June 6, 2024

Mr. Greg Gordos Town Planer
Town of Weddington
1924 Weddington Road
Weddington, NC 28104

RE: Review of Traffic Impact Analysis (TIA)
Providence & Rea
Town of Weddington

Mr. Gordos:

This letter has been prepared by LaBella Associates (LaBella) in response to your request to review the Traffic Impact Analysis (TIA), dated, April 2024, in connection with proposed development of 54 single family home community to be located on the west side of Providence Rod (NC 16) just north of the intersection with Rea Road in Weddington, North Carolina. The access to the Site is via one driveway on Providence Road and second one driveway on Rea Road. Access "A" will be a full movement unsignalized access located on Providence Road. Access "B" will be an unsignalized Right-in/Right-out movement. The following are our findings and comments in response to the Traffic Impact Analysis

1. **Study Intersections**

The Traffic Impact Analysis analyzed three (3) signalized and two (2) unsignalized intersections along Providence Road and two unsignalized intersections on Rea Road. The study intersections include Providence Road and Weddington Road (signalized), Providence Road and Lenny Stadler Way (Signalized), Providence Road and Old Mill Road/Access "A" (unsignalized), Providence Road and Rea Road (signalized), Providence Road and Lochaven Road (unsignalized), Rea Road and Highclere Drive (unsignalized) and Rea Road and Site Access B (unsignalized). The study intersections are as per the Scope.

2. **Traffic Volumes**

Turning-Movement Count (TMC) data was collected during the weekday AM Peak hours of 7:00 AM to 9:00 AM and weekday PM Peak hours of 4:00 PM to 6:00 PM on Tuesday, February 13, 2024. The TMC at Providence Road and Weddington Road was collected on Wednesday, December 13,2023. The days and time of data collection are appropriate since they are typical of regular highway peak hours.

The traffic volumes between the intersection of Old Mill Road and Rea Road are not balanced. Since there are no major traffic generating driveways between the two intersections, the volumes are to be balanced to obtain the correct operating condition and queue lengths. This is especially the case during the AM Peak Hour in that there is

difference of more than 100 vehicles in the southbound direction and about 80 vehicles in the northbound direction. All the remaining study intersection volumes are acceptable.

It is also noted that the existing volume figures and Synchro analysis volumes do not match. More vehicles are added to the u-turning movements. Details are needed for the reason to add these U-turn volumes.

3. Safety Analysis

Crash data from January 1, 2018, to December 31, 2022, were collected. The crash data summarized in Table 2, shows crash data at four intersections out of the seven studied intersections. It also states that no crash data is available at the intersections of Providence Road and Old Mill Road, Rea Road and Highclere Drive.

Further, considering that there are 74 and 42 crashes at the signalized intersections of Providence Road with Weddington Road and Providence Road with Rea Road, a more thorough safety analysis is warranted, including the types of collision (rear end, right angle etc.) and the contributing factors affecting the cause of collision as well as whether there may be a causal relationship between the type of accident and the immediate roadway features. The Applicant should also include the crash data obtained from the NCDOT's ArcGIS in appendices of the report.

4. Growth Rate

The existing volumes were grown by 2% to the Horizon Year 2025. This rate of growth of 2% is acceptable.

5. Vicinity Developments

The Traffic Impact Analysis indicates that No-Build volumes are the projected background traffic volumes with a 2% per growth rate to the year 2027. No other developments in the vicinity of the site that may generate traffic on Providence Road and Weddington Road were considered.

6. Trip Generation

Traffic generated by the 56 single family homes was determined from data contained in the ITE publication, Trip Generation, 11th Edition, Single Family (Detached) LUC 210. The traffic distribution was determined based on the regional roadway network and is acceptable.

7. Operating Conditions

The Existing, No-Build and Build capacity analysis was performed using Synchro, Version 11.1. The maximum queue lengths at the studied intersections are based on Sim Traffic 11.1, a traffic simulation software.

The Traffic Impact Analysis indicates that with the proposed development traffic there will not be an impact to studied roadway network.

Based on the "Town of Weddington Analysis Requirements," mitigation improvements were identified for the intersection of Providence Road and Old Mill Road. It also states that these improvements were tested but are not suggested as it is Stop sign-controlled intersection with major streets and will experience long delays during peak hours. The tested improvements include restricting through and left-turn movements from Old Mill Road and Access "A". With the improvements the operating condition will improve from LOS "F" to LOS "C" on the Old Mill Road and Access "A". If these improvements are to be implemented, the volumes at the downstream and upstream intersections should include U-turners to satisfy the trip distribution percentages.

8. Summary

The following are actions needed to be taken to prepare an acceptable TIA

- Balance the traffic volumes between Old Mill Road and Rea Road intersection with Providence Road.
- Revise the Existing, No-Build and analysis and the Queue length.
- Provide the Crash data and conduct a more thorough safety analysis including the types of collision (rear end, right angle etc.) and identify possible factors affecting the cause of collision.

Please do not hesitate to contact us should you have any questions.

Respectfully submitted,

Bernard Adler, P.E.
Senior Transportation Consultant
LaBella Associates
One North Broadway, Suite 803
White Plains, NY 10601

Bonnie A. Fisher, P.E.
Senior Civil Engineer
Project Manager

DESIGN RESOURCE GROUP

TRAFFIC IMPACT ANALYSIS COMMENT RESPONSE MEMORANDUM

Date: June 11, 2024

To: Bernard Adler, P.E.
Senior Transportation Consultant
LaBella Associates

Bonnie A. Fisher, P.E.
Senior Civil Engineer
LaBella Associates

From: Randy Goddard, PE
Senior Principle
Design Resource Group, PA (C-2165)

Subject: **Providence & Rea TIA Comment Response (1088-001)**

We offer the following responses in **RED** to the latest comments provided to us by LaBella Associates on the behalf of the Town of Weddington on 6/6/2024:

Comments:

- The traffic volumes between the intersection of Old Mill Road and Rea Road are not balanced. Since there are no major traffic generating driveways between the two intersections, the volumes are to be balanced to obtain the correct operating condition and queue lengths. This is especially the case during the AM Peak Hour in that there is difference of more than 100 vehicles in the southbound direction and about 80 vehicles in the northbound direction. All the remaining study intersection volumes are acceptable.
    - The analysis was updated to balance volumes between these intersections during the AM peak hour and the updated results are shown in the tables below. The volumes should not require balancing during the PM peak hour since the difference of 3 vehicles in the southbound direction and 13 vehicles in the northbound direction represent less than 5% of the respective directional volume, which is deemed acceptable by NCDOT. Based on the updated results, we believe our original recommendations should still be deemed acceptable for all study intersections.

- It is also noted that the existing volume figures and Synchro analysis volumes do not match. More vehicles are added to the u-turning movements. Details are needed for the reason to add these U-turn volumes.
    - Per NCDOT standard practices, a minimum of 4 vehicles is applied for all studied movements to ensure the most conservative results are produced for the studied movement.

- Further, considering that there are 74 and 42 crashes at the signalized intersections of Providence Road with Weddington Road and Providence Road with Rea Road, a more thorough safety analysis is warranted, including the types of collision (rear end, right angle etc.) and the contributing factors affecting the cause of collision as well as whether there may be a causal relationship between the type of accident and the immediate roadway features. The Applicant should also include the crash data obtained from the NCDOT's ArcGIS in appendices of the report.
    - Crash types are included in the table below. Based on this, the majority of crashes at the signalized intersections are rear end crashes, which are likely due to traffic stopping at the signals.

Crash Type from 2018-2022

Intersection	Crash Type				
	Frontal Impact	Rear End Crashes	Sideswipe	Pedestrian	Bicycle
Providence Road & Weddington Road	8	55	8	1	0
Providence Road & Lenny Stadler Way	3	4	0	0	0
Providence Road & Rea Road	6	25	4	0	0
Providence Road & Lochaven Road	2	4	0	0	0

Table 8: Providence Rd & Old Mill Road/Access "A" Analysis Results

Approach	AM Peak Hour			PM Peak Hour		
	LOS	Delay (sec/veh)	Capacity (v/c)	LOS	Delay (sec/veh)	Capacity (v/c)
Existing Conditions						
Intersection	NA	NA	-	NA	NA	-
Westbound - Old Mill Rd	E	44.6	-	E	42.3	-
Northbound - Providence Rd S	A	0.1	-	A	0.1	-
Southbound - Providence Rd S	A	0.2	-	A	0.2	-
2027 No Build Conditions						
Intersection	NA	NA	-	NA	NA	-
Westbound - Old Mill Rd	F	53.1	-	E	49.2	-
Northbound - Providence Rd S	A	0.1	-	A	0.1	-
Southbound - Providence Rd S	A	0.2	-	A	0.2	-
2027 Build Conditions						
Intersection	NA	NA	-	NA	NA	-
Eastbound - Access "A"	F	377.4	-	F	645.5	-
Westbound - Old Mill Rd	F	203.2	-	F	271.5	-
Northbound - Providence Rd S	A	0.1	-	A	0.1	-
Southbound - Providence Rd S	A	0.2	-	A	0.2	-
2027 Build with Test Improvements Conditions						
Intersection	NA	NA	-	NA	NA	-
Eastbound - Access "A"	B	13.4	-	B	14.7	-
Westbound - Old Mill Rd	C	17.0	-	C	16.7	-
Northbound - Providence Rd S	A	0.1	-	A	0.1	-
Southbound - Providence Rd S	A	0.2	-	A	0.2	-

Table 9: Providence Rd & Old Mill Road/Access "A" Queue Lengths

	Storage (ft)	AM PEAK		PM PEAK	
		95th % Queue	Max Queue	95th % Queue	Max Queue
2027 No Build Conditions					
Westbound Left/Right-Turn (Old Mill Rd)	TERM.	13'	65'	18'	57'
Northbound U-Turn (Providence Rd S)	300'	3'	26'	3'	26'
Southbound Left-Turn (Providence Rd S)	300'	3'	61'	3'	40'
2027 Build Conditions					
Eastbound Left/Thru/Right-Turn (Access "A")	-	85'	71'	80'	81'
Westbound Left/Thru/Right-Turn (Old Mill Rd)	-	45'	58'	63'	62'
Northbound Left-Turn (Providence Rd S)	300'	3'	34'	3'	36'
Southbound Left-Turn (Providence Rd S)	300'	3'	61'	3'	39'

Table 10: Providence Rd & Rea Rd Analysis Results

Approach	AM Peak Hour			PM Peak Hour		
	LOS	Delay (sec/veh)	Capacity (v/c)	LOS	Delay (sec/veh)	Capacity (v/c)
Existing Conditions						
Intersection	D	37.8	0.88	D	41.3	0.93
Eastbound - Rea Rd	D	49.2	-	D	43.7	-
Northbound - Providence Rd S	C	27.5	-	C	30.0	-
Southbound - Providence Rd S	D	46.1	-	D	48.6	-
2027 No Build Conditions						
Intersection	D	40.7	0.91	D	45.4	0.97
Eastbound - Rea Rd	D	51.9	-	D	47.6	-
Northbound - Providence Rd S	C	29.7	-	C	33.7	-
Southbound - Providence Rd S	D	50.1	-	D	53.3	-
2027 Build Conditions						
Intersection	D	41.0	0.92	D	46.2	1.00
Eastbound - Rea Rd	D	52.5	-	D	52.1	-
Northbound - Providence Rd S	C	29.8	-	C	33.8	-
Southbound - Providence Rd S	D	50.4	-	D	51.5	-

Table 11: Providence Rd & Rea Rd Queue Lengths

	Storage (ft)	AM PEAK		PM PEAK	
		95th % Queue	Max Queue	95th % Queue	Max Queue
2027 No Build Conditions					
Eastbound Left-Turn (Rea Rd)	TERM.	#507'	442'	#747'	625'
Eastbound Right-Turn (Rea Rd)	TERM.	157'	219'	363'	500'
Northbound Left-Turn (Providence Rd S)	400'	#297'	279'	#166'	200'
Northbound Thru (Providence Rd S)	-	284'	243'	283'	281'
Southbound U-Turn (Providence Rd S)	275'	m6'	172'	m6'	207'
Southbound Thru (Providence Rd S)	-	#750'	683'	#815'	859'
Southbound Right-Turn (Providence Rd S)	TERM.	338'	643'	430'	826'
2027 Build Conditions					
Eastbound Left-Turn (Rea Rd)	TERM.	#515'	485'	#766'	772'
Eastbound Right-Turn (Rea Rd)	TERM.	160'	238'	374'	682'
Northbound Left-Turn (Providence Rd S)	400'	#298'	329'	#170'	213'
Northbound Thru (Providence Rd S)	-	284'	263'	279'	272'
Southbound U-Turn (Providence Rd S)	275'	m6'	236'	m5'	275'
Southbound Thru (Providence Rd S)	-	#755'	706'	#808'	824'
Southbound Right-Turn (Providence Rd S)	TERM.	338'	547'	427'	809'

We appreciate the opportunity to provide this response to all preliminary comments and hope the above detailed answers to the TIA review comments will alleviate any concerns and allow final approval of the Providence & Rea TIA.

Please contact us should you need any additional information.

Attachments: Balanced Existing AM Synchro Results
Balanced No Build AM Synchro Results
Balanced No Build AM Simtraffic Results
Balanced Build AM Synchro Results
Balanced Build AM Simtraffic Results
Balanced Build w/ Test Improvements Synchro Results

cc: Robert G. Tefft Town of Weddington
File

Town of Weddington
Scoping for Traffic Impact Analysis (TIA)

Date: 12/19/2023

Project Name: Providence & Rea
Scheduled/Planned Public Hearing Date:

Consultant: Randy E Goddard, PE
Design Resource Group, PA
704-343-0608

Developer: Beechwood Carolinas

Existing Zoning: Proposed Zoning:

Project Description: i.e., proposed land use, acreage
A 56-lot subdivision on 78 acres

Project Location: i.e., parcel number, address, acreage, existing use
West side of Providence Road (NC 16) just north of the intersection with Rea Road in Weddington, NC.

Scenarios to be Analyzed:

- ☒ Existing Conditions Present Year: 2023
- ☐ _____ Existing Conditions plus site developed with Existing Zoning
- ☐ _____ Existing Conditions plus site development with Proposed Zoning
- ☒ 2027 No Build Year
- ☒ 2027 Build Year with proposed traffic
- ☐ _____ Phased Year conditions with Existing Zoning
- ☐ _____ Phased Year conditions with Proposed Zoning

Trip Generation: use *ITE Trip Generation Handbook*, current 11th edition.

Existing Development

Land Use	Size	Daily Total	Pass-by %	Internal Capture %
N/A				
	Total:			

Proposed Development

Land Use	Size	Daily Total	Pass-by %	Internal Capture %
Single-Family Housing [210]	56 DU's	592		
	Total:	592		

Approved by: _____

Rezoning Petition/Project Name: **Providence & Rea**

Additional Exhibits Attached:

1. Location Map and Area of Influence (AOI).
   AOI figure attached with four (6) existing intersections and two (2) proposed access locations.

2. Site plan with access locations to be analyzed.
   The preliminary site plan is attached with a total of 56 single-family lots.

3. Trip Generation Table
   Trip generation table is attached indicating 592 daily trips, 44 AM peak trips and 58 PM peak trips.

Rezoning Petition/Project Name: **Providence & Rea**

Background Growth Rate: 2%
Peak Hours: ☐ 6:30–9:30 AM, 4:00–7:00 PM ☒ 7:00–9:00 AM, 4:00–6:00 PM ☐ Other ____

NCDOT Involvement Needed? ☐ Yes ☒ No If Yes, contact NCDOT at 704-596-6900 for requirements.

Approved Developments: (location, use, acreage, TIA information if applicable)

	Name of Development	Location	Land Use	Acreage per use	Approved TIS? (Y/N) (consultant contact info)
1.	**Please Provide if Any**				
2.					
3.					
4.					
5.					
6.					

Funded TIP/CIP projects: (location, laneage, year complete)

	Project Name	Project Limits	Proposed Improvements	Year Complete
1.	**Please Provide if Any**			
2.				
3.				

Intersections to be Studied:

Intersection		Type of Analysis	
		Signalized	Unsignalized
1.	Providence Rd S & Weddington Rd	☒	☐
2.	Providence Rd S & Lenny Stadler Way	☒	☐
3.	Providence Rd S & Old Mill Rd/Access "A"	☐	☒
4.	Providence Rd S & Rea Rd	☒	☐
5.	Providence Rd S & Lochaven Rd	☐	☒
6.	Rea Rd & Highclere Dr	☐	☒
7.	Rea Rd & Access "B"	☐	☒
8.		☐	☐
9.		☐	☐
10.		☐	☐

☐ Other Considerations:

DESIGN RESOURCE GROUP

LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
TRANSPORTATION PLANNING

O 1111 Hawthorne Lane, Charlotte, NC 28205
P 704.343.0608
W www.drgrp.com

PROVIDENCE & REA

WEDDINGTON, NC

BEECHWOOD CAROLINAS
7621 LITTLE AVENUE SUITE 111
CHARLOTTE, NC 28226

AREA OF INFLUENCE

0 350' 700' N

SCALE: 1" = 700'

PROJECT #: 1088-001
DRAWN BY: CRB
CHECKED BY: REG

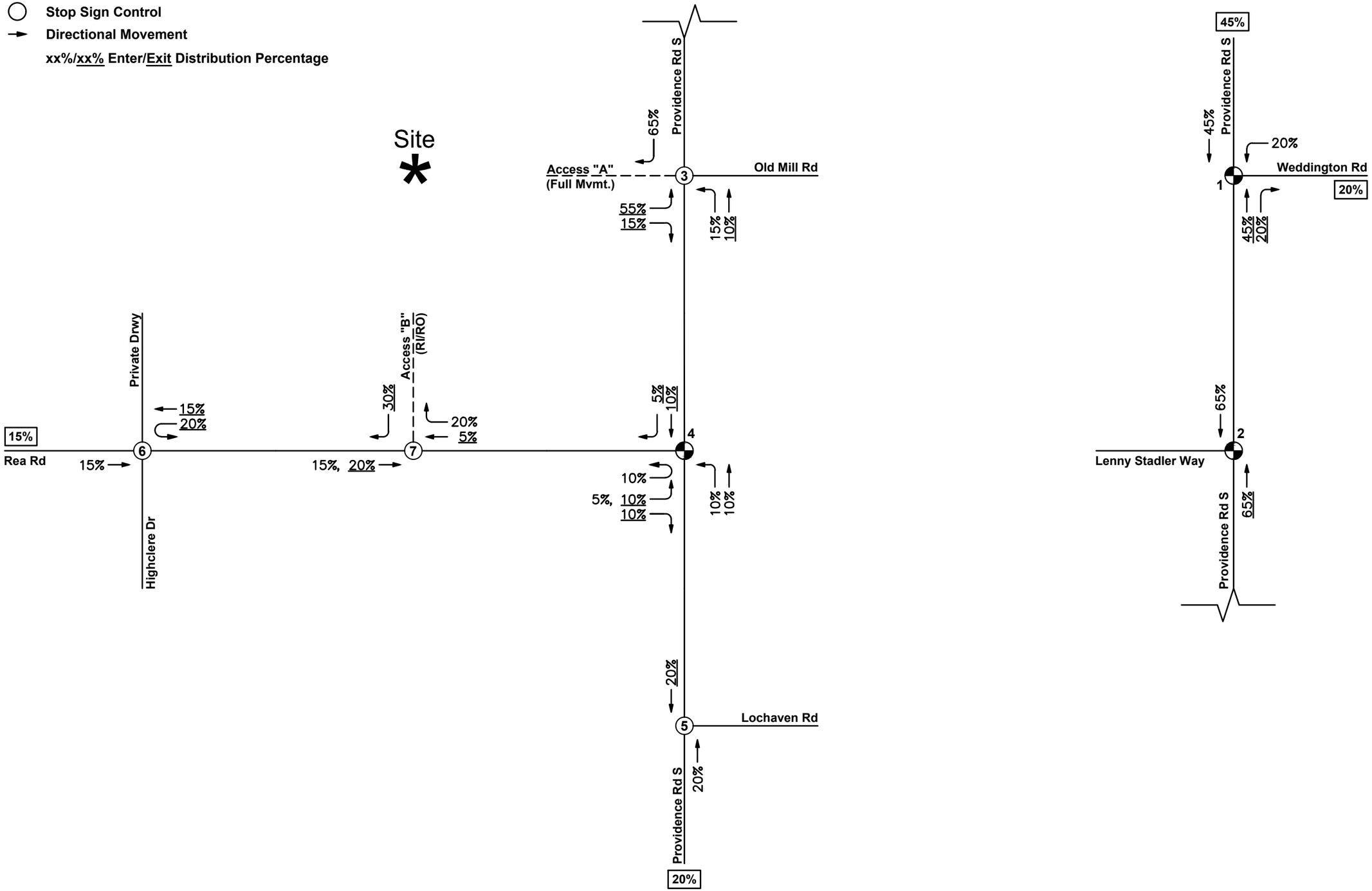
DECEMBER 2023

REVISIONS:
1.

Figure 1

LEGEND

- Traffic Signal
- Stop Sign Control
- Directional Movement
- xx%/xx% Enter/Exit Distribution Percentage



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PROVIDENCE & REA
WEDDINGTON, NC

BEECHWOOD CAROLINAS
7621 LITTLE AVENUE SUITE 111
CHARLOTTE, NC 28226

SITE DIRECTIONAL DISTRIBUTION

0 XX' XX' N
SCALE: NTS

PROJECT #: 1088-001
DRAWN BY: CRB
CHECKED BY: REG

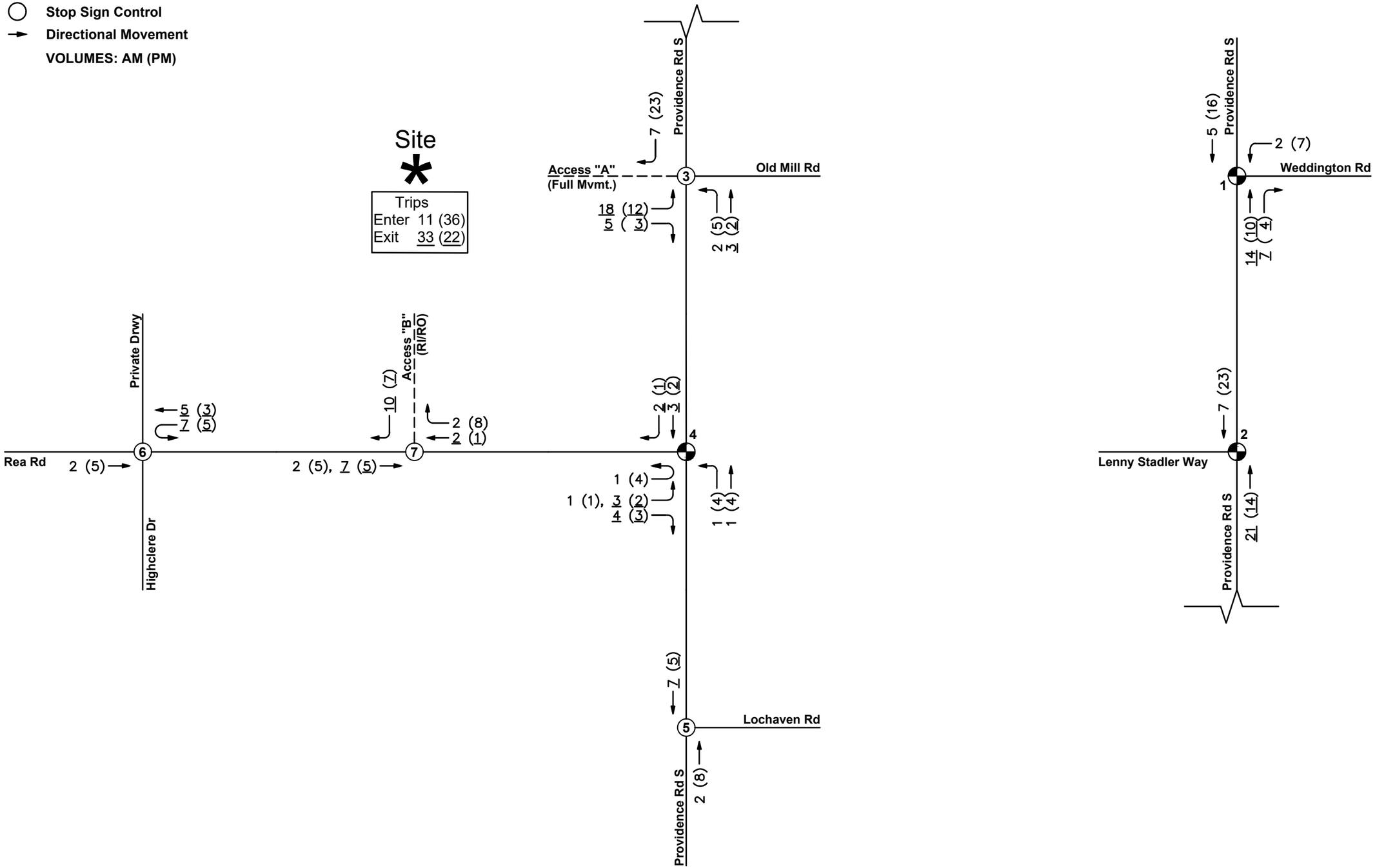
DECEMBER 2023

REVISIONS:
1.

Figure 3A

LEGEND

- Traffic Signal
- Stop Sign Control
- Directional Movement
- VOLUMES: AM (PM)



DESIGN RESOURCE GROUP
LANDSCAPE ARCHITECTURE
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1111 Hawthorne Lane, Charlotte, NC 28205
704.343.0608
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PROVIDENCE & REA
WEDDINGTON, NC

BEECHWOOD CAROLINAS
7621 LITTLE AVENUE SUITE 111
CHARLOTTE, NC 28226

TRIP ASSIGNMENT

0 XX' XX' N
SCALE: NTS

PROJECT #: 1088-001
DRAWN BY: CRB
CHECKED BY: REG

DECEMBER 2023

REVISIONS:
1.

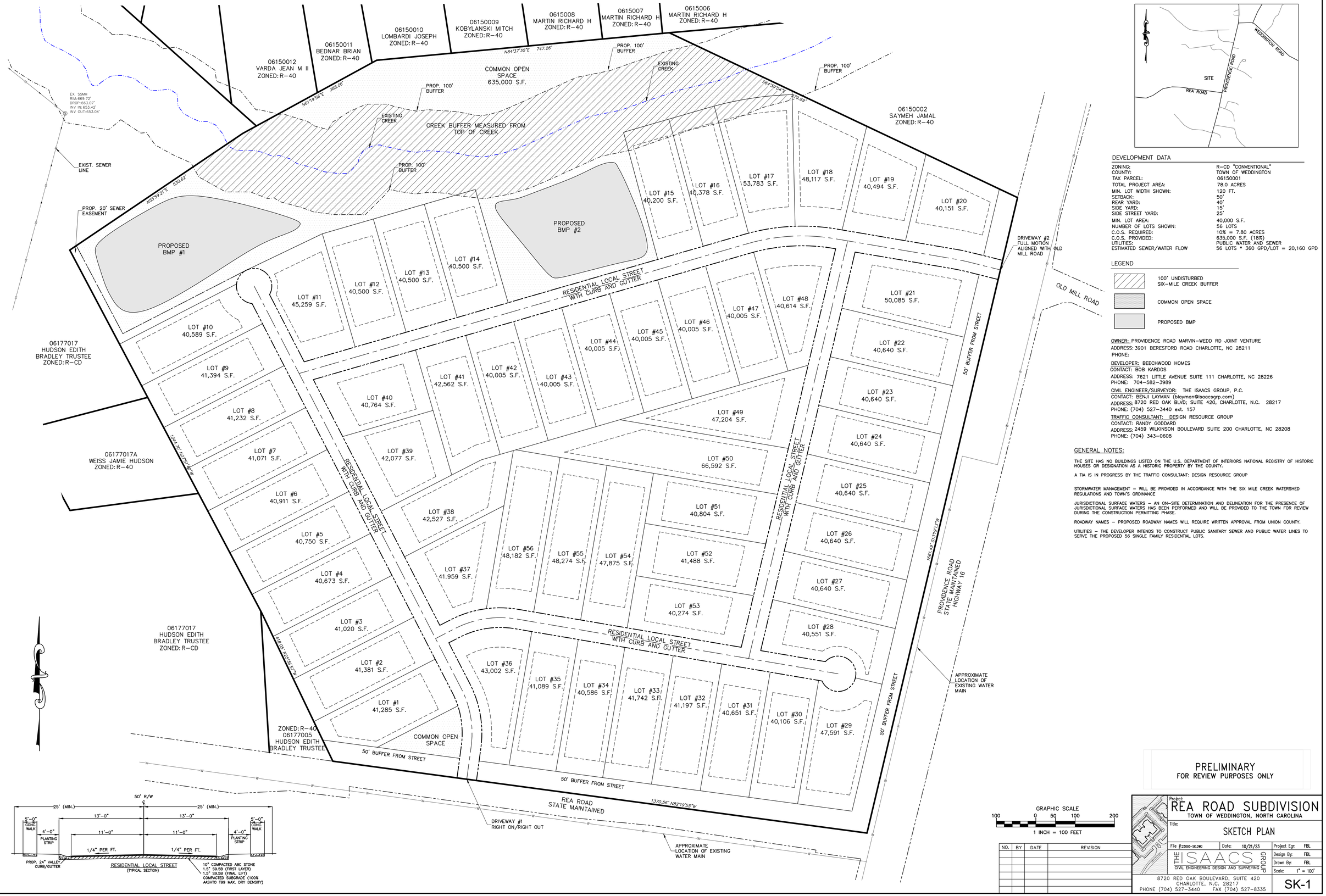
Figure 3B

Providence & Rea TIA **10/19/2023**

Land Use [ITE Code]			Daily	AM Peak Hour			PM Peak Hour		
				Enter	Exit	Total	Enter	Exit	Total
Single-Family Housing [210]	56	DUs	592	11	33	44	36	22	58

References:

Trip Generation, 11th Edition, Institute of Transportation Engineers, Washington, DC. 2021.



DEVELOPMENT DATA

ZONING:	R-CD "CONVENTIONAL"
COUNTY:	TOWN OF WEDDINGTON
TAX PARCEL:	06150001
TOTAL PROJECT AREA:	78.0 ACRES
MIN. LOT WIDTH SHOWN:	120 FT.
SETBACK:	50'
REAR YARD:	40'
SIDE YARD:	15'
SIDE STREET YARD:	25'
MIN. LOT AREA:	40,000 S.F.
NUMBER OF LOTS SHOWN:	56 LOTS
C.O.S. REQUIRED:	10% = 7.80 ACRES
C.O.S. PROVIDED:	635,000 S.F. (18%)
UTILITIES:	PUBLIC WATER AND SEWER
ESTIMATED SEWER/WATER FLOW	56 LOTS * 360 GPD/LOT = 20,160 GPD

LEGEND

- 100' UNDISTURBED SIX-MILE CREEK BUFFER
- COMMON OPEN SPACE
- PROPOSED BMP

OWNER: PROVIDENCE ROAD MARVIN-WEDD RD JOINT VENTURE
ADDRESS: 3901 BERESFORD ROAD CHARLOTTE, NC 28211
PHONE:

DEVELOPER: BEECHWOOD HOMES
CONTACT: BOB KARDOS
ADDRESS: 7621 LITTLE AVENUE SUITE 111 CHARLOTTE, NC 28226
PHONE: 704-582-3989

CIVIL ENGINEER/SURVEYOR: THE ISAACS GROUP, P.C.
CONTACT: BENJI LAYMAN (blayman@isaacsgrp.com)
ADDRESS: 8720 RED OAK BLVD; SUITE 420, CHARLOTTE, N.C. 28217
PHONE: (704) 527-3440 ext. 157

TRAFFIC CONSULTANT: DESIGN RESOURCE GROUP
CONTACT: RANDY GODDARD
ADDRESS: 2459 WILKINSON BOULEVARD SUITE 200 CHARLOTTE, NC 28208
PHONE: (704) 343-0608

GENERAL NOTES:

THE SITE HAS NO BUILDINGS LISTED ON THE U.S. DEPARTMENT OF INTERIORS NATIONAL REGISTRY OF HISTORIC HOUSES OR DESIGNATION AS A HISTORIC PROPERTY BY THE COUNTY.

A TIA IS IN PROGRESS BY THE TRAFFIC CONSULTANT: DESIGN RESOURCE GROUP

STORMWATER MANAGEMENT – WILL BE PROVIDED IN ACCORDANCE WITH THE SIX MILE CREEK WATERSHED REGULATIONS AND TOWN'S ORDINANCE

JURISDICTIONAL SURFACE WATERS – AN ON-SITE DETERMINATION AND DELINEATION FOR THE PRESENCE OF JURISDICTIONAL SURFACE WATERS HAS BEEN PERFORMED AND WILL BE PROVIDED TO THE TOWN FOR REVIEW DURING THE CONSTRUCTION PERMITTING PHASE.

ROADWAY NAMES – PROPOSED ROADWAY NAMES WILL REQUIRE WRITTEN APPROVAL FROM UNION COUNTY.

UTILITIES – THE DEVELOPER INTENDS TO CONSTRUCT PUBLIC SANITARY SEWER AND PUBLIC WATER LINES TO SERVE THE PROPOSED 56 SINGLE FAMILY RESIDENTIAL LOTS.

PRELIMINARY
FOR REVIEW PURPOSES ONLY

GRAPHIC SCALE
100 0 50 100 200
1 INCH = 100 FEET

NO.	BY	DATE	REVISION

Project:
REA ROAD SUBDIVISION
TOWN OF WEDDINGTON, NORTH CAROLINA

Title:
SKETCH PLAN

File #: 23093-SK.DWG | Date: 10/21/23 | Project Eqr: FBL | Design By: FBL | Drawn By: FBL | Scale: 1" = 100'

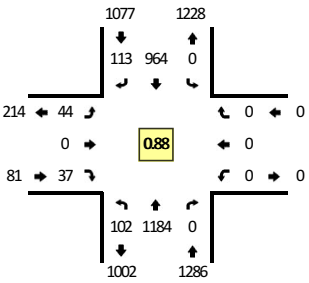
THE ISAACS GROUP
CIVIL ENGINEERING DESIGN AND SURVEYING
8720 RED OAK BOULEVARD, SUITE 420
CHARLOTTE, N.C. 28217
PHONE (704) 527-3440 FAX (704) 527-8335

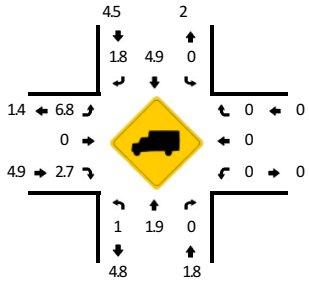
SK-1

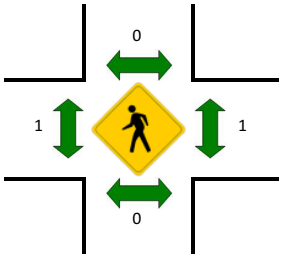
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

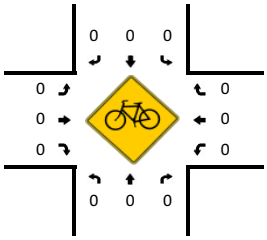
LOCATION: Providence Rd S -- Lenny Stadler Way | **QC JOB #:** 16482201
CITY/STATE: Waxhaw, NC | **DATE:** Tue, Feb 13 2024

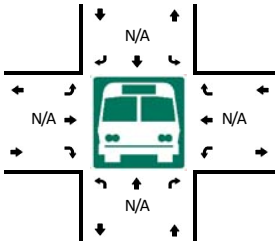
Peak-Hour: 8:00 AM -- 9:00 AM
Peak 15-Min: 8:45 AM -- 9:00 AM

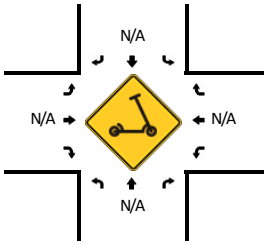












15-Min Count Period Beginning At	Providence Rd S (Northbound)				Providence Rd S (Southbound)				Lenny Stadler Way (Eastbound)				Lenny Stadler Way (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	4	342	0	1	0	135	5	0	6	0	9	0	0	0	0	0	502	
7:15 AM	15	356	0	0	0	192	3	0	10	0	11	0	0	0	0	0	587	
7:30 AM	13	316	0	0	0	232	5	0	10	0	4	0	0	0	0	0	580	
7:45 AM	10	303	0	0	0	221	21	0	7	0	3	0	0	0	0	0	565	2234
8:00 AM	22	291	0	0	0	249	14	0	7	0	6	0	0	0	0	0	589	2321
8:15 AM	17	272	0	0	0	252	11	0	10	0	3	0	0	0	0	0	565	2299
8:30 AM	13	321	0	0	0	225	27	0	9	0	4	0	0	0	0	0	599	2318
8:45 AM	49	300	0	1	0	238	61	0	18	0	24	0	0	0	0	0	691	2444

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	196	1200	0	4	0	952	244	0	72	0	96	0	0	0	0	0	2764
Heavy Trucks	0	16	0		0	48	4		4	0	0		0	0	0		72
Buses																	
Pedestrians		0				0				0				4			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

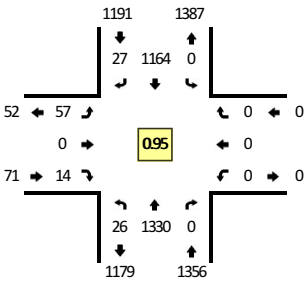
Comments:

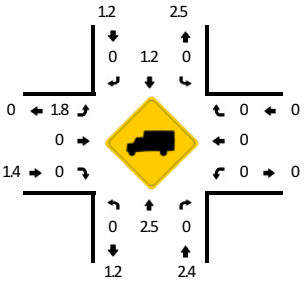
Report generated on 2/20/2024 12:21 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

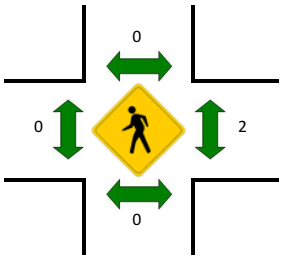
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

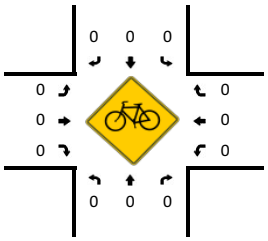
LOCATION: Providence Rd S -- Lenny Stadler Way | **QC JOB #:** 16482202
CITY/STATE: Waxhaw, NC | **DATE:** Tue, Feb 13 2024

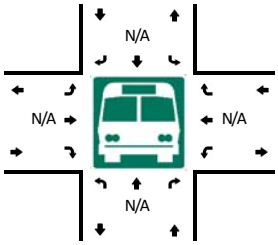
Peak-Hour: 5:00 PM -- 6:00 PM
Peak 15-Min: 5:30 PM -- 5:45 PM

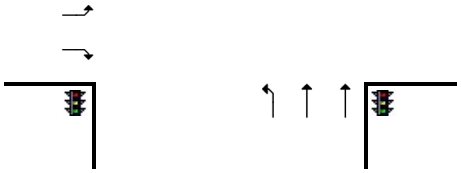


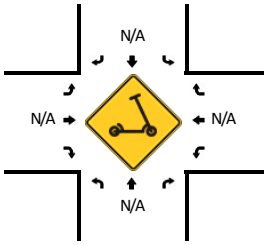












15-Min Count Period Beginning At	Providence Rd S (Northbound)				Providence Rd S (Southbound)				Lenny Stadler Way (Eastbound)				Lenny Stadler Way (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	4	267	0	0	0	271	15	0	6	0	4	0	0	0	0	0	567	
4:15 PM	5	322	0	1	0	290	9	0	7	0	8	0	0	0	0	0	642	
4:30 PM	1	310	0	0	0	265	16	0	6	0	2	0	0	0	0	0	600	
4:45 PM	6	307	0	1	0	286	3	0	8	0	2	0	0	0	0	0	613	2422
5:00 PM	6	336	0	0	0	253	5	0	19	0	5	0	0	0	0	0	624	2479
5:15 PM	6	308	0	1	0	325	10	0	13	0	5	0	0	0	0	0	668	2505
5:30 PM	5	371	0	0	0	295	7	0	9	0	1	0	0	0	0	0	688	2593
5:45 PM	8	315	0	0	0	291	5	0	16	0	3	0	0	0	0	0	638	2618

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	20	1484	0	0	0	1180	28	0	36	0	4	0	0	0	0	0	2752
Heavy Trucks	0	28	0		0	16	0		0	0	0		0	0	0		44
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 2/20/2024 12:21 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

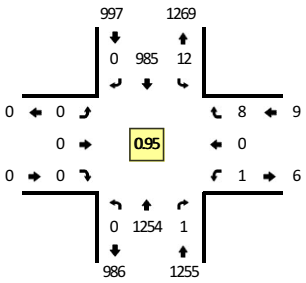
Type of peak hour being reported: Intersection Peak

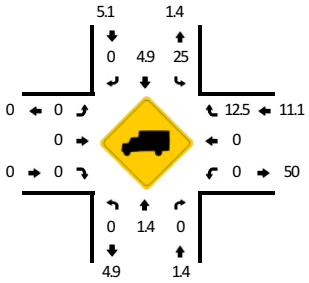
Method for determining peak hour: Total Entering Volume

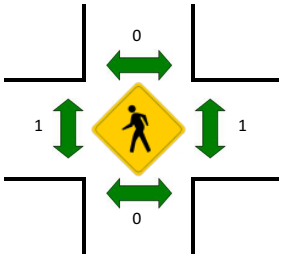
LOCATION: Providence Rd S -- Old Mill Rd
CITY/STATE: Weddington, NC

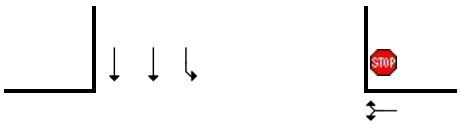
QC JOB #: 16482203
DATE: Tue, Feb 13 2024

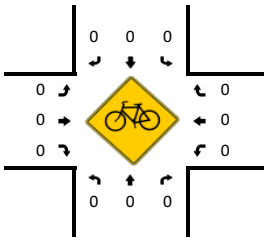
Peak-Hour: 8:00 AM -- 9:00 AM
Peak 15-Min: 8:45 AM -- 9:00 AM

