



SOUTHEASTERN REGIONAL PLANNING & ECONOMIC DEVELOPMENT DISTRICT
88 BROADWAY ♦ TAUNTON, MA 02780-2557

Acushnet
Attleboro
Berkley
Carver
Dartmouth
Dighton
Fairhaven
Fall River
Freetown
Lakeville
Marblehead
Marion
Mattapoisett
Middleborough
New Bedford
N. Attleborough
Norfolk
Plainville
Raynham
Rehoboth
Rochester
Seekonk
Somerset
Swansea
Taunton
Wareham
Westport

June 20, 2017

Mr. Eusebio Arruda
Commissioner
1105 Shawmut Avenue
New Bedford, MA 02746

Re: Traffic Signal Warrant Analysis – Acushnet Avenue at Peckham Road and Sassaquin Avenue

Dear Mr. Arruda:

The Southeastern Regional Planning and Economic Development District (SRPEDD) have completed a traffic signal warrants analysis for the intersection of Acushnet Avenue at Peckham Road and Sassaquin Avenue per your request. The results of the analysis indicate that a traffic signal is warranted for the intersection of Acushnet Avenue at Peckham Road and Sassaquin Avenue. Enclosed is a technical memorandum that provides the data and the results of this analysis.

Implementing traffic signals at this location is anticipated to improve traffic operations, but such a project will require approval, design and construction by the Massachusetts Department of Transportation (MassDOT). However, this is the first step in the process for any improvements to be considered at this location.

If you have any questions regarding this information, please contact me or Lisa Estela-Pedro on my staff.

Respectfully,

Paul L. Mission
Transportation Planning Manager

CC: Pamela Hazner, MassDOT District 5
Enclosures

Technical Memorandum

To: Euzebio Arruda, Commissioner
CC: Pam Hazner, MassDOT District 5
From: Paul Mission, Transportation Planning Manager
Date: June 20, 2017
Re: **Traffic Signal Warrant Analysis – Acushnet Avenue @ Peckham Road and Sassaquin Avenue**

The city of New Bedford formally requested a Traffic Signal Warrants Analysis for the intersection of Acushnet Avenue (Route 18) and Peckham Road/Sassaquin Avenue to be completed by the Southeastern Regional Planning and Economic Development District (SRPEDD). The intent of the analysis is to determine if a traffic signal would remedy any existing traffic safety or congestion issues at this intersection.

Existing Conditions

Acushnet Avenue (Route 18) intersects with Peckham Road and Sassaquin Avenue to form a four legged, unsignalized intersection located in the northeast portion of the city of New Bedford (Figure 1). Acushnet Avenue is a two lane roadway classified as an urban minor arterial (U-5) that runs in a north/south direction. Acushnet Avenue is maintained by the city of New Bedford and is eligible for federal aid funding for improvements based on MassDOT's Roadway Inventory Files. Acushnet Avenue is approximately 41 feet wide with lane widths measuring at approximately 13 feet and shoulder widths of approximately 7.5 feet, which serves as a bicycle lane. Directional flow is divided by double yellow line pavement markings and there are no crosswalks at the intersection. The intersection provides access to several commercial, educational, religious and residential properties. The road serves as a connection to Freetown to the north and provides access to Route 140 to the south.

Peckham Road is a stop controlled two lane roadway classified as an urban minor arterial (U-5) with a road width measured at approximately 24 feet. It serves residential properties and is a



Figure 1: Intersection of Acushnet Avenue (Rte. 18) and Peckham Road

direct connection to the town of Acushnet to the east. Sassaquin Avenue is a stop controlled two way roadway classified as a local road (U-0) with a road width measured at approximately 29.5 feet and serves residential properties. There were no pavement markings or shoulders present on Peckham Road or Sassaquin Avenue. Both are maintained by the city of New Bedford and although local roads are not eligible for federal aid funding for improvements based on MassDOT's Roadway Inventory Files, the overall intersection is eligible.

Traffic Volume Data and Analysis

Automated Traffic Recorders (ATRs) were placed at each leg of the intersection on October of 2016 to collect 24-hour volume, class and speed data(Figure 2). This information is necessary to determine if the intersection will require or warrant a traffic signal. The reports indicate that Acushnet Avenue carries approximately 9,200 vehicles per day (vpd) to the north and 12,400 vpd to the south of Peckham Road. Peckham Road carries approximately 4,600 vpd and Sassaquin Avenue carries approximately 780 vpd. The overall results from the ATRs are displayed in Table 1.

Table 1 – Existing Traffic Count Data

LOCATION	Weekday Average		Total
Acushnet Avenue (18) north of Peckham Road	4669 NB	4569 SB	9238
Acushnet Avenue (18) south of Peckham Road	6319 NB	6053 SB	12372
Peckham Road east of Acushnet Avenue (18)	2277 EB	2297 WB	4574
Sassaquin Avenue west of Acushnet Avenue (18)	392 EB	389 WB	781

A two hour Turning Movement Count (TMC) was conducted at the intersection during the PM peak hour (Figure 3), which was determined from the results of the ATR counts. The peak hour is when the volume of traffic is at its highest, usually during commuting times. The PM peak hour occurred between 4:15 to 5:15 PM with a total volume of 1,277 vehicles. During the turning movement count, it was observed that through vehicles on Acushnet Avenue would pass to the right of vehicles stopped to make a left on to Peckham Road.

