Kimley»Horn

September 13, 2023

Mr. Frank Watanabe
City Engineer
City of Palm Bay
120 Malabar Road
Palm Bay, FL 32907

RE: ***Bramblewood Townhomes – Traffic Analysis; City of Palm Bay, Florida***
Kimley-Horn Project No. 142191001

Dear Mr. Watanabe:

This letter has been prepared to evaluate the potential impacts of a proposed residential development generally located south of Bayside Lakes Boulevard, east of Bramblewood Circle in the City of Palm Bay. A previously approved (2006) residential development located on the site included approximately 92 dwelling units. The proposed residential development includes an additional 34 dwelling units, which totals to 126 dwelling units. All residential dwelling units will be constructed within the original, undeveloped site.

The project site is currently a 20-acre vacant lot with a previously constructed roadway system. The project location is shown within Figure 1. The previously approved and proposed site plan are provided in the Attachments. Access to the project site is provided via one (1) existing full-access driveway on Bramblewood Circle.

A previous trip generation letter explaining the trip generation potential of the development was submitted to the City of Palm Bay on May 24th, 2023. Per staff comments potential impacts to the Bramblewood Circle at Bayside Lakes Boulevard turn lanes and Bayside Lakes Boulevard at Eldron Boulevard intersection were evaluated. The evaluated study area intersections and roadway segments are illustrated in the attached **Figure 1**.

PROJECT TRAFFIC

Trip generation rates for the proposed residential development were calculated using the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 11th Edition. Land Use Code (LUC) 220 (Multifamily Housing [Low-Rise]) was used for the proposed site.

Table 1 provides the daily, AM, and PM peak hour trip generation summaries for the project.

Table 1 – Trip Generation

Land Use	Intensity	Daily Trips	AM Peak Hour of Adjacent Street			PM Peak Hour of Adjacent Street		
			Total	In	Out	Total	In	Out
Proposed Development Multifamily Housing (Low-Rise)	126	883	62	15	47	75	47	28

Notes:

1. Trip Generation was calculated using data from ITE's Trip Generation Manual, 11th Edition.
2. The development was previously approved for 92 dwelling units. The trip generation was calculated based on the approved 92 plus the proposed 34 dwelling units.

Multifamily Housing (Low-Rise) - Not Close to Rail Transit [ITE 220]

Daily	T = 6.41*(X) + 75.31; (X is number of dwelling units)
AM Peak Hour of Adjacent Street	T = 0.31*(X) + 22.85; (X is number of dwelling units); (24% in/ 76% out)
PM Peak Hour of Adjacent Street	T = 0.43*(X) + 20.55; (X is number of dwelling units); (63% in/ 37% out)

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The project trip distribution for the site was developed based on Version 7.0 of the Central Florida Regional Planning Model (CFRPM), which is based on the Florida Standard Urban Transportation Model Structure (FSUTMS). The CFRPM model distribution was used to estimate the distribution of trips to and from the site. The CFRPM model output is provided in the **Attachments**.

VOLUME DEVELOPMENT

Turning movement counts were collected during the AM (7AM - 9AM) and PM (4PM - 6PM) peak periods at the following study area intersections:

- Bramblewood Circle at Bayside Lakes Boulevard
- Eldron Boulevard / Cogan Drive at Bayside Lakes Boulevard

The peak hour volumes were adjusted to peak season using the most recent peak season correction factors published by FDOT, with a minimum of 1.0 applied. Existing peak season peak hour volumes were adjusted to background volumes utilizing a 2.21% growth rate. The growth rate was derived using traffic data from FDOT Traffic Online. The traffic data is provided in the **Attachments**.

Project traffic was added to background traffic by assigning the trip generation potential using the project trip distribution. Roadway segment volumes were derived from the turning movement counts collected at the study area intersections. Right turn on red percentages (RTOR%), percent heavy vehicle (HV%), and peak hour factors from the turning movement counts were utilizing for the intersection analysis. The traffic volumes used for the intersection analysis are illustrated in the attached **Figure 1**.

INTERSECTION ANALYSIS

The following intersections were evaluated to assess background and buildout operations during the AM and PM peak hour as part of this analysis:

- Bramblewood Circle at Bayside Lakes Boulevard
- Cogan Drive at Bayside Lakes Boulevard

The operating conditions at the study area intersections were analyzed using the Synchro 11 software package, which implements the procedures of the latest Highway Capacity Manual (HCM 6). The existing

lane geometry and signal timings (provided by the City of Palm Bay) were utilized for the analysis. The Synchro outputs are provided in the **Attachments**.

For the background scenario all study area intersections are projected to operate acceptably. **Table 2** summarizes the background intersection volume to capacity ratio, level of service, and delay.

Table 2 – Background Conditions Intersection Analysis Summary (2026)

Intersection	AM Peak Hour			PM Peak Hour		
	LOS	Delay(s)	Max Movement V/C	LOS	Delay(s)	Max Movement V/C
Unsignalized [1]						
Bramblewood Cir at Bayside Lakes Blvd SE	C	16.4	0.21	B	11.9	0.11
Signalized [2]						
Eldron Blvd SE/Cogan Dr at Bayside Lakes Blvd SE	C	30.7	0.82	C	27.5	0.88

Notes:

1. Intersection LOS and delay at unsignalized intersections are reported for the stop-controlled approaches only.
2. For signalized intersection LOS and delay were reported for the entire intersection.

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For the buildout scenario all study area intersections are projected to operate acceptably. **Table 3** summarizes the buildout intersection volume to capacity ratio, level of service, and delay.

Table 3 – Buildout Conditions Intersection Analysis Summary (2026)

Intersection	AM Peak Hour			PM Peak Hour		
	LOS	Delay(s)	Max Movement V/C	LOS	Delay(s)	Max Movement V/C
Unsignalized [1]						
Bramblewood Cir at Bayside Lakes Blvd SE	C	17.5	0.28	B	12.5	0.15
Signalized [2]						
Eldron Blvd SE/Cogan Dr at Bayside Lakes Blvd SE	C	31.5	0.83	C	27.8	0.88

Notes:

1. Intersection LOS and delay at unsignalized intersections are reported for the stop-controlled approaches only.
2. For signalized intersection LOS and delay were reported for the entire intersection.

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In addition to the intersection operational analysis, the Bramblewood Circle at Bayside Lakes Boulevard turn lanes were evaluated. The 95th percentile queues were obtained from the Synchro output. The required deceleration length was obtained from the FDOT Green Book, Table 3-31 (Turn Lanes – Curbed and Uncurbed Medians). Turn lane lengths were considered sufficient if they could store the 95th percentile queue length plus taper length.

The queue evaluation was performed utilizing the existing turn lane lengths. The queue length evaluation is provided in **Table 4**. The findings of the turn lane analysis are summarized below:

Bramblewood Circle at Bayside Lakes Boulevard

- The existing eastbound right turn lane has zero queued vehicles because it is a free flow movement, however the existing turn lane length (115 ft) does not meet the minimum required deceleration length (155 ft) for a 40 MPH speed limit.
- The existing westbound left turn lane length has a queue of less than one vehicle (25 ft) with both background and buildout traffic. The existing turn lane length (120 ft) does not meet the minimum required deceleration length (155 ft) for a 40 MPH speed limit.
- The existing northbound approach turn lanes are anticipated to have queues of less than 1 vehicle (25 feet) in the northbound left and less than 2 vehicles (50 feet) in the northbound right turn lane.
- Project traffic does not create any deficiencies for the existing turn lanes.

Table 4 – Buildout Turn Lane Analysis Summary (2026)

					AM Peak Hour	PM Peak Hour		
Intersection / Movement	Speed Limit	Total Existing Turn Lane Length (ft) [1]	Required Taper Length (ft) [2]	Required Deceleration (ft) [2]	95th Percentile Queue Length (ft) [3]	95th Percentile Queue Length (ft) [3]	Taper L + 95th %tile Queue (ft)	Existing Turn Lane Sufficient? (Y/N) [4]
Bramblewood Cir at Bayside Lakes Blvd								
EBR	40	115	50	155	0	0	50	Y
WBL	40	120	50	155	25	25	75	Y
NBL	25	190	50	145	25	25	75	Y
NBR	25	190	50	145	50	25	100	Y

Notes:
1. Turn lane lengths were derived from the existing turn lane lengths.
2. Based on the FDOT Green Book (Table 3-31).
3. Based on the 95th percentile back of queue length (rounded up in 25 foot increments) as reported in Synchro 11.
4. The existing storage length was determined to be sufficient if the turn lane could accommodate the summation of the 95th percentile queue length plus the required taper length.

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ROADWAY SEGMENT ANALYSIS

The study area roadway segments were evaluated for level of service (LOS) during the AM and PM peak hours. The adopted LOS, service volumes and LOS calculations were derived using the Brevard County Comprehensive Plan (Transportation Element, Policy 1.3), 2010 FDOT Functional Classification Map for Brevard County, and the 2023 FDOT Quality/Level of Service Handbook. The roadway segment volumes were derived using the approach and departure volumes from the turning movement counts adjusted to peak season, with the addition of project traffic.

Based on the segment level of service analysis all segments are anticipated to operate acceptably with the addition of project traffic during both the AM and PM peak hours.

Table 5 and **Table 6** detail the roadway segment analysis for the background and buildout AM and PM peak hour traffic volumes.

Kimley»Horn

Table 5 – AM Peak Hour Background and Buildout Roadway Segment Analysis (2026)

Roadway		ROADWAY ATTRIBUTES [1]			EXISTING VOLUMES (2023) [2]		Applied Growth Rate [3]	FUTURE NON-PROJECT AM PEAK HOUR TRAFFIC CONDITIONS (2026)						% Assign [4]	AM PEAK HOUR PROJECT TRAFFIC		Project Traffic Impact	BUILDOUT AM PEAK HOUR CONDITIONS (2026)					
								Background Growth		V/C Ratios		LOS [6]						Volumes [5]		V/C Ratios		LOS [6]	
From	To	Adopted LOS	Number of Lanes	PHPD Service Capacity	EB	WB		EB	WB	EB	WB	EB	WB		EB	WB		EB	WB	EB	WB	EB	WB
Bayside Lakes Blvd SE																							
Degroodt Rd SW	Bramblewood Cir	E	4	1,748	832	764	2.21%	888	816	0.51	0.47	C	C	23.00%	3	11	0.63%	891	827	0.51	0.47	C	C
Bramblewood Cir	Cogan Dr	E	4	1,665	864	776	2.21%	923	829	0.55	0.50	C	C	77.00%	36	12	2.16%	959	841	0.58	0.51	C	C

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Note:
1. The roadway attributes were obtained from the 2010 FDOT Classification Map, the 2023 QLOS Handbook and the Brevard County Comprehensive Plan (Transportation Element, Policy 1.3)
2. Volumes for Bayside Lakes Blvd SE were derived from the observed TMCs adjusted to peak season.
3. Growth rates were obtained using historical AADT data for Bayside Lakes Blvd from FDOT Traffic Online (count station 707066, Bayside Lakes Blvd, W of Cogan Dr). A 2.21% growth rate was utilized for a conservative analysis.
4. Project traffic assignment was calculated as the maximum across the segment based on the trip distribution and assignment.
5. Buildout volume is the sum of background volumes and project volumes.
6. LOS was derived utilizing the 2023 FDOT Quality/Level of Service Tables.

Table 6 – PM Peak Hour Background and Buildout Roadway Segment Analysis (2026)

Roadway		ROADWAY ATTRIBUTES [1]			EXISTING VOLUMES (2023) [2]		Applied Growth Rate [3]	FUTURE NON-PROJECT PM PEAK HOUR TRAFFIC CONDITIONS (2026)						% Assign [4]	PM PEAK HOUR PROJECT TRAFFIC		Project Traffic Impact	BUILDOUT PM PEAK HOUR CONDITIONS (2026)					
								Background Growth		V/C Ratios		LOS [6]						Volumes [5]		V/C Ratios		LOS [6]	
From	To	Adopted LOS	Number of Lanes	PHPD Service Capacity	EB	WB		EB	WB	EB	WB	EB	WB		EB	WB		EB	WB	EB	WB	EB	WB
Bayside Lakes Blvd SE																							
Degroodt Rd SW	Bramblewood Cir	E	4	1,748	513	636	2.21%	548	679	0.31	0.39	C	C	23.00%	11	6	0.63%	559	685	0.32	0.39	C	C
Bramblewood Cir	Cogan Dr	E	4	1,665	565	719	2.21%	603	768	0.36	0.46	C	C	77.00%	22	36	2.16%	625	804	0.38	0.48	C	C

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Note:
1. The roadway attributes were obtained from the 2010 FDOT Classification Map, the 2023 QLOS Handbook and the Brevard County Comprehensive Plan (Transportation Element, Policy 1.3)
2. Volumes for Bayside Lakes Blvd SE were derived from the observed TMCs adjusted to peak season.
3. Growth rates were obtained using historical AADT data for Bayside Lakes Blvd from FDOT Traffic Online (count station 707066, Bayside Lakes Blvd, W of Cogan Dr). A 2.21% growth rate was utilized for a conservative analysis.
4. Project traffic assignment was calculated as the maximum across the segment based on the trip distribution and assignment.
5. Buildout volume is the sum of background volumes and project volumes.
6. LOS was derived utilizing the 2023 FDOT Quality/Level of Service Tables.

CONCLUSION

The proposed Bramblewood Townhomes expansion results in an additional 34 dwelling units. With the addition of full buildout of the site the existing study area intersections and roadway segments are anticipated to operate acceptably. The existing eastbound right and westbound left turn lanes were found to be less than the recommended deceleration length per the FDOT Green Book, however the background and buildout westbound left queue length is less than one vehicle (25 feet). Project traffic does not create any deficiencies at the study area intersections or Bramblewood at Bayside Lakes Boulevard turn lanes.

Sincerely,
KIMLEY-HORN

Digitally signed by Alexander Memering
DN: cn=Alexander Memering, c=US, o=North Carolina, email=alex.memering@kimley-horn.com
Date: 2023.09.13 14:52:33 -04'00'

Alex Memering, PE
PE Number 91501

Attachments:
- Site Plan
- CFRPM Model Output
- Figure 1 – Project Location, Trip Distribution, Buildout Volumes and Study Area
- Traffic Data
- Intersection Volume Development Sheets
- Synchro Output

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ATTACHMENTS

SITE PLAN

SEE CONSENT AND JOINDER RECORDED
IN ORB _____, PAGE _____.
IN ORB _____, PAGE _____.

BRAMBLEWOOD AT BAYSIDE LAKES

A PARCEL OF LAND LYING IN SECTION 19, TOWNSHIP 29 SOUTH, RANGE 37 EAST, CITY OF PALM BAY, BREVARD COUNTY, FLORIDA, BEING A "REPLAT" OF TRACT I-6, PLAT OF BAYSIDE LAKES COMMERCIAL CENTER, PHASE 2, AS RECORDED IN PLAT BOOK 45, PAGES 82-84, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA.