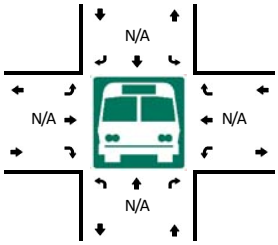


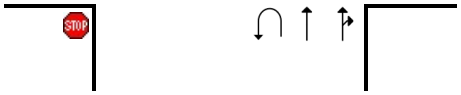


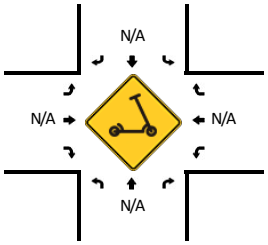












15-Min Count Period Beginning At	Providence Rd S (Northbound)				Providence Rd S (Southbound)				Old Mill Rd (Eastbound)				Old Mill Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	344	0	0	0	144	0	2	0	0	0	0	2	0	0	0	492	
7:15 AM	0	366	1	0	0	201	0	1	0	0	0	0	1	0	2	0	572	
7:30 AM	0	316	1	0	0	235	0	1	0	0	0	0	0	0	4	0	557	
7:45 AM	0	314	1	0	2	218	0	0	0	0	0	0	1	0	2	0	538	2159
8:00 AM	0	302	0	0	1	250	0	3	0	0	0	0	1	0	0	0	557	2224
8:15 AM	0	294	0	0	0	243	0	3	0	0	0	0	0	0	0	0	540	2192
8:30 AM	0	334	0	0	1	226	0	1	0	0	0	0	0	0	5	0	567	2202
8:45 AM	0	324	1	0	3	266	0	0	0	0	0	0	0	0	3	0	597	2261

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1296	4	0	12	1064	0	0	0	0	0	0	0	0	12	0	2388
Heavy Trucks	0	16	0		12	40	0		0	0	0		0	0	0		68
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 2/20/2024 12:21 PM

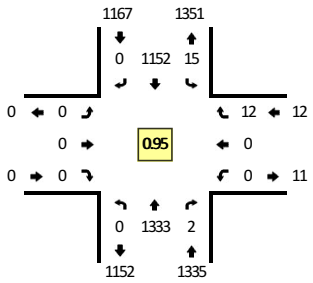
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

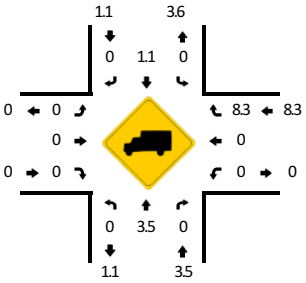
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

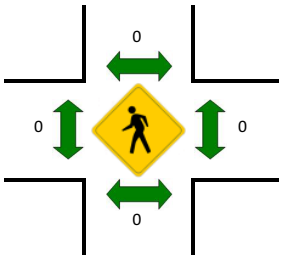
LOCATION: Providence Rd S -- Old Mill Rd
CITY/STATE: Weddington, NC

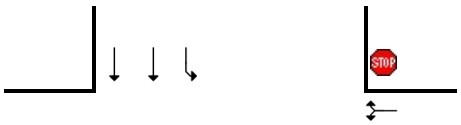
QC JOB #: 16482204
DATE: Tue, Feb 13 2024

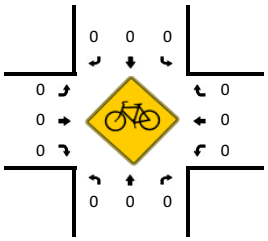
Peak-Hour: 4:45 PM -- 5:45 PM
Peak 15-Min: 5:15 PM -- 5:30 PM

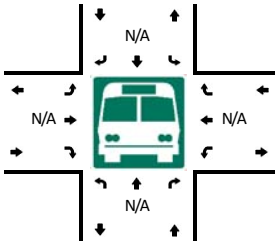


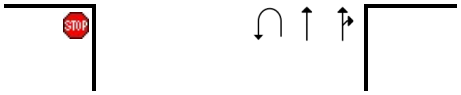


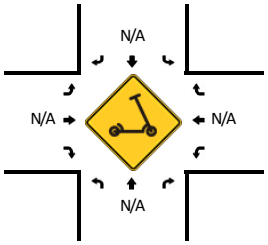












15-Min Count Period Beginning At	Providence Rd S (Northbound)				Providence Rd S (Southbound)				Old Mill Rd (Eastbound)				Old Mill Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	267	1	0	3	286	0	5	0	0	0	0	2	0	3	0	567	
4:15 PM	0	322	0	0	2	302	0	0	0	0	0	0	0	0	2	0	628	
4:30 PM	0	327	0	0	1	289	0	0	0	0	0	0	1	0	1	0	619	
4:45 PM	0	310	0	0	2	287	0	0	0	0	0	0	0	0	3	0	602	2416
5:00 PM	0	335	1	0	2	257	0	0	0	0	0	0	0	0	0	0	595	2444
5:15 PM	0	325	0	0	2	327	0	1	0	0	0	0	0	0	5	0	660	2476
5:30 PM	0	363	1	0	3	281	0	5	0	0	0	0	0	0	4	0	657	2514
5:45 PM	0	304	1	0	1	292	0	0	0	0	0	0	1	0	0	0	599	2511

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1300	0	0	8	1308	0	4	0	0	0	0	0	0	20	0	2640
Heavy Trucks	0	44	0		0	16	0		0	0	0		0	0	0		60
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

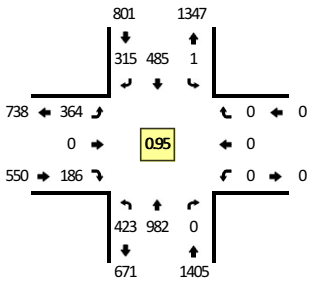
Report generated on 2/20/2024 12:21 PM

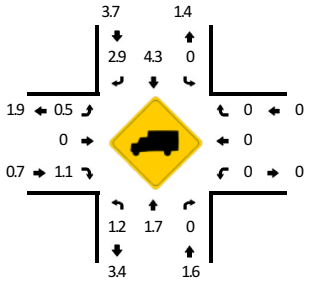
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

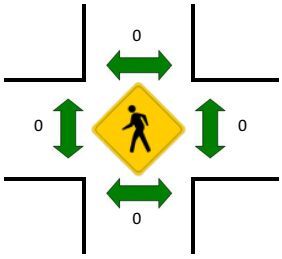
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

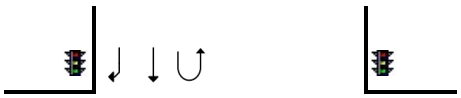
LOCATION: Providence Rd S -- Rea Rd | **QC JOB #:** 16482205
CITY/STATE: Weddington, NC | **DATE:** Tue, Feb 13 2024

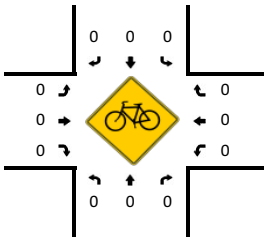
Peak-Hour: 7:00 AM -- 8:00 AM
Peak 15-Min: 7:15 AM -- 7:30 AM

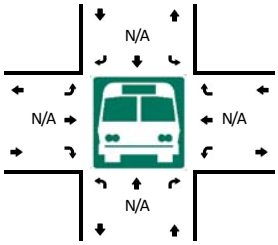


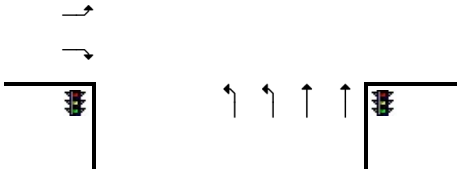


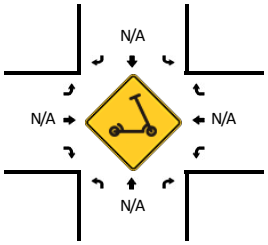












15-Min Count Period Beginning At	Providence Rd S (Northbound)				Providence Rd S (Southbound)				Rea Rd (Eastbound)				Rea Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	108	258	0	0	0	89	56	1	91	0	47	0	0	0	0	0	650	
7:15 AM	88	263	0	0	0	106	94	0	101	0	76	0	0	0	0	0	728	
7:30 AM	123	226	0	0	0	142	89	0	91	0	18	0	0	0	0	0	689	
7:45 AM	104	235	0	0	0	148	76	0	81	0	45	0	0	0	0	0	689	2756
8:00 AM	71	214	0	0	0	137	103	0	80	0	36	0	0	0	0	0	641	2747
8:15 AM	87	217	0	0	0	136	105	0	80	0	31	0	0	0	0	0	656	2675
8:30 AM	65	230	0	0	0	132	95	0	107	0	30	0	0	0	0	0	659	2645
8:45 AM	78	219	0	0	0	156	112	0	103	0	52	0	0	0	0	0	720	2676

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	352	1052	0	0	0	424	376	0	404	0	304	0	0	0	0	0	2912
Heavy Trucks	0	8	0		0	12	20		4	0	0		0	0	0		44
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

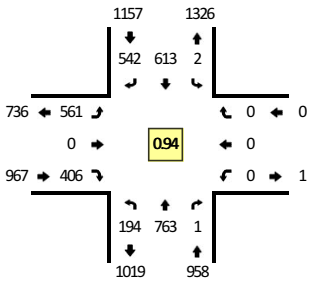
Comments:

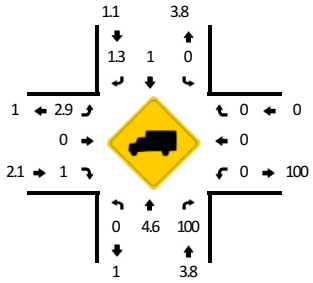
Report generated on 2/20/2024 12:21 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

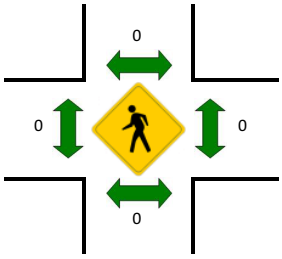
LOCATION: Providence Rd S -- Rea Rd | **QC JOB #:** 16482206
CITY/STATE: Weddington, NC | **DATE:** Tue, Feb 13 2024

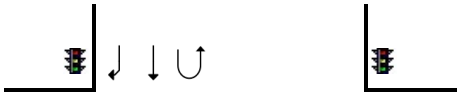
Peak-Hour: 4:45 PM -- 5:45 PM
Peak 15-Min: 5:15 PM -- 5:30 PM

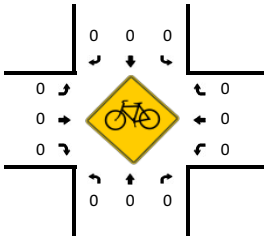


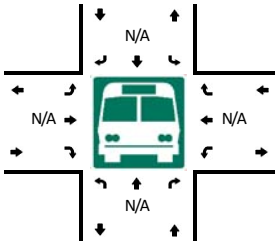


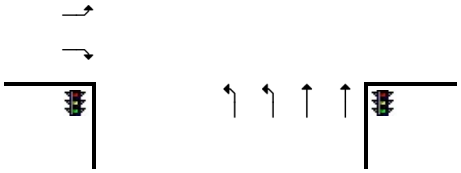
TRUE DATA TO IMPROVE MOBILITY

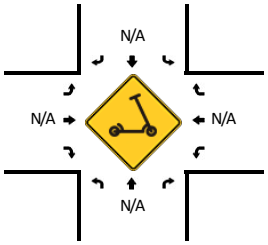












15-Min Count Period Beginning At	Providence Rd S (Northbound)				Providence Rd S (Southbound)				Rea Rd (Eastbound)				Rea Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	45	158	0	0	0	163	124	0	108	0	110	0	0	0	0	0	708	
4:15 PM	48	192	0	0	0	172	106	1	127	0	80	0	0	0	0	0	726	
4:30 PM	40	177	0	0	0	167	129	0	152	0	107	0	0	0	0	0	772	
4:45 PM	37	177	0	0	0	169	133	1	130	0	94	0	0	0	0	0	741	2947
5:00 PM	48	188	1	0	0	135	115	1	147	0	80	0	0	0	0	0	715	2954
5:15 PM	58	175	0	0	0	173	153	0	145	0	119	0	0	0	0	0	823	3051
5:30 PM	51	223	0	0	0	136	141	0	139	0	113	0	0	0	0	0	803	3082
5:45 PM	52	164	0	0	0	179	119	0	131	0	68	0	0	0	0	0	713	3054

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	232	700	0	0	0	692	612	0	580	0	476	0	0	0	0	0	3292
Heavy Trucks	0	40	0		0	4	12		16	0	0		0	0	0		72
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

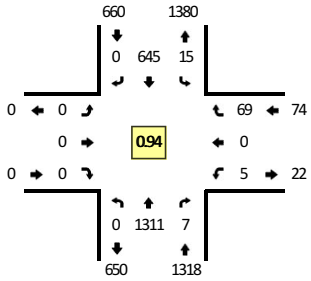
Report generated on 2/20/2024 12:21 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

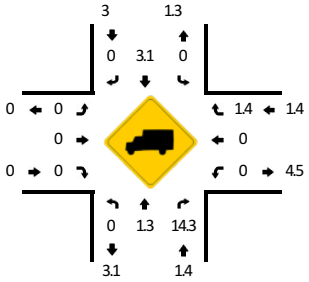
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

LOCATION: Providence Rd S -- Lochaven Rd
CITY/STATE: Weddington, NC

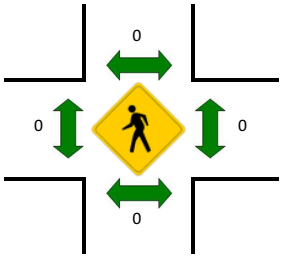
QC JOB #: 16482207
DATE: Tue, Feb 13 2024

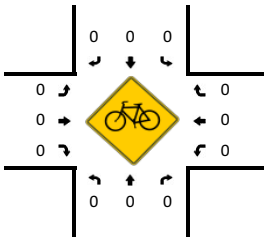
Peak-Hour: 7:00 AM -- 8:00 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

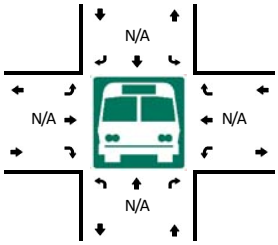


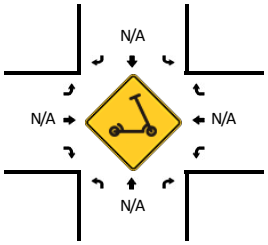


TRUE DATA TO IMPROVE MOBILITY









15-Min Count Period Beginning At	Providence Rd S (Northbound)				Providence Rd S (Southbound)				Lochaven Rd (Eastbound)				Lochaven Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	327	0	0	7	116	0	0	0	0	0	0	0	0	20	0	470	
7:15 AM	0	339	3	0	4	165	0	0	0	0	0	0	2	0	12	0	525	
7:30 AM	0	316	3	0	3	165	0	0	0	0	0	0	3	0	23	0	513	
7:45 AM	0	329	1	0	1	199	0	0	0	0	0	0	0	0	14	0	544	2052
8:00 AM	0	284	1	0	4	152	0	0	0	0	0	0	0	0	5	0	446	2028
8:15 AM	0	280	5	0	2	165	0	0	0	0	0	0	1	0	6	0	459	1962
8:30 AM	0	286	2	0	1	151	0	0	0	0	0	0	1	0	11	0	452	1901
8:45 AM	0	279	2	0	1	201	0	0	0	0	0	0	2	0	10	0	495	1852

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1316	4	0	4	796	0	0	0	0	0	0	0	0	56	0	2176
Heavy Trucks	0	28	0		0	20	0		0	0	0		0	0	0		48
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 2/20/2024 12:21 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

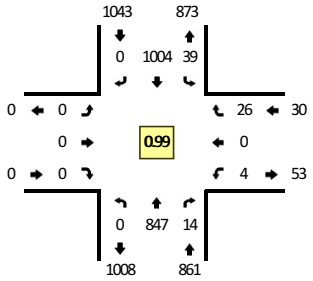
Type of peak hour being reported: Intersection Peak

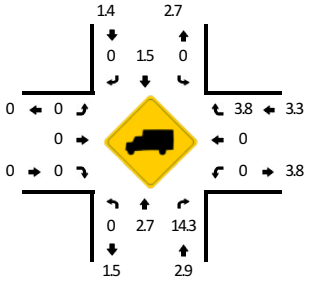
Method for determining peak hour: Total Entering Volume

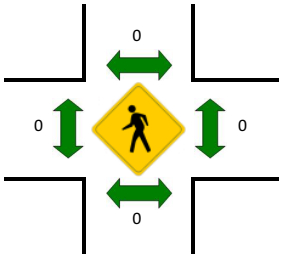
LOCATION: Providence Rd S -- Lochaven Rd
CITY/STATE: Weddington, NC

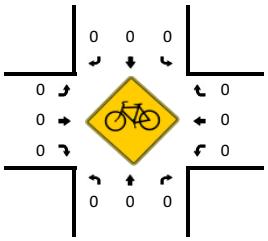
QC JOB #: 16482208
DATE: Tue, Feb 13 2024

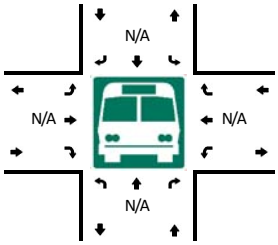
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:30 PM -- 4:45 PM

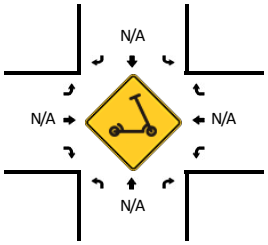












15-Min Count Period Beginning At	Providence Rd S (Northbound)				Providence Rd S (Southbound)				Lochaven Rd (Eastbound)				Lochaven Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	206	4	0	10	252	0	0	0	0	0	0	2	0	5	0	479	
4:15 PM	0	229	2	0	7	237	0	0	0	0	0	0	1	0	9	0	485	
4:30 PM	0	216	5	0	8	253	0	0	0	0	0	0	0	0	6	0	488	
4:45 PM	0	196	3	0	14	262	0	0	0	0	0	0	1	0	6	0	482	1934
5:00 PM	0	217	3	0	8	233	0	0	0	0	0	0	3	0	5	0	469	1924
5:15 PM	0	219	4	0	11	237	0	0	0	0	0	0	2	0	11	0	484	1923
5:30 PM	0	246	2	0	7	210	0	0	0	0	0	0	1	0	11	0	477	1912
5:45 PM	0	197	4	0	12	267	0	0	0	0	0	0	1	0	10	0	491	1921

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	864	20	0	32	1012	0	0	0	0	0	0	0	0	24	0	1952
Heavy Trucks	0	24	0		0	12	0		0	0	0		0	0	0		36
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 2/20/2024 12:21 PM

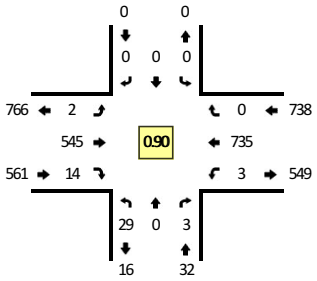
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

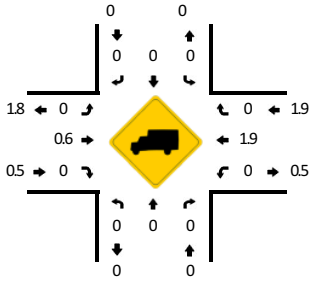
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

LOCATION: Highclere Dr -- Rea Rd
CITY/STATE: Weddington, NC

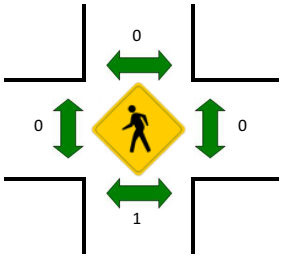
QC JOB #: 16482209
DATE: Tue, Feb 13 2024

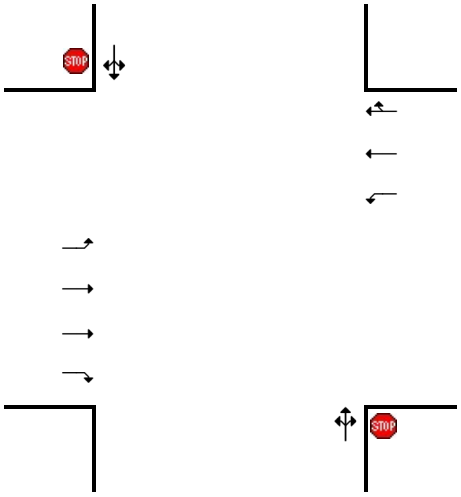
Peak-Hour: 7:00 AM -- 8:00 AM
Peak 15-Min: 7:15 AM -- 7:30 AM

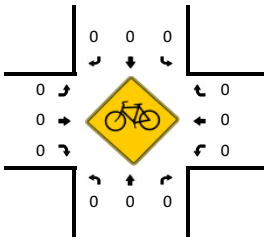


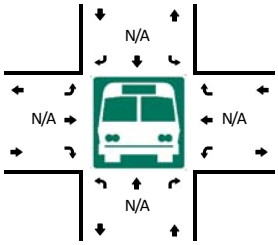


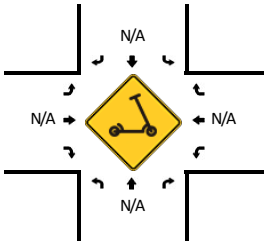
TRUE DATA TO IMPROVE MOBILITY











15-Min Count Period Beginning At	Highclere Dr (Northbound)				Highclere Dr (Southbound)				Rea Rd (Eastbound)				Rea Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	9	0	1	0	0	0	0	0	0	137	6	0	0	164	0	0	317	
7:15 AM	5	0	0	0	0	0	0	0	0	176	4	2	1	181	0	0	369	
7:30 AM	7	0	0	0	0	0	0	0	0	108	2	0	0	212	0	0	329	
7:45 AM	8	0	2	0	0	0	0	0	0	124	2	0	1	178	0	1	316	1331
8:00 AM	3	0	1	0	0	0	0	0	0	117	1	0	1	173	0	0	296	1310
8:15 AM	2	0	0	0	0	0	0	0	0	112	2	0	0	192	0	0	308	1249
8:30 AM	3	0	4	0	0	0	0	0	0	130	2	0	0	159	0	0	298	1218
8:45 AM	3	0	2	0	0	0	0	0	0	154	1	0	0	189	0	0	349	1251

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	20	0	0	0	0	0	0	0	0	704	16	8	4	724	0	0	1476
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	20	0		20
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 2/20/2024 12:21 PM

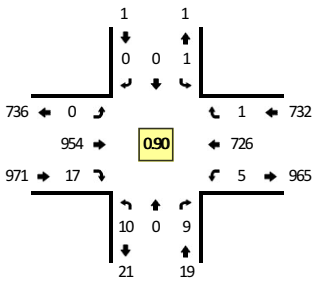
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

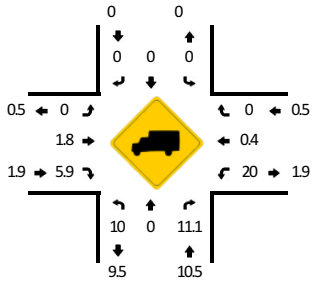
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

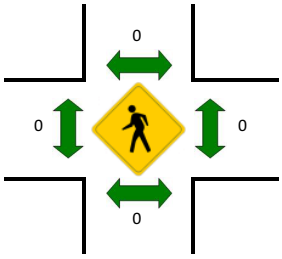
LOCATION: Highclere Dr -- Rea Rd
CITY/STATE: Weddington, NC

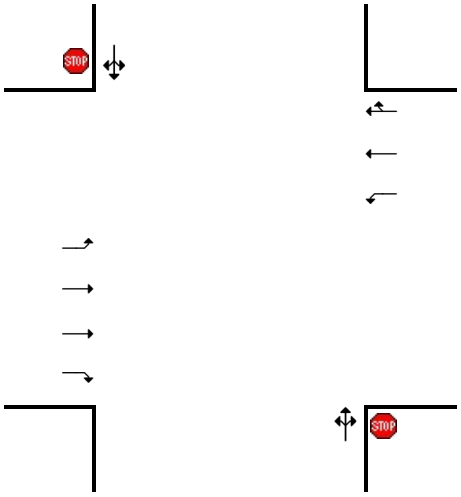
QC JOB #: 16482210
DATE: Tue, Feb 13 2024

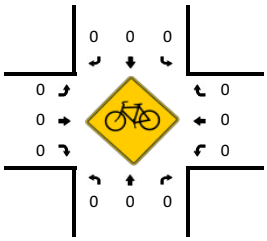
Peak-Hour: 4:45 PM -- 5:45 PM
Peak 15-Min: 5:15 PM -- 5:30 PM

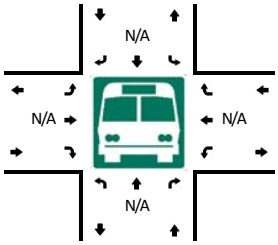


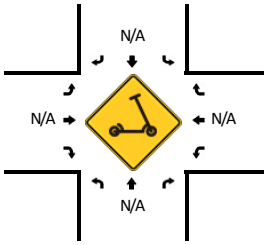












15-Min Count Period Beginning At	Highclere Dr (Northbound)				Highclere Dr (Southbound)				Rea Rd (Eastbound)				Rea Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	2	0	2	0	0	0	0	0	1	216	4	0	0	169	1	0	395	
4:15 PM	3	0	3	0	0	0	0	0	0	204	2	0	3	151	0	0	366	
4:30 PM	4	0	4	0	0	0	0	0	0	256	4	0	2	167	0	1	438	
4:45 PM	3	0	5	0	1	0	0	0	0	216	5	0	0	169	0	0	399	1598
5:00 PM	1	0	1	0	0	0	0	0	0	229	3	0	1	162	0	0	397	1600
5:15 PM	2	0	1	0	0	0	0	0	0	262	2	0	0	208	0	1	476	1710
5:30 PM	4	0	2	0	0	0	0	0	0	247	7	0	3	187	1	0	451	1723
5:45 PM	5	0	1	1	0	0	0	0	0	198	8	0	2	168	0	0	383	1707

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	8	0	4	0	0	0	0	0	0	1048	8	0	0	832	0	4	1904
Heavy Trucks	0	0	0		0	0	0		0	16	0		0	4	0		20
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 2/20/2024 12:21 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

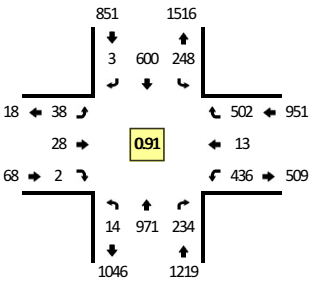
Type of peak hour being reported: Intersection Peak

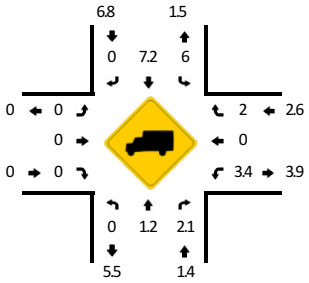
Method for determining peak hour: Total Entering Volume

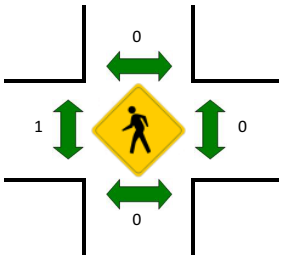
LOCATION: Providence Rd -- Weddington Rd
CITY/STATE: Weddington, NC

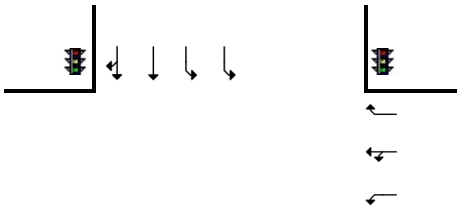
QC JOB #: 16421801
DATE: Wed, Dec 13 2023

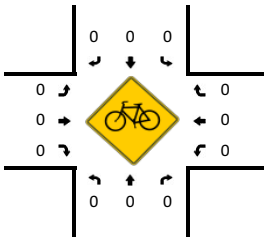
Peak-Hour: 8:00 AM -- 9:00 AM
Peak 15-Min: 8:45 AM -- 9:00 AM

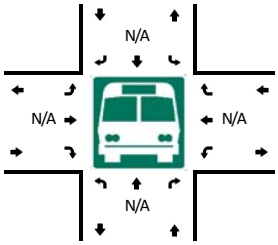


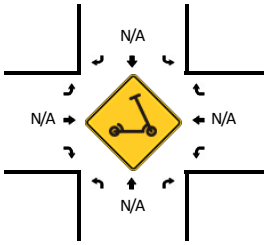












15-Min Count Period Beginning At	Providence Rd (Northbound)				Providence Rd (Southbound)				Weddington Rd (Eastbound)				Weddington Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	272	43	0	53	94	0	0	1	1	0	0	40	1	190	0	695	
7:15 AM	0	295	56	0	60	128	0	1	0	0	0	0	82	0	163	1	786	
7:30 AM	0	227	70	0	78	140	1	0	1	0	0	0	74	0	158	0	749	
7:45 AM	1	208	70	7	79	157	1	0	0	0	0	0	118	1	89	0	731	2961
8:00 AM	0	201	62	12	61	151	0	2	15	12	0	0	97	1	84	0	698	2964
8:15 AM	2	260	50	0	58	153	2	2	9	2	0	0	119	4	152	3	816	2994
8:30 AM	0	244	58	0	58	128	1	0	3	1	0	0	105	7	123	0	728	2973
8:45 AM	0	266	64	0	66	168	0	1	11	13	2	0	111	1	143	1	847	3089

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1064	256	0	264	672	0	4	44	52	8	0	444	4	572	4	3388
Heavy Trucks	0	28	4		8	56	0		0	0	0		24	0	16		136
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 12/19/2023 12:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

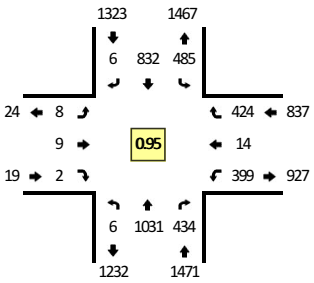
Type of peak hour being reported: Intersection Peak

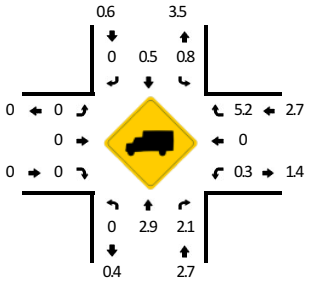
Method for determining peak hour: Total Entering Volume

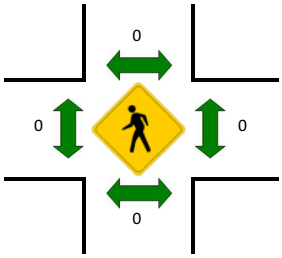
LOCATION: Providence Rd -- Weddington Rd
CITY/STATE: Weddington, NC

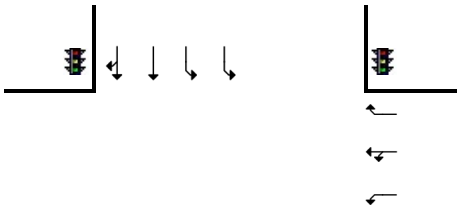
QC JOB #: 16421802
DATE: Wed, Dec 13 2023

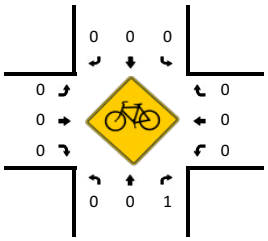
Peak-Hour: 5:00 PM -- 6:00 PM
Peak 15-Min: 5:15 PM -- 5:30 PM

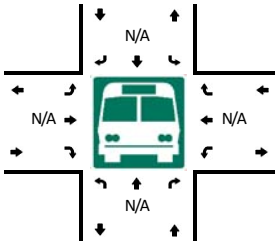


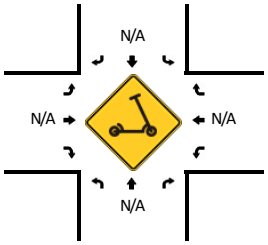












15-Min Count Period Beginning At	Providence Rd (Northbound)				Providence Rd (Southbound)				Weddington Rd (Eastbound)				Weddington Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	212	82	0	130	197	0	1	1	5	0	0	101	1	84	1	815	
4:15 PM	1	217	100	0	136	197	0	1	3	1	1	0	104	0	93	0	854	
4:30 PM	0	262	118	1	125	205	1	1	0	3	0	0	91	0	113	1	921	
4:45 PM	1	235	94	1	96	187	3	2	3	3	1	0	88	2	94	0	810	3400
5:00 PM	2	249	112	1	143	235	1	1	1	3	1	0	99	1	105	0	954	3539
5:15 PM	1	260	107	0	113	234	4	2	2	1	1	0	117	5	111	0	958	3643
5:30 PM	0	275	99	0	115	202	0	1	2	3	0	0	100	2	113	1	913	3635
5:45 PM	1	247	116	1	110	161	1	0	3	2	0	0	80	6	95	2	825	3650

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	1040	428	0	452	936	16	8	8	4	4	0	468	20	444	0	3832
Heavy Trucks	0	32	12		4	4	0		0	0	0		4	0	24		80
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

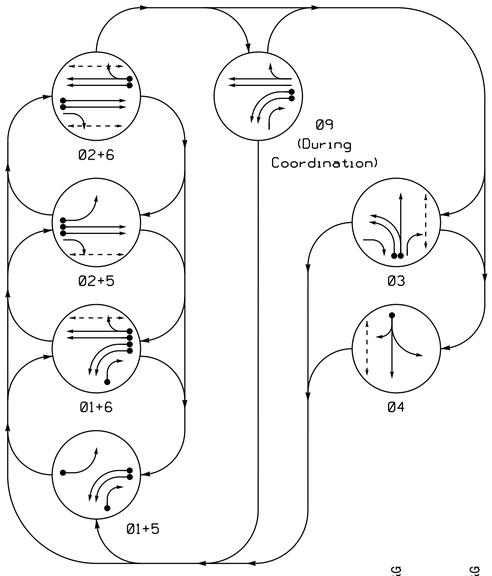
Report generated on 12/19/2023 12:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

PROJECT REFERENCE NO.	SHEET NO.
N/A	Sig. 1

6 Phase
Fully Actuated
NC 16 (Providence Rd) CLS

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

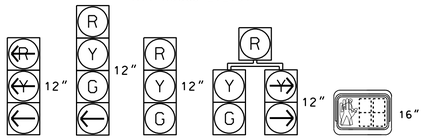
TABLE OF OPERATION

SIGNAL FACE	PHASE						
	Ø1+5	Ø1+6	Ø2+5	Ø2+6	Ø9	Ø3	Ø4	FLASH
11,12	←	←	~~R~~	~~R~~	←	~~R~~	~~R~~	~~R~~
21	R	R	G	G	R	R	R	Y
22	R	R	G	G	R	R/←	R	Y
31	R	R	R	R	R	G/←	R	R
32	R	R	R	R	R	G	R	R
33	R/←	R/←	R	R	R/←	G	R	R
41	R	R	R	R	R	G/←	R	R
42	R	R	R	R	R	R	G	R
51	←	~~R~~	←	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~
61,62	R	G	R	G	G	R	R	Y
P21,P22	DW	DW	W	W	DW	DW	DW	DRK
P31,P32	DW	DW	DW	DW	DW	W	DW	DRK
P41,P42	DW	DW	DW	DW	DW	DW	W	DRK
P61,P62	DW	W	DW	W	DW	DW	DW	DRK

W - Walk
DW - Don't Walk
DRK - Dark

SIGNAL FACE I.D.

All Heads L.E.D.

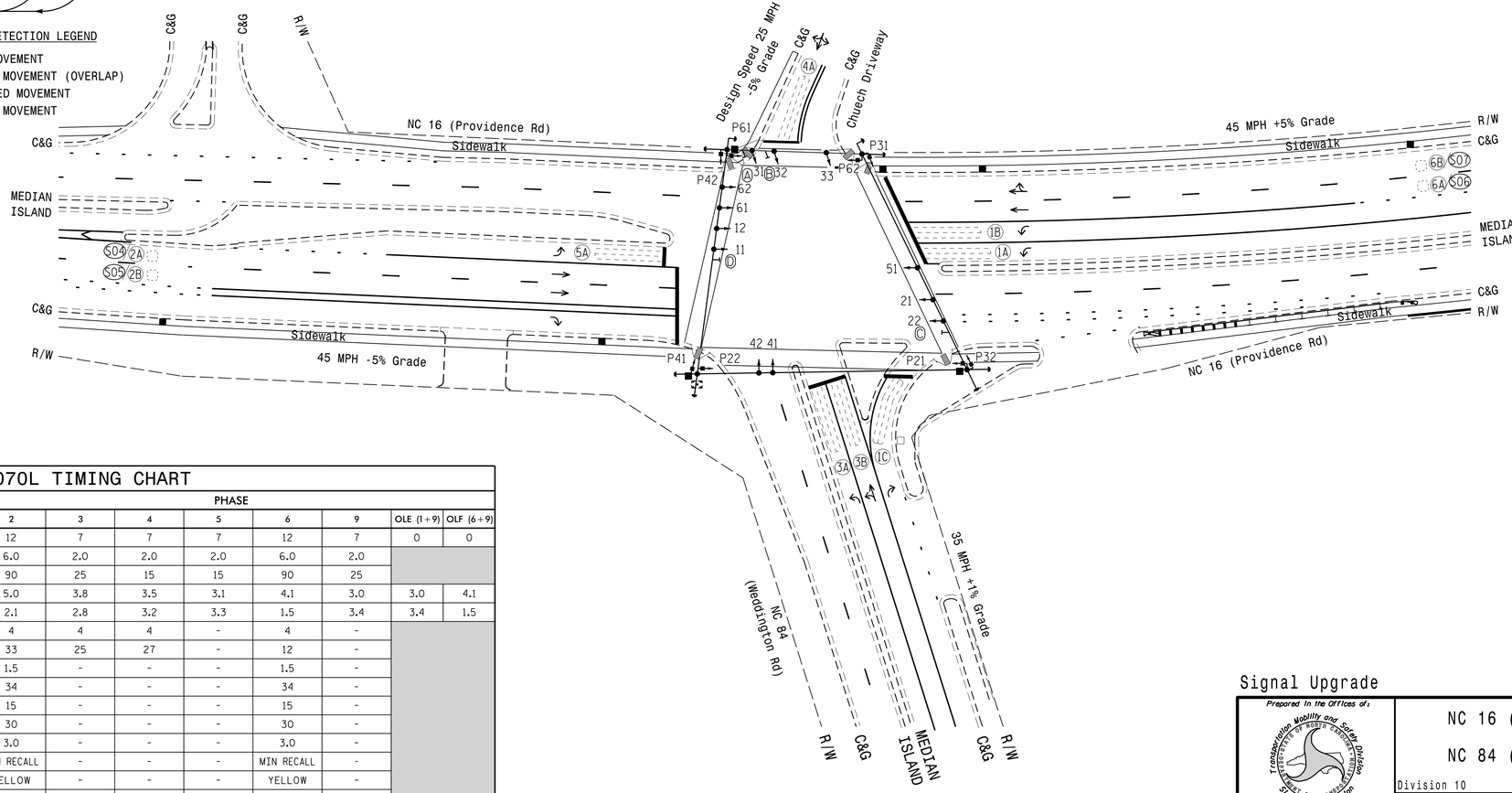


2070L LOOP & DETECTOR INSTALLATION

INDUCTIVE LOOPS					DETECTOR PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
1A	6x40	0	2-4-2	-	1/9	Y	Y	-	-	-	-	-
1B	6x40	0	2-4-2	-	1/9	Y	Y	-	-	-	-	-
1C	6x40	0	2-4-2	-	1	Y	Y	-	-	15	-	-
2A/S4	6x6	300	5	-	2	Y	Y	-	-	-	Y	-
2B/S5	6x6	300	5	-	2	Y	Y	-	-	-	Y	-
3A	6x40	0	2-4-2	-	3	Y	Y	-	-	-	-	-
3B	6x40	0	2-4-2	-	3	Y	Y	-	-	-	-	-
4A	6x40	0	2-4-2	-	4	Y	Y	-	-	10	-	-
5A	6x40	0	2-4-2	-	5	Y	Y	-	-	-	-	-
6A/S6	6x6	300	5	-	6	Y	Y	-	-	-	Y	-
6B/S7	6x6	300	5	-	6	Y	Y	-	-	-	Y	-

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated July 2006 and "Standard Specifications for Roads and Structures" dated July 2006.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 1 or phase 5 may be lagged.
4. The order of phase 3 and phase 4 may be reversed.
5. Set all detector units to presence mode.
6. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
7. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
8. This signal utilizes a special ring configuration. See electrical details.
9. Phase 9 is used only during coordination.
10. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
11. Closed loop system data: Controller Asset #0907.



