10 a. Somerset Coral Gables UBC Campus (PK-8) Traffic Impact Study (06-03-10)

SOMERSET CORAL GABLES
UBC CAMPUS (PK - 8)

Traffic Impact Study

Includes Memorandum of Understanding

624 Anastasia Avenue
Coral Gables, Florida

RICHARD GARCIA & ASSOCIATES, INC.

06/03/2010

ENGINEER'S CERTIFICATION

I, Richard Garcia, P.E. # 54886, certify that I currently hold an active Professional Engineers License in the State of Florida and am competent through education and experience to provide engineering services in the civil and traffic engineering disciplines contained in this report. In addition, the firm Richard Garcia & Associates, Inc. holds a Certificate of Authorization # 9592 in the State of Florida. I further certify that this report was prepared by me or under my responsible charge as defined in Chapter 61G15-18.001 F.A.C. and that all statements, conclusions and recommendations made herein are true and correct to the best of my knowledge and ability.

PROJECT DESCRIPTION: Somerset Coral Gables (PK – 8) - UBC Campus
Traffic Impact Study

PROJECT LOCATION: 624 Anastasia Avenue
Coral Gables, Florida

RICHARD GARCIA LICENSE No. 54886 STATE OF FLORIDA PROFESSIONAL ENGINEER

Florida Registration No, 54886 Date

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Executive Summary

The purpose of this study is to evaluate the associated traffic impacts for the proposed school at the University Baptist Church (UBC). This site is located at 624 Anastasia Avenue in the City of Coral Gables, Florida and is currently operating as a Private School, Day Care, Religious Educational Center and Church. This report follows the methodology discussed in the Memorandum of Understanding (MOU) and agreed to with the City's Public Works Department at the meeting held May 18th, 2010. The site's vehicular access is being provided via three (3) driveways; two (2) on Cardena Street and one (1) on Riviera Drive. However, the driveway on Riviera Drive will be closed during the school's arrival and dismissal periods.

Manual Turning Movement Counts (TMC's) were taken at the most impacted intersections surrounding the subject school. These counts were collected on Thursday, May 20th, 2010 during the AM and school's PM peak hour of 7:00 AM to 9:00 AM and 2:00 PM to 4:00 PM, respectively. These intersections are included in the Memorandum of Understanding and were discussed and agreed to by the City of Coral Gables Public Works Department at the meeting held May 18th, 2010.

The trip generation characteristics were developed using actual data from the surrogate school, Doral Academy Elementary. This data was collected during the school's AM and PM peak period of 7:00 to 9:00 AM and 1:30 to 4:00 PM, respectively. The AM peak period analysis resulted in 660 vehicle trips of which 356 trips (54 percent) were entering and 304 trips (46 percent) will exit the site. The PM peak period analysis resulted in 528 vehicle trips of which 245 trips (46 percent) were entering and 283 trips (54 percent) will exit the site. These peak period vehicle trips were distributed consistent with the proposed school's arrival and dismissal schedule in 15-minute intervals. The results yielded the school's AM and PM peak hour trips. As a result, the school's AM Peak Hour Trip Generation yielded 561 vehicle trips of which 302 vehicle trips are entering and 259 vehicle trips will exit the site from 7:15 AM to 8:15 AM. Moreover, the school's PM Peak Hour Trip Generation yielded 316 vehicle trips of which 146 vehicle trips are entering and 170 vehicle trips will exit the site from 2:15 PM to 3:15 PM. .

The AM and PM peak hour trips have been further distributed into the four quadrants and consistent with the project's Traffic Analysis Zone (TAZ). This traffic assignment was performed for two (2) scenarios as follows: Scenario A: All Site Traffic based on surrounding roadway network (this represents the standard traffic modeling approach) and Scenario B: All Site Traffic through Segovia Street/Anastasia Avenue (this is the "Segovia Access" scenario channeling all school traffic through Segovia Street).

The City of Coral Gables is proposing the addition of a median on Segovia Street adjacent to the subject school, which includes the construction of raised landscaped medians, a bike lane and the removal of a through lane for both north and south directions. The proposed removal of a through lane will reduce the roadway capacity on Segovia Street. Furthermore, the removal of the eastbound approach is being planned at University Court and Segovia Street. As a result, our proposed condition analysis was performed consistent with the proposed median modifications as discussed and agreed to with the City during the scoping phase.

The proposed condition was analyzed for two (2) scenarios described above. Again, the proposed roadway configuration was performed consistent with the proposed roadway modifications on Segovia Street. The results for both proposed scenarios yielded Level of Service (LOS) C or better and are summarized in Tables 1 and 2 below.

Table 1: AM Intersection Level of Service (LOS) Summary

Location	Intersection Control	Existing AM Peak Hour		Proposed AM Peak Hour			
				Scenario A		Scenario B	
		Ave Veh Delay (sec)	LOS	Ave Veh Delay	LOS	Ave Veh Delay	LOS
Segovia Street & Anastasia Avenue	Signalized	8.2	A	13.7	B	34.9	C
Segovia Street & University Court	2-Way Stop (E/W)	0.3	A	0.0	A	0.0	A
Segovia Street & Riviera Drive	2-Way Stop (E/W)	5.0	A	7.9	A	5.2	A
Anastasia Avenue & Cardena Street	2-Way Stop (N/S)	0.3	A	5.8	A	7.3	A
Riviera Drive & Cardena Street	2-Way Stop (N/S)	0.5	A	3.8	A	0.5	A
Driveway 2 (Exit) & Cardena Street	2-Way Stop (E/W)			6.4	A	4.4	A

Notes:
Scenario A - Site Traffic based on TAZ and roadway network
Scenario B - All Site Traffic through Segovia St/Anastasia Av.

Table 2: PM Intersection Level of Service (LOS) Summary

Location	Intersection Control	Existing PM Peak Hour		Proposed School PM Peak Hour			
				Scenario A		Scenario B	
		Ave Veh Delay (sec)	LOS	Ave Veh Delay	LOS	Ave Veh Delay	LOS
Segovia Street & Anastasia Avenue	Signalized	7.8	A	11.4	B	13.8	B
Segovia Street & University Court	2-Way Stop (E/W)	0.3	A	0.0	A	0.0	A
Segovia Street & Riviera Drive	2-Way Stop (E/W)	4.5	A	5.5	A	4.5	A
Anastasia Avenue & Cardena Street	2-Way Stop (N/S)	0.8	A	4.9	A	6.2	A
Riviera Drive & Cardena Street	2-Way Stop (N/S)	1.0	A	3.1	A	1.0	A
Driveway 2 (Exit) & Cardena Street	2-Way Stop (E/W)			6.1	A	4.7	A

Notes:
Scenario A - Site Traffic based on TAZ and roadway network
Scenario B - All Site Traffic through Segovia St/Anastasia Av.

In conclusion, the proposed school was evaluated for the existing and future levels of service with the improvements on Segovia Street. The levels of service yielded acceptable results (i.e. LOS C or better). Moreover, we have performed a "Segovia Access" scenario by evaluating the assignment of all inbound and outbound traffic onto the signalized intersection of Anastasia Avenue and Segovia Street. The results are all scenarios will not fall below an LOS C condition. While both scenarios provide effective strategies for traffic flow, it is the school's intent to work with City staff and local stakeholders to determine which scenario is best suited for the school and neighborhood. In fact, the majority of the change in LOS is due to the change in the number of through lanes on Segovia Street as a result on the proposed medians by the City of Coral Gables. That notwithstanding, we recommend the installation of the raised landscaped median on Segovia Street as the traffic volumes yielded adequate LOS and the additional North/South lanes being remove are not needed. Therefore, the proposed school can function adequately with the proposed changes on Segovia Street and will not have an adverse impact.

Introduction

The purpose of this study is to evaluate the associated traffic impacts for the proposed school at the University Baptist Church (UBC). This site is located at 624 Anastasia Avenue in the City of Coral Gables, Florida and is currently operating as a Private School, Day Care, Religious Educational Center and Church. This report follows the methodology discussed in the Memorandum of Understanding (MOU) and agreed to with the City's Public Works Department at the meeting held May 18th, 2010.

As a result of the MOU, the traffic impacts for this project were evaluated at the following intersections:

- Segovia Street & Anastasia Avenue
- Segovia Street & University Court
- Segovia Street & Riviera Drive
- Anastasia Avenue & Cardena Street
- Riviera Drive & Cardena Street
- Driveways on Cardena Street

A Level of Service (LOS) analysis was performed for the existing condition and proposed with project traffic condition during the AM and school's PM peak hour. Furthermore, the proposed condition was analyzed consistent with the City's planned median modifications on Segovia Street.

This report follows the methodologies adopted by the Institute of Transportation Engineer's (ITE) Traffic Impact Studies Manual and follows the guidelines of Miami-Dade County Public Works Department (School Criteria). Lastly, this report has evaluated the following:

- Trip Generation
- Traffic Distribution
- Traffic Assignment
- Traffic Counts
- Existing Level of Service
- Proposed Level of Service
- Recommendations

Project Description / Location

The subject project is located on the southwest corner of Segovia Street and Anastasia Avenue in the City of Coral Gables, Florida. This project consists of a school and will have a maximum of 735 students in grades Pre-Kindergarten through Eighth (PK-8) grade. As previously mentioned, this site is currently being used as a Private School, Day Care, Religious Educational Center and Church. Please note the existing Church will remain as a component of this project. Lastly, the site's vehicular access is being provided via three (3) driveways; two (2) on Cardena Street and one (1) on Riviera Drive. However, the driveway on Riviera Drive will be closed during the school's arrival and dismissal periods.

Figure 1 depicts the site's location map, while Figure 2 is the proposed site plan, provided for illustrative purposes only. The Memorandum of Understanding in Appendix A describes the methodology utilized in this report.

Figure 1: Location Map

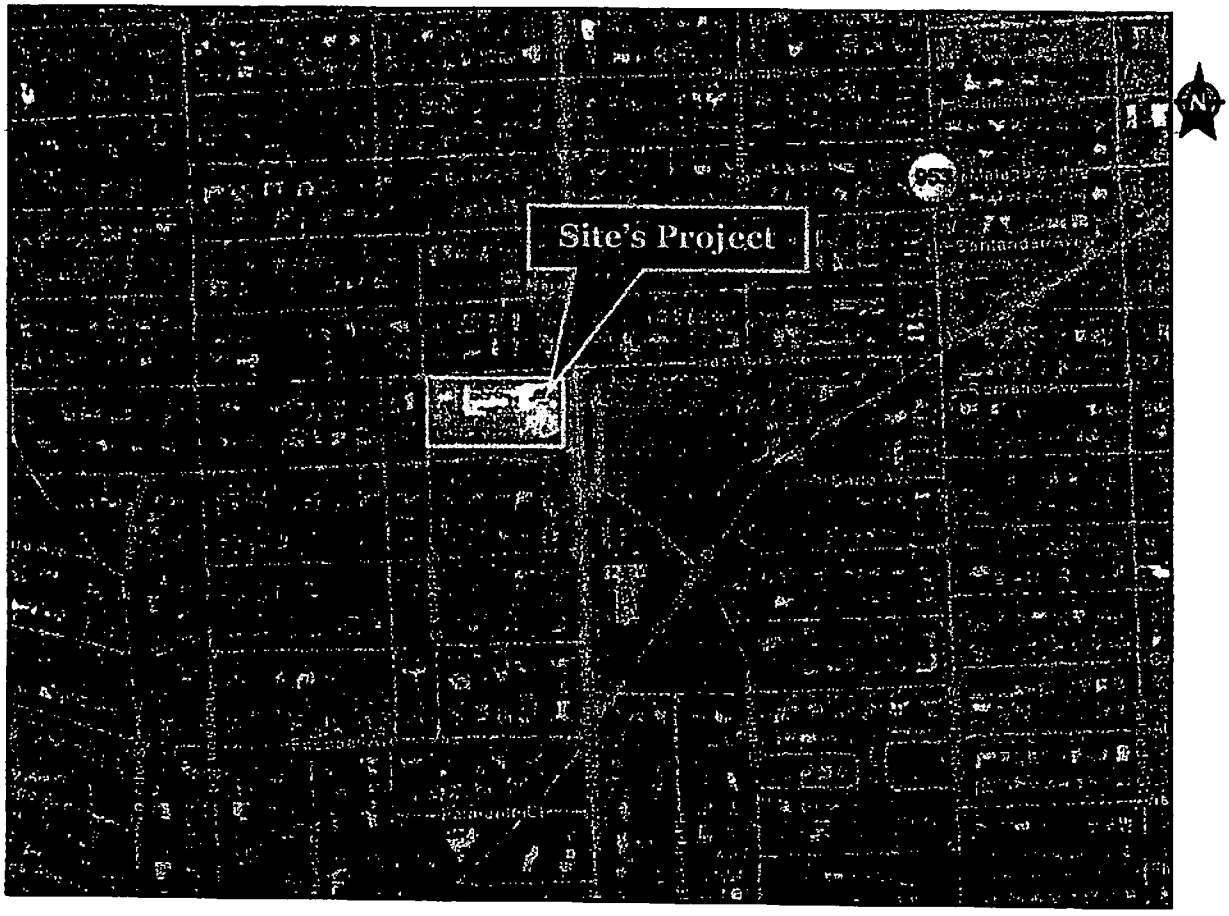
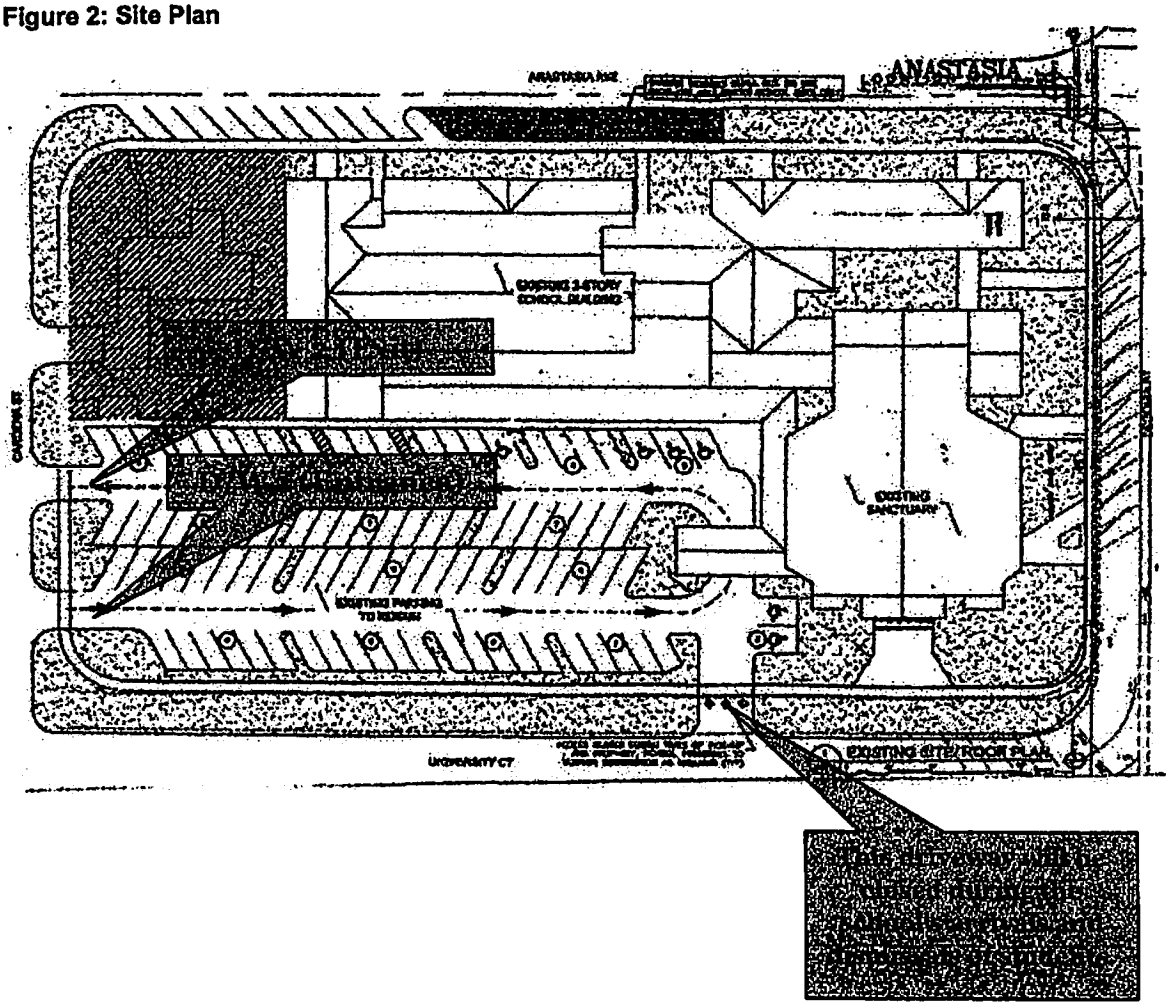


Figure 2: Site Plan



Existing Condition

The existing condition analysis identifies the current operational and geometric characteristics of the roadways within the study area. The purpose of this section is to provide a basis of comparison to future conditions.

Data Collection

AM/PM Peak Hour

Manual Turning Movement Counts (TMC's) were taken at the nearby intersections identified below. These counts were collected on Thursday, May 20th, 2010 during the AM and school's PM peak hour of 7:00 AM to 9:00 AM and 2:00 PM to 4:00 PM, respectively. These counts were adjusted for peak seasonal variations by utilizing the 2008 Florida Department of Transportation Seasonal Factor (SF) of 0.99. Moreover, these intersections would be the most impacted due to its close proximity to the subject location. Again, these intersections are included in the Memorandum of Understanding and were discussed and agreed by the City of Coral Gables Public Works Department. Traffic Counts and operational characteristics were gathered at the following intersections:

- Segovia Street & Anastasia Avenue
- Segovia Street & University Court
- Segovia Street & Riviera Drive
- Anastasia Avenue & Cardena Street
- Riviera Drive & Cardena Street

Figure 3 is a graphical representation of the seasonally adjusted existing AM Peak Hour TMC's, while Figure 4 depicts the seasonally adjusted existing school's PM Peak Hour TMC's.

Figure 3: Existing AM Peak Hour TMC's

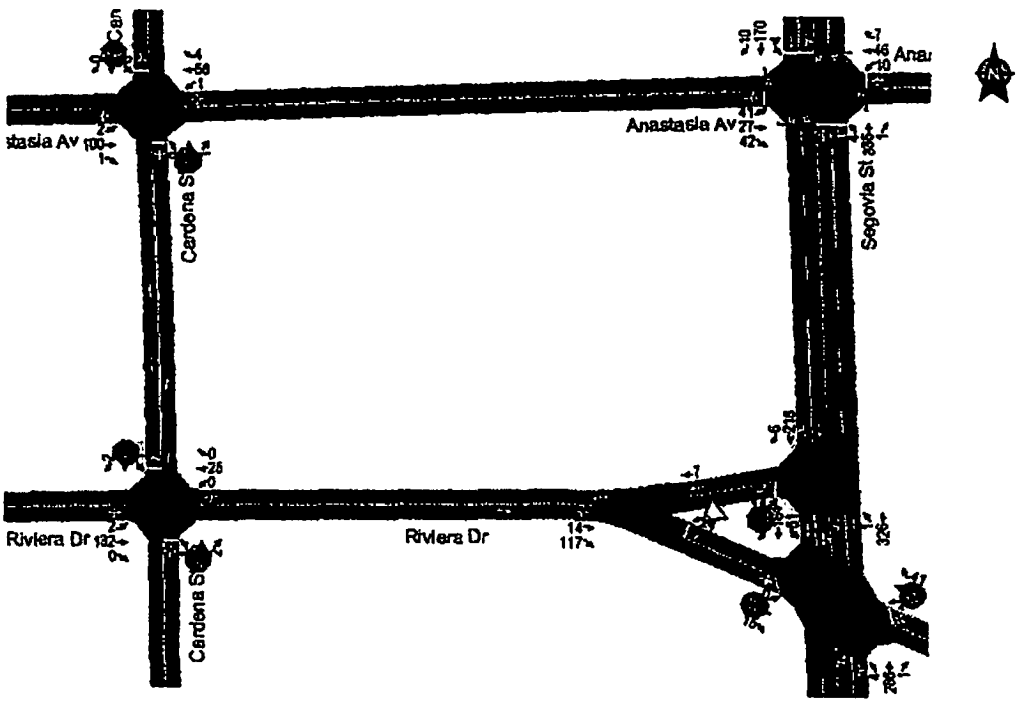
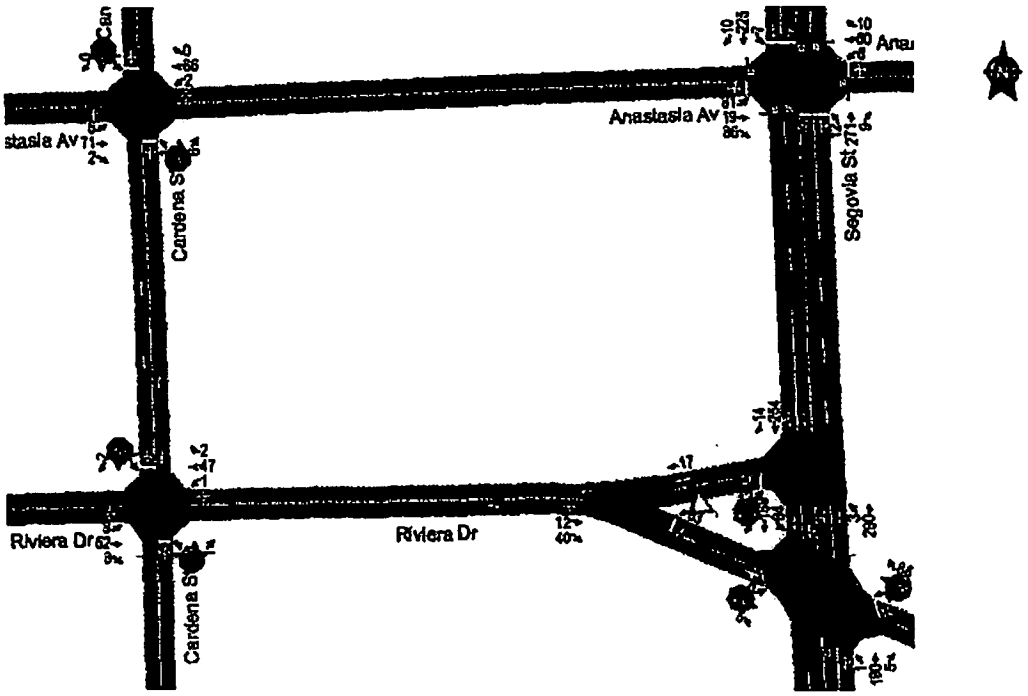


Figure 4: Existing School PM Peak Hour TMC's



Level of Service (LOS)

AM/ School PM Peak Hour

Intersection Analysis

Using the above AM and school PM TMC data, intersection Level of Service (LOS) analyses were performed for the peak seasonal existing condition at the intersection previously described using the latest Synchro 7/SimTraffic software. The analyses were performed using the 2000 Highway Capacity Manual methodology for the AM and school PM peak condition. Moreover, these analyses were performed consistent with the current characteristics and resulted in LOS A for all the analyzed intersections. Table 3 provides a summary of the results, while Appendix F contains the program output.

Table 3: Existing AM/PM Intersection Level of Service (LOS)

Location	Intersection Control	Existing AM Peak Hour		Existing PM Peak Hour	
		Ave Veh Delay (sec)	LOS	Ave Veh Delay (sec)	LOS
Segovia Street & Anastasia Avenue	Signalized	8.2	A	7.8	A
Segovia Street & University Court	2-Way Stop (E/W)	0.3	A	0.3	A
Segovia Street & Riviera Drive	2-Way Stop (E/W)	5.0	A	4.5	A
Anastasia Avenue & Cardena Street	2-Way Stop (N/S)	0.3	A	0.8	A
Riviera Drive & Cardena Street	2-Way Stop (N/S)	0.5	A	1.0	A

Project Traffic

This section of the report will cover the project traffic for the proposed land uses. In addition to calculating the trip generation, traffic growth trend and site traffic was utilized to determine the future project traffic in the subsequent sections.

Trip Generation

AM/PM Peak Hour

The trip generation characteristics were developed using actual data from the surrogate school, Doral Academy Elementary. This data was collected during the school's AM and PM peak period of 7:00 to 9:00 AM and 1:30 to 4:00 PM, respectively. These hours correspond to the arrival and dismissal times for the surrogate school. Furthermore, the trip generation rate from the surrogate school yielded 0.898 and 0.467 trips per student during the AM and school's PM peak hour, respectively. Afterward, these trip generation rates were applied to the proposed school with 735 students. The AM peak period analysis resulted in 660 vehicle trips of which 356 trips (54 percent) were entering and 304 trips (46 percent) will exi the site. The PM peak period analysis resulted in 528 vehicle trips of which 245 trips (46 percent) were entering and 283 trips (54 percent) will exit the site. Table 4 summarizes the AM peak period vehicle trips and Table 5 depicts the school's PM peak period vehicle trips. Lastly, the trip generation calculations, rates and percentages are included in Appendix B.

Table 4: AM Peak Period (7:00 – 9:00 AM) Trip Generation

Land Use (LU)	Units	LU CODE	AM PEAK PERIOD TRIP GENERATION RATE	IN Trips	OUT Trips	TOTAL TRIPS
Proposed School (PK-8)	735 Students	◇	0.898	356	304	660
Proposed Vehicle Trips				356	304	660

NOTES:
◇Trip Generation Rate obtained from surrogated school data, Table: T1. See Appendix B.

Table 5: School's PM Peak Period (2:00 – 4:00 PM) Trip Generation

Land Use (LU)	Units	LU CODE	PM PEAK PERIOD TRIP GENERATION RATE	IN Trips	OUT Trips	TOTAL TRIPS
Proposed School (PK-8)	735 Students	◇	0.717	245	283	528
Proposed Vehicle Trips				245	283	528

NOTES:
◇Trip Generation Rate obtained from surrogated school data, Table: T2. See Appendix B.

Subsequently, the above peak period vehicle trips were distributed consistent with the proposed school's arrival and dismissal schedule in 15-minute intervals. The results yielded the school's AM and PM peak hour trips. As a result, the school's AM Peak Hour Trip Generation yielded 561 vehicle trips of which 302 vehicle trips are entering and 259 vehicle trips will exit the site from 7:15 AM to 8:15 AM. Moreover, the school's PM Peak Hour Trip Generation yielded 316 vehicle trips of which 146 vehicle trips are entering and 170 vehicle trips will exit the site from 2:15 PM to 3:15 PM. Table 6 depicts the AM peak hour results while Table 7 is the PM peak hour results.

Table 6: AM Peak Hour Trip Generation

Time	Percent of Students	Number of Students	Vehicles-In	Vehicles-Out	Total Trips	Cummulative Trips	Operation
7:00 AM - 7:15 AM	2%	15	7	6	13	13	First Arrival 7:45 AM (PK - 4)
7:15 AM - 7:30 AM	10%	74	35	31	66	79	
7:30 AM - 7:45 AM	30%	221	107	91	198	277	
7:45 AM - 8:00 AM	15%	110	53	46	99	99	Second Arrival 8:15 AM (5 - 8)
8:00 AM - 8:15 AM	30%	221	107	91	198	297	
8:15 AM - 8:30 AM	7%	51	25	21	46	46	
8:30 AM - 8:45 AM	3%	22	11	9	20	66	
8:45 AM - 9:00 AM	3%	22	11	9	20	66	
Total	100%	735	356	304	660	PEAK @ EACH ARRIVAL	

	Veh-In	Veh-Out	Total Trips (vph)
* Trip Generation Trips	356	304	660

AM Peak Hour (7:15 AM - 8:15 AM)	Veh-In	Veh-Out	Total Trips (vph)
	302	259	561

Note: * See Table A1 in Appendix B.

Table 7: School's PM Peak Hour Trip Generation

Time	Percent of Students	Number of Students	Vehicles-In	Vehicles-Out	Total Trips	Cummulative Trips	Operation
2:00 PM - 2:15 PM	6%	44	15	17	32	32	First Dismissal 2:30 PM (PK - 2)
2:15 PM - 2:30 PM	10%	74	24	28	52	84	
2:30 PM - 2:45 PM	20%	147	49	57	106	190	
2:45 PM - 3:00 PM	10%	74	24	28	52	52	Second Dismissal 3:00 PM (3 - 5)
3:00 PM - 3:15 PM	20%	147	49	57	106	158	
3:15 PM - 3:30 PM	10%	74	24	28	52	52	Third Dismissal 3:30 PM (6 - 8)
3:30 PM - 3:45 PM	20%	147	49	57	106	158	
3:45 PM - 4:00 PM	4%	28	11	11	22	22	
Total	100%	735	245	283	528	PEAK @ EACH DISMISSAL	

	Veh-In	Veh-Out	Total Trips (vph)
* Trip Generation Trips	245	283	528

PM Peak Hour (2:15 PM - 3:15 PM)	Veh-In	Veh-Out	Total Trips (vph)
	146	170	316

Note: * See Table A3 in Appendix B.

Trip Distribution

The Traffic Analysis Zone (TAZ) for the subject project was found as TAZ 947 as assigned by the Metropolitan Planning Organization's (MPO). The County's TAZ are included in Appendix C.

The County's TAZ map was obtained using the available GIS (Graphical Information System). Figure 5 depicts the TAZ map and the current Miami Urban Area Transportation Study (MUATS) for the study area and site. Table 8 is the corresponding directional traffic distribution for this TAZ. Appendix C includes a TAZ Map and the corresponding Directional Distribution Summary for this zone utilizing the 2015 Cost Feasible Plan. Please note this directional distribution was utilized for all the analyses.

Figure 5: TAZ Map

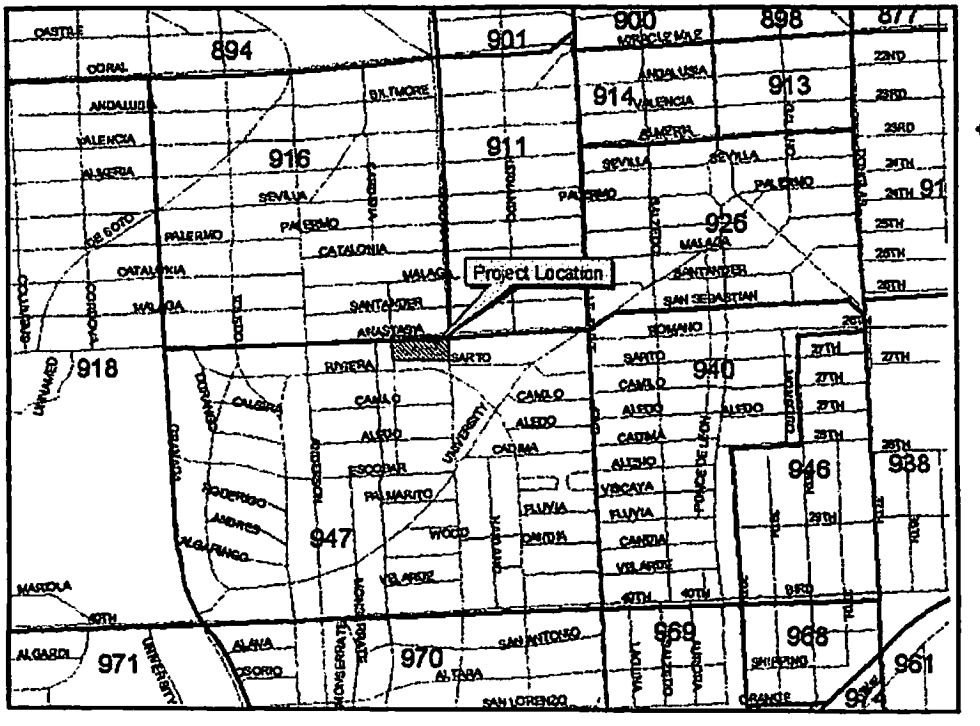


Table 8: Cardinal Distribution

DIRECTION	DISTRIBUTION %
NNE	24.88
ENE	23.42
ESE	10.77
SSE	8.18
SSW	10.72
WSW	8.00
WNW	4.23
NNW	9.78
TOTAL	100.00

Traffic Assignment

AM/PM Peak Hour

The peak hour trips from Table 6 and 7 have been distributed and assigned to the existing adjacent roadways. Figure 6 was developed to depict the AM Peak Hour Assignments, while Figure 7 illustrates the PM Peak Hour Assigments.

Figure 6: AM Peak Hour Traffic Assignments

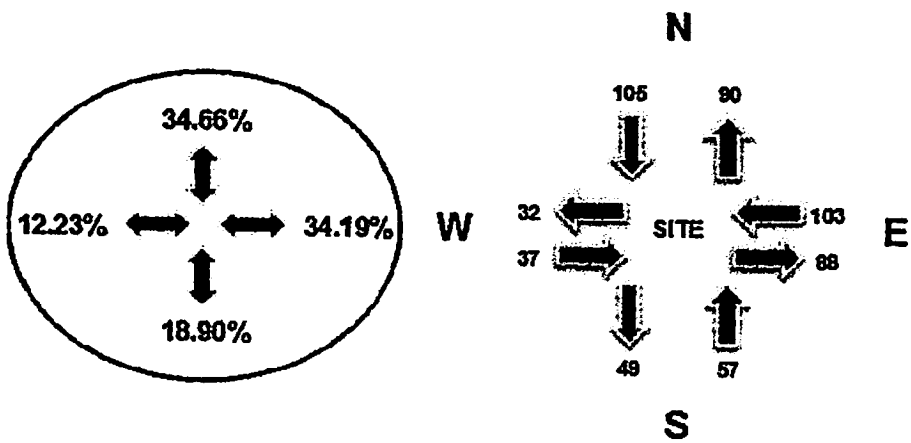
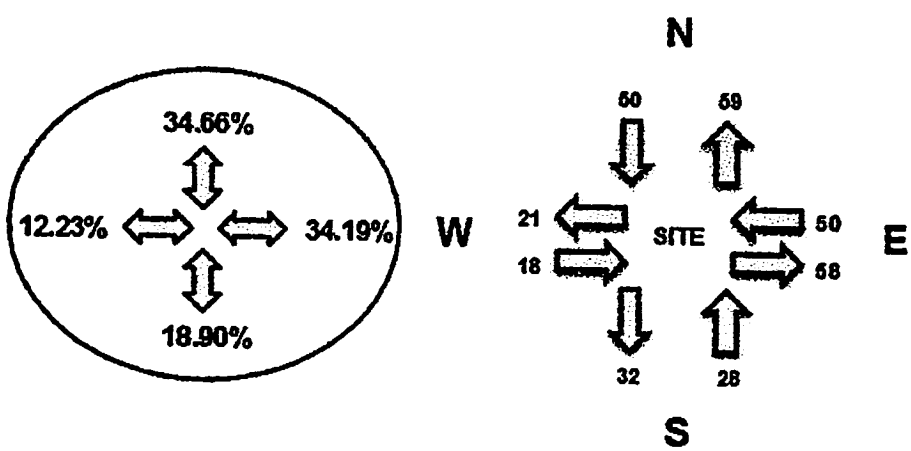


Figure 7: School's PM Peak Hour Traffic Assignments



Site Traffic

AM/PM Peak Hour

Vehicular access to the subject site is being provided via three (3) driveways; two (2) on Cardena Street and one (1) on Riviera Drive. The Riviera Drive driveway will not be opened during the school's arrival and dismissal times; therefore, no analysis is being provided. The AM and PM peak hour trips from Table 6 and 7 have been further distributed into the four quadrants and consistent with the project's Traffic Analysis Zone (TAZ). Appendix C includes the ingress and egress traffic distribution with the corresponding assignments to the North, South, East and West for the AM and PM peak hour. Please note the site traffic was performed for two (2) scenarios as follows:

- Scenario A: All Site Traffic based on surrounding roadway network
  - This represents the standard traffic modeling approach
- Scenario B: All Site Traffic through Segovia Street/Anastasia Avenue
  - This is "Segovia Access" scenario channeling all school traffic

Figures 8 and 9 depict the AM peak hour site traffic and driveway assignments for scenarios A and B, respectively. Figures 10 and 11 illustrate the PM peak hour site traffic for scenarios A and B, respectively.

Figure 8: AM Peak Hour Site Traffic (Scenario A)

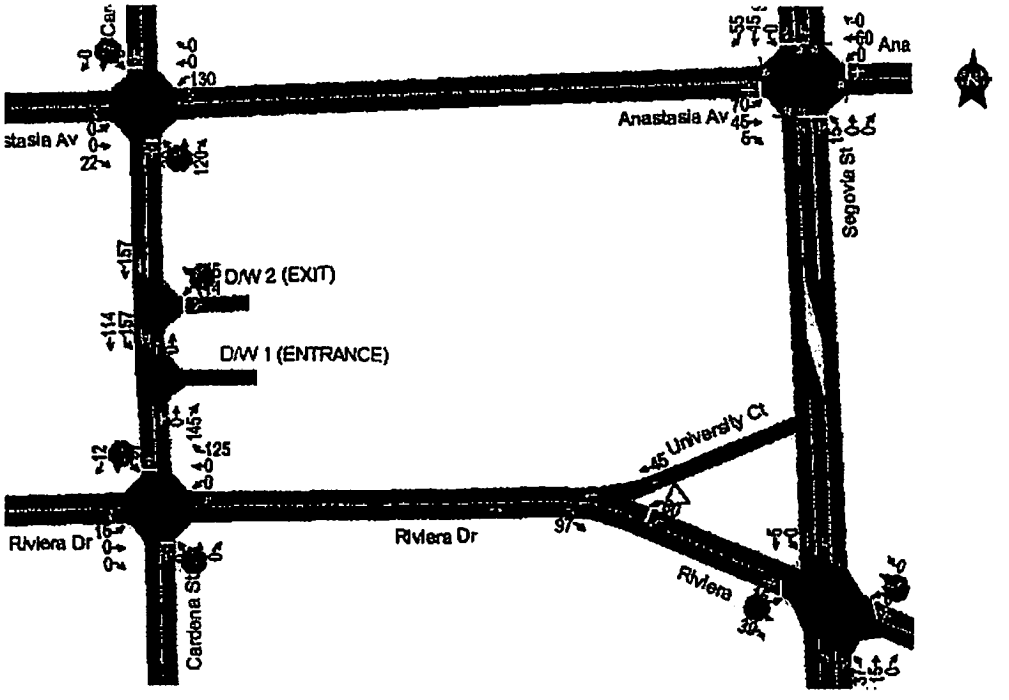


Figure 9: AM Peak Hour Site Traffic (Scenario B)

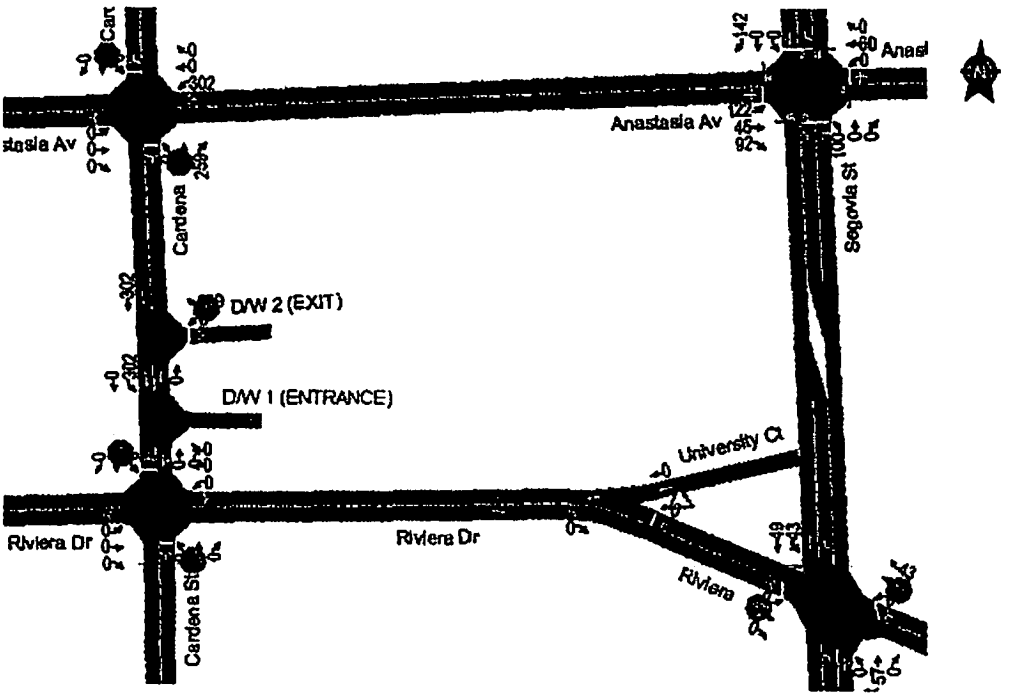


Figure 10: School's PM Peak Hour Site Traffic (Scenario A)

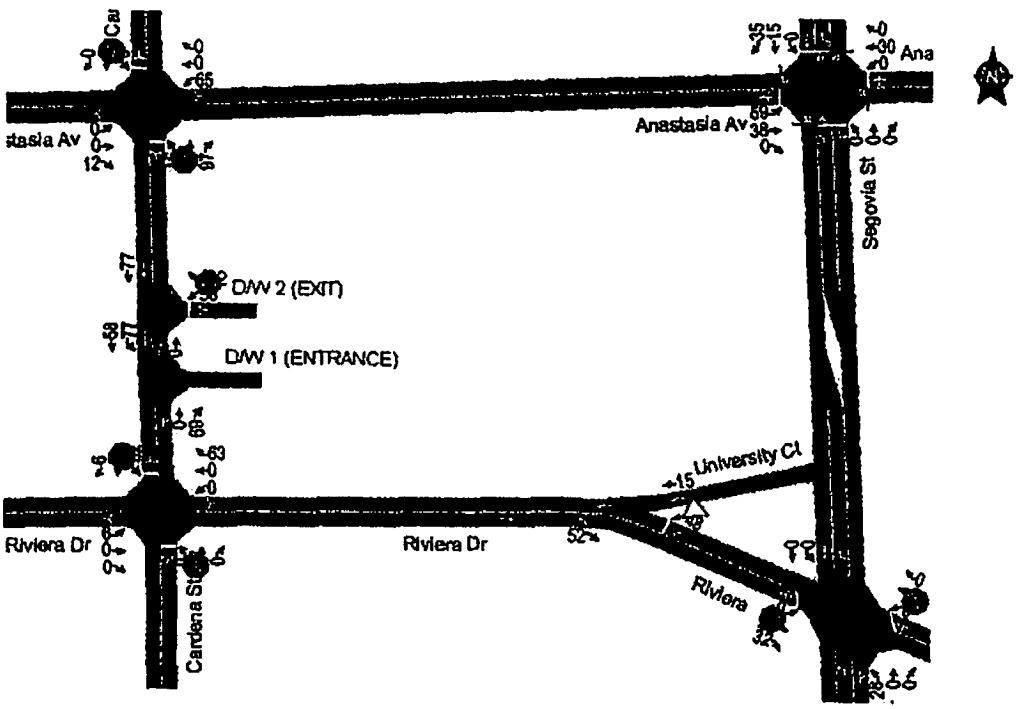
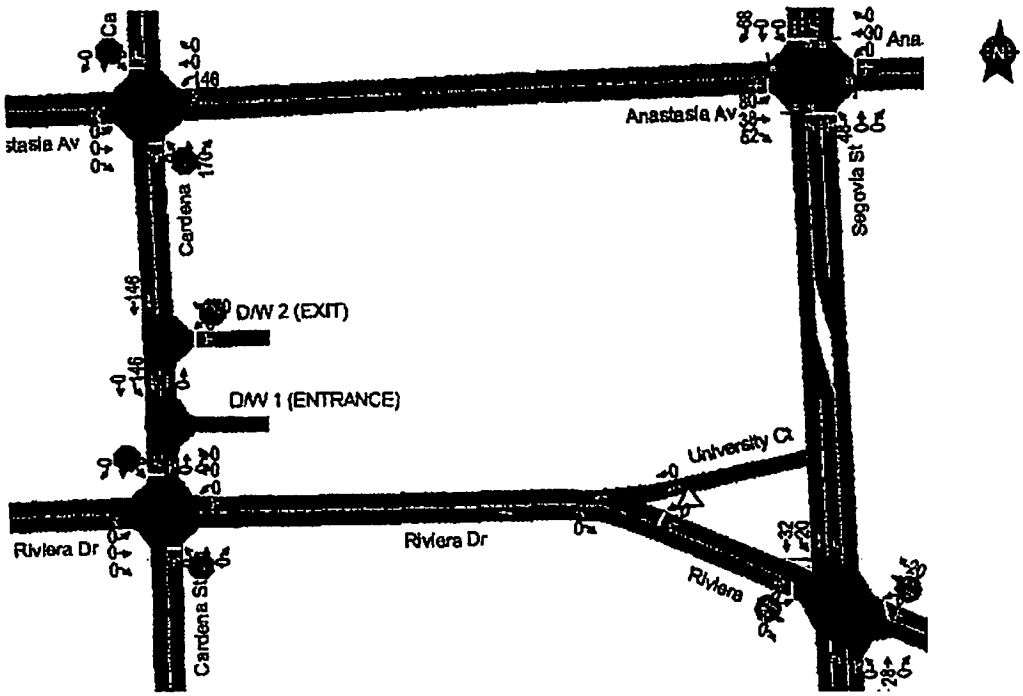


Figure 11: School's PM Peak Hour Site Traffic (Scenario B)



Proposed Conditions (2011)

The proposed condition includes the future roadway modifications on Segovia Street, background growth and site traffic. The existing traffic was grown with a background growth rate of 1.09 percent per year. This growth rate was obtained utilizing the 2009 historical traffic counts data from the Florida Department of Transportation. Again, this methodology was discussed with and agreed to by the City of Coral Gables and is consistent with the methodology utilized by Miami Dade County for schools.

