Preliminary Engineering Report

For

Rolling Acres Road

GMB Project # 06-212.08

Prepared by:

GMB Engineers & Planners 2602 East Livingston Street Orlando, FL 32803

With Environmental Assessment Completed By:

Glatting Jackson Kercher Anglin 120 North Orange Avenue Orlando, FL 32801

September 2009

TABLE OF CONTENTS

	PAGE
1.0 INTRODUCTION	1
1.1 Purpose	1
1.2 Project Description	1
2.0 PROJECT NEED	4
2.1 Need for Improvement	4
2.2 Capacity	4
3.0 EXISTING CONDITIONS	5
3.1 Existing Roadway Characteristics	
3.1.1 Functional Classification	5
3.1.2 Typical Sections	5
3.1.3 Pedestrian and Bicycle Facilities	5
3.1.4 Right-of-way and Easements	6
3.1.5 Horizontal Alignment	6
3.1.6 Vertical Alignment	6
3.1.7 Drainage	6
3.1.7.1 Basins	8
3.1.7.2 Structures	9
3.1.8 Geotechnical Data	9
3.1.9 Accident Data	9
3.1.10 Intersections and Signalization	12
3.1.11 Lighting	12
3.1.12 Utilities	12
3.1.13 Pavement Conditions	13

4.1 Existing Conditions	14
4.1.1 Traffic Counts	14
4.1.2 Roadway Characteristics	15
4.1.3 Base Year Traffic Volumes	15
4.1.4 Existing Level of Service	19
4.1.5 Existing Intersection Conditions	19
4.1.6 Environmental Considerations	22
4.1.7 Multi-modal Considerations	22
4.2 Development of Future Traffic Conditions	22
4.2.1 Model Evaluation	22
4.2.2 Growth Rate Information	23
4.2.3 Design Year Forecast	25
4.3 Future Conditions – No Build	27
4.3.1 Roadway Analysis	27
4.3.2 Intersection Analysis	28
5.0 PROPOSED IMPROVEMENT AND DESIGN CRITERIA	30
5.1 Roadway Improvements	30
5.1.2 Four Lane Section	30
5.1.2 Access Management	30
5.1.3 Corridor Analysis	31
5.2 Typical Sections	32
5.2.1 Typical Section Alternatives	32

5.2.1 Typical Section Alternatives	52
5.3 Design Controls	36
5.4 Florida Intrastate Highway System	36
5.5 Geometric Design Criteria	36
5.6 Drainage Design Criteria	39

6.0 FUTURE ANALYSIS – WITH PROPOSED CHANGES	41
6.1 Future Analysis – With Proposed Changes	41
6.1.1 Roadway Analysis	41
6.1.2 Intersection Analysis – YR 2030	41
7.0 ALTERNATIVE ANALYSIS	44
7.1 School Alternative Access Analysis	44
8.0 PRELIMINARY DESIGN ANALYSIS	45
8.1 Alignment and Right-of-Way Needs	45
8.2 Relocations	45
8.3 Construction Costs	45
8.4 Recycling Salvage Materials	46
8.5 User Benefits	46
8.6 Pedestrian Facilities	46
8.7 Safety	46
8.8 Environmental Impacts	46
8.9 Public Notification and Involvement	47

LIST OF FIGURES, EXHIBITS AND TABLES

FIGURES

PAGE

1	Site Location Map	3
2	Right of Way Map	7
3	Existing Geometry	17
4	Existing PM Peak Hour Traffic Volumes	18
5	Existing PM Peak Hour Intersection LOS	21
6	Forecasted Traffic Volume Projection	26
7	Future "no-build" PM Peak Hour Intersection LOS	29
8	Typical Section Alternative A	34
9	Typical Section Alternative B	35
10	Future w/proposed changes PM Peak Hour Intersection LOS	43

TABLES

3-1	High Crash Locations – Rolling Acres Road Intersections	10
3-2	Crash Types for High Crash Locations	11
4-1	Count Locations	15
4-2	YR 2009 Existing Traffic Counts	15
4-3	YR 2009 Roadway Capacity Analysis	19
4-4	Growth Rate Derivation	24
4-5	Forecasted Future Volume Projections	25
4-6	YR 2030 Roadway Capacity Analysis	28
5-1	Roadway Design Criteria	37
5-2	Stormwater Design Criteria	39
6-1	YR 2030 Roadway Capacity Analysis	41

APPENDIX

А	Collision Summary Sheets
В	Traffic Count Data
С	HCS Summary Sheets
D	Central Florida Regional Planning Model (CFRPMV410)
E	Growth Rate Information
F	Roadway Plans
G	Cost Estimate
Н	Town of Lady Lake Land Development Regulations
Ι	US 27/441 Intersection Alternative Analysis
J	Environmental Analysis
Κ	Public Notification Notice
L	Citizen Comments/Hand Outs

1.0 INTRODUCTION

This Preliminary Engineering Report has been prepared following the guidelines established with the Town of Lady Lake, Lake County, and the Lake-Sumter Metropolitan Planning Organization. The scope of work was developed to comply with the general guidelines outlined in the Florida Department of Transportation's (FDOT) Project Development and Environment (PD&E) Manual.

1.1 PURPOSE

The purpose of this report is to evaluate the corridor needs and document the preliminary design options associated with the Rolling Acres Road. Rolling Acres Road is located in the Town of Lady Lake, Florida. The portion of the roadway being analyzed extends from 1,000 feet north of US 27/441 to 300 feet south of CR 466. The project site is generally depicted graphically in Figure 1. The report presents the evaluation necessary to determine the project need, document existing conditions within the study area, describe the evaluation of project improvements alternatives, and recommend a preferred design concept.

1.2 PROJECT DESCRIPTION

This PD&E Study is a comprehensive evaluation of the transportation needs of Rolling Acres Road from US 27/441 to CR 466 in the Town of Lady Lake, Florida. The length of the analyzed segment is approximately 1.26 miles.

Rolling Acres Road has a north-south orientation. The current configuration of the roadway is a two-lane roadway with no median. Left turn lanes exist at the intersections of US 27/441, Duck Lane Road, Oak Street, CR 466, and the school entrances. The roadway between US 27/441 and CR 466 currently operates under free-flow conditions as there are no traffic signals within the study corridor. However, along the roadway there is an elementary school, a shopping center on the north end, sports fields, several residential developments, and office/warehouse space. Each of these active uses produce significant turning movements at various times of the day.

These movements do add to the delay experience in the corridor. In addition to the existing developments near the project corridor the area also has a potential for additional growth in development which would generate more traffic along the corridor.



GMB Engineers & Planners, Inc. 2602 East Livingston Street Orlando, Florida 32803 Rolling Acres Road Preliminary Engineering Study

Figure 1 Site Location Map

2.0 PROJECT NEED

Rolling Acres Road is classified as a major city/county roadway by the Town of Lady Lake and Lake County. The road provides a local connection between CR 466 and US 27/441. The roadway also serves as the primary connection from the elementary school and the local businesses to the surrounding residential areas.

2.1 NEED FOR IMPROVEMENT

Rolling Acres Road provides an important connection between CR 466 and US 27/441. The road also has the potential to alleviate congestion at the intersection of US 27/441 and CR 466 by providing an alternate parallel route to US 27/441. Rolling Acres Road is the primary and only access point to Lady Lake Elementary School. To the south, CR 466 is currently being widened between the Sumter County Line and US 27/441 from two-lanes to four lanes.

2.2 CAPACITY

The expected transportation demand for Rolling Acres Road is described in more detail as part of the traffic analysis in the existing conditions analysis. The analysis of the corridor includes a review of historical growth trends in traffic volumes within the study area. The study evaluations indicate that traffic volumes have shown a significant growth over the last several years due to area development. Traffic volumes have grown from an Annual Average Daily Traffic (AADT) of just under 6,000 in 2004 to an AADT of over 11,000 in the year 2008. The traffic volume increase represents an annual growth rate of approximately 19% per year. The growth rate is significantly higher than the area-wide growth rate percentages. This is intuitively a result of the increased development activity along the corridor combined with the widening of CR 466 in Sumter County.

The following section provides a description on existing conditions for the segments of Rolling Acres Road within the study area. This section is divided into existing roadway characteristics.

3.1 EXISTING ROADWAY CHARACTERISTICS

3.1.1 Functional Classification

According to the American Association of State Highway and Transportation Officials (AASHTO) publications: <u>A Policy on Geometric Design of Highways</u> <u>and Streets</u>, functional classification is the grouping of streets and highways according to the character of service they intend to provide. The functional classification system is divided based on an urban or rural setting and has the general categories of principal arterials, minor arterials, collectors (subdivided into major and minor for rural settings), and local roads/streets. Rolling Acres Road has a roadway functional classification of collector.

3.1.2 Typical Sections

The existing Rolling Acres Road roadway consists of a two lane roadway having a posted speed limit of 35 mph. The existing typical section consists of two 12-ft. wide lanes, one in each direction. The roadway also has 12-ft. left turn lanes at the intersections of CR 466, Oak Street, Duck Lake Road, and at shopping center entrances near US 27/441. At the intersection with US 27/441 there are also dual 12-ft. left turn lanes in the northbound direction.

3.1.3 Pedestrian and Bicycle Facilities

Currently there are sidewalks but no bicycle lanes provided on Rolling Acres Road within the study area.

3.1.4 Right-of-way and Easements

The appropriate research was conducted in order to determine the right of way availability. Information was obtained from the available Lake County right-of-way (ROW) maps. Additional information regarding existing utility easements and property title information was obtained from the Town of Lady Lake. Through the information obtained it was determined that the right of way varies on each side of the roadway centerline. The ROW widths vary from 70 – 100 feet. The right of way widths, by segment along the roadway are shown on Figure 2.

3.1.5 Horizontal Alignment

The horizontal alignment of Rolling Acres Road is principally a straight corridor with little or no deflection of the center line. The alignment continues on tangent from CR 466 through US 27 to Griffin Road.

3.1.6 Vertical Alignment

The existing vertical alignment can be described as rolling. The existing grades range from 0.5% to 4.0% with the elevations ranging from approximately 74 feet to approximately 120 feet. The low point of the roadway is located south of Oak Street. An existing retention pond is located at the low point on the east and west side of the corridor. The high point is located at the elementary school north of Oak Street. Field observations were conducted to evaluate possible sight distance problems in the vicinity of the elementary school campus. There were no identified issues with inadequate visibility from either direction of the high point.

3.1.7 Drainage

The following is based on a comprehensive field review, GIS data obtained from St. John's River Water Management District (SJRWMD), and an analysis of the Lady Lake, Florida quadrangle maps published by the United Stated Department of Interior Geological Survey (USGS) and the United States Department of Agricultural Soils Conservation Service Soil Survey.



GMB Engineering and Planners, Inc. 2602 East Livingston Street Orlando, Florida 32803 Rolling Acres Road Preliminary Engineering Report

Figure 2 ROW Aerial Map

3.1.7.1 Basins

According to the <u>Applicant's Handbook Management and Storage of Surface</u> <u>Waters</u>, SJRWMD, the portion of Rolling Acres Road within the project limits lies within the Oklawaha River Basin. This basin is one of eight special basins identified by the SJRWMD, and as a result, additional stormwater management criteria have been established by the SJRWMD. The total offsite area that drains to the project limits is approximately 17 acres. According to the latest GIS data from SJRWMD, the elevations range from 74 feet to 120 feet.

In general, the subject area stormwater outfall is contained in five areas. The five drainage basin areas can be described as North of US 441, Elementary School, Rolling Acres Sports Complex, and CR 466. The following describes each drainage basin location and characteristic:

North of US 441 – The stormwater pond located on the east side of Rolling Acres Road just north of US 441. The high point of Rolling Acres Road is approximately 100 feet north of the intersection at US 441 and has a positive slope to the drainage pond. The roadway is open swale except for a small section of curb and gutter at the intersection.

US 441 – The stormwater pond located south of Rolling Acres Road. Drainage from Rolling Acres Road is delineated from the respective high points of the roadway north and south of US 441. The roadway is open swale except for the eastern side of Rolling Acres Road which consists of curb and gutter.

Elementary School – The existing stormwater pond is located behind the Rolling Acres Elementary School. Drainage is collected via curb and gutter and conveyed to the pond through underground piping. The high points of the roadway north and south of the existing pond delineate the drainage basin area.

Rolling Acres Sports Complex – The existing stormwater pond is located on the west side of Rolling Acres Road within the sports complex property. Drainage is collected via curb and gutter and conveyed to the pond through underground piping. The high point of the roadway north of the pond and CR 466 pond delineate the drainage basin area.

CR 466 – The existing stormwater pond is located on the southeast corner of CR 466 and Rolling Acres Road. Stormwater is collected via curb and gutter on CR 466 and conveyed to the pond by underground piping. This stormwater is generated from the CR 466 corridor and surrounding area.

3.1.7.2 Structures

Existing stormwater runoff within the study limits is generally treated using standard Best Management Practices. Conveyance of stormwater is provided through an underground system that outfalls to a retention ponds offsite. Treatment is contained within the existing retention pond.

3.1.8 Geotechnical Data

The soils within the project area are classified as Candler Sand, Apopka Sand, and Kendrick Sand. In general, these soils are classified as Hydrologic Group A that are well drained with low runoff potential and high infiltration rates even when thoroughly wetted. A figure is provided illustrating the soils map from the latest GIS data from the SJRWMD.

3.1.9 Accident Data

Accident data for the Rolling Acres Road corridor was collected from Lake County information. Crashes for years 2004 - 2008 were analyzed. Data collected included the nearest intersection (location), date, time, type of crash, number of injuries and/or fatalities, property damage, daylight and weather conditions, and primary contributing cause. The collision summary sheets are provided in Appendix "A". Table 3-1 shows the number of crashes which occurred in the last five years.

Table 3-1							
High Crash Locations - Rolling Acres Road Intersections							
Location	2004	2005	2006	2007	2008		
	Crashes	Crashes	Crashes	Crashes	Crashes		
CR 466	8	11	13	9	11		
Duck Lake Road	2	1	1	0	2		
Oak Street	1	0	0	1	0		
US 27	9	26	21	30	22		
TOTALS	20	38	35	40	35		

The number of accidents along Rolling Acres Road has been fairly consistent over the last four years. Aside from the first year of data (YR 2004) the number of crashes has ranged from 35 to 40 crashes per year. More than half of the crashes which occurred happened at or near the intersection of Rolling Acres Road and US 27441.

A review of the collision summary sheets indicates the following crash types for these intersections over the five-year period. Table 3-2, presents the types of crashes occurring at the different intersections.

Table 3-2									
Crash Types For High Crash Locations									
Rolling Acres Road Intersections									
2004									
Location	Total	Angle	Left Turn	Rear End	Other	Bike/Ped	Night	Injury	Fatal
CR 466	8	4	2	0	2	0	0	6	0
Duck Lake Road	2	0	0	0	2	0	1	0	0
Oak Street	1	0	0	0	1	0	0	0	0
US 27	9	1	0	7	1	0	0	3	0
TOTALS	20	5	2	7	6	0	1	9	0
				2005					
Location	Total	Angle	Left Turn	Rear End	Other	Bike/Ped	Night	Injury	Fatal
CR 466	11	2	0	7	2	0	0	2	0
Duck Lake Road	1	0	1	0	0	0	0	0	0
Oak Street	0	0	0	0	0	0	0	0	0
US 27	26	1	0	21	4	0	5	3	0
TOTALS	38	3	1	28	6	0	5	5	0
				2006					
Location	Total	Angle	Left Turn	Rear End	Other	Bike/Ped	Night	Injury	Fatal
CR 466	13	1	1	9	2	0	1	2	0
Duck Lake Road	1	1	0	0	0	0	0	0	0
Oak Street	0	0	0	0	0	0	0	0	0
US 27	21	4	4	7	6	0	2	16	0
TOTALS	35	6	5	16	8	0	3	18	0
Location	Total	Angle	Left Turn	Rear End	Other	Bike/Ped	Night	Injury	Fatal
CR 466	9	1	0	5	3	0	1	2	0
Duck Lake Road	0	0	0	0	0	0	0	0	0
Oak Street	1	0	0	0	1	0	0	0	0
US 27	30	6	3	12	9	0	1	4	0
TOTALS	40	7	3	17	13	0	2	6	0
				2008					
Location	Total	Angle	Left Turn	Rear End	Other	Bike/Ped	Night	Iniurv	Fatal
CP 466	11	1	0	7	2	0	0	j	0
UK 400 Duck Lake Dood	11 2	1	0	/ 2	3 0	0	0	9	0
Oak Street		0	0	 	0	0	0	0	0
US 27	22	2	0	14	6	0	4	7	0
TOTALS	35	3	0	23	9	0	4	16	0

Based on Table 3-2, a large percentage of accidents occur at the intersection of Rolling Acres and US 27/441 and are rear end collisions. Over the five year stretch there were also no accidents with fatalities. Furthermore, based on the crash data the majority of accidents occur in the daytime.

3.1.10 Intersections and Signalization

Several public roads intersect Rolling Acres Road within the study area. These roadways primarily serve as access points to adjacent residential and commercial developments. These intersections include:

- CR 466 (signalized)
- Oak Street (stop controlled)
- Duck Lake Road (stop controlled)
- Pangola Drive (stop controlled)
- US 27 (signalized)

3.1.11 Lighting

There are no lighting systems within the study limits.

3.1.12 Utilities

The following is a summary of existing and proposed utilities within the corridor:

Water – The Town of Lady Lake has the following:
8" water main on the north side of CR 466 east of Rolling Acres Road
8" water main on the east side of Rolling Acres Road from CR 466 to Oak

Street

12" water main on the north side of US 441

12" water main on the west side of Rolling Acres Road north of US 441

12" water main crossing Rolling Acres Road to the south side of Dunning Aveneue

8" water main serving the southwest corner of Rolling Acres Road and US 441

Proposed 12" water main from Oak Street to US 441 Proposed 12" water main on the south side of US 441 east from Rolling Acre Road

- Sewer The Town of Lady Lake has the following:
 6" force main on the south side of Oak Street crossing Rolling Acres Road to WWTP
 6" force main on the north side of US 441 turning north on Rolling Acres Road
 Proposed 10" gravity on south side of US 441 down to south of Oak Meadows residential
 Proposed 16" force main on Rolling Acres Road from south of CR 466 to Oak Street running east
- Reclaim Water The Town of Lady Lake has the following: Proposed 12" reclaim on Rolling Acres Road from south of CR 466 to US 441
- Gas TECO / People Gas has the following:
 6" line on the north side of CR 466
 2" line on the west side of Rolling Acres Road
- Power Seco Energy has the following:

Overhead domestic service line on west side of Rolling Acres Road All utilities are located within the roadway's right-of-way. During design phase, locations will need to be verified for final plan submittal.

3.1.13 Pavement Conditions

Through visual observations it was determined that the pavement within the study area is in good condition. Construction of the existing roadway has occurred within the last ten years with no visual indications for resurfacing needed.

4.0 TRAFFIC

4.1 Existing Conditions

Within the study area, seven intersections were evaluated as part of this study. The following section provides a description of the development of future traffic volumes, required roadway and intersection geometry, and capacity evaluations. The following primary roadway and intersections were identified during project scope development for existing conditions analysis:

Roadway

• Rolling Acres Road (US 27/441 to CR 466)

Intersections

- CR 466 and Rolling Acres Road
- Oak Street and Rolling Acres Road
- School Entrance South and Rolling Acres Road
- School Entrance North and Rolling Acres Road
- Shopping Plaza South Entrance and Rolling Acres Road
- Shopping Plaza North Entrance and Rolling Acres Road
- US 27 and Rolling Acres Road

4.1.1 Traffic Counts

GMB Engineers & Planners assembled the necessary traffic counts for the roadway and intersections identified within the Study Area. Traffic counts were conducted on March 2009 for this analysis. Table 4-1 specifies the count location and type of count conducted. All turning movement counts (TMCs) are 8-hour counts from 7:00 - 9:00 am, 11:00 am - 1:00 PM, and 2:00 - 6:00 pm.

Tabe 4-1					
Count Locations					
Roadway Segment	Туре				
Rolling Acres Road at CR 466	ТМС				
Rolling Acres Road at Oak Street	TMC				
Rolling Acres Road at Shopping Plaza	TMC				
Rolling Acres Road at US 27	TMC				
Rolling Acres Road at School Entrance	TMC				
Rolling Acres Road south of School	24-Hour Volume				
Rolling Acres Road north of School	24-Hour Volume				

4.1.2 Roadway Characteristics

The segment of Rolling Acres Road which is part of the analysis is a two lane roadway that provides a north-south route between US 27 and CR 466 in Lake County. The road currently has no median but does provide left turn lanes at major intersections.

Existing geometry for the intersections being analyzed are provided on Figure 3.

4.1.3 Base Year Traffic Volumes

The traffic counts were seasonally and axle adjusted to provide Average Annual Daily Traffic (AADT). Table 4-2 provides the existing traffic volumes.

Table 4-2 YR 2009 Existing Traffic Counts							
Roadway 2009 Count Axle Factor Seasonal Factor 2009 AAD							
Rolling Acres Rd S. of school	12,707	0.92	0.91	10,638			
Rolling Acres Rd N. of school *Rolling Acres Rd S. of CR 466	-	-	-	11,541 1,928			

* Source – Lake County CMS

Turning movement counts (TMCs) conducted in March 2009 for the analyzed intersections are provided in Figure 4. Traffic count data sheets are provided in Appendix "B".





4.1.4 Existing Level of Service

A roadway link level of service analysis was performed for the existing traffic volumes using general capacities from the <u>2002 FDOT Quality / Level of Service</u> <u>Handbook</u>, with 2007 updates and addendums. The table below provides this information and coincides with the Lake-Sumter Metropolitan Planning Organization (MPO) concurrency management system (CMS) maximum service volumes (MSV).

Table 4-3 YR 2009 Roadway Capacity Anaylsis					
Roadway / Segment	No. of Lanes	L.O.S. Standard	MSV	Daily	LOS
Rolling Acres Road					
US 27/441 to Oak Street	2L	D	14,600	11,541	D
Oak Street to CR 466	2L	D	14,600	10,638	D
CR 466 to Lake Ella Road	2L	D	13,600	1,928	С

Currently the overall roadway is operating at LOS D within the study area.

4.1.5 Existing Intersection Conditions

The existing intersections were evaluated using the methodology outlined in the Highway Capacity Manual and using the Highway Capacity Software (HCS+) version 5.2. The seasonal factor applied to these counts is 0.91. The HCS worksheets are included in Appendix "C". Figure 5 provides the intersection levels of service for existing condition. The following table provides a summary of the existing intersection analysis which includes the intersection delay and LOS. As shown below, all study area intersections operate at an acceptable LOS for PM peak hour conditions.

YR 2009 PM Peak Hour

			Delay
Intersection	Control	LOS	(sec/veh)
US 27/441 and Rolling Acres Road	Signal	D	46.5
Shopping Plaza North and Rolling Acres Road	Stop	С	20.4

Shopping Plaza South and Rolling Acres Road	Stop	Е	46.1
*School Entrance North and Rolling Acres Road	Stop	A/C	8.8/16.8
*School Entrance South and Rolling Acres Road	Stop	A/B	8.4/14.0
Oak Street and Rolling Acres Road	Stop	A/C	8.8/20.1
CR 466 and Rolling Acres Road	Signal	В	18.0

* Time period analyzed for school was 3 - 4 PM. The intersection also operates different than what is shown in the HCS analysis due to law enforcement official directing traffic therefore the intersection was not operating as an actual stop controlled intersection.



4.1.6 Environmental Considerations

The environmental considerations for the existing analysis of the Rolling Acres corridor included soil surveys, existing land use characteristics, identification of hydrologic basins, and a review of the threatened and endangered species. The environmental considerations utilized data from the Florida Geographic Data Library (FGDL), the Florida Land Use, Cover, and Forms Classification System (GLUCFCS), and the Florida Fish and Wildlife Conservation Commission (FFWCC). Based on the existing environmental analysis, no special environmental considerations will be necessary to accommodate the widening of Rolling Acres Road. However, it should be noted that a relocation permit from the FWC must be obtained if it is determined that future development will impact gopher tortoises or their burrows. The complete environmental study completed by Glatting Jackson (GJKA) and supporting documentation can be found in the Appendix of this report.

4.1.7 Multi-modal Consideration

There are currently no mass transit options in the study area. Based on the <u>Lake</u> <u>County Transit Development Plan</u> there are also no programmed transit options within the study area.

4.2 Development of Future Traffic Conditions

This section of the report identifies the anticipated design year travel conditions in the study area roadways and intersections. As documented previously in this report, the analysis year is YR 2030.

4.2.1 Model Evaluation

The project has been evaluated for the year of 2030. An essential tool for identifying the short term and long term traffic forecasts is the Central Florida Regional Planning Model (CFRPM). The adopted year of the model is 2025. Traffic forecasts for the study year 2030 is based on the 2009 existing plus

committed roadway network with socioeconomic data grown from to the year 2030.

The model was also calibrated for the year 2009 with the latest developments in the area using the Lake County Property Appraiser. For the year 2030 model run two separate scenarios were analyzed, one with Rolling Acres as a two lane road and the next with Rolling Acres as a four lane road. The project traffic distribution patterns can be found in Appendix "D".

4.2.2 Growth Rate Information

Historic growth trends from the past six years (2004 – 2009) were collected from a count station on Rolling Acres Road. These counts were taken from the 2008 Lake County Annual Traffic Counts. These counts reflect the growth in the area generated by adjacent developments. Due to the development of the large shopping center at the intersection of US 27/441 and Rolling Acres Road traffic volumes nearly doubled from the YR 2005 to the YR 2006. Because of the increase the long term growth rate for the roadway is understandably overstated at 9%. Growth Rate information can be found in Appendix "E".

A second approach in calculating the growth rate was used due to the results produced by trends analyses. In the second approach YR 2009 Model volumes were compared to the YR 2030 Model volumes. The results from this evaluation are shown in Table 4-4. Based on the comparison it was determined that there would be an approximate growth rate of 2.37%. The 2.37% growth rate was deemed appropriate and was used throughout the report.

 Table 4-4
 - Growth Rate Derivation Table

4.2.3 Design Year Forecasts

Based on the application of an average annual growth rate of 2.37%, average roadway segment volume projections for the year 2030 were produced and are shown in Table 4-5 below.

Table 4-5: Forecasted Future Volume Projections				
Count Station	2009		2030	
Rolling Acres Road, North of School	11,541		17,285	
Rolling Acres Road, South of School	10,638		15,933	
Rolling Acres Road, South of CR 466	1,928		2,888	

The forecasted future volume projection for Rolling Acres Road was evaluated using the generalized level of service tables found in the FDOT Quality/Level of Service Handbook for Urbanized Areas, Table 4-7. The above future volumes indicate that there is a four-lane need before the design year 2030. Therefore, the recommendation for a four-lane improvement is warranted.

Figure 6 presents a graphical illustration of the projected traffic volumes on Rolling Acres Road to the capacity of a two-lane roadway. Based on this comparison, Rolling Acres Road is projected to exceed the existing two-lane capacity in approximately year 2018.



4.3 Future Conditions – No Build

The No Project Alternative (often referred to as the No Build Alternative) assumes that no improvements will be made in the study area and that existing conditions will remain. This Alternative is often used to compare the costs and benefits of implementing proposed improvements versus the alternative of continuing to use the existing facility. For this study, the No Project Alternative would mean that the roadway remain a rural two-lane facility. The No Project Alternative will be considered a viable option throughout the alternative selection process to provide a baseline condition to compare alternatives.

The advantages of the No Project Alternative include:

- No right-of-way acquisition is necessary
- Least impacts to the environment
- No disruption to traffic during construction
- No Project Alternative is least costly

The disadvantages of the No Project Alternative include:

- The Need and Purpose of the project are not satisfied
- No Project Alternative is not consistent with area-wide transportation plans
- The deficient design features (capacity and safety) are not addressed

A "no-build" analysis was conducted in order to assess the level of service in the study area for the future without the addition of any roadway or intersection improvements. Through the no build analysis the necessary conclusions could be drawn as to whether or not improvements would be warranted.

4.3.1 Roadway Analysis

A roadway link level of service analysis was performed for future no build traffic volumes using general capacities from the <u>2002 FDOT Quality / Level of Service</u> <u>Handbook</u>, with 2007 updates and addendums.

Table 4-6					
YR 2030 Roadway Capacity Anaylsis					
Roadway / Segment	No. of Lanes	L.O.S. Standard	MSV	Daily	LOS
Rolling Acres Road					
US 27/441 to Oak Street	2L	D	14,600	17,285	F
Oak Street to CR 466	2L	D	14,600	15,933	F
CR 466 to Lake Ella Road	d 2L	D	13,600	2,888	С

The roadway is anticipated to operate at a LOS F in the future no build scenario within the study area.

4.3.2 Intersection Analysis

The intersections were evaluated using the methodology outlined in the Highway Capacity Manual and using the Highway Capacity Software (HCS+) version 5.2. The seasonal factor applied to these counts is 0.91. The HCS worksheets are included in Appendix. Figure 7 provides the intersection levels of service for future no build conditions. The following table provides a summary of the future no build intersection analysis which includes the intersection delay and LOS. As shown below, not all study area intersections operate at an acceptable LOS for YR 2030 PM peak hour conditions.

YR 2030 PM Peak Hour

Intersection	Control	LOS	Delay (sec/veh)
US 27/441 and Rolling Acres Road	Signal	F	197.7
Shopping Plaza North and Rolling Acres Road	Stop	Е	49.0
Shopping Plaza South and Rolling Acres Road	Stop	F	67.5
School Entrance North and Rolling Acres Road	Stop	A/D	9.9/30.1
School Entrance South and Rolling Acres Road	Stop	A/C	9.3/20.7
Oak Street and Rolling Acres Road	Stop	A/E	9.7/38.1
CR 466 and Rolling Acres Road	Signal	С	31.9



5.1 ROADWAY IMPROVEMENTS

The corridor of Rolling Acres Road (US 441 to CR 466) is the basis for this preliminary engineering study. Rolling Acres Road currently exists as a 2-lane section that services various developments including shopping plazas and Rolling Acres Elementary School. The majority of traffic utilizing Rolling Acres Road is generated from of the neighborhoods that are a part of The Villages, which are located just west of this corridor. The improvements recommended in the study must take into account the operational necessities for the wide range of developments located along Rolling Acres Road, the roadway capacity to accommodate the growth of this area, and the driver characteristics displayed by residents of The Villages. To accommodate these transportation issues, it is proposed that this corridor be widened to 4 lanes. In addition, access management strategies should be explored to address existing operational problem areas along Rolling Acres Road.

