Wendy's

Coral Creek Shops

Coconut Creek, Florida

TRAFFIC IMPACT STUDY

prepared for:
The Wendy's Company

KBP CONSULTING, INC.

January 2019

Wendy's

Coral Creek Shops

Coconut Creek, Florida

Traffic Study

January 2019

Prepared for:
The Wendy's Company

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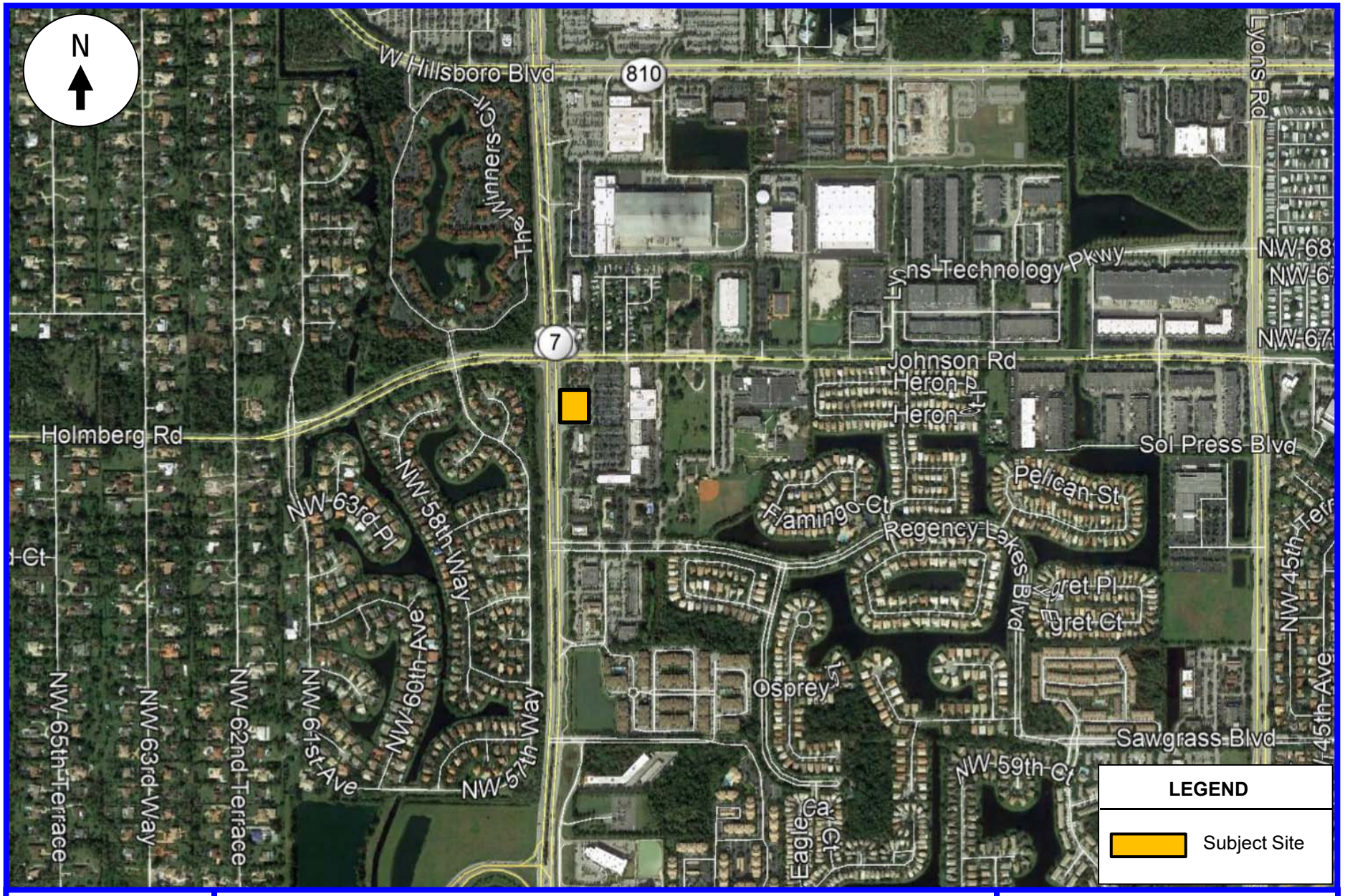
INTRODUCTION

Wendy's proposes to construct a new fast-food restaurant with drive-through window on a currently vacant outparcel within the existing Coral Creek Shops development located at 6530 N. State Road 7 in Coconut Creek, Broward County, Florida. The location of the project site is illustrated in Figure 1 on the following page.

KBP Consulting, Inc. has been retained by The Wendy's Company to prepare a traffic impact study in connection with the development of this project.[1] This study addresses the trip generation and anticipated traffic impacts created by the proposed project on the nearby transportation network. This study is divided into nine (9) sections, as listed below:

1. Inventory
2. Existing Conditions
3. Traffic Counts
4. Trip Generation
5. Trip Distribution and Traffic Assignment
6. Traffic Analyses
7. Drive-Through Lane Analysis
8. Johnson Road / Tradewinds Elementary Operations
9. Summary & Conclusions

[1] A traffic impact study methodology was developed with input and assistance from City of Coconut Creek staff. The agreed upon methodology is included in Appendix A.



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Project Location Map

FIGURE 1
Wendy's
Coconut Creek, Florida

Existing Land Use and Access

As mentioned previously, the subject 0.846 (+/-) acre site is currently vacant. This site is located within the Coral Creek Shops retail plaza. Coral Creek Shops is a shopping center consisting of approximately 109,000 square feet of retail space with direct vehicular access to State Road 7 and Johnson Road. Cross-access is also provided with the commercial property located immediately to the south.

Proposed Land Use and Access

The proposed Wendy's fast-food restaurant will consist of 2,605 square feet of building area and a drive-through lane. Vehicular access to the Wendy's property will be provided via one (1) driveway connection to the existing shopping center parking lot. No additional access to the adjacent street network is proposed as a result of this proposed development. The overall Master Plan for Coral Creek Shops is provided in Appendix B along with the Wendy's Site Plan. The proposed project is anticipated to be built and occupied by the end of 2019.

EXISTING CONDITIONS

This section of the report addresses the transportation system located in the vicinity of the Wendy's project site.

Roadway System

The roadway system located in the immediate vicinity of the project includes State Road 7 / US 441, Johnson Road / Holmberg Road, and Regency Lakes Boulevard. State Road 7 / US 441 is a six-lane divided state-maintained principal arterial roadway (adjacent to the project site) oriented in the north-south direction. Johnson Road / Holmberg Road is a two-lane county-maintained minor arterial roadway (adjacent to the project site) oriented in the east-west direction. Regency Lakes Boulevard is a two-lane divided local roadway.

Study Intersections

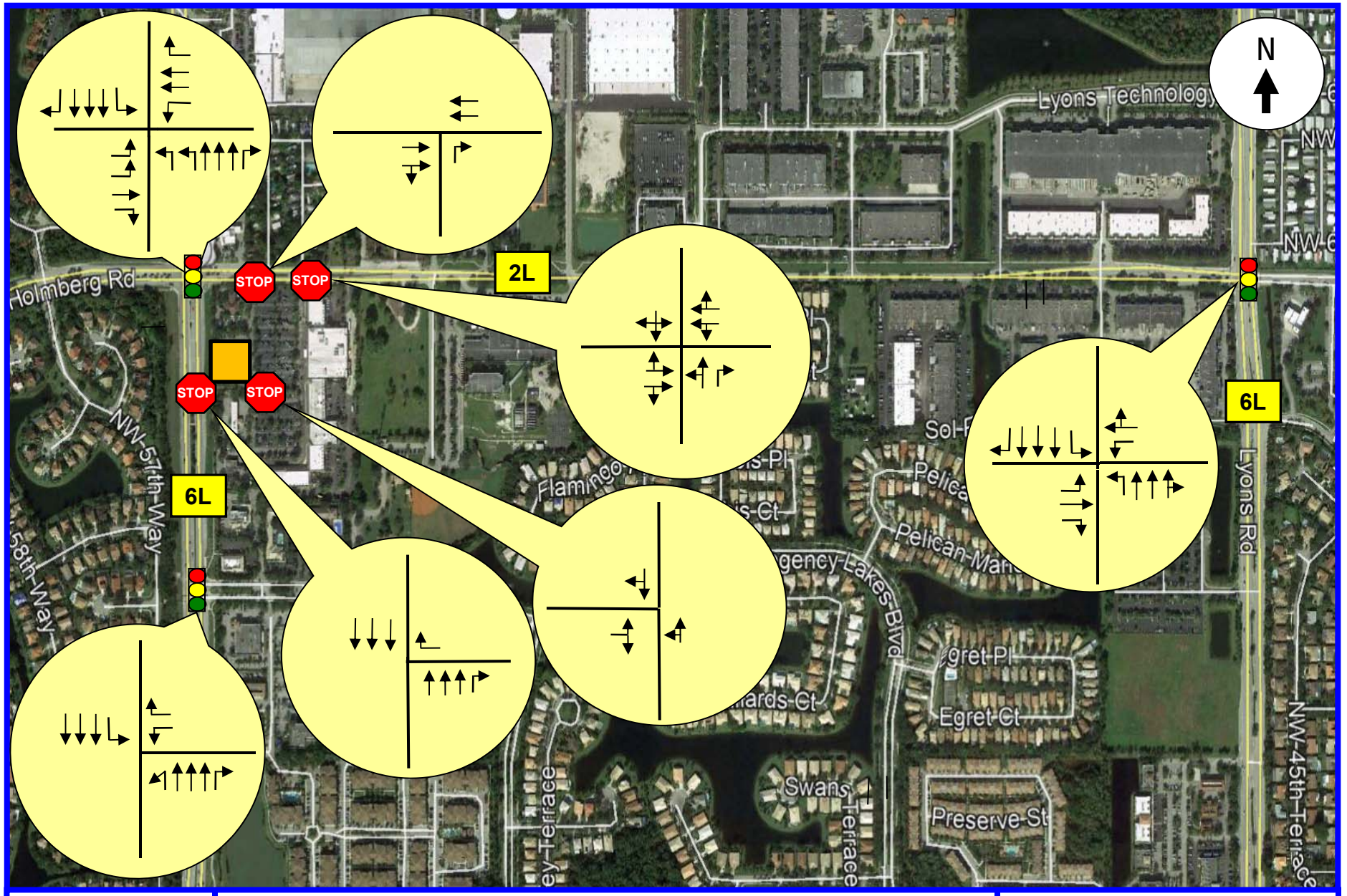
Three (3) intersections were identified as the locations to be evaluated as part of this analysis. These intersections are:

- State Road 7 and Johnson Road / Holmberg Road (signalized)
- State Road 7 and Regency Lakes Boulevard (signalized)
- Lyons Road and Johnson Road (signalized)

In addition, the following unsignalized driveways and internal intersections were identified for evaluation as part of this project:

- Project Driveway and State Road 7 / US 441
- East Project Driveway and Johnson Road
- West Project Driveway and Johnson Road
- Primary Internal Intersection Southeast of Wendy's Site

Figure 2 depicts the existing lane geometry of the seven (7) intersections / driveways selected for analysis purposes.



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Existing Lane Geometry

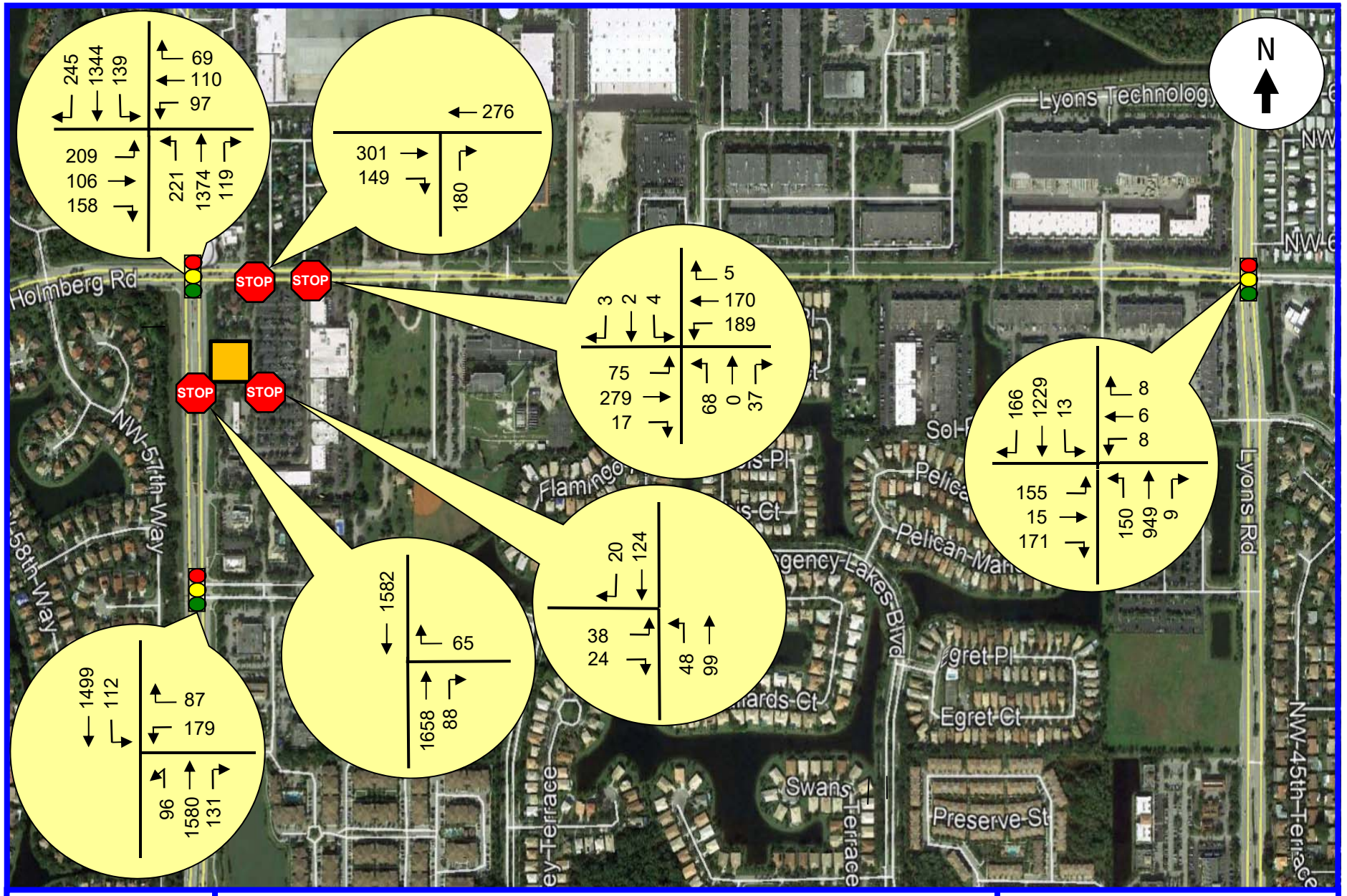
FIGURE 2
Wendy's
Coconut Creek, Florida

TRAFFIC COUNTS

KBP Consulting, Inc., in association with Traffic Survey Specialists, Inc., collected intersection turning movement counts at the following locations:

- State Road 7 and Johnson Road / Holmberg Road
- State Road 7 and Regency Lakes Boulevard
- Lyons Road and Johnson Road
- Project Driveway and State Road 7 / US 441
- East Project Driveway and Johnson Road
- West Project Driveway and Johnson Road
- Primary Internal Intersection Southeast of Wendy's Site

Intersection turning movement counts were collected on Thursday, December 13, 2018 and Tuesday, December 18, 2018 between 11:00 AM and 6:00 PM. Figures 3 and 4 summarize the results of this traffic data collection effort. Appendix C contains the traffic data as collected in the field.



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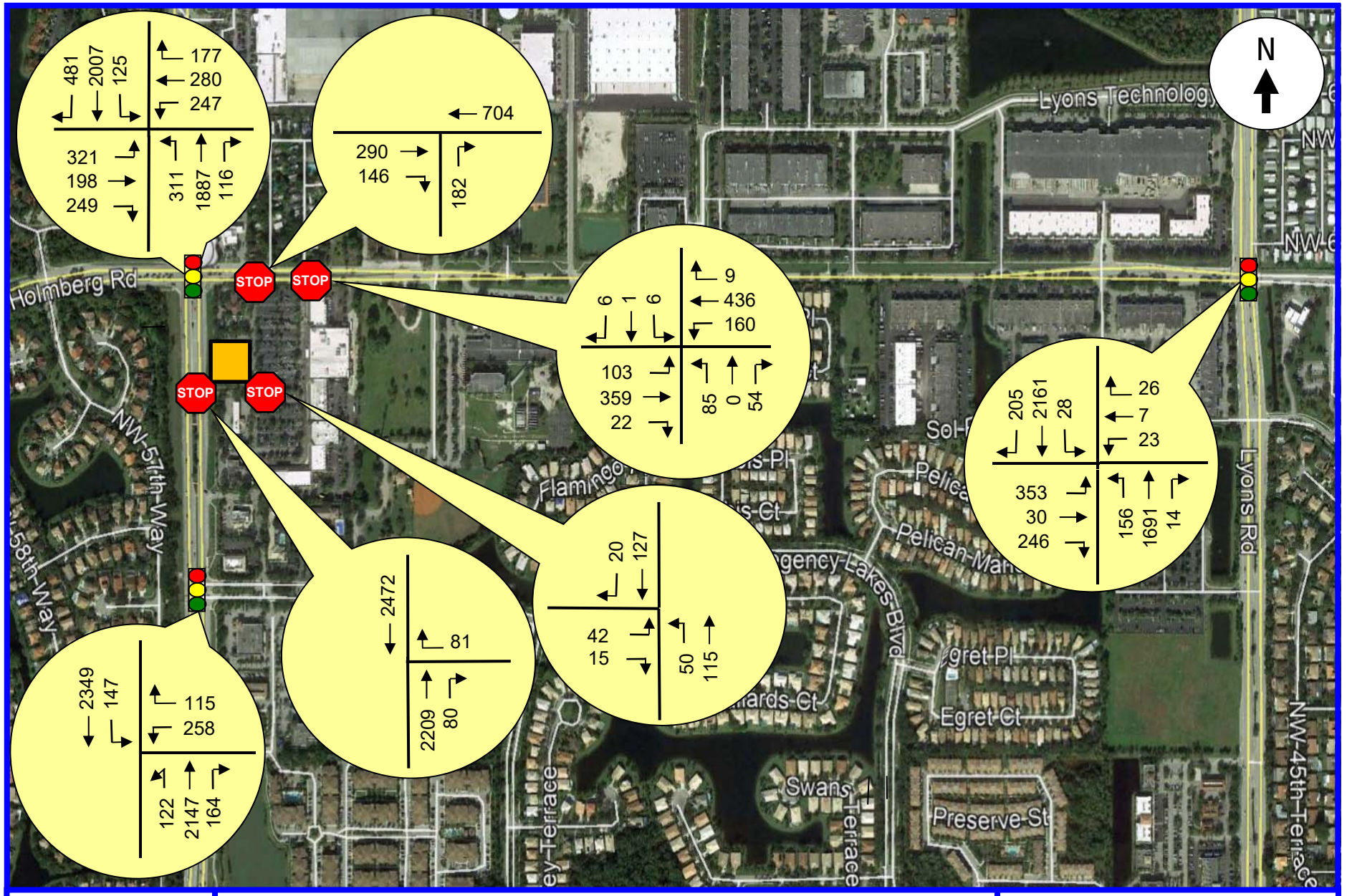
Existing Mid-Day Peak Hour Traffic Counts

Source: Traffic Survey Specialists, Inc. 12/13-18/18

FIGURE 3
Wendy's
Coconut Creek, Florida



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Existing PM Peak Hour Traffic Counts

Source: Traffic Survey Specialists, Inc. 12/13-18/18

FIGURE 4
Wendy's
Coconut Creek, Florida

TRIP GENERATION

A trip generation analysis has been conducted for the proposed Wendy's restaurant. The analysis was performed using the trip generation rates and equations published in the Institute of Transportation Engineer's (ITE) *Trip Generation Manual (10th Edition)*. The trip generation analysis was undertaken for daily, Mid-Day peak hour, and PM peak hour conditions. According to the ITE report, the most appropriate "land use" category (and corresponding trip generation rates / equations) for the proposed development is as follows:

ITE Land Use #934 – Fast-Food Restaurant with Drive-Through Window

- Weekday: T = 470.95 (X)
  where T = number of trips and X = 1,000 square feet of gross floor area
- Mid-Day Peak Hour: T = 51.36 (X) (51% in / 49% out)
- PM Peak Hour: T = 32.67 (X) (52% in / 48% out)
- Pass-By: 49%

Excerpts from the referenced ITE *Trip Generation Manual* are presented in Appendix D. Table 1 below summarizes the vehicle trips expected to be produced by the proposed Wendy's fast-food restaurant.

Table 1
Trip Generation Summary
Wendy's - Coconut Creek, Florida

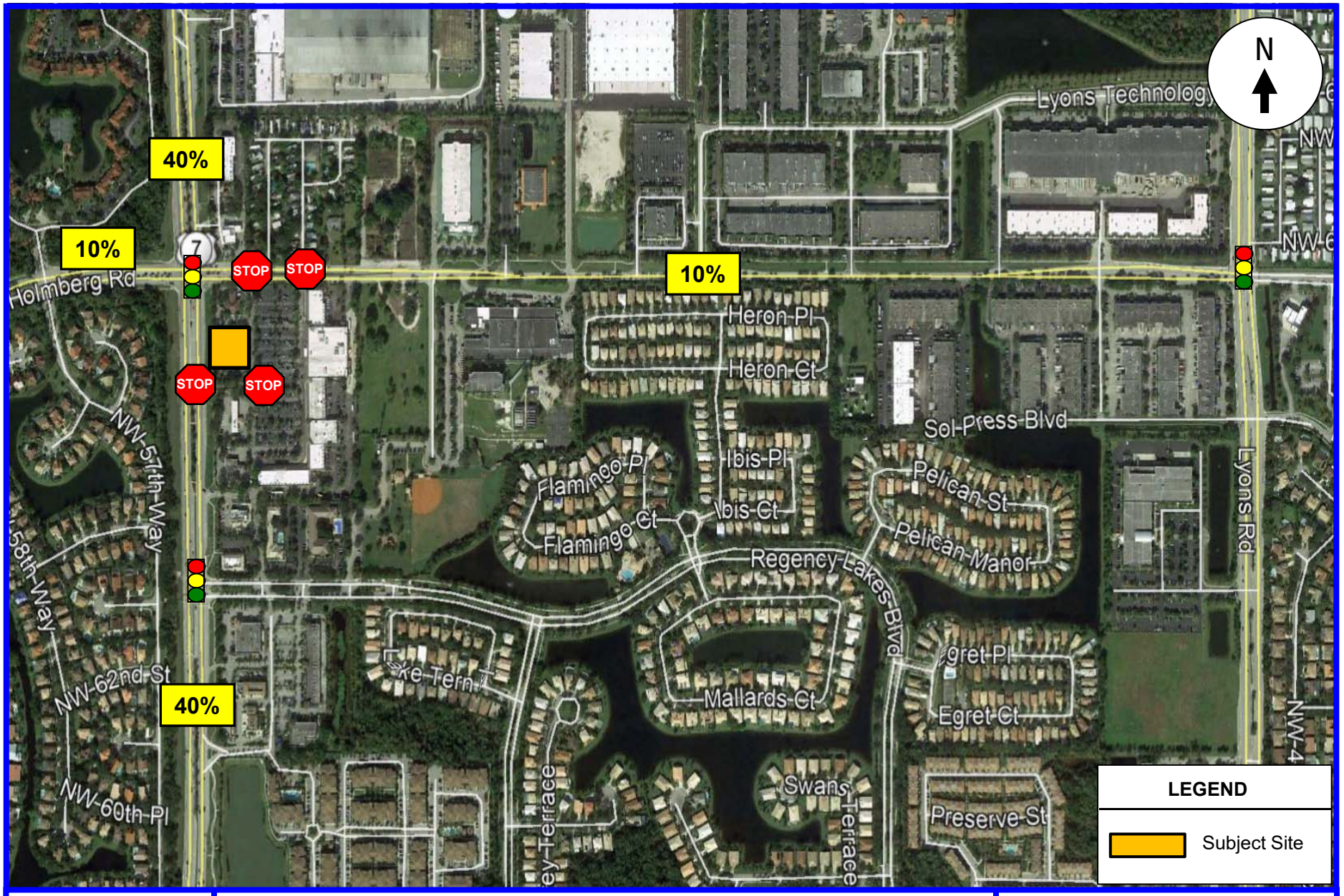
Land Use	Size	Daily Trips	Mid-Day Peak Hour Trips			PM Peak Hour Trips		
			In	Out	Total	In	Out	Total
Proposed								
Fast Food Restaurant w/Drive-Through	2,605 SF	1,227	68	66	134	44	41	85
- Pass-By (49%)		*(601)*	*(33)*	*(33)*	*(66)*	*(22)*	*(20)*	*(42)*
Total		**626**	**35**	**33**	**68**	**22**	**21**	**43**

Compiled by: KBP Consulting, Inc. (January 2019).
Source: Institute of Transportation Engineers (ITE) Trip Generation (10th Edition).

As indicated above, the net new external vehicle trips anticipated to be generated by the proposed Wendy's consists of approximately 626 vehicle trips during a typical weekday, 68 vehicle trips during the Mid-Day peak hour (35 inbound and 33 outbound), and 43 vehicle trips during the PM peak hour (22 inbound and 21 outbound).

TRIP DISTRIBUTION AND TRAFFIC ASSIGNMENT

The trip distribution and traffic assignment for the proposed Wendy's restaurant was developed based upon knowledge of the study area, examination of surrounding roadway network characteristics, review of current traffic volumes, and existing land use patterns. Figure 5 on the following page depicts the anticipated trip distribution for this project. The peak hour traffic generated by the project has been assigned to the nearby transportation network using the trip distribution documented in Figure 5. The project traffic assignment is summarized in Figures 6 and 7.



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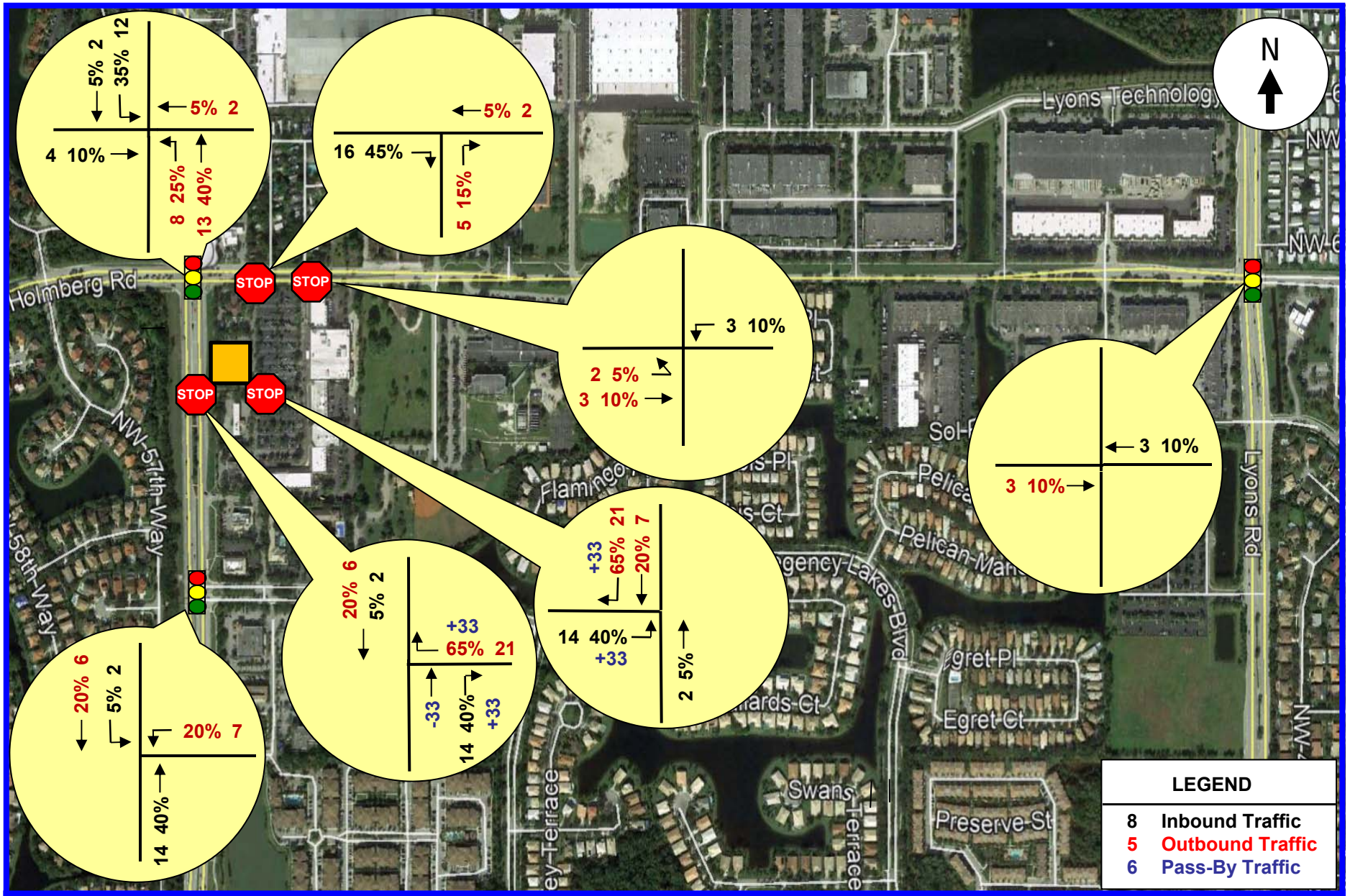
Trip Distribution

FIGURE 5
Wendy's
Coconut Creek, Florida



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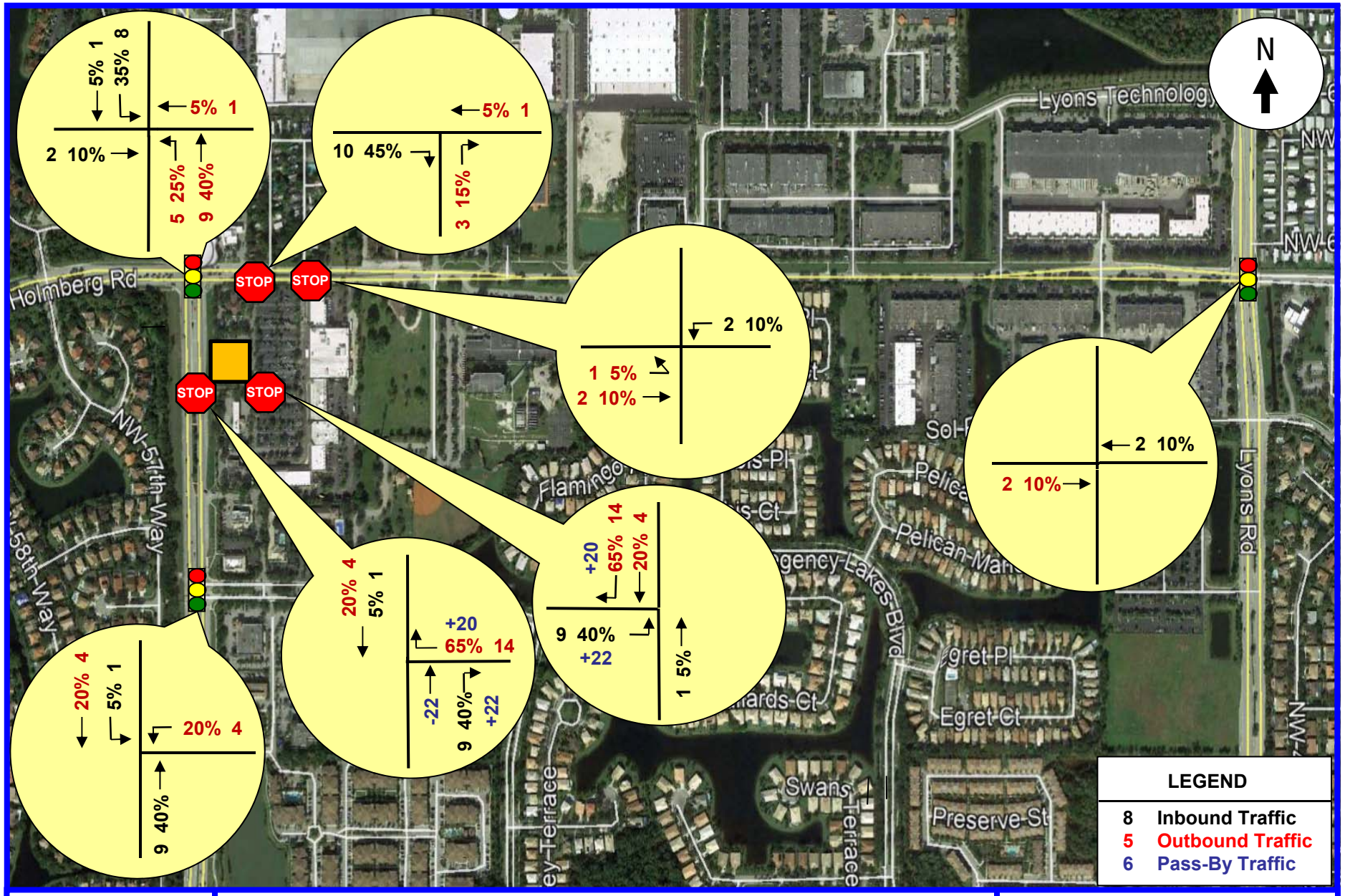
New Project Traffic Assignment
Mid-Day Peak Hour

FIGURE 6
Wendy's
Coconut Creek, Florida



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New Project Traffic Assignment
PM Peak Hour

FIGURE 7
Wendy's
Coconut Creek, Florida

TRAFFIC ANALYSES

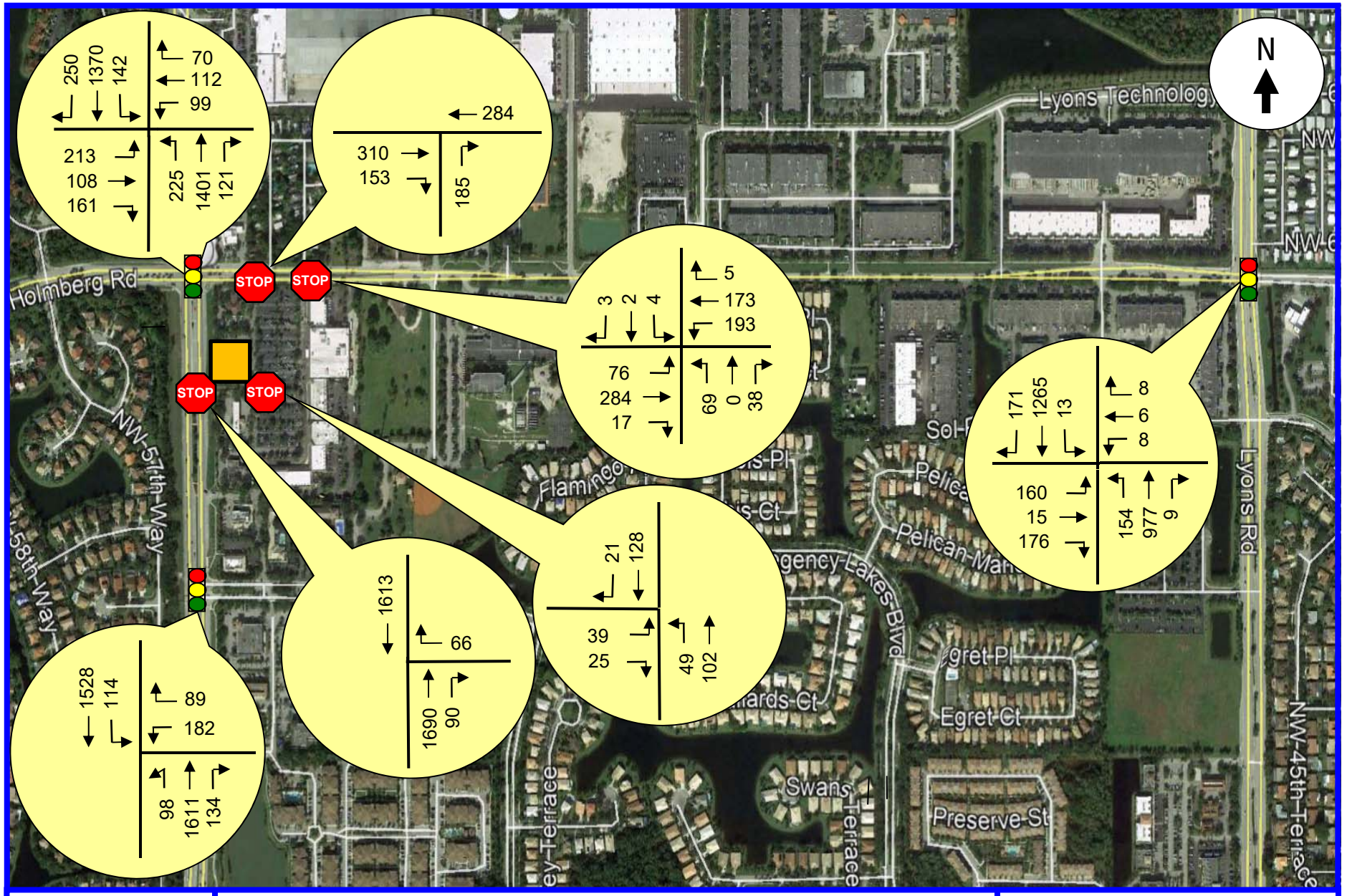
This section of the study is divided into two (2) parts. The first part involves the development of future (2019) traffic volumes for the study area. The second part includes level-of-service analyses for existing and future conditions.

Future Conditions Traffic Volumes

Future, build-out year (2019) traffic volumes were developed for the project study area in the following manner:

- **Average Peak Season Conversion Factor:** Traffic data collected on Thursday, December 13, 2018 and Tuesday, December 18, 2018 was reviewed with respect to average peak season conditions. Based on FDOT's Peak Season Factor Category report (reference Appendix E), the adjustment factor for data collected during this time period is 0.99 for counts collected on December 13th and 1.00 for counts collected on December 18th.
- **Historic Growth:** The Florida Department of Transportation (FDOT) maintains three (3) traffic count stations (#860005, #867115, and #869527) in the immediate vicinity of the project. The Annual Average Daily Traffic Volumes for these count stations for the past five (5) years exhibit moderate growth. For purposes of this analysis, an annual growth rate of 2.96% has been applied. (The data from FDOT and the growth rate analysis are included as Appendix F.)

Future traffic calculations (peak season adjustments, background traffic growth, and traffic associated with the proposed Wendy's restaurant) for the study intersections and driveways are contained in Appendix G in tabular format. Figures 8 and 9 include future background traffic only (without the proposed project) and Figures 10 and 11 include the additional traffic anticipated to be generated by the proposed Wendy's restaurant.



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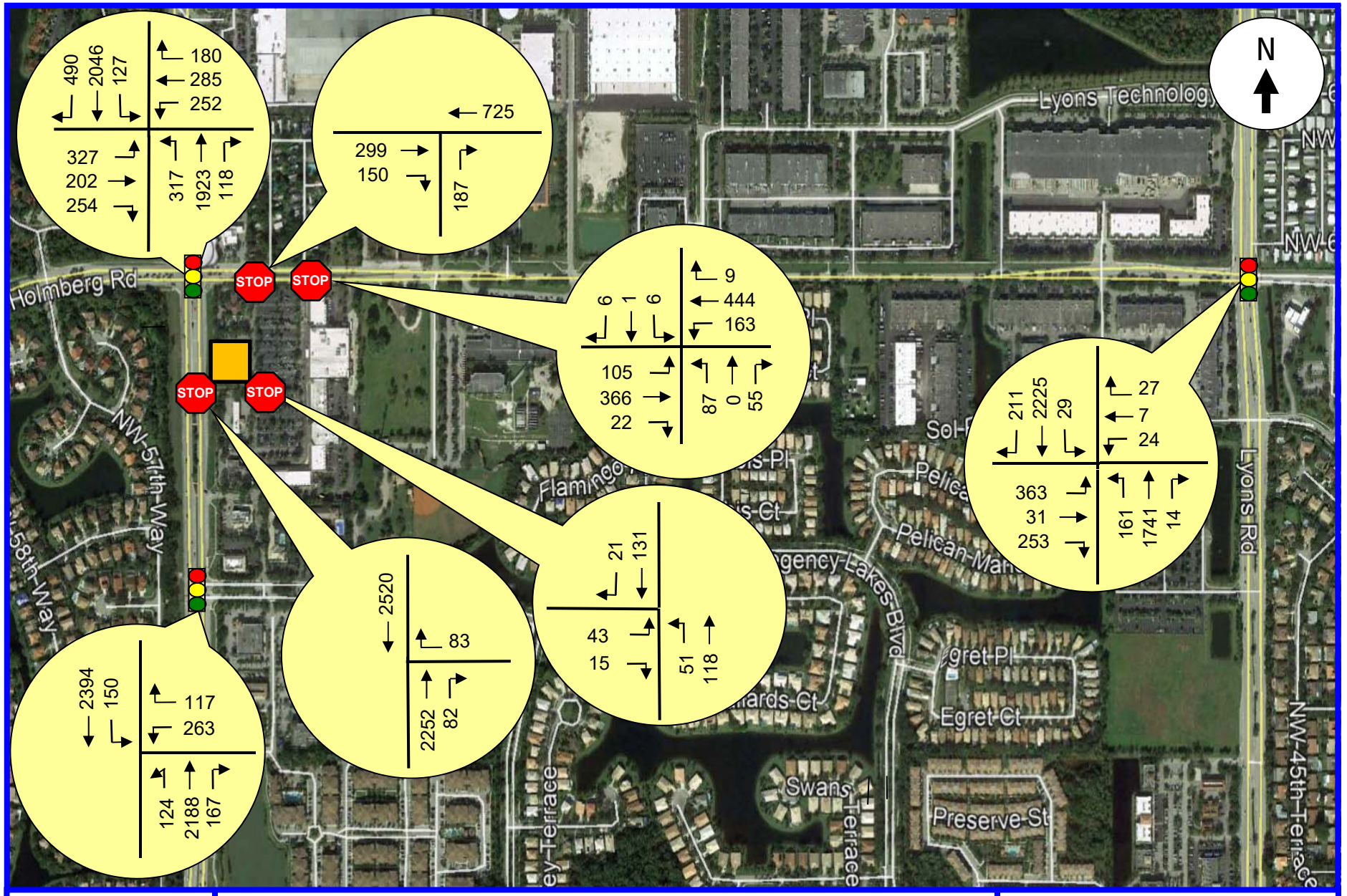
Future (2019) Background (w/out Project) Mid-Day Peak Hour Traffic Volumes

FIGURE 8
Wendy's
Coconut Creek, Florida



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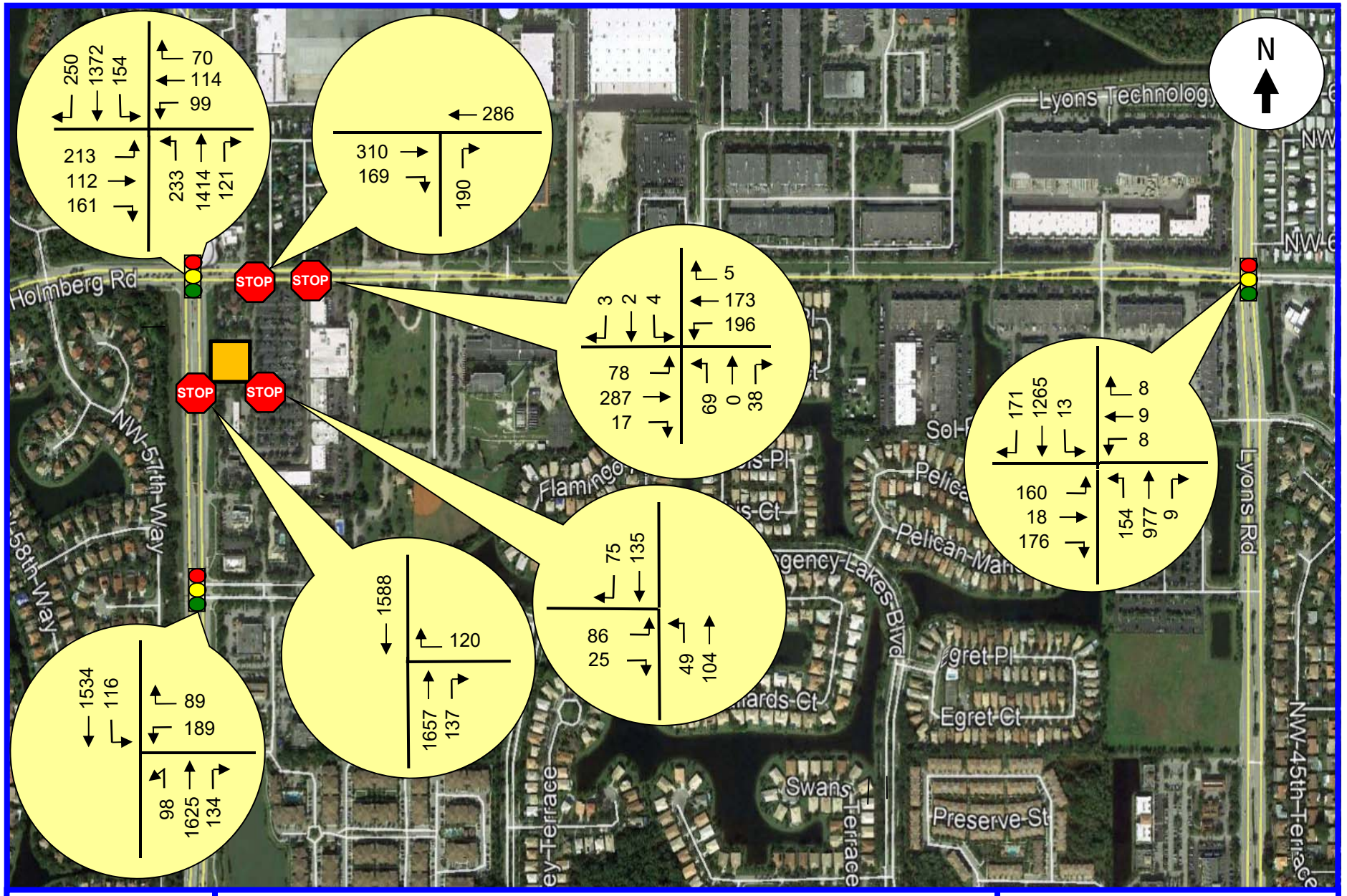
Future (2019) Background (w/out Project)
PM Peak Hour Traffic Volumes

FIGURE 9
Wendy's
Coconut Creek, Florida



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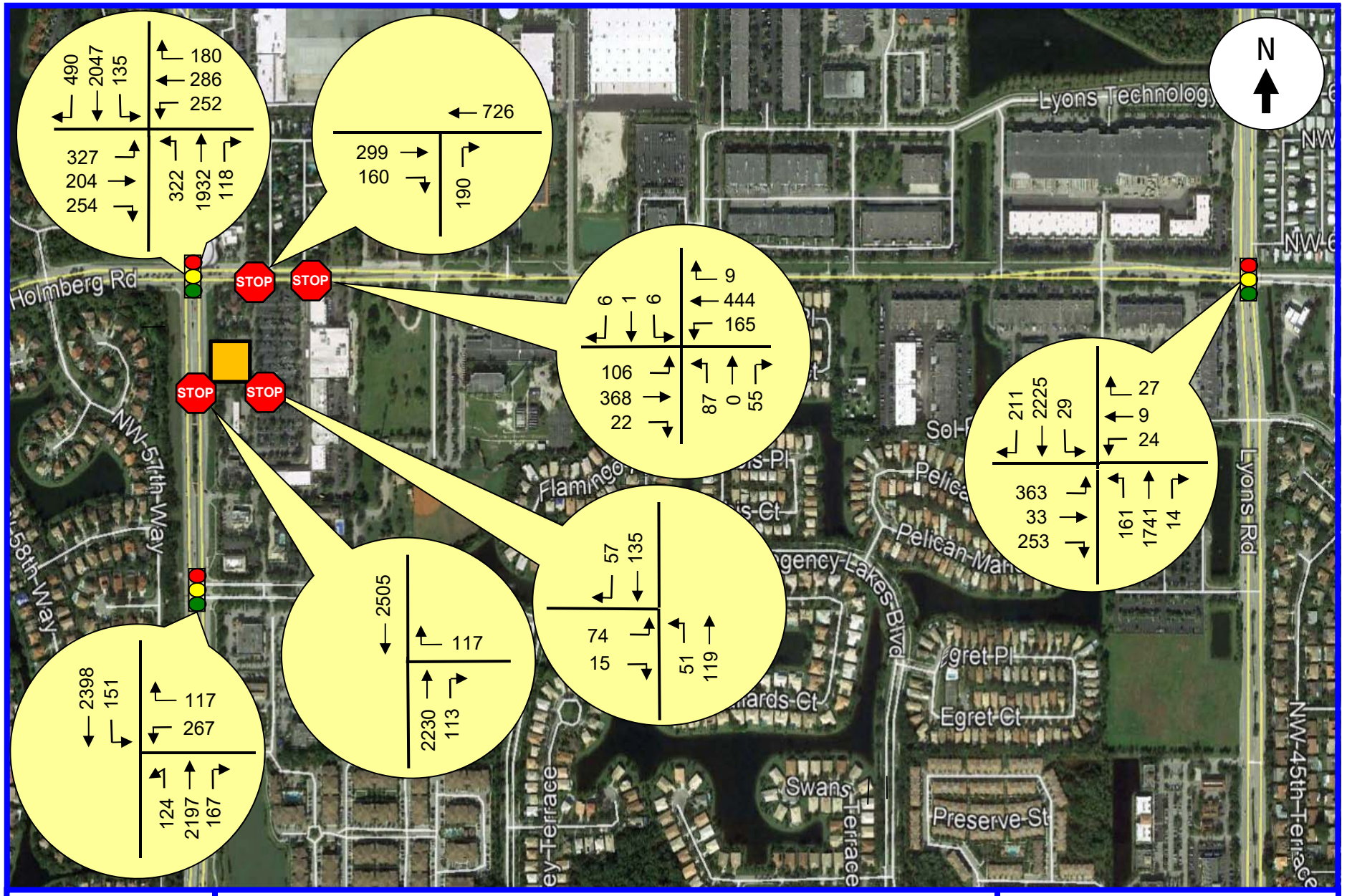
Future (2019) Total (w/ Project)
Mid-Day Peak Hour Traffic Volumes

FIGURE 10
Wendy's
Coconut Creek, Florida



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Future (2019) Total (w/ Project)
PM Peak Hour Traffic Volumes

FIGURE 11
Wendy's
Coconut Creek, Florida

Level of Service (LOS) Analyses

Intersection capacity / level of service (LOS) analyses were conducted for the seven (7) study intersections and project driveways. These analyses were undertaken following the capacity / level of service procedures outlined in the Highway Capacity Manual (HCM) using the SYNCHRO software for the signalized and unsignalized intersections. The results of these capacity analyses are summarized in Table 2 below.

Table 2
Intersection Levels of Service
Wendy's - Coconut Creek, Florida

Intersection	Existing (2018) Conditions		Future (2019) Conditions Without Project Traffic		Future (2019) Conditions With Project Traffic	
	Mid-Day Peak Hour	PM Peak Hour	Mid-Day Peak Hour	PM Peak Hour	Mid-Day Peak Hour	PM Peak Hour
SR 7 & Johnson / Holmberg Rd **	D (41.3)	D (53.1)	D (42.2)	E (55.4)	D (43.6)	E (55.9)
Optimized Signal Timing	--	--	--	--	*D (35.6)*	*D (54.8)*
SR 7 & Regency Lakes Blvd **	B (10.3)	B (17.4)	B (10.6)	B (19.1)	B (10.9)	B (19.5)
Lyons Rd & Johnson Rd **	B (12.1)	C (33.5)	B (12.4)	D (38.7)	B (12.5)	D (38.9)
SR 7 & Project Driveway *	B (14.0)	C (18.4)	B (14.4)	C (19.2)	C (15.7)	C (21.1)
Johnson Road & East Project Driveway *	C (20.3)	D (27.8)	C (21.3)	D (30.8)	C (21.9)	D (31.5)
Johnson Road & West Project Driveway *	B (11.4)	B (11.2)	B (11.6)	B (11.3)	B (11.8)	B (11.4)
Primary Internal Intersection *	B (11.7)	B (11.7)	B (11.8)	B (11.8)	B (14.9)	B (13.4)

Source: Highway Capacity Manual and SYNCHRO.
Legend: C (21.4) = LOS (Average Delay in Seconds / Vehicle)
* At stop-control intersections, the LOS on the critical side street is documented in this table.
** At signalized intersections, the LOS for the intersection as a whole is documented in this table.

