
TRAFFIC IMPACT STATEMENT

For

Esperanza Place RPUD - Amendment (Immokalee Drive, Collier County, Florida)

February 28, 2018

County TIS Review Fees

TIS Methodology Review Fee = \$500.00

TIS (Small-Scale Study) Review Fee = \$0.00

Prepared by:

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CERTIFICATE OF AUTHORIZATION NO. 27830

(PROJECT NO. 170515)

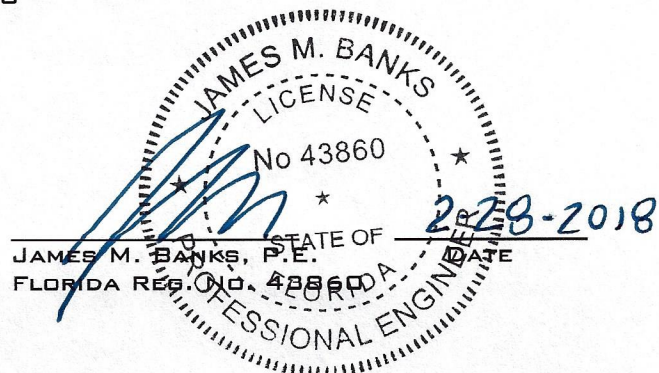


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Conclusions

The report concludes that the proposed amendment to Esperanza Place RPUD will not result in more site-generated trips than already allowed under the current PUD land use plan. As proposed, the maximum number of residential dwelling units that could be constructed will be 159 and 45 group housing units versus the previously approved development of 262 residential dwelling units. If approved and if developed to the most intense alternative development scenario, the project will generate fewer trips than the currently allowed land uses.

Therefore, it can be concluded that the proposed amendment to the RPUD to allow the option of constructing 159 dwelling units and 45 group housing units at a maximum intensity of no more than 111 single-family dwelling units and no less than 48 multi-family dwelling units and no more than 45 group housing units will result in less off-site impacts. Furthermore, any other possible development scenario (if the amendment is approved) would be less intense, and therefore, the site generated trips would be less than that already allowed. For example, if more than 48 multi-family units were constructed (i.e., $48 + X$) and conversely less single-family were constructed ($111 - X$) and 45 group housing units, then the results would be less trips than that estimated for the more intense option of 111 single-family dwelling units and no less than 48 multi-family dwelling units and 45 group housing units, and will also generate fewer trips than the previously approved 262 units.

Purpose of Report

This report was prepared for the purpose of determining the net results of amending the Esperanza Place RPUD to allow the option of constructing no more than 159 dwelling units and 45 group housing units, which is 58 fewer units than the currently allowed 262 units. More specifically, no more than 111 single-family dwelling units and no less than 48 multi-family dwelling units or any combination of the two land uses will be constructed, but not to exceed a total of 159 units and no more than 45 group housing units. If the amendment is approved, then the proposed land uses would displace the potential to construct 262 dwelling units (i.e., 86 single-family units and 176 multi-family units).