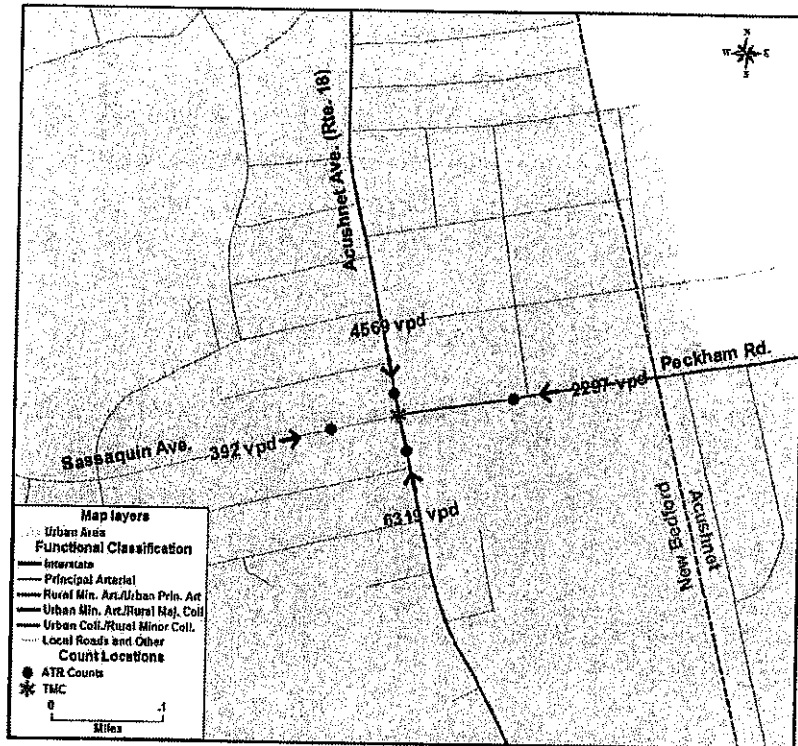


Figure 2: ATR and TMC Locations

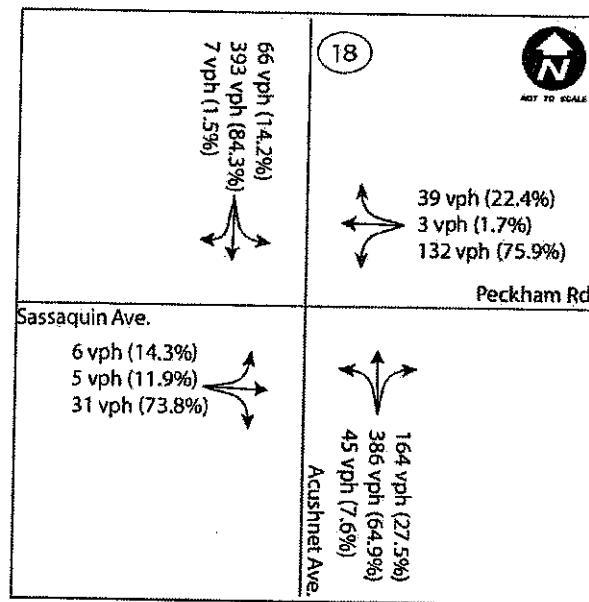


Figure 3: Intersection Turning Movement Count

To determine the extent of the congestion or how efficiently an intersection operates, a Level of Service (LOS) is calculated. LOS is an A to F grading system that describes the amount of congestion present at an intersection based on the average delays experienced by motorists. LOS A represents minimal delay while LOS E and F represent gridlocked conditions.

SRPEDD calculated a level of service using Synchro software which simulates the intersection's current operation. Under the current conditions with a stop sign control at Peckham Road and Sassaquin Avenue, the analysis shows that the intersection operates at a LOS F, with an average delay of 59.6 seconds per vehicle. The current stop control at Peckham Road contributes to the delay encountered at the intersection, which operates at a LOS F with a delay over 120 seconds. Results for the existing conditions displayed in Table 2.

Table 2: Existing Conditions Synchro Analysis

LOCATION	DIRECTION	LOS	DELAY (SEC)	CONTROL
Acushnet Ave. (18)	NB	A	0.8	Free
Acushnet Ave. (18)	SB	A	1.3	Free
Peckham Rd.	WB	F	> 120	Stop
Sassaquin Ave.	EB	C	23.5	Stop
Overall Intersection		F	59.6	

Vehicle Crash Data

Crash data from November 2015 to November 2016 was provided by the New Bedford Police Department. During this period, there was a total of four crashes at the intersection. Of the four crashes, shown in Table 3, three were angle crashes, which indicate that motorists failed to yield right-of-way. The data indicates that weather and visibility were not contributing factors.

To determine if there is a significant crash problem at the intersection, the Equivalent Property Damage Only (EPDO) was calculated. The EPDO index allows intersections to be ranked based on the severity of collisions. Greater importance is given to crashes in which injuries or fatalities have occurred. A point system is applied to each crash: one point for a crash involving vehicular property damage only; five points for a crash that involved one or more personal injuries; and ten points for a crash in which a fatality occurred. An EPDO rate exceeding 15 (the regional average) is considered unacceptable in the SRPEDD area. Using historical crash data from 2011 to 2013, the intersection experienced 12 crashes and calculations indicate that the EPDO crash rate for the intersection is 10.7 indicating there is not a safety issue at the intersection.

Table 3: Crash Data Summary

DAY OF WEEK		MANNER OF COLLISION		CRASH SEVERITY	
Wednesday	1	Angle	3	Injury	2
Friday	2	Unknown	1	PDO	2
Saturday	1				
TIME OF DAY		LIGHT CONDITION		WEATHER	
6AM-10AM	4	Daylight	4	Clear	4
TIME OF YEAR		SURFACE			
Winter (Dec-Feb)	1	Dry	3		
Spring (Mar-May)	1	Ice	1		
Fall (Sep-Nov)	2				

Signal Warrants Analysis

A signal warrants analysis was conducted using PC Warrants software to determine the need for the installation of a traffic signal at this intersection. The analysis is based on a series of thresholds (referred to as warrants) that examine traffic volume and crash data as defined in the MUTCD. The MUTCD is the definitive national authority on the design, placement and use of all traffic controls. The manual defines the parameters to help eliminate the installation of unnecessary, inappropriate, ineffective, and confusing traffic controls. A warrants analysis is generally the first step in determining the need for, and ultimately the installation of traffic control devices.

There are nine warrants considered as part of the analysis, but the satisfaction of a warrant or warrants is not in itself justification to install a signal system. The MUTCD states:

- A traffic signal should not be installed unless an engineering study indicates that installing a traffic control signal will improve the overall safety and/or operation of the intersection,
- A traffic signal should not be installed if it will seriously disrupt progressive traffic flow.

The results of this signal warrants analysis indicates that a traffic signal is warranted at this intersection. Three of the seven warrants evaluated were met including the Eight Hour Warrant which is a major consideration in the decision to install a traffic signal. Although Warrant 1A (Minimum Eight Hour Vehicular Volume) and Warrant 1B (Interruption of Continuous Traffic) of

the Eight- Hour Warrant were not met when evaluated separately at 100 % of the volume, the combination of these two was satisfied to 80 % of the volume as stated in the MUTCD:

1. The vehicles per hour given in either Conditions A or Condition B is met to the 100 % level exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection
2. The vehicles per hour given in both Conditions A and B are met to the 80 % level exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection

The Four-Hour volume (Warrant 2) and Road Network (Warrant 8) were also met. The Signal Warrants Analysis results are shown in Table 4.