LEGEND

PROPOSED		EXISTING
○→	Traffic Signal Head	●→
◐→	Modified Signal Head	N/A
⊣	Sign	⊣
□	Pedestrian Signal Head With Push Button & Sign	■
○	Signal Pole with Guy	●→
○	Signal Pole with Sidewalk Guy	●
▭	Inductive Loop Detector	⋯
⊠	Controller & Cabinet	⊡
N/A	Guardrail	═
□	Junction Box	■
⋯	2-in Underground Conduit	⋯
N/A	Right of Way	— — —
→	Directional Arrow	→
N/A	Wheelchair Ramp	♿
Ⓐ	Left Arrow "ONLY" Sign (R3-5L)	Ⓐ
Ⓑ	Combined Through and Left Arrow Sign (R3-6L)	Ⓑ
Ⓒ	Right Arrow "ONLY" Sign (R3-5R)	Ⓒ
Ⓓ	"U-TURN YIELD TO RIGHT TURN" Sign (R10-16)	Ⓓ

2070L TIMING CHART

FEATURE	PHASE								
	1	2	3	4	5	6	9	OLE (1+9)	OLF (6+9)
Min Green 1 *	7	12	7	7	7	12	7	0	0
Extension 1 *	2.0	6.0	2.0	2.0	2.0	6.0	2.0		
Max Green 1 *	25	90	25	15	15	90	25		
Yellow Clearance	3.0	5.0	3.8	3.5	3.1	4.1	3.0	3.0	4.1
Red Clearance	3.4	2.1	2.8	3.2	3.3	1.5	3.4	3.4	1.5
Walk 1 *	-	4	4	4	-	4	-		
Don't Walk 1	-	33	25	27	-	12	-		
Seconds Per Actuation *	-	1.5	-	-	-	1.5	-		
Max Variable Initial *	-	34	-	-	-	34	-		
Time Before Reduction *	-	15	-	-	-	15	-		
Time To Reduce *	-	30	-	-	-	30	-		
Minimum Gap	-	3.0	-	-	-	3.0	-		
Recall Mode	-	MIN RECALL	-	-	-	MIN RECALL	-		
Vehicle Call Memory	-	YELLOW	-	-	-	YELLOW	-		
Dual Entry	-	-	-	-	-	-	-		
Simultaneous Gap	ON	ON	ON	ON	ON	ON	ON		

* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

Signal Upgrade

Prepared In the Offices of:
Transportation Mobility and Safety Division
Traffic Engineering Branch
Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

NC 16 (Providence Rd)
at
NC 84 (Weddington Rd)

Division 10 | Union County | Weddington

PLAN DATE: August 2015 | REVIEWED BY: Z. Little
PREPARED BY: M. Mahbooba | REVIEWED BY:

SCALE 0 40 1"=40'

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA
PROFESSIONAL
SEAL 030530 ENGINEER
ZACHARY M. LITTLE

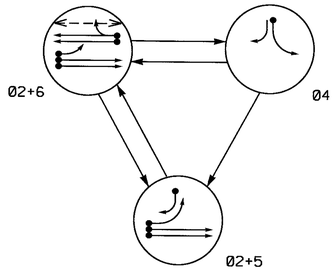
DocuSigned by: Zachary M. Little 10/14/2015
DC21EFD94F8341F... DATE

SIG. INVENTORY NO. 10-0907

14-OCT-2015 12:25
S:*TISSIG*TIS Signals\Signal Design Section\Western Region\Div-10\10-0907*10907_SIG_DSN_20151013.dgn
mmahbooba

PROJECT REFERENCE NO.	SHEET NO.
N/A	Sig. 1

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

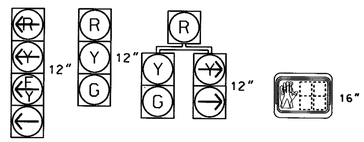
TABLE OF OPERATION

SIGNAL FACE	PHASE 02+5	PHASE 02+6	PHASE 04	FLASH
21, 22	G	G	R	Y
41	R	R	G	R
42	R/←	R	G	R
51	←	~~F~~	~~R~~	~~Y~~
61, 62	R	G	R	Y
P61, P62	DW	W	DW	DRK

W - Walk
DW - Don't Walk
DRK - Dark

SIGNAL FACE I.D.

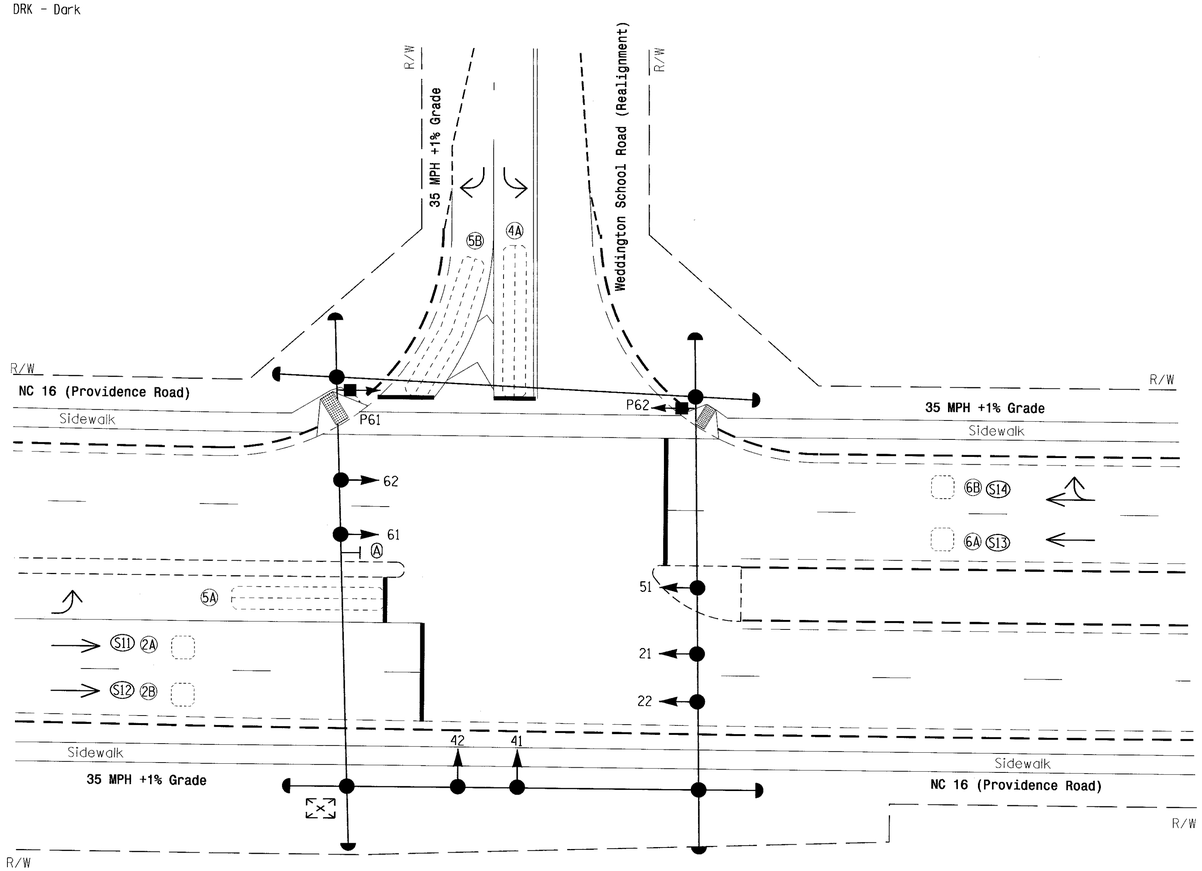
All Heads L.E.D.



51 | 21, 22, 41, 61, 62 | 42 | P61, P62

OASIS 2070L LOOP & DETECTOR INSTALLATION CHART

INDUCTIVE LOOPS					DETECTOR PROGRAMMING						
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
2A/S11	6X6	70	3	-	2	Y	Y	-	-	-	Y	-
2B/S12	6X6	70	3	-	2	Y	Y	-	-	-	Y	-
4A	6X40	0	2-4-2	-	4	Y	Y	-	-	3	-	-
5A	6X40	0	2-4-2	-	5	Y	Y	-	-	15	-	-
					2	Y	Y	-	-	-	-	-
5B	6X40	0	2-4-2	-	5	Y	Y	-	-	15	-	-
6A/S13	6X6	70	3	-	6	Y	Y	-	-	-	Y	-
6B/S14	6X6	70	3	-	6	Y	Y	-	-	-	Y	-



3 Phase
Fully Actuated
NC 16 (Providence Rd.) CLS

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 5 may be lagged.
4. Set all detector units to presence mode.
5. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
6. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
7. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
8. Closed loop system data: Controller Asset # 2119.

LEGEND

PROPOSED		EXISTING
○→	Traffic Signal Head	●→
◐→	Modified Signal Head	N/A
⊣	Sign	⊣
□↓	Pedestrian Signal Head With Push Button & Sign	■↓
○	Signal Pole with Guy	●
○	Signal Pole with Sidewalk Guy	●
▭	Inductive Loop Detector	▭
⊠	Controller & Cabinet	⊠
□	Junction Box	■
----	2-in Underground Conduit	----
N/A	Right of Way	----
→	Directional Arrow	→
Ⓐ	No U-Turn Sign (R3-4)	Ⓐ

OASIS 2070L TIMING CHART

FEATURE	PHASE 2	PHASE 4	PHASE 5	PHASE 6
Min Green 1 *	10	7	7	10
Extension 1 *	3.0	2.0	2.0	3.0
Max Green 1 *	50	25	20	50
Yellow Clearance	3.8	3.0	3.0	3.8
Red Clearance	1.5	2.4	2.3	1.5
Walk 1 *	-	-	-	7
Don't Walk 1	-	-	-	24
Seconds Per Actuation *	-	-	-	-
Max Variable Initial *	-	-	-	-
Time Before Reduction *	-	-	-	-
Time To Reduce *	-	-	-	-
Minimum Gap	-	-	-	-
Recall Mode	MIN RECALL	-	-	MIN RECALL
Vehicle Call Memory	YELLOW	-	-	YELLOW
Dual Entry	-	-	-	-
Simultaneous Gap	ON	ON	ON	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

Plan of Record

PREPARED BY: M. Mahbooba DATE: October 2012
REVIEWED BY: T. Williams DATE: October 2012
SIGNATURE: T.J.Williams DATE: 10/15/12.

COMMENTS
Relocated cabinet to the SW quadrant.

This plan of record reflects existing field conditions as submitted by field personnel. This plan may have been modified from its original state.

Signal Upgrade

Prepared in the Offices of:
Transportation Mobility and Safety Division
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Signal Design Section
750 N.Greenfield Pkwy.Garner,NC 27529

SCALE 0 20 1"=20'

NC 16 (Providence Road) at Weddington School Road (Realignment)

Division 10 Mecklenburg County Weddington
PLAN DATE: February 2012 REVIEWED BY:
PREPARED BY: M. Mahbooba REVIEWED BY:

REVISIONS	INIT.	DATE

Not a certified document. This document originally issued and sealed by Timothy J.Williams,PE 24393 on 2/28/2012. This document shall not be considered a certified document.

SIG. INVENTORY NO. 10-2119

15-OCT-2012 08:28
S:\Traffic\Traffic Signals\Signal Design Section\Western Region\Div-10\10-2119\#10211SPDR.Sig.csh.20121015.dgn
mahbooba

PROJECT REFERENCE NO.	SHEET NO.
U-2510A	Sig. 8

3 Phase
Fully Actuated
(NC 16 - Providence Rd CLS)

PHASING DIAGRAM

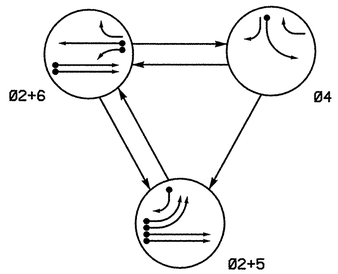
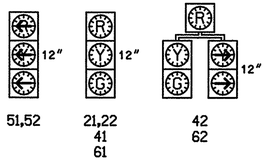


TABLE OF OPERATION				
SIGNAL FACE	PHASE Ø2+5	Ø2+6	Ø4	FLASH
21,22	G	G	R	Y
41	R	R	G	R
42	R/G	R	G	R
51,52	~~—~~	~~R~~	~~R~~	~~R~~
61	R	G	R	Y
62	R	G	R/G	Y

Signal Face I.D.

Denotes L.E.D.



2070L LOOP & DETECTOR INSTALLATION

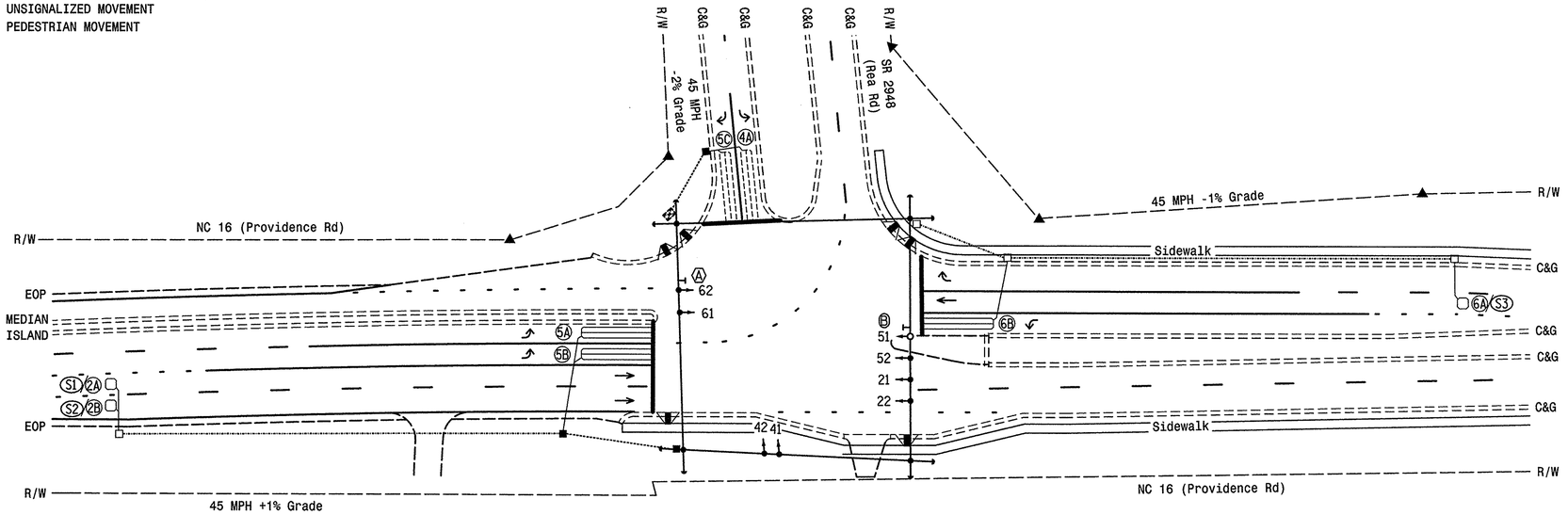
INDUCTIVE LOOPS					DETECTOR PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
2A/S1	6X6	300	5	Y	2	Y	Y	-	-	-	Y	-
2B/S2	6X6	300	5	Y	2	Y	Y	-	-	-	Y	-
4A	6X40	0	2-4-2	-	4	Y	Y	-	-	-	-	-
5A	6X40	0	2-4-2	Y	5	Y	Y	-	-	-	-	-
5B	6X40	0	2-4-2	Y	5	Y	Y	-	-	-	-	-
5C	6X40	0	2-4-2	-	5	Y	Y	-	-	10	-	-
6A/S3	6X6	300	5	Y	6	Y	Y	-	-	-	Y	-
6B	6X40	0	2-4-2	Y	6	Y	Y	Y	-	3	-	Y

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated July 2006 and "Standard Specifications for Roads and Structures" dated July 2006.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Enable Backup Protect for phase 2 to allow the controller to clear from phase 2+6 to phase 2+5 by progressing through an all red display.
4. Reposition existing signal heads numbered 21, 22, 52, 61 and 62.
5. Set all detector units to presence mode.
6. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
7. Closed loop system data: Controller Asset #1694.

PHASING DIAGRAM DETECTION LEGEND

- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT



LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head With Push Button & Sign	
	Signal Pole with Guy	
	Signal Pole With Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	
N/A	Wheelchair Ramp	
Ⓐ	Right Arrow "ONLY" Sign (R3-5R)	N/A
N/A	"U-TURN YIELD TO RIGHT TURN" Sign (R10-16)	Ⓑ

2070L TIMING CHART

FEATURE	PHASE 2	4	5	6
Min Green 1 *	12	7	7	12
Extension 1 *	6.0	2.0	2.0	6.0
Max Green 1 *	60	20	20	60
Yellow Clearance	4.4	4.7	3.0	4.6
Red Clearance	2.0	1.7	3.6	1.9
Red Revert	5.0	2.0	2.0	2.0
Walk 1 *	-	-	-	-
Don't Walk 1	-	-	-	-
Seconds Per Actuation *	1.5	-	-	2.5
Max Variable Initial *	34	-	-	34
Time Before Reduction *	15	-	-	15
Time To Reduce *	30	-	-	30
Minimum Gap	3.0	-	-	3.0
Recall Mode	MIN RECALL	-	-	MIN RECALL
Vehicle Call Memory	YELLOW	-	-	YELLOW
Dual Entry	-	-	-	-
Simultaneous Gap	ON	ON	ON	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

Final Signal

Traffic Engineering and Safety Systems Branch
Signals and Geometrics Section
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
750 Greenfield Parkway
Garner, NC 27529

NC 16 (Providence Rd)
at
SR 2948 (Rea Rd)

Division 10 Union County Weddington

PLAN DATE:	July 2007	REVIEWED BY:	N.W. Rodevick
PREPARED BY:	T.R. Terrell	REVIEWED BY:	S.T. Franklin

REVISIONS	INIT.	DATE

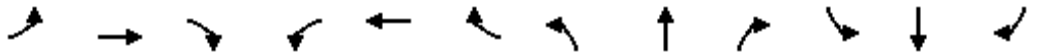
SCALE 0 40 1"=40'

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 028657 ENGINEER SPENCER T. FRANKLIN

SIGNATURE 7.27.07 DATE

SIG. INVENTORY NO. 10-1694

HNTB
HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609

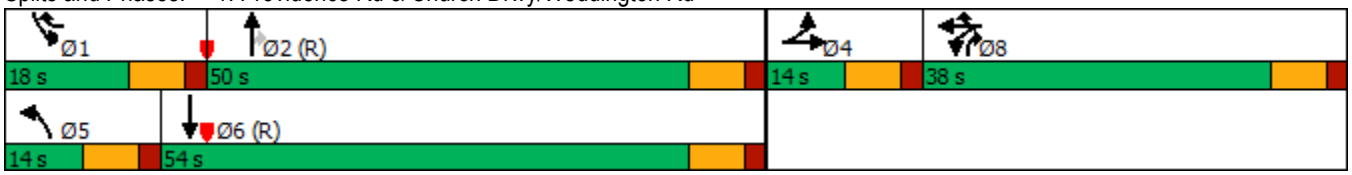


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	28	4	436	13	502	14	971	234	248	600	4
Future Volume (vph)	38	28	4	436	13	502	14	971	234	248	600	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	525		300	500		375	375		0
Storage Lanes	0		0	1		1	1		1	2		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.993				0.850			0.850		0.999	
Flt Protected		0.973		0.950	0.955		0.950			0.950		
Satd. Flow (prot)	0	1800	0	1665	1674	1583	1770	3539	1583	3303	3371	0
Flt Permitted		0.973		0.950	0.955		0.950			0.950		
Satd. Flow (perm)	0	1800	0	1665	1674	1583	1770	3539	1583	3303	3371	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2519			3105			1122			2544	
Travel Time (s)		49.1			60.5			21.9			49.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	6%	7%	2%
Adj. Flow (vph)	42	31	4	484	14	558	16	1079	260	276	667	4
Shared Lane Traffic (%)				49%								
Lane Group Flow (vph)	0	77	0	247	251	558	16	1079	260	276	671	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			18			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA	pt+ov	Prot	NA	pm+ov	Prot	NA	
Protected Phases	4	4		8	8	8 1	5	2	8	1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases									2			
Detector Phase	4	4		8	8	8 1	5	2	8	1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	7.0	7.0	10.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		14.0	17.0	14.0	14.0	17.0	
Total Split (s)	14.0	14.0		38.0	38.0		14.0	50.0	38.0	18.0	54.0	
Total Split (%)	11.7%	11.7%		31.7%	31.7%		11.7%	41.7%	31.7%	15.0%	45.0%	
Maximum Green (s)	7.0	7.0		31.0	31.0		7.0	43.0	31.0	11.0	47.0	
Yellow Time (s)	5.0	5.0		5.0	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	
Lost Time Adjust (s)		-2.0		-2.0	-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)		5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max	None	None	C-Max	
Act Effct Green (s)		9.0		33.1	33.1	51.1	9.0	47.7	81.8	13.0	60.1	
Actuated g/C Ratio		0.08		0.28	0.28	0.43	0.08	0.40	0.68	0.11	0.50	
v/c Ratio		0.57		0.54	0.54	0.83	0.12	0.77	0.24	0.77	0.40	
Control Delay		70.7		42.2	42.3	42.9	55.7	42.6	4.3	67.2	21.5	
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		70.7		42.2	42.3	42.9	55.7	42.6	4.3	67.2	21.5	
LOS		E		D	D	D	E	D	A	E	C	
Approach Delay		70.7			42.6			35.4			34.8	
Approach LOS		E			D			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 38.2		Intersection LOS: D	
Intersection Capacity Utilization 76.3%		ICU Level of Service D	
Analysis Period (min) 15			

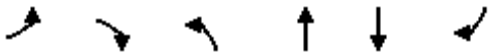
Splits and Phases: 1: Providence Rd & Church Drwy/Weddington Rd



Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	77	247	251	558	16	1079	260	276	671
v/c Ratio	0.57	0.54	0.54	0.83	0.12	0.77	0.24	0.77	0.40
Control Delay	70.7	42.2	42.3	42.9	55.7	42.6	4.3	67.2	21.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.7	42.2	42.3	42.9	55.7	42.6	4.3	67.2	21.5
Queue Length 50th (ft)	59	171	174	377	13	431	61	108	156
Queue Length 95th (ft)	#117	262	267	#576	m30	493	63	#169	255
Internal Link Dist (ft)	2439		3025			1042			2464
Turn Bay Length (ft)		525		300	500		375	375	
Base Capacity (vph)	135	458	461	673	132	1407	1078	358	1689
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.54	0.54	0.83	0.12	0.77	0.24	0.77	0.40

Intersection Summary

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.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	44	37	102	1184	964	113
Future Volume (vph)	44	37	102	1184	964	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	300			0
Storage Lanes	1	1	1			0
Taper Length (ft)	100		100			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.850			0.984	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1687	1568	1770	3539	3393	0
Flt Permitted	0.950		0.182			
Satd. Flow (perm)	1687	1568	339	3539	3393	0
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	35			35	35	
Link Distance (ft)	2436			1331	1122	
Travel Time (s)	47.5			25.9	21.9	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	7%	3%	2%	2%	5%	2%
Adj. Flow (vph)	50	42	116	1345	1095	128
Shared Lane Traffic (%)						
Lane Group Flow (vph)	50	42	116	1345	1223	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	
Detector Template	Left	Right	Left	Thru	Thru	
Leading Detector (ft)	20	20	20	100	100	
Trailing Detector (ft)	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	
Detector 1 Size(ft)	20	20	20	6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)				94	94	
Detector 2 Size(ft)				6	6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot	pt+ov	pm+pt	NA	NA	
Protected Phases	4	4 5	5	2	6	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Permitted Phases			2			
Detector Phase	4	4 5	5	2	6	
Switch Phase						
Minimum Initial (s)	7.0		7.0	10.0	10.0	
Minimum Split (s)	14.0		14.0	17.0	17.0	
Total Split (s)	18.0		18.0	102.0	84.0	
Total Split (%)	15.0%		15.0%	85.0%	70.0%	
Maximum Green (s)	11.0		11.0	95.0	77.0	
Yellow Time (s)	5.0		5.0	5.0	5.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	-2.0		-2.0	-2.0	-2.0	
Total Lost Time (s)	5.0		5.0	5.0	5.0	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		None	C-Max	C-Max	
Act Effct Green (s)	10.9	22.5	101.9	102.9	87.5	
Actuated g/C Ratio	0.09	0.19	0.85	0.86	0.73	
v/c Ratio	0.33	0.14	0.29	0.44	0.49	
Control Delay	56.4	38.9	3.2	2.0	11.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	56.4	38.9	3.2	2.0	11.9	
LOS	E	D	A	A	B	
Approach Delay	48.4			2.1	11.9	
Approach LOS	D			A	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.49			
Intersection Signal Delay: 8.0		Intersection LOS: A	
Intersection Capacity Utilization 54.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Providence Rd & Lenny Stadler Way

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	50	42	116	1345	1223
v/c Ratio	0.33	0.14	0.29	0.44	0.49
Control Delay	56.4	38.9	3.2	2.0	11.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	56.4	38.9	3.2	2.0	11.9
Queue Length 50th (ft)	37	27	9	75	409
Queue Length 95th (ft)	75	56	m17	92	250
Internal Link Dist (ft)	2356			1251	1042
Turn Bay Length (ft)		50	300		
Base Capacity (vph)	182	318	442	3033	2474
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.27	0.13	0.26	0.44	0.49

Intersection Summary

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

Lane Group	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	4	8	4	1254	4	12	985
Future Volume (vph)	4	8	4	1254	4	12	985
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	300		0	300	
Storage Lanes	1	0	1		0	1	
Taper Length (ft)	100		100			100	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.95
Frt	0.907						
Flt Protected	0.985		0.950			0.950	
Satd. Flow (prot)	1558	0	1770	3539	0	1444	3438
Flt Permitted	0.985		0.950			0.950	
Satd. Flow (perm)	1558	0	1770	3539	0	1444	3438
Link Speed (mph)	35			35			35
Link Distance (ft)	3855			1542			1331
Travel Time (s)	75.1			30.0			25.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	12%	2%	2%	2%	25%	5%
Adj. Flow (vph)	4	9	4	1393	4	13	1094
Shared Lane Traffic (%)							
Lane Group Flow (vph)	13	0	4	1397	0	13	1094
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	R NA	Left	Right	Left	Left
Median Width(ft)	12			30			30
Link Offset(ft)	0			0			0
Crosswalk Width(ft)	16			16			16
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9		9	15	
Sign Control	Stop			Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	44.8%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	4	8	4	1254	4	12	985
Future Vol, veh/h	4	8	4	1254	4	12	985
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	300	-	-	300	-
Veh in Median Storage, #	0	-	-	0	-	-	0
Grade, %	0	-	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90	90
Heavy Vehicles, %	2	12	2	2	2	25	5
Mvmt Flow	4	9	4	1393	4	13	1094

Major/Minor	Minor1		Major1			Major2	
Conflicting Flow All	1976	699	1094	0	0	1397	0
Stage 1	1403	-	-	-	-	-	-
Stage 2	573	-	-	-	-	-	-
Critical Hdwy	6.84	7.14	6.44	-	-	4.6	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.42	2.52	-	-	2.45	-
Pot Cap-1 Maneuver	54	360	289	-	-	382	-
Stage 1	193	-	-	-	-	-	-
Stage 2	527	-	-	-	-	-	-
Platoon blocked, %				-	-		-
Mov Cap-1 Maneuver	51	360	289	-	-	382	-
Mov Cap-2 Maneuver	51	-	-	-	-	-	-
Stage 1	190	-	-	-	-	-	-
Stage 2	509	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	39	0.1	0.2
HCM LOS	E		

Minor Lane/Major Mvmt	NBU	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	289	-	-	119	382	-
HCM Lane V/C Ratio	0.015	-	-	0.112	0.035	-
HCM Control Delay (s)	17.7	-	-	39	14.8	-
HCM Lane LOS	C	-	-	E	B	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.1	-

Lane Group	EBU	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	4	364	186	423	982	4	484	315
Future Volume (vph)	4	364	186	423	982	4	484	315
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0	400		275		0
Storage Lanes		1	1	3		1		1
Taper Length (ft)		100		100		100		
Lane Util. Factor	1.00	1.00	1.00	0.97	0.95	1.00	1.00	1.00
Frt			0.850					0.850
Flt Protected		0.950		0.950		0.950		
Satd. Flow (prot)	0	1770	1583	3433	3539	1770	1827	1568
Flt Permitted		0.950		0.950		0.262		
Satd. Flow (perm)	0	1770	1583	3433	3539	488	1827	1568
Right Turn on Red			No					Yes
Satd. Flow (RTOR)								348
Link Speed (mph)		35			35		35	
Link Distance (ft)		1060			1885		1542	
Travel Time (s)		20.6			36.7		30.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	4%	3%
Adj. Flow (vph)	4	404	207	470	1091	4	538	350
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	408	207	470	1091	4	538	350
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Right	Left	Left	R NA	Left	Right
Median Width(ft)		30			30		30	
Link Offset(ft)		0			0		0	
Crosswalk Width(ft)		16			16		16	
Two way Left Turn Lane								
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15	9	15		9		9
Number of Detectors	1	1	1	1	2	1	2	1
Detector Template	Left	Left	Right	Left	Thru	Left	Thru	Right
Leading Detector (ft)	20	20	20	20	100	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	20	20	6	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel								
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)					94		94	
Detector 2 Size(ft)					6		6	
Detector 2 Type					Cl+Ex		Cl+Ex	
Detector 2 Channel								
Detector 2 Extend (s)					0.0		0.0	
Turn Type	Perm	Prot	pt+ov	Prot	NA	Perm	NA	Perm
Protected Phases		4	4 5	5	2		6	

Lane Group	EBU	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Permitted Phases	4					6		6
Detector Phase	4	4	4 5	5	2	6	6	6
Switch Phase								
Minimum Initial (s)	7.0	7.0		7.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.0	14.0		14.0	17.0	17.0	17.0	17.0
Total Split (s)	42.0	42.0		27.0	78.0	51.0	51.0	51.0
Total Split (%)	35.0%	35.0%		22.5%	65.0%	42.5%	42.5%	42.5%
Maximum Green (s)	35.0	35.0		20.0	71.0	44.0	44.0	44.0
Yellow Time (s)	5.0	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
Lost Time Adjust (s)		-2.0		-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)		5.0		5.0	5.0	5.0	5.0	5.0
Lead/Lag				Lead		Lag	Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		33.1	59.5	21.4	76.9	50.5	50.5	50.5
Actuated g/C Ratio		0.28	0.50	0.18	0.64	0.42	0.42	0.42
v/c Ratio		0.84	0.26	0.77	0.48	0.02	0.70	0.41
Control Delay		56.5	17.7	56.0	12.6	44.0	58.2	24.3
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		56.5	17.7	56.0	12.6	44.0	58.2	24.3
LOS		E	B	E	B	D	E	C
Approach Delay		43.4			25.6		44.8	
Approach LOS		D			C		D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTU, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 34.8		Intersection LOS: C	
Intersection Capacity Utilization 70.4%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 4: Providence Rd & Rea Rd

Lane Group	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Group Flow (vph)	408	207	470	1091	4	538	350
v/c Ratio	0.84	0.26	0.77	0.48	0.02	0.70	0.41
Control Delay	56.5	17.7	56.0	12.6	44.0	58.2	24.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.5	17.7	56.0	12.6	44.0	58.2	24.3
Queue Length 50th (ft)	292	84	176	223	3	446	152
Queue Length 95th (ft)	406	130	239	290	m7	559	246
Internal Link Dist (ft)	980			1805		1462	
Turn Bay Length (ft)			400		275		
Base Capacity (vph)	545	788	637	2268	205	769	861
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	0.75	0.26	0.74	0.48	0.02	0.70	0.41

Intersection Summary

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

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	5	69	1311	7	15	645
Future Volume (vph)	5	69	1311	7	15	645
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	0		0	1	
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.875		0.999			
Flt Protected	0.996				0.950	
Satd. Flow (prot)	1623	0	1860	0	1770	1845
Flt Permitted	0.996				0.950	
Satd. Flow (perm)	1623	0	1860	0	1770	1845
Link Speed (mph)	35		35			35
Link Distance (ft)	2804		2471			1885
Travel Time (s)	54.6		48.1			36.7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	14%	2%	3%
Adj. Flow (vph)	6	77	1457	8	17	717
Shared Lane Traffic (%)						
Lane Group Flow (vph)	83	0	1465	0	17	717
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	80.6%	ICU Level of Service	D
Analysis Period (min)	15		

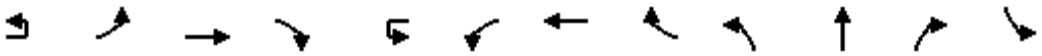
Intersection	
Int Delay, s/veh	2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	69	1311	7	15	645
Future Vol, veh/h	5	69	1311	7	15	645
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	14	2	3
Mvmt Flow	6	77	1457	8	17	717

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2212	1461	0	0	1465	0
Stage 1	1461	-	-	-	-	-
Stage 2	751	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	48	158	-	-	461	-
Stage 1	213	-	-	-	-	-
Stage 2	466	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	46	158	-	-	461	-
Mov Cap-2 Maneuver	46	-	-	-	-	-
Stage 1	213	-	-	-	-	-
Stage 2	449	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	65.5	0	0.3
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	136	461	-
HCM Lane V/C Ratio	-	-	0.605	0.036	-
HCM Control Delay (s)	-	-	65.5	13.1	-
HCM Lane LOS	-	-	F	B	-
HCM 95th %tile Q(veh)	-	-	3.1	0.1	-



Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	4	4	545	14	4	4	735	4	29	4	4	4
Future Volume (vph)	4	4	545	14	4	4	735	4	29	4	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		275		250		350		0	0		0	0
Storage Lanes		1		1		1		0	0		0	0
Taper Length (ft)		100				100			100			100
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt				0.850			0.999			0.986		
Flt Protected		0.950				0.950				0.962		
Satd. Flow (prot)	0	1770	3539	1583	0	1770	3536	0	0	1767	0	0
Flt Permitted		0.950				0.950				0.962		
Satd. Flow (perm)	0	1770	3539	1583	0	1770	3536	0	0	1767	0	0
Link Speed (mph)			35				35			35		
Link Distance (ft)			2763				513			1720		
Travel Time (s)			53.8				10.0			33.5		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	4	4	606	16	4	4	817	4	32	4	4	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	8	606	16	0	8	821	0	0	40	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)			30				30			0		
Link Offset(ft)			0				0			0		
Crosswalk Width(ft)			16				16			16		
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	9	15		9	9	15		9	15		9	15
Sign Control			Free				Free			Stop		

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 31.4%		ICU Level of Service A	
Analysis Period (min) 15			

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	4	4
Future Volume (vph)	4	4
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Frt	0.955	
Flt Protected	0.984	
Satd. Flow (prot)	1750	0
Flt Permitted	0.984	
Satd. Flow (perm)	1750	0
Link Speed (mph)	35	
Link Distance (ft)	2307	
Travel Time (s)	44.9	
Peak Hour Factor	0.90	0.90
Adj. Flow (vph)	4	4
Shared Lane Traffic (%)		
Lane Group Flow (vph)	12	0
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	0	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Sign Control	Stop	

Intersection Summary

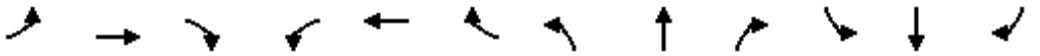
Intersection	
Int Delay, s/veh	1.2

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Vol, veh/h	4	4	545	14	4	4	735	4	29	4	4	4	4	4
Future Vol, veh/h	4	4	545	14	4	4	735	4	29	4	4	4	4	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	275	-	250	-	350	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	4	606	16	4	4	817	4	32	4	4	4	4	4

Major/Minor	Major1				Major2				Minor1			Minor2		
Conflicting Flow All	821	821	0	0	606	622	0	0	1049	1459	303	1156	1473	411
Stage 1	-	-	-	-	-	-	-	-	622	622	-	835	835	-
Stage 2	-	-	-	-	-	-	-	-	427	837	-	321	638	-
Critical Hdwy	6.44	4.14	-	-	6.44	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.52	2.22	-	-	2.52	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	432	804	-	-	593	955	-	-	182	128	693	152	126	590
Stage 1	-	-	-	-	-	-	-	-	441	477	-	328	381	-
Stage 2	-	-	-	-	-	-	-	-	576	380	-	665	469	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	559	559	-	-	729	729	-	-	172	124	693	144	122	590
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	172	124	-	144	122	-
Stage 1	-	-	-	-	-	-	-	-	434	469	-	323	376	-
Stage 2	-	-	-	-	-	-	-	-	558	375	-	644	461	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.1	31	26.9
HCM LOS			D	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	179	559	-	-	729	-	-	178
HCM Lane V/C Ratio	0.23	0.016	-	-	0.012	-	-	0.075
HCM Control Delay (s)	31	11.5	-	-	10	-	-	26.9
HCM Lane LOS	D	B	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0.9	0	-	-	0	-	-	0.2

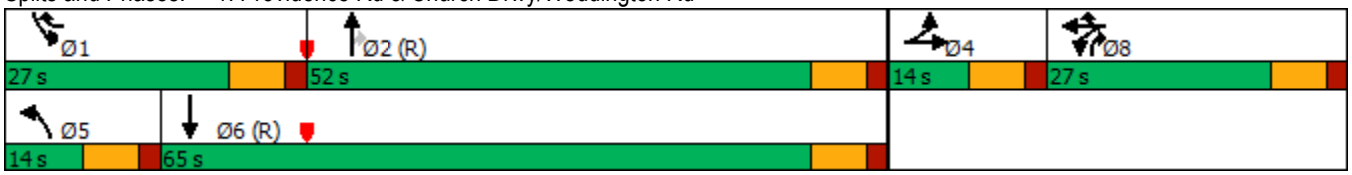


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	9	4	399	14	424	6	1031	434	485	832	6
Future Volume (vph)	8	9	4	399	14	424	6	1031	434	485	832	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	525		300	500		375	375		0
Storage Lanes	0		0	1		1	1		1	2		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.977				0.850			0.850		0.999	
Flt Protected		0.981		0.950	0.956		0.950			0.950		
Satd. Flow (prot)	0	1785	0	1681	1692	1538	1770	3505	1583	3433	3536	0
Flt Permitted		0.981		0.950	0.956		0.950			0.950		
Satd. Flow (perm)	0	1785	0	1681	1692	1538	1770	3505	1583	3433	3536	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2519			3105			1122			2544	
Travel Time (s)		49.1			60.5			21.9			49.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	5%	2%	3%	2%	2%	2%	2%
Adj. Flow (vph)	9	10	4	443	16	471	7	1146	482	539	924	7
Shared Lane Traffic (%)				48%								
Lane Group Flow (vph)	0	23	0	230	229	471	7	1146	482	539	931	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			18			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA	pt+ov	Prot	NA	pm+ov	Prot	NA	
Protected Phases	4	4		8	8	8 1	5	2	8	1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases									2			
Detector Phase	4	4		8	8	8 1	5	2	8	1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	7.0	7.0	10.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		14.0	17.0	14.0	14.0	17.0	
Total Split (s)	14.0	14.0		27.0	27.0		14.0	52.0	27.0	27.0	65.0	
Total Split (%)	11.7%	11.7%		22.5%	22.5%		11.7%	43.3%	22.5%	22.5%	54.2%	
Maximum Green (s)	7.0	7.0		20.0	20.0		7.0	45.0	20.0	20.0	58.0	
Yellow Time (s)	5.0	5.0		5.0	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	
Lost Time Adjust (s)		-2.0		-2.0	-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)		5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max	None	None	C-Max	
Act Effct Green (s)		9.0		25.7	25.7	52.9	9.0	48.7	76.4	22.2	73.1	
Actuated g/C Ratio		0.08		0.21	0.21	0.44	0.08	0.41	0.64	0.18	0.61	
v/c Ratio		0.17		0.64	0.63	0.69	0.05	0.81	0.48	0.85	0.43	
Control Delay		55.3		53.3	52.9	34.7	46.8	37.9	6.0	61.2	14.3	
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		55.3		53.3	52.9	34.7	46.8	37.9	6.0	61.2	14.3	
LOS		E		D	D	C	D	D	A	E	B	
Approach Delay		55.3			43.8			28.5			31.5	
Approach LOS		E			D			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 33.3		Intersection LOS: C	
Intersection Capacity Utilization 73.1%		ICU Level of Service D	
Analysis Period (min) 15			

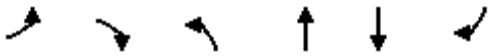
Splits and Phases: 1: Providence Rd & Church Drwy/Weddington Rd



Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	23	230	229	471	7	1146	482	539	931
v/c Ratio	0.17	0.64	0.63	0.69	0.05	0.81	0.48	0.85	0.43
Control Delay	55.3	53.3	52.9	34.7	46.8	37.9	6.0	61.2	14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.3	53.3	52.9	34.7	46.8	37.9	6.0	61.2	14.3
Queue Length 50th (ft)	17	178	177	307	5	401	48	210	184
Queue Length 95th (ft)	44	#298	#294	444	m13	507	79	#297	308
Internal Link Dist (ft)	2439		3025			1042			2464
Turn Bay Length (ft)		525		300	500		375	375	
Base Capacity (vph)	133	360	362	680	132	1422	1008	640	2153
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.64	0.63	0.69	0.05	0.81	0.48	0.84	0.43

Intersection Summary

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.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	57	14	26	1330	1164	27
Future Volume (vph)	57	14	26	1330	1164	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	300			0
Storage Lanes	1	1	1			0
Taper Length (ft)	100		100			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.850			0.997	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	3539	3529	0
Flt Permitted	0.950		0.164			
Satd. Flow (perm)	1770	1583	305	3539	3529	0
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	35			35	35	
Link Distance (ft)	2436			1331	1122	
Travel Time (s)	47.5			25.9	21.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	63	16	29	1478	1293	30
Shared Lane Traffic (%)						
Lane Group Flow (vph)	63	16	29	1478	1323	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	
Detector Template	Left	Right	Left	Thru	Thru	
Leading Detector (ft)	20	20	20	100	100	
Trailing Detector (ft)	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	
Detector 1 Size(ft)	20	20	20	6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)				94	94	
Detector 2 Size(ft)				6	6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot	pt+ov	pm+pt	NA	NA	
Protected Phases	4	4 5	5	2	6	
Permitted Phases			2			

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Detector Phase	4	4 5	5	2	6	
Switch Phase						
Minimum Initial (s)	7.0		7.0	10.0	10.0	
Minimum Split (s)	14.0		14.0	17.0	17.0	
Total Split (s)	18.0		16.0	102.0	86.0	
Total Split (%)	15.0%		13.3%	85.0%	71.7%	
Maximum Green (s)	11.0		9.0	95.0	79.0	
Yellow Time (s)	5.0		5.0	5.0	5.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	-2.0		-2.0	-2.0	-2.0	
Total Lost Time (s)	5.0		5.0	5.0	5.0	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		None	C-Max	C-Max	
Act Effct Green (s)	11.3	22.5	101.5	102.5	94.1	
Actuated g/C Ratio	0.09	0.19	0.85	0.85	0.78	
v/c Ratio	0.38	0.05	0.08	0.49	0.48	
Control Delay	57.3	37.4	1.6	1.7	10.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	57.3	37.4	1.6	1.7	10.6	
LOS	E	D	A	A	B	
Approach Delay	53.2			1.7	10.6	
Approach LOS	D			A	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.49			
Intersection Signal Delay: 7.2		Intersection LOS: A	
Intersection Capacity Utilization 50.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Providence Rd & Lenny Stadler Way

