Kimley»Horn

August 23, 2021

Firat Akcay
City of Miami Beach
Transportation Department
1688 Meridian Avenue, Suite 801
Miami Beach, Florida 33139

Re: Residences at Calais
Miami Beach, Florida
Trip Generation Analysis

Dear Mr. Akcay:

Kimley-Horn and Associates, Inc. has performed a trip generation analysis for the proposed redevelopment located at 2005-2023 Calais Drive in Miami Beach, Florida. Currently, the site proposed for redevelopment is occupied by nine (9) low rise residential units. The proposed redevelopment consists of 12, three (3)-story townhome units. A site plan is provided in Attachment A.

A trip generation analysis was conducted using the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 10th Edition. The analysis utilized ITE Land Use Code (LUC) 220 (Multifamily Housing [Low-Rise]) for the existing development and LUC 221 (Multifamily Housing [Mid-Rise]) for the proposed redevelopment.

A multimodal (public transit, bicycle, and pedestrian) factor based on US Census *Means of Transportation to Work* data was reviewed for the census tracts in the vicinity of the redevelopment. The US Census data indicated that there is a 17.4 percent (17.4%) multimodal factor within the vicinity of the redevelopment. It is expected that a portion of residents and visitors will choose to walk, bike, or use public transit to and from the proposed redevelopment.

The proposed redevelopment is expected to result in no net new trips during the A.M. peak hour and one (1) net new trip during the P.M. peak hour. Detailed trip generation calculations are contained in Attachment B.

Based on the number of trips generated by the proposed redevelopment, we do not believe that further study is needed for the development's trip impact. If you have any questions regarding this analysis, please feel free to contact me.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.

Omar Kanaan, P.E.

Attachments

OMAR KANAAN
LICENSE
8.23.21
No. 81433
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

Omar Kanaan, P.E.
Florida Registration Number 81433
Kimley-Horn and Associates, Inc.
8201 Peters Road, Suite 2200
Plantation, Florida 33324
Registry #00000696

Attachment A
Site Plan

ADDRESS: 2005-2023 CALAIS DRIVE
JURISDICTION: MIAMI BEACH
ZONING: RM-1
LOT SIZE: 20,924 S.F.
FAR: 1.25 (26,155.96 S.F.)
MAX. BLDG HEIGHT: 50'
SETBACKS: FRONT: 25'
SIDE: 20'
REAR: 20'

F.A.R. CALCULATION CALAIS DR

TH	1	2	3	4	5	6	7	8	9	10	11	12
GROUND	100.20	100.20	100.20	100.20	100.20	100.20	130.00	130.00	130.00	130.00	130.00	130.00
1ST	812.38	797.77	797.77	797.77	811.67	812.38	788.02	717.10	717.10	717.10	717.10	788.02
2ND	825.23	915.68	915.68	915.68	824.64	825.23	788.02	717.10	717.10	717.10	717.10	788.02
3RD	703.35	830.55	830.55	830.55	753.41	703.35	80.00	80.00	80.00	80.00	80.00	80.00
RTOP	80.09	80.09	80.09	80.09	80.08	80.09	0.00	0.00	0.00	0.00	0.00	0.00
	2,521.25	**2,724.29**	**2,724.29**	**2,724.29**	**2,570.00**	**2,521.25**	**1,786.04**	**1,644.20**	**1,644.20**	**1,644.20**	**1,644.20**	**1,786.04**

Net (FAR) 25,934.25 SF

gaviria architects
9427 Fountainbleau Blvd. #206 Miami , FL 33172
T: 954.7745946
www.j-gaviria.com
AA26003937

2005-2023 CALAIS DR, MIAMI BEACH - CONCEPT DESIGN

AUGUST 13TH , 2021

Attachment B
Trip Generation Calculations

AM PEAK HOUR TRIP GENERATION COMPARISON

EXISTING WEEKDAY AM PEAK HOUR TRIP GENERATION

		ITE TRIP GENERATION CHARACTERISTICS					DIRECTIONAL DISTRIBUTION		BASELINE TRIPS			MULTIMODAL REDUCTION		GROSS TRIPS			INTERNAL CAPTURE		EXTERNAL VEHICLE TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS		
		Land Use	ITE Edition	ITE Code	Scale	ITE Units	Percent In	Percent Out	In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total
GROUP 1	1	Multifamily Housing (Low-Rise)	10	220	9	du	23%	77%	1	3	4	17.4%	1	1	2	3	0.0%	0	1	2	3	0.0%	0	1	2	3
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		ITE Land Use Code		Rate or Equation				**Total:**	1	3	4	17.4%	1	1	2	3	0.0%	0	1	2	3	0.0%	0	1	2	3
		220		Y=0.46(X)																						

