Technical Memorandum

To: Kathryn Lyon
Planning Director
Town of Cutler Bay
10720 Caribbean Boulevard, Suite 105
Cutler Bay, FL 33189

From: Carlos X. Valentin, P.E.
Richard Garcia & Associates, Inc.
8065 NW 98th Street
Hialeah Gardens, Florida 33016

Date: March 16th, 2018

Subject: **Cutler Gate; Traffic Impact Study Comments and Responses**

We have reviewed the traffic comments provided for the referenced project dated March 9th, 2018 and prepared by The Corradino Group, Inc. Please accept this document as an Addendum to our Traffic Impact Study dated January 23rd, 2018. We hereby offer the following responses and additional analysis in an effort to address the comments made as follows:

Roadway Analysis - LOS & Capacity

- Despite the one-day data collection performed at the site, based on information readily available from the FDOT website Florida Traffic Online (2016), the AADT on Old Cutler Road at Site 878310 – Old Cutler Road, 200' South of Franjo Rd, is 17,900, with a K factor of 9%. Performing the proper calculations on these data indicate that the peak hour traffic on Old Cutler Road is approximately 1,611 vehicles per hour (vph). The report references the 2013 FDOT Quality/Level of Service (QLOS) Handbook as the standard for determining Level of Service versus traffic volumes. Because the speed limit on Old Cutler Road is 40 mph, the report places this roadway in the "State Signalized Arterials" category, with a two-lane Level of Service (LOS) D capacity of 1,600 vph. Although we disagree with this categorization, giving the benefit of the doubt, Old Cutler Road currently operates at LOS F. References given above are attached.

Response: We disagree with the reviewer. Although calculating the peak hour traffic using the AADT and K factor is an acceptable traffic engineering practice, actual current year traffic counts (2018 data), as used in the roadway analysis documented in the Traffic Impact Study, are more suitable than utilizing FDOT available published data (2016 data) that is 2-years old and sometimes unreliable based on our professional opinion and vast experience collecting traffic counts. The peak hour traffic of 1,611 vph (based on 2016 AADT and K factor) is an overestimation and does not represent current traffic conditions. The 2018 traffic counts revealed a peak hour traffic of 1,258 vph (two-way volume) that is approximately 20 percent less traffic than the traffic volume calculated by the reviewer using the 2016 AADT. In contrast, the FDOT published data includes a Synopsis report (Site 878310: actual 2016 traffic counts, one-day data) that reveals a peak hour traffic of 1,449 vph.

In addition, the service volume of 1,600 vph on Old Cutler Road is correct and was determined using the appropriate roadway category. The roadway service volume was calculated using the service volume (State Signalized Arterials category) and adjustments (Non-State Signalized Roadway Adjustments and Median & Turn Lane Adjustments) from the FDOT Q/LOS Handbook generalized tables. In fact, the Miami-Dade County Traffic Station list has Old Cutler Road (Station 9594) with a service volume of 1,610 peak hour period (Max LOS) that is consistent with the service volume utilized in our roadway analysis. See attachment for supporting documentation. Lastly, the roadway analysis using actual 2018 traffic counts on Old Cutler Road (east of SW 87th Avenue) yielded LOS C during the roadway's peak hour condition.

Trip Generation

- The site plan provided does not provide sufficient detail to determine which area is being used for retail as opposed to housing. This, in turn will govern the types of land use classifications used to determine trip generation. The description given for ITE Trip Generation Land Use Code (LUC) 221, Multifamily Housing (Mid-Rise) indicates "Mid-Rise Multifamily Housing includes apartments, townhouses, and condominiums located within the same building with at least three other dwelling units and that have between three and 10 levels (floors)."

  It is unknown if the dwelling units in this development occupy two or three floors, internally or separately, excluding the retail space which is assumed to occupy the street level. If the housing element of the development occupies only two floors of the buildings, LUC 220, Multifamily Housing (Low-Rise) should be used.

Response: The residential use will occupy the 2nd and 3rd floor of the building. Therefore, the trip generation analysis was revised with LUC 220, Multifamily Housing (Low-Rise). Attached please find the revised analysis.

- The use of Land Use Code (LUC) 820 – Shopping Center for 4,186 ft2 of retail is questionable. The additional data description given for LUC 820, Shopping Center states "Shopping centers, including neighborhood centers, community centers, regional centers, and super regional centers, were surveyed for this land use. Some of these centers contained non-merchandising facilities, such as office buildings, movie theaters, restaurants, post offices, banks, health clubs, and recreational facilities (for example, ice skating rinks or indoor miniature golf courses)." The average size of shopping centers surveyed for the ITE AM peak trip generation rates was 251,000 ft2, and 327,000 ft2 for the PM peak, with a daily survey representing shopping centers of 435,000 ft2. Because the retail use (4,186 ft2) is minimal, trip generation should be calculated for each shop individually, based on anticipated uses.

Response: The retail space will be for "neighborhood retail" uses as indicated by the Client and thus, can be similar to neighborhood centers as described in the ITE definition for LUC 820, Shopping Center. At this stage of the project, the Client cannot anticipate any specific retail use or tenant and therefore, the peak hour trips for the retail space were calculated using LUC 820 that most closely resembles the proposed retail use.

- If it is acceptable to Cutler Bay, trip generation calculations based on LUC 820, Shopping Center, should be calculated using fitted curve equations rather than on

average rates. Using the fitted curve equations, our analysis indicates that there should be a total of 101 trips in the AM peak and 69 trips during the PM peak. Calculations reflecting these results are attached.

Response: We disagree with the reviewer. The trip generation analysis with the fitted curve equations for LUC 820 yield 154 gross trips for the AM peak hour (not 89 trips as calculated by the reviewer) and 52 gross trips for the PM peak hour. These results are unreasonable and out of scale when comparing the site's average size of the ITE data (AM peak: 351,000 Sq.Ft. and PM peak: 327,000 Sq.Ft.) with the proposed retail space of 4,186 square feet.

Additionally, the retail space will have only 14 parking spaces as per the Town's requirements and this clearly indicates that 4,186 square feet retail space will not generate significant amount of traffic otherwise a lot more parking would be required. Note, it is acceptable to perform a conservative analysis but engineering judgment should be used to ensure the results pass a reasonableness test.

Lastly, the revised project trip generation analysis with the ITE average rates yielded 21 total gross trips (LUC 820: 4 trips) for the AM peak hour and 36 total gross trips (LUC 820: 16 trips) for the PM peak hour. These results are deemed reasonable for the proposed uses.

- Once an accurate accounting of trip generation is presented, allowances should be made for multimodal trips, internal capture using NCHRP 684 methodology, and pas-by capture based on ITE Trip Generation Handbook, 3rd Edition.

Response: Although internal capture and pass-by can be applied in the trip generation analysis, these trip adjustments were not utilized as a conservative approach. In fact, the internalization for the project resulted in only 3 PM trips.

Trip Distribution

- Trip distribution will require recalculation based upon actual trip generation results.

Response: See the revised trip distribution and assignment sheets.

Proposed Future Conditions

- Proposed future conditions will require recalculation based upon actual trip generation results.

Response: The revised analyses yielded the same LOS results previously documented in the Traffic Impact Study dated January 23rd, 2018. See attachment for supporting documentation.

In conclusion, the project traffic will not adversely affect the traffic operations within the study area and therefore, an approval should be granted.

Attachments

TABLE: A1

TRIP GENERATION ANALYSIS
AM PEAK HOUR

Project Name: Cutler Gate

LAND USE (LU)	UNITS	ITE LU CODE	TRIP GENERATION RATE	AM PEAK HOUR TRIPS				
				%	IN	%	OUT	TOTAL
Proposed								
Multifamily Housing (Low-Rise)	36 D.U.	220	0.46	23%	4	77%	13	17
Shopping Center (Retail)	4.186 Th.Sq.Ft.	820	0.94	62%	2	38%	2	4
	Out of Scale →		~~T=0.50(X)+151.78~~	~~62%~~	~~95~~	~~38%~~	~~59~~	~~154~~
External Trips *(Gross Trips)*				**29%**	**6**	**71%**	**15**	**21**

Notes: Sources: ITE Trip Generation, 10th Edition & ITE Trip Generation Handbook, 3rd Edition.

TABLE: A2

TRIP GENERATION ANALYSIS
PM PEAK HOUR

Project Name: Cutler Gate

LAND USE (LU)	UNITS	ITE LU CODE	TRIP GENERATION RATE	PM PEAK HOUR TRIPS				
				%	IN	%	OUT	TOTAL
Proposed								
Multifamily Housing (Low-Rise)	36 D.U.	220	0.56	63%	13	37%	7	20
Shopping Center (Retail)	4.186 Th.Sq.Ft.	820	3.81	48%	8	52%	8	16
	Out of Scale →		~~Ln(T)=0.74Ln(X)+2.89~~	~~48%~~	~~25~~	~~52%~~	~~27~~	~~52~~
External Trips *(Gross Trips)*				**58%**	**21**	**42%**	**15**	**36**

Notes: Sources: ITE Trip Generation, 10th Edition & ITE Trip Generation Handbook, 3rd Edition.

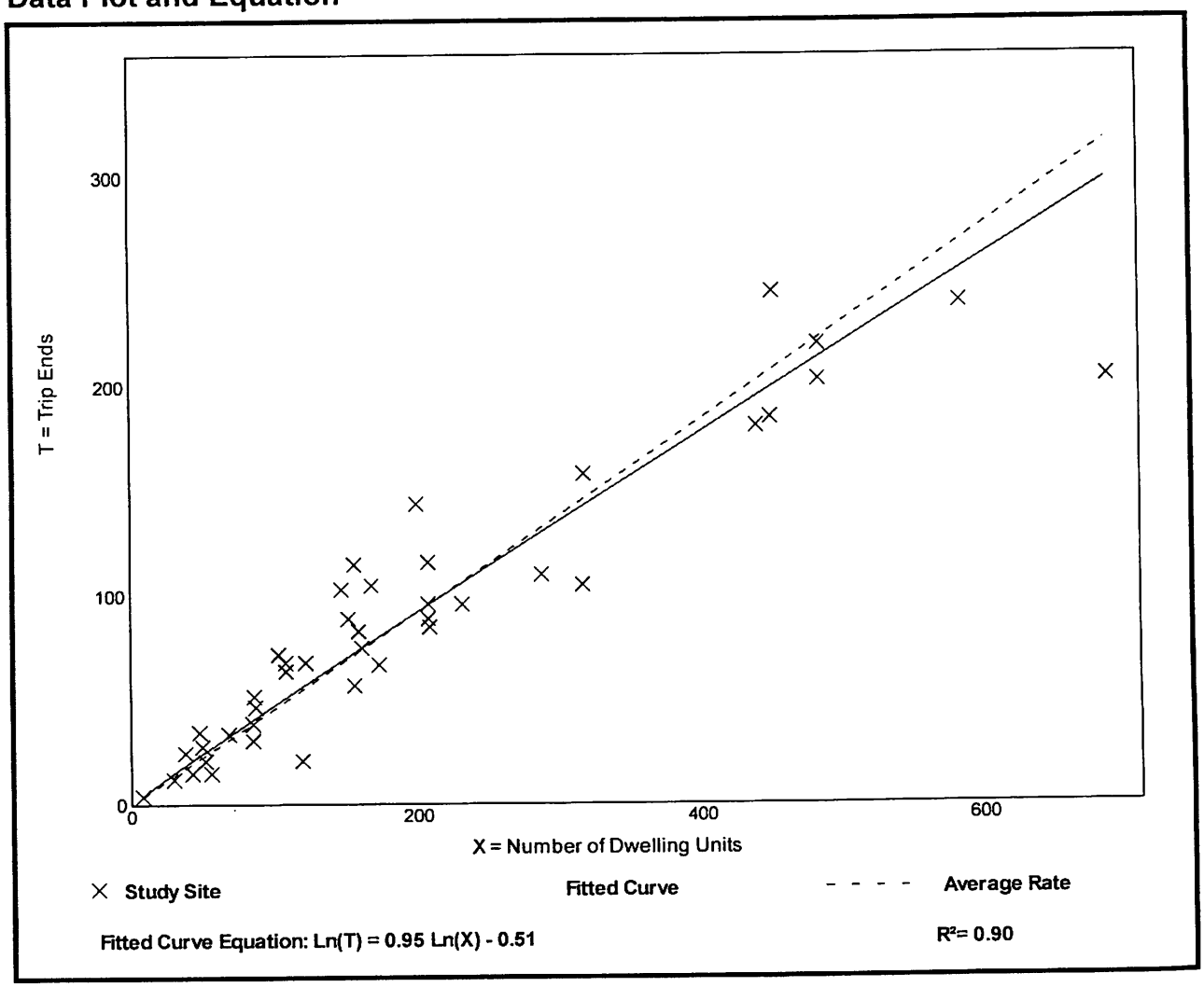
Multifamily Housing (Low-Rise)
(220)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	42
Avg. Num. of Dwelling Units:	199
Directional Distribution:	23% entering, 77% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.46	0.18 - 0.74	0.12

Data Plot and Equation



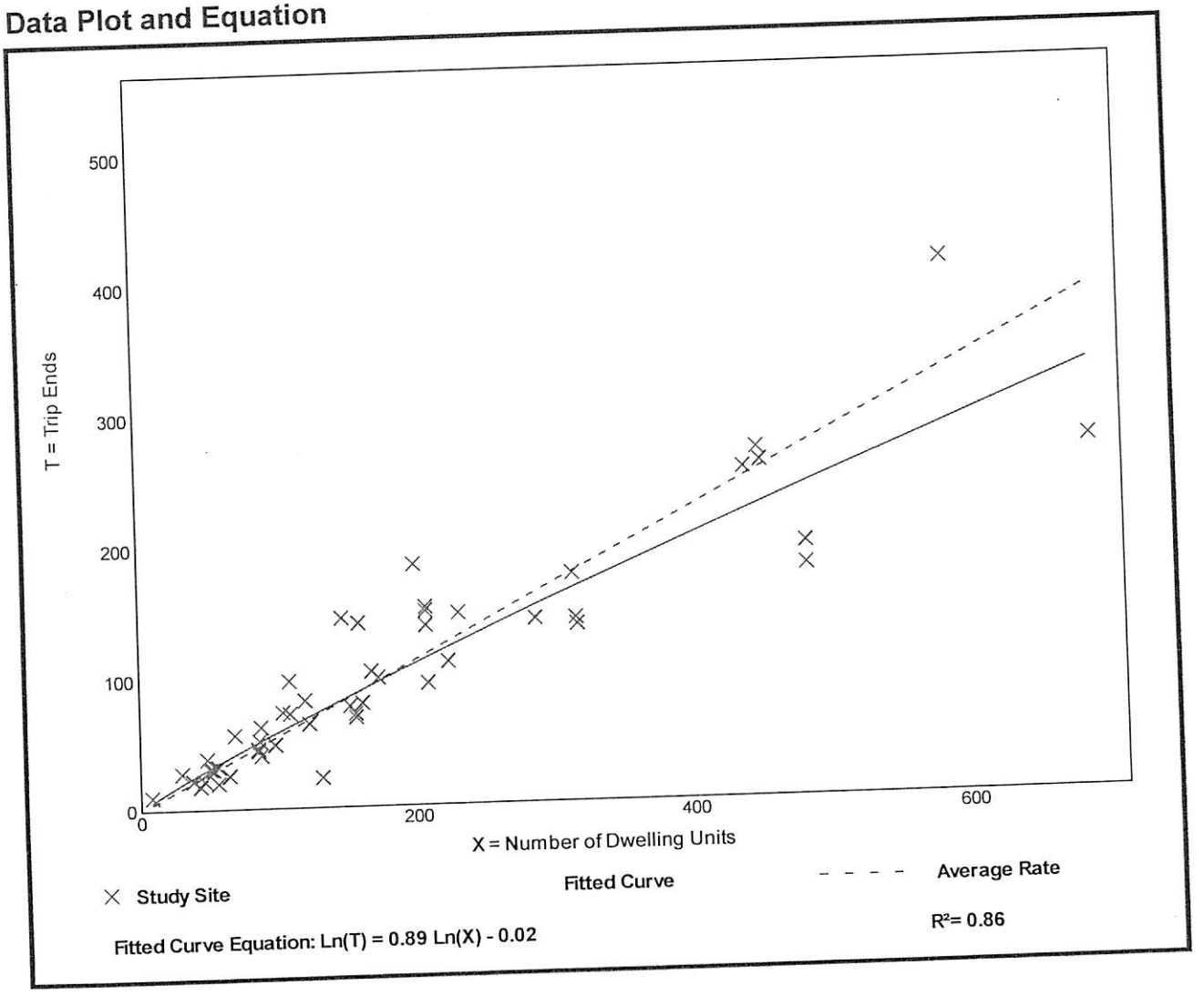
Multifamily Housing (Low-Rise)
(220)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,** **Peak Hour of Adjacent Street Traffic,** **One Hour Between 4 and 6 p.m.**
Setting/Location:	**General Urban/Suburban**
Number of Studies:	50
Avg. Num. of Dwelling Units:	187
Directional Distribution:	63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.56	0.18 - 1.25	0.16