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	63	16	29	1478	1323
v/c Ratio	0.38	0.05	0.08	0.49	0.48
Control Delay	57.3	37.4	1.6	1.7	10.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	57.3	37.4	1.6	1.7	10.6
Queue Length 50th (ft)	47	10	2	66	434
Queue Length 95th (ft)	92	29	m4	m82	211
Internal Link Dist (ft)	2356			1251	1042
Turn Bay Length (ft)		50	300		
Base Capacity (vph)	191	313	392	3021	2766
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.33	0.05	0.07	0.49	0.48

Intersection Summary

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

Lane Group	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	4	12	4	1333	4	15	1152
Future Volume (vph)	4	12	4	1333	4	15	1152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	300		0	300	
Storage Lanes	1	0	1		0	1	
Taper Length (ft)	100		100			100	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.95
Frt	0.897						
Flt Protected	0.988		0.950			0.950	
Satd. Flow (prot)	1580	0	1770	3505	0	1770	3539
Flt Permitted	0.988		0.950			0.950	
Satd. Flow (perm)	1580	0	1770	3505	0	1770	3539
Link Speed (mph)	35			35			35
Link Distance (ft)	3855			1542			1331
Travel Time (s)	75.1			30.0			25.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	8%	2%	3%	2%	2%	2%
Adj. Flow (vph)	4	13	4	1481	4	17	1280
Shared Lane Traffic (%)							
Lane Group Flow (vph)	17	0	4	1485	0	17	1280
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	R NA	Left	Right	Left	Left
Median Width(ft)	12			30			30
Link Offset(ft)	0			0			0
Crosswalk Width(ft)	16			16			16
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9		9	15	
Sign Control	Stop			Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	47.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	4	12	4	1333	4	15	1152
Future Vol, veh/h	4	12	4	1333	4	15	1152
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	300	-	-	300	-
Veh in Median Storage, #	0	-	-	0	-	-	0
Grade, %	0	-	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90	90
Heavy Vehicles, %	2	8	2	3	2	2	2
Mvmt Flow	4	13	4	1481	4	17	1280

Major/Minor	Minor1		Major1			Major2	
Conflicting Flow All	2165	743	1280	0	0	1485	0
Stage 1	1491	-	-	-	-	-	-
Stage 2	674	-	-	-	-	-	-
Critical Hdwy	6.84	7.06	6.44	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.38	2.52	-	-	2.22	-
Pot Cap-1 Maneuver	40	345	219	-	-	449	-
Stage 1	173	-	-	-	-	-	-
Stage 2	468	-	-	-	-	-	-
Platoon blocked, %				-	-		-
Mov Cap-1 Maneuver	38	345	219	-	-	449	-
Mov Cap-2 Maneuver	38	-	-	-	-	-	-
Stage 1	170	-	-	-	-	-	-
Stage 2	450	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	42.3	0.1	0.2
HCM LOS	E		

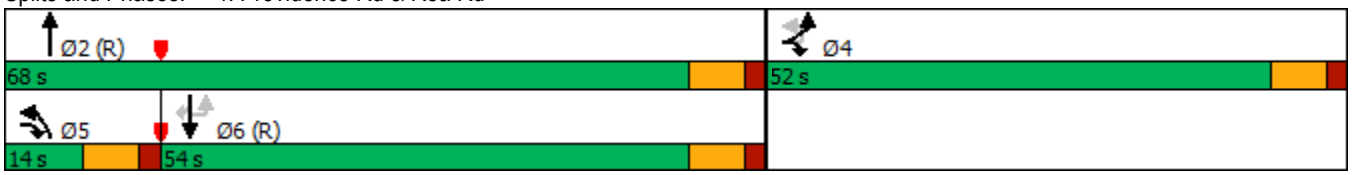
Minor Lane/Major Mvmt	NBU	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	219	-	-	114	449	-
HCM Lane V/C Ratio	0.02	-	-	0.156	0.037	-
HCM Control Delay (s)	21.8	-	-	42.3	13.3	-
HCM Lane LOS	C	-	-	E	B	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.1	-

Lane Group	EBU	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	4	561	406	194	763	4	611	542
Future Volume (vph)	4	561	406	194	763	4	611	542
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0	400		275		0
Storage Lanes		1	1	3		1		1
Taper Length (ft)		100		100		100		
Lane Util. Factor	1.00	1.00	1.00	0.97	0.95	1.00	1.00	1.00
Frt			0.850					0.850
Flt Protected		0.950		0.950		0.950		
Satd. Flow (prot)	0	1753	1583	3433	3438	1770	1863	1583
Flt Permitted		0.950		0.950		0.333		
Satd. Flow (perm)	0	1753	1583	3433	3438	620	1863	1583
Right Turn on Red			No					Yes
Satd. Flow (RTOR)								494
Link Speed (mph)		35			35		35	
Link Distance (ft)		1060			1885		1542	
Travel Time (s)		20.6			36.7		30.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	3%	2%	2%	5%	2%	2%	2%
Adj. Flow (vph)	4	623	451	216	848	4	679	602
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	627	451	216	848	4	679	602
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Right	Left	Left	R NA	Left	Right
Median Width(ft)		30			30		30	
Link Offset(ft)		0			0		0	
Crosswalk Width(ft)		16			16		16	
Two way Left Turn Lane								
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15	9	15		9		9
Number of Detectors	1	1	1	1	2	1	2	1
Detector Template	Left	Left	Right	Left	Thru	Left	Thru	Right
Leading Detector (ft)	20	20	20	20	100	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	20	20	6	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel								
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)					94		94	
Detector 2 Size(ft)					6		6	
Detector 2 Type					Cl+Ex		Cl+Ex	
Detector 2 Channel								
Detector 2 Extend (s)					0.0		0.0	
Turn Type	Perm	Prot	pt+ov	Prot	NA	Perm	NA	Perm
Protected Phases		4	4 5	5	2		6	

Lane Group	EBU	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Permitted Phases	4					6		6
Detector Phase	4	4	4 5	5	2	6	6	6
Switch Phase								
Minimum Initial (s)	7.0	7.0		7.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.0	14.0		14.0	17.0	17.0	17.0	17.0
Total Split (s)	52.0	52.0		14.0	68.0	54.0	54.0	54.0
Total Split (%)	43.3%	43.3%		11.7%	56.7%	45.0%	45.0%	45.0%
Maximum Green (s)	45.0	45.0		7.0	61.0	47.0	47.0	47.0
Yellow Time (s)	5.0	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
Lost Time Adjust (s)		-2.0		-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)		5.0		5.0	5.0	5.0	5.0	5.0
Lead/Lag				Lead		Lag	Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		46.0	60.6	9.6	64.0	49.4	49.4	49.4
Actuated g/C Ratio		0.38	0.50	0.08	0.53	0.41	0.41	0.41
v/c Ratio		0.93	0.56	0.79	0.46	0.02	0.89	0.64
Control Delay		57.9	23.9	74.9	18.6	42.5	66.2	28.8
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		57.9	23.9	74.9	18.6	42.5	66.2	28.8
LOS		E	C	E	B	D	E	C
Approach Delay		43.7			30.0		48.6	
Approach LOS		D			C		D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTU, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.93			
Intersection Signal Delay: 41.3		Intersection LOS: D	
Intersection Capacity Utilization 81.8%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 4: Providence Rd & Rea Rd



Lane Group	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Group Flow (vph)	627	451	216	848	4	679	602
v/c Ratio	0.93	0.56	0.79	0.46	0.02	0.89	0.64
Control Delay	57.9	23.9	74.9	18.6	42.5	66.2	28.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.9	23.9	74.9	18.6	42.5	66.2	28.8
Queue Length 50th (ft)	454	232	86	210	3	565	339
Queue Length 95th (ft)	#685	335	#153	262	m6	#738	389
Internal Link Dist (ft)	980			1805		1462	
Turn Bay Length (ft)			400		275		
Base Capacity (vph)	686	799	274	1833	255	766	942
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	0.91	0.56	0.79	0.46	0.02	0.89	0.64

Intersection Summary

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.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	4	26	847	14	39	1004
Future Volume (vph)	4	26	847	14	39	1004
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	0		0	1	
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.881		0.998			
Flt Protected	0.994				0.950	
Satd. Flow (prot)	1604	0	1838	0	1770	1863
Flt Permitted	0.994				0.950	
Satd. Flow (perm)	1604	0	1838	0	1770	1863
Link Speed (mph)	35		35			35
Link Distance (ft)	2804		2471			1885
Travel Time (s)	54.6		48.1			36.7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	4%	3%	14%	2%	2%
Adj. Flow (vph)	4	29	941	16	43	1116
Shared Lane Traffic (%)						
Lane Group Flow (vph)	33	0	957	0	43	1116
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 62.8%		ICU Level of Service B	
Analysis Period (min) 15			

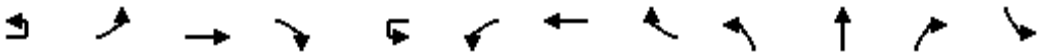
Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	26	847	14	39	1004
Future Vol, veh/h	4	26	847	14	39	1004
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	4	3	14	2	2
Mvmt Flow	4	29	941	16	43	1116

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2151	949	0	0	957	0
Stage 1	949	-	-	-	-	-
Stage 2	1202	-	-	-	-	-
Critical Hdwy	6.42	6.24	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.336	-	-	2.218	-
Pot Cap-1 Maneuver	53	313	-	-	719	-
Stage 1	376	-	-	-	-	-
Stage 2	285	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	50	313	-	-	719	-
Mov Cap-2 Maneuver	50	-	-	-	-	-
Stage 1	376	-	-	-	-	-
Stage 2	268	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	28.8	0	0.4
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	184	719	-
HCM Lane V/C Ratio	-	-	0.181	0.06	-
HCM Control Delay (s)	-	-	28.8	10.3	-
HCM Lane LOS	-	-	D	B	-
HCM 95th %tile Q(veh)	-	-	0.6	0.2	-



Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	4	4	954	17	4	4	726	4	10	4	9	4
Future Volume (vph)	4	4	954	17	4	4	726	4	10	4	9	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		275		250		350		0	0		0	0
Storage Lanes		1		1		1		0	0		0	0
Taper Length (ft)		100				100			100			100
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt				0.850			0.999			0.946		
Flt Protected		0.950				0.950				0.978		
Satd. Flow (prot)	0	1770	3539	1524	0	1626	3536	0	0	1611	0	0
Flt Permitted		0.950				0.950				0.978		
Satd. Flow (perm)	0	1770	3539	1524	0	1626	3536	0	0	1611	0	0
Link Speed (mph)			35				35			35		
Link Distance (ft)			2763				513			1720		
Travel Time (s)			53.8				10.0			33.5		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	6%	2%	20%	2%	2%	10%	2%	11%	2%
Adj. Flow (vph)	4	4	1060	19	4	4	807	4	11	4	10	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	8	1060	19	0	8	811	0	0	25	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)			30				30			0		
Link Offset(ft)			0				0			0		
Crosswalk Width(ft)			16				16			16		
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	9	15		9	9	15		9	15		9	15
Sign Control			Free				Free			Stop		

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 36.4%		ICU Level of Service A	
Analysis Period (min) 15			

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	4	4
Future Volume (vph)	4	4
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Frt	0.955	
Flt Protected	0.984	
Satd. Flow (prot)	1750	0
Flt Permitted	0.984	
Satd. Flow (perm)	1750	0
Link Speed (mph)	35	
Link Distance (ft)	2307	
Travel Time (s)	44.9	
Peak Hour Factor	0.90	0.90
Heavy Vehicles (%)	2%	2%
Adj. Flow (vph)	4	4
Shared Lane Traffic (%)		
Lane Group Flow (vph)	12	0
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	0	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Sign Control	Stop	

Intersection Summary

Intersection	
Int Delay, s/veh	1.1

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Vol, veh/h	4	4	954	17	4	4	726	4	10	4	9	4	4	4
Future Vol, veh/h	4	4	954	17	4	4	726	4	10	4	9	4	4	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	275	-	250	-	350	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	6	2	20	2	2	10	2	11	2	2	2
Mvmt Flow	4	4	1060	19	4	4	807	4	11	4	10	4	4	4

Major/Minor	Major1				Major2				Minor1			Minor2		
Conflicting Flow All	811	811	0	0	1060	1079	0	0	1498	1903	530	1373	1920	406
Stage 1	-	-	-	-	-	-	-	-	1076	1076	-	825	825	-
Stage 2	-	-	-	-	-	-	-	-	422	827	-	548	1095	-
Critical Hdwy	6.44	4.14	-	-	6.44	4.5	-	-	7.7	6.54	7.12	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	6.7	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	6.7	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.52	2.22	-	-	2.52	2.4	-	-	3.6	4.02	3.41	3.52	4.02	3.32
Pot Cap-1 Maneuver	439	811	-	-	304	546	-	-	78	68	471	105	66	594
Stage 1	-	-	-	-	-	-	-	-	220	294	-	333	385	-
Stage 2	-	-	-	-	-	-	-	-	559	384	-	488	288	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	567	567	-	-	386	386	-	-	71	65	471	95	63	594
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	71	65	-	95	63	-
Stage 1	-	-	-	-	-	-	-	-	216	289	-	328	376	-
Stage 2	-	-	-	-	-	-	-	-	535	375	-	463	283	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.2	50.5	43.4
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	104	567	-	-	386	-	-	107
HCM Lane V/C Ratio	0.246	0.016	-	-	0.023	-	-	0.125
HCM Control Delay (s)	50.5	11.4	-	-	14.6	-	-	43.4
HCM Lane LOS	F	B	-	-	B	-	-	E
HCM 95th %tile Q(veh)	0.9	0	-	-	0.1	-	-	0.4

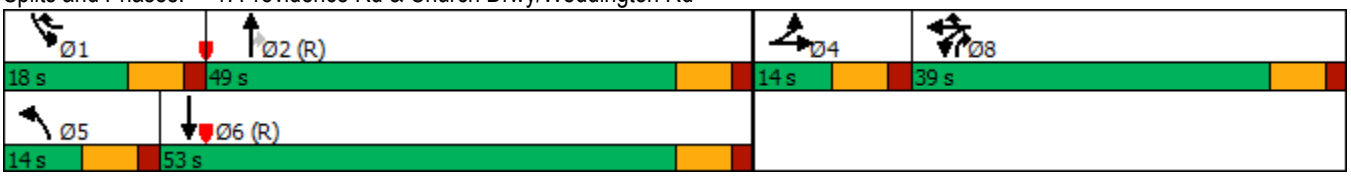
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	30	4	463	14	533	15	1030	248	263	637	4
Future Volume (vph)	40	30	4	463	14	533	15	1030	248	263	637	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	525		300	500		375	375		0
Storage Lanes	0		0	1		1	1		1	2		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.993				0.850			0.850		0.999	
Flt Protected		0.974		0.950	0.955		0.950			0.950		
Satd. Flow (prot)	0	1802	0	1665	1675	1583	1770	3539	1583	3303	3371	0
Flt Permitted		0.974		0.950	0.955		0.950			0.950		
Satd. Flow (perm)	0	1802	0	1665	1675	1583	1770	3539	1583	3303	3371	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2519			3105			1122			2544	
Travel Time (s)		49.1			60.5			21.9			49.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	6%	7%	2%
Adj. Flow (vph)	44	33	4	514	16	592	17	1144	276	292	708	4
Shared Lane Traffic (%)				49%								
Lane Group Flow (vph)	0	81	0	262	268	592	17	1144	276	292	712	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			18			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA	pt+ov	Prot	NA	pm+ov	Prot	NA	
Protected Phases	4	4		8	8	8 1	5	2	8	1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases									2			
Detector Phase	4	4		8	8	8 1	5	2	8	1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	7.0	7.0	10.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		14.0	17.0	14.0	14.0	17.0	
Total Split (s)	14.0	14.0		39.0	39.0		14.0	49.0	39.0	18.0	53.0	
Total Split (%)	11.7%	11.7%		32.5%	32.5%		11.7%	40.8%	32.5%	15.0%	44.2%	
Maximum Green (s)	7.0	7.0		32.0	32.0		7.0	42.0	32.0	11.0	46.0	
Yellow Time (s)	5.0	5.0		5.0	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	
Lost Time Adjust (s)		-2.0		-2.0	-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)		5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max	None	None	C-Max	
Act Effct Green (s)		9.0		34.4	34.4	52.6	9.0	46.2	81.6	13.2	58.8	
Actuated g/C Ratio		0.08		0.29	0.29	0.44	0.08	0.38	0.68	0.11	0.49	
v/c Ratio		0.60		0.55	0.56	0.85	0.13	0.84	0.26	0.81	0.43	
Control Delay		72.6		41.6	41.8	44.2	58.3	46.0	3.4	70.1	22.7	
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		72.6		41.6	41.8	44.2	58.3	46.0	3.4	70.1	22.7	
LOS		E		D	D	D	E	D	A	E	C	
Approach Delay		72.6			43.0			37.9			36.5	
Approach LOS		E			D			D			D	
Queue Length 50th (ft)		62		182	186	408	14	455	36	115	171	
Queue Length 95th (ft)		#126		275	282	#624	m30	#541	54	#184	277	
Internal Link Dist (ft)		2439			3025			1042			2464	
Turn Bay Length (ft)				525		300	500		375	375		
Base Capacity (vph)		135		477	480	693	132	1362	1076	361	1650	
Starvation Cap Reductn		0		0	0	0	0	0	0	0	0	
Spillback Cap Reductn		0		0	0	0	0	0	0	0	0	
Storage Cap Reductn		0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio		0.60		0.55	0.56	0.85	0.13	0.84	0.26	0.81	0.43	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 39.9 Intersection LOS: D
Intersection Capacity Utilization 79.8% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Providence Rd & Church Drwy/Weddington Rd



Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	81	262	268	592	17	1144	276	292	712
v/c Ratio	0.60	0.55	0.56	0.85	0.13	0.84	0.26	0.81	0.43
Control Delay	72.6	41.6	41.8	44.2	58.3	46.0	3.4	70.1	22.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.6	41.6	41.8	44.2	58.3	46.0	3.4	70.1	22.7
Queue Length 50th (ft)	62	182	186	408	14	455	36	115	171
Queue Length 95th (ft)	#126	275	282	#624	m30	#541	54	#184	277
Internal Link Dist (ft)	2439		3025			1042			2464
Turn Bay Length (ft)		525		300	500		375	375	
Base Capacity (vph)	135	477	480	693	132	1362	1076	361	1650
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.55	0.56	0.85	0.13	0.84	0.26	0.81	0.43

Intersection Summary

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.

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	47	39	108	1256	1023	120
Future Volume (vph)	47	39	108	1256	1023	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	300			0
Storage Lanes	1	1	1			0
Taper Length (ft)	100		100			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.850			0.984	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1687	1568	1770	3539	3393	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1687	1568	1770	3539	3393	0
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	35			35	35	
Link Distance (ft)	2436			1331	1122	
Travel Time (s)	47.5			25.9	21.9	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	7%	3%	2%	2%	5%	2%
Adj. Flow (vph)	53	44	123	1427	1163	136
Shared Lane Traffic (%)						
Lane Group Flow (vph)	53	44	123	1427	1299	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	
Detector Template	Left	Right	Left	Thru	Thru	
Leading Detector (ft)	20	20	20	100	100	
Trailing Detector (ft)	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	
Detector 1 Size(ft)	20	20	20	6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)				94	94	
Detector 2 Size(ft)				6	6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot	pt+ov	Prot	NA	NA	
Protected Phases	4	4 5	5	2	6	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Permitted Phases						
Detector Phase	4	4 5	5	2	6	
Switch Phase						
Minimum Initial (s)	7.0		7.0	10.0	10.0	
Minimum Split (s)	14.0		14.0	17.0	17.0	
Total Split (s)	16.0		24.0	104.0	80.0	
Total Split (%)	13.3%		20.0%	86.7%	66.7%	
Maximum Green (s)	9.0		17.0	97.0	73.0	
Yellow Time (s)	5.0		5.0	5.0	5.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	-2.0		-2.0	-2.0	-2.0	
Total Lost Time (s)	5.0		5.0	5.0	5.0	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		None	C-Max	C-Max	
Act Effct Green (s)	10.3	27.8	15.2	103.5	82.2	
Actuated g/C Ratio	0.09	0.23	0.13	0.86	0.68	
v/c Ratio	0.37	0.12	0.55	0.47	0.56	
Control Delay	59.0	33.5	61.8	2.1	14.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	59.0	33.5	61.8	2.1	14.9	
LOS	E	C	E	A	B	
Approach Delay	47.4			6.8	14.9	
Approach LOS	D			A	B	
Queue Length 50th (ft)	39	26	96	83	456	
Queue Length 95th (ft)	80	54	m144	94	266	
Internal Link Dist (ft)	2356			1251	1042	
Turn Bay Length (ft)		50	300			
Base Capacity (vph)	154	402	280	3051	2324	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.34	0.11	0.44	0.47	0.56	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay: 11.7 Intersection LOS: B
Intersection Capacity Utilization 56.4% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Providence Rd & Lenny Stadler Way

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	53	44	123	1427	1299
v/c Ratio	0.37	0.12	0.55	0.47	0.56
Control Delay	59.0	33.5	61.8	2.1	14.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	59.0	33.5	61.8	2.1	14.9
Queue Length 50th (ft)	39	26	96	83	456
Queue Length 95th (ft)	80	54	m144	94	266
Internal Link Dist (ft)	2356			1251	1042
Turn Bay Length (ft)		50	300		
Base Capacity (vph)	154	402	280	3051	2324
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.34	0.11	0.44	0.47	0.56

Intersection Summary

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

Lane Group	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	4	8	4	1331	4	13	1045
Future Volume (vph)	4	8	4	1331	4	13	1045
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	300		0	300	
Storage Lanes	1	0	1		0	1	
Taper Length (ft)	100		100			100	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.95
Frt	0.907						
Flt Protected	0.985		0.950			0.950	
Satd. Flow (prot)	1558	0	1770	3539	0	1444	3438
Flt Permitted	0.985		0.950			0.950	
Satd. Flow (perm)	1558	0	1770	3539	0	1444	3438
Link Speed (mph)	35			35			35
Link Distance (ft)	3855			1542			1331
Travel Time (s)	75.1			30.0			25.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	12%	2%	2%	2%	25%	5%
Adj. Flow (vph)	4	9	4	1479	4	14	1161
Shared Lane Traffic (%)							
Lane Group Flow (vph)	13	0	4	1483	0	14	1161
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	R NA	Left	Right	Left	Left
Median Width(ft)	12			30			30
Link Offset(ft)	0			0			0
Crosswalk Width(ft)	16			16			16
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9		9	15	
Sign Control	Stop			Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 46.9% ICU Level of Service A
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	4	8	4	1331	4	13	1045
Future Vol, veh/h	4	8	4	1331	4	13	1045
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	300	-	-	300	-
Veh in Median Storage, #	0	-	-	0	-	-	0
Grade, %	0	-	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90	90
Heavy Vehicles, %	2	12	2	2	2	25	5
Mvmt Flow	4	9	4	1479	4	14	1161

Major/Minor	Minor1		Major1			Major2	
Conflicting Flow All	2098	742	1161	0	0	1483	0
Stage 1	1489	-	-	-	-	-	-
Stage 2	609	-	-	-	-	-	-
Critical Hdwy	6.84	7.14	6.44	-	-	4.6	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.42	2.52	-	-	2.45	-
Pot Cap-1 Maneuver	45	337	262	-	-	351	-
Stage 1	173	-	-	-	-	-	-
Stage 2	505	-	-	-	-	-	-
Platoon blocked, %				-	-		-
Mov Cap-1 Maneuver	43	337	262	-	-	351	-
Mov Cap-2 Maneuver	43	-	-	-	-	-	-
Stage 1	170	-	-	-	-	-	-
Stage 2	485	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	45.1	0.1	0.2
HCM LOS	E		

Minor Lane/Major Mvmt	NBU	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	262	-	-	103	351	-
HCM Lane V/C Ratio	0.017	-	-	0.129	0.041	-
HCM Control Delay (s)	19	-	-	45.1	15.7	-
HCM Lane LOS	C	-	-	E	C	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.1	-

Lane Group	EBU	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	4	386	197	449	1042	4	515	334
Future Volume (vph)	4	386	197	449	1042	4	515	334
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0	400		275		0
Storage Lanes		1	1	3		1		1
Taper Length (ft)		100		100		100		
Lane Util. Factor	1.00	1.00	1.00	0.97	0.95	1.00	1.00	1.00
Frt			0.850					0.850
Flt Protected		0.950		0.950		0.950		
Satd. Flow (prot)	0	1770	1583	3433	3539	1770	1827	1568
Flt Permitted		0.950		0.950		0.245		
Satd. Flow (perm)	0	1770	1583	3433	3539	456	1827	1568
Right Turn on Red			No					Yes
Satd. Flow (RTOR)								357
Link Speed (mph)		35			35		35	
Link Distance (ft)		1060			1885		1542	
Travel Time (s)		20.6			36.7		30.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	4%	3%
Adj. Flow (vph)	4	429	219	499	1158	4	572	371
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	433	219	499	1158	4	572	371
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Right	Left	Left	R NA	Left	Right
Median Width(ft)		30			30		30	
Link Offset(ft)		0			0		0	
Crosswalk Width(ft)		16			16		16	
Two way Left Turn Lane								
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15	9	15		9		9
Number of Detectors	1	1	1	1	2	1	2	1
Detector Template	Left	Left	Right	Left	Thru	Left	Thru	Right
Leading Detector (ft)	20	20	20	20	100	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	20	20	6	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel								
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)					94		94	
Detector 2 Size(ft)					6		6	
Detector 2 Type					Cl+Ex		Cl+Ex	
Detector 2 Channel								
Detector 2 Extend (s)					0.0		0.0	
Turn Type	Perm	Prot	pt+ov	Prot	NA	Perm	NA	Perm
Protected Phases		4	4 5	5	2		6	

Lane Group	EBU	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Permitted Phases	4					6		6
Detector Phase	4	4	4 5	5	2	6	6	6
Switch Phase								
Minimum Initial (s)	7.0	7.0		7.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.0	14.0		14.0	17.0	17.0	17.0	17.0
Total Split (s)	41.0	41.0		26.0	79.0	53.0	53.0	53.0
Total Split (%)	34.2%	34.2%		21.7%	65.8%	44.2%	44.2%	44.2%
Maximum Green (s)	34.0	34.0		19.0	72.0	46.0	46.0	46.0
Yellow Time (s)	5.0	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
Lost Time Adjust (s)		-2.0		-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)		5.0		5.0	5.0	5.0	5.0	5.0
Lead/Lag				Lead		Lag	Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		33.8	59.8	21.1	76.2	50.2	50.2	50.2
Actuated g/C Ratio		0.28	0.50	0.18	0.64	0.42	0.42	0.42
v/c Ratio		0.87	0.28	0.83	0.52	0.02	0.75	0.43
Control Delay		59.6	18.1	60.6	13.2	40.8	59.6	24.5
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		59.6	18.1	60.6	13.2	40.8	59.6	24.5
LOS		E	B	E	B	D	E	C
Approach Delay		45.6			27.5		45.8	
Approach LOS		D			C		D	
Queue Length 50th (ft)		311	92	194	251	3	474	168
Queue Length 95th (ft)		#471	143	#273	307	m6	590	268
Internal Link Dist (ft)		980			1805		1462	
Turn Bay Length (ft)				400		275		
Base Capacity (vph)		531	786	610	2248	190	763	863
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	0.28	0.82	0.52	0.02	0.75	0.43

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTU, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 36.5 Intersection LOS: D
Intersection Capacity Utilization 74.0% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Providence Rd & Rea Rd

Lane Group	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Group Flow (vph)	433	219	499	1158	4	572	371
v/c Ratio	0.87	0.28	0.83	0.52	0.02	0.75	0.43
Control Delay	59.6	18.1	60.6	13.2	40.8	59.6	24.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.6	18.1	60.6	13.2	40.8	59.6	24.5
Queue Length 50th (ft)	311	92	194	251	3	474	168
Queue Length 95th (ft)	#471	143	#273	307	m6	590	268
Internal Link Dist (ft)	980			1805		1462	
Turn Bay Length (ft)			400		275		
Base Capacity (vph)	531	786	610	2248	190	763	863
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	0.28	0.82	0.52	0.02	0.75	0.43

Intersection Summary

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.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	5	73	1391	7	16	684
Future Volume (vph)	5	73	1391	7	16	684
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	0		0	1	
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.874		0.999			
Flt Protected	0.997				0.950	
Satd. Flow (prot)	1623	0	1860	0	1770	1845
Flt Permitted	0.997				0.950	
Satd. Flow (perm)	1623	0	1860	0	1770	1845
Link Speed (mph)	35		35			35
Link Distance (ft)	2804		2471			1885
Travel Time (s)	54.6		48.1			36.7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	14%	2%	3%
Adj. Flow (vph)	6	81	1546	8	18	760
Shared Lane Traffic (%)						
Lane Group Flow (vph)	87	0	1554	0	18	760
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 85.1% ICU Level of Service E
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	3.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	73	1391	7	16	684
Future Vol, veh/h	5	73	1391	7	16	684
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	14	2	3
Mvmt Flow	6	81	1546	8	18	760

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2346	1550	0	0	1554	0
Stage 1	1550	-	-	-	-	-
Stage 2	796	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	40	140	-	-	426	-
Stage 1	193	-	-	-	-	-
Stage 2	444	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	38	140	-	-	426	-
Mov Cap-2 Maneuver	38	-	-	-	-	-
Stage 1	193	-	-	-	-	-
Stage 2	425	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	91	0	0.3
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	119	426	-
HCM Lane V/C Ratio	-	-	0.728	0.042	-
HCM Control Delay (s)	-	-	91	13.8	-
HCM Lane LOS	-	-	F	B	-
HCM 95th %tile Q(veh)	-	-	4	0.1	-

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	4	4	578	15	4	4	780	4	31	4	4	4
Future Volume (vph)	4	4	578	15	4	4	780	4	31	4	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		275		250		350		0	0		0	0
Storage Lanes		1		1		1		0	0		0	0
Taper Length (ft)		100				100			100			100
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt				0.850			0.999			0.987		
Flt Protected		0.950				0.950				0.961		
Satd. Flow (prot)	0	1770	3539	1583	0	1770	3536	0	0	1767	0	0
Flt Permitted		0.950				0.950				0.961		
Satd. Flow (perm)	0	1770	3539	1583	0	1770	3536	0	0	1767	0	0
Link Speed (mph)			35				35			35		
Link Distance (ft)			2763				513			1720		
Travel Time (s)			53.8				10.0			33.5		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	4	4	642	17	4	4	867	4	34	4	4	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	8	642	17	0	8	871	0	0	42	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)			30				30			0		
Link Offset(ft)			0				0			0		
Crosswalk Width(ft)			16				16			16		
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	9	15		9	9	15		9	15		9	15
Sign Control			Free				Free			Stop		

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 33.0% ICU Level of Service A
Analysis Period (min) 15

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	4	4
Future Volume (vph)	4	4
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Frt	0.955	
Flt Protected	0.984	
Satd. Flow (prot)	1750	0
Flt Permitted	0.984	
Satd. Flow (perm)	1750	0
Link Speed (mph)	35	
Link Distance (ft)	2307	
Travel Time (s)	44.9	
Peak Hour Factor	0.90	0.90
Adj. Flow (vph)	4	4
Shared Lane Traffic (%)		
Lane Group Flow (vph)	12	0
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	0	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Sign Control	Stop	

Intersection Summary

Intersection														
Int Delay, s/veh	1.3													
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Vol, veh/h	4	4	578	15	4	4	780	4	31	4	4	4	4	4
Future Vol, veh/h	4	4	578	15	4	4	780	4	31	4	4	4	4	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	275	-	250	-	350	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	4	642	17	4	4	867	4	34	4	4	4	4	4

Major/Minor	Major1				Major2				Minor1			Minor2		
Conflicting Flow All	871	871	0	0	642	659	0	0	1110	1545	321	1224	1560	436
Stage 1	-	-	-	-	-	-	-	-	658	658	-	885	885	-
Stage 2	-	-	-	-	-	-	-	-	452	887	-	339	675	-
Critical Hdwy	6.44	4.14	-	-	6.44	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.52	2.22	-	-	2.52	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	402	770	-	-	562	925	-	-	164	114	675	135	111	568
Stage 1	-	-	-	-	-	-	-	-	420	459	-	306	361	-
Stage 2	-	-	-	-	-	-	-	-	557	360	-	649	451	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	526	526	-	-	697	697	-	-	154	111	675	127	108	568
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	154	111	-	127	108	-
Stage 1	-	-	-	-	-	-	-	-	413	451	-	301	356	-
Stage 2	-	-	-	-	-	-	-	-	539	355	-	627	443	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.1	35.7	29.7
HCM LOS			E	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	160	526	-	-	697	-	-	159
HCM Lane V/C Ratio	0.271	0.017	-	-	0.013	-	-	0.084
HCM Control Delay (s)	35.7	12	-	-	10.2	-	-	29.7
HCM Lane LOS	E	B	-	-	B	-	-	D
HCM 95th %tile Q(veh)	1	0.1	-	-	0	-	-	0.3

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:57	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	4308	4349	4254	4357	4375	4283	4462
Vehs Exited	4304	4306	4277	4349	4398	4273	4427
Starting Vehs	316	287	322	319	322	294	286
Ending Vehs	320	330	299	327	299	304	321
Travel Distance (mi)	7082	7142	6991	7173	7190	7003	7342
Travel Time (hr)	297.6	299.7	292.8	302.2	312.8	291.8	314.8
Total Delay (hr)	87.7	87.2	85.3	89.0	98.9	83.7	96.5
Total Stops	5234	5277	5133	5193	5650	5029	5595
Fuel Used (gal)	233.6	234.6	230.3	236.4	237.7	230.3	244.0

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	4369	4349	4325	4341
Vehs Exited	4364	4285	4291	4327
Starting Vehs	307	263	291	297
Ending Vehs	312	327	325	315
Travel Distance (mi)	7154	7075	7090	7124
Travel Time (hr)	307.6	297.4	299.8	301.7
Total Delay (hr)	94.7	87.5	89.1	90.0
Total Stops	5397	5024	5333	5286
Fuel Used (gal)	236.9	233.4	233.6	235.1

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	4308	4349	4254	4357	4375	4283	4462
Vehs Exited	4304	4306	4277	4349	4398	4273	4427
Starting Vehs	316	287	322	319	322	294	286
Ending Vehs	320	330	299	327	299	304	321
Travel Distance (mi)	7082	7142	6991	7173	7190	7003	7342
Travel Time (hr)	297.6	299.7	292.8	302.2	312.8	291.8	314.8
Total Delay (hr)	87.7	87.2	85.3	89.0	98.9	83.7	96.5
Total Stops	5234	5277	5133	5193	5650	5029	5595
Fuel Used (gal)	233.6	234.6	230.3	236.4	237.7	230.3	244.0

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	4369	4349	4325	4341
Vehs Exited	4364	4285	4291	4327
Starting Vehs	307	263	291	297
Ending Vehs	312	327	325	315
Travel Distance (mi)	7154	7075	7090	7124
Travel Time (hr)	307.6	297.4	299.8	301.7
Total Delay (hr)	94.7	87.5	89.1	90.0
Total Stops	5397	5024	5333	5286
Fuel Used (gal)	236.9	233.4	233.6	235.1

Intersection: 1: Providence Rd & Church Drwy/Weddington Rd

Movement	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	L	LT	R	L	T	T	R	L	L	T	TR
Maximum Queue (ft)	160	475	770	400	59	424	429	238	192	202	248	268
Average Queue (ft)	67	195	299	312	15	281	286	63	106	125	134	147
95th Queue (ft)	132	418	669	434	44	394	404	165	175	188	225	241
Link Distance (ft)	2463		3044			1056	1056				2497	2497
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)		525		300	500			375	375	375		
Storage Blk Time (%)		0	1	17		0	2					
Queuing Penalty (veh)		0	7	81		0	4					

Intersection: 2: Providence Rd & Lenny Stadler Way

Movement	EB	EB	NB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	T	TR
Maximum Queue (ft)	118	94	170	121	140	273	286
Average Queue (ft)	46	35	90	42	62	143	158
95th Queue (ft)	96	80	147	101	124	247	266
Link Distance (ft)	2385			1273	1273	1056	1056
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		50	300				
Storage Blk Time (%)	17	10					
Queuing Penalty (veh)	7	5					

Intersection: 3: Providence Rd & Old Mill Rd

Movement	WB	NB	NB	NB	SB	SB	SB
Directions Served	LR	U	T	TR	L	T	T
Maximum Queue (ft)	56	31	4	7	71	4	5
Average Queue (ft)	11	3	0	0	13	0	0
95th Queue (ft)	40	16	3	4	49	3	5
Link Distance (ft)	3798		1454	1454		1273	1273
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		300			300		
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 4: Providence Rd & Rea Rd

Movement	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	UL	R	L	L	T	T	U	T	R
Maximum Queue (ft)	450	190	240	247	244	245	61	592	433
Average Queue (ft)	290	87	152	166	146	150	4	365	153
95th Queue (ft)	420	165	218	229	224	225	41	537	309
Link Distance (ft)	981	981				1812		1454	1454
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)			400	400	400		275		
Storage Blk Time (%)								27	
Queuing Penalty (veh)								1	

Intersection: 5: Providence Rd & Lochaven Rd

Movement	WB	NB	SB
Directions Served	LR	TR	L
Maximum Queue (ft)	187	4	46
Average Queue (ft)	71	0	12
95th Queue (ft)	168	3	38
Link Distance (ft)	2768	2439	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			200
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Highclere Dr/Private Drwy & Rea Rd

Movement	EB	WB	WB	NB	SB
Directions Served	UL	UL	TR	LTR	LTR
Maximum Queue (ft)	24	30	2	65	41
Average Queue (ft)	3	4	0	20	11
95th Queue (ft)	16	21	2	47	36
Link Distance (ft)			454	1652	2251
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	275	350			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 105

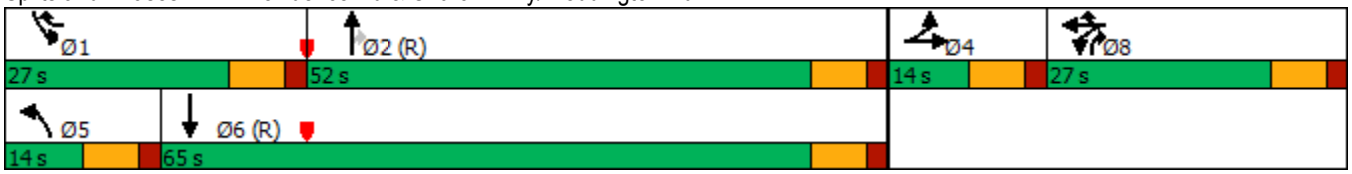
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	10	4	423	15	450	6	1094	461	515	883	6
Future Volume (vph)	8	10	4	423	15	450	6	1094	461	515	883	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	525		300	500		375	375		0
Storage Lanes	0		0	1		1	1		1	2		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.977				0.850			0.850		0.999	
Flt Protected		0.982		0.950	0.956		0.950			0.950		
Satd. Flow (prot)	0	1787	0	1681	1692	1538	1770	3505	1583	3433	3536	0
Flt Permitted		0.982		0.950	0.956		0.950			0.950		
Satd. Flow (perm)	0	1787	0	1681	1692	1538	1770	3505	1583	3433	3536	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2519			3105			1122			2544	
Travel Time (s)		49.1			60.5			21.9			49.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	5%	2%	3%	2%	2%	2%	2%
Adj. Flow (vph)	9	11	4	470	17	500	7	1216	512	572	981	7
Shared Lane Traffic (%)				48%								
Lane Group Flow (vph)	0	24	0	244	243	500	7	1216	512	572	988	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			18			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA	pt+ov	Prot	NA	pm+ov	Prot	NA	
Protected Phases	4	4		8	8	8 1	5	2	8	1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases									2			
Detector Phase	4	4		8	8	8 1	5	2	8	1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	7.0	7.0	10.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		14.0	17.0	14.0	14.0	17.0	
Total Split (s)	14.0	14.0		27.0	27.0		14.0	52.0	27.0	27.0	65.0	
Total Split (%)	11.7%	11.7%		22.5%	22.5%		11.7%	43.3%	22.5%	22.5%	54.2%	
Maximum Green (s)	7.0	7.0		20.0	20.0		7.0	45.0	20.0	20.0	58.0	
Yellow Time (s)	5.0	5.0		5.0	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	
Lost Time Adjust (s)		-2.0		-2.0	-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)		5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max	None	None	C-Max	
Act Effct Green (s)		9.0		26.3	26.3	53.6	9.0	48.0	76.3	22.3	72.5	
Actuated g/C Ratio		0.08		0.22	0.22	0.45	0.08	0.40	0.64	0.19	0.60	
v/c Ratio		0.18		0.66	0.66	0.73	0.05	0.87	0.51	0.90	0.46	
Control Delay		55.5		54.0	53.6	36.1	46.8	41.7	6.5	65.9	14.9	
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		55.5		54.0	53.6	36.1	46.8	41.7	6.5	65.9	14.9	
LOS		E		D	D	D	D	D	A	E	B	
Approach Delay		55.5			44.8			31.3			33.6	
Approach LOS		E			D			C			C	
Queue Length 50th (ft)		18		191	190	335	5	448	49	225	200	
Queue Length 95th (ft)		46		#327	#322	#487	m12	#556	88	#326	333	
Internal Link Dist (ft)		2439			3025			1042			2464	
Turn Bay Length (ft)				525		300	500		375	375		
Base Capacity (vph)		134		368	370	687	132	1401	1006	638	2136	
Starvation Cap Reductn		0		0	0	0	0	0	0	0	0	
Spillback Cap Reductn		0		0	0	0	0	0	0	0	0	
Storage Cap Reductn		0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio		0.18		0.66	0.66	0.73	0.05	0.87	0.51	0.90	0.46	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 35.4 Intersection LOS: D
Intersection Capacity Utilization 76.4% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Providence Rd & Church Drwy/Weddington Rd



Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	24	244	243	500	7	1216	512	572	988
v/c Ratio	0.18	0.66	0.66	0.73	0.05	0.87	0.51	0.90	0.46
Control Delay	55.5	54.0	53.6	36.1	46.8	41.7	6.5	65.9	14.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.5	54.0	53.6	36.1	46.8	41.7	6.5	65.9	14.9
Queue Length 50th (ft)	18	191	190	335	5	448	49	225	200
Queue Length 95th (ft)	46	#327	#322	#487	m12	#556	88	#326	333
Internal Link Dist (ft)	2439		3025			1042			2464
Turn Bay Length (ft)		525		300	500		375	375	
Base Capacity (vph)	134	368	370	687	132	1401	1006	638	2136
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.66	0.66	0.73	0.05	0.87	0.51	0.90	0.46

Intersection Summary

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.

