		1719	1573	
Flt Permitted		0.73			0.93			0.57		0.58	1.00	
Satd. Flow (perm)		1346			1659			995		1054	1573	
Peak-hour factor, PHF	0.84	0.84	0.84	0.81	0.81	0.81	0.83	0.83	0.83	0.71	0.71	0.71
Adj. Flow (vph)	118	430	17	63	501	168	93	46	131	292	63	421
RTOR Reduction (vph)	0	2	0	0	20	0	0	62	0	0	170	0
Lane Group Flow (vph)	0	563	0	0	712	0	0	208	0	292	314	0
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	1%	1%	1%	5%	5%	5%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		26.0			26.0			21.0		21.0	21.0	
Effective Green, g (s)		26.0			26.0			21.0		21.0	21.0	
Actuated g/C Ratio		0.47			0.47			0.38		0.38	0.38	
Clearance Time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Grp Cap (vph)		636			784			380		402	601	
v/s Ratio Prot											0.20	
v/s Ratio Perm		0.42			c0.43			0.21		c0.28		
v/c Ratio		0.89			0.91			0.55		0.73	0.52	
Uniform Delay, d1		13.1			13.4			13.3		14.5	13.1	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		16.5			16.4			5.6		10.9	3.2	
Delay (s)		29.7			29.8			18.9		25.5	16.4	
Level of Service		C			C			B		C	B	
Approach Delay (s)		29.7			29.8			18.9			19.8	
Approach LOS		C			C			B			B	

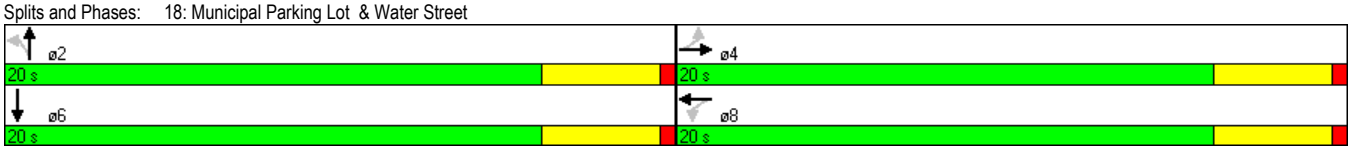
Intersection Summary			
HCM Average Control Delay	25.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	91.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	59	126	4	0	102	100	0	0	189	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		120			125			102			221	
Travel Time (s)		2.7			2.8			2.3			5.0	
Peak Hour Factor	0.86	0.86	0.86	0.41	0.41	0.41	0.80	0.80	0.80	0.75	0.75	0.75
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	10%	10%	10%	13%	13%	13%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	69	0	0	317	0	0	253	0	0	275	0
Turn Type	Perm			Perm			Perm					
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2					
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0			20.0	
Total Split (s)	20.0	20.0	0.0	20.0	20.0	0.0	20.0	20.0	0.0	0.0	20.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	0.0%	50.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5			0.5	
Lost Time Adjust (s)	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 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
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.07			0.64			0.51			0.22	
Control Delay		0.2			17.6			13.4			7.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		0.2			17.6			13.4			7.8	
Queue Length 50th (ft)		0			53			40			17	
Queue Length 95th (ft)		0			38			74			28	
Internal Link Dist (ft)		40			45			22			141	
Turn Bay Length (ft)												
Base Capacity (vph)		935			498			500			1275	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.07			0.64			0.51			0.22	

Intersection Summary

Area Type: Other
Cycle Length: 40
Actuated Cycle Length: 40
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 40
Control Type: Pretimed