As indicated in Table 2 above, with the exception of the intersection at State Road 7 and Holmberg Road / Johnson Road, each of the study intersections and driveways are currently operating at LOS "D" or better during both Mid-Day and PM peak hours and will continue to do so in the year 2019 with traffic from the proposed Wendy's restaurant.

For the intersection of State Road 7 and Holmberg Road / Johnson Road (the future year (2019) conditions without traffic from the proposed development), the Mid-Day and PM peak hour levels of service (LOS) are shown to be "D" and "E", respectively. For year 2019 (with project traffic), the additional vehicle delay attributable to the proposed development is 1.4 seconds per vehicle in the Mid-Day peak hour and 0.5 seconds per vehicle in the PM peak hour.

An additional analysis of this intersection was performed to incorporate optimized signal timings (i.e. by holding the cycle length constant and adjusting the signal timing splits). This information, which is also presented in Table 2, indicates that these adjustments in the signal timing will reduce the overall intersection delay below that which is projected without the project traffic in 2019 during the Mid-Day and PM peak hours.

Additionally, this is a major intersection along a major Broward County thoroughfare and; therefore, the deficiencies of this major intersection have been addressed by Broward County's Transit Oriented Concurrency system through the platting process for this site. The signal timing data from the Broward County Traffic Engineering Division is presented in Appendix H and the SYNCHRO printouts of the intersection capacity analyses are contained in Appendix I.

DRIVE-THROUGH LANE / QUEUING EVALUATION

The proposed site plan contains a drive-through lane with a storage capacity of approximately 200 feet up to and including the service position plus approximately 40 feet after the service position. According to the Institute of Transportation Engineers' (ITE) publication *Transportation and Land Development, 2nd Edition* (by Virgil G. Stover and Frank J. Koepke), drive-through lane queue lengths for fast food restaurants with a primary food type of "hamburgers" exhibit a maximum queue length between four (4) and thirteen (13) vehicles and an average queue length of seven (7) vehicles (see Table 11-9, page 11-18 and presented herein as Appendix J).

According to the Broward County Land Development Code, Sec.39-228 (f), fast food restaurants are required to provide a minimum of six (6) stacking spaces for inbound vehicles and one (1) stacking space for outbound vehicles. Similarly, the City of Coconut Creek's Code of Ordinances, Sec. 13-401, requires that drive-up facilities for restaurants provide six (6) 18-foot long stacking spaces.

With a recommended front bumper-to-front bumper distance of 22 feet (per ITE), the drive-through lane at the proposed fast-food restaurant has a vehicular capacity of eight (8) vehicles. As such, the subject drive-through lane is anticipated to have adequate capacity to meet the projected vehicular demand and is consistent with both Broward County Land Development Code and the City of Coconut Creek Code of Ordinances.

JOHNSON ROAD / TRADEWINDS ELEMENTARY OPERATIONS

Tradewinds Elementary School is located on the south side of Johnson Road immediately to the east of the Coral Creek Shops shopping center. In order to assess the likely impacts of the additional traffic to be generated by the proposed Wendy's restaurant, field observations were conducted on the afternoon of Thursday, January 24, 2019. Between 1:30 PM and 2:00 PM, many parents / guardians were observed driving to / parking on / and walking to the Tradewinds Elementary School campus. Most of those that walked to the campus were observed parking within a vacant lot between Coral Creek Shops and the school as well as within the Coral Creek Shops itself. During this 30-minute period, traffic delays were minimal and there was no congestion.

Students at the school were dismissed at 2:00 PM and pedestrians and vehicles began to depart at 2:02 PM. Many pedestrians were observed crossing to the north side of Johnson Road at the designated crosswalk with the assistance of a crossing guard. The volume of both pedestrians and vehicles resulted in moderate congestion between 2:02 PM and 2:13 PM. The queues on the eastbound approach (closest to the Coral Creek Shops) extended approximately 400 feet from the primary school driveway to the west but, this queue never blocked the driveways that serve the Coral Creek Shops shopping center.

Based upon hourly trip generation data for fast-food restaurants published by the Institute of Transportation Engineers (ITE), the proposed Wendy's restaurant would be expected to generate approximately 23 inbound and 25 outbound vehicles on weekdays between 2:00 PM and 3:00 PM. In accordance with the anticipated trip distribution patterns for this use, two (2) inbound vehicles (from the east) and three (3) outbound vehicles (from the west) are expected to impact the Tradewinds Elementary School Zone along Johnson Road on school days between 2:00 PM and 3:00 PM. When considering that these five (5) vehicles will be distributed throughout the hour (i.e. between 2:00 PM to 3:00 PM), the actual impact during the school's 11-minute peak period will be negligible.

SUMMARY & CONCLUSIONS

Wendy's proposes to construct a new fast-food restaurant with drive-through window on a currently vacant outparcel within the existing Coral Creek Shops development located at 6530 N. State Road 7 in Coconut Creek, Broward County, Florida. The proposed project is anticipated to be built and occupied by late 2019.

Vehicular access to the Wendy's property will be provided via one (1) driveway connection to the existing shopping center parking lot. No additional access to the adjacent street network is proposed as a result of this proposed addition.

The trip generation analysis indicates that the net new external vehicle trips anticipated to be produced by the proposed development consists of approximately 626 vehicle trips during a typical weekday, 68 vehicle trips during the Mid-Day peak hour (35 inbound and 33 outbound), and 43 vehicle trips during the PM peak hour (22 inbound and 21 outbound).

Intersection capacity / level of service (LOS) analyses were conducted for the seven (7) study intersections and project driveways. With the exception of the intersection at State Road 7 and Holmberg Road / Johnson Road, each of the study intersections and driveways are currently operating at LOS "D" or better during both Mid-Day and PM peak hours and will continue to do so in the year 2019 with traffic from the proposed Wendy's restaurant.

For the intersection of State Road 7 and Holmberg Road / Johnson Road (the future year (2019) conditions without traffic from the proposed development), the Mid-Day and PM peak hour levels of service (LOS) are shown to be "D" and "E", respectively. For year 2019 (with project traffic), the additional vehicle delay attributable to the proposed development is 1.4 seconds per vehicle in the Mid-Day peak hour and 0.5 seconds per vehicle in the PM peak hour.

An additional analysis of this intersection was performed to incorporate optimized signal timings (i.e. by holding the cycle length constant and adjusting the signal timing splits). This analysis indicates that these adjustments in the signal timing will reduce the overall intersection delay below that which is projected without the project traffic in 2019 during the Mid-Day and PM peak hours.

Additionally, this is a major intersection along a major Broward County thoroughfare and; therefore, the deficiencies of this major intersection have been addressed by Broward County's Transit Oriented Concurrency system through the platting process for this site.

Furthermore, an analysis of the proposed drive-through lane indicates that adequate vehicle storage capacity will be provided and, based upon field observations and additional trip generation analyses, the additional traffic impacts during the afternoon dismissal time for the Tradewinds Elementary School is anticipated to be minimal.

APPENDIX A

Traffic Impact Study Methodology

KBP CONSULTING, INC.

MEMORANDUM

To: Craig McDonald
Corporate Property Services

From: Karl Peterson, P.E.

Date: November 12, 2018

Subject: Wendy's – Coral Creek Shops
Traffic Study Methodology

Wendy's proposes to construct a new restaurant with drive-through window on a currently vacant portion of the existing Coral Creek Shops development located at 6530 N. State Road 7 in Coconut Creek, Broward County, Florida. The proposed Wendy's restaurant will consist of 2,605 square feet of building area and a drive-through lane. Vehicular access to the Wendy's property will be provided via one (1) driveway connection to the existing shopping center parking lot. No additional access to the adjacent street network is proposed as a result of this proposed addition. The overall Master Plan for Coral Creek Shops is provided in Attachment A to this memorandum and the Wendy's Site Plan is provided in Attachment B.

PROPOSED TRAFFIC IMPACT STUDY METHODOLOGY

- Trip generation analyses will be conducted in accordance with ITE *Trip Generation Manual (10th Edition)* procedures and/or data to be collected at a comparable Wendy's site in the south Florida market.

- Pass-by rates for the proposed land use will be in accordance with the ITE *Trip Generation Handbook (3rd Edition)*.

- Data Collection: Intersection turning movement counts will be collected during the mid-day peak period (11:30 AM to 2:30 PM) and the PM peak period (4:00 PM to 6:00 PM) at the following locations:

    - State Road 7 and Johnson Road / Holmberg Road (signalized)
    - State Road 7 and Regency Lakes Boulevard (signalized)
    - Lyons Road and Johnson Road (signalized)
    - Project Driveways (Main Driveway on SR 7 and 2 Primary Driveways on Johnson Road)

  Notes: *Traffic data will be collected while Broward County Schools are in session. Since Wendy's is not open for breakfast, mid-day peak period counts will be performed. A map depicting the site and traffic count locations is presented in Attachment C.*

- Trip distribution will be based upon the existing nearby land uses, the prevailing traffic patterns within the study area, and the transportation network in the vicinity of the project site.

- A growth factor will be applied to the traffic counts to reflect future traffic conditions at project build-out. The growth factor will be based upon historical traffic data available for the area near the project site. A minimum annual growth rate of 0.5% will be applied.

- Intersection analyses (AM and PM Peak Hour / existing and future conditions) will be performed in accordance with HCM procedures utilizing the Synchro software.

- Signal timing information will be obtained from Broward County Traffic Engineering.

- An analysis of on-site circulation will be conducted. This analysis will consider the peak period project trips at the connection to the adjacent interior "spine road" and the internal intersection formed by the "spine road" and the primary access driveway along State Road 7.

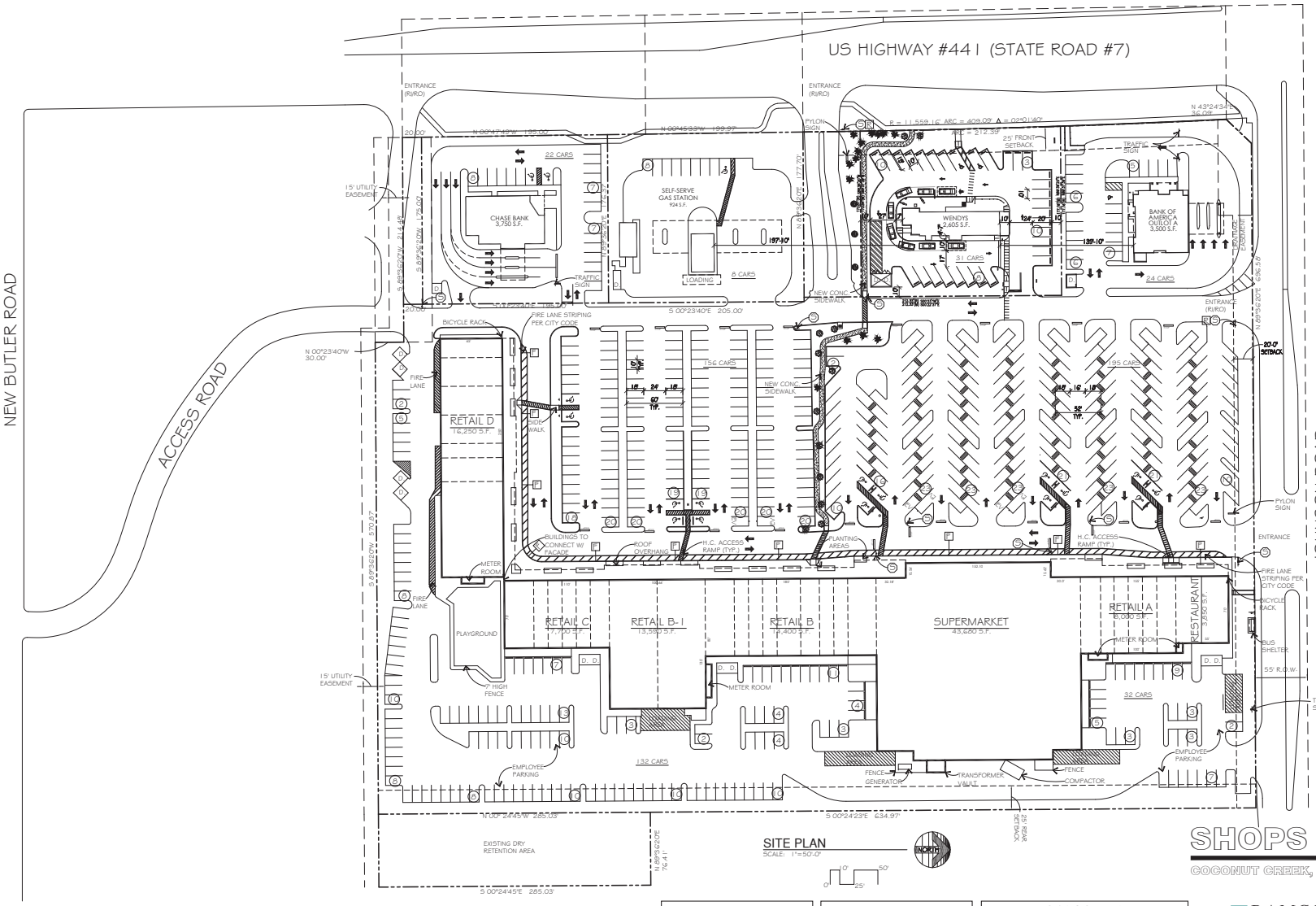
- Peak period drive-through lane stacking characteristics will be compared with industry standards as well as those exhibited by a similar Wendy's store in the south Florida market.

- The project buildout date is estimated to be 2019.

- A Technical Report will be prepared documenting the analyses techniques, results and supporting data.
    - An Executive Summary will be included in the report.

Attachment A

Coral Creek Shops
Master Plan



PROJECT DATA

SITE DATA		
NET SITE AREA	14.903 ACRES	
	649,175 S.F.	
BUILDING DATA		
SHOPPING CENTER		
SUPERMARKET	43,680 S.F.	
(SALES-28,800 S.F.)		
(WORK AREA-14,880 S.F.)		
RETAIL	59,940 S.F.	
RESTAURANTS	3,850 S.F.	
BUILDING SUPPORT (METER ROOMS)	700 S.F.	
SUBTOTAL	108,170 S.F.	
OUT PARCELS		
FINANCIAL	7,250 S.F.	
SELF-SERVE STATION	924 S.F.	
RESTAURANT	2,605 S.F.	
SUB TOTAL	10,779 S.F.	
TOTAL BUILDING AREA	118,949 S.F.	
PARKING AND LOADING DATA		
PARKING REQUIRED		
1 SPACE PER 225 S.F. OF BUILDING AREA		
TOTAL REQUIRED (118,949/225)	529 SPACES	
PARKING PROVIDED		
REGULAR SPACES	579 SPACES	
HANDICAP SPACES	21 SPACES	
TOTAL PROVIDED	600 SPACES	
LOADING PROVIDED	4 SPACES	

SITE COVERAGE DATA	AREA	%
BUILDING AREA	108,170 S.F.	17.7%
WALKS	16,283 S.F.	2.7%
LANDSCAPE	88,161 S.F.	14.4%
PAVING	399,715 S.F.	65.2%
TOTALS	612,329 S.F.	100%

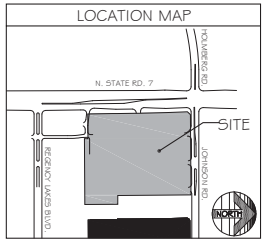
SITE PLAN LEGEND

- DUMPSTER ENCLOSURE
- REGULAR PARKING SPACE (10'X20')
- HANDICAP PARKING SPACE (12'X20') PAVEMENT SYMBOL TO BE PAINTED BLUE

TRAFFIC SIGNAGE & STRIPING

- PAINTED DIRECTIONAL ARROW
- PAINTED BAR & "STOP"
- STOP SIGN
- FIRE LANE SIGNS
- "RIGHT TURN ONLY" SIGNS
- FIRE LANE STRIPING
- INDICATES TRAFFIC DIRECTION (FOR PLAN REVIEW INFORMATION)
- EV DESIGNATED PARKING SPACE FOR ALTERNATIVE FUEL OR HYBRID VEHICLES WITH SIGN ON SIGN POST

LOCATION MAP



SHOPS AT CORAL CREEK

COCONUT CREEK, FLORIDA

RAMCO GERSHENSON PROPERTIES TRUST

WAH YEE ASSOCIATES
ARCHITECTS & PLANNERS
42400 GRAND RIVER AVENUE, SUITE 200
NOVI, MICHIGAN 48375
PHONE 248.489.9160
PROJECT NO. 4889

JUNE 6, 2016
JANUARY 13, 2017
FEBRUARY 2, 2017
MAY 15, 2017
AUGUST 15, 2017
JANUARY 22, 2018
FEBRUARY 22, 2018

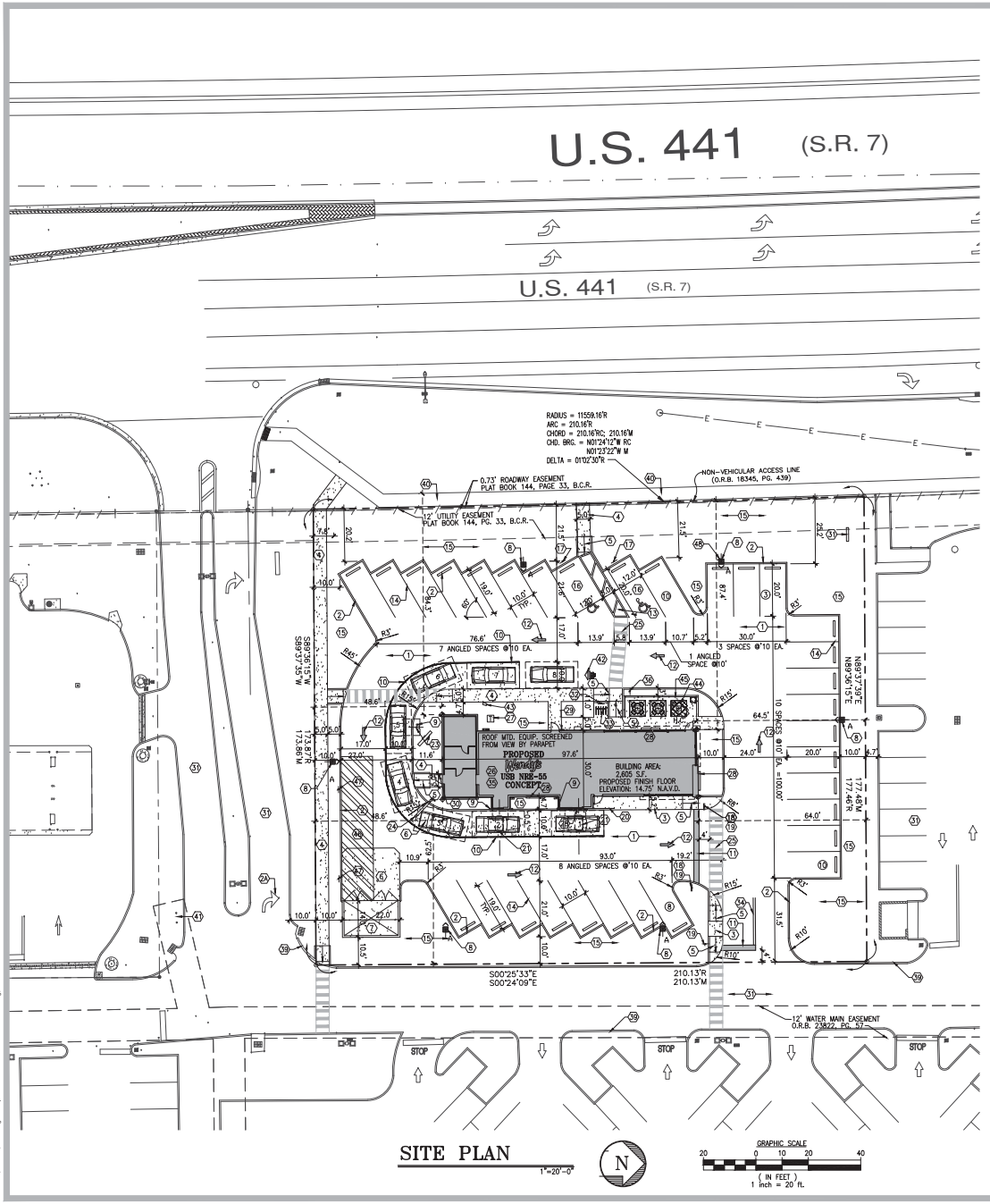
PRELIMINARY
NOT FOR CONSTRUCTION

SP-1

CAD DWG 030-SP-1-CORAL CREEK-MASTER SITE PLAN-2_28_18.DWG

Attachment B

Wendy's
Preliminary Site Plan



CONSTRUCTION NOTES:

1. ASPHALT PAVEMENT AS PER DETAIL.
2. 6" P.C.C. TYPE 'D' CURB AS PER DETAIL
2A. EXISTING PAVEMENT MARKINGS
3. P.C.C. CURB EDGE SIDEWALK AS PER DETAIL
4. P.C.C. CONCRETE SIDEWALK AS PER DETAIL
5. P.C.C. HANDICAP RAMP – MAX SLOPE 1:12.
6. 6" THICK P.C.C. PAD W/ 6"x6" –10/10 W.W.M. OVER CRUSHED AGGREGATE OR GRAVEL BASE. CONSTRUCTION JOINTS AT 10 FEET ON CENTER. (COLOR BLACK)
7. TRASH ENCLOSURE AS PER DETAIL.
8. LED PARKING LIGHT AS PER SITE LIGHTING (PH–1)
9. STEEL BOLLARD AS PER DETAIL.
10. 215–LF 6" YELLOW. (THERMOPLASTIC)
11. 24" STOP BAR WHITE. (THERMOPLASTIC)
12. TRAFFIC ARROWS PAINTED WHITE.
13. 6" WHITE STRIPES AT 60° (PER FDOT INDEX No. 17346)
14. 4" WHITE STRIPES (TYPICAL AT PARKING SPACES)
15. LANDSCAPE AREA
16. HANDICAP PARKING AS PER DETAIL.
17. HANDICAP SIGN 7'–0" A.F.F.
18. STANDARD F.D.O.T. "DO NOT ENTER" SIGN (R5–1)
19. STANDARD F.D.O.T. HIGH INTENSITY "STOP" SIGN. R1–1 (30"x30")
20. RAILING PAINTED BLACK
21. SENSOR LOOP AT D/T WINDOW
22. MONUMENT SIGN
23. MENU BOARD AND SENSOR LOOP W/ SPEAKER PEDESTAL
24. CLEARANCE BAR
25. PEDESTRIAN CROSSING PER F.D.O.T. INDEX No. 17346
26. PROPOSED BUILDING
27. TRANSFORMER PAD (COORDINATE LOCATION WITH FPL)
28. BUILDING SIGN
29. PROVIDE BUILDING ADDRESS "1234" WITH NUMERALS 9 INCHES HIGH. REFER TO BUILDING ELEVATION
30. PROVIDE BUILDING ADDRESS AND BUSINESS NAME ON SERVICE DOOR. REFER TO BUILDING ELEVATION ALL LETTERS TO BE CONSISTENT IN STYLE (4" HIGH)
31. EXISTING PAVEMENT
32. "BICYCLE PARKING" SIGN
33. BICYCLE RACK BY HUNTCO–MODEL BR3 OR APPROVED EQUAL FINISH: POWDER COATED BLACK (SEE DETAIL ON SHEET SP–3)
34. 25 L.F. – 4" DOUBLE YELLOW
35. ALL ROOF MOUNTED EQUIPMENT AND ACCESSORIES SHALL BE SCREENED FROM VIEW BY PARAPET
36. PEDESTRIAN CROSSING SIGN
37. NOT USED
38. NOT USED
39. EXIST. CURB
40. EXIST. SIDEWALK
41. EXIST. FIRE HYDRANT
42. PAVEMENT MARKINGS
43. PREVIEW MENU BOARD
44. OUTDOOR SEATING AREA (PATIO)
45. PATIO FENCE (3' HEIGHT, MIN.)
46. 12'x55' LOADING ZONE
47. "NO PARKING SIGN"
48. "HYBRID PARKING ONLY" SIGN.

NOTES

1. ALL PAVEMENT MARKINGS ARE TO COMPLY WITH BROWARD COUNTY TRAFFIC ENGINEERING STANDARDS/MUTCD.
2. ALL MARKINGS EXCEPT PARKING SPACE LINES SHALL BE THERMOPLASTIC AND 6" WIDE.
3. ALL SIGNS BY SEPARATE PERMIT.
4. ALL RADII AND DIMENSIONS ARE TO FACE OF CURB/EDGE OF PAVEMENT.
5. THE ELEVATIONS SHOWN HEREON ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (N.A.V.D. 1988) AS ESTABLISHED FROM N.G.S. CONTINUOUSLY OPERATING REFERENCE STATIONS (C.O.R.S.) "MIAMI WAS 1 CORS ARP", "MIAMI TNT CORS ARP" AND "WEST PALM CORS ARP" USING THE ONLINE POSITIONING USER SERVICE (O.P.U.S.) ON APRIL 26, 2016. TO CONVERT ELEVATIONS TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (N.G.V.D. 1929), ADD 1.55 FEET.
6. ALL SIDEWALKS SHALL BE A MIN. OF 5 FEET IN WIDTH.

JOB SITE — LOCATION PLAN N.T.S.

LEGAL DESCRIPTION

A PORTION OF TRACT "A", SAWGRASS PARK OF COMMERCE COMMERCIAL SECTION "B", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 144, PAGE 33, OF THE PUBLIC RECORDS OF BROWARD COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE WESTERLY NORTHWEST CORNER OF SAID TRACT "A", SAID POINT BEING ON THE EASTERLY RIGHT–OF–WAY LINE OF U.S. HIGHWAY NO. 441 (STATE ROAD NO. 7) AS SHOWN ON SAID PLAT AND ON THE ARC OF A CURVE CONCAVE WESTERLY, TO WHICH A RADIAL LINE BEARS NORTH 87°12'47" EAST; THENCE SOUTHERLY ON SAID EASTERLY RIGHT–OF–WAY LINE, ON THE WESTERLY LINE OF SAID TRACT "A" AND ON THE ARC OF A CURVE TO THE RIGHT, HAVING A RADIUS OF 11,559.16 FEET, A CENTRAL ANGLE OF 0°51'46", FOR AN ARC DISTANCE OF 174.06 FEET TO THE POINT OF BEGINNING; THENCE NORTH 89°36'15" EAST ON A NON–RADIAL LINE 177.46 FEET; THENCE SOUTH 00°25'33" EAST 210.13 FEET; THENCE SOUTH 89°36'15" WEST ON A LINE NON–RADIAL TO THE FOLLOWING DESCRIBED CURVE 173.87 FEET TO THE INTERSECTION WITH THE AFOREMENTIONED EASTERLY RIGHT–OF–WAY LINE OF U.S. HIGHWAY NO. 441 (STATE ROAD NO. 7), SAID WESTERLY LINE OF TRACT "A" AND A POINT ON SAID CURVE CONCAVE WESTERLY, TO WHICH A RADIAL LINE BEARS NORTH 89°07'03" EAST; THENCE NORTHERLY ON THE ARC OF SAID CURVE TO THE LEFT, HAVING A RADIUS OF 11,559.16 FEET, A CENTRAL ANGLE OF 1°02'30", FOR AN ARC DISTANCE OF 210.16 FEET TO THE POINT OF BEGINNING.

SAID LANDS SITUATE, LYING AND BEING IN THE CITY OF COCONUT CREEK, BROWARD COUNTY, FLORIDA, CONTAINING 36,846 SQUARE FEET (0.8459 ACRES), MORE OR LESS.

ZONING: B-3 COMMUNITY SHOPPING DISTRICT
LAND USE: COMMERCIAL
BUILDING HEIGHT: 26–9 1/2"
SITE ANALYSIS

	EXISTING	PROPOSED
TOTAL LAND AREA:	36,846.00 SQ. FT. (0.846± ACRES)	36,846.00 SQ. FT. (0.846± ACRES)
TOTAL BUILDING COVERAGE:	–	2,605.00 SQ. FT. (7.07 %)
TOTAL LANDSCAPED AREA:	8,056.38 SQ. FT. (21.87 %)	12,914.80 SQ. FT. (35.05 %)
TOTAL PAVED AREA & WALKS:	28,789.62 SQ. FT. (78.13 %)	21,326.20 SQ. FT. (57.88 %)
PERVIOUS AREA:	8,056.38 SQ. FT. (21.87 %) (0.185± ACRES)	12,914.80 SQ. FT. (35.05 %) (0.296± ACRES)
IMPERVIOUS AREA:	28,789.62 SQ. FT. (78.13 %) (0.661± ACRES)	23,931.20 SQ. FT. (64.95 %) (0.549± ACRES)

PARKING ANALYSIS

TOTAL PARKING SPACES REQUIRED: (1/150 SF OF CUST. SERVICE AREA – 951/150=6.34) (1/300 SF OF NON–CUST. SERVICE AREA – 917/300=3.05)	10 SPACES
HANDICAP SPACES REQUIRED:	1 SPACES
HANDICAP SPACES PROVIDED:	2 SPACES
TOTAL PARKING SPACES PROVIDED: (INCLUDING HANDICAP IN OUT PARCEL)	31 SPACES

SITE NUMBER:	11670
BASE MODEL:	USB NRE 55 R3
ASSET TYPE:	FRAN
CLASSIFICATION:	NEW
OWNER:	JAE REST. GROUP, LLC
BASE VERSION:	XXXXXXXXX
UPGRADE CLASSIFICATION:	CORP. NEW BUILD
PROJECT YEAR:	2017
FURNITURE PACKAGE:	2016 R3
DRAWING RELEASE	2016 R3

CKE GROUP INCORPORATED
engineering ● architecture ● planning
15900 NEW BARN ROAD
SUITE 106
MIAMI LAKES , FLORIDA 33014
PHONE: (305) 558-4124
FAX: (305) 826-0618

PROJECT TYPE: USB NRE 55 NEW

Wendy's
Store # 11670
US 441 & JOHNSON ROAD
Coconut Creek, Florida

REV.	DATE	DESCRIPTION

ISSUE DATE: 02/10/2016
PROJECT NUMBER: 1692
DRAWN BY: R. C.
CHECKED BY: E. C.

SEAL

EDUARDO L. CARCACHE, PE 31914
ANA A. GONZALEZ VALDES, AR 97769
LUIS VARGAS, LEED AP
#7010237531163800
CKE GROUP, INC. COA-4432

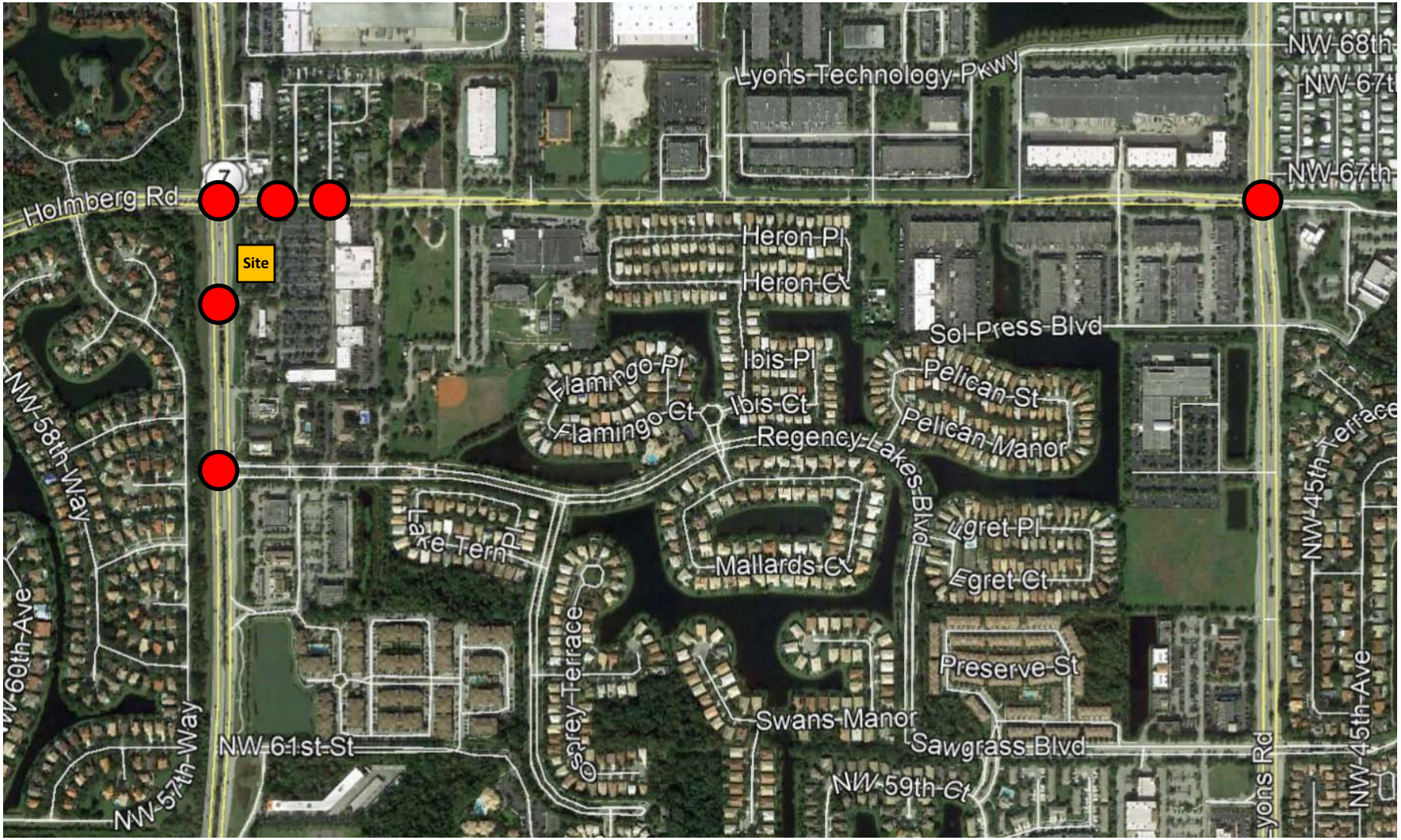
SHEET NAME
SITE PLAN

SHEET NUMBER
SP-2

Attachment C

Wendy's
Site Location and Traffic Count Locations

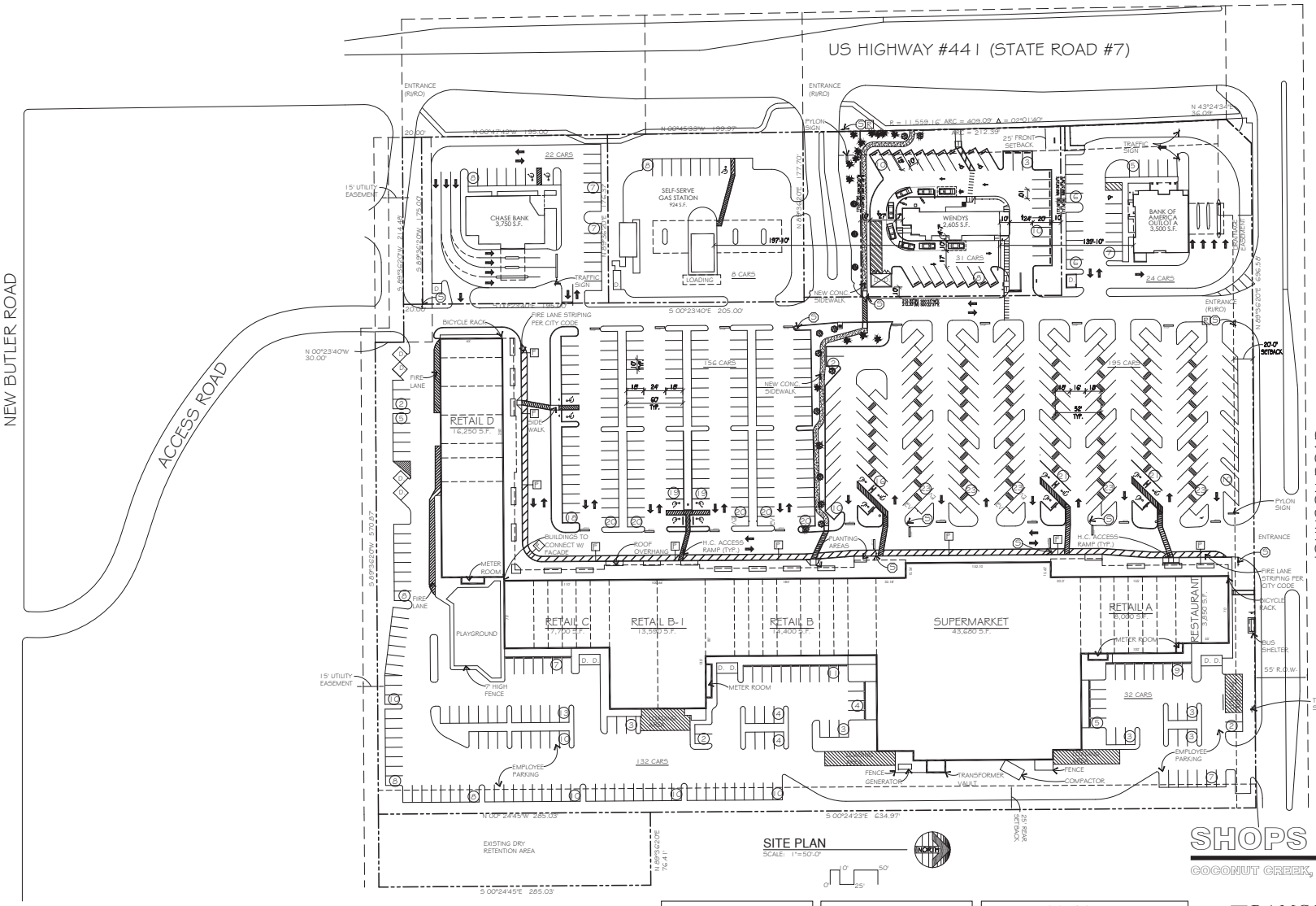
Wendy's – Data Collection Sites



APPENDIX B

Wendy's – Coral Creek Shops – Coconut Creek

Master Plan & Site Plan



PROJECT DATA

SITE DATA		
NET SITE AREA	14.903 ACRES	
	649,175 S.F.	
BUILDING DATA		
SHOPPING CENTER		
SUPERMARKET	43,680 S.F.	
(SALES-28,800 S.F.)		
(WORK AREA-14,880 S.F.)		
RETAIL	59,940 S.F.	
RESTAURANTS	3,850 S.F.	
BUILDING SUPPORT (METER ROOMS)	700 S.F.	
SUBTOTAL	108,170 S.F.	
OUT PARCELS		
FINANCIAL	7,250 S.F.	
SELF-SERVE STATION	924 S.F.	
RESTAURANT	2,605 S.F.	
SUB TOTAL	10,779 S.F.	
TOTAL BUILDING AREA	118,949 S.F.	
PARKING AND LOADING DATA		
PARKING REQUIRED		
1 SPACE PER 225 S.F. OF BUILDING AREA		
TOTAL REQUIRED (118,949/225)	529 SPACES	
PARKING PROVIDED		
REGULAR SPACES	579 SPACES	
HANDICAP SPACES	21 SPACES	
TOTAL PROVIDED	600 SPACES	
LOADING PROVIDED	4 SPACES	

SITE COVERAGE DATA	AREA	%
BUILDING AREA	108,170 S.F.	17.7%
WALKS	16,283 S.F.	2.7%
LANDSCAPE	88,161 S.F.	14.4%
PAVING	399,715 S.F.	65.2%
TOTALS	612,329 S.F.	100%

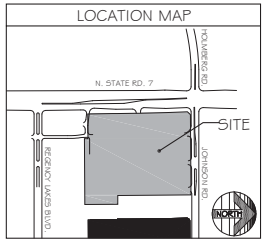
SITE PLAN LEGEND

- DUMPSTER ENCLOSURE
- REGULAR PARKING SPACE (10'X20')
- HANDICAP PARKING SPACE (12'X20') PAVEMENT SYMBOL TO BE PAINTED BLUE

TRAFFIC SIGNAGE & STRIPING

- PAINTED DIRECTIONAL ARROW
- PAINTED BAR & "STOP"
- STOP SIGN
- FIRE LANE SIGNS
- "RIGHT TURN ONLY" SIGNS
- FIRE LANE STRIPING
- INDICATES TRAFFIC DIRECTION (FOR PLAN REVIEW INFORMATION)
- EV DESIGNATED PARKING SPACE FOR ALTERNATIVE FUEL OR HYBRID VEHICLES WITH SIGN ON SIGN POST

LOCATION MAP



SHOPS AT CORAL CREEK

COCONUT CREEK, FLORIDA

RAMCO GERSHENSON PROPERTIES TRUST

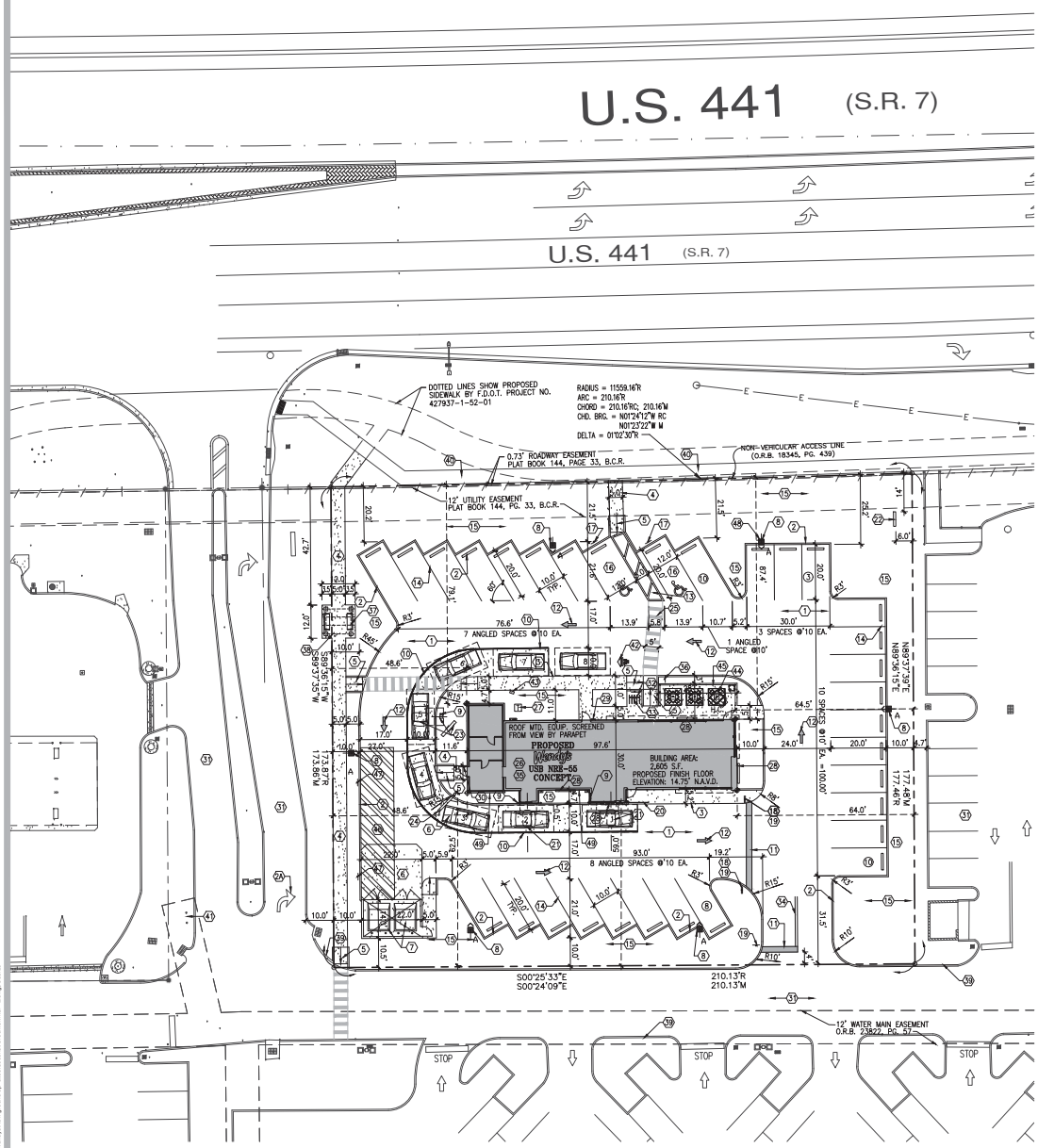
WAH YEE ASSOCIATES
ARCHITECTS & PLANNERS
42400 GRAND RIVER AVENUE, SUITE 200
NOVI, MICHIGAN 48375
PHONE 248.489.9160
PROJECT NO. 4889

JUNE 6, 2016
JANUARY 13, 2017
FEBRUARY 2, 2017
MAY 15, 2017
AUGUST 15, 2017
JANUARY 22, 2018
FEBRUARY 22, 2018

PRELIMINARY
NOT FOR CONSTRUCTION

SP-1

CAD DWG 030-SP-1-CORAL CREEK-MASTER SITE PLAN-2_28_18.DWG



SITE PLAN

1"=20'-0"

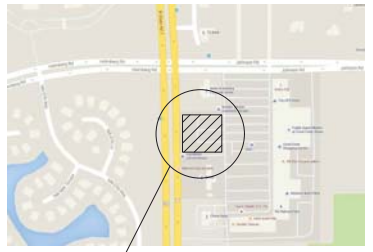
GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

CONSTRUCTION NOTES:

1. ASPHALT PAVEMENT AS PER DETAIL.
2. 6" P.C.C. TYPE 'D' CURB AS PER DETAIL
2A. EXISTING PAVEMENT MARKINGS
3. P.C.C. CURB EDGE SIDEWALK AS PER DETAIL
4. P.C.C. CONCRETE SIDEWALK AS PER DETAIL
5. P.C.C. HANDICAP RAMP – MAX SLOPE 1:12.
6. 6" THICK P.C.C. PAD W/ 6"x6" –10/10 W.W.M. OVER CRUSHED AGGREGATE OR GRAVEL BASE. CONSTRUCTION JOINTS AT 10 FEET ON CENTER. (COLOR BLACK)
7. TRASH & RECYCLE ENCLOSURE SEE DETAIL SHEET SP–4.
8. LED PARKING LIGHT AS PER SITE LIGHTING (PH–1)
9. STEEL BOLLARD AS PER DETAIL.
10. 215–LF 6" YELLOW. (THERMOPLASTIC)
11. 24" STOP BAR WHITE. (THERMOPLASTIC)
12. TRAFFIC ARROWS PAINTED WHITE.
13. 6" WHITE STRIPES AT 60' (PER FDOT INDEX No. 17346)
14. 4" WHITE STRIPES (TYPICAL AT PARKING SPACES)
15. LANDSCAPE AREA
16. HANDICAP PARKING AS PER DETAIL.
17. HANDICAP SIGN 7'–0" A.F.F.
18. STANDARD F.D.O.T. "DO NOT ENTER" SIGN (R5–1)
19. STANDARD F.D.O.T. HIGH INTENSITY "STOP" SIGN. R1–1 (30"x30")
20. RAILING PAINTED BLACK
21. SENSOR LOOP AT D/T WINDOW
22. MONUMENT SIGN
23. MENU BOARD AND SENSOR LOOP W/ SPEAKER PEDESTAL
24. CLEARANCE BAR
25. PEDESTRIAN CROSSING PER F.D.O.T. INDEX No. 17346
26. PROPOSED BUILDING
27. TRANSFORMER PAD (COORDINATE LOCATION WITH FPL)
28. BUILDING SIGN
29. PROVIDE BUILDING ADDRESS "1234" WITH NUMERALS 9 INCHES HIGH. REFER TO BUILDING ELEVATION
30. PROVIDE BUILDING ADDRESS AND BUSINESS NAME ON SERVICE DOOR. REFER TO BUILDING ELEVATION ALL LETTERS TO BE CONSISTENT IN STYLE (4" HIGH)
31. EXISTING PAVEMENT
32. 'BICYCLE PARKING' SIGN
33. BICYCLE RACK BY HUNTCO–MODEL BR3 OR APPROVED EQUAL FINISH: POWDER COATED BLACK (SEE DETAIL ON SHEET SP–3)
34. 25 L.F. – 4" DOUBLE YELLOW
35. ALL ROOF MOUNTED EQUIPMENT AND ACCESSORIES SHALL BE SCREENED FROM VIEW BY PARAPET
36. PEDESTRIAN CROSSING SIGN
37. CW86 CREEKVIEW BENCH WITH BASE (SILVER) BY KEYSTONE RIDGE DESIGNS
38. 12'x12' FREE STANDING TRELLIS
39. EXIST. CURB
40. EXIST. SIDEWALK
41. EXIST. FIRE HYDRANT
42. PAVEMENT MARKINGS
43. PREVIEW MENU BOARD
44. OUTDOOR SEATING AREA (PATIO)
45. PATIO FENCE (3' HEIGHT, MIN.)
46. 12'x55' LOADING ZONE
47. "NO PARKING SIGN"
48. 'HYBRID PARKING ONLY' SIGN.
49. GREEN WALL, REFER TO BUILDING ELEVATIONS

NOTES

1. ALL PAVEMENT MARKINGS ARE TO COMPLY WITH BROWARD COUNTY TRAFFIC ENGINEERING STANDARDS/MUTCD.
2. ALL MARKINGS EXCEPT PARKING SPACE LINES SHALL BE THERMOPLASTIC AND 6" WIDE.
3. ALL SIGNS BY SEPARATE PERMIT.
4. ALL RADII AND DIMENSIONS ARE TO FACE OF CURB/EDGE OF PAVEMENT.
5. THE ELEVATIONS SHOWN HEREON ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (N.A.V.D. 1988) AS ESTABLISHED FROM N.G.S. CONTINUOUSLY OPERATING REFERENCE STATIONS (C.O.R.S.) "MIAM MIAS 1 CORS ARP", "MIAM TNT CORS ARP" AND "WEST PALM CORS ARP" USING THE ONLINE POSITIONING USER SERVICE (O.P.U.S.) ON APRIL 26, 2016. TO CONVERT ELEVATIONS TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (N.G.V.D. 1929), ADD 1.55 FEET.
6. ALL SIDEWALKS SHALL BE A MIN. OF 5 FEET IN WIDTH.



JOB SITE — LOCATION PLAN (N) N.T.S.

LEGAL DESCRIPTION

A PORTION OF TRACT "A", SAWGRASS PARK OF COMMERCE COMMERCIAL SECTION "B", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 144, PAGE 33, OF THE PUBLIC RECORDS OF BROWARD COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS.

COMMENCING AT THE WESTERLY NORTHWEST CORNER OF SAID TRACT "A", SAID POINT BEING ON THE EASTERLY RIGHT–OF–WAY LINE OF U.S. HIGHWAY NO. 441 (STATE ROAD NO. 7) AS SHOWN ON SAID PLAT AND ON THE ARC OF A CURVE CONCAVE WESTERLY, TO WHICH A RADIAL LINE BEARS NORTH 87°12'47" EAST; THENCE SOUTHERLY ON SAID EASTERLY RIGHT–OF–WAY LINE, ON THE WESTERLY LINE OF SAID TRACT "A" AND ON THE ARC OF A CURVE TO THE RIGHT, HAVING A RADIUS OF 11,559.16 FEET, A CENTRAL ANGLE OF 01°01'46", FOR AN ARC DISTANCE OF 174.06 FEET TO THE POINT OF BEGINNING; THENCE NORTH 89°36'15" EAST ON A NON–RADIAL LINE 177.46 FEET; THENCE SOUTH 00°25'33" EAST 210.13 FEET; THENCE SOUTH 89°36'15" WEST ON A LINE NON–RADIAL TO THE FOLLOWING DESCRIBED CURVE 173.87 FEET TO THE INTERSECTION WITH THE AFOREMENTIONED EASTERLY RIGHT–OF–WAY LINE OF U.S. HIGHWAY NO. 441 (STATE ROAD NO. 7), SAID WESTERLY LINE OF TRACT "A" AND A POINT ON SAID CURVE CONCAVE WESTERLY, TO WHICH A RADIAL LINE BEARS NORTH 89°07'03" EAST; THENCE NORTHERLY ON THE ARC OF SAID CURVE TO THE LEFT, HAVING A RADIUS OF 11,559.16 FEET, A CENTRAL ANGLE OF 1°02'30", FOR AN ARC DISTANCE OF 210.16 FEET TO THE POINT OF BEGINNING.

SAID LANDS SITUATE, LYING AND BEING IN THE CITY OF COCONUT CREEK, BROWARD COUNTY, FLORIDA, CONTAINING 36,846 SQUARE FEET (0.8459 ACRES), MORE OR LESS.

