TRAFFIC IMPACT ANALYSIS

SEMINOLE SCIENCE SCHOOL EXPANSION

SEMINOLE COUNTY, FLORIDA

Prepared for:

Discovery Education Holdings, LLC
2427 Lynx Lane
Orlando, Florida 32804

Prepared by:

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535 Versailles Drive
Maitland, Florida 32751
407-628-9955

July 2024
REVISED
September 2024

TPD № 5834

PROFESSIONAL ENGINEERING CERTIFICATION

I hereby certify that I am a Professional Engineer properly registered in the State of Florida practicing with Traffic Planning and Design, Inc., a corporation authorized to operate as an engineering business, EB-3702, by the State of Florida Department of Professional Regulation, Board of Professional Engineers, and that I have prepared or approved the evaluations, findings, opinions, conclusions, or technical advice attached hereto for:

PROJECT: Seminole Science School Expansion

LOCATION: Seminole County, Florida

CLIENT: Discovery Education Holdings, LLC

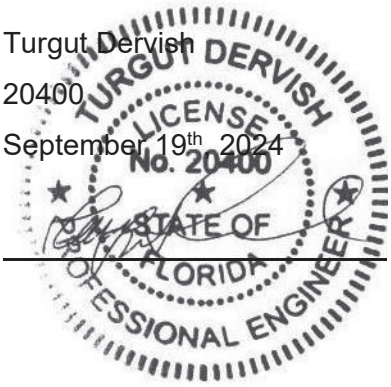
I hereby acknowledge that the procedures and references used to develop the results contained in these computations are standard to the professional practice of Transportation Engineering as applied through professional judgment and experience.

NAME: Turgut Dervish

P.E. No.: 20400

DATE: September 19th, 2024

SIGNATURE: _____



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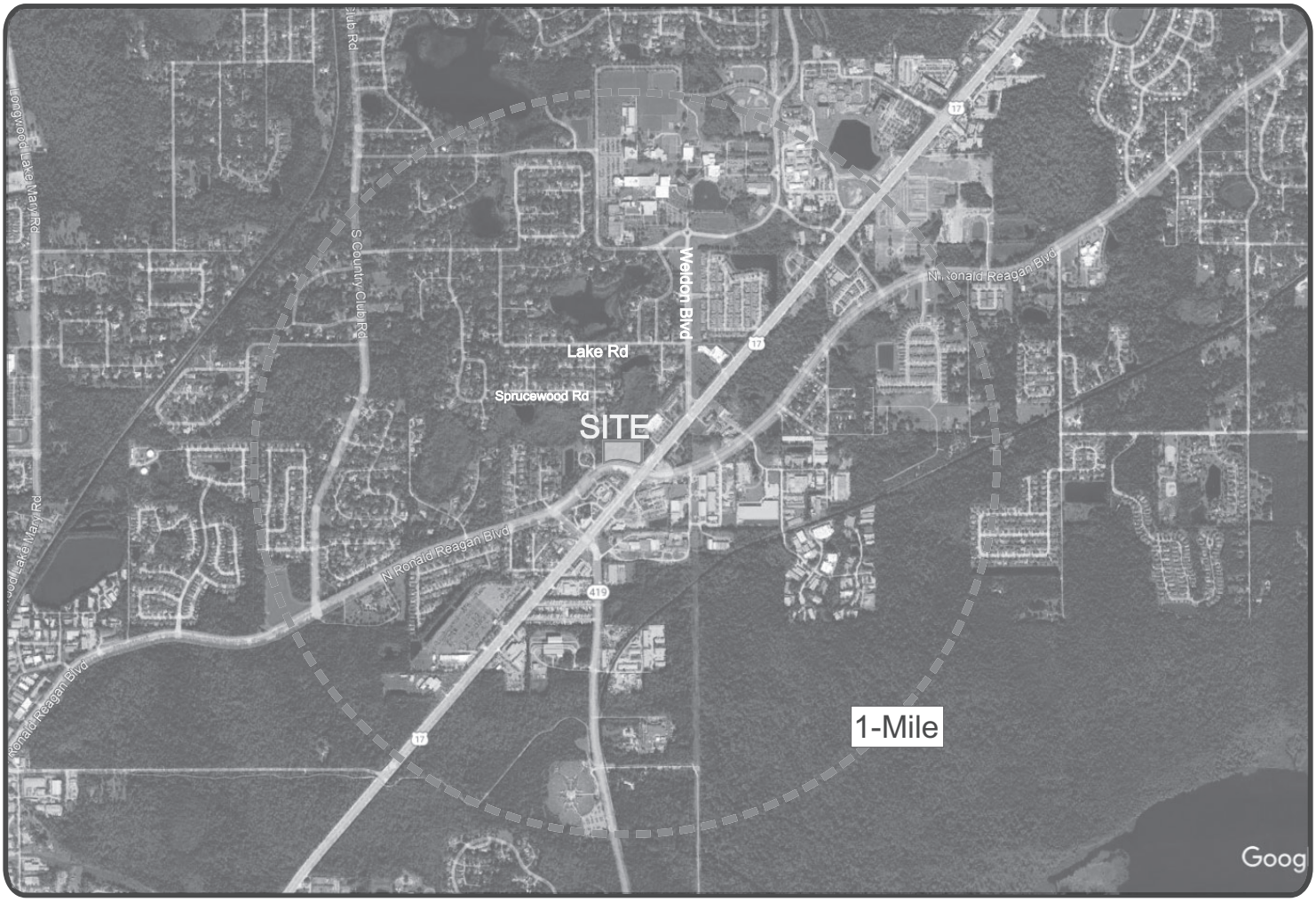
INTRODUCTION

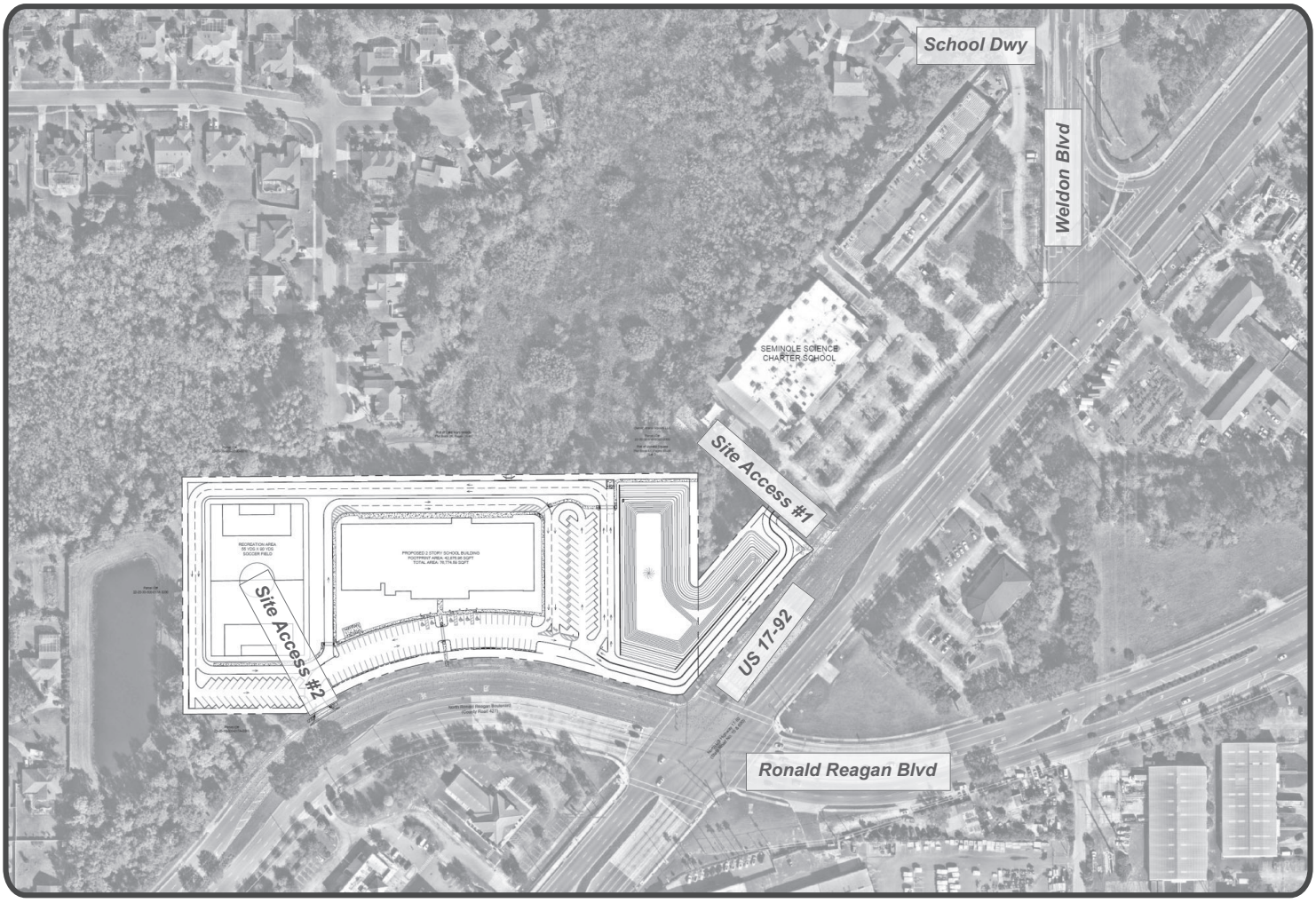
This analysis was conducted in order to assess the traffic impact of the proposed expansion to the Seminole Science School in Seminole County, Florida. The expansion site is located in the northwest corner of the intersection of US 17-92 and Ronald Reagan Boulevard adjacent to the existing school. The existing school has 535 K–8 students and will be expanded to a total enrollment of 1,440 K–12 students. **Figure 1** depicts the site location of the existing and expanded school. Access to the site will be provided via the same access connections as the existing school plus a new right-in/right-out driveway on Ronald Reagan Boulevard. **Figure 2** depicts the conceptual site plan of the school expansion.

The project is in the Seminole County Dense Urban Land Use Area (DULA). As per Seminole County requirements, the classified roadways within the one-mile sphere of influence (or impact area) and major intersections within a quarter mile from the site were included in the traffic analysis. The analysis was conducted in accordance with a study methodology submitted to and reviewed by Seminole County. The study methodology and related correspondence are included in **Appendix A.** Data used in the analysis consisted of site plan and development information provided by the Project Engineers, daily traffic volume data obtained from Seminole County, and A.M./P.M. peak hour intersection counts made by Traffic Planning and Design, Inc. (TPD) personnel.



Seminole Science School Expansion
Project № 5834
Figure 1

Site Location



Seminole Science School Expansion
Project № 5834
Figure 2

Site Plan

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EXISTING TRAFFIC CONDITIONS

Existing traffic conditions were analyzed using daily traffic volumes for the study roadways and A.M./P.M. peak hour traffic volumes for the study intersections. The roadway analysis consisted of a generalized capacity analysis with the existing traffic volumes and the available capacity. The intersection analysis was conducted using *Synchro* software. Pertinent roadway segment data sheets showing the existing and committed trips along with the corresponding segment capacities are included in **Appendix B**.

Existing 2024 Roadway Capacity Analysis

A roadway segment analysis was performed for the study roadway segments by comparing the total daily traffic volume of each segment with the corresponding capacity of the segment. **Table 1** shows the roadway segments along with their number of lanes, adopted daily capacities, existing traffic volumes, available capacities, and existing Levels of Service (LOS). The results of the analysis indicate that the roadway segments currently operate satisfactorily with excess traffic capacity available.

Table 1
Existing 2024 Roadway Capacity Analysis

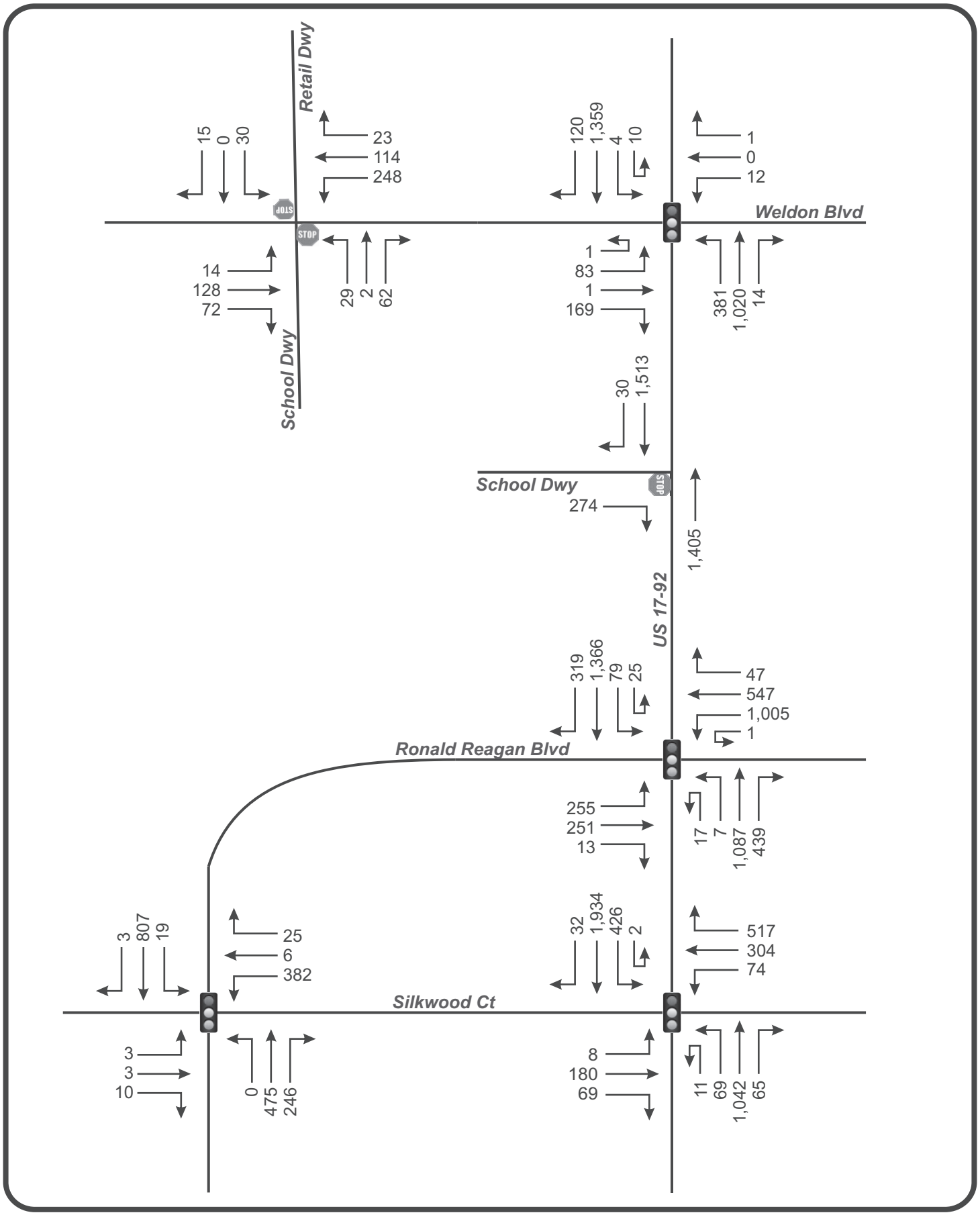
Seg ID	Segment	Lanes	Daily Capacity	Existing Volume	Available Capacity	LOS
US 17-92						
342	SR 434 to SR 419	6LD	48,000	35,622	12,378	C
343	SR 419 to CR 427	6LD	48,000	33,944	14,056	C
344	CR 427 to Lake Mary Blvd	6LD	48,000	30,988	17,012	C
Ronald Reagan Boulevard (CR 427)						
061	Country Home Rd to US 17-92	4LD	42,560	24,365	18,195	C
062	US 17-92 to Country Club Rd	4LD	42,560	20,387	22,173	C
SR 419						
279	Edgemon Ave to US 17-92	2U	18,270	16,093	2,177	B
Silkwood Court						
259A	US 17-92 to CR 427	4U	42,560	7,580	34,980	A
Country Club Road						
042	Broadmoor Rd to Continental Blvd	2U	19,360	10,453	8,907	A
043	Continental Blvd to CR 427	2U	19,360	11,000	8,360	A

Existing 2023 Intersection Capacity Analysis

Capacity analysis was conducted for the existing A.M. and P.M. peak hour traffic conditions for the study intersections. The analysis was conducted utilizing *Synchro* software using the existing peak hour traffic volumes, intersection geometry, and signal timing data. The turning movement counts were made on September 19th, 2023, when the FDOT seasonal factor for Seminole County was 1.10, and therefore the counts were adjusted by this factor. The adjusted peak hour traffic volumes used in the analysis are shown in **Figures 3a** and **3b**. The turning movement counts, signal timing data, and FDOT seasonal factor report are included in **Appendix C**. The intersection capacity analysis results are summarized in **Table 2**, which indicates that the study intersections are currently operating at overall satisfactory Levels of Service. The intersections of US 17-92 with Weldon Boulevard and US 17-92 with Ronald Reagan Boulevard are operating with failing minor approaches due to the long cycle length used for signals on US 17-92 and the high volumes of existing traffic on US 17-92. Detailed capacity analysis worksheets are included in **Appendix D.**

Table 2
Existing 2023 Intersection Capacity Analysis

Intersection	Control	Time Period	EB		WB		NB		SB		Overall	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
US 17-92 & Weldon Blvd	Signal	A.M.	36.3	D	87.9	F	28.8	C	30.0	C	30.2	C
		P.M.	38.2	D	42.5	D	23.0	C	17.9	B	22.8	C
US 17-92 & School Dwy	Stop	A.M.	10.1	B	--	--	0.0	A	0.0	A	--	--
		P.M.	8.9	A	--	--	0.0	A	0.0	A	--	--
US 17-92 & Ronald Reagan Blvd	Signal	A.M.	89.4	F	92.6	F	33.8	C	34.3	C	56.5	E
		P.M.	83.7	F	81.3	F	16.7	B	22.2	C	37.5	D
US 17-92 & Silkwood Ct	Signal	A.M.	63.6	E	34.3	C	34.8	C	39.8	D	38.8	D
		P.M.	67.2	E	34.1	C	32.6	C	36.9	D	36.8	D
Ronald Reagan Blvd & Silkwood Ct	Signal	A.M.	25.7	C	72.0	E	11.7	B	10.1	B	23.7	C
		P.M.	31.0	C	45.1	D	7.8	A	19.4	B	18.2	A
Weldon Blvd & School Dwy	Stop	A.M.	33.9	D	49.1	E	5.9	A	0.6	A	--	--
		P.M.	11.8	B	17.1	C	3.8	A	1.2	A	--	--



Seminole Science School Expansion
Project № 5834
Figure 3a

Existing A.M. Peak Hour Volumes

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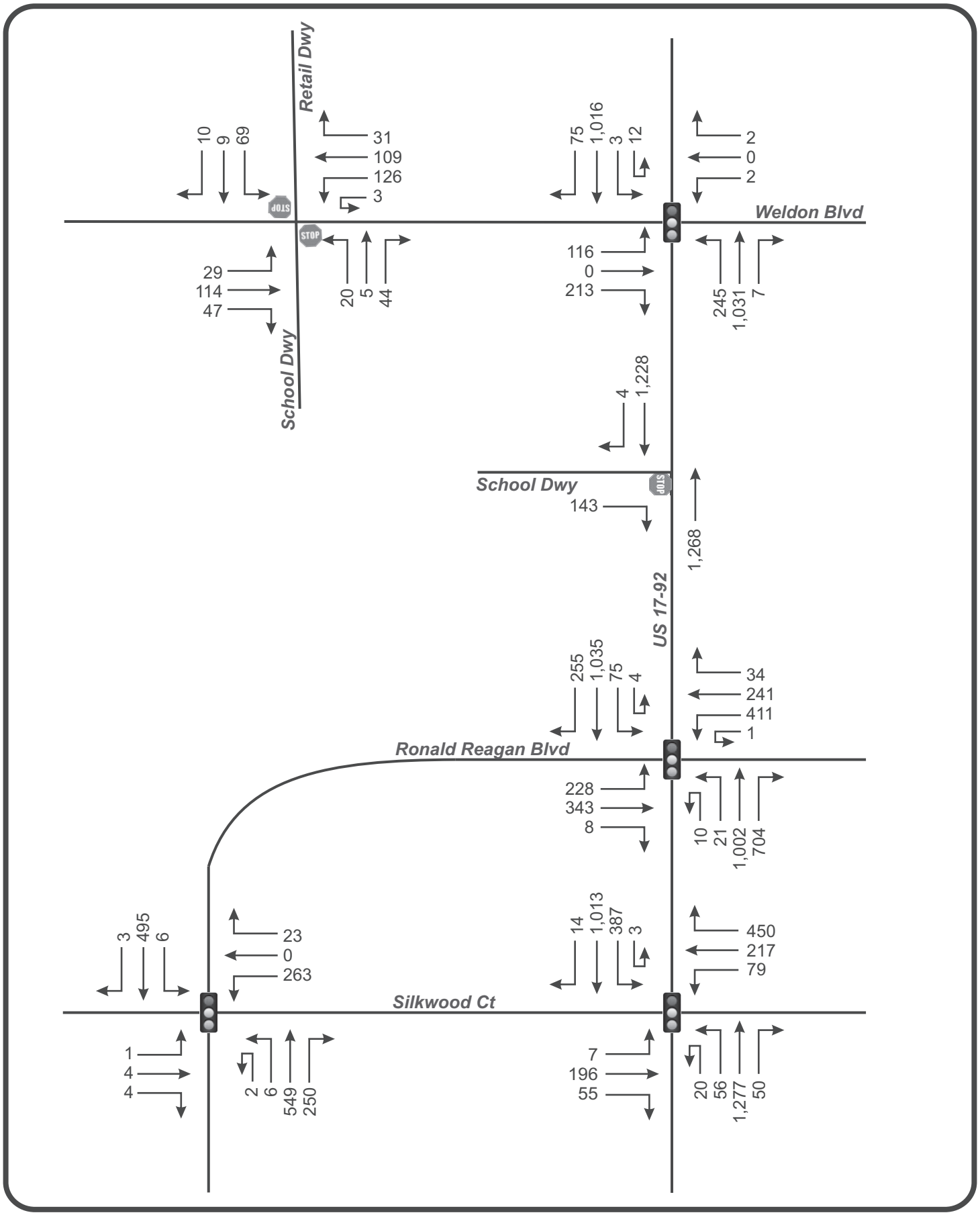

Seminole Science School Expansion
Project № 5834
Figure 3b

Existing P.M. Peak Hour Volumes

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NTS

PROPOSED DEVELOPMENT AND TRIP GENERATION

The proposed development will expand Seminole Science School to K–12 with a total of 1,440 students. To determine the impact of this development in the area, an analysis of its trip generation characteristics was made. This included the determination of the trips to be generated and the distribution/ assignment of these trips to the area roadways.

Trip Generation

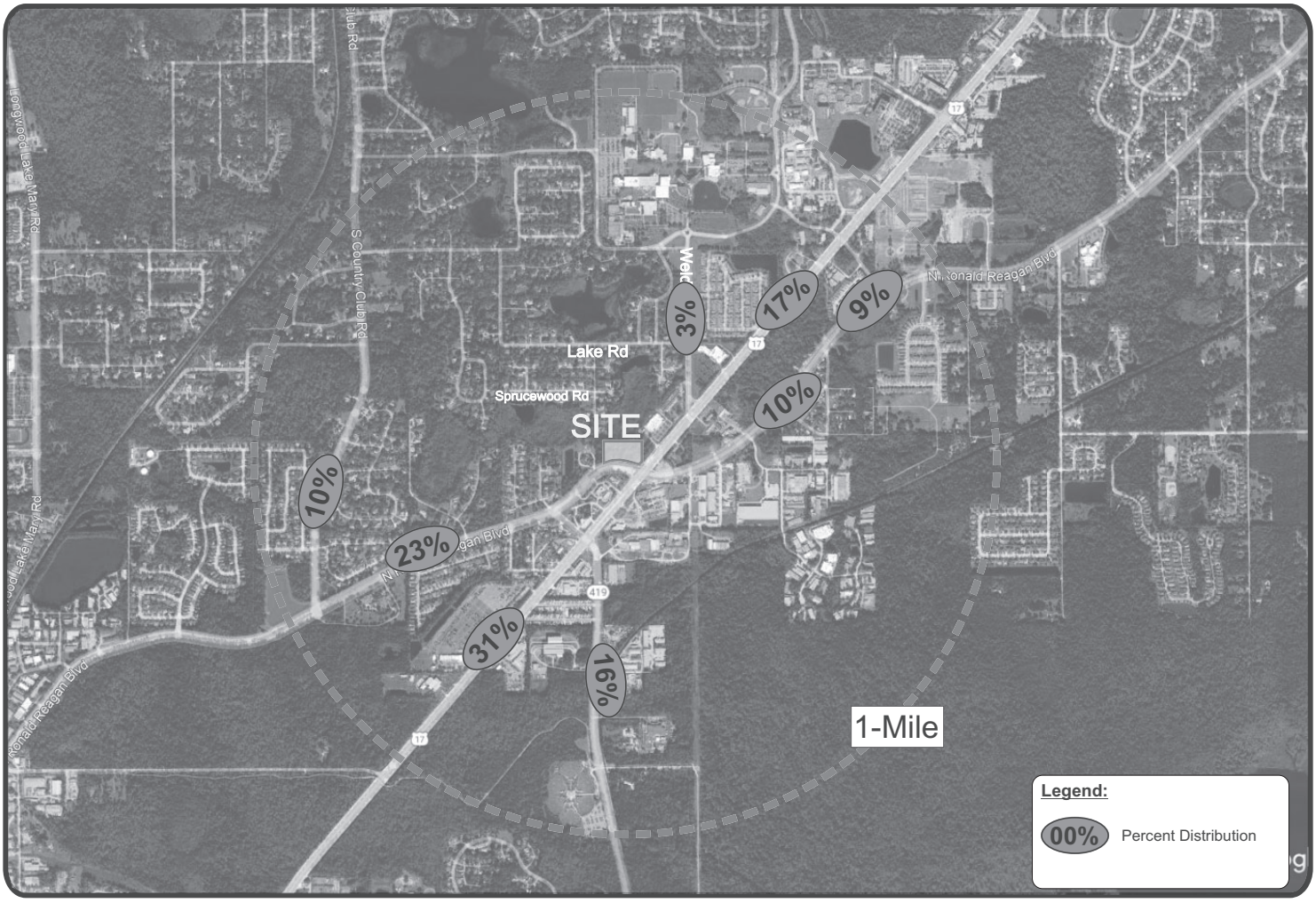
The trip generation of the proposed development was calculated using data obtained from the *11th Edition* of the *Institute of Transportation Engineers (ITE) Trip Generation Manual.* The results of the trip generation calculation are summarized in **Table 3** and ITE trip generation sheets are included in the Study Methodology. As shown in the table, the proposed development will generate 1,382 daily trips, of which 601 will occur during the A.M. peak hour and 444 during the P.M. peak hour. With the proposed expansion, 470 students (K - 5th) will attend the existing school and 970 students (6th – 12th) will attend the new school.

Table 3
Trip Generation Summary

ITE Code	Land Use	Size	Daily		A.M. Peak Hour				P.M. Peak Hour			
			Rate	Trips	Rate	Enter	Exit	Total	Rate	Enter	Exit	Total
Existing School												
530	Private Charter School (K–8)	535 Students	4.11	2,199	1.01	303	237	540	0.60	151	170	321
Expanded School												
532	Private Charter School (K–12)	1,440 Students	2.48	3,581	0.79	719	422	1,141	0.53	321	444	765
Trip Increase (+)/Decrease (-) Due to Expansion				**+1,382**	**---**	**+416**	**+185**	**+601**	**---**	**+170**	**+274**	**+444**

Trip Distribution and Assignment

A distribution pattern for the proposed development trips was determined with the use of the 2030 Central Florida Regional Planning Model (CFRPM). **Figure 4** depicts the trip distribution pattern in the project vicinity for the site. The project trips will be assigned to the area roadways based on this distribution. The model distribution plot is included in the study methodology.



Seminole Science School Expansion
Project № 5834
Figure 4

Trip Distribution

PROJECTED TRAFFIC CONDITIONS

Projected traffic conditions were analyzed using daily traffic volumes for the study roadways and A.M./P.M. peak hour traffic volumes for the study intersections and access driveways. The roadway analysis consisted of a generalized capacity analysis with the projected traffic consisting of background traffic and project trips. Background traffic consists of existing traffic combined with the committed trips provided by Seminole County, which are included in Appendix B. The project is anticipated to be completed by the end of 2029.

Projected 2029 Roadway Capacity Analysis

A roadway segment analysis was performed for the study roadway segments by comparing the total projected daily traffic volume of each segment with the corresponding capacity of the segment. The roadway segment analysis is summarized in **Table 4**. The table shows each of the road segments along with their total projected traffic volumes and resultant Levels of Service. The results of the analysis indicate that the impacted road segments are projected to continue to operate at satisfactory Levels of Service with the committed trips and project trips added.

Table 4
Projected 2029 Roadway Capacity Analysis

Seg ID	Segment	Lanes	Daily Capacity	Existing Volume	Committed Trips	Project Trips*		Total Volume	Available Capacity	LOS
						%	Volume			
US 17-92										
342	SR 434 to SR 419	6LD	48,000	35,622	105	18%	446	36,173	11,827	C
343	SR 419 to CR 427	6LD	48,000	33,944	217	34%	843	35,004	12,996	D
344	CR 427 to Lake Mary Blvd	6LD	48,000	30,988	466	20%	496	31,950	16,050	C
Ronald Reagan Boulevard (CR 427)										
061	Country Home Rd to US 17-92	4LD	42,560	24,365	2,049	10%	248	26,662	15,898	D
062	US 17-92 to Country Club Rd	4LD	42,560	20,387	297	70%	1,736	22,420	20,140	C
SR 419										
279	Edgemon Ave to US 17-92	2U	18,270	16,093	0	16%	397	16,490	1,780	B
Silkwood Court										
259A	US 17-92 to CR 427	4U	42,560	7,580	0	34%	843	8,423	34,137	A
Country Club Road										
042	Broadmoor Rd to Continental Blvd	2U	19,360	10,453	0	10%	248	10,701	8,659	A
043	Continental Blvd to CR 427	2U	19,360	11,000	0	10%	248	11,248	8,112	A

* Highest on Segment

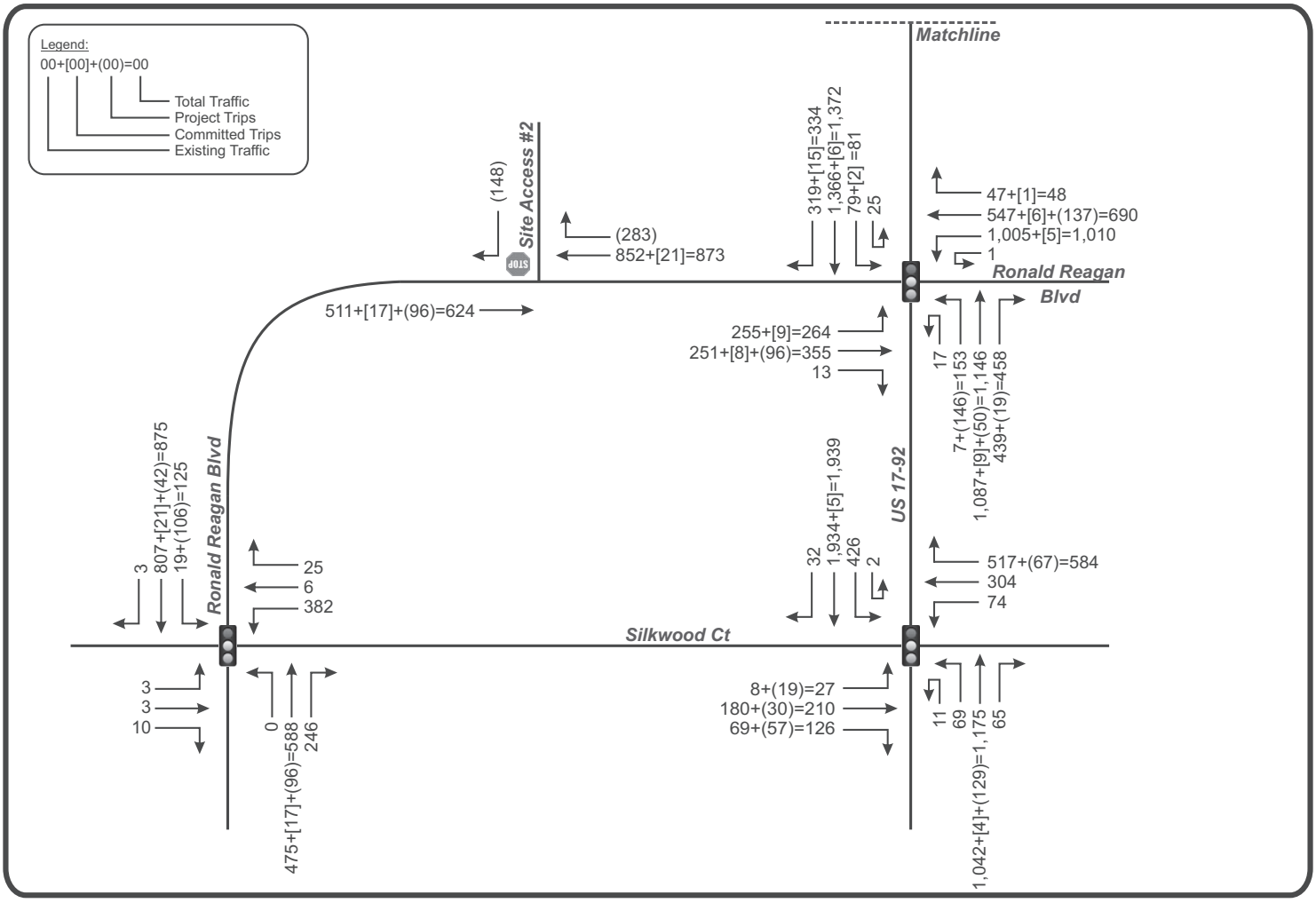
Projected 2029 Intersection Capacity Analysis

The peak hour traffic conditions at the study intersections were estimated by adding the project trips to existing traffic and committed trips. Daily committed trips were converted to peak hour directional trips using a K=0.09 factor and a D=0.55 factor. These trips were assigned to the intersections based upon the existing traffic patterns at the study intersections. The projected A.M. and P.M. peak hour traffic volumes used in the analysis are shown in **Figures 5a, 5b,** and **5c**.

An analysis of projected peak hour traffic conditions was performed using *Synchro* software, similar to the existing conditions analysis. The results of the capacity analysis, as summarized in **Table 5,** indicate the study intersections and site access driveways will continue to operate at overall satisfactory Levels of Service (LOS E or better) upon the addition of the project trips. However, similar to existing conditions, the intersections of US 17-92 with Ronald Reagan Boulevard and Weldon Boulevard are projected to fail for the minor street approaches. In the analysis, the operation of US 17-92 and Ronald Reagan Boulevard was optimized. Additionally, the EB/WB approaches of the School Driveway on Weldon Boulevard will fail during the A.M. peak hour. The v/c ratio for these approaches is less than 1.00, indicating the failing Level of Service is caused by the stop-control at the intersection and not a capacity deficiency. The detailed capacity worksheets are included in **Appendix E.**

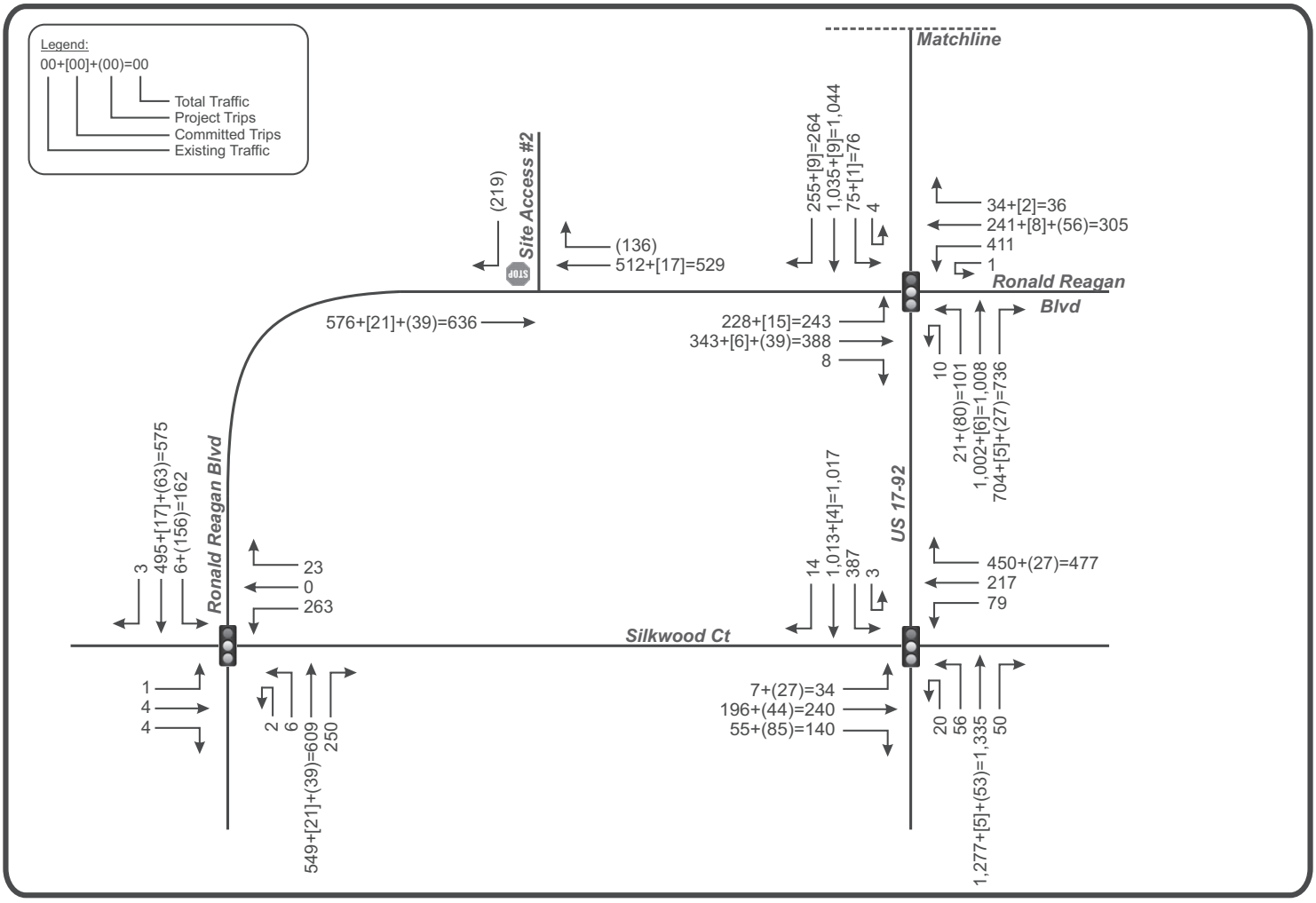
Table 5
Projected 2029 Intersection Capacity Analysis

Intersection	Control	Time Period	EB		WB		NB		SB		Overall	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
US 17-92 & Weldon Blvd	Signal	A.M.	40.8	D	87.9	F	33.3	C	37.5	D	36.1	D
		P.M.	45.1	D	42.5	D	24.3	C	20.7	C	25.6	C
US 17-92 & School Dwy (Site Access #1)	Stop	A.M.	10.5	B	--	--	0.0	A	0.0	A	--	--
		P.M.	9.0	A	--	--	0.0	A	0.0	A	--	--
US 17-92 & Ronald Reagan Blvd - Optimized Signal Timings	Signal	A.M.	94.4	F	99.2	F	45.4	D	74.9	E	75.3	E
		P.M.	86.8	F	80.9	F	24.3	C	26.8	C	42.8	D
US 17-92 & Silkwood Ct	Signal	A.M.	58.4	E	35.7	D	39.2	D	42.0	D	41.2	D
		P.M.	61.3	E	35.5	D	34.6	C	36.7	D	38.2	D
Ronald Reagan Blvd & Silkwood Ct	Signal	A.M.	16.1	B	10.3	B	25.7	C	66.7	E	22.8	C
		P.M.	13.2	B	15.6	B	31.0	C	40.9	D	18.4	B
Site Access #2 & Ronald Reagan Blvd	Stop	A.M.	0.0	A	0.0	A	--	--	18.5	C	--	--
		P.M.	0.0	A	0.0	A	--	--	14.0	B	--	--
Weldon Blvd & School Dwy	Stop	A.M.	79.8	F	102.3	F	6.6	A	0.5	A	--	--
		P.M.	11.7	B	17.9	C	3.8	A	1.2	A	--	--



