

# DAVID PLUMMER & ASSOCIATES, INC.

TRANSPORTATION • CIVIL • STRUCTURAL • ENVIRONMENTAL

## Memorandum

**To:** Mary Gibbs  
Walter McCarthy  
**From:** Mark Gillis  
**Date:** October 9, 2017  
**RE:** University Highland Land Use Conversion, #17524  
**cc:** Mikki Rozdolski, David Loveland, Dan Kirkpatrick, Marcus Evans, Al Moscato,  
Neale Montgomery

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We have reviewed the September 28, 2017 letter from Ms. Mikki Rozdolski of Lee County DCD requesting an analysis utilizing the proposed land use conversions for University Highland that show that the number of new trips does not exceed that associated with the approved uses. The requested analysis is provided in the following.

### Overview

A land use conversion has been proposed for University Highland which would allow the conversion of retail, office or a combination of the two uses to self storage. The desired objective is to achieve a total of 90,000 square feet of self storage space.

The land use conversion was calculated and documented in a Memorandum dated August 31, 2017 to Mr. Walter McCarthy of the Village of Estero. The Memorandum was submitted to the Village in support of the amendment to the University Highland Mixed Use Planned Development.

The general trip generation rates from the Institute of Transportation Engineers (ITE) Trip Generation, 9<sup>th</sup> Edition manual were used to develop the land use conversion rates. For ease of calculation and understanding, no adjustments were taken for internal capture or retail pass-by. The resultant land use conversion rates were presented in the August 31, 2017 Memorandum and resulted in approximately 20,400 sq.ft. of general office equaling 90,000 sq.ft. of self storage and approximately 8,640 sq.ft. of retail equaling 90,000 sq.ft. of self storage.

In response to the Lee County letter of September 28, 2017, three land use scenarios are presented to demonstrate that the resultant net new external trips after the land use conversion would be equivalent to the approved number of trips for University Highland. Those land use scenarios are discussed below and updated conversion ratios, based on net new external trips, are presented.

## Approved Land Uses

The approved land uses per the University Highland Development Order Traffic Study, dated Revised June 16, 2014 are summarized below and presented in Attachment 1.

### University Highland Approved Development Program

<u>Land Use</u>	<u>Size</u>
Single Family	351 d.u.
Multifamily Condominium	239 d.u.
Multifamily Apartments	270 d.u.
Hotel	200 rooms
Retail	99,384 sq.ft.
Office	150,000 sq.ft. <sup>(1)</sup>

Footnote:

(1) Up to 50,000 sq.ft. of office considered to be medical office.

## Approved Trip Generation

The approved trip generation for University Highland is summarized below and presented in Attachment 1.

### University Highland Approved Trip Generation

	<u>AM Peak</u>	<u>PM Peak</u>	<u>Daily</u>
Total	1,067	1,677	17,985
Net New External	943	1,192	13,911

## Land Use Scenarios

Three land use scenarios were tested to demonstrate that the resultant net new external trips for University Highland after the conversion to self storage would be equivalent to the approved trips. The land use scenarios included 90,000 sq.ft. of self storage and kept the number and type of residential units the same as reflected in the development order traffic study. The number of hotel rooms was also kept the same as approved. Adjustments were made to the retail, general office, and medical office square footage.

The three scenarios are summarized below.

University Highland  
Land Use Scenarios

<u>Land Use</u>	<u>Approved</u>	<u>Scenario #1</u>	<u>Scenario #2</u>	<u>Scenario #3</u>
Single Family (d.u.)	351	351	351	351
Multifamily Condominium (d.u.)	239	239	239	239
Multifamily Apartments (d.u.)	270	270	270	270
Hotel (rooms)	200	200	200	200
Retail (sq.ft.)	99,384	99,384	99,384	90,744
General Office (sq.ft.)	100,000	79,600	100,000	87,000
Medical Office (sq.ft.)	50,000	50,000	41,500	50,000
Self Storage (sq.ft.)	0	90,000	90,000	90,000

The trip generation associated with each land use scenario was calculated using the trip rates from the ITE Trip Generation, 9<sup>th</sup> Edition. Internal capture was estimated using the “NCHRP 8-51 Internal Trip Capture Estimation Tool”. The trip generation summary tables and detailed calculations for each land use scenario are presented in Attachment 2.

A comparison of the net new external trips associated with the three land use scenarios to the approved trips for University Highland is presented below.

University Highland  
Trip Generation Comparison  
Net New External Trips

<u>Scenario</u>	<u>AM Peak</u>	<u>PM Peak</u>	<u>Daily</u>
Approved Parameters	943	1,192	13,911
Scenario #1 (add self storage / reduce general office)	933	1,193	13,848
Scenario #2 (add self storage / reduce medical office)	942	1,191	13,741
Scenario #3(add self storage / reduce retail and general office)	935	1,192	13,728

Conclusions

The conclusions of the above analysis are summarized as follows.

1. The conversion to self storage, as demonstrated by the three land use scenarios, results in an equivalent number of AM peak, PM peak and daily trips as that of the approved University Highland development program.

2. The land use conversions that support 90,000 sq. ft. of self storage are:
  - a. 20,400 sq.ft. of general office equals 90,000 sq.ft. of self storage.
  - b. 8,500 sq.ft. of medical office equals 90,000 sq.ft. of self storage.
  - c. 8,640 sq.ft. of retail and 13,000 sq.ft. of general office equals 90,000 sq.ft. of self storage.
3. The land use conversion ratios, now based on net new external trips, are:
  - a. 1 sq.ft. of general office equals 4.412 sq.ft. of self storage.
  - b. 1 sq.ft. of medical office equals 10.588 sq.ft. of self storage.
  - c. 1 sq.ft. of retail equals 4.643 sq.ft. of self storage.

The determination of the actual land use conversion scenario will be made by the owner of University Highland.



**ATTACHMENT 1**

**EXHIBIT 3**

**UNIVERSITY HIGHLAND DEVELOPMENT ORDER**

**TRAFFIC STUDY**

**DEVELOPMENT PROGRAM AND ITE TRIP GENERATION**

**UNIVERSITY HIGHLAND DEVELOPMENT ORDER**

**TRAFFIC STUDY**

**Project #14508**

**April 23, 2014**

**Revised June 16, 2014**

**Prepared by:**

**DAVID PLUMMER & ASSOCIATES, INC.**

**2149 McGregor Boulevard**

**Fort Myers, Florida 33901**

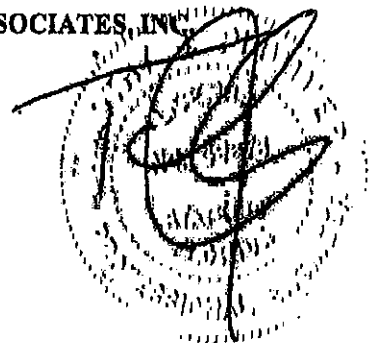


EXHIBIT 3

UNIVERSITY HIGHLAND DEVELOPMENT ORDER  
TRAFFIC STUDY

ITE TRIP GENERATION <sup>(1)</sup>

	LUC	SIZE	AM PEAK HOUR				PM PEAK HOUR				DAILY	
			In	Out	Total	%	In	Out	Total	%	Total	%
<b>Residential</b>												
Single Family	210	351 d.u.	64	191	255		205	120	325		3,334	
Multifamily Condominiums	230	239 d.u.	18	86	104		82	41	123		1,373	
Multifamily Apartments	220	270 d.u.	27	109	136		108	58	166		1,760	
Total		860 d.u.	109	386	495		395	219	614		6,467	
Internal Capture (2)			2	12	14	3%	86	45	131	21%	781	12%
Net New External			107	374	481		309	174	483		5,686	
<b>Hotel</b>												
Total	310	200 rooms	63	43	106		61	59	120		1,634	
Internal Capture (2)			0	12	12	11%	17	6	23	19%	249	15%
External			63	31	94		44	53	97		1,385	
<b>Retail</b>												
Total	820	99,384 sq. ft.	96	59	155		287	310	597		6,764	
Internal Capture (2)			21	13	34	22%	58	97	155	26%	1,620	24%
Pass-by			15	9	24	20%	50	83	133	30%	1,029	20%
External			60	37	97		179	130	309		4,115	
<b>Office</b>												
General Office	710	100,000 sq. ft.	168	23	191		32	158	190		1,313	
Medical Office	720	50,000 sq. ft.	25	25	120		44	112	156		1,807	
Total		150,000 sq. ft.	263	48	311		76	270	346		3,120	
Internal Capture (2)			27	13	40	13%	15	28	43	12%	395	13%
External			236	35	271		61	242	303		2,725	
<b>TOTAL</b>			531	536	1,067		819	858	1,677		17,985	
<b>INTERNAL CAPTURE</b>			50	50	100	9%	176	176	352	21%	3,045	17%
<b>DRIVEWAY VOLUME</b>			481	486	967		643	682	1,325		14,940	
<b>PASS-BY</b>			15	9	24	3%	50	83	133	10%	1,029	7%
<b>NET NEW EXTERNAL</b>			466	477	943		593	599	1,192		13,911	

**Footnotes:**

(1) ITE Trip Generation, 9th Edition, using OTISS software.

(2) NCHRP Report 684/8-51 Internal Trip Capture Estimation Tool.