Table 4: Signal Warrants Analysis Results

WARRANT	CONSIDERS	RESULTS
Eight-hour volume (#1)	Eight-hour vehicular volume	Satisfied
Four-hour volume (#2)	Four-hour vehicular volume	Satisfied
Peak hour volume (#3)	Volume and delay on minor street	Not Satisfied
Pedestrian volume (#4)	Pedestrian volumes and gaps	Not Satisfied
School Crossing (#5)	Number of children crossing and gaps	Not Evaluated
Coordinated Signal System (#6)	Proximity to nearby traffic control signals	Not Satisfied
Crash Experience (#7)	Crash severity and frequency	Not Satisfied
Road Network (#8)	Projected volumes and roadway characteristic	Satisfied
Intersection Near a Grade Crossing (#9)	Proximity to a Grade Crossing	Not Evaluated

Synchro analyses were conducted for two potential improvement scenarios: a signalized intersection and a signalized intersection with exclusive turn lanes. The exclusive turn lane scenario warrants a left turn lane on Peckham Road and a right turn lane on Acushnet Avenue. Results are shown in Table 5 and 6 for the existing conditions under a signalized configuration and the existing conditions under a signalized intersection with exclusive lanes respectively. Figure 4 displays the volumes for the exclusive lane configuration.

Table 5: Signalized (Existing Conditions) Synchro Analysis

LOCATION	DIRECTION	LOS	DELAY (SEC)
Acushnet Ave. (18)	NB	B	15.6
Acushnet Ave. (18)	SB	B	12.7
Peckham Rd.	WB	B	15.3
Sassaquin Ave.	EB	A	5.9
Overall Intersection		B	14.1

Table 6: Signalized (Exclusive Lanes) Synchro Analysis

LOCATION	DIRECTION	LOS	DELAY (SEC)
Acushnet Ave. (18)	NB	A	7.5
Acushnet Ave. (18)	SB	B	10.7
Peckham Rd.	WB	B	13.4
Sassaquin Ave.	EB	A	6.2
Overall Intersection		A	9.4

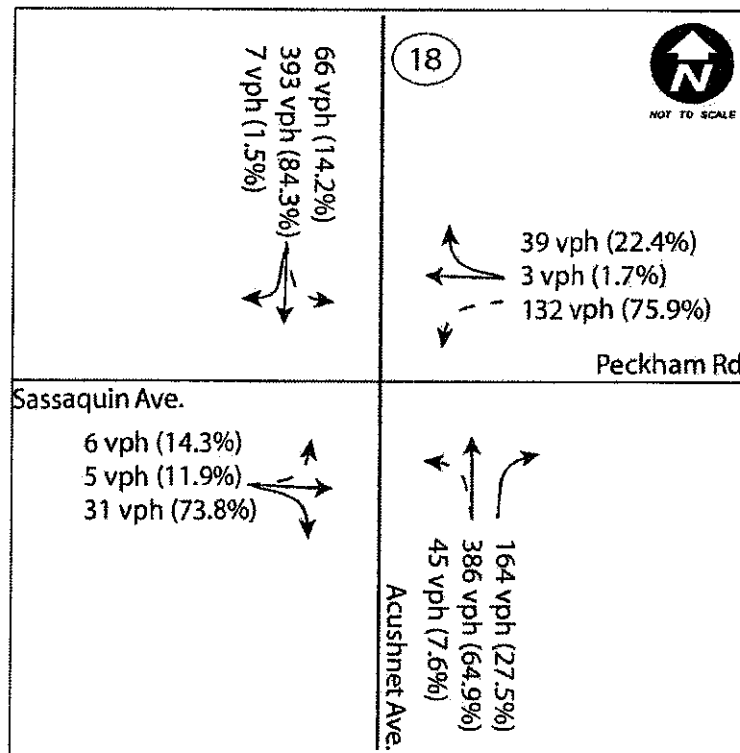


Figure 4: Traffic Volumes under the Exclusive Lane Configuration

The installation of a signal would result in a minimal increase in delay of approximately 14 seconds per vehicle for the signalized scenario and 9 seconds per vehicle for signalized scenario with the exclusive turn lanes at the major approaches of the intersection while reducing the delay for Peckham Road motorists and eliminating driver frustration and congestion. Therefore, a traffic signal at this location will potentially improve safety and operation.

Although the intersection warrants a left turn lane on Peckham Road and a right turn lane on Acushnet Avenue (south of Peckham Road), there is a minimal reduction in delay when comparing the turn lane scenario to the existing conditions with no turn lanes. Furthermore, turn lanes would require land takings while still maintaining bicycle lanes through the intersection.

The decision to proceed with a project is the responsibility of the City of New Bedford. The city should coordinate with MassDOT on how to proceed with a project to install traffic signals at this location. This intersection is eligible for funding through the Transportation Improvement Program (TIP), based on the functional classification. Funding for such a project would be 80% of construction funds from the Federal Highway Administration (FHWA) and 20% from MassDOT provided that the project meets state, federal, and local design requirements. The city would be responsible for the design and any necessary land takings associated with the project. SRPEDD staff is willing and available to assist in this effort.

Appendix

Traffic Count Data and Analysis Reports

SRPEDD

New Bedford

Acushnet Ave. (18) @ Peckham Rd./Sassaquin Ave.

Signal Warrants - Summary

Major Street Approaches

Northbound: ACUSHNET AVENUE (18)

Number of Lanes: 1

Approach Speed: 39

Total Approach Volume: 6,317

Southbound: ACUSHNET AVENUE (18)

Number of Lanes: 1

Approach Speed: 39

Total Approach Volume: 4,679

Minor Street Approaches

Eastbound: SASSAQUIN AVENUE

Number of Lanes: 1

Total Approach Volume: 422

Westbound: PECKHAM ROAD

Number of Lanes: 1

Total Approach Volume: 2,293

Warrant Summary (Urban values apply.)

Warrant 1 - Eight Hour Vehicular Volumes **Satisfied**

Warrant 1A - Minimum Vehicular Volume **Not Satisfied**

Required volumes reached for 3 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic **Not Satisfied**

Required volumes reached for 4 hours, 8 are needed

Warrant 1 A&B - Combination of Warrants **Satisfied**

Required volumes reached for 8 hours, 8 are needed

Warrant 2 - Four Hour Volumes **Satisfied**

Number of hours (4) volumes exceed minimum $\geq$ minimum required (4).

Warrant 3 - Peak Hour **Not Satisfied**

Warrant 3A - Peak Hour Delay **Not Satisfied**

Total approach volumes and delays on minor street do not exceed minimums for any hour.

Warrant 3B - Peak Hour Volumes **Not Satisfied**

Volumes do not exceed minimums for any hour.

