

September 17, 1992

State of Florida Department of Community Affairs  
2740 Centerview Drive  
Tallahassee, Florida 32399  
Attn: Mr. Paul Darst, Planner

Florida Dept. of Environmental Regulation  
South District Office  
2295 Victoria Avenue, Suite 364  
Attn: Mr. Philip A. Barbaccia, Environmental Administrator

Southwest Florida Regional Planning Council  
4980 Bayline Drive, 4th Floor  
North Fort Myers, Florida 33917  
Attn: Mr. Wayne E. Daltry, Executive Director

Reference: Lee County Solid Waste Energy Recovery Facility  
Ft. Myers, FL

Subject: POWER PLANT SITE CERTIFICATION - DER CASE NO. PA 90-30

Dear Sir:

On behalf of Lee County, Florida (the "County"), Malcolm Pirnie, Inc., is submitting one (1) copy of the County's Traffic Impact Studies (Construction and Operation Phases) in compliance with the conditions of certification for the Lee County Solid Waste Energy Recovery Facility.

If you have any questions or concerns regarding the enclosed, please do not hesitate to contact us.

Very truly yours,

MALCOLM PIRNIE, INC.

*Donald R. Markley*

Donald R. Markley

- c: Lindsey Sampson, Lee County, (w/2 sets)  
David S. Cerrato, MPI - White Plains, (w/1 set)  
Nanette Hall, Florida Transportation Engineering, (w/o encls.)  
L. Peter Young, Ogden Martin Systems, (w/1 set)  
R. Lane Ware, UE&C, (w/1 set)  
D. Craig, IEI, (w/1 set)

RECEIVED

SEP 18 1992

D.E.R. SOUTH DISTRICT



Entered into  
**OCULUS**  
South District

# Florida Transportation Engineering, Inc.

## TRAFFIC IMPACT STATEMENT

FOR

LEE COUNTY SOLID WASTE

ENERGY RECOVERY FACILITY

OPERATION PHASE

Prepared For:

Malcolm Pirnie, Inc.

3230 W. Commercial Boulevard

Fort Lauderdale, Florida 33309

Prepared by:

Florida Transportation Engineering, Inc.  
(FTE)

September, 1992

  
Nanette Hall, P.E.

9-17-92  
Date

Registration No. PE 0036802

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SEP 18 1992

D.E.R. SOUTH DISTRICT

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## 1. EXECUTIVE SUMMARY

The Lee County Solid Waste Energy Recovery Facility is a proposed energy recovery operation to be located on the north side of Buckingham Road, east of S.R. 82. As determined by this report, this project will have a limited impact on the surrounding roadway network at the intersection of Buckingham Road and S.R. 82. Geometric improvements will be needed and potentially a signal may be needed in the future. It should be noted that these same impacts were also identified as being needed for the construction phase of this project.

## 2. SCOPE OF STUDY

The Purpose of this Traffic Impact Statement is to satisfy concurrency requirements for Lee County to establish the need, if any, for off-site improvements.

Data sources utilized in the preparation of this Traffic Impact Statement were: Ogden Martin Systems of Lee County, Malcolm Pirnie, Inc., Florida Department of Transportation, Lee County Government, Leap & Associates, Camp, Dresser & McKee, Inc., and Florida Transportation Engineering, Inc.

### 3. PROJECT DESCRIPTION

The Lee County Solid Waste Energy Recovery Facility is a proposed energy recovery operation. The proposed site is located on the north side of Buckingham Road, east of S.R. 82. The facility is estimated to have a 1200 tons per day capacity in 1995. Exhibit 1 provides a location map of this particular development.

Access to the project will be via a driveway connection to Buckingham Road. The site plan for this development is shown in Exhibit 2.

### 4. TRIP GENERATION

Vehicular trip ends generated by the project for the operation phase were calculated based on information provided in a justification study for a similar facility proposed in another Florida county. Data from the justification study is shown in Table 1 for a 1200 tons per day facility. From this data, an hourly distribution of employee trips and truck trips was determined for the Lee County facility. This data is shown in Table 2. Based on this information and distribution, peak hour trip generation for the AM peak and the PM peak were determined and provided in Table 3.

## 5. TRIP DISTRIBUTION

The trips generated by the Lee County Solid Waste Energy Recovery Facility development were manually assigned based on the development patterns existing and planned for this area of Lee County. The trip distribution was discussed and agreed upon by FTE and Lee County staff in May, 1990 during a methodology meeting for a previous traffic impact statement prepared for the Lee County Solid Waste Energy Recovery Facility for Camp, Dresser and McKee, Inc. The project traffic distribution is provided in Exhibit 3.

## 6. EXISTING TRAFFIC CONDITIONS

Buckingham Road is a two lane undivided rural collector which has a level of service D service volume of 970 vehicles per hour. S.R. 82 is a two lane undivided fringe arterial which has a level of service D service volume of 1110 vehicles per hour.

The existing 1992 daily and peak hour traffic volumes are provided for average conditions on Buckingham Road east of S.R. 82, S.R. 82 north of Buckingham Road, and S.R. 82 south of Buckingham Road. The traffic count on Buckingham Road was collected in May 1990 by FTE and converted to annual average conditions based on the monthly factor (97) for May 1990 provided in the 1990 Traffic Count Report for Lee County, Permanent Count Station No. 22.

The traffic counts on S.R. 82 north and south of Buckingham Road were provided in the 1991 Traffic Count Report for Lee County for average conditions.

The 1991 Traffic Count Report indicated negative growth on the above links. A conservative growth rate of five percent (5%) per year was assumed and agreed to by Lee County during the methodology meeting for the previous TIS, and was applied to the 1990 and 1991 traffic counts to represent existing 1992 daily traffic volumes.

The resulting average traffic volumes are provided in Exhibit 4. The existing 1992 daily peak season traffic volumes and existing levels of service on the links being analyzed are provided in Exhibit 5. The peak season factor applied to the average traffic volumes was 1.06, based on Lee County policy to use the average of the top three months. Lee County guidelines require that traffic volumes be represented as peak season volumes. Again, considering a five percent (5%) growth rate was utilized when trends indicated negative growth in the area and the application of a peak season factor of 1.06, the traffic conditions in this report represent conservative volumes.

#### 7. FUTURE TRAFFIC CONDITIONS

In order to project the future background traffic volumes for the operation phase in 1995, the five percent (5%) growth rate was applied to the 1992 peak season traffic for the major links in the project area; Buckingham Road east of S.R. 82, S.R.82 north of Buckingham Road, and S.R. 82 south of Buckingham Road.

The project traffic for the AM Peak Hour (7:00 a.m. - 8:00 a.m.) and the PM Peak Hour (5:00 p.m. - 6:00 p.m.) for the proposed construction phase is shown in Exhibit 6. This project traffic is provided by direction by link based on the trip generation and the directions of approach provided earlier in this report.

The future traffic conditions for the peak hours were determined after combining the future background traffic and the project traffic. The future 1995 AM Peak Hour traffic volumes and the PM Peak Hour traffic volumes without development traffic and the corresponding levels of service are shown in Exhibit 7 and 8 respectively. Total traffic (i.e., background + development traffic) is also shown by link in Exhibit 7 and 8, along with the corresponding future level of service with development traffic on the system.

#### **8. CAPACITY AND LEVEL OF SERVICE CALCULATIONS**

The future level of service for the 1995 AM Peak Hour and PM Peak Hour total traffic on the links was determined from the FDOT Generalized Level of Service tables. It was determined that there was no significant impact on the surrounding links. The level of service for the 1995 AM Peak Hour and PM Peak Hour total traffic is provided in Exhibits 7 and 8, respectively.



The concept of levels of service is defined as a qualitative measure describing operational conditions within a traffic stream, and their perception by motorists and/or passengers. Six levels of service are defined. They are given letter designations, from A to F, with level-of-service A representing the best operating conditions and level-of-service F the worst. Level-of-service A represents free flow. Level-of-service B is in the range of stable flow, but the presence of other users in the traffic stream begins to be noticeable. Level-of-service C is in the range of stable flow, but marks the beginning of the range of flow in which the operations of individual users becomes significantly affected by interactions with others in the traffic stream. Level-of-service D represents high-density, but stable, flow. Level-of-service E represents operating conditions at or near the capacity level. Level-of-service F is used to define forced or breakdown flow.

Intersection capacity analyses were performed at Buckingham Road and the site access, and at Buckingham Road and S.R. 82 utilizing the 1985 Highway Capacity Manual (HCM) software. It should be noted that the turning radii and truck percentages used were default values commonly used for the purpose of traffic impact analysis. When a detailed access design is prepared, actual radii and truck percentages considered appropriate to Lee County will be used.

The following level of service resulted from the capacity analyses:

<u>Location</u>			
1995 Total Traffic (Background + Development)		<u>AM</u>	<u>PM</u>
Buckingham Road & Site Access Buckingham Road & S.R. 82		A	A
	WB LEFT:	F	F
	SB LEFT:	B	B
1995 Background Traffic w/o Development		<u>AM</u>	<u>PM</u>
Buckingham Road & S.R. 82	WB LEFT:	F	F
	SB LEFT:	A	A

The westbound left turn movement at the intersection of Buckingham Road and S.R. 82 would operate at a deficient level of service, with the existing geometrics in the AM Peak Hour and PM Peak Hour with development traffic on the system and in the PM Peak Hour without development traffic on the system.

Additional analyses were performed during the site peak hours. There were no impacts to the site access during the site AM peak hour (10:00 a.m. - 11:00 a.m.) nor the site PM peak hour (2:00 p.m. - 3:00 p.m.). The level of service during both site peak hours were LOS A.

## 9. REQUIRED IMPROVEMENTS

Based on the capacity analyses detailed in this report, there are no significant impacts on the surrounding roadway links due to the traffic associated with the proposed development. The intersection capacity analyses indicated deficiencies at the intersection of Buckingham Road and S.R. 82. Based on the current Lee County Turn Lane Policy, a left turn lane is required for the westbound approach, a left turn lane is required for the southbound approach, and a right turn lane is required for the northbound approach to the intersection of Buckingham Road and S.R. 82. Due to the fact that Buckingham Road is currently posted at 50 mph, a left-turn lane for eastbound traffic will need to be constructed to service the vehicles accessing the site, based on the current Lee County Turn Lane Policy.

The intersection of S.R. 82 and Buckingham Road does warrant a traffic signal based on the future traffic volumes developed in this report. The signal warrant worksheets are included in the Appendix. However, this conclusion again is based on the assumed 5% growth rate that may not happen based on recent growth trend information. Therefore, it is recommended that the geometric improvements described in this section be constructed, but to wait to install the signal until future studies can be performed to verify that the warrants have been met.

#### 10. ADDITIONAL TRANSPORTATION ISSUES

The loading designation for the roadways and bridges on the adjacent road network were checked. The bridges and roadway network will be signed to accommodate the truck loadings associated with the Lee County Solid Waste Energy Recovery Facility. Therefore, no maintenance costs are anticipated that would be as a result of increased loading (weight) from the Energy Recovery Facility Vehicles.

If the operator of the facility requires special permits for oversized or over weight loads, proper permits will be obtained from the appropriate agencies. No special permits have been identified to date.

Traffic flow associated with hauling ash residue from the Lee County facility via S.R. 82 will not be significantly different from the existing routes to the current landfill. The impacts of peak hour flow have been addressed in this traffic study and off peak traffic will not significantly impact the flow on S.R. 82.