**ATTACHMENT 2**

**TRIP GENERATION ESTIMATES BY LAND USE SCENARIO**

**SCENARIO 1**

**SCENARIO #1  
ADD SELF STORAGE / REDUCE GENERAL OFFICE**

**UNIVERSITY HIGHLAND  
ITE TRIP GENERATION <sup>(1)</sup>**

	LUC	SIZE	AM PEAK HOUR				PM PEAK HOUR				DAILY	
			In	Out	Total	%	In	Out	Total	%	Total	%
<b>Residential</b>												
Single Family	210	351 d.u.	64	191	255		205	120	325		3,334	
Multifamily Condominiums	230	239 d.u.	18	86	104		82	41	123		1,373	
Multifamily Apartments	220	270 d.u.	27	109	136		108	58	166		1,760	
Total		860 d.u.	109	386	495		395	219	614		6,467	
Internal Capture <sup>(2)</sup>			2	11	13	3%	86	45	131	21%	840	13%
Net New External			107	375	482		309	174	483		5,627	
<b>Hotel</b>	310	200 rooms	63	43	106		61	59	120		1,634	
Internal Capture			0	11	11	10%	17	6	23	19%	246	15%
External			63	32	95		44	53	97		1,388	
<b>Retail</b>	820	99,384 sq. ft.	96	59	155		287	310	597		6,764	
Internal Capture <sup>(2)</sup>			20	11	31	20%	58	97	155	26%	1,673	25%
Pass-by			16	9	25	20%	50	83	133	30%	1,018	20%
External			60	39	99		179	130	309		4,073	
<b>Office</b>												
General Office	710	79,600 sq. ft.	140	19	159		29	139	168		1,104	
Medical Office	720	50,000 sq. ft.	95	25	120		44	112	156		1,807	
Total		129,600 sq. ft.	235	44	279		73	251	324		2,911	
Internal Capture <sup>(2)</sup>			23	12	35	13%	15	28	43	13%	377	13%
External			212	32	244		58	223	281		2,534	
<b>Self Storage</b>	151	90000 sq. ft.	7	6	13		12	11	23		225	
Internal Capture <sup>(2)</sup>			0	0	0	0%	0	0	0	0%	0	0%
External			7	6	13		12	11	23		225	
<b>TOTAL</b>			510	538	1,048		828	850	1,678		18,001	
<b>INTERNAL CAPTURE</b>			<u>45</u>	<u>45</u>	<u>90</u>	9%	<u>176</u>	<u>176</u>	<u>352</u>	21%	<u>3,135</u>	17%
<b>DRIVEWAY VOLUME</b>			465	493	958		652	674	1,326		14,866	
<b>PASS-BY</b>			<u>16</u>	<u>9</u>	<u>25</u>	3%	<u>50</u>	<u>83</u>	<u>133</u>	10%	<u>1,018</u>	7%
<b>NET NEW EXTERNAL</b>			449	484	933		602	591	1,193		13,848	

**Footnotes:**

(1) ITE Trip Generation, 9th Edition, using OTISS software.

(2) NCHRP Report 684/8-51 Internal Trip Capture Estimation Tool.

Project Information	
Project Name:	University Highland - Scenario 1
No:	17524
Date:	10/4/2017
City:	Fort Myers
State/Province:	FL
Zip/Postal Code:	
Country:	
Client Name:	
Analyst's Name:	JP
Edition:	ITE-TGM 9th Edition

Land Use	Size	Weekday		AM Peak Hour		PM Peak Hour	
		Entry	Exit	Entry	Exit	Entry	Exit
<b>210 - Single-Family Detached Housing</b>	351 Dwelling Units	1667	1667	64	191	205	120
Reduction		0	0	0	0	0	0
Internal		0	0	0	0	0	0
Pass-by		0	0	0	0	0	0
Non-pass-by		1667	1667	64	191	205	120
<b>230 - Residential</b>							
<b>Condominium/Townhouse</b>	239 Dwelling Units	687	686	18	86	82	41
Reduction		0	0	0	0	0	0
Internal		0	0	0	0	0	0
Pass-by		0	0	0	0	0	0
Non-pass-by		687	686	18	86	82	41
<b>220 - Apartment</b>	270 Dwelling Units	880	880	27	109	108	58
Reduction		0	0	0	0	0	0
Internal		0	0	0	0	0	0
Pass-by		0	0	0	0	0	0
Non-pass-by		880	880	27	109	108	58
<b>310 - Hotel</b>	200 Rooms	817	817	63	43	61	59
Reduction		0	0	0	0	0	0
Internal		0	0	0	0	0	0
Pass-by		0	0	0	0	0	0
Non-pass-by		817	817	63	43	61	59
<b>820 - Shopping Center</b>	99.38 1000 Sq. Feet Gross Leasable Area	3382	3382	96	59	287	310
Reduction		0	0	0	0	0	0
Internal		0	0	0	0	0	0
Pass-by		0	0	0	0	0	0
Non-pass-by		3382	3382	96	59	287	310
<b>710 - General Office Building</b>	79.6 1000 Sq. Feet Gross Floor Area	552	552	140	19	29	139
Reduction		0	0	0	0	0	0
Internal		0	0	0	0	0	0
Pass-by		0	0	0	0	0	0
Non-pass-by		552	552	140	19	29	139
<b>720 - Medical-Dental Office Building</b>	50 1000 Sq. Feet Gross Floor Area	904	903	95	25	44	112
Reduction		0	0	0	0	0	0
Internal		0	0	0	0	0	0
Pass-by		0	0	0	0	0	0
Non-pass-by		904	903	95	25	44	112
<b>151 - Mini-Warehouse</b>	90 1000 Sq. Feet Gross Floor Area	113	112	7	6	12	11
Reduction		0	0	0	0	0	0
Internal		0	0	0	0	0	0
Pass-by		0	0	0	0	0	0
Non-pass-by		113	112	7	6	12	11
<b>Total</b>		9002	8999	510	538	828	850
<b>Total Reduction</b>		0	0	0	0	0	0
<b>Total Internal</b>		0	0	0	0	0	0
<b>Total Pass-by</b>		0	0	0	0	0	0
<b>Total Non-pass-by</b>		9002	8999	510	538	828	850

NCHRP 8-51 Internal Trip Capture Estimation Tool			
Project Name:	University Highland	Organization:	DPA
Project Location:	Lee County	Performed By:	JMP
Scenario Description:	AM Peak Hour - Scenario 1	Date:	4-Oct-17
Analysis Year:	2017	Checked By:	
Analysis Period:	AM Street Peak Hour	Date:	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips		
	ITE LUCs <sup>1</sup>	Quantity	Units	Total	Entering	Exiting
Office				279	235	44
Retail				155	96	59
Restaurant				0	0	0
Cinema/Entertainment				0	0	0
Residential				495	109	386
Hotel				106	63	43
All Other Land Uses <sup>2</sup>				13	7	6
<b>Total</b>				<b>1048</b>	<b>510</b>	<b>538</b>

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses <sup>2</sup>						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		12	0	0	0	0
Retail	9		0	0	2	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	7	4	0	0		0
Hotel	7	4	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	1,048	510	538
Internal Capture Percentage	9%	9%	8%
External Vehicle-Trips <sup>3</sup>	958	465	493
External Transit-Trips <sup>4</sup>	0	0	0
External Non-Motorized Trips <sup>4</sup>	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	10%	27%
Retail	21%	19%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	2%	3%
Hotel	0%	26%

<sup>1</sup>Land Use Codes (LUCs) from *Trip Generation Informational Report*, published by the Institute of Transportation Engineers.

<sup>2</sup>Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

<sup>3</sup>Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

<sup>4</sup>Person-Trips

\*Indicates computation that has been rounded to the nearest whole number.

*Estimation Tool Developed by the Texas Transportation Institute*



<b>Project Name:</b>	University Highland
<b>Analysis Period:</b>	AM Peak Hour

Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	235	235	1.00	44	44
Retail	1.00	96	96	1.00	59	59
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	109	109	1.00	386	386
Hotel	1.00	63	63	1.00	43	43

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		12	28	0	0	0
Retail	17		8	0	8	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	8	4	77	0		0
Hotel	32	6	4	0	0	

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		31	0	0	0	0
Retail	9		0	0	2	0
Restaurant	33	8		0	5	3
Cinema/Entertainment	0	0	0		0	0
Residential	7	16	0	0		0
Hotel	7	4	0	0	0	

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles <sup>1</sup>	Transit <sup>2</sup>	Non-Motorized <sup>2</sup>
Office	23	212	235	212	0	0
Retail	20	76	96	76	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	2	107	109	107	0	0
Hotel	0	63	63	63	0	0
All Other Land Uses <sup>3</sup>	0	7	7	7	0	0

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles <sup>1</sup>	Transit <sup>2</sup>	Non-Motorized <sup>2</sup>
Office	12	32	44	32	0	0
Retail	11	48	59	48	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	11	375	386	375	0	0
Hotel	11	32	43	32	0	0
All Other Land Uses <sup>3</sup>	0	6	6	6	0	0

<sup>1</sup>Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A  
<sup>2</sup>Person-Trips  
<sup>3</sup>Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator  
\*Indicates computation that has been rounded to the nearest whole number.

NCHRP 8-51 Internal Trip Capture Estimation Tool			
Project Name:	University Highland	Organization:	DPA
Project Location:	Lee County	Performed By:	JMP
Scenario Description:	PM Peak Hour Scenario	Date:	4-Oct-17
Analysis Year:	2017	Checked By:	
Analysis Period:	PM Street Peak Hour	Date:	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips		
	ITE LUCs <sup>1</sup>	Quantity	Units	Total	Entering	Exiting
Office				324	73	251
Retail				597	287	310
Restaurant				0	0	0
Cinema/Entertainment				0	0	0
Residential				614	395	219
Hotel				120	61	59
All Other Land Uses <sup>2</sup>				23	12	11
<b>Total</b>				<b>1678</b>	<b>828</b>	<b>850</b>

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses <sup>2</sup>						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		23	0	0	5	0
Retail	6		0	0	81	10
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	9	29	0	0		7
Hotel	0	6	0	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	1,678	828	850
Internal Capture Percentage	21%	21%	21%
External Vehicle-Trips <sup>3</sup>	1,326	652	674
External Transit-Trips <sup>4</sup>	0	0	0
External Non-Motorized Trips <sup>4</sup>	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	21%	11%
Retail	20%	31%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	22%	21%
Hotel	28%	10%

<sup>1</sup>Land Use Codes (LUCs) from *Trip Generation Informational Report*, published by the Institute of Transportation Engineers.