ZONING: B-3 COMMUNITY SHOPPING DISTRICT
LAND USE: COMMERCIAL
BUILDING HEIGHT: 26-9 1/2"
SITE ANALYSIS

	EXISTING		PROPOSED	
TOTAL LAND AREA:	36,846.00 SQ. FT. (0.846± ACRES)		36,846.00 SQ. FT. (0.846± ACRES)	
TOTAL BUILDING COVERAGE:	–		2,605.00 SQ. FT. (7.07 %)	
TOTAL LANDSCAPED AREA:	8,056.38 SQ. FT. (21.87 %)		12,914.80 SQ. FT. (35.05 %)	
TOTAL PAVED AREA & WALKS:	28,789.62 SQ. FT. (78.13 %)		21,326.20 SQ. FT. (57.88 %)	
PERVIOUS AREA:	8,056.38 SQ. FT. (21.87 %)	(0.185± ACRES)	12,914.80 SQ. FT. (35.05 %)	(0.296± ACRES)
IMPERVIOUS AREA:	28,789.62 SQ. FT. (78.13 %)	(0.661± ACRES)	23,931.20 SQ. FT. (64.95 %)	(0.549± ACRES)

PARKING ANALYSIS

TOTAL PARKING SPACES REQUIRED: (1/150 SF OF CUST. SERVICE AREA – 951/150=7) (1/300 SF OF NON–CUST. SERVICE AREA – 917/300=4) (1/150 SF OF PATIO/AREA – 364/150=3)	14 SPACES
HANDICAP SPACES REQUIRED:	1 SPACES
HANDICAP SPACES PROVIDED:	2 SPACES
TOTAL PARKING SPACES PROVIDED: (INCLUDING HANDICAP IN OUT PARCEL)	31 SPACES

SITE NUMBER:	11670
BASE MODEL:	USB NRE 55 R3
ASSET TYPE:	FRAN
CLASSIFICATION:	NEW
OWNER:	JAE REST. GROUP, LLC
BASE VERSION:	XXXXXXXXX
UPGRADE CLASSIFICATION:	CORP. NEW BUILD
PROJECT YEAR:	2017
FURNITURE PACKAGE:	2016 R3
DRAWING RELEASE	2016 R3

CKE GROUP INCORPORATED
engineering ● architecture ● planning
15900 NEW BARN ROAD
SUITE 106
MIAMI LAKES, FLORIDA 33014
PHONE: (305) 558-4124
FAX: (305) 826-0819

PROJECT TYPE: USB NRE 55 NEW

Wendy's

Store # 11670
US 441 & JOHNSON ROAD
Coconut Creek, Florida

REV.	DATE	DESCRIPTION
1	05–01–18	
2	07–18–18	
3	09–25–18	

ISSUE DATE: 02/10/2016
PROJECT NUMBER: 1493
DRAWN BY: R. C.
CHECKED BY: E. C.
SEAL

EDUARDO L. CARCACHE, PE 31914
ANA A. GONZALEZ VALDES, AR 97769
LUIS VARGAS, LEED AP
#7010237531638800
CKE GROUP, INC. COA-4432

SHEET NAME: SITE PLAN

SHEET NUMBER: SP-2

APPENDIX C

Traffic Counts

TRAFFIC SURVEY SPECIALISTS, INC.

JOHNSON ROAD/HOLMBERG RD & SR 7
COCONUT CREEK, FLORIDA
COUNTED BY: M. MALONE & M. INOJOSA
SIGNALIZED

85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00180223
Start Date: 12/13/18
File I.D. : JOHN_SR7
Page : 1

ALL VEHICLES

	SR 7 From North				JOHNSON ROAD From East				SR 7 From South				HOLMBERG ROAD From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 12/13/18																	
11:00	1	30	320	51	3	18	14	25	5	24	309	18	0	74	30	37	959
11:15	4	24	293	47	0	18	24	23	5	41	297	8	1	43	25	51	904
11:30	9	29	281	62	3	23	32	22	2	43	263	12	0	58	30	38	907
11:45	2	15	376	61	2	30	25	24	3	38	320	30	0	50	23	44	1043
Hr Total	16	98	1270	221	8	89	95	94	15	146	1189	68	1	225	108	170	3813
12:00	2	24	278	43	3	39	34	37	5	46	251	32	0	49	49	44	936
12:15	4	23	331	61	3	34	31	28	5	44	296	26	1	61	34	42	1024
12:30	7	30	263	74	1	21	27	22	3	40	344	23	1	49	21	41	967
12:45	4	32	322	52	6	20	33	39	4	67	236	25	0	54	35	39	968
Hr Total	17	109	1194	230	13	114	125	126	17	197	1127	106	2	213	139	166	3895
13:00	7	38	359	80	2	30	16	20	2	54	346	31	0	53	28	44	1110
13:15	6	21	328	59	0	20	34	16	4	52	291	27	1	48	28	28	963
13:30	4	20	326	47	1	20	38	21	2	36	326	30	0	57	29	45	1002
13:45	5	38	331	59	1	23	22	12	4	67	411	31	0	50	21	41	1116
Hr Total	22	117	1344	245	4	93	110	69	12	209	1374	119	1	208	106	158	4191
14:00	10	42	333	52	3	32	31	32	5	58	284	29	0	72	22	57	1062
14:15	7	18	290	66	3	31	24	26	6	40	401	30	0	62	34	50	1088
14:30	3	29	391	68	2	23	40	30	2	53	347	19	0	72	32	49	1160
14:45	6	30	325	83	2	15	56	18	7	45	323	28	0	74	39	51	1102
Hr Total	26	119	1339	269	10	101	151	106	20	196	1355	106	0	280	127	207	4412
15:00	6	29	414	91	2	34	38	30	7	71	421	36	0	73	43	57	1352
15:15	8	39	358	75	2	28	51	38	3	59	406	34	0	92	56	57	1306
15:30	0	34	405	91	0	36	37	23	4	50	412	26	1	71	42	54	1286
15:45	3	22	376	105	1	29	53	31	3	66	399	19	3	71	45	57	1283
Hr Total	17	124	1553	362	5	127	179	122	17	246	1638	115	4	307	186	225	5227
16:00	2	41	447	131	3	49	55	23	4	65	405	24	0	71	31	52	1403
16:15	4	28	462	97	1	40	48	31	5	62	425	32	1	87	52	62	1437
16:30	2	47	471	96	1	49	75	28	2	79	454	39	0	69	54	73	1539
16:45	5	35	429	127	0	33	55	40	4	86	467	39	0	84	43	50	1497
Hr Total	13	151	1809	451	5	171	233	122	15	292	1751	134	1	311	180	237	5876
17:00	2	35	496	108	0	66	79	52	2	58	500	15	0	75	54	72	1614
17:15	1	31	501	101	0	60	69	48	3	91	454	43	0	93	52	56	1603
17:30	2	28	540	129	0	58	59	44	0	61	485	21	0	73	41	51	1592
17:45	3	23	470	143	1	62	73	33	4	92	448	37	0	80	51	70	1590
Hr Total	8	117	2007	481	1	246	280	177	9	302	1887	116	0	321	198	249	6399

TRAFFIC SURVEY SPECIALISTS, INC.
85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

JOHNSON ROAD/HOLMBERG RD & SR 7
COCONUT CREEK, FLORIDA
COUNTED BY: M. MALONE & M. INOJOSA
SIGNALIZED

Site Code : 00180223
Start Date: 12/13/18
File I.D. : JOHN_SR7

ALL VEHICLES

	SR 7 From North				JOHNSON ROAD From East				SR 7 From South				HOLMBERG ROAD From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 12/13/18																	
TOTAL	119	835	10516	2259	46	941	1173	816	105	1588	10321	764	9	1865	1044	1412	33813

TRAFFIC SURVEY SPECIALISTS, INC.

JOHNSON ROAD/HOLMBERG RD & SR 7
COCONUT CREEK, FLORIDA
COUNTED BY: M. MALONE & M. INOJOSA
SIGNALIZED

85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00180223
Start Date: 12/13/18
File I.D. : JOHN_SR7
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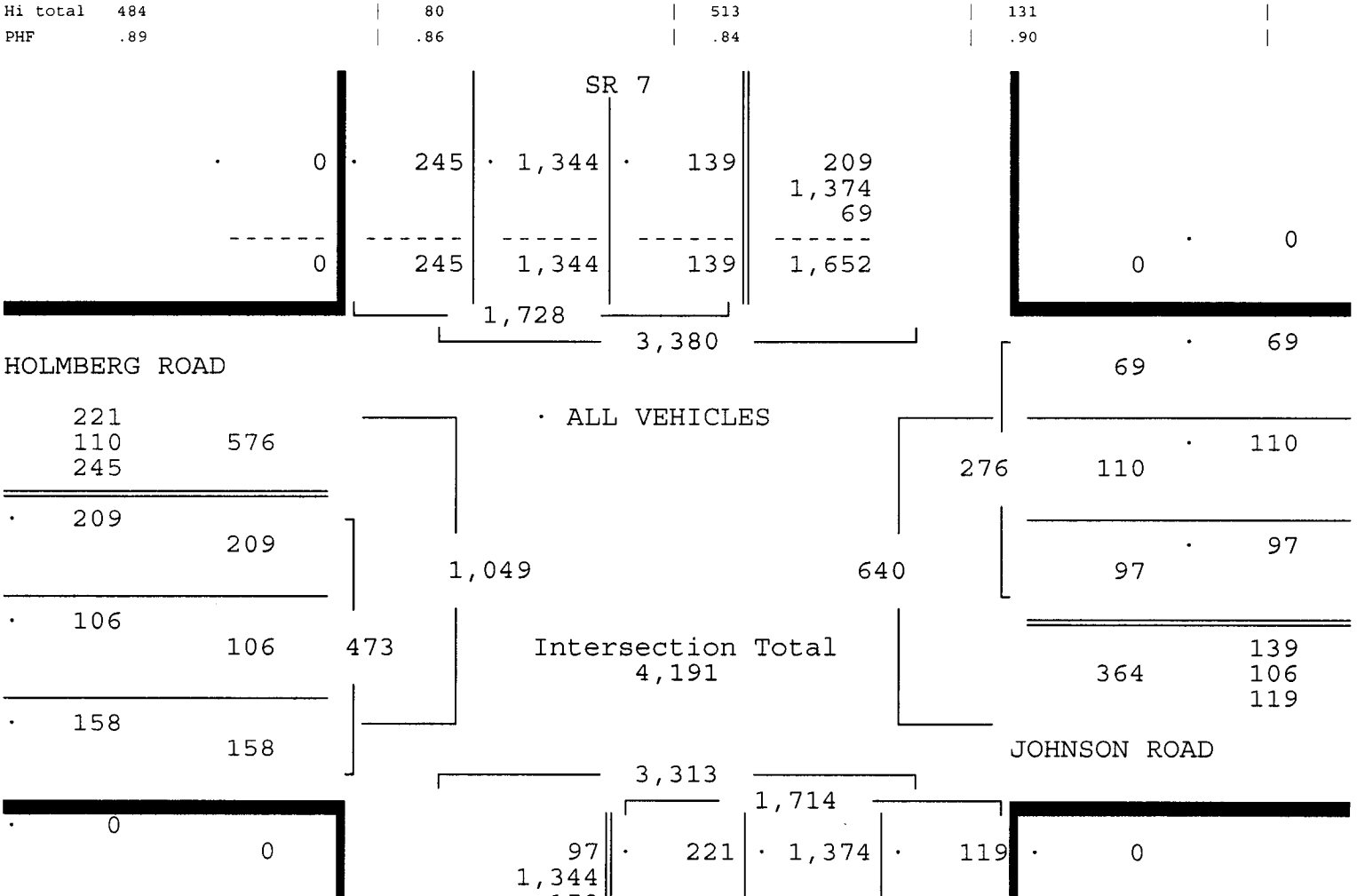
ALL VEHICLES

	SR 7 From North				JOHNSON ROAD From East				SR 7 From South				HOLMBERG ROAD From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 12/13/18																	
Peak Hour Analysis By Entire Intersection for the Period: 11:30 to 13:30 on 12/13/18																	
Peak start	13:00				13:00				13:00				13:00				
Volume	22	117	1344	245	4	93	110	69	12	209	1374	119	1	208	106	158	
Percent	1%	7%	78%	14%	1%	34%	40%	25%	1%	12%	80%	7%	0%	44%	22%	33%	
Pk total	1728				276				1714				473				
Highest	13:00				13:30				13:45				13:30				
Volume	7	38	359	80	1	20	38	21	4	67	411	31	0	57	29	45	
Hi total	484				80				513				131				
PHF	.89				.86				.84				.90				



TRAFFIC SURVEY SPECIALISTS, INC.

JOHNSON ROAD/HOLMBERG RD & SR 7
COCONUT CREEK, FLORIDA
COUNTED BY: M. MALONE & M. INOJOSA
SIGNALIZED

85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00180223
Start Date: 12/13/18
File I.D. : JOHN_SR7
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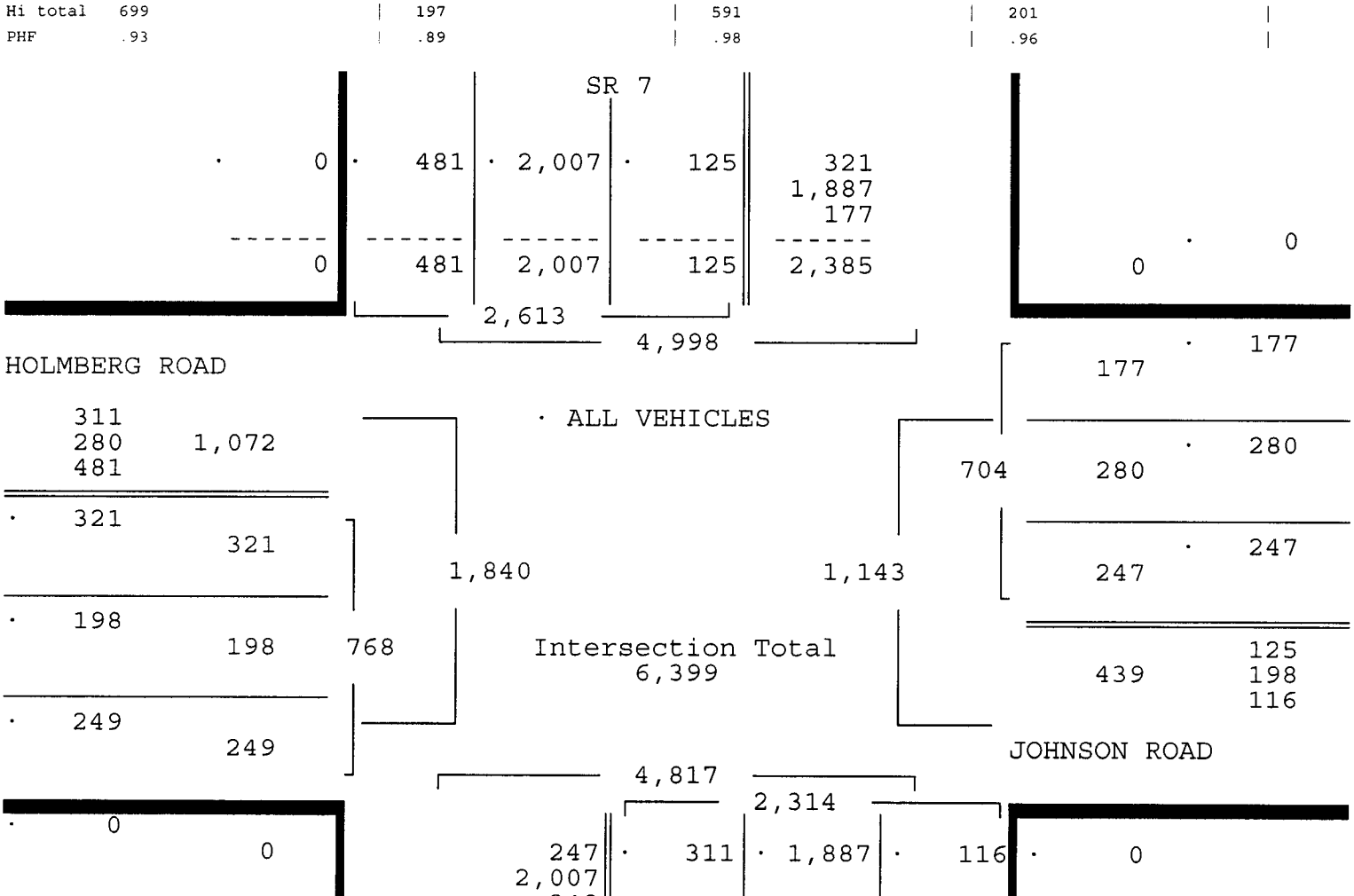
ALL VEHICLES

	SR 7 From North				JOHNSON ROAD From East				SR 7 From South				HOLMBERG ROAD From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 12/13/18																	
Peak Hour Analysis By Entire Intersection for the Period: 16:00 to 18:00 on 12/13/18																	
Peak start 17:00					17:00				17:00				17:00				
Volume	8	117	2007	481	1	246	280	177	9	302	1887	116	0	321	198	249	
Percent	0%	4%	77%	18%	0%	35%	40%	25%	0%	13%	82%	5%	0%	42%	26%	32%	
Pk total	2613				704				2314				768				
Highest	17:30				17:00				17:15				17:00				
Volume	2	28	540	129	0	66	79	52	3	91	454	43	0	75	54	72	
Hi total	699				197				591				201				
PHF	.93				.89				.98				.96				



TRAFFIC SURVEY SPECIALISTS, INC.

CORAL CREEK SHOPS DRIVEWAY & SR 7
COCONUT CREEK, FLORIDA
COUNTED BY: SEBASTIAN SALVO
NOT SIGNALIZED

85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00180223
Start Date: 12/13/18
File I.D. : CORA_SR7
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ALL VEHICLES

	SR 7 From North				CORAL CREEK SHOPS DRIVEWAY From East				SR 7 From South				----- From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 12/13/18																	
11:00	0	0	396	0	0	0	0	15	0	0	358	10	0	0	0	0	779
11:15	0	0	366	0	0	0	0	13	0	0	313	17	0	0	0	0	709
11:30	0	0	378	0	0	0	0	10	0	0	335	11	0	0	0	0	734
11:45	0	0	459	0	0	0	0	13	0	0	365	12	0	0	0	0	849
Hr Total	0	0	1599	0	0	0	0	51	0	0	1371	50	0	0	0	0	3071
12:00	0	0	344	0	0	0	0	19	0	0	330	15	0	0	0	0	708
12:15	0	0	432	0	0	0	0	12	0	0	358	18	0	0	0	0	820
12:30	0	0	358	0	0	0	0	16	0	0	365	12	0	0	0	0	751
12:45	0	0	362	0	0	0	0	15	0	0	337	18	0	0	0	0	732
Hr Total	0	0	1496	0	0	0	0	62	0	0	1390	63	0	0	0	0	3011
13:00	0	0	415	0	0	0	0	12	0	0	428	22	0	0	0	0	877
13:15	0	0	360	0	0	0	0	14	0	0	354	20	0	0	0	0	748
13:30	0	0	418	0	0	0	0	21	0	0	411	22	0	0	0	0	872
13:45	0	0	389	0	0	0	0	18	0	0	465	24	0	0	0	0	896
Hr Total	0	0	1582	0	0	0	0	65	0	0	1658	88	0	0	0	0	3393
14:00	0	0	447	0	0	0	0	16	0	0	353	15	0	0	0	0	831
14:15	0	0	393	0	0	0	0	12	0	0	498	19	0	0	0	0	922
14:30	0	0	426	0	0	0	0	8	0	0	386	16	0	0	0	0	836
14:45	0	0	422	0	0	0	0	11	0	0	431	17	0	0	0	0	881
Hr Total	0	0	1688	0	0	0	0	47	0	0	1668	67	0	0	0	0	3470
15:00	0	0	505	0	0	0	0	16	0	0	488	18	0	0	0	0	1027
15:15	0	0	465	0	0	0	0	14	0	0	528	18	0	0	0	0	1025
15:30	0	0	473	0	0	0	0	20	0	0	433	15	0	0	0	0	941
15:45	0	0	507	0	0	0	0	12	0	0	500	30	0	0	0	0	1049
Hr Total	0	0	1950	0	0	0	0	62	0	0	1949	81	0	0	0	0	4042
16:00	0	0	534	0	0	0	0	25	0	0	496	21	0	0	0	0	1076
16:15	0	0	571	0	0	0	0	15	0	0	496	14	0	0	0	0	1096
16:30	0	0	575	0	0	0	0	23	0	0	552	21	0	0	0	0	1171
16:45	0	0	529	0	0	0	0	15	0	0	561	23	0	0	0	0	1128
Hr Total	0	0	2209	0	0	0	0	78	0	0	2105	79	0	0	0	0	4471
17:00	0	0	621	0	0	0	0	23	0	0	526	20	0	0	0	0	1190
17:15	0	0	605	0	0	0	0	29	0	0	569	24	0	0	0	0	1227
17:30	0	0	644	0	0	0	0	12	0	0	576	13	0	0	0	0	1245
17:45	0	0	602	0	0	0	0	17	0	0	538	23	0	0	0	0	1180
Hr Total	0	0	2472	0	0	0	0	81	0	0	2209	80	0	0	0	0	4842

TRAFFIC SURVEY SPECIALISTS, INC.

CORAL CREEK SHOPS DRIVEWAY & SR 7
COCONUT CREEK, FLORIDA
COUNTED BY: SEBASTIAN SALVO
NOT SIGNALIZED

85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00180223
Start Date: 12/13/18
File I.D. : CORA_SR7
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ALL VEHICLES

	SR 7 From North				CORAL CREEK SHOPS DRIVEWAY From East				SR 7 From South				----- From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 12/13/18																	
TOTAL	0	0	12996	0	0	0	0	446	0	0	12350	508	0	0	0	0	26300

TRAFFIC SURVEY SPECIALISTS, INC.

CORAL CREEK SHOPS DRIVEWAY & SR 7
COCONUT CREEK, FLORIDA
COUNTED BY: SEBASTIAN SALVO
NOT SIGNALIZED

85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00180223
Start Date: 12/13/18
File I.D. : CORA_SR7
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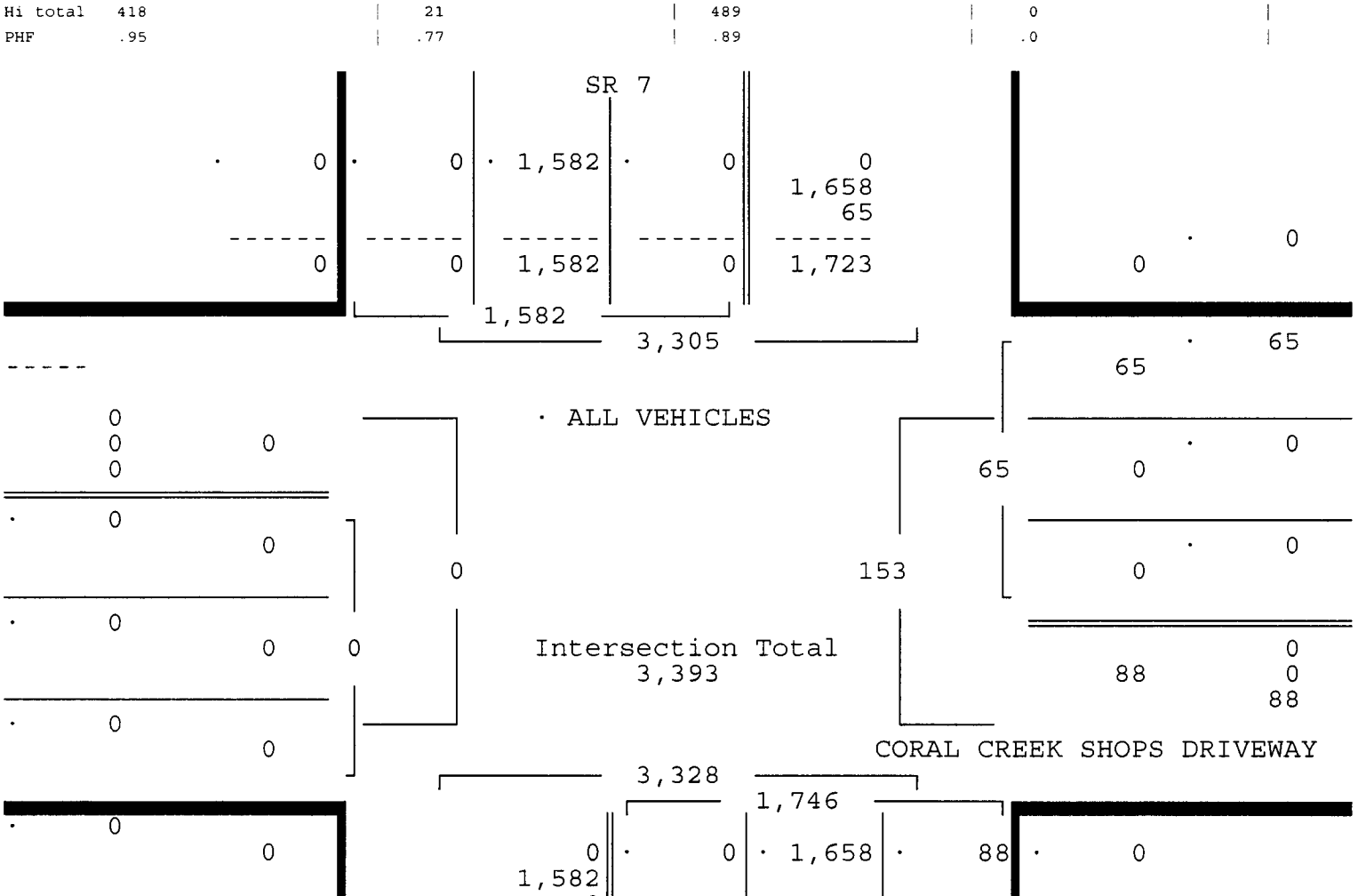
ALL VEHICLES

	SR 7 From North				CORAL CREEK SHOPS DRIVEWAY From East				SR 7 From South				----- From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 12/13/18																	
Peak Hour Analysis By Entire Intersection for the Period: 11:30 to 13:30 on 12/13/18																	
Peak start	13:00				13:00				13:00				13:00				
Volume	0	0	1582	0	0	0	0	65	0	0	1658	88	0	0	0	0	
Percent	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%	95%	5%	0%	0%	0%	0%	
Pk total	1582				65				1746				0				
Highest	13:30				13:30				13:45				11:00				
Volume	0	0	418	0	0	0	0	21	0	0	465	24	0	0	0	0	
Hi total	418				21				489				0				
PHF	.95				.77				.89				.0				



TRAFFIC SURVEY SPECIALISTS, INC.
85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

CORAL CREEK SHOPS DRIVEWAY & SR 7
COCONUT CREEK, FLORIDA
COUNTED BY: SEBASTIAN SALVO
NOT SIGNALIZED

Site Code : 00180223
Start Date: 12/13/18
File I.D. : CORA_SR7
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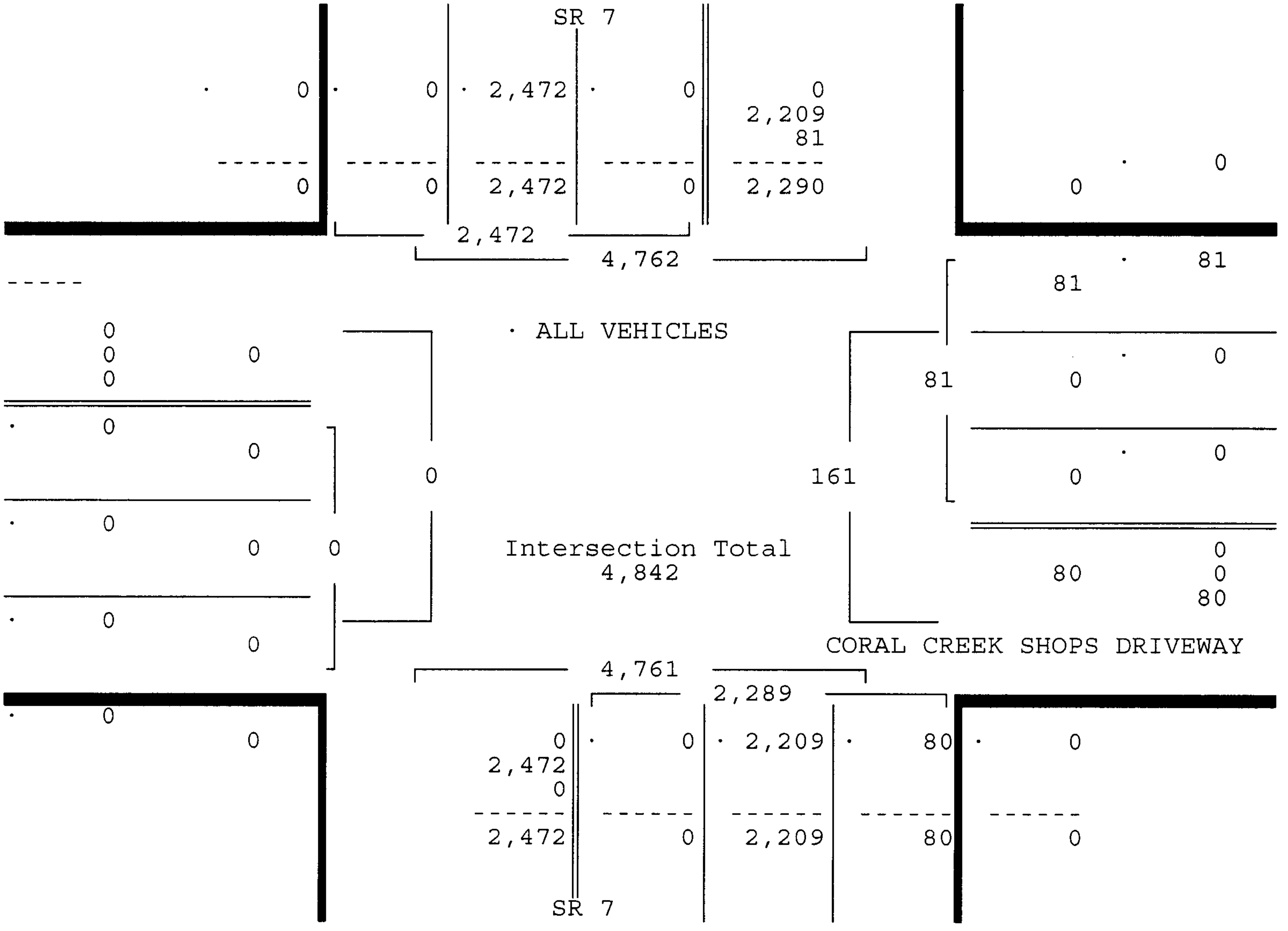
ALL VEHICLES

	SR 7 From North				CORAL CREEK SHOPS DRIVEWAY From East				SR 7 From South				----- From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 12/13/18																	
Peak Hour Analysis By Entire Intersection for the Period: 16:00 to 18:00 on 12/13/18																	
Peak start	17:00				17:00				17:00				17:00				
Volume	0	0	2472	0	0	0	0	81	0	0	2209	80	0	0	0	0	
Percent	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%	97%	3%	0%	0%	0%	0%	
Pk total	2472				81				2289				0				
Highest	17:30				17:15				17:15				11:00				
Volume	0	0	644	0	0	0	0	29	0	0	569	24	0	0	0	0	
Hi total	644				29				593				0				
PHF	.96				.70				.97				.0				



TRAFFIC SURVEY SPECIALISTS, INC.

REGENCY LAKES BOULEVARD & SR 7
COCONUT CREEK, FLORIDA
COUNTED BY: JOHN FLOOD
SIGNALIZED

85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00180223
Start Date: 12/13/18
File I.D. : REGE_SR7
Page : 1

ALL VEHICLES

	SR 7 From North				REGENCY LAKES BOULEVARD From East				SR 7 From South				----- From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 12/13/18																	
11:00	6	19	349	0	0	38	0	11	15	0	340	14	0	0	0	0	792
11:15	7	27	329	0	0	41	0	16	22	0	311	17	0	0	0	0	770
11:30	9	19	347	0	0	37	0	18	19	0	330	18	0	0	0	0	797
11:45	5	25	433	0	0	27	0	9	25	0	376	29	0	0	0	0	929
Hr Total	27	90	1458	0	0	143	0	54	81	0	1357	78	0	0	0	0	3288
12:00	9	26	324	0	0	41	0	24	18	0	304	16	0	0	0	0	762
12:15	8	20	399	0	0	43	0	11	22	0	358	20	0	0	0	0	881
12:30	8	15	337	0	0	33	0	10	20	0	363	21	0	0	0	0	807
12:45	9	15	348	0	0	41	0	18	21	0	327	21	0	0	0	0	800
Hr Total	34	76	1408	0	0	158	0	63	81	0	1352	78	0	0	0	0	3250
13:00	8	17	403	0	0	62	0	26	21	0	394	21	0	0	0	0	952
13:15	4	17	326	0	0	36	0	20	25	0	361	24	0	0	0	0	813
13:30	5	28	384	0	1	38	0	22	29	0	400	39	0	0	0	0	946
13:45	6	21	365	0	0	36	0	23	19	0	468	35	0	0	0	0	973
Hr Total	23	83	1478	0	1	172	0	91	94	0	1623	119	0	0	0	0	3684
14:00	10	21	424	0	0	68	0	22	23	0	351	33	0	0	0	0	952
14:15	3	26	366	0	0	61	0	29	20	0	448	27	0	0	0	0	980
14:30	9	18	416	0	0	52	0	13	29	0	391	28	0	0	0	0	956
14:45	3	22	389	0	0	55	0	15	22	0	434	36	0	0	0	0	976
Hr Total	25	87	1595	0	0	236	0	79	94	0	1624	124	0	0	0	0	3864
15:00	2	34	457	0	0	51	0	28	25	0	480	30	0	0	0	0	1107
15:15	5	12	449	0	0	44	0	28	13	0	501	31	0	0	0	0	1083
15:30	4	23	439	0	1	46	0	18	29	0	466	25	0	0	0	0	1051
15:45	8	25	462	0	0	40	0	27	20	0	479	30	0	0	0	0	1091
Hr Total	19	94	1807	0	1	181	0	101	87	0	1926	116	0	0	0	0	4332
16:00	6	31	503	0	0	38	0	25	16	0	475	31	0	0	0	0	1125
16:15	4	23	569	0	0	63	0	13	15	0	502	28	0	0	0	0	1217
16:30	7	32	559	0	0	62	0	27	27	0	494	23	0	0	0	0	1231
16:45	2	31	498	0	0	32	0	13	28	0	550	38	0	0	0	0	1192
Hr Total	19	117	2129	0	0	195	0	78	86	0	2021	120	0	0	0	0	4765
17:00	4	31	550	0	0	72	0	28	23	0	531	40	0	0	0	0	1279
17:15	3	30	582	0	0	64	0	31	34	0	530	39	0	0	0	0	1313
17:30	6	34	622	0	0	71	0	23	33	0	571	43	0	0	0	0	1403
17:45	7	32	595	0	0	51	0	33	32	0	515	42	0	0	0	0	1307
Hr Total	20	127	2349	0	0	258	0	115	122	0	2147	164	0	0	0	0	5302

TRAFFIC SURVEY SPECIALISTS, INC.

REGENCY LAKES BOULEVARD & SR 7
COCONUT CREEK, FLORIDA
COUNTED BY: JOHN FLOOD
SIGNALIZED

85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00180223
Start Date: 12/13/18
File I.D. : REGE_SR7

ALL VEHICLES

	SR 7 From North				REGENCY LAKES BOULEVARD From East				SR 7 From South				----- From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 12/13/18																	
TOTAL	167	674	12224	0	2	1343	0	581	645	0	12050	799	0	0	0	0	28485

TRAFFIC SURVEY SPECIALISTS, INC.

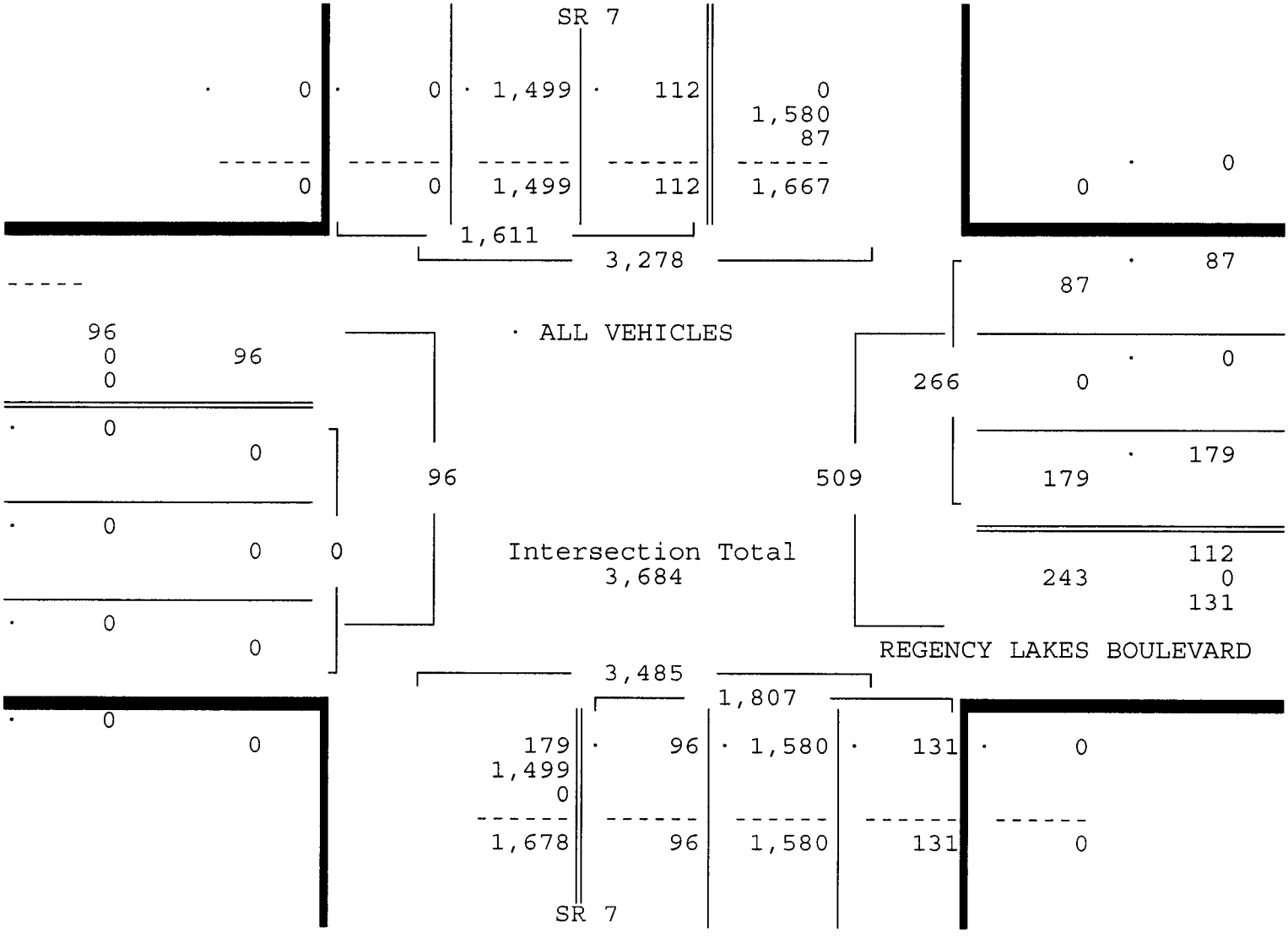
REGENCY LAKES BOULEVARD & SR 7
COCONUT CREEK, FLORIDA
COUNTED BY: JOHN FLOOD
SIGNALIZED

85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00180223
Start Date: 12/13/18
File I.D. : REGE_SR7
Page : 3

ALL VEHICLES

	SR 7 From North				REGENCY LAKES BOULEVARD From East				SR 7 From South				----- From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 12/13/18																	
Peak Hour Analysis By Entire Intersection for the Period: 11:30 to 13:30 on 12/13/18																	
Peak start	13:15				13:15				13:15				13:15				
Volume	25	87	1499	0	1	178	0	87	96	0	1580	131	0	0	0	0	
Percent	2%	5%	93%	0%	0%	67%	0%	33%	5%	0%	87%	7%	0%	0%	0%	0%	
Pk total	1611				266				1807				0				
Highest	14:00				14:00				13:45				11:00				
Volume	10	21	424	0	0	68	0	22	19	0	468	35	0	0	0	0	
Hi total	455				90				522				0				
PHF	.89				.74				.87				.0				



TRAFFIC SURVEY SPECIALISTS, INC.

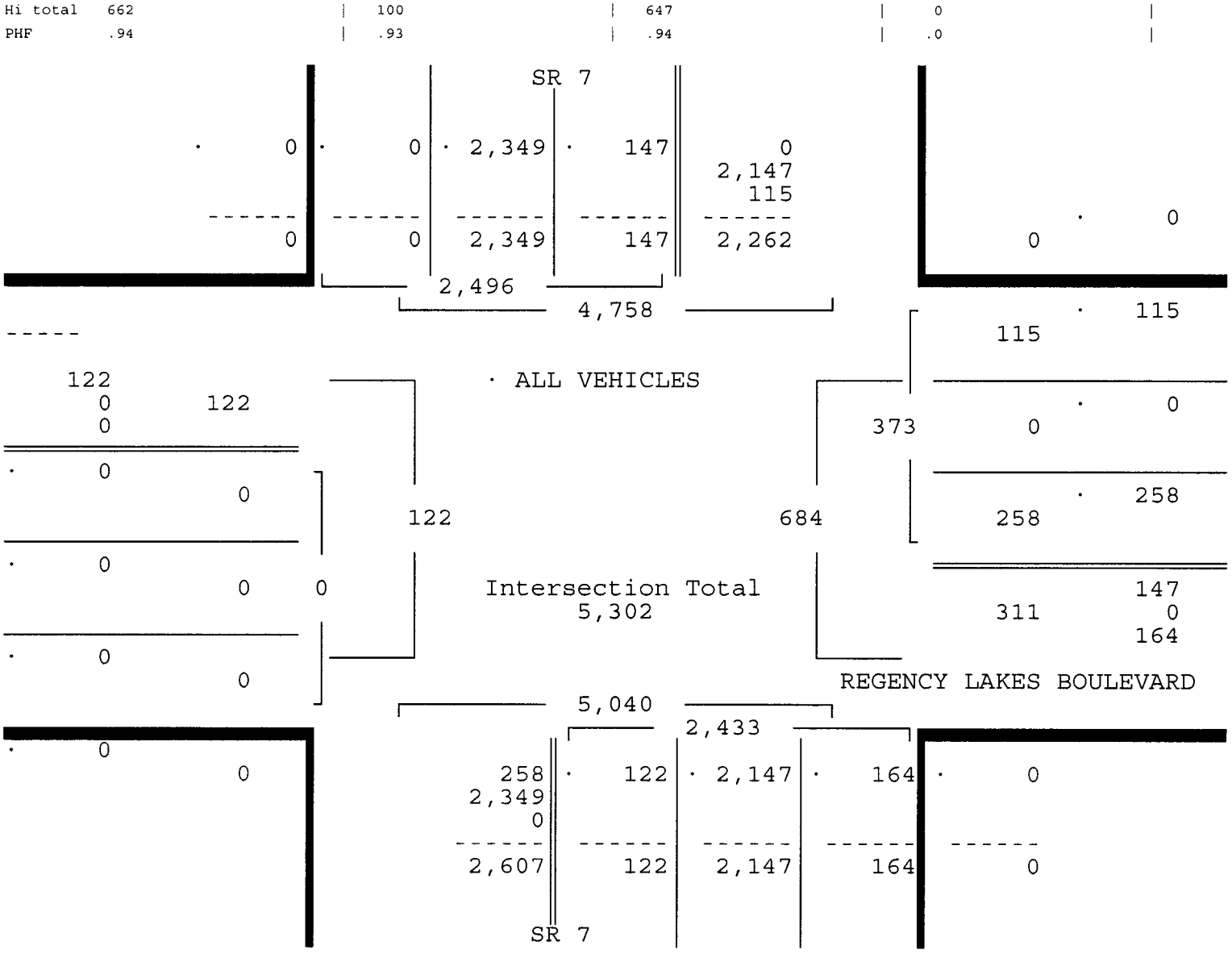
REGENCY LAKES BOULEVARD & SR 7
COCONUT CREEK, FLORIDA
COUNTED BY: JOHN FLOOD
SIGNALIZED

85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00180223
Start Date: 12/13/18
File I.D. : REGE_SR7

ALL VEHICLES

	SR 7 From North				REGENCY LAKES BOULEVARD From East				SR 7 From South				----- From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 12/13/18																	
Peak Hour Analysis By Entire Intersection for the Period: 16:00 to 18:00 on 12/13/18																	
Peak start	17:00				17:00				17:00				17:00				
Volume	20	127	2349	0	0	258	0	115	122	0	2147	164	0	0	0	0	
Percent	1%	5%	94%	0%	0%	69%	0%	31%	5%	0%	88%	7%	0%	0%	0%	0%	
Pk total	2496				373				2433				0				
Highest	17:30				17:00				17:30				11:00				
Volume	6	34	622	0	0	72	0	28	33	0	571	43	0	0	0	0	
Hi total	662				100				647				0				
PHF	.94				.93				.94				.0				



TRAFFIC SURVEY SPECIALISTS, INC.

JOHNSON ROAD & CANAL CREEK EAST DRIVEWAY
COCONUT CREEK, FLORIDA
COUNTED BY: GERMAIN CAMPUSANO
NOT SIGNALIZED

85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00180223
Start Date: 12/13/18
File I.D. : JOHNCANA
Page : 1

ALL VEHICLES

	DRIVEWAY From North				JOHNSON ROAD From East				CANAL CREEK EAST DRIVEWAY From South				JOHNSON ROAD From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 12/13/18																	
11:00	0	1	1	2	3	15	39	0	0	10	0	3	12	3	57	5	151
11:15	0	1	0	0	2	16	41	1	0	10	0	5	11	0	58	3	148
11:30	0	0	1	0	0	23	51	0	0	11	0	9	18	1	49	5	168
11:45	0	0	0	1	0	32	59	2	0	12	2	6	12	0	45	5	176
Hr Total	0	2	2	3	5	86	190	3	0	43	2	23	53	4	209	18	643
12:00	0	0	1	2	1	24	53	2	0	19	0	6	19	2	73	5	207
12:15	0	3	0	1	0	26	61	0	0	16	0	5	13	4	72	3	204
12:30	0	2	1	0	2	28	43	1	0	19	0	10	10	1	66	4	187
12:45	0	1	1	0	1	29	49	0	0	14	0	8	25	2	79	5	214
Hr Total	0	6	3	3	4	107	206	3	0	68	0	29	67	9	290	17	812
13:00	0	0	0	0	1	25	34	0	0	15	0	10	16	1	74	9	185
13:15	0	2	1	0	5	27	39	1	0	18	0	9	13	1	64	3	183
13:30	0	1	0	1	15	26	37	1	0	18	0	14	20	3	78	3	217
13:45	0	1	1	0	39	38	42	3	0	14	0	6	13	0	69	5	231
Hr Total	0	4	2	1	60	116	152	5	0	65	0	39	62	5	285	20	816
14:00	0	0	0	2	15	24	52	0	0	18	0	8	24	1	68	6	218
14:15	0	0	0	1	8	20	39	0	0	16	0	11	20	1	57	7	180
14:30	0	2	0	4	0	20	41	1	0	15	1	13	28	3	62	9	199
14:45	0	0	0	0	0	26	34	0	1	22	0	10	20	0	67	11	191
Hr Total	0	2	0	7	23	90	166	1	1	71	1	42	92	5	254	33	788
15:00	0	1	0	1	0	21	44	3	0	26	0	5	28	0	95	7	231
15:15	0	1	0	1	3	32	67	1	0	26	0	5	33	3	93	9	274
15:30	0	2	1	1	2	23	57	2	0	16	0	7	17	0	73	6	207
15:45	0	0	0	2	1	27	62	1	0	22	1	16	22	2	64	6	226
Hr Total	0	4	1	5	6	103	230	7	0	90	1	33	100	5	325	28	938
16:00	0	3	0	4	0	31	76	2	0	20	0	24	17	3	59	8	247
16:15	0	3	0	0	0	32	77	4	0	21	0	15	23	3	95	4	277
16:30	0	2	0	2	1	39	103	0	0	18	0	16	20	6	100	7	314
16:45	0	1	0	2	1	41	105	3	0	26	0	10	22	4	89	8	312
Hr Total	0	9	0	8	2	143	361	9	0	85	0	65	82	16	343	27	1150
17:00	0	0	1	2	4	42	151	2	0	20	0	13	20	5	75	3	338
17:15	0	0	1	1	0	27	79	1	0	23	0	17	24	4	94	6	277
17:30	0	7	0	3	3	38	93	4	0	28	0	15	22	5	75	4	297
17:45	0	3	1	1	1	40	108	2	0	30	1	14	21	2	101	3	328
Hr Total	0	10	3	7	8	147	431	9	0	101	1	59	87	16	345	16	1240

TRAFFIC SURVEY SPECIALISTS, INC.

JOHNSON ROAD & CANAL CREEK EAST DRIVEWAY
COCONUT CREEK, FLORIDA
COUNTED BY: GERMAIN CAMPUSANO
NOT SIGNALIZED

85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00180223
Start Date: 12/13/18
File I.D. : JOHNCANA
Page : 2

ALL VEHICLES

	DRIVEWAY From North				JOHNSON ROAD From East				CANAL CREEK EAST DRIVEWAY From South				JOHNSON ROAD From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 12/13/18																	
TOTAL	0	37	11	34	108	792	1736	37	1	523	5	290	543	60	2051	159	6387

TRAFFIC SURVEY SPECIALISTS, INC.

JOHNSON ROAD & CANAL CREEK EAST DRIVEWAY
COCONUT CREEK, FLORIDA
COUNTED BY: GERMAIN CAMPUSANO
NOT SIGNALIZED

85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00180223
Start Date: 12/13/18
File I.D. : JOHNCANA
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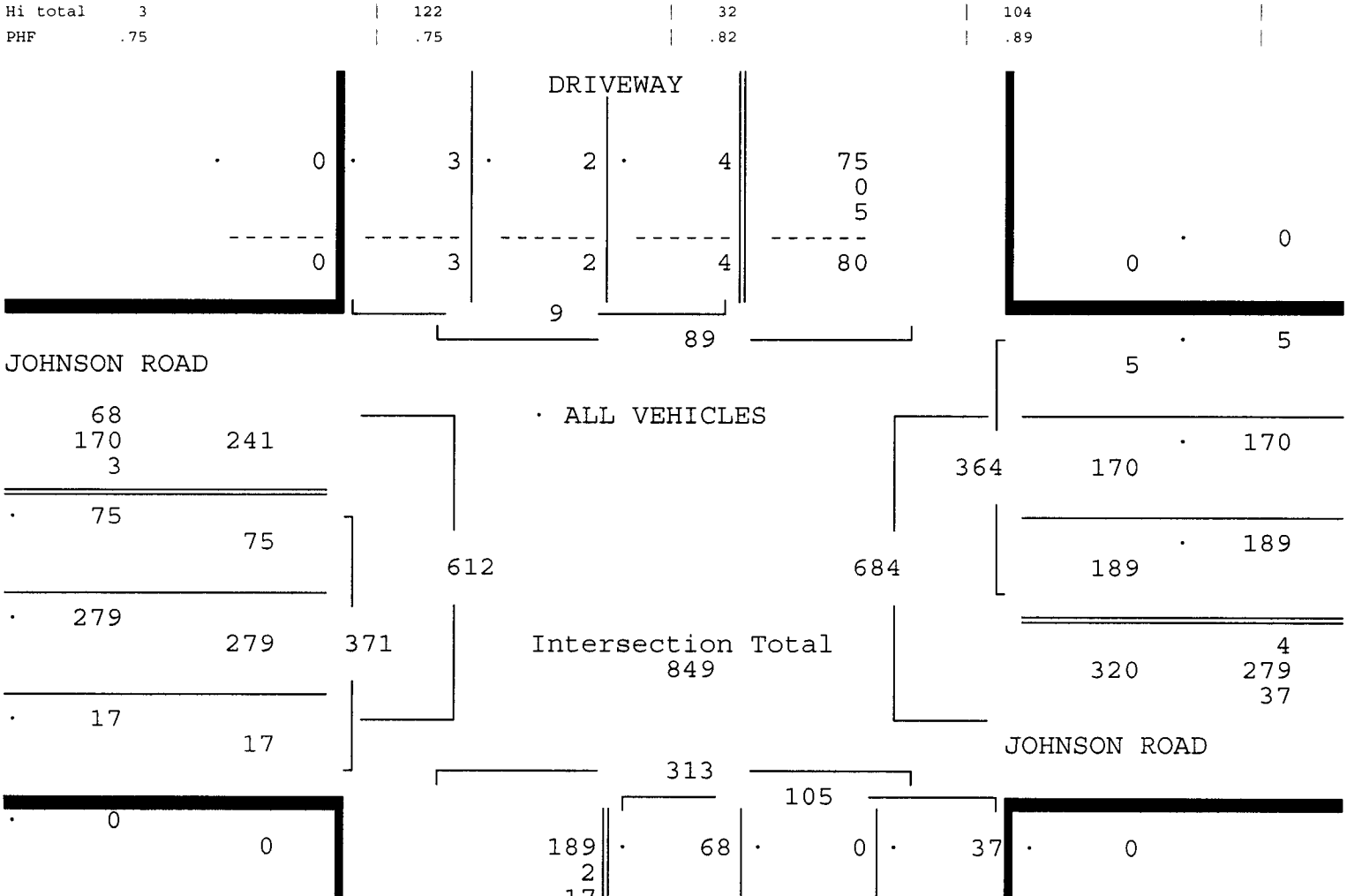
ALL VEHICLES

	DRIVEWAY From North				JOHNSON ROAD From East				CANAL CREEK EAST DRIVEWAY From South				JOHNSON ROAD From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 12/13/18																	
Peak Hour Analysis By Entire Intersection for the Period: 11:30 to 13:30 on 12/13/18																	
Peak start	13:15				13:15				13:15				13:15				
Volume	0	4	2	3	74	115	170	5	0	68	0	37	70	5	279	17	
Percent	0%	44%	22%	33%	20%	32%	47%	1%	0%	65%	0%	35%	19%	1%	75%	5%	
Pk total	9				364				105				371				
Highest	13:15				13:45				13:30				13:30				
Volume	0	2	1	0	39	38	42	3	0	18	0	14	20	3	78	3	
Hi total	3				122				32				104				
PHF	.75				.75				.82				.89				



TRAFFIC SURVEY SPECIALISTS, INC.