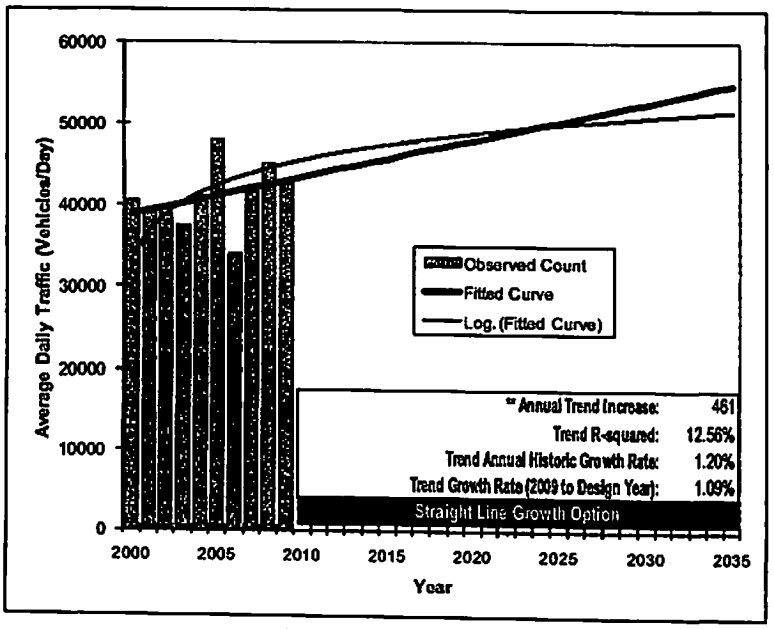
Proposed Roadway Modifications on Segovia Street

As discussed in the methodology meeting held on May 18th, 2010, the City of Coral Gables is proposing median modifications on Segovia Street adjacent to the subject school, which includes the construction of new raised landscaped medians, a bike lane and the removal of a through lane for both north and south directions. Please note the removal of a through lane will reduce the roadway capacity on Segovia Street. Furthermore, the removal of the eastbound approach is being planned at University Court and Segovia Street. Lastly, our proposed condition analysis was performed consistent the proposed roadway modification as discussed and agreed to with the City during the scoping phase.

Background Growth

Using the historical traffic counts data from the Florida Department of Transportation's Count Stations 0024, a regression analysis was performed for the last ten (10) years of available data. The results indicate a growth trend rate of 1.09 percent, which was applied to the existing traffic counts to address background growth in the area. Figure 12 depicts the data graphically with its corresponding trend line. The count stations data and analyses are included in Appendix D.

Figure 12: Growth Trend Chart (Station #: 0024)



Proposed with Project Traffic

AM/PM Peak Hour

Intersection Analysis

The intersections previously shown in Figure 3 and 4 were augmented with the background growth and site traffic. This forms the basis for the proposed future condition with project traffic. Moreover, the proposed condition was analyzed for two (2) scenarios, which is consistent with the scenarios previously described in the Site Traffic section of this report. Again, the proposed condition analysis was performed consistent with the proposed median modifications on Segovia Street. The results for both proposed scenarios yielded Level of Service (LOS) C or better. The calculations for the specific movements at each intersection are included in Appendix E. Figures 13 and 14 depict the proposed AM peak hour condition for scenarios A and B, respectively. Figures 15 and 16 illustrate the proposed PM peak hour condition for scenarios A and B, respectively.

Figure 13: Proposed AM Peak Hour Volumes (Scenario A)

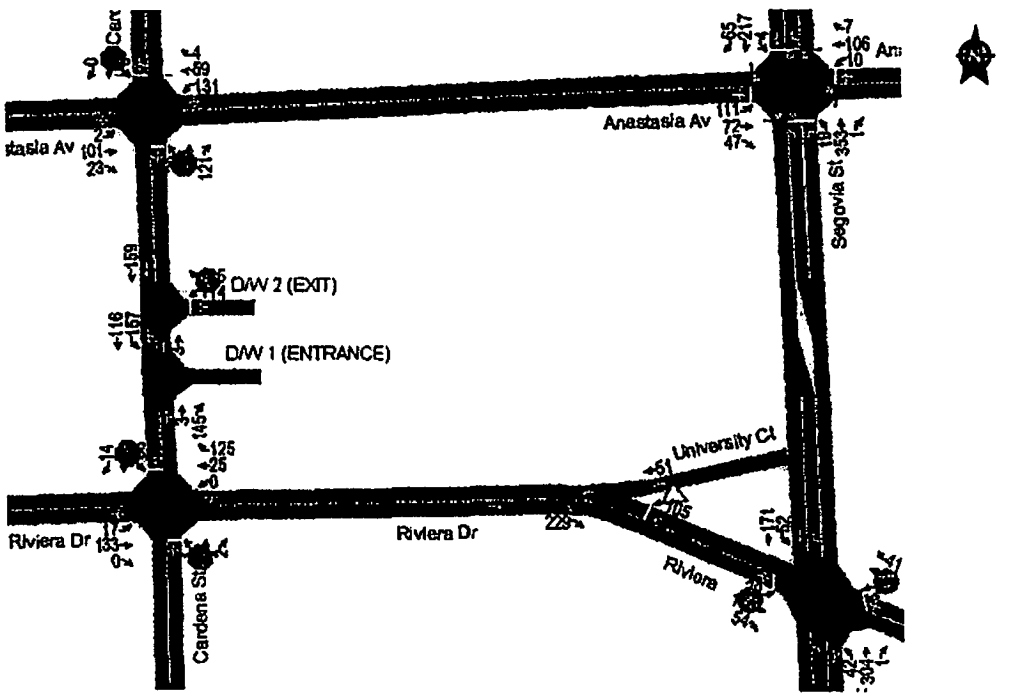


Figure 14: Proposed AM Peak Hour Volumes (Scenario B)

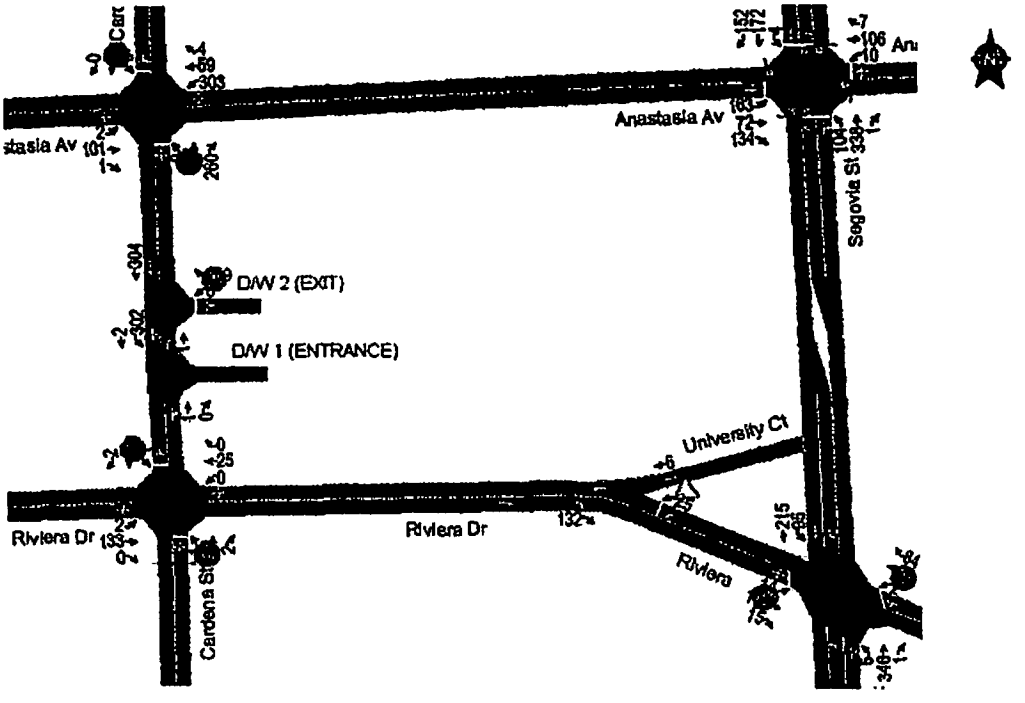


Figure 15: Proposed School's PM Peak Hour Volumes (Scenario A)

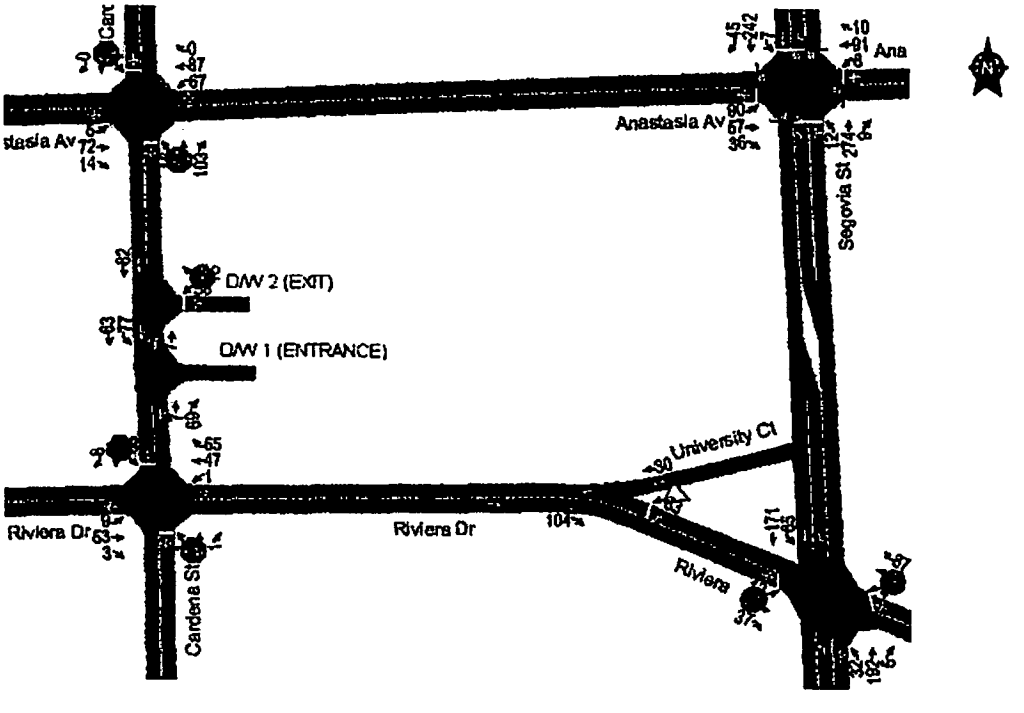
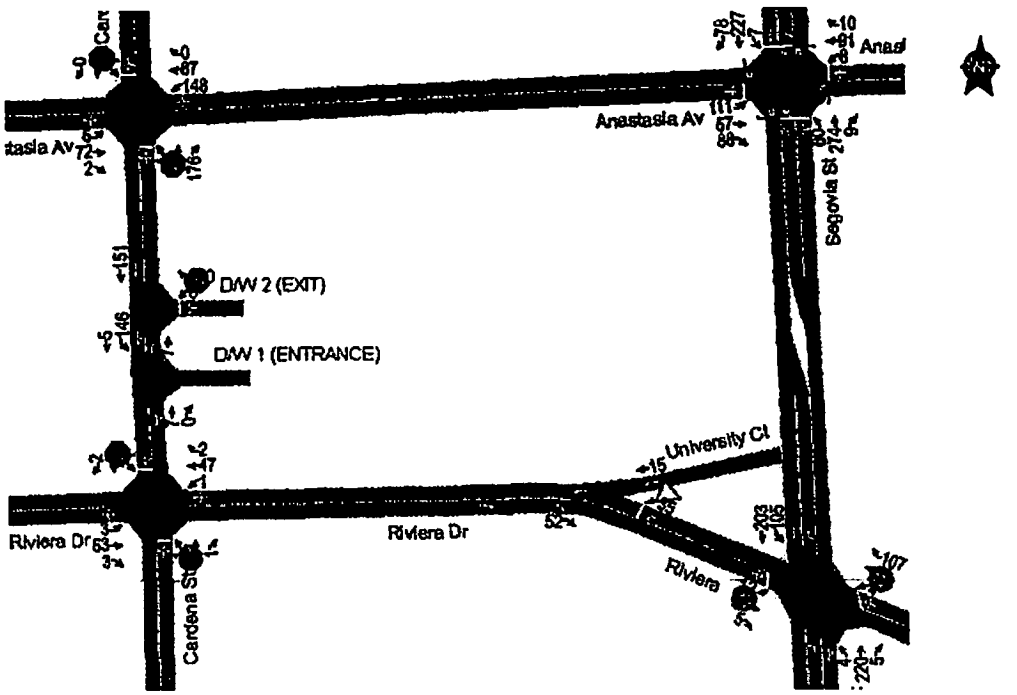


Figure 16: Proposed School's PM Peak Hour Volumes (Scenario B)



Moreover, we have performed a driveway capacity analysis for the site driveways. The driveway's volumes were determined by using the trip distribution analysis according to the ingress and egress calculations from the trip generation section of this report. The site's driveways yielded a LOS A. The Riviera Drive driveway will not be opened during the school's arrival and dismissal times; therefore, no analysis is being provided. Lastly, Table 9 summarizes the proposed condition LOS for both scenarios. Appendix F contains the supporting documentation.

Table 9: Proposed AM/PM Intersection Level of Service (LOS)

Location	Intersection Control	Proposed AM Peak Hour				Proposed School PM Peak Hour			
		Ave Veh Delay	LOS	Ave Veh Delay	LOS	Ave Veh Delay	LOS	Ave Veh Delay	LOS
Segovia Street & Anastasia Avenue	Signalized	13.7	B	34.9	C	11.4	B	13.8	B
Segovia Street & University Court	2-Way Stop (E/W)	0.0	A	0.0	A	0.0	A	0.0	A
Segovia Street & Riviera Drive	2-Way Stop (E/W)	7.9	A	5.2	A	5.5	A	4.5	A
Anastasia Avenue & Cardena Street	2-Way Stop (N/S)	5.8	A	7.3	A	4.9	A	6.2	A
Riviera Drive & Cardena Street	2-Way Stop (N/S)	3.8	A	0.5	A	3.1	A	1.0	A
Driveway 2 (Exit) & Cardena Street	2-Way Stop (E/W)	6.4	A	4.4	A	6.1	A	4.7	A

Notes:
Scenario A - Site Traffic based on TAZ and roadway network.
Scenario B - All Site Traffic through Segovia St/Anastasia Av.

Conclusion

The proposed school was evaluated for the existing and future levels of service with the improvements on Segovia Street. The levels of service yielded acceptable results (i.e. LOS C or better). Moreover, we have performed a "Segovia Access" scenario by evaluating the assignment of all inbound and outbound traffic onto the signalized intersection of Anastasia Avenue and Segovia Street. The results are all scenarios will not fall below an LOS C condition. While both scenarios provide effective strategies for traffic flow, it is the school's intent to work with City staff and local stakeholders to determine which scenario is best suited for the school and neighborhood. In fact, the majority of the change in LOS is due to the change in the number of through lanes on Segovia Street as a result on the proposed medians by the City of Coral Gables. That notwithstanding, we recommend the installation of the raised landscaped median on Segovia Street as the traffic volumes yielded adequate LOS and the additional North/South lanes being remove are not needed. In conclusion, the proposed school can function adequately with the proposed changes on Segovia Street and will not have an adverse impact.

Appendix A: Memorandum of Understanding

To: James J. Kay, P.E.
Engineering Division Supervisor
City of Coral Gables
2800 SW 72nd Avenue
Miami, Florida 33155

From: Richard Garcia, P.E.
Richard Garcia & Associates, Inc.
13117 NW 107th Avenue, Unit 4
Hialeah Gardens, Florida 33018

Date: May 18, 2010

SUBJECT: Traffic Study Methodology for the Somerset UBC Project

As discussed on our meeting Today, May 18th, 2010, the following traffic study methodology will be utilized for the referenced project. Please review and confirm this methodology in order for us to proceed with our analysis. Should you need clarification or wish to discuss this further please do not hesitate to contact me.

Traffic Impact Study Methodology

- Traffic Counts – including trucks and pedestrians.
  - **Eight** (4 AM & 4 PM) Turning Movement Counts (7:00 AM – 9:00 AM & 2:00 PM – 4:00 PM) at the following intersections:
    - **Segovia Street & Anastasia Avenue**
    - **Segovia Street & University Court**
    - **Anastasia Avenue & Cardena Street**
    - **University Court & Cardena Street**
- Signals Location and Timing
  - Traffic signals shall be identified by Miami-Dade County Asset ID. Existing Signal Phasing/Timing shall be utilized in the analysis.
- Trip Generation / Trip Distribution / Trip Assignment
  - Trip Generation will be determined using the Miami-Dade County (MDC) adopted surrogate school method.
  - Trip Distribution shall begin by defining the Traffic Analysis Zone (TAZ) number for the project location. Distribute trips using the project's TAZ and the current Miami Urban Area Transportation Study (MUATS).
- Background Growth
  - A background growth rate will be utilized in the proposed condition LOS analysis to address future growth within the project's vicinity.

- 1 Year Build Out Year
  - This represents a date in the future in which the facility/ development will be operational. It shall be used as the date for future conditions analysis.

- LOS Analysis
  - Intersection capacity /LOS based on HCM 2000 methodology using Synchro/SimTraffic software
  - Such analysis will provide the results for the Level of Service (LOS), volume to capacity ratio (V/C) and other outputs such as Queue Lengths and Vehicular Delay.
  - Above for the following conditions:
    1. Existing Condition Base Year (2008)
    2. Proposed Future Year without project (2011)
    3. Proposed Future Year with Project (2011)

The above will be depicted with graphics in the traffic report.

Appendix B: Trip Generation

TABLE: A1

Somerset UBC (PK - 8)
PROJECT TRIP GENERATION ANALYSIS

Land Use (LU)	Units	LU CODE	TRIP GENERATION RATE	AM PEAK PERIOD					
				IN		OUT		TOTAL
				%	Trips	%	Trips	TRIPS
Proposed School (PK-8)	735 Students	◇	0.898	54%	356	46%	304	660
Proposed Vehicle Trips				54%	356	46%	304	660

NOTES:

◇ Trip Generation Rate obtained from surrogated school data, Table: T1.

TABLE: A2

Somerset UBC (PK - 8)
School AM Trip Generation

Time	Percent of Students	Number of Students	Vehicles-In	Vehicles-Out	Total Trips	Cummulative Trips	Operation
7:00 AM - 7:15 AM	2%	15	7	6	13	13	First Arrival 7:45 AM (PK - 4)
7:15 AM - 7:30 AM	10%	74	35	31	66	79	
7:30 AM - 7:45 AM	30%	221	107	91	198	277	
7:45 AM - 8:00 AM	15%	110	53	46	99	99	Second Arrival 8:15 AM (5 - 8)
8:00 AM - 8:15 AM	30%	221	107	91	198	297	
8:15 AM - 8:30 AM	7%	51	25	21	46	46	
8:30 AM - 8:45 AM	3%	22	11	9	20	66	
8:45 AM - 9:00 AM	3%	22	11	9	20	86	
Total	**100%**	**735**	**356**	**304**	**660**	***PEAK @ EACH ARRIVAL***	

	Veh-In	Veh-Out	Total Trips (vph)
* Trip Generation Trips	356	304	660

SCHOOL AM PEAK HOUR (2 ARRIVALS)			
AM Peak Hour (7:15 AM - 8:15 AM)	Veh-In	Veh-Out	Total Trips (vph)
	302	**259**	**561**

Note: * See Table A1.

TABLE: A3

Somerset UBC (PK - 8)
PROJECT TRIP GENERATION ANALYSIS

Land Use (LU)	Units	LU CODE	PM PEAK PERIOD					
			TRIP GENERATION RATE	IN		OUT		TOTAL
				%	Trips	%	Trips	TRIPS
Proposed School (PK-8)	735 Students	◇	0.717	46%	245	54%	283	528
Proposed Vehicle Trips				46%	245	54%	283	528

NOTES:
◇Trip Generation Rate obtained from surrogated school data, Table T2.

TABLE: A4

Somerset UBC (PK - 8)
School PM Trip Generation

Time	Percent of Students	Number of Students	Vehicles-In	Vehicles-Out	Total Trips	Cummulative Trips	Operation
2:00 PM - 2:15 PM	6%	44	15	17	32	32	First Dismissal 2:30 PM (PK - 2)
2:15 PM - 2:30 PM	10%	74	24	28	52	84	
2:30 PM - 2:45 PM	20%	147	49	57	106	190	
2:45 PM - 3:00 PM	10%	74	24	28	52	52	Second Dismissal 3:00 PM (3 - 5)
3:00 PM - 3:15 PM	20%	147	49	57	106	158	
3:15 PM - 3:30 PM	10%	74	24	28	52	52	Third Dismissal 3:30 PM (6 - 8)
3:30 PM - 3:45 PM	20%	147	49	57	106	158	
3:45 PM - 4:00 PM	4%	28	11	11	22	22	
Total	100%	735	245	283	528	*PEAK @ EACH DISMISSAL*	

	Veh-In	Veh-Out	Total Trips (vph)
* Trip Generation Trips	245	283	528

SCHOOL PM PEAK HOUR (3 DISMISSALS)			
PM Peak Hour (2:15 PM - 3:15 PM)	Veh-In	Veh-Out	Total Trips (vph)
	146	170	316

Note: * See Table A3.

TABLE: T1

Surrogate School
AM Peak Trip Generation

School Name: Doral Academy Elementary
Location: 2450 NW 97 Avenue, Doral FL

Date: 2/9/2010

Time	Vehicles-In	Vehicles-Out	Total Trips	Bus-In	Bus-Out	Total Bus
7:00 AM - 7:15 AM	20	9	29	0	0	0
7:15 AM - 7:30 AM	52	24	76	0	0	0
7:30 AM - 7:45 AM	59	41	100	0	0	0
7:45 AM - 8:00 AM	77	59	136	1	0	1
8:00 AM - 8:15 AM	102	87	189	0	1	1
8:15 AM - 8:30 AM	117	109	226	0	0	0
8:30 AM - 8:45 AM	55	82	137	0	0	0
8:45 AM - 9:00 AM	0	3	3	0	0	0
Total	**482**	**414**	**896**	**1**	**1**	**2**

Surrogate School AM Peak Trip Generation Rate					
Number of Students:	**768**	**IN**	**OUT**	**TOTAL**	
		0.458	**0.440**	**0.898**	Trips/Student

Peak Hour

Notes:
Vehicles included cars and passenger vans.
Trip Generation Rate includes busses.

TABLE: T2

Surrogate School
PM Peak Trip Generation

School Name: Doral Academy Elementary
Location: 2450 NW 97 Avenue, Doral FL

Date: 2/9/2010

Time	Vehicles-In	Vehicles-Out	Total Trips	Bus-In	Bus-Out	Total Bus
1:30 PM - 1:45 PM	11	3	14	0	0	0
1:45 PM - 2:00 PM	22	6	28	0	0	0
2:00 PM - 2:15 PM	34	29	63	1	1	2
2:15 PM - 2:30 PM	18	16	34	0	0	0
2:30PM - 2:45 PM	41	12	53	0	0	0
2:45 PM - 3:00 PM	50	13	63	1	0	1
3:00 PM - 3:15 PM	46	101	147	0	1	1
3:15 PM - 3:30 PM	22	72	94	0	0	0
3:30 PM - 3:45 PM	8	34	42	0	0	0
3:45 PM - 4:00 PM	4	9	13	0	0	0
Total	**256**	**295**	**551**	**2**	**2**	**4**

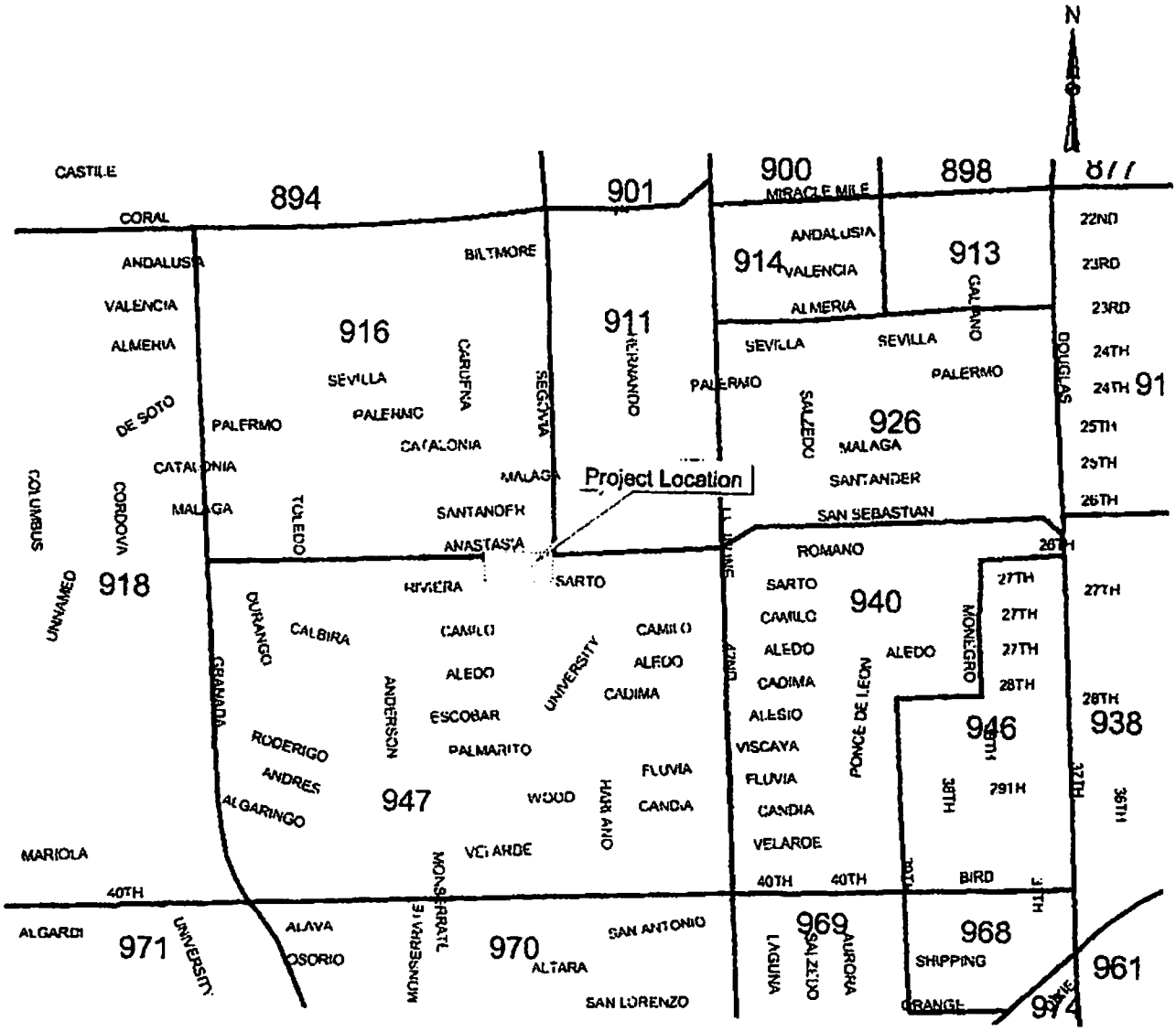
Peak Hour

Surrogate School PM Trip Generation Rate					
Number of Students:	**768**	**IN**	**OUT**	**TOTAL**	
		0.333	**0.384**	**0.717**	Trips/Student

Notes:
Vehicles included cars and passenger vans.
Trip Generation Rate includes busses.

Appendix C: Trip Distribution

Traffic Analysis Zones (TAZ)



Miami-Dade Transportation Plan
(to the Year 2030)

Directional Trip Distribution Report

January 2005

Prepared by:

Gannett Fleming

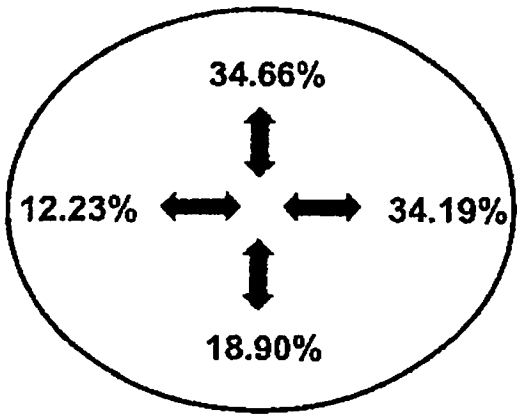
In association with:
PACO Group
Public Financial Management
Media Relations Group

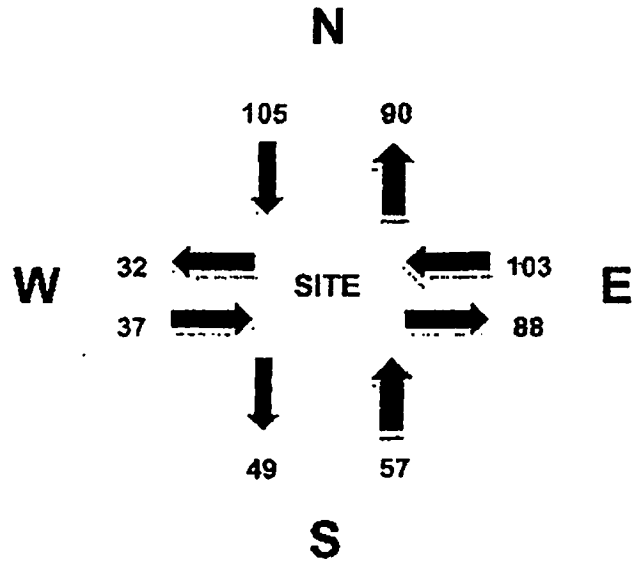
DIRECTIONAL DISTRIBUTION SUMMARY

ORIGIN ZONE		CARDINAL DIRECTIONS NNE	ENE	ESE	SSE	SSW	WSW	WNW	NNW	TOTAL
946	TRIPS	178	166	67	80	105	97	56	84	833
	PERCENT	21.37	19.93	8.04	9.60	12.61	11.64	6.72	10.08	
947	TRIPS	529	498	229	174	228	170	90	208	2126
	PERCENT	24.88	23.42	10.77	8.18	10.72	8.00	4.23	9.78	
948	TRIPS	497	369	172	224	330	363	218	241	2414
	PERCENT	20.59	15.29	7.13	9.28	13.67	15.04	9.03	9.98	
949	TRIPS	437	354	201	267	314	271	207	218	2269
	PERCENT	19.26	15.60	8.86	11.77	13.84	11.94	9.12	9.61	
950	TRIPS	1571	987	680	605	1017	966	529	663	7018
	PERCENT	22.39	14.06	9.69	8.62	14.49	13.76	7.54	9.45	
951	TRIPS	703	640	288	313	449	562	351	405	3711
	PERCENT	18.94	17.25	7.76	8.43	12.10	15.14	9.46	10.91	
952	TRIPS	1939	1468	527	867	1277	1245	723	1214	9260
	PERCENT	20.94	15.85	5.69	9.36	13.79	13.44	7.81	13.11	
953	TRIPS	627	542	168	400	382	741	973	500	4333
	PERCENT	14.47	12.51	3.88	9.23	8.82	17.10	22.46	11.54	
954	TRIPS	683	727	209	371	429	323	167	403	3312
	PERCENT	20.62	21.95	6.31	11.20	12.95	9.75	5.04	12.17	
955	TRIPS	478	437	202	201	159	103	68	189	1837
	PERCENT	26.02	23.79	11.00	10.94	8.66	5.61	3.70	10.29	
956	TRIPS	789	729	378	375	544	460	207	384	3864
	PERCENT	20.42	18.87	9.78	9.65	14.08	11.90	5.36	9.94	
957	TRIPS	451	507	169	186	140	160	63	135	1814
	PERCENT	24.86	27.93	9.32	10.25	7.72	8.82	3.47	7.61	
958	TRIPS	562	735	247	419	227	168	91	127	2576
	PERCENT	21.82	28.53	9.59	16.27	8.81	6.52	3.53	4.93	
959	TRIPS	764	1022	392	365	303	166	117	308	3437
	PERCENT	22.23	29.74	11.41	10.62	8.82	4.83	3.40	8.96	
960	TRIPS	530	672	308	143	135	134	75	164	2205
	PERCENT	24.04	30.48	13.97	6.49	6.12	6.08	3.40	7.44	

Somerset UBC (PK - 8)
Project Cardinal Distribution (AM)
(TAZ 947)

DIRECTION	DISTRIBUTION %
NNE	24.88
ENE	23.42
ESE	10.77
SSE	8.18
SSW	10.72
WSW	8.00
WNW	4.23
NNW	9.78
TOTAL	100.00



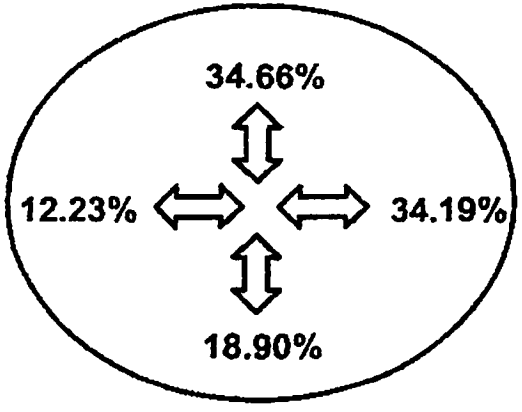


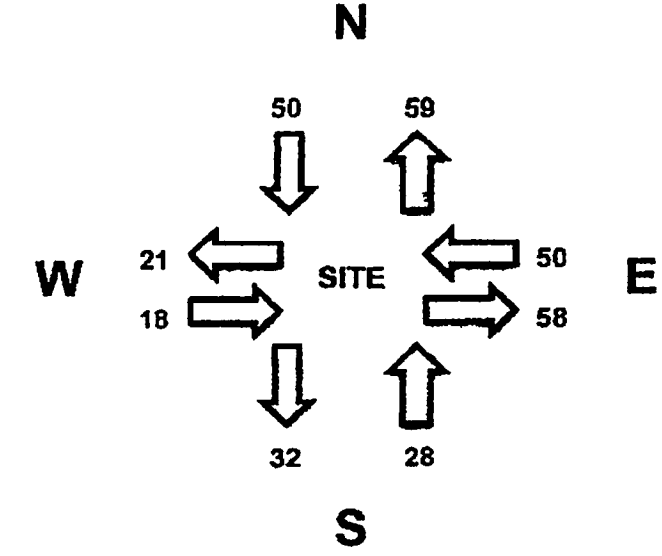
Note:

Based on Miami-Dade Transportation Plan (to the Year 2030) Directional Trip Distribution Report, January 2005. Miami-Dade Interim 2015 Cost Feasible Plan was used as obtained from Miami Dade MPO.

Somerset UBC (PK - 8)
Project Cardinal Distribution (PM)
(TAZ 947)

DIRECTION	DISTRIBUTION %
NNE	24.88
ENE	23.42
ESE	10.77
SSE	8.18
SSW	10.72
WSW	8.00
WNW	4.23
NNW	9.78
TOTAL	100.00



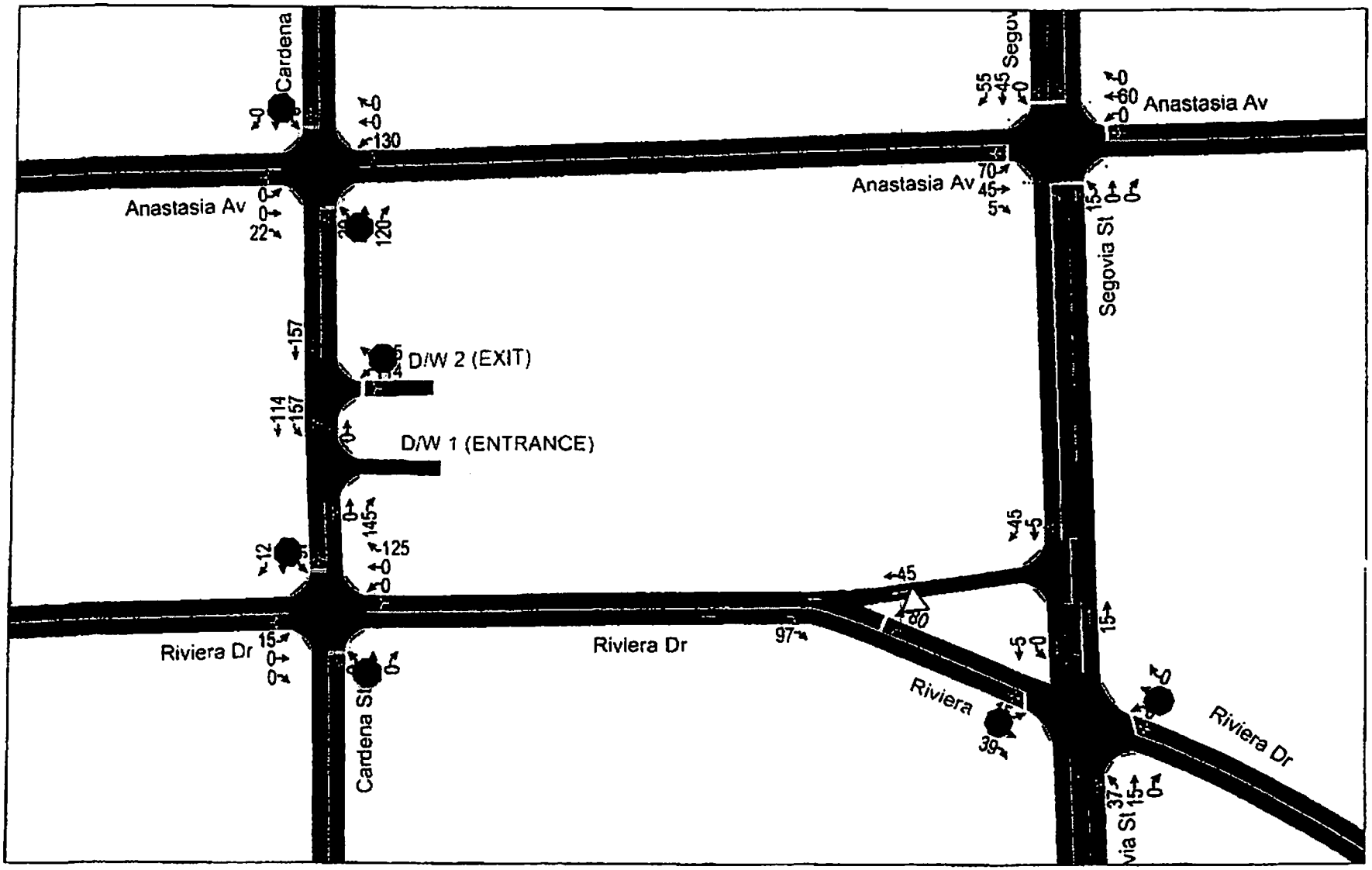


Note:

Based on Miami-Dade Transportation Plan (to the Year 2030) Directional Trip Distribution Report, January 2005. Miami-Dade Interim 2015 Cost Feasible Plan was used as obtained from Miami Dade MPO.