Warrant 4 - Pedestrian Volumes **Not Satisfied**

Required 4 Hr pedestrian volume reached for 0 hour(s) and the single hour volume for 0 hour(s)

Warrant 5 - School Crossing **Not Evaluated**

Warrant 6 - Coordinated Signal System **Not Satisfied**

No adjacent coordinated signals are present

Warrant 7 - Crash Experience **Not Satisfied**

Number of accidents (4) is less than minimum (5). Volume minimums are met.

Warrant 8 - Roadway Network **Satisfied**

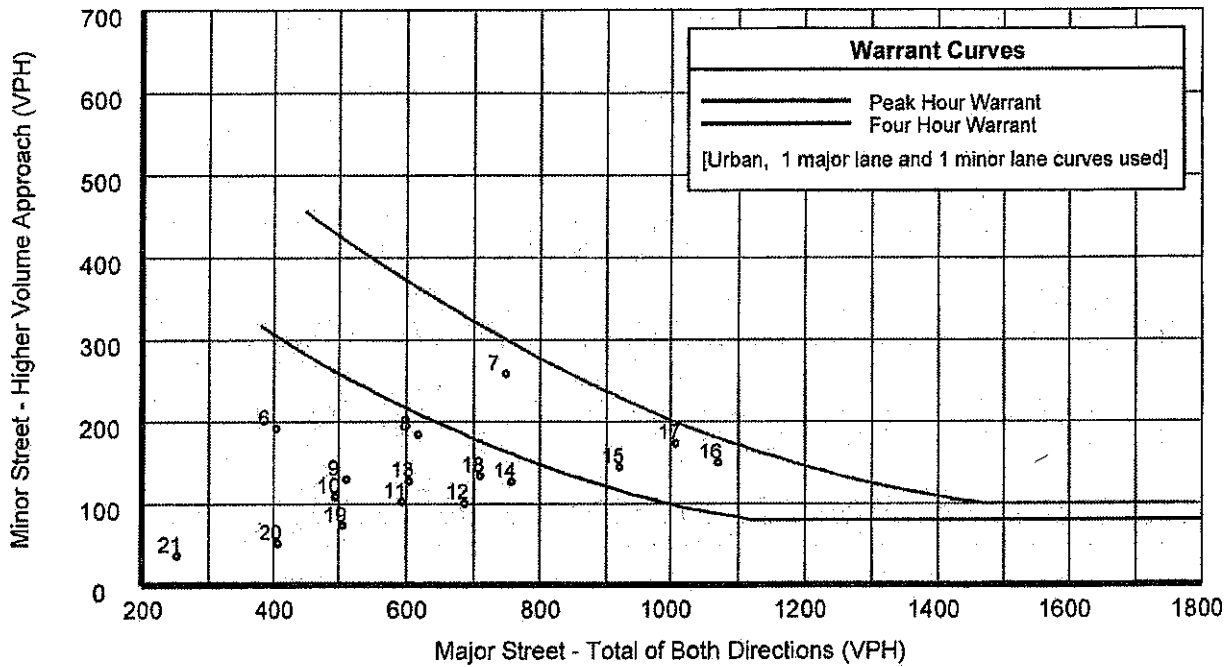
Major Route conditions met. Volume requirements met.

SRPEDD

New Bedford

Acushnet Ave. (18) @ Peckham Rd./Sassaquin Ave.

Signal Warrants - Summary



Analysis of 8-Hour Volume Warrants:

Hour	Major	Higher Minor		War-1A			War-1B			War-1A&B		
Begin	Total	Vol	Dir	Major Crit	Minor Crit	Meets?	Major Crit	Minor Crit	Meets?	Major Crit	Minor Crit	Meets?
00:00	47	7	WB	500-No	150-No	---	750-No	75-No	---	600-No	120-No	---
01:00	25	5	WB	500-No	150-No	---	750-No	75-No	---	600-No	120-No	---
02:00	12	2	WB	500-No	150-No	---	750-No	75-No	---	600-No	120-No	---
03:00	16	4	WB	500-No	150-No	---	750-No	75-No	---	600-No	120-No	---
04:00	63	38	WB	500-No	150-No	---	750-No	75-No	---	600-No	120-No	---
05:00	176	113	WB	500-No	150-No	---	750-No	75-Yes	Minor	600-No	120-No	---
06:00	404	191	WB	500-No	150-Yes	Minor	750-No	75-Yes	Minor	600-No	120-Yes	Minor
07:00	749	258	WB	500-Yes	150-Yes	Both	750-No	75-Yes	Minor	600-Yes	120-Yes	Both
08:00	618	184	WB	500-Yes	150-Yes	Both	750-No	75-Yes	Minor	600-Yes	120-Yes	Both
09:00	512	129	WB	500-Yes	150-No	Major	750-No	75-Yes	Minor	600-No	120-Yes	Minor
10:00	496	108	WB	500-No	150-No	---	750-No	75-Yes	Minor	600-No	120-No	---
11:00	594	102	WB	500-Yes	150-No	Major	750-No	75-Yes	Minor	600-No	120-No	---
12:00	687	100	WB	500-Yes	150-No	Major	750-No	75-Yes	Minor	600-Yes	120-No	Major
13:00	605	127	WB	500-Yes	150-No	Major	750-No	75-Yes	Minor	600-Yes	120-Yes	Both
14:00	758	126	WB	500-Yes	150-No	Major	750-Yes	75-Yes	Both	600-Yes	120-Yes	Both
15:00	921	144	WB	500-Yes	150-No	Major	750-Yes	75-Yes	Both	600-Yes	120-Yes	Both
16:00	1,071	149	WB	500-Yes	150-No	Major	750-Yes	75-Yes	Both	600-Yes	120-Yes	Both
17:00	1,009	173	WB	500-Yes	150-Yes	Both	750-Yes	75-Yes	Both	600-Yes	120-Yes	Both
18:00	710	133	WB	500-Yes	150-No	Major	750-No	75-Yes	Minor	600-Yes	120-Yes	Both
19:00	506	73	WB	500-Yes	150-No	Major	750-No	75-No	---	600-No	120-No	---
20:00	407	61	WB	500-No	150-No	---	750-No	75-No	---	600-No	120-No	---
21:00	252	36	WB	500-No	150-No	---	750-No	75-No	---	600-No	120-No	---
22:00	192	25	WB	500-No	150-No	---	750-No	75-No	---	600-No	120-No	---
23:00	166	15	WB	500-No	150-No	---	750-No	75-No	---	600-No	120-No	---

SRPEDD
88 BROADWAY
TAUNTON MA, 02780

Page 1

Weather: FAIR
Counted by: L.D./K.R.
F.C./Counter#: U-5/27851
Town: NEW BEDFORD

Site Code:
Station ID:
ACUSHNET AVENUE (18)
North of Peckham Road
Latitude: 0° 0.0000 Undefined