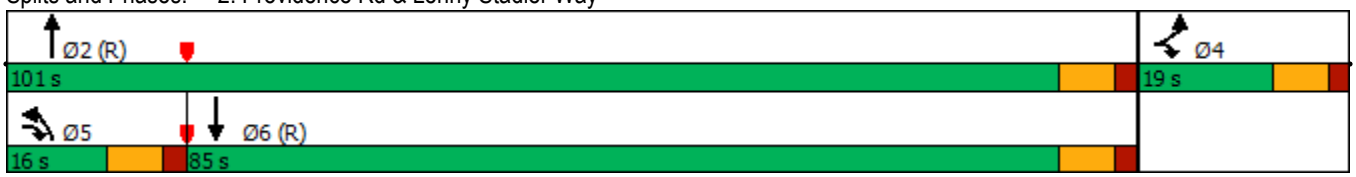
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	60	15	28	1411	1235	29
Future Volume (vph)	60	15	28	1411	1235	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	300			0
Storage Lanes	1	1	1			0
Taper Length (ft)	100		100			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.850			0.997	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	3539	3529	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1770	1583	1770	3539	3529	0
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	35			35	35	
Link Distance (ft)	2436			1331	1122	
Travel Time (s)	47.5			25.9	21.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	17	31	1568	1372	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	67	17	31	1568	1404	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	
Detector Template	Left	Right	Left	Thru	Thru	
Leading Detector (ft)	20	20	20	100	100	
Trailing Detector (ft)	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	
Detector 1 Size(ft)	20	20	20	6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)				94	94	
Detector 2 Size(ft)				6	6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot	pt+ov	Prot	NA	NA	
Protected Phases	4	4 5	5	2	6	
Permitted Phases						

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Detector Phase	4	4 5	5	2	6	
Switch Phase						
Minimum Initial (s)	7.0		7.0	10.0	10.0	
Minimum Split (s)	14.0		14.0	17.0	17.0	
Total Split (s)	19.0		16.0	101.0	85.0	
Total Split (%)	15.8%		13.3%	84.2%	70.8%	
Maximum Green (s)	12.0		9.0	94.0	78.0	
Yellow Time (s)	5.0		5.0	5.0	5.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	-2.0		-2.0	-2.0	-2.0	
Total Lost Time (s)	5.0		5.0	5.0	5.0	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		None	C-Max	C-Max	
Act Effct Green (s)	11.7	23.8	9.8	102.1	92.8	
Actuated g/C Ratio	0.10	0.20	0.08	0.85	0.77	
v/c Ratio	0.39	0.05	0.22	0.52	0.51	
Control Delay	56.9	35.7	61.3	1.9	11.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	56.9	35.7	61.3	1.9	11.8	
LOS	E	D	E	A	B	
Approach Delay	52.6			3.0	11.8	
Approach LOS	D			A	B	
Queue Length 50th (ft)	49	10	25	72	470	
Queue Length 95th (ft)	95	29	m39	m90	447	
Internal Link Dist (ft)	2356			1251	1042	
Turn Bay Length (ft)		50	300			
Base Capacity (vph)	206	313	162	3010	2730	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.33	0.05	0.19	0.52	0.51	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.52
Intersection Signal Delay: 8.4 Intersection LOS: A
Intersection Capacity Utilization 53.2% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Providence Rd & Lenny Stadler Way



Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	67	17	31	1568	1404
v/c Ratio	0.39	0.05	0.22	0.52	0.51
Control Delay	56.9	35.7	61.3	1.9	11.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	56.9	35.7	61.3	1.9	11.8
Queue Length 50th (ft)	49	10	25	72	470
Queue Length 95th (ft)	95	29	m39	m90	447
Internal Link Dist (ft)	2356			1251	1042
Turn Bay Length (ft)		50	300		
Base Capacity (vph)	206	313	162	3010	2730
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.33	0.05	0.19	0.52	0.51

Intersection Summary

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

Lane Group	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	4	13	4	1415	4	16	1223
Future Volume (vph)	4	13	4	1415	4	16	1223
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	300		0	300	
Storage Lanes	1	0	1		0	1	
Taper Length (ft)	100		100			100	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.95
Frt	0.895						
Flt Protected	0.989		0.950			0.950	
Satd. Flow (prot)	1577	0	1770	3505	0	1770	3539
Flt Permitted	0.989		0.950			0.950	
Satd. Flow (perm)	1577	0	1770	3505	0	1770	3539
Link Speed (mph)	35			35			35
Link Distance (ft)	3855			1542			1331
Travel Time (s)	75.1			30.0			25.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	8%	2%	3%	2%	2%	2%
Adj. Flow (vph)	4	14	4	1572	4	18	1359
Shared Lane Traffic (%)							
Lane Group Flow (vph)	18	0	4	1576	0	18	1359
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	R NA	Left	Right	Left	Left
Median Width(ft)	12			30			30
Link Offset(ft)	0			0			0
Crosswalk Width(ft)	16			16			16
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9		9	15	
Sign Control	Stop			Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 49.2% ICU Level of Service A
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	4	13	4	1415	4	16	1223
Future Vol, veh/h	4	13	4	1415	4	16	1223
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	300	-	-	300	-
Veh in Median Storage, #	0	-	-	0	-	-	0
Grade, %	0	-	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90	90
Heavy Vehicles, %	2	8	2	3	2	2	2
Mvmt Flow	4	14	4	1572	4	18	1359

Major/Minor	Minor1		Major1			Major2	
Conflicting Flow All	2298	788	1359	0	0	1576	0
Stage 1	1582	-	-	-	-	-	-
Stage 2	716	-	-	-	-	-	-
Critical Hdwy	6.84	7.06	6.44	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.38	2.52	-	-	2.22	-
Pot Cap-1 Maneuver	33	321	195	-	-	414	-
Stage 1	154	-	-	-	-	-	-
Stage 2	445	-	-	-	-	-	-
Platoon blocked, %				-	-		-
Mov Cap-1 Maneuver	31	321	195	-	-	414	-
Mov Cap-2 Maneuver	31	-	-	-	-	-	-
Stage 1	151	-	-	-	-	-	-
Stage 2	426	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	49.2	0.1	0.2
HCM LOS	E		

Minor Lane/Major Mvmt	NBU	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	195	-	-	100	414	-
HCM Lane V/C Ratio	0.023	-	-	0.189	0.043	-
HCM Control Delay (s)	23.9	-	-	49.2	14.1	-
HCM Lane LOS	C	-	-	E	B	-
HCM 95th %tile Q(veh)	0.1	-	-	0.7	0.1	-

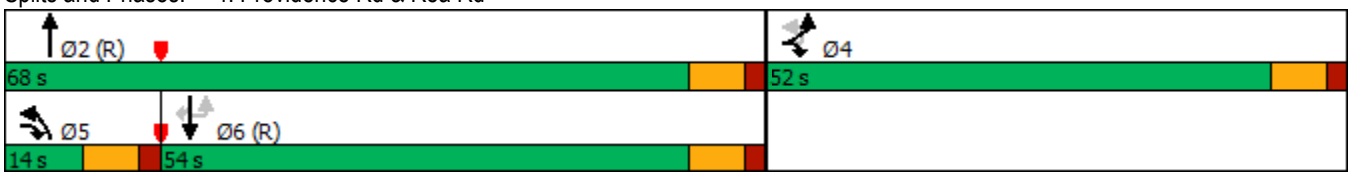
Lane Group	EBU	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	4	595	431	206	810	4	651	575
Future Volume (vph)	4	595	431	206	810	4	651	575
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0	400		275		0
Storage Lanes		1	1	3		1		1
Taper Length (ft)		100		100		100		
Lane Util. Factor	1.00	1.00	1.00	0.97	0.95	1.00	1.00	1.00
Frt			0.850					0.850
Flt Protected		0.950		0.950		0.950		
Satd. Flow (prot)	0	1753	1583	3433	3438	1770	1863	1583
Flt Permitted		0.950		0.950		0.308		
Satd. Flow (perm)	0	1753	1583	3433	3438	574	1863	1583
Right Turn on Red			No					Yes
Satd. Flow (RTOR)								493
Link Speed (mph)		35			35		35	
Link Distance (ft)		1060			1885		1542	
Travel Time (s)		20.6			36.7		30.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	3%	2%	2%	5%	2%	2%	2%
Adj. Flow (vph)	4	661	479	229	900	4	723	639
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	665	479	229	900	4	723	639
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Right	Left	Left	R NA	Left	Right
Median Width(ft)		30			30		30	
Link Offset(ft)		0			0		0	
Crosswalk Width(ft)		16			16		16	
Two way Left Turn Lane								
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15	9	15		9		9
Number of Detectors	1	1	1	1	2	1	2	1
Detector Template	Left	Left	Right	Left	Thru	Left	Thru	Right
Leading Detector (ft)	20	20	20	20	100	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	20	20	6	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel								
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)					94		94	
Detector 2 Size(ft)					6		6	
Detector 2 Type					Cl+Ex		Cl+Ex	
Detector 2 Channel								
Detector 2 Extend (s)					0.0		0.0	
Turn Type	Perm	Prot	pt+ov	Prot	NA	Perm	NA	Perm
Protected Phases		4	4 5	5	2		6	

Lane Group	EBU	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Permitted Phases	4					6		6
Detector Phase	4	4	4 5	5	2	6	6	6
Switch Phase								
Minimum Initial (s)	7.0	7.0		7.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.0	14.0		14.0	17.0	17.0	17.0	17.0
Total Split (s)	52.0	52.0		14.0	68.0	54.0	54.0	54.0
Total Split (%)	43.3%	43.3%		11.7%	56.7%	45.0%	45.0%	45.0%
Maximum Green (s)	45.0	45.0		7.0	61.0	47.0	47.0	47.0
Yellow Time (s)	5.0	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
Lost Time Adjust (s)		-2.0		-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)		5.0		5.0	5.0	5.0	5.0	5.0
Lead/Lag				Lead		Lag	Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		47.0	61.0	9.0	63.0	49.0	49.0	49.0
Actuated g/C Ratio		0.39	0.51	0.08	0.52	0.41	0.41	0.41
v/c Ratio		0.97	0.60	0.89	0.50	0.02	0.95	0.68
Control Delay		64.1	24.7	89.2	19.5	38.8	73.8	30.3
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		64.1	24.7	89.2	19.5	38.8	73.8	30.3
LOS		E	C	F	B	D	E	C
Approach Delay		47.6			33.7		53.3	
Approach LOS		D			C		D	
Queue Length 50th (ft)		499	253	92	227	3	602	376
Queue Length 95th (ft)		#747	363	#166	283	m6	#815	430
Internal Link Dist (ft)		980			1805		1462	
Turn Bay Length (ft)				400		275		
Base Capacity (vph)		686	804	257	1804	234	760	938
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		0.97	0.60	0.89	0.50	0.02	0.95	0.68

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTU, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.97
Intersection Signal Delay: 45.4 Intersection LOS: D
Intersection Capacity Utilization 85.8% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Providence Rd & Rea Rd



Lane Group	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Group Flow (vph)	665	479	229	900	4	723	639
v/c Ratio	0.97	0.60	0.89	0.50	0.02	0.95	0.68
Control Delay	64.1	24.7	89.2	19.5	38.8	73.8	30.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.1	24.7	89.2	19.5	38.8	73.8	30.3
Queue Length 50th (ft)	499	253	92	227	3	602	376
Queue Length 95th (ft)	#747	363	#166	283	m6	#815	430
Internal Link Dist (ft)	980			1805		1462	
Turn Bay Length (ft)			400		275		
Base Capacity (vph)	686	804	257	1804	234	760	938
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	0.97	0.60	0.89	0.50	0.02	0.95	0.68

Intersection Summary

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.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	4	28	899	15	41	1065
Future Volume (vph)	4	28	899	15	41	1065
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	0		0	1	
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.880		0.998			
Flt Protected	0.994				0.950	
Satd. Flow (prot)	1602	0	1838	0	1770	1863
Flt Permitted	0.994				0.950	
Satd. Flow (perm)	1602	0	1838	0	1770	1863
Link Speed (mph)	35		35			35
Link Distance (ft)	2804		2471			1885
Travel Time (s)	54.6		48.1			36.7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	4%	3%	14%	2%	2%
Adj. Flow (vph)	4	31	999	17	46	1183
Shared Lane Traffic (%)						
Lane Group Flow (vph)	35	0	1016	0	46	1183
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 66.1% ICU Level of Service C
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	28	899	15	41	1065
Future Vol, veh/h	4	28	899	15	41	1065
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	4	3	14	2	2
Mvmt Flow	4	31	999	17	46	1183

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2283	1008	0	0	1016	0
Stage 1	1008	-	-	-	-	-
Stage 2	1275	-	-	-	-	-
Critical Hdwy	6.42	6.24	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.336	-	-	2.218	-
Pot Cap-1 Maneuver	44	289	-	-	683	-
Stage 1	353	-	-	-	-	-
Stage 2	263	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	41	289	-	-	683	-
Mov Cap-2 Maneuver	41	-	-	-	-	-
Stage 1	353	-	-	-	-	-
Stage 2	245	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	32.7	0	0.4
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	165	683	-
HCM Lane V/C Ratio	-	-	0.215	0.067	-
HCM Control Delay (s)	-	-	32.7	10.6	-
HCM Lane LOS	-	-	D	B	-
HCM 95th %tile Q(veh)	-	-	0.8	0.2	-

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	4	4	1012	18	4	5	770	4	11	4	10	4
Future Volume (vph)	4	4	1012	18	4	5	770	4	11	4	10	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		275		250		350		0	0		0	0
Storage Lanes		1		1		1		0	0		0	0
Taper Length (ft)		100				100			100			100
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt				0.850			0.999			0.945		
Flt Protected		0.950				0.950				0.978		
Satd. Flow (prot)	0	1770	3539	1524	0	1600	3536	0	0	1608	0	0
Flt Permitted		0.950				0.950				0.978		
Satd. Flow (perm)	0	1770	3539	1524	0	1600	3536	0	0	1608	0	0
Link Speed (mph)			35				35			35		
Link Distance (ft)			2763				513			1720		
Travel Time (s)			53.8				10.0			33.5		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	6%	2%	20%	2%	2%	10%	2%	11%	2%
Adj. Flow (vph)	4	4	1124	20	4	6	856	4	12	4	11	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	8	1124	20	0	10	860	0	0	27	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)			30				30			0		
Link Offset(ft)			0				0			0		
Crosswalk Width(ft)			16				16			16		
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	9	15		9	9	15		9	15		9	15
Sign Control			Free				Free			Stop		

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 38.0% ICU Level of Service A
Analysis Period (min) 15

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	4	4
Future Volume (vph)	4	4
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Frt	0.955	
Flt Protected	0.984	
Satd. Flow (prot)	1750	0
Flt Permitted	0.984	
Satd. Flow (perm)	1750	0
Link Speed (mph)	35	
Link Distance (ft)	2307	
Travel Time (s)	44.9	
Peak Hour Factor	0.90	0.90
Heavy Vehicles (%)	2%	2%
Adj. Flow (vph)	4	4
Shared Lane Traffic (%)		
Lane Group Flow (vph)	12	0
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	0	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Sign Control	Stop	

Intersection Summary

Intersection														
Int Delay, s/veh	1.3													
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Vol, veh/h	4	4	1012	18	4	5	770	4	11	4	10	4	4	4
Future Vol, veh/h	4	4	1012	18	4	5	770	4	11	4	10	4	4	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	275	-	250	-	350	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	6	2	20	2	2	10	2	11	2	2	2
Mvmt Flow	4	4	1124	20	4	6	856	4	12	4	11	4	4	4

Major/Minor	Major1				Major2				Minor1			Minor2		
Conflicting Flow All	860	860	0	0	1124	1144	0	0	1590	2020	562	1458	2038	430
Stage 1	-	-	-	-	-	-	-	-	1140	1140	-	878	878	-
Stage 2	-	-	-	-	-	-	-	-	450	880	-	580	1160	-
Critical Hdwy	6.44	4.14	-	-	6.44	4.5	-	-	7.7	6.54	7.12	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	6.7	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	6.7	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.52	2.22	-	-	2.52	2.4	-	-	3.6	4.02	3.41	3.52	4.02	3.32
Pot Cap-1 Maneuver	408	777	-	-	276	513	-	-	67	58	448	91	56	573
Stage 1	-	-	-	-	-	-	-	-	201	274	-	309	364	-
Stage 2	-	-	-	-	-	-	-	-	537	363	-	467	268	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	532	532	-	-	366	366	-	-	60	55	448	81	54	573
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	60	55	-	81	54	-
Stage 1	-	-	-	-	-	-	-	-	198	269	-	304	354	-
Stage 2	-	-	-	-	-	-	-	-	512	353	-	440	263	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.2	61.9	50.7
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	90	532	-	-	366	-	-	92
HCM Lane V/C Ratio	0.309	0.017	-	-	0.027	-	-	0.145
HCM Control Delay (s)	61.9	11.9	-	-	15.1	-	-	50.7
HCM Lane LOS	F	B	-	-	C	-	-	F
HCM 95th %tile Q(veh)	1.2	0.1	-	-	0.1	-	-	0.5

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:57	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	4704	4635	4785	4644	4586	4687	4706
Vehs Exited	4681	4613	4790	4631	4591	4618	4713
Starting Vehs	356	329	349	322	338	306	340
Ending Vehs	379	351	344	335	333	375	333
Travel Distance (mi)	7879	7756	8036	7796	7650	7765	7962
Travel Time (hr)	339.8	324.9	343.5	332.5	334.2	342.3	337.8
Total Delay (hr)	104.7	93.3	104.3	100.1	106.8	111.1	100.6
Total Stops	6030	5671	6101	5871	6043	6102	5894
Fuel Used (gal)	262.1	254.5	266.0	257.5	254.2	258.8	263.2

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	4757	4627	4782	4692
Vehs Exited	4711	4653	4783	4678
Starting Vehs	334	347	333	333
Ending Vehs	380	321	332	340
Travel Distance (mi)	7935	7775	8011	7857
Travel Time (hr)	338.6	326.9	351.9	337.2
Total Delay (hr)	102.7	95.0	113.2	103.2
Total Stops	6017	5648	6254	5962
Fuel Used (gal)	260.4	256.3	267.0	260.0

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	4704	4635	4785	4644	4586	4687	4706
Vehs Exited	4681	4613	4790	4631	4591	4618	4713
Starting Vehs	356	329	349	322	338	306	340
Ending Vehs	379	351	344	335	333	375	333
Travel Distance (mi)	7879	7756	8036	7796	7650	7765	7962
Travel Time (hr)	339.8	324.9	343.5	332.5	334.2	342.3	337.8
Total Delay (hr)	104.7	93.3	104.3	100.1	106.8	111.1	100.6
Total Stops	6030	5671	6101	5871	6043	6102	5894
Fuel Used (gal)	262.1	254.5	266.0	257.5	254.2	258.8	263.2

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	4757	4627	4782	4692
Vehs Exited	4711	4653	4783	4678
Starting Vehs	334	347	333	333
Ending Vehs	380	321	332	340
Travel Distance (mi)	7935	7775	8011	7857
Travel Time (hr)	338.6	326.9	351.9	337.2
Total Delay (hr)	102.7	95.0	113.2	103.2
Total Stops	6017	5648	6254	5962
Fuel Used (gal)	260.4	256.3	267.0	260.0

Intersection: 1: Providence Rd & Church Drwy/Weddington Rd

Movement	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	L	LT	R	L	T	T	R	L	L	T	TR
Maximum Queue (ft)	72	328	509	400	44	422	431	302	310	326	260	256
Average Queue (ft)	21	144	190	256	8	270	276	120	195	208	132	144
95th Queue (ft)	58	246	355	392	31	376	384	219	294	310	221	227
Link Distance (ft)	2463		3044			1056	1056				2497	2497
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)		525		300	500			375	375	375		
Storage Blk Time (%)			0	6		0	1		0	0		
Queuing Penalty (veh)			2	25		0	7		1	2		

Intersection: 2: Providence Rd & Lenny Stadler Way

Movement	EB	EB	NB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	T	TR
Maximum Queue (ft)	132	71	83	146	182	266	279
Average Queue (ft)	54	17	29	42	72	113	117
95th Queue (ft)	104	51	66	106	149	228	241
Link Distance (ft)	2385			1273	1273	1056	1056
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		50	300				
Storage Blk Time (%)	24	3					
Queuing Penalty (veh)	4	2					

Intersection: 3: Providence Rd & Old Mill Rd

Movement	WB	NB	SB	SB
Directions Served	LR	U	L	T
Maximum Queue (ft)	57	26	40	2
Average Queue (ft)	14	3	11	0
95th Queue (ft)	42	16	36	2
Link Distance (ft)	3798			1273
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		300	300	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Providence Rd & Rea Rd

Movement	EB	EB	B7	NB	NB	NB	NB	SB	SB	SB
Directions Served	UL	R	T	L	L	T	T	U	T	R
Maximum Queue (ft)	625	500	2	188	200	264	281	207	859	826
Average Queue (ft)	413	244	0	91	105	145	160	14	566	357
95th Queue (ft)	598	434	2	158	172	234	243	113	857	757
Link Distance (ft)	981	981	454				1812		1454	1454
Upstream Blk Time (%)	0	0								
Queuing Penalty (veh)	0	0								
Storage Bay Dist (ft)				400	400	400		275		
Storage Blk Time (%)									48	
Queuing Penalty (veh)									2	

Intersection: 5: Providence Rd & Lochaven Rd

Movement	WB	NB	SB
Directions Served	LR	TR	L
Maximum Queue (ft)	60	4	60
Average Queue (ft)	22	0	20
95th Queue (ft)	52	3	50
Link Distance (ft)	2768	2439	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			200
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Highclere Dr/Private Drwy & Rea Rd

Movement	EB	EB	EB	WB	WB	NB	SB
Directions Served	UL	T	T	UL	TR	LTR	LTR
Maximum Queue (ft)	27	2	4	34	4	55	41
Average Queue (ft)	4	0	0	6	0	16	11
95th Queue (ft)	20	2	4	24	3	43	35
Link Distance (ft)		2732	2732		454	1652	2251
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	275			350			
Storage Blk Time (%)							
Queuing Penalty (veh)							

Network Summary

Network wide Queuing Penalty: 44

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	30	2	465	14	533	15	1044	255	263	642	4
Future Volume (vph)	40	30	2	465	14	533	15	1044	255	263	642	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	525		300	500		375	375		0
Storage Lanes	0		0	1		1	1		1	2		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.997				0.850			0.850		0.999	
Flt Protected		0.973		0.950	0.955		0.950			0.950		
Satd. Flow (prot)	0	1807	0	1665	1675	1583	1770	3539	1583	3303	3371	0
Flt Permitted		0.973		0.950	0.955		0.950			0.950		
Satd. Flow (perm)	0	1807	0	1665	1675	1583	1770	3539	1583	3303	3371	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2519			3105			1122			2544	
Travel Time (s)		49.1			60.5			21.9			49.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	6%	7%	2%
Adj. Flow (vph)	44	33	2	517	16	592	17	1160	283	292	713	4
Shared Lane Traffic (%)				49%								
Lane Group Flow (vph)	0	79	0	264	269	592	17	1160	283	292	717	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			18			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA	pt+ov	Prot	NA	pm+ov	Prot	NA	
Protected Phases	4	4		8	8	8 1	5	2	8	1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases									2			
Detector Phase	4	4		8	8	8 1	5	2	8	1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	7.0	7.0	10.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		14.0	17.0	14.0	14.0	17.0	
Total Split (s)	14.0	14.0		38.0	38.0		14.0	50.0	38.0	18.0	54.0	
Total Split (%)	11.7%	11.7%		31.7%	31.7%		11.7%	41.7%	31.7%	15.0%	45.0%	
Maximum Green (s)	7.0	7.0		31.0	31.0		7.0	43.0	31.0	11.0	47.0	
Yellow Time (s)	5.0	5.0		5.0	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	
Lost Time Adjust (s)		-2.0		-2.0	-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)		5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max	None	None	C-Max	
Act Effct Green (s)		9.0		33.7	33.7	51.9	9.0	46.9	81.6	13.2	59.5	
Actuated g/C Ratio		0.08		0.28	0.28	0.43	0.08	0.39	0.68	0.11	0.50	
v/c Ratio		0.59		0.57	0.57	0.87	0.13	0.84	0.26	0.81	0.43	
Control Delay		71.6		42.8	43.0	46.1	57.3	45.6	3.6	70.1	22.1	
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		71.6		42.8	43.0	46.1	57.3	45.6	3.6	70.1	22.1	
LOS		E		D	D	D	E	D	A	E	C	
Approach Delay		71.6			44.6			37.6			36.0	
Approach LOS		E			D			D			D	
Queue Length 50th (ft)		60		185	189	414	14	468	43	115	169	
Queue Length 95th (ft)		#121		281	286	#634	m29	541	60	#184	275	
Internal Link Dist (ft)		2439			3025			1042			2464	
Turn Bay Length (ft)				525		300	500		375	375		
Base Capacity (vph)		135		467	470	683	132	1384	1076	361	1671	
Starvation Cap Reductn		0		0	0	0	0	0	0	0	0	
Spillback Cap Reductn		0		0	0	0	0	0	0	0	0	
Storage Cap Reductn		0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio		0.59		0.57	0.57	0.87	0.13	0.84	0.26	0.81	0.43	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 40.0 Intersection LOS: D
Intersection Capacity Utilization 80.2% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Providence Rd & Church Drwy/Weddington Rd

Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	79	264	269	592	17	1160	283	292	717
v/c Ratio	0.59	0.57	0.57	0.87	0.13	0.84	0.26	0.81	0.43
Control Delay	71.6	42.8	43.0	46.1	57.3	45.6	3.6	70.1	22.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.6	42.8	43.0	46.1	57.3	45.6	3.6	70.1	22.1
Queue Length 50th (ft)	60	185	189	414	14	468	43	115	169
Queue Length 95th (ft)	#121	281	286	#634	m29	541	60	#184	275
Internal Link Dist (ft)	2439		3025			1042			2464
Turn Bay Length (ft)		525		300	500		375	375	
Base Capacity (vph)	135	467	470	683	132	1384	1076	361	1671
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.57	0.57	0.87	0.13	0.84	0.26	0.81	0.43

Intersection Summary

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.

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	47	39	108	1277	1030	120
Future Volume (vph)	47	39	108	1277	1030	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	300			0
Storage Lanes	1	1	1			0
Taper Length (ft)	100		100			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.850			0.984	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1687	1568	1770	3539	3393	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1687	1568	1770	3539	3393	0
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	35			35	35	
Link Distance (ft)	2436			1331	1122	
Travel Time (s)	47.5			25.9	21.9	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	7%	3%	2%	2%	5%	2%
Adj. Flow (vph)	53	44	123	1451	1170	136
Shared Lane Traffic (%)						
Lane Group Flow (vph)	53	44	123	1451	1306	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	
Detector Template	Left	Right	Left	Thru	Thru	
Leading Detector (ft)	20	20	20	100	100	
Trailing Detector (ft)	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	
Detector 1 Size(ft)	20	20	20	6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)				94	94	
Detector 2 Size(ft)				6	6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot	pt+ov	Prot	NA	NA	
Protected Phases	4	4 5	5	2	6	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Permitted Phases						
Detector Phase	4	4 5	5	2	6	
Switch Phase						
Minimum Initial (s)	7.0		7.0	10.0	10.0	
Minimum Split (s)	14.0		14.0	17.0	17.0	
Total Split (s)	16.0		24.0	104.0	80.0	
Total Split (%)	13.3%		20.0%	86.7%	66.7%	
Maximum Green (s)	9.0		17.0	97.0	73.0	
Yellow Time (s)	5.0		5.0	5.0	5.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	-2.0		-2.0	-2.0	-2.0	
Total Lost Time (s)	5.0		5.0	5.0	5.0	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		None	C-Max	C-Max	
Act Effct Green (s)	10.3	27.8	15.2	103.5	82.2	
Actuated g/C Ratio	0.09	0.23	0.13	0.86	0.68	
v/c Ratio	0.37	0.12	0.55	0.48	0.56	
Control Delay	59.0	33.5	61.7	2.1	14.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	59.0	33.5	61.7	2.1	14.7	
LOS	E	C	E	A	B	
Approach Delay	47.4			6.7	14.7	
Approach LOS	D			A	B	
Queue Length 50th (ft)	39	26	95	85	457	
Queue Length 95th (ft)	80	54	m145	96	267	
Internal Link Dist (ft)	2356			1251	1042	
Turn Bay Length (ft)		50	300			
Base Capacity (vph)	154	402	280	3051	2324	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.34	0.11	0.44	0.48	0.56	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay: 11.6 Intersection LOS: B
Intersection Capacity Utilization 56.6% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Providence Rd & Lenny Stadler Way

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	53	44	123	1451	1306
v/c Ratio	0.37	0.12	0.55	0.48	0.56
Control Delay	59.0	33.5	61.7	2.1	14.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	59.0	33.5	61.7	2.1	14.7
Queue Length 50th (ft)	39	26	95	85	457
Queue Length 95th (ft)	80	54	m145	96	267
Internal Link Dist (ft)	2356			1251	1042
Turn Bay Length (ft)		50	300		
Base Capacity (vph)	154	402	280	3051	2324
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.34	0.11	0.44	0.48	0.56

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	18	4	5	4	4	8	4	4	1334	4	13	1045
Future Volume (vph)	18	4	5	4	4	8	4	4	1334	4	13	1045
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0		300		0	300	
Storage Lanes	0		0	0		0		1		0	1	
Taper Length (ft)	100			100				100			100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	0.95	1.00	0.95
Frt		0.973			0.929							0.999
Flt Protected		0.968			0.988			0.950			0.950	
Satd. Flow (prot)	0	1754	0	0	1625	0	0	1770	3539	0	1444	3435
Flt Permitted		0.968			0.988			0.950			0.950	
Satd. Flow (perm)	0	1754	0	0	1625	0	0	1770	3539	0	1444	3435
Link Speed (mph)		25			35				35			35
Link Distance (ft)		1235			3855				1542			1331
Travel Time (s)		33.7			75.1				30.0			25.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	12%	2%	2%	2%	2%	25%	5%
Adj. Flow (vph)	20	4	6	4	4	9	4	4	1482	4	14	1161
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	30	0	0	17	0	0	8	1486	0	14	1169
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	Left	Left
Median Width(ft)		0			0				30			30
Link Offset(ft)		0			0				0			0
Crosswalk Width(ft)		16			16				16			16
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	9	15		9	15	
Sign Control		Stop			Stop				Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 47.1% ICU Level of Service A
Analysis Period (min) 15

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	7
Future Volume (vph)	7
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	0.95
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.90
Heavy Vehicles (%)	2%
Adj. Flow (vph)	8
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Sign Control	

Intersection Summary

Intersection													
Int Delay, s/veh	4.7												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	18	4	5	4	4	8	4	4	1334	4	13	1045	7
Future Vol, veh/h	18	4	5	4	4	8	4	4	1334	4	13	1045	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	300	-	-	300	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	12	2	2	2	2	25	5	2
Mvmt Flow	20	4	6	4	4	9	4	4	1482	4	14	1161	8

Major/Minor	Minor2			Minor1			Major1				Major2		
Conflicting Flow All	1952	2695	585	2111	2697	743	1169	1169	0	0	1486	0	0
Stage 1	1193	1193	-	1500	1500	-	-	-	-	-	-	-	-
Stage 2	759	1502	-	611	1197	-	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	7.14	6.44	4.14	-	-	4.6	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.42	2.52	2.22	-	-	2.45	-	-
Pot Cap-1 Maneuver	38	21	454	29	21	336	258	593	-	-	350	-	-
Stage 1	198	258	-	128	184	-	-	-	-	-	-	-	-
Stage 2	365	183	-	448	257	-	-	-	-	-	-	-	-
Platoon blocked, %									-	-		-	-
Mov Cap-1 Maneuver	29	20	454	23	20	336	357	357	-	-	350	-	-
Mov Cap-2 Maneuver	29	20	-	23	20	-	-	-	-	-	-	-	-
Stage 1	193	248	-	125	179	-	-	-	-	-	-	-	-
Stage 2	338	178	-	417	247	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 321.7	153.4	0.1	0.2
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	357	-	-	32	40	350	-	-
HCM Lane V/C Ratio	0.025	-	-	0.938	0.444	0.041	-	-
HCM Control Delay (s)	15.4	-	-	$ 321.7	153.4	15.7	-	-
HCM Lane LOS	C	-	-	F	F	C	-	-
HCM 95th %tile Q(veh)	0.1	-	-	3.2	1.5	0.1	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lane Group	EBU	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	4	390	201	450	1043	4	518	336
Future Volume (vph)	4	390	201	450	1043	4	518	336
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0	400		275		0
Storage Lanes		1	1	3		1		1
Taper Length (ft)		100		100		100		
Lane Util. Factor	1.00	1.00	1.00	0.97	0.95	1.00	1.00	1.00
Frt			0.850					0.850
Flt Protected		0.950		0.950		0.950		
Satd. Flow (prot)	0	1770	1583	3433	3539	1770	1827	1568
Flt Permitted		0.950		0.950		0.245		
Satd. Flow (perm)	0	1770	1583	3433	3539	456	1827	1568
Right Turn on Red			No					Yes
Satd. Flow (RTOR)								351
Link Speed (mph)		35			35		35	
Link Distance (ft)		1060			1885		1542	
Travel Time (s)		20.6			36.7		30.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	4%	3%
Adj. Flow (vph)	4	433	223	500	1159	4	576	373
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	437	223	500	1159	4	576	373
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Right	Left	Left	R NA	Left	Right
Median Width(ft)		30			30		30	
Link Offset(ft)		0			0		0	
Crosswalk Width(ft)		16			16		16	
Two way Left Turn Lane								
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15	9	15		9		9
Number of Detectors	1	1	1	1	2	1	2	1
Detector Template	Left	Left	Right	Left	Thru	Left	Thru	Right
Leading Detector (ft)	20	20	20	20	100	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	20	20	6	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel								
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)					94		94	
Detector 2 Size(ft)					6		6	
Detector 2 Type					Cl+Ex		Cl+Ex	
Detector 2 Channel								
Detector 2 Extend (s)					0.0		0.0	
Turn Type	Perm	Prot	pt+ov	Prot	NA	Perm	NA	Perm
Protected Phases		4	4 5	5	2		6	

Lane Group	EBU	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Permitted Phases	4					6		6
Detector Phase	4	4	4 5	5	2	6	6	6
Switch Phase								
Minimum Initial (s)	7.0	7.0		7.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.0	14.0		14.0	17.0	17.0	17.0	17.0
Total Split (s)	42.0	42.0		26.0	78.0	52.0	52.0	52.0
Total Split (%)	35.0%	35.0%		21.7%	65.0%	43.3%	43.3%	43.3%
Maximum Green (s)	35.0	35.0		19.0	71.0	45.0	45.0	45.0
Yellow Time (s)	5.0	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
Lost Time Adjust (s)		-2.0		-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)		5.0		5.0	5.0	5.0	5.0	5.0
Lead/Lag				Lead		Lag	Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		34.4	60.5	21.1	75.6	49.5	49.5	49.5
Actuated g/C Ratio		0.29	0.50	0.18	0.63	0.41	0.41	0.41
v/c Ratio		0.86	0.28	0.83	0.52	0.02	0.76	0.44
Control Delay		58.0	17.7	60.5	13.7	41.8	59.6	24.8
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		58.0	17.7	60.5	13.7	41.8	59.6	24.8
LOS		E	B	E	B	D	E	C
Approach Delay		44.4			27.8		45.9	
Approach LOS		D			C		D	
Queue Length 50th (ft)		311	92	194	258	3	478	169
Queue Length 95th (ft)		#468	143	#274	315	m6	593	270
Internal Link Dist (ft)		980			1805		1462	
Turn Bay Length (ft)				400		275		
Base Capacity (vph)		545	798	610	2229	187	753	852
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		0.80	0.28	0.82	0.52	0.02	0.76	0.44

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTU, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 36.4 Intersection LOS: D
Intersection Capacity Utilization 74.4% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Providence Rd & Rea Rd

Lane Group	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Group Flow (vph)	437	223	500	1159	4	576	373
v/c Ratio	0.86	0.28	0.83	0.52	0.02	0.76	0.44
Control Delay	58.0	17.7	60.5	13.7	41.8	59.6	24.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.0	17.7	60.5	13.7	41.8	59.6	24.8
Queue Length 50th (ft)	311	92	194	258	3	478	169
Queue Length 95th (ft)	#468	143	#274	315	m6	593	270
Internal Link Dist (ft)	980			1805		1462	
Turn Bay Length (ft)			400		275		
Base Capacity (vph)	545	798	610	2229	187	753	852
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	0.80	0.28	0.82	0.52	0.02	0.76	0.44

Intersection Summary

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.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	5	73	1393	7	16	691
Future Volume (vph)	5	73	1393	7	16	691
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	0		0	1	
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.874		0.999			
Flt Protected	0.997				0.950	
Satd. Flow (prot)	1623	0	1860	0	1770	1845
Flt Permitted	0.997				0.950	
Satd. Flow (perm)	1623	0	1860	0	1770	1845
Link Speed (mph)	35		35			35
Link Distance (ft)	2804		2471			1885
Travel Time (s)	54.6		48.1			36.7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	14%	2%	3%
Adj. Flow (vph)	6	81	1548	8	18	768
Shared Lane Traffic (%)						
Lane Group Flow (vph)	87	0	1556	0	18	768
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 85.2% ICU Level of Service E
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	3.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	73	1393	7	16	691
Future Vol, veh/h	5	73	1393	7	16	691
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	14	2	3
Mvmt Flow	6	81	1548	8	18	768

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2356	1552	0	0	1556	0
Stage 1	1552	-	-	-	-	-
Stage 2	804	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	39	140	-	-	425	-
Stage 1	192	-	-	-	-	-
Stage 2	440	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	37	140	-	-	425	-
Mov Cap-2 Maneuver	37	-	-	-	-	-
Stage 1	192	-	-	-	-	-
Stage 2	422	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	91	0	0.3
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	119	425	-
HCM Lane V/C Ratio	-	-	0.728	0.042	-
HCM Control Delay (s)	-	-	91	13.8	-
HCM Lane LOS	-	-	F	B	-
HCM 95th %tile Q(veh)	-	-	4	0.1	-

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	4	4	580	15	8	4	785	4	31	4	4	4
Future Volume (vph)	4	4	580	15	8	4	785	4	31	4	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		275		250		350		0	0		0	0
Storage Lanes		1		1		1		0	0		0	0
Taper Length (ft)		100				100			100			100
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt				0.850			0.999			0.987		
Flt Protected		0.950				0.950				0.961		
Satd. Flow (prot)	0	1770	3539	1583	0	1770	3536	0	0	1767	0	0
Flt Permitted		0.950				0.950				0.961		
Satd. Flow (perm)	0	1770	3539	1583	0	1770	3536	0	0	1767	0	0
Link Speed (mph)			35				35			35		
Link Distance (ft)			2763				513			1720		
Travel Time (s)			53.8				10.0			33.5		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	4	4	644	17	9	4	872	4	34	4	4	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	8	644	17	0	13	876	0	0	42	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)			30				30			0		
Link Offset(ft)			0				0			0		
Crosswalk Width(ft)			16				16			16		
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	9	15		9	9	15		9	15		9	15
Sign Control			Free				Free			Stop		

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 33.1% ICU Level of Service A
Analysis Period (min) 15

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	4	4
Future Volume (vph)	4	4
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Frt	0.955	
Flt Protected	0.984	
Satd. Flow (prot)	1750	0
Flt Permitted	0.984	
Satd. Flow (perm)	1750	0
Link Speed (mph)	35	
Link Distance (ft)	2307	
Travel Time (s)	44.9	
Peak Hour Factor	0.90	0.90
Adj. Flow (vph)	4	4
Shared Lane Traffic (%)		
Lane Group Flow (vph)	12	0
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	0	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Sign Control	Stop	

Intersection Summary

Intersection														
Int Delay, s/veh	1.4													
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Vol, veh/h	4	4	580	15	8	4	785	4	31	4	4	4	4	4
Future Vol, veh/h	4	4	580	15	8	4	785	4	31	4	4	4	4	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	275	-	250	-	350	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	4	644	17	9	4	872	4	34	4	4	4	4	4

Major/Minor	Major1				Major2				Minor1			Minor2		
Conflicting Flow All	877	876	0	0	644	661	0	0	1124	1562	322	1240	1577	438
Stage 1	-	-	-	-	-	-	-	-	660	660	-	900	900	-
Stage 2	-	-	-	-	-	-	-	-	464	902	-	340	677	-
Critical Hdwy	6.44	4.14	-	-	6.44	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.52	2.22	-	-	2.52	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	398	766	-	-	561	923	-	-	160	111	674	131	109	567
Stage 1	-	-	-	-	-	-	-	-	418	458	-	300	355	-
Stage 2	-	-	-	-	-	-	-	-	548	355	-	648	450	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	521	521	-	-	643	643	-	-	149	107	674	122	105	567
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	149	107	-	122	105	-
Stage 1	-	-	-	-	-	-	-	-	411	450	-	295	348	-
Stage 2	-	-	-	-	-	-	-	-	526	348	-	626	442	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.2	37	30.6
HCM LOS			E	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	155	521	-	-	643	-	-	154
HCM Lane V/C Ratio	0.28	0.017	-	-	0.021	-	-	0.087
HCM Control Delay (s)	37	12	-	-	10.7	-	-	30.6
HCM Lane LOS	E	B	-	-	B	-	-	D
HCM 95th %tile Q(veh)	1.1	0.1	-	-	0.1	-	-	0.3