DESCRIPTION:

TRACT I-6
BAYSIDE LAKES COMMERCIAL CENTER, PHASE 2
BREVARD COUNTY, FLORIDA
PLAT BOOK 45, PAGES 82-84

SURVEYORS' NOTES :

1. ● DENOTES SET MAG NAIL & DISK STAMPED "PCP LB 6360".
2. ⊡ DENOTES SET 4" X 4" CONCRETE MONUMENT WITH DISK STAMPED "PRM LB 6360".
3. LOT LINES IN CURVILINEAR LOTS ARE DESIGNATED R (RADIAL) OR NR (NON-RADIAL).
4. PI, PC, PT & C DENOTES POINT OF INTERSECTION, POINT OF CURVATURE, POINT OF TANGENCY, AND CURVE DESIGNATION, RESPECTIVELY.
5. ADDITIONAL ABBREVIATIONS ARE AS FOLLOWS:

P.O.B.	=	POINT OF BEGINNING	LB	=	LICENSED BUSINESS
O.R.B.	=	OFFICIAL RECORDS BOOK	L	=	LINE
P.U.D.	=	PUBLIC UTILITY DISTRICT	POA	=	PROPERTY OWNERS ASSOCIATION
F.P.&L.	=	FLORIDA POWER AND LIGHT	R/W	=	RIGHT OF WAY
P.R.M.	=	PERMANENT REFERENCE MONUMENT			

NOTICE: THIS PLAT, AS RECORDED IN ITS GRAPHIC FORM, IS THE OFFICIAL DEPICTION OF THE SUBDIVIDED LANDS DESCRIBED HEREIN AND WILL IN NO CIRCUMSTANCES BE SUPPLANTED IN AUTHORITY BY ANY OTHER GRAPHIC OR DIGITAL FORM OF THE PLAT. THERE MAY BE ADDITIONAL RESTRICTIONS THAT ARE NOT RECORDED ON THIS PLAT THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY.

GENERAL NOTES:

1. BEARING BASIS FOR THIS SURVEY IS CENTERLINE OF BAYSIDE LAKES BOULEVARD, WHICH BEARS N89°44'12"E PER PLAT OF BAYSIDE LAKES COMMERCIAL CENTER, PHASE 2, AS RECORDED IN PLAT BOOK 45, PAGE 82-84, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA.

2. A 5 FOOT WIDE PUBLIC UTILITIES AND DRAINAGE EASEMENT IS HEREBY CREATED ALONG ALL SIDE LOT LINES. IN THE EVENT TWO OR MORE LOTS ARE COMBINED INTO ONE LOT, THE INTERIOR SIDE LOT EASEMENT SHALL BE AUTOMATICALLY VACATED.

3. ALL UTILITY EASEMENTS SHALL ALSO BE FOR THE CONSTRUCTION, INSTALLATION, MAINTENANCE AND OPERATION OF CABLE TELEVISION SERVICES; PROVIDED HOWEVER, NO SUCH SERVICE SHALL INTERFERE WITH THE FACILITIES AND SERVICES OF AN ELECTRIC, GAS, TELEPHONE, OR OTHER PUBLIC UTILITY. IN THE EVENT THAT A CABLE TELEVISION COMPANY DAMAGES THE FACILITIES OF A PUBLIC UTILITY, IT SHALL BE SOLELY RESPONSIBLE FOR THE DAMAGES.

4. A STRIP OF LAND 12 FEET IN WIDTH IS HEREBY DEDICATED ALONG/ADJACENT TO ALL INTERIOR RIGHTS OF WAY FOR THE INSTALLATION AND MAINTENANCE OF PUBLIC UTILITIES AND SIDEWALKS. DRIVEWAY ACCESS IS PERMITTED OVER AND ACROSS SAID EASEMENT.

5. A STRIP OF LAND 5 FEET IN WIDTH IS HEREBY DEDICATED ALONG ALL REAR LOT LINES FOR THE INSTALLATION AND MAINTENANCE OF PUBLIC UTILITIES AND DRAINAGE, UNLESS OTHERWISE NOTED.

6. THE ROAD RIGHT OF WAYS DEDICATED WITHIN THE LIMITS DESCRIBED HEREON (TRACT A) KNOWN AS MIDDLE SHIRE DRIVE AND TRUETT COURT ARE PRIVATE AND ARE DEDICATED TO THE BRAMBLEWOOD AT BAYSIDE LAKES HOMEOWNERS ASSOCIATION, INC. FOR OWNERSHIP AND MAINTENANCE. THE CITY OF PALM BAY IS HEREBY GRANTED AN ACCESS EASEMENT FOR EMERGENCY VEHICLES AND UTILITY MAINTENANCE.

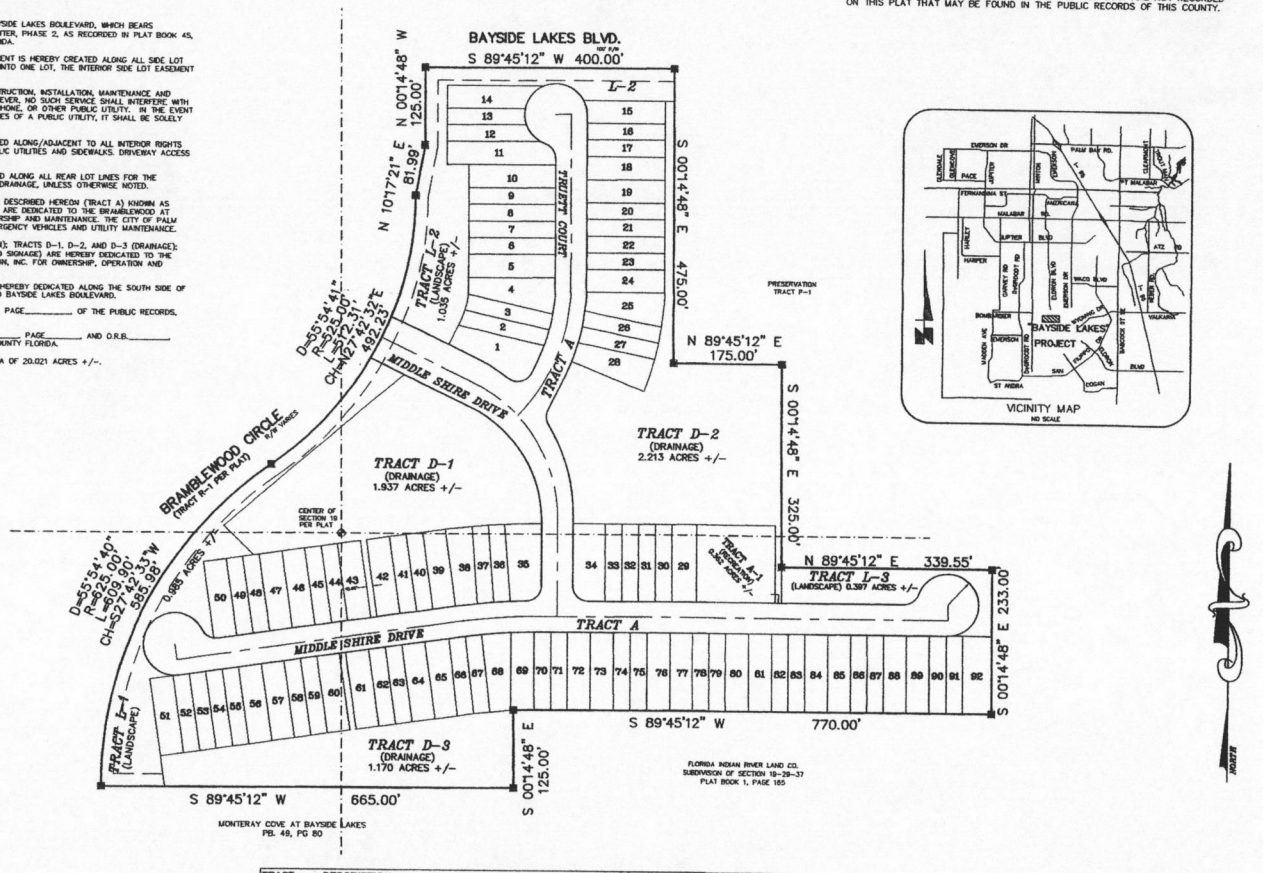
7. TRACT A (PRIVATE ROADWAYS); TRACT A-1 (RECREATION); TRACTS D-1, D-2, AND D-3 (DRAINAGE); AND TRACTS L-1, L-2, AND L-3 (LANDSCAPE, BUFFER AND SIGNAGE) ARE HEREBY DEDICATED TO THE BRAMBLEWOOD AT BAYSIDE LAKES HOMEOWNERS ASSOCIATION, INC. FOR OWNERSHIP, OPERATION AND MAINTENANCE.

8. A 20 FOOT PUBLIC UTILITY AND SIDEWALK EASEMENT IS HEREBY DEDICATED ALONG THE SOUTH SIDE OF TRACTS L-1 AND L-2 ABUTTING BRAMBLEWOOD CIRCLE AND BAYSIDE LAKES BOULEVARD.

9. FOR JOINDERS IN THE DEDICATION SEE O.R.B. _____ PAGE _____ OF THE PUBLIC RECORDS, BREVARD COUNTY, FLORIDA.

10. FOR OFFSITE DRAINAGE EASEMENTS SEE O.R.B. _____ PAGE _____ AND O.R.B. _____ PAGE _____ OF THE PUBLIC RECORDS, BREVARD COUNTY FLORIDA.

11. THE LAND DESCRIBED HEREON COMPRISES A TOTAL AREA OF 20.021 ACRES +/-.



TRACT	DESCRIPTION
TRACT A	PRIVATE INGRESS/EGRESS & PUBLIC UTILITIES
TRACT A-1	RECREATION
TRACT D-1	PUBLIC UTILITIES, POA MAINTENANCE & ACCESS, DRAINAGE, STORMWATER TREATMENT & RETENTION
TRACT D-2	PUBLIC UTILITIES, POA MAINTENANCE & ACCESS, DRAINAGE, STORMWATER TREATMENT & RETENTION
TRACT D-3	PUBLIC UTILITIES, POA MAINTENANCE & ACCESS, DRAINAGE, STORMWATER TREATMENT & RETENTION
TRACT L-1	PUBLIC UTILITIES, POA MAINTENANCE & ACCESS, LANDSCAPE & OPEN SPACE
TRACT L-2	PUBLIC UTILITIES, POA MAINTENANCE & ACCESS, LANDSCAPE & OPEN SPACE
TRACT L-3	PUBLIC UTILITIES, POA MAINTENANCE & ACCESS, LANDSCAPE & OPEN SPACE

GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft.

- PLAT PREPARED BY -
HORIZON SURVEYORS
390 POINCIANA DR.
MELBOURNE, FLORIDA 32935
(321) 254-8133

PLAT BOOK____ PAGE____
SHEET 1 OF 1
SECTION 19 TWP. 29 S., RANGE 37 E.

DEDICATION

KNOW ALL MEN BY THESE PRESENTS, That the Corporation named below, the owner in fee simple of the lands described in

BRAMBLEWOOD AT BAYSIDE LAKES

Hereby dedicates said lands and plat for the uses and purposes therein expressed and dedicates all public utility easements as described hereon to Brevard County for the perpetual use of the public; and hereby further dedicates to Brevard County a perpetual easement over and across the right-of-way of all private streets and roads shown hereon (such private streets and roads being described hereon as Tract "A") for ingress and egress for public service and emergency vehicles. No other easements are hereby dedicated or granted to the public , it being the intention of the undersigned that all streets and roads and other easements and common areas shown hereon be privately owned and maintained and that the public and Brevard County have no right or interest therein.

IN WITNESS WHEREOF, the undersigned has caused these presents to be signed and attested to by the officer named below and its corporate seal to be affixed hereto on _____

Town Center Partners, LTD.
A Florida Limited Partnership
By Bayside Lakes Development Corporation, as General Partner
770 NORTH DRIVE, SUITE A
MELBOURNE, FLORIDA 32934
(321)-952-2414

BY _____
BEN JEFFERIES
PRESIDENT

Signed and sealed in the presence of:

_____
(Print name)

_____
(Print name)

STATE OF FLORIDA COUNTY OF BREVARD

THIS IS TO CERTIFY, the foregoing instrument was acknowledged before me this ___ day of _____ 2003 by

IN WITNESS WHEREOF, I have hereunto set my hand and seal on the above date.

_____
(Print name)
NOTARY PUBLIC SEAL
County and State aforesaid

My Commission Expires _____

CERTIFICATE OF SURVEYOR

KNOW ALL MEN BY THESE PRESENTS, That the undersigned, being a licensed professional surveyor and mapper, does hereby certify that on _____ he completed the survey of the lands shown in the foregoing plat; and that said plat was prepared under his direction and supervision and that said plat complies with all of the survey requirements of Chapter 177, part 1, Florida Statutes, and that said land is located in Brevard County, Florida.

_____ Registration No. 5982
Robert R. Doerrer, Jr.
Horizon Surveyors of Central Florida, Inc.
390 Poinciana Dr.
Melbourne, Florida 32935
LB - 0006360
Certificate of Authorization Number

CERTIFICATE OF REVIEWING SURVEYOR FOR THE CITY OF PALM BAY

I HEREBY CERTIFY, That I have examined the foregoing plat and find that it is in conformity with Chapter 177, part 1, Florida Statutes.

_____
Craig McKinnon LS 5057
Reviewing Surveyor for the City of Palm Bay

CERTIFICATE OF APPROVAL BY MUNICIPALITY

THIS IS TO CERTIFY That on _____ the _____ approved the foregoing plat

_____
Mayor

ATTEST: _____
City Clerk

CERTIFICATE OF APPROVAL BY PLANNING AND ZONING COMMISSION

ATTEST:

THIS IS TO CERTIFY, That on _____ the foregoing plat was approved by the zoning commission.

