

Revised December 11, 2023  
PZ23-03990007  
August 14, 2023  
02/07/2024

Sent via e-mail: dg@GoKatalyst.com

Andrew Tamlin  
C/O Don Ginsburg  
ClubLink US, LLC  
551 S. Powerline Road  
Pompano Beach, FL 33069

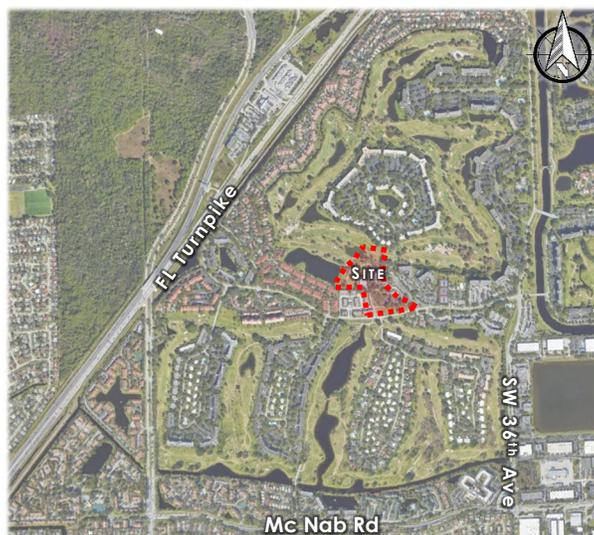
**Re: Oaks at Palm Aire (Pompano Beach)  
Traffic Statement  
Folio ID 4942-05-00-0047/-0020**

JFO Group Inc. has been retained to prepare a traffic impact analysis to determine the impact of the proposed project to Level of Service operations in the project vicinity. This traffic analysis is associated with a site plan application for the Oaks at Palm Aire project to relocate the existing clubhouse and to add a 270 multifamily development on the subject site. The existing clubhouse includes  $\pm 37,504$  SF and it will be demolished. A new 7,162 SF clubhouse will be built on the northern portion of the site.

The subject site is located at 3701 Oaks Clubhouse Drive in the City of Pompano Beach, Florida. Parcel IDs associated with this project are 4942-05-00-0047/-0020. Figure 1 shows the project location in relation to the transportation network.

Project traffic potentially generated by the proposed development was calculated using the *Trip Generation Manual, 11<sup>th</sup> Edition* from the Institute of Transportation Engineers (ITE) publication. Exhibit 1 includes a copy of the ITE trip generation and pass-by rates.

According to the 11<sup>th</sup> Edition (latest) of the *Trip Generation Manual* from the Institute of Transportation Engineers, Clubhouse is not a Land Use associated with a trip generation rate/equation. Clubhouses are considered accessory uses associated to Golf Courses where trip generation rates/equations for golf courses are calculated based on the number of holes or the number of acres associated with the golf course. Therefore, for trip generation purposes and according to the latest ITE *Trip Generation manual*, the size of the clubhouse does not change the number of trips associated with the golf course. Consequently, for simplification purposes and as part of a conservative analysis, this traffic analysis assumes that having a smaller club house will not generate less trips. Exhibit 1 includes a copy of the ITE trip generation rates/equations for Golf Courses showing that trip generation for golf courses is calculated based on number of holes or acreage and not based on the size of the clubhouse.



**Figure 1 : Project Location**

Table 1 shows the rates used in order to determine the trip generation for Daily, AM, and PM peak hour conditions while Table 2 includes the trip generation for the proposed project for Daily, AM and PM peak hour conditions. According to Table 2, the net Daily, AM and PM peak trips potentially generated due to the proposed development are 1,226, 100 (23 In/77 Out) and 105 (64 In/41 Out) trips respectively.

**Table 1: Trip Generation Rates (ITE Trip Generation, 11<sup>th</sup> Edition)**

Land Use	ITE Code	Daily Trip Gen. Rate	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Multifamily Housing (Mid-Rise)	221	4.54	23%	77%	0.37	61%	39%	0.39

**Table 2: Trip Generation – Proposed Development**

Land Use	Intensity	Daily Traffic	AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out
Multifamily Housing	270 DUs	$270 \times 4.54 =$	$0.37 \times 270 =$	$100 \times 23\% =$	$100 \times 77\% =$	$0.39 \times 270 =$	$105 \times 61\% =$	$105 \times 39\% =$
		1,226	100	23	77	105	64	41

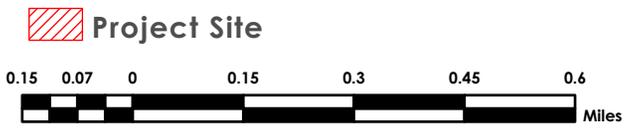
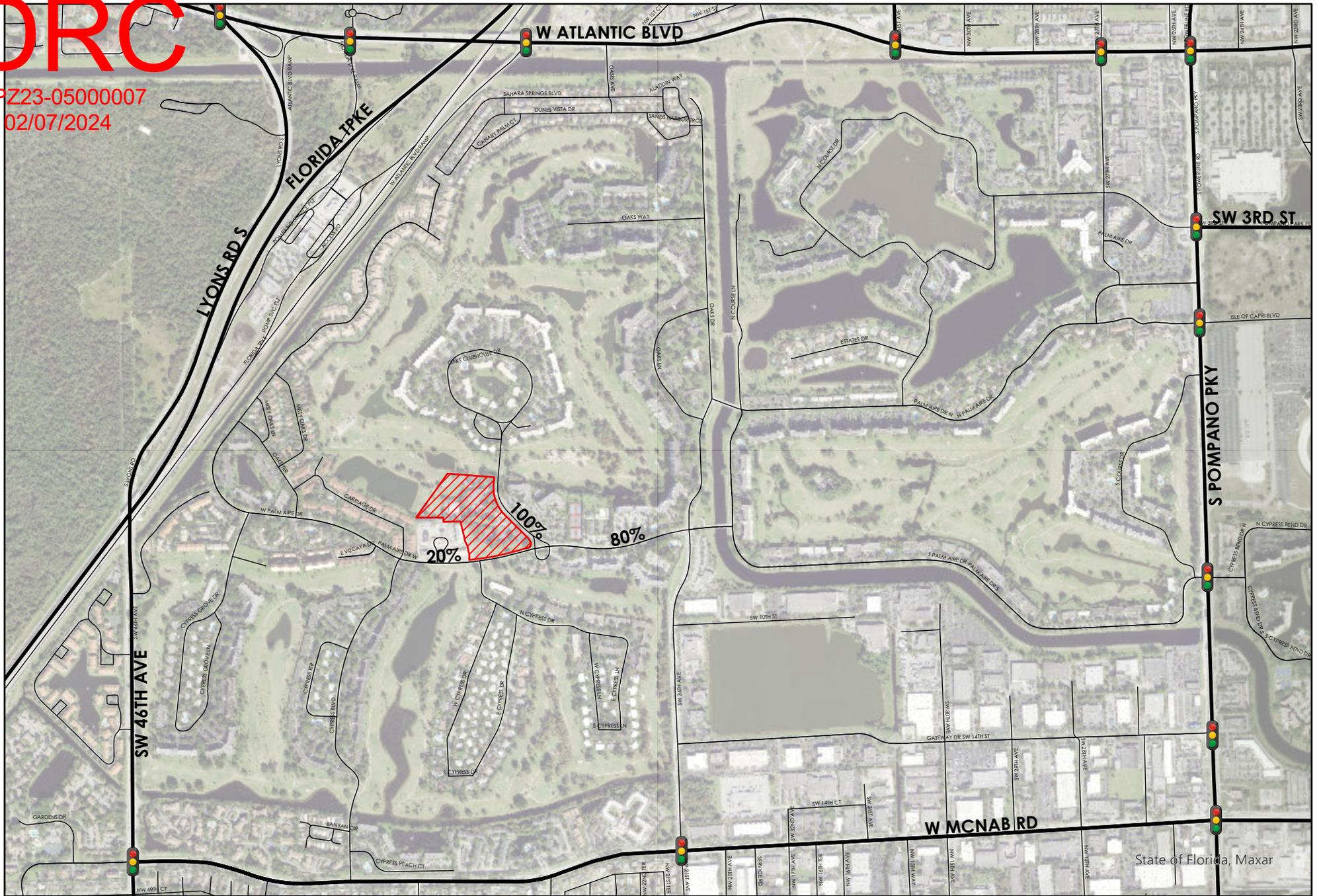
Trip distribution and assignment incorporates the characteristics of the proposed development as well as the surrounding network configuration. Figure 2 includes project trip distribution on all roadway links in the project vicinity. Tables 3 and 4 summarize Level of Service analyses at project buildout.

Level of service (LOS) is a qualitative measure used to relate the quality of vehicle traffic service. LOS is used to analyze roadways and intersections by categorizing traffic flow and assigning quality levels of traffic based on performance measure like vehicle speed, density, congestion, etc. LOS for vehicles classifies roadways and intersections into six letter-grade levels, with A describing the highest quality and F describing the lowest quality. Transportation professionals widely consider LOS D for the automobile mode an acceptable condition, and this threshold is often used as a design condition in urbanized areas.

