

KBP CONSULTING, INC.

November 11, 2023

Mr. Benjamin Restrepo, P.E.
Senior Project Manager
City of Fort Lauderdale – Development Services
700 NW 19th Avenue
Fort Lauderdale, Florida 33311

**Re: Olakino House – Fort Lauderdale, Florida
Traffic Statement**

Dear Benjamin:

As requested, KBP Consulting, Inc. has prepared a traffic statement associated with the proposed development of four (4) vacant parcels of land located on the west side of Bayshore Drive between Riomar Street and Terramar Street in the City of Fort Lauderdale, Broward County, Florida. More specifically the site is located at 529 – 553 Bayshore Drive and the Broward County Folio Numbers are as follows:

- 5042 01 04 0600
- 5042 01 04 0610
- 5042 01 04 0620
- 5042 01 04 0630

This traffic statement addresses the trip generation characteristics associated with the proposed development (known as “Olakino House”) on the site and documents if the estimated number of net new project trips exceeds the minimum trip thresholds established by the City of Fort Lauderdale that would require a comprehensive traffic impact study.

TRAFFIC IMPACT ANALYSIS

Proposed Development

The total land area of the subject site is approximately 1.5384 acres (67,011 square feet) and was recently approved for the development of 65 dwelling units in two (2) high-rise buildings. The site is currently proposed to be developed with two (2) multi-story residential buildings. Both buildings will have thirteen (13) floors and the total number of dwelling units for the Olakino House development will be 83. The site will offer several amenities for their residents including a spa / fitness area, a dining area, a conference room, a golf simulator, a pool, and a rooftop terrace area.

Vehicular access to the site will be provided by one (1) full access driveway on Bayshore Drive that will provide access to the parking garage. A second driveway will be provided on Bayshore Drive that will provide access to the service / loading area. A project location map is presented in Attachment A to this memorandum and the site plan is presented in Attachment B.

Trip Generation Analysis

A trip generation analysis has been conducted for the proposed development at the subject site. The analysis was performed using the trip generation rates and equations published in the Institute of Transportation Engineer’s (ITE) *Trip Generation Manual (11th Edition)*. The trip generation analysis was undertaken for daily, AM peak hour, and PM peak hour conditions. According to the referenced ITE manual, the most appropriate land use category and corresponding rates / equations for the proposed development are as follows:

Multifamily Housing (High-Rise) – ITE Land Use #222

- Weekday: $T = 3.76 (X) + 377.04$
where *T* = number of trips and *X* = number of dwelling units
- AM Peak Hour: $T = 0.22 (X) + 18.85$ (34% in / 66% out)
- PM Peak Hour: $T = 0.26 (X) + 23.12$ (56% in / 44% out)

Relevant excerpts from the referenced ITE manual are presented in Attachment C to this memorandum. Utilizing the above-listed trip generation equations from the referenced ITE document, a trip generation analysis was undertaken for the proposed development. The results of this effort are documented in Table 1 below. The trips associated with the approved development scenario (i.e. 65 dwelling units) are also presented in this table.

Table 1 Olakino House Trip Generation Analysis 529 - 553 Bayshore Drive - Fort Lauderdale, Florida								
Land Use	Size	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
			In	Out	Total	In	Out	Total
<i>Approved</i> ¹ Multifamily Housing (High-Rise)	65 DU	468	7	24	31	19	12	31
<i>Proposed</i> Multifamily Housing (High-Rise)	83 DU	689	13	24	37	25	20	45
Difference (Proposed - Approved)	18 DU	221	6	0	6	6	8	14

Compiled by: KBP Consulting, Inc. (November 2023).

Source: ITE Trip Generation Manual (11th Edition).

¹ The trips associated with the approved development plan were based upon the ITE Trip Generation Manual (10th Edition).

As indicated in Table 1 above, the proposed Olakino House residential development is anticipated to generate 689 daily vehicle trips, 37 AM peak hour vehicle trips (13 inbound and 24 outbound) and 45 vehicle trips (25 inbound and 20 outbound) during the typical afternoon peak hour. When compared with the approved development program on this site, this represents an increase of 221 daily vehicle trips, an increase of six (6) AM peak hour vehicle trips, and an increase of 14 PM peak hour vehicle trips.