<sup>2</sup>Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

<sup>3</sup>Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

<sup>4</sup>Person-Trips

\*Indicates computation that has been rounded to the nearest whole number.

*Estimation Tool Developed by the Texas Transportation Institute*

<b>Project Name:</b>	University Highland
<b>Analysis Period:</b>	PM Peak Hour

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	73	73	1.00	251	251
Retail	1.00	287	287	1.00	310	310
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	395	395	1.00	219	219
Hotel	1.00	61	61	1.00	59	59

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		50	10	0	5	0
Retail	6		90	12	81	16
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	9	92	46	0		7
Hotel	0	9	40	0	1	

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		23	0	0	16	0
Retail	23		0	0	182	10
Restaurant	22	144		0	63	43
Cinema/Entertainment	4	11	0		16	1
Residential	42	29	0	0		7
Hotel	0	6	0	0	0	

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles <sup>1</sup>	Transit <sup>2</sup>	Non-Motorized <sup>2</sup>
Office	15	58	73	58	0	0
Retail	58	229	287	229	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	86	309	395	309	0	0
Hotel	17	44	61	44	0	0
All Other Land Uses <sup>3</sup>	0	12	12	12	0	0

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles <sup>1</sup>	Transit <sup>2</sup>	Non-Motorized <sup>2</sup>
Office	28	223	251	223	0	0
Retail	97	213	310	213	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	45	174	219	174	0	0
Hotel	6	53	59	53	0	0
All Other Land Uses <sup>3</sup>	0	11	11	11	0	0

<sup>1</sup>Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P  
<sup>2</sup>Person-Trips  
<sup>3</sup>Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator  
\*Indicates computation that has been rounded to the nearest whole number.



Period Setting

Analysis Name :	AM Peak Hour		
Project Name :	University Highland - Scenario 1	No :	17524
Date:	10/4/2017	City:	Fort Myers
State/Province:	FL	Zip/Postal Code:	
Country:		Client Name:	
Analyst's Name:	JP	Edition:	ITE-TGM 9th Edition

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
210 - Single-Family Detached Housing	Dwelling Units	351	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LIN) T = 0.7 (X)+9.74	64 25%	191 75%	255
230 - Residential Condominium/Townhouse	Dwelling Units	239	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LOG) Ln(T) = 0.8Ln(X) +0.26	18 17%	86 83%	104
220 - Apartment	Dwelling Units	270	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LIN) T = 0.49 (X)+3.73	27 20%	109 80%	136
310 - Hotel	Rooms	200	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Average 0.53	63 59%	43 41%	106
820 - Shopping Center	1000 Sq. Feet Gross Leasable Area	99.38	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LOG) Ln(T) = 0.61Ln(X) +2.24	96 62%	59 38%	155
710 - General Office Building	1000 Sq. Feet Gross Floor Area	79.6	Weekday, A.M. Peak Hour of Generator <sup>(1)</sup>	Best Fit (LOG) Ln(T) = 0.8Ln(X) +1.57	140 88%	19 12%	159
720 - Medical-Dental Office Building	1000 Sq. Feet Gross Floor Area	50	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Average 2.39	95 79%	25 21%	120
151 - Mini-Warehouse	1000 Sq. Feet Gross Floor Area	90	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Average 0.14	7 54%	6 46%	13

**Footnote:**

(1) There is no formula representing *Weekday, Peak Hour of Adjacent Street Traffic* in ITE's Trip Generation, 9<sup>th</sup> Edition, for Land Use Code 710. Instead, the formulas for *Weekday, AM Peak Hour* and *PM Peak Hour* are used to represent Project peak hour traffic during the peak hour of adjacent street traffic. The formulas are shown on pages 1260-1261 of Trip Generation, Volume 3 of ITE's Trip Generation, 9<sup>th</sup> Edition.

**Period Setting**

Analysis Name : PM Peak Hour  
 Project Name : University Highland - Scenario 1 No : 17524  
 Date: 10/4/2017 City: Fort Myers  
 State/Province: FL Zip/Postal Code:  
 Country: Client Name:  
 Analyst's Name: JP Edition: ITE-TGM 9th Edition

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
210 - Single-Family Detached Housing	Dwelling Units	351	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LOG) Ln(T) = 0.9Ln(X)+0.51	205 63%	120 37%	325
230 - Residential Condominium/Townhouse	Dwelling Units	239	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LOG) Ln(T) = 0.82Ln(X) +0.32	82 67%	41 33%	123
220 - Apartment	Dwelling Units	270	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LIN) T = 0.55 (X)+17.65	108 65%	58 35%	166
310 - Hotel	Rooms	200	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average 0.6	61 51%	59 49%	120
820 - Shopping Center	1000 Sq. Feet Gross Leasable Area	99.38	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LOG) Ln(T) = 0.67Ln(X) +3.31	287 48%	310 52%	597
710 - General Office Building	1000 Sq. Feet Gross Floor Area	79.6	Weekday, P.M. Peak Hour of Generator (1)	Best Fit (LIN) T = 1.12 (X)+78.45	29 17%	139 83%	168
720 - Medical-Dental Office Building	1000 Sq. Feet Gross Floor Area	50	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LOG) Ln(T) = 0.9Ln(X) +1.53	44 28%	112 72%	156
151 - Mini-Warehouse	1000 Sq. Feet Gross Floor Area	90	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average 0.26	12 52%	11 48%	23

**Footnote:**

(1) There is no formula representing *Weekday, Peak Hour of Adjacent Street Traffic* in ITE's Trip Generation, 9<sup>th</sup> Edition, for Land Use Code 710. Instead, the formulas for *Weekday, AM Peak Hour* and *PM Peak Hour* are used to represent Project peak hour traffic during the peak hour of adjacent street traffic. The formulas are shown on pages 1260-1261 of Trip Generation, Volume 3 of ITE's Trip Generation, 9<sup>th</sup> Edition.



Period Setting

Analysis Name : Weekday  
 Project Name : University Highland - Scenario 1 No : 17524  
 Date: 10/4/2017 City: Fort Myers  
 State/Province: FL Zip/Postal Code:  
 Country: Client Name:  
 Analyst's Name: JP Edition: ITE-TGM 9th Edition

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
210 - Single-Family Detached Housing	Dwelling Units	351	Weekday	Best Fit (LOG) $\ln(T) = 0.92\ln(X) + 2.72$	1667 50%	1667 50%	3334
230 - Residential Condominium/Townhouse	Dwelling Units	239	Weekday	Best Fit (LOG) $\ln(T) = 0.87\ln(X) + 2.46$	687 50%	686 50%	1373
220 - Apartment	Dwelling Units	270	Weekday	Best Fit (LIN) $T = 6.06(X) + 123.56$	880 50%	880 50%	1760
310 - Hotel	Rooms	200	Weekday	Average 8.17	817 50%	817 50%	1634
820 - Shopping Center	1000 Sq. Feet Gross Leasable Area	99.38	Weekday	Best Fit (LOG) $\ln(T) = 0.65\ln(X) + 5.83$	3382 50%	3382 50%	6764
710 - General Office Building	1000 Sq. Feet Gross Floor Area	79.6	Weekday	Best Fit (LOG) $\ln(T) = 0.76\ln(X) + 3.68$	552 50%	552 50%	1104
720 - Medical-Dental Office Building	1000 Sq. Feet Gross Floor Area	50	Weekday	Average 36.13	904 50%	903 50%	1807
151 - Mini-Warehouse	1000 Sq. Feet Gross Floor Area	90	Weekday	Average 2.5	113 50%	112 50%	225

**SCENARIO 2**

**SCENARIO #2  
ADD SELF STORAGE / REDUCE MEDICAL OFFICE**

**UNIVERSITY HIGHLAND  
ITE TRIP GENERATION <sup>(1)</sup>**

	LUC	SIZE	AM PEAK HOUR				PM PEAK HOUR				DAILY	
			In	Out	Total	%	In	Out	Total	%	Total	%
<b>Residential</b>												
Single Family	210	351 d.u.	64	191	255		205	120	325		3,334	
Multifamily Condominiums	230	239 d.u.	18	86	104		82	41	123		1,373	
Multifamily Apartments	220	270 d.u.	27	109	136		108	58	166		1,760	
Total		860 d.u.	109	386	495		395	219	614		6,467	
Internal Capture <sup>(2)</sup>			2	11	13	3%	86	45	131	21%	840	
Net New External			107	375	482		309	174	483		5,627	
<b>Hotel</b>												
Hotel	310	200 rooms	63	43	106		61	59	120		1,634	
Internal Capture			0	11	11	10%	17	6	23	19%	246	
External			63	32	95		44	53	97		1,388	
<b>Retail</b>												
Retail	820	99,384 sq. ft.	96	59	155		287	310	597		6,764	
Internal Capture <sup>(2)</sup>			20	12	32	21%	58	97	155	26%	1,682	
Pass-by			15	9	25	20%	50	83	133	30%	1,016	
External			61	38	98		179	130	309		4,066	
<b>Office</b>												
General Office	710	100,000 sq. ft.	168	23	191		32	158	190		1,313	
Medical Office	720	41,500 sq. ft.	78	21	99		37	95	132		1,482	
Total		141,500 sq. ft.	246	44	290		69	253	322		2,795	
Internal Capture <sup>(2)</sup>			24	12	36	12%	15	28	43	13%	361	
External			222	32	254		54	225	279		2,434	
<b>Self Storage</b>												
Self Storage	151	90000 sq. ft.	7	6	13		12	11	23		225	
Internal Capture <sup>(2)</sup>			0	0	0	0%	0	0	0	0%	0	
External			7	6	13		12	11	23		225	
<b>TOTAL</b>			521	538	1,059		824	852	1,676		17,885	
<b>INTERNAL CAPTURE</b>			<u>46</u>	<u>46</u>	<u>92</u>	9%	<u>176</u>	<u>176</u>	<u>352</u>	21%	<u>3,128</u>	
<b>DRIVEWAY VOLUME</b>			475	492	967		648	676	1,324		14,757	
<b>PASS-BY</b>			<u>15</u>	<u>9</u>	<u>25</u>	3%	<u>50</u>	<u>83</u>	<u>133</u>	10%	<u>1,016</u>	
<b>NET NEW EXTERNAL</b>			460	483	942		598	593	1,191		13,741	

**Footnotes:**

(1) ITE: Trip Generation, 9th Edition, using OTISS software.