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	591	785	4	0	10
Future Volume (vph)	0	591	785	4	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			100	0	0
Storage Lanes	0			1	0	1
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt				0.850		0.865
Flt Protected						
Satd. Flow (prot)	0	3539	3539	1583	0	1611
Flt Permitted						
Satd. Flow (perm)	0	3539	3539	1583	0	1611
Link Speed (mph)		35	35		25	
Link Distance (ft)		513	1060		1201	
Travel Time (s)		10.0	20.6		32.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	657	872	4	0	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	657	872	4	0	11
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		30	30		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 31.7% ICU Level of Service A
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Traffic Vol, veh/h	0	591	785	4	0	10
Future Vol, veh/h	0	591	785	4	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	100	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	657	872	4	0	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	436
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	568
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	568
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.5
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	568
HCM Lane V/C Ratio	-	-	-	0.02
HCM Control Delay (s)	-	-	-	11.5
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.1

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:57	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	4303	4478	4338	4321	4352	4373	4378
Vehs Exited	4309	4467	4351	4313	4347	4325	4413
Starting Vehs	295	330	304	289	289	280	320
Ending Vehs	289	341	291	297	294	328	285
Travel Distance (mi)	7112	7331	7083	7148	7119	7114	7162
Travel Time (hr)	298.5	310.3	297.1	302.1	299.0	302.8	302.5
Total Delay (hr)	86.7	92.4	86.4	89.4	87.2	91.1	89.5
Total Stops	5230	5379	5220	5246	5133	5322	5319
Fuel Used (gal)	232.8	242.6	232.0	236.3	233.5	235.9	236.2

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	4385	4406	4389	4374
Vehs Exited	4394	4427	4364	4370
Starting Vehs	295	314	312	299
Ending Vehs	286	293	337	299
Travel Distance (mi)	7203	7193	7166	7163
Travel Time (hr)	310.0	302.0	300.9	302.5
Total Delay (hr)	96.0	87.9	88.0	89.5
Total Stops	5409	5223	5203	5269
Fuel Used (gal)	239.0	237.4	235.8	236.2

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	4303	4478	4338	4321	4352	4373	4378
Vehs Exited	4309	4467	4351	4313	4347	4325	4413
Starting Vehs	295	330	304	289	289	280	320
Ending Vehs	289	341	291	297	294	328	285
Travel Distance (mi)	7112	7331	7083	7148	7119	7114	7162
Travel Time (hr)	298.5	310.3	297.1	302.1	299.0	302.8	302.5
Total Delay (hr)	86.7	92.4	86.4	89.4	87.2	91.1	89.5
Total Stops	5230	5379	5220	5246	5133	5322	5319
Fuel Used (gal)	232.8	242.6	232.0	236.3	233.5	235.9	236.2

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	4385	4406	4389	4374
Vehs Exited	4394	4427	4364	4370
Starting Vehs	295	314	312	299
Ending Vehs	286	293	337	299
Travel Distance (mi)	7203	7193	7166	7163
Travel Time (hr)	310.0	302.0	300.9	302.5
Total Delay (hr)	96.0	87.9	88.0	89.5
Total Stops	5409	5223	5203	5269
Fuel Used (gal)	239.0	237.4	235.8	236.2

Intersection: 1: Providence Rd & Church Drwy/Weddington Rd

Movement	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	L	LT	R	L	T	T	R	L	L	T	TR
Maximum Queue (ft)	139	452	660	400	51	431	419	108	206	225	234	248
Average Queue (ft)	58	176	270	320	15	279	285	48	111	128	128	139
95th Queue (ft)	117	340	535	442	41	400	404	87	195	212	207	224
Link Distance (ft)	2463		3044			1056	1056				2497	2497
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)		525		300	500			375	375	375		
Storage Blk Time (%)			1	17		0	2					
Queuing Penalty (veh)			8	82		0	4					

Intersection: 2: Providence Rd & Lenny Stadler Way

Movement	EB	EB	NB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	T	TR
Maximum Queue (ft)	138	104	189	123	122	257	270
Average Queue (ft)	51	35	89	41	60	137	151
95th Queue (ft)	104	79	155	101	121	244	262
Link Distance (ft)	2385			1261	1261	1056	1056
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		50	300				
Storage Blk Time (%)	19	10	0				
Queuing Penalty (veh)	7	5	0				

Intersection: 3: Providence Rd & Access "A"/Old Mill Rd

Movement	EB	WB	NB	NB	NB	SB
Directions Served	LTR	LTR	UL	T	TR	L
Maximum Queue (ft)	71	55	43	2	9	61
Average Queue (ft)	24	15	6	0	0	11
95th Queue (ft)	57	42	26	2	5	41
Link Distance (ft)	1179	3799		1460	1460	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			300			300
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 4: Providence Rd & Rea Rd

Movement	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	UL	R	L	L	T	T	U	T	R
Maximum Queue (ft)	465	200	236	258	237	237	134	583	406
Average Queue (ft)	279	84	158	172	146	150	7	370	154
95th Queue (ft)	417	164	221	236	223	224	69	535	304
Link Distance (ft)	982	982				1812		1460	1460
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)			400	400	400		275		
Storage Blk Time (%)								28	
Queuing Penalty (veh)								1	

Intersection: 5: Providence Rd & Lochaven Rd

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	176	47
Average Queue (ft)	71	11
95th Queue (ft)	164	37
Link Distance (ft)	2768	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		200
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Highclere Dr/Private Drwy & Rea Rd

Movement	EB	EB	WB	NB	SB
Directions Served	UL	T	UL	LTR	LTR
Maximum Queue (ft)	34	3	32	63	42
Average Queue (ft)	3	0	5	21	10
95th Queue (ft)	19	3	23	46	34
Link Distance (ft)		2732		1652	2251
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	275		350		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 7: Rea Rd & Access "B"

Movement	SB
Directions Served	R
Maximum Queue (ft)	25
Average Queue (ft)	6
95th Queue (ft)	23
Link Distance (ft)	1132
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 108

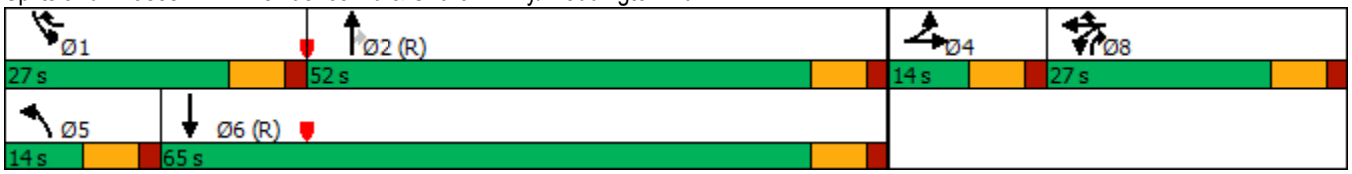
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	10	4	430	15	450	6	1104	465	515	899	6
Future Volume (vph)	8	10	4	430	15	450	6	1104	465	515	899	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	525		300	500		375	375		0
Storage Lanes	0		0	1		1	1		1	2		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.977				0.850			0.850		0.999	
Flt Protected		0.982		0.950	0.956		0.950			0.950		
Satd. Flow (prot)	0	1787	0	1681	1692	1538	1770	3505	1583	3433	3536	0
Flt Permitted		0.982		0.950	0.956		0.950			0.950		
Satd. Flow (perm)	0	1787	0	1681	1692	1538	1770	3505	1583	3433	3536	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2519			3105			1122			2544	
Travel Time (s)		49.1			60.5			21.9			49.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	5%	2%	3%	2%	2%	2%	2%
Adj. Flow (vph)	9	11	4	478	17	500	7	1227	517	572	999	7
Shared Lane Traffic (%)				48%								
Lane Group Flow (vph)	0	24	0	249	246	500	7	1227	517	572	1006	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			18			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA	pt+ov	Prot	NA	pm+ov	Prot	NA	
Protected Phases	4	4		8	8	8 1	5	2	8	1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases									2			
Detector Phase	4	4		8	8	8 1	5	2	8	1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	7.0	7.0	10.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		14.0	17.0	14.0	14.0	17.0	
Total Split (s)	14.0	14.0		27.0	27.0		14.0	52.0	27.0	27.0	65.0	
Total Split (%)	11.7%	11.7%		22.5%	22.5%		11.7%	43.3%	22.5%	22.5%	54.2%	
Maximum Green (s)	7.0	7.0		20.0	20.0		7.0	45.0	20.0	20.0	58.0	
Yellow Time (s)	5.0	5.0		5.0	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	
Lost Time Adjust (s)		-2.0		-2.0	-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)		5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max	None	None	C-Max	
Act Effct Green (s)		9.0		26.4	26.4	53.7	9.0	47.9	76.3	22.3	72.4	
Actuated g/C Ratio		0.08		0.22	0.22	0.45	0.08	0.40	0.64	0.19	0.60	
v/c Ratio		0.18		0.67	0.66	0.73	0.05	0.88	0.51	0.90	0.47	
Control Delay		55.5		54.4	53.8	35.9	47.0	42.6	6.6	65.9	15.1	
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		55.5		54.4	53.8	35.9	47.0	42.6	6.6	65.9	15.1	
LOS		E		D	D	D	D	D	A	E	B	
Approach Delay		55.5			45.0			32.0			33.5	
Approach LOS		E			D			C			C	
Queue Length 50th (ft)		18		196	193	335	5	455	54	225	205	
Queue Length 95th (ft)		46		#335	#327	#487	m12	#572	94	#326	342	
Internal Link Dist (ft)		2439			3025			1042			2464	
Turn Bay Length (ft)				525		300	500		375	375		
Base Capacity (vph)		134		370	372	689	132	1397	1006	638	2132	
Starvation Cap Reductn		0		0	0	0	0	0	0	0	0	
Spillback Cap Reductn		0		0	0	0	0	0	0	0	0	
Storage Cap Reductn		0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio		0.18		0.67	0.66	0.73	0.05	0.88	0.51	0.90	0.47	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 35.6 Intersection LOS: D
Intersection Capacity Utilization 76.7% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Providence Rd & Church Drwy/Weddington Rd



Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	24	249	246	500	7	1227	517	572	1006
v/c Ratio	0.18	0.67	0.66	0.73	0.05	0.88	0.51	0.90	0.47
Control Delay	55.5	54.4	53.8	35.9	47.0	42.6	6.6	65.9	15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.5	54.4	53.8	35.9	47.0	42.6	6.6	65.9	15.1
Queue Length 50th (ft)	18	196	193	335	5	455	54	225	205
Queue Length 95th (ft)	46	#335	#327	#487	m12	#572	94	#326	342
Internal Link Dist (ft)	2439		3025			1042			2464
Turn Bay Length (ft)		525		300	500		375	375	
Base Capacity (vph)	134	370	372	689	132	1397	1006	638	2132
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.67	0.66	0.73	0.05	0.88	0.51	0.90	0.47

Intersection Summary

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.

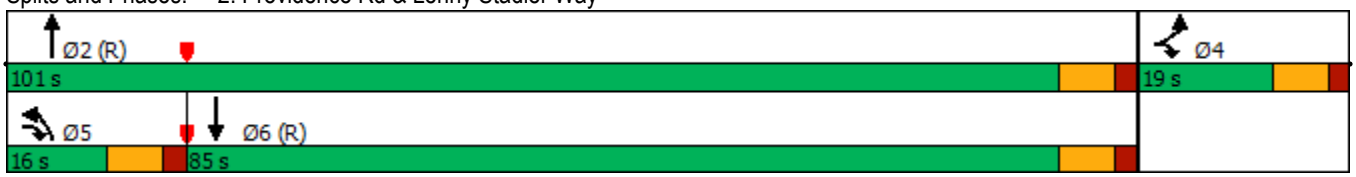
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	60	15	28	1425	1258	29
Future Volume (vph)	60	15	28	1425	1258	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	300			0
Storage Lanes	1	1	1			0
Taper Length (ft)	100		100			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.850			0.997	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	3539	3529	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1770	1583	1770	3539	3529	0
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	35			35	35	
Link Distance (ft)	2436			1331	1122	
Travel Time (s)	47.5			25.9	21.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	17	31	1583	1398	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	67	17	31	1583	1430	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	
Detector Template	Left	Right	Left	Thru	Thru	
Leading Detector (ft)	20	20	20	100	100	
Trailing Detector (ft)	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	
Detector 1 Size(ft)	20	20	20	6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)				94	94	
Detector 2 Size(ft)				6	6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot	pt+ov	Prot	NA	NA	
Protected Phases	4	4 5	5	2	6	
Permitted Phases						

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Detector Phase	4	4 5	5	2	6	
Switch Phase						
Minimum Initial (s)	7.0		7.0	10.0	10.0	
Minimum Split (s)	14.0		14.0	17.0	17.0	
Total Split (s)	19.0		16.0	101.0	85.0	
Total Split (%)	15.8%		13.3%	84.2%	70.8%	
Maximum Green (s)	12.0		9.0	94.0	78.0	
Yellow Time (s)	5.0		5.0	5.0	5.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	-2.0		-2.0	-2.0	-2.0	
Total Lost Time (s)	5.0		5.0	5.0	5.0	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		None	C-Max	C-Max	
Act Effct Green (s)	11.7	23.8	9.8	102.1	92.8	
Actuated g/C Ratio	0.10	0.20	0.08	0.85	0.77	
v/c Ratio	0.39	0.05	0.22	0.53	0.52	
Control Delay	56.9	35.7	61.9	1.9	12.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	56.9	35.7	61.9	1.9	12.0	
LOS	E	D	E	A	B	
Approach Delay	52.6			3.1	12.0	
Approach LOS	D			A	B	
Queue Length 50th (ft)	49	10	25	74	481	
Queue Length 95th (ft)	95	29	m40	m92	477	
Internal Link Dist (ft)	2356			1251	1042	
Turn Bay Length (ft)		50	300			
Base Capacity (vph)	206	313	162	3010	2730	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.33	0.05	0.19	0.53	0.52	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.53
Intersection Signal Delay: 8.5 Intersection LOS: A
Intersection Capacity Utilization 53.6% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Providence Rd & Lenny Stadler Way



Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	67	17	31	1583	1430
v/c Ratio	0.39	0.05	0.22	0.53	0.52
Control Delay	56.9	35.7	61.9	1.9	12.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	56.9	35.7	61.9	1.9	12.0
Queue Length 50th (ft)	49	10	25	74	481
Queue Length 95th (ft)	95	29	m40	m92	477
Internal Link Dist (ft)	2356			1251	1042
Turn Bay Length (ft)		50	300		
Base Capacity (vph)	206	313	162	3010	2730
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.33	0.05	0.19	0.53	0.52

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	12	4	4	4	4	13	4	5	1417	4	16	1223
Future Volume (vph)	12	4	4	4	4	13	4	5	1417	4	16	1223
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0		300		0	300	
Storage Lanes	0		0	0		0		1		0	1	
Taper Length (ft)	100			100				100			100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	0.95	1.00	0.95
Frt		0.974			0.914							0.997
Flt Protected		0.970			0.991			0.950			0.950	
Satd. Flow (prot)	0	1760	0	0	1626	0	0	1770	3505	0	1770	3529
Flt Permitted		0.970			0.991			0.950			0.950	
Satd. Flow (perm)	0	1760	0	0	1626	0	0	1770	3505	0	1770	3529
Link Speed (mph)		25			35				35			35
Link Distance (ft)		1041			3855				1542			1331
Travel Time (s)		28.4			75.1				30.0			25.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	8%	2%	2%	3%	2%	2%	2%
Adj. Flow (vph)	13	4	4	4	4	14	4	6	1574	4	18	1359
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	21	0	0	22	0	0	10	1578	0	18	1385
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	Left	Left
Median Width(ft)		0			0				30			30
Link Offset(ft)		0			0				0			0
Crosswalk Width(ft)		16			16				16			16
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	9	15		9	15	
Sign Control		Stop			Stop				Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 49.3% ICU Level of Service A
Analysis Period (min) 15

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	23
Future Volume (vph)	23
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	0.95
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.90
Heavy Vehicles (%)	2%
Adj. Flow (vph)	26
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Sign Control	

Intersection Summary

Intersection													
Int Delay, s/veh	7												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	12	4	4	4	4	13	4	5	1417	4	16	1223	23
Future Vol, veh/h	12	4	4	4	4	13	4	5	1417	4	16	1223	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	300	-	-	300	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	8	2	2	3	2	2	2	2
Mvmt Flow	13	4	4	4	4	14	4	6	1574	4	18	1359	26

Major/Minor	Minor2			Minor1			Major1				Major2		
Conflicting Flow All	2217	3006	693	2314	3017	789	1384	1385	0	0	1578	0	0
Stage 1	1408	1408	-	1596	1596	-	-	-	-	-	-	-	-
Stage 2	809	1598	-	718	1421	-	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	7.06	6.44	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.38	2.52	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	24	13	386	20	13	321	188	490	-	-	413	-	-
Stage 1	146	204	-	111	165	-	-	-	-	-	-	-	-
Stage 2	340	164	-	386	201	-	-	-	-	-	-	-	-
Platoon blocked, %									-	-		-	-
Mov Cap-1 Maneuver	15	12	386	13	12	321	284	284	-	-	413	-	-
Mov Cap-2 Maneuver	15	12	-	13	12	-	-	-	-	-	-	-	-
Stage 1	141	195	-	107	159	-	-	-	-	-	-	-	-
Stage 2	305	158	-	357	192	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 645.5	271.5	0.1	0.2
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	284	-	-	17	31	413	-	-
HCM Lane V/C Ratio	0.035	-	-	1.307	0.753	0.043	-	-
HCM Control Delay (s)	18.1	-	-	$ 645.5	271.5	14.1	-	-
HCM Lane LOS	C	-	-	F	F	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	3.2	2.5	0.1	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lane Group	EBU	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	4	598	434	210	814	4	653	576
Future Volume (vph)	4	598	434	210	814	4	653	576
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0	400		275		0
Storage Lanes		1	1	3		1		1
Taper Length (ft)		100		100		100		
Lane Util. Factor	1.00	1.00	1.00	0.97	0.95	1.00	1.00	1.00
Frt			0.850					0.850
Flt Protected		0.950		0.950		0.950		
Satd. Flow (prot)	0	1753	1583	3433	3438	1770	1863	1583
Flt Permitted		0.950		0.950		0.308		
Satd. Flow (perm)	0	1753	1583	3433	3438	574	1863	1583
Right Turn on Red			No					Yes
Satd. Flow (RTOR)								499
Link Speed (mph)		35			35		35	
Link Distance (ft)		1060			1885		1542	
Travel Time (s)		20.6			36.7		30.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	3%	2%	2%	5%	2%	2%	2%
Adj. Flow (vph)	4	664	482	233	904	4	726	640
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	668	482	233	904	4	726	640
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Right	Left	Left	R NA	Left	Right
Median Width(ft)		30			30		30	
Link Offset(ft)		0			0		0	
Crosswalk Width(ft)		16			16		16	
Two way Left Turn Lane								
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15	9	15		9		9
Number of Detectors	1	1	1	1	2	1	2	1
Detector Template	Left	Left	Right	Left	Thru	Left	Thru	Right
Leading Detector (ft)	20	20	20	20	100	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	20	20	6	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel								
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)					94		94	
Detector 2 Size(ft)					6		6	
Detector 2 Type					Cl+Ex		Cl+Ex	
Detector 2 Channel								
Detector 2 Extend (s)					0.0		0.0	
Turn Type	Perm	Prot	pt+ov	Prot	NA	Perm	NA	Perm
Protected Phases		4	4 5	5	2		6	

Lane Group	EBU	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Permitted Phases	4					6		6
Detector Phase	4	4	4 5	5	2	6	6	6
Switch Phase								
Minimum Initial (s)	7.0	7.0		7.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.0	14.0		14.0	17.0	17.0	17.0	17.0
Total Split (s)	51.0	51.0		14.0	69.0	55.0	55.0	55.0
Total Split (%)	42.5%	42.5%		11.7%	57.5%	45.8%	45.8%	45.8%
Maximum Green (s)	44.0	44.0		7.0	62.0	48.0	48.0	48.0
Yellow Time (s)	5.0	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
Lost Time Adjust (s)		-2.0		-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)		5.0		5.0	5.0	5.0	5.0	5.0
Lead/Lag				Lead		Lag	Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		46.0	60.0	9.0	64.0	50.0	50.0	50.0
Actuated g/C Ratio		0.38	0.50	0.08	0.53	0.42	0.42	0.42
v/c Ratio		1.00	0.61	0.91	0.49	0.02	0.94	0.67
Control Delay		71.1	25.7	91.8	18.9	39.8	70.9	29.6
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		71.1	25.7	91.8	18.9	39.8	70.9	29.6
LOS		E	C	F	B	D	E	C
Approach Delay		52.1			33.8		51.5	
Approach LOS		D			C		D	
Queue Length 50th (ft)		510	260	93	224	3	605	374
Queue Length 95th (ft)		#766	374	#170	279	m5	#808	427
Internal Link Dist (ft)		980			1805		1462	
Turn Bay Length (ft)				400		275		
Base Capacity (vph)		671	791	257	1833	239	776	950
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		1.00	0.61	0.91	0.49	0.02	0.94	0.67

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTU, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 46.2 Intersection LOS: D
Intersection Capacity Utilization 86.2% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Providence Rd & Rea Rd

Lane Group	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Group Flow (vph)	668	482	233	904	4	726	640
v/c Ratio	1.00	0.61	0.91	0.49	0.02	0.94	0.67
Control Delay	71.1	25.7	91.8	18.9	39.8	70.9	29.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.1	25.7	91.8	18.9	39.8	70.9	29.6
Queue Length 50th (ft)	510	260	93	224	3	605	374
Queue Length 95th (ft)	#766	374	#170	279	m5	#808	427
Internal Link Dist (ft)	980			1805		1462	
Turn Bay Length (ft)			400		275		
Base Capacity (vph)	671	791	257	1833	239	776	950
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	1.00	0.61	0.91	0.49	0.02	0.94	0.67

Intersection Summary

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.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	4	28	906	15	41	1069
Future Volume (vph)	4	28	906	15	41	1069
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	0		0	1	
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.880		0.998			
Flt Protected	0.994				0.950	
Satd. Flow (prot)	1602	0	1838	0	1770	1863
Flt Permitted	0.994				0.950	
Satd. Flow (perm)	1602	0	1838	0	1770	1863
Link Speed (mph)	35		35			35
Link Distance (ft)	2804		2471			1885
Travel Time (s)	54.6		48.1			36.7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	4%	3%	14%	2%	2%
Adj. Flow (vph)	4	31	1007	17	46	1188
Shared Lane Traffic (%)						
Lane Group Flow (vph)	35	0	1024	0	46	1188
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 66.3% ICU Level of Service C
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	28	906	15	41	1069
Future Vol, veh/h	4	28	906	15	41	1069
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	4	3	14	2	2
Mvmt Flow	4	31	1007	17	46	1188

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2296	1016	0	0	1024	0
Stage 1	1016	-	-	-	-	-
Stage 2	1280	-	-	-	-	-
Critical Hdwy	6.42	6.24	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.336	-	-	2.218	-
Pot Cap-1 Maneuver	43	286	-	-	678	-
Stage 1	350	-	-	-	-	-
Stage 2	261	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	40	286	-	-	678	-
Mov Cap-2 Maneuver	40	-	-	-	-	-
Stage 1	350	-	-	-	-	-
Stage 2	243	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	33.4	0	0.4
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	162	678	-
HCM Lane V/C Ratio	-	-	0.219	0.067	-
HCM Control Delay (s)	-	-	33.4	10.7	-
HCM Lane LOS	-	-	D	B	-
HCM 95th %tile Q(veh)	-	-	0.8	0.2	-

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	4	4	1017	18	6	5	773	4	11	4	10	4
Future Volume (vph)	4	4	1017	18	6	5	773	4	11	4	10	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		275		250		350		0	0		0	0
Storage Lanes		1		1		1		0	0		0	0
Taper Length (ft)		100				100			100			100
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt				0.850			0.999			0.945		
Flt Protected		0.950				0.950				0.978		
Satd. Flow (prot)	0	1770	3539	1524	0	1636	3536	0	0	1608	0	0
Flt Permitted		0.950				0.950				0.978		
Satd. Flow (perm)	0	1770	3539	1524	0	1636	3536	0	0	1608	0	0
Link Speed (mph)			35				35			35		
Link Distance (ft)			2763				513			1720		
Travel Time (s)			53.8				10.0			33.5		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	6%	2%	20%	2%	2%	10%	2%	11%	2%
Adj. Flow (vph)	4	4	1130	20	7	6	859	4	12	4	11	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	8	1130	20	0	13	863	0	0	27	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)			30				30			0		
Link Offset(ft)			0				0			0		
Crosswalk Width(ft)			16				16			16		
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	9	15		9	9	15		9	15		9	15
Sign Control			Free				Free			Stop		

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 38.1% ICU Level of Service A
Analysis Period (min) 15

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	4	4
Future Volume (vph)	4	4
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Frt	0.955	
Flt Protected	0.984	
Satd. Flow (prot)	1750	0
Flt Permitted	0.984	
Satd. Flow (perm)	1750	0
Link Speed (mph)	35	
Link Distance (ft)	2307	
Travel Time (s)	44.9	
Peak Hour Factor	0.90	0.90
Heavy Vehicles (%)	2%	2%
Adj. Flow (vph)	4	4
Shared Lane Traffic (%)		
Lane Group Flow (vph)	12	0
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	0	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Sign Control	Stop	

Intersection Summary

Intersection														
Int Delay, s/veh	1.3													
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Vol, veh/h	4	4	1017	18	6	5	773	4	11	4	10	4	4	4
Future Vol, veh/h	4	4	1017	18	6	5	773	4	11	4	10	4	4	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	275	-	250	-	350	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	6	2	20	2	2	10	2	11	2	2	2
Mvmt Flow	4	4	1130	20	7	6	859	4	12	4	11	4	4	4

Major/Minor	Major1				Major2				Minor1			Minor2		
Conflicting Flow All	863	863	0	0	1130	1150	0	0	1604	2035	565	1470	2053	432
Stage 1	-	-	-	-	-	-	-	-	1146	1146	-	887	887	-
Stage 2	-	-	-	-	-	-	-	-	458	889	-	583	1166	-
Critical Hdwy	6.44	4.14	-	-	6.44	4.5	-	-	7.7	6.54	7.12	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	6.7	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	6.7	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.52	2.22	-	-	2.52	2.4	-	-	3.6	4.02	3.41	3.52	4.02	3.32
Pot Cap-1 Maneuver	406	775	-	-	274	510	-	-	65	56	446	89	55	572
Stage 1	-	-	-	-	-	-	-	-	199	272	-	305	360	-
Stage 2	-	-	-	-	-	-	-	-	531	360	-	465	266	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	530	530	-	-	342	342	-	-	58	53	446	78	52	572
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	58	53	-	78	52	-
Stage 1	-	-	-	-	-	-	-	-	196	267	-	300	347	-
Stage 2	-	-	-	-	-	-	-	-	502	347	-	438	261	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.2	64.7	52.4
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	87	530	-	-	342	-	-	89
HCM Lane V/C Ratio	0.319	0.017	-	-	0.036	-	-	0.15
HCM Control Delay (s)	64.7	11.9	-	-	15.9	-	-	52.4
HCM Lane LOS	F	B	-	-	C	-	-	F
HCM 95th %tile Q(veh)	1.2	0.1	-	-	0.1	-	-	0.5

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	1033	778	8	0	7
Future Volume (vph)	0	1033	778	8	0	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			100	0	0
Storage Lanes	0			1	0	1
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt				0.850		0.865
Flt Protected						
Satd. Flow (prot)	0	3539	3539	1583	0	1611
Flt Permitted						
Satd. Flow (perm)	0	3539	3539	1583	0	1611
Link Speed (mph)		35	35		25	
Link Distance (ft)		513	1060		995	
Travel Time (s)		10.0	20.6		27.1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	1148	864	9	0	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1148	864	9	0	8
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		30	30		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 31.9% ICU Level of Service A
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Traffic Vol, veh/h	0	1033	778	8	0	7
Future Vol, veh/h	0	1033	778	8	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	100	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1148	864	9	0	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	432
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	572
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	572
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	572
HCM Lane V/C Ratio	-	-	-	0.014
HCM Control Delay (s)	-	-	-	11.4
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:57	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	4680	4754	4694	4807	4716	4840	4744
Vehs Exited	4714	4704	4683	4857	4726	4786	4736
Starting Vehs	343	307	339	388	363	314	334
Ending Vehs	309	357	350	338	353	368	342
Travel Distance (mi)	7841	7909	7882	8073	7889	8043	7921
Travel Time (hr)	335.0	340.2	362.5	353.6	333.9	354.0	350.8
Total Delay (hr)	101.8	104.6	127.6	112.6	98.6	114.7	114.7
Total Stops	6063	6165	6679	6345	5885	6431	6449
Fuel Used (gal)	259.3	262.1	265.9	269.2	260.0	269.1	266.3

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	4739	4811	4769	4755
Vehs Exited	4706	4792	4748	4747
Starting Vehs	329	330	364	336
Ending Vehs	362	349	385	346
Travel Distance (mi)	7915	8008	7983	7946
Travel Time (hr)	352.7	342.2	353.5	347.8
Total Delay (hr)	116.6	103.6	115.6	111.0
Total Stops	6479	5994	6293	6278
Fuel Used (gal)	266.2	265.8	266.5	265.0

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	4680	4754	4694	4807	4716	4840	4744
Vehs Exited	4714	4704	4683	4857	4726	4786	4736
Starting Vehs	343	307	339	388	363	314	334
Ending Vehs	309	357	350	338	353	368	342
Travel Distance (mi)	7841	7909	7882	8073	7889	8043	7921
Travel Time (hr)	335.0	340.2	362.5	353.6	333.9	354.0	350.8
Total Delay (hr)	101.8	104.6	127.6	112.6	98.6	114.7	114.7
Total Stops	6063	6165	6679	6345	5885	6431	6449
Fuel Used (gal)	259.3	262.1	265.9	269.2	260.0	269.1	266.3

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	4739	4811	4769	4755
Vehs Exited	4706	4792	4748	4747
Starting Vehs	329	330	364	336
Ending Vehs	362	349	385	346
Travel Distance (mi)	7915	8008	7983	7946
Travel Time (hr)	352.7	342.2	353.5	347.8
Total Delay (hr)	116.6	103.6	115.6	111.0
Total Stops	6479	5994	6293	6278
Fuel Used (gal)	266.2	265.8	266.5	265.0

Intersection: 1: Providence Rd & Church Drwy/Weddington Rd

Movement	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	L	LT	R	L	T	T	R	L	L	T	TR
Maximum Queue (ft)	65	243	390	382	35	436	446	294	349	365	270	263
Average Queue (ft)	20	145	182	233	5	284	290	128	199	213	135	143
95th Queue (ft)	54	221	308	364	23	401	408	236	303	320	223	222
Link Distance (ft)	2463		3044			1056	1056				2497	2497
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)		525		300	500			375	375	375		
Storage Blk Time (%)			0	3		0	2		0	1	0	
Queuing Penalty (veh)			1	15		0	9		1	3	0	

Intersection: 2: Providence Rd & Lenny Stadler Way

Movement	EB	EB	NB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	T	TR
Maximum Queue (ft)	122	43	82	146	165	260	286
Average Queue (ft)	56	14	31	45	74	122	130
95th Queue (ft)	103	39	68	113	152	234	254
Link Distance (ft)	2385			1260	1260	1056	1056
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		50	300				
Storage Blk Time (%)	26	1					
Queuing Penalty (veh)	4	1					

Intersection: 3: Providence Rd & Access "A"/Old Mill Rd

Movement	EB	WB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	UL	TR	L	T	TR
Maximum Queue (ft)	81	62	36	2	39	10	12
Average Queue (ft)	26	17	7	0	10	1	1
95th Queue (ft)	73	48	26	2	34	6	10
Link Distance (ft)	984	3799		1460		1260	1260
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			300		300		
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 4: Providence Rd & Rea Rd

Movement	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	UL	R	L	L	T	T	U	T	R
Maximum Queue (ft)	772	682	199	213	261	272	275	824	809
Average Queue (ft)	521	329	105	121	152	161	15	545	341
95th Queue (ft)	830	687	189	207	240	248	120	823	698
Link Distance (ft)	981	981				1812		1460	1460
Upstream Blk Time (%)	1	1							
Queuing Penalty (veh)	4	3							
Storage Bay Dist (ft)			400	400	400		275		
Storage Blk Time (%)								46	
Queuing Penalty (veh)								2	

Intersection: 5: Providence Rd & Lochaven Rd

Movement	WB	NB	SB
Directions Served	LR	TR	L
Maximum Queue (ft)	66	2	63
Average Queue (ft)	23	0	20
95th Queue (ft)	54	2	50
Link Distance (ft)	2768	2439	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			200
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Highclere Dr/Private Drwy & Rea Rd

Movement	EB	EB	EB	EB	WB	WB	NB	SB
Directions Served	UL	T	T	R	UL	TR	LTR	LTR
Maximum Queue (ft)	34	10	2	2	43	2	53	48
Average Queue (ft)	5	0	0	0	7	0	14	12
95th Queue (ft)	23	5	2	1	28	2	39	39
Link Distance (ft)		2732	2732			455	1652	2251
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	275			250	350			
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 7: Rea Rd & Access "B"

Movement	EB	EB	SB
Directions Served	T	T	R
Maximum Queue (ft)	24	24	25
Average Queue (ft)	3	3	4
95th Queue (ft)	36	31	19
Link Distance (ft)	455	455	926
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 42

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	0	0	23	0	0	9	4	4	1334	4	13	1045
Future Volume (vph)	0	0	23	0	0	9	4	4	1334	4	13	1045
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0		300		0	300	
Storage Lanes	0		1	0		1		1		0	1	
Taper Length (ft)	100			100				100			100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	0.95	1.00	0.95
Frt			0.865			0.865						0.999
Flt Protected								0.950			0.950	
Satd. Flow (prot)	0	0	1611	0	0	1467	0	1770	3539	0	1444	3435
Flt Permitted								0.950			0.950	
Satd. Flow (perm)	0	0	1611	0	0	1467	0	1770	3539	0	1444	3435
Link Speed (mph)		25			35				35			35
Link Distance (ft)		1235			3855				1542			1331
Travel Time (s)		33.7			75.1				30.0			25.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	12%	2%	2%	2%	2%	25%	5%
Adj. Flow (vph)	0	0	26	0	0	10	4	4	1482	4	14	1161
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	26	0	0	10	0	8	1486	0	14	1169
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	Left	Left
Median Width(ft)		0			0				30			30
Link Offset(ft)		0			0				0			0
Crosswalk Width(ft)		16			16				16			16
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	9	15		9	15	
Sign Control		Stop			Stop				Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 47.0% ICU Level of Service A
Analysis Period (min) 15

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	7
Future Volume (vph)	7
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	0.95
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.90
Heavy Vehicles (%)	2%
Adj. Flow (vph)	8
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Sign Control	
Intersection Summary	

Intersection													
Int Delay, s/veh	0.3												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	0	0	23	0	0	9	4	4	1334	4	13	1045	7
Future Vol, veh/h	0	0	23	0	0	9	4	4	1334	4	13	1045	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	300	-	-	300	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	12	2	2	2	2	25	5	2
Mvmt Flow	0	0	26	0	0	10	4	4	1482	4	14	1161	8

Major/Minor	Minor2		Minor1			Major1					Major2		
Conflicting Flow All	-	-	585	-	-	743	1169	1169	0	0	1486	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	7.14	6.44	4.14	-	-	4.6	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.42	2.52	2.22	-	-	2.45	-	-
Pot Cap-1 Maneuver	0	0	454	0	0	336	258	593	-	-	350	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-	-
Platoon blocked, %									-	-		-	-
Mov Cap-1 Maneuver	-	-	454	-	-	336	347	347	-	-	350	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.4	16	0.1	0.2
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	347	-	-	454	336	350	-	-
HCM Lane V/C Ratio	0.026	-	-	0.056	0.03	0.041	-	-
HCM Control Delay (s)	15.7	-	-	13.4	16	15.7	-	-
HCM Lane LOS	C	-	-	B	C	C	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.1	0.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	0	0	15	0	0	13	4	5	1417	4	16	1223
Future Volume (vph)	0	0	15	0	0	13	4	5	1417	4	16	1223
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0		300		0	300	
Storage Lanes	0		1	0		1		1		0	1	
Taper Length (ft)	100			100				100			100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	0.95	1.00	0.95
Frt			0.865			0.865						0.997
Flt Protected								0.950			0.950	
Satd. Flow (prot)	0	0	1611	0	0	1522	0	1770	3505	0	1770	3529
Flt Permitted								0.950			0.950	
Satd. Flow (perm)	0	0	1611	0	0	1522	0	1770	3505	0	1770	3529
Link Speed (mph)		25			35				35			35
Link Distance (ft)		1041			3855				1542			1331
Travel Time (s)		28.4			75.1				30.0			25.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	8%	2%	2%	3%	2%	2%	2%
Adj. Flow (vph)	0	0	17	0	0	14	4	6	1574	4	18	1359
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	17	0	0	14	0	10	1578	0	18	1385
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	Left	Left
Median Width(ft)		0			0				30			30
Link Offset(ft)		0			0				0			0
Crosswalk Width(ft)		16			16				16			16
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	9	15		9	15	
Sign Control		Stop			Stop				Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 49.3% ICU Level of Service A
Analysis Period (min) 15

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	23
Future Volume (vph)	23
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	0.95
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.90
Heavy Vehicles (%)	2%
Adj. Flow (vph)	26
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Sign Control	

Intersection Summary

Intersection													
Int Delay, s/veh	0.3												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	0	0	15	0	0	13	4	5	1417	4	16	1223	23
Future Vol, veh/h	0	0	15	0	0	13	4	5	1417	4	16	1223	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	300	-	-	300	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	8	2	2	3	2	2	2	2
Mvmt Flow	0	0	17	0	0	14	4	6	1574	4	18	1359	26

Major/Minor	Minor2			Minor1			Major1				Major2		
Conflicting Flow All	-	-	693	-	-	789	1384	1385	0	0	1578	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	7.06	6.44	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.38	2.52	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	0	0	386	0	0	321	188	490	-	-	413	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-	-
Platoon blocked, %									-	-		-	-
Mov Cap-1 Maneuver	-	-	386	-	-	321	279	279	-	-	413	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.7	16.7	0.1	0.2
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	279	-	-	386	321	413	-	-
HCM Lane V/C Ratio	0.036	-	-	0.043	0.045	0.043	-	-
HCM Control Delay (s)	18.4	-	-	14.7	16.7	14.1	-	-
HCM Lane LOS	C	-	-	B	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.1	0.1	-	-

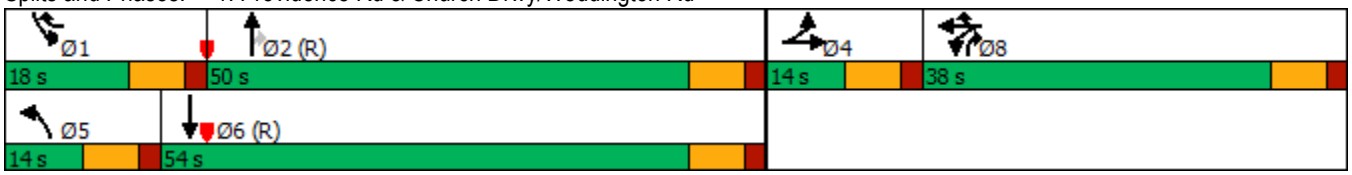
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	28	4	436	13	502	14	971	234	248	600	4
Future Volume (vph)	38	28	4	436	13	502	14	971	234	248	600	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	525		300	500		375	375		0
Storage Lanes	0		0	1		1	1		1	2		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.993				0.850			0.850		0.999	
Flt Protected		0.973		0.950	0.955		0.950			0.950		
Satd. Flow (prot)	0	1800	0	1665	1674	1583	1770	3539	1583	3303	3371	0
Flt Permitted		0.973		0.950	0.955		0.950			0.950		
Satd. Flow (perm)	0	1800	0	1665	1674	1583	1770	3539	1583	3303	3371	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2519			3105			1122			2544	
Travel Time (s)		49.1			60.5			21.9			49.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	6%	7%	2%
Adj. Flow (vph)	42	31	4	484	14	558	16	1079	260	276	667	4
Shared Lane Traffic (%)				49%								
Lane Group Flow (vph)	0	77	0	247	251	558	16	1079	260	276	671	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			18			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA	pt+ov	Prot	NA	pm+ov	Prot	NA	
Protected Phases	4	4		8	8	8 1	5	2	8	1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases									2			
Detector Phase	4	4		8	8	8 1	5	2	8	1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	7.0	7.0	10.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		14.0	17.0	14.0	14.0	17.0	
Total Split (s)	14.0	14.0		38.0	38.0		14.0	50.0	38.0	18.0	54.0	
Total Split (%)	11.7%	11.7%		31.7%	31.7%		11.7%	41.7%	31.7%	15.0%	45.0%	
Maximum Green (s)	7.0	7.0		31.0	31.0		7.0	43.0	31.0	11.0	47.0	
Yellow Time (s)	5.0	5.0		5.0	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	
Lost Time Adjust (s)		-2.0		-2.0	-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)		5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max	None	None	C-Max	
Act Effct Green (s)		9.0		33.1	33.1	51.1	9.0	47.7	81.8	13.0	60.1	
Actuated g/C Ratio		0.08		0.28	0.28	0.43	0.08	0.40	0.68	0.11	0.50	
v/c Ratio		0.57		0.54	0.54	0.83	0.12	0.77	0.24	0.77	0.40	
Control Delay		70.7		42.2	42.3	42.9	55.6	40.8	3.4	67.2	21.5	
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		70.7		42.2	42.3	42.9	55.6	40.8	3.4	67.2	21.5	
LOS		E		D	D	D	E	D	A	E	C	
Approach Delay		70.7			42.6			33.8			34.8	
Approach LOS		E			D			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 37.6 Intersection LOS: D
Intersection Capacity Utilization 76.3% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 1: Providence Rd & Church Drwy/Weddington Rd



Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	77	247	251	558	16	1079	260	276	671
v/c Ratio	0.57	0.54	0.54	0.83	0.12	0.77	0.24	0.77	0.40
Control Delay	70.7	42.2	42.3	42.9	55.6	40.8	3.4	67.2	21.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.7	42.2	42.3	42.9	55.6	40.8	3.4	67.2	21.5
Queue Length 50th (ft)	59	171	174	377	12	392	31	108	156
Queue Length 95th (ft)	#117	262	267	#576	m29	485	52	#169	255
Internal Link Dist (ft)	2439		3025			1042			2464
Turn Bay Length (ft)		525		300	500		375	375	
Base Capacity (vph)	135	458	461	673	132	1407	1078	358	1689
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.54	0.54	0.83	0.12	0.77	0.24	0.77	0.40

Intersection Summary

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.