Planning and Zoning Director_____

CERTIFICATE OF CLERK

I HEREBY CERTIFY, That I have examined the foregoing plat and find that it complies in form with all the requirements of Chapter 177, Florida Statutes, and was filed for record on _____ at _____ File No. _____

_____
Clerk of the Circuit Court
in and for Brevard County, Fla.

PROJECT # 5842
MAY 5, 2006

BRAMBLEWOOD AT BAYSIDE LAKES

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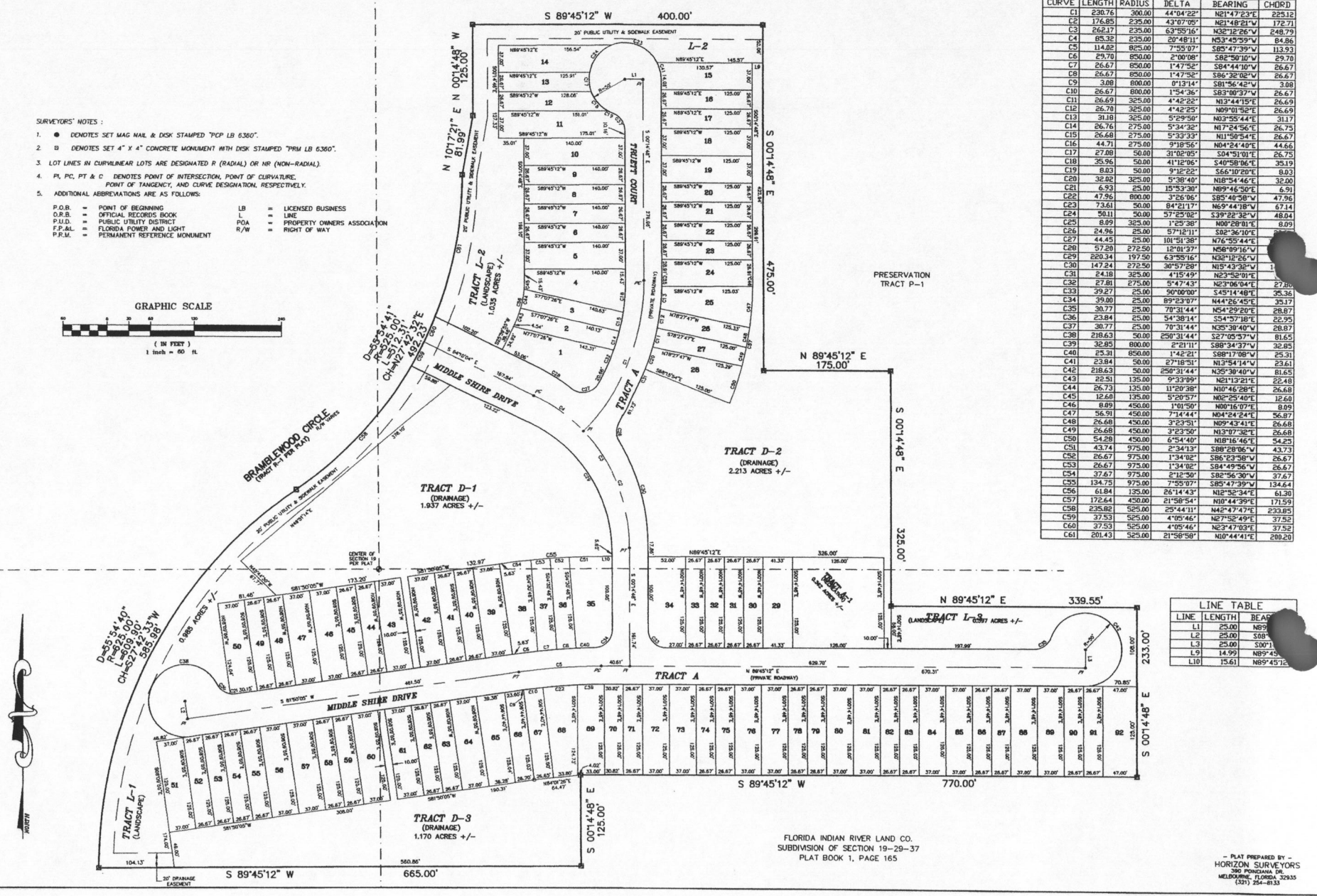

SURVEYORS' NOTES :

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F.P.&L.	=	FLORIDA POWER AND LIGHT	R/W	=	RIGHT OF WAY
P.R.M.	=	PERMANENT REFERENCE MONUMENT			

CURVE TABLE					
CURVE	LENGTH	RADIUS	DELTA	BEARING	CHORD
C1	230.76	300.00	44°04'22"	N21°47'23"E	225.12
C2	176.85	235.00	43°07'05"	N21°48'21"W	172.71
C3	262.17	235.00	63°55'16"	N32°12'26"W	248.79
C4	85.32	235.00	20°48'11"	N53°45'59"W	84.86
C5	114.02	825.00	7°55'07"	S85°47'39"W	113.93
C6	29.70	850.00	2°00'08"	S82°50'10"W	29.70
C7	26.67	850.00	1°47'52"	S84°44'10"W	26.67
C8	26.67	850.00	1°47'52"	S86°32'02"W	26.67
C9	3.08	800.00	0°13'14"	S81°56'42"W	3.08
C10	26.67	800.00	1°54'36"	S83°00'37"W	26.67
C11	26.69	325.00	4°42'22"	N13°44'15"E	26.69
C12	26.70	325.00	4°42'25"	N09°01'52"E	26.69
C13	31.18	325.00	5°29'50"	N03°55'44"E	31.17
C14	26.76	275.00	5°34'32"	N17°24'56"E	26.75
C15	26.68	275.00	5°33'33"	N11°50'54"E	26.67
C16	44.71	275.00	9°18'56"	N04°24'40"E	44.66
C17	27.88	50.00	31°02'05"	S04°51'01"E	26.75
C18	35.96	50.00	41°12'06"	S40°58'06"E	35.19
C19	8.03	50.00	9°12'22"	S66°10'20"E	8.03
C20	32.02	325.00	5°38'40"	N18°54'46"E	32.00
C21	6.93	25.00	15°53'30"	N89°46'50"E	6.91
C22	47.96	800.00	3°26'06"	S85°40'38"W	47.96
C23	73.61	50.00	84°21'17"	N69°44'18"W	67.14
C24	50.11	50.00	57°25'02"	S39°22'32"W	48.04
C25	8.09	325.00	1°25'38"	N00°28'81"E	8.09
C26	24.96	25.00	57°12'11"	S02°36'10"E	23.95
C27	44.45	25.00	101°51'38"	N76°55'44"E	38.80
C28	57.28	272.50	12°01'37"	N56°09'16"W	57.17
C29	220.34	197.50	63°55'16"	N32°12'26"W	209.04
C30	147.24	272.50	30°57'28"	N15°43'32"W	145.47
C31	24.18	325.00	4°15'49"	N23°52'01"E	24.17
C32	27.81	275.00	5°47'43"	N23°06'04"E	27.80
C33	39.27	25.00	90°00'00"	S45°14'48"E	35.36
C34	39.00	25.00	89°23'07"	N44°26'45"E	35.17
C35	30.77	25.00	70°31'44"	N54°29'20"E	28.87
C36	23.84	25.00	54°38'14"	S54°57'18"E	22.95
C37	30.77	25.00	70°31'44"	N35°30'40"W	28.87
C38	218.63	50.00	250°31'44"	S27°05'57"W	81.65
C39	32.85	800.00	2°21'11"	S88°34'37"W	32.85
C40	25.31	850.00	1°42'21"	S88°17'08"W	25.31
C41	23.84	50.00	27°18'51"	N13°54'14"W	23.61
C42	218.63	50.00	250°31'44"	N35°30'40"W	81.65
C43	22.51	135.00	9°33'09"	N21°13'21"E	22.48
C44	26.73	135.00	11°20'38"	N10°46'28"E	26.68
C45	12.60	135.00	5°20'57"	N02°25'40"E	12.60
C46	8.09	450.00	1°01'50"	N00°16'07"E	8.09
C47	56.91	450.00	7°14'44"	N04°24'24"E	56.87
C48	26.68	450.00	3°23'51"	N09°43'41"E	26.68
C49	26.68	450.00	3°23'50"	N13°07'32"E	26.68
C50	54.28	450.00	6°54'40"	N18°16'46"E	54.25
C51	43.74	975.00	2°34'13"	S88°28'06"W	43.73
C52	26.67	975.00	1°34'02"	S86°23'58"W	26.67
C53	26.67	975.00	1°34'02"	S84°49'56"W	26.67
C54	37.67	975.00	2°12'50"	S82°56'30"W	37.67
C55	134.75	975.00	7°55'07"	S85°47'39"W	134.64
C56	61.84	135.00	26°14'43"	N12°52'34"E	61.30
C57	172.64	450.00	21°58'54"	N10°44'39"E	171.59
C58	235.82	525.00	25°44'11"	N42°47'43"E	233.85
C59	37.53	525.00	4°05'46"	N27°52'49"E	37.52
C60	37.53	525.00	4°05'46"	N23°47'03"E	37.52
C61	201.43	525.00	21°58'58"	N10°44'41"E	200.20

LINE TABLE		
LINE	LENGTH	BEAR
L1	25.00	N89°
L2	25.00	S08°
L3	25.00	S00°1
L9	14.99	N89°45
L10	15.61	N89°45'12

FLORIDA INDIAN RIVER LAND CO.
SUBDIVISION OF SECTION 19-29-37
PLAT BOOK 1, PAGE 165

- PLAT PREPARED BY -
HORIZON SURVEYORS
390 PONCIANA DR.
MELBOURNE, FLORIDA 32935
(321) 254-8133

PROJECT # 5842
MAY 5, 2006

R:\C\Projects\Rawcliffe Lakes Townhomes\Plats - Horizon\05-06-06 Bramblewood - Horizon Plat.dwg 5/8/2006 1:31:16 PM Rawcliffe Lakes Development Corp

ARCHITECT OF RECORD: ---

ENGINEER OF RECORD: KINAN HUSAINY, P.E.-KIMLEY-HORN & ASSOCIATES
7341 OFFICE PARK PLACE, SUITE 102
MELBOURNE, FL 32940
1-321-222-6925

SURVEYOR: ACCURIGHT SURVEYS OF ORLANDO, INC., LB 4475
2012 E. ROBINSON STREET, ORLANDO, FLORIDA 32803
WWW.AccurightSurveys.net
ACCU@AccurightSurveys.net
(407) 847-2179

DEVELOPER: INB HOMES
3670 MAGUIRE BLVD., SUITE 210
ORLANDO, FL 32803
804-240-9548

GENERAL DESCRIPTION

PROPOSED TOWNHOME SUBDIVISION DEVELOPMENT ON (1) PARCEL TOTALING 20.021 AC.

- TRACT I-6 - PARCEL ID: 29-37-19-RX-16 (20.02 AC)

USE AREA LEGEND

- TOWNHOME STRUCTURE
- TOWNHOME LOT
- OPEN SPACE
- RECREATIONAL TRACT
- STORM WATER MANAGEMENT TRACT (SMT)
- EXISTING ROADWAY
- PROPOSED SIDEWALKS
- EXISTING SIDEWALKS

MIN. LOT DIMENSIONS:
AREA: 1,700 SF
WIDTH: 20'
DEPTH: 85'
MIN. DISTANCE BETWEEN STRUCTURE: 20'

MAX. BUILDING COVERAGE:
4-UNIT: 42.35%
5-UNIT: 44.11%
6-UNIT 45.37%
8-UNIT 47.05%

BUILDING SETBACKS:
FRONT: 25'
SIDE (INTERIOR) 0'
SIDE (CORNER): 25'
SIDE (END-UNIT): 10'
REAR: 15'

OWNER: BAYSIDE LAKES COMMERCIAL CENTER
PROPERTY OWNERS ASSOCIATION INC
ZONED: PUD
LAND USE: CONSERVATION

OWNER: BAYSIDE LAKES COMMERCIAL CENTER
PROPERTY OWNERS ASSOCIATION INC
ZONED: PUD
LAND USE: RESIDENTIAL OPEN SPACE

OWNER: BAYSIDE LAKES COMMERCIAL CENTER
PROPERTY OWNERS ASSOCIATION INC
ZONED: GU
LAND USE: SINGLE FAMILY RESIDENTIAL

SITE DATA:

LOCATION:	BRAMBLEWOOD TOWNHOMES, CITY OF PALMBAY TRACT 1-6, BAYSIDE LAKES COMMERCIAL CENTER, PHASE 2 (PB 45, PG 82)
FEMA (FIRM):	12009C0660G - 03/17/2014
FLOOD ZONE:	ZONE X
PARCEL ID:	29-37-19-RX-16
TAX DISTRICT:	34U0 - PALM BAY
EXISTING ZONING:	PUD
PROPOSED ZONING:	PUD
FUTURE LAND USE:	MULTI-FAMILY RESIDENTIAL
PROJECT AREA:	±20.02 AC
NUMBER OF BUILDINGS:	19 TOTAL
NUMBER OF UNITS: 126 TOTAL	2 (4 UNIT)+ 4 (5 UNIT) + 3 (6 UNIT) + 10 (8 UNIT) =
UNIT TYPE:	---
MAXIMUM BUILDING HEIGHT:	35'
PROPOSED BUILDING HEIGHT:	---
MINIMUM DRIVEWAY WIDTH REQUIRED:	16'

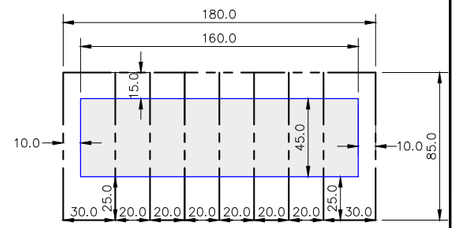
TOTAL AREA:	20.02 AC	100.00%
TOTAL PERVIOUS:	11.48 AC	57.33%
R.O.W. PERVIOUS:	0.94 AC	4.69%
LOT'S PERVIOUS:	2.16 AC	10.78%
SMT'S:	1.65 AC	8.24%
OPEN SPACE TRACT:	6.53 AC	32.61%
REC TRACT	0.08 AC	0.34%
TOTAL IMPERVIOUS:	8.59 AC	42.90%
R.O.W. IMPERVIOUS:	2.26 AC	11.28%
LOT'S IMPERVIOUS:	3.76 AC	18.78%
SMT'S:	2.27 AC	11.33%
REC. TRACT IMPERVIOUS	0.30 AC	1.49%
PAVEMENT OUTSIDE OF R.O.W.	.12 AC	0.59%

GRAPHIC SCALE IN FEET
0 30 60 120

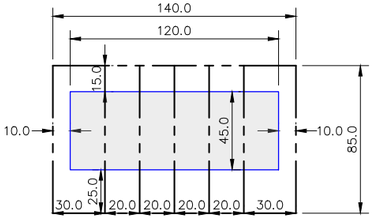
N W E S

126 TOWN HOMES

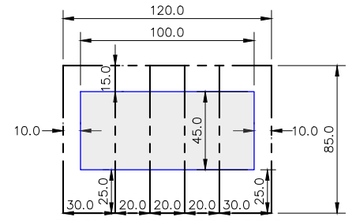
DENSITY 6.29 UNITS/AC



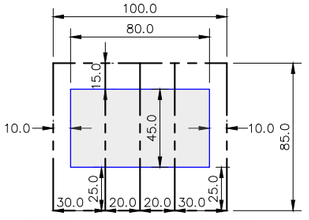
TYPICAL 8-UNIT BUILDING DIMENSIONS



TYPICAL 6-UNIT BUILDING DIMENSIONS



TYPICAL 5-UNIT BUILDING DIMENSIONS



TYPICAL 4-UNIT BUILDING DIMENSIONS

1

INB HOMES

BRAMBLEWOOD TOWNHOMES - FINAL DEVELOPMENT PLAN

PALM BAY, FLORIDA

Kimley»Horn

7341 OFFICE PARK PLACE, SUITE 102, MELBOURNE, FL 32940
PHONE: 321-430-1138
WWW.KIMLEY-HORN.COM REGISTRY No. 35106

COMMON OPEN SPACE CALCULATION:

OPEN SPACE TRACTS	ACRES
OST 1	2.04
OST 2	4.24
OST 3	0.25
RECREATIONAL TRACT	0.38
TOTAL	6.91

STORMWATER MANAGEMENT TRACTS	ACRES	75% CREDIT (ACRES)
SMT 1	2.12	1.59
SMT 2	1.8	1.35
TOTAL	3.92	2.94

*SMT ACREAGE CALCULATIONS IS BASED ON THE 75% CREDIT

TOTAL AREAS	ACRES	PERCENT
OPEN SPACE TRACTS	6.91	74.09%
*STORMWATER MANAGEMENT TRACTS	2.94	25.91%
TOTAL	9.85	100.00%

COMMON OPEN SPACE (25% OF TOTAL SITE) REQUIRED = 5.00 ACRES
COMMON OPEN SPACE PROPOSED = 9.85 ACRES

USE AREA LEGEND

- TOWNHOME STRUCTURE
- TOWNHOME LOT
- OPEN SPACE
- RECREATIONAL TRACT
- STORM WATER MANAGEMENT TRACT (SMT)
- EXISTING ROADWAY
- PROPOSED SIDEWALKS
- EXISTING SIDEWALKS

OWNER: BAYSIDE LAKES COMMERCIAL CENTER
PROPERTY OWNERS ASSOCIATION INC
ZONED: PUD
LAND USE: CONSERVATION

OWNER: BAYSIDE LAKES COMMERCIAL CENTER
PROPERTY OWNERS ASSOCIATION INC
ZONED: PUD
LAND USE: RESIDENTIAL OPEN SPACE

OWNER: BAYSIDE LAKES COMMERCIAL CENTER
PROPERTY OWNERS ASSOCIATION INC
ZONED: GU
LAND USE: SINGLE FAMILY RESIDENTIAL

PARKING TABULATION:

MINIMUM REQUIRED PARKING SPACES:	---
PARALLEL PARKING SPACES:	---
TOTAL SPACES PROVIDED:	---

LEGEND

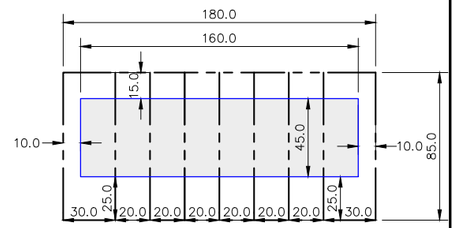
OST	OPEN SPACE TRACT
S.M.T.	STORMWATER MANAGEMENT TRACT
D.E.	DRAINAGE EASEMENT
A.E.	ACCESS EASEMENT

GRAPHIC SCALE IN FEET
0 30 60 120

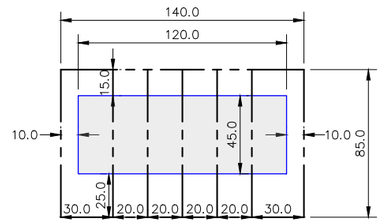
N
W E
S

126 TOWN HOMES

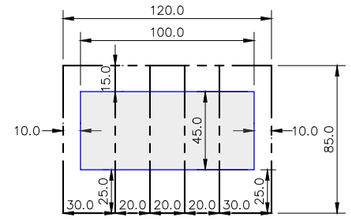
DENSITY 6.29 UNITS/AC



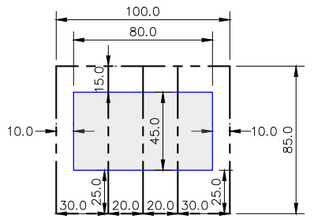
TYPICAL 8-UNIT BUILDING DIMENSIONS



TYPICAL 6-UNIT BUILDING DIMENSIONS



TYPICAL 5-UNIT BUILDING DIMENSIONS



TYPICAL 4-UNIT BUILDING DIMENSIONS

INB HOMES

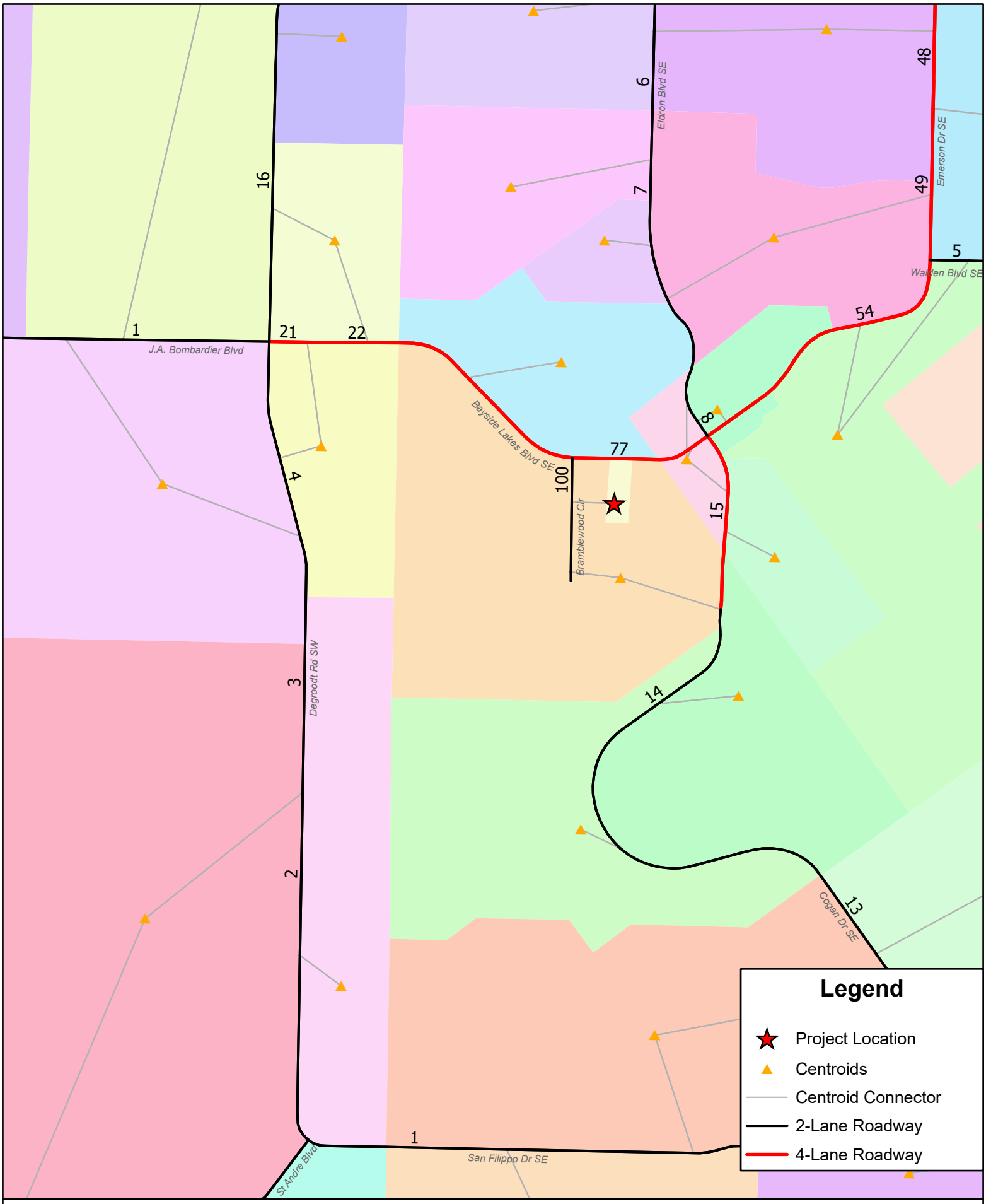
BRAMBLEWOOD TOWNHOMES - FINAL DEVELOPMENT PLAN

PALM BAY, FLORIDA

Kimley»Horn

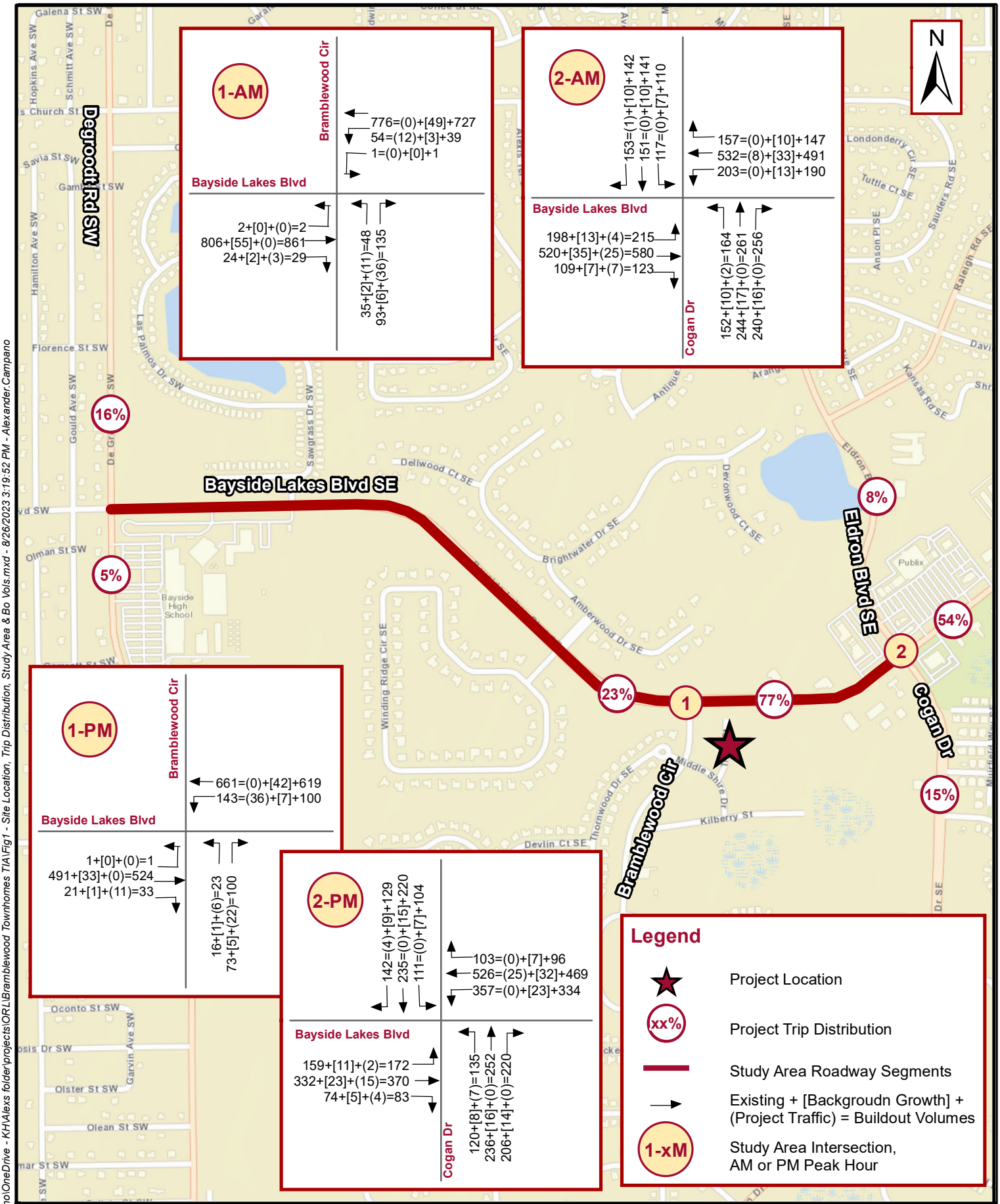
7341 OFFICE PARK PLACE, SUITE 102, MELBOURNE, FL 32940
PHONE: 321-430-1138
WWW.KIMLEY-HORN.COM REGISTRY No. 35106

CFRPM MODEL OUTPUT



Trip Distribution - Bramblewood Townhomes
CFRPMv7 - 2025 - 8/24/2023

FIGURE 1 – PROJECT LOCATION, TRIP DISTRIBUTION, BUILDOUT VOLUMES AND STUDY AREA



C:\Users\alexander.campano\OneDrive - KH\Alexs folder\projects\ORL\Bramblewood Townhomes TIA\Fig1 - Site Location, Trip Distribution, Study Area & Bo Vols.mxd - 8/26/2023 3:19:52 PM - Alexander.Campano

Kimley»Horn

189 South Orange Avenue Suite 1000
Phone: (407) 898-5111
www.kimley-horn.com Registry No. 35106

SITE LOCATION, TRIP DISTRIBUTION, STUDY AREA, AND BUILDOUT VOLUMES

BRAMBLEWOOD TOWNHOMES
CITY OF PALM BAY, FLORIDA

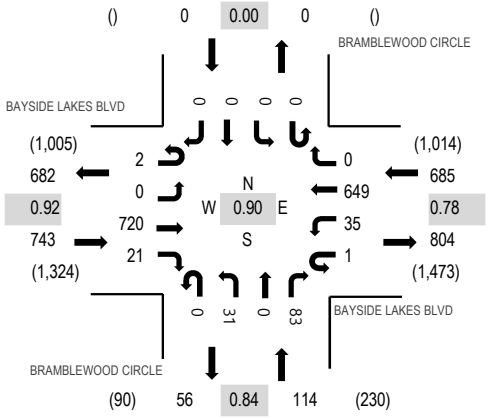
Not To Scale	Project No. 142191001	August 2023	Figure 1

TRAFFIC DATA

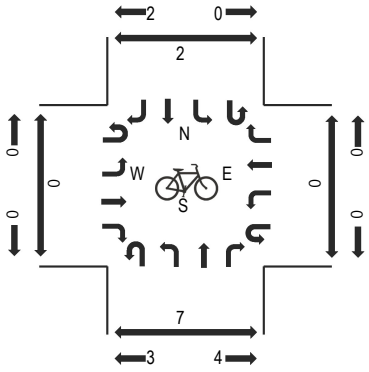
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 BRAMBLEWOOD CIRCLE & BAYSIDE LAKES BLVD AM
Date: Wednesday, August 16, 2023
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