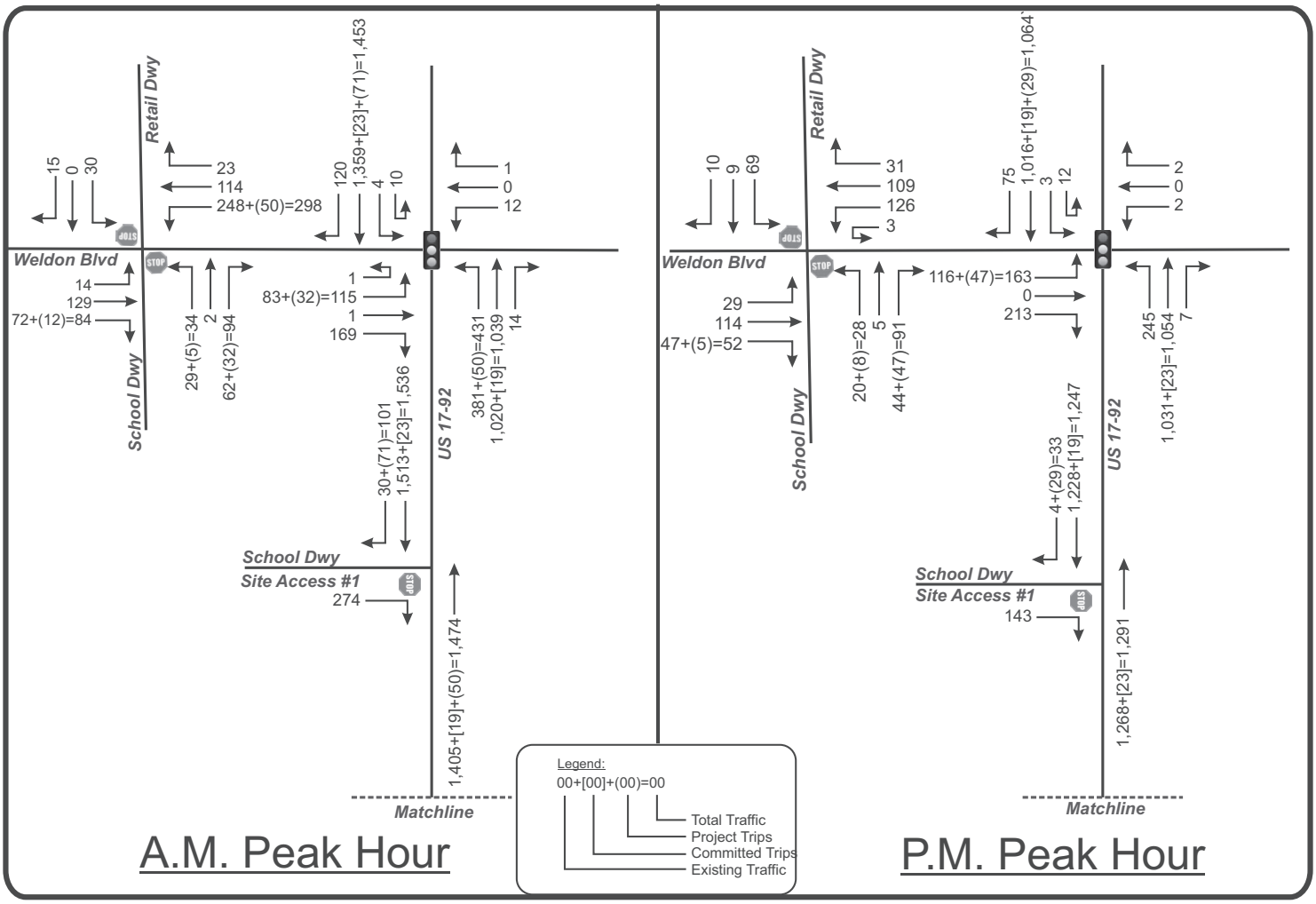
Seminole Science School Expansion
Project № 5834
Figure 5a

Projected A.M. Peak Hour Volumes



Seminole Science School Expansion
Project № 5834
Figure 5b

Projected P.M. Peak Hour Volumes



Seminole Science School Expansion
Project № 5834
Figure 5c

Projected A.M./P.M. Peak Hour Volumes

Turn Lane Analysis

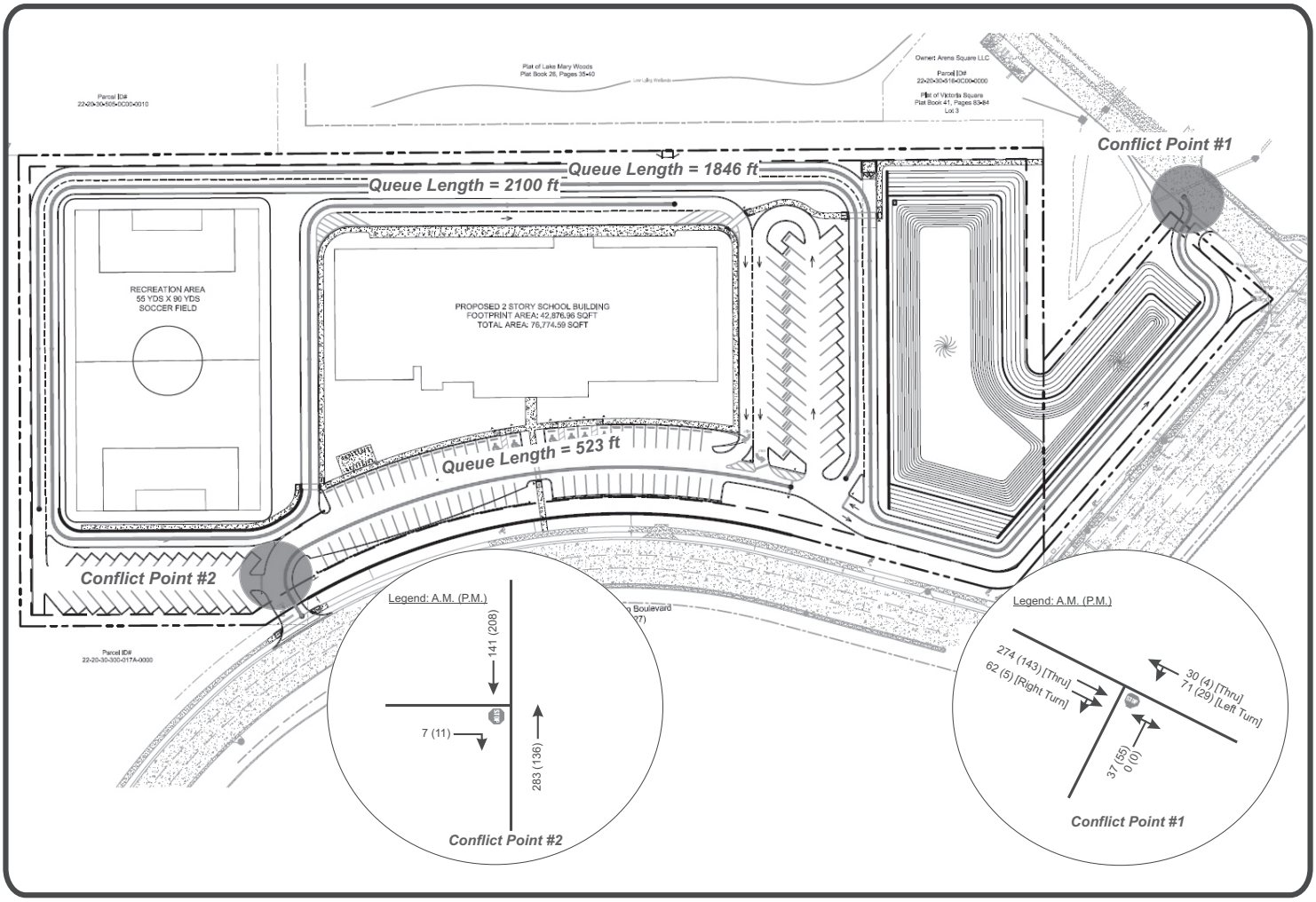
Access to the expanded school site is proposed via the existing driveways serving the existing school, as well as a proposed right-in/right-out driveway on Ronald Reagan Boulevard. There is an existing auxiliary right turn lane which serves the site access driveway on US 17-92. A turn lane analysis was conducted to determine the need for an auxiliary right turn lane on Ronald Reagan Boulevard. The analysis was conducted according to the procedures of the Seminole County Public Works Engineering Manual. According to section 1.3 of the manual, auxiliary right turn lanes are required on 4 lane roadways for projects with a daily trip generation of more than 4,000 trips. The total daily trip generation for the proposed expansion is 1,382 trips, therefore an auxiliary right turn lane is not required to serve the project access on Ronald Reagan Boulevard. Excerpts from the Engineering Manual are included in **Appendix F.**

On-Site Queueing

A review of the site plan was conducted with respect to internal site circulation and queueing. The new school building will be accessed from the east via the existing access driveways from US 17-92 and Weldon Boulevard. An additional right-in/out access will be provided on Ronald Reagan Boulevard.

In terms of queueing, the proposed site plan is expected to operate well due to the significant amount of on-site queue storage provided. During the critical peak morning drop-off period, single lane storage will be available for on-site queueing with a total distance of approximately 4,469 feet (see **Figure 6**). Assuming the average vehicle length of 25 feet, the site provides storage for 179 regular vehicles at any one time.

The Seminole Science School will have a total enrollment of 1,440 students with 970 students accommodated at the new school building on Ronald Reagan Boulevard. For queueing purposes, the 970 student enrollment at the new school building would represent the highest number of students to be accommodated during drop-off and pick up periods.



Seminole Science School Expansion
Project № 5834
Figure 6

Queue Length

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An approximate average queue length was estimated using Little's Law, which states that the average queue length equals the average arrival rate times the average wait time. Assuming that all of the 970 students at the new school building arrive in the A.M. period in a 30-minute window and each vehicle takes 8-10 minutes to drop of a child, the average queue length was determined to be 161 vehicles (as indicated below) which can be accommodated by the on-site queue provided as per the site plan.

Queue Determination:

New School Building – 970 students, A.M. peak hour trips entering = 970 x 0.79 x 0.63 = 483

Average Queue Length (veh) = Average Arrival Rate (vpm) x Average Drop-off Time (min)

= (483 veh/30 mins) x 10 min (assumed)

= 161 vehicles

The site plan provides a total queue length for 179 vehicles.

At the request of the County, Synchro analysis was conducted to ensure that the queues formed at the internal conflict points at Site Access #1 and #2 do not spill out onto US 17-92 or Ronald Reagan Boulevard. The analysis was performed using the A.M. and P.M. peak hour volumes and the internal lane configuration depicted in Figure 6. The results of the analysis are summarized below in **Table 6.** As can be seen from the table, the internal conflict points at Site Access #1 and #2 will generate queue lengths less than 1 vehicle for the approaches entering the site. Therefore, internal queues will not spill out onto US 17-92 or Ronald Reagan Boulevard at Site Access #1 or #2 during the drop-off/pick-up times. The detailed Synchro analysis worksheets are included in **Appendix G.**

Table 6
Queue Length Analysis

Internal Conflict Point	Time Period	Queue Length for Entering Approach
Site Access #1	A.M.	0.2 vehicles
	P.M.	0.1 vehicles
Site Access #2	A.M.	0 vehicles
	P.M.	0 vehicles

CONCLUSIONS

This analysis was undertaken in order to assess the traffic impact of the proposed expansion of the Seminole Science School in Seminole County, Florida. The school is located in the northwest corner of the intersection of US 17-92 and Ronald Reagan Boulevard and will be expanded on an adjacent site by 1,440 students (K–12). The results of the analysis as documented herein are summarized as follows:

- The proposed expansion will generate 1,382 additional daily trips, of which 601 trips will occur during the A.M. peak hour and 444 during the P.M. peak hour.

- Roadway capacity analysis revealed that the impacted roadway segments currently operate satisfactorily within their adopted LOS standards and will continue to do so upon the addition of the project trips.

- The intersection capacity analysis revealed that the study intersections currently operate at overall satisfactory Levels of Service (LOS E or better) and will continue to do so upon the addition of the committed trips and project trips. However, the intersections of US 17-92 with Ronald Reagan Boulevard and Weldon Boulevard will have failing minor street approaches. The signal timings for US 17-92 and Ronald Reagan Boulevard will have to be optimized to attain satisfactory Levels of Service.

- Access to the site is proposed via the existing driveways to the existing school plus a proposed right-in/right-out driveway on Ronald Reagan Boulevard. The site access driveways are projected to operate satisfactorily upon the addition of the project trips, except for the driveway on Weldon Boulevard. The EB/WB approaches of this intersection will fail during the A.M. peak hour; however, the v/c ratio for these approaches are under 1.00, indicating the failing Levels of Service are caused by the existing stop control at the intersection, and not a capacity-deficiency. Turn lane analysis determined an auxiliary right turn lane is not required at the site access driveway on Ronald Reagan Boulevard as per County guidelines.

APPENDICES

APPENDIX A

Study Methodology and Correspondence

Rita Merhi

From: Perez, Arturo <aperez07@seminolecountyfl.gov>
Sent: Thursday, June 20, 2024 1:11 PM
To: Rita Merhi
Cc: Turgut Dervish; Wharton, William; Sean Smith
Subject: RE: TPD#5834 Seminole Science School Expansion

Hi Rita,

I have confirmed that the requested changes have been made, satisfactorily. Use this version of the TIS Methodology as the approved document to prepare the TIS Report. I do have one question because schools are not in session right now. Are you going to take TMCs now or wait for schools to stat the year on August 12th?

Let me know if you have any questions.

Regards,

Arturo

Arturo J. Perez, MSCE, P.E. (FL, GA, CO)
Professional Engineer - Transportation
Public Works Department | Engineering Division
Phone: 407-665-5716
100 East First Street
Sanford, FL 32771
aperez07@seminolecountyfl.gov

From: Rita Merhi <rita@tpdtraffic.com>
Sent: Thursday, June 20, 2024 11:56 AM
To: Perez, Arturo <aperez07@seminolecountyfl.gov>
Cc: Turgut Dervish <turgut@tpdtraffic.com>; Wharton, William <wwharton@seminolecountyfl.gov>; Sean Smith <ssmith@tpdtraffic.com>
Subject: RE: TPD#5834 Seminole Science School Expansion

Good morning Arturo,

Attached please find the revised methodology for Seminole Science School Expansion addressing the two comments.

Thank you for your assistance .

Regards,

Rita Merhi

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From: Perez, Arturo <aperez07@seminolecountyfl.gov>
Sent: Thursday, June 13, 2024 3:47 PM
To: Rita Merhi <rita@tpdtraffic.com>
Cc: Turgut Dervish <turgut@tpdtraffic.com>; Wharton, William <wwharton@seminolecountyfl.gov>; Sean Smith <ssmith@tpdtraffic.com>
Subject: RE: TPD#5834 Seminole Science School Expansion

Good afternoon, Rita,

I have reviewed the TIS Methodology and have made just a couple of comments using Sticky Notes in the attached file. Go ahead and revise the document and sent it back to me for approval.

Thank you,

Arturo

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

Arturo J. Perez, MSCE, P.E. (FL, GA, CO)
Professional Engineer - Transportation
Public Works Department | Engineering Division
Phone: 407-665-5716
100 East First Street
Sanford, FL 32771
aperez07@seminolecountyfl.gov

From: Rita Merhi <rita@tpdtraffic.com>
Sent: Wednesday, June 12, 2024 2:04 PM
To: Perez, Arturo <aperez07@seminolecountyfl.gov>
Cc: Turgut Dervish <turgut@tpdtraffic.com>; Wharton, William <wwharton@seminolecountyfl.gov>; Sean Smith <ssmith@tpdtraffic.com>
Subject: RE: TPD#5834 Seminole Science School Expansion

Good afternoon Arturo,

I would like to check on the status of the revised methodology for Seminole Science School Expansion.
Please let us know when we should expect to receive a response.

Thank you.

Regards,

Rita Merhi

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From: Rita Merhi
Sent: Wednesday, May 8, 2024 10:43 AM
To: Perez, Arturo <aperez07@seminolecountyfl.gov>
Cc: Turgut Dervish <turgut@tpdtraffic.com>; Wharton, William <wwharton@seminolecountyfl.gov>; Sean Smith <ssmith@tpdtraffic.com>
Subject: RE: TPD#5834 Seminole Science School Expansion

Good morning Arturo,

Attached please find our revised methodology for Seminole Science School Expansion.
Please review and let us know if you have any questions or comments.

Thank you.

Regards,

Rita Merhi

Traffic Planning and Design, Inc.
535 Versailles Drive
Maitland, Florida 32751
407.628.9955
www.tpdtraffic.com

Rita Merhi

From: Perez, Arturo <aperez07@seminolecountyfl.gov>
Sent: Friday, September 15, 2023 2:44 PM
To: Rita Merhi
Cc: Turgut Dervish; Wharton, William
Subject: RE: TPD#5834 Seminole Science School Expansion

Hi Rita,

Per our telephone conversation earlier today, I am sending this email to confirm that the methodology was reviewed and approved by.

Go ahead and prepare the TIS.

Enjoy your weekend!

Regards,

Arturo

Arturo J. Perez, MSCE, P.E. (FL, GA, CO)
Professional Engineer - Transportation
Public Works Department | Engineering Division
Phone: 407-665-5716
100 East First Street
Sanford, FL 32771
aperez07@seminolecountyfl.gov

From: Rita Merhi <rita@tpdtraffic.com>
Sent: Monday, July 31, 2023 4:22 PM
To: Perez, Arturo <aperez07@seminolecountyfl.gov>
Cc: Turgut Dervish <turgut@tpdtraffic.com>
Subject: TPD#5834 Seminole Science School Expansion

Good afternoon Arturo,

Attached please find our proposed study methodology for Seminole Science Charter School Expansion .

Please review and let us know if you have any questions or comments.

Thank you.

Regards,

M E M O R A N D U M

TO: Arturo J. Perez, P.E.

FROM: Turgut Dervish, P.E.

DATE: July 28, 2023

RE: Traffic Impact Study Methodology
Seminole Science School Expansion
TPD No. 5834

The following is an outline of the proposed methodology for the Traffic Impact Study for the proposed charter school in Seminole County, Florida. The project site is located in the SE corner of northwest corner of US 17-92 and Ronald Reagan Boulevard. **Figure 1** depicts the site location and the area roadways.

1. Proposed Development

The proposed development will consist of a school expansion for up to 1,000 students. Access to the site is proposed via access connections from US 17-92 and Ronald Reagan Boulevard. **Figure 2** depicts the conceptual site plan.

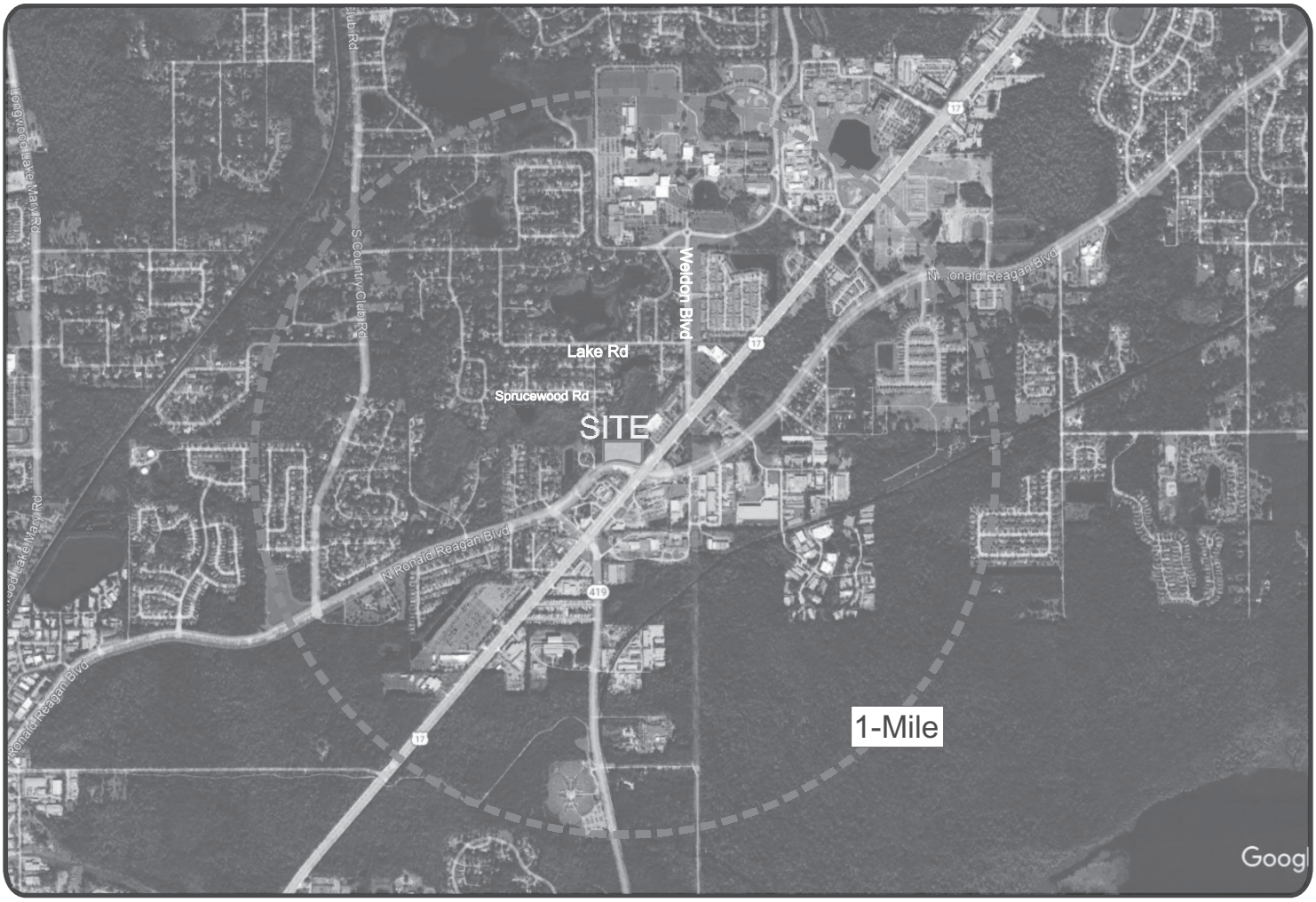
2. Trip Generation

Trip generation data from the 11th Edition of the Institute of Transportation Engineers (ITE) *Trip Generation Manual* will be used for the trip generation estimation of the development. **Table 1** provides a summary of the trip generation calculation. ITE Trip Generation sheets are attached.

Table 1
Trip Generation Calculation Summary

ITE Code	Land Use	Size	Daily		A.M. Peak Hour of Adjacent Street				P.M. Peak Hour of Generator			
			Rate	Trips	Rate	Enter	Exit	Total	Rate	Enter	Exit	Total
538	Charter School (K-12)	1,000 Students	2.48*	2,480	0.83	423	407	830	0.73	365	365	730
Total Trips				2,480	---	423	407	830	---	365	365	730

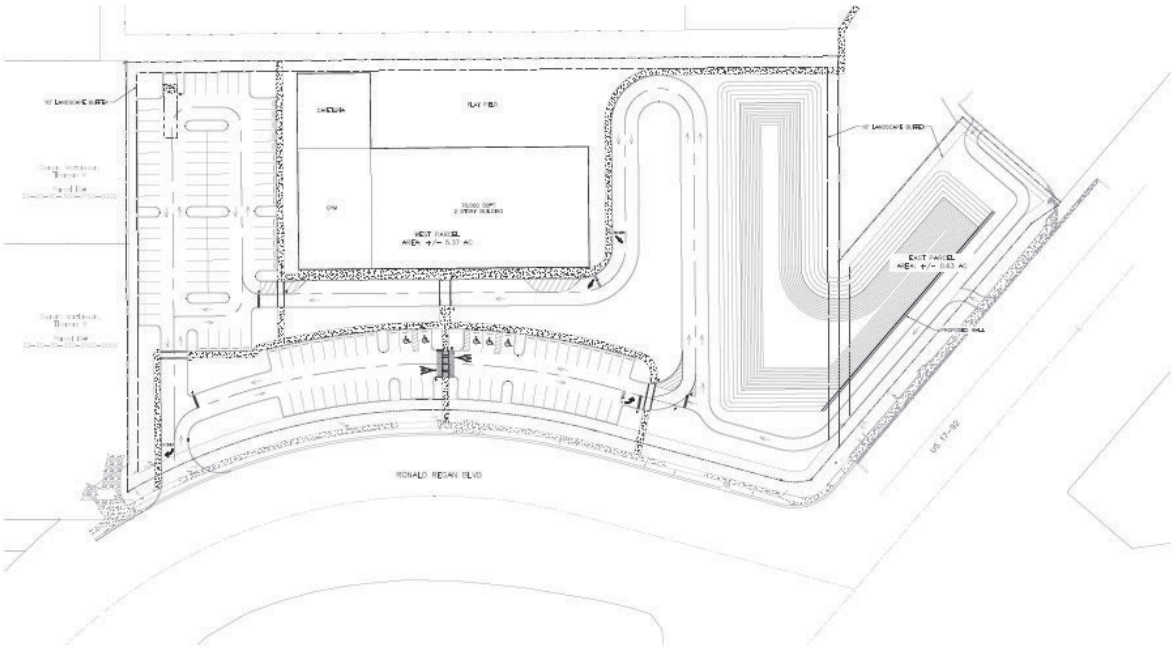
*Daily rate not available. ITE Code 532 Private School (K-12) Used.



Seminole Science School Expansion
Project № 5834
Figure 1

Site Location

N
NTS



Seminole Science School Expansion
Project № 5834
Figure 2

Site Plan

3. Trip Distribution

A distribution pattern was documented with the use of the CFRPM (v.7). The model was run with a select zone analysis which produced a distribution pattern for the project as shown in **Figure 3.** This distribution will be used to assign the project trips to the area roadways. The model distribution plots are included in the Attachment.

4. Impact Area

As per Seminole County TIA guidelines, major roadways within a one-mile radius and intersections with a quarter mile will be included in the analysis.

The intersections to be included in the area analysis are:

- 17-92 and Weldon Boulevard
- 17-92 and Ronald Reagan Boulevard
- 17-92 and SR 419/Silkwood Court
- Ronald Reagan Boulevard and Silkwood Court
- Site Entrances

The one mile and quarter mile areas and study intersections are depicted in **Figure 4**.

5. Traffic Impact Assessment

a) Roadways

- Obtain background traffic volumes on the study roadway segments from Seminole County for use in the traffic analysis. A.M. Counts will be made from 7-9 A.M. and P.M. counts from 2-4 P.M.

- Combine project traffic with background traffic to obtain total traffic volumes.

- Perform daily roadway capacity analysis utilizing Seminole County standards.

Intersections

- Conduct intersection counts during the A.M. and P.M. peak periods at the study intersections.

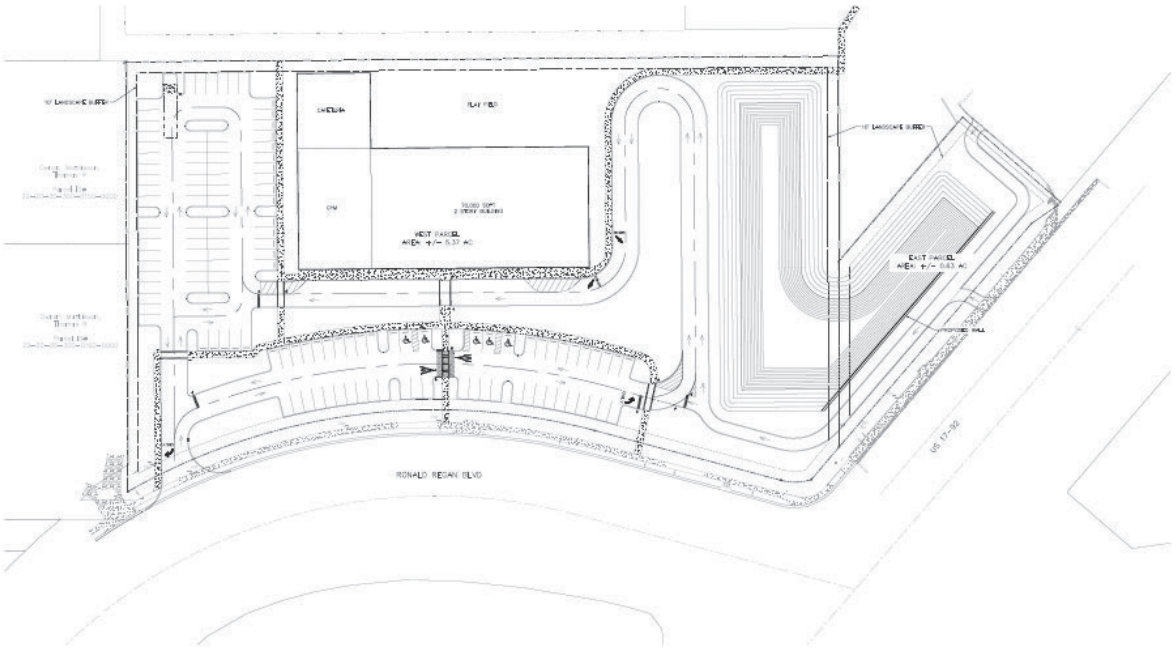
- Determine background traffic by combining existing traffic counts with committed trips to be provided by the County.

- Combine project traffic with background traffic to obtain total traffic.

- Perform intersection capacity analysis utilizing the HCM/HCS operational analysis procedures for the P.M. peak hour.

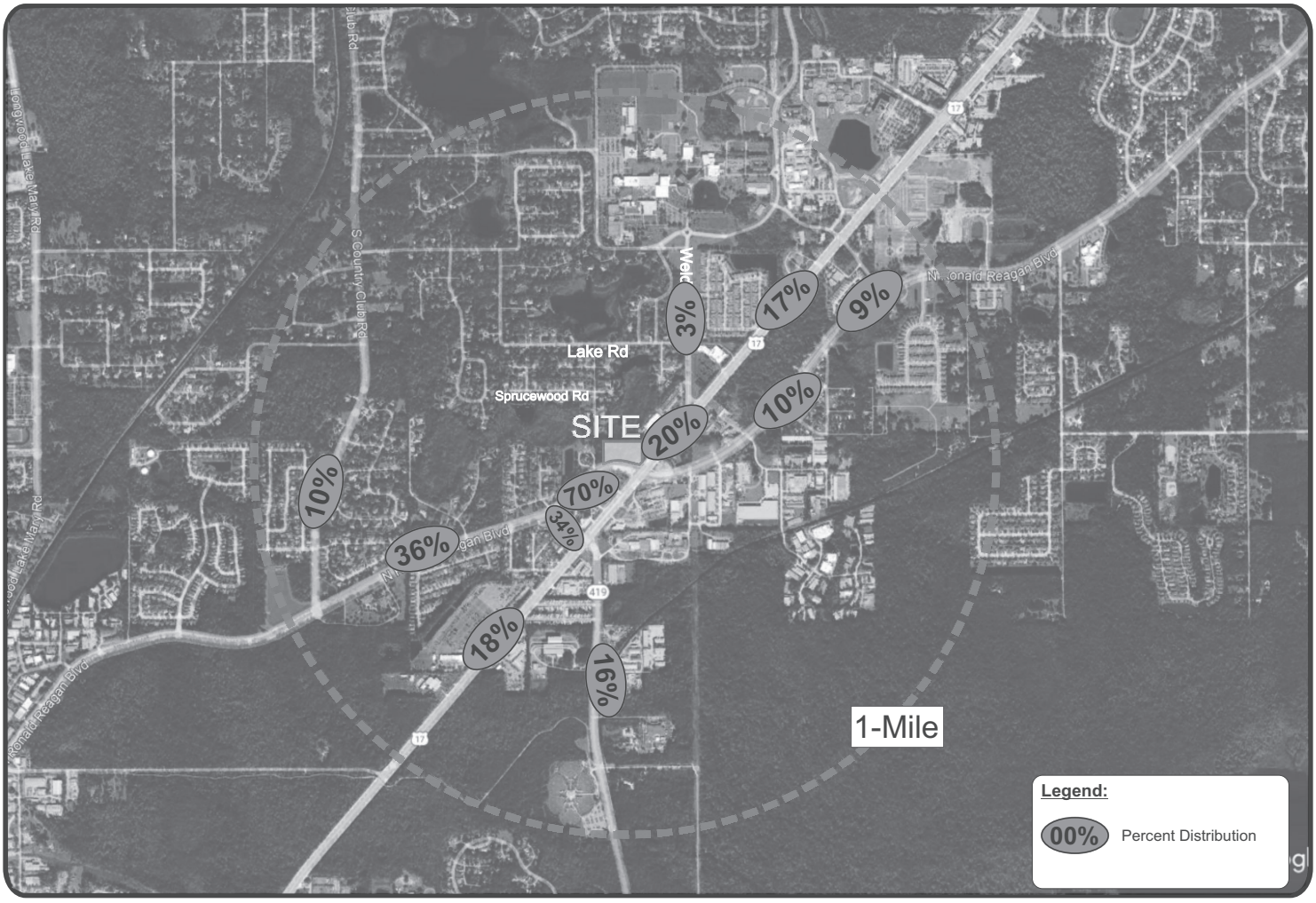
7. Traffic Report

Prepare traffic report summarizing study procedures, analyses and recommendations.
If you have any questions or concerns, please contact us at (407) 628-9955.



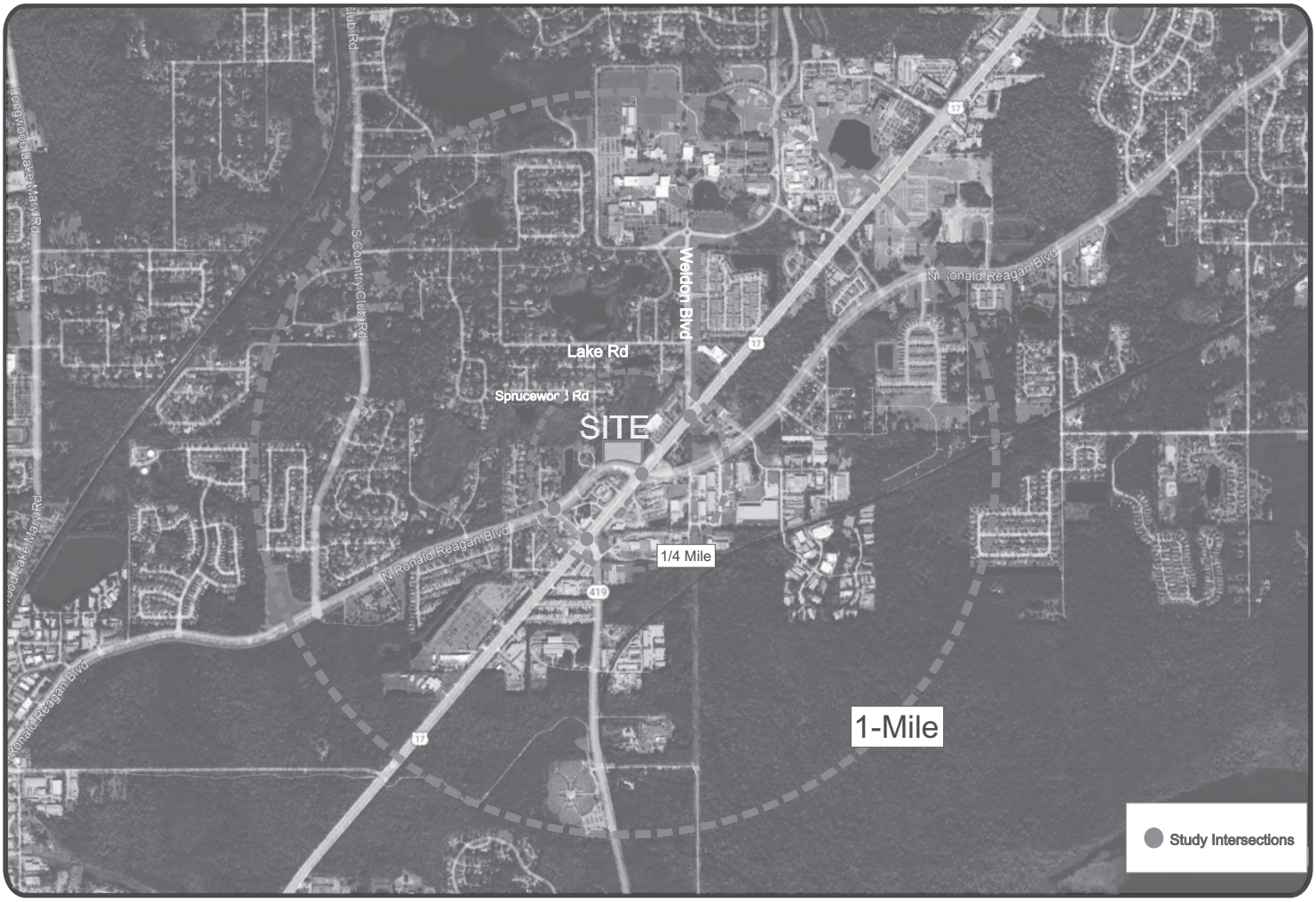
Seminole Science School Expansion
Project № 5834
Figure 2

Site Plan



Seminole Science School Expansion
Project № 5834
Figure 3

Trip Distribution



Seminole Science School Expansion
Project № 5834
Figure 4

Study Intersections

Attachments

Private School (K-12)
(532)

Vehicle Trip Ends vs: **Students**
On a: **Weekday**

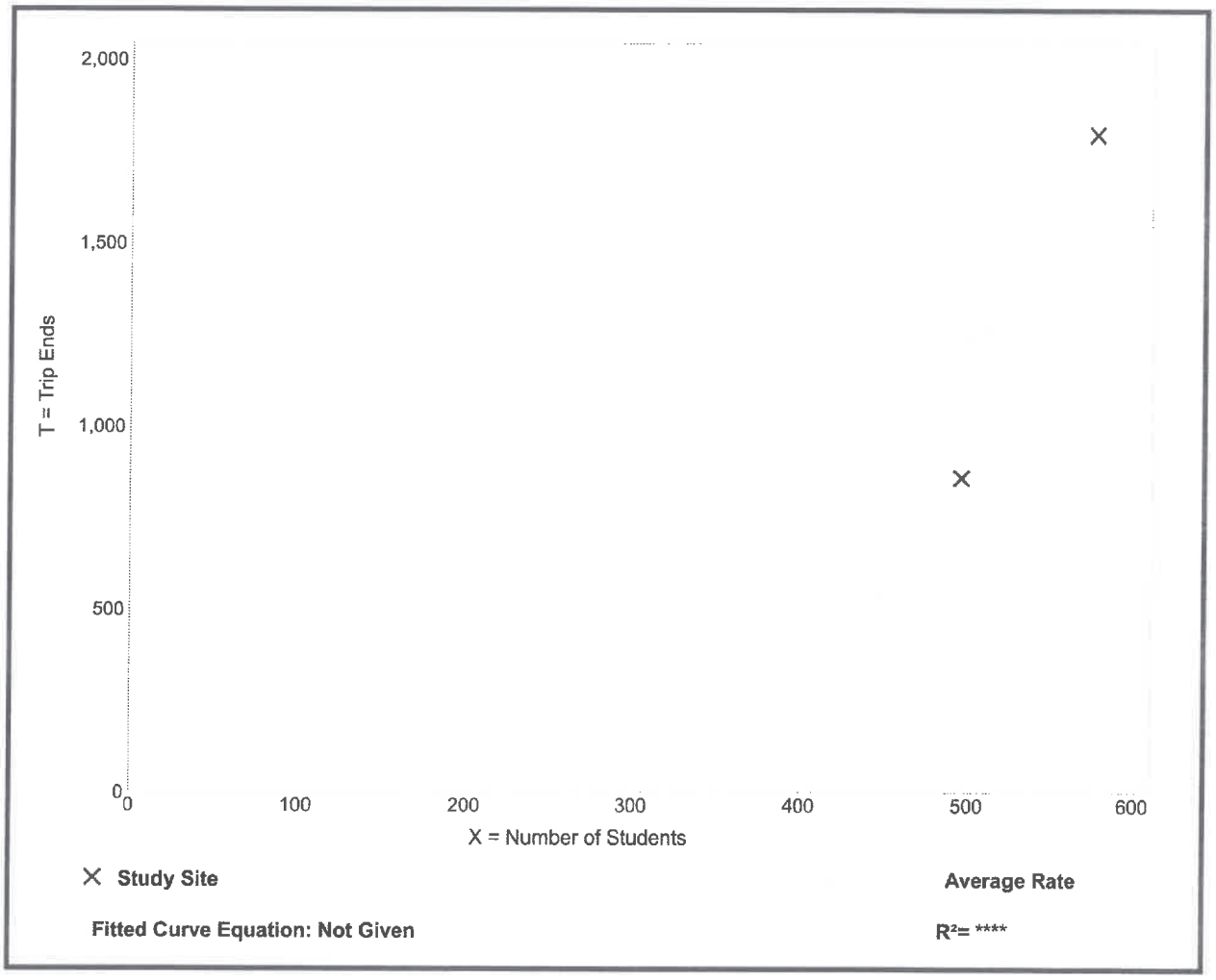
Setting/Location: **General Urban/Suburban**
Number of Studies: 2
Avg. Num. of Students: 537
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Student

Average Rate	Range of Rates	Standard Deviation
2.48	1.74 - 3.12	*

Data Plot and Equation

Caution – Small Sample Size



Charter School (K-12)
(538)