The proposed joint Hendry/Lee County landfill is scheduled to be located in western Hendry County, Township 45 South, Range 28 East. Existing truck patterns to and from S.R. 82 and along S.R. 82 to the existing landfill will remain substantially the same due to S.R. 82 currently functioning as a connecting route between pick-up and the existing landfill, and continuing to function as a connecting route between the Lee County facility and the new landfill in Hendry County.

Ash residue would be hauled from the recovery facility to the landfill utilizing one truck per hour depending if the landfill would be open 24 hours a day or utilizing two trucks per hour if the landfill would be open 12 hours per day. Occasionally, there would be an additional trip to the landfill. Based on these trips from the Lee County Solid Waste Energy Recovery facility to the landfill in Hendry County, the impacts associated with these trips would be negligible.

APPENDIX

## APPENDIX

Contained in the Appendix are the following:

1. Tables 1, 2, and 3
2. Exhibits 1 through 8
3. Highway Capacity Manual (HCM) Software Analyses
4. FTE Raw Traffic Counts
5. Signal Warrant Worksheets

**TABLES 1, 2, AND 3**



TABLE 1

HOURLY DISTRIBUTION OF INCREASED TRAFFIC VOLUME  
FOR YEAR 2010 VEHICLE TRIPS

Time Period	Administration and Support	Communting Employees	Packer Trucks	Total
0001-0100	0	12	0	12
0100-0200	0	0	0	0
0200-0300	0	0	0	0
0300-0400	0	0	0	0
0400-0500	0	0	0	0
0500-0600	0	0	0	0
0600-0700	0	30	0	30
0700-0800 <sup>a, b</sup>	0	0	0	0
0800-0900	1	12	44	57
0900-1000	2	0	31	33
1000-1100 <sup>c</sup>	2	0	65	67
1100-1200	1	0	30	31
1200-1300	1	0	24	25
1300-1400	2	0	46	48
1400-1500 <sup>c</sup>	2	12	56	70
1500-1600	1	0	44	45
1600-1700	2	21	0	23
1700-1800 <sup>a, b</sup>	0	0	0	0
1800-1900	0	9	0	9
1900-2000	0	0	0	0
2000-2100	0	0	0	0
2100-2200	0	0	0	0
2200-2300	0	12	0	12
2300-2400	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
	14	108	340	462

<sup>a</sup> It is possible that some traffic volume would occur during these periods. During the early hour period some traffic could be generated by employees arriving late for the first shift or some private packers arriving before the normal scheduled opening of the facility.

<sup>b</sup> Existing peak traffic volume hours.

<sup>c</sup> Estimated facility peak traffic volume hours.

TABLE 2

## HOURLY DISTRIBUTION OF PROJECT TRIPS

TIME PERIOD	EMPLOYEE TRIPS*	TRUCK TRIP	TOTAL
0001-0100	5	0	5
0100-0200	0	0	0
0200-0300	0	0	0
0300-0400	0	0	0
0400-0500	0	0	0
0500-0600	0	0	0
0600-0700	30	0	30
0700-0800	0	31	31
0800-0900	5	38	43
0900-1000	0	26	26
1000-1100**	0	57	57
1100-1200	0	25	25
1200-1300	0	21	21
1300-1400	0	39	39
1400-1500**	5	48	53
1500-1600	0	38	38
1600-1700	30	17	47
1700-1800	0	0	0
1800-1900	0	0	0
1900-2000	0	0	0
2000-2100	0	0	0
2100-2200	0	0	0
2200-2300	5	0	5
2300-2400	0	0	0
	80	340	420

\* Based on 8-hour shifts.

\*\* Estimated facility peak traffic volume hours.

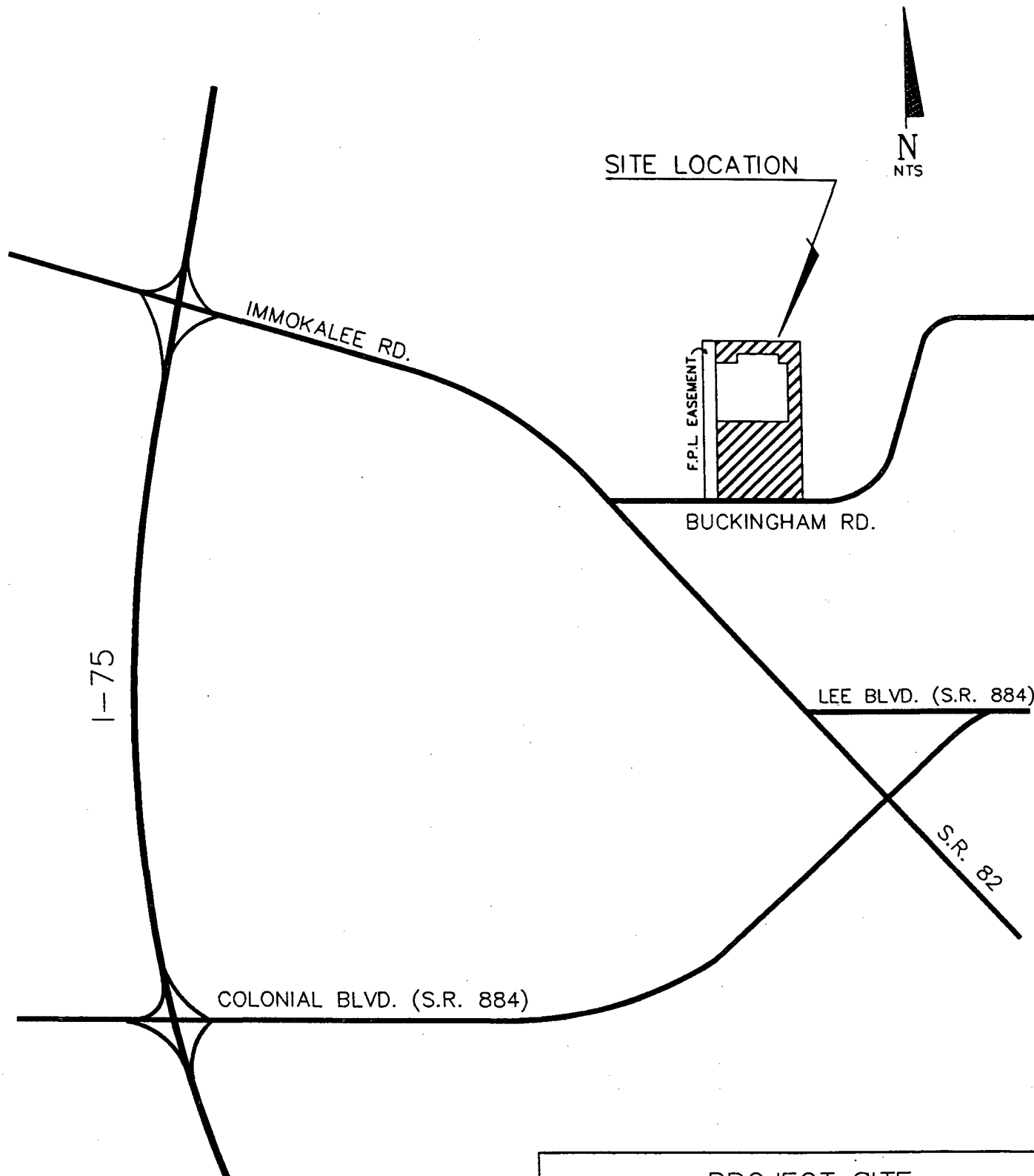
TABLE 3

LEE COUNTY SOLID WASTE ENERGY RECOVERY FACILITY  
TRIP GENERATION

1200 TPD  
(OPERATION PHASE)

DAILY	420
SITE AM PEAK (0700-0800)	
IN	19
OUT	12
TOTAL	31
SITE PM PEAK (1700-1800)	
IN	19
OUT	28
TOTAL	47

EXHIBITS 1 THROUGH 8



PROJECT SITE  
LOCATION MAP

LEE COUNTY SOLID WASTE  
ENERGY RECOVERY FACILITY

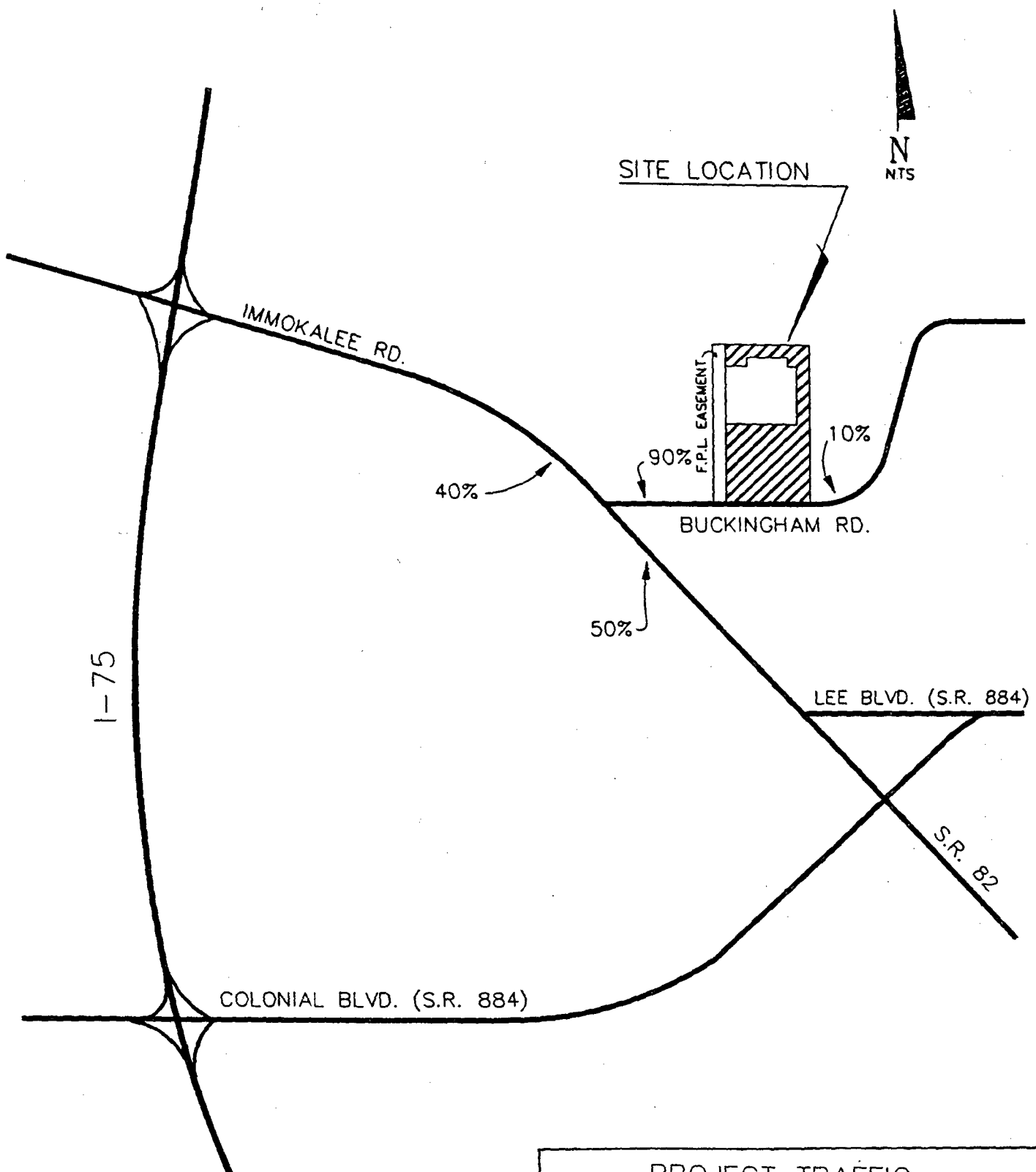
**FTE**

Florida Transportation Engineering, Inc.  
8250 Pascal Drive  
Suite 101  
Punta Gorda, Fl. 33950  
(813) 639-2818