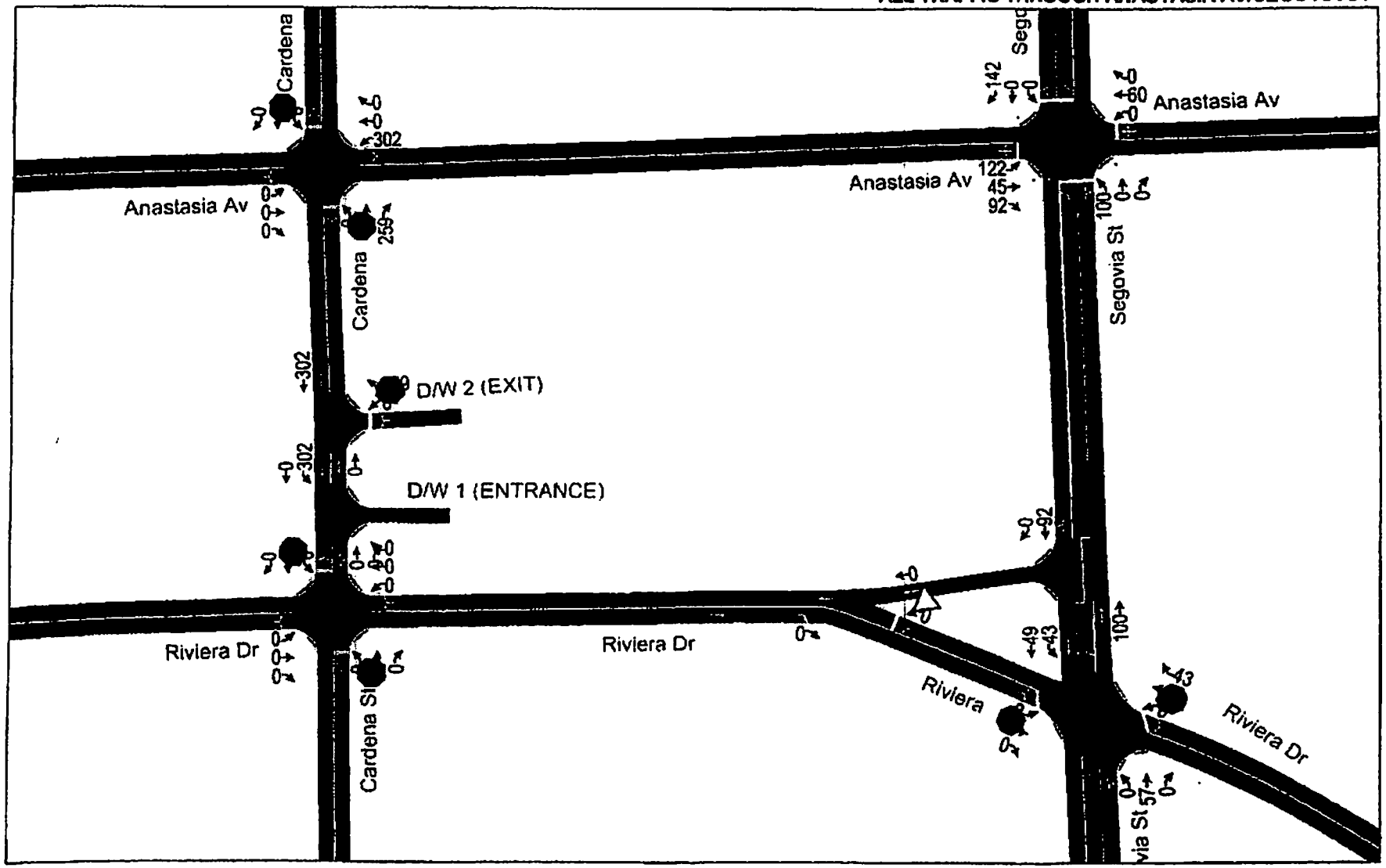
Somerset UBC (PK-8)

AM SITE TRAFFIC (SCENARIO A)



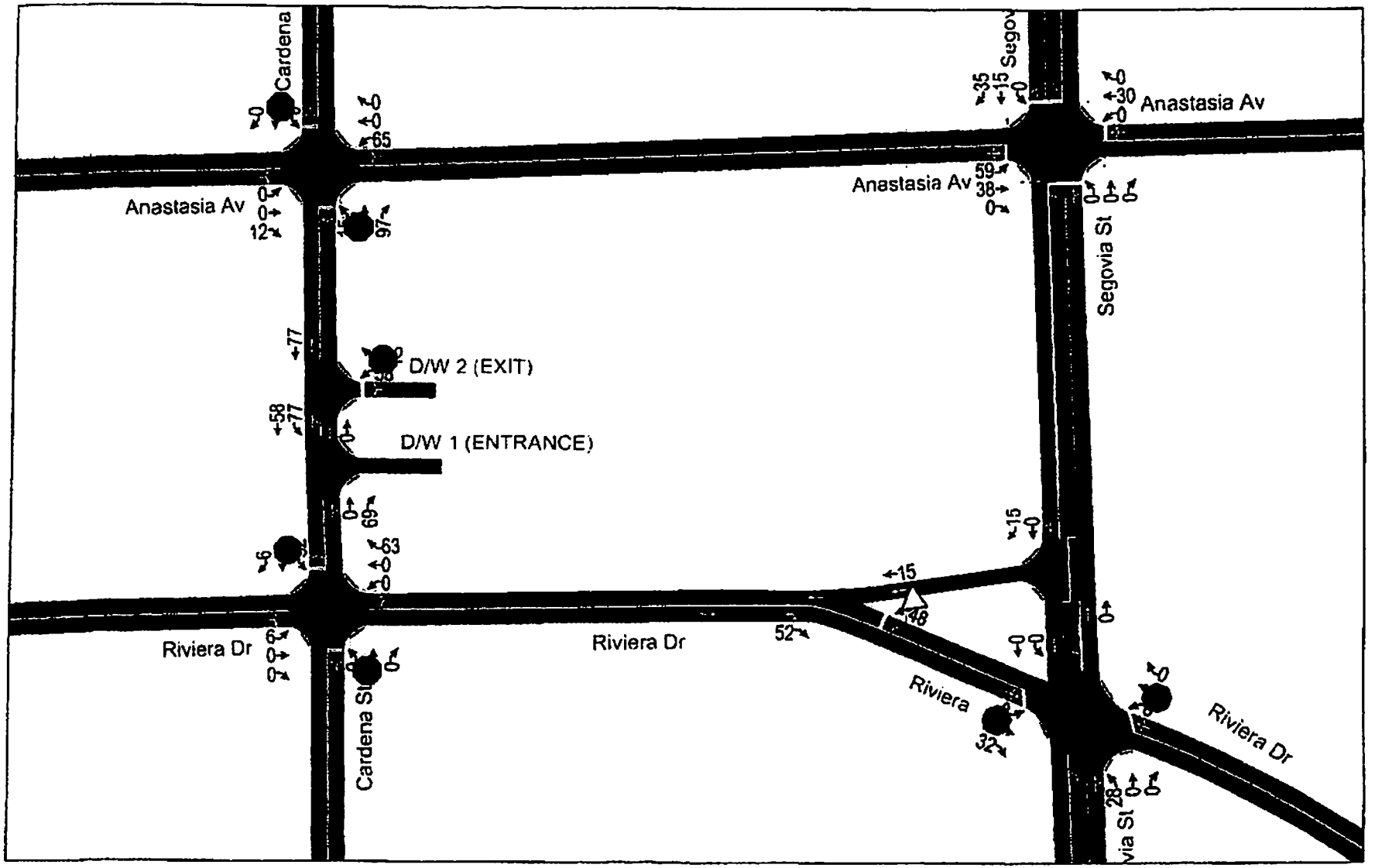
Somerset UBC (PK-8)

AM SITE TRAFFIC (SCENARIO B)
ALL TRAFFIC THROUGH ANASTASIA AV/SEGOVIA ST



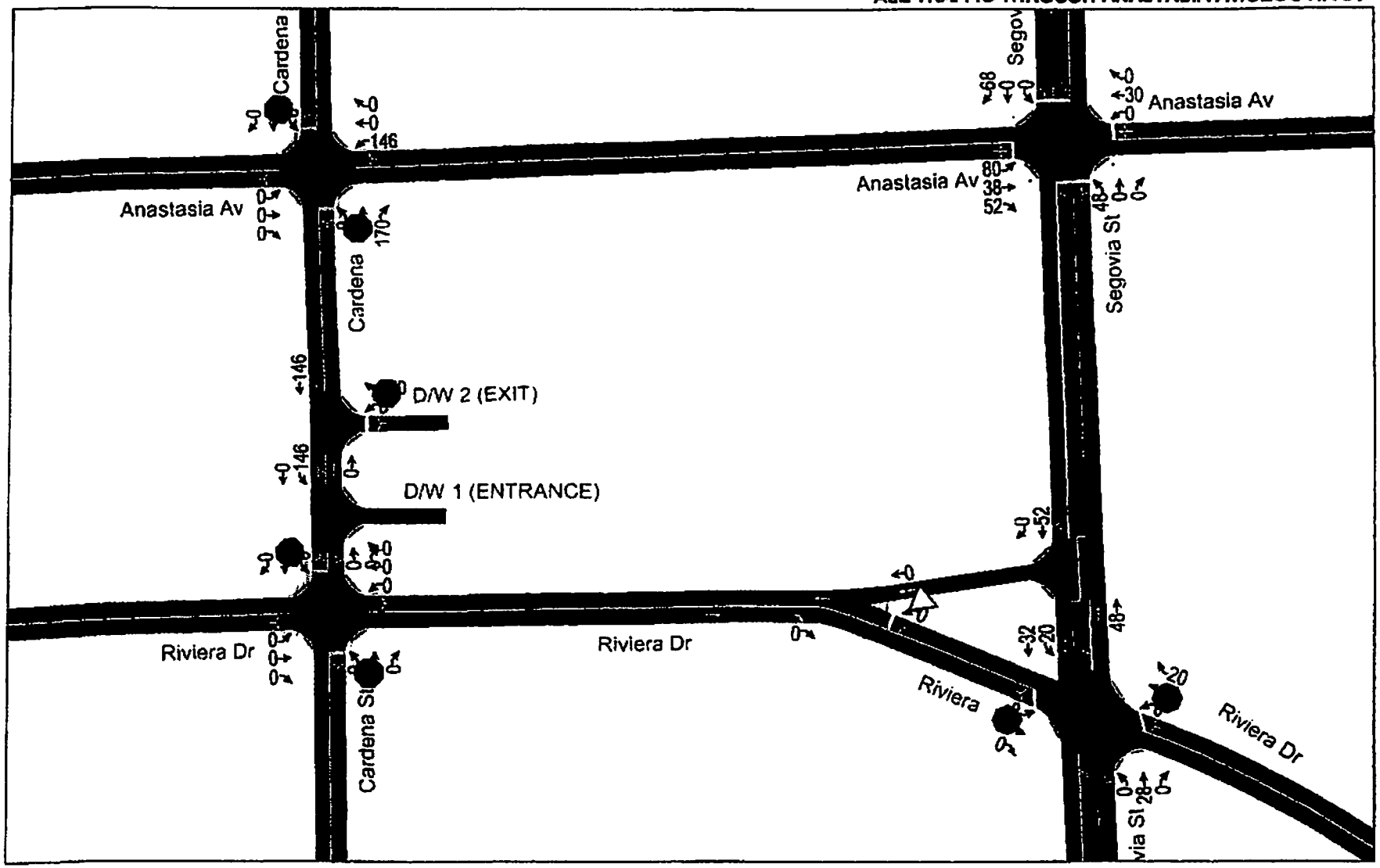
Somerset UBC (PK-8)

PM SITE TRAFFIC (SCENARIO A)



Somerset UBC (PK-8)

PM SITE TRAFFIC (SCENARIO B)
ALL TRAFFIC THROUGH ANASTASIA AV/SEGOVIA ST



Appendix D: Signal Timing, Growth Rate & Adjustment Factors

MIAMI-DADE ATMS
SIGNAL DATA SHEET

Signal Asset ID: _____
Analysis Period: AM / PM (Circle One)
Local Time of Day Schedule: _____ Plan
Local time of Day Function: _____Setting (Blank or Number#)

Signal Settings: _____
(i.e. Blank, Plan #1 – Phase Bank 1, Max 1)

Cycle Length: _____ seconds

PHASE:	Φ1	Φ2	Φ3	Φ4
G(w)				
G(f)				
G(g)				
G(total)				
Y				
R				
SPLIT				

Print Date: 5/26/2010

Print Time: 9:01 AM

TOD Schedule Report for 6033: Anastasia &Segovia St

Asset	Intersection	TOD Schedule	Op Mode	Plan #	Cycle	Offset	Splits PH 1	PH 2 SBT	PH 3	PH 4 WBT	PH 5	PH 6 NBT	PH 7	PH 8 EBT	Active PhaseBank	Active Maximum
6033	6033: Anastasia &Segovia St	DOW-4 Wednesday	TOD	N/A	0	0	0	0	0	0	0	0	0	0	0	Max 0

Active Phase Bank: Phase Bank 1

Phase		Walk (Phase Bank 1 - 2 - 3)	Don't Walk (1 - 2 - 3)	Min Initial (1 - 2 - 3)	Veh Ext (1 - 2 - 3)	Max Limit (1 - 2 - 3)	Max 2 (1 - 2 - 3)	Yellow	Red
1		0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
2	SBT	7 - 7 - 7	10 - 10 - 10	23 - 23 - 23	2.5 - 2.5 - 2.5	35 - 35 - 35	0 - 0 - 0	4	0.3
3		0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
4	WBT	7 - 7 - 7	10 - 10 - 10	7 - 7 - 7	2.5 - 2.5 - 2.5	15 - 15 - 15	0 - 0 - 0	4	0.9
5		0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
6	NBT	7 - 7 - 7	10 - 10 - 10	23 - 23 - 23	2.5 - 2.5 - 2.5	35 - 35 - 35	0 - 0 - 0	4	0.3
7		0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
8	EBT	7 - 7 - 7	10 - 10 - 10	7 - 7 - 7	2.5 - 2.5 - 2.5	15 - 15 - 15	0 - 0 - 0	4	0.9

Last In Service Date: unknown

Permitted Phases

	12345678
Default	-2-4-6-8
External Permit 0	------
External Permit 1	------
External Permit 2	------

Current TOD Schedule	Plan	Cycle	Green Time 1	2 SBT	3	4 WBT	5	6 NBT	7	8 EBT	Ring Offset	Offset
	Free											

Local TOD Schedule

Time	Plan	DOW
0000	Free	SuM T W ThF S

Current Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	------	SuM T W ThF S

Local Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	------	SuM T W ThF S

*** Settings**

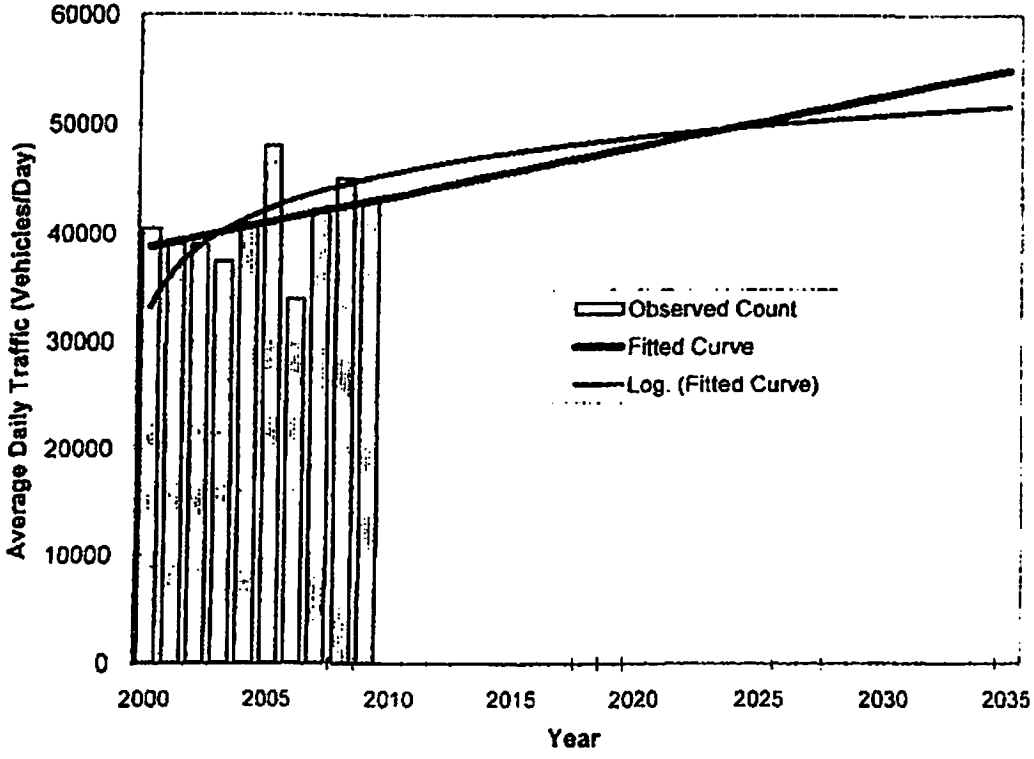
Blank - FREE - Phase Bank 1, Max 1
Blank - Plan - Phase Bank 1, Max 2
1 - Phase Bank 2, Max 1
2 - Phase Bank 2, Max 2
3 - Phase Bank 3, Max 1
4 - Phase Bank 3, Max 2
5 - EXTERNAL PERMIT 1
6 - EXTERNAL PERMIT 2
7 - X-PED OMIT
8 - TBA

Traffic Trends - V2.0

SR 953/LEJEUNE RD -- 200' S CORAL WAY/SR972

PIN#	973215-1
Location	1

County:	Miami (87)
Station #:	0024
Highway:	SR 953/LEJEUNE RD



Year	Traffic (ADT/AADT) Count*	Trend**
2000	40500	38800
2001	39000	39300
2002	39000	39700
2003	37500	40200
2004	41000	40700
2005	48000	41100
2006	34000	41600
2007	42000	42100
2008	45000	42500
2009	43000	43000
2010 Opening Year Trend		
2010	N/A	43400
2011 Mid-Year Trend		
2011	N/A	43900
2012 Design Year Trend		
2012	N/A	44400
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

** Annual Trend Increase:	461
Trend R-squared:	12.56%
Trend Annual Historic Growth Rate:	1.20%
Trend Growth Rate (2009 to Design Year):	1.09%
Printed:	25-May-10
Straight Line Growth Option	

Transportation Statistics Office

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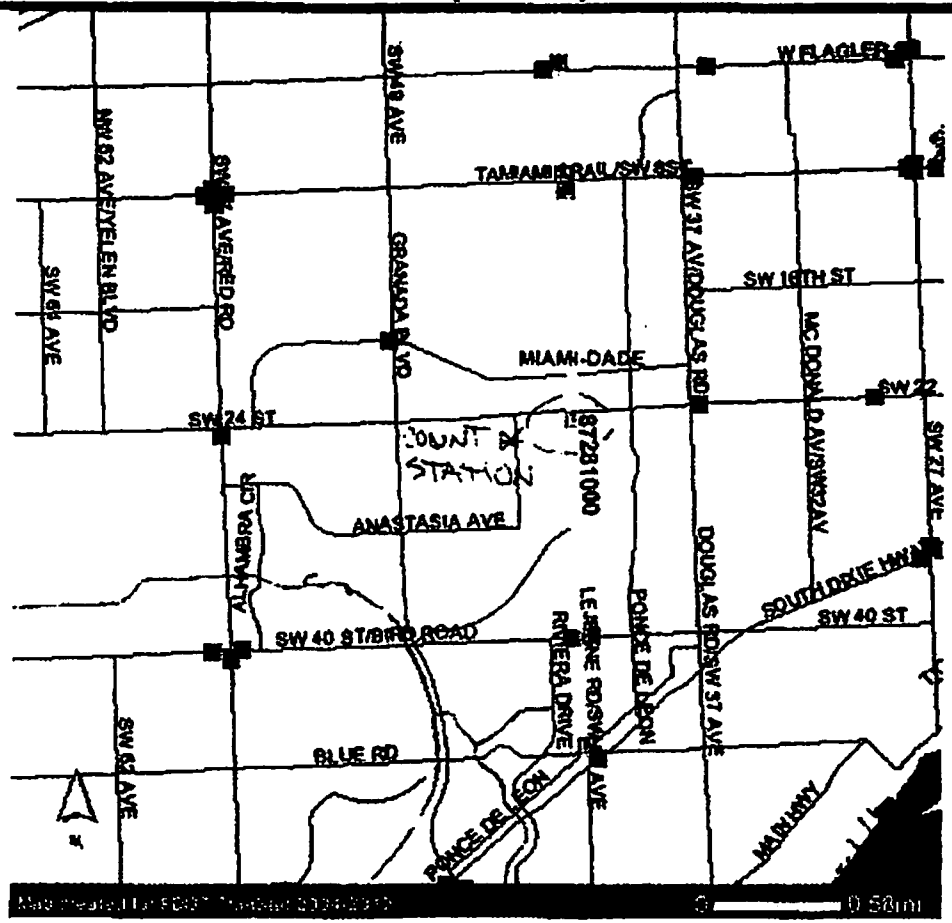

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FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2009 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI DADE

SITE: 0034 - SR 953/LEJEUNE RD. 200' S CORAL WAY/SR 972

YEAR	AADT	DIRECTION 1	DIRECTION 2	K FACTOR	D FACTOR	T FACTOR
2009	43000 C	N 22500	S 20500	7.94	59.96	3.20
2008	45000 C	N 23500	S 22500	6.87	60.31	3.50
2007	42000 C	N 22000	S 20000	7.90	61.13	4.70
2006	34000 C	N 15000	S 19000	7.39	58.66	7.20
2005	48000 F	N 21500	S 26500	7.70	65.70	5.60
2004	41000 C	N 18500	S 22500	8.20	67.10	9.00
2003	37500 C	N 20000	S 17500	8.10	72.30	5.00
2002	35000 C	N 17500	S 21500	9.30	66.50	4.30
2001	39000 C	N 20500	S 18500	8.20	53.90	5.70
2000	40500 C	N 21000	S 19500	8.30	53.00	4.30
1999	49000 C	N 28000	S 21000	9.10	52.70	4.40
1998	41000 C	N 21000	S 20000	9.30	52.70	6.10
1997	35500 C	N 19500	S 16000	9.10	64.50	4.20
1996	34000 C	N 18500	S 15500	9.50	54.10	7.30
1995	34000 C	N 17000	S 17000	7.90	52.60	5.40
1994	35000 C	N 19500	S 15500	8.00	50.00	4.40

AADT FLAGS: C - COMPUTED; E - MANUAL ESTIMATE; F - FIRST YEAR ESTIMATE
S - SECOND YEAR ESTIMATE; T - THIRD YEAR ESTIMATE; X - UNKNOWN

2008 Peak Season Factor Category Report - Report Type: All
Category: 8701 MIAMI-BARF SOUTH

Week	Dates	SF	SCOF: 0.97 ESCF
1	01/01/2008 - 01/05/2008	[illegible]	1.03
2	01/06/2008 - 01/12/2008	[illegible]	[illegible]
3	01/13/2008 - 01/19/2008	[illegible]	[illegible]
4	01/20/2008 - [illegible]	[illegible]	[illegible]
5	01/27/2008 - 02/02/2008	[illegible]	[illegible]
* 6	02/03/2008 - 02/09/2008	[illegible]	[illegible]
* 7	02/10/2008 - 02/16/2008	[illegible]	[illegible]
* 8	02/17/2008 - 02/23/2008	[illegible]	[illegible]
* 9	02/24/2008 - 03/01/2008	[illegible]	[illegible]
*10	03/02/2008 - 03/08/2008	[illegible]	[illegible]
*11	03/09/2008 - [illegible]	[illegible]	[illegible]
*12	03/16/2008 - 03/22/2008	[illegible]	[illegible]
*13	03/23/2008 - 03/29/2008	[illegible]	[illegible]
*14	03/30/2008 - 04/05/2008	[illegible]	[illegible]
*15	04/06/2008 - 04/12/2008	[illegible]	[illegible]
*16	04/13/2008 - 04/19/2008	[illegible]	[illegible]
*17	04/20/2008 - 04/26/2008	[illegible]	[illegible]
*18	04/27/2008 - 05/03/2008	[illegible]	[illegible]
19	05/04/2008 - 05/10/2008	[illegible]	[illegible]
20	05/11/2008 - 05/17/2008	[illegible]	[illegible]
21	05/18/2008 - 05/24/2008	[illegible]	[illegible]
22	05/25/2008 - 05/31/2008	[illegible]	[illegible]
23	06/01/2008 - 06/07/2008	[illegible]	[illegible]
24	06/08/2008 - 06/14/2008	[illegible]	[illegible]
25	06/15/2008 - 06/21/2008	[illegible]	[illegible]
26	06/22/2008 - 06/28/2008	[illegible]	[illegible]
27	06/29/2008 - 07/05/2008	[illegible]	[illegible]
28	07/06/2008 - 07/12/2008	[illegible]	[illegible]
29	07/13/2008 - 07/19/2008	[illegible]	[illegible]
30	07/20/2008 - 07/26/2008	[illegible]	[illegible]
31	07/27/2008 - 08/02/2008	[illegible]	[illegible]
32	08/03/2008 - 08/09/2008	[illegible]	[illegible]
33	08/10/2008 - 08/16/2008	[illegible]	[illegible]
34	08/17/2008 - 08/23/2008	[illegible]	[illegible]
35	08/24/2008 - 08/30/2008	[illegible]	[illegible]
36	08/31/2008 - 09/06/2008	[illegible]	[illegible]
37	09/07/2008 - 09/13/2008	[illegible]	[illegible]
38	09/14/2008 - 09/20/2008	[illegible]	[illegible]
39	09/21/2008 - 09/27/2008	[illegible]	[illegible]
40	09/28/2008 - 10/04/2008	[illegible]	[illegible]
41	10/05/2008 - 10/11/2008	[illegible]	[illegible]
42	10/12/2008 - 10/18/2008	[illegible]	[illegible]
43	10/19/2008 - 10/25/2008	[illegible]	[illegible]
44	10/26/2008 - 11/01/2008	[illegible]	[illegible]
45	11/02/2008 - 11/08/2008	[illegible]	[illegible]
46	11/09/2008 - 11/15/2008	[illegible]	[illegible]
47	11/16/2008 - 11/22/2008	[illegible]	[illegible]
48	11/23/2008 - 11/29/2008	[illegible]	[illegible]
49	11/30/2008 - 12/06/2008	[illegible]	[illegible]
50	12/07/2008 - 12/13/2008	[illegible]	[illegible]
51	12/14/2008 - 12/20/2008	[illegible]	[illegible]
52	12/21/2008 - 12/27/2008	[illegible]	[illegible]
53	12/28/2008 - [illegible]	[illegible]	[illegible]

* Peak Season

Appendix E: Traffic Counts (TMC's)

TABLE: A6

Somerset UBC (PK - 8)

INTERSECTION APPROACH VOLUMES

INTERSECTION NO.	INTERSECTION NAME	APPROACH	MOVEMENT	AM PEAK HR COUNT	Date of Count	PHF	SF	AM PEAK SEASONAL ADJUSTMENT (EXISTING)	BACKGROUND GROWTH @ 1.09% FOR 1 Year	Net Traffic w/o Project Traffic	Site Traffic (VPH) (SCENARIO A)	Site Traffic (VPH) (SCENARIO B)	Total Traffic (VPH) (PROPOSED) (SCENARIO A)	Total Traffic (VPH) (PROPOSED) (SCENARIO B)
1	Segovia Street & Anastasia Avenue	SOUTHBOUND	SBR	10	Thursday, May 20, 2010	0.842	0.99	10	0	10	55	142	65	152
			SBT	172			0.99	170	2	172	45	0	217	172
			SBL	4			0.99	4	0	4	0	0	4	4
			TOTAL	186				184	2	186	100	142	286	328
		WESTBOUND	WBR	7			0.99	7	0	7	0	0	7	7
			WBT	46			0.99	46	0	46	60	60	106	106
			WBL	10			0.99	10	0	10	0	0	10	10
			TOTAL	63				62	1	63	60	60	123	123
		NORTHBOUND	NBR	1			0.99	1	0	1	0	0	1	1
			NBT	338			0.99	335	4	338	15	0	353	338
			NBL	4			0.99	4	0	4	15	100	19	104
			TOTAL	343				340	4	343	30	100	373	443
		EASTBOUND	EBR	42			0.99	42	0	42	5	92	47	134
			EBT	27			0.99	27	0	27	45	40	72	72
			EBL	41			0.99	41	0	41	70	122	111	163
			TOTAL	110				109	1	110	120	259	230	369
	TOTAL			*702*				*695*	*8*	*703*	*310*	*561*	*1013*	*1264*
2	Segovia Street & University Court	SOUTHBOUND	SBR	6	Thursday, May 20, 2010	0.815	0.99	6	0	6	45	0	51	6
			SBT	218			0.99	216	2	218	5	92	223	310
			SBL	0			0.99	0	0	0	0	0	0	0
			TOTAL	224				222	2	224	50	92	274	316
		WESTBOUND	WBR	0			0.99	0	0	0	0	0	0	0
			WBT	0			0.99	0	0	0	0	0	0	0
			WBL	0			0.99	0	0	0	0	0	0	0
			TOTAL	0				0	0	0	0	0	0	0
		NORTHBOUND	NBR	0			0.99	0	0	0	0	0	0	0
			NBT	329			0.99	326	4	329	15	100	344	429
			NBL	1			0.99	1	0	1	0	0	0	0
			TOTAL	330				327	4	330	15	100	344	429
		EASTBOUND	EBR	0			0.99	0	0	0	0	0	0	0
			EBT	0			0.99	0	0	0	0	0	0	0
			EBL	14			0.99	14	0	14	0	0	0	0
			TOTAL	14				14	0	14	0	0	0	0
	TOTAL			*568*				*562*	*6*	*568*	*65*	*192*	*618*	*745*

TABLE: A5

Somerset UBC (PK - 8)

INTERSECTION APPROACH VOLUMES

INTERSECTION NO.	INTERSECTION NAME	APPROACH	MOVEMENT	AM PEAK HR COUNT	Date of Count	PHF	SF	AM PEAK SEASONAL ADJUSTMENT (EXISTING)	BACKGROUND GROWTH @ 1.09% FOR 1 Year	Net Traffic w/o Project Traffic	Site Traffic (VPH) (SCENARIO A)	Site Traffic (VPH) (SCENARIO B)	Total Traffic (VPH) (PROPOSED) (SCENARIO A)	Total Traffic (VPH) (PROPOSED) (SCENARIO B)
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
3	Segovia Street & Rivera Drive	SOUTHBOUND	SBR	0	Thursday, May 20, 2010	0.864	0.99	0	0	0	0	0	0	0
			SBT	166			0.99	164	2	166	5	49	171	215
			SBL	52			0.99	51	1	52	0	43	52	95
			TOTAL	218				215	2	218	5	92	223	310
		WESTBOUND	WBR	41			0.99	41	0	41	0	43	41	84
			WBT	20			0.99	20	0	20	43	0	63	20
			WBL	2			0.99	2	0	2	0	0	2	2
			TOTAL	63				62	1	63	43	43	106	106
		NORTHBOUND	NBR	1			0.99	1	0	1	0	0	1	1
			NBT	289			0.99	286	3	289	15	57	304	346
			NBL	4			0.99	4	0	5	37	0	42	5
			TOTAL	294				291	3	296	52	57	347	352
		EASTBOUND	EBR	15			0.99	15	0	15	39	0	54	15
			EBT	103			0.99	102	1	103	43	0	146	103
			EBL	0			0.99	0	0	14	15	0	29	14
			TOTAL	118				117	1	132	97	0	229	132
		TOTAL		***693***				***686***	***7***	***709***	***197***	***192***	***906***	***901***
4	Cardena Street & Anastasia Avenue	SOUTHBOUND	SBR	0	Thursday, May 20, 2010	0.924	0.99	0	0	0	0	0	0	0
			SBT	0			0.99	0	0	0	5	0	5	0
			SBL	0			0.99	0	0	0	0	0	0	0
			TOTAL	0				0	0	0	5	0	5	0
		WESTBOUND	WBR	4			0.99	4	0	4	0	0	4	4
			WBT	59			0.99	58	1	59	0	0	59	59
			WBL	1			0.99	1	0	1	130	302	131	303
			TOTAL	64				63	1	64	130	302	194	366
		NORTHBOUND	NBR	1			0.99	1	0	1	120	259	121	260
			NBT	1			0.99	1	0	1	5	0	6	1
			NBL	0			0.99	0	0	0	20	0	20	0
			TOTAL	2				2	0	2	145	259	147	261
		EASTBOUND	EBR	1			0.99	1	0	1	22	0	23	1
			EBT	101			0.99	100	1	101	0	0	101	101
			EBL	2			0.99	2	0	2	0	0	2	2
			TOTAL	104				103	1	104	22	0	126	104
		TOTAL		***170***				***168***	***2***	***170***	***302***	***561***	***472***	***731***
5	Cardena Street & Rivera Drive	SOUTHBOUND	SBR	2	Thursday, May 20, 2010	0.888	0.99	2	0	2	12	0	14	2
			SBT	0			0.99	0	0	0	5	0	5	0
			SBL	1			0.99	1	0	1	97	0	98	1
			TOTAL	3				3	0	3	114	0	117	3
		WESTBOUND	WBR	0			0.99	0	0	0	125	0	125	0
			WBT	25			0.99	25	0	25	0	0	25	25
			WBL	0			0.99	0	0	0	0	0	0	0
			TOTAL	25				25	0	25	125	0	150	25
		NORTHBOUND	NBR	2			0.99	2	0	2	0	0	2	2
			NBT	1			0.99	1	0	1	5	0	6	1
			NBL	*			0.99	1	0	1	0	0	1	1
			TOTAL	4				4	0	4	5	0	9	4
		EASTBOUND	EBR	0			0.99	0	0	0	0	0	0	0
			EBT	133			0.99	132	1	133	0	0	133	133
			EBL	2			0.99	2	0	2	15	0	17	2
			TOTAL	135				134	1	135	15	0	150	135
		TOTAL		***167***				***165***	***2***	***167***	***259***	***0***	***426***	***167***

Notes. 1 Intersection Name
2 Intersection Approach
3 Intersection Approach Movement
4 TMC data provided by RGA, Inc.
5 Date of Count
6 Peak Hour Factor
7 Peak Seasonal factor obtained from FDOT
8 Seasonally Adjusted TMC = Count * SF (These are the volumes utilized in the existing condition intersection LOS).
9 A 1.09 percent background growth was utilized with a project build-out of 1 year
10 Net Traffic = Peak Seasonally Adjusted TMC + Backgound
11,12 Site traffic assignment.
13,14 Total Traffic = Net Traffic + Site Traffic (These are the volumes utilized in the proposed intersection LOS analysis)

TABLE: A6

Somerset UBC (PK - 8)

INTERSECTION APPROACH VOLUMES

INTERSECTION NO	INTERSECTION NAME	APPROACH	MOVEMENT	PM PEAK HR COUNT	Date of Count	PHF	SF	PM PEAK SEASONAL ADJUSTMENT (EXISTING)	BACKGROUND GROWTH @ 1.09% OR 1 Year	Net Traffic w/o Project Traffic	Site Traffic (VPH) (SCENARIO A)	Site Traffic (VPH) (SCENARIO B)	Total Traffic (VPH) (PROPOSED) (SCENARIO A)	Total Traffic (VPH) (PROPOSED) (SCENARIO B)
1	Segovia Street & Arundel Avenue	SOUTHBOUND	SBR	10	Thursday, May 20, 2010	0.857	0.99	10	0	10	35	68	45	78
			SBT	227			0.99	225	2	227	15	0	242	227
			SBL	7			0.99	7	0	7	0	0	7	7
			TOTAL	244				242	3	244	50	68	294	312
		WESTBOUND	WBR	10			0.99	10	0	10	0	0	10	10
			WBT	61			0.99	60	1	61	30	30	91	91
			WBL	8			0.99	8	0	8	0	0	8	8
			TOTAL	79				78	1	79	30	30	109	109
		NORTHBOUND	NBR	9			0.99	9	0	9	0	0	9	9
			NBT	274			0.99	271	3	274	0	0	274	274
			NBL	12			0.99	12	0	12	0	48	12	60
			TOTAL	295				292	3	295	0	48	295	343
		EASTBOUND	EBR	35			0.99	35	0	35	0	52	35	86
			EBT	19			0.99	19	0	19	38	38	57	57
			EBL	31			0.99	31	0	31	50	80	90	111
			TOTAL	85				85	1	86	87	170	183	256
	TOTAL			704				697	8	705	177	316	882	1021
2	Segovia Street & University Court	SOUTHBOUND	SBR	14	Thursday, May 20, 2010	0.842	0.99	14	0	15	15	0	30	15
			SBT	257			0.99	254	3	257	0	52	257	309
			SBL	0			0.99	0	0	0	0	0	0	0
			TOTAL	271				268	3	272	15	52	287	324
		WESTBOUND	WBR	0			0.99	0	0	0	0	0	0	0
			WBT	0			0.99	0	0	0	0	0	0	0
			WBL	0			0.99	0	0	0	0	0	0	0
			TOTAL	0				0	0	0	0	0	0	0
		NORTHBOUND	NBR	0			0.99	0	0	0	0	0	0	0
			NBT	283			0.99	280	3	283	0	48	283	331
			NBL	3			0.99	3	0	3	0	0	3	0
			TOTAL	286				283	3	286	0	48	283	331
		EASTBOUND	EBR	0			0.99	0	0	0	0	0	0	0
			EBT	0			0.99	0	0	0	0	0	0	0
			EBL	12			0.99	12	0	12	0	0	0	0
			TOTAL	12				12	0	12	0	0	0	0
	TOTAL			569				563	6	570	15	100	570	655

TABLE: A6

Somerset UBC (PK - B)

INTERSECTION APPROACH VOLUMES

INTERSECTION NO	INTERSECTION NAME	APPROACH	MOVEMENT	PM PEAK HR COUNT	Date of Count	PHF	SF	PM PEAK SEASONAL ADJUSTMENT (EXISTING)	BACKGROUND GROWTH @ 1.09% FOR 1 Year	Net Traffic w/o Project Traffic	Site Traffic (VPH) (SCENARIO A)	Site Traffic (VPH) (SCENARIO B)	Total Traffic (VPH) (PROPOSED) (SCENARIO A)	Total Traffic (VPH) (PROPOSED) (SCENARIO B)
1		2	3	4	5	6	7	8	9	10	11	12	13	14
3	Segovia Street & Riverra Drive	SOUTHBOUND	SBR	1	Thursday May 20, 2010	0.905	0.99	1	0	1	0	0	0	0
			SBT	171			0.99	169	2	171	0	32	171	203
			SBL	85			0.99	84	1	85	0	20	85	105
			TOTAL	257				254	3	257	0	52	256	308
		WESTBOUND	WBR	87			0.99	86	1	87	0	20	87	107
			WBT	31			0.99	31	0	31	20	0	51	31
			WBL	4			0.99	4	0	4	0	0	4	4
			TOTAL	122				121	1	122	20	20	142	142
		NORTHBOUND	NBR	5			0.99	5	0	5	0	0	5	5
			NBT	192			0.99	190	2	192	0	28	192	220
			NBL	1			0.99	1	0	4	28	0	32	4
			TOTAL	198				196	2	201	28	28	229	229
		EASTBOUND	EBR	5			0.99	5	0	5	32	0	37	5
			EBT	35			0.99	35	0	35	20	0	55	35
			EBL	0			0.99	0	0	12	0	0	12	12
			TOTAL	40				40	0	52	52	0	104	52
		TOTAL		617				611	7	632	100	100	731	731
4	Cardena Street & Anastasia Avenue	SOUTHBOUND	SBR	0	Thursday, May 20, 2010	0.824	0.99	0	0	0	0	0	0	0
			SBT	1			0.99	1	0	1	0	0	1	1
			SBL	1			0.99	1	0	1	0	0	1	1
			TOTAL	2				2	0	2	0	0	2	2
		WESTBOUND	WBR	0			0.99	0	0	0	0	0	0	0
			WBT	87			0.99	86	1	87	0	0	87	87
			WBL	2			0.99	2	0	2	65	146	67	148
			TOTAL	89				88	1	89	65	146	154	235
		NORTHBOUND	NBR	6			0.99	6	0	6	97	173	103	176
			NBT	1			0.99	1	0	1	0	0	1	1
			NBL	1			0.99	1	0	1	15	0	16	1
			TOTAL	8				8	0	8	112	173	120	178
		EASTBOUND	EBR	2			0.99	2	0	2	12	0	14	2
			EBT	72			0.99	71	1	72	0	0	72	72
			EBL	5			0.99	5	0	5	0	0	5	5
			TOTAL	79				78	1	79	12	0	91	79
		TOTAL		178				176	2	178	189	316	367	494
5	Cardena Street & Riverra Drive	SOUTHBOUND	SBR	2	Thursday May 20, 2010	0.833	0.99	2	0	2	6	0	8	2
			SBT	2			0.99	2	0	2	0	0	2	2
			SBL	1			0.99	1	0	1	52	0	53	1
			TOTAL	5				5	0	5	58	0	63	5
		WESTBOUND	WBR	2			0.99	2	0	2	63	0	65	2
			WBT	47			0.99	47	1	47	0	0	47	47
			WBL	1			0.99	1	0	1	0	0	1	1
			TOTAL	50				50	1	50	63	0	113	50
		NORTHBOUND	NBR	1			0.99	1	0	1	0	0	1	1
			NBT	2			0.99	2	0	2	0	0	2	2
			NBL	1			0.99	1	0	1	0	0	1	1
			TOTAL	4				4	0	4	0	0	4	4
		EASTBOUND	EBR	3			0.99	3	0	3	0	0	3	3
			EBT	53			0.99	52	1	53	0	0	53	53
			EBL	3			0.99	3	0	3	6	0	9	3
			TOTAL	59				58	1	59	6	0	65	59
		TOTAL		118				117	1	118	127	0	245	118