5.1.1 Four Lane Section

The four lane improvement to Rolling Acres Road will extend from US 441 to CR 466. As noted later in the report, there are two alternative typical sections for this corridor. However, the typical sections alternatives will not change the results of the capacity/operational analyses of this report.

5.1.2 Access Management

As shown in the Roadway Plans, access management along the corridor should also be modified to address safety concerns created by the four lane section with existing access issue at the shopping entrances on Rolling Acres Road south of U.S. 441. More specifically, eastbound lefts should be prohibited at the northern exit of the Villages of Rolling Acres Plaza and diverted to the southern exit which is located approximately 300 feet away. The construction of a median to restrict this turning movement will eliminate several conflict points and allow a more safe and efficient operation for this connection to Rolling Acres Road. An additional
concrete separator may be constructed between the southbound left turn lane and thru lane to further restrict possible U-turn movements from occurring. Final access issues will be addressed in the design phase of this project. Furthermore, access to the Elementary School will be addressed later in this report.

5.1.3 Corridor Analysis

The terminating intersections of the 4 lane improvement will be at US 441 (North) and CR 466 (South). Both sections of Rolling Acres Road, north and south of the 4 lane improvement are currently 2-lane roadways. As part of the PD&E study, each intersection was analyzed to determine the necessary improvements, if any, to accommodate the operation and transition from the 4 lane section into a 2 lane section.

Rolling Acres Road at US 441 (North)

The section of Rolling Acres Road north of US 441 is currently a two lane undivided roadway. The existing configuration of this intersection has one receiving lane for northbound traffic and a separate left turn, through, and right turn lane on the southbound approach. As shown in the proposed roadway plans, the existing geometry of this section will be sufficient to accommodate the anticipated buildout of YR 2030 traffic. Other contributing factors to this recommendation are the lack of right of way on the northeast quadrant of this intersection and the proposed eastbound left and northbound through geometries which do not require the use of two receiving lanes.

Rolling Acres Road South of CR 466 (South)

As shown in the Roadway Plans, the southern termini of the four lane section of Rolling Acres Road will be at the intersection with CR 466. The southbound approach will consist of a separate left turn, through, and right turn lane. For the purposes of analyzing the section of Rolling Acres Road, south of the 4 lane improvement, this intersection was analyzed to determine if existing geometry would be sufficient to accommodate YR 2030 traffic volumes. Based on the analyses and as shown in Appendix "F", it has been determined that the existing 2 lane section, including the geometry of the northbound approach, will not require any modifications.

5.2 TYPICAL SECTIONS

As previously stated, alternative typical sections for the 4 lane section will be provided. The segment of Rolling Acres Road under consideration for this study extends from the US 27/441 to CR 466. Through these limits the, the existing right of way varies from 80 feet to 100 feet. For the purposes of comparative evaluation and discussion, various typical sections were analyzed. However, through coordination with Town of Lady Lake Staff, it has been determined that each typical section alternative will be based on an 80 foot section, therefore, eliminating the need for right-of-way acquisition. It should be noted that the southerly portion only has a 70foot right-of-way. However, Land Development Regulations contain language that development is contingent on right-of-way donations. As stated in the Town of Lady Lake Land Development Regulations A proposed subdivision or site plan that abuts or encompasses an existing public road that does not conform to the minimum rightof-way requirements shall provide for the dedication of additional right-of-way along either one (1) or both sides of said road to meet the minimum right-of-way required by these regulations. If the proposed subdivision abuts only one (1) side of said road, then a minimum of one-half (1/2) of the required right-of-way shall be dedicated or reserved prior to approval of such subdivision or site plan. A copy of the Town of Lady Lake Land Development Regulations can be found in Appendix "H".

5.2.1 Typical Section Alternatives

There are numerous variations of typical sections that can be evaluated which satisfy the travel demand anticipated for the Rolling Acres corridor. Based on traffic forecasts that have been developed for the study, Rolling Acres Road will require two travel lanes in each direction. The variations evaluated in this report relate to ancillary features, drainage facilities and method of treatment and landscape opportunities. Each variation encompasses different right of way requirements. It should be noted that the evaluation process of these typical sections does not include consideration for slope requirements needed to meet existing ground at the right of way line. Therefore, some construction easements may be required during the implementation phase.

Alternative A Typical Section

Alternative A (Figure 8) consists of a four-lane divided (two 12-foot wide lanes in each direction) roadway with curb and gutter, and an 11-foot raised median that is suitable for landscaping. The section also includes two 6-foot sidewalks.

Alternative B Typical Section

Alternative B (Figure 9) consists of a four-lane divided (with an 11-foot lane and 11.5-foot wide lane in each direction) roadway with curb and gutter, and a 11-foot raised median that is suitable for landscaping. The section also includes a 6-foot sidewalk on one side of the roadway and 10-foot bike path on the east side adjacent to the elementary school. It should be noted where existing right-of-way is provided that exceed the minimum proposed width, sidewalks shall be constructed as close to the right-of-way line as feasibly possible per best design practices.





5.3 DESIGN CONTROLS

The design controls for this Preliminary Engineering Study have been established in English values. These criteria, wherever possible, are based on design parameters outlined in English editions of the following publications:

- Manual of Uniform Minimum Standards for Design, Construction and Maintenance of Streets and Highways (FDOT, 2007, Florida Green Book)
- Manual of Uniform Traffic Control Devices (MUTCD) (FHWA, Washington, D.C., 2003)
- Roadside Design Guide (AASHTO, 2002)
- Drainage Handbook Cross Drains (FDOT, 2002)
- Management and Storage of Surface Waters Permit Information Manual (SFWMD, 2008)
- A Policy on Geometric Design of Highways and Streets (AASHTO, 2004), Fifth Edition

In addition, editions of the following publications were used to supplement the design criteria where needed:

- Roadway and Traffic Design Standards (FDOT, January 2008)
- Roadway Plans Preparation Manual (FDOT, January 2008)
- Flexible Pavement Design Manual (FDOT, January 2002)

5.4 FLORIDA INTRASTATE HIGHWAY SYSTEM

Rolling Acres Road is not part of the Florida Intrastate Highway System (FIHS) and is not subject to the FIHS Standards. The intersection of US44/27 and Rolling Acres Road is within the FIHS system.

5.5 GEOMETRIC DESIGN CRITERIA

The geometric design criteria and its source used for the proposed improvements are listed in Table 5-1.

1000			
	Design Element	Criteria	Source
ria	Functional Classification	Major City/County Collector	Town of Lady Lake/Lake County Comp Plan
Crite	Design vehicle	P, SU, WB-40	Florida Green Book: III - 5
neral	Design Year	2030	Town of Lady Lake / Lake County
Ge	Capacity and Level of Service	D	Town of Lady Lake / Lake County Comp Plan
	Design Speed, V	35 MPH (Urban)	Florida Green Book: III - 4
	Posted Speed	35 MPH (Urban	Field observation
	Travel Lane width	12 feet	FDOT Plans Prep. Vol. I:2-7
	Typical cross section slope (Travel Lane)	0.02 ft/ft	Florida Green Book: III-16
ų	Typical cross section slope (Median Shoulder)	0.05 ft/ft	FDOT Plans Prep. Vol. I: 2-24
Sectio	Max Lane "Roll over" (adjacent through lanes)	0.04 ft/ft	FDOT Plans Prep. Vol. I: 2-12
pical	Border	10 feet (\leq 45 mph)	FDOT Plans Prep. Vol. I: 2-30
L,	Clear zone	4 feet (Urban)	Florida Green Book: III-52
	Sidewalk width	5 / 6 feet	FDOT Plans Prep. Vol. I: 8-4
	Bike path width	10 feet	Lake County

Table 5-1: Roadway Design Criteria

Tab	le 5-1: Roadway Design Criteria (Со	ntinued)	
	Design Element		Criteria	Source
	Max. deflection w/o a curve		0° 45" 00" (Urban)	FDOT Plans Prep. Vol. I: 2-41
-	Minimum radius		694 ft (45 MPH, e= 0.05) 897 ft (55 MPH, e= 0.10)	FDPT Plans Prep. Vol. I: 2-49, 2-51
metry	Max. Curvature using 0.02		0° 30' (45 MPH) 0° 30' (55 MPH)	FDOT Plans Prep. Vol. I: 2-43
al geo	Minimum length of curve		15 V (Arterials)	FDOT Plans Prep. Vol. I: 2-42
rizont	Min. passing sight distance		1650 feet(45 MPH) 1950 feet(55 MPH)	FDOT Plans Prep. Vol. I: 2-38
Ho	Min. tangent between reverse curves		100 feet	FDOT Plans Prep. Vol. I: 2-53
	Superelevation transition (desired)		80% (Tangent) 20% (Curve)	FDOT Standard Index 510
	Superelevation transition ratio		1:160 (45 MPH) 1:180 (55 MPH)	FDOT Plans Prep. Vol. I: 2-52
	Max Superelevation		0.05 ft/ft (45 MPH) 0.10 ft/ft (55 MPH)	FDOT Plans Prep. Vol. I: 2-52
	Max. Profile Grade (Flat Terrain)		5% (45 MPH) 4% (55 MPH)	FDOT Plans Prep. Vol. I:2-35
	Max. Profile Grade (Rolling Terrain)		6% (45 MPH) 5% (55 MPH)	FDOT Plans Prep. Vol. I:2-35
y	Min. Profile Grade on Curb & Gutter Section		0.3% (Flat) 0.5% (Rolling)	FDOT Plans Prep. Vol. I:2-36
ometr	Max. Grade change w/o vc		0.70 ft/ft (45 MPH) 0.50 ft/ft (55 MPH)	Florida Green Book: III-65
ertical Ge	Roadway Base Clearance Above Wet Season Water Elevation		3 ft (Rural Multi- lane) 2 ft (All other, including Urban)	FDOT Plans Prep. Vol. I: 2-59 Geotechnical recommendations
>	Min. K Value for Crest Curve		90 (45 MPH) 170 (55 MPH)	FDOT Plans Prep. Vol. I: 2-45
	Min. K Value for Sag Curve		80 (45 MPH) 110 (55 MPH)	FDOT Plans Prep. Vol. I: 2-46
	Minimum stopping sight distance		350' (45 MPH) 475' (55 MPH)	FDOT Plans Prep. Vol. I: 2-37

Table $5-1$	Roadway	Design	Criteria	(Continued	()
10010 0 1.	nouunuy	Design	Critcrita	Commence	1

5.6 DRAINAGE DESIGN CRITERIA

This section discusses the design controls and standards for culvert design and stormwater management. Table 5-2 summarizes the required criteria. The Saint Johns River Water Management District (TSJRWMD) claims jurisdiction over the stormwater management of this project.

	Design Element	Criteria	Source
sign orm	Primary System	10-year frequency, 72-hour duration 100-year frequency, 72-hour duration 13cfs/mi. ²	SJRWMD Regs
De	Arterial/Collector/Local St.	10-year HGL <=the gutter line.	Lake County
Discha rge	Post const. Peak rate Post construction Peak discharge rate	13 cfs/mi. ² Shall not exceed pre-construction discharge for the 10-year frequency, 72-hour duration storm event	Lake County Lake County
Spread	Arterial/Collector Street Inlet location (Type 1 & 3) Inlets at low points (Type 2 & 4)	¹ / ₂ the outside travel lane Max. 5 cfs intercepted during the 10-year frequency storm event Intercept 100% design flow. Max 9 cfs intercepted	Lake County Lake County Lake County
Culvert Design	Pipe Size (storm sewers and cross and side drains)	in 10-year storm 15-inch minimum with mitered ends Cross drains 50 yr. storm Side drains 10 yr. storm	Lake County
	Channel Type	Open, shallow, flat, slow velocity for detention (2ft/sec)	Lake County
nade water vance	Side slopes	Depth 4 feet or less, 4:1 max Depth over 4 feet, 2:1 max.	Lake County
Mann Storm Conve	Maintenance Berm	Swale< 16 ft, 20 feet 1 side Swale 16 ft-55 ft, 20 feet 2 sides Swale>55 ft, 30 feet 2 sides	Lake County
e	Min. Ditch bottom elev.	Control elevation of pond	Lake County
Roadsid Ditches	Min. Ditch slope Ditches are not normally to be consid for conveying stormwater runoff only the regular roadway right-of-way lim	0.20% ered for retention/detention purposes, rather they are 7. An area for roadway retention/detention shall be se its.	Lake County to be designed et aside outside
	Design Element	Criteria	Source
	Width	Average of 100 ft.	SJRWMD
	Side slopes	4:1 max.	SJRWMD
	Pond slope	4:1 max.	SJRWMD
	Maintenance berm	20 feet wide at 4:1 max to control elevation	SJRWMD
	Recovery	¹ / ₂ treatment volume within 24 hrs	SJRWMD

 Table 5-2:
 Stormwater Design Criteria

Table 5-2: Stormwater Design Cr	riteria (Continued)	
Treatment volume	Dry retention: $\frac{1}{2}$ - inch of runoff or the runoff from 1.25 – inches of rainfall over the impervious area	SJRWMD
 Floodplain encroachment	No net encroachment between the NWL and 100- yr elevation	SJRWMD

6.1 FUTURE ANALYSES – WITH PROPOSED CHANGES

An analysis of the corridor was conducted consistent with the existing and "no build" analyses in order to assess the level of service in the study area for the future traffic volumes with the proposed 4 lane section and access management considerations. As previously mentioned, the alternative typical sections will not affect the capacity/operational analyses presented in this report as both alternatives will represent a 4 lane section.

6.1.1 Roadway Analysis

A roadway link level of service analysis was performed for future no build traffic volumes using general capacities from the <u>2002 FDOT Quality / Level of Service</u> <u>Handbook</u>, with 2007 updates and addendums.

		Tabl	e 6-1	·										
	YR 2030 Roadway Capacity Anaylsis													
	Roadway / Segment	No. of Lanes	L.O.S. Standard	MSV	Daily	LOS								
R	olling Acres Road													
	US 27/441 to Oak Street	4L	D	31,100	17,285	С								
	Oak Street to CR 466	4L	D	31,100	15,933	С								
	CR 466 to Lake Ella Road	2L	D	13,600	2,888	С								

The roadway is anticipated to operate at a LOS C in the future with proposed changes within the study area.

6.1.2 Intersection Analysis – YR 2030

The intersections were evaluated using the methodology outlined in the Highway Capacity Manual and using the Highway Capacity Software (HCS+) version 5.2. The seasonal factor applied to these counts is 0.91. The HCS worksheets are included in Appendix. Figure 10 provides the intersection levels of service for future conditions with proposed changes. The following table provides a summary

of the future no build intersection analysis which includes the intersection delay and LOS.

YR 2030 PM Peak Hour

Intersection	Control	LOS	Delay (sec/veh)
US 27/441 and Rolling Acres Road	Signal	F	91.8
Shopping Plaza North and Rolling Acres Road	Stop	С	15.5
Shopping Plaza South and Rolling Acres Road	Stop	A/C	9.3/20.7
School Entrance North and Rolling Acres Road	Stop	A/B	9.9/14.6
School Entrance South and Rolling Acres Road	Stop	B/C	10.7/22.3
Oak Street and Rolling Acres Road	Stop	A/C	9.7/22.9
CR 466 and Rolling Acres Road	Signal	В	18.2

As shown in the future intersection analyses all study area intersections along this corridor are anticipated to operate at an acceptable level of service in the YR 2030 with the exception of the signalized intersection of Rolling Acres Road at US 441. For the purpose of the future analyses, the HCS intersection analyses includes the recommended 4 lane section of Rolling Acres Road, however, at this particular intersection, is important to also include the six lane section of US 441, which is included in the Lake-Sumter MPO Long Range Transportation Plan. An additional operational analysis was created to analyze this scenario and as shown in Appendix "H", the intersection of Rolling Acres Road at US 441 is anticipated to operate at an acceptable LOS in the Year 2030 with this additional improvement. It should be noted that dual westbound left turn lanes should be constructed at the time that US 441 is widened.



7.0 ALTERNATIVE ANALYSIS

Transportation System Management Alternatives usually consist of lower cost, minor improvements (when compared to a major reconstruction) that address a specific operational or safety problem and allow the existing facility to be utilized in a more efficient way. Typical TSM Alternatives consist of intersection widening and turn lane storage enhancements, the provision of access management controls, improved signing, markings, and delineation, and improved public transit service. As discussed previously in the report, Access Management strategies should be implemented, however, since the study location is anticipated to have a steady growth in traffic volumes, TSM Alternatives alone, will not address the project needs. Therefore, due to the limited applicability of TSM Alternatives, this report will not analyze such a scenario.

7.1 School Alternative Access Analysis

In order to improve traffic circulation at the elementary school's access driveways, several improvements should be considered. The construction of a traffic signal at the pick up / drop off driveway would allow safe left turn movements exiting the school in lieu of drivers making northbound u-turns on Rolling Acres Road when forced to leave the campus by traveling north. The signal should be planned to operate only during opening / closing hours for the campus with internal access provided to the bus loop. Additional roadway signage along Rolling Acres Road prohibiting U-turns can be placed to alleviate conflict points. Pavement markings installed at the proposed signal would allow students to cross Rolling Acres Road safely and utilize sidewalks on the west side of the roadway as depicted in the recommended typical section. Finally, the use of a traffic signal would eliminate the need for a police officer at the school entrance directing traffic during the peak school hours.

8.0 PRELIMINARY DESIGN ANALYSIS

8.1 ALIGNMENT AND RIGHT-OF-WAY NEEDS

The improvements of Rolling Acres Road will generally follow the existing alignment. Right of way needs for the recommended improvements are as follows:

8.2 RELOCATIONS

The proposed project, as presently conceived, will not displace any residence or business within the community. Should this change over the course of the project; the Town of Lady Lake will carry out a right-of-way and relocation program in accordance with Florida Statue 339.09 and the Uniform Relocation Assistance and Real Property Acquisition Policy Act of 1970 (Public Law 91-646 as amended by Public Law 100-17).

8.3 CONSTRUCTION COSTS

Preliminary construction cost estimates were developed utilizing the latest unit item costs available from information provided by recent bids, FDOT Long Range Estimates (LRE's), and local jurisdictional costs. An example of the preliminary engineering cost estimate is provided in Appendix "G". The cost includes the construction of all roadway elements and stormwater ponds but does not include cost for the Town's utility infrastructure relocations. The estimated construction cost for the recommended alternative is:

Construction: \$6,484,856.96 Design: \$972,278.54 CEI: \$324,092.85 TOTAL: \$7,778,228.36

8.4 RECYCLING SALVAGE MATERIALS

Salvageable materials from the existing roadway should be used in construction of the new roadway to the maximum extent permitted by the Standard Specifications for Road and Bridge Construction (FDOT 2000) and as approved by the construction engineer.

8.5 USER BENEFITS

After complete and thorough analysis of the deficiencies of the existing and future roadway network, the benefits associated with the construction of the Build alternative is apparent. These benefits include improved traffic service, reduced congestion, improved level of service and improved safety.

- Improved level of service on the roadway
- Improved safety through Access Management and intersection improvements
- Improved facility aesthetics through the addition landscape materials
- Reduced user costs from improved operations and reduced delay.

8.6 PEDESTRIAN FACILITIES

The recommended alternative provides a continuation pedestrian and bicycle facility throughout the project study limits to safely accommodate pedestrians and bicyclists.

8.7 SAFETY

It is anticipated that traffic demand will decrease in the project area. By increasing the capacity of Rolling Acres Road, improving intersection geometry, implementing access management standards and utilizing the latest Green Book design criteria, safety will be greatly improved, which should result in a reduction for potential crashes.

8.8 ENVIRONMENTAL IMPACTS

The potential impacts to the natural environment were reviewed as part of this study including consideration of wetland, farmland, floodplain, threatened and endangered species, and cultural/historical sites. Due to the fact that the widening will utilize the existing right-of-way which is subject to regular maintenance activities and is in close proximity to vehicular traffic and normal disturbances, it is unlikely that the project will pose any adverse environmental impacts or interfere with any listed species constraints. The environmental review is further summarized in a memorandum completed by Glatting Jackson (GJKA) and can be found in Appendix "J" of this report.

8.9 PUBLIC NOTIFICATION AND INVOLVEMENT

At the initiation of the study, an initial mailing list was prepared. This list was assembled using the Lake and Sumter County Property Appraisers database and included all properties located within 300 feet of the existing right-of-way. The mailing list was expanded to include appointed and elected officials as well as potential permitting or review agencies, community leaders, media, and other interested parties. Notification of those listed on the mailing list was accomplished by the distribution of project notices and newsletters to provide updates of the study's progress and to announce upcoming meetings. To date, one project newsletter was distributed on June 2009. Copies of all project notifications are provided in Appendix "K".

The first public meeting was held on July 20th, 2009. GMB provided a study update which included an introduction of the project team, the study description and objectives, and the data & analysis conducted to date. In addition to this handout, several visual aids pertaining to the study area were made available for public display. The handout provided and the citizen's comments/questions recorded at this public meeting can be found in Appendix "L". In addition, during the public meeting, verbal comments from the participants were summarized.

APPENDIX "A"