In order to evaluate LOS, traffic counts should be collected to determine existing conditions to then add the project traffic to establish future conditions. Traffic counts should be performed on typical midweek days (Tuesday, Wednesday, or Thursday). All counts collected should follow the Florida Department of Transportation's Manual on Uniform Traffic Studies (MUTS) and other applicable standards. According to all the applicable standards, 24-hour traffic counts in the project vicinity were collected on Wednesday December 6, 2023. Traffic volumes were adjusted by applying the seasonal factor as established in the FDOT Project Forecasting Handbook. Exhibit 3 includes a summary of all traffic data collection efforts while Exhibit 4 includes the latest Peak Seasonal Factors from F-DOT.

Broward County implemented a Transit Concurrency Impact Fee in December 2004. Under this Fee System, the City of Pompano Beach is located in the Northeast Zone. The revised Transportation Concurrency Management System requires payment of a Transit Concurrency Impact Fee prior to building permit based on the type of development and the fee schedule for the Northeast and Central Transit Concurrency Districts.

The City has incorporated the Broward County Transportation Concurrency Management System into its Comprehensive Plan and issues development permits for projects which pay the transit fee prior to building permit issuance. Payment of the fee satisfies concurrency. The city also requires all projects submitted for concurrency review to the Development Review Committee to satisfy County and City Road right-of-way requirements prior to the issuance of a building permit.



## Figure 2: Traffic Assignment Oaks at Palm Aire





PZ23-05000007

**Table 3: AM Peak Hour Link Analysis**

Road	From	To	Ln	AM 2023 <sup>1</sup> Traffic		Peak Hour Traffic <sup>2</sup>		Project Assignment	Project Traffic		Total Traffic With Project		LOS 'C' Capacity <sup>3</sup>	V/C
				NB/EB	SB/WB	NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB		
Oaks Clubhouse Dr	W Palm Aire Dr	Site	2	112	118	115	122	100%	23	77	138	199	370	0.54
W Palm Aire Dr	Cypress Blvd	Oaks Clubhouse Dr	2	197	161	203	166	20%	5	15	208	181	370	0.56
W Palm Aire Dr	Oaks Clubhouse Dr	SW 36th Ave	2	290	216	299	222	80%	62	18	361	240	370	0.98

OAKS AT PALM AIRE	In	Out
AM Peak Hour Traffic	23	77

**Table 4: PM Peak Hour Link Analysis**

Road	From	To	Ln	PM 2023 <sup>1</sup> Traffic		Peak Hour Traffic <sup>2</sup>		Project Assignment	Project Traffic		Total Traffic With Project		LOS 'C' Capacity <sup>3</sup>	V/C
				NB/EB	SB/WB	NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB		
Oaks Clubhouse Dr	W Palm Aire Dr	Site	2	117	116	121	119	100%	64	41	185	160	370	0.50
W Palm Aire Dr	Cypress Blvd	Oaks Clubhouse Dr	2	169	206	174	212	20%	13	8	187	220	370	0.59
W Palm Aire Dr	Oaks Clubhouse Dr	SW 36th Ave	2	248	272	255	280	80%	33	51	288	331	370	0.89

OAKS AT PALM AIRE	In	Out
PM Peak Hour Traffic	64	41

As shown in Table 3 and Table 4, Volume/Capacity ratios in the nearby roadways is less than 1.0. Therefore, there is enough roadway capacity to handle the traffic generated by the proposed project. Both Oaks Clubhouse Drive and W Palm Aire Drive currently operate at LOS 'C' and will continue to operate at LOS 'C' after the Oaks at Palm Aire project is fully built.

<sup>1</sup> Exhibit 2 includes a summary of the field counts.

<sup>2</sup> Exhibit 3 includes FDOT PSF applicable to the count locations. 2022 PSF=1.03.

<sup>3</sup> Exhibit 4 includes FDOT LOS Standards. LOS'C' Capacity for a 2-lane 35 mph road is 370 vehicles per hour.

PZ23-05890007  
02/07/2024

The Oaks at Palm Aire project is proposing to relocate the existing Clubhouse and to add a 270 multifamily development on the subject site located at 3701 Oaks Clubhouse Drive in the City of Pompano Beach, Florida. This development will most likely generate 1,226 net daily trips where 100 (23 In/77 Out) trips will occur during the AM peak hour and 105 (64 In/41 Out) during the PM peak hour.

This analysis shows that the proposed development will be in compliance with transportation concurrency requirements in the City of Pompano Beach once Transportation Concurrency Fees are paid to Broward County for 105 peak hour trips.

According to the Highway Capacity Manual (HCM) and AASHTO Geometric Design of Highways and Streets ("Green Book"), LOS Standards use letters A through F, with A being the best and F being the worst, similar to academic grading. LOS 'C' is characterized by stable flow, most experienced drivers are comfortable, roads remain safely below but efficiently close to capacity, and posted speed is maintained. This is the target LOS for some urban and most rural highways. As shown in this analysis, both Oaks Clubhouse Drive and W Palm Aire Drive currently operate at LOS 'C' and will continue to operate at LOS 'C' after the Oaks at Palm Aire project is fully built.

Sincerely,

**JFO GROUP INC**  
COA Number 32276



- Enclosures:
- Exhibit 1: Trip Generation Rates
  - Exhibit 2: 2023 Field Counts
  - Exhibit 3: F-DOT Peak Season Factors
  - Exhibit 4: F-DOT LOS Standards
  - Exhibit 5: DRC Traffic Comments

This item has been electronically signed and sealed by Dr. Juan F. Ortega PE on December 11, 2023 using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

# DRC

PZ23-05000007

02/07/2024

This Page Intentionally Left Blank

## Land Use: 221

### Multifamily Housing (Mid-Rise)

---

#### Description

Mid-rise multifamily housing includes apartments and condominiums located in a building that has between four and 10 floors of living space. Access to individual dwelling units is through an outside building entrance, a lobby, elevator, and a set of hallways.

Multifamily housing (low-rise) (Land Use 220), multifamily housing (high-rise) (Land Use 222), off-campus student apartment (mid-rise) (Land Use 226), and mid-rise residential with ground-floor commercial (Land Use 231) 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 six sites for which both the number of residents and the number of occupied dwelling units were available, there were an average of 2.5 residents per occupied dwelling unit.

For the five sites for which the numbers of both total dwelling units and occupied dwelling units were available, an average of 96 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/>).

***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 1990s, the 2000s, the 2010s, and the 2020s in Alberta (CAN), California, District of Columbia, Florida, Georgia, Illinois, Maryland, Massachusetts, Minnesota, Montana, New Jersey, New York, Ontario (CAN), Oregon, Utah, and Virginia.

#### Source Numbers

168, 188, 204, 305, 306, 321, 818, 857, 862, 866, 901, 904, 910, 949, 951, 959, 963, 964, 966, 967, 969, 970, 1004, 1014, 1022, 1023, 1025, 1031, 1032, 1035, 1047, 1056, 1057, 1058, 1071, 1076

## Multifamily Housing (Mid-Rise) Not Close to Rail Transit (221)

Vehicle Trip Ends vs: Dwelling Units  
On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 11