JOHNSON ROAD & CANAL CREEK EAST DRIVEWAY
COCONUT CREEK, FLORIDA
COUNTED BY: GERMAIN CAMPUSANO
NOT SIGNALIZED

85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00180223
Start Date: 12/13/18
File I.D. : JOHNCANA
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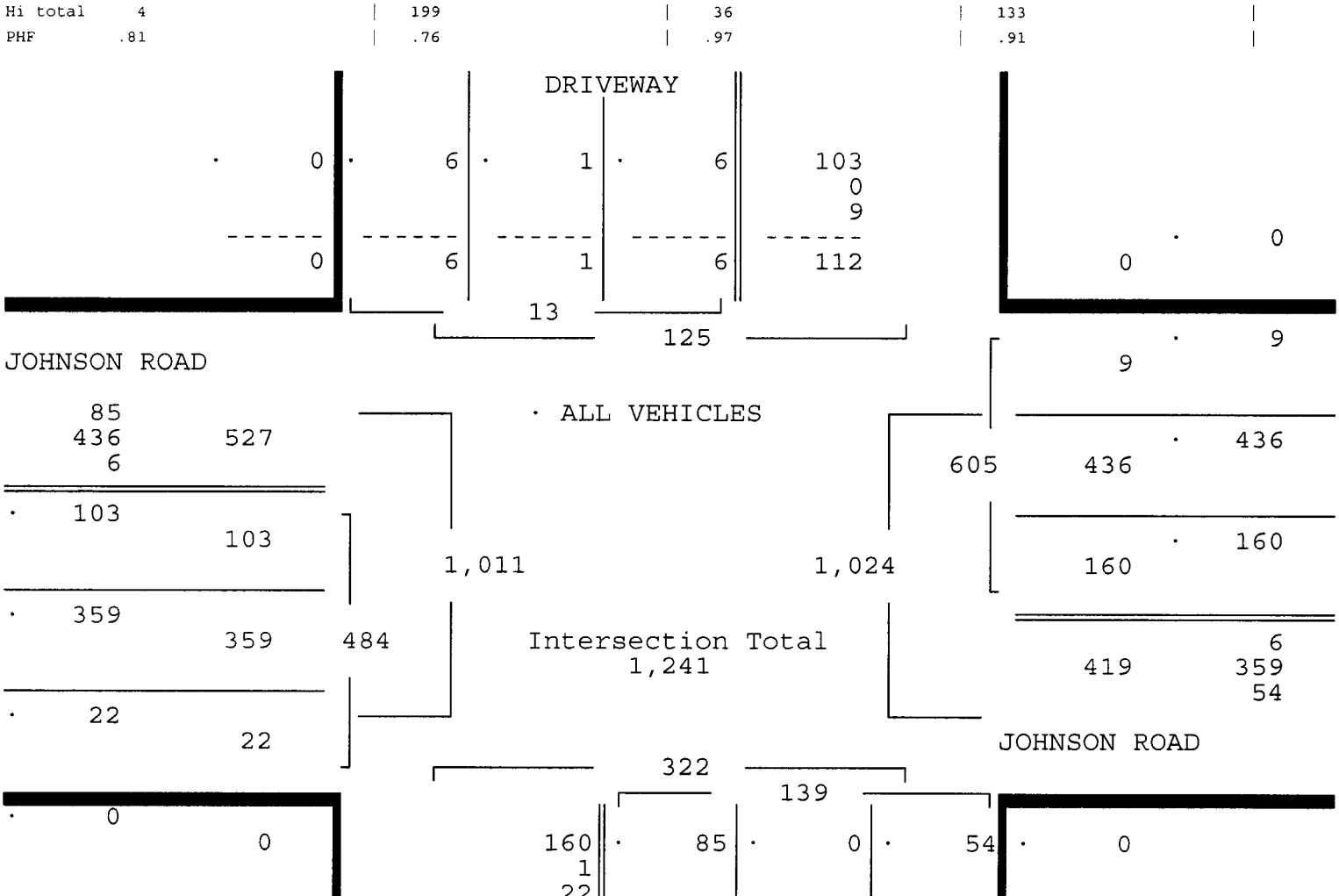
ALL VEHICLES

	DRIVEWAY From North				JOHNSON ROAD From East				CANAL CREEK EAST DRIVEWAY From South				JOHNSON ROAD From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 12/13/18																	
Peak Hour Analysis By Entire Intersection for the Period: 16:00 to 18:00 on 12/13/18																	
Peak start	16:15				16:15				16:15				16:15				
Volume	0	6	1	6	6	154	436	9	0	85	0	54	85	18	359	22	
Percent	0%	46%	8%	46%	1%	25%	72%	1%	0%	61%	0%	39%	18%	4%	74%	5%	
Pk total	13				605				139				484				
Highest	16:30				17:00				16:15				16:30				
Volume	0	2	0	2	4	42	151	2	0	21	0	15	20	6	100	7	
Hi total	4				199				36				133				
PHF	.81				.76				.97				.91				



TRAFFIC SURVEY SPECIALISTS, INC.

JOHNSON ROAD & CORAL CREEK SHOPS WEST
DRIVEWAY, COCONUT CREEK, FLORIDA
COUNTED BY: GERMAIN CAMPUSANO
NOT SIGNALIZED

85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00180223
Start Date: 12/18/18
File I.D. : JOHNCORA
Page : 1

ALL VEHICLES

	From North				JOHNSON ROAD From East				CORAL CREEK SHOPS WEST DWY From South				JOHNSON ROAD From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 12/18/18																	
11:00	0	0	0	0	0	0	0	0	0	0	0	22	0	0	43	26	91
11:15	0	0	0	0	0	0	0	0	0	0	0	23	0	0	52	25	100
11:30	0	0	0	0	0	0	0	0	0	0	0	22	0	0	44	35	101
11:45	0	0	0	0	0	0	0	0	0	0	0	37	0	0	44	39	120
Hr Total	0	0	0	0	0	0	0	0	0	0	0	104	0	0	183	125	412
12:00	0	0	0	0	0	0	0	0	0	0	0	38	0	0	53	32	123
12:15	0	0	0	0	0	0	0	0	0	0	0	44	0	0	53	27	124
12:30	0	0	0	0	0	0	0	0	0	0	0	35	0	0	70	35	140
12:45	0	0	0	0	0	0	0	0	0	0	0	52	0	0	104	36	192
Hr Total	0	0	0	0	0	0	0	0	0	0	0	169	0	0	280	130	579
13:00	0	0	0	0	0	0	0	0	0	0	0	37	0	0	48	42	127
13:15	0	0	0	0	0	0	0	0	0	0	0	41	0	0	73	33	147
13:30	0	0	0	0	0	0	0	0	0	0	0	50	0	0	76	38	164
13:45	0	0	0	0	0	0	0	0	0	0	0	37	0	0	66	36	139
Hr Total	0	0	0	0	0	0	0	0	0	0	0	165	0	0	263	149	577
14:00	0	0	0	0	0	0	0	0	0	0	0	41	0	0	64	38	143
14:15	0	0	0	0	0	0	0	0	0	0	0	49	0	0	69	30	148
14:30	0	0	0	0	0	0	0	0	0	0	0	38	0	0	44	36	118
14:45	0	0	0	0	0	0	0	0	0	0	0	42	0	0	61	47	150
Hr Total	0	0	0	0	0	0	0	0	0	0	0	170	0	0	238	151	559
15:00	0	0	0	0	0	0	0	0	0	0	0	37	0	0	63	24	124
15:15	0	0	0	0	0	0	0	0	0	0	0	57	0	0	70	36	163
15:30	0	0	0	0	0	0	0	0	0	0	0	41	0	0	64	39	144
15:45	0	0	0	0	0	0	0	0	0	0	0	35	0	0	56	43	134
Hr Total	0	0	0	0	0	0	0	0	0	0	0	170	0	0	253	142	565
16:00	0	0	0	0	0	0	0	0	0	0	0	40	0	0	57	34	131
16:15	0	0	0	0	0	0	0	0	0	0	0	48	0	0	73	37	158
16:30	0	0	0	0	0	0	0	0	0	0	0	50	0	0	80	35	165
16:45	0	0	0	0	0	0	0	0	0	0	0	44	0	0	72	39	155
Hr Total	0	0	0	0	0	0	0	0	0	0	0	182	0	0	282	145	609
17:00	0	0	0	0	0	0	0	0	0	0	0	40	0	0	65	35	140
17:15	0	0	0	0	0	0	0	0	0	0	0	39	0	0	83	32	154
17:30	0	0	0	0	0	0	0	0	0	0	0	50	0	0	70	41	161
17:45	0	0	0	0	0	0	0	0	0	0	0	50	0	0	69	41	160
Hr Total	0	0	0	0	0	0	0	0	0	0	0	179	0	0	287	149	615

TRAFFIC SURVEY SPECIALISTS, INC.

JOHNSON ROAD & CORAL CREEK SHOPS WEST
DRIVEWAY, COCONUT CREEK, FLORIDA
COUNTED BY: GERMAIN CAMPUSANO
NOT SIGNALIZED

85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00180223
Start Date: 12/18/18
File I.D. : JOHNCORA
Page : 2

ALL VEHICLES

	From North				JOHNSON ROAD From East				CORAL CREEK SHOPS WEST DWY From South				JOHNSON ROAD From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 12/18/18																	
TOTAL	0	0	0	0	0	0	0	0	0	0	0	1139	0	0	1786	991	3916

TRAFFIC SURVEY SPECIALISTS, INC.

JOHNSON ROAD & CORAL CREEK SHOPS WEST
DRIVEWAY, COCONUT CREEK, FLORIDA
COUNTED BY: GERMAIN CAMPUSANO
NOT SIGNALIZED

85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00180223
Start Date: 12/18/18
File I.D. : JOHNCORA
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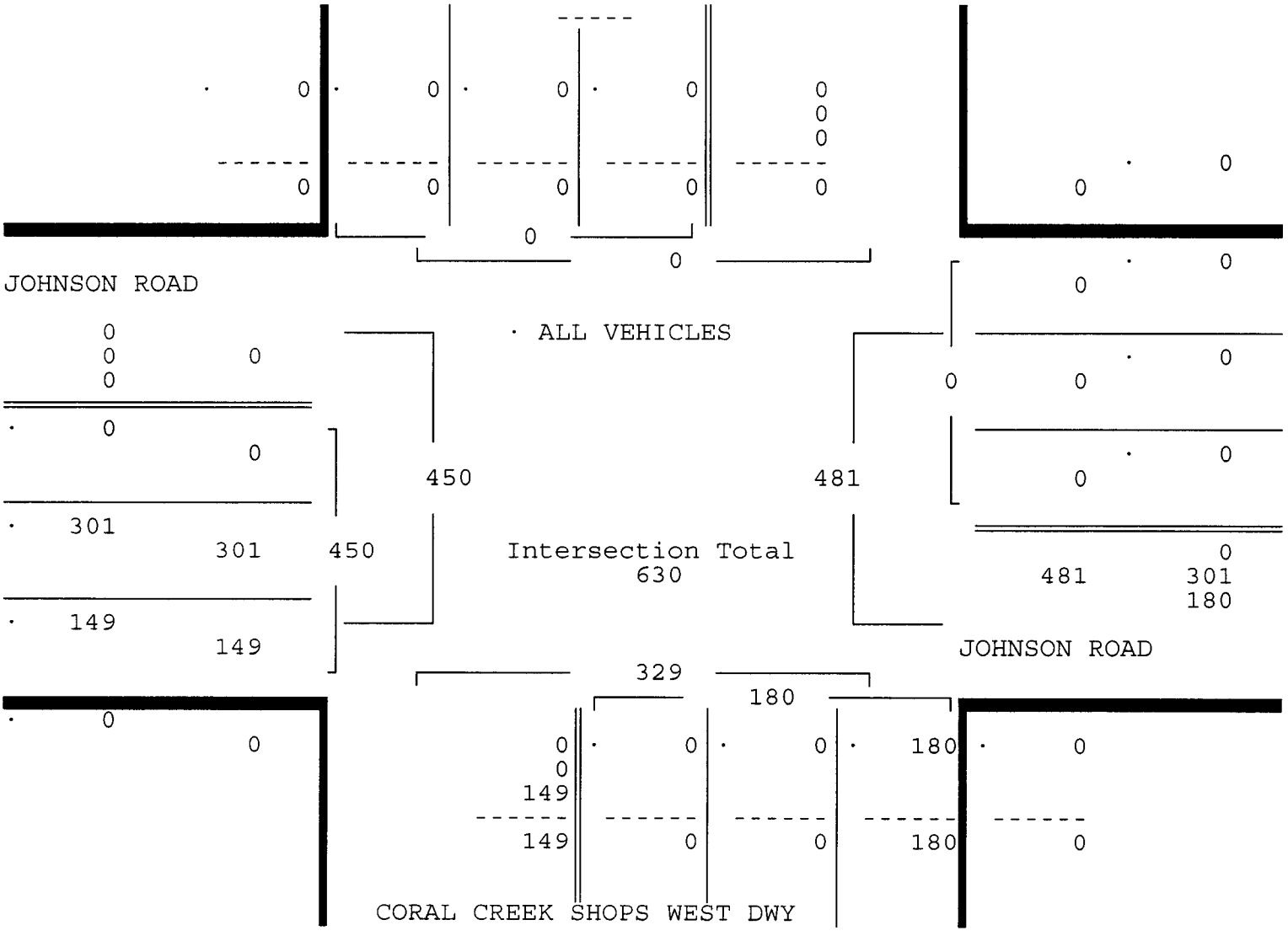
ALL VEHICLES

	From North				JOHNSON ROAD From East				CORAL CREEK SHOPS WEST DWY From South				JOHNSON ROAD From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 12/18/18																	
Peak Hour Analysis By Entire Intersection for the Period: 11:30 to 13:30 on 12/18/18																	
Peak start	12:45				12:45				12:45				12:45				
Volume	0	0	0	0	0	0	0	0	0	0	0	180	0	0	301	149	
Percent	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	67%	33%	
Pk total	0				0				180				450				
Highest	11:00				11:00				12:45				12:45				
Volume	0	0	0	0	0	0	0	0	0	0	0	52	0	0	104	36	
Hi total	0				0				52				140				
PHF	.0				.0				.87				.80				



TRAFFIC SURVEY SPECIALISTS, INC.

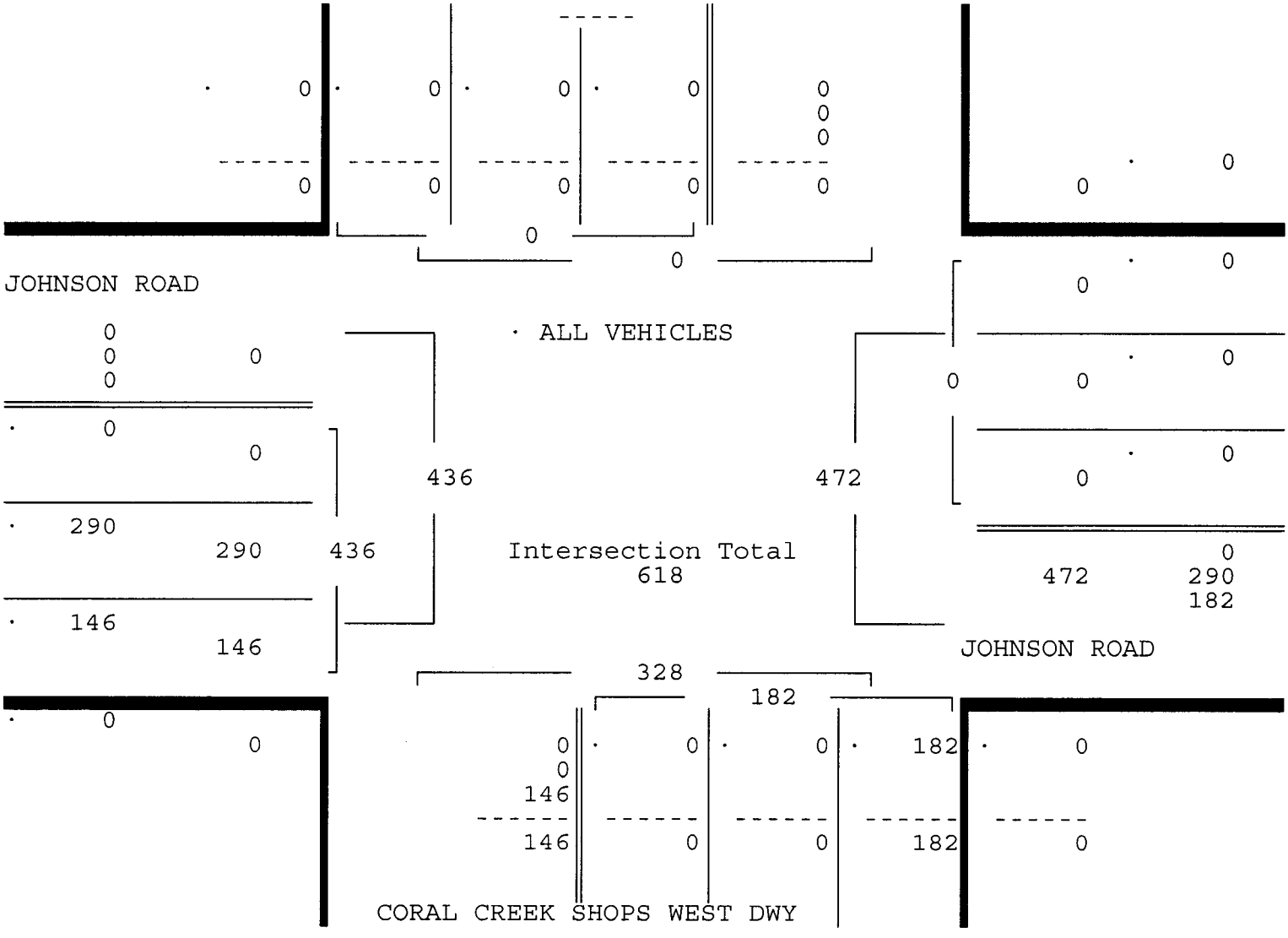
JOHNSON ROAD & CORAL CREEK SHOPS WEST
DRIVEWAY, COCONUT CREEK, FLORIDA
COUNTED BY: GERMAIN CAMPUSANO
NOT SIGNALIZED

85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00180223
Start Date: 12/18/18
File I.D. : JOHNCORA
Page : 4

ALL VEHICLES

	From North				JOHNSON ROAD From East				CORAL CREEK SHOPS WEST DWY From South				JOHNSON ROAD From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 12/18/18																	
Peak Hour Analysis By Entire Intersection for the Period: 16:00 to 18:00 on 12/18/18																	
Peak start	16:15				16:15				16:15				16:15				
Volume	0	0	0	0	0	0	0	0	0	0	0	182	0	0	290	146	
Percent	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	67%	33%	
Pk total	0				0				182				436				
Highest	11:00				11:00				16:30				16:30				
Volume	0	0	0	0	0	0	0	0	0	0	0	50	0	0	80	35	
Hi total	0				0				50				115				
PHF	.0				.0				.91				.95				



TRAFFIC SURVEY SPECIALISTS, INC.

JOHNSON ROAD & LYONS ROAD
COCONUT CREEK, FLORIDA
COUNTED BY: M. MALONE & M. INOJOSA
SIGNALIZED

85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00180223
Start Date: 12/18/18
File I.D. : JOHNLYON
Page : 1

ALL VEHICLES

	LYONS ROAD From North				JOHNSON ROAD From East				LYONS ROAD From South				JOHNSON ROAD From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 12/18/18																	
11:00	0	0	211	19	0	2	0	1	0	30	224	1	0	27	0	25	540
11:15	0	1	249	17	0	2	1	3	0	28	234	1	0	29	0	23	588
11:30	0	1	227	21	0	1	1	1	0	20	224	1	0	26	0	27	550
11:45	0	1	247	31	0	0	3	3	2	24	263	2	0	45	2	37	660
Hr Total	0	3	934	88	0	5	5	8	2	102	945	5	0	127	2	112	2338
12:00	0	1	213	38	0	1	1	0	1	25	266	0	0	49	0	27	622
12:15	1	3	285	36	0	2	0	1	0	29	255	0	0	45	1	27	685
12:30	0	2	273	44	0	0	1	4	0	39	254	5	0	39	0	37	698
12:45	0	1	296	35	0	1	3	4	0	41	215	0	0	46	0	55	697
Hr Total	1	7	1067	153	0	4	5	9	1	134	990	5	0	179	1	146	2702
13:00	0	0	289	40	0	2	0	3	0	33	286	2	0	34	0	36	725
13:15	2	2	305	34	0	2	2	2	0	25	231	3	0	34	2	35	679
13:30	0	3	304	47	0	2	0	1	0	40	254	2	0	32	4	32	721
13:45	2	2	295	53	0	2	1	3	1	55	255	1	0	29	1	38	738
Hr Total	4	7	1193	174	0	8	3	9	1	153	1026	8	0	129	7	141	2863
14:00	1	1	325	32	0	2	3	2	0	29	209	3	0	60	8	66	741
14:15	0	4	367	31	0	1	2	0	1	36	300	5	0	61	1	69	878
14:30	1	3	356	36	1	0	1	2	1	36	284	2	0	43	6	31	803
14:45	0	1	318	34	0	1	0	2	0	37	289	5	0	37	2	46	772
Hr Total	2	9	1366	133	1	4	6	6	2	138	1082	15	0	201	17	212	3194
15:00	0	1	353	32	0	1	0	0	0	32	321	1	0	69	6	41	857
15:15	0	4	325	31	0	3	1	3	0	21	348	2	0	54	1	50	843
15:30	0	3	392	30	0	1	0	1	2	28	359	1	0	64	2	38	921
15:45	2	2	474	40	0	3	1	1	3	32	343	4	0	46	4	62	1017
Hr Total	2	10	1544	133	0	8	2	5	5	113	1371	8	0	233	13	191	3638
16:00	0	1	347	30	0	51	23	32	4	33	370	11	0	44	12	64	1022
16:15	0	7	378	29	0	31	14	27	2	53	423	3	0	46	7	53	1073
16:30	0	4	574	36	0	12	5	9	2	52	434	1	0	56	1	47	1233
16:45	1	3	466	47	0	3	2	7	0	54	410	2	0	68	2	63	1128
Hr Total	1	15	1765	142	0	97	44	75	8	192	1637	17	0	214	22	227	4456
17:00	0	5	506	63	0	9	2	10	1	33	392	1	1	106	8	64	1201
17:15	0	6	545	45	0	7	2	7	0	38	435	2	0	86	12	60	1245
17:30	0	7	606	61	0	3	2	3	0	39	417	3	0	86	5	77	1309
17:45	0	10	504	36	0	4	1	6	1	44	447	8	1	73	5	45	1185
Hr Total	0	28	2161	205	0	23	7	26	2	154	1691	14	2	351	30	246	4940

ALL VEHICLES

	LYONS ROAD From North				JOHNSON ROAD From East				LYONS ROAD From South				JOHNSON ROAD From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 12/18/18																	
TOTAL	10	79	10030	1028	1	149	72	138	21	986	8742	72	2	1434	92	1275	24131

TRAFFIC SURVEY SPECIALISTS, INC.

JOHNSON ROAD & LYONS ROAD
COCONUT CREEK, FLORIDA
COUNTED BY: M. MALONE & M. INOJOSA
SIGNALIZED

85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00180223
Start Date: 12/18/18
File I.D. : JOHNLYON
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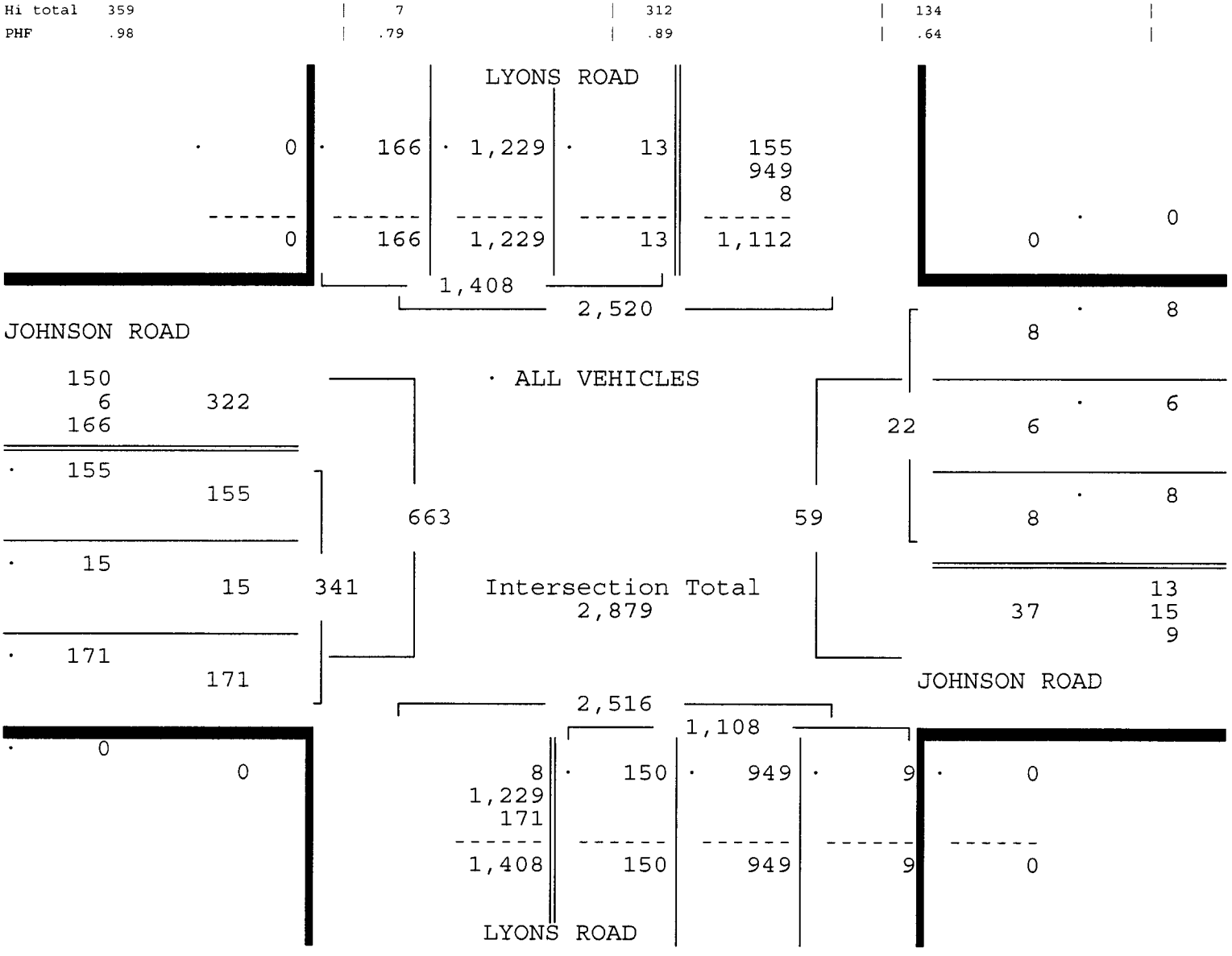
ALL VEHICLES

	LYONS ROAD From North				JOHNSON ROAD From East				LYONS ROAD From South				JOHNSON ROAD From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 12/18/18																	
Peak Hour Analysis By Entire Intersection for the Period: 11:30 to 13:30 on 12/18/18																	
Peak start	13:15				13:15				13:15				13:15				
Volume	5	8	1229	166	0	8	6	8	1	149	949	9	0	155	15	171	
Percent	0%	1%	87%	12%	0%	36%	27%	36%	0%	13%	86%	1%	0%	45%	4%	50%	
Pk total	1408				22				1108				341				
Highest	14:00				14:00				13:45				14:00				
Volume	1	1	325	32	0	2	3	2	1	55	255	1	0	60	8	66	
Hi total	359				7				312				134				
PHF	.98				.79				.89				.64				



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Site Code : 00180223
Start Date: 12/18/18
File I.D. : JOHNLYON
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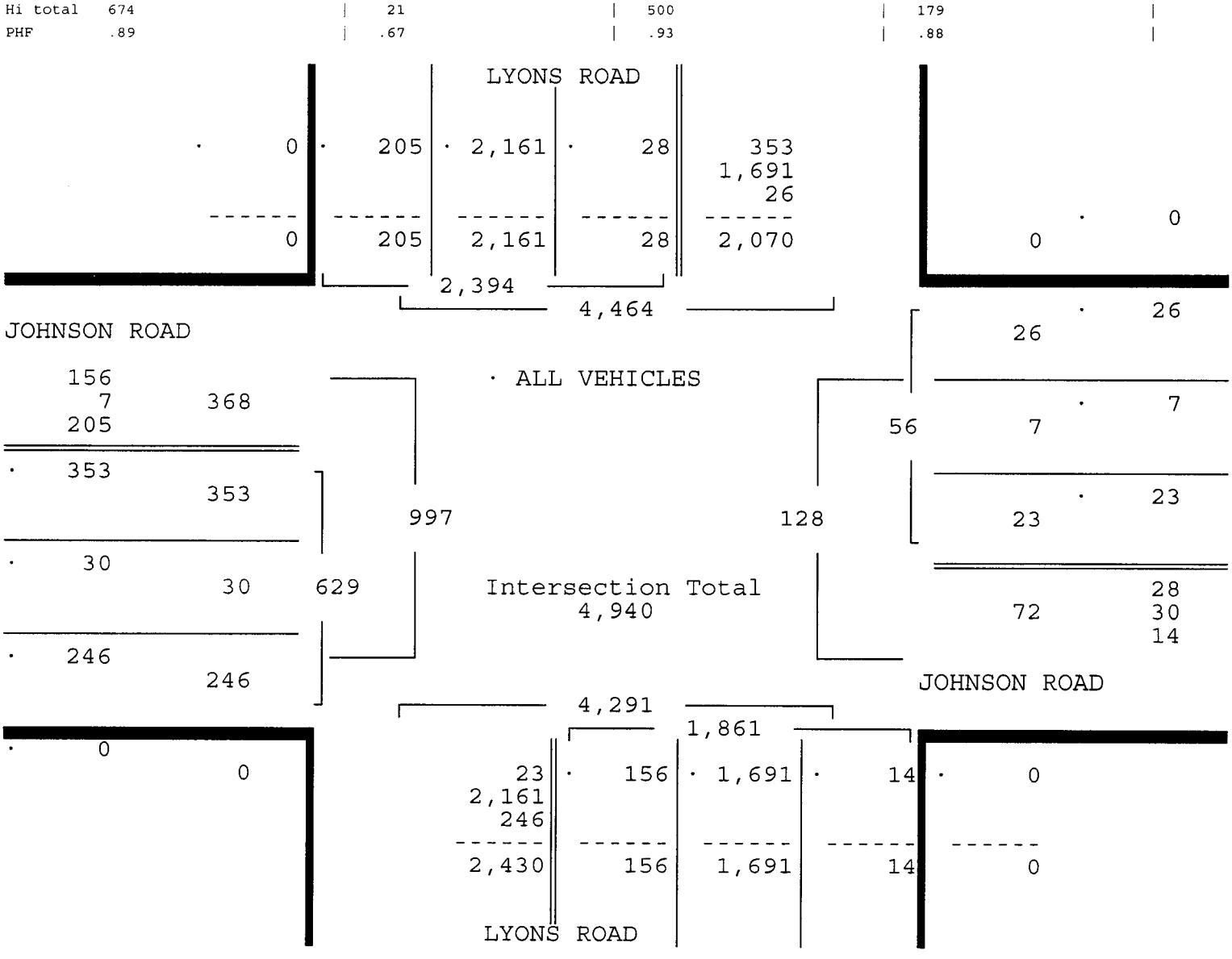
ALL VEHICLES

	LYONS ROAD From North				JOHNSON ROAD From East				LYONS ROAD From South				JOHNSON ROAD From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 12/18/18																	
Peak Hour Analysis By Entire Intersection for the Period: 16:00 to 18:00 on 12/18/18																	
Peak start	17:00				17:00				17:00				17:00				
Volume	0	28	2161	205	0	23	7	26	2	154	1691	14	2	351	30	246	
Percent	0%	1%	90%	9%	0%	41%	12%	46%	0%	8%	91%	1%	0%	56%	5%	39%	
Pk total	2394				56				1861				629				
Highest	17:30				17:00				17:45				17:00				
Volume	0	7	606	61	0	9	2	10	1	44	447	8	1	106	8	64	
Hi total	674				21				500				179				
PHF	.89				.67				.93				.88				



TRAFFIC SURVEY SPECIALISTS, INC.

CORAL CREEK SHOPS DRIVEWAY & MALL ROAD
COCONUT CREEK, FLORIDA
COUNTED BY: SEBASTIAN SALVO
NOT SIGNALIZED

85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00180223
Start Date: 12/18/18
File I.D. : MALLCORA
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ALL VEHICLES

	MALL ROAD From North				PARKING LOT From East				MALL ROAD From South				FUTURE WENDY'S DRIVEWAY From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 12/18/18																	
11:00	0	0	18	1	0	0	0	0	0	10	17	0	0	10	0	5	61
11:15	0	0	20	4	0	0	0	0	0	6	20	0	0	11	0	4	65
11:30	0	0	22	1	0	0	0	0	0	9	23	0	0	12	0	3	70
11:45	0	0	40	5	0	0	0	0	0	2	16	0	0	10	0	2	75
Hr Total	0	0	100	11	0	0	0	0	0	27	76	0	0	43	0	14	271
12:00	0	0	31	4	0	0	0	0	0	7	26	0	0	6	0	1	75
12:15	0	0	22	6	0	0	0	0	0	9	23	0	0	10	0	4	74
12:30	0	0	33	5	0	0	0	0	0	12	20	0	0	10	0	10	90
12:45	0	0	36	4	0	0	0	0	0	7	30	0	0	9	0	4	90
Hr Total	0	0	122	19	0	0	0	0	0	35	99	0	0	35	0	19	329
13:00	0	0	28	8	0	0	0	0	0	16	23	0	0	12	0	6	93
13:15	0	0	27	3	0	0	0	0	0	13	26	0	0	7	0	4	80
13:30	0	0	19	2	0	0	0	0	0	14	26	0	0	9	0	4	74
13:45	1	0	27	4	0	0	0	0	0	6	24	0	0	8	0	4	74
Hr Total	1	0	101	17	0	0	0	0	0	49	99	0	0	36	0	18	321
14:00	0	0	27	4	0	0	0	0	0	9	21	0	0	11	0	5	77
14:15	0	0	39	10	0	0	0	0	0	13	37	0	0	7	0	3	109
14:30	0	0	47	5	0	0	0	0	0	8	25	0	0	10	0	2	97
14:45	0	0	36	4	0	0	0	0	0	7	30	0	0	12	0	7	96
Hr Total	0	0	149	23	0	0	0	0	0	37	113	0	0	40	0	17	379
15:00	0	0	28	5	0	0	0	0	0	10	24	0	0	11	0	6	84
15:15	0	0	27	4	0	0	0	0	0	6	38	0	0	15	0	11	101
15:30	0	0	32	5	0	0	0	0	0	13	28	0	0	12	0	6	96
15:45	0	0	30	2	0	0	0	0	0	4	21	0	0	10	0	6	73
Hr Total	0	0	117	16	0	0	0	0	0	33	111	0	0	48	0	29	354
16:00	0	0	26	4	0	0	0	0	0	6	16	0	0	10	0	7	69
16:15	0	0	37	8	0	0	0	0	0	12	28	0	0	6	0	2	93
16:30	0	0	37	1	0	0	0	0	0	16	24	0	0	10	0	6	94
16:45	0	0	38	8	0	0	0	0	0	12	29	0	0	14	0	5	106
Hr Total	0	0	138	21	0	0	0	0	0	46	97	0	0	40	0	20	362
17:00	0	0	15	3	0	0	0	0	0	10	34	0	0	12	0	2	76
17:15	0	0	28	8	0	0	0	0	0	10	27	0	0	5	0	6	84
17:30	0	0	35	2	0	0	0	0	0	1	25	0	0	22	0	2	87
17:45	0	0	42	4	0	0	0	0	0	5	26	0	0	13	0	1	91
Hr Total	0	0	120	17	0	0	0	0	0	26	112	0	0	52	0	11	338

TRAFFIC SURVEY SPECIALISTS, INC.

CORAL CREEK SHOPS DRIVEWAY & MALL ROAD
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NOT SIGNALIZED

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DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00180223
Start Date: 12/18/18
File I.D. : MALLCORA
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ALL VEHICLES

	MALL ROAD From North				PARKING LOT From East				MALL ROAD From South				FUTURE WENDY'S DRIVEWAY From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 12/18/18																	
TOTAL	1	0	847	124	0	0	0	0	0	253	707	0	0	294	0	128	2354

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CORAL CREEK SHOPS DRIVEWAY & MALL ROAD
COCONUT CREEK, FLORIDA
COUNTED BY: SEBASTIAN SALVO
NOT SIGNALIZED

Site Code : 00180223
Start Date: 12/18/18
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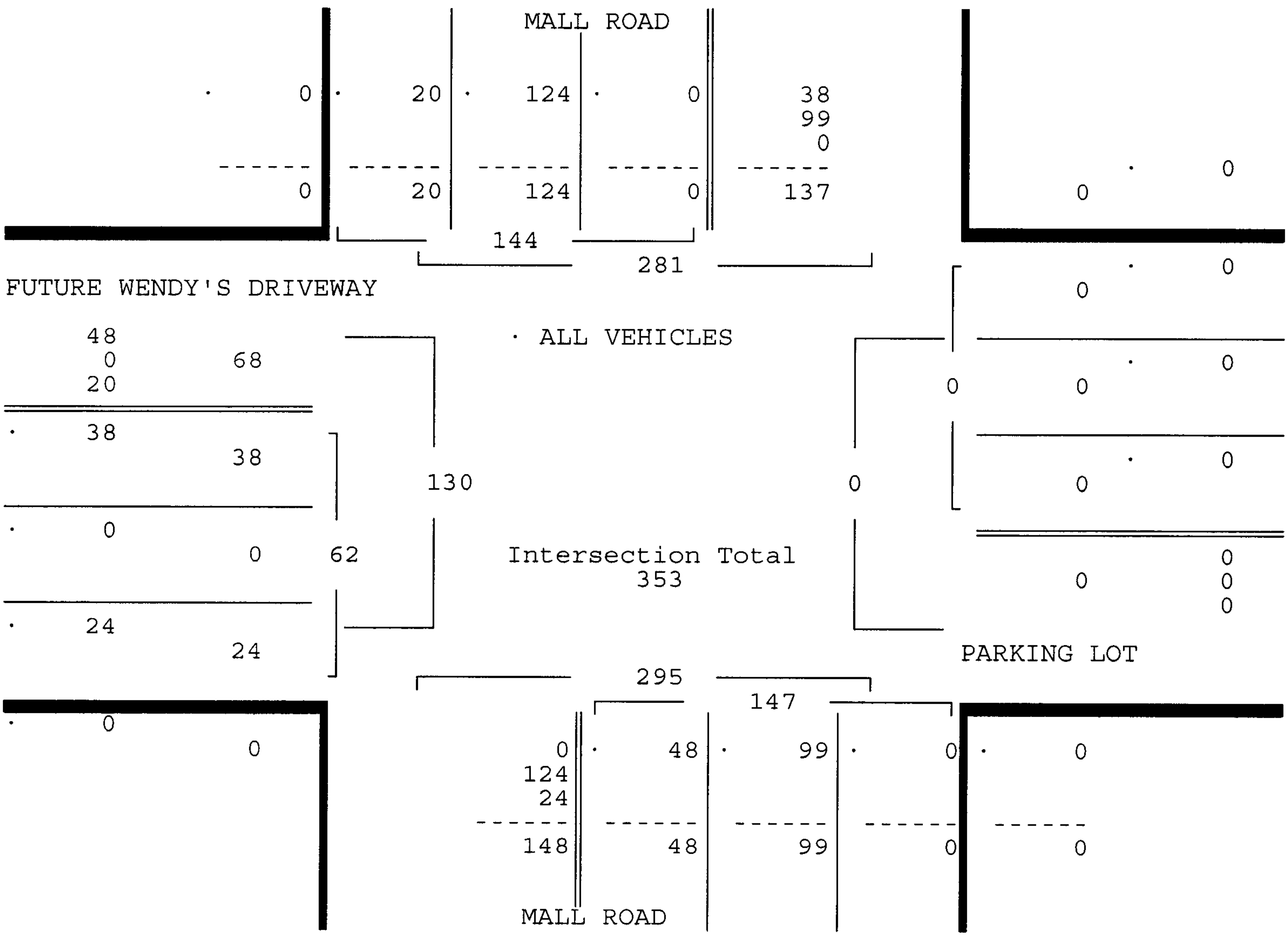
ALL VEHICLES

Date 12/18/18

Peak Hour Analysis By Entire Intersection for the Period: 11:30 to 13:30 on 12/18/18

	MALL ROAD From North				PARKING LOT From East				MALL ROAD From South				FUTURE WENDY'S DRIVEWAY From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Peak start	12:30				12:30				12:30				12:30				
Volume	0	0	124	20	0	0	0	0	0	48	99	0	0	38	0	24	
Percent	0%	0%	86%	14%	0%	0%	0%	0%	0%	33%	67%	0%	0%	61%	0%	39%	
Pk total	144				0				147				62				
Highest	12:45				11:00				13:00				12:30				
Volume	0	0	36	4	0	0	0	0	0	16	23	0	0	10	0	10	
Hi total	40				0				39				20				
PHF	.90				.0				.94				.78				



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CORAL CREEK SHOPS DRIVEWAY & MALL ROAD
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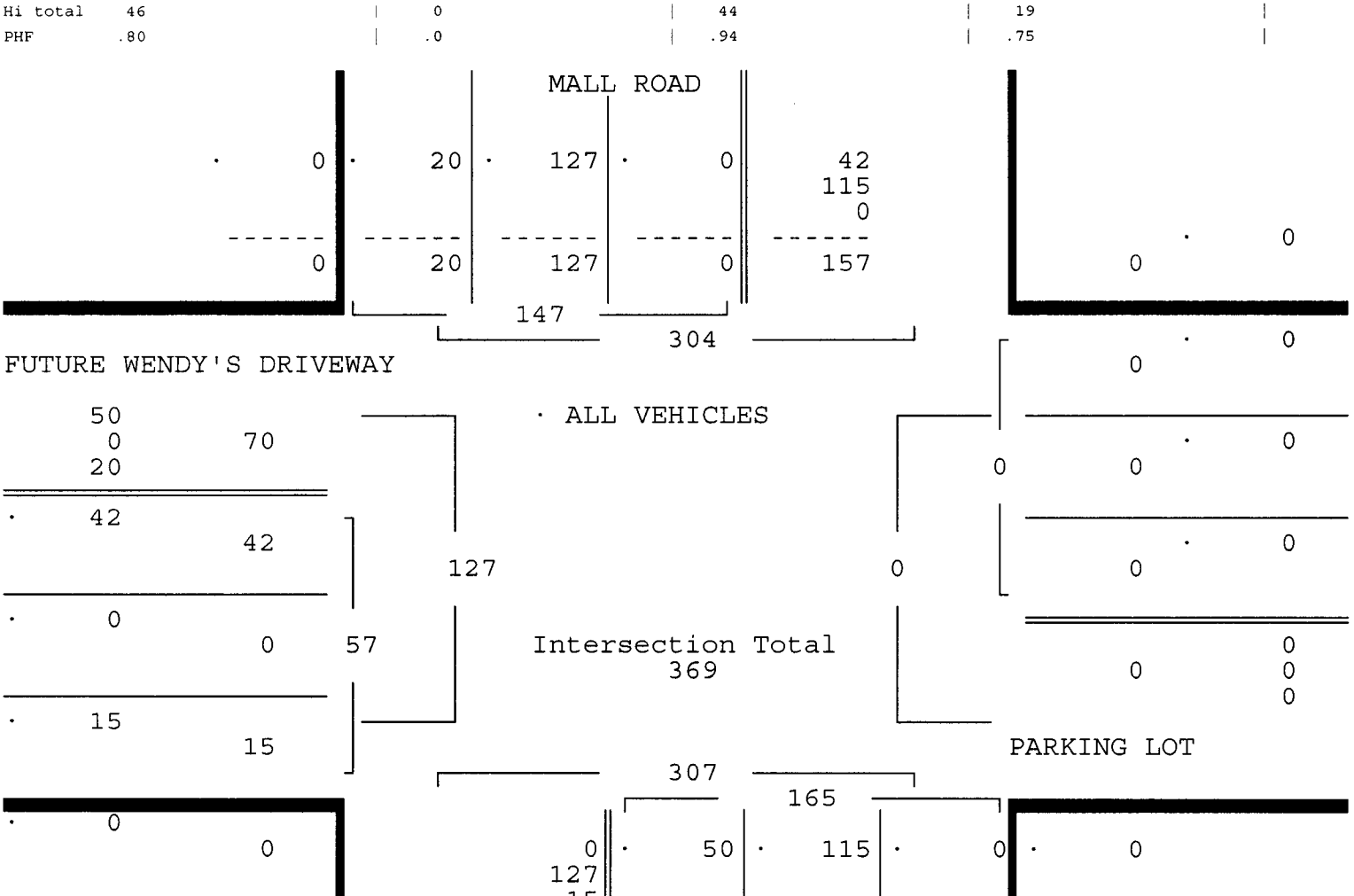
Site Code : 00180223
Start Date: 12/18/18
File I.D. : MALLCORA
Page : 4

ALL VEHICLES

	MALL ROAD From North				PARKING LOT From East				MALL ROAD From South				FUTURE WENDY'S DRIVEWAY From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 12/18/18																	
Peak Hour Analysis By Entire Intersection for the Period: 16:00 to 18:00 on 12/18/18																	
Peak start	16:15				16:15				16:15				16:15				
Volume	0	0	127	20	0	0	0	0	0	50	115	0	0	42	0	15	
Percent	0%	0%	86%	14%	0%	0%	0%	0%	0%	30%	70%	0%	0%	74%	0%	26%	
Pk total	147				0				165				57				
Highest	16:45				11:00				17:00				16:45				
Volume	0	0	38	8	0	0	0	0	0	10	34	0	0	14	0	5	
Hi total	46				0				44				19				
PHF	.80				.0				.94				.75				



APPENDIX D

ITE *Trip Generation Manual (10th Edition)*

Data Excerpts for Land Use #934

Land Use: 934
Fast-Food Restaurant with Drive-Through Window

Description

This category includes fast-food restaurants with drive-through windows. This type of restaurant is characterized by a large drive-through clientele, long hours of service (some are open for breakfast, all are open for lunch and dinner, some are open late at night or 24 hours a day) and high turnover rates for eat-in customers. These limited-service eating establishments do not provide table service. Non-drive-through patrons generally order at a cash register and pay before they eat. Fast casual restaurant (Land Use 930), high-turnover (sit-down) restaurant (Land Use 932), fast-food restaurant without drive-through window (Land Use 933), and fast-food restaurant with drive-through window and no indoor seating (Land Use 935) are related uses.

Additional Data

sers should exercise caution when applying statistics during the AM peak periods, as the sites contained in the database for this land use may or may not be open for breakfast. In cases where it was confirmed that the sites were not open for breakfast, data for the AM peak hour of the adjacent street traffic were removed from the database.

The outdoor seating area is not included in the overall gross floor area. Therefore, the number of seats may be a more reliable independent variable on which to establish trip generation rates for facilities having significant outdoor seating.

Time-of-day distribution data for this land use for a weekday, Saturday, and Sunday are presented in Appendix A. For the 46 general urban/suburban sites with data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 11:45 a.m. and 12:45 p.m. and 12:00 and 1:00 p.m., respectively. For the one dense multi-use urban site with data, the same AM and PM peak hours were observed.

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alaska, Alberta (CAN), California, Colorado, Florida, Indiana, Kentucky, Maryland, Massachusetts, Minnesota, Montana, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Dakota, Texas, Vermont, Virginia, Washington, and Wisconsin.

