12/3/13

Walgreens / Liquor Store
Key Biscayne

traffic study

prepared for:
Bohler Engineering

Traf Tech
ENGINEERING, INC.

November 27, 2013

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PROJECT LOCATION MAP

FIGURE 1
Walgreens/Liquor Store
Key Biscayne, Florida

EXISTING CONDITIONS

This section addresses the roadway system surrounding the project site and intersections.

Roadway System

The transportation network located in the vicinity of the project site includes one main roadway and two local facilities that primarily function as access streets to nearby land uses. The main roadway includes Crandon Boulevard, a major north-south arterial roadway linking Key Biscayne with the City of Miami. Crandon Boulevard is a four-lane roadway with a posted speed limit of 30 miles per hour near Harbor Drive. Bicycle lanes are provided along Crandon Boulevard. Additionally, Miami-Dade Transit Route B travels north and south along Crandon Boulevard and Harbor Drive within the Village of Key Biscayne. Route B travels between the Brickell Metrorail station/Brickell Business District and the Village of Key Biscayne/Cape Florida State Park. Bus stops with shelters and dedicated bus bays are provided on both sides of Crandon Boulevard just north of Harbor Drive/Ocean Lane Drive.

The local streets include Harbor Drive and Ocean Lane Drive. Ocean Lane Drive is located east of Crandon Boulevard and provides two lanes in each direction and has a raised median separating both travel directions. The posted speed limit on Ocean Lane Drive is 20 miles per hour.

Study Intersection

For purposes of this study, one intersection located in the vicinity of the project was selected for analysis purposes. The study intersection is described below:

1. *Crandon Boulevard and Harbor Drive/Ocean Lane Drive*: This is a signalized intersection.

Figure 2 depicts the number of lanes on the roadways located within the study area of the proposed project. The turning lanes provided at the study intersection selected for analysis purposes are also illustrated in the figure.

TRAFFIC COUNTS

Traf Tech Engineering, Inc., in association with Crossroads Engineering Data, Inc., collected intersection turning movement counts at the following signalized intersection located near the project site:

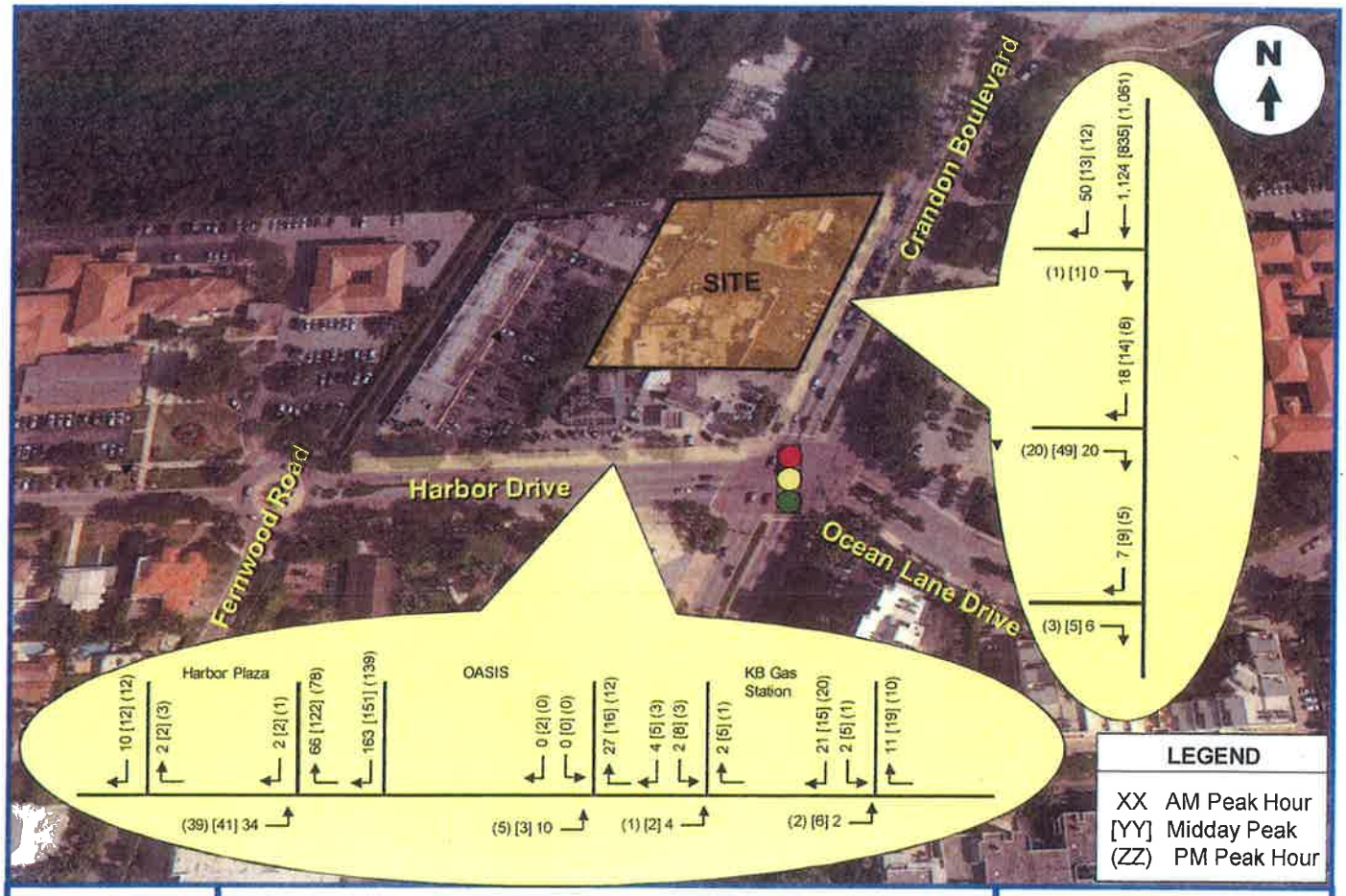
1. Crandon Boulevard and Harbor Drive/Ocean Lane Drive

Additionally, intersection turning movement counts were recorded at the three (3) existing Crandon Boulevard access driveways and six (6) Harbor Drive ingress/egress driveways.

The intersection turning movement counts were collected on Tuesday, November 12, 2013 during the morning (7:00 AM to 9:00 AM), midday (11:30 AM to 1:30 PM) and afternoon (4:00 PM to 6:00 PM) peak periods.

Figures 3a and 3b summarize the results of the intersection turning movement counts. Appendix B contains the traffic counts, as collected in the field. The signal timing plan for the signalized intersection of Crandon Boulevard and Harbor Drive is also contained in Appendix B.

Additionally, 24-hour machine traffic counts were reviewed for the area near Crandon Boulevard and Harbor Drive/Ocean Lane Drive. The machine traffic counts clearly indicate that the AM peak hour generally occurs between 7:00 AM and 9:00 AM and the afternoon peak from 4:00 PM to 6:00 PM. The 24-hour machine traffic counts supports the peak periods selected for this traffic study. Moreover, the AM peak hour is the highest demand hour for the study area, also confirming the results of the 6-hour intersection turning movement counts. The 24-hour machine traffic counts are contained in Appendix B.



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EXISTING TRAFFIC COUNTS
(November 12, 2013)

FIGURE 3b
Walgreens/Liquor Store
Key Biscayne, Florida

The trip generation equations for the proposed development program, given by ITE, are:

PHARMACY/DRUGSTORE w/o DRIVE-THROUGH WINDOW (Land Use 880)

Daily Trips

T = 90.06 (X)

Where T = average daily vehicle trip ends

X = 1,000 square feet of gross floor area

AM Peak Hour of Adjacent Street (Typical Morning Rush Hour)

T = 10.22 (X) – 75.80 (65% inbound and 35% outbound)

Where T = average AM peak hour vehicle trip ends

X = 1,000 square feet of gross floor area

Midday Peak Hour (Assumed to be PM Peak Hour of Generator)

T = 11.07 (X) (50% inbound and 50% outbound)

Where T = average Midday peak hour vehicle trip ends

X = 1,000 square feet of gross floor area

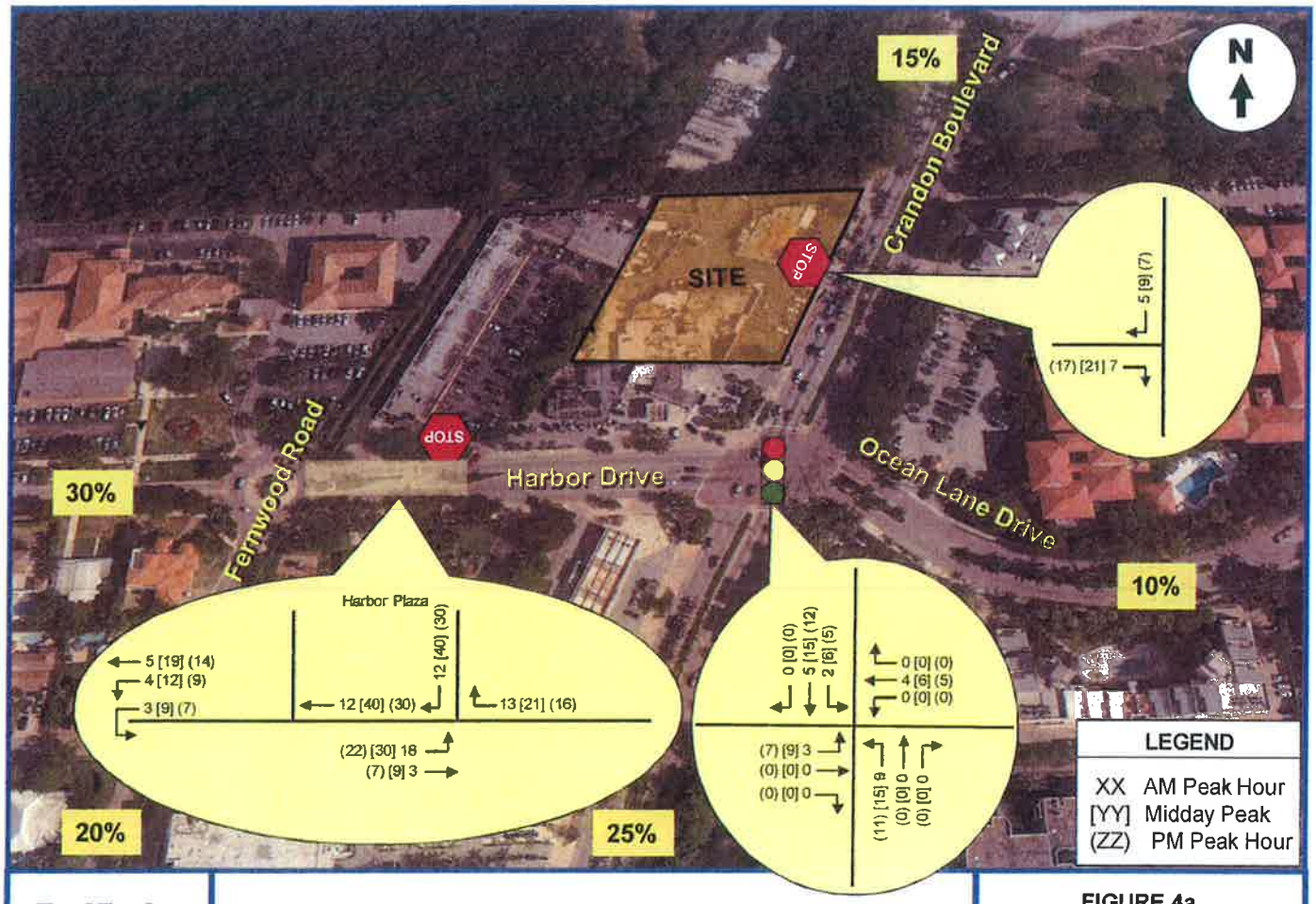
PM Peak Hour of Adjacent Street (Typical Afternoon Rush Hour)

T = 8.40 (X) (49% inbound and 51% outbound)

Where T = average PM peak hour vehicle trip ends

X = 1,000 square feet of gross floor area

Additionally, a comparison between the trips generated by the Walgreens Pharmacy project and the previous uses at the site was undertaken. As documented in the trips calculations contained in Appendix C, the proposed Walgreens project is projected to generate approximately 1,400 less daily trips, approximately 40 less AM peak hour trips, and approximately 65 less PM peak hour trips than the previous uses at the site. Therefore, the proposed project will have less traffic impacts than the traffic impacts created by the existing uses at the site.



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PROJECT TRAFFIC ASSIGNMENT
(New Pharmacy Trips)

FIGURE 4a
Walgreens/Liquor Store
Key Biscayne, Florida

TRAFFIC ANALYSIS

This section of the study is divided into two parts. The first part consists of developing the future conditions traffic volumes for the study area. The second part includes level-of-service analyses for existing and future conditions.

Future Conditions Traffic Volumes

Two sets of future traffic volumes were developed. The first set includes project buildout conditions (assumed to be 2015) without the proposed project and the second set adds the project anticipated to be generated by the Walgreens development.

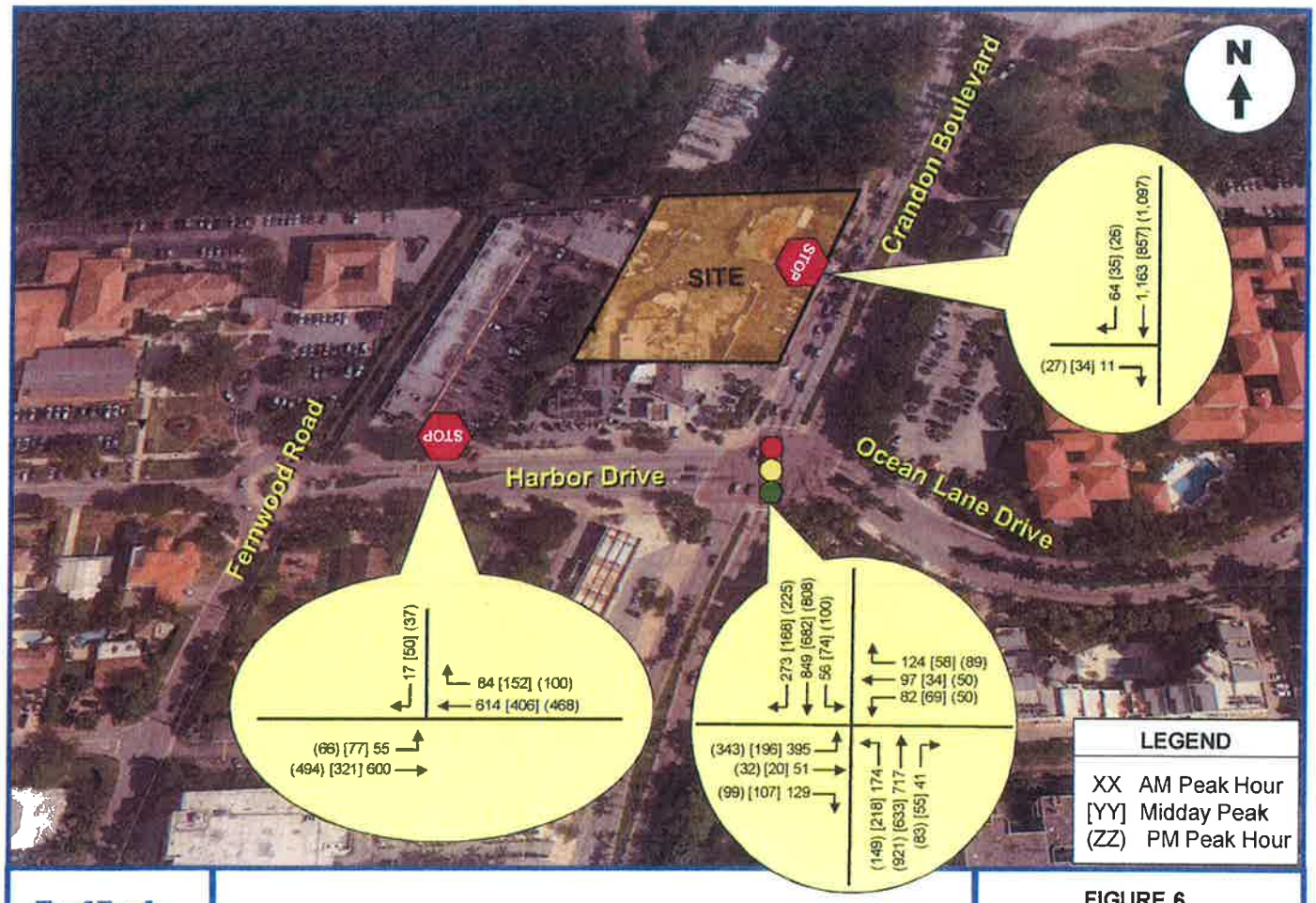
In order to develop future-year traffic volumes, without the proposed project, two separate analyses were undertaken. The first analysis converts the existing AM and PM peak hour traffic counts collected in the field during the month of November to average peak season conditions. Based on FDOT's Peak Season Factor Category report, an adjustment factor of 1.02 is required to convert traffic counts collected in the second week of November to average peak season conditions (refer to Appendix D). The second analysis includes a growth factor to project 2013 peak season traffic volumes to future conditions (year 2015). For purposes of this traffic study, a 1.0% growth rate was applied to the 2013 traffic counts in order to develop 2015 background traffic conditions.