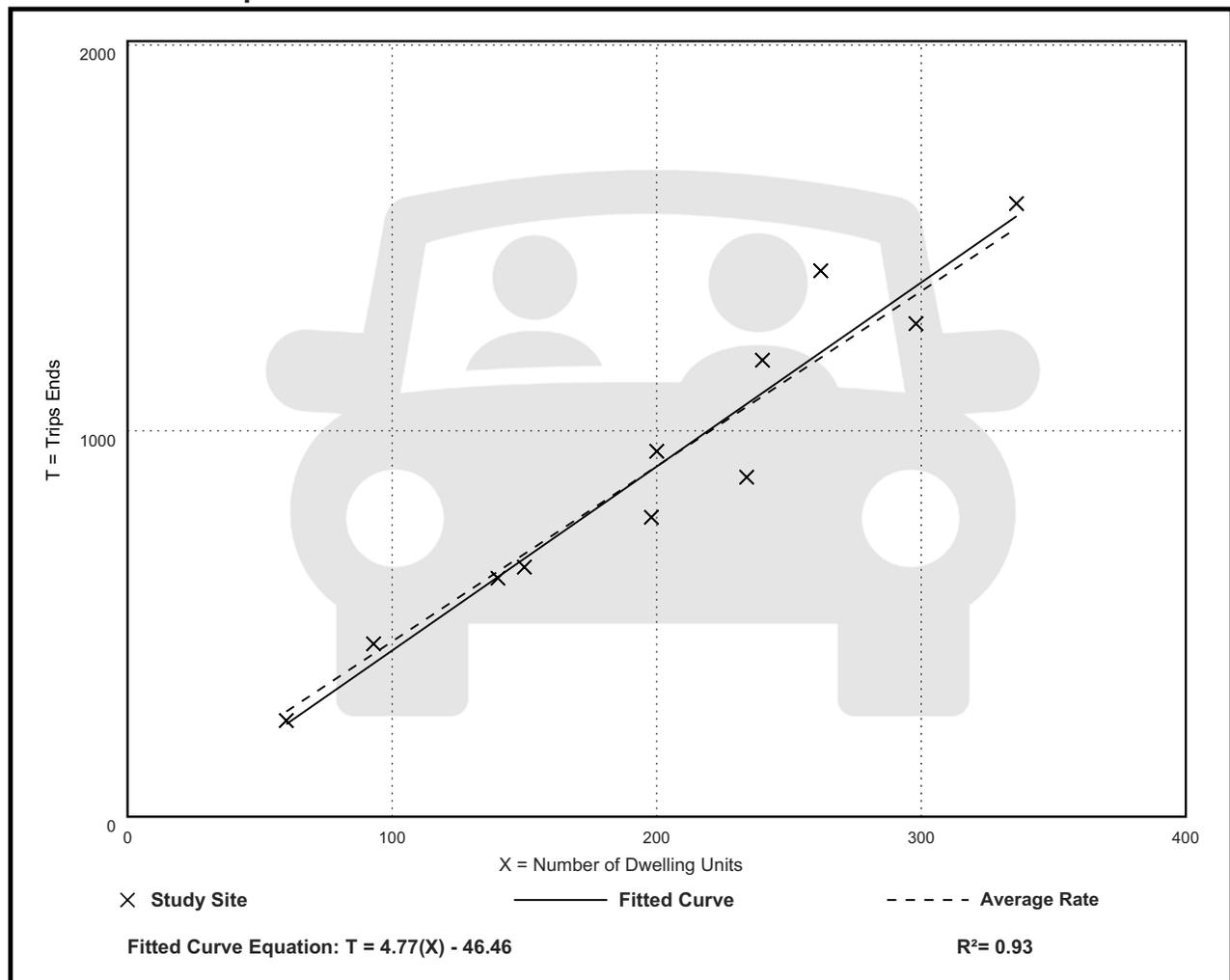
Avg. Num. of Dwelling Units: 201

Directional Distribution: 50% entering, 50% exiting

### Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
4.54	3.76 - 5.40	0.51

### Data Plot and Equation



## Multifamily Housing (Mid-Rise) Not Close to Rail Transit (221)

### 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: 30

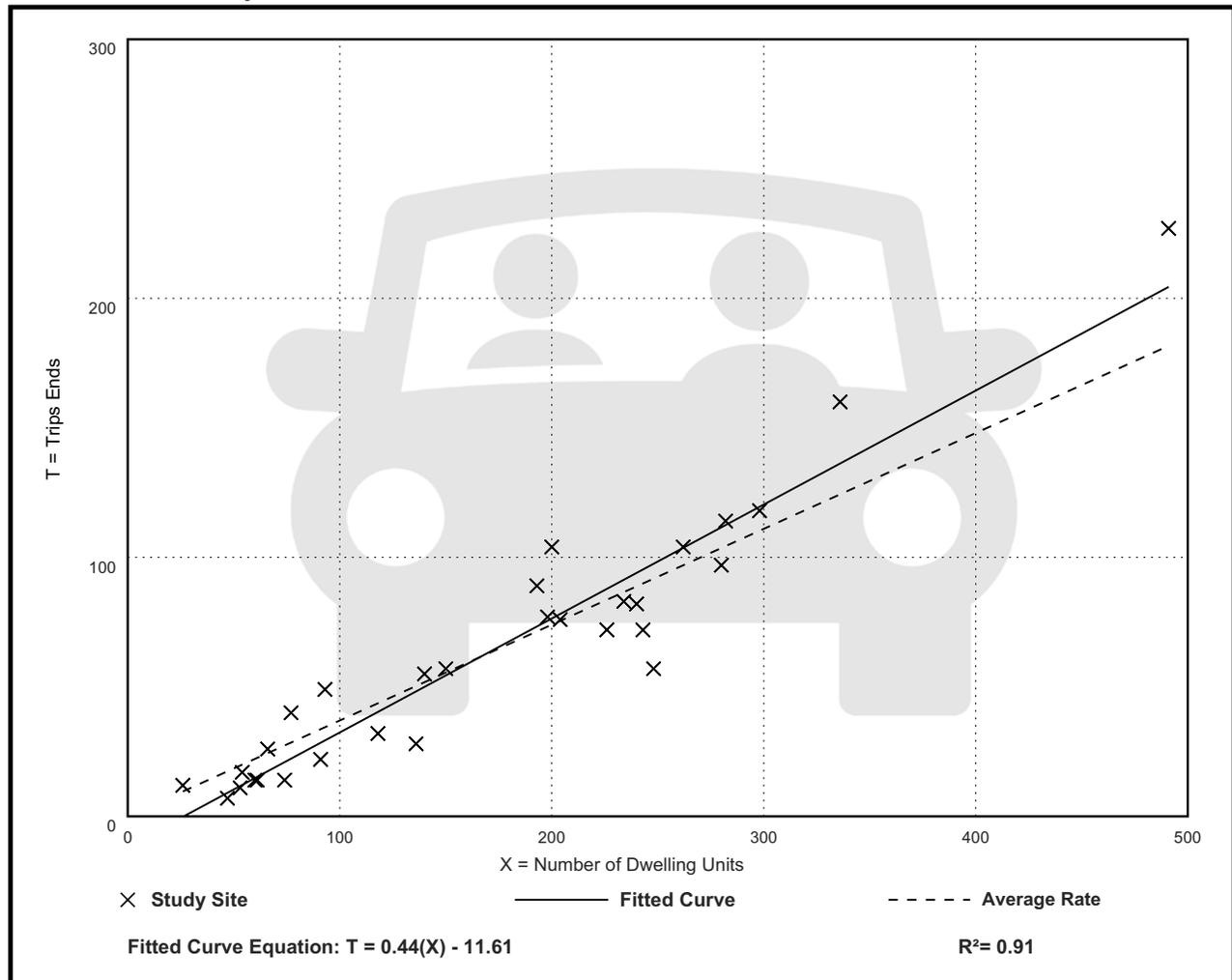
Avg. Num. of Dwelling Units: 173

Directional Distribution: 23% entering, 77% exiting

### Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.37	0.15 - 0.53	0.09

### Data Plot and Equation



## Multifamily Housing (Mid-Rise) Not Close to Rail Transit (221)

### 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: 31

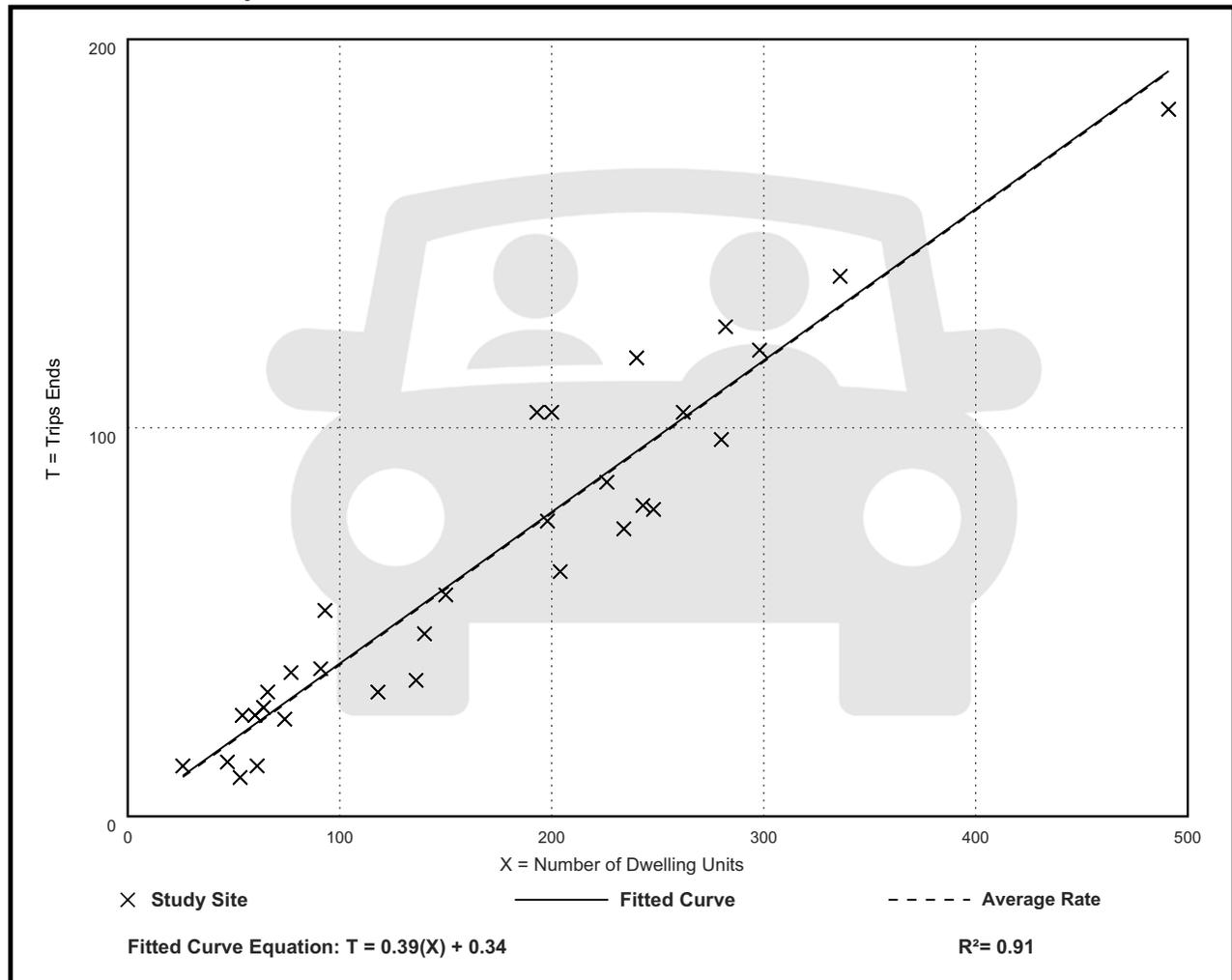
Avg. Num. of Dwelling Units: 169

Directional Distribution: 61% entering, 39% exiting

### Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.39	0.19 - 0.57	0.08

### Data Plot and Equation



## Land Use: 430 Golf Course

---

### Description

A golf course is an expansive landscaped area that includes a series of golf holes, each consisting of a tee, fairway, and putting green. The site may have a driving range, clubhouse with a pro shop, restaurant, lounge, or banquet facility. Miniature golf course (Land Use 431), golf driving range (Land Use 432), and multipurpose recreational facility (Land Use 435) are related uses.