Conclusions

Based upon the foregoing analysis, the proposed project is not required to prepare a comprehensive traffic impact study for the following reasons:

- According to the City of Fort Lauderdale’s ULDR Section 47-25.2.M.4, when the proposed development generates more than 1,000 net new daily trips, a traffic impact study is required. The subject project is projected to generate 689 net new daily vehicle trips.

- And, if the daily trips are less than 1,000 and more than 20% of the daily trips are anticipated to arrive or depart, or both, within one-half hour, a traffic impact study is required. As presented in Table 1, the proposed development will result in 37 additional vehicle trips during the AM peak hour and 45 additional vehicle trips during the PM peak hour. The maximum number of trips anticipated within one-half hour is approximately 3.34% of the daily vehicle trips, which is significantly less than the 20% threshold. *(Forty-five additional peak hour vehicle trips occurring in one (1) hour represents, on average, 23 vehicle trips in one-half hour. Twenty-three (23) vehicle trips equate to approximately 3.34% of the 689 net new daily vehicle trips.)*

Based upon the foregoing analyses, the trip generation characteristics of the Olakino House residential development do not warrant further detailed traffic analyses. If you have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

KBP CONSULTING, INC.

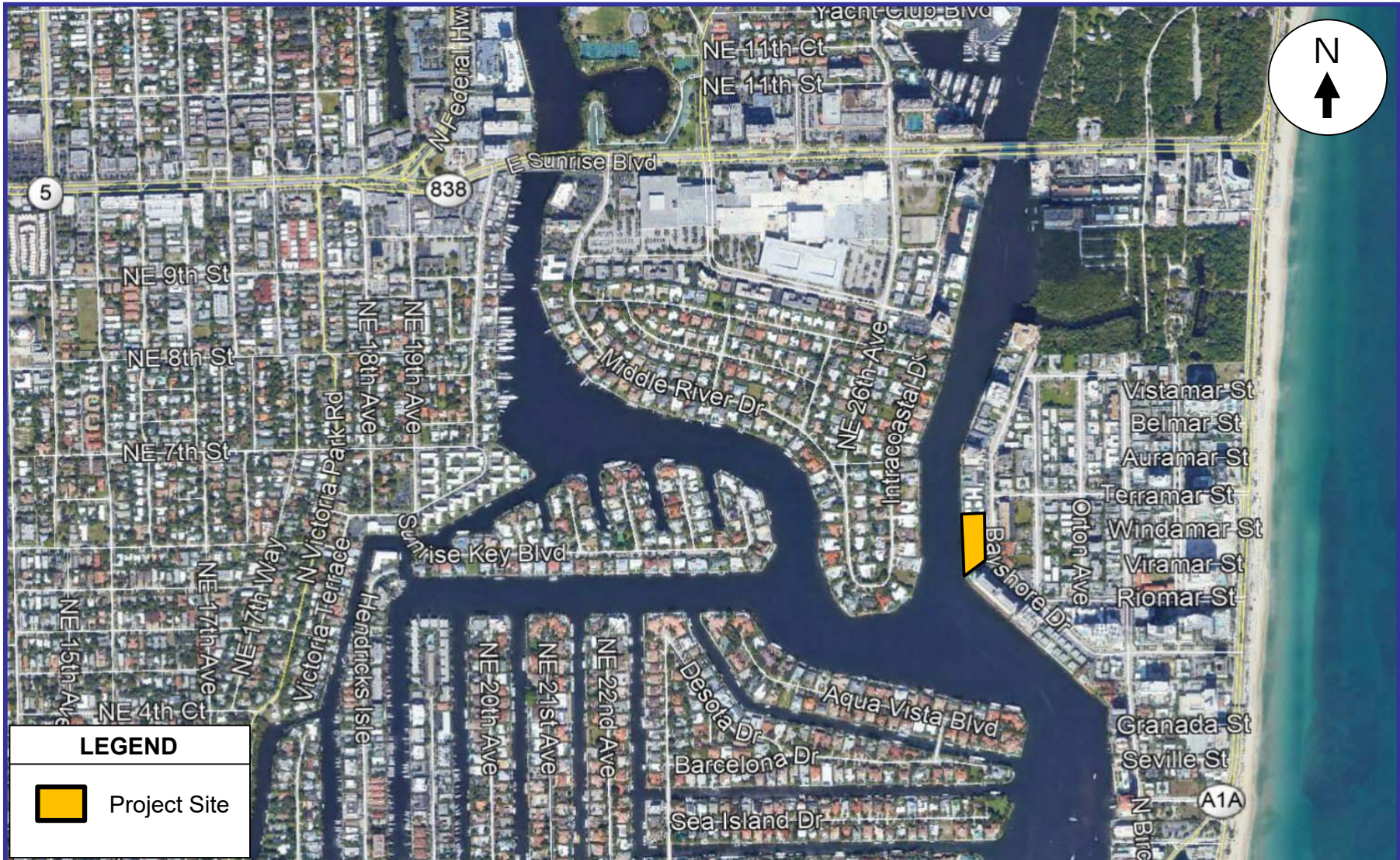


Karl B. Peterson, P.E.
Senior Transportation Engineer


Attachment A

Olakino House

Project Location Map



LEGEND

 Project Site

KBP
CONSULTING, INC.

Project Location Map

Attachment A
Olakino House
Fort Lauderdale, Florida

Attachment B

Olakino House

Site Plan

Attachment C

Olakino House

**Relevant Excerpts from the
*ITE Trip Generation Manual (11th Edition)***

Land Use: 222

Multifamily Housing (High-Rise)

Description

High-rise multifamily housing includes apartments, townhouses, and condominiums. Each building has more than 10 floors of living space. Access to individual dwelling units is through an outside building entrance, a lobby, elevators, and a set of hallways.