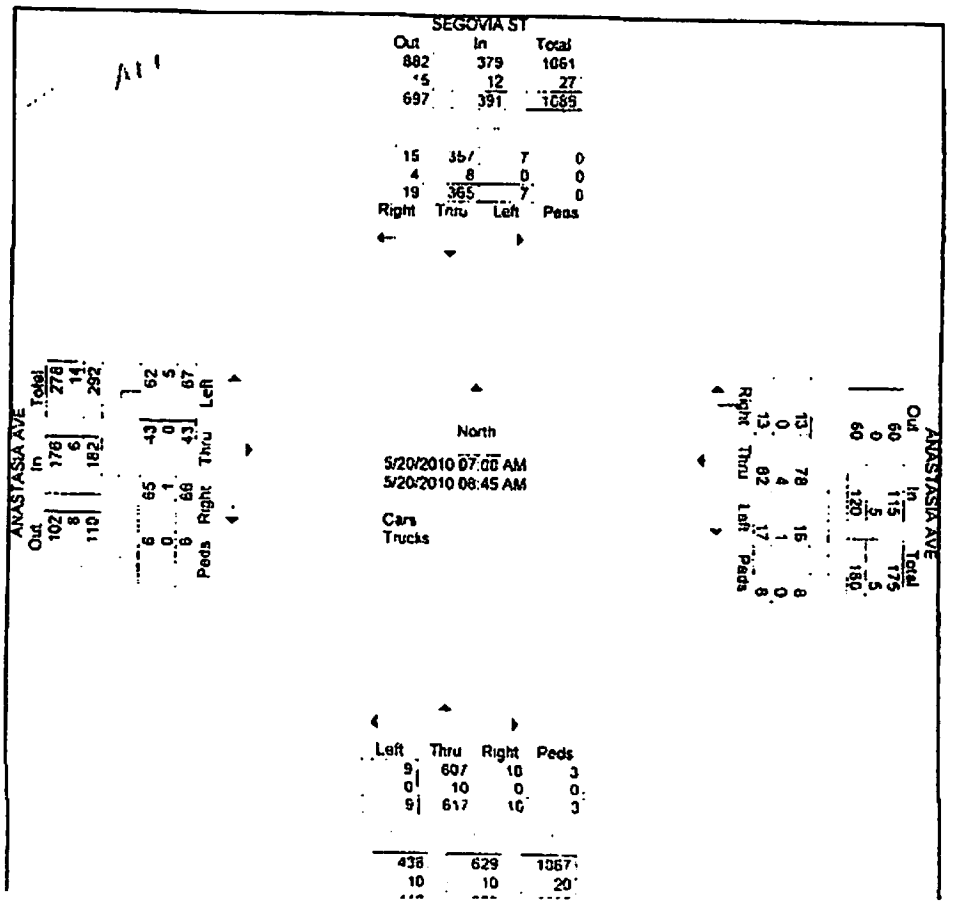
Notes
1 Intersection Name
2 Intersection Approach
3 Intersection Approach Movement
4 TMC data provided by RGA, Inc
5 Date of Count
6 Peak Hour Factor
7 Peak Seasonal factor obtained from FDOT
8 Seasonally Adjusted TMC = Count * SF (These are the volumes utilized in the existing condition intersection LOS)
9 A 1.09 percent background growth was utilized with a project build-out of 1 year
10 Net Traffic = Peak Seasonally Adjusted TMC + Background
11,12 Site traffic assignment
13,14 Total Traffic = Net Traffic + Site Traffic (These are the volumes utilized in the proposed intersection LOS analysis)

Richard Garcia & Associates Inc.
13117 NW 107 Ave. Ste 4 4
Hialeah Gardens, FL 33018
Tel: 305 595-7505 Fax: 305-675 6474

File Name : SEGOVIA ST & ANASTASIA AV AM
Site Code : 00000000
Start Date : 5/20/2010
Page No : 1

Groups Printed- Cars - Trucks

	SEGOVIA ST Southbound					ANASTASIA AVE Westbound					SEGOVIA ST Northbound					ANASTASIA AVE Eastbound					
Start Time	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Int. Total
07:00 AM	2	62	0	0	64	4	5	0	1	10	3	56	1	0	60	8	0	2	1	11	145
07:15 AM	3	58	1	0	62	0	9	3	0	12	3	91	1	2	97	6	4	7	2	19	190
07:30 AM	1	34	1	0	36	1	11	1	2	15	2	66	3	1	72	5	5	4	1	15	138
07:45 AM	3	39	1	0	43	1	11	3	1	16	1	66	0	0	67	5	7	13	1	26	152
Total	9	193	3	0	205	6	36	7	4	53	9	279	5	3	296	24	16	26	5	71	625
08:00 AM	3	25	0	0	28	1	15	2	2	20	0	60	1	0	61	5	8	11	0	24	133
08:15 AM	1	45	1	0	47	2	6	2	1	11	1	67	0	0	68	13	7	11	0	31	157
08:30 AM	4	53	2	0	59	2	15	3	0	20	0	103	0	0	103	14	2	8	1	25	207
08:45 AM	2	49	1	0	52	2	10	3	1	16	0	108	3	0	111	10	10	11	0	31	210
Total	10	172	4	0	186	7	46	10	4	67	1	338	4	0	343	42	27	41	1	111	707
Grand Total	19	365	7	0	391	13	82	17	8	120	10	617	9	3	639	66	43	67	6	182	1332
Apprch %	4.9	93.4	1.8	0		10.8	68.3	14.2	6.7		1.6	96.6	1.4	0.5		36.3	23.6	36.8	3.3		
Total %	1.4	27.4	0.5	0	29.4	1	6.2	1.3	0.6	9	0.8	46.3	0.7	0.2	48	5	3.2	5	0.5	13.7	
Cars	15	357	7	0	379	13	78	16	8	115	10	607	9	3	629	65	43	62	6	176	1299
% Cars	78.9	97.8	100	0	96.9	100	95.1	94.1	100	95.8	100	98.4	100	100	98.4	98.5	100	92.5	100	96.7	97.5
Trucks	4	8	0	0	12	0	4	1	0	5	0	10	0	0	10	1	0	5	0	6	33
% Trucks	21.1	2.2	0	0	3.1	0	4.9	5.9	0	4.2	0	1.6	0	0	1.6	1.5	0	7.5	0	3.3	2.5



Richard Garcia & Associates Inc.
13117 NW 107 Ave, Ste # 4
Hialeah Gardens, FL 33018
Tel: 305-595 7505 Fax: 305-675-6474

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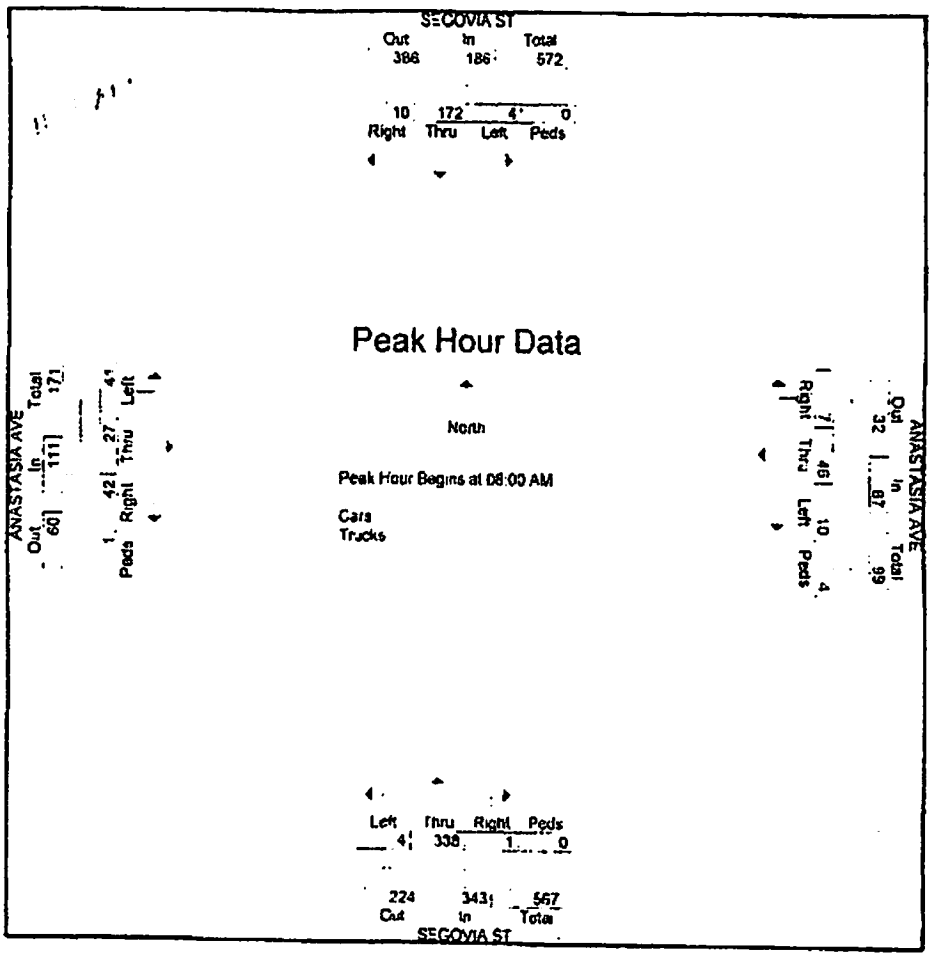
Start Time	SEGOVIA ST Southbound Right	Thru	Left	Peds	App. Total	ANASTASIA AVE Westbound Right	Thru	Left	Peds	App. Total	SEGOVIA ST Northbound Right	Thru	Left	Peds	App. Total	ANASTASIA AVE Eastbound Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	3	25	0	0	28	1	15	2	2	20	0	60	1	0	61	5	8	11	0	24	133
08:15 AM	1	45	1	0	47	2	6	2	1	11	1	67	0	0	68	13	7	11	0	31	157
08:30 AM	4	63	2	0	69	2	15	3	0	20	0	103	0	0	103	14	2	8	1	25	207
08:45 AM	2	49	1	0	52	2	10	3	1	16	0	108	3	0	111	10	10	11	0	31	210
Total Volume	10	172	4	0	186	7	46	10	4	67	1	338	4	0	343	42	27	41	1	111	707
% App. Total	5.4	92.5	2.2	0		10.4	68.7	14.9	6		0.3	98.5	1.2	0		37.8	24.3	36.9	0.9		
PHF	.625	.811	.500	.000	.788	.875	.767	.833	.500	.838	.250	.782	.333	.000	.773	.750	.675	.932	.250	.895	.842



Richard Garcia & Associates Inc.
13117 NW 107 Ave, Ste # 4
Hialeah Gardens, FL 33018
Tel: 305-595-7505 Fax: 305-675-6474

File Name : SEGOVIA ST & UNIVERSITY CTAM
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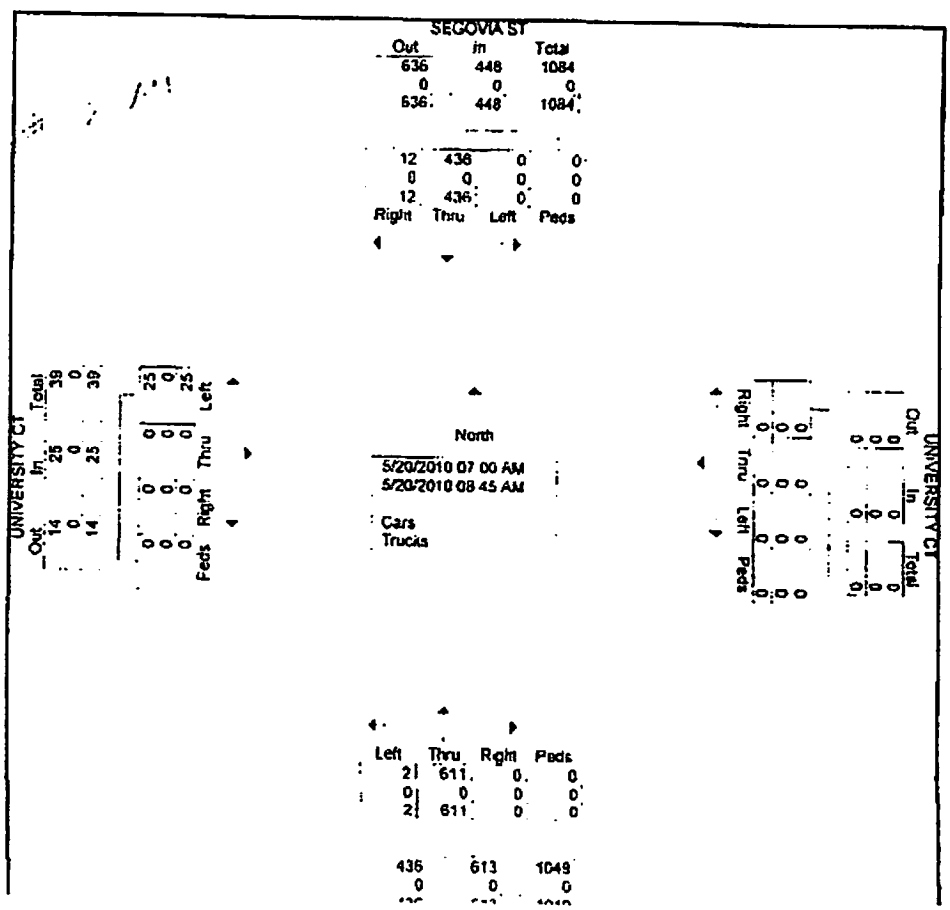
Start Date : 5/20/2010
Page No : 1

Groups Printed- Cars - Trucks

	SEGOVIA ST Southbound					UNIVERSITY CT Westbound					SEGOVIA ST Northbound					UNIVERSITY CT Eastbound					
Start Time	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Int Total
07:00 AM	1	69	0	0	70	0	0	0	0	0	0	57	0	0	57	0	0	3	0	3	130
07:15 AM	3	64	0	0	67	0	0	0	0	0	0	91	1	0	92	0	0	4	0	4	163
07:30 AM	0	40	0	0	40	0	0	0	0	0	0	68	0	0	68	0	0	3	0	3	111
07:45 AM	2	45	0	0	47	0	0	0	0	0	0	66	0	0	66	0	0	1	0	1	114
Total	6	218	0	0	224	0	0	0	0	0	0	282	1	0	283	0	0	11	0	11	518
08:00 AM	1	31	0	0	32	0	0	0	0	0	0	58	0	0	58	0	0	3	0	3	93
08:15 AM	3	57	0	0	60	0	0	0	0	0	0	66	0	0	66	0	0	2	0	2	128
08:30 AM	0	70	0	0	70	0	0	0	0	0	0	99	0	0	99	0	0	4	0	4	173
08:45 AM	2	60	0	0	62	0	0	0	0	0	0	106	1	0	107	0	0	5	0	5	174
Total	6	218	0	0	224	0	0	0	0	0	0	329	1	0	330	0	0	14	0	14	568
Grand Total	12	436	0	0	448	0	0	0	0	0	0	611	2	0	613	0	0	25	0	25	1086
Apprch %	2.7	97.3	0	0		0	0	0	0		0	99.7	0.3	0		0	0	100	0		
Total %	1.1	40.1	0	0	41.3	0	0	0	0	0	0	56.3	0.2	0	56.4	0	0	2.3	0	2.3	
Cars	12	436	0	0	448	0	0	0	0	0	0	611	2	0	613	0	0	25	0	25	1086
% Cars	100	100	0	0	100	0	0	0	0	0	0	100	100	0	100	0	0	100	0	100	100
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Richard Garcia & Associates Inc.
13117 NW 107 Ave. Ste # 4
Hialeah Gardens, FL 33018
Tel: 305 595-7505 Fax: 305-675 6474

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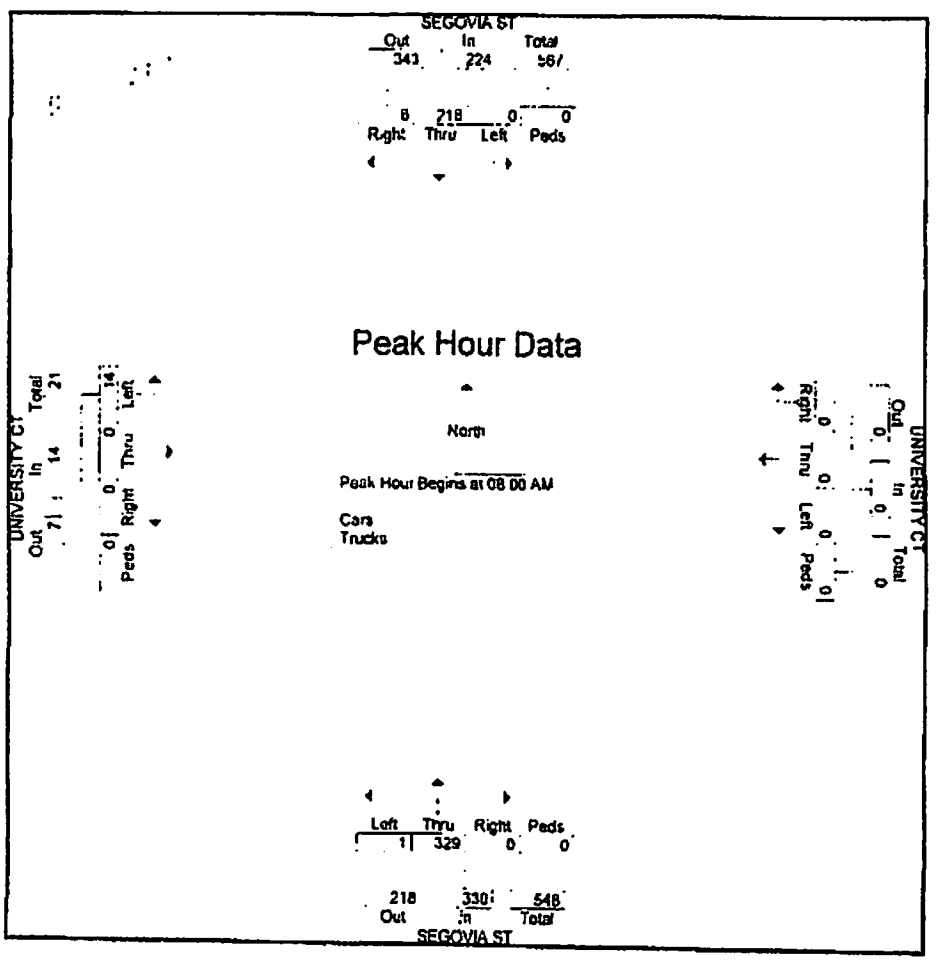
Start Time	SEGOVIA ST Southbound Right	Thru	Left	Peds	App Total	UNIVERSITY CT Westbound Right	Thru	Left	Peds	App Total	SEGOVIA ST Northbound Right	Thru	Left	Peds	App Total	UNIVERSITY CT Eastbound Right	Thru	Left	Peds	App Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	1	31	0	0	32	0	0	0	0	0	0	58	0	0	58	0	0	3	0	3	93
08:15 AM	3	57	0	0	60	0	0	0	0	0	0	66	0	0	66	0	0	2	0	2	128
08:30 AM	0	70	0	0	70	0	0	0	0	0	0	99	0	0	99	0	0	4	0	4	173
08:45 AM	2	60	0	0	62	0	0	0	0	0	0	106	1	0	107	0	0	5	0	5	174
Total Volume	6	218	0	0	224	0	0	0	0	0	0	329	1	0	330	0	0	14	0	14	568
% App Total	2.7	97.3	0	0		0	0	0	0		0	99.7	0.3	0		0	0	100	0		
PHF	.500	.779	.000	.000	.800	.000	.000	.000	.000	.000	.000	.776	.250	.000	.771	.000	.000	.700	.000	.700	.816



Richard Garcia & Associates Inc.
13117 NW 107 Ave, Ste # 4
Hialeah Gardens, FL 33018
Tel: 305-595-7505 Fax: 305-675-6474

File Name : SEGOVIA ST & RIVIERA DR AM
Site Code : 00000000
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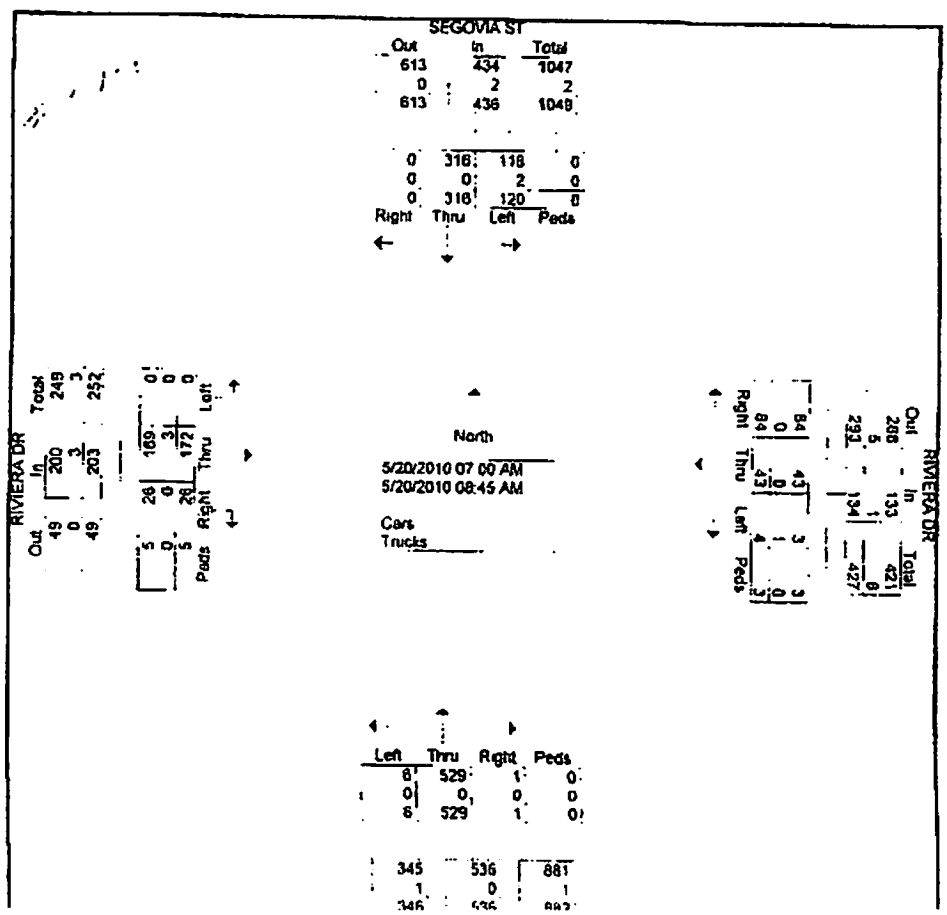
Groups Printed- Cars - Trucks

	SEGOVIA ST Southbound					RIVIERA DR Westbound					SEGOVIA ST Northbound					RIVIERA DR Eastbound					
Start Time	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Int Total
07:00 AM	0	48	21	0	69	17	8	1	0	26	0	40	0	0	40	2	14	0	3	19	154
07:15 AM	0	46	18	0	64	16	6	0	1	23	0	76	0	0	76	4	18	0	2	22	185
07:30 AM	0	29	11	0	40	6	3	1	0	10	0	62	1	0	63	2	26	0	0	28	141
07:45 AM	0	27	18	0	45	4	6	0	0	10	0	62	1	0	63	3	13	0	0	16	134
Total	0	150	68	0	218	43	23	2	1	69	0	240	2	0	242	11	69	0	5	85	614
08:00 AM	0	24	7	0	31	8	6	1	2	17	0	50	1	0	51	3	34	0	0	37	136
08:15 AM	0	42	15	0	57	7	4	0	0	11	0	59	1	0	60	2	32	0	0	34	162
08:30 AM	0	55	15	0	70	11	3	1	0	15	0	88	1	0	89	4	18	0	0	22	196
08:45 AM	0	45	15	0	60	15	7	0	0	22	1	92	1	0	94	6	19	0	0	25	201
Total	0	166	52	0	218	41	20	2	2	65	1	289	4	0	294	15	103	0	0	118	695
Grand Total	0	316	120	0	436	84	43	4	3	134	1	529	6	0	536	26	172	0	5	203	1309
Apprch %	0	72.5	27.5	0		62.7	32.1	3	2.2		0.2	98.7	1.1	0		12.8	84.7	0	2.5		
Total %	0	24.1	9.2	0	33.3	6.4	3.3	0.3	0.2	10.2	0.1	40.4	0.5	0	40.9	2	13.1	0	0.4	15.5	
Cars	0	316	118	0	434	84	43	3	3	133	1	529	6	0	536	26	169	0	5	200	1303
% Cars	0	100	98.3	0	99.5	100	100	75	100	99.3	100	100	100	0	100	100	98.3	0	100	98.5	99.5
Trucks	0	0	2	0	2	0	0	1	0	1	0	0	0	0	0	0	3	0	0	3	6
% Trucks	0	0	1.7	0	0.5	0	0	25	0	0.7	0	0	0	0	0	0	1.7	0	0	1.5	0.5



Richard Garcia & Associates Inc.
13117 NW 107 Ave, Ste # 4
Hialeah Gardens, FL 33018
Tel: 305-595-7505 Fax: 305-675-6474

File Name : SEGOVIA ST & RIVIERA DR AM
Site Code : 00000000
Start Date : 5/20/2010
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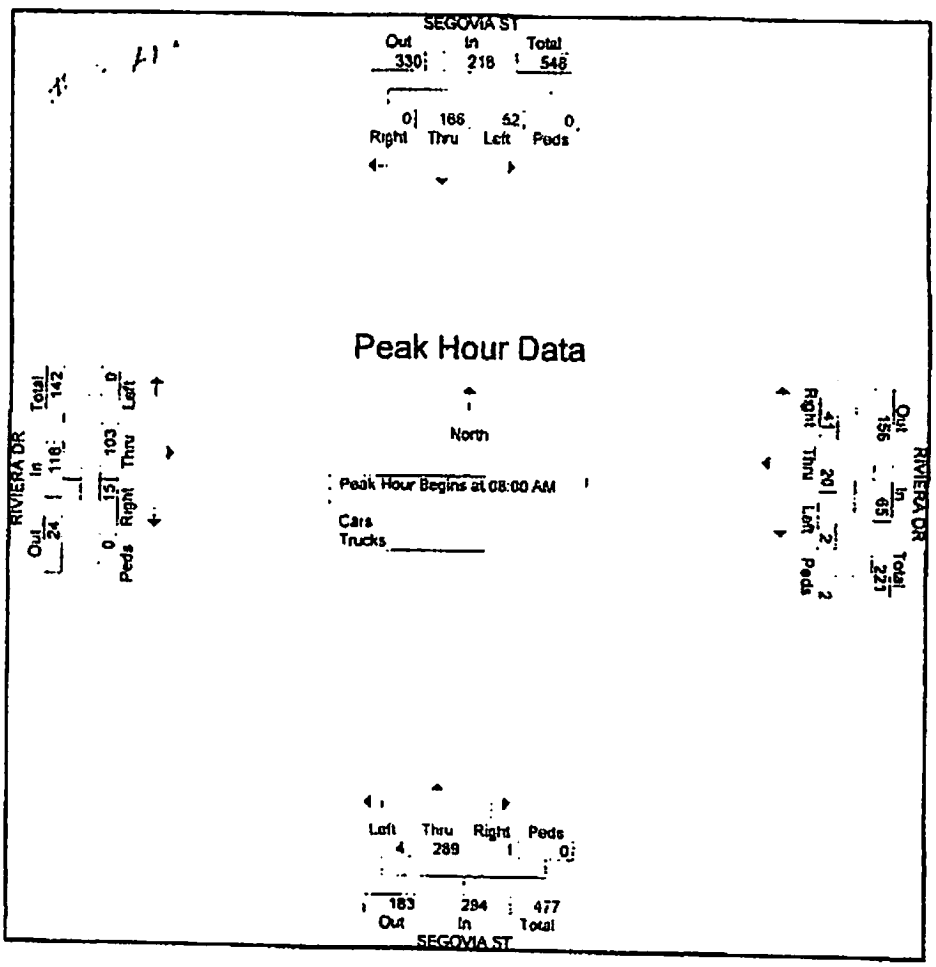
Start Time	SEGOVIA ST Southbound Right	Thru	Left	Peds	App. Tot.	RIVIERA DR Westbound Right	Thru	Left	Peds	App. Tot.	SEGOVIA ST Northbound Right	Thru	Left	Peds	App. Tot.	RIVIERA DR Eastbound Right	Thru	Left	Peds	App. Tot.	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	24	7	0	31	8	6	1	2	17	0	50	1	0	51	3	34	0	0	37	136
08:15 AM	0	42	16	0	57	7	4	0	0	11	0	59	1	0	60	2	32	0	0	34	162
08:30 AM	0	55	15	0	70	11	3	1	0	15	0	88	1	0	89	4	18	0	0	22	196
08:45 AM	0	45	15	0	60	15	7	0	0	22	1	92	1	0	94	6	19	0	0	25	201
Total Volume	0	166	52	0	218	41	20	2	2	65	1	289	4	0	294	15	103	0	0	118	695
% App. Total	0	76.1	23.9	0		63.1	30.8	3.1	3.1		0.3	98.3	1.4	0		12.7	87.3	0	0		
PHF	.000	.755	.867	.000	.779	.683	.714	.500	.250	.739	.250	.785	.000	.000	.782	.625	.757	.000	.000	.797	.864

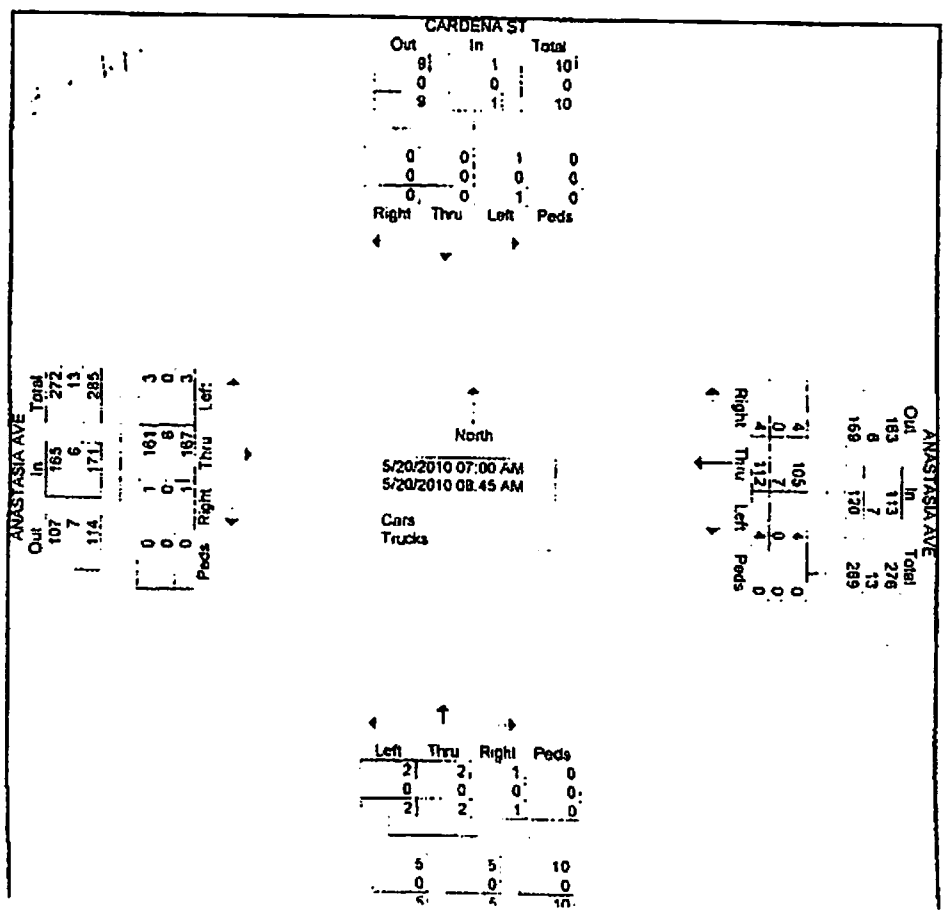


Richard Garcia & Associates Inc.
13117 NW 107 Ave, Ste # 4
Hialeah Gardens, FL 33018
Tel: 305-595-7505 Fax: 305 675 6474

File Name : CARDENA ST & ANASTASIA AV AM
Site Code : 00000000
Start Date : 5/20/2010
Page No : 1

Groups Printed- Cars - Trucks

	CARDENA ST Southbound					ANASTASIA AVE Westbound					CARDENA ST Northbound					ANASTASIA AVE Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	10	3	0	13	0	0	0	0	0	0	11	0	0	11	24
07:15 AM	0	0	1	0	1	0	13	0	0	13	0	1	1	0	2	0	16	0	0	16	32
07:30 AM	0	0	0	0	0	0	18	0	0	18	0	0	0	0	0	0	15	0	0	15	33
07:45 AM	0	0	0	0	0	0	12	0	0	12	0	0	1	0	1	0	24	1	0	25	38
Total	0	0	1	0	1	0	53	3	0	56	0	1	2	0	3	0	66	1	0	67	127
08:00 AM	0	0	0	0	0	0	20	0	0	20	0	0	0	0	0	0	24	0	0	24	44
08:15 AM	0	0	0	0	0	2	9	0	0	11	0	0	0	0	0	0	27	1	0	28	39
08:30 AM	0	0	0	0	0	2	15	0	0	17	1	1	0	0	2	1	21	0	0	22	41
08:45 AM	0	0	0	0	0	0	15	1	0	16	0	0	0	0	0	0	29	1	0	30	46
Total	0	0	0	0	0	4	59	1	0	64	1	1	0	0	2	1	101	2	0	104	170
Grand Total	0	0	1	0	1	4	112	4	0	120	1	2	2	0	5	1	167	3	0	171	297
Apprch %	0	0	100	0		3.3	93.3	3.3	0		20	40	40	0		0.6	97.7	1.8	0		
Total %	0	0	0.3	0	0.3	1.3	37.7	1.3	0	40.4	0.3	0.7	0.7	0	1.7	0.3	56.2	1	0	57.6	
Cars	0	0	1	0	1	4	105	4	0	113	1	2	2	0	5	1	161	3	0	165	284
% Cars	0	0	100	0	100	100	93.8	100	0	94.2	100	100	100	0	100	100	96.4	100	0	96.5	95.6
Trucks	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	6	0	0	6	13
% Trucks	0	0	0	0	0	0	6.2	0	0	5.8	0	0	0	0	0	0	3.6	0	0	3.5	4.4



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File Name : CARDENA ST & ANASTASIA AV AM
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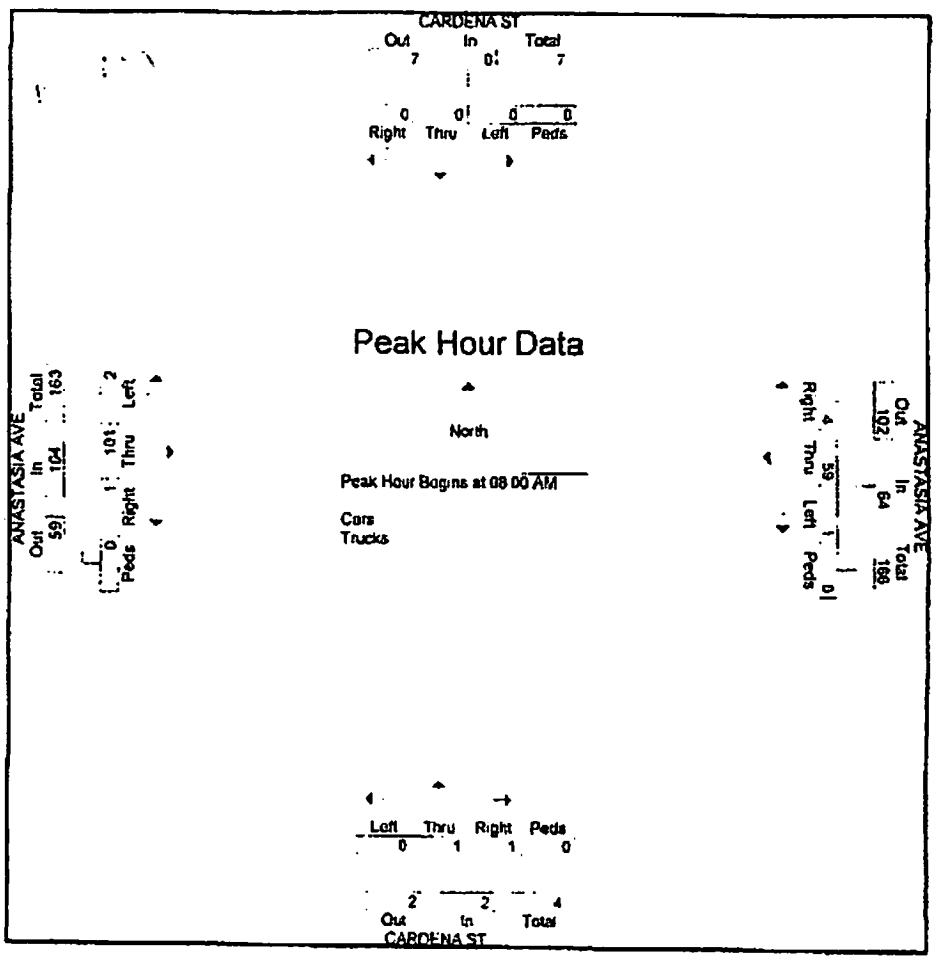
	CARDENA ST Southbound					ANASTASIA AVE Westbound					CARDENA ST Northbound					ANASTASIA AVE Eastbound					
Start Time	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Int Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	0	20	0	0	20	0	0	0	0	0	0	24	0	0	24	44
08:15 AM	0	0	0	0	0	2	9	0	0	11	0	0	0	0	0	0	27	1	0	28	39
08:30 AM	0	0	0	0	0	2	15	0	0	17	1	1	0	0	2	1	21	0	0	22	41
08:45 AM	0	0	0	0	0	0	15	1	0	16	0	0	0	0	0	0	29	1	0	30	46
Total Volume	0	0	0	0	0	4	59	1	0	64	1	1	0	0	2	1	101	2	0	104	170
% App Total	0	0	0	0		6.2	92.2	1.6	0		50	50	0	0		1	97.1	1.9	0		
PHF	.000	.000	.000	.000	.000	.500	.738	.250	.000	.800	.250	.250	.000	.000	.250	.250	.871	.500	.000	.867	.924



Richard Garcia & Associates Inc.
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Hialeah Gardens, Fl 33018
Tel: 305-595-7505 Fax: 305-675-6474

File Name : CARDENA ST & RIVIERA DR AM
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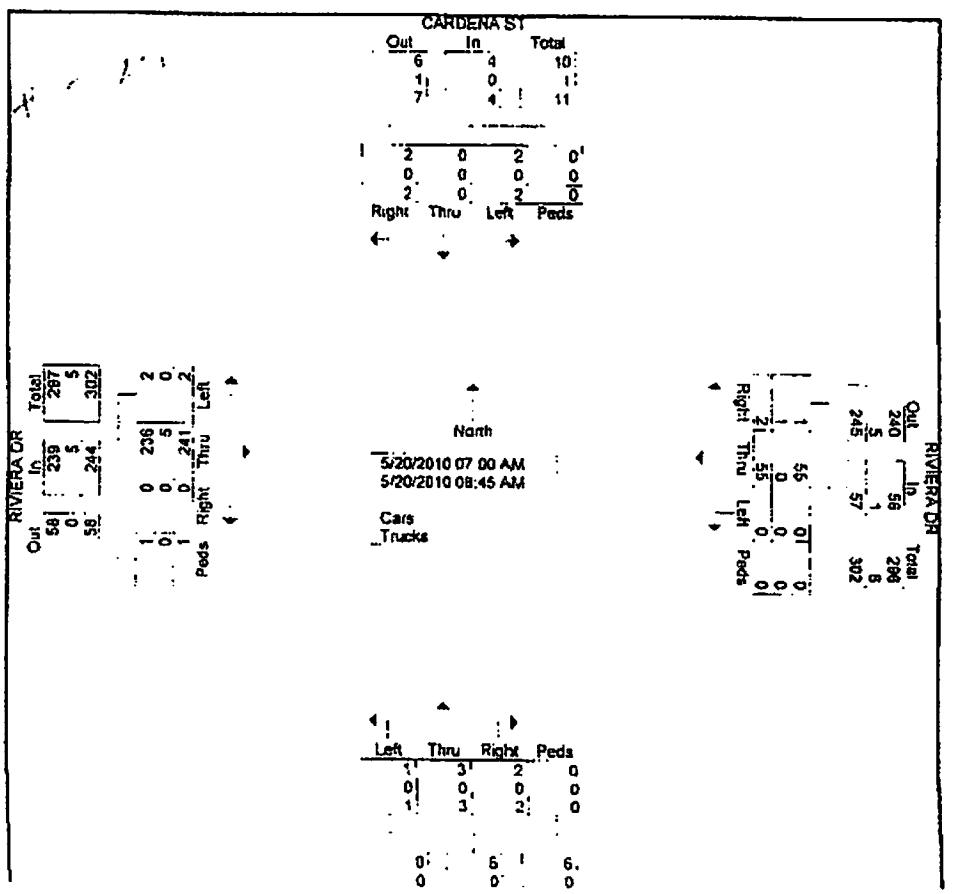
Groups Printed- Cars - Trucks