Splits and Phases: 18: Municipal Parking Lot & Water Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	59	126	4	0	102	100	0	0	189	17
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	
Lane Util. Factor		1.00			1.00			1.00			0.95	
Frt		0.86			1.00			1.00			0.99	
Flt Protected		1.00			0.95			0.98			1.00	
Satd. Flow (prot)		1611			1743			1685			3155	
Flt Permitted		1.00			0.68			0.72			1.00	
Satd. Flow (perm)		1611			1247			1251			3155	
Peak-hour factor, PHF	0.86	0.86	0.86	0.41	0.41	0.41	0.80	0.80	0.80	0.75	0.75	0.75
Adj. Flow (vph)	0	0	69	307	10	0	128	125	0	0	252	23
RTOR Reduction (vph)	0	41	0	0	0	0	0	0	0	0	14	0
Lane Group Flow (vph)	0	28	0	0	317	0	0	253	0	0	261	0
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	10%	10%	10%	13%	13%	13%
Turn Type	Perm			Perm			Perm					
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2					
Actuated Green, G (s)		16.0			16.0			16.0			16.0	
Effective Green, g (s)		16.0			16.0			16.0			16.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		644			499			500			1262	
v/s Ratio Prot		0.02									0.08	
v/s Ratio Perm					c0.25			c0.20				
v/c Ratio		0.04			0.64			0.51			0.21	
Uniform Delay, d1		7.3			9.7			9.0			7.8	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.1			6.1			3.6			0.4	
Delay (s)		7.5			15.7			12.7			8.2	
Level of Service		A			B			B			A	
Approach Delay (s)		7.5			15.7			12.7			8.2	
Approach LOS		A			B			B			A	

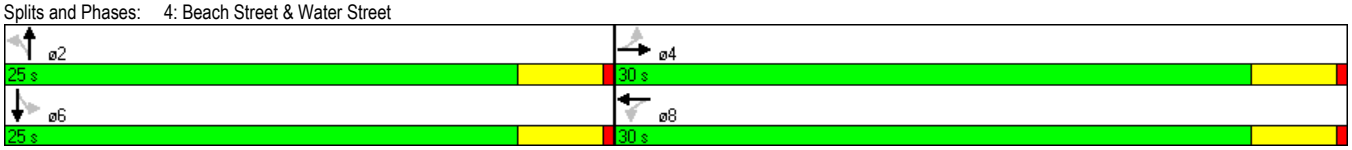
Intersection Summary			
HCM Average Control Delay	12.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	40.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	139	291	12	38	350	124	81	30	115	213	46	313
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		613			265			247			241	
Travel Time (s)		13.9			6.0			5.6			5.5	
Peak Hour Factor	0.85	0.85	0.85	0.78	0.78	0.78	0.76	0.76	0.76	0.62	0.62	0.62
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	0%	0%	0%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	520	0	0	657	0	0	297	0	344	579	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	25.0	25.0	0.0	25.0	25.0	0.0
Total Split (%)	54.5%	54.5%	0.0%	54.5%	54.5%	0.0%	45.5%	45.5%	0.0%	45.5%	45.5%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)	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 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
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.95			0.81			0.89		0.87	0.72	
Control Delay		45.9			22.0			42.6		42.0	12.4	
Queue Delay		0.0			0.0			0.0		0.0	0.0	
Total Delay		45.9			22.0			42.6		42.0	12.4	
Queue Length 50th (ft)		150			160			55		100	61	
Queue Length 95th (ft)		#306			218			#141		110	55	
Internal Link Dist (ft)		533			185			167			161	
Turn Bay Length (ft)												
Base Capacity (vph)		548			813			335		396	809	
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		0.95			0.81			0.89		0.87	0.72	