(2) NCHRP Report 684/8-51 Internal Trip Capture Estimation Tool.



Project Information	
<b>Project Name:</b>	University Highland - Scenario 2
<b>No:</b>	17524
<b>Date:</b>	10/4/2017
<b>City:</b>	Fort Myers
<b>State/Province:</b>	FL
<b>Zip/Postal Code:</b>	
<b>Country:</b>	
<b>Client Name:</b>	
<b>Analyst's Name:</b>	JP
<b>Edition:</b>	ITE-TGM 9th Edition

Land Use	Size	Weekday		AM Peak Hour		PM Peak Hour	
		Entry	Exit	Entry	Exit	Entry	Exit
<b>210 - Single-Family Detached Housing</b>	351 Dwelling Units	1667	1667	64	191	205	120
Reduction		0	0	0	0	0	0
Internal		0	0	0	0	0	0
Pass-by		0	0	0	0	0	0
Non-pass-by		1667	1667	64	191	205	120
<b>230 - Residential</b>							
<b>Condominium/Townhouse</b>	239 Dwelling Units	687	686	18	86	82	41
Reduction		0	0	0	0	0	0
Internal		0	0	0	0	0	0
Pass-by		0	0	0	0	0	0
Non-pass-by		687	686	18	86	82	41
<b>220 - Apartment</b>	270 Dwelling Units	880	880	27	109	108	58
Reduction		0	0	0	0	0	0
Internal		0	0	0	0	0	0
Pass-by		0	0	0	0	0	0
Non-pass-by		880	880	27	109	108	58
<b>310 - Hotel</b>	200 Rooms	817	817	63	43	61	59
Reduction		0	0	0	0	0	0
Internal		0	0	0	0	0	0
Pass-by		0	0	0	0	0	0
Non-pass-by		817	817	63	43	61	59
<b>820 - Shopping Center</b>	99.38 1000 Sq. Feet Gross Leasable Area	3382	3382	96	59	287	310
Reduction		0	0	0	0	0	0
Internal		0	0	0	0	0	0
Pass-by		0	0	0	0	0	0
Non-pass-by		3382	3382	96	59	287	310
<b>710 - General Office Building</b>	100 1000 Sq. Feet Gross Floor Area	657	656	168	23	32	158
Reduction		0	0	0	0	0	0
Internal		0	0	0	0	0	0
Pass-by		0	0	0	0	0	0
Non-pass-by		657	656	168	23	32	158
<b>720 - Medical-Dental Office Building</b>	41.5 1000 Sq. Feet Gross Floor Area	741	741	78	21	37	95
Reduction		0	0	0	0	0	0
Internal		0	0	0	0	0	0
Pass-by		0	0	0	0	0	0
Non-pass-by		741	741	78	21	37	95
<b>151 - Mini-Warehouse</b>	90 1000 Sq. Feet Gross Floor Area	113	112	7	6	12	11
Reduction		0	0	0	0	0	0
Internal		0	0	0	0	0	0
Pass-by		0	0	0	0	0	0
Non-pass-by		113	112	7	6	12	11
<b>Total</b>		8944	8941	521	538	824	852
<b>Total Reduction</b>		0	0	0	0	0	0
<b>Total Internal</b>		0	0	0	0	0	0
<b>Total Pass-by</b>		0	0	0	0	0	0
<b>Total Non-pass-by</b>		8944	8941	521	538	824	852

NCHRP 8-51 Internal Trip Capture Estimation Tool			
Project Name:	University Highland	Organization:	DPA
Project Location:	Lee County	Performed By:	JMP
Scenario Description:	AM Peak Hour - Scenario 3 2	Date:	4-Oct-17
Analysis Year:	2017	Checked By:	
Analysis Period:	AM Street Peak Hour	Date:	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips		
	ITE LUCs <sup>1</sup>	Quantity	Units	Total	Entering	Exiting
Office				290	246	44
Retail				155	96	59
Restaurant				0	0	0
Cinema/Entertainment				0	0	0
Residential				495	109	386
Hotel				106	63	43
All Other Land Uses <sup>2</sup>				13	7	6
<b>Total</b>				<b>1059</b>	<b>521</b>	<b>538</b>

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses <sup>2</sup>						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		12	0	0	0	0
Retail	10		0	0	2	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	7	4	0	0		0
Hotel	7	4	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	1,059	521	538
Internal Capture Percentage	9%	9%	9%
External Vehicle-Trips <sup>3</sup>	967	475	492
External Transit-Trips <sup>4</sup>	0	0	0
External Non-Motorized Trips <sup>4</sup>	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	10%	27%
Retail	21%	20%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	2%	3%
Hotel	0%	26%

<sup>1</sup>Land Use Codes (LUCs) from *Trip Generation Informational Report*, published by the Institute of Transportation Engineers.

<sup>2</sup>Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

<sup>3</sup>Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

<sup>4</sup>Person-Trips

\*Indicates computation that has been rounded to the nearest whole number.

*Estimation Tool Developed by the Texas Transportation Institute*

<b>Project Name:</b>	University Highland
<b>Analysis Period:</b>	AM Peak Hour

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	246	246	1.00	44	44
Retail	1.00	96	96	1.00	59	59
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	109	109	1.00	386	386
Hotel	1.00	63	63	1.00	43	43

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		12	28	0	0	0
Retail	17		8	0	8	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	8	4	77	0		0
Hotel	32	6	4	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		31	0	0	0	0
Retail	10		0	0	2	0
Restaurant	34	8		0	5	3
Cinema/Entertainment	0	0	0		0	0
Residential	7	16	0	0		0
Hotel	7	4	0	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles <sup>1</sup>	Transit <sup>2</sup>	Non-Motorized <sup>2</sup>
Office	24	222	246	222	0	0
Retail	20	76	96	76	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	2	107	109	107	0	0
Hotel	0	63	63	63	0	0
All Other Land Uses <sup>3</sup>	0	7	7	7	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles <sup>1</sup>	Transit <sup>2</sup>	Non-Motorized <sup>2</sup>
Office	12	32	44	32	0	0
Retail	12	47	59	47	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	11	375	386	375	0	0
Hotel	11	32	43	32	0	0
All Other Land Uses <sup>3</sup>	0	6	6	6	0	0

<sup>1</sup>Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A  
<sup>2</sup>Person-Trips  
<sup>3</sup>Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator  
\*Indicates computation that has been rounded to the nearest whole number.



NCHRP 8-51 Internal Trip Capture Estimation Tool			
Project Name:	University Highland	Organization:	DPA
Project Location:	Lee County	Performed By:	JMP
Scenario Description:	PM Peak Hour Scenario 2	Date:	4-Oct-17
Analysis Year:	2017	Checked By:	
Analysis Period:	PM Street Peak Hour	Date:	

Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips		
	ITE LUCs <sup>1</sup>	Quantity	Units	Total	Entering	Exiting
Office				322	69	253
Retail				597	287	310
Restaurant				0	0	0
Cinema/Entertainment				0	0	0
Residential				614	395	219
Hotel				120	61	59
All Other Land Uses <sup>2</sup>				23	12	11
<b>Total</b>				<b>1676</b>	<b>824</b>	<b>852</b>

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses <sup>2</sup>						

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		23	0	0	5	0
Retail	6		0	0	81	10
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	9	29	0	0		7
Hotel	0	6	0	0	0	

	Total	Entering	Exiting
All Person-Trips	1,676	824	852
Internal Capture Percentage	21%	21%	21%
External Vehicle-Trips <sup>3</sup>	1,324	648	676
External Transit-Trips <sup>4</sup>	0	0	0
External Non-Motorized Trips <sup>4</sup>	0	0	0

Land Use	Entering Trips	Exiting Trips
Office	22%	11%
Retail	20%	31%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	22%	21%
Hotel	28%	10%

<sup>1</sup>Land Use Codes (LUCs) from *Trip Generation Informational Report*, published by the Institute of Transportation Engineers.  
<sup>2</sup>Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator  
<sup>3</sup>Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P  
<sup>4</sup>Person-Trips  
\*Indicates computation that has been rounded to the nearest whole number.  
*Estimation Tool Developed by the Texas Transportation Institute*

Project Name:	University Highland
Analysis Period:	PM Peak Hour

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	69	69	1.00	253	253
Retail	1.00	287	287	1.00	310	310
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	395	395	1.00	219	219
Hotel	1.00	61	61	1.00	59	59

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		51	10	0	5	0
Retail	6		90	12	81	16
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	9	92	46	0		7
Hotel	0	9	40	0	1	

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		23	0	0	16	0
Retail	21		0	0	182	10
Restaurant	21	144		0	63	43
Cinema/Entertainment	4	11	0		16	1
Residential	39	29	0	0		7
Hotel	0	6	0	0	0	

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles <sup>1</sup>	Transit <sup>2</sup>	Non-Motorized <sup>2</sup>
Office	15	54	69	54	0	0
Retail	58	229	287	229	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	86	309	395	309	0	0
Hotel	17	44	61	44	0	0
All Other Land Uses <sup>3</sup>	0	12	12	12	0	0

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles <sup>1</sup>	Transit <sup>2</sup>	Non-Motorized <sup>2</sup>
Office	28	225	253	225	0	0
Retail	97	213	310	213	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	45	174	219	174	0	0
Hotel	6	53	59	53	0	0
All Other Land Uses <sup>3</sup>	0	11	11	11	0	0

<sup>1</sup>Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P  
<sup>2</sup>Person-Trips  
<sup>3</sup>Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator  
\*Indicates computation that has been rounded to the nearest whole number.