The future traffic calculations (peak season adjustments, traffic growth, and the traffic associated with the Walgreens development) for the study intersection and two access driveways are contained in Appendix E in tabular format.

Figures 5 and 6 present the future traffic volumes for the study area. Figure 5 includes background traffic only (without the proposed project) and Figure 6 includes the additional traffic anticipated to be generated by the Walgreens development.

Level of Service Analyses

Intersection capacity analyses were performed for the study intersection of Crandon Boulevard and Harbor Drive/Ocean Lane Drive. The analyses were undertaken following the capacity/level of service procedures outlined in the Highway Capacity Manual using the SYNCHRO software. The results of the intersection analyses are summarized in Table 3. Appendix F contains the computer printouts of the intersection capacity analyses.



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TOTAL TRAFFIC with WALGREENS – YEAR 2015

FIGURE 6
Walgreens/Liquor Store
Key Biscayne, Florida

CONCLUSIONS

Morgan Property Group is proposing a Walgreens pharmacy and retail package wine and liquor store planned to be located on the northwest corner of the intersection of Crandon Boulevard and Harbor Drive in the Village of Key Biscayne in Miami-Dade County, Florida.

Traf Tech Engineering, Inc. was retained by Bohler Engineering to conduct a traffic study in connection with the subject pharmacy and retail package wine and liquor store. The study addresses trip generation, access to the site, the traffic impacts on the nearby transportation network, and potential roadway improvement intended to mitigate the new trips generated by the project, if any.

The project site consists of a surface parking lot several buildings that previously housed several restaurants, a liquor store, a small office area, and lounge. Access to the site was provided via two right-turns in/right-turns out driveways off of Crandon Boulevard and through a cross-access connection with the Harbor Plaza located immediately west of the site. Through the Harbor Plaza, the site has access to Harbor Drive. The Harbor Drive access driveway allows left and right-turns into the site and is restricted to right-turns out only.

The existing site will be redeveloped with a 14,558 square-foot commercial building containing a Walgreens pharmacy and retail package wine and liquor store. Access to the site will be provided via one right-turn in-only driveway (north driveway) and one right-turn in/right-turn out driveway off of Crandon Boulevard. Additionally, access will also be provided from Harbor Drive via cross-access with an existing commercial development located immediately west of the Walgreens' site (Harbor Plaza). The Harbor Drive access driveway allows left and right-turns into the site and is restricted to right-turns out only.

The conclusions of the traffic study are presented below:

CONCLUSIONS

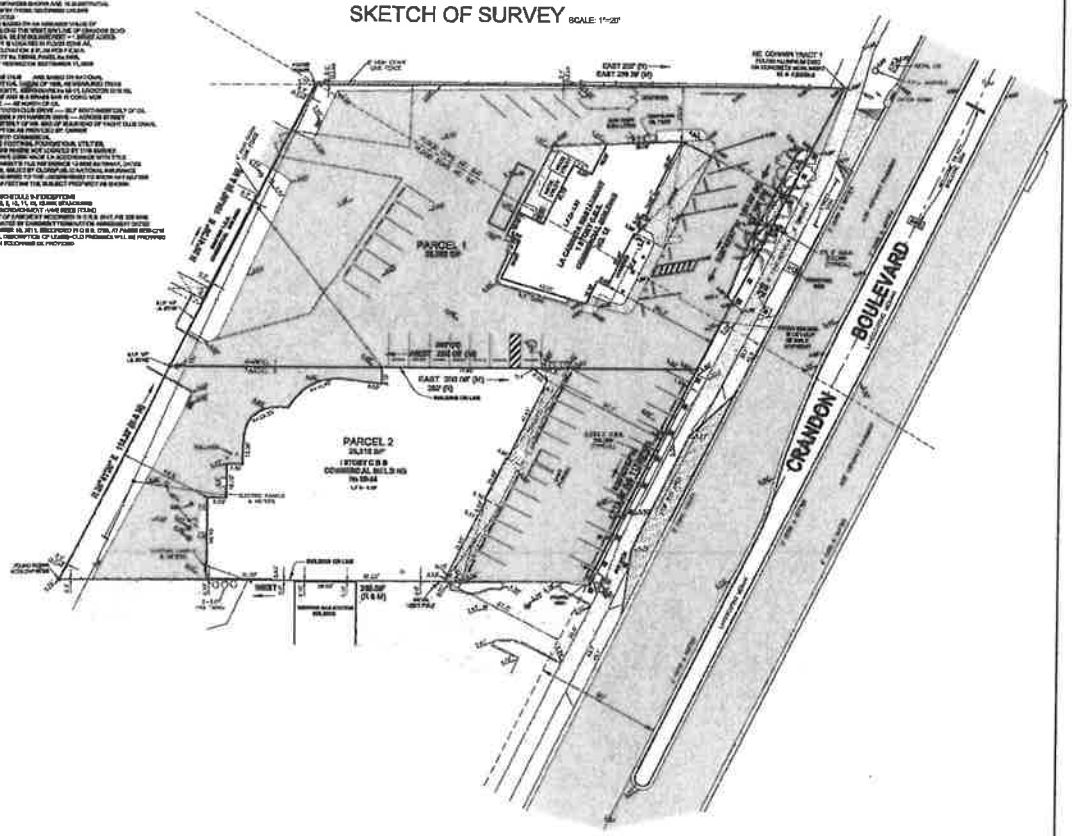
- The gross project trips consist of approximately 1,312 daily trips, approximately 73 AM peak hour trips (47 inbound and 26 outbound), approximately 161 midday peak hour trips (80 inbound and 81 outbound) and approximately 122 PM peak hour trips (60 inbound and 62 outbound). However, taking into account passer-by trips, the proposed Walgreens drug store is projected to generate approximately 984 new daily trips, approximately 55 new AM peak hour trips (36 inbound and 19 outbound), approximately 121 new midday peak hour trips (60 inbound and 61 outbound) and approximately 92 new PM peak hour trips (45 inbound and 47 outbound).

APPENDIX A

Site Plan and Survey – Walgreens

LOCATION MAP SCALE: 1"=100'

SKETCH OF SURVEY SCALE: 1"=20'



LEGAL DESCRIPTIONS:

PARCEL 1

That part of Tract 1, of Subdivision of a portion of BIS HARBOR ESTATE, according to the Plat thereof, recorded in Plat Book 69, at Page 69 of the Public Records of Dade County, Florida, described as follows:

Beginning at the Northwest corner of Tract 1, run Southeasterly along the Easterly line of said Tract 1 a distance of 150 feet to a point; thence run Westerly parallel to the North line of said Tract 1, a distance of 200 feet to a point; thence run Northeasterly parallel to the Easterly line of said Tract 1 a distance of 150 feet to a point on the North line of said Tract 1; thence run East along the North line of said Tract 1, a distance of 200 feet to the Point of Beginning.

PROPERTY ADDRESS: 13 CRANDON BOULEVARD, Key Biscayne, Florida 33149

AND

PARCEL 2

A portion of TRACT 1, Subdivision of a portion of BISCAYNE ESTATE, according to the Plat thereof, as recorded in Plat Book 69, at Page 69 of the Public Records of Dade County, Florida, described as follows:

Commencing at the Northeast corner of said Tract 1, run Southeasterly along the Easterly line of said Tract 1, a distance of 150 feet to the point of beginning of the parcel of land hereinafter to be described, thence run Southwesterly along the Easterly line of said Tract 1, a distance of 173.28 feet to a point; thence run West parallel to the North line of said Tract 1, a distance of 200 feet to a Point; thence run Northeasterly parallel to the Easterly line of Tract 1, a distance of 112.28 feet to a point; thence run East parallel to the North line of Tract 1, a distance of 200 feet to the Point of Beginning.

PROPERTY ADDRESS: 23-26 CRANDON BOULEVARD, Key Biscayne, Florida 33149

LEGEND:

P.B. = PARKING BAY
S.W. = WET WOOD PIPE
L.F.E. = LOWEST FLOOR ELEVATION
(R) = RECORD
(M) = MEASURED
= WOOD POLE WITH OVERHEAD ELECTRIC LINE
= CONCRETE AREAS
= PAVED AREAS
= 6 FOOT WOOD FENCE
= CHAIN LINK FENCE
BM = ELECTRIC METER
= CATCH BASIN
C.B.S. = CONCRETE BLOCK STRUCTURE
CO = WATER METER
= BAYCREST SERVICE BRAND CLF
= CONC. LIGHT POLE
(D) = PHONE BOOTH
CO B = CLEAN OUT
C = CENTER LINE

J. F. LOPEZ & ASSOCIATES, INC.

CONSULTING LAND SURVEYORS AND PLANNERS

CERTIFICATE Nº LB 3998, STATE OF FLORIDA

7928 SW 108th ST, SUITE 104, Miami Lakes, FL 33016

Ph (305) 666-3744 Fax: (305) 666-6666

I HEREBY CERTIFY: THAT A SURVEY OF THE PROPERTY AS DESCRIBED IS THE FOREGOING OPINION HAVE BEEN UNDER MY DIRECTION, AND MEETS THE MINIMUM TECHNICAL STANDARDS SET FORTH BY THE FLORIDA BOARD OF SURVEYORS AND MAPPERS IN CHAPTER 61-17-6H, OF FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027, FLORIDA STATUTES, AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT.

NOTE:
THIS IS NOT A VALID SURVEY WITHOUT THE UNDERSIGNED SURVEYOR'S SIGNATURE AND EMBOSSED RAISED SEAL.

BY: _____
JORGE F. LOPEZ, P.S.M
Professional Surveyor & Mapper
#3038, State of Florida

CERTIFIED TO
Walgreens Co.,
Attorneys' Title Fund Services, LLC,
Key Biscayne Gateway Partners, Ltd., a Florida limited partnership
and Florida Investment Partners, Inc.

APRIL 5, 2019	020312	JFL	CH. FILE	020539-020547	ADD REV. TITLE COMMITMENT
SEPTEMBER 6, 2012	020312	JFL	CH. FILE	020539-020547	REVISED, UPDATE & RECERTIFIED
MAY 15, 2012	020312	JFL	HC-41	020538	RECERTIFICATION
JUNE 16, 2011	020147	JFL	HC-40	020513	REVISED & UPDATED
MAY 23, 2007	020153	JFL	HC-28	020315	REVISED & UPDATED
APRIL 24, 2003	020153	HCP	HC-21	020311	REVISED & UPDATED
DECEMBER 04, 1996	020153	HCP	FC-13	020137	BOUNDARY SURVEY & ELEVATION
DATE OF FIELD WORK	ORDER Nº	DRAWN BY:	FIELD BOOK:	CAD FILE:	REVISIONS:

TOD Schedule Report

for 3545: Crandon Blvd&Harbor Dr&Ocean Lane Dr

Print Date: 10/17/2013

Print Time: 8:05 AM

Asset	Intersection	TOD Schedule	Op Mode	Plan #	Cycle	Offset	TOD Setting	Active PhaseBank	Active Maximum
3646	Crandon Blvd&Harbor Dr&Ocean Lane	DOW-5		N/A	0	0	N/A	0	Max 0

Splits

PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8
NBL	SBT	EBT	WBT	SBL	NBT	-	-
0	0	0	0	0	0	0	0

Active Phase Bank: Phase Bank 1

Phase		Walk Phase Bank 1	2	3	Don't Walk 1	2	3	Min Initial 1	2	3	Veh Ext 1	2	3	Max Limit 1	2	3	Max 2 1	2	3	Yellow	Red
1	NBL	0	0	0	0	0	0	5	5	5	2	2	2	9	9	9	18	18	18	3	0
2	SBT	7	7	7	17	17	17	7	7	7	1	1	1	35	35	35	0	45	45	4	2.5
3	EBT	7	7	7	24	24	24	7	7	7	2.5	2.5	2.5	18	20	20	40	40	40	4	3.2
4	WBT	7	7	7	21	21	21	7	7	7	2.5	2.5	2.5	18	10	10	35	35	35	4	2.9
5	SBL	0	0	0	0	0	0	5	5	5	2	2	2	9	9	9	18	18	18	3	0
6	NBT	7	7	7	17	17	17	7	7	7	1	1	1	35	35	35	0	45	45	4	2.5
7	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Last In Service Date: unknown

Permitted Phases

	12345678
Default	123456--
External Permit 0	-234-6--
External Permit 1	-234-6--
External Permit 2	-234-6--

Crossroads Engineering

8320 SW 90th Street
Miami, FL 33186
786-236-2857

CLIENT: TRAFTECH
JOB NO.: 2013-069
PROJECT: CRANDON BLVD
COUNTY: MIAMI-DADE

File Name : CRANDON BLVD @ HARBOR DR
Site Code : 00000000
Start Date : 11/12/2013
Page No : 1