EXHIBIT

1





# PROJECT TRAFFIC DIRECTIONAL DISTRIBUTION

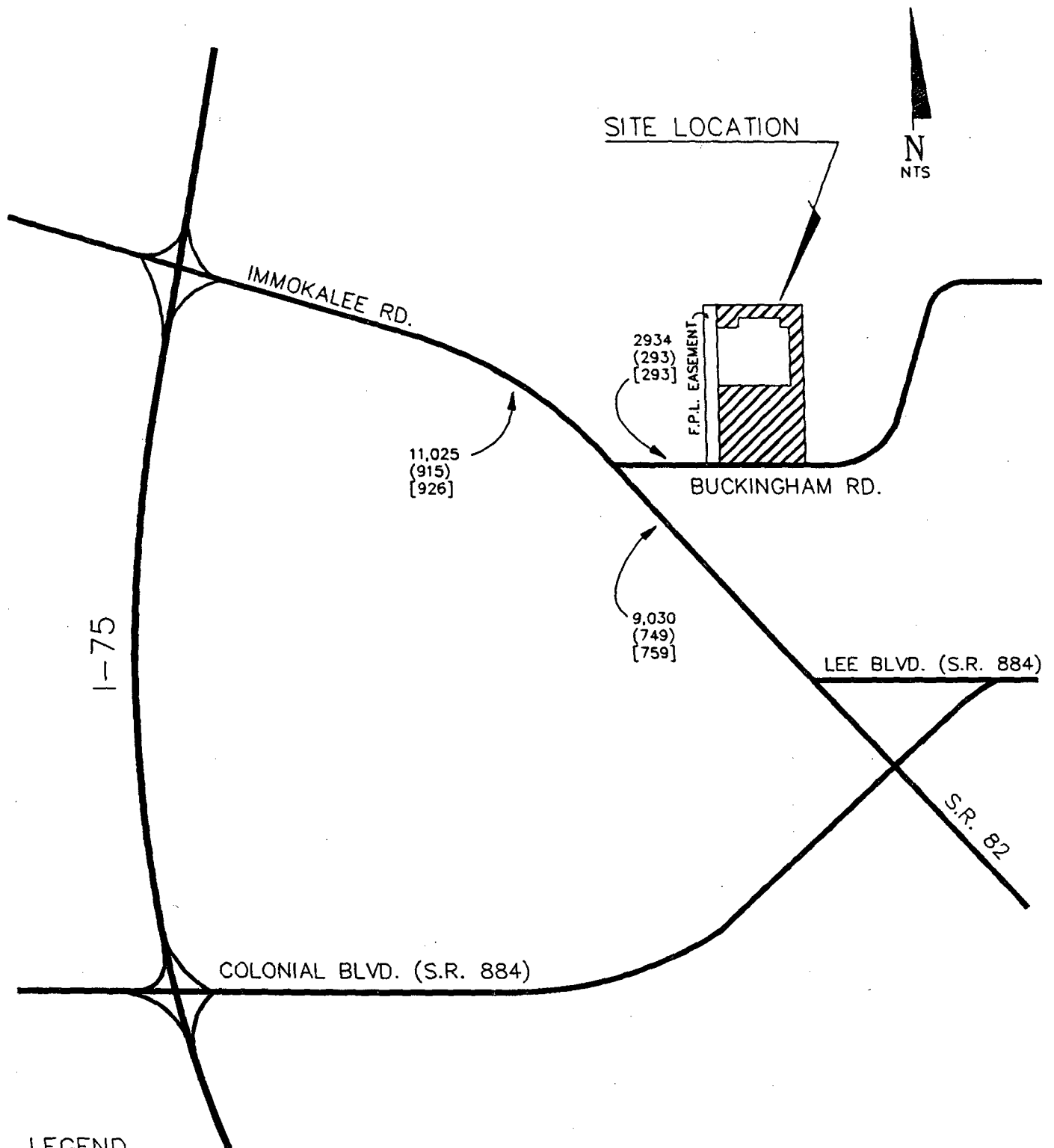
LEE COUNTY SOLID WASTE  
ENERGY RECOVERY FACILITY

**FTE**

Florida Transportation Engineering, Inc.  
8250 Pascal Drive  
Suite 101  
Punta Gorda, Fl. 33950  
(813) 639-2818

EXHIBIT

3



# **LEGEND**

000 DAILY  
 (000) AM PEAK HOUR (7:00 am - 8:00 am)  
 [000] PM PEAK HOUR (5:00 pm - 6:00 pm)

**1992 EXISTING TRAFFIC  
 (AVERAGE CONDITIONS)  
 OPERATION PHASE**

**LEE COUNTY SOLID WASTE  
 ENERGY RECOVERY FACILITY**

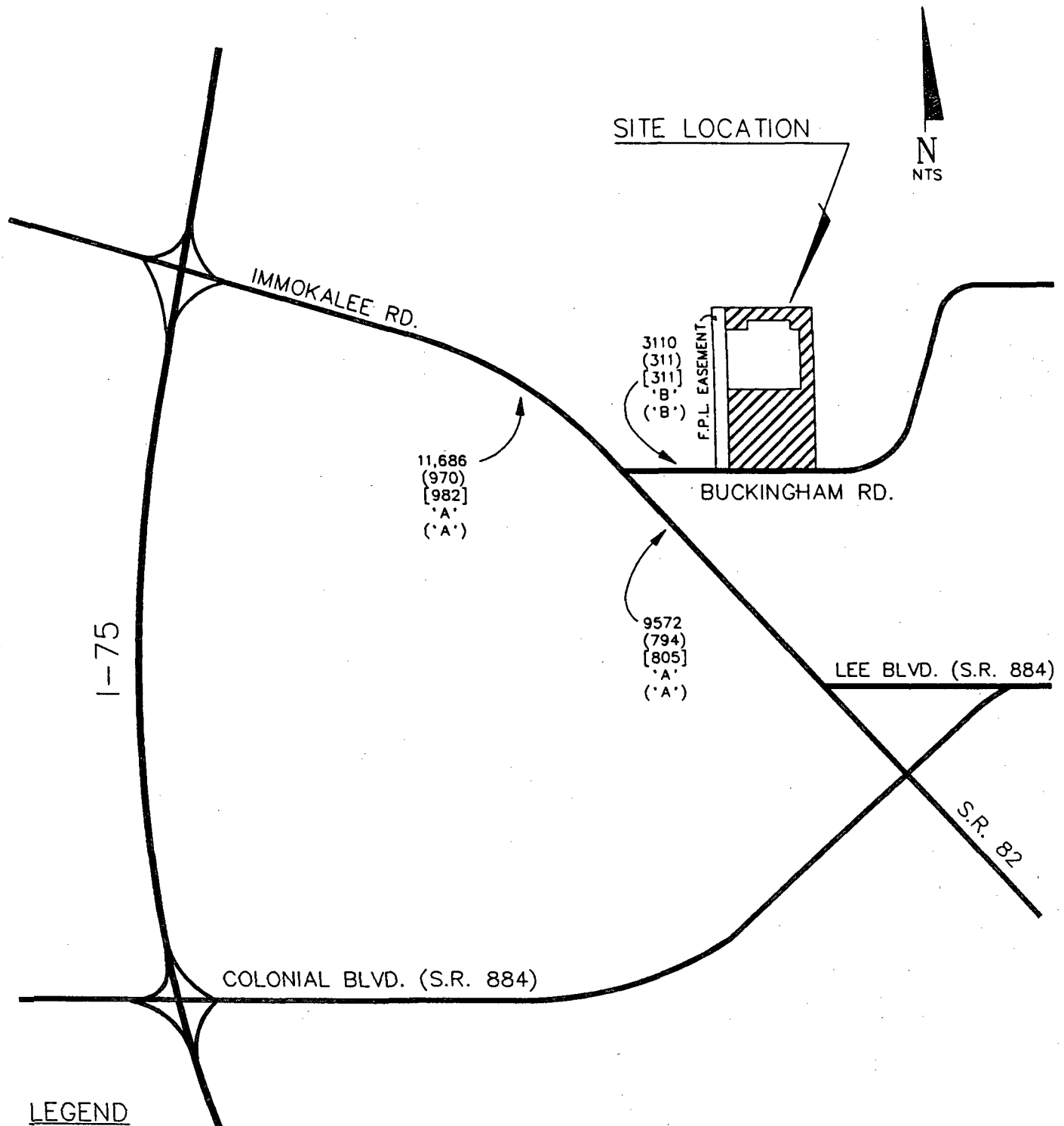
**FTE**

Florida Transportation Engineering, Inc.  
 8250 Pascal Drive  
 Suite 101  
 Punta Gorda, FL 33950  
 (813) 639-2818