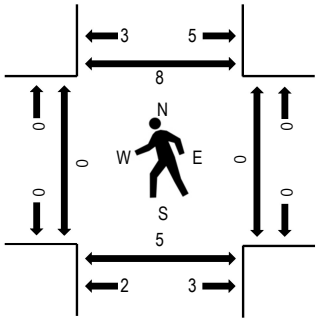
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	BAYSIDE LAKES BLVD Eastbound				BAYSIDE LAKES BLVD Westbound				BRAMBLEWOOD CIRCLE Northbound				BRAMBLEWOOD CIRCLE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	134	2	0	5	47	0	0	1	0	26	0	0	0	0	215	1,251	0	0	0	0
7:15 AM	0	0	167	0	0	6	101	0	0	10	0	24	0	0	0	0	308	1,463	0	0	0	3
7:30 AM	0	0	173	2	1	4	121	0	0	11	0	27	0	0	0	0	339	1,542	0	0	4	2
7:45 AM	0	0	175	8	0	8	169	0	0	8	0	21	0	0	0	0	389	1,488	0	0	0	3
8:00 AM	1	0	176	7	0	10	210	0	0	8	0	15	0	0	0	0	427	1,317	0	0	1	1
8:15 AM	1	0	196	4	0	13	149	0	0	4	0	20	0	0	0	0	387		0	0	0	2
8:30 AM	0	0	168	1	1	6	75	0	0	7	0	27	0	0	0	0	285		0	1	0	3
8:45 AM	0	0	105	4	0	10	78	0	0	4	0	17	0	0	0	0	218		0	0	0	3

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Lights	2	0	706	19	1	34	624	0	0	31	0	82	0	0	0	0	1,499
Mediums	0	0	14	1	0	1	25	0	0	0	0	1	0	0	0	0	42
Total	2	0	720	21	1	35	649	0	0	31	0	83	0	0	0	0	1,542

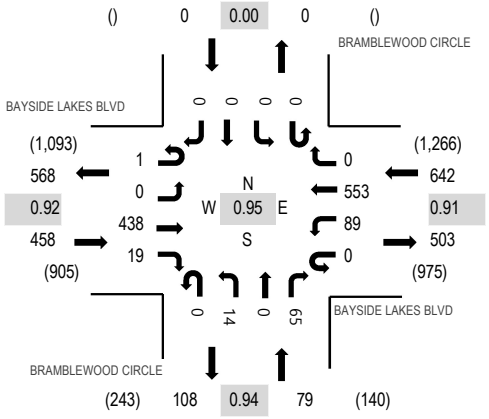
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		2.2%				3.8%				0.9%				0.0%			2.8%
Heavy Vehicle %	0.0%	0.0%	1.9%	9.5%	0.0%	2.9%	3.9%	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	0.0%	2.8%
Peak Hour Factor		0.92				0.78				0.84				0.00			0.90
Peak Hour Factor	0.50	0.00	0.92	0.66	0.25	0.75	0.77	0.00	0.00	0.84	0.00	0.91	0.00	0.00	0.00	0.00	0.90

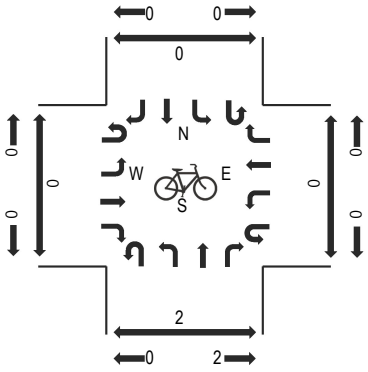
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 BRAMBLEWOOD CIRCLE & BAYSIDE LAKES BLVD PM
Date: Wednesday, August 16, 2023
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:45 PM - 06:00 PM

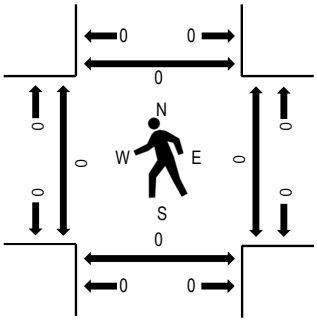
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	BAYSIDE LAKES BLVD Eastbound				BAYSIDE LAKES BLVD Westbound				BRAMBLEWOOD CIRCLE Northbound				BRAMBLEWOOD CIRCLE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	146	6	0	26	110	0	0	2	0	11	0	0	0	0	301	1,132	0	0	9	0
4:15 PM	0	0	97	8	0	29	139	0	0	4	0	9	0	0	0	0	286	1,119	0	0	1	0
4:30 PM	0	0	89	5	0	29	112	0	0	3	0	18	0	0	0	0	256	1,106	0	0	0	1
4:45 PM	0	0	93	3	0	29	150	0	0	5	0	9	0	0	0	0	289	1,157	0	0	0	0
5:00 PM	1	0	111	1	0	22	133	0	0	5	0	15	0	0	0	0	288	1,179	0	0	0	0
5:15 PM	0	0	106	4	0	16	127	0	0	1	0	19	0	0	0	0	273		0	0	0	0
5:30 PM	0	0	104	6	0	26	150	0	0	4	0	17	0	0	0	0	307		0	0	0	0
5:45 PM	0	0	117	8	0	25	143	0	0	4	0	14	0	0	0	0	311		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3
Lights	1	0	431	19	0	88	539	0	0	13	0	64	0	0	0	0	1,155
Mediums	0	0	5	0	0	1	13	0	0	1	0	1	0	0	0	0	21
Total	1	0	438	19	0	89	553	0	0	14	0	65	0	0	0	0	1,179

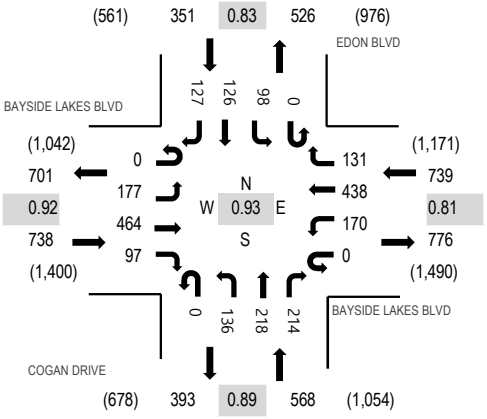
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		1.5%				2.3%				2.5%				0.0%			2.0%
Heavy Vehicle %	0.0%	0.0%	1.6%	0.0%	0.0%	1.1%	2.5%	0.0%	0.0%	7.1%	0.0%	1.5%	0.0%	0.0%	0.0%	0.0%	2.0%
Peak Hour Factor		0.92				0.91				0.94				0.00			0.95
Peak Hour Factor	0.25	0.00	0.94	0.69	0.00	0.97	0.93	0.00	0.00	0.85	0.00	0.86	0.00	0.00	0.00	0.00	0.95

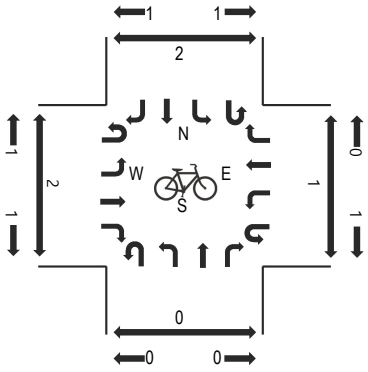
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 COGAN DRIVE & BAYSIDE LAKES BLVD AM
Date: Wednesday, August 16, 2023
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

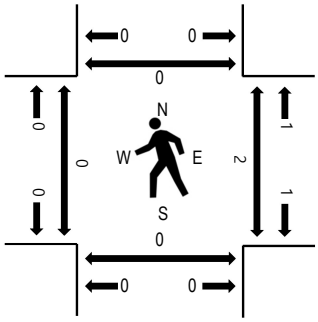
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	BAYSIDE LAKES BLVD Eastbound				BAYSIDE LAKES BLVD Westbound				COGAN DRIVE Northbound				EDON BLVD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	36	100	17	0	20	34	22	0	13	63	67	0	13	26	6	417	2,116	0	1	0	0
7:15 AM	1	43	128	13	0	19	71	37	0	23	59	61	0	10	26	14	505	2,345	0	0	0	0
7:30 AM	0	39	100	22	0	28	73	44	0	35	75	66	0	21	26	21	550	2,396	0	0	0	0
7:45 AM	0	58	115	24	0	52	112	37	0	33	71	59	0	21	24	38	644	2,318	0	1	0	0
8:00 AM	0	40	115	27	0	47	149	32	0	37	41	52	0	30	39	37	646	2,070	0	1	0	0
8:15 AM	0	40	134	24	0	43	104	18	0	31	31	37	0	26	37	31	556		0	0	0	0
8:30 AM	0	49	141	26	0	28	57	17	0	10	36	54	0	14	20	20	472		0	1	0	0
8:45 AM	0	31	68	9	0	49	64	14	0	15	43	42	0	16	32	13	396		0	1	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	1	0	1	0	0	0	0	0	1	0	1	0	0	4
Lights	0	171	458	92	0	164	424	129	0	127	217	208	0	95	122	124	2,331
Mediums	0	6	6	4	0	5	14	2	0	9	1	5	0	2	4	3	61
Total	0	177	464	97	0	170	438	131	0	136	218	214	0	98	126	127	2,396

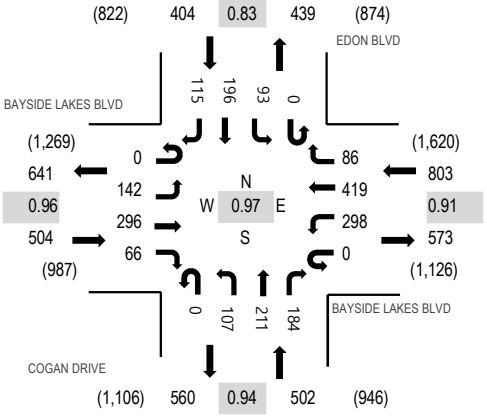
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		2.3%				3.0%				2.8%				2.8%			2.7%
Heavy Vehicle %	0.0%	3.4%	1.3%	5.2%	0.0%	3.5%	3.2%	1.5%	0.0%	6.6%	0.5%	2.8%	0.0%	3.1%	3.2%	2.4%	2.7%
Peak Hour Factor		0.92				0.81				0.89				0.83			0.93
Peak Hour Factor	0.25	0.81	0.90	0.94	0.00	0.82	0.73	0.85	0.00	0.92	0.89	0.94	0.00	0.82	0.82	0.84	0.93

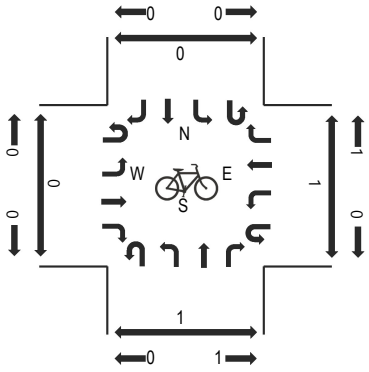
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 COGAN DRIVE & BAYSIDE LAKES BLVD PM
Date: Wednesday, August 16, 2023
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:30 PM - 05:45 PM

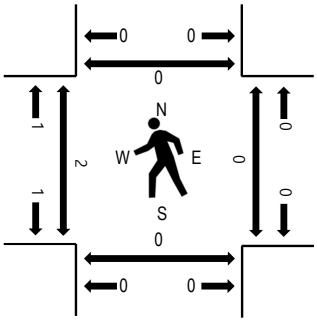
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	BAYSIDE LAKES BLVD Eastbound				BAYSIDE LAKES BLVD Westbound				COGAN DRIVE Northbound				EDON BLVD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	49	105	19	0	59	98	23	0	21	49	42	0	21	50	24	560	2,162	0	0	0	0
4:15 PM	0	29	58	15	0	80	123	29	0	26	56	40	0	24	35	20	535	2,170	0	1	0	0
4:30 PM	0	29	66	15	0	61	100	27	0	18	52	45	0	44	69	25	551	2,183	0	0	0	0
4:45 PM	0	28	59	11	1	78	118	20	0	19	44	32	0	16	54	36	516	2,201	0	0	0	0
5:00 PM	0	30	82	19	0	74	114	20	0	23	43	51	0	24	63	25	568	2,213	0	0	0	0
5:15 PM	0	41	72	13	0	71	101	28	0	19	64	37	0	28	53	21	548		0	0	0	0
5:30 PM	0	36	72	20	0	79	107	18	0	36	43	55	0	23	45	35	569		0	0	0	0
5:45 PM	0	35	70	14	0	74	97	20	0	29	61	41	0	18	35	34	528		2	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	2	0	0	0	1	0	0	0	0	0	0	0	1	0	4
Lights	0	140	292	66	0	298	414	84	0	99	207	182	0	92	194	113	2,181
Mediums	0	2	2	0	0	0	4	2	0	8	4	2	0	1	1	2	28
Total	0	142	296	66	0	298	419	86	0	107	211	184	0	93	196	115	2,213

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		1.2%				0.9%				2.8%				1.2%			1.4%
Heavy Vehicle %	0.0%	1.4%	1.4%	0.0%	0.0%	0.0%	1.2%	2.3%	0.0%	7.5%	1.9%	1.1%	0.0%	1.1%	1.0%	1.7%	1.4%
Peak Hour Factor		0.96				0.91				0.94				0.83			0.97
Peak Hour Factor	0.00	0.87	0.90	0.83	0.25	0.96	0.92	0.85	0.00	0.74	0.82	0.84	0.00	0.64	0.87	0.81	0.97

2022 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 7000 BREVARD COUNTYWIDE