Groups Printed- AUTOS - HEAVY VEHCILES - TURNS

	CRANDON BLVD From North				HARBOR DR From East				CRANDON BLVD From South				HARBOR DR From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	57	165	9	0	24	9	7	9	2	185	15	11	9	2	78	1	583
07:15 AM	66	151	8	0	16	14	8	7	5	139	35	0	19	1	81	5	555
07:30 AM	61	170	16	0	25	29	12	6	11	154	44	6	37	9	80	10	670
07:45 AM	64	234	15	0	29	22	19	12	12	172	34	2	28	11	95	4	753
Total	248	720	48	0	94	74	46	34	30	650	128	19	93	23	334	20	2561
08:00 AM	80	177	12	0	37	35	28	19	7	160	37	9	26	4	81	0	712
08:15 AM	57	176	11	0	23	23	19	22	8	168	43	5	39	16	103	2	715
08:30 AM	61	224	14	0	30	9	13	14	12	191	43	5	31	18	95	8	768
08:45 AM	64	217	14	0	31	5	17	19	6	188	36	7	38	6	64	6	718
Total	262	794	51	0	121	72	77	74	33	707	159	26	134	44	343	16	2913
*** BREAK ***																	
11:30 AM	28	149	18	0	14	8	17	5	7	137	57	3	23	7	44	7	524
11:45 AM	36	152	14	3	14	8	13	5	21	161	57	2	30	7	34	4	561
Total	64	301	32	3	28	16	30	10	28	298	114	5	53	14	78	11	1085
12:00 PM	32	160	18	0	13	5	16	9	16	123	61	0	30	6	56	2	547
12:15 PM	32	137	18	0	9	2	13	13	9	132	52	9	29	5	43	7	510
12:30 PM	38	160	11	2	11	4	13	7	15	151	44	4	40	3	37	3	543
12:45 PM	41	176	15	0	14	3	20	2	10	141	59	0	25	10	43	1	560
Total	143	633	62	2	47	14	62	31	50	547	216	13	124	24	179	13	2160
01:00 PM	45	162	25	1	14	5	12	4	10	152	49	8	20	3	48	0	558
01:15 PM	37	143	14	3	17	15	21	11	18	168	39	2	18	3	44	0	553
*** BREAK ***																	
Total	82	305	39	4	31	20	33	15	28	320	88	10	38	6	92	0	1111
*** BREAK ***																	
04:00 PM	51	190	19	0	31	8	12	10	16	207	45	2	29	7	97	4	728
04:15 PM	50	154	20	0	24	10	8	5	17	200	37	3	19	8	101	14	670
04:30 PM	43	187	22	1	24	12	17	16	16	240	33	1	30	6	73	1	722
04:45 PM	64	205	23	1	25	14	12	9	21	196	24	2	26	8	73	0	703
Total	208	736	84	2	104	44	49	40	70	843	139	8	104	29	344	19	2823

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File Name : CRANDON BLVD @ HARBOR DR
Site Code : 00000000
Start Date : 11/12/2013
Page No : 3

	CRANDON BLVD From North					HARBOR DR From East					CRANDON BLVD From South					HARBOR DR From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	64	**234**	**15**	0	**313**	29	22	19	12	82	**12**	172	34	2	220	28	11	95	4	138	753
08:00 AM	**80**	177	12	0	269	**37**	**35**	**28**	19	**119**	7	160	37	**9**	213	26	4	81	0	111	712
08:15 AM	57	176	11	0	244	23	23	19	**22**	87	8	168	**43**	5	224	**39**	16	**103**	2	**160**	715
08:30 AM	61	224	14	0	299	30	9	13	14	66	12	**191**	43	5	**251**	31	**18**	95	**8**	152	**768**
Total Volume	262	811	52	0	1125	119	89	79	67	354	39	691	157	21	908	124	49	374	14	561	2948
% App. Total	23.3	72.1	4.6	0		33.6	25.1	22.3	18.9		4.3	76.1	17.3	2.3		22.1	8.7	66.7	2.5		
PHF	.819	.866	.867	.000	.899	.804	.636	.705	.761	.744	.813	.904	.913	.583	.904	.795	.681	.908	.438	.877	.960

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COUNTY: MIAMI-DADE

File Name : CRANDON BLVD @ HARBOR DR
Site Code : 00000000
Start Date : 11/12/2013
Page No : 5

	CRANDON BLVD From North					HARBOR DR From East					CRANDON BLVD From South					HARBOR DR From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:30 PM																					
12:30 PM	38	160	11	2	211	11	4	13	7	35	15	151	44	4	214	**40**	3	37	**3**	**83**	543
12:45 PM	41	**176**	15	0	232	14	3	20	2	39	10	141	**59**	0	210	25	**10**	43	1	79	**560**
01:00 PM	**45**	162	**25**	1	**233**	14	5	12	4	35	10	152	49	**8**	219	20	3	**48**	0	71	558
01:15 PM	37	143	14	**3**	197	**17**	**15**	**21**	**11**	**64**	**18**	**168**	39	2	**227**	18	3	44	0	65	553
Total Volume	161	641	65	6	873	56	27	66	24	173	53	612	191	14	870	103	19	172	4	298	2214
% App. Total	18.4	73.4	7.4	0.7		32.4	15.6	38.2	13.9		6.1	70.3	22	1.6		34.6	6.4	57.7	1.3		
PHF	.894	.911	.650	.500	.937	.824	.450	.786	.545	.676	.736	.911	.809	.438	.958	.644	.475	.896	.333	.898	.988

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	CRANDON BLVD From North					HARBOR DR From East					CRANDON BLVD From South					HARBOR DR From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. 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	50	154	20	0	224	24	10	8	5	47	17	200	**37**	3	257	19	8	**101**	**14**	**142**	670
04:30 PM	43	187	22	**1**	253	24	12	**17**	**16**	**69**	16	240	33	1	290	**30**	6	73	1	110	722
04:45 PM	**64**	205	23	**1**	293	**25**	**14**	12	9	60	21	196	24	2	243	26	8	73	0	107	703
05:00 PM	59	**219**	**26**	0	**304**	13	7	11	12	43	**26**	**252**	36	**6**	**320**	20	**9**	70	3	102	**769**
Total Volume	216	765	91	2	1074	86	43	48	42	219	80	888	130	12	1110	95	31	317	18	461	2864
% App. Total	20.1	71.2	8.5	0.2		39.3	19.6	21.9	19.2		7.2	80	11.7	1.1		20.6	6.7	68.8	3.9		
PHF	.844	.873	.875	.500	.883	.860	.768	.706	.656	.793	.769	.881	.878	.500	.867	.792	.861	.785	.321	.812	.931

Crossroads Engineering

8320 SW 90th Street
Miami, FL 33186
786-236-2857

CLIENT: TRAFTECH
JOB NO.: 2013-069
PROJECT: CRANDON BLVD
COUNTY: MIAMI-DADE

File Name : CRANDON BLVD @ HARBOR DR
Site Code : 00000000
Start Date : 11/12/2013
Page No : 1

Groups Printed- HEAVY VEHCILES

	CRANDON BLVD From North				HARBOR DR From East				CRANDON BLVD From South				HARBOR DR From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	3	4	0	0	0	0	0	0	0	4	1	0	0	0	0	0	12
07:15 AM	3	5	0	0	0	0	0	0	0	4	1	0	2	0	1	0	16
07:30 AM	4	5	0	0	0	0	0	0	0	4	1	0	3	0	0	0	17
07:45 AM	2	4	0	0	0	0	0	0	0	0	0	0	1	0	1	0	8
Total	12	18	0	0	0	0	0	0	0	12	3	0	6	0	2	0	53
08:00 AM	4	3	0	0	0	0	0	0	0	6	0	0	0	0	1	0	14
08:15 AM	0	8	0	0	0	0	0	0	0	3	0	0	0	0	1	0	12
08:30 AM	4	6	1	0	0	0	0	0	0	4	0	0	0	0	0	0	15
08:45 AM	1	5	0	0	0	0	0	0	1	5	0	0	0	0	2	0	14
Total	9	22	1	0	0	0	0	0	1	18	0	0	0	0	4	0	55
*** BREAK ***																	
11:30 AM	2	3	1	0	0	0	0	0	0	5	0	0	0	0	0	0	11
11:45 AM	3	9	0	0	0	0	1	0	1	7	0	0	1	1	4	0	27
Total	5	12	1	0	0	0	1	0	1	12	0	0	1	1	4	0	38
12:00 PM	1	3	0	0	0	0	0	0	0	4	0	0	1	0	0	0	9
12:15 PM	3	6	1	0	0	0	0	0	0	3	1	0	4	0	2	0	20
12:30 PM	4	10	2	0	0	0	0	0	1	9	0	0	1	0	4	0	31
12:45 PM	2	5	0	0	2	0	0	0	0	6	2	0	0	0	2	0	19
Total	10	24	3	0	2	0	0	0	1	22	3	0	6	0	8	0	79
01:00 PM	0	4	0	0	0	0	1	0	0	8	0	0	1	0	0	0	14
01:15 PM	2	5	2	0	0	0	0	0	0	5	5	0	0	0	5	0	24
*** BREAK ***																	
Total	2	9	2	0	0	0	1	0	0	13	5	0	1	0	5	0	38
*** BREAK ***																	
04:00 PM	0	2	0	0	0	0	0	0	0	6	1	0	0	0	2	0	11
04:15 PM	4	5	0	0	0	0	0	0	0	4	3	0	0	0	5	0	21
04:30 PM	3	3	0	0	0	0	0	0	0	4	0	0	0	0	2	0	12
04:45 PM	0	2	0	0	0	0	0	0	0	8	0	0	0	0	3	0	13
Total	7	12	0	0	0	0	0	0	0	22	4	0	0	0	12	0	57

Crossroads Engineering

8320 SW 90th Street
Miami, FL 33186
786-236-2857

CLIENT: TRAFTECH
JOB NO.: 2013-069
PROJECT: CRANDON BLVD
COUNTY: MIAMI-DADE

File Name : CRANDON BLVD @ HARBOR DR
Site Code : 00000000
Start Date : 11/12/2013
Page No : 1

Groups Printed- TURNS

	CRANDON BLVD From North				HARBOR DR From East				CRANDON BLVD From South				HARBOR DR From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
*** BREAK ***																	
07:15 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4
07:30 AM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	8
07:45 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4
Total	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	0	16
08:00 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5
08:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
08:30 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6
08:45 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6
Total	0	0	0	0	0	0	0	0	0	0	19	0	0	0	0	0	19
*** BREAK ***																	
11:30 AM	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	21
11:45 AM	0	0	0	2	0	0	0	0	0	0	14	0	0	0	0	0	16
Total	0	0	0	2	0	0	0	0	0	0	35	0	0	0	0	0	37
12:00 PM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	10
12:15 PM	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	13
12:30 PM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	10
12:45 PM	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	13
Total	0	0	0	0	0	0	0	0	0	0	46	0	0	0	0	0	46
01:00 PM	0	0	0	1	0	0	0	0	0	0	18	0	0	0	0	0	19
01:15 PM	0	0	0	1	0	0	0	0	0	0	9	0	0	0	0	0	10
*** BREAK ***																	
Total	0	0	0	2	0	0	0	0	0	0	27	0	0	0	0	0	29
*** BREAK ***																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	8
04:15 PM	0	0	1	0	0	0	0	0	0	0	6	0	0	0	0	0	7
04:30 PM	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	11
04:45 PM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	8
Total	0	0	1	0	0	0	0	0	0	0	33	0	0	0	0	0	34

TIME	HARBOR DR (11-12-2013)																			TOTAL
	DW 1				DW 2				DW 3				DW 4	DW 5				DW 6		
	IN		OUT		IN		OUT		IN		OUT			IN		OUT				
	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	OUT	RIGHT	LEFT	RIGHT	LEFT	IN	OUT	
7:00	0	0	2	1	0	0	0	0	4	1	0	0	20	23	5	0	0	0	6	62
7:15	2	0	2	0	0	1	1	0	6	3	0	0	23	10	7	0	0	1	0	56
7:30	0	1	3	0	2	0	2	1	4	1	0	0	38	15	4	0	0	0	3	74
7:45	3	0	2	0	1	1	0	2	6	4	0	0	45	10	6	2	0	0	4	86
8:00	1	0	8	0	0	0	0	0	4	2	0	0	30	11	6	0	0	1	3	66
8:15	4	1	6	1	0	2	3	0	9	1	0	0	54	22	9	0	0	0	2	114
8:30	3	1	5	1	1	1	1	0	8	3	0	0	34	23	13	0	0	1	1	96
8:45	3	2	6	0	2	0	2	1	6	1	0	0	50	26	5	3	0	0	3	110
TOTAL	16	5	34	3	6	5	9	4	47	16	0	0	294	140	55	5	0	3	22	664
11:30	6	0	8	3	3	0	3	0	7	4	0	0	35	20	11	0	0	1	2	103
11:45	5	3	7	1	1	2	2	1	8	2	0	0	27	28	9	1	0	1	1	99
12:00	1	0	1	1	0	0	2	4	6	0	0	0	40	30	9	0	0	0	3	97
12:15	4	0	1	0	1	0	2	0	3	2	0	0	26	24	8	2	0	0	3	76
12:30	6	1	3	1	1	0	1	2	5	1	1	0	32	22	9	0	0	1	1	87
12:45	7	3	8	1	3	1	1	1	6	1	1	0	43	37	13	0	0	1	2	129
13:00	4	2	4	2	1	0	3	3	1	1	0	0	38	34	6	0	0	0	7	106
13:15	2	0		1	0	1	0	2	4	0	0	0	38	29	13	2	0	0	2	94
TOTAL	35	9	32	10	10	4	14	13	40	11	2	0	279	224	78	5	0	4	21	791
4:00	8	1	8	1	0	1	5	1	2	0	0	0	24	21	10	0	0	1	3	86
4:15	4	0	8	0	0	0	3	0	4	1	0	0	39	25	8	0	0	1	4	97
4:30	1	1	5	0	1	1	0	0	2	2	0	0	33	13	10	0	0	0	2	71
4:45	2	0	5	1	0	0	0	3	4	1	0	0	30	26	10	1	0	0	2	85
5:00	3	1	2	0	0	0	0	0	2	1	0	0	37	14	11	0	0	2	4	77
5:15	3	2	4	0	0	0	2	2	5	0	0	0	35	14	11	0	0	0	2	80
5:30	3	3	4	0	0	5	3	2	1	0	0	0	22	16	5	0	0	0	6	70
5:45	0	0	3	1	0	0	1	0	2	1	0	0	20	9	11	0	0	0	2	50
TOTAL	24	8	39	3	1	7	14	8	22	6	0	0	240	138	76	1	0	4	25	616

COUNTY: 87
STATION: 8133
DESCRIPTION: CRANDON BLVD, 200' NORTH OF HARBOR DRIVE
START DATE: 04/10/2012
START TIME: 2345

	DIRECTION: N					DIRECTION: S					COMBINED
TIME	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	TOTAL
0000	28	31	16	6	81	42	36	25	16	119	200
0100	5	7	3	8	23	16	7	10	12	45	68
0200	0	9	5	4	18	9	4	3	5	21	39
0300	0	0	4	10	14	3	5	3	2	13	27
0400	6	5	17	16	44	8	16	12	16	52	96
0500	21	32	31	42	126	14	29	52	56	151	277
0600	69	92	127	206	494	74	114	167	154	509	1003
0700	230	235	270	308	1043	204	206	261	270	941	1984
0800	345	401	350	312	1408	256	276	252	241	1025	2433
0900	276	292	273	244	1085	246	225	222	208	901	1986
1000	242	246	226	235	949	193	204	183	214	794	1743
1100	223	264	259	248	994	191	195	212	210	808	1802
1200	246	258	237	241	982	186	213	185	206	790	1772
1300	205	243	234	250	932	194	217	226	178	815	1747
1400	244	254	262	285	1045	209	229	254	242	934	1979
1500	296	305	296	328	1225	222	233	228	228	911	2136
1600	323	340	284	284	1231	242	246	229	238	955	2186
1700	296	246	268	254	1064	246	259	288	272	1065	2129
1800	250	260	224	211	945	268	286	248	219	1021	1966
1900	192	154	154	153	653	234	232	207	206	879	1532
2000	147	110	98	105	460	182	158	138	120	598	1058
2100	79	66	70	74	289	122	111	150	138	521	810
2200	76	66	74	92	308	124	108	126	68	426	734
2300	66	53	42	56	217	57	57	52	50	216	433
24-HOUR TOTALS:					15630					14510	30140