### Additional Data

The golf courses in this land use are 9-, 18-, and 36-hole municipal courses.

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alberta (CAN), California, New Jersey, New York, Oregon, Pennsylvania, and Vermont.

### Source Numbers

378, 407, 440, 629, 728, 925, 940, 970

## Golf Course (430)

Vehicle Trip Ends vs: Holes  
On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 4

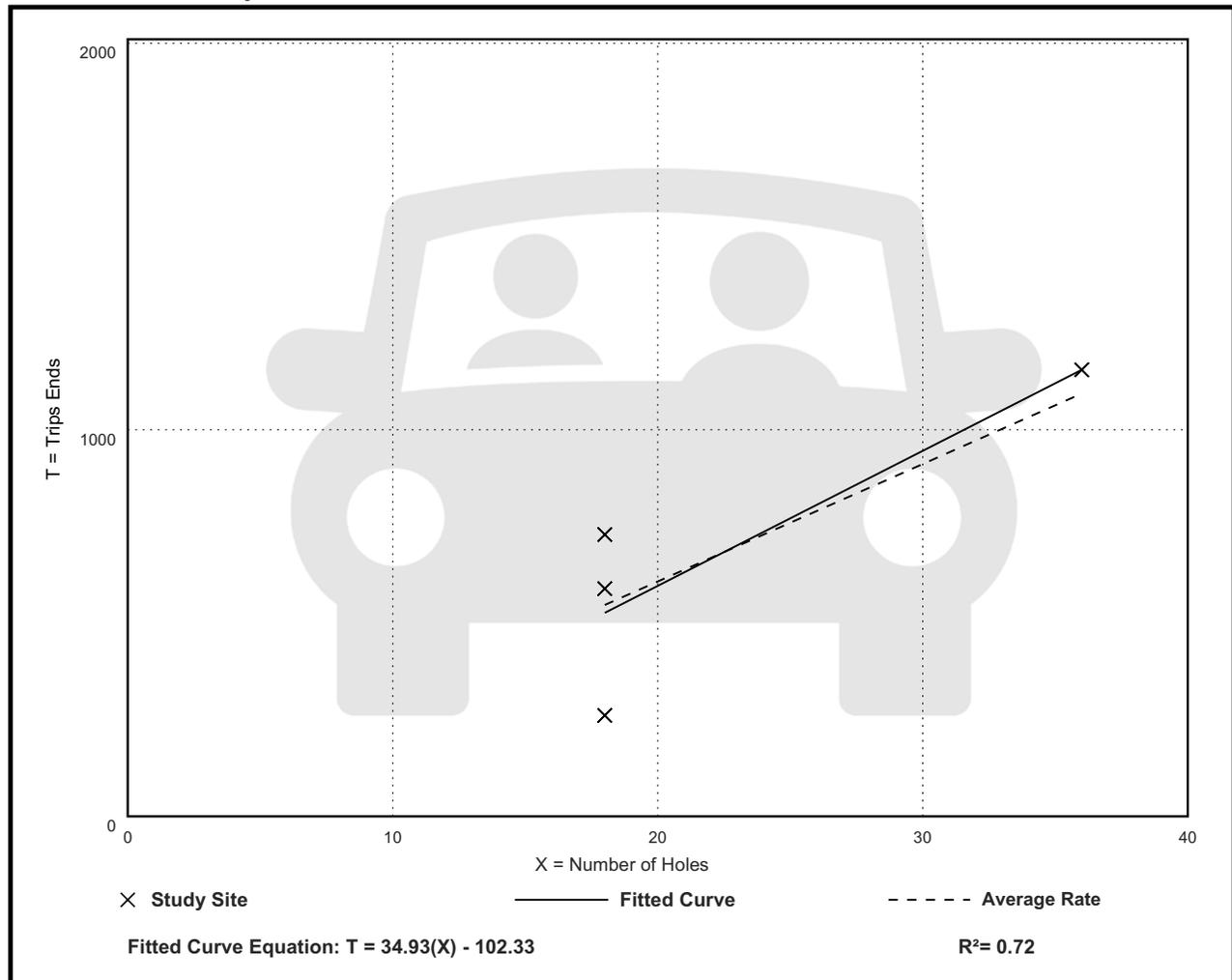
Avg. Num. of Holes: 23

Directional Distribution: 50% entering, 50% exiting

### Vehicle Trip Generation per Hole

Average Rate	Range of Rates	Standard Deviation
30.38	14.50 - 40.50	9.88

### Data Plot and Equation



## Golf Course (430)

### Vehicle Trip Ends vs: Holes

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: 15

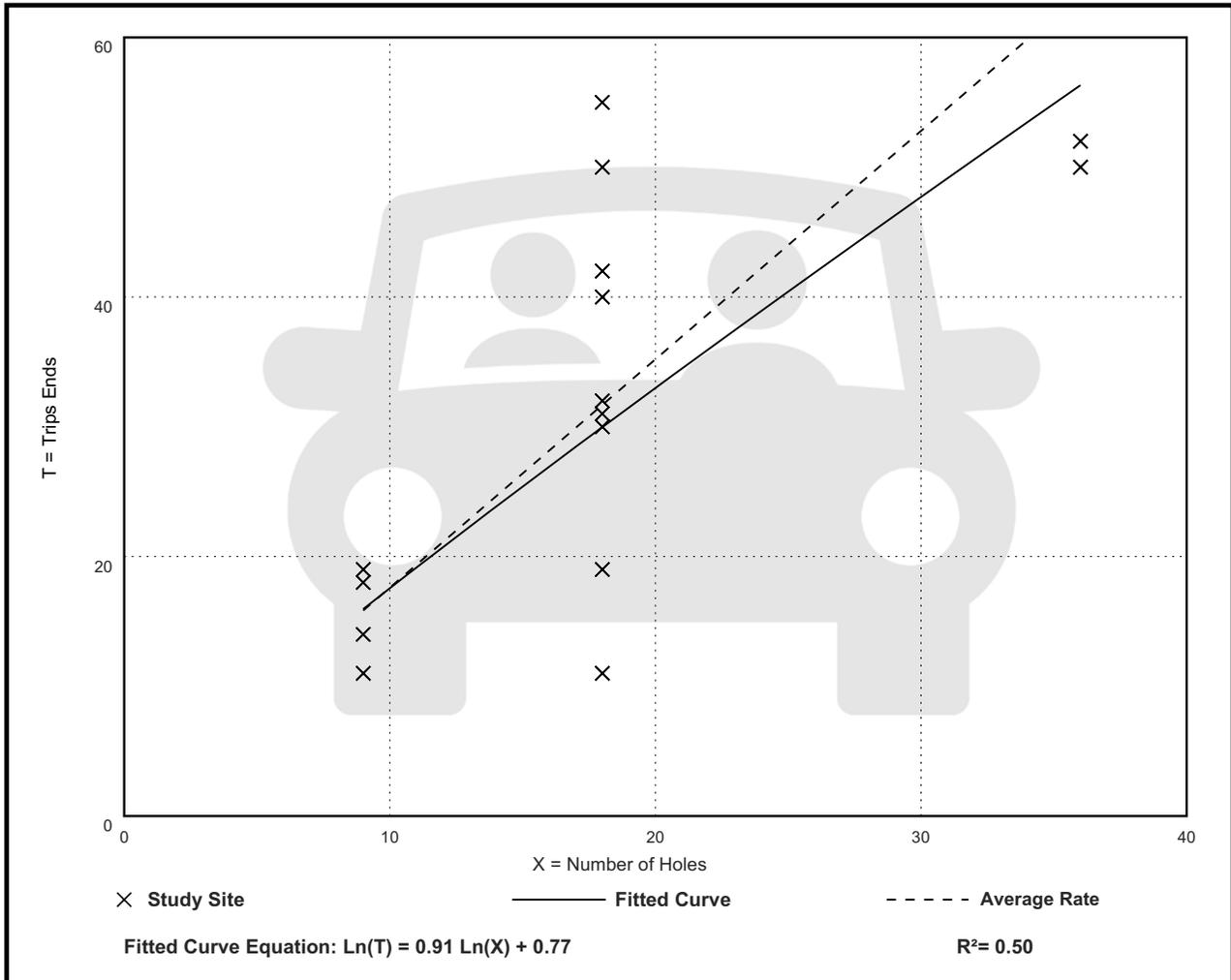
Avg. Num. of Holes: 18

Directional Distribution: 79% entering, 21% exiting

### Vehicle Trip Generation per Hole

Average Rate	Range of Rates	Standard Deviation
1.76	0.61 - 3.06	0.64

### Data Plot and Equation



## Golf Course (430)

### Vehicle Trip Ends vs: Holes

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: 14

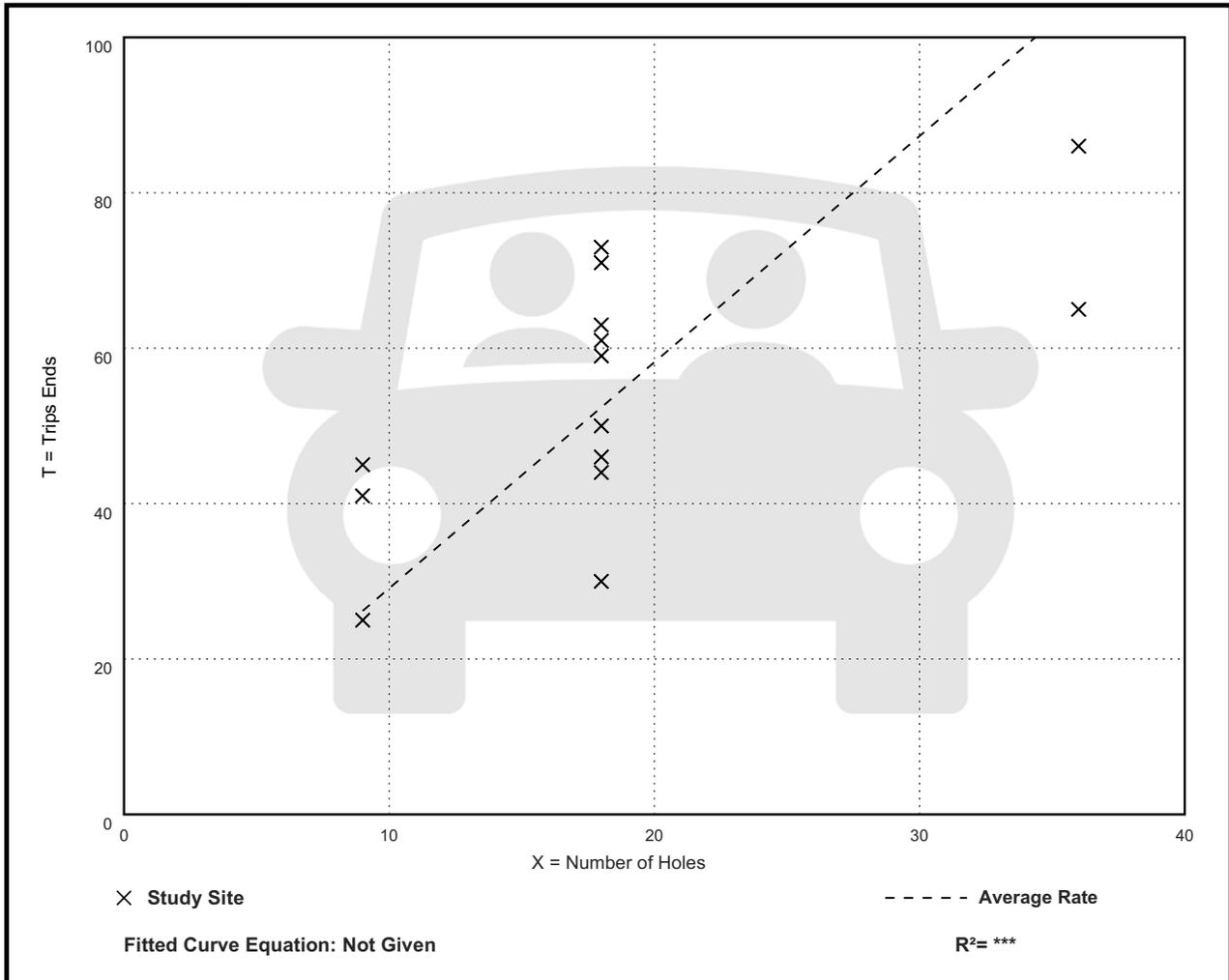
Avg. Num. of Holes: 19

Directional Distribution: 53% entering, 47% exiting

### Vehicle Trip Generation per Hole

Average Rate	Range of Rates	Standard Deviation
2.91	1.67 - 5.00	0.93

### Data Plot and Equation



## Golf Course (430)

Vehicle Trip Ends vs: Acres  
On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 3