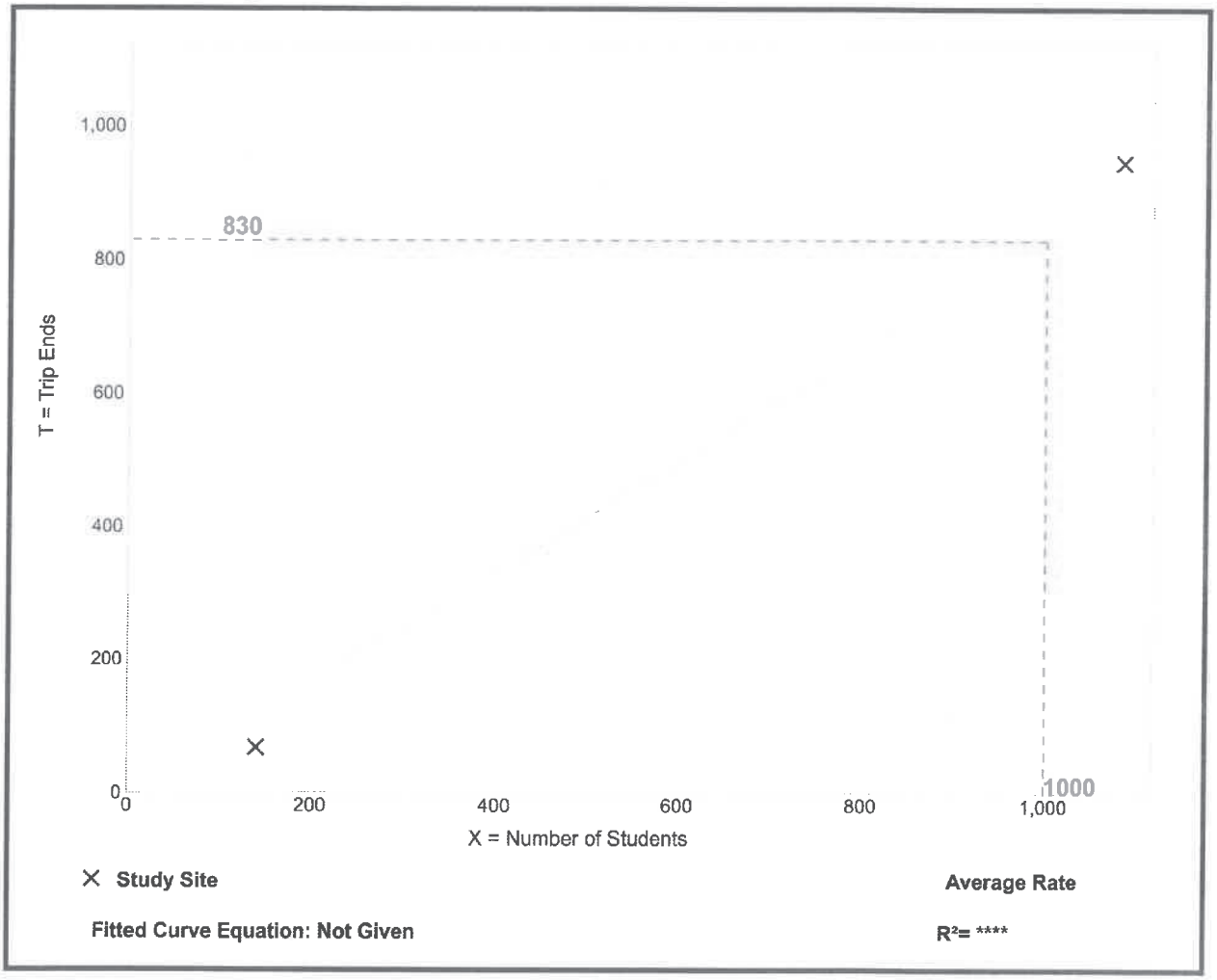
Vehicle Trip Ends vs: **Students**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 2
Avg. Num. of Students: 613
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per Student

Average Rate	Range of Rates	Standard Deviation
0.83	0.49 - 0.87	*

Data Plot and Equation

Caution – Small Sample Size



Charter School (K-12)
(538)

Vehicle Trip Ends vs: **Students**
On a: **Weekday,**
PM Peak Hour of Generator

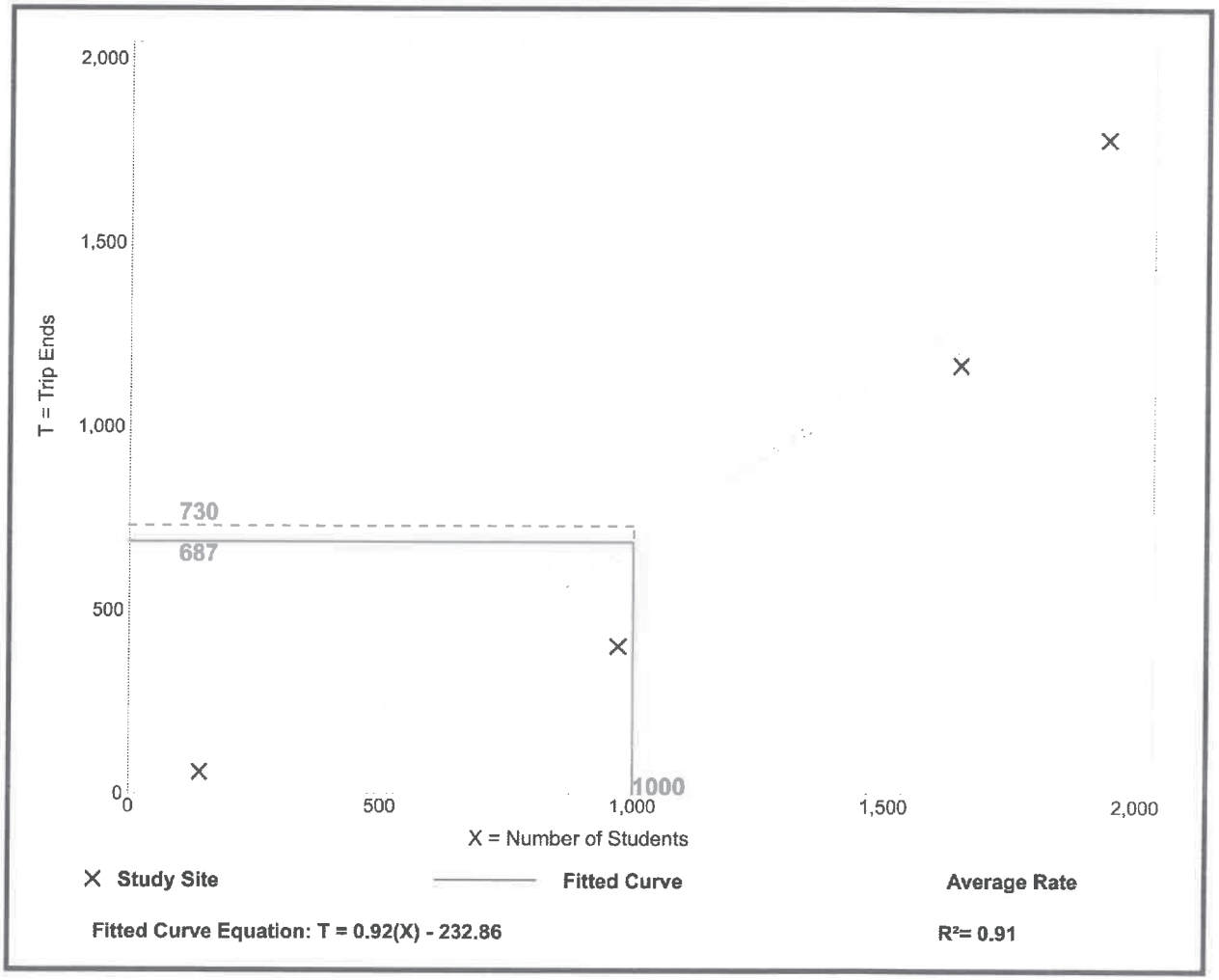
Setting/Location: **General Urban/Suburban**
Number of Studies: 4
Avg. Num. of Students: 1175
Directional Distribution: 50% entering, 50% exiting

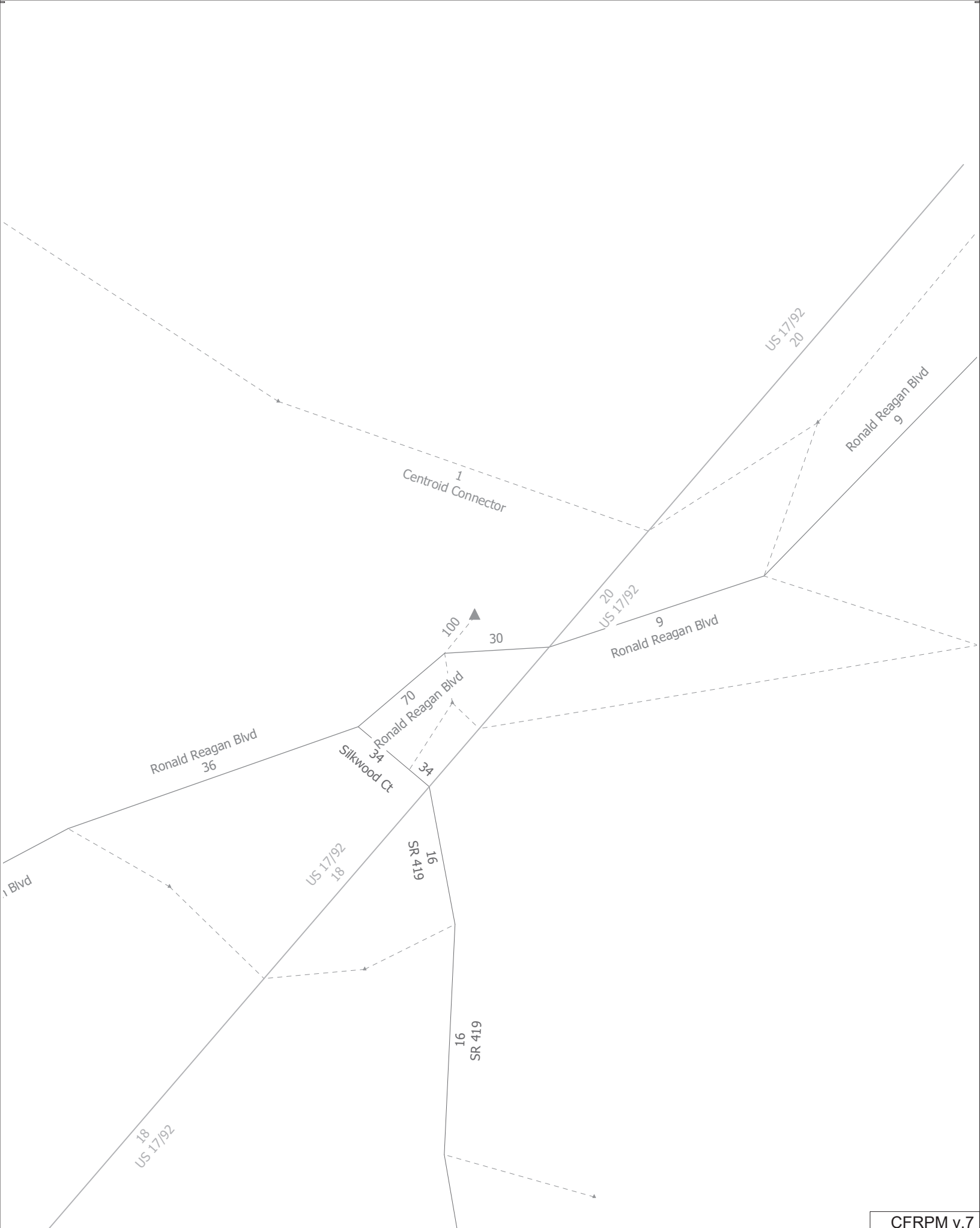
Vehicle Trip Generation per Student

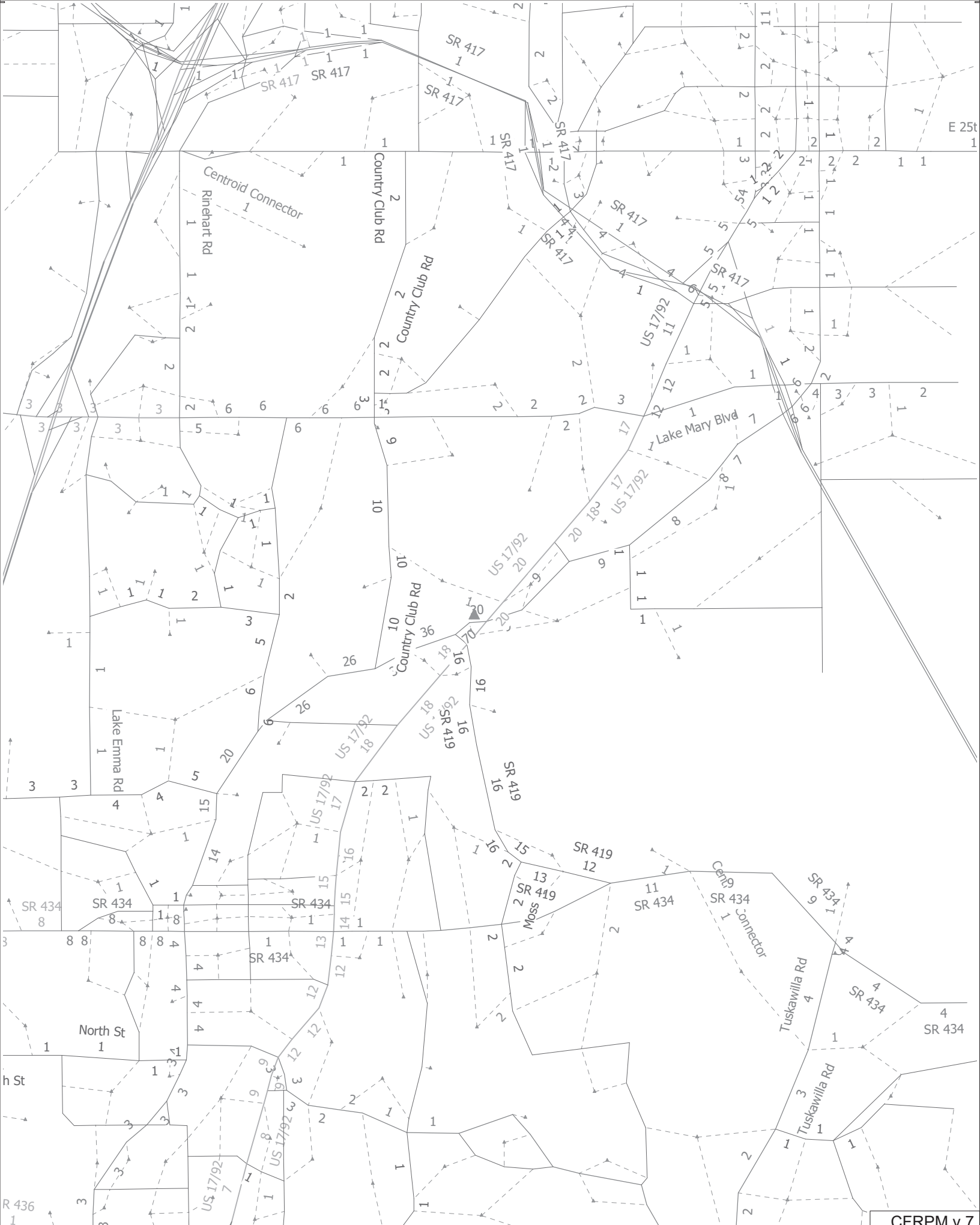
Average Rate	Range of Rates	Standard Deviation
0.73	0.41 - 0.92	0.23

Data Plot and Equation

Caution – Small Sample Size




1
Centroid Connector
US 17/92
20
Ronald Reagan Blvd
9
100
30
70
Ronald Reagan Blvd
36
Silkwood Ct
34
34
US 17/92
18
16
SR 419
16
SR 419
18
US 17/92



CFRPM v.7

TPD#5834

cube

(Licensed to)

APPENDIX B

Traffic Data and Roadway Concurrency Information

Summary of Roadway Concurrency Information

Traffic Counter ID	Roadway Name	From	To	
				Roadway Link Capacity 60000
				Committed Trips 50
				Net Available Capacity 8775
342	US 17-92	SR 434	CR 427/-SR 419	
				Current Traffic Count 32097
				Roadway Link Capacity 48000
				Committed Trips 105
				Net Available Capacity 15798
343	US 17-92	CR 427-SR 419	CR 427	
				Current Traffic Count 32097
				Roadway Link Capacity 48000
				Committed Trips 217
				Net Available Capacity 15686
344	US 17-92	CR 427	Lake Mary Blvd	
				Current Traffic Count 22744
				Roadway Link Capacity 48000
				Committed Trips 466

This information has been provided by Tony Nelson, P.E. at Seminole County Engineering and is current information as of the above referenced date.

Summary of Roadway Concurrency Information

Traffic Counter ID	Roadway Name	From	To	
			Net Available Capacity	7639
059	CR 427	Sanford Ave	Sunland Dr	
			Current Traffic Count	24403
			Roadway Link Capacity	42560
			Committed Trips	126
			Net Available Capacity	18031
060	CR 427	Suniland Dr	County Home Rd	
			Current Traffic Count	26024
			Roadway Link Capacity	42560
			Committed Trips	1109
			Net Available Capacity	15427
061	CR 427	County Home Rd	US 17-92	
			Current Traffic Count	24326
			Roadway Link Capacity	42560
			Committed Trips	2049
			Net Available Capacity	16185

This information has been provided by Tony Nelson, P.E. at Seminole County Engineering and is current information as of the above referenced date.

Summary of Roadway Concurrency Information

Traffic Counter ID	Roadway Name	From	To	
062	CR 427	US 17-92	Country Club Rd	
			Current Traffic Count	20644
			Roadway Link Capacity	42560
			Committed Trips	297
			Net Available Capacity	21619
063	CR 427	Country Club Rd	Longwood Lake Mary	
			Current Traffic Count	19210
			Roadway Link Capacity	42560
			Committed Trips	327
			Net Available Capacity	23023
064	CR 427	Longwood Lake Mary	Longwood Hills Rd	
			Current Traffic Count	27153
			Roadway Link Capacity	42560
			Committed Trips	831
			Net Available Capacity	14576
065	CR 427	Longwood Hills Rd	SR 434	
			Current Traffic Count	29834

This information has been provided by Tony Nelson, P.E. at Seminole County Engineering and is current information as of the above referenced date.

Summary of Roadway Concurrency Information

Traffic Counter ID	Roadway Name	From	To	
277	SR 415	Celery Ave	SR 46	
			Current Traffic Count	25370
			Roadway Link Capacity	18270
			Committed Trips	1196
			Net Available Capacity	-8296
278	SR 419	SR 434	Edgemon Ave	
			Current Traffic Count	14339
			Roadway Link Capacity	18270
			Committed Trips	0
			Net Available Capacity	3931
279	SR 419	Edgemon Ave	US 17-92	
			Current Traffic Count	14892
			Roadway Link Capacity	18270
			Committed Trips	0
			Net Available Capacity	3378
280	SR 426	Hall Rd	Orange County Line	
			Current Traffic Count	30422

This information has been provided by Tony Nelson, P.E. at Seminole County Engineering and is current information as of the above referenced date.

Summary of Roadway Concurrency Information

Traffic Counter ID	Roadway Name	From	To	
259A	SILKWOOD CT	US 17-92	CR 427	
			Current Traffic Count	6516
			Roadway Link Capacity	42560
			Committed Trips	0
			Net Available Capacity	36044
289A	SR 434	Beasley Rd	Lake Dr	
			Current Traffic Count	40309
			Roadway Link Capacity	60000
			Committed Trips	2317
			Net Available Capacity	17374
309A	SR 434	SR 436	West Town Pkwy	
			Current Traffic Count	38380
			Roadway Link Capacity	60000
			Committed Trips	812
			Net Available Capacity	20808
309B	SR 434	West Town Pkwy	Trailwood Dr	
			Current Traffic Count	48871

This information has been provided by Tony Nelson, P.E. at Seminole County Engineering and is current information as of the above referenced date.

Summary of Roadway Concurrency Information

Traffic Counter ID	Roadway Name	From	To	
042	COUNTRY CLUB RD	Broadmoor Rd	Continental Blvd	
			Current Traffic Count	6585
			Roadway Link Capacity	19360
			Committed Trips	0
			Net Available Capacity	12775
043	COUNTRY CLUB RD	Continental Blvd	CR 427	
			Current Traffic Count	10137
			Roadway Link Capacity	19360
			Committed Trips	0
			Net Available Capacity	9223
044	COUNTY HOME RD	US 17-92	CR 427	
			Current Traffic Count	3901
			Roadway Link Capacity	19360
			Committed Trips	0
			Net Available Capacity	15459
045	COUNTYLINE DR	SR 436	Sandlake Rd	
			Current Traffic Count	4971

This information has been provided by Tony Nelson, P.E. at Seminole County Engineering and is current information as of the above referenced date.

APPENDIX C

Existing Intersection Counts, Signal Timings, and FDOT Seasonal Factors

National Data & Surveying Services

Intersection Turning Movement Count

Location: US 17-92 & Weldon Blvd
City: Lake Mary
Control: Signalized

Project ID: 23-130264-001
Date: 9/19/2023

Data - Total

NS/EW Streets:	US 17-92				US 17-92				Weldon Blvd				Weldon Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	18	183	4	0	1	253	3	0	3	0	28	0	0	0	0	0	493
7:15 AM	48	189	3	0	0	291	21	1	1	0	20	0	1	0	0	0	575
7:30 AM	97	223	0	0	0	302	33	0	19	0	35	0	0	0	0	0	709
7:45 AM	129	285	4	0	3	313	38	2	19	0	31	1	0	0	0	0	825
8:00 AM	58	225	5	0	1	304	24	6	21	0	57	0	7	0	0	0	708
8:15 AM	62	194	4	0	0	316	14	1	16	1	31	0	4	0	1	0	644
8:30 AM	56	201	1	0	0	301	13	2	14	0	22	0	4	0	0	0	614
8:45 AM	87	243	1	0	0	278	11	1	8	0	22	0	1	0	0	0	652
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	555	1743	22	0	5	2358	157	13	101	1	246	1	17	0	1	0	5220
APPROACH %'s :	23.92%	75.13%	0.95%	0.00%	0.20%	93.09%	6.20%	0.51%	28.94%	0.29%	70.49%	0.29%	94.44%	0.00%	5.56%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	346	927	13	0	4	1235	109	9	75	1	154	1	11	0	1	0	2886
PEAK HR FACTOR :	0.671	0.813	0.650	0.000	0.333	0.977	0.717	0.375	0.893	0.250	0.675	0.250	0.393	0.000	0.250	0.000	0.875
	0.769				0.953				0.740				0.429				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	42	240	1	0	0	194	7	6	16	0	59	0	1	0	1	0	567
2:15 PM	30	214	2	0	2	228	11	9	20	1	32	0	0	0	0	0	549
2:30 PM	40	229	0	0	0	220	17	2	8	0	46	0	1	0	0	0	563
2:45 PM	52	234	0	0	0	242	12	2	19	0	39	0	0	0	1	0	601
3:00 PM	53	209	0	0	2	194	10	2	25	0	43	0	0	0	0	0	538
3:15 PM	64	241	3	0	1	228	21	3	30	0	66	0	2	0	2	0	661
3:30 PM	49	231	0	0	0	278	22	4	19	0	46	0	0	0	0	0	649
3:45 PM	57	256	3	0	0	224	15	2	31	0	39	0	0	0	0	0	627
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	387	1854	9	0	5	1808	115	30	168	1	370	0	4	0	4	0	4755
APPROACH %'s :	17.20%	82.40%	0.40%	0.00%	0.26%	92.34%	5.87%	1.53%	31.17%	0.19%	68.65%	0.00%	50.00%	0.00%	50.00%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	223	937	6	0	3	924	68	11	105	0	194	0	2	0	2	0	2475
PEAK HR FACTOR :	0.871	0.915	0.500	0.000	0.375	0.831	0.773	0.688	0.847	0.000	0.735	0.000	0.250	0.000	0.250	0.000	0.936
	0.922				0.827				0.779				0.250				

Prepared by National Data & Surveying Services

US 17-92 & Weldon Blvd

Peak Hour Turning Movement Count

ID: 23-130264-001
City: Lake Mary

Day: Tuesday
Date: 9/19/2023

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	7:00 AM - 09:00 AM
NONE	NONE
03:00 PM - 04:00 PM	2:00 PM - 04:00 PM

US 17-92 — SOUTHBOUND

AM	109	1235	4	9	1012	AM
NOON	0	0	0	0	0	NOON
PM	68	924	3	11	1055	PM

EASTBOUND (Weldon Blvd)

AM	NOON	PM	
456	0	291	⇦
1	0	0	↶ 0
75	0	105	↱ 0
1	0	0	→ 0
154	0	194	↴ 0
AM	NOON	PM	

WESTBOUND (Weldon Blvd)

PM	NOON	AM	
2	0	1	0 ↰
0	0	0	0 ←
2	0	11	0 ↶
0	0	0	0 ↩
9	0	18	⇨
PM	NOON	AM	

CONTROL: Signalized

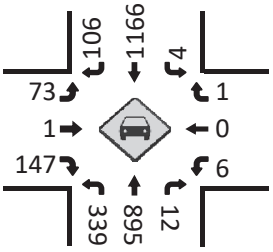
TEV	2886 AM	0 NOON	2475 PM
PHF	0.87		0.94

NORTHBOUND

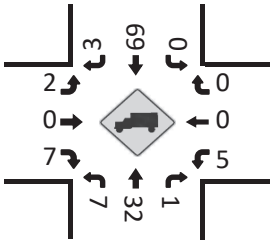
PM	1120	0	223	937	6	PM
NOON	0	0	0	0	0	NOON
AM	1400	0	346	927	13	AM

US 17-92

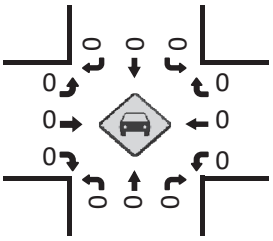
Cars (AM)



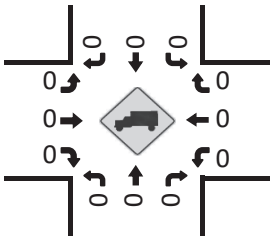
HT (AM)



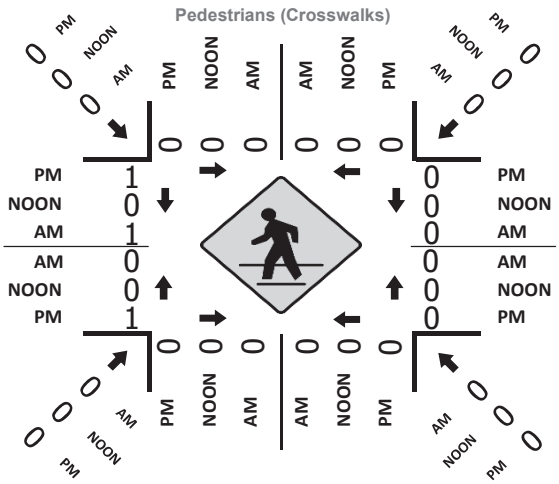
Cars (NOON)



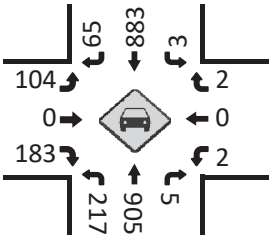
HT (NOON)



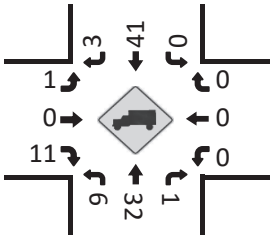
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)

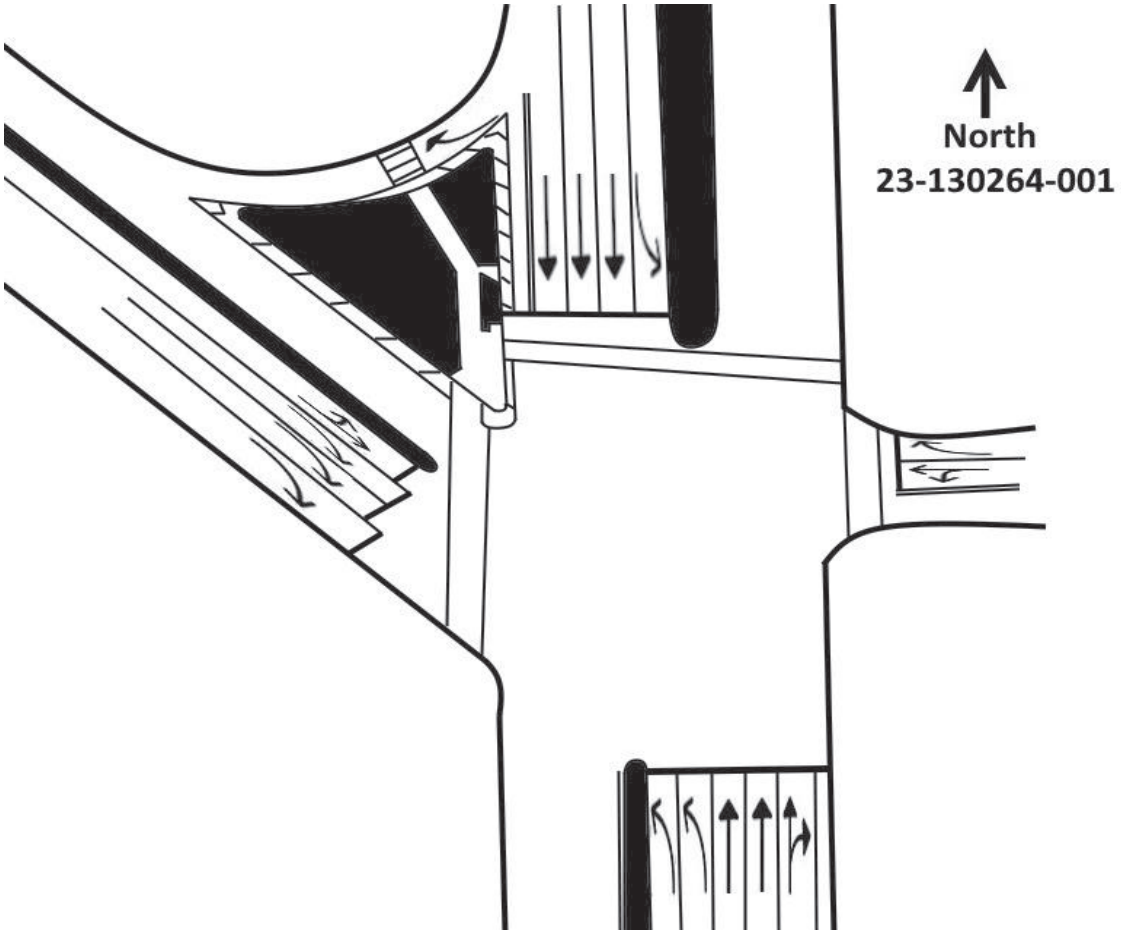


National Data & Surveying Services

N

N/S Street: **US 17-92**

Speed: **45 MPH**



E/W Street: **Weldon Blvd**

Speed: **35 MPH**

Site Code: **23-130264-001**

Date: **09/19/2023**

Weather: **Sunny**

City: **Lake Mary**

County: **Seminole**

Count Times: **07:00 - 09:00**

14:00 - 16:00

Control: **Signalized**

SIGNAL TIMING

PHASES	1	2	3
NL/SL	00:14	00:16	00:22
NT/ST	01:47	01:42	01:33
NL/NT	00:28	00:27	00:28
WL/WT	00:13	00:13	00:26
EL/ET	00:20	00:25	00:22

Seminole County Traffic Engineering Timing Sheet
Intersection: US 1792 @ (20) Weldon Blvd

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

Name	US 1792		Weldon		US 1792		Weldon		US 17/92							
Direction	NL	ST		WT	SL	NT		ET	NL							
Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase/OL	1	2	3	4	5	6	7	8	9	10	11	12	2	4	6	8
Type	OLP	VEH	VEH	VEH	VEH	OLP	VEH	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED

Phase Mode	User	Free Action	254
Free Seq	1	Syn Green	
InSync		P2P Pattern	
Comm ID	1105	Node #	4304
Date	July 25, 2023	Done By	SCTE\JVidal

Phase Times

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Min Green	6	15		6	6	15		6	6							
Passage	3	5		3	3	5		3	3							
Max 1	35	60		20	20	60		20	20							
Max 2	35	60		20	20	60		20	20							
Yellow Clr	4.8	4.8		3.4	4.8	4.8		4.1	4.8							
Red Clr	4.3	4.3		3.2	4.3	4.3		3.1	4.3							
Walk		7		7		7										
Ped Clear		30		34		16										
Red Revert	3	3		3	3	3		3	3							
Added Init																
Max Initial																
Max 3 Limit																
Max 3 Step																
Time B-4																
Cars B-4																
Time to																
Reduce By																
Min Gap																

Alt Phase Times 1

Phase								
Min Green								
Passage								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt Phase Times 2

Phase								
Min Green								
Passage								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Phase Options

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Enable	✓	✓		✓	✓	✓		✓								
Min Recall		✓				✓										
Max Recall																
Ped Recall																
Soft Recall																
Lock Call		✓			✓	✓										
Flash Ent								✓								
Flash Exit		✓				✓										
Dual Entry		✓				✓										
Sim Gap		✓				✓										
Cond Serv																
Reservice																
Cnf Phase																

Alt Phase Opt 1

Phase	1	2		4	5	6		8
Max 2								
Max Inhibit	✓	✓		✓	✓	✓		✓
Cnf Phase								

Alt Phase Opt 2

Phase	1	2		4	5	6		8
Max 2								
Max Inhibit		✓				✓		
Cnf Phase								

Alt Phase Opt 3

Phase								
Max2								
Max Inhibit								
Cnf Phase								

	Type	Included Phase	Modifier Phase	FYA	Grn	Yel	Red
Overlap - A	NORMAL	1 9				4.8	4.3
Overlap - B							
Overlap - C							
Overlap - D							
Overlap - E							
Overlap - F	NORMAL	6 9				4.8	4.3
Overlap - G							
Overlap - H							
Overlap - I	NORMAL	1 8 9				4.8	4.3
Overlap - J							
Overlap - K							
Overlap - L							
Overlap - M							
Overlap - N							
Overlap - O							
Overlap - P							

Coordination Splits 1-16

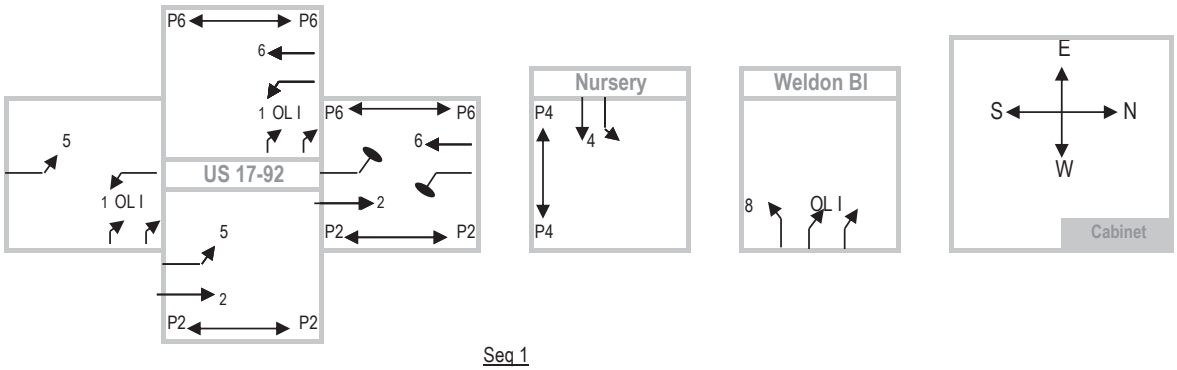
Split 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =180	23	80		25	21	82		22	30							
Seq =1		✓														
Mode		MAX				MAX			ENB							
Split 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =120	28	50		17	20	58		25								
Seq =3						✓										
Mode		MAX				MAX										
Split 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =130	21	49		16	21	49		24	20							
Seq =1		✓														
Mode		MAX				MAX			MAX							
Split 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =180	40	81		25	21	100		34								
Seq =3						✓										
Mode		MAX				MAX										
Split 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =120	28	50		17	20	58		25								
Seq =3						✓										
Mode		MAX				MAX										
Split 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =110	24	46		18	23	47		22								
Seq =3						✓										
Mode		MAX				MAX										
Split 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =110	23	50		16	21	52		21								
Seq =3						✓										
Mode		MAX				MAX										
Split 8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =110	24	46		18	23	47		22								
Seq =3						✓										
Mode		MAX				MAX										
Split 9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =110	23	50		16	21	52		21								
Seq =3						✓										
Mode		MAX				MAX										
Split 10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =100	20	40		20	20	40		20								
Seq =3						✓										
Mode		MAX				MAX										
Split 11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =_																
Seq =_																
Mode																
Split 12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =_																
Seq =_																
Mode																
Split 13	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =_																
Seq =_																
Mode																
Split 14	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =_																
Seq =_																
Mode																
Split 15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =_																
Seq =_																
Mode																
Split 16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =130	23	66		18	25	64		23								
Seq =1		✓														
Mode		MAX				MAX										

Day Plans 1-8

Sunday	1	2	3	4	5				
	Hour		4	10	18	19			
P	Min			30		30			
L	Action	99	10	8	9	10			
A									
N	Hour								
	Min								
1	Action								
Monday	1	2	3	4	5	6	7	8	
	Hour		4	6	6	9	12	14	18
P	Min				45	15		30	45
L	Action	99	10	2	1	2	3	4	5
A		9							
N	Hour	21							
	Min								
2	Action	10							
Tuesday	1	2	3	4	5	6	7	8	
	Hour		4	6	6	9	12	14	18
P	Min				45	15		30	45
L	Action	99	10	2	1	2	3	4	5
A		9							
N	Hour	21							
	Min								
3	Action	10							
Wednesday	1	2	3	4	5	6	7	8	
	Hour		4	6	6	9	12	14	18
P	Min				45	15		30	45
L	Action	99	10	2	1	2	3	4	5
A		9							
N	Hour	21							
	Min								
4	Action	10							
Thursday	1	2	3	4	5	6	7	8	
	Hour		4	6	6	9	12	14	18
P	Min				45	15		30	45
L	Action	99	10	2	1	2	3	4	5
A		9							
N	Hour	21							
	Min								
5	Action	10							
Friday	1	2	3	4	5	6	7	8	
	Hour		4	6	6	9	12	14	18
P	Min				45	15		30	45
L	Action	99	10	2	1	2	3	4	5
A		9							
N	Hour	21							
	Min								
6	Action	10							
Saturday	1	2	3	4	5	6			
	Hour		4	8	10	18	22		
P	Min								
L	Action	99	10	6	16	7	10		
A									
N	Hour								
	Min								
7	Action								
	Hour								
P	Min								
L	Action								
A									
N	Hour								
	Min								
8	Action								

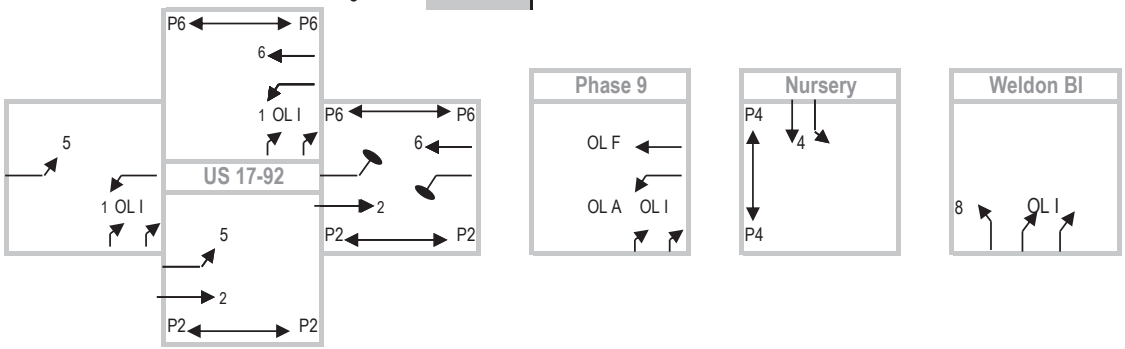
	Enbl	Track Phase					Grn	Track Overlap			Dwell Phase								Dwl	Dwell Overlap				Exit Phase			
Pre Run 1																											
Pre Run 2																											
Pre Run 3	ON										8								8	9				1	5		
Pre Run 4	ON										4								8					1	5		
Pre Run 5	ON										2	5							8					2	6		
Pre Run 6	ON										1	6							8	1	6			2	6		

Intersection Notes	T.O.D Notes
Intersection set up with split sides. OL A & F are to double cycle NBLT Intersection programmed in USER but runs as a QUADSEQ Maintstreet LT's are protected and lock Det. OL I is for the ph 8 RT.	Intersection retimed May 2022. Patterns 17 & 19 are FDOT SR 417 Diversion routes. Patterns 23 - 25 used for FDOT flush patterns. Patterns 27 to 29 used for FDOT I-4 diversion routes.