COLLISION SUMMARY SHEETS

STREET1	STREET2	GIS_NODE	NODE_NAME	AREA	DATE	TIME	DISTANCE DIREMIN	IT FSTHARM1 SNDHARM	11 FUNCLA	SS CRCAT	LIGHTING RDCC1 SITELOC ACC SE	VACC ALD INJUNT	FATONT		VSU4TV(PIVEH1DIR	VEH1MVN VEH1CC1 VEH2TYP	VEH2DIR	VEH2MVN VEH2CC1
US HWY 27 441	ROLLING ACRES RD	11_12935	US 27 @ ROLLING ACRES RD	LADYLAKE	6/9/2005	1550	0 NONE	REAR-END NONE	NONE	NONE	DAYLIGHT NO DEFELAT INTER! NONE	NONE	0 0	NONE	NONE	NONE	STRAIGHT CARELES NONE	NONE	SLOWING NO IMPROPER DRVN
ROLLING ACRES RD	CR 466	11_12202	CR 466 @ HWY 466	NONE	1/16/2004	1450	0 NONE	NONE NONE	NONE	NONE	NONE NONE NONE NONE	NONE	õ õ	NONE	NONE	(100112	NONE NONE NONE	(10)12	NONE NONE
DUCK LAKE RO	ROLLING ACRES RD	11_12619	ROLLING ACRES RD @ OUCK LA	KI LADYLAKE	10/4/2004	927	2000 E	COLL. W/ P NONE	NONE	NONE	DAYLIGHT NO DEFE(PRIVATE I NONE	NONE	ō ō	NONE	NONE	(STRAIGHT FAILED TO NONE	(PROPERL NONE
US RIGHWAY 27 441	ROLLING ACRES ROAD	11_12985	UNNAMED @ ROLLING ACRES R	D LADY LAKE	12/8/2005	1759	500 N	REAR-END NONE	NONE	NONE	DARK (ST NO DEFECINFLUENC NONE	NONE	0 0	NONE	NONE	NONE	STRAIGHT CARELES NONE	NONE	SLOWING NO IMPROPER DRVN
LIS HAVE A44 37 DOLLING ACOD		11_12985	UNNAMED @ ROLLING ACRES R	D LADY LAKE	1/26/2007	1550	0 NONE	REAR-END NONE	NONE	NONE	DAYLIGHT NO DEFE(AT INTER: NONE	NONE	0 0	NONE	NONE	NONÉ	MAKING F CARELES NONE	NONE	MAKING F NO IMPROPER DRVN
US HWY 1 441 27 ROLLING AGREE	BOLLING ACRES RU	11_12985	UNNAMED @ ROLLING ACRES R	D LADY LAKE	8/15/2005	1847	0 NONE	REAR-END NONE	NONE	NONE	DAYLIGHT ROAD UN AT INTER! NONE	NONE	00	NONE	NONE	NONE	STRAIGHT CARELES NONE	NONE	SLOWING NO IMPROPER DRVN
US HWY 27 441	ROLLING ACRES RD	11_12935	US 27 @ RULLING ACRES RD		5/20/2008	1154	0 NONE	REAR-END NONE	NONE	NONE	DAYLIGHT NO DEFECAT INTER! NONE	NONE	o o	NONE	NONE	NONE	STRAIGHI CARELES NONE	NONE	SLOWING NO IMPROPER DRVN
OPPOSITE 250 BOLLING ACRES	ROLLING ACRES RO	11 12429			8/22/2006	1330	500 N	ANGLE NONE	NONE	NONE	DAYLIGHT NO DEFE(NOT AT IN NONE	NONE	0 0	NONE	NONE	NONE	CHANGIN IMPROPEINONE	NONE	STRAIGHT NO IMPROPER DRVM
ROLLING ACRES RD	CR 486	11 12202	CR 466 @ HWY 468		5/5/2007	1520			NONE	NONE	DAYLIGHT NO DEFECTION AT IN NONE	NONE	U U	NONE	NONE	NUNE	STRAIGHTCARELES NONE	NONE	
ROLLING ACRES RD	US HWY 27 441	11 12985	UNNAMED @ ROLLING ACRES R		5/21/2007	1161	0 NONE	REAR-END MONE		NONE	DAYLIGHT NO DEEK AT INTERNONE	NONE	0 0 0 0	NONE	NONE		J STRAIGHTCARELES NONE		
CR 466	ROLLING ACRES RD	11 12202	CR 466 @ HWY 466		8/28/2005	1425		REAR-END NONE	NONE	NONE	DAYLIGHT NO DEFECATION FRANONE	NONE	0 0		NONE	NONE	STRAIGHICARELES NONE	NONE	MAKING L NO IMPROPER DRVN
ROLLING ACRES RD	OAK ST	11 12428	ROLLING ACRES RD @ OAK ST	NONE	10/28/2004	1659	1000 W	HIT FENCE NONE	NONE	NONE	DAYLIGHT NO DEFECTION AT IN NONE	NONE	0 0 0 0	NONE			STRAIGHTNO MPRCNONE	- HOHE - A	NONE NONE
ROLLING ACRES RD	US HWY 27 441	11_12985	UNNAMED @ ROLLING ACRES R	D LADY LAKE	5/2/2006	1145	500 W	LEFT-TURN NONE	NONE	NONE	DAYLIGHT NO DEFECTLY OTHE NONE	NONE	ň ň	NONE	NONE	NONE	MAKING LEAILED TO NONE	NONE	STRAIGHI NO IMPROPER DRVN
US 27-441	ROLLING ACRES RD	11_12985	UNNAMED @ ROLLING ACRES R	D UNINCORP	C 10/21/2005	1134	500 N	SIDESWIPE NONE	NONE	NONE	DAYLIGHT NO DEFECTIVENENT NONE	NONE	o o	NONE	NONE	NONE	CHANGIN IMPROPE NONE	NONE	STRAIGHT NO IMPROPER DRVM
716 US HWY 441	US HWY 441 ROLLING ACRES	11_12985	UNNAMED @ ROLLING ACRES R	D LADY LAKE	2/15/2007	1722	500 N	LEFT-TURN NONE	NONE	NONE	DAYLIGHT NO DEFECPARKING NONE	NONE	0 0	NONE	NONE	NONE	MAKING L FAILED TO NONE	NONE	STRAIGHT NO IMPROPER DRVN
US HWY 27 441	ROLLING ACRES RD	11_12935	US 27 @ ROLLING ACRES RD	LADYLAKE	6/14/2005	940	500 S	SIDESWIPE NONE	NONE	NONE	DAYLIGHT NO DEFECNOT AT IN NONE	NONE	0 0	NDNE	NONE	NONE	CHANGIN FAILED TO NONE	NONE	CHANGIN FAILED TO YIELD
RULLING ACRES RD	UR 466	11_12202	CR 466 @ HWY 466	NONE	3/31/2004	1453	0 NONE	NONE NONE	NONE	NONE	DAYLIGHI NO DEFECAT INTER! NONE	NONE	0 0	NONE	NONE) MAKING L FAILED TO NONE	1	D STRAIGHI NO IMPROPER DRVN
		11_12202	CR 466 @ HWY 466	FRUITLAND	4/3/2005	1930	1 S	UTILITY/LIG NONE	NONE	NONE	DUSK NO DEFE(NOT AT IN NONE	NONE	0 0	NONE	NONE	NONE	STRAIGH1 CARELES NONE	NONE	NONE NONE
US HWY 27 441		11_12985	UNNAMED @ ROLLING ACRES RI	D LADY LAKE	4/6/2006	1620	0 NONE	LEFT-TURN NONE	NONE	NONE	DAYLIGHT NO DEFE(AT INTER! NONE	NONE	0 0	NONE	NONE	NONE	MAKING L FAILED TONONE	NONE	STRAIGHI NO IMPROPER DRVN
ROLLING ACRES RD	CR 486	11 12200	OB 455 @ ROLLING ACRES RD	LADYLAKE	10/31/2005	1800	150 S	REAR-END NONE	NONE	NONE	DAYLIGHT NO DEFECINFLUENC NONE	NONE	00	NONE	NONE	NONE	SLOWING CARELES NONE	NONE	STRAIGHT NO IMPROPER DRVN
US HWY 27 441	BOLLING ACRES RD	11_12202			9/20/2005	945	0 NONE	REAR-END NONE	NONE	NONE	DAYLIGHT NO DEFECINFLUENC NONE	NONE	0 0	NONE	NONE	NONE	STRAIGHT FOLLOWE NONE	NONE	STRAIGHT NO IMPROPER DRVM
US HWY 27 441	ROLLING ACRES RD	11 12935			. 3/24/2005 1/28/2005	1836		REAR-END NONE	NONE	NONE	DARK (ST NO DEFECATINTER: NONE	NONE	0 0	NONE	NONE	NONE	STRAIGHTCARELES NONE	NONE	MAKING L NO IMPROPER DRVP
HWY 27441	ROLLING ACRES RD	11 12985	LINNAMED @ ROLLING ACRES B		C 12/5/2003	1010	IU S	COLL MUR YONE	NONE	NONE	DAYLIGHT NO DEFECTIVE UNIT NONE	NONE	0 0	NONE	NONE	NUNE	STRAIGHTCARELES NONE	NONE	SLUWING NO IMPROPER DRVP
US HWY 27 441	ROLLING ACRES RD	11 12935	US 27 @ ROLLING ACRES RD		7/3/2005	1/31	0 NONE	DEAR END NONE	NONE	NONE	DAYLIGHT NO DEFEL PARKING NONE		0 0	NONE	NUNE	NONE	STRAIGHTGARELES NONE		STOPERI, ALL OTHER (EXPLAIL
US 27 441	ROLLING ACRES RD	11 12985	UNNAMED @ ROLLING ACRES RI		1/22/2005	709	20 E		NONE	NONE	DATLIGHT NO DEFELATINTER: NONE	NONE	0 0	NONE	NONE	NONE	STRAIGHT FOLLOWE NONE	NONE	SLOWING NO IMPROPER DRVA
ROLLING ACRES RD	US 27 441	11 12985	UNNAMED @ ROLLING ACRES RI		11/4/2005	1519	500 8	REAR-END NONE	NONE	NONE	DAYLIGHT NO DEFECTIVE VIEWA NONE	NONE	0 0	NONE	NONE	NONE	STRAIGHTCARELES NONE	NONE	SLOWING NO IMPROPER DRVA
US 27 441	ROLLING ACRES RD	11_12985	UNNAMED @ ROLLING ACRES RI	UNINCORPO	C 8/13/2006	1510	0 NONE	CDLL W/ M NONE	NONE	NONE	DAYLIGHT NO DEEE(AT INTER! NONE	NONE	ñ ñ	NONE	NONE	NONE	STRAIGHTALLOTHENONE	NONE	STRAIGHT NO IMPROPER DRVN
US HWY 27 441	ROLLING ACRES RD	11_12935	US 27 @ ROLLING ACRES RD	LADY LAKE	6/6/2008	1103	200 N	RIGHT-TUR NONE	NONE	NONE	DAYLIGHT NO DEFECENT RAM NONE	NONE	õ õ	NONE	NONE	NONE	MAKING F FAILED TO NONE	NONE	STRAIGHT NO IMPROPER DRVN
US HWY 27 441	ROLLING ACRES RD	11_12935	US 27 @ ROLLING ACRES RD	LADY LAKE	11/21/2007	1702	100 N	ANGLE NONE	NONE	NONE	DAYLIGHT NO DEFE(AT INTER! NONE	NONE	ō ō	NONE	NONE	NONE	MAKING F CARELES NONE	NONE	STRAIGHI NO IMPROPER DRVN
HWY 27 441	ROLLING ACRES RD	11_12985	UNNAMED @ ROLLING ACRES RI	D LADY LAKE	8/24/2007	1525	350 S	HEAD-ON NONE	NONE	NONE	DAYLIGHT NO DEFE(NOT AT IN NONE	NONE	0 0	NONE	NONE	NONE	SLOWING FOLLOWE NONE	NONE	SLOWING NO IMPROPER DRVN
CR 466	ROLLING ACRES RD	11_12202	CR 466 @ HWY 466	LADYLAKE	6/1/2005	1714	0 E	REAR-END NONE	NONE	NONE	DAYLIGHI NO DEFECINFLUENC NONE	NONE	0 0	NONE	NONE	NONE	STRAIGHT CARELES NONE	NONE	SLOWING NO IMPROPER DRVN
	ROLLING ACRES	11_12985	UNNAMED @ ROLLING ACRES RI) LADYLAKE	6/14/2005	1050	20 S	REAR-END NONE	NONE	NONE	DAYLIGHT NO DEFE(INFLUENC NONE	NONE	0 0	NONE	NONE	NONE	ALL OTHE FOLLOWE NONE	NONE	ALL OTHE NO IMPROPER ORVI
CP 466		11_12202	CR 466 @ HWY 465	UNINCORPO	C 5/10/2006	955	0 NONE	REAR-END NONE	NONE	NONE	DAYLIGHT NO DEFE(NOT AT IN NONE	NONE	0 0	NONE	NONE	NONE	STRAIGHT CARELES NONE	NONE	MAKING L NO IMPROPER DRVN
ROLUNG ACRES RD		11_12202	CR 466 @ HWY 466	LADYLAKE	12/14/2005	1412	0 NONE	REAR-END NONE	NONE	NONE	DAYLIGHT NO DEFE! NOT AT IN NONE	NONE	00	NONE	NONE	NONE	STRAIGHT FOLLOWE NONE	NONE	STRAIGHT NO IMPROPER DRVN
BOLLING ACRES RD	US HWY 441	11 12005	UNNAMED @ ROLLING ACRES RI		11/29/2005	1310	0 NONE	REAR-END NONE	NONE	NONE	DAYLIGHT NO DEFECAT INTERS NONE	NONE	0 0	NONE	NONE	NONE	STRAIGH1CARELES NONE	NONE	ALL OTHE ALL OTHER (EXPLAII
ROLLING ACRES RD		11 12610	ROLLING ACRES PD @ DUCKLAI		10/4/2005	1000	500 5	REAR-END NONE	NONE	NONE	DAYLIGHT NO DEFECTIVE NONE	NONE	0 0	NONE	NONE	NONE	CHANGIN CARELES NONE	NONE	MAKING F NO IMPROPER DRVM
ROLLING ACRES RD	CR 466	11 12202	CR 466 @ HWY 466		8/9/2006	1700		ANGLE HIT SIGNA	NONE	NONE	DUSK NO DEFECT AT INTERCIONE	NONE	0 0 0 0	400) NONE	NONE	STRAIGHTFAILED TONONE	NONE	NUNE NU IMPROPER DRVM
HWY 27441	ROLLING ACRES RD	11 12985	UNNAMED @ ROLLING ACRES RI		0/0/2000 C 0/20/2006	1545		PICUT TUP NONE	NONE	NONE	DAYLIGHT NU DEFECATIONE NONE	NUNE	0 U 0 0	NONE	NUNE	NONE	SLOWING CARELES NUNE	NONE	STRACHI NO IMPROPER DRVP
US HWY 441	ROLLING ACRES RD	11 12985	UNNAMED @ ROLLING ACRES RI		12/15/2006	1600	20 6		NONE	NONE	DATLIGHT NO DEFELALL OTHE NONE	NONE	0 0	NONE	NONE	NONE	SLOWING FAILED TONONE	NONE	STRAIGHT NO IMPROPER DRVK
US HWY 27 441	ROLLING ACRES RD	11 12935	US 27 @ ROLLING ACRES RD	LADYLAKE	10/21/2005	1500	100 S	REAR-END NONE	NONE	NONE	DAYLIGHT NO DEEE (INELLIEN/ NONE		0 0	NONE	NONE	NONE	SLOWING CARELES NONE	NONE	ALL OTHE NO IMPROPER DRVA
ROLLING ACRES RD	US 27 441	11_12985	UNNAMED @ ROLLING ACRES RI	LADY LAKE	1/26/2007	1803	0 NONE	RIGHT-TUR NONE	NONE	NONE		NONE	0 0	NONE	NONE	NONE	MAKING 5 FAILED TO NONE	NONE	MAKING LALL OTHER (EXPLAIL
US HWY 441	ROLLING ACRES RD	11_12985	UNNAMED @ ROLLING ACRES RI	UNINCORPO	C 10/5/2006	1300	40 S	REAR-END NONE	NONE	NONE	DAYLIGHT NO DEFECAT INTER! NONE	NONE	0 0	NONE	NONE	NDNE	STRAIGHT NO IMPRC NONE	NONE	SLOWING ND IMPROPER DRVN
HWY 466	ROLLING ACRES RD	11_12202	CR 466 @ HWY 466	LADY LAKE	10/18/2006	1431	50 E	REAR-END NONE	NONE	NONE	DAYLIGHT NO DEFEL AT INTER: NONE	NONE	õ õ	NONE	NONE	NONE	SLOWING CARELES NONE	NONE	SLOWING NO IMPROPER DRVN
901 N HWY 27	US HWY 27 441	11_12985	UNNAMED @ ROLLING ACRES RI) LADY LAKE	8/21/2007	1130	0 NONE	REAR-END NONE	NONE	NONE	DAYLIGHT NO DEFE(DRIVEWA NONE	NONE	0 0	NONE	NONE	NDNE	SLOWING CARELES NONE	NONE	SLOWING NO IMPROPER DRVN
CR 466	ROLLING AEDES RD	11_12202	CR 466 @ HWY 466	LADY LAKE	2/1/2007	2150	50 W	COLL, W/ M NONE	NONE	NONE	DARK (ST NO DEFELAT INTER: NONE	NONE	0 0	NONE	NONE	NONE	CHANGIN IMPROPEINONE	NONE	STRAIGHI NO IMPROPER DRVN
US HWWY 27 441	ROLLING ACRES RD	11_12985	UNNAMED @ ROLLING ACRES RE	D LADY LAKE	2/14/2007	1540	750 N	LEFT-TURN NONE	NONE	NONE	DAYLIGHT NO DEFE(ALL OTHE NONE	NONE	0 0	NONE	NONE	NONE	MAKING L FAILED T(NONE	NONE	STRAIGHI NO IMPROPER DRVN
05 27 441 871 N L/M/V 27	RULLING AGRES RU	11_12985	UNNAMED @ ROLLING ACRES R	D LADY LAKE	3/30/2007	1450	50 S	REAR-END NONE	NONE	NONE	DAYLIGH'I NO DEFECINFLUENC NONE	NONE	0 0	NONE	NONE	NONE	STRAIGHT CARELES NONE	NONE	SLOWING NO IMPROPER DRVN
871 N HWY 27 4/3	ROLLING ACRES PD	11_12985	UNNAMED @ ROLLING ACRES RI		2/22/2007	1711	0 NONE	REAR-END NONE	NONE	NONE	DAYLIGHT NO DEFECINFLUENC NONE	NONE	0 0	NONE	NONE	NONE	SLOWING CARELES NONE	NONE	SLOWING NO IMPROPER DRVM
GRIEFIN AVE	ROLLING ACRES RD	11 13009	POLLING ACRES PD @ CRIESIN		1/19/2008	1131	200 5	REAR-END NONE	NONE	NONE	DAYLIGHT NO DEFECINFLUENC NONE	NONE	0 0		NONE	NONE	STRAIGHT CARELES NONE	NONE	SLOWING NO IMPROPER DRVN
ROLLING ACRES RD	LIS 27	11 12985	UNNAMED @ POLUNG ACRES B		9/5/2007	1453	20 E	REAR-END NONE	NONE	NONE	DAYLIGHTNO DEFECAT INTER! NONE	NONE	0 0	NONE	NONE	NONE	SLOWING CARELES NONE	NONE	SLOWING NO IMPROPER DRVM
CR 466 ROLLING ACRES ROAD	CR 466 ROLLING ACRES ROAD	11 12202	CR 466 @ HWY 466		5/27/2008	929		READ CND NONE	NONE	NONE	DAYLIGHT NO DEFECT DRIVEWA NONE	NONE	0 0	NONE	NONE	NONE	MAKING L CARELES NONE	NONE	STRAIGHTNU IMPROPER DRVN
US HWY 27 441	ROLLING ACRES RD	11 12935	US 27 @ ROLLING ACRES RD		10/5/2007	1357		SIDESWIDE NONE	NONE	NONE	DAYLIGHTNO DEFELATINTER: NONE	NONE	0 0	NONE		NONE	STRAIGHTCARELES NONE	NONE	MAKING L NO IMPROPER DRVI
GRIFFIN AVE	ROLLING ACRES RD	11 13098	ROLLING ACRES RD @ GRIFFIN A	LADY LAKE	10/16/2007	715		REAR-END NONE	NONE	NONE	DATEGRING DEFECATINTER: NONE	NONE	0 0	NONE	NONE	NONE	STRAIGHLCARELES HONE	NONE	MAKING L NO MPROPER DRVM
US HWY 27 441	ROLLING ACRES RD	11_12935	US 27 @ ROLLING ACRES RD	LADY LAKE	10/16/2007	1423	500 S	REAR-END NONE	NONE	NONE	DAY IGHT NO DEFECTIVELLIENC NONE	NONE			NONE	NONE	STRAIGHTCARELES NONE	NONE	SLOWING NO IMPROPER DRVN
US HWY 27 441	ROLLING ACRES RD	11_12935	US 27 @ ROLLING ACRES RD	LADY LAKE	6/25/2008	1708	10 S	REAR-END NONE	NONE	NONE	DAYLIGHT NO DEFECTIVE LUENC NONE	NONE	0 0	NONE	NONE	NONE	SLOWING CARELES NONE	NONE	SLOWING NO IMPROPER DRVN
ROLLING ACRES RD	US HWY 27 441	11_12935	US 27 @ ROLLING ACRES RD	LADY LAKE	12/3/2007	1328	500 W	ANGLE NONE	NONE	NONE	DAYLIGH NO DEFE(ALL OTHE NONE	NONE	0 0	NONE	NONE	NONE	MAKING F DISREGAI NONE	NONE	STRAIGHI NO IMPROPER DRVM
US HWY 441	ROLLING ACRES RD	11_12935	US 27 @ ROLLING ACRES RD	LADY LAKE	1/9/2008	2000	0 NONE	REAR-END NONE	NONE	NONE	DARK (ST NO DEFE(AT INTER; NONE	NONE	õ õ	(0 NONE	NONE	MAKING F CARELES NONE	NONE	MAKING F ND IMPROPER DRVN
KOLLING ACRES RD	CR 466	11_12202	CR 466 @ HWY 466	LADY LAKE	10/6/2007	1404	800 E	REAR-END NONE	NONE	NONE	DAYLIGHT NO DEFECALL OTHE NONE	NOT DRIN	0 0	NONE	AUTOM	OFE	STRAIGHI CARELES AUTOMO)£ E	STRAIGHT NO IMPROPER DRVI
	ROLLING ACRES RD	11_12985	UNNAMED @ ROLLING ACRES R	D LADY LAKE	5/20/2007	1445	0 NONE	REAR-END NONE	NONE	NONE	DAYLIGHT NO DEFELAT INTER: NONE	NONE	0 0	NONE	NONE	NONE	STRAIGH1 FOLLOWE NONE	NONE	SLOWING NO IMPROPER DRV
US RIGHWAT ZI 441	RULLING ACRES RD	11_12985	UNNAMED @ ROLLING ACRES RE	LADY LAKE	7/26/2007	1135	0 NONE	REAR-END NONE	NONE	NONE	DAYLIGHT NO DEFELAT INTER! NONE	NONE	0 0	NONE	NONE	NONE	STRAIGH1 CARELES NONE	NONE	SLOWING NO IMPROPER DRVI
	US BWT 27 441	11_12935	US 27 @ ROLLING ACRES RD	LADY LAKE	12/29/2007	1201	500 W	ANGLE NONE	NONE	NONE	DAYLIGHT NO DEFECALL OTHE NONE	NONE	0 0	NONE	NONE	NONE	MAKING L FAILED T(NONE	NONE	STRAIGHT NO IMPROPER DRVI
US HWY 27 441	ROLLING ACRES PD	11_12935	US 27 @ ROLLING AGRES RD		12/13/2008	1419	0 NONE	ANGLE NONE	NONE	NONE	DAYLIGHT NO DEFECAT INTER! NONE	NONE	0 0	NONE	NONE	NONE	STRAIGHT FOLLOWE NONE	NONE	SLOWING NO IMPROPER DRVI
US HWY 27 441	ROLLING ACRES RD	11 12935			3/18/2008	134	250 S	REAR-END NONE	NONE	NONE	DAYLIGHT NO DEFECINFLUENC NONE	NONE	0 0	NONE	NONE	NONE	STRAIGHT CARELES NONE	NONE	STRAIGHT NO IMPROPER DRVI
US HWY 27 441	ROLLING ACERES RD	11 12935	US 27 @ ROLLING ACRES RD		5/15/2008	1740	100 5		NONE	NUNE	DAYLIGHT NO DEFECAT INTER! NON_IN	NOT DRIN	1 0	NONE	PASSEN	NG N	SLUWING CARELES OTHER	N	SLOWING NO IMPROPER DRVI
HWY 27	ROLLING ACRES RD	11 12935	US 27 @ ROLLING ACRES RD		12/8/2008	2032	400 8			NUNE	DARK (ST NO DEFECTIVELY NONE	NONE	U 0	NONE	NONE	NONE	STRAIGHTUISREGALNONE	NONE	STRAIGHTNO IMPROPER DRVI
ROLLING ACRES ROAD	HWY 27 441	11 12935	US 27 @ ROLLING ACRES RD	LADYIAKE	3/7/2008	1195	300 W		NONE		DAVIGEI NO DEFECINFLUENCNUNE	NONE	0 0	NONE		NONE	STRAIGHTGARELES NUNE	NONE	
					0/1120000	1100	000 44	THURLE NUME	NONE	NONE	DATEIONINO DEPERURIVEWA NUNE	NONE	U U	NONE	NOME	NUNE	MANING P FAILED IT NUNE	NONE	STAGET NO IMPROPER DRVI

CR 466	ROLLING ACRES RD	11_12202 CR 466 @ HWY 466	LADYLAKE	2/2/2006	830	0 NONE	COLL, W/ M NONE NONE	NONE	DAYLIGHT NO DEFECAT INTER! NONE NONE	0	0 500 NONE NONE	MAKING F FAILED TO NONE NONE ST
CR 466	ROLLING ACRES RD	11_12202 CR 466 @ HWY 466	LADYLAKE	8/15/2005	1420	100 E	REAR-END NONE NONE	NONE	UNKNOW ALL OTHE INFLUENC NONE NONE	0	0 NONE NONE NONE	ALL OTHE CARELES NONE NONE AL
ROLLING ACRES RD	CR 466	11_12202 CR 466 @ HWY 466	UNINCORPC	10/21/2006	1330	0 NONE	REAR-END NONE NONE	NONE	DAYLIGHT NO DEFELAT INTER! NONE NONE	0	0 NONE NONE NONE	STRAIGH) FOLLOWE NONE NONE \$1
COUNTY RD 468	ROLLING ACRES RD	11 12202 CR 466 @ HWY 466	LADY LAKE	5/4/2008	1514	0 NONE	ANGLÉ NONE NONE	NDNE	DAYLIGHT NO DEFE(AT INTER! NONE NONE	0	0 0 NONE NONE	MAKING F FAILED T(NONE NONE ST
ROLLING ACRES RD	W LADY LAKE BV	11 12163 ROLLING ACRES RD @ LADY LAI	KE NONE	1/15/2004	1420	0 NONE	BACKED IN BACKED IN NONE	NONE	DAYLIGHT NO DEFEL PARKING NONE NONE	0	D NONE OTHER W	BACKING NONE OTHER W PF
CR 466	ROLLING ACRES RD	11 12202 CR 466 @ HWY 466	UNINCORPC	6/30/2006	1932	0 NONE	LEFT-TURN NONE NONE	NONE	DAYLIGHT NO DEFECAT INTER! NONE NONE	0	0 NONE NONE NONE	MAKING LIMPROPELNONE NONE ST
CR 466	ROLLING ACRES RD	11 12202 CR 466 @ HWY 466	LADYLAKE	11/10/2006	1520	75 W	REAR-END NONE NONE	NONE	DAYLIGHT NO DEFECINFLUENC NONE NONE	0	0 NONE NONE NONE	SLOWING CARELES NONE NONE SL
CR 466	ROLLING ACRES RD	11 12202 CR 466 @ HWY 466	LADYLAKE	5/13/2007	1542	50 W	ALL OTHER NONE NONE	NONE	DAYLIGHT NO DEFECTIVELUENC NONE NONE	0	0 NONE NONE NONE	MAKING LIMPROPEINONE NONE ST
CR 466	ROLLING ACRES RD	11 12202 CR 466 @ HWY 466	LADYLAKE	1/14/2008	1140	1056 W	REAR-END NONE NONE	NONE	DAYLIGHT NO DEFECNOT AT IN NONE NONE	ō	0 NONE NONE NONE	STRAIGHTCARELES NONE NONE SU
CR 466	ROLLING ACRES RD	11 12202 CR 466 @ HWY 466		8/21/2007	1503	528 W	REAR-END NONE NONE	NONE	DAYLIGHTNO DEFECTIVELLIENCNONE NONE	ů.	0 NONE NONE NONE	STRAIGHT FOLLOWE NONE NONE SL
CR 466A	ROLLING ACRES	11 12202 CR 466 @ HWY 466		3/19/2008	1317	1320 E	SIDESWIPE NONE NONE	NONE	LINKNOW NO DEFECTIVELLIENCING INCONT DRIN	2	D NONE AUTOMOEW	STRAIGHT CARELES AUTOMOLE ST
CR 466	ROLLING ACRES RD	11 12202 CB 466 @ HWY 466		2/1/2007	1518	200 W	REAR-END NONE NONE	NONE	DAYLIGHENO DEFECINOTATIN NONE NONE	õ	0 NONE NONE NONE	STRAIGHT NO IMPRC NONE NONE ST
CR 466	ROLLING ACRES RD	11 12202 CR 466 @ HWY 466		11/17/2007	1553	100 W	REAR-END NONE NONE	NONE	DAYLIGHTNO DEFECNOT AT IN NONE NONE	ő	0 NONE NONE NONE	SLOWING FOLLOWE NONE NONE ST
BOLLING ACRES RD	CR 466	11 12202 CR 466 @ HWV 466	NONG	10/14/2004	1604		LEET TURN NONE NONE	NONE	DAYLIGHT NO DEFECTAT INTERNON UNC. NONE	1		MAKING LEAILED TO PICKUP/LIW ST
US 27-441	BOLLING ACRES RD	11 12085 LINNIAMED & POLLING ACRES P		0/22/2005	1050			NONE	DAYLIGHT NO DEFECTIVELLENT NONE NOT DRIN	'n		SLOWING FOLLOWF AUTOMOLE SU
BOLLING ACRES RD	DUCKLAKE PD			3/22/2000 11/4/2005	4740	1000 E		NONE		0		MAKING L CARELES AUTOMORY M
ROLLING ACRES RD	HW/Y 27441	11 12015 NOLLING ACKES ND @ DUCK LA		11/4/2003	1260			NONE		0	A NONE AUTOMOEN	MAKING FEALED TO AUTOMOUS S
ROLLING ACRES RD		11 12003 DOLLING ACRES RD & CRIEFIN		11/23/2003	1000		LIEAD ON NONE NONE	NONE	DAYLICID NO DEFECTION AT & DOSDIELS NOT DRIN	0		STRAIGHTFOLLOWE PICKUP/LIN ST
ROLLING ACRES RD		11 13086 ROLLING ACRES RD @ GRIFFIN ;		12/1/2005	1313		HEAD-ON NONE NONE	NONE	DAYLIGHT NO DEFECTIVELLENK NONE - NOT DRIN	0		STRAIGHTALL OTHE PICKUPILIW S
ROLLING ACRES RD	03 099 1 27 441	11_12963 UNINAMED (@ ROLLING ACKES R		3/25/2005	831	25 W	REAR-END NONE NONE	NONE	DATLIGHT NU DEFEL INFLUENC NONE NOT URIN	0		
	CR 400	11_12202 CR 400 @ HWY 1460	NONE	4/9/2004	1700		ANGLE ANGLE NUNE	NONE	DAYLIGHT NU DEFELATINTER; PUSSIBLE NUME	U Q		STRAIGHTPALED TRACTOMOLE G
ROLLING AGRES RD		11_12202 CR 466 @ HWY 466	NONE	3/12/2004	1530	0 NONE	ANGLE NONE NONE	NUNE	DAYLIGHT NO DEFELNUL AT IN INCAPACI NONE	3	A NONE AUTOMOLIN	STRAIGHTCARELES AUTOMOSS SI
	RULLING AGRES RD	11_12985 UNNAMED @ ROLLING ACKES R	DINONE	1/19/2004	1218	0 NONE	REAK-END REAR-END NONE	NUNE	DAYLIGHT NO DEFECATINTER: POSSIBLE NONE	U	A NONE AUTOMOUS	STRAIGHTCARELES AUTOMOUS SI
	RULLING AGRES RD	11_12985 UNNAMED @ ROLLING ACRES R	DINONE	1/23/2004	1622	0 NONE	NONE NONE NONE	NONE	DAYLIGHT NO DEFECATINTER: NONE NONE	U	U NONE AUTOMOUS	
US HWY 27 441	RULLING ACRES RD	11_12935 US 27 @ ROLLING ACRES RD	LADY LAKE	1/4/2005	1708	0 NONE	RAN IN DITI OVERTURN NONE	NONE	DAYLIGHT NO DEFELAT INTER: NON_INC/ NOT DRIN	3	0 NUNE AUTOMUES	STRAIGHTALL OTHEINUNE NONE N
US HWY 27 441	RULLING AGRES RD	11_12935 US 27 @ ROLLING ACRES RD	LADY LAKE	7/16/2006	1915	0 NONE	REAR-END NONE NONE	NONE	DAYLIGHT NO DEFECTINFLUENC NON_INC/ NOT DRIN	7	0 NONE AUTOMOEN	STRAIGHTALL OTHE AUTOMOCIN 3
HWY 27 AND 441	RDLLINS ACRES RD	11_12935 US 27 @ ROLLING ACRES RD	LADYLAKE	8/25/2006	1246	0 NONE	REAR-END NONE NONE	NONE	DAYLIGHT NO DEFECAT INTER: NONE NOT DRIN	0	0 NONE AUTOMOEN	SLOWING FULLOWE PICKUP/LIN 5
US HW 27 441	ROLLING ACRES RD	11_12985 UNNAMED @ ROLLING ACRES R	D LADY LAKE	6/28/2007	2040	200 N	ALL OTHER NONE NONE	NONE	DUSK NO DEFE(DRIVEWA NONE NOT DRIN	0	0 NONE AUTOMOES	CHANGIN FAILED ICAUTOMOLS C
HWY 27 441	ROLLING ACRES RD	11_12985 UNNAMED @ ROLLING ACRES R	D LADY LAKE	7/19/2007	1404	300 S	ANGLE SIDESWIPE NONE	NONE	DAYLIGHT NO DEFE(NOT AT IN POSSIBLE NOT DRIN	0	0 NONE OTHER W	MAKING F FAILED TO TRUCK IF N S
HWY 27 441	ROLLING ACRES RD	11_12985 UNNAMED @ ROLLING ACRES R	D LADY LAKE	8/2/2007	1050	400 N	HEAD-ON NONE NONE	NONE	DAWN NO DEFE(NOT AT IN NONE NOT DRIN	0	0 NONE AUTOMOEN	CHANGIN IMPROPELAUTOMOUN S
US HWY 27 441	ROLLING ACRES RD	11_12985 UNNAMED @ ROLLING ACRES R	D LADY LAKE	8/8/2007	1518	0 NONE	REAR-END NONE NONE	NONE	DAYLIGHT NO DEFELAT INTER! NONE NOT ORIN	0	0 NONE NONE S	SLOWING ALL OTHE AUTOMOUS S
US 27 441	ROLLING ACRES RD	11_12985 UNNAMED @ ROLLING ACRES R	Ð LADY LAKE	4/15/2007	450	300 S	RAN IN DITI OVERTURN NONE	NONE	DARK (ST NO DEFE(ALL OTHE POSSIBLE NOT DRIN	0	0 NONE AUTOMOEN	ALL OTHE ALL OTHE NONE NONE N
DUCK LAKE RD	ROLLING ACRES RD	11_12619 ROLLING ACRES RD @ DUCK LA	KI LADYLAKE	2/25/2004	2231	0 W 0	ALL OTHER HIT FENCE NONE	NONE	DARK (ST NO DEFECPARKING NONE NONE	0	0 NONE AUTOMOES	DRIVERLE FLEEING I NONE NONE N
US HWY 441	ROLLING ACRES RD	11_12985 UNNAMED @ ROLLING ACRES R	D NONE	3/11/2004	1305	0 NONE	REAR-END REAR-END NONE	NONE	DAYLIGHT NO DEFECAT INTER! NONE NONE	0	0 NONE AUTOMOEN	STRAIGHT CARELES AUTOMOEN S
US HWY 441	ROLLING ACRES RD	11_12985 UNNAMED @ ROLLING ACRES R	D NONE	2/26/2004	1144	0 NONE	REAR-END REAR-END NONE	NONE	DAYLIGHT NO DEFECAT INTER! NONE ALCOHOL	0	0 NONE AUTOMOLN	STRAIGHT FOLLOWE PASSENG N S
US HWY 441	ROLLING ACRES RD	11_12985 UNNAMED @ ROLLING ACRES R	D NONE	12/22/2004	1040	1000 S	REAR-END NONE NONE	NONE	DAYLIGHT NO DEFECINFLUENC NONE NONE	0	0 NONE AUTOMOEN	STRAIGHI CARELES PASSENG N S
US HWY 27 441	ROLLING ACRES RD	11_12935 US 27 @ ROLLING ACRES RD	LADY LAKE	2/27/2005	1227	500 N	REAR-END NONE NONE	NDNE	DARK (NC NO DEFECINFLUENC NONE ALCOHOL	0	0 NONE PASSENG \$	CHANGIN ALCHOL-L MOTOR H S S
US 27 441	ROLLING ACRES RD	11_12985 UNNAMED @ ROLLING ACRES R	D LAOY LAKE	3/30/2007	1731	300 S	REAR-END NONE NONE	NONE	DAYLIGHT NO DEFECINFLUENC POSSIBLE NOT DRIN	0	0 NONE AUTOMOEN	STRAIGH1 CARELES AUTOMOEN S
HWY 27 441	ROLLING ACRES ROAD	11_12935 US 27 @ ROLLING ACRES RD	LADYLAKE	4/2/2008	1525	0 NONE	REAR-END NONE NONE	NONE	DAYLIGHT NO DEFELAT INTER: NONE NOT DRIN	0	0 NONE AUTOMOEN	STRAIGHT DRIVER DAUTOMOUN S
HWY 27 441	ROLLING ACRES PLAZA	11_12935 US 27 @ ROLLING ACRES RD	LADY LAKE	11/7/2008	2144	0 NONE	ALL OTHER NONE NONE	NDNE	DARK (ST NO DEFELAT INTER: NON_INC/ NOT ORIN	1	0 NONE AUTOMOES	STRAIGHT FAILED TO MOTORC'S S
US HWY 441	ROLLING ACRES RD	11_12985 UNNAMED @ ROLLING ACRES R	D NONE	12/4/2004	1130	12 S	REAR-END REAR-END NONE	NONE	DAYLIGHT NO DEFECTINFLUENC NONE NONE	0	0 NONE PICKUP/LINONE	STRAIGHT DISREGATAUTOMOEN S
GRIFFIN AV	ROLLING ACRES RD	11 13098 ROLLING ACRES RD @ GRIFFIN	AV LADY LAKE	1/22/2005	513	15 E	HIT OTHER NONE NONE	NONE	DARK (ST NO DEFECINFLUENC NONE ALCOHOL	0	0 200 AUTOMOE N	STRAIGHTALCHOL-UNONE NONE N
US HWY 27 441	ROLLING ACRES RD	11_12935 US 27 @ ROLLING ACRES RD	LADY LAKE	2/2/2005	2117	0 NONE	REAR-END NONE NONE	NONE	DARK (ST NO DEFECAT INTER: NONE NOT DRIN	0	0 NONE AUTOMOEN	STRAIGHT FOLLOWE PASSENG N S
HWY 466	ROLLING ACRES RD	11 12202 CR 466 @ HWY 466	LADYLAKE	2/16/2005	1300	500 E	BACKED IN NONE NONE	NONE	DAYLIGHT NO DEFE(PARKING NONE NONE	0	0 NONE NONE NONE	NONE ALL OTHE BUS (DRI/ NONE P
ROLLING ACRES RD	US HWY 27 441	11_12985 UNNAMED @ ROLLING ACRES R	D LADY LAKE	5/8/2005	1755	0 NONE	REAR-END NONE NONE	NONE	DAYLIGHT NO DEFELAT INTER! NONE NOT DRIN	0	0 NONE AUTOMOLE	STRAIGHT CARELES AUTOMOLE S
GRIFFIN AVE	ROLLING ACRES	11 13098 ROLLING ACRES RD @ GRIFFIN	A\ LADY LAKE	8/22/2005	1531	500 E	REAR-END NONE NONE	NONE	DAYLIGHT NO DEFECALL OTHE NON INC/ NOT DRIN	1	0 NONE AUTOMOEW	ALL OTHE CARELES PASSENG W S
CR 466	ROLLING ACRES RD	11 12202 CR 466 @ HWY 466	LADY LAKE	11/16/2005	1540	0 NONE	ANGLE NONE NONE	NONE	DAYLIGHT NO DEFE(NOT AT IN NONE NOT DRIN	0	0 NONE PICKUP/LI E	STRAIGHTCARELES PICKUP/LTW S
CR 466	ROLLING ACRES RD	11 12202 CR 466 @ HWY 456	LADY LAKE	11/21/2005	802	1000 E	REAR-END NONE NONE	NONE	DAYLIGH ALL OTHE NOT AT IN POSSIBLE NOT DRIN	0	0 NONE AUTOMOLE	STRAIGHT CARELES AUTOMOLE S
US HWY 441	ROLLING ACRES RD	11 12985 UNNAMED @ ROLLING ACRES R	D LADYLAKE	11/22/2005	1709	0 NONE	ANGLE NONE NONE	NONE	DAYLIGHT NO DEFEL PARKING NONE NOT DRIN	0	0 NONE AUTOMOLE	MAKING L DISREGAI TRUCK TF N E
US HWY 27 441	ROLLING ACRES RD	11 12935 US 27 @ ROLLING ACRES RD	LADYLAKE	1/25/2006	1254	0 NONE	COLL W/ P NONE NONE	NONE	DAYLIGHT NO DEFEC PARKING NONE NOT DRIN	Ō	0 NONE NONE NONE	BACKING IMPROPELAUTOMOLS F
CR 466	ROLLING ACRES RD	11 12202 CR 466 @ HWY 466	LADYLAKE	2/3/2006	1952	0 NONE	RIGHT-TUR NONE NONE	NONE	DARK (ST NO DEFE) AT INTER! NONE NOT DRIN	0	0 NONE PICKUP/LIW	PASSING IMPROPELAUTOMOEW
ROLLING ACRES RD	US 27 441	11 12985 UNNAMED @ ROLLING ACRES R	D LADY LAKE	3/21/2005	1216	50 W	REAR-END NONE NONE	NONE	DAYLIGHT NO DEFECTIVELIJENC NONE NOT DRIN	0	0 NONE AUTOMOLE	SLOWING FOLLOWE AUTOMOE E S
HWY 27441	ROLLING ACRES RD	11 12985 UNNAMED @ ROLLING ACRES R	D LADY LAKE	11/28/2005	918	0 NONE	REAR-END NONE NONE	NONE	DAYLIGHT NO DEFECAT INTER: POSSIBLE NOT ORIN	ō	0 NONE AUTOMOES	STRAIGHTCARELES OTHER S S
ROLLING ACRES	GRIFFIN AVE	11 13098 ROLLING ACRES RD @ GRIFFIN	A) LADY LAKE	2/23/2007	1727	0 NONE	ANGLE NONE NONE	NONE	DAYLIGHT NO DEFECAT INTER! NONE NOT DRIN	Ō	D NONE AUTOMOUN	MAKING L FAILED TO OTHER E S
US HWY 27 441	ROLLING ACRES RD	11 12935 US 27 @ ROLLING ACRES RO		12/21/2007	1323	150 N	REAR-END NONE NONE	NONE	DAYLIGHT NO DEFECINELUENCINON INC. NOT DRIN	1	0 NONE AUTOMOLS	SLOWING CARELES AUTOMOUS S
ROLLING ACRES RD	CR 466	11 12202 CR 466 @ HWY 466		3/14/2008	1729	0 NONE	COLL W/ M NONE NONE	NONE	DAYLIGHT NO DEFELAT INTER! NON INC. NOT DRIN	1	0 NONE PASSENCE	STRAIGHT DISREGAL PASSENG S
ROLLING ACRES	US HWY 27 441	11 12935 US 27 @ ROLLING ACRES RD	LADYLAKE	5/29/2008	1210	50 F	8FAR-END NONE NONE	NONE	DAYLIGHT NO DEFECTNELLIENC NONE NOT DRIN	Q	0 NONE AUTOMOENONE	SLOWING CARELES BUS (DRI) NONE
US HWY 27 441	ROLLING ACRES RD	11 12935 US 27 @ ROLLING ACRES RD		1/4/2008	801	100 5	REAR-END NONE NONE	NONE	DAYLIGHT NO DEFECTIVELLIENC INCAPACITING TORIN	2	0 0 AUTOMOEN	SLOWING CARELES AUTOMOLIN S
ROLLING ACRES RD	US HWY 27 441	11 12985 UNNAMED @ ROLLING ACRES R		10/25/2007	1625	400 5	ANGLE NONE NONE	NONE	DAYLIGHT NO DEEE ALL OTHE INCAPACI NOT DRIN	1	I NONE AUTOMOLE	STRAIGHT FAILED TO AUTOMOUS
US 27 441	ROLLING ACRES RD	11 12985 UNNAMED @ ROLLING ACRES P		3/6/2006	1156		REAR-END NONE NONE	NONE	DAYLIGHT NO DEFECAT INTER! POSSIBLE NOT DRIN	, n	0 NONE AUTOMOEN	STRAIGHTCARELES AUTOMOLN
HWY 27 441	ROLLING ACRES RD	11 12935 US 27 @ ROLLING ACRES PD		3/6/2008	1050			NONE	DAYLIGHT NO DEFET AT INTER INCARACINOT DRIM	1	O NONE PICKUP/US	STRAIGHT CARELES AUTOMOE NONE
CR 466	ROLLING ACRES RD	11 12202 CR 466 @ HWY 466		5/2/2008	1/3/			NONE	DAYLIGHT NO DEFECAT INTER NONE NOT DRIV	ņ	0 NONE TRUCK TEE	ALL OTHE ALL OTHE PICKUP/LINONE
US HWY 441	ROLLING ACRES RD	11 12985 LINNAMED IN ROLLING ACRES P	D NONE	8/1/2004	1025	100 S	REAR-END REAR-END NONE	NONE	DAYLIGHT NO DEFECTIVE LIENC NON INC. NONE	1	0 NONE AUTOMOEN	SLOWING FOLLOWE AUTOMOEN
				37 172004	102.0	100 0		HUHL	ENTERING DELEVALEDERCHON_INDITION	•		