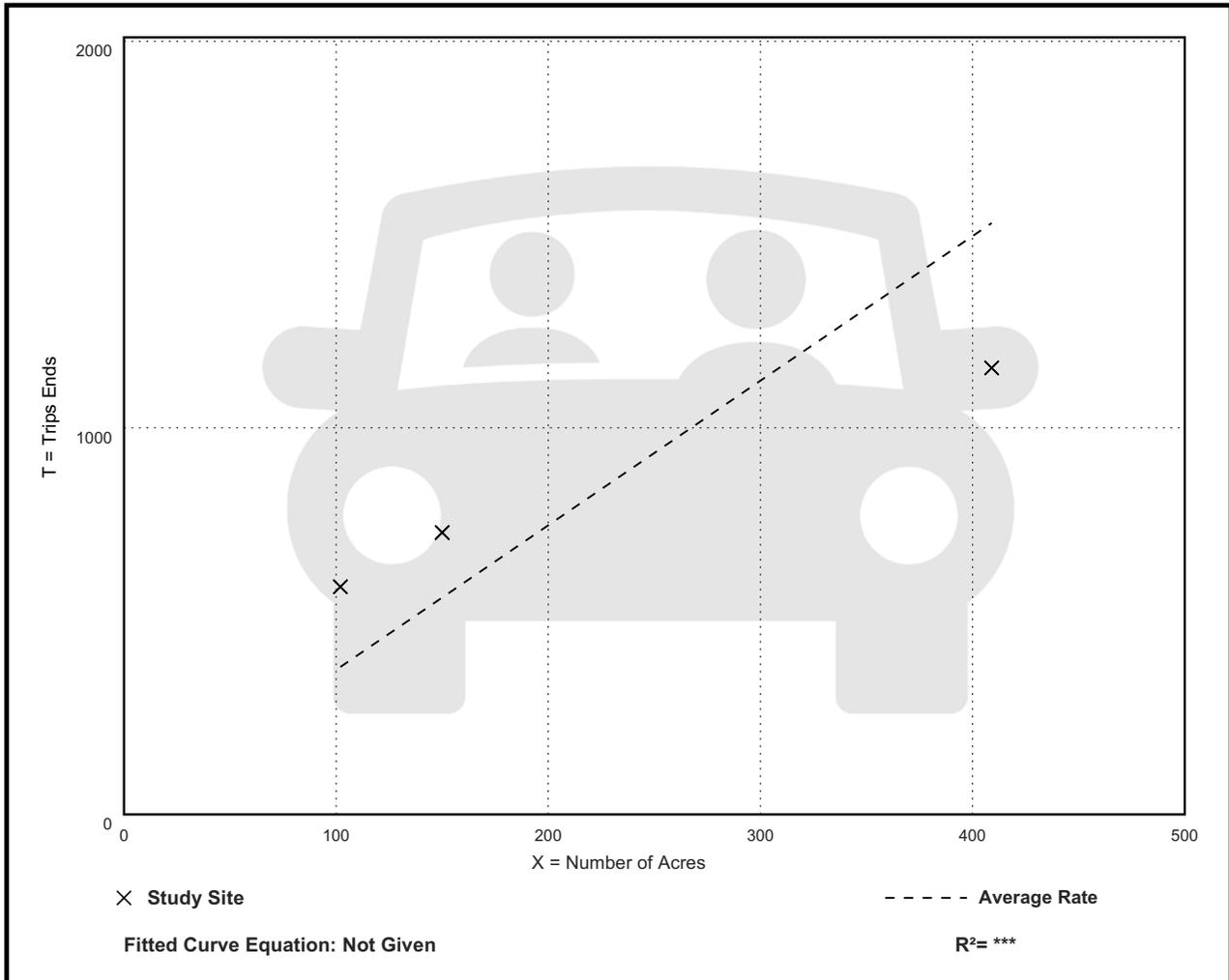
Avg. Num. of Acres: 220

Directional Distribution: 50% entering, 50% exiting

### Vehicle Trip Generation per Acre

Average Rate	Range of Rates	Standard Deviation
3.74	2.82 - 5.77	1.47

### Data Plot and Equation



## Golf Course (430)

### Vehicle Trip Ends vs: Acres

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: 3

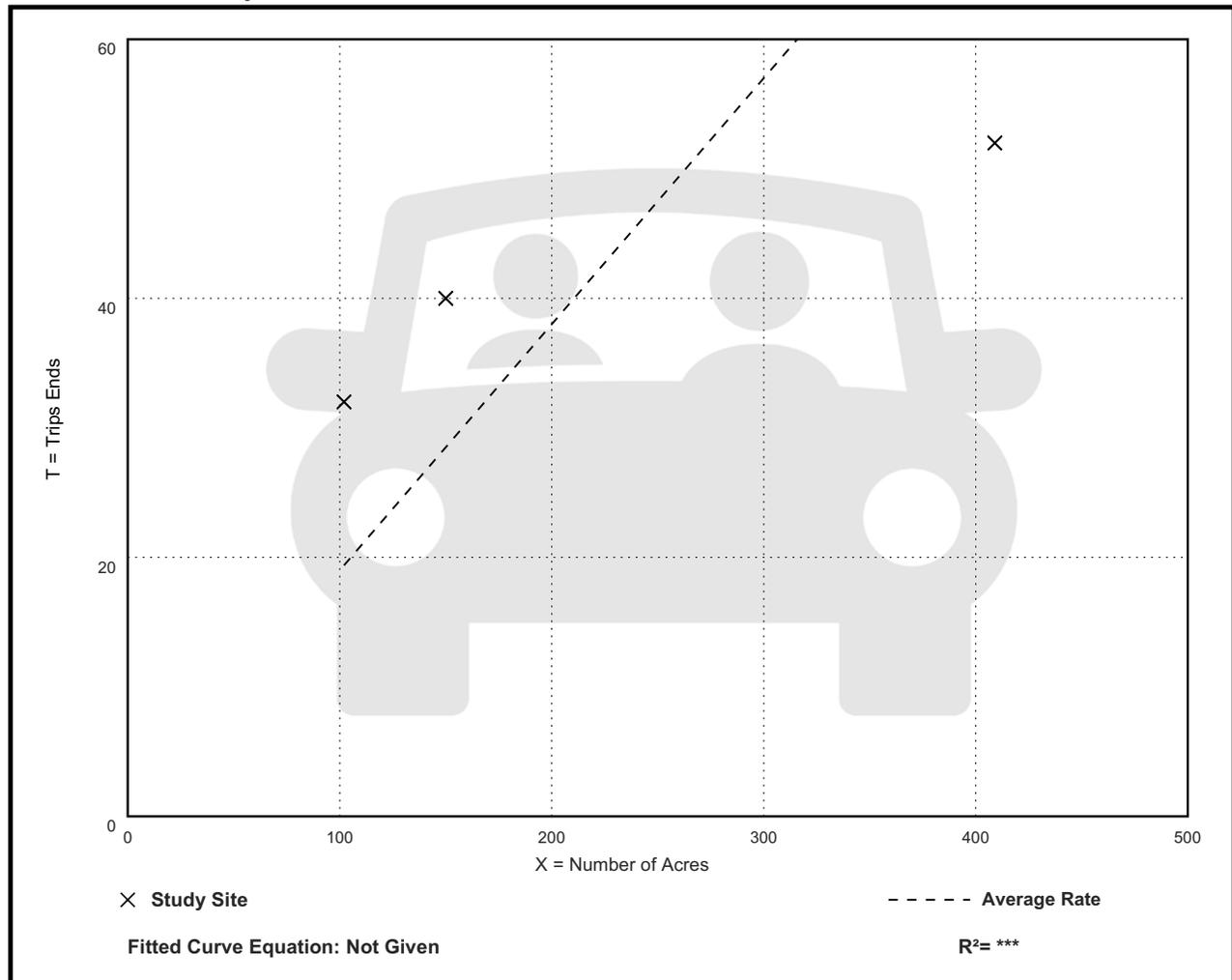
Avg. Num. of Acres: 220

Directional Distribution: 74% entering, 26% exiting

### Vehicle Trip Generation per Acre

Average Rate	Range of Rates	Standard Deviation
0.19	0.13 - 0.31	0.10

### Data Plot and Equation



## Golf Course (430)

### Vehicle Trip Ends vs: Acres

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: 3

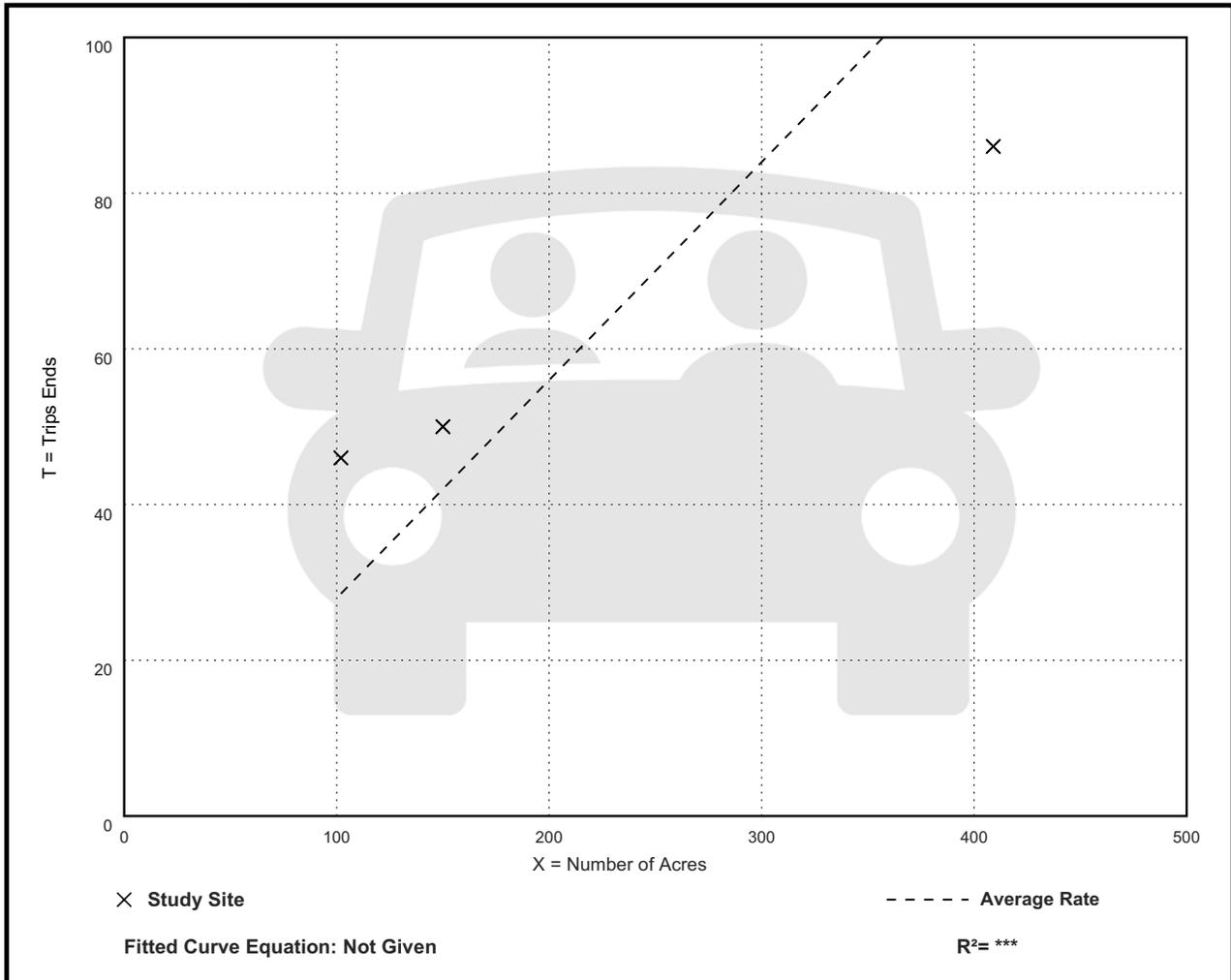
Avg. Num. of Acres: 220

Directional Distribution: 34% entering, 66% exiting

### Vehicle Trip Generation per Acre

Average Rate	Range of Rates	Standard Deviation
0.28	0.21 - 0.45	0.11

### Data Plot and Equation



# DRC

PZ23-05000007  
02/07/2024

This Page Intentionally Left Blank



# KMF Traffic Group, LLC

Automatic traffic recorder - All traffic

WWW.KMFTRAFFIC.NET

(772) 924-6993

PZ23-03090007  
02/07/2024  
On Oak Clubhouse Dr., approximately 425 feet north of Palm Aire Dr., Pompano Beach, FL

Site Code: JO2340  
Date Start: 12/6/2023  
Date End: 12/6/2023

Start Time	12/6/2023 Wed	SB	NB	Total						