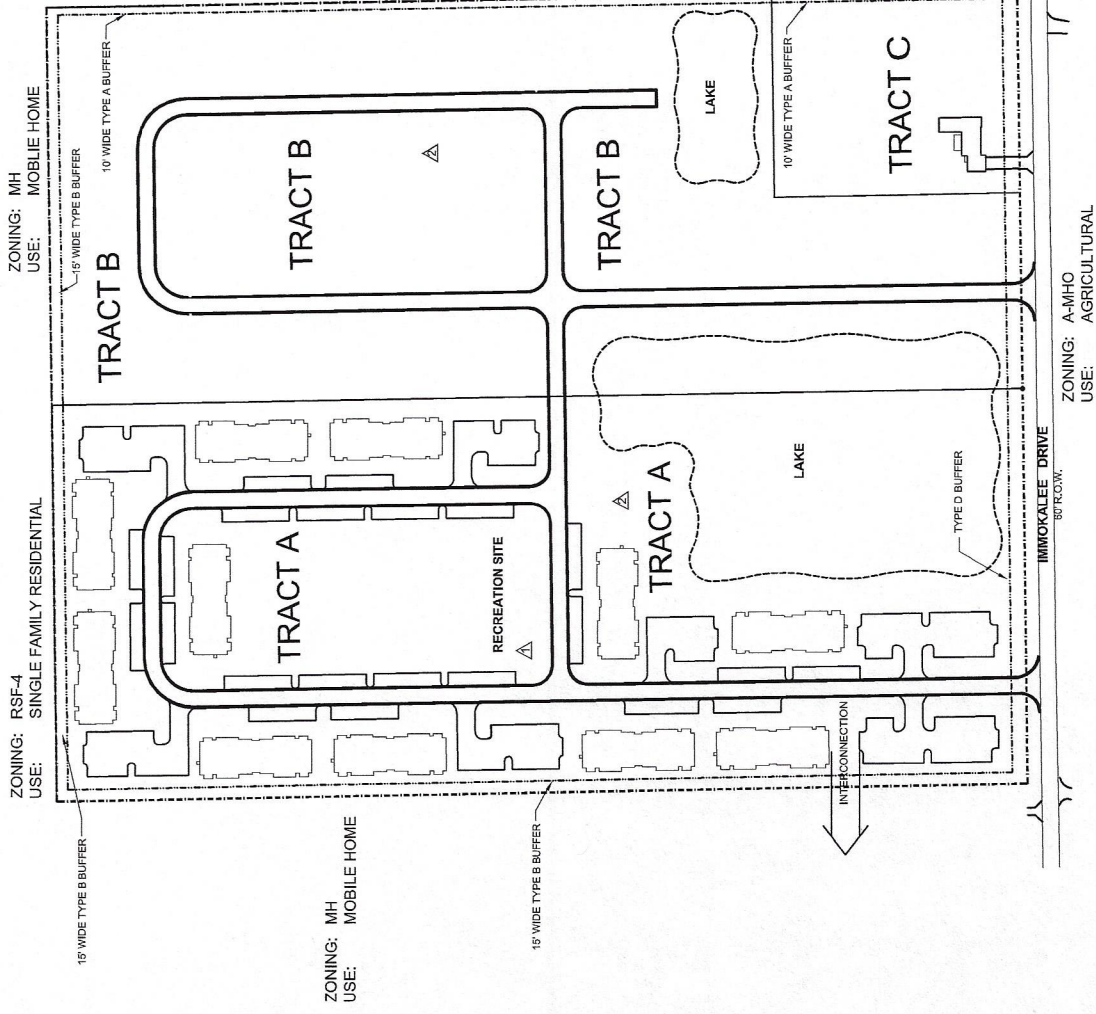
Methodology

On January 5, 2018, a Traffic Impact Statement (TIS) Methodology Report was submitted to the office of Collier County Transportation Planning Department. *The \$500.00 methodology meeting fee will be paid at the time of submitting the zoning application.*

ZONING: RSF-4
USE: SINGLE FAMILY RESIDENTIAL

ZONING: MH
USE: MOBILE HOME

ZONING: A-MHO
USE: SINGLE FAMILY RESIDENTIAL



SITE DATA:

TRACT A: 15.83± ACRE (50.05% OF ACREAGE)
TRACT B: 13.80± ACRE (43.63% OF ACREAGE)
TRACT C: 2.00± ACRE (6.32% OF ACREAGE)

TOTAL SITE AREA = 31.63± ACRES

REQUIRED PRESERVE AREA:

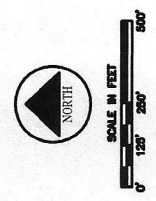
EXISTING NATIVE VEGETATION X 0.25 = PRESERVE AMOUNT
UPLAND: 0.52 ACRES X 0.25 = 0.13 ACRES
WETLAND: 0.73 ACRES X 0.25 = 0.18 ACRES
TOTAL = 0.31 ACRES

DENSITY CALCULATIONS:

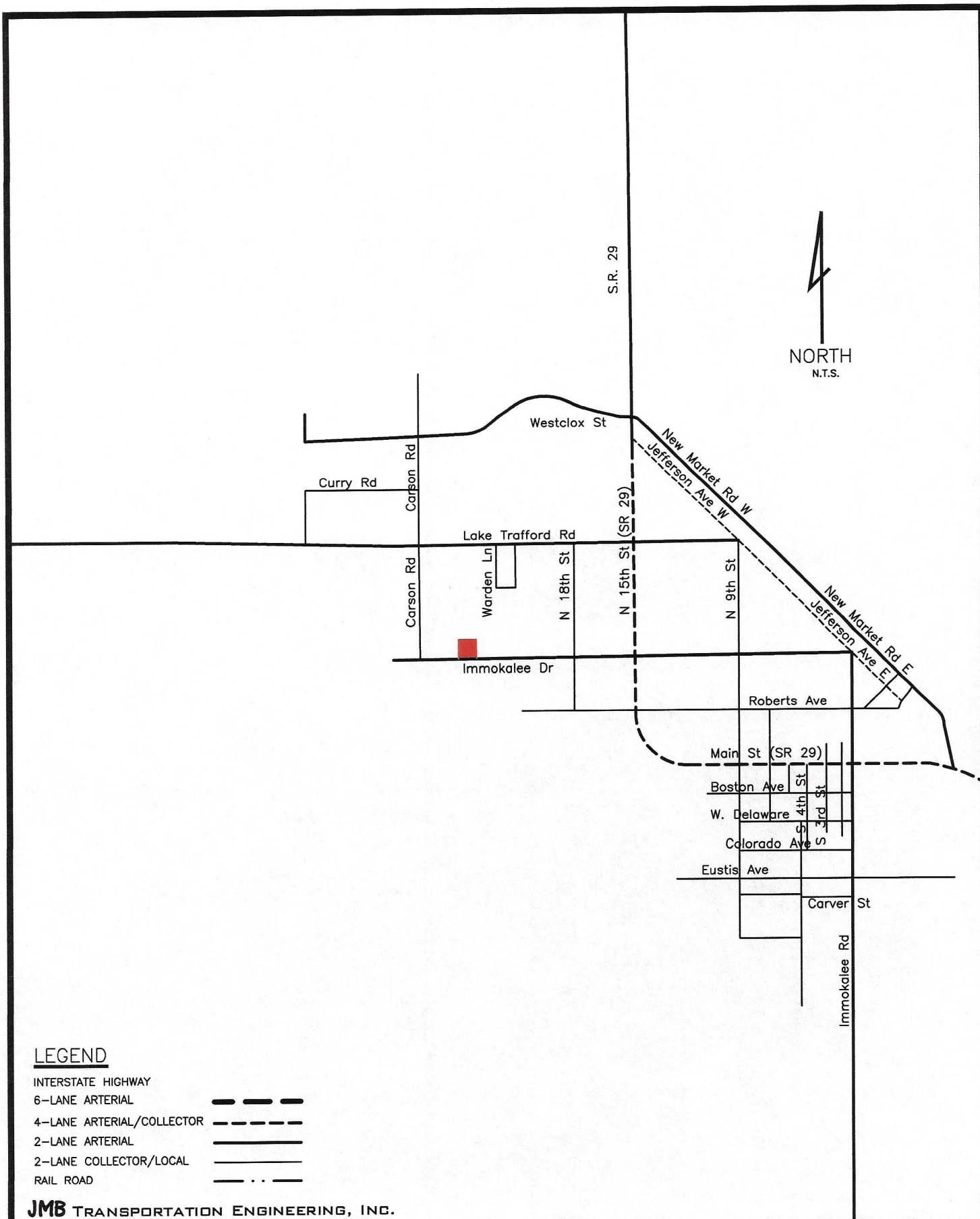
TRACT A: 176 DWELLING UNITS
TRACT B: 85 DWELLING UNITS
TRACT C: 1 UNIT

262 DWELLING UNITS / 31.63± ACRES = 8.28± UNITS PER ACRE

- NOTES:**
- THIS PLAN IS CONCEPTUAL IN NATURE AND IS SUBJECT TO MINOR MODIFICATION DUE TO AGENCY PERMITTING REQUIREMENTS.
 - ALL ACRES ARE APPROXIMATE AND SUBJECT TO MODIFICATION AT THE TIME OF SDP OR PLAT APPROVAL.
- DEVIATIONS:**
- From Section 5.05.08 which requires non-residential components of any PUD to meet architectural design standards to allow the non-residential component of Tract A to be exempt from these standards.
 - From Section 3.05.07 which requires on-site preservation of 25 percent of the native vegetation on the site to allow off-site preservation or payment toward the Conservation Collier Trust Fund, in accordance with Commitment III.B, described in Exhibit F of this PUD.