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 55
Control Type: Pretimed
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Beach Street & Water Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	139	291	12	38	350	124	81	30	115	213	46	313
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			1.00			1.00		1.00	1.00	
Frt		1.00			0.97			0.93		1.00	0.87	
Flt Protected		0.98			1.00			0.98		0.95	1.00	
Satd. Flow (prot)		1809			1778			1738		1752	1603	
Flt Permitted		0.63			0.94			0.39		0.56	1.00	
Satd. Flow (perm)		1157			1676			699		1037	1603	
Peak-hour factor, PHF	0.85	0.85	0.85	0.78	0.78	0.78	0.76	0.76	0.76	0.62	0.62	0.62
Adj. Flow (vph)	164	342	14	49	449	159	107	39	151	344	74	505
RTOR Reduction (vph)	0	2	0	0	21	0	0	68	0	0	197	0
Lane Group Flow (vph)	0	518	0	0	636	0	0	229	0	344	382	0
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	0%	0%	0%	3%	3%	3%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		26.0			26.0			21.0		21.0	21.0	
Effective Green, g (s)		26.0			26.0			21.0		21.0	21.0	
Actuated g/C Ratio		0.47			0.47			0.38		0.38	0.38	
Clearance Time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Grp Cap (vph)		547			792			267		396	612	
v/s Ratio Prot											0.24	
v/s Ratio Perm		c0.45			0.38			0.33		c0.33		
v/c Ratio		0.95			0.80			0.86		0.87	0.62	
Uniform Delay, d1		13.9			12.3			15.6		15.7	13.8	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		27.5			8.5			28.2		21.9	4.8	
Delay (s)		41.4			20.8			43.8		37.7	18.6	
Level of Service		D			C			D		D	B	
Approach Delay (s)		41.4			20.8			43.8			25.7	
Approach LOS		D			C			D			C	

Intersection Summary				
HCM Average Control Delay	30.0	HCM Level of Service	C	
HCM Volume to Capacity ratio	0.91			
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	8.0	
Intersection Capacity Utilization	100.0%	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 Configurations												
Volume (vph)	6	0	50	130	6	26	107	138	0	0	213	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		120			125			102			221	
Travel Time (s)		2.7			2.8			2.3			5.0	
Peak Hour Factor	0.77	0.77	0.77	0.56	0.56	0.56	0.74	0.74	0.74	0.80	0.80	0.80
Heavy Vehicles (%)	0%	0%	0%	1%	1%	1%	6%	6%	6%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	73	0	0	289	0	0	331	0	0	330	0
Turn Type	Split			Perm			Perm					
Protected Phases	4	4			8			2			6	
Permitted Phases				8			2					
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0			20.0	
Total Split (s)	20.0	20.0	0.0	20.0	20.0	0.0	20.0	20.0	0.0	0.0	20.0	0.0
Total Split (%)	33.3%	33.3%	0.0%	33.3%	33.3%	0.0%	33.3%	33.3%	0.0%	0.0%	33.3%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5			0.5	
Lost Time Adjust (s)	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 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
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.15			0.79			1.03			0.36	
Control Delay		7.1			38.5			86.6			16.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		7.1			38.5			86.6			16.4	
Queue Length 50th (ft)		2			92			~126			42	
Queue Length 95th (ft)		21			89			#200			63	
Internal Link Dist (ft)		40			45			22			141	
Turn Bay Length (ft)												
Base Capacity (vph)		491			364			320			925	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.15			0.79			1.03			0.36	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 65
Control Type: Pretimed
~ 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.