Start Time	24-Oct-16		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	*	*	*	*	22	16	18	17	*	*	20	16	*	*	*	*
01:00	*	*	*	*	13	11	8	14	*	*	10	12	*	*	*	*
02:00	*	*	*	*	4	4	8	7	*	*	6	6	*	*	*	*
03:00	*	*	*	*	8	9	4	4	*	*	6	6	*	*	*	*
04:00	*	*	*	*	31	26	30	27	*	*	30	26	*	*	*	*
05:00	*	*	*	*	125	81	97	68	*	*	111	74	*	*	*	*
06:00	*	*	*	*	222	190	196	166	*	*	209	178	*	*	*	*
07:00	*	*	*	*	323	360	329	336	*	*	326	348	*	*	*	*
08:00	*	*	*	*	275	285	296	270	*	*	286	278	*	*	*	*
09:00	*	*	*	*	242	235	225	266	*	*	234	246	*	*	*	*
10:00	*	*	220	237	219	218	210	234	*	*	216	230	*	*	*	*
11:00	*	*	257	243	284	261	253	208	*	*	265	237	*	*	*	*
12:00 PM	*	*	284	262	309	287	*	*	*	*	296	274	*	*	*	*
01:00	*	*	285	305	266	255	*	*	*	*	276	280	*	*	*	*
02:00	*	*	340	314	333	313	*	*	*	*	336	314	*	*	*	*
03:00	*	*	386	418	368	398	*	*	*	*	377	408	*	*	*	*
04:00	*	*	409	464	371	426	*	*	*	*	390	445	*	*	*	*
05:00	*	*	341	370	391	375	*	*	*	*	366	372	*	*	*	*
06:00	*	*	296	287	307	276	*	*	*	*	302	281	*	*	*	*
07:00	*	*	207	194	199	222	*	*	*	*	203	208	*	*	*	*
08:00	*	*	136	105	165	131	*	*	*	*	150	118	*	*	*	*
09:00	*	*	118	104	97	81	*	*	*	*	108	92	*	*	*	*
10:00	*	*	88	62	96	67	*	*	*	*	92	60	*	*	*	*
11:00	*	*	48	68	59	61	*	*	*	*	54	60	*	*	*	*
Total	0	0	3415	3413	4729	4587	1674	1605	0	0	4669	4569	0	0	0	0
Day	0	0	6828		9316		3279		0		9238		0		0	
AM Peak	-	-	11:00	11:00	07:00	07:00	07:00	07:00	-	-	07:00	07:00	-	-	-	-
Vol	-	-	257	243	323	360	329	336	-	-	326	348	-	-	-	-
PM Peak	-	-	16:00	16:00	17:00	16:00	-	-	-	-	16:00	16:00	-	-	-	-
Vol	-	-	409	464	391	426	-	-	-	-	390	445	-	-	-	-

Comb. Total	0	6828	9316	3279	0	9238	0	0
ADT	ADT 9,219	AADT 9,219						

Weather: FAIR
 Counted by: L.D./K.R.
 F.C./Counter#: U-5/30632
 Town: NEW BEDFORD

SRPEDD
 88 BROADWAY
 TAUNTON MA, 02780

Page 1

Site Code:
 Station ID:
 ACUSHNET AVENUE (18)
 South of Peckham Road
 Latitude: 41° 43.9462 North

Start Time	24-Oct-16		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	*	*	*	*	31	20	30	18	*	*	30	19	*	*	*	*
01:00	*	*	*	*	14	12	19	13	*	*	16	12	*	*	*	*
02:00	*	*	*	*	8	6	11	10	*	*	10	8	*	*	*	*
03:00	*	*	*	*	7	13	7	8	*	*	7	10	*	*	*	*
04:00	*	*	*	*	37	48	32	51	*	*	34	50	*	*	*	*
05:00	*	*	*	*	95	162	82	139	*	*	88	150	*	*	*	*
06:00	*	*	*	*	214	329	216	309	*	*	215	319	*	*	*	*
07:00	*	*	*	*	389	587	354	560	*	*	372	574	*	*	*	*
08:00	*	*	*	*	333	442	346	468	*	*	340	455	*	*	*	*
09:00	*	*	*	*	277	348	272	354	*	*	274	351	*	*	*	*
10:00	*	*	286	304	278	283	283	309	*	*	282	299	*	*	*	*
11:00	*	*	306	291	333	332	335	273	*	*	325	299	*	*	*	*
12:00 PM	*	*	380	322	400	328	*	*	*	*	390	324	*	*	*	*
01:00	*	*	360	369	350	359	*	*	*	*	355	364	*	*	*	*
02:00	*	*	456	390	445	388	*	*	*	*	450	389	*	*	*	*
03:00	*	*	545	507	523	450	*	*	*	*	534	478	*	*	*	*
04:00	*	*	620	517	583	481	*	*	*	*	602	499	*	*	*	*
05:00	*	*	598	449	603	450	*	*	*	*	600	450	*	*	*	*
06:00	*	*	430	378	435	354	*	*	*	*	432	366	*	*	*	*
07:00	*	*	338	213	284	233	*	*	*	*	311	223	*	*	*	*
08:00	*	*	236	146	276	171	*	*	*	*	256	158	*	*	*	*
09:00	*	*	186	130	171	90	*	*	*	*	178	110	*	*	*	*
10:00	*	*	122	69	125	88	*	*	*	*	124	78	*	*	*	*
11:00	*	*	83	68	105	69	*	*	*	*	94	68	*	*	*	*
Total	0	0	4946	4153	6316	6041	1987	2512	0	0	6319	6053	0	0	0	0
Day	0	0	9099		12357		4499		0		12372		0		0	
AM Peak	-	-	11:00	10:00	07:00	07:00	07:00	07:00	-	-	07:00	07:00	-	-	-	-
Vol.	-	-	306	304	389	587	354	580	-	-	372	574	-	-	-	-
PM Peak	-	-	16:00	16:00	17:00	16:00	-	-	-	-	16:00	16:00	-	-	-	-
Vol.	-	-	620	517	603	481	-	-	-	-	602	499	-	-	-	-

Comb. Total	0	9099	12357	4499	0	12372	0	0
ADT	ADT 12,316	AADT 12,316						

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Weather: FAIR
Counted by: L.D./K.R.
F.C./Counter#: U-5/25188
Town: NEW BEDFORD

Site Code:
Station ID:
PECKHAM ROAD
East of Acushnet Avenue (18)
Latitude: 0' 0.0000 Undefined