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	44	37	102	1184	964	113
Future Volume (vph)	44	37	102	1184	964	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	300			0
Storage Lanes	1	1	1			0
Taper Length (ft)	100		100			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.850			0.984	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1687	1568	1770	3539	3393	0
Flt Permitted	0.950		0.182			
Satd. Flow (perm)	1687	1568	339	3539	3393	0
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	35			35	35	
Link Distance (ft)	2436			1331	1122	
Travel Time (s)	47.5			25.9	21.9	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	7%	3%	2%	2%	5%	2%
Adj. Flow (vph)	50	42	116	1345	1095	128
Shared Lane Traffic (%)						
Lane Group Flow (vph)	50	42	116	1345	1223	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	
Detector Template	Left	Right	Left	Thru	Thru	
Leading Detector (ft)	20	20	20	100	100	
Trailing Detector (ft)	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	
Detector 1 Size(ft)	20	20	20	6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)				94	94	
Detector 2 Size(ft)				6	6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot	pt+ov	pm+pt	NA	NA	
Protected Phases	4	4 5	5	2	6	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Permitted Phases			2			
Detector Phase	4	4 5	5	2	6	
Switch Phase						
Minimum Initial (s)	7.0		7.0	10.0	10.0	
Minimum Split (s)	14.0		14.0	17.0	17.0	
Total Split (s)	18.0		18.0	102.0	84.0	
Total Split (%)	15.0%		15.0%	85.0%	70.0%	
Maximum Green (s)	11.0		11.0	95.0	77.0	
Yellow Time (s)	5.0		5.0	5.0	5.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	-2.0		-2.0	-2.0	-2.0	
Total Lost Time (s)	5.0		5.0	5.0	5.0	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		None	C-Max	C-Max	
Act Effct Green (s)	10.9	22.5	101.9	102.9	87.5	
Actuated g/C Ratio	0.09	0.19	0.85	0.86	0.73	
v/c Ratio	0.33	0.14	0.29	0.44	0.49	
Control Delay	56.4	38.9	3.2	2.1	11.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	56.4	38.9	3.2	2.1	11.9	
LOS	E	D	A	A	B	
Approach Delay	48.4			2.2	11.9	
Approach LOS	D			A	B	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.49
Intersection Signal Delay: 8.0 Intersection LOS: A
Intersection Capacity Utilization 54.4% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 2: Providence Rd & Lenny Stadler Way

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	50	42	116	1345	1223
v/c Ratio	0.33	0.14	0.29	0.44	0.49
Control Delay	56.4	38.9	3.2	2.1	11.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	56.4	38.9	3.2	2.1	11.9
Queue Length 50th (ft)	37	27	9	74	409
Queue Length 95th (ft)	75	56	m16	96	250
Internal Link Dist (ft)	2356			1251	1042
Turn Bay Length (ft)		50	300		
Base Capacity (vph)	182	318	442	3033	2474
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.27	0.13	0.26	0.44	0.49

Intersection Summary

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

Lane Group	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	4	8	4	1342	4	12	985
Future Volume (vph)	4	8	4	1342	4	12	985
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	300		0	300	
Storage Lanes	1	0	1		0	1	
Taper Length (ft)	100		100			100	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.95
Frt	0.907						
Flt Protected	0.985		0.950			0.950	
Satd. Flow (prot)	1558	0	1770	3539	0	1444	3438
Flt Permitted	0.985		0.950			0.950	
Satd. Flow (perm)	1558	0	1770	3539	0	1444	3438
Link Speed (mph)	35			35			35
Link Distance (ft)	3855			1542			1331
Travel Time (s)	75.1			30.0			25.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	12%	2%	2%	2%	25%	5%
Adj. Flow (vph)	4	9	4	1491	4	13	1094
Shared Lane Traffic (%)							
Lane Group Flow (vph)	13	0	4	1495	0	13	1094
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	R NA	Left	Right	Left	Left
Median Width(ft)	12			30			30
Link Offset(ft)	0			0			0
Crosswalk Width(ft)	16			16			16
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9		9	15	
Sign Control	Stop			Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 47.2% ICU Level of Service A
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	4	8	4	1342	4	12	985
Future Vol, veh/h	4	8	4	1342	4	12	985
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	300	-	-	300	-
Veh in Median Storage, #	0	-	-	0	-	-	0
Grade, %	0	-	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90	90
Heavy Vehicles, %	2	12	2	2	2	25	5
Mvmt Flow	4	9	4	1491	4	13	1094

Major/Minor	Minor1		Major1			Major2	
Conflicting Flow All	2074	748	1094	0	0	1495	0
Stage 1	1501	-	-	-	-	-	-
Stage 2	573	-	-	-	-	-	-
Critical Hdwy	6.84	7.14	6.44	-	-	4.6	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.42	2.52	-	-	2.45	-
Pot Cap-1 Maneuver	46	334	289	-	-	347	-
Stage 1	171	-	-	-	-	-	-
Stage 2	527	-	-	-	-	-	-
Platoon blocked, %				-	-		-
Mov Cap-1 Maneuver	44	334	289	-	-	347	-
Mov Cap-2 Maneuver	44	-	-	-	-	-	-
Stage 1	169	-	-	-	-	-	-
Stage 2	508	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	44.6	0.1	0.2
HCM LOS	E		

Minor Lane/Major Mvmt	NBU	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	289	-	-	104	347	-
HCM Lane V/C Ratio	0.015	-	-	0.128	0.038	-
HCM Control Delay (s)	17.7	-	-	44.6	15.8	-
HCM Lane LOS	C	-	-	E	C	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.1	-

Lane Group	EBU	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	4	364	186	423	982	4	599	391
Future Volume (vph)	4	364	186	423	982	4	599	391
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0	400		275		0
Storage Lanes		1	1	3		1		1
Taper Length (ft)		100		100		100		
Lane Util. Factor	1.00	1.00	1.00	0.97	0.95	1.00	1.00	1.00
Frt			0.850					0.850
Flt Protected		0.950		0.950		0.950		
Satd. Flow (prot)	0	1770	1583	3433	3539	1770	1827	1568
Flt Permitted		0.950		0.950		0.262		
Satd. Flow (perm)	0	1770	1583	3433	3539	488	1827	1568
Right Turn on Red			No					Yes
Satd. Flow (RTOR)								385
Link Speed (mph)		35			35		35	
Link Distance (ft)		1060			1885		1542	
Travel Time (s)		20.6			36.7		30.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	4%	3%
Adj. Flow (vph)	4	404	207	470	1091	4	666	434
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	408	207	470	1091	4	666	434
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Right	Left	Left	R NA	Left	Right
Median Width(ft)		30			30		30	
Link Offset(ft)		0			0		0	
Crosswalk Width(ft)		16			16		16	
Two way Left Turn Lane								
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15	9	15		9		9
Number of Detectors	1	1	1	1	2	1	2	1
Detector Template	Left	Left	Right	Left	Thru	Left	Thru	Right
Leading Detector (ft)	20	20	20	20	100	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	20	20	6	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel								
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)					94		94	
Detector 2 Size(ft)					6		6	
Detector 2 Type					Cl+Ex		Cl+Ex	
Detector 2 Channel								
Detector 2 Extend (s)					0.0		0.0	
Turn Type	Perm	Prot	pt+ov	Prot	NA	Perm	NA	Perm
Protected Phases		4	4 5	5	2		6	

Lane Group	EBU	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Permitted Phases	4					6		6
Detector Phase	4	4	4 5	5	2	6	6	6
Switch Phase								
Minimum Initial (s)	7.0	7.0		7.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.0	14.0		14.0	17.0	17.0	17.0	17.0
Total Split (s)	38.0	38.0		24.0	82.0	58.0	58.0	58.0
Total Split (%)	31.7%	31.7%		20.0%	68.3%	48.3%	48.3%	48.3%
Maximum Green (s)	31.0	31.0		17.0	75.0	51.0	51.0	51.0
Yellow Time (s)	5.0	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
Lost Time Adjust (s)		-2.0		-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)		5.0		5.0	5.0	5.0	5.0	5.0
Lead/Lag				Lead		Lag	Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		31.4	55.7	19.3	78.6	54.3	54.3	54.3
Actuated g/C Ratio		0.26	0.46	0.16	0.66	0.45	0.45	0.45
v/c Ratio		0.88	0.28	0.85	0.47	0.02	0.81	0.47
Control Delay		63.7	20.7	64.8	11.4	44.0	59.6	25.3
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		63.7	20.7	64.8	11.4	44.0	59.6	25.3
LOS		E	C	E	B	D	E	C
Approach Delay		49.2			27.5		46.1	
Approach LOS		D			C		D	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTU, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 37.8 Intersection LOS: D
Intersection Capacity Utilization 76.5% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 4: Providence Rd & Rea Rd

Lane Group	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Group Flow (vph)	408	207	470	1091	4	666	434
v/c Ratio	0.88	0.28	0.85	0.47	0.02	0.81	0.47
Control Delay	63.7	20.7	64.8	11.4	44.0	59.6	25.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.7	20.7	64.8	11.4	44.0	59.6	25.3
Queue Length 50th (ft)	298	94	185	213	3	514	188
Queue Length 95th (ft)	#464	148	#271	261	m7	#676	321
Internal Link Dist (ft)	980			1805		1462	
Turn Bay Length (ft)			400		275		
Base Capacity (vph)	486	724	551	2317	220	826	920
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	0.84	0.29	0.85	0.47	0.02	0.81	0.47

Intersection Summary

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.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	5	69	1311	7	18	767
Future Volume (vph)	5	69	1311	7	18	767
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	0		0	1	
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.875		0.999			
Flt Protected	0.996				0.950	
Satd. Flow (prot)	1623	0	1860	0	1770	1845
Flt Permitted	0.996				0.950	
Satd. Flow (perm)	1623	0	1860	0	1770	1845
Link Speed (mph)	35		35			35
Link Distance (ft)	2804		2471			1885
Travel Time (s)	54.6		48.1			36.7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	14%	2%	3%
Adj. Flow (vph)	6	77	1457	8	20	852
Shared Lane Traffic (%)						
Lane Group Flow (vph)	83	0	1465	0	20	852
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 80.6% ICU Level of Service D
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	69	1311	7	18	767
Future Vol, veh/h	5	69	1311	7	18	767
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	14	2	3
Mvmt Flow	6	77	1457	8	20	852

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2353	1461	0	0	1465	0
Stage 1	1461	-	-	-	-	-
Stage 2	892	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	39	158	-	-	461	-
Stage 1	213	-	-	-	-	-
Stage 2	400	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	37	158	-	-	461	-
Mov Cap-2 Maneuver	37	-	-	-	-	-
Stage 1	213	-	-	-	-	-
Stage 2	383	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	72.4	0	0.3
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	129	461	-
HCM Lane V/C Ratio	-	-	0.637	0.043	-
HCM Control Delay (s)	-	-	72.4	13.2	-
HCM Lane LOS	-	-	F	B	-
HCM 95th %tile Q(veh)	-	-	3.4	0.1	-

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	4	4	545	14	4	4	806	4	29	4	4	4
Future Volume (vph)	4	4	545	14	4	4	806	4	29	4	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		275		250		350		0	0		0	0
Storage Lanes		1		1		1		0	0		0	0
Taper Length (ft)		100				100			100			100
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt				0.850			0.999			0.986		
Flt Protected		0.950				0.950				0.962		
Satd. Flow (prot)	0	1770	3539	1583	0	1770	3536	0	0	1767	0	0
Flt Permitted		0.950				0.950				0.962		
Satd. Flow (perm)	0	1770	3539	1583	0	1770	3536	0	0	1767	0	0
Link Speed (mph)			35				35			35		
Link Distance (ft)			2763				513			1720		
Travel Time (s)			53.8				10.0			33.5		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	4	4	606	16	4	4	896	4	32	4	4	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	8	606	16	0	8	900	0	0	40	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)			30				30			0		
Link Offset(ft)			0				0			0		
Crosswalk Width(ft)			16				16			16		
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	9	15		9	9	15		9	15		9	15
Sign Control			Free				Free			Stop		

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 33.4% ICU Level of Service A
Analysis Period (min) 15

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	4	4
Future Volume (vph)	4	4
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Frt	0.955	
Flt Protected	0.984	
Satd. Flow (prot)	1750	0
Flt Permitted	0.984	
Satd. Flow (perm)	1750	0
Link Speed (mph)	35	
Link Distance (ft)	2307	
Travel Time (s)	44.9	
Peak Hour Factor	0.90	0.90
Adj. Flow (vph)	4	4
Shared Lane Traffic (%)		
Lane Group Flow (vph)	12	0
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	0	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Sign Control	Stop	

Intersection Summary

Intersection														
Int Delay, s/veh	1.3													
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Vol, veh/h	4	4	545	14	4	4	806	4	29	4	4	4	4	4
Future Vol, veh/h	4	4	545	14	4	4	806	4	29	4	4	4	4	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	275	-	250	-	350	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	4	606	16	4	4	896	4	32	4	4	4	4	4

Major/Minor	Major1				Major2				Minor1			Minor2		
Conflicting Flow All	900	900	0	0	606	622	0	0	1088	1538	303	1235	1552	450
Stage 1	-	-	-	-	-	-	-	-	622	622	-	914	914	-
Stage 2	-	-	-	-	-	-	-	-	466	916	-	321	638	-
Critical Hdwy	6.44	4.14	-	-	6.44	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.52	2.22	-	-	2.52	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	385	751	-	-	593	955	-	-	170	115	693	133	112	556
Stage 1	-	-	-	-	-	-	-	-	441	477	-	294	350	-
Stage 2	-	-	-	-	-	-	-	-	546	349	-	665	469	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	506	506	-	-	729	729	-	-	160	112	693	125	109	556
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	160	112	-	125	109	-
Stage 1	-	-	-	-	-	-	-	-	433	468	-	289	346	-
Stage 2	-	-	-	-	-	-	-	-	528	345	-	643	461	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.1	33.7	29.9
HCM LOS			D	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	166	506	-	-	729	-	-	158
HCM Lane V/C Ratio	0.248	0.018	-	-	0.012	-	-	0.084
HCM Control Delay (s)	33.7	12.2	-	-	10	-	-	29.9
HCM Lane LOS	D	B	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0.9	0.1	-	-	0	-	-	0.3

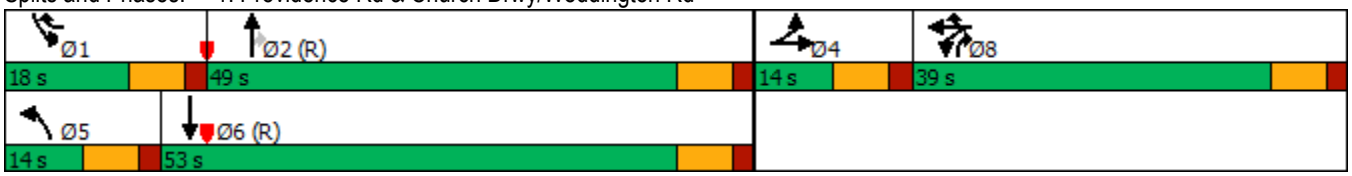
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	30	4	463	14	533	15	1030	248	263	637	4
Future Volume (vph)	40	30	4	463	14	533	15	1030	248	263	637	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	525		300	500		375	375		0
Storage Lanes	0		0	1		1	1		1	2		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.993				0.850			0.850		0.999	
Flt Protected		0.974		0.950	0.955		0.950			0.950		
Satd. Flow (prot)	0	1802	0	1665	1675	1583	1770	3539	1583	3303	3371	0
Flt Permitted		0.974		0.950	0.955		0.950			0.950		
Satd. Flow (perm)	0	1802	0	1665	1675	1583	1770	3539	1583	3303	3371	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2519			3105			1122			2544	
Travel Time (s)		49.1			60.5			21.9			49.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	6%	7%	2%
Adj. Flow (vph)	44	33	4	514	16	592	17	1144	276	292	708	4
Shared Lane Traffic (%)				49%								
Lane Group Flow (vph)	0	81	0	262	268	592	17	1144	276	292	712	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			18			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA	pt+ov	Prot	NA	pm+ov	Prot	NA	
Protected Phases	4	4		8	8	8 1	5	2	8	1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases									2			
Detector Phase	4	4		8	8	8 1	5	2	8	1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	7.0	7.0	10.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		14.0	17.0	14.0	14.0	17.0	
Total Split (s)	14.0	14.0		39.0	39.0		14.0	49.0	39.0	18.0	53.0	
Total Split (%)	11.7%	11.7%		32.5%	32.5%		11.7%	40.8%	32.5%	15.0%	44.2%	
Maximum Green (s)	7.0	7.0		32.0	32.0		7.0	42.0	32.0	11.0	46.0	
Yellow Time (s)	5.0	5.0		5.0	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	
Lost Time Adjust (s)		-2.0		-2.0	-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)		5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max	None	None	C-Max	
Act Effct Green (s)		9.0		34.4	34.4	52.6	9.0	46.2	81.6	13.2	58.8	
Actuated g/C Ratio		0.08		0.29	0.29	0.44	0.08	0.38	0.68	0.11	0.49	
v/c Ratio		0.60		0.55	0.56	0.85	0.13	0.84	0.26	0.81	0.43	
Control Delay		72.6		41.6	41.8	44.2	57.3	44.5	3.0	70.1	22.7	
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		72.6		41.6	41.8	44.2	57.3	44.5	3.0	70.1	22.7	
LOS		E		D	D	D	E	D	A	E	C	
Approach Delay		72.6			43.0			36.7			36.5	
Approach LOS		E			D			D			D	
Queue Length 50th (ft)		62		182	186	408	14	426	25	115	171	
Queue Length 95th (ft)		#126		275	282	#624	m30	#536	48	#184	277	
Internal Link Dist (ft)		2439			3025			1042			2464	
Turn Bay Length (ft)				525		300	500		375	375		
Base Capacity (vph)		135		477	480	693	132	1362	1076	361	1650	
Starvation Cap Reductn		0		0	0	0	0	0	0	0	0	
Spillback Cap Reductn		0		0	0	0	0	0	0	0	0	
Storage Cap Reductn		0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio		0.60		0.55	0.56	0.85	0.13	0.84	0.26	0.81	0.43	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 39.4 Intersection LOS: D
Intersection Capacity Utilization 79.8% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Providence Rd & Church Drwy/Weddington Rd



Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	81	262	268	592	17	1144	276	292	712
v/c Ratio	0.60	0.55	0.56	0.85	0.13	0.84	0.26	0.81	0.43
Control Delay	72.6	41.6	41.8	44.2	57.3	44.5	3.0	70.1	22.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.6	41.6	41.8	44.2	57.3	44.5	3.0	70.1	22.7
Queue Length 50th (ft)	62	182	186	408	14	426	25	115	171
Queue Length 95th (ft)	#126	275	282	#624	m30	#536	48	#184	277
Internal Link Dist (ft)	2439		3025			1042			2464
Turn Bay Length (ft)		525		300	500		375	375	
Base Capacity (vph)	135	477	480	693	132	1362	1076	361	1650
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.55	0.56	0.85	0.13	0.84	0.26	0.81	0.43

Intersection Summary

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.

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	47	39	108	1256	1023	120
Future Volume (vph)	47	39	108	1256	1023	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	300			0
Storage Lanes	1	1	1			0
Taper Length (ft)	100		100			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.850			0.984	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1687	1568	1770	3539	3393	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1687	1568	1770	3539	3393	0
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	35			35	35	
Link Distance (ft)	2436			1331	1122	
Travel Time (s)	47.5			25.9	21.9	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	7%	3%	2%	2%	5%	2%
Adj. Flow (vph)	53	44	123	1427	1163	136
Shared Lane Traffic (%)						
Lane Group Flow (vph)	53	44	123	1427	1299	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	
Detector Template	Left	Right	Left	Thru	Thru	
Leading Detector (ft)	20	20	20	100	100	
Trailing Detector (ft)	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	
Detector 1 Size(ft)	20	20	20	6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)				94	94	
Detector 2 Size(ft)				6	6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot	pt+ov	Prot	NA	NA	
Protected Phases	4	4 5	5	2	6	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Permitted Phases						
Detector Phase	4	4 5	5	2	6	
Switch Phase						
Minimum Initial (s)	7.0		7.0	10.0	10.0	
Minimum Split (s)	14.0		14.0	17.0	17.0	
Total Split (s)	16.0		24.0	104.0	80.0	
Total Split (%)	13.3%		20.0%	86.7%	66.7%	
Maximum Green (s)	9.0		17.0	97.0	73.0	
Yellow Time (s)	5.0		5.0	5.0	5.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	-2.0		-2.0	-2.0	-2.0	
Total Lost Time (s)	5.0		5.0	5.0	5.0	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		None	C-Max	C-Max	
Act Effct Green (s)	10.3	27.8	15.2	103.5	82.2	
Actuated g/C Ratio	0.09	0.23	0.13	0.86	0.68	
v/c Ratio	0.37	0.12	0.55	0.47	0.56	
Control Delay	59.0	33.5	61.4	2.0	14.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	59.0	33.5	61.4	2.0	14.9	
LOS	E	C	E	A	B	
Approach Delay	47.4			6.7	14.9	
Approach LOS	D			A	B	
Queue Length 50th (ft)	39	26	95	81	456	
Queue Length 95th (ft)	80	54	m142	92	266	
Internal Link Dist (ft)	2356			1251	1042	
Turn Bay Length (ft)		50	300			
Base Capacity (vph)	154	402	280	3051	2324	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.34	0.11	0.44	0.47	0.56	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay: 11.7 Intersection LOS: B
Intersection Capacity Utilization 56.4% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Providence Rd & Lenny Stadler Way

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	53	44	123	1427	1299
v/c Ratio	0.37	0.12	0.55	0.47	0.56
Control Delay	59.0	33.5	61.4	2.0	14.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	59.0	33.5	61.4	2.0	14.9
Queue Length 50th (ft)	39	26	95	81	456
Queue Length 95th (ft)	80	54	m142	92	266
Internal Link Dist (ft)	2356			1251	1042
Turn Bay Length (ft)		50	300		
Base Capacity (vph)	154	402	280	3051	2324
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.34	0.11	0.44	0.47	0.56

Intersection Summary

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

Lane Group	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	4	8	4	1424	4	13	1045
Future Volume (vph)	4	8	4	1424	4	13	1045
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	300		0	300	
Storage Lanes	1	0	1		0	1	
Taper Length (ft)	100		100			100	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.95
Frt	0.907						
Flt Protected	0.985		0.950			0.950	
Satd. Flow (prot)	1558	0	1770	3539	0	1444	3438
Flt Permitted	0.985		0.950			0.950	
Satd. Flow (perm)	1558	0	1770	3539	0	1444	3438
Link Speed (mph)	35			35			35
Link Distance (ft)	3855			1542			1331
Travel Time (s)	75.1			30.0			25.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	12%	2%	2%	2%	25%	5%
Adj. Flow (vph)	4	9	4	1582	4	14	1161
Shared Lane Traffic (%)							
Lane Group Flow (vph)	13	0	4	1586	0	14	1161
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	R NA	Left	Right	Left	Left
Median Width(ft)	12			30			30
Link Offset(ft)	0			0			0
Crosswalk Width(ft)	16			16			16
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9		9	15	
Sign Control	Stop			Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 49.5% ICU Level of Service A
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	4	8	4	1424	4	13	1045
Future Vol, veh/h	4	8	4	1424	4	13	1045
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	300	-	-	300	-
Veh in Median Storage, #	0	-	-	0	-	-	0
Grade, %	0	-	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90	90
Heavy Vehicles, %	2	12	2	2	2	25	5
Mvmt Flow	4	9	4	1582	4	14	1161

Major/Minor	Minor1		Major1			Major2	
Conflicting Flow All	2201	793	1161	0	0	1586	0
Stage 1	1592	-	-	-	-	-	-
Stage 2	609	-	-	-	-	-	-
Critical Hdwy	6.84	7.14	6.44	-	-	4.6	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.42	2.52	-	-	2.45	-
Pot Cap-1 Maneuver	38	311	262	-	-	317	-
Stage 1	152	-	-	-	-	-	-
Stage 2	505	-	-	-	-	-	-
Platoon blocked, %				-	-		-
Mov Cap-1 Maneuver	36	311	262	-	-	317	-
Mov Cap-2 Maneuver	36	-	-	-	-	-	-
Stage 1	150	-	-	-	-	-	-
Stage 2	483	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	53.1	0.1	0.2
HCM LOS	F		

Minor Lane/Major Mvmt	NBU	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	262	-	-	88	317	-
HCM Lane V/C Ratio	0.017	-	-	0.152	0.046	-
HCM Control Delay (s)	19	-	-	53.1	16.9	-
HCM Lane LOS	C	-	-	F	C	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.1	-

Lane Group	EBU	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	4	386	197	449	1042	4	636	415
Future Volume (vph)	4	386	197	449	1042	4	636	415
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0	400		275		0
Storage Lanes		1	1	3		1		1
Taper Length (ft)		100		100		100		
Lane Util. Factor	1.00	1.00	1.00	0.97	0.95	1.00	1.00	1.00
Frt			0.850					0.850
Flt Protected		0.950		0.950		0.950		
Satd. Flow (prot)	0	1770	1583	3433	3539	1770	1827	1568
Flt Permitted		0.950		0.950		0.245		
Satd. Flow (perm)	0	1770	1583	3433	3539	456	1827	1568
Right Turn on Red			No					Yes
Satd. Flow (RTOR)								385
Link Speed (mph)		35			35		35	
Link Distance (ft)		1060			1885		1542	
Travel Time (s)		20.6			36.7		30.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	4%	3%
Adj. Flow (vph)	4	429	219	499	1158	4	707	461
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	433	219	499	1158	4	707	461
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Right	Left	Left	R NA	Left	Right
Median Width(ft)		30			30		30	
Link Offset(ft)		0			0		0	
Crosswalk Width(ft)		16			16		16	
Two way Left Turn Lane								
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15	9	15		9		9
Number of Detectors	1	1	1	1	2	1	2	1
Detector Template	Left	Left	Right	Left	Thru	Left	Thru	Right
Leading Detector (ft)	20	20	20	20	100	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	20	20	6	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel								
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)					94		94	
Detector 2 Size(ft)					6		6	
Detector 2 Type					Cl+Ex		Cl+Ex	
Detector 2 Channel								
Detector 2 Extend (s)					0.0		0.0	
Turn Type	Perm	Prot	pt+ov	Prot	NA	Perm	NA	Perm
Protected Phases		4	4 5	5	2		6	

Lane Group	EBU	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Permitted Phases	4					6		6
Detector Phase	4	4	4 5	5	2	6	6	6
Switch Phase								
Minimum Initial (s)	7.0	7.0		7.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.0	14.0		14.0	17.0	17.0	17.0	17.0
Total Split (s)	38.0	38.0		24.0	82.0	58.0	58.0	58.0
Total Split (%)	31.7%	31.7%		20.0%	68.3%	48.3%	48.3%	48.3%
Maximum Green (s)	31.0	31.0		17.0	75.0	51.0	51.0	51.0
Yellow Time (s)	5.0	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
Lost Time Adjust (s)		-2.0		-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)		5.0		5.0	5.0	5.0	5.0	5.0
Lead/Lag				Lead		Lag	Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		32.2	56.5	19.3	77.8	53.5	53.5	53.5
Actuated g/C Ratio		0.27	0.47	0.16	0.65	0.45	0.45	0.45
v/c Ratio		0.91	0.29	0.90	0.50	0.02	0.87	0.51
Control Delay		67.7	20.7	70.5	12.1	40.8	65.0	27.3
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		67.7	20.7	70.5	12.1	40.8	65.0	27.3
LOS		E	C	E	B	D	E	C
Approach Delay		51.9			29.7		50.1	
Approach LOS		D			C		D	
Queue Length 50th (ft)		323	101	198	233	3	582	233
Queue Length 95th (ft)		#507	157	#297	284	m6	#750	338
Internal Link Dist (ft)		980			1805		1462	
Turn Bay Length (ft)				400		275		
Base Capacity (vph)		486	742	552	2295	203	814	912
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		0.89	0.30	0.90	0.50	0.02	0.87	0.51

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTU, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 40.7 Intersection LOS: D
Intersection Capacity Utilization 80.4% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Providence Rd & Rea Rd

Lane Group	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Group Flow (vph)	433	219	499	1158	4	707	461
v/c Ratio	0.91	0.29	0.90	0.50	0.02	0.87	0.51
Control Delay	67.7	20.7	70.5	12.1	40.8	65.0	27.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.7	20.7	70.5	12.1	40.8	65.0	27.3
Queue Length 50th (ft)	323	101	198	233	3	582	233
Queue Length 95th (ft)	#507	157	#297	284	m6	#750	338
Internal Link Dist (ft)	980			1805		1462	
Turn Bay Length (ft)			400		275		
Base Capacity (vph)	486	742	552	2295	203	814	912
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	0.89	0.30	0.90	0.50	0.02	0.87	0.51

Intersection Summary

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.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	5	73	1391	7	19	814
Future Volume (vph)	5	73	1391	7	19	814
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	0		0	1	
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.874		0.999			
Flt Protected	0.997				0.950	
Satd. Flow (prot)	1623	0	1860	0	1770	1845
Flt Permitted	0.997				0.950	
Satd. Flow (perm)	1623	0	1860	0	1770	1845
Link Speed (mph)	35		35			35
Link Distance (ft)	2804		2471			1885
Travel Time (s)	54.6		48.1			36.7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	14%	2%	3%
Adj. Flow (vph)	6	81	1546	8	21	904
Shared Lane Traffic (%)						
Lane Group Flow (vph)	87	0	1554	0	21	904
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 85.1% ICU Level of Service E
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	3.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	73	1391	7	19	814
Future Vol, veh/h	5	73	1391	7	19	814
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	14	2	3
Mvmt Flow	6	81	1546	8	21	904

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2496	1550	0	0	1554	0
Stage 1	1550	-	-	-	-	-
Stage 2	946	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	32	140	-	-	426	-
Stage 1	193	-	-	-	-	-
Stage 2	377	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	30	140	-	-	426	-
Mov Cap-2 Maneuver	30	-	-	-	-	-
Stage 1	193	-	-	-	-	-
Stage 2	359	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	101.7	0	0.3
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	113	426	-
HCM Lane V/C Ratio	-	-	0.767	0.05	-
HCM Control Delay (s)	-	-	101.7	13.9	-
HCM Lane LOS	-	-	F	B	-
HCM 95th %tile Q(veh)	-	-	4.3	0.2	-

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	4	4	578	15	4	4	855	4	31	4	4	4
Future Volume (vph)	4	4	578	15	4	4	855	4	31	4	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		275		250		350		0	0		0	0
Storage Lanes		1		1		1		0	0		0	0
Taper Length (ft)		100				100			100			100
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt				0.850			0.999			0.987		
Flt Protected		0.950				0.950				0.961		
Satd. Flow (prot)	0	1770	3539	1583	0	1770	3536	0	0	1767	0	0
Flt Permitted		0.950				0.950				0.961		
Satd. Flow (perm)	0	1770	3539	1583	0	1770	3536	0	0	1767	0	0
Link Speed (mph)			35				35			35		
Link Distance (ft)			2763				513			1720		
Travel Time (s)			53.8				10.0			33.5		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	4	4	642	17	4	4	950	4	34	4	4	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	8	642	17	0	8	954	0	0	42	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)			30				30			0		
Link Offset(ft)			0				0			0		
Crosswalk Width(ft)			16				16			16		
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	9	15		9	9	15		9	15		9	15
Sign Control			Free				Free			Stop		

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 35.0% ICU Level of Service A
Analysis Period (min) 15

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	4	4
Future Volume (vph)	4	4
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Frt	0.955	
Flt Protected	0.984	
Satd. Flow (prot)	1750	0
Flt Permitted	0.984	
Satd. Flow (perm)	1750	0
Link Speed (mph)	35	
Link Distance (ft)	2307	
Travel Time (s)	44.9	
Peak Hour Factor	0.90	0.90
Adj. Flow (vph)	4	4
Shared Lane Traffic (%)		
Lane Group Flow (vph)	12	0
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	0	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Sign Control	Stop	

Intersection Summary

Intersection														
Int Delay, s/veh	1.4													
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Vol, veh/h	4	4	578	15	4	4	855	4	31	4	4	4	4	4
Future Vol, veh/h	4	4	578	15	4	4	855	4	31	4	4	4	4	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	275	-	250	-	350	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	4	642	17	4	4	950	4	34	4	4	4	4	4

Major/Minor	Major1				Major2				Minor1			Minor2		
Conflicting Flow All	954	954	0	0	642	659	0	0	1151	1628	321	1307	1643	477
Stage 1	-	-	-	-	-	-	-	-	658	658	-	968	968	-
Stage 2	-	-	-	-	-	-	-	-	493	970	-	339	675	-
Critical Hdwy	6.44	4.14	-	-	6.44	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.52	2.22	-	-	2.52	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	355	716	-	-	562	925	-	-	153	101	675	117	99	534
Stage 1	-	-	-	-	-	-	-	-	420	459	-	273	330	-
Stage 2	-	-	-	-	-	-	-	-	526	330	-	649	451	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	472	472	-	-	697	697	-	-	143	98	675	110	96	534
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	143	98	-	110	96	-
Stage 1	-	-	-	-	-	-	-	-	412	450	-	268	326	-
Stage 2	-	-	-	-	-	-	-	-	508	326	-	626	442	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.1	39.1	33.4
HCM LOS			E	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	148	472	-	-	697	-	-	140
HCM Lane V/C Ratio	0.293	0.019	-	-	0.013	-	-	0.095
HCM Control Delay (s)	39.1	12.8	-	-	10.2	-	-	33.4
HCM Lane LOS	E	B	-	-	B	-	-	D
HCM 95th %tile Q(veh)	1.1	0.1	-	-	0	-	-	0.3

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:57	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	4310	4390	4207	4296	4356	4361	4341
Vehs Exited	4323	4423	4239	4314	4331	4332	4364
Starting Vehs	331	314	340	331	314	304	305
Ending Vehs	318	281	308	313	339	333	282
Travel Distance (mi)	7393	7477	7160	7323	7380	7394	7397
Travel Time (hr)	315.9	324.2	303.7	310.7	318.0	319.9	323.0
Total Delay (hr)	96.1	102.1	90.8	93.0	98.6	100.2	103.3
Total Stops	5535	5872	5282	5494	5760	5789	5912
Fuel Used (gal)	244.9	247.4	234.0	241.7	243.3	245.8	247.4

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	4403	4377	4201	4322
Vehs Exited	4368	4354	4210	4327
Starting Vehs	321	300	332	315
Ending Vehs	356	323	323	314
Travel Distance (mi)	7451	7396	7179	7355
Travel Time (hr)	327.4	316.7	301.3	316.1
Total Delay (hr)	105.8	96.6	88.6	97.5
Total Stops	5860	5645	5238	5641
Fuel Used (gal)	248.2	245.5	236.9	243.5

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	4310	4390	4207	4296	4356	4361	4341
Vehs Exited	4323	4423	4239	4314	4331	4332	4364
Starting Vehs	331	314	340	331	314	304	305
Ending Vehs	318	281	308	313	339	333	282
Travel Distance (mi)	7393	7477	7160	7323	7380	7394	7397
Travel Time (hr)	315.9	324.2	303.7	310.7	318.0	319.9	323.0
Total Delay (hr)	96.1	102.1	90.8	93.0	98.6	100.2	103.3
Total Stops	5535	5872	5282	5494	5760	5789	5912
Fuel Used (gal)	244.9	247.4	234.0	241.7	243.3	245.8	247.4

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	4403	4377	4201	4322
Vehs Exited	4368	4354	4210	4327
Starting Vehs	321	300	332	315
Ending Vehs	356	323	323	314
Travel Distance (mi)	7451	7396	7179	7355
Travel Time (hr)	327.4	316.7	301.3	316.1
Total Delay (hr)	105.8	96.6	88.6	97.5
Total Stops	5860	5645	5238	5641
Fuel Used (gal)	248.2	245.5	236.9	243.5

Intersection: 1: Providence Rd & Church Drwy/Weddington Rd

Movement	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	L	LT	R	L	T	T	R	L	L	T	TR
Maximum Queue (ft)	153	428	598	398	62	445	440	225	229	252	273	274
Average Queue (ft)	69	172	257	307	17	294	299	58	116	136	137	149
95th Queue (ft)	138	341	531	428	46	406	411	158	206	220	228	238
Link Distance (ft)	2463		3044			1056	1056				2497	2497
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)		525		300	500			375	375	375		
Storage Blk Time (%)		0	1	15		0	2				0	
Queuing Penalty (veh)		0	4	71		0	5				0	

Intersection: 2: Providence Rd & Lenny Stadler Way

Movement	EB	EB	NB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	T	TR
Maximum Queue (ft)	116	87	165	123	137	271	280
Average Queue (ft)	48	35	86	46	68	151	162
95th Queue (ft)	98	78	147	107	130	246	262
Link Distance (ft)	2385			1273	1273	1056	1056
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		50	300				
Storage Blk Time (%)	20	10					
Queuing Penalty (veh)	8	5					

Intersection: 3: Providence Rd & Old Mill Rd

Movement	WB	NB	SB	SB	SB
Directions Served	LR	U	L	T	T
Maximum Queue (ft)	65	26	61	6	8
Average Queue (ft)	14	3	11	0	0
95th Queue (ft)	46	17	41	3	8
Link Distance (ft)	3798			1273	1273
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		300	300		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 4: Providence Rd & Rea Rd

Movement	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	UL	R	L	L	T	T	U	T	R
Maximum Queue (ft)	442	219	263	279	243	234	172	683	643
Average Queue (ft)	300	108	174	187	144	150	9	461	223
95th Queue (ft)	426	195	255	271	219	219	89	663	461
Link Distance (ft)	981	981				1812		1454	1454
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)			400	400	400		275		
Storage Blk Time (%)								37	
Queuing Penalty (veh)								1	

Intersection: 5: Providence Rd & Lochaven Rd

Movement	WB	NB	SB
Directions Served	LR	TR	L
Maximum Queue (ft)	182	12	48
Average Queue (ft)	70	0	13
95th Queue (ft)	157	7	40
Link Distance (ft)	2768	2439	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			200
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Highclere Dr/Private Drwy & Rea Rd

Movement	EB	EB	WB	WB	B7	NB	SB
Directions Served	UL	T	UL	TR	T	LTR	LTR
Maximum Queue (ft)	34	2	31	2	4	53	39
Average Queue (ft)	4	0	3	0	0	19	10
95th Queue (ft)	21	2	17	2	4	43	34
Link Distance (ft)		2732		454	981	1652	2251
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	275		350				
Storage Blk Time (%)							
Queuing Penalty (veh)							

Network Summary

Network wide Queuing Penalty: 94

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	30	2	465	14	533	15	1044	255	263	642	4
Future Volume (vph)	40	30	2	465	14	533	15	1044	255	263	642	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	525		300	500		375	375		0
Storage Lanes	0		0	1		1	1		1	2		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.997				0.850			0.850		0.999	
Flt Protected		0.973		0.950	0.955		0.950			0.950		
Satd. Flow (prot)	0	1807	0	1665	1675	1583	1770	3539	1583	3303	3371	0
Flt Permitted		0.973		0.950	0.955		0.950			0.950		
Satd. Flow (perm)	0	1807	0	1665	1675	1583	1770	3539	1583	3303	3371	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2519			3105			1122			2544	
Travel Time (s)		49.1			60.5			21.9			49.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	6%	7%	2%
Adj. Flow (vph)	44	33	2	517	16	592	17	1160	283	292	713	4
Shared Lane Traffic (%)				49%								
Lane Group Flow (vph)	0	79	0	264	269	592	17	1160	283	292	717	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			18			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA	pt+ov	Prot	NA	pm+ov	Prot	NA	
Protected Phases	4	4		8	8	8 1	5	2	8	1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases									2			
Detector Phase	4	4		8	8	8 1	5	2	8	1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	7.0	7.0	10.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		14.0	17.0	14.0	14.0	17.0	
Total Split (s)	14.0	14.0		38.0	38.0		14.0	50.0	38.0	18.0	54.0	
Total Split (%)	11.7%	11.7%		31.7%	31.7%		11.7%	41.7%	31.7%	15.0%	45.0%	
Maximum Green (s)	7.0	7.0		31.0	31.0		7.0	43.0	31.0	11.0	47.0	
Yellow Time (s)	5.0	5.0		5.0	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	
Lost Time Adjust (s)		-2.0		-2.0	-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)		5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max	None	None	C-Max	
Act Effct Green (s)		9.0		33.7	33.7	51.9	9.0	46.9	81.6	13.2	59.5	
Actuated g/C Ratio		0.08		0.28	0.28	0.43	0.08	0.39	0.68	0.11	0.50	
v/c Ratio		0.59		0.57	0.57	0.87	0.13	0.84	0.26	0.81	0.43	
Control Delay		71.6		42.8	43.0	46.1	57.3	44.0	3.2	70.1	22.1	
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		71.6		42.8	43.0	46.1	57.3	44.0	3.2	70.1	22.1	
LOS		E		D	D	D	E	D	A	E	C	
Approach Delay		71.6			44.6			36.3			36.0	
Approach LOS		E			D			D			D	
Queue Length 50th (ft)		60		185	189	414	14	432	32	115	169	
Queue Length 95th (ft)		#121		281	286	#634	m29	534	54	#184	275	
Internal Link Dist (ft)		2439			3025			1042			2464	
Turn Bay Length (ft)				525		300	500		375	375		
Base Capacity (vph)		135		467	470	683	132	1384	1076	361	1671	
Starvation Cap Reductn		0		0	0	0	0	0	0	0	0	
Spillback Cap Reductn		0		0	0	0	0	0	0	0	0	
Storage Cap Reductn		0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio		0.59		0.57	0.57	0.87	0.13	0.84	0.26	0.81	0.43	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 39.5 Intersection LOS: D
Intersection Capacity Utilization 80.2% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Providence Rd & Church Drwy/Weddington Rd

Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	79	264	269	592	17	1160	283	292	717
v/c Ratio	0.59	0.57	0.57	0.87	0.13	0.84	0.26	0.81	0.43
Control Delay	71.6	42.8	43.0	46.1	57.3	44.0	3.2	70.1	22.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.6	42.8	43.0	46.1	57.3	44.0	3.2	70.1	22.1
Queue Length 50th (ft)	60	185	189	414	14	432	32	115	169
Queue Length 95th (ft)	#121	281	286	#634	m29	534	54	#184	275
Internal Link Dist (ft)	2439		3025			1042			2464
Turn Bay Length (ft)		525		300	500		375	375	
Base Capacity (vph)	135	467	470	683	132	1384	1076	361	1671
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.57	0.57	0.87	0.13	0.84	0.26	0.81	0.43

Intersection Summary

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.