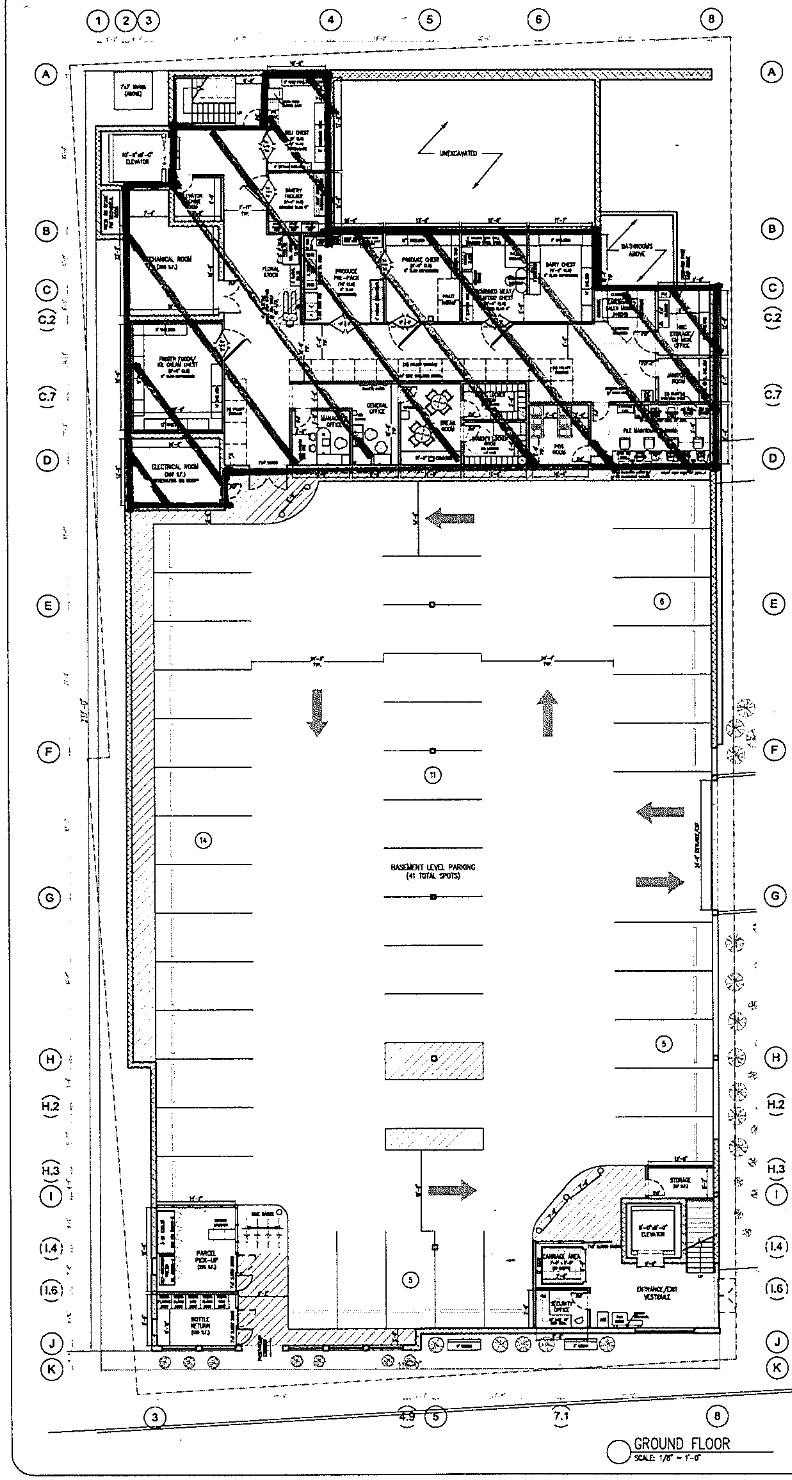
Splits and Phases: 18: Municipal Parking Lot & Water Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	0	50	130	6	26	107	138	0	0	213	51
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	
Lane Util. Factor		1.00			1.00			1.00			0.95	
Frt		0.88			0.98			1.00			0.97	
Flt Protected		0.99			0.96			0.98			1.00	
Satd. Flow (prot)		1662			1770			1754			3338	
Flt Permitted		0.99			0.72			0.67			1.00	
Satd. Flow (perm)		1662			1324			1201			3338	
Peak-hour factor, PHF	0.77	0.77	0.77	0.56	0.56	0.56	0.74	0.74	0.74	0.80	0.80	0.80
Adj. Flow (vph)	8	0	65	232	11	46	145	186	0	0	266	64
RTOR Reduction (vph)	0	48	0	0	11	0	0	0	0	0	35	0
Lane Group Flow (vph)	0	25	0	0	278	0	0	331	0	0	295	0
Heavy Vehicles (%)	0%	0%	0%	1%	1%	1%	6%	6%	6%	5%	5%	5%
Turn Type	Split			Perm			Perm					
Protected Phases	4	4			8			2			6	
Permitted Phases				8			2					
Actuated Green, G (s)		16.0			16.0			16.0			16.0	
Effective Green, g (s)		16.0			16.0			16.0			16.0	
Actuated g/C Ratio		0.27			0.27			0.27			0.27	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		443			353			320			890	
v/s Ratio Prot		c0.02									0.09	
v/s Ratio Perm					c0.21			c0.28				
v/c Ratio		0.06			0.79			1.03			0.33	
Uniform Delay, d1		16.4			20.4			22.0			17.7	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.2			16.2			59.5			1.0	
Delay (s)		16.6			36.6			81.5			18.7	
Level of Service		B			D			F			B	
Approach Delay (s)		16.6			36.6			81.5			18.7	
Approach LOS		B			D			F			B	