Multifamily housing (low-rise) (Land Use 220), multifamily housing (mid-rise) (Land Use 221), off-campus student apartment (high-rise) (Land Use 227), and high-rise residential with ground-floor commercial (Land Use 232) are related land uses.

Land Use Subcategory

Data are presented for two subcategories for this land use: (1) not close to rail transit and (2) close to rail transit. A site is considered close to rail transit if the walking distance between the residential site entrance and the closest rail transit station entrance is ½ mile or less.

Additional Data

For the 12 sites for which both the number of residents and the number of occupied dwelling units were available, there were an average of 1.6 residents per occupied dwelling unit.

For the 26 sites for which the numbers of both total dwelling units and occupied dwelling units were available, an average of 98 percent of the total dwelling units were occupied.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (<https://www.ite.org/technical-resources/topics/trip-and-parking-generation/>).

For the 12 sites for which data were provided for both occupied dwelling units and residents, there was an average of 1.6 residents per occupied dwelling unit.

For the 26 sites for which data were provided for both occupied dwelling units and total dwelling units, an average of 98 percent of the units were occupied.

It is expected that the number of bedrooms and number of residents are likely correlated to the trips generated by a residential site. To assist in future analysis, trip generation studies of all multifamily housing should attempt to obtain information on occupancy rate and on the mix of residential unit sizes (i.e., number of units by number of bedrooms at the site complex).

The sites were surveyed in the 1980s, the 2000s, and the 2010s in California, District of Columbia, Maryland, New Jersey, New York, Ontario (CAN), Oregon, Pennsylvania, and Virginia.