Q. GRADY MINOR & ASSOCIATES, P.A. CIVIL ENGINEERS • LAND SURVEYORS • PLANNERS • LANDSCAPE ARCHITECTS FORT MYERS • BONITA SPRINGS • NORTH PORT 239.949.4300 • 239.942.7444 • 941.426.9888 ENGINEERING CERT. OF AUTH. LB 00034 LANDSCAPE ARCH. BUSINESS LICENSE 00006 WWW.GRADYMINOR.COM		ESPERANZA PLACE RPUD EXHIBIT C MASTER PLAN		COUNTY: COLLIER SUBMITTAL: ZONING DATE: OCTOBER 2007 FILE NAME: FNPSP MCP 3 SHEET 1 OF 1
DESIGNED BY: QGMA DRAWN BY: MML APPROVED: HKW JOB CODE: FNPSP SCALE: 1" = 250'	1 01-08 Respond To County Comments 2 04-08 Respond To County Comments 3 05-08 Respond To County Comments	By	Date	Description



Esperanza Place RPUD

February 28, 2018

Project Location & Roadway Classification

FIGURE 1

Scope of Project

Esperanza Place is an approved RPUD that currently allows for the construction of 86 single-family units and 176 multi-family units (total 262 units). To date, 48 multi-family and 4 single-family units have been constructed. The site is located on the north side of Immokalee Drive and approximately 3/4 of a mile west of State Road 29. The project has two points of access on Immokalee Road.

It is being proposed to amend the RPUD to allow for the construction of no more than 111 single-family units and no less than 48 multi-family units, or any combination of the two land uses, but the total number of units cannot exceed 159 units. In addition, the amendment proposes to allow up to 45 group housing units. Table A provides a summary of the existing and use entitlements vs. the proposed land uses.

Table A
Approved Land Uses vs. Proposed Land Uses

	Approved Land Use	Proposed Land Use
Multi-Family	176 Units (48 constructed)	48 to 155 Units (48 constructed)
Single-Family	86 Units (4 constructed)	4 to 111 (4 constructed)
Group Housing	None	No more than 45
Totals	Max = 262 Units (176 m-f + 86 s-f)	Max = 204 Units (48 to 155 m-f + 4 to 111 s-f + 45 group housing units))

Project Generated Traffic

Traffic that can be expected to be generated by the project was estimated based upon the guidelines established by the Institute of Transportation Engineers, Trip Generation Manual, 10th Edition. That is, historical traffic data collected at similar land uses was relied upon in estimating the project's traffic. It was concluded that land use codes "Single-Family Detached Housing" (LUC 210) and "Multi-Family (Low Rise)" (LUC 220) were most appropriate in estimating the existing land use trips (see Table 1A) as well as the proposed land use trips (see Table 1B).

In order to determine the project's net new trips for the alternative development scenario, the estimated trips for the currently allowed land uses were subtracted from the estimated total trips for the alternate scenario.

That is,

Alternate Development Trips less Allowed Development Trips = Net New Trips

Table 1A provides a detail of the estimated total trips for the existing land uses, and Table 1B provides the total trips for the alternate development scenario. Table B summarizes the results.

Table B
Net New Trips Generated

	Daily (ADT)	AM Peak Hour (vph)	PM Peak Hour (vph)
Existing Land Use Trips (Refer to Table 1A)	2,195	148	186
Proposed Land Use Trips (Refer to Table 1B)	1,807	129	168
Net New Trips	Less 388	Less 19	Less 18

The report concludes that the most intense alternate development scenario will result in less site-generated trips than the currently allowed land uses. Therefore, it can be concluded that the proposed amendment to the RPUD to allow the option of constructing up to 111 single-family dwelling units and no less than 48 multi-family dwelling units or any combination of the two land uses but not to exceed 159 units and 45 group housing units will result in less off-site impacts. Any other alternate development scenario that is possible (if the PUD amendment is approved) would be less intense than that described above in Table A, and therefore, the site generated trips would be less than that already allowed.

TABLE 1A
TRIP GENERATION COMPUTATIONS
Esperanza Place RPUD

Previously Approved Land Uses

Land Use

<u>Code</u>	<u>Land Use Description</u>	<u>Build Schedule</u>
210	Single-Family Detached Housing	86 Units
220	Multi-Family (Low Rise)	176 Units

Land Use

<u>Code</u>	<u>Trip Period</u>	<u>Trip Generation Equation</u>	<u>Total Trips</u>	<u>Trips Enter/Exit</u>
LUC 210	Daily Traffic (ADT) =	$\ln(T) = 0.92\ln(X) + 2.71 =$	905 ADT	
	AM Peak Hour (vph) =	$T = 0.71(X) + 4.80 =$ 25% Enter/ 75% Exit =	66 vph	17 / 49 vph
	PM Peak Hour (vph) =	$\ln(T) = 0.96\ln(X) + 0.20 =$ 63% Enter/ 37% Exit =	88 vph	55 / 33 vph