Data Plot and Equation



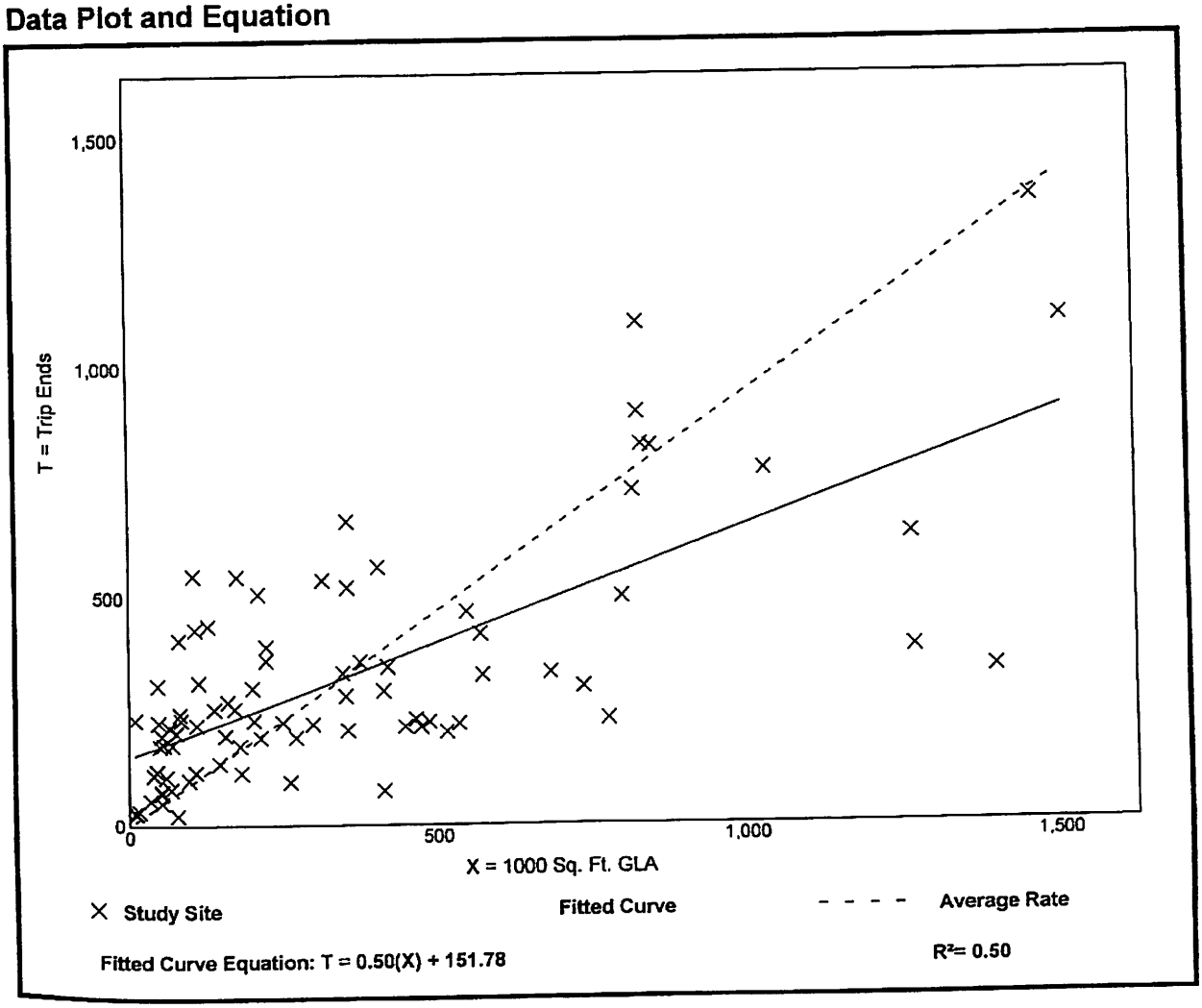
Shopping Center
(820)

Vehicle Trip Ends vs:	**1000 Sq. Ft. GLA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	84
1000 Sq. Ft. GLA:	351
Directional Distribution:	62% entering, 38% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
0.94	0.18 - 23.74	0.87

Data Plot and Equation



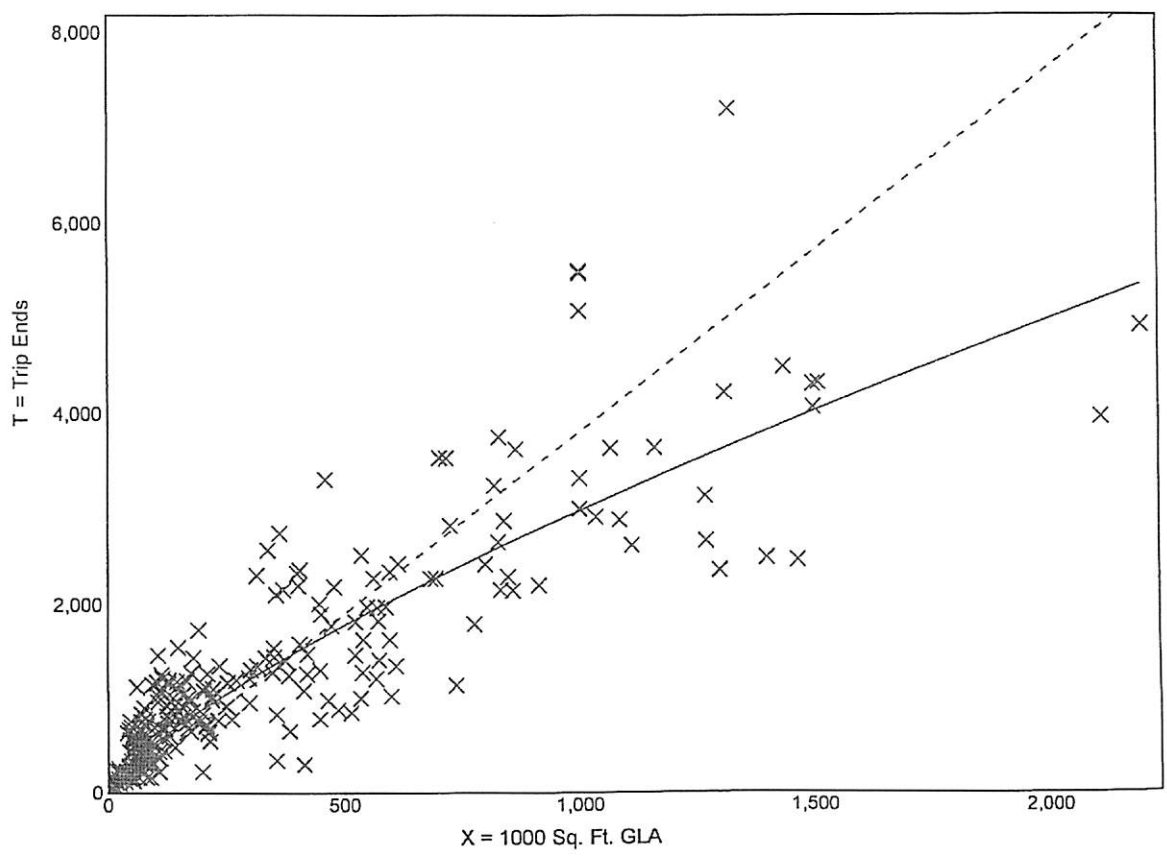
Shopping Center
(820)

Vehicle Trip Ends vs:	**1000 Sq. Ft. GLA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	261
1000 Sq. Ft. GLA:	327
Directional Distribution:	48% entering, 52% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
3.81	0.74 - 18.69	2.04

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.74 Ln(X) + 2.89

R^2= 0.82

Cutler Gate

MULTI-USE DEVELOPMENT TRIP GENERATION AND INTERNAL CAPTURE SUMMARY

Analyst CV

Date March 15, 2018

Time Period AM Peak Hour

LAND USE A Multifamily Housing

ITE LU Code 220
Size 36 DU

Exit to External: 13
Enter from External: 4

	Total	Internal	External
Enter	4	0	4
Exit	13	0	13
Total	17	0	17
%	100%	0%	100%

2%	0	0	14%	1
Demand		Balanced	Demand	
1%	0	0	17%	0
Demand		Balanced	Demand	

LAND USE B Retail

ITE LU Code 820
Size 4,186 SF

Enter from External: 2
Exit to External: 2

	Total	Internal	External
Enter	2	0	2
Exit	2	0	2
Total	4	0	4
%	100%	0%	100%

Net External Trips for Multi-Use Development

	LAND USE A	LAND USE B		TOTAL
Enter	4	2		6
Exit	13	2		15
Total	17	4		21
Single-Use Trip Gen. Est.	17	4		21

INTERNAL CAPTURE: 0.00%

Sources: Trip Generation Handbook, 3nd Edition.
Input variables.

Cutler Gate

MULTI-USE DEVELOPMENT TRIP GENERATION AND INTERNAL CAPTURE SUMMARY

Analyst CV

Date March 15, 2018

Time Period PM Peak Hour

LAND USE A Multifamily Housing

ITE LU Code 220
Size 36 DU

Exit to External: 6
Enter from External: 10

	Total	Internal	External
Enter	13	3	10
Exit	7	1	6
Total	20	4	16
%	100%	19%	81%

46% 6 Demand
3 Balanced
26% 3 Demand

42% 3 Demand
1 Balanced
10% 1 Demand

LAND USE B Retail

ITE LU Code 820
Size 4,186 SF

Enter from External: 7
Exit to External: 5

	Total	Internal	External
Enter	8	1	7
Exit	8	3	5
Total	16	4	12
%	100%	24%	75%

Net External Trips for Multi-Use Development

	LAND USE A	LAND USE B		TOTAL
Enter	10	7		17
Exit	6	5		11
Total	16	12		28
Single-Use Trip Gen. Est.	20	16		36

INTERNAL CAPTURE: 21.67%

Sources: Trip Generation Handbook, 3nd Edition.
Input variables.

Cutler Gate

Site Traffic (Project Gross Trips) - AM Peak Hour

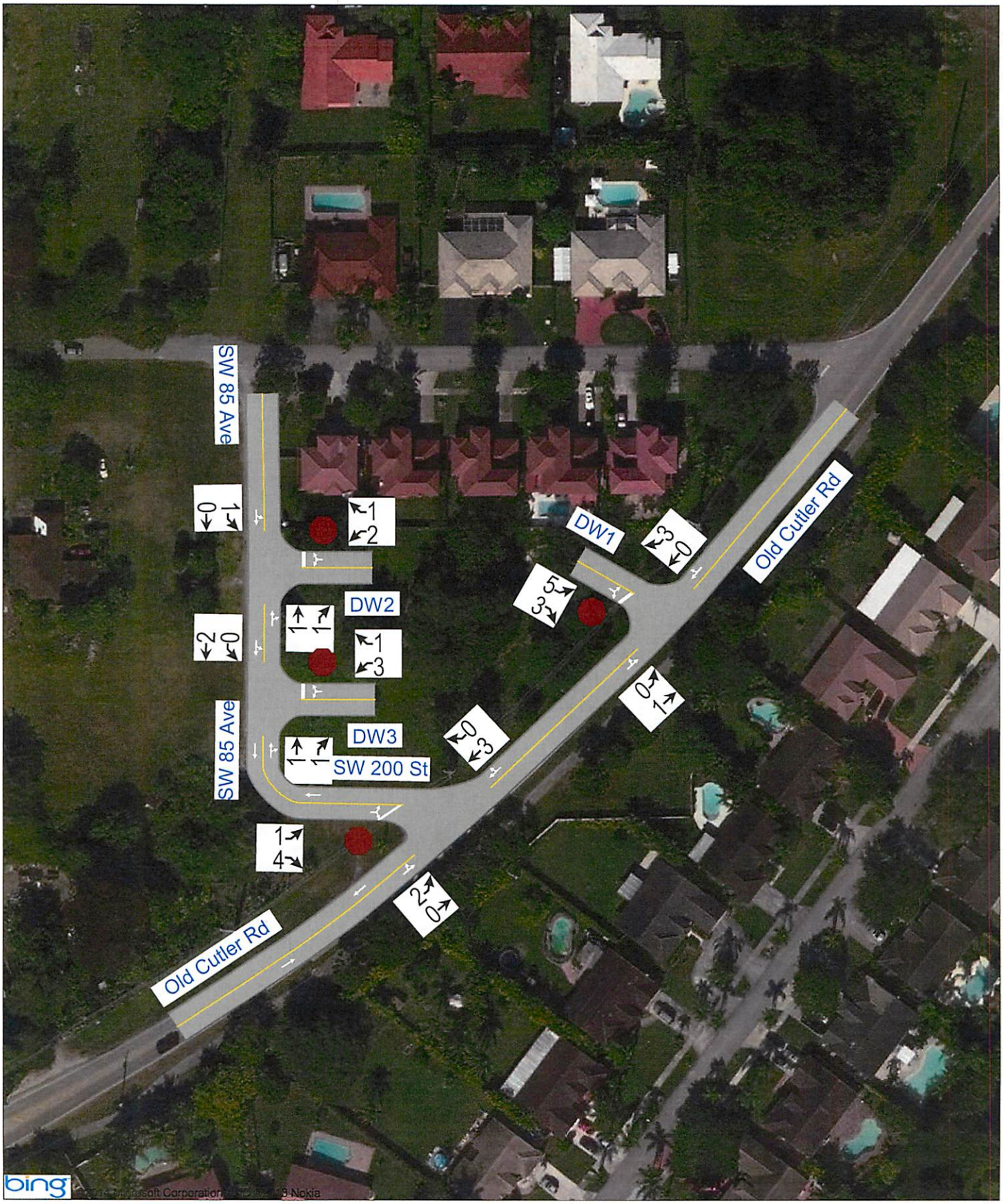
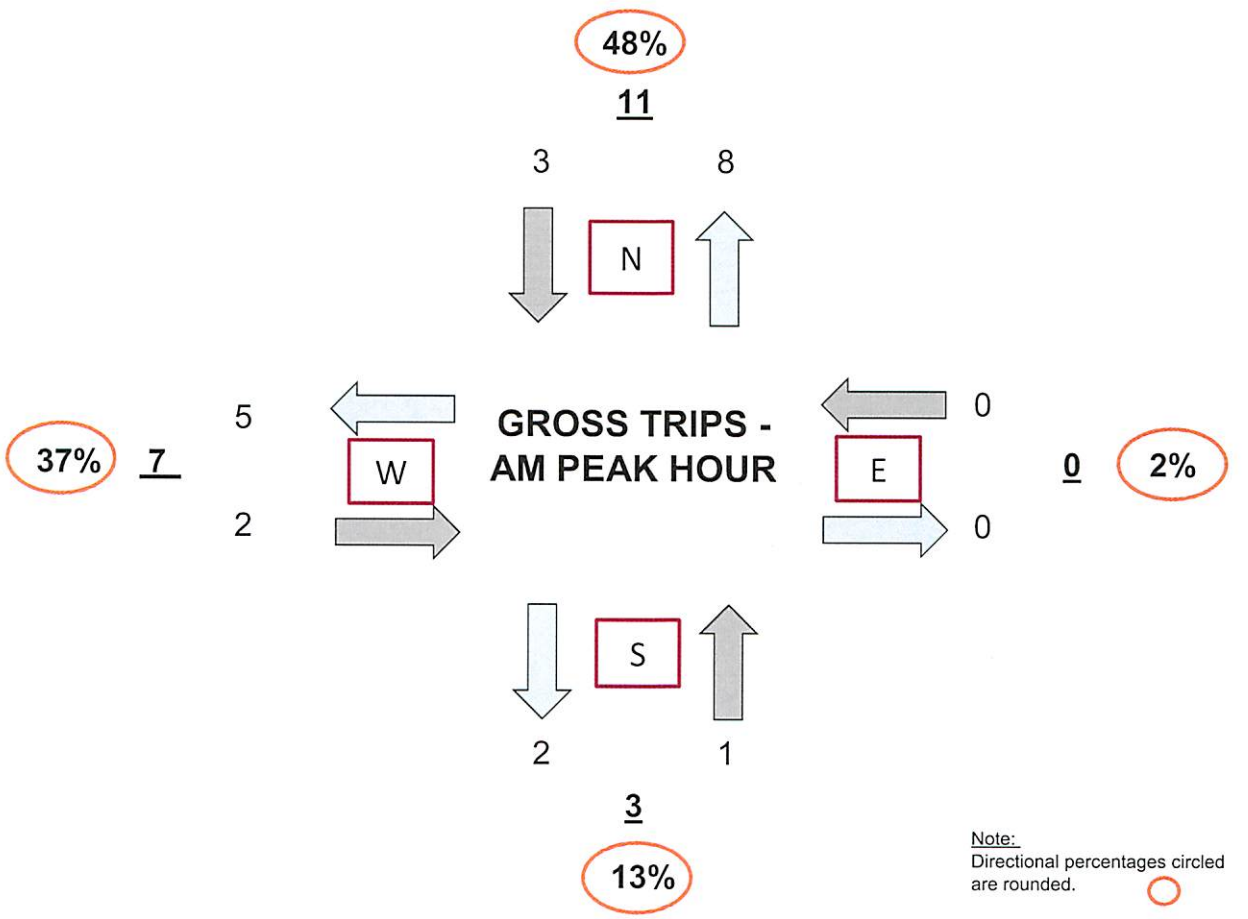