Source Numbers

105, 168, 169, 237, 321, 356, 818, 862, 901, 910, 949, 963, 964, 966, 967, 1056, 1057, 1076, 1077



Multifamily Housing (High-Rise) Not Close to Rail Transit (222)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 8

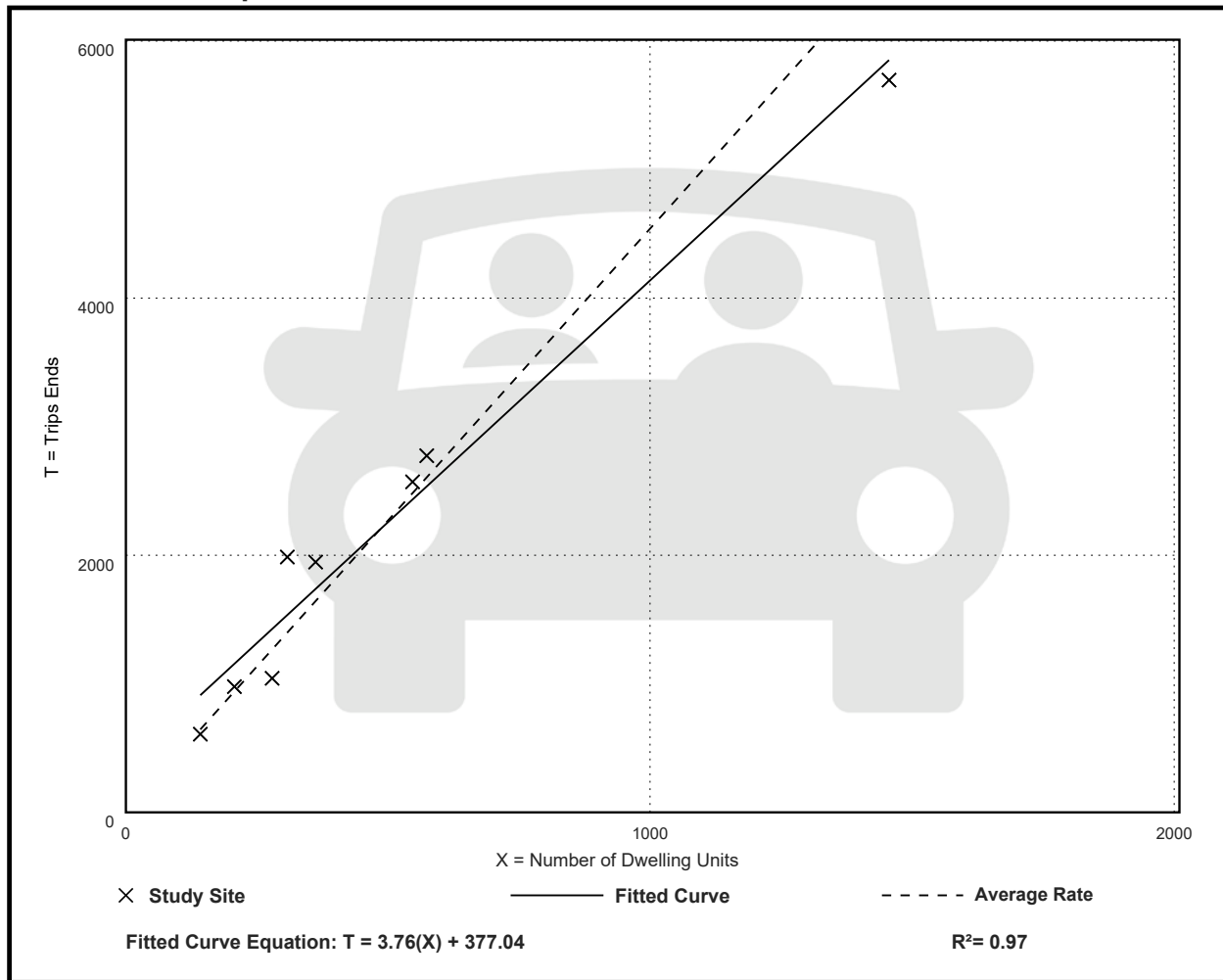
Avg. Num. of Dwelling Units: 484

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
4.54	3.74 - 6.45	0.81

Data Plot and Equation



Multifamily Housing (High-Rise) Not Close to Rail Transit (222)