**EXHIBIT**

**4**





# **LEGEND**

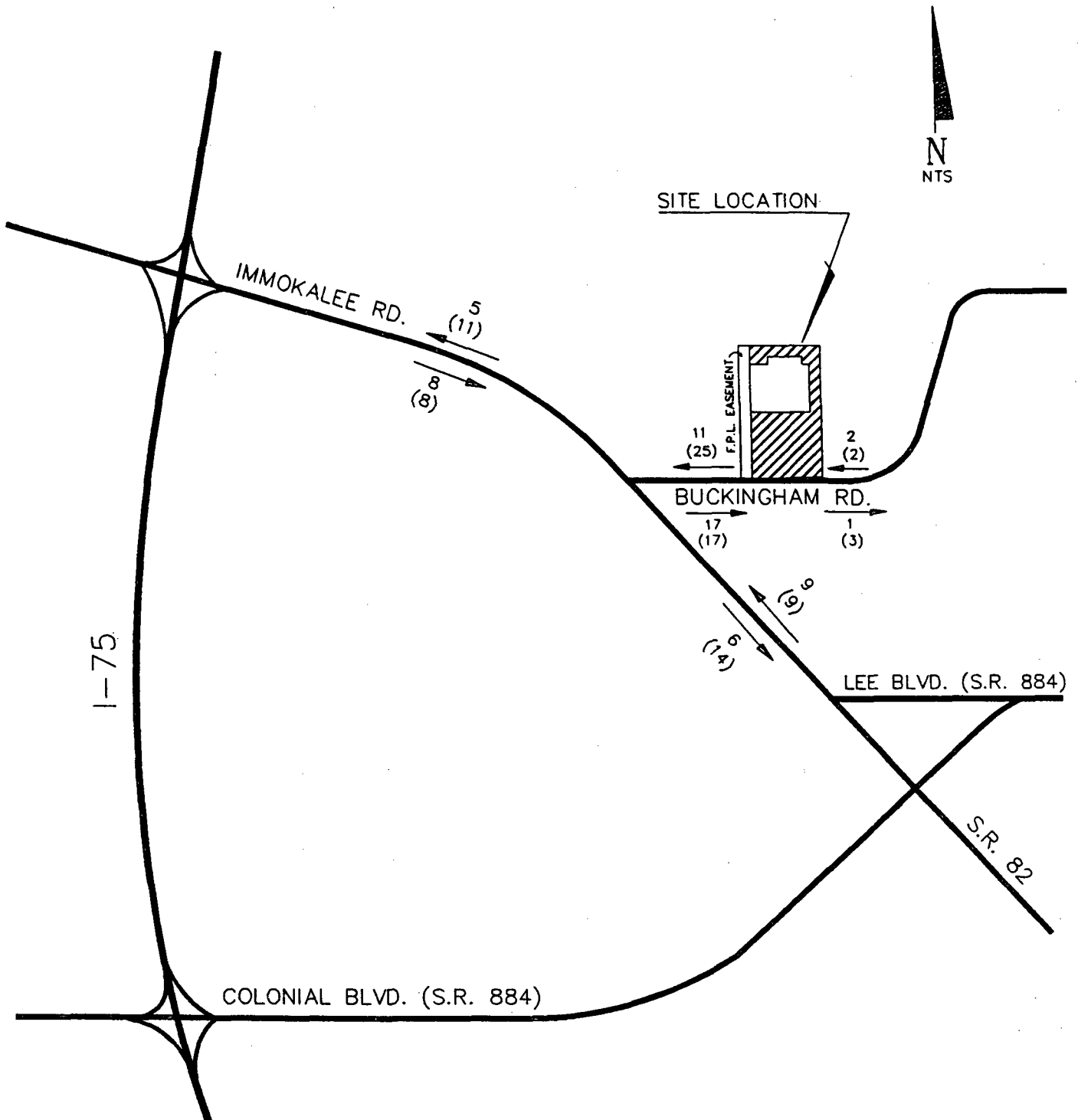
000 DAILY  
 (000) AM PEAK HOUR (7:00 am - 8:00 am)  
 [000] PM PEAK HOUR (5:00 pm - 6:00 pm)  
 'A' AM EXISTING LOS  
 ('A') PM EXISTING LOS

1992 EXISTING TRAFFIC  
 (PEAK SEASON)  
 OPERATION PHASE

LEE COUNTY SOLID WASTE  
 ENERGY RECOVERY FACILITY

**FTE**  
 Florida Transportation Engineering, Inc.  
 8250 Pascal Drive  
 Suite 101  
 Punta Gorda, FL 33950  
 (813) 639-2818

EXHIBIT  
 5



### LEGEND

00 AM PEAK (7:00 am - 8:00 am)  
 (00) PM PEAK (5:00 pm - 6:00 pm)

PROJECT TRAFFIC  
 OPERATION PHASE

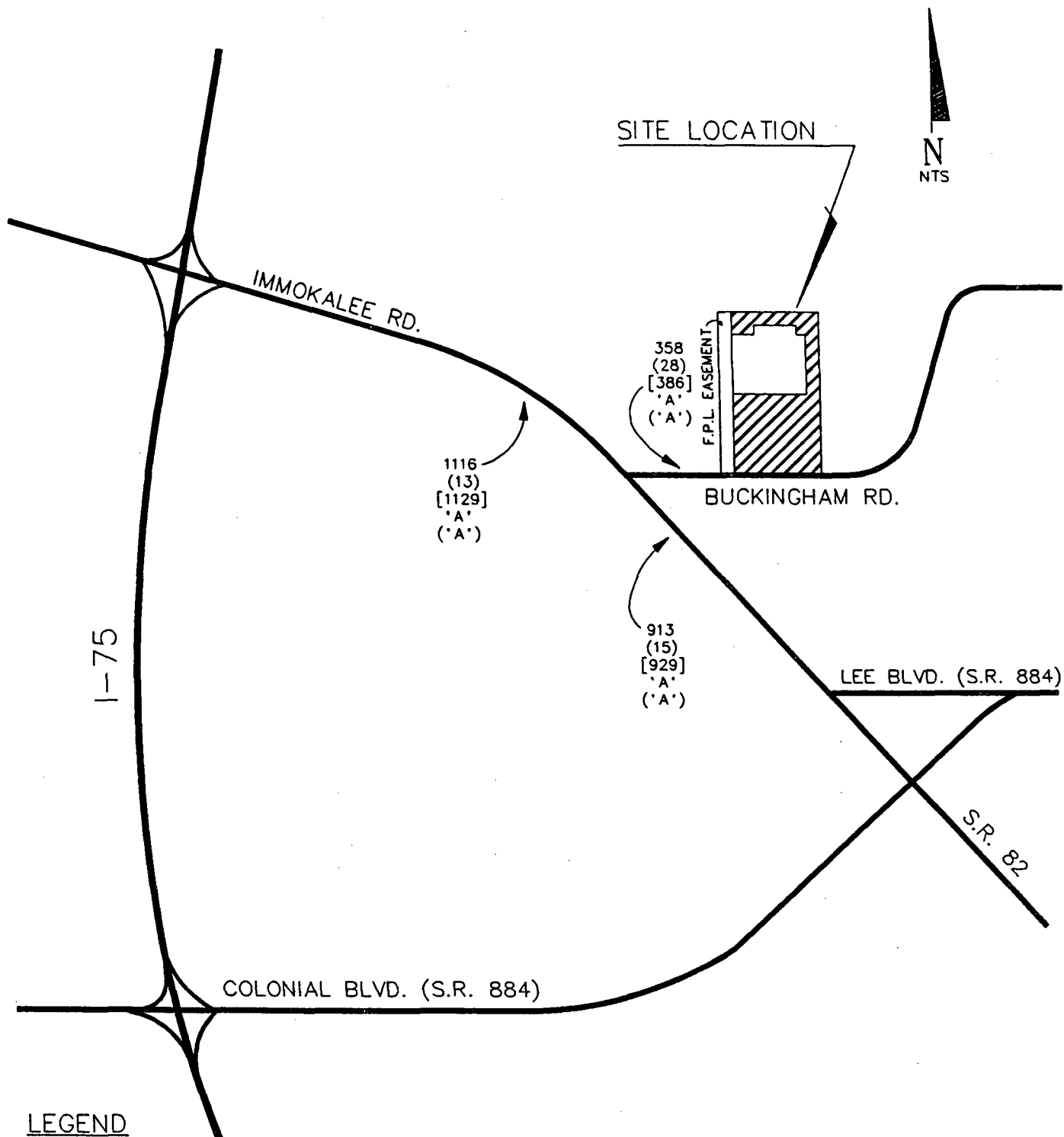
LEE COUNTY SOLID WASTE  
 ENERGY RECOVERY FACILITY

**FTE**

Florida Transportation Engineering, Inc.  
 8250 Pascal Drive  
 Suite 101  
 Punta Gorda, Fl. 33950  
 (813) 639-2818

EXHIBIT

6



### LEGEND

- 000 BACKGROUND TRAFFIC
- (000) DEVELOPMENT TRAFFIC
- [000] BACKGROUND & DEVELOPMENT TRAFFIC
- 'A' FUTURE LOS W/O DEVELOPMENT
- ('A') FUTURE LOS W/ DEVELOPMENT

### FUTURE TRAFFIC CONDITIONS 1995 AM PEAK HOUR OPERATION PHASE

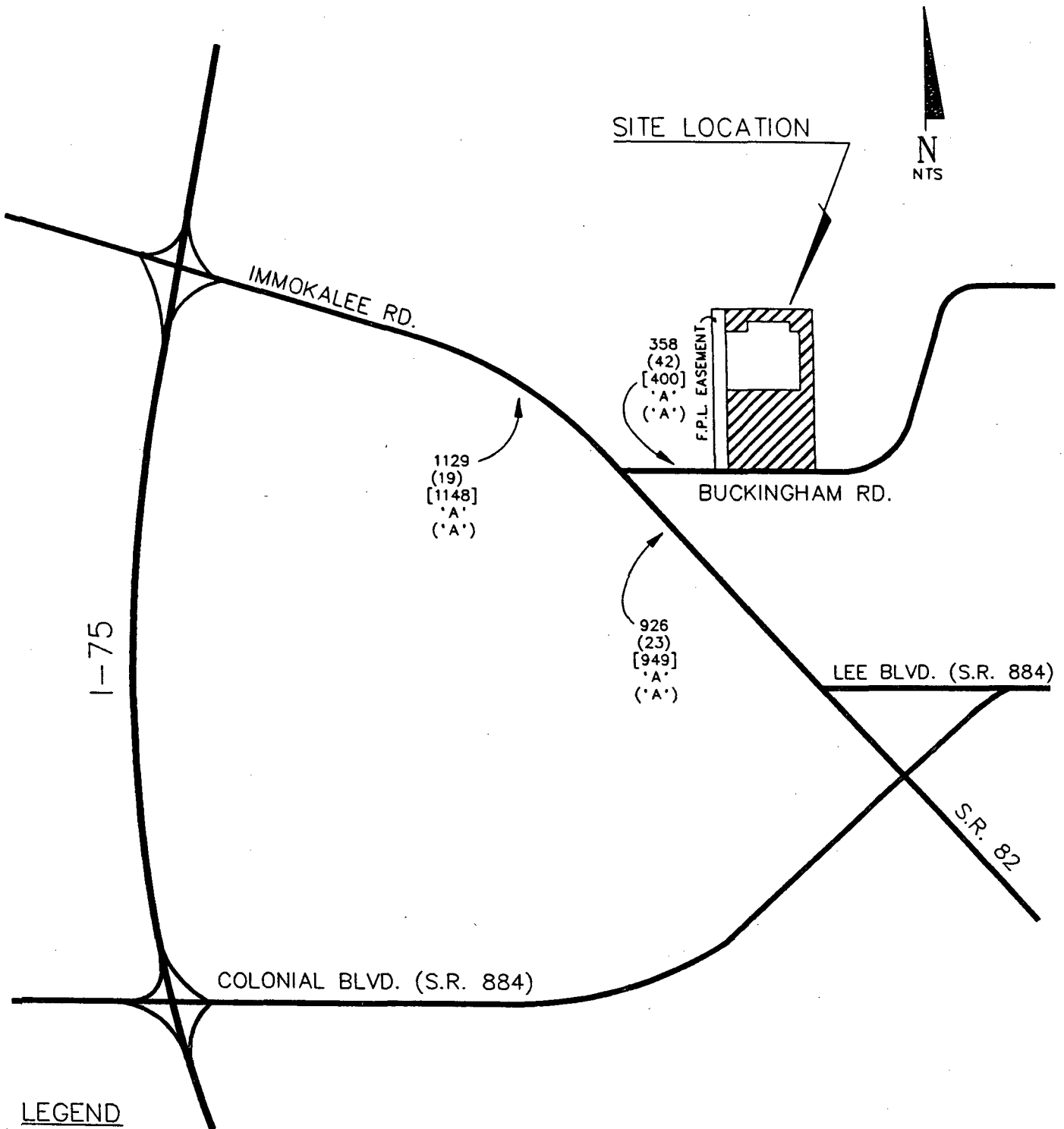
LEE COUNTY SOLID WASTE  
ENERGY RECOVERY FACILITY

**FTE**

Florida Transportation Engineering, Inc.  
8250 Pascal Drive  
Suite 101  
Punta Gorda, FL 33950  
(813) 639-2818