Start Time	24-Oct-16		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	*	*	*	*	12	7	12	8	*	*	12	5	*	*	*	*
01:00	*	*	*	*	8	5	10	2	*	*	9	4	*	*	*	*
02:00	*	*	*	*	2	2	2	2	*	*	2	2	*	*	*	*
03:00	*	*	*	*	1	4	3	5	*	*	2	4	*	*	*	*
04:00	*	*	*	*	17	38	18	34	*	*	18	38	*	*	*	*
05:00	*	*	*	*	26	113	20	98	*	*	23	106	*	*	*	*
06:00	*	*	*	*	65	191	69	175	*	*	67	183	*	*	*	*
07:00	*	*	*	*	99	258	88	271	*	*	94	254	*	*	*	*
08:00	*	*	*	*	104	184	116	219	*	*	110	202	*	*	*	*
09:00	*	*	*	*	82	129	97	127	*	*	90	128	*	*	*	*
10:00	*	*	*	*	94	108	94	109	*	*	94	108	*	*	*	*
11:00	*	*	95	91	89	102	86	93	*	*	90	95	*	*	*	*
12:00 PM	*	*	116	110	130	100	93	85	*	*	113	98	*	*	*	*
01:00	*	*	114	100	118	127	*	*	*	*	116	114	*	*	*	*
02:00	*	*	153	153	157	126	*	*	*	*	155	140	*	*	*	*
03:00	*	*	229	185	221	144	*	*	*	*	225	164	*	*	*	*
04:00	*	*	258	145	232	152	*	*	*	*	244	148	*	*	*	*
05:00	*	*	282	154	243	169	*	*	*	*	262	158	*	*	*	*
06:00	*	*	178	147	177	133	*	*	*	*	178	140	*	*	*	*
07:00	*	*	138	58	146	73	*	*	*	*	142	68	*	*	*	*
08:00	*	*	100	70	105	51	*	*	*	*	102	60	*	*	*	*
09:00	*	*	59	33	68	36	*	*	*	*	64	34	*	*	*	*
10:00	*	*	30	27	39	25	*	*	*	*	34	26	*	*	*	*
11:00	*	*	30	12	32	15	*	*	*	*	31	14	*	*	*	*
Total	0	0	1780	1285	2267	2282	708	1223	0	0	2277	2297	0	0	0	0
Day	0	0	3065		4549		1931		0	0	4574		0	0	0	
AM Peak	-	-	11:00	11:00	08:00	07:00	08:00	07:00	-	-	08:00	07:00	-	-	-	-
Vol.	-	-	95	91	104	258	116	271	-	-	110	264	-	-	-	-
PM Peak	-	-	17:00	15:00	17:00	17:00	12:00	12:00	-	-	17:00	15:00	-	-	-	-
Vol.	-	-	282	185	243	159	93	85	-	-	262	164	-	-	-	-

Comb. Total	0	3065	4549	1931	0	4574	0	0
ADT	ADT 4,587	AADT 4,587						

SRPEDD
88 BROADWAY
TAUNTON MA, 02780

Page 1

Weather: FAIR
Counted by: L.D./K.R.
F.C./Counter#: U-012679
Town: NEW BEDFORD

Site Code:
Station ID:
SASSAQUIN AVENUE
West of Acushnet Avenue (18)
Latitude: 0' 0.0000 Undefined

Start Time	24-Oct-16		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	*	*	*	*	2	2	2	3	*	*	2	2	*	*	*	*
01:00	*	*	*	*	2	0	1	2	*	*	2	1	*	*	*	*
02:00	*	*	*	*	0	3	0	1	*	*	0	2	*	*	*	*
03:00	*	*	*	*	1	0	0	0	*	*	0	0	*	*	*	*
04:00	*	*	*	*	4	2	5	0	*	*	4	1	*	*	*	*
05:00	*	*	*	*	12	1	12	0	*	*	12	0	*	*	*	*
06:00	*	*	*	*	25	7	21	5	*	*	23	6	*	*	*	*
07:00	*	*	*	*	41	13	51	11	*	*	46	12	*	*	*	*
08:00	*	*	*	*	32	14	35	14	*	*	34	14	*	*	*	*
09:00	*	*	*	*	25	10	16	11	*	*	20	10	*	*	*	*
10:00	*	*	*	*	22	14	19	19	*	*	20	16	*	*	*	*
11:00	*	*	21	17	19	13	23	20	*	*	21	17	*	*	*	*
12:00 PM	*	*	22	23	22	25	27	22	*	*	24	23	*	*	*	*
01:00	*	*	22	20	28	24	*	*	*	*	25	22	*	*	*	*
02:00	*	*	17	34	21	35	*	*	*	*	19	34	*	*	*	*
03:00	*	*	23	33	23	28	*	*	*	*	23	30	*	*	*	*
04:00	*	*	24	30	23	42	*	*	*	*	24	36	*	*	*	*
05:00	*	*	21	38	34	43	*	*	*	*	28	40	*	*	*	*
06:00	*	*	23	38	26	40	*	*	*	*	24	39	*	*	*	*
07:00	*	*	13	25	23	27	*	*	*	*	18	26	*	*	*	*
08:00	*	*	10	22	16	21	*	*	*	*	13	22	*	*	*	*
09:00	*	*	4	17	5	18	*	*	*	*	4	18	*	*	*	*
10:00	*	*	6	12	3	7	*	*	*	*	4	10	*	*	*	*
11:00	*	*	1	7	2	9	*	*	*	*	2	8	*	*	*	*
Total	0	0	207	316	411	398	212	108	0	0	392	389	0	0	0	0
Day	0		523		809		320		0		781		0		0	
AM Peak	-	-	11:00	11:00	07:00	08:00	07:00	11:00	-	-	07:00	11:00	-	-	-	-
Vol.	-	-	21	17	41	14	51	20	-	-	46	17	-	-	-	-
PM Peak	-	-	16:00	17:00	17:00	17:00	12:00	12:00	-	-	17:00	17:00	-	-	-	-
Vol.	-	-	24	38	34	43	27	22	-	-	28	40	-	-	-	-

Comb. Total	0	523	809	320	0	781	0	0
ADT	ADT 781	AADT 781						

SRPEDD

88 BROADWAY
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(508) 824-1367

New Bedford
Acushnet Ave (18) @ Peckham/Sassaquin
K.R.
Clear

File Name : nbacushnet18@peckhamsassaquinpm
Site Code : 00000000
Start Date : 11/1/2016
Page No : 1