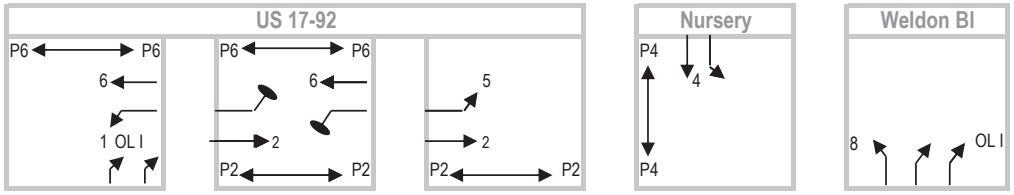
Seq 1

Ring 1	1	2	9	4	8
Ring 2	5	6			



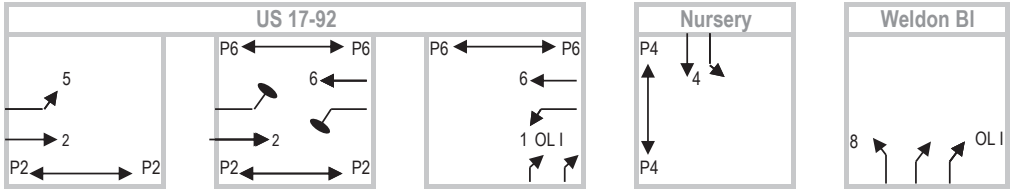
Seq 1 w/Phase 9

Ring 1	1	2	9	4	8
Ring 2	5	6			



Seq 2

Ring 1	1	2	9	4	8
Ring 2	6	5			



Seq 3

Ring 1	2	1	4	8	9
Ring 2	5	6			

National Data & Surveying Services

Intersection Turning Movement Count

Location: US 17-92 & Seminole Science Charter School Dwy
City: Lake Mary
Control: 1-Way Stop(EB)

Project ID: 23-130264-005
Date: 9/19/2023

Data - Total

NS/EW Streets:	US 17-92				US 17-92				Seminole Science Charter School Dwy				Seminole Science Charter School Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	205	0	0	0	277	2	0	0	0	1	0	0	0	0	0	485
7:15 AM	0	244	0	0	0	309	5	0	0	0	0	0	0	0	0	0	558
7:30 AM	0	323	0	0	0	319	8	0	0	0	82	0	0	0	0	0	732
7:45 AM	0	405	0	0	0	335	15	0	0	0	107	0	0	0	0	0	862
8:00 AM	0	291	0	0	0	370	4	0	0	0	58	0	0	0	0	0	723
8:15 AM	0	258	0	0	0	351	0	0	0	0	2	0	0	0	0	0	611
8:30 AM	0	258	0	0	0	326	1	0	0	0	2	0	0	0	0	0	587
8:45 AM	0	330	0	0	0	294	0	0	0	0	2	0	0	0	0	0	626
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2314	0	0	0	2581	35	0	0	0	254	0	0	0	0	0	5184
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	98.66%	1.34%	0.00%	0.00%	0.00%	100.00%	0.00%					
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	1277	0	0	0	1375	27	0	0	0	249	0	0	0	0	0	2928
PEAK HR FACTOR :	0.000	0.788	0.000	0.000	0.000	0.929	0.450	0.000	0.000	0.000	0.582	0.000	0.000	0.000	0.000	0.000	0.849
		0.788				0.937				0.582							

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	275	0	0	0	253	1	0	0	0	4	0	0	0	0	0	533
2:15 PM	0	245	0	0	0	252	4	0	0	0	1	0	0	0	0	0	502
2:30 PM	0	282	0	0	0	266	6	0	0	0	23	0	0	0	0	0	577
2:45 PM	0	283	0	0	0	274	4	0	0	0	41	0	0	0	0	0	602
3:00 PM	0	262	0	0	0	236	1	0	0	0	36	0	0	0	0	0	535
3:15 PM	0	306	0	0	0	298	1	0	0	0	8	0	0	0	0	0	613
3:30 PM	0	289	0	0	0	323	1	0	0	0	37	0	0	0	0	0	650
3:45 PM	0	296	0	0	0	259	1	0	0	0	49	0	0	0	0	0	605
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2238	0	0	0	2161	19	0	0	0	199	0	0	0	0	0	4617
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	99.13%	0.87%	0.00%	0.00%	0.00%	100.00%	0.00%					
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	0	1153	0	0	0	1116	4	0	0	0	130	0	0	0	0	0	2403
PEAK HR FACTOR :	0.000	0.942	0.000	0.000	0.000	0.864	1.000	0.000	0.000	0.000	0.663	0.000	0.000	0.000	0.000	0.000	0.924
		0.942				0.864				0.663							

Prepared by National Data & Surveying Services

US 17-92 & Seminole Science Charter School Dwy

Peak Hour Turning Movement Count

ID: 23-130264-005
City: Lake Mary

Day: Tuesday
Date: 9/19/2023

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	7:00 AM - 09:00 AM
NONE	NONE
03:00 PM - 04:00 PM	2:00 PM - 04:00 PM

SOUTHBOUND (US 17-92)

AM	27	1375	0	0	1277	AM
NOON	0	0	0	0	0	NOON
PM	4	1116	0	0	1153	PM

EASTBOUND (Seminole Science Charter School Dwy)

AM	NOON	PM
27	0	4
0	0	0
0	0	0
0	0	0
249	0	130

WESTBOUND (Seminole Science Charter School Dwy)

PM	NOON	AM
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0

NORTHBOUND (US 17-92)

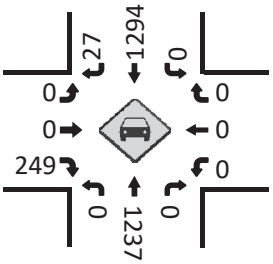
PM	1246	0	0	1153	0	PM
NOON	0	0	0	0	0	NOON
AM	1624	0	0	1277	0	AM

CONTROL

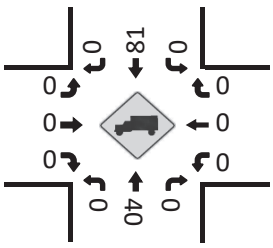
1-Way Stop(EB)

TEV	2928 AM	0 NOON	2403 PM
PHF	0.85		0.92

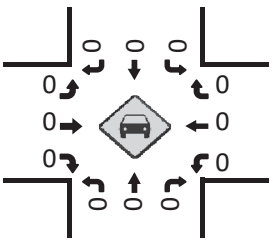
Cars (AM)



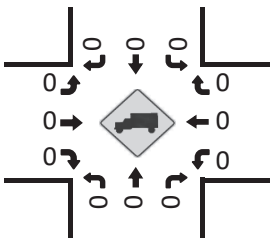
HT (AM)



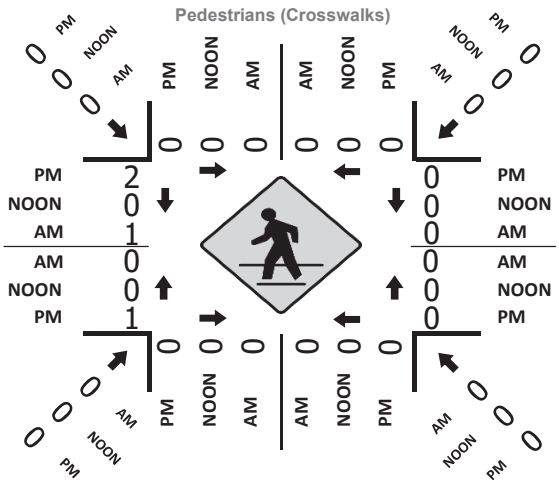
Cars (NOON)



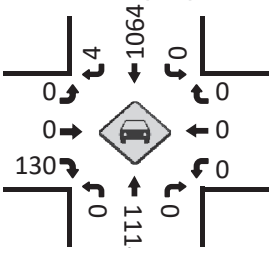
HT (NOON)



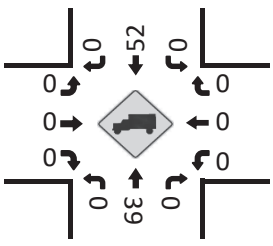
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



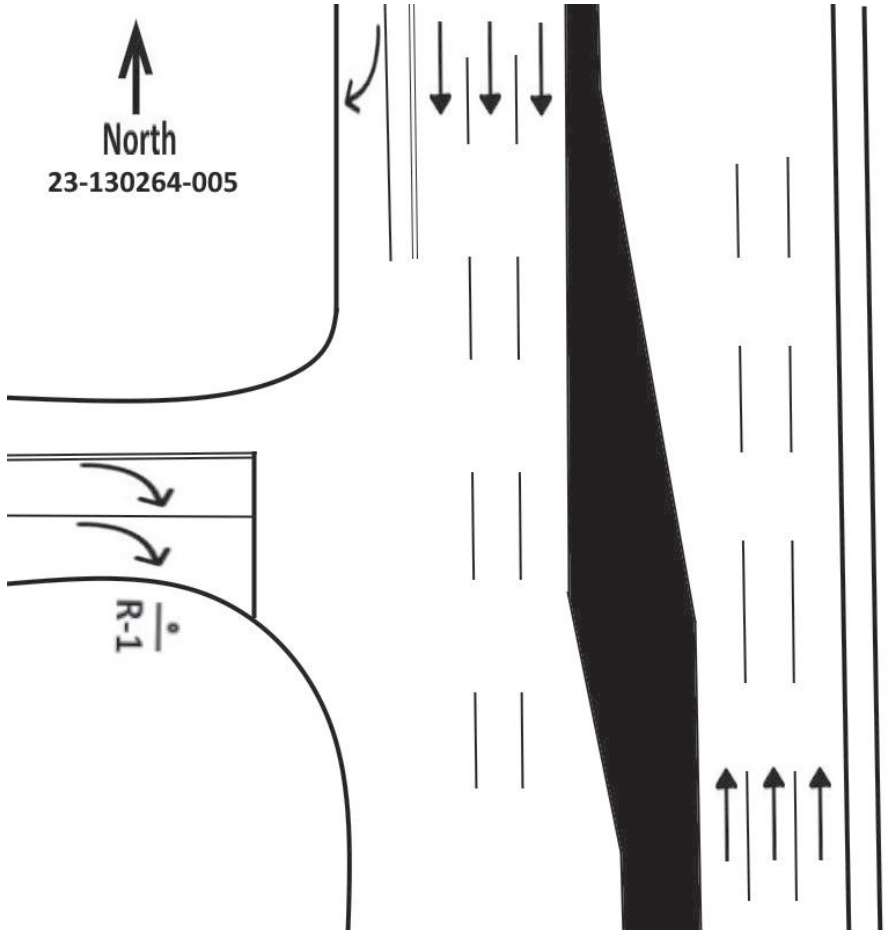
National Data & Surveying Services

Site Code:	**23-130264-005**
Date:	**09/19/2023**
Weather:	**Sunny**
City:	**Lake Mary**
County:	**Seminole**
Count Times:	**07:00 - 09:00**
	14:00 - 16:00
Control:	**1-Way Stop(EB)**

N

N/S Street: **US 17-92**

Speed: **45 MPH**



E/W Street: **Seminole Science Charter School Dwy**

Speed: **N/A**

National Data & Surveying Services

Intersection Turning Movement Count

Location: US 17-92 & Ronald Reagan Blvd
City: Lake Mary
Control: Signalized

Project ID: 23-130264-002
Date: 9/19/2023

Data - Total

NS/EW Streets:	US 17-92				US 17-92				Ronald Reagan Blvd				Ronald Reagan Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	2	165	86	3	2	230	48	0	42	55	2	0	181	107	2	0	925
7:15 AM	0	180	97	1	5	255	43	0	57	83	1	0	196	104	3	1	1026
7:30 AM	3	239	130	2	18	304	76	2	71	64	1	0	263	122	12	0	1307
7:45 AM	0	311	106	1	24	314	93	11	75	66	3	1	236	141	12	1	1395
8:00 AM	0	219	80	4	19	335	71	9	50	50	3	0	207	113	8	0	1168
8:15 AM	3	219	83	8	11	289	50	1	35	48	5	0	208	121	11	0	1092
8:30 AM	1	205	125	1	5	280	47	0	42	43	4	0	168	115	4	2	1042
8:45 AM	3	264	97	6	5	239	44	0	60	27	3	0	229	84	8	0	1069
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	12	1802	804	26	89	2246	472	23	432	436	22	1	1688	907	60	4	9024
APPROACH %'s :	0.45%	68.15%	30.41%	0.98%	3.14%	79.36%	16.68%	0.81%	48.48%	48.93%	2.47%	0.11%	63.48%	34.11%	2.26%	0.15%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	6	988	399	15	72	1242	290	23	231	228	12	1	914	497	43	1	4962
PEAK HR FACTOR :	0.500	0.794	0.767	0.469	0.750	0.927	0.780	0.523	0.770	0.864	0.600	0.250	0.869	0.881	0.896	0.250	0.889
	0.842				0.920				0.814				0.916				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	2	217	86	3	11	186	49	0	49	41	3	0	93	55	5	0	800
2:15 PM	1	198	89	5	15	204	44	0	41	50	5	0	102	72	10	0	836
2:30 PM	4	218	124	6	10	217	60	3	57	76	5	0	77	46	6	0	909
2:45 PM	5	210	127	3	20	236	52	3	53	61	2	1	83	42	11	0	909
3:00 PM	3	209	148	2	18	200	55	2	49	66	4	0	83	52	6	1	898
3:15 PM	5	238	170	3	16	232	58	0	55	78	1	0	83	50	9	0	998
3:30 PM	6	235	153	1	11	280	69	0	48	86	1	0	106	56	9	0	1061
3:45 PM	5	229	169	3	23	229	50	2	55	82	1	0	102	61	7	0	1018
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	31	1754	1066	26	124	1784	437	10	407	540	22	1	729	434	63	1	7429
APPROACH %'s :	1.08%	60.97%	37.05%	0.90%	5.27%	75.75%	18.56%	0.42%	41.96%	55.67%	2.27%	0.10%	59.41%	35.37%	5.13%	0.08%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	19	911	640	9	68	941	232	4	207	312	7	0	374	219	31	1	3975
PEAK HR FACTOR :	0.792	0.957	0.941	0.750	0.739	0.840	0.841	0.500	0.941	0.907	0.438	0.000	0.882	0.898	0.861	0.250	0.937
	0.949				0.865				0.953				0.914				

Prepared by National Data & Surveying Services

US 17-92 & Ronald Reagan Blvd

Peak Hour Turning Movement Count

ID: 23-130264-002
City: Lake Mary

Day: Tuesday
Date: 9/19/2023

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	7:00 AM - 09:00 AM
NONE	NONE
03:00 PM - 04:00 PM	2:00 PM - 04:00 PM

SOUTHBOUND (US 17-92)

AM	290	1242	72	23	1285	AM
NOON	0	0	0	0	0	NOON
PM	232	941	68	4	1153	PM

EASTBOUND (Ronald Reagan Blvd)

AM	NOON	PM
794	0	470
1	0	0
231	0	207
228	0	312
12	0	7

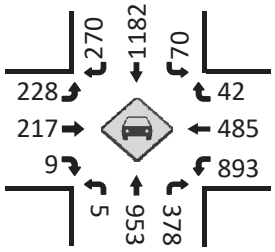
WESTBOUND (Ronald Reagan Blvd)

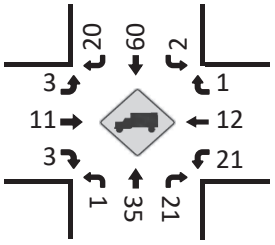
PM	NOON	AM
31	0	43
219	0	497
374	0	914
1	0	1
1021	0	700

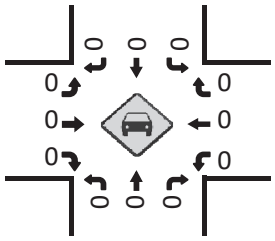
NORTHBOUND (US 17-92)

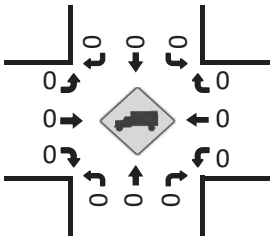
PM	1331	9	19	911	640	PM
NOON	0	0	0	0	0	NOON
AM	2183	15	6	988	399	AM

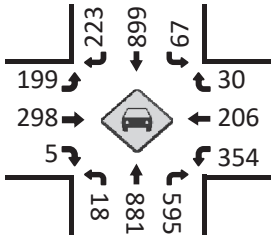
CONTROL			
Signalized			
TEV	4962 AM	0 NOON	3975 PM
PHF	0.89		0.94

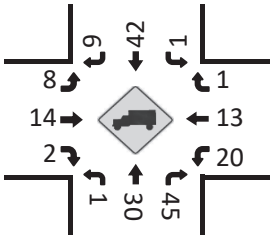


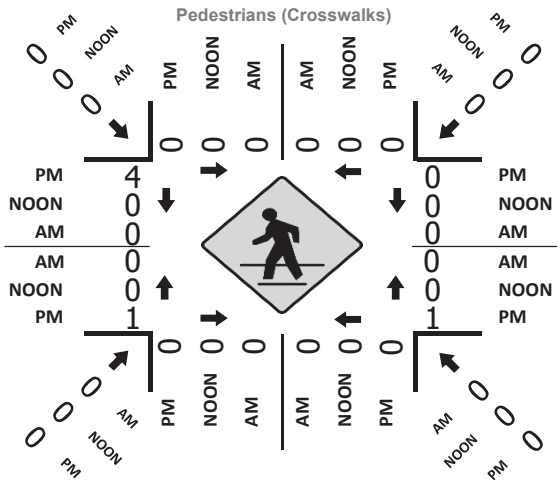












National Data & Surveying Services

N

N/S Street: **US 17-92**

Speed: **45 MPH**

Site Code: **23-130264-002**

Date: **09/19/2023**

Weather: **Sunny**

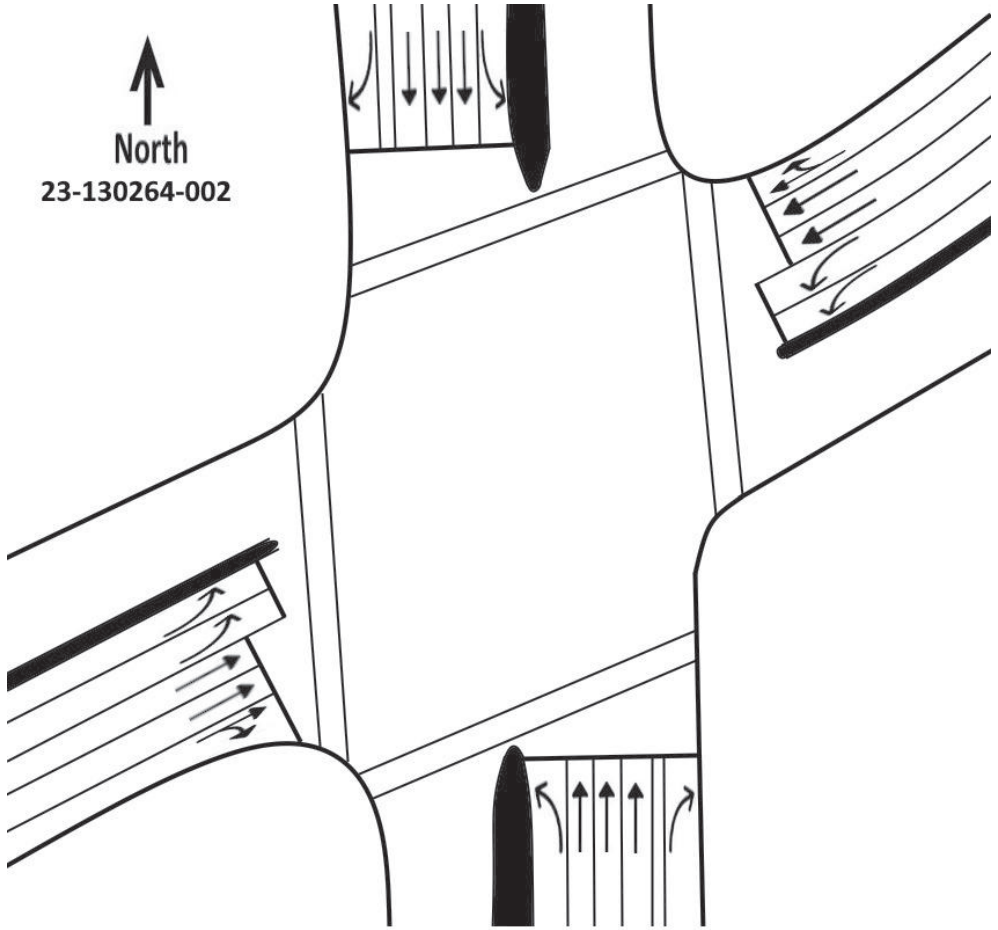
City: **Lake Mary**

County: **Seminole**

Count Times: **07:00 - 09:00**

14:00 - 16:00

Control: **Signalized**



E/W Street: **Ronald Reagan Blvd**

Speed: **45 MPH**

SIGNAL TIMING

PHASES	1	2	3
SL/ST	00:20	00:21	00:13
NT/ST	01:28	01:06	01:14
NL/NT	-	00:22	00:23
EL/WL	00:35	00:27	00:34
WL/WT	-	00:14	00:06
ET/WT	00:35	00:29	00:33

Seminole County Traffic Engineering Timing Sheet
Intersection: US 1792 @ (21) CR 427

Name	US 1792		CR 427		US 1792		CR 427									
Direction	NL	ST	EL	WT	SL	NT	WL	ET								
Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase/OL	1	2	3	4	5	6	7	8	9	10	11	12	2	4	6	8
Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED

Phase Mode	STD8	Free Action	254
Free Seq	1	Syn Green	
InSync		P2P Pattern	
Comm ID	1110	Node #	781
Date	July 10, 2023	Done By	SCTE\JVidal

Phase Times

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Min Green	6	15	6	8	6	15	6	8								
Passage	3	5	3	3	3	5	3	3								
Max 1	30	60	30	50	30	60	35	50								
Max 2	30	60	30	50	30	60	30	50								
Yellow Clr	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8								
Red Clr	3.6	3.6	5	5	3.6	3.6	5	5								
Walk		7		7		7		7								
Ped Clear		41		41		39		42								
Red Revert	3	3	3	3	3	3	3	3								
Added Init																
Max Initial																
Max 3 Limit																
Max 3 Step																
Time B-4																
Cars B-4																
Time to																
Reduce By																
Min Gap																

Alt Phase Times 1

Phase								
Min Green								
Passage								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt Phase Times 2

Phase								
Min Green								
Passage								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Phase Options

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Enable	✓	✓	✓	✓	✓	✓	✓	✓								
Min Recall		✓				✓										
Max Recall																
Ped Recall																
Soft Recall																
Lock Call	✓	✓	✓		✓	✓	✓									
Flash Ent				✓				✓								
Flash Exit		✓				✓										
Dual Entry		✓		✓		✓		✓								
Sim Gap		✓				✓										
Cond Serv																
Reservice																
Cnf Phase																

Alt Phase Opt 1

Phase	1	2	3	4	5	6	7	8
Max 2								
Max Inhibit	✓	✓	✓	✓	✓	✓	✓	✓
Cnf Phase								

Alt Phase Opt 2

Phase	1	2	3	4	5	6	7	8
Max 2								
Max Inhibit		✓				✓		
Cnf Phase								

Alt Phase Opt 3

Phase								
Max2								
Max Inhibit								
Cnf Phase								

	Type	Included Phase	Modifier Phase	FYA	Grn	Yel	Red
Overlap - A							
Overlap - B							
Overlap - C							
Overlap - D							
Overlap - E							
Overlap - F							
Overlap - G							
Overlap - H							
Overlap - I							
Overlap - J							
Overlap - K	NORMAL	3				4.8	5
Overlap - L							
Overlap - M							
Overlap - N							
Overlap - O							
Overlap - P							

Coordination Splits 1-16

Split 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Cycle =180	18	72	39	51	27	63	64	26									
Seq =7						✓											
Mode		MAX				MAX											
Split 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Cycle =120	18	47	20	35	20	45	35	20									
Seq =1		✓															
Mode		MIN				MIN											
Split 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Cycle =130	20	53	26	31	22	51	34	23									
Seq =1		✓															
Mode		MIN				MIN											
Split 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Cycle =180	23	83	38	36	19	87	40	34									
Seq =3						✓											
Mode		MAX				MAX											
Split 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Cycle =120	20	51	22	27	20	51	25	24									
Seq =1		✓															
Mode		MIN				MIN											
Split 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Cycle =110	18	40	20	32	18	40	30	22									
Seq =1		✓															
Mode		MIN				MIN											
Split 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Cycle =110	18	39	20	33	18	39	31	22									
Seq =1		✓															
Mode		MIN				MIN											
Split 8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Cycle =110	18	40	20	32	18	40	30	22									
Seq =1		✓															
Mode		MIN				MIN											
Split 9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Cycle =110	18	39	20	33	18	39	31	22									
Seq =1		✓															
Mode		MIN				MIN											
Split 10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Cycle =100	20	37	21	22	20	37	21	22									
Seq =1		✓															
Mode		MAX				MAX											
Split 11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Cycle =_																	
Seq =_																	
Mode																	
Split 12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Cycle =_																	
Seq =_																	
Mode																	
Split 13	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Cycle =_																	
Seq =_																	
Mode																	
Split 14	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Cycle =_																	
Seq =_																	
Mode																	
Split 15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Cycle =_																	
Seq =_																	
Mode																	
Split 16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Cycle =130	18	56	23	33	18	56	34	22									
Seq =1		✓															
Mode		MIN				MIN											

Day Plans 1-8

Sunday	1	2	3	4	5				
	Hour		4	10	18	19			
P	Min			30		30			
L	Action	99	10	8	9	10			
A									
N	Hour								
	Min								
1	Action								
Monday	1	2	3	4	5	6	7	8	
	Hour		4	6	6	9	12	14	18
P	Min				45	15		30	45
L	Action	99	10	2	1	2	3	4	5
A		9							
N	Hour	21							
	Min								
2	Action	10							
Tuesday	1	2	3	4	5	6	7	8	
	Hour		4	6	6	9	12	14	18
P	Min				45	15		30	45
L	Action	99	10	2	1	2	3	4	5
A		9							
N	Hour	21							
	Min								
3	Action	10							
Wednesday	1	2	3	4	5	6	7	8	
	Hour		4	6	6	9	12	14	18
P	Min				45	15		30	45
L	Action	99	10	2	1	2	3	4	5
A		9							
N	Hour	21							
	Min								
4	Action	10							
Thursday	1	2	3	4	5	6	7	8	
	Hour		4	6	6	9	12	14	18
P	Min				45	15		30	45
L	Action	99	10	2	1	2	3	4	5
A		9							
N	Hour	21							
	Min								
5	Action	10							
Friday	1	2	3	4	5	6	7	8	
	Hour		4	6	6	9	12	14	18
P	Min				45	15		30	45
L	Action	99	10	2	1	2	3	4	5
A		9							
N	Hour	21							
	Min								
6	Action	10							
Saturday	1	2	3	4	5	6			
	Hour		4	8	10	18	22		
P	Min								
L	Action	99	10	6	16	7	10		
A									
N	Hour								
	Min								
7	Action								
P	Hour								
	Min								
L	Action								
A									
N	Hour								
	Min								
8	Action								

	Enbl	Track Phase				Grn	Track Overlap				Dwell Phase								Dwl	Dwell Overlap				Exit Phase			
Pre Run 1																											
Pre Run 2																											
Pre Run 3	ON										3	8							8					4	8		
Pre Run 4	ON										4	7							8					4	8		
Pre Run 5	ON										2	5							8					2	6		
Pre Run 6	ON										1	6							8					2	6		

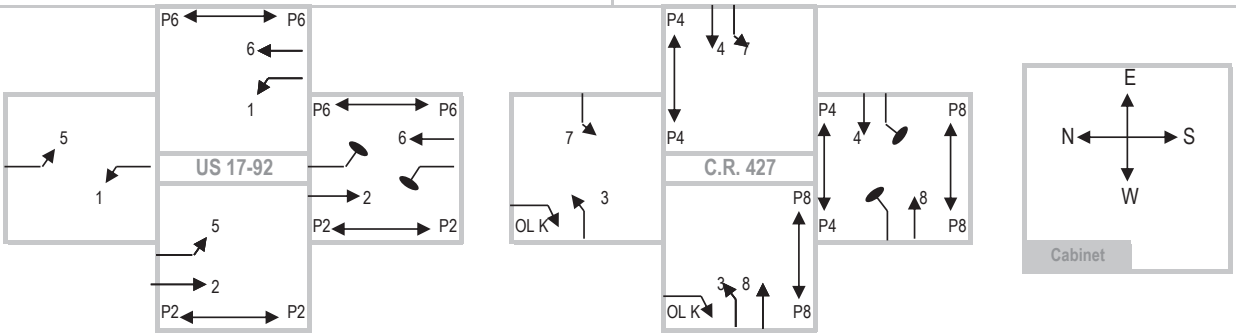
Intersection Notes

Intersection setup with concurrent sides
All LT's are protected and Lock Det
OL K I is programmed for 2R.

T.O.D Notes

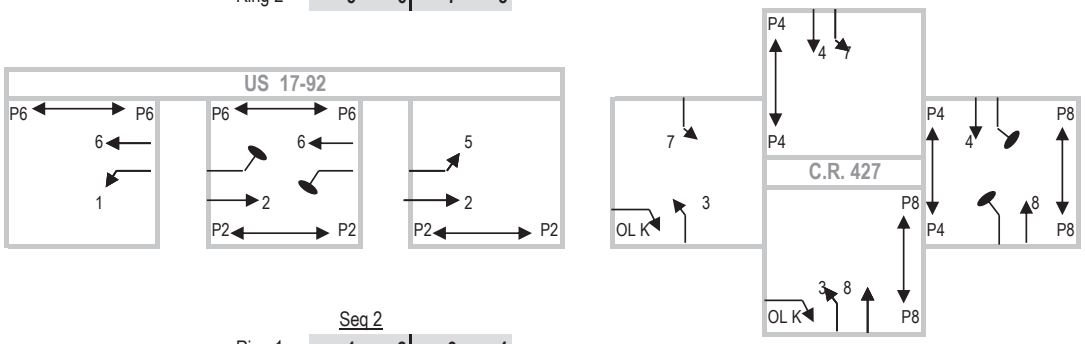
Intersection retimed May 2022.

Patterns 17 and 19 are used for 417 Diversion routes.
Patters 23 - 25 used for flush routes.
Patterns 27 to 29 used for I-4 Diversion routes.



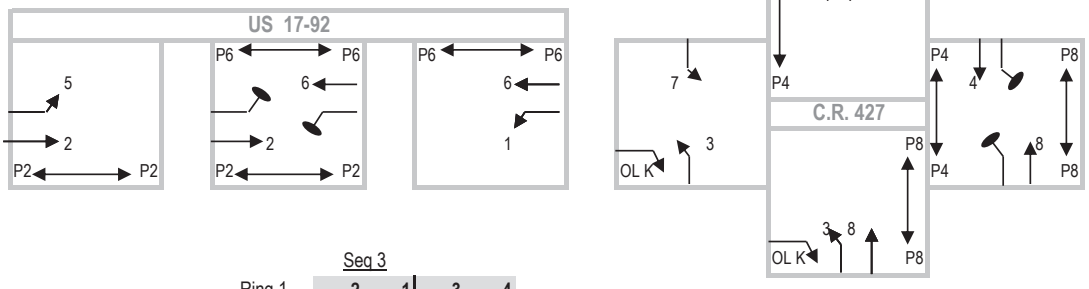
Seq 1

Ring 1	1	2	3	4
Ring 2	5	6	7	8



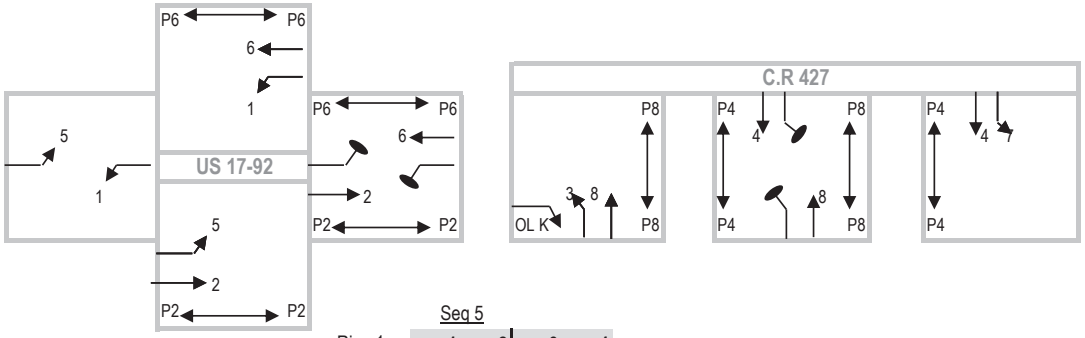
Seq 2

Ring 1	1	2	3	4
Ring 2	6	5	7	8



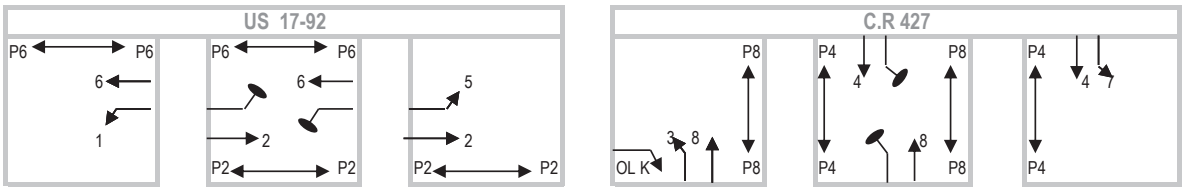
Seq 3

Ring 1	2	1	3	4
Ring 2	5	6	7	8



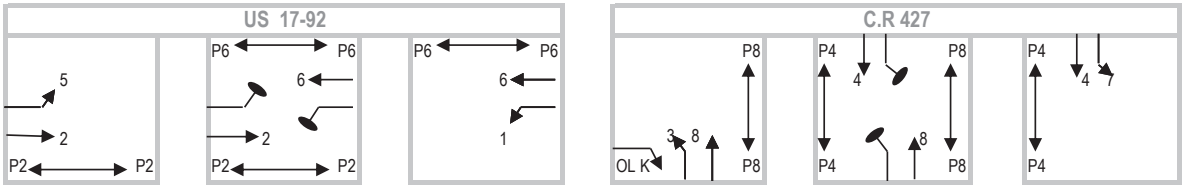
Seq 5

Ring 1	1	2	3	4
Ring 2	5	6	8	7



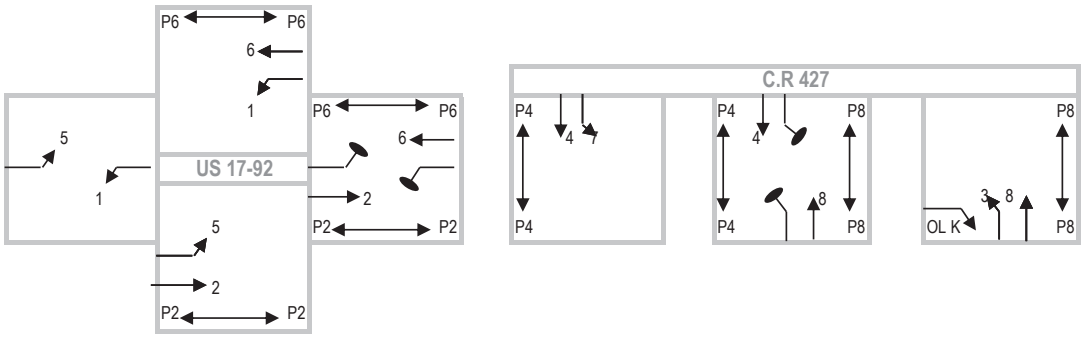
Seq 6

Ring 1	1	2	3	4
Ring 2	6	5	8	7



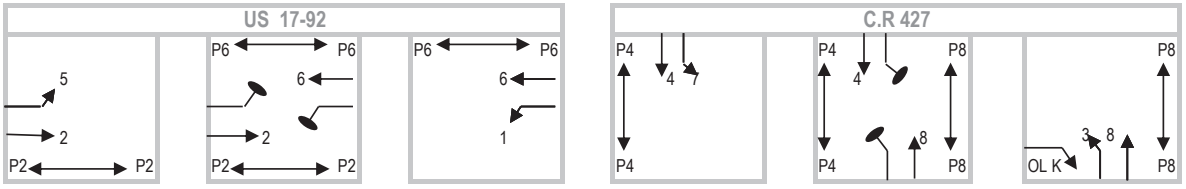
Seq 7

Ring 1	2	1	3	4
Ring 2	5	6	8	7



Seq 9

Ring 1	1	2	4	3
Ring 2	5	6	7	8



Seq 11

Ring 1	2	1	4	3
Ring 2	5	6	7	8

National Data & Surveying Services

Intersection Turning Movement Count

Location: US 17-92 & Silkwood Ct
City: Lake Mary
Control: Signalized

Project ID: 23-130264-004
Date: 9/19/2023

Data - Total

NS/EW Streets:	US 17-92				US 17-92				Silkwood Ct				Silkwood Ct				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	12	144	11	0	62	341	7	0	1	43	20	0	9	42	88	0	780
7:15 AM	5	204	10	3	79	354	5	0	0	33	16	0	8	63	98	0	878
7:30 AM	15	245	12	4	72	440	6	0	1	36	19	0	18	77	126	0	1071
7:45 AM	10	281	16	3	109	439	7	1	1	26	15	0	19	84	140	0	1151
8:00 AM	12	199	14	1	120	451	7	0	3	57	19	0	13	54	112	0	1062
8:15 AM	26	222	17	2	86	428	9	1	2	45	10	0	17	61	92	0	1018
8:30 AM	18	225	10	4	71	385	13	2	3	28	15	0	16	67	102	0	959
8:45 AM	13	246	4	8	83	362	7	1	2	25	11	0	11	72	121	0	966
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	111	1766	94	25	682	3200	61	5	13	293	125	0	111	520	879	0	7885
APPROACH %'s :	5.56%	88.48%	4.71%	1.25%	17.27%	81.05%	1.55%	0.13%	3.02%	67.98%	29.00%	0.00%	7.35%	34.44%	58.21%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	63	947	59	10	387	1758	29	2	7	164	63	0	67	276	470	0	4302
PEAK HR FACTOR :	0.606	0.843	0.868	0.625	0.806	0.975	0.806	0.500	0.583	0.719	0.829	0.000	0.882	0.821	0.839	0.000	0.934
	0.870				0.941				0.741				0.836				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	8	203	16	3	52	212	7	1	1	33	9	0	8	36	83	0	672
2:15 PM	21	215	14	2	91	195	8	3	1	39	8	0	7	31	73	0	708
2:30 PM	14	260	12	3	73	215	5	1	1	43	18	0	8	31	76	0	760
2:45 PM	9	238	15	3	85	209	7	0	1	48	11	0	11	41	102	0	780
3:00 PM	16	281	11	4	84	190	4	1	1	51	9	0	15	38	83	0	788
3:15 PM	8	292	3	4	78	213	4	1	1	41	10	0	11	44	106	0	816
3:30 PM	13	285	15	5	95	280	1	0	1	39	13	0	28	54	121	0	950
3:45 PM	14	303	16	5	95	238	4	1	3	47	18	0	18	61	99	0	922
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	103	2077	102	29	653	1752	40	8	10	341	96	0	106	336	743	0	6396
APPROACH %'s :	4.46%	89.87%	4.41%	1.25%	26.62%	71.42%	1.63%	0.33%	2.24%	76.29%	21.48%	0.00%	8.95%	28.35%	62.70%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	51	1161	45	18	352	921	13	3	6	178	50	0	72	197	409	0	3476
PEAK HR FACTOR :	0.797	0.958	0.703	0.900	0.926	0.822	0.813	0.750	0.500	0.873	0.694	0.000	0.643	0.807	0.845	0.000	0.915
	0.943				0.857				0.860				0.835				

Prepared by National Data & Surveying Services

US 17-92 & Silkwood Ct

Peak Hour Turning Movement Count

ID: 23-130264-004
City: Lake Mary
Day: Tuesday
Date: 9/19/2023

	PEAK HOURS	COUNT PERIODS
AM	07:30 AM - 08:30 AM	7:00 AM - 09:00 AM
NOON	NONE	NONE
PM	03:00 PM - 04:00 PM	2:00 PM - 04:00 PM

US 17-92 SOUTHBOUND

	Right	Through	Left	U-Turn	Exiting (northbound)
AM	29	1758	387	2	1426
NOON	0	0	0	0	0
PM	13	921	352	3	1579
Peds/Bikes	0	0	0	0	

Silkwood Ct EASTBOUND

	AM	NOON	PM	Peds/Bikes
Exiting (westbound)	368	0	261	
U-Turn	0	0	0	0
Left	7	0	6	0
Through	164	0	178	0
Right	63	0	50	0

Silkwood Ct WESTBOUND

	PM	NOON	AM	Peds/Bikes
Right	409	0	470	0
Through	197	0	276	0
Left	72	0	67	0
U-Turn	0	0	0	0
Exiting (eastbound)	575	0	610	

US 17-92 NORTHBOUND

	Exiting (southbound)	U-Turn	Left	Through	Right
Peds/Bikes		0	0	0	0
PM	1061	18	51	1161	45
NOON	0	0	0	0	0
AM	1898	10	63	947	59

CONTROL

Signalized

	AM	NOON	PM
TEV	4302	0	3476
PHF	0.93		0.91

Cars (AM)

Approach	Left	Through	Right
Southbound	357	1706	29
Eastbound	7	160	60
Westbound	57	269	445
Northbound	62	916	50

HT (AM)

Approach	Left	Through	Right
Southbound	30	52	0
Eastbound	0	4	3
Westbound	10	7	25
Northbound	1	31	9

Cars (NOON)

Approach	Left	Through	Right
Southbound	0	0	0
Eastbound	0	0	0
Westbound	0	0	0
Northbound	0	0	0