EXHIBIT

7



# **LEGEND**

- 000 BACKGROUND TRAFFIC
- (000) DEVELOPMENT TRAFFIC
- [000] BACKGROUND & DEVELOPMENT TRAFFIC
- 'A' FUTURE LOS W/O DEVELOPMENT
- ( 'A' ) FUTURE LOS W/ DEVELOPMENT

## **FUTURE TRAFFIC CONDITIONS 1995 PM PEAK HOUR OPERATION PHASE**

LEE COUNTY SOLID WASTE  
ENERGY RECOVERY FACILITY

**FTE**  
Florida Transportation Engineering, Inc.  
8250 Pascal Drive  
Suite 101  
Punta Gorda, FL 33950  
(813) 639-2818

**EXHIBIT**  
8

**HIGHWAY CAPACITY MANUAL**  
**SOFTWARE ANALYSES**

\*\*\*\*\*

## IDENTIFYING INFORMATION

AVERAGE RUNNING SPEED, MAJOR STREET.. 50

PEAK HOUR FACTOR..... .9

AREA POPULATION..... 150000

NAME OF THE EAST/WEST STREET..... BUCKINGHAM ROAD

NAME OF THE NORTH/SOUTH STREET..... SITE DRWY

NAME OF THE ANALYST..... FTE

DATE OF THE ANALYSIS (mm/dd/yy)..... 9-16-92

TIME PERIOD ANALYZED..... AM PEAK HOUR

OTHER INFORMATION.... 1995 TOTAL TRAFFIC (BACKGROUND + DEVELOPMENT)

## INTERSECTION TYPE AND CONTROL

INTERSECTION TYPE: T-INTERSECTION

MAJOR STREET DIRECTION: EAST/WEST

CONTROL TYPE SOUTHBOUND: STOP SIGN

## TRAFFIC VOLUMES

	EB	WB	NB	SB
LEFT	17	0	--	1
THRU	132	226	--	0
RIGHT	0	2	--	11

## NUMBER OF LANES

	EB	WB	NB	SB
LANES	2	1	--	1

## ADJUSTMENT FACTORS

Page-2

	PERCENT GRADE	RIGHT TURN ANGLE	CURB RADIUS (ft) FOR RIGHT TURNS	ACCELERATION LANE FOR RIGHT TURNS
EASTBOUND	0.00	90	20	N
WESTBOUND	0.00	90	20	N
NORTHBOUND	-----	---	---	-
SOUTHBOUND	0.00	90	20	N

## VEHICLE COMPOSITION

	% SU TRUCKS AND RV'S	% COMBINATION VEHICLES	% MOTORCYCLES
EASTBOUND	5	0	0
WESTBOUND	5	0	0
NORTHBOUND	---	---	---
SOUTHBOUND	5	0	0

## CRITICAL GAPS

	TABULAR VALUES (Table 10-2)	ADJUSTED VALUE	SIGHT DIST. ADJUSTMENT	FINAL CRITICAL GAP
MINOR RIGHTS				
SB	6.30	6.30	0.00	6.30
MAJOR LEFTS				
EB	5.40	5.40	0.00	5.40
MINOR LEFTS				
SB	7.70	7.70	0.00	7.70

## IDENTIFYING INFORMATION

NAME OF THE EAST/WEST STREET..... BUCKINGHAM ROAD  
NAME OF THE NORTH/SOUTH STREET.... SITE DRWY  
DATE AND TIME OF THE ANALYSIS..... 9-16-92 ; AM PEAK HOUR  
OTHER INFORMATION.... 1995 TOTAL TRAFFIC (BACKGROUND + DEVELOPMENT)

## CAPACITY AND LEVEL-OF-SERVICE

Page-3

MOVEMENT	FLOW- RATE v (pcph)	POTEN- TIAL CAPACITY c (pcph) p	ACTUAL MOVEMENT CAPACITY c (pcph) M		SHARED CAPACITY c (pcph) SH		RESERVE CAPACITY c = c - v R SH		LOS
MINOR STREET									
SB LEFT	1	428	422	>	422	>	421	>	A
				>	668	>	655	>	A
RIGHT	13	706	706	>	706	>	693	>	A
MAJOR STREET									
EB LEFT	19	856	856		856		837		A

## IDENTIFYING INFORMATION

NAME OF THE EAST/WEST STREET..... BUCKINGHAM ROAD

NAME OF THE NORTH/SOUTH STREET..... SITE DRWY

DATE AND TIME OF THE ANALYSIS..... 9-16-92 ; AM PEAK HOUR

OTHER INFORMATION..... 1995 TOTAL TRAFFIC (BACKGROUND + DEVELOPMENT)



## 1985 HCM: UNSIGNALIZED INTERSECTIONS

Page-1

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## IDENTIFYING INFORMATION

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AVERAGE RUNNING SPEED, MAJOR STREET.. 50

PEAK HOUR FACTOR..... .9

AREA POPULATION..... 150000

NAME OF THE EAST/WEST STREET..... BUCKINGHAM ROAD

NAME OF THE NORTH/SOUTH STREET..... SITE DRWY

NAME OF THE ANALYST..... FTE

DATE OF THE ANALYSIS (mm/dd/yy)..... 9-16-92

TIME PERIOD ANALYZED..... PM PEAK HOUR

OTHER INFORMATION.... 1995 TOTAL TRAFFIC (BACKGROUND + DEVELOPMENT)

INTERSECTION TYPE AND CONTROL

-----

INTERSECTION TYPE: T-INTERSECTION

MAJOR STREET DIRECTION: EAST/WEST

CONTROL TYPE SOUTHBOUND: STOP SIGN

## TRAFFIC VOLUMES

-----

	EB	WB	NB	SB
	----	----	----	----
LEFT	17	0	--	25
THRU	193	165	--	0
RIGHT	0	2	--	3

## NUMBER OF LANES

-----

	EB	WB	NB	SB
	----	----	----	----
LANES	2	1	--	1

## ADJUSTMENT FACTORS

Page-2

	PERCENT GRADE	RIGHT TURN ANGLE	CURB RADIUS (ft) FOR RIGHT TURNS	ACCELERATION LANE FOR RIGHT TURNS
EASTBOUND	0.00	90	20	N
WESTBOUND	0.00	90	20	N
NORTHBOUND	-----	---	---	-
SOUTHBOUND	0.00	90	20	N

## VEHICLE COMPOSITION

	% SU TRUCKS AND RV'S	% COMBINATION VEHICLES	% MOTORCYCLES
EASTBOUND	5	0	0
WESTBOUND	5	0	0
NORTHBOUND	---	---	---
SOUTHBOUND	5	0	0

## CRITICAL GAPS

	TABULAR VALUES (Table 10-2)	ADJUSTED VALUE	SIGHT DIST. ADJUSTMENT	FINAL CRITICAL GAP
MINOR RIGHTS				
SB	6.30	6.30	0.00	6.30
MAJOR LEFTS				
EB	5.40	5.40	0.00	5.40
MINOR LEFTS				
SB	7.70	7.70	0.00	7.70

## IDENTIFYING INFORMATION

NAME OF THE EAST/WEST STREET..... BUCKINGHAM ROAD  
 NAME OF THE NORTH/SOUTH STREET.... SITE DRWY  
 DATE AND TIME OF THE ANALYSIS..... 9-16-92 ; PM PEAK HOUR  
 OTHER INFORMATION.... 1995 TOTAL TRAFFIC (BACKGROUND + DEVELOPMENT)

## CAPACITY AND LEVEL-OF-SERVICE

Page-3

MOVEMENT	FLOW- RATE v (pcph)	POTEN- TIAL CAPACITY c (pcph) p	ACTUAL MOVEMENT CAPACITY c (pcph) M		SHARED CAPACITY c (pcph) SH		RESERVE CAPACITY c = c - v R SH	LOS
MINOR STREET								
SB LEFT	28	428	423	>	423	>	394	> B
				>	444	>	412	> A
RIGHT	3	766	766	>	766	>	762	> A
MAJOR STREET								
EB LEFT	19	922	922		922		902	A

## IDENTIFYING INFORMATION

NAME OF THE EAST/WEST STREET..... BUCKINGHAM ROAD

NAME OF THE NORTH/SOUTH STREET.... SITE DRWY

DATE AND TIME OF THE ANALYSIS..... 9-16-92 ; PM PEAK HOUR

OTHER INFORMATION.... 1995 TOTAL TRAFFIC (BACKGROUND + DEVELOPMENT)

## 1985 HCM: UNSIGNALIZED INTERSECTIONS

Page-1

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## IDENTIFYING INFORMATION

-----

AVERAGE RUNNING SPEED, MAJOR STREET.. 50

PEAK HOUR FACTOR..... .9

AREA POPULATION..... 150000

NAME OF THE EAST/WEST STREET..... BUCKINGHAM ROAD

NAME OF THE NORTH/SOUTH STREET..... SITE DRWY

NAME OF THE ANALYST..... FTE

DATE OF THE ANALYSIS (mm/dd/yy)..... 9-16-92

TIME PERIOD ANALYZED..... SITE AM PEAK

OTHER INFORMATION.... 1995 TOTAL TRAFFIC (BACKGROUND + DEVELOPMENT)

INTERSECTION TYPE AND CONTROL

-----

INTERSECTION TYPE: T-INTERSECTION

MAJOR STREET DIRECTION: EAST/WEST

CONTROL TYPE SOUTHBOUND: STOP SIGN

## TRAFFIC VOLUMES

-----

	EB	WB	NB	SB
	----	----	----	----
LEFT	32	0	--	2
THRU	56	88	--	0
RIGHT	0	3	--	20

## NUMBER OF LANES

-----

	EB	WB	NB	SB
	----	----	----	----
LANES	2	1	--	1

## ADJUSTMENT FACTORS

Page-2

	PERCENT GRADE	RIGHT TURN ANGLE	CURB RADIUS (ft) FOR RIGHT TURNS	ACCELERATION LANE FOR RIGHT TURNS
EASTBOUND	0.00	90	20	N
WESTBOUND	0.00	90	20	N
NORTHBOUND	-----	---	---	-
SOUTHBOUND	0.00	90	20	N

## VEHICLE COMPOSITION

	% SU TRUCKS AND RV'S	% COMBINATION VEHICLES	% MOTORCYCLES
EASTBOUND	5	0	0
WESTBOUND	5	0	0
NORTHBOUND	---	---	---
SOUTHBOUND	5	0	0

## CRITICAL GAPS

	TABULAR VALUES (Table 10-2)	ADJUSTED VALUE	SIGHT DIST. ADJUSTMENT	FINAL CRITICAL GAP
MINOR RIGHTS				
SB	6.30	6.30	0.00	6.30
MAJOR LEFTS				
EB	5.40	5.40	0.00	5.40
MINOR LEFTS				
SB	7.70	7.70	0.00	7.70

## IDENTIFYING INFORMATION

NAME OF THE EAST/WEST STREET..... BUCKINGHAM ROAD  
 NAME OF THE NORTH/SOUTH STREET.... SITE DRWY  
 DATE AND TIME OF THE ANALYSIS..... 9-16-92 ; SITE AM PEAK  
 OTHER INFORMATION.... 1995 TOTAL TRAFFIC (BACKGROUND + DEVELOPMENT)