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	47	39	108	1277	1030	120
Future Volume (vph)	47	39	108	1277	1030	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	300			0
Storage Lanes	1	1	1			0
Taper Length (ft)	100		100			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.850			0.984	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1687	1568	1770	3539	3393	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1687	1568	1770	3539	3393	0
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	35			35	35	
Link Distance (ft)	2436			1331	1122	
Travel Time (s)	47.5			25.9	21.9	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	7%	3%	2%	2%	5%	2%
Adj. Flow (vph)	53	44	123	1451	1170	136
Shared Lane Traffic (%)						
Lane Group Flow (vph)	53	44	123	1451	1306	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	
Detector Template	Left	Right	Left	Thru	Thru	
Leading Detector (ft)	20	20	20	100	100	
Trailing Detector (ft)	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	
Detector 1 Size(ft)	20	20	20	6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)				94	94	
Detector 2 Size(ft)				6	6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot	pt+ov	Prot	NA	NA	
Protected Phases	4	4 5	5	2	6	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Permitted Phases						
Detector Phase	4	4 5	5	2	6	
Switch Phase						
Minimum Initial (s)	7.0		7.0	10.0	10.0	
Minimum Split (s)	14.0		14.0	17.0	17.0	
Total Split (s)	16.0		24.0	104.0	80.0	
Total Split (%)	13.3%		20.0%	86.7%	66.7%	
Maximum Green (s)	9.0		17.0	97.0	73.0	
Yellow Time (s)	5.0		5.0	5.0	5.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	-2.0		-2.0	-2.0	-2.0	
Total Lost Time (s)	5.0		5.0	5.0	5.0	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		None	C-Max	C-Max	
Act Effct Green (s)	10.3	27.8	15.2	103.5	82.2	
Actuated g/C Ratio	0.09	0.23	0.13	0.86	0.68	
v/c Ratio	0.37	0.12	0.55	0.48	0.56	
Control Delay	59.0	33.5	61.4	2.0	14.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	59.0	33.5	61.4	2.0	14.7	
LOS	E	C	E	A	B	
Approach Delay	47.4			6.7	14.7	
Approach LOS	D			A	B	
Queue Length 50th (ft)	39	26	96	83	457	
Queue Length 95th (ft)	80	54	m142	94	267	
Internal Link Dist (ft)	2356			1251	1042	
Turn Bay Length (ft)		50	300			
Base Capacity (vph)	154	402	280	3051	2324	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.34	0.11	0.44	0.48	0.56	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay: 11.5 Intersection LOS: B
Intersection Capacity Utilization 56.6% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Providence Rd & Lenny Stadler Way

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	53	44	123	1451	1306
v/c Ratio	0.37	0.12	0.55	0.48	0.56
Control Delay	59.0	33.5	61.4	2.0	14.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	59.0	33.5	61.4	2.0	14.7
Queue Length 50th (ft)	39	26	96	83	457
Queue Length 95th (ft)	80	54	m142	94	267
Internal Link Dist (ft)	2356			1251	1042
Turn Bay Length (ft)		50	300		
Base Capacity (vph)	154	402	280	3051	2324
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.34	0.11	0.44	0.48	0.56

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	18	4	5	4	4	8	4	4	1427	4	13	1045
Future Volume (vph)	18	4	5	4	4	8	4	4	1427	4	13	1045
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0		300		0	300	
Storage Lanes	0		0	0		0		1		0	1	
Taper Length (ft)	100			100				100			100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	0.95	1.00	0.95
Frt		0.973			0.929							0.999
Flt Protected		0.968			0.988			0.950			0.950	
Satd. Flow (prot)	0	1754	0	0	1625	0	0	1770	3539	0	1444	3435
Flt Permitted		0.968			0.988			0.950			0.950	
Satd. Flow (perm)	0	1754	0	0	1625	0	0	1770	3539	0	1444	3435
Link Speed (mph)		25			35				35			35
Link Distance (ft)		1235			3855				1542			1331
Travel Time (s)		33.7			75.1				30.0			25.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	12%	2%	2%	2%	2%	25%	5%
Adj. Flow (vph)	20	4	6	4	4	9	4	4	1586	4	14	1161
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	30	0	0	17	0	0	8	1590	0	14	1169
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	Left	Left
Median Width(ft)		0			0				30			30
Link Offset(ft)		0			0				0			0
Crosswalk Width(ft)		16			16				16			16
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	9	15		9	15	
Sign Control		Stop			Stop				Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 49.7% ICU Level of Service A
Analysis Period (min) 15

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	7
Future Volume (vph)	7
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	0.95
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.90
Heavy Vehicles (%)	2%
Adj. Flow (vph)	8
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Sign Control	
Intersection Summary	

Intersection													
Int Delay, s/veh	5.4												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	18	4	5	4	4	8	4	4	1427	4	13	1045	7
Future Vol, veh/h	18	4	5	4	4	8	4	4	1427	4	13	1045	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	300	-	-	300	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	12	2	2	2	2	25	5	2
Mvmt Flow	20	4	6	4	4	9	4	4	1586	4	14	1161	8

Major/Minor	Minor2			Minor1			Major1				Major2		
Conflicting Flow All	2004	2799	585	2215	2801	795	1169	1169	0	0	1590	0	0
Stage 1	1193	1193	-	1604	1604	-	-	-	-	-	-	-	-
Stage 2	811	1606	-	611	1197	-	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	7.14	6.44	4.14	-	-	4.6	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.42	2.52	2.22	-	-	2.45	-	-
Pot Cap-1 Maneuver	35	18	454	24	18	310	258	593	-	-	315	-	-
Stage 1	198	258	-	110	163	-	-	-	-	-	-	-	-
Stage 2	339	163	-	448	257	-	-	-	-	-	-	-	-
Platoon blocked, %									-	-		-	-
Mov Cap-1 Maneuver	26	17	454	18	17	310	357	357	-	-	315	-	-
Mov Cap-2 Maneuver	26	17	-	18	17	-	-	-	-	-	-	-	-
Stage 1	193	247	-	107	159	-	-	-	-	-	-	-	-
Stage 2	312	159	-	415	246	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 377.4	203.2	0.1	0.2
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	357	-	-	29	33	315	-	-
HCM Lane V/C Ratio	0.025	-	-	1.034	0.539	0.046	-	-
HCM Control Delay (s)	15.4	-	-	$ 377.4	203.2	17	-	-
HCM Lane LOS	C	-	-	F	F	C	-	-
HCM 95th %tile Q(veh)	0.1	-	-	3.4	1.8	0.1	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lane Group	EBU	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	4	390	201	450	1043	4	639	417
Future Volume (vph)	4	390	201	450	1043	4	639	417
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0	400		275		0
Storage Lanes		1	1	3		1		1
Taper Length (ft)		100		100		100		
Lane Util. Factor	1.00	1.00	1.00	0.97	0.95	1.00	1.00	1.00
Frt			0.850					0.850
Flt Protected		0.950		0.950		0.950		
Satd. Flow (prot)	0	1770	1583	3433	3539	1770	1827	1568
Flt Permitted		0.950		0.950		0.245		
Satd. Flow (perm)	0	1770	1583	3433	3539	456	1827	1568
Right Turn on Red			No					Yes
Satd. Flow (RTOR)								385
Link Speed (mph)		35			35		35	
Link Distance (ft)		1060			1885		1542	
Travel Time (s)		20.6			36.7		30.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	4%	3%
Adj. Flow (vph)	4	433	223	500	1159	4	710	463
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	437	223	500	1159	4	710	463
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Right	Left	Left	R NA	Left	Right
Median Width(ft)		30			30		30	
Link Offset(ft)		0			0		0	
Crosswalk Width(ft)		16			16		16	
Two way Left Turn Lane								
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15	9	15		9		9
Number of Detectors	1	1	1	1	2	1	2	1
Detector Template	Left	Left	Right	Left	Thru	Left	Thru	Right
Leading Detector (ft)	20	20	20	20	100	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	20	20	6	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel								
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)					94		94	
Detector 2 Size(ft)					6		6	
Detector 2 Type					Cl+Ex		Cl+Ex	
Detector 2 Channel								
Detector 2 Extend (s)					0.0		0.0	
Turn Type	Perm	Prot	pt+ov	Prot	NA	Perm	NA	Perm
Protected Phases		4	4 5	5	2		6	

Lane Group	EBU	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Permitted Phases	4					6		6
Detector Phase	4	4	4 5	5	2	6	6	6
Switch Phase								
Minimum Initial (s)	7.0	7.0		7.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.0	14.0		14.0	17.0	17.0	17.0	17.0
Total Split (s)	38.0	38.0		24.0	82.0	58.0	58.0	58.0
Total Split (%)	31.7%	31.7%		20.0%	68.3%	48.3%	48.3%	48.3%
Maximum Green (s)	31.0	31.0		17.0	75.0	51.0	51.0	51.0
Yellow Time (s)	5.0	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
Lost Time Adjust (s)		-2.0		-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)		5.0		5.0	5.0	5.0	5.0	5.0
Lead/Lag				Lead		Lag	Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		32.2	56.6	19.3	77.8	53.4	53.4	53.4
Actuated g/C Ratio		0.27	0.47	0.16	0.65	0.44	0.44	0.44
v/c Ratio		0.92	0.30	0.90	0.51	0.02	0.87	0.51
Control Delay		68.6	20.8	70.6	12.1	41.5	65.5	27.2
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		68.6	20.8	70.6	12.1	41.5	65.5	27.2
LOS		E	C	E	B	D	E	C
Approach Delay		52.5			29.8		50.4	
Approach LOS		D			C		D	
Queue Length 50th (ft)		327	103	198	233	3	584	232
Queue Length 95th (ft)		#515	160	#298	284	m6	#755	338
Internal Link Dist (ft)		980			1805		1462	
Turn Bay Length (ft)				400		275		
Base Capacity (vph)		486	742	553	2292	203	812	911
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		0.90	0.30	0.90	0.51	0.02	0.87	0.51

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTU, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 41.0 Intersection LOS: D
Intersection Capacity Utilization 80.8% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Providence Rd & Rea Rd

Lane Group	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Group Flow (vph)	437	223	500	1159	4	710	463
v/c Ratio	0.92	0.30	0.90	0.51	0.02	0.87	0.51
Control Delay	68.6	20.8	70.6	12.1	41.5	65.5	27.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.6	20.8	70.6	12.1	41.5	65.5	27.2
Queue Length 50th (ft)	327	103	198	233	3	584	232
Queue Length 95th (ft)	#515	160	#298	284	m6	#755	338
Internal Link Dist (ft)	980			1805		1462	
Turn Bay Length (ft)			400		275		
Base Capacity (vph)	486	742	553	2292	203	812	911
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	0.90	0.30	0.90	0.51	0.02	0.87	0.51

Intersection Summary

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.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	5	73	1393	7	19	821
Future Volume (vph)	5	73	1393	7	19	821
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	0		0	1	
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.874		0.999			
Flt Protected	0.997				0.950	
Satd. Flow (prot)	1623	0	1860	0	1770	1845
Flt Permitted	0.997				0.950	
Satd. Flow (perm)	1623	0	1860	0	1770	1845
Link Speed (mph)	35		35			35
Link Distance (ft)	2804		2471			1885
Travel Time (s)	54.6		48.1			36.7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	14%	2%	3%
Adj. Flow (vph)	6	81	1548	8	21	912
Shared Lane Traffic (%)						
Lane Group Flow (vph)	87	0	1556	0	21	912
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 85.2% ICU Level of Service E
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	3.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	73	1393	7	19	821
Future Vol, veh/h	5	73	1393	7	19	821
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	14	2	3
Mvmt Flow	6	81	1548	8	21	912

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2506	1552	0	0	1556	0
Stage 1	1552	-	-	-	-	-
Stage 2	954	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	31	140	-	-	425	-
Stage 1	192	-	-	-	-	-
Stage 2	374	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	29	140	-	-	425	-
Mov Cap-2 Maneuver	29	-	-	-	-	-
Stage 1	192	-	-	-	-	-
Stage 2	356	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	103.7	0	0.3
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	112	425	-
HCM Lane V/C Ratio	-	-	0.774	0.05	-
HCM Control Delay (s)	-	-	103.7	13.9	-
HCM Lane LOS	-	-	F	B	-
HCM 95th %tile Q(veh)	-	-	4.3	0.2	-

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	4	4	580	15	8	4	860	4	31	4	4	4
Future Volume (vph)	4	4	580	15	8	4	860	4	31	4	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		275		250		350		0	0		0	0
Storage Lanes		1		1		1		0	0		0	0
Taper Length (ft)		100				100			100			100
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt				0.850			0.999			0.987		
Flt Protected		0.950				0.950				0.961		
Satd. Flow (prot)	0	1770	3539	1583	0	1770	3536	0	0	1767	0	0
Flt Permitted		0.950				0.950				0.961		
Satd. Flow (perm)	0	1770	3539	1583	0	1770	3536	0	0	1767	0	0
Link Speed (mph)			35				35			35		
Link Distance (ft)			2763				513			1720		
Travel Time (s)			53.8				10.0			33.5		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	4	4	644	17	9	4	956	4	34	4	4	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	8	644	17	0	13	960	0	0	42	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)			30				30			0		
Link Offset(ft)			0				0			0		
Crosswalk Width(ft)			16				16			16		
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	9	15		9	9	15		9	15		9	15
Sign Control			Free				Free			Stop		

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 35.2% ICU Level of Service A
Analysis Period (min) 15

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	4	4
Future Volume (vph)	4	4
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Frt	0.955	
Flt Protected	0.984	
Satd. Flow (prot)	1750	0
Flt Permitted	0.984	
Satd. Flow (perm)	1750	0
Link Speed (mph)	35	
Link Distance (ft)	2307	
Travel Time (s)	44.9	
Peak Hour Factor	0.90	0.90
Adj. Flow (vph)	4	4
Shared Lane Traffic (%)		
Lane Group Flow (vph)	12	0
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	0	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Sign Control	Stop	

Intersection Summary

Intersection														
Int Delay, s/veh	1.4													
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Vol, veh/h	4	4	580	15	8	4	860	4	31	4	4	4	4	4
Future Vol, veh/h	4	4	580	15	8	4	860	4	31	4	4	4	4	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	275	-	250	-	350	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	4	644	17	9	4	956	4	34	4	4	4	4	4

Major/Minor	Major1				Major2				Minor1			Minor2		
Conflicting Flow All	960	960	0	0	644	661	0	0	1166	1646	322	1324	1661	480
Stage 1	-	-	-	-	-	-	-	-	660	660	-	984	984	-
Stage 2	-	-	-	-	-	-	-	-	506	986	-	340	677	-
Critical Hdwy	6.44	4.14	-	-	6.44	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.52	2.22	-	-	2.52	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	352	712	-	-	561	923	-	-	149	98	674	114	96	532
Stage 1	-	-	-	-	-	-	-	-	418	458	-	267	325	-
Stage 2	-	-	-	-	-	-	-	-	517	324	-	648	450	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	468	468	-	-	643	643	-	-	138	94	674	106	92	532
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	138	94	-	106	92	-
Stage 1	-	-	-	-	-	-	-	-	410	449	-	262	319	-
Stage 2	-	-	-	-	-	-	-	-	495	318	-	625	441	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.1	40.8	34.6
HCM LOS			E	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	143	468	-	-	643	-	-	135
HCM Lane V/C Ratio	0.303	0.019	-	-	0.021	-	-	0.099
HCM Control Delay (s)	40.8	12.8	-	-	10.7	-	-	34.6
HCM Lane LOS	E	B	-	-	B	-	-	D
HCM 95th %tile Q(veh)	1.2	0.1	-	-	0.1	-	-	0.3

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	591	860	4	0	10
Future Volume (vph)	0	591	860	4	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			100	0	0
Storage Lanes	0			1	0	1
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt				0.850		0.865
Flt Protected						
Satd. Flow (prot)	0	3539	3539	1583	0	1611
Flt Permitted						
Satd. Flow (perm)	0	3539	3539	1583	0	1611
Link Speed (mph)		35	35		25	
Link Distance (ft)		513	1060		1201	
Travel Time (s)		10.0	20.6		32.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	657	956	4	0	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	657	956	4	0	11
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		30	30		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 33.8% ICU Level of Service A
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Traffic Vol, veh/h	0	591	860	4	0	10
Future Vol, veh/h	0	591	860	4	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	100	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	657	956	4	0	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	478
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	534
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	534
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.9
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	534
HCM Lane V/C Ratio	-	-	-	0.021
HCM Control Delay (s)	-	-	-	11.9
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.1

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:57	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	4350	4500	4328	4308	4207	4409	4345
Vehs Exited	4364	4484	4339	4315	4225	4393	4368
Starting Vehs	321	350	326	326	317	317	339
Ending Vehs	307	366	315	319	299	333	316
Travel Distance (mi)	7433	7564	7338	7316	7139	7447	7439
Travel Time (hr)	316.7	344.6	312.7	310.2	300.3	317.9	314.5
Total Delay (hr)	95.6	119.4	94.7	92.0	87.6	96.3	93.5
Total Stops	5579	6510	5495	5346	5190	5612	5538
Fuel Used (gal)	244.9	254.8	242.6	240.2	233.4	245.8	245.8

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	4335	4264	4373	4339
Vehs Exited	4334	4249	4411	4350
Starting Vehs	320	280	351	322
Ending Vehs	321	295	313	312
Travel Distance (mi)	7361	7223	7462	7372
Travel Time (hr)	318.3	303.8	326.5	316.5
Total Delay (hr)	99.9	88.5	104.7	97.2
Total Stops	5650	5296	5851	5606
Fuel Used (gal)	243.0	236.9	247.4	243.5

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	4350	4500	4328	4308	4207	4409	4345
Vehs Exited	4364	4484	4339	4315	4225	4393	4368
Starting Vehs	321	350	326	326	317	317	339
Ending Vehs	307	366	315	319	299	333	316
Travel Distance (mi)	7433	7564	7338	7316	7139	7447	7439
Travel Time (hr)	316.7	344.6	312.7	310.2	300.3	317.9	314.5
Total Delay (hr)	95.6	119.4	94.7	92.0	87.6	96.3	93.5
Total Stops	5579	6510	5495	5346	5190	5612	5538
Fuel Used (gal)	244.9	254.8	242.6	240.2	233.4	245.8	245.8

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	4335	4264	4373	4339
Vehs Exited	4334	4249	4411	4350
Starting Vehs	320	280	351	322
Ending Vehs	321	295	313	312
Travel Distance (mi)	7361	7223	7462	7372
Travel Time (hr)	318.3	303.8	326.5	316.5
Total Delay (hr)	99.9	88.5	104.7	97.2
Total Stops	5650	5296	5851	5606
Fuel Used (gal)	243.0	236.9	247.4	243.5

Intersection: 1: Providence Rd & Church Drwy/Weddington Rd

Movement	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	L	LT	R	L	T	T	R	L	L	T	TR
Maximum Queue (ft)	144	393	613	398	60	399	400	106	183	199	244	254
Average Queue (ft)	60	196	289	304	15	277	283	48	99	117	128	142
95th Queue (ft)	125	426	691	433	45	384	391	92	160	176	213	227
Link Distance (ft)	2463		3044			1056	1056				2497	2497
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)		525		300	500			375	375	375		
Storage Blk Time (%)		0	1	16			1					
Queuing Penalty (veh)		0	5	75			2					

Intersection: 2: Providence Rd & Lenny Stadler Way

Movement	EB	EB	NB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	T	TR
Maximum Queue (ft)	116	92	186	120	146	271	276
Average Queue (ft)	46	35	91	43	67	144	156
95th Queue (ft)	95	76	153	101	131	249	265
Link Distance (ft)	2385			1261	1261	1056	1056
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		50	300				
Storage Blk Time (%)	17	10					
Queuing Penalty (veh)	7	5					

Intersection: 3: Providence Rd & Access "A"/Old Mill Rd

Movement	EB	WB	NB	NB	NB	SB	SB
Directions Served	LTR	LTR	UL	T	TR	L	T
Maximum Queue (ft)	71	58	34	2	6	61	5
Average Queue (ft)	25	16	6	0	0	12	0
95th Queue (ft)	61	46	24	1	4	43	4
Link Distance (ft)	1179	3799		1460	1460		1261
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			300			300	
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 4: Providence Rd & Rea Rd

Movement	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	UL	R	L	L	T	T	U	T	R
Maximum Queue (ft)	485	238	308	329	258	263	236	706	547
Average Queue (ft)	303	113	181	196	143	146	11	470	211
95th Queue (ft)	463	209	273	291	228	227	105	671	438
Link Distance (ft)	982	982				1812		1460	1460
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)			400	400	400		275		
Storage Blk Time (%)				0	0	0		37	
Queuing Penalty (veh)				0	0	0		1	

Intersection: 5: Providence Rd & Lochaven Rd

Movement	WB	NB	SB
Directions Served	LR	TR	L
Maximum Queue (ft)	175	6	54
Average Queue (ft)	68	0	16
95th Queue (ft)	146	4	45
Link Distance (ft)	2768	2439	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			200
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Highclere Dr/Private Drwy & Rea Rd

Movement	EB	EB	WB	WB	NB	SB
Directions Served	UL	T	UL	TR	LTR	LTR
Maximum Queue (ft)	27	1	29	2	63	37
Average Queue (ft)	3	0	4	0	22	9
95th Queue (ft)	16	1	19	2	49	32
Link Distance (ft)		2732		454	1652	2251
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	275		350			
Storage Blk Time (%)						
Queuing Penalty (veh)						

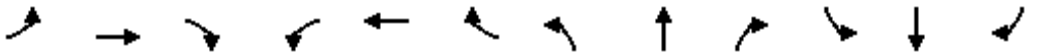
Intersection: 7: Rea Rd & Access "B"

Movement	SB
Directions Served	R
Maximum Queue (ft)	25
Average Queue (ft)	5
95th Queue (ft)	21
Link Distance (ft)	1132
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 96

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	30	2	465	14	533	15	1044	255	263	642	4
Future Volume (vph)	40	30	2	465	14	533	15	1044	255	263	642	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	525		300	500		375	375		0
Storage Lanes	0		0	1		1	1		1	2		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.997				0.850			0.850		0.999	
Flt Protected		0.973		0.950	0.955		0.950			0.950		
Satd. Flow (prot)	0	1807	0	1665	1675	1583	1770	3539	1583	3303	3371	0
Flt Permitted		0.973		0.950	0.955		0.950			0.950		
Satd. Flow (perm)	0	1807	0	1665	1675	1583	1770	3539	1583	3303	3371	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2519			3105			1122			2544	
Travel Time (s)		49.1			60.5			21.9			49.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	6%	7%	2%
Adj. Flow (vph)	44	33	2	517	16	592	17	1160	283	292	713	4
Shared Lane Traffic (%)				49%								
Lane Group Flow (vph)	0	79	0	264	269	592	17	1160	283	292	717	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			18			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA	pt+ov	Prot	NA	pm+ov	Prot	NA	
Protected Phases	4	4		8	8	8 1	5	2	8	1	6	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases									2			
Detector Phase	4	4		8	8	8 1	5	2	8	1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	7.0	7.0	10.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		14.0	17.0	14.0	14.0	17.0	
Total Split (s)	14.0	14.0		38.0	38.0		14.0	50.0	38.0	18.0	54.0	
Total Split (%)	11.7%	11.7%		31.7%	31.7%		11.7%	41.7%	31.7%	15.0%	45.0%	
Maximum Green (s)	7.0	7.0		31.0	31.0		7.0	43.0	31.0	11.0	47.0	
Yellow Time (s)	5.0	5.0		5.0	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	
Lost Time Adjust (s)		-2.0		-2.0	-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)		5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max	None	None	C-Max	
Act Effct Green (s)		9.0		33.7	33.7	51.9	9.0	46.9	81.6	13.2	59.5	
Actuated g/C Ratio		0.08		0.28	0.28	0.43	0.08	0.39	0.68	0.11	0.50	
v/c Ratio		0.59		0.57	0.57	0.87	0.13	0.84	0.26	0.81	0.43	
Control Delay		71.6		42.8	43.0	46.1	57.8	44.1	3.2	70.1	22.1	
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		71.6		42.8	43.0	46.1	57.8	44.1	3.2	70.1	22.1	
LOS		E		D	D	D	E	D	A	E	C	
Approach Delay		71.6			44.6			36.3			36.0	
Approach LOS		E			D			D			D	
Queue Length 50th (ft)		60		185	189	414	14	432	32	115	169	
Queue Length 95th (ft)		#121		281	286	#634	m29	534	54	#184	275	
Internal Link Dist (ft)		2439			3025			1042			2464	
Turn Bay Length (ft)				525		300	500		375	375		
Base Capacity (vph)		135		467	470	683	132	1384	1076	361	1671	
Starvation Cap Reductn		0		0	0	0	0	0	0	0	0	
Spillback Cap Reductn		0		0	0	0	0	0	0	0	0	
Storage Cap Reductn		0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio		0.59		0.57	0.57	0.87	0.13	0.84	0.26	0.81	0.43	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 39.5 Intersection LOS: D
Intersection Capacity Utilization 80.2% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Providence Rd & Church Drwy/Weddington Rd

Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	79	264	269	592	17	1160	283	292	717
v/c Ratio	0.59	0.57	0.57	0.87	0.13	0.84	0.26	0.81	0.43
Control Delay	71.6	42.8	43.0	46.1	57.8	44.1	3.2	70.1	22.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.6	42.8	43.0	46.1	57.8	44.1	3.2	70.1	22.1
Queue Length 50th (ft)	60	185	189	414	14	432	32	115	169
Queue Length 95th (ft)	#121	281	286	#634	m29	534	54	#184	275
Internal Link Dist (ft)	2439		3025			1042			2464
Turn Bay Length (ft)		525		300	500		375	375	
Base Capacity (vph)	135	467	470	683	132	1384	1076	361	1671
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.57	0.57	0.87	0.13	0.84	0.26	0.81	0.43

Intersection Summary

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.

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	47	39	108	1277	1030	120
Future Volume (vph)	47	39	108	1277	1030	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	300			0
Storage Lanes	1	1	1			0
Taper Length (ft)	100		100			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.850			0.984	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1687	1568	1770	3539	3393	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1687	1568	1770	3539	3393	0
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	35			35	35	
Link Distance (ft)	2436			1331	1122	
Travel Time (s)	47.5			25.9	21.9	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	7%	3%	2%	2%	5%	2%
Adj. Flow (vph)	53	44	123	1451	1170	136
Shared Lane Traffic (%)						
Lane Group Flow (vph)	53	44	123	1451	1306	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	
Detector Template	Left	Right	Left	Thru	Thru	
Leading Detector (ft)	20	20	20	100	100	
Trailing Detector (ft)	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	
Detector 1 Size(ft)	20	20	20	6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)				94	94	
Detector 2 Size(ft)				6	6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot	pt+ov	Prot	NA	NA	
Protected Phases	4	4 5	5	2	6	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Permitted Phases						
Detector Phase	4	4 5	5	2	6	
Switch Phase						
Minimum Initial (s)	7.0		7.0	10.0	10.0	
Minimum Split (s)	14.0		14.0	17.0	17.0	
Total Split (s)	16.0		24.0	104.0	80.0	
Total Split (%)	13.3%		20.0%	86.7%	66.7%	
Maximum Green (s)	9.0		17.0	97.0	73.0	
Yellow Time (s)	5.0		5.0	5.0	5.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	-2.0		-2.0	-2.0	-2.0	
Total Lost Time (s)	5.0		5.0	5.0	5.0	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		None	C-Max	C-Max	
Act Effct Green (s)	10.3	27.8	15.2	103.5	82.2	
Actuated g/C Ratio	0.09	0.23	0.13	0.86	0.68	
v/c Ratio	0.37	0.12	0.55	0.48	0.56	
Control Delay	59.0	33.5	61.3	2.0	14.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	59.0	33.5	61.3	2.0	14.7	
LOS	E	C	E	A	B	
Approach Delay	47.4			6.7	14.7	
Approach LOS	D			A	B	
Queue Length 50th (ft)	39	26	95	83	457	
Queue Length 95th (ft)	80	54	m142	94	267	
Internal Link Dist (ft)	2356			1251	1042	
Turn Bay Length (ft)		50	300			
Base Capacity (vph)	154	402	280	3051	2324	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.34	0.11	0.44	0.48	0.56	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay: 11.5 Intersection LOS: B
Intersection Capacity Utilization 56.6% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Providence Rd & Lenny Stadler Way

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	53	44	123	1451	1306
v/c Ratio	0.37	0.12	0.55	0.48	0.56
Control Delay	59.0	33.5	61.3	2.0	14.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	59.0	33.5	61.3	2.0	14.7
Queue Length 50th (ft)	39	26	95	83	457
Queue Length 95th (ft)	80	54	m142	94	267
Internal Link Dist (ft)	2356			1251	1042
Turn Bay Length (ft)		50	300		
Base Capacity (vph)	154	402	280	3051	2324
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.34	0.11	0.44	0.48	0.56

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	0	0	23	0	0	9	4	4	1427	4	13	1045
Future Volume (vph)	0	0	23	0	0	9	4	4	1427	4	13	1045
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0		300		0	300	
Storage Lanes	0		1	0		1		1		0	1	
Taper Length (ft)	100			100				100			100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	0.95	1.00	0.95
Frt			0.865			0.865						0.999
Flt Protected								0.950			0.950	
Satd. Flow (prot)	0	0	1611	0	0	1467	0	1770	3539	0	1444	3435
Flt Permitted								0.950			0.950	
Satd. Flow (perm)	0	0	1611	0	0	1467	0	1770	3539	0	1444	3435
Link Speed (mph)		25			35				35			35
Link Distance (ft)		1235			3855				1542			1331
Travel Time (s)		33.7			75.1				30.0			25.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	12%	2%	2%	2%	2%	25%	5%
Adj. Flow (vph)	0	0	26	0	0	10	4	4	1586	4	14	1161
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	26	0	0	10	0	8	1590	0	14	1169
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	Left	Left
Median Width(ft)		0			0				30			30
Link Offset(ft)		0			0				0			0
Crosswalk Width(ft)		16			16				16			16
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	9	15		9	15	
Sign Control		Stop			Stop				Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 49.6% ICU Level of Service A
Analysis Period (min) 15

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	7
Future Volume (vph)	7
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	0.95
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.90
Heavy Vehicles (%)	2%
Adj. Flow (vph)	8
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Sign Control	

Intersection Summary

Intersection													
Int Delay, s/veh	0.3												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	0	0	23	0	0	9	4	4	1427	4	13	1045	7
Future Vol, veh/h	0	0	23	0	0	9	4	4	1427	4	13	1045	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	300	-	-	300	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	12	2	2	2	2	25	5	2
Mvmt Flow	0	0	26	0	0	10	4	4	1586	4	14	1161	8

Major/Minor	Minor2			Minor1			Major1				Major2		
Conflicting Flow All	-	-	585	-	-	795	1169	1169	0	0	1590	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	7.14	6.44	4.14	-	-	4.6	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.42	2.52	2.22	-	-	2.45	-	-
Pot Cap-1 Maneuver	0	0	454	0	0	310	258	593	-	-	315	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-	-
Platoon blocked, %									-	-		-	-
Mov Cap-1 Maneuver	-	-	454	-	-	310	347	347	-	-	315	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.4	17	0.1	0.2
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	347	-	-	454	310	315	-	-
HCM Lane V/C Ratio	0.026	-	-	0.056	0.032	0.046	-	-
HCM Control Delay (s)	15.7	-	-	13.4	17	17	-	-
HCM Lane LOS	C	-	-	B	C	C	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.1	0.1	-	-

Lane Group	EBU	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	4	390	201	450	1043	4	639	417
Future Volume (vph)	4	390	201	450	1043	4	639	417
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0	400		275		0
Storage Lanes		1	1	3		1		1
Taper Length (ft)		100		100		100		
Lane Util. Factor	1.00	1.00	1.00	0.97	0.95	1.00	1.00	1.00
Frt			0.850					0.850
Flt Protected		0.950		0.950		0.950		
Satd. Flow (prot)	0	1770	1583	3433	3539	1770	1827	1568
Flt Permitted		0.950		0.950		0.245		
Satd. Flow (perm)	0	1770	1583	3433	3539	456	1827	1568
Right Turn on Red			No					Yes
Satd. Flow (RTOR)								385
Link Speed (mph)		35			35		35	
Link Distance (ft)		1060			1885		1542	
Travel Time (s)		20.6			36.7		30.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	4%	3%
Adj. Flow (vph)	4	433	223	500	1159	4	710	463
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	437	223	500	1159	4	710	463
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Right	Left	Left	R NA	Left	Right
Median Width(ft)		30			30		30	
Link Offset(ft)		0			0		0	
Crosswalk Width(ft)		16			16		16	
Two way Left Turn Lane								
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15	9	15		9		9
Number of Detectors	1	1	1	1	2	1	2	1
Detector Template	Left	Left	Right	Left	Thru	Left	Thru	Right
Leading Detector (ft)	20	20	20	20	100	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	20	20	6	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel								
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)					94		94	
Detector 2 Size(ft)					6		6	
Detector 2 Type					Cl+Ex		Cl+Ex	
Detector 2 Channel								
Detector 2 Extend (s)					0.0		0.0	
Turn Type	Perm	Prot	pt+ov	Prot	NA	Perm	NA	Perm
Protected Phases		4	4 5	5	2		6	

Lane Group	EBU	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Permitted Phases	4					6		6
Detector Phase	4	4	4 5	5	2	6	6	6
Switch Phase								
Minimum Initial (s)	7.0	7.0		7.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.0	14.0		14.0	17.0	17.0	17.0	17.0
Total Split (s)	38.0	38.0		24.0	82.0	58.0	58.0	58.0
Total Split (%)	31.7%	31.7%		20.0%	68.3%	48.3%	48.3%	48.3%
Maximum Green (s)	31.0	31.0		17.0	75.0	51.0	51.0	51.0
Yellow Time (s)	5.0	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
Lost Time Adjust (s)		-2.0		-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)		5.0		5.0	5.0	5.0	5.0	5.0
Lead/Lag				Lead		Lag	Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		32.2	56.6	19.3	77.8	53.4	53.4	53.4
Actuated g/C Ratio		0.27	0.47	0.16	0.65	0.44	0.44	0.44
v/c Ratio		0.92	0.30	0.90	0.51	0.02	0.87	0.51
Control Delay		68.6	20.8	70.6	12.1	41.5	65.3	26.9
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		68.6	20.8	70.6	12.1	41.5	65.3	26.9
LOS		E	C	E	B	D	E	C
Approach Delay		52.5			29.8		50.1	
Approach LOS		D			C		D	
Queue Length 50th (ft)		327	103	198	233	3	583	229
Queue Length 95th (ft)		#515	160	#298	284	m7	#753	336
Internal Link Dist (ft)		980			1805		1462	
Turn Bay Length (ft)				400		275		
Base Capacity (vph)		486	742	553	2292	203	812	911
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		0.90	0.30	0.90	0.51	0.02	0.87	0.51

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTU, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 40.9 Intersection LOS: D
Intersection Capacity Utilization 80.8% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Providence Rd & Rea Rd

Lane Group	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Group Flow (vph)	437	223	500	1159	4	710	463
v/c Ratio	0.92	0.30	0.90	0.51	0.02	0.87	0.51
Control Delay	68.6	20.8	70.6	12.1	41.5	65.3	26.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.6	20.8	70.6	12.1	41.5	65.3	26.9
Queue Length 50th (ft)	327	103	198	233	3	583	229
Queue Length 95th (ft)	#515	160	#298	284	m7	#753	336
Internal Link Dist (ft)	980			1805		1462	
Turn Bay Length (ft)			400		275		
Base Capacity (vph)	486	742	553	2292	203	812	911
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	0.90	0.30	0.90	0.51	0.02	0.87	0.51

Intersection Summary

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.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	5	73	1393	7	19	821
Future Volume (vph)	5	73	1393	7	19	821
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	0		0	1	
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.874		0.999			
Flt Protected	0.997				0.950	
Satd. Flow (prot)	1623	0	1860	0	1770	1845
Flt Permitted	0.997				0.950	
Satd. Flow (perm)	1623	0	1860	0	1770	1845
Link Speed (mph)	35		35			35
Link Distance (ft)	2804		2471			1885
Travel Time (s)	54.6		48.1			36.7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	14%	2%	3%
Adj. Flow (vph)	6	81	1548	8	21	912
Shared Lane Traffic (%)						
Lane Group Flow (vph)	87	0	1556	0	21	912
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 85.2% ICU Level of Service E
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	3.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	73	1393	7	19	821
Future Vol, veh/h	5	73	1393	7	19	821
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	14	2	3
Mvmt Flow	6	81	1548	8	21	912

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2506	1552	0	0	1556	0
Stage 1	1552	-	-	-	-	-
Stage 2	954	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	31	140	-	-	425	-
Stage 1	192	-	-	-	-	-
Stage 2	374	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	29	140	-	-	425	-
Mov Cap-2 Maneuver	29	-	-	-	-	-
Stage 1	192	-	-	-	-	-
Stage 2	356	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	103.7	0	0.3
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	112	425	-
HCM Lane V/C Ratio	-	-	0.774	0.05	-
HCM Control Delay (s)	-	-	103.7	13.9	-
HCM Lane LOS	-	-	F	B	-
HCM 95th %tile Q(veh)	-	-	4.3	0.2	-

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	4	4	580	15	8	4	860	4	31	4	4	4
Future Volume (vph)	4	4	580	15	8	4	860	4	31	4	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		275		250		350		0	0		0	0
Storage Lanes		1		1		1		0	0		0	0
Taper Length (ft)		100				100			100			100
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt				0.850			0.999			0.987		
Flt Protected		0.950				0.950				0.961		
Satd. Flow (prot)	0	1770	3539	1583	0	1770	3536	0	0	1767	0	0
Flt Permitted		0.950				0.950				0.961		
Satd. Flow (perm)	0	1770	3539	1583	0	1770	3536	0	0	1767	0	0
Link Speed (mph)			35				35			35		
Link Distance (ft)			2763				513			1720		
Travel Time (s)			53.8				10.0			33.5		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	4	4	644	17	9	4	956	4	34	4	4	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	8	644	17	0	13	960	0	0	42	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)			30				30			0		
Link Offset(ft)			0				0			0		
Crosswalk Width(ft)			16				16			16		
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	9	15		9	9	15		9	15		9	15
Sign Control			Free				Free			Stop		

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 35.2% ICU Level of Service A
Analysis Period (min) 15

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	4	4
Future Volume (vph)	4	4
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Frt	0.955	
Flt Protected	0.984	
Satd. Flow (prot)	1750	0
Flt Permitted	0.984	
Satd. Flow (perm)	1750	0
Link Speed (mph)	35	
Link Distance (ft)	2307	
Travel Time (s)	44.9	
Peak Hour Factor	0.90	0.90
Adj. Flow (vph)	4	4
Shared Lane Traffic (%)		
Lane Group Flow (vph)	12	0
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	0	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Sign Control	Stop	

Intersection Summary

Intersection														
Int Delay, s/veh	1.4													
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Vol, veh/h	4	4	580	15	8	4	860	4	31	4	4	4	4	4
Future Vol, veh/h	4	4	580	15	8	4	860	4	31	4	4	4	4	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	275	-	250	-	350	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	4	644	17	9	4	956	4	34	4	4	4	4	4

Major/Minor	Major1				Major2				Minor1			Minor2		
Conflicting Flow All	960	960	0	0	644	661	0	0	1166	1646	322	1324	1661	480
Stage 1	-	-	-	-	-	-	-	-	660	660	-	984	984	-
Stage 2	-	-	-	-	-	-	-	-	506	986	-	340	677	-
Critical Hdwy	6.44	4.14	-	-	6.44	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.52	2.22	-	-	2.52	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	352	712	-	-	561	923	-	-	149	98	674	114	96	532
Stage 1	-	-	-	-	-	-	-	-	418	458	-	267	325	-
Stage 2	-	-	-	-	-	-	-	-	517	324	-	648	450	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	468	468	-	-	643	643	-	-	138	94	674	106	92	532
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	138	94	-	106	92	-
Stage 1	-	-	-	-	-	-	-	-	410	449	-	262	319	-
Stage 2	-	-	-	-	-	-	-	-	495	318	-	625	441	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.1	40.8	34.6
HCM LOS			E	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	143	468	-	-	643	-	-	135
HCM Lane V/C Ratio	0.303	0.019	-	-	0.021	-	-	0.099
HCM Control Delay (s)	40.8	12.8	-	-	10.7	-	-	34.6
HCM Lane LOS	E	B	-	-	B	-	-	D
HCM 95th %tile Q(veh)	1.2	0.1	-	-	0.1	-	-	0.3

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	591	860	4	0	10
Future Volume (vph)	0	591	860	4	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			100	0	0
Storage Lanes	0			1	0	1
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt				0.850		0.865
Flt Protected						
Satd. Flow (prot)	0	3539	3539	1583	0	1611
Flt Permitted						
Satd. Flow (perm)	0	3539	3539	1583	0	1611
Link Speed (mph)		35	35		25	
Link Distance (ft)		513	1060		1201	
Travel Time (s)		10.0	20.6		32.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	657	956	4	0	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	657	956	4	0	11
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		30	30		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 33.8% ICU Level of Service A
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Traffic Vol, veh/h	0	591	860	4	0	10
Future Vol, veh/h	0	591	860	4	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	100	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	657	956	4	0	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	478
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	534
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	534
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.9
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	534
HCM Lane V/C Ratio	-	-	-	0.021
HCM Control Delay (s)	-	-	-	11.9
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.1