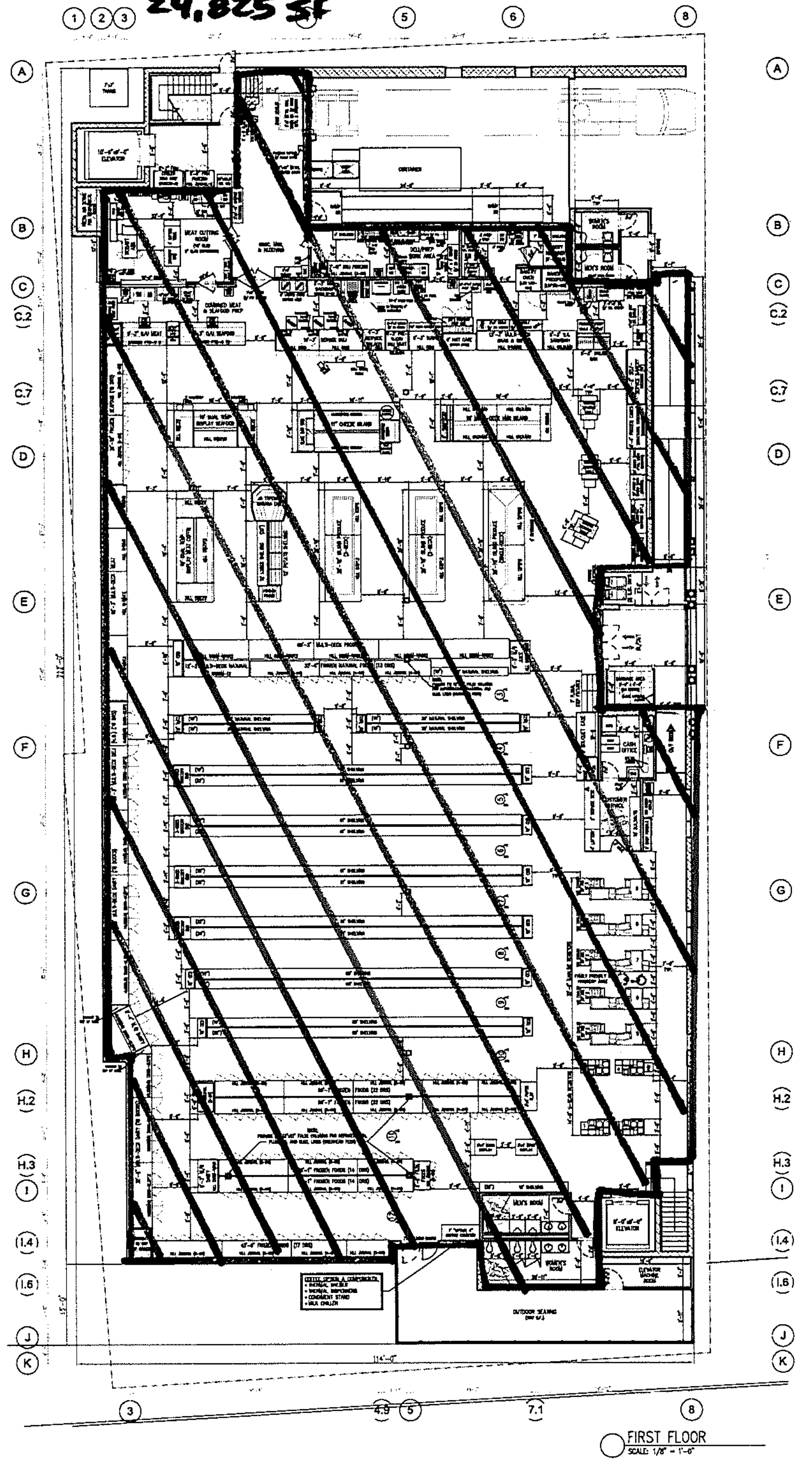
Intersection Summary				
HCM Average Control Delay	43.9	HCM Level of Service	D	
HCM Volume to Capacity ratio	0.63			
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	12.0	
Intersection Capacity Utilization	46.5%	ICU Level of Service	A	
Analysis Period (min)	15			
c Critical Lane Group				