## CAPACITY AND LEVEL-OF-SERVICE

Page-3

MOVEMENT	FLOW- RATE v(pcph)	POTEN- TIAL CAPACITY c (pcph) p	ACTUAL MOVEMENT CAPACITY c (pcph) M		SHARED CAPACITY c (pcph) SH		RESERVE CAPACITY c = c - v R SH		LOS
-----									
MINOR STREET									
SB LEFT	2	596	583	>	583	>	581	>	A
				>	817	>	792	>	A
RIGHT	23	851	851	>	851	>	828	>	A
MAJOR STREET									
EB LEFT	36	995	995		995		959		A

## IDENTIFYING INFORMATION

NAME OF THE EAST/WEST STREET..... BUCKINGHAM ROAD

NAME OF THE NORTH/SOUTH STREET.... SITE DRWY

DATE AND TIME OF THE ANALYSIS..... 9-16-92 ; SITE AM PEAK

OTHER INFORMATION.... 1995 TOTAL TRAFFIC (BACKGROUND + DEVELOPMENT)

\*\*\*\*\*

## IDENTIFYING INFORMATION

-----

AVERAGE RUNNING SPEED, MAJOR STREET.. 50

PEAK HOUR FACTOR..... .9

AREA POPULATION..... 150000

NAME OF THE EAST/WEST STREET..... BUCKINGHAM ROAD

NAME OF THE NORTH/SOUTH STREET..... SITE DRWY

NAME OF THE ANALYST..... FTE

DATE OF THE ANALYSIS (mm/dd/yy)..... 9-16-92

TIME PERIOD ANALYZED..... SITE PM PEAK

OTHER INFORMATION.... 1995 TOTAL TRAFFIC (BACKGROUND + DEVELOPMENT)

## INTERSECTION TYPE AND CONTROL

-----

INTERSECTION TYPE: T-INTERSECTION

MAJOR STREET DIRECTION: EAST/WEST

CONTROL TYPE SOUTHBOUND: STOP SIGN

## TRAFFIC VOLUMES

-----

	EB	WB	NB	SB
	----	----	----	----
LEFT	25	0	--	4
THRU	132	78	--	0
RIGHT	0	3	--	38

## NUMBER OF LANES

-----

	EB	WB	NB	SB
	----	----	----	----
LANES	1	2	--	1

## ADJUSTMENT FACTORS

Page-2

	PERCENT GRADE	RIGHT TURN ANGLE	CURB RADIUS (ft) FOR RIGHT TURNS	ACCELERATION LANE FOR RIGHT TURNS
EASTBOUND	0.00	90	20	N
WESTBOUND	0.00	90	20	N
NORTHBOUND	-----	---	---	-
SOUTHBOUND	0.00	90	20	N

## VEHICLE COMPOSITION

	% SU TRUCKS AND RV'S	% COMBINATION VEHICLES	% MOTORCYCLES
EASTBOUND	5	0	0
WESTBOUND	5	0	0
NORTHBOUND	---	---	---
SOUTHBOUND	5	0	0

## CRITICAL GAPS

	TABULAR VALUES (Table 10-2)	ADJUSTED VALUE	SIGHT DIST. ADJUSTMENT	FINAL CRITICAL GAP
MINOR RIGHTS				
SB	6.30	6.30	0.00	6.30
MAJOR LEFTS				
EB	5.90	5.90	0.00	5.90
MINOR LEFTS				
SB	8.20	8.20	0.00	8.20

## IDENTIFYING INFORMATION

NAME OF THE EAST/WEST STREET..... BUCKINGHAM ROAD  
NAME OF THE NORTH/SOUTH STREET.... SITE DRWY  
DATE AND TIME OF THE ANALYSIS..... 9-16-92 ; SITE PM PEAK  
OTHER INFORMATION.... 1995 TOTAL TRAFFIC (BACKGROUND + DEVELOPMENT)



## CAPACITY AND LEVEL-OF-SERVICE

Page-3

MOVEMENT	FLOW- RATE v(pcph)	POTEN- TIAL CAPACITY c (pcph) p	ACTUAL MOVEMENT CAPACITY c (pcph) M		SHARED CAPACITY c (pcph) SH		RESERVE CAPACITY c = c - v R SH		LOS
-----									
MINOR STREET									
SB LEFT	5	502	492	>	492	>	488	>	A
				>	839	>	791	>	A
RIGHT	43	906	906	>	906	>	863	>	A
MAJOR STREET									
EB LEFT	28	924	924		924		895		A

## IDENTIFYING INFORMATION

NAME OF THE EAST/WEST STREET..... BUCKINGHAM ROAD

NAME OF THE NORTH/SOUTH STREET.... SITE DRWY

DATE AND TIME OF THE ANALYSIS..... 9-16-92 ; SITE PM PEAK

OTHER INFORMATION.... 1995 TOTAL TRAFFIC (BACKGROUND + DEVELOPMENT)

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## IDENTIFYING INFORMATION

-----

AVERAGE RUNNING SPEED, MAJOR STREET.. 50

PEAK HOUR FACTOR..... .9

AREA POPULATION..... 150000

NAME OF THE EAST/WEST STREET..... BUCKINGHAM ROAD

NAME OF THE NORTH/SOUTH STREET..... SR 82

NAME OF THE ANALYST..... FTE

DATE OF THE ANALYSIS (mm/dd/yy)..... 9-16-92

TIME PERIOD ANALYZED..... AM PEAK HOUR

OTHER INFORMATION.... 1995 TOTAL TRAFFIC (BACKGROUND + DEVELOPMENT)

## INTERSECTION TYPE AND CONTROL

-----

INTERSECTION TYPE: T-INTERSECTION

MAJOR STREET DIRECTION: NORTH/SOUTH

CONTROL TYPE WESTBOUND: STOP SIGN

## TRAFFIC VOLUMES

-----

	EB	WB	NB	SB
	----	----	----	----
LEFT	--	131	0	81
THRU	--	0	584	402
RIGHT	--	106	68	0

## NUMBER OF LANES

-----

	EB	WB	NB	SB
	----	----	----	----
LANES	--	2	2	2

## ADJUSTMENT FACTORS

Page-2

	PERCENT GRADE	RIGHT TURN ANGLE	CURB RADIUS (ft) FOR RIGHT TURNS	ACCELERATION LANE FOR RIGHT TURNS
EASTBOUND	----	---	---	-
WESTBOUND	0.00	90	20	N
NORTHBOUND	0.00	90	20	N
SOUTHBOUND	0.00	90	20	N

## VEHICLE COMPOSITION

	% SU TRUCKS AND RV'S	% COMBINATION VEHICLES	% MOTORCYCLES
EASTBOUND	---	---	---
WESTBOUND	5	0	0
NORTHBOUND	5	0	0
SOUTHBOUND	5	0	0

## CRITICAL GAPS

	TABULAR VALUES (Table 10-2)	ADJUSTED VALUE	SIGHT DIST. ADJUSTMENT	FINAL CRITICAL GAP
MINOR RIGHTS				
WB	6.30	6.30	0.00	6.30
MAJOR LEFTS				
SB	5.90	5.90	0.00	5.90
MINOR LEFTS				
WB	8.20	8.20	0.00	8.20

## IDENTIFYING INFORMATION

NAME OF THE EAST/WEST STREET..... BUCKINGHAM ROAD  
 NAME OF THE NORTH/SOUTH STREET.... SR 82  
 DATE AND TIME OF THE ANALYSIS..... 9-16-92 ; AM PEAK HOUR  
 OTHER INFORMATION.... 1995 TOTAL TRAFFIC (BACKGROUND + DEVELOPMENT)

## CAPACITY AND LEVEL-OF-SERVICE

Page-3

MOVEMENT	FLOW- RATE v(pcph)	POTEN- TIAL CAPACITY c (pcph) p	ACTUAL MOVEMENT CAPACITY c (pcph) M	SHARED CAPACITY c (pcph) SH	RESERVE CAPACITY c = c - v R SH	LOS
-----						
MINOR STREET						
WB LEFT	149	81	68	68	-81	F
RIGHT	121	615	615	615	494	A
MAJOR STREET						
SB LEFT	92	422	422	422	329	B

## IDENTIFYING INFORMATION

NAME OF THE EAST/WEST STREET..... BUCKINGHAM ROAD  
 NAME OF THE NORTH/SOUTH STREET.... SR 82  
 DATE AND TIME OF THE ANALYSIS..... 9-16-92 ; AM PEAK HOUR  
 OTHER INFORMATION.... 1995 TOTAL TRAFFIC (BACKGROUND + DEVELOPMENT)

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## IDENTIFYING INFORMATION

-----

AVERAGE RUNNING SPEED, MAJOR STREET.. 50

PEAK HOUR FACTOR..... .9

AREA POPULATION..... 150000

NAME OF THE EAST/WEST STREET..... BUCKINGHAM ROAD

NAME OF THE NORTH/SOUTH STREET..... SR 82

NAME OF THE ANALYST..... FTE

DATE OF THE ANALYSIS (mm/dd/yy)..... 9-16-92

TIME PERIOD ANALYZED..... PM PEAK HOUR

OTHER INFORMATION.... 1995 TOTAL TRAFFIC (BACKGROUND + DEVELOPMENT)

INTERSECTION TYPE AND CONTROL

-----

INTERSECTION TYPE: T-INTERSECTION

MAJOR STREET DIRECTION: NORTH/SOUTH

CONTROL TYPE WESTBOUND: STOP SIGN

## TRAFFIC VOLUMES

-----

	EB	WB	NB	SB
	----	----	----	----
LEFT	--	105	0	114
THRU	--	0	426	610
RIGHT	--	85	96	0

## NUMBER OF LANES

-----

	EB	WB	NB	SB
	----	----	----	----
LANES	--	2	2	2

## ADJUSTMENT FACTORS

Page-2

	PERCENT GRADE	RIGHT TURN ANGLE	CURB RADIUS (ft) FOR RIGHT TURNS	ACCELERATION LANE FOR RIGHT TURNS
EASTBOUND	-----	---	---	-
WESTBOUND	0.00	90	20	N
NORTHBOUND	0.00	90	20	N
SOUTHBOUND	0.00	90	20	N

## VEHICLE COMPOSITION

	% SU TRUCKS AND RV'S	% COMBINATION VEHICLES	% MOTORCYCLES
EASTBOUND	---	---	---
WESTBOUND	5	0	0
NORTHBOUND	5	0	0
SOUTHBOUND	5	0	0

## CRITICAL GAPS

	TABULAR VALUES (Table 10-2)	ADJUSTED VALUE	SIGHT DIST. ADJUSTMENT	FINAL CRITICAL GAP
MINOR RIGHTS				
WB	6.30	6.30	0.00	6.30
MAJOR LEFTS				
SB	5.90	5.90	0.00	5.90
MINOR LEFTS				
WB	8.20	8.20	0.00	8.20

## IDENTIFYING INFORMATION

NAME OF THE EAST/WEST STREET..... BUCKINGHAM ROAD  
NAME OF THE NORTH/SOUTH STREET.... SR 82  
DATE AND TIME OF THE ANALYSIS..... 9-16-92 ; PM PEAK HOUR  
OTHER INFORMATION.... 1995 TOTAL TRAFFIC (BACKGROUND + DEVELOPMENT)