.

STRAIGH1 NO IMPROPER DRVN ALL OTHE NO IMPROPER DRVN STRAIGH1 NO IMPROPER DRVN STRAIGH1 NO IMPROPER DRVN STRAIGH1 NO IMPROPER DRVN SLOWING CARELESS DRIVING STRAIGH1 NO IMPROPER DRVN SLOWING NO IMPROPER DRVN SLOWING NO IMPROPER DRVN STRAIGH1 NO IMPROPER DRVN SLOWING NO IMPROPER DRVN SLOWING NO IMPROPER DRVN NONE NONE SLOWING NO IMPROPER DRVN SLOWING NO IMPROPER DRVI SLOWING NO IMPROPER DRVI CHANGIN IMPROPER LANE CH STRAIGHTALL OTHER (EXPLAII STRAIGHTALL OTHER (EXPLAII STRAIGHTNO IMPROPER DRVN SLOWING NO IMPROPER DRVN NONE NONE NONE NONE STRAIGHTNO IMPROPER DRVN SLOWING NO IMPROPER DRVN SLOWING NO IMPROPER DRVN SLOWING NO IMPROPER DRVN SLOWING NO IMPROPER DRVI SLOWING ALL OTHER (EXPLAI SLOWING ALL OTHER (EXPLAI SLOWING NO IMPROPER DRVI SLOWING NO IMPROPER DRV¹ SLOWING NO IMPROPER DRV¹ STRAIGH1 NO IMPROPER DRV¹ SLOWING ALL OTHER (EXPLAI SLOWING NO IMPROPER DRV¹

US HWY 441	ROLLING ACRES RD	11 12985	UNNAMED @ ROLLING ACRES RI	D NONE	8/18/2004	1153	0 NONE	ANGLE NONE	NONE	NONE	DAYLIGHT NO DEFECAT INTERS NON INC. NONE	2	0 NONE AUTOMOES	STRAIGH1 DISREGAI PICKUP/LI E
US 27 441	ROLLING ACRES PLAZA	11 12935	US 27 @ ROLLING ACRES RD	LADY LAKE	9/7/2006	1411	0 NONE	SIDESWIPE NONE	NONE	NONE	DAYLIGHT NO DEFECALL OTHE NON INC. NOT DRIN	2	0 0 AUTOMOES	CHANGIN CARELES AUTOMO® S
US HWY 441	ROLLING ACRES RD	11 12985	UNNAMED @ ROLLING ACRES RI	D LADYLAKE	12/15/2006	2035	0 NONE	REAR-END NONE	NONE	NONE	DARK (ST NO DEFE) AT INTER: PDSSIBLE NOT DRIN	0	0 0 AUTOMOES	SLOWING CARELES AUTOMOUS
ROLLING ACRES RD	CR 466	11 12202	CR 466 @ HWY 466	LADY LAKE	12/29/2006	1545	500 N	REAR-END NONE	NONE	NONE	DAYLIGHT NO DEFEL NOT AT IN NONE NOT DRIN	Ó	0 NONE AUTOMOLE	STRAIGH1 FOLLOWE MOTOR H NONE
511 HWY 486	ROLLING ACRES RD	11 12202	CR 466 @ HWY 466	LAOYLAKE	4/22/2007	1834	1000 E	ALL OTHER HIT FENCE	NONE	NONE	DAYLIGHT NO DEFEL DRIVEWA POSSIBLE NOT DRIN	0	0 1000 MOTORC'S	STRAIGHI CARELES NONE NONE
ROLLING ACRES RD	SOUTH DRIVEWAY AT 716 HWY 44	1 11 12985	UNNAMED @ ROLLING ACRES RI		5/6/2007	1101		ANGLE NONE	NONE	NONE	DAYLIGHTNO DEFELORIVEWA NON INC/ NOT DRIN	2	0 NONE AUTOMOES	STRAIGHT FAILED TO MOTORC' W
US HWY 27 441	ROLLING ACRES RD	11 12935	US 27 @ ROLLING ACRES RD		2/25/2008	1654	20 S	REAR-END NONE	NONE	NONE	DAYLIGHT NO DEEE (INFLUENCINON, INC) NOT DRIN	2	0 NONE AUTOMOENONE	SLOWING DRIVER D AUTOMOL NONE
ROLLING ACRES RD	DUCK LAKE RD	11 12619	ROLLING ACRES RD @ DUCK LAI		4/5/2008	1630	250 E	REAR-END NONE	NONE	NONE	DAYLIGHT NO DEFECALL OTHE POSSIBLE NOT DRIN	ō	0 NONE AUTOMOEW	STRAIGHTALL OTHE AUTOMOLW
ROLLING ACRES RD	DUCK LAKE RD	11 12619	ROLUNG ACRES RD @ DUCK LA	KILADYLAKE	4/10/2008	0		REAR-END NONE	NONE	NONE	DAYLIGHT NO DEFECAT INTER: NONE NOT DRIN	õ	0 NONE BUS (DRIVE	SLOWING CARELES AUTOMOR E
GRIFFIN AVE	ROLLING ACRES	11 13098	ROLLING ACRES RD @ GRIFFIN /		12/26/2006	1839	50 S	RIGHT-TUR NONE	NONE	NONE	DARK (ST NO DEFECNOT AT IN NONE NOT DRIN	ñ	0 NONE PICKUP/LIW	BACKING CARELES PICKUP/LIW
ROLLING ACRES RD	US HWY 27	11 12935	US 27 @ ROLLING ACRES RD		11/10/2008	1211		REAR-END NONE	NONE	NONE	DAYLIGHT NO DEFECAT INTER: POSSIBLE NOT ORIN	õ	0 NONE AUTOMOES	STRAIGHI CARELES AUTOMOUS
CR 466	ROLLING ACRES RD	11 12202	CR 466 @ HWY 466		11/22/2008	1038	150 E	REAR-END BAN IN OIL	CNONE	NONE	DAYLIGHT NO DEEE (INFLUENC NONE NOT DRIN	ñ	0 NONE AUTOMOEW	STRAIGHTALL OTHE AUTOMOE W
GRIFFIN AVE	ROLLING ACRES RD	11 13098	BOLLING ACRES RD @ GRIEFIN A		12/3/2008	1654		REAR-END NONE	NONE	NONE	DAYLIGHT NO DEFECAT INTER: NONE NOT DRIN	Ď	0 NONE AUTOMOEW	STRAIGHTALL OTHE AUTOMOE W
US HWY 441	ROLLING ACRES RD	11 12985	UNNAMED @ ROLLING ACRES RI	D NONE	3/5/2004	1214		REAR-END REAR-END		NONE	DAYLIGHT NO DEFECAT INTER: NONE NONE	õ	0 NONE PASSENG N	STRAIGHT CARELES AUTOMOUN
ROLLING ACRES RD	US27 441	11 12985	LINNAMED @ ROLLING ACRES RI		12/15/2005	1805	0 NONE	REAR-END NONE	NONE	NONE	DARK (ST NO DEFECTIVE LIENC NONE NOT DRIN	õ	0 NONE ALITOMOENONE	MAKING F CARELES AUTOMOLINONE
ROLLING ACRES RD	CR 466	11 12202	CR 466 @ HWY 466		12/18/2005	1541	220 E	REAR-END NONE	NONE	NONE	DAYLIGHT NO DEFECALL OTHE NONE NOT DRIN	ñ	D NONE ALITOMOEW	STRAIGHT CARELES AUTOMOLW
US27 441	BOLLING ACRES 8D	11 12985	UNNAMED @ ROLLING ACRES RI		12/20/2005	1402	500 N	REAR-END NONE	NONE	NONE	DAYLIGHT NO DESEGNEL LIENC NONE NOT DRIN	ñ	0 NONE AUTOMOES	SLOWING ALL OTHE PICKUP/U S
US HWY 27 441	ROLLING ACRES RD	11 12935	US 27 @ ROLLING ACRES RD		12/18/2006	1650		REAR-END NONE	NONE	NONE	DAYLIGHT NO DEFECAT INTER! NON INC. NOT DRIN	7	0 NONE AUTOMOES	STRAIGHTALL OTHE AUTOMOUS
US 27 441	BOLLING ACRES 8D	11 12985	UNNAMED @ ROLLING ACRES RI		1/28/2007	1640	260 6	HEAD-ON NONE	NONE			, o		STRAIGHT CARELES AUTOMOUN
ROLLING ACRES RD	GRIFFINAV	11 13098	BOLLING ACRES RD @ GRIEFIN (7/21/2004	1592		DEAD FOR NONE	NONE	NONE		õ	0 NONE PICKLIP/LTW	STRAIGHTEOLLOWF PICKUP/LLE
ROLLING ACRES D	ROLLING ACRES PLAZA	11 12985	LINNAMED @ ROLLING ACRES RI		5/7/2007	1631		NEAD ON NONE	NONE	NONE		õ		ALL OTHE ALL OTHE AUTOMOLS
HWY 441 27 ROLLING ACRES R	DHWY 441 27	11 12035	US 27 @ ROLLING ACRES RD		11/6/2008	1110		SIDESWIRE NONE	NONE	NONE	DAVEGHAND DEEK AT INTER NONE NOT DRIN	õ		MAKING L DRIVER D MEDIUM 1 E
HW 441 27	ROLLING ACRES RD	11 12036			11/0/2000	1642		BEAR END NONE	NONE	NONE		0	A NONE PASSENGN	MAKING L CARELES AUTOMOS N
BOLLING ACRES BD	LIS HWY 441 27	11 12035			11/22/2006	1042	226 W/	LEET TURN NONE	NONE	NONE		0		MAKING LEALED TO ALITOMOLW
GRIEFIN AVE	BOLLING ACRES RD	11 13098	ROLLING ACRES RD @ CRIESIN /		9/25/2000	1604				NONE		0		STRAIGHTCARELES NONE NONE
US HWY 27	ROLLING ACRES	11 12085	LINNAMED @ POLLING ACRES PI		0/26/2000	1405			NONE	NONE		0	O NONE ALITOMOES	STRAIGHTEALED TO AUTOMOR W
HWV 27441	ROLLING ACRES PD	11_12005	UNIVAMED @ ROLLING ACRES RI		9/20/2000	1405		ANOLE NONE	NONE	NONE		ő		STRUGHTDISREGALNONE NONE
CR 466	ROLLING ACRES RD	11 12200	CD 486 @ LWV 466		12/14/2008	1927		ANGLE NONE	NONE	NONE	DARK (ST NU DEFECATINTER; NUNC NUNE	0		STRAIGHICARELES PICKUP/UNONE
US HWY 27 441	ROLLING ACRES RD	11 12015			8/2/14/2000	1240		REAR-END NONE	NONE	NONE		0		SLOWING CARELES AUTOMOUS
250 ROLLING ACRES RD	CR 466	11 12303			0/2/2000 40/2/2007	1121	500 N	DEAD CND NONE	NONE	NONE		0		STRAIGHICARELES AUTOMOUN
ROLLING ACRES RD	US HW 27 441	11 12025			10/0/2007	940		REAR-END NONE	NONE	NONE		0		STRAIGHT CARELES AUTOMOEN
US WWY 27 A41		11_12933	UNNAMED & POLLING ACRES RU		1/10/2008	0.00		REAR-END NONE	NONE	NONE		0		STRAIGHICARELES AUTOMOEN
US 27 441	ROLLING ACRES PD	11 12900	UNNAMED @ ROLLING ACRES R		2/3/2007	1033		REAR-END NONE	NONE	NONE		0		
CR 466		11_12900	CD 466 @ LW/V 466		12/20/2000	1049		REAR-END NONE	NONE	NONE	DATEIGHT NU DEFECTIVELUENU NUNE - NUT DATE DAMUGUT NU DEFECTAT BITERI NUN INC. NUT DRIN	1		STRAIGHT CARELES AUTOMOLE
BOLLING ACRES RD	CR 466	11 12202			3/4/2000	1240		KEAR-END NONE	NONE	NONE		1		MAKING L FAILED TY AUTOMORIE
CR 466		11_12202			12/18/2004	1355		LEFT-TURN NONE	NONE	NONE	DAYLIGHT NU DEFECATINTER: NUN_ING NOT DEIN	· 2		STRAIGHTEAILED TO AUTOMOUN
ROLLING ACRES RD	CD 466	11_12202			4/15/2003	1845		ANGLE NONE	NONE	NONE	DATLIGHT NO DEFECAT INTER: NON_INC/ NOT DRIN	2		STRAIGHT AILED TO ACTOMOLIN
CD 466		11_12202		NUNE	3/11/2004	1254		ANGLE ANGLE	NONE	NUNE	DAYLIGHT NU DEFECTION AT IN TERCINON_ING NONE		O NONE AUTOMOEN	
BOLLING ACRES RD	CP 466	11 12202			3/21/2000	1504	30 W	REAK-END NONE	NONE	NONE	DATLIGHT NO DEFECTIVELIUS COSSIDE NOT DRIN	1		MAKING LEARED TO PICKLIP/LEW
CR 466		11_12202			9/23/2006	1345	65 5	ANGLE NONE	NUNE	NUNE	DAYLIGHT NO DEFEL INFLUENC POSSIBLE NOT DRIN	0		STRAIGH FAILED TO HOROFFLAT
ROLLING ACRES PD	LIG 27 444	11_12202			5/15/2007	1526		ANGLE NONE	NONE	NONE	DATLIGHTNU DEFECAT INTER: NUN_INU/ NUT DRIN	2		
HS 27		11_12900	UNNAMED @ ROLLING ACRES RI		9/26/2006	1410	200 5	COLL. W/ P NONE	NUNE	NUNE	DAYLIGHT NO DEFECTION AT IN NONE INOT DRIV	0		SLOWING ALL OTHE ALITOMOLS
CR J68	DOLLING ACRES PD	14 10000	CD 462 @ LUNC 402		10/9/2007	712	52800 N	ALL UTBER NUNE	NONE	NONE	DAYLIGHT NO DEFELNOVAT IN NONE NOT DRIN	0		
CR 466		11 12202			3/10/2008	1650	528 E	REAR-END NONE	NONE	NUNE	DAYLIGHT NO DEFECTIVE UENC DOCCIDE NOT DRIN	U		OTDAICHE CARELES DASSENGE
		11_14202			3/2//2008	1431	300 W	REAR-END NONE	NUNE	NUNE	DATLIGRT NO DEFELINFLUENU PUSSIBLE NUT DRIN	0 2		STRAIGHICARELES FROUCHCE
CR 466		11 12202			10/07/2008	1133	2640 W	REAR-END NONE	NONE	NUNE	DATEGRIND DEFECTOT AT IN NUN_ING NOT DRIN	3		
	ROLLIND AGAES RD	11_12202		LAD Y LAKE	10/27/2008	1103	1584 VV	REAR-END NONE	NONE	NUNE	DUSK KUAD UN ALL UTHE NON_ING NUT UKIN	I	UNUME AUTOMOLE	SCOMING GARCELS ACTOMOLE

MAKING L NO IMPROPER DRVI STRAIGHI NO IMPROPER DRVI SLOWING NO IMPROPER DRVI STRAIGHI NO IMPROPER DRVI SLOWING NO IMPROPER DRVI STRAIGHI NO IMPROPER DRVI STRAIGHI NO IMPROPER DRVI SLOWING NO IMPROPER DRVI

APPENDIX 66B"

TRAFFIC COUNT DATA

.

GMB Engineers & Planners, Inc.

Intersection Rolling Acres Road

March 19, 2009

& US 27

Time Period PM Peak Hour

Date

				N	lorthbound	ł			S	outhbound	1	
Tim	e Per	iod	Left	Through	Right	Peds	Total	Left	Through	Right	Peds	Total
2:00	-	2:15	64	34	26	1	124	32	23	10	Ω	B /
2:15	-	2:30	54	32	26	Ó	112	17	40	15	Ő	72
2:30	-	2:45	55	35	21	1	111	10	31	18	õ	50
2:45	-	3:00	59	29	28	0	116	16	35	15	õ	66
3:00	-	3:15	94	53	64	0	211	13	41	15	ŏ	60
3:15	-	3:30	75	33	54	0	162	9	34	15	õ	59
3:30	-	3:45	98	37	30	0	165	19	29	10	7	58
3:45	-	4:00	49	30	24	0	103	15	47	17	ó	79
4:00	-	4:15	61	32	30	0	123	8	25	14	Ő	17
4:15		4:30	66	30	31	0	127	17	22	17	ő	56
4:30	-	4:45	80	37	33	1	150	20	26	20	0	26
4:45	-	5:00	63	35	12	Ó	110	18	20	12	4	60 60
5:00	-	5:15	86	43	25	0	154	10	20	13	4	09
5:15	-	5:30	53	31	24	õ	110	14	20	17	0	55
5:30		5.45	61	30	44	0	100	14	24	9	0	47
5.45		6:00	115	20	20	0	106	12	28	11	0	51
	-	0.00		60	50	0	230	47	134	37	0	218
			1,133	608	473	3	2,214	279	619	256	11	1.154

	_				Eastbound			Westbound					
Tim	ie Per	iod	Left	Through	Right	Peds	Total	Left	Through	Right	Peds	Total	
2:00	-	2:15	42	242	45	0	329	45	374	6	 	375	
2:15	-	2:30	41	280	56	0	377	82	234	10	ň	326	
2:30	-	2:45	54	242	42	0	338	107	255	9	ň	371	
2:45	-	3:00	44	275	67	Ó	386	68	252	4	1	324	
3:00	-	3:15	45	246	66	0	357	88	311	13	'n	/12	
3:15	-	3:30	47	290	60	0	397	70	308	13	Ő	301	
3:30	-	3:45	41	274	63	0	378	54	332	9	ő	305	
3:45	-	4:00	28	289	75	0	392	72	239	15	ő	335	
4:00	-	4:15	44	276	49	0	369	43	320	0	õ	270	
4:15	-	4:30	27	304	47	Ō	378	51	272	ç	ĩ	372	
4:30	-	4:45	44	236	49	ŏ	320	14	272	10	1	328	
4:45		5:00	19	223	69	Ő	211		335	10	0	387	
5:00	-	5:15	30	268	46	0	244	33	250	4	0	287	
5.15		5.30	18	200	40	0	344	37	286	8	0	331	
5.30	-	5.45	10	247	40	0	305	46	242	11	0	299	
5.30	•	5.45	27	225	47	0	299	42	252	5	0	299	
5:45	•	6:00	42	357	76	0	475	30	264	12	0	306	
			593	4,274	897	0	5,764	912	4,474	[43	2	5,529	

						≪}••••••)	۵	0	
North / South Rolling Acres Road	7	57	151	56				50	
East / West	A			I		Constant and the second		1,190	
US 27	¥	4	- Alexandre			L		284	
Peak Hour	Construction of the second	และรวมสาราสารที่ได้รู้สุด (การสาราสารสารสาร		an a					
Peak Hour Factor		161	E COLORADA Manageria	L.		-	1	~ >	4
0.94		1,0 99	kan ann ann ann g	•					v
Total PH Voume		264				316	153	172	0
-,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		о	4 3363363	>	44×4403777811				



....

K.

GMB Engineers & Planners, Inc.

Intersection **Rolling Acres Road**

& north plaza entrance

Date March 19, 2009 Time Period

PM Peak Hour

				N	lorthbound	ł			5	outhbound	ł	an a
Tim	ie Per	hoi	Left	Through	Right	Peds	Total	Left	Through	Right	Peds	Total
2:00		2:15	0	109	2	0	171	0	102	17	1	110
2:15	-	2:30	0	105	3	0	108	ŏ	141	21	0	160
2:30	-	2:45	0	99	1	0	100	ő	106	21	0	102
2:45	-	3:00	0	114	2	0	116	ő	125	20	0	145
3:00	-	3:15	0	195	4	0	199	ñ	157	20	ő	145
3:15	-	3:30	0	141	4	1	145	ő	117	10	ő	126
3:30	-	3:45	0	122	7	Ó	129	õ	174	14	0	130
3:45	-	4:00	0	106	ĩ	0	107	ŏ	120	21	Š	150
4:00	-	4:15	0	101	0	2	101	ň	103	23	2	124
4:15	-	4:30	1	119	2	0	122	õ	02	22	0	120
4:30	-	4:45	0	127	2	õ	129	ŏ	101	22	0	124
4:45	-	5:00	0	97	5	Ō	102	ő	05	17	0	120
5:00	-	5:15	0	191	7	0	120	0	0,	17	0	102
5:15	-	5:30	0	03	1	0	174	0	94	21	0	115
5:30		5-45	õ	87	4	0	97	U Q	91	25	0	116
5-45		6:00	0	02	4	U	86	0	85	20	0	105
2.15	-	0.00		60	4	<u> </u>	89	0	82	16	0	98
			1	1,826	46	3	1,873	0	1,725	339	3	2,064

	_				Eastbound			<u></u>	\ \	Westbound		
Tim	ie Per	iod	Left	Through	Right	Peds	Total	Left	Through	Right	Peds	Total
2:00	-	2:15	0	0	36	1	36	<u>^</u>	Λ	0	γ	°
2:15	-	2:30	0	0	41	0	41	Ő	Ő	0	1	0
2:30	-	2:45	0	0	39	0	39	Ő	ň	6		9
2:45	-	3:00	0	0	40	0	40	Ő	õ	0	2	0
3:00	-	3:15	0	0	53	2	53	ň	0	12	2	9
3:15	-	3:30	0	0	56	ō	56	0	0	13	0	13
3:30	-	3:45	0	0	42	ō	42	0	Ő	Ē	1	8
3:45	-	4:00	0	0	35	ĭ	35	Ő	0	5	2	5
4:00	-	4:15	0	0	41	Ó	41	0	0		1	
4:15	-	4:30	0	ō	34	Ő	24	0	0	8	0	8
4:30	-	4:45	l o	Ő	36	Ő	24	0	0	6	U O	6
4:45	-	5:00	1 0	ň	27	õ	20	0	0	16	0	16
5:00	-	5.15		0	76	0	37	U	0	6	0	6
5.15		5-30		0	30	2	36	0	0	9	0	9
5.20	-	5.50	0	0	24	0	24	0	0	4	0	4
5:50	-	5:45		0	36	0	36	0	0	7	4	7
5:45	-	6:00	0	0	36	2	36	0	0	3	Ō	3
			0	0	622	8	622	0	0	128	14	128

						4	>	5	
North / South	0	76	523	0		Ĺ		35	
East / West	*	I		1		4		0	
orth plaza entrance	Ŧ		¥	<u>></u>		Ļ		0	
Peak Hour				an a					22402241
2:45 - 3:45		0	Å				\$	>	
Peak Hour Factor		U							
0.80		0							
Total PH Voume		191			Child Honey	n	577	17	
1,422			4			Ū	512	17	
		2	«						

Roadway Count Summary GMB Engineers & Planners, Inc.