Period Setting

Analysis Name :	AM Peak Hour						
Project Name :	University Highland - Scenario 3	No :	17524				
Date:	10/4/2017	City:	Fort Myers				
State/Province:	FL	Zip/Postal Code:					
Country:		Client Name:					
Analyst's Name:	JP	Edition:	ITE-TGM 9th Edition				
Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
210 - Single-Family Detached Housing	Dwelling Units	351	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LIN) $T = 0.7(X) + 9.74$	64 25%	191 75%	255
230 - Residential Condominium/Townhouse	Dwelling Units	239	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LOG) $\ln(T) = 0.8\ln(X) + 0.26$	18 17%	86 83%	104
220 - Apartment	Dwelling Units	270	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LIN) $T = 0.49(X) + 3.73$	27 20%	109 80%	136
310 - Hotel	Rooms	200	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Average 0.53	63 59%	43 41%	106
820 - Shopping Center	1000 Sq. Feet Gross Leasable Area	99.38	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LOG) $\ln(T) = 0.61\ln(X) + 2.24$	96 62%	59 38%	155
710 - General Office Building	1000 Sq. Feet Gross Floor Area	100	Weekday, A.M. Peak Hour of Generator <sup>(1)</sup>	Best Fit (LOG) $\ln(T) = 0.8\ln(X) + 1.57$	168 88%	23 12%	191
720 - Medical-Dental Office Building	1000 Sq. Feet Gross Floor Area	41.5	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Average 2.39	78 79%	21 21%	99
151 - Mini-Warehouse	1000 Sq. Feet Gross Floor Area	90	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Average 0.14	7 54%	6 46%	13

**Footnote:**

(1) There is no formula representing *Weekday, Peak Hour of Adjacent Street Traffic* in ITE's Trip Generation, 9<sup>th</sup> Edition, for Land Use Code 710. Instead, the formulas for *Weekday, AM Peak Hour* and *PM Peak Hour* are used to represent Project peak hour traffic during the peak hour of adjacent street traffic. The formulas are shown on pages 1260-1261 of Trip Generation, Volume 3 of ITE's Trip Generation, 9<sup>th</sup> Edition.

Period Setting

Analysis Name :	PM Peak Hour						
Project Name :	University Highland - Scenario	No :		17524			
Date:	10/4/2017	City:		Fort Myers			
State/Province:	FL	Zip/Postal Code:					
Country:		Client Name:					
Analyst's Name:	JP	Edition:		ITE-TGM 9th Edition			
Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
210 - Single-Family Detached Housing	Dwelling Units	351	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LOG) $\ln(T) = 0.9\ln(X) + 0.51$	205 63%	120 37%	325
230 - Residential Condominium/Townhouse	Dwelling Units	239	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LOG) $\ln(T) = 0.82\ln(X) + 0.32$	82 67%	41 33%	123
220 - Apartment	Dwelling Units	270	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LIN) $T = 0.55(X) + 17.65$	108 65%	58 35%	166
310 - Hotel	Rooms	200	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average 0.6	61 51%	59 49%	120
820 - Shopping Center	1000 Sq. Feet Gross Leasable Area	99.38	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LOG) $\ln(T) = 0.67\ln(X) + 3.31$	287 48%	310 52%	597
710 - General Office Building	1000 Sq. Feet Gross Floor Area	100	Weekday, P.M. Peak Hour of Generator <sup>(1)</sup>	Best Fit (LIN) $T = 1.12(X) + 78.45$	32 17%	158 83%	190
720 - Medical-Dental Office Building	1000 Sq. Feet Gross Floor Area	41.5	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LOG) $\ln(T) = 0.9\ln(X) + 1.53$	37 28%	95 72%	132
151 - Mini-Warehouse	1000 Sq. Feet Gross Floor Area	90	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average 0.26	12 52%	11 48%	23

**Footnote:**

(1) There is no formula representing *Weekday, Peak Hour of Adjacent Street Traffic* in ITE's Trip Generation, 9<sup>th</sup> Edition, for Land Use Code 710. Instead, the formulas for *Weekday, AM Peak Hour* and *PM Peak Hour* are used to represent Project peak hour traffic during the peak hour of adjacent street traffic. The formulas are shown on pages 1260-1261 of Trip Generation, Volume 3 of ITE's Trip Generation, 9<sup>th</sup> Edition.



Period Setting

Analysis Name : Weekday  
 Project Name : University Highland - Scenario 3 No : 17524  
 Date: 10/4/2017 City: Fort Myers  
 State/Province: FL Zip/Postal Code:  
 Country: Client Name:  
 Analyst's Name: JP Edition: ITE-TGM 9th Edition

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
210 - Single-Family Detached Housing	Dwelling Units	351	Weekday	Best Fit (LOG) $\text{Ln}(T) = 0.92\text{Ln}(X) + 2.72$	1667 50%	1667 50%	3334
230 - Residential Condominium/Townhouse	Dwelling Units	239	Weekday	Best Fit (LOG) $\text{Ln}(T) = 0.87\text{Ln}(X) + 2.46$	687 50%	686 50%	1373
220 - Apartment	Dwelling Units	270	Weekday	Best Fit (LIN) $T = 6.06(X) + 123.56$	880 50%	880 50%	1760
310 - Hotel	Rooms	200	Weekday	Average 8.17	817 50%	817 50%	1634
820 - Shopping Center	1000 Sq. Feet Gross Leasable Area	99.38	Weekday	Best Fit (LOG) $\text{Ln}(T) = 0.65\text{Ln}(X) + 5.83$	3382 50%	3382 50%	6764
710 - General Office Building	1000 Sq. Feet Gross Floor Area	100	Weekday	Best Fit (LOG) $\text{Ln}(T) = 0.76\text{Ln}(X) + 3.68$	657 50%	656 50%	1313
720 - Medical-Dental Office Building	1000 Sq. Feet Gross Floor Area	41.5	Weekday	Best Fit (LIN) $T = 40.89(X) + 214.97$	741 50%	741 50%	1482
151 - Mini-Warehouse	1000 Sq. Feet Gross Floor Area	90	Weekday	Average 2.5	113 50%	112 50%	225



**SCENARIO 3**

**SCENARIO #3  
ADD SELF STORAGE / REDUCE RETAIL / REDUCE GENERAL OFFICE**

**UNIVERSITY HIGHLAND  
ITE TRIP GENERATION <sup>(1)</sup>**

	LUC	SIZE	AM PEAK HOUR				PM PEAK HOUR				DAILY	
			In	Out	Total	%	In	Out	Total	%	Total	%
<b>Residential</b>												
Single Family	210	351 d.u.	64	191	255		205	120	325		3,334	
Multifamily Condominiums	230	239 d.u.	18	86	104		82	41	123		1,373	
Multifamily Apartments	220	270 d.u.	27	109	136		108	58	166		1,760	
Total		860 d.u.	109	386	495		395	219	614		6,467	
Internal Capture <sup>(2)</sup>			2	11	13	3%	81	43	124	20%	799	12%
Net New External			107	375	482		314	176	490		5,668	
<b>Hotel</b>	310	200 rooms	63	43	106		61	59	120		1,634	
Internal Capture			0	11	11	10%	17	5	22	18%	239	15%
External			63	32	95		44	54	98		1,395	
<b>Retail</b>	820	90,744 sq. ft.	91	56	147		269	292	561		6,375	
Internal Capture <sup>(2)</sup>			21	12	33	22%	54	92	146	26%	1,612	25%
Pass-by			15	8	23	20%	46	78	125	30%	953	20%
External			55	36	91		169	122	291		3,810	
<b>Office</b>												
General Office	710	87,000 sq. ft.	150	21	171		30	146	176		1,181	
Medical Office	720	50,000 sq. ft.	95	25	120		44	112	156		1,830	
Total		137,000 sq. ft.	245	46	291		74	258	332		3,011	
Internal Capture <sup>(2)</sup>			24	13	37	13%	15	27	42	13%	382	13%
External			221	33	254		59	231	290		2,629	
<b>Self Storage</b>	151	90000 sq. ft.	7	6	13		12	11	23		225	
Internal Capture <sup>(2)</sup>			0	0	0	0%	0	0	0	0%	0	0%
External			7	6	13		12	11	23		225	
<b>TOTAL</b>			515	537	1,052		811	839	1,650		17,712	
<b>INTERNAL CAPTURE</b>			<u>47</u>	<u>47</u>	<u>94</u>	9%	<u>167</u>	<u>167</u>	<u>334</u>	20%	<u>3,031</u>	17%
<b>DRIVEWAY VOLUME</b>			468	490	958		644	672	1,316		14,681	
<b>PASS-BY</b>			<u>15</u>	<u>8</u>	<u>23</u>	2%	<u>46</u>	<u>78</u>	<u>125</u>	9%	<u>953</u>	6%
<b>NET NEW EXTERNAL</b>			453	482	935		598	594	1,192		13,728	

**Footnotes:**

- (1) ITE Trip Generation, 9th Edition, using OTISS software.  
(2) NCHRP Report 684/8-51 Internal Trip Capture Estimation Tool.