Revised Site Plan

APPROXIMATE AREA 24,825 SF



GROUND FLOOR
SCALE: 1/8" = 1'-0"



FIRST FLOOR
SCALE: 1/8" = 1'-0"

FACILITY ANALYSIS

STOP & SHOP/GIANT FOOD STORES
STORE # 2409

	PROPOSED	EXIST. [illegible]	+/-
BUILDING AREA	21,[illegible] S.F.	9,[illegible] S.F.	-
SALES AREA	15,[illegible] S.F.	6,[illegible] S.F.	-
[illegible] SALES	[illegible]	[illegible]	-
FRONT MEZZANINE AREA	- S.F.	- S.F.	-
REAR MEZZANINE AREA	- S.F.	- S.F.	-
TOTAL MEZZANINE AREA	- S.F.	- S.F.	-
TOTAL BASEMENT AREA	23,[illegible] S.F.	- S.F.	-
TOTAL BUILDING AREA	44,[illegible] S.F.	9,[illegible] S.F.	-
SHELVING			
GROCERY SHELVING (84" H)	740 L.F.	[illegible] L.F.	+112 L.F.
WALL OF VALUES SHELVING	- L.F.	- L.F.	-
SEASONAL DISPLAY AREA	- L.F.	- L.F.	-
COMMERCIAL BAKERY	- L.F.	- L.F.	-
TOTAL SHELVING	740 L.F.	[illegible] L.F.	+112 L.F.
PRODUCE			
PRODUCE ISLAND CASE	120 L.F.	- L.F.	+120 L.F.
PRODUCE S/D WALL CASE	- L.F.	- L.F.	-
PRODUCE M/D WALL CASE	[illegible] L.F.	[illegible] L.F.	+[illegible] L.F.
M/D JUICE CASE	[illegible] L.F.	- L.F.	+[illegible] L.F.
POTATO SHELVING/ISLAND	12 L.F.	- L.F.	+12 L.F.
TOMATO TILT TABLES	- L.F.	- L.F.	-
DRY PRODUCE SHELVING	12 L.F.	- L.F.	+12 L.F.
EURO TABLES	- L.F.	- L.F.	-
ORCHARD BINS	- L.F.	- L.F.	-
SALAD BAR	- L.F.	- L.F.	-
BANANA ISLAND/ENDCAP	12 L.F.	- L.F.	+12 L.F.
SLANT TABLES	- L.F.	- L.F.	-
FARMERS TABLES	- L.F.	- L.F.	-
LOCALLY GROWN FIXTURES	- L.F.	- L.F.	-
TOTAL PRODUCE CASES	210 L.F.	[illegible] L.F.	+1[illegible] L.F.
NATURAL FOODS			
NATURAL SHELVING	118 L.F.	- L.F.	+118 L.F.
NATURAL FROZEN	12 DRS	- DRS	+12 DRS
M/D NAT. DAIRY/PRODUCE	12 L.F.	20 L.F.	-8 L.F.
BAKERY			
SELF-SERVE REFRIG. CASE	10 L.F.	- L.F.	+10 L.F.
SERVICE REFRIG. CASE	- L.F.	- L.F.	-
S.S. ROLL/BAGEL/MUFFIN/DONUT	9 L.F.	- L.F.	+9 L.F.
BREAD BAR	[illegible] L.F.	- L.F.	+[illegible] L.F.
BREAD FIXTURE	- L.F.	- L.F.	-
PACKAGED [illegible]	12 L.F.	- L.F.	+12 L.F.
FROZEN CAKES CASE/COFFIN	[illegible] L.F.	- L.F.	+[illegible] L.F.
FLOOR FIXTURES	24 L.F.	- L.F.	+24 L.F.
TOTAL BAKERY CASES	46 L.F.	- L.F.	+46 L.F.
DELI			
SERVICE DELI CASE	16 L.F.	16 L.F.	-
S.S. DELI MEATS (H.G.)	20 L.F.	- L.F.	+20 L.F.
	10 DRS	- DRS	+10 DRS
DELI CHEESE ISLAND	32 L.F.	- L.F.	+32 L.F.
M/D CHEESE CASE	- L.F.	- L.F.	-
TOTAL DELI CASES	[illegible] L.F.	16 L.F.	+[illegible] L.F.
SEAFOOD			
SERVICE SEAFOOD CASE	- L.F.	- L.F.	-
S.S. SEAFOOD CASE (M/D)	- L.F.	- L.F.	-
OVER/UNDER SEAFOOD CASE	12 L.F.	- L.F.	+12 L.F.
3-DECK SEAFOOD CASE	- L.F.	- L.F.	-
LOBSTER TANK	2 L.F.	- L.F.	+2 L.F.