MOCF: 0.93

WEEK	DATES	SF	PSCF
1	01/01/2022 - 01/01/2022	1.03	1.11
2	01/02/2022 - 01/08/2022	1.02	1.10
3	01/09/2022 - 01/15/2022	1.01	1.09
4	01/16/2022 - 01/22/2022	0.99	1.06
5	01/23/2022 - 01/29/2022	0.98	1.05
* 6	01/30/2022 - 02/05/2022	0.96	1.03
* 7	02/06/2022 - 02/12/2022	0.94	1.01
* 8	02/13/2022 - 02/19/2022	0.92	0.99
* 9	02/20/2022 - 02/26/2022	0.92	0.99
*10	02/27/2022 - 03/05/2022	0.91	0.98
*11	03/06/2022 - 03/12/2022	0.91	0.98
*12	03/13/2022 - 03/19/2022	0.90	0.97
*13	03/20/2022 - 03/26/2022	0.91	0.98
*14	03/27/2022 - 04/02/2022	0.92	0.99
*15	04/03/2022 - 04/09/2022	0.93	1.00
*16	04/10/2022 - 04/16/2022	0.94	1.01
*17	04/17/2022 - 04/23/2022	0.95	1.02
*18	04/24/2022 - 04/30/2022	0.96	1.03
19	05/01/2022 - 05/07/2022	0.97	1.04
20	05/08/2022 - 05/14/2022	0.98	1.05
21	05/15/2022 - 05/21/2022	0.99	1.06
22	05/22/2022 - 05/28/2022	1.00	1.08
23	05/29/2022 - 06/04/2022	1.02	1.10
24	06/05/2022 - 06/11/2022	1.04	1.12
25	06/12/2022 - 06/18/2022	1.05	1.13
26	06/19/2022 - 06/25/2022	1.05	1.13
27	06/26/2022 - 07/02/2022	1.05	1.13
28	07/03/2022 - 07/09/2022	1.05	1.13
29	07/10/2022 - 07/16/2022	1.05	1.13
30	07/17/2022 - 07/23/2022	1.04	1.12
31	07/24/2022 - 07/30/2022	1.04	1.12
32	07/31/2022 - 08/06/2022	1.04	1.12
33	08/07/2022 - 08/13/2022	1.04	1.12
34	08/14/2022 - 08/20/2022	1.04	1.12
35	08/21/2022 - 08/27/2022	1.05	1.13
36	08/28/2022 - 09/03/2022	1.06	1.14
37	09/04/2022 - 09/10/2022	1.07	1.15
38	09/11/2022 - 09/17/2022	1.08	1.16
39	09/18/2022 - 09/24/2022	1.06	1.14
40	09/25/2022 - 10/01/2022	1.04	1.12
41	10/02/2022 - 10/08/2022	1.02	1.10
42	10/09/2022 - 10/15/2022	1.00	1.08
43	10/16/2022 - 10/22/2022	1.02	1.10
44	10/23/2022 - 10/29/2022	1.03	1.11
45	10/30/2022 - 11/05/2022	1.04	1.12
46	11/06/2022 - 11/12/2022	1.05	1.13
47	11/13/2022 - 11/19/2022	1.06	1.14
48	11/20/2022 - 11/26/2022	1.05	1.13
49	11/27/2022 - 12/03/2022	1.05	1.13
50	12/04/2022 - 12/10/2022	1.04	1.12
51	12/11/2022 - 12/17/2022	1.03	1.11
52	12/18/2022 - 12/24/2022	1.02	1.10
53	12/25/2022 - 12/31/2022	1.01	1.09

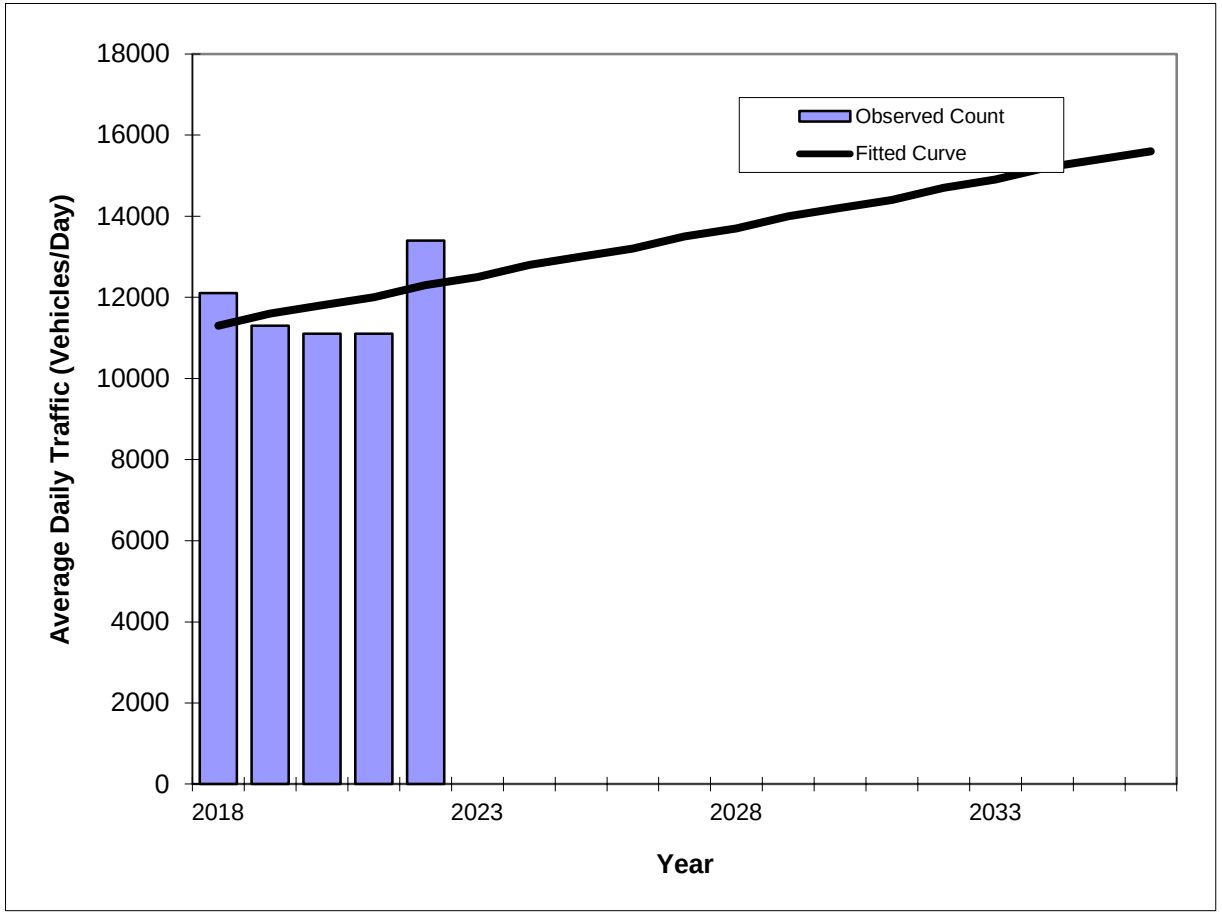
* PEAK SEASON

Traffic Trends - V03.a

BAYSIDE LAKES BLVD --

FIN#	**1234**
Location	**1**

County:	Brevard (70)
Station #:	7066
Highway:	BAYSIDE LAKES BLVD



Year	Traffic (ADT/AADT) Count*	Trend**
2018	12100	11300
2019	11300	11600
2020	11100	11800
2021	11100	12000
2022	13400	12300
2026 Opening Year Trend		
2026	N/A	13200
2031 Mid-Year Trend		
2031	N/A	14400
2036 Design Year Trend		
2036	N/A	15600
TRANPLAN Forecasts/Trends		

** Annual Trend Increase:	240
Trend R-squared:	14.85%
Trend Annual Historic Growth Rate:	2.21%
Trend Growth Rate (2022 to Design Year):	1.92%
Printed:	26-Aug-23

Straight Line Growth Option

*Axle-Adjusted

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2022 HISTORICAL AADT REPORT

COUNTY: 70 - BREVARD

SITE: 7066 - BAYSIDE LAKES BLVD, 0.29 MI W OF COGAN DR (HPMS)

YEAR	AADT	DIRECTION 1		DIRECTION 2		*K FACTOR	D FACTOR	T FACTOR
2022	13400 C	E	6400	W	7000	9.00	53.90	4.00
2021	11100 S	E	5600	W	5500	9.00	54.30	2.90
2020	11100 F	E	5600	W	5500	9.00	55.00	2.90
2019	11300 C	E	5700	W	5600	9.00	54.70	2.90
2018	12100 S	E	6000	W	6100	9.00	54.10	9.80
2017	11700 F	E	5800	W	5900	9.00	54.30	9.80
2016	11100 C	E	5500	W	5600	9.00	53.40	9.80
2015	4300 E					9.00	53.80	8.50
2014	9400 S	E	4700	W	4700	9.00	53.80	3.50
2013	9400 F	E	4700	W	4700	9.00	54.20	3.50
2012	9400 C	E	4700	W	4700	9.00	53.60	3.50
2010	9600 F	E	4900	W	4700	10.91	56.02	7.80
2009	9800 C	E	5000	W	4800	11.80	61.02	8.40

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

INTERSECTION VOLUME DEVELOPMENT SHEETS

TRAFFIC VOLUMES
AT STUDY INTERSECTIONS

INTERSECTION:	**BRAMBLEWOOD CIRCLE & BAYSIDE LAKES BLVD**
AM COUNT DATE:	**August 16, 2023**
PM COUNT DATE:	**August 16, 2023**
AM PEAK HOUR FACTOR:	**0.90**
PM PEAK HOUR FACTOR:	**0.95**

"AM EXISTING TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Raw Turning Movements	2	0	720	21	1	35	649	0	0	31	0	83	0	0	0	0
Peak Season Correction Factor	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
AM EXISTING CONDITIONS	**2**	**0**	**806**	**24**	**1**	**39**	**727**	**0**	**0**	**35**	**0**	**93**	**0**	**0**	**0**	**0**

"PM EXISTING TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM Raw Turning Movements	1	0	438	19	0	89	553	0	0	14	0	65	0	0	0	0
Peak Season Correction Factor	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
PM EXISTING CONDITIONS	**1**	**0**	**491**	**21**	**0**	**100**	**619**	**0**	**0**	**16**	**0**	**73**	**0**	**0**	**0**	**0**

"AM BACKGROUND TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Years To Buildout	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Yearly Growth Rate	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%
AM BACKGROUND TRAFFIC GROWTH	0	0	55	2	0	3	49	0	0	2	0	6	0	0	0	0
AM NON-PROJECT TRAFFIC	2	0	861	26	1	42	776	0	0	37	0	99	0	0	0	0

"PM BACKGROUND TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Years To Buildout	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Yearly Growth Rate	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%
PM BACKGROUND TRAFFIC GROWTH	0	0	33	1	0	7	42	0	0	1	0	5	0	0	0	0
PM NON-PROJECT TRAFFIC	1	0	524	22	0	107	661	0	0	17	0	78	0	0	0	0

"AM PROJECT DISTRIBUTION"		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Net New Distribution	Entering				23.0%		77.0%										
	Exiting										23.0%		77.0%				

"PM PROJECT DISTRIBUTION"		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Net New Distribution	Entering				23.0%		77.0%										
	Exiting										23.0%		77.0%				

"AM PROJECT TRAFFIC"		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM TRAFFIC VOLUMES																	
Project Trips	Net New				3		12				11		36				
AM TOTAL PROJECT TRAFFIC		**0**	**0**	**0**	**3**	**0**	**12**	**0**	**0**	**0**	**11**	**0**	**36**	**0**	**0**	**0**	**0**
AM TOTAL TRAFFIC		2	0	861	29	1	54	776	0	0	48	0	135	0	0	0	0

"PM PROJECT TRAFFIC"		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM TRAFFIC VOLUMES																	
Project Trips	Net New				11		36				6		22				
PM TOTAL PROJECT TRAFFIC		**0**	**0**	**0**	**11**	**0**	**36**	**0**	**0**	**0**	**6**	**0**	**22**	**0**	**0**	**0**	**0**
PM TOTAL TRAFFIC		1	0	524	33	0	143	661	0	0	23	0	100	0	0	0	0

TRAFFIC VOLUMES
AT STUDY INTERSECTIONS

INTERSECTION:	**COGAN DRIVE & BAYSIDE LAKES BLVD**
AM COUNT DATE:	**August 16, 2023**
PM COUNT DATE:	**August 16, 2023**
AM PEAK HOUR FACTOR:	**0.93**
PM PEAK HOUR FACTOR:	**0.97**

"AM EXISTING TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Raw Turning Movements	0	177	464	97	0	170	438	131	0	136	218	214	0	98	126	127
Peak Season Correction Factor	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
AM EXISTING CONDITIONS	**0**	**198**	**520**	**109**	**0**	**190**	**491**	**147**	**0**	**152**	**244**	**240**	**0**	**110**	**141**	**142**

"PM EXISTING TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM Raw Turning Movements	0	142	296	66	0	298	419	86	0	107	211	184	0	93	196	115
Peak Season Correction Factor	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
PM EXISTING CONDITIONS	**0**	**159**	**332**	**74**	**0**	**334**	**469**	**96**	**0**	**120**	**236**	**206**	**0**	**104**	**220**	**129**

"AM BACKGROUND TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Years To Buildout	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Yearly Growth Rate	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%
AM BACKGROUND TRAFFIC GROWTH	0	13	35	7	0	13	33	10	0	10	17	16	0	7	10	10
AM NON-PROJECT TRAFFIC	0	211	555	116	0	203	524	157	0	162	261	256	0	117	151	152

"PM BACKGROUND TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Years To Buildout	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Yearly Growth Rate	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%	2.21%
PM BACKGROUND TRAFFIC GROWTH	0	11	23	5	0	23	32	7	0	8	16	14	0	7	15	9
PM NON-PROJECT TRAFFIC	0	170	355	79	0	357	501	103	0	128	252	220	0	111	235	138

"AM PROJECT DISTRIBUTION"		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Net New Distribution	Entering							54.0%			15.0%						8.0%
	Exiting		8.0%	54.0%	15.0%												

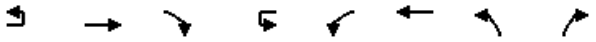
"PM PROJECT DISTRIBUTION"		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Net New Distribution	Entering							54.0%			15.0%						8.0%
	Exiting		8.0%	54.0%	15.0%												

"AM PROJECT TRAFFIC"		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM TRAFFIC VOLUMES																	
Project Trips	Net New		4	25	7			8			2						1
AM TOTAL PROJECT TRAFFIC		**0**	**4**	**25**	**7**	**0**	**0**	**8**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**1**
AM TOTAL TRAFFIC		0	215	580	123	0	203	532	157	0	164	261	256	0	117	151	153

"PM PROJECT TRAFFIC"		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM TRAFFIC VOLUMES																	
Project Trips	Net New		2	15	4			25			7						4
PM TOTAL PROJECT TRAFFIC		**0**	**2**	**15**	**4**	**0**	**0**	**25**	**0**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**4**
PM TOTAL TRAFFIC		0	172	370	83	0	357	526	103	0	135	252	220	0	111	235	142

SYNCHRO OUTPUT

SYNCHRO OUTPUT – BACKGROUND CONDITIONS



Lane Group	EBU	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Lane Configurations								
Traffic Volume (vph)	2	861	26	1	42	776	37	99
Future Volume (vph)	2	861	26	1	42	776	37	99
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	2%
Adj. Flow (vph)	2	957	29	1	47	862	41	110
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	959	29	0	48	862	41	110
Sign Control		Free				Free	Stop	

Intersection Summary
Control Type: Unsignalized

Intersection	
Int Delay, s/veh	1.5

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Lane Configurations								
Traffic Vol, veh/h	2	861	26	1	42	776	37	99
Future Vol, veh/h	2	861	26	1	42	776	37	99
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	None
Storage Length	-	-	120	-	115	-	0	175
Veh in Median Storage, #	-	0	-	-	-	0	1	-
Grade, %	-	0	-	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	4	4	4	2	2
Mvmt Flow	2	957	29	1	47	862	41	110