PEAK VOLUME INFORMATION

	DIRECTION: N		DIRECTION: S		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	800	1408	730	1063	745	2458
P.M.	1530	1287	1730	1114	1530	2231
DAILY	800	1408	1730	1114	745	2458

GENERATED BY SPS 5.0.44P

COUNTY: 87
STATION: 8133
DESCRIPTION: CRANDON BLVD, 200' NORTH OF HARBOR DRIVE
START DATE: 04/12/2012
START TIME: 2345

	DIRECTION: N					DIRECTION: S					COMBINED
TIME	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	TOTAL
0000	24	14	20	22	80	27	22	30	20	99	179
0100	8	10	8	9	35	16	16	10	17	59	94
0200	9	10	4	0	23	15	9	9	3	36	59
0300	5	2	3	7	17	9	5	7	10	31	48
0400	7	6	5	14	32	9	15	17	18	59	91
0500	18	24	31	28	101	28	18	44	41	131	232
0600	50	88	108	234	480	81	114	172	146	513	993
0700	224	224	248	274	970	182	198	270	272	922	1892
0800	348	386	313	302	1349	282	260	256	264	1062	2411
0900	283	298	264	262	1107	227	236	214	206	883	1990
1000	247	242	243	218	950	184	216	163	212	775	1725
1100	248	222	236	254	960	202	200	208	190	800	1760
1200	232	244	216	248	940	192	192	217	222	823	1763
1300	236	238	230	270	974	206	185	218	200	809	1783
1400	280	246	256	272	1054	188	222	264	224	898	1952
1500	284	344	262	290	1180	235	231	236	266	968	2148
1600	333	350	280	334	1297	230	237	220	250	937	2234
1700	288	281	257	299	1125	238	232	294	282	1046	2171
1800	244	194	222	227	887	255	259	312	264	1090	1977
1900	206	174	151	142	673	274	234	217	162	887	1560
2000	131	136	120	96	483	187	180	134	140	641	1124
2100	104	76	85	93	358	142	134	123	118	517	875
2200	86	64	82	104	336	92	113	122	82	409	745
2300	88	51	52	34	225	68	82	45	62	257	482
24-HOUR TOTALS:					15636					14652	30288

PEAK VOLUME INFORMATION

	DIRECTION: N		DIRECTION: S		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	800	1349	730	1084	800	2411
P.M.	1600	1297	1745	1108	1600	2234
DAILY	800	1349	1815	1109	800	2411

GENERATED BY SPS 5.0.44P

TABLE C-1
Trip Generation Summary (Existing Uses)
Walgreens - Key Biscayne

Land Use	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total Trips	Inbound	Outbound	Total Trips	Inbound	Outbound
Restaurant (Cuban)-LUC 932	3,745	476	40	22	18	37	22	15
Restaurant (BK)-LUC 933	2,130	1,525	93	56	37	56	29	27
Office-LUC 710	404	4	1	1	0	1	0	1
Liquor Store-LUC 820	1,531	449	12	8	5	36	17	19
Restaurant/Lounge-LUC 925	7,000	878	0	0	0	79	52	27
Subtotal		**3,332**	**146**	**86**	**60**	**209**	**121**	**89**
Internal (10%)		-333	-15	-9	-6	-21	-12	-9
Pass-by (Retail-25%)		-612	-36	-21	-15	-32	-17	-15
External Trips		**2,387**	**95**	**56**	**39**	**156**	**92**	**65**

Source: ITE Trip Generation Manual (9th Edition)

TABLE C-2
Trip Generation Summary (Proposed Use)
Walgreens - Key Biscayne

Land Use	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total Trips	Inbound	Outbound	Total Trips	Inbound	Outbound
Pharmacy w/o DT-LUC 880	14,558	1,311	73	47	26	122	60	62
Subtotal		**1,311**	**73**	**47**	**26**	**122**	**60**	**62**
Internal (0%)		0	0	0	0	0	0	0
Pass-by (-25%)		-328	-18	-12	-6	-31	-15	-16
External Trips		**983**	**55**	**35**	**20**	**91**	**45**	**46**

Source: ITE Trip Generation Manual (9th Edition)

Difference in Trips		**-1,404**	**-40**	**-21**	**-19**	**-65**	**-47**	**-19**

Traf Tech
ENGINEERING, INC.

2012 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 8701 MIAMI-DADE SOUTH

MOCF: 0.98

WEEK	DATES	SF	PSCF
1	01/01/2012 - 01/07/2012	1.00	1.02
2	01/08/2012 - 01/14/2012	1.00	1.02
3	01/15/2012 - 01/21/2012	1.00	1.02
* 4	01/22/2012 - 01/28/2012	0.99	1.01
* 5	01/29/2012 - 02/04/2012	0.99	1.01
* 6	02/05/2012 - 02/11/2012	0.98	1.00
* 7	02/12/2012 - 02/18/2012	0.98	1.00
* 8	02/19/2012 - 02/25/2012	0.98	1.00
* 9	02/26/2012 - 03/03/2012	0.98	1.00
*10	03/04/2012 - 03/10/2012	0.97	0.99
*11	03/11/2012 - 03/17/2012	0.97	0.99
*12	03/18/2012 - 03/24/2012	0.98	1.00
*13	03/25/2012 - 03/31/2012	0.98	1.00
*14	04/01/2012 - 04/07/2012	0.98	1.00
*15	04/08/2012 - 04/14/2012	0.98	1.00
*16	04/15/2012 - 04/21/2012	0.99	1.01
17	04/22/2012 - 04/28/2012	0.99	1.01
18	04/29/2012 - 05/05/2012	0.99	1.01
19	05/06/2012 - 05/12/2012	1.00	1.02
20	05/13/2012 - 05/19/2012	1.00	1.02
21	05/20/2012 - 05/26/2012	1.00	1.02
22	05/27/2012 - 06/02/2012	1.00	1.02
23	06/03/2012 - 06/09/2012	1.00	1.02
24	06/10/2012 - 06/16/2012	1.00	1.02
25	06/17/2012 - 06/23/2012	1.00	1.02
26	06/24/2012 - 06/30/2012	1.01	1.03
27	07/01/2012 - 07/07/2012	1.01	1.03
28	07/08/2012 - 07/14/2012	1.02	1.04
29	07/15/2012 - 07/21/2012	1.02	1.04
30	07/22/2012 - 07/28/2012	1.02	1.04
31	07/29/2012 - 08/04/2012	1.02	1.04
32	08/05/2012 - 08/11/2012	1.03	1.05
33	08/12/2012 - 08/18/2012	1.03	1.05
34	08/19/2012 - 08/25/2012	1.02	1.04
35	08/26/2012 - 09/01/2012	1.02	1.04
36	09/02/2012 - 09/08/2012	1.01	1.03
37	09/09/2012 - 09/15/2012	1.01	1.03
38	09/16/2012 - 09/22/2012	1.00	1.02
39	09/23/2012 - 09/29/2012	1.00	1.02
40	09/30/2012 - 10/06/2012	1.00	1.02
41	10/07/2012 - 10/13/2012	1.00	1.02
42	10/14/2012 - 10/20/2012	1.00	1.02
43	10/21/2012 - 10/27/2012	1.00	1.02
44	10/28/2012 - 11/03/2012	1.00	1.02
45	11/04/2012 - 11/10/2012	1.00	1.02
46	11/11/2012 - 11/17/2012	1.00	1.02
47	11/18/2012 - 11/24/2012	1.00	1.02
48	11/25/2012 - 12/01/2012	1.00	1.02
49	12/02/2012 - 12/08/2012	1.00	1.02
50	12/09/2012 - 12/15/2012	1.00	1.02
51	12/16/2012 - 12/22/2012	1.00	1.02
52	12/23/2012 - 12/29/2012	1.00	1.02
53	12/30/2012 - 12/31/2012	1.00	1.02

* PEAK SEASON

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Crandon Boulevard and Harbor Drive/Ocean Lane Drive
AM Peak Hour

Description	Crandon Boulevard Northbound			Crandon Boulevard Southbound			Harbor Drive Eastbound			Ocean Lane Drive Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (11/12/13)	157	691	39	52	811	262	374	49	124	79	89	119
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2013 Peak Season Traffic	160	705	40	53	827	267	381	50	126	81	91	121
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2015 Background Traffic	163	719	41	54	844	273	389	51	129	82	93	124
Project Trips												
- New Trips	9			2	5		3				4	
- Passer-by Trips	2	-2					3					
2015 Total Traffic	174	717	41	56	849	273	395	51	129	82	97	124

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FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Crandon Boulevard and Harbor Drive/Ocean Lane Drive
PM Peak Hour

Description	Crandon Boulevard Northbound			Crandon Boulevard Southbound			Harbor Drive Eastbound			Ocean Lane Drive Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (11/12/13)	130	888	80	91	765	216	317	31	95	48	43	86
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2013 Peak Season Traffic	133	906	82	93	780	220	323	32	97	49	44	88
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2015 Background Traffic	135	924	83	95	796	225	330	32	99	50	45	89
Project Trips												
- New Trips	11			5	12		7				5	
- Passer-by Trips	3	-3					6					
2015 Total Traffic	**149**	**921**	**83**	**100**	**808**	**225**	**343**	**32**	**99**	**50**	**50**	**89**

Traf Tech
ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Crandon Boulevard and Project Driveway
Midday Peak Hour

Description	Northbound			Crandon Boulevard Southbound			Harbor Drive Eastbound			Ocean Lane Drive Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (11/12/13)					835	13			1			
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2013 Peak Season Traffic	0	0	0	0	852	13	0	0	1	0	0	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2015 Background Traffic	0	0	0	0	869	14	0	0	1	0	0	0
Project Trips												
- New Trips						9			21			
- Passer-by Trips					-12	12			12			
2015 Total Traffic	0	0	0	0	857	35	0	0	34	0	0	0

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FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Harbor Drive and Project Driveway
AM Peak Hour

Description	Northbound			Project Driveway Southbound			Harbor Drive Eastbound			Harbor Drive Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (11/12/13)						2	34	573			590	66
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2013 Peak Season Traffic	0	0	0	0	0	2	35	584	0	0	602	67
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2015 Background Traffic	0	0	0	0	0	2	35	596	0	0	614	69
Project Trips												
- New Trips						12	18	3				13
- Passer-by Trips						3	2	1				2
2015 Total Traffic	**0**	**0**	**0**	**0**	**0**	**17**	**55**	**600**	**0**	**0**	**614**	**84**

Traf Tech
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FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Harbor Drive and Project Driveway
PM Peak Hour

Description	Northbound			Project Driveway Southbound			Harbor Drive Eastbound			Harbor Drive Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (11/12/13)						1	39	465			450	78
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2013 Peak Season Traffic	0	0	0	0	0	1	40	474	0	0	459	80
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2015 Background Traffic	**0**	**0**	**0**	**0**	**0**	**1**	**41**	**484**	**0**	**0**	**468**	**81**
Project Trips												
- New Trips						30	22	7				16
- Passer-by Trips						6	3	3				3
2015 Total Traffic	**0**	**0**	**0**	**0**	**0**	**37**	**66**	**494**	**0**	**0**	**468**	**100**

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Timings
3: Crandon Boulevard & Harbor Drive 11/21/2013

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	374	49	124	79	89	119	157	691	39	52	811	262
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	44%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	12.0	57.0		13.0	58.0	
Total Split (%)	26.7%	26.7%	26.7%	26.7%	26.7%	26.7%	8.0%	38.0%		8.7%	38.7%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	25.7	25.7	25.7		19.9	19.9	87.4	75.5		75.3	64.6	
Actuated g/C Ratio	0.17	0.17	0.17		0.13	0.13	0.58	0.50		0.50	0.43	
v/c Ratio	0.77	0.77	0.35		0.73	0.39	0.57	0.43		0.15	0.76	
Control Delay	76.3	76.5	9.9		79.8	12.1	27.3	27.2		17.9	40.7	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	76.3	76.5	9.9		79.8	12.1	27.3	27.2		17.9	40.7	
LOS	E	E	A		E	B	C	C		B	D	
Approach Delay		61.3			51.8			27.2			39.7	
Approach LOS		E			D			C			D	

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 48 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 41.2 Intersection LOS: D
Intersection Capacity Utilization 72.0% ICU Level of Service C
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	0	0	0	1124	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	1222	54

Major/Minor	Minor2		Major2	
Conflicting Flow All	1249	637	-	0
Stage 1	1249	-	-	-
Stage 2	0	-	-	-
Follow-up Headway	4	3	-	-
Pot Capacity-1 Maneuver	129	420	-	-
Stage 1	183	-	-	-
Stage 2	-	-	-	-
Time blocked-Platoon, %			-	-
Mov Capacity-1 Maneuver	129	420	-	-
Mov Capacity-2 Maneuver	129	-	-	-
Stage 1	183	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	0	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	0	-	-
HCM Lane V/C Ratio	Error	-	-
HCM Control Delay (s)	0	-	-
HCM Lane LOS	A		
HCM 95th % tile Q(veh)	Error	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	389	51	129	82	93	124	163	719	41	54	844	273
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	44%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	12.0	57.0		13.0	58.0	
Total Split (%)	26.7%	26.7%	26.7%	26.7%	26.7%	26.7%	8.0%	38.0%		8.7%	38.7%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	26.3	26.3	26.3		20.6	20.6	86.1	74.1		73.1	62.3	
Actuated g/C Ratio	0.18	0.18	0.18		0.14	0.14	0.57	0.49		0.49	0.42	
v/c Ratio	0.78	0.79	0.35		0.74	0.40	0.61	0.46		0.16	0.82	
Control Delay	76.6	77.1	9.8		78.9	11.7	35.5	28.6		18.7	44.6	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	76.6	77.1	9.8		78.9	11.7	35.5	28.6		18.7	44.6	
LOS	E	E	A		E	B	D	C		B	D	
Approach Delay		61.6			50.9			29.8			43.4	
Approach LOS		E			D			C			D	

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 48 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 43.4 Intersection LOS: D
Intersection Capacity Utilization 74.0% ICU Level of Service D
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	0	0	0	1170	52
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	1272	57