Project Information	
Project Name:	University Highland - Scenario 3
No:	17524
Date:	10/5/2017
City:	Fort Myers
State/Province:	FL
Zip/Postal Code:	
Country:	
Client Name:	
Analyst's Name:	JP
Edition:	ITE-TGM 9th Edition

Land Use	Size	Weekday		AM Peak Hour		PM Peak Hour	
		Entry	Exit	Entry	Exit	Entry	Exit
<b>210 - Single-Family Detached Housing</b>	351 Dwelling Units	1667	1667	64	191	205	120
Reduction		0	0	0	0	0	0
Internal		0	0	0	0	0	0
Pass-by		0	0	0	0	0	0
Non-pass-by		1667	1667	64	191	205	120
<b>230 - Residential Condominium/Townhouse</b>	239 Dwelling Units	687	686	18	86	82	41
Reduction		0	0	0	0	0	0
Internal		0	0	0	0	0	0
Pass-by		0	0	0	0	0	0
Non-pass-by		687	686	18	86	82	41
<b>220 - Apartment</b>	270 Dwelling Units	880	880	27	109	108	58
Reduction		0	0	0	0	0	0
Internal		0	0	0	0	0	0
Pass-by		0	0	0	0	0	0
Non-pass-by		880	880	27	109	108	58
<b>310 - Hotel</b>	200 Rooms	817	817	63	43	61	59
Reduction		0	0	0	0	0	0
Internal		0	0	0	0	0	0
Pass-by		0	0	0	0	0	0
Non-pass-by		817	817	63	43	61	59
<b>820 - Shopping Center</b>	90.74 1000 Sq. Feet Gross Leasable Area	3188	3187	91	56	269	292
Reduction		0	0	0	0	0	0
Internal		0	0	0	0	0	0
Pass-by		0	0	0	0	0	0
Non-pass-by		3188	3187	91	56	269	292
<b>710 - General Office Building</b>	87 1000 Sq. Feet Gross Floor Area	591	590	150	21	30	146
Reduction		0	0	0	0	0	0
Internal		0	0	0	0	0	0
Pass-by		0	0	0	0	0	0
Non-pass-by		591	590	150	21	30	146
<b>720 - Medical-Dental Office Building</b>	50 1000 Sq. Feet Gross Floor Area	915	915	95	25	44	112
Reduction		0	0	0	0	0	0
Internal		0	0	0	0	0	0
Pass-by		0	0	0	0	0	0
Non-pass-by		915	915	95	25	44	112
<b>151 - Mini-Warehouse</b>	90 1000 Sq. Feet Gross Floor Area	113	112	7	6	12	11
Reduction		0	0	0	0	0	0
Internal		0	0	0	0	0	0
Pass-by		0	0	0	0	0	0
Non-pass-by		113	112	7	6	12	11
<b>Total</b>		8858	8854	515	537	811	839
<b>Total Reduction</b>		0	0	0	0	0	0
<b>Total Internal</b>		0	0	0	0	0	0
<b>Total Pass-by</b>		0	0	0	0	0	0
<b>Total Non-pass-by</b>		8858	8854	515	537	811	839

NCHRP 8-51 Internal Trip Capture Estimation Tool			
Project Name:	University Highland	Organization:	DPA
Project Location:	Lee County	Performed By:	JMP
Scenario Description:	AM Peak Hour - Scenario 3	Date:	5-Oct-17
Analysis Year:	2017	Checked By:	
Analysis Period:	AM Street Peak Hour	Date:	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips		
	ITE LUCs <sup>1</sup>	Quantity	Units	Total	Entering	Exiting
Office				291	245	46
Retail				147	91	56
Restaurant				0	0	0
Cinema/Entertainment				0	0	0
Residential				495	109	386
Hotel				106	63	43
All Other Land Uses <sup>2</sup>				13	7	6
Total				1052	515	537

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses <sup>2</sup>						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		13	0	0	0	0
Retail	10		0	0	2	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	7	4	0	0		0
Hotel	7	4	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	1,052	515	537
Internal Capture Percentage	9%	9%	9%
External Vehicle-Trips <sup>3</sup>	958	468	490
External Transit-Trips <sup>4</sup>	0	0	0
External Non-Motorized Trips <sup>4</sup>	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	10%	28%
Retail	23%	21%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	2%	3%
Hotel	0%	26%

<sup>1</sup>Land Use Codes (LUCs) from *Trip Generation Informational Report*, published by the Institute of Transportation Engineers.

<sup>2</sup>Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

<sup>3</sup>Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

<sup>4</sup>Person-Trips

\*Indicates computation that has been rounded to the nearest whole number.

<b>Project Name:</b>	University Highland
<b>Analysis Period:</b>	AM Peak Hour

Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	245	245	1.00	46	46
Retail	1.00	91	91	1.00	56	56
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	109	109	1.00	386	386
Hotel	1.00	63	63	1.00	43	43

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		13	29	0	0	0
Retail	16		7	0	8	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	8	4	77	0		0
Hotel	32	6	4	0	0	

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		29	0	0	0	0
Retail	10		0	0	2	0
Restaurant	34	7		0	5	3
Cinema/Entertainment	0	0	0		0	0
Residential	7	15	0	0		0
Hotel	7	4	0	0	0	

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles <sup>1</sup>	Transit <sup>2</sup>	Non-Motorized <sup>2</sup>
Office	24	221	245	221	0	0
Retail	21	70	91	70	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	2	107	109	107	0	0
Hotel	0	63	63	63	0	0
All Other Land Uses <sup>3</sup>	0	7	7	7	0	0

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles <sup>1</sup>	Transit <sup>2</sup>	Non-Motorized <sup>2</sup>
Office	13	33	46	33	0	0
Retail	12	44	56	44	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	11	375	386	375	0	0
Hotel	11	32	43	32	0	0
All Other Land Uses <sup>3</sup>	0	6	6	6	0	0

<sup>1</sup>Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A  
<sup>2</sup>Person-Trips  
<sup>3</sup>Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator  
\*Indicates computation that has been rounded to the nearest whole number.



NCHRP 8-51 Internal Trip Capture Estimation Tool			
Project Name:	University Highland	Organization:	DPA
Project Location:	Lee County	Performed By:	JMP
Scenario Description:	PM Peak Hour Scenario <sup>3</sup>	Date:	5-Oct-17
Analysis Year:	2017	Checked By:	
Analysis Period:	PM Street Peak Hour	Date:	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips		
	ITE LUCs <sup>1</sup>	Quantity	Units	Total	Entering	Exiting
Office				332	74	258
Retail				561	269	292
Restaurant				0	0	0
Cinema/Entertainment				0	0	0
Residential				614	395	219
Hotel				120	61	59
All Other Land Uses <sup>2</sup>				23	12	11
<b>Total</b>				<b>1650</b>	<b>811</b>	<b>839</b>

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses <sup>2</sup>						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		22	0	0	5	0
Retail	6		0	0	76	10
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	9	27	0	0		7
Hotel	0	5	0	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	1,650	811	839
Internal Capture Percentage	20%	21%	20%
External Vehicle-Trips <sup>3</sup>	1,316	644	672
External Transit-Trips <sup>4</sup>	0	0	0
External Non-Motorized Trips <sup>4</sup>	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	20%	10%
Retail	20%	32%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	21%	20%
Hotel	28%	8%

<sup>1</sup>Land Use Codes (LUCs) from *Trip Generation Informational Report*, published by the Institute of Transportation Engineers.

<sup>2</sup>Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

<sup>3</sup>Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

<sup>4</sup>Person-Trips

\*Indicates computation that has been rounded to the nearest whole number.

*Estimation Tool Developed by the Texas Transportation Institute*

<b>Project Name:</b>	University Highland
<b>Analysis Period:</b>	PM Peak Hour

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	74	74	1.00	258	258
Retail	1.00	269	269	1.00	292	292
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	395	395	1.00	219	219
Hotel	1.00	61	61	1.00	59	59

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		52	10	0	5	0
Retail	6		85	12	76	15
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	9	92	46	0		7
Hotel	0	9	40	0	1	

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		22	0	0	16	0
Retail	23		0	0	182	10
Restaurant	22	135		0	63	43
Cinema/Entertainment	4	11	0		16	1
Residential	42	27	0	0		7
Hotel	0	5	0	0	0	

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles <sup>1</sup>	Transit <sup>2</sup>	Non-Motorized <sup>2</sup>
Office	15	59	74	59	0	0
Retail	54	215	269	215	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	81	314	395	314	0	0
Hotel	17	44	61	44	0	0
All Other Land Uses <sup>3</sup>	0	12	12	12	0	0

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles <sup>1</sup>	Transit <sup>2</sup>	Non-Motorized <sup>2</sup>
Office	27	231	258	231	0	0
Retail	92	200	292	200	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	43	176	219	176	0	0
Hotel	5	54	59	54	0	0
All Other Land Uses <sup>3</sup>	0	11	11	11	0	0

<sup>1</sup>Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P  
<sup>2</sup>Person-Trips  
<sup>3</sup>Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator  
\*Indicates computation that has been rounded to the nearest whole number.



Period Setting

<b>Analysis Name :</b>	AM Peak Hour		
<b>Project Name :</b>	University Highland - Scenario 3	<b>No :</b>	17524
<b>Date:</b>	10/5/2017	<b>City:</b>	Fort Myers
<b>State/Province:</b>	FL	<b>Zip/Postal Code:</b>	
<b>Country:</b>		<b>Client Name:</b>	
<b>Analyst's Name:</b>	JP	<b>Edition:</b>	ITE-TGM 9th Edition

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
210 - Single-Family Detached Housing	Dwelling Units	351	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LIN) $T = 0.7(X)+9.74$	64 25%	191 75%	255
230 - Residential Condominium/Townhouse	Dwelling Units	239	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LOG) $\ln(T) = 0.8\ln(X) + 0.26$	18 17%	86 83%	104
220 - Apartment	Dwelling Units	270	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LIN) $T = 0.49(X)+3.73$	27 20%	109 80%	136
310 - Hotel	Rooms	200	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Average 0.53	63 59%	43 41%	106
820 - Shopping Center	1000 Sq. Feet Gross Leasable Area	90.74	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LOG) $\ln(T) = 0.61\ln(X) + 2.24$	91 62%	56 38%	147
710 - General Office Building	1000 Sq. Feet Gross Floor Area	87	Weekday, A.M. Peak Hour of Generator <sup>(1)</sup>	Best Fit (LOG) $\ln(T) = 0.8\ln(X) + 1.57$	150 88%	21 12%	171
720 - Medical-Dental Office Building	1000 Sq. Feet Gross Floor Area	50	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Average 2.39	95 79%	25 21%	120
151 - Mini-Warehouse	1000 Sq. Feet Gross Floor Area	90	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Average 0.14	7 54%	6 46%	13

**Footnote:**

(1) There is no formula representing *Weekday, Peak Hour of Adjacent Street Traffic* in ITE's Trip Generation, 9<sup>th</sup> Edition, for Land Use Code 710. Instead, the formulas for *Weekday, AM Peak Hour* and *PM Peak Hour* are used to represent Project peak hour traffic during the peak hour of adjacent street traffic. The formulas are shown on pages 1260-1261 of Trip Generation, Volume 3 of ITE's Trip Generation, 9<sup>th</sup> Edition.