TABLE: A3

Cardinal Distribution
AM Peak Hour
Traffic Analysis Zone (TAZ) 1356

Project Name: Cutler Gate

DIRECTION	DISTRIBUTION (%) DESIGN YEAR	DIRECTION	DISTRIBUTION	AM PEAK HOUR TRIPS		
				IN	OUT	TOTAL
NNE	23.78	NORTH	48.15%	3	8	11
ENE	1.27					
ESE	0.46	EAST	1.73%	0	0	0
SSE	5.74					
SSW	7.32	SOUTH	13.06%	1	2	3
WSW	21.95					
WNW	15.18	WEST	37.13%	2	5	7
NNW	24.37					
TOTAL	100.00		100.00%	6	15	21



Note:
Directional percentages circled are rounded.

TABLE: A3-1

Cardinal Distribution
AM Peak Hour
Traffic Analysis Zone (TAZ) 1356

Project Name: Cutler Gate

DIRECTION	DISTRIBUTION PERCENTAGES (%)			AM PEAK HOUR		
	MIAMI-DADE LRTP MODEL YEAR		DESIGN YEAR	IN	OUT	TOTAL
	2010	2040	2019			
NNE	25.40	20.00	23.78	1	4	5
ENE	1.60	0.50	1.27	0	0	0
ESE	0.40	0.60	0.46	0	0	0
SSE	6.40	4.20	5.74	0	1	1
SSW	7.20	7.60	7.32	1	1	2
WSW	21.50	23.00	21.95	1	3	4
WNW	13.80	18.40	15.18	1	2	3
NNW	23.80	25.70	24.37	2	4	6
TOTAL	100.00	100.00	100.00	6	15	21

Note:

Based on Miami-Dade Transportation Plan (to the Year 2040) Directional Trip Distribution Report, October 2014. Since the current data is only available for the model years 2010 and 2040, the eight (8) cardinal directions were interpolated to the design year of 2019.

TABLE: A3-2

AM PEAK HOUR	IN	OUT	TOTAL
TRIPS:	6	15	21
PERCENT:	28.57%	71.43%	(Calculated)

DIRECTION	DISTRIBUTION %	INGRESS		EGRESS		TOTAL
		CALCULATED	USED	CALCULATED	USED	
NNE	23.78	1.427	1	3.567	4	5
ENE	1.27	0.076	0	0.191	0	0
ESE	0.46	0.028	0	0.069	0	0
SSE	5.74	0.344	0	0.861	1	1
SSW	7.32	0.439	1	1.098	1	2
WSW	21.95	1.317	1	3.293	3	4
WNW	15.18	0.911	1	2.277	2	3
NNW	24.37	1.462	2	3.656	4	6
TOTAL	100.00	6.004	6	15.011	15	21

Cutler Gate

Site Traffic (Project Gross Trips) - PM Peak Hour

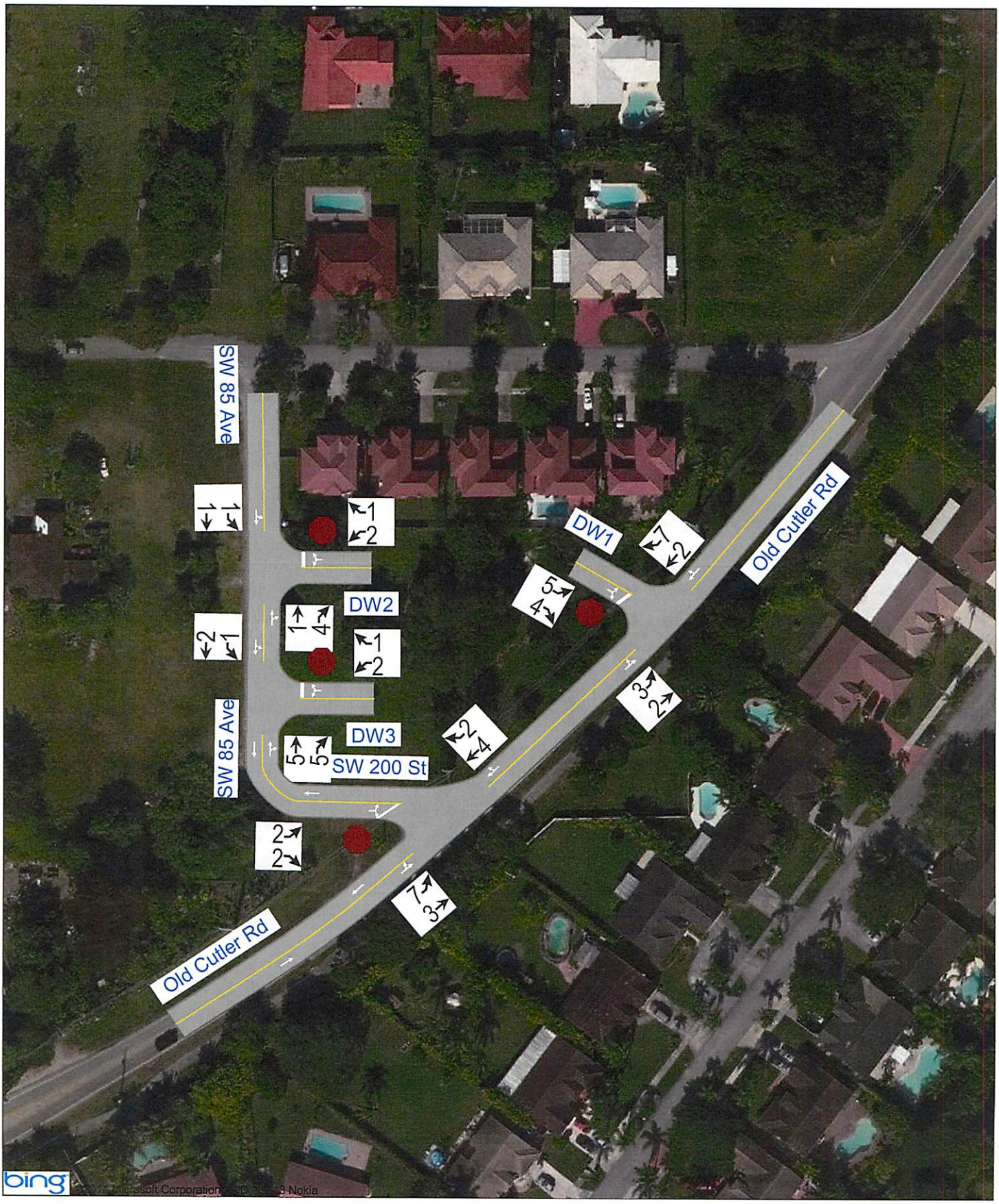
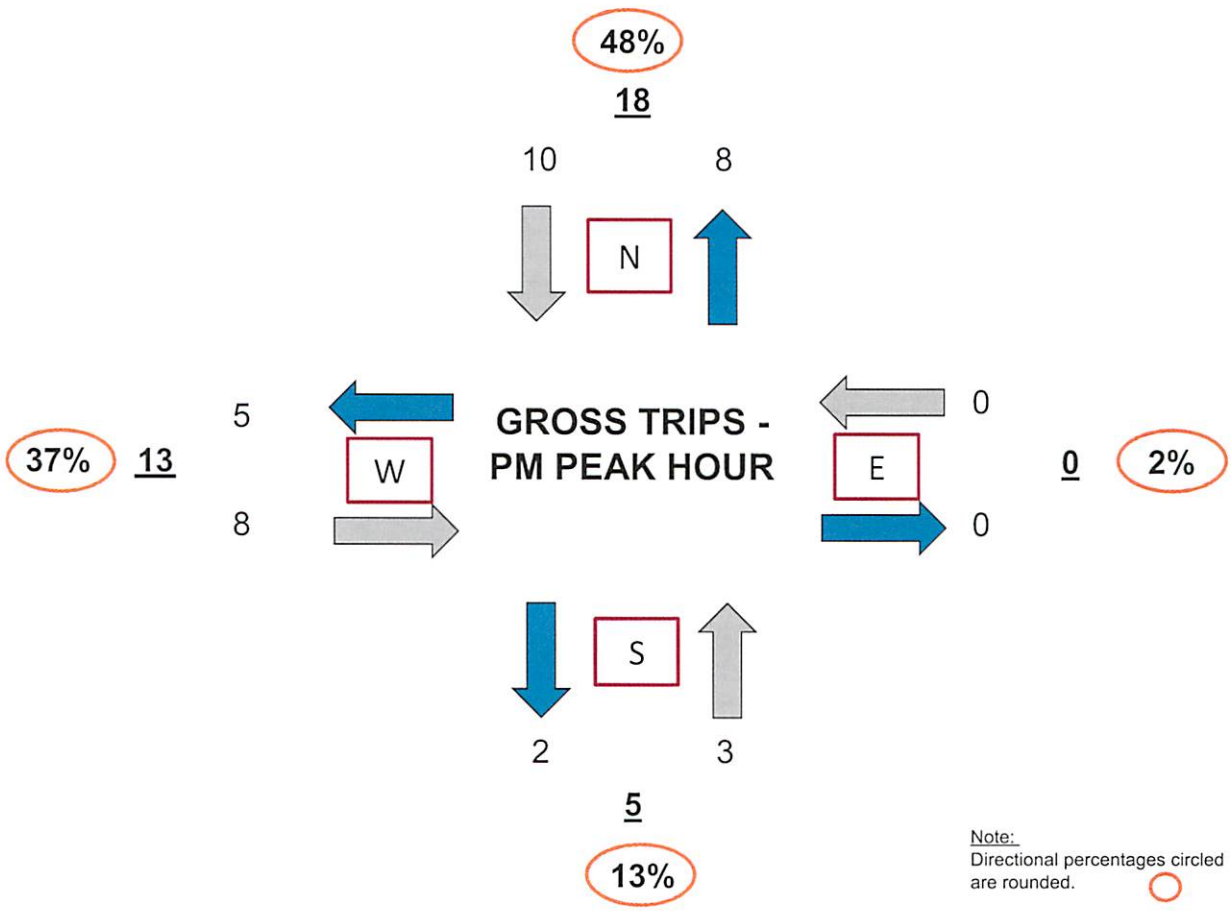


TABLE: A4

Cardinal Distribution
PM Peak Hour
Traffic Analysis Zone (TAZ) 1356

Project Name: Cutler Gate

DIRECTION	DISTRIBUTION (%) DESIGN YEAR	DIRECTION	DISTRIBUTION	PM PEAK HOUR TRIPS		
				IN	OUT	TOTAL
NNE	23.78	NORTH	48.15%	10	8	18
ENE	1.27					
ESE	0.46	EAST	1.73%	0	0	0
SSE	5.74					
SSW	7.32	SOUTH	13.06%	3	2	5
WSW	21.95					
WNW	15.18	WEST	37.13%	8	5	13
NNW	24.37					
TOTAL	100.00		100.00%	21	15	36



Note:
Directional percentages circled are rounded.