Groups Printed- Unshifted

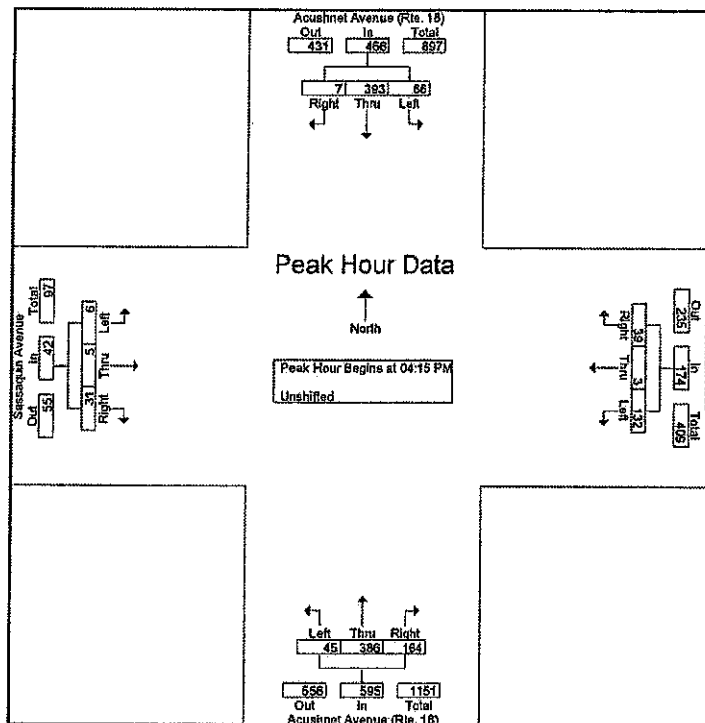
Start Time	Acushnet Avenue (Rte. 18) Southbound					Peckham Road Westbound					Acushnet Avenue (Rte. 18) Northbound					Sassaquin Avenue Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
04:00 PM	2	89	15	0	106	8	0	20	0	28	58	91	11	9	169	5	0	1	0	6	309
04:15 PM	2	109	17	0	128	8	2	19	0	29	43	109	16	0	168	6	0	1	0	7	332
04:30 PM	1	96	19	0	116	10	1	37	0	48	47	103	8	0	158	7	3	2	0	12	334
04:45 PM	2	86	18	0	106	9	0	35	1	45	37	76	16	0	129	10	0	2	1	13	293
Total	7	380	69	0	456	35	3	111	1	150	185	379	51	9	624	28	3	6	1	38	1268
05:00 PM	2	102	12	2	118	12	0	41	0	53	37	98	5	0	140	8	2	1	0	11	322
05:15 PM	3	93	9	0	105	11	0	25	0	36	60	103	5	0	168	3	0	0	0	3	312
05:30 PM	2	109	10	1	122	13	2	32	0	47	40	91	14	0	145	7	1	0	0	8	322
05:45 PM	4	82	9	0	95	4	0	33	0	37	45	63	11	0	119	5	1	3	0	9	260
Total	11	386	40	3	440	40	2	131	0	173	182	355	35	0	572	23	4	4	0	31	1216
Grand Total	18	766	109	3	896	75	5	242	1	323	367	734	86	9	1196	51	7	10	1	69	2484
Approch %	2	85.5	12.2	0.3		23.2	1.5	74.9	0.3		30.7	61.4	7.2	0.8		73.9	10.1	14.5	1.4		
Total %	0.7	30.8	4.4	0.1	36.1	3	0.2	9.7	0	13	14.8	29.5	3.5	0.4	48.1	2.1	0.3	0.4	0	2.8	

Start Time	Acushnet Avenue (Rte. 18) Southbound					Peckham Road Westbound					Acushnet Avenue (Rte. 18) Northbound					Sassaquin Avenue Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	2	109	17	0	128	8	2	19	0	29	43	109	16	0	168	6	0	1	0	7	332
04:30 PM	1	96	19	0	116	10	1	37	0	48	47	103	8	0	158	7	3	2	0	12	334
04:45 PM	2	86	18	0	106	9	0	35	1	45	37	76	16	0	129	10	0	2	1	13	293
05:00 PM	2	102	12	2	118	12	0	41	0	53	37	98	5	0	140	8	2	1	0	11	322
Total Volume	7	386	40	3	440	40	2	131	0	173	182	355	35	0	572	23	4	4	0	31	1216
% App. Total	1.5	84.3	14.2			22.4	1.7	75.9			27.6	64.9	7.8			73.8	11.9	14.3			
PHF	.675	.901	.868		.910	.613	.375	.805		.821	.672	.885	.703		.885	.775	.417	.750		.675	.958

SRPENN
 88 BROADWAY
 TAUNTON, MA, 02780
 (508) 824-1367

New Bedford
 Acushnet Ave (18) @ Peckham/Sassaquin
 K.R.
 Clear

File Name : nbacushnet18@peckhamsassaquinpm
 Site Code : 00000000
 Start Date : 11/1/2016
 Page No : 2

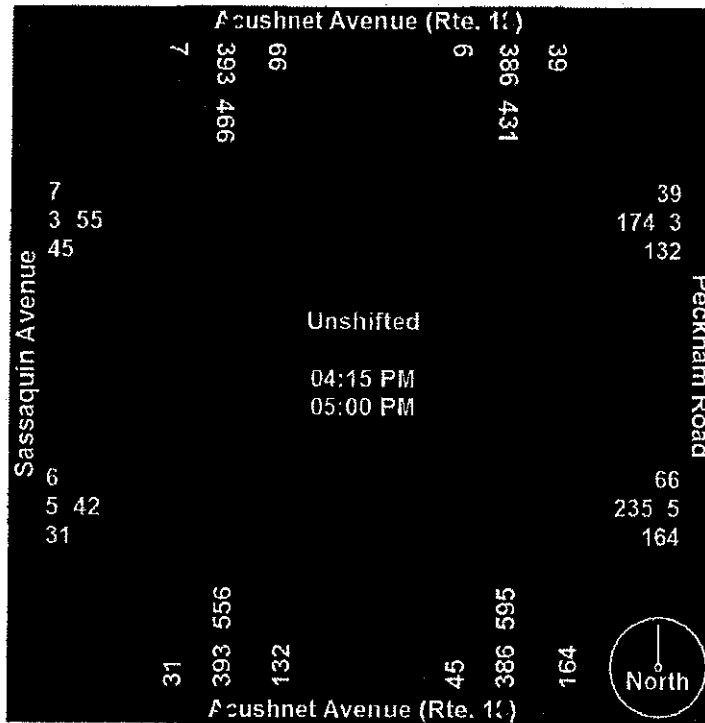


SRPEDD

88 BROADWAY
TAUNTON, MA, 02780
(508) 824-1367

New Bedford
Acushnet Ave (18) @ Peckham/Sassaquin
K.R.
Clear

File Name : nbacushnet18@peckhamsassaquinpm
Site Code : 00000000
Start Date : 11/1/2016
Page No : 3