Major/Minor	Major1			Major2			Minor1	
Conflicting Flow All	862	0	0	957	986	0	1488	479
Stage 1	-	-	-	-	-	-	961	-
Stage 2	-	-	-	-	-	-	527	-
Critical Hdwy	6.44	-	-	6.48	4.18	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.84	-
Follow-up Hdwy	2.52	-	-	2.54	2.24	-	3.52	3.32
Pot Cap-1 Maneuver	407	-	-	348	684	-	115	533
Stage 1	-	-	-	-	-	-	332	-
Stage 2	-	-	-	-	-	-	557	-
Platoon blocked, %		-	-			-		
Mov Cap-1 Maneuver	407	-	-	662	662	-	106	533
Mov Cap-2 Maneuver	-	-	-	-	-	-	228	-
Stage 1	-	-	-	-	-	-	328	-
Stage 2	-	-	-	-	-	-	517	-

Approach	EB	WB	NB
HCM Control Delay, s	0.1	0.6	16.4
HCM LOS			C

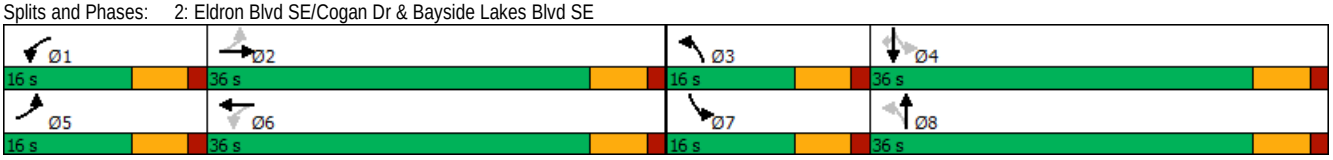
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	228	533	-	-	662	-
HCM Lane V/C Ratio	0.18	0.206	-	-	0.072	-
HCM Control Delay (s)	24.2	13.5	0.1	-	10.9	-
HCM Lane LOS	C	B	A	-	B	-
HCM 95th %tile Q(veh)	0.6	0.8	-	-	0.2	-

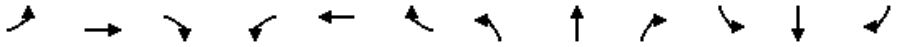
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	211	555	116	203	524	157	162	261	256	117	151	152
Future Volume (vph)	211	555	116	203	524	157	162	261	256	117	151	152
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	5%	5%	5%	4%	4%	4%	7%	7%	7%	3%	3%	3%
Adj. Flow (vph)	227	597	125	218	563	169	174	281	275	126	162	163
Shared Lane Traffic (%)												
Lane Group Flow (vph)	227	722	0	218	732	0	174	556	0	126	162	163
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		4
Detector Phase	5	2		1	6		3	8		7	4	4
Switch Phase												
Minimum Initial (s)	6.0	8.0		6.0	8.0		6.0	8.0		6.0	8.0	8.0
Minimum Split (s)	12.0	14.0		12.0	14.0		12.0	14.0		12.0	14.0	14.0
Total Split (s)	16.0	36.0		16.0	36.0		16.0	36.0		16.0	36.0	36.0
Total Split (%)	15.4%	34.6%		15.4%	34.6%		15.4%	34.6%		15.4%	34.6%	34.6%
Yellow Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	1.5
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)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	Min		None	Min		None	None		None	None	None
v/c Ratio	0.79	0.81		0.74	0.81		0.48	0.75		0.50	0.51	0.41
Control Delay	38.0	35.7		33.5	35.1		24.9	25.2		26.4	37.7	8.3
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	38.0	35.7		33.5	35.1		24.9	25.2		26.4	37.7	8.3
Queue Length 50th (ft)	72	184		69	184		67	87		47	82	0
Queue Length 95th (ft)	#199	284		#180	284		121	149		89	145	49
Internal Link Dist (ft)		572			1136			952			1247	
Turn Bay Length (ft)	215			114			225			114		235
Base Capacity (vph)	288	1093		294	1103		370	1159		270	593	609
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.79	0.66		0.74	0.66		0.47	0.48		0.47	0.27	0.27

Intersection Summary

Cycle Length: 104
Actuated Cycle Length: 85.6
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Eldron Blvd SE/Cogan Dr & Bayside Lakes Blvd SE





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	211	555	116	203	524	157	162	261	256	117	151	152
Future Volume (veh/h)	211	555	116	203	524	157	162	261	256	117	151	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1643	1643	1643	1657	1657	1657	1617	1617	1617	1670	1670	1670
Adj Flow Rate, veh/h	227	597	80	218	563	91	174	281	256	126	162	125
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
Percent Heavy Veh, %	5	5	5	4	4	4	7	7	7	3	3	3
Cap, veh/h	329	733	98	323	716	115	374	365	322	265	348	295
Arrive On Green	0.12	0.26	0.26	0.12	0.26	0.26	0.11	0.24	0.24	0.08	0.21	0.21
Sat Flow, veh/h	1565	2768	370	1578	2714	437	1540	1543	1364	1590	1670	1415
Grp Volume(v), veh/h	227	336	341	218	326	328	174	280	257	126	162	125
Grp Sat Flow(s),veh/h/ln	1565	1561	1577	1578	1574	1578	1540	1536	1371	1590	1670	1415
Q Serve(g_s), s	8.5	16.4	16.5	8.0	15.6	15.7	7.1	13.8	14.4	5.0	6.9	6.2
Cycle Q Clear(g_c), s	8.5	16.4	16.5	8.0	15.6	15.7	7.1	13.8	14.4	5.0	6.9	6.2
Prop In Lane	1.00		0.23	1.00		0.28	1.00		0.99	1.00		1.00
Lane Grp Cap(c), veh/h	329	413	417	323	415	416	374	363	324	265	348	295
V/C Ratio(X)	0.69	0.81	0.82	0.67	0.78	0.79	0.47	0.77	0.79	0.48	0.47	0.42
Avail Cap(c_a), veh/h	329	576	582	324	581	582	394	567	506	331	616	522
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.1	28.0	28.0	20.1	27.8	27.8	21.7	29.0	29.2	23.3	28.2	28.0
Incr Delay (d2), s/veh	6.0	6.2	6.3	5.4	4.7	4.8	0.9	3.5	4.7	1.3	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	6.4	6.5	3.1	6.0	6.1	2.5	5.3	5.0	1.8	2.7	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.1	34.2	34.3	25.6	32.5	32.7	22.6	32.4	33.9	24.7	29.2	28.9
LnGrp LOS	C	C	C	C	C	C	C	C	C	C	C	C
Approach Vol, veh/h		904			872			711			413	
Approach Delay, s/veh		32.2			30.8			30.5			27.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.9	27.5	14.9	22.9	16.0	27.5	12.6	25.2
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	10.0	30.0	10.0	30.0	10.0	30.0	10.0	30.0
Max Q Clear Time (g_c+I1), s	10.0	18.5	9.1	8.9	10.5	17.7	7.0	16.4
Green Ext Time (p_c), s	0.0	3.0	0.0	1.2	0.0	3.0	0.1	2.9

Intersection Summary	
HCM 6th Ctrl Delay	30.7
HCM 6th LOS	C

Lane Group	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (vph)	1	524	22	107	661	17	78
Future Volume (vph)	1	524	22	107	661	17	78
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%	3%
Adj. Flow (vph)	1	552	23	113	696	18	82
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	553	23	113	696	18	82
Sign Control		Free			Free	Stop	

Intersection Summary
Control Type: Unsignalized

Intersection	
Int Delay, s/veh	1.5

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Vol, veh/h	1	524	22	107	661	17	78
Future Vol, veh/h	1	524	22	107	661	17	78
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	None
Storage Length	-	-	120	115	-	0	175
Veh in Median Storage, #	-	0	-	-	0	1	-
Grade, %	-	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	3	3
Mvmt Flow	1	552	23	113	696	18	82

Major/Minor	Major1			Major2		Minor1	
Conflicting Flow All	696	0	0	575	0	1128	276
Stage 1	-	-	-	-	-	554	-
Stage 2	-	-	-	-	-	574	-
Critical Hdwy	6.44	-	-	4.14	-	6.86	6.96
Critical Hdwy Stg 1	-	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	-	5.86	-
Follow-up Hdwy	2.52	-	-	2.22	-	3.53	3.33
Pot Cap-1 Maneuver	520	-	-	994	-	196	718
Stage 1	-	-	-	-	-	536	-
Stage 2	-	-	-	-	-	524	-
Platoon blocked, %		-	-		-		
Mov Cap-1 Maneuver	520	-	-	994	-	173	718
Mov Cap-2 Maneuver	-	-	-	-	-	305	-
Stage 1	-	-	-	-	-	534	-
Stage 2	-	-	-	-	-	464	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	11.9
HCM LOS			B

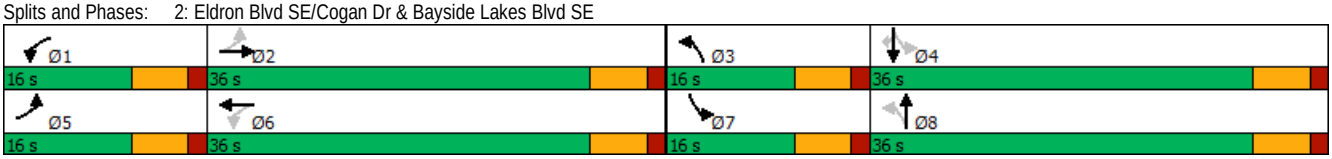
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	305	718	-	-	994	-
HCM Lane V/C Ratio	0.059	0.114	-	-	0.113	-
HCM Control Delay (s)	17.5	10.7	0	-	9.1	-
HCM Lane LOS	C	B	A	-	A	-
HCM 95th %tile Q(veh)	0.2	0.4	-	-	0.4	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	170	355	79	357	501	103	128	252	220	111	235	138
Future Volume (vph)	170	355	79	357	501	103	128	252	220	111	235	138
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	8%	8%	8%	2%	2%	2%
Adj. Flow (vph)	175	366	81	368	516	106	132	260	227	114	242	142
Shared Lane Traffic (%)												
Lane Group Flow (vph)	175	447	0	368	622	0	132	487	0	114	242	142
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		4
Detector Phase	5	2		1	6		3	8		7	4	4
Switch Phase												
Minimum Initial (s)	6.0	8.0		6.0	8.0		6.0	8.0		6.0	8.0	8.0
Minimum Split (s)	12.0	14.0		12.0	14.0		12.0	14.0		12.0	14.0	14.0
Total Split (s)	16.0	36.0		16.0	36.0		16.0	36.0		16.0	36.0	36.0
Total Split (%)	15.4%	34.6%		15.4%	34.6%		15.4%	34.6%		15.4%	34.6%	34.6%
Yellow Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	1.5
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)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	Min		None	Min		None	None		None	None	None
v/c Ratio	0.58	0.55		0.99	0.75		0.40	0.56		0.36	0.68	0.33
Control Delay	23.9	28.3		67.1	33.9		21.5	19.0		20.7	41.3	6.3
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	23.9	28.3		67.1	33.9		21.5	19.0		20.7	41.3	6.3
Queue Length 50th (ft)	54	98		~131	151		44	67		38	118	0
Queue Length 95th (ft)	114	165		#382	240		94	129		81	214	38
Internal Link Dist (ft)		572			1136			952			1247	
Turn Bay Length (ft)	215			114			225			114		235
Base Capacity (vph)	315	1172		373	1171		341	1176		346	625	630
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.56	0.38		0.99	0.53		0.39	0.41		0.33	0.39	0.23

Intersection Summary

Cycle Length: 104
Actuated Cycle Length: 82.7
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Eldron Blvd SE/Cogan Dr & Bayside Lakes Blvd SE



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	355	79	357	501	103	128	252	220	111	235	138
Future Volume (veh/h)	170	355	79	357	501	103	128	252	220	111	235	138
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1603	1603	1603	1683	1683	1683
Adj Flow Rate, veh/h	175	366	23	368	516	39	132	260	206	114	242	132
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	8	8	8	2	2	2
Cap, veh/h	341	595	37	420	697	53	312	366	280	291	357	302
Arrive On Green	0.11	0.19	0.19	0.15	0.23	0.23	0.09	0.22	0.22	0.08	0.21	0.21
Sat Flow, veh/h	1603	3057	191	1603	3014	227	1527	1644	1256	1603	1683	1427
Grp Volume(v), veh/h	175	191	198	368	273	282	132	240	226	114	242	132
Grp Sat Flow(s),veh/h/ln	1603	1599	1649	1603	1599	1642	1527	1523	1377	1603	1683	1427
Q Serve(g_s), s	5.7	7.4	7.4	10.0	10.7	10.7	4.5	9.8	10.3	3.7	8.9	5.4
Cycle Q Clear(g_c), s	5.7	7.4	7.4	10.0	10.7	10.7	4.5	9.8	10.3	3.7	8.9	5.4
Prop In Lane	1.00		0.12	1.00		0.14	1.00		0.91	1.00		1.00
Lane Grp Cap(c), veh/h	341	311	321	420	370	380	312	339	307	291	357	302
V/C Ratio(X)	0.51	0.61	0.62	0.88	0.74	0.74	0.42	0.71	0.74	0.39	0.68	0.44
Avail Cap(c_a), veh/h	400	711	734	420	711	731	402	678	613	403	749	635
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.9	24.8	24.9	21.4	24.0	24.0	18.7	24.2	24.4	19.1	24.5	23.1
Incr Delay (d2), s/veh	1.2	2.0	1.9	18.3	2.9	2.9	0.9	2.7	3.4	0.9	2.3	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	2.7	2.8	6.4	3.9	4.1	1.5	3.6	3.4	1.3	3.5	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.1	26.8	26.8	39.7	26.9	26.9	19.6	26.9	27.8	19.9	26.7	24.1
LnGrp LOS	C	C	C	D	C	C	B	C	C	B	C	C
Approach Vol, veh/h		564			923			598			488	
Approach Delay, s/veh		24.7			32.0			25.7			24.4	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	19.1	12.0	20.3	13.5	21.6	11.3	21.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	10.0	30.0	10.0	30.0	10.0	30.0	10.0	30.0
Max Q Clear Time (g_c+I1), s	12.0	9.4	6.5	10.9	7.7	12.7	5.7	12.3
Green Ext Time (p_c), s	0.0	2.0	0.1	1.6	0.1	2.9	0.1	2.7

Intersection Summary	
HCM 6th Ctrl Delay	27.5
HCM 6th LOS	C

SYNCHRO OUTPUT – BUILDOUT CONDITIONS

Lane Group	EBU	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Lane Configurations								
Traffic Volume (vph)	2	861	29	1	54	776	48	135
Future Volume (vph)	2	861	29	1	54	776	48	135
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	2%
Adj. Flow (vph)	2	957	32	1	60	862	53	150
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	959	32	0	61	862	53	150
Sign Control		Free				Free	Stop	