REACH-IN SEAFOOD (10 DRS)	25 L.F.	- L.F.	+[illegible] L.F.
SEAFOOD COFFIN CASE	30 L.F.	- L.F.	+30 L.F.
TOTAL SEAFOOD CASES	[illegible] L.F.	- L.F.	+[illegible] L.F.
MEAT			
S/D MEAT CASE	- L.F.	- L.F.	-
SERVICE MEAT CASE	- L.F.	- L.F.	-
OVER/UNDER MEAT CASE	8 L.F.	- L.F.	+8 L.F.
M/D MEAT CASE	40 L.F.	3[illegible] L.F.	+[illegible] L.F.
3-DECK MEAT CASE	- L.F.	- L.F.	-
MEAT COFFIN CASE	30 L.F.	- L.F.	+30 L.F.
FROZEN MEAT M/D CASE	- L.F.	- L.F.	-
TOTAL MEAT CASES	[illegible] L.F.	32 L.F.	+[illegible] L.F.
FROZEN FOODS			
FROZEN FOOD REACH-IN CASE	[illegible] DRS	[illegible] DRS	+[illegible] DRS
ICE CREAM REACH-IN CASE	- DRS	- DRS	-
PROMO REACH-IN CASE	4 DRS	- DRS	+4 DRS
FROZEN FOOD COFFIN CASE	- L.F.	- L.F.	-
M/D FROZEN FOOD	- L.F.	- L.F.	-
TOTAL FROZEN FOODS CASES	[illegible] DRS	[illegible] DRS	+[illegible] DRS
DAIRY			
REAR FEED DAIRY CASE	- L.F.	- L.F.	-
M/D DAIRY CASE	7[illegible] L.F.	[illegible] L.F.	+1[illegible] L.F.
	3[illegible] DRS	- DRS	+3[illegible] DRS
M/D DAIRY (PROMO)	[illegible] L.F.	- L.F.	+[illegible] L.F.
REACH-IN DAIRY (- DRS)	- L.F.	- L.F.	-
DAIRY COFFIN CASE	- L.F.	- L.F.	-
TOTAL DAIRY CASES	[illegible] L.F.	[illegible] L.F.	+[illegible] L.F.
BEER			
M/D BEER CASE	- L.F.	- L.F.	-
BEER SHELVING	- L.F.	- L.F.	-
TOTAL BEER CASES	- L.F.	- L.F.	-
FLORAL			
STEP FLORAL DISPLAY AREA	7 L.F.	- L.F.	+7 L.F.
FLORAL BOUQUET CASE	8 L.F.	- L.F.	+8 L.F.
ROSE CASE	4 L.F.	- L.F.	+4 L.F.
REFRIG. FLORAL REACH-IN CASE	- L.F.	- L.F.	-
FLORAL SHELVING	- L.F.	- L.F.	-
S.S. FLORAL BUCKETS	- L.F.	- L.F.	-
FLOOR FIXTURES	- L.F.	- L.F.	-
TOTAL FLORAL CASES	19 L.F.	- L.F.	+19 L.F.
C.O.C./PREP FOODS			
H&R ISLAND	3[illegible] L.F.	- L.F.	+3[illegible] L.F.
QUICK PICKS ISLAND	- L.F.	- L.F.	-
S.S. M/D H&R	- L.F.	- L.F.	-
S.S. M/D QUICK PICKS	- L.F.	- L.F.	-
S.S. M/D PREPARED FOODS	14 L.F.	- L.F.	+14 L.F.
S.S. M/D GRAB & GO	12 L.F.	- L.F.	+12 L.F.
HANDY ZONE/CHICKEN CASE	6 L.F.	- L.F.	+6 L.F.
HOT BUFFET	- L.F.	- L.F.	-
IN-LINE SOUP	[illegible] L.F.	- L.F.	+[illegible] L.F.
CHINESE CASE	- L.F.	- L.F.	-
OLIVE CART/END	7 L.F.	- L.F.	+7 L.F.
SUSHI CASE	6 L.F.	- L.F.	+6 L.F.
TOTAL C.O.C./PREP FOODS CASES	97 L.F.	- L.F.	+97 L.F.
KOSHER FOODS			
KOSHER SHELVING	- L.F.	- L.F.	-
KOSHER FROZEN	- DRS	- DRS	-
M/D KOSHER FOODS	- L.F.	- L.F.	-
CHECK OUTS			
MANNED REGISTERS	3	4	+1
SELF-SCAN REGISTERS	-	-	-
U-SCAN REGISTERS	4	-	+4
DEDICATED SELF-SCAN REGISTERS	-	-	-
BANK SERVICE	- S.F.	- S.F.	-
PHARMACY	- S.F.	- S.F.	-
TREEHOUSE	- S.F.	- S.F.	-