HT (NOON)

Approach	Left	Through	Right
Southbound	0	0	0
Eastbound	0	0	0
Westbound	0	0	0
Northbound	0	0	0

Cars (PM)

Approach	Left	Through	Right
Southbound	340	870	13
Eastbound	6	174	49
Westbound	61	189	382
Northbound	48	111	41

HT (PM)

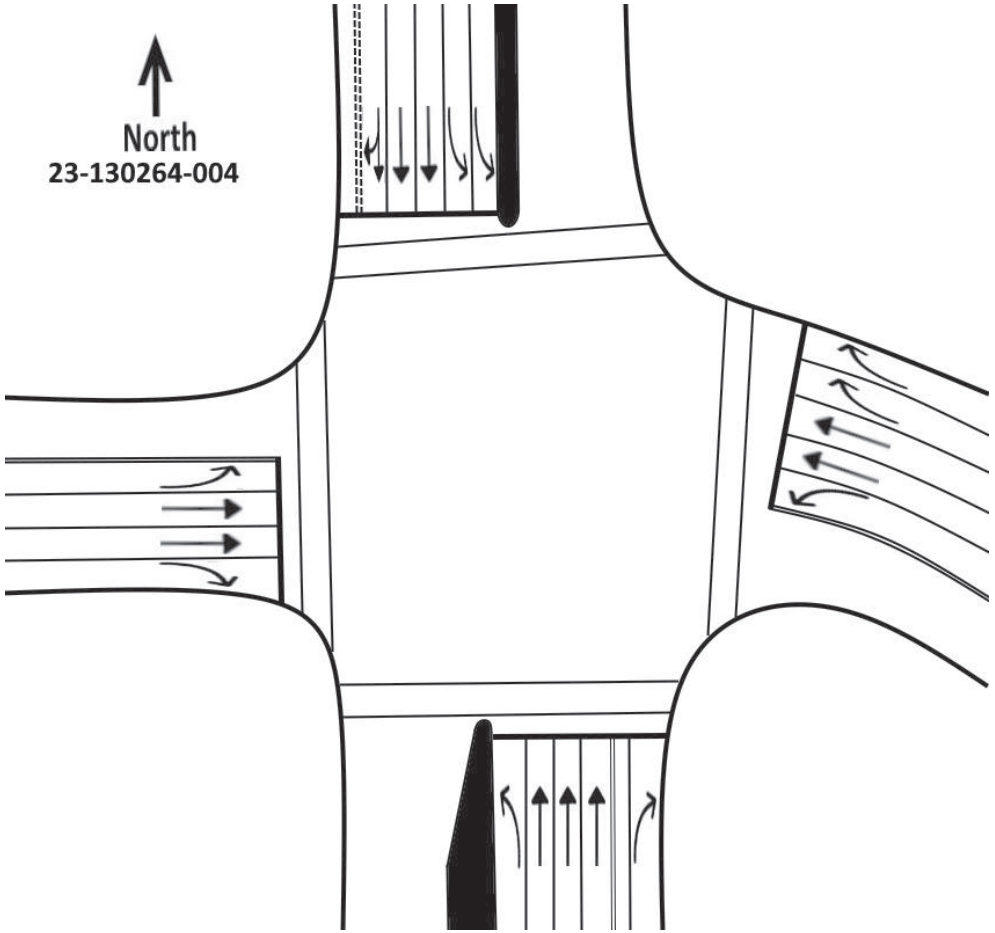
Approach	Left	Through	Right
Southbound	12	51	0
Eastbound	0	4	1
Westbound	11	8	27
Northbound	3	48	4

Pedestrians (Crosswalks)

Crosswalk	Direction	AM	NOON	PM
North	Eastward	0	0	0
North	Westward	0	0	0
West	Southward	1	0	2
West	Northward	0	0	1
East	Southward	0	0	0
East	Northward	0	0	1
South	Eastward	1	0	1
South	Westward	0	0	0
NW diagonal		0	0	0
NE diagonal		0	0	0
SW diagonal		0	0	0
SE diagonal		0	0	0

National Data & Surveying Services

N/S Street: **US 17-92**	Speed: **45 MPH**



E/W Street: **Silkwood Ct**

Speed: **45 MPH**

Site Code: **23-130264-004**

Date: **09/19/2023**

Weather: **Sunny**

City: **Longwood**

County: **Seminole**

Count Times: **07:00 - 09:00**

14:00 - 16:00

Control: **Signalized**

SIGNAL TIMING

PHASES	**1**	**2**	**3**
NL/SL	00:14	00:26	00:23
SL/ST	00:22	00:13	00:22
NT/ST	02:13	01:53	01:43
WL/WT	00:19	-	-
ET/WT	00:30	00:32	00:33

Seminole County Traffic Engineering Timing Sheet
Intersection: US 1792 @ (22) SR 419

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

Name	US 1792		SR 419		US 1792		SR 419									
Direction	SL	NT	WL	ET	NL	ST	EL	WT								
Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase/OL	1	2	3	4	5	6	7	8	9	10	11	12	2	4	6	8
Type	VEH	VEH	OLP	VEH	VEH	VEH	OLP	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED

Phase Mode	STD8	Free Action	254
Free Seq	1	Syn Green	
InSync		P2P Pattern	
Comm ID	1115	Node #	4299
Date	July 25, 2023	Done By	SCTE\JVidal

Phase Times

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Min Green	6	15	6	8	6	15	6	8								
Passage	3	5	3	3	3	5	3	3								
Max 1	30	70	30	50	30	70	30	50								
Max 2	30	60	30	50	30	60	30	50								
Yellow Clr	4.8	4.8	4	4	4.8	4.8	4	4								
Red Clr	3.6	3.6	3.3	3.3	3.6	3.6	3.3	3.3								
Walk		7		7		7		7								
Ped Clear		31		38		29		37								
Red Revert	3	3	3	3	3	3	3	3								
Added Init																
Max Initial																
Max 3 Limit																
Max 3 Step																
Time B-4																
Cars B-4																
Time to																
Reduce By																
Min Gap																

Alt Phase Times 1

Phase								8
Min Green								8
Passage								10
Max 1								50
Max 2								50
Yel Clr								4
Red Clr								3.3
Walk								7
Ped Clr								37

Alt Phase Times 2

Phase								
Min Green								
Passage								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Phase Options

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Enable	✓	✓	✓	✓	✓	✓	✓	✓								
Min Recall		✓				✓										
Max Recall																
Ped Recall																
Soft Recall																
Lock Call	✓	✓			✓	✓										
Flash Ent				✓				✓								
Flash Exit		✓				✓										
Dual Entry		✓		✓		✓		✓								
Sim Gap		✓				✓										
Cond Serv																
Reservice																
Cnf Phase																

Alt Phase Opt 1

Phase	1	2	3	4	5	6	7	8
Max 2								
Max Inhibit	✓	✓	✓	✓	✓	✓	✓	✓
Cnf Phase								

Alt Phase Opt 2

Phase	1	2	3	4	5	6	7	8
Max 2								
Max Inhibit		✓				✓		
Cnf Phase								

Alt Phase Opt 3

Phase								
Max2								
Max Inhibit								
Cnf Phase								

	Type	Included Phase	Modifier Phase	FYA	Grn	Yel	Red
Overlap - A							
Overlap - B							
Overlap - C	FYA-4	3	4	3		4	3.3
Overlap - D							
Overlap - E							
Overlap - F							
Overlap - G	FYA-4	7	8	3		4	3.3
Overlap - H							
Overlap - I							
Overlap - J							
Overlap - K							
Overlap - L							
Overlap - M							
Overlap - N							
Overlap - O							
Overlap - P							

Coordination Splits 1-16

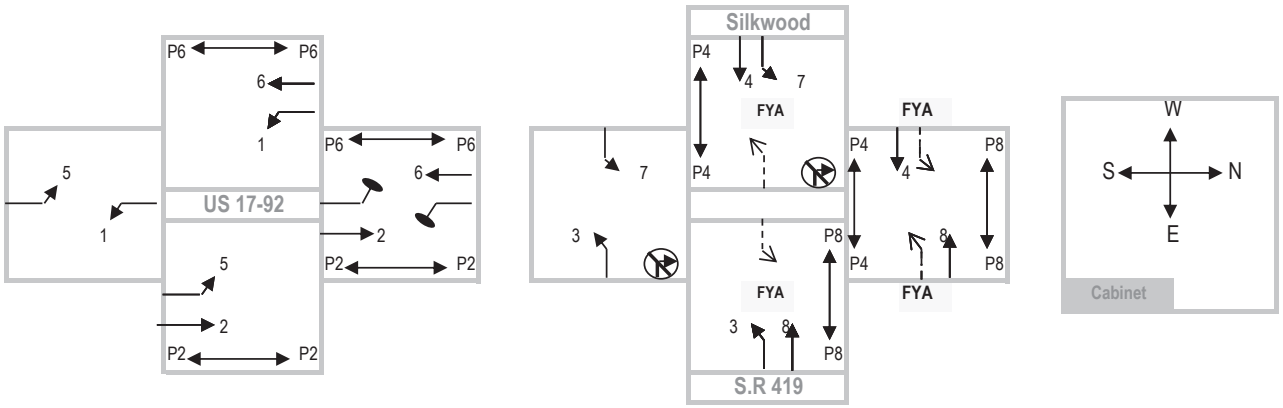
Split 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =180	38	78	25	39	23	93	21	43								
Seq =6		✓														
Mode		MAX				MAX										
Split 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =120	26	48	19	27	26	48	19	27								
Seq =3						✓										
Mode		MAX				MAX										
Split 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =130	33	48	17	32	21	60	17	32								
Seq =3						✓										
Mode		MAX				MAX										
Split 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =180	40	82	17	41	29	93	17	41								
Seq =5		✓														
Mode		MAX				MAX										
Split 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =120	26	48	19	27	26	48	19	27								
Seq =3						✓										
Mode		MAX				MAX										
Split 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =110	27	38	19	26	23	42	17	28								
Seq =3						✓										
Mode		MAX				MAX										
Split 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =110	25	42	19	24	20	47	17	26								
Seq =3						✓										
Mode		MAX				MAX										
Split 8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =110	27	38	19	26	23	42	17	28								
Seq =3						✓										
Mode		MAX				MAX										
Split 9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =110	25	42	19	24	20	47	17	26								
Seq =3						✓										
Mode		MAX				MAX										
Split 10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =100	20	33	20	27	20	33	25	22								
Seq =3						✓										
Mode		MAX				MAX										
Split 11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =_																
Seq =_																
Mode																
Split 12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =_																
Seq =_																
Mode																
Split 13	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =_																
Seq =_																
Mode																
Split 14	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =_																
Seq =_																
Mode																
Split 15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =_																
Seq =_																
Mode																
Split 16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =130	24	55	17	34	24	55	17	34								
Seq =3						✓										
Mode		MAX				MAX										

Day Plans 1-8

Sunday	1	2	3	4	5				
Hour		4	10	18	19				
P Min			30		30				
L Action	99	10	8	9	10				
A									
N Hour									
Min									
1 Action									
Monday	1	2	3	4	5	6	7	8	
Hour		4	6	6	9	12	14	18	
P Min				45	15		30	45	
L Action	99	10	2	1	2	3	4	5	
A	9								
N Hour	21								
Min									
2 Action	10								
Tuesday	1	2	3	4	5	6	7	8	
Hour		4	6	6	9	12	14	18	
P Min				45	15		30	45	
L Action	99	10	2	1	2	3	4	5	
A	9								
N Hour	21								
Min									
3 Action	10								
Wednesday	1	2	3	4	5	6	7	8	
Hour		4	6	6	9	12	14	18	
P Min				45	15		30	45	
L Action	99	10	2	1	2	3	4	5	
A	9								
N Hour	21								
Min									
4 Action	10								
Thursday	1	2	3	4	5	6	7	8	
Hour		4	6	6	9	12	14	18	
P Min				45	15		30	45	
L Action	99	10	2	1	2	3	4	5	
A	9								
N Hour	21								
Min									
5 Action	10								
Friday	1	2	3	4	5	6	7	8	
Hour		4	6	6	9	12	14	18	
P Min				45	15		30	45	
L Action	99	10	2	1	2	3	4	5	
A	9								
N Hour	21								
Min									
6 Action	10								
Saturday	1	2	3	4	5	6			
Hour		4	8	10	18	22			
P Min									
L Action	99	10	6	16	7	10			
A									
N Hour									
Min									
7 Action									
Hour									
P Min									
L Action									
A									
N Hour									
Min									
8 Action									

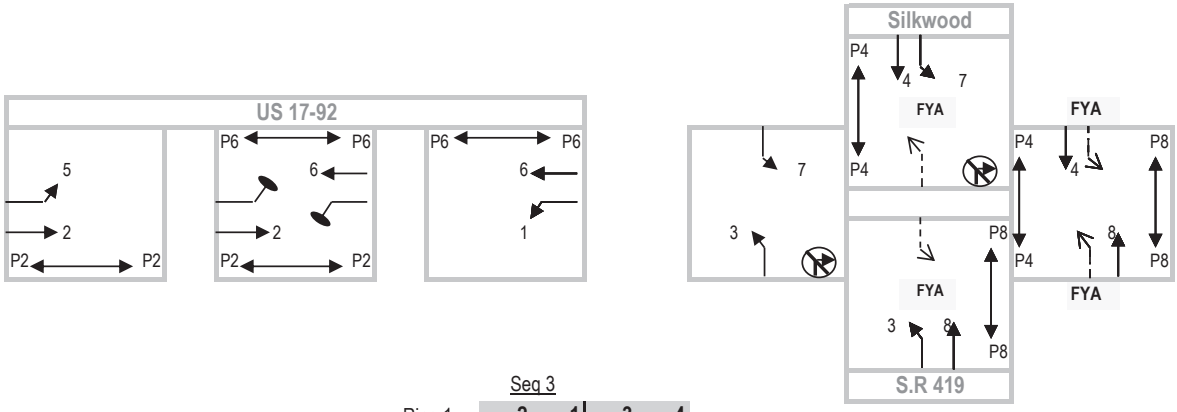
	Enbl	Track Phase					Grn	Track Overlap				Dwell Phase								Dwl	Dwell Overlap					Exit Phase				
Pre Run 1																														
Pre Run 2																														
Pre Run 3	ON											3	8							8	3					4	8			
Pre Run 4	ON											4	7							8	7					4	8			
Pre Run 5	ON											2	5							8						2	6			
Pre Run 6	ON											1	6							8						2	6			

Intersection Notes	T.O.D Notes
Intersection setup with conncurrent sides. Mainstreet LT's are protected and are Lock Det. Sidestreet LT's are FYA and are Det. Switched. Phase 8 No Right Turn blank out signs hardwired to phase 7 Oct 2021 per plan.	Intersection retimed May 2022. Alt Time 1 used with patterns 1 & 2 to increase ext. time to help coord. 427/Silkwood. Patterns 17 & 19 used for FDOT 417 Diversion routes. Patterns 23 -25 used for FDOT flush routes. Patterns 27 to 29 used for FDOT I-4 diversion routers.



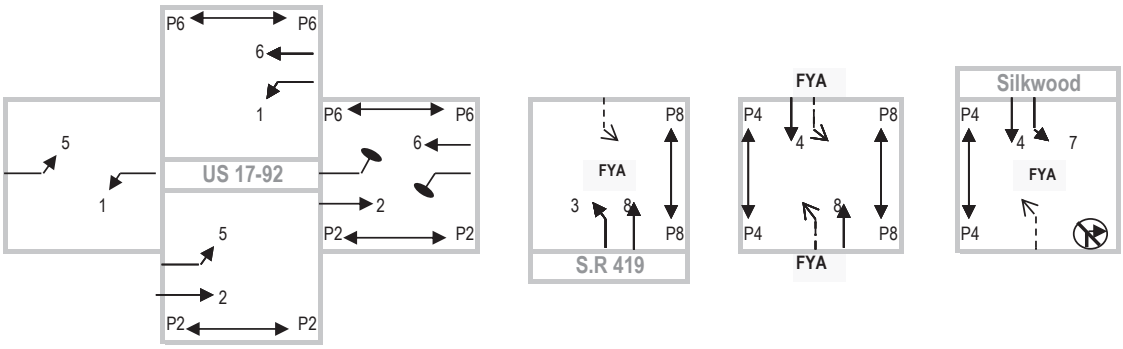
Seq 1

Ring 1	1	2	3	4
Ring 2	5	6	7	8



Seq 3

Ring 1	2	1	3	4
Ring 2	5	6	7	8



Seq 5

Ring 1	1	2	3	4
Ring 2	5	6	8	7

National Data & Surveying Services

Intersection Turning Movement Count

Location: Ronald Reagan Blvd & Silkwood Ct
City: Lake Mary
Control: Signalized

Project ID: 23-130264-003
Date: 9/19/2023

Data - Total

NS/EW Streets:	Ronald Reagan Blvd				Ronald Reagan Blvd				Silkwood Ct				Silkwood Ct				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	106	62	0	2	147	0	0	0	0	0	0	55	0	5	0	377
7:15 AM	0	115	43	1	2	138	0	0	1	3	2	0	72	0	7	0	384
7:30 AM	0	131	55	0	3	184	0	0	1	1	1	0	93	0	4	0	473
7:45 AM	0	123	44	0	5	214	1	0	1	0	4	0	92	2	8	0	494
8:00 AM	0	93	72	0	7	187	1	0	0	2	3	0	72	1	4	0	442
8:15 AM	0	85	53	0	2	149	1	0	1	0	1	0	90	2	7	0	391
8:30 AM	1	83	40	0	3	163	0	0	1	3	1	0	87	0	10	0	392
8:45 AM	0	91	36	1	3	136	0	0	2	1	3	0	76	1	8	0	358
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	827	405	2	27	1318	3	0	7	10	15	0	637	6	53	0	3311
APPROACH %'s :	0.08%	66.96%	32.79%	0.16%	2.00%	97.77%	0.22%	0.00%	21.88%	31.25%	46.88%	0.00%	91.52%	0.86%	7.61%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	432	224	0	17	734	3	0	3	3	9	0	347	5	23	0	1800
PEAK HR FACTOR :	0.000	0.824	0.778	0.000	0.607	0.857	0.750	0.000	0.750	0.375	0.563	0.000	0.933	0.625	0.719	0.000	0.911
	0.882				0.857				0.750				0.919				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	1	87	41	0	1	96	1	0	0	1	0	0	49	1	2	0	280
2:15 PM	1	91	61	1	3	119	1	1	0	0	0	0	51	0	3	0	332
2:30 PM	1	139	64	0	0	114	0	0	0	2	2	0	54	3	1	0	380
2:45 PM	0	128	57	0	0	93	2	0	0	1	2	0	52	0	4	0	339
3:00 PM	0	127	60	1	1	98	1	0	0	1	0	0	56	0	5	0	350
3:15 PM	1	103	44	0	1	114	0	0	0	1	0	0	46	0	5	0	315
3:30 PM	3	138	55	1	2	120	2	0	0	1	2	0	64	0	6	0	394
3:45 PM	1	131	68	0	1	118	0	0	1	1	2	0	73	0	5	0	401
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	8	944	450	3	9	872	7	1	1	8	8	0	445	4	31	0	2791
APPROACH %'s :	0.57%	67.19%	32.03%	0.21%	1.01%	98.09%	0.79%	0.11%	5.88%	47.06%	47.06%	0.00%	92.71%	0.83%	6.46%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	5	499	227	2	5	450	3	0	1	4	4	0	239	0	21	0	1460
PEAK HR FACTOR :	0.417	0.904	0.835	0.500	0.625	0.938	0.375	0.000	0.250	1.000	0.500	0.000	0.818	0.000	0.875	0.000	0.910
	0.916				0.923				0.563				0.833				

Prepared by National Data & Surveying Services

Ronald Reagan Blvd & Silkwood Ct

Peak Hour Turning Movement Count

ID: 23-130264-003
City: Lake Mary

Day: Tuesday
Date: 9/19/2023

PEAK HOURS		COUNT PERIODS
07:30 AM - 08:30 AM	AM	7:00 AM - 09:00 AM
NONE	NOON	NONE
03:00 PM - 04:00 PM	PM	2:00 PM - 04:00 PM

SOUTHBOUND (Ronald Reagan Blvd)

AM	3	734	17	0	458	AM
NOON	0	0	0	0	0	NOON
PM	3	450	5	0	521	PM

EASTBOUND (Silkwood Ct)

AM	NOON	PM	
8	0	8	⇦
0	0	0	↶ 0
3	0	1	↱ 0
3	0	4	→ 0
9	0	4	↳ 0
AM	NOON	PM	

WESTBOUND (Silkwood Ct)

PM	NOON	AM	
21	0	23	0 ↰
0	0	5	0 ←
239	0	347	0 ↶
0	0	0	0 ↶
236	0	244	⇨
PM	NOON	AM	

NORTHBOUND (Ronald Reagan Blvd)

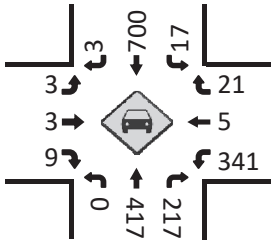
PM	695	2	5	499	227	PM
NOON	0	0	0	0	0	NOON
AM	1090	0	0	432	224	AM

CONTROL

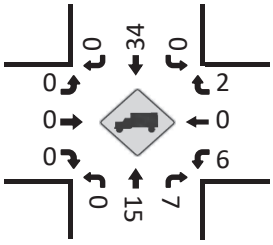
Signalized

TEV	1800 AM	0 NOON	1460 PM
PHF	0.91		0.91

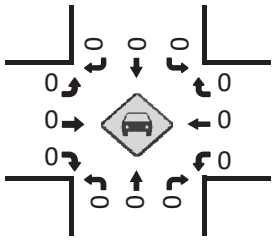
Cars (AM)



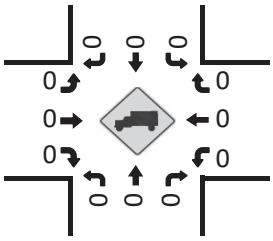
HT (AM)



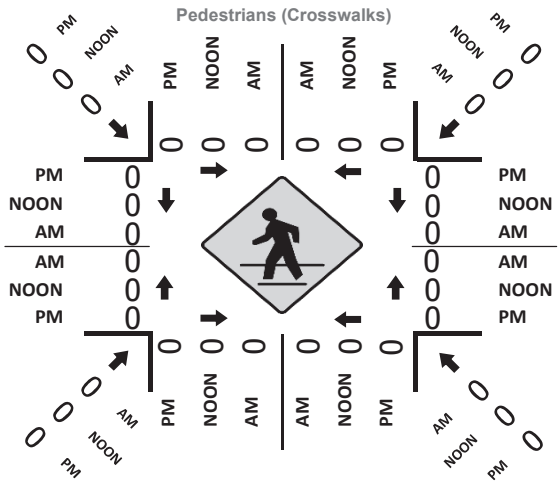
Cars (NOON)



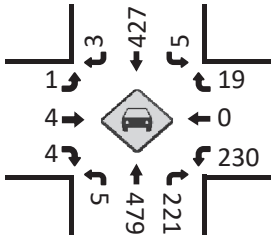
HT (NOON)



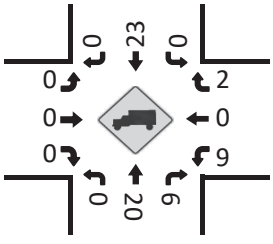
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



National Data & Surveying Services

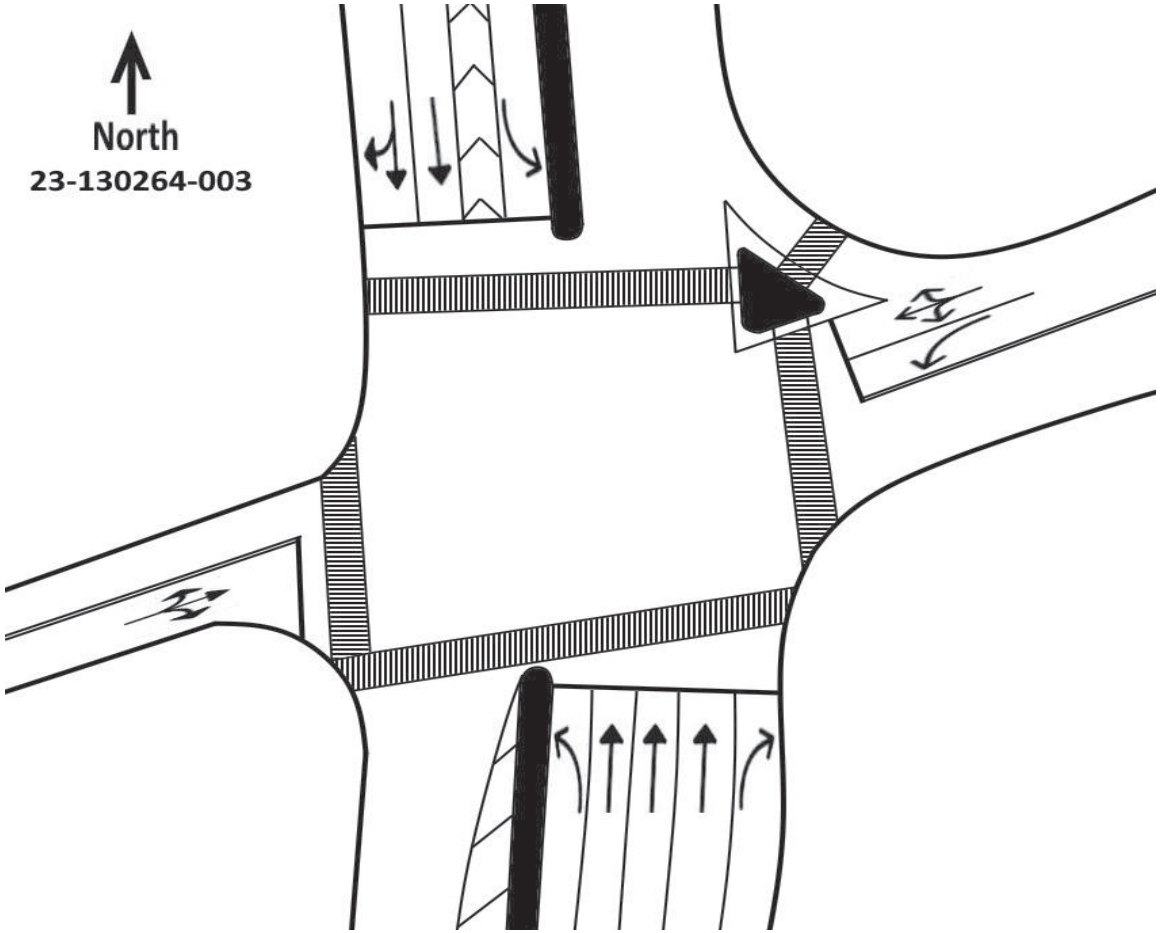
Site Code:	**23-130264-003**
Date:	**09/19/2023**
Weather:	**Sunny**
City:	**Lake Mary**
County:	**Seminole**
Count Times:	**07:00 - 09:00**
	14:00 - 16:00
Control:	**Signalized**

SIGNAL TIMING

PHASES	1	2	3
NT/ST	00:45	01:16	00:43
WL/WT	00:19	00:23	00:13

N

N/S Street: **Ronald Reagan Blvd** | Speed: **45 MPH**



E/W Street: **Silkwood Ct** | Speed: **45 MPH**

Seminole County Traffic Engineering Timing Sheet
Intersection: CR 427 @ (03) Silkwood Ct

Name	CR 427		Silkwood		CR 427		Silkwood									
Direction	SL	NT		ET	NL	ST		WT								
Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase/OL	1	2	3	4	5	6	7	8	9	10	11	12	2	4	6	8
Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED

Phase Mode	QSeq	Free Action	254
Free Seq	1	Syn Green	
InSync		P2P Pattern	
Comm ID	1900	Node #	11471
Date	May 2, 2023	Done By	SCTE\JVidal

Phase Times

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Min Green	6	15		8	6	15		8								
Passage	3	4		3	3	4		3								
Max 1	30	35		30	20	35		55								
Max 2	30	35		30	20	35		55								
Yellow Clr	4.8	4.8		3.4	4.8	4.8		3.7								
Red Clr	2.5	2		3.2	2	2		3.2								
Walk		7		7		7		12								
Ped Clear		28		34		18		38								
Red Revert	3	3		3	3	3		3								
Added Init																
Max Initial																
Max 3 Limit																
Max 3 Step																
Time B-4																
Cars B-4																
Time to																
Reduce By																
Min Gap																

Alt Phase Times 1

Phase								
Min Green								
Passage								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt Phase Times 2

Phase								
Min Green								
Passage								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Phase Options

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Enable	✓	✓		✓	✓	✓		✓								
Min Recall		✓				✓										
Max Recall																
Ped Recall																
Soft Recall																
Lock Call		✓				✓										
Flash Ent								✓								
Flash Exit		✓				✓										
Dual Entry		✓				✓										
Sim Gap		✓				✓										
Cond Serv																
Reservice																
Cnf Phase																

Alt Phase Opt 1

Phase	1	2		4	5	6		8
Max 2								
Max Inhibit	✓	✓		✓	✓	✓		✓
Cnf Phase								

Alt Phase Opt 2

Phase	1	2		4	5	6		8
Max 2								
Max Inhibit		✓				✓		
Cnf Phase								

Alt Phase Opt 3

Phase								
Max2								
Max Inhibit								
Cnf Phase								

	Type	Included Phase	Modifier Phase	FYA	Grn	Yel	Red
Overlap - A							
Overlap - B							
Overlap - C							
Overlap - D							
Overlap - E							
Overlap - F							
Overlap - G							
Overlap - H							
Overlap - I							
Overlap - J							
Overlap - K							
Overlap - L							
Overlap - M							
Overlap - N							
Overlap - O							
Overlap - P							

Coordination Splits 1-16

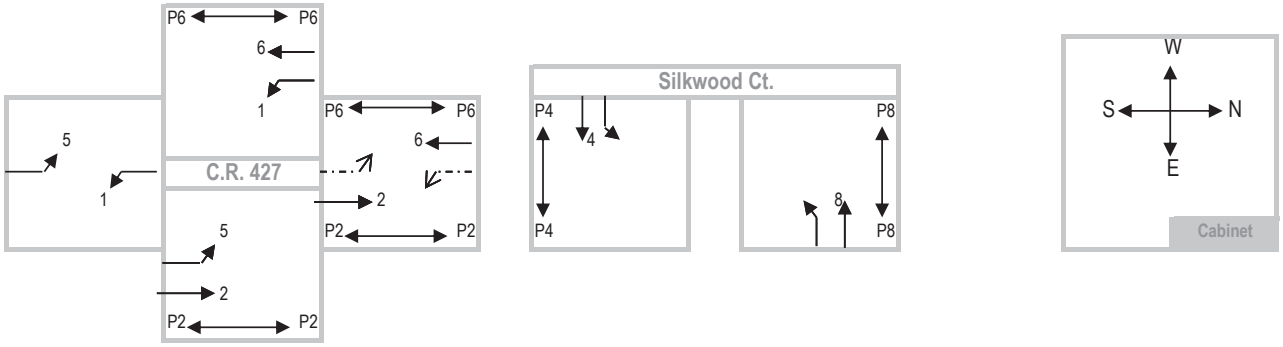
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Split 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =90	17	30		19	16	31		24								
Seq =1		✓														
Mode		MAX				MAX		MIN								
Split 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =_																
Seq =_																
Mode																
Split 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =_																
Seq =_																
Mode																
Split 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =90	17	29		19	16	30		25								
Seq =1		✓														
Mode		MAX				MAX		MIN								
Split 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =_																
Seq =_																
Mode																
Split 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =_																
Seq =_																
Mode																
Split 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =_																
Seq =_																
Mode																
Split 8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =_																
Seq =_																
Mode																
Split 9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =_																
Seq =_																
Mode																
Split 10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =_																
Seq =_																
Mode																
Split 11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =_																
Seq =_																
Mode																
Split 12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =_																
Seq =_																
Mode																
Split 13	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =_																
Seq =_																
Mode																
Split 14	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =_																
Seq =_																
Mode																
Split 15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =_																
Seq =_																
Mode																
Split 16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle =_																
Seq =_																
Mode																

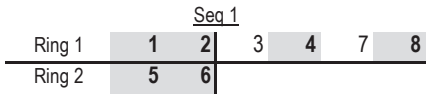
Day Plans 1-8

Sunday	1							
	Hour							
P	Min							
L	Action	254						
A								
N	Hour							
	Min							
1	Action							
Monday	1	2	3	4	5			
	Hour		7	9	16	18		
P	Min							
L	Action	254	1	254	4	254		
A								
N	Hour							
	Min							
2	Action							
Tuesday	1	2	3	4	5			
	Hour		7	9	16	18		
P	Min							
L	Action	254	1	254	4	254		
A								
N	Hour							
	Min							
3	Action							
Wednesday	1	2	3	4	5			
	Hour		7	9	16	18		
P	Min							
L	Action	254	1	254	4	254		
A								
N	Hour							
	Min							
4	Action							
Thursday	1	2	3	4	5			
	Hour		7	9	16	18		
P	Min							
L	Action	254	1	254	4	254		
A								
N	Hour							
	Min							
5	Action							
Friday	1	2	3	4	5			
	Hour		7	9	16	18		
P	Min							
L	Action	254	1	254	4	254		
A								
N	Hour							
	Min							
6	Action							
Saturday	1							
	Hour							
P	Min							
L	Action	254						
A								
N	Hour							
	Min							
7	Action							
	Hour							
P	Min							
L	Action							
A								
N	Hour							
	Min							
8	Action							

	Enbl	Track Phase				Grn	Track Overlap			Dwell Phase								Dwl	Dwell Overlap				Exit Phase			
Pre Run 1																										
Pre Run 2																										
Pre Run 3																										
Pre Run 4																										
Pre Run 5	ON									2	5												2	6		
Pre Run 6	ON									1	6												2	6		

Intersection Notes	T.O.D Notes
Intersection set up with split sides. Mainstreet LT's are Det Switched.	Signal retimed May 2022 with US 17-92. Signal runs coordination AM and PM peak weekdays. Patterns 27 to 29 used for I-4 diversion routes.





National Data & Surveying Services

Intersection Turning Movement Count

Location: Weldon Blvd & Science Charter School Dwy/Publix Super Market Dwy
City: Lake Mary
Control: 2-Way Stop(EB/WB)

Project ID: 24-130149-001
Date: 4/30/2024

Data - Total

NS/EW Streets:	Weldon Blvd				Weldon Blvd				Science Charter School Dwy/Publix Super Market Dwy				Science Charter School Dwy/Publix Super Market Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	6	12	1	0	0	19	0	0	0	1	2	0	3	0	0	0	44
7:15 AM	38	15	7	0	4	16	7	0	0	0	3	0	1	1	0	0	92
7:30 AM	79	23	7	0	3	31	16	0	7	0	16	0	8	0	1	0	191
7:45 AM	125	33	8	0	5	37	47	0	11	0	14	0	2	0	2	0	284
8:00 AM	37	32	7	0	4	28	8	0	9	2	24	0	13	0	6	0	170
8:15 AM	7	26	1	0	2	32	1	0	2	0	8	0	7	0	6	0	92
8:30 AM	7	37	0	0	3	30	3	0	5	0	3	0	3	0	1	0	92
8:45 AM	9	15	2	0	0	16	1	1	0	0	6	0	2	1	0	0	53
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	308	193	33	0	21	209	83	1	34	3	76	0	39	2	16	0	1018
APPROACH %'s :	57.68%	36.14%	6.18%	0.00%	6.69%	66.56%	26.43%	0.32%	30.09%	2.65%	67.26%	0.00%	68.42%	3.51%	28.07%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	248	114	23	0	14	128	72	0	29	2	62	0	30	0	15	0	737
PEAK HR FACTOR :	0.496	0.864	0.719	0.000	0.700	0.865	0.383	0.000	0.659	0.250	0.646	0.000	0.577	0.000	0.625	0.000	0.649
	0.580				0.601				0.664				0.592				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	9	21	9	0	10	25	1	0	2	0	7	0	14	1	2	0	101
2:15 PM	16	20	8	0	5	25	7	1	3	0	10	0	9	2	3	0	109
2:30 PM	31	26	3	0	8	24	7	0	2	3	9	0	12	2	2	0	129
2:45 PM	30	26	9	2	5	27	17	0	5	2	18	0	17	3	2	0	163
3:00 PM	23	33	5	0	11	32	5	0	7	3	7	0	19	3	5	0	153
3:15 PM	33	31	13	0	8	20	14	0	2	0	8	0	17	2	2	0	150
3:30 PM	40	19	4	1	5	35	11	0	6	0	11	0	16	1	1	0	150
3:45 PM	28	30	2	1	9	23	8	0	5	1	10	0	12	0	3	0	132
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	210	206	53	4	61	211	70	1	32	9	80	0	116	14	20	0	1087
APPROACH %'s :	44.40%	43.55%	11.21%	0.85%	17.78%	61.52%	20.41%	0.29%	26.45%	7.44%	66.12%	0.00%	77.33%	9.33%	13.33%	0.00%	
PEAK HR :	02:45 PM - 03:45 PM																TOTAL
PEAK HR VOL :	126	109	31	3	29	114	47	0	20	5	44	0	69	9	10	0	616
PEAK HR FACTOR :	0.788	0.826	0.596	0.375	0.659	0.814	0.691	0.000	0.714	0.417	0.611	0.000	0.908	0.750	0.500	0.000	0.945
	0.873				0.931				0.690				0.815				

Prepared by National Data & Surveying Services

Weldon Blvd & Science Charter School Dwy/Publix Super Market Dwy

Peak Hour Turning Movement Count

ID: 24-130149-001
City: Lake Mary

Day: Tuesday
Date: 4/30/2024

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	7:00 AM - 09:00 AM
NONE	NONE
02:45 PM - 03:45 PM	2:00 PM - 04:00 PM

SOUTHBOUND (Weldon Blvd)

AM	72	128	14	0	158	AM
NOON	0	0	0	0	0	NOON
PM	47	114	29	0	139	PM

EASTBOUND (Science Charter School Dwy/Publix Super Market Dwy)

AM	NOON	PM
320	0	182
0	0	0
29	0	20
2	0	5
62	0	44
AM	NOON	PM

WESTBOUND (Science Charter School Dwy/Publix Super Market Dwy)

PM	NOON	AM
10	0	15
9	0	0
69	0	30
0	0	0
65	0	39
PM	NOON	AM

NORTHBOUND (Weldon Blvd)

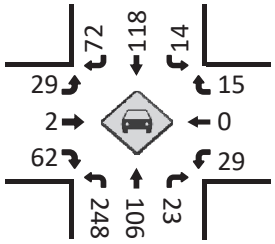
PM	230	3	126	109	31	PM
NOON	0	0	0	0	0	NOON
AM	220	0	248	114	23	AM

CONTROL

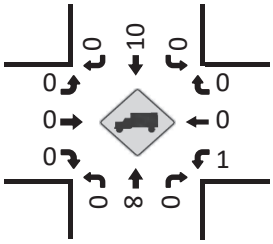
2-Way Stop(EB/WB)

TEV	737	0	616
	AM	NOON	PM
PHF	0.65		0.94

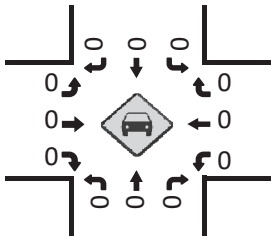
Cars (AM)



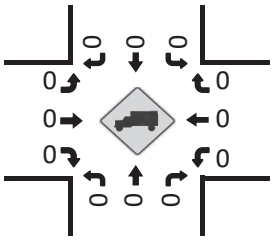
HT (AM)



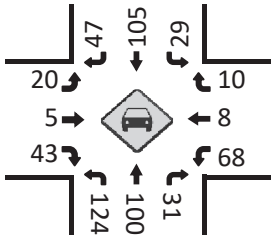
Cars (NOON)



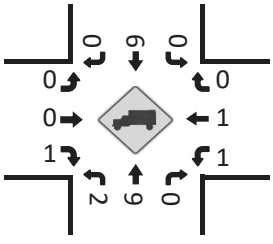
HT (NOON)



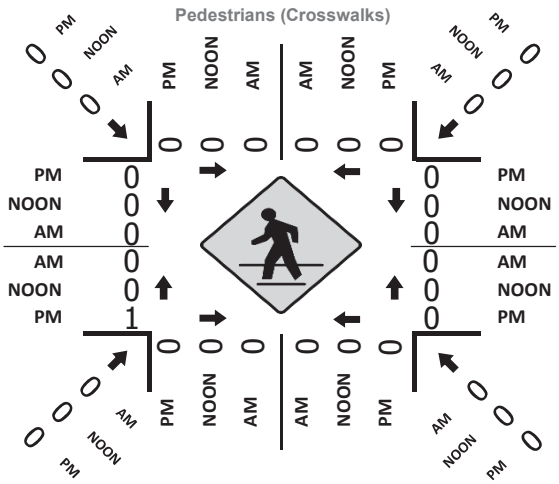
Cars (PM)



HT (PM)



Pedestrians (Crosswalks)