Period Setting

<b>Analysis Name :</b>	PM Peak Hour	<b>No :</b>	17524
<b>Project Name :</b>	University Highland - Scenario 3	<b>City:</b>	Fort Myers
<b>Date:</b>	10/5/2017	<b>Zip/Postal Code:</b>	
<b>State/Province:</b>	FL	<b>Client Name:</b>	
<b>Country:</b>		<b>Edition:</b>	ITE-TGM 9th Edition
<b>Analyst's Name:</b>	JP		

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
210 - Single-Family Detached Housing	Dwelling Units	351	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LOG) Ln(T) = 0.9Ln(X) +0.51	205 63%	120 37%	325
230 - Residential Condominium/Townhouse	Dwelling Units	239	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LOG) Ln(T) = 0.82Ln(X) +0.32	82 67%	41 33%	123
220 - Apartment	Dwelling Units	270	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LIN) T = 0.55 (X)+17.65	108 65%	58 35%	166
310 - Hotel	Rooms	200	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average 0.6	61 51%	59 49%	120
820 - Shopping Center	1000 Sq. Feet Gross Leasable Area	90.74	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LOG) Ln(T) = 0.67Ln(X) +3.31	269 48%	292 52%	561
710 - General Office Building	1000 Sq. Feet Gross Floor Area	87	Weekday, P.M. Peak Hour of Generator <sup>(1)</sup>	Best Fit (LIN) T = 1.12 (X)+78.45	30 17%	146 83%	176
720 - Medical-Dental Office Building	1000 Sq. Feet Gross Floor Area	50	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LOG) Ln(T) = 0.9Ln(X) +1.53	44 28%	112 72%	156
151 - Mini-Warehouse	1000 Sq. Feet Gross Floor Area	90	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average 0.26	12 52%	11 48%	23

**Footnote:**

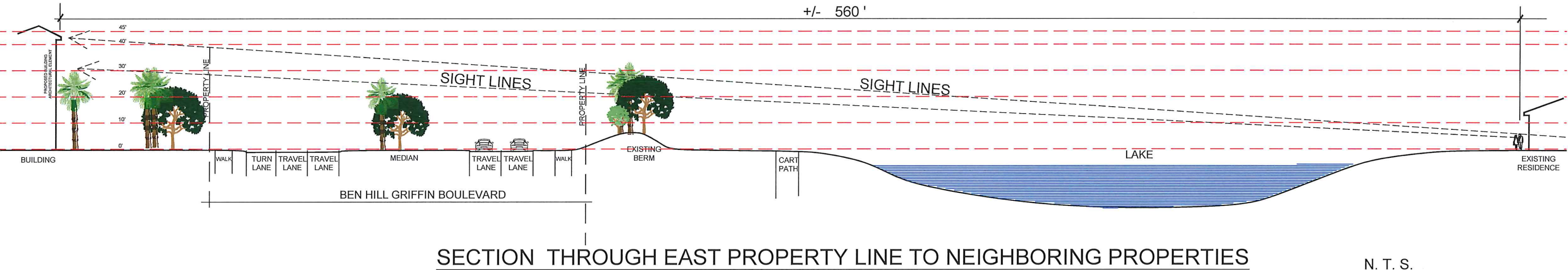
(1) There is no formula representing *Weekday, Peak Hour of Adjacent Street Traffic* in ITE's Trip Generation, 9<sup>th</sup> Edition, for Land Use Code 710. Instead, the formulas for *Weekday, AM Peak Hour* and *PM Peak Hour* are used to represent Project peak hour traffic during the peak hour of adjacent street traffic. The formulas are shown on pages 1260-1261 of Trip Generation, Volume 3 of ITE's Trip Generation, 9<sup>th</sup> Edition.

Period Setting

**Analysis Name :** Weekday  
**Project Name :** University Highland - Scenario 3 **No :** 17524  
**Date:** 10/5/2017 **City:** Fort Myers  
**State/Province:** FL **Zip/Postal Code:**  
**Country:** **Client Name:**  
**Analyst's Name:** JP **Edition:** ITE-TGM 9th Edition

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
210 - Single-Family Detached Housing	Dwelling Units	351	Weekday	Best Fit (LOG) $\ln(T) = 0.92\ln(X) + 2.72$	1667 50%	1667 50%	3334
230 - Residential Condominium/Townhouse	Dwelling Units	239	Weekday	Best Fit (LOG) $\ln(T) = 0.87\ln(X) + 2.46$	687 50%	686 50%	1373
220 - Apartment	Dwelling Units	270	Weekday	Best Fit (LIN) $T = 6.06(X) + 123.56$	880 50%	880 50%	1760
310 - Hotel	Rooms	200	Weekday	Average 8.17	817 50%	817 50%	1634
820 - Shopping Center	1000 Sq. Feet Gross Leasable Area	90.74	Weekday	Best Fit (LOG) $\ln(T) = 0.65\ln(X) + 5.83$	3188 50%	3187 50%	6375
710 - General Office Building	1000 Sq. Feet Gross Floor Area	87	Weekday	Best Fit (LOG) $\ln(T) = 0.76\ln(X) + 3.68$	591 50%	590 50%	1181
720 - Medical-Dental Office Building	1000 Sq. Feet Gross Floor Area	50	Weekday	Best Fit (LIN) $T = 40.89(X) - 214.97$	915 50%	915 50%	1830
151 - Mini-Warehouse	1000 Sq. Feet Gross Floor Area	90	Weekday	Average 2.5	113 50%	112 50%	225