Major/Minor	Minor2		Major2	
Conflicting Flow All	1300	663	-	0
Stage 1	1300	-	-	-
Stage 2	0	-	-	-
Follow-up Headway	4	3	-	-
Pot Capacity-1 Maneuver	119	404	-	-
Stage 1	170	-	-	-
Stage 2	-	-	-	-
Time blocked-Platoon, %			-	-
Mov Capacity-1 Maneuver	119	404	-	-
Mov Capacity-2 Maneuver	119	-	-	-
Stage 1	170	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	0	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	0	-	-
HCM Lane V/C Ratio	Error	-	-
HCM Control Delay (s)	0	-	-
HCM Lane LOS	A		
HCM 95th % tile Q(veh)	Error	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	395	51	129	82	97	124	174	717	41	56	849	273
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	44%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	12.0	57.0		13.0	58.0	
Total Split (%)	26.7%	26.7%	26.7%	26.7%	26.7%	26.7%	8.0%	38.0%		8.7%	38.7%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	26.4	26.4	26.4		20.9	20.9	85.6	73.5		70.9	60.0	
Actuated g/C Ratio	0.18	0.18	0.18		0.14	0.14	0.57	0.49		0.47	0.40	
v/c Ratio	0.79	0.79	0.35		0.74	0.39	0.63	0.46		0.17	0.85	
Control Delay	77.2	77.3	9.7		78.7	11.5	41.8	29.0		19.1	47.9	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	77.2	77.3	9.7		78.7	11.5	41.8	29.0		19.1	47.9	
LOS	E	E	A		E	B	D	C		B	D	
Approach Delay		62.1			51.1			31.4			46.5	
Approach LOS		E			D			C			D	

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 48 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 45.3 Intersection LOS: D
Intersection Capacity Utilization 74.9% ICU Level of Service D
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	11	0	0	1163	64
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	12	0	0	1264	70

Major/Minor	Minor2		Major2	
Conflicting Flow All	1299	666	-	0
Stage 1	1299	-	-	-
Stage 2	0	-	-	-
Follow-up Headway	4	3	-	-
Pot Capacity-1 Maneuver	119	402	-	-
Stage 1	171	-	-	-
Stage 2	-	-	-	-
Time blocked-Platoon, %			-	-
Mov Capacity-1 Maneuver	119	402	-	-
Mov Capacity-2 Maneuver	119	-	-	-
Stage 1	171	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	14	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	402	-	-
HCM Lane V/C Ratio	0.03	-	-
HCM Control Delay (s)	14.2	-	-
HCM Lane LOS	B		
HCM 95th % tile Q(veh)	0.092	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	172	19	103	66	27	56	191	612	53	65	641	161
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	45%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	41.0	41.0	41.0	9.0	59.0		10.0	60.0	
Total Split (%)	26.7%	26.7%	26.7%	27.3%	27.3%	27.3%	6.0%	39.3%		6.7%	40.0%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	14.5	14.5	14.5		13.4	13.4	105.1	93.4		93.2	82.7	
Actuated g/C Ratio	0.10	0.10	0.10		0.09	0.09	0.70	0.62		0.62	0.55	
v/c Ratio	0.62	0.62	0.43		0.60	0.26	0.42	0.32		0.14	0.44	
Control Delay	80.5	80.3	15.4		80.6	5.1	11.5	15.3		9.6	21.3	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	80.5	80.3	15.4		80.6	5.1	11.5	15.3		9.6	21.3	
LOS	F	F	B		F	A	B	B		A	C	
Approach Delay		57.7			52.1			14.4			20.4	
Approach LOS		E			D			B			C	

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 48 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.62
Intersection Signal Delay: 25.3 Intersection LOS: C
Intersection Capacity Utilization 59.5% ICU Level of Service B
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	1	0	0	835	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1	0	0	908	14

Major/Minor	Minor2		Major2	
Conflicting Flow All	915	460	-	0
Stage 1	915	-	-	-
Stage 2	0	-	-	-
Follow-up Headway	4	3	-	-
Pot Capacity-1 Maneuver	228	548	-	-
Stage 1	294	-	-	-
Stage 2	-	-	-	-
Time blocked-Platoon, %			-	-
Mov Capacity-1 Maneuver	228	548	-	-
Mov Capacity-2 Maneuver	228	-	-	-
Stage 1	294	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	12	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	548	-	-
HCM Lane V/C Ratio	0.002	-	-
HCM Control Delay (s)	11.6	-	-
HCM Lane LOS	B		
HCM 95th % tile Q(veh)	0.006	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	179	20	107	69	28	58	199	637	55	68	667	168
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	45%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	12.0	57.0		13.0	58.0	
Total Split (%)	26.7%	26.7%	26.7%	26.7%	26.7%	26.7%	8.0%	38.0%		8.7%	38.7%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	14.9	14.9	14.9		13.9	13.9	104.2	90.7		92.4	81.8	
Actuated g/C Ratio	0.10	0.10	0.10		0.09	0.09	0.69	0.60		0.62	0.55	
v/c Ratio	0.62	0.63	0.44		0.61	0.26	0.45	0.34		0.15	0.47	
Control Delay	80.1	80.5	15.0		80.6	5.6	12.4	16.5		10.0	22.4	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	80.1	80.5	15.0		80.6	5.6	12.4	16.5		10.0	22.4	
LOS	F	F	B		F	A	B	B		B	C	
Approach Delay		57.4			52.5			15.6			21.5	
Approach LOS		E			D			B			C	

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 48 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.63
Intersection Signal Delay: 26.2 Intersection LOS: C
Intersection Capacity Utilization 61.1% ICU Level of Service B
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	1	0	0	869	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1	0	0	945	15

Major/Minor	Minor2		Major2	
Conflicting Flow All	952	479	-	0
Stage 1	952	-	-	-
Stage 2	0	-	-	-
Follow-up Headway	4	3	-	-
Pot Capacity-1 Maneuver	214	533	-	-
Stage 1	279	-	-	-
Stage 2	-	-	-	-
Time blocked-Platoon, %			-	-
Mov Capacity-1 Maneuver	214	533	-	-
Mov Capacity-2 Maneuver	214	-	-	-
Stage 1	279	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	12	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	533	-	-
HCM Lane V/C Ratio	0.002	-	-
HCM Control Delay (s)	11.8	-	-
HCM Lane LOS	B		
HCM 95th % tile Q(veh)	0.006	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Timings
3: Crandon Boulevard & Harbor Drive 11/21/2013

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	179	20	107	69	34	58	218	633	55	74	682	168
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	45%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	12.0	57.0		13.0	58.0	
Total Split (%)	26.7%	26.7%	26.7%	26.7%	26.7%	26.7%	8.0%	38.0%		8.7%	38.7%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	14.9	14.9	14.9		14.4	14.4	103.7	89.9		87.7	76.9	
Actuated g/C Ratio	0.10	0.10	0.10		0.10	0.10	0.69	0.60		0.58	0.51	
v/c Ratio	0.62	0.63	0.44		0.63	0.26	0.48	0.35		0.17	0.51	
Control Delay	80.1	80.5	15.0		80.5	5.4	12.9	16.9		10.7	25.6	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	80.1	80.5	15.0		80.5	5.4	12.9	16.9		10.7	25.6	
LOS	F	F	B		F	A	B	B		B	C	
Approach Delay		57.4			53.5			15.9			24.4	
Approach LOS		E			D			B			C	

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 48 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.63
Intersection Signal Delay: 27.5 Intersection LOS: C
Intersection Capacity Utilization 62.7% ICU Level of Service B
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	34	0	0	857	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	37	0	0	932	28

Major/Minor	Minor2		Major2	
Conflicting Flow All	946	479	-	0
Stage 1	946	-	-	-
Stage 2	0	-	-	-
Follow-up Headway	4	3	-	-
Pot Capacity-1 Maneuver	216	533	-	-
Stage 1	281	-	-	-
Stage 2	-	-	-	-
Time blocked-Platoon, %			-	-
Mov Capacity-1 Maneuver	216	533	-	-
Mov Capacity-2 Maneuver	216	-	-	-
Stage 1	281	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	12	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	533	-	-
HCM Lane V/C Ratio	0.069	-	-
HCM Control Delay (s)	12.3	-	-
HCM Lane LOS	B		
HCM 95th % tile Q(veh)	0.223	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	317	31	95	48	43	86	130	888	80	91	765	216
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	45%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	41.0	41.0	41.0	12.0	56.0		13.0	57.0	
Total Split (%)	26.7%	26.7%	26.7%	27.3%	27.3%	27.3%	8.0%	37.3%		8.7%	38.0%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	22.7	22.7	22.7		13.5	13.5	96.7	81.1		90.8	78.1	
Actuated g/C Ratio	0.15	0.15	0.15		0.09	0.09	0.64	0.54		0.61	0.52	
v/c Ratio	0.74	0.72	0.31		0.60	0.40	0.42	0.55		0.31	0.59	
Control Delay	77.4	75.9	11.2		80.4	15.6	16.0	25.9		14.7	28.1	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	77.4	75.9	11.2		80.4	15.6	16.0	25.9		14.7	28.1	
LOS	E	E	B		F	B	B	C		B	C	
Approach Delay		62.7			49.0			24.7			26.9	
Approach LOS		E			D			C			C	

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 48 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 33.1 **Intersection LOS: C**
Intersection Capacity Utilization 65.7% ICU Level of Service C
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	1	0	0	1061	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1	0	0	1153	13

Major/Minor	Minor2		Major2	
Conflicting Flow All	1160	582	-	0
Stage 1	1160	-	-	-
Stage 2	0	-	-	-
Follow-up Headway	4	3	-	-
Pot Capacity-1 Maneuver	151	456	-	-
Stage 1	208	-	-	-
Stage 2	-	-	-	-
Time blocked-Platoon, %			-	-
Mov Capacity-1 Maneuver	151	456	-	-
Mov Capacity-2 Maneuver	151	-	-	-
Stage 1	208	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	13	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	456	-	-
HCM Lane V/C Ratio	0.002	-	-
HCM Control Delay (s)	12.9	-	-
HCM Lane LOS	B		
HCM 95th % tile Q(veh)	0.007	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Timings
3: Crandon Boulevard & Harbor Drive

11/21/2013

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	330	32	99	50	45	89	135	924	83	95	796	225
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	45%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	41.0	41.0	41.0	12.0	56.0		13.0	57.0	
Total Split (%)	26.7%	26.7%	26.7%	27.3%	27.3%	27.3%	8.0%	37.3%		8.7%	38.0%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	23.3	23.3	23.3		13.8	13.8	95.9	79.9		89.3	76.4	
Actuated g/C Ratio	0.16	0.16	0.16		0.09	0.09	0.64	0.53		0.60	0.51	
v/c Ratio	0.75	0.73	0.32		0.61	0.41	0.45	0.58		0.34	0.63	
Control Delay	77.2	76.1	11.0		80.5	16.2	17.1	27.4		15.7	30.2	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	77.2	76.1	11.0		80.5	16.2	17.1	27.4		15.7	30.2	
LOS	E	E	B		F	B	B	C		B	C	
Approach Delay		62.6			49.3			26.2			28.9	
Approach LOS		E			D			C			C	

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 48 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 34.5 Intersection LOS: C
Intersection Capacity Utilization 67.5% ICU Level of Service C
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	1	0	0	1104	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1	0	0	1200	13

Major/Minor	Minor2		Major2	
Conflicting Flow All	1207	606	-	0
Stage 1	1207	-	-	-
Stage 2	0	-	-	-
Follow-up Headway	4	3	-	-
Pot Capacity-1 Maneuver	139	440	-	-
Stage 1	194	-	-	-
Stage 2	-	-	-	-
Time blocked-Platoon, %			-	-
Mov Capacity-1 Maneuver	139	440	-	-
Mov Capacity-2 Maneuver	139	-	-	-
Stage 1	194	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	13	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	440	-	-
HCM Lane V/C Ratio	0.002	-	-
HCM Control Delay (s)	13.2	-	-
HCM Lane LOS	B		
HCM 95th % tile Q(veh)	0.007	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Timings
3: Crandon Boulevard & Harbor Drive

11/21/2013

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	343	32	99	50	50	89	149	921	83	100	808	225
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	46%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	41.0	41.0	41.0	12.0	56.0		13.0	57.0	
Total Split (%)	26.7%	26.7%	26.7%	27.3%	27.3%	27.3%	8.0%	37.3%		8.7%	38.0%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	23.9	23.9	23.9		14.3	14.3	94.8	78.4		86.0	72.5	
Actuated g/C Ratio	0.16	0.16	0.16		0.10	0.10	0.63	0.52		0.57	0.48	
v/c Ratio	0.75	0.76	0.31		0.63	0.41	0.49	0.59		0.36	0.67	
Control Delay	76.2	76.9	10.8		80.6	15.9	18.2	28.6		16.6	33.3	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	76.2	76.9	10.8		80.6	15.9	18.2	28.6		16.6	33.3	
LOS	E	E	B		F	B	B	C		B	C	
Approach Delay		62.9			50.1			27.2			31.8	
Approach LOS		E			D			C			C	

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 48 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 36.2 Intersection LOS: D
Intersection Capacity Utilization 68.9% ICU Level of Service C
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	27	0	0	1097	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	29	0	0	1192	28

Major/Minor	Minor2		Major2	
Conflicting Flow All	1207	609	-	0
Stage 1	1207	-	-	-
Stage 2	0	-	-	-
Follow-up Headway	4	3	-	-
Pot Capacity-1 Maneuver	139	438	-	-
Stage 1	194	-	-	-
Stage 2	-	-	-	-
Time blocked-Platoon, %			-	-
Mov Capacity-1 Maneuver	139	438	-	-
Mov Capacity-2 Maneuver	139	-	-	-
Stage 1	194	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	14	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	438	-	-
HCM Lane V/C Ratio	0.067	-	-
HCM Control Delay (s)	13.8	-	-
HCM Lane LOS	B		
HCM 95th % tile Q(veh)	0.215	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	27	0	0	1097	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	29	0	0	1192	28

Major/Minor	Minor2		Major2	
Conflicting **Flow All**	1207	609	-	0
Stage 1	1207	-	-	-
Stage 2	0	-	-	-
Follow-up Headway	4	3	-	-
Pot Capacity-1 Maneuver	139	438	-	-
Stage 1	194	-	-	-
Stage 2	-	-	-	-
Time blocked-Platoon, %			-	-
Mov Capacity-1 Maneuver	139	438	-	-
Mov Capacity-2 Maneuver	139	-	-	-
Stage 1	194	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	14	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	438	-	-
HCM Lane V/C Ratio	0.067	-	-
HCM Control Delay (s)	13.8	-	-
HCM Lane LOS	B		
HCM 95th % tile Q(veh)	0.215	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

TOD Schedule Report

for 3545: Crandon Blvd&Harbor Dr&Ocean Lane Dr

Print Date: 10/17/2013

Print Time: 8:25 AM

Asset	Intersection	TOD Schedule	Op Mode	Plan #	Cycle	Offset	TOD Setting	Active PhaseBank	Active Maximum
3545	Crandon Blvd&Harbor Dr&Ocean Lane	DOW-6		N/A	0	0	N/A	0	Max 0

Splits

PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8
NBL	SBT	EBT	WBT	SBL	NBT	-	-
0	0	0	0	0	0	0	0

Active Phase Bank: Phase Bank 1

Phase	Walk (Phase Bank 1 - 2 - 3)	Don't Walk (1 - 2 - 3)	Min Initial (1 - 2 - 3)	Veh Ext (1 - 2 - 3)	Max Limit (1 - 2 - 3)	Max 2 (1 - 2 - 3)	Yellow	Red
1 NBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	2 - 2 - 2	9 - 9 - 9	18 - 18 - 18	3	0
2 SBT	7 - 7 - 7	17 - 17 - 17	7 - 7 - 7	1 - 1 - 1	35 - 35 - 35	0 - 45 - 45	4	2.5
3 EBT	7 - 7 - 7	24 - 24 - 24	7 - 7 - 7	2.5 - 2.5 - 2.5	18 - 20 - 20	40 - 40 - 40	4	3.2
4 WBT	7 - 7 - 7	21 - 21 - 21	7 - 7 - 7	2.5 - 2.5 - 2.5	18 - 10 - 10	35 - 35 - 35	4	2.9
5 SBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	2 - 2 - 2	9 - 9 - 9	18 - 18 - 18	3	0
6 NBT	7 - 7 - 7	17 - 17 - 17	7 - 7 - 7	1 - 1 - 1	35 - 35 - 35	0 - 45 - 45	4	2.5
7 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
8 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0