## CAPACITY AND LEVEL-OF-SERVICE

Page-3

MOVEMENT	FLOW- RATE v(pcph)	POTEN- TIAL CAPACITY c (pcph) p	ACTUAL MOVEMENT CAPACITY c (pcph) M	SHARED CAPACITY c (pcph) SH	RESERVE CAPACITY c = c - v R SH	LOS
-----						
MINOR STREET						
WB LEFT	120	66	54	54	-66	F
RIGHT	97	674	674	674	577	A
MAJOR STREET						
SB LEFT	130	509	509	509	379	B

## IDENTIFYING INFORMATION

-----

NAME OF THE EAST/WEST STREET..... BUCKINGHAM ROAD

NAME OF THE NORTH/SOUTH STREET..... SR 82

DATE AND TIME OF THE ANALYSIS..... 9-16-92 ; PM PEAK HOUR

OTHER INFORMATION..... 1995 TOTAL TRAFFIC (BACKGROUND + DEVELOPMENT)

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## IDENTIFYING INFORMATION

-----

AVERAGE RUNNING SPEED, MAJOR STREET.. 50

PEAK HOUR FACTOR..... .9

AREA POPULATION..... 150000

NAME OF THE EAST/WEST STREET..... BUCKINGHAM ROAD

NAME OF THE NORTH/SOUTH STREET..... SR 82

NAME OF THE ANALYST..... FTE

DATE OF THE ANALYSIS (mm/dd/yy)..... 9-16-92

TIME PERIOD ANALYZED..... AM PEAK HOUR

OTHER INFORMATION.... 1995 BACKGROUND TRAFFIC W/O DEVELOPMENT

INTERSECTION TYPE AND CONTROL

-----

INTERSECTION TYPE: T-INTERSECTION

MAJOR STREET DIRECTION: NORTH/SOUTH

CONTROL TYPE WESTBOUND: STOP SIGN

## TRAFFIC VOLUMES

-----

	EB	WB	NB	SB
	----	----	----	----
LEFT	--	125	0	73
THRU	--	0	584	402
RIGHT	--	101	59	0

## NUMBER OF LANES

-----

	EB	WB	NB	SB
	----	----	----	----
LANES	--	1	1	1



## ADJUSTMENT FACTORS

Page-2

	PERCENT GRADE	RIGHT TURN ANGLE	CURB RADIUS (ft) FOR RIGHT TURNS	ACCELERATION LANE FOR RIGHT TURNS
EASTBOUND	-----	---	---	-
WESTBOUND	0.00	90	20	N
NORTHBOUND	0.00	90	20	N
SOUTHBOUND	0.00	90	20	N

## VEHICLE COMPOSITION

	% SU TRUCKS AND RV'S	% COMBINATION VEHICLES	% MOTORCYCLES
EASTBOUND	---	---	---
WESTBOUND	5	0	0
NORTHBOUND	5	0	0
SOUTHBOUND	5	0	0

## CRITICAL GAPS

	TABULAR VALUES (Table 10-2)	ADJUSTED VALUE	SIGHT DIST. ADJUSTMENT	FINAL CRITICAL GAP
MINOR RIGHTS				
WB	6.30	6.30	0.00	6.30
MAJOR LEFTS				
SB	5.40	5.40	0.00	5.40
MINOR LEFTS				
WB	7.70	7.70	0.00	7.70

## IDENTIFYING INFORMATION

NAME OF THE EAST/WEST STREET..... BUCKINGHAM ROAD  
 NAME OF THE NORTH/SOUTH STREET.... SR 82  
 DATE AND TIME OF THE ANALYSIS..... 9-16-92 ; AM PEAK HOUR  
 OTHER INFORMATION.... 1995 BACKGROUND TRAFFIC W/O DEVELOPMENT

## CAPACITY AND LEVEL-OF-SERVICE

Page-3

MOVEMENT	FLOW- RATE v (pcph)	POTEN- TIAL CAPACITY c (pcph) p	ACTUAL MOVEMENT CAPACITY c (pcph) M	SHARED CAPACITY c (pcph) SH	RESERVE CAPACITY c = c - v R SH	LOS
MINOR STREET						
WB LEFT	142	104	92	> 140	92 > -117	-51 > F
RIGHT	115	400	400	> 400	> 285	> F C
MAJOR STREET						
SB LEFT	83	496	496	496	412	A

## IDENTIFYING INFORMATION

NAME OF THE EAST/WEST STREET..... BUCKINGHAM ROAD

NAME OF THE NORTH/SOUTH STREET..... SR 82

DATE AND TIME OF THE ANALYSIS..... 9-16-92 ; AM PEAK HOUR

OTHER INFORMATION..... 1995 BACKGROUND TRAFFIC W/O DEVELOPMENT

\*\*\*\*\*

## IDENTIFYING INFORMATION

-----

AVERAGE RUNNING SPEED, MAJOR STREET.. 50

PEAK HOUR FACTOR..... .9

AREA POPULATION..... 150000

NAME OF THE EAST/WEST STREET..... BUCKINGHAM ROAD

NAME OF THE NORTH/SOUTH STREET..... SR 82

NAME OF THE ANALYST..... FTE

DATE OF THE ANALYSIS (mm/dd/yy)..... 9-16-92

TIME PERIOD ANALYZED..... PM PEAK HOUR

OTHER INFORMATION.... 1995 BACKGROUND TRAFFIC W/O DEVELOPMENT

## INTERSECTION TYPE AND CONTROL

-----

INTERSECTION TYPE: T-INTERSECTION

MAJOR STREET DIRECTION: NORTH/SOUTH

CONTROL TYPE WESTBOUND: STOP SIGN

## TRAFFIC VOLUMES

-----

	EB	WB	NB	SB
	----	----	----	----
LEFT	--	91	0	106
THRU	--	0	426	610
RIGHT	--	74	87	0

## NUMBER OF LANES

-----

	EB	WB	NB	SB
	----	----	----	----
LANES	--	1	1	1

## ADJUSTMENT FACTORS

Page-2

	PERCENT GRADE	RIGHT TURN ANGLE	CURB RADIUS (ft) FOR RIGHT TURNS	ACCELERATION LANE FOR RIGHT TURNS
EASTBOUND	-----	---	---	-
WESTBOUND	0.00	90	20	N
NORTHBOUND	0.00	90	20	N
SOUTHBOUND	0.00	90	20	N

## VEHICLE COMPOSITION

	% SU TRUCKS AND RV'S	% COMBINATION VEHICLES	% MOTORCYCLES
EASTBOUND	---	---	---
WESTBOUND	5	0	0
NORTHBOUND	5	0	0
SOUTHBOUND	5	0	0

## CRITICAL GAPS

	TABULAR VALUES (Table 10-2)	ADJUSTED VALUE	SIGHT DIST. ADJUSTMENT	FINAL CRITICAL GAP
MINOR RIGHTS				
WB	6.30	6.30	0.00	6.30
MAJOR LEFTS				
SB	5.40	5.40	0.00	5.40
MINOR LEFTS				
WB	7.70	7.70	0.00	7.70

## IDENTIFYING INFORMATION

NAME OF THE EAST/WEST STREET..... BUCKINGHAM ROAD  
NAME OF THE NORTH/SOUTH STREET.... SR 82  
DATE AND TIME OF THE ANALYSIS..... 9-16-92 ; PM PEAK HOUR  
OTHER INFORMATION.... 1995 BACKGROUND TRAFFIC W/O DEVELOPMENT

## CAPACITY AND LEVEL-OF-SERVICE

Page-3

MOVEMENT	FLOW- RATE v (pcph)	POTEN- TIAL CAPACITY c (pcph) p	ACTUAL MOVEMENT CAPACITY c (pcph) M	SHARED CAPACITY c (pcph) SH	RESERVE CAPACITY c = c - v R SH	LOS
MINOR STREET						
WB LEFT	104	87	74	>	74	> F
				>	120	> F
RIGHT	84	501	501	>	501	> A
MAJOR STREET						
SB LEFT	121	592	592		592	472 A

## IDENTIFYING INFORMATION

NAME OF THE EAST/WEST STREET..... BUCKINGHAM ROAD  
NAME OF THE NORTH/SOUTH STREET.... SR 82  
DATE AND TIME OF THE ANALYSIS..... 9-16-92 ; PM PEAK HOUR  
OTHER INFORMATION..... 1995 BACKGROUND TRAFFIC W/O DEVELOPMENT

**FTE RAW TRAFFIC COUNTS**

Channel Number	2
Location Code	123KB
Date	5/15/90
Real Time	08:52
Start Time	09:00
Sample Time	15 minutes
Divide by	2
Summation	NO
2-Way	YES
Operator Number	1
Machine Number	2

Parameter checksum is OK.

0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Totals
									44	50	76	63	88	85	116	132	138	84	46	39	60	32	17	1070
									7	10	16	16	20	22	17	32	20	22	15	9	12	11	6	
									10	19	20	10	20	21	32	45	47	32	14	9	22	11	2	
									18	14	19	19	22	17	34	26	36	16	7	6	14	4	7	
									9	7	21	18	26	25	33	29	35	14	10	15	12	6	2	

15:30 - 16:30 PM peak hour (144 vehicles).

0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Totals
3	5	5	2	6	18	59	97	49	44	43	41	78	60	102	96	149	165	83	48	43	63	35	17	1311
3	3	4	0	0	5	11	26	14	13	10	8	24	11	33	19	30	46	24	16	13	25	9	3	
0	2	0	1	1	1	22	19	8	12	8	6	13	17	32	31	38	40	29	15	12	17	8	4	
0	0	0	1	2	3	13	24	18	5	17	12	15	16	18	19	41	57	20	12	6	10	14	8	
0	0	1	0	3	9	13	28	9	14	8	15	26	16	19	27	40	22	10	5	12	11	4	2	

**16:45 - 17:45** PM peak hour (183 vehicles).

[illegible]

page 2 Location : 123EB -- started : 9/15/90 at 09:00.

06:45 - 07:45 AM peak hour (103 vehicles).  
12:00 - 12:30 PM peak hour (26 vehicles).

MOVING 24 HOUR TOTAL SAMPLE

10:00-	1314	11:00-	1314	12:00-	1307	13:00-	1272	14:00-	1287	15:00-	1259	16:00-	1276	17:00-	1256
18:00-	1273	19:00-	1300	20:00-	1299	21:00-	1301	22:00-	1305	23:00-	1308	24:00-	1311	01:00-	1311
02:00-	1318	03:00-	1319	04:00-	1318	05:00-	1321	06:00-	1321	07:00-	1319	08:00-	1337	09:00-	1335

Traffic checksum is OK.



Birmingham Rd - east of SR 82 - Westbound Volume  
street or highway name

Channel Number	1
Location Code	123WB
Date	5/15/90
Real Time	08:52
Start Time	09:00
Sample Time	15 minutes
Divide by	2
Summation	NO
2-Way	YES
Operator Number	1
Machine Number	2

Parameter checksum is OK.

5/15/90

0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Totals
									79	57	59	43	62	67	110	94	87	63	38	29	22	16	24	850
									25	18	16	11	26	8	51	37	36	15	16	10	5	4	13	
									19	13	12	8	13	21	25	26	19	13	9	8	7	6	5	
									27	13	12	12	7	20	18	18	19	20	12	4	6	4	4	
									8	13	19	12	16	18	16	13	13	15	1	7	4	2	2	

09:00 - 10:00 AM peak hour (79 vehicles).  
14:30 - 15:30 PM peak hour (114 vehicles).