12:00 AM		0	1	1						
12:15		1	0	1						
12:30		0	1	1						
12:45		0	0	0						
01:00		0	1	1						
01:15		0	1	1						
01:30		1	0	1						
01:45		0	1	1						
02:00		0	0	0						
02:15		0	0	0						
02:30		0	0	0						
02:45		0	0	0						
03:00		0	0	0						
03:15		0	0	0						
03:30		0	0	0						
03:45		0	0	0						
04:00		0	0	0						
04:15		2	1	3						
04:30		3	1	4						
04:45		2	0	2						
05:00		2	4	6						
05:15		0	3	3						
05:30		6	4	10						
05:45		10	2	12						
06:00		3	4	7						
06:15		11	11	22						
06:30		12	6	18						
06:45		11	15	26						
07:00		25	18	43						
07:15		18	16	34						
07:30		22	12	34						
07:45		17	16	33						
08:00		29	14	43						
08:15		19	12	31						
08:30		18	24	42						
08:45		27	18	45						
09:00		17	22	39						
09:15		29	23	52						
09:30		23	16	39						
09:45		34	25	59						
10:00		25	25	50						
10:15		36	19	55						
10:30		19	12	31						
10:45		25	24	49						
11:00		19	24	43						
11:15		23	24	47						
11:30		33	33	66						
11:45		27	31	58						
<b>Total</b>		<b>549</b>	<b>464</b>	<b>1013</b>						
<b>Percent</b>		<b>54.2%</b>	<b>45.8%</b>							
Peak	-	09:30	11:00	-	-	-	-	-	-	11:00
Vol.	-	118	112	-	-	-	-	-	-	214
P.H.F.		0.819	0.848							0.811



Automatic traffic recorder - All traffic

WWW.KMFTRAFFIC.NET

(772) 924-6993

PZ23-03090007  
On Oak Clubhouse Dr., approximately 425 feet  
north of Palm Aire Dr., Pompano Beach, FL