Source Numbers

163, 164, 168, 180, 181, 241, 245, 278, 294, 300, 301, 319, 338, 340, 342, 358, 389, 438, 502, 552, 577, 583, 584, 617, 640, 641, 704, 715, 728, 810, 866, 867, 869, 885, 886, 927, 935, 962, 977

Fast-Food Restaurant with Drive-Through Window
(934)

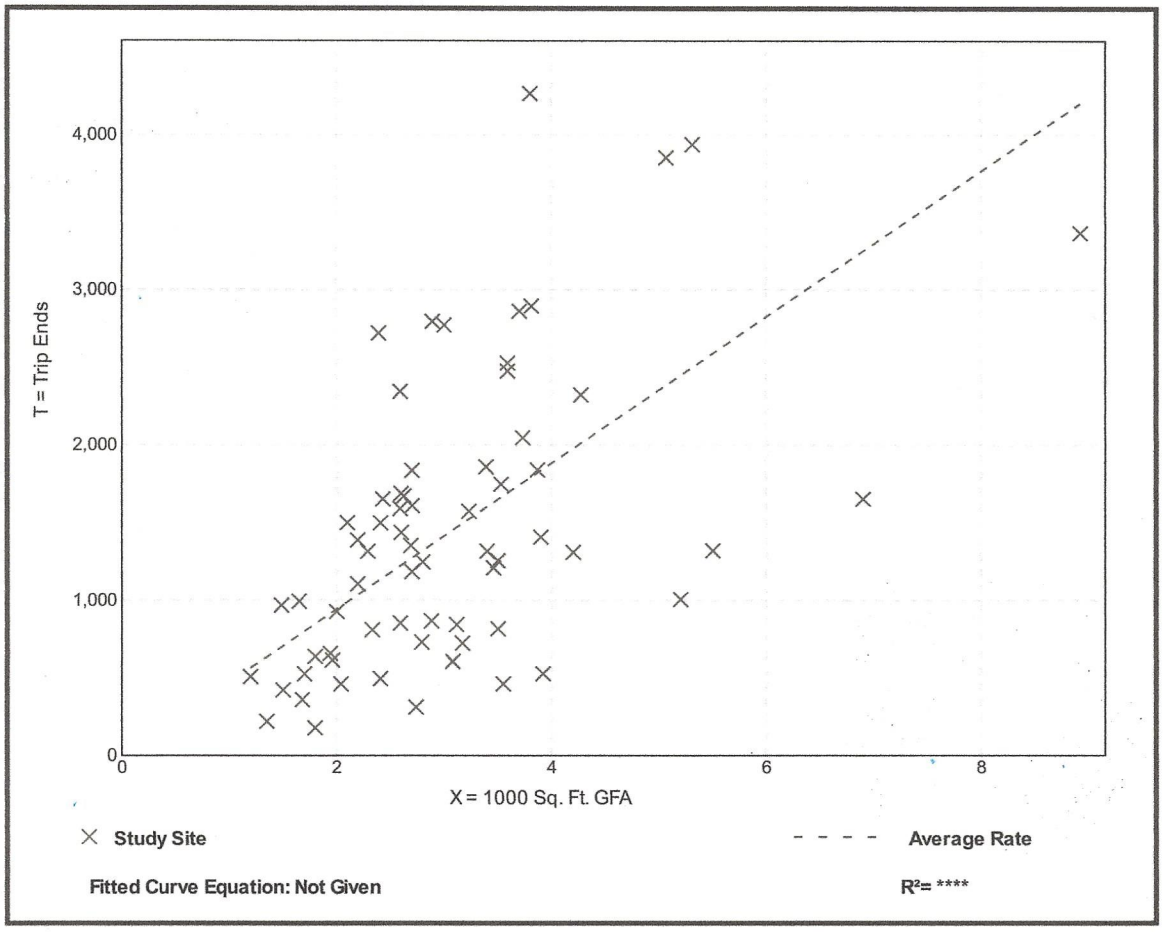
Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 67
1000 Sq. Ft. GFA: 3
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
470.95	98.89 - 1137.66	244.44

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window
(934)

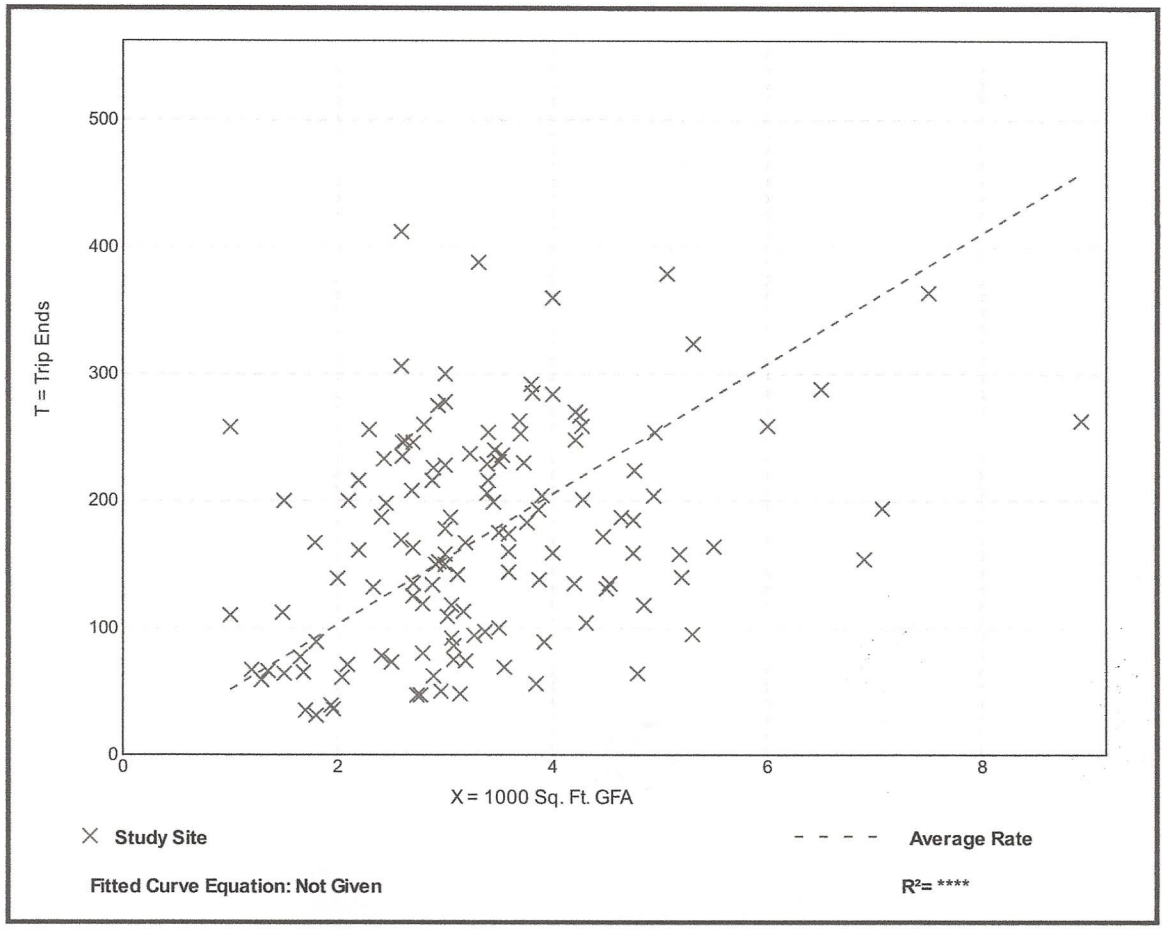
Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
PM Peak Hour of Generator

Setting/Location: **General Urban/Suburban**
Number of Studies: 132
1000 Sq. Ft. GFA: 3
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
51.36	13.36 - 258.00	27.47

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window
(934)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 185
1000 Sq. Ft. GFA: 3
Directional Distribution: 52% entering, 48% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
32.67	8.17 - 117.22	17.87

Data Plot and Equation

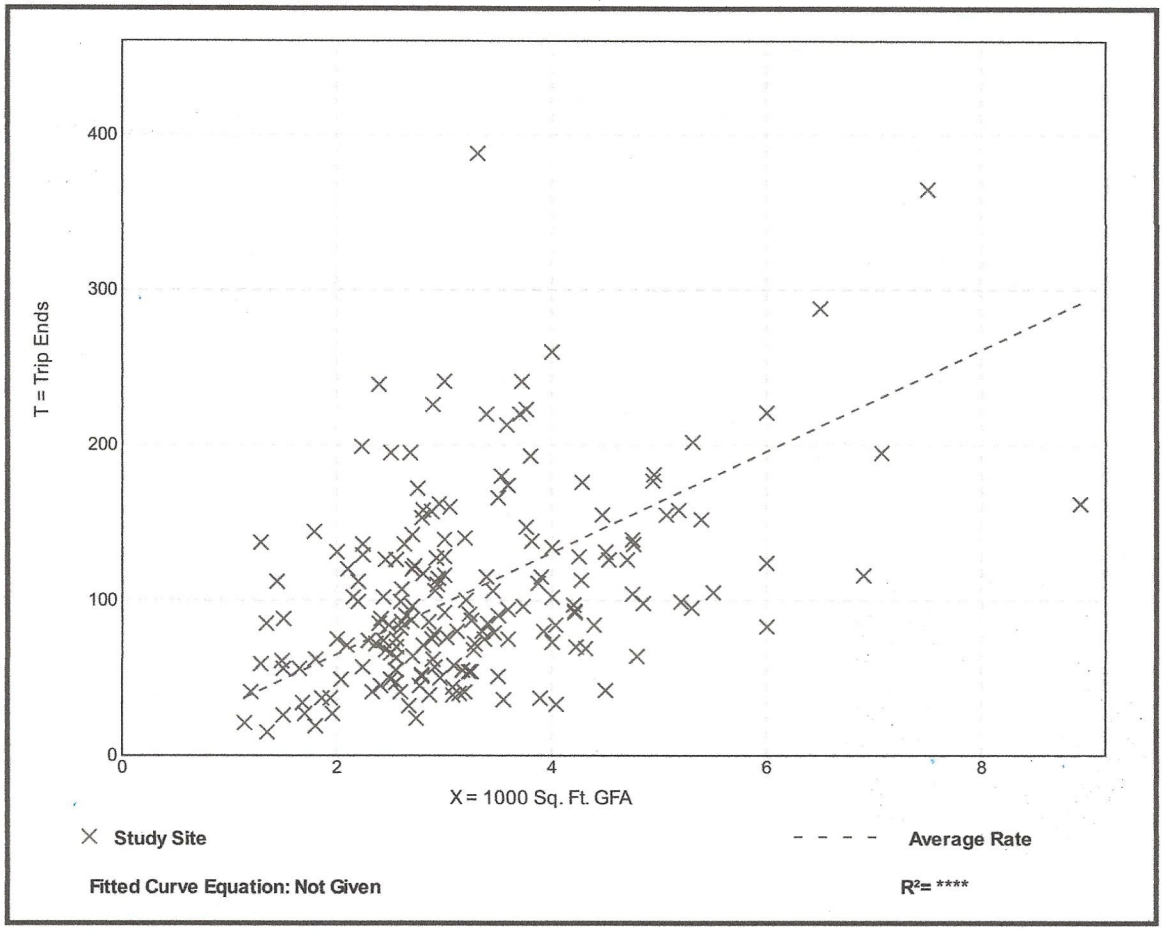


Table E.31 Pass-By and Non-Pass-By Trips Weekday, AM Peak Period Land Use Code 934—Fast-Food Restaurant with Drive-Through Window

SEATS	SIZE (1,000 SQ. FT. GFA)	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIPS (%)			ADJ. STREET PEAK HOUR VOLUME	SOURCE
							PRIMARY	DIVERTED	TOTAL		
—	<5	Chicago suburbs, IL	1987	84	7:00–9:00 a.m.	44	—	—	56	—	Kenig, O'Hara, Humes, Flock
88	1.4	Louisville area, KY	1993	—	7:00–9:00 a.m.	62	22	16	38	1,407	Barton-Aschman Assoc.
100	3.6	Louisville, KY	1993	—	7:00–9:00 a.m.	32	47	21	68	437	Barton-Aschman Assoc.
87	4.2	New Albany, IN	1993	—	7:00–9:00 a.m.	46	23	31	54	1,049	Barton-Aschman Assoc.
150	3.0	Louisville area, KY	1993	—	7:00–9:00 a.m.	43	14	43	57	2,903	Barton-Aschman Assoc.
—	3.3	varies	1996	—	6:00–9:00 a.m.	68	—	—	32	—	Oracle Engineering

Average Pass-By Trip Percentage: 49
"—" means no data were provided

Table E.32 Pass-By and Non-Pass-By Trips Weekday, PM Peak Period
Land Use Code 934—Fast-Food Restaurant with Drive-Through Window

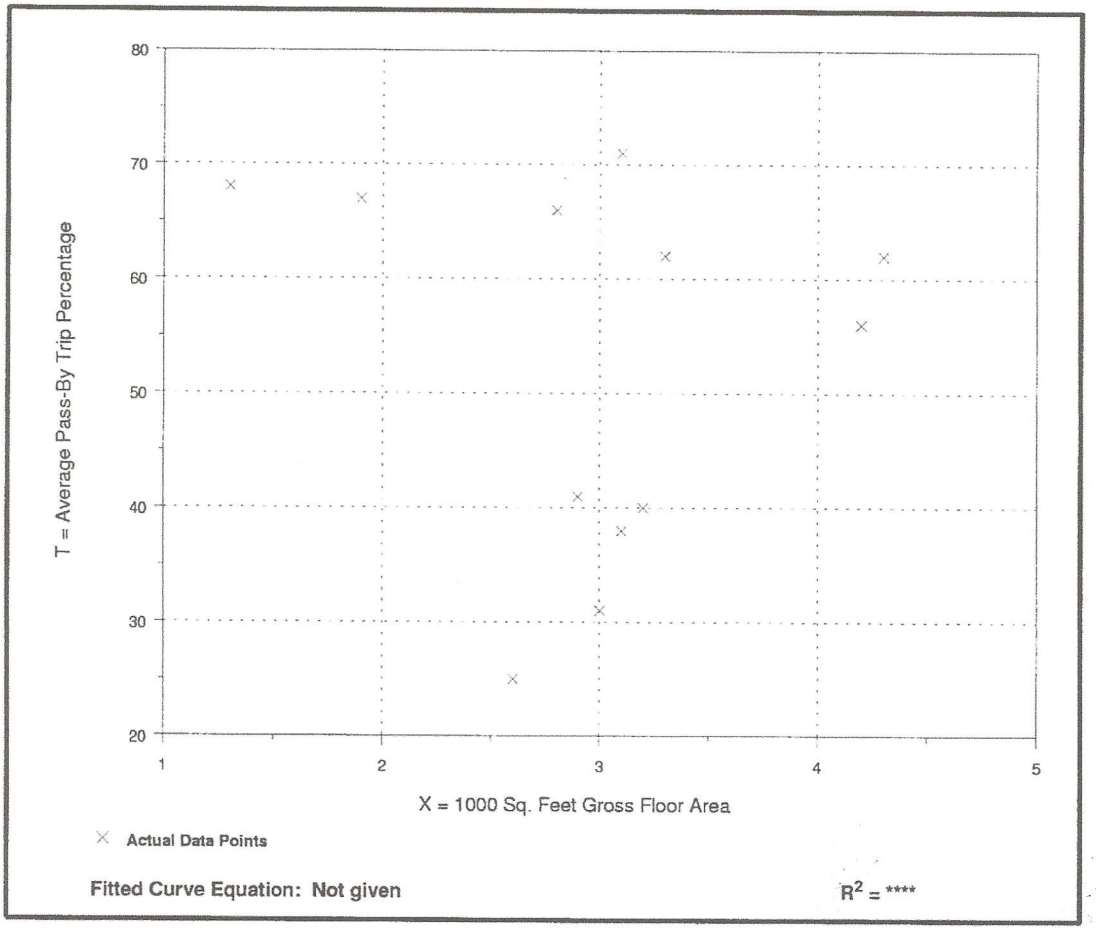
SEATS	SIZE (1,000 SQ. FT. GFA)	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIPS (%)			ADJ. STREET PEAK HOUR VOLUME	SOURCE
							PRIMARY	DIVERTED	TOTAL		
—	~2.6	Minn-St. Paul, MN	1987	50	3:00–7:00 p.m.	25	27	48	75	—	—
—	<5.0	Chicago suburbs, IL	1987	80	3:00–6:00 p.m.	38	—	—	62	—	Kenig, O'Hara, Humes, Flock
—	<5.0	Chicago suburbs, IL	1987	100	3:00–6:00 p.m.	55	—	—	45	—	Kenig, O'Hara, Humes, Flock
—	<5.0	Chicago suburbs, IL	1987	159	3:00–6:00 p.m.	56	—	—	44	—	Kenig, O'Hara, Humes, Flock
—	<5.0	Chicago suburbs, IL	1987	225	3:00–6:00 p.m.	48	—	—	52	—	Kenig, O'Hara, Humes, Flock
—	<5.0	Chicago suburbs, IL	1987	88	3:00–6:00 p.m.	35	—	—	65	—	Kenig, O'Hara, Humes, Flock
—	<5.0	Chicago suburbs, IL	1987	84	3:00–6:00 p.m.	44	—	—	56	—	Kenig, O'Hara, Humes, Flock
88	1.3	Louisville area, KY	1993	—	4:00–6:00 p.m.	68	22	10	32	2,055	Barton-Aschman Assoc.
120	1.9	Louisville area, KY	1993	33	4:00–6:00 p.m.	67	24	9	33	2,447	Barton-Aschman Assoc.
87	4.2	New Albany, IN	1993	—	4:00–6:00 p.m.	56	25	19	44	1,632	Barton-Aschman Assoc.
150	3.0	Louisville area, KY	1993	—	4:00–6:00 p.m.	31	31	38	69	4,250	Barton-Aschman Assoc.
—	3.1	Kissimmee, FL	1995	28	2:00–6:00 p.m.	71	—	—	29	—	TPD Inc.
—	3.1	Apopka, FL	1996	29	2:00–6:00 p.m.	38	—	—	62	—	TPD Inc.
—	2.8	Winter Springs, FL	1995	47	2:00–6:00 p.m.	66	—	—	34	—	TPD Inc.
—	4.3	Longwood, FL	1994	304	2:00–6:00 p.m.	62	—	—	38	—	TPD Inc.
—	3.2	Altamonte Springs, FL	1996	202	2:00–6:00 p.m.	40	39	21	60	—	TPD Inc.
—	2.9	Winter Park, FL	1996	271	2:00–6:00 p.m.	41	41	18	59	—	TPD Inc.
—	3.3*	several	1996	varies	4:00–6:00 p.m.	62	—	—	38	—	Oracle Engineering

*Average of several combined studies.
Average Pass-By Trip Percentage: 50
"—" means no data were provided

Figure E.17 Fast-Food Restaurant with Drive-Through Window (934)

Average Pass-By Trip Percentage vs: **1,000 Sq. Ft. Gross Floor Area**
On a: **Weekday, PM Peak Period**
Number of Studies: 12
Average 1,000 Sq. Ft. GFA: 3.0

Data Plot



APPENDIX E

FDOT Peak Season
Conversion Factor Report

2017 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 8601 CEN.-W OF US1 TO SR7

MOCF: 0.97

WEEK	DATES	SF	PSCF
1	01/01/2017 - 01/07/2017	0.96	0.99
2	01/08/2017 - 01/14/2017	0.98	1.01
3	01/15/2017 - 01/21/2017	0.99	1.02
4	01/22/2017 - 01/28/2017	0.99	1.02
* 5	01/29/2017 - 02/04/2017	0.98	1.01
* 6	02/05/2017 - 02/11/2017	0.98	1.01
* 7	02/12/2017 - 02/18/2017	0.97	1.00
* 8	02/19/2017 - 02/25/2017	0.97	1.00
* 9	02/26/2017 - 03/04/2017	0.96	0.99
*10	03/05/2017 - 03/11/2017	0.96	0.99
*11	03/12/2017 - 03/18/2017	0.96	0.99
*12	03/19/2017 - 03/25/2017	0.96	0.99
*13	03/26/2017 - 04/01/2017	0.97	1.00
*14	04/02/2017 - 04/08/2017	0.97	1.00
*15	04/09/2017 - 04/15/2017	0.98	1.01
*16	04/16/2017 - 04/22/2017	0.98	1.01
*17	04/23/2017 - 04/29/2017	0.99	1.02
18	04/30/2017 - 05/06/2017	0.99	1.02
19	05/07/2017 - 05/13/2017	0.99	1.02
20	05/14/2017 - 05/20/2017	1.00	1.03
21	05/21/2017 - 05/27/2017	1.00	1.03
22	05/28/2017 - 06/03/2017	1.00	1.03
23	06/04/2017 - 06/10/2017	1.01	1.04
24	06/11/2017 - 06/17/2017	1.01	1.04
25	06/18/2017 - 06/24/2017	1.01	1.04
26	06/25/2017 - 07/01/2017	1.01	1.04
27	07/02/2017 - 07/08/2017	1.01	1.04
28	07/09/2017 - 07/15/2017	1.02	1.05
29	07/16/2017 - 07/22/2017	1.01	1.04
30	07/23/2017 - 07/29/2017	1.01	1.04
31	07/30/2017 - 08/05/2017	1.01	1.04
32	08/06/2017 - 08/12/2017	1.01	1.04
33	08/13/2017 - 08/19/2017	1.01	1.04
34	08/20/2017 - 08/26/2017	1.05	1.08
35	08/27/2017 - 09/02/2017	1.08	1.11
36	09/03/2017 - 09/09/2017	1.12	1.15
37	09/10/2017 - 09/16/2017	1.16	1.20
38	09/17/2017 - 09/23/2017	1.13	1.16
39	09/24/2017 - 09/30/2017	1.10	1.13
40	10/01/2017 - 10/07/2017	1.08	1.11
41	10/08/2017 - 10/14/2017	1.05	1.08
42	10/15/2017 - 10/21/2017	1.03	1.06
43	10/22/2017 - 10/28/2017	1.02	1.05
44	10/29/2017 - 11/04/2017	1.01	1.04
45	11/05/2017 - 11/11/2017	1.00	1.03
46	11/12/2017 - 11/18/2017	0.99	1.02
47	11/19/2017 - 11/25/2017	0.98	1.01
48	11/26/2017 - 12/02/2017	0.98	1.01
49	12/03/2017 - 12/09/2017	0.97	1.00
50	12/10/2017 - 12/16/2017	0.96	0.99
51	12/17/2017 - 12/23/2017	0.97	1.00
52	12/24/2017 - 12/30/2017	0.98	1.01
53	12/31/2017 - 12/31/2017	0.99	1.02

* PEAK SEASON

APPENDIX F

FDOT Historic Traffic Counts

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2017 HISTORICAL AADT REPORT

COUNTY: 86 - BROWARD

SITE: 0005 - SR 7 / US 441 - S OF SR 810/HILLSBORO BLVD

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2017	63500 C	N 30000	S 33500	9.00	51.90	7.00
2016	59500 C	N 29500	S 30000	9.00	54.10	5.10
2015	55000 C	N 25500	S 29500	9.00	54.00	5.10
2014	55500 C	N 27500	S 28000	9.00	54.20	3.40
2013	56500 C	N 28000	S 28500	9.00	53.60	4.10
2012	54500 C	N 27000	S 27500	9.00	52.20	3.70
2011	46500 C	N 25000	S 21500	9.00	52.50	3.70
2010	50000 C	N 24500	S 25500	8.35	52.69	3.70
2009	55500 C	N 27000	S 28500	8.53	53.89	4.90
2008	55000 C	N 27500	S 27500	8.81	54.16	4.90
2007	55500 C	N 27000	S 28500	8.63	55.75	3.70
2006	55500 C	N 28000	S 27500	8.40	55.34	2.50
2005	54000 C	N 27500	S 26500	8.20	51.70	3.10
2004	52500 C	N 26000	S 26500	9.10	55.30	3.10
2003	54000 C	N 27000	S 27000	8.60	57.50	3.10
2002	54500 C	N 26500	S 28000	8.70	56.40	2.30

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2017 HISTORICAL AADT REPORT

COUNTY: 86 - BROWARD

SITE: 7115 - HOLMBERG RD, W OF SR 7

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2017	16800 S	E 7900	W 8900	9.00	57.10	6.20
2016	16400 F	E 7700	W 8700	9.00	56.10	2.90
2015	16000 C	E 7500	W 8500	9.00	56.20	3.40
2014	18000 X			9.00	56.80	7.40
2013	17500 X	0	0	9.00	56.20	7.60
2012	17500 T	0	0	9.00	57.00	5.90
2011	17200 S	0	0	9.00	59.10	6.30
2010	16800 F	E 8200	W 8600	9.60	57.92	9.30
2009	16400 C	E 8000	W 8400	9.71	58.42	5.30
2008	14000 C	E 0	W 0	9.67	56.67	6.50
2007	15000 C	E 0	W 0	10.19	60.63	4.80
2006	15000 C	E 0	W 0	9.61	59.08	2.90
2005	14500 C	E	W	10.00	58.10	0.00

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2017 HISTORICAL AADT REPORT

COUNTY: 86 - BROWARD

SITE: 9527 - JOHNSON ROAD, E OF SR 7

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2017	14000 S	E 6500	W 7500	9.00	51.90	6.20
2016	14000 F	E 6500	W 7500	9.00	54.10	2.90
2015	13800 C	E 6400	W 7400	9.00	54.00	3.40
2014	9600 T			9.00	54.20	7.40
2013	9500 S	0	0	9.00	53.60	7.60
2012	9500 F	0	0	9.00	52.20	5.90
2011	9500 C	E 0	W 0	9.00	52.50	6.30
2010	8100 F	E 4100	W 4000	8.35	52.69	9.30
2009	8100 C	E 4100	W 4000	8.53	53.89	5.30
2008	9500 C	E 0	W 0	8.81	54.16	6.50
2007	9900 C	E 0	W 0	8.63	55.75	4.80
2006	11000 C	E 0	W 0	8.40	55.34	2.90
2005	9900 C	E	W	8.20	51.70	0.00

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

Wendy's

Coconut Creek, FL

Growth Rate Analysis

Site #860005 - SR 7 / US 441 - South of SR 810 / Hillsboro Boulevard

Year	Volume	Growth Rate
2012	54,500	
2017	63,500	3.10%

Site #867115 - Holmberg Road - West of State Road 7

Year	Volume	Growth Rate
2012	17,500	
2017	16,800	-0.81%

Site #869527 - Johnson Road - East of State Road 7

Year	Volume	Growth Rate
2012	9,500	
2017	14,000	8.06%

Total - All Count Stations

Year	Volume	Growth Rate
2012	81,500	
2017	94,300	2.96%

APPENDIX G

Future Traffic Volumes Spreadsheets

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

SR 7 and Holmberg Road\Johnson Road
Mid-Day Peak Hour

Description	SR 7 Northbound			SR 7 Southbound			Holmberg Road Eastbound			Johnson Road Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (12/13/2018)	221	1,374	119	139	1,344	245	209	106	158	97	110	69
Season Adjustment Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
2018 Peak Season Traffic	219	1,360	118	138	1,331	243	207	105	156	96	109	68
Annual Growth Rate	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%
2019 Background Traffic	225	1,401	121	142	1,370	250	213	108	161	99	112	70
New Project Trips	8	13		12	2			4			2	
Pass-by Capture Adjustment												
2019 Total Traffic	**233**	**1,414**	**121**	**154**	**1,372**	**250**	**213**	**112**	**161**	**99**	**114**	**70**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

SR 7 and Holmberg Road\Johnson Road
PM Peak Hour

Description	SR 7 Northbound			SR 7 Southbound			Holmberg Road Eastbound			Johnson Road Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (12/13/2018)	311	1,887	116	125	2,007	481	321	198	249	247	280	177
Season Adjustment Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
2018 Peak Season Traffic	308	1,868	115	124	1,987	476	318	196	247	245	277	175
Annual Growth Rate	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%
2019 Background Traffic	317	1,923	118	127	2,046	490	327	202	254	252	285	180
New Project Trips	5	9		8	1			2			1	
Pass-by Capture Adjustment												
2019 Total Traffic	**322**	**1,932**	**118**	**135**	**2,047**	**490**	**327**	**204**	**254**	**252**	**286**	**180**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

SR 7 and Coral Creek Shops Driveway
Mid-Day Peak Hour

Description	SR 7 Northbound			SR 7 Southbound			- Eastbound			Coral Creek Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (12/13/2018)	0	1,658	88	0	1,582	0	0	0	0	0	0	65
Season Adjustment Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
2018 Peak Season Traffic	0	1,641	87	0	1,566	0	0	0	0	0	0	64
Annual Growth Rate	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%
2019 Background Traffic	0	1,690	90	0	1,613	0	0	0	0	0	0	66
New Project Trips			14		8							21
Pass-by Capture Adjustment		-33	33		-33							33
2019 Total Traffic	**0**	**1,657**	**137**	**0**	**1,588**	**0**	**0**	**0**	**0**	**0**	**0**	**120**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

SR 7 and Coral Creek Shops Driveway
PM Peak Hour

Description	SR 7 Northbound			SR 7 Southbound			- Eastbound			Coral Creek Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (12/13/2018)	0	2,209	80	0	2,472	0	0	0	0	0	0	81
Season Adjustment Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
2018 Peak Season Traffic	0	2,187	79	0	2,447	0	0	0	0	0	0	80
Annual Growth Rate	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%
2019 Background Traffic	0	2,252	82	0	2,520	0	0	0	0	0	0	83
New Project Trips			9		5							14
Pass-by Capture Adjustment		-22	22		-20							20
2019 Total Traffic	**0**	**2,230**	**113**	**0**	**2,505**	**0**	**0**	**0**	**0**	**0**	**0**	**117**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

SR 7 and Regency Lakes Boulevard
Mid-Day Peak Hour

Description	SR 7 Northbound			SR 7 Southbound			- Eastbound			Regency Lakes Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (12/13/2018)	96	1,580	131	112	1,499	0	0	0	0	179	0	87
Season Adjustment Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
2018 Peak Season Traffic	95	1,564	130	111	1,484	0	0	0	0	177	0	86
Annual Growth Rate	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%
2019 Background Traffic	98	1,611	134	114	1,528	0	0	0	0	182	0	89
New Project Trips		14		2	6					7		
Pass-by Capture Adjustment												
2019 Total Traffic	**98**	**1,625**	**134**	**116**	**1,534**	**0**	**0**	**0**	**0**	**189**	**0**	**89**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

SR 7 and Regency Lakes Boulevard
PM Peak Hour

Description	SR 7 Northbound			SR 7 Southbound			- Eastbound			Regency Lakes Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (12/13/2018)	122	2,147	164	147	2,349	0	0	0	0	258	0	115
Season Adjustment Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
2018 Peak Season Traffic	121	2,126	162	146	2,326	0	0	0	0	255	0	114
Annual Growth Rate	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%
2019 Background Traffic	124	2,188	167	150	2,394	0	0	0	0	263	0	117
New Project Trips		9		1	4					4		
Pass-by Capture Adjustment												
2019 Total Traffic	**124**	**2,197**	**167**	**151**	**2,398**	**0**	**0**	**0**	**0**	**267**	**0**	**117**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Johnson Road and Coral Creek Shops Driveway (west)
Mid-Day Peak Hour

Description	Coral Creek Northbound			- Southbound			Johnson Road Eastbound			Johnson Road Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (12/18/2018)	0	0	180	0	0	0	0	301	149	0	276	0
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2018 Peak Season Traffic	0	0	180	0	0	0	0	301	149	0	276	0
Annual Growth Rate	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%
2019 Background Traffic	0	0	185	0	0	0	0	310	153	0	284	0
New Project Trips			5						16		2	
Pass-by Capture Adjustment												
2019 Total Traffic	**0**	**0**	**190**	**0**	**0**	**0**	**0**	**310**	**169**	**0**	**286**	**0**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Johnson Road and Coral Creek Shops Driveway (west)
PM Peak Hour

Description	Coral Creek Northbound			- Southbound			Johnson Road Eastbound			Johnson Road Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (12/18/2018)	0	0	182	0	0	0	0	290	146	0	704	0
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2018 Peak Season Traffic	0	0	182	0	0	0	0	290	146	0	704	0
Annual Growth Rate	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%
2019 Background Traffic	0	0	187	0	0	0	0	299	150	0	725	0
New Project Trips			3						10		1	
Pass-by Capture Adjustment												
2019 Total Traffic	**0**	**0**	**190**	**0**	**0**	**0**	**0**	**299**	**160**	**0**	**726**	**0**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Johnson Road and Coral Creek Shops Driveway (east)
Mid-Day Peak Hour

Description	Coral Creek Northbound			Driveway Southbound			Johnson Road Eastbound			Johnson Road Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (12/13/2018)	68	0	37	4	2	3	75	279	17	189	170	5
Season Adjustment Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
2018 Peak Season Traffic	67	0	37	4	2	3	74	276	17	187	168	5
Annual Growth Rate	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%
2019 Background Traffic	69	0	38	4	2	3	76	284	17	193	173	5
New Project Trips							2	3		3		
Pass-by Capture Adjustment												
2019 Total Traffic	**69**	**0**	**38**	**4**	**2**	**3**	**78**	**287**	**17**	**196**	**173**	**5**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Johnson Road and Coral Creek Shops Driveway (east)
PM Peak Hour

Description	Coral Creek Northbound			Driveway Southbound			Johnson Road Eastbound			Johnson Road Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (12/13/2018)	85	0	54	6	1	6	103	359	22	160	436	9
Season Adjustment Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
2018 Peak Season Traffic	84	0	53	6	1	6	102	355	22	158	432	9
Annual Growth Rate	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%
2019 Background Traffic	87	0	55	6	1	6	105	366	22	163	444	9
New Project Trips							1	2		2		
Pass-by Capture Adjustment												
2019 Total Traffic	**87**	**0**	**55**	**6**	**1**	**6**	**106**	**368**	**22**	**165**	**444**	**9**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Johnson Road and Lyons Road
Mid-Day Peak Hour

Description	Lyons Road Northbound			Lyons Road Southbound			Johnson Road Eastbound			Johnson Road Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (12/18/2018)	150	949	9	13	1,229	166	155	15	171	8	6	8
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2018 Peak Season Traffic	150	949	9	13	1,229	166	155	15	171	8	6	8
Annual Growth Rate	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%
2019 Background Traffic	154	977	9	13	1,265	171	160	15	176	8	6	8
New Project Trips								3			3	
Pass-by Capture Adjustment												
2019 Total Traffic	**154**	**977**	**9**	**13**	**1,265**	**171**	**160**	**18**	**176**	**8**	**9**	**8**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Johnson Road and Lyons Road
PM Peak Hour

Description	Lyons Road Northbound			Lyons Road Southbound			Johnson Road Eastbound			Johnson Road Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (12/18/2018)	156	1,691	14	28	2,161	205	353	30	246	23	7	26
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2018 Peak Season Traffic	156	1,691	14	28	2,161	205	353	30	246	23	7	26
Annual Growth Rate	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%
2019 Background Traffic	161	1,741	14	29	2,225	211	363	31	253	24	7	27
New Project Trips								2			2	
Pass-by Capture Adjustment												
2019 Total Traffic	**161**	**1,741**	**14**	**29**	**2,225**	**211**	**363**	**33**	**253**	**24**	**9**	**27**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Mall Road and Future Wendy's Driveway
Mid-Day Peak Hour

Description	Mall Road Northbound			Mall Road Southbound			Wendy's Driveway Eastbound			- Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (12/18/2018)	48	99	0	0	124	20	38	0	24	0	0	0
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2018 Peak Season Traffic	48	99	0	0	124	20	38	0	24	0	0	0
Annual Growth Rate	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%
2019 Background Traffic	49	102	0	0	128	21	39	0	25	0	0	0
New Project Trips		2			7	21	14					
Pass-by Capture Adjustment						33	33					
2019 Total Traffic	**49**	**104**	**0**	**0**	**135**	**75**	**86**	**0**	**25**	**0**	**0**	**0**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Mall Road and Future Wendy's Driveway
PM Peak Hour

Description	Mall Road Northbound			Mall Road Southbound			Wendy's Driveway Eastbound			- Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (12/18/2018)	50	115	0	0	127	20	42	0	15	0	0	0
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2018 Peak Season Traffic	50	115	0	0	127	20	42	0	15	0	0	0
Annual Growth Rate	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%	2.96%
2019 Background Traffic	51	118	0	0	131	21	43	0	15	0	0	0
New Project Trips		1			4	14	9					
Pass-by Capture Adjustment						22	22					
2019 Total Traffic	**51**	**119**	**0**	**0**	**135**	**57**	**74**	**0**	**15**	**0**	**0**	**0**

APPENDIX H

Signal Timing Data

BROWARD COUNTY TRAFFIC ENGINEERING

ACTUATED TRAFFIC SIGNAL TIMING SHEET

Intersection Number	1308	**Initial Operation Date**	3/25/86
Controller Type	2070 LN	**System Number**	1308
Modification Number	13	**Modification Date**	12/17/2018
Drawing/Project No	GROUP 6	**FPL Grid Number**	87294520206
Intersection	SR 7 (US 441) and HOLMBERG/JOHNSON ROADS		
Municipality	COCONUT CREEK		

Controller Phase	1	2	3	4	5	6	7	8
Face Number	1	2	3	4	5	6	7	8
Direction	SBL	NB	WBL	EB	NBL	SB	EBL	WB
Initial Green(MIN)	5	12	4	6	5	12	4	6
Vehicle Ext.(GAP)	1.5	3.0	1.5	2.0	2.0	3.0	1.5	2.0
Maximum Green I	15	50	15	20	15	50	15	20
Maximum Green II								
Yellow Clearance	5.0	5.0	4.0	4.0	5.0	5.0	4.0	4.0
All Red Clearance	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Phase Recall	OFF	MIN	OFF	OFF	OFF	MIN	OFF	OFF
Detector Delay				20-RT				20-RT
Walk		7+A		5+A		7+A		5+A
Pedestrian Clearance		23		28		23		30
Permissive	NO		NO		DUAL		NO	
Flash Operation	RED	YELLOW	RED	RED	RED	YELLOW	RED	RED

Attachment

NOTES:

1. DUAL ENTRY HARDWIRED EAST/WEST.
2. AUDIBLE PEDESTRIAN SIGNALS: E/W BEEP, N/S TONE.
3. MOD. 13 UPDATES YELLOW CLEARANCE VALUES ON PHASES 1,2,5 & 6 ; UPDATES ALL RED CLEARANCE VALUES ON PHASES 1 & 5 PER FDOT STANDARDS.

Submitted By _____ **Approved By** _____

Station : 1308 - SR 7 & Holmberg Rd / Johnson Rd (Standard File)

Phase	1 (SL)	2 (NT)	3 (WL)	4 (ET)	5 (NL)	6 (ST)	7 (EL)	8 (WT)	9	10	11	12	13	14	15	16
Walk		7		5		7		5								
Ped Clearance		23		28		23		30								
Min Green	5	12	4	6	5	12	4	6								
Gap Ext	1.5	3	1.5	2	2	3	1.5	2								
Max1	15	50	15	20	15	50	15	20								
Max2																
Yellow Clr	5	5	4	4	5	5	4	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	2	2	2	2	2	2	2	2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON	ON	ON	ON	ON	ON	ON	ON								
Auto Flash Entry				ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Lock Call	ON		ON		ON		ON		ON	ON	ON	ON	ON	ON	ON	ON
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry				ON				ON								
Sim Gap Enable	ON	ON			ON	ON			ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Rest In Walk		ON				ON										
Cond Service																
Add Init Calc																
Concurrent Ps	1	1	1	1	2	2	2	2								

Preemption

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash						
Override Higher Preempt						
Flash in Dwell						
Link to Preempt						
Delay						
Min Duration						
Min Green	6	6	6	6	6	6
Min Walk						
Ped Clear						
Track Green						
Min Dwell	8	8	8	8	8	8
Max Presence	180	180	180	180	180	180
Track Veh 1						
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1	2	4	1	3	2	4
Dwell Cyc Veh 2	6	8	6	8	5	7
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						
Dwell Cyc Veh 7						
Dwell Cyc Veh 8						
Dwell Cyc Veh 9						
Dwell Cyc Veh 10						
Dwell Cyc Veh 11						
Dwell Cyc Veh 12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell vPed7						
Dwell Cyc Ped8						
Exit 1	3	1	2	4	2	4
Exit 2	7	5	6	8	6	8
Exit 3						
Exit 4						

Preempt LP

Channel	1	2	3	4
Min				
Max				
Enable				
Lock Mode	MAX	MAX	MAX	MAX
Coord in Preempt				
No Skip				
Priority P1				
Priority P2				
Priority P3				
Priority P4				
Lock				
Headway				
Group Lock				
Queue Jump				
Free Mode				
Alt Table				

Prepared By	Date Implemented

Reviewed By	Traffic Engineer

Station : 1308 - SR 7 & Holmberg Rd / Johnson Rd (Standard File)

Coordination

Hour	Minute	Action	Pattern	Cycle	Offset	Split	Seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 1											**Easy**															
		100	254																							
6		2	2	160	60	2	1	7	25		22	72	26	40	22	72	26	40								
9		3	3	160	58	3	1	7	25		22	65	28	45	22	65	28	45								
15		14	14	160	137	14	4		17		25	80	25	30	25	80	25	30								
20		3	3	160	58	3	1	7	25		22	65	28	45	22	65	28	45								
Day Plan 2											**Easy**															
		3	3	160	58	3	1	7	25		22	65	28	45	22	65	28	45								
1		100	254																							
6	30	3	3	160	58	3	1	7	25		22	65	28	45	22	65	28	45								
Day Plan 3											**Easy**															
		3	3	160	58	3	1	7	25		22	65	28	45	22	65	28	45								
1		100	254																							
6	30	3	3	160	58	3	1	7	25		22	65	28	45	22	65	28	45								
23		100	254																							

Station : 1308 - SR 7 & Holmberg Rd / Johnson Rd (Standard File)

Hour	Minute	Action	Pattern	Cycle	Offset	Split	Seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 4											Easy															

Scheduler

	Month												Day of Week							Day of Month									1									2									3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4	1												1	1	1	1	1			1																															2
5	1												1								1																														2
6					1								1																															1	1	1	1	1	1	1	2
7							1											1				1																													2
8							1						1	1	1	1	1						1																												2
9							1						1											1																											2
10									1				1							1	1	1	1	1	1	1																									2
11											1						1																							1	1	1	1	1	1	1					2
12											1							1																								1	1	1	1	1	1	1				2
13												1		1				1																										1							2
14												1		1	1	1	1	1																										1						2
15												1		1																															1					2
16												1		1				1																																1	2
17																																																			1
18																																																			1
19																																																			1
20																																																			1
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27																																																			1
28																																																			1
29																																																			1
30																																																			1
31																																																			1
32																																																			1

User Comments:

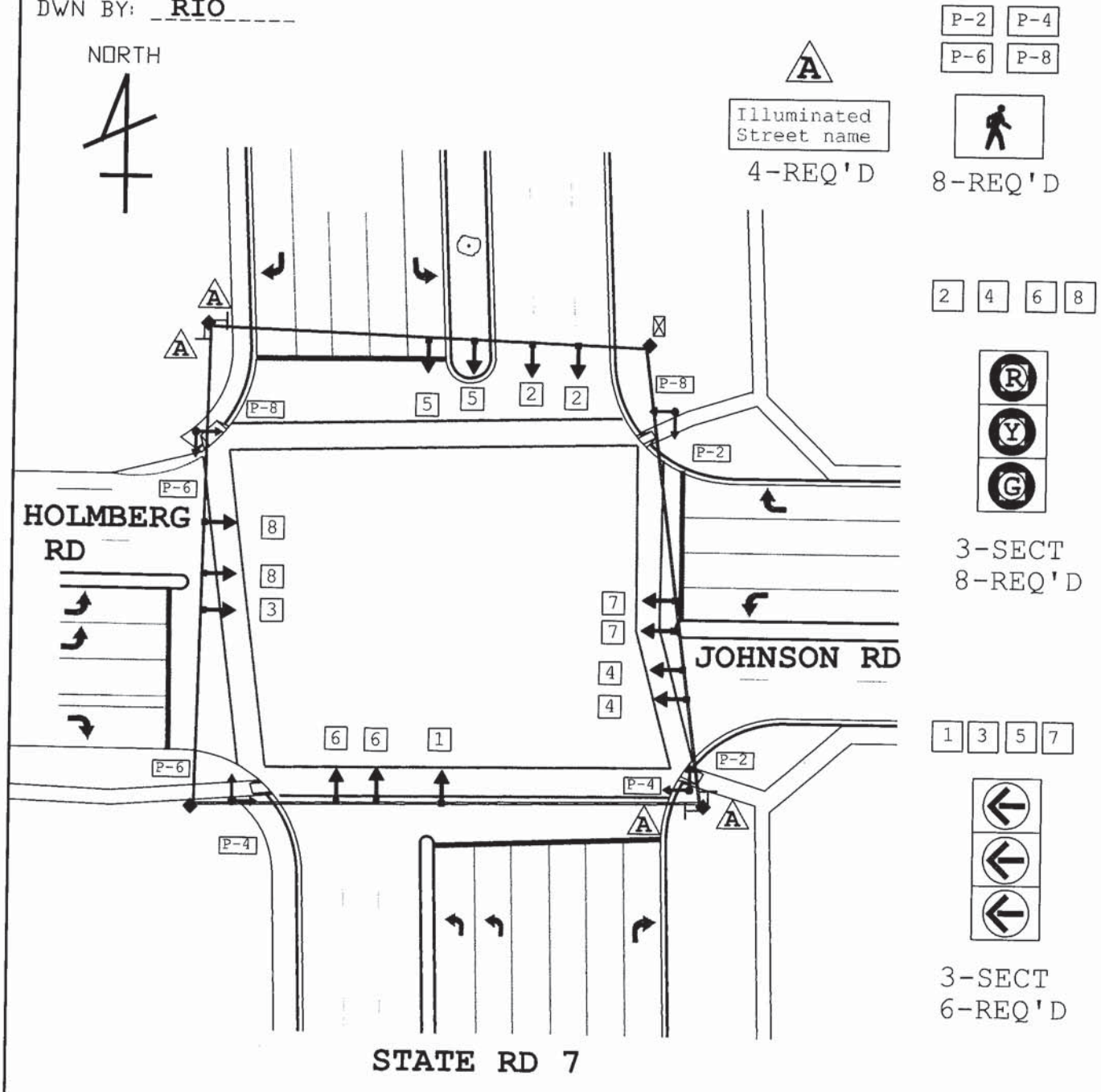
TRAFFIC ENGINEERING DIVISION
SIGNALIZED INTERSECTION

LOCATION **STATE RD 7 AND HOLMBERG RD/JOHNSON RD**

ORDER NO **FDOT** ISSUE DATE **----** REV NO. **4** COMPLETION DATE **8/13/08**

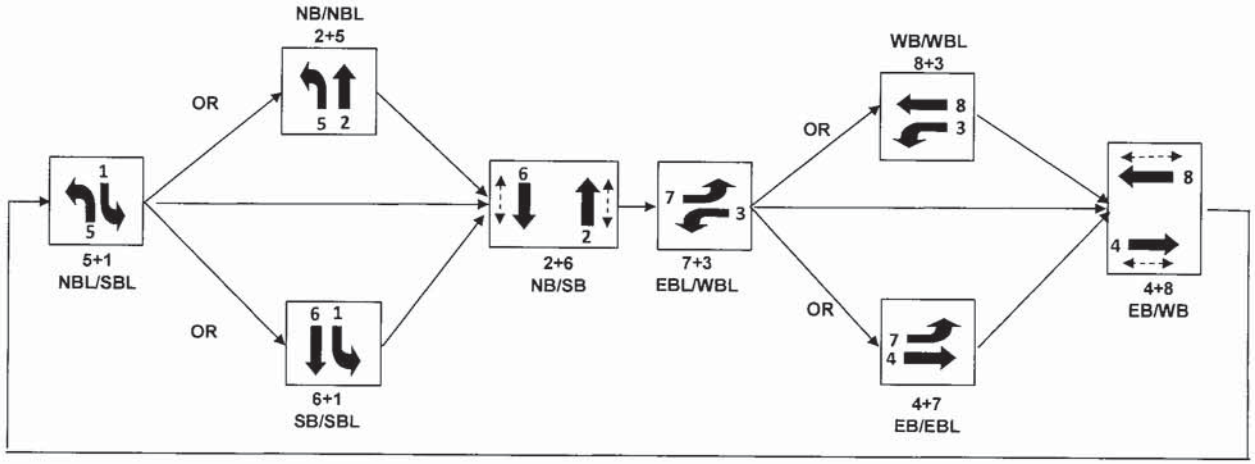
DWG. NO. **11-08-03-01** FILE NO. **1308** CITY **COCONUT CREEK** SCALE: **1" = 50'**

DWN BY: **RIO**



1. EWLT'S TO PROTECTED ONLY, THIS REVISION
2. VIDEO DETECTION INSTALLED ON 4/14/10

Sequence of Operation for (1308)SR 7 (US 441) AND HOLMBERG/JOHNSON ROADS



BROWARD COUNTY TRAFFIC ENGINEERING
ACTUATED TRAFFIC SIGNAL TIMING SHEET

Intersection Number	1550	**Initial Operation Date**	05/05/99
Controller Type	2070 LN	**System Number**	1550
Modification Number	5	**Modification Date**	04/12/2015
Drawing/Project No	93-2035A	**FPL Grid Number**	87293497804
Intersection	SR 7 (US 441) and REGENCY LAKES BLVD		
Municipality	COCONUT CREEK		

Controller Phase	1	2	3	4	5	6	7	8
Face Number	1	2			5	6		8
Direction	SBL	NB			NBL	SB		WB
Initial Green(MIN)	4	20			4	20		5
Vehicle Ext.(GAP)	1.5	3.0			1.5	3.0		2.0
Maximum Green I	20	50			12	50		30
Maximum Green II								
Yellow Clearance	5.5	5.5			5.5	5.5		4.0
All Red Clearance	2.0	2.0			2.0	2.0		2.0
Phase Recall	OFF	MIN			OFF	MIN		OFF
Detector Delay								
Walk		7				7		5
Pedestrian Clearance		26						27
Permissive	YES				YES			
Flash Operation		YELLOW				YELLOW		RED

Attachment

NOTES:

1. FLASH OPERATION: 2300-0600,7 DAYS.
2. ANTI-BACKDOWN NORTH/SOUTH: PHASES 2+6 ON---> OMIT PHASES 1+5.
3. MOD 5 UPDATES NS/NSL YELLOW CLEARANCE VALUES PER FDOT STANDARDS.

Submitted By _____ **Approved By** _____

Station : 1550 - SR 7 & Regency Lakes Blvd (Standard File)

Phase	1 (SL)	2 (NT)	3	4	5 (NL)	6 (ST)	7	8 (WT)	9	10	11	12	13	14	15	16
Walk		7				7		5								
Ped Clearance		26						27								
Min Green	4	20			4	20		5	5	5	5	5	5	5	5	5
Passage	1.5	3			1.5	3		2	1	1	1	1	1	1	1	1
Max1	20	50			12	50		30	25	25	25	25	25	25	25	25
Max2									50	50	50	50	50	50	50	50
Yellow	5.5	5.5			5.5	5.5		4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red	2	2			2	2		2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON	ON			ON	ON		ON								
Auto Entry								ON								
Auto Exit		ON				ON										
Non Act1																
Non Act2																
Lock Call									ON	ON	ON	ON	ON	ON	ON	ON
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry																
Sim Gap Enable									ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Rest In Walk		ON				ON										
Cond Service																
Add Init Calc																
Bike Clear																

Preemption

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Flash						ON
Override Higher						ON
Flash Dwell						ON
Link						
Delay						
Min Duration						
Min Green	6	6	6	6	6	
Min Walk						
Ped Clear						
Track Green			1		1	
Min Dwell	8	8	8	8	8	
Max Presence	180	180	180	180	180	
Track R1			9		9	
Track R2						
Track R3						
Track R4						
Dwell Ped1						
Exit R1	8		2	1	2	
Exit R2			6	5	6	
Exit R3						
Exit R4						

Preempt LP

Channel	1	2	3	4
Min				
Max				
Type	OFF	OFF	OFF	OFF
Platoon Rx				
Cond Lockout				
Coord in Preempt				
Platoon Tx				
Lock				
Begin Mode	SKIP	SKIP	SKIP	SKIP
Priority P1				
Priority P2				
Priority P3				
Priority P4				
Max Lockout				
Ext Dwell				
Ant Arrival				
Max Grn 1				
Max Grn 2				
Max Grn 3				
Max Grn 4				
Max Grn 5				
Max Grn 6				
Max Grn 7				
Max Grn 8				
Max Grn 9				
Max Grn 10				
Max Grn 11				
Max Grn 12				
Max Grn 13				
Max Grn 14				
Max Grn 15				
Max Grn 16				
Headway Group				
Queue Jump				
Headway Time				
TX Time				
PP Hold Time				
PP Tx Phase 1				
PP Tx Phase 2				
PP Tx Phase 3				
PP Tx Phase 4				

Prepared By	Date Implemented

Reviewed By	Traffic Engineer

Station : 1550 - SR 7 & Regency Lakes Blvd (Standard File)

Coordination

Day Plan 1 — **Easy**

Hour	Minute	Action	Pattern	Cycle	Offset	Split	Seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
		100	254																							
6		2	2	160	72	2	1	10	25		15	100	45		17	98		45								
9		3	3	160	73	3	1	10	25		20	96	44		20	96		44								
15		14	14	160	56	14	1	10	25		25	99	36		12	112		36								
20		3	3	160	73	3	1	10	25		20	96	44		20	96		44								
22	30	100	254																							

Day Plan 2 — **Easy**

		100	254																							
8		3	3	160	73	3	1	10	25		20	96	44		20	96		44								
22	30	100	254																							

Day Plan 3 — **Easy**

		100	254																							
9		3	3	160	73	3	1	10	25		20	96	44		20	96		44								
23		100	254																							

Station : 1550 - SR 7 & Regency Lakes Blvd (Standard File)

Hour	Minute	Action	Pattern	Cycle	Offset	Split	Seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 4											Easy															

Scheduler

	Month												Day of Week							Day of Month										1										2										3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4																																																		1
5																																																			1
6																																																		1
7																																																		1
8																																																		1
9																																																		1
10																																																		1
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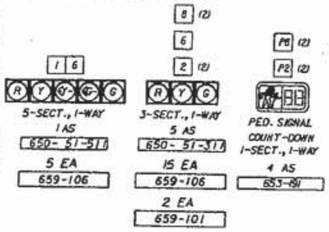
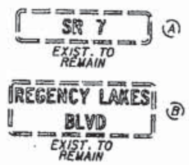
30																																																		1
31																																																		1
32																																																		1

User Comments:

SIGNAL HEAD DETAILS



INTERNALLY ILLUMINATED SIGNS



NOTES:

1. MAJOR MOVEMENT IS SR-7 (US-441), NEMA PHASES 1, 2 & 6 AND MINOR MOVEMENT IS REGENCY LAKES BLVD, NEMA PHASE 8.
2. FLASHING OPERATION SHOWS RED ON REGENCY LAKES BLVD AND YELLOW SR-7.
3. STANDARD SIGNAL OPERATING PLAN NO. 12.
4. VEHICLE DETECTION ZONES WHICH ARE SHOWN INDICATE THE INITIAL DETECTION ZONE FOR THE PROGRAMMING OF THE VIDEO DETECTOR.