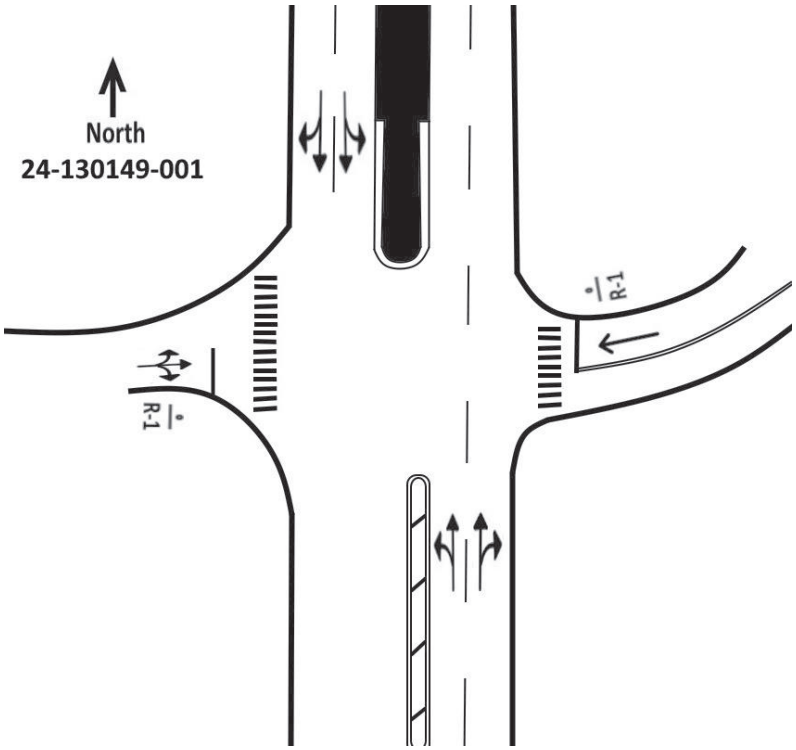


National Data & Surveying Services

Site Code:	**24-130149-001**
Date:	**04/30/2024**
Weather:	**Sunny**
City:	**Lake Mary**
County:	**Seminole**
Count Times:	**07:00 - 09:00**
	14:00 - 16:00
Control:	**2-Way Stop(EB/WB)**

N

N/S Street: **Weldon Blvd** | Speed: **35 MPH**



E/W Street: **Science Charter School Dwy/Publix Super Market Dwy** | Speed: **N/A**

2022 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 7700 SEMINOLE COUNTYWIDE

MOCF: 0.93

WEEK	DATES	SF	PSCF
1	01/01/2022 - 01/01/2022	1.00	1.08
2	01/02/2022 - 01/08/2022	1.03	1.11
3	01/09/2022 - 01/15/2022	1.05	1.13
4	01/16/2022 - 01/22/2022	1.03	1.11
5	01/23/2022 - 01/29/2022	1.01	1.09
6	01/30/2022 - 02/05/2022	0.98	1.05
7	02/06/2022 - 02/12/2022	0.96	1.03
* 8	02/13/2022 - 02/19/2022	0.94	1.01
* 9	02/20/2022 - 02/26/2022	0.93	1.00
*10	02/27/2022 - 03/05/2022	0.93	1.00
*11	03/06/2022 - 03/12/2022	0.92	0.99
*12	03/13/2022 - 03/19/2022	0.91	0.98
*13	03/20/2022 - 03/26/2022	0.92	0.99
*14	03/27/2022 - 04/02/2022	0.92	0.99
*15	04/03/2022 - 04/09/2022	0.93	1.00
*16	04/10/2022 - 04/16/2022	0.93	1.00
*17	04/17/2022 - 04/23/2022	0.94	1.01
*18	04/24/2022 - 04/30/2022	0.94	1.01
*19	05/01/2022 - 05/07/2022	0.95	1.02
*20	05/08/2022 - 05/14/2022	0.95	1.02
21	05/15/2022 - 05/21/2022	0.96	1.03
22	05/22/2022 - 05/28/2022	0.97	1.04
23	05/29/2022 - 06/04/2022	0.98	1.05
24	06/05/2022 - 06/11/2022	0.99	1.06
25	06/12/2022 - 06/18/2022	1.00	1.08
26	06/19/2022 - 06/25/2022	1.00	1.08
27	06/26/2022 - 07/02/2022	1.00	1.08
28	07/03/2022 - 07/09/2022	0.99	1.06
29	07/10/2022 - 07/16/2022	0.99	1.06
30	07/17/2022 - 07/23/2022	0.99	1.06
31	07/24/2022 - 07/30/2022	0.98	1.05
32	07/31/2022 - 08/06/2022	0.98	1.05
33	08/07/2022 - 08/13/2022	0.97	1.04
34	08/14/2022 - 08/20/2022	0.97	1.04
35	08/21/2022 - 08/27/2022	0.99	1.06
36	08/28/2022 - 09/03/2022	1.01	1.09
37	09/04/2022 - 09/10/2022	1.02	1.10
38	09/11/2022 - 09/17/2022	1.04	1.12
39	09/18/2022 - 09/24/2022	1.10	1.18
40	09/25/2022 - 10/01/2022	1.16	1.25
41	10/02/2022 - 10/08/2022	1.22	1.31
42	10/09/2022 - 10/15/2022	1.28	1.38
43	10/16/2022 - 10/22/2022	1.23	1.32
44	10/23/2022 - 10/29/2022	1.18	1.27
45	10/30/2022 - 11/05/2022	1.14	1.23
46	11/06/2022 - 11/12/2022	1.09	1.17
47	11/13/2022 - 11/19/2022	1.04	1.12
48	11/20/2022 - 11/26/2022	1.03	1.11
49	11/27/2022 - 12/03/2022	1.02	1.10
50	12/04/2022 - 12/10/2022	1.01	1.09
51	12/11/2022 - 12/17/2022	1.00	1.08
52	12/18/2022 - 12/24/2022	1.03	1.11
53	12/25/2022 - 12/31/2022	1.05	1.13

* PEAK SEASON

APPENDIX D

Existing Intersection Capacity Worksheets

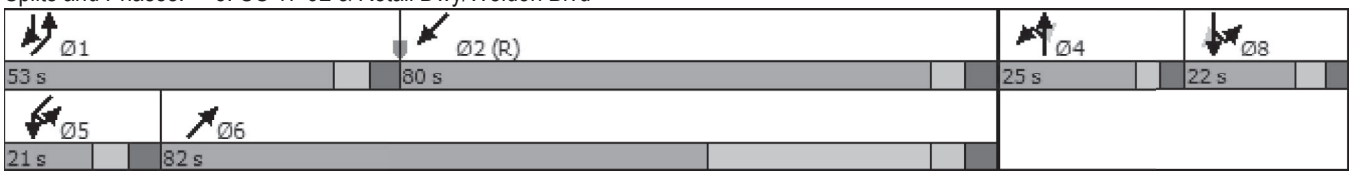
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWU	SWL	SWT
Lane Configurations												
Traffic Volume (vph)	12	0	1	84	1	169	381	1020	14	10	4	1359
Future Volume (vph)	12	0	1	84	1	169	381	1020	14	10	4	1359
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		660	560		0		235	
Storage Lanes	0		1	0		2	2		0		1	
Taper Length (ft)	25			25			25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.76	0.97	0.91	0.91	0.91	1.00	0.91
Frt			0.850			0.850		0.998				0.988
Flt Protected		0.950			0.953		0.950				0.950	
Satd. Flow (prot)	0	1271	1615	0	1758	3507	3433	5023	0	0	1805	4846
Flt Permitted		0.950			0.953		0.950				0.950	
Satd. Flow (perm)	0	1271	1615	0	1758	3507	3433	5023	0	0	1805	4846
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)			191			192		2				9
Link Speed (mph)		35			35			45				45
Link Distance (ft)		226			1030			615				2339
Travel Time (s)		4.4			20.1			9.3				35.4
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	42%	0%	0%	3%	0%	5%	2%	3%	8%	0%	0%	6%
Adj. Flow (vph)	14	0	1	95	1	192	433	1159	16	11	5	1544
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	14	1	0	96	192	433	1175	0	0	16	1680
Turn Type	Split	NA	Perm	Split	NA	pm+ov	Prot	NA		Prot	Prot	NA
Protected Phases	4	4		8	8	1	1	6		5	5	2
Permitted Phases			4			8						
Detector Phase	4	4	4	8	8	1	1	6		5	5	2
Switch Phase												
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	15.0		6.0	6.0	15.0
Minimum Split (s)	24.6	24.6	24.6	25.2	25.2	15.1	15.1	27.1		15.1	15.1	27.1
Total Split (s)	25.0	25.0	25.0	22.0	22.0	53.0	53.0	82.0		21.0	21.0	80.0
Total Split (%)	13.9%	13.9%	13.9%	12.2%	12.2%	29.4%	29.4%	45.6%		11.7%	11.7%	44.4%
Maximum Green (s)	18.4	18.4	18.4	14.8	14.8	43.9	43.9	72.9		11.9	11.9	70.9
Yellow Time (s)	3.4	3.4	3.4	4.1	4.1	4.8	4.8	4.8		4.8	4.8	4.8
All-Red Time (s)	3.2	3.2	3.2	3.1	3.1	4.3	4.3	4.3		4.3	4.3	4.3
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)		6.6	6.6		7.2	9.1	9.1	9.1			9.1	9.1
Lead/Lag						Lead	Lead	Lag		Lead	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0		3.0	3.0	5.0
Recall Mode	None	None	None	None	None	None	None	Max		None	None	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0			7.0				7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0			11.0				11.0
Pedestrian Calls (#/hr)	0	0	0	0	0			0				0
Act Effct Green (s)		7.7	7.7		15.3	50.7	28.3	128.9			7.3	101.8
Actuated g/C Ratio		0.04	0.04		0.08	0.28	0.16	0.72			0.04	0.57
v/c Ratio		0.26	0.00		0.65	0.17	0.80	0.33			0.22	0.61
Control Delay		94.2	0.0		98.8	5.0	75.9	11.4			90.1	29.5
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0

Lane Group	SWR
Lane Configurations	
Traffic Volume (vph)	120
Future Volume (vph)	120
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	0.91
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.88
Heavy Vehicles (%)	3%
Adj. Flow (vph)	136
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Maximum Green (s)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	
Recall Mode	
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWU	SWL	SWT
Total Delay		94.2	0.0		98.8	5.0	75.9	11.4			90.1	29.5
LOS		F	A		F	A	E	B			F	C
Approach Delay		87.9			36.3			28.8				30.0
Approach LOS		F			D			C				C
Queue Length 50th (ft)		16	0		112	0	275	140			19	500
Queue Length 95th (ft)		43	0		172	23	328	209			47	635
Internal Link Dist (ft)		146			950			535				2259
Turn Bay Length (ft)						660	560				235	
Base Capacity (vph)		129	336		162	1414	837	3597			119	2745
Starvation Cap Reductn		0	0		0	0	0	0			0	0
Spillback Cap Reductn		0	0		0	0	0	0			0	0
Storage Cap Reductn		0	0		0	0	0	0			0	0
Reduced v/c Ratio		0.11	0.00		0.59	0.14	0.52	0.33			0.13	0.61

Intersection Summary			
Area Type:	Other		
Cycle Length: 180			
Actuated Cycle Length: 180			
Offset: 87 (48%), Referenced to phase 2:SWT, Start of Green			
Natural Cycle: 125			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 30.2		Intersection LOS: C	
Intersection Capacity Utilization 72.3%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 5: US 17-92 & Retail Dwy/Weldon Blvd



Lane Group	SWR
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWU	SWL	SWT
Lane Configurations												
Traffic Volume (vph)	2	0	2	116	0	213	245	1031	7	12	3	1016
Future Volume (vph)	2	0	2	116	0	213	245	1031	7	12	3	1016
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		660	560		0		235	
Storage Lanes	0		1	0		2	2		0		1	
Taper Length (ft)	25			25			25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.76	0.97	0.91	0.91	0.91	1.00	0.91
Frt			0.850			0.850		0.999				0.990
Flt Protected		0.950			0.950		0.950				0.950	
Satd. Flow (prot)	0	1805	1615	0	1787	3474	3400	5027	0	0	1805	4938
Flt Permitted		0.950			0.950		0.950				0.950	
Satd. Flow (perm)	0	1805	1615	0	1787	3474	3400	5027	0	0	1805	4938
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)			191			227		1				8
Link Speed (mph)		35			35			45				45
Link Distance (ft)		226			1030			615				2339
Travel Time (s)		4.4			20.1			9.3				35.4
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	1%	0%	6%	3%	3%	17%	0%	0%	4%
Adj. Flow (vph)	2	0	2	123	0	227	261	1097	7	13	3	1081
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2	2	0	123	227	261	1104	0	0	16	1161
Turn Type	Split	NA	Perm	Split	NA	pm+ov	Prot	NA		Prot	Prot	NA
Protected Phases	4	4		8	8	1	1	6		5	5	2
Permitted Phases			4			8						
Detector Phase	4	4	4	8	8	1	1	6		5	5	2
Switch Phase												
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	15.0		6.0	6.0	15.0
Minimum Split (s)	24.6	24.6	24.6	25.2	25.2	15.1	15.1	27.1		15.1	15.1	27.1
Total Split (s)	25.0	25.0	25.0	34.0	34.0	40.0	40.0	100.0		21.0	21.0	81.0
Total Split (%)	13.9%	13.9%	13.9%	18.9%	18.9%	22.2%	22.2%	55.6%		11.7%	11.7%	45.0%
Maximum Green (s)	18.4	18.4	18.4	26.8	26.8	30.9	30.9	90.9		11.9	11.9	71.9
Yellow Time (s)	3.4	3.4	3.4	4.1	4.1	4.8	4.8	4.8		4.8	4.8	4.8
All-Red Time (s)	3.2	3.2	3.2	3.1	3.1	4.3	4.3	4.3		4.3	4.3	4.3
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)		6.6	6.6		7.2	9.1	9.1	9.1			9.1	9.1
Lead/Lag						Lead	Lead	Lag		Lead	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0		3.0	3.0	5.0
Recall Mode	None	None	None	None	None	None	None	Max		None	None	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0			7.0				7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0			11.0				11.0
Pedestrian Calls (#/hr)	0	0	0	0	0			0				0
Act Effct Green (s)		6.1	6.1		17.7	44.0	19.1	133.1			7.3	115.2
Actuated g/C Ratio		0.03	0.03		0.10	0.24	0.11	0.74			0.04	0.64
v/c Ratio		0.03	0.01		0.70	0.22	0.72	0.30			0.22	0.37
Control Delay		85.0	0.0		98.8	5.4	87.9	7.6			90.1	16.9
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0

Lane Group	SWR
Lane Configurations	
Traffic Volume (vph)	75
Future Volume (vph)	75
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	0.91
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.94
Heavy Vehicles (%)	4%
Adj. Flow (vph)	80
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Maximum Green (s)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	
Recall Mode	
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWU	SWL	SWT
Total Delay		85.0	0.0		98.8	5.4	87.9	7.6			90.1	16.9
LOS		F	A		F	A	F	A			F	B
Approach Delay		42.5			38.2			23.0				17.9
Approach LOS		D			D			C				B
Queue Length 50th (ft)		2	0		143	0	164	123			19	215
Queue Length 95th (ft)		13	0		215	28	219	139			48	347
Internal Link Dist (ft)		146			950			535				2259
Turn Bay Length (ft)						660	560				235	
Base Capacity (vph)		184	336		266	1233	583	3718			119	3163
Starvation Cap Reductn		0	0		0	0	0	0			0	0
Spillback Cap Reductn		0	0		0	0	0	0			0	0
Storage Cap Reductn		0	0		0	0	0	0			0	0
Reduced v/c Ratio		0.01	0.01		0.46	0.18	0.45	0.30			0.13	0.37

Intersection Summary			
Area Type:	Other		
Cycle Length: 180			
Actuated Cycle Length: 180			
Offset: 28 (16%), Referenced to phase 2:SWT, Start of Green			
Natural Cycle: 95			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 22.8		Intersection LOS: C	
Intersection Capacity Utilization 63.2%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 5: US 17-92 & Retail Dwy/Weldon Blvd

Lane Group	SWR
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	0	274	0	1405	1513	30
Future Volume (vph)	0	274	0	1405	1513	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	0			170
Storage Lanes	0	2	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	0.88	1.00	0.91	0.86	0.86
Frt		0.850			0.997	
Flt Protected						
Satd. Flow (prot)	0	2842	0	5036	6154	0
Flt Permitted						
Satd. Flow (perm)	0	2842	0	5036	6154	0
Link Speed (mph)	30			45	45	
Link Distance (ft)	395			439	615	
Travel Time (s)	9.0			6.7	9.3	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	0%	3%	6%	0%
Adj. Flow (vph)	0	322	0	1653	1780	35
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	322	0	1653	1815	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 38.7%		ICU Level of Service A	
Analysis Period (min) 15			

HCM 2000 SIGNING SETTINGS	SEL	SER	NEL	NET	SWT	SWR
Lanes and Sharing (#RL)						
Traffic Volume (vph)	0	274	0	1405	1513	30
Future Volume (vph)	0	274	0	1405	1513	30
Sign Control	Stop	—	—	Free	Free	—
Median Width (ft)	0	—	—	28	28	—
TWLTL Median	☐	—	—	☐	☐	—
Right Turn Channelized	—	None	—	None	—	None
Critical Gap, tC (s)	—	6.9	—	—	—	—
Follow Up Time, tF (s)	—	3.3	—	—	—	—
Volume to Capacity Ratio	—	0.19	—	0.32	0.30	0.17
Control Delay (s)	—	10.1	—	0.0	0.0	0.0
Level of Service	—	B	—	A	A	A
Queue Length 95th (ft)	—	17	—	0	0	0
Approach Delay (s)	10.1	—	—	0.0	0.0	—

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	0	143	0	1268	1228	4
Future Volume (vph)	0	143	0	1268	1228	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	0			170
Storage Lanes	0	2	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	0.88	1.00	0.91	0.86	0.86
Frt		0.850				
Flt Protected						
Satd. Flow (prot)	0	2842	0	5036	6226	0
Flt Permitted						
Satd. Flow (perm)	0	2842	0	5036	6226	0
Link Speed (mph)	30			45	45	
Link Distance (ft)	395			439	615	
Travel Time (s)	9.0			6.7	9.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	3%	5%	0%
Adj. Flow (vph)	0	155	0	1378	1335	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	155	0	1378	1339	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 29.5%		ICU Level of Service A	
Analysis Period (min) 15			

HCM 2000 SIGNING SETTINGS	SEL	SER	NEL	NET	SWT	SWR
Lanes and Sharing (#RL)						
Traffic Volume (vph)	0	143	0	1268	1228	4
Future Volume (vph)	0	143	0	1268	1228	4
Sign Control	Stop	—	—	Free	Free	—
Median Width (ft)	0	—	—	28	28	—
TWLTL Median	☐	—	—	☐	☐	—
Right Turn Channelized	—	None	—	None	—	None
Critical Gap, tC (s)	—	6.9	—	—	—	—
Follow Up Time, tF (s)	—	3.3	—	—	—	—
Volume to Capacity Ratio	—	0.08	—	0.27	0.22	0.11
Control Delay (s)	—	8.9	—	0.0	0.0	0.0
Level of Service	—	A	—	A	A	A
Queue Length 95th (ft)	—	6	—	0	0	0
Approach Delay (s)	8.9	—	—	0.0	0.0	—

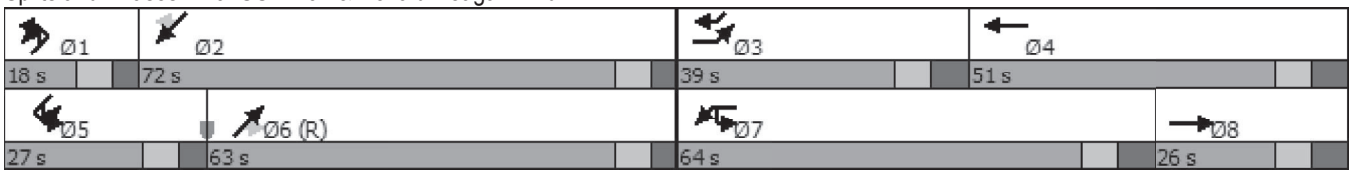
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NEU	NEL	NET	NER	SWU
Lane Configurations												
Traffic Volume (vph)	255	251	13	1	1005	547	47	17	7	1087	439	25
Future Volume (vph)	255	251	13	1	1005	547	47	17	7	1087	439	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	530		0		550		0		225		700	
Storage Lanes	2		0		2		0		1		1	
Taper Length (ft)	25				25				25			
Lane Util. Factor	0.97	0.91	0.91	0.91	0.97	0.91	0.91	0.91	1.00	0.91	1.00	0.91
Frt		0.992				0.988					0.850	
Flt Protected	0.950				0.950				0.950			
Satd. Flow (prot)	3467	4854	0	0	3433	5024	0	0	1719	4988	1538	0
Flt Permitted	0.950				0.950				0.950			
Satd. Flow (perm)	3467	4854	0	0	3433	5024	0	0	1719	4988	1538	0
Right Turn on Red			Yes				Yes				Yes	
Satd. Flow (RTOR)		4				7					493	
Link Speed (mph)		45				45				45		
Link Distance (ft)		1499				1569				1219		
Travel Time (s)		22.7				23.8				18.5		
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	1%	5%	25%	2%	2%	2%	2%	5%	5%	4%	5%	2%
Adj. Flow (vph)	287	282	15	1	1129	615	53	19	8	1221	493	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	287	297	0	0	1130	668	0	0	27	1221	493	0
Turn Type	Prot	NA		Prot	Prot	NA		Prot	Prot	NA	Perm	Prot
Protected Phases	3	8		7	7	4		1	1	6		5
Permitted Phases											6	
Detector Phase	3	8		7	7	4		1	1	6	6	5
Switch Phase												
Minimum Initial (s)	6.0	8.0		6.0	6.0	8.0		6.0	6.0	15.0	15.0	6.0
Minimum Split (s)	15.8	27.8		15.8	15.8	27.8		14.4	14.4	26.4	26.4	14.4
Total Split (s)	39.0	26.0		64.0	64.0	51.0		18.0	18.0	63.0	63.0	27.0
Total Split (%)	21.7%	14.4%		35.6%	35.6%	28.3%		10.0%	10.0%	35.0%	35.0%	15.0%
Maximum Green (s)	29.2	16.2		54.2	54.2	41.2		9.6	9.6	54.6	54.6	18.6
Yellow Time (s)	4.8	4.8		4.8	4.8	4.8		4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	5.0	5.0		5.0	5.0	5.0		3.6	3.6	3.6	3.6	3.6
Lost Time Adjust (s)	0.0	0.0			0.0	0.0			0.0	0.0	0.0	
Total Lost Time (s)	9.8	9.8			9.8	9.8			8.4	8.4	8.4	
Lead/Lag	Lead	Lag		Lead	Lead	Lag		Lead	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0	3.0	5.0	5.0	3.0
Recall Mode	None	None		None	None	None		None	None	C-Max	C-Max	None
Walk Time (s)		7.0				7.0				7.0	7.0	
Flash Dont Walk (s)		11.0				11.0				11.0	11.0	
Pedestrian Calls (#/hr)		0				0				0	0	
Act Effct Green (s)	20.3	15.1			54.2	49.0			8.1	58.2	58.2	
Actuated g/C Ratio	0.11	0.08			0.30	0.27			0.04	0.32	0.32	
v/c Ratio	0.73	0.72			1.09	0.49			0.36	0.76	0.59	
Control Delay	81.4	97.1			114.1	56.1			109.9	42.9	7.1	
Queue Delay	0.0	0.0			0.0	0.0			0.0	0.0	0.0	

Lane Group	SWL	SWT	SWR
Lane Configurations			
Traffic Volume (vph)	79	1366	319
Future Volume (vph)	79	1366	319
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	275		490
Storage Lanes	1		1
Taper Length (ft)	25		
Lane Util. Factor	1.00	0.91	1.00
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	1770	4940	1509
Flt Permitted	0.950		
Satd. Flow (perm)	1770	4940	1509
Right Turn on Red			Yes
Satd. Flow (RTOR)			233
Link Speed (mph)		45	
Link Distance (ft)		439	
Travel Time (s)		6.7	
Peak Hour Factor	0.89	0.89	0.89
Heavy Vehicles (%)	2%	5%	7%
Adj. Flow (vph)	89	1535	358
Shared Lane Traffic (%)			
Lane Group Flow (vph)	117	1535	358
Turn Type	Prot	NA	pm+ov
Protected Phases	5	2	3
Permitted Phases			2
Detector Phase	5	2	3
Switch Phase			
Minimum Initial (s)	6.0	15.0	6.0
Minimum Split (s)	14.4	26.4	15.8
Total Split (s)	27.0	72.0	39.0
Total Split (%)	15.0%	40.0%	21.7%
Maximum Green (s)	18.6	63.6	29.2
Yellow Time (s)	4.8	4.8	4.8
All-Red Time (s)	3.6	3.6	5.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	8.4	8.4	9.8
Lead/Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	5.0	3.0
Recall Mode	None	Max	None
Walk Time (s)		7.0	
Flash Dont Walk (s)		11.0	
Pedestrian Calls (#/hr)		0	
Act Effct Green (s)	16.0	69.1	97.8
Actuated g/C Ratio	0.09	0.38	0.54
v/c Ratio	0.75	0.81	0.39
Control Delay	125.4	34.6	3.0
Queue Delay	0.0	0.0	0.0

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NEU	NEL	NET	NER	SWU
Total Delay	81.4	97.1			114.1	56.1			109.9	42.9	7.1	
LOS	F	F			F	E			F	D	A	
Approach Delay		89.4				92.6				33.8		
Approach LOS		F				F				C		
Queue Length 50th (ft)	178	125			~772	240			33	266	10	
Queue Length 95th (ft)	234	157			#893	294			m66	337	109	
Internal Link Dist (ft)		1419				1489				1139		
Turn Bay Length (ft)	530				550				225		700	
Base Capacity (vph)	562	440			1033	1372			91	1614	830	
Starvation Cap Reductn	0	0			0	0			0	0	0	
Spillback Cap Reductn	0	0			0	0			0	0	0	
Storage Cap Reductn	0	0			0	0			0	0	0	
Reduced v/c Ratio	0.51	0.68			1.09	0.49			0.30	0.76	0.59	

Intersection Summary			
Area Type:	Other		
Cycle Length: 180			
Actuated Cycle Length: 180			
Offset: 100 (56%), Referenced to phase 6:NET, Start of Green			
Natural Cycle: 145			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.09			
Intersection Signal Delay: 56.5		Intersection LOS: E	
Intersection Capacity Utilization 98.6%		ICU Level of Service F	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 9: US 17-92 & Ronald Reagan Blvd



Lane Group	SWL	SWT	SWR
Total Delay	125.4	34.6	3.0
LOS	F	C	A
Approach Delay		34.3	
Approach LOS		C	
Queue Length 50th (ft)	119	617	49
Queue Length 95th (ft)	216	460	0
Internal Link Dist (ft)		359	
Turn Bay Length (ft)	275		490
Base Capacity (vph)	182	1895	989
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.64	0.81	0.36

Intersection Summary

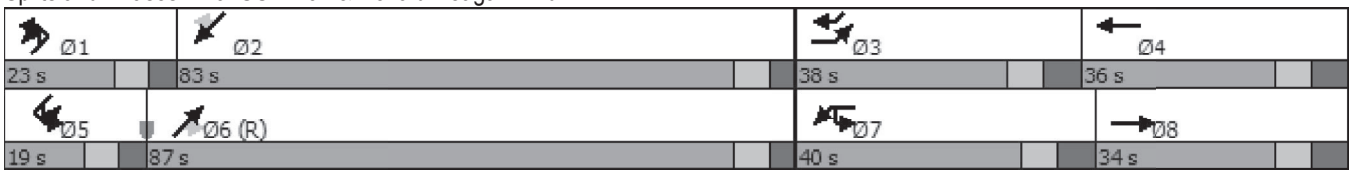
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NEU	NEL	NET	NER	SWU
Lane Configurations												
Traffic Volume (vph)	228	343	8	1	411	241	34	10	21	1002	704	4
Future Volume (vph)	228	343	8	1	411	241	34	10	21	1002	704	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	530		0		550		0		225		700	
Storage Lanes	2		0		2		0		1		1	
Taper Length (ft)	25				25				25			
Lane Util. Factor	0.97	0.91	0.91	0.91	0.97	0.91	0.91	0.91	1.00	0.91	1.00	0.91
Frt		0.996				0.982					0.850	
Flt Protected	0.950				0.950				0.950			
Satd. Flow (prot)	3367	4893	0	0	3335	4822	0	0	1736	5036	1509	0
Flt Permitted	0.950				0.950				0.950			
Satd. Flow (perm)	3367	4893	0	0	3335	4822	0	0	1736	5036	1509	0
Right Turn on Red			Yes				Yes				Yes	
Satd. Flow (RTOR)		2				12					526	
Link Speed (mph)		45				45				45		
Link Distance (ft)		1499				1569				1219		
Travel Time (s)		22.7				23.8				18.5		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	4%	5%	29%	5%	5%	6%	3%	4%	4%	3%	7%	1%
Adj. Flow (vph)	243	365	9	1	437	256	36	11	22	1066	749	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	243	374	0	0	438	292	0	0	33	1066	749	0
Turn Type	Prot	NA		Prot	Prot	NA		Prot	Prot	NA	Perm	Prot
Protected Phases	3	8		7	7	4		1	1	6		5
Permitted Phases											6	
Detector Phase	3	8		7	7	4		1	1	6	6	5
Switch Phase												
Minimum Initial (s)	6.0	8.0		6.0	6.0	8.0		6.0	6.0	15.0	15.0	6.0
Minimum Split (s)	15.8	27.8		15.8	15.8	27.8		14.4	14.4	26.4	26.4	14.4
Total Split (s)	38.0	34.0		40.0	40.0	36.0		23.0	23.0	87.0	87.0	19.0
Total Split (%)	21.1%	18.9%		22.2%	22.2%	20.0%		12.8%	12.8%	48.3%	48.3%	10.6%
Maximum Green (s)	28.2	24.2		30.2	30.2	26.2		14.6	14.6	78.6	78.6	10.6
Yellow Time (s)	4.8	4.8		4.8	4.8	4.8		4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	5.0	5.0		5.0	5.0	5.0		3.6	3.6	3.6	3.6	3.6
Lost Time Adjust (s)	0.0	0.0			0.0	0.0			0.0	0.0	0.0	
Total Lost Time (s)	9.8	9.8			9.8	9.8			8.4	8.4	8.4	
Lead/Lag	Lead	Lag		Lead	Lead	Lag		Lead	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0	3.0	5.0	5.0	3.0
Recall Mode	None	None		None	None	None		None	None	C-Max	C-Max	None
Walk Time (s)		7.0				7.0				7.0	7.0	
Flash Dont Walk (s)		11.0				11.0				11.0	11.0	
Pedestrian Calls (#/hr)		0				0				0	0	
Act Effct Green (s)	18.3	18.9			27.5	28.2			8.9	84.5	84.5	
Actuated g/C Ratio	0.10	0.10			0.15	0.16			0.05	0.47	0.47	
v/c Ratio	0.71	0.72			0.86	0.38			0.39	0.45	0.76	
Control Delay	92.6	77.9			91.2	66.4			121.5	15.1	13.4	
Queue Delay	0.0	0.0			0.0	0.0			0.0	0.0	1.0	

Lane Group	SWL	SWT	SWR
Lane Configurations			
Traffic Volume (vph)	75	1035	255
Future Volume (vph)	75	1035	255
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	275		490
Storage Lanes	1		1
Taper Length (ft)	25		
Lane Util. Factor	1.00	0.91	1.00
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	1787	4988	1553
Flt Permitted	0.950		
Satd. Flow (perm)	1787	4988	1553
Right Turn on Red			Yes
Satd. Flow (RTOR)			271
Link Speed (mph)		45	
Link Distance (ft)		439	
Travel Time (s)		6.7	
Peak Hour Factor	0.94	0.94	0.94
Heavy Vehicles (%)	1%	4%	4%
Adj. Flow (vph)	80	1101	271
Shared Lane Traffic (%)			
Lane Group Flow (vph)	84	1101	271
Turn Type	Prot	NA	pm+ov
Protected Phases	5	2	3
Permitted Phases			2
Detector Phase	5	2	3
Switch Phase			
Minimum Initial (s)	6.0	15.0	6.0
Minimum Split (s)	14.4	26.4	15.8
Total Split (s)	19.0	83.0	38.0
Total Split (%)	10.6%	46.1%	21.1%
Maximum Green (s)	10.6	74.6	28.2
Yellow Time (s)	4.8	4.8	4.8
All-Red Time (s)	3.6	3.6	5.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	8.4	8.4	9.8
Lead/Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	5.0	3.0
Recall Mode	None	Max	None
Walk Time (s)		7.0	
Flash Dont Walk (s)		11.0	
Pedestrian Calls (#/hr)		0	
Act Effct Green (s)	12.7	91.1	117.8
Actuated g/C Ratio	0.07	0.51	0.65
v/c Ratio	0.67	0.44	0.24
Control Delay	130.2	19.2	1.1
Queue Delay	0.0	0.0	0.0

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NEU	NEL	NET	NER	SWU
Total Delay	92.6	77.9			91.2	66.4			121.5	15.1	14.4	
LOS	F	E			F	E			F	B	B	
Approach Delay		83.7				81.3				16.7		
Approach LOS		F				F				B		
Queue Length 50th (ft)	125	158			262	109			41	105	240	
Queue Length 95th (ft)	208	118			326	144			m76	131	363	
Internal Link Dist (ft)		1419				1489				1139		
Turn Bay Length (ft)	530				550				225		700	
Base Capacity (vph)	527	659			559	778			140	2363	987	
Starvation Cap Reductn	0	0			0	0			0	0	79	
Spillback Cap Reductn	0	0			0	0			0	0	0	
Storage Cap Reductn	0	0			0	0			0	0	0	
Reduced v/c Ratio	0.46	0.57			0.78	0.38			0.24	0.45	0.82	

Intersection Summary			
Area Type:	Other		
Cycle Length: 180			
Actuated Cycle Length: 180			
Offset: 15 (8%), Referenced to phase 6:NET, Start of Green			
Natural Cycle: 105			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 37.5		Intersection LOS: D	
Intersection Capacity Utilization 97.5%		ICU Level of Service F	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

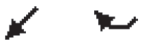
Splits and Phases: 9: US 17-92 & Ronald Reagan Blvd



Lane Group	SWL	SWT	SWR
Total Delay	130.2	19.2	1.1
LOS	F	B	A
Approach Delay		22.2	
Approach LOS		C	
Queue Length 50th (ft)	92	311	18
Queue Length 95th (ft)	#192	151	0
Internal Link Dist (ft)		359	
Turn Bay Length (ft)	275		490
Base Capacity (vph)	127	2523	1180
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.66	0.44	0.23

Intersection Summary

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEU	NEL	NET	NER	SWU	SWL
Lane Configurations												
Traffic Volume (vph)	8	180	69	74	304	517	11	69	1042	65	2	426
Future Volume (vph)	8	180	69	74	304	517	11	69	1042	65	2	426
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	375		295	615		480		390		415		825
Storage Lanes	1		1	1		2		1		1		2
Taper Length (ft)	25			25				25				25
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.88	0.91	1.00	0.91	1.00	0.91	0.97
Frt			0.850			0.850				0.850		
Flt Protected	0.950			0.950				0.950				0.950
Satd. Flow (prot)	1805	3539	1538	1570	3505	2707	0	1787	5036	1404	0	3242
Flt Permitted	0.554			0.409				0.950				0.950
Satd. Flow (perm)	1053	3539	1538	676	3505	2707	0	1787	5036	1404	0	3242
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)			179			556				172		
Link Speed (mph)		45			45				45			
Link Distance (ft)		606			1106				2903			
Travel Time (s)		9.2			16.8				44.0			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	2%	5%	15%	3%	5%	1%	1%	3%	15%	8%	8%
Adj. Flow (vph)	9	194	74	80	327	556	12	74	1120	70	2	458
Shared Lane Traffic (%)												
Lane Group Flow (vph)	9	194	74	80	327	556	0	86	1120	70	0	460
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	Prot	NA	Perm	Prot	Prot
Protected Phases	7	4		3	8		5	5	2		1	1
Permitted Phases	4		4	8		8				2		
Detector Phase	7	4	4	3	8	8	5	5	2	2	1	1
Switch Phase												
Minimum Initial (s)	6.0	8.0	8.0	6.0	8.0	8.0	6.0	6.0	15.0	15.0	6.0	6.0
Minimum Split (s)	13.3	25.3	25.3	25.3	25.3	25.3	14.4	14.4	26.4	26.4	14.4	14.4
Total Split (s)	21.0	39.0	39.0	25.0	43.0	43.0	23.0	23.0	78.0	78.0	38.0	38.0
Total Split (%)	11.7%	21.7%	21.7%	13.9%	23.9%	23.9%	12.8%	12.8%	43.3%	43.3%	21.1%	21.1%
Maximum Green (s)	13.7	31.7	31.7	17.7	35.7	35.7	14.6	14.6	69.6	69.6	29.6	29.6
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.6	3.6	3.6	3.6	3.6	3.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0
Total Lost Time (s)	7.3	7.3	7.3	7.3	7.3	7.3		8.4	8.4	8.4		8.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	None	C-Max	C-Max	None	None
Walk Time (s)		7.0	7.0	7.0	7.0	7.0			7.0	7.0		
Flash Dont Walk (s)		11.0	11.0	11.0	11.0	11.0			11.0	11.0		
Pedestrian Calls (#/hr)		0	0	0	0	0			0	0		
Act Effct Green (s)	22.2	15.8	15.8	36.2	30.5	30.5		14.0	88.6	88.6		31.0
Actuated g/C Ratio	0.12	0.09	0.09	0.20	0.17	0.17		0.08	0.49	0.49		0.17
v/c Ratio	0.06	0.63	0.25	0.40	0.55	0.60		0.62	0.45	0.09		0.82
Control Delay	56.5	87.2	2.6	64.5	72.4	7.5		99.0	32.0	0.2		87.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0



Lane Group	SWT	SWR
Lane Configurations		
Traffic Volume (vph)	1934	32
Future Volume (vph)	1934	32
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Lane Util. Factor	0.91	0.91
Frt	0.998	
Flt Protected		
Satd. Flow (prot)	5028	0
Flt Permitted		
Satd. Flow (perm)	5028	0
Right Turn on Red		Yes
Satd. Flow (RTOR)	2	
Link Speed (mph)	45	
Link Distance (ft)	1219	
Travel Time (s)	18.5	
Peak Hour Factor	0.93	0.93
Heavy Vehicles (%)	3%	0%
Adj. Flow (vph)	2080	34
Shared Lane Traffic (%)		
Lane Group Flow (vph)	2114	0
Turn Type	NA	
Protected Phases	6	
Permitted Phases		
Detector Phase	6	
Switch Phase		
Minimum Initial (s)	15.0	
Minimum Split (s)	26.4	
Total Split (s)	93.0	
Total Split (%)	51.7%	
Maximum Green (s)	84.6	
Yellow Time (s)	4.8	
All-Red Time (s)	3.6	
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	8.4	
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	5.0	
Recall Mode	Max	
Walk Time (s)	7.0	
Flash Dont Walk (s)	11.0	
Pedestrian Calls (#/hr)	0	
Act Effct Green (s)	105.7	
Actuated g/C Ratio	0.59	
v/c Ratio	0.72	
Control Delay	29.4	
Queue Delay	0.0	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEU	NEL	NET	NER	SWU	SWL
Total Delay	56.5	87.2	2.6	64.5	72.4	7.5		99.0	32.0	0.2		87.4
LOS	E	F	A	E	E	A		F	C	A		F
Approach Delay		63.6			34.3				34.8			
Approach LOS		E			C				C			
Queue Length 50th (ft)	8	119	0	81	182	0		100	311	0		296
Queue Length 95th (ft)	24	143	3	128	245	58		162	415	0		m321
Internal Link Dist (ft)		526			1026				2823			
Turn Bay Length (ft)	375		295	615		480		390		415		825
Base Capacity (vph)	229	623	418	223	695	982		156	2479	778		580
Starvation Cap Reductn	0	0	0	0	0	0		0	0	0		0
Spillback Cap Reductn	0	0	0	0	0	0		0	0	0		0
Storage Cap Reductn	0	0	0	0	0	0		0	0	0		0
Reduced v/c Ratio	0.04	0.31	0.18	0.36	0.47	0.57		0.55	0.45	0.09		0.79

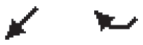
Intersection Summary			
Area Type:	Other		
Cycle Length: 180			
Actuated Cycle Length: 180			
Offset: 112 (62%), Referenced to phase 2:NET, Start of Green			
Natural Cycle: 125			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 38.8		Intersection LOS: D	
Intersection Capacity Utilization 82.6%		ICU Level of Service E	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 12: US 17-92 & Silkwood Ct

Lane Group	SWT	SWR
Total Delay	29.4	
LOS	C	
Approach Delay	39.8	
Approach LOS	D	
Queue Length 50th (ft)	410	
Queue Length 95th (ft)	m588	
Internal Link Dist (ft)	1139	
Turn Bay Length (ft)		
Base Capacity (vph)	2953	
Starvation Cap Reductn	0	
Spillback Cap Reductn	0	
Storage Cap Reductn	0	
Reduced v/c Ratio	0.72	