Rolling Acres Road Intersection

& south plaza entrance

Date March 19, 2009

Time Period PM Peak Hour

					N	lorthbound	Ь	<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>			5	outhbound]	
Tim	ie Per	iod	*****	Left	Through	Right	Peds	Total	-	Left	Through	Right	Peds	Total
2:00	-	2:15		17	73	12	Ô	102		29	99	0	2	128
2:15	-	2:30		16	88	8	0	112		35	137	1	0	173
2:30	•	2:45		19	71	9	0	99		27	93	1	3	121
2:45	•	3:00		19	76	16	0	111		33	117	0	0	150
3:00	•	3:15		31	156	11	0	198		39	152	6	1	197
3:15	-	3:30		23	89	10	0	122		29	122	3	0	154
3:30	-	3:45		15	76	6	0	97		27	85	3	0	115
3:45		4:00	1	20	72	10	0	102		21	99	1	0	121
4:00	-	4:15		17	69	14	1	100		36	82	0	0	118
4:15	-	4:30		33	90	10	0	133		29	86	1	0	116
4:30	-	4:45		19	92	12	0	123		28	97	0	0	125
4:45	-	5:00		19	65	8	0	92		23	83	0	0	106
5:00	-	5:15		18	91	10	0	119		34	76	2	1	112
5:15	-	5:30	1	19	63	7	0	89		20	88	1	0	109
5:30	-	5:45		24	62	9	0	95	1	25	81	3	0	109
5:45	-	6:00		18	56	2	0	76		23	82	1	0	106
				327	1,289	154	1	1,770	• •	458	1,579	23	7	2,060

					Eastbound	1				١	Westbound		
Tim	ie Per	iod	Left	Through	Right	Peds	Total	_	Left	Through	Right	Peds	Total
2:00	-	2:15	i	2	12	0	15		11	9	23	0	43
2:15	-	2:30	0	1	11	0	12		15	в	14	0	37
2:30	-	2:45	3	2	9	3	14		5	9	14	2	28
2:45	-	3:00	1	3	5	3	9		3	9	23	0	35
3:00	-	3:15	3	0	13	0	16		10	5	18	0	33
3:15	-	3:30	0	0	10	0	10		16	6	28	0	50
3:30	-	3:45	0	1	10	0	11		9	9	14	0	32
3:45	-	4:00	2	2	6	1	10	1	9	3	14	0	26
4:00	-	4:15	2	1	10	1	13	ł	10	8	18	0	36
4:15	-	4:30	2	1	6	0	9	1	10	6	27	2	43
4:30	-	4:45	4	1	4	0	9		5	8	19	0	32
4:45	-	5:00	6	2	8	0	16		7	6	17	0	30
5:00		5:15	1	0	7	0	8		9	2	17	0	28
5:15		5:30	4	3	9	0	16		10	4	17	0	31
5:30		5:45	1	0	4	1	5		8	11	9	0	28
5:45		6:00	4	ł	6	0	11		5	5	19	Ō	29
			34	20	130	9	184		142	108	291	4	541

							>	2	
North / South	4	10	484	128		t		83	
Kolling Acres Road	▲ :	ł	1			4		29	
south plaza entrance	****	4	Ļ	>		¥.		34	
Peak Hour				ala amana matakakan kata sa ang pagang na pagang panasa.		ijĸŢŢŢġĸĊĸŢĸĊĸĊŢŦŢĬŢĬĬĬĬĬŔĬĬĬŎŎŎŎŎŎŎ			anga ganang panjupa napaga
2:30 - 3:30		7		Ĵ		4	Ŷ		A
Peak Hour Factor		_			Prime Carling				i
0.76		5			escuticatis	1	1	8	¥
Total PH Voume		37	100 -100 - 100-		n successor	92	392	46	0
1,359			X	*	t formality of				
		6	4 779988	∎	a Hystochard				



GMB Engineers & Planners, Inc.

Rolling Acres Road Intersection

& North school entrance

Date March 31, 2009 Time Period

.

PM Peak Hour

				N	lorthbound	d			S	outhbound	ł	
Tim	ne Per	iod	Left	Through	Right	Peds	Total	Left	Through	Right	Peds	Total
2:00		2:15 1	0	108	1	0	109	4	116	0	0	120
2:15	-	2:30	0	108	4	0	112	4	146	0	0	150
2:30	-	2:45	0	108	7	1	115	10	149	0	0	159
2:45	-	3:00	0	96	7	0	103	28	131	0	0	159
3:00	-	3:15	0	108	11	0	119	28	128	0	0	156
3:15	-	3:30	0	118	10	0	128	20	137	0	0	157
3:30	-	3:45	0	138	2	1	140	2	129	1	0	132
3:45	-	4:00	0	127	1	1	128	0	141	0	0	141
			0	911	43	3	954	96	1,077	1	0	1,174

BART DE ALAN AND DE ALAN A		الفراط ويشر المسبو الإلامية فشادل والإعامات كالكالة	i (- politi de la Mandella de Calendaria de Calendaria		Eastbound	*********		**************************************		Westbound		
Tim	ne Per	iod	Left	Through	Right	Peds	Total	Left	Through	Right	Peds	Total
2:00	*	2:15	0	0	0	0	0	0	0	2	0	2
2:15	-	2:30	0	0	0	0	0	0	0	2	0	2
2:30	-	2:45	0	0	0	0	0	0	0	4	0	4
2:45	-	3:00	0	0	0	0	0	1	0	4	0	5
3:00	-	3:15	0	0	0	0	0	0	0	63	0	63
3:15	-	3:30	0	0	0	0	0	1 0	0	72	5	72
3:30	-	3:45	0	0	0	0	0	2	0	25	0	27
3:45	-	4:00	0	0	0	0	0	3	0	17	0	20
			0	0	0	0	0	6	0	189	5	195

North / South Rolling Acres Road East / West North school entrance	0 : P V	1	535	50		<…₽ ↓	erren albe	5 177 0 5	
Peak Hour	<u>80 - 2010 - 2010 - 2010 - 2010 - 2010 - 2010</u>			A					
3:00 - 4:00		0		Î					
Peak Hour Factor		0	ALCONTRACTOR AND A DESCRIPTION	spond.	<	1		44	
0.90		0	ىرە <u>مەر</u> ەر بەرەرىيى بەرەرىي	*				P	
Total Pk Hr Voume		0		٦		•	•	4	
1,283				\$	0	491	24	2	
		0	≪••• P	• *					

Signals & Timings Pavement Markings Speed Limits Surrounding Areas	
GM GM GM GM GM GM GM GM GM GM	
B Engineers & Planners- Intersection Sketch h / South Road: <u>Palling Acre 24</u> / West Road: <u>North Place Environe</u> : <u>3.19.09</u> Project: <u>06-217.03</u> :rvations: <u></u>	



GMB Engineers & Planners, Inc.

Intersection Rolling Acres Road

& South school entrance

Date

March 31, 2009

Time Period PM Peak Hour

				N	lorthbound					Southbound	ł	
Tim	e Per	iod	Left	Through	Right	Peds	Total	Le	ft Through	Right	Peds	Total
2:00	-	2:15	0	103	0	0	103	0	112	2	0	114
2:15	-	2:30	0	105	0	0	105		140	1	0	141
2:30	*	2:45	0	116	0	0	[16) c	144	0	0	144
2:45	-	3:00	0	96	5	0	toi	2	113	1	0	116
3:00	-	3:15	0	122	1	0	123	1	117	0	0	118
3:15	-	3:30	0	111	4	0	115	5	126	0	0	131
3:30	-	3:45	0	132	1	0	133	0	135	0	0	135
3:45	-	4:00	0	110	2	0	112	2	135	1	0	138
			0	895	13	0	908	1() 1,022	5	0	1,037

					Eastbound			Westbound							
Tim	Time Period		Left	Through	Right	Peds	Total	-	Left	Through	Right	Peds	Total		
2:00	-	2:15	4	0	0	0	4	1	0	0	0	0	0		
2:15		2:30	2	0	0	0	2		0	0	0	0	0		
2:30	-	2:45	1	0	0	0	1		0	0	0	1	0		
2:45	-	3:00	0	0	0	0	0		0	0	0	0	0		
3:00	-	3:15	1	0	0	0	1		3	0	1	0	4		
3:15	-	3:30	1	0	0	0	1		1	0	6	0	7		
3:30	-	3:45	0	0	0	0	0		0	0	2	1	2		
3:45	-	4:00	2	0	1	0	3		0	0	1	1	1		
			11	0	1	0	12	•	4	0	10	3	14		
200002000000000000000000000000000000000	000000000000	*******			******		1/1/1/1/2			en sie der sicher en ander bei eine en sie der Geb					
								5		_					

North / South Rolling Acres Road East / West South school entrance	0 	1	513	8				2 10 0 4	
Peak Hour									
3:00 - 4:00		4			4	*	>	Å	
Peak Hour Factor						T		_ <u>i</u>	
0.95		0		⇒				₽ ∳	
Total Pk Hr Vourne		1		7				•	
1,024		0	a	*	0	475	8	0	
		_	· [[]	r					



GMB Engineers & Planners, Inc.

Intersection Rolling Acres Road

& Oak Street

Date March 19, 2009

Time Period PM Peak Hour

				И	lorthbound	4		Southbound						
Tim	Time Period		Left	Through	Right	Peds	Total	Left	Through	Right	Peds	Total		
2:00	-	2:15	1	106	0	Ò	107	0	139	2	1	141		
2:15	-	2:30	2	106	0	0	108	0	155	3	i	158		
2:30	-	2:45	1	107	0	0	108	0	t09	3	0	112		
2:45	-	3:00	4	139	1	0	144	0	111	0	0	111		
3:00	-	3:15	2	133	1	0	136	0	162	1	0	163		
3:15	-	3:30	3	83	0	1	86	0	153	1	0	154		
3:30	-	3:45	0	74	0	0	74	2	134	9	1	145		
3:45	-	4:00	0	83	0	0	83	1	134	4	3	139		
4:00	-	4:15	1	76	0	з	77	1	111	2	1	114		
4:15	-	4:30	2	119	0	2	121	0	115	2	0	117		
4:30	•	4:45	0	94	0	0	94	Ő	104	ž	Ó	106		
4:45	-	5:00	3	98	0	0	101	1	111	1	0	113		
5:00	-	5:15	0	107	0	0	107	0	112	0	0	112		
5:15	-	5:30	2	98	0	I	100	0	126	5	o	131		
5:30	-	5:45	1	83	0	0	84	l o	103	ō	0	103		
5:45	-	6:00	0	86	0	ō	86	ŏ	108	õ	ĩ	108		
			22	1,592	2	7	1,616	5	1,987	35	8	2,027		

					Eastbound					Westbound		
Tim	ne Per	iod	Left	Through	Right	Peds	Total	Left	Through	Right	Peds	Total
2:00	-	2:15	1	0	2	0	3	0	0	0	0	0
2:15	-	2:30	3	0	4	0	7	0	0	0	0	0
2:30	-	2:45	2	0	3	0	5	0	0	1	1	1
2:45	-	3:00	3	O	4	0	7	0	0	1	0	1
3:00	-	3:15	2	0	3	0	5	0	0	1	0	1
3:15	-	3:30	0	0	6	0	6	0	0	0	0	0
3:30	-	3:45	8	1	1	0	10	0	0	0	0	0
3:45	-	4:00	3	0	2	0	5	0	0	0	0	0
4:00	-	4:15	6	0	3	0	9	0	0	0	0	0
4:15	-	4:30	2	0	1	0	3	0	0	0	0	0
4:30	-	4:45	3	1	4	0	8	0	0	0	0	0
4:45	-	5:00	2	0	6	0	8	0	0	1	0	1
5:00	-	5:15	3	0	0	0	3	0	0	Ō	0	0
5:15	-	5:30	2	0	0	0	2	0	ō	ō	n n	ů.
5:30	-	5:45	1	ō	2	õ	3	Ö	ñ	õ	ñ	õ
5:45	-	6:00	o	ō	ī	õ	1	1	ő	õ	õ	1
			41	2	42	0	85	1	0	4	1	5
							an the first of the first first of the first			n:	1	
											1	
Noi Rolling A	North / South		_ 1	7	537	0			<u> </u>		3	
Ea			*	I	I	1			4		0	
Oak Stree	East / West Oak Street		- V								0	

				¥			
Peak Hour				and a discourse, participancy, payor and a second	an a		<u></u>
2:15 - 3:15	10	1		4	Ą	\rightarrow	Å
Peak Hour Factor	0		24 AT 19 19 19 19 19 19 19 19 19 19 19 19 19				
0.88	0	and succession of the successi		•	•	•	•
Total PH Voume 1,069	14			9	485	2	0
	0	4p					

	GMB Engineers & Planners- Intersection Sketch North / South Road: RONING ACR28 East / West Road: OAK ShCR23 East / West Road: OAK ShCR23 Date: 24,94,05 Project: O9 ~ 212, 05 Observations:
	Signals & Timings Pavement Markings Speed Limits Surrounding Areas

.

× .

-

.

-

1

Roadway Count Summary GMB Engineers & Planners, Inc.

Intersection Rolling Acres Road

& CR 466

Date May 13, 2009 Time Period

PM Peak Hour

				N	lorthbound	d	Southbound						
Time Period		Left	Through	Right	Peds	Total	Left	Through	Right	Peds	Total		
2:00	-	2:15	7	20	6	0	33	3	10	81	0	94	
2:15	-	2:30	9	26	7	0	42	9	12	44	0	65	
2:30	-	2:45	8	8	8	0	24	9	13	64	0	86	
2:45	-	3:00	5	12	7	0	24	6	19	82	Ō	107	
3:00	-	3:15	5	11	5	0	21	6	11	62	ō	79	
3:15	-	3:30	4	14	5	0	23	2	17	62	ō	81	
3:30	-	3:45	6	27	10	0	43	9	15	94	0	118	
3:45	•	4:00	4	23	6	1	33	8	19	83	0	110	
4:00	-	4:15	2	10	7	0	19	8	10	58	0	76	
4:15	-	4:30	5	19	9	0	33	5	15	76	Ō	96	
4:30	-	4:45	4	15	13	0	32	9	13	60	ō	82	
4:45	-	5:00	10	21	13	0	44	13	15	65	Ō	93	
5:00	-	5:15	5	18	9	0	32	16	29	60	0	105	
5:15	•	5:30	6	15	7	0	28	13	11	69	ō	93	
5:30	-	5:45	5	15	4	0	24	12	18	52	õ	82	
5:45	-	6:00	4	22	14	0	40	17	17	41	1	75	
		-	89	276	130	1	495	145	244	1,053	1	1.442	

The Backs					Eastbound			Westbound					
Time	e Per	iod	Left	Through	Right	Peds	Total	Left	Through	Right	Peds	Total	
2:00	-	2:15	59	44	6	0	109	13	82	5	0	100	
2:15	-	2:30	62	47	1	ĩ	110	5	83	7	ō	95	
2:30	-	2:45	51	63	3	0	117	5	101	4	1	110	
2:45	-	3:00	61	75	7	τ	143	5	75	6	Ó	86	
3:00	-	3:15	74	81	4	0	159	4	66	7	0	77	
3:15	-	3:30	42	69	8	0	119	6	65	5	0	76	
3:30	-	3:45	43	61	3	0	107	4	84	4	0	92	
3:45	-	4:00	65	86	4	0	155	7	69	2	0	78	
4:00	-	4:15	74	101	3	0	178	9	65	to	0	84	
4:15	-	4:30	52	77	4	0	133	7	58	9	0	74	
4:30		4:45	61	75	3	0	139	6	67	10	0	83	
4:45	-	5:00	44	77	5	0	126	4	54	3	ō	61	
5:00	-	5:15	40	84	5	0	129	8	74	8	ō	90	
5:15		5:30	60	85	5	0	150	9	66	to	1	85	
5:30	-	5:45	42	79	2	0	123	8	68	11	ò	87	
5:45	-	6:00	41	78	1	0	120	6	54	17	õ	77	
			871	1,182	64	2	2,117	106	1,131	118	2	1,355	

						4	•	0	
North / South Rolling Acres Road	0	311	59	30		Ĺ		25	
East / West	4	ſ		1	255222-2022	-Annonement		276	
CR 466	V	4	¥	>		¥		27	
Peak Hour 3:30 - 4:30									
Peak Hour Factor		234				4	Ĵ		A
0,95		325	baananaanaanaa	>			1	1	Ÿ
Total PH Voume		14		7		17	79	32	1
1,430		0		₩	5572657374datascherore				

APPENDIX "C"

HCS INTERSECTION SUMMARY SHEETS
Existing Conditions

					нс	S+™ D)E.	TAIL	ΞC) RE	PC	RT								
General Infor	mation			Thereare					15	Site Ir	for	matic	on .							
Analyst Agency or Co Date Performe Time Period	GMB ed 3/26/2009 PM Peak Ho	ur							 	nterse Area T Jurisdi Analys Proiog	ectio Type lictic sis `	on e on Year	US Ro All La 20 Ex	5 441 oad othe ke C 09 isting	at Rollir r areas ounty g Conditi	ng A ons	Cres	Peak		
No los de la composición de la	* 1			w						rojec	E IL	,	Нс	bur		Cut Milan		anna an an an Arry Mary		
Volume and	I iming Input		T		-0			T		1470					8103		-	1	00	
			- 1 T	1 -		RT		I T	-1	ТН	ī	RT		T) F	रा		SB TH	RT
Number of La	nes, N1		1	- 2	2	1		1		2		1		2	1		1	1	1	1
Lane Group			L	1	Г	R		L		Т		R			T	17	7	L	T	R
Volume, V (vp	h)		161	1	099	264	*****	284		1190		284	3	16	153	1	72	56	151	57
% Heavy Veh	icles, %HV		2		2	2		2		2		2		2	2		2	2	2	2
Peak-Hour Fa	ctor, PHF		0.94	0.	94	0.94		0.94		0.94	1	0.94	0.	94	0.94	0.	94	0.94	0.94	0.94
Pretimed (P) of	or Actuated (A)		A	/	4	A		A		Α		A	,	4	A	1	٩	Α	A	A
Start-up Lost	Time, l1		2.0	2	.0	2.0		2.0		2.0		2.0	2	.0	2.0	2	0	2.0	2.0	2.0
Extension of E	ffective Green	, e	2.0	2	.0	2.0		2.0		2.0	[2.0	2	.0	2.0	2	0	2.0	2.0	2.0
Arrival Type, A	47		3		3	3		3		3	_	3		3	3	1	3	3	3	3
Unit Extension	ו, UE		3.0	3	.0	3.0		3.0		3.0		3.0	3	.0	3.0	3	0	3.0	3.0	3.0
Filtering/Meter	ring, I		1.000) 1.	000	00 1.000		1.000		1.000	2↓	1.000	1.	000	1.000	1.	000	1.000	1.000	1.000
Initial Unmet L	Jemand, Qb		0.0	-10	.0	0.0		0.0		0.0		0.0	0	.0	0.0	0	.0	0.0	0.0	10.0
Ped / Bike / R	IOR volumes	-,44	12.0	11	20	120	dokoo kara	12.0	_	12.0	_	0	11		120	0	0	12.0	120	12.0
Darking / Cros	lo / Dorking	-	12.0 N	- 14	<u></u>	12.0		12.0	_	12.0		12.0		2.0	12.0	$\frac{1}{2}$		12.0	12.0	12.0
Parking / Grad	Parking / Grade / Parking Parking Maneuvers, Nm					- 14	19 0100 00		_	U.	-+	14	'	V		+'	v	/V		14
Parking Mane	uvers, inm		<u> </u>		0				_		4	~~~~		~			~			
Min Time for	IG, INB Redestrians G		<u> </u>		22					22		0		0	22	1	U		22	0
Dhasing	Evol Loff	Thru	<u>, 2 DT</u>		0.2 0	2	- 1	<u> </u>		0.2		vol 1		ΤŦ	J.Z		1	<u>.</u>	<u> </u>	0
L DOSING	G = 130	⊤nru G ⊭	26.2			0	╈	G =	-			= 7.6	<u>ยก</u> รั		= 80		G =	UI		0
Timing	Y = 5	Y ≈	5	-1	<u> </u>			Υ=			$\overline{\nabla}$	= 5			= 5		$\frac{3}{Y} =$		- <u> </u> Y =	
Duration of Ar	nalysis, T = 0.2	5	-PROVER DOMA						<u> - v</u>			Cycle Length, C = 74.7								
Lane Group	Capacity, Con	rol D	elay.	and	LOS	Deteri	mii	nation				00221210000								
				EE	}		Ē		\	WB					NB				SB	
			LT	TH	T	RT		LT	٦	ГН	F	۲T	LT		TH	F	ιT.	LT	ТН	RT
Adjusted Flow	/ Rate, v	1	171	116	9	281	3	302	12	266	30	02	336	3	163	1	19	60	161	61
Lane Group C	apacity, c	3	308	124	4	555	3	308	12	244	5	55	343	5	200	1	70	178	200	170
v/c Ratio, X		0.	56	0.94	C).51	О.	98	1.(02	0.5	54	0.97	7	0.81	0.7	'0	0.34	0.81	0.36
Total Green F	Ratio, g/C	0.	17	0.35	6	0.35	0.	17	0.	35	0.3	35	0.10)	0.11	0.1	1	0.10	0.11	0.11
Uniform Delay	/, d ₁	28	8.2	23.5	1	19.1	30	0.7	24	4.2	19	.5	33.5	5	32.6	32	.2	31.3	32.6	31.0
Progression F	actor, PF	1.	000	1.00	0	1.000	1.	.000	1.0	000	1.0	000	1.00	00	1.000	1.0	000	1.000	1.000	1.000
Delay Calibra	tion, k	0.	15	0.45		0.11	0.	48	0.	50	0.1	14	0.48	3	0.36	0.2	27	0.11	0.35	0.11
Incremental D	lelay, d ₂	4	2.2	13.6	3	0.8	4	5.8	30	0.0	1	.1	41.	3	22.3	12	2.1	1.1	20.9	1.3
Initial Queue	Delay, d ₃	0	.0	0.0		0.0	0).0	0.	.0	0.	0	0.0		0.0	0.	0	0.0	0.0	0.0
Control Delay		3	80.4	37.	1	19.9	7	6.5	5	4.3	20	0.6	74.	8	54.9	44	4.3	32.4	53.5	32.3
Lane Group L	Lane Group LOS C D E				В	Π	Ę	Ľ)	C	;	Е		D	E)	С	D	С	
Approach Del	Approach Delay 33.4				52	.4					63.	7	-denomente			44.4				
Approach LO	proach LOS						Ť	Ē)					E				D		
Intersection D	elay		46.	5			-	$X_c = 0$). <u>9</u>	7			Inte	ersec	tion LOS	;		D		
							1					Ì								

HCS+TM Version 5.3

Generated: 6/1/2009 4:20 PM

	τv	NO-WAY STOP	CONTRO	DL SUMM	IARY	an a		<u></u>	
General Information			Site In	formatio	n	***************			
Analyst	MR		Intersed	ction		RollingAcre	əs & Sho	pping North	
Agency/Co.	GMB		Jurisdic	tion					
Date Performed	8/4/2009		Analysi	s Year	-				
Analysis Time Period	Existing P	M Peak Hour							
Project Description Exist	ting PM Peak Hol	Jr .							
East/West Street: Shoppi	ng Plaza North E	ntrance	North/S	outh Street	: Rolling Ac	res Road			
Intersection Orientation:	North-South		Study P	eriod (hrs):	0.25		1207-DOM DOM DOM DOM DOM DOM DOM DOM DOM DOM		
Vehicle Volumes and	Adjustments					*****			
Major Street		Northbound				Southbour	nd 👘		
Movement	1	2	3		4	5		6	
Voluma (vob/b)		572	17 17	1.000 Y		500		۲ 76	
Peak-Hour Factor PHE	0.80	0.80	0.80		0.80	0.80		0.80	
Hourly Flow Rate, HFR	0.00	1 <u>0.00</u>	0.00		0.00	0.00		0.00	
(veh/h)	0	714	21		0	653		94	
Percent Heavy Vehicles	2				0				
Median Type				Raised cu	rb				
RT Channelized			0					0	
Lanes	0	1	1		0	1		1	
Configuration		Ť	R			T		R	
Upstream Signal		0				0			
Minor Street		Eastbound				Westbour	าd		
Movement	7	8	9		10	11		12	
		Т	R		L	Т		R	
Volume (veh/h)	1994 - Carlos Carlos - Carlos		191	*****		-	termine and the second	35	
Peak-Hour Factor, PHF	0.80	0.80	0.80		0.80	0.80		0.80	
Hourly Flow Rate, HFR (veh/h)	0	0	238		0	0		43	
Percent Heavy Vehicles	2	0	2		0	0		2	
Percent Grade (%)		0				0		704 to 400 to 10 million and an announced to 10	
Flared Approach		<u> </u>				N			
Storage		0				0		and the second	
RT Channelized			0				<u> </u>	0	
Lanes	0	0	1		0	0		1	
Configuration			R			<u> </u>		R	
Delay, Queue Length, and	d Level of Servio)0							
Approach	Northbound	Southbound		Westbound	4		Eastbou	nd	
Movement	1	4	7	8	9	10	11	12	
Lane Configuration					R			R	
v (veh/h)	6- 			00000000000000000000000000000000000000	43			238	
C (m) (veh/h)		······································			431			467	
v/c	مېرىي بەر يېلىكى بەر يې يېلىكى بېرىكى				0.10			0.51	
95% queue length				<u> </u>	0.33			2.84	
Control Delay (s/veh)					14.3			20.4	
LOS	1,019-10-00 I I I I I I I I I I I I I I I I I I				B	za entitzi enazzzaratu data interaturatu		C	
Approach Delay (s/veb)				14 7	20.4			<u> </u>	
Approach LOS				γ.τ.ν Ω			<u>د در ا</u>		
Conversity of Electronic	da All Rights Reserve	1	ł	100.TM	-1 5 0	1		erated: 8/10/2009 1:50 P	

Generated: 8/10/2009 1:50 PM

	****	T۱	NO-WAY STOP	CONTRO	OL SU	MM.	ARY	9897-992-201-201-201-201-201-201-201-201-201-20			
General Information				Site Ir	nforma	atior	1				
Analyst		MR		Interse	ction			Rolling Ac	res & Si	hopp	ing
Agency/Co.		GMB		luriodi	ction	-		South			
Date Performed		8/4/2009			is Year						
Analysis Time Period		Existing P	M Peak Hour		13 152						
Project Description Exis	ting PN	A Peak Ho	ur			*****					
East/West Street: Shopp	ing Pla	za South E	Intrance	North/S	South St	reet:	Rolling Ac	res Road			
Intersection Orientation:	North-	South		Study F	Period (h	nrs):	0.25				
Vehicle Volumes and	d Adju	ustments									
Major Street			Northbound					Southbou	Ind		
Movement		1	2	3			4	5			6
and the subscription of the state of the subscription of the subsc	****	L	Ţ	R			L	T			R
Volume (veh/h)		92	392	46		*******	128	484			10
Peak-Hour Factor, PHF		0.76	0.76	0.76	5		0.76	0.76		().76
(veh/h)		121	515	60			168	636			13
Percent Heavy Vehicles		2					2				
Median Type					Raiseo	l curi	b				
RT Channelized				0							0
Lanes	and the second second	1	1	1			1	1		With the second second	1
Configuration		L	T	R			L	Т			R
Upstream Signal			0					0			
Minor Street			Eastbound					Westbou	nd		
Movement		7	8	9			10	11			12
		L	T	R	W0002000000000000000000000000000000000			Ť			R
Volume (veh/h)		7	5	37			34	29			83
Peak-Hour Factor, PHF		0.76	0.76	0.76		and the standing	0.76	0.76		().76
(veh/h)		9	6	48			44	38		i.	109
Percent Heavy Vehicles		2	2	2	Ì		2	2			2
Percent Grade (%)			0		Cartaning of a Colorador and a			0		, and a second secon	
Flared Approach			N		CARGO DE LA CA			N			
Storage			0					0	and the second		
RT Channelized				0	La la contra de la c						0
Lanes		0	1	0	ĺ		1	1			0
Configuration			LTR				L				TR
Delay, Queue Length, an	d Leve	l of Servic	:e								
Approach	Nort	hbound	Southbound	15-77774 - 71 WAR-1	Westbo	bund	110000 - 1 7000 11 110 - - 1000 - 1000 1000		Eastbou	bnu	
Movement		1	4	7	8		9	10	11		12
Lane Configuration	-	L	L	L			TR		LTF)	
v (veh/h)		121	168	44	ي مرود ماريخ الم	21 January 1991	147		63		
C (m) (veh/h)	(937	998	78	1		286		182		
v/c	(0.13	0.17	0.56			0.51		0.34		
95% queue length) 44	0.60	2 <u>4</u> 6			27/		1 //	/ 	ringle promotion and a second
Control Delay (s/yeb)		ал	0.00	2.70		Without	20.0		1.40	/ 	
		л. т	σ.3 Λ	७७.। r=			JU.Z		34.5	,	
Approach Datay (aluah)		~	А	،	10		ע				1
whole and the start street in the start st					46.1				34.9	e compression and	and the second state of the second state
Approach LUS					E			1	D		

NCS+TM Version 5.3

	T۱	WO-WAY STOP	CONTRO)L SUN	лм,	\ RY				
General Information			Site In	format	tion		odkana ina koncenskom samt samt samt Sake Sam			
Analyst	MR		Intersed	ction			Rolling Ac	res & Sc	hool E	Ent Nor
Agency/Co.	GMB		Jurisdic	tion						
Date Performed	4/23/2009	an in the second se	Analysi	s Year						
Analysis Time Period	Existing Pl	M Peak (3PM - 4PN	1)							
Project Description Exis	ting PM Peak (3P	M - 4PM)								
East/West Street: School	Entrance North		North/S	outh Stre	eet:	Rolling Ac	res Road			
Intersection Orientation:	North-South		Study P	eriod (hr	rs):	0.25				
Vehicle Volumes and	I Adjustments	}								
Major Street		Northbound			*****		Southbou	nd	and the second	
Movement	1	2	3			4	5			6
	<u> </u>	T	R		v.()		T			R
Volume (veh/h)	0.05	491	24			50	535		~ ~ ~	06
Peak-Hour Factor, PHF	0.95	0.90	0.90			0.90	0.90		U. S	95
(veh/h)	0	545	26			55	594		()
Percent Heavy Vehicles	0					2				-
Median Type				Undivi	ded					
RT Channelized			0						(0
Lanes	0	1	0			1	1		()
Configuration			TR			L.	T			
Upstream Signal		0					0			
Minor Street		Eastbound				*******************	Westbou	nd		
Movement	7	8	9			10	11		1	12
	L	7	Ŕ			L	Ť			R
Volume (veh/h)						5			17	77
Peak-Hour Factor, PHF	0.95	0.95	0.95			0.90	0.95		0.	90
Hourly Flow Rate, HFR (veh/h)	0	0	0			5	0		1	96
Percent Heavy Vehicles	0	0	0			2	0			2
Percent Grade (%)		0					0			
Flared Approach		N					N			
Storage		0	1				0			
RT Channelized			0							0
Lanes	0	0	1 0			0	0			0
Configuration			No. of Concession, Name				LR			
Delay, Queue Length, an	d Level of Servio									TANK TRADE OF TANK
Approach	Northbound	Southbound	200000020000000000000000000000000000000	Westbo	und			Eastbou	nd	
Movement	1	4	7	8		9	10	11		12
Lane Configuration		L	ng 27 de la la companya de la compa	LR						
v (veh/ħ)		55		201				1		
C (m) (veh/h)		1002		504	and Diade					
v/c		0.05	andi uma karana ana ana an	0.40	,					
95% queue length		0.17		1 00)					
Control Delay (s/veh)		8.8		16.0						
		ν.υ		10.0						
Approach Delay (abjet)		A						<u> </u>		
Approach Delay (s/veh)	oproach Delay (s/veh)			16.8						
Approach LOS	**			C			1			