TABLE: A4-1

Cardinal Distribution
PM Peak Hour
Traffic Analysis Zone (TAZ) 1356

Project Name: Cutler Gate

DIRECTION	DISTRIBUTION PERCENTAGES (%)			PM PEAK HOUR		
	MIAMI-DADE LRTP MODEL YEAR		DESIGN YEAR	IN	OUT	TOTAL
	2010	2040	2019			
NNE	25.40	20.00	23.78	5	4	9
ENE	1.60	0.50	1.27	0	0	0
ESE	0.40	0.60	0.46	0	0	0
SSE	6.40	4.20	5.74	1	1	2
SSW	7.20	7.60	7.32	2	1	3
WSW	21.50	23.00	21.95	5	3	8
WNW	13.80	18.40	15.18	3	2	5
NNW	23.80	25.70	24.37	5	4	9
TOTAL	100.00	100.00	100.00	21	15	36

Note:

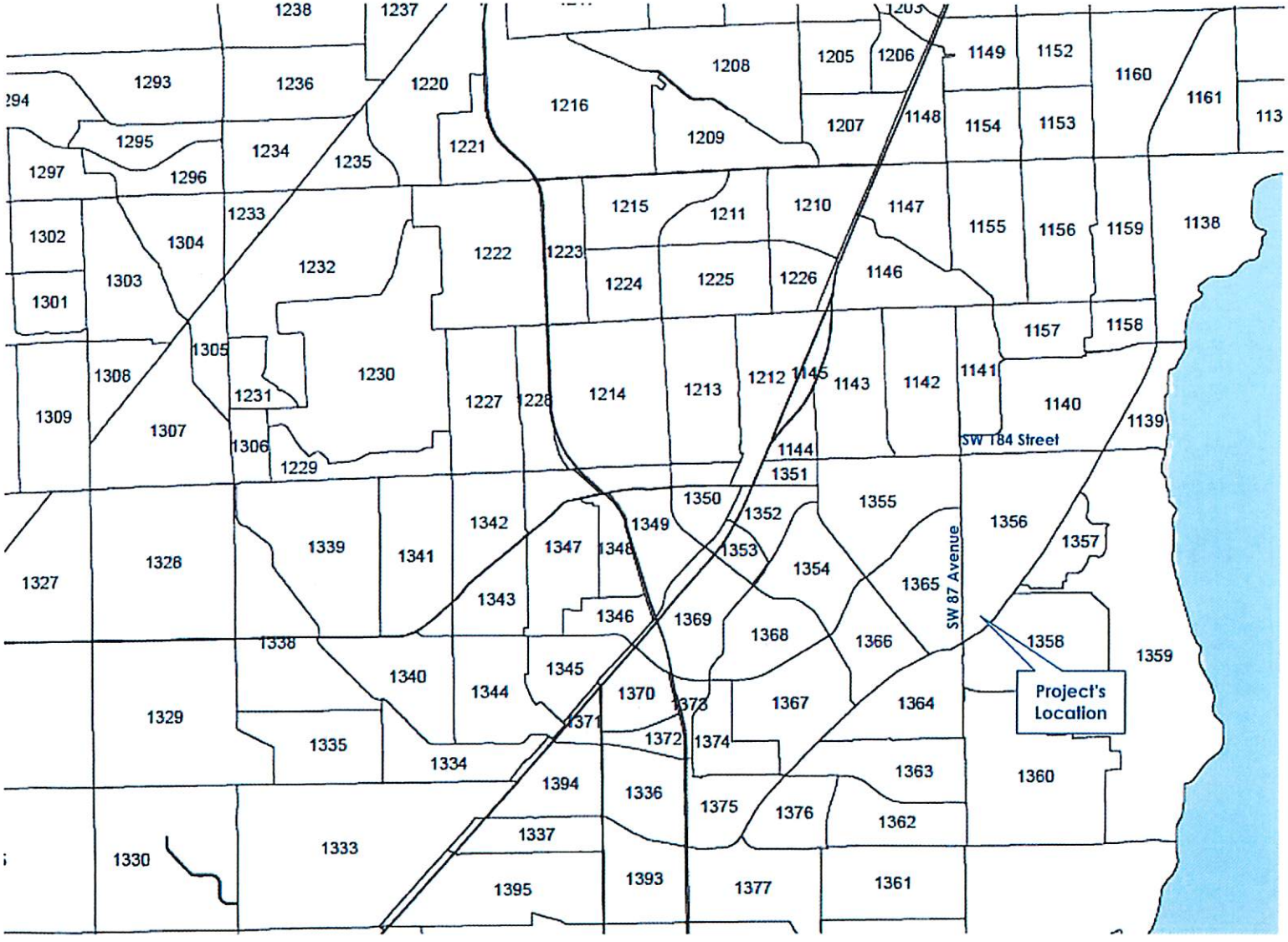
Based on Miami-Dade Transportation Plan (to the Year 2040) Directional Trip Distribution Report, October 2014. Since the current data is only available for the model years 2010 and 2040, the eight (8) cardinal directions were interpolated to the design year of 2019.

TABLE: A4-2

PM PEAK HOUR	IN	OUT	TOTAL
TRIPS:	21	15	36
PERCENT:	58.33%	41.67%	(Calculated)

DIRECTION	DISTRIBUTION %	INGRESS		EGRESS		TOTAL
		CALCULATED	USED	CALCULATED	USED	
NNE	23.78	4.994	5	3.567	4	9
ENE	1.27	0.267	0	0.191	0	0
ESE	0.46	0.097	0	0.069	0	0
SSE	5.74	1.205	1	0.861	1	2
SSW	7.32	1.537	2	1.098	1	3
WSW	21.95	4.610	5	3.293	3	8
WNW	15.18	3.188	3	2.277	2	5
NNW	24.37	5.118	5	3.656	4	9
TOTAL	100.00	21.015	21	15.011	15	36

TRAFFIC ANALYSIS ZONE (TAZ)



MOBILITY OPTIONS
2040 Miami-Dade Transportation Plan
EYES ON THE FUTURE

MIAMI-DADE 2040

Long Range Transportation Plan

Directional Trip Distribution Report

October 23, 2014

MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION

Photo by Asad Gilani

Miami-Dade 2010 Directional Distribution Summary

Origin TAZ			Cardinal Directions								Total
County TAZ	Regional TAZ		NNE	ENE	ESE	SSE	SSW	WSW	WNW	NNW	
1354	4254	TRIPS	772	139	56	130	317	390	359	487	2,650
1354	4254	PERCENT	29.1	5.3	2.1	4.9	12.0	14.7	13.6	18.4	
1355	4255	TRIPS	1,441	39	114	303	465	507	512	993	4,374
1355	4255	PERCENT	32.9	0.9	2.6	6.9	10.6	11.6	11.7	22.7	
1356	4256	TRIPS	988	61	16	251	279	837	538	927	3,897
1356	4256	PERCENT	25.4	1.6	0.4	6.4	7.2	21.5	13.8	23.8	
1357	4257	TRIPS	151	0	0	8	63	71	91	141	525
1357	4257	PERCENT	28.8	0.0	0.0	1.5	12.0	13.5	17.3	26.9	
1358	4258	TRIPS	806	3	13	238	90	316	562	982	3,010
1358	4258	PERCENT	26.8	0.1	0.4	7.9	3.0	10.5	18.7	32.6	
1359	4259	TRIPS	700	5	0	0	14	414	414	841	2,388
1359	4259	PERCENT	29.3	0.2	0.0	0.0	0.6	17.3	17.3	35.2	
1360	4260	TRIPS	904	65	0	0	111	769	963	1,780	4,592
1360	4260	PERCENT	19.7	1.4	0.0	0.0	2.4	16.8	21.0	38.8	
1361	4261	TRIPS	1,058	33	0	0	39	207	448	871	2,656
1361	4261	PERCENT	39.8	1.2	0.0	0.0	1.5	7.8	16.9	32.8	
1362	4262	TRIPS	601	131	0	0	46	174	440	749	2,141
1362	4262	PERCENT	28.1	6.1	0.0	0.0	2.2	8.1	20.6	35.0	
1363	4263	TRIPS	1,113	103	0	40	43	463	584	869	3,215
1363	4263	PERCENT	34.6	3.2	0.0	1.2	1.3	14.4	18.2	27.0	
1364	4264	TRIPS	1,341	161	191	71	348	759	745	1,251	4,867
1364	4264	PERCENT	27.6	3.3	3.9	1.5	7.2	15.6	15.3	25.7	
1365	4265	TRIPS	900	198	84	51	353	382	466	837	3,271
1365	4265	PERCENT	27.5	6.1	2.6	1.6	10.8	11.7	14.3	25.6	
1366	4266	TRIPS	865	54	57	220	169	440	502	658	2,965
1366	4266	PERCENT	29.2	1.8	1.9	7.4	5.7	14.8	16.9	22.2	
1367	4267	TRIPS	1,586	202	242	149	315	712	536	1,260	5,002
1367	4267	PERCENT	31.7	4.0	4.8	3.0	6.3	14.2	10.7	25.2	
1368	4268	TRIPS	922	71	171	212	313	292	443	435	2,859
1368	4268	PERCENT	32.3	2.5	6.0	7.4	11.0	10.2	15.5	15.2	
1369	4269	TRIPS	1,773	294	456	386	1,128	650	688	1,133	6,508
1369	4269	PERCENT	27.2	4.5	7.0	5.9	17.3	10.0	10.6	17.4	
1370	4270	TRIPS	1,163	466	437	214	1,118	389	616	901	5,304
1370	4270	PERCENT	21.9	8.8	8.2	4.0	21.1	7.3	11.6	17.0	
1371	4271	TRIPS	640	243	156	140	444	102	279	537	2,541
1371	4271	PERCENT	25.2	9.6	6.1	5.5	17.5	4.0	11.0	21.1	
1372	4272	TRIPS	75	0	20	0	50	38	58	49	290
1372	4272	PERCENT	25.9	0.0	6.9	0.0	17.2	13.1	20.0	16.9	
1373	4273	TRIPS	83	23	13	13	22	25	35	29	243
1373	4273	PERCENT	34.2	9.5	5.4	5.4	9.1	10.3	14.4	11.9	
1374	4274	TRIPS	1,589	387	169	0	343	262	524	880	4,154

Miami-Dade 2040 Directional Distribution Summary

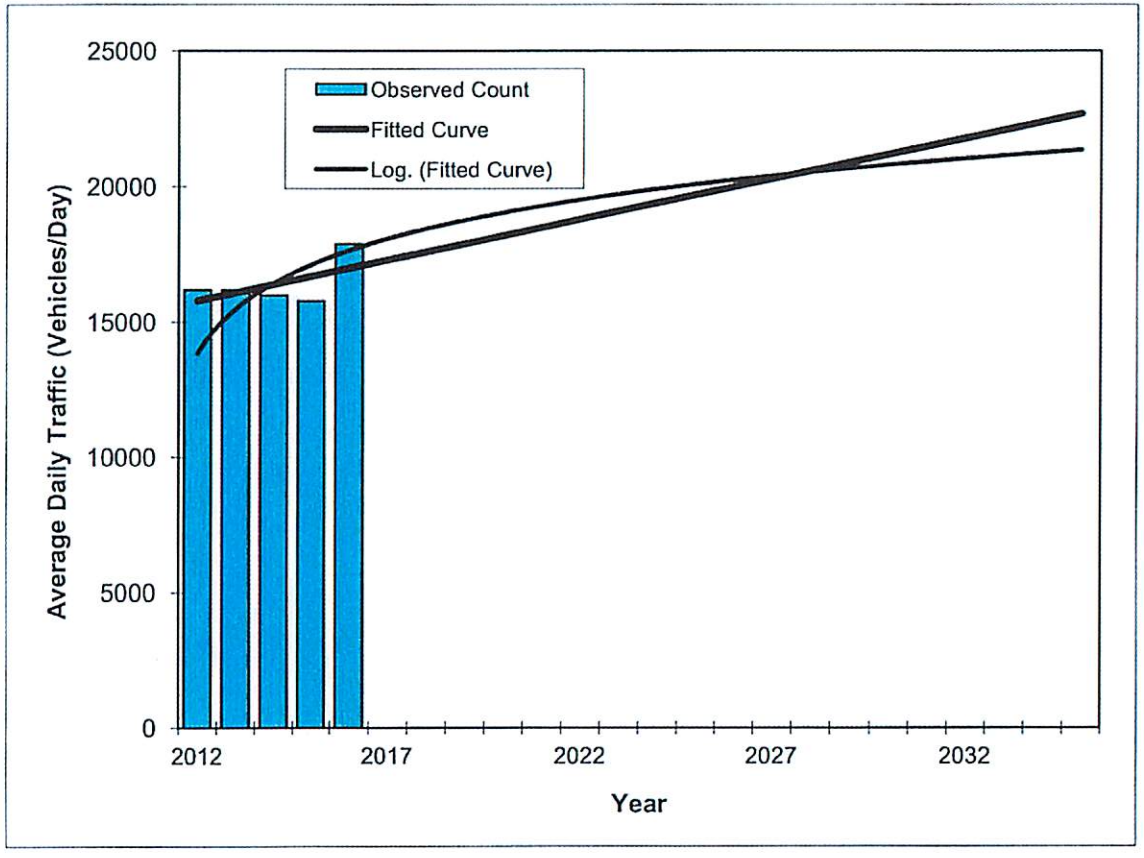
Origin TAZ			Cardinal Directions								Total
County TAZ	Regional TAZ		NNE	ENE	ESE	SSE	SSW	WSW	WNW	NNW	
1354	4254	TRIPS	785	126	39	143	431	443	476	714	3,157
1354	4254	PERCENT	24.9	4.0	1.2	4.5	13.7	14.0	15.1	22.6	
1355	4255	TRIPS	1,260	35	86	232	526	839	533	1,085	4,596
1355	4255	PERCENT	27.4	0.8	1.9	5.1	11.4	18.3	11.6	23.6	
1356	4256	TRIPS	1,050	26	33	218	399	1,204	966	1,348	5,244
1356	4256	PERCENT	20.0	0.5	0.6	4.2	7.6	23.0	18.4	25.7	
1357	4257	TRIPS	162	0	0	6	64	168	117	161	678
1357	4257	PERCENT	23.9	0.0	0.0	0.9	9.4	24.8	17.3	23.8	
1358	4258	TRIPS	797	0	20	172	107	721	684	992	3,493
1358	4258	PERCENT	22.8	0.0	0.6	4.9	3.1	20.6	19.6	28.4	
1359	4259	TRIPS	489	0	0	0	29	611	524	846	2,499
1359	4259	PERCENT	19.6	0.0	0.0	0.0	1.2	24.5	21.0	33.9	
1360	4260	TRIPS	1,066	69	0	0	270	1,361	1,211	2,072	6,049
1360	4260	PERCENT	17.6	1.1	0.0	0.0	4.5	22.5	20.0	34.3	
1361	4261	TRIPS	1,797	43	0	4	107	916	1,216	1,574	5,657
1361	4261	PERCENT	31.8	0.8	0.0	0.1	1.9	16.2	21.5	27.8	
1362	4262	TRIPS	669	197	0	0	139	642	580	929	3,156
1362	4262	PERCENT	21.2	6.2	0.0	0.0	4.4	20.3	18.4	29.4	
1363	4263	TRIPS	949	111	0	80	89	851	875	966	3,921
1363	4263	PERCENT	24.2	2.8	0.0	2.0	2.3	21.7	22.3	24.6	
1364	4264	TRIPS	1,298	155	104	107	372	1,230	857	1,610	5,733
1364	4264	PERCENT	22.6	2.7	1.8	1.9	6.5	21.5	15.0	28.1	
1365	4265	TRIPS	814	153	76	111	425	558	469	977	3,583
1365	4265	PERCENT	22.7	4.3	2.1	3.1	11.9	15.6	13.1	27.3	
1366	4266	TRIPS	790	104	85	174	166	573	357	638	2,887
1366	4266	PERCENT	27.4	3.6	2.9	6.0	5.8	19.9	12.4	22.1	
1367	4267	TRIPS	1,229	224	295	102	442	898	591	1,060	4,841
1367	4267	PERCENT	25.4	4.6	6.1	2.1	9.1	18.6	12.2	21.9	
1368	4268	TRIPS	944	102	197	263	460	515	549	516	3,546
1368	4268	PERCENT	26.6	2.9	5.6	7.4	13.0	14.5	15.5	14.6	
1369	4269	TRIPS	2,342	286	483	337	1,822	950	590	1,182	7,992
1369	4269	PERCENT	29.3	3.6	6.0	4.2	22.8	11.9	7.4	14.8	
1370	4270	TRIPS	4,691	1,256	1,320	1,059	5,372	2,645	1,818	3,513	21,674
1370	4270	PERCENT	21.6	5.8	6.1	4.9	24.8	12.2	8.4	16.2	
1371	4271	TRIPS	948	623	251	190	1,048	448	280	710	4,498
1371	4271	PERCENT	21.1	13.9	5.6	4.2	23.3	10.0	6.2	15.8	
1372	4272	TRIPS	258	19	18	4	132	140	109	252	932
1372	4272	PERCENT	27.7	2.0	1.9	0.4	14.2	15.0	11.7	27.0	
1373	4273	TRIPS	127	23	8	15	24	42	40	53	332
1373	4273	PERCENT	38.3	6.9	2.4	4.5	7.2	12.7	12.1	16.0	
1374	4274	TRIPS	1,372	317	125	2	456	416	644	864	4,196