WALL LEGEND:
EXTERIOR WALL
CHEST WALL
INTERIOR STUD WALL
SHELVING

BUDGET MEETING T.B.D.	RED-LINE MEETING T.B.D.
	PLAN DID NOT ATTEND MEETING. NO COMMENTS RECEIVED.
[illegible].2013	PLAN PREPARED FOR GOVERNANCE MEETING TO BE HELD ON [illegible].2013.
	BUILDING FOOTPRINT REVISED AND SENT TO ARCHITECT TO ADJUST STRUCTURAL GRID PER CHANGES ON [illegible].2013.
[illegible].2013	PLAN PREPARED FOR GOVERNANCE MEETING TO BE HELD ON [illegible].2013.
	PLAN UPDATED PER [illegible], MERCHANDISING PLAN REC'D [illegible] ON [illegible].2013.
DATE	REVISION

Ahold USA

Stop & Shop New England

TITLE
PROPOSED FIXTURE PLAN (2013 NEW STORE)
114'-0" x 241'-0" RH
WORKING PLAN - DATED 10.09.2013

LOCATION
STOP & SHOP NEW ENGLAND
50 SOUTH WATER STREET
VINEYARD HAVEN, MA

DRAWN BY	SCALE	DRAWING	STORE NUMBER
CHRIS H	1/8"=1'-0"	F-1	2409
	DATE 02.11.2013		


StopeShop


Stop&Shop