LUC 220	Daily Traffic (ADT) =	$T = 7.56(X) - 40.86 =$	1,290 ADT	
	AM Peak Hour (vph) =	$\ln(T) = 0.95\ln(X) - 0.51 =$ 23% Enter/ 77% Exit =	82 vph	19 / 63 vph
	PM Peak Hour (vph) =	$\ln(T) = 0.89\ln(X) - 0.02 =$ 63% Enter/ 37% Exit =	98 vph	62 / 36 vph

Totals		Daily Traffic (ADT) =	2,195 ADT	
		AM Peak Hour (vph) =	148 vph	36 / 112 vph
		PM Peak Hour (vph) =	186 vph	117 / 69 vph

TABLE 1B
TRIP GENERATION COMPUTATIONS
Esperanza Place RPUD

Proposed Land Uses

Land Use

<u>Code</u>	<u>Land Use Description</u>	<u>Build Schedule</u>
210	Single-Family Detached Housing	111 Units
220	Multi-Family (Low Rise)	93 Units

Land Use

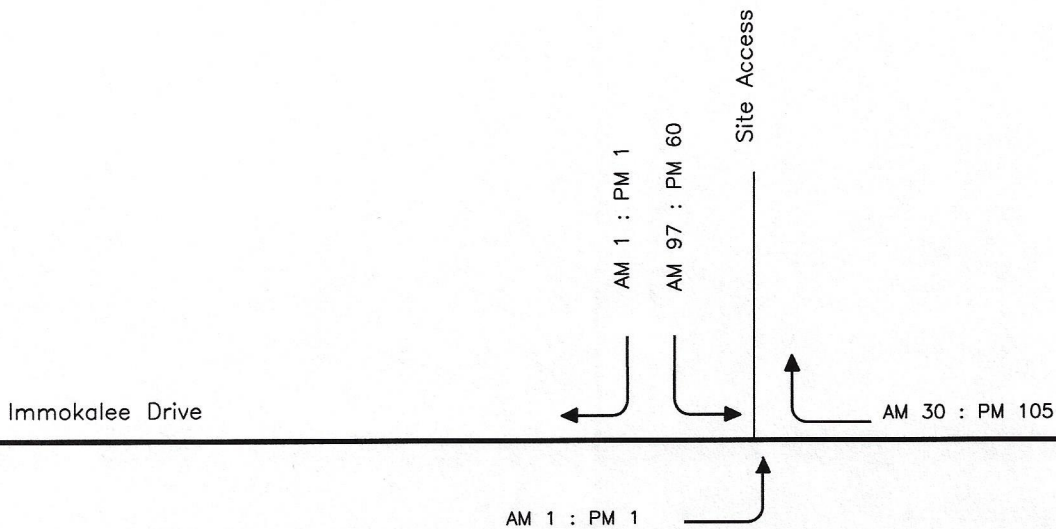
<u>Code</u>	<u>Trip Period</u>	<u>Trip Generation Equation</u>	<u>Total Trips</u>	<u>Trips Enter/Exit</u>
LUC 210	Daily Traffic (ADT) =	$\ln(T) = 0.92\ln(X) + 2.71 =$	1,145 ADT	
	AM Peak Hour (vph) =	$T = 0.71(X) + 4.80 =$ 25% Enter/ 75% Exit =	84 vph	21 / 63 vph
	PM Peak Hour (vph) =	$\ln(T) = 0.96\ln(X) + 0.20 =$ 63% Enter/ 37% Exit =	112 vph	71 / 41 vph

LUC 220	Daily Traffic (ADT) =	$T = 7.56(X) - 40.86 =$	662 ADT	
	AM Peak Hour (vph) =	$\ln(T) = 0.95\ln(X) - 0.51 =$ 23% Enter/ 77% Exit =	45 vph	10 / 35 vph
	PM Peak Hour (vph) =	$\ln(T) = 0.89\ln(X) - 0.02 =$ 63% Enter/ 37% Exit =	55 vph	35 / 20 vph

Totals		Daily Traffic (ADT) =	1,807 ADT	
		AM Peak Hour (vph) =	129 vph	31 / 98 vph
		PM Peak Hour (vph) =	168 vph	106 / 61 vph

Project-Generated Trips

AM Peak Hour = 31 enter/ 98 exit
PM Peak Hour = 106 enter/ 61 exit



LEGEND

AM 00 : PM 00 → AM : PM Weekday Peak Hour Project Traffic

JMB TRANSPORTATION ENGINEERING, INC.

Esperanza Place RPUD

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**PROJECT-GENERATED
TRAFFIC ASSIGNMENT**

FIGURE 2