Intersection

Int Delay, s/veh 59.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	6	5	31	132	3	39	45	386	164	66	393	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	42	78	81	38	81	70	89	87	87	90	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	12	40	163	8	48	64	434	189	76	437	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1277	1343	441	1275	1253	528	445	0	0	622	0	0
Stage 1	592	592	-	657	657	-	-	-	-	-	-	-
Stage 2	685	751	-	618	596	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	143	152	616	~ 144	172	550	1115	-	-	959	-	-
Stage 1	493	494	-	454	462	-	-	-	-	-	-	-
Stage 2	438	418	-	477	492	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	107	124	616	~ 107	140	550	1115	-	-	959	-	-
Mov Cap-2 Maneuver	107	124	-	~ 107	140	-	-	-	-	-	-	-
Stage 1	448	442	-	413	420	-	-	-	-	-	-	-
Stage 2	356	380	-	389	440	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	23.5	\$ 392.3	0.8	1.3
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR
Capacity (veh/h)	1115	-	-	254	131	959	-	-	-	-	-	-
HCM Lane V/C Ratio	0.058	-	-	0.235	1.672	0.079	-	-	-	-	-	-
HCM Control Delay (s)	8.4	0	-	23.5	\$ 392.3	9.1	0	-	-	-	-	-
HCM Lane LOS	A	A	-	C	F	A	A	-	-	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.9	16.1	0.3	-	-	-	-	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

New Bedford

Acushnet Ave. (18) @ Peckham Rd./Sassaquin Ave.

PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔				↔			↔			↔	
Volume (vph)	6	5	31	132	3	39	45	386	164	66	393	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	13	13	13	13	13	13
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.910			0.970			0.963			0.998	
Flt Protected		0.993			0.964			0.995			0.993	
Satd. Flow (prot)	0	1683	0	0	1742	0	0	1844	0	0	1908	0
Flt Permitted		0.941			0.742			0.921			0.851	
Satd. Flow (perm)	0	1595	0	0	1341	0	0	1707	0	0	1635	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		40			37			51			2	
Link Speed (mph)		30			40			40			40	
Link Distance (ft)		348			364			234			280	
Travel Time (s)		7.9			6.2			4.0			4.8	
Peak Hour Factor	0.75	0.42	0.78	0.81	0.38	0.81	0.70	0.89	0.87	0.87	0.90	0.88
Adj. Flow (vph)	8	12	40	163	8	48	64	434	189	76	437	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	60	0	0	219	0	0	687	0	0	521	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
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)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	

Existing Condition Signalized

Synchro 9 Report
Page 1

New Bedford
Acushnet Ave. (18) @ Peckham Rd./Sassaquin Ave.

PM Peak



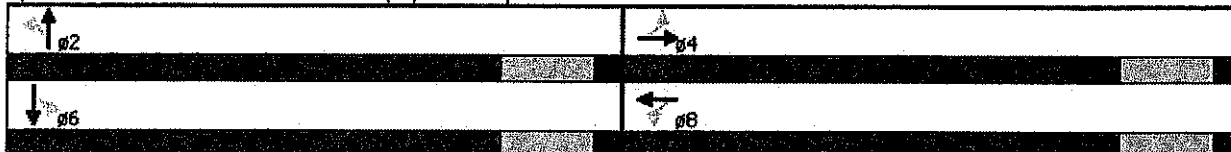
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		10.4			10.4			22.2			22.2	
Actuated g/C Ratio		0.27			0.27			0.58			0.58	
v/c Ratio		0.13			0.56			0.68			0.55	
Control Delay		5.9			15.3			15.6			12.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		5.9			15.3			15.6			12.7	
LOS		A			B			B			B	
Approach Delay		5.9			15.3			15.6			12.7	
Approach LOS		A			B			B			B	

Intersection Summary

Area Type: Other
 Cycle Length: 45
 Actuated Cycle Length: 38.3
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.68
 Intersection Signal Delay: 14.1
 Intersection Capacity Utilization 64.0%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 6: Acushnet Avenue (18) & Sassaquin Avenue/Peckham Road



New Bedford

Acushnet Ave. (18) @ Peckham Rd./Sassaquin Ave.

PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↔		↔	↔		↔	↔	
Volume (vph)	6	5	31	132	3	39	45	386	164	66	393	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	13	13	13	13	13	13
Storage Length (ft)	0		0	100		0	0		100	0		0
Storage Lanes	0		0	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.910			0.871				0.850		0.998	
Flt Protected		0.993		0.950				0.994			0.993	
Satd. Flow (prot)	0	1683	0	1770	1622	0	0	1913	1636	0	1908	0
Flt Permitted		0.959		0.718				0.896			0.882	
Satd. Flow (perm)	0	1626	0	1337	1622	0	0	1725	1636	0	1694	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		40			48				189		2	
Link Speed (mph)		30			40			40			40	
Link Distance (ft)		348			364			234			280	
Travel Time (s)		7.9			6.2			4.0			4.8	
Peak Hour Factor	0.75	0.42	0.78	0.81	0.38	0.81	0.70	0.89	0.87	0.87	0.90	0.88
Adj. Flow (vph)	8	12	40	163	8	48	64	434	189	76	437	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	60	0	163	56	0	0	498	189	0	521	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		

Signalized with Turn Lanes

Synchro 9 Report
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New Bedford
Acushnet Ave. (18) @ Peckham Rd./Sassaquin Ave.

PM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5	22.5	22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5	22.5	22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	50.0%	50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0	18.0	18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)		4.5		4.5	4.5		4.5	4.5	4.5		4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None		Min	Min	Min	Min	Min	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	
Act Effct Green (s)		9.7		9.8	9.8		22.3	22.3			22.3	
Actuated g/C Ratio		0.26		0.26	0.26		0.59	0.59			0.59	
v/c Ratio		0.13		0.47	0.12		0.49	0.18			0.52	
Control Delay		6.2		16.3	5.1		9.6	2.1			10.7	
Queue Delay		0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay		6.2		16.3	5.1		9.6	2.1			10.7	
LOS		A		B	A		A	A			B	
Approach Delay		6.2			13.4		7.5				10.7	
Approach LOS		A			B		A				B	

Intersection Summary

Area Type: Other
 Cycle Length: 45
 Actuated Cycle Length: 37.5
 Natural Cycle: 50
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.52
 Intersection Signal Delay: 9.4
 Intersection Capacity Utilization 72.8%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service C

Splits and Phases: 6: Acushnet Avenue (18) & Sassaquin Avenue/Peckham Road