Traffic Trends - V2.0

OLD CUTLER RD -- 200' SOUTH OF FRANJO RD

PIN#	973215-1
Location	1

County:	Miami (87)
Station #:	8310
Highway:	OLD CUTLER RD



Year	Traffic (ADT/AADT) Count*	Trend**
2012	16200	15800
2013	16200	16100
2014	16000	16400
2015	15800	16700
2016	17900	17000
2017 Opening Year Trend		
2017	N/A	17300
2018 Mid-Year Trend		
2018	N/A	17600
2019 Design Year Trend		
2019	N/A	17900
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

** Annual Trend Increase:	300
Trend R-squared:	31.60%
Trend Annual Historic Growth Rate:	1.90%
Trend Growth Rate (2016 to Design Year):	1.76%
Printed:	22-Jan-18

Straight Line Growth Option

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2016 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 8310 - OLD CUTLER RD, 200' SOUTH OF FRANJO RD

YEAR	AADT	DIRECTION 1		DIRECTION 2		*K FACTOR	D FACTOR	T FACTOR
2016	17900 C	N	8900	S	9000	9.00	56.10	13.50
2015	15800 T	N	8100	S	7700	9.00	57.40	13.70
2014	16000 S	N	8200	S	7800	9.00	59.30	17.40
2013	16200 F	N	8300	S	7900	9.00	58.90	16.20
2012	16200 C	N	8300	S	7900	9.00	59.70	16.00

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

2016 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 8701 MIAMI-DADE SOUTH

MOCF: 0.99

WEEK	DATES	SF	PSCF
1	01/01/2016 - 01/02/2016	0.99	1.00
2	01/03/2016 - 01/09/2016	1.00	1.01
3	01/10/2016 - 01/16/2016	1.02	1.03
4	01/17/2016 - 01/23/2016	1.01	1.02
5	01/24/2016 - 01/30/2016	1.01	1.02
6	01/31/2016 - 02/06/2016	1.00	1.01
7	02/07/2016 - 02/13/2016	0.99	1.00
* 8	02/14/2016 - 02/20/2016	0.99	1.00
* 9	02/21/2016 - 02/27/2016	0.99	1.00
*10	02/28/2016 - 03/05/2016	0.99	1.00
*11	03/06/2016 - 03/12/2016	0.99	1.00
*12	03/13/2016 - 03/19/2016	0.99	1.00
*13	03/20/2016 - 03/26/2016	0.99	1.00
*14	03/27/2016 - 04/02/2016	0.99	1.00
*15	04/03/2016 - 04/09/2016	0.98	0.99
*16	04/10/2016 - 04/16/2016	0.98	0.99
*17	04/17/2016 - 04/23/2016	0.98	0.99
*18	04/24/2016 - 04/30/2016	0.99	1.00
*19	05/01/2016 - 05/07/2016	0.99	1.00
*20	05/08/2016 - 05/14/2016	0.99	1.00
21	05/15/2016 - 05/21/2016	1.00	1.01
22	05/22/2016 - 05/28/2016	1.00	1.01
23	05/29/2016 - 06/04/2016	1.00	1.01
24	06/05/2016 - 06/11/2016	1.00	1.01
25	06/12/2016 - 06/18/2016	1.00	1.01
26	06/19/2016 - 06/25/2016	1.01	1.02
27	06/26/2016 - 07/02/2016	1.02	1.03
28	07/03/2016 - 07/09/2016	1.02	1.03
29	07/10/2016 - 07/16/2016	1.03	1.04
30	07/17/2016 - 07/23/2016	1.03	1.04
31	07/24/2016 - 07/30/2016	1.02	1.03
32	07/31/2016 - 08/06/2016	1.02	1.03
33	08/07/2016 - 08/13/2016	1.01	1.02
34	08/14/2016 - 08/20/2016	1.01	1.02
35	08/21/2016 - 08/27/2016	1.01	1.02
36	08/28/2016 - 09/03/2016	1.02	1.03
37	09/04/2016 - 09/10/2016	1.02	1.03
38	09/11/2016 - 09/17/2016	1.03	1.04
39	09/18/2016 - 09/24/2016	1.02	1.03
40	09/25/2016 - 10/01/2016	1.01	1.02
41	10/02/2016 - 10/08/2016	1.00	1.01
42	10/09/2016 - 10/15/2016	1.00	1.01
43	10/16/2016 - 10/22/2016	1.00	1.01
44	10/23/2016 - 10/29/2016	1.00	1.01
45	10/30/2016 - 11/05/2016	1.00	1.01
46	11/06/2016 - 11/12/2016	1.00	1.01
47	11/13/2016 - 11/19/2016	1.01	1.02
48	11/20/2016 - 11/26/2016	1.00	1.01
49	11/27/2016 - 12/03/2016	1.00	1.01
50	12/04/2016 - 12/10/2016	0.99	1.00
51	12/11/2016 - 12/17/2016	0.99	1.00
52	12/18/2016 - 12/24/2016	1.00	1.01
53	12/25/2016 - 12/31/2016	1.02	1.03

* PEAK SEASON

TABLE: A5

INTERSECTION APPROACH VOLUMES - AM PEAK HOUR

Project Name: Cutler Gate

INTERSECTION NO.	1	2	3	4	5	6	7	8	9	10	11	12
	INTERSECTION NAME	APPROACH	MOVEMENT	AM PEAK HR COUNT	DATE OF COUNT	PHF	SF	AM PEAK SEASONALLY ADJUSTED (EXISTING) (2018)	BACKGROUND GROWTH @ 1.76% FOR PROJECT BUILD-OUT OF 2019 (1 YEAR GROWTH)	PROPOSED FUTURE TRAFFIC W/O PROJECT (2019)	SITE TRAFFIC (PROJECT GROSS TRIPS) (VPH)	PROPOSED FUTURE TRAFFIC W/ PROJECT (VPH) (2019)
1	Old Cutler Road & SW 200 Street	SOUTHBOUND	SBR	0	Wednesday, January 17, 2018	0.900	1.01	0	0	0	0	0
			SBT	358			1.01	362	6	368	3	371
			SBL	0			1.01	0	0	0	0	0
			TOTAL	**358**				**362**	**6**	**368**	**3**	**371**
		WESTBOUND	WBR	0			1.01	0	0	0	0	0
			WBT	0			1.01	0	0	0	0	0
			WBL	0			1.01	0	0	0	0	0
			TOTAL	**0**				**0**	**0**	**0**	**0**	**0**
		NORTHBOUND	NBR	0			1.01	0	0	0	0	0
			NBT	734			1.01	741	13	754	0	754
			NBL	2			1.01	2	0	2	2	4
			TOTAL	**736**				**743**	**13**	**756**	**2**	**758**
		EASTBOUND	EBR	0			1.01	0	0	0	4	4
			EBT	0			1.01	0	0	0	0	0
			EBL	0			1.01	0	0	0	1	1
			TOTAL	**0**				**0**	**0**	**0**	**5**	**5**
	TOTAL			***1,094***				***1,105***	***19***	***1,124***	***10***	***1,134***

Notes:

1 Intersection Name
2 Intersection Approach
3 Intersection Approach Movement
4 TMC data provided by RGA, Inc.
5 Date of Count
6 Peak Hour Factor
7 Seasonal Factor
8 Seasonally Adjusted TMC = Count * SF (Existing Condition).
9 A 1.76 percent background growth was utilized with a project build-out of 2019.
10 Proposed Traffic w/o Project = Seasonally Adjusted TMC + Backgound
11 Project Gross Trips.
12 Total Traffic = Net Traffic w/o Project + Site Traffic (Proposed Condition with Project)

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TABLE: A6

INTERSECTION APPROACH VOLUMES - PM PEAK HOUR

Project Name: Cutler Gate

INTERSECTION NO.	1 INTERSECTION NAME	2 APPROACH	3 MOVEMENT	4 PM PEAK HR COUNT	5 DATE OF COUNT	6 PHF	7 SF	8 PM PEAK SEASONALLY ADJUSTED (EXISTING)	9 BACKGROUND GROWTH @ 1.76% FOR PROJECT BUILD-OUT OF 2019 (1 YEAR GROWTH)	10 PROPOSED FUTURE TRAFFIC W/O PROJECT (2019)	11 SITE TRAFFIC (PROJECT GROSS TRIPS) (VPH)	12 PROPOSED FUTURE TRAFFIC W/ PROJECT (VPH) (2019)
1	Old Cutler Road & SW 200 Street	SOUTHBOUND	SBR	2	Wednesday, January 17, 2018	0.987	1.01	2	0	2	2	4
			SBT	864			1.01	873	15	888	4	892
			SBL	0			1.01	0	0	0	0	0
			TOTAL	**866**				**875**	**15**	**890**	**6**	**896**
		WESTBOUND	WBR	0			1.01	0	0	0	0	0
			WBT	0			1.01	0	0	0	0	0
			WBL	0			1.01	0	0	0	0	0
			TOTAL	**0**				**0**	**0**	**0**	**0**	**0**
		NORTHBOUND	NBR	0			1.01	0	0	0	0	0
			NBT	372			1.01	376	7	382	3	385
			NBL	5			1.01	5	0	5	7	12
			TOTAL	**377**				**381**	**7**	**387**	**10**	**397**
		EASTBOUND	EBR	5			1.01	5	0	5	2	7
			EBT	0			1.01	0	0	0	0	0
			EBL	0			1.01	0	0	0	2	2
			TOTAL	**5**				**5**	**0**	**5**	**4**	**9**
	TOTAL			***1,248***				***1,260***	***22***	***1,283***	***20***	***1,303***

Notes:

1 Intersection Name
2 Intersection Approach
3 Intersection Approach Movement
4 TMC data provided by RGA, Inc.
5 Date of Count
6 Peak Hour Factor
7 Seasonal Factor
8 Seasonally Adjusted TMC = Count * SF (Existing Condition).
9 A 1.76 percent background growth was utilized with a project build-out of 2019.
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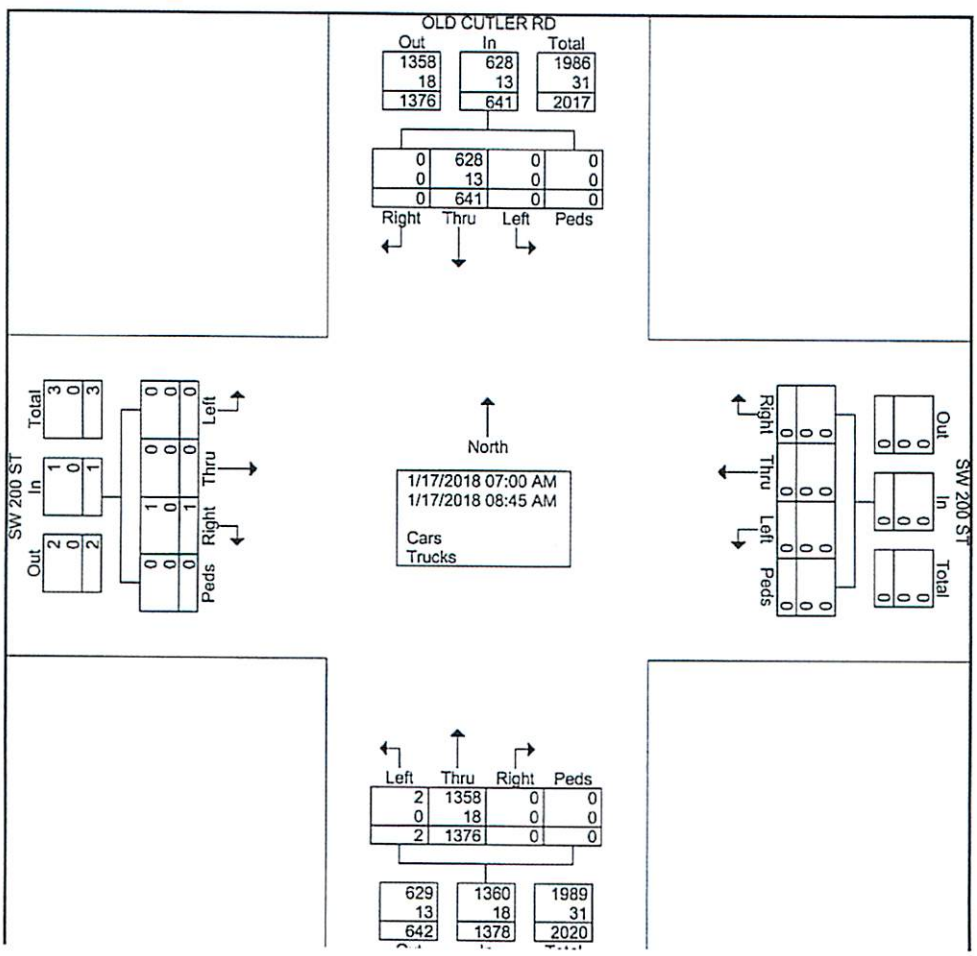
Hialeah Gardens, FL 33016
Phone: 305-362-0677
Fax: 305-675-6474

File Name : Old Cutler Rd_SW 200 St_AM
Site Code : 00000000
Start Date : 1/17/2018
Page No : 1

Groups Printed- Cars - Trucks

	OLD CUTLER RD Southbound					SW 200 ST Westbound					OLD CUTLER RD Northbound					SW 200 ST Eastbound					
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
07:00 AM	0	55	0	0	55	0	0	0	0	0	0	173	0	0	173	0	0	0	0	0	228
07:15 AM	0	57	0	0	57	0	0	0	0	0	0	156	0	0	156	0	0	0	0	0	213
07:30 AM	0	96	0	0	96	0	0	0	0	0	0	153	0	0	153	1	0	0	0	1	250
07:45 AM	0	75	0	0	75	0	0	0	0	0	0	160	0	0	160	0	0	0	0	0	235
Total	0	283	0	0	283	0	0	0	0	0	0	642	0	0	642	1	0	0	0	1	926
08:00 AM	0	80	0	0	80	0	0	0	0	0	0	153	1	0	154	0	0	0	0	0	234
08:15 AM	0	96	0	0	96	0	0	0	0	0	0	197	0	0	197	0	0	0	0	0	293
08:30 AM	0	96	0	0	96	0	0	0	0	0	0	207	1	0	208	0	0	0	0	0	304
08:45 AM	0	86	0	0	86	0	0	0	0	0	0	177	0	0	177	0	0	0	0	0	263
Total	0	358	0	0	358	0	0	0	0	0	0	734	2	0	736	0	0	0	0	0	1094
Grand Total	0	641	0	0	641	0	0	0	0	0	0	1376	2	0	1378	1	0	0	0	1	2020
Apprch %	0	100	0	0		0	0	0	0		0	99.9	0.1	0		100	0	0	0		
Total %	0	31.7	0	0	31.7	0	0	0	0	0	0	68.1	0.1	0	68.2	0	0	0	0	0	
Cars	0	628	0	0	628	0	0	0	0	0	0	1358	2	0	1360	1	0	0	0	1	1989
% Cars	0	98	0	0	98	0	0	0	0	0	0	98.7	100	0	98.7	100	0	0	0	100	98.5
Trucks	0	13	0	0	13	0	0	0	0	0	0	18	0	0	18	0	0	0	0	0	31
% Trucks	0	2	0	0	2	0	0	0	0	0	0	1.3	0	0	1.3	0	0	0	0	0	1.5