Intersection Summary

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEU	NEL	NET	NER	SWU	SWL
Lane Configurations												
Traffic Volume (vph)	7	196	55	79	217	450	20	56	1277	50	3	387
Future Volume (vph)	7	196	55	79	217	450	20	56	1277	50	3	387
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	375		295	615		480		390		415		825
Storage Lanes	1		1	1		2		1		1		2
Taper Length (ft)	25			25				25				25
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.88	0.91	1.00	0.91	1.00	0.91	0.97
Frt			0.850			0.850				0.850		
Flt Protected	0.950			0.950				0.950				0.950
Satd. Flow (prot)	1805	3539	1583	1570	3471	2656	0	1736	4988	1482	0	3400
Flt Permitted	0.605			0.396				0.950				0.950
Satd. Flow (perm)	1150	3539	1583	654	3471	2656	0	1736	4988	1482	0	3400
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)			179			489				172		
Link Speed (mph)		45			45				45			
Link Distance (ft)		606			1106				2903			
Travel Time (s)		9.2			16.8				44.0			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	2%	15%	4%	7%	4%	4%	4%	9%	3%	3%
Adj. Flow (vph)	8	213	60	86	236	489	22	61	1388	54	3	421
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	213	60	86	236	489	0	83	1388	54	0	424
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	Prot	NA	Perm	Prot	Prot
Protected Phases	7	4		3	8		5	5	2		1	1
Permitted Phases	4		4	8		8				2		
Detector Phase	7	4	4	3	8	8	5	5	2	2	1	1
Switch Phase												
Minimum Initial (s)	6.0	8.0	8.0	6.0	8.0	8.0	6.0	6.0	15.0	15.0	6.0	6.0
Minimum Split (s)	13.3	25.3	25.3	25.3	25.3	25.3	14.4	14.4	26.4	26.4	14.4	14.4
Total Split (s)	17.0	41.0	41.0	17.0	41.0	41.0	29.0	29.0	82.0	82.0	40.0	40.0
Total Split (%)	9.4%	22.8%	22.8%	9.4%	22.8%	22.8%	16.1%	16.1%	45.6%	45.6%	22.2%	22.2%
Maximum Green (s)	9.7	33.7	33.7	9.7	33.7	33.7	20.6	20.6	73.6	73.6	31.6	31.6
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.6	3.6	3.6	3.6	3.6	3.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0
Total Lost Time (s)	7.3	7.3	7.3	7.3	7.3	7.3		8.4	8.4	8.4		8.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	None	C-Max	C-Max	None	None
Walk Time (s)		7.0	7.0	7.0	7.0	7.0			7.0	7.0		
Flash Dont Walk (s)		11.0	11.0	11.0	11.0	11.0			11.0	11.0		
Pedestrian Calls (#/hr)		0	0	0	0	0			0	0		
Act Effct Green (s)	23.1	16.7	16.7	31.6	27.7	27.7		13.9	94.8	94.8		27.6
Actuated g/C Ratio	0.13	0.09	0.09	0.18	0.15	0.15		0.08	0.53	0.53		0.15
v/c Ratio	0.05	0.65	0.19	0.53	0.44	0.59		0.62	0.53	0.06		0.81
Control Delay	57.0	86.0	1.7	75.0	72.6	8.4		99.4	29.8	0.1		89.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0



Lane Group	SWT	SWR
Lane Configurations		
Traffic Volume (vph)	1013	14
Future Volume (vph)	1013	14
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Lane Util. Factor	0.91	0.91
Frt	0.998	
Flt Protected		
Satd. Flow (prot)	4887	0
Flt Permitted		
Satd. Flow (perm)	4887	0
Right Turn on Red		Yes
Satd. Flow (RTOR)	1	
Link Speed (mph)	45	
Link Distance (ft)	1219	
Travel Time (s)	18.5	
Peak Hour Factor	0.92	0.92
Heavy Vehicles (%)	6%	0%
Adj. Flow (vph)	1101	15
Shared Lane Traffic (%)		
Lane Group Flow (vph)	1116	0
Turn Type	NA	
Protected Phases	6	
Permitted Phases		
Detector Phase	6	
Switch Phase		
Minimum Initial (s)	15.0	
Minimum Split (s)	26.4	
Total Split (s)	93.0	
Total Split (%)	51.7%	
Maximum Green (s)	84.6	
Yellow Time (s)	4.8	
All-Red Time (s)	3.6	
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	8.4	
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	5.0	
Recall Mode	Max	
Walk Time (s)	7.0	
Flash Dont Walk (s)	11.0	
Pedestrian Calls (#/hr)	0	
Act Effct Green (s)	108.5	
Actuated g/C Ratio	0.60	
v/c Ratio	0.38	
Control Delay	17.0	
Queue Delay	0.0	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEU	NEL	NET	NER	SWU	SWL
Total Delay	57.0	86.0	1.7	75.0	72.6	8.4		99.4	29.8	0.1		89.1
LOS	E	F	A	E	E	A		F	C	A		F
Approach Delay		67.2			34.1				32.6			
Approach LOS		E			C				C			
Queue Length 50th (ft)	8	131	1	89	130	0		97	386	0		273
Queue Length 95th (ft)	23	155	2	142	188	60		157	495	0		334
Internal Link Dist (ft)		526			1026				2823			
Turn Bay Length (ft)	375		295	615		480		390		415		825
Base Capacity (vph)	203	662	441	163	649	894		198	2628	862		604
Starvation Cap Reductn	0	0	0	0	0	0		0	0	0		0
Spillback Cap Reductn	0	0	0	0	0	0		0	0	0		0
Storage Cap Reductn	0	0	0	0	0	0		0	0	0		0
Reduced v/c Ratio	0.04	0.32	0.14	0.53	0.36	0.55		0.42	0.53	0.06		0.70

Intersection Summary			
Area Type:	Other		
Cycle Length: 180			
Actuated Cycle Length: 180			
Offset: 18 (10%), Referenced to phase 2:NET, Start of Green			
Natural Cycle: 115			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 36.8		Intersection LOS: D	
Intersection Capacity Utilization 82.7%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 12: US 17-92 & Silkwood Ct

Lane Group	SWT	SWR
Total Delay	17.0	
LOS	B	
Approach Delay	36.9	
Approach LOS	D	
Queue Length 50th (ft)	187	
Queue Length 95th (ft)	204	
Internal Link Dist (ft)	1139	
Turn Bay Length (ft)		
Base Capacity (vph)	2946	
Starvation Cap Reductn	0	
Spillback Cap Reductn	0	
Storage Cap Reductn	0	
Reduced v/c Ratio	0.38	

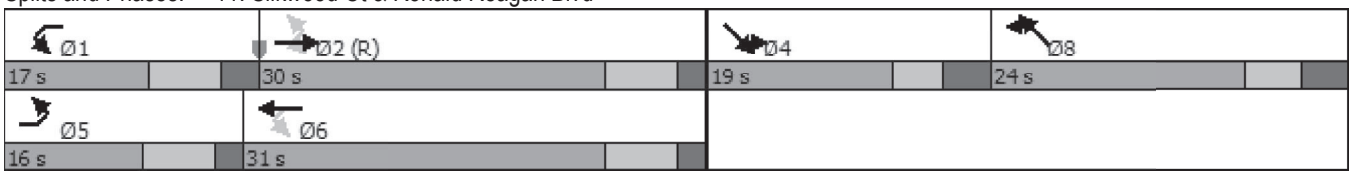
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	0	475	246	19	807	3	3	3	10	382	6	25
Future Volume (vph)	0	475	246	19	807	3	3	3	10	382	6	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	425		130	315		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95	0.95	1.00	1.00	1.00	0.95	0.95	1.00
Frt			0.850		0.999			0.913			0.982	
Flt Protected				0.950				0.991		0.950	0.959	
Satd. Flow (prot)	1900	5036	1568	1805	3435	0	0	1719	0	1681	1654	0
Flt Permitted				0.378				0.991		0.950	0.959	
Satd. Flow (perm)	1900	5036	1568	718	3435	0	0	1719	0	1681	1654	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			270					11			7	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1273			1499			217			606	
Travel Time (s)		19.3			22.7			3.3			9.2	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	3%	3%	0%	5%	0%	0%	0%	0%	2%	0%	9%
Adj. Flow (vph)	0	522	270	21	887	3	3	3	11	420	7	27
Shared Lane Traffic (%)										46%		
Lane Group Flow (vph)	0	522	270	21	890	0	0	17	0	227	227	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Split	NA		Split	NA	
Protected Phases	5	2		1	6		4	4		8	8	
Permitted Phases	2		2	6								
Detector Phase	5	2	2	1	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	6.0	15.0	15.0	6.0	15.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	12.8	24.8	24.8	13.3	24.8		24.6	24.6		24.9	24.9	
Total Split (s)	16.0	30.0	30.0	17.0	31.0		19.0	19.0		24.0	24.0	
Total Split (%)	17.8%	33.3%	33.3%	18.9%	34.4%		21.1%	21.1%		26.7%	26.7%	
Maximum Green (s)	9.2	23.2	23.2	9.7	24.2		12.4	12.4		17.1	17.1	
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8		3.4	3.4		3.7	3.7	
All-Red Time (s)	2.0	2.0	2.0	2.5	2.0		3.2	3.2		3.2	3.2	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0			0.0		0.0	0.0	
Total Lost Time (s)	6.8	6.8	6.8	7.3	6.8			6.6		6.9	6.9	
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes							
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	Max		None	None		Min	Min	
Walk Time (s)		7.0	7.0		7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		11.0	11.0		11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)		47.6	47.6	52.7	53.2			8.0		17.3	17.3	
Actuated g/C Ratio		0.53	0.53	0.59	0.59			0.09		0.19	0.19	
v/c Ratio		0.20	0.28	0.04	0.44			0.10		0.70	0.70	
Control Delay		15.6	4.2	8.1	10.1			25.7		72.6	71.4	
Queue Delay		0.0	0.0	0.0	0.0			0.0		0.0	0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Total Delay		15.6	4.2	8.1	10.1			25.7		72.6	71.4	
LOS		B	A	A	B			C		E	E	
Approach Delay		11.7			10.1			25.7			72.0	
Approach LOS		B			B			C			E	
Queue Length 50th (ft)		37	0	2	57			3		271	268	
Queue Length 95th (ft)		117	56	m10	180			23		367	364	
Internal Link Dist (ft)		1193			1419			137			526	
Turn Bay Length (ft)			130	315								
Base Capacity (vph)		2661	956	537	2030			246		351	351	
Starvation Cap Reductn		0	0	0	0			0		0	0	
Spillback Cap Reductn		0	0	0	0			0		0	0	
Storage Cap Reductn		0	0	0	0			0		0	0	
Reduced v/c Ratio		0.20	0.28	0.04	0.44			0.07		0.65	0.65	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 41 (46%), Referenced to phase 2:EBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 23.7		Intersection LOS: C	
Intersection Capacity Utilization 52.0%		ICU Level of Service A	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 11: Silkwood Ct & Ronald Reagan Blvd



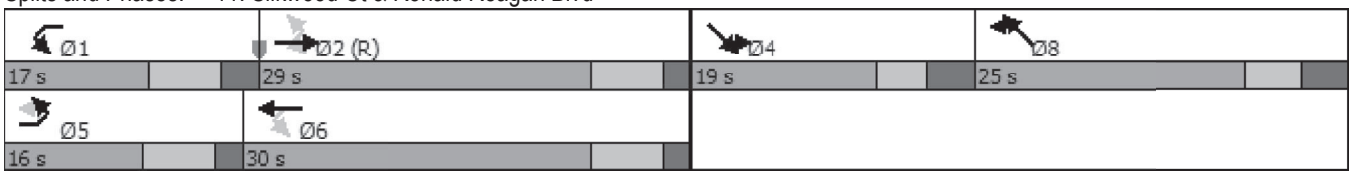
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT
Lane Configurations												
Traffic Volume (vph)	2	6	549	250	6	495	3	1	4	4	263	0
Future Volume (vph)	2	6	549	250	6	495	3	1	4	4	263	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		425		130	315		0	0		0	0	
Storage Lanes		1		1	1		0	0		0	1	
Taper Length (ft)		25			25			25			25	
Lane Util. Factor	0.91	1.00	0.91	1.00	1.00	0.95	0.95	1.00	1.00	1.00	0.95	0.95
Frt				0.850		0.999			0.940			0.976
Flt Protected		0.950			0.950				0.994		0.950	0.960
Satd. Flow (prot)	0	1805	4988	1568	1805	3436	0	0	1775	0	1649	1611
Flt Permitted		0.436			0.409				0.994		0.950	0.960
Satd. Flow (perm)	0	828	4988	1568	777	3436	0	0	1775	0	1649	1611
Right Turn on Red				Yes			Yes			Yes		
Satd. Flow (RTOR)				275		1			4			208
Link Speed (mph)			45			45			45			45
Link Distance (ft)			1273			1499			217			606
Travel Time (s)			19.3			22.7			3.3			9.2
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	4%	3%	0%	5%	0%	0%	0%	0%	4%	0%
Adj. Flow (vph)	2	7	603	275	7	544	3	1	4	4	289	0
Shared Lane Traffic (%)											45%	
Lane Group Flow (vph)	0	9	603	275	7	547	0	0	9	0	159	155
Turn Type	custom	pm+pt	NA	Perm	pm+pt	NA		Split	NA		Split	NA
Protected Phases		5	2		1	6		4	4		8	8
Permitted Phases	5	2		2	6							
Detector Phase	5	5	2	2	1	6		4	4		8	8
Switch Phase												
Minimum Initial (s)	6.0	6.0	15.0	15.0	6.0	15.0		8.0	8.0		8.0	8.0
Minimum Split (s)	12.8	12.8	24.8	24.8	13.3	24.8		24.6	24.6		24.9	24.9
Total Split (s)	16.0	16.0	29.0	29.0	17.0	30.0		19.0	19.0		25.0	25.0
Total Split (%)	17.8%	17.8%	32.2%	32.2%	18.9%	33.3%		21.1%	21.1%		27.8%	27.8%
Maximum Green (s)	9.2	9.2	22.2	22.2	9.7	23.2		12.4	12.4		18.1	18.1
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8		3.4	3.4		3.7	3.7
All-Red Time (s)	2.0	2.0	2.0	2.0	2.5	2.0		3.2	3.2		3.2	3.2
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0			0.0		0.0	0.0
Total Lost Time (s)		6.8	6.8	6.8	7.3	6.8			6.6		6.9	6.9
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	4.0	4.0	3.0	4.0		3.0	3.0		3.0	3.0
Recall Mode	None	None	C-Max	C-Max	None	Max		None	None		Min	Min
Walk Time (s)			7.0	7.0		7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)			11.0	11.0		11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)			0	0		0		0	0		0	0
Act Effct Green (s)		58.1	56.8	56.8	57.6	56.9			8.0		13.9	13.9
Actuated g/C Ratio		0.65	0.63	0.63	0.64	0.63			0.09		0.15	0.15
v/c Ratio		0.02	0.19	0.25	0.01	0.25			0.06		0.63	0.37
Control Delay		9.2	10.0	3.0	18.3	19.4			31.0		62.0	27.8
Queue Delay		0.0	0.0	0.0	0.0	0.0			0.0		0.0	0.0

Lane Group	NWR
Lane Configurations	
Traffic Volume (vph)	23
Future Volume (vph)	23
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.91
Heavy Vehicles (%)	10%
Adj. Flow (vph)	25
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Maximum Green (s)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	
Recall Mode	
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT
Total Delay		9.2	10.0	3.0	18.3	19.4			31.0		62.0	27.8
LOS		A	B	A	B	B			C		E	C
Approach Delay			7.8			19.4			31.0			45.1
Approach LOS			A			B			C			D
Queue Length 50th (ft)		1	37	0	4	171			3		200	122
Queue Length 95th (ft)		11	127	53	m13	241			17		285	208
Internal Link Dist (ft)			1193			1419			137			526
Turn Bay Length (ft)		425		130	315							
Base Capacity (vph)		639	3148	1091	614	2171			248		335	493
Starvation Cap Reductn		0	0	0	0	0			0		0	0
Spillback Cap Reductn		0	0	0	0	0			0		0	0
Storage Cap Reductn		0	0	0	0	0			0		0	0
Reduced v/c Ratio		0.01	0.19	0.25	0.01	0.25			0.04		0.47	0.31

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 38 (42%), Referenced to phase 2:EBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay: 18.2		Intersection LOS: B	
Intersection Capacity Utilization 44.4%		ICU Level of Service A	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 11: Silkwood Ct & Ronald Reagan Blvd



Lane Group	NWR
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Intersection	
Int Delay, s/veh	10.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	29	2	62	30	0	15	248	114	23	14	128	72
Future Vol, veh/h	29	2	62	30	0	15	248	114	23	14	128	72
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	0	0	0	3	0	0	0	7	0	0	8	0
Mvmt Flow	45	3	95	46	0	23	382	175	35	22	197	111

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1149	1271	154	1101	1309	105	308	0	0	210	0	0
Stage 1	297	297	-	957	957	-	-	-	-	-	-	-
Stage 2	852	974	-	144	352	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.56	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.56	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.56	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.53	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	156	169	871	165	161	936	1264	-	-	1373	-	-
Stage 1	693	671	-	275	339	-	-	-	-	-	-	-
Stage 2	325	333	-	841	635	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	110	109	871	104	104	936	1264	-	-	1373	-	-
Mov Cap-2 Maneuver	110	109	-	104	104	-	-	-	-	-	-	-
Stage 1	455	658	-	180	222	-	-	-	-	-	-	-
Stage 2	208	218	-	730	622	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	33.9	49.1	5.9	0.6
HCM LOS	D	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1264	-	-	263	148	1373	-	-
HCM Lane V/C Ratio	0.302	-	-	0.544	0.468	0.016	-	-
HCM Control Delay (s)	9.1	0.3	-	33.9	49.1	7.7	0.1	-
HCM Lane LOS	A	A	-	D	E	A	A	-
HCM 95th %tile Q(veh)	1.3	-	-	3	2.2	0	-	-

Intersection	
Int Delay, s/veh	5.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	20	5	44	69	9	10	129	109	31	29	114	47
Future Vol, veh/h	20	5	44	69	9	10	129	109	31	29	114	47
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	2	1	11	0	2	8	0	0	8	0
Mvmt Flow	21	5	47	73	10	11	137	116	33	31	121	50

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	545	631	86	532	640	75	171	0	0	149	0	0
Stage 1	208	208	-	407	407	-	-	-	-	-	-	-
Stage 2	337	423	-	125	233	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.94	7.52	6.72	6.9	4.14	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.52	5.72	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.52	5.72	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.32	3.51	4.11	3.3	2.22	-	-	2.2	-	-
Pot Cap-1 Maneuver	426	401	956	433	374	978	1404	-	-	1445	-	-
Stage 1	780	734	-	595	574	-	-	-	-	-	-	-
Stage 2	656	591	-	869	689	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	371	350	956	367	326	978	1404	-	-	1445	-	-
Mov Cap-2 Maneuver	371	350	-	367	326	-	-	-	-	-	-	-
Stage 1	697	716	-	531	513	-	-	-	-	-	-	-
Stage 2	569	528	-	801	672	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.8	17.1	3.8	1.2
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1404	-	-	604	390	1445	-	-
HCM Lane V/C Ratio	0.098	-	-	0.122	0.24	0.021	-	-
HCM Control Delay (s)	7.8	0.1	-	11.8	17.1	7.5	0.1	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.4	0.9	0.1	-	-

APPENDIX E

Projected Intersection Capacity Worksheets

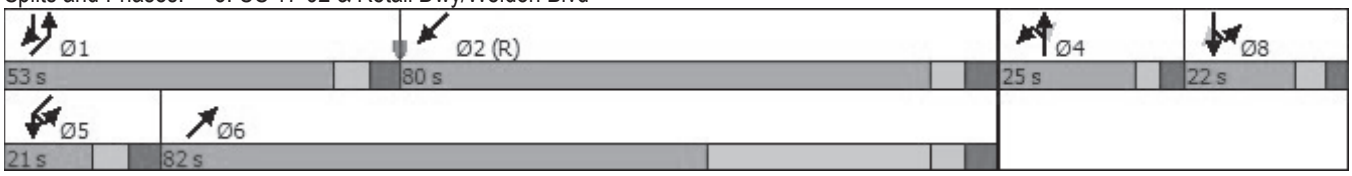
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWU	SWL	SWT
Lane Configurations												
Traffic Volume (vph)	12	0	1	116	1	169	431	1039	14	10	4	1453
Future Volume (vph)	12	0	1	116	1	169	431	1039	14	10	4	1453
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		660	560		0		235	
Storage Lanes	0		1	0		2	2		0		1	
Taper Length (ft)	25			25			25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.76	0.97	0.91	0.91	0.91	1.00	0.91
Frt			0.850			0.850		0.998				0.989
Flt Protected		0.950			0.953		0.950				0.950	
Satd. Flow (prot)	0	1271	1615	0	1758	3507	3433	5023	0	0	1805	4850
Flt Permitted		0.950			0.953		0.950				0.950	
Satd. Flow (perm)	0	1271	1615	0	1758	3507	3433	5023	0	0	1805	4850
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)			191			192		2				9
Link Speed (mph)		35			35			45				45
Link Distance (ft)		226			467			615				2339
Travel Time (s)		4.4			9.1			9.3				35.4
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	42%	0%	0%	3%	0%	5%	2%	3%	8%	0%	0%	6%
Adj. Flow (vph)	14	0	1	132	1	192	490	1181	16	11	5	1651
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	14	1	0	133	192	490	1197	0	0	16	1787
Turn Type	Split	NA	Perm	Split	NA	pm+ov	Prot	NA		Prot	Prot	NA
Protected Phases	4	4		8	8	1	1	6		5	5	2
Permitted Phases			4			8						
Detector Phase	4	4	4	8	8	1	1	6		5	5	2
Switch Phase												
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	15.0		6.0	6.0	15.0
Minimum Split (s)	24.6	24.6	24.6	25.2	25.2	15.1	15.1	27.1		15.1	15.1	27.1
Total Split (s)	25.0	25.0	25.0	22.0	22.0	53.0	53.0	82.0		21.0	21.0	80.0
Total Split (%)	13.9%	13.9%	13.9%	12.2%	12.2%	29.4%	29.4%	45.6%		11.7%	11.7%	44.4%
Maximum Green (s)	18.4	18.4	18.4	14.8	14.8	43.9	43.9	72.9		11.9	11.9	70.9
Yellow Time (s)	3.4	3.4	3.4	4.1	4.1	4.8	4.8	4.8		4.8	4.8	4.8
All-Red Time (s)	3.2	3.2	3.2	3.1	3.1	4.3	4.3	4.3		4.3	4.3	4.3
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)		6.6	6.6		7.2	9.1	9.1	9.1			9.1	9.1
Lead/Lag						Lead	Lead	Lag		Lead	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0		3.0	3.0	5.0
Recall Mode	None	None	None	None	None	None	None	Max		None	None	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0			7.0				7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0			11.0				11.0
Pedestrian Calls (#/hr)	0	0	0	0	0			0				0
Act Effct Green (s)		7.7	7.7		20.3	58.9	31.4	123.9			7.3	93.7
Actuated g/C Ratio		0.04	0.04		0.11	0.33	0.17	0.69			0.04	0.52
v/c Ratio		0.26	0.00		0.67	0.15	0.82	0.35			0.22	0.71
Control Delay		94.2	0.0		93.3	4.4	79.0	14.5			90.1	37.0
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0

Lane Group	SWR
Lane Configurations	
Traffic Volume (vph)	120
Future Volume (vph)	120
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	0.91
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.88
Heavy Vehicles (%)	3%
Adj. Flow (vph)	136
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Maximum Green (s)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	
Recall Mode	
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWU	SWL	SWT
Total Delay		94.2	0.0		93.3	4.4	79.0	14.5			90.1	37.0
LOS		F	A		F	A	E	B			F	D
Approach Delay		87.9			40.8			33.3				37.5
Approach LOS		F			D			C				D
Queue Length 50th (ft)		16	0		153	0	312	184			19	613
Queue Length 95th (ft)		43	0		226	21	365	221			47	735
Internal Link Dist (ft)		146			387			535				2259
Turn Bay Length (ft)						660	560				235	
Base Capacity (vph)		129	336		198	1506	837	3456			119	2527
Starvation Cap Reductn		0	0		0	0	0	0			0	0
Spillback Cap Reductn		0	0		0	0	0	0			0	0
Storage Cap Reductn		0	0		0	0	0	0			0	0
Reduced v/c Ratio		0.11	0.00		0.67	0.13	0.59	0.35			0.13	0.71

Intersection Summary			
Area Type:	Other		
Cycle Length: 180			
Actuated Cycle Length: 180			
Offset: 87 (48%), Referenced to phase 2:SWT, Start of Green			
Natural Cycle: 135			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 36.1		Intersection LOS: D	
Intersection Capacity Utilization 77.4%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 5: US 17-92 & Retail Dwy/Weldon Blvd



Lane Group	SWR
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

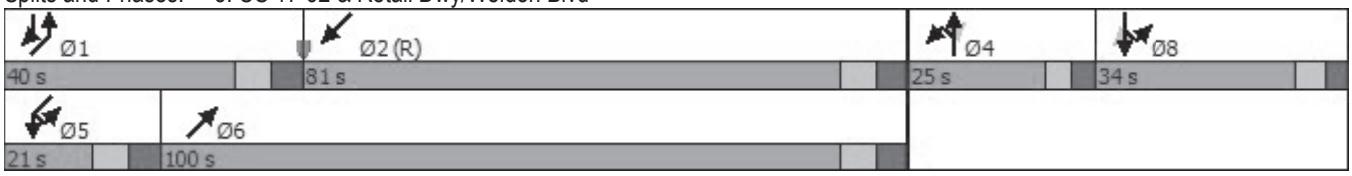
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWU	SWL	SWT
Lane Configurations												
Traffic Volume (vph)	2	0	2	163	0	213	245	1054	7	12	3	1064
Future Volume (vph)	2	0	2	163	0	213	245	1054	7	12	3	1064
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		660	560		0		235	
Storage Lanes	0		1	0		2	2		0		1	
Taper Length (ft)	25			25			25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.76	0.97	0.91	0.91	0.91	1.00	0.91
Frt			0.850			0.850		0.999				0.990
Flt Protected		0.950			0.950		0.950				0.950	
Satd. Flow (prot)	0	1805	1615	0	1787	3474	3400	5027	0	0	1805	4938
Flt Permitted		0.950			0.950		0.950				0.950	
Satd. Flow (perm)	0	1805	1615	0	1787	3474	3400	5027	0	0	1805	4938
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)			191			227		1				7
Link Speed (mph)		35			35			45				45
Link Distance (ft)		226			478			615				2339
Travel Time (s)		4.4			9.3			9.3				35.4
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	1%	0%	6%	3%	3%	17%	0%	0%	4%
Adj. Flow (vph)	2	0	2	173	0	227	261	1121	7	13	3	1132
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2	2	0	173	227	261	1128	0	0	16	1212
Turn Type	Split	NA	Perm	Split	NA	pm+ov	Prot	NA		Prot	Prot	NA
Protected Phases	4	4		8	8	1	1	6		5	5	2
Permitted Phases			4			8						
Detector Phase	4	4	4	8	8	1	1	6		5	5	2
Switch Phase												
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	15.0		6.0	6.0	15.0
Minimum Split (s)	24.6	24.6	24.6	25.2	25.2	15.1	15.1	27.1		15.1	15.1	27.1
Total Split (s)	25.0	25.0	25.0	34.0	34.0	40.0	40.0	100.0		21.0	21.0	81.0
Total Split (%)	13.9%	13.9%	13.9%	18.9%	18.9%	22.2%	22.2%	55.6%		11.7%	11.7%	45.0%
Maximum Green (s)	18.4	18.4	18.4	26.8	26.8	30.9	30.9	90.9		11.9	11.9	71.9
Yellow Time (s)	3.4	3.4	3.4	4.1	4.1	4.8	4.8	4.8		4.8	4.8	4.8
All-Red Time (s)	3.2	3.2	3.2	3.1	3.1	4.3	4.3	4.3		4.3	4.3	4.3
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)		6.6	6.6		7.2	9.1	9.1	9.1			9.1	9.1
Lead/Lag						Lead	Lead	Lag		Lead	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0		3.0	3.0	5.0
Recall Mode	None	None	None	None	None	None	None	Max		None	None	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0			7.0				7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0			11.0				11.0
Pedestrian Calls (#/hr)	0	0	0	0	0			0				0
Act Effct Green (s)		6.1	6.1		22.6	48.9	19.1	128.2			7.3	110.3
Actuated g/C Ratio		0.03	0.03		0.13	0.27	0.11	0.71			0.04	0.61
v/c Ratio		0.03	0.01		0.77	0.20	0.72	0.32			0.22	0.40
Control Delay		85.0	0.0		97.9	4.8	90.3	9.0			90.1	19.8
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0

Lane Group	SWR
Lane Configurations	
Traffic Volume (vph)	75
Future Volume (vph)	75
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	0.91
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.94
Heavy Vehicles (%)	4%
Adj. Flow (vph)	80
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Maximum Green (s)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	
Recall Mode	
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWU	SWL	SWT
Total Delay		85.0	0.0		97.9	4.8	90.3	9.0			90.1	19.8
LOS		F	A		F	A	F	A			F	B
Approach Delay		42.5			45.1			24.3				20.7
Approach LOS		D			D			C				C
Queue Length 50th (ft)		2	0		201	0	163	132			19	248
Queue Length 95th (ft)		13	0		282	27	218	148			48	393
Internal Link Dist (ft)		146			398			535				2259
Turn Bay Length (ft)						660	560				235	
Base Capacity (vph)		184	336		272	1321	583	3580			119	3028
Starvation Cap Reductn		0	0		0	0	0	0			0	0
Spillback Cap Reductn		0	0		0	0	0	0			0	0
Storage Cap Reductn		0	0		0	0	0	0			0	0
Reduced v/c Ratio		0.01	0.01		0.64	0.17	0.45	0.32			0.13	0.40

Intersection Summary			
Area Type:	Other		
Cycle Length: 180			
Actuated Cycle Length: 180			
Offset: 28 (16%), Referenced to phase 2:SWT, Start of Green			
Natural Cycle: 95			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 25.6		Intersection LOS: C	
Intersection Capacity Utilization 66.2%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 5: US 17-92 & Retail Dwy/Weldon Blvd



Lane Group	SWR
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

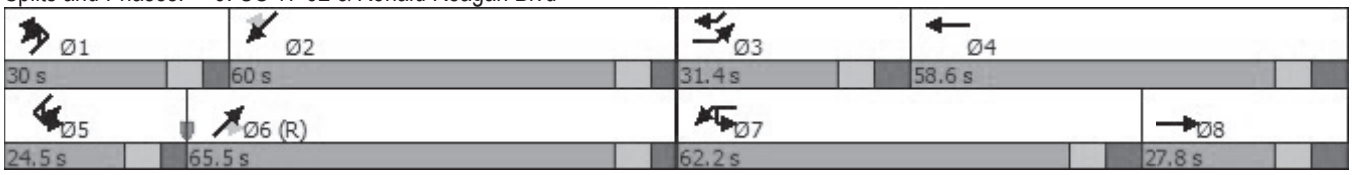
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NEU	NEL	NET	NER	SWU
Lane Configurations												
Traffic Volume (vph)	264	355	13	1	1010	690	48	17	153	1146	458	25
Future Volume (vph)	264	355	13	1	1010	690	48	17	153	1146	458	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	530		0		550		0		225		700	
Storage Lanes	2		0		2		0		1		1	
Taper Length (ft)	25				25				25			
Lane Util. Factor	0.97	0.91	0.91	0.91	0.97	0.91	0.91	0.91	1.00	0.91	1.00	0.91
Frt		0.995				0.990					0.850	
Flt Protected	0.950				0.950				0.950			
Satd. Flow (prot)	3467	4882	0	0	3433	5034	0	0	1719	4988	1538	0
Flt Permitted	0.950				0.950				0.950			
Satd. Flow (perm)	3467	4882	0	0	3433	5034	0	0	1719	4988	1538	0
Right Turn on Red			Yes				Yes				Yes	
Satd. Flow (RTOR)		2				6					515	
Link Speed (mph)		45				45				45		
Link Distance (ft)		527				1569				1219		
Travel Time (s)		8.0				23.8				18.5		
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	1%	5%	25%	2%	2%	2%	2%	5%	5%	4%	5%	2%
Adj. Flow (vph)	297	399	15	1	1135	775	54	19	172	1288	515	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	297	414	0	0	1136	829	0	0	191	1288	515	0
Turn Type	Prot	NA		Prot	Prot	NA		Prot	Prot	NA	Perm	Prot
Protected Phases	3	8		7	7	4		1	1	6		5
Permitted Phases											6	
Detector Phase	3	8		7	7	4		1	1	6	6	5
Switch Phase												
Minimum Initial (s)	6.0	8.0		6.0	6.0	8.0		6.0	6.0	15.0	15.0	6.0
Minimum Split (s)	15.8	27.8		15.8	15.8	27.8		14.4	14.4	26.4	26.4	14.4
Total Split (s)	31.4	27.8		62.2	62.2	58.6		30.0	30.0	65.5	65.5	24.5
Total Split (%)	17.4%	15.4%		34.6%	34.6%	32.6%		16.7%	16.7%	36.4%	36.4%	13.6%
Maximum Green (s)	21.6	18.0		52.4	52.4	48.8		21.6	21.6	57.1	57.1	16.1
Yellow Time (s)	4.8	4.8		4.8	4.8	4.8		4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	5.0	5.0		5.0	5.0	5.0		3.6	3.6	3.6	3.6	3.6
Lost Time Adjust (s)	0.0	0.0			0.0	0.0			0.0	0.0	0.0	
Total Lost Time (s)	9.8	9.8			9.8	9.8			8.4	8.4	8.4	
Lead/Lag	Lead	Lag		Lead	Lead	Lag		Lead	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0	3.0	5.0	5.0	3.0
Recall Mode	None	None		None	None	None		None	None	C-Max	C-Max	None
Walk Time (s)		7.0				7.0				7.0	7.0	
Flash Dont Walk (s)		11.0				11.0				11.0	11.0	
Pedestrian Calls (#/hr)		0				0				0	0	
Act Effct Green (s)	19.6	17.7			52.4	50.5			21.4	58.4	58.4	
Actuated g/C Ratio	0.11	0.10			0.29	0.28			0.12	0.32	0.32	
v/c Ratio	0.79	0.86			1.14	0.59			0.94	0.80	0.61	
Control Delay	82.4	103.0			129.6	57.5			142.3	46.1	7.7	
Queue Delay	0.0	0.0			0.0	0.0			0.0	0.0	0.0	

Lane Group	SWL	SWT	SWR
Lane Configurations			
Traffic Volume (vph)	81	1372	334
Future Volume (vph)	81	1372	334
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	275		490
Storage Lanes	1		1
Taper Length (ft)	25		
Lane Util. Factor	1.00	0.91	1.00
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	1770	4940	1509
Flt Permitted	0.950		
Satd. Flow (perm)	1770	4940	1509
Right Turn on Red			Yes
Satd. Flow (RTOR)			152
Link Speed (mph)		45	
Link Distance (ft)		439	
Travel Time (s)		6.7	
Peak Hour Factor	0.89	0.89	0.89
Heavy Vehicles (%)	2%	5%	7%
Adj. Flow (vph)	91	1542	375
Shared Lane Traffic (%)			
Lane Group Flow (vph)	119	1542	375
Turn Type	Prot	NA	pm+ov
Protected Phases	5	2	3
Permitted Phases			2
Detector Phase	5	2	3
Switch Phase			
Minimum Initial (s)	6.0	15.0	6.0
Minimum Split (s)	14.4	26.4	15.8
Total Split (s)	24.5	60.0	31.4
Total Split (%)	13.6%	33.3%	17.4%
Maximum Green (s)	16.1	51.6	21.6
Yellow Time (s)	4.8	4.8	4.8
All-Red Time (s)	3.6	3.6	5.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	8.4	8.4	9.8
Lead/Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	5.0	3.0
Recall Mode	None	Max	None
Walk Time (s)		7.0	
Flash Dont Walk (s)		11.0	
Pedestrian Calls (#/hr)		0	
Act Effct Green (s)	15.1	52.1	80.1
Actuated g/C Ratio	0.08	0.29	0.44
v/c Ratio	0.80	1.08	0.50
Control Delay	136.8	86.5	7.5
Queue Delay	0.0	0.0	0.0

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NEU	NEL	NET	NER	SWU
Total Delay	82.4	103.0			129.6	57.5			142.3	46.1	7.7	
LOS	F	F			F	E			F	D	A	
Approach Delay		94.4				99.2				45.4		
Approach LOS		F				F				D		
Queue Length 50th (ft)	188	179			~802	310			236	258	0	
Queue Length 95th (ft)	242	#220			#923	358			#394	397	143	
Internal Link Dist (ft)		447				1489				1139		
Turn Bay Length (ft)	530				550				225		700	
Base Capacity (vph)	416	490			999	1416			206	1618	847	
Starvation Cap Reductn	0	0			0	0			0	0	0	
Spillback Cap Reductn	0	0			0	0			0	0	0	
Storage Cap Reductn	0	0			0	0			0	0	0	
Reduced v/c Ratio	0.71	0.84			1.14	0.59			0.93	0.80	0.61	

Intersection Summary			
Area Type:	Other		
Cycle Length: 180			
Actuated Cycle Length: 180			
Offset: 100 (56%), Referenced to phase 6:NET, Start of Green			
Natural Cycle: 145			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.14			
Intersection Signal Delay: 75.3		Intersection LOS: E	
Intersection Capacity Utilization 102.3%		ICU Level of Service G	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 9: US 17-92 & Ronald Reagan Blvd



Lane Group	SWL	SWT	SWR
Total Delay	136.8	86.5	7.5
LOS	F	F	A
Approach Delay		74.9	
Approach LOS		E	
Queue Length 50th (ft)	136	~748	137
Queue Length 95th (ft)	m#226	#812	22
Internal Link Dist (ft)		359	
Turn Bay Length (ft)	275		490
Base Capacity (vph)	158	1431	771
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.75	1.08	0.49

Intersection Summary

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NEU	NEL	NET	NER	SWU
Lane Configurations												
Traffic Volume (vph)	243	388	8	1	411	305	36	10	101	1008	736	4
Future Volume (vph)	243	388	8	1	411	305	36	10	101	1008	736	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	530		0		550		0		225		700	
Storage Lanes	2		0		2		0		1		1	
Taper Length (ft)	25				25				25			
Lane Util. Factor	0.97	0.91	0.91	0.91	0.97	0.91	0.91	0.91	1.00	0.91	1.00	0.91
Frt		0.997				0.984					0.850	
Flt Protected	0.950				0.950				0.950			
Satd. Flow (prot)	3367	4901	0	0	3335	4829	0	0	1736	5036	1509	0
Flt Permitted	0.950				0.950				0.950			
Satd. Flow (perm)	3367	4901	0	0	3335	4829	0	0	1736	5036	1509	0
Right Turn on Red			Yes				Yes				Yes	
Satd. Flow (RTOR)		1				9					521	
Link Speed (mph)		45				45				45		
Link Distance (ft)		605				1569				1219		
Travel Time (s)		9.2				23.8				18.5		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	4%	5%	29%	5%	5%	6%	3%	4%	4%	3%	7%	1%
Adj. Flow (vph)	259	413	9	1	437	324	38	11	107	1072	783	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	259	422	0	0	438	362	0	0	118	1072	783	0
Turn Type	Prot	NA		Prot	Prot	NA		Prot	Prot	NA	Perm	Prot
Protected Phases	3	8		7	7	4		1	1	6		5
Permitted Phases											6	
Detector Phase	3	8		7	7	4		1	1	6	6	5
Switch Phase												
Minimum Initial (s)	6.0	8.0		6.0	6.0	8.0		6.0	6.0	15.0	15.0	6.0
Minimum Split (s)	15.8	27.8		15.8	15.8	27.8		14.4	14.4	26.4	26.4	14.4
Total Split (s)	38.0	34.0		40.0	40.0	36.0		23.0	23.0	87.0	87.0	19.0
Total Split (%)	21.1%	18.9%		22.2%	22.2%	20.0%		12.8%	12.8%	48.3%	48.3%	10.6%
Maximum Green (s)	28.2	24.2		30.2	30.2	26.2		14.6	14.6	78.6	78.6	10.6
Yellow Time (s)	4.8	4.8		4.8	4.8	4.8		4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	5.0	5.0		5.0	5.0	5.0		3.6	3.6	3.6	3.6	3.6
Lost Time Adjust (s)	0.0	0.0			0.0	0.0			0.0	0.0	0.0	
Total Lost Time (s)	9.8	9.8			9.8	9.8			8.4	8.4	8.4	
Lead/Lag	Lead	Lag		Lead	Lead	Lag		Lead	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0	3.0	5.0	5.0	3.0
Recall Mode	None	None		None	None	None		None	None	C-Max	C-Max	None
Walk Time (s)		7.0				7.0				7.0	7.0	
Flash Dont Walk (s)		11.0				11.0				11.0	11.0	
Pedestrian Calls (#/hr)		0				0				0	0	
Act Effct Green (s)	19.1	20.5			27.5	29.0			15.8	83.4	83.4	
Actuated g/C Ratio	0.11	0.11			0.15	0.16			0.09	0.46	0.46	
v/c Ratio	0.73	0.75			0.86	0.46			0.78	0.46	0.80	
Control Delay	111.5	71.6			91.2	68.4			135.4	16.3	16.5	
Queue Delay	0.0	0.0			0.0	0.0			0.0	0.0	1.8	