REMOVAL ITEMS

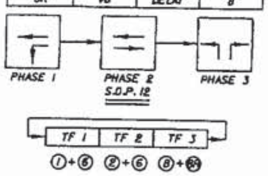
690-10	6 EA
690-20	4 EA
690-50-1	1 EA

EXISTING CONTROLLER TIMINGS TO REMAIN

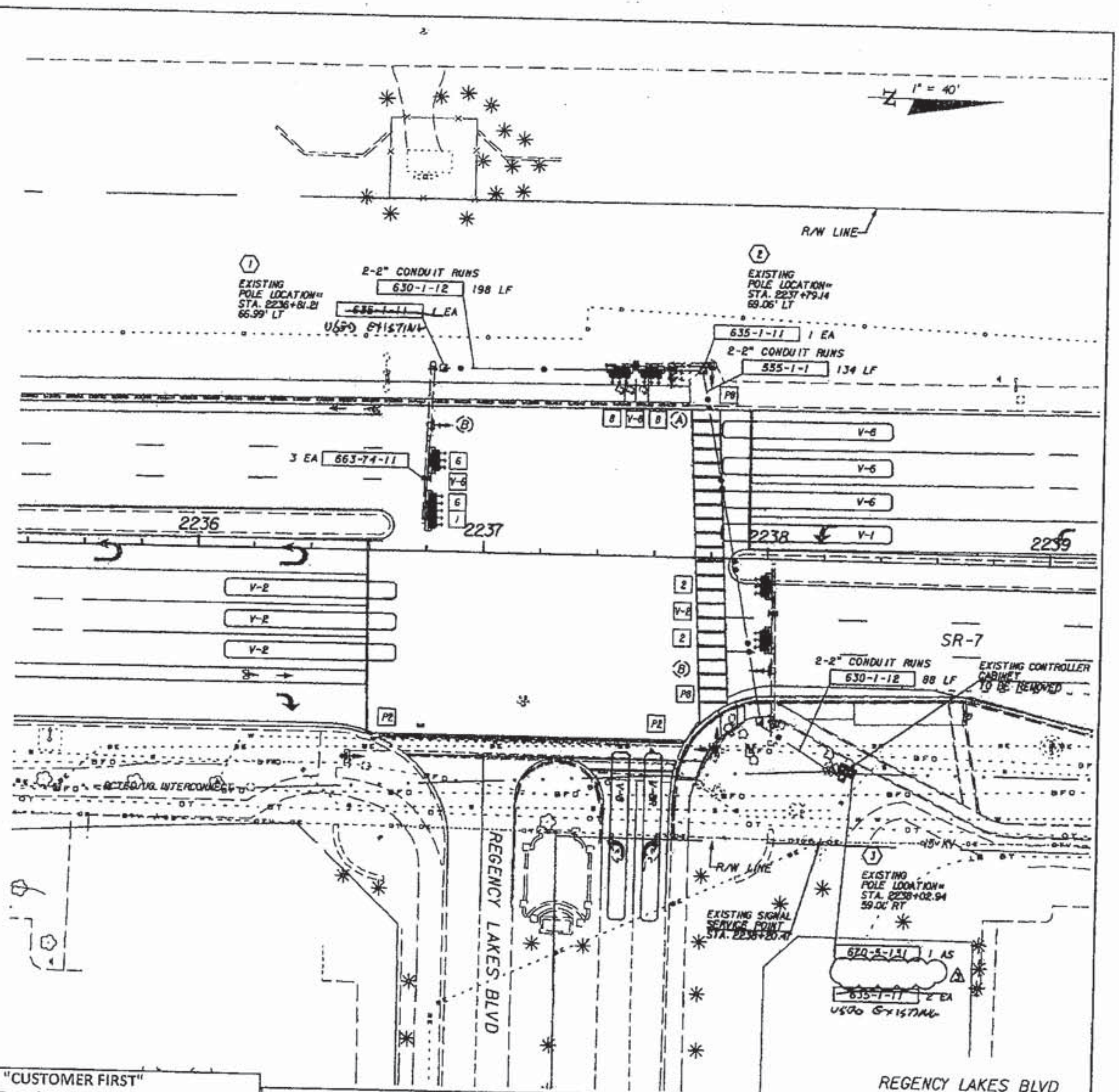
TIMING FUNCTION								
MOVEMENT NUMBER	1	2	-	-	-	6	-	8
MINIMUM GREEN	4	20	-	-	-	20	-	5
EXTENSION	1.5	3	-	-	-	3	-	2
MAXIMUM GREEN 1	20	50	-	-	-	50	-	30
MAXIMUM GREEN 2	-	-	-	-	-	-	-	-
YELLOW CLEARANCE	4	4	-	-	-	4	-	4
ALL RED	1	1.5	-	-	-	1.5	-	2
PEDESTRIAN WALK	-	7	-	-	-	-	-	5
PED. CLEARANCE	-	26	-	-	-	-	-	27
RECALL	OFF	MIN	-	-	-	MIN	-	OFF
FLASH OPERATION	-	Y	-	-	-	Y	-	R
GREEN RETURN	4	1	-	-	-	2	-	3

VIDEO DETECTOR CONFIGURATION CHART

MOVEMENTS	DETECTOR ID	DETECTOR OPERATION	SECONDS OF DELAY
1	V6	PRESENCE	0
2	V2	PRESENCE	0
6	V6	PRESENCE	0
8	V8	PRESENCE	0
8R	V8	DELAY	8



DEPT. OF TRANSPORTATION
BROWARD OPERATIONS CENTER
5548 N.W. 9th AVENUE
FT. LAUDERDALE, FL 33309



DATE	REVISIONS DESCRIPTION	DATE	DESCRIPTION
10/21/11	△ REMOVED PAY ITEMS 685-120 & 685-128		

"CUSTOMER FIRST"
Gerelco Traffic Controls, Inc.
560 N.W. Enterprise Dr.
Port Saint Lucie, FL 34986
Office: (772) 340-7474
Fax: (772) 323-2005
Email: CVera@gerelco.com

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
7	BROWARD	421662-1-52-01

REGENCY LAKES BLVD

1550

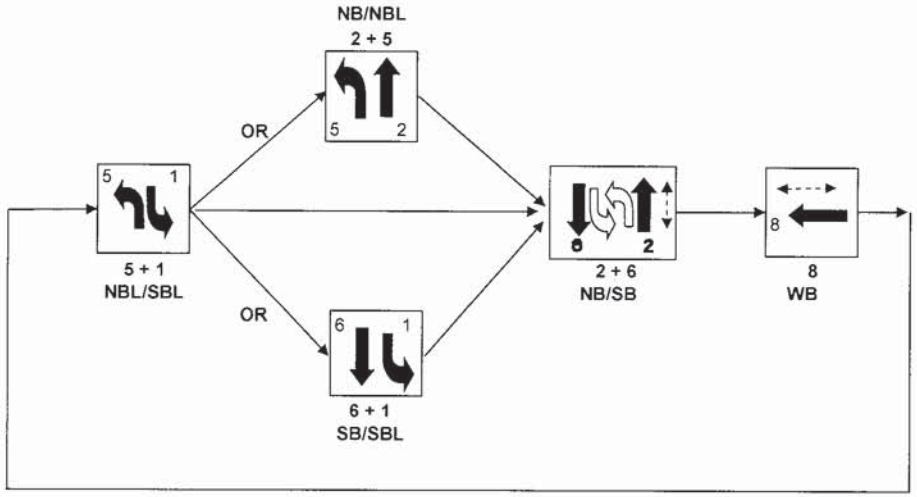
SIGNALIZATION PLAN

SHEET NO. T-9

Sequence of Operation for SR 7 (US 441) and Regency Lakes Blvd (1550)

Coconut Creek

Modification #4



BROWARD COUNTY FLORIDA

BROWARD COUNTY TRAFFIC ENGINEERING
ACTUATED TRAFFIC SIGNAL TIMING SHEET

Intersection Number	1541	**Initial Operation Date**	8/29/99
Controller Type	2070 LN	**System Number**	
Modification Number	10	**Modification Date**	01/04/2017
Drawing/Project No	99030201	**FPL Grid Number**	87393499708
Intersection	LYONS ROAD and JOHNSON ROAD		
Municipality	COCONUT CREEK		

Controller Phase	2	4	5	6	8
Face Number	2	4	5	6	8
Direction	NB	EB	NBL	SB	WB
Initial Green(MIN)	12	6	4	12	6
Vehicle Ext.(GAP)	3.0	2.0	1.5	3.0	2.0
Maximum Green I	50	20	12	50	20
Maximum Green II					
Yellow Clearance	5.0	4.0	5.0	5.0	4.0
All Red Clearance	2.0	2.0	2.0	2.0	2.0
Phase Recall	MIN	OFF	OFF	MIN	OFF
Detector Delay		20-RT			
Walk	7	7		7	
Pedestrian Clearance	22	29		22	
Permissive			5 SECT		
Flash Operation	YELLOW	RED		YELLOW	RED

Attachment

NOTES:

1. ANTI-BACKDOWN NORTHBOUND: PHASES 2+6 ON--->OMIT PHASE 5.
2. FLASH OPERATION: 0000-0600, 7 DAYS.
3. FIREHOUSE PRE-EMPTION: TIME BEFORE PRE-EMPTION 20 SECONDS, REST IN GREEN WESTBOUND 30 SECONDS, RETURN TO NORTH/SOUTH.
4. MOD. 10 UPDATES YELLOW AND ALL RED CLEARANCE VALUES.

Submitted By _____ **Approved By** _____

Station : 1541 - Lyons Rd & Johnson Rd (Standard File)

Phase	1	2 (NT)	3	4 (ET)	5 (NL)	6 (ST)	7	8 (WT)	9	10	11	12	13	14	15	16
Walk		7		7		7										
Ped Clearance		22		29		22										
Min Green		12		6	4	12		6								
Gap Ext		3		2	1.5	3		2								
Max1		50		20	12	50		20								
Max2																
Yellow Clr		5		4	5	5		4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr		2		2	2	2		2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable		ON		ON	ON	ON		ON								
Auto Flash Entry				ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Lock Call									ON	ON	ON	ON	ON	ON	ON	ON
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry				ON				ON								
Sim Gap Enable				ON				ON	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Rest In Walk		ON				ON										
Cond Service																
Add Init Calc																
Concurrent Ps	1	1	1	1	2	2	2	2								

Preemption

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash						
Override Higher Preempt						
Flash in Dwell						
Link to Preempt						
Delay				15		
Min Duration						
Min Green	6	6	6	6	6	6
Min Walk						
Ped Clear						
Track Green					1	
Min Dwell	8	8	8	30	8	8
Max Presence	180	180		180	180	
Track Veh 1					9	
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1	2	4		8	2	
Dwell Cyc Veh 2	6	8			5	
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						
Dwell Cyc Veh 7						
Dwell Cyc Veh 8						
Dwell Cyc Veh 9						
Dwell Cyc Veh 10						
Dwell Cyc Veh 11						
Dwell Cyc Veh 12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell vPed7						
Dwell Cyc Ped8						
Exit 1	4	2		2	2	
Exit 2	8	5		6	6	
Exit 3						
Exit 4						

Preempt LP

Channel	1	2	3	4
Min				
Max				
Enable				
Lock Mode	MAX	MAX	MAX	MAX
Coord in Preempt				
No Skip				
Priority P1				
Priority P2				
Priority P3				
Priority P4				
Lock				
Headway				
Group Lock				
Queue Jump				
Free Mode				
Alt Table				

Station : 1541 - Lyons Rd & Johnson Rd (Standard File)

Coordination

Hour	Minute	Action	Pattern	Cycle	Offset	Split	Seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 1											**Easy**															
		25	255																							
6		100	254																							
16		4	4			4	1	10	50			55		55	20	55		55								
16	30	100	254																							
22		25	255																							
Day Plan 2											**Easy**															
		25	255																							
6		100	254																							
22		25	255																							
Day Plan 3											**Easy**															
		25	255																							
6		100	254																							
22		25	255																							

Station : 1541 - Lyons Rd & Johnson Rd (Standard File)

Hour	Minute	Action	Pattern	Cycle	Offset	Split	Seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 4											**Easy**															

Scheduler

	Month												Day of Week							Day of Month									1										2										3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4	1													1	1	1	1	1		1																															2
5	1													1							1																														2
6					1									1																														1	1	1	1	1	1	1	2
7							1											1				1																													1
8							1							1	1	1	1	1					1																												1
9							1							1										1																											2
10									1					1						1	1	1	1	1	1	1																									2
11											1						1																								1	1	1	1	1	1	1				2
12											1							1																								1	1	1	1	1	1	1			2
13												1						1																									1								2
14												1		1	1	1	1	1																										1							2
15												1		1																															1						2
16												1		1																																				1	2
17																																																			1
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31																																																			1
32																																																			1

User Comments:

BROWARD COUNTY TRAFFIC ENGINEERING DIVISION

TRAFFIC SIGNAL INSTALLATION ORDER

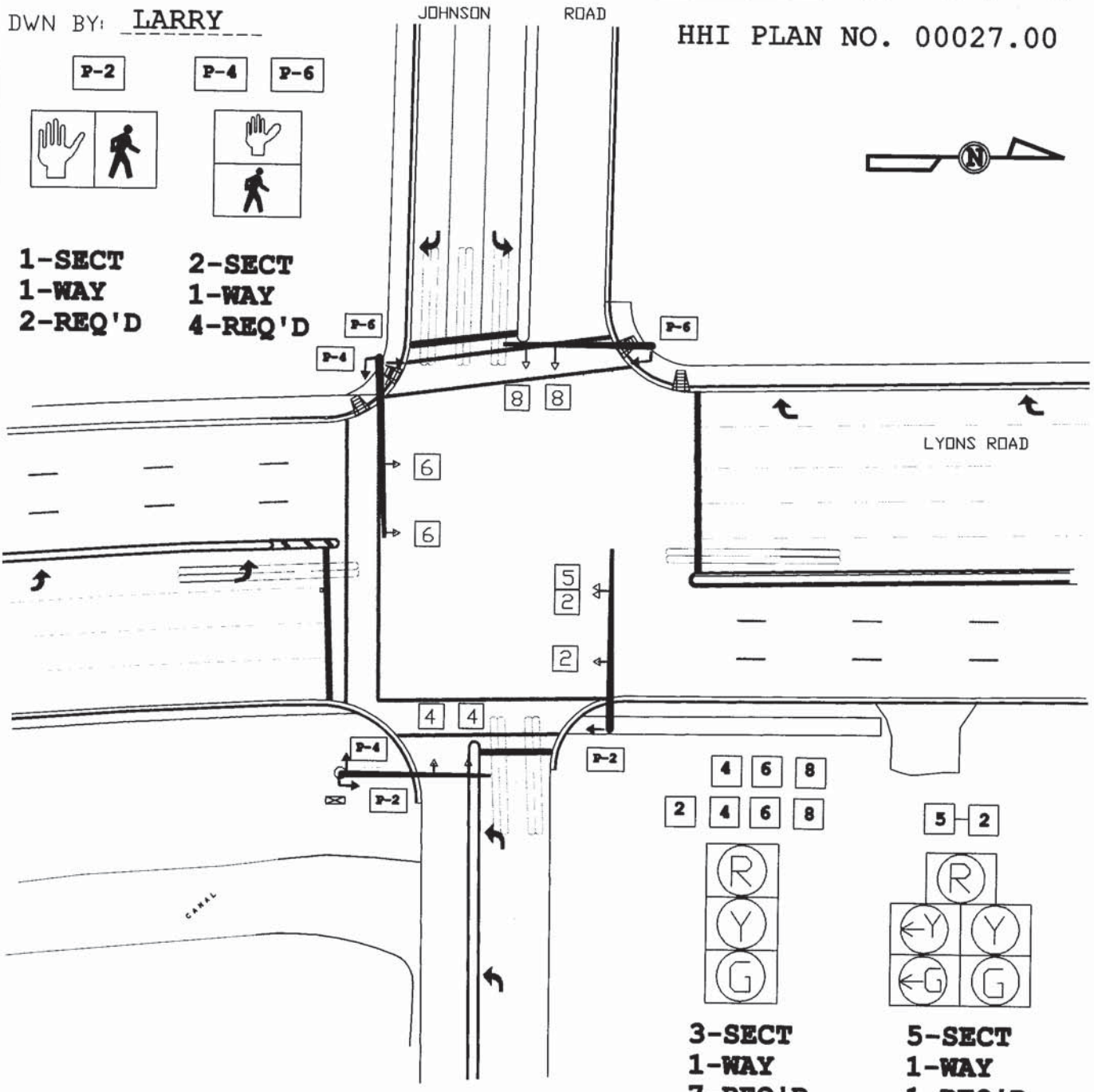
LOCATION **LYONS ROAD & JOHNSON ROAD**

ORDER NO SCH BD ISSUE DATE --- REV NO. 1 COMPLETION DATE 10/9/00

DWG. NO. 00-11-09-01 FILE NO. A-541 CITY COCONUT CREEK SCALE: 1" = 50'

DWN BY: LARRY

HHI PLAN NO. 00027.00

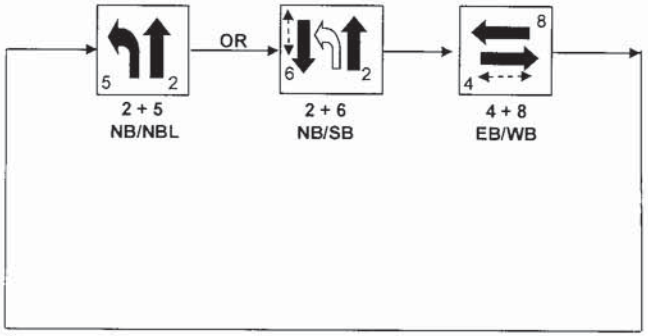


REMARKS

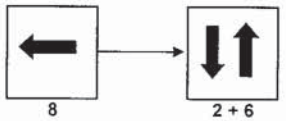
Sequence of Operation for Lyons Road and Johnson Road (1541)

Coconut Creek

Modification #2



PRE-EMPTION SEQUENCE:



APPENDIX I

SYNCHRO Output

Existing (2018) SYNCHRO Output

HCM 2010 Signalized Intersection Summary
101: SR 7 & Holmberg Rd/Johnson Rd/Johnson Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	207	105	156	96	109	68	219	1360	118	138	1331	243
Future Volume (veh/h)	207	105	156	96	109	68	219	1360	118	138	1331	243
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	223	113	168	103	117	73	235	1462	127	148	1431	261
Adj No. of Lanes	2	1	1	1	2	1	2	3	1	1	3	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	267	225	191	123	399	178	278	2814	865	166	2880	885
Arrive On Green	0.08	0.12	0.12	0.07	0.11	0.11	0.05	0.37	0.37	0.09	0.57	0.57
Sat Flow, veh/h	3442	1863	1583	1774	3539	1583	3442	5085	1562	1774	5085	1563
Grp Volume(v), veh/h	223	113	168	103	117	73	235	1462	127	148	1431	261
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1774	1770	1583	1721	1695	1562	1774	1695	1563
Q Serve(g_s), s	10.2	9.1	16.7	9.2	4.9	6.9	10.8	35.8	8.7	13.2	27.2	13.9
Cycle Q Clear(g_c), s	10.2	9.1	16.7	9.2	4.9	6.9	10.8	35.8	8.7	13.2	27.2	13.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	267	225	191	123	399	178	278	2814	865	166	2880	885
V/C Ratio(X)	0.83	0.50	0.88	0.84	0.29	0.41	0.85	0.52	0.15	0.89	0.50	0.29
Avail Cap(c_a), veh/h	473	454	386	244	863	386	323	2814	865	166	2880	885
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.8	65.8	69.2	73.5	65.1	66.0	74.7	33.8	25.2	71.7	20.9	18.1
Incr Delay (d2), s/veh	2.6	0.6	5.0	5.5	0.2	0.6	14.6	0.7	0.4	39.0	0.6	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	4.7	7.6	4.7	2.4	3.0	5.7	17.0	3.8	8.3	12.9	6.2
LnGrp Delay(d),s/veh	75.4	66.5	74.2	79.1	65.3	66.6	89.3	34.4	25.6	110.7	21.5	18.9
LnGrp LOS	E	E	E	E	E	E	F	C	C	F	C	B
Approach Vol, veh/h		504			293			1824			1840	
Approach Delay, s/veh		73.0			70.5			40.9			28.3	
Approach LOS		E			E			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	95.6	17.1	25.3	19.9	97.6	18.4	24.0
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0
Max Green Setting (Gmax), s	15.0	58.0	22.0	39.0	15.0	58.0	22.0	39.0
Max Q Clear Time (g_c+I1), s	15.2	37.8	11.2	18.7	12.8	29.2	12.2	8.9
Green Ext Time (p_c), s	0.0	10.4	0.1	0.6	0.1	12.8	0.2	0.6

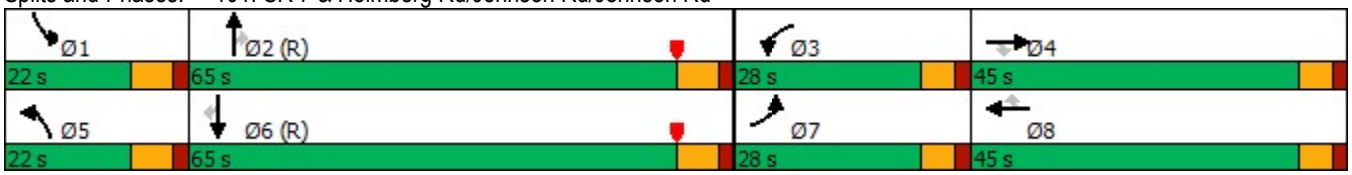
Intersection Summary	
HCM 2010 Ctrl Delay	41.3
HCM 2010 LOS	D

Timings
101: SR 7 & Holmberg Rd/Johnson Rd/Johnson Rd

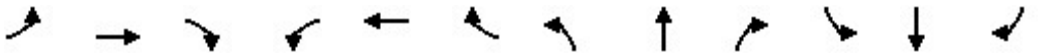
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	207	105	156	96	109	68	219	1360	118	138	1331	243
Future Volume (vph)	207	105	156	96	109	68	219	1360	118	138	1331	243
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	12.0	12.0	5.0	12.0	12.0
Minimum Split (s)	10.0	41.0	41.0	10.0	41.0	41.0	12.0	37.0	37.0	12.0	37.0	37.0
Total Split (s)	28.0	45.0	45.0	28.0	45.0	45.0	22.0	65.0	65.0	22.0	65.0	65.0
Total Split (%)	17.5%	28.1%	28.1%	17.5%	28.1%	28.1%	13.8%	40.6%	40.6%	13.8%	40.6%	40.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	14.3	14.3	14.3	13.2	13.2	13.2	15.3	87.7	87.7	18.8	91.2	91.2
Actuated g/C Ratio	0.09	0.09	0.09	0.08	0.08	0.08	0.10	0.55	0.55	0.12	0.57	0.57
v/c Ratio	0.73	0.68	0.57	0.71	0.40	0.31	0.72	0.52	0.14	0.71	0.49	0.27
Control Delay	84.7	90.3	16.5	95.7	72.4	4.9	91.5	18.8	2.9	86.4	22.7	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.7	90.3	16.5	95.7	72.4	4.9	91.5	18.8	2.9	86.4	22.7	8.7
LOS	F	F	B	F	E	A	F	B	A	F	C	A
Approach Delay		63.2			63.8			27.1			25.9	
Approach LOS		E			E			C			C	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 58 (36%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 33.1	Intersection LOS: C
Intersection Capacity Utilization 63.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 101: SR 7 & Holmberg Rd/Johnson Rd/Johnson Rd



Queues
101: SR 7 & Holmberg Rd/Johnson Rd/Johnson Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	223	113	168	103	117	73	235	1462	127	148	1431	261
v/c Ratio	0.73	0.68	0.57	0.71	0.40	0.31	0.72	0.52	0.14	0.71	0.49	0.27
Control Delay	84.7	90.3	16.5	95.7	72.4	4.9	91.5	18.8	2.9	86.4	22.7	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.7	90.3	16.5	95.7	72.4	4.9	91.5	18.8	2.9	86.4	22.7	8.7
Queue Length 50th (ft)	119	117	0	107	62	0	130	202	4	151	317	48
Queue Length 95th (ft)	162	181	73	170	93	9	178	351	18	226	444	124
Internal Link Dist (ft)		346			220			420			497	
Turn Bay Length (ft)	250		250	190		150	350		170	200		200
Base Capacity (vph)	472	454	512	243	862	473	351	2787	905	212	2897	957
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.25	0.33	0.42	0.14	0.15	0.67	0.52	0.14	0.70	0.49	0.27

Intersection Summary

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	64	1094	87	0	1566
Future Vol, veh/h	0	64	1094	87	0	1566
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	-	160	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	67	1140	91	0	1631

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	570	0	0	-	-
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	465	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	465	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	465	-
HCM Lane V/C Ratio	-	-	0.143	-
HCM Control Delay (s)	-	-	14	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.5	-

HCM 2010 Signalized Intersection Summary
103: Regency Lakes Blvd & SR 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	177	0	86	95	1564	130	111	1484	0
Future Volume (veh/h)	0	0	0	177	0	86	95	1564	130	111	1484	0
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	1863	1863	1863	1863	1863	0
Adj Flow Rate, veh/h				188	0	91	101	1664	138	118	1579	0
Adj No. of Lanes				1	0	1	1	3	1	1	3	0
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				2	0	2	2	2	2	2	2	0
Cap, veh/h				212	0	189	277	3657	1113	250	4049	0
Arrive On Green				0.12	0.00	0.12	0.72	0.72	0.72	0.06	1.00	0.00
Sat Flow, veh/h				1774	0	1583	323	5085	1548	1774	5253	0
Grp Volume(v), veh/h				188	0	91	101	1664	138	118	1579	0
Grp Sat Flow(s),veh/h/ln				1774	0	1583	323	1695	1548	1774	1695	0
Q Serve(g_s), s				16.7	0.0	8.6	20.5	21.9	4.4	2.8	0.0	0.0
Cycle Q Clear(g_c), s				16.7	0.0	8.6	20.5	21.9	4.4	2.8	0.0	0.0
Prop In Lane				1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h				212	0	189	277	3657	1113	250	4049	0
V/C Ratio(X)				0.89	0.00	0.48	0.36	0.46	0.12	0.47	0.39	0.00
Avail Cap(c_a), veh/h				421	0	376	277	3657	1113	335	4049	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				69.4	0.0	65.8	9.2	9.4	6.9	7.8	0.0	0.0
Incr Delay (d2), s/veh				4.9	0.0	0.7	3.7	0.4	0.2	0.5	0.3	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.5	0.0	3.8	2.1	10.3	1.9	1.3	0.1	0.0
LnGrp Delay(d),s/veh				74.3	0.0	66.5	12.9	9.8	7.2	8.3	0.3	0.0
LnGrp LOS				E		E	B	A	A	A	A	
Approach Vol, veh/h					279			1903			1697	
Approach Delay, s/veh					71.8			9.8			0.8	
Approach LOS					E			A			A	

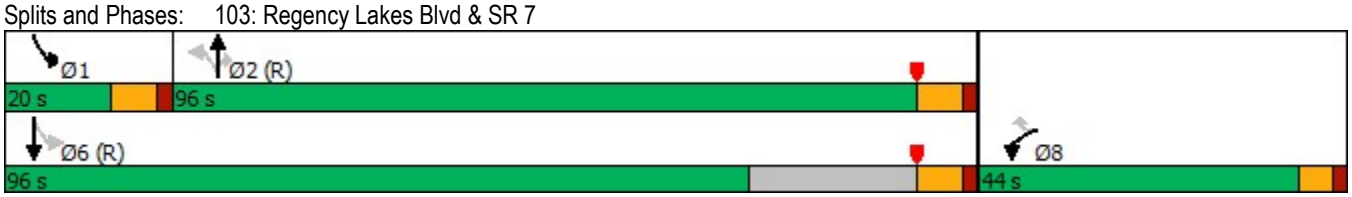
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	12.4	122.6				134.9		25.1
Change Period (Y+Rc), s	7.5	7.5				7.5		6.0
Max Green Setting (Gmax), s	12.5	88.5				88.5		38.0
Max Q Clear Time (g_c+I1), s	4.8	23.9				2.0		18.7
Green Ext Time (p_c), s	0.0	25.2				17.1		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	10.3
HCM 2010 LOS	B

Lane Group	WBL	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	177	86	95	1564	130	111	1484
Future Volume (vph)	177	86	95	1564	130	111	1484
Turn Type	Prot	Perm	Perm	NA	Perm	pm+pt	NA
Protected Phases	8			2		1	6
Permitted Phases		8	2		2	6	
Detector Phase	8	8	2	2	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	20.0	20.0	20.0	4.0	20.0
Minimum Split (s)	40.0	40.0	40.5	40.5	40.5	11.5	27.5
Total Split (s)	44.0	44.0	96.0	96.0	96.0	20.0	96.0
Total Split (%)	27.5%	27.5%	60.0%	60.0%	60.0%	12.5%	60.0%
Yellow Time (s)	4.0	4.0	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	7.5	7.5	7.5	7.5	7.5
Lead/Lag			Lag	Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	C-Max	None	C-Max
Act Effct Green (s)	21.5	21.5	110.5	110.5	110.5	125.0	125.0
Actuated g/C Ratio	0.13	0.13	0.69	0.69	0.69	0.78	0.78
v/c Ratio	0.79	0.31	0.53	0.47	0.12	0.52	0.40
Control Delay	89.7	13.0	27.0	12.7	1.9	29.0	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.7	13.0	27.0	12.7	1.9	29.0	3.1
LOS	F	B	C	B	A	C	A
Approach Delay				12.7			4.9
Approach LOS				B			A

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 73 (46%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 13.0	Intersection LOS: B
Intersection Capacity Utilization 71.0%	ICU Level of Service C
Analysis Period (min) 15	

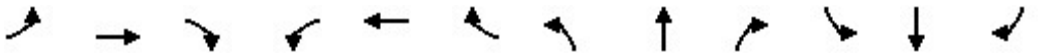
Splits and Phases: 103: Regency Lakes Blvd & SR 7



Lane Group	WBL	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	188	91	101	1664	138	118	1579
v/c Ratio	0.79	0.31	0.53	0.47	0.12	0.52	0.40
Control Delay	89.7	13.0	27.0	12.7	1.9	29.0	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.7	13.0	27.0	12.7	1.9	29.0	3.1
Queue Length 50th (ft)	194	0	47	270	0	25	73
Queue Length 95th (ft)	272	52	146	383	28	99	94
Internal Link Dist (ft)				585			770
Turn Bay Length (ft)			185		430	280	
Base Capacity (vph)	420	445	191	3511	1109	278	3974
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	0.45	0.20	0.53	0.47	0.12	0.42	0.40

Intersection Summary

HCM Unsignalized Intersection Capacity Analysis
104: Coral Creek Shops Driveway (East) & Johnson Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	276	17	187	168	5	67	0	37	4	2	3
Future Volume (Veh/h)	74	276	17	187	168	5	67	0	37	4	2	3
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	84	314	19	213	191	6	76	0	42	5	2	3
Pedestrians		1			11			4			3	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		0			1			0			0	
Right turn flare (veh)												
Median type		Raised			Raised							
Median storage veh)		1			1							
Upstream signal (ft)		600										
pX, platoon unblocked												
vC, conflicting volume	200			337			1022	1122	182	1001	1128	102
vC1, stage 1 conf vol							496	496		623	623	
vC2, stage 2 conf vol							526	626		378	505	
vCu, unblocked vol	200			337			1022	1122	182	1001	1128	102
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	94			82			69	100	95	98	99	100
cM capacity (veh/h)	1366			1214			245	239	818	226	221	929

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	241	176	308	102	76	42	10
Volume Left	84	0	213	0	76	0	5
Volume Right	0	19	0	6	0	42	3
cSH	1366	1700	1214	1700	245	818	291
Volume to Capacity	0.06	0.10	0.18	0.06	0.31	0.05	0.03
Queue Length 95th (ft)	5	0	16	0	32	4	3
Control Delay (s)	3.1	0.0	6.4	0.0	26.2	9.6	17.8
Lane LOS	A		A		D	A	C
Approach Delay (s)	1.8		4.8		20.3		17.8
Approach LOS					C		C

Intersection Summary				
Average Delay	5.5			
Intersection Capacity Utilization	40.5%	ICU Level of Service		A
Analysis Period (min)	15			

Intersection	
Int Delay, s/veh	2.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	301	149	0	276	0	180
Future Vol, veh/h	301	149	0	276	0	180
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	327	162	0	300	0	196

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	245
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	755
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	755
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	755	-	-	-
HCM Lane V/C Ratio	0.259	-	-	-
HCM Control Delay (s)	11.4	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	1	-	-	-

HCM 2010 Signalized Intersection Summary
106: Lyons Rd & Johnson Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	15	171	8	6	8	150	949	9	13	1229	166
Future Volume (veh/h)	155	15	171	8	6	8	150	949	9	13	1229	166
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	161	16	178	8	6	8	156	989	9	14	1280	173
Adj No. of Lanes	1	1	1	1	1	0	1	3	0	1	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	303	281	239	273	109	146	338	3448	31	383	2536	790
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.06	0.66	0.66	0.50	0.50	0.50
Sat Flow, veh/h	1394	1863	1583	1184	725	967	1774	5197	47	562	5085	1583
Grp Volume(v), veh/h	161	16	178	8	0	14	156	645	353	14	1280	173
Grp Sat Flow(s),veh/h/ln	1394	1863	1583	1184	0	1692	1774	1695	1854	562	1695	1583
Q Serve(g_s), s	7.8	0.5	7.5	0.4	0.0	0.5	2.8	5.5	5.5	0.9	11.8	4.3
Cycle Q Clear(g_c), s	8.3	0.5	7.5	0.9	0.0	0.5	2.8	5.5	5.5	0.9	11.8	4.3
Prop In Lane	1.00		1.00	1.00		0.57	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	303	281	239	273	0	255	338	2249	1230	383	2536	790
V/C Ratio(X)	0.53	0.06	0.74	0.03	0.00	0.05	0.46	0.29	0.29	0.04	0.50	0.22
Avail Cap(c_a), veh/h	372	373	317	331	0	338	350	2249	1230	383	2536	790
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	25.5	28.4	25.8	0.0	25.4	8.8	4.9	4.9	9.0	11.8	9.9
Incr Delay (d2), s/veh	0.5	0.0	4.1	0.0	0.0	0.0	0.4	0.3	0.6	0.2	0.7	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.3	3.5	0.1	0.0	0.2	1.3	2.6	2.9	0.2	5.6	2.0
LnGrp Delay(d),s/veh	29.5	25.5	32.6	25.9	0.0	25.5	9.1	5.2	5.5	9.2	12.5	10.5
LnGrp LOS	C	C	C	C		C	A	A	A	A	B	B
Approach Vol, veh/h		355			22			1154			1467	
Approach Delay, s/veh		30.9			25.6			5.8			12.2	
Approach LOS		C			C			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		53.4		16.6	11.5	41.9		16.6
Change Period (Y+Rc), s		7.0		6.0	7.0	7.0		6.0
Max Green Setting (Gmax), s		43.0		14.0	5.0	31.0		14.0
Max Q Clear Time (g_c+I1), s		7.5		10.3	4.8	13.8		2.9
Green Ext Time (p_c), s		6.9		0.3	0.0	8.6		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	12.1
HCM 2010 LOS	B

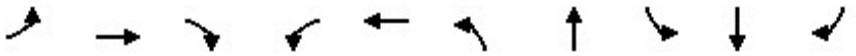
Timings
106: Lyons Rd & Johnson Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	155	15	171	8	6	150	949	13	1229	166
Future Volume (vph)	155	15	171	8	6	150	949	13	1229	166
Turn Type	Perm	NA	Perm	Perm	NA	pm+pt	NA	Perm	NA	Perm
Protected Phases		4			8	5	2		6	
Permitted Phases	4		4	8		2		6		6
Detector Phase	4	4	4	8	8	5	2	6	6	6
Switch Phase										
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	4.0	12.0	12.0	12.0	12.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	11.0	36.0	36.0	36.0	36.0
Total Split (s)	20.0	20.0	20.0	20.0	20.0	12.0	50.0	38.0	38.0	38.0
Total Split (%)	28.6%	28.6%	28.6%	28.6%	28.6%	17.1%	71.4%	54.3%	54.3%	54.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag						Lead		Lag	Lag	Lag
Lead-Lag Optimize?						Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	11.4	11.4	11.4	11.4	11.4	45.6	45.6	33.3	33.3	33.3
Actuated g/C Ratio	0.16	0.16	0.16	0.16	0.16	0.65	0.65	0.48	0.48	0.48
v/c Ratio	0.71	0.05	0.45	0.04	0.05	0.55	0.30	0.06	0.53	0.21
Control Delay	44.8	23.5	8.8	23.2	17.2	13.4	5.9	12.2	14.4	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.8	23.5	8.8	23.2	17.2	13.4	5.9	12.2	14.4	2.9
LOS	D	C	A	C	B	B	A	B	B	A
Approach Delay		25.8			19.4		6.9		13.0	
Approach LOS		C			B		A		B	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 12.2	Intersection LOS: B
Intersection Capacity Utilization 64.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 106: Lyons Rd & Johnson Rd

Queues
106: Lyons Rd & Johnson Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	161	16	178	8	14	156	998	14	1280	173
v/c Ratio	0.71	0.05	0.45	0.04	0.05	0.55	0.30	0.06	0.53	0.21
Control Delay	44.8	23.5	8.8	23.2	17.2	13.4	5.9	12.2	14.4	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.8	23.5	8.8	23.2	17.2	13.4	5.9	12.2	14.4	2.9
Queue Length 50th (ft)	65	6	3	3	2	23	60	3	142	0
Queue Length 95th (ft)	#123	20	50	13	16	#50	86	13	184	30
Internal Link Dist (ft)		468			274		376		329	
Turn Bay Length (ft)	255		255	160		200		215		270
Base Capacity (vph)	278	372	453	278	347	285	3311	243	2418	843
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	0.58	0.04	0.39	0.03	0.04	0.55	0.30	0.06	0.53	0.21

Intersection Summary

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

HCM Unsignalized Intersection Capacity Analysis
107: Mall Road & Wendy's Driveway

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	38	24	48	99	124	20
Future Volume (Veh/h)	38	24	48	99	124	20
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	44	28	56	115	144	23
Pedestrians	2					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	0		199	102	116	2
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		199	102	116	2
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	97		91	85	81	98
cM capacity (veh/h)	1623		620	767	753	1080

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	72	171	167
Volume Left	44	56	0
Volume Right	28	0	23
cSH	1623	712	786
Volume to Capacity	0.03	0.24	0.21
Queue Length 95th (ft)	2	23	20
Control Delay (s)	4.5	11.7	10.8
Lane LOS	A	B	B
Approach Delay (s)	4.5	11.7	10.8
Approach LOS		B	B

Intersection Summary			
Average Delay	10.1		
Intersection Capacity Utilization	29.2%	ICU Level of Service	A
Analysis Period (min)	15		

HCM 2010 Signalized Intersection Summary
101: SR 7 & Holmberg Rd/Johnson Rd/Johnson Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	318	196	247	245	277	175	308	1868	115	124	1987	476
Future Volume (veh/h)	318	196	247	245	277	175	308	1868	115	124	1987	476
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	321	198	249	247	280	177	311	1887	116	125	2007	481
Adj No. of Lanes	2	1	1	1	2	1	2	3	1	1	3	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	362	279	236	211	579	257	351	2475	771	145	2373	739
Arrive On Green	0.11	0.15	0.15	0.12	0.16	0.16	0.14	0.65	0.65	0.08	0.47	0.47
Sat Flow, veh/h	3442	1863	1574	1774	3539	1575	3442	5085	1583	1774	5085	1583
Grp Volume(v), veh/h	321	198	249	247	280	177	311	1887	116	125	2007	481
Grp Sat Flow(s),veh/h/ln	1721	1863	1574	1774	1770	1575	1721	1695	1583	1774	1695	1583
Q Serve(g_s), s	14.7	16.2	24.0	19.0	11.5	17.0	14.2	41.3	4.6	11.1	55.6	37.2
Cycle Q Clear(g_c), s	14.7	16.2	24.0	19.0	11.5	17.0	14.2	41.3	4.6	11.1	55.6	37.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	362	279	236	211	579	257	351	2475	771	145	2373	739
V/C Ratio(X)	0.89	0.71	1.05	1.17	0.48	0.69	0.89	0.76	0.15	0.86	0.85	0.65
Avail Cap(c_a), veh/h	409	279	236	211	579	257	387	2475	771	200	2373	739
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.6	64.7	68.0	70.5	60.8	63.1	68.2	21.8	15.3	72.5	37.6	32.7
Incr Delay (d2), s/veh	17.4	6.9	73.7	116.4	0.2	6.3	18.6	2.3	0.4	18.3	3.9	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	8.9	15.3	16.1	5.7	7.8	7.6	19.6	2.1	6.2	26.9	17.2
LnGrp Delay(d),s/veh	88.1	71.6	141.7	186.9	61.0	69.3	86.8	24.0	15.7	90.9	41.5	37.1
LnGrp LOS	F	E	F	F	E	E	F	C	B	F	D	D
Approach Vol, veh/h		768			704			2314			2613	
Approach Delay, s/veh		101.2			107.3			32.1			43.1	
Approach LOS		F			F			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.1	84.9	25.0	30.0	23.3	81.7	22.8	32.2
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0
Max Green Setting (Gmax), s	18.0	73.0	19.0	24.0	18.0	73.0	19.0	24.0
Max Q Clear Time (g_c+I1), s	13.1	43.3	21.0	26.0	16.2	57.6	16.7	19.0
Green Ext Time (p_c), s	0.0	17.3	0.0	0.0	0.1	12.3	0.1	0.7

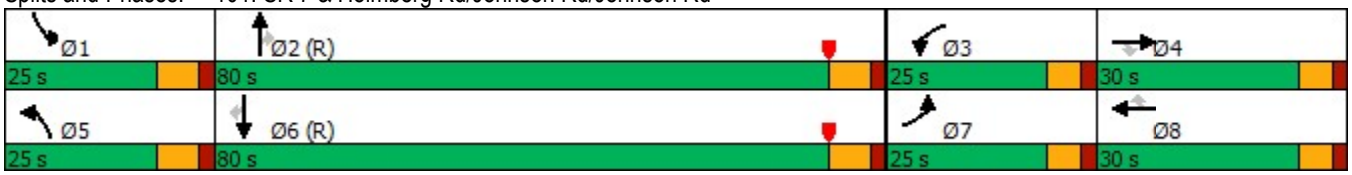
Intersection Summary	
HCM 2010 Ctrl Delay	53.1
HCM 2010 LOS	D

Timings
101: SR 7 & Holmberg Rd/Johnson Rd/Johnson Rd

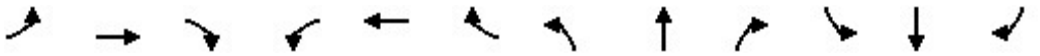
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	318	196	247	245	277	175	308	1868	115	124	1987	476
Future Volume (vph)	318	196	247	245	277	175	308	1868	115	124	1987	476
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	12.0	12.0	5.0	12.0	12.0
Minimum Split (s)	10.0	30.0	30.0	10.0	30.0	30.0	12.0	37.0	37.0	12.0	37.0	37.0
Total Split (s)	25.0	30.0	30.0	25.0	30.0	30.0	25.0	80.0	80.0	25.0	80.0	80.0
Total Split (%)	15.6%	18.8%	18.8%	15.6%	18.8%	18.8%	15.6%	50.0%	50.0%	15.6%	50.0%	50.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	17.6	20.4	20.4	19.0	21.8	21.8	17.3	80.1	80.1	14.5	77.3	77.3
Actuated g/C Ratio	0.11	0.13	0.13	0.12	0.14	0.14	0.11	0.50	0.50	0.09	0.48	0.48
v/c Ratio	0.85	0.84	0.68	1.18	0.58	0.49	0.84	0.74	0.14	0.78	0.82	0.54
Control Delay	90.5	95.7	26.5	175.7	69.8	12.4	74.5	53.3	15.8	101.1	39.5	16.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	90.5	95.7	26.5	175.7	69.8	12.4	74.5	53.3	15.8	101.1	39.5	16.3
LOS	F	F	C	F	E	B	E	D	B	F	D	B
Approach Delay		71.1			92.5			54.3			38.2	
Approach LOS		E			F			D			D	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 137 (86%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.18	
Intersection Signal Delay: 53.9	Intersection LOS: D
Intersection Capacity Utilization 93.6%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 101: SR 7 & Holmberg Rd/Johnson Rd/Johnson Rd



Queues
101: SR 7 & Holmberg Rd/Johnson Rd/Johnson Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	321	198	249	247	280	177	311	1887	116	125	2007	481
v/c Ratio	0.85	0.84	0.68	1.18	0.58	0.49	0.84	0.74	0.14	0.78	0.82	0.54
Control Delay	90.5	95.7	26.5	175.7	69.8	12.4	74.5	53.3	15.8	101.1	39.5	16.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	90.5	95.7	26.5	175.7	69.8	12.4	74.5	53.3	15.8	101.1	39.5	16.3
Queue Length 50th (ft)	171	204	55	~308	147	0	164	714	36	130	670	173
Queue Length 95th (ft)	#236	294	155	#494	196	73	#236	780	m83	202	750	291
Internal Link Dist (ft)		346			220			420			497	
Turn Bay Length (ft)	250		250	190		150	350		170	200		200
Base Capacity (vph)	407	279	396	210	530	383	391	2545	846	199	2458	891
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.71	0.63	1.18	0.53	0.46	0.80	0.74	0.14	0.63	0.82	0.54

Intersection Summary

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

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

m Volume for 95th percentile queue is metered by upstream signal.

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	80	1458	79	0	2447
Future Vol, veh/h	0	80	1458	79	0	2447
Conflicting Peds, #/hr	0	0	0	2	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	160	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	82	1503	81	0	2523

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	754	0	0	-	-
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	352	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	351	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.4	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	351	-
HCM Lane V/C Ratio	-	-	0.235	-
HCM Control Delay (s)	-	-	18.4	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.9	-

HCM 2010 Signalized Intersection Summary
103: Regency Lakes Blvd & SR 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	255	0	114	121	2126	162	146	2326	0
Future Volume (veh/h)	0	0	0	255	0	114	121	2126	162	146	2326	0
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	1863	1863	1863	1863	1863	0
Adj Flow Rate, veh/h				271	0	121	129	2262	172	155	2474	0
Adj No. of Lanes				1	0	1	1	3	1	1	3	0
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				2	0	2	2	2	2	2	2	0
Cap, veh/h				292	0	261	134	3366	1025	174	3818	0
Arrive On Green				0.16	0.00	0.16	0.66	0.66	0.66	0.08	1.00	0.00
Sat Flow, veh/h				1774	0	1583	134	5085	1549	1774	5253	0
Grp Volume(v), veh/h				271	0	121	129	2262	172	155	2474	0
Grp Sat Flow(s),veh/h/ln				1774	0	1583	134	1695	1549	1774	1695	0
Q Serve(g_s), s				24.1	0.0	11.1	105.9	43.3	6.8	4.6	0.0	0.0
Cycle Q Clear(g_c), s				24.1	0.0	11.1	105.9	43.3	6.8	4.6	0.0	0.0
Prop In Lane				1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h				292	0	261	134	3366	1025	174	3818	0
V/C Ratio(X)				0.93	0.00	0.46	0.96	0.67	0.17	0.89	0.65	0.00
Avail Cap(c_a), veh/h				333	0	297	134	3366	1025	294	3818	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				65.9	0.0	60.4	43.5	16.5	10.3	30.7	0.0	0.0
Incr Delay (d2), s/veh				27.8	0.0	0.5	68.7	1.1	0.4	9.3	0.9	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				14.1	0.0	4.9	8.3	20.4	3.0	7.1	0.3	0.0
LnGrp Delay(d),s/veh				93.7	0.0	60.9	112.3	17.6	10.6	40.0	0.9	0.0
LnGrp LOS				F		E	F	B	B	D	A	
Approach Vol, veh/h					392			2563			2629	
Approach Delay, s/veh					83.6			21.9			3.2	
Approach LOS					F			C			A	

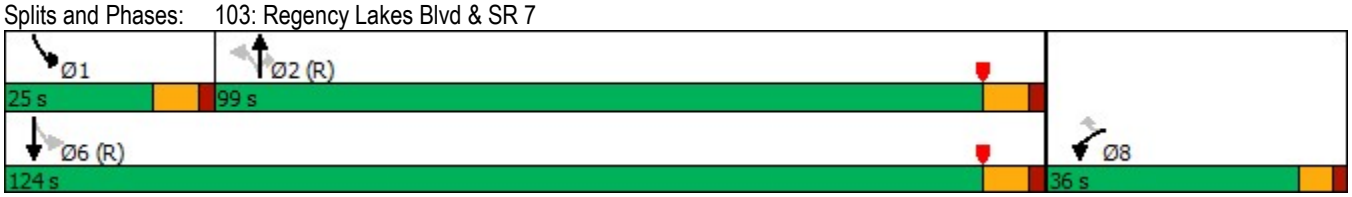
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	14.2	113.4				127.6		32.4
Change Period (Y+Rc), s	7.5	7.5				7.5		6.0
Max Green Setting (Gmax), s	17.5	91.5				116.5		30.0
Max Q Clear Time (g_c+I1), s	6.6	107.9				2.0		26.1
Green Ext Time (p_c), s	0.1	0.0				50.9		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	17.4
HCM 2010 LOS	B

Lane Group	WBL	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	255	114	121	2126	162	146	2326
Future Volume (vph)	255	114	121	2126	162	146	2326
Turn Type	Prot	Perm	Perm	NA	Perm	pm+pt	NA
Protected Phases	8			2		1	6
Permitted Phases		8	2		2	6	
Detector Phase	8	8	2	2	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	20.0	20.0	20.0	4.0	20.0
Minimum Split (s)	36.0	36.0	40.5	40.5	40.5	11.5	27.5
Total Split (s)	36.0	36.0	99.0	99.0	99.0	25.0	124.0
Total Split (%)	22.5%	22.5%	61.9%	61.9%	61.9%	15.6%	77.5%
Yellow Time (s)	4.0	4.0	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	7.5	7.5	7.5	7.5	7.5
Lead/Lag			Lag	Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	C-Max	None	C-Max
Act Effct Green (s)	27.3	27.3	99.0	99.0	99.0	119.2	119.2
Actuated g/C Ratio	0.17	0.17	0.62	0.62	0.62	0.74	0.74
v/c Ratio	0.90	0.33	2.30	0.72	0.17	0.83	0.65
Control Delay	96.1	11.0	662.8	23.7	2.4	66.6	14.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	96.1	11.0	662.8	23.7	2.4	66.6	14.7
LOS	F	B	F	C	A	E	B
Approach Delay				54.4			17.8
Approach LOS				D			B

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 56 (35%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.30	
Intersection Signal Delay: 38.3	Intersection LOS: D
Intersection Capacity Utilization 91.6%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 103: Regency Lakes Blvd & SR 7



Queues
103: Regency Lakes Blvd & SR 7

Lane Group	WBL	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	271	121	129	2262	172	155	2474
v/c Ratio	0.90	0.33	2.30	0.72	0.17	0.83	0.65
Control Delay	96.1	11.0	662.8	23.7	2.4	66.6	14.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	96.1	11.0	662.8	23.7	2.4	66.6	14.7
Queue Length 50th (ft)	276	0	~164	601	0	95	846
Queue Length 95th (ft)	#418	58	#317	706	34	m131	m854
Internal Link Dist (ft)				585			770
Turn Bay Length (ft)			185		430	280	
Base Capacity (vph)	331	389	56	3146	1022	238	3789
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	0.82	0.31	2.30	0.72	0.17	0.65	0.65

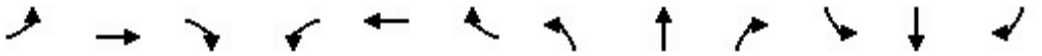
Intersection Summary

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

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

m Volume for 95th percentile queue is metered by upstream signal.