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: 45

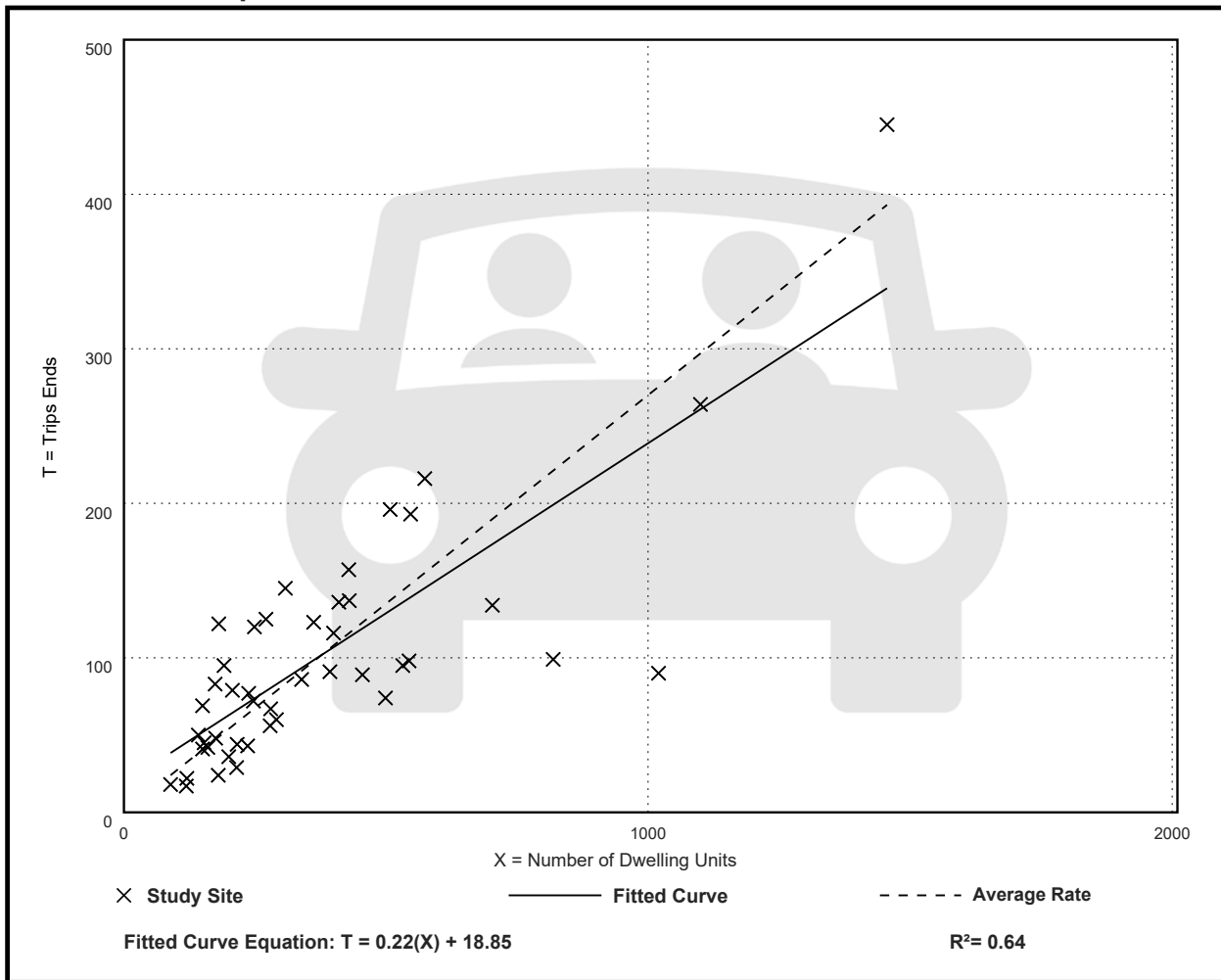
Avg. Num. of Dwelling Units: 372

Directional Distribution: 34% entering, 66% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.27	0.09 - 0.67	0.11

Data Plot and Equation



Multifamily Housing (High-Rise) Not Close to Rail Transit (222)

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: 45

Avg. Num. of Dwelling Units: 372

Directional Distribution: 56% entering, 44% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.32	0.09 - 0.80	0.13

Data Plot and Equation