Site Code: JO2340

Date Start: 12/6/2023

Date End: 12/6/2023

Start Time	12/6/2023 Wed	SB	NB	Total
12:00 PM		32	26	58
12:15		19	17	36
12:30		24	21	45
12:45		27	20	47
01:00		21	28	49
01:15		27	30	57
01:30		18	14	32
01:45		20	26	46
02:00		18	24	42
02:15		25	19	44
02:30		27	28	55
02:45		16	28	44
03:00		17	32	49
03:15		18	29	47
03:30		17	22	39
03:45		26	29	55
04:00		19	20	39
04:15		21	26	47
04:30		32	21	53
04:45		26	26	52
05:00		31	30	61
05:15		27	27	54
05:30		24	29	53
05:45		19	22	41
06:00		24	13	37
06:15		16	24	40
06:30		11	17	28
06:45		11	15	26
07:00		9	22	31
07:15		11	16	27
07:30		11	16	27
07:45		7	14	21
08:00		5	18	23
08:15		8	10	18
08:30		6	19	25
08:45		7	7	14
09:00		4	11	15
09:15		3	10	13
09:30		6	4	10
09:45		4	8	12
10:00		3	9	12
10:15		3	6	9
10:30		0	7	7
10:45		2	7	9
11:00		2	3	5
11:15		0	4	4
11:30		0	3	3
11:45		1	2	3
<b>Total</b>		<b>705</b>	<b>859</b>	<b>1564</b>
<b>Percent</b>		<b>45.1%</b>	<b>54.9%</b>	
Peak	-	16:30	14:30	16:30
Vol.	-	116	117	220
P.H.F.		0.906	0.914	0.902
<b>Total</b>		<b>1254</b>	<b>1323</b>	<b>2577</b>
<b>Percent</b>		<b>48.7%</b>	<b>51.3%</b>	

ADT

ADT 1,354

AADT 1,354



Automatic traffic recorder - All traffic  
On Palm Aire Dr. approximately 340 feet  
west of Oak Clubhouse Dr., Pompano Beach, FL

WWW.KMFTRAFFIC.NET  
(772) 924-6993

PZ23-05000007  
02/07/2024

Site Code: JO2340  
Date Start: 12/6/2023  
Date End: 12/6/2023

Start Time	12/6/2023 Wed	WB	EB	Total						
12:00 AM		8	1	9						
12:15		3	2	5						
12:30		0	2	2						
12:45		2	0	2						
01:00		0	2	2						
01:15		1	1	2						
01:30		2	2	4						
01:45		2	1	3						
02:00		2	0	2						
02:15		0	0	0						
02:30		0	0	0						
02:45		1	0	1						
03:00		0	1	1						
03:15		1	0	1						
03:30		0	0	0						
03:45		1	0	1						
04:00		0	0	0						
04:15		3	1	4						
04:30		2	5	7						
04:45		0	3	3						
05:00		0	11	11						
05:15		1	11	12						
05:30		4	12	16						
05:45		5	13	18						
06:00		2	9	11						
06:15		7	11	18						
06:30		11	19	30						
06:45		13	25	38						
07:00		18	22	40						
07:15		18	51	69						
07:30		18	57	75						
07:45		30	53	83						
08:00		27	35	62						
08:15		29	52	81						
08:30		25	44	69						
08:45		44	39	83						
09:00		29	54	83						
09:15		28	42	70						
09:30		23	41	64						
09:45		25	52	77						
10:00		40	50	90						
10:15		39	40	79						
10:30		39	47	86						
10:45		36	42	78						
11:00		42	35	77						
11:15		31	43	74						
11:30		43	51	94						
11:45		45	49	94						
Total		700	1031	1731						
Percent		40.4%	59.6%							
Peak	-	11:00	07:30	-	-	-	-	-	-	11:00
Vol.	-	161	197	-	-	-	-	-	-	339
P.H.F.		0.894	0.864							0.902



Automatic traffic recorder - All traffic  
On Palm Aire Dr approximately 340 feet  
west of Oak Clubhouse Dr., Pompano Beach, FL

WWW.KMFTRAFFIC.NET  
(772) 924-6993

PZ23-05000007  
02/07/2024

Site Code: JO2340  
Date Start: 12/6/2023  
Date End: 12/6/2023

Start Time	12/6/2023 Wed	WB	EB	Total
12:00 PM		45	45	90
12:15		45	44	89
12:30		40	41	81
12:45		54	33	87
01:00		35	40	75
01:15		36	37	73
01:30		43	29	72
01:45		45	37	82
02:00		64	37	101
02:15		42	47	89
02:30		39	41	80
02:45		49	25	74
03:00		60	47	107
03:15		36	51	87
03:30		46	37	83
03:45		48	30	78
04:00		44	43	87
04:15		40	51	91
04:30		43	35	78
04:45		50	40	90
05:00		51	40	91
05:15		47	41	88
05:30		58	36	94
05:45		44	43	87
06:00		54	37	91
06:15		45	33	78
06:30		38	30	68
06:45		35	19	54
07:00		35	21	56
07:15		25	13	38
07:30		23	20	43
07:45		33	17	50
08:00		29	14	43
08:15		31	15	46
08:30		22	22	44
08:45		25	8	33
09:00		26	5	31
09:15		14	12	26
09:30		11	8	19
09:45		17	5	22
10:00		17	15	32
10:15		15	6	21
10:30		6	7	13
10:45		11	11	22
11:00		6	7	13
11:15		10	5	15
11:30		4	1	5
11:45		0	0	0
<b>Total</b>		<b>1636</b>	<b>1281</b>	<b>2917</b>
<b>Percent</b>		<b>56.1%</b>	<b>43.9%</b>	
Peak	-	16:45	16:00	16:45
Vol.	-	206	169	363
P.H.F.		0.805	0.828	0.965
<b>Total</b>		<b>2336</b>	<b>2312</b>	<b>4648</b>
<b>Percent</b>		<b>50.3%</b>	<b>49.7%</b>	
ADT		ADT 4,648	AADT 4,648	



Automatic traffic recorder - All traffic  
On Palm Aire Dr approximately 475 feet  
east of Oak Clubhouse Dr., Pompano Beach, FL

WWW.KMFTRAFFIC.NET  
(772) 924-6993

PZ23-05000007  
02/07/2024

Site Code: JO2340  
Date Start: 12/6/2023  
Date End: 12/6/2023

Start Time	12/6/2023 Wed	WB	EB	Total
12:00 AM		7	0	7
12:15		4	2	6
12:30		1	1	2
12:45		2	0	2
01:00		1	2	3
01:15		1	0	1
01:30		0	1	1
01:45		3	2	5
02:00		2	0	2
02:15		0	0	0
02:30		0	0	0
02:45		1	0	1
03:00		0	1	1
03:15		0	0	0
03:30		4	1	5
03:45		1	0	1
04:00		0	0	0
04:15		2	3	5
04:30		1	6	7
04:45		1	2	3
05:00		4	10	14
05:15		6	9	15
05:30		5	17	22
05:45		2	23	25
06:00		5	14	19
06:15		15	19	34
06:30		15	28	43
06:45		14	31	45
07:00		21	44	65
07:15		25	60	85
07:30		28	72	100
07:45		32	74	106
08:00		30	51	81
08:15		27	65	92
08:30		35	65	100
08:45		57	56	113
09:00		39	63	102
09:15		31	54	85
09:30		32	62	94
09:45		38	82	120
10:00		50	70	120
10:15		42	62	104
10:30		48	76	124
10:45		45	56	101
11:00		54	49	103
11:15		44	56	100
11:30		65	71	136
11:45		53	64	117
<b>Total</b>		<b>893</b>	<b>1424</b>	<b>2317</b>
<b>Percent</b>		<b>38.5%</b>	<b>61.5%</b>	
Peak	-	11:00	09:45	09:45
Vol.	-	216	290	468
P.H.F.		0.831	0.884	0.944



KMF Traffic Group, LLC

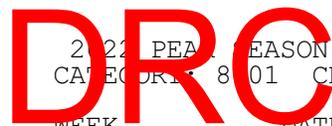
Automatic traffic recorder - All traffic  
On Palm Aire Dr approximately 475 feet  
east of Oak Clubhouse Dr., Pompano Beach, FL

WWW.KMFTRAFFIC.NET  
(772) 924-6993

Site Code: JO2340  
Date Start: 12/6/2023  
Date End: 12/6/2023

PZ23-05000007  
02/07/2024

Start Time	12/6/2023 Wed	WB	EB							Total
12:00 PM		53	67							120
12:15		55	58							113
12:30		53	57							110
12:45		58	60							118
01:00		46	50							96
01:15		53	59							112
01:30		48	41							89
01:45		57	51							108
02:00		70	51							121
02:15		50	72							122
02:30		57	52							109
02:45		68	43							111
03:00		86	56							142
03:15		54	61							115
03:30		56	44							100
03:45		66	63							129
04:00		61	65							126
04:15		50	55							105
04:30		57	65							122
04:45		66	55							121
05:00		67	65							132
05:15		62	51							113
05:30		77	59							136
05:45		59	57							116
06:00		58	65							123
06:15		57	41							98
06:30		50	32							82
06:45		45	26							71
07:00		52	28							80
07:15		38	20							58
07:30		36	27							63
07:45		48	24							72
08:00		44	10							54
08:15		42	17							59
08:30		36	23							59
08:45		31	14							45
09:00		33	8							41
09:15		21	12							33
09:30		15	11							26
09:45		25	9							34
10:00		21	8							29
10:15		20	8							28
10:30		14	5							19
10:45		15	4							19
11:00		9	11							20
11:15		12	3							15
11:30		6	0							6
11:45		2	3							5
Total		2159	1766							3925
Percent		55.0%	45.0%							
Peak	-	16:45	15:45	-	-	-	-	-	-	16:45
Vol.	-	272	248	-	-	-	-	-	-	502
P.H.F.		0.791	0.861							0.923
Total		3052	3190							6242
Percent		48.9%	51.1%							
ADT		ADT 6,242	AADT 6,242							