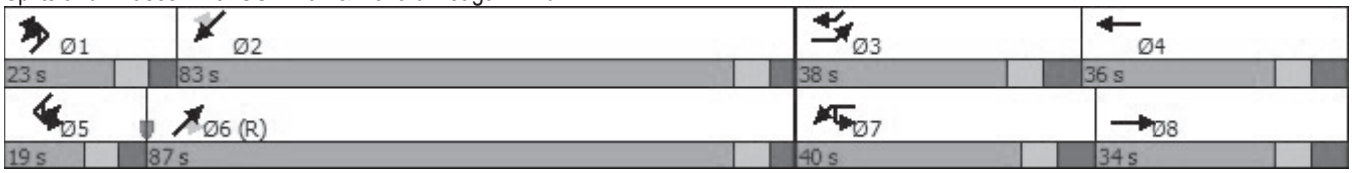
Lane Group	SWL	SWT	SWR
Lane Configurations			
Traffic Volume (vph)	76	1044	264
Future Volume (vph)	76	1044	264
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	275		490
Storage Lanes	1		1
Taper Length (ft)	25		
Lane Util. Factor	1.00	0.91	1.00
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	1787	4988	1553
Flt Permitted	0.950		
Satd. Flow (perm)	1787	4988	1553
Right Turn on Red			Yes
Satd. Flow (RTOR)			97
Link Speed (mph)		45	
Link Distance (ft)		439	
Travel Time (s)		6.7	
Peak Hour Factor	0.94	0.94	0.94
Heavy Vehicles (%)	1%	4%	4%
Adj. Flow (vph)	81	1111	281
Shared Lane Traffic (%)			
Lane Group Flow (vph)	85	1111	281
Turn Type	Prot	NA	pm+ov
Protected Phases	5	2	3
Permitted Phases			2
Detector Phase	5	2	3
Switch Phase			
Minimum Initial (s)	6.0	15.0	6.0
Minimum Split (s)	14.4	26.4	15.8
Total Split (s)	19.0	83.0	38.0
Total Split (%)	10.6%	46.1%	21.1%
Maximum Green (s)	10.6	74.6	28.2
Yellow Time (s)	4.8	4.8	4.8
All-Red Time (s)	3.6	3.6	5.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	8.4	8.4	9.8
Lead/Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	5.0	3.0
Recall Mode	None	Max	None
Walk Time (s)		7.0	
Flash Dont Walk (s)		11.0	
Pedestrian Calls (#/hr)		0	
Act Effct Green (s)	12.1	79.7	107.2
Actuated g/C Ratio	0.07	0.44	0.60
v/c Ratio	0.71	0.50	0.29
Control Delay	138.5	24.2	3.3
Queue Delay	0.0	0.0	0.0

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NEU	NEL	NET	NER	SWU
Total Delay	111.5	71.6			91.2	68.4			135.4	16.3	18.4	
LOS	F	E			F	E			F	B	B	
Approach Delay		86.8				80.9				24.3		
Approach LOS		F				F				C		
Queue Length 50th (ft)	167	179			262	139			144	115	259	
Queue Length 95th (ft)	217	130			326	178			#268	140	381	
Internal Link Dist (ft)		525				1489				1139		
Turn Bay Length (ft)	530				550				225		700	
Base Capacity (vph)	527	659			559	793			156	2332	978	
Starvation Cap Reductn	0	0			0	0			0	0	85	
Spillback Cap Reductn	0	0			0	0			0	0	0	
Storage Cap Reductn	0	0			0	0			0	0	0	
Reduced v/c Ratio	0.49	0.64			0.78	0.46			0.76	0.46	0.88	

Intersection Summary			
Area Type:	Other		
Cycle Length: 180			
Actuated Cycle Length: 180			
Offset: 15 (8%), Referenced to phase 6:NET, Start of Green			
Natural Cycle: 115			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 42.8		Intersection LOS: D	
Intersection Capacity Utilization 100.3%		ICU Level of Service G	
Analysis Period (min) 15			

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

Splits and Phases: 9: US 17-92 & Ronald Reagan Blvd



Lane Group	SWL	SWT	SWR
Total Delay	138.5	24.2	3.3
LOS	F	C	A
Approach Delay		26.8	
Approach LOS		C	
Queue Length 50th (ft)	98	359	121
Queue Length 95th (ft)	#214	153	13
Internal Link Dist (ft)		359	
Turn Bay Length (ft)	275		490
Base Capacity (vph)	122	2209	1038
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.70	0.50	0.27

Intersection Summary

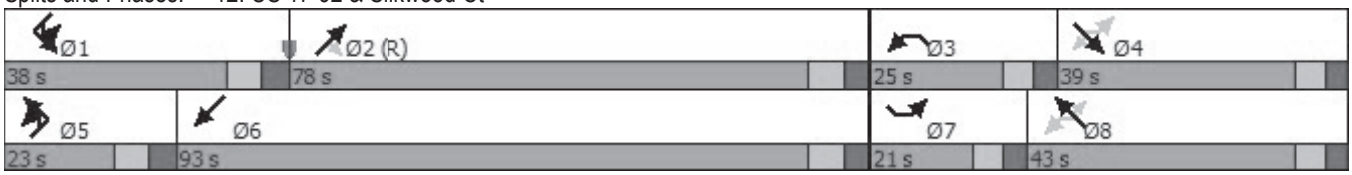
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEU	NEL	NET	NER	SWU	SWL
Lane Configurations												
Traffic Volume (vph)	27	210	126	74	304	584	11	69	1175	65	2	459
Future Volume (vph)	27	210	126	74	304	584	11	69	1175	65	2	459
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	375		295	615		480		390		415		825
Storage Lanes	1		1	1		2		1		1		2
Taper Length (ft)	25			25				25				25
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.88	0.91	1.00	0.91	1.00	0.91	0.97
Frt			0.850			0.850				0.850		
Flt Protected	0.950			0.950				0.950				0.950
Satd. Flow (prot)	1805	3539	1538	1570	3505	2707	0	1787	5036	1404	0	3242
Flt Permitted	0.483			0.375				0.950				0.950
Satd. Flow (perm)	918	3539	1538	620	3505	2707	0	1787	5036	1404	0	3242
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)			179			600				172		
Link Speed (mph)		45			45				45			
Link Distance (ft)		606			1106				2903			
Travel Time (s)		9.2			16.8				44.0			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	2%	5%	15%	3%	5%	1%	1%	3%	15%	8%	8%
Adj. Flow (vph)	29	226	135	80	327	628	12	74	1263	70	2	494
Shared Lane Traffic (%)												
Lane Group Flow (vph)	29	226	135	80	327	628	0	86	1263	70	0	496
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	Prot	NA	Perm	Prot	Prot
Protected Phases	7	4		3	8		5	5	2		1	1
Permitted Phases	4		4	8		8				2		
Detector Phase	7	4	4	3	8	8	5	5	2	2	1	1
Switch Phase												
Minimum Initial (s)	6.0	8.0	8.0	6.0	8.0	8.0	6.0	6.0	15.0	15.0	6.0	6.0
Minimum Split (s)	13.3	25.3	25.3	25.3	25.3	25.3	14.4	14.4	26.4	26.4	14.4	14.4
Total Split (s)	21.0	39.0	39.0	25.0	43.0	43.0	23.0	23.0	78.0	78.0	38.0	38.0
Total Split (%)	11.7%	21.7%	21.7%	13.9%	23.9%	23.9%	12.8%	12.8%	43.3%	43.3%	21.1%	21.1%
Maximum Green (s)	13.7	31.7	31.7	17.7	35.7	35.7	14.6	14.6	69.6	69.6	29.6	29.6
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.6	3.6	3.6	3.6	3.6	3.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0
Total Lost Time (s)	7.3	7.3	7.3	7.3	7.3	7.3		8.4	8.4	8.4		8.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	None	C-Max	C-Max	None	None
Walk Time (s)		7.0	7.0	7.0	7.0	7.0			7.0	7.0		
Flash Dont Walk (s)		11.0	11.0	11.0	11.0	11.0			11.0	11.0		
Pedestrian Calls (#/hr)		0	0	0	0	0			0	0		
Act Effct Green (s)	26.8	18.9	18.9	38.0	26.7	26.7		14.0	83.3	83.3		33.4
Actuated g/C Ratio	0.15	0.10	0.10	0.21	0.15	0.15		0.08	0.46	0.46		0.19
v/c Ratio	0.17	0.61	0.42	0.40	0.63	0.69		0.62	0.54	0.09		0.83
Control Delay	58.7	87.6	9.4	62.1	77.8	10.4		99.0	37.2	0.2		87.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0

Lane Group	SWT	SWR
Lane Configurations		
Traffic Volume (vph)	1939	32
Future Volume (vph)	1939	32
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Lane Util. Factor	0.91	0.91
Frt	0.998	
Flt Protected		
Satd. Flow (prot)	5028	0
Flt Permitted		
Satd. Flow (perm)	5028	0
Right Turn on Red		Yes
Satd. Flow (RTOR)	2	
Link Speed (mph)	45	
Link Distance (ft)	1219	
Travel Time (s)	18.5	
Peak Hour Factor	0.93	0.93
Heavy Vehicles (%)	3%	0%
Adj. Flow (vph)	2085	34
Shared Lane Traffic (%)		
Lane Group Flow (vph)	2119	0
Turn Type	NA	
Protected Phases	6	
Permitted Phases		
Detector Phase	6	
Switch Phase		
Minimum Initial (s)	15.0	
Minimum Split (s)	26.4	
Total Split (s)	93.0	
Total Split (%)	51.7%	
Maximum Green (s)	84.6	
Yellow Time (s)	4.8	
All-Red Time (s)	3.6	
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	8.4	
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	5.0	
Recall Mode	Max	
Walk Time (s)	7.0	
Flash Dont Walk (s)	11.0	
Pedestrian Calls (#/hr)	0	
Act Effct Green (s)	102.7	
Actuated g/C Ratio	0.57	
v/c Ratio	0.74	
Control Delay	31.3	
Queue Delay	0.0	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEU	NEL	NET	NER	SWU	SWL
Total Delay	58.7	87.6	9.4	62.1	77.8	10.4		99.0	37.2	0.2		87.9
LOS	E	F	A	E	E	B		F	D	A		F
Approach Delay		58.4			35.7				39.2			
Approach LOS		E			D				D			
Queue Length 50th (ft)	28	136	7	79	196	16		100	395	0		319
Queue Length 95th (ft)	53	164	23	124	244	81		162	501	0		m331
Internal Link Dist (ft)		526			1026				2823			
Turn Bay Length (ft)	375		295	615		480		390		415		825
Base Capacity (vph)	233	623	418	228	695	1017		156	2331	742		608
Starvation Cap Reductn	0	0	0	0	0	0		0	0	0		0
Spillback Cap Reductn	0	0	0	0	0	0		0	0	0		0
Storage Cap Reductn	0	0	0	0	0	0		0	0	0		0
Reduced v/c Ratio	0.12	0.36	0.32	0.35	0.47	0.62		0.55	0.54	0.09		0.82

Intersection Summary			
Area Type:	Other		
Cycle Length: 180			
Actuated Cycle Length: 180			
Offset: 112 (62%), Referenced to phase 2:NET, Start of Green			
Natural Cycle: 125			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 41.2		Intersection LOS: D	
Intersection Capacity Utilization 87.5%		ICU Level of Service E	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 12: US 17-92 & Silkwood Ct



Lane Group	SWT	SWR
Total Delay	31.3	
LOS	C	
Approach Delay	42.0	
Approach LOS	D	
Queue Length 50th (ft)	412	
Queue Length 95th (ft)	m684	
Internal Link Dist (ft)	1139	
Turn Bay Length (ft)		
Base Capacity (vph)	2870	
Starvation Cap Reductn	0	
Spillback Cap Reductn	0	
Storage Cap Reductn	0	
Reduced v/c Ratio	0.74	

Intersection Summary

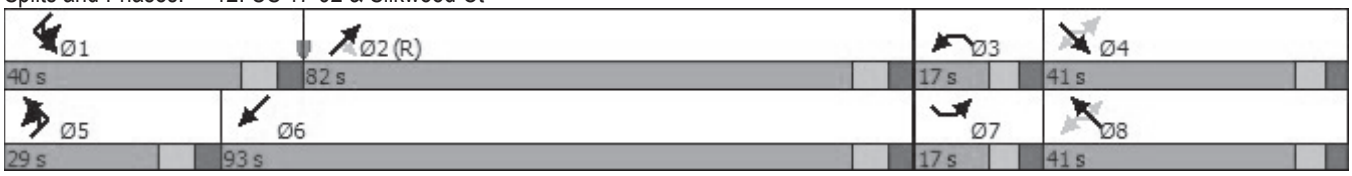
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEU	NEL	NET	NER	SWU	SWL
Lane Configurations												
Traffic Volume (vph)	34	240	140	79	217	477	20	56	1335	50	3	387
Future Volume (vph)	34	240	140	79	217	477	20	56	1335	50	3	387
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	375		295	615		480		390		415		825
Storage Lanes	1		1	1		2		1		1		2
Taper Length (ft)	25			25				25				25
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.88	0.91	1.00	0.91	1.00	0.91	0.97
Frt			0.850			0.850				0.850		
Flt Protected	0.950			0.950				0.950				0.950
Satd. Flow (prot)	1805	3539	1583	1570	3471	2656	0	1736	4988	1482	0	3400
Flt Permitted	0.551			0.375				0.950				0.950
Satd. Flow (perm)	1047	3539	1583	620	3471	2656	0	1736	4988	1482	0	3400
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)			179			518				172		
Link Speed (mph)		45			45				45			
Link Distance (ft)		606			1106				2903			
Travel Time (s)		9.2			16.8				44.0			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	2%	15%	4%	7%	4%	4%	4%	9%	3%	3%
Adj. Flow (vph)	37	261	152	86	236	518	22	61	1451	54	3	421
Shared Lane Traffic (%)												
Lane Group Flow (vph)	37	261	152	86	236	518	0	83	1451	54	0	424
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	Prot	NA	Perm	Prot	Prot
Protected Phases	7	4		3	8		5	5	2		1	1
Permitted Phases	4		4	8		8				2		
Detector Phase	7	4	4	3	8	8	5	5	2	2	1	1
Switch Phase												
Minimum Initial (s)	6.0	8.0	8.0	6.0	8.0	8.0	6.0	6.0	15.0	15.0	6.0	6.0
Minimum Split (s)	13.3	25.3	25.3	25.3	25.3	25.3	14.4	14.4	26.4	26.4	14.4	14.4
Total Split (s)	17.0	41.0	41.0	17.0	41.0	41.0	29.0	29.0	82.0	82.0	40.0	40.0
Total Split (%)	9.4%	22.8%	22.8%	9.4%	22.8%	22.8%	16.1%	16.1%	45.6%	45.6%	22.2%	22.2%
Maximum Green (s)	9.7	33.7	33.7	9.7	33.7	33.7	20.6	20.6	73.6	73.6	31.6	31.6
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.6	3.6	3.6	3.6	3.6	3.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0
Total Lost Time (s)	7.3	7.3	7.3	7.3	7.3	7.3		8.4	8.4	8.4		8.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	None	C-Max	C-Max	None	None
Walk Time (s)		7.0	7.0	7.0	7.0	7.0			7.0	7.0		
Flash Dont Walk (s)		11.0	11.0	11.0	11.0	11.0			11.0	11.0		
Pedestrian Calls (#/hr)		0	0	0	0	0			0	0		
Act Effct Green (s)	27.3	19.0	19.0	30.7	23.0	23.0		13.9	92.5	92.5		27.6
Actuated g/C Ratio	0.15	0.11	0.11	0.17	0.13	0.13		0.08	0.51	0.51		0.15
v/c Ratio	0.19	0.70	0.46	0.55	0.53	0.66		0.62	0.57	0.06		0.81
Control Delay	60.4	88.0	15.7	74.9	78.7	9.3		99.4	32.2	0.1		86.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0

Lane Group	SWT	SWR
Lane Configurations		
Traffic Volume (vph)	1017	14
Future Volume (vph)	1017	14
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Lane Util. Factor	0.91	0.91
Frt	0.998	
Flt Protected		
Satd. Flow (prot)	4887	0
Flt Permitted		
Satd. Flow (perm)	4887	0
Right Turn on Red		Yes
Satd. Flow (RTOR)	1	
Link Speed (mph)	45	
Link Distance (ft)	1219	
Travel Time (s)	18.5	
Peak Hour Factor	0.92	0.92
Heavy Vehicles (%)	6%	0%
Adj. Flow (vph)	1105	15
Shared Lane Traffic (%)		
Lane Group Flow (vph)	1120	0
Turn Type	NA	
Protected Phases	6	
Permitted Phases		
Detector Phase	6	
Switch Phase		
Minimum Initial (s)	15.0	
Minimum Split (s)	26.4	
Total Split (s)	93.0	
Total Split (%)	51.7%	
Maximum Green (s)	84.6	
Yellow Time (s)	4.8	
All-Red Time (s)	3.6	
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	8.4	
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	5.0	
Recall Mode	Max	
Walk Time (s)	7.0	
Flash Dont Walk (s)	11.0	
Pedestrian Calls (#/hr)	0	
Act Effct Green (s)	106.1	
Actuated g/C Ratio	0.59	
v/c Ratio	0.39	
Control Delay	17.8	
Queue Delay	0.0	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEU	NEL	NET	NER	SWU	SWL
Total Delay	60.4	88.0	15.7	74.9	78.7	9.3		99.4	32.2	0.1		86.4
LOS	E	F	B	E	E	A		F	C	A		F
Approach Delay		61.3			35.5				34.6			
Approach LOS		E			D				C			
Queue Length 50th (ft)	36	162	14	88	142	0		97	423	0		273
Queue Length 95th (ft)	69	202	70	140	188	60		157	538	0		334
Internal Link Dist (ft)		526			1026				2823			
Turn Bay Length (ft)	375		295	615		480		390		415		825
Base Capacity (vph)	208	662	441	157	649	918		198	2562	844		604
Starvation Cap Reductn	0	0	0	0	0	0		0	0	0		0
Spillback Cap Reductn	0	0	0	0	0	0		0	0	0		0
Storage Cap Reductn	0	0	0	0	0	0		0	0	0		0
Reduced v/c Ratio	0.18	0.39	0.34	0.55	0.36	0.56		0.42	0.57	0.06		0.70

Intersection Summary			
Area Type:	Other		
Cycle Length: 180			
Actuated Cycle Length: 180			
Offset: 18 (10%), Referenced to phase 2:NET, Start of Green			
Natural Cycle: 115			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 38.2		Intersection LOS: D	
Intersection Capacity Utilization 84.8%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 12: US 17-92 & Silkwood Ct



Lane Group	SWT	SWR
Total Delay	17.8	
LOS	B	
Approach Delay	36.7	
Approach LOS	D	
Queue Length 50th (ft)	187	
Queue Length 95th (ft)	204	
Internal Link Dist (ft)	1139	
Turn Bay Length (ft)		
Base Capacity (vph)	2882	
Starvation Cap Reductn	0	
Spillback Cap Reductn	0	
Storage Cap Reductn	0	
Reduced v/c Ratio	0.39	

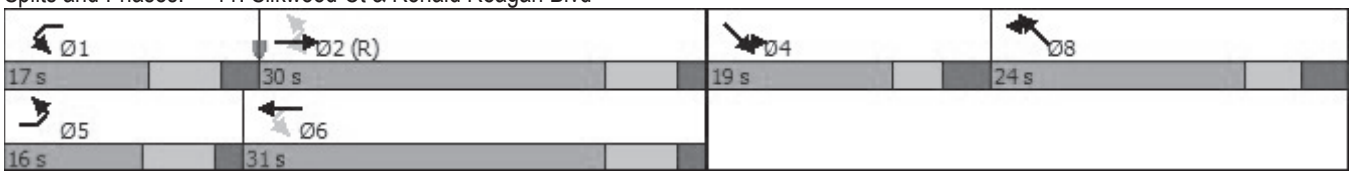
Intersection Summary

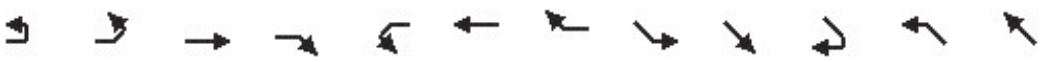
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	0	588	246	125	875	3	3	3	10	382	6	25
Future Volume (vph)	0	588	246	125	875	3	3	3	10	382	6	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	425		130	315		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95	0.95	1.00	1.00	1.00	0.95	0.95	1.00
Frt			0.850					0.913			0.982	
Flt Protected				0.950				0.991		0.950	0.959	
Satd. Flow (prot)	1900	5036	1568	1805	3439	0	0	1719	0	1681	1654	0
Flt Permitted				0.308				0.991		0.950	0.959	
Satd. Flow (perm)	1900	5036	1568	585	3439	0	0	1719	0	1681	1654	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			270					11			7	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1273			971			217			606	
Travel Time (s)		19.3			14.7			3.3			9.2	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	3%	3%	0%	5%	0%	0%	0%	0%	2%	0%	9%
Adj. Flow (vph)	0	646	270	137	962	3	3	3	11	420	7	27
Shared Lane Traffic (%)										46%		
Lane Group Flow (vph)	0	646	270	137	965	0	0	17	0	227	227	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Split	NA		Split	NA	
Protected Phases	5	2		1	6		4	4		8	8	
Permitted Phases	2		2	6								
Detector Phase	5	2	2	1	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	6.0	15.0	15.0	6.0	15.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	12.8	24.8	24.8	13.3	24.8		24.6	24.6		24.9	24.9	
Total Split (s)	16.0	30.0	30.0	17.0	31.0		19.0	19.0		24.0	24.0	
Total Split (%)	17.8%	33.3%	33.3%	18.9%	34.4%		21.1%	21.1%		26.7%	26.7%	
Maximum Green (s)	9.2	23.2	23.2	9.7	24.2		12.4	12.4		17.1	17.1	
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8		3.4	3.4		3.7	3.7	
All-Red Time (s)	2.0	2.0	2.0	2.5	2.0		3.2	3.2		3.2	3.2	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0			0.0		0.0	0.0	
Total Lost Time (s)	6.8	6.8	6.8	7.3	6.8			6.6		6.9	6.9	
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes							
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	Max		None	None		Min	Min	
Walk Time (s)		7.0	7.0		7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		11.0	11.0		11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)		37.6	37.6	52.7	53.2			8.0		17.3	17.3	
Actuated g/C Ratio		0.42	0.42	0.59	0.59			0.09		0.19	0.19	
v/c Ratio		0.31	0.33	0.30	0.47			0.10		0.70	0.70	
Control Delay		20.8	4.9	10.5	10.2			25.7		67.3	66.1	
Queue Delay		0.0	0.0	0.0	0.0			0.0		0.0	0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Total Delay		20.8	4.9	10.5	10.2			25.7		67.3	66.1	
LOS		C	A	B	B			C		E	E	
Approach Delay		16.1			10.3			25.7			66.7	
Approach LOS		B			B			C			E	
Queue Length 50th (ft)		76	0	16	58			3		271	267	
Queue Length 95th (ft)		151	58	m88	m274			23		366	362	
Internal Link Dist (ft)		1193			891			137			526	
Turn Bay Length (ft)			130	315								
Base Capacity (vph)		2106	812	475	2032			246		351	351	
Starvation Cap Reductn		0	0	0	0			0		0	0	
Spillback Cap Reductn		0	0	0	0			0		0	0	
Storage Cap Reductn		0	0	0	0			0		0	0	
Reduced v/c Ratio		0.31	0.33	0.29	0.47			0.07		0.65	0.65	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 41 (46%), Referenced to phase 2:EBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 22.8		Intersection LOS: C	
Intersection Capacity Utilization 64.5%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 11: Silkwood Ct & Ronald Reagan Blvd





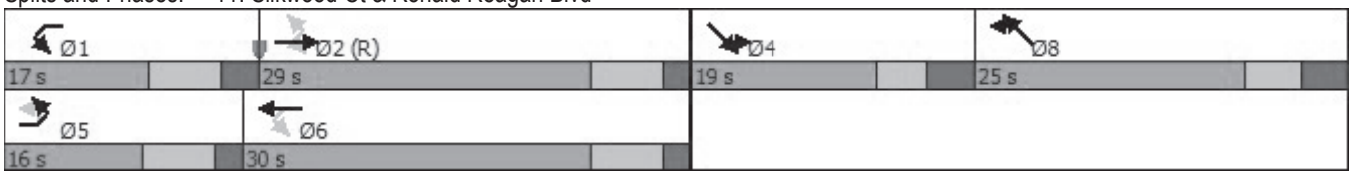
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT
Lane Configurations												
Traffic Volume (vph)	2	6	609	250	162	575	3	1	4	4	263	0
Future Volume (vph)	2	6	609	250	162	575	3	1	4	4	263	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		425		130	315		0	0		0	0	
Storage Lanes		1		0	1		0	0		0	1	
Taper Length (ft)		25			25			25			25	
Lane Util. Factor	0.91	1.00	0.91	1.00	1.00	0.95	0.95	1.00	1.00	1.00	0.95	0.95
Frt				0.850		0.999			0.940			0.976
Flt Protected		0.950			0.950				0.994		0.950	0.960
Satd. Flow (prot)	0	1805	4988	1568	1805	3435	0	0	1775	0	1649	1611
Flt Permitted		0.411			0.312				0.994		0.950	0.960
Satd. Flow (perm)	0	781	4988	1568	593	3435	0	0	1775	0	1649	1611
Right Turn on Red				Yes			Yes			Yes		
Satd. Flow (RTOR)				275					4			208
Link Speed (mph)			45			45			45			45
Link Distance (ft)			1273			909			217			606
Travel Time (s)			19.3			13.8			3.3			9.2
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	4%	3%	0%	5%	0%	0%	0%	0%	4%	0%
Adj. Flow (vph)	2	7	669	275	178	632	3	1	4	4	289	0
Shared Lane Traffic (%)											45%	
Lane Group Flow (vph)	0	9	669	275	178	635	0	0	9	0	159	155
Turn Type	custom	pm+pt	NA	Perm	pm+pt	NA		Split	NA		Split	NA
Protected Phases		5	2		1	6		4	4		8	8
Permitted Phases	5	2		2	6							
Detector Phase	5	5	2	2	1	6		4	4		8	8
Switch Phase												
Minimum Initial (s)	6.0	6.0	15.0	15.0	6.0	15.0		8.0	8.0		8.0	8.0
Minimum Split (s)	12.8	12.8	24.8	24.8	13.3	24.8		24.6	24.6		24.9	24.9
Total Split (s)	16.0	16.0	29.0	29.0	17.0	30.0		19.0	19.0		25.0	25.0
Total Split (%)	17.8%	17.8%	32.2%	32.2%	18.9%	33.3%		21.1%	21.1%		27.8%	27.8%
Maximum Green (s)	9.2	9.2	22.2	22.2	9.7	23.2		12.4	12.4		18.1	18.1
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8		3.4	3.4		3.7	3.7
All-Red Time (s)	2.0	2.0	2.0	2.0	2.5	2.0		3.2	3.2		3.2	3.2
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0			0.0		0.0	0.0
Total Lost Time (s)		6.8	6.8	6.8	7.3	6.8			6.6		6.9	6.9
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	4.0	4.0	3.0	4.0		3.0	3.0		3.0	3.0
Recall Mode	None	None	C-Max	C-Max	None	Max		None	None		Min	Min
Walk Time (s)			7.0	7.0		7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)			11.0	11.0		11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)			0	0		0		0	0		0	0
Act Effct Green (s)		49.2	43.2	43.2	59.0	56.9			8.0		13.9	13.9
Actuated g/C Ratio		0.55	0.48	0.48	0.66	0.63			0.09		0.15	0.15
v/c Ratio		0.02	0.28	0.31	0.35	0.29			0.06		0.63	0.37
Control Delay		10.0	16.9	4.2	14.0	16.1			31.0		56.3	25.1
Queue Delay		0.0	0.0	0.0	0.0	0.0			0.0		0.0	0.0

Lane Group	NWR
Lane Configurations	
Traffic Volume (vph)	23
Future Volume (vph)	23
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.91
Heavy Vehicles (%)	10%
Adj. Flow (vph)	25
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Maximum Green (s)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	
Recall Mode	
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT
Total Delay		10.0	16.9	4.2	14.0	16.1			31.0		56.3	25.1
LOS		A	B	A	B	B			C		E	C
Approach Delay			13.2			15.6			31.0			40.9
Approach LOS			B			B			C			D
Queue Length 50th (ft)		1	73	0	80	160			3		200	144
Queue Length 95th (ft)		11	159	60	m140	285			17		285	208
Internal Link Dist (ft)			1193			829			137			526
Turn Bay Length (ft)		425		130	315							
Base Capacity (vph)		559	2393	895	528	2170			248		335	493
Starvation Cap Reductn		0	0	0	0	0			0		0	0
Spillback Cap Reductn		0	0	0	0	0			0		0	0
Storage Cap Reductn		0	0	0	0	0			0		0	0
Reduced v/c Ratio		0.02	0.28	0.31	0.34	0.29			0.04		0.47	0.31

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 38 (42%), Referenced to phase 2:EBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay: 18.4		Intersection LOS: B	
Intersection Capacity Utilization 53.6%		ICU Level of Service A	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 11: Silkwood Ct & Ronald Reagan Blvd



Lane Group	NWR
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	0	274	0	1474	1536	101
Future Volume (vph)	0	274	0	1474	1536	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	0			170
Storage Lanes	0	2	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	0.88	1.00	0.91	0.86	0.86
Frt		0.850			0.991	
Flt Protected						
Satd. Flow (prot)	0	2842	0	5036	6132	0
Flt Permitted						
Satd. Flow (perm)	0	2842	0	5036	6132	0
Link Speed (mph)	30			45	45	
Link Distance (ft)	395			439	615	
Travel Time (s)	9.0			6.7	9.3	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	0%	3%	6%	0%
Adj. Flow (vph)	0	322	0	1734	1807	119
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	322	0	1734	1926	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 40.2%		ICU Level of Service A	
Analysis Period (min) 15			

HCM 2000 SIGNING SETTINGS	SEL	SER	NEL	NET	SWT	SWR
Lanes and Sharing (#RL)						
Traffic Volume (vph)	0	274	0	1474	1536	101
Future Volume (vph)	0	274	0	1474	1536	101
Sign Control	Stop	—	—	Free	Free	—
Median Width (ft)	0	—	—	28	28	—
TWLTL Median	☐	—	—	☐	☐	—
Right Turn Channelized	—	None	—	None	—	None
Critical Gap, tC (s)	—	6.9	—	—	—	—
Follow Up Time, tF (s)	—	3.3	—	—	—	—
Volume to Capacity Ratio	—	0.20	—	0.34	0.30	0.22
Control Delay (s)	—	10.5	—	0.0	0.0	0.0
Level of Service	—	B	—	A	A	A
Queue Length 95th (ft)	—	18	—	0	0	0
Approach Delay (s)	10.5	—	—	0.0	0.0	—

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	0	143	0	1291	1247	33
Future Volume (vph)	0	143	0	1291	1247	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	0			170
Storage Lanes	0	2	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	0.88	1.00	0.91	0.86	0.86
Frt		0.850			0.996	
Flt Protected						
Satd. Flow (prot)	0	2842	0	5036	6208	0
Flt Permitted						
Satd. Flow (perm)	0	2842	0	5036	6208	0
Link Speed (mph)	30			45	45	
Link Distance (ft)	395			439	615	
Travel Time (s)	9.0			6.7	9.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	3%	5%	0%
Adj. Flow (vph)	0	155	0	1403	1355	36
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	155	0	1403	1391	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 30.3%		ICU Level of Service A	
Analysis Period (min) 15			

HCM 2000 SIGNING SETTINGS	SEL	SER	NEL	NET	SWT	SWR
Lanes and Sharing (#RL)						
Traffic Volume (vph)	0	143	0	1291	1247	33
Future Volume (vph)	0	143	0	1291	1247	33
Sign Control	Stop	—	—	Free	Free	—
Median Width (ft)	0	—	—	28	28	—
TWLTL Median	☐	—	—	☐	☐	—
Right Turn Channelized	—	None	—	None	—	None
Critical Gap, tC (s)	—	6.9	—	—	—	—
Follow Up Time, tF (s)	—	3.3	—	—	—	—
Volume to Capacity Ratio	—	0.08	—	0.28	0.23	0.14
Control Delay (s)	—	9.0	—	0.0	0.0	0.0
Level of Service	—	A	—	A	A	A
Queue Length 95th (ft)	—	6	—	0	0	0
Approach Delay (s)	9.0	—	—	0.0	0.0	—

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↱			↱
Traffic Vol, veh/h	0	624	873	283	0	148
Future Vol, veh/h	0	624	873	283	0	148
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	678	949	308	0	161

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	629
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	425
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	425
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	18.5
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	425
HCM Lane V/C Ratio	-	-	-	0.379
HCM Control Delay (s)	-	-	-	18.5
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	1.7

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	636	529	136	0	219
Future Vol, veh/h	0	636	529	136	0	219
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	691	575	148	0	238

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	362
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	635
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	635
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	635
HCM Lane V/C Ratio	-	-	-	0.375
HCM Control Delay (s)	-	-	-	14
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	1.7

Intersection	
Int Delay, s/veh	21.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	34	2	94	30	0	15	298	114	23	14	129	84
Future Vol, veh/h	34	2	94	30	0	15	298	114	23	14	129	84
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	0	0	0	3	0	0	0	7	0	0	8	0
Mvmt Flow	52	3	145	46	0	23	458	175	35	22	198	129

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1311	1433	164	1254	1480	105	327	0	0	210	0	0
Stage 1	307	307	-	1109	1109	-	-	-	-	-	-	-
Stage 2	1004	1126	-	145	371	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.56	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.56	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.56	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.53	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	119	135	858	127	127	936	1244	-	-	1373	-	-
Stage 1	683	665	-	222	288	-	-	-	-	-	-	-
Stage 2	263	282	-	840	623	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	77	77	858	68	72	936	1244	-	-	1373	-	-
Mov Cap-2 Maneuver	77	77	-	68	72	-	-	-	-	-	-	-
Stage 1	397	652	-	129	167	-	-	-	-	-	-	-
Stage 2	149	164	-	681	611	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	79.8	102.3	6.6	0.5
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1244	-	-	225	98	1373	-	-
HCM Lane V/C Ratio	0.369	-	-	0.889	0.706	0.016	-	-
HCM Control Delay (s)	9.6	0.3	-	79.8	102.3	7.7	0.1	-
HCM Lane LOS	A	A	-	F	F	A	A	-
HCM 95th %tile Q(veh)	1.7	-	-	7.2	3.6	0	-	-

Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	28	5	91	69	9	10	129	109	31	29	114	52
Future Vol, veh/h	28	5	91	69	9	10	129	109	31	29	114	52
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	2	1	11	0	2	8	0	0	8	0
Mvmt Flow	30	5	97	73	10	11	137	116	33	31	121	55

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	548	634	88	532	645	75	176	0	0	149	0	0
Stage 1	211	211	-	407	407	-	-	-	-	-	-	-
Stage 2	337	423	-	125	238	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.94	7.52	6.72	6.9	4.14	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.52	5.72	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.52	5.72	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.32	3.51	4.11	3.3	2.22	-	-	2.2	-	-
Pot Cap-1 Maneuver	424	399	953	433	371	978	1398	-	-	1445	-	-
Stage 1	777	731	-	595	574	-	-	-	-	-	-	-
Stage 2	656	591	-	869	685	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	370	348	953	347	324	978	1398	-	-	1445	-	-
Mov Cap-2 Maneuver	370	348	-	347	324	-	-	-	-	-	-	-
Stage 1	694	713	-	531	513	-	-	-	-	-	-	-
Stage 2	569	528	-	756	669	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.7	17.9	3.8	1.2
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1398	-	-	668	372	1445	-	-
HCM Lane V/C Ratio	0.098	-	-	0.197	0.252	0.021	-	-
HCM Control Delay (s)	7.9	0.1	-	11.7	17.9	7.5	0.1	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.7	1	0.1	-	-

APPENDIX F

Seminole County Public Works Engineering Manual

D. For developments that request more than one two-way driveway, based upon parcel size, projected trip generation of the site, amount of roadway frontage, and other appropriate design considerations, additional driveways may be permitted if all other requirements are met, as approved by the County Engineer.

1.2.8. Corner Clearance

A. Parcels located in the corner of two or more roadways where at least one of the roads is a public facility must locate access drives no closer than 330 feet from the intersection. Access may be provided at 200 feet from the intersection, where approved by the County Engineer. (Detail T-1)

B. If the corner parcel accesses one or more arterial or collector roadways, full access is limited to 660 feet from the intersection on the arterial or collector. A right-in/right-out is permitted at 330 feet from the intersection. (Detail T-1)

Sec. 1.3. Auxiliary Lanes (Right and Left Turn Lanes)

The purpose for the development of marginal access standards is to reduce conflict between driveway entrances and through traffic. One method of reducing conflict is to provide a refuge area where vehicles can leave the through traffic lanes, slow down and accomplish the turn. Auxiliary lanes, as defined below, provide that capability and consequently may be required. The following specifications should be regarded as minimal. Longer lanes may be required based upon the speed of the accessed roadway, the development's projected right and left turn volumes, or construction conflicts with existing drives, streets or roads.

1.3.1. Requirements

A. The length of turn lanes must comply with FDOT standards.

B. On 2-lane roadways a **right turn** lane section is required for developments with a daily trip rate of 3,000 ADT or greater. On 2-lane roadways with posted speeds of 40 mph, or greater, a **right turn** lane may be required as determined by the County Engineer. On 4- and 6-lane roadways, a right turn lane section is required for developments with a daily trip rate of 4,000 ADT and greater. In all cases, an inbound radius of 50 feet at development access is required. See Detail T-16 for design and markings specifications, unless otherwise directed by the County Engineer.

C. A **left turn** lane section is required for any development that accesses a road classified Collector and above or has a posted speed of 35 mph or higher. When a left turn lane falls within 300 feet from an existing left turn lane terminus, then a total 36-foot section is required to eliminate weaving or "hour glass" sections. See Detail T-16 for design and markings specifications, unless otherwise directed by the County Engineer.

Sec. 1.4. Driveway Design

The FDOT Design Standards must be used for all driveway designs, unless otherwise directed by the County. (Detail T-3)

Sec. 1.5. Cross-Access and Joint Use Driveways

1.5.1. During the review of a project or as a condition of approval, an agreement between the property owner and the Board of County Commissioners for a joint-use drive or cross-access easement may be required. The intent is to connect adjacent properties in order to limit the number of access points and to constitute a joint and common means of access to adjacent properties. The

APPENDIX G

Queue Length Analysis Synchro Worksheets

Intersection	
Int Delay, s/veh	2.3

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	274	62	71	30	37	0
Future Vol, veh/h	274	62	71	30	37	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	298	67	77	33	40	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	365	0	519	183
Stage 1	-	-	-	-	332	-
Stage 2	-	-	-	-	187	-
Critical Hdwy	-	-	4.13	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.219	-	3.519	3.319
Pot Cap-1 Maneuver	-	-	1192	-	502	829
Stage 1	-	-	-	-	700	-
Stage 2	-	-	-	-	844	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1192	-	469	829
Mov Cap-2 Maneuver	-	-	-	-	469	-
Stage 1	-	-	-	-	700	-
Stage 2	-	-	-	-	788	-

Approach	SE	NW	NE
HCM Control Delay, s	0	5.8	13.4
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	469	1192	-	-	-
HCM Lane V/C Ratio	0.086	0.065	-	-	-
HCM Control Delay (s)	13.4	8.2	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	0.3	0.2	-	-	-

Intersection	
Int Delay, s/veh	3.3

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	143	5	29	4	55	0
Future Vol, veh/h	143	5	29	4	55	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	155	5	32	4	60	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	160	0	226	80
Stage 1	-	-	-	-	158	-
Stage 2	-	-	-	-	68	-
Critical Hdwy	-	-	4.13	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.219	-	3.519	3.319
Pot Cap-1 Maneuver	-	-	1418	-	752	965
Stage 1	-	-	-	-	855	-
Stage 2	-	-	-	-	954	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1418	-	735	965
Mov Cap-2 Maneuver	-	-	-	-	735	-
Stage 1	-	-	-	-	855	-
Stage 2	-	-	-	-	932	-

Approach	SE	NW	NE
HCM Control Delay, s	0	6.7	10.3
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	735	1418	-	-	-
HCM Lane V/C Ratio	0.081	0.022	-	-	-
HCM Control Delay (s)	10.3	7.6	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	0.3	0.1	-	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	7	0	283	141	0
Future Vol, veh/h	0	7	0	283	141	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	0	308	153	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	153	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	893	0	-	-	0
Stage 1	0	-	0	-	-	0
Stage 2	0	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	893	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	893	-
HCM Lane V/C Ratio	-	0.009	-
HCM Control Delay (s)	-	9.1	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	11	0	136	208	0
Future Vol, veh/h	0	11	0	136	208	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	12	0	148	226	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	226	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	813	0	-	-	0
Stage 1	0	-	0	-	-	0
Stage 2	0	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	813	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	813	-
HCM Lane V/C Ratio	-	0.015	-
HCM Control Delay (s)	-	9.5	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0	-