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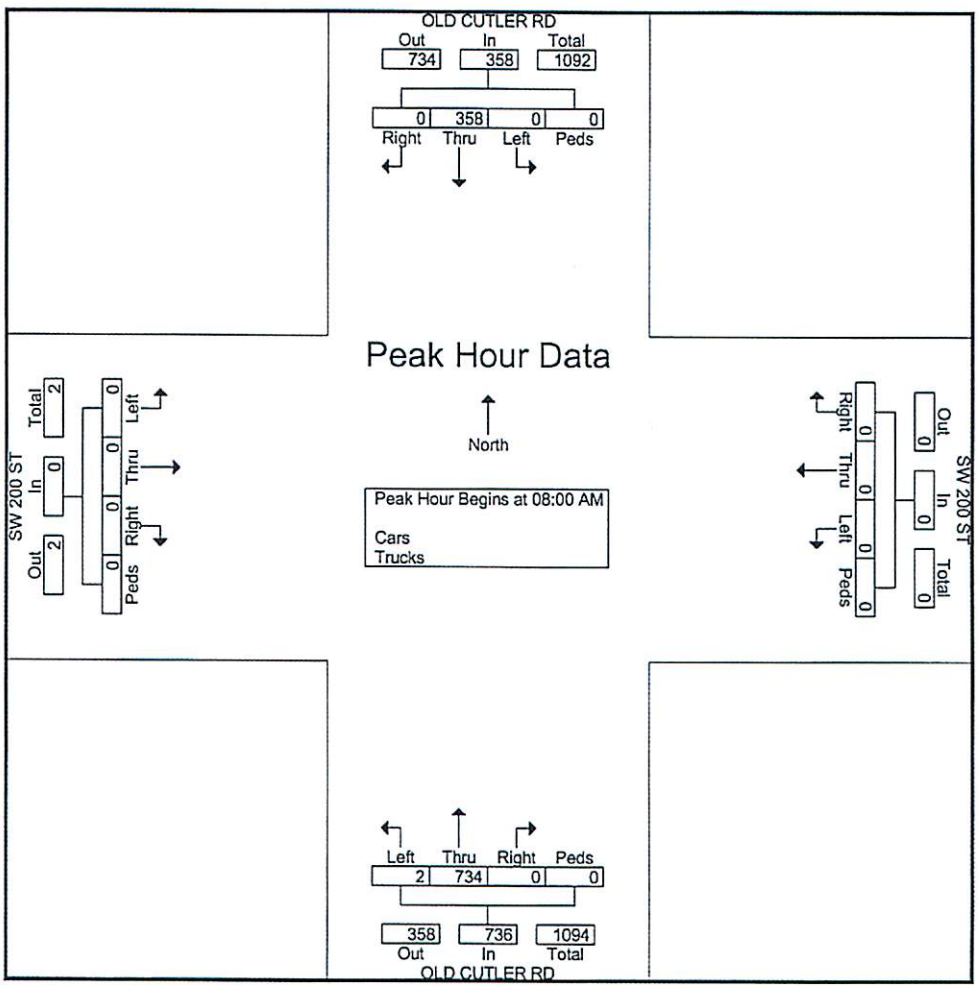
	OLD CUTLER RD Southbound					SW 200 ST Westbound					OLD CUTLER RD Northbound					SW 200 ST Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	80	0	0	80	0	0	0	0	0	0	153	1	0	154	0	0	0	0	0	234
08:15 AM	0	**96**	0	0	**96**	0	0	0	0	0	0	197	0	0	197	0	0	0	0	0	293
08:30 AM	0	96	0	0	96	0	0	0	0	0	0	**207**	1	0	**208**	0	0	0	0	0	**304**
08:45 AM	0	86	0	0	86	0	0	0	0	0	0	177	0	0	177	0	0	0	0	0	263
Total Volume	0	358	0	0	358	0	0	0	0	0	0	734	2	0	736	0	0	0	0	0	1094
% App. Total																					
PHF	.000	.932	.000	.000	.932	.000	.000	.000	.000	.000	.000	.886	.500	.000	.885	.000	.000	.000	.000	.000	.900



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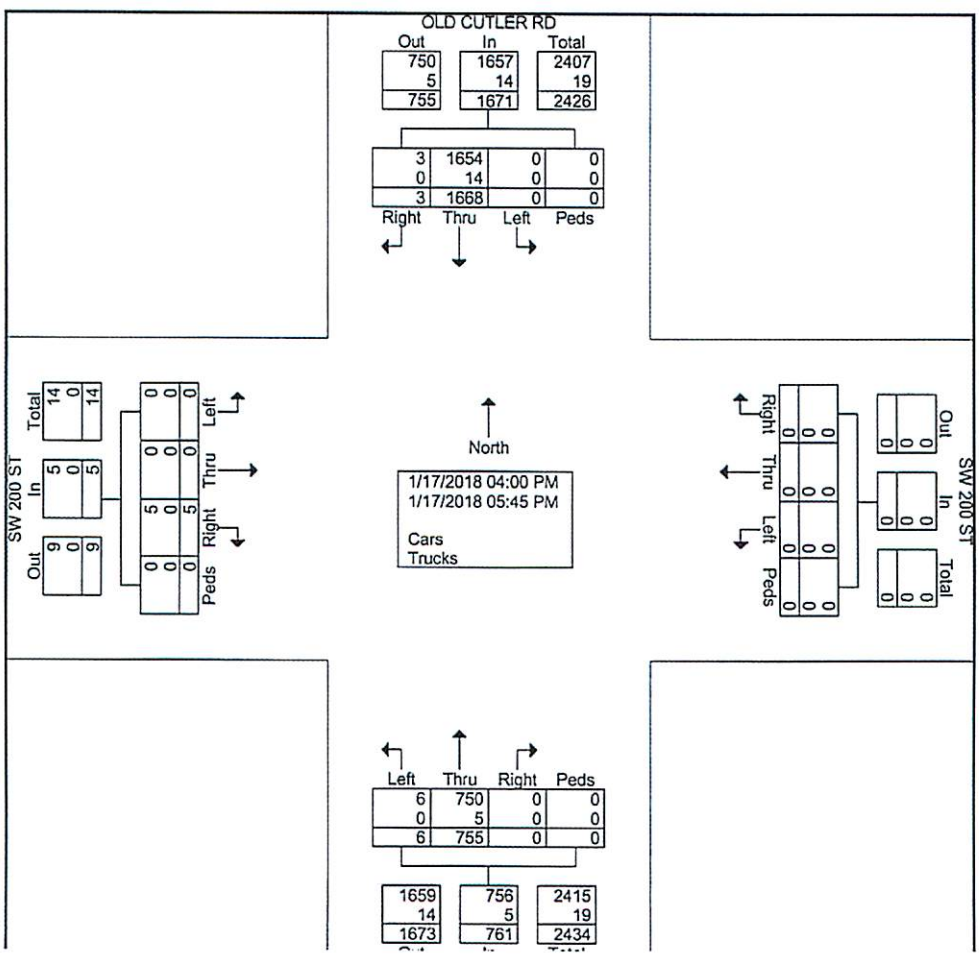
	OLD CUTLER RD Southbound					SW 200 ST Westbound					OLD CUTLER RD Northbound					SW 200 ST Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	0	211	0	0	211	0	0	0	0	0	0	110	0	0	110	0	0	0	0	0	321
04:15 PM	0	182	0	0	182	0	0	0	0	0	0	92	1	0	93	0	0	0	0	0	275
04:30 PM	1	189	0	0	190	0	0	0	0	0	0	101	0	0	101	0	0	0	0	0	291
04:45 PM	1	218	0	0	219	0	0	0	0	0	0	92	3	0	95	2	0	0	0	2	316
Total	2	800	0	0	802	0	0	0	0	0	0	395	4	0	399	2	0	0	0	2	1203
05:00 PM	1	201	0	0	202	0	0	0	0	0	0	105	0	0	105	1	0	0	0	1	308
05:15 PM	0	224	0	0	224	0	0	0	0	0	0	84	0	0	84	1	0	0	0	1	309
05:30 PM	0	221	0	0	221	0	0	0	0	0	0	91	2	0	93	1	0	0	0	1	315
05:45 PM	0	222	0	0	222	0	0	0	0	0	0	80	0	0	80	0	0	0	0	0	302
Total	1	868	0	0	869	0	0	0	0	0	0	360	2	0	362	3	0	0	0	3	1234
Grand Total	3	1668	0	0	1671	0	0	0	0	0	0	755	6	0	761	5	0	0	0	5	2437
Apprch %	0.2	99.8	0	0		0	0	0	0		0	99.2	0.8	0		100	0	0	0		
Total %	0.1	68.4	0	0	68.6	0	0	0	0	0	0	31	0.2	0	31.2	0.2	0	0	0	0.2	
Cars	3	1654	0	0	1657	0	0	0	0	0	0	750	6	0	756	5	0	0	0	5	2418
% Cars	100	99.2	0	0	99.2	0	0	0	0	0	0	99.3	100	0	99.3	100	0	0	0	100	99.2
Trucks	0	14	0	0	14	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	19
% Trucks	0	0.8	0	0	0.8	0	0	0	0	0	0	0.7	0	0	0.7	0	0	0	0	0	0.8



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File Name : Old Cutler Rd_SW 200 St_PM
Site Code : 00000000
Start Date : 1/17/2018
Page No : 2

	OLD CUTLER RD Southbound					SW 200 ST Westbound					OLD CUTLER RD Northbound					SW 200 ST Eastbound					
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 04:45 PM																					
04:45 PM	1	218	0	0	219	0	0	0	0	0	0	92	3	0	95	2	0	0	0	2	316
05:00 PM	1	201	0	0	202	0	0	0	0	0	0	105	0	0	105	1	0	0	0	1	308
05:15 PM	0	224	0	0	224	0	0	0	0	0	0	84	0	0	84	1	0	0	0	1	309
05:30 PM	0	221	0	0	221	0	0	0	0	0	0	91	2	0	93	1	0	0	0	1	315
Total Volume	2	864	0	0	866	0	0	0	0	0	0	372	5	0	377	5	0	0	0	5	1248
% App. Total																					
PHF	.500	.964	.000	.000	.967	.000	.000	.000	.000	.000	.000	.886	.417	.000	.898	.625	.000	.000	.000	.625	.987