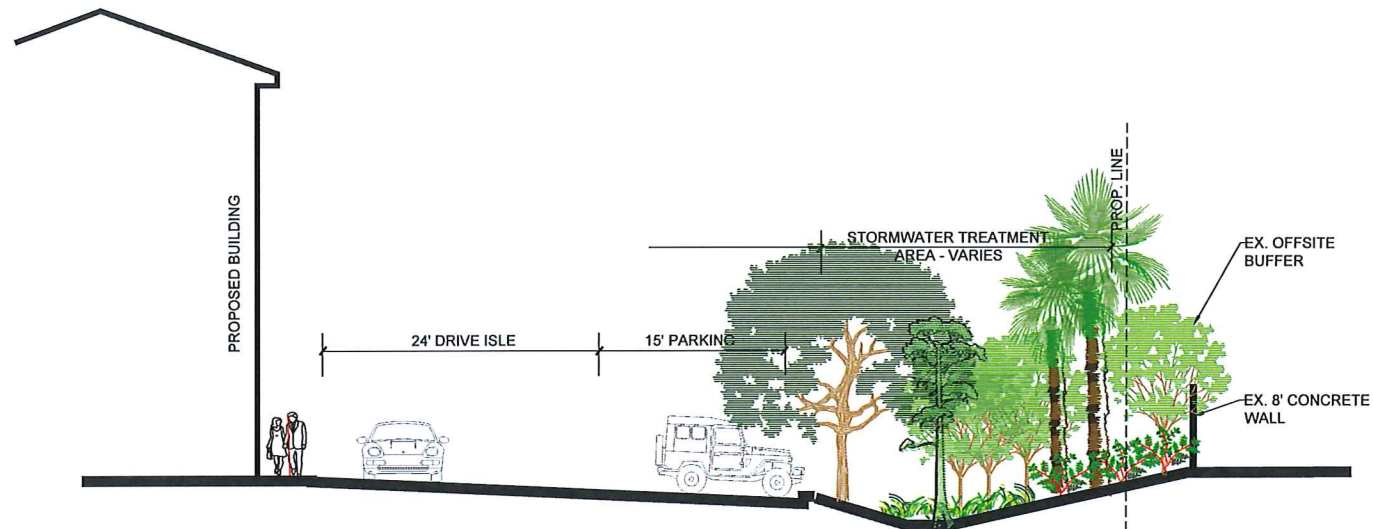
# Attachment J - Line of Sight Exhibits



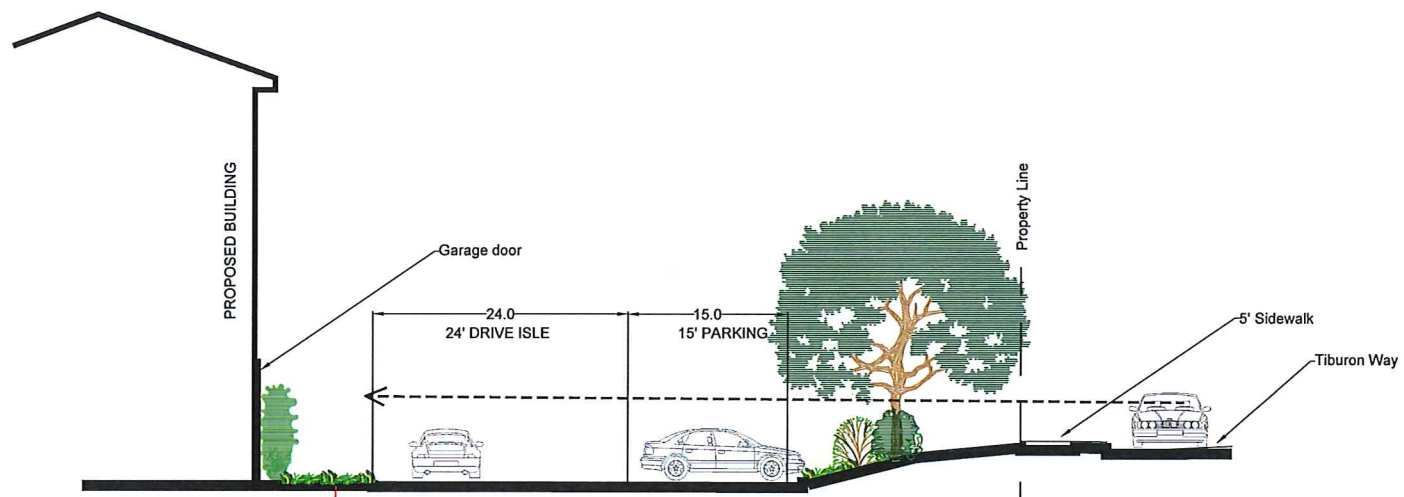
SECTION THROUGH EAST PROPERTY LINE TO NEIGHBORING PROPERTIES

N. T. S.

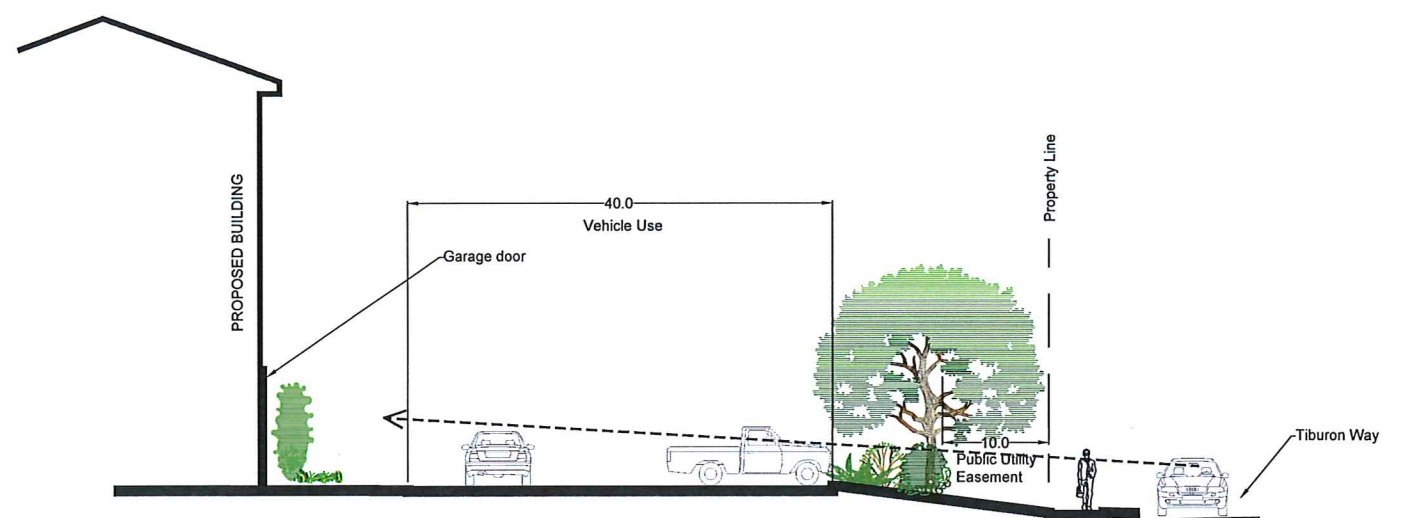




SECTION C-C THROUGH NORTH PROPERTY LINE N. T. S.



SECTION D-D THROUGH WEST PROPERTY LINE (NORTH END) N. T. S.



SECTION E-E THROUGH WEST PROPERTY LINE (SOUTH END) N. T. S.

LANDSCAPE SECTIONS



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Self-Storage  
Ben Hill Griffin Parkway  
Estero, FL

INFORMATION

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CONSULTANT:

DESIGN PROFESSIONAL:  
  
GREGORY J. DISERIO, RLA  
RLA NO. 840 DATE:  
STATE OF FLORIDA

PROJECT NO.	217111
PROJECT MGR.	GJD
FILE NAME	University Self Storage
DESIGNER	KM
CAD TECH	KM
CHECKED BY	GJD
ISSUED FOR:	DRB REVIEW & DEVELOPMENT ORDER

ISSUED DATE: Jan. 3, 2018  
REVISIONS:  
Feb. 15, 2018 RAI Response

SHEET TITLE:  
**Landscape Sections**

SHEET NUMBER:  
**L-3**







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PROJECT NO.	217111
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ISSUED FOR:	DRB REVIEW & DEVELOPMENT ORDER

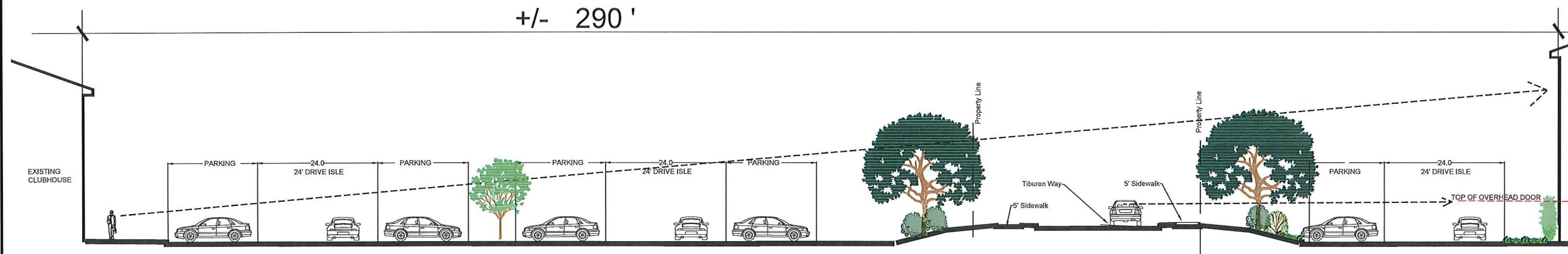
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REVISIONS:	Feb. 15, 2018 RAI Response March 2, 2018 Sections

SHEET TITLE:

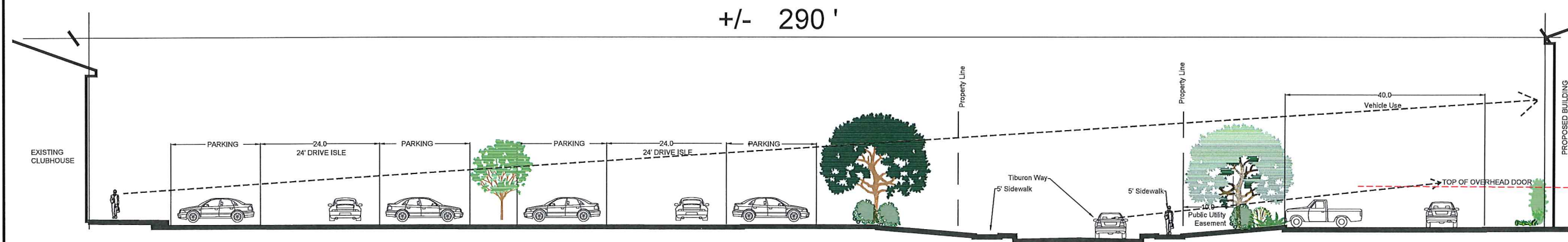
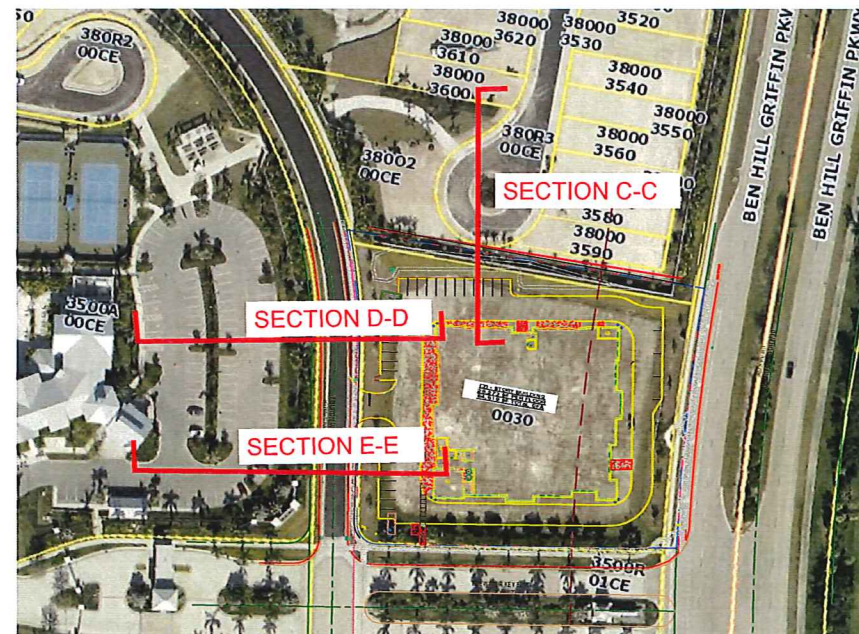
**Landscape  
Sections**

SHEET NUMBER:

**L-4**



SECTION D-D THROUGH WEST PROPERTY LINE (NORTH END) N. T. S.



SECTION E-E THROUGH WEST PROPERTY LINE (SOUTH END) N. T. S.

LANDSCAPE SECTIONS