2022 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL  
 CATEGORY: 801 CEN.-W OF US1 TO SR7

MOCF: 0.97  
 PSCF

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

\* PEAK SEASON

23-FEB-2023 09:11:21

830UPD

4\_8601\_PKSEASON.TXT

# DRC

PZ23-05000007  
02/07/2024

This Page Intentionally Left Blank

PZ23-05000007

02/07/2024

**INTERRUPTED FLOW FACILITIES**

**UNINTERRUPTED FLOW FACILITIES**

**STATE SIGNALIZED ARTERIALS**

**Class I (40 mph or higher posted speed limit)**

Lanes	Median	B	C	D	E
1	Undivided	*	830	880	**
2	Divided	*	1,910	2,000	**
3	Divided	*	2,940	3,020	**
4	Divided	*	3,970	4,040	**

**Class II (35 mph or slower posted speed limit)**

Lanes	Median	B	C	D	E
1	Undivided	*	370	750	800
2	Divided	*	730	1,630	1,700
3	Divided	*	1,170	2,520	2,560
4	Divided	*	1,610	3,390	3,420

**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
1	Divided	Yes	No	+5%
1	Undivided	No	No	-20%
Multi	Undivided	Yes	No	-5%
Multi	Undivided	No	No	-25%
-	-	-	Yes	+ 5%

**One-Way Facility Adjustment**

Multiply the corresponding directional volumes in this table by 1.2

**BICYCLE MODE<sup>2</sup>**

(Multiply 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%	*	150	390	1,000
50-84%	110	340	1,000	>1,000
85-100%	470	1,000	>1,000	**

**PEDESTRIAN MODE<sup>2</sup>**

(Multiply 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%	*	*	140	480
50-84%	*	80	440	800
85-100%	200	540	880	>1,000

**BUS MODE (Scheduled Fixed Route)<sup>3</sup>**

(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

**FREEWAYS**

**Core Urbanized**

Lanes	B	C	D	E
2	2,230	3,100	3,740	4,080
3	3,280	4,570	5,620	6,130
4	4,310	6,030	7,490	8,170
5	5,390	7,430	9,370	10,220
6	6,380	8,990	11,510	12,760

**Urbanized**

Lanes	B	C	D	E
2	2,270	3,100	3,890	4,230
3	3,410	4,650	5,780	6,340
4	4,550	6,200	7,680	8,460
5	5,690	7,760	9,520	10,570

**Freeway Adjustments**

Auxiliary Lane	Ramp Metering
+ 1,000	+ 5%

**UNINTERRUPTED FLOW HIGHWAYS**

Lanes	Median	B	C	D	E
1	Undivided	580	890	1,200	1,610
2	Divided	1,800	2,600	3,280	3,730
3	Divided	2,700	3,900	4,920	5,600

**Uninterrupted Flow Highway Adjustments**

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

<sup>1</sup> Values shown are presented as peak hour directional 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 HCM and the Transit Capacity and Quality of Service Manual.

<sup>2</sup> Level of service for the bicycle and pedestrian modes in this table is based on number of vehicles, not number of bicyclists or pedestrians using the facility.

<sup>3</sup> 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 Implementation Office  
<https://www.fdot.gov/planning/systems/>

# DRC

PZ23-05000007

02/07/2024

This Page Intentionally Left Blank

PZ23-05000007  
02/07/2024

Significant reduction in the size of the clubhouse (current = 37,504 SF and proposed = 7,162 SF.) This is a significant reduction in size (81% smaller) that should be mentioned and does not match the Clubhouse SF noted on the tabular data on site plan. Please include in the narrative if the existing Clubhouse contains a restaurant and the net change in size of that facility with this project. You may want to mention what is being eliminated from the existing, much larger, clubhouse facility.

### Traffic Study Comments:

(1) This is not presented in a manner that is understandable or reassuring to the public. The conclusion that "As shown in this analysis, both Oaks Clubhouse Drive and W Palm Aire Drive currently operate at LOS 'C' and will continue to operate at LOS 'C' after the Oaks at Palm Aire project is fully built." should be right after the tables showing the V/C ratio and a column should be added to that table for the LOS standard the V/C ratio represents.

(2) A further explanation of the traffic counts, when they were taken and how and what those numbers mean to the lay person would be a good addition to the study.

(3) The average daily and AM/PM peak hour tables are not clear. The reduction in trips from the previous Clubhouse due to its smaller size and whether or not the proposed restaurant reduces the trip reduction of the smaller Clubhouse should be presented in the analysis even if it is not included in the traffic impact as it's likely that clubhouse was not fully utilized and generating more traffic than expected from the newer facility.

(3) The Daily Traffic total should be shown in Table 1 not Table 2.

(4) Table 2 should have the peak hour trip generation rates (0.37 per unit AM and 0.39 per unit PM) with the total math before the In/Out split. Without that, you can't back out the math.

### ZONING

Plan Reviewer: Pamela Stanton  
Review Status: Review Complete pending Development Order

1. See site plan submittal PZ 23-12000017 for all site plan comments.
2. No objection to the allocation of Flex units.

### LANDSCAPE

Plan Reviewer: Wade Collum  
Review Status: Review Complete pending Development Order

Comments will be rendered on the landscape plans provided with the site plan submittal (23-12000017).

### WASTE MANAGEMENT

Environmental Services Comments  
Project Name: Oaks Clubhouse Redevelopment FLEX  
Address: 103 Oaks Clubhouse Drive  
P&Z#: 23-05000007  
Review: 06/30/2023  
DRC Meeting: 07/19/2023

### REVIEW COMPLETE; NO OBJECTION TO FLEX APPLICATION

The Environmental Services Department has no objections to the proposed flex request. The site plan submitted with this application appears to have multiple issues with regard to garbage collection.

NOTE: Additional comments may be necessary based upon revisions, additional plans and/or documents.

PZ23-05000007  
DEVELOPMENT REVIEW COMMITTEE  
02/07/2024 Date: SEPTEMBER 20, 2023  
THE OAKS AT PALM AIRE - FLEX  
Request: Flex  
P&Z# 23-05000007

Traffic Study Comments:

(4) This is not presented in a manner that is understandable or reassuring to the public. The conclusion that "As shown in this analysis, both Oaks Clubhouse Drive and W Palm Aire Drive currently operate at LOS 'C' and will continue to operate at LOS 'C' after the Oaks at Palm Aire project is fully built." should be right after the tables showing the V/C ratio and a column should be added to that table for the LOS standard the V/C ratio represents.

**[JFO->]** Traffic Impact Analysis has been revised accordingly.

(5) A further explanation of the traffic counts, when they were taken and how and what those numbers mean to the lay person would be a good addition to the study.

**[JFO->]** Traffic Impact Analysis has been revised accordingly.

(6) The average daily and AM/PM peak hour tables are not clear. The reduction in trips from the previous Clubhouse due to its smaller size and whether or not the proposed restaurant reduces the trip reduction of the smaller Clubhouse should be presented in the analysis even if it is not included in the traffic impact as it's likely that clubhouse was not fully utilized and generating more traffic than expected from the newer facility.

**[JFO->]** According to the 11<sup>th</sup> Edition (latest) of the Trip Generation Manual from the Institute of Transportation Engineers, Clubhouse is not a Land Use associated with a trip generation rate/equation. Clubhouses are considered accessory uses associated to Golf Courses where trip generation rates/equations for golf courses are calculated based on the number of holes or the number of acres associated with the golf course. Therefore, for trip generation purposes and according to the latest ITE Trip Generation manual, the size of the clubhouse does not change the number of trips associated with the golf course. Consequently, for simplification purposes, as part of a conservative analysis and to make it easier to understand, the traffic analysis assumes that having a smaller club house will not generate less trips. Exhibit 2 includes a copy of the ITE trip generation rates/equations for Golf Courses showing that trip generation for golf courses is calculated based on number of holes or acreage and not based on the size of the clubhouse.

(7) The Daily Traffic total should be shown in Table 1 not Table 2.

**[JFO->]** The Daily Traffic total is not shown in Table 1, it is shown in Table 2. Table 1 shows Daily, AM and PM trip generation rates from the latest edition (11<sup>th</sup> Edition) of the trip generation manual from the Institute of Transportation Engineers used to calculate the trip generation of the proposed development. Table 2 shows the net Daily, AM and PM peak trips potentially generated due to the proposed development.

(8) Table 2 should have the peak hour trip generation rates (0.37 per unit AM and 0.39 per unit PM) with the total math before the In/Out split. Without that, you can't back out the math.

**[JFO->]** Traffic Impact Analysis has been revised accordingly to show the total peak hour traffic before the In/Out split and to show the math calculating the number of trips potentially generated by the proposed project.