HCS+TM Version 5.3

Generated: 6/1/2009 4:22 PM

·····	TΝ	O-WAY STOP	CONTRO	L SUM	MARY			
General Information			Site In	formati	on			
Analyst	MR		Intersec	tion		Rolling Acr	es & Schoo	l Ent Sou
Agency/Co.	GMB		Jurisdic	tion				
Date Performed	4/23/2009		Analysi	s Year				·····
Analysis Time Period	Existing PN	1 Peak (3PM - 4PM	21					
Project Description Exist	ting PM Peak (3PA	M - 4PM)						
East/West Street: School	Entrance South		North/So	outh Stree	et: Rolling Ad	cres Road		
Intersection Orientation:	North-South		Study P	eriod (hrs): 0.25			
Vehicle Volumes and	Adjustments					~		
Major Street		Northbound	<u> </u>			Southboui	nd	6
wovement]				4	5		0
Volume (veh/h)		475			L	512		
Peak-Hour Factor, PHF	0.95	0.95	0.05		0 0	0.95		1 95
Hourly Flow Rate. HFR	0.00		v.su ^		V.VV			
(veh/h)	0	500	8		8	540		U
Percent Heavy Vehicles	0				2			~~~
Median Type				Undivid	ed			
RT Channelized			0					0
Lanes	0	1	0		1	1		0
Configuration			TR		L	Т		
Upstream Signal		0				0		
Minor Street		Eastbound	****	an she an	ĨŊŔŀŢŦĔĬŊŢĊĊĸĊŢĊŔĸŔŨĹĬŲĬĊĔĊĬĬĬĬĬ	Westbour	nd	
Movement	7	8	9		10	11		12
	L	Т	R		L	T		R
Volume (veh/h)					4			10
Peak-Hour Factor, PHF	0.95	0.95	0.95		0.95	0.95		0.95
Hourly Flow Rate, HFR (veh/h)	0	0	0		4	0		10
Percent Heavy Vehicles	0	0	0		2	0		2
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
Lanes	0	0	0		0	0		0
Configuration			1			LR		
Delay, Queue Length, an	d Level of Servic	e			- Sharina da kalan na da karan na da karan da ka			
Approach	Northbound	Southbound		Westbou	nd		Eastbound	
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L		LR				
v (veh/h)		8		14				
C (m) (veh/h)		1057	-	413				
v/c		0.01		0.03				
95% queue lenath		0.02		0.11				
Control Delay (s/yeh)	til/Teb⊮Da da	84		14.0				
		Λ	that do chain an ann a chineid an	14.U				
Luu Aanraach Dalau (aluali)								<u> </u>
Approach Delay (s/veň)			-	14.0				
Approach LUS				В				

 HCS^{+TM} Version 5.3

Generated: 6/1/2009 4:21 PM

	T	NO-WAY STOP	, CONTRO	OL SUMN	IARY		ikan polan kana kana kana kana kana kana kana k	
General Information			Site Ir	nformatio	n	1/		***************************************
Analyst	GMB		Interse	ction		Rolling Ac	res Road at	Oak St
Agency/Co.		**************************************	Jurisdie	ction	1944 - Hanna Andrew, and an	Lake Cour	nty	
Date Performed	3/26/2009		Analys	is Year		2009		
Analysis Time Period	PM Peak	Hour						
Project Description Exis	ting Conditions P	m Peak Hour						
East/West Street: Oak St	treet		North/S	outh Stree	t: Rolling Ac	res Road		
Intersection Orientation:	North-South		Study F	eriod (hrs)	: 0.25			n and a substantia for the substantia of the substantia of the substantia of the substantia of the substantia o
Vehicle Volumes and	d Adjustments	3						
Major Street		Northbound				Southbou	nd	
Movement	1	2	3		4	5		6
			R R		L	Ţ		R
Volume (ven/n)	9	485	2		0	537		7
Peak-Hour Factor, PHF	0.88	0.88	0.88		0.88	0.88		0.88
(veh/h)	10	551	2		0	610		7
Percent Heavy Vehicles	2				0	~~		
Median Type				Undivide	đ			
RT Channelized			0					0
Lanes	1	1	0		1	1		0
Configuration	L		TR		L			TR
Upstream Signal		0				0		
Minor Street	2012/2012/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/	Eastbound	*****	MDM253H055Mc2Valuesportmanna		Westbou	nd	
Movement	7	8	9		10	11		12
	L	Т	R		L	Т		R
Volume (veh/h)	10	0	14		0	0		3
Peak-Hour Factor, PHF	0.88	0.88	0.88	-	0.88	0.88		0.88
Hourly Flow Rate, HFR (veh/h)	11	0	15		0	0		3
Percent Heavy Vehicles	2	0	2	Ì	0	0		0
Percent Grade (%)		0				0		
Flared Approach	and and a second s	N			ana dan Mandal ka Kanadisin di Kanada di Kabupatén di Kanad	N		
Storage		0	1			0		
RT Channelized		ann an Suiseann an Ionna an Ionna ann an Aonaichteann an Aonaichteann an Aonaichteann an Aonaichteann an Aonaic	0		24 TOUR 250 TO 152 TO 160 T			0
Lanes	0	1	0		0	1	1	0
Configuration		LTR				LTR		
Delay, Queue Length, an	d Level of Servio	28	Bilitika ini Anziha manana an					
Approach	Northbound	Southbound		Westboun	d		Eastbound	anda di kangangangan persebut kang di kang di kang di persebut kang di persebut kang di kang di kang di kang d
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
v (veh/h)	10	0		3			26	
C (m) (veh/h)	963	1027		537			265	
v/c	0.01	0.00	and managements	0.01			0.10	
95% queue length	0.03	0.00		0.02			0.10	
Control Delay (slyph)	8.00 8.8	9.00		44 7			20.1	+
	0.0 A	0.0 A		1 11.1		WO MARKA HAR HAR AN AND AN	∠ <i>U.1</i>	
LUU Anaraah Dalay (alush)	A	<u> </u>						
Approach Delay (s/veň)	+-			- 11.7			20.1	1
Approach LOS				В			С	

HCS+TM Version 5.3

Generated: 6/1/2009 4:21 PM

Detailed Report

Page	1 of	21
------	------	----

				Н	CS+" [)ET/	AILE	D RE	PC	ORT		-F-1445						
General Infor	mation						Ī	Site Ir	nfo.	rmatic	on 🛛							
Analyst Agency or Co Date Performe Time Period	GMB ed 5/26/2009 PM Peak Ho	our						Interse Area T Jurisdi Analys Projec	ecti Typ ictio sis	ion e on Year D	CR Roa All c Lak 200 Exis	466 other e Co 9 sting	at Rollin r areas ounty Conditio	g A	cres PM F	Peak	<u></u>	
Volume and	Timina Inout						1				100	14						
	in the second second		1	EB		T	وساوه والمسافلات	WB					NB		n takka su Aqakan	221-2007-00-2000-0404	SB	Marada Nel Marada M Marada Marada Marada Marada Marada
			LT	ТН	RT		LT	ТН	Ĩ	RT	L	Г	ТН	F	۲T	LT	ТН	RT
Number of La	nes, N1		1	1	0		1	1		0	1		1)	1	1	0
Lane Group		A	<u> L</u>	TR			L	TR			L		TR			L	TR	
Volume, V (vp	h)		234	325	14		27	276		25	1	7	79	3	32	30	59	311
Meavy Veh	icles, %HV		$\frac{1}{10.05}$	2	2		2	2		2	2		2			2	2	2
Pretimed (P)	ICTOF, PHE		0.95	0.95	0.95		.95 A	0.95		0.95	0.9	5	0.95	10.9	, 5	0.95	0.95	0.95
Start-un Lost	Time It		$\frac{A}{20}$	A 20			A 0	A 2.0	-	A	A)	1 A 12 0	⊢	\ 	20	A 20	
Extension of E	Effective Green	. е	2.0	2.0		2.0		2.0			2.0	<u>,</u>)	2.0	┢		2.0	2.0	
Arrival Type, /	<u> </u>		3	3			3	3			3		3			3	3	******
Unit Extension	n, UE		3.0	3.0		3	3.0	3.0			3.0)	3.0			3.0	3.0	
Filtering/Mete	ring, I		1.000) 1.000		1	.000	1.000)		1.0	00	1.000	ſ		1.000	1.000	
Initial Unmet [Demand, Qb	0.0	0.0).0	0.0			0.0)	0.0	Ĩ		0.0	0.0		
Ped / Bike / R	TOR Volumes		0	0	0	0		0		0	0		0	0)	0	0	0
Lane Width	arking / Grade / Parking			12.0		1.	2.0	12.0			12.	0	12.0	Ļ		12.0	12.0	
Parking / Grad	ane Width arking / Grade / Parking arking Maneuvers, Nո			0			N	0		N	N		0	\downarrow	/	N	0	N
Parking Mane	uvers, Nm			_		_	~	<u> </u>	_				<u> </u>	<u> </u>		<u> </u>		<u> </u>
Buses Stoppir	ng, NB Rodoctriana - C		10	10			0	10)	0	I		0		
Phasing	EB Only		Born	3.2	02		0.4	J.Z			<u> </u>		3.2 C Dorm			07	3.2	0
i nasing	G = 10.0	G =	16.0	G =	03	G	 ≅		G	= 8.5	ту 5	G	<u> - 80</u>		G =	01		0
Timing	Y = 5	Y =	5	Y =		ΤŸ	-		Ŷ	= 5		TY:	= 5		Y =		Y =	
Duration of Ar	halysis, T = 0.2	5								<u></u>		Cy	cle Leng	jth,	C =	62.5		
Lane Group	Capacity, Con	trol D	elay,	and LO	S Deter	mina	tion											
				EB		ļ		WB					NB				SB	
A	· D - 4 -		LT	TH	RT			TH	F	RT	LT		TH	R	T		TH	
Adjusted Flow		2	246	357		28		317	<u> </u>		18	_	117			32	389	
	арасцу, с	4	+/0	918		26	1	4/1	-		127	_	228			428	560	
Tabal Que - 2		0.	52	0.39		0.11	0	0.67	<u> </u>		0.14		0.51			0.07	0.69	<u> </u>
Liotal Green R	tatio, g/C	0.	50	0.50		0.26	3 0	.26	L		0.13		0.13			0.34	0.34	<u> </u>
Unitorm Delay	/, d ₁	10	0.2	9.8		17.8	3 2	20.9	L		24.2		25.4		A	13.8	17.7	
	actor, PF	1.	000	1.000		1.00	1 00	.000	L		1.000		1.000			1.000	1.000	
Delay Calibra	tion, k	0.	13	0.11		0.11	1 0).24	1		0.11		0.12			0.11	0.26	
Incremental D	elay, d ₂		1.1	0.3		0.2	2	3.8	<u> </u>		0.5		2.0			0.1	3.7	
Initial Queue I	Delay, d ₃	0	.0	0.0		0.0	(0.0	Ļ	¥	0.0		0.0			0.0	0.0	
Control Delay	~~~	1	1.3	10.1		18.	0	24.7		-	24.7		27.4			13.9	21.4	_
Lane Group L	OS	/ /	B	В		В		С		The Balliese Block	С		С			В	С	
Approach Del	Approach Delay 10.6					24.3	1			27.1				****	20.8			
Approach LO	pproach LOS B				С				С				С					
Intersection D	elay		18.	0		X	c = 0.	.72			Intersection LOS				В			
	· · · · · · · · · ·																	

Copyright © 2007 University of Florida, All Rights Reserved

HCS+TM Version 5.3

Generated: 6/1/2009 4:19 PM

Future Conditions – No Build

•

				НС	S+ [™] Dł	ETAIL	E) REP	ORT		017 History 1						
General Infor	nation						Ţ	Site Inf	ormatic	on							
Analyst Agency or Co. Date Performe Time Period	GMB d 3/26/2009 Future PM P Build	eak I	Hour ~ N	lo			I A A F	ntersed Area T) Jurisdic Analysi Project	ction /pe ction s Year ID	US Ro All 20: Fut Bu	441 ad othei 30 ture l	at Rollin r areas PM Peak	g Acri Hour	es N	0		
Volume and T	iming Input																
	72000000000000000000000000000000000000		10000000000000000000000000000000000000	ĒΒ				WB				NB				SB	
			LT	Тн	RT	LT		TH	RT	1	Τ	TH	RT		LT	TH	RT
Number of Lar	nes, N1		1	2	1	1		2	1	4) 	1	1		1	$\frac{1}{7}$	7
Lane Group			L	T	R	L									<u>_</u>	1	
Volume, V (vp	h)		241	1646	395	425		1782	75	4	73	229	200		04 2	220	2
% Heavy Vehi	cles, %HV		2	$\frac{1}{2}$	2	2		2	2		:)5	2	0.05	_	- 2 2 2 5	- 1 95	0.95
Peak-Hour Fa	ctor, PHF		0.95	0.95	0.95	0.95		V.95	0.95		ין ן ן	0.90 A	0.90 A		Δ	A	A
Pretimed (P) o	r Actuated (A)		<u>A</u> 2 0	$\frac{A}{20}$	A 20	$\frac{A}{20}$		20	$\frac{A}{20}$	- 1-5	` n	2.0	$\frac{7}{2.0}$	_	2.0	2.0	2.0
Stan-up Lost	Hille, I1 Sfective Green	Д	2.0	2.0	2.0	20		2.0	2.0	2	, 0	2.0	2.0	-	2.0	2.0	2.0
Arrival Type			3	3	3	3		3	3		}	3	3		3	3	3
Unit Extension	i. UE		3.0	3.0	3.0	3.0		3.0	3.0	3	0	3.0	3.0		3.0	3.0	3.0
Filterina/Meter	Internation, OE 0.0 0.0 0.0 iltering/Metering, I 1.000 1.000 1.000 nitial Unmet Demand, Qb 0.0 0.0 0.0) 1.	000	1.000	1.00	0	1.000	1.000	1.000
Initial Unmet D	nitial Unmet Demand, Qb 0.0 0.0 0.0							0.0	0.0	0	.0	0.0	0.0		0.0	0.0	0.0
Ped / Bike / R	Ped / Bike / RTOR Volumes 0 0 0							0	0)	0	60		0	0	0
Lane Width	Ped / Bike / RTOR Volumes 0 0 0 .ane Width 12.0 12.0 12.0							12.0	12.0	12	2.0	12.0	12.0		12.0	12.0	12.0
Parking / Grac	le / Parking		N	0	N	N	*******	0	N		V	0	N		N	0	
Parking Mane	uvers, Nm											_	-				
Buses Stoppir	ng, Nв		0	0	0	10		0	0		0	0	0		0		U
Min. Time for	Pedestrians, G	p		3.2		<u> </u>		3.2		1		3.2				3,2	
Phasing	Excl. Left	Thr	u & RT		03	(04		Excl. L	.eft		hru & RT))/	0	ŏ
Timina	G = 13.0	G =	26.2	<u> </u>		<u> G</u> =			G = 7.	5	- IG	= 8.0		ב = / -		V =	
	Y = 5	$Y = \frac{1}{2}$	5	<u> </u>		<u> </u>			נ ≃ ז		┼	- 0 vole Len	 sth_C	<u> -</u>	74 7		
Duration of Ar	halysis, $1 = 0.2$	0 4	Delcor		C Deter	ninatia					<u> </u>		<u>y</u> ui, t	,	r "F+ /		
Lane Group	Capacity, Con	troi l	Delay, a	FR	s Deteri	ninatic I	111	WB		1		NB				SB	
		┢	LT	TH	RT	LT		TH	RT			TH	ŔŢ		LT	TΗ	RT
Adjusted Flow	v Rate, v		254	1733	416	447	1	1876	79	49	5	241	208	}	88	238	89
Lane Group C	Capacity, c		308	1244	555	308	1	1244	555	34	5	200	170)	178	200	170
v/c Ratio, X	************	- la	.82	1.39	0.75	1.45	1	1.51	0.14	1.4	1	1.21	1.22		0.49	1.19	0.52
Total Green F	Ratio, g/C	c).17	0.35	0.35	0.17	C).35	0.35	0.1)	0.11	0.11		0.10	0.11	0.11
Uniform Delay	y, d ₁	2	29.8	24.2	21.4	30.8	2	24.2	16.6	33.	3	33.3	33.3		31.8	33.3	31.5
Progression F	actor, PF	7	1.000	1.000	1.000	1.000	1	1.000	1.000	1.0	00	1.000	1.00	0	1.000	1.000	1.000
Delay Calibra	tion, k	6).36	0.50	0.30	0.50	C	0.50	0.11	0.5	0	0.50	0.50)	0.11	0.50	0.13
Incremental E	Incremental Delay, d ₂ 16.5 181.9 5.6 22				220.4	2	232.8	0.1	215	i.3	129.8	141.	.7	2.2	124.3	2.9	
Initial Queue	Delay, d ₃		0.0	0.0	0.0	0.0		0.0	0.0	0.0)	0.0	0.0		0.0	0.0	0.0
Control Delay 46.3 206.1 27.0 25					251.3		257.1	16.7	248	3.9	163.2	175	.1	34.0	157.6	34.5	
Lane Group l	Lane Group LOS D F C F					F	T	F	В	F		F	F		C	F	С С
Approach De	Approach Delay 158.2				2	248	.1		210.9					105.0			
Approach LO	pproach LOS F				F			F			F						
Intersection [Delay	197.7 X _c = 1.			c = 1.44 Intersection LOS F						<u> </u>						

HCS+[™] Version 5.3

Generated: 8/10/2009 2:03 PM

1997 - 1977 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 -	TW	O-WAY STOP	CONTRO	LSUMM	ARY			HARD CONTRACTOR	
General Information			Site In	formatio	n				March Concerning and Concerning
Analyst	MR		Intersec	tion		RollingAcre	s & Sho	oppina	North
Agency/Co.	GMB		Jurisdic	tion		1		Marchanne Par	
Date Performed	8/4/2009	Carry Martin Country of The State of Country	Analysis	s Year	in 2000 and 200 million and 200	2030	*****	W-24-7	
Analysis Time Period	Future PM Build	Peak Hour - No							
Project Description Futur	re PM Peak Hour	- No Build			Kana ma matanganga Grana panané da			unar transmise	
East/West Street: Shoppin	ng Plaza North Er	ntrance	North/So	outh Street	: Rolling Ac	res Road			
Intersection Orientation:	North-South		Study P	eriod (hrs):	0.25				
Vehicle Volumes and	l Adjustments								
Major Street		Northbound	T		4	Southbour	1 <u>0</u>	G	
Movement		2			4			0	
		057	K 47			783		76	
Volume (ven/n) Deak Haur Easter, DHE	0.80	0.80	0.80	ŀ	<u>0 80</u>	0.80		0.80	0
Hourly Flow Rate, HFR	0.00	1071	21		0	978	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	94	
Percent Heavy Vehicles	2				0			هيد	
Median Type				Raised cu	rb				
RT Channelized	na na mangang kang kang baginta di kang mangang kang kang kang kang kang kang kan		0					0	
anes	0	1	1		0	1	Ì	1	
Configuration		T	R			T		R	
Upstream Signal		0				0			
Minor Street		Eastbound			and the second se	Westbour	nd		
Movement	7	8	9		10	11	<u> </u>	12	2
	L	Т	R		L	Т		R	2
Volume (veh/h)			191					35	j
Peak-Hour Factor, PHF	0.80	0.80	0.80		0.80	0.80		0.8	0
Hourly Flow Rate, HFR (veh/h)	0	0	238		0	0		43	3
Percent Heavy Vehicles	2	0	2		0	0	<u> </u>	2	
Percent Grade (%)		0				0		Marina and Angele and A	
Flared Approach		N				N		Same and the same of the same	
Storage		0				0			
RT Channelized			0					0	
Lanes	0	0	1		0	0		1	
Configuration			<u>R</u>		and the second second			R	
Delay, Queue Length, an	d Level of Servic	26					-	and the second second	and the second
Approach	Northbound	Southbound		Westboun	d		Eastbo	und	
Movement	1	4	7	8	9	10	11		12
Lane Configuration					R				R
v (veh/h)	n ved Spinnen etter frighette af statement messare nære af statementer				43				238
C (m) (veh/h)					268				304
V/c					0.16				0.78
95% aueue lenath					0.56				6.18
Control Delay (s/veh)					21.0				49.0
105	an a				С			mana mana ang kabupatén kabupatén kabupatén kabupatén kabupatén kabupatén kabupatén kabupatén kabupatén kabupat	Е
Approach Delay (s/yeh)				21.0			49.0)	
Approach I OS				<u>с</u>		F			
Multineou ros		L	L	×		<u> </u>			

HCS+[™] Version 5.3

Generated: 8/10/2009 2:01 PM

an a	TV	VO-WAY STOP	CONTRO	LSUM	MARY			
General Information		<u></u>	Site In	formati	on	17282-17283-18482-1949-1990-1990-1990-1990-1990-1990-1990		
Analyst	MR		Interner	tion		Rolling Ac	res & Shopp	ing
Agency/Co.	GMB			AUUTI		South		
Date Performed	8/4/2009		Jurisdic	tion		0.000		
Analysis Time Period	Future PM Build	Peak Hour - No		s Year		2030		
Project Description Futur	re PM Peak Hour	- No Build				-	**************************************	
East/West Street: Shoppir	ng Plaza South Er	ntrance	North/So	outh Stre	et: Rolling Ad	cres Road		ana a succession of the succes
Intersection Orientation: I	North-South		Study P	eriod (hrs	s): 0.25	an a latera a successive		
Vehicle Volumes and	Adjustments			w9:00				na mana ana ang ing ing ing ing ing ing ing ing ing i
Major Street		Northbound				Southbou	nd	~
Movement	1	2	3		4	5		6
	L	T	R		L		COntraction and a supervision of the supervision of	10 K
Volume (veh/h)	92	587	40		128	0.76		10 0.76
Hourly Flow Rate, HFR	121	772	60		168	0.10		13
Percent Heavy Vehicles	2				2			
Median Type				Raised (**************************************		
RT Channelized			0	T	and the second secon		Chemical States and Stat	0
l anes	1	1	1 1		1	1		1
Configuration	L		R		L	T		R
Upstream Signal		0				0		inter an ann an State ann an Stat
Minor Street		Eastbound	****			Westbou	nd	
Movement	7	8	9		10	11		12
	L.	T	R	aus-aal-ad-aa-aal-ad-aa	L	Т		R
Volume (veh/h)	7	5	37		34	29		83
Peak-Hour Factor, PHF	0.76	0.76	0.76		0.76	0.76		0.76
Hourly Flow Rate, HFR (veh/h)	9	6	48		44	38		109
Percent Heavy Vehicles	2	2	2		2	2		2
Percent Grade (%)		0				0		
Flared Approach		N				N		armour of the line of the line of the
Storage		0		ļ		0		and the second
RT Channelized			0					0
Lanes	0	1	0		1	1		0
Configuration		LTR			L			TR
Delay, Queue Length, an	d Level of Servic	:e						
Approach	Northbound	Southbound		Westbou	und		Eastbound	
Movement	1	4	7	8	9	10	11	12
Lane Configuration	Ĺ.	L	L		TR		LTR	
v (veh/h)	121	168	44		147		63	
C (m) (veh/h)	1606	801	179		317		0	
V/C	0.08	0.21	0.25		0.46		1	
95% aueue jenoth	0.24	0.79	0.93		2.34			
Control Delay (s/veh)	7.4	10.7	31.5		25.8		1	
	Δ	ß	ת ו				F	
Approach Delay (s/yeh)	/ L			97 1				
Approach LOS				<i>، ، بے</i> ∩				······
Approach LOS	<u>i</u>	<u> </u>						

HCS+[™] Version 5.3

Generated: 8/10/2009 2:00 PM

i yhni ye analisiiniinen Calabal kasioniinen mike opposipiipiipiipiipiipiipiipiipiipiipiipiipi	τv	VO-WAY STOP	CONTRO	L SUI	MMA	\RY				
General Information	979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 -	anann ann a leis leitheann a star an	Site In	forma	tion					
Analyst	MR		Intersec	ction			Rolling Acr	es & S	chool	Ent Nor
Agency/Co.	GMB		Jurisdic	tion						Contractor and Contractor of Contractor
Date Performed	4/23/2009		Analysi	s Year			2030			
Analysis Time Period	Future PM	Peak (3PM - 4PM)								
Project Description Futu	re PM Peak (3PM	I - 4PM) - No Build								
East/West Street: School	Entrance North	1	North/So	outh Str	eet:	Rolling Ac	es Road		****	
Intersection Orientation:	North-South		Study P	eriod (h	rs):	0.25		(00000-00000-0000-0000-0000-0000-0000-		
Vehicle Volumes and	l Adjustments				No. 100 100 100 100 100 100 100 100 100 10		***	manna da signification	,	
Major Street	A 111 M 10	Northbound					Southbour	nd		-
Movement	1	2	3			4	5			6
			R		Without the party	L		N900-010-00-00-00-00-00-00-00-00-00-00-00-		ĸ
Volume (veh/h)		/35	24		on and the second s	50 0.00	807		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	ns
Peak-Hour Factor, PHF	0.95	0.90	0.90			0.90	0.90		U,	.90
(veh/h)	0	816	26			55	890		-	0
Percent Heavy Vehicles	0					2				
Median Type				Undiv	ided		2011-1-1-2-1-0-0-0-1-1-1-1-0-0-0-0-0-0-0	ayon na managada	****	
RT Channelized			0							0
Lanes	0	1	0	I		1	1			0
Configuration			TR			L	Т			
Upstream Signal		0					0			
Minor Street	and and a second se	Eastbound					Westbour	nd		
Movement	7	8	9			10	11		enzación de Surdior	12
	L	Т	R	R		L	Т			R
Volume (veh/h)					TY007/10/000	5		_	1	77
Peak-Hour Factor, PHF	0.95	0.95	0.95		na na mana ang kao ang	0.90	0.95		0	.90
Hourly Flow Rate, HFR (veh/h)	0	0	0			5	0		1	96
Percent Heavy Vehicles	0	0	0	ĺ	2000-00-00-00-00-00-00-00-00-00-00-00-00	2	0			2
Percent Grade (%)		0		ĺ			0			
Flared Approach	, (741)	N		a an an thing of the local date of the local dat	***********		N		10000000000000000000000000000000000000	
Storage		0	ĺ			9	0	ĺ		
RT Channelized			0							0
Lanes	0	0	0			0	0			0
Configuration							LR			
Delay, Queue Length, an	d Level of Servio	:e	an a				nonummeren en i bilechiidiil	ang kanang ka		
Approach	Northbound	Southbound		Westbo	ound	an a		Eastbo	ound	
Movement	1	4	7	8		9	10	1	1	12
Lane Configuration		Ĺ		LR						
v (veh/h)		55		201	1					
C (m) (veh/h)		794	a na mai sa na mana na	338	3	an a				
V/c		0.07		0.5	9					
95% queue length		0.22		3.6	3			t		
Control Delay (s/yeb)		90		30	- 1		1			
		з. з Л		- .	1	***				
		н 1	a an		4	1				Summer converses
Approach Delay (s/veh)			<i>. U</i> C	1	*******					
Approach LOS		-	D						_	

HCS+TM Version 5.3

Generated: 8/10/2009 2:02 PM

Tata in a constant of a fair of the second secon	τv	VO-WAY STOP	CONTRO	DL SUI	MM/	٩RY				ar e Martin Carlos de Carlos de
General Information	7440348.000000000000000000000000000000000		Site In	forma	tion			29402502		
Analyst	MR		Intersed	ction			Rolling Aci	res & Sc	hool	Ent Sou
Agency/Co.	GMB		Jurisdic	tion						**************************************
Date Performed	4/23/2009		Analysi	s Year			2030			
Analysis Time Period	Future PM	Peak (3PM - 4PM)							_	
Project Description Futu	ire PM Peak (3PM	I - 4PM) - No Build	n a sua a sua a sua sua sua sua sua sua s							
East/West Street: School	Entrance South		North/S	outh Str	reet:	Rolling Ac	res Road			
Intersection Orientation:	North-South		Study P	eriod (h	nrs):	0.25	and a second			
Vehicle Volumes and	I Adjustments							2030 Carlos C		a market and the particular
Major Street	444-p	Northbound				Canal - Canal	Southbou	nd		
Movement	1	2	3			4	5			6
			R			L	700		e de la companya de l	K
Volume (ven/n)	0.05	/11	8		~	8 005	/08	an a	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	<u>Λ</u> Ξ
Heak-noul Faciol, Phr Hourly Flow Pate, HEP	0.95	0.90	0.95			0.90	0.95		0.	90
(veh/h)	0	748	8			8	808		I	0
Percent Heavy Vehicles	0				***	2				
Median Type				Undiv	rided					
RT Channelized			0	T						0
Lanes	0	1	0			1	1			0
Configuration			TR			L	T			
Upstream Signal		0					0			
Minor Street		Eastbound	, 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 199 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -			, <u>1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997</u>	Westbou	nd	Seine anna an the second s	
Movement	7	8	9		HIRE CARTER	10	11			12
	Ĺ	Т	R			L	T			R
Volume (veh/h)	ļ					4			,	10
Peak-Hour Factor, PHF	0.95	0.95	0.95			0.95	0.95		0.	.95
Hourly Flow Rate, HFR (veh/h)	0	0	0			4	0			10
Percent Heavy Vehicles	0	0	0			2	0			2
Percent Grade (%)		0		T			0			
Flared Approach		N					N	and a subscription of the		
Storage		0				in han multi sen an anna an	0			
RT Channelized			0					T		0
Lanes	0	0	0			0	0			0
Configuration							LR			
Delay, Queue Length, an	d Level of Servic	e			-testotamenen				******	
Approach	Northbound	Southbound		Westbo	ound			Eastbou	ind	
Movement	1	4	7	8		9	10	11		12
Lane Configuration		Ĺ.		LR						
v (veh/h)		8		14				Î	Ĩ	
C (m) (veh/h)		855		243	}				ĺ	
v/c		0.01	*******	0.06	5		1		ĺ	and the second
95% queue length	d=2	0.03		0.18	9			1		
Control Delay (s/yeb)		9,3		20 7	 7			<u> </u>		
OS A			20,7							
	20.7				<u> </u>		an anna an an an an Air an			
Approach LOC		20.1	/	nan an	an a casarán 2020 - Calina Aline Alin Maria					
Approach LUS										