HCM Unsignalized Intersection Capacity Analysis
104: Coral Creek Shops Driveway (East) & Johnson Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	355	22	158	432	9	84	0	53	6	1	6
Future Volume (Veh/h)	102	355	22	158	432	9	84	0	53	6	1	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	112	390	24	174	475	10	92	0	58	7	1	7
Pedestrians					2							
Lane Width (ft)					12.0							
Walking Speed (ft/s)					3.5							
Percent Blockage					0							
Right turn flare (veh)												
Median type		Raised			Raised							
Median storage veh)		1			1							
Upstream signal (ft)		600										
pX, platoon unblocked												
vC, conflicting volume	485			414			1219	1459	209	1307	1466	242
vC1, stage 1 conf vol							626	626		828	828	
vC2, stage 2 conf vol							593	833		479	638	
vCu, unblocked vol	485			414			1219	1459	209	1307	1466	242
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	90			85			53	100	93	96	99	99
cM capacity (veh/h)	1074			1141			194	166	795	166	171	758

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	307	219	412	248	92	58	15
Volume Left	112	0	174	0	92	0	7
Volume Right	0	24	0	10	0	58	7
cSH	1074	1700	1141	1700	194	795	262
Volume to Capacity	0.10	0.13	0.15	0.15	0.47	0.07	0.06
Queue Length 95th (ft)	9	0	13	0	57	6	5
Control Delay (s)	3.8	0.0	4.6	0.0	39.2	9.9	19.6
Lane LOS	A		A		E	A	C
Approach Delay (s)	2.2		2.9		27.8		19.6
Approach LOS					D		C

Intersection Summary			
Average Delay	5.6		
Intersection Capacity Utilization	49.4%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	290	146	0	704	0	182
Future Vol, veh/h	290	146	0	704	0	182
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	305	154	0	741	0	192

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	230
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	772
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	772
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	772	-	-	-
HCM Lane V/C Ratio	0.248	-	-	-
HCM Control Delay (s)	11.2	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	1	-	-	-

HCM 2010 Signalized Intersection Summary
106: Lyons Rd & Johnson Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	353	30	246	23	7	26	156	1691	14	28	2161	205
Future Volume (veh/h)	353	30	246	23	7	26	156	1691	14	28	2161	205
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	376	32	262	24	7	28	166	1799	15	30	2299	218
Adj No. of Lanes	1	1	1	1	1	0	1	3	0	1	3	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	352	373	312	304	65	261	230	3195	27	208	2252	701
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.07	0.61	0.61	0.44	0.44	0.44
Sat Flow, veh/h	1368	1863	1560	1080	326	1306	1774	5202	43	257	5085	1583
Grp Volume(v), veh/h	376	32	262	24	0	35	166	1172	642	30	2299	218
Grp Sat Flow(s),veh/h/ln	1368	1863	1560	1080	0	1632	1774	1695	1855	257	1695	1583
Q Serve(g_s), s	12.8	1.0	11.3	1.3	0.0	1.2	3.3	14.3	14.3	5.5	31.0	6.2
Cycle Q Clear(g_c), s	14.0	1.0	11.3	2.3	0.0	1.2	3.3	14.3	14.3	7.7	31.0	6.2
Prop In Lane	1.00		1.00	1.00		0.80	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	352	373	312	304	0	326	230	2083	1140	208	2252	701
V/C Ratio(X)	1.07	0.09	0.84	0.08	0.00	0.11	0.72	0.56	0.56	0.14	1.02	0.31
Avail Cap(c_a), veh/h	352	373	312	304	0	326	230	2083	1140	208	2252	701
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	22.8	26.9	23.7	0.0	22.9	15.8	8.0	8.0	13.8	19.5	12.6
Incr Delay (d2), s/veh	66.8	0.0	17.2	0.0	0.0	0.1	9.3	1.1	2.0	1.4	24.4	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.3	0.5	6.4	0.4	0.0	0.6	2.2	6.8	7.8	0.5	19.5	2.9
LnGrp Delay(d),s/veh	97.3	22.8	44.1	23.8	0.0	22.9	25.2	9.1	10.0	15.2	43.9	13.8
LnGrp LOS	F	C	D	C		C	C	A	A	B	F	B
Approach Vol, veh/h		670			59			1980			2547	
Approach Delay, s/veh		72.9			23.3			10.7			41.0	
Approach LOS		E			C			B			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		50.0		20.0	12.0	38.0		20.0
Change Period (Y+Rc), s		7.0		6.0	7.0	7.0		6.0
Max Green Setting (Gmax), s		43.0		14.0	5.0	31.0		14.0
Max Q Clear Time (g_c+I1), s		16.3		16.0	5.3	33.0		4.3
Green Ext Time (p_c), s		14.2		0.0	0.0	0.0		0.1

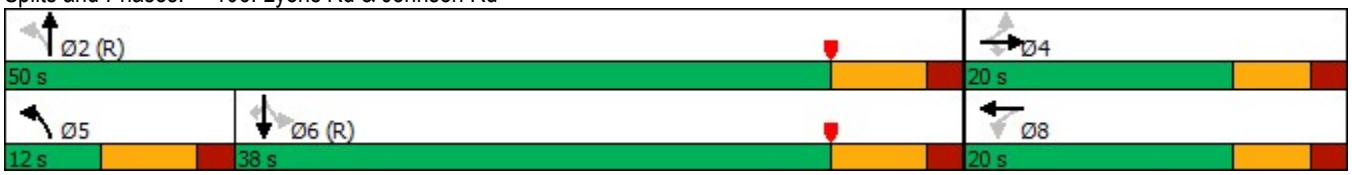
Intersection Summary	
HCM 2010 Ctrl Delay	33.5
HCM 2010 LOS	C

Timings
106: Lyons Rd & Johnson Rd

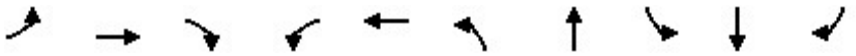
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	353	30	246	23	7	156	1691	28	2161	205
Future Volume (vph)	353	30	246	23	7	156	1691	28	2161	205
Turn Type	Perm	NA	Perm	Perm	NA	pm+pt	NA	Perm	NA	Perm
Protected Phases		4			8	5	2		6	
Permitted Phases	4		4	8		2		6		6
Detector Phase	4	4	4	8	8	5	2	6	6	6
Switch Phase										
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	4.0	12.0	12.0	12.0	12.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	11.0	36.0	36.0	36.0	36.0
Total Split (s)	20.0	20.0	20.0	20.0	20.0	12.0	50.0	38.0	38.0	38.0
Total Split (%)	28.6%	28.6%	28.6%	28.6%	28.6%	17.1%	71.4%	54.3%	54.3%	54.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag						Lead		Lag	Lag	Lag
Lead-Lag Optimize?						Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	14.0	14.0	14.0	14.0	14.0	43.0	43.0	31.0	31.0	31.0
Actuated g/C Ratio	0.20	0.20	0.20	0.20	0.20	0.61	0.61	0.44	0.44	0.44
v/c Ratio	1.38	0.09	0.58	0.09	0.10	0.72	0.58	0.28	1.02	0.27
Control Delay	218.6	23.6	15.6	23.9	15.0	28.2	9.0	21.2	45.7	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	218.6	23.6	15.6	23.9	15.0	28.2	9.0	21.2	45.7	2.9
LOS	F	C	B	C	B	C	A	C	D	A
Approach Delay		129.9			18.6		10.6		41.8	
Approach LOS		F			B		B		D	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.38	
Intersection Signal Delay: 41.0	Intersection LOS: D
Intersection Capacity Utilization 93.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 106: Lyons Rd & Johnson Rd



Queues
106: Lyons Rd & Johnson Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	376	32	262	24	35	166	1814	30	2299	218
v/c Ratio	1.38	0.09	0.58	0.09	0.10	0.72	0.58	0.28	1.02	0.27
Control Delay	218.6	23.6	15.6	23.9	15.0	28.2	9.0	21.2	45.7	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	218.6	23.6	15.6	23.9	15.0	28.2	9.0	21.2	45.7	2.9
Queue Length 50th (ft)	~220	11	34	9	5	27	150	8	~366	0
Queue Length 95th (ft)	#375	33	102	27	27	#105	188	31	#488	34
Internal Link Dist (ft)		468			274		376		329	
Turn Bay Length (ft)	255		255	160		200		215		270
Base Capacity (vph)	273	372	448	274	343	232	3121	106	2251	822
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	1.38	0.09	0.58	0.09	0.10	0.72	0.58	0.28	1.02	0.27

Intersection Summary

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

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

HCM Unsignalized Intersection Capacity Analysis
107: Mall Road & Wendy's Driveway

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	42	15	50	115	127	20
Future Volume (Veh/h)	42	15	50	115	127	20
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	46	16	54	125	138	22
Pedestrians	5					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	0		196	100	108	5
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		196	100	108	5
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	97		91	84	82	98
cM capacity (veh/h)	1623		627	768	760	1073

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	62	179	160
Volume Left	46	54	0
Volume Right	16	0	22
cSH	1623	719	792
Volume to Capacity	0.03	0.25	0.20
Queue Length 95th (ft)	2	25	19
Control Delay (s)	5.5	11.7	10.7
Lane LOS	A	B	B
Approach Delay (s)	5.5	11.7	10.7
Approach LOS		B	B

Intersection Summary			
Average Delay	10.3		
Intersection Capacity Utilization	30.0%	ICU Level of Service	A
Analysis Period (min)	15		

Future (2019) Background SYNCHRO Output

HCM 2010 Signalized Intersection Summary
101: SR 7 & Holmberg Rd/Johnson Rd/Johnson Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	213	108	161	99	112	70	225	1401	121	142	1370	250
Future Volume (veh/h)	213	108	161	99	112	70	225	1401	121	142	1370	250
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	229	116	173	106	120	75	242	1506	130	153	1473	269
Adj No. of Lanes	2	1	1	1	2	1	2	3	1	1	3	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	273	231	196	126	410	183	285	2789	857	166	2845	874
Arrive On Green	0.08	0.12	0.12	0.07	0.12	0.12	0.06	0.37	0.37	0.09	0.56	0.56
Sat Flow, veh/h	3442	1863	1583	1774	3539	1583	3442	5085	1562	1774	5085	1563
Grp Volume(v), veh/h	229	116	173	106	120	75	242	1506	130	153	1473	269
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1774	1770	1583	1721	1695	1562	1774	1695	1563
Q Serve(g_s), s	10.5	9.3	17.2	9.4	5.0	7.0	11.2	37.4	8.9	13.7	28.7	14.7
Cycle Q Clear(g_c), s	10.5	9.3	17.2	9.4	5.0	7.0	11.2	37.4	8.9	13.7	28.7	14.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	273	231	196	126	410	183	285	2789	857	166	2845	874
V/C Ratio(X)	0.84	0.50	0.88	0.84	0.29	0.41	0.85	0.54	0.15	0.92	0.52	0.31
Avail Cap(c_a), veh/h	473	454	386	244	863	386	323	2789	857	166	2845	874
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.6	65.5	68.9	73.4	64.7	65.6	74.6	34.7	25.7	71.9	21.9	18.7
Incr Delay (d2), s/veh	2.6	0.6	5.0	5.5	0.1	0.5	15.7	0.8	0.4	46.4	0.7	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	4.8	7.8	4.8	2.4	3.1	5.9	17.7	4.0	8.9	13.5	6.5
LnGrp Delay(d),s/veh	75.3	66.1	73.9	78.9	64.9	66.2	90.3	35.4	26.0	118.3	22.5	19.7
LnGrp LOS	E	E	E	E	E	E	F	D	C	F	C	B
Approach Vol, veh/h		518			301			1878			1895	
Approach Delay, s/veh		72.8			70.1			41.8			29.9	
Approach LOS		E			E			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	94.8	17.4	25.8	20.2	96.5	18.7	24.5
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0
Max Green Setting (Gmax), s	15.0	58.0	22.0	39.0	15.0	58.0	22.0	39.0
Max Q Clear Time (g_c+I1), s	15.7	39.4	11.4	19.2	13.2	30.7	12.5	9.0
Green Ext Time (p_c), s	0.0	10.3	0.1	0.7	0.1	13.0	0.2	0.6

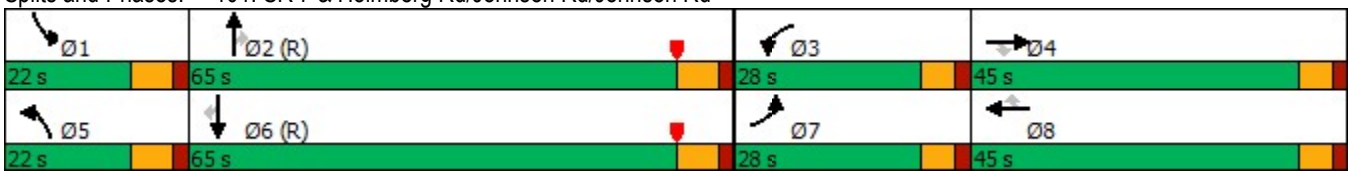
Intersection Summary	
HCM 2010 Ctrl Delay	42.2
HCM 2010 LOS	D

Timings
101: SR 7 & Holmberg Rd/Johnson Rd/Johnson Rd

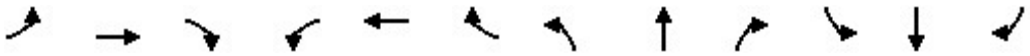
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	213	108	161	99	112	70	225	1401	121	142	1370	250
Future Volume (vph)	213	108	161	99	112	70	225	1401	121	142	1370	250
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	12.0	12.0	5.0	12.0	12.0
Minimum Split (s)	10.0	41.0	41.0	10.0	41.0	41.0	12.0	37.0	37.0	12.0	37.0	37.0
Total Split (s)	28.0	45.0	45.0	28.0	45.0	45.0	22.0	65.0	65.0	22.0	65.0	65.0
Total Split (%)	17.5%	28.1%	28.1%	17.5%	28.1%	28.1%	13.8%	40.6%	40.6%	13.8%	40.6%	40.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	14.6	14.5	14.5	13.5	13.4	13.4	15.7	86.4	86.4	19.6	90.3	90.3
Actuated g/C Ratio	0.09	0.09	0.09	0.08	0.08	0.08	0.10	0.54	0.54	0.12	0.56	0.56
v/c Ratio	0.73	0.69	0.58	0.72	0.41	0.32	0.72	0.55	0.15	0.71	0.51	0.28
Control Delay	84.7	90.6	16.3	95.9	72.3	5.4	91.1	19.5	3.1	84.6	23.6	9.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.7	90.6	16.3	95.9	72.3	5.4	91.1	19.5	3.1	84.6	23.6	9.3
LOS	F	F	B	F	E	A	F	B	A	F	C	A
Approach Delay		63.2			63.9			27.6			26.5	
Approach LOS		E			E			C			C	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 58 (36%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 33.5	Intersection LOS: C
Intersection Capacity Utilization 64.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 101: SR 7 & Holmberg Rd/Johnson Rd/Johnson Rd



Queues
101: SR 7 & Holmberg Rd/Johnson Rd/Johnson Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	229	116	173	106	120	75	242	1506	130	153	1473	269
v/c Ratio	0.73	0.69	0.58	0.72	0.41	0.32	0.72	0.55	0.15	0.71	0.51	0.28
Control Delay	84.7	90.6	16.3	95.9	72.3	5.4	91.1	19.5	3.1	84.6	23.6	9.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.7	90.6	16.3	95.9	72.3	5.4	91.1	19.5	3.1	84.6	23.6	9.3
Queue Length 50th (ft)	122	120	0	110	63	0	135	212	4	156	336	53
Queue Length 95th (ft)	165	186	74	173	95	12	182	358	19	232	467	133
Internal Link Dist (ft)		346			220			420			497	
Turn Bay Length (ft)	250		250	190		150	350		170	200		200
Base Capacity (vph)	472	454	516	243	862	473	357	2745	893	219	2869	949
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.26	0.34	0.44	0.14	0.16	0.68	0.55	0.15	0.70	0.51	0.28

Intersection Summary

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	66	1126	90	0	1613
Future Vol, veh/h	0	66	1126	90	0	1613
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	-	160	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	69	1173	94	0	1680

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	587	0	0	-	-
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	453	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	453	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	453	-
HCM Lane V/C Ratio	-	-	0.152	-
HCM Control Delay (s)	-	-	14.4	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.5	-

HCM 2010 Signalized Intersection Summary
103: Regency Lakes Blvd & SR 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	182	0	89	98	1611	134	114	1528	0
Future Volume (veh/h)	0	0	0	182	0	89	98	1611	134	114	1528	0
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	1863	1863	1863	1863	1863	0
Adj Flow Rate, veh/h				194	0	95	104	1714	143	121	1626	0
Adj No. of Lanes				1	0	1	1	3	1	1	3	0
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				2	0	2	2	2	2	2	2	0
Cap, veh/h				218	0	194	266	3635	1107	241	4032	0
Arrive On Green				0.12	0.00	0.12	0.71	0.71	0.71	0.06	1.00	0.00
Sat Flow, veh/h				1774	0	1583	309	5085	1548	1774	5253	0
Grp Volume(v), veh/h				194	0	95	104	1714	143	121	1626	0
Grp Sat Flow(s),veh/h/ln				1774	0	1583	309	1695	1548	1774	1695	0
Q Serve(g_s), s				17.2	0.0	9.0	23.2	23.2	4.6	3.0	0.0	0.0
Cycle Q Clear(g_c), s				17.2	0.0	9.0	23.2	23.2	4.6	3.0	0.0	0.0
Prop In Lane				1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h				218	0	194	266	3635	1107	241	4032	0
V/C Ratio(X)				0.89	0.00	0.49	0.39	0.47	0.13	0.50	0.40	0.00
Avail Cap(c_a), veh/h				421	0	376	266	3635	1107	324	4032	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				69.1	0.0	65.5	9.8	9.8	7.2	8.5	0.0	0.0
Incr Delay (d2), s/veh				4.9	0.0	0.7	4.3	0.4	0.2	0.6	0.3	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.8	0.0	4.0	2.3	10.9	2.1	1.6	0.1	0.0
LnGrp Delay(d),s/veh				74.0	0.0	66.2	14.1	10.2	7.4	9.1	0.3	0.0
LnGrp LOS				E		E	B	B	A	A	A	
Approach Vol, veh/h					289			1961			1747	
Approach Delay, s/veh					71.5			10.2			0.9	
Approach LOS					E			B			A	

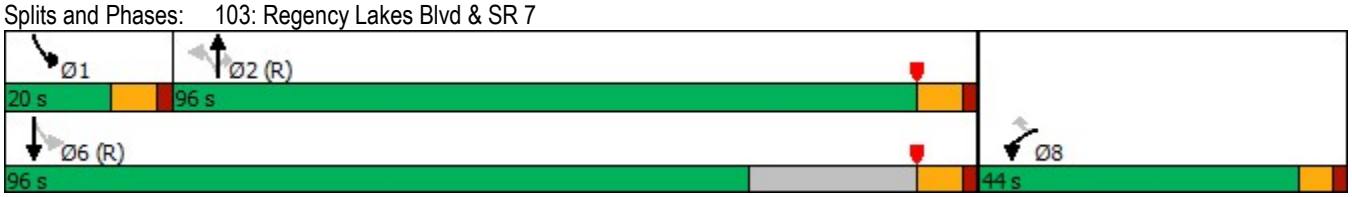
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	12.5	121.9				134.4		25.6
Change Period (Y+Rc), s	7.5	7.5				7.5		6.0
Max Green Setting (Gmax), s	12.5	88.5				88.5		38.0
Max Q Clear Time (g_c+I1), s	5.0	25.2				2.0		19.2
Green Ext Time (p_c), s	0.0	26.8				18.1		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	10.6
HCM 2010 LOS	B

Lane Group	WBL	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	182	89	98	1611	134	114	1528
Future Volume (vph)	182	89	98	1611	134	114	1528
Turn Type	Prot	Perm	Perm	NA	Perm	pm+pt	NA
Protected Phases	8			2		1	6
Permitted Phases		8	2		2	6	
Detector Phase	8	8	2	2	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	20.0	20.0	20.0	4.0	20.0
Minimum Split (s)	40.0	40.0	40.5	40.5	40.5	11.5	27.5
Total Split (s)	44.0	44.0	96.0	96.0	96.0	20.0	96.0
Total Split (%)	27.5%	27.5%	60.0%	60.0%	60.0%	12.5%	60.0%
Yellow Time (s)	4.0	4.0	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	7.5	7.5	7.5	7.5	7.5
Lead/Lag			Lag	Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	C-Max	None	C-Max
Act Effct Green (s)	22.0	22.0	109.5	109.5	109.5	124.5	124.5
Actuated g/C Ratio	0.14	0.14	0.68	0.68	0.68	0.78	0.78
v/c Ratio	0.80	0.32	0.57	0.49	0.13	0.56	0.41
Control Delay	89.4	12.6	31.8	13.5	2.0	34.0	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.4	12.6	31.8	13.5	2.0	34.0	3.2
LOS	F	B	C	B	A	C	A
Approach Delay				13.6			5.4
Approach LOS				B			A

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 73 (46%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 13.7	Intersection LOS: B
Intersection Capacity Utilization 72.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 103: Regency Lakes Blvd & SR 7

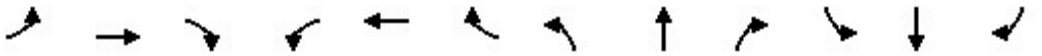


Lane Group	WBL	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	194	95	104	1714	143	121	1626
v/c Ratio	0.80	0.32	0.57	0.49	0.13	0.56	0.41
Control Delay	89.4	12.6	31.8	13.5	2.0	34.0	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.4	12.6	31.8	13.5	2.0	34.0	3.2
Queue Length 50th (ft)	200	0	52	287	0	29	76
Queue Length 95th (ft)	279	53	#185	413	28	111	98
Internal Link Dist (ft)				585			770
Turn Bay Length (ft)			185		430	280	
Base Capacity (vph)	420	448	181	3479	1102	267	3956
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	0.46	0.21	0.57	0.49	0.13	0.45	0.41

Intersection Summary

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

HCM Unsignalized Intersection Capacity Analysis
104: Coral Creek Shops Driveway (East) & Johnson Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	284	17	193	173	5	69	0	38	4	2	3
Future Volume (Veh/h)	76	284	17	193	173	5	69	0	38	4	2	3
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	86	323	19	219	197	6	78	0	43	5	2	3
Pedestrians		1			11			4			3	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		0			1			0			0	
Right turn flare (veh)												
Median type		Raised			Raised							
Median storage veh)		1			1							
Upstream signal (ft)		600										
pX, platoon unblocked												
vC, conflicting volume	206			346			1050	1152	186	1028	1159	106
vC1, stage 1 conf vol							508	508		641	641	
vC2, stage 2 conf vol							542	644		388	518	
vCu, unblocked vol	206			346			1050	1152	186	1028	1159	106
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	94			82			67	100	95	98	99	100
cM capacity (veh/h)	1359			1205			235	230	813	216	211	925

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	248	180	318	104	78	43	10
Volume Left	86	0	219	0	78	0	5
Volume Right	0	19	0	6	0	43	3
cSH	1359	1700	1205	1700	235	813	279
Volume to Capacity	0.06	0.11	0.18	0.06	0.33	0.05	0.04
Queue Length 95th (ft)	5	0	17	0	35	4	3
Control Delay (s)	3.1	0.0	6.5	0.0	27.7	9.7	18.4
Lane LOS	A		A		D	A	C
Approach Delay (s)	1.8		4.9		21.3		18.4
Approach LOS					C		C

Intersection Summary			
Average Delay	5.7		
Intersection Capacity Utilization	41.2%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	310	153	0	284	0	185
Future Vol, veh/h	310	153	0	284	0	185
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	337	166	0	309	0	201

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	252
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	748
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	748
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	748	-	-	-
HCM Lane V/C Ratio	0.269	-	-	-
HCM Control Delay (s)	11.6	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	1.1	-	-	-

HCM 2010 Signalized Intersection Summary
106: Lyons Rd & Johnson Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	15	176	8	6	8	154	977	9	13	1265	171
Future Volume (veh/h)	160	15	176	8	6	8	154	977	9	13	1265	171
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	167	16	183	8	6	8	160	1018	9	14	1318	178
Adj No. of Lanes	1	1	1	1	1	0	1	3	0	1	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	309	289	245	277	112	150	331	3427	30	372	2507	780
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.07	0.66	0.66	0.49	0.49	0.49
Sat Flow, veh/h	1394	1863	1583	1179	725	967	1774	5199	46	547	5085	1583
Grp Volume(v), veh/h	167	16	183	8	0	14	160	664	363	14	1318	178
Grp Sat Flow(s),veh/h/ln	1394	1863	1583	1179	0	1692	1774	1695	1855	547	1695	1583
Q Serve(g_s), s	8.1	0.5	7.7	0.4	0.0	0.5	2.9	5.8	5.8	0.9	12.4	4.5
Cycle Q Clear(g_c), s	8.6	0.5	7.7	0.9	0.0	0.5	2.9	5.8	5.8	0.9	12.4	4.5
Prop In Lane	1.00		1.00	1.00		0.57	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	309	289	245	277	0	262	331	2235	1223	372	2507	780
V/C Ratio(X)	0.54	0.06	0.75	0.03	0.00	0.05	0.48	0.30	0.30	0.04	0.53	0.23
Avail Cap(c_a), veh/h	372	373	317	330	0	338	340	2235	1223	372	2507	780
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.9	25.2	28.3	25.6	0.0	25.2	9.3	5.1	5.1	9.2	12.1	10.1
Incr Delay (d2), s/veh	0.5	0.0	4.6	0.0	0.0	0.0	0.4	0.3	0.6	0.2	0.8	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.3	3.7	0.1	0.0	0.2	1.4	2.8	3.1	0.2	5.9	2.1
LnGrp Delay(d),s/veh	29.4	25.2	32.9	25.6	0.0	25.2	9.7	5.4	5.7	9.4	12.9	10.8
LnGrp LOS	C	C	C	C		C	A	A	A	A	B	B
Approach Vol, veh/h		366			22			1187			1510	
Approach Delay, s/veh		31.0			25.4			6.1			12.7	
Approach LOS		C			C			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		53.1		16.9	11.6	41.5		16.9
Change Period (Y+Rc), s		7.0		6.0	7.0	7.0		6.0
Max Green Setting (Gmax), s		43.0		14.0	5.0	31.0		14.0
Max Q Clear Time (g_c+I1), s		7.8		10.6	4.9	14.4		2.9
Green Ext Time (p_c), s		7.2		0.2	0.0	8.7		0.0

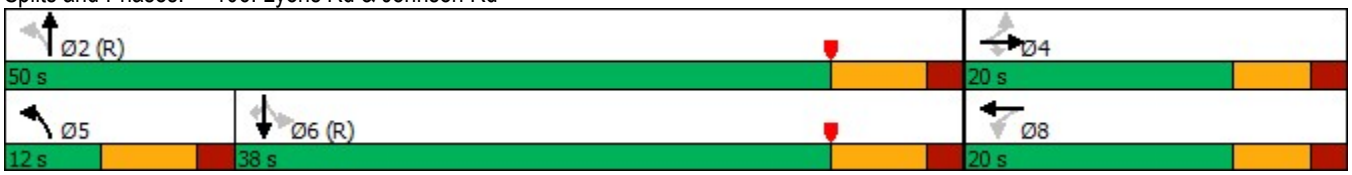
Intersection Summary	
HCM 2010 Ctrl Delay	12.4
HCM 2010 LOS	B

Timings
106: Lyons Rd & Johnson Rd

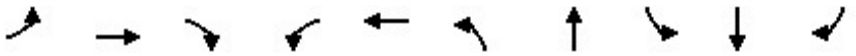
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	160	15	176	8	6	154	977	13	1265	171
Future Volume (vph)	160	15	176	8	6	154	977	13	1265	171
Turn Type	Perm	NA	Perm	Perm	NA	pm+pt	NA	Perm	NA	Perm
Protected Phases		4			8	5	2		6	
Permitted Phases	4		4	8		2		6		6
Detector Phase	4	4	4	8	8	5	2	6	6	6
Switch Phase										
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	4.0	12.0	12.0	12.0	12.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	11.0	36.0	36.0	36.0	36.0
Total Split (s)	20.0	20.0	20.0	20.0	20.0	12.0	50.0	38.0	38.0	38.0
Total Split (%)	28.6%	28.6%	28.6%	28.6%	28.6%	17.1%	71.4%	54.3%	54.3%	54.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag						Lead		Lag	Lag	Lag
Lead-Lag Optimize?						Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	11.6	11.6	11.6	11.6	11.6	45.4	45.4	33.1	33.1	33.1
Actuated g/C Ratio	0.17	0.17	0.17	0.17	0.17	0.65	0.65	0.47	0.47	0.47
v/c Ratio	0.73	0.05	0.45	0.03	0.05	0.59	0.31	0.06	0.55	0.21
Control Delay	45.8	23.4	9.2	23.2	17.1	16.1	6.0	12.2	14.7	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.8	23.4	9.2	23.2	17.1	16.1	6.0	12.2	14.7	2.8
LOS	D	C	A	C	B	B	A	B	B	A
Approach Delay		26.6			19.3		7.4		13.3	
Approach LOS		C			B		A		B	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 12.6	Intersection LOS: B
Intersection Capacity Utilization 65.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 106: Lyons Rd & Johnson Rd



Queues
106: Lyons Rd & Johnson Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	167	16	183	8	14	160	1027	14	1318	178
v/c Ratio	0.73	0.05	0.45	0.03	0.05	0.59	0.31	0.06	0.55	0.21
Control Delay	45.8	23.4	9.2	23.2	17.1	16.1	6.0	12.2	14.7	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.8	23.4	9.2	23.2	17.1	16.1	6.0	12.2	14.7	2.8
Queue Length 50th (ft)	68	6	4	3	2	24	64	3	149	0
Queue Length 95th (ft)	#130	20	53	13	16	#57	89	13	191	31
Internal Link Dist (ft)		468			274		376		329	
Turn Bay Length (ft)	255		255	160		200		215		270
Base Capacity (vph)	278	372	453	278	347	275	3297	234	2401	841
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	0.60	0.04	0.40	0.03	0.04	0.58	0.31	0.06	0.55	0.21

Intersection Summary

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

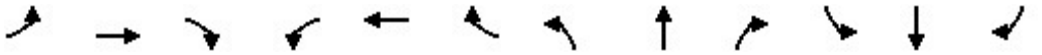
HCM Unsignalized Intersection Capacity Analysis
107: Mall Road & Wendy's Driveway

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	39	25	49	102	128	21
Future Volume (Veh/h)	39	25	49	102	128	21
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	45	29	57	119	149	24
Pedestrians	2					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	0		205	104	119	2
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		205	104	119	2
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	97		91	84	80	98
cM capacity (veh/h)	1623		610	764	750	1080

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	74	176	173
Volume Left	45	57	0
Volume Right	29	0	24
cSH	1623	706	783
Volume to Capacity	0.03	0.25	0.22
Queue Length 95th (ft)	2	25	21
Control Delay (s)	4.5	11.8	10.9
Lane LOS	A	B	B
Approach Delay (s)	4.5	11.8	10.9
Approach LOS		B	B

Intersection Summary			
Average Delay	10.1		
Intersection Capacity Utilization	29.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM 2010 Signalized Intersection Summary
101: SR 7 & Holmberg Rd/Johnson Rd/Johnson Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	327	202	254	252	285	180	317	1923	118	127	2046	490
Future Volume (veh/h)	327	202	254	252	285	180	317	1923	118	127	2046	490
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	330	204	257	255	288	182	320	1942	119	128	2067	495
Adj No. of Lanes	2	1	1	1	2	1	2	3	1	1	3	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	371	279	236	211	570	253	360	2467	768	148	2361	735
Arrive On Green	0.11	0.15	0.15	0.12	0.16	0.16	0.14	0.65	0.65	0.08	0.46	0.46
Sat Flow, veh/h	3442	1863	1574	1774	3539	1574	3442	5085	1583	1774	5085	1583
Grp Volume(v), veh/h	330	204	257	255	288	182	320	1942	119	128	2067	495
Grp Sat Flow(s),veh/h/ln	1721	1863	1574	1774	1770	1574	1721	1695	1583	1774	1695	1583
Q Serve(g_s), s	15.1	16.7	24.0	19.0	11.9	17.5	14.6	44.1	4.7	11.4	58.7	39.0
Cycle Q Clear(g_c), s	15.1	16.7	24.0	19.0	11.9	17.5	14.6	44.1	4.7	11.4	58.7	39.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	371	279	236	211	570	253	360	2467	768	148	2361	735
V/C Ratio(X)	0.89	0.73	1.09	1.21	0.51	0.72	0.89	0.79	0.15	0.86	0.88	0.67
Avail Cap(c_a), veh/h	409	279	236	211	570	253	387	2467	768	200	2361	735
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.4	64.9	68.0	70.5	61.3	63.7	68.0	22.4	15.5	72.4	38.7	33.4
Incr Delay (d2), s/veh	18.4	8.2	84.2	130.4	0.3	8.2	19.7	2.6	0.4	19.6	4.9	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	9.3	16.0	16.9	5.9	8.2	7.9	21.0	2.2	6.4	28.4	18.0
LnGrp Delay(d),s/veh	88.9	73.1	152.2	200.9	61.6	71.9	87.7	25.1	15.9	92.0	43.6	38.3
LnGrp LOS	F	E	F	F	E	E	F	C	B	F	D	D
Approach Vol, veh/h		791			725			2381			2690	
Approach Delay, s/veh		105.4			113.2			33.0			44.9	
Approach LOS		F			F			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.4	84.6	25.0	30.0	23.7	81.3	23.2	31.8
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0
Max Green Setting (Gmax), s	18.0	73.0	19.0	24.0	18.0	73.0	19.0	24.0
Max Q Clear Time (g_c+I1), s	13.4	46.1	21.0	26.0	16.6	60.7	17.1	19.5
Green Ext Time (p_c), s	0.0	16.9	0.0	0.0	0.1	10.4	0.1	0.7

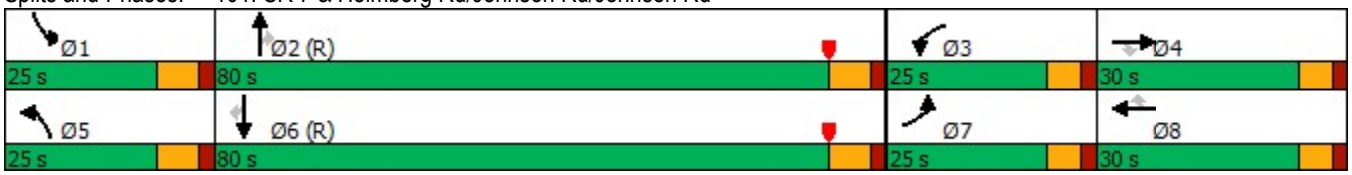
Intersection Summary	
HCM 2010 Ctrl Delay	55.4
HCM 2010 LOS	E

Timings
101: SR 7 & Holmberg Rd/Johnson Rd/Johnson Rd

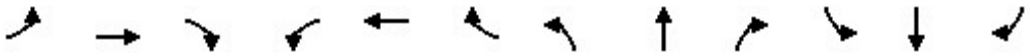
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	327	202	254	252	285	180	317	1923	118	127	2046	490
Future Volume (vph)	327	202	254	252	285	180	317	1923	118	127	2046	490
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	12.0	12.0	5.0	12.0	12.0
Minimum Split (s)	10.0	30.0	30.0	10.0	30.0	30.0	12.0	37.0	37.0	12.0	37.0	37.0
Total Split (s)	25.0	30.0	30.0	25.0	30.0	30.0	25.0	80.0	80.0	25.0	80.0	80.0
Total Split (%)	15.6%	18.8%	18.8%	15.6%	18.8%	18.8%	15.6%	50.0%	50.0%	15.6%	50.0%	50.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	17.8	20.7	20.7	19.0	21.9	21.9	17.6	79.6	79.6	14.7	76.7	76.7
Actuated g/C Ratio	0.11	0.13	0.13	0.12	0.14	0.14	0.11	0.50	0.50	0.09	0.48	0.48
v/c Ratio	0.87	0.85	0.70	1.21	0.59	0.49	0.85	0.77	0.14	0.79	0.85	0.56
Control Delay	91.7	96.5	28.9	187.9	70.0	12.4	74.2	54.8	15.9	102.1	41.5	17.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	91.7	96.5	28.9	187.9	70.0	12.4	74.2	54.8	15.9	102.1	41.5	17.3
LOS	F	F	C	F	E	B	E	D	B	F	D	B
Approach Delay		72.5			97.0			55.4			39.9	
Approach LOS		E			F			E			D	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 137 (86%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.21	
Intersection Signal Delay: 55.7	Intersection LOS: E
Intersection Capacity Utilization 95.6%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 101: SR 7 & Holmberg Rd/Johnson Rd/Johnson Rd



Queues
101: SR 7 & Holmberg Rd/Johnson Rd/Johnson Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	330	204	257	255	288	182	320	1942	119	128	2067	495
v/c Ratio	0.87	0.85	0.70	1.21	0.59	0.49	0.85	0.77	0.14	0.79	0.85	0.56
Control Delay	91.7	96.5	28.9	187.9	70.0	12.4	74.2	54.8	15.9	102.1	41.5	17.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	91.7	96.5	28.9	187.9	70.0	12.4	74.2	54.8	15.9	102.1	41.5	17.3
Queue Length 50th (ft)	176	210	64	~325	151	0	169	740	38	133	715	190
Queue Length 95th (ft)	#246	#313	168	#513	201	73	#244	805	m83	206	786	309
Internal Link Dist (ft)		346			220			420			497	
Turn Bay Length (ft)	250		250	190		150	350		170	200		200
Base Capacity (vph)	407	279	394	210	530	387	393	2529	842	199	2436	885
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.73	0.65	1.21	0.54	0.47	0.81	0.77	0.14	0.64	0.85	0.56

Intersection Summary

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

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

m Volume for 95th percentile queue is metered by upstream signal.

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	83	1501	82	0	2520
Future Vol, veh/h	0	83	1501	82	0	2520
Conflicting Peds, #/hr	0	0	0	2	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	160	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	86	1547	85	0	2598

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	776	0	0	-	-
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	340	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	339	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.2	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	339	-
HCM Lane V/C Ratio	-	-	0.252	-
HCM Control Delay (s)	-	-	19.2	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	1	-

HCM 2010 Signalized Intersection Summary
103: Regency Lakes Blvd & SR 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	263	0	117	124	2188	167	150	2394	0
Future Volume (veh/h)	0	0	0	263	0	117	124	2188	167	150	2394	0
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	1863	1863	1863	1863	1863	0
Adj Flow Rate, veh/h				280	0	124	132	2328	178	160	2547	0
Adj No. of Lanes				1	0	1	1	3	1	1	3	0
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				2	0	2	2	2	2	2	2	0
Cap, veh/h				301	0	269	126	3303	1006	179	3793	0
Arrive On Green				0.17	0.00	0.17	0.65	0.65	0.65	0.10	1.00	0.00
Sat Flow, veh/h				1774	0	1583	125	5085	1549	1774	5253	0
Grp Volume(v), veh/h				280	0	124	132	2328	178	160	2547	0
Grp Sat Flow(s),veh/h/ln				1774	0	1583	125	1695	1549	1774	1695	0
Q Serve(g_s), s				24.9	0.0	11.3	103.9	47.3	7.3	5.9	0.0	0.0
Cycle Q Clear(g_c), s				24.9	0.0	11.3	103.9	47.3	7.3	5.9	0.0	0.0
Prop In Lane				1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h				301	0	269	126	3303	1006	179	3793	0
V/C Ratio(X)				0.93	0.00	0.46	1.05	0.70	0.18	0.89	0.67	0.00
Avail Cap(c_a), veh/h				333	0	297	126	3303	1006	285	3793	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				65.5	0.0	59.8	46.6	18.1	11.1	35.1	0.0	0.0
Incr Delay (d2), s/veh				29.3	0.0	0.5	93.4	1.3	0.4	13.0	1.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				14.7	0.0	5.0	8.8	22.4	3.2	7.5	0.3	0.0
LnGrp Delay(d),s/veh				94.8	0.0	60.3	140.4	19.4	11.5	48.1	1.0	0.0
LnGrp LOS				F		E	F	B	B	D	A	
Approach Vol, veh/h					404			2638			2707	
Approach Delay, s/veh					84.2			24.9			3.7	
Approach LOS					F			C			A	

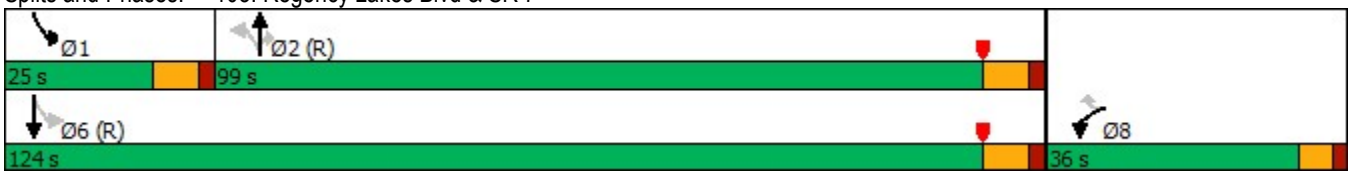
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	15.4	111.4				126.9		33.1
Change Period (Y+Rc), s	7.5	7.5				7.5		6.0
Max Green Setting (Gmax), s	17.5	91.5				116.5		30.0
Max Q Clear Time (g_c+I1), s	7.9	105.9				2.0		26.9
Green Ext Time (p_c), s	0.1	0.0				54.8		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	19.1
HCM 2010 LOS	B

Lane Group	WBL	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	263	117	124	2188	167	150	2394
Future Volume (vph)	263	117	124	2188	167	150	2394
Turn Type	Prot	Perm	Perm	NA	Perm	pm+pt	NA
Protected Phases	8			2		1	6
Permitted Phases		8	2		2	6	
Detector Phase	8	8	2	2	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	20.0	20.0	20.0	4.0	20.0
Minimum Split (s)	36.0	36.0	40.5	40.5	40.5	11.5	27.5
Total Split (s)	36.0	36.0	99.0	99.0	99.0	25.0	124.0
Total Split (%)	22.5%	22.5%	61.9%	61.9%	61.9%	15.6%	77.5%
Yellow Time (s)	4.0	4.0	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	7.5	7.5	7.5	7.5	7.5
Lead/Lag			Lag	Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	C-Max	None	C-Max
Act Effct Green (s)	27.7	27.7	98.2	98.2	98.2	118.8	118.8
Actuated g/C Ratio	0.17	0.17	0.61	0.61	0.61	0.74	0.74
v/c Ratio	0.92	0.33	2.69	0.75	0.18	0.84	0.67
Control Delay	97.8	10.9	845.0	25.0	2.3	67.7	15.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	97.8	10.9	845.0	25.0	2.3	67.7	15.0
LOS	F	B	F	C	A	E	B
Approach Delay				64.5			18.1
Approach LOS				E			B

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 56 (35%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.69	
Intersection Signal Delay: 43.1	Intersection LOS: D
Intersection Capacity Utilization 93.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 103: Regency Lakes Blvd & SR 7



Queues
103: Regency Lakes Blvd & SR 7

Lane Group	WBL	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	280	124	132	2328	178	160	2547
v/c Ratio	0.92	0.33	2.69	0.75	0.18	0.84	0.67
Control Delay	97.8	10.9	845.0	25.0	2.3	67.7	15.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	97.8	10.9	845.0	25.0	2.3	67.7	15.0
Queue Length 50th (ft)	287	0	~186	642	0	102	871
Queue Length 95th (ft)	#442	59	#340	742	35	m132	m875
Internal Link Dist (ft)				585			770
Turn Bay Length (ft)			185		430	280	
Base Capacity (vph)	331	391	49	3120	1017	238	3774
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	0.85	0.32	2.69	0.75	0.18	0.67	0.67

Intersection Summary

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

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

m Volume for 95th percentile queue is metered by upstream signal.

HCM Unsignalized Intersection Capacity Analysis
104: Coral Creek Shops Driveway (East) & Johnson Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	366	22	163	444	9	87	0	55	6	1	6
Future Volume (Veh/h)	105	366	22	163	444	9	87	0	55	6	1	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	115	402	24	179	488	10	96	0	60	7	1	7
Pedestrians					2							
Lane Width (ft)					12.0							
Walking Speed (ft/s)					3.5							
Percent Blockage					0							
Right turn flare (veh)												
Median type		Raised			Raised							
Median storage veh)		1			1							
Upstream signal (ft)		600										
pX, platoon unblocked												
vC, conflicting volume	498			426			1254	1500	215	1344	1507	249
vC1, stage 1 conf vol							644	644		851	851	
vC2, stage 2 conf vol							610	856		493	656	
vCu, unblocked vol	498			426			1254	1500	215	1344	1507	249
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	89			84			48	100	92	96	99	99
cM capacity (veh/h)	1062			1130			185	157	788	157	161	751

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	316	225	423	254	96	60	15
Volume Left	115	0	179	0	96	0	7
Volume Right	0	24	0	10	0	60	7
cSH	1062	1700	1130	1700	185	788	249
Volume to Capacity	0.11	0.13	0.16	0.15	0.52	0.08	0.06
Queue Length 95th (ft)	9	0	14	0	66	6	5
Control Delay (s)	3.9	0.0	4.7	0.0	43.9	9.9	20.4
Lane LOS	A		A		E	A	C
Approach Delay (s)	2.3		2.9		30.8		20.4
Approach LOS					D		C

Intersection Summary			
Average Delay	6.0		
Intersection Capacity Utilization	50.6%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	299	150	0	725	0	187
Future Vol, veh/h	299	150	0	725	0	187
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	315	158	0	763	0	197

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	237
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	764
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	764
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	764	-	-	-
HCM Lane V/C Ratio	0.258	-	-	-
HCM Control Delay (s)	11.3	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	1	-	-	-

HCM 2010 Signalized Intersection Summary
106: Lyons Rd & Johnson Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	363	31	253	24	7	27	161	1741	14	29	2225	211
Future Volume (veh/h)	363	31	253	24	7	27	161	1741	14	29	2225	211
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	386	33	269	26	7	29	171	1852	15	31	2367	224
Adj No. of Lanes	1	1	1	1	1	0	1	3	0	1	3	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	351	373	312	302	63	263	230	3196	26	201	2252	701
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.07	0.61	0.61	0.44	0.44	0.44
Sat Flow, veh/h	1367	1863	1560	1072	317	1314	1774	5203	42	244	5085	1583
Grp Volume(v), veh/h	386	33	269	26	0	36	171	1207	660	31	2367	224
Grp Sat Flow(s),veh/h/ln	1367	1863	1560	1072	0	1631	1774	1695	1855	244	1695	1583
Q Serve(g_s), s	12.7	1.0	11.7	1.4	0.0	1.3	3.4	14.9	14.9	6.1	31.0	6.4
Cycle Q Clear(g_c), s	14.0	1.0	11.7	2.4	0.0	1.3	3.4	14.9	14.9	9.0	31.0	6.4
Prop In Lane	1.00		1.00	1.00		0.81	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	351	373	312	302	0	326	230	2083	1140	201	2252	701
V/C Ratio(X)	1.10	0.09	0.86	0.09	0.00	0.11	0.74	0.58	0.58	0.15	1.05	0.32
Avail Cap(c_a), veh/h	351	373	312	302	0	326	230	2083	1140	201	2252	701
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	22.8	27.1	23.8	0.0	22.9	15.9	8.1	8.1	14.4	19.5	12.7
Incr Delay (d2), s/veh	77.0	0.0	20.3	0.0	0.0	0.1	11.1	1.2	2.2	1.6	34.1	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.3	0.5	6.8	0.4	0.0	0.6	2.3	7.2	8.2	0.5	21.5	3.0
LnGrp Delay(d),s/veh	107.5	22.8	47.3	23.8	0.0	23.0	26.9	9.3	10.2	16.0	53.6	13.9
LnGrp LOS	F	C	D	C		C	C	A	B	B	F	B
Approach Vol, veh/h		688			62			2038			2622	
Approach Delay, s/veh		79.9			23.3			11.1			49.7	
Approach LOS		E			C			B			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		50.0		20.0	12.0	38.0		20.0
Change Period (Y+Rc), s		7.0		6.0	7.0	7.0		6.0
Max Green Setting (Gmax), s		43.0		14.0	5.0	31.0		14.0
Max Q Clear Time (g_c+I1), s		16.9		16.0	5.4	33.0		4.4
Green Ext Time (p_c), s		14.5		0.0	0.0	0.0		0.1

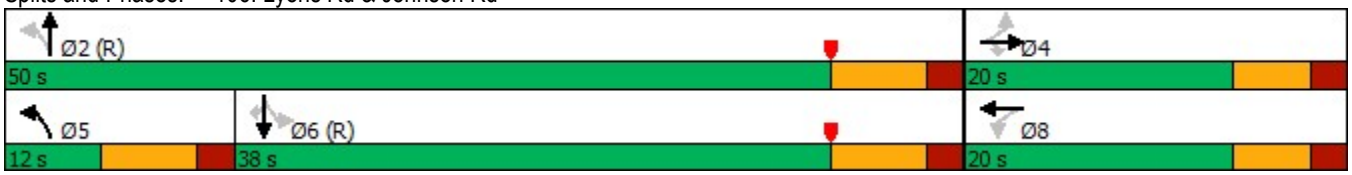
Intersection Summary	
HCM 2010 Ctrl Delay	38.7
HCM 2010 LOS	D

Timings
106: Lyons Rd & Johnson Rd

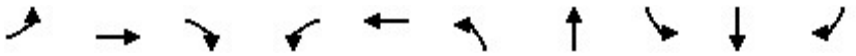
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	363	31	253	24	7	161	1741	29	2225	211
Future Volume (vph)	363	31	253	24	7	161	1741	29	2225	211
Turn Type	Perm	NA	Perm	Perm	NA	pm+pt	NA	Perm	NA	Perm
Protected Phases		4			8	5	2		6	
Permitted Phases	4		4	8		2		6		6
Detector Phase	4	4	4	8	8	5	2	6	6	6
Switch Phase										
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	4.0	12.0	12.0	12.0	12.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	11.0	36.0	36.0	36.0	36.0
Total Split (s)	20.0	20.0	20.0	20.0	20.0	12.0	50.0	38.0	38.0	38.0
Total Split (%)	28.6%	28.6%	28.6%	28.6%	28.6%	17.1%	71.4%	54.3%	54.3%	54.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag						Lead		Lag	Lag	Lag
Lead-Lag Optimize?						Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	14.0	14.0	14.0	14.0	14.0	43.0	43.0	31.0	31.0	31.0
Actuated g/C Ratio	0.20	0.20	0.20	0.20	0.20	0.61	0.61	0.44	0.44	0.44
v/c Ratio	1.41	0.09	0.60	0.09	0.11	0.74	0.60	0.29	1.05	0.27
Control Delay	233.7	23.6	16.3	24.0	16.0	30.2	9.2	21.6	55.6	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	233.7	23.6	16.3	24.0	16.0	30.2	9.2	21.6	55.6	2.9
LOS	F	C	B	C	B	C	A	C	E	A
Approach Delay		138.6			19.4		11.0		50.6	
Approach LOS		F			B		B		D	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.41	
Intersection Signal Delay: 46.5	Intersection LOS: D
Intersection Capacity Utilization 95.4%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 106: Lyons Rd & Johnson Rd



Queues
106: Lyons Rd & Johnson Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	386	33	269	26	36	171	1867	31	2367	224
v/c Ratio	1.41	0.09	0.60	0.09	0.11	0.74	0.60	0.29	1.05	0.27
Control Delay	233.7	23.6	16.3	24.0	16.0	30.2	9.2	21.6	55.6	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	233.7	23.6	16.3	24.0	16.0	30.2	9.2	21.6	55.6	2.9
Queue Length 50th (ft)	~229	12	36	9	6	28	157	8	~417	0
Queue Length 95th (ft)	#385	33	106	28	29	#112	197	31	#510	34
Internal Link Dist (ft)		468			274		376		329	
Turn Bay Length (ft)	255		255	160		200		215		270
Base Capacity (vph)	273	372	448	274	341	232	3121	106	2251	825
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	1.41	0.09	0.60	0.09	0.11	0.74	0.60	0.29	1.05	0.27

Intersection Summary

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

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

HCM Unsignalized Intersection Capacity Analysis
107: Mall Road & Wendy's Driveway

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	43	15	51	118	131	21
Future Volume (Veh/h)	43	15	51	118	131	21
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	47	16	55	128	142	23
Pedestrians	5					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	0		201	102	110	5
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		201	102	110	5
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	97		91	83	81	98
cM capacity (veh/h)	1623		618	765	758	1073

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	63	183	165
Volume Left	47	55	0
Volume Right	16	0	23
cSH	1623	714	790
Volume to Capacity	0.03	0.26	0.21
Queue Length 95th (ft)	2	25	20
Control Delay (s)	5.5	11.8	10.8
Lane LOS	A	B	B
Approach Delay (s)	5.5	11.8	10.8
Approach LOS		B	B

Intersection Summary			
Average Delay	10.4		
Intersection Capacity Utilization	30.5%	ICU Level of Service	A
Analysis Period (min)	15		

Future (2019) Total SYNCHRO Output

HCM 2010 Signalized Intersection Summary
101: SR 7 & Holmberg Rd/Johnson Rd/Johnson Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	213	112	161	99	114	70	233	1414	121	154	1372	250
Future Volume (veh/h)	213	112	161	99	114	70	233	1414	121	154	1372	250
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	229	120	173	106	123	75	251	1520	130	166	1475	269
Adj No. of Lanes	2	1	1	1	2	1	2	3	1	1	3	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	273	231	197	126	410	184	293	2789	857	166	2832	870
Arrive On Green	0.08	0.12	0.12	0.07	0.12	0.12	0.06	0.37	0.37	0.09	0.56	0.56
Sat Flow, veh/h	3442	1863	1583	1774	3539	1583	3442	5085	1562	1774	5085	1563
Grp Volume(v), veh/h	229	120	173	106	123	75	251	1520	130	166	1475	269
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1774	1770	1583	1721	1695	1562	1774	1695	1563
Q Serve(g_s), s	10.5	9.6	17.2	9.4	5.1	7.0	11.6	37.8	8.9	15.0	29.0	14.7
Cycle Q Clear(g_c), s	10.5	9.6	17.2	9.4	5.1	7.0	11.6	37.8	8.9	15.0	29.0	14.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	273	231	197	126	410	184	293	2789	857	166	2832	870
V/C Ratio(X)	0.84	0.52	0.88	0.84	0.30	0.41	0.86	0.55	0.15	1.00	0.52	0.31
Avail Cap(c_a), veh/h	473	454	386	244	863	386	323	2789	857	166	2832	870
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.6	65.6	68.9	73.4	64.8	65.6	74.5	34.8	25.7	72.5	22.1	19.0
Incr Delay (d2), s/veh	2.6	0.7	4.9	5.5	0.2	0.5	17.0	0.8	0.4	69.2	0.7	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	5.0	7.8	4.8	2.5	3.1	6.2	17.9	4.0	10.5	13.7	6.6
LnGrp Delay(d),s/veh	75.3	66.3	73.9	78.9	64.9	66.2	91.5	35.6	26.0	141.7	22.8	19.9
LnGrp LOS	E	E	E	E	E	E	F	D	C	F	C	B
Approach Vol, veh/h		522			304			1901			1910	
Approach Delay, s/veh		72.7			70.1			42.3			32.7	
Approach LOS		E			E			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	94.7	17.4	25.9	20.6	96.1	18.7	24.6
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0
Max Green Setting (Gmax), s	15.0	58.0	22.0	39.0	15.0	58.0	22.0	39.0
Max Q Clear Time (g_c+I1), s	17.0	39.8	11.4	19.2	13.6	31.0	12.5	9.0
Green Ext Time (p_c), s	0.0	10.2	0.1	0.7	0.1	13.0	0.2	0.6