Last In Service Date: unknown

Permitted Phases

	17245678
Default	123456--
External Permit 0	-234-6--
External Permit 1	-234-6--
External Permit 2	-234-6--

Crossroads Engineering

8320 SW 90th Street
Miami, FL 33156
786-236-2857

CLIENT: TRAFTECH
JOB NO.: 2013-069
PROJECT: CRANDON BLVD
COUNTY: MIAMI-DADE

File Name : CRANDON BLVD @ HARBOR DR
Site Code : 00000000
Start Date : 11/12/2013
Page No : 1

Groups Printed- AUTOS - HEAVY VEHICLES - TURNS

	CRANDON BLVD From North				HARBOR DR From East				CRANDON BLVD From South				HARBOR DR From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	57	165	9	0	24	9	7	9	2	185	15	11	9	2	78	1	583
07:15 AM	66	151	8	0	16	14	8	7	5	139	35	0	19	1	81	5	555
07:30 AM	61	170	16	0	25	29	12	6	11	154	44	6	37	9	80	10	670
07:45 AM	64	234	15	0	29	22	19	12	12	172	34	2	28	11	95	4	753
Total	248	720	48	0	94	74	46	34	30	650	128	19	93	23	334	20	2561
08:00 AM	80	177	12	0	37	35	28	19	7	160	37	9	26	4	81	0	712
08:15 AM	57	176	11	0	23	23	19	22	8	168	43	5	39	16	103	2	715
08:30 AM	61	224	14	0	30	9	13	14	12	191	43	5	31	18	95	8	768
08:45 AM	64	217	14	0	31	5	17	19	6	188	36	7	38	6	64	6	718
Total	262	794	51	0	121	72	77	74	33	707	159	26	134	44	343	16	2913
*** BREAK ***																	
11:30 AM	28	149	18	0	14	8	17	5	7	137	57	3	23	7	44	7	524
11:45 AM	36	152	14	3	14	8	13	5	21	161	57	2	30	7	34	4	561
Total	64	301	32	3	28	16	30	10	28	298	114	5	53	14	78	11	1085
12:00 PM	32	160	18	0	13	5	16	9	16	123	61	0	30	6	56	2	547
12:15 PM	32	137	18	0	9	2	13	13	9	132	52	9	29	5	43	7	510
12:30 PM	38	160	11	2	11	4	13	7	15	151	44	4	40	3	37	3	543
12:45 PM	41	176	15	0	14	3	20	2	10	141	59	0	25	10	43	1	560
Total	143	633	62	2	47	14	62	31	50	547	216	13	124	24	179	13	2160
01:00 PM	45	162	25	1	14	5	12	4	10	152	49	8	20	3	48	0	558
01:15 PM	37	143	14	3	17	15	21	11	18	168	39	2	18	3	44	0	553
*** BREAK ***																	
Total	82	305	39	4	31	20	33	15	28	320	88	10	38	6	92	0	1111
*** BREAK ***																	
04:00 PM	51	190	19	0	31	8	12	10	16	207	45	2	29	7	97	4	728
04:15 PM	50	154	20	0	24	10	8	5	17	200	37	3	19	8	101	14	670
04:30 PM	43	187	22	1	24	12	17	16	18	240	33	1	30	6	73	1	722
04:45 PM	64	205	23	1	25	14	12	9	21	196	24	2	26	8	73	0	703
Total	208	736	84	2	104	44	49	40	70	843	139	8	104	29	344	19	2823

Crossroads Engineering

8320 SW 90th Street
Miami, FL 33156
786-236-2857

CLIENT: TRAFTECH
JOB NO.: 2013-069
PROJECT: CRANDON BLVD
COUNTY: MIAMI-DADE

File Name : CRANDON BLVD @ HARBOR DR
Site Code : 00000000
Start Date : 11/12/2013
Page No : 3

	CRANDON BLVD From North					HARBOR DR From East					CRANDON BLVD From South					HARBOR DR From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	64	234	16	0	313	29	22	19	12	82	12	172	34	2	220	28	11	95	4	138	753
08:00 AM	80	177	12	0	269	37	35	28	19	119	7	160	37	9	213	26	4	81	0	111	712
08:15 AM	57	176	11	0	244	23	23	19	22	87	8	166	43	5	224	39	16	103	2	160	715
08:30 AM	61	224	14	0	299	30	9	13	14	66	12	191	43	5	251	31	18	95	8	152	768
Total Volume	262	811	52	0	1125	119	89	79	67	354	39	691	157	21	908	124	49	374	14	561	2948
% App. Total	23.3	72.1	4.6	0		33.6	25.1	22.3	18.9		4.3	76.1	17.3	2.3		22.1	8.7	66.7	2.5		
PHF	.819	.866	.867	.000	.899	.804	.636	.705	.761	.744	.813	.904	.913	.583	.904	.795	.681	.908	.438	.877	.960

Crossroads Engineering

8320 SW 90th Street
Miami, FL 33156
786-236-2857

CLIENT: TRAFTECH
JOB NO.: 2013-069
PROJECT: CRANDON BLVD
COUNTY: MIAMI-DADE

File Name : CRANDON BLVD @ HARBOR DR
Site Code : 00000000
Start Date : 11/12/2013
Page No : 5

	CRANDON BLVD From North					HARBOR DR From East					CRANDON BLVD From South					HARBOR DR From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:30 PM																					
12:30 PM	38	160	11	2	211	11	4	13	7	35	15	151	44	4	214	40	3	37	3	83	543
12:45 PM	41	176	15	0	232	14	3	20	2	39	10	141	58	0	210	25	10	43	1	79	560
01:00 PM	45	162	25	1	233	14	5	12	4	35	10	152	49	8	219	20	3	48	0	71	558
01:15 PM	37	143	14	3	197	17	15	21	11	64	18	168	39	2	227	18	3	44	0	65	553
Total Volume	161	641	65	6	873	56	27	66	24	173	53	612	191	14	870	103	19	172	4	298	2214
% App. Total	18.4	73.4	7.4	0.7		32.4	15.6	38.2	13.9		6.1	70.3	22	1.6		34.6	6.4	57.7	1.3		
PHF	.894	.911	.650	.500	.937	.824	.450	.786	.545	.676	.736	.911	.809	.438	.958	.644	.475	.896	.333	.898	.988

Crossroads Engineering

8320 SW 90th Street
Miami, FL 33186
786-236-2857

CLIENT: TRAFTECH
JOB NO.: 2013-069
PROJECT: CRANDON BLVD
COUNTY: MIAMI-DADE

File Name : CRANDON BLVD @ HARBOR DR
Site Code : 00000000
Start Date : 11/12/2013
Page No : 7

	CRANDON BLVD From North					HARBOR DR From East					CRANDON BLVD From South					HARBOR DR From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. 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	50	154	20	0	224	24	10	8	5	47	17	200	37	3	257	19	8	101	14	142	670
04:30 PM	43	187	22	1	253	24	12	17	16	69	16	240	33	1	290	30	6	73	1	110	722
04:45 PM	64	205	23	1	293	25	14	12	9	60	21	196	24	2	243	26	8	73	0	107	703
05:00 PM	59	219	26	0	304	13	7	11	12	43	26	252	36	6	320	20	9	70	3	102	769
Total Volume	216	765	91	2	1074	86	43	48	42	219	80	888	130	12	1110	95	31	317	18	461	2864
% App. Total	20.1	71.2	8.5	0.2		39.3	19.6	21.9	19.2		7.2	80	11.7	1.1		20.6	6.7	68.8	3.9		
PHF	.844	.873	.875	.500	.883	.860	.768	.706	.656	.793	.769	.881	.878	.500	.867	.792	.861	.785	.321	.812	.931

Crossroads Engineering

8320 SW 90th Street
Miami, FL 33186
786-236-2857

CLIENT: TRAFTECH
JOB NO.: 2013-089
PROJECT: CRANDON BLVD
COUNTY: MIAMI-DADE

File Name : CRANDON BLVD @ HARBOR DR
Site Code : 00000000
Start Date : 11/12/2013
Page No : 1

Groups Printed- HEAVY VEHCILES

	CRANDON BLVD From North				HARBOR DR From East				CRANDON BLVD From South				HARBOR DR From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	3	4	0	0	0	0	0	0	0	4	1	0	0	0	0	0	12
07:15 AM	3	5	0	0	0	0	0	0	0	4	1	0	2	0	1	0	16
07:30 AM	4	5	0	0	0	0	0	0	0	4	1	0	3	0	0	0	17
07:45 AM	2	4	0	0	0	0	0	0	0	0	0	0	1	0	1	0	8
Total	12	18	0	0	0	0	0	0	0	12	3	0	6	0	2	0	53
08:00 AM	4	3	0	0	0	0	0	0	0	6	0	0	0	0	1	0	14
08:15 AM	0	8	0	0	0	0	0	0	0	3	0	0	0	0	1	0	12
08:30 AM	4	6	1	0	0	0	0	0	0	4	0	0	0	0	0	0	15
08:45 AM	1	5	0	0	0	0	0	0	1	5	0	0	0	0	2	0	14
Total	9	22	1	0	0	0	0	0	1	18	0	0	0	0	4	0	55
*** BREAK ***																	
11:30 AM	2	3	1	0	0	0	0	0	0	5	0	0	0	0	0	0	11
11:45 AM	3	9	0	0	0	0	1	0	1	7	0	0	1	1	4	0	27
Total	5	12	1	0	0	0	1	0	1	12	0	0	1	1	4	0	38
12:00 PM	1	3	0	0	0	0	0	0	0	4	0	0	1	0	0	0	9
12:15 PM	3	6	1	0	0	0	0	0	0	3	1	0	4	0	2	0	20
12:30 PM	4	10	2	0	0	0	0	0	1	9	0	0	1	0	4	0	31
12:45 PM	2	5	0	0	2	0	0	0	0	6	2	0	0	0	2	0	19
Total	10	24	3	0	2	0	0	0	1	22	3	0	6	0	8	0	79
01:00 PM	0	4	0	0	0	0	1	0	0	8	0	0	1	0	0	0	14
01:15 PM	2	5	2	0	0	0	0	0	0	5	5	0	0	0	5	0	24
*** BREAK ***																	
Total	2	9	2	0	0	0	1	0	0	13	5	0	1	0	5	0	38
*** BREAK ***																	
04:00 PM	0	2	0	0	0	0	0	0	0	6	1	0	0	0	2	0	11
04:15 PM	4	5	0	0	0	0	0	0	0	4	3	0	0	0	5	0	21
04:30 PM	3	3	0	0	0	0	0	0	0	4	0	0	0	0	2	0	12
04:45 PM	0	2	0	0	0	0	0	0	0	8	0	0	0	0	3	0	13
Total	7	12	0	0	0	0	0	0	0	22	4	0	0	0	12	0	57

Crossroads Engineering

8320 SW 90th Street
Miami, FL 33156
786-236-2857

CLIENT: TRAFTECH
JOB NO.: 2013-089
PROJECT: CRANDON BLVD
COUNTY: MIAMI-DADE

File Name : CRANDON BLVD @ HARBOR DR
Site Code : 00000000
Start Date : 11/12/2013
Page No : 1

Groups Printed- TURNS

	CRANDON BLVD From North				HARBOR DR From East				CRANDON BLVD From South				HARBOR DR From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
*** BREAK ***																	
07:15 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4
07:30 AM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	8
07:45 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4
Total	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	0	16
08:00 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5
08:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
08:30 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6
08:45 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6
Total	0	0	0	0	0	0	0	0	0	0	19	0	0	0	0	0	19
*** BREAK ***																	
11:30 AM	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	21
11:45 AM	0	0	0	2	0	0	0	0	0	0	14	0	0	0	0	0	16
Total	0	0	0	2	0	0	0	0	0	0	35	0	0	0	0	0	37
12:00 PM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	10
12:15 PM	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	13
12:30 PM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	10
12:45 PM	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	13
Total	0	0	0	0	0	0	0	0	0	0	46	0	0	0	0	0	46
01:00 PM	0	0	0	1	0	0	0	0	0	0	18	0	0	0	0	0	19
01:15 PM	0	0	0	1	0	0	0	0	0	0	9	0	0	0	0	0	10
*** BREAK ***																	
Total	0	0	0	2	0	0	0	0	0	0	27	0	0	0	0	0	29
*** BREAK ***																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	8
04:15 PM	0	0	1	0	0	0	0	0	0	0	6	0	0	0	0	0	7
04:30 PM	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	11
04:45 PM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	8
Total	0	0	1	0	0	0	0	0	0	0	33	0	0	0	0	0	34

TIME	HARBOR DR (11-12-2013)																			TOTAL
	DW 1				DW 2				DW 3				DW 4	DW 5				DW 6		
	IN		OUT		IN		OUT		IN		OUT			IN		OUT				
	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	OUT	RIGHT	LEFT	RIGHT	LEFT	IN	OUT	
7:00	0	0	2	1	0	0	0	0	4	1	0	0	20	23	5	0	0	0	6	62
7:15	2	0	2	0	0	1	1	0	6	3	0	0	23	10	7	0	0	1	0	56
7:30	0	1	3	0	2	0	2	1	4	1	0	0	38	15	4	0	0	0	3	74
7:45	3	0	2	0	1	1	0	2	6	4	0	0	45	10	6	2	0	0	4	86
8:00	1	0	8	0	0	0	0	0	4	2	0	0	30	11	6	0	0	1	3	66
8:15	4	1	6	1	0	2	3	0	9	1	0	0	54	22	9	0	0	0	2	114
8:30	3	1	5	1	1	1	1	0	8	3	0	0	34	23	13	0	0	1	1	96
8:45	3	2	6	0	2	0	2	1	6	1	0	0	50	26	5	3	0	0	3	110
TOTAL	16	5	34	3	6	5	9	4	47	16	0	0	294	140	55	5	0	3	22	664
11:30	6	0	8	3	3	0	3	0	7	4	0	0	35	20	11	0	0	1	2	103
11:45	5	3	7	1	1	2	2	1	8	2	0	0	27	28	9	1	0	1	1	99
12:00	1	0	1	1	0	0	2	4	6	0	0	0	40	30	9	0	0	0	3	97
12:15	4	0	1	0	1	0	2	0	3	2	0	0	26	24	8	2	0	0	3	76
12:30	6	1	3	1	1	0	1	2	5	1	1	0	32	22	9	0	0	1	1	87
12:45	7	3	8	1	3	1	1	1	6	1	1	0	43	37	13	0	0	1	2	129
13:00	4	2	4	2	1	0	3	3	1	1	0	0	38	34	6	0	0	0	7	106
13:15	2	0		1	0	1	0	2	4	0	0	0	38	29	13	2	0	0	2	94
TOTAL	35	9	32	10	10	4	14	13	40	11	2	0	279	224	78	5	0	4	21	791
4:00	8	1	8	1	0	1	5	1	2	0	0	0	24	21	10	0	0	1	3	86
4:15	4	0	8	0	0	0	3	0	4	1	0	0	39	25	8	0	0	1	4	97
4:30	1	1	5	0	1	1	0	0	2	2	0	0	33	13	10	0	0	0	2	71
4:45	2	0	5	1	0	0	0	3	4	1	0	0	30	26	10	1	0	0	2	85
5:00	3	1	2	0	0	0	0	0	2	1	0	0	37	14	11	0	0	2	4	77
5:15	3	2	4	0	0	0	2	2	5	0	0	0	35	14	11	0	0	0	2	80
5:30	3	3	4	0	0	5	3	2	1	0	0	0	22	16	5	0	0	0	6	70
5:45	0	0	3	1	0	0	1	0	2	1	0	0	20	9	11	0	0	0	2	50
TOTAL	24	8	39	3	1	7	14	8	22	6	0	0	240	138	76	1	0	4	25	616