PROPOSED WEEKDAY AM PEAK HOUR TRIP GENERATION

		ITE TRIP GENERATION CHARACTERISTICS					DIRECTIONAL DISTRIBUTION		BASELINE TRIPS			MULTIMODAL REDUCTION		GROSS TRIPS			INTERNAL CAPTURE		EXTERNAL VEHICLE TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS		
		Land Use	ITE Edition	ITE Code	Scale	ITE Units	Percent In	Percent Out	In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total
GROUP 2	1	Multifamily (Mid-Rise)	10	221	12	du	26%	74%	1	3	4	17.4%	1	1	2	3	0.0%	0	1	2	3	0.0%	0	1	2	3
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		ITE Land Use Code		Rate or Equation				**Total:**	1	3	4	17.4%	1	1	2	3	0.0%	0	1	2	3	0.0%	0	1	2	3
		221		LN(Y) = 0.98*LN(X)+-0.98																						

	IN	OUT	TOTAL
NET NEW TRIPS	**0**	**0**	**0**

PM PEAK HOUR TRIP GENERATION COMPARISON

EXISTING WEEKDAY PM PEAK HOUR TRIP GENERATION

		ITE TRIP GENERATION CHARACTERISTICS					DIRECTIONAL DISTRIBUTION		BASELINE TRIPS			MULTIMODAL REDUCTION		GROSS TRIPS			INTERNAL CAPTURE		EXTERNAL VEHICLE TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS		
		Land Use	ITE Edition	ITE Code	Scale	ITE Units	Percent In	Percent Out	In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total
GROUP 1	1	Multifamily Housing (Low-Rise)	10	220	9	du	63%	37%	3	2	5	17.4%	1	2	2	4	0.0%	0	2	2	4	0.0%	0	2	2	4
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		ITE Land Use Code		Rate or Equation				**Total:**	3	2	5	17.4%	1	2	2	4	0.0%	0	2	2	4	0.0%	0	2	2	4
		220		Y=0.56(X)																						

PROPOSED WEEKDAY PM PEAK HOUR TRIP GENERATION

		ITE TRIP GENERATION CHARACTERISTICS					DIRECTIONAL DISTRIBUTION		BASELINE TRIPS			MULTIMODAL REDUCTION		GROSS TRIPS			INTERNAL CAPTURE		EXTERNAL VEHICLE TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS		
		Land Use	ITE Edition	ITE Code	Scale	ITE Units	Percent In	Percent Out	In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total
GROUP 2	1	Multifamily (Mid-Rise)	10	221	12	du	61%	39%	4	2	6	17.4%	1	3	2	5	0.0%	0	3	2	5	0.0%	0	3	2	5
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		ITE Land Use Code		Rate or Equation				**Total:**	4	2	6	17.4%	1	3	2	5	0.0%	0	3	2	5	0.0%	0	3	2	5
		221		LN(Y) = 0.96*LN(X)+-0.63																						

	IN	OUT	TOTAL
NET NEW TRIPS	**1**	**0**	**1**

MEANS OF TRANSPORTATION TO WORK

United States Census Bureau

Note: This is a modified view of the original table produced by the U.S. Census Bureau. This download or printed version may have missing information from the original table.

(334+71)/2315= 17.4%

Census Tract 39.16, Miami-Dade County, Florida

Label	Estimate	Margin of Error
Total:	2,315	±296
Car, truck, or van:	1,497	±248
Drove alone	1,130	±248
Carpooled:	367	±174
In 2-person carpool	283	±145
In 3-person carpool	11	±17
In 4-person carpool	73	±91
In 5- or 6-person carpool	0	±14
In 7-or-more-person carpool	0	±14
Public transportation (excluding taxicab):	334	±163
Bus	312	±160
Subway or elevated rail	0	±14
Long-distance train or commuter rail	22	±35
Light rail, streetcar or trolley (carro público in Puerto Rico)	0	±14
Ferryboat	0	±14
Taxicab	103	±86
Motorcycle	24	±28
Bicycle	59	±58
Walked	12	±19
Other means	17	±27
Worked from home	269	±107

Table Notes

MEANS OF TRANSPORTATION TO WORK

Survey/Program: American Community Survey
Universe: Workers 16 years and over
Year: 2019
Estimates: 5-Year
Table ID: B08301

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

Source: U.S. Census Bureau, 2015-2019 American Community Survey 5-Year Estimates

2019 ACS data products include updates to several categories of the existing means of transportation question. For more information, see: Change to Means of Transportation.

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see ACS Technical Documentation). The effect of nonsampling error is not represented in these tables.

Workers include members of the Armed Forces and civilians who were at work last week.

The 2015-2019 American Community Survey (ACS) data generally reflect the September 2018 Office of Management and Budget (OMB) delineations of metropolitan and micropolitan statistical areas. In certain instances, the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB delineation lists due to differences in the effective dates of the geographic entities.

Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Explanation of Symbols:

An "**" entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
An "-" entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution, or the margin of error associated with a median was larger than the median itself.
An "-" following a median estimate means the median falls in the lowest interval of an open-ended distribution.
An "+" following a median estimate means the median falls in the upper interval of an open-ended distribution.
An "***" entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.
An "*****" entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
An "N" entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.
An "(X)" means that the estimate is not applicable or not available.

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.