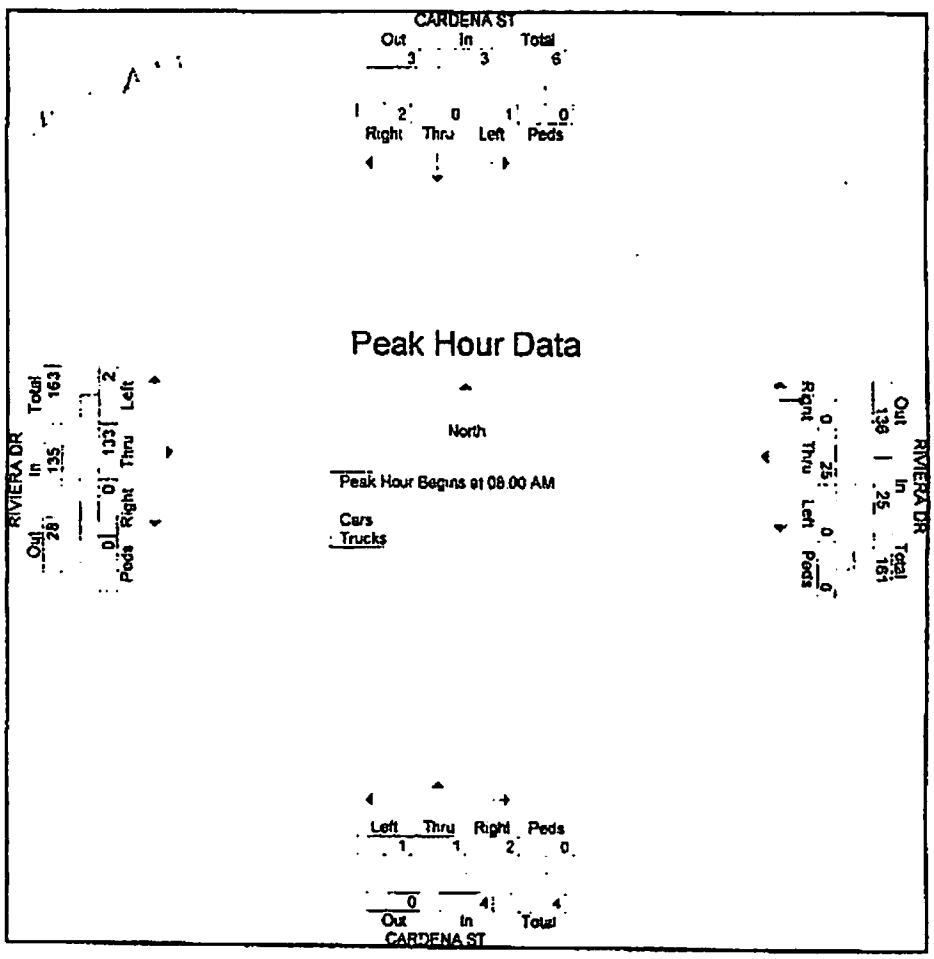
	CARDENA ST Southbound					RIVIERA DR Westbound					CARDENA ST Northbound					RIVIERA DR Eastbound					
Start Time	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Int Total
07:00 AM	0	0	1	0	1	1	8	0	0	9	0	0	0	0	0	0	22	0	0	22	32
07:15 AM	0	0	0	0	0	0	8	0	0	8	0	2	0	0	2	0	30	0	1	31	41
07:30 AM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	37	0	0	37	42
07:45 AM	0	0	0	0	0	1	9	0	0	10	0	0	0	0	0	0	19	0	0	19	29
Total	0	0	1	0	1	2	30	0	0	32	0	2	0	0	2	0	108	0	1	109	144
08:00 AM	0	0	0	0	0	0	6	0	0	6	0	0	1	0	1	0	40	0	0	40	47
08:15 AM	0	0	0	0	0	0	8	0	0	8	1	0	0	0	1	0	35	1	0	36	45
08:30 AM	1	0	1	0	2	0	4	0	0	4	1	1	0	0	2	0	29	1	0	30	38
08:45 AM	1	0	0	0	1	0	7	0	0	7	0	0	0	0	0	0	29	0	0	29	37
Total	2	0	1	0	3	0	25	0	0	25	2	1	1	0	4	0	133	2	0	135	167
Grand Total	2	0	2	0	4	2	55	0	0	57	2	3	1	0	6	0	241	2	1	244	311
Apprch %	50	0	50	0		3.5	96.5	0	0		33.3	50	16.7	0		0	98.8	0.8	0.4		
Total %	0.6	0	0.6	0	1.3	0.6	17.7	0	0	18.3	0.6	1	0.3	0	1.9	0	77.5	0.6	0.3	78.5	
Cars	2	0	2	0	4	1	55	0	0	56	2	3	1	0	6	0	236	2	1	239	305
% Cars	100	0	100	0	100	50	100	0	0	98.2	100	100	100	0	100	0	97.9	100	100	98	98.1
Trucks	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	5	0	0	5	6
% Trucks	0	0	0	0	0	50	0	0	0	1.8	0	0	0	0	0	0	2.1	0	0	2	1.9



Richard Garcia & Associates Inc.
13117 NW 107 Ave, Ste # 4
Hialeah Gardens, FL 33018
Tel: 305-595-7505 Fax: 305 675 6474

File Name : CARDENA ST & RIVIERA DR AM
Site Code : 00000000
Start Date : 5/20/2010
Page No : 2

Start Time	CARDENA ST Southbound Right	Thru	Left	Peds	App. Total	RIVIERA DR Westbound Right	Thru	Left	Peds	App. Total	CARDENA ST Northbound Right	Thru	Left	Peds	App. Total	RIVIERA DR Eastbound Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	0	6	0	0	6	0	0	1	0	1	0	40	0	0	40	47
08:15 AM	0	0	0	0	0	0	8	0	0	8	1	0	0	0	1	0	35	1	0	36	45
08:30 AM	1	0	1	0	2	0	4	0	0	4	1	1	0	0	2	0	29	1	0	30	38
08:45 AM	1	0	0	0	1	0	7	0	0	7	0	0	0	0	0	0	29	0	0	29	37
Total Volume	2	0	1	0	3	0	25	0	0	25	2	1	1	0	4	0	133	2	0	135	167
% App. Total	66.7	0	33.3	0		0	100	0	0		50	25	25	0		0	98.5	1.5	0		
PHF	.500	.000	.250	.000	.375	.000	.781	.000	.000	.781	.500	.250	.250	.000	.500	.000	.831	.500	.000	.844	.888

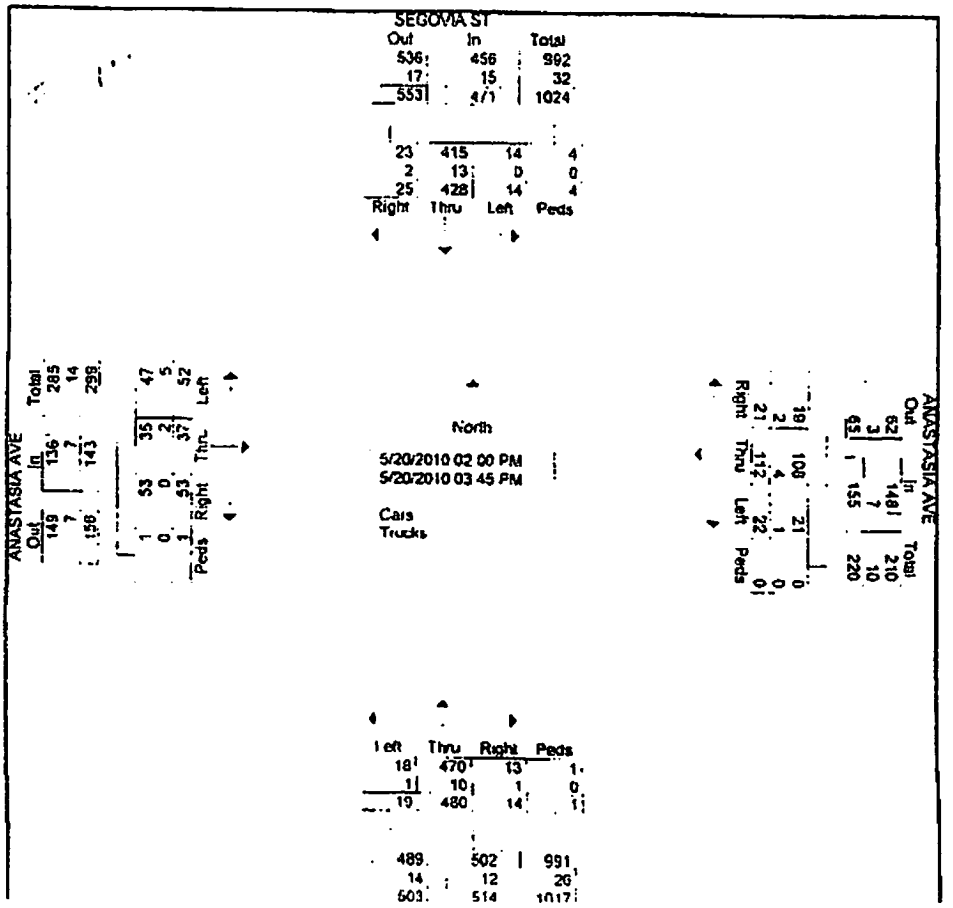


Richard Garcia & Associates Inc.
13117 NW 107 Ave. Ste # 4
Hialeah Gardens, FL 33018
Tel: 305-595-7505 Fax: 305 675 6474

File Name : SEGOVIA ST & ANASTASIA AV PM
Site Code : 00000000
Start Date : 5/20/2010
Page No : 1

Groups Printed- Cars - Trucks

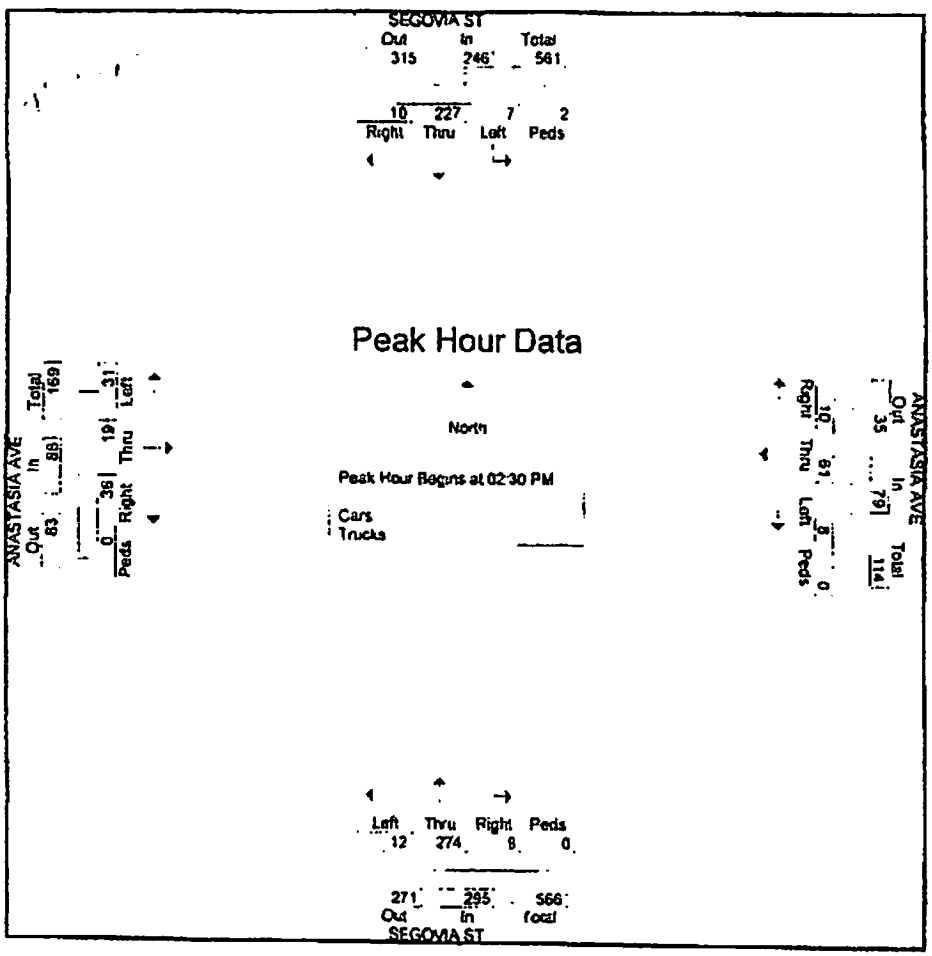
	SEGOVIA ST Southbound					ANASTASIA AVE Westbound					SEGOVIA ST Northbound					ANASTASIA AVE Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
02:00 PM	5	45	1	0	51	2	6	2	0	10	0	52	1	0	53	4	8	5	0	17	131
02:15 PM	4	49	0	0	53	6	14	4	0	24	1	56	3	0	60	3	4	6	1	14	151
02:30 PM	3	61	1	0	65	2	23	3	0	28	3	93	1	0	97	6	4	6	0	16	206
02:45 PM	3	51	3	0	57	3	19	1	0	23	3	79	5	0	87	9	4	12	0	25	192
Total	15	206	5	0	226	13	62	10	0	85	7	280	10	0	297	22	20	29	1	72	680
03:00 PM	3	60	2	0	65	3	11	1	0	15	1	42	3	0	46	11	5	9	0	25	151
03:15 PM	1	55	1	2	59	2	8	3	0	13	2	60	3	0	65	10	6	4	0	20	157
03:30 PM	4	57	3	1	65	1	21	3	0	25	0	47	2	0	49	7	1	5	0	13	152
03:45 PM	2	50	3	1	56	2	10	5	0	17	4	51	1	1	57	3	5	5	0	13	143
Total	10	222	9	4	245	8	50	12	0	70	7	200	9	1	217	31	17	23	0	71	603
Grand Total	25	428	14	4	471	21	112	22	0	155	14	480	19	1	514	53	37	52	1	143	1283
Apprch %	5.3	90.9	3	0.8		13.5	72.3	14.2	0		2.7	93.4	3.7	0.2		37.1	25.9	36.4	0.7		
Total %	1.9	33.4	1.1	0.3	36.7	1.6	8.7	1.7	0	12.1	1.1	37.4	1.5	0.1	40.1	4.1	2.9	4.1	0.1	11.1	
Cars	23	415	14	4	456	19	108	21	0	148	13	470	18	1	502	53	35	47	1	136	1242
% Cars	92	97	100	100	96.8	90.5	96.4	95.5	0	95.5	92.9	97.9	94.7	100	97.7	100	94.6	90.4	100	95.1	96.8
Trucks	2	13	0	0	15	2	4	1	0	7	1	10	1	0	12	0	2	5	0	7	41
% Trucks	8	3	0	0	3.2	9.5	3.6	4.5	0	4.5	7.1	2.1	5.3	0	2.3	0	5.4	9.6	0	4.9	3.2



Richard Garcia & Associates Inc.
13117 NW 107 Ave. Ste # 4
Hialeah Gardens, FL 33018
Tel: 305-595-7505 Fax: 305-675-6474

File Name : SEGOVIA ST & ANASTASIA AV PM
Site Code : 00000000
Start Date : 5/20/2010
Page No : 2

Start Time	SEGOVIA ST Southbound Right	Thru	Left	Peds	App. Total	ANASTASIA AVE Westbound Right	Thru	Left	Peds	App. Total	SEGOVIA ST Northbound Right	Thru	Left	Peds	App. Total	ANASTASIA AVE Eastbound Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 03:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 02:30 PM																					
02:30 PM	3	61	1	0	65	2	23	3	0	28	3	93	1	0	97	6	4	6	0	16	206
02:45 PM	3	51	3	0	57	3	19	1	0	23	3	79	5	0	87	9	4	12	0	25	192
03:00 PM	3	60	2	0	65	3	11	1	0	15	1	42	3	0	46	11	5	9	0	25	151
03:15 PM	1	55	1	2	59	2	8	3	0	13	2	60	3	0	65	10	6	4	0	20	157
Total Volume	10	227	7	2	246	10	61	8	0	79	9	274	12	0	295	36	19	31	0	86	706
% App. Total	4.1	92.3	2.8	0.8		12.7	77.2	10.1	0		3.1	92.9	4.1	0		41.9	22.1	36	0		
PHF	.833	.930	.583	.250	.946	.833	.663	.667	.000	.705	.750	.737	.600	.000	.760	.818	.792	.646	.000	.860	.857

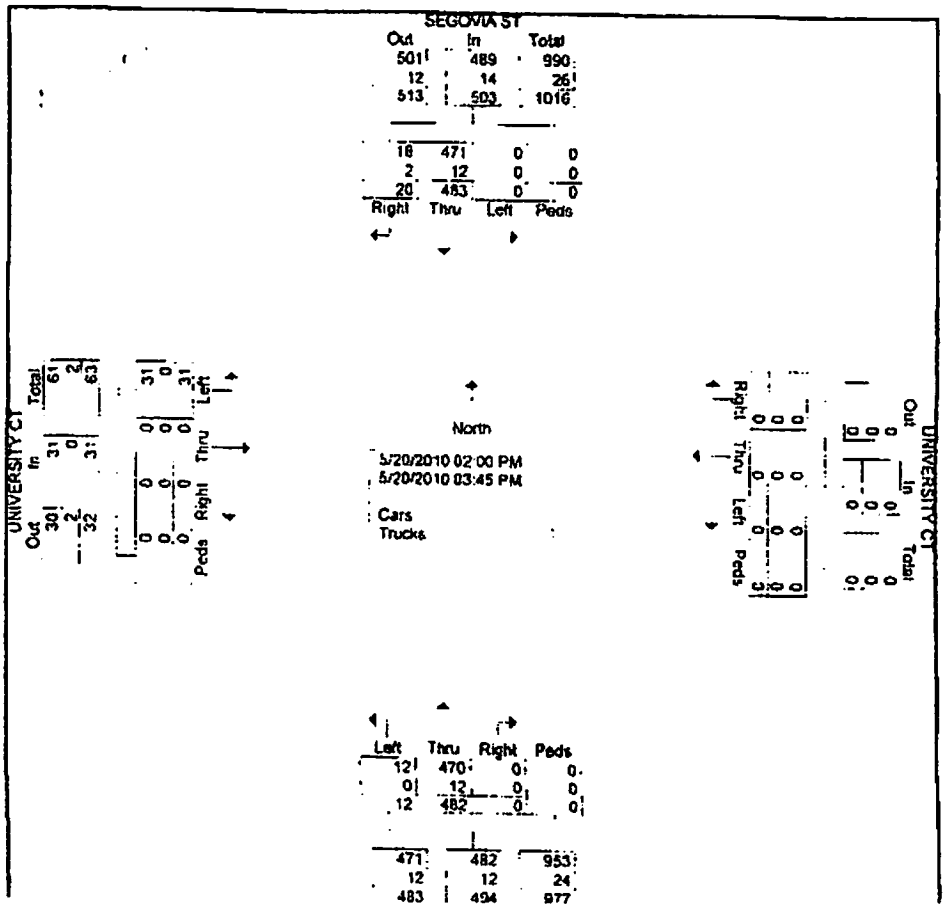


Richard Garcia & Associates Inc.
13117 NW 107 Ave, Ste # 4
Hialeah Gardens, FL 33018
Tel: 305-595-7505 Fax: 305-675-6474

File Name : SEGOVIA ST & UNIVERSITY CT PM
Site Code : 00000000
Start Date : 5/20/2010
Page No : 1

Groups Printed- Cars - Trucks

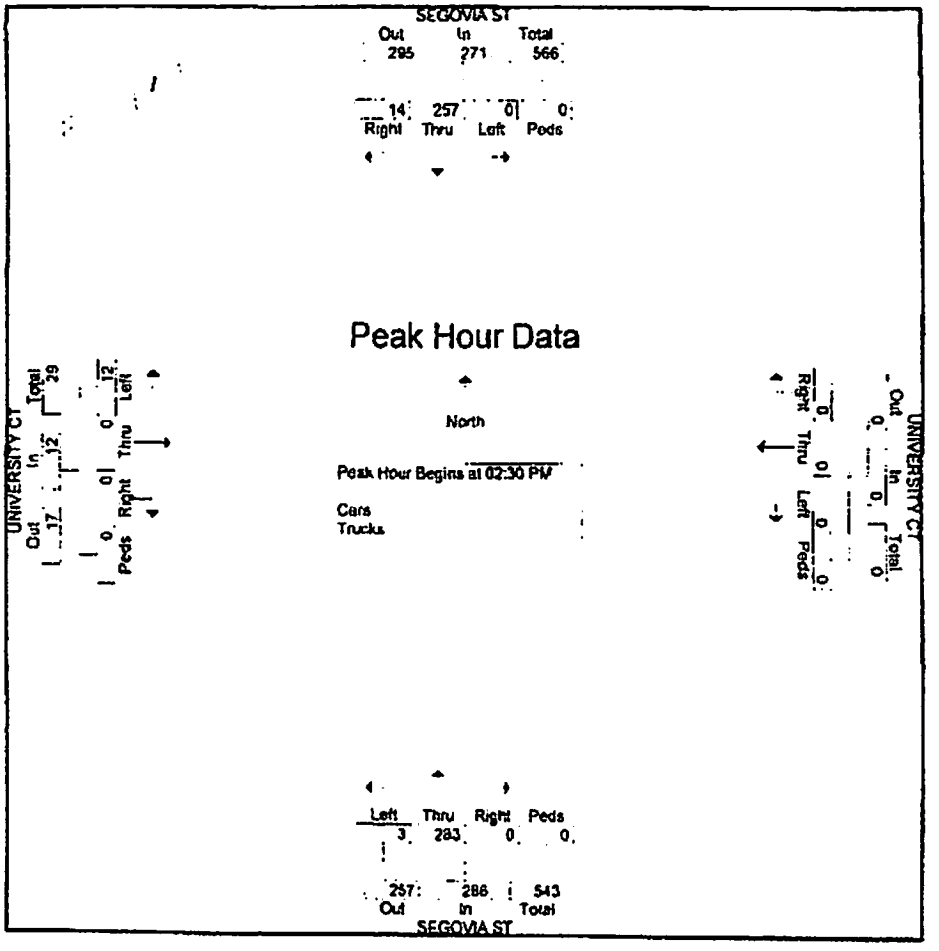
	SEGOVIA ST Southbound					UNIVERSITY CT Westbound					SEGOVIA ST Northbound					UNIVERSITY CT Eastbound					
Start Time	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Int Total
02:00 PM	2	49	0	0	51	0	0	0	0	0	0	49	2	0	51	0	0	4	0	4	106
02:15 PM	2	54	0	0	56	0	0	0	0	0	0	55	1	0	56	0	0	5	0	5	117
02:30 PM	5	65	0	0	70	0	0	0	0	0	0	91	2	0	93	0	0	6	0	6	169
02:45 PM	5	56	0	0	61	0	0	0	0	0	0	85	0	0	85	0	0	2	0	2	148
Total	14	224	0	0	238	0	0	0	0	0	0	280	5	0	285	0	0	17	0	17	540
03:00 PM	1	71	0	0	72	0	0	0	0	0	0	42	0	0	42	0	0	4	0	4	118
03:15 PM	3	65	0	0	68	0	0	0	0	0	0	65	1	0	66	0	0	0	0	0	134
03:30 PM	0	67	0	0	67	0	0	0	0	0	0	45	2	0	47	0	0	4	0	4	118
03:45 PM	2	56	0	0	58	0	0	0	0	0	0	50	4	0	54	0	0	6	0	6	118
Total	6	259	0	0	265	0	0	0	0	0	0	202	7	0	209	0	0	14	0	14	488
Grand Total	20	483	0	0	503	0	0	0	0	0	0	482	12	0	494	0	0	31	0	31	1028
Apprch %	4	96	0	0		0	0	0	0		0	97.6	2.4	0		0	0	100	0		
Total %	1.9	47	0	0	48.9	0	0	0	0	0	0	46.9	1.2	0	48.1	0	0	3	0	3	
Cars	18	471	0	0	489	0	0	0	0	0	0	470	12	0	482	0	0	31	0	31	1002
% Cars	90	97.5	0	0	97.2	0	0	0	0	0	0	97.5	100	0	97.6	0	0	100	0	100	97.5
Trucks	2	12	0	0	14	0	0	0	0	0	0	12	0	0	12	0	0	0	0	0	26
% Trucks	10	2.5	0	0	2.8	0	0	0	0	0	0	2.5	0	0	2.4	0	0	0	0	0	2.5



Richard Garcia & Associates Inc.
13117 NW 107 Ave, Ste # 4
Hialeah Gardens, FL 33018
Tel: 305-595-7505 Fax: 305-675-6474

File Name : SEGOVIA ST & UNIVERSITY CT PM
Site Code : 00000000
Start Date : 5/20/2010
Page No : 2

Start Time	SEGOVIA ST Southbound Right	Thru	Left	Peds	App. Total	UNIVERSITY CT Westbound Right	Thru	Left	Peds	App. Total	SEGOVIA ST Northbound Right	Thru	Left	Peds	App. Total	UNIVERSITY CT Eastbound Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 02:30 PM																					
02:30 PM	5	65	0	0	70	0	0	0	0	0	0	91	2	0	93	0	0	6	0	6	169
02:45 PM	5	56	0	0	61	0	0	0	0	0	0	85	0	0	85	0	0	2	0	2	148
03:00 PM	1	71	0	0	72	0	0	0	0	0	0	42	0	0	42	0	0	4	0	4	118
03:15 PM	3	65	0	0	68	0	0	0	0	0	0	65	1	0	66	0	0	0	0	0	134
Total Volume	14	257	0	0	271	0	0	0	0	0	0	283	3	0	286	0	0	12	0	12	569
% App. Total	5.2	94.8	0	0		0	0	0	0		0	99	1	0		0	0	100	0		
PHF	.700	.905	.000	.000	.941	.000	.000	.000	.000	.000	.000	.777	.375	.000	.769	.000	.000	.500	.000	.500	.842

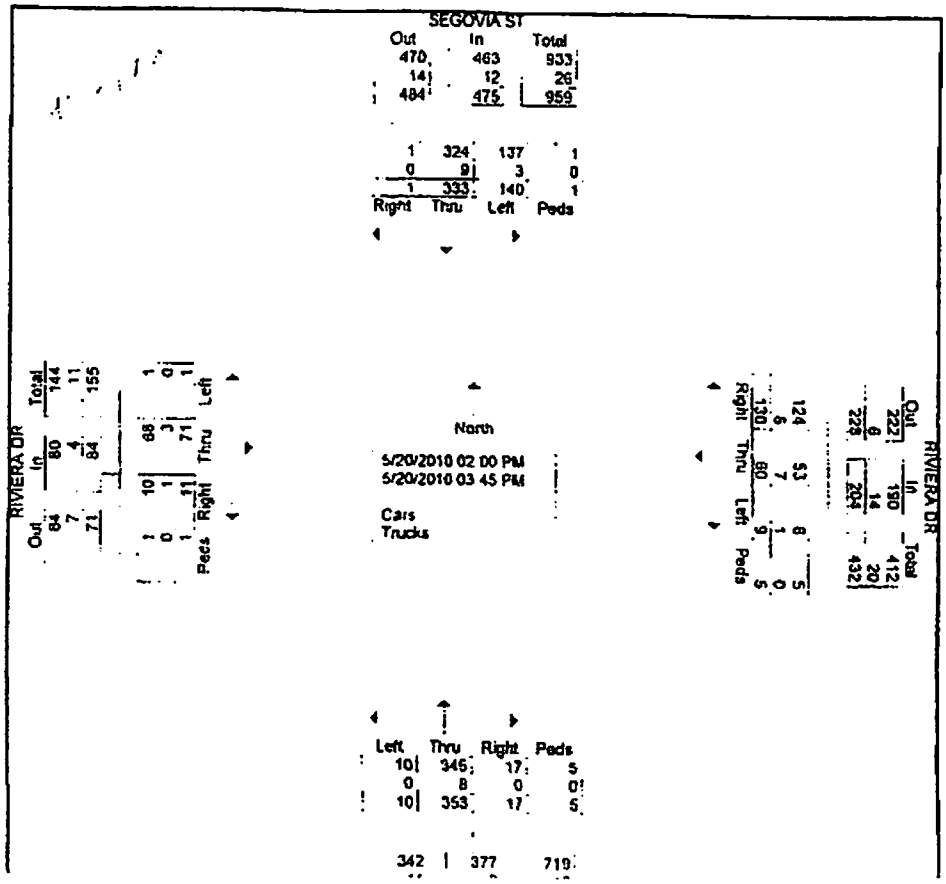


Richard Garcia & Associates Inc.
13117 NW 107 Ave, Ste # 4
Hialeah Gardens, Fl 33018
Tel: 305-595-7505 Fax: 305-675-6474

File Name : SEGOVIA ST & RIVIERA DR PM
Site Code : 00000000
Start Date : 5/20/2010
Page No : 1

Groups Printed- Cars - Trucks

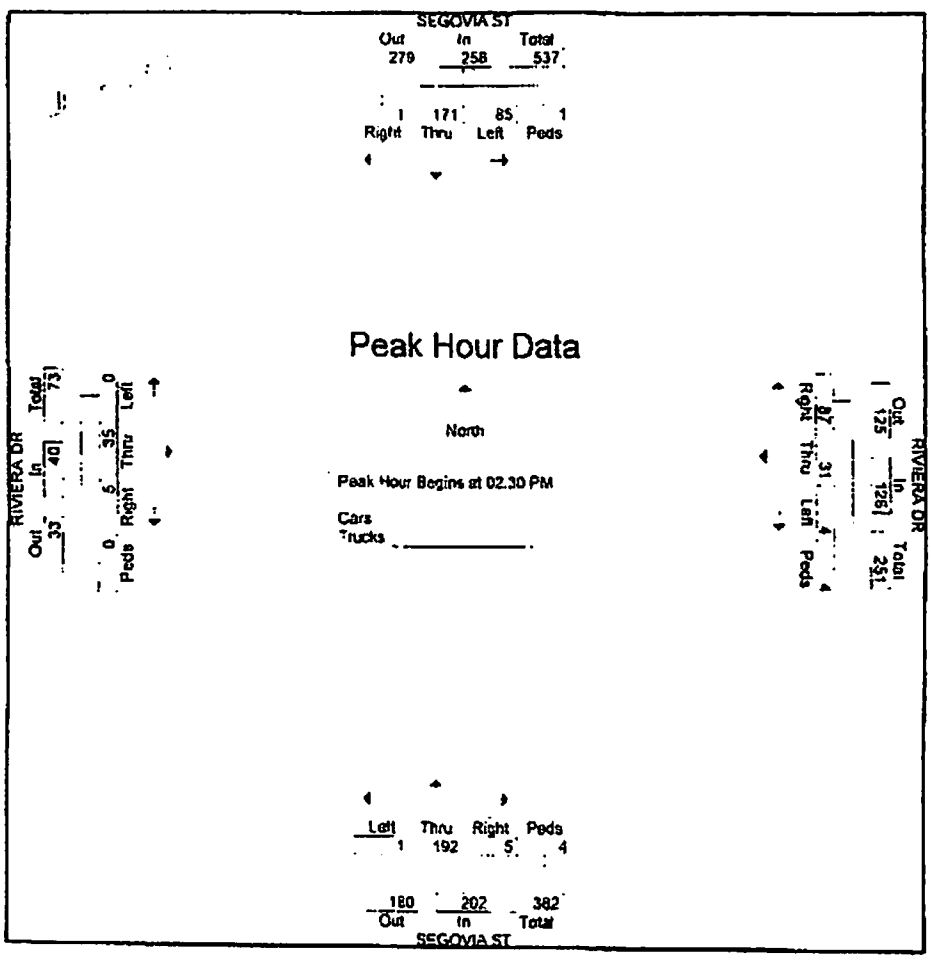
	SEGOVIA ST Southbound					RIVIERA DR Westbound					SEGOVIA ST Northbound					RIVIERA DR Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
02:00 PM	0	34	14	0	48	10	8	0	1	19	2	41	1	0	44	2	6	0	0	8	119
02:15 PM	0	36	15	0	51	12	5	0	0	17	4	45	2	0	51	2	11	0	0	13	132
02:30 PM	1	46	17	0	64	27	6	1	0	34	2	65	0	1	68	0	7	0	0	7	173
02:45 PM	0	36	21	0	57	33	11	0	3	47	1	46	0	1	48	1	11	0	0	12	164
Total	1	152	67	0	220	82	30	1	4	117	9	197	3	2	211	5	35	0	0	40	588
03:00 PM	0	50	23	0	73	6	2	1	0	9	0	35	1	1	37	2	9	0	0	11	130
03:15 PM	0	39	24	1	64	21	12	2	1	36	2	46	0	1	49	2	8	0	0	10	159
03:30 PM	0	50	14	0	64	7	13	0	0	20	2	37	2	0	41	1	9	0	1	11	136
03:45 PM	0	42	12	0	54	14	3	5	0	22	4	38	4	1	47	1	10	1	0	12	135
Total	0	181	73	1	255	48	30	8	1	87	8	156	7	3	174	6	36	1	1	44	560
Grand Total	1	333	140	1	475	130	60	9	5	204	17	353	10	5	385	11	71	1	1	84	1148
Apprch %	0.2	70.1	29.5	0.2		63.7	29.4	4.4	2.5		4.4	91.7	2.6	1.3		13.1	84.5	1.2	1.2		
Total %	0.1	29	12.2	0.1	41.4	11.3	5.2	0.8	0.4	17.8	1.5	30.7	0.9	0.4	33.5	1	6.2	0.1	0.1	7.3	
Cars	1	324	137	1	463	124	53	8	5	190	17	345	10	5	377	10	68	1	1	80	1110
% Cars	100	97.3	97.9	100	97.5	95.4	88.3	88.9	100	93.1	100	97.7	100	100	97.9	90.9	95.8	100	100	95.2	96.7
Trucks	0	9	3	0	12	6	7	1	0	14	0	8	0	0	8	1	3	0	0	4	38
% Trucks	0	2.7	2.1	0	2.5	4.6	11.7	11.1	0	6.9	0	2.3	0	0	2.1	9.1	4.2	0	0	4.8	3.3



Richard Garcia & Associates Inc.
13117 NW 107 Ave. Ste # 4
Hialeah Gardens, FL 33018
Tel: 305-595-7505 Fax: 305-675-6474

File Name : SEGOVIA ST & RIVIERA DR PM
Site Code : 00000000
Start Date : 5/20/2010
Page No : 2

Start Time	SEGOVIA ST Southbound Right	Thru	Left	Peds	App Total	RIVIERA DR Westbound Right	Thru	Left	Peds	App Total	SEGOVIA ST Northbound Right	Thru	Left	Peds	App Total	RIVIERA DR Eastbound Right	Thru	Left	Peds	App Total	Int. Total
Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 02:30 PM																					
02:30 PM	1	46	17	0	64	27	6	1	0	34	2	65	0	1	68	0	7	0	0	7	173
02:45 PM	0	36	21	0	57	33	11	0	3	47	1	46	0	1	48	1	11	0	0	12	164
03:00 PM	0	50	23	0	73	6	2	1	0	9	0	35	1	1	37	2	9	0	0	11	130
03:15 PM	0	39	24	1	64	21	12	2	1	36	2	46	0	1	49	2	8	0	0	10	159
Total Volume	1	171	85	1	258	87	31	4	4	126	5	192	1	4	202	5	35	0	0	40	626
% App Total	0.4	66.3	32.9	0.4		69	24.6	3.2	3.2		2.5	95	0.5	2		12.5	87.5	0	0		
PHF	.250	.855	.885	.250	.884	.659	.646	.500	.333	.670	.625	.738	.250	.500		.625	.795	.000	.000	.833	.905

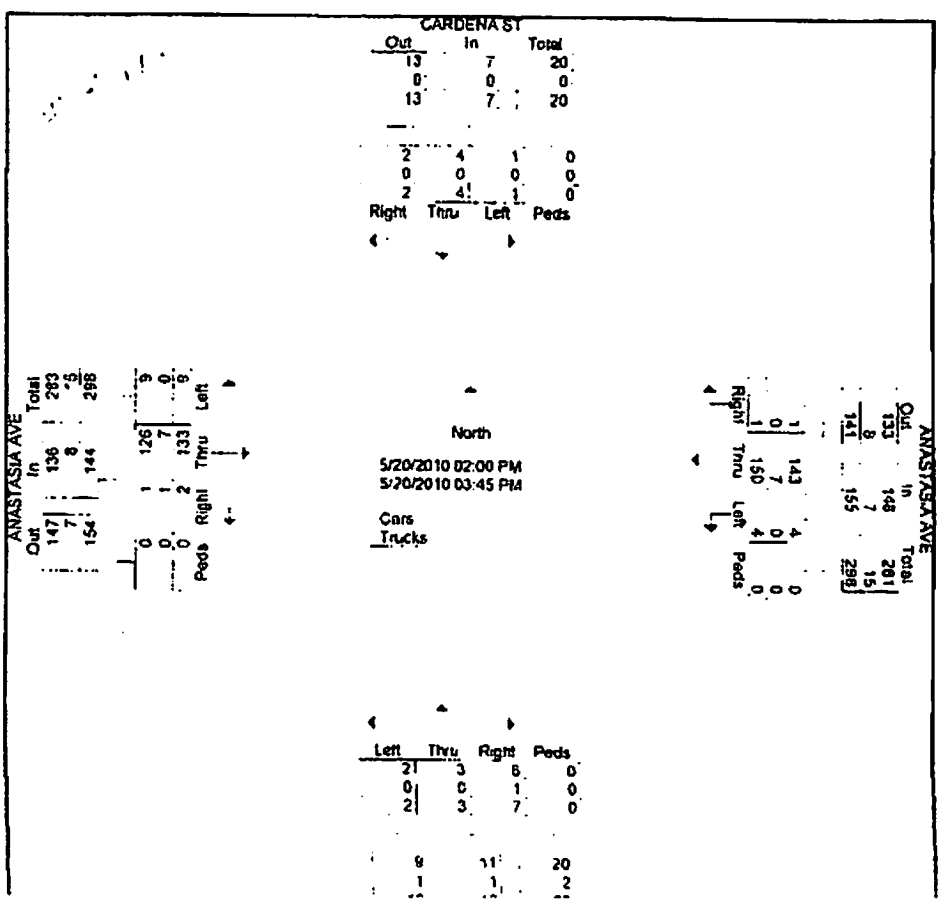


Richard Garcia & Associates Inc.
13117 NW 107 Ave, Ste # 4
Hialeah Gardens, FL 33018
Tel: 305 595-7505 Fax: 305-675-6474

File Name : CARDENA ST & ANASTASIA AV PM
Site Code : 00000000
Start Date : 5/20/2010
Page No : 1

Groups Printed- Cars - Trucks

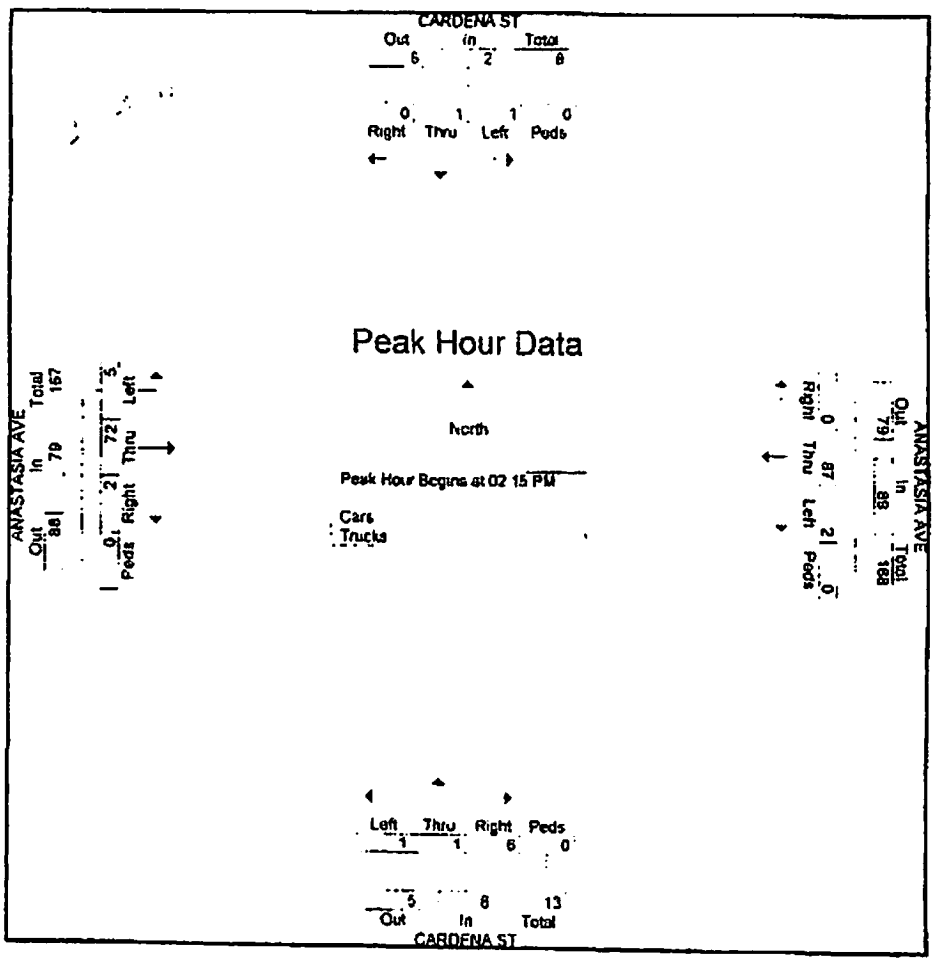
	CARDENA ST Southbound					ANASTASIA AVE Westbound					CARDENA ST Northbound					ANASTASIA AVE Eastbound					
Start Time	Right	Thru	Left	Peds	Int. Total	Right	Thru	Left	Peds	Int. Total	Right	Thru	Left	Peds	Int. Total	Right	Thru	Left	Peds	Int. Total	Int. Total
02:00 PM	1	0	0	0	1	0	10	1	0	11	1	0	1	0	2	0	16	1	0	17	31
02:15 PM	0	0	0	0	0	0	20	1	0	21	3	1	0	0	4	1	10	0	0	11	36
02:30 PM	0	0	0	0	0	0	27	0	0	27	0	0	1	0	1	1	15	2	0	18	46
02:45 PM	0	1	0	0	1	0	26	1	0	27	2	0	0	0	2	0	24	0	0	24	54
Total	1	1	0	0	2	0	83	3	0	86	6	1	2	0	9	2	65	3	0	70	167
03:00 PM	0	0	1	0	1	0	14	0	0	14	1	0	0	0	1	0	23	3	0	26	42
03:15 PM	0	2	0	0	2	1	12	0	0	13	0	0	0	0	0	0	19	0	0	19	34
03:30 PM	0	1	0	0	1	0	28	0	0	28	0	0	0	0	0	0	13	2	0	15	44
03:45 PM	1	0	0	0	1	0	13	1	0	14	0	2	0	0	2	0	13	1	0	14	31
Total	1	3	1	0	5	1	67	1	0	69	1	2	0	0	3	0	68	6	0	74	151
Grand Total	2	4	1	0	7	1	150	4	0	155	7	3	2	0	12	2	133	9	0	144	318
Apprch %	28.6	57.1	14.3	0		0.6	96.8	2.6	0		58.3	25	16.7	0		1.4	92.4	6.2	0		
Total %	0.6	1.3	0.3	0	2.2	0.3	47.2	1.3	0	48.7	2.2	0.9	0.6	0	3.8	0.6	41.8	2.8	0	45.3	
Cars	2	4	1	0	7	1	143	4	0	148	6	3	2	0	11	1	126	9	0	136	302
% Cars	100	100	100	0	100	100	95.3	100	0	95.5	85.7	100	100	0	91.7	50	94.7	100	0	94.4	95
Trucks	0	0	0	0	0	0	7	0	0	7	1	0	0	0	1	1	7	0	0	8	16
% Trucks	0	0	0	0	0	0	4.7	0	0	4.5	14.3	0	0	0	8.3	50	5.3	0	0	5.6	5



Richard Garcia & Associates Inc.
13117 NW 107 Ave, Ste # 4
Hialeah Gardens, Fl 33018
Tel: 305-595-7505 Fax: 305-675-6474

File Name : CARDENA ST & ANASTASIA AV PM
Site Code : 00000000
Start Date : 5/20/2010
Page No : 2