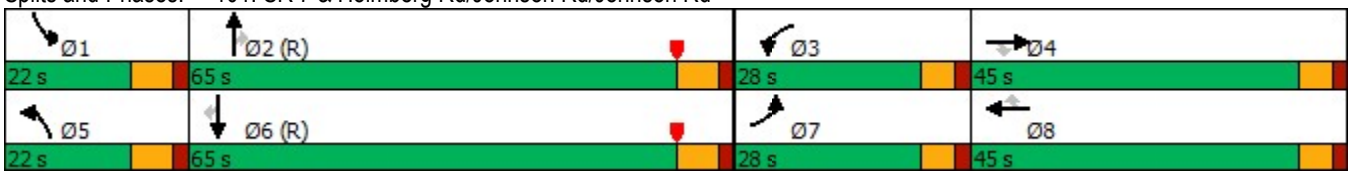
Intersection Summary	
HCM 2010 Ctrl Delay	43.6
HCM 2010 LOS	D

Timings
101: SR 7 & Holmberg Rd/Johnson Rd/Johnson Rd

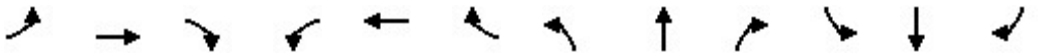
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	213	112	161	99	114	70	233	1414	121	154	1372	250
Future Volume (vph)	213	112	161	99	114	70	233	1414	121	154	1372	250
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	12.0	12.0	5.0	12.0	12.0
Minimum Split (s)	10.0	41.0	41.0	10.0	41.0	41.0	12.0	37.0	37.0	12.0	37.0	37.0
Total Split (s)	28.0	45.0	45.0	28.0	45.0	45.0	22.0	65.0	65.0	22.0	65.0	65.0
Total Split (%)	17.5%	28.1%	28.1%	17.5%	28.1%	28.1%	13.8%	40.6%	40.6%	13.8%	40.6%	40.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	14.6	14.9	14.9	13.5	13.8	13.8	16.2	83.5	83.5	22.2	89.4	89.4
Actuated g/C Ratio	0.09	0.09	0.09	0.08	0.09	0.09	0.10	0.52	0.52	0.14	0.56	0.56
v/c Ratio	0.73	0.69	0.57	0.72	0.40	0.31	0.72	0.57	0.15	0.68	0.52	0.29
Control Delay	84.7	90.3	16.0	95.9	71.9	5.3	90.6	21.2	3.2	79.5	24.2	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.7	90.3	16.0	95.9	71.9	5.3	90.6	21.2	3.2	79.5	24.2	9.6
LOS	F	F	B	F	E	A	F	C	A	E	C	A
Approach Delay		63.2			63.8			29.1			27.0	
Approach LOS		E			E			C			C	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 58 (36%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 34.4	Intersection LOS: C
Intersection Capacity Utilization 65.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 101: SR 7 & Holmberg Rd/Johnson Rd/Johnson Rd



Queues
101: SR 7 & Holmberg Rd/Johnson Rd/Johnson Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	229	120	173	106	123	75	251	1520	130	166	1475	269
v/c Ratio	0.73	0.69	0.57	0.72	0.40	0.31	0.72	0.57	0.15	0.68	0.52	0.29
Control Delay	84.7	90.3	16.0	95.9	71.9	5.3	90.6	21.2	3.2	79.5	24.2	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.7	90.3	16.0	95.9	71.9	5.3	90.6	21.2	3.2	79.5	24.2	9.6
Queue Length 50th (ft)	122	124	0	110	65	0	139	253	4	168	341	54
Queue Length 95th (ft)	165	190	74	173	97	12	188	394	19	248	475	135
Internal Link Dist (ft)		346			220			420			497	
Turn Bay Length (ft)	250		250	190		150	350		170	200		200
Base Capacity (vph)	472	454	516	243	862	473	363	2652	866	245	2842	942
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.26	0.34	0.44	0.14	0.16	0.69	0.57	0.15	0.68	0.52	0.29

Intersection Summary

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	120	1104	137	0	1588
Future Vol, veh/h	0	120	1104	137	0	1588
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	-	160	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	125	1150	143	0	1654

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	575	0	0	-	-
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	461	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	461	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.7	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	461	-
HCM Lane V/C Ratio	-	-	0.271	-
HCM Control Delay (s)	-	-	15.7	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	1.1	-

HCM 2010 Signalized Intersection Summary
103: Regency Lakes Blvd & SR 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	189	0	89	98	1625	134	116	1534	0
Future Volume (veh/h)	0	0	0	189	0	89	98	1625	134	116	1534	0
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	1863	1863	1863	1863	1863	0
Adj Flow Rate, veh/h				201	0	95	104	1729	143	123	1632	0
Adj No. of Lanes				1	0	1	1	3	1	1	3	0
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				2	0	2	2	2	2	2	2	0
Cap, veh/h				225	0	201	263	3612	1100	238	4012	0
Arrive On Green				0.13	0.00	0.13	0.71	0.71	0.71	0.06	1.00	0.00
Sat Flow, veh/h				1774	0	1583	307	5085	1548	1774	5253	0
Grp Volume(v), veh/h				201	0	95	104	1729	143	123	1632	0
Grp Sat Flow(s),veh/h/ln				1774	0	1583	307	1695	1548	1774	1695	0
Q Serve(g_s), s				17.9	0.0	8.9	23.8	23.9	4.7	3.1	0.0	0.0
Cycle Q Clear(g_c), s				17.9	0.0	8.9	23.8	23.9	4.7	3.1	0.0	0.0
Prop In Lane				1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h				225	0	201	263	3612	1100	238	4012	0
V/C Ratio(X)				0.89	0.00	0.47	0.40	0.48	0.13	0.52	0.41	0.00
Avail Cap(c_a), veh/h				421	0	376	263	3612	1100	320	4012	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				68.8	0.0	64.9	10.2	10.2	7.4	9.0	0.0	0.0
Incr Delay (d2), s/veh				4.9	0.0	0.6	4.4	0.5	0.2	0.6	0.3	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				9.1	0.0	3.9	2.3	11.2	2.1	1.7	0.1	0.0
LnGrp Delay(d),s/veh				73.7	0.0	65.6	14.6	10.6	7.6	9.6	0.3	0.0
LnGrp LOS				E		E	B	B	A	A	A	
Approach Vol, veh/h					296			1976			1755	
Approach Delay, s/veh					71.1			10.6			1.0	
Approach LOS					E			B			A	

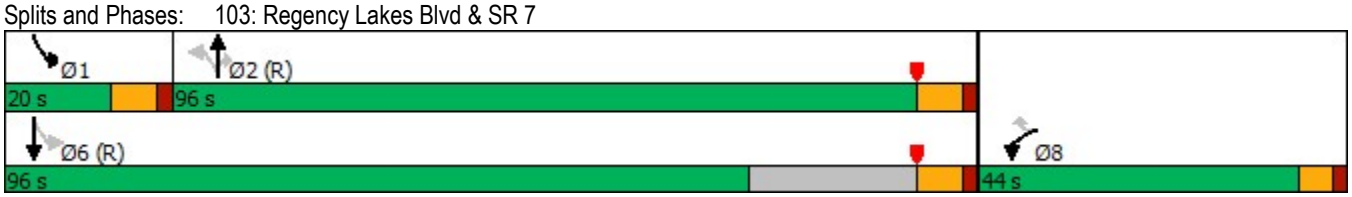
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	12.6	121.1				133.7		26.3
Change Period (Y+Rc), s	7.5	7.5				7.5		6.0
Max Green Setting (Gmax), s	12.5	88.5				88.5		38.0
Max Q Clear Time (g_c+I1), s	5.1	25.9				2.0		19.9
Green Ext Time (p_c), s	0.0	27.0				18.2		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	10.9
HCM 2010 LOS	B

Lane Group	WBL	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	189	89	98	1625	134	116	1534
Future Volume (vph)	189	89	98	1625	134	116	1534
Turn Type	Prot	Perm	Perm	NA	Perm	pm+pt	NA
Protected Phases	8			2		1	6
Permitted Phases		8	2		2	6	
Detector Phase	8	8	2	2	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	20.0	20.0	20.0	4.0	20.0
Minimum Split (s)	40.0	40.0	40.5	40.5	40.5	11.5	27.5
Total Split (s)	44.0	44.0	96.0	96.0	96.0	20.0	96.0
Total Split (%)	27.5%	27.5%	60.0%	60.0%	60.0%	12.5%	60.0%
Yellow Time (s)	4.0	4.0	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	7.5	7.5	7.5	7.5	7.5
Lead/Lag			Lag	Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	C-Max	None	C-Max
Act Effct Green (s)	22.6	22.6	108.6	108.6	108.6	123.9	123.9
Actuated g/C Ratio	0.14	0.14	0.68	0.68	0.68	0.77	0.77
v/c Ratio	0.80	0.31	0.58	0.50	0.13	0.57	0.41
Control Delay	89.1	12.3	33.1	14.0	2.0	35.6	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.1	12.3	33.1	14.0	2.0	35.6	3.4
LOS	F	B	C	B	A	D	A
Approach Delay				14.2			5.6
Approach LOS				B			A

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 73 (46%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 14.1	Intersection LOS: B
Intersection Capacity Utilization 72.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 103: Regency Lakes Blvd & SR 7

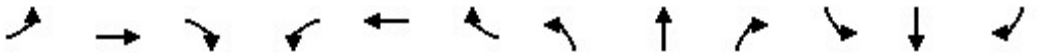


Queues
103: Regency Lakes Blvd & SR 7

Lane Group	WBL	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	201	95	104	1729	143	123	1632
v/c Ratio	0.80	0.31	0.58	0.50	0.13	0.57	0.41
Control Delay	89.1	12.3	33.1	14.0	2.0	35.6	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.1	12.3	33.1	14.0	2.0	35.6	3.4
Queue Length 50th (ft)	207	0	53	295	0	30	79
Queue Length 95th (ft)	287	53	#189	427	29	118	104
Internal Link Dist (ft)				585			770
Turn Bay Length (ft)			185		430	280	
Base Capacity (vph)	420	448	178	3452	1094	264	3936
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	0.48	0.21	0.58	0.50	0.13	0.47	0.41

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	287	17	196	173	5	69	0	38	4	2	3
Future Volume (Veh/h)	78	287	17	196	173	5	69	0	38	4	2	3
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	89	326	19	223	197	6	78	0	43	5	2	3
Pedestrians		1			11			4			3	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		0			1			0			0	
Right turn flare (veh)												
Median type		Raised			Raised							
Median storage veh)		1			1							
Upstream signal (ft)		600										
pX, platoon unblocked												
vC, conflicting volume	206			349			1067	1170	188	1044	1176	106
vC1, stage 1 conf vol							518	518		649	649	
vC2, stage 2 conf vol							550	652		395	527	
vCu, unblocked vol	206			349			1067	1170	188	1044	1176	106
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	93			81			66	100	95	98	99	100
cM capacity (veh/h)	1359			1202			229	224	811	210	205	925

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	252	182	322	104	78	43	10
Volume Left	89	0	223	0	78	0	5
Volume Right	0	19	0	6	0	43	3
cSH	1359	1700	1202	1700	229	811	272
Volume to Capacity	0.07	0.11	0.19	0.06	0.34	0.05	0.04
Queue Length 95th (ft)	5	0	17	0	36	4	3
Control Delay (s)	3.1	0.0	6.5	0.0	28.7	9.7	18.7
Lane LOS	A		A		D	A	C
Approach Delay (s)	1.8		4.9		21.9		18.7
Approach LOS					C		C

Intersection Summary				
Average Delay	5.8			
Intersection Capacity Utilization	41.5%	ICU Level of Service		A
Analysis Period (min)	15			

Intersection	
Int Delay, s/veh	2.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	310	169	0	286	0	190
Future Vol, veh/h	310	169	0	286	0	190
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	337	184	0	311	0	207

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	261
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	738
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	738
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	738	-	-	-
HCM Lane V/C Ratio	0.28	-	-	-
HCM Control Delay (s)	11.8	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	1.1	-	-	-

HCM 2010 Signalized Intersection Summary
106: Lyons Rd & Johnson Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	18	176	8	9	8	154	977	9	13	1265	171
Future Volume (veh/h)	160	18	176	8	9	8	154	977	9	13	1265	171
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	167	19	183	8	9	8	160	1018	9	14	1318	178
Adj No. of Lanes	1	1	1	1	1	0	1	3	0	1	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	309	292	248	277	143	127	330	3419	30	371	2497	778
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.07	0.66	0.66	0.49	0.49	0.49
Sat Flow, veh/h	1390	1863	1583	1175	911	809	1774	5199	46	547	5085	1583
Grp Volume(v), veh/h	167	19	183	8	0	17	160	664	363	14	1318	178
Grp Sat Flow(s),veh/h/ln	1390	1863	1583	1175	0	1720	1774	1695	1855	547	1695	1583
Q Serve(g_s), s	8.1	0.6	7.7	0.4	0.0	0.6	2.9	5.8	5.8	0.9	12.5	4.5
Cycle Q Clear(g_c), s	8.7	0.6	7.7	1.0	0.0	0.6	2.9	5.8	5.8	0.9	12.5	4.5
Prop In Lane	1.00		1.00	1.00		0.47	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	309	292	248	277	0	269	330	2229	1220	371	2497	778
V/C Ratio(X)	0.54	0.07	0.74	0.03	0.00	0.06	0.48	0.30	0.30	0.04	0.53	0.23
Avail Cap(c_a), veh/h	369	373	317	328	0	344	339	2229	1220	371	2497	778
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.9	25.1	28.1	25.6	0.0	25.1	9.3	5.1	5.1	9.3	12.2	10.2
Incr Delay (d2), s/veh	0.5	0.0	4.4	0.0	0.0	0.0	0.4	0.3	0.6	0.2	0.8	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.3	3.7	0.1	0.0	0.3	1.4	2.8	3.1	0.2	5.9	2.1
LnGrp Delay(d),s/veh	29.4	25.2	32.5	25.6	0.0	25.2	9.8	5.4	5.7	9.5	13.0	10.9
LnGrp LOS	C	C	C	C		C	A	A	A	A	B	B
Approach Vol, veh/h		369			25			1187			1510	
Approach Delay, s/veh		30.7			25.3			6.1			12.8	
Approach LOS		C			C			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		53.0		17.0	11.7	41.4		17.0
Change Period (Y+Rc), s		7.0		6.0	7.0	7.0		6.0
Max Green Setting (Gmax), s		43.0		14.0	5.0	31.0		14.0
Max Q Clear Time (g_c+I1), s		7.8		10.7	4.9	14.5		3.0
Green Ext Time (p_c), s		7.2		0.2	0.0	8.6		0.0

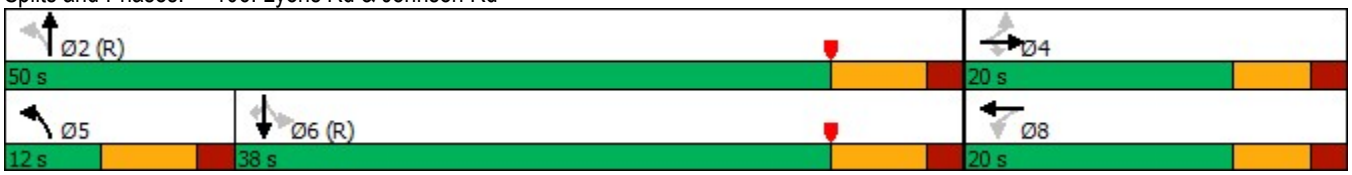
Intersection Summary	
HCM 2010 Ctrl Delay	12.5
HCM 2010 LOS	B

Timings
106: Lyons Rd & Johnson Rd

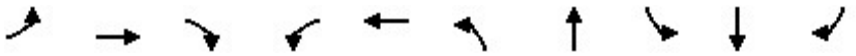
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	160	18	176	8	9	154	977	13	1265	171
Future Volume (vph)	160	18	176	8	9	154	977	13	1265	171
Turn Type	Perm	NA	Perm	Perm	NA	pm+pt	NA	Perm	NA	Perm
Protected Phases		4			8	5	2		6	
Permitted Phases	4		4	8		2		6		6
Detector Phase	4	4	4	8	8	5	2	6	6	6
Switch Phase										
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	4.0	12.0	12.0	12.0	12.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	11.0	36.0	36.0	36.0	36.0
Total Split (s)	20.0	20.0	20.0	20.0	20.0	12.0	50.0	38.0	38.0	38.0
Total Split (%)	28.6%	28.6%	28.6%	28.6%	28.6%	17.1%	71.4%	54.3%	54.3%	54.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag						Lead		Lag	Lag	Lag
Lead-Lag Optimize?						Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	11.6	11.6	11.6	11.6	11.6	45.4	45.4	33.0	33.0	33.0
Actuated g/C Ratio	0.17	0.17	0.17	0.17	0.17	0.65	0.65	0.47	0.47	0.47
v/c Ratio	0.73	0.06	0.45	0.03	0.06	0.59	0.31	0.06	0.55	0.21
Control Delay	45.7	23.6	9.2	23.2	17.9	16.1	6.0	12.2	14.7	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.7	23.6	9.2	23.2	17.9	16.1	6.0	12.2	14.7	2.8
LOS	D	C	A	C	B	B	A	B	B	A
Approach Delay		26.5			19.6		7.4		13.3	
Approach LOS		C			B		A		B	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 12.7	Intersection LOS: B
Intersection Capacity Utilization 65.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 106: Lyons Rd & Johnson Rd



Queues
106: Lyons Rd & Johnson Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	167	19	183	8	17	160	1027	14	1318	178
v/c Ratio	0.73	0.06	0.45	0.03	0.06	0.59	0.31	0.06	0.55	0.21
Control Delay	45.7	23.6	9.2	23.2	17.9	16.1	6.0	12.2	14.7	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.7	23.6	9.2	23.2	17.9	16.1	6.0	12.2	14.7	2.8
Queue Length 50th (ft)	68	7	4	3	3	24	64	3	149	0
Queue Length 95th (ft)	#136	23	53	13	18	#57	89	13	191	31
Internal Link Dist (ft)		468			274		376		329	
Turn Bay Length (ft)	255		255	160		200		215		270
Base Capacity (vph)	278	372	453	277	352	275	3295	234	2399	841
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	0.60	0.05	0.40	0.03	0.05	0.58	0.31	0.06	0.55	0.21

Intersection Summary

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

HCM Unsignalized Intersection Capacity Analysis
107: Mall Road & Wendy's Driveway

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	86	25	49	104	135	75
Future Volume (Veh/h)	86	25	49	104	135	75
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	100	29	57	121	157	87
Pedestrians	2					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	0		382	214	229	2
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		382	214	229	2
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	94		86	81	75	92
cM capacity (veh/h)	1623		408	641	629	1080

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	129	178	244
Volume Left	100	57	0
Volume Right	29	0	87
cSH	1623	542	739
Volume to Capacity	0.06	0.33	0.33
Queue Length 95th (ft)	5	36	36
Control Delay (s)	5.8	14.9	12.2
Lane LOS	A	B	B
Approach Delay (s)	5.8	14.9	12.2
Approach LOS		B	B

Intersection Summary			
Average Delay	11.6		
Intersection Capacity Utilization	36.2%	ICU Level of Service	A
Analysis Period (min)	15		

HCM 2010 Signalized Intersection Summary
101: SR 7 & Holmberg Rd/Johnson Rd/Johnson Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	327	204	254	252	286	180	322	1932	118	135	2047	490
Future Volume (veh/h)	327	204	254	252	286	180	322	1932	118	135	2047	490
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	330	206	257	255	289	182	325	1952	119	136	2068	495
Adj No. of Lanes	2	1	1	1	2	1	2	3	1	1	3	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	371	279	236	211	570	253	364	2444	761	156	2354	733
Arrive On Green	0.11	0.15	0.15	0.12	0.16	0.16	0.14	0.64	0.64	0.09	0.46	0.46
Sat Flow, veh/h	3442	1863	1574	1774	3539	1574	3442	5085	1583	1774	5085	1583
Grp Volume(v), veh/h	330	206	257	255	289	182	325	1952	119	136	2068	495
Grp Sat Flow(s),veh/h/ln	1721	1863	1574	1774	1770	1574	1721	1695	1583	1774	1695	1583
Q Serve(g_s), s	15.1	16.9	24.0	19.0	11.9	17.5	14.8	45.3	4.8	12.1	58.9	39.1
Cycle Q Clear(g_c), s	15.1	16.9	24.0	19.0	11.9	17.5	14.8	45.3	4.8	12.1	58.9	39.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	371	279	236	211	570	253	364	2444	761	156	2354	733
V/C Ratio(X)	0.89	0.74	1.09	1.21	0.51	0.72	0.89	0.80	0.16	0.87	0.88	0.68
Avail Cap(c_a), veh/h	409	279	236	211	570	253	387	2444	761	200	2354	733
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.4	65.0	68.0	70.5	61.3	63.7	67.8	23.2	15.9	72.0	38.9	33.6
Incr Delay (d2), s/veh	18.4	8.7	84.2	130.4	0.3	8.2	20.3	2.8	0.4	22.8	5.1	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	9.4	16.0	16.9	5.9	8.2	8.1	21.6	2.2	6.9	28.7	18.1
LnGrp Delay(d),s/veh	88.9	73.7	152.2	200.9	61.6	71.9	88.2	26.0	16.3	94.8	44.0	38.5
LnGrp LOS	F	E	F	F	E	E	F	C	B	F	D	D
Approach Vol, veh/h		793			726			2396			2699	
Approach Delay, s/veh		105.5			113.1			34.0			45.5	
Approach LOS		F			F			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.1	83.9	25.0	30.0	23.9	81.1	23.2	31.8
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0
Max Green Setting (Gmax), s	18.0	73.0	19.0	24.0	18.0	73.0	19.0	24.0
Max Q Clear Time (g_c+I1), s	14.1	47.3	21.0	26.0	16.8	60.9	17.1	19.5
Green Ext Time (p_c), s	0.0	16.5	0.0	0.0	0.1	10.2	0.1	0.7

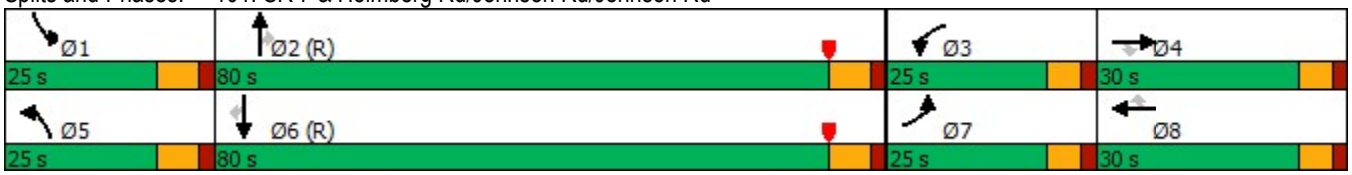
Intersection Summary	
HCM 2010 Ctrl Delay	55.9
HCM 2010 LOS	E

Timings
101: SR 7 & Holmberg Rd/Johnson Rd/Johnson Rd

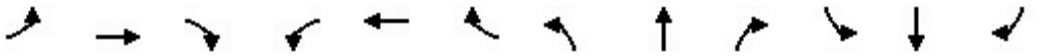
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	327	204	254	252	286	180	322	1932	118	135	2047	490
Future Volume (vph)	327	204	254	252	286	180	322	1932	118	135	2047	490
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	12.0	12.0	5.0	12.0	12.0
Minimum Split (s)	10.0	30.0	30.0	10.0	30.0	30.0	12.0	37.0	37.0	12.0	37.0	37.0
Total Split (s)	25.0	30.0	30.0	25.0	30.0	30.0	25.0	80.0	80.0	25.0	80.0	80.0
Total Split (%)	15.6%	18.8%	18.8%	15.6%	18.8%	18.8%	15.6%	50.0%	50.0%	15.6%	50.0%	50.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	17.8	20.9	20.9	19.0	22.1	22.1	17.7	78.9	78.9	15.2	76.4	76.4
Actuated g/C Ratio	0.11	0.13	0.13	0.12	0.14	0.14	0.11	0.49	0.49	0.10	0.48	0.48
v/c Ratio	0.87	0.85	0.70	1.21	0.59	0.49	0.86	0.78	0.14	0.81	0.85	0.56
Control Delay	91.7	96.7	28.7	187.9	69.9	12.3	75.2	55.4	15.8	103.5	41.8	17.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	91.7	96.7	28.7	187.9	69.9	12.3	75.2	55.4	15.8	103.5	41.8	17.4
LOS	F	F	C	F	E	B	E	E	B	F	D	B
Approach Delay		72.6			96.9			56.1			40.4	
Approach LOS		E			F			E			D	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 137 (86%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.21	
Intersection Signal Delay: 56.2	Intersection LOS: E
Intersection Capacity Utilization 95.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 101: SR 7 & Holmberg Rd/Johnson Rd/Johnson Rd



Queues
101: SR 7 & Holmberg Rd/Johnson Rd/Johnson Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	330	206	257	255	289	182	325	1952	119	136	2068	495
v/c Ratio	0.87	0.85	0.70	1.21	0.59	0.49	0.86	0.78	0.14	0.81	0.85	0.56
Control Delay	91.7	96.7	28.7	187.9	69.9	12.3	75.2	55.4	15.8	103.5	41.8	17.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	91.7	96.7	28.7	187.9	69.9	12.3	75.2	55.4	15.8	103.5	41.8	17.4
Queue Length 50th (ft)	176	212	64	~325	151	0	172	746	38	141	718	192
Queue Length 95th (ft)	#246	#317	168	#513	202	73	#248	808	m81	#226	787	310
Internal Link Dist (ft)		346			220			420			497	
Turn Bay Length (ft)	250		250	190		150	350		170	200		200
Base Capacity (vph)	407	279	394	210	530	387	393	2508	836	199	2428	883
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.74	0.65	1.21	0.55	0.47	0.83	0.78	0.14	0.68	0.85	0.56

Intersection Summary

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

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

m Volume for 95th percentile queue is metered by upstream signal.

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	117	1486	113	0	2505
Future Vol, veh/h	0	117	1486	113	0	2505
Conflicting Peds, #/hr	0	0	0	2	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	160	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	121	1532	116	0	2582

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	768	0	0	-	-
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	344	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	343	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.1	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	343	-
HCM Lane V/C Ratio	-	-	0.352	-
HCM Control Delay (s)	-	-	21.1	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	1.5	-

HCM 2010 Signalized Intersection Summary
103: Regency Lakes Blvd & SR 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	267	0	117	124	2197	167	151	2398	0
Future Volume (veh/h)	0	0	0	267	0	117	124	2197	167	151	2398	0
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	1863	1863	1863	1863	1863	0
Adj Flow Rate, veh/h				284	0	124	132	2337	178	161	2551	0
Adj No. of Lanes				1	0	1	1	3	1	1	3	0
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				2	0	2	2	2	2	2	2	0
Cap, veh/h				305	0	272	125	3285	1000	180	3783	0
Arrive On Green				0.17	0.00	0.17	0.65	0.65	0.65	0.10	1.00	0.00
Sat Flow, veh/h				1774	0	1583	124	5085	1549	1774	5253	0
Grp Volume(v), veh/h				284	0	124	132	2337	178	161	2551	0
Grp Sat Flow(s),veh/h/ln				1774	0	1583	124	1695	1549	1774	1695	0
Q Serve(g_s), s				25.3	0.0	11.3	103.4	48.2	7.4	6.1	0.0	0.0
Cycle Q Clear(g_c), s				25.3	0.0	11.3	103.4	48.2	7.4	6.1	0.0	0.0
Prop In Lane				1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h				305	0	272	125	3285	1000	180	3783	0
V/C Ratio(X)				0.93	0.00	0.46	1.05	0.71	0.18	0.90	0.67	0.00
Avail Cap(c_a), veh/h				333	0	297	125	3285	1000	283	3783	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				65.3	0.0	59.5	46.9	18.5	11.3	35.8	0.0	0.0
Incr Delay (d2), s/veh				29.9	0.0	0.4	95.6	1.3	0.4	13.6	1.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				14.9	0.0	5.0	8.9	22.9	3.2	7.6	0.3	0.0
LnGrp Delay(d),s/veh				95.2	0.0	60.0	142.7	19.9	11.7	49.4	1.0	0.0
LnGrp LOS				F		E	F	B	B	D	A	
Approach Vol, veh/h					408			2647			2712	
Approach Delay, s/veh					84.5			25.5			3.9	
Approach LOS					F			C			A	

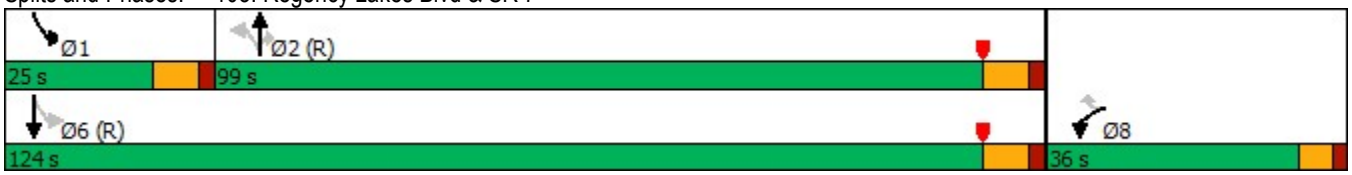
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	15.7	110.9				126.5		33.5
Change Period (Y+Rc), s	7.5	7.5				7.5		6.0
Max Green Setting (Gmax), s	17.5	91.5				116.5		30.0
Max Q Clear Time (g_c+I1), s	8.1	105.4				2.0		27.3
Green Ext Time (p_c), s	0.1	0.0				55.0		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	19.5
HCM 2010 LOS	B

Lane Group	WBL	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	267	117	124	2197	167	151	2398
Future Volume (vph)	267	117	124	2197	167	151	2398
Turn Type	Prot	Perm	Perm	NA	Perm	pm+pt	NA
Protected Phases	8			2		1	6
Permitted Phases		8	2		2	6	
Detector Phase	8	8	2	2	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	20.0	20.0	20.0	4.0	20.0
Minimum Split (s)	36.0	36.0	40.5	40.5	40.5	11.5	27.5
Total Split (s)	36.0	36.0	99.0	99.0	99.0	25.0	124.0
Total Split (%)	22.5%	22.5%	61.9%	61.9%	61.9%	15.6%	77.5%
Yellow Time (s)	4.0	4.0	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	7.5	7.5	7.5	7.5	7.5
Lead/Lag			Lag	Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	C-Max	None	C-Max
Act Effct Green (s)	28.0	28.0	97.9	97.9	97.9	118.5	118.5
Actuated g/C Ratio	0.18	0.18	0.61	0.61	0.61	0.74	0.74
v/c Ratio	0.92	0.33	2.69	0.75	0.18	0.84	0.68
Control Delay	98.4	10.9	845.0	25.3	2.3	68.1	15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	98.4	10.9	845.0	25.3	2.3	68.1	15.1
LOS	F	B	F	C	A	E	B
Approach Delay				64.6			18.2
Approach LOS				E			B

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 56 (35%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.69	
Intersection Signal Delay: 43.3	Intersection LOS: D
Intersection Capacity Utilization 93.6%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 103: Regency Lakes Blvd & SR 7



Queues
103: Regency Lakes Blvd & SR 7

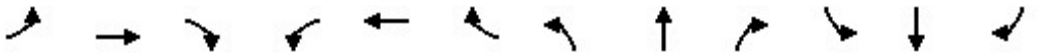
Lane Group	WBL	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	284	124	132	2337	178	161	2551
v/c Ratio	0.92	0.33	2.69	0.75	0.18	0.84	0.68
Control Delay	98.4	10.9	845.0	25.3	2.3	68.1	15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	98.4	10.9	845.0	25.3	2.3	68.1	15.1
Queue Length 50th (ft)	291	0	~186	648	0	103	872
Queue Length 95th (ft)	#451	59	#340	747	35	m131	m876
Internal Link Dist (ft)				585			770
Turn Bay Length (ft)			185		430	280	
Base Capacity (vph)	331	391	49	3111	1015	238	3766
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	0.86	0.32	2.69	0.75	0.18	0.68	0.68

Intersection Summary

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

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

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	106	368	22	165	444	9	87	0	55	6	1	6
Future Volume (Veh/h)	106	368	22	165	444	9	87	0	55	6	1	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	116	404	24	181	488	10	96	0	60	7	1	7
Pedestrians					2							
Lane Width (ft)					12.0							
Walking Speed (ft/s)					3.5							
Percent Blockage					0							
Right turn flare (veh)												
Median type		Raised			Raised							
Median storage veh)		1			1							
Upstream signal (ft)		600										
pX, platoon unblocked												
vC, conflicting volume	498			428			1262	1508	216	1351	1515	249
vC1, stage 1 conf vol							648	648		855	855	
vC2, stage 2 conf vol							614	860		496	660	
vCu, unblocked vol	498			428			1262	1508	216	1351	1515	249
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	89			84			47	100	92	95	99	99
cM capacity (veh/h)	1062			1128			182	155	787	155	159	751

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	318	226	425	254	96	60	15
Volume Left	116	0	181	0	96	0	7
Volume Right	0	24	0	10	0	60	7
cSH	1062	1700	1128	1700	182	787	247
Volume to Capacity	0.11	0.13	0.16	0.15	0.53	0.08	0.06
Queue Length 95th (ft)	9	0	14	0	67	6	5
Control Delay (s)	3.9	0.0	4.7	0.0	44.9	10.0	20.5
Lane LOS	A		A		E	A	C
Approach Delay (s)	2.3		2.9		31.5		20.5
Approach LOS					D		C

Intersection Summary			
Average Delay	6.1		
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	299	160	0	726	0	190
Future Vol, veh/h	299	160	0	726	0	190
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	315	168	0	764	0	200

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	242
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	759
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	759
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	759	-	-	-
HCM Lane V/C Ratio	0.264	-	-	-
HCM Control Delay (s)	11.4	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	1.1	-	-	-

HCM 2010 Signalized Intersection Summary
106: Lyons Rd & Johnson Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	363	33	253	24	9	27	161	1741	14	29	2225	211
Future Volume (veh/h)	363	33	253	24	9	27	161	1741	14	29	2225	211
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	386	35	269	26	10	29	171	1852	15	31	2367	224
Adj No. of Lanes	1	1	1	1	1	0	1	3	0	1	3	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	349	373	312	300	84	245	230	3196	26	201	2252	701
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.07	0.61	0.61	0.44	0.44	0.44
Sat Flow, veh/h	1363	1863	1560	1070	422	1224	1774	5203	42	244	5085	1583
Grp Volume(v), veh/h	386	35	269	26	0	39	171	1207	660	31	2367	224
Grp Sat Flow(s),veh/h/ln	1363	1863	1560	1070	0	1647	1774	1695	1855	244	1695	1583
Q Serve(g_s), s	12.6	1.1	11.7	1.4	0.0	1.4	3.4	14.9	14.9	6.1	31.0	6.4
Cycle Q Clear(g_c), s	14.0	1.1	11.7	2.5	0.0	1.4	3.4	14.9	14.9	9.0	31.0	6.4
Prop In Lane	1.00		1.00	1.00		0.74	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	349	373	312	300	0	329	230	2083	1140	201	2252	701
V/C Ratio(X)	1.11	0.09	0.86	0.09	0.00	0.12	0.74	0.58	0.58	0.15	1.05	0.32
Avail Cap(c_a), veh/h	349	373	312	300	0	329	230	2083	1140	201	2252	701
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	22.8	27.1	23.8	0.0	22.9	15.9	8.1	8.1	14.4	19.5	12.7
Incr Delay (d2), s/veh	79.9	0.0	20.3	0.0	0.0	0.1	11.1	1.2	2.2	1.6	34.1	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.4	0.6	6.8	0.4	0.0	0.6	2.3	7.2	8.2	0.5	21.5	3.0
LnGrp Delay(d),s/veh	110.4	22.9	47.3	23.9	0.0	23.0	26.9	9.3	10.2	16.0	53.6	13.9
LnGrp LOS	F	C	D	C		C	C	A	B	B	F	B
Approach Vol, veh/h		690			65			2038			2622	
Approach Delay, s/veh		81.4			23.4			11.1			49.7	
Approach LOS		F			C			B			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		50.0		20.0	12.0	38.0		20.0
Change Period (Y+Rc), s		7.0		6.0	7.0	7.0		6.0
Max Green Setting (Gmax), s		43.0		14.0	5.0	31.0		14.0
Max Q Clear Time (g_c+I1), s		16.9		16.0	5.4	33.0		4.5
Green Ext Time (p_c), s		14.5		0.0	0.0	0.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	38.9
HCM 2010 LOS	D

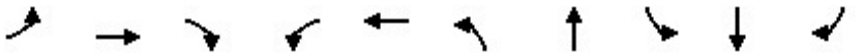
Timings
106: Lyons Rd & Johnson Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	363	33	253	24	9	161	1741	29	2225	211
Future Volume (vph)	363	33	253	24	9	161	1741	29	2225	211
Turn Type	Perm	NA	Perm	Perm	NA	pm+pt	NA	Perm	NA	Perm
Protected Phases		4			8	5	2		6	
Permitted Phases	4		4	8		2		6		6
Detector Phase	4	4	4	8	8	5	2	6	6	6
Switch Phase										
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	4.0	12.0	12.0	12.0	12.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	11.0	36.0	36.0	36.0	36.0
Total Split (s)	20.0	20.0	20.0	20.0	20.0	12.0	50.0	38.0	38.0	38.0
Total Split (%)	28.6%	28.6%	28.6%	28.6%	28.6%	17.1%	71.4%	54.3%	54.3%	54.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag						Lead		Lag	Lag	Lag
Lead-Lag Optimize?						Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	14.0	14.0	14.0	14.0	14.0	43.0	43.0	31.0	31.0	31.0
Actuated g/C Ratio	0.20	0.20	0.20	0.20	0.20	0.61	0.61	0.44	0.44	0.44
v/c Ratio	1.42	0.09	0.60	0.10	0.11	0.74	0.60	0.29	1.05	0.27
Control Delay	235.9	23.7	16.3	24.0	16.4	30.2	9.2	21.6	55.6	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	235.9	23.7	16.3	24.0	16.4	30.2	9.2	21.6	55.6	2.9
LOS	F	C	B	C	B	C	A	C	E	A
Approach Delay		139.5			19.4		11.0		50.6	
Approach LOS		F			B		B		D	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.42	
Intersection Signal Delay: 46.7	Intersection LOS: D
Intersection Capacity Utilization 95.4%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 106: Lyons Rd & Johnson Rd

Queues
106: Lyons Rd & Johnson Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	386	35	269	26	39	171	1867	31	2367	224
v/c Ratio	1.42	0.09	0.60	0.10	0.11	0.74	0.60	0.29	1.05	0.27
Control Delay	235.9	23.7	16.3	24.0	16.4	30.2	9.2	21.6	55.6	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	235.9	23.7	16.3	24.0	16.4	30.2	9.2	21.6	55.6	2.9
Queue Length 50th (ft)	~229	12	36	9	7	28	157	8	~417	0
Queue Length 95th (ft)	#385	35	106	28	31	#112	197	31	#510	34
Internal Link Dist (ft)		468			274		376		329	
Turn Bay Length (ft)	255		255	160		200		215		270
Base Capacity (vph)	272	372	448	273	345	232	3121	106	2251	825
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	1.42	0.09	0.60	0.10	0.11	0.74	0.60	0.29	1.05	0.27

Intersection Summary

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

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

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	74	15	51	119	135	57
Future Volume (Veh/h)	74	15	51	119	135	57
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	80	16	55	129	147	62
Pedestrians	5					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	0		308	168	176	5
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		308	168	176	5
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	95		89	81	78	94
cM capacity (veh/h)	1623		485	689	682	1073

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	96	184	209
Volume Left	80	55	0
Volume Right	16	0	62
cSH	1623	612	765
Volume to Capacity	0.05	0.30	0.27
Queue Length 95th (ft)	4	31	28
Control Delay (s)	6.2	13.4	11.5
Lane LOS	A	B	B
Approach Delay (s)	6.2	13.4	11.5
Approach LOS		B	B

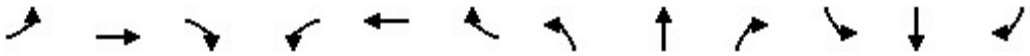
Intersection Summary			
Average Delay	11.1		
Intersection Capacity Utilization	34.7%	ICU Level of Service	A
Analysis Period (min)	15		

Future (2019) Total SYNCHRO Output – *Optimized*

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	213	112	161	99	114	70	233	1414	121	154	1372	250
Future Volume (vph)	213	112	161	99	114	70	233	1414	121	154	1372	250
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4	8		8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	12.0	12.0	5.0	12.0	12.0
Minimum Split (s)	10.0	41.0	41.0	10.0	41.0	41.0	12.0	37.0	37.0	12.0	37.0	37.0
Total Split (s)	23.0	52.0	52.0	12.0	41.0	41.0	25.0	65.0	65.0	31.0	71.0	71.0
Total Split (%)	14.4%	32.5%	32.5%	7.5%	25.6%	25.6%	15.6%	40.6%	40.6%	19.4%	44.4%	44.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	14.2	18.2	18.2	16.0	10.0	10.0	16.0	91.0	91.0	18.9	93.8	93.8
Actuated g/C Ratio	0.09	0.11	0.11	0.10	0.06	0.06	0.10	0.57	0.57	0.12	0.59	0.59
v/c Ratio	0.75	0.57	0.52	0.73	0.56	0.31	0.73	0.53	0.14	0.80	0.49	0.27
Control Delay	86.8	76.9	13.7	88.6	82.3	3.2	82.5	23.3	2.2	94.2	20.9	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.8	76.9	13.7	88.6	82.3	3.2	82.5	23.3	2.2	94.2	20.9	7.4
LOS	F	E	B	F	F	A	F	C	A	F	C	A
Approach Delay		60.3			65.0			29.7			25.4	
Approach LOS		E			E			C			C	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 58 (36%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 33.7	Intersection LOS: C
Intersection Capacity Utilization 65.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 101: SR 7 & Holmberg Rd/Johnson Rd/Johnson Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	229	120	173	106	123	75	251	1520	130	166	1475	269
v/c Ratio	0.75	0.57	0.52	0.73	0.56	0.31	0.73	0.53	0.14	0.80	0.49	0.27
Control Delay	86.8	76.9	13.7	88.6	82.3	3.2	82.5	23.3	2.2	94.2	20.9	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.8	76.9	13.7	88.6	82.3	3.2	82.5	23.3	2.2	94.2	20.9	7.4
Queue Length 50th (ft)	122	121	0	97	67	0	134	349	0	172	319	45
Queue Length 95th (ft)	168	185	72	151	103	0	179	468	26	247	417	111
Internal Link Dist (ft)		346			220			420			497	
Turn Bay Length (ft)	250		250	190		150	350		170	200		200
Base Capacity (vph)	364	535	578	145	774	468	396	2891	944	269	2982	985
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.22	0.30	0.73	0.16	0.16	0.63	0.53	0.14	0.62	0.49	0.27

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	213	112	161	99	114	70	233	1414	121	154	1372	250
Future Volume (veh/h)	213	112	161	99	114	70	233	1414	121	154	1372	250
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	229	120	173	106	123	75	251	1520	130	166	1475	269
Adj No. of Lanes	2	1	1	1	2	1	2	3	1	1	3	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	272	232	197	181	293	131	295	2901	883	187	3001	922
Arrive On Green	0.08	0.12	0.12	0.04	0.08	0.08	0.09	0.57	0.57	0.11	0.59	0.59
Sat Flow, veh/h	3442	1863	1583	1774	3539	1583	3442	5085	1548	1774	5085	1563
Grp Volume(v), veh/h	229	120	173	106	123	75	251	1520	130	166	1475	269
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1774	1770	1583	1721	1695	1548	1774	1695	1563
Q Serve(g_s), s	10.5	9.6	17.2	6.0	5.3	7.3	11.5	29.3	6.3	14.8	26.8	13.6
Cycle Q Clear(g_c), s	10.5	9.6	17.2	6.0	5.3	7.3	11.5	29.3	6.3	14.8	26.8	13.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	272	232	197	181	293	131	295	2901	883	187	3001	922
V/C Ratio(X)	0.84	0.52	0.88	0.59	0.42	0.57	0.85	0.52	0.15	0.89	0.49	0.29
Avail Cap(c_a), veh/h	366	536	455	181	774	346	387	2901	883	266	3001	922
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.7	65.6	68.9	67.1	69.7	70.6	72.1	21.1	16.1	70.7	18.9	16.2
Incr Delay (d2), s/veh	9.8	0.7	4.9	3.3	0.4	1.5	10.7	0.7	0.4	17.6	0.6	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	5.0	7.8	4.4	2.6	3.3	5.9	13.8	2.8	8.2	12.6	6.1
LnGrp Delay(d),s/veh	82.5	66.2	73.8	70.4	70.1	72.1	82.8	21.7	16.5	88.2	19.5	17.0
LnGrp LOS	F	E	E	E	E	E	F	C	B	F	B	B
Approach Vol, veh/h		522			304			1901			1910	
Approach Delay, s/veh		75.8			70.7			29.4			25.1	
Approach LOS		E			E			C			C	

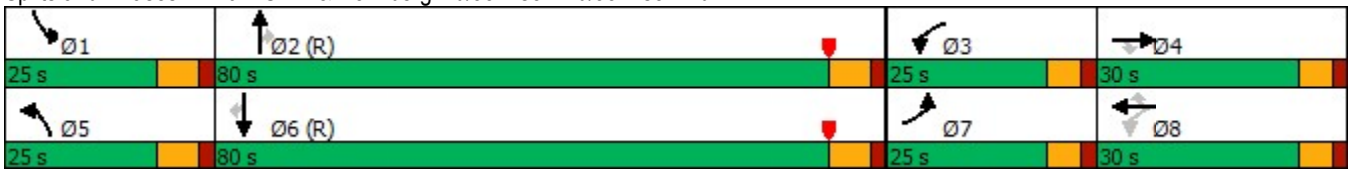
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.8	98.3	12.0	25.9	20.7	101.4	18.6	19.3
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0
Max Green Setting (Gmax), s	24.0	58.0	6.0	46.0	18.0	64.0	17.0	35.0
Max Q Clear Time (g_c+I1), s	16.8	31.3	8.0	19.2	13.5	28.8	12.5	9.3
Green Ext Time (p_c), s	0.1	12.6	0.0	0.7	0.2	14.5	0.1	0.6

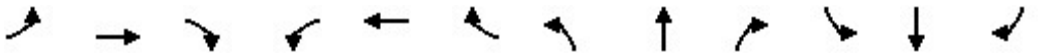
Intersection Summary	
HCM 2010 Ctrl Delay	35.6
HCM 2010 LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	327	204	254	252	286	180	322	1932	118	135	2047	490
Future Volume (vph)	327	204	254	252	286	180	322	1932	118	135	2047	490
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4	8		8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	12.0	12.0	5.0	12.0	12.0
Minimum Split (s)	10.0	30.0	30.0	10.0	30.0	30.0	12.0	37.0	37.0	12.0	37.0	37.0
Total Split (s)	25.0	30.0	30.0	25.0	30.0	30.0	25.0	80.0	80.0	25.0	80.0	80.0
Total Split (%)	15.6%	18.8%	18.8%	15.6%	18.8%	18.8%	15.6%	50.0%	50.0%	15.6%	50.0%	50.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	17.8	20.9	20.9	40.5	21.8	21.8	17.7	79.2	79.2	15.2	76.7	76.7
Actuated g/C Ratio	0.11	0.13	0.13	0.25	0.14	0.14	0.11	0.50	0.50	0.10	0.48	0.48
v/c Ratio	0.87	0.85	0.68	0.94	0.60	0.49	0.86	0.78	0.14	0.81	0.85	0.56
Control Delay	91.7	96.7	24.9	89.2	70.3	12.4	90.7	36.8	5.4	103.5	41.5	17.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	91.7	96.7	24.9	89.2	70.3	12.4	90.7	36.8	5.4	103.5	41.5	17.4
LOS	F	F	C	F	E	B	F	D	A	F	D	B
Approach Delay		71.4			62.4			42.6			40.2	
Approach LOS		E			E			D			D	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 137 (86%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 47.2	Intersection LOS: D
Intersection Capacity Utilization 95.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 101: SR 7 & Holmberg Rd/Johnson Rd/Johnson Rd





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	330	206	257	255	289	182	325	1952	119	136	2068	495
v/c Ratio	0.87	0.85	0.68	0.94	0.60	0.49	0.86	0.78	0.14	0.81	0.85	0.56
Control Delay	91.7	96.7	24.9	89.2	70.3	12.4	90.7	36.8	5.4	103.5	41.5	17.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	91.7	96.7	24.9	89.2	70.3	12.4	90.7	36.8	5.4	103.5	41.5	17.4
Queue Length 50th (ft)	176	212	51	221	151	0	172	625	5	141	718	192
Queue Length 95th (ft)	#246	#317	153	#356	202	73	#252	717	44	#226	787	310
Internal Link Dist (ft)		346			220			420			497	
Turn Bay Length (ft)	250		250	190		150	350		170	200		200
Base Capacity (vph)	407	279	405	275	530	387	393	2517	838	199	2437	885
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.74	0.63	0.93	0.55	0.47	0.83	0.78	0.14	0.68	0.85	0.56

Intersection Summary

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	327	204	254	252	286	180	322	1932	118	135	2047	490
Future Volume (veh/h)	327	204	254	252	286	180	322	1932	118	135	2047	490
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	330	206	257	255	289	182	325	1952	119	136	2068	495
Adj No. of Lanes	2	1	1	1	2	1	2	3	1	1	3	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	371	279	236	297	570	253	366	2444	761	156	2352	732
Arrive On Green	0.11	0.15	0.15	0.12	0.16	0.16	0.11	0.48	0.48	0.09	0.46	0.46
Sat Flow, veh/h	3442	1863	1574	1774	3539	1574	3442	5085	1583	1774	5085	1583
Grp Volume(v), veh/h	330	206	257	255	289	182	325	1952	119	136	2068	495
Grp Sat Flow(s),veh/h/ln	1721	1863	1574	1774	1770	1574	1721	1695	1583	1774	1695	1583
Q Serve(g_s), s	15.1	16.9	24.0	19.0	11.9	17.5	14.9	51.8	6.8	12.1	58.9	39.1
Cycle Q Clear(g_c), s	15.1	16.9	24.0	19.0	11.9	17.5	14.9	51.8	6.8	12.1	58.9	39.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	371	279	236	297	570	253	366	2444	761	156	2352	732
V/C Ratio(X)	0.89	0.74	1.09	0.86	0.51	0.72	0.89	0.80	0.16	0.87	0.88	0.68
Avail Cap(c_a), veh/h	409	279	236	297	570	253	387	2444	761	200	2352	732
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.4	65.0	68.0	51.8	61.3	63.7	70.6	35.0	23.3	72.0	38.9	33.6
Incr Delay (d2), s/veh	18.4	8.7	84.2	20.8	0.3	8.2	19.9	2.8	0.4	22.8	5.1	5.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	9.4	16.0	11.2	5.9	8.2	8.1	24.9	3.0	6.9	28.7	18.1
LnGrp Delay(d),s/veh	88.9	73.7	152.2	72.5	61.6	71.9	90.5	37.9	23.8	94.8	44.0	38.6
LnGrp LOS	F	E	F	E	E	E	F	D	C	F	D	D
Approach Vol, veh/h		793			726			2396			2699	
Approach Delay, s/veh		105.5			68.0			44.3			45.6	
Approach LOS		F			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.1	83.9	25.0	30.0	24.0	81.0	23.2	31.8
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0
Max Green Setting (Gmax), s	18.0	73.0	19.0	24.0	18.0	73.0	19.0	24.0
Max Q Clear Time (g_c+I1), s	14.1	53.8	21.0	26.0	16.9	60.9	17.1	19.5
Green Ext Time (p_c), s	0.0	13.4	0.0	0.0	0.1	10.2	0.1	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	54.8
HCM 2010 LOS	D

APPENDIX J

ITE Queueing Characteristics

Table 11–9. *Ranges of Fast Food Queue Lengths by Food Type*

Food Type	Maximum Queue Range (# in system)	Average Maximum Queue (# in system)	Studies
Donuts	4	4	2
Steak	4	4	2
Chicken	2–9	5	5
Fish	5	5	1
Sandwiches	5	5	1
Mexican	7	7	1
Roast Beef	6–8	7	2
Hamburgers	4–13	7	27

Source: Adapted from *Queing Areas for Drive-Thru Facilities* [4].

With respect to financial institutions, the report states that there was an 80 percent probability that the maximum queue for a drive-through lane would be six vehicles. At two of the eight study sites, it was observed that a queue length that exceeded eight vehicles was not tolerated by bank customers. When the queue became excessive, customers would park and use walk-in facilities.

Other land uses were also surveyed. Although the database was not as extensive as fast food and banks, the data will provide some indication of anticipated queues. The study recommends a front bumper-to-front bumper distance of 22 ft. be used to determine the occupied length. Table 11–10 provides a summary of observed queue lengths for the studied land uses.

Table 11–10. *Summary of Observed Queues at Drive-Throughs*

Land Use	Range	Near Maximum Queue Observed
Fast Food (Hamburger)	4–13	9
Fast Food (Others)	2–9	7
Bank	1–8	7
Car Wash (Self-service)	1–3	2
Dry Cleaners	1–3	2

Source: Adapted from *Queing Areas for Drive-Thru Facilities* [4].