HCS+[™] Version 5.3

Generated: 8/10/2009 2:01 PM

	T۱	NO-WAY STOP	CONTRO)L SUMN	<i>I</i> ARY				
General Information	The The Contract of Contract of Contracts on the Contract of Contract of Contract of Contract of Contract of Co	anış ¹ maşışı bananın kooran bir ana olara — ola (a mı olar	Site In	formatio	วที	"You Tich House communication and the	2742777222994-0464977299977777777	2.2007.000 (Control Office & BCCC & CONTROL (Control)	
Analyst	GMB		Interec	stion		Rolling Ac	on Road at	Oak St	
Agency/Co.		and the second		tion		Koning Aci	es ruau ai		
Date Performed	3/26/2009		Analysi	s Year	Malanianan ang Takaya da Kabutatan	2030			
Analysis Time Period	Future PM Build	l Peak Hour - No		5 1 001					
Project Description Futu	re PM Peak Hou	r - No Build				*****	00000000000000000000000000000000000000		
East/West Street: Oak St	reet		North/S	outh Stree	t: Rolling Ac	res Road			
Intersection Orientation:	North-South		Study P	eriod (hrs)	: 0.25				
Vehicle Volumes and	I Adjustments	5				n an			
Major Street		Northbound				Southbou	nd		
Movement	1	2	3		4	5		6	
	<u> </u>	T	R		L	Т		R	
Volume (ven/n)	13	726	3	******	0	804		10	
Hourly Flow Rate WER	0.95	0.95	0.95		0.95	0.95		7.95	
(veh/h)	13	764	3		0	846		10	
Percent Heavy Vehicles	2				0				
Median Type				Undivide	d				
RT Channelized			0					0	
Lanes	1	1	0		1	1		0	
Configuration	L		TR		L			TR	
Upstream Signal		0				0			
Minor Street		Eastbound				Westbour	nd		
Movement	7	8	9		10	11		12	
	L	T	R		L	T		R	
Volume (veh/h)	15	0	21	17-18-17-17-18-18-18-18-18-18-18-18-18-18-18-18-18-	0	0	·	4	
Hourly Flow Rate HER	0.95	0.95	0.90	a second a second construction of the second construction of the second construction of the second construction	0.95	0.95		0.90	
(veh/h)	15	0	22		0	0		4	
Percent Heavy Vehicles	2	0	2		0			0	
Percent Grade (%)		0				0			
Flared Approach		N				N			
Storage		0				0			
RT Channelized			0					0	
Lanes	0	1	0		0	1		0	
Configuration		LTR				LTR			
Delay, Queue Length, an	d Level of Servic	20							
Approach	Northbound	Southbound		Westboun	d		Eastbound		
Movement	1	4	7	8	9	10	11	12	
Lane Configuration	Ļ	L		LTR			LTR		
v (veh/h)	13	0		4			37		
C (m) (veh/h)	784	856		406			145		
v/c	0.02 0.00			0.01			0.26		
95% queue length	0.05	0.00		0.03			0.96		
Control Delay (s/veh)	9.7	9.2		14.0			38.1		
LOS	OS A A			B			E		
Approach Delay (s/veh)		14.0			1	38.1	nden under sozie off-fried station of the		
Approach LOS			/~		~~~		E		

HCS+TM Version 5.3

Generated: 8/10/2009 1:58 PM

Detailed Report

ł

D	-1	C 1	
Paga		At L	
1 425		VII I	
	_	v	

	Minden and a summer a set of the second			ł	ics	;+™ [])E	TAILE	ΞC) RE	P(DRT	CRIMINAL AND							
General Infor	rmation								I	Site Ir	fo	rmați	оп							anna an Bootary
Analyst Agency or Co Date Performe	GMB ed 5/26/2009 Future PM F	Peak	Hour -	No					li A J	nterse Area T Jurisdi	cti yp cti	ion e on	C F A	CR 46 Road MI othe	3 at Rollir er areas	ıg A	Acres			
	Build								F	nalys Projec	t IC	year D	E E	:030 Future Build	PM Peak	(He	our - N	Vo		
Volume and	Timing Input			820																
	and 2011 2011 10 202 11 10 10 10 10 10 10 10 10 10 10 10 10			El	3					WB			ŀ		NB				SB	
	A. (LT		-	RT			_	TH	_	RT		LT	TH	F	ک ۲	LT	TH	RT
Number of La	nes, N1		1	$-\frac{12}{12}$		0		1		2		0	_	1	1)	1	1	0
Lane Group	<u>المر</u>	1	250		7		ananaa		-	IR	-			L	TR		40	L	TR	100
% Heavy Vehi	icles %HV		200	- 40 2	1	$\frac{21}{2}$		40		413		31 2	-+	20	118		48 2	40	88 2	400
Peak-Hour Fa	ctor, PHF		0.95	0.9	5	0.95	2 1141114	0.95	-	0.95	-	0.95		- 195	0.95	6	95	0.95	0.95	0.95
Pretimed (P) of	or Actuated (A)		A	A	_	A		A	-	A	-	A	f	A	A	Ť7	4	A	A	A
Start-up Lost	Time, I1		2.0	2.0)			2.0		2.0			1	2.0	2.0	Í		2.0	2.0	
Extension of E	Effective Green	, е	2.0	2.0)			2.0		2.0				2.0	2.0	Ĺ		2.0	2.0	
Arrival Type, A	3	3				3		3	Ĭ.		3	3								
Unit Extension	3.0		3.0				3.0	3.0		-	3.0	3.0								
Filtering/Metering, 1 1.000 1.000										1.000				1.000	1.000		alisaku sesuas	1.000	1.000	<u> </u>
Initial Unmet L		0.0		0.0		~	_	0.0	0.0		-	0.0	0.0							
Lane Width	TOR Volumes		12.0	12	0	U U		120	0					0	0	-)	0	0	0
Parking / Grac	le / Parking		12.0 N	- 1/2.1		N		12.0 N	12.0			N	┽	N	12.0	+		12.0 N	12.0	N
Parking Mane	uvers No		<u> ^</u>	Ť	datamana	14			~			14 14	_	14	1.	┢	40+1325-21-1			14
Buses Stoppir	arena, min		0					0		n				n		┢━			0	
Min. Time for	Pedestrians, G	p		3.	2	<u> </u>				3.2		Second State Second	-		3.2			<u> </u>	3.2	1
Phasing	EB Only	EW	Perm		03		T	04	-		<	SB On			IS Perm	- ,	(07		8
Timina	G = 10.0	G =	16.0	G	=		1	G =	200-CA		G	= 8.5	5	G	= 8.0		G =		G =	
munna	Y = 5	Y =	5	Y	=			Y =			Υ	= 5		Y	= 5		Y =		Y =	
Duration of Ar	nalysis, T = 0.2	5									-			С	ycle Leng	jth,	C =	62.5		
Lane Group (Capacity, Con	troí D)elay,	and L	OS E	Deteri	mii	nation												
			IT		Τī		-	TT	\ 	NB	5	T		T	NB			<u> </u>		
Adjusted Flow	v Rate, v		<u>- 1</u> 368	535				42	4	74	T.		2	6	175			47	584	
Lane Group C	apacity, c	4	477	1748	╈		2	216	8	97			11	19	228			378	560	<u> </u>
v/c Ratio, X		0.	77	0.31			0.	19	0.3	53			0.2	2	0.77			0.12	1.04	
Total Green R	atio, g/C	0.	50	0.50			0.	26	0.:	26	2049407		0.1	3	0.13			0.34	0.34	
Uniform Delay	/, d ₁	10	0.8	9.4			18	3.2	20).0	707000		24.	4	26.4			14.1	20.5	
Progression F	actor, PF	1.	000	1.000			1.	000	1.(000			1.0	000	1.000			1.000	1.000	1
Delay Calibrat	Delay Calibration, k					ورور و و و و و و و و و و و و و و و و و	0.	11	0.	13			0.1	1	0.32		0077-D#05740	0.11	0.50	
Incremental D	7.6	0.1				0.4	0).6			0.	.9	14.6			0.1	49.7			
Initial Queue I	Delay, d ₃	0	.0	0.0			0	.0	0.	.0	atoma		0.0	0	0.0			0.0	0.0	
Control Delay	and and a second and a second and a second and a second a	1	8.4	9.5	_	7	1	8.6	20	0.6	-		25	5.4	40.9			14.3	70.2	
Lane Group LOS B A B								в	C)			C		D			B	Ε	
Approach Delay 13.1							20.	4					38	9			66.0			
Approach LOS B							С			D E										
Intersection D	elay		31.9 X _c = 0.7				0.79 Intersection LOS C													

Copyright © 2007 University of Florida, All Rights Reserved

HCS+TM Version 5.3

Generated: 8/10/2009 1:59 PM

Future Conditions – With Proposed Changes

Detailed Report

Page	1	01	1	

ednekkalaselasenasersenanaan en his dit 1900-0000000000000000000000000000000000		innulain timin	nderend Herroritekorzh		ics	'≁* D	E	TAILE	D	RE	PC	RT		Amusi Austi	*********		******			242100000000000000000000000000000000000
General Infor	mation								S	ite In	for	rmatic	on							
Analyst	GMB			27233-az-14		*****			lr	nterse	cti	on	US Ro	441 ad	at Rolli	ng A	cres			
Agency of Co.									A	rea T	yp	е	A//	othe	r areas					
	Euture PM F	Peak I	Hour w	,					J	urisdi	ctic	on								
Time Period	Changes		,e u , 1,						A	nalys	is `	Year	20	09 ,	-					
									Р	rojec	t IC)	- Fu Ch	ture ande	PM Peal PS	кно	our wi	เก		
Volume and	Timina Input								1					ange						
	X			EE						WB		*****	Ī	*****	NB		********		SB	
			LT	Tŀ	ł	RT		LT		TH	Τ	RT			ТН	F	۲T	LT	TH	RT
Number of La	nes, Nı		1	3		1		1		3		1	2)	1	1		1	1	1
Lane Group			L	Т		R		L		Т		R	1	-	T	F	2	L	Т	R
Volume, V (vp	ih)	-	241	164	6	335		425	_	1782		75	4	73	229	2	58	84	226	85
% Heavy Vehi	icles, %HV		2	2	_	2		2		2	2 2		2)	2	4)	2	2	2
Peak-Hour Fa	ctor, PHF		0.95	0.98)	0.95		0.95		0.95		0.95	0.9	95	0.95	0.9	25	0.95	0.95	0.95
Pretimed (P) of	or Actuated (A)	Martinia and a	A			A	_	A	_	A	_	A	Ļ	۱ ^	A	╇		A	A	A 2.0
Stan-up Lost	Hme, I1	~	2.0	2.0	***	2.0		2.0	2.0			2.0	2.	U A	2.0	14	U A	2.0	2.0	2.0
Arrivel Type		, e	2.0	2.0		2.0		2.0	╉	2.0	-+	2.0	-4	<i>∪</i> }	2.0	╧	2	2.0	3	3
Linit Extension		20	-	30	3		30		30	3	, //	30	30	30						
Onit Extension, OE 3.0 3.0 3.0 Filtering/Metering 1,000 1,000 1,000 1,000										1 000		1 000	1	000	1.000	1	000	1.000	1.000	1.000
										0.0		0.0	0	0	0.0	10	0	0.0	0.0	0.0
Ped / Bike / R	TOR Volumes		0	0		0		0		0	1	0)	0	6	0	0	0	0
Lane Width	*****		12.0	12.()	12.0		12.0	Ī	12.0		12.0	12	.0	12.0	12	2.0	12.0	12.0	12.0
Parking / Grad	te / Parking		N	0		Ν		N		0		Ν	1	٧	0	1	V	N	0	N
Parking Mane	uvers, Nm	01445200050050							Ī											
Buses Stoppir	ng, Na		0	0		0		0	Ĩ	0		0		0	0		0	0	0	0
Min. Time for	Pedestrians, G	ip		3.	2					3.2					3.2				3.2	
Phasing	Excl. Left	Thru	1 & RT		03	ana ² /2 11112 ¹ 41 at ² 13 ¹ 7 116		04			E	xcl. Le	eft	T	hru & R1	-		07	0	8
Timina	G = 13.0	G =	26.2	G	2		4	G =			G	= 7.5)	G	= 8.0		G =		G =	
	Y = 5	Y =	5	- Y :	2			Y ≈			Y	= 5		<u> </u>	= 5		$\frac{Y}{2}$		Y =	
Duration of Ar	halysis, $1 = 0.2$	5											000000000000000000000000000000000000000	10	ycle Len	gth,	C =	/4./		
Lane Group o	Capacity, Con	trol L	Jelay,		<u> </u>	Jeterr	<u>nir</u>	nation	V	۸/R					NB			1	SB	
		_	LT	ТН	T	٦٢	┢╴	LT	Ť	Ή	F	۲۲			TH	TR	Ť	LT	ТН	RT
Adjusted Flow	/ Rate, v	**************************************	254	1733	3	53	14	147	18	376	<u>,</u>	79	49F		241	21	28	88	238	89
Lane Group C	apacity, c		308	1780	5	55	3	308	17	780	5	- 55	345	5	200	1	70	178	200	170
v/c Ratio, X	****	<i>o.</i>	.82	0.97	0.	64	1.	45 í	1.0	25	0.	14	1.44		1.21	1.2	2	0.49	1.19	0.52
Total Green R	Ratio, g/C	0.	.17	0.35	0.	35	0.	17 (0.3	35	0.:	35	0.10		0.11	0.1	1	0.10	0.11	0.11
Uniform Delay	y, d ₁	2	9.8	23.9	20).3	30	0.8	24	4.2	16	6.6	33.6		33.3	33	.3	31.8	33.3	31.5
Progression F	Factor, PF	1	.000	1.000	1.	000	1.	.000	1.(000	1.1	000	1.00	0	1.000	1.0	000	1.000	1.000	1,000
Delay Calibra	tion, k	0	.36	0.48	0.	22	0.	50 (0.5	50	0.	11	0.50)	0.50	0.8	50	0.11	0.50	0.13
Incremental D	16.5	15.5		2.4	22	20.4	37	7.2	0).1	215	3	129.8	14	1.7	2.2	124.3	2.9		
Initial Queue Delay, d ₃ 0.0					0	.0	0	0.0	0.	.0	0.	.0	0.0	2-72-1404P	0.0	0.	0	0.0	0.0	0.0
Control Delay 46.3 39.4 22.7						2.7	28	51.3	6	1.4	1	6.7	248	9	163.2	17	5.1	34.0	157.6	34.5
Lane Group LOS D D C F						F	E	=	E	3	F		F	F	-	C	F	C		
Approach Del	ay		37.	6				95.	95.3 21				210.9 105.0			ann an an an an Arayan a				
Approach LO	S		D					F F F				F								
Intersection D)elay		91.8 X _c = 1.2					= 1.23 Intersection LOS F												

Copyright @ 2007 University of Florida, All Rights Reserved

HCS+TM Version 5.3

.

Generated: 8/10/2009 2:07 PM

n da mahan ya kunya nya papapa nya panya na katala katala katala katala katala katala nya papapana na pada kata Internet	TV	VO-WAY STOP	CONTRO	DL SU(MMA	\RY		1997,00001000000		
General Information		Gunan mension om tribuer a først sa først skalare som mer for	Site In	forma	tion	กษรณายารรถอาจาก กระจะระหายายายายาง				
Analyst	MR		Interse	ction			RollingAcr	0080	honnin	a North
Agency/Co.	GMB		Interse	ction			- ConnyAch		πορρη	3 10/11/
Date Performed	8/4/2009		Analysi	is Year	****	—			- International Association	
Analysis Time Period	Future PM Changes	Peak Hour w								
Project Description Futu	re PM Peak Hour	with Changes								
East/West Street: Shoppi	ng Plaza North Er	ntrance	North/S	outh Str	reet:	Rolling Ac	res Road			
Intersection Orientation:	North-South		Study P	eriod (h	irs):	0.25				
Vehicle Volumes and	l Adjustments									
Major Street		Northbound					Southbou	nd		
Movement	1	2	3		······································	4	5			6
		T	R							R
Volume (veh/h)	0.00	857	1/			0.00	/83		/ 	(り の/
Peak-Hour Factor, PHF	0.80	0.80	0.80		***	0.80	0.80		υ.	.00
rouny rlow Rale, HFR (veh/h)	0	1071	21			0	978		})4
Percent Heavy Vehicles	2					0				
Median Type				Raisec	l curb		an a			وسيعم والمراجع
RT Channelized			0						0	
Lanes	0	2	1			0	2			1
Configuration		R				T			R	
Upstream Signal		0			Server and Assembly		0			
Minor Street		Eastbound					Westbou	nd	nanaana (aliji katancanan	
Movement	7	8	9		international second	10	11			12
	L	Т	R			<u>լ</u>	<u> </u>			R
Volume (veh/h)			191		11 1 121					35
Peak-Hour Factor, PHF	0.80	0.80	0.80)		0.80	0.80		0	.80
Hourly Flow Rate, HFR (veh/h)	0	0	238			0	0			43
Percent Heavy Vehicles	2	0	2			0	0			2
Percent Grade (%)		0					0			
Flared Approach		N					N			
Storage		0					0			
RT Channelized			0			na menangkan kanangkan kanangkan kanangkan kanangkan kanangkan kanangkan kanangkan kanangkan kanangkan kanangk	and the second se			0
Lanes	0	0	1	Î		0	0			1
Configuration			R							R
Delay, Queue Length, an	d Level of Servic	:e	מליחה איז		1000000000000	and the second se				
Approach	Northbound	Southbound		Westbo	bund			Eastb	ound	
Movement	1	4	7	8		9	10		11	12
Lane Configuration						R				R
v (veh/h)				1		43				238
C (m) (veh/h)	THE REPORT OF THE REPORT OF THE PARTY OF THE P					543				577
v/c				1		0.08.		1	- 1 ₉ 98-1997 - 1997 - 2007	0.41
95% queue length						0.26				2.01
Control Delay (s/yeh)	notrol Delay (s/yeh)			-		12.2				15.5
			an a succession of a Ha	R 1		_		C		
Approach Delay (aluah)		an a	12.2				15.5			
Phppioach Delay (s/vell)	12.2						·			
Approach LOS	1		8 C							

HCS+TM Version 5.3

	TV	VO-WAY STOP	CONTRO	LSUM	IMA	RY		7444-00-00-00-00-00-00-00-00-00-00-00-00-	an tan na sy undebide	
General Information	inenievol vlizievo kinekinentiane nev zovazvia vivernem zaza	cannal an an ann an an chuirte an fearaichte a' Mhailte AM 1949	Site In	formati	ion		a na ann an Anna an Ann			
Analyst	MR			tia a			Rolling Ac	res & S	Shoppir	ng
Agency/Co.	GMB		Intersec	ะแดก			South			-
Date Performed	8/4/2009		Jurisdic	tion						
Analysis Time Period	Future PM Changes	Peak Hour w	Analysi	s Year						(4)
Project Description Futu	re PM Peak Hour	with Changes								
East/West Street: Shoppi	ng Plaza South E	ntrance	North/S	outh Stre	et:	Rolling Acr	es Road			
Intersection Orientation:	North-South		Study P	eriod (hrs	s):	0.25				
Vehicle Volumes and	l Adjustments		, <u>, , , , , , , , , , , , , , , , , , </u>							
Major Street		Northbound					Southbou	nd		
Movement	1	2	3			4	5		6	
	L	T	R		****	L	T			R
Volume (veh/h)	92	587	46		Statute constatute	128	0) 	10
Peak-Hour Factor, PHF	0.76	0.76	0.76			0.76	0.76		U.	,70
Hourly Flow Rate, HFR (veh/h)	121	772	60			168	0		i	13
Percent Heavy Vehicles	2			Mercard America Common		2	***			
Median Type				Raised (curb					
RT Channelized	an di kana mangana kana mangana kana kana kana kana kana kana kan	an fan seiden ei an eisen an	0						-	0
Lanes	1	2	1			1	2			1
Configuration	L	T	<u> </u>			L	Τ			R
Upstream Signal		0			and the second		0			
Minor Street		Eastbound	CONTRACTOR DATE OF THE OWNER		- da anna an fan f		Westbou	nd		
Movement	7	8	9			10	11			12
	L	T	R				Т			R
Volume (veh/h)	7	5	37			34	29			83
Peak-Hour Factor, PHF	0.76	0.76	0.76			0.76	0.76		U	.70
(veh/h)	9	6	48		44		38		1	09
Percent Heavy Vehicles	2	2	2			2	2			2
Percent Grade (%)		0					0			
Flared Approach		N					N			
Storage		0					0			
RT Channelized			0			a ann an ann ann ann an Ann an Ann a' Ann an Ann				0
Lanes	0	1	0			1	1			0
Configuration		LTR				L				TR
Delay, Queue Length, an	d Level of Servio	:e								
Approach	Northbound	Southbound		Westbou	und			Eastb	ound	
Movement	1	4	7	8		9	10	1	1	12
Lane Configuration	L	L	L			TR		L7	R	
v (veh/h)	121	168	44			147		6	3	
C (m) (veh/h)	1604	796	164			411		33	30	
v/c	v/c 0.08		0.27	1		0.36		0.	19	
95% queue lenath	0.24	0.79	1.03	10-10-10-10-10-10-10-10-10-10-10-10-10-1		1.59		0.0	69	
Control Delay (s/veh)	74	10.7	34.8			18.6		18	1.5	
			от.0 П			. о.о С				
Approach Dolay (aluah)					18.5		i			
Approach LCC	22.0 10.0				. U 	77.79				
Approach LOS			C C						, 	

HCS+[™] Version 5.3

anan-dalarah manangkarangkan kanan kana Kanan kanan kana	Π	NO-WAY STOP	CONTRO	OL SUMM	ARY			
General Information	100000-15410012730-400001223000223960	**************************************	Site In	formatio	n			
Analyst	MR	-	Intersed	ction		Rolling Ac	res & Sch	ool Ent Nor
Agency/Co.	GMB		Jurisdic	tion				Charles and the second s
Date Performed	4/23/2009		Analysi	s Year				
Analysis Time Period	Future PM	Peak (3PM - 4PM)						
Project Description Futu	re PM Peak (3PN	1 - 4PM) with Chan	ges					
East/West Street: School	Entrance North	ana vanan mean men vien minerar van in het ditter van	North/S	outh Street	: Rolling Ad	cres Road		
Intersection Orientation:	North-South		Study P	eriod (hrs):	0.25			
Vehicle Volumes and	Adjustments	5					and a particular statements	
Major Street		Northbound	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		****	Southbou	nd	~
Movement	1	2	3		4	5		Ö D
		700	K		ـــــــــــــــــــــــــــــــــــــ	P04	-	ĸ
Volume (Venn)	0.05	733	24		00	001		A 05
Hourty Flow Pate HER	0.95	0.90	0.90		0.90	0.90		0.30
(veh/h)	0	816	26		55	890		0
Percent Heavy Vehicles	0				2			
Median Type				Undivideo	Ż			
RT Channelized			0					0
Lanes	0	2	0		1	2		0
Configuration		T	TR		L	T		
Upstream Signal		0				0		
Minor Street		Eastbound			******	Westbou	nd	
Movement	7	8	9		10	11		12
	L	Т	R		L	T		R
Volume (veh/h)				j	5			177
Peak-Hour Factor, PHF	0.95	0.95	0.95		0.90	0.95		0.90
Hourly Flow Rate, HFR (veh/h)	0	0	0		5	0		196
Percent Heavy Vehicles	0	0	0		2	0		2
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0	Ì			0		
RT Channelized			0					0
Lanes	0	0	0		0	0		0
Configuration						LR		
Delay, Queue Length, an	d Level of Servi	C6			ກອວດແລະອານາເມສາ ກາດສະຫານສ ິດ ເດີນໃນ			
Approach	Northbound	Southbound		Westbound	ł		Eastbour	nd
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L		LR				
v (veh/h)		55		201				
C (m) (veh/h)		789		574				
v/c		0.07		0.35			1	
95% queue length		0.22		1.56				
Control Delay (s/veh)		99		14.6	-		1	
	a na ann an ann ann ann ann an ann an an	Δ		R				
Approach Delay (s/yeb)				1/6			1	
Approach LOS				14.0				
Approach LOS	I		L	B				

HCS+TM Version 5.3

Generated: 8/10/2009 2:10 PM

an an ann an	TV	NO-WAY STOP	CONTRO	DL SUN	лма	λRY				
General Information	¹		Site In	format	tion		and an an an and an			
Analyst	MR		Interse	ction			Rolling Acr	res & Sc	hool E	nt Sou
Agency/Co.	GMB		Jurisdia	tion						
Date Performed	4/23/2009		Analysi	s Year						
Analysis Time Period	Future PM	l Peak (3PM - 4PM)]
Project Description										
East/West Street: School	Entrance South		North/S	outh Stre	eet:	Rolling Ac	res Road			and the second
Intersection Orientation:	North-South		Study P	eriod (hr	's):	0.25			organization and the second	*****
Vehicle Volumes and	I Adjustments	5		***************************************						
Major Street		Northbound					Southbou	nd		
Movement	1	2	3			4	5	!	6	3
			R						- 	<u> </u>
Volume (ven/n)	0.05	/11	8 005		1 1 1 1 ⁻¹ 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	8 0.05	768		~ ~ ~	15
Heak-Hour Factor, PHP	0.95	0.95	0.95			0.95	0.95		0.8	0
(veh/h)	0	748	8			8	808		0	
Percent Heavy Vehicles	0					2				-
Median Type				Undivi	ded					
RT Channelized			0						0)
Lanes	0	1	0			1	1		0)
Configuration	onfiguration					L	T			
Upstream Signal	0					0				
Minor Street		Eastbound					Westbour	าด	ala sabéhanéhana sa	
Movement	7	8	9			10	11		1	2
	L	Т	R			L	Т		F	२
Volume (veh/h)						4			1	0
Peak-Hour Factor, PHF	0.95	0.95	0.95			0.95	0.95		0.9	95
Hourly Flow Rate, HFR (veh/h)	0	о	0		4		0			0
Percent Heavy Vehicles	0	0	0		~~~~	2	0	l	2	2
Percent Grade (%)		0					0			
Flared Approach		N					N			na maanaa waxaa da kabara da -
Storage		0	1				0			
RT Channelized			0					[C)
Lanes	0	0	0			0	0	1	()
Configuration							LR			
Delay, Queue Length, an	d Level of Servic	28								
Approach	Northbound	Southbound		Westbou	und			Eastbou	ind	
Movement	1	4	7	8		9	10	11		12
Lane Configuration		L		LR	Ī					
v (veh/h)		8		14						
C (m) (veh/h)		855		243	Î					
v/c		0.01	2	0.06						
95% aueue lenath	999.2791.281.022.022.022.020.022.000.020.000.020.02	0.03		0.18						
Control Delay (s/veh)	******	9.3		20.7				<u> </u>		
DS A					~~~					······
Annroach Delay (slueb)			20.7					<u> </u>	l	
Approach LOS		~ ~								
				U U			1			

HCS+[™] Version 5.3

Generated: 8/10/2009 2:09 PM

genenn seensillen strukteringen van de sense kan de sense kan de sense kan de sense op eense op eense op eense Regeleren senselijken sense		WO-WAY STOP	ONTRO	OL SUM	MARY			and and a substantian of the substan	
General Information		Site Ir	nformati	on	00000000000000000000000000000000000000		*******		
Analyst	GMB			etion		Polling Ac	rec Road at	Oak St	
Agency/Co.			Jurisdi	rtion			es Nuau al		
Date Performed	3/26/2009		Analys	is Year		2030	*************************************	*******	
Analysis Time Period	Future PN Change	1 Peak Hour - w							
Project Description Futu	ıre Pm Peak Hou	r - with Changes		elela Missia manana anna anna anna anna anna anna		атаматут ану сала стартите къстор в село на узако на село	******		
East/West Street: Oak St	treet		North/S	outh Stree	et: Rolling	Acres Road			
Intersection Orientation:	North-South		Study F	Period (hrs): 0.25				
Vehicle Volumes and	d Adjustments	5							
Major Street		Northbound			Angelen and an and a second	Southbou	nd		
Movement	1	2	3		4	5		6	
	L	Т	R		L	T		R	
Volume (veh/h)	13	726	3		0	804		10	
Peak-Hour Factor, PHF	0.95	0.95	0.95		0.95	0.95		0.95	
(veh/h)	13	764	3		0	846		10	
Percent Heavy Vehicles	2				0				
Median Type				Undivid	ed				
RT Channelized			0					0	
Lanes	1	2	0		1	2		0	
Configuration	L	Т	TR		L	Ť		TR	
Upstream Signal		0				0			
Minor Street		Eastbound				Westbou	nd		
Movement	7	8	9		10	11		12	
	<u> </u>	T	R		L	Т		R	
Volume (veh/h)	15	0	21		0	0		4	
Peak-Hour Factor, PHF	0.95	0.95	0.95		0.95	0.95		0.95	
Hourry Flow Rate, HFR (veh/h)	15	0	22	0		0		4	
Percent Heavy Vehicles	2	0	2		0	0		0	
Percent Grade (%)		0				0			
Flared Approach		N	······	***************************************	BOT THE DOLLAR WHICH IN DOCUMPANIA	N			
Storage		0		aliantis esperante de la compositione de la compositione de la compositione de la compositione de la compositio		0			
RT Channelized		2007.000 COTOL Coloren and Col	0	aliya ana ana ang ang ang ang ang ang ang an				0	
Lanes	0	1	0		0	1		0	
Configuration		LTR				LTR			
Delay, Queue Length, an	d Level of Servi	Ce	1999 Collector and Concernsion			ก่าวมีกลับให้เสรี มีปกระดับกล่าวไป การวงการการเห			
Approach	Northbound	Southbound		Westbour	nd		Eastbound	an a	
Movement	1	4	7	8	9	10	11	12	
Lane Configuration	L	L		LTR			LTR		
v (veh/h)	13	0		4			37		
C (m) (veh/h)	780	856		668			238	**************************************	
v/c	0.02	0.00		0.01			0.16	1	
95% queue lenath	0.05	0.00		0.02			0.54		
Control Delay (s/veh)	97	9.00		104			22.0		
								~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
Approach Delow (elugh)			1		l	22.0			
Approach LOS	roach LOS					22.9			
Approace LOS				в		СС			