Start Time	CARDENA ST Southbound Right	Thru	Left	Peds	App Total	ANASTASIA AVE Westbound Right	Thru	Left	Peds	App Total	CARDENA ST Northbound Right	Thru	Left	Peds	App Total	ANASTASIA AVE Eastbound Right	Thru	Left	Peds	App Total	Int Total
Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 02:15 PM																					
02:15 PM	0	0	0	0	0	0	20	1	0	21	3	1	0	0	4	1	10	0	0	11	36
02:30 PM	0	0	0	0	0	0	27	0	0	27	0	0	1	0	1	1	15	2	0	18	46
02:45 PM	0	1	0	0	1	0	26	1	0	27	2	0	0	0	2	0	24	0	0	24	54
03:00 PM	0	0	1	0	1	0	14	0	0	14	1	0	0	0	1	0	23	3	0	26	42
Total Volume	0	1	1	0	2	0	87	2	0	89	6	1	1	0	8	2	72	5	0	79	178
% App Total	0	50	50	0		0	97.8	2.2	0		75	12.5	12.5	0		2.5	91.1	6.3	0		
PHF	.000	.250	.250	.000	.500	.000	.808	.500	.000	.824	.500	.250	.250	000	.500	.500	.750	.417	.000	.760	.824

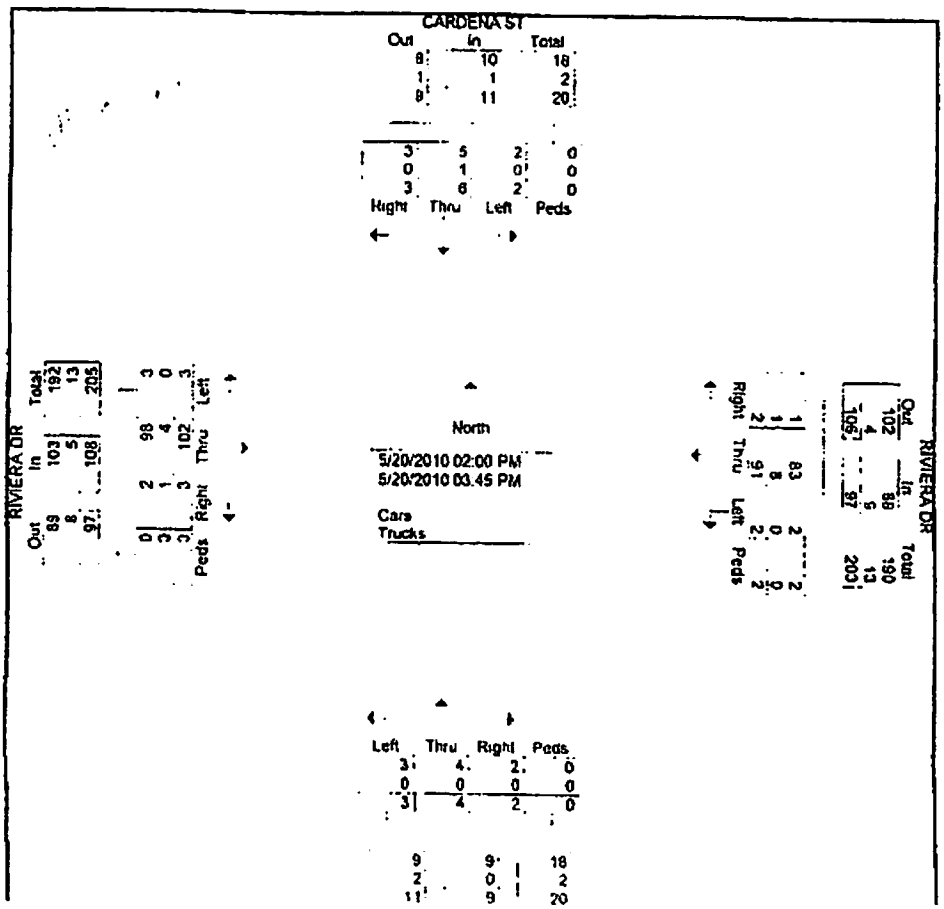


Richard Garcia & Associates Inc.
13117 NW 107 Ave. Ste # 4
Hialeah Gardens, FL 33018
Tel: 305 595-7505 Fax: 305-675-6474

File Name : CARDENA ST & RIVIERA DR PM
Site Code : 00000000
Start Date : 5/20/2010
Page No : 1

Groups Printed- Cars - Trucks

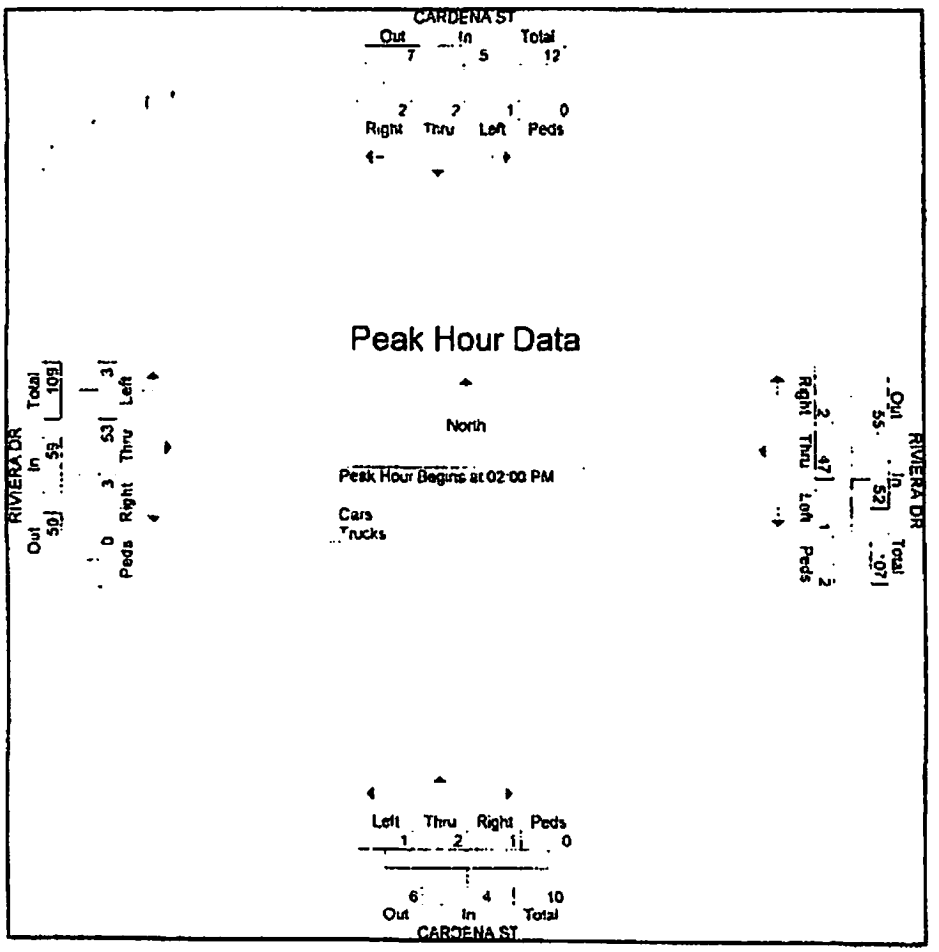
	CARDENA ST Southbound					RIVIERA DR Westbound					CARDENA ST Northbound					RIVIERA DR Eastbound					
Start Time	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Int Total
02:00 PM	1	0	0	0	1	0	8	0	0	8	0	0	0	0	0	0	13	2	0	15	24
02:15 PM	0	1	1	0	2	2	12	0	0	14	1	1	1	0	3	3	14	0	0	17	36
02:30 PM	0	1	0	0	1	0	11	1	0	12	0	0	0	0	0	0	11	1	0	12	25
02:45 PM	1	0	0	0	1	0	16	0	2	18	0	1	0	0	1	0	15	0	0	15	35
Total	2	2	1	0	5	2	47	1	2	52	1	2	1	0	4	3	53	3	0	59	120
03:00 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	13	0	0	13	17
03:15 PM	0	3	0	0	3	0	15	0	0	15	0	0	1	0	1	0	10	0	0	10	29
03:30 PM	0	1	1	0	2	0	14	1	0	15	0	0	0	0	0	0	13	0	0	13	30
03:45 PM	1	0	0	0	1	0	11	0	0	11	1	2	1	0	4	0	13	0	0	13	29
Total	1	4	1	0	6	0	44	1	0	45	1	2	2	0	5	0	49	0	0	49	105
Grand Total	3	6	2	0	11	2	91	2	2	97	2	4	3	0	9	3	102	3	0	108	225
Apprch %	27.3	54.5	18.2	0		2.1	93.8	2.1	2.1		22.2	44.4	33.3	0		2.8	94.4	2.8	0		
Total %	1.3	2.7	0.9	0	4.9	0.9	40.4	0.9	0.9	43.1	0.9	1.8	1.3	0	4	1.3	45.3	1.3	0	48	
Cars	3	5	2	0	10	1	83	2	2	88	2	4	3	0	9	2	98	3	0	103	210
% Cars	100	83.3	100	0	90.9	50	91.2	100	100	90.7	100	100	100	0	100	66.7	96.1	100	0	95.4	93.3
Trucks	0	1	0	0	1	1	8	0	0	9	0	0	0	0	0	1	4	0	0	5	15
% Trucks	0	16.7	0	0	9.1	50	8.8	0	0	9.3	0	0	0	0	0	33.3	3.9	0	0	4.6	6.7



Richard Garcia & Associates Inc.
13117 NW 107 Ave. Ste # 4
Hialeah Gardens, FL 33018
Tel: 305 595 7505 Fax: 305-675-6474

File Name : CARDENA ST & RIVIERA DR PM
Site Code : 00000000
Start Date : 5/20/2010
Page No : 2

	CARDENA ST Southbound					RIVIERA DR Westbound					CARDENA ST Northbound					RIVIERA DR Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 02:00 PM																					
02:00 PM	1	0	0	0	1	0	8	0	0	8	0	0	0	0	0	0	13	2	0	15	24
02:15 PM	0	1	1	0	2	2	12	0	0	14	1	1	1	0	3	3	14	0	0	17	36
02:30 PM	0	1	0	0	1	0	11	1	0	12	0	0	0	0	0	0	11	1	0	12	25
02:45 PM	1	0	0	0	1	0	16	0	2	18	0	1	0	0	1	0	16	0	0	15	35
Total Volume	2	2	1	0	5	2	47	1	2	52	1	2	1	0	4	3	53	3	0	59	120
% App. Total	40	40	20	0		3.8	90.4	1.9	3.8		25	50	25	0		5.1	89.8	5.1	0		
PHF	.500	.500	.250	.000	.625	.250	.734	.250	.250	.722	.250	.500	.250	.000	.333	.250	.883	.375	.000	.868	.833



Appendix F: Intersections & Driveway LOS

TABLE: A7

Somerset UBC (PK - 8)

Intersection LOS Summary

Location	Intersection Control	Existing AM Peak Hour		Proposed AM Peak Hour			
				Scenario A		Scenario B	
		Ave Veh Delay (sec)	LOS	Ave Veh Delay	LOS	Ave Veh Delay	LOS
Segovia Street & Anastasia Avenue	Signalized	8.2	A	13.7	B	34.9	C
Segovia Street & University Court	2-Way Stop (E/W)	0.3	A	0.0	A	0.0	A
Segovia Street & Riviera Drive	2-Way Stop (E/W)	5.0	A	7.9	A	5.2	A
Anastasia Avenue & Cardena Street	2-Way Stop (N/S)	0.3	A	5.8	A	7.3	A
Riviera Drive & Cardena Street	2-Way Stop (N/S)	0.5	A	3.8	A	0.5	A
Driveway 2 (Exit) & Cardena Street	2-Way Stop (E/W)			6.4	A	4.4	A

Notes:

Scenario A - Site Traffic based on TAZ and roadway network.

Scenario B - All Site Traffic through Segovia St/Anastasia Av.

TABLE: A8

Somerset UBC (PK - 8)

Intersection LOS Summary

Location	Intersection Control	Existing PM Peak Hour		Proposed School PM Peak Hour			
				Scenario A		Scenario B	
		Ave Veh Delay (sec)	LOS	Ave Veh Delay	LOS	Ave Veh Delay	LOS
Segovia Street & Anastasia Avenue	Signalized	7.8	A	11.4	B	13.8	B
Segovia Street & University Court	2-Way Stop (E/W)	0.3	A	0.0	A	0.0	A
Segovia Street & Riviera Drive	2-Way Stop (E/W)	4.5	A	5.5	A	4.5	A
Anastasia Avenue & Cardena Street	2-Way Stop (N/S)	0.8	A	4.9	A	6.2	A
Riviera Drive & Cardena Street	2-Way Stop (N/S)	1.0	A	3.1	A	1.0	A
Driveway 2 (Exit) & Cardena Street	2-Way Stop (E/W)			6.1	A	4.7	A

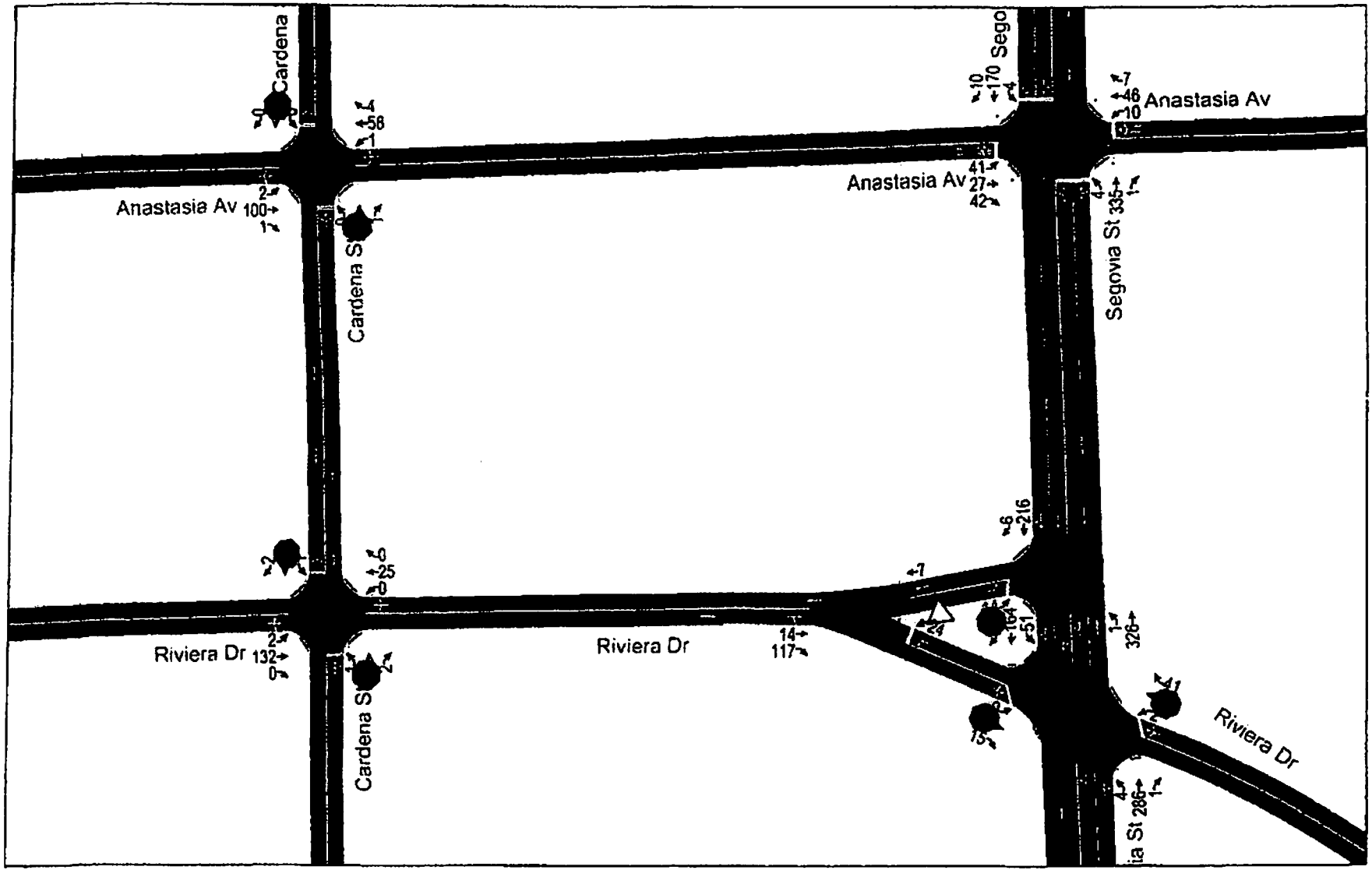
Notes:

Scenario A - Site Traffic based on TAZ and roadway network.

Scenario B - All Site Traffic through Segovia St/Anastasia Av.

Somerset UBC (PK - 8)

Existing AM Peak Hour TMCs



HCM Signalized Intersection Capacity Analysis
1: Anastasia Av & Segovia St

Somerset UBC (PK - 8)
Existing AM Peak Hour TMCs

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	41	27	42	10	46	7	4	335	1	4	170	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.95			0.99			1.00			0.99	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1734			1821			3536			3506	
Flt Permitted		0.85			0.95			0.95			0.95	
Satd. Flow (perm)		1493			1738			3371			3332	
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	49	32	50	12	55	8	5	399	1	5	202	12
RTOR Reduction (vph)	0	42	0	0	7	0	0	0	0	0	4	0
Lane Group Flow (vph)	0	89	0	0	68	0	0	405	0	0	215	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		8.9			8.9			41.1			41.1	
Effective Green, g (s)		8.9			8.9			41.1			41.1	
Actuated g/C Ratio		0.15			0.15			0.70			0.70	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		225			262			2348			2321	
v/s Ratio Prot												
v/s Ratio Perm		c0.06			0.04			c0 12			0.06	
v/c Ratio		0.39			0.26			0.17			0.09	
Uniform Delay, d1		22.6			22.1			3.1			2.9	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.1			0.5			0.2			0.1	
Delay (s)		23.8			22.7			3.2			3.0	
Level of Service		C			C			A			A	
Approach Delay (s)		23.8			22.7			3.2			3.0	
Approach LOS		C			C			A			A	

Intersection Summary

HCM Average Control Delay	8.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.21		
Actuated Cycle Length (s)	59.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	32.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
2: University Ct & Segovia St

Somerset UBC (PK - 8)
Existing AM Peak Hour TMCs

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	14	0	1	326	216	6
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	17	0	1	398	263	7
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)					315	
pX, platoon unblocked						
vC, conflicting volume	468	135	271			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	468	135	271			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	100	100			
cM capacity (veh/h)	523	889	1290			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	17	134	265	176	95
Volume Left	17	1	0	0	0
Volume Right	0	0	0	0	7
cSH	523	1290	1700	1700	1700
Volume to Capacity	0.03	0.00	0.16	0.10	0.06
Queue Length 95th (ft)	3	0	0	0	0
Control Delay (s)	12.1	0.1	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	12.1	0.0		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	0.3		A
Intersection Capacity Utilization	19.7%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis — Somerset UBC (PK - 8)

3: Riviera Dr & Segovia St — Existing AM Peak Hour TMCs

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	102	15	2	20	41	4	286	1	51	164	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	0	119	17	2	23	48	5	333	1	59	191	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											413	
pX, platoon unblocked												
vC, conflicting volume	544	652	95	633	652	167	191			334		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	544	652	95	633	652	167	191			334		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	68	98	99	94	94	100			95		
cM capacity (veh/h)	364	366	943	258	366	848	1380			1222		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	136	73	171	167	155	95
Volume Left	0	2	5	0	59	0
Volume Right	17	48	0	1	0	0
cSH	397	569	1380	1700	1222	1700
Volume to Capacity	0.34	0.13	0.00	0.10	0.05	0.06
Queue Length 95th (ft)	37	11	0	0	4	0
Control Delay (s)	18.7	12.3	0.2	0.0	3.4	0.0
Lane LOS	C	B	A		A	
Approach Delay (s)	18.7	12.3	0.1		2.1	
Approach LOS	C	B				

Intersection Summary				
Average Delay	5.0			
Intersection Capacity Utilization	30.3%	ICU Level of Service	A	
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis

4: Anastasia Av & Cardena St

Somerset UBC (PK - 8)

Existing AM Peak Hour TMCs

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	100	1	1	58	4	0	1	1	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	109	1	1	63	4	0	1	1	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					531							
pX, platoon unblocked												
vC, conflicting volume	67			110			181	183	109	183	182	65
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	67			110			181	183	109	183	182	65
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	1534			1480			779	709	944	776	711	999

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	112	68	2	0
Volume Left	2	1	0	0
Volume Right	1	4	1	0
cSH	1534	1480	810	1700
Volume to Capacity	0.00	0.00	0.00	0.00
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.2	0.1	9.5	0.0
Lane LOS	A	A	A	A
Approach Delay (s)	0.2	0.1	9.5	0.0
Approach LOS			A	A

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	16.4%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis

5: Riviera Dr & Cardena St

Somerset UBC (PK - 8)

Existing AM Peak Hour TMCs

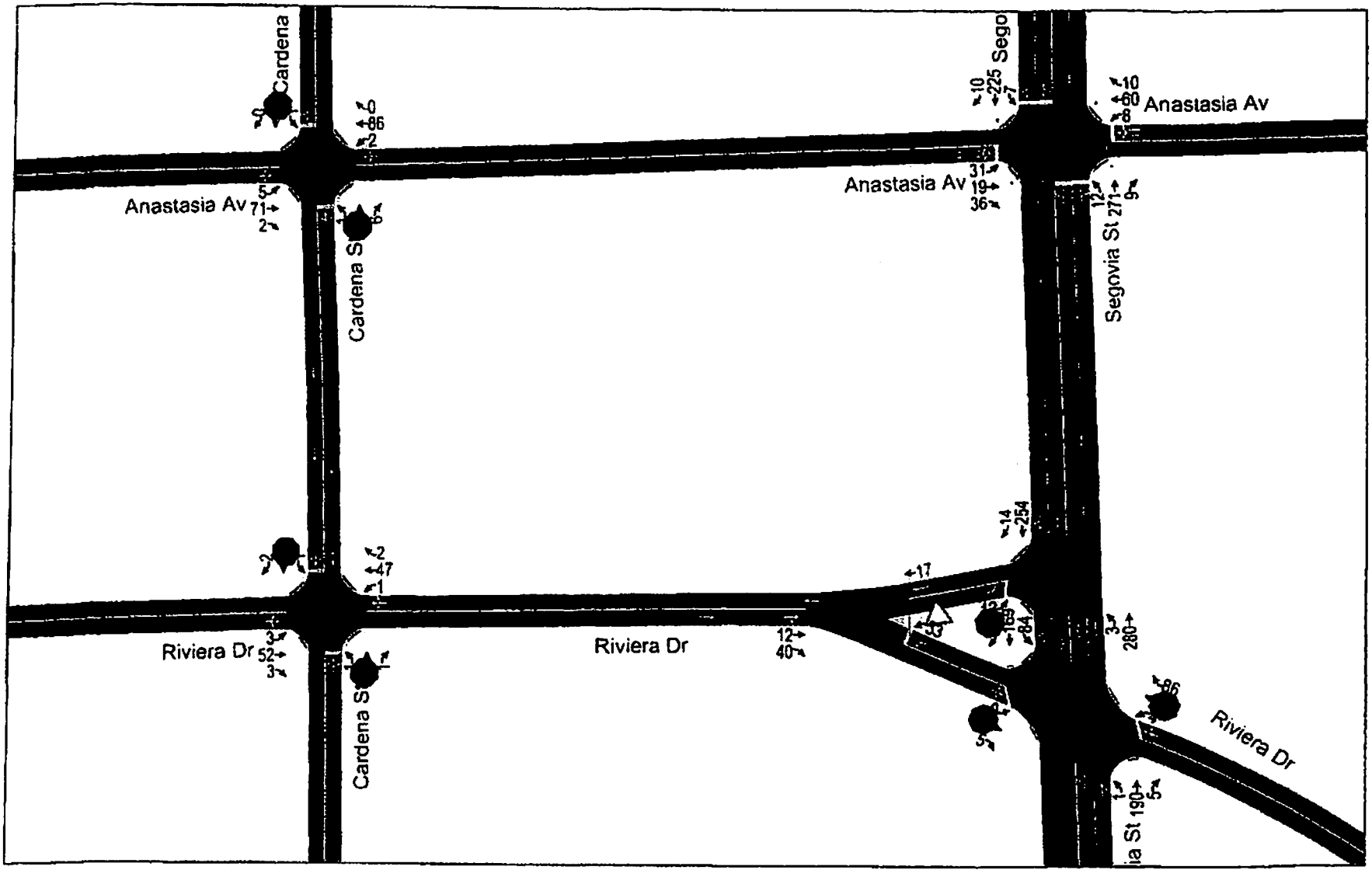
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	132	0	0	25	0	1	1	2	1	0	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	2	148	0	0	28	0	1	1	2	1	0	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	28			148			183	181	148	184	181	28
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	28			148			183	181	148	184	181	28
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	1585			1433			775	712	898	774	712	1047

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	151	28	4	3
Volume Left	2	0	1	1
Volume Right	0	0	2	2
cSH	1585	1433	813	937
Volume to Capacity	0.00	0.00	0.01	0.00
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.1	0.0	9.5	8.9
Lane LOS	A		A	A
Approach Delay (s)	0.1	0.0	9.5	8.9
Approach LOS			A	A

Intersection Summary				
Average Delay	0.5			
Intersection Capacity Utilization	18.5%	ICU Level of Service	A	
Analysis Period (min)	15		A	

Somerset UBC (PK - 8)

Existing PM Peak Hour TMCs



HCM Signalized Intersection Capacity Analysis
1: Anastasia Av & Segovia St

Somerset UBC (PK - 8)
Existing PM Peak Hour TMCs

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	31	19	36	8	60	10	12	271	9	7	225	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.94			0.98			1.00			0.99	
Flt Protected		0.98			1.00			1.00			1.00	
Satd. Flow (prot)		1726			1821			3516			3512	
Flt Permitted		0.88			0.96			0.94			0.95	
Satd. Flow (perm)		1551			1753			3321			3331	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	36	22	42	9	70	12	14	315	10	8	262	12
RTOR Reduction (vph)	0	36	0	0	10	0	0	3	0	0	3	0
Lane Group Flow (vph)	0	64	0	0	81	0	0	336	0	0	279	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		8.2			8.2			41.8			41.8	
Effective Green, g (s)		8.2			8.2			41.8			41.8	
Actuated g/C Ratio		0.14			0.14			0.71			0.71	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		216			244			2353			2360	
v/s Ratio Prot												
v/s Ratio Perm		0.04			c0.05			c0.10			0.08	
v/c Ratio		0.30			0.33			0.14			0.12	
Uniform Delay, d1		22.8			22.9			2.8			2.7	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.8			0.8			0.1			0.1	
Delay (s)		23.6			23.7			2.9			2.8	
Level of Service		C			C			A			A	
Approach Delay (s)		23.6			23.7			2.9			2.8	
Approach LOS		C			C			A			A	

Intersection Summary

HCM Average Control Delay	7.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.17		
Actuated Cycle Length (s)	59.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	35.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
2: University Ct & Segovia St

Somerset UBC (PK - 8)
Existing PM Peak Hour TMCs

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	12	0	3	280	254	14
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	14	0	4	333	302	17
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)					315	
pX, platoon unblocked						
vC, conflicting volume	485	160	319			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	485	160	319			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	100	100			
cM capacity (veh/h)	510	857	1238			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	14	115	222	202	117
Volume Left	14	4	0	0	0
Volume Right	0	0	0	0	17
cSH	510	1238	1700	1700	1700
Volume to Capacity	0.03	0.00	0.13	0.12	0.07
Queue Length 95th (ft)	2	0	0	0	0
Control Delay (s)	12.3	0.3	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	12.3	0.1		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	19.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis

3: Riviera Dr & Segovia St

Somerset UBC (PK - 8)

Existing PM Peak Hour TMCs

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	35	5	4	31	86	1	190	5	84	169	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	0	38	5	4	34	95	1	209	5	92	186	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											413	
pX, platoon unblocked												
vC, conflicting volume	589	587	93	516	585	107	187			214		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	589	587	93	516	585	107	187			214		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	90	99	99	91	90	100			93		
cM capacity (veh/h)	311	391	945	385	392	926	1385			1353		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	44	133	105	110	185	94
Volume Left	0	4	1	0	92	0
Volume Right	5	95	0	5	0	1
cSH	422	664	1385	1700	1353	1700
Volume to Capacity	0.10	0.20	0.00	0.06	0.07	0.06
Queue Length 95th (ft)	9	19	0	0	5	0
Control Delay (s)	14.5	11.8	0.1	0.0	4.2	0.0
Lane LOS	B	B	A		A	
Approach Delay (s)	14.5	11.8	0.0		2.8	
Approach LOS	B	B				

Intersection Summary			
Average Delay	4.5		
Intersection Capacity Utilization	33.1%	ICU Level of Service	A
Analysis Period (min)	15		A

HCM Unsignalized Intersection Capacity Analysis
4: Anastasia Av & Cardena St

Somerset UBC (PK - 8)
Existing PM Peak Hour TMCs

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	71	2	2	86	0	1	1	6	1	1	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	6	87	2	2	105	0	1	1	7	1	1	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					531							
pX, platoon unblocked												
vC, conflicting volume	105			89			210	210	88	218	211	105
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	105			89			210	210	88	218	211	105
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	99	100	100	100
cM capacity (veh/h)	1487			1506			743	683	970	729	682	950

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	95	107	10	2
Volume Left	6	2	1	1
Volume Right	2	0	7	0
cSH	1487	1506	890	705
Volume to Capacity	0.00	0.00	0.01	0.00
Queue Length 95th (ft)	0	0	1	0
Control Delay (s)	0.5	0.2	9.1	10.1
Lane LOS	A	A	A	B
Approach Delay (s)	0.5	0.2	9.1	10.1
Approach LOS			A	B

Intersection Summary				
Average Delay	0.8			
Intersection Capacity Utilization	16.4%	ICU Level of Service	A	
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis
5: Riviera Dr & Cardena St

Somerset UBC (PK - 8)
Existing PM Peak Hour TMCs

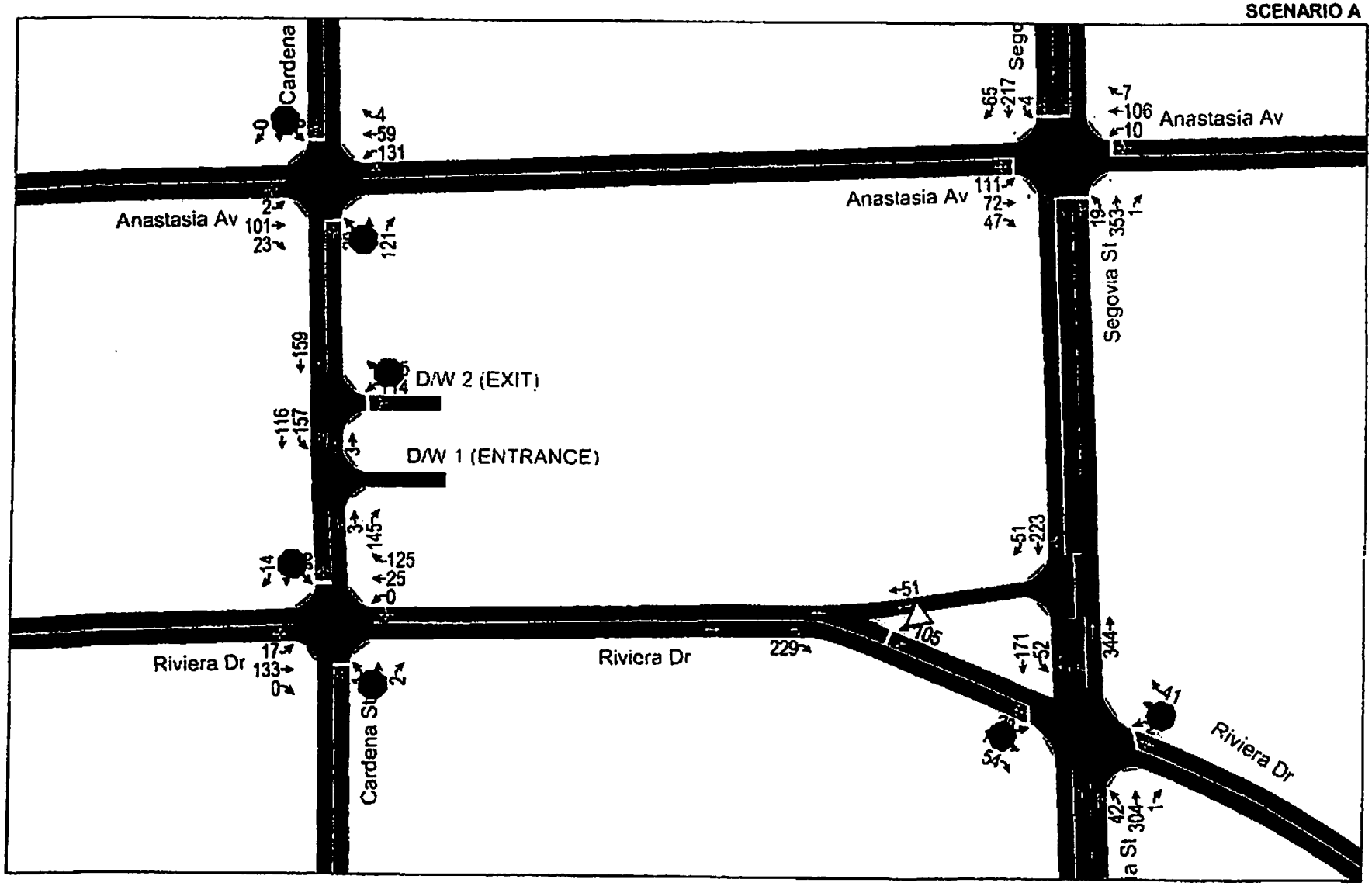
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	52	3	1	47	2	1	2	1	1	2	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	4	63	4	1	57	2	1	2	1	1	2	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	59			66			136	133	64	134	134	58
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	59			66			136	133	64	134	134	58
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	1545			1535			830	755	1000	832	755	1008

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	70	60	5	6
Volume Left	4	1	1	1
Volume Right	4	2	1	2
cSH	1545	1535	824	857
Volume to Capacity	0.00	0.00	0.01	0.01
Queue Length 95th (ft)	0	0	0	1
Control Delay (s)	0.4	0.2	9.4	9.2
Lane LOS	A	A	A	A
Approach Delay (s)	0.4	0.2	9.4	9.2
Approach LOS			A	A

Intersection Summary				
Average Delay	1.0			A
Intersection Capacity Utilization	14.5%	ICU Level of Service		A
Analysis Period (min)	15			

Somerset UBC (PK-8)

PROPOSED AM PEAK HOUR VOLUMES
SCENARIO A



HCM Signalized Intersection Capacity Analysis PROPOSED AM PEAK HOUR VOLUMES

1: Anastasia Av & Segovia St SCENARIO A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	111	72	47	10	106	7	19	353	1	4	217	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.97			0.99		1.00	1.00		1.00	0.97	
Flt Protected		0.98			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1769			1841		1770	1862		1770	1799	
Flt Permitted		0.80			0.97		0.54	1.00		0.48	1.00	
Satd. Flow (perm)		1452			1791		1008	1862		886	1799	
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	132	86	56	12	126	8	23	420	1	5	258	77
RTOR Reduction (vph)	0	16	0	0	4	0	0	0	0	0	17	0
Lane Group Flow (vph)	0	258	0	0	142	0	23	421	0	5	318	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		13.5			13.5		36.5	36.5		36.5	36.5	
Effective Green, g (s)		13.5			13.5		36.5	36.5		36.5	36.5	
Actuated g/C Ratio		0.23			0.23		0.62	0.62		0.62	0.62	
Clearance Time (s)		5.0			5.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		332			410		624	1152		548	1113	
v/s Ratio Prot								c0.23			0.18	
v/s Ratio Perm		c0.18			0.08		0.02			0.01		
v/c Ratio		0.78			0.35		0.04	0.37		0.01	0.29	
Uniform Delay, d1		21.3			19.1		4.4	5.5		4.3	5.2	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		10.8			0.5		0.1	0.9		0.0	0.6	
Delay (s)		32.2			19.6		4.5	6.4		4.3	5.9	
Level of Service		C			B		A	A		A	A	
Approach Delay (s)		32.2			19.6			6.3			5.8	
Approach LOS		C			B			A			A	

Intersection Summary

HCM Average Control Delay	13.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	59.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	45.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Queues

PROPOSED AM PEAK HOUR VOLUMES

1: Anastasia Av & Segovia St

SCENARIO A

Lane Group	EBT	WBT	NBL		SBL	
Lane Group Flow (vph)	274	146	23		5	
v/c Ratio	0.78	0.35	0.04	0.37	0.01	0.30
Control Delay	37.1	20.4	5.3	7.1	5.0	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37 1	20.4	5.3	7.1	5.0	5.7
Queue Length 50th (ft)	81	40	3	68	1	43
Queue Length 95th (ft)	#160	76	10	104	4	72
Internal Link Dist (ft)	451	565		235		252
Turn Bay Length (ft)			230		150	
Base Capacity (vph)	385	459	623	1151	548	1129
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.71	0.32	0.04	0.37	0.01	0.30

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Unsignalized Intersection Capacity Analysis PROPOSED AM PEAK HOUR VOLUMES
2: University Ct & Segovia St SCENARIO A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	0	0	344	223	51
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	0	0	0	420	272	62
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage veh)				2	2	
Upstream signal (ft)					315	
pX, platoon unblocked	0.96	0.96	0.96			
vC, conflicting volume	723	303	334			
vC1, stage 1 conf vol	303					
vC2, stage 2 conf vol	420					
vCu, unblocked vol	688	249	282			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	585	755	1226			

Direction, Lane #	NB 1	SB 1
Volume Total	420	334
Volume Left	0	0
Volume Right	0	62
cSH	1700	1700
Volume to Capacity	0.25	0.20
Queue Length 95th (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS		
Approach Delay (s)	0.0	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	21.4%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis PROPOSED AM PEAK HOUR VOLUMES

3: Riviera Dr & Segovia St

SCENARIO A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	29	146	54	2	63	41	42	304	1	52	171	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	34	170	63	2	73	48	49	353	1	60	199	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			TWLTL	
Median storage veh)											2	
Upstream signal (ft)											413	
pX, platoon unblocked												
vC, conflicting volume	855	772	199	919	772	354	199			355		
vC1, stage 1 conf vol	320	320		452	452							
vC2, stage 2 conf vol	535	452		467	320							
vCu, unblocked vol	855	772	199	919	772	354	199			355		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	90	62	93	99	84	93	96			95		
cM capacity (veh/h)	334	445	842	295	463	690	1374			1204		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	266	123	49	355	60	199
Volume Left	34	2	49	0	60	0
Volume Right	63	48	0	1	0	0
cSH	478	524	1374	1700	1204	1700
Volume to Capacity	0.56	0.24	0.04	0.21	0.05	0.12
Queue Length 95th (ft)	84	23	3	0	4	0
Control Delay (s)	21.6	14.0	7.7	0.0	8.1	0.0
Lane LOS	C	B	A		A	
Approach Delay (s)	21.6	14.0	0.9		1.9	
Approach LOS	C	B				

Intersection Summary			
Average Delay	7.9		
Intersection Capacity Utilization	48.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis PROPOSED AM PEAK HOUR VOLUMES

4: Anastasia Av & Cardena St

SCENARIO A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	101	23	131	59	4	20	6	121	0	5	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	110	25	142	64	4	22	7	132	0	5	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					531							
pX, platoon unblocked												
vC, conflicting volume	68			135			480	480	122	612	490	66
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	68			135			480	480	122	612	490	66
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			90			95	99	86	100	99	100
cM capacity (veh/h)	1533			1450			454	437	929	318	431	997

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	137	211	160	5
Volume Left	2	142	22	0
Volume Right	25	4	132	0
cSH	1533	1450	782	431
Volume to Capacity	0.00	0.10	0.20	0.01
Queue Length 95th (ft)	0	8	19	1
Control Delay (s)	0.1	5.5	10.8	13.5
Lane LOS	A	A	B	B
Approach Delay (s)	0.1	5.5	10.8	13.5
Approach LOS			B	B

Intersection Summary			
Average Delay	5.8		
Intersection Capacity Utilization	43.0%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis PROPOSED AM PEAK HOUR VOLUMES

5: Riviera Dr & Cardena St

SCENARIO A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	17	133	0	0	25	125	1	6	2	98	5	14
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	19	149	0	0	28	140	1	7	2	110	6	16
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	169			149			304	356	149	292	286	98
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	169			149			304	356	149	292	286	98
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	99	100	83	99	98
cM capacity (veh/h)	1409			1432			626	562	897	646	615	958

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	169	169	10	131
Volume Left	19	0	1	110
Volume Right	0	140	2	16
cSH	1409	1432	621	671
Volume to Capacity	0.01	0.00	0.02	0.20
Queue Length 95th (ft)	1	0	1	18
Control Delay (s)	1.0	0.0	10.9	11.7
Lane LOS	A		B	B
Approach Delay (s)	1.0	0.0	10.9	11.7
Approach LOS			B	B

Intersection Summary			
Average Delay	3.8		
Intersection Capacity Utilization	40.2%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis PROPOSED AM PEAK HOUR VOLUMES