Intersection Summary

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	2

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Lane Configurations								
Traffic Vol, veh/h	2	861	29	1	54	776	48	135
Future Vol, veh/h	2	861	29	1	54	776	48	135
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	None
Storage Length	-	-	120	-	115	-	0	175
Veh in Median Storage, #	-	0	-	-	-	0	1	-
Grade, %	-	0	-	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	4	4	4	2	2
Mvmt Flow	2	957	32	1	60	862	53	150

Major/Minor	Major1			Major2			Minor1	
Conflicting Flow All	862	0	0	957	989	0	1514	479
Stage 1	-	-	-	-	-	-	961	-
Stage 2	-	-	-	-	-	-	553	-
Critical Hdwy	6.44	-	-	6.48	4.18	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.84	-
Follow-up Hdwy	2.52	-	-	2.54	2.24	-	3.52	3.32
Pot Cap-1 Maneuver	407	-	-	348	683	-	110	533
Stage 1	-	-	-	-	-	-	332	-
Stage 2	-	-	-	-	-	-	540	-
Platoon blocked, %		-	-			-		
Mov Cap-1 Maneuver	407	-	-	663	663	-	99	533
Mov Cap-2 Maneuver	-	-	-	-	-	-	222	-
Stage 1	-	-	-	-	-	-	328	-
Stage 2	-	-	-	-	-	-	490	-

Approach	EB	WB	NB
HCM Control Delay, s	0.1	0.7	17.5
HCM LOS			C

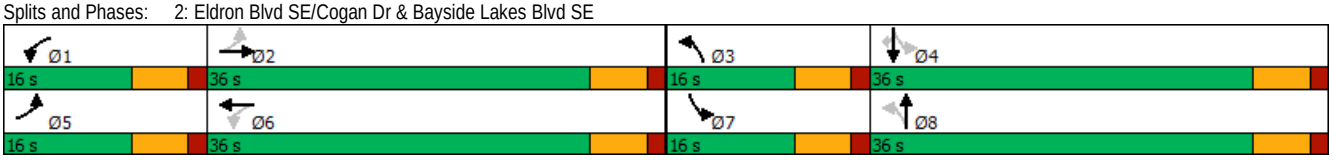
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	222	533	-	-	663	-
HCM Lane V/C Ratio	0.24	0.281	-	-	0.092	-
HCM Control Delay (s)	26.3	14.4	0.1	-	11	-
HCM Lane LOS	D	B	A	-	B	-
HCM 95th %tile Q(veh)	0.9	1.1	-	-	0.3	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	215	580	123	203	532	157	164	261	256	117	151	153
Future Volume (vph)	215	580	123	203	532	157	164	261	256	117	151	153
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
Heavy Vehicles (%)	5%	5%	5%	4%	4%	4%	7%	7%	7%	3%	3%	3%
Adj. Flow (vph)	231	624	132	218	572	169	176	281	275	126	162	165
Shared Lane Traffic (%)												
Lane Group Flow (vph)	231	756	0	218	741	0	176	556	0	126	162	165
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		4
Detector Phase	5	2		1	6		3	8		7	4	4
Switch Phase												
Minimum Initial (s)	6.0	8.0		6.0	8.0		6.0	8.0		6.0	8.0	8.0
Minimum Split (s)	12.0	14.0		12.0	14.0		12.0	14.0		12.0	14.0	14.0
Total Split (s)	16.0	36.0		16.0	36.0		16.0	36.0		16.0	36.0	36.0
Total Split (%)	15.4%	34.6%		15.4%	34.6%		15.4%	34.6%		15.4%	34.6%	34.6%
Yellow Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	1.5
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)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	Min		None	Min		None	None		None	None	None
v/c Ratio	0.80	0.82		0.76	0.79		0.49	0.75		0.51	0.52	0.41
Control Delay	39.3	36.3		35.3	34.3		25.5	25.5		27.0	38.1	8.4
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	39.3	36.3		35.3	34.3		25.5	25.5		27.0	38.1	8.4
Queue Length 50th (ft)	74	196		69	187		71	90		49	84	0
Queue Length 95th (ft)	#205	#302		#189	289		122	149		89	145	50
Internal Link Dist (ft)		572			1136			952			1247	
Turn Bay Length (ft)	215			114			225			114		235
Base Capacity (vph)	288	1075		287	1085		366	1143		264	583	603
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.80	0.70		0.76	0.68		0.48	0.49		0.48	0.28	0.27

Intersection Summary

Cycle Length: 104
Actuated Cycle Length: 86.8
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Eldron Blvd SE/Cogan Dr & Bayside Lakes Blvd SE



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	215	580	123	203	532	157	164	261	256	117	151	153
Future Volume (veh/h)	215	580	123	203	532	157	164	261	256	117	151	153
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1643	1643	1643	1657	1657	1657	1617	1617	1617	1670	1670	1670
Adj Flow Rate, veh/h	231	624	85	218	572	91	176	281	256	126	162	127
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
Percent Heavy Veh, %	5	5	5	4	4	4	7	7	7	3	3	3
Cap, veh/h	329	754	103	317	743	118	371	363	321	262	344	292
Arrive On Green	0.12	0.27	0.27	0.12	0.27	0.27	0.11	0.24	0.24	0.08	0.21	0.21
Sat Flow, veh/h	1565	2761	376	1578	2721	432	1540	1543	1364	1590	1670	1415
Grp Volume(v), veh/h	231	352	357	218	330	333	176	280	257	126	162	127
Grp Sat Flow(s),veh/h/ln	1565	1561	1576	1578	1574	1579	1540	1536	1371	1590	1670	1415
Q Serve(g_s), s	8.7	17.6	17.6	8.1	16.0	16.1	7.3	14.1	14.7	5.1	7.1	6.5
Cycle Q Clear(g_c), s	8.7	17.6	17.6	8.1	16.0	16.1	7.3	14.1	14.7	5.1	7.1	6.5
Prop In Lane	1.00		0.24	1.00		0.27	1.00		0.99	1.00		1.00
Lane Grp Cap(c), veh/h	329	427	430	317	430	431	371	361	323	262	344	292
V/C Ratio(X)	0.70	0.83	0.83	0.69	0.77	0.77	0.47	0.77	0.80	0.48	0.47	0.44
Avail Cap(c_a), veh/h	329	565	570	317	569	571	386	556	496	324	604	512
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.2	28.3	28.3	20.3	27.7	27.8	22.2	29.6	29.8	23.9	28.9	28.7
Incr Delay (d2), s/veh	6.5	7.5	7.6	6.1	4.5	4.7	0.9	3.6	5.1	1.4	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	7.0	7.1	3.2	6.1	6.2	2.6	5.4	5.1	1.9	2.8	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.7	35.8	35.9	26.5	32.3	32.4	23.2	33.3	35.0	25.3	29.9	29.7
LnGrp LOS	C	D	D	C	C	C	C	C	C	C	C	C
Approach Vol, veh/h		940			881			713			415	
Approach Delay, s/veh		33.6			30.9			31.4			28.5	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	28.6	15.2	23.1	16.0	28.6	12.8	25.5
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	10.0	30.0	10.0	30.0	10.0	30.0	10.0	30.0
Max Q Clear Time (g_c+I1), s	10.1	19.6	9.3	9.1	10.7	18.1	7.1	16.7
Green Ext Time (p_c), s	0.0	3.0	0.0	1.2	0.0	3.0	0.1	2.8

Intersection Summary	
HCM 6th Ctrl Delay	31.5
HCM 6th LOS	C

Lane Group	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (vph)	1	524	33	143	661	23	100
Future Volume (vph)	1	524	33	143	661	23	100
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%	3%
Adj. Flow (vph)	1	552	35	151	696	24	105
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	553	35	151	696	24	105
Sign Control		Free			Free	Stop	

Intersection Summary

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	2

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Vol, veh/h	1	524	33	143	661	23	100
Future Vol, veh/h	1	524	33	143	661	23	100
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	None
Storage Length	-	-	120	115	-	0	175
Veh in Median Storage, #	-	0	-	-	0	1	-
Grade, %	-	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	3	3
Mvmt Flow	1	552	35	151	696	24	105

Major/Minor	Major1			Major2		Minor1	
Conflicting Flow All	696	0	0	587	0	1204	276
Stage 1	-	-	-	-	-	554	-
Stage 2	-	-	-	-	-	650	-
Critical Hdwy	6.44	-	-	4.14	-	6.86	6.96
Critical Hdwy Stg 1	-	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	-	5.86	-
Follow-up Hdwy	2.52	-	-	2.22	-	3.53	3.33
Pot Cap-1 Maneuver	520	-	-	984	-	175	718
Stage 1	-	-	-	-	-	536	-
Stage 2	-	-	-	-	-	479	-
Platoon blocked, %		-	-		-		
Mov Cap-1 Maneuver	520	-	-	984	-	148	718
Mov Cap-2 Maneuver	-	-	-	-	-	276	-
Stage 1	-	-	-	-	-	534	-
Stage 2	-	-	-	-	-	406	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.7	12.5
HCM LOS			B

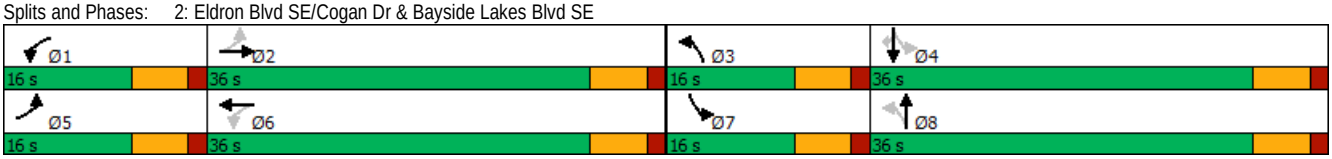
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	276	718	-	-	984	-
HCM Lane V/C Ratio	0.088	0.147	-	-	0.153	-
HCM Control Delay (s)	19.3	10.9	0	-	9.3	-
HCM Lane LOS	C	B	A	-	A	-
HCM 95th %tile Q(veh)	0.3	0.5	-	-	0.5	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	172	370	83	357	526	103	135	252	220	111	235	142
Future Volume (vph)	172	370	83	357	526	103	135	252	220	111	235	142
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	8%	8%	8%	2%	2%	2%
Adj. Flow (vph)	177	381	86	368	542	106	139	260	227	114	242	146
Shared Lane Traffic (%)												
Lane Group Flow (vph)	177	467	0	368	648	0	139	487	0	114	242	146
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		4
Detector Phase	5	2		1	6		3	8		7	4	4
Switch Phase												
Minimum Initial (s)	6.0	8.0		6.0	8.0		6.0	8.0		6.0	8.0	8.0
Minimum Split (s)	12.0	14.0		12.0	14.0		12.0	14.0		12.0	14.0	14.0
Total Split (s)	16.0	36.0		16.0	36.0		16.0	36.0		16.0	36.0	36.0
Total Split (%)	15.4%	34.6%		15.4%	34.6%		15.4%	34.6%		15.4%	34.6%	34.6%
Yellow Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	1.5
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)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	Min		None	Min		None	None		None	None	None
v/c Ratio	0.60	0.56		1.00	0.76		0.43	0.56		0.36	0.68	0.34
Control Delay	24.8	28.5		71.2	34.3		22.4	19.2		21.1	41.8	6.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	24.8	28.5		71.2	34.3		22.4	19.2		21.1	41.8	6.7
Queue Length 50th (ft)	55	105		~135	160		48	68		38	120	0
Queue Length 95th (ft)	114	173		#389	252		98	129		81	214	41
Internal Link Dist (ft)		572			1136			952			1247	
Turn Bay Length (ft)	215			114			225			114		235
Base Capacity (vph)	309	1155		368	1156		337	1163		341	616	623
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.57	0.40		1.00	0.56		0.41	0.42		0.33	0.39	0.23

Intersection Summary

Cycle Length: 104
Actuated Cycle Length: 83.8
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Eldron Blvd SE/Cogan Dr & Bayside Lakes Blvd SE



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	172	370	83	357	526	103	135	252	220	111	235	142
Future Volume (veh/h)	172	370	83	357	526	103	135	252	220	111	235	142
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1603	1603	1603	1683	1683	1683
Adj Flow Rate, veh/h	177	381	25	368	542	39	139	260	206	114	242	136
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	8	8	8	2	2	2
Cap, veh/h	338	623	41	419	723	52	310	364	278	287	346	293
Arrive On Green	0.11	0.20	0.20	0.15	0.24	0.24	0.09	0.22	0.22	0.08	0.21	0.21
Sat Flow, veh/h	1603	3047	199	1603	3026	217	1527	1644	1256	1603	1683	1427
Grp Volume(v), veh/h	177	199	207	368	286	295	139	240	226	114	242	136
Grp Sat Flow(s),veh/h/ln	1603	1599	1647	1603	1599	1644	1527	1523	1377	1603	1683	1427
Q Serve(g_s), s	5.8	7.8	7.8	10.0	11.3	11.4	4.8	10.0	10.5	3.8	9.1	5.7
Cycle Q Clear(g_c), s	5.8	7.8	7.8	10.0	11.3	11.4	4.8	10.0	10.5	3.8	9.1	5.7
Prop In Lane	1.00		0.12	1.00		0.13	1.00		0.91	1.00		1.00
Lane Grp Cap(c), veh/h	338	327	337	419	382	393	310	337	305	287	346	293
V/C Ratio(X)	0.52	0.61	0.61	0.88	0.75	0.75	0.45	0.71	0.74	0.40	0.70	0.46
Avail Cap(c_a), veh/h	394	700	721	419	700	720	390	667	603	397	737	625
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.8	24.8	24.8	21.5	24.2	24.2	19.2	24.6	24.8	19.7	25.3	23.9
Incr Delay (d2), s/veh	1.3	1.8	1.8	18.8	2.9	2.9	1.0	2.8	3.5	0.9	2.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	2.8	2.9	6.5	4.2	4.3	1.7	3.7	3.5	1.3	3.6	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.0	26.6	26.6	40.3	27.1	27.1	20.3	27.4	28.4	20.6	27.8	25.0
LnGrp LOS	C	C	C	D	C	C	C	C	C	C	C	C
Approach Vol, veh/h		583			949			605			492	
Approach Delay, s/veh		24.6			32.2			26.1			25.4	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	20.0	12.4	20.1	13.6	22.4	11.3	21.2
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	10.0	30.0	10.0	30.0	10.0	30.0	10.0	30.0
Max Q Clear Time (g_c+I1), s	12.0	9.8	6.8	11.1	7.8	13.4	5.8	12.5
Green Ext Time (p_c), s	0.0	2.1	0.1	1.6	0.1	3.0	0.1	2.7

Intersection Summary	
HCM 6th Ctrl Delay	27.8
HCM 6th LOS	C