HCS+[™] Version 5.3

Generated: 8/10/2009 2:10 PM

#### Defailed Report

	Mölle ovanansamannan meannaghtan deiligeach	Weber Kanadana and	an a		HCS	S+™ [	)E	TAIL	ĒC	) RE	P	ORT			170014784900000000000000000000000000000000000		///////////////////////////////////////	2013 A 1070 E 10 10 2 2014 A 1 2027	ana ana ana ang katalah katala	040000000000000000000000000000000000000
General Info	rmation						272/10/000	1999-94-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	5	Site Ir	nfc	ormati	on	<del>04 49400 (</del> 120)	040-olimatoina konsona manaz		A			<u></u>
Analyst Agency or Co Date Perform Time Period	GMB o. ed 5/26/2009 Future PM F Change	Peak I	Hour -	W					i J A F	Interso Area 1 Jurisd Analys Projec	əct Fyp ictí sis	lion De ion Year D	C R A L 2 C F	R 46 oad II oth ake ( 030 uture	6 at Rolli er areas County PM Pea	ng A k Ha	our - v	with	6a = 19	
Volume and	Timina Input						-		1_					nang	63					
			Т		EB			I	a d'an Anna	WB			T		NB			I	SB	
			LT	T	TH	RT		LT	٦	TH	matsumus	RT		L۳	ТН	F	रत	LT	ТН	RT
Number of La	ines, N1		1		2	0		1		2	COMPANY,	0		1	1	(	)	1	2	0
Lane Group			L	<u> </u>	'R									L	TR			L	TR	
Volume, V (vr	oh)	(nhó-mananana	350		487	21		40		413	-	37		25	118	4	18	45	88	466
% Fleavy Veh	iicles, %HV	And a Constant of the Annual State	2		2	2	-	2	_	2		2		2	2	2	2	2	2	2
Peak-Hour Fa	actor, PHF		0.95		.95	0.95		0.95	_	0.95	XWW	0.95	0	.95	0.95	0.1	95	0.95	0.95	0.95
Start-up Lost	Time It		A 2.0		A			A	_	A	-				A		1		A	A
Extension of	Fffective Green	ρ	2.0		2.0		MARGADO	2.0	-	2.0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		-+	2.0	2.0			2.0	2.0	
Arrival Type,	AT		3		3			.3	┥	3	et webe		+	.3	3			2.0	3	
Unit Extension	n, UE		3.0	13	3.0		10.00000100-	3.0	-	3.0	-	*****	-	3.0	3.0	w.(200000		3.0	3.0	10000 million and a second
Filtering/Mete	ring, l		1.000	5 1	.000		1.000		T	1.000	)		1	.000	1.000	1		1.000	1.000	
Initial Unmet Demand, Qb 0.0 0.0							***	0.0		0.0				2.0	0.0	Ť		0.0	0.0	1
Ped / Bike / R	Ped / Bike / RTOR Volumes 0 0							0		0		0	T	0	0	1	)	0	0	0
Lane Width		·	12.0	1	2.0			12.0		12.0			1	2.0	12.0			12.0	12.0	
Parking / Grad	de / Parking	and a substantia free start	N		0	N		N		0		N		Ν	0	1	1	N	0	N
Parking Mane	uvers, Nm	₩ astatentations/anti-incod			- Chattana ann an	-												]		
Buses Stoppin	ng, Nв		0		0			0		0				0	0			0	0	
Nin. Time for	Pedestrians, G	p	<u> </u>		3.2				No.	3.2	<del>,</del>				3.2			<u> </u>	3.2	
Phasing	EB Only	EW	Perm		03	}	4	04	ŀ		_	SB Or	ıly -		NS Perm		[	07	0	8
Timing	G = 10.0	G ≕ ∨	16.0 5	)  G=			Y =				G	i = 8.8	)	G	i = 8.0		G =		G =	
Duration of Ar	nalvsis $T = 0.2$	5	0		] —			<u> </u>			Ţ	- 0				ath		62.5	<u> </u>	
Lane Group	Capacity, Con	trol D	elav.	and	LOSI	Deteri	mi	nation								Jui,		02.0		in the second second
				EE	3		Π	iu nom	٧	NВ					NB			Γ	SB	
			T	TH		RT		LT	Ţ	٢H		RT	L	<b>_</b>	TH	R	Т	LT	TH	RT
Adjusted Flow	/ Rate, v	3	68	535	5		4	42	4	74			26	6	175			47	584	
Lane Group C	Capacity, c	4	77	174	8		2	216	8	97			11	9	228			378	1066	
v/c Ratio, X		0.1	77	0.31			0.	19	0.5	53			0.2	2	0.77			0.12	0.55	
Total Green R	Ratio, g/C	0.1	50	0.50			0.	26	0.2	26	Γ		0.1.	3	0.13			0.34	0.34	1
Uniform Delay	/, d ₁	10	).8	9.4			18	3.2	20	).0			24.4	4	26.4			14.1	16.6	
Progression F	actor, PF	1.	000	1.00	00		1.	000	1.0	000			1.0	00	1.000			1.000	1.000	
Delay Calibrat	tion, k	0.:	32	0.11			О.	11	0.1	13	9-22		0.1	1	0.32			0.11	0.15	
Incremental D	ncremental Delay, d ₂			0.1				0.4	0	).6	Γ		0.	9	14.6		here any sector of	0.1	0.6	
Initial Queue Delay, d ₃ 0.0			0	0.0			0	.0	0.	.0	Γ		0.0	)	0.0			0.0	0.0	1
Control Delay 18.4 9.5				5		1	8.6	20	0.6		*******	25.	.4	40.9		weisetheiden	14.3	17.2		
Lane Group LOS B A					l	в	С	2	Γ		С		D	1		В	В	A CONTRACTOR OF A CONTRACTOR A CONTRA		
Approach Delay 13.1					20.	.4		been a			38	.9	đ		Í	17.0	aline-annoiti ^g -			
Approach LOS B					С				D				2012-1971 Ionii Martin Ion	B		and it is a second				
Intersection D		18.2 X _c = 0.5.					2.59 Intersection LOS B													

Copyright @ 2007 University of Florida, All Rights Reserved

HCS+[™] Version 5.3

Generated: 8/10/2009 2:10 PM

## **APPENDIX "D"**

CENTRAL FLORIDA REGIONAL PLANNING MODEL (CFRPMV410)





## **APPENDIX** "E"

GROWTH RATE INFORMATION





# **APPENDIX "F"**

ROADWAY PLANS



P:\PROJECTS\YR 2006\06-212.08 Preliminary PD&E for Rolling Acres Road\roadway\PLANRDOE.D 9:59:10 AM



P:\PROJECTS\YR 2006\06-212.08 Preliminary PO&E for Rolling Acres Road\signing\PLANSPOLDG



<u>Andres (1997)</u>		
ROADWAY PLANS	SHEET NO. 3	

# **APPENDIX "G"**

COST ESTIMATE

### Rolling Acres Road Roadway Construction (1.25 miles) 4 Lane Boulevard Typical Section

### Cost Estimate

Excavation Regular Embankment	CY CY	\$12.00	16 742	00 100 0009
Embankment	CY			φ <u>2</u> 00,904.00
	4	\$8.00	1,748	\$13,984.00
Clearing & Grubbing	LS	\$200,000.00	1	\$200,000.00
Remove Existing Concrete	SY	\$17.00	2,444	\$41,548.00
12" Stabilizes Subgrade	SY	\$8.00	22,292	\$178,336.00
10" Lime rock	SY	\$24.00	19,336	\$464,064.00
Mill Existing Pavement	SY	\$16.00	36,437	\$582,992.00
Asphaltic Concrete Type S	TN	\$195.00	2,659	\$518,505.00
Concrete Separator	LF	\$35.00	1,200	\$42,000.00
Friction Course FC-3	TN	\$240.00	3,067	\$736,080.00
Sod (Bahia)	SY	\$2.55	6,746	\$17,202.30
Directional Arrow	ÉA	\$35.00	18	\$630.00
Striping, 6" White	ĻF	\$1.00	14,502	\$14,502.00
Striping, 6" White (10'-30' Skip)	LF	\$1.00	3,380	\$3,380.00
Striping, 24" White	LF	\$4.00	144	\$576.00
Striping, 6" Yellow	LF	\$1.00	14,502	\$14,502.00
Reflective Nose Paint	SF	\$5.00	24	\$120.00
Reflective Pavement Markings	EA	\$4.75	422	\$2,004.50
Delineater	EA	\$75.00	8	\$600.00
Type 'E' Curb and Gutter	LF	\$16.00	13,200	\$211,200.00
Type 'F' Curb and Gutter	LF	\$16.00	14,440	\$231,040.00
Signal Modification	LS	\$150,000.00	2	\$300,000.00
Drainage Inlets	AS	\$6,000.00	28	\$168,000.00
18" RCP	LF	\$74.00	2,720	\$201,280.00
24" RCP	ĹΓ	\$104.00	1,100	\$114,400.00
36" RCP	LF	\$140.00	850	\$119,000.00
Ditch Bottom Inlet	EA	\$3,500.00	2	\$7,000.00
Miter End Section	EA	\$1,200.00	4	\$4,800.00
Conc. Sidewalk 4" Thick	LF	\$42.00	6,494	\$272,748.00
Sign Installation	EA	\$350.00	16	\$5,600.00
Erosion Control	LS	\$30,000.00	1	\$30,000.00

Net Total: \$4,696,997.80
Total Constuction Cost \$6,481,856.96 Cost Estimate Summary

\$7,778,228.36 PE Design Total Project and Survey (15%) CEI (5%) Cost \$7,778; \$972,278.54 \$324,092.85 \$7,778; 
 T
 Scope
 T

 Scope
 T
 Scope
 T

 Scope
 Contingency
 Contingency
 Contingency
 C

 Typical Section - 80' R/W
 Construction Cost
 MOT (10%)
 MOT (10%)
 C
 C

 4-Lane w/ Median
 \$465,699.78
 \$465,699.78
 \$465,699.78
 \$645,690.78
 \$645,690.78

## **APPENDIX "H"**

TOWN OF LADY LAKE LAND DEVELOPMENT REGULATIONS 1) The following are generalized right-of-way width requirements for new development within the Town:

ROAD CLASSIFICATION	WIDTH
Urban Arterial with Swales	100
Major Collector with Swales	100
Major Collector (curb and gutter)	80
Minor Collector with Swales	80
Minor Collector (curb and gutter)	70
Local with Swales	60
Local with Curb and Gutter	50

2)

These are generalized width requirements and may be increased at the request of the appropriate jurisdiction if the proposed project fronts on a State or County road.

A proposed subdivision or site plan that abuts or encompasses an existing public road that does not conform to the minimum right-of-way requirements shall provide for the dedication of additional right-of-way along either one (1) or both sides of said road to meet the minimum right-of-way required by these regulations. If the proposed subdivision abuts only one (1) side of said road, then a minimum of onehalf (1/2) of the required right-of-way shall be dedicated or reserved prior to approval of such subdivision or site plan.

#### i) Roads Within Flood Prone Areas

The minimum centerline elevation for roads within flood prone areas shall be as follows:

<u>Classification</u>	<u>Height above 100-yr Flood Elevation</u>
Arterial Major Collector Minor Collector Local Street	As required by FDOT 2.50 ft 2.00 ft 1.00 ft

#### j) Medians, Islands, and Guardhouses

## **APPENDIX "1"**

## US 27/441 INTERSECTION ALTERNATIVE ANALYSIS

HCS+ [™] DETAILED REPORT																		
General Information Site Information																		
Analyst GMB					Inter	rsea	ction	US 441 at Rolling Acres Road										
Agency or Co.						Area	/pe	All other areas										
Date Performed 3/26/2009						Jurisdiction												
Time Period Future PM Peak Hour - Alt						Analysis Year			2030									
					Project ID			Future PM Peak Hour - Alternative Analysis										
Volume and 1																		
				EB				<u>W</u>	'B				NB			. –	SB	OT
Number of Lanes N1					1				Η								111	
Lane Graup			<u>'</u>	$\frac{1}{\tau}$							2							P
Lane Group			241	164	6 325		425	5 17		75	L 470		220	258		84	226	85
Volume, V (Vp			241	2	+0 335		2	2	02	2	2		223	200		2	220	2
Peak-Hour Fa	ctor. PHF		0.95	0.95	0.95		0.95	0.9	)5	0.95	0.95		0.95	0.95		- 0.95	0.95	0.95
Pretimed (P) o	or Actuated (A)		A	A	A		A	A		A	A		A	0.30 A		A	A	A
Start-up Lost	ſime, l1		2.0	2.0	2.0		2.0	2.0	0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Extension of E	ffective Green	, e	2.0	2.0	2.0		2.0	2.0	0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Arrival Type. A	λ <b>Τ</b>		3	3	3		3	3		3	3		3	3		3	3	3
Unit Extension	ı, UE		3.0	3.0	3.0 3.0		3.0		0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Filtering/Meter	ring, l	·····	1.000	1.00	0 1.000	5	1.000	1.0	000	1.000	1.00	00	1.000	1.00	0	1.000	1.000	1.000
Initial Unmet D	Demand, Qb		0.0	0.0	0.0	-	0.0	0.0	0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Ped / Bike / R	TOR Volumes		0	0	0		0	0		0	0		0	90		0	0	0
Lane Width			12.0	12.0	12.0		12.0	12.	.0	12.0	12.(	)	12.0	12.0		12.0	12.0	12.0
Parking / Grac	le / Parking		N	0	N		N	0	1	N	N		0	N		N	0	N
Parking Mane	uvers, Nm		1															
Buses Stoppir	ıa. Nв		0	0	10		0		0	0	0		0	0		0	0	0
Min. Time for Pedestrians, Gp			1	3.2	ł	-		3	.2			-	3.2		10-10A 107-		3.2	L
Phasing Excl. Left Thru				1	03	Ť	04	1	Ť	Excl. L	eft	N	VB Only	٦	- Thru	. & RT	0	8
	G = <i>18.5</i>	Ğ =	= 43.5 G = = 5 Y =		G =		G =			G = 9.0	)	G	= 9.0		G = 17.0		G =	
Liming	Y = 5	Y =			·	Y =				Y = 0		Y	= 5	5 Y=		5 Y:		
Duration of Analysis, T = 0.25									C	ycle Leng	ith, C	=	117.0					
Lane Group (	Capacity, Con	trol E	Delay,	and LO	S Deter	mir	nation					Marine P						
			EB					WB					NB				SB	
			LT	TH RT		1	LT			RT	LT	LT		TH RT		LT	ТН	RT
Adjusted Flow	v Rate, v	12	254	1733	353	4	47	1876	3	79	498		241	177		88	238	89
Lane Group C	apacity, c	2	280	1886	589	5	543	43 1886		589	529	529 494		419		136	271	230
v/c Ratio, X		0.	.91	0.92	0.60	0.	.82 0.9		Ţ	0.13	0.94		0.49 0.42			0.65	0.88	0.39
Total Green R	Ratio, g/C	0.	.16	0.37	0.37	0.	0.16 0			0.37	0.15		0.26	0.26		0.08	0.15	0.15
Uniform Delay	/, d ₁	4	8.4	35.1	29.7		7.7	36.6		24.3	49.0		36.3	35.6		52.5	49.0	45.3
Progression Factor, PF		1.	.000	1.000	1.000	1.	000	1.000	0	1.000	1.000		1.000	1.000	0	1.000	1.000	1.000
Delay Calibration, k		0.	.43	0.44	0.19	0.36		0.50		0.11	0.45		0.11	0.11		0.22	0.41	0.11
Incremental Delay, d ₂		3	30.9	7.8	1.7	9.9		19.4	:	0.1	25.3		0.8	0.7		10.2	26.2	1.1
Initial Queue Delay, d ₃		C	).0	0.0	0.0	0	.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Control Delay		7	79.3	42.8	31.4	5	7.6	56.1		24.4	74.3		37.1	36.3	}	62.7	75.2	46.4
Lane Group LOS			E	D	С		E	Е		С	Е		D	D		E	E	D
Approach Delay			45.1				55.3				57.2					66.4		
Approach LOS			D				Ē	E			E				E			
Intersection Delay			52.4 X _c = 0				0.95			Inters	Intersection LOS				D			
Convright © 2007 (	ghts Reserved							ICS+TM	/ersion 5.3					Generated: 8/11/2009 9:37 AM				

## **APPENDIX "J"**

ENVIRONMENTAL ANALYSIS

# GLATTING JACKSON KERCHER ANGLIN

We Plan and Design Livable Communities

Brent A. Lacy

John H. Percy

Troy P. Russ

Peter C. Sechler Donald G. Wishart

Sharon K. Lamantia lan M. Lockwood

Thomas J. McMacken, Jr.

MEMORANDUM

Jack F. Glatting, Founder	DATE:	July 17, 2009
William J. Anglin, Jr. David L. Barth Gregory A. Bryla	TO:	Darrell Cunningham
Dan E. Burden Frances E. Chandler-Marino Charles P. Cobble	FROM:	Julia Erica Noran, M.S
Jay H. Exum Carey S. Hayo Jay R. Hood Timothy T. Jackson William C. Kercher, Jr. Walter M. Kulash	SUBJECT:	Rolling Acres PD&E GJ Project No. 21847
waiter W. Kulash		

We appreciate the opportunity to participate in the evaluation of the Rolling Acres Road corridor (Figure 1). The section of Rolling Acres Road included in this study extends from C.R. 466 to U.S. 27/441. This section is approximately 1.25 miles long and has a north-south orientation. The existing corridor is a two-lane standard rural road that connects an existing, heavily traveled, four lane road (U.S. 27/441) and two lane road that currently is being widened to a four lane road (C.R. 466). The following sections of this summary memo describe the existing conditions of the corridor as documented during a cursory field review conducted by myself and Philip Blaiklock on June 12, 2009.

#### **Existing Conditions**

Existing data from the Florida Geographic Data Library (FGDL) were analyzed to assess the existing conditions and natural resources within the corridor. These data include conservation lands, soils, land use, and hydrologic basins. Maps were produced to define these data within 500 feet in either direction of the Rolling Acres corridor.

Soils - According to the United States Department of Agriculture (USDA) Soil Conservation Service (SCS) Soil Survey of Lake County (1975), six (6) soil types exist within a 500-foot buffer of the Rolling Acres Road corridor (Figure 2). Generally, the existing soils are well- to excessively-drained soils characteristic of pine or oak forests, palmetto prairie, or grassland. Soils are designated as hydric if mapped inclusions total 30% or more (Hydric Soils of Florida Handbook, 1995). No soils found within a 500 foot buffer of the corridor are classified as hydric. The borrow pit soil type formerly may have been associated with a waterbody, but this area has been developed. A VFW post has been erected in this location.

Land Uses - Land uses within a 500-foot buffer of the corridor were mapped using Florida Land Use, Cover, and Forms Classification System (FLUCFCS) designations (FDOT 1999). Existing land uses are characteristic of a corridor that transitions from rural to suburban environments (Figure 3). Specifically, development includes:

- High density residential,
- Medium density residential, .

120 North Orange Ave Orlando, Florida 32801 P: 407 843 6552 F: 407 839 1789



- Agricultural,
- Recreational,
- Strip commercial/retail,
- Industrial,
- Educational facilities, and
- Natural/ undeveloped.

*Hydrologic Basins* – The corridor is divided between the Marshall Swamp planning unit, a noncontributing area within the Ocklawaha River basin, and Lake Miona Outlet planning unit of the Withlacoochee basin (**Figure 4**). Hydrologic basins as they relate to the natural flow of water and topography are relevant to the drainage and stormwater design. Additionally, in the event that there are wetland impacts, off-site mitigation alternatives may be dictated by what is available in these basins. The basins identified do not have special criteria for mitigation or stormwater.

Threatened and Endangered Species – The majority of the habitat within 500 feet of the Rolling Acres corridor has been altered or developed. A few patches of natural habitat remain, and these patches are predominantly comprised of oak hammock. There are also several maintained lawn areas within the 500-foot buffer that provide some wildlife habitat. The natural habitat is fragmented, not subject to land management practices, and do not provide a diversity of habitat types, and these factors limit the potential to support most listed species. However, the remaining undeveloped patches may be inhabited by gopher tortoises and their commensal species. The gopher tortoise is common to both forested and grassland upland habitat throughout Florida, and it is listed as Threatened by the Florida Fish and Wildlife Conservation Commission (FFWCC). A relocation permit from the FWC must be obtained if there will be impacts to gopher tortoises or their burrows as a result of construction.

#### Recommendations

The existing right-of-way may be sufficient to accommodate the contemplated widening, and if this is the case, impacts will be confined to a maintained, lawn area that is unlikely to pose environmental or listed species constraints. The maintained right-of way is unlikely to house any listed species because it is subject to regular maintenance activities and is in close proximity to vehicular and pedestrian traffic as well as other disturbances on a regular basis. No natural wetland systems are located within the maintained rightof-way. A conveyance swale is located within the right-of-way and runs the length of the corridor. This swale will be considered an other surface water by the WMD. Impacts will have to be quantified, and the conveyance will have to be maintained postdevelopment.

There is a potential to impact natural habitat or fallow land if the road alignment shifts outside of the right-of-way or if new ponds must be constructed as part of the overall stormwater management system. If pond locations are identified outside the 500-foot corridor evaluated, additional environmental surveys should be conducted so that wetlands and habitat value can be assessed.









2184



FLORIDA DEPARTMENT OF STATE Kurt S. Browning Secretary of State DIVISION OF HISTORICAL RESOURCES

Ms. Julia Noran Glatting Jackson Kercher Anglin 120 North Orange Avenue Orlando, Florida 32801 August 18, 2009

Re: DHR Project No.: 2009-4471/ GJ Project No.:21847 Received by DHR: July 27, 2009 Historic and Archaeological Review of the Rolling Acres Road Project Lady Lake, Lake County

Dear Ms. Noran:

In accordance with the procedures contained in the Lake County local requirements, we reviewed the referenced parcel for possible impact to cultural resources (any prehistoric or historic district, site, building, structure, or object) listed, or eligible for listing, in the *National Register of Historic Places*, or otherwise of historical, archaeological, or architectural value.

Our review of the Florida Master Site File indicates that no significant archaeological or historical resources are recorded within the project area. Furthermore, because of the location and/or nature of the project it is unlikely that any such site will be affected.

If there are any questions concerning our comments or recommendations, please contact Katherine Peterson, Historic Sites Specialist, by phone at (850) 245-6333, or by electronic mail at <u>kdpeterson@dos.state.fl.us</u>. We appreciate your continued interest in protecting Florida's historic properties.

Sincerely,

Laura le. Kammaren

Laura A. Kammerer Historic Preservationist Supervisor Compliance Review Section Bureau of Historic Preservation

500 S. Bronough Street . Tallahassee, FL 32399-0250 . http://www.flheritage.com

Director's Office (850) 245-6300 • FAX: 245-6436 Archaeological Research (850) 245-6444 • FAX: 245-6452 X Historic Preservation (850) 245-6333 • FAX: 245-6437

## **APPENDIX "K"**

PUBLIC NOTIFICATION NOTICE



### PUBLIC HEARING NOTICE ROLLING ACRES ROAD PD&E PROJECT PUBLIC WORKSHOP SESSION

The Town of Lady Lake will hold its first public workshop for the Rolling Acres Road Project Development and Environment Study (PD&E) to encourage citizen input regarding future transportation alternatives for the corridor extending from U.S. Highway 27/441 to County Road 466.

The Town welcomes your participation at this meeting and looks forward to the contributions of citizens in this process. Town of Lady Lake Growth Management staff and engineering consultants, GMB Engineering, will be present to answer questions regarding the preliminary findings thus far. Visual aids pertaining to the study area will be made available for public display in the Commission Chambers as well.

This public hearing will be held just prior to the regularly scheduled Town Commission Meeting on Monday, July 20th, 2009, and will begin at 4:00 PM, in the Town Hall Commission Chambers, 409 Fennell Boulevard, Lady Lake, Florida.

Please be advised that one or more members of any other Town Board, Committee, or Commissioners may be in attendance of this meeting.

This public hearing is being conducted in a handicapped accessible location. Any handicapped person requiring an interpreter for the hearing impaired or the visually impaired should contact the Clerk's Office at least five (5) calendar days prior to the meeting and an interpreter will be provided. To access a Telecommunication Device for Deaf Persons (TDD), please call (352) 751-1565. Any handicapped person requiring special accommodation at this meeting should contact the Clerk's Office at least five (5) calendar days prior to the meeting.

Town of Lady Lake Rolling Acres Preliminary Engineering Study Public Meeting #1

> بر معر محمد المحمد ا

Town of Lady Lake 409 Fennell Boulevard Lady Lake, FL 32159 Phone: 352-751-1500 http://www.ladylake.org/



Attendance Sheet

drobselle rame amber, FOCOMENCE Errbargergerallia four hed lefter white i've Nayor LLOCOncast. Net burnce@ladylake.or terrolle lookplaked. org LOK1 Sarahapale Yaher NESSIAN E-mail 751-1545 315-0170 3177 350-1483 751-1521 753-1119 52-5P3 4 Phone 314 1 750-J 34743 3 Works Cl オンド - 2 61 045 ALCO. ひで UN The Va Address 1/UNDUC lan Ulbui # 410 PLANTATION D P J Main St LSMRO APO12 5 to rust COUNTY Dally 50 回10 10 રે Anzeru BRUZAUN DOLU SB V DNCE BUCK Robuck 600 Name 300 1 1N

## APPENDIX "L"

CITIZEN COMMENTS/HAND OUTS

### Rolling Acres Preliminary Engineering Report – 1st Public Workshop

#### July 20, 2009

#### **Citizen Comments**

- 1. Preference for sidewalk, if on one side, should be constructed on east side of roadway.
- 2. Traffic at elementary school during session is a nightmare. Long delays occur when school is dismissing.
- 3. Golf cart access across Rolling Acres Road should be available, especially on the north side of corridor to access commercial sites.
- 4. Can intersection improvements occur prior to potential widening of corridor?
- 5. Water Oaks residential community has expressed interest in golf cart access to northern portion of Rolling Acres Road. The Villages community is concerned that access will then be open to their property.
- 6. A prior Villages traffic study and subsequent board meeting occurred in the past and stated that traffic would not increase on Rolling Acres Road. A former P & Z board member felt that this statement was not correct.
- 7. Are there any locations present where gopher tortoises were found?
- 8. If a grassed median is used for the ultimate 4-Laning, could additional foliage and small tree plantings be used?



Public Workshop/Meeting | July 20, 2009 | 4:00PM

### **Your Comments**

Please write down your comments and ideas. Also, additional space for your comments is provided on the back.

Great Idea. . ÷ (Additional space is provided on the back.) **Mailing List Information** Please fill out the information below if you would like to be added to the study mailing list. Please print. Robuck Jav Name:

610 Main St Address: FL 34748 City/State/Zip: heesburg

New Change Delete

### Please return tonight or mail by July 31, 2009 to:

Darrell Cunningham, GMB Engineers & Planners, Inc. 2602 East Livingston Street | Orlando, FL 32803 | Email: dcunningham@gmb.cc

Additional Comments								
	-							
	•••							
	-							
	cecał							
	uitet							
	8359							
	-							
	_							

### Please return tonight or mail by July 31, 2009 to:

**Darrell Cunningham**, GMB Engineers & Planners, Inc. 2602 East Livingston Street | Orlando, FL 32803 | Email: dcunningham@gmb.cc



## PRELIMINARY PROJECT DEVELOPMENT & ENVIRONMENT STUDY

STUDY UPDATE | JUNE 2009

## STUDY DESCRIPTION

The preliminary Project Development & Environment (PD&E) Study is a comprehensive evaluation of the transportation needs and the possible impacts to the built and natural environment that would result from any expansion or improvements to the transportation facilities in the study corridor. The study will evaluate the existing transportation and traffic circulation conditions, and produce and evaluate the long-range traffic demands within the study limits. The study will include the portion of Rolling Acres Road between County Road 466 and US 27/441 in the Town of Lady Lake. This section of roadway is approximately 1 1/4 miles in length. Based on the recent growth in traffic on Rolling Acres Road (a 45% increase in the last four years), it is apparent that modifications to the roadway are needed and will be necessary to address the demands that will occur in the future.

Particular attention will be paid to the existing land uses and the associated access needs along the corridor, including the educational facilities, the retail development at the north end of the corridor, the public sports fields, and the residential and office/ industrial development that exist today. Future land use and development plans will also be taken into consideration.

The potential impacts to the natural environment will be reviewed and will include consideration of wetland, farmland, floodplain, threatened and endangered species and cultural and historic sites.

The results of the evaluation will be published in a study report that presents the procedures, the data used in the analyses and the recommendations to address the corridor transportation needs. The study is expected to be completed in October of 2009.

### PROJECT TEAM

The Preliminary PD&E Study is being conducted in coordination with the Lake County Public Works Department and the Town of Lady Lake. The project consultant team consists of GMB Planners & Engineers, Inc. (GMB), the team leader on the assignment, and Glatting Jackson Kercher Anglin, Inc. (GJKA).

## STUDY OBJECTIVES

As described under Study Description on this page, the purpose of the study is to develop recommendations that will improve traffic circulation and transportation service within the Rolling Acres Road corridor. The major goals for the study will be:

- Develop improvement concepts that eliminate existing traffic circulation issues,
- Prepare recommendations that provide safe and efficient access to all adjacent properties,
- Minimize any impacts from the improvements to adjacent properties, businesses and the natural environment, and
- Improve the overall corridor level of service and meet the long-range transportation demand.