6: D/W 2 (EXIT) & Cardena St

SCENARIO A

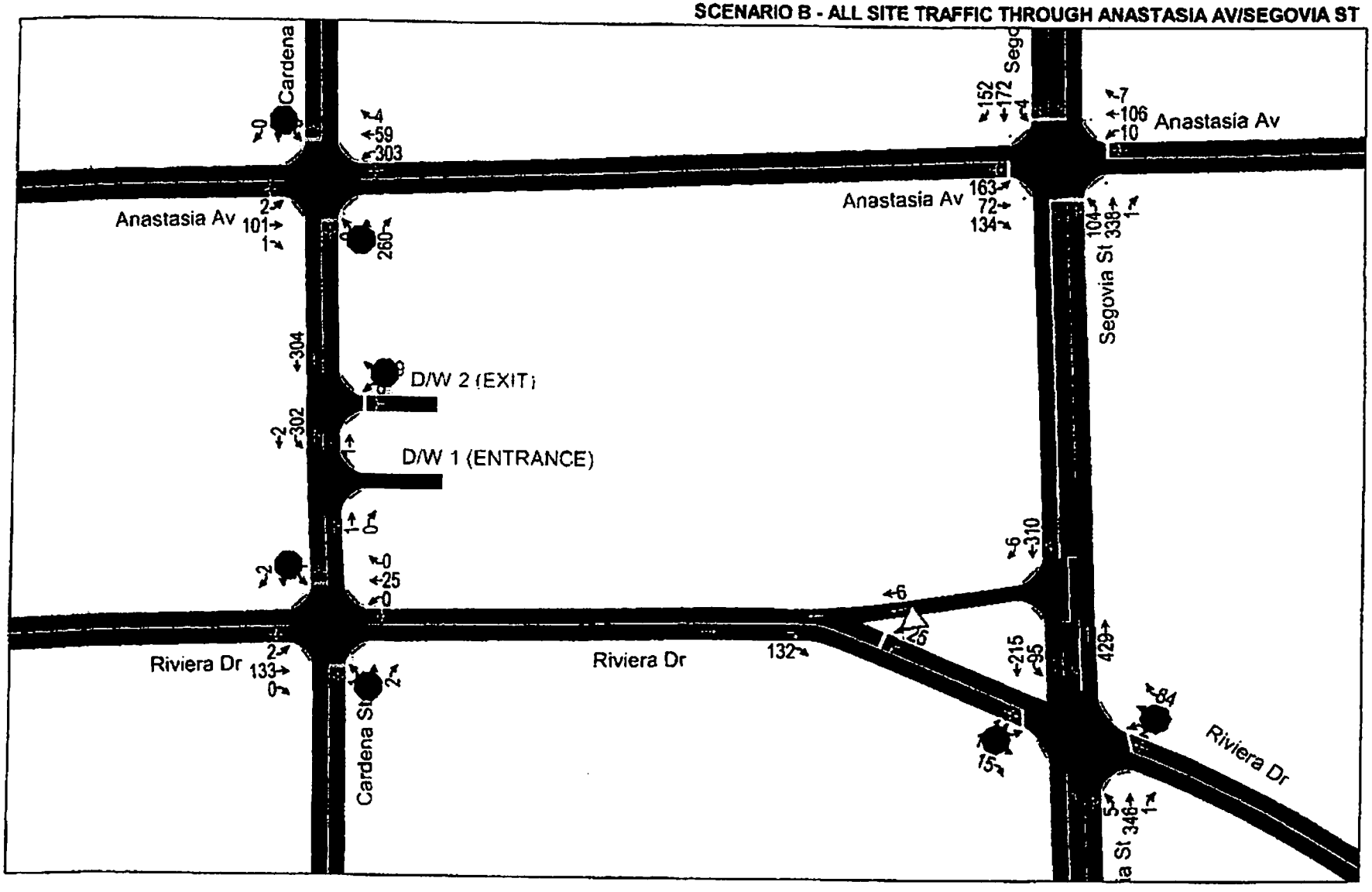
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	114	145	3	0	0	159
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	124	158	3	0	0	173
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	176	3			3	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	176	3			3	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	85	85			100	
cM capacity (veh/h)	814	1081			1619	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	282	3	173
Volume Left	124	0	0
Volume Right	158	0	0
cSH	944	1700	1700
Volume to Capacity	0.30	0.00	0.10
Queue Length 95th (ft)	31	0	0
Control Delay (s)	10.4	0.0	0.0
Lane LOS	B		
Approach Delay (s)	10.4	0.0	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	6.4		
Intersection Capacity Utilization	30.3%	ICU Level of Service	A
Analysis Period (min)	15		

Somerset UBC (PK-8)

PROPOSED AM PEAK HOUR VOLUMES
SCENARIO B - ALL SITE TRAFFIC THROUGH ANASTASIA AV/SEGOVIA ST



HCM Signalized Intersection Capacity Analysis PROPOSED AM PEAK HOUR VOLUMES

1: Anastasia Av & Segovia St

SCENARIO B - ALL SITE TRAFFIC THROUGH ANASTASIA AV/SEGOVIA ST

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	163	72	134	10	106	7	104	338	1	4	172	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.95			0.99		1.00	1.00		1.00	0.93	
Flt Protected		0.98			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1733			1841		1770	1862		1770	1732	
Flt Permitted		0.82			0.96		0.49	1.00		0.48	1.00	
Satd. Flow (perm)		1447			1770		921	1862		896	1732	
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	194	86	160	12	126	8	124	402	1	5	205	181
RTOR Reduction (vph)	0	35	0	0	4	0	0	0	0	0	54	0
Lane Group Flow (vph)	0	405	0	0	142	0	124	403	0	5	332	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		15.0			15.0		35.0	35.0		35.0	35.0	
Effective Green, g (s)		15.0			15.0		35.0	35.0		35.0	35.0	
Actuated g/C Ratio		0.25			0.25		0.59	0.59		0.59	0.59	
Clearance Time (s)		5.0			5.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		368			450		546	1105		532	1027	
v/s Ratio Prot								c0.22			0.19	
v/s Ratio Perm		c0.28			0.08		0.13			0.01		
v/c Ratio		1.10			0.32		0.23	0.36		0.01	0.32	
Uniform Delay, d1		22.0			17.8		5.6	6.2		4.9	6.0	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		76.7			0.4		1.0	0.9		0.0	0.8	
Delay (s)		98.7			18.2		6.6	7.2		4.9	6.9	
Level of Service		F			B		A	A		A	A	
Approach Delay (s)		98.7			18.2			7.0			6.9	
Approach LOS		F			B			A			A	

Intersection Summary

HCM Average Control Delay	34.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	59.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	62.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Queues

1: Anastasia Av & Segovia St

PROPOSED AM PEAK HOUR VOLUMES

SCENARIO B - ALL SITE TRAFFIC THROUGH ANASTASIA AV/SEGOVIA ST

Lane Group	EBT	WBT	NBL		SBL	
Lane Group Flow (vph)	440	146	124		5	
v/c Ratio	1.09	0.32	0.23	0.36	0.01	0.36
Control Delay	95.9	19.6	7.0	7.4	5.0	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	95.9	19.6	7.0	7.4	5.0	5.0
Queue Length 50th (ft)	~169	41	18	65	1	37
Queue Length 95th (ft)	#293	76	37	99	4	66
Internal Link Dist (ft)	451	565		235		252
Turn Bay Length (ft)			230		150	
Base Capacity (vph)	403	454	546	1105	532	1081
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.09	0.32	0.23	0.36	0.01	0.36

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Unsignalized Intersection Capacity Analysis PROPOSED AM PEAK HOUR VOLUMES

2: University Ct & Segovia St

SCENARIO B - ALL SITE TRAFFIC THROUGH ANASTASIA AV/SEGOVIA ST

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				↑	↑	
Volume (veh/h)	0	0	0	429	310	6
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	0	0	0	523	378	7
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage veh)				2	2	
Upstream signal (ft)					315	
pX, platoon unblocked						
vC, conflicting volume	905	382	385			
vC1, stage 1 conf vol	382					
vC2, stage 2 conf vol	523					
vCu, unblocked vol	905	382	385			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	512	666	1173			

Direction, Lane #	NB 1	SB 1
Volume Total	523	385
Volume Left	0	0
Volume Right	0	7
cSH	1700	1700
Volume to Capacity	0.31	0.23
Queue Length 95th (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS		
Approach Delay (s)	0.0	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	25.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis PROPOSED AM PEAK HOUR VOLUMES

3: Riviera Dr & Segovia St

SCENARIO B - ALL SITE TRAFFIC THROUGH ANASTASIA AV/SEGOVIA ST

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	14	103	15	2	20	84	5	346	1	95	215	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	16	120	17	2	23	98	6	402	1	110	250	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			TWLTL	
Median storage veh)											2	
Upstream signal (ft)											413	
pX, platoon unblocked												
vC, conflicting volume	994	886	250	963	885	403	250			403		
vC1, stage 1 conf vol	471	471		415	415							
vC2, stage 2 conf vol	523	415		548	471							
vCu, unblocked vol	994	886	250	963	885	403	250			403		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	95	70	98	99	95	85	100			90		
cM capacity (veh/h)	299	403	789	319	432	848	1316			1155		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	153	123	6	403	110	250
Volume Left	16	2	6	0	110	0
Volume Right	17	98	0	1	0	0
cSH	411	581	1316	1700	1155	1700
Volume to Capacity	0.37	0.21	0.00	0.24	0.10	0.15
Queue Length 95th (ft)	43	20	0	0	8	0
Control Delay (s)	18.9	12.8	7.7	0.0	8.4	0.0
Lane LOS	C	B	A		A	
Approach Delay (s)	18.9	12.8	0.1		2.6	
Approach LOS	C	B				

Intersection Summary			
Average Delay	5.2		
Intersection Capacity Utilization	47.3%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis PROPOSED AM PEAK HOUR VOLUMES

4: Anastasia Av & Cardena St

SCENARIO B - ALL SITE TRAFFIC THROUGH ANASTASIA AV/SEGOVIA ST

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	101	1	303	59	4	0	1	260	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	110	1	329	64	4	0	1	283	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					531							
pX, platoon unblocked												
vC, conflicting volume	68			111			840	842	110	1123	840	66
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	68			111			840	842	110	1123	840	66
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			78			100	100	70	100	100	100
cM capacity (veh/h)	1533			1479			236	234	943	106	234	997

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	113	398	284	0
Volume Left	2	329	0	0
Volume Right	1	4	283	0
cSH	1533	1479	932	1700
Volume to Capacity	0.00	0.22	0.30	0.00
Queue Length 95th (ft)	0	21	32	0
Control Delay (s)	0.2	7.1	10.5	0.0
Lane LOS	A	A	B	A
Approach Delay (s)	0.2	7.1	10.5	0.0
Approach LOS			B	A

Intersection Summary			
Average Delay	7.3		
Intersection Capacity Utilization	49.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis PROPOSED AM PEAK HOUR VOLUMES

5: Riviera Dr & Cardena St

SCENARIO B - ALL SITE TRAFFIC THROUGH ANASTASIA AV/SEGOVIA ST

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	133	0	0	25	0	1	1	2	1	0	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	2	149	0	0	28	0	1	1	2	1	0	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	28			149			184	182	149	185	182	28
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	28			149			184	182	149	185	182	28
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	1585			1432			774	711	897	772	711	1047

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	152	28	4	3
Volume Left	2	0	1	1
Volume Right	0	0	2	2
cSH	1585	1432	812	936
Volume to Capacity	0.00	0.00	0.01	0.00
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.1	0.0	9.5	8.9
Lane LOS	A		A	A
Approach Delay (s)	0.1	0.0	9.5	8.9
Approach LOS			A	A

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	18.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis PROPOSED AM PEAK HOUR VOLUMES

6: D/W 2 (EXIT) & Cardena St

SCENARIO B - ALL SITE TRAFFIC THROUGH ANASTASIA AV/SEGOVIA ST

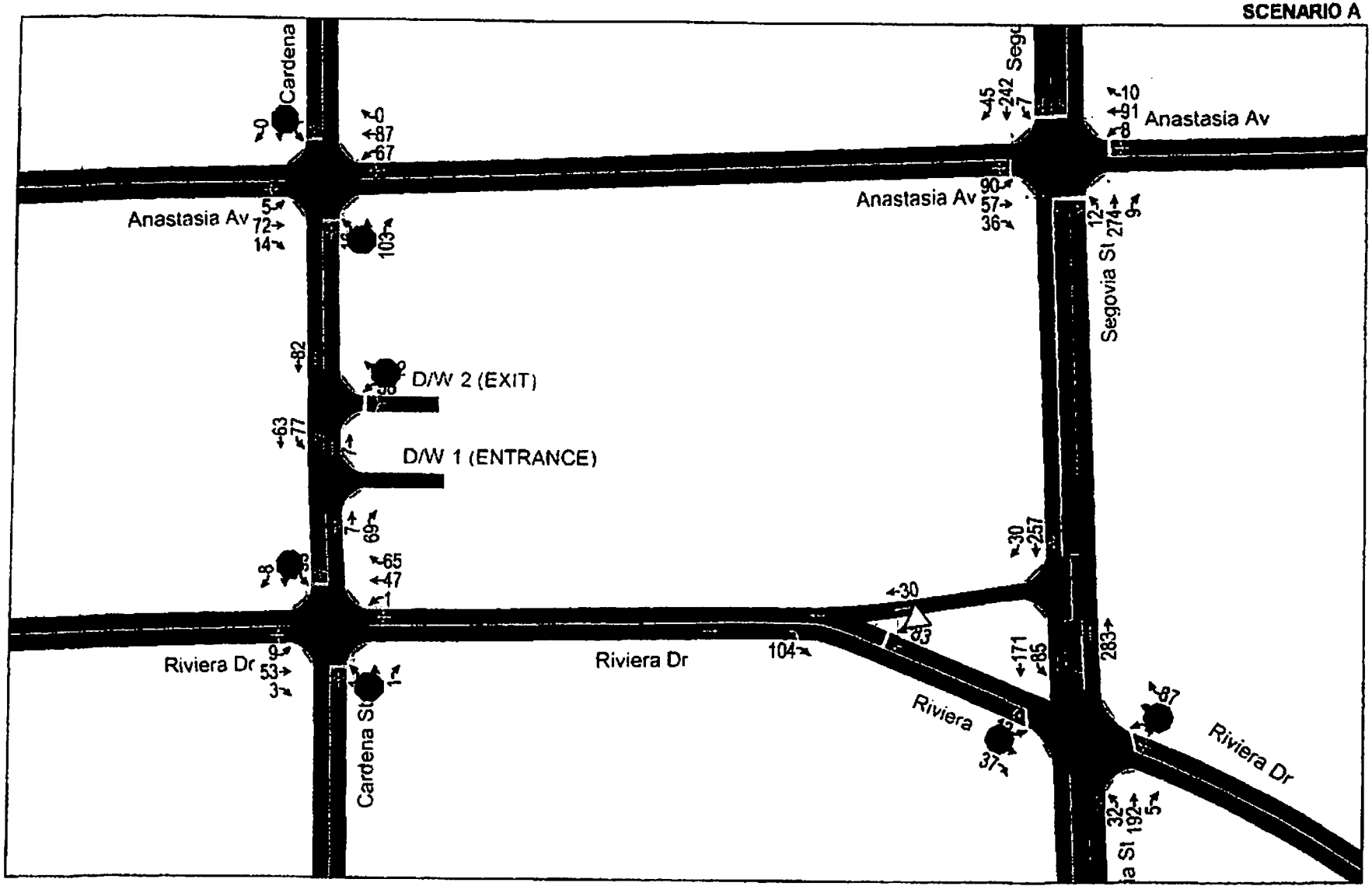
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	259	1	0	0	304
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	282	1	0	0	330
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	332	1			1	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	332	1			1	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	74			100	
cM capacity (veh/h)	663	1083			1622	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	282	1	330
Volume Left	0	0	0
Volume Right	282	0	0
cSH	1083	1700	1700
Volume to Capacity	0.26	0.00	0.19
Queue Length 95th (ft)	26	0	0
Control Delay (s)	9.5	0.0	0.0
Lane LOS	A		
Approach Delay (s)	9.5	0.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	4.4		A
Intersection Capacity Utilization	38.7%	ICU Level of Service	A
Analysis Period (min)	15		

Somerset UBC (PK-8)

PROPOSED PM PEAK HOUR VOLUMES
SCENARIO A



HCM Signalized Intersection Capacity Analysis PROPOSED PM PEAK HOUR VOLUMES
1: Anastasia Av & Segovia St SCENARIO A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	90	57	36	8	91	10	12	274	9	7	242	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.97			0.99		1.00	1.00		1.00	0.98	
Flt Protected		0.98			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1770			1832		1770	1854		1770	1819	
Flt Permitted		0.82			0.97		0.55	1.00		0.55	1.00	
Satd. Flow (perm)		1487			1791		1020	1854		1026	1819	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	105	66	42	9	106	12	14	319	10	8	281	52
RTOR Reduction (vph)	0	16	0	0	7	0	0	2	0	0	10	0
Lane Group Flow (vph)	0	197	0	0	120	0	14	327	0	8	323	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		12.2			12.2		37.8	37.8		37.8	37.8	
Effective Green, g (s)		12.2			12.2		37.8	37.8		37.8	37.8	
Actuated g/C Ratio		0.21			0.21		0.64	0.64		0.64	0.64	
Clearance Time (s)		5.0			5.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		307			370		653	1188		657	1165	
v/s Ratio Prot								0.18			c0.18	
v/s Ratio Perm		c0.13			0.07		0.01			0.01		
v/c Ratio		0.64			0.32		0.02	0.28		0.01	0.28	
Uniform Delay, d1		21.4			19.9		3.9	4.6		3.8	4.6	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		4.5			0.5		0.1	0.6		0.0	0.6	
Delay (s)		25.9			20.4		3.9	5.2		3.9	5.2	
Level of Service		C			C		A	A		A	A	
Approach Delay (s)		25.9			20.4			5.1			5.2	
Approach LOS		C			C			A			A	

Intersection Summary

HCM Average Control Delay	11.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	59.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	39.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Timings
1: Anastasia Av & Segovia St

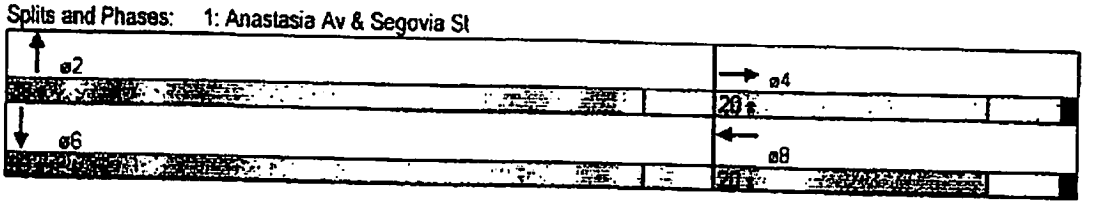
PROPOSED PM PEAK HOUR VOLUMES
SCENARIO A

Lane Group	EBL	EBT	WBL	WBT	NBL		SBL	
Lane Configurations								
Volume (vph)	90	57	8	91	12		7	
Turn Type	Perm		Perm		Perm		Perm	
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	21.0	20.5	20.5	20.5	20.5
Total Split (s)	20.0	20.0	20.0	20.0	39.0	39.0	39.0	39.0
Total Split (%)	33.9%	33.9%	33.9%	33.9%	66.1%	66.1%	66.1%	66.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	4.0	4.0	4.0	4.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	Min	Min	Min	Min	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		12.2		12.2	37.8	37.8	37.8	37.8
Actuated g/C Ratio		0.21		0.21	0.64	0.64	0.64	0.64
v/c Ratio		0.66		0.34	0.02	0.28	0.01	0.28
Control Delay		29.2		20.0	5.0	5.9	5.0	5.6
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		29.2		20.0	5.0	5.9	5.0	5.6
LOS		C		C	A	A	A	A
Approach Delay		29.2		20.0		5.9		5.5
Approach LOS		C		C		A		A

Intersection Summary

Cycle Length: 59
Actuated Cycle Length: 59
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 12.4 — Intersection LOS: B
Intersection Capacity Utilization 39.8% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: Anastasia Av & Segovia St



HCM Unsignalized Intersection Capacity Analysis PROPOSED PM PEAK HOUR VOLUMES
2: University Ct & Segovia St SCENARIO A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	0	0	283	257	30
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	0	0	0	337	306	36
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage veh)				2	2	
Upstream signal (ft)					315	
pX, platoon unblocked	0.95	0.95	0.95			
vC, conflicting volume	661	324	342			
vC1, stage 1 conf vol	324					
vC2, stage 2 conf vol	337					
vCu, unblocked vol	616	261	280			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	617	738	1218			

Direction, Lane #	NB 1	SB 1
Volume Total	337	342
Volume Left	0	0
Volume Right	0	36
cSH	1700	1700
Volume to Capacity	0.20	0.20
Queue Length 95th (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS		
Approach Delay (s)	0.0	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.0		A
Intersection Capacity Utilization	18.7%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis PROPOSED PM PEAK HOUR VOLUMES

3: Riviera Dr & Segovia St

SCENARIO A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	12	55	37	4	51	87	32	192	5	85	171	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	13	60	41	4	56	96	35	211	5	93	188	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			TWLTL	
Median storage veh)											2	
Upstream signal (ft)											413	
pX, platoon unblocked												
vC, conflicting volume	780	662	188	730	659	214	188			216		
vC1, stage 1 conf vol	375	375		284	284							
vC2, stage 2 conf vol	405	287		446	375							
vCu, unblocked vol	780	662	188	730	659	214	188			216		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	96	87	95	99	89	88	97			93		
cM capacity (veh/h)	369	483	854	409	491	826	1386			1353		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	114	156	35	216	93	188
Volume Left	13	4	35	0	93	0
Volume Right	41	96	0	5	0	0
cSH	548	649	1386	1700	1353	1700
Volume to Capacity	0.21	0.24	0.03	0.13	0.07	0.11
Queue Length 95th (ft)	19	23	2	0	6	0
Control Delay (s)	13.3	12.3	7.7	0.0	7.9	0.0
Lane LOS	B	B	A		A	
Approach Delay (s)	13.3	12.3	1.1		2.6	
Approach LOS	B	B				

Intersection Summary			
Average Delay	5.5		A
Intersection Capacity Utilization	36.3%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis PROPOSED PM PEAK HOUR VOLUMES

4: Anastasia Av & Cardena St

SCENARIO A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	72	14	67	87	0	16	1	103	1	1	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	6	88	17	82	106	0	20	1	126	1	1	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					531							
pX, platoon unblocked												
vC, conflicting volume	106			105			379	378	96	504	387	106
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	106			105			379	378	96	504	387	106
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			95			96	100	87	100	100	100
cM capacity (veh/h)	1485			1487			552	521	960	396	515	948

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	111	188	146	2
Volume Left	6	82	20	1
Volume Right	17	0	126	0
cSH	1485	1487	868	448
Volume to Capacity	0.00	0.05	0.17	0.01
Queue Length 95th (ft)	0	4	15	0
Control Delay (s)	0.4	3.5	10.0	13.1
Lane LOS	A	A	A	B
Approach Delay (s)	0.4	3.5	10.0	13.1
Approach LOS			A	B

Intersection Summary			
Average Delay	4.9		
Intersection Capacity Utilization	29.0%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis PROPOSED PM PEAK HOUR VOLUMES

5: Riviera Dr & Cardena St

SCENARIO A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	9	53	3	1	47	65	1	2	1	53	2	8
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	11	64	4	1	57	78	1	2	1	64	2	10
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	135			67			196	225	66	188	187	96
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	135			67			196	225	66	188	187	96
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	100	100	92	100	99
cM capacity (veh/h)	1449			1534			748	669	998	765	701	961

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	78	136	5	76
Volume Left	11	1	1	64
Volume Right	4	78	1	10
cSH	1449	1534	751	783
Volume to Capacity	0.01	0.00	0.01	0.10
Queue Length 95th (ft)	1	0	0	8
Control Delay (s)	1.1	0.1	9.8	10.1
Lane LOS	A	A	A	B
Approach Delay (s)	1.1	0.1	9.8	10.1
Approach LOS			A	B

Intersection Summary			
Average Delay	3.1		
Intersection Capacity Utilization	25.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis PROPOSED PM PEAK HOUR VOLUMES

6: D/W 2 (EXIT) & Cardena St

SCENARIO A

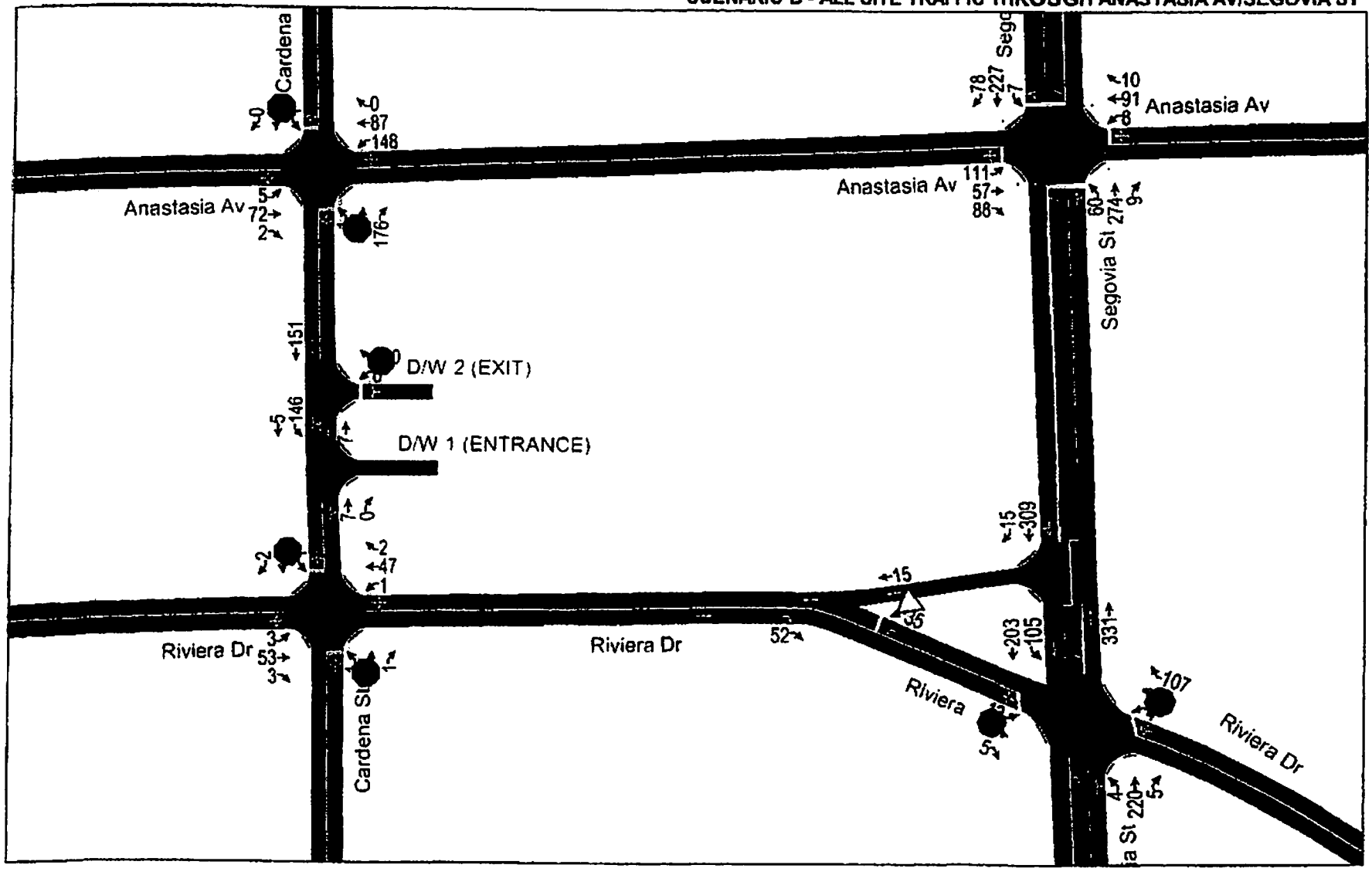
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	58	112	7	0	0	82
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	63	122	8	0	0	89
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	97	8			8	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	97	8			8	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	93	89			100	
cM capacity (veh/h)	903	1075			1613	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	185	8	89
Volume Left	63	0	0
Volume Right	122	0	0
cSH	1009	1700	1700
Volume to Capacity	0.18	0.00	0.05
Queue Length 95th (ft)	17	0	0
Control Delay (s)	9.4	0.0	0.0
Lane LOS	A		
Approach Delay (s)	9.4	0.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	6.1		
Intersection Capacity Utilization	21.1%	ICU Level of Service	A
Analysis Period (min)	15		

Somerset UBC (PK-8)

PROPOSED PM PEAK HOUR VOLUMES
SCENARIO B - ALL SITE TRAFFIC THROUGH ANASTASIA AV/SEGOVIA ST



HCM Signalized Intersection Capacity Analysis PROPOSED PM PEAK HOUR VOLUMES

1: Anastasia Av & Segovia St

SCENARIO B - ALL SITE TRAFFIC THROUGH ANASTASIA AV/SEGOVIA ST

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	111	57	88	8	91	10	60	274	9	7	227	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.95			0.99		1.00	1.00		1.00	0.96	
Flt Protected		0.98			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1739			1832		1770	1854		1770	1791	
Flt Permitted		0.84			0.97		0.53	1.00		0.55	1.00	
Satd. Flow (perm)		1484			1791		979	1854		1017	1791	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	129	66	102	9	106	12	70	319	10	8	264	91
RTOR Reduction (vph)	0	33	0	0	7	0	0	2	0	0	20	0
Lane Group Flow (vph)	0	264	0	0	120	0	70	327	0	8	335	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		13.5			13.5		36.5	36.5		36.5	36.5	
Effective Green, g (s)		13.5			13.5		36.5	36.5		36.5	36.5	
Actuated g/C Ratio		0.23			0.23		0.62	0.62		0.62	0.62	
Clearance Time (s)		5.0			5.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		340			410		606	1147		629	1108	
v/s Ratio Prot								0.18			c0.19	
v/s Ratio Perm		c0.18			0.07		0.07			0.01		
v/c Ratio		0.78			0.29		0.12	0.29		0.01	0.30	
Uniform Delay, d1		21.3			18.8		4.6	5.2		4.3	5.3	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		10.6			0.4		0.4	0.6		0.0	0.7	
Delay (s)		31.9			19.2		5.0	5.8		4.4	6.0	
Level of Service		C			B		A	A		A	A	
Approach Delay (s)		31.9			19.2			5.7			5.9	
Approach LOS		C			B			A			A	

Intersection Summary

HCM Average Control Delay	13.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	59.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	52.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Timings

1: Anastasia Av & Segovia St

PROPOSED PM PEAK HOUR VOLUMES

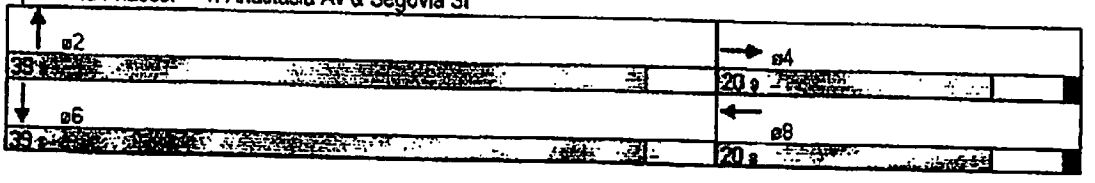
SCENARIO B - ALL SITE TRAFFIC THROUGH ANASTASIA AV/SEGOVIA ST

Lane Group	EBL	EBT	WBL	WBT	NBL		SBL	
Lane Configurations								
Volume (vph)	111	57	8	91	60		7	
Turn Type	Perm		Perm		Perm		Perm	
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	21.0	20.5	20.5	20.5	20.5
Total Split (s)	20.0	20.0	20.0	20.0	39.0	39.0	39.0	39.0
Total Split (%)	33.9%	33.9%	33.9%	33.9%	66.1%	66.1%	66.1%	66.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	4.0	4.0	4.0	4.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	Min	Min	Min	Min	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		13.5		13.5	36.5	36.5	36.5	36.5
Actuated g/C Ratio		0.23		0.23	0.62	0.62	0.62	0.62
v/c Ratio		0.80		0.31	0.12	0.29	0.01	0.31
Control Delay		35.9		18.9	5.8	6.4	5.0	5.8
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		35.9		18.9	5.8	6.4	5.0	5.8
LOS		D		B	A	A	A	A
Approach Delay		35.9		18.9		6.3		5.7
Approach LOS		D		B		A		A

Intersection Summary

Cycle Length: 59
Actuated Cycle Length: 59
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 14.9 — Intersection LOS: B
Intersection Capacity Utilization 52.0% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: Anastasia Av & Segovia St



HCM Unsignalized Intersection Capacity Analysis PROPOSED PM PEAK HOUR VOLUMES

2: University Ct & Segovia St

SCENARIO B - ALL SITE TRAFFIC THROUGH ANASTASIA AV/SEGOVIA ST

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	0	0	331	309	15
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	0	0	0	394	368	18
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage veh)				2	2	
Upstream signal (ft)					315	
pX, platoon unblocked	0.96	0.96	0.96			
vC, conflicting volume	771	377	386			
vC1, stage 1 conf vol	377					
vC2, stage 2 conf vol	394					
vCu, unblocked vol	737	325	334			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	569	685	1171			

Direction, Lane #	NB 1	SB 1
Volume Total	394	386
Volume Left	0	0
Volume Right	0	18
cSH	1700	1700
Volume to Capacity	0.23	0.23
Queue Length 95th (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS		
Approach Delay (s)	0.0	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.0	HCM LOS	A
Intersection Capacity Utilization	20.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis PROPOSED PM PEAK HOUR VOLUMES

3: Riviera Dr & Segovia St

SCENARIO B - ALL SITE TRAFFIC THROUGH ANASTASIA AV/SEGOVIA ST

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	12	35	5	4	31	107	4	220	5	105	203	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	13	38	5	4	34	118	4	242	5	115	223	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			TWLTL	
Median storage veh)											2	
Upstream signal (ft)											413	
pX, platoon unblocked												
vC, conflicting volume	839	710	223	732	707	245	223			247		
vC1, stage 1 conf vol	454	454		253	253							
vC2, stage 2 conf vol	385	256		479	454							
vCu, unblocked vol	839	710	223	732	707	245	223			247		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	96	92	99	99	93	85	100			91		
cM capacity (veh/h)	359	460	816	443	476	794	1346			1319		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	57	156	4	247	115	223
Volume Left	13	4	4	0	115	0
Volume Right	5	118	0	5	0	0
cSH	450	680	1346	1700	1319	1700
Volume to Capacity	0.13	0.23	0.00	0.15	0.09	0.13
Queue Length 95th (ft)	11	22	0	0	7	0
Control Delay (s)	14.2	11.9	7.7	0.0	8.0	0.0
Lane LOS	B	B	A		A	
Approach Delay (s)	14.2	11.9	0.1		2.7	
Approach LOS	B	B				

Intersection Summary				
Average Delay	4.5	[illegible] LOS	A	
Intersection Capacity Utilization	36.4%	ICU Level of Service	A	
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis PROPOSED PM PEAK HOUR VOLUMES

4: Anastasia Av & Cardena St

SCENARIO B - ALL SITE TRAFFIC THROUGH ANASTASIA AV/SEGOVIA ST

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	72	2	148	87	0	1	1	176	1	1	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	6	88	2	180	106	0	1	1	215	1	1	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					531							
pX, platoon unblocked												
vC, conflicting volume	106			90			569	568	89	784	570	106
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	106			90			569	568	89	784	570	106
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			88			100	100	78	99	100	100
cM capacity (veh/h)	1485			1505			391	379	969	219	378	948

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	96	287	217	2
Volume Left	6	180	1	1
Volume Right	2	0	215	0
cSH	1485	1505	953	277
Volume to Capacity	0.00	0.12	0.23	0.01
Queue Length 95th (ft)	0	10	22	1
Control Delay (s)	0.5	5.2	9.9	18.1
Lane LOS	A	A	A	C
Approach Delay (s)	0.5	5.2	9.9	18.1
Approach LOS			A	C

Intersection Summary			
Average Delay	6.2		A
Intersection Capacity Utilization	37.1%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis PROPOSED PM PEAK HOUR VOLUMES

5: Riviera Dr & Cardena St

SCENARIO B - ALL SITE TRAFFIC THROUGH ANASTASIA AV/SEGOVIA ST

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	53	3	1	47	2	1	2	1	1	2	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	4	64	4	1	57	2	1	2	1	1	2	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	59			67			137	134	66	136	135	58
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	59			67			137	134	66	136	135	58
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	1545			1534			828	754	998	831	754	1008

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	71	60	5	6
Volume Left	4	1	1	1
Volume Right	4	2	1	2
cSH	1545	1534	823	856
Volume to Capacity	0.00	0.00	0.01	0.01
Queue Length 95th (ft)	0	0	0	1
Control Delay (s)	0.4	0.2	9.4	9.2
Lane LOS	A	A	A	A
Approach Delay (s)	0.4	0.2	9.4	9.2
Approach LOS			A	A

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	14.5%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis PROPOSED PM PEAK HOUR VOLUMES

6: D/W 2 (EXIT) & Cardena St SCENARIO B - ALL SITE TRAFFIC THROUGH ANASTASIA AV/SEGOVIA ST

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	170	7	0	0	151
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	185	8	0	0	164
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	172	8			8	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	172	8			8	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	83			100	
cM capacity (veh/h)	818	1075			1613	

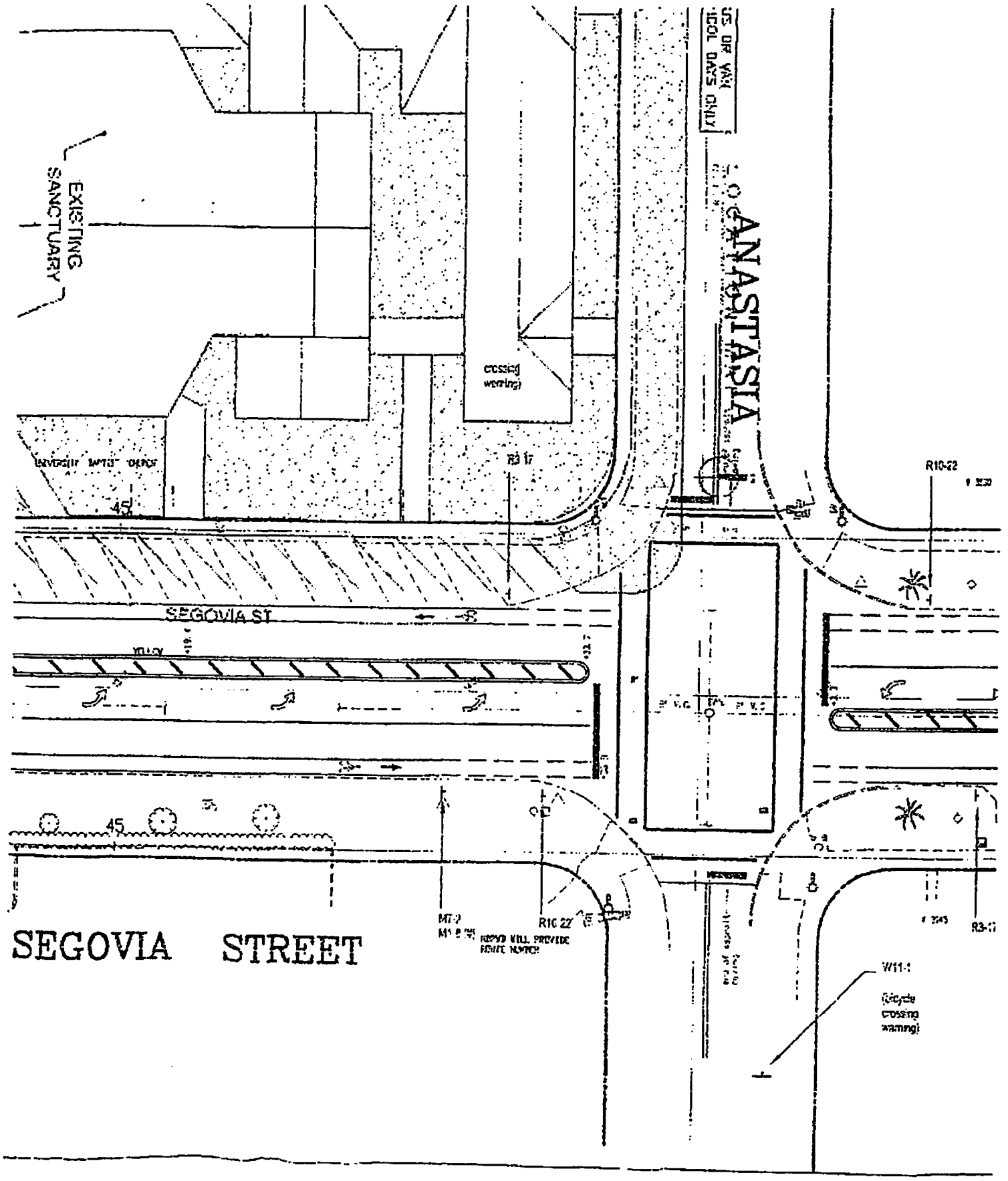
Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	185	8	164
Volume Left	0	0	0
Volume Right	185	0	0
cSH	1075	1700	1700
Volume to Capacity	0.17	0.00	0.10
Queue Length 95th (ft)	15	0	0
Control Delay (s)	9.0	0.0	0.0
Lane LOS	A		
Approach Delay (s)	9.0	0.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	4.7		
Intersection Capacity Utilization	25.1%	ICU Level of Service	A
Analysis Period (min)	15		

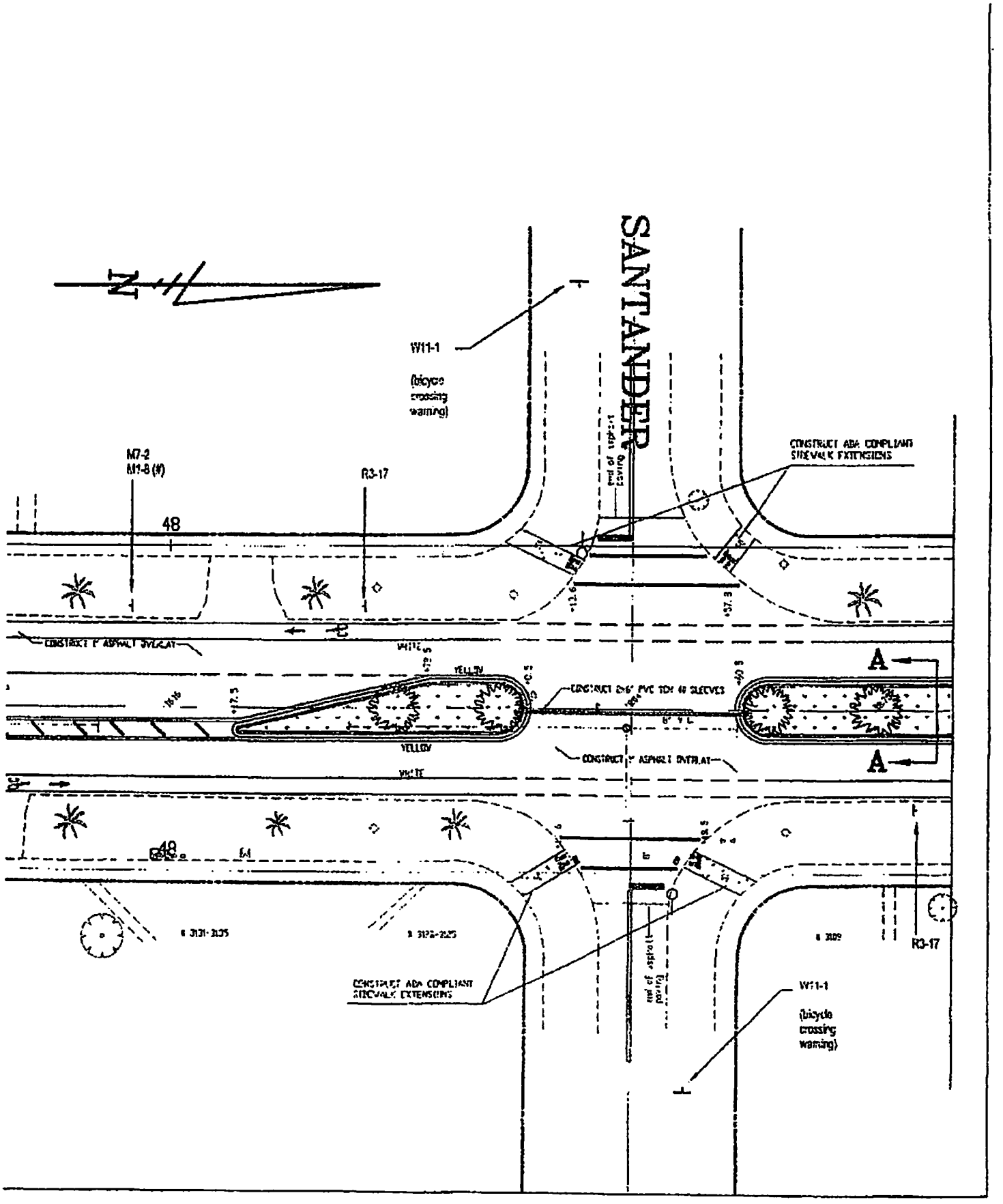
Appendix G: Roadway Improvement Plans

Option 1: w/ Landscape @ UBC (Recommended)