5/16/90

0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Totals
3	3	1	1	8	42	119	162	104	68	67	55	79	59	59	101	91	87	45	33	31	15	15	25	1273
1	1	0	0	0	5	14	32	38	18	10	17	10	20	14	43	37	38	14	9	8	1	4	20	
1	0	0	0	8	7	29	44	27	16	27	13	22	15	17	28	20	18	10	10	10	9	6	1	
1	1	1	0	0	20	36	53	20	20	16	9	24	15	17	16	16	19	13	5	10	4	4	2	
0	1	0	1	0	10	40	33	19	14	14	16	23	9	11	14	18	12	8	9	3	1	1	2	

06:45 - 07:45 AM peak hour (169 vehicles).  
15:00 - 16:00 PM peak hour (101 vehicles).

**5/17/90**

[illegible]

page 2 Location : 123WB -- started : 5/15/90 at 09:00.

06:45 - 07:45 AM peak hour (152 vehicles).  
12:00 - 12:30 PM peak hour (24 vehicles).

MOVING 24 HOUR TOTAL SAMPLE

10:00-	1293	11:00-	1282	12:00-	1292	13:00-	1288	14:00-	1324	15:00-	1321	16:00-	1313	17:00-	1304
18:00-	1301	19:00-	1301	20:00-	1283	21:00-	1278	22:00-	1280	23:00-	1273	24:00-	1272	01:00-	1273
02:00-	1278	03:00-	1276	04:00-	1280	05:00-	1280	06:00-	1285	07:00-	1280	08:00-	1270	09:00-	1257

Traffic checksum is OK.

**SIGNAL WARRANT WORKSHEETS**

# TRAFFIC SIGNAL WARRANT SUMMARY

Major St SR 82 Approach Lanes 1  
 Minor St BUCKINGHAM ROAD Approach Lanes 1  
 City FT. MYERS County LEE Engineer FTE Date 9/92  
 Remarks BASED ON 1995 FUTURE TRAFFIC VOLUMES

## WARRANT NO. 1 - MIN. VEHICULAR VOLUME

		Minimum Requirements (80% Shown in Brackets)				100% SATISFIED		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
		100%	70%	100%	70%	80% SATISFIED		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
REQUIREMENT	APPROACH LANE	1	2 or more	1	2 or more				
Both Approch.		500	350	600	420				
Major Street		(400)	(250)	(480)	(336)				
Highest Approach		150	105	200	140				
Minor Street		(120)	(84)	(160)	(112)				
AND									

Hour: 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6

## WARRANT NO. 2 - INTERRUPTION OF CONTINUOUS TRAFFIC

		MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)				VOLUMES: 100% SATISFIED		YES <input type="checkbox"/> NO <input type="checkbox"/>	
		100%	70%	100%	70%	80% SATISFIED		YES <input type="checkbox"/> NO <input type="checkbox"/>	
REQUIREMENT	APPROACH LANE	1	2 or more	1	2 or more				
Both Approch.		750	525	900	630				
Major Street		(600)	(420)	(720)	(504)				
Highest Approach		75	53	100	70				
Minor Street		(60)	(42)	(80)	(56)				
ACC IN 12 TO 36 MON PERIOD CORRECTABLE BY A TRAFFIC SIGNAL									
MINIMUM REQUIREMENT						NUMBER OF ACCIDENTS PER YEAR			
AVERAGE 3 OR MORE/YEAR						YES <input type="checkbox"/> NO <input type="checkbox"/>			
SIDE STREET DELAY SIGNIFICANTLY REDUCED						SATISFIED YES <input type="checkbox"/> NO <input type="checkbox"/>			

HOUR

## WARRANT NO. 3 - MIN. PEDESTRIAN VOLUME

		Minimum Requirements (80% Shown in Brackets)				100% SATISFIED		Yes <input type="checkbox"/> No <input type="checkbox"/>	
		100%	70%	100%	70%	80% SATISFIED		Yes <input type="checkbox"/> No <input type="checkbox"/>	
REQUIREMENT	APPROACH LANE	1	2 or more	1	2 or more				
Both Approch.		No Median	600	420					
Major Streets			(180)	(136)					
Volume		Raised 4' Median	1000	700					
			(800)	(560)					
AND									

Hour

If Midblock Signal Proposed ☐

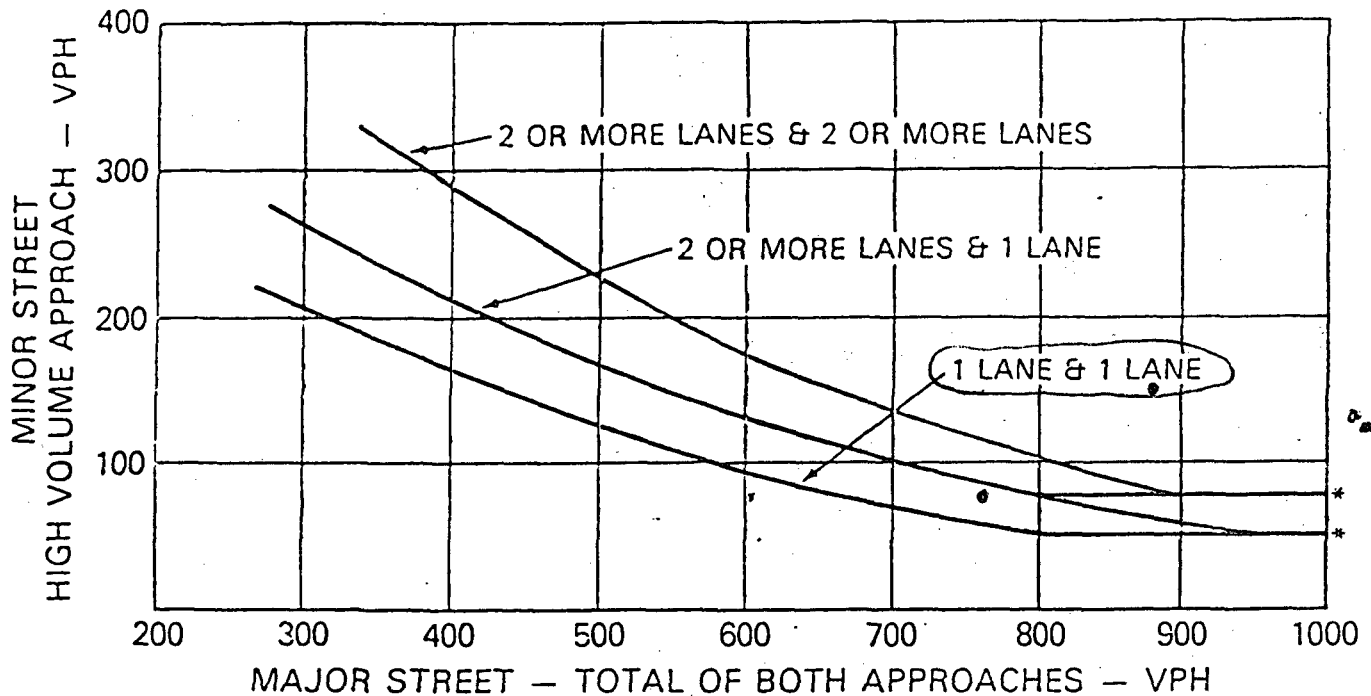
Min. Requirement	Distance to Nearest Established ORWU	Fulfilled
150 Feet	N/E _____ ft S/W _____ ft	Yes <input type="checkbox"/> No <input type="checkbox"/>

## WARRANT NO. 4 - SCHOOL CROSSINGS

NOT APPLICABLE ☐ SATISFIED Yes ☐ No ☐  
 SEE VEHICLE GAP SIZE  
 FORM AND PEDESTRIAN ☐  
 GROUP SIZE FORM.

# FOUR HOUR VOLUME WARRANT

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



\*NOTE: 80 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 60 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

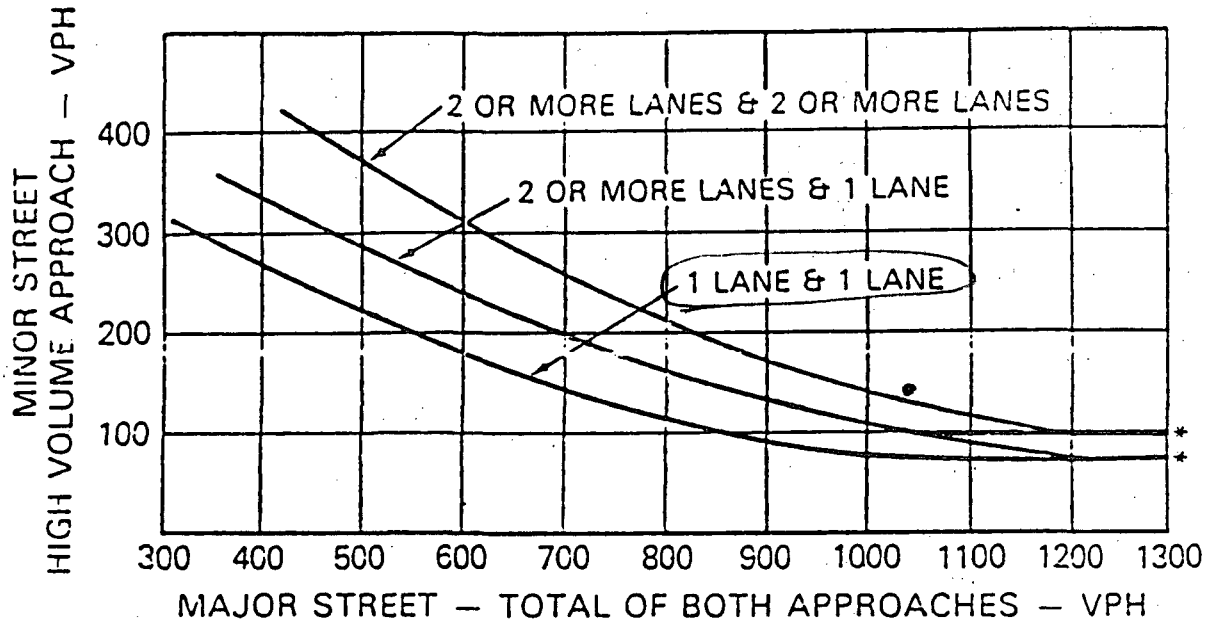
SP 82 AND BACKINGHAM ROAD

BASED ON 1995 FUTURE TRAFFIC VOLUMES

WARRANT NO. 9-FOUR HOUR VOLUMES		
APPROACH LANES: MAJOR STREET <u>1</u>		
MINOR STREET <u>1</u>		
HOUR	VOLUMES	
	BOTH APPROACHES MAJOR STREET	HIGHEST APPROACH MINOR STREET
2P-3P	762	84
3P-4P	882	144
4P-5P	1008	129
5P-6P	1036	129
WARRANT SATISFIED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		

# PEAK HOUR VOLUME WARRANT

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



NOTE: 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

*SP82 AND BUCKINGHAM ROAD*

*BASED ON 1995 FUTURE TRAFFIC VOLUMES*

## WARRANT NO.11-PEAK HOUR VOLUMES

APPROACH LANES: MAJOR STREET 1

MINOR STREET 1

CONSECUTIVE 15-MIN.	VOLUMES	
	BOTH APPROACHES MAJOR STREET	HIGHEST APPROACH MINOR STREET
5P-6P	1036	124
WARRANT SATISFIED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		