COUNTY: 87
STATION: 8133
DESCRIPTION: CRANDON BLVD, 200' NORTH OF HARBOR DRIVE
START DATE: 04/10/2012
START TIME: 2345

	DIRECTION: N					DIRECTION: S					COMBINED
TIME	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	TOTAL
0000	28	31	16	6	81	42	36	25	16	119	200
0100	5	7	3	8	23	16	7	10	12	45	68
0200	0	9	5	4	18	9	4	3	5	21	39
0300	0	0	4	10	14	3	5	3	2	13	27
0400	6	5	17	16	44	8	16	12	16	52	96
0500	21	32	31	42	126	14	29	52	56	151	277
0600	69	92	127	206	494	74	114	167	154	509	1003
0700	230	235	270	308	1043	204	206	261	270	941	1984
0800	345	401	350	312	1408	256	276	252	241	1025	2433
0900	276	292	273	244	1085	246	225	222	208	901	1986
1000	242	246	226	235	949	193	204	183	214	794	1743
1100	223	264	259	248	994	191	195	212	210	808	1802
1200	246	258	237	241	982	186	213	185	206	790	1772
1300	205	243	234	250	932	194	217	226	178	815	1747
1400	244	254	262	285	1045	209	229	254	242	934	1979
1500	296	305	296	328	1225	222	233	228	228	911	2136
1600	323	340	284	284	1231	242	246	229	238	955	2186
1700	296	246	268	254	1064	246	259	288	272	1065	2129
1800	250	260	224	211	945	268	286	248	219	1021	1966
1900	192	154	154	153	653	234	232	207	206	879	1532
2000	147	110	98	105	460	182	158	138	120	598	1058
2100	79	66	70	74	289	122	111	150	138	521	810
2200	76	66	74	92	308	124	108	126	68	426	734
2300	66	53	42	56	217	57	57	52	50	216	433
24-HOUR TOTALS:					15630					14510	30140

PEAK VOLUME INFORMATION

	DIRECTION: N		DIRECTION: S		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	800	1408	730	1063	745	2458
P.M.	1530	1287	1730	1114	1530	2231
DAILY	800	1408	1730	1114	745	2458

GENERATED BY SPS 5.0.44P

COUNTY: 87
STATION: 8133
DESCRIPTION: CRANDON BLVD, 200' NORTH OF HARBOR DRIVE
START DATE: 04/12/2012
START TIME: 2345

	DIRECTION: N					DIRECTION: S					COMBINED
TIME	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	TOTAL
0000	24	14	20	22	80	27	22	30	20	99	179
0100	8	10	8	9	35	16	16	10	17	59	94
0200	9	10	4	0	23	15	9	9	3	36	59
0300	5	2	3	7	17	9	5	7	10	31	48
0400	7	6	5	14	32	9	15	17	18	59	91
0500	18	24	31	28	101	28	18	44	41	131	232
0600	50	88	108	234	480	81	114	172	146	513	993
0700	224	224	248	274	970	182	198	270	272	922	1892
0800	348	386	313	302	1349	282	260	256	264	1062	2411
0900	283	298	264	262	1107	227	236	214	206	883	1990
1000	247	242	243	218	950	184	216	163	212	775	1725
1100	248	222	236	254	960	202	200	208	190	800	1760
1200	232	244	216	248	940	192	192	217	222	823	1763
1300	236	238	230	270	974	206	185	218	200	809	1783
1400	280	246	256	272	1054	188	222	264	224	898	1952
1500	284	344	262	290	1180	235	231	236	266	968	2148
1600	333	350	280	334	1297	230	237	220	250	937	2234
1700	288	281	257	299	1125	238	232	294	282	1046	2171
1800	244	194	222	227	887	255	259	312	264	1090	1977
1900	206	174	151	142	673	274	234	217	162	887	1560
2000	131	136	120	96	483	187	180	134	140	641	1124
2100	104	76	85	93	358	142	134	123	118	517	875
2200	86	64	82	104	336	92	113	122	82	409	745
2300	88	51	52	34	225	68	82	45	62	257	482
24-HOUR TOTALS:					15636					14652	30288

PEAK VOLUME INFORMATION

	DIRECTION: N		DIRECTION: S		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	800	1349	730	1084	800	2411
P.M.	1600	1297	1745	1108	1600	2234
DAILY	800	1349	1815	1109	800	2411

GENERATED BY SPS 5.0.44P

TABLE C-1
Trip Generation Summary (Existing Uses)
Walgreens - Key Biscayne

Land Use	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total Trips	Inbound	Outbound	Total Trips	Inbound	Outbound
Restaurant (Cuban)-LUC 932	3,745	476	40	22	18	37	22	15
Restaurant (BK)-LUC 933	2,130	1,525	93	56	37	56	29	27
Office-LUC 710	404	4	1	1	0	1	0	1
Liquor Store-LUC 820	1,531	449	12	8	5	36	17	19
Restaurant/Lounge-LUC 925	7,000	878	0	0	0	79	52	27
Subtotal		**3,332**	**146**	**86**	**60**	**209**	**121**	**89**
Internal (10%)		-333	-15	-9	-6	-21	-12	-9
Pass-by (Retail-25%)		-612	-36	-21	-15	-32	-17	-15
External Trips		**2,387**	**95**	**56**	**39**	**156**	**92**	**65**

Source: ITE Trip Generation Manual (9th Edition)

TABLE C-2
Trip Generation Summary (Proposed Use)
Walgreens - Key Biscayne

Land Use	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total Trips	Inbound	Outbound	Total Trips	Inbound	Outbound
Pharmacy w/o DT-LUC 880	14,558	1,311	73	47	26	122	60	62
Subtotal		**1,311**	**73**	**47**	**26**	**122**	**60**	**62**
Internal (0%)		0	0	0	0	0	0	0
Pass-by (-25%)		-328	-18	-12	-6	-31	-15	-16
External Trips		**983**	**55**	**35**	**20**	**91**	**45**	**46**

Source: ITE Trip Generation Manual (9th Edition)

Difference in Trips		**-1,404**	**-40**	**-21**	**-19**	**-65**	**-47**	**-19**

Traf Tech
ENGINEERING, INC.

2012 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 8701 MIAMI-DADE SOUTH

MOCF: 0.98

WEEK	DATES	SF	PSCF
1	01/01/2012 - 01/07/2012	1.00	1.02
2	01/08/2012 - 01/14/2012	1.00	1.02
3	01/15/2012 - 01/21/2012	1.00	1.02
* 4	01/22/2012 - 01/28/2012	0.99	1.01
* 5	01/29/2012 - 02/04/2012	0.99	1.01
* 6	02/05/2012 - 02/11/2012	0.98	1.00
* 7	02/12/2012 - 02/18/2012	0.98	1.00
* 8	02/19/2012 - 02/25/2012	0.98	1.00
* 9	02/26/2012 - 03/03/2012	0.98	1.00
*10	03/04/2012 - 03/10/2012	0.97	0.99
*11	03/11/2012 - 03/17/2012	0.97	0.99
*12	03/18/2012 - 03/24/2012	0.98	1.00
*13	03/25/2012 - 03/31/2012	0.98	1.00
*14	04/01/2012 - 04/07/2012	0.98	1.00
*15	04/08/2012 - 04/14/2012	0.98	1.00
*16	04/15/2012 - 04/21/2012	0.99	1.01
17	04/22/2012 - 04/28/2012	0.99	1.01
18	04/29/2012 - 05/05/2012	0.99	1.01
19	05/06/2012 - 05/12/2012	1.00	1.02
20	05/13/2012 - 05/19/2012	1.00	1.02
21	05/20/2012 - 05/26/2012	1.00	1.02
22	05/27/2012 - 06/02/2012	1.00	1.02
23	06/03/2012 - 06/09/2012	1.00	1.02
24	06/10/2012 - 06/16/2012	1.00	1.02
25	06/17/2012 - 06/23/2012	1.00	1.02
26	06/24/2012 - 06/30/2012	1.01	1.03
27	07/01/2012 - 07/07/2012	1.01	1.03
28	07/08/2012 - 07/14/2012	1.02	1.04
29	07/15/2012 - 07/21/2012	1.02	1.04
30	07/22/2012 - 07/28/2012	1.02	1.04
31	07/29/2012 - 08/04/2012	1.02	1.04
32	08/05/2012 - 08/11/2012	1.03	1.05
33	08/12/2012 - 08/18/2012	1.03	1.05
34	08/19/2012 - 08/25/2012	1.02	1.04
35	08/26/2012 - 09/01/2012	1.02	1.04
36	09/02/2012 - 09/08/2012	1.01	1.03
37	09/09/2012 - 09/15/2012	1.01	1.03
38	09/16/2012 - 09/22/2012	1.00	1.02
39	09/23/2012 - 09/29/2012	1.00	1.02
40	09/30/2012 - 10/06/2012	1.00	1.02
41	10/07/2012 - 10/13/2012	1.00	1.02
42	10/14/2012 - 10/20/2012	1.00	1.02
43	10/21/2012 - 10/27/2012	1.00	1.02
44	10/28/2012 - 11/03/2012	1.00	1.02
45	11/04/2012 - 11/10/2012	1.00	1.02
46	11/11/2012 - 11/17/2012	1.00	1.02
47	11/18/2012 - 11/24/2012	1.00	1.02
48	11/25/2012 - 12/01/2012	1.00	1.02
49	12/02/2012 - 12/08/2012	1.00	1.02
50	12/09/2012 - 12/15/2012	1.00	1.02
51	12/16/2012 - 12/22/2012	1.00	1.02
52	12/23/2012 - 12/29/2012	1.00	1.02
53	12/30/2012 - 12/31/2012	1.00	1.02

* PEAK SEASON

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Crandon Boulevard and Harbor Drive/Ocean Lane Drive
AM Peak Hour

Description	Crandon Boulevard Northbound			Crandon Boulevard Southbound			Harbor Drive Eastbound			Ocean Lane Drive Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (11/12/13)	157	691	39	52	811	262	374	49	124	79	89	119
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2013 Peak Season Traffic	160	705	40	53	827	267	381	50	126	81	91	121
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2015 Background Traffic	163	719	41	54	844	273	389	51	129	82	93	124
Project Trips												
- New Trips	9			2	5		3				4	
- Passer-by Trips	2	-2					3					
2015 Total Traffic	**174**	**717**	**41**	**56**	**849**	**273**	**395**	**51**	**129**	**82**	**97**	**124**

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FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Crandon Boulevard and Harbor Drive/Ocean Lane Drive
PM Peak Hour

Description	Crandon Boulevard Northbound			Crandon Boulevard Southbound			Harbor Drive Eastbound			Ocean Lane Drive Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (11/12/13)	130	888	80	91	765	216	317	31	95	48	43	86
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2013 Peak Season Traffic	133	906	82	93	780	220	323	32	97	49	44	88
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2015 Background Traffic	135	924	83	95	796	225	330	32	99	50	45	89
Project Trips												
- New Trips	11			5	12		7				5	
- Passer-by Trips	3	-3					6					
2015 Total Traffic	**149**	**921**	**83**	**100**	**808**	**225**	**343**	**32**	**99**	**50**	**50**	**89**

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FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Crandon Boulevard and Project Driveway
Midday Peak Hour

Description	Northbound			Crandon Boulevard Southbound			Harbor Drive Eastbound			Ocean Lane Drive Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (11/12/13)					835	13			1			
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2013 Peak Season Traffic	0	0	0	0	852	13	0	0	1	0	0	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2015 Background Traffic	0	0	0	0	869	14	0	0	1	0	0	0
Project Trips												
- New Trips						9			21			
- Passer-by Trips					-12	12			12			
2015 Total Traffic	**0**	**0**	**0**	**0**	**857**	**35**	**0**	**0**	**34**	**0**	**0**	**0**

Traf Tech
ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Harbor Drive and Project Driveway
AM Peak Hour

Description	Northbound			Project Driveway Southbound			Harbor Drive Eastbound			Harbor Drive Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (11/12/13)						2	34	573			590	66
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2013 Peak Season Traffic	0	0	0	0	0	2	35	584	0	0	602	67
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2015 Background Traffic	0	0	0	0	0	2	35	596	0	0	614	69
Project Trips												
- New Trips						12	18	3				13
- Passer-by Trips						3	2	1				2
2015 Total Traffic	0	0	0	0	0	17	55	600	0	0	614	84

Traf Tech
ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Harbor Drive and Project Driveway
PM Peak Hour

Description	Northbound			Project Driveway Southbound			Harbor Drive Eastbound			Harbor Drive Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (11/12/13)						1	39	465			450	78
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2013 Peak Season Traffic	0	0	0	0	0	1	40	474	0	0	459	80
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2015 Background Traffic	0	0	0	0	0	1	41	484	0	0	468	81
Project Trips												
- New Trips						30	22	7				16
- Passer-by Trips						6	3	3				3
2015 Total Traffic	0	0	0	0	0	37	66	494	0	0	468	100

Traf Tech
ENGINEERING, INC.