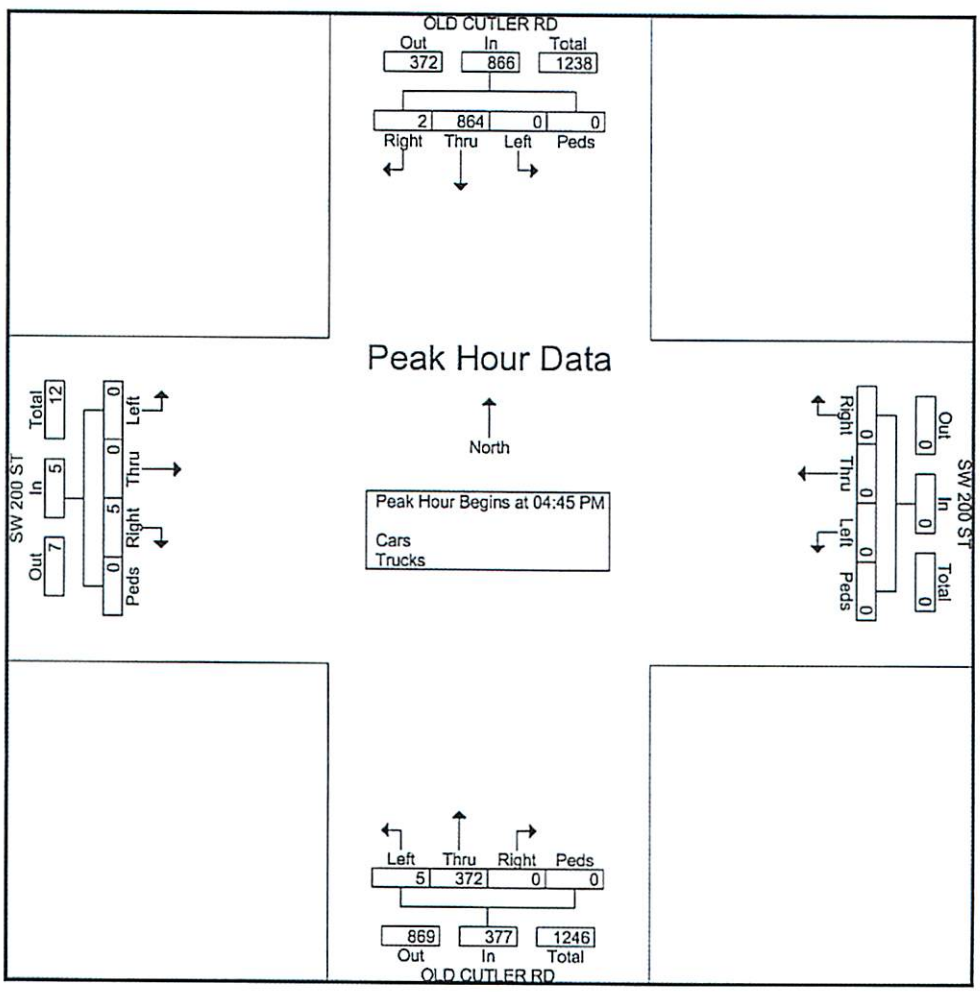


TABLE: A7

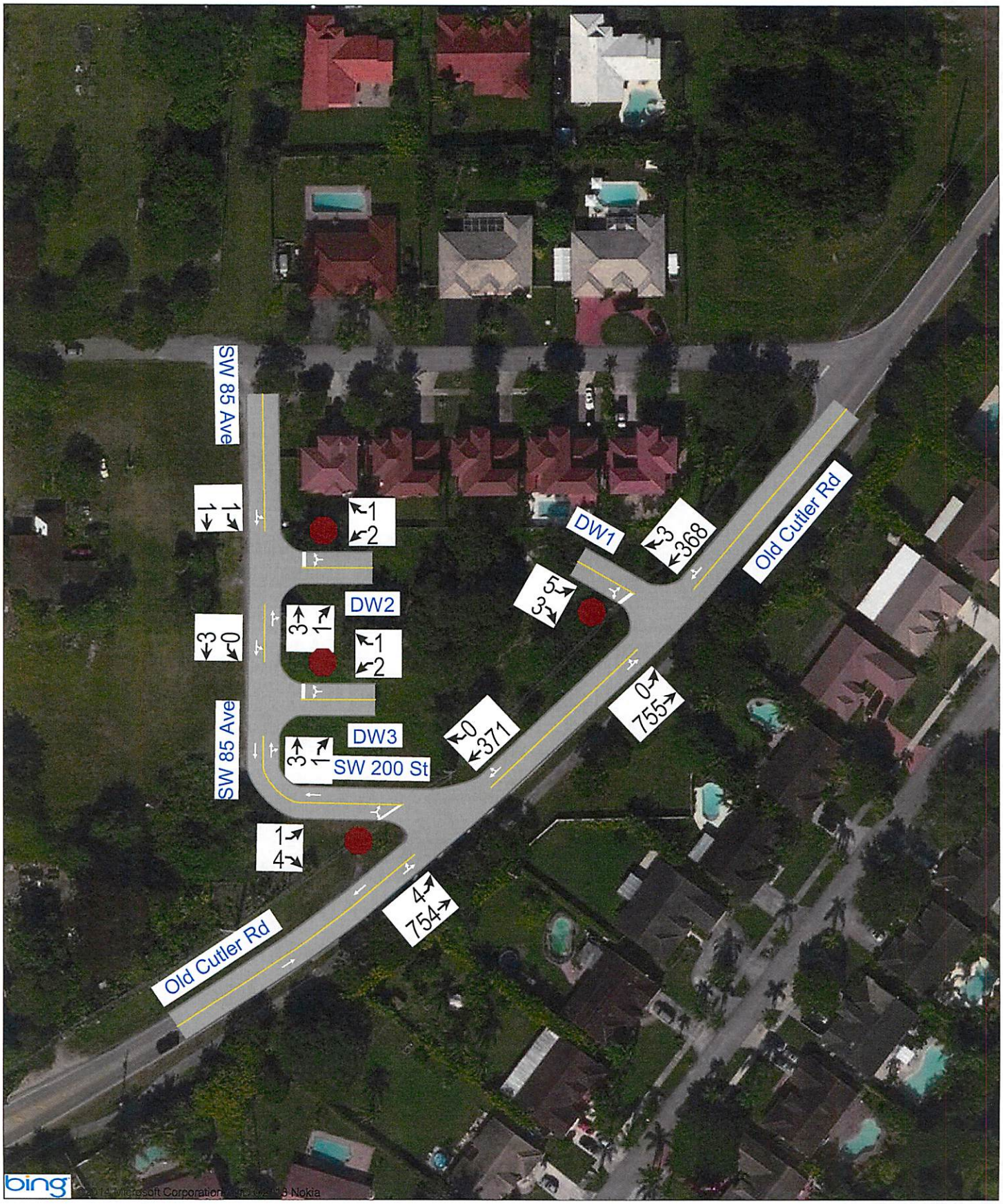
Level of Service (LOS) Summary - AM & PM Peak Hour

Project Name: Cutler Gate

Existing Condition (2018)			AM Peak Hour					PM Peak Hour				
	Location	Intersection Control	Overall		* Critical Approach TWSC			Overall		* Critical Approach TWSC		
			LOS	Delay (sec)	Approach	LOS	Delay (sec)	LOS	Delay (sec)	Approach	LOS	Delay (sec)
1	Old Cutler Road & SW 200 Street	Two-Way Stop	A	0.0	-	-	-	A	0.1	EB	C	15.6
Proposed Future Condition (with Project Trips) (2019)			**AM Peak Hour**					**PM Peak Hour**				
	Location	Intersection Control	Overall		* Critical Approach TWSC			Overall		* Critical Approach TWSC		
			LOS	Delay (sec)	Approach	LOS	Delay (sec)	LOS	Delay (sec)	Approach	LOS	Delay (sec)
1	Old Cutler Road & SW 200 Street	Two-Way Stop	A	0.1	EB	B	13.4	A	0.2	EB	C	18.4
2	Old Cutler Road & Driveway 1 (DW1)	Two-Way Stop	A	0.1	EB	C	18.9	A	0.2	EB	C	24.1
3	SW 85 Avenue & Driveway 2 (DW2)	Two-Way Stop	A	3.6	WB	A	8.5	A	1.5	WB	A	8.5
4	SW 85 Avenue & Driveway 3 (DW3)	Two-Way Stop	A	2.6	WB	A	8.5	A	1.2	WB	A	8.6

Notes: * Critical Approach for TWSC.

Cutler Gate **Future Condition w/ Project - AM Peak Hour**



Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	1	4	4	754	371	0
Future Vol, veh/h	1	4	4	754	371	0
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	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	4	4	838	412	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1258	412	412	0	-	0
Stage 1	412	-	-	-	-	-
Stage 2	846	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	189	640	1147	-	-	-
Stage 1	669	-	-	-	-	-
Stage 2	421	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	188	640	1147	-	-	-
Mov Cap-2 Maneuver	188	-	-	-	-	-
Stage 1	664	-	-	-	-	-
Stage 2	421	-	-	-	-	-

Approach	EB	NE	SW
HCM Control Delay, s	13.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	EBLn1	SWT	SWR
Capacity (veh/h)	1147	-	432	-	-
HCM Lane V/C Ratio	0.004	-	0.013	-	-
HCM Control Delay (s)	8.2	0	13.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC
2: Old Cutler Rd & DW1

Cutler Gate
Future Condition w/ Project - AM Peak Hour

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	5	3	0	755	368	3
Future Vol, veh/h	5	3	0	755	368	3
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	5	3	0	821	400	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1223	402	403	0	-	0
Stage 1	402	-	-	-	-	-
Stage 2	821	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	198	648	1156	-	-	-
Stage 1	676	-	-	-	-	-
Stage 2	432	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	198	648	1156	-	-	-
Mov Cap-2 Maneuver	198	-	-	-	-	-
Stage 1	676	-	-	-	-	-
Stage 2	432	-	-	-	-	-

Approach	EB	NE	SW
HCM Control Delay, s	18.9	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NEL	NET	EBLn1	SWT	SWR
Capacity (veh/h)	1156	-	268	-	-
HCM Lane V/C Ratio	-	-	0.032	-	-
HCM Control Delay (s)	0	-	18.9	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

HCM 6th TWSC
3: SW 85 Ave & DW2

Cutler Gate
Future Condition w/ Project - AM Peak Hour

Intersection	
Int Delay, s/veh	3.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	1	3	1	1	1
Future Vol, veh/h	2	1	3	1	1	1
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	2	1	3	1	1	1

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	7	4	0	0	4	0
Stage 1	4	-	-	-	-	-
Stage 2	3	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1014	1080	-	-	1618	-
Stage 1	1019	-	-	-	-	-
Stage 2	1020	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1013	1080	-	-	1618	-
Mov Cap-2 Maneuver	1013	-	-	-	-	-
Stage 1	1018	-	-	-	-	-
Stage 2	1020	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	3.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1034	1618	-
HCM Lane V/C Ratio	-	-	0.003	0.001	-
HCM Control Delay (s)	-	-	8.5	7.2	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	1	3	1	0	3
Future Vol, veh/h	2	1	3	1	0	3
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	2	1	3	1	0	3

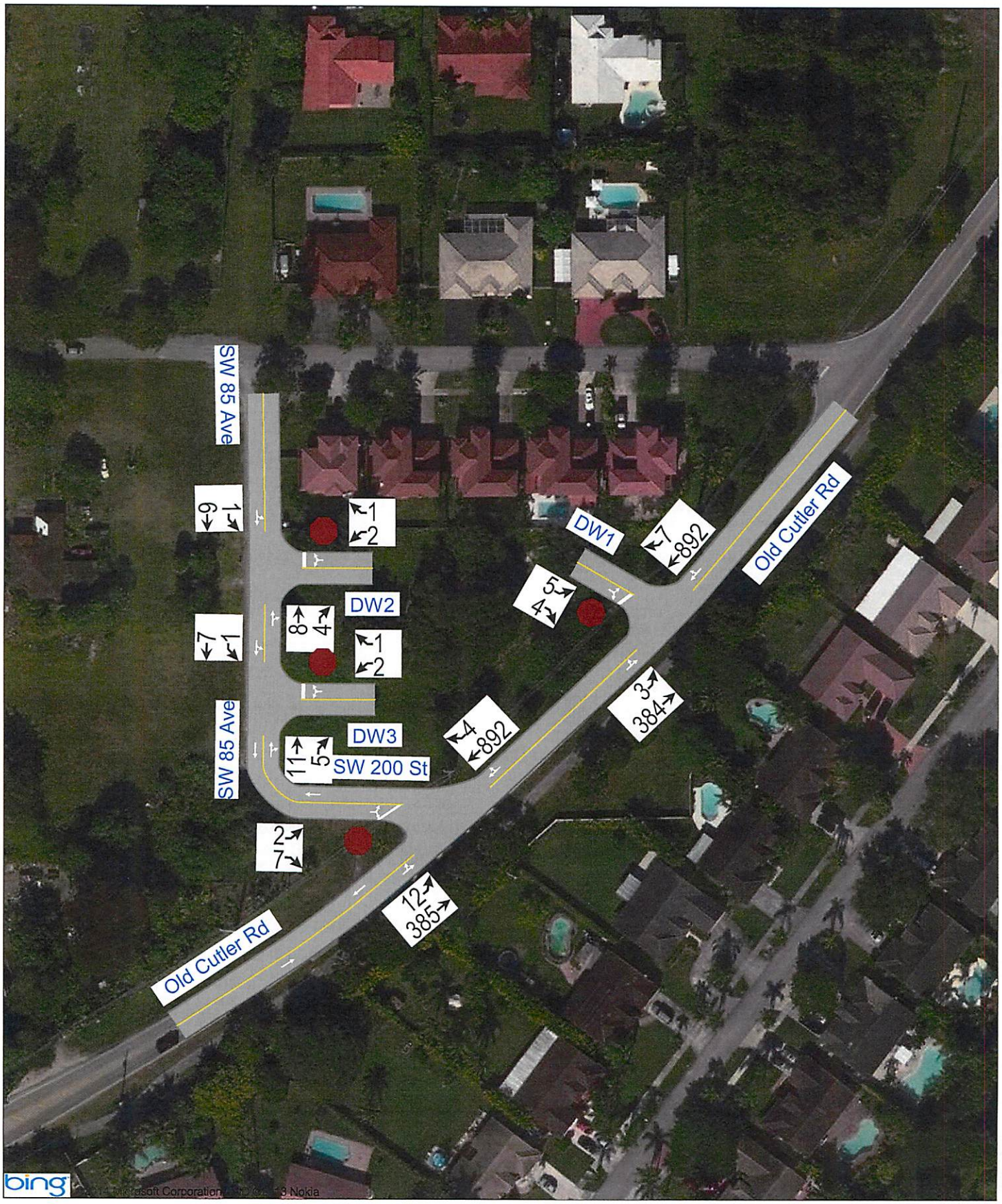
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	7	4	0	0	4	0
Stage 1	4	-	-	-	-	-
Stage 2	3	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1014	1080	-	-	1618	-
Stage 1	1019	-	-	-	-	-
Stage 2	1020	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1014	1080	-	-	1618	-
Mov Cap-2 Maneuver	1014	-	-	-	-	-
Stage 1	1019	-	-	-	-	-
Stage 2	1020	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1035	1618	-
HCM Lane V/C Ratio	-	-	0.003	-	-
HCM Control Delay (s)	-	-	8.5	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Cutler Gate

Future Condition w/ Project - PM Peak Hour



Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	2	7	12	385	892	4
Future Vol, veh/h	2	7	12	385	892	4
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	99	99	99	99	99	99
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	7	12	389	901	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1316	903	905	0	-	0
Stage 1	903	-	-	-	-	-
Stage 2	413	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	174	336	752	-	-	-
Stage 1	396	-	-	-	-	-
Stage 2	668	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	171	336	752	-	-	-
Mov Cap-2 Maneuver	171	-	-	-	-	-
Stage 1	388	-	-	-	-	-
Stage 2	668	-	-	-	-	-

Approach	EB	NE	SW
HCM Control Delay, s	18.4	0.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NEL	NET	EBLn1	SWT	SWR
Capacity (veh/h)	752	-	277	-	-
HCM Lane V/C Ratio	0.016	-	0.033	-	-
HCM Control Delay (s)	9.9	0	18.4	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	5	4	3	384	892	7
Future Vol, veh/h	5	4	3	384	892	7
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	5	4	3	417	970	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1397	974	978	0	-	0
Stage 1	974	-	-	-	-	-
Stage 2	423	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	155	306	706	-	-	-
Stage 1	366	-	-	-	-	-
Stage 2	661	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	154	306	706	-	-	-
Mov Cap-2 Maneuver	154	-	-	-	-	-
Stage 1	364	-	-	-	-	-
Stage 2	661	-	-	-	-	-

Approach	EB	NE	SW
HCM Control Delay, s	24.1	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NEL	NET	EBLn1	SWT	SWR
Capacity (veh/h)	706	-	198	-	-
HCM Lane V/C Ratio	0.005	-	0.049	-	-
HCM Control Delay (s)	10.1	0	24.1	-	-
HCM Lane LOS	B	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

HCM 6th TWSC
3: SW 85 Ave & DW2

Cutler Gate
Future Condition w/ Project - PM Peak Hour

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	1	8	4	1	6
Future Vol, veh/h	2	1	8	4	1	6
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	2	1	9	4	1	7

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	20	11	0	0	13	0
Stage 1	11	-	-	-	-	-
Stage 2	9	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	997	1070	-	-	1606	-
Stage 1	1012	-	-	-	-	-
Stage 2	1014	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	996	1070	-	-	1606	-
Mov Cap-2 Maneuver	996	-	-	-	-	-
Stage 1	1011	-	-	-	-	-
Stage 2	1014	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1020	1606	-
HCM Lane V/C Ratio	-	-	0.003	0.001	-
HCM Control Delay (s)	-	-	8.5	7.2	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	1	11	5	1	7
Future Vol, veh/h	2	1	11	5	1	7
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	2	1	12	5	1	8

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	25	15	0	0	17	0
Stage 1	15	-	-	-	-	-
Stage 2	10	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	991	1065	-	-	1600	-
Stage 1	1008	-	-	-	-	-
Stage 2	1013	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	990	1065	-	-	1600	-
Mov Cap-2 Maneuver	990	-	-	-	-	-
Stage 1	1007	-	-	-	-	-
Stage 2	1013	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.6	0	0.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1014	1600	-
HCM Lane V/C Ratio	-	-	0.003	0.001	-
HCM Control Delay (s)	-	-	8.6	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

TABLE: A8

ROADWAY ANALYSIS - AM & PM PEAK HOUR
EXISTING CONDITION (2018) & FUTURE CONDITION (2019)

Project Name: Cutler Gate

1		2	3	4			5	6	7		
Roadway Analysis - AM Peak Hour				Roadway Segment					Roadway Segment		
Roadway		Location	LOS / Volume Standard	**Existing Two-Way Volume (2018)**	Available Capacity	LOS	Background Growth @ 1.76% - 1 Year Build-Out (2019)	Project Gross Trips (2019)	**Proposed Traffic Volume (2019)**	Available Capacity	LOS
1	**Old Cutler Road**	East of SW 87 Avenue	LOS D / 1,600 VPH Class I - 2LU	1,105	495	C	19	9	1,133	467	C
Roadway Analysis - PM Peak Hour				Roadway Segment					Roadway Segment		
Roadway		Location	LOS / Volume Standard	**Existing Two-Way Volume (2018)**	Available Capacity	LOS	Background Growth @ 1.76% - 1 Year Build-Out (2019)	Project Gross Trips (2019)	**Proposed Traffic Volume (2019)**	Available Capacity	LOS
1	**Old Cutler Road**	East of SW 87 Avenue	LOS D / 1,600 VPH Class I - 2LU	1,258	342	C	22	16	1,297	303	C

Notes:

1 Roadway Name
2 Location
3 Roadway / Volume Standard *
4 Existing Roadway Segment Two-Way Volume, Available Capacity & LOS**
5 Backgroung Traffic Growth by 2019
6 Project Gross Trips by 2019
7 Proposed Roadway Segment Two-Way Volume, Available Capacity & LOS by Year 2019
* LOS / Volume Standard based on the FDOT generalized Table 4 (Peak Hour Two-Way Volumes for Florida's Urbanized Areas).
** Existing Roadway volumes obtained from TMC's

Miami-Dade County Traffic Stations

STATION	ROADWAY	LOCATION	CL	MAX LOS	PHP	START	DOS TRIPS	AVAILABLE TRIPS	5%	10%	EXISTING LOS	ADOPTED LOS	CONCURRENCY LOS
9558	NW 199 ST/HONEY HILL DR	W/O NW 27 AVE TO NW 37 AVE	4	5088	1732	3356	0	3356	0	0	B	EE	B
9560	NW 199 ST/HONEY HILL DR	W/O NW 37 AVE TO NW 57 AVE	4	2640	1568	1072	2	1070	0	0	D	D	D
9562	NW 202 ST	W/O NW 57 AVE TO 67 AVE	2	1350	1090	260	4	256	0	0	C	D	C
9576	OKEECHOBEE RD (US 27)	SE/O NW 74 ST FROM NW 62 AVE TO NW 67 AVE	0	4450	4559	-109	69	-178	1	0	F	E	E+4
9582	OLD CUTLER RD	SW/O SW 72 ST TO SW 88 ST	2	950	1455	-505	0	-505	1	0	F	E	E+53
9584	OLD CUTLER RD	SW/O SW 88 ST TO SW 57 AVE	2	1190	0	1190	0	1190	0	0		E	
9586	OLD CUTLER RD	SW/O SW 136 ST TO SW 152 ST	2	2730	1188	1542	0	1542	0	0	A	E	A
9588	OLD CUTLER RD	SW/O SW 152 ST TO SW 168 ST	2	3240	1485	1755	0	1755	0	0	B	E	B
9590	OLD CUTLER RD	S/O SW 168 ST TO SW 184 ST	2	2500	1476	1024	0	1024	0	0	C	E	C
9592	OLD CUTLER RD	SW/O SW 184 ST TO FRANJO ROAD	2	0	1185	-1185	0	-1185			E	D	E
9594	OLD CUTLER RD	SW/O FRANJO RD TO SW 216 ST	2	1610	1695	-85	48	-133	1	0	F	D	E+3
9596	OPA LOCKA BLVD (1-WAY WB)	W/O I-95 TO NW 17 AVE	3	3560	1101	2459	0	2459	0	0	C	E	C
9598	NW 52 AVE/PALM AVE	S/O E/W 21 ST (HIALEAH) TO OKEECHOBEE RD	2	1490	805	685	0	685	0	0	D	E	D
9600	NW 52 AVE	S/O NW 103 ST - NW 74 ST TO NW 119 ST	4	3290	1867	1423	0	1423	0	0	C	E	C
9618	PERIMETER ROAD	E/O NW 57 AVE BET NW 47 AVE TO NW 72 AVE	2	2150	1483	667	23	644	0	0	B	E	B
9622	PONCE DE LEON BLVD	S/O SW 8 ST TO ALHAMBRA CIRCLE	4	2880	1139	1741	0	1741	0	0	E	E+20	E
9624	PONCE DE LEON BLVD	N/O SW 40 ST TO ALMERIA AVE	4	4164	1217	2947	0	2947	0	0	C	E+20	C
9628	NW 57 AVE	S/O NW 74 ST CONN TO OKEECHOBEE ROAD	4	2310	0	2310	0	2310	0	0		E	
9629	NW 57 AVE/RED RD (SR 823)	N/O NW 183 ST TO NW 215 ST/COUNTY LINE	6	4710	3314	1396	0	1396	0	0	C	D	C

COUNTY: 87
STATION: 8310
DESCRIPTION: OLD CUTLER RD, 200' SOUTH OF FRANJO RD
START DATE: 02/04/2016
START TIME: 0000

	DIRECTION: N					DIRECTION: S					COMBINED
TIME	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	TOTAL
0000	20	12	14	13	59	23	24	23	18	88	147
0100	12	10	4	6	32	8	11	8	7	34	66
0200	3	7	3	7	20	5	4	4	6	19	39
0300	4	5	2	3	14	4	13	4	7	28	42
0400	5	12	13	16	46	4	7	8	9	28	74
0500	19	42	72	112	245	14	18	30	27	89	334
0600	135	124	145	154	558	39	27	41	54	161	719
0700	169	212	195	205	781	75	93	98	116	382	1163
0800	189	173	172	158	692	115	136	108	124	483	1175
0900	136	143	119	136	534	104	108	104	100	416	950
1000	121	126	119	127	493	107	108	112	116	443	936
1100	118	116	132	131	497	94	112	123	127	456	953
1200	138	144	127	139	548	136	140	129	145	550	1098
1300	148	150	158	124	580	137	160	166	154	617	1197
1400	150	148	155	163	616	168	156	144	171	639	1255
1500	151	158	158	147	614	190	162	202	196	750	1364
1600	133	152	169	145	599	196	181	188	196	761	1360
1700	144	149	141	158	592	214	220	214	209	857	1449
1800	150	133	135	150	568	201	206	206	209	822	1390
1900	158	146	128	118	550	204	212	183	196	795	1345
2000	112	127	100	98	437	188	158	130	119	595	1032
2100	83	80	65	64	292	117	97	92	92	398	690
2200	73	71	52	41	237	68	75	63	59	265	502
2300	36	32	21	15	104	44	36	35	23	138	242
24-HOUR TOTALS:					9708					9814	19522

PEAK VOLUME INFORMATION

	DIRECTION: N		DIRECTION: S		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	715	801	800	483	730	1227
P.M.	1445	630	1700	857	1700	1449
DAILY	715	801	1700	857	1700	1449

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FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2016 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 8310 - OLD CUTLER RD, 200' SOUTH OF FRANJO RD

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2016	17900 C	N 8900	S 9000	9.00	56.10	13.50
2015	15800 T	N 8100	S 7700	9.00	57.40	13.70
2014	16000 S	N 8200	S 7800	9.00	59.30	17.40
2013	16200 F	N 8300	S 7900	9.00	58.90	16.20
2012	16200 C	N 8300	S 7900	9.00	59.70	16.00

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

THE CORRADINO GROUP, INC.

CORRADINO

ENGINEERS · PLANNERS · PROGRAM MANAGERS · ENVIRONMENTAL SCIENTISTS

date:	March 9, 2018
to:	Kathryn Lyon, Planning Director
from:	Gregory A. Prytyka, P.E., Chief Engineer
project #:	3896*76
subject:	Cutler Gate Traffic Impact Study

MEMORANDUM

The Corradino Group, Inc (Corradino) has been requested to review a "Traffic Impact Statement" for the "Cutler Gate" development (the report) submitted by Richard Garcia & Associates (RGA), dated January 23, 2018. As reported, the proposed Cutler Gate development is sited at 8495 SW 200th Street in Cutler Bay, and will be comprised of a 36-unit, mid-rise, multi-family housing complex, and a retail element of 4,186 square feet (ft^2). The following are our comments:

Roadway Analysis – LOS & Capacity

- Despite the one-day data collection performed at the site, based on information readily available from the FDOT website Florida Traffic Online (2016), the AADT on Old Cutler Road at Site 878310 – Old Cutler Road, 200' South of Franjo Rd, is 17,900, with a K factor of 9%. Performing the proper calculations on these data indicate that the peak hour traffic on Old Cutler Road is approximately 1,611 vehicles per hour (vph). The report references the 2013 FDOT Quality/Level of Service (QLOS) Handbook as the standard for determining Level of Service versus traffic volumes. Because the speed limit on Old Cutler Road is 40 mph, the report places this roadway in the "State Signalized Arterials" category, with a two-lane Level of Service (LOS) D capacity of 1,600 vph. Although we disagree with this categorization, giving the benefit of the doubt, Old Cutler Road currently operates at LOS F. References given above are attached.

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Trip Generation

- The site plan provided does not provide sufficient detail to determine which area is being used for retail as opposed to housing. This, in turn will govern the types of land use classifications used to determine trip generation. The description given for ITE Trip Generation Land Use Code (LUC) 221, Multifamily Housing (Mid-Rise) indicates "Mid-Rise Multifamily Housing includes apartments, townhouses, and condominiums located within the same building with at least three other dwelling units and that have between three and 10 levels (floors)."

  It is unknown if the dwelling units in this development occupy two or three floors, internally or separately, excluding the retail space which is assumed to occupy the street level. If the housing element of the development occupies only two floors of the buildings, LUC 220, Multifamily Housing (Low-Rise) should be used.

- The use of Land Use Code (LUC) 820 – Shopping Center for 4,186 ft^2 of retail is questionable. The additional data description given for LUC 820, Shopping Center states "Shopping centers, including neighborhood centers, community centers, regional centers, and super regional centers, were surveyed for this land use. Some of these centers contained non-merchandising facilities, such as office buildings, movie theaters, restaurants, post offices, banks, health clubs, and recreational facilities (for example, ice skating rinks or indoor miniature golf courses)." The average size of shopping centers surveyed for the ITE AM peak trip generation rates was 251,000 ft^2, and 327,000 ft^2 for the PM peak, with a daily survey representing shopping centers of 435,000 ft^2. Because the retail use (4,186 ft^2) is minimal, trip generation should be calculated for each shop individually, based on anticipated uses.

- If it is acceptable to Cutler Bay, trip generation calculations based on LUC 820, Shopping Center, should be calculated using fitted curve equations rather than on average rates. Using the fitted curve equations, our analysis indicates that there should be a total of 101 trips in the AM peak and 69 trips during the PM peak. Calculations reflecting these results are attached.

- Once an accurate accounting of trip generation is presented, allowances should be made for multimodal trips, internal capture using NCHRP 684 methodology, and pas-by capture based on ITE Trip Generation Handbook, 3rd Edition.

Trip Distribution

- Trip distribution will require recalculation based upon actual trip generation results.

Proposed Future Conditions

- Proposed future conditions will require recalculation based upon actual trip generation results.

Thank you for the opportunity to review this traffic impact statement. If you have any questions or comments, please feel free to contact me.

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Exhibit "C3" (Page 50 of 52)

Site Information	
Feature	**1**
Road Name	OLD CUTLER RD
Site	878310
Description	OLD CUTLER RD, 200' SOUTH OF FRANJO R D
Section	87067500
Milepoint	2.222
AADT	**17900**
Site Type	Portable
Class Data	No
K Factor	9
D Factor	56.1
T Factor	13.5
TRAFFIC REPORTS (provided in format)	
Miami-Dade County	**Annual Average Daily Traffic**
	Historical AADT Data
	Synopsis 878310

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TABLE 4

Generalized **Peak Hour Two-Way** Volumes for Florida's **Urbanized Areas**[1]

12/18/12

INTERRUPTED FLOW FACILITIES

STATE SIGNALIZED ARTERIALS

Class I (40 mph or higher posted speed limit)

Lanes	Median	B	C	D	E
2	Undivided	*	1,510	1,600	**
4	Divided	*	3,420	3,580	**
6	Divided	*	5,250	5,390	**
8	Divided	*	7,090	7,210	**

Class II (35 mph or slower posted speed limit)

Lanes	Median	B	C	D	E
2	Undivided	*	660	1,330	1,410
4	Divided	*	1,310	2,920	3,040
6	Divided	*	2,090	4,500	4,590
8	Divided	*	2,880	6,060	6,130

Non-State Signalized Roadway Adjustments

(Alter corresponding state volumes by the indicated percent.)

Non-State Signalized Roadways - 10%

Median & Turn Lane Adjustments

Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors
2	Divided	Yes	No	+5%
2	Undivided	No	No	-20%
Multi	Undivided	Yes	No	-5%
Multi	Undivided	No	No	-25%
–	–	–	Yes	+ 5%

One-Way Facility Adjustment

Multiply the corresponding two-directional volumes in this table by 0.6

BICYCLE MODE[2]

(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Paved Shoulder/Bicycle Lane Coverage	B	C	D	E
0-49%	*	260	680	1,770
50-84%	190	600	1,770	>1,770
85-100%	830	1,770	>1,770	**

PEDESTRIAN MODE[2]

(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Sidewalk Coverage	B	C	D	E
0-49%	*	*	250	850
50-84%	*	150	780	1,420
85-100%	340	960	1,560	>1,770

BUS MODE (Scheduled Fixed Route)[3]

(Buses in peak hour in peak direction)

Sidewalk Coverage	B	C	D	E
0-84%	> 5	≥ 4	≥ 3	≥ 2
85-100%	> 4	≥ 3	≥ 2	≥ 1

UNINTERRUPTED FLOW FACILITIES

FREEWAYS

Lanes	B	C	D	E
4	4,120	5,540	6,700	7,190
6	6,130	8,370	10,060	11,100
8	8,230	11,100	13,390	15,010
10	10,330	14,040	16,840	18,930
12	14,450	18,880	22,030	22,860

Freeway Adjustments

Auxiliary Lanes Present in Both Directions	Ramp Metering
+ 1,800	+ 5%

UNINTERRUPTED FLOW HIGHWAYS

Lanes	Median	B	C	D	E
2	Undivided	770	1,530	2,170	2,990
4	Divided	3,300	4,660	5,900	6,530
6	Divided	4,950	6,990	8,840	9,790

Uninterrupted Flow Highway Adjustments

Lanes	Median	Exclusive left lanes	Adjustment factors
2	Divided	Yes	+5%
Multi	Undivided	Yes	-5%
Multi	Undivided	No	-25%

[1] Values shown are presented as peak hour two-way volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the Highway Capacity Manual and the Transit Capacity and Quality of Service Manual.

[2] Level of service for the bicycle and pedestrian modes in this table is based on number of motorized vehicles, not number of bicyclists or pedestrians using the facility.

[3] Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.

* Cannot be achieved using table input value defaults.

** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.

Source:
Florida Department of Transportation
Systems Planning Office
www.dot.state.fl.us/planning/systems/sm/los/default.shtm

TABLE 1 - WEEKDAY AM PEAK HOUR TRIP GENERATION

PROPOSED DEVELOPMENT								
ITE TRIP GENERATION CHARACTERISTICS				DIRECTIONAL DISTRIBUTION		GROSS VOLUMES		
Land Use	LUC	Qty	Units	Percent		AM Peak		AM Total
				In	Out	In	Out	
Multifamily Housing (Mid-Rise)	221	36	DU	26%	74%	3	9	13
Shopping Center (LUC 820)	820	4,186	sq ft	62%	38%	55	34	89
TOTALS						**58**	**43**	**101**

Source: Institute of Transportation Engineers' Trip Generation Manual, 10th Edition

TABLE 4 - WEEKDAY PM PEAK HOUR TRIP GENERATION

PROPOSED DEVELOPMENT								
ITE TRIP GENERATION CHARACTERISTICS				DIRECTIONAL DISTRIBUTION		GROSS VOLUMES		
Land Use	LUC	Qty	Units	Percent		PM Peak		PM Total
				In	Out	In	Out	
Multifamily Housing (Mid-Rise)	221	36	DU	61%	39%	10	6	17
Shopping Center (LUC 820)	820	4,186	sq ft	48%	52%	25	27	52
TOTALS						**35**	**33**	**69**

Source: Institute of Transportation Engineers' Trip Generation Manual, 10th Edition