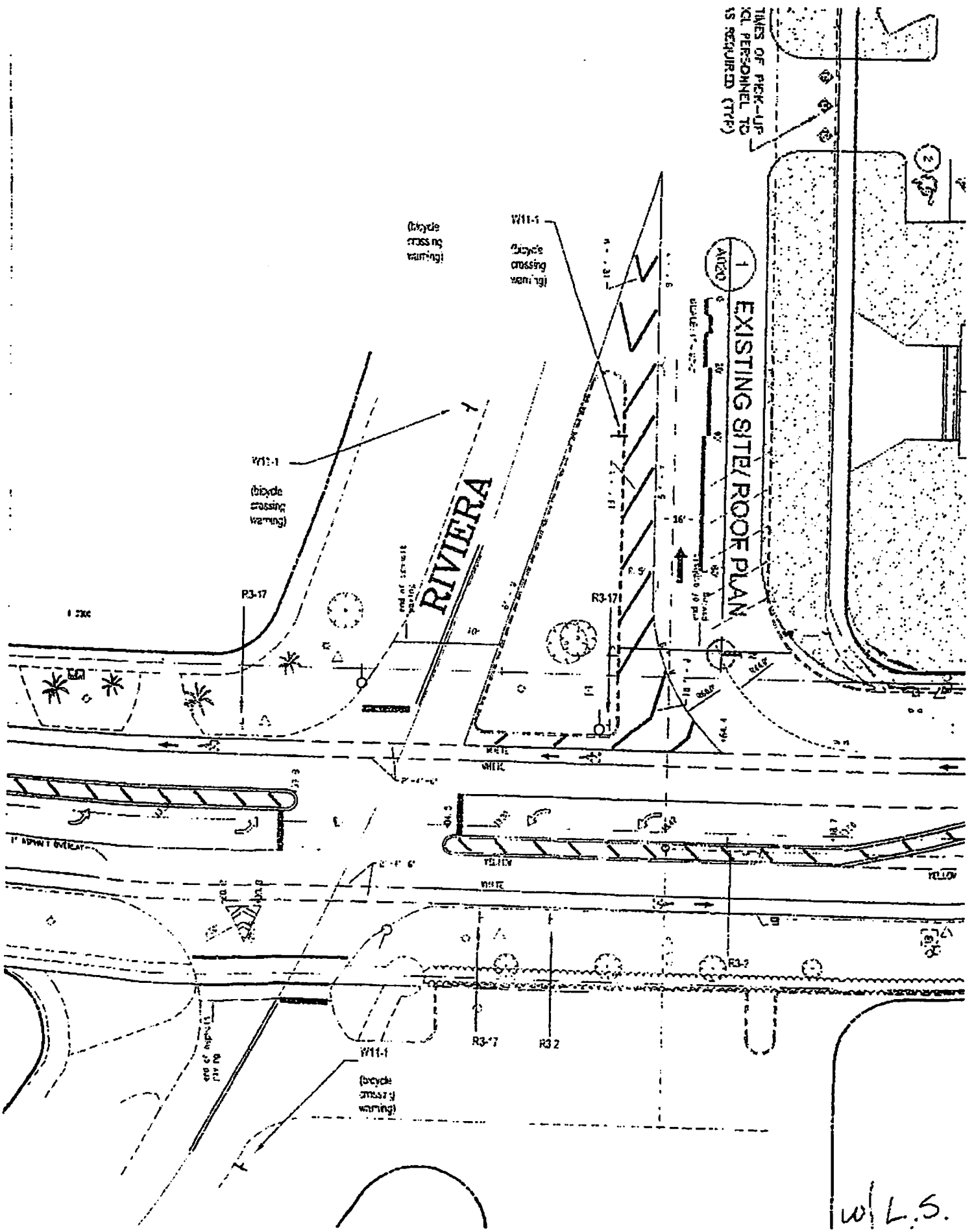
Option 2: w/o Landscape @ UBC


EXISTING SANCTUARY
ANASTASIA
crossing warning)
R3 17
R10-22
SEGOVIA ST
45
SEGOVIA STREET
M7-2
R10 22
W11-1
(bicycle crossing warning)

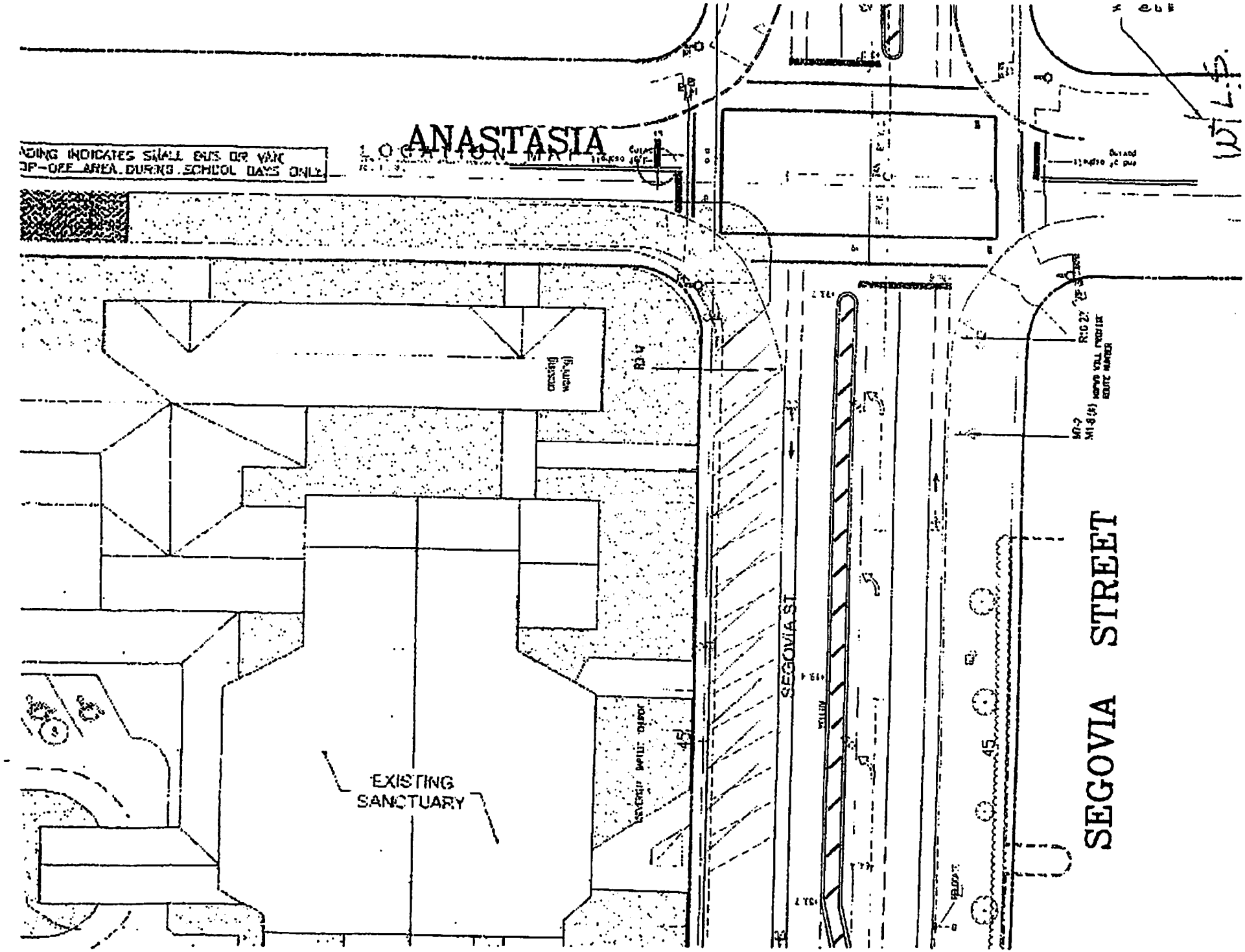
OPTION 1: w/ L.S.

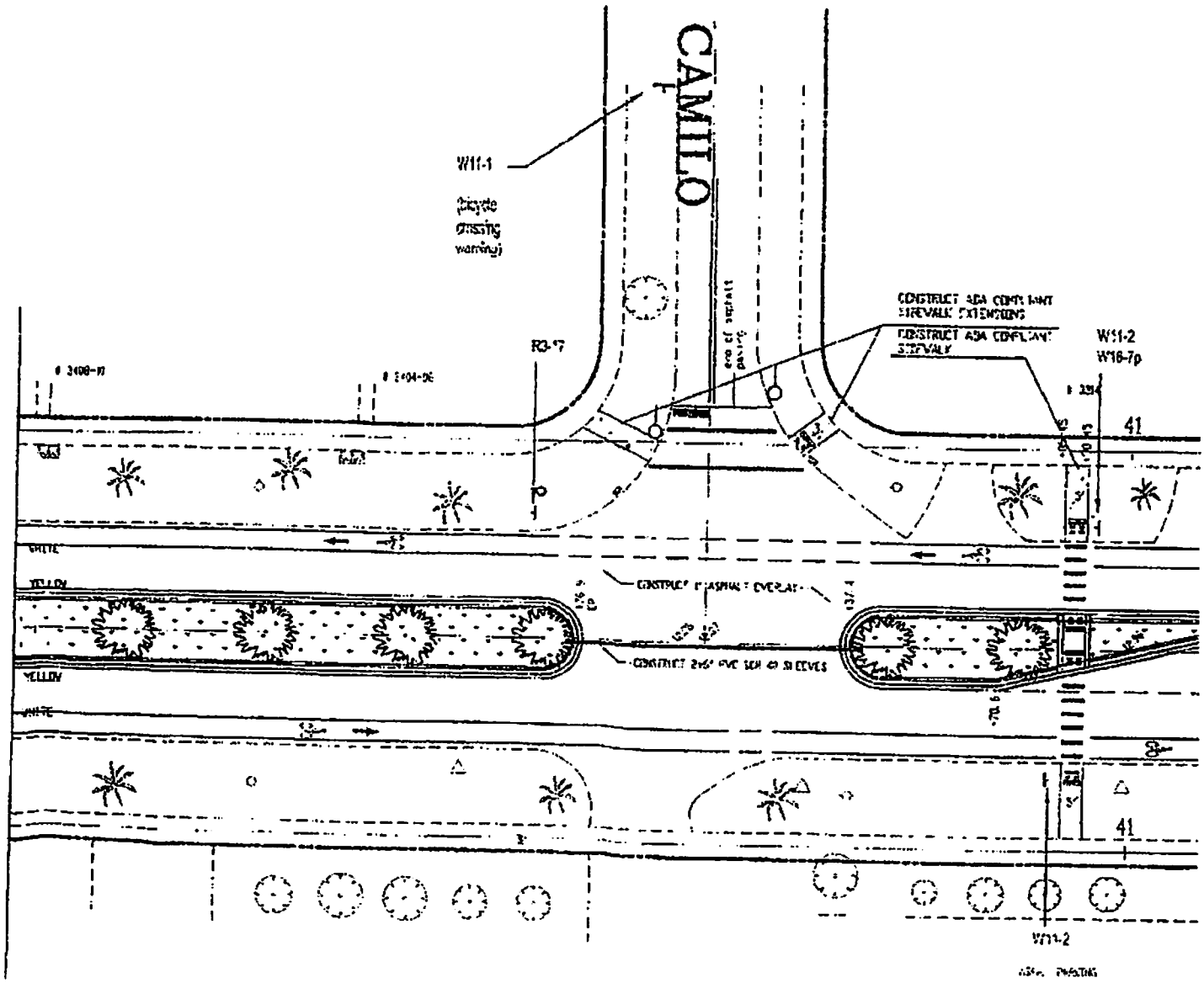

SANTANDER
W11-1
(bicycle crossing warning)
M7-2
M1-8 (#)
R3-17
48
CONSTRUCT ADA COMPLIANT SIDEWALK EXTENSIONS
CONSTRUCT 1" ASPHALT OVERLAY
WHITE
YELLOW
A
A
CONSTRUCT ADA COMPLIANT SIDEWALK EXTENSIONS
W11-1
(bicycle crossing warning)
R3-17

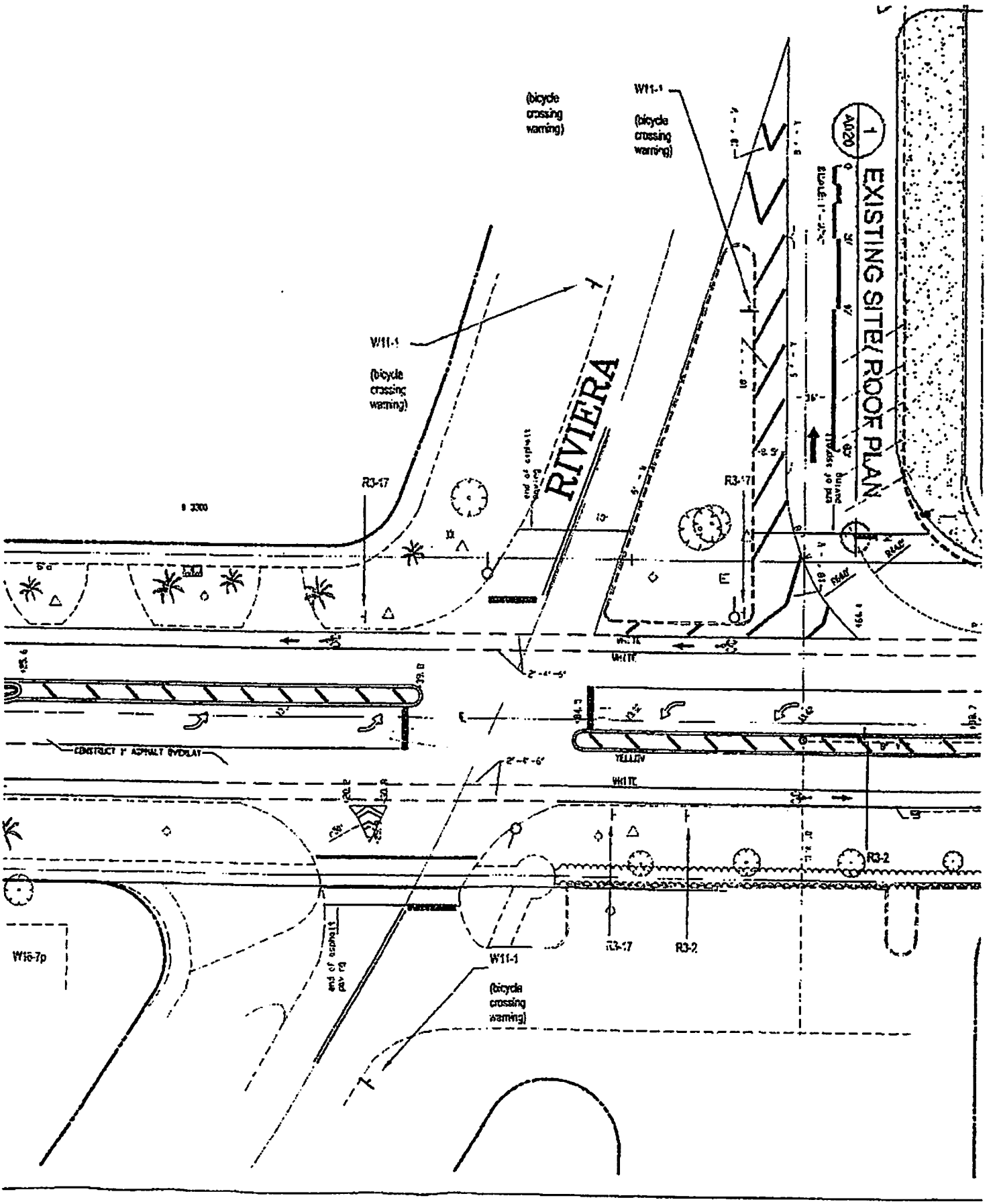
[illegible] 1 · w/ L.S.


EXISTING SITE/ROOF PLAN
RIVIERA
W11-1
(bicycle crossing warning)
R3-17
R3-17
R3-2
TIMES OF PICK-UP
KL PERSONNEL TO
IS REQUIRED (TYP)
WHITE
YELLOW

w/ L.S.

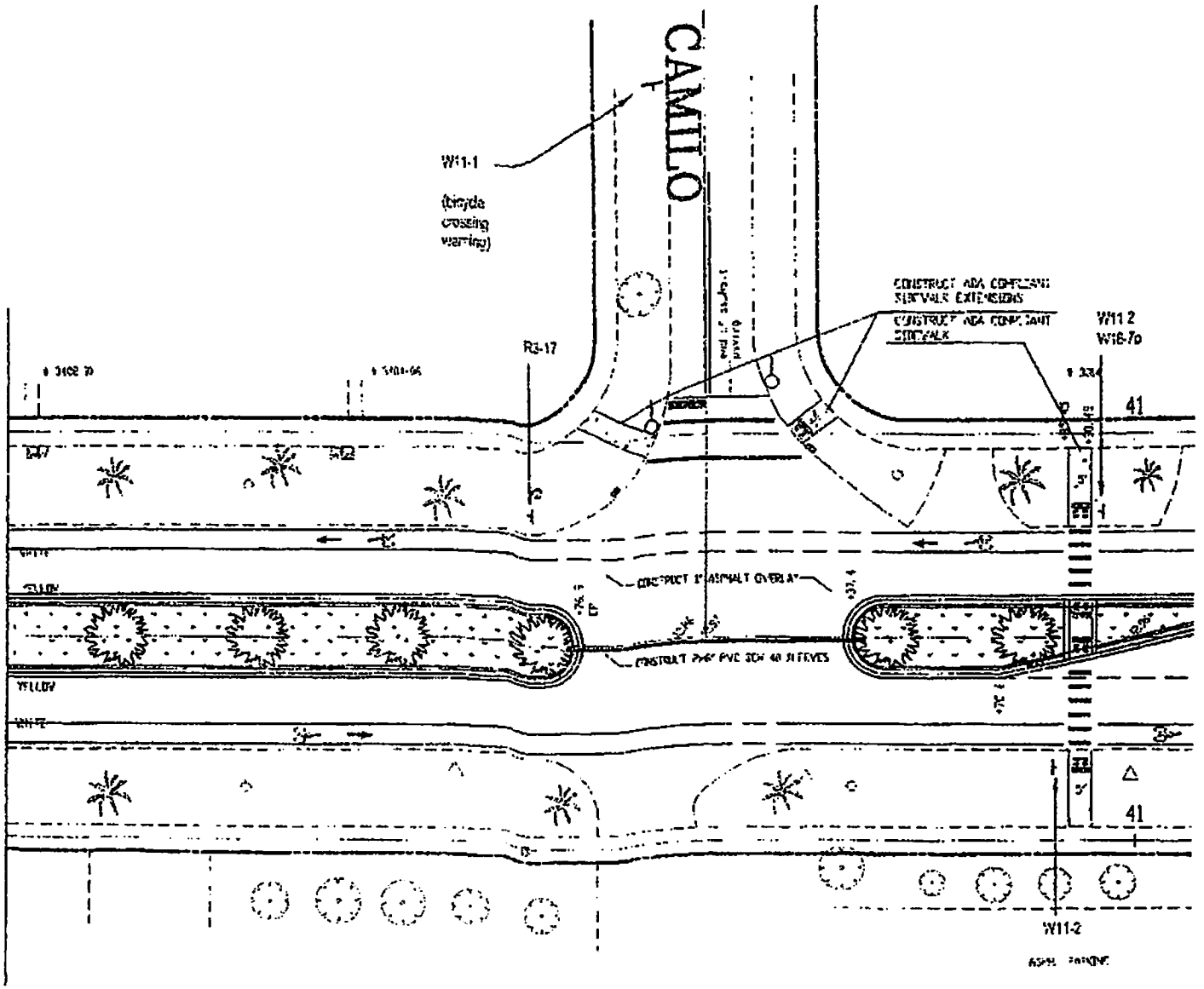

ANASTASIA
LOCATION MAP
ADING INDICATES SMALL BUS OR VAN
OP-OFF AREA DURING SCHOOL DAYS ONLY
crossing warning
EXISTING SANCTUARY
SEGOVIA ST
SEGOVIA STREET
45
WTLS


CAMILO
W11-1
(bicycle crossing warning)
R3-17
CONSTRUCT ADA COMPLIANT SIDEWALK EXTENSIONS
CONSTRUCT ADA COMPLIANT SIDEWALK
W11-2
W16-7p
41
WHITE
YELLOW
YELLOW
WHITE
41
W11-2

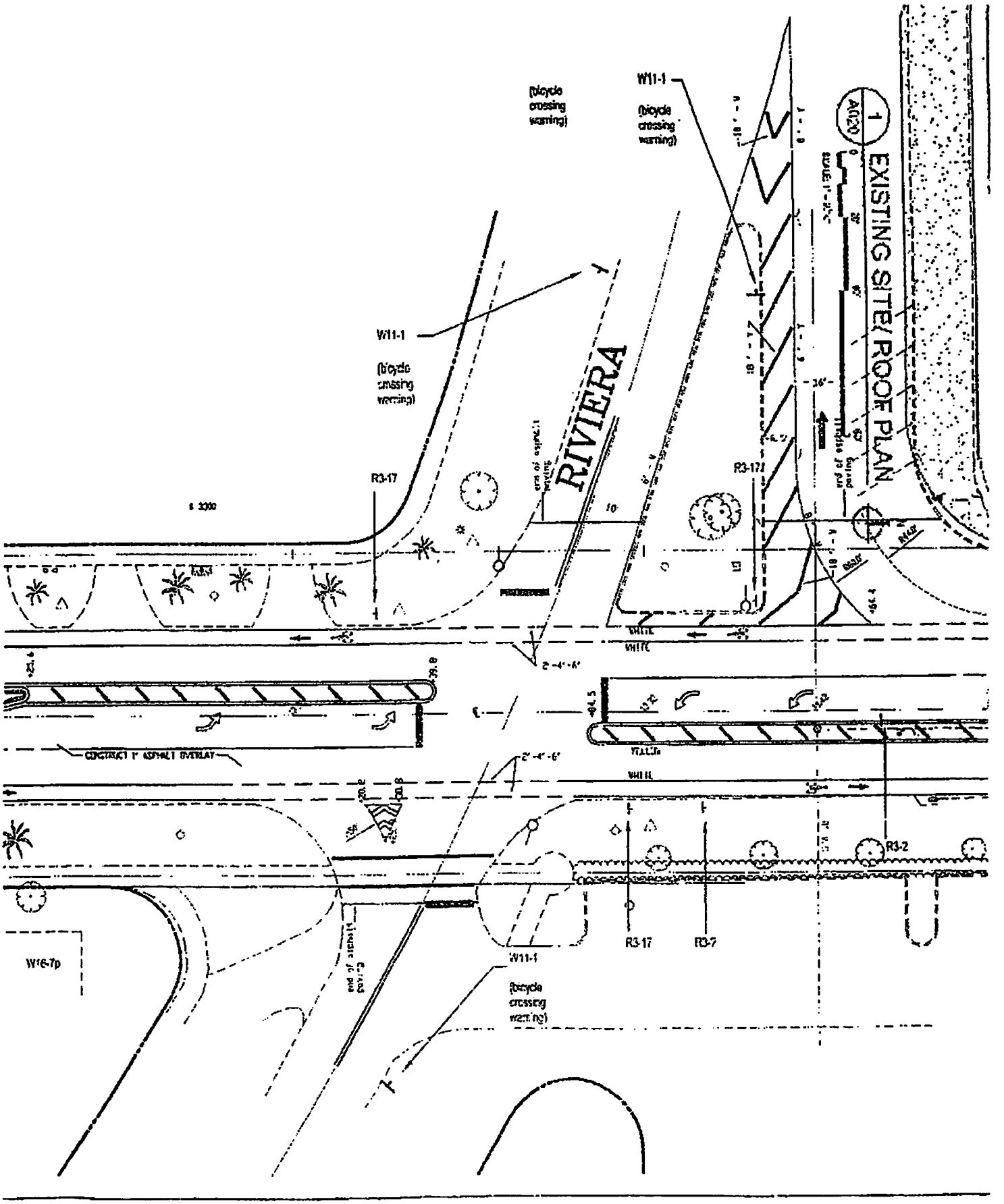


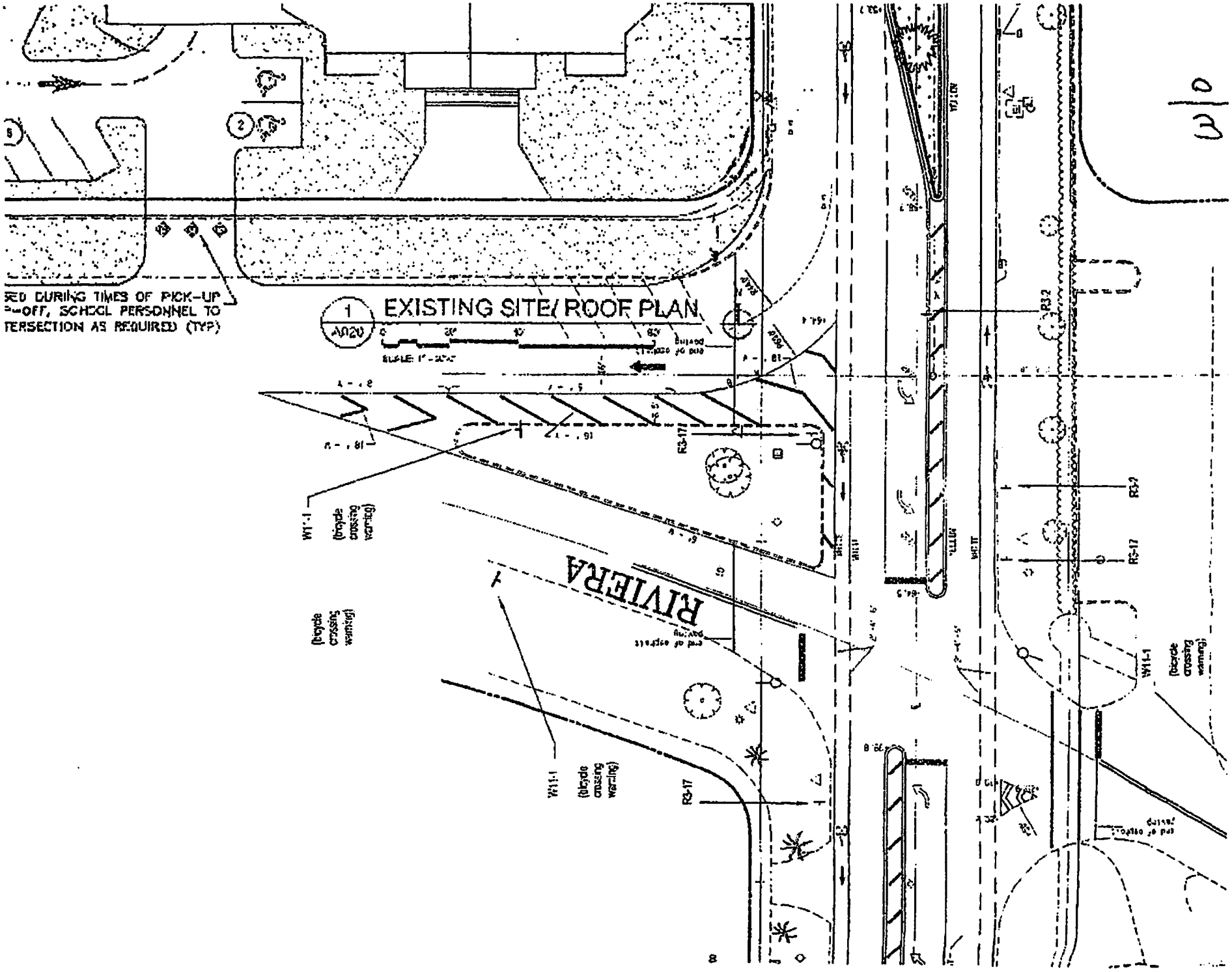
EXISTING SITE/ ROOF PLAN
RIVIERA
W11-1
(bicycle crossing warning)
R3-17
R3-2
W16-7p
CONSTRUCT 1" ASPHALT OVERLAY
WHITE
YELLOW
end of asphalt paving

w/ L.S.

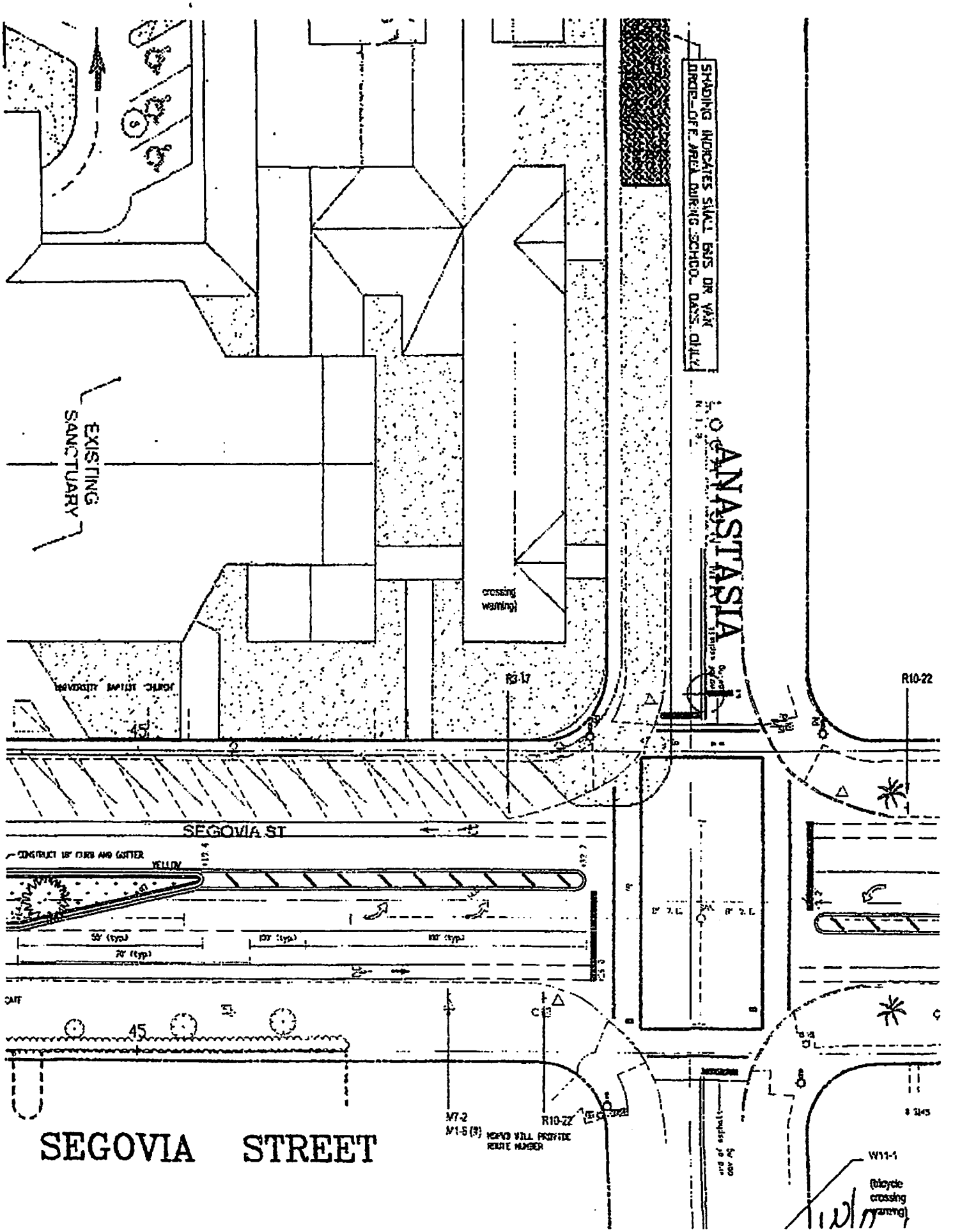

CAMILO
W11-1
(bicycle crossing warning)
R3-17
W11 2
W16-7p
41
41
W11-2

Option 2: w/o

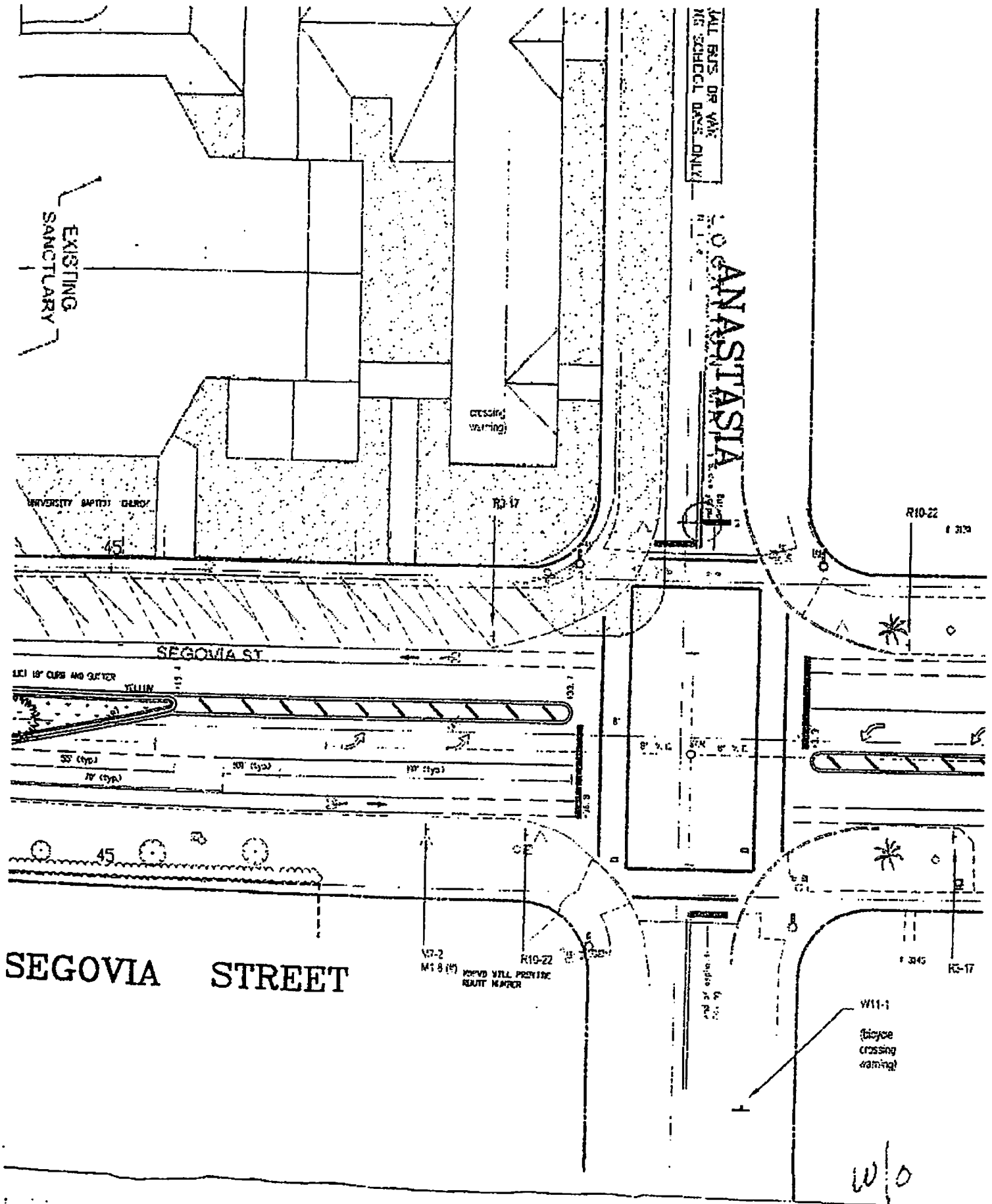

EXISTING SITE/ROOF PLAN
RIVIERA
W11-1
(bicycle crossing warning)
R3-17
R3-17
R3-2
R3-7
W16-7p
CONSTRUCT 1" ASPHALT OVERLAY



SED DURING TIMES OF PICK-UP
-OFF, SCHOOL PERSONNEL TO
TERSECTION AS REQUIRED (TYP)
1
A020
EXISTING SITE/ ROOF PLAN
RIVIERA
W11-1
(bicycle crossing warning)
R3-17
R3-2

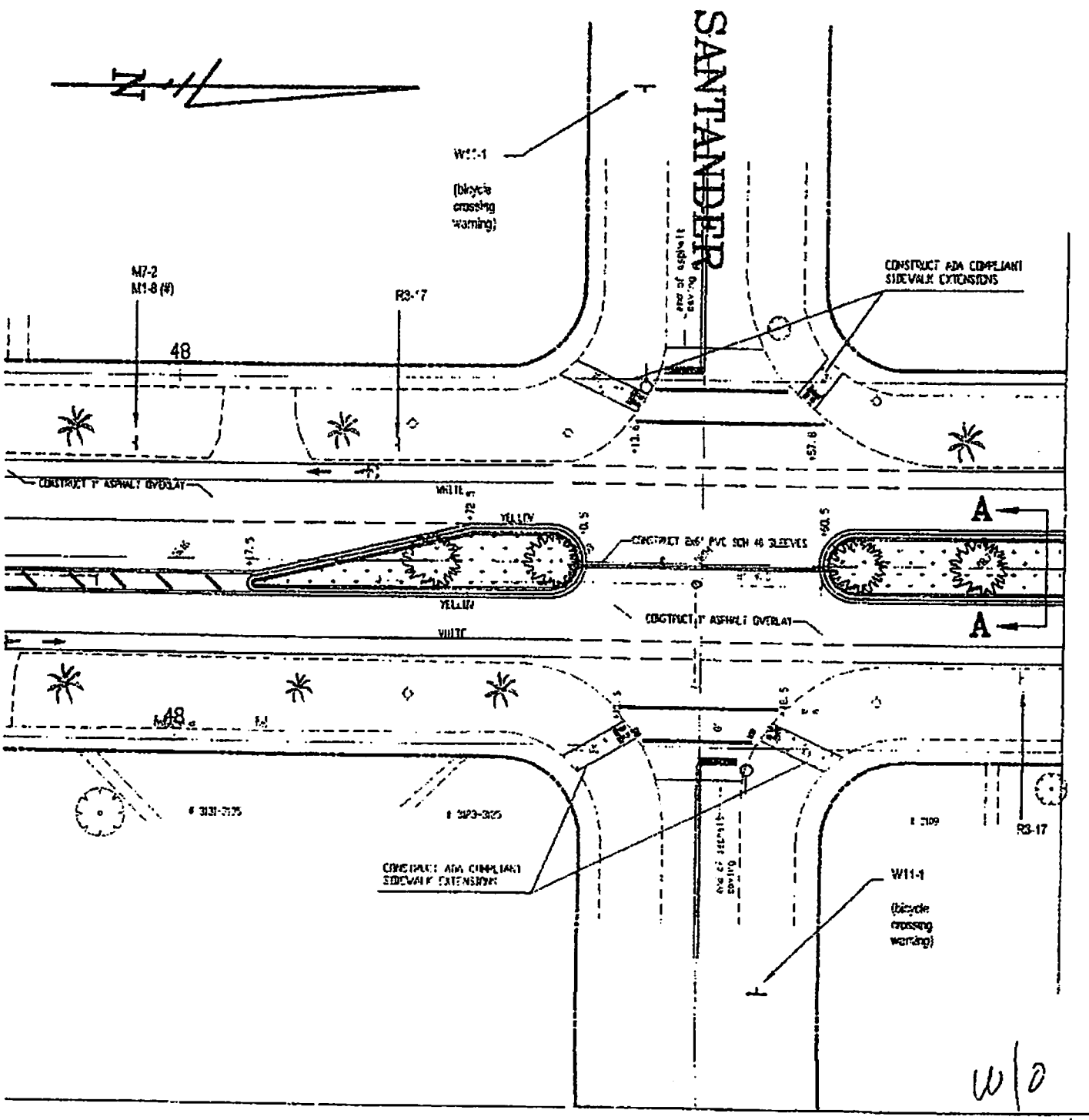


SHADING INDICATES SMALL BUS OR VAN
DROP-OFF AREA DURING SCHOOL DAYS ONLY
ANASTASIA
EXISTING SANCTUARY
crossing warning)
R3-17
R10-22
45
SEGOVIA ST
CONSTRUCT 18" CURB AND GUTTER
YELLOW
50' (typ)
70' (typ)
100' (typ)
110' (typ)
45
M7-2
M1-5 (#)
R10-22
NCPWD WILL PROVIDE ROUTE NUMBER
W11-1
(bicycle crossing warning)
SEGOVIA STREET


EXISTING SANCTLARY
ANASTASIA
crossing warning)
UNIVERSITY BAPTIST CHURCH
45
R3-17
R10-22
SEGOVIA ST
YELLOW
55' (typ)
70' (typ)
45
SEGOVIA STREET
M7-2
M1-8 (8)
R10-22
R3-17
W11-1
(bicycle crossing warning)

W/O

5/6


SANTANDER
W11-1
(bicycle crossing warning)
M7-2
M1-8 (#)
R3-17
48
CONSTRUCT ADA COMPLIANT SIDEWALK EXTENSIONS
CONSTRUCT 1" ASPHALT OVERLAY
WHITE
YELLOW
CONSTRUCT 2x6" PVC SCH 40 SLEEVES
A
A
CONSTRUCT 1" ASPHALT OVERLAY
WHITE
48
CONSTRUCT ADA COMPLIANT SIDEWALK EXTENSIONS
R3-17
W11-1
(bicycle crossing warning)

W|D

6/6