Timings
3: Crandon Boulevard & Harbor Drive

11/21/2013

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	374	49	124	79	89	119	157	691	39	52	811	262
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	44%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	12.0	57.0		13.0	58.0	
Total Split (%)	26.7%	26.7%	26.7%	26.7%	26.7%	26.7%	8.0%	38.0%		8.7%	38.7%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	25.7	25.7	25.7		19.9	19.9	87.4	75.5		75.3	64.6	
Actuated g/C Ratio	0.17	0.17	0.17		0.13	0.13	0.58	0.50		0.50	0.43	
v/c Ratio	0.77	0.77	0.35		0.73	0.39	0.57	0.43		0.15	0.76	
Control Delay	76.3	76.5	9.9		79.8	12.1	27.3	27.2		17.9	40.7	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	76.3	76.5	9.9		79.8	12.1	27.3	27.2		17.9	40.7	
LOS	E	E	A		E	B	C	C		B	D	
Approach Delay		61.3			51.8			27.2			39.7	
Approach LOS		E			D			C			D	

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 48 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 41.2 — Intersection LOS: D
Intersection Capacity Utilization 72.0% — ICU Level of Service C
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	0	0	0	1124	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	1222	54

Major/Minor	Minor2				Major2	
Conflicting Flow All	1249	637			-	0
Stage 1	1249	-			-	-
Stage 2	0	-			-	-
Follow-up Headway	4	3			-	-
Pot Capacity-1 Maneuver	129	420			-	-
Stage 1	183	-			-	-
Stage 2	-	-			-	-
Time blocked-Platoon, %					-	-
Mov Capacity-1 Maneuver	129	420			-	-
Mov Capacity-2 Maneuver	129	-			-	-
Stage 1	183	-			-	-
Stage 2	-	-			-	-

Approach	EB	SB
HCM Control Delay, s	0	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	0	-	-
HCM Lane V/C Ratio	Error	-	-
HCM Control Delay (s)	0	-	-
HCM Lane LOS	A		
HCM 95th % tile Q(veh)	Error	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	389	51	129	82	93	124	163	719	41	54	844	273
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	44%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	12.0	57.0		13.0	58.0	
Total Split (%)	26.7%	26.7%	26.7%	26.7%	26.7%	26.7%	8.0%	38.0%		8.7%	38.7%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	26.3	26.3	26.3		20.6	20.6	86.1	74.1		73.1	62.3	
Actuated g/C Ratio	0.18	0.18	0.18		0.14	0.14	0.57	0.49		0.49	0.42	
v/c Ratio	0.76	0.79	0.35		0.74	0.40	0.61	0.46		0.16	0.82	
Control Delay	76.6	77.1	9.8		78.9	11.7	35.5	28.6		18.7	44.6	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	76.6	77.1	9.8		78.9	11.7	35.5	28.6		18.7	44.6	
LOS	E	E	A		E	B	D	C		B	D	
Approach Delay		61.6			50.9			29.8			43.4	
Approach LOS		E			D			C			D	

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 48 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 43.4 Intersection LOS: D
Intersection Capacity Utilization 74.0% ICU Level of Service D
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	0	0	0	1170	52
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	**Stop**	**Stop**	**Free**	**Free**	**Free**	**Free**
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	1272	57

Major/Minor	Minor2		Major2	
Conflicting Flow All	1300	663	-	0
Stage 1	1300	-	-	-
Stage 2	0	-	-	-
Follow-up Headway	4	3	-	-
Pot Capacity-1 Maneuver	119	404	-	-
Stage 1	170	-	-	-
Stage 2	-	-	-	-
Time blocked-Platoon, %			-	-
Mov Capacity-1 Maneuver	119	404	-	-
Mov Capacity-2 Maneuver	119	-	-	-
Stage 1	170	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	0	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	0	-	-
HCM Lane V/C Ratio	Error	-	-
HCM Control Delay (s)	0	-	-
HCM Lane LOS	A		
HCM 95th % tile Q(veh)	Error	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	395	51	129	82	97	124	174	717	41	56	849	273
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	44%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	12.0	57.0		13.0	58.0	
Total Split (%)	26.7%	26.7%	26.7%	26.7%	26.7%	26.7%	8.0%	38.0%		8.7%	38.7%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	26.4	26.4	26.4		20.9	20.9	85.0	73.5		70.9	60.0	
Actuated g/C Ratio	0.18	0.18	0.18		0.14	0.14	0.57	0.49		0.47	0.40	
v/c Ratio	0.79	0.79	0.35		0.74	0.39	0.63	0.46		0.17	0.85	
Control Delay	77.2	77.3	9.7		78.7	11.5	41.8	29.0		19.1	47.9	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	77.2	77.3	9.7		78.7	11.5	41.8	29.0		19.1	47.9	
LOS	E	E	A		E	B	D	C		B	D	
Approach Delay		62.1			51.1			31.4			46.5	
Approach LOS		E			D			C			D	

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 48 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 45.3 **Intersection LOS: D**
Intersection Capacity Utilization 74.9% ICU Level of Service D
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	11	0	0	1163	64
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	12	0	0	1264	70

Major/Minor	Minor2		Major2	
Conflicting Flow All	1299	666	-	0
Stage 1	1299	-	-	-
Stage 2	0	-	-	-
Follow-up Headway	4	3	-	-
Pot Capacity-1 Maneuver	119	402	-	-
Stage 1	171	-	-	-
Stage 2	-	-	-	-
Time blocked-Platoon, %			-	-
Mov Capacity-1 Maneuver	119	402	-	-
Mov Capacity-2 Maneuver	119	-	-	-
Stage 1	171	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	14	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	402	-	-
HCM Lane V/C Ratio	0.03	-	-
HCM Control Delay (s)	14.2	-	-
HCM Lane LOS	B		
HCM 95th % tile Q(veh)	0.092	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	172	19	103	66	27	56	191	612	53	65	641	161
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	45%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	41.0	41.0	41.0	9.0	59.0		10.0	60.0	
Total Split (%)	26.7%	26.7%	26.7%	27.3%	27.3%	27.3%	6.0%	39.3%		6.7%	40.0%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	14.5	14.5	14.5		13.4	13.4	105.1	93.4		93.2	82.7	
Actuated g/C Ratio	0.10	0.10	0.10		0.09	0.09	0.70	0.62		0.62	0.55	
v/c Ratio	0.62	0.62	0.43		0.60	0.26	0.42	0.32		0.14	0.44	
Control Delay	80.5	80.3	15.4		80.6	5.1	11.5	15.3		9.6	21.3	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	80.5	80.3	15.4		80.6	5.1	11.5	15.3		9.6	21.3	
LOS	F	F	B		F	A	B	B		A	C	
Approach Delay		57.7			52.1			14.4			20.4	
Approach LOS		E			D			B			C	

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 48 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.62
Intersection Signal Delay: 25.3 **Intersection LOS: C**
Intersection Capacity Utilization 59.5% ICU Level of Service B
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	1	0	0	835	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1	0	0	908	14

Major/Minor	Minor2				Major2	
Conflicting Flow All	915	460			-	0
Stage 1	915	-			-	-
Stage 2	0	-			-	-
Follow-up Headway	4	3			-	-
Pot Capacity-1 Maneuver	228	548			-	-
Stage 1	294	-			-	-
Stage 2	-	-			-	-
Time blocked-Platoon, %					-	-
Mov Capacity-1 Maneuver	228	548			-	-
Mov Capacity-2 Maneuver	228	-			-	-
Stage 1	294	-			-	-
Stage 2	-	-			-	-

Approach	EB	SB
HCM Control Delay, s	12	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	548	-	-
HCM Lane V/C Ratio	0.002	-	-
HCM Control Delay (s)	11.6	-	-
HCM Lane LOS	B		
HCM 95th % tile Q(veh)	0.006	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	179	20	107	69	28	58	199	637	55	68	667	168
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	45%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	12.0	57.0		13.0	58.0	
Total Split (%)	26.7%	26.7%	26.7%	26.7%	26.7%	26.7%	8.0%	38.0%		8.7%	38.7%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	14.9	14.9	14.9		13.9	13.9	104.2	90.7		92.4	81.8	
Actuated g/C Ratio	0.10	0.10	0.10		0.09	0.09	0.69	0.60		0.62	0.55	
v/c Ratio	0.62	0.63	0.44		0.61	0.26	0.45	0.34		0.15	0.47	
Control Delay	80.1	80.5	15.0		80.6	5.6	12.4	16.5		10.0	22.4	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	80.1	80.5	15.0		80.6	5.6	12.4	16.5		10.0	22.4	
LOS	F	F	B		F	A	B	B		B	C	
Approach Delay		57.4			52.5			15.6			21.5	
Approach LOS		E			D			B			C	

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 48 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.63
Intersection Signal Delay: 26.2 **Intersection LOS: C**
Intersection Capacity Utilization 61.1% ICU Level of Service B
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	1	0	0	869	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1	0	0	945	15

Major/Minor	Minor2		Major2	
Conflicting Flow All	952	479	-	0
Stage 1	952	-	-	-
Stage 2	0	-	-	-
Follow-up Headway	4	3	-	-
Pot Capacity-1 Maneuver	214	533	-	-
Stage 1	279	-	-	-
Stage 2	-	-	-	-
Time blocked-Platoon, %			-	-
Mov Capacity-1 Maneuver	214	533	-	-
Mov Capacity-2 Maneuver	214	-	-	-
Stage 1	279	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	12	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	533	-	-
HCM Lane V/C Ratio	0.002	-	-
HCM Control Delay (s)	11.8	-	-
HCM Lane LOS	B		
HCM 95th % tile Q(veh)	0.006	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Timings
3: Crandon Boulevard & Harbor Drive

11/21/2013

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	179	20	107	69	34	58	218	633	55	74	682	168
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	45%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	12.0	57.0		13.0	58.0	
Total Split (%)	26.7%	26.7%	26.7%	26.7%	26.7%	26.7%	8.0%	38.0%		8.7%	38.7%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	14.9	14.9	14.9		14.4	14.4	103.7	89.9		87.7	76.9	
Actuated g/C Ratio	0.10	0.10	0.10		0.10	0.10	0.69	0.60		0.58	0.51	
v/c Ratio	0.62	0.63	0.44		0.63	0.26	0.48	0.35		0.17	0.51	
Control Delay	80.1	80.5	15.0		80.5	5.4	12.9	16.9		10.7	25.6	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	80.1	80.5	15.0		80.5	5.4	12.9	16.9		10.7	25.6	
LOS	F	F	B		F	A	B	B		B	C	
Approach Delay		57.4			53.5			15.9			24.4	
Approach LOS		E			D			B			C	

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 48 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.63
Intersection Signal Delay: 27.5 — Intersection LOS: C
Intersection Capacity Utilization 62.7% — ICU Level of Service B
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	34	0	0	857	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	37	0	0	932	28

Major/Minor	Minor2		Major2	
Conflicting Flow All	946	479	-	0
Stage 1	946	-	-	-
Stage 2	0	-	-	-
Follow-up Headway	4	3	-	-
Pot Capacity-1 Maneuver	216	533	-	-
Stage 1	281	-	-	-
Stage 2	-	-	-	-
Time blocked-Platoon, %			-	-
Mov Capacity-1 Maneuver	216	533	-	-
Mov Capacity-2 Maneuver	216	-	-	-
Stage 1	281	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	12	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	533	-	-
HCM Lane V/C Ratio	0.069	-	-
HCM Control Delay (s)	12.3	-	-
HCM Lane LOS	B		
HCM 95th % tile Q(veh)	0.223	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	317	31	95	48	43	86	130	888	80	91	765	216
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	45%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	41.0	41.0	41.0	12.0	56.0		13.0	57.0	
Total Split (%)	26.7%	26.7%	26.7%	27.3%	27.3%	27.3%	8.0%	37.3%		8.7%	38.0%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	22.7	22.7	22.7		13.5	13.5	96.7	81.1		90.8	78.1	
Actuated g/C Ratio	0.15	0.15	0.15		0.09	0.09	0.64	0.54		0.61	0.52	
v/c Ratio	0.74	0.72	0.31		0.60	0.40	0.42	0.55		0.31	0.59	
Control Delay	77.4	75.9	11.2		80.4	15.6	16.0	25.9		14.7	28.1	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	77.4	75.9	11.2		80.4	15.6	16.0	25.9		14.7	28.1	
LOS	E	E	B		F	B	B	C		B	C	
Approach Delay		62.7			49.0			24.7			26.9	
Approach LOS		E			D			C			C	

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 48 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 33.1 **Intersection LOS: C**
Intersection Capacity Utilization 65.7% ICU Level of Service C
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	1	0	0	1061	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1	0	0	1153	13

Major/Minor	Minor2		Major2	
Conflicting Flow All	1160	582	-	0
Stage 1	1160	-	-	-
Stage 2	0	-	-	-
Follow-up Headway	4	3	-	-
Pot Capacity-1 Maneuver	151	456	-	-
Stage 1	208	-	-	-
Stage 2	-	-	-	-
Time blocked-Platoon, %			-	-
Mov Capacity-1 Maneuver	151	456	-	-
Mov Capacity-2 Maneuver	151	-	-	-
Stage 1	208	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	13	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	456	-	-
HCM Lane V/C Ratio	0.002	-	-
HCM Control Delay (s)	12.9	-	-
HCM Lane LOS	B		
HCM 95th % tile Q(veh)	0.007	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	330	32	99	50	45	89	135	924	83	95	796	225
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	45%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	41.0	41.0	41.0	12.0	56.0		13.0	57.0	
Total Split (%)	26.7%	26.7%	26.7%	27.3%	27.3%	27.3%	8.0%	37.3%		8.7%	38.0%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	23.3	23.3	23.3		13.8	13.8	95.9	79.9		89.3	76.4	
Actuated g/C Ratio	0.16	0.16	0.16		0.09	0.09	0.64	0.53		0.60	0.51	
v/c Ratio	0.75	0.73	0.32		0.61	0.41	0.45	0.58		0.34	0.63	
Control Delay	77.2	76.1	11.0		80.5	16.2	17.1	27.4		15.7	30.2	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	77.2	76.1	11.0		80.5	16.2	17.1	27.4		15.7	30.2	
LOS	E	E	B		F	B	B	C		B	C	
Approach Delay		62.6			49.3			26.2			28.9	
Approach LOS		E			D			C			C	

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 48 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 34.5 **Intersection LOS: C**
Intersection Capacity Utilization 67.5% ICU Level of Service C
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	1	0	0	1104	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1	0	0	1200	13

Major/Minor	Minor2		Major2	
Conflicting Flow All	1207	606	-	0
Stage 1	1207	-	-	-
Stage 2	0	-	-	-
Follow-up Headway	4	3	-	-
Pot Capacity-1 Maneuver	139	440	-	-
Stage 1	194	-	-	-
Stage 2	-	-	-	-
Time blocked-Platoon, %			-	-
Mov Capacity-1 Maneuver	139	440	-	-
Mov Capacity-2 Maneuver	139	-	-	-
Stage 1	194	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	13	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	440	-	-
HCM Lane V/C Ratio	0.002	-	-
HCM Control Delay (s)	13.2	-	-
HCM Lane LOS	B		
HCM 95th % tile Q(veh)	0.007	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	343	32	99	50	50	89	149	921	83	100	808	225
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	46%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	41.0	41.0	41.0	12.0	56.0		13.0	57.0	
Total Split (%)	26.7%	26.7%	26.7%	27.3%	27.3%	27.3%	8.0%	37.3%		8.7%	38.0%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	23.9	23.9	23.9		14.3	14.3	94.8	78.4		86.0	72.5	
Actuated g/C Ratio	0.16	0.16	0.16		0.10	0.10	0.63	0.52		0.57	0.48	
v/c Ratio	0.75	0.76	0.31		0.63	0.41	0.49	0.59		0.36	0.67	
Control Delay	76.2	76.9	10.8		80.6	15.9	18.2	28.6		16.6	33.3	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	76.2	76.9	10.8		80.6	15.9	18.2	28.6		16.6	33.3	
LOS	E	E	B		F	B	B	C		B	C	
Approach Delay		62.9			50.1			27.2			31.8	
Approach LOS		E			D			C			C	

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 48 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 36.2 **Intersection LOS: D**
Intersection Capacity Utilization 68.9% ICU Level of Service C
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	27	0	0	1097	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	29	0	0	1192	28

Major/Minor	Minor2		Major2	
Conflicting Flow All	1207	609	-	0
Stage 1	1207	-	-	-
Stage 2	0	-	-	-
Follow-up Headway	4	3	-	-
Pot Capacity-1 Maneuver	139	438	-	-
Stage 1	194	-	-	-
Stage 2	-	-	-	-
Time blocked-Platoon, %			-	-
Mov Capacity-1 Maneuver	139	438	-	-
Mov Capacity-2 Maneuver	139	-	-	-
Stage 1	194	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	14	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	438	-	-
HCM Lane V/C Ratio	0.067	-	-
HCM Control Delay (s)	13.8	-	-
HCM Lane LOS	B		
HCM 95th % tile Q